Policy Brief

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Incentives to support agriculture in the East African Community

Lessons for Rwanda

In brief

- As one of the potential drivers of Rwanda's economic growth, agro-processing industries are supported with measures including tax incentives, import tariff protection, and supporting infrastructure.
- Analysis of Rwanda's agricultural market shows substantial policy weight is assigned to staple cereal crops such as rice, maize, and wheat – translating into price incentives for producers, yet growth in productivity is slow.
- Welfare analysis suggests that a proposed VAT exemption for locally processed cereal commodities would have little impact on poverty relative to forgone tax revenues.
- Policy recommendations evolving from the analysis include: complement the current food availability policies with measures to improve access and stability; rebalance public expenditure in support of agriculture towards public goods and infrastructure; and strengthen the regional governance and cooperation framework to allow for reliable market access for exporting countries and stable prices for net-importing countries.

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Overview of the research

As one of the best performing countries in the Doing Business rankings (World Bank 2019), Rwanda attracts foreign direct investment (FDI) mainly into services, particularly the wholesale and retail trade sectors. High costs of production stemming from Rwanda's geographic location, as well as size constraints, hinder further investment and growth of the agro-processing sector.

Since 2007, government interventions in Rwanda's agricultural and trade sectors have sought to address these supply-side constraints, with the objective of raising competitiveness in import-competing sectors. Since its launch in 2007, the Crop Intensification Program (CIP) has been the main vehicle for agricultural development sector development. The CIP describes a set of interventions, including crop regionalisation, input subsidies, and capacity building aimed at promoting priority food crops (MINAGRI, 2011). In the trade sector, post-harvest marketing and aggregation activities are organised mainly through agricultural cooperatives, with guidelines issued for the priority crops aimed at maintaining minimum quality standards.

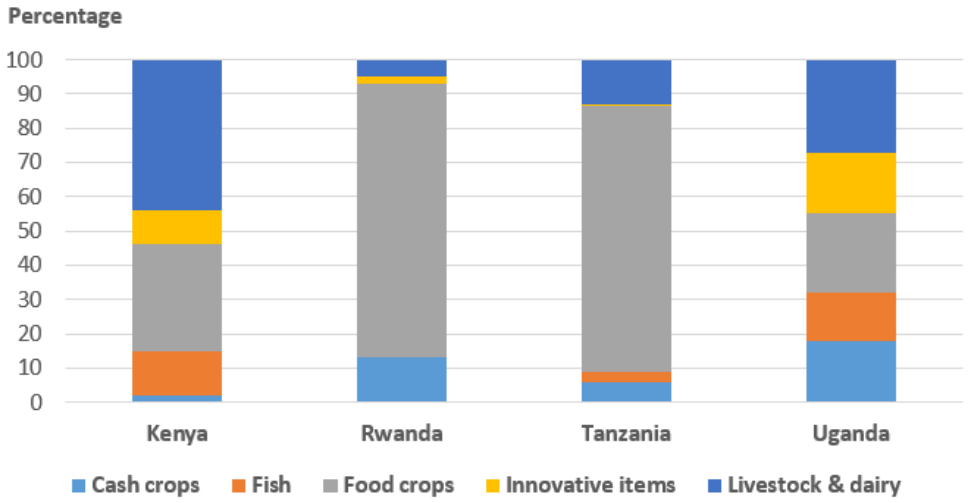
To further boost competitiveness, The Ministry of Trade and Industry proposes an 18 percent VAT exemption for processed agricultural commodities. This is to compensate for the negative impacts on local commodity markets stemming from perceived distortionary policies -- particularly producer subsidies – implemented by East African Community (EAC) counterpart states. The Ministry for Trade and Industry requested the IGC to evaluate the economic merits of this policy change. Selecting the three key food crops – maize, rice, and wheat – this study addresses the following questions:

1. Does the existing policy and market environment specific to maize, rice, and wheat promote or hinder production?
2. What would be the fiscal costs and welfare benefits of the VAT exemption for milled rice and flours of maize and wheat?

The study analyses Rwanda's policy and market environment for agriculture comprised of the composition of public agricultural expenditures and the trends in price incentives created by existing policies for the selected commodities. Next, the study gives an overview of VAT regimes applicable to the selected commodities in the EAC. Finally, using household data for Rwanda, the study estimates the fiscal costs and welfare benefits of exempting cereal products from the VAT. These analyses give an estimate of the costs and benefits of the proposed policy change.

