

Is there still a role for direct
government support to firms
in developing countries?

Micro-level evidence on Firm Level and Market
Level Impacts

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Industrial Policy and Direct Firm Support

- Lots of renewed interest in industrial policy, but different levels at which it can be implemented, and concerns and possible benefits also can differ depending on level
 - *Whole economy/applies to all firms irrespective of industry or location*
 - E.g. R&D tax credit, flat rate tariff on imports, national regulatory reforms
 - *Industry/regional level – aiming to promote certain industries or region*
 - E.g. SEZ, industry-specific regulations, industry-specific tariffs etc.
 - *Helping specific firms*

Direct Firm support programs are common in both developed and developing countries

- Examples:
 - Business training
 - Management improvement programs
 - Matching grants
 - Subsidized loans
 - Incubators and Accelerators
 - Investment readiness programs
 - Innovation adoption subsidies and tax credits
 - Green technology innovation and adoption

Lots of push-back against direct firm support

- Targeting/additionality – can the government pick the right firms to support and does this support work?
- Political capture– does this support just go as rents to favored firms?
- Impact on market competition and private support services– do gains to supported firms just come from other firms in the economy? Does government provision undermine the private sector?
- Fiscal space – post-Covid, is this something governments should be spending their limited resources on?

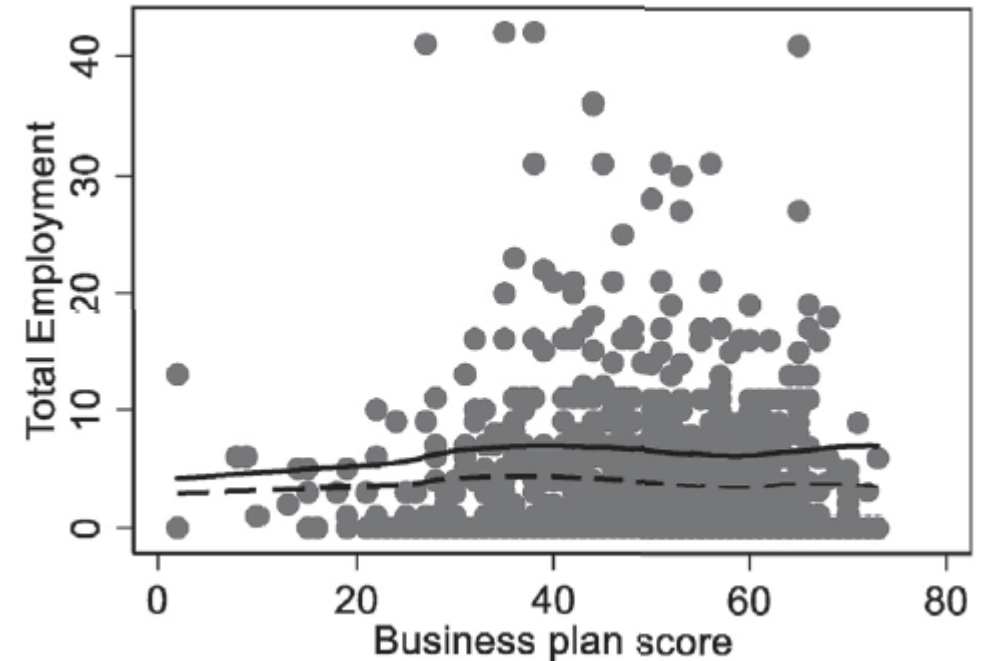
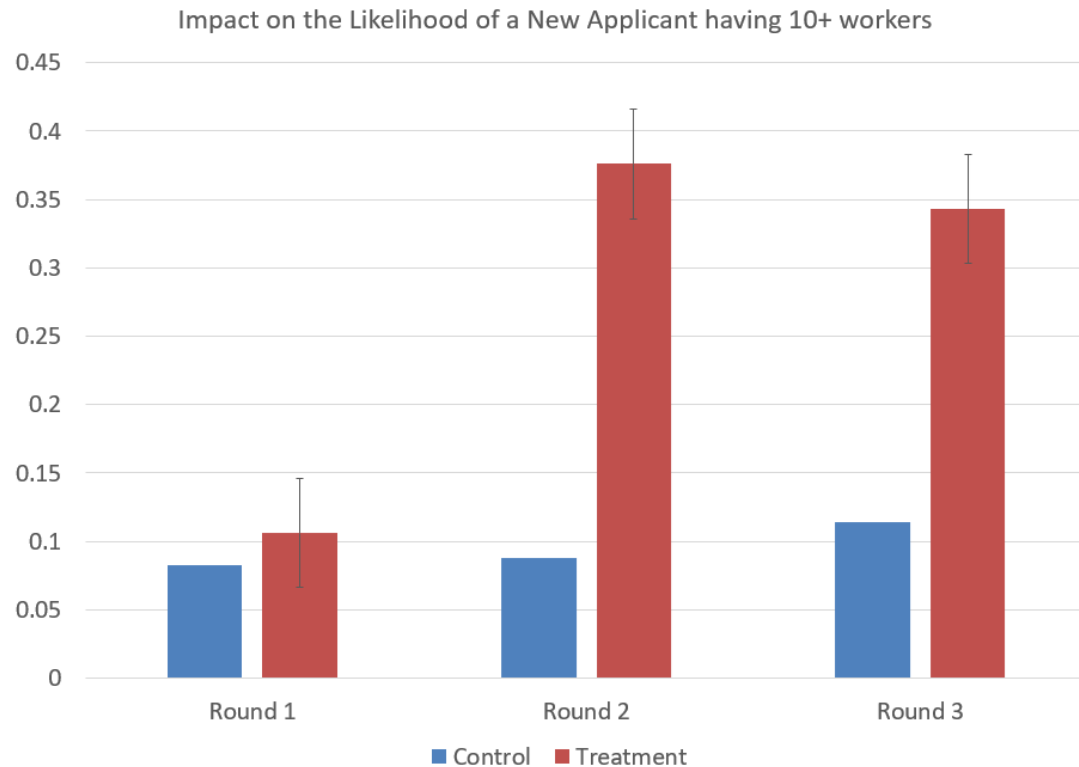
Lots of theory and rhetoric, but limited empirical evidence – this paper tries to look at what we have been learning

