

# Policy Brief

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## Industrial Policy: A Guide for the Perplexed

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### Summary

Industrial policy is a controversial, even taboo, subject in policy circles. Yet it is widely practiced by advanced and developing countries alike<sup>2</sup>. This note tries to make sense of this paradox. It argues that industrial policy can be a useful weapon in the development policy arsenal. However, the effectiveness of industrial policy is more circumscribed than many of its practitioners think, and there are significant risks associated with getting it wrong, especially in a poor governance environment. The reluctance of mainstream policy thinkers to espouse it should be understood in this light. To succeed, industrial policy must conform with certain principles relating to its design and execution.

For the purpose of this short note, industrial policy is defined as government intervention in a specific sector which is designed to boost the growth prospects of that sector and to promote development of the wider economy. I exclude from this definition horizontal policies, such as investment in education, reinforcement of the rule of law and property rights, and so on, even though these horizontal policies can affect different sectors differently and so can be part of an industrial policy. I do so for the sake of brevity and because the importance of horizontal policies is widely understood, and there is much less controversy surrounding them than around sectoral interventions. To sharpen the focus further, I also exclude interventions at the sectoral level which aim to achieve other objectives than growth and employment, such as improving environmental and safety standards, as these interventions aim to correct well-recognized market failures and are also relatively uncontroversial.

Industrial policy so defined takes many shapes, including regulatory reform, subsidies, protection, and direct government ownership of enterprises, and it has a checkered past<sup>3</sup>. Its heyday was in the 1950s and 1960s, a period characterized by post-war recovery, rapid growth,

decolonization, and import substituting industrialization (ISI). Following the ideas of Hirschman (1958)<sup>4</sup> dynamic industrial sectors paying high wages and exhibiting strong backward linkages received special attention. While many developing countries did well during this phase, their inability to sustain growth following the oil shocks and inflation of the 1970s, the international interest rate hikes and Latin American debt crisis that followed, severely discredited ISI. Drawing on the example of a small number of successful “Asian tigers”, a new “outward-oriented” model of industrial policy became increasingly accepted. This entailed systematic promotion of key manufacturing export sectors which could exploit large world markets, but which also required imports of state-of-the-art machinery, the know-how of foreign investors, and maintenance of a competitive exchange rate (Dani Rodrik, Middle East Development Journal, 2008). Encouraged by some international organizations such as UNIDO and UNCTAD, many developing countries, for example, Brazil and India, continue to practice this model today, or at least, attempt to do so.

However, around the time of the fall of the Berlin Wall, and in some cases much earlier, other developing

(1) I thank Rim Berahab for excellent research assistance.

(2) A discussion of industrial policy in Australia, the EU and the US, for example, can be found in a volume edited by Jesus Felipe, Asian Development Bank 2014.

(3) UNIDO 2011.

(4) Hirschman, The Strategy of Economic Development, 1958.

countries began to adopt a more aggressive approach to free markets and international integration. These countries, which include Chile, Mexico, several members of ASEAN, as well as several East European countries that joined or are candidates to join the European Union, have pursued free trade agreements with all main trading partners, entailing across the board trade liberalization, including in consumer goods, and adoption of negative lists in foreign direct investment (meaning that all FDI is allowed except for a small number of sectors on the list). More recently, many of these countries have pursued behind-the border reforms of standards and regulations designed to facilitate international trade and investment as well as participation in global value chains, for example in negotiations under the just-concluded but as yet unratified Trans-Pacific Partnership and the Transatlantic Trade and Investment Partnership. Meanwhile, membership of the WTO has greatly expanded. All the WTO's present-day 160 or so members have agreed to disciplines on export subsidies, tariffs, Trade Investment Related Measures, and on Standards. These disciplines are far from waterproof, but they have placed genuine limits on measures that discriminate in favor of domestic firms and which could have been freely adopted before.

