

Exploring the Logic Behind Southern Africa's Food Crises

T.S. Jayne and David Tschirley

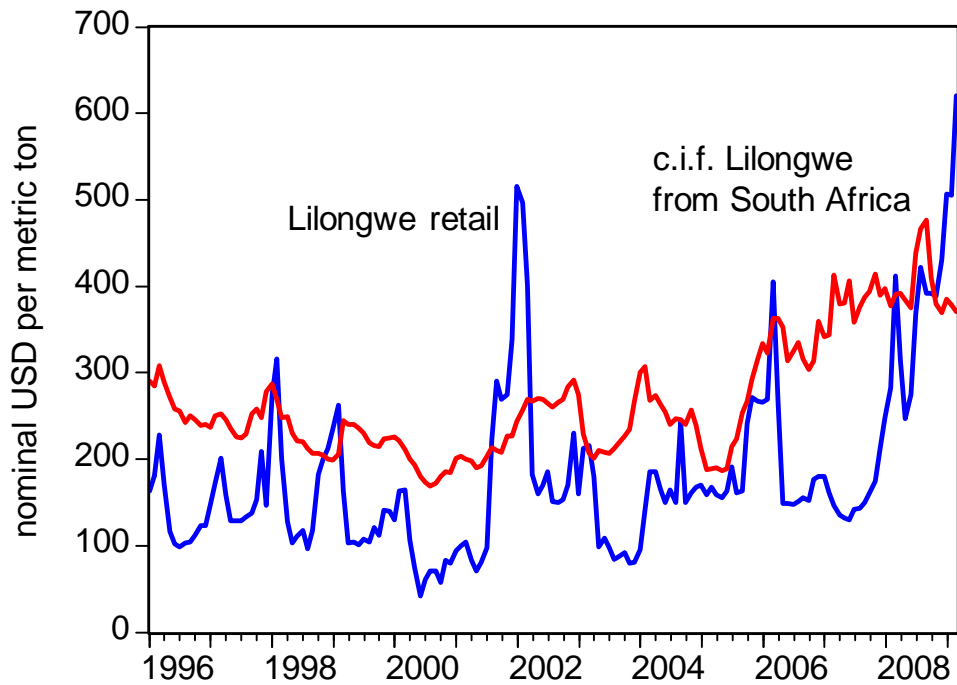
Michigan State University
Food Security Group

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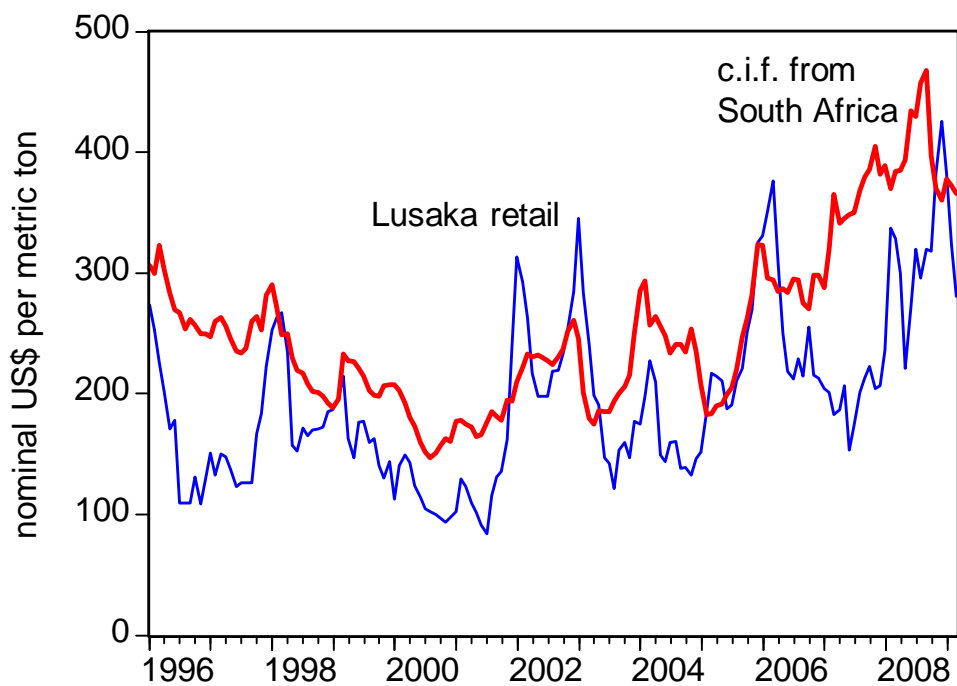
A Conundrum