Measuring the agricultural policy environment

Figure 1: Composition of government expenditure on agricultural commodity groups in Kenya, Rwanda, Tanzania, and Uganda (average 2006-15)

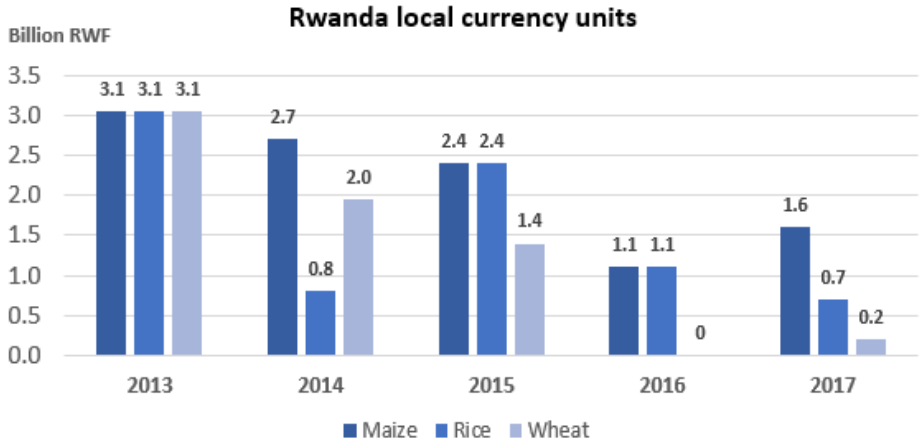


Source: MAFAP (2018)

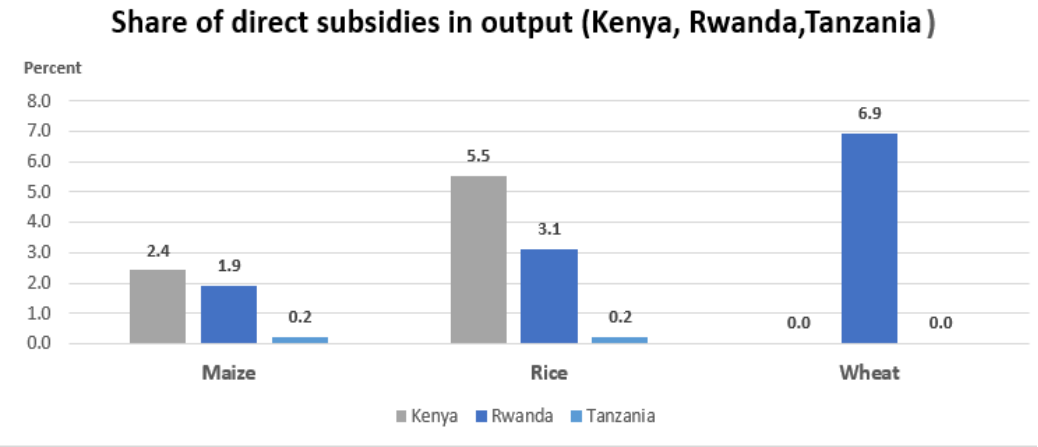
The patterns of public expenditure in support of agriculture in Figure 1 show that food crops in Rwanda receive 80 percent of total expenditures. Compared to its EAC neighbors, Rwanda compares favourably in expenditures on cash crops, but ranks among the least in spending on innovative items, such as agricultural research. The first panel on Figure 2 presents public expenditure on direct input subsidies for maize, rice, and wheat in absolute. In 2013, direct expenditure for rice, maize and wheat exceeded RWF 9 billion, which was roughly 0.6 percent of the total budget in that year. Expenditures in subsequent years trended downwards, as major projects completed their execution.

The second panel of Figure 2 compares the share of output value accounted for by producer subsidies across three countries for which data are available (Rwanda, Kenya, and Tanzania). A country's share of subsidies in aggregate production indicates the weight it attaches to producing a particular commodity. Tanzania and Kenya accord a relatively higher weight to producing rice and maize, while Rwanda attaches more weight to producing wheat.

