# INDUSTRIALIZATION IN TIMES OF CHINA: UNDERSTANDING THE DEMAND-SIDE DYNAMICS OF MANUFACTURING SECTOR DEVELOPMENT IN ANGOLA

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This paper investigates patterns of manufacturing sector development in Angola since the turn of the century and shows that emerging forms of manufacturing production in Angola come out of a process of domestic market formation, i.e. an increase in domestic demand. Domestic market formation is partially supported by economic engagement with China because Chinese construction projects increase demand for building materials, while increased export demand from China allows for higher volumes of capital goods imports. In addition, an emerging consumer demand base attracts increasing volumes of foreign and domestic investment, in particular into the food and beverages sectors. This shows that China's impact on manufacturing sector development goes beyond export-oriented light manufacturing, but it also reveals broader challenges in late-industrialization. At face value, statistics seem to suggest some progress in terms of manufacturing sector growth, even if it remains in the shadow of the much larger mining sector. Yet, the Angolan case also illustrates the importance and difficulty of maintaining a growing domestic demand base. The building materials sector relies on government spending on construction, the scope for which is reduced given the slow-down of the world economy and falling oil prices. Demand growth for consumer goods will depend on improvements in income equality.

GIVEN THE UNIQUE GROWTH DYNAMICS INHERENT to the manufacturing sector, in terms of output, productivity and employment growth, a shift in the composition of the economy towards this sector can be considered a necessary though not sufficient condition for developing countries to catch-up with advanced economies in terms of material standards of living.[1] Yet, what is considered an appropriate policy setting for this process of structural change to unfold depends itself on our understanding of how the economy (and society) work, with answers ranging from allowing market mechanisms to work freely within a stable legal framework to active state intervention to 'get prices wrong'.[2]

Drawing on evolutionary growth theory, the literature on the East Asian developmental states shows that – contrary to the orthodox recommendation to let markets work, building up supply-capacity requires substantial state-intervention. Crucially, successful assimilation of (foreign) technology relies on tacit knowledge about how to operate machines and organise production, which can only be acquired through the production process itself. Therefore, various forms of support, such as subsidies on inputs, credit direction, or tariff protection are needed to ensure production can take place before competitiveness is reached.[3]

[1] Adam Szirmai, 'Industrialisation as an Engine of Growth in Developing Countries, 1950-2005', *Structural Change and Economic Dynamics*, 23, 4 (2012), pp. 406–20.
[2] Alice H. Amsden, *Asia's next giant: South Korea and late industrialization* (Oxford University Press, Oxford and New York, 1989).
[3] Mushtaq Hussain Khan, 'Political Settlements and the Design of Technology Policy', in *The Industrial Policy Revolution II - Africa in the 21st Century*, Joseph E. Stiglitz, Justin Yifu Lin, and Ebrahim Patel (eds.) (Palgrave Macmillan, Basingstoke, 2013), pp. 243–80.

Furthermore, the expansion and gradual upgrading of manufacturing exports has been identified as key to successful late-industrialization[4] because export earnings are needed to finance imports of machinery and intermediate goods[5] and developing countries' terms of trade have had a tendency to decline unless production shifts towards higher value-added exports (Prebisch[6]-Singer[7] hypothesis).

There has been an ongoing debate as to whether export-led industrialization is still feasible given China's rise in the world economy and what is the best strategy for African countries in this new global context. Chinese products have been shown to displace African manufactured goods in export-oriented light industries such as textiles and footwear,[8] which makes it more difficult for African countries to get their feet on the ladder of export-led industrialization.[9] However, a countervailing factor might be that, due to rising labour costs in China, some of these industries might eventually be relocated to African countries,[10] a process which can already be observed in some African countries such as Ethiopia.[11] In this context, Ceglowski et al., for instance, argue that African countries should try to restore their competiveness vis-à-vis China by practicing wage moderation.[12] Kaplinsky, on the other hand, proposes a two tier strategy of breaking into the (higher value-added) parts of global energy/ mineral commodity value chains while promoting innovation in low-end consumer products typically consumed in the domestic or regional market only (so-called 'bottom of the billion' products).[13]

Starting from this debate, this paper investigates manufacturing sector development in Angola, one of China's main partners in Africa, and traces China's role within that. It finds that, in Angola, economic engagement with China contributes to structural change towards manufacturing, firstly, because Chinese construction projects spur demand for building materials which can and increasingly are produced in Angola and, secondly, because China's demand for raw materials has significantly increased Angola's balance of payments position, thereby increasing Angola's capacity to import capital goods and machinery. Although this pattern has changed with the recent drop in oil prices, it has provided a window of opportunity for economic diversification which, to some extent, has been used to facilitate manufacturing production.

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[4] See for instance: Alice H. Amsden, *The Rise of the 'Rest' - Challenges to the West from Late-Industrializing Economies* (Oxford University Press, New York and Oxford, 2001). Pg. 161

[5] Anthony P. Thirlwall, 'A General Model of Growth and Development on Kaldorian Lines', *Oxford Economic Papers*, 38, 2 (1986), pp. 199–219.

[6] Raúl Prebisch, *The economic development of Latin America and its principal problems* (Economic Commission for Latin America, New York, 1950).

[7] H. W. Singer, 'The Distribution of Gains between Investing and Borrowing Countries', *American Economic Review*, 40 (1950), pp. 473–85.

[8] Paul Kamau, Dorothy McCormick and Nicolas Pinaud, 'The Developmental Impact of Asian Drivers on Kenya with Emphasis on Textiles and Clothing Manufacturing', *World Economy*, 32, 11 (2009), pp. 1586–1612.

[9] Raphael Kaplinsky and Mike Morris, 'Do the Asian Drivers Undermine Export-Oriented Industrialization in SSA?', *World Development*, 36, 2 (2008), pp. 254–73.

[10] Justin Yifu Lin, *New Structural Economics: A Framework for Rethinking Development and Policy* (World Bank, 2012).

[11] Kevin Hamlin, Ilya Gridneff and William Davison, 'Turning Ethiopia Into China's China', *Bloomberg*, 24 July 2014, section Business <http://www.bloomberg.com/news/articles/2014-07-24/ethiopia-vies-for-chinas-vanishing-factory-jobs>.

[12] Janet Ceglowski, Stephen S. Golub and Ahmadou Aly Mbaye, *Can Africa Compete with China in Manufacturing? The Role of Relative Unit Labour Costs* (DPRU Working Paper 201504, University of Cape Town and World Bank Group, 2015).

[13] Raphael Kaplinsky, 'Walking (Stumbling?) on Two Legs: Meeting SSAs Industrialization Challenge', in *The Industrial Policy Revolution II - Africa in the 21st Century*, Joseph E. Stiglitz, Justin Yifu Lin, and Ebrahim Patel (eds.) (Palgrave Macmillan, Basingstoke, 2013), pp. 173–97.

This shows that economic engagement with China has implications for structural change which go much beyond export-oriented light manufacturing. This is all the more important, because, irrespective of their own competitiveness and China's (current) preponderance in these sectors, not all developing countries can (simultaneously) use certain types of mass-produced labour-intensive manufacturing industries like textiles as a step-ladder to economic diversification because there are limits to world demand for them (fallacy of composition).[14] However, global under-consumption constraints do not mean that there is no room for manufacturing production in African countries. In fact, a key insight from Kaldorian and post-Keynesian growth theory, as well as the empirical literature on the East-Asian developmental states, is that domestic market formation is important *alongside* and as a *basis for* export diversification. The *growth* of domestic demand provides market outlets for mass-produced consumer goods and allows for industries to operate at sufficient scale and efficiency to make the production of inputs viable (linkage formation) thereby allowing for the formation of a wide range of industries which can eventually compete in global markets. This paper shows that China contributes to the process of domestic market formation in Angola, but it also reveals wider challenges regarding demand-side management in late-industrialization, in particular the role of income distribution and maintaining government spending.

In what follows, the first section will revisit why domestic market formation is important in sustaining late-industrialization from a theoretical point of view and which empirical lessons come out of the East Asian developmental states. Section two will demonstrate how this is reflected in Angola's industrial policy. Section three gives an overview of emerging manufacturing sector activities in Angola. Finally, sections four and five look into the building materials and beverages sector, at greater detail, to show how these sectors emerge thanks to an increase in domestic demand. Throughout, the paper will show how economic engagement with China plays an important role in domestic market formation in Angola, both directly, because Chinese construction projects spur demand for building materials production; and more indirectly, as a relaxed balance of payment constraint has allowed for higher levels of government spending and imports of capital goods required to increase domestic production.

## *Late-industrialization: The fallacy of composition and the importance of domestic-market formation*

Productivity increases in manufacturing are invariably linked to the scale of production. At firm-level, economies of scale, stemming among other things from better division of labour, drive productivity increases. At the economy-level, the bigger the size of the market, the greater the number of inputs produced under increasing returns to scale. Thus, increasing returns to scale at the economy level depend on the economy's volume of production, i.e. the simultaneous growth of a number of different kinds of economic undertakings operating each on large scale. This fundamental relation between the size of the market and productivity has been first explored by Adam Smith[15] and is picked up by Allyn Young[16] and Nicholas Kaldor.