- 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
$$\text{Domestic price}_{(t)} > \text{import parity}_{(t)}$$

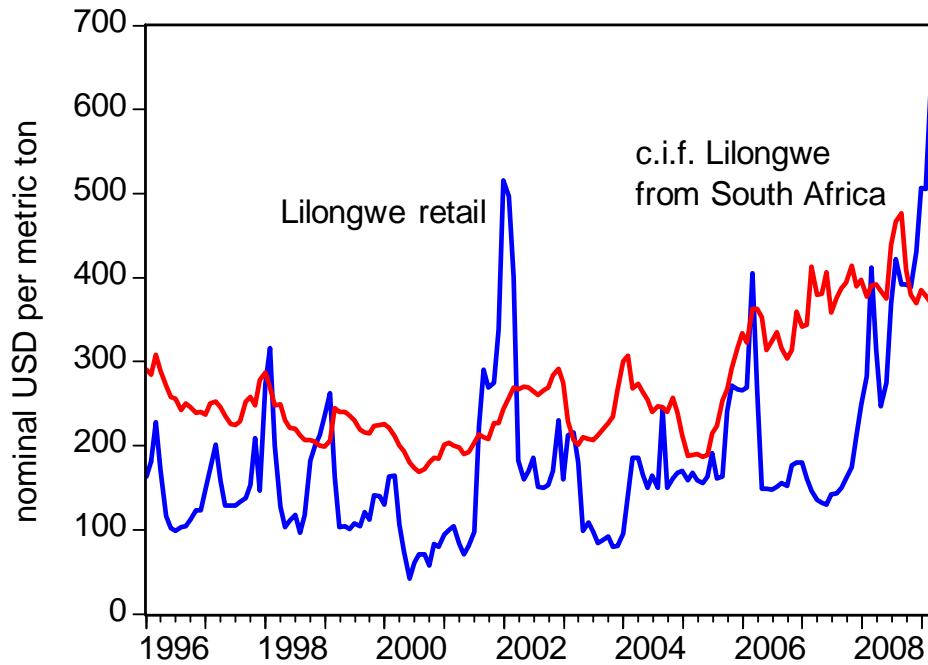
Basic Features of Conceptual Framework

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 → 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 → 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 → the problem resists resolution by appeal to “facts”
 - ❑ examples:
 - ❑ abortion in US
 - ❑ structural adjustment in Africa

Why do food prices commonly exceed import parity?



Why do food prices commonly exceed import parity?

