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Assessing inter-sectoral linkages in the Zambian economy: The case of the agro-processing subsector



- In brief:**
- Although the diversification of the economy has been on the national policy agenda for a long time, Zambia has continued to remain overly dependent on the export of copper for foreign currency earnings and public revenue
 - This study examines the way different sectors in the economy interact to identify policy interventions that can promote the diversification of the economy in Zambia.
 - The findings suggest that there are stronger backward linkages between the agriculture and industrial sectors and weaker backward and forward linkages between the services sector and the rest of the economy.
 - The research shows the agro-processing subsector is a dynamic component of the Zambian economy, with significant backward linkages with agriculture and forward linkages with the services sector.
 - Policy responses should focus on key interventions like developing an effective local content strategy that can bolster horizontal sectoral interlinkages and promote competitiveness among local firms.
 - For the agro-processing subsector to thrive, Zambia must address various economic constraints like streamlining export and import processes, facilitating access to the domestic and regional markets for producers, consistent and predictable macroeconomics, exchange rate and energy, tax and trade policy.

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Overview of the research

Since independence in 1964, the government of Zambia has been seeking to reduce the country's dependence on copper and its related minerals for export earnings and public revenue. Various policy documents and development strategies have since recognised the challenge of relying on the exports of few commodities. In particular, the recently launched 7th National Development Plan (7thNDP, see GRZ, 2017) has re-emphasised the need to diversify the economy to reduce the country's dependence on mining.

To transform the Zambian economy into a diversified economy, stimulating and sustaining the growth of other sectors outside of mining like the agriculture and industrial sectors, and particularly manufacturing is essential. Inducing sustained growth in these sectors requires a clearer understanding of how activities in these sectors relate to other sectors. In other words, for a diversification strategy to be successful, a clear understanding of how different parts of the economy interact is vital.

This study examined inter-sectoral linkages in the Zambian economy, using the agro-processing subsector as the entry point. The study focused on the agro-processing sector in Zambia, as this sector has significant backward linkages with agriculture and forward linkages with the services sector. Therefore, it is a strategic sector in the Zambian economy.

The analysis carried out in this study shed light on the nature of the interaction between the different sectors in the economy. Specifically, the findings of the study highlighted the strategic importance of agriculture and manufacturing in the broader policy aimed at diversifying the Zambian economy. This study identified several strategic policy interventions that can contribute positively to the goal of diversifying the Zambian economy.

Summary of key findings

- **The agro-processing subsector is a dynamic component of the Zambian economy, with a growing number of participants at the firm level, both formal and informal.** The sector is the largest subsector of the manufacturing sector in Zambia, accounting for close to 70 percent of total manufacturing valued added (MVA) in 2015.
- **The agriculture and manufacturing sectors have strong backward linkages with the rest of the economy, while the services sector exhibited weak backward and forward linkages to the rest of the economy in both 1994 and 2010.** This suggests that manufacturing, particularly agro-processing relies on the agricultural sector for input supplies. This is not surprising, given that the largest section of the manufacturing sector in Zambia is natural-resource based, which draws inputs from the agriculture sector.
- **Although the agro-processing subsector draws most of its inputs from the domestic agriculture sector, the subsector still relies on imports of non-agricultural intermediate goods.** This partly accounts for the weaker linkages between sectors. However, it is an indication that there is potential to strengthen the existing linkages in the economy.
- **Although the growth of retail supermarkets has stimulated not only the expansion of agro-processing in Zambia but also improvement in product quality, as the local market for agro-processing products is limited which inhibits growth in the sector.** In this regard, exploring the potential to tap into regional markets is desired, especially with goods that

Zambia has a marked comparative advantage.

- **The current pattern of diversification in the economy highlights a number of challenges.** For instance, the economy has a lopsided structure with total output predominantly generated in the services sector (close to two-thirds), which is weakly connected to the other sectors and has a relatively low share in total employment. Strategic policies must be implemented to address these structural imbalances in the economy.
- **The subsector is hampered by policy inconsistencies and logistical constraints, which not only reduce the competitiveness of local producers but also act as a barrier to the subsector realising its full potential in the region.** Key policy and logistical constraints recognised by the actors in the subsector include: a volatile Zambian Kwacha-United States Dollar exchange rate; regular reversals in energy, tax and agricultural exports policies; cumbersome export and import processes; lack of coordination between trade and industrial development strategies; low capacity in the product testing; and certification facilities. Specific interventions are needed to address these constraints.

Policy recommendations

1. **Resolve demand constraints by developing and implementing a local content strategy:** The results suggest that there are generally weak forward linkages in the economy, reflecting the challenges of low demand for final products between sectors. The most popular policy recommendation aimed at strengthening forward linkages in the economy is the local content strategy. However, the local content approach is not a panacea for weak linkages in the economy. This strategy would only work under two conditions, one, if the logistical constraints in the economy are sufficiently addressed, and two, if it is deployed as a measure to create competitive local firms over time. However, in this case, the local content strategy should be a temporal measure bound by key strategic time-specific goals that should be evaluated regularly.
2. **Bolster horizontal and vertical linkages:** Many agro-processing firms in Zambia rely on imports of intermediate agricultural and non-agricultural inputs, mainly from South Africa and now China and India, which is a clear indication that there are opportunities to strengthen the horizontal linkages in the local economy even further. This can be done by creating the capability for local firms to produce some of the imported inputs. To strengthen the linkages and promote structural transformation in the economy, it is important to identify specific subsectors that can exert strong pull and push on other sectors.
3. **Unlock regional markets with competitively produced exports goods:** Exploring the potential of tapping into regional markets, particularly with goods where Zambia has marked comparative advantage, is needed. Zambia has huge potential to produce various agricultural products ranging from cotton to cashew nuts due to abundant fertile land, water, adequate rainfall and a favourable climate. This advantage might give agro-processing firms operating in Zambia a significant competitive edge over similar firms in neighbouring countries. Policy support can be directed at identifying value chains where Zambia exhibits a clear comparative advantage in the region. However, for this strategy to be successful, it is important for Zambia to address logistical constraints like infrastructure, streamlining export and import processes and providing direct and indirect incentives for local firms to become competitive.

- 4. Resolve policy inconsistencies and infrastructure-related impediments:** Interviews with key actors in the sector suggest that while the agro-processing subsector has great potential for growth, there are several factors which constrain the sector's potential, such as inconsistencies in policies, a saturated domestic market, an unstable macroeconomic environment and poor infrastructure, which lead to the intermittent supply of electricity that engulfed the country in 2016 and 2017. Therefore, interventions implemented in parallel with the local content strategy should prioritise strengthening overall policy coordination, mitigating the impacts of excessive exchange rate movements and resolving regular reversals in energy, tax and trade policies, as these tend to inflate production costs of local manufacturers and render them uncompetitive in regional markets.
- 5. Unlock services sector interlinkages with rest of the economy:** The total output of the economy is dominated by the services sector, which is weakly connected to other sectors and accounts for a low share in total employment. This structure is problematic when attempting to achieve inclusive and sustained growth. For example, the agricultural sector that accounted for close to 60 percent of the labour force in 2015 contributed only 7 percent of total output. To address these structural challenges in the economy, it is essential to include a focus on other sectors that have greater potential to stimulate broad-based growth and contribute to meaningful diversification of the economy.
- 6. Address logistical constraints:** To realise its full agro-processing potential, Zambia must address the logistical constraints of poor and inadequate infrastructure, the streamlining of export and import processes and the providing of direct and indirect incentives for local firms to become competitive. All these factors affect the growth and competitiveness of the sector, especially when it comes to accessing regional markets.