[14] Özlem Onaran, 'Globalisation, Macroeconomic Performance and Distribution', in *A Modern Guide to Keynesian Macroeconomics and Economic Policies*, Eckard Hein and Engelbert Stockhammer (eds.) (Edward Elgar, Cheltenham (U.K.) and Northampton (Mass.), 2011), pp. 240–66.

[15] Charles P. Blitch, 'Allyn Young on Increasing Returns', *Journal of Post Keynesian Economics*, 5, 3 (1983), pp. 359–72.

The observation that manufacturing sector growth is dependent upon (and not only leading to) aggregate output growth, has far reaching implications because mass-production also requires mass-consumption making late-industrialization as much a problem of increasing demand capacity as of building up supply capacity.[17] We can distinguish two types of demand-constraints to cumulative supply growth. Firstly, export earnings have to finance (capital goods) imports. As no country can permanently run a current account deficit, (manufacturing sector) growth is limited by growth in demand on world markets (i.e. a balance of payments problem).[18] Secondly, producers of mass-produced manufacturing products need corresponding mass demand for their output (i.e. an under-consumption problem).[19]

One source of such demand is the export market. However, relying predominantly on export demand is not a strategy that all countries can pursue at the same time. In a hypothetic scenario in which developing countries add to world supply without also adding to world demand, there will be systemic deflationary downward spiral because excess supply will put a downward pressure on prices.[20] In fact, intense price and wage competition between developing countries supplying highly substitutable products to the world market has already resulted in declining terms of trade for low value-added manufacturing products.[21] The fallacy of this race to the bottom is that the concurrent attempt of each country to boost its competitiveness through wage depression further undercuts a vital source of domestic purchasing power and further contributes to the deflation in world demand.[22]

These deflationary dynamics are particularly problematic for late-developing countries themselves. In the absence of an (emerging) domestic market, (foreign) investments in manufacturing are likely to seek, primarily, labour cost advantages, which can put developing countries in a difficult position vis-à-vis investors.[23] At the same time, incomes generated by labour cost-seeking investments are often too low to generate substantial domestic demand multiplier effects.[24]

These problems are amplified by China's weight in the world economy. In 2012, China supplied around 13 percent of total world exports, around 34 percent of exports in textiles and clothing and around 50 percent of world exports in footwear (calculations based on UN COMTRADE). There is a clear correlation between China's exports and the fall in world market prices of these goods.[25] Chinese production has also been shown to displace African

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16 Allyn A. Young, 'Increasing Returns and Economic Progress', *The Economic Journal*, 38, 152 (1928), pp. 527–42.

17 Nicholas Kaldor, *Causes of Growth and Stagnation in the World Economy*, 1st published 1996, digitally printed version 2007 (Cambridge University Press, Cambridge, UK, 2007), pg. 55

18 Thirlwall, 'A General Model of Growth and Development on Kaldorian Lines', pp. 199–219.

19 Michael Bleaney, *Underconsumption Theories: History and Critical Analysis* (International Publishers, New York, 1976).

20 Thomas I. Palley, 'The Economic Case for International Labour Standards', *Cambridge Journal of Economics*, 28, 1 (2004), pp. 21–36.

21 Prabirjit Sarkar and H.W. Singer, 'Manufactured Exports of Developing Countries and Their Terms of Trade since 1965', *World Development*, 19, 4 (1991), pp. 333–40.

22 Arslan Razmi and Robert A. Blecker, 'Developing Country Exports of Manufactures: Moving Up the Ladder to Escape the Fallacy of Composition?', *Journal of Development Studies*, 44, 1 (2008), pp. 21–48.

23 Ha-Joon Chang, 'Globalization, Transnational Corporations, and Economic Development: Can the Developing Countries Pursue Strategic Industrial Policy in a Globalizing World Economy?', in *Globalization and Progressive Economic Policy*, Dean Baker, Gerald Epstein, and Robert Pollin (eds.) (Cambridge University Press, London, 1998).

24 Alain Lipietz, 'Towards Global Fordism?', *New Left Review*, 132, March-April (1982), pp. 33–47.

25 Raphael Kaplinsky and Masuma Farooki, *The Impact of China on Global Commodity Prices: The Disruption of the World's Resource Sector* (Routledge, London, 2012). Pg. 66

goods on world markets. Despite preferential trade agreements like AGOA, textile exports of countries such as Kenya, Lesotho and Swaziland declined in face of Chinese competition.[26] Giovannetti and Sanfilippo[27] find that a one percent increase in Chinese exports is associated with a reduction of -0.07 percent in African exports on world markets of the same products.

One way to break away from the under-consumption and balance of payments constraints is by adapting and adopting imported technology for domestic market production:

> "The mechanism runs from industrial relocation or technology transfer (producing for local market) to productivity improvement, growth of income, and further expansion of local market. So, market formation stands at both the beginning and ending points. It is the existence (and growth) of the domestic market which attracts technology transfer. It is also the domestic market which sustains indigenous industrial expansion."[28]

Indeed, the key insight from cases of successful structural transformation, including China itself, is that a manufacturing export base typically does not emerge out of "born-to-export firms" and corresponding cost-seeking FDI alone, but instead involves a process of domestic market formation, with growth in domestic final consumer demand, inter-sectoral demand, and supply linkages. Even in countries often taken as model cases for industrialization on the back of labour-intensive export-oriented industries, domestic market formation was essential. In South Korea, for instance, 53 percent of industrial output growth could be attributed to domestic demand expansion.[29] Both China and Taiwan relied on simultaneous import-substituting and export-promoting industrialization strategies. The push towards export-promotion occurred out of necessity to sustain import substitution and import substitution continued alongside export promotion.[30] Earlier stages of China's industrialization process (1978-1990) were sustained by a strong increase in (domestic) consumer demand. From the early 1990s onwards, intermediate consumption has driven growth.[31]

Kaldorian and post-Keynesian growth theory provide a number of insights on what drives domestic market formation. Thirwall and Kaldor show that output growth of other sectors of the economy such as agriculture can accelerate/ constrain demand for manufacturing sector output because the two sectors are linked through reciprocal demand and supply-chains.[32] In Taiwan, for instance, government policies ensured stable growth of output and productivity in food production by providing stable access to fertilisers and by mitigating price risks for farmers through price controls. While the agricultural sector was burdened with a number of implicit and explicit taxes which helped financing industrial policy measures, stable growth of output and productivity led to stable growth of agricultural incomes and thereby created an important source of demand for manufacturing products.[33]

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[26] Paul Kamau, *Chinese ascendancy in the global clothing industry Implications for sub-Saharan Africa* <http://china-africa.ssrc.org/wp-content/uploads/2014/10/Kamau-Final.pdf>.

[27] Giorgia Giovannetti and Marco Sanfilippo, 'Do Chinese Exports Crowd-out African Goods? An Econometric Analysis by Country and Sector', *European Journal of Development Research*, 21, 4 (2009), pp. 506–30.

[28] Dic Lo, *Alternatives to Neoliberal Globalization: Studies in the Political Economy of Institutions and Late Development* (Palgrave Macmillan, London, 2011), pg.20

[29] Hollis Chenery and Moises Syrquin, 'Patterns of Development, 1950-1970' (World bank research publication, Oxford University Press, Oxford, 1975).

[30] Tianbiao Zhu, *Rethinking Import-substituting Industrialization* (UNU-WIDER, 2006).

[31] Dic Lo and Yu Zhang, 'Making Sense of China's Economic Transformation', *Review of Radical Political Economics*, 43, 1 (2011), pp. 33–55.

[32] Thirlwall, 'A General Model of Growth and Development on Kaldorian Lines', pp. 199–219.

[33] Deborah Brautigam, 'The State as Agent: Industrial Development in Taiwan, 1952-1972', in *Asian Industrialization and Africa: Studies in Policy Alternatives to Structural Adjustment*, Howard Stein (ed.) (International Political Economy Series, St Martins Press, New York, 1995), pp. 145–81.

While Thirlwall and Kaldor show the importance of exogenous sources of demand for manufacturing products, post-Keynesian (Kaleckian) theories on income distribution and growth explain demand growth endogenously. The intuition is simple: when the income distribution is very unequal, the demand base will be very narrow and as a result, manufactured goods are only sold to the relatively few rich. Given their small numbers they cannot sustain demand for mass production. Hence, assuming that investment is determined by an anticipation of demand,[34] a very unequal distribution of income between wages and profits can lead to a shortfall of demand for industrial output which, in turn, limits investment and decelerates manufacturing output growth.[35] This implies further policy choices, notably with respect to labour compensation, income redistribution through taxation and measures supporting labour absorption. Taiwan's land reform, for instance, led to a substantial redistribution of wealth towards the poorest farmers and helped create Taiwan's remarkable income equality.[36]

*Government efforts to promote diversification in Angola*

While the importance of domestic market formation is reflected in the official policy stance of the Angolan government supporting economic diversification and there are some signs of an emerging manufacturing base in building materials and beverages, production in these sectors faces various challenges, not least in terms of demand growth.

