

South African Reserve Bank Occasional Bulletin of Economic Notes OBEN/19/02

South African Reserve Bank Economic Notes are typically short economic analyses initially written for internal discussion and to stimulate debate. They are written by staff members of the South African Reserve Bank or visiting fellows and are released publicly on an occasional basis.

Authorised for publication by:
Chris Loewald

August 2019



South African Reserve Bank

SARB Occasional Bulletin of Economic Notes

August 2019

Contents

1. Capital flow reversal and impacts through the financial sector
Konstantin Makrelov
2. A novel supply-side approach to estimating the impact of load shedding on GDP growth in South Africa
Kgotso Morema, Jeffrey Rakgalakane, Theresa Alton and Pamela Mjandana
3. *Assessing the accuracy of the SARB's growth forecasts*
Riaan Ehlers, David Fowkes, Nkhetheni Nesengani and Rowan Walter
4. South Africa's disinflation: A cyclical phenomenon
Thulisile Radebe
5. The industrial policy debate: State of affairs
Witness Simbanegavi
6. The effectiveness of the Employment Tax Incentive
Bojosi Morule and Konstantin Makrelov

The views expressed in these Economic Notes are those of the author(s) and should not be attributed to the South African Reserve Bank or South African Reserve Bank policy. While every precaution is taken to ensure the accuracy of information, the South African Reserve Bank shall not be liable to any person for inaccurate information, omissions or opinions contained herein.

Information on South African Reserve Bank Economic Notes can be found at [http://www.resbank.co.za/Research/Occasional Bulletin of Economic Notes/Pages/EconomicNotes-Home.aspx](http://www.resbank.co.za/Research/Occasional%20Bulletin%20of%20Economic%20Notes/Pages/EconomicNotes-Home.aspx)

Enquiries

Head: Economic Research Department
South African Reserve Bank
P O Box 427
Pretoria 0001

Tel. no.: +27 12 313-3911
0861 12 SARB (0861 12 7272)

© South African Reserve Bank

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without fully acknowledging the author(s) and these Economic Notes as the source.

The industrial policy debate: State of affairs

Witness Simbanegavi

Abstract

Until recently, industrial policy was viewed by many as a veil for protecting inefficient and dying industries. Most developing countries however maintained faith in industrial policy as a vehicle for modernising and enhancing competitiveness of their economies, though the results have often been disappointing. The discourse on industrial policy has since evolved, more so post the global financial crisis. Well-designed industrial policy is now widely accepted as an important and appropriate lever for effecting structural transformation and diversification of economies. Industrial policy should: seek to create new comparative advantages for the economy; support the discovery process focusing on activities that generate positive spillovers to other sectors; and be integrated with other policies such as innovation, competition and education. State capacity, political will and robust institutions are essential integral elements for success.

Introduction

Industrial policy is perhaps one of the most contested policy terrains. It can mean different things to different people: from governments shielding inefficient firms from competition, to choosing to do nothing, to interventions designed to promote activities that generate positive spillovers for the economy. Whereas proponents contend that it is fundamental for structural transformation of economies, opponents view it as governments trying to ‘pick winners’ and often point to the many failures of targeted industrial policy interventions blighting the history of industrial development.

The disdain with which many have viewed industrial policy is due to the manner in which policies have been crafted and implemented in the past. Governments have often intervened to preserve inefficient or declining industries through industrial policies on political grounds, and at very high costs to the fiscus, and to societal welfare. Often industrial policies conflicted with other policy goals, e.g., structural transformation. “Industrial policy in this mode was ineffective, since its goals contradicted other policies and did not create synergies with innovation, education, 'No industrial policy is the best industrial policy' was the conclusion in the U.S. and 'horizontal industrial policy only' was Germany's mantra” (Aiginger, 2014).

