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Industrial Policy and Monopoly Capitalism in Nigeria: Lessons from the Dangote Business Conglomerate

Richard Itaman and
Christina Wolf

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Department of Social Sciences and Business, Roskilde University
Universitetsvej 1, 4000 Roskilde, Denmark
www.ruc.dk/en/centre-african-economies
Email: cae@ruc.dk

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ABSTRACT

This article asks which insights can be gained from the Dangote conglomerate both in terms of why pockets of efficiency formed in the Nigerian manufacturing sector and why, at the same time, structural transformation remained limited across the economy as a whole. Mapping Dangote's business activities across sectors and levels of production shows evidence of backward linkages, including upscaling across domestic and regional value chains. We review various initiatives of the Nigerian state to support economic diversification and especially manufacturing. We argue that the expansion of, in this case, domestic markets can discipline learning. Yet, emerging monopoly capitalism carries with it the fruit of fragile accumulation to the extent that price setting power, tax evasion and control over wages undermines the growth of purchasing power.

AUTHORS

Richard Itaman (richard.itaman@kcl.ac.uk) is Lecturer in Comparative Political Economy of Development at King's College London. His research focuses on the relationship between finance and development and the role of finance in Africa's structural transformation.

Christina Wolf (c.wolf@kingston.ac.uk) is Senior Lecturer in Economics and leader of the Political Economy Research Group (PERG) at Kingston University. Her research interests include the role of the state in economic development, Post Keynesian macroeconomics and structural transformation applied to the context of sub-Saharan Africa.

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Introduction

The Dangote Group is the biggest group listed on the Nigerian Stock Exchange, with market capitalisation of its four listed subsidiaries accounting for 43% of total stock. The Group has expanded rapidly over the period 2007 to 2017, from its core business in cement, becoming a key player in the African cement business, and diversifying within the Nigerian manufacturing sector. The conglomerate's activities now comprise a web of cement businesses in seven African countries as well as a range of agro-processing activities in Nigeria. Initially set up as an import business for cement, sugar, rice and other consumer goods, Dangote Industries Limited (DIL) has operated in Nigeria since the early 1980s, going through most major shifts in the government's efforts to promote diversification. Only since the mid-2000s has the group substantially expanded its activities to domestically-oriented manufacturing and responded to government incentives to backward linkage formation.

This article asks which insights can be gained from the Dangote conglomerate, both in terms of why pockets of efficiency formed in the Nigerian manufacturing sector and why, at the same time, structural transformation remained limited across the economy as a whole.

A key factor in the successful implementation of industrial policy, highlighted in the literature on political settlements, is whether it succeeds in disciplining learning within a specific political settlement. We aim to show that one such factor in the disciplining of learning was the anticipation of growing domestic markets, in particular for building materials and basic processed food. In this context, potentially large prospective profits set strong incentives to expand market leadership against competitors by achieving economies of scale and scope. Put differently, we argue that it was the conjuncture of learning rents from the backward integration policy coupled with prospective Schumpeterian monopoly rents in domestic markets, that were anticipated to grow, which together disciplined Dangote to grow its businesses in productive lines, rent-seeking and corruption notwithstanding.

Thus, our approach teases out domestic market formation as underpinning Dangote's expansion into manufacturing. Drawing on a theoretical framework based on both Joseph Schumpeter and Michał Kalecki, we aim to unravel reasons for the fragility of this process. While the prospect of Schumpeterian monopoly rents disciplined learning, emerging monopoly capitalism carries with it the fruits of fragile accumulation to the extent that price setting power, tax evasion and control over wage growth undermine the growth of purchasing power. These emerging contradictions of monopolistic market structures – incentivising productive investment without sustaining the growth of purchasing power of workers or low-income households – are particularly relevant in the Nigerian context. In fact, a common feature of manufacturing firms expanding their operations in Nigeria is their size measured by capital, large enough to respond to incentives from a growing market. Ultimately, this large size of firms highlights challenges surrounding the redistribution of surplus value and conflicts within

a specific set of power relations, in addition to the issues linked to disciplining learning, especially if and when support for manufacturing production is oriented to the domestic market.

The article is structured as follows. Section 1 reviews factors relating to the successful implementation of industrial policy within specific constellations of power in society. Section 2 traces the evolution of the Nigerian manufacturing sector in relation to the main government initiatives deployed towards its promotion, with special emphasis on the backward integration policy implemented since 2002. Section 3 traces the emergence of the Dangote business conglomerate, in particular its motivations to expand beyond their various import businesses and documents the groups' efforts to achieve reductions in their costs of sales through economies of scale and scope. Section 4 attempts to draw out some of the contradictions of the emerging monopoly capitalism.

1. The Developmental State and Industrial Policy

Because productivity increases rely on tacit knowledge about how to operate machines and organise production, which can only be acquired through the production process itself, costs of production in developing countries will exceed world market prices. Therefore, various forms of support from the state ('learning rents'), such as subsidies on inputs, credit direction or tariff protection are needed to ensure production can take place *before* competitiveness is reached (Khan 2013b). In an African context, industrialisation has often followed patterns of sudden spurts and relapses into stagnation. For instance, ambitious import-substituting industrialization (ISI) programmes after independence initially achieved some noticeable success in terms of output growth (Mkandawire 2001) before running into financing problems culminating in the 1980s debt crisis and the structural adjustment policy reversal.

Research on political conditions for successful implementation of industrial policy (IP) within so-called 'Developmental States' (DS) focusses on state-business relations with an initial consensus around 'embedded autonomy', i.e. the state standing apart from the market and the vested interests found within it (Evans 1995). Khan's political settlements approach (Khan 2013a; Khan 2017) moved the debate away from ideal-type state approaches, highlighting instead that there needs to be a match between the distribution of power in society and institutional structures supporting structural transformation. While 'learning rents' associated with industrial policy are necessary to incentivise firms to engage in production before competitiveness is reached, the success of learning ultimately depends on the level of effort on the part of firms, which can be difficult to enforce. The state's ability to discipline those capitalists who do not put in sufficient effort and instead just cash-in rents, in turn, depends on the match between the institutional set-up and the distribution of power in society (Khan 2009; Khan 2013a; Khan 2013b). Analysing the relative power of different groups or organisations and the interests they pursue explains why similar sets of policies have produced very different outcomes across different countries and aids in finding out which institutional arrangements have worked in similar types of political settlements (Khan 2013a). This match can occur within different political settlements, even if often limited to 'pockets of efficiency' in the African context (Whitfield et al. 2015). The political settlements approach helps narrowing down the reasons for limited success of IP in the sub-Saharan Africa (SSA) context (e.g. Buur,

Mondlane Tembe, and Baloi 2012; Gray 2013; Gray 2018; Kjær 2015; Behuria, Buur, and Gray 2017).

We argue that expectations of expanding markets can act as an additional force disciplining learning and therefore also as an incentive to achieve productivity increases within different political settlements. This is because searching out effective ways of organising production, of achieving cost-effective use of inputs or of innovating new kinds of output, allows firms to increase profit margins relative to their competitors over and above the learning rents to be acquired from industrial policy measures. While these principles hold regardless of the market conditions, the likelihood of successfully realising high profit margins increases within expanding markets.

Capitalist competition, as described above, obtains a central place across different schools of economic thought, whether the intention is to drive welfare maximisation or capital accumulation and innovation. Yet substantial disagreement persists over the drivers of such competition and the conditions under which it occurs. In neoclassical economics, competitive forces are deemed to increase the greater the number of participants, whether producers, consumers or workers, and the greater the exposure to exchange relations in markets. In short, the build-up of such competitive forces hinges on the absence of imperfect market structures, such as monopolies or oligopolies, and the existence of markets or exposure to trade (Tsoulfidis 2011; Blaug 2000).