- 2 recurrent processes

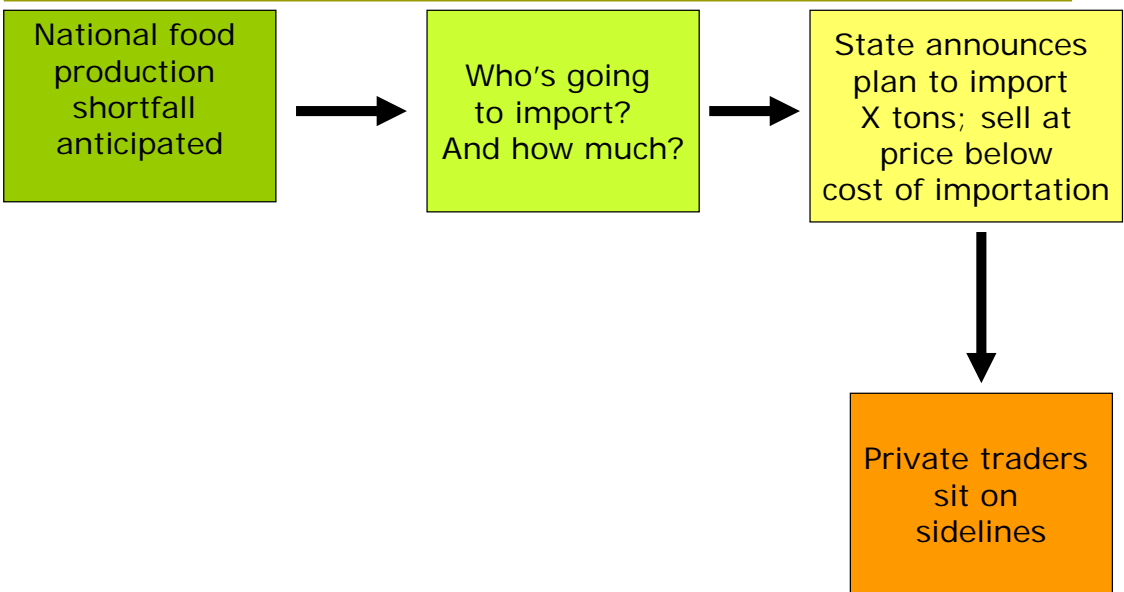
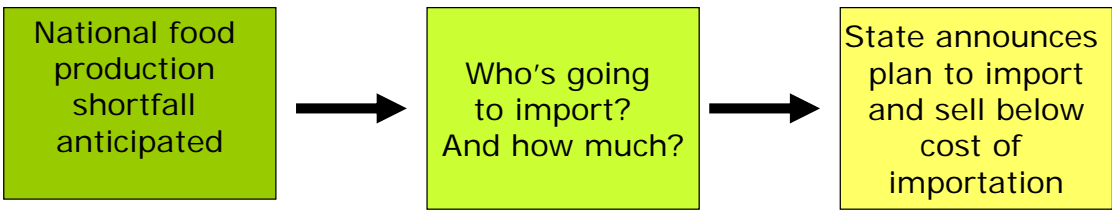
Process # 1:

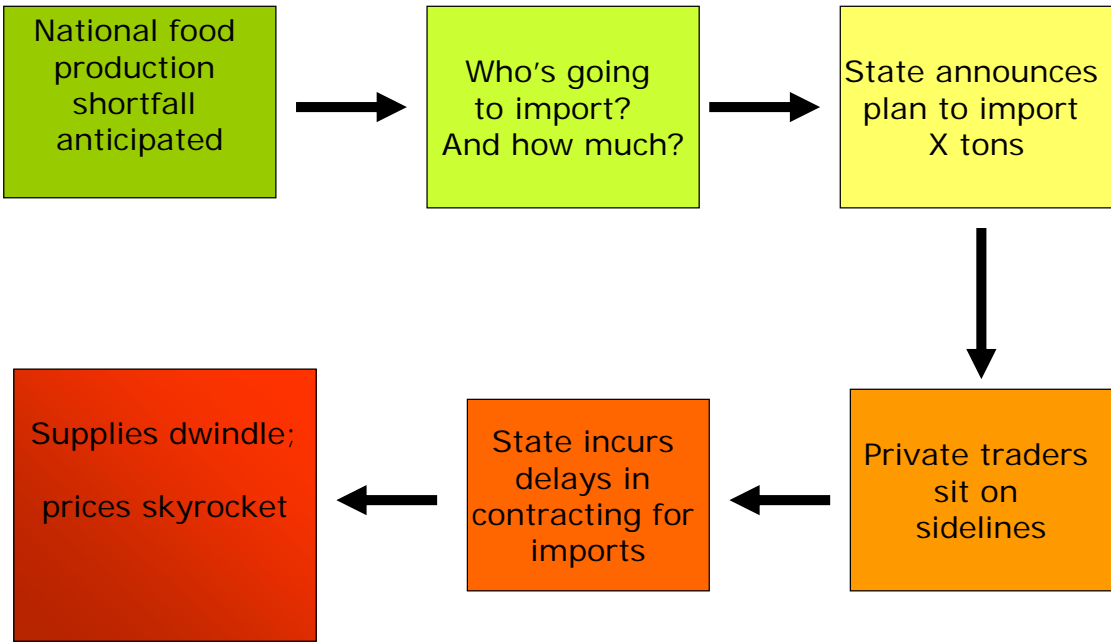
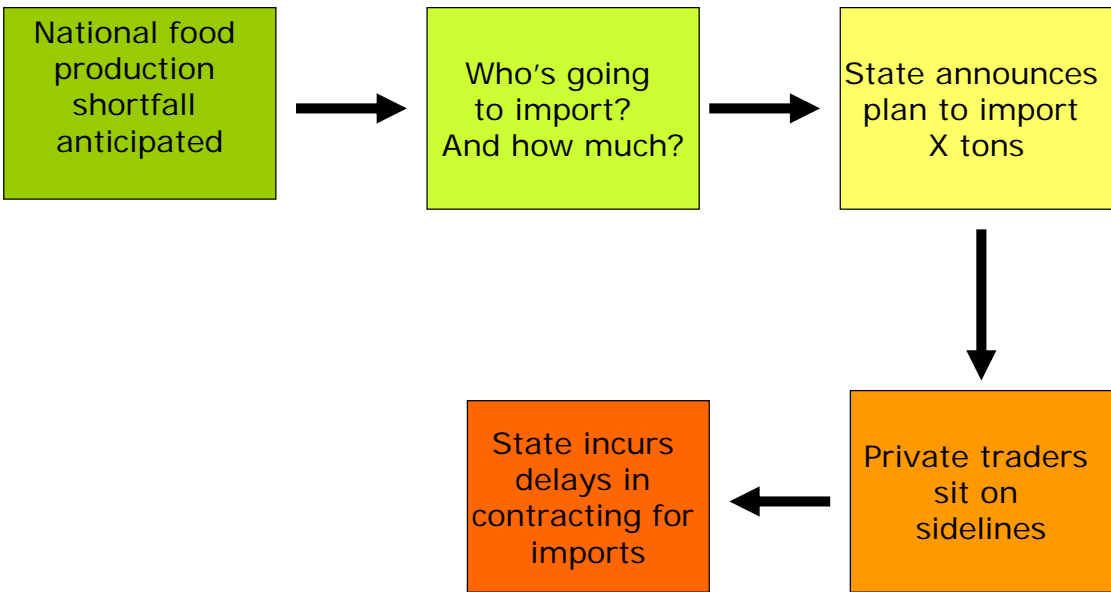
National food
production
shortfall
anticipated