Ovadia demonstrates how, following the end of the civil war in 2002, Angolan elites are changing their accumulation strategies, (slowly) transitioning from pure rent-seeking towards capitalist accumulation.[37] This transition finds its expression in government efforts to promote the manufacturing sector going back to the mid-2000s. The Medium-Term Industrial Restructuring Plan 2009-2013[38] and the National Industrialization Programme 2013-2017 outline the government's broad strategy. Priority sectors include agro-processing, textiles and clothing, footwear, wood-processing, furniture, paper, chemicals and pharmaceuticals, minerals and non-metallic construction materials, basic metals and metal products[39].

Importantly, manufacturing production is meant to serve, in the first instance, domestic consumption needs. Exports are seen as a constraint to that because they limit the capacity to import machinery and intermediate inputs necessary to sustain production. Export promoting and import-substituting measures exist side-by-side, the aim being to increase and diversify the export bill in order to allow for further reductions of the import bill.[40]

The 2009-2013 plan emphasises the importance of vertical and horizontal linkages and recognises the link between income distribution and domestic market expansion:

[34] Rather than by the availability of savings as in (much of) classical and neo-classical economic theory.
[35] Amitava Krishna Dutt, 'Stagnation, Income Distribution and Monopoly Power', *Cambridge Journal of Economics*, 8, 1 (1984), pp. 25–40.
[36] Brautigam, 'The state as agent: Industrial Development in Taiwan, 1952-1972', pp. 145–81.
[37] Jesse Salah Ovadia, *The Petro-Developmental State in Africa - Making Oil Work in Angola, Nigeria and the Gulf of Guinea* (Hurst and Co Publishers, London, 2016).
[38] MIND, *Plano de médio prazo para o período 2009-2013* (República de Angola - Minstério da Indústria, Luanda, 2007) <http://www.tralac.org/files/2012/12/Medium-Term-Plan-2009-2013-Portuguese.pdf>.
[39] MIND, *Indústria* (Revista Ministério da Indústria, Ministério da Indústria, Luanda, 2014). Pg. 5
[40] IFE, *Empreender, Diversificar e Competir* (Instituto de Fomento Empresarial, Observatório Económico, Luanda, 2012).

> '(…) Particular attention should be given to those industrial activities which are labour intensive and make use of natural resources, in view of creating a sustained industrial base, widespread increase of purchasing power, better income distribution and consequent enlargement of the domestic market.'[41]

Consequently, priority areas for manufacturing production in Angola are those products, which have the potential to create linkages between different sectors of the economy, as well as those having potential for mass-consumption, increasing returns to scale, and the potential to improve the balance of payments position, that is:

> '(…) the group of manufacturing products, which, almost without exception, present cumulatively the following characteristics:
> 1. Mass- and widespread consumption
> 2. Existence of national raw materials for their processing;
> 3. Quality of installed and idle capacity, to make the realisation of economies of scale possible;
> 4. Strong impact on the country's balance of payments'[42]

To achieve these goals in practice, the government relies on a mix of investment incentives, subsidised access to credit and support programmes for enterprise development. It is also expanding and improving physical infrastructure and human capital resources.

Incentives for investment in these priority areas are operationalised through tax incentives and the tariff structure. The new private investment law (Law No. 14/15 of August 11th 2015, replacing law No. 20/11 of May 20th 2011) grants tax benefits on industrial, property transfer and investment income tax of 5-100 percent for a period of one to ten years, depending on the following criteria: location of investment (higher outside of Luanda, the provincial capitals of Benguela, Huíla and the municipality of Lobito), value of investment, Angolan shareholding, local value added, amount of job creation, degree of export activities and type of activity (all economic activities are eligible, but investments in agriculture and agro-processing qualify for additional incentives). The tariff schedule, updated in 2014, raised import duties on items that Angolan companies already produce (e.g. 50percent import duty on various beverages) while imports of machinery are exempt of import duties. [43]

Government support further involves the construction of industrial development poles (IDP), two of which are operating (Viana and Bom Jesus) and four under construction. The Viana IDP hosts 500 firms,[44] producing fibro-optical cables, paints, electrical material and metal structures. The sectoral focus of the other poles varies but is generally in line with the priority areas for manufacturing sector development outlined in MIND (2007), prioritising agro-alimentary production, production of construction materials, metallurgy and iron/ steel production, wood processing and furniture production as well as chemicals.[45]

In addition to that we also find measures to direct and improve access to credit, for instance through the Angolan Development Bank (Banco do Desenvolvimento de Angola) and the Bank for Savings and Credit (Banco de Poupança e Crédito) which provides finance for micro, small and medium entreprises (MSMEs).[46]

The *"Instituto de Fomento Empresarial"* (IFE) and the *Instituto Nacional de Apoio a Pequenas e Médias Empresas* (INAPEM) respectively support the development of large

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[41] MIND, *Plano de médio prazo para o período 2009-2013*., pg. 26 (translation by the author)
[42] MIND, *Plano de médio prazo para o período 2009-2013*., pg. 30 (translation by the author)
[43] Office of the United States Trade Representative, *National Trade Estimate Report on Foreign Trade Barriers - Angola* (Office of the United States Trade Representative - Executive Office of the President, Washington, D.C., 2014) <https://www.ustr.gov/sites/default/files/2014%20NTE%20Report%20on%20FTB%20Angola.pdf>.
[44] MIND, *Indústria* (Revista Ministério da Indústria No. 2, Ministério da Indústria, Luanda, 2014).
[45] IFE, *Empreender, Diversificar e Competir*.
[46] MIND, *Plano de médio prazo para o período 2009-2013*., pg. 20

enterprises and MSMEs notably through technical advice (such as market studies, strategy planning) and finance support (advice on debt management, capital markets, credit guarantees).[47]

Finally, to address the shortage of skilled labour, there is a programme for human capital development, which focuses mainly on the construction of vocational training centres at a cost of $38 million, as well as technical cooperation with Portugal, Brazil, Spain, Israel and South Korea.[48]

In all of this, it is important to note that the transition towards capitalist forms of accumulation is the result of shifting elite strategies after the end of the civil war, which ultimately aim at consolidating and increasing the wealth and power of the elites themselves. All new business opportunities are tightly controlled by concentric circles of power around the presidency.[49] In fact, approvals of and incentives for investments in excess of $10 million are decided by the 'Technical Unit for Private Investment' under the office of the president.[50] The objective of this tight control is to build a growing circle of allegiance while controlling the distribution of gains resulting from investments.[51]

*Emerging manufacturing sector activities in Angola*

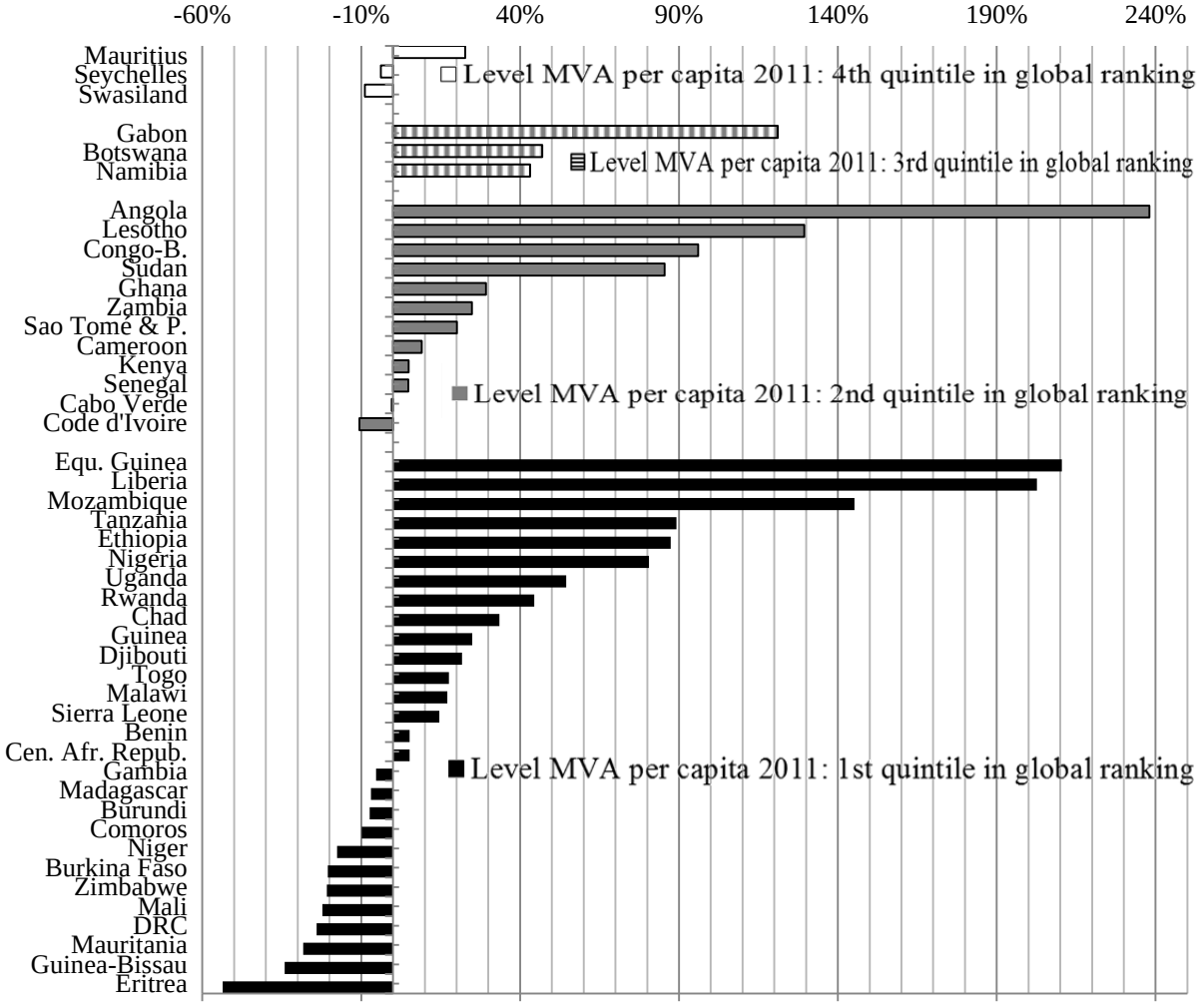
The policies in support of diversification described above notwithstanding, manufacturing remains a small part of the Angolan economy. It accounts for merely 5.9 percent of GDP in 2013 (calculations based on UN National Accounts). Angola's export structure also remains largely unchanged with mining exports making up for 98 percent of total exports in 2014 (calculations based on UN COMTRADE, ISIC rev. 3).

