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# Making the most of investment in Uganda

The role of supplier development programmes

## In brief:

- Growing investment in Uganda offer an opportunity for policymakers to boost local production through supplier development programmes.
- This brief considers the potential benefits of such programmes in Uganda to both large firms and suppliers. It also considers best practice for implementation, drawing on evidence from such programmes in countries such as Mexico, Chile and Costa Rica.
- Cross country experience highlights that government facilitation of linkages between large firms and domestic suppliers is likely to be more effective than enforcing regulations on local content.
- In part, this facilitation involves 'matchmaking' efforts between large firms and suppliers. However, matchmaking will only be as successful as the quality of local supply. As such, concerted efforts to raise the quality and reliability of local supply is an essential aspect of supplier development programmes.
- There are a number of ways in which this can be done, ranging from overall improvements to the investment climate to concerted programmes to subsidise training and development programmes between large firms and their suppliers. Analysis of existing administrative data can help to identify key industries for such programmes.

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## Introduction

Uganda has experienced strong growth over the last decade, with real GDP growth averaging around 6%<sup>1</sup>. However, despite this impressive growth, economic activity in Uganda continues to be concentrated in low valueadded agricultural production and non-tradeable activities such as retail trade or construction, that offer only a limited scope for productivity growth and high wage employment. Only 4.1% of manufacturing firms obtain more than 10% of their revenues from exporting to foreign markets, compared to 8.4% on average across sub-Saharan Africa<sup>2</sup>, indicating limited competitiveness of domestic production. Active government policy to promote globally competitive production continues to be essential for Uganda's long-term growth and development.



Figure 1: Manufacturing Exports per Worker (USD) in 2015 – Uganda drags behind.

(Author's illustration based on the World Bank Development Indicators (2019): Share of Manufactures in Merchandise Exports (%), Labour Force, Merchandise Exports (current USD). Hong Kong, Singapore, Netherlands, Ireland, Switzerland and Belgium have been omitted to facilitate comparability).

Reforms aimed at improving the investment climate to attract large globally competitive firms are one key aspect of driving competitive domestic production. But at the same time, the presence of such firms in country offers an opportunity for policymakers to boost local production by supporting the development of linkages between these firms and domestic producers of inputs, both goods and services through supplier development programmes.<sup>3</sup> This brief considers the potential benefits of such programmes, drawing on best practice from other countries.

# The potential for supplier development programmes

Improving linkages between large, highly productive (and often exporting or foreign owned) firms and domestic suppliers can offer a 'win-win' on both sides. In working with local suppliers of goods and services, large firm can share ideas, skills and technology that boost supplier productivity and employment.<sup>4</sup> At the same time, large firms can benefit from developing a reliable local network of suppliers, enabling them to produce more competitively due to the considerable costs and risks associated with importing inputs from abroad (e.g., exchange rate

<sup>&</sup>lt;sup>1</sup> World Bank Development Indicators (2018).

<sup>&</sup>lt;sup>2</sup> 2013 Data from World Bank Enterprise Survey.

<sup>&</sup>lt;sup>3</sup> The importance of improving linkages between large (often foreign owned or exporting) firms is emphasized in Uganda's key government strategies. For example, the *National Strategy for Private Sector Development* (2017) postulates that there is a "*Need to create backward linkages to domestic industry from FDI inflows*."

<sup>&</sup>lt;sup>4</sup> Irani Arraiz, Francisca Henriquez, and Rodolfo Stucchi, "Supplier Development Programs and Firm Performance: Evidence from Chile," *Small Business Economics* 41 (May 1, 2012), https://doi.org/10.1007/s11187-012-9428-x.

fluctuations, transport costs etc.).

Evidence from multiple countries suggests that there are particular benefits of linking domestic suppliers with exporting firms<sup>5</sup> and multinational companies<sup>6</sup>. These firms face pressure from their international customers to remain globally competitive, which in turn means that they will force suppliers to reduce production costs and innovate<sup>7</sup>. Studies in Czech Republic and in a number of sub-Saharan African countries have found that as a result of such linkages suppliers of multinational companies are more productive, larger, more capital intensive, and pay higher wages than firms that do not sell to MNCs<sup>8</sup>. In Rwanda, evidence suggests that suppliers of large exporting firms grow faster and are more productive on average<sup>9</sup> – and even begin to export themselves.

