

POST-KEYNESIAN PERSPECTIVES ON INDUSTRIALISATION AND STRUCTURAL CHANGE

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Introduction

- Objective of this lecture
 - What do Post-Keynesian approaches contribute to our understanding how the process of development occurs, specifically in relation to structural change and industrialisation?
 - Why do we need them given the gaps in mainstream development economics?

Introduction

1. What is 'mainstream' development economics and what are we missing?
2. Post-Keynesian Theory of Structural Change
3. Case Study: The Dangote Business Conglomerate in Nigeria

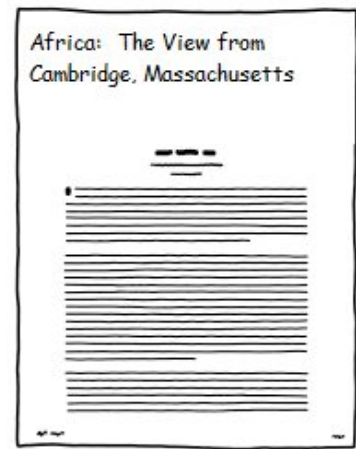
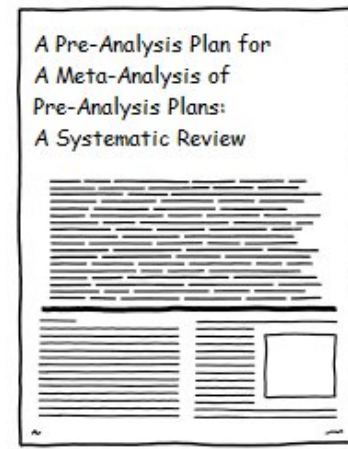
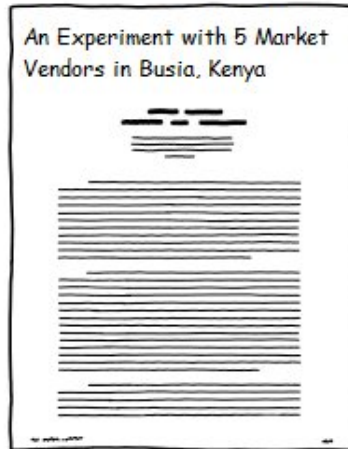
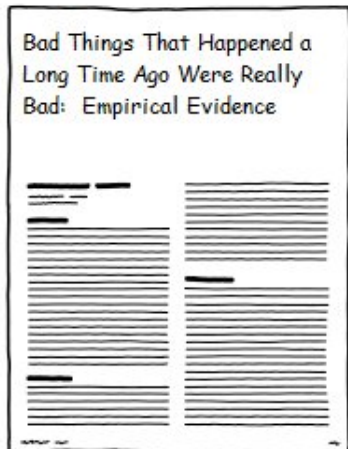
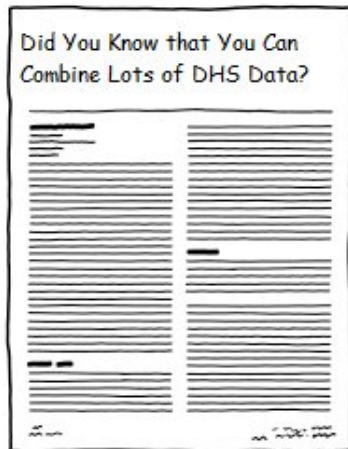
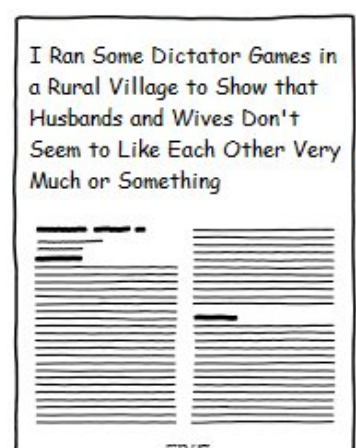
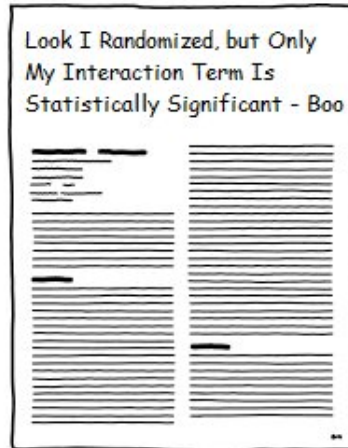
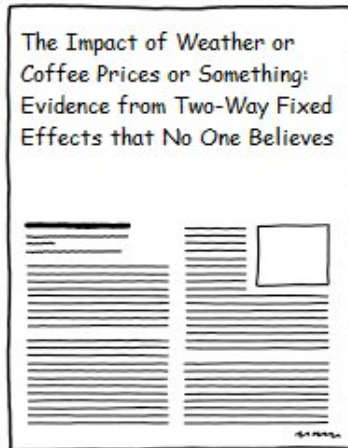
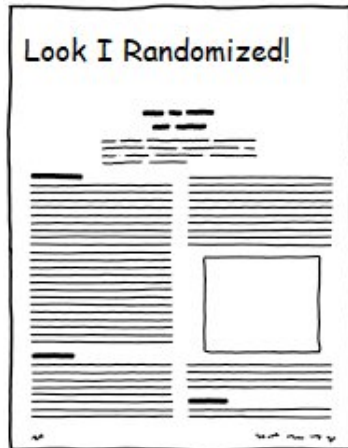
Development Economics – The State of Affairs