Things however have changed with the recent resurgence of industrial policy as a mainstream policy tool. Successes of the Asian Tigers and China with industrial policy have forced a rethink. While there is no universally accepted definition of industrial policy, a broad scan of the recent literature¹ allows one to synthesise the current thinking. Industrial policy can be characterised as any policy intervention(s) aimed at positively influencing one or more of the following: restructuring and diversification of the economy; enhancing competitiveness; engendering resilience of industry (and economy) to shocks; enhancing innovation, skills development, and equity considerations. The envisioned outcomes of such interventions

¹ See UNIDO, 2013; OECD Observer, 2013; South Africa’s National Industrial Policy Framework, 2006; and EU etc.

* The views expressed in this Economic Note are those of the author(s) and should not be attributed to the South African Reserve Bank or South African Reserve Bank policy. While every precaution is taken to ensure the accuracy of information, the South African Reserve Bank shall not be liable to any person for inaccurate information, omissions or opinions contained herein. See contents for further details.

include: enhanced domestic production capabilities; increased domestic and international competitiveness, and more and better quality jobs, and higher living standards more generally.

Industrial Policy Implementation: Bi-Polar Experiences

The experiences of the Asian Tigers and China show that industrial policy can work. South Korea, Taiwan, Singapore and Hong Kong successfully leveraged industrial development to grow their economies. Well-designed and carefully implemented industrial policies allowed these countries to build new comparative and competitive advantages in selected sectors. China's phenomenal rise on the back of sectoral industrial policies, which enabled the country to move more than half of its population out of poverty within a generation, has revived interest and belief in the potency and efficacy of industrial policy for growth and development. China's success with industrial policy has all but "*wiped out the stains from previous economic failures and has made industrial policy legitimate again*" (Aghion et al., 2011).²

However, industrial policy hasn't delivered to all who have walked that path. Many have had their fingers burned. Efforts by Latin American countries to leverage industrialisation didn't bear much fruit, and these countries are often cited as examples of failed industrial policies (Delvin, 2013; Peres and Primi, 2009). The same is true of most African countries, with perhaps the exception of Mauritius. Despite their efforts to engineer industrialisation post-independence, initially in the spirit of import substitution industrialisation, and later the Washington Consensus, success has remained elusive. Industrial capacity in most sub-Saharan African countries has largely collapsed. South Africa remains the most industrialised economy on the continent but its industrial capacity too has substantially shrunk notwithstanding substantial government support directed at the industrial sector.

The contrast between the success cases and the failed cases is stark. The co-existence of success and failure from seemingly the same policies spurred further research and introspection among both academics and policy makers. It turns out that a major difference between the success stories and the not so successful ones appears to be the design and implementation of industrial policies, including institutions and political commitment. As noted by Rodrik (2004) and Stiglitz (2015), East Asian policy makers, unlike their Latin American counterparts, applied stick (penalties) and carrot (rents) measures in equal proportions, thus better aligning incentives.

The 'New' Industrial Policy

Thinking on industrial policy has shifted from the 'protectionist' and firm view ('picking winners') to creating enabling environment for enterprise development. The debate is no longer about command versus market economy, but about addressing market failures with the understanding that government interventions can, and often do, create distortions in markets. "Free" markets have limitations requiring intervention by the state. As Rodrik (2008) argues, one of the reasons why poor countries remain poor is that markets in these countries do not work as efficiently as they could to stimulate structural transformation, resulting in countries being trapped in a low-level equilibrium.³ Market failures in relation to industrial development can broadly take one of two forms – information and coordination externalities

² Stiglitz (2015) writes: "industrial policy is back in fashion, and rightly so". See also UNECA (2014, 2016) and Aiginger (2014).

³ Inefficiencies of markets are not restricted to developing economies however. Aghion et al. (2011) lament how, pre global financial crisis, laissez-faire policies had led several countries, in particular Southern European countries, to allow the unfettered development of non-tradable sectors at the expense of tradable sectors that are more conducive to sustainable growth and competitiveness.

(Rodrik, 2004; Stiglitz, 2015; Aghion et al., 2011).⁴ Thus, laissez-faire is unlikely to deliver the socially optimal production transformation and economic diversification.