However, despite the potential benefits of linkages between domestic suppliers and large firms, these are often underdeveloped. This is for three main reasons:

- 1. **Information asymmetries** large firms may not have extensive knowledge of what domestic suppliers exist and what they can provide. This is especially true for incoming FDI.
- 2. Quality and stability of domestic supply in many cases, large firms rely on imported inputs because domestic industries are unable to provide high quality goods and services at competitive prices without interruptions in supply. Buying companies often have particular private standards and certifications they require regarding the quality of inputs, production techniques and labour standards that new suppliers struggle to meet without additional support in quality upgrading and monitoring<sup>10</sup>.
- 3. **Inability of local suppliers to produce at scale** even if local companies can supply products to the required standards, if they cannot reliably produce at the required scale (individually or through joint contracts) large firms may prefer to source inputs elsewhere to keep procurement/contracting costs low.

Supplier development policies aimed at improving linkages between domestic suppliers and (often foreign) large firms can help to overcome these constraints.

## **Regulation vs facilitation**

What should be the general approach of government when considering how to improve linkages between domestic suppliers and large, foreign owned firms? Many countries have attempted to make usage of local supplies by foreign firms obligatory through local content requirements. These specify a certain percentage of inputs, or particular types of inputs, that need to be sourced locally. Notable examples for such policy include the attempts of Latin American countries to encourage consumption of local inputs for automobile production or China's efforts to develop their window and solar power sectors<sup>11</sup>. However, the effect of these obligatory requirements is

<sup>&</sup>lt;sup>5</sup> Paulo Bastos and Joana Silva, "The Quality of a Firm's Exports: Where You Export to Matters," *Journal of International Economics* 82, no. 2 (November 1, 2010): 99–111, https://doi.org/10.1016/j.jinteco.2010.07.001; Maurice Kugler and Eric Verhoogen, "Prices, Plant Size, and Product Quality," *The Review of Economic Studies* 79, no. 1 (January 1, 2012): 307–39

<sup>&</sup>lt;sup>6</sup> Olivier N. Godart and Holger Görg, "Suppliers of Multinationals and the Forced Linkage Effect: Evidence from Firm Level Data," in *Multinational Enterprises and Host Country Development*, vol. Volume 53, 0 vols., World Scientific Studies in International Economics, Volume 53 (WORLD SCIENTIFIC, 2015), 277–88

<sup>&</sup>lt;sup>7</sup> Olivier N. Godart and Holger Görg, "Suppliers of Multinationals and the Forced Linkage Effect: Evidence from Firm Level Data," in *Multinational Enterprises and Host Country Development*, vol. Volume 53, 0 vols., World Scientific Studies in International Economics, Volume 53 (WORLD SCIENTIFIC, 2015), 277–88

<sup>&</sup>lt;sup>8</sup> Beata S. Javorcik and Mariana Spatareanu, "Tough Love: Do Czech Suppliers Learn from Their Relationships with Multinationals?\*," *The Scandinavian Journal of Economics* 111, no. 4 (2009): 811–33,

<sup>&</sup>lt;sup>9</sup> John Spray, "Exports and Promoting Backward Linkages: Ideas and Lessons for the Made in Rwanda Policy" (IGC, 2017).

<sup>&</sup>lt;sup>10</sup> Oliver von Hagen, "The Impacts of Private Standards on Global Value Chains," Literature Review Series on the Impacts of Private Standards - Part 1 (International Trade Centre (ITC), 2011); Gary Gereffi and Karina Fernandez-Stark, "Global Value Chain Analysis: A Primer, 2nd Edition" (Duke University, Global Value Chains Center, 2016).

<sup>&</sup>lt;sup>11</sup> Mariana Mazzucato, *The Entrepreneurial State: Debunking Public Vs. Private Sector Myths* (Anthem Press, 2013).

controversial – in a number of cases, these have had negative (if not negligible) impact on local production.<sup>12</sup>

While local content regulations to enforce use of local suppliers can play a role in helping to develop initial local capacity and supply chains, without addressing the three challenges outlined above, coercive measure to force larger firms that would otherwise choose to import cheaper or higher quality inputs to use domestic suppliers will raise their costs.<sup>13</sup> In this case, one of two circumstances is likely:

- 1. In an effort to maintain competitiveness, larger firms will attempt to circumvent these regulations. Particularly in a context of low government monitoring capacity, they can do so relatively easily through misreporting inputs.
- 2. If these regulations are effective, competitiveness of local production will fall, reducing export capacity and raising prices for consumers. At the same time, foreign direct investment in the country will be disincentivised given the less attractive investment climate.