The Post-Washington Consensus (PWC)

- The PWC: From Letting Markets Work to **Making Markets Work**
- Recognition that markets do not work perfectly and fail:
 - Externalities ('Self-discovery', Hausman and Rodrik 2003)
 - Information Asymmetries (e.g. credit markets, Hoff and Stiglitz 1993)
- State intervention might be justified to **correct market failures** but only to the extent that the state has the capacity to improve upon market outcomes (trade-off market vs. government failure)
- **New Institutional Economics**: weak enforcement of property rights as explanation for underdevelopment (North 1990)
- At the policy level
 - Anti-corruption/ 'good governance' agenda
 - Piecemeal interventions to correct specific market failures (make individual markets work)
 - Overlap between WC and PWC (especially macro): Both highly conservative in fiscal and monetary policy, support 'free' trade, privatisation, liberalisation, wage moderation and (labour market) deregulation

Development Economics – The State of Affairs

TYPES OF development economics PAPER

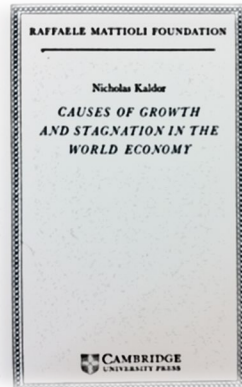


Development Economics – The State of Affairs

What are we missing?

- Current mainstream based on ahistorical models without room for **historical, systemic or structural specificities**
 - Bias towards domestic reforms (correcting specific market failures in piecemeal way) while shying away from global or structural reforms
 - What about issues like power asymmetries in global value chains? Practices like transfer pricing? International patent rights? Wealthy global elites and rising levels of inequality? Volatility of primary commodity prices or capital flows?
- Supply-side determined framework – no role for **demand**
 - Supply-side determined growth models (OGT and NGT)
- Models based on representative agents - no **conflicts of interest**
 - No reflection on why vested interest exist, what sustains them and why certain groups (the poor) have no effective voice
 - Which markets do we 'enable' – and is that a value neutral decision?

Post-Keynesian Theory and Structural Change



Post-Keynesian Theory and Structural Change

Structure of production matters

- Theoretical tradition going back to Young, Hirschman, Rosenstein-Rodan and Kaldor
- Circular cumulative causation: output growth \leftrightarrow productivity growth
- Reason: increasing returns to scale (IRS) due to economies of scale and scope, pecuniary externalities at plant-, firm-, industry- and economy-level
- IRS are specific to manufacturing ('processing activities'): Manufacturing is engine of growth
- Critical contributions of Kaldor:
 1. **Kaldor's Growth Laws**
 - **The First Law:**
 - The faster the rate of growth of the manufacturing sector, the faster will be the rate of growth of GDP
 - **The Second Law (the Kaldor-Verdoorn Law):**
 - An increase in the rate of growth of manufacturing output leads to increases in manufacturing productivity (Circular cumulative causation)
 - **The Third Law:**
 - Aggregate productivity growth is positively associated with employment growth in manufacturing.