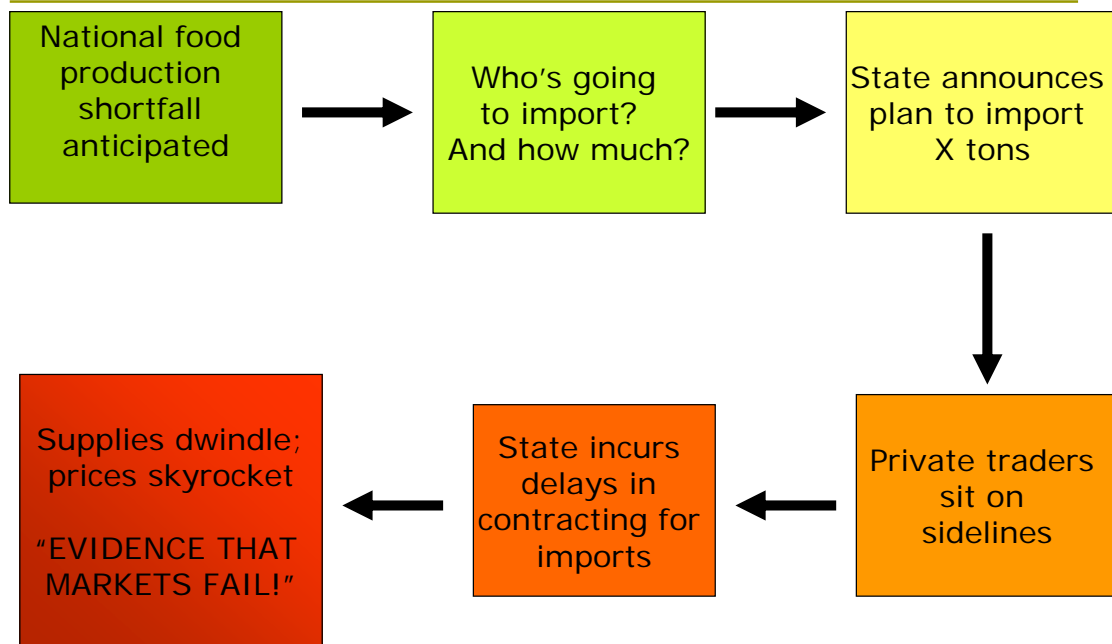
National food
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Who's going
to import?
And how much?







