Public procurement and firm performance in Uganda

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- Participation in public procurement by domestic firms in Uganda is associated with higher sales in the year they begin selling to the government. Firms realise an average increase in sales of UGX 145.9 million or USD 39,700[1] compared to a control group.
- Although total sales increase when firms begin selling to the government, there is a reallocation effect: on average, firms reduce sales to private sector buyers by UGX 153.6 million (USD 41,800).
- Firms that participate in public procurement do not register growth in value added per employee (a measure of labour productivity), in contrast to firms that succeed in beginning to sell products to the largest private companies in Uganda.
- The reduction in overall sales to private clients is accompanied by an increase in the number of non-government customers. Firms that enter into procurement tend to drop larger private companies, suggesting capacity constraints and the need to create slack to cater to the government.
- A survey of Ugandan firms selling to the government suggests that while a significant share of firms operate at full capacity, many invest to bolster production. Most respondents indicate their firm reallocated sales away from private sector customers because selling to public entities is more lucrative.
- These findings suggest that the government may not be realising value for money, a key goal of public procurement, nor promoting private sector development, as reflected in the absence of productivity improvements in firms accorded contracts. Higher prices for government contracts may be a consequence of a focus on seeking to increase local content, or reflect features of the procurement process, such as lengthy payment delays.

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[1] Using the 2019 average exchange rate.

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Introduction

Government procurement is an important mechanism for private sector development because public procurement accounts for a significant share of GDP in most economies—an average of 13% of GDP for low-income countries and over 20% in Uganda. Government demand can, therefore, play an important role in promoting the growth of domestic firms.

The 2014 *Buy Uganda Build Uganda* policy aims to expand domestic consumption of locally produced goods and services, aiming to award at least 20% of the value of public procurement contracts to Ugandan firms. The policy complements the Public Procurement and Disposal of Public Assets (PPDA) law, which promotes preference and reservation schemes to encourage local firm participation in procuring goods, works, or services. It calls for measures to raise awareness of local products, support the development and marketing of local brands, and encourage local firms to engage in procurement opportunities. In the 2022/2023 period, some 48% of the value of public contracts was awarded to local contractors.[2]

A recent working paper uses value-added tax (VAT) data to trace sales and purchases of goods and services by firms in Uganda and analyses whether selling to government entities affects firm performance (Hoekman et al., 2024).[3] The data span the period from 2012 to 2019 and cover both firm-to-firm transactions and transactions between firms and government entities (either central government bodies such as Ministries or provincial or municipal public entities). VAT transaction data at the level of reporting firms is matched with information from the corporate income tax (CIT), pay as you earn (PAYE), and customs transactions datasets, which provide firm-level financial and employee information, respectively, to explore the relationship between selling products to government entities and indicators of firm performance.[4] The dataset includes 18,110 unique firms, of which one-third report sales to a government entity at least once during the sample period.

Characteristics of procurement firms

This study distinguishes four types of firms that sell to government entities:

[2] PPDA Annual Performance Report, 2022/23, at https://www.ppda.go.ug/download-reports/reports/ppda-annual-reports/. No information is available on the extent to which such preference policies are implemented or whether a distinction is made between firms depending on their size.
[3] This is an updated and expanded version of Hoekman, B., Sanfilippo, M., Santi, F. and Ticku, R., Government Demand and Domestic Firms Growth: Evidence from Uganda. IGC Working Paper, 2022.
[4] The PAYE dataset records firm-level information on earnings and employment.

1. *Regular suppliers:* 44% of firms report transactions with government entities throughout the sample period;

2. *Stayers:* 20% of firms record a first sale to a government entity after they appear in the sample and keep recording transactions in all subsequent years;

3. *Irregular suppliers:* 25% of firms record their first invoice to the government after they first appear in the sample but irregularly report transactions to the government in one or more of the subsequent years;

4. *Exiters:* 11% of firms sell to a government entity the first time they appear in the sample but stop doing so at some later period in the sample.

Compared to firms that do not sell to government entities, those selling to the government:

- tend to be bigger in terms of sales (average turnover of UGX 100 million (USD 27,000) versus average turnover of UGX 36 million (USD 9,800) for all firms;

- have a larger number of partners to which they sell (39 versus nine customers) and from which they source (21 versus nine suppliers on average, respectively), and

- are older, with a median age of nine compared to six years for other firms.

