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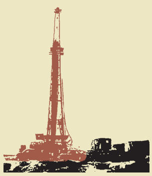

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The failure of Algeria's industrialization strategy (1967–1989): a new structural economics perspective

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Abstract

Following the theoretical framework of New Structural Economics, this article attempts to explain why Algeria's industrialization strategy failed over the period 1967–1989. Based on this approach, this paper shows that the overdevelopment of a big push industrialization strategy in Algeria since independence, which prioritized capital-intensive heavy industry, violates the comparative advantage principle identified by its factor endowments and gives rise to domestic market distortions and the misallocation of scarce resources. Simultaneously, to scaffold such a development mode, the Algerian government put forth an organic yet deeply distorted system. We conclude that the experience engendered serious weaknesses in Algeria's industrial structure and planning, and it resulted in an unbalanced economic structure. Thus, Algeria's industrialization strategy was disappointing in terms of economic outcomes and impact. This failure is often perceived as one of the main origins of the political, social and economic crisis faced by the country for more than a decade. Our findings suggest that the redesign of growth and industrialization strategies should better reflect Algeria's endowments structure and level of development. Indeed, consistency of a broad-based and industry-based economy with its comparative advantage is one of the best ways to achieve high sustainable economic growth in Algeria.

Keywords: industrialization, new structural economics, economic growth, Algeria.

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1. Introduction

When Algeria gained independence in 1962, Algerian political leaders looked forward to building a strong and prosperous country, and considered

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industrialization to be the cornerstone of economic development. Soon after its founding, Algeria implemented a planned economy and adopted a big push industrialization (BPI) strategy, prioritizing heavy industries, under ideological and nationalist agendas. The purpose was to develop, as soon as possible, advanced capital-intensive and technology-intensive industries to keep pace with the developed world, modernization and development (Lawless 1984; Bennoune 1988; Ruedy 2005).

In the mid-1960s, Algeria, like many other developing countries, was urged to seek modernization and industrialization. At that time, structuralism was the mainstream economic model for development, which advocated a big push strategy, that is, government-led resource allocation, import substitution policy, and development of modern capital-intensive industries (Rosenstein-Rodan 1943; Lin 2021). The first years after the strategy was implemented, Algeria witnessed rapid growth driven by investment, and made progress in transforming its economy in the mid-1960s and 1970s. However, since the early 1980s, the country saw a slowdown in growth followed by long periods of stagnation and frequent crises (Hill 2004; Lowi 2009; Talahite 2018).

Algeria poses a particular puzzle, given its limited economic transformation compared to other countries in the world. The BPI driven economic transformation record of the Algerian economy since independence has not been good. Since the 1980s, there has been growth, but it has not been accompanied by much economic transformation. Both internal and external factors – particularly higher international commodity (oil and gas) prices, new resource exploitation opportunities, and government spending fueled by increases in petroleum tax revenues and foreign aid – contributed to this growth, whose sustainability and equity are, however ,not fulfilled (Jomo 2019; Stiglitz 2021). Even with such growth, the average real per capita income has not greatly increased compared to that of 1980. Moreover, Algeria's development and welfare indicators have decreased vis-à-vis other countries.

With trade liberalization and the structural adjustment programs adopted since the late 1980s, Algeria has experienced a wave of deindustrialization and transformation from being a net exporter to a net importer of food (in large part due to low agricultural productivity). Consequently, a quarter of the population lives below the poverty line, unemployment and underemployment rates are high, and most of the population in the country depends on low-productivity informal sectors, including agricultural activities, as the primary income sources. At the turn of the twenty-first century, Algeria is less industrialized today than it was four decades ago, with an economy looking remarkably similar to what it was at the time of independence. The level of dependence on oil and gas revenues is increasing – hydrocarbons revenue account for approximately 60 percent of Algeria's gross domestic product (GDP) and for 97 percent of foreign earnings. The development of the hydrocarbons sector is therefore at the heart of maintaining the country's economic, social and political stability (Boucetta 2016).

All economies, including Algeria, that pursued the BPI strategy have failed. This failure is often perceived as one of the main origins of the political, social and economic crisis faced by the country for more than three decades. This paper explores reasons for the failure in Algerian industrialization after independence. Accordingly, many researchers agreed that the period 1967–1989 (which witnessed the emergence and disappearance of the industrialization strategy in Algeria) represents the only serious attempt to industrialize the country (Begga and Merghit 2014; Talahite 2016).

In fact, a significant body of literature has researched and debated this question. However, much current knowledge about the root causes of development failure in Algeria focuses on the symptoms or consequences of problems, not their true origins. In other words, the critique focused on how to implement BPI or whether it has costs, rather than if the strategy itself is applicable or not in a specific context. For instance, numerous authors have argued that the strategy had been given less than a decade to prove itself, not nearly long enough by any standard to produce results (see Bennoune 1988; Ruedy 2005). Some observers point to the fact that this strategy did not lead to building the technological capabilities required for the public-owned firms to become efficient and internationally competitive (see Benachenhou 1993; Temmar 2015). Common to the strongly-held conviction in contemporary Algeria, the political leaders decided right for their country. However, their "good" development strategy caused problems, as they were either inexperienced in industrialization, or they possessed weak management capabilities. Finally, several scholars have emphasized the important impact of the country's institutional inheritance on the industrialization process and highlighted various types of "government failure", lack of political commitment, "capture" by interest groups, and a lack of bureaucratic capabilities as reasons for the failure (Hill 2004; Lowi 2009; Begga and Merghit 2014; Talahite 2018).

