Food Price Spikes and Strategic Interactions between the Public and Private Sectors: Market Failures or Policy Failures?

T.S. Jayne and David Tschirley


Cif import prices, ending August 2008

USD per metric ton

Lilongwe  Lusaka  Nairobi
Cif import prices, ending August 2009

Maize prices vs import parity, Lilongwe, Malawi
Maize prices vs. import parity, Blantyre, Malawi

Maize prices vs. import parity, Nairobi, Kenya
Motivation

Many African countries are continuing to experience “food crises” well after world food prices tumbled in late 2008. Why?

Issues explored in this paper:

- Why do food prices surge over import parity with surprising frequency in E/S Africa?
- Can policy analysis provide insights to reduce the frequency and severity with which it occurs?
Two salient problems in this environment

1. **Credible commitment** (North):
   - inability of parties to make commitments that the other party regards as credible $\rightarrow$ precludes course of action that could improve outcomes for both

2. **Reliability and accuracy of public market information**
   - Can official food production estimates be relied upon?

Strategic interactions between public and private sector in food markets

- 3 recurrent processes
Process # 1:

Who’s going to import? And how much?
National food production shortfall anticipated

Who’s going to import? And how much?

State announces plan to import and sell below cost of importation

Private traders sit on sidelines
National food production shortfall anticipated

Who’s going to import? And how much?

State announces plan to import X tons

State incurs delays in contracting for imports

Private traders sit on sidelines

Supplies dwindle; prices skyrocket

State incurs delays in contracting for imports

Private traders sit on sidelines
National food production shortfall anticipated

Who’s going to import? And how much?

State announces plan to import X tons

Supplies dwindle; prices skyrocket
“EVIDENCE THAT MARKETS FAIL!”

State incurs delays in contracting for imports

Private traders sit on sidelines

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**Process #1 roughly describes**

1. Zambia: 2001/02, 2002/03
2. Malawi: 2001/02, 2005/06
Process #2:

National food production shortfall anticipated

Trader arranges to import; asks for waiver on import duty
Process #2:

National food production shortfall anticipated → Trader arranges to import; asks for waiver on import duty → Government delays in waiving import duty rate

Private sector delays importation; intrigue over timing of waiver
National food production shortfall anticipated

Trader arranges to import; asks for waiver on import duty

Government delays in waiving import duty rate

Supplies dwindle; prices skyrocket

Private sector delays importation; intrigue over timing of waiver

"EVIDENCE THAT MARKETS FAIL!"
Process #2 roughly describes

1. Zambia: 2005/06

Maize prices vs import parity,
Nairobi, Kenya

USD per metric ton

2006:01 2007:01 2008:01 2009:01

import parity (tariff removed January 28, 2009)

Nairobi wholesale
Variable import tariff rate, Kenya

Process #3

National food production / balance sheets indicate adequate harvest
National food production / balance sheets indicate adequate harvest

Import licenses applied for but not granted

Prices rise as actual supplies dwindle
National food production / balance sheets indicate adequate harvest

Import licenses applied for but not granted

Prices rise as actual supplies dwindle

Charges of hoarding and trader manipulation of market

Supplies dwindle; prices skyrocket

Charges of hoarding and trader manipulation of market
Process #3 roughly describes

1. Malawi: 2008/09
2. Zambia: 2008/09
Maize prices vs. import parity, Blantyre, Malawi

Common theme in all 3 processes:

- Government efforts to manage upside food price risk through discretionary trade policy instruments *can/have* exacerbated food crises
- Credible commitment at the heart of most of these crises
Competing models of roles of state and private sector in food markets:

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rely on markets</strong></td>
<td><strong>Primary reliance on markets</strong></td>
<td><strong>Role for markets and discretionary state intervention</strong></td>
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<td>state role limited to:</td>
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What is the right strategy?

