



Quantifying the impact of industrial parks in Uganda

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- Industrial parks have been used as a policy instrument to attract and promote productive investment in a number of countries, but the benefits are by no means automatic.
- This policy brief studies the impact of industrial parks in Uganda to date by comparing firms that enter these parks with observably similar firms that do not.
- We find significant positive effects from entry on domestic sales, purchases and wages for those firms that are operational. We also see a large rise in imports and investment from firms entering industrial parks.
- Higher levels of domestic sales are not accompanied by rising exports, which suggests that, at least initially, firms entering these industrial parks are targeting production towards the domestic market.
- Our analysis suggests that a critical role for policymakers will be to work with existing firms in industrial parks to identify barriers to operation and to exports and how these can be overcome.
- At the same time, continued analysis of the impact of industrial parks and specific policies implemented will be critical in ensuring that the costs of these parks are justified by their benefits.

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The potential benefits of industrial parks in Uganda

Figure 1: An aerial view of Namanve Industrial Park (Source: UIA, 2021)



Industrial parks are geographically delineated areas for production, zoned and planned for industrial production. By bringing together firms in a delimited geographic area, these parks have the potential to raise productivity in a number of ways:

- By providing access to land, these parks can help firms to overcome barriers to investment caused by uncertainty of property rights and high costs of land.
- The provision of core infrastructure and utilities can allow for effective public services such as electricity and sewerage to be provided to firms in a cost-effective way.
- By clustering activity of firms in similar industries and/or in industries that a firm sells to or supplies from, these parks can encourage 'agglomeration externalities', whereby firms benefit from sharing ideas, inputs and technology.

In many industrial parks, 'one stop shop' services that streamline overly burdensome regulations are also offered to firms. Some industrial parks also offer fiscal incentives in the form of tax breaks or exemptions to firms to subsidise initial costs of operation and encourage investment.

Industrial Parks have been used as a policy instrument to attract and promote productive investment in a number of countries, and Uganda is no exception. There are currently 11 operational Parks in the country, providing firms with

subsidised land, infrastructure such as roads and electricity lines, and dedicated 'one stop shop' services from the Uganda Investment Authority.

Figure 2: Sites of operational industrial parks in Uganda



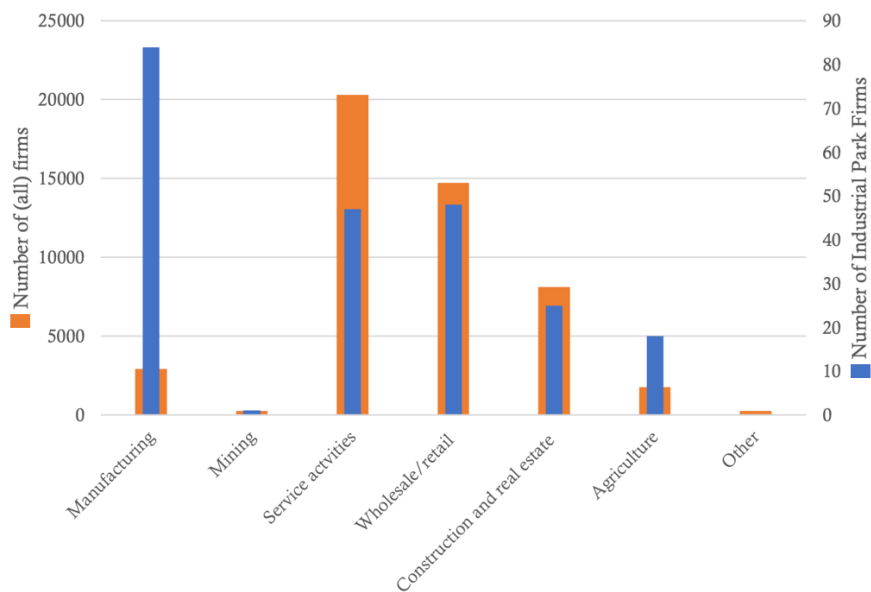
As Uganda embarks on an ambitious plan for investing in Industrial Parks in the country, there is an opportunity for the government to target scarce resources towards tackling challenges facing firms in a way that is less financially and politically demanding than wide scale reforms. Industrial parks can act as laboratories to experiment with new policies – those that successfully promote investment can be tested and scaled up to the rest of the economy over time. The benefits of industrial parks can extend beyond the park through backward and forward linkages to other firms that sell to or supply from industrial parks, and to those who are employed by this activity.