Instead, policies to facilitate, rather than compel, the use of local suppliers, are more likely to result in long term links that can raise productivity of both suppliers and customer firms.<sup>14</sup> In doing so, governments can help to generate demand for local production that can allow for competition with (and efficient substitution away from) imported goods where transport costs, border restrictions and locational advantages give local suppliers a cost edge.

Case study: The role of local content rules in the development of the Mexican motor vehicle industry<sup>15</sup>

Mexico's successful transformation of the motor vehicle industry between 1960 and 2000 highlights both the costs and benefits of applying local content rules. The Mexican Automotive Decree of 1962 banned imports of vehicles and many auto parts, and mandated 60% local value addition on vehicle assembly in the country. Following these policies, the automotive sector in the country grew significantly, with production levels five times higher by 1970<sup>16</sup>. But without additional policies to enhance productivity of local production, many investors left the country. For those that remained, production technology was outdated, and cars produced were low quality and uncompetitive. Subsequent regulations in 1972 that mandated a 30% export requirement on auto companies were largely ineffective given poor local production capacity.

In 1977, a revised Automotive Decree put foreign exchange balancing requirements on vehicle manufacturers, so that all imports (including those by their domestic suppliers) had to be met by equal amounts of exports, with at least 50% of these exports from domestic production of parts. This decree thus allowed imports of inputs provided there was accompanying local content development – a more realistic goal for American investors with greater potential for competitive production that could face off competition from Japanese vehicles in the US. To meet these requirements, large amounts of foreign investment were directed to modernising production of vehicle engines, resulting in high levels of technology and skills transfer from American companies to Mexican plants<sup>17</sup>.

<sup>16</sup> Ibid <sup>17</sup> Ibid

<sup>&</sup>lt;sup>12</sup> John Sutton, Local Content Policy, In Focus Interview, Uongozi Institute, 2014.

<sup>&</sup>lt;sup>13</sup> Steenbergen and Sutton, "Establishing a Local Content Unit for Rwanda"; Suzy H. Nikièma, "Performance Requirements in Investment Treaties," Best Practices Series (International Institute for Sustainable Development, 2014).

<sup>&</sup>lt;sup>14</sup> It is important to note that mandatory schemes are also incompatible with existing WTO rules.

<sup>&</sup>lt;sup>15</sup> For more information, see Juan Carlos Moreno Brid, "Mexico's Auto Industry after NAFTA: A Successful Experience in Restructuring?" (Kellogg Institute For International Studies, 1996), https://kellogg.nd.edu/documents/1527.

Over time local content rules were relaxed. By the late 1980s, the 'Decree for the Modernisation and Promotion of the Auto Industry' allowed automotive companies to import some amount of new vehicles into Mexico provided their trade balances were positive. As the same time, the decree largely removed local content requirements for exporting firms. After entering into NAFTA in 1994, both tariffs on car imports were and local content regulations were reduced dramatically. With sufficient local capacity in Mexico developed by this point, reductions in protectionist measures between Mexico and the US, Europe and South America resulted in significant foreign investment in the Mexican automobile industry by manufacturers such as Ford, Nissan and Honda.

# **Options for facilitating supplier development linkages**

There are two main ways in which policymakers can facilitate supplier development linkages: by helping to connect large firms with local suppliers, and by measures targeted at improving the quality and reliability of supplier output.

## Matchmaking

The most obvious way in which linkages between firms and suppliers can be encouraged is through greater information provided to large firms on what suppliers exist and their quality. For foreign investors, there are likely to be high search costs of looking for local suppliers compared to sourcing from known suppliers abroad. In Uganda, where there are a large number of potential suppliers of varying quality, as well as poor contract enforcement, better information on suppliers is likely to be extremely valuable in overcoming information constraints.

Improving access to information can be perhaps best achieved through the development of supplier databases, which are used across developed and developing countries to provide information on firms. These databases can be more or less ambitious in the information they collect and provide<sup>18</sup>:

- Databases such as Yellow Pages provide data on what businesses exist and their contact details
- More comprehensive databases such as Yelp also incorporate additional features such as customer reviews, quality certificates and product lines to provide information on firm products and their quality
- More comprehensive systems still such as Ali Baba provide details on firms' previous transactions that can provide more information on firm reliability and experience.

