Policy brief
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Improving linkages between exporters and local industries

Lessons from research in implementing the BUBU policy

In brief

- This brief reviews recent research on the Ugandan export sector and its connections to the supply chain and how this has important lessons for the 'Buy Uganda, Build Uganda' (BUBU) policy.
- The author observes that Ugandan export and domestic trade performance is impressive and has been driven by the Government of Uganda policy.
- In addition, Ugandan exporters have driven output and productivity growth directly and indirectly through their supply chain. The key to the success of BUBU is to deepen domestic supply chains in order to increase export competitiveness.
- The author recommends that the government makes three policy interventions as part of the BUBU policy. First, establish a Local Content Unit with the explicit aim of targeting information gaps between large firms and smaller supplier firms. Second, utilise innovations from big data to establish a supplier database Third, the government should target export support sectors as a key area to support local supply chain development.

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Exporting and export supply chains

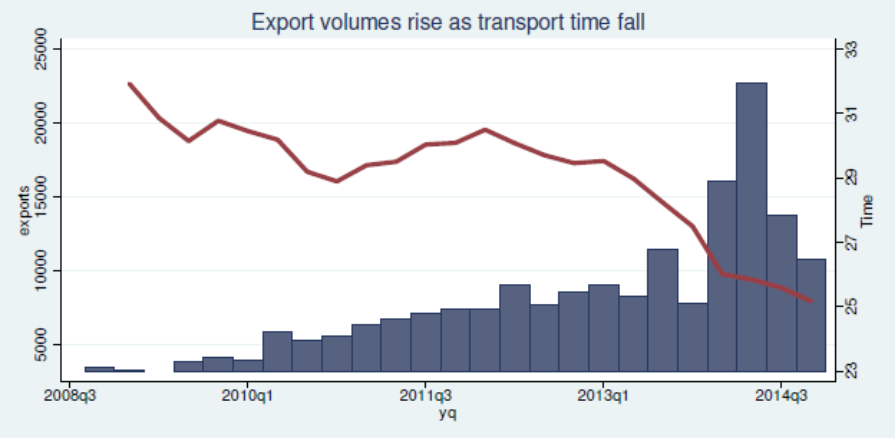
It is first worth considering the context in which the BUBU policy is being implemented. As a landlocked country in central Africa, Uganda has some of the most expensive transportation costs in the world. In 2017, Uganda ranked 136 out of 190 countries on the World Bank's Trading Across Borders Index (World Bank, 2016). One of the main pillars of the East African Community (EAC) is to facilitate trade through lowering trade costs (Makame, 2012).

Over the last five years, the government and its regional partners have focused on reducing trade costs. These include one-stop border posts, removal of role-in-motion weigh bridges, removal of police check points, port upgrading, improved road surfaces, EAC Single Customs Territory including a regional bond, and interfacing of regional customs systems.

Both the costs and time to export goods has seen a rapid decline since 2009. In 2009 USD terms, the cost to export has almost halved from $5,629 in 2009 to $3,000 in 2014. At the same time, the time to export has fallen from 32 days in 2009 to 25 days in 2014.

It is important to consider the consequences of this rapid decline in trade costs on key export performance. Figure (1) shows the export volume from Uganda mapped against the change in time to export. There is very clearly a strong negative correlation between the two data series. While not necessarily causal, it is consistent with a story of trade cost reductions spurring export growth. The same effect is evident if we look at the number of exporters and the number of products exported from Uganda.

Figure 1: Transport cost and export volumes



Export volumes in 2011 RWF against the time to export on the northern corridor. Time to export is a weighted average of data from the Northern Corridor Transport Observatory and the World Bank Trading Across Borders index

I next consider why it is so important to the Ugandan economy to have export growth. In the academic paper which accompanies this brief, I explain in detail how I calculated the causal impact of exporting on a series of firm outcomes. However, for this brief, I take the regression results and apply them to a 'typical firm' operating in the manufacture of beverage products sector that begins the period as a non-exporter.

As shown in Figure 2, our typical firm begins with an output of $40,000 and an output per worker of $3,500. The firm uses $25,000 worth of domestic inputs and $4,000 worth of foreign imports. We then imagine this firm receives a shock that makes it become an exporter. Once it is an exporter, this firm is exposed to international competitive pressures, higher quality requirements, and a larger consumer base. These factors combine to change how this firm will operate. My results show the firm will grow by increasing output by 13%, and increase output per worker by 12%. This is important as it gives a first indication of why exporting is so important.