The neoclassical premises seeing competition as proportionate to the number of market participants and market exchange relations did indeed feature prominently in policy discourse aimed at supporting structural change in developing countries. Within the neoliberal development paradigm prevailing under the Washington Consensus (WC), competitive forces were, for instance, seen to result from the rolling back of state intervention in markets and in exposing domestic firms to international competition through trade liberalisation (see for instance Meier and Steel 1989: 14 and 15f). While the WC rests on highly arbitrary attempts to make the alleged static welfare maximising properties of markets consistent with the dynamic question of growth (Deraniyagala 2005), exposure to and breaking into export markets remains a key policy cornerstone under the more state-intervention friendly Post-Washington Consensus (PWC), which sees export markets conducive to 'learning externalities' (e.g. Greenwald and Stiglitz 2013: 35).

One implication of this new focus is that the centrality of domestic market expansion and its relation to successful industrial policy are not well understood, even when the importance of domestic market formation, both in its own terms and as a basis for export diversification is highlighted in scholarship on industrial policy (Ovadia and Wolf 2017; Wolf 2017; Amsden 2013; Lo 2011; Zhu 2006). More generally, demand-side conditions for successful implementation of industrial policy are practically absent from the IP debates on a theoretical level, under the assumption that Say's law holds on a global level (Nelson and Winter 1982: 209; Amsden 1990: 11; Monga 2013: 154). This absence also applies in policy terms, with the growth of export demand being largely beyond policy control, the possible exception being policies influencing the (real) exchange rate (Astorga, Cimoli, and Porcile 2014; Cimoli and Porcile 2013). Even the latter type of interventions, however, are in no way straightforward,

because depreciations pull in two different directions, making exports less expensive and imports more expensive, which is problematic for highly import dependent industries in late-industrialisers (Heintz 2013).

Drawing on insights from Schumpeter, we argue *first* that competition and monopolistic market structures are not necessarily polar opposites, as in Walrasian equilibrium economics, where these market structures are seen as welfare reducing, given monopolists' ability to restrict output while charging prices above those that would occur under perfect competition. Schumpeter (1928, 1942) argues that the static comparative analysis of monopolies and oligopolies underlying Walrasian equilibrium economics is ill-suited to capturing the dynamics of evolution and innovation in capitalist economies. In fact, from a dynamic perspective, monopolies are at the heart of the process of creative destruction, as the prospect of monopoly profits drives innovation (Schumpeter 1928). Schumpeter understood innovation in this context in a wide sense as anything affecting either a firm's cost function (e.g. untried methods of production or sourcing new input markets) or its revenue function (e.g. production for a new market) (Schumpeter 1928; 376f). Monopolies then are the outcome of successful innovation, while the scale of an individual firm also positively feeds into the likelihood of achieving new innovations, not least by way of guaranteeing access to credit finance (Schumpeter 1942).

Second, reiterating the key points of departure of Keynesian and Post-Keynesian economics that demand conditions and expectations thereof can be important drivers of firms' investment behaviour, we argue that demand conditions drive firm behaviour and therefore can be a factor of underpinning successful implementation of industrial policy. Demand conditions, in turn, are shaped by both domestic and international markets. Focussing on developing economies, Kalecki (1954) proposes a model with three main social classes (capitalists, workers and small proprietors, the latter understood as those sustaining their livelihood by subsistence activities) and two sectors of production, where Department I produces investment goods and Department II produces consumption goods (agricultural and non-agricultural). In principle, he argues, this can be a self-sustaining system because the expansion of Department I leads to an increase in demand for consumer goods. Therefore, Kalecki challenges the notion that domestic markets in developing economies are too small as such. In practice, however, he argues that the growth of demand is constrained by several factors located in the social relations of production as well as market structures.

On the one hand, if productivity increases are not passed on to consumers through price reductions or higher wages, for any given level of capitalist consumption and investment, effective demand and output will fall. This is essentially a question of distribution, based on the assumption that workers' propensity to consume is higher than those of capitalists. In a developing country context, income and wealth tend to be very concentrated and monopolisation further favours a redistribution of surplus value towards profits and hence undermines the growth of purchasing power in the economy. This points to a possible tension: while the prospect of monopoly profits can be at the heart of productivity increases (Schumpeter 1928), monopolisation can also undermine the bases for the realisation of surplus value. Thus, the same market structures that incentivise productive activity can, in fact, act to inhibit the growth of purchasing power (see also Baran and Sweezy 1966; Sawyer 1988).

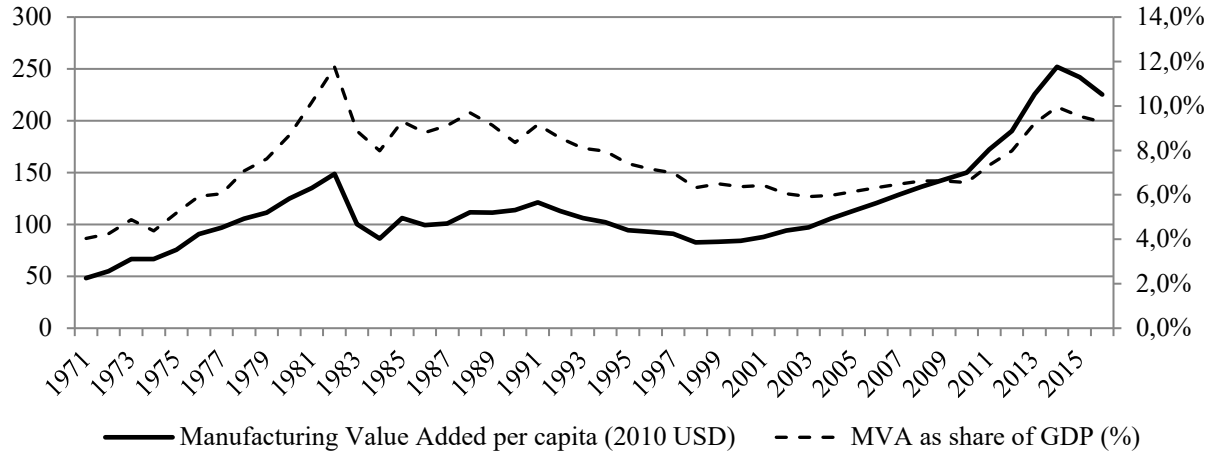
On the other hand, class and power relationships influence formation of prices and purchasing power. In particular, Kalecki emphasises that the benefits of price increase often do not accrue to small proprietors but instead are captured by moneylenders, landlords and merchants. Given inelastic supply in food production, increases in demand for agricultural consumption goods typically drive up price in the developing country context but this may not trickle through to peasants, leaving a situation in which real wages are reduced (due to higher food prices) without countervailing increase in demand for mass-consumption goods among small-proprietors (Kalecki 1954).

It is through this tension that we aim to investigate the operations of the Dangote Group – driven on the one hand by productive efforts to sustain the group's monopoly position and pricing power in a range of domestic markets that were expected to grow, and on the other hand distributional dynamics within these same market structures undercutting the growth of purchasing power. We aim to show that the company's growing profits under expanding markets and following from productive investment, are not passed down at the same rate into wages and hence into the growth of purchasing power. Furthermore, the difficulties in taxing the conglomerate due to its political influence undercuts the state's resources available for redistribution towards 'small proprietors', understood to be subsistence and informal workers in urban and rural settings.

2. Patterns of Manufacturing Sector Development in Nigeria and Government Support within Nigeria's Political Economy

Before taking up these possible tensions further in sections 3 and 4, the following section will trace the main trends in manufacturing output growth and support for the manufacturing sector. Nigerian manufacturing output scaled by population and GDP, reveals three distinct phases: a period of rapid growth from independence to the early 1980s, two decades of stagnation over the course of the 1980s and 1990s, followed by some, if limited, recovery since the early 2000s (*Figure 1*). Thus, the pattern that needs to be explained is where pockets of efficiency emerging in the Nigerian manufacturing sector after 2000 are located and what explains overall limited structural transformation despite or because of their existence. The following section provides a brief overview of major IP policy in Nigeria since independence and in particular institutional changes enacted after 2000 in the form of the backward integration policy.