Post-Keynesian Theory and Structural Change

2. Manufacturing is demand-constrained

- Unlike other C-C theorists, Kaldor (2007: 55): CC is demand-constrained
 - Level and growth rate of a particular product is a function of level and growth rate of all other products but increases in supply do not automatically result in increases in demand
 - Elasticities of demand and supply differ for different products (some industries will grow faster than others)
 - Focus on ‘autonomous’ demand, i.e. demand for goods coming from outside of the industrial sector

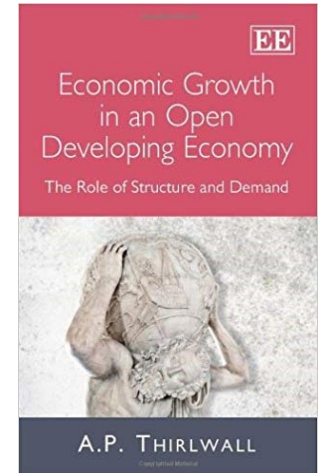
• Implication of demand-constrained cumulative causation in manufacturing:

1. Structural change not necessarily self-sustaining
2. Divergence: initial increase in output/ demand sets off cumulative, self-reinforcing process and consequently divergence between countries/ regions
→ link between structural and systemic factors in development

Post-Keynesian Theory and Structural Change

Thirlwall's Balance of Payments Constrained Growth

- Kaldor's two-stage two-sector model formalised by Thirlwall:
Balance of payments constrained growth
 - Agricultural and export demand as the two main sources of autonomous demand
 - Early stages of industrialisation: demand agricultural sector
 - Later stages of industrialisation: export demand
- Growth of agricultural purchasing power given by the price of investment goods obtained per unit of agricultural output (i.e. terms of trade between industry and agriculture)
 - Lower industrial terms of trade, higher agricultural sector's growth rate, the higher *demand* for industrial output
 - Manufacturing *supply* positively related to industrial terms of trade: lower wages, hence increase in industrial profits that can be reinvested
- Equilibrium growth rate at which manufacturing sector growth is neither constrained by demand nor supply is given by the relative price level at which the two sectors' growth rates equalise



Post-Keynesian Theory and Structural Change

- Over time, exports will dominate demand from agriculture as source of autonomous demand and growth of the industrial sector becomes *balance of payments constrained*, summarised “Thirlwall’s law”:

$$y_{i,bop} = \frac{\hat{\varepsilon} y_{world}}{\hat{\pi}}$$

Income elasticity of demand for exports

Income elasticity of demand for imports

- Interpretation:

- Export demand constrains a country’s ability to pay for the imports necessary for (ongoing) production processes (especially capital goods)
 - Domestic investment demand can leak into imports for which current production capabilities have to pay in the form of exports
 - Exogenous rise in export demand might leak into disproportionate rise of imports
- Pace of structural change constrained by world market demand for current domestic production
 - Structural policy questions: how to diversify economies?
 - Systemic questions: why sluggish growth in global demand? Why volatile demand for certain products?

Post-Keynesian Theory and Structural Change

- **Kaldor's policy proposal:**
 - Industrial specialisation and export expansion supported by industrial policy
- **Theoretical and practical ambiguity** in Kaldorian policy conclusions
 - In practice simultaneity problem: current model of export-led growth promotes global deflation/ race to the bottom (Sarkar and Singer 1991, Razmi and Blecker 2008; Blecker 2002)
 - Theoretical inconsistency/ missing links in Kaldorian theory of structural change:
 - Dutt-Thirlwall debate 1992: unconventional rejection of Say's law; 'autonomous' demand (Dutt 1992, Thirlwall 1992)
 - Realisation of IRS through specialisation? (Young 1928; Hirschman 1958; Chenery, Robinson and Syrquin 1986)

