A Conundrum

- Maintaining affordable food prices would seem to be an important political objective
- Reliance on trade and/or buffer stocks (either private or state) can keep prices within IPP/EPP bounds
- Yet in two countries of Southern Africa (Malawi and Zambia), food prices commonly shoot over import parity
- Why?
Maize prices vs. import parity – Lilongwe, Malawi

Maize prices vs. import parity – Lusaka, Zambia
Issues explored in this paper:

- Why do food prices surge over import parity with surprising frequency in southern Africa?
- Can policy analysis provide insights to reduce the frequency and severity with which it occurs?

A couple quick definitions

- **Import parity**: the full cost of landing grain at a given location, including all marketing / transaction costs.
- **Food Crisis**: for purposes of our paper, narrowly defined to be when
  \[ \text{Domestic price}_{(t)} > \text{import parity}_{(t)} \]
Basic Features of Conceptual Framework

1. Current policy environment: “interventionist liberalization”
2. Governments and traders interact in same political-economic space but with differing objectives
3. Government and private sector are dependent on each other – the behavior of each affects outcomes for the other
4. Low level of trust among actors
5. Information about the others’ behavior is imperfect, subject to time lag
6. Consequently, their behavior is based on expectations about the behavior of the other
7. **Outcome:** poor coordination \(\Rightarrow\) food crises in which prices exceed import parity during drought year

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. **“Wicked problems”** (McBeth et al):
   - core beliefs are at stake, competing sides defend their belief systems and attack those of others \(\Rightarrow\) the problem resists resolution by appeal to “facts”
   - examples:
     - abortion in US
     - structural adjustment in Africa
Why do food prices commonly exceed import parity?

- 2 recurrent processes
Process # 1:

National food production shortfall anticipated

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

State announces plan to import X tons; sell at price below cost of importation
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

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Who’s going to import? And how much?

State announces plan to import X tons

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“EVIDENCE THAT MARKETS FAIL!”

State incurs delays in contracting for imports

Private traders sit on sidelines

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 assurance that import duty rate will not change
National food production shortfall anticipated → Trader arranges to import; asks for assurance that import duty rate will not change → Intrigue over possible change in import duty rate

Private traders hesitate to proceed.

Variant: banks pull out of deal
Process #2:

National food production shortfall anticipated

Trader arranges to import; asks for assurance that import duty rate will not change

Intrigue over possible change in import duty rate

Private traders sit on sidelines.

Variant: banks pull out of deal

State incurs delays in contracting for imports

Supplies dwindle; prices skyrocket

“EVIDENCE THAT MARKETS FAIL!”

State incurs delays in contracting for imports

Private traders sit on sidelines.

Variant: banks pull out of deal
Process #2 roughly describes

1. Zambia: 2005/06

Why does this happen?

- The “commitment problem”
  - The inability of parties to make a *credible commitment* to a course of action that would resolve a conflict
  - Governments need commitment that traders will import sufficient volumes at tolerable prices
  - Traders need a commitment from government not to take sudden, unanticipated actions that affect traders’ bottom line
  - Government can’t make a credible commitment to this effect
    - Rent seeking by individuals in government
    - Lack of trust that traders will import sufficient quantities
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<tr>
<th>Person 2 (Private traders)</th>
<th>Action A</th>
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In multi-period game, actions B-D should prevail; but if no trust, then A-C would prevail

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Ironically, frequency of food crises is rising despite improved conditions for trade

1. Better information on market prices, crop forecasting, weather disturbances, landsat imagery, etc.
2. More diverse staple food production and consumption patterns – specifically the role of cassava and wheat
3. Larger world market for white maize
4. Improved spatial market efficiency
5. Lower vertical marketing margins
6. Much more informal border trade
7. Less co-variant maize production in the region
### Increased diversity in urban staple food consumption

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

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<td>Maize</td>
<td>2.4</td>
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<tr>
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Data Source: Mozambique: IAF 2002, according to their definition of rural and urban; Zambia: 2007 CSO/MSU Urban Consumption Survey, first round, as calculated by authors.
**Increased diversity in urban staple food consumption**

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More reliable world market for white maize

- In 1980s, white maize was the dominant staple and world market for white maize was very thin.
- Side effect of NAFTA: world market for white maize has grown greatly

Improved Conditions for Trade

- Improved spatial market integration
  - Malawi, Mozambique, Zambia (Goletti and Babu, 1994; Chirwa, 1999; Tostau and Brorsen, 2005; Loy and Wichern, 2000; Awudu, 2007; Myers, 2009)
  - Broader region (Rashid, 2004; van Campenhout, 2008; Awudu, 2007)
  - Broad conclusions: maize markets spatially efficient, well integrated, but costs are high
- Evidence that vertical marketing margins are declining
Improved Conditions for Trade (4)

- Declining marketing costs

[A] Lusaka-Zambia: Price trends

- Linear trend (meal): -0.655***
- Linear trend (grain): 0.235**

[D] Nairobi: Price trends

- Linear trend (meal): -0.572***
- Linear trend (grain): -0.1060

*** 1%  ** 5% level of significance
Improved Conditions for Trade (7)

- Informal trade: South East Africa market shed

![Map of South East Africa showing trade routes](image)

Source: Haggblade

Trade can and does work in some cases (South Africa)

![Graph showing SAFEX Price, Import Parity Price, and Export Parity](image)

Source: Haggblade
Trade can and does work in some cases (Bangladesh)

Source: Dorosh (2001).
Trade can and does work in some cases

Source: Dorosh (2001).

Maize prices vs. import parity – Lilongwe, Malawi
Back to Original Conundrum:

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- Reliance on trade and/or buffer stocks (either private or state) can keep prices within IPP/EPP bounds
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- Why?
Many Reasons for Governance Failures

- Rent seeking (Bates)
- Clientelism, patronage (van de Walle)
- We highlight a third class involving the consequences of lack of trust and commitment failure in a mixed quasi-liberalized marketing system
- The mixed-liberalized system requires coordination, transparency, and consultation for its effectiveness.

3 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 in response 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 prod. shortfalls
- justification for unconstrained role for state interventions in markets to correct for market failures
Poulton et al (2006) note that there is no credible govt commitment to Model 1, hence Model 2 is preferred. However, questionable whether Model 2 could be perceived as credible either. With low level of trust, commitment problem and elements of “wicked problem”, Model 3 (ad hoc interventions within a nominally liberalized system) 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.

Thank You