Experiences of Food Market Reform and Price Stabilization in E. and S. Africa

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Outline

- Review the experience of Africa:
  - 1970-1990 period
  - Post-1990 period
- “Empirical regularities” affecting costs and benefits of price stabilization
- Policy implications
Country Focii:

- Kenya, Malawi, Zambia, Zimbabwe
- These countries have remained committed to food price stabilization through marketing board operations up to now

Section 2: Main points

- 1970-1990 period
  - Berg hypothesis - didn’t apply to these countries
  - Marketing board investment + pan-territorial pricing promoted smallholder maize production
Why did state-controlled price stabilization falter?

- Fiscal crises: costs escalated due to
  - white maize stockpiling
  - Depots in areas where fixed trading margin < marketing costs
  - Massive default on inputs received on credit
- Marketing board deficits > 5% of GDP in Zimbabwe and Kenya in early 1990s.

Post 1990:

- What are we studying the effects of during the 1990s in these countries?
  - Continued marketing board operations to stabilize food prices and supplies
  - Often monopoly control over trade
Marketing Boards’ share of estimated maize surplus:

- **NCPB:**
  - 40% (1990-2003)

- **ADMARC:**
  - 15% (1995-2003) - not including sales from imported stocks

- **FRA:**
  - 34% (1997-2003) - mostly from sales of imported stocks

These countries have been influencing food prices and supplies through marketing board operations throughout the reform programs.

Empirical assessments of these countries since 1990s reflects not the impact of unfettered market forces but rather the mixed policy environment of legalized private trade within the context of continuing strong gov't. operations in food markets.

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<th>Year</th>
<th>Sub-Saharan Africa</th>
<th>Kenya</th>
<th>Malawi</th>
<th>Zambia</th>
<th>Zimbabwe</th>
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Production indices (1985 = 100)

“Empirical Regularities”

- Farm structure
- Concentration of marketing grain output
- Trends in farm size
Farm Size Distribution – Smallholder Sector only

Concentration of maize sales; smallholder sector, Zambia, 1999/00

a) Among all smallholdings

b) Among maize sellers
Most rural farm households are buyers of maize

Kenya
- Eastern Province: 79%
- Nyanza Province: 68%
- Central Province: 71%
- Western Highlands: 57%
- North Rift: 22%

Characteristics of smallholder farmers, Zambia 1999/00

<table>
<thead>
<tr>
<th></th>
<th>N=</th>
<th>Farm size (ha)</th>
<th>Asset values (US$)</th>
<th>Gr. Rev., maize sales (US$)</th>
<th>Gr. Rev., crop sales (US$)</th>
<th>Total hh income (US$)</th>
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<tbody>
<tr>
<td>Top 50% of maize sales</td>
<td>43,680</td>
<td>9.4</td>
<td>1,148</td>
<td>29,672</td>
<td>36,189</td>
<td>2,263</td>
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<tr>
<td>Rest of maize sellers</td>
<td>234,988</td>
<td>3.9</td>
<td>239</td>
<td>630</td>
<td>690</td>
<td>553</td>
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<tr>
<td>Households not selling maize</td>
<td>762,566</td>
<td>2.5</td>
<td>147</td>
<td>0</td>
<td>46</td>
<td>357</td>
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Simulation: $40 per ton price support on farmers’ maize sales in Zambia

- 350,000 mt marketed surplus
  - 200,000 mt → 300 large-scale farms
  - 150,000 mt → smallholder farms
    - 75,000 mt from 1,300 farms
    - 75,000 mt from 230,000 farms

- $14 million
  - $8m to large-scale farms ($26,000/farm)
  - $3m to big smallholders ($2,300/hh)
  - $3m to rest of smallholders ($13/hh)

Declining farm size in small-scale sector

### Table 1. Land to Person Ratio (10 year average) in Selected Countries

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<td><strong>Africa</strong></td>
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<tr>
<td>Ethiopia</td>
<td>0.51</td>
<td>0.45</td>
<td>0.36</td>
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<tr>
<td>Kenya</td>
<td>0.46</td>
<td>0.35</td>
<td>0.28</td>
<td>0.23</td>
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<td>Mozambique</td>
<td>0.39</td>
<td>0.37</td>
<td>0.30</td>
<td>0.25</td>
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<tr>
<td>Rwanda</td>
<td>0.22</td>
<td>0.21</td>
<td>0.20</td>
<td>0.16</td>
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<tr>
<td>Zambia</td>
<td>1.41</td>
<td>1.10</td>
<td>0.89</td>
<td>0.78</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>0.73</td>
<td>0.66</td>
<td>0.58</td>
<td>0.53</td>
</tr>
</tbody>
</table>
The Challenge: How to promote labor productivity of small farms?

\[
\frac{Y}{L} = \frac{A}{L} \times \frac{Y}{A}
\]

- \( Y \) = value of output
- \( A \) = area cultivated
- \( L \) = labor in agriculture

Conclusions

- Race for time?
  - How to make small farms into viable economic units
  - Small farms will continue to devote some share of land to staples, so improved technology is critical
  - Very difficult to alleviate poverty by raising output price for farmers with 1 hectare and little surplus
  - Need to shift – at the margin – into HV crops
  - Achieve virtuous cycles between food+cash crops
Getting Markets Right: What does this mean?

- Not getting government out of markets
- Changing the role of government from direct intervention to supportive investments to make markets work:
  - Transportation infrastructure (major part of price instability problem in region is high TC)
  - Streamline regulations to reduce costs and risks borne by traders
  - Support development of farmer-managed organizations (for group credit, input acquisition, output marketing)

Getting Markets Right: What does this mean? (continued)

- Promote role of outgrower schemes for HV crops – can overcome cash constraints on food crop intensification
- Risk-shifting and credit-generating tools (e.g. warehouse receipt systems, forward contracting)
- Public investment in more fertilizer-responsive seed types to make intensification more profitable
Basic aim:
- reduce costs of marketing
- reduce costs of production

Last point:
- Must deal realistically with political economy issues
- “In theory, there is no difference between theory and practice, but in practice, of course, there is”
Retail Maize Prices, Southern Malawi, Southern Mozambique, and Eastern Zambia

[Graph showing retail maize prices over time for Malawi, Mozambique, and Zambia, with distinct markers for each location and a vertical line indicating the 2002/03 Marketing Season.]