Process #1 roughly describes

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

Process #2:

National food
production
shortfall
anticipated

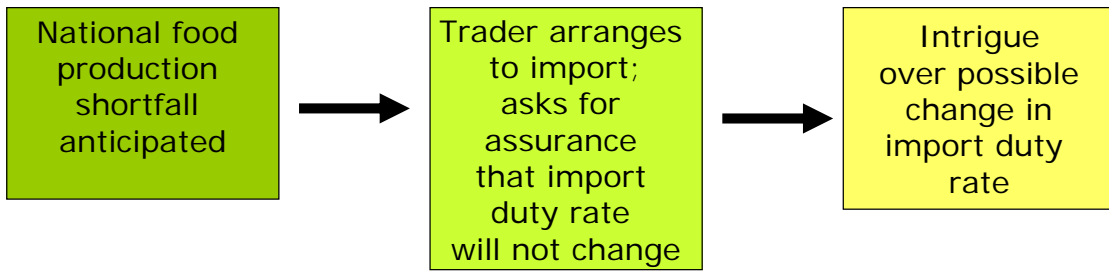
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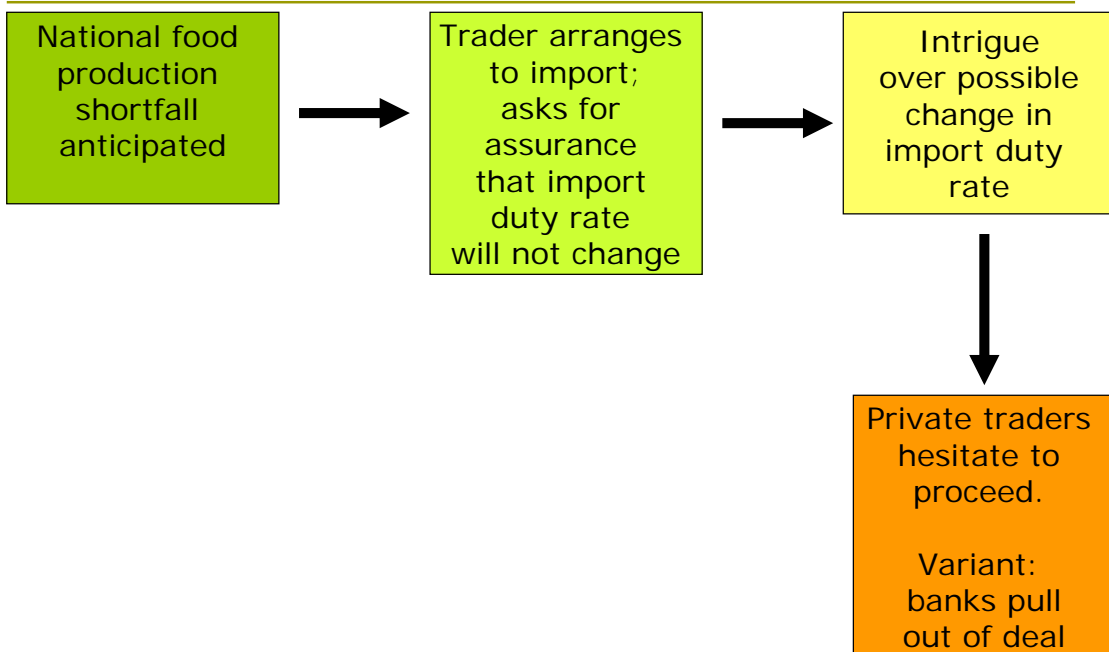


Trader arranges
to import;
asks for
assurance
that import
duty rate
will not change