**« The focus of industrial policy has often been to promote innovative high-technology sectors but also to systematically protect and subsidize declining sectors such as agriculture »**

No country has given up on industrial policy, however. Although industrial policy has evolved and it has often changed its name, it remains. Even in the free-market-oriented “hyper-globalizers” of today, such as, to quote one example, Chile, the government intervenes at the sectoral level. The motivation is not necessarily to protect or to take countervailing action against other countries which protect, but it can be to boost competition, to remove cumbersome regulations, to harmonize regulations with trading partners, to encourage investment by reforming the mining code or zoning regulations, or to correct other market or information or coordination failures of various kinds. In advanced countries – which are not the main object of this note – the focus of industrial policy has often been to promote innovative high-technology sectors but also to systematically protect and subsidize declining sectors such as agriculture. Agriculture is the sector where, internationally, state capture is most complete, and also

where industrial policy of the least effective kind has reached its apogee. In recent years, as concerns about growth and productivity took on great urgency with the outbreak of the global financial crisis, and as traditional fiscal and monetary policy tools reached their limits, the interest in sectoral interventions has increased. The dramatic inroads made in previous decades by China and a number of other highly competitive Asian and East European economies in world manufacturing markets have added to the urgency.

**« The question is not whether to conduct industrial policy, but how »**

As Rodrik has argued, the question is not whether to conduct industrial policy, but how: “it is if anything too easy to make the case for industrial policy. Few development economists doubt that the market imperfections on which the theoretical arguments for industrial policy are based do exist, and that they are often pervasive”<sup>5</sup>. Indeed, there are numerous instances where it is difficult to imagine success without a joint effort between government and the private sector, requiring industrial policy. For example, in France and the United States, the Information and Communication Technology industry is inextricably connected to the defense establishment. In more mundane sectors, such as tourism, governments at the local and national level play a critical role in providing the transport infrastructure, security, protecting beaches and ancient monuments, developing and managing attractions such as museums and national parks, and in international marketing.

Yet, there are very different views about what industrial policy can and cannot achieve, and even on whether countries should be encouraged to pursue industrial policy at all. There is certainly no Washington Consensus on industrial policy. Even ardent proponents of industrial policy know that mistakes in industrial policy can be very expensive for the public purse and for the broader economy. In the remainder of this note, I draw on the most recent literature on industrial policy and on my own reading of long-term economic trends to elaborate some simple principles or rules that the practitioners of industrial policy should follow.

**“First, do no harm”**

The caution to doctors taking the Hippocratic oath is highly relevant for practitioners of industrial policy. As a widely cited World Bank report vividly illustrated (Bureaucrats in Business, 1995) government civil

(5) Middle East Development Journal, 2008.

servants are not naturally equipped to understand or guide businesses, especially those in highly competitive international markets. Bureaucrats should fear to tread in fields where even the most astute entrepreneurs regularly make mistaken investment decisions. Worse, there is a long history of state capture and corruption in instances where large subsidies or government purchases are involved, or where protection from international or domestic competitors is granted. To guard against major errors, governments should ensure that decisions taken are fully transparent, investments are paced, and that clear time-bound objectives are set and adequate monitoring and auditing mechanisms are instituted. Policies should be based on a continuous dialogue with a broad group of stakeholders, including firms, workers, suppliers, clients, and regulators, and should include scrutiny by those that are not directly involved in the sector in question.

### All Sectors Matter

Although much writing about industrial policy is concerned with a “leading” sector, and the forward and forward linkages to and from it, one must not lose sight of the fact that nearly all sectors of the modern economy depend heavily on other sectors as suppliers or clients, and every sector generates income that supports the final demand of consumers or investors. Successful economies tend to grow across a broad front, not just in one sector. A recent McKinsey study has shown that successful economies grow all or most sectors faster than less successful economies and tend to do so irrespective of their initial mix of sectors (McKinsey Global Institute, 2010). In other words, the mix of sectors at the starting point matters much less than growth within sectors. This regularity holds across all countries, and also across advanced and developing countries as separate groups. It also holds among the world’s fastest growing economies. In a recent paper (Dadush, “Is manufacturing the key to growth?” 2015), I examined the growth performance of 13 growth champions identified by the World Bank-sponsored Growth Commission, countries that grew at over 7% a year over 30 or more years<sup>6</sup> and concluded: “A case-by-case review of the composition of growth in these countries suggests that the characterization of the rapid growth process as a movement from agriculture to manufacturing is an oversimplification. Even when it is driven primarily by manufacturing, which is not always the case, rapid growth is accompanied by

advances in services and in non-manufacturing industry (construction, utilities) which account for a larger share of growth than manufacturing”.

The clear implication is that the underlying drivers of growth – those that affect all sectors – almost certainly dominate those that affect any one sector, and so industrial policies designed to “pick winners” have a relatively limited role to play. If this premise is accepted, industrial policy should look for opportunities to boost investment, productivity, and employment across all sectors of the economy, not necessarily privilege any one sector. Of course, this does not mean that industrial policy must operate simultaneously in all sectors, and that everything has to be done at once, only that critical reform and public investment opportunities may exist and should be sought in all sectors.