What are the concerns?

- *Targeting/Additionality* – does the government have the right information to know who to support?
 - Version 1 “The government can’t pick winners” – can’t identify who will be successful
 - Version 2: lack of additionality – end up supporting growing firms to just do the activities they will be doing anyway

What do we see empirically?

- Hard to identify who will benefit the most, but can often identify losers/who will definitely not benefit.
- Many projects show evidence of additionality: when the government supports firms to do more of X, this does cause more X.



More examples of additionality

- Credit:
 - Banerjee & Duflo (2014) – India directed lending – targeted firms expand borrowing and use it to increase production
 - Cai and Szeidl (2022) – China new loan to SMEs – firms offered product expand borrowing and increase sales
- Management consulting:
 - Iacovone et al. (2022) – Colombia consulting – firms selected for program improve management and increase employment
- Innovation grants for industry-firm collaboration:
 - Bruhn and McKenzie (2019) – Poland – consortia selected for program increase probability of science-industry collaboration and of patenting
- Matching grants for small-scale innovation
 - McKenzie et al. (2016) – Yemen – firms getting matching grants of up to \$10,000 double their rate of product innovation

What are the concerns?

- *Political capture/distorting competition*
 - can governments withstand lobbying from powerful firms and prevent industrial policy from becoming an instrument of rent transfer to incumbents?
 - Do instruments get captured by politicians who use them to enrich themselves or their families/networks?

What do we see empirically?

- Definitely a potential concern, especially with instruments with complicated processes and rules
- Campos et al. (2014) on matching grants in Africa – concern can be as much red tape as political capture (although two are linked)

Table 3

Summary of causes behind inability to conduct randomized experiments.

Project	Was project ultimately cancelled?	Proximate causes			Underlying problems				
		Implementation delay	Govt. decided not to randomize	Low take-up	Political economy or capture	Funding cycle inflexibility	Eligibility criteria too strict	Project implementation unit incentives	“Last mile” delivery
A	Yes		X	X	X	X			
B	No		X	X			X		X
C	No	X		X	X	X	X		X
D	No		X	X			X	X	X
E	No	X	X		X		X		X
F	No		X	X	X		X		
G	No	X		X		X	X	X	X

Notes: Projects A–G indicate the seven different proposed randomized trials and are listed in random order.

Role for third party in reducing political capture

- European Union – setting rules at EU level and procedures that reduce ability of individual politicians to select recipients
- Role for World Bank/Aid agencies like FCDO/DFID in setting rules of the game for firm support projects; supporting independent PIUs

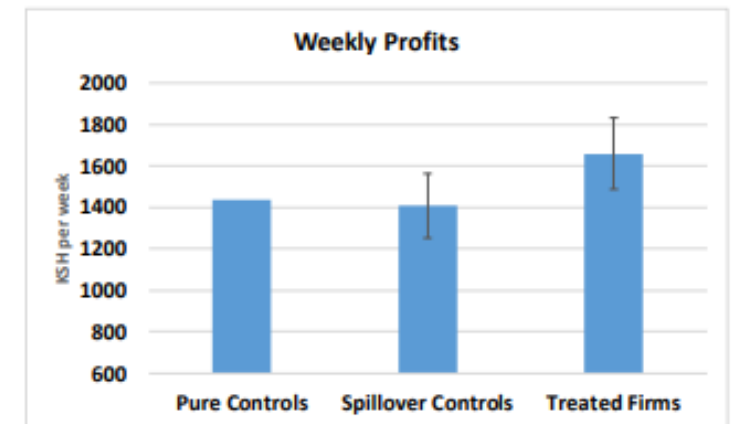
What are the concerns?