Figure 2: Actual expenditure on direct input subsidies for maize, rice, and wheat (2013-17)



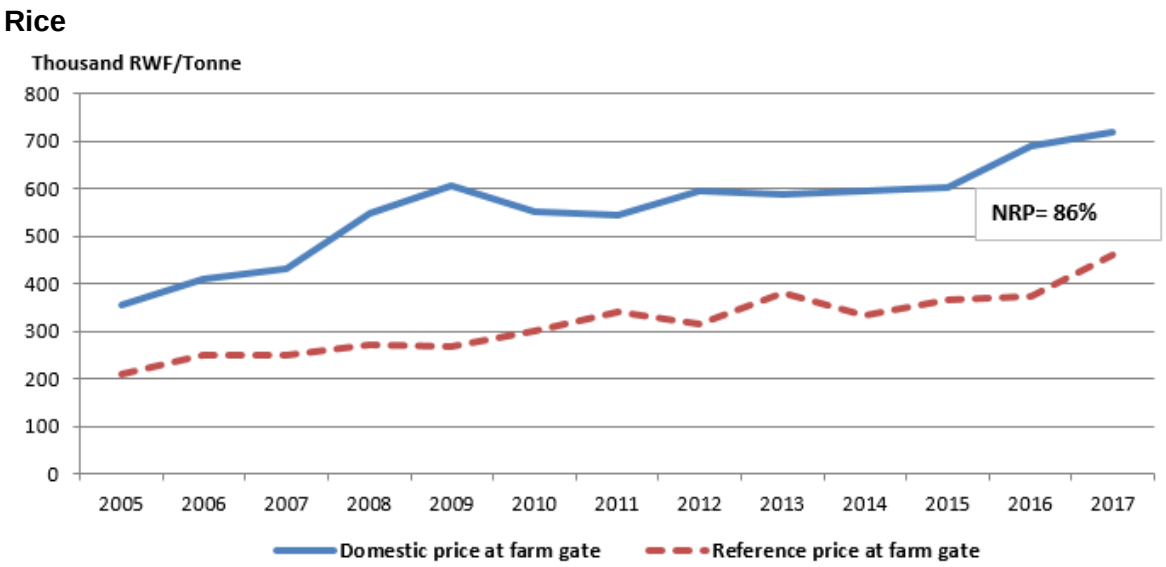
Source: MAFAP (2018B)



Source: MAFAP (2018B), FAOSTAT

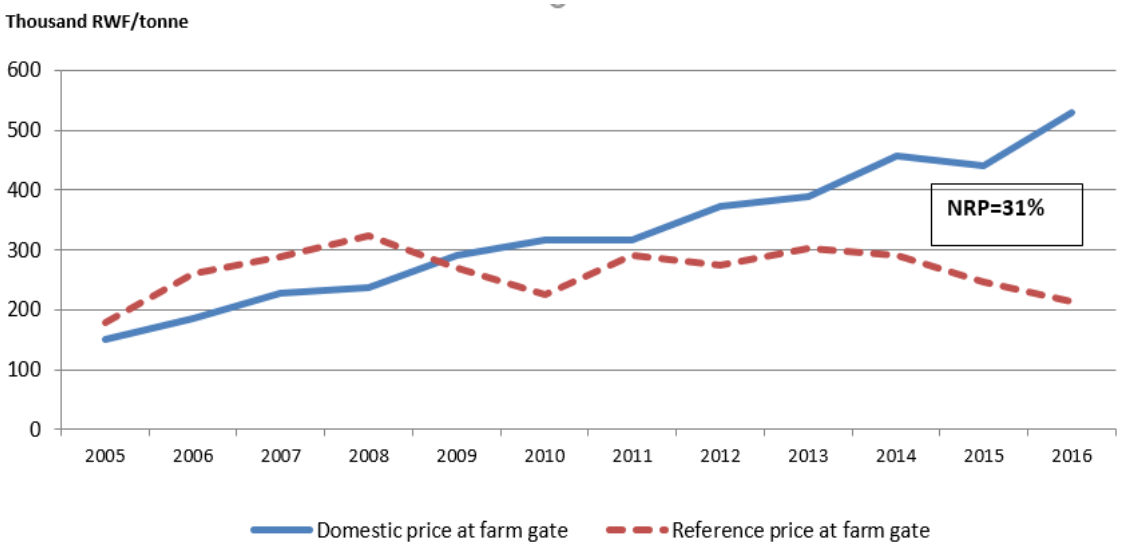
Figure 3 explores trends in producer incentives, comparing domestic prices with international reference prices, adjusted for logistics costs and trading margins. Nominal Rate of Protection (NRP), also presented in the graph summarises the percentage difference between the two prices. A positive NRP (a higher domestic price compared to the reference price) shows that policies incentivised domestic production, while negative NRPs (with a lower domestic price than the reference price) indicate disincentives to producers.