« Mistakes in industrial policy can be very expensive for the public purse »

### Don’t be obsessed with manufacturing

Manufacturing deserves attention. It generates the majority of export revenue in rich countries, and has historically seen rapid advances in productivity. However, manufacturing typically accounting for only 10-15% of employment in developing countries (and even less in the United States and several of the most advanced countries), and is also declining in relative importance as a source of value added and employment (Dadush, 2015). In other words, it is a small, relatively slow growing sector, in which international competition is intense. Because manufactures exports rely heavily on imported components, measured in value added terms, manufactures are a much smaller contributor to foreign currency earnings than is generally understood. And all this is true not only in advanced countries but also in most developing countries, where net foreign currency earnings originate overwhelmingly outside traditional non-resource-based manufacturing. Because the demand for manufactures exhibits low and declining income elasticity and since manufacturing is especially prone to automation, its long-term value added and employment trends are coming to resemble those of agriculture, albeit in less extreme form.

At the same time, for many developing countries, as well as advanced countries, globalization has brought

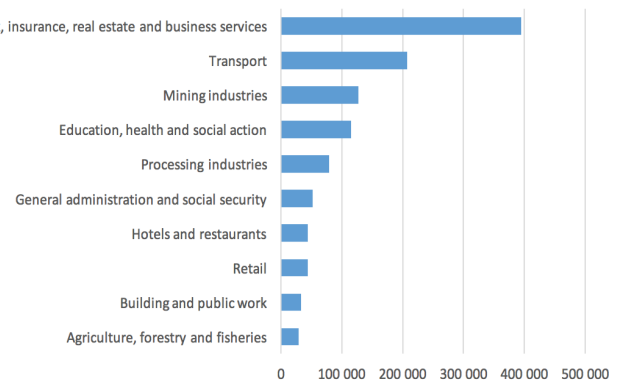
(6) These economies are Brazil, Botswana, China, Hong-Kong, Indonesia, Taiwan, Malta, Malaysia, Korea, Oman, Japan, Thailand and Singapore.

with it a considerable diversification of foreign currency earnings. This has occurred within manufacturing as well as outside it. Within activities that are classified as manufacturing, there are many opportunities to specialize in resource intensive sectors (such as agribusiness or petrochemicals) or in sectors that are essentially knowledge-driven and where the labor cost component of physical production is tiny (such as pharmaceuticals or semiconductors). Outside of manufacturing there are numerous new opportunities to export modern services (eg back-office functions), which tend to exhibit productivity levels and growth that are faster than manufactures (OECD, 2014), tourism, and transport services, as well as traditional exports such as primary commodities. Migrant remittances represent the largest source of foreign exchange in many small developing economies. All these potential sources of foreign exchange, not just manufactures, are the legitimate object of sectoral interventions (Dadush, Diasporas, Development and Morocco 2015).

### Job Creation is predominantly about Growing Employment in Services

Many developing countries suffer a large structural unemployment problem which manifests itself mainly in underemployment in the countryside, where a large part of the population is still stuck in subsistence or very low value added farming. In such circumstances, Industrial policy should place a high premium on employment, rather than focus mainly on promoting high productivity sectors which generate only a few jobs. Indeed, in developing countries with a large reservoir of surplus labor in the countryside, just about any job outside of traditional agriculture represents significant increased value added per worker. For example, in Morocco (Table 1), workers in agriculture are on average about 20% less productive than in building and public works, the next least productive sector, and about 35% less productive than in retail and hotels and restaurants. These numbers likely understate the differences in productivity because of the diversity of Moroccan agriculture, which is characterized by many smallholders and vastly more productive large farms.

**Table 1:** Labor productivity<sup>7</sup> in Morocco in 2013 by sectors (at chained 1998 prices, dirhams)



Source: HCP.

The data on job creation, not only in advanced countries, but also in developing countries is clear – job creation nowadays occurs primarily in services, and, within services, in the less glamorous “local services” sectors – which include retailing, tourism, and household help, among others (McKinsey Global Institute, 2010; Dadush, 2015).

