

Is There Still A Role for Direct Government Support to Firms in Developing Countries?

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Abstract

Should governments in developing countries directly support firms with policies such as grants, subsidized loans, and training and consulting programs, or should they instead just aim to enact sensible regulatory and macroeconomic policies and not attempt to engage in industrial policy? While industrial policy has gained renewed attention in developed economies, it faces considerable skepticism in developing countries scarred by previous experiences and facing limited fiscal space. This paper discusses the rationale

for government involvement, and then lessons from a recent research agenda in development economics on how to target these programs, on whether they induce firms to undertake additional activities, on avoiding political capture, and on how these interact with competition. This work shows that these policies can deliver some of their promised benefits, but that there is still much to learn and the need for systematic and serious attempts at prospective impact evaluation as new policies are launched.

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Introduction

Industrial policy in developed countries have recently gone from being “the policy that should not be named” to being “back in a big way” (Van Reenen, 2023). In the United States the Inflation Reduction Act allocated \$400 billion in subsidies for solar, wind, electric vehicles and other green activities, the CHIPS Act provides \$39 billion in financial incentives to the semiconductor manufacturing industry; while a variety of programs provide small grants, subsidized loans, and free trainings to small and medium enterprises. In Europe, between 2014 and 2020, 67 billion euros were spent on “Smart Specialization” programs designed to explicitly support innovation and firm development in specific sectors in which it was thought particular regions might have a comparative advantage – with the goals of launching 15,000 new products, 140,000 new start-ups, and generating 350,000 new jobs (Gómez Prieto et al, 2019)

Yet in my discussions with operational staff at the World Bank and policymakers in developing countries, I often encounter a lot of skepticism about any form of direct support to firms (such as grants, subsidized loans, training, and consulting programs, etc.) that aim to help individual firms to grow, innovate, and be more productive. Instead they favor focusing on getting regulatory and macro policy right to support the whole economy and benefit firms indirectly. This skepticism is often underpinned by the historic experience with supporting infant industries and protectionism in many Latin American and African countries, which has tainted the idea of industrial support, linking it to an image of protected, unproductive firms, that benefit from political favoritism and that offer high prices and/or poor services to consumers. More recently, in a post-Covid era in which government budgets are tightening, there is also concern about public spending going to support relatively well-off firm owners instead of alternatives such as social programs.

Why might governments want to directly support some firms?

From a normative viewpoint, discussions of whether developing country governments *should* try to directly support firms are typically based on different theoretical arguments around market failures and externalities. As Rodrik (2019) has argued, the market failures which industrial policies target “in the markets for credit, labor, goods and knowledge have long been at the core of what development economists study”. While fixing these markets may be the first best policy solution, doing so can be difficult, and policies such as grants and subsidies can help firms better cope with these market failures. A second theoretical justification comes in the form of

externalities. Three types of externalities seem most important here. The first are the externalities to society of good productive jobs that are key drivers of poverty reduction and the structural transformation of developing economies. Supply-side efforts to provide training and skills to workers will have limited success if there is a shortage of employers wishing to hire these workers (Carranza and McKenzie, 2023). Second, externalities arising from pollution and the underpricing of carbon cause firms to underinvest in adoption of green technologies, prompting increasing interest in green industrial policies. Third, the types of technology adoption and innovation undertaken by developing country firms may be quickly copied by competitors, leading to a free-riding problem and spillovers that result in underinvestment. Finally, the strategic management literature argues that improving skills and strengthening firm capabilities are critical for innovation and productivity, so that the government should have a direct interest in supporting these activities as way of increasing overall economic performance (e.g. Teece and Pisano, 1994).

Whether or not one is convinced by these theoretical arguments, the practical reality is that most governments are pursuing some forms of these policies. This has been the case historically in many parts of the world. In addition to the famous use of industrial policy in East Asian countries, such policies have been used in the U.S. and Europe. For example, Bianchi and Giorcelli (2022) show how a World War II training program in the U.S. had positive and long-lasting effects on firm performance and the adoption of beneficial management practices, as well as positive spillovers on the supply chains of these trained firms. Juhász et al. (2023) document that advanced economies remain the highest users of industrial policy interventions. But such policies are also widely used in developing economies today, with countries using a range of business training programs, management improvement programs, investment readiness programs, innovation adoption subsidies and credits, partial credit guarantees, green technology initiatives, and other such programs that assist particular firms. The key question is then not whether governments should pursue such policies (they have decided they will), but rather what types of industrial policies they should use, and how these policies can be done better.