Such supplier databases constitute a valuable resource to both established large companies (to cross-check and compare prices of their suppliers) as well as incoming companies from abroad (to determine what imported inputs can be substituted with domestically produced products).

While the long-term sustainability of these platforms is likely to necessitate private sector management, governments can play a role in facilitating and encouraging development of these platforms and help SMEs in using them through information and training. At the same time, governments can also facilitate introductions through industry specific trade fairs and conferences, as is seen in Malaysia and Singapore.

<sup>&</sup>lt;sup>18</sup> See Spray and Steenbergen (2017) 'Made in Rwanda: Establishing a publicly available supplier database for Rwanda' for more information.

## **Quality upgrading**

However, matchmaking is not sufficient if the quality of supplier outputs cannot meet the demands of large firms that often have to compete internationally. At the same time, if suppliers are unable to effectively produce at a minimum level of quality, they are unlikely to effectively absorb knowledge and technology from firms they supply for more competitive production.

Widespread cross-country evidence suggests that the ability for foreign purchasers to create linkages with local suppliers depends on how much more sophisticated the products they are producing than their suppliers<sup>19</sup>. Malaysia's experience with supplier development linkages is illustrative here – early *Vendor Development Programmes* in the 1980s and 1990s that linked suppliers to exporters without providing additional assistance or incentives for capacity building resulted in limited local supplier development<sup>20</sup>. Their subsequent *Global Supplier Programme* set up in 2000 combines matchmaking with complementary policies for SME suppliers to access finance and training, allowing them to build capacity.

There are a number of different ways in which policymakers can help the domestic private sector upgrade the quality of their production.

#### 1. Improving overall competitiveness of production – infrastructure and finance

The 2013 World Bank Enterprise surveys, recent Doing Business indicators and data from annual Private Sector Investment Surveys in Uganda highlight that across a number of measures, ease of doing business in the country trails behind its neighbours, and in some cases falls below the average for the continent. Macroeconomic instability, unreliable electricity access, high costs of capital and costly trade procedures remain key constraints to accelerated private sector development.



productivity of smaller scale suppliers.

Any reforms to improve the overall business climate in Uganda, including investment in necessary infrastructure such as roads and electricity, and providing access to finance at affordable rates, are likely to be beneficial for the

<sup>&</sup>lt;sup>19</sup> 8/4/2020 4:25:00 PM.

<sup>&</sup>lt;sup>20</sup> UNCTAD, "Best Practices in Investment for Development: How to Create and Benefit from FDI-SME Linkages - Lessons from Malaysia and Singapore" (UNCTAD, 2011), https://unctad.org/en/pages/PublicationArchive.aspx?publicationid=455.

Recent IGC work in Uganda suggests that small manufacturing firms often operate in informal cooperative networks that allow them to share machines, materials and workers<sup>21</sup>. Formalising these cooperatives could prove valuable in allowing smaller firms to produce at competitive scales and to more easily access finance.

#### 2. Direct skills development, training and R&D

In addition to education policies aimed at improving overall skill levels in the country, specific supplier training to meet the needs of anchor firms is crucial. In Malaysia, SMEs are provided partial grants to train employees in specific skills based on curriculum that are determined in conjunction with multinationals. Better data on skills gaps and similar collaboration with large firms can help institutions like BTVET to target skills development accordingly.

#### 3. Financing for capacity building and technological upgrading

Governments can also provide the finance necessary for local suppliers to invest in capacity building and technology themselves. In Malaysia, SMEs also benefit from government R&D funds that provide grants for market research, product design and other forms of research and development, as well as a Technology Acquisition Fund, which provides access to finance of up to 70% of technology licenses and patent rights. Linking access to finance to purchase contracts from exporters, as is done in Singapore and Malaysia, may be particularly useful in developing linkages between these firms.

Under supplier development programmes implemented by the *Interamerican Development Bank* in Mexico, SMEs and large 'sponsor' firms are matched and SMEs are provided with grants of between 60 - 80% of the needed funding for machinery, technological upgrading, packing etc. SMEs are responsible for paying for these and are then paid back by IDB, which helps to ensure SMEs invest in the types of activities eligible for these grants.