As a result of this growth, the firm also will require more inputs. I find the firm will use 8% more domestic inputs and 9% more foreign imports. The key to this result is to notice that when firms become exporters, they need access to both domestic and foreign imports. It is clearly not sufficient to have one or the other -- instead they are complementary.

In Figure 3, I look to see how suppliers of exporters are impacted by one of their buyers becoming an exporter. This is an indirect effect of the export transition. I find that suppliers of exporters increase their output per worker by 22% simply by being connected to a new exporter.

Figure 2: Results from regression coefficients applied to "typical" Ugandan firm in the manufacture of beverages sector

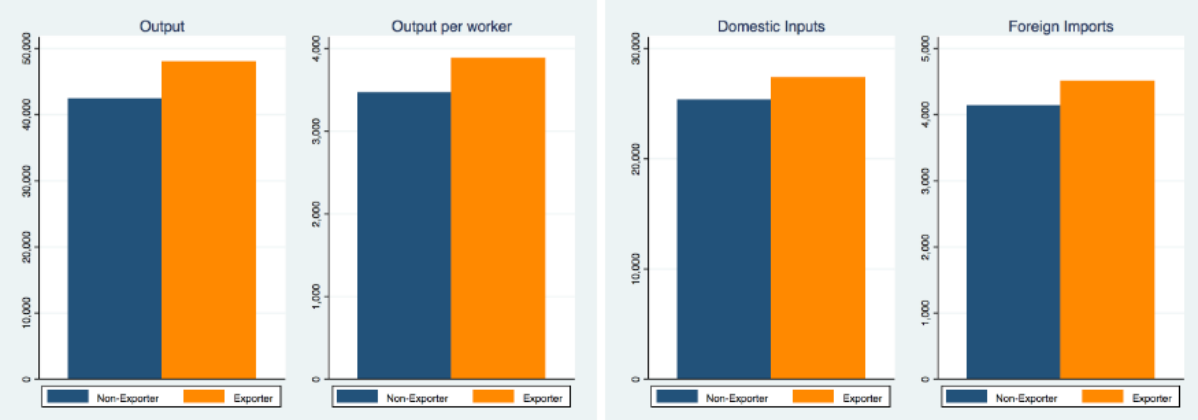
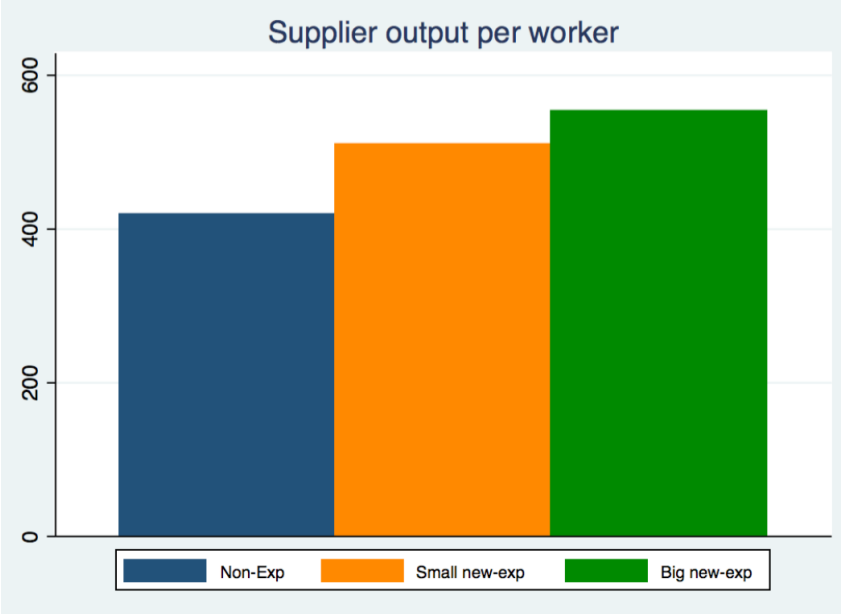


Figure 3: Results from regression coefficients applied to "typical" Ugandan firm in the manufacture of beverages sector



Improving linkages

Having shown that exporting drives output and productivity growth both directly and indirectly, I now look in more detail at the export supply chain.