What has been largely missing from this policy debate until recently has been concrete empirical evidence on whether these programs deliver their intended results, and on whether the theoretical concerns of critics arise in practice. An active recent research agenda in development economics has started to provide some answers.

Targeting and Additionality of Firm Support Policies

Once governments have decided they want to provide some support to specific firms, a key question is then which firms they should support. It is impossible to take part in such policy discussions for very long without hearing the common refrain that “governments can not pick winners”, with the resulting concern that the firms that end up being supported will turn out to be failures. It is true that it is very hard to predict which firms will grow the fastest or benefit the most from a government program. For example, in a study of a large business plan competition in Nigeria, I found that, conditional on getting through an initial screening, expert judges, machine learning models, and economic models all had very low ability to predict which firms would grow fastest over the next three years (McKenzie and Sansone, 2019). However, governments typically do not need to identify the winners, they just need to design programs that attract high potential firms, and screen out those with little prospect for growth. Indeed in that same Nigerian business plan competition, using the fact that a lottery was used to decide among semi-finalists, I found that the government support causally resulted in higher firm survival, more profits, sales, and innovation, and higher employment over the next five years, including increases of over 20 percentage points in the likelihood of a firm having 10 or more workers (McKenzie, 2019). A second solution can be to support firms in stages, and have information revealed along the way that helps better determine which firms to support more extensively. The goal should not be to avoid failures: such programs should be aiming to support firms to undertake risky activities, in which it is likely that not all will succeed, which is part of the reason why the market can find it hard to privately finance such activities.

The second concern raised is that even if governments do support successful firms, they may just end up subsidizing them to undertake activities these firms were planning on doing anyway, thereby enriching the owners of these firms with no public benefits. This is often referred to as a lack of “additionality”, in that the funding does not induce firms to undertake additional activities. Many recent empirical studies do show that this concern is often overblown, and that when government programs subsidize or help firms to do something, firms indeed do more of this thing. For example, a directed lending program in India did get targeted firms to expand borrowing and use it to increase production (Banerjee and Duflo, 2014), a new loan product in China did get firms

to borrow more and increase sales (Cai and Szeidl, 2022), grants for science-industry collaboration in Poland led firms to do more collaboration on the project they applied for and to increase patenting (Bruhn and McKenzie, 2019), and firms provided with management consulting on Colombia use more consulting hours, improve their management practices, and increased employment (Iacovone et al, 2022).

Political Capture

However, these benefits and additionality are not automatic, but depend on programs being designed well and on them attracting the right firms as applicants. A concern is then whether many developing countries lack the state capacity to implement such programs well, and in particular, the risk of lobbying from powerful firms and politicians to use these programs to enrich themselves or their networks.

This is certainly a concern to take seriously. In attempts to evaluate matching grant programs to support innovation and firm upgrading in six African countries, my colleagues and I (Campos et al, 2014) found that political economy or capture reasons were often a proximate cause of low take-up of these programs by firms. This was often tied to red tape and bureaucracy. By making it complicated for firms to learn about and apply to these programs, only connected firms end up with access. For example, in one country I attempted to work in, the Chamber of Commerce ended up effectively writing the program regulations in a way that only its members would be eligible. There therefore needs to be a lot of effort devoted to making such programs simple and transparent to apply to. This is where there is a role for a third party organization to help set the rules, monitor, and oversee implementation. In the EU, the European Commission sets rules on the use of state aid that help prevent individual countries and politicians doling them out to their favorites. Having the World Bank or donors like FCDO/DFID hire staff for and oversee a project implementation unit and help write the eligibility conditions for programs can help a lot here.

The role of competition

Historically, infant industry approaches to industrial policy often aimed to protect firms from competition through tariffs, exclusivity, and other measures. But the concern is then that these protected firms have little incentives to improve and innovate, and never grow up. Instead, we heard in our work on a management improvement program in Colombia (Iacovone et al, 2022)

that it was the threat of competition from Chinese imports that put the impetus on family-run firms to try to improve their management practices through participating in the government program.