Figure 1. Nigeria: Manufacturing Value Added per capita (MVA pc.;constant 2010 USD) and MVA/ GDP (%)



Calculations based on UN National Accounts

Post-independence, the Nigerian manufacturing sector realised strong growth rates, reflected in increasing shares of manufacturing value added relative to GDP (from 4% of GDP in 1971 to 12% of GDP in 1981) and in increasing manufacturing value added per capita (MVA pc), the latter trebling in the period 1971 to 1982 (*Figure 1*; see also Chete et al. 2016). Industrial policy making from independence to about 1985 was characterised by state-led import substitution (Ikpe 2014), including import duty relief for certain products and inducement of foreign investment with easy repatriation of profits. Small and medium scale manufacturing, mostly around agro-products took off as the country became an exporter of agricultural products and manufactured consumer goods such as leather bags, shoes, etc. Agriculture (and the resource-rich primary sector in general) provided the raw material for the emerging agro-products manufacturing sector. From 1973, import substitution became coupled with attempts at increasing indigenous participation in the management of industries, culminating in the passage of the Nigerian Enterprise Promotion Act in 1977, which was aimed at boosting local ownership of businesses.

Following the Nigerian Civil War (1967 to 1970), the government embarked on infrastructural development in a bid to rebuild the country. This was to be funded by oil proceeds, for which export commenced in 1958. Oil became the country's main export, rising from 58% of total exports in 1970 to 83% in 1973 (National Bureau of Statistics, various years). By that time, advances made in the agriculture sector started to erode (Walker 2000). Resource transfers from the oil sector ultimately had a limited effect in supporting agricultural output growth, even though such transfers would have been necessary to ensure appropriate domestic supplies of inputs, as well as for increasing purchasing power for manufactured outputs in rural areas. The contribution of revenues from agriculture in the government budget declined from the early 70s onwards. Consequently, support for the manufacturing sector had to be funded solely out of increasingly volatile proceeds from oil (Ikpe 2014). This is consistent with Kalecki's framework around class and power relationships between rentiers and small proprietors: the latter inhibit the growth of purchasing power, the growth of the tax base and the supply of vertically linked sectors supplying inputs for the manufacturing sector.

This (over-)dependence on oil revenue became telling in the collapse of the Nigerian economy in the wake of the global oil price crash between 1981 and 1985. Nigeria embarked on emergency stabilisation measures in response to the decline in foreign exchange earnings and economic recession, entering a period of negative growth for the first time since the exploration of oil. Public sector-led IP was said to be causal for this, and became increasingly repressed from the mid-1980s in the wake of prominent neoliberal policies globally, heavily driven by the World Bank and IMF (Ekpo 2014).

Despite several problems in the implementation of ISI policies, the onset of stagnating structural change is to be located with the retreat of the state and the neoliberal policy package (Ikpe 2014). Indeed, Nigerian manufacturing entered a period of decline and stagnation spanning over the 1980s and 1990s, during which MVA pc decreased substantially and fluctuated around USD 100; MVA share in GDP declined from a high of nearly 12% in 1981 to merely 6% in 2003 (*Figure 1*).

Since the early 2000s and especially since the rebasing of GDP in 2010, when more modern manufacturing industries were captured and prices correctly deflated, Nigerian manufacturing has shown some degree of recovery. MVA pc increased from USD 84 in 2000 to USD 252 in 2014, while manufacturing's share in output increased to 10% in 2014 (*Figure 1*). Food and beverages are by far the most important manufacturing sub-sector, contributing 53% of manufacturing output in 2012. Within the food and beverages sector, sugar and bread generate the greatest volume of output, with 44% and 22% of food and beverages output respectively in 2012 (National Bureau of Statistics 2014).

Following the country's transition to democratic rule in 1999, one important change in the institutional setting in support of manufacturing came about with the backward integration policy, aimed at addressing the high import dependence of the Nigerian manufacturing sector (National Bureau of Statistics 2014). Initially designed in 2002 for the cement and beverages sectors, it was then extended to other manufacturing sectors including sugar, rice, tomato paste, automotive and textiles. Barring exceptions, policy incentives for backward integration operate through tariffs, levies and tax breaks rather than direct subsidies. New investments in cement manufacturing also qualified for tax exemption for up to seven years under the Pioneer Industry Scheme (Akinyoade and Uche 2018). Benefiting from import quotas or concessions on tariffs or levies is made contingent on demonstrating a commitment to building domestic supply capacity.

Though a major importer of cement in 2007, Nigeria has emerged as one the largest cement producers in SSA, second only to South Africa (White 2015) and sources (as of 2017) over 95% of the material for its cement production domestically (McCulloch et al. 2017). The backward integration model was replicated in other sectors, including agro-processing activities, with varying degrees of success. In the sugar sector, for instance, following on from the National Sugar Policy of 2003, the National Sugar Master Plan of 2012 specifies gradual increases in duty and a levy on the import of raw and refined sugar. As of 2017, 90% of sugar consumed in Nigeria is refined domestically but 90% of raw sugar is still imported. All major players – including Dangote Sugar, Golden Sugar (owned by Flour Mills Nigeria) and BUA Sugar – benefit from a concessionary duty and levy rate of 5% when evidence is provided of

investment in domestic production of raw sugar (McCulloch et al. 2017). Dangote and Golden Sugar both cultivate sugar plantations while the BUA group has acquired arable land; land clearing and development preparation are still in progress.[1]

Flour Mills Nigeria started production of cassava in 2012, which together with other agricultural projects reduced their import of raw materials by 50%. DUFIL Prima Food sources inputs domestically, including on their own palm oil plantation in Edo State; to some extent MNCs operating in Nigeria like Guinness, British American Tobacco and Nescafe, use local raw materials (McCulloch et al. 2017).

Strengthened through the Nigerian Oil and Gas Industry Content Development Act 2010, backward integration can also be seen in the oil and gas sector where linkages to the domestic economy deepen and widen. This has led to an estimated $5billion of foreign investment, creating 38,000 jobs with around 50% of spending for fabrication in oil and gas domesticized (McCulloch et al. 2017; Ovadia 2016; Ovadia 2014).

Acknowledging patterns of success in the implementation of policies in support of the manufacturing sector should not be taken to mean that Nigeria is on a path of sustained structural transformation. Indeed, the Nigerian manufacturing sector suffers from many problems evidenced not least by the decline in output following the fall in oil prices in late 2014. Overall the Nigerian economy also remains heavily dependent on oil revenues, accounting for around 70% of government revenue and 14% of GDP in 2014 while being increasingly dominated by a large domestic financial market, even by global standards (Griffith-Jones and Karwoski 2013: 22f). Attempts to reform the oil sector have been largely unsuccessful owing to entrenched interests (including at the highest level of the national leadership and international oil companies), as well as warlords in the conflict-ridden South (Roy 2018; Ikpe 2017).