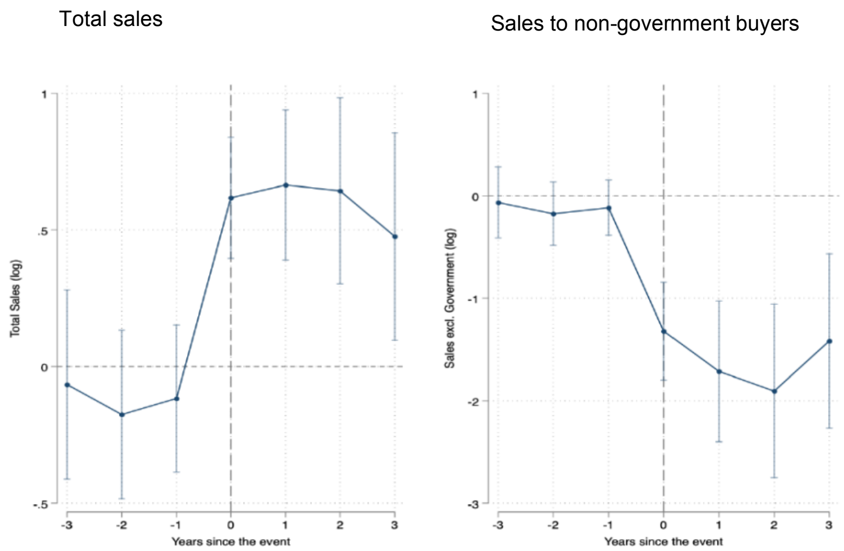
Analysis

This study compares the evolution in the performance of firms that started selling part of their output to the government during the 2012-2019 period to firms that *will* sell to the government in the future. The methodology allows for comparing the difference in performance between the two groups of firms before, during, and after government procurement.

Findings: Impact of public procurement on firm performance

Firms that start selling to the government and continue doing so (the Stayers) register a significant boost in sales compared to firms that will sell to government entities in the future. This effect persists until the end of the sample period. There is, however, a significant and persistent decline in sales to non-government entities.[5]

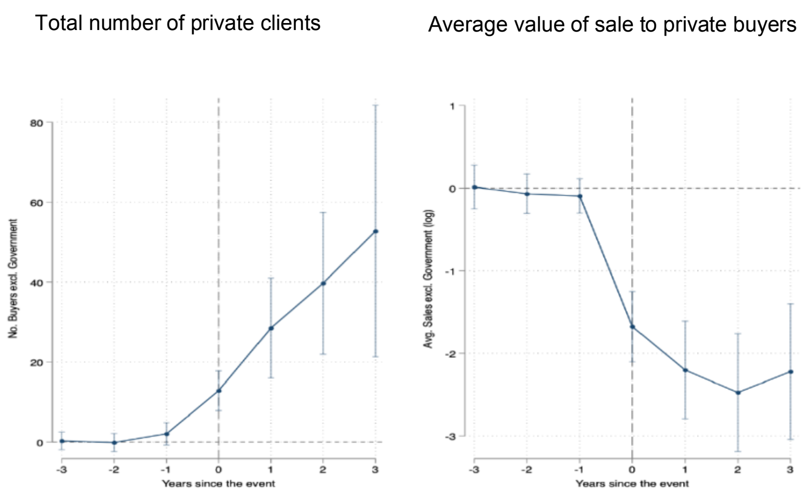
FIGURE 1: Event study - Total sales and sales to non-government customers



Note: Estimated effect of accessing procurement over time. All point estimates are relative to the year before the first sale to the government reported by a firm. The vertical lines refer to the 95% confidence interval.

There is a significant change in the composition of private sector buyers. While the overall number of private sector buyers increase, there is a decline in the average sale to private sector firms (Figure 2).

FIGURE 2: Event study - Number and average sale to non-government buyers



Note: Estimated effect of accessing procurement over time. All point estimates are relative to the year before the first sale to the government reported by a firm. The vertical lines refer to the 95% confidence interval.

[5] The difference in performance is qualitatively similar if we also consider firms that sell irregularly to the government in the years after they begin selling to government.

While total sales increase for firms that enter into procurement, there is no corresponding increase in value-added per employee. From a private sector development and growth perspective, this is an important research finding, as it suggests the increase in total sales is not accompanied by a corresponding increase in capacity or efficiency. This result is not observed for firms that obtain contracts with the largest domestic firms[6] or begin to sell to foreign firms. The reallocation effect is unique to firms selling to the government, suggesting capacity constraints may not be the only reason for the observed shift away from selling to the private sector.

