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Grain Price Spikes and Beggar-thy-neighbor Policy Responses: The Consequences for Uganda's Poor

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Introduction

Upward spikes in the international price of food in recent years led some countries to raise export barriers, thereby exacerbating both the price spike and reducing the terms of trade for food-importing countries ('beggaring' their 'neighbors'). At the same time, and for similar political-economy reasons, numerous food-importing countries reduced or suspended their import tariffs, and some even provided food import subsidies -- which also exacerbated the international price spike, thus turning the terms of trade even further against food-importing countries. This issue became a major item on the agenda of various international policy fora, including the annual meetings of G20 countries in recent years. For that reason, recent studies have attempted to quantify the extent to which such policy actions contributed to the rise in food prices.

A study by Jensen & Anderson (2014) uses the global AGE model GTAP and the corresponding database to quantify the global policy actions' contributions to the raise in food prices by modeling the changes in distortions to agricultural incentives in the period 2006 to 2008. We link the results from this global model into a national AGE model, highlighting how global "Beggar-thy-Neighbor Policy Responses" impacted on poor households in Uganda.

More specifically we examine these research questions:

- What were the Ugandan economy-wide and poverty impacts of the price spikes?
- What was the impact of other countries "Beggar-thy-Neighbor Policy Responses" on poor households in Uganda?
- What was the effect of Uganda's own policy response?
- What possible policy responses could Uganda have undertaken to ensure poor households access to affordable food?

Methodology

Both the GTAP and the national Ugandan AGE database are calibrated to the year 2007. The Ugandan AGE model and its database (the SAM) have been constructed to enable poverty analysis by integrating the full set of households from a nationally representative household survey as well as household-specific consumption parameters and factor supplies. This allows to trace the effects from the aggregate national level down to the effects on individual Ugandan households' incomes and expenditures necessary for the analysis of food security and poverty impacts.

In a preparatory step, the databases of both models are updated such that the policy instruments of individual countries reflect the corresponding Nominal Rate of Assistance (NRA) levels of the pre price rise year 2006 as estimated by Anderson & Nelgen (2013). Then, the actual simulation proceeds in two main steps: First, the GTAP model is used to simulate the 2006 to 2008 changes in the NRAs to assess the magnitudes of individual policy responses to the food price rise by countries world-wide. The GTAP model simulations results on the impacts on prices and quantities for Ugandan trade with various regions are used to link to the national Ugandan model following an approach suggested by Horridge and Zhai (2005). Using the GTAP model results as additional shock components, equivalent simulations are performed with the Ugandan model. The results from the model framework allow the construction of another counterfactual scenario which is, what food price levels would have been without policy responses to the spikes.

Expected Results

With the results from the model framework at hand, we can answer the research questions raised above and determine hypothetical Ugandan policy responses which would have ensured better poverty and food security outcomes.

The current status of the work is that both models have been finalized, the link between the models has been established and the framework has been tested. All data necessary has been acquired. The tasks are to run the simulations and write up the paper and the results.