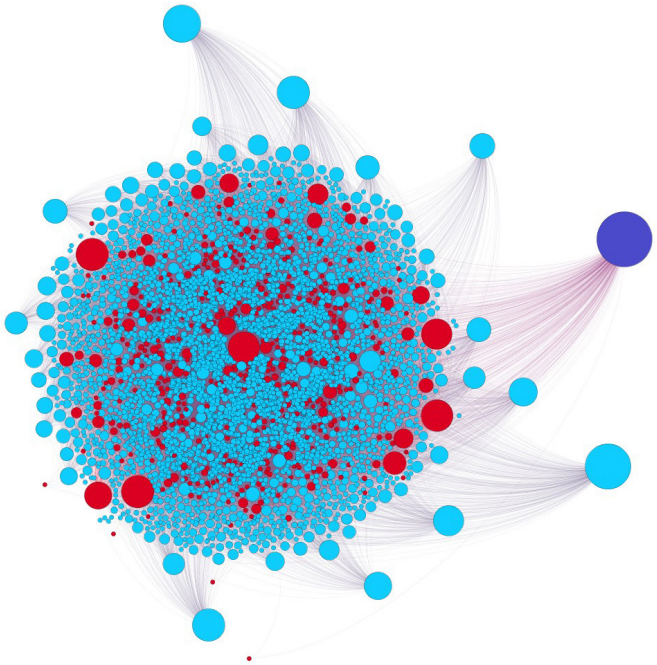
Figure 4 focuses just on exporting manufacturing firms highlighted in red and their suppliers highlighted in blue. I have scaled each node by their 'out-degree' which is the number of firms for which they are a supplier. The purpose of this figure is to highlight that there are a handful of firms that act as a supplier to almost all exporters. These can be seen as the large blue dots on the periphery of the graph. This could be an indication of an under-supply of vital export services to exporters meaning that there are just a few providers. This might be a concern if we believe that these suppliers have some market power over exporters and extract rent. Table 1 shows the industry of the top 15 most interconnected suppliers. What we observe is a mixture of transport and storage services, communication services, and manufacturing. This suggests a policy focus on inputs in these areas could have substantial dividends on export performance.

The final thing to observe from Figure 4 is the importance of imports to the manufacturing sector. This can be seen in the graph by the scale of the large purple dot. Indeed, over 90% of Ugandan manufacturing firms are direct importers. My main takeaway from this is that if you want to have a manufacturing sector in Uganda, you need access to high quality imported inputs.

Table 1: Top 15 interconnected export suppliers

n	Supplier business activity	#firms supplied
1	Cargo handling	1409
2	Warehousing and storage	1251
3	Manufacture of batteries and accumulators	765
4	Sale of motor vehicle parts and accessories	690
5	Wired telecommunications activities	635
6	Manufacture of other fabricated metal products n.	625
7	Wired telecommunications activities	606
8	Warehousing and storage	594
9	Retail sale of hardware, paints and glass in spec	555
10	Publishing of newspapers, journals and periodical	546
11	Manufacture of basic iron and steel	542
12	Construction of utility projects	522
13	Manufacture of plastics products	501
14	Cargo handling	501
15	Manufacture of plastics products	492

Figure 4: All exporting manufacturing firms in Uganda (red) and their suppliers (blue) and imports (purple).



Size indicates the firm's outdegree.

BUBU implementation

This section considers how my results and international best practice shed light on the implementation of the 'Buy Uganda, Build Uganda' (BUBU) policy. My results highlight that the recent growth in the Ugandan economy has been driven by the export sector such that it would be a mistake to ignore this crucial element in any development strategy. It also highlights the complementarity between domestic inputs and imported inputs suggesting the success of the BUBU policy rests on it deepening local supply chains with the explicit aim of increasing export competitiveness. There are numerous examples from around the world of success and failure in similar policies so it is worthwhile considering these in detail.

What hasn't worked elsewhere?

One common idea in local content policies is to impose a strict local purchase requirement on firms. For example "x% of certain goods must be purchased from domestic firms" or "x% value-added must be within the country". These have generally been unsuccessful for two reasons. First, it is often easy to circumvent these types of policies either by providing deceptive statistics or by appealing to the lack of local capacity in a given sector. As a consequence, these rules often have zero effect (Sutton, 2014). If they are implemented strictly, there is another problem. These types of rules can lead to distortions in domestic markets such that inefficient sectors are protected at the expense of high productivity sectors. This type of policy was adopted by many Latin American countries under the rationale of Import Substitution Industrialisation (ISI). Sadly, there is little evidence that firms which received protection became internationally competitive. Instead consumers had to pay higher prices for low-quality products and firms could not access high quality inputs which in turn hurt their productivity (Baer, 1972).