Mixed experiences with industrial parks

Industrial park firms in Uganda

The number of Industrial Park firms in Uganda has been steadily rising over time, with the majority of industrial park firms located in Kampala Industrial and Business Park (KIBP). 36% of firms in industrial parks operate in manufacturing and a further 21% in wholesale and retail. Figure 3 compares the distribution of activity of these firms with national figures, based on categories drawn from firm ISIC codes. The share of manufacturing firms in industrial parks is significantly higher than the national average of 6%.

Figure 3: Industries operated in: industrial park vs. all firms



Firms in Industrial Parks in Uganda contribute significantly to the economy; between 2010/11 and 2018/19, on average, firms in the industrial parks we considered made up 0.5% of all firms. Over the same period, these firms made up 7% of sales, 4% of exports, and 4% of local wages paid.

Industrial park firms consistently outperform firms outside industrial parks in terms of sales, purchases, wages, employees, exports, imports, taxes, and capital investment.

However, to date it has been unclear to what extent the greater performance of firms in industrial parks is *because* they are in these parks. There may be numerous reasons these firms perform better than average. For example, the majority of firms in industrial parks are located in the Greater Kampala Metropolitan Area and are also engaged in manufacturing activity, and there is good reason to expect that firms in this region/sector may have different performance from others.

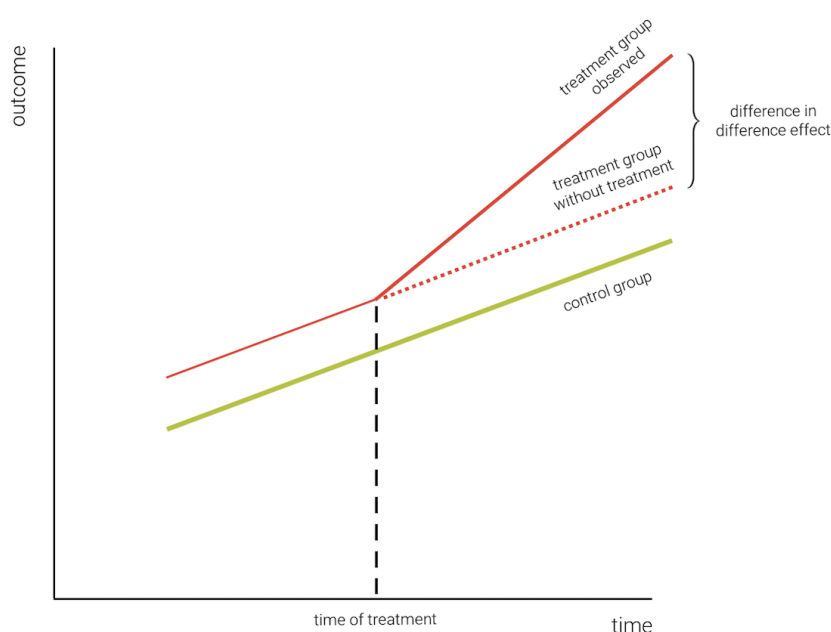
Our study aims to shed light on this: is the differential performance *because* they enter industrial parks, or do industrial parks simply attract better performing firms?

What is the effect of entering an industrial park?

To evaluate the impact of industrial parks in Uganda to date, we work with the Uganda Investment Authority (UIA) and the Uganda Revenue Authority (URA) to undertake systematic analysis of firms in 6 industrial parks² using administrative tax data on firm balance sheets, trade, and employment.

By matching investment records with tax data on firm performance, we attempt to estimate the causal effect of these parks by comparing the evolution in outcomes over time for firms that enter industrial parks, with those of observably similar firms that do not enter.

Figure 4: An illustration of the diff-in-diff approach used for this study. We compare outcomes of firms who enter industrial parks to those that do not, before and after entry.



We consider the effect of park entry on a range of firm outcomes, including sales, exports, imports, employment, wages, investment, and local supply use.