3. The Dangote Group In Nigeria

Investigating the dynamics in the sectors targeted by the backward integration policy we seek to gain insights both into factors explaining pockets of efficiency and the persistence of limited structural change across the economy as a whole. We do so by drawing on the annual reports and financial statements from Dangote subsidiaries listed on the Nigerian Stock Exchange (NSE). We document that profits were not merely sustained by rents stemming from the backward integration policy but also by active efforts to achieve economies of scale and scope, thereby building forward and backward linkages as intended by government policy incentives. What we learn from the case study of the Dangote Group is that expectations of growing markets can act as a factor that shapes the interests of important players within a specific constellation of power. Put differently, what drove output growth and compelled Dangote businesses to put in high levels of effort was the combination of learning rents stemming from the backward integration policy coupled with the prospect of Schumpeterian monopoly rents in growing domestic markets. Yet, the demand base remained too small to sustain more than a

[1] https://punchng.com/bua-to-invest-n92bn-in-sugar-production-refining/

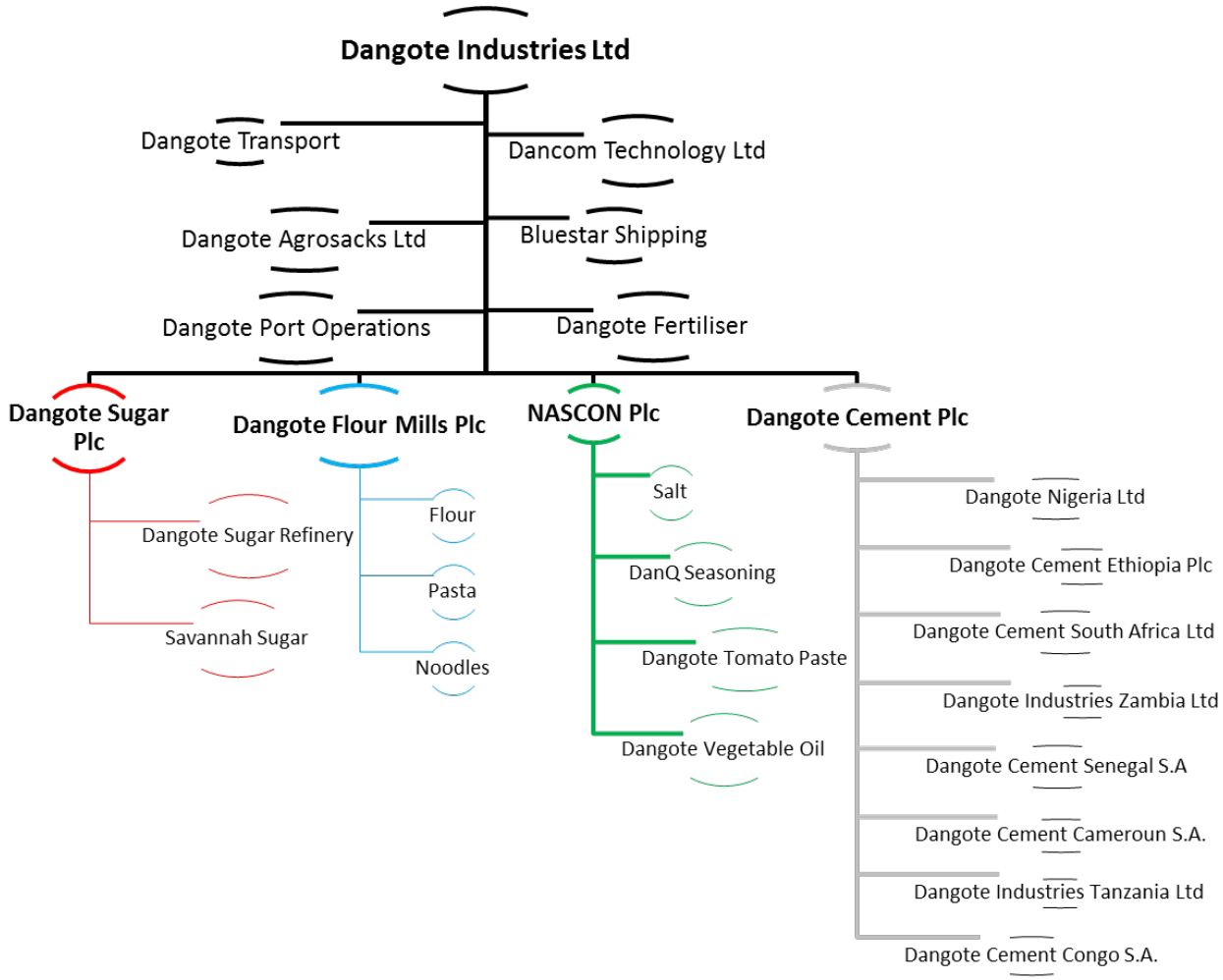
handful of monopolists and was highly vulnerable to the shock in commodity prices that occurred in 2014. We argue that the state's ability to shape and discipline the (re)distribution of surplus value is crucial to ensure a widespread and sustained take-off of the manufacturing sector beyond a handful of monopolists.

3.1. Overview of the Dangote Group: Dangote's expansion from cement into food processing

In this section we map the different activities of Dangote Industries Ltd. (DIL), comprising a large range of subsidiaries, ranging from IT, Transport and Port Operation Services to the manufacturing of packaging, fertilizer, sugar, flour, salt and cement. In doing so, we want to highlight three different aspects. *First*, the rapid expansion of the main business line in cement across sub-Saharan Africa over the past ten years. *Second*, Dangote's rapid expansion into other manufacturing business lines, mainly in food processing, over the same time span. *Third*, the high market shares of the various Dangote business lines in their respective markets, which were competing primarily against other conglomerates such as BUA or Flour Mills Nigeria. As such the Dangote Group replicates many of the features of big business groups in developing countries identified by Khanna and Yafeh (2007), including diversification into seemingly unrelated activities, intragroup lending and monopolistic market positions.

Four of DIL's subsidiaries are listed on the NSE and have themselves further subsidiaries: Dangote Sugar Refinery (DSR), Dangote Flour Mills (DFM), NASCON and Dangote Cement. To this, it is also necessary to add a number of affiliates and related companies such as Dansa Food, producing bottled water and fruit juices, West African Popular Foods (a joint venture involving Nascon) and MHF Properties Ltd, specializing in the management and development of luxury properties.

Figure 2. Dangote Conglomerate



Authors' arrangement

Dangote Cement is a subsidiary of DIL founded in 1981. At that time, the company's main business consisted of importing bagged cement and other commodities including rice, sugar, flour, salt and fish. The cement sub-sector used to be dominated by the state between 1960 and 1978, supplying about 50% of the total cement in the market (Pugh and Ajayi 1990; Akinyoade and Uche 2018). Once the oil boom ended, subsidising of government enterprises and parastatals became difficult. To attract foreign investment in the cement sector, the Nigerian government began relaxing the provisions of the country's indigenisation decree in 1979. This failed, given weak demand conditions and rising political instability. When austerity measures were implemented in the early 1980s, an import licensing regime was put in place to preserve foreign exchange. Through political connections, Dangote was able to secure appropriate licenses and became the dominant player in the cement import business. As part of the Federal Government's privatisation exercise, Dangote Cement acquired Benue Cement Company in 2000 and Obajana Cement Plc from Kogi State in 2002, though no factory existed in Kogi at the time. It was initially Lafarge SA who emerged as a dominant player following the round of privatisation (Akinyoade and Uche 2018). As of 2017, Dangote's Nigerian cement operations rely on three plants: The Obajana Plant in Kogi State, with an installed capacity of 13.25 Mta, opened in 2008 and has been expanded in size twice since then, the Ibese Plant in Ogun State,

with an installed capacity of 12 Mta (opened in 2012) and the Gboko Plant in Benue State, which has an installed capacity of 4Mta following several rounds of upgrades since privatisation. In 2010, Dangote Cement was listed on the NSE, and in 2013, the company commenced its pan-African production lines, starting with South Africa and Senegal, followed by Cameroun, Ethiopia, Zambia and Tanzania. The company has further import and distribution businesses across the continent.

Two major producers control the huge Nigerian production base of 39Mta installed capacity in 2014 (Table 1). Dangote's main competitor in Nigeria is Lafarge Africa, controlling around 30% of the Nigerian cement market with an installed capacity of 9Mta spread over five plants in 2015.

Table 1. Nigerian Cement production base in 2015

Company	Capacity (Mta)	No. of Plants
Dangote Cement	29.00	3
Lafarge Africa	9.00	5
Cement Company of Northern Nigeria (BUA)	0.60	1
Purechem	0.1	1

Source: Global Cement Report 11th edition

Dangote's entry into the sugar business dates back to the 1970s with the import and sale of sugar by DIL. Sugar refining commenced in 2001 when DIL commissioned the Apapa refinery facility. In 2006 DIL spun-off its sugar division (DSR) and the company became listed on the NSE in March 2007, with 68% of shares being controlled by DIL and 32% by the Nigerian public. In 2012 DSR Plc. entered domestic sugar cane production by acquiring a 95% stake in Savannah Sugar Company Ltd. located on 32,000 hectares of land in Numan, Adamawa State, with a milling capacity of 50,000 tonnes of sugar per annum. DSR's market share in the sugar market stands at an estimated 70% in 2016.