- Poulton et al (2006) note that there is no credible government commitment to Model 1 (*full liberalization*), hence Model 2 (*markets with rule-based state operations*) is preferred
- However, questionable whether Model 2 could be perceived as credible either
  - Many countries believe that when it comes to food security only government can ensure this – and cannot be restricted by rules-based approaches to achieve national food security
- With low level of trust and commitment problems, Model 3 (*ad-hoc interventionism*) is likely to become the long-run equilibrium
- Model 3 has in fact become the dominant model among the main maize-producing countries in the region
What to do? (1)

1. Work with governments to show that it is in their long-term interests to increasingly adopt Model 1 or 2 in order to view the private sector as an ally in achieving national food security, not an enemy
   - Formal govt-private sector consultations
   - Work out the details of a rules-based approach to government involvement in markets – periodic stakeholder fora

What to do? (2)

2. De-politicize national crop production forecasting
   – national food security requires accurate and unbiased crop forecasts
What to do? (3)

3. Reconsider impacts of:
   - Restricting licensing of private importation
   - Maintaining import tariffs after production estimates indicate a national shortfall
     -- especially in light of prevailing world food price projections
     -- eliminating import tariff at last minute concentrates the timing of imports and increases the risks of capacity constraints

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
  - Public goods investment
  - Policy predictability: Clear, rule-based public operations in markets
  - Credible commitment will enable more sophisticated risk management tools to come on line (e.g. warehouse receipt systems)
  - Greater transparency and consultation needed between private and public sectors
Competing models of roles of state and private sector in food markets:

**Model 1**
- Rely on markets
- State role limited to:
  - Public goods investment
  - Regulatory framework
  - Strengthening of institutions / defense of property rights
  - Policies supportive of private sector entry and competition

**Model 2**
- Primary reliance on markets
- but role for *rules-based state operations*
  - e.g., buffer stock release to defend stated ceiling price
  - Marketing board purchases at stated floor price announced in advance
  - Transparent rules for initiating state imports

**Model 3**
- Role for markets and *discretionary state intervention*
  - Based on premise that private sector cannot ensure adequate food supplies in response to production shortfalls
  - Justification for unconstrained role for state interventions in markets to correct for market failures

*thank you*
Diversification of consumption patterns due to increasing wheat imports

<table>
<thead>
<tr>
<th>Urban center</th>
<th>Year</th>
<th>% share of main staples budget (“main staples” = maize, wheat, rice and cassava)</th>
<th>Main staples % share of total food budget</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Maize</td>
<td>Wheat</td>
</tr>
<tr>
<td>Nairobi</td>
<td>2003</td>
<td>36</td>
<td>39</td>
</tr>
<tr>
<td>Maputo Province</td>
<td>2002</td>
<td>9</td>
<td>57</td>
</tr>
<tr>
<td>Northern Mozambique*</td>
<td>2002</td>
<td>33</td>
<td>8</td>
</tr>
<tr>
<td>Lusaka</td>
<td>2007/8</td>
<td>39</td>
<td>49</td>
</tr>
<tr>
<td>Kitwe</td>
<td>2007/8</td>
<td>43</td>
<td>45</td>
</tr>
<tr>
<td>Mansa</td>
<td>2007/8</td>
<td>46</td>
<td>28</td>
</tr>
</tbody>
</table>

*includes Nampula city
November 2008, Kenya

Imports thru Mombasa
CIF Nairobi w/o tariff
CIF Nairobi w/ tariff
Wholesale markets, Nairobi

USD per metric ton

December 2008, Kenya

Imports through Mombasa
CIF Nairobi w/ tariff
CIF Nairobi w/o tariff
Nairobi wholesale

USD per metric ton

Tons imported
August 2009, Kenya

Imports to Mombasa
- cif Nairobi with tariff
- cif Nairobi w/o tariff
- wholesale markets, Nairobi

February 2009, Malawi

Blantyre retail
- import parity from South Africa
- government re-affirms sufficient supplies in country
July 2008, Malawi

NYT article lauds Malawi exports to Zimbabwe
record harvest for 2008 announced

December, 2008, Malawi

import parity from South Africa
Blantyre retail
government sets floor and ceiling price for private traders