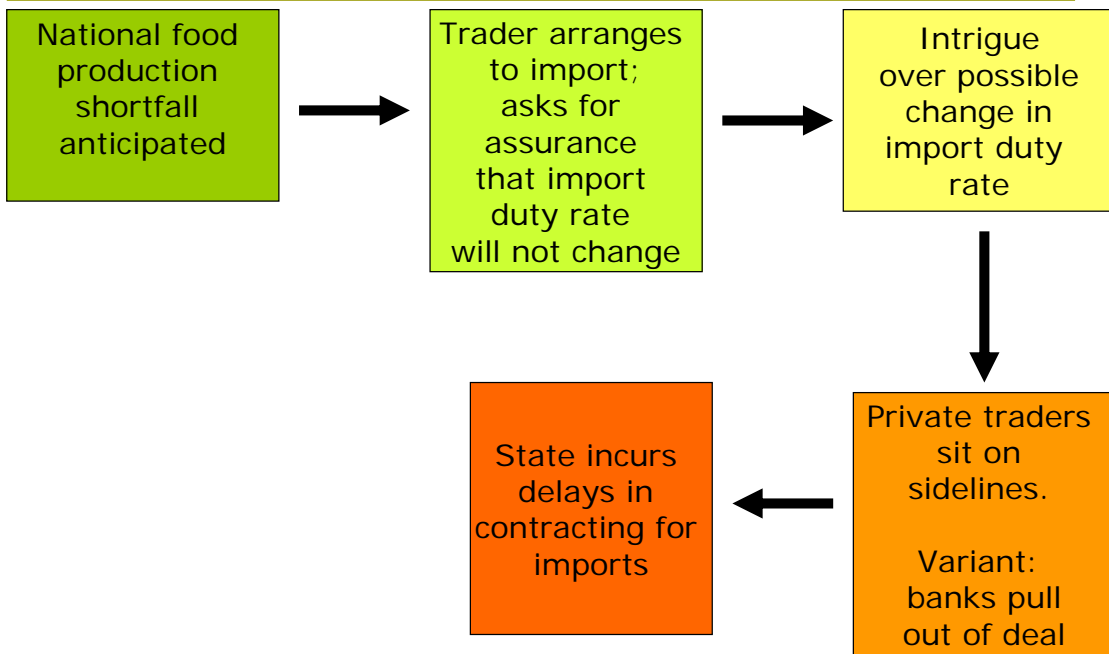
Process #2:



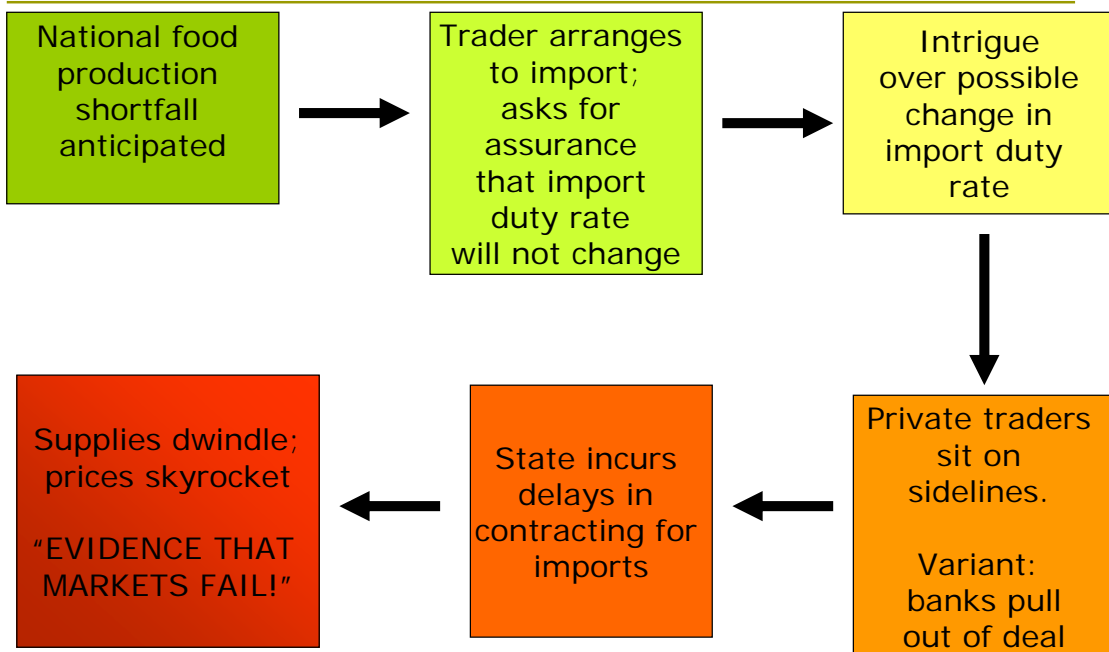
Process #2:



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Process #2:



Process #2 roughly describes

1. Zambia: 2005/06
2