## 4. Subsidies to large firms for capacity building

At the same time, much capacity building can be done by large buyers themselves. Direct support from buyers through, for example, employee and employer training, assistance in organizing production, financial planning and quality control<sup>22</sup>, may be particularly valuable in helping suppliers to meet the particular standards needed.

Given the high risks of investment in quality or purchase commitments, neither buyers nor suppliers are often willing to make the first investments without assurances from the other. In the absence of enforceable contracts, this can paralyse quality upgrading. There is therefore a role for policy not just in facilitating but also in initially incentivizing this firm-to-firm capacity building of local suppliers<sup>23</sup>. This can be done by providing financing for buyers to:

- Cover the expenses of working with domestic suppliers on training, product development, factoring auditing and other aspects of quality improvement. In Malaysia, these expenses are deducted from multinationals when computing income taxes.
- Transfer technology and processes to suppliers.

<sup>&</sup>lt;sup>21</sup> Bassi et al. (2019) 'Understanding productivity dispersion: Evidence form a new survey of manufacturing firms in Uganda' International Growth Centre.

<sup>&</sup>lt;sup>22</sup> Beata Javorcik and Mariana Spatareanu, "Disentangling FDI Spillover Effects: What Do Firm Perceptions Tell Us?," in *Does Foreign Direct Investment Promote Development?*, by Theodore H. Moran et al. (Peterson Institute, 2005); Garrick Blalock and Paul J. Gertler, "Welfare Gains from Foreign Direct Investment through Technology Transfer to Local Suppliers," *Journal of International Economics* 74, no. 2 (March 1, 2008): 402–21, https://doi.org/10.1016/j.jinteco.2007.05.011; Theodore H. Moran, *Harnessing Foreign Direct Investment for Development: Policies for Developed and Developing Countries*, 58513th edition (Washington, D.C: Center for Global Development, 2006).

<sup>&</sup>lt;sup>23</sup> It is important to note that both mandatory and non-mandatory measures to support local content development may contravene WTO agreements. As such, financing and other government support for firms contingent on the use of local content should be applied with caution.

• Undertake joint research and product development with suppliers.

#### Case study: Successful cases of supplier development in Chile and Costa Rica

#### Chile<sup>24</sup>

The ongoing 'Supplier Development Programme' in Chile launched in 1998 is an example of successfully using government financing for both suppliers and buyers to improve linkages between small and medium suppliers and large firms. The programme was motivated by a need to improve compliance of Chilean exporters and large firms with international production standards as part of trade agreements signed in the 1990s.

As part of this programme, the government subsidised the cost of projects aimed at improving management of SMEs to improve their competitiveness. These projects were sponsored by the large firms to whom these suppliers provide inputs. Each project must include at least 20 SMEs in the agriculture and forestry sector, or at least 10 SMEs in other sectors. At the same time, the government provided additional subsidies to activities such as training, technical assistance and technology transfer to suppliers. By not covering the entire cost of these activities, the government was able to ensure some (financial) commitment on the side of suppliers to enhance productivity.

Once large firm-sponsored projects are approved, they went through a 6 month 'diagnostic phase', where areas of intervention that buyers/'sponsors' wished to develop with their suppliers are identified. Through this, a development plan was designed by an intermediary agent. There was then a 'development phase' where this plan was implemented under the responsibility of the sponsor firm, which can last up to 3 years. Both the design of the plan and the development phase were eligible for up to 50% funding by CORFO, with projects annually re-assessed based on their implementation.

As a result of this programme, suppliers exhibited higher sales (16%, 11% and 9% higher after one, two and three years respectively), as well as higher employment, salaries paid, and survival rates. Though the programme had no impact on suppliers' ability to export directly, large buyers benefiting from a steady supply of quality inputs increased their sales by 19% and their ability to export by 4.6% after two years<sup>25</sup>. This programme formed the basis for the creation of similar programmes in Colombia, El Salvador, Mexico, and Uruguay. In El Salvador, supplier development programmes supported by UNDP and IDB diagnose and target cost reductions and quality improvement of local suppliers in partnership with their customer firms. Between 2010 and 2014, value chains targeted experienced a 41% increase in productivity and cost reductions of up to 46%, resulting in an additional \$3.9 million worth of investment across 22 of these linkages by 2014<sup>26</sup>.