NASCON Allied Industries Plc was initially a state-owned company established in 1973 as a salt refinery. The company was privatised in 1991, its shares being listed on the NSE in 1992 when DIL purchased majority shares. Since 2014, Nascon expanded its business, starting manufacturing of Seasoning, Tomato Paste and Vegetable Oil and has about 60% market share in the Nigerian salt market in 2015.

DFM is engaged in the milling of wheat and production of wheat products including bread flour, confectionary flour, semolina and wheat meal. It has two subsidiaries – Dangote Pasta and Dangote Noodles – both engaged in the processing of milled wheat. DFM commenced its operations in 1999 as a division of DIL and was listed on the NSE in 2006. In 2012, DFM divested from Dangote Agrosacks producing cement bags, flour bags, sugar bags and shopping bags. Dangote Agrosacks was consequently acquired by DIL, their joint parent company. 2012 was also the first year in which the DFM group recorded losses. In 2013, DFM was taken over by Tiger Brands Ltd, a South African based manufacturing and retail group but the group continued to amass losses. In 2015, Tiger Brands sold its shareholding in DFM back to DIL. By 2016, the group recorded profits again for the first time since 2012. DFM's market share stands at an estimated 30% against their main competitors Flour Mills Nigeria.

3.2. The company's motivation to expand: anticipation of growing markets

In this section, we explore Dangote's investment motivations in greater depth and show that, in line with our basic theoretical premises, these were driven by expectations of growing domestic consumer and input markets.

Quoted in the Financial Times, Dangote maintains that Nigeria's growing population and, by extension, "demand for basic supplies" was a driving force behind his decision to reinvest in Nigeria (Wallis 2013). Looking at Annual Reports of those DIL subsidiaries listed on the NSE, we find ample reference to anticipation of growing domestic or regional markets. DFM, for instance, highlights expectations about rising consumer purchasing power following high oil prices between 2009 and 2014 (and hence higher government revenues and cheaper imports raising consumer purchasing power):

> "Oil prices are inching up and the price of wheat is stabilizing. This should translate to increased purchasing power in the local economy and also facilitate our ability to manage our material cost better. (Dangote Flour Mills 2008: 6)

Nascon and its subsidiaries producing tomato paste, seasoning and vegetable oil follow similar ambitions to cater for what are expected to be growing consumer markets.

> "We have recently expanded our product lines to include Tomato Paste, Vegetable Oil and Seasoning in a bid to transform to a FMCG[2] company, ensuring that our products become staples in the homes of millions of Nigerians." (Nacson 2016: pg. 12)

> "We entered into this product category [Dangote Tomato Paste] in response to an identified supply gap within the Nigerian market where local production plus imports have been unable to effectively meet local demand." (Nacson 2016: pg. 12)

From Dangote Sugar, we learn that expectations about the growth of consumer demand were, indeed, high but ultimately severely affected by subdued consumer spending during the crisis years starting in 2014:

> "The influx of Nigerians to urban areas is a trend that increased the population's reliance on purchased food staples and supported the growth in demand of confectionaries, beverages and packaged food products, in which sugar is a major input. Yet, the anticipated effect on businesses did not materialise due to subdued consumer spending." (Dangote Sugar 2015: pg. 22)

Finally, the annual reports of Dangote cement refer to urbanisation, infrastructure development and increasing demand for housing as strong drivers of demand for cement, which the company expects to withstand the ongoing economic crisis triggered by the fall in oil prices in 2014.

> "Urbanisation needs housing and infrastructure, workers need factories, offices and shops, and natural resources need to be extracted and transported to markets. Supporting all of these activities will require millions of tonnes of cement in the coming decades. (…) Increasing personal wealth and the ongoing shift towards younger, more affluent and more mobile populations will also increase demand for property as household occupancy falls. (…) The combination of these drivers will see Sub-Saharan Africa's demand for cement increase significantly in the coming years (…)." (Dangote Cement 2016: pg. 26)

> "We choose to build factories in countries with large populations and healthy economies that have plenty of potential for construction and housing to drive per-capita demand for cement from low levels." (Dangote Cement 2016: pg. 28)

[2] Fast-moving consumer goods

Dangote is, in fact, not an exception. Both multinationals and other Nigerian firms have expanded their footprint in Nigerian food-processing industries. Expecting to triple sales to $2.2 billion by 2023, Nestlé Nigeria invested $446 million between 2003 and 2014 and plans another $635 million before 2023. Diageo and Heineken have also increased their footprint, Diageo, for instance, now sells more Guinness in Nigeria than in Ireland (Games 2015; Akinyoade, Ekumankama, and Uche 2016). Beloxxi Biscuits and Leventis Foods are among the largest bakery and snack producers in Nigeria (Games 2015). The Flour Mills Nigeria Group and BUA Group build conglomerates in sectors similar to those of Dangote (McCulloch et al. 2017; KPMG 2016). A common feature of these firms is their size measured by capital, large enough to respond to incentives from a growing market.

In Nigeria as elsewhere in Africa, the formation of domestic markets for construction materials is closely linked to the Chinese-triggered construction boom. This has (re)shaped the political economy dynamics in many SSA countries: business interests ranging from the import of construction materials for the manufacturing of construction inputs, to real estate trading, all formed in relation to the construction boom, affect expectations about consumer demand (Pitcher 2017; Wolf 2017; Ovadia and Wolf 2017).

Chinese contractors play an important role in the Nigerian construction sector and in implementing the Nigerian government's spending on infrastructure projects, which are in Dangote's own perception a major driver of demand for cement (Dangote Cement 2012: 16). In fact, the average annual value of construction projects completed by Chinese firms in Nigeria over the period 2010 to 2016 is $3.75 billion, the third largest amount in SSA following Ethiopia ($3.8 billion) and Angola ($5.9 billion; (calculations based on the China Statistical Yearbook, various years). Deals with Chinese contractors like Sinoma and funding on favourable terms from State-owned Banks (SOBs) like the Industrial and Commercial Bank of China have been instrumental in the expansion of Dangote cement (Dangote Cement 2016; Dangote Cement 2015: 16). China's expansion as a financier and contractor of infrastructure development also sustains a boom in demand for construction materials not just in Nigeria but all over SSA, allowing Dangote to expand in several countries. The pan-African operations hedged the cement business against foreign exchange and demand fluctuations following the 2014 commodity price shock, providing cash streams and foreign exchange from countries like Senegal, Cameroon, and Zambia (Dangote Cement 2016: 9).

4. The Contradictions of Monopoly Capitalism in Nigeria

This article set out to explain both why pockets of efficiency formed in the Nigerian manufacturing sector and why, overall, structural transformation of the economy as a whole has remained limited. While the prospect of Schumpeterian monopoly rents in domestic markets anticipated to grow explained why Dangote expands its business in different productive directions, we argue that the same market structures conducive to learning and productivity increases can also make the accumulation process fragile by undermining the growth of purchasing power.

4.1. Economies of scale and scope: Efforts to become market leader sustaining efficiency gains and profit margins

Between 2010 and 2016, Dangote cement consistently realised net profit margins of 50 to 80%. Profits in the other Dangote Businesses are substantially smaller both in terms of margins realised and in level. In levels, profit after taxation from Nascon, DFM and DSR are between 1 and 7% of profits realised in Dangote Cement (Table 2).

