Findings from FSRP Research on Food Staples Markets: Implications for Investment Priorities to Promote Regional Trade

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Food Security Research Project

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Lusaka

Roadmap

- Background
  - Urbanization
  - Policy environment
  - More diversified consumption
  - Less variable production in southern Africa
  - Less correlated production across countries in southern Africa
  - FSEHS
- Why so little policy change on trade?
- Priorities for action
Urbanization

- Total population in ESA over next 25 years expected to rise by about 2/3
- But urban population growing much more rapidly than rural
  - 125% compared to 42%
- Means that total volume of food flowing through marketing channels will double, even if we assume no income growth
  - Modest income growth would push to at least 120%

Urbanization (2)

- Traditional marketing systems will continue to carry largest share of this food, and many are (woefully) inadequate even for current volumes
- Major investment is thus needed
  - Improved wholesale and retail (and assembly?) facilities
  - Transport infrastructure to reduce very high transport costs
Policy Environment

- Changed policy environment since early 1990s
  - Fewer government subsidies to maize sectors
  - More diversified production (cassava, groundnuts, s. pot.)
  - Less government control of domestic trade
    - Small-scale maize milling and informal marketing systems
- But governments not relinquishing control over regional trade
  - So formal trade is still difficult in many countries
  - Trade is forced to be informal

Diversified Consumption

Percentage of Total Food Expenditure Allocated to Food Items in Selected Areas of Mozambique and Zambia

<table>
<thead>
<tr>
<th>Food Items</th>
<th>Mozambique</th>
<th>Zambia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maize</td>
<td>2.4</td>
<td>8.9</td>
</tr>
<tr>
<td>Rice</td>
<td>7.8</td>
<td>2.5</td>
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<tr>
<td>Wheat</td>
<td>15.5</td>
<td>11.8</td>
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<tr>
<td>Cassava</td>
<td>1.3</td>
<td>0.3</td>
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<tr>
<td>Rural</td>
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<td></td>
</tr>
<tr>
<td>Maize</td>
<td>9.1</td>
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<tr>
<td>Rice</td>
<td>11.4</td>
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</tr>
<tr>
<td>Wheat</td>
<td>7.4</td>
<td>----</td>
</tr>
<tr>
<td>Cassava</td>
<td>4.7</td>
<td>----</td>
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</tbody>
</table>

Data Source: Mozambique: IAF 2002, according to their definition of rural and urban; Zambia: 2007 FSRP Urban Consumption Survey, first round, as calculated by authors
Diversified Consumption

Food Staple Budget Shares in Nairobi, Kenya

<table>
<thead>
<tr>
<th></th>
<th>1995</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Share of expenditure on four staples</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maize products</td>
<td>42</td>
<td>32</td>
</tr>
<tr>
<td>Wheat products</td>
<td>35</td>
<td>44</td>
</tr>
<tr>
<td>Rice</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>Cooking banana</td>
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<td>4</td>
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</table>
Less Variable Production

- Coefficient of variation
  - 1990-99: 0.29
  - 1996-2005: 0.11
- Production in southern Africa seems to be less variable, not more
- Driven by RSA, but fell in every country except Zimbabwe

<table>
<thead>
<tr>
<th></th>
<th>South Africa</th>
<th>Zambia</th>
<th>Zimbabwe</th>
<th>Mozambique</th>
<th>Malawi</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-1999</td>
<td>-0.20</td>
<td>-0.88***</td>
<td>-0.88***</td>
<td>0.65**</td>
<td>-0.20</td>
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<tr>
<td>1996-2005</td>
<td>0.66**</td>
<td>0.77***</td>
<td>0.30</td>
<td>0.22</td>
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</tbody>
</table>

Data sources: FAOSTAT
# Less Correlation of Production

**Correlation Coefficients on White Maize Prodn**

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<td><strong>1990-1999</strong></td>
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<tr>
<td>South Africa</td>
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<td>0.93***</td>
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<td>0.77***</td>
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<tr>
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<td>0.27</td>
<td>-0.88***</td>
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Data sources: FAOSTAT
Greater prospect – and need – for trade

- Above factors all increase prospects, and need, for efficient domestic and regional trade
- Another factor
  - Food Security Enhancing Hotspots

Africa’s hunger hot spots well known
Less well-known are Africa’s productive, surplus production zones

Where are Africa’s surplus food staple production zones?

- Areas of favorable rainfall or economical irrigation
  - Irrigation: South Africa

- Dual staple zones
  - cassava & maize (N. Zambia)
  - banana, cassava & maize (Uganda)
  - irish potato, cassava & maize (N. Mozambique)
  - cassava, rice, maize (S. Tanzania)
Dual staple zones

Regional Food Staple Zones

Percent of HH Growing Cassava & Maize
- Cassava Mixed (C>75%, M 25%-50%)
- Dual Mixed (C > 50%, M > 50%)
- Maize Mixed (C 25%-50%, M > 50%)
- Maize Belt (C < 25%, M > 75%)

Deficit zone
Food security enhancing hot spot
Staple food trade flow
Linking surplus (FSEHS) zones with deficit zones

- Improves food security in deficit zones
- Reduces price volatility
- Improves producer incentives in surplus zones
- Accelerates agricultural growth
- Needed now more than ever in era of historically high staple food prices

Why so little change in trade policy?

- **Market Structure**: How does a country like Malawi make the transition?
  - Bangladesh/Madagascar example
  - The limits of informal trade
- **Rent Seeking**: In a poor economy, government is the main focus of profit seeking
- **Politics**: Does a move to multi-party democracy make it more difficult to follow “good” trade and marketing policy?
Why so little change in trade policy? (2)

- **Culture:** “The Wicked Problem”
  - “… beliefs are grounded in competing cultural norms and resolution resists factual analysis”
  - “… it is the *social complexity* of these problems, not their technical complexity, that overwhelms most current problem solving … approaches”

Pause for discussion
Policy change is crucial

- Open borders, clear and transparent rules and behavior by government
- But this change has to come in response to pressure from within
  - Is EAGC a model for southern Africa?
    - Broadening the understanding of how markets work
    - Providing concrete, actionable programs to improve trade
- Improved statistical and market information is fundamental to building understanding and improving decision making

Modernize the marketing system

- Takes public investment
  - Modern private retailers are not going to modernize the marketing system
- Support WRSs where there is a large enough commercial sector to make it potentially feasible
  - Farm and processing levels
- Commodity exchanges might be a useful tool that could grow hand-in-hand with WRSs
- Other approaches to underwrite the risk of banks lending to the commercial trade
- Work with WFP to support these types of innovations in collaboration with the commercial trade
Modernize the marketing system (2)

- Improved “traditional” market places
  - Better hard infrastructure linked to improved market information
  - Governance is key
    - Public-private partnership
    - Need different legislation to facilitate this
  - Using IT to post real-time prices in markets and make near-real time information available outside the market (SMS)
    - Don’t forget radio!
    - Don’t forget wholesaling!
  - Simple physical improvements may often be the best

Thank You