As Rodrik (2004) points out, transformation and diversification require discovering the technologically feasible and commercially viable production methods given the domestic economic environment. Entrepreneurs must experiment with ‘new products’ or new ways of producing available products using domestic resources, and this is costly. The activity of discovering the cost structure of an economy has high social value to the economy, but the risk of carrying out the activity is borne solely by the investor. This lop-sided risk allocation associated with the self-discovery process provides disincentives for the entrepreneur, resulting in under-investment.⁵ In this case, there is said to be an information externality impeding the process of cost discovery for the economy.

Coordination externalities arise when there is failure to properly coordinate or sequence investments in a way that makes private investments profitable. This often is the case with high fixed cost investments if such investments are to be undertaken by several different self-interested and individually rational parties. Furthermore, because contracts are typically incomplete, hold-up problems can arise. Under these circumstances, entrepreneurs may not be able to coordinate their investments in a way that makes it worthwhile for each individual entrepreneur to invest, particularly if the profitability of each firm’s investment depends in part on investments by other firms, and the benefits are not necessarily localised or the industry is not that well organised. Thus, in the absence of government intervention, potentially profitable new industries may not arise.

Addressing market failures

The above market failures militate against self-discovery and thus impede emergence of new industries. The policy challenge is to afford rents to the entrepreneur to make self-discovery investments worthwhile. Directly subsidising self-discovery would be the first-best policy intervention. Unfortunately, this is subject to moral hazard. To mitigate moral hazard, ‘rents’ can be made conditional on measurable performance indicators or to close monitoring of resource use (e.g., venture capital). The idea is to reduce the financial exposure of the entrepreneur by ‘socialising’ self-discovery risks. Put differently, rents are meant to raise the marginal private benefit so that it equals the marginal social benefit, which is the condition for socially optimal investment. Investment tax incentives could also work, provided they sufficiently discriminate between ‘new’ activities (expanding productive structure) and existing activities (expanding production).⁶ Market failures due to imperfections in capital markets could be mitigated through, for example, concessionary lending to innovative enterprises or risk sharing by development finance institutions. Coordination externalities could, subject to adequate monitoring, also be resolved through such interventions as investment guarantees.

Three important things to note: First, resolution of these forms of externalities is unlikely to occur without government intervention. Second, these externalities do not require resolution at the firm level, but rather at a much broader level. Finally, resolving market failures doesn’t of necessity impose a financial obligation on the sovereign.

⁴ There are also market failures due to imperfections in risk and capital markets, whereby financial markets underinsure risks associated with, or sub-optimally fund, investments in new industries and products, resulting in suboptimal development.

⁵ New innovations associated with R&D expenditures get rewarded through the patent system, hence there are no market failures associated with R&D induced innovations. ‘Self-discovery’ investments as discussed here generate non-patentable ‘innovations’, hence competitors will immediately imitate successful innovations, denying the ‘innovator’ the opportunity to recoup costs.

⁶ However, in the presence of learning externalities associated with increased production, subsidies for existing activities may be warranted.

Recent research on, and practice of, industrial policy have brought much clarity to our understanding of an effective industrial policy architecture. Below we characterise a taxonomy for industrial policy. In particular, **industrial policy should:**⁷

- Seek to foster cooperation between government and the private sector to bridge the information gap, but ought to be at ‘arms-length’.
- Promote the discovery process by industry, support activities that generate positive spillovers to other sectors and avoid picking winners.
- Target activities and broad sectors, never firms; it should promote new activities not prevent exit or protect non-viable domestic firms.
- Create new comparative advantages to diversify the economy; it should stimulate exports, not prevent imports; favour, and not impede, competition.
- Be forward looking, yet follow markets instead of leading them; it should shape incentives and should seek to prevent 'lock-in' situations of investing in old technologies.
- Be integrated with other policies such as innovation, competition and education.