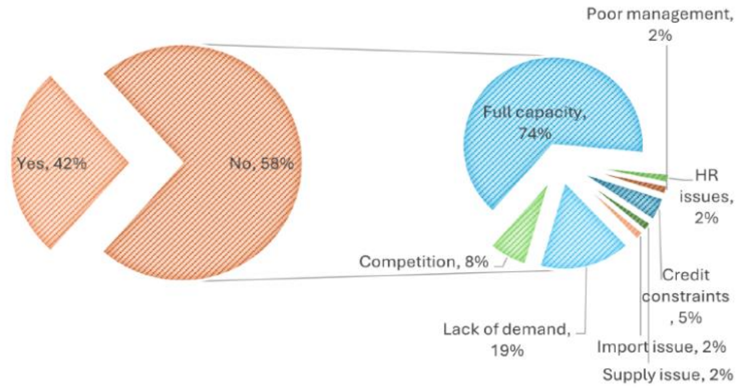
Survey of procurement firms and potential explanations for the findings

To understand the drivers of the persistent reallocation observed in the firm-level data, we designed and implemented a survey of 236 Ugandan firms awarded at least one government procurement contract in the past six years. The survey gathered qualitative information on the firms' strategies after they obtained government contracts. Based on the survey findings, we evaluate two potential explanations for why sales to private buyers decline following entry into government procurement: 1) capacity constraints and 2) price differentials.

Capacity constraints

About 40% of survey respondents report that they expanded production following the award of a government contract. Among firms that did not expand production, three-quarters (74%) declared that they were operating at full capacity, implying that continuing to serve their private customers would require investment. Only 5% of respondents from these firms cited access to credit as an impediment to expanding production capacity, suggesting that capacity constraints as such do not explain the reallocation effect.

FIGURE 3: Capacity expansion after obtaining government contracts



[6] We identify a large domestic firm as one whose average income over the sample period was in the top tenth percentile of the distribution. Foreign firms are identified as firms with HQ located outside Uganda.

Note: The left side pie chart reports the responses to the following question: "With reference to your last contract awarded, did you expand production after obtaining the contract?". The right-side pie chart lists reasons given for not expanding production (multiple choices were possible). Only firms responding "no" to the first question were asked to respond to the second question. Overall, 217 firms responded to the first question and 125 to the second.

Government as a more profitable buyer

64% of survey respondents stated that the government pays higher prices for goods and services than private buyers. Relatedly, when firms that had reduced sales to the private sector were asked their reason for doing so, 60% indicated that private firms pay lower prices. Because the VAT data pertain to sales values and cannot be decomposed into information on price and quantities, we cannot directly evaluate whether the growth in overall sales that is attributed to selling to government entities is driven by the government paying higher prices. To circumvent this problem, we use customs transaction data, which includes information on quantities and prices of goods imported. We focus on firms in the "Wholesale and Retail" sector whose input quantities (imports) can be a reasonable proxy for output quantities since their activity does not generally involve input transformation. We further limit the analysis to firms where imports comprise most of their sales, such that their import quantities can be used as a reference for their output quantities. For this group of firms, the overall growth in sales following a contract to supply the government does not yield a concomitant increase in imported quantities, suggesting that sales to government entities are associated with higher prices.

An important question for future research is understanding what underlies this price effect and the associated reallocation of sales away from private customers. One reason for higher prices may be the local content policy, leading to higher-cost procurement projects. Insofar as this is simply a consequence of the policy, paying higher prices is not a problem if local firms that cater to the government face higher costs. However, the finding that productivity does not increase is a concern, as it suggests that firms are not improving their performance. Higher prices may also be, in part, a consequence of procurement processes. 81% of firms in the survey report that the government is unlikely to pay on a timely basis, while about 64% of firms indicated that their last contract with the government was not paid on time. Further, firms in the sample report that payments were delayed on average by six months, with a maximum delay of more than two years. Such delays can potentially affect firm decisions to invest in capacity expansion. They may also result in firms charging a price differential to compensate for the government not paying them on time.

Conclusions

These results suggest government demand (participation in public procurement) leads to an increase in total sales for firms that obtain contracts without a significant productivity improvement. Further, the increase in sales appears to be fully driven by larger sales to the government, with an associated reduction in sales to the private sector.

Understanding the reasons behind these patterns is important for evaluating the effectiveness of public procurement as an industrial policy tool and for enhancing the design of procurement processes, an issue this paper does not engage with. If the government pays higher prices to firms for their goods and services than private companies do, an implication is that value-for-money objectives are not achieved. If policy also aims at private sector development goals, the observed shift away from selling to private companies may be problematic.

These findings suggest that many firms are limited in their ability to expand capacity and/or that government contracts are more profitable. While the firm-level survey supports the existence of capacity constraints, it does not appear to be a major driver of the sustained reduction in sales to the private sector. Most interviewees bolstered this assessment by indicating that access to finance was not a major concern. Instead, most respondents reported that the government pays higher prices than private buyers, which was the main motivation for reducing sales to other firms.

Better understanding the effects of participating in public procurement requires procurement contract and associated financial payment information, as well as analysis of the procurement process in Uganda. The survey findings regarding the uncertainty of payment associated with sales to the government (reflected in a reported average of 64% of contracts being subject to payment delays) may help explain higher prices for sales to government entities and decisions not to expand capacity.