Table 2. Dangote Key Business Indicators

	Employment		Gross Profits ('N000)		Net Profit Margins (%)		RoA (%)	
	2010	2016	2010	2016	2010	2016	2010	2016
Cement	3,129	12,917	121,257,713	248,000,000	52%	86%	26.6%	24.5%
Sugar	632	1,419	18,033,831	25,484,274	13%	8%	18.1%	8.1%
Flour	4,456	1,389	2,722,575	29,347,708	4%	10%	10%	13%
Nascon	686	485	2,450,669	5,916,774	19%	13%	22%	10%

Source: Calculations based on: Dangote Cement, DSR, DFM and Nascon Annual Reports 2011 and 2016

The huge profits of Dangote Cement are in part sustained by rents accruing from government incentives for backward integration. The effective tax rate for Dangote Cement's Nigerian operation was just 2% in 2016, given non-taxable profits from cement produced on lines still under the Pioneer Tax Exemption and tax exemption on the profits of export sales (calculations based on financial accounts Dangote Cement 2016). For the years 2010 to 2013, profit before tax was actually lower than profit after tax (see financial accounts 2010, 2011, 2012, 2013). However, Dangote's profits are also, and significantly so, sustained by active efforts to realise economies of scale and scope in a quest to build and sustain their monopoly position.

Economies of scale: Efforts to become market leader sustaining efficiency gains and profit margins

The backward integration policies pursued by the Nigerian government in various sectors, all offer substantial rent-seeking opportunities for companies. High tariffs or even the ban of final products increases the price of the final goods domestically while the continued import of raw materials remains generally possible. The policy requirement of undertaking steps towards domestic production can be easily corrupted as evidenced in the case of backward integration policies in rice milling, where the definition of owning a rice mill was in some cases stretched to acquiring land and owning equipment (McCulloch et al. 2017). Hence there can be substantial gains for companies without corresponding gains for consumers or long-term economic development and structural transformation. While observing substantial changes to the political settlement in Nigeria since 2015 towards competitive clientelism, which could increase informal rent-capture, Roy (2018) observes that rent-seeking and corruption in Nigeria were not necessarily predatory, with a number of emerging domestic capitalists like Dangote growing their businesses in productive directions, substantial rents through government involvement notwithstanding (Roy 2018; see also Akinyoade and Uche 2018).

One noteworthy aspect of Dangote's businesses within the conglomerate is their large market share within their sectors. DSR has a market share of 70% (Dangote Sugar 2016), DFM 30% (DFM 2012); Nascon 60% (Nascon 2015) and cement 65%. Achieving dominant market shares in oligopolistic market structures is, in fact, one of their stated goals:

> "So it wasn't just an increase in *demand*, we were very proactive in generating demand and taking share, both of which increased our sales volumes in Nigeria. The result is the 11.1% increase in volumes we saw in 2016 and an increase in market (...) Our strategy is to be the leader or number two in all countries in which we operate and we aim to have more than 30% share." (Dangote Cement 2016: 54)

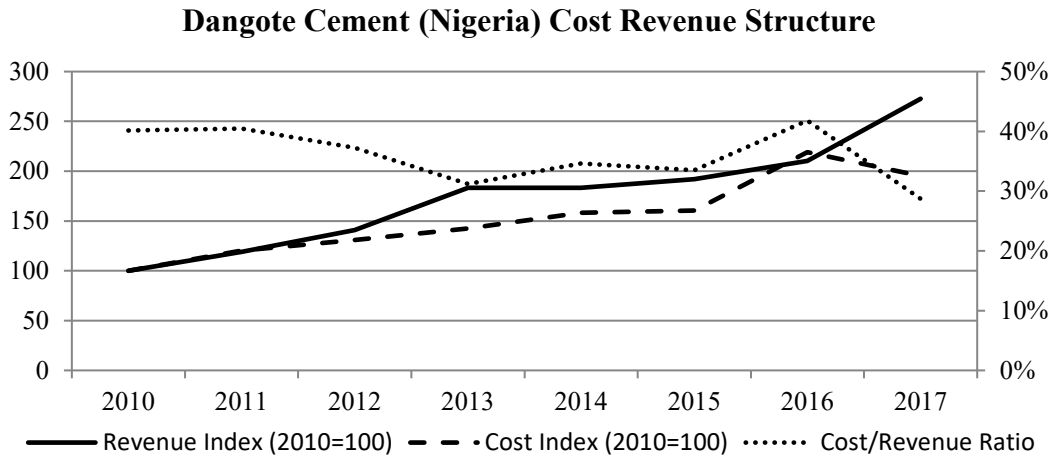
From a static comparative perspective, monopolies and oligopolies are considered welfare reducing given their ability to charge prices above those that would occur under perfect competition. This is reflected in ongoing controversy regarding the welfare effects of backward integration in the cement sector, which are associated with non-trivial increases in the prices of cement in Nigeria and ripple through effects in terms of loss of output and employment in the construction sector due to high input costs (Cuts International 2015). In fact, cement prices recorded a 300 percent rise between 1999 and 2007 despite a directive from the presidency to lower prices to N1500 (Proshare Investments, 2012). Similarly, in 2011, the price of refined sugar in Nigeria was more than twice that sold on international markets (Cuts International 2015).

By contrast, in Schumpeter's dynamic perspective, monopolies are at the heart of the process of creative destruction, with the prospect of monopoly profits driving innovation (Schumpeter 1928). The following sections aim to show that it was the combination of learning rents coupled with the prospects of Schumpeterian monopoly rents that compelled the Dangote group to grow its businesses in productive lines.

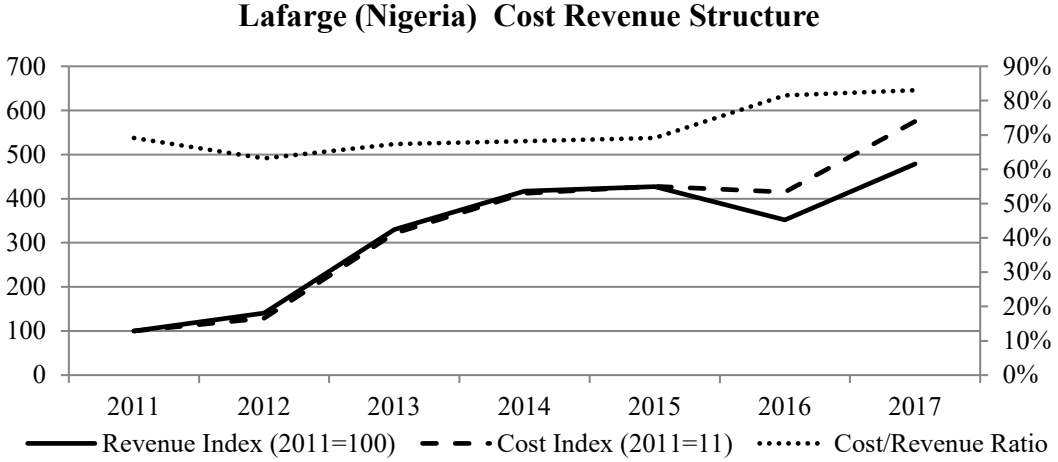
One way to illustrate that Dangote pursues active efforts to sustain its monopoly position through productivity increases, is by comparing the evolution of its costs relative to revenue to those of its main competitor in the cement business, Lafarge Africa (*Figure 3*). The ratio of costs[3] relative to revenues (right hand axis) is significantly lower for Dangote Cement than for their competitors Lafarge, who needs to be able to charge similar prices than Dangote, to remain competitive. Dangote Cement's cost/ revenue ratio is between 30% and 40% with a declining tendency except for the year 2016 while that of Lafarge Nigeria is between 70% and 80% with a rising tendency. The indices of their revenues and profits further reveal that since 2012, Dangote cement's cost were increasing at a slower rate than their revenues, while for Lafarge the two indices grow in line, increases in costs even overtaking those in revenue in 2016 and 2017.