Supporting export- and innovation-oriented firms that are doing something different also alleviates the concern that helping some firms may just simply lead them to stealing the business of firms not supported, with no growth in the overall market. This is what happened with a subsidized loan program in China (Cai and Szeidl, 2022), with firms that got loans using them to take market share from those in the same industries that did not. In contrast, business training in Kenya helped firms to figure out new products to sell, and sales in the market as a whole expanded, with untrained women not being hurt by having others in their market receive training (McKenzie and Puerto, 2021). Supporting many firms so that they have to compete, rather than just protecting one firm, can help ensure these benefits arise. In a study of private schools in Pakistan, when only one school in a village received a grant, it increased capacity (taking students from other schools), but not quality, whereas when all schools got grants, they competed on quality and children's test scores improved (Andrabi et al, 2020). Supporting groups of firms can also generate additional benefits if they can learn from one another and form new network connections. In Colombia, providing consulting to small groups of firms that were not directly competing with one another delivered lasting improvements in management at one-third the cost of providing individual consulting (Iacovone et al, 2022).

Finally, another concern of policymakers is that subsidies for firms to use training or business consulting can end up undercutting the market for business service provision. However, empirically this often may not be the case, due to the presence of substantial information frictions in the market for business service provision. In a study in Nigeria, we found that most small and medium enterprises did not know of the existence of most service providers, found it hard to tell good from bad providers, and did not trust them (Anderson and McKenzie, 2022). A program which subsidized firms to try using HR consultants, accounting firms, and marketing firms not only improved management practices and firm growth, but also led to firms being more likely to go back to the market and use their own funds to buy more of these services. That is, government support, rather than undermining competition in business service provision, can be used to build market demand.

Coordination with Regulation and Taxation

The role and effectiveness of direct support to firms will also depend on the regulatory and tax environments. Regulations which protect incumbents and make entry and exit difficult, as well as those that make it hard for productive firms to expand, will likely limit the effectiveness of industrial policies. But regulatory efforts alone may do little to spur growth and innovation if firms are not able to take advantage of new opportunities because of the market failures and externalities that direct firm support is intended to help overcome. Governments should therefore aim to coordinate their direct and indirect efforts to support innovation and growth. Juhász et al. (2023) argue for an iterative process here, with coordination also with the private sector to understand where blockages and obstacles to productivity arise and how to best resolve these.

Acemoglu et al. (2018) raise the concern that some types of research and development (R&D) subsidies for innovation can be counterproductive, because they can help less innovative firms to survive longer, slowing down the process of reallocation to more innovative firm types. In contrast, they argue that taxing the operations of all firms can free up resources for R&D by encouraging the exit of low productivity firms. However, even in the United States there is empirical debate about how much of growth and innovation comes from reallocation (e.g. Hsieh and Klenow, 2017), and this process can be even less selective in developing countries. The principles discussed above for targeting direct support programs in a way that supports firms to do something different and avoiding political capture can help in mitigating this concern. Juhász et al. (2023) also argue that spending on customized public inputs such as customized job training and manufacturing extension services can be more cost-effective than general tax credits.

I do see a tax on firm profits as part of a way to sustainability finance direct support programs, since the government will collect more tax revenue if it succeeds in spurring firm growth. In addition, governments can benefit from paying lower social benefits if these firms hire additional workers, and may also consider giving innovation grants under a royalty model, in which firms that are successful pay a time-limited royalty back to the government that can also help finance the next set of projects. Israel's R&D Fund employs such a model, where firms that receive grants make royalty payments if their projects reach commercialization.

Support, but Evaluate

Despite well-founded skepticism about direct government support to firms, the above examples show that these programs can deliver benefits in terms of higher productivity, more innovation, and job creation. There are many design issues needed to ensure that these firms are targeted to the types of firms that have the potential to benefit from these programs, that the policy instruments do help firms overcome market failures and externalities, and that risks of political capture are minimized. Often these choices are based on copying what has been used elsewhere, or on ex-ante assessments involving considerable guesswork. But the innovation process is complex and risky, and obtaining proper counterfactuals of what would have happened without the policy is difficult. Building rigorous prospective impact evaluations alongside these projects to enable better measurement of impacts and adjustments along the way is needed. This is especially the case as new areas of government support such as the green agenda take hold.

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