This paper adopts the New Structural Economics (NSE) as an analytical framework to discern the success or failure of a development strategy (Lin 2009, 2012a, 2012b). The NSE constructs an innovative theory that addresses new approaches and initiatives currently under experimentation in developing countries. It informs the direction of successful structural transformation and key sectors in which a country should invest. Algeria is a particular focus area of this theory. The country deserves careful study and discussion by scholars conducting research on appropriate industrial policy, as well as those researching development more broadly. From our perspective, the NSE approach provides the best answer to why Algeria's post-independence industrialization strategy failed and offers some lessons for policymakers. According to this theoretical framework, the reason behind the failure of Algeria's industrial policy is related to the wrong strategic choice the government made, as far as the appropriate development mode is concerned. In other words, Algeria did not suffer incorrect implementation procedures or an inappropriate duration, rather the fallacies reside in the goals set by policymakers, which were inconsistent with their country's development level and its endowment structure at that time. We argue that development policy shaped by ideas embodied in dysfunctional development thinking was responsible for the failure of Algeria to catch up with the West. Structuralism (Hirschman 1958; Perroux 1963; de Bernis 1966) wrongly advised Algeria on how to achieve industrialization and modernization.

Indeed, Algeria has ignored the existing comparative advantages based on its factor endowments, and focused on developing its industries regardless of their economic efficiency. Therefore, Algeria's industrialization strategy was disappointing in terms of the economic outcomes and impacts: the government persisted with intervention in the wrong industries, which hurt the performance of the Algerian economy, and uncompetitive and inefficient public enterprises emerged. The consequences were disastrous: despite being formulated with good intentions, they were guided by the wrong ideas.

The paper is organized as follows. Section 2 briefly introduces the main ideas of New Structural Economics. Section 3 provides a general background to the industrialization process in Algeria, and examines the contradictions inherent in the development mode during the 1967–1989 period. Section 4 discusses the implementation and performance of the industrialization strategy in Algeria, and section 5 attempts to outline the causes of its failure. Some concluding remarks complete the paper.

2. New Structural Economics

The NSE is an original and helpful theoretical framework for scholars of international development, as well as a reference guide for policy and practice in government and business in many developing countries. Based on history, economic analysis and empirical evidence, Justin Lin (2009, 2012a, 2012b), former chief economist of the World Bank and proponent of the NSE approach, identified economic development as the process of continuous technological innovation and industrial upgrading that, in turn, caused structural transformation.

The NSE contains elements of both neoclassical and structuralist perspectives. According to this theory, industrialization is the core of development policy agenda. Lin started by analysing the economy's factor endowments as a major determinant of industrial and technological structure in the economy at a given time: the change in industrial/technological structure is driven by the change in endowment structure (as in the Heckscher-Ohlin approach).

Then, he examined the way of saving and investing the surplus produced in economy (echoes of some older structuralist ideas). Besides, Lin studied how this process brings about capital accumulation and structural change, involving the production of more technologically sophisticated goods (Dutt 2019; Lin and Zhang 2019).

Lin (2012a) believes that the surest growth path for a developing economy is through developing its industries by following the comparative advantages determined by its endowment structure. With such industries, and appropriate hard (such as power supply, road networks, and port facilities) and soft (such as institutions, social capital, and value systems) infrastructure, the economy will be more competitive, with the largest surplus, the highest possible returns on capital, and so the largest possible savings. Therefore, the fastest upgrade of the endowment structure will be ensured, and the most rapid industrial upgrade and income growth will be achieved, leading to convergence with high-income countries (Ju et al. 2015; Lin 2017, 2021).

Although Lin advocates the market as the engine of growth and structural change, he also accentuates information scarcity, infrastructure backwardness, coordination failure, and unwillingness of enterprises to invest in developing countries, which make it difficult for countries to rely on market mechanisms alone to explore and allocate resources efficiently to make use of their comparative advantages. Therefore, for the sake of accelerating growth, governments ought to facilitate structural transformation and industrial upgrade. In the new structuralist approach, an informed and competent state has a significant role to play as a leader of change and as a cushion to any market dysfunctionalities. Accordingly, the government has an active role as a facilitator in (i) guiding the economy by identifying the sectors of latent comparative advantages with low factor costs of production but too high transaction costs to be competitive, and in (ii) overcoming obstacles by means of providing information, coordinating infrastructure construction, offering incentives, attracting FDI and so on, to turn the latent comparative advantages to competitive advantages (Das 2015; Xiaoyang 2019). In Lin's view, an efficient market and a facilitating state are the two institutional preconditions for a country to develop according to its comparative advantages, as determined by its endowment structure (Lin 2021).