On the other hand, there are also some positive developments. Ranking all countries globally in terms of manufacturing output per head, we find Angola in the 2nd quintile, i.e. among the 40 percent least industrialised countries in the world (calculations based on UN National Accounts). Yet, compared to other Sub-Saharan African countries in the same quintile, Angola has recently realised the fastest rates of manufacturing sector growth (comparing 2011 manufacturing output levels per head to their average level over the period 1996-2000). Since the turn of the century, Angolan manufacturing output per head has increased by nearly 250 percent (Graph 1).

In absolute terms, it is also noteworthy, that Angola, while still in the second quintile globally, now ranks 7th out of 47 SSA countries (excluding South Africa), producing $151 of manufacturing output per head in 2013. This places Angola above the SSA average ($124) but nonetheless with considerable distance to the leading SSA countries Mauritius ($1000) and Seychelles ($902), Namibia ($501), Gabon ($419).

[47] IFE, *Empreender, Diversificar e Competir*.
[48] MIND, *Plano de médio prazo para o período 2009-2013*., pg. 38
[49] Ovadia, *The Petro-Developmental State in Africa - Making Oil Work in Angola, Nigeria and the Gulf of Guinea*.
[50] Decree 182/15 of September 30th 2015
[51] Ricardo Soares de Oliveira, Harry Verhoeven and Will Jones, *Africa's Illiberal State-builders* (Refugee Study Centre Working Paper Series No. 89, Oxford Department of International Development, University of Oxford, Oxford, 2013).

***Graph 1. Manufacturing value added per capita in SSA countries, percent increase 2011 relative to 1996 – 2000 average, grouped according to global rank in 2011*** [52]

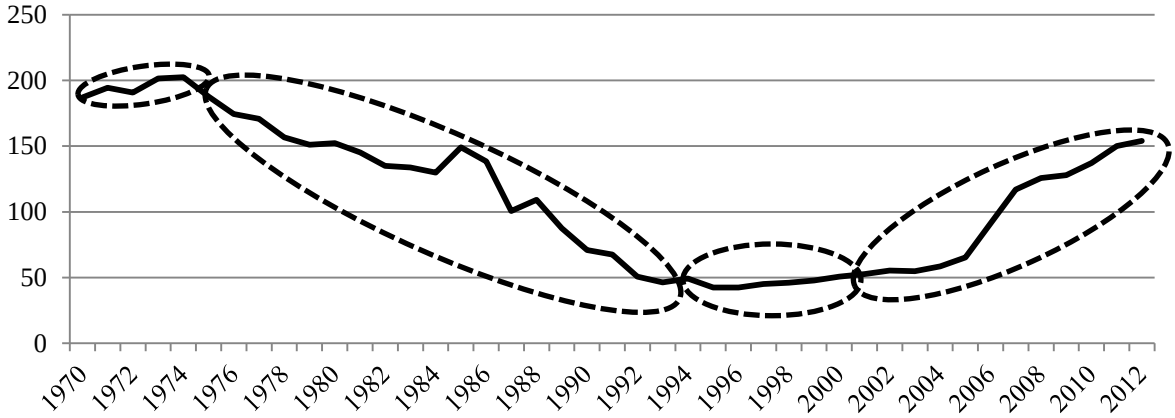



*Source:* Un National Accounts

Compared to Angola's own past performance, we can see that after a period of near total collapse following independence in 1975 and a period of stagnation over the 1990s, manufacturing sector output levels start to recover since the end of the civil war in 2002 and are now approaching pre-independence levels (Graph 2).

[52] SSA countries in this chart have been grouped according to the quintile into which quintile they fall when ranking all countries globally by their manufacturing output per head. This is order to make growth rates comparable among each other.

***Graph 2. Real Manufacturing Value Added Per Capita (2005 constant USD)***




Source: UN National Accounts Database

So, while the Angolan manufacturing sector remains small relative to GDP, this needs to be seen in the context of a strong expansion of GDP. In fact, since the end of the civil war, the manufacturing sector has realised higher growth rates than the already booming mining sector. Since 2002, the manufacturing and construction sector have realised average annual growth rates of 14 percent and 17 percent respectively compared to 9 percent in the mining sector (Table 1). Thus, we do observe changes in the composition of output. This might appear slow, but this is explained more by the size and growth of the mining sector than a lack of dynamism of manufacturing production or the real (non-mining) economy more generally.

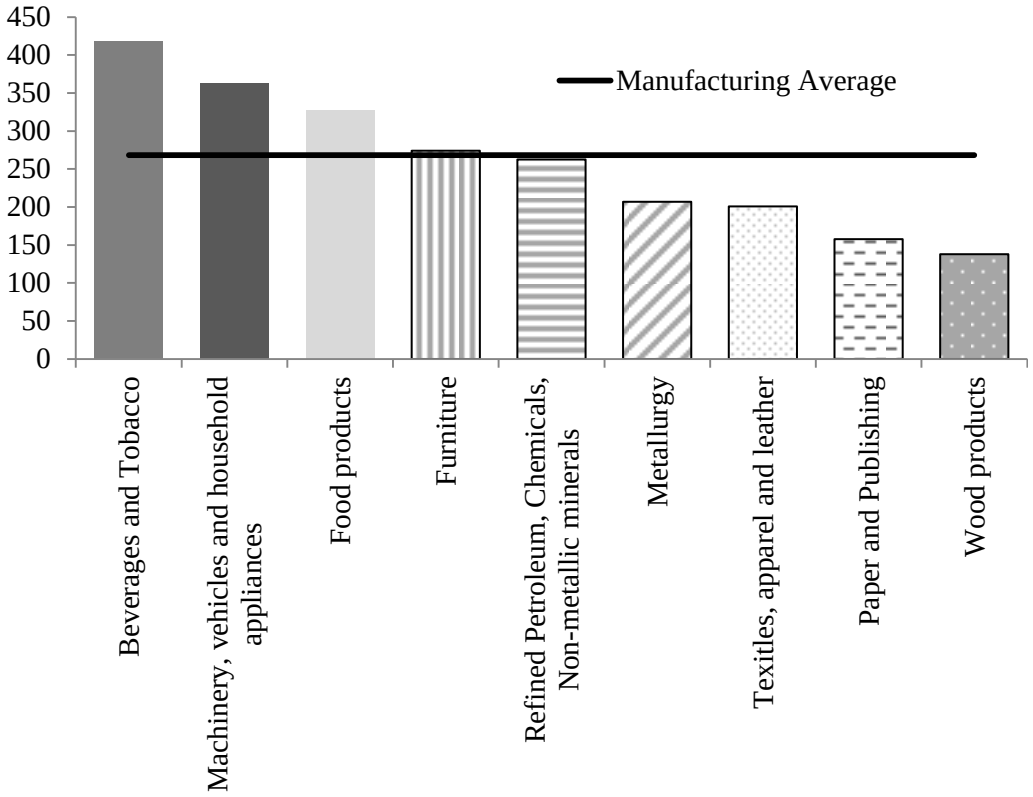
**Table 1. Angola – Average real GDP growth rates by sector (2005 constant USD)**

| Period | Agricul-ture | Manu-facturing | Con-struction | Non-Oil | Mi-ning | Services | GDP |
|---|---|---|---|---|---|---|---|
| **1970-1975** | 2.38% | 2.35% | 2.36% | 2.37% | 2.44% | 2.36% | 2.38% |
| **1975-1991** | -0.51% | -3.47% | -3.60% | -1.84% | 3.31% | 0.19% | 0.84% |
| **1991-2002** | -1.05% | 0.98% | 3.54% | 0.29% | 3.39% | -0.64% | 1.59% |
| **2002-2012** | 11.72% | 14.01% | 16.97% | 13.67% | 8.75% | 10.97% | 10.07% |

*Source:* UN National Accounts Main Aggregates Database

Angolan data on industrial output show that consumer goods industries (beverages/ tobacco, food products, vehicles/ household appliances and furniture) as well as intermediate goods (chemicals/ non-metallic minerals) are among the fastest growing manufacturing sub-sectors (Graph 3).