The above taxonomy constitutes a useful framework for developing the operational principles for effective industrial policy. The above precepts find expression in different forms in the industrial policy documents and philosophies adopted by many institutions and countries, including the OECD, UNIDO, and the EU. Other factors are also essential for designing and implementing industrial policy. Identification of market failures requires the state to somehow gather correct and appropriate information, properly analyse it and develop appropriate policies. Information gathering requires well-functioning platforms for cooperation and dialogue between government and industry, while policy design and implementation requires strong state capacity.⁸ The challenge for the state is knowing its own capacity and limitations, and formulating policies consistent with its capacity. Political will and quality of institutions also matter for industrial policy. Lack of political commitment at the top breeds policy uncertainty and undermines investor confidence. Strong institutions, on the other hand, foster confidence and empower bureaucrats to implement agreed upon policies without fear or favour.⁹

Conclusion

Industrial policy as a discipline and a practice is alive and well, and has moved away from the old backward looking practice of largely protecting failing enterprises to focusing on creating an enabling environment for enterprise development. This reorientation of industrial policy is partly informed by the many failures of the old industrial policies which were prone to capture, decelerated structural change and slowed

⁷ The following draws extensively from Aiginger (2014).

⁸ State capacity also has a bearing on industrial policy capture due to information asymmetries, with information asymmetries between industry and government likely more severe, and thus capture more likely, the less capacitated the bureaucracy.

⁹ As Rodrik (2008) and Stiglitz (2015) remind us, although industrial policy tends to be singled out, the challenges associated with the design and implementation of industrial policy (state capacity, capture by special interests, etc.) are common to other policy spheres.

technological progress; and the changing nature of manufacturing itself, in particular the servicification of manufacturing.

We have articulated a taxonomy for industrial policy which should serve as a guidepost, ensuring that policy provides the right incentives to industry, supports transformation of economies, and is less prone to capture. Specifically, industrial policy should seek: to create new comparative advantages for the economy; support competition and competitiveness; support the discovery process, focusing on activities that generate positive spillovers to other sectors; help prevent path-dependent decisions that lead to 'lock-in' problems; and be integrated with other policies such as innovation and education policies.

Other things being equal, there are four key issues to contend with in designing appropriate and effective industrial policies. First, government need to correctly identify market failures if policy is to be effective. Second, the state must have a realistic appreciation of its own capacity, and design policies to its strengths. Third, industrial policy is political and thus requires committed political principals to drive it. Finally, strong institutions are indispensable for successful industrial policy, as they imbue confidence to industry, help keep policy makers in check, and empower bureaucrats to implement agreed upon policies without fear or favour.

References

Aghion, P H, Boulanger J and Cohen, E. 2011. 'Rethinking industrial WWW policy'. *Bruegel Policy Brief No. 04/2011*.

Aiginger, K. 2014. 'Industrial policy for a sustainable growth path', *WWWforEurope Policy Paper Series No. 13*.

Delvin, R. 2013. 'The era of new industrial policies in Latin America'. Paper presented at the ILO and Friedrich Ebert Stiftung Workshop on Boosting economic dynamics and job growth: the potential of industrial policies, Geneva, 4–5 March.

Luzio, E and Greenstein, S. 1995. 'Measuring the performance of a protected infant industry: the case of Brazilian microcomputers'. *The Review of Economics and Statistics* 77(4): 622–633.

McKinsey&Company. 2012. *Manufacturing the future: the next era of global growth and innovation*.

OECD. 2013. 'Industrial policy's new look'. *OECD Observer* (296) Q3 2013.

Peres, W and Primi, A. 2009. 'Theory and practice of industrial policy. Evidence from the Latin American experience'.

Rodrik, D. 2008. 'Industrial policy: don't ask why, ask how'.

Rodrik, D. 2004. 'Industrial policy for the twenty-first century', Paper prepared for UNIDO.

Stiglitz, J E. 2015. 'Industrial policy, learning, and development'. *WIDER Working Paper Series No. 2015/149*, December. Helsinki: World Institute for Development Economics Research.

South Africa. the **dti**. 2006. 'National industrial policy framework'. Pretoria: Government Printer.

UNECA. 2016. 'Transformative industrial policy for Africa. *Economic Report on Africa 2016*'.

UNIDO. 2013. *Industrial development report 2013: Sustaining employment growth—the role of manufacturing and structural change*. Vienna: United Nations Industrial Development Organization.