Figure 3: Rwanda, Nominal Rate of Protection (NRP) for rice and wheat, 2005-2017



Source: MAFAP (2018B)

Wheat



Source: MAFAP (2018B)

The NRP for rice was 86 percent on average over the analysed period, which is partly explained by the average common external tariff (CET) applied by Rwanda over the period (46 percent). The NRP for wheat was 31 percent on average over the analyzed period, largely due to the CET applied by Rwanda over the period (9 percent). This large difference is because price incentives for wheat only materialised in 2009, two years after the CIP started. Considering the period from 2014-16, price incentives for wheat increased to 95 percent and 113 percent for rice. The substantially higher NRPs compared to official tariffs is driven by several factors, including demand and supply fluctuations, also of trading partners, and suggests the existence of market imperfections along rice and wheat value chains, limiting transmission of international prices to the Rwandan market.

While price incentives to producers of rice and wheat in Rwanda increased over the analysed period, production grew less than proportionally. For instance, in the case of rice, while output growth averaged 6.3 percent annually between 2007 and 2012 when price incentives were lower, the pace slowed to 3.8 percent annually during the period with higher NRPs between 2013 and 17.

Regional VAT rates for processed cereals

The analysis of VAT regimes shows few similarities, as several differences exist across commodities and countries. The standard VAT rate in Kenya is 16 percent, while all supplies of wheat and maize flour is zero-rated, and rice is exempt. Rwanda maintains an 18 percent VAT rate on local and imported supplies of processed cereals. In Tanzania, wheat grain attracts an 18 percent VAT rate, while other cereals and cereal products are exempt. Uganda levies an 18 percent VAT rate on supplies of maize flour, wheat flour and rice milled from outside the country, while Ugandan-produced rice is zero-rated.

The implications of VAT exemptions for cereals in Rwanda suggest high fiscal costs, yet small improvements to household welfare. The largest benefits are observed for maize flour, where a VAT exemption generates a reduction in poverty by 1.4 percent at a cost to the government of RWF 84.2 billion equivalent per year.

In summary, the existing policy environment benefits rice, maize, and wheat through a combination of

direct agricultural expenditures and imperfect international price transmission, resulting in high price incentives for producers. The analysis suggests that incentivising the prices of rice, maize, and wheat might not raise productivity nor improve household welfare very much, relative to its cost in terms of government revenue.

Policy recommendations

Complement the current food availability policies with measures to improve access, affordability, and price stability. Sustained food security requires price stability and economic and physical access to food. This report shows that the current policy and market environment encourages domestic production but does little to promote economic access and price stability. Economic access for net buyers of staple foods can be enhanced by promoting high-value crops to augment agricultural household incomes, alongside the current policies promoting staple food crops. This could require rebalancing agricultural expenditure towards high-value export crops, such as on productivity enhancing research. Policies that insulate domestic prices from international competition should be applied sparingly if at all. Negative impacts of price instability can be addressed by providing social safety nets during the short periods of high or low food prices, thereby directly helping poor people. At the same time, negotiation of favourable external trade terms within the EAC – such as the removal of critical raw materials from the list of sensitive items – would improve competitiveness of local agro-processing.

Rebalance public expenditure in support of agriculture towards public goods and infrastructure. Public goods, such as agricultural research and development, and market-enabling infrastructure, such as post-harvest handling facilities, can encourage private sector investment, leading to efficiency gains for the economy. Analysis shows that these activities can generate larger economic benefits compared to price-supporting measures. Rebalancing agricultural budgets towards these activities can have large economic benefits for the country.

Strengthen regional cooperation frameworks so as to cultivate increased trust in regional integration. In order to materialise the benefits of a liberalised market for cereals, a regional governance framework needs to be established. This would address the concerns of net-exporting countries towards market access, and of net-importing countries towards stable and fair prices. Regional blocs that have successfully created a regional identity have allocated sectoral responsibilities within partner states. However, if one country starts subsidising production, other countries will tend to follow to keep their crop production competitive. This can lead to a cycle of ever-increasing subsidies (as in developed countries in the past) and commodities being produced and sold at less than their social cost of production, a highly inefficient outcome.

Note: The above analysis estimated the fiscal costs and benefits to consumers of a VAT exemption. The impacts on other value chain actors such as producers, traders, and processors are not considered. Further research could explore the impacts on firm productivity.