² Specifically: Bweyogere, Jinja, KIBP, Kasese, Luzira and Soroti Industrial Parks. It is important to note that we are not able to report on outcomes for 105 out of 432 firms inside industrial parks over this period because they either have not registered for a TIN, have a TIN number but have not filed CIT, PAYE, or VAT returns, or (for 19 firms) there is no data on the date they joined the Industrial Park.

The validity of this approach relies on identifying a "control" group of firms that can serve as a counterfactual for how industrial park firms would have behaved if they didn't enter a park (see Figure 4). To address this, we employ **propensity score matching** to match industrial park firms to observably similar firms who do not enter Industrial Parks. These matched non-entrants then form our control group.

Results

From our analysis, we find:

1. There do appear to be benefits of entering an industrial park for firm performance, with significant **positive effects seen on domestic sales, purchases and wages for those firms that are operational.**
2. Higher levels of domestic sales are **not accompanied by rising exports**, which suggests that - at least initially - firms entering these industrial parks are targeting production towards the domestic market. This may be due to high physical and logistical costs of external trade.
3. We also see a **large rise in imports** from operational firms entering industrial parks. Keeping in mind efforts by the Government of Uganda to promote import substitution, it is important to note that this increase in imports is not a bad sign - it suggests industrial parks are providing better access to global markets for inputs, which may provide the first step in shifting firms towards more efficient production that requires higher quality imported inputs. This is corroborated by the significant positive effect we see of entering an industrial park on **investment** levels. It may require more time to see the impact of this shift in production processes on exports.

Our results suggest that industrial parks are providing better access to global markets for inputs, which may provide the first step in shifting firms towards more efficient production that requires higher quality imported inputs.

It is important to note that due to a large proportion of firms not having yet begun operations in the park, in aggregate we do not see any significant effects of industrial park entry on the outcomes we consider. If we expect non-operational firms to become operational in coming years, this suggests we may see larger effects of industrial parks in the future.

When we consider possible mechanisms through which industrial parks have an effect, it appears that providing subsidised access to land is a key factor. Indeed, all of the positive effects seen appear to be driven by firms that were given access to subsidised land until 2016. It could be that this initial subsidy provided firms

with the resources needed to implement longer term changes; it would be valuable to consider longer term effects of this subsidy in future.³

Policy reflections

Our analysis suggests the following considerations for policy:

- Given that the benefits of industrial parks are only felt after firms become operational, it is critical for UIA **to work with firms that have been given licenses but are not yet operational to identify key barriers to operation and how they can be overcome.**
- One of the key aims of industrial parks in Uganda is to promote competitiveness of local production. As we have not yet seen an effect of industrial parks on export behaviour, it would be valuable for UIA to work with firms in these parks to **identify challenges firms are facing in exporting to global markets** and ways in which the government can support competitive production.

Addressing constraints to operation and exporting will be more important than expanding the number of parks in ensuring impact on the economy. Effectively addressing many of the constraints faced by firms in these areas crucially requires improved coordination and communication between government agencies to streamline both support and regulations for businesses.⁴

- Before investing in new parks, it is extremely important to understand what is working and what can be improved to help firms overcome barriers to competitive production. **Continued analysis of the impact of industrial parks** and specific policies implemented will be critical in ensuring that the costs of these parks are justified by their benefits.
- **Better data:** for the purposes of monitoring and evaluation, it would be critical to ensure that a) all firms licensed into an industrial park are registered with a TIN number, and b) verification is undertaken when firms do not file any returns in a given year, to understand why this is. The benefits of this extend beyond just those firms in industrial parks or under UIA's purview. Related to this, it would also be valuable to encourage firms to file tax returns in all years, even in years where they receive tax exemptions. This, with a greater number of industrial park firms and a longer time horizon for analysis, will aid in more precise estimates in the future.

³ While we favour this interpretation, it is also possible that firms that got subsidised land are different in other dimensions too that correlate with them benefiting more from access to industrial parks.

⁴ Improving state support and effectiveness often requires reforming unnecessary regulations and moving beyond 'one-stop' centers to 'single window' facilitators who can effectively represent and respond on behalf of government authorities - see Farole, Baissac, and Gauthier (2013).

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