***Graph 3:*** Manufacturing Production Index 2013 by Sub-Sector (2002=100)




*Source:* Instituto Nacional de Estatística - Índice de Produção Industrial

The former Angolan National Investment Authority (*Agência Nacional para o Investimento Privado, ANIP*) – now replaced by the *Agência para a Promoção do Investimento e Exportações de Angola, APIEX* – provides further information into the type of investment happening in the manufacturing sector. While the data provided by ANIP have to be interpreted with care,[53] they do serve to illustrate broad trends. In particular, we see a significant increase in manufacturing sector investment projects. Domestic and foreign investment projects in the manufacturing sector increase from merely $87million in 2003 to $686 million in 2012, with important slumps occurring only in 2011 ($216 million) and in 2013 ($313 million). Adding up to a cumulative $3.5 billion over the period 2003 to 2013, manufacturing sector investment is second only to construction ($3.9 billion, calculations based on ANIP data provided for the period 2003-2013, all in 2005 constant prices).[54]

For the years 2011 and 2012, ANIP provides a sub-sectoral breakdown of investments, using the ISIC rev. 3 classification at 4 digit level. This shows that the majority of

[53] All investment projects beyond $1 million had to be registered with ANIP in order to qualify for the investment incentives provided by the Angolan government. New investment projects alone, do not provide a full account of gross domestic capital formation and FDI because they do not include reinvested earnings. Furthermore, ANIP data exclude most oil investment, since these are made under the terms of the production sharing agreements. For the year 2007 ANIP only recorded investments exceeding $50 million. In addition, uncertainty remains regarding the categorisation of investment flows in terms of country of origin. This may be partially explained by the increasingly complex ownership structures of multinational companies and partially also by taxation related issues, with many investments being undertaken from tax havens, like the British Virgin Islands, the Cayman Islands or Gibraltar.

[54] These investments are disclosed on the ANIP website: http://www.anip.co.ao/index.php?pag=conteudos&id=23 including company name, amount invested, sector and country of origin.
All data have been deflated to 2005 constant USD using the Angolan GDP deflator for the year of investment.

manufacturing sector investments were made in the production of intermediate inputs, and these were mainly undertaken by Angolan nationals. The next biggest destination of manufacturing sector investment is food and beverage production where investors mainly come from high income countries (Table 2). [55]

**Table 2. Manufacturing Sector Investments 2011 and 2012 by Broad Category (constant 2005 USD, thousands)**

| Broad category | Angola | High income countries (excl. Port.) | Portugal | China | Tax Havens | Low-/ middle-/ upper-middle income countries | Total |
|---|---|---|---|---|---|---|---|
| Food + Beverages | 34,201 | 157,442 | 3,230 | 259 | 2,573 | 2,814 | **200,520** |
| Intermediate Inputs | 612,318 | 897 | 5,889 | 551 | 2,913 | 9,369 | **631,937** |
| Machinery | 29,481 | 2,225 | 173 | 5,766 | 0 | 0 | **37,644** |
| Final consumption | 3,963 | 144 | 288 | 3,270 | 17,551 | 0 | **25,217** |
| Medical equipment | 0 | 2,452 | 0 | 0 | 0 | 0 | **2,452** |
| Recycling | 0 | 0 | 0 | 0 | 2,305 | 2,205 | **4,509** |
| **Total** | **679,963** | **163,160** | **9,580** | **9,846** | **25,342** | **14,387** | **902,279** |

*Calculations based on:* Agência Nacional para o Investimento Privado

*Domestic market formation through Chinese construction projects*

The above figures show that there is little foreign direct investment from China to Angola. However, there are other, more significant, channels through which China affects manufacturing growth in Angola, notably through Chinese contracted construction projects.

After the end of the civil war, oil-backed loans from China Exim-Bank and the Hong-Kong based China International Fund[56] have triggered a construction boom in Angola, which is dominated by Chinese construction firms in so-called Overseas Contracted Projects. These should not be conflated with 'investment' which involves the acquisition of (liquid and/ or fixed) assets in the interest of generating a future stream of profits. By contrast, Chinese contracted overseas projects are market outlets of Chinese construction firms overseas, i.e. technically service exports.

To trace the impact of these projects on manufacturing development in Angola, it is important to consider their importance relative to the size of the economy, as well as the type of projects covered. The China Statistical Yearbook provides data on so-called Chinese overseas contracted projects completed each year by Chinese firms abroad regardless of whether they were financed through Chinese concessional and non-concessional loans or third sources. According to this data, in 2013, Chinese contracted projects make up for 6.1 percent of Angola's GDP, which, by any standard, is a substantial stimulus to economic activity. Angola is the country awarding the largest absolute amount of construction contracts

[55] The author counts as tax havens all countries defined as tax havens by Jr. James R. Hines and Eric M. Rice, 'Fiscal Paradise: Foreign Tax Havens and American Business.', *Quarterly Journal of Economics*, 109, 1 (1994), pp. 149–82.

[56] For details see: Lucy Corkin, *Uncovering African Agency - Angola's Management of China's Credit Lines* (Ashgate, Farnham, 2013).

to Chinese firms in Africa, with a total of $7.4 billion of construction contracts being completed and 292 construction contracts worth $4.03 billion being signed in 2013 alone.[57]

Table 3 shows the sectoral breakdown of Chinese construction projects in Angola compiled from data provided by the Angolan Ministry of Finance (MINFIN)[58], the Chinese International Contractors Association (CICA)[59] and contractors' websites. Covering the period 2004 to 2014, a total of $12.5 billion of contracted projects (in constant 2005 USD) can be traced through these three sources: $2.9 billion through MINFIN data, $6.9 billion through CICA data and $2.5 billion through press releases. Chinese construction services in Angola focus primarily on redressing physical infrastructure (public works and water/ energy projects) and housing. $4.039 billion (32 percent) were housing projects, $3.53 billion (28 percent) are public works (notably road infrastructure construction) and $3.1 billion (25 percent) are energy and water construction projects including for instance the construction of (hydro) power stations or the rehabilitation of water supply networks. The remainder includes education projects (e.g. construction of schools and vocational training centres), health projects (e.g. construction of hospitals), manufacturing projects (e.g. construction and equipment of plants), agricultural projects (e.g. construction of irrigation systems), telecommunications and social projects (construction of national TV production centre).

***Table 3.*** **Angola: Chinese contracted projects by sector 2004-2015**

| **Sector** | **constant USD 2005** | **% of total** |
|---|---|---|
| Housing | 4,039,082,253 | 32.1% |
| Public works | 3,535,955,209 | 28.1% |
| Energy and water | 3,206,838,094 | 25.5% |
| Education | 496,468,874 | 3.9% |
| Health | 344,620,028 | 2.7% |
| Manufacturing | 312,299,298 | 2.5% |
| ICT | 302,816,490 | 2.4% |
| Agriculture | 293,807,940 | 2.3% |
| Social | 66,905,200 | 0.5% |
| | **12,598,793,386** | **100%** |
| *Compiled based on MINFIN, CICA and contractors' websites* | | |

The largest contracts obtained by Chinese firms in 2013 are a social housing project ($470 million) signed by CITIC Construction Co. Ltd and a power transformation project ($380m) in Soyo signed by China Machinery Engineering Corporation.[60]

As explored above, output growth in other sectors of the economy can provide an important stimulus for manufacturing production. The importance of (inter-sectoral) linkage formation for manufacturing sector development is indeed well-established, but typically in

[57] CICA, *Annual Report on China International Project Contracting (General Report) 2013-2014 中国对外承包工程发展报告（综述篇） 2013-2014* (China International Contractors Association 中国对外承包工程商会, 2014). Pg. 32

[58] MINFIN, *Linha de crédito com o Eximbank da China relatório das actividades desenvolvidas II trimestre de 2008* (Ministério das Finanças (Gabinete de Apoio Técnico), República de Angola, Luanda, 2008) <http://www.minfin.gv.ao/fsys/China-Relatorio_do_II_trim_2008SitedoMINFIN2.pdf>.

[59] CICA, *Annual Report on China International Project Contracting (General Report) 2013-2014 中国对外承包工程发展报告（综述篇） 2013-2014*.

[60] CICA, *Annual Report on China International Project Contracting (General Report) 2013-2014 中国对外承包工程发展报告（综述篇） 2013-2014*. Pg. 32

reference to demand- and supply chains between agriculture and industry. On the other hand, the literature linking infrastructure and economic development reduces the causal link to the reduction of production costs due to better infrastructure [61] and spill-over effects on human capital formation.[62]

To a certain extent this is true of Chinese credit backed projects in Angola. Chinese credit lines provide finance for critical infrastructure, thus providing the enabling environment for industrialization. Through the 2004 and 2007 Exim-Bank credit lines, for instance, a total number of 51 schools,[63] 10 hospitals and 9 health centres and around 800 km of highways[64] have been constructed. The electricity network in 7 cities, the water supply system in 9 cities and the telecommunications network in 13 provinces has been restored and expanded.[65] This fills important gaps, especially when taking into account the pressing lack of infrastructure after the civil war and the relatively low commitment of other donor in this area.