Indeed, consistent with the theory of comparative advantage, Lin identified two major types of economic development strategies: (i) to abide by comparative advantage (comparative advantage following (CAF) strategy), or (ii) to run contrary to comparative advantage (comparative-advantage defying (CAD) strategy). He believes that following the comparative advantage strategy allows developing countries to achieve faster economic growth and converge with developed countries sooner. If a country follows its comparative advantages in its development strategy, it will be an open economy, specializing in the export of whatever it has comparative advantage in and importing goods and services in which it has no comparative advantages. Due to its competitiveness, domestically generated macroeconomic crises will not be experienced, and the economy can withstand external shocks and will be able to sustain macroeconomic stability (Lin 2013; Zhang and Li 2018). For Lin, industrial upgrade and restructuring within the economy's existing comparative advantage determined by its factor endowments should be emphasized, in addition to the government's facilitating role in helping the private sector to exploit comparative advantage.

In contrast, Lin warns against protectionist policies that attempt to deviate too much from comparative advantage because they encourage the creation of unsustainable industries (advanced capital-intensive industries that are inconsistent with their comparative advantage driven by its factor endowments) for which the country lacks the required skills and infrastructure; in addition, such industries encourage corruption and rent seeking. According to NSE, countries need to be very careful about selecting options that are too "distant" from their capabilities, and the reason that industrial policies fail in some countries is because "they fix their sight and policy on an ideal industrial structure linked to modernisation, but this kind of structure is usually capital- and technology-intensive, a characteristic in countries where income is higher than in their own". "This kind of thinking is contrary to comparative advantage and the cost is high for quality governance in finance and government" (Lin and Chang 2009).

Finally, developing countries can learn three main points from NSE thought. First, economic development highly depends on gradual changes in the patterns of specialization and trade and on the growing technological and innovation capabilities of the country. Second, to successfully upgrade industrial structure, a developing country must adopt a comparative advantage following a development strategy based on its factor endowment. Third, despite a free, fair, and competitive market mechanism, governments of developing countries are advised to play a proactive role in facilitating industrial upgrading and structural transformation.

3. Algeria's industrialization process and comparative advantage defying strategy

Before its independence from France in 1962, Algeria was a dual society, characterized by a mixed industrialization pattern. Algeria was a poor and backward agrarian economy, and the corollary industry of the colonial French economic system was a minor sector (mainly dependent upon domestic manufacturing) that had insignificant contribution to economic growth, and that hired almost a colonial-urban-industrializing population. By contrast, a local majority (75 percent) of the population were dedicated to low-productive agriculture, as well as other manual activities such as mining and public works. The industry inherited from the colonizer was underdeveloped, mainly because the regime was more interested in extracting and exporting raw materials to metropolitan France. Meanwhile, an economic system heavily dependent on manufactured products from France was created (Lawless 1984; Benachenhou 1993).

When Algeria gained its political independence, most Algerian political and social elites considered the absence of industrialization – especially the large capital-intensive industries, which were the basis of military strength, political and economic power – to be the main reason behind Algeria's backwardness, poverty and weakness. Having advanced capital-intensive industries, therefore, was considered a major symbol of being a developed and politically powerful country. The leaders of the new regime had to decide which development strategy and administrative system to adopt. In response to the need for guidance in line with the political ideology and nationalism, many influential structuralist economists at that time advocated adopting a BPI strategy to transform the industrial structure and to reduce Algeria's dependence upon goods from colonial powers and other foreign economies (Rosenstein-Rodan 1943; Hirschman 1958; Perroux 1963; de Bernis 1966). According to Bennoune (1988), the goal of BPI was to liquidate the distorting effect of the colonial legacy, escape from dependence on primary exports, and break the vicious circle of poverty.

The central concern of the BPI strategy was to develop advanced capital-intensive industries with direct, administrative resource mobilization and allocation, similar to the practices of the Stalinist planning model in socialist countries. Therefore, Algeria implemented a form of the BPI strategy widely known as the "Industrializing Industries" model inspired by French economist Destanne de Bernis' work – a model that was rooted in Perroux's growth poles and Hirschman's unbalanced growth strategies. The Algerian economy took off during the late 1960s, and the BPI strategy seemed to be working.

During this time, some economies in Asia were pursuing an entirely different development approach. In the 1950s and 1960s, Japan and the four Asian tigers – Korea, Taiwan, Singapore, and Hong Kong – were quietly catching up with the developed countries. These newly industrializing economies grew rapidly from the 1950s to the 1970s by following an export oriented development strategy based initially on labour-intensive, small-scale industries and gradually climbing the industrial ladder to larger, more capital-intensive industries (Gereffi 1990; Naughton 2018; Lin 2021); contradicting the big push approach, which advocated import substitution to build up large heavy industries immediately. Table 1 provides a direct comparison of two contrasting industrialization strategies.