- *Impacts on market competition:*
 - Concern 1: does supporting some firms just come at the expense of those firms not supported, or can the whole market grow?
 - Concern 2: does subsidizing these services crowd out the private sector business service provision market?

What do we see empirically?

- Business training/consulting/business plan competitions: by supporting firms to innovate and expand product varieties, they can expand markets without just business stealing.
- Examples:
 - GET Ahead Business Training in Kenya (McKenzie and Puerto, 2021).
 - YouWin Business Plan competition in Nigeria (McKenzie, 2017)

Figure 1. Profits Increase for the Treated with No Spillover Impact



What do we see empirically?

- Loans/Grants not targeted on innovation
 - Cai and Szeidl (2022) – Chinese firms selling in market clusters (e.g. building materials)
 - Loans benefit these firms, but much of sales growth comes at expense of direct competitors who do not receive their loans
 - Benefits to two other groups: nearby firms who aren't competitors – get more customers; and customers get better price and service.
 - ⇒ Would be beneficial for society if all firms offered the loans, but distortive to offer to some.
- Andrabi et al. (2020) – grants to private schools in Pakistan
 - If grant provided to only one school in village, they expand capacity but not quality
 - When grants provided to all schools in village, there is some capacity increase, but also more investment in quality and children's test scores go up
- ⇒ Credit constraints are definitely real and important in many developing countries, but want to intervene in way that benefits many firms and doesn't just privilege a handful.

Does subsidizing business services undermine or help grow the market?

“The market failure we are trying to address is the information asymmetry market failure. SMEs do not always know what they do not know, and they do not know how useful business expertise can be. And even when the SME manufacturer knows it has a problem, it does not always know how to procure the right solution. After they have worked with MAS, they understand . . . the value of external expertise in general, so when they have to pay the full rate in the future, they now know what to look for and have greater confidence in approaching the market.”

Petar Sotjic, director of the UK Business Support Policy in charge of its Manufacturing Advisory Service (MAS)

Empirically

- Anderson and McKenzie (2022, GEM project in Nigeria)
 - Most business service providers are not known by most firms, firms find it hard to tell good from bad providers, and are wary of trusting outsiders with their data.
 - Project subsidized them trying out use of HR, marketing, and accounting service providers
 - Subsidized firms are more likely to go back to the market and start paying for these services on their own
 - Can also use the subsidization experience to help develop the market further through feedback mechanism – helping develop ratings and reputation for service providers

How can governments finance these efforts?

- *The concern: **limited fiscal space**, especially post-Covid – given competing priorities, how can governments justify spending public funds on relatively well-off firms?*
 - Perhaps easier to justify if generating jobs (reducing need to support workers with social benefits) or reducing pollution/bringing benefits to broader population
 - Tax on firm revenue or profits
 - Path to sustainability: firms which succeed end up paying more in taxes
 - Royalty model on innovation grants – e.g. Israel's R&D fund

Green technology adoption and industrial policy

China Invests \$546 Billion in Clean Energy, Far Surpassing the U.S.

China accounted for nearly half of the world's low-carbon spending in 2022, which could challenge U.S. efforts to bolster domestic clean energy manufacturing

- New technologies, so lots of information frictions; usual credit constraint issues
- Externalities: health benefits for workers; carbon underpriced and so private returns much less than social returns
- Currently most of research work has been on household adoption, few rigorous studies of firm adoption
- One example: Adhvaryu et al. (2020) – adoption of LED lighting in Indian garment factory
 - Replacement was in response to overseas buyer demand for environmental improvements in supply chain
 - Gains from energy savings turns out not to be main benefit – main benefit is a productivity one for workers on hot days

So should the government help directly support firms?

- Theoretical justifications:
 - Strategic management literature: improving skills and firm capabilities critical for innovation and productivity, and government has direct interest in this for increasing overall economic performance
 - Employment focus: generating more good jobs a key policy objective
 - Overcoming key frictions:
 - Information frictions
 - Credit constraints
 - Risk, uncertainty and trust and lack of insurance market
 - Externalities?
- Empirically:
 - Some of these programs do pass cost-benefit tests; have additionality and result in higher profits for firms and potentially high tax base for government
 - Can help grow entire markets and benefit consumers if expand product variety and encourage competition (but could also distort); and can help develop market for service provision.

Support, but Evaluate

- Many design issues needed to ensure these programs are targeted to the firms that will benefit most from them, that they do help overcome market failures and externalities, and that risks of political capture are minimized
- Innovation process is complex and risky, many things tried won't work as intended
- Rigorous prospective impact evaluation can help enable better understanding of impacts and adjustments along the way
 - Particularly for new areas like green industrial policy where existing evidence very limited