However, as shown above, currently, the largest amount of Chinese contracts is in housing, which has no direct link to costs of production. Instead, these projects show that the construction sector can provide a powerful source of linkage development similar to the demand and supply chain linkages between the agricultural and industry discussed in Kaldorian literature. Indeed, the construction boom in Angola led to a corresponding boom in demand for a wide range of building materials, ranging from cement over roofing to pipes, glass and door frames and thereby created new profit-making opportunities for companies.

In 2009, Chen, Goldstein, and Orr[66] still found that Chinese firms source large amounts of supplies and equipment through imports from China given the lack of (almost any) supply in the African host countries, but this situation has started to change. In fact, at a 4 digit disaggregation, the vast majority of investment in intermediate good production and about half of all manufacturing sector investment recorded by ANIP in 2011 and 2012 was for the production of building materials like cement, lime and plaster ad well as iron and steel products (Table 4).

[61] Rosina Moreno, Enrique López-Bazo and Manuel Artís, 'Public Infrastructure and the Performance of Manufacturing Industries: Short- and Long-Run Effects', *Regional Science and Urban Economics*, 32, 1 (2002), pp. 97–121.

[62] Pierre-Richard Agénor, 'A Theory of Infrastructure-Led Development', *Journal of Economic Dynamics and Control*, 34, 5 (2010), pp. 932–50.

[63] Of which 16 high schools, 18 vocational schools, 6 agricultural schools, and 11 centres of administration and management

[64] The Caxito-N'zeto highway (around 216km, completed in June 2014), the Quifangondo-Caxito-Uige-Negage highway (around 355 km) and the Nzeto-Tomboco-Mbanza highway (around 222km)

[65] MINFIN, *Linha de crédito com o Eximbank da China relatório das actividades desenvolvidas II trimestre de 2008*.

[66] Chuan Chen, Andrea Goldstein and Ryan J. Orr, 'Local Operations of Chinese Construction Firms in Africa: An Empirical Survey', *International Journal of Construction Management*, 9, 2 (2009), pp. 75–89.

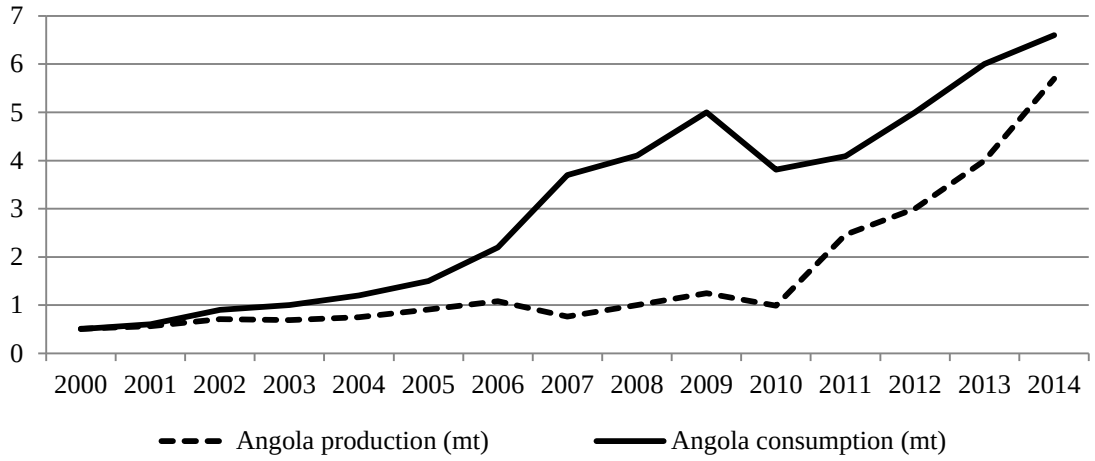
| Table 4. Manufacturing Sector Investments – Intermediate Goods, 2011 and 2012 (constant 2005 USD, thousands) | | | | |
|---|---|---|---|---|
| **Code** | **Description** | **Angolan** | **Foreign** | **Total** |
| 2520 | Plastics products | 102,699 | 10,813 | 113,512 |
| 2691 | Non-structural non-refractory ceramic ware | 5,555 | 0 | 5,555 |
| 2694 | Cement, lime and plaster | 255,190 | 0 | 255,190 |
| 2811 | Structural metal products | 1,102 | 4,221 | 5,323 |
| 2692 | Refractory ceramic products | 24,692 | 2,434 | 27,125 |
| 2695 | Articles of concrete, cement and plaster | 3,063 | 0 | 3,063 |
| 2710 | Basic iron and steel | 218,029 | 0 | 218,029 |
| 3210 | Electronic valves and tubes and other electronic components | 1,988 | 600 | 2,588 |
| 21 | Pulp, paper and paperboard | 0 | 735 | 735 |
| 2422 | Paints, varnishes and similar coatings, printing ink and mastics | 0 | 326 | 326 |
| 2610 | Glass and glass products | 0 | 288 | 288 |
| 2693 | Structural non-refractory clay and ceramic products | 0 | 202 | 202 |
| | | **612,318** | **19,619** | **631,937** |
| *Calculations based on:* Agência Nacional para o Investimento Privado | | | | |

The case of cement production is illustrative for this pattern of linkage formation from the construction sector. By 2014, Angola is the 3rd largest producer of cement in Sub-Saharan Africa after Nigeria and Ethiopia (excluding South Africa). Yet, in the mid- and late-2000s, cement consumption in Angola outstripped domestic production by large margins (Graph 4). As a result, Angolan cement imports increased at an average annual rate of 56 percent from $ 10.5 million in 2002 to $ 193 million in 2010. Over half of these imports were sourced from China (calculations based on UN COMTRADE, in 2005 constant prices).

Yet, Angola gradually developed a cement supply base causing both imports and prices of cement to fall. Cement imports decreased at an average annual rate of -30 percent between 2010 and 2014 (to $77 million in 2014, calculations based on UN COMTRADE, in 2005 constant prices). Domestic production levels have reached 5.7 million tons in 2014 (against a consumption of 6.6 million tons) (Graph 4). Installed capacity surpasses 8.5mta across five producers, making Angola self-sufficient. Prices of cement in Angola declined following the expansion of domestic production, ex-works prices falling from $240/t in 2010 to $150/t in 2014.[67]

[67] Thomas Armstrong and others (eds.), *The Global Cement Report*, 11th edn (Tradeship Publications Ltd, Dorking, 2015).

***Graph 4.*** Cement consumption and production (Mt) Angola 2000-2014




*Source:* Database Global Cement Report 11th edition

Increasing cement production is an Africa-wide trend. In 2000, only Nigeria, Ghana, Senegal and Kenya produced more than 1million annually. In 2014, seven SSA countries produce more than 4 million tons, another nine more than 1 million tons (calculations based on Global Cement Report database). Production in African countries is dominated by (mainly) European multinationals, which also dominate world production, including the recently merged Holcim (Switzerland) and Lafarge (France), Heidelberg Cement (Germany), Cemex (Mexico) and Italcementi (Italy). Lafarge and Heidelberg Cement are major players in almost all of the cement producing countries in Sub-Saharan Africa whose installed capacity exceeds 4Mta. In Ghana Heidelberg Cement accounts for 67 percent of installed capacity, while Lafarge accounts for 44 percent in Cameroon, 26 percent in Kenya, 23 percent in Nigeria.[68]

Angola is one of the few exceptions to this rule (alongside Senegal and Ethiopia). In Angola, the largest producer is CIF Luanda, a joint venture between Angolan capital and the Hong-Kong based China International Fund. CIF Luanda operates a plant with an installed capacity of 3.6Mta at Bom Jesus. The remaining plants are by now all in local hands and include Nova Cimangola (formerly owned by Heidelberg Cement), Fabrica de Cimento do Kwanza Sul, Cimenfort Industrial Lda and Secil Lobito (Table 5). The latter has been constructed and equipped by Sinoma.[69]

| ***Table 5.*** **Angolan Cement production base in 2014** | | |
|---|---|---|
| **Company** | **Capacity (Mta)** | **No. of Plants** |
| CIF Luanda | 3.60 | 1 |
| Nova Cimangola | 1.80 | 1 |
| Fabrica de Cimento do Kwuanza Sul | 1.46 | 1 |
| Cimenfort industrial Lda (Genea Angola) | 1.40 | 1 |
| Secil Lobito | 0.35 | 1 |
| | *Source:* Global Cement Report 11th edition | |

[68] Armstrong and others, *The Global Cement Report*.

[69] CICA, *Annual Report on China International Project Contracting (General Report) 2013-2014 中国对外承包工程发展报告（综述篇） 2013-2014* (China International Contractors Association 中国对外承包工程商会, 2014).