Another common idea is to implement export restrictions on certain goods typically with the aim of encouraging value-added higher up the value chain. For example, Pakistan imposed an export tax on raw cotton, with the objective of encouraging the development of the yarn cotton industry. Despite seeing some increase in processed cotton exports, the policy is largely considered to have had a detrimental effect on the cotton sector. This is due to the slowdown of growth in the raw fibre sector leading to a transfer of income from cotton growers to yarn producers (Piermartini, 2004).

A third lesson BUBU can learn from other countries experience is the risk of regional 'tit-for-tat' policy competition. This is where other countries impose increasingly strong protectionist policies in response to Uganda's own support of its local firms. An example of this can be seen in the EAC, where in 2013 Tanzania tried to support its local trucking industry by taxing trucks from other countries in the EAC. In response, Rwanda

imposed a similar tax on trucks from Tanzania. The end result of these types of policies is that everyone loses as eventually the goals of EAC integration to open a larger market for East African firms are lost to protectionist policies. Uganda should avoid this problem with BUBU by instead engaging its EAC partners to discuss ways in which deepening local supply chains can be expanded without leading to loss for other EAC exporters.

What has worked elsewhere?

Having shown that exporting can drive growth in the Ugandan economy through connections to the supply chain, this section considers ways in which the government can target greater linkages between exporters and the supply chain.

I argue that as part of the BUBU policy, the government can target the following three interventions to increase supplier-to-exporter linkages.

Local Content Unit

The first policy suggestion to improve supplier linkages is to establish a Local Content Unit (LCU). My research suggests that local suppliers can directly learn from exporters and from foreign businesses to grow and improve their productivity. Indeed, in most cases foreign businesses actively seek domestic suppliers. An example of this is given in Box 1.

To maximise the gains from exporting firms it is vital the Ugandan economy maximises the number of firms with linkages to large exporters and foreign firms. One way to do this is by establishing a LCU.

Professor John Sutton has written extensively on this area. He argues *"[w]hat is needed is a small, highly professional team that can liaise with Multinational Firms in a co-operative manner, and with a deep understanding of both (a) local capabilities, and (b) the feasible modes of engagement of local firms in supply-chains"* (Sutton, 2014). To achieve this, he suggests the following four steps:

- **Understanding local companies.** In order to provide useful advice, it is first vital that a LCU has detailed information on businesses in Uganda. The LCU should visit a cross-section of firms in each industry and discuss their strengths, weaknesses, and needs.
- **An Enterprise Development Centre (EDC).** The role of an EDC is to provide training and capability-building for Ugandan businesses to bring them up to scratch to obtain contracts from exporters and FDI.
- **Partners in the process.** In order for an LCU to be successful, it is vital that the organisation is partnering with local businesses. In general, businesses in Uganda would prefer to source goods locally but are constrained by local availability of high quality inputs. Given the chance, they would happily partner with a government scheme to

promote linkages.

- **Shadowing schemes.** Shadowing schemes allow local graduates to enter foreign businesses to shadow more senior members of staff. Shadowing graduates often then go on to set up successful sub-contractors which benefit the original company and the original institution (Sutton, 2014).

Supplier database

The second recommendation is to consider establishing a supplier database of all firms operating in Uganda. One complaint often made by foreign businesses is that they cannot find domestically produced goods available locally. However, often this is simply because the firms are not well known to these business people. One way to reduce this 'information constraint' is to establish a business registry of all of the firms operating in Uganda and to make this information publicly available and searchable by business people. This has been tried in other countries and has sometimes failed due to the following reasons:

(1) the database quickly goes out of date and the details of firms are not reliable;

(2) the database is not easily searchable.

To avoid these problems I suggest the following solution: link the Uganda Revenue Authority's domestic tax data to the firm registry. Using this detailed firm information, business people could get detailed information about firm transaction history, firm sales, and firm performance. This could then be used to verify firm reliability and allow foreign businesses to quickly identify high quality domestic suppliers.

In addition to encouraging domestic linkages, it is likely that banks could also use this system to verify the reliability of firms wishing to obtain credit. This would then increase firm access to finance.

The final benefit is that it may encourage more firms to formalise due to the benefits of being on this registry.

Export supplier sector review

The final policy recommendation is to conduct a thorough review of export support sectors including cargo handling, transportation firms, warehousing, and storage. My research suggests that there are a very small number of these firms which service a large number of exporters. If these sectors are improved, we might see substantial improvements in exporter efficiency.

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