Post-Keynesian Theory and Structural Change

- Missing theoretical links and key challenges for late-industrialisers:
 1. Formation of dynamic domestic markets *alongside* and *as a basis for* export growth (Storm 2020, Storm and Capaldo 2018, Palley 2006; Wolf 2017; Ovadia and Wolf 2018)
 2. Mobilising domestic demand-side *together* with supply-side (industrial policy)
- Consistent with development experience of late-industrialisers
 - China: underpinned by an expansion of domestic-mass consumption sustained by a comparatively egalitarian income distribution (Lo and Zhang 2011)
 - South Korea: 53% of industrial output growth between 1955 and 1973 from domestic demand expansion (Chenery, Robinson and Syrquin 1986)
 - Nigeria: case study Dangote Business Conglomerate (Itaman and Wolf 2021)
- Kaleckian development theory: What constrains the growth of domestic demand? Kalecki 1954
 - Growing recognition that manufacturing engine of growth (e.g. Lin 2012) requiring (industrial) policy support but no consideration of demand under assumption of unlimited export markets (e.g. Amsden 1990: 11; Monga 2013: 154)

Post-Keynesian Theory and Structural Change

Kalecki Pioneer of development thinking

- Kalecki's work little acknowledged in development circles but important contribution into factors constraining domestic demand growth
- Kalecki, Michal. 1954. 'The Problem of Financing Economic Development'. In *Collected Works of Michal Kalecki*, edited by Jerzy Osiatynski, Volume V Developing Economies:21–44. Oxford: Oxford University Press
- Kalecki's work questioned many aspects of modernisation and neoclassical development theory:
 1. Questions that industrialisation impossible unless directed towards external markets
 2. Questions necessity of low wages: instead rising wages stimulate domestic demand
 3. Emphasises neglect of agriculture: difference between price formation in manufacturing & agriculture



Post-Keynesian Theory and Structural Change

Kalecki 1954: The Problem of Financing Economic Development

- Takes issue with the view that domestic markets too small
 - 3 main social classes: capitalists, workers and small proprietors
 - 2 sectors of production
 - Department I: produces investment goods
 - Department II: produces consumption goods (agricultural and non-agricultural)
 - In principle self-sustaining system: expansion of Dep I leads to increase in demand for consumer goods
- In practice no reason to assume automatic re-investment of profits:
 - Distribution between capital and labour
 - Income concentration and widespread monopolisation of economy
 - Class and power relationships influence formation of prices and purchasing power
 - Inelastic supply of food leading to increase in prices of agricultural goods
 - Price increases not accruing to small proprietors but captured by rentiers
 - Fall in real wages *without* countervailing increase in demand for mass-consumption goods in countryside
- Result: “(...) increased profits will not be spent at all, or will be spent on luxuries.” (Kalecki 1954 [1993]: 29)

Post-Keynesian Theory and Structural Change

Kalecki 1954: The Problem of Financing Economic Development

- Policy implications:
 - Support the growth of effective demand (alongside supply)
 - Limits to income redistribution through generalized rise of wages due to high degree of informality
 - Instead redistributive public spending favouring most deprived classes (subsistence communities)
 - State-led investment financed through taxation on profits and the rich (reduce demand for imported luxuries, avoid speculative hoarding)
 - Necessity for institutional change in agricultural sector
 - Cheap bank credit to peasants, improvements in the method of cultivation, irrigation, provision of inputs like fertilizers

Case study: The Dangote Conglomerate in Nigeria

Based on

Itaman and Wolf (2021, forthcoming): “Industrial Policy and Monopoly Capitalism in Nigeria: Lessons from the Dangote Business Conglomerate.”
Development and Change



Case study: The Dangote Conglomerate in Nigeria

Findings

- Substantial capital formation and productivity increases spurred by expectations about rising domestic demand and supported by industrial policy
- Demand-led growth fragile: disproportionate rise in profits relative to incomes of wage-earners and subsistence communities → market structures and power-relations

Implications

- Developing demand-side together with developing supply-side
 - Productive capacity needed to produce
 - Demand needed to ensure productive capacity is used
 - Both demand and supply structures have to be created by policy
 - Without active industrial policy (IP), increases in demand leak into imports
 - Without redistributive efforts, disproportionate rise in profits relative to wage-earners and subsistence communities
- Historically formed power-relations
 - Main beneficiaries of IP in Nigeria **large-scale processors** with roots in colonial merchant capitalist class at the expense of small-scale vertically linked producers of agricultural inputs → slow productivity/ output growth in agriculture
 - Entrenched **rentier interests of merchants** over small proprietors → IP contributes to concentration of wealth