Investments in the cement sector reflect the political economy dynamics underlying the diversification process with investments being controlled by circles close to the president's family[70] and political allies.[71] The cement sector has received government financing and tariff protection. The establishment of the Angolan plants has been supported by subsidies and subsidised credit. For instance, FCKS received subsidised loans from Sonangol and the Angolan Investment Bank[72] and in 2014, the Angolan government granted Nova Cimangola $116 million to raise the plant's capacity.[73] The government has also increased tariffs for building materials. Up until 2009, all construction materials could be imported duty free but tariffs gradually increased and in early 2015, the government banned the import of cement (barring exceptions operated through a quota system) to protect domestic production.[74] Interestingly, outward FDI in building materials production are also actively encouraged by the Chinese state. The "Guiding Opinions on Promoting International Production and Equipment Manufacturing Cooperation" released by the State Council in 2015 encourages enterprises to invest in cement, glass, and other production lines linked to the construction industry to enhance the industrial capacity of the host countries.[75]

Crucially, cement production is associated to forward linkages. In fact, Angolan production of cement based goods such as concrete bricks and other concrete structures have grown at similar rates as domestic clinker production.[76] Furthermore, linkage formation from the construction sector is not limited to the cement and concrete sector but also includes metallurgy with a factory producing pig-iron[77] and a steel mill, Aceria de Angola (ADA),[78] which stated production in late 2015. A plaster factory "Super Gesso" operates in Kwanza Sul[79] and processing of natural stone (tiles etc.) is actually one of the few manufacturing sectors in Angola, which has developed an export capacity.[80]

There are, however, risks to these relatively favourable developments. Cement production requires large-scale investments for setting up production. A stable growth of market demand is therefore essential for the emergence and expansion of production. As set out at the beginning of this section, the prime driver of the building materials/ cement sectors in Angola is demand for construction inputs to large-scale housing and infrastructure development. Government spending on housing is particularly important in this respect with the National Development Plan 2013-17 aiming at the construction of 450,000 units of housing.[81]

Yet, going forward the question is whether high levels of government spending can be kept up in light of dwindling oil prices and government revenues. During the boom,

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[70] Africa Confidential, 'The Cement Boom', *Africa Confidential*, 29 May 2009, section Economy.
[71] Rafael Marques De Morais, 'Angola: Oil and Cement Don't Mix With Corruption in Angola', *All Africa*, 2015 <http://allafrica.com/stories/201509251223.html> ( 15 March 2016).
[72] Marques De Morais, 'Angola: Oil and Cement Don't Mix With Corruption in Angola'.
[73] Armstrong and others, *The Global Cement Report*.
[74] WTO, *Trade Policy Review - Angola* (World Trade Organisation, 2015).
[75] China State Council, *Guidance on Promoting International Capacity and Equipment Manufacturing Cooperation* 国务院关于推进国际产能和装备制造合作的指导意见, 2015, XXX <http://fec.mofcom.gov.cn/article/tjgjcnhz/zcwj/201511/20151101193011.shtml> ( 28 January 2016).
[76] MIND, *Indústria*.
[77] http://www.macauhub.com.mo/en/2015/11/27/steel-industry-in-angola-starts-producing-pig-iron-in-2016/
[78] http://www.ibtimes.com/can-angolas-new-steel-mill-save-its-economy-oil-prices-plunge-luanda-looks-diversify-2283990
[79] http://www.portalangop.co.ao/angola/en_us/noticias/economia/2009/2/13/Plaster-factory-inaugurated-Kwanza-Sul,82a6a9cd-674e-4bd5-84e8-ed9026d4917c.html
[80] MIND, *Indústria*.
[81] MPDT, *Plano Nacional de Desenvolvimento 2013-2017* (República de Angola - Ministério do Planeamento e do Desenvolvimento Territorial, Luanda, 2012) <http://www.minfin.gv.ao/fsys/PND.pdf>.

increasing demand for and prices of raw materials bolstered Angola's export earnings and government revenues. Estimates show that Angola's potential growth rate, i.e. the one consistent with its balance of payments,[82] increased from 3.7 percent in the 1990s to 12.4 percent in the 2000s.[83] Almost half of this increase is explained by growth in demand from developing Asia, primarily China. [84] This has facilitated government spending on infrastructure and housing projects. It also financed imports of the capital and intermediate goods necessary for manufacturing production. In fact, machinery imports increased from $754.6 million in 2002 to $3.6 billion in 2014, imports of intermediate inputs from $664.3 million in 2002 to $5.6 billion in 2014 (calculations based on UN COMTRADE, ISIC rev. 3, values in constant 2005 USD). Chinese credit lines also directly serve to finance Angola's manufacturing sector diversification programme, contributing 20 percent of the total $10.5 billion finance needs anticipated by the programme.[85]

The slowdown of Angolan economy as a result of the slowdown of the Chinese economy and corresponding fall in oil prices shows both the importance of export demand from China for the diversification process and the fragility of the process itself. This is particularly evident for the construction sector and the building materials industry, which rely on government spending and procurement. While current infrastructure projects are not at risk, Angola has cut its 2016 budget by 20 percent.[86] Relatedly, a reduction in fuel subsidies drives up production costs to a level which might endanger economic viability of domestic building material production.[87].

*Other factors: The formation of a final consumer demand base*

Other than through inter-sectoral demand stimuli from the construction sector, domestic market formation in Angola is supported by a growing consumer demand base or, rather, the anticipation thereof, which attracts a growing volume of foreign and domestic investment, most importantly into beverages production. As for the building materials sector, demand growth is crucial to develop and sustain the food and beverages sector, but far from self-evident given Angola's highly unequal income distribution.

Current Angolan government efforts to diversify the economy focus a lot on linkage formation between the agricultural and food-processing sectors. To incentivise domestic agricultural output growth and use of domestically produced inputs in food-processing, the government has set very high tariffs for agricultural and food products, except for the most basic food items like sugar, rice, powdered milk and edible oil. The current average rate of

[82] These are only potential growth rates. How and if the potential growth rate consistent with the balance of payments equilibrium can be translated into actual growth depends on transmission mechanisms of export earnings into domestic expenditure and the sectorial distribution of the spending financed by export earnings.

[83] Alberto Bagnai, Arsène Rieber and Thi Anh-Dao Tran, 'Generalized Balance of Payments Constrained Growth and South-South Trade in Sub-Saharan Africa', in *Models of Balance of Payments Constrained Growth - History, Theory and Empirical Evidence*, Elisas Soukiazis and Pedro André Cerqueira (eds.) (Palgrave Macmillan, New York, 2012), pp. 113–43, pg. 128

[84] Bagnai, Rieber and Tran, 'Generalized Balance of Payments Constrained Growth and South-South Trade in Sub-Saharan Africa', pp. 113–43., pg. 138

[85] MIND, *Plano de médio prazo para o período 2009-2013*.

[86] Margot Patrick, 'Angola Cuts 2016 Spending by 20%', *The Wall Street Journal*, 14 March 2016, section World <http://www.wsj.com/articles/angola-cuts-2016-spending-by-20-1457980425>.

[87] Marques De Morais, 'Angola: Oil and Cement Don't Mix With Corruption in Angola'.: CIF's production lines use diesel, while the Nova Cimangola and FCKS plants rely on (domestically refined) light and heavy fuel. In exchange for loans from Sonangol and the Angolan investment bank (BAI), FCKS buys fuel from Sonangol, which raises production costs vis-à-vis the diesel-operated CIF plant.

23.3 percent for agricultural products is more than twice its 2005 level. It is also more than twice the 2015 average rate on non-agricultural and non-oil products (9.1 percent).[88] Through this, the government aims in particular to promote the domestic production of processed fruit, meat, cereals, coffee, sugar, fish and beverages. The beverages sector is one of the few sectors, in which Angola is close to developing export-potential.[89]

Disaggregation of investments in food and beverage production (Table 6) shows that, in 2011 and 2012, investments came mainly from high income countries, and a the majority of these was for the production of alcoholic beverages (beer and spirits). However, there are also substantial Chinese investments in this sector. For instance, the CIF financed Lowenda Brewery produces one million hectolitres of beer (about ten percent of total domestic production in 2013) and employs 250 Angolan and 170 expatriate workers.[90]

**Table 6. Manufacturing Sector Investments - Food and Beverages, 2011 and 2012 (constant 2005 USD, thousands)**

| Code | Description | **Angola** | **Foreign** | **Total** |
|---|---|---|---|---|
| 1554 | Soft drinks; production of mineral waters | 10,143 | 3,622 | 13,764 |
| 1553 | Malt liquors and malt | 23,482 | 0 | 23,482 |
| 1541 | Bakery products | 577 | 0 | 577 |
| 1520 | Dairy products | 0 | 547 | 547 |
| 1513 | Processing and preserving of fruit and vegetables | 0 | 1,102 | 1,102 |
| 1551 | Spirits; ethyl alcohol production from fermented materials | 0 | 157,154 | 157,154 |
| 1544 | Macaroni, noodles, couscous and similar farinaceous products | 0 | 3,230 | 3,230 |
| 1511 | Meat and meat products | 0 | 663 | 663 |
| | | **34,201** | **165,656** | **199,857** |

*Source:* Agência Nacional para o Investimento Privado

Firm-level accounts suggest that foreign investments undertaken in the beverage sector are attracted by growing consumer demand in Angola itself. Two examples from the alcoholic beverages industry illustrate how localised production is a strategy used by firms to expand sales in the growing Angolan consumer market.