#### Costa Rica<sup>27</sup>

Starting in 1999, the government of Costa Rica and IADB worked together in building up capacity

<sup>&</sup>lt;sup>24</sup> Arraiz, Henriquez, and Stucchi, "Supplier Development Programs and Firm Performance."

<sup>&</sup>lt;sup>25</sup> Arraiz, Henriquez, and Stucchi.

<sup>&</sup>lt;sup>26</sup> Emmanuel Hess, "Rising Concentration in Asia-Latin American Value Chains: Can Small Firms Turn the Tide?" (UN, 2015).

<sup>&</sup>lt;sup>27</sup> For more information on this programme and enabling conditions, see Madrigal 'Promoting Productive Linkages Between SMEs and High-Tech MNCs in Costa Rica'

of local SMEs to supply multinational firms, in particular those operating in free trade zones in the country. This was motivated by the desire to improve productivity of SMEs to the point where they would be adding more value to products produced in these zones and may also be able to export directly. A concerted supplier development project was implemented between 2002 and 2005, and involved:

- 1) Generating 45 linkages i.e. business deals between high-tech MNCs and SMEs
- 2) Creating an online system of supply and demand information to facilitate further linkages
- 3) The creation of the *Costa Rica Provee* or National Supplier Development Office to maintain and continue the two activities above

While subsequent evaluations of the effectiveness of the online information system note that this falls short of expectations and is not used by most firms, the other aspects of the programme were effectively implemented.

The project resulted in not only the initial 45 linkages between firms but was associated with a growing number of deals and higher local procurement ratios in subsequent years.<sup>28</sup> These linkages were generated most in medical equipment and electronics. SME firms involved in the scheme enjoyed higher average wages, labour demand, and export growth as a result of the programme.<sup>29</sup>



Crucial to the success of this program was effective initial preparation/training of SMEs to supply the goods and services required by MNCs<sup>30</sup>.

The project cost approximately US\$1.5 million and was co-funded by the IDB and the government of Costa Rica, though both SMEs and **MNCs** noted their willingness to pay for such information and training services.

<sup>&</sup>lt;sup>28</sup> Madrigal 'Promoting Productive Linkages Between SMEs and High-Tech MNCs in Costa Rica'

<sup>&</sup>lt;sup>29</sup> Monge-Gonzalez and Rodriguez-Alverez (2013) 'Impact Evaluation of Innovation and Linkage Development Programs in Costa Rica: The Cases of PROPYME and CR Provee' IDB

<sup>&</sup>lt;sup>30</sup> Madrigal 'Promoting Productive Linkages Between SMEs and High-Tech MNCs in Costa Rica'

# The role of dedicated agencies

In implementing many of the above policies, there are significant benefits to having a dedicated unit or agency responsible for identifying key industries for supplier development and encouraging linkages between large firms and domestic suppliers. Provided this unit has sufficient information on and relationships with local suppliers, it can proactively share this information with potential and existing investors and facilitate introductions. A dedicated 'local content unit' can work with exporting firms to identify key constraints to supplier quality and ensure that government policy can respond to this accordingly.

# **Next steps**

There are likely to be a number of industries that could benefit from policies to enhance supplier development linkages in Uganda. Evidence suggests that incoming investments in the oil and gas industry, for example, offers significant opportunities for targeting and linking local suppliers in sectors such as construction, transportation and accounting to build up capabilities not specific to the oil industry<sup>31</sup>.

Further analysis may be valuable in exploring which industries would offer 'low hanging fruit' for investing in linkages.

Potential next steps for policy include:

- 1. Exploring the feasibility of establishing an up-to-date database of supplier firms. Such a database could contain information on the products sold by listed companies, their transaction history and quality certification (e.g., by the Uganda Bureau of Standards). The possibility to cross-check and enrich such a database with existing CIT or VAT data on a periodic basis would allow for the database to be kept up-to date.
- 2. Determining the degree of current and potential local content in products under targeted industries. Research can provide insights into the degree by which large customer firms in Uganda are served by domestic suppliers and the constraints faced by local suppliers in providing quality inputs for large firms. This could be done through a diagnostic study of a particular industry/set of firms. Existing data collected by the Uganda Revenue Authority on product level VAT transactions and imports can allow for the identification of production chains for efficient import substitution through supplier development.

<sup>&</sup>lt;sup>31</sup> Ritwika Sen, "Enhancing Local Content in Uganda's Oil and Gas Industry" (UNU-WIDER, 2018).

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