[3] Pre-tax production costs

Figure 3. Cost-Revenue Structures Dangote Cement and Lafarge Africa



Calculations based on Dangote Cement annual reports 2011-2016



Calculations based on: Lafarge Africa annual reports 2017, 2015, 2014 and 2012

Economies of scale are a key pillar to sustain margins and market leadership across the conglomerate:

> "Continuous effort in growing *economies of scales*, and cost reduction through operational efficiency as well as the effect of focusing on human capital development had contributed to the Group's better performance." (Dangote Flour Mills 2009: 5)
>
> "This of course, will improve the bottom line because of large *economies of scale* that would result from the increased production." (Dangote Flour Mills 2010: 6)

Dangote's effort to build economies of scale help to sustain and increase profit margins is perhaps best illustrated at the example of Dangote Cement. Dangote Cement operates production lines of either 1.5Mta or 3Mta. This is significantly bigger than the global average of 1Mta (Dangote Cement 2016: 28) and Dangote sustains various efficiency gains from it. *First*, the size of their operations allowed for cheaper commissioning of factories, in particular by Chinese contractors; negotiating financing packages with Chinese contractors in which repayment only starts after profits are generated, as well as discounts on machinery imported from Europe and China (Dangote Cement 2016: 28).

Second, the scale of production is directly linked to the company's ability to source inputs efficiently. Scale and scope are linked here: only because different production activities operate at large enough scale does production of inputs for different companies within the conglomerate become profitable. In 2017, for instance, Dangote Cement started sourcing coal mined in Kogi state by their parent company (DIL). Being cheaper than LPFO, gas or imported coal, this improves margins and, being priced in Naira, also controls fluctuations in variable costs stemming from exchange rate fluctuations (Dangote Cement 2016: 9 and 28). Furthermore, when opening a new factory, Dangote Cement also opens new and therefore higher yield quarries from which inputs such as limestone, laterite and shale can be mined.

> "This means that we can optimise mineral extraction to get the best material more easily and at relatively low cost (…)." (Dangote Cement 2016: 28)

Importantly, the large scale of production and correspondingly high levels of own staff, make it profitable for Dangote to train their own staff according to the companies' needs. The Dangote Academy was established in 2010 to provide training in technical and managerial skills for future employees of Dangote. As of 2016, more than 550 students have graduated from the academy (Dangote Cement 2016: 32).

Third, larger scale also allows for the use of more cost-efficient machinery and synergies between technologies. Ibese, for instance, has two pairs of 3Mta production lines, which enables a single team to manage two lines at the same time and ensures that clinker production can continue and cement even if another is taken offline for maintenance (Dangote Cement 2016: 28).

Backward and forward integration: economies of scope through production of inputs relevant for different business lines and cost-efficiencies through supply chain management

The different subsidiaries in the Dangote conglomerate, increasingly, engage in efforts to integrate backwards, including for instance the mining of coal to power their cement operations and the farming of rice and the production of sugar cane for the DSR. As highlighted above, these patterns of backward integration are contingent on the companies' scale of production, the production of inputs only becoming viable at sufficient scale. They also serve to build economies of scope with certain inputs being relevant for different businesses in the conglomerate. Backward integration towards locally grown sugar cane production launched in 2012 with Savannah Sugar, for instance, serves to generate power from bagasse for the companies' own use. Furthermore, any excess electricity is being sold to the national grid to produce fuel ethanol (ethyl alcohol), used to produce animal feed from molasses and bagasse, or used to produce bio-fertilizer from press-mud/filter cake during sugar manufacturing.

So, while Dangote's expansion into locally grown sugar sustains and improves the existing refining operations, it also provides inputs into its other business lines, not least energy, repeatedly cited as an important factor cutting out of their margins in basically all grinding activities (Dangote Sugar 2016: 10). Interestingly, plans for further backward integration are maintained even during the crisis years:

> "As part of our long-term plans, we are also actively looking at backward integration strategies to grow our own tomatoes. This will provide us with a permanent solution, as we have better control of the source of our raw material." (Nascon 2015: 17)

Practices of forward integration, in particular in-house packaging (e.g. Nacson 2016: 9) and in-house distribution achieves similar outcomes in terms of creating economies of scope across various activities within the conglomerate. Dangote Cement has a fleet of 2,000 trucks at Obajana and 1,500 at Ibese (Dangote Cement 2016: 57), DSR supports its refining operations by warehouses located strategically across the country and served by more than 400 trucks (Dangote Sugar 2016: 9; see also Dangote Flour Mills 2011: 6 and Nacson 2016: 9). Where they are dependent on distributors, they make use of their fleet to manage the value-chain:

> "At distributor level, we gave a total of 120 trucks to more than 100 of our largest partners as an incentive to help them improve the distribution of our cement to their customers." (Dangote Cement 2016: 57)

4.2. Scrutinizing distributional dynamics within the group

While the prospect of Schumpeterian monopoly rents in domestic markets anticipated to grow explained why Dangote grows its business in productive directions, we argue that the same market structures conducive to learning and productivity increases can also make the accumulation process fragile by undermining the growth of purchasing power.

Overall, the process of accumulation has been revealed to be very fragile when exposed to fluctuations in commodity prices. Given both the domestically-orientation and the still highly import-dependent nature of manufacturing production in Nigeria, downward pressure on the exchange rate has not resulted in boosting a (largely non-existent) manufacturing export sector. Instead, it has cut firms' profit margins by increasing cost of sales and reducing the purchasing power of poorer households suffering from the impact of rising inflation. This pattern becomes evident when looking at the annual reports of different business lines in the Dangote conglomerate and it applies both to the cement business and the consumer goods parts of the conglomerate:

> "The year 2016 was characterized by unparalleled events (…) such as low oil prices, increased inflation rate, depreciation of Naira, tight monetary policies, *foreign exchange* scarcity affecting procurement of key raw material supplies and reduction in *consumer spending*." (Dangote Sugar 2016: pg. 21, emphasis added) 4

This is evidence that the Nigerian demand base, while growing overall, was very vulnerable when exposed to the shock in commodity prices occurring in late 2014. There is also evidence of overcapacity and ultimately insufficient support for demand growth:

> "The Group's performance is also a reflection of the challenges arising from the existing excess capacity across particularly the wheat milling industry, which limits pricing power for the Flour business." (Dangote Flour Mills 2013: 5)

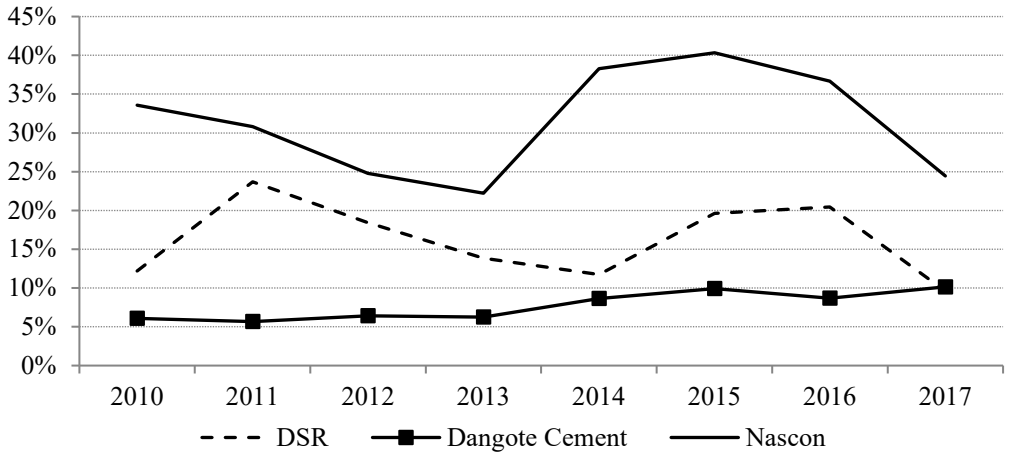
[4] see also: Dangote Flour Mills 2014: 5; Nacson 2016: 24; Nascon 2015: 16; Dangote Sugar 2015: 31; Dangote Sugar 2014: 8; Dangote Sugar 2011: 12; Dangote Cement 2016: pg. 10

> "The year 2014 witnessed many challenges, including security concerns, and declining margins in the flour milling industry occasioned by *overcapacity*. These factors affected our performance and had gone ahead to shape our current business year." (Dangote Flour Mills 2014: 5)

We interpret this as evidence that industrial policy in Nigeria, while to an extent successfully disciplining learning and productivity increases, has been less successful in shaping or disciplining the redistribution of surplus value that could support increases in purchasing power in those segments of the population dependent on subsistence activities. This is evident both when looking at the evolution of wages in the conglomerate but also when considering the government's ability to tax Dangote.