Distell, a South African producer of spirits wines and ciders, which had previously invested $3.05 million in Angola in 2008 (according to ANIP data, constant 2005 USD) has opened further plants in Angola in 2014 following the sharp rise in import tariffs on food and beverages, which, according to Distell's CEO make exports to Angola less profitable relative to setting up production there.

> "An import model – paying excise and transport costs – can never be as effective or efficient from a pricing standpoint than a locally-owned production and route-to-market business," (R. Rushton, CEO of Distell, cited in [91])

[88] WTO, *Trade Policy Review - Angola*.
[89] MIND, *Indústria*.
[90] MIND, *Indústria*.
[91] Jaco Maritz, 'Liquor Giant Replacing Imports with Local Manufacturing in Key African Markets', *How We Make It in Africa*, 29 August 2014 <http://www.howwemadeitinafrica.com/liquor-giant-replacing-imports-with-local-manufacturing-in-key-african-markets/42946/> (5 June 2015).

Thus, it is the rise in import tariffs and a potentially fast growing consumer market rather than trade liberalisation that motivate Distell to relocate production to Angola.

Diageo, the British multinational producer of brands like Guinness or Johnnie Walker, has, according to ANIP data, invested $1.1 million (in 2005 constant terms) in 2012 to improve its wholesale activities in Angola and is now considering setting up production facilities in the country. Firm-intern reports consider Angola a key new market, with Angolan beer consumption per head being at two thirds of UK levels, thereby making it the largest African market for beer and the third largest African market for alcohol.[92]

These examples illustrate that investments in Angola do not follow a logic of taking advantage of a pool of cheap labour but are realised in expectation of a growing consumer market. To sustain domestic demand growth, however, a more equal income distribution will be crucial, precisely because investments are realised in expectation of growing low and middle income consumer markets.

However, so far, progress towards a more equal income distribution has been limited. Available data from the World Bank shows that the share of national income held by the upper 20 percent of the population has decreased from 62 percent in 2000 to 49 percent in 2009 (calculations based on WB WDI indicators). However it is worth noting that data of this kind is unlikely to accurately capture the share of income held by a small number of individuals at the top of the income distribution. In addition, poverty data reveal that in 2009 around two thirds of the population was still living on less than $2 a day, only a marginal reduction since 2000. What is more 43 percent of the population still live on less than $1.25 a day and those who do, have, on average an income of 60 cents a day (Graph 5). Given these numbers, it is maybe not surprising that anecdotal evidence suggests that the revised tariff schedule of 2014 which aims to protect domestic production of various processed foods and beverages, puts these products out of reach for those on low incomes (i.e. the majority of the population).[93]

Herein then lies the basic paradox of Angola's path towards economic diversification. While Angolan elite interests transition from pure rentierism towards capitalist modes of accumulation, the sustainability of this accumulation process depends itself on there being a broad demand base and more equal income distribution in Angola, especially given the role of domestic demand in the current global economic environment. Yet, a more equal income distribution, despite figuring nominally in the government's diversification programme, might not be the prime concern of those who benefit from the diversification process in the first instance.

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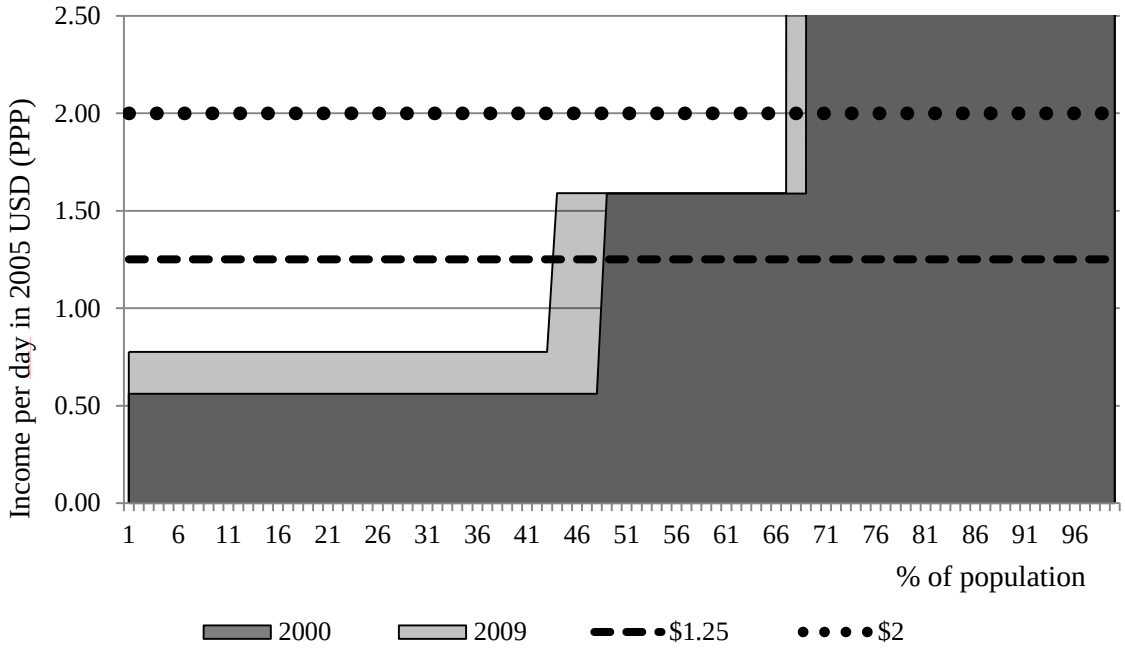
[92] Diageo, *Diageo Africa Conference - Africa Regional Markets* 2013 <http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=2&cad=rja&uact=8&ved=0CCYQFjAB&url=http%3A%2F%2Fwww.diageo.com%2FLists%2FResources%2FAttachments%2F1553%2FAfrica%2520conference%2520-%2520Africa%2520Regional%2520Markets.pdf&ei=3E5HVb-HL8jkaIzogLgJ&usg=AFQjCNFhSOTa3oj2vAT60sYx00G-rXdUmg>.

[93] Shrikesh Laxmidas, 'Angola's New Import Tariffs Putting the Squeeze on the Poorest Residents in One of the World's Most Expensive Cities', *The Independent*, 23 April 2014 <http://www.independent.co.uk/news/world/africa/angolas-new-import-tariffs-putting-the-squeeze-on-the-poorest-residents-in-one-of-the-worlds-most-expensive-cities-9278530.html> (5 June 2015).

***Graph 5.*** Prevalence and Depth of Poverty in Angola 2000 vs. 2009




*Calculations based on:* World Bank - World Development Indicators

*Conclusions*

China has been shown to outcompete African products in export-oriented light-industries and to reinforce downward pressures on the prices of these goods. This has spurred discussions regarding the possibility of and strategies for manufacturing sector development within this new global economic environment. Drawing on post-Keynesian and Kaldorian growth theory and the experiences of the East Asian developmental states, this paper has emphasised the importance of mobilising domestic sources of demand alongside and as a basis for export-diversification. Domestic market formation becomes all the more important in light of fallacy of composition problems, which are exacerbated by China's systemic weight in the world economy.

The Angolan case is particularly interesting in this respect because it illustrates which factors can drive domestic market formation, China's role in it and the fragility of the process as it faces both the vicissitudes of global economic cycles and domestic political economy dynamics.

Even though the Angolan manufacturing sector remains in the shadow of the country's vast mining sector, there is some evidence of progress and, indeed, of high rates of manufacturing output growth. The two main industries, building materials and beverages production, both emerge in response to an increase in (perceived or expected) domestic demand.

This increase in domestic demand is partially facilitated by the specific mode of Angola's engagement with China itself. Resource-backed construction projects support domestic market formation by creating a market for building materials. In addition, the growing domestic consumer demand base (or anticipation thereof), on the back of the (China-driven) oil-based economic boom of the last decade, has attracted a growing volume of domestic and foreign investment, in particular into beverages production.

However, while we can observe a nascent process of domestic market formation, manufacturing production in Angola faces a number of problems, not least with regard to sustaining a sufficient rate of demand growth.

Firstly, the growth of the Angolan building materials sector is strongly linked to government spending which faces substantial cuts in light of dwindling oil prices and export revenues. More widely, the decade-long boom in raw material prices and the acceleration of Chinese demand for them has provided Angola with a window of opportunity for diversification by allowing for increasing volumes of imports of capital goods and machinery necessary for manufacturing production as well as increased levels of government spending. The raw materials boom has been the starting point for manufacturing sector growth in Angola, but it is now a major source of fragility to the whole process. This illustrates the need to find and mobilise alternative sources of finance (e.g. development finance, Angola's own Sovereign Wealth Fund) to maintain government spending and avoid a deflationary spiral.

Secondly, demand growth in the consumer goods sectors will depend on broad-based income growth. However, in Angola, the transition towards capitalist forms of accumulation comes out of elite strategies to consolidate and increase their own power and influence. It therefore remains to be seen whether or not political economy forces in the country can actually bring about what is technically desirable in terms of better, more equal income distribution.