### Tailor the solution

Industrial policy can take many forms, and there is no universal guide to the appropriate intervention in a specific case. Industrial policy can range from benign neglect (or even assistance in downscaling an obsolete activity), to undertaking reforms which enable a particular sector, such as deregulation, training and information, to hard interventions in favor of private firms, such as increased trade protection, tax breaks and outright investment subsidies, to full control of the sector by the state through a monopolistic provider.

There are very different profiles of cost and risk associated with these interventions. Enabling reforms are the least expensive and least risky. Yet, these relatively inexpensive enabling reforms, such as deregulation of the retail sector, clarifying land and home property rights, making it easier to obtain licenses, and making the mining royalty regime more transparent and predictable, can have very large impact on the sectors which are the most important employers as well as those that are the largest foreign currency generators.

Investment and tax incentives, as one has seen in the past in the automobile and semiconductor sector, may conceivably be justified as a temporary measure to prod more rapid development of an activity in which the country knows (or believes it knows) it has a comparative

(7) Ratio of real value added and employment.

advantage, or to counter the incentives provided by others. However, these interventions can also be very costly for the public purse, and, if accompanied with high protection, can also result in high prices and low quality products for consumers. State-owned monopolies or state participation may be justified in the initial phase of developing critical infrastructure, such as the electricity grid, communications networks, or the railway system, and monopolistic pricing power means that these initiatives are less likely to become a burden on the public purse. However, if incentives are blunted, such projects can impose large costs on the economy as a whole.

### Focus on what you can influence

There is a valid argument that industrial policy should pay special attention to traded sectors, since these are the sectors where the market failures and institutional weaknesses in developing countries weigh disproportionately on the ability of firms to compete (Hausman and Rodrik, 2006). But there is also an effectiveness consideration: sectoral interventions, including public investment, are more likely to achieve their objectives sustainably in non-traded sectors where competition is largely confined to national actors. Sectoral interventions are also more likely to yield the desired result in sectors which are traded and where the economy already has unique advantage, such as is often the case in resource-based activities. Government intervention in these sheltered or uniquely-endowed sectors are less likely to have to contend with the reactions of foreign firms or of countervailing actions by foreign governments, as is the case in sectors which are wide open to international competition. Moreover, given the extensive linkages between sectors, improving the efficiency of the sheltered or uniquely-endowed sector helps all other sectors, including the traded ones. The message is not that industrial policy should only target sheltered sectors, but that it should target traded sectors with special care. Large subsidies and extensive protection may be granted to a potential export sector, but government policy cannot ensure that durable competitive advantage is being created. Indeed, subsidies and protection can severely blunt incentives to compete and do better, and can result instead in rents and predatory pricing. Moreover, in an internationally competitive industry, subsidization and protection by one government will often result in subsidization and protection by other governments, and is more likely to result in global overcapacity than in sustainable growth at home. Such appears to have been the case in

sectors such as steel, semiconductors, and automobiles (McKinsey, 2010).

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### It is imperative for all sectors to learn

The 21st century global economy is characterized by the continued enormous gap in productivity between rich and poor countries, by “hyper-globalization”, which greatly facilitates the possibility to transfer know-how and so narrow the productivity gap, and the demonstrated ability of many developing countries to grow rapidly by putting the available know-how to good use. Such a context places a high premium on horizontal policies that can enable learning, such as openness to international trade and investment, an effective and inclusive education system and a strong investment climate. But industrial policy also has an important role to play as well. Investments and reforms in the transport and communications sector help open the economy to the world. And all sectors, whether they are traded or non-traded, have the opportunity to learn about the advanced techniques of the same sector in more advanced countries.

In traded sectors, this knowledge is absolutely critical for international competitiveness. But the efficiency of the non-traded sector is important in its own right and is also critical for the competitiveness of the traded sector. Yet, gaining access to the state-of-the-art practices is not easy, and is too expensive for individual firms, especially for SMEs. Thus, organized forums for exchange, such as trade associations with cross-border links, international trade fairs, and sectoral consultation mechanisms that include all stakeholders, including foreign investors, suppliers and clients, can be very valuable in the transfer of know-how and upgrading practices. Even though the establishment of such mechanisms can be encouraged by the public sector, the private sector has a strong incentive to participate, and they can be co-financed by membership fees, so drawing only minimally on the public purse.

Industrial policy is a complex and controversial subject. But policy-makers have little choice: they must engage in it, deploy its instruments selectively and wisely, while guarding against its many pitfalls.

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