Figure 4 plots the evolution of the wage share in Dangote Cement, Nascon and DSR. Though increasing in Dangote Cement, the wage share never exceeds 10%. In DSR, the wage share averaged 16% between 2010 and 2017 with spikes in 2011, 2015 and 2016. Only in Nascon, the wage-share appears to be substantially higher averaging 31% between 2010 and 2017, though decreasing substantially since 2015.

Figure 4. Evolution of the wage share in different Dangote Businesses



Calculations based on Nascon, DSR, Dangote cement annual reports 2010-2017

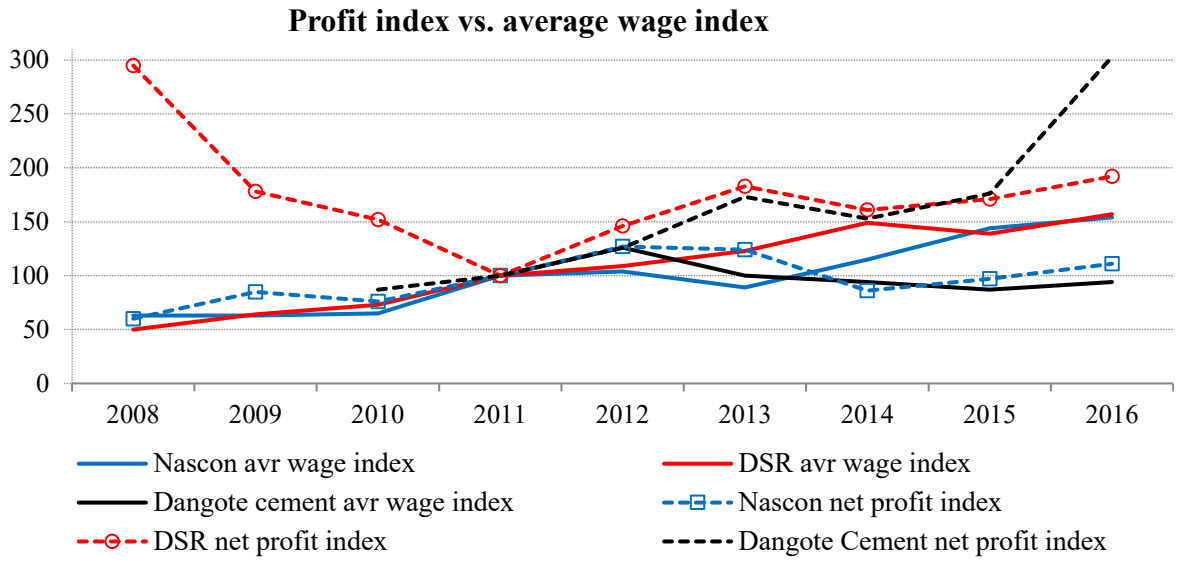
Figure 5 plots the increases in wages and net profits in Nascon, DSR and Dangote Cement relative to a base year in 2011.[5] Noteworthy is in particular that for Dangote Cement, average wages per employee in 2016 are actually slightly lower than in 2011, while at the same time the company's profits have more than trebled.

Dangote maintained close relationships not only with the PDP-led governments under Obasanjo and Jonathan but equally with the APC government, being appointed, for instance, to the vice chairmanship for the private sector in Osinbajo's National Industrial Policy and Competiveness Advisory Council in 2017. That Dangote's interests are the driving force in this relationship with the government becomes evident when looking at the effective taxation of the cement business. Disciplining tax evasion will be a crucial challenge if the state is to successfully redistribute surplus value generated in favour of growth in purchasing power

[5] Profit index: index over 'profit before tax' , average wage index: index of ratio aggregate payroll costs/ total employees

across the economy as a whole. Yet, between 2010 and 2017, Dangote cement earned ₦1.7 trillion in profits before tax and paid just ₦90 billion in taxes, i.e. a tax rate of just about 5% (calculations based on Dangote cement annual reports 2010-2016). Ultimately this was possible because Dangote skilfully played the pioneering tax exemption scheme on new plants, claiming pioneering status on the same plant by extending the plant and by scheduling new extensions when pioneering status on other plants was ending.

Figure 5. Evolution of Profits relative to Wages in different Dangote Businesses



Calculations based on Nascon, DSR, Dangote cement annual reports 2010-2016

That Dangote's interests are the driving force in their expansion also becomes evident in relation to small farmers. Backward integration in the food processing sector suffers from the gap between small scale farmers and large-scale industrial processors. Farmers, in particular, need additional support in the form of seeds, machinery, access to finance etc. To an extent this support is in place. The government's Wheat Transformation Agenda, for instance, aims at increasing domestic wheat production with a combination of tariffs on wheat imports and targeted support for wheat farmers, such as government sponsored research into high yielding wheat varieties suitable for the Nigerian climate, distribution of improved seedlings, subsidised fertiliser and farming equipment. In addition, flour millers are required to include between 10 and 20% cassava into their bread flour as part of the cassava inclusion policy (KPMG 2016). Yet, support for small farmers is often inconsistent and implemented slowly (UkrAgroConsult 2018). With the foreign exchange crisis, when reliable domestic sourcing of inputs became an interest of the large-scale processors themselves, we observe direct interaction between farmers and processors. In 2016, the Flour Millers Association of Nigeria (FMAN) and Wheat Farmers Association of Nigeria (WFAN) signed a Memorandum of Understanding, where FMAN committed to purchase wheat produced by WFAN at a guaranteed price. In April 2018, Nigerian flour millers including Dangote Flour Mills and Flour Mills Nigeria, donated 50 units of multi-crop thresher machine worth N70 million to wheat farmers to boost Nigeria's self-sufficiency in wheat production (Vanguard 2018).

Conclusions

Through the example of the Dangote Business conglomerate, this paper has investigated factors which explain the emergence of pockets of efficiency in the Nigerian manufacturing sector and which factors explain why structural transformation has remained limited across the economy. We have linked both questions to emerging monopoly capitalism against the context of expanding domestic markets. In such a case, because potential gains are large, DIL is seen to have responded to the government's incentives to backward integration and achieve competitive learning rather than simply cashing in on rents that may arise in the process.

Yet, the same market structures which were conducive to achieving learning also have ramifications for the purchasing power and therefore ultimately the sustainability of accumulation through commodity production beyond a small number of monopolists. While the case of DIL may seem a success story for IP in Africa, it shows some deficiency on the part of the Nigerian state in managing its relationship with capitalists who may want to monopolise the gains from IP. This shortcoming raises questions around the type of economic policies that underpin successful IP, not least how domestic demand is to be sustained to ensure long-term gains. Explaining deficient demand socially through the spending behaviour of different social classes and the state means that support for the demand side of the economy is in no way self-evident because such support is inherently linked to questions of distribution and hence conflictual interests. In the case of Nigeria, state-business relations have been shaped in a way that creates barriers to entry for smaller firms, especially those unable to align themselves with the political class, or at least in a way that disproportionately allocates profits from IP between owners of a few large firms and the rest of the economy.

An additional set of agency relations need to be dissected in order to explain patterns of success and failure in the implementation of IP, namely how the gains of IP are to be distributed across sectors and between capital and labour. For this reason, it is necessary for future research to study capital-labour relations in the Nigerian manufacturing sector including government's effort in promoting income redistribution.

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CAE

Center of African Economies

Roskilde University
Universistetsvej 1, Postbox 260
4000 Roskilde, Denmark

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