Policy options for influencing prices: Agricultural productivity and crop diversification

Steven Haggblade (MSU)

Presented at the Comesa policy seminar
“Food price variability: Causes, consequences, and policy options”
on 25-26 January 2010 in Maputo, Mozambique
under the Comesa-MSU-IFPRI African Agricultural Markets Project (AAMP)

Outline: Policy options for influencing prices

1. Agricultural productivity
2. Diversification
   a. Food consumption
   b. Animal feeds
1. Africa’s farm productivity lags

Africa’s productivity: lowest in the world
Impact of improved farm technology

Impact of improved farm technology
Improved cassava varieties double yields

Cassava prices fall as a result
Improved technology requires long-term investments in agricultural research

- SR52 maize: 28 years
- TMS cassava: 25 years of active breeding
- Requires long-term institutional support (investment, human capital formation, solid recurrent budgets)

Improved farm management

- Raises productivity
- Requires agronomic research
- And strong extension systems
Cost of production differs across farms

Outline: Policy options for influencing prices

1. Agricultural productivity

2. Diversification
   a. Food consumption
   b. Animal feeds
2. No diversification $\rightarrow$ big price shocks

2. Diversification moderates price shocks
2. Diversification: Uganda’s food basket

<table>
<thead>
<tr>
<th>Calorie source</th>
<th>Uganda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plantains</td>
<td>18</td>
</tr>
<tr>
<td>Cassava</td>
<td>13</td>
</tr>
<tr>
<td>Maize</td>
<td>11</td>
</tr>
<tr>
<td>Sweet potato</td>
<td>9</td>
</tr>
<tr>
<td>Beans</td>
<td>6</td>
</tr>
<tr>
<td>Wheat</td>
<td>2</td>
</tr>
<tr>
<td>Rice</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>39</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

2. Diversification: cassava in northern Mozambique substitutes for maize during drought years
2b. Livestock feeds

2. Diversification → Substitution possibilities

- Human foods (matoke, cassava, sweet potatoes, etc)
- Livestock feeds
Conclusion

- Agricultural research & extension $\rightarrow$ higher productivity $\rightarrow$ lower food prices

- Diversification $\rightarrow$ substitution among human and animal foods $\rightarrow$ moderates maize price shocks