Motivation to Expand

- Backward integration policy (BIP) since 2002
- Motivation to expand:
 1. Expectation of expanding domestic markets: matters in determination of economic activity
 2. Productive efforts to sustain the group's monopoly position and pricing power in these expanding markets (monopoly as outcome of competitive behaviour)

	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%

Post-Keynesian Theory and Structural Change

Dangote's motivations to expand production: anticipation of growing domestic markets

- “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 Annual Report 2008]
- “NASCON Allied Industries Plc is Nigeria’s leading refiner and distributor of household, food processing and industrial salt (...). We have recently expanded our product lines to include Tomato Paste, Vegetable Oil and Seasoning in a bid to *transform to a FMCG company*, ensuring that our products become staples in the homes of *millions of Nigerians*.” [NASCON Annual Report 2016]
- [Dangote Tomato Paste] We entered into this product category in response to an identified supply gap within the Nigerian market where local production plus imports have been unable to effectively *meet local demand*. [NASCON Annual Report 2016]
- 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*. [DSR Annual Report 2015]

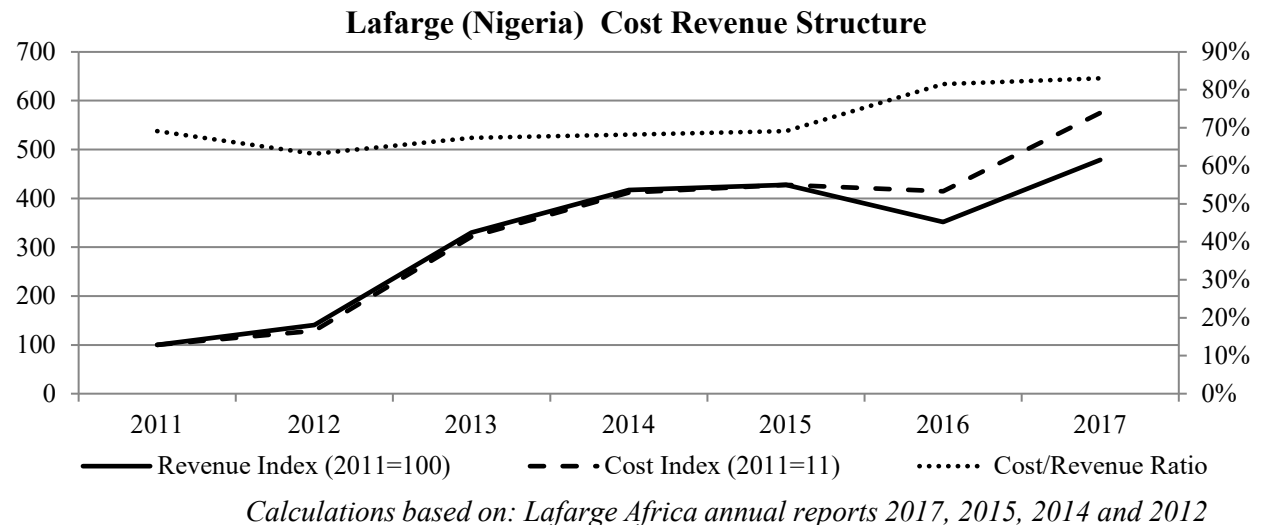
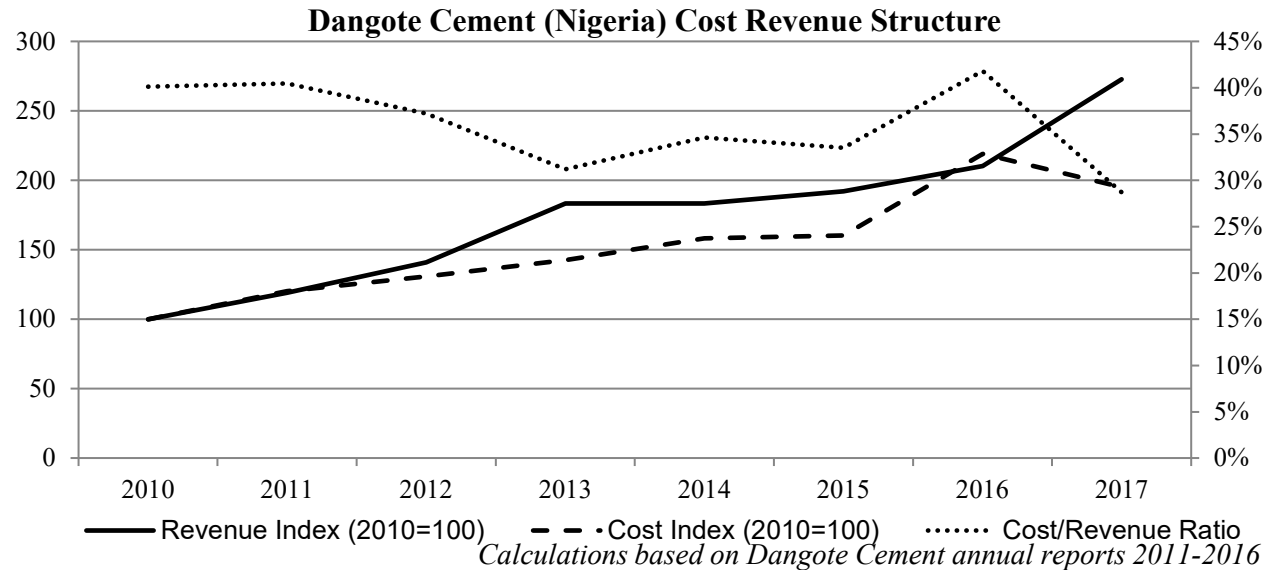


Driver 1: Motivation underlying investment is anticipation of growing domestic markets

- “*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. (...) Despite the recent slowing of its economies, Sub-Saharan Africa will need considerable investment in infrastructure and housing as urbanisation increases and economies diversify from dependence on agriculture, minerals and oil towards manufacturing, retailing and services. 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 Annual Report 2016]
- 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. We look for substantial limestone reserves linked by good roads to nearby growth and export markets. [Dangote Cement Annual Report 2016]

Driver 2: Efforts to sustain monopoly position

- Dangote's businesses large market share within their sectors
 - DSR 70%
 - DFM 30%
 - Nascon 60%
 - Cement 65%
- Markets politically structured – More than political favouritism?
- But evidence that learning for productivity increases has taken place
- Against the context of expanding markets, 2nd driver of productive investment: sustain the group's monopoly position



Emerging Contradictions of Monopoly Capitalism in Nigeria

- Profits from combination of learning rents stemming from BIP and prospect of Schumpeterian monopoly rents in growing domestic markets
- But the same market structures that drive productive investment in context of expanding markets also work to undermine the growth of purchasing power
- Demand base revealed to be very fragile when exposed to fluctuations in commodity prices
- 2014 drop in oil prices and downward pressure on the exchange rate increases cost of sales and reduces purchasing power of poorer households

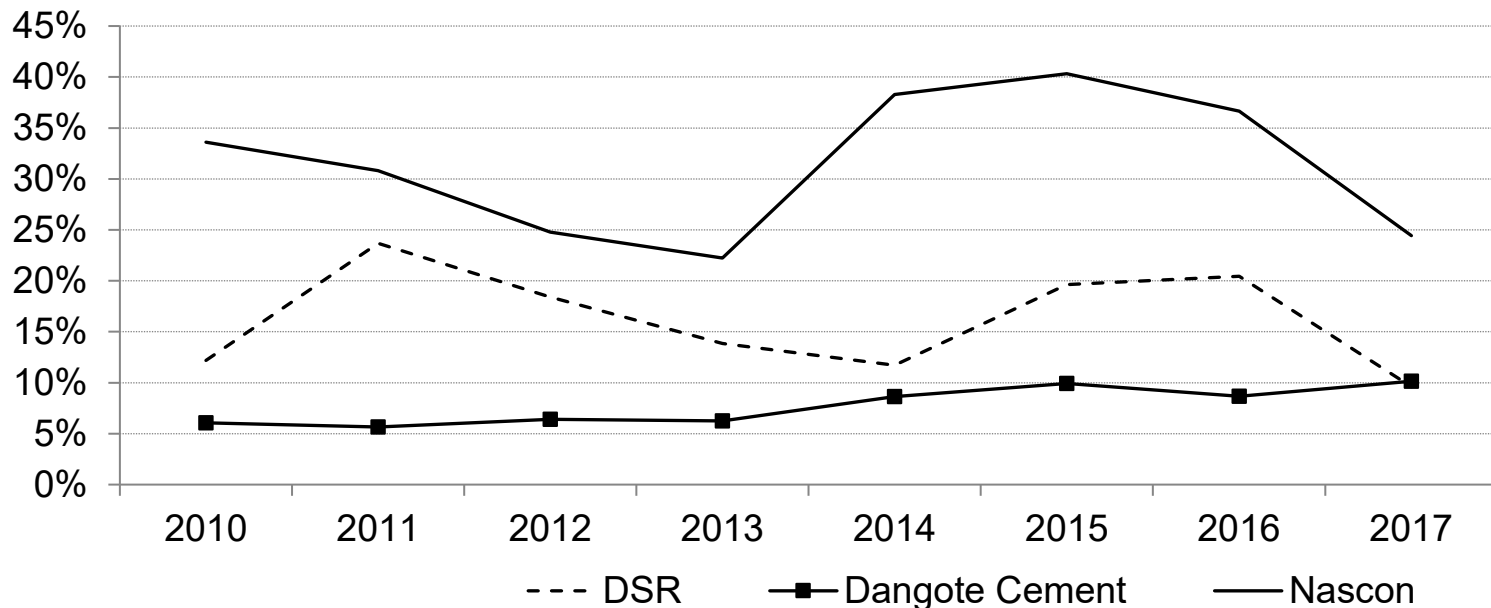
“The *fall in the value of the Naira* and the price of crude oil and their resultant effects on the Nigerian economy combined with the inability of state and local governments to pay staff salaries and contractors, put severe *pressure on consumer spending* as *inflation was rising*.” [NASCON Annual Report 2015]

“The year 2016 was characterized by unparalleled events that had not been experienced in Nigeria in 25 years, 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*.” [DSR Annual Report 2016]

Scrutinising distributional dynamics

- IP in Nigeria, to an extent, successfully incentivising productive investment, has been less successful disciplining redistribution of surplus value that could support increases in purchasing power

Evolution of the wage share in different Dangote Businesses



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

Scrutinising distributional dynamics

- Nigerian wage share: low and volatile



Source: CBN Statistical Bulletin

Scrutinising distributional dynamics

1. Labour mobilisation difficult

a. Absence of economy-wide pro-labour policies

- E.g. Dangote’s “Truck Entrepreneurship Scheme” becomes means of labour exploitation
- “All 800 of us were sacked on a Saturday, a weekend in February 2017. (...) We discovered that we were not the first. They had employed 400 graduates before, and when they were getting to the end of their contract, they were sacked. (...) We were being paid about half of what the regular staff were being paid, while doing twice the work”. (Interview conducted with the Chairman of the Forum of Dangote Former Truck Drivers, July 24th 2020)

b. Dangote’s co-optation of civil society and media by building image of benevolent entrepreneur

- “In Nigeria, the mainstream media are not helping us. When we demanded the response of the TV channels why they don’t report our court case, their response was that Dangote is our major customer.” (Interview conducted with the Chairman of the Forum of Dangote Former Truck Drivers, July 24th 2020)

2. Lack of support for small-scale vertically linked producers (both supply and demand)

- Difficulty in **taxation** of Dangote and other conglomerates: undermines the state’s ability to achieve redistribution (and income growth among the poorest) by means of taxation
- **Gap in support** between small-scale farmers and large-scale industrial processors

Conclusions

- Kaldorian and Kaleckian development theory
 1. Justification for why **structure of production matters**
 - Justification for why developing countries should promote structural change through targeted industrial and agricultural policies
 - Divergence: Link between structural and systemic factors
 2. **Demand growth can constrain structural change**
 - Which factors constrain growth of domestic demand base?
 - Income distribution
 - Pre-capitalist class relations
 - Government spending
 - Which factors constrain growth in export markets
 - Subdued growth in world demand: Income distribution and financialisation
 - Race to the bottom between developing countries: Fallacy of composition
 3. **Class and power relationships**
- Together useful starting points to uncover some structural and systemic aspects of development
- Relevant for problem of structural transformation and situating past failures of industrial policy

References

- Amsden, A.H. (1990) 'Third World Industrialization: "Global Fordism" or a New Model?', *New Left Review* 182(July-August): 5–31.
- Blecker, R.A. (2002) 'The Balance of Paymentsconstrained Growth Model and the Limits to Export-Led Growth', in P. Davidson (ed.) *A Post Keynesian Perspective on Twenty-First Century Economic Problems*, pp. 69–89. Cheltenham (U.K.) and Northampton (Mass.): Edward Elgar Publishing.
- Chenery, H., S. Robinson, and Moshe. Syrquin (1986) *Industrialization and Growth: A Comparative Study*. London and New York: Oxford University Press.
- Dutt, A.K. (1992) 'A Kaldorian Model of Growth and Development Revisited: A Comment on Thirlwall', *Oxford Economic Papers* 44(1): 156–68.
- Hausmann, R. and D. Rodrik (2003) 'Economic Development as Self-Discovery', *Journal of Development Economics* 72(2): 603–33.
- Hirschman, A.O. (1958) *The Strategy of Economic Development* (Reprinted by Norton 1978.). New Haven: Yale University Press.
- Itaman, Richard, and Christina Wolf. 2021 (forthcoming). "Industrial Policy and Monopoly Capitalism in Nigeria: Lessons from the Dangote Business Conglomerate." *Development and Change*
- Kaldor, N. (2007) *Causes of Growth and Stagnation in the World Economy* (1st published 1996, digitally printed version 2007.). Cambridge, UK: Cambridge University Press.
- Kalecki, Michal. 1954. 'The Problem of Financing Economic Development'. In *Collected Works of Michal Kalecki*, edited by Jerzy Osiatynski, Volume V Developing Economies:21–44. Oxford: Oxford University Press

References

- Lin, J.Y. (2012) *New Structural Economics: A Framework for Rethinking Development and Policy*. World Bank.
- Lo, D. and Y. Zhang (2011) 'Making Sense of China's Economic Transformation', *Review of Radical Political Economics* 43(1): 33–55.
- Monga, C. (2013) 'Winning the Jackpot: Jobs Dividends in a Multipolar World', in J.E. Stiglitz et al. (eds) *The Industrial Policy Revolution II - Africa in the 21st Century*, pp. 135–72. Houndmills: Palgrave Macmillan.
- North, D.C. (1990) *Institutions, Institutional Change and Economic Performance*. Cambridge University Press.
- Ovadia, J.S. and C. Wolf (2018) 'Studying the Developmental State: Theory and Method in Research on Industrial Policy and State-Led Development in Africa', *Third World Quarterly* 39(6): 1056–76.
- Palley, T. (2006) 'Great Controversies: Developing the Domestic Market', *Challenge* 49(6): 20–34.
- Razmi, A. and R.A. Blecker (2008) 'Developing Country Exports of Manufactures: Moving Up the Ladder to Escape the Fallacy of Composition?', *Journal of Development Studies* 44(1): 21–48.
- Sarkar, P. and H.W. Singer (1991) 'Manufactured Exports of Developing Countries and Their Terms of Trade since 1965', *World Development* 19(4): 333–40.
- Storm, S. (2020) 'Macro-Policy, Labour Markets, and Industrial Policy', in A. Oqubay et al. (eds) *The Oxford Handbook of Industrial Policy*, pp. 450–84. Oxford University Press.
- Thirlwall, A.P. (1992) 'A Kaldorian Model of Growth and Development Revisited: A Rejoinder to Dutt', *Oxford Economic Papers*, New Series 44(1): 169–72.
- Thirlwall, A.P. (2013) *Economic Growth in an Open Developing Economy - The Role of Structure and Demand*. Cheltenham (U.K.) and Northampton (Mass.): Edward Elgar.
- Toner, P. (1999) *Main Currents in Cumulative Causation: The Dynamics of Growth and Development*. New York: Palgrave Macmillan.
- Wolf, C. (2017) 'Industrialization in Times of China: Domestic-Market Formation in Angola', *African Affairs* 116(464): 435–61.
- Young, A.A. (1928) 'Increasing Returns and Economic Progress', *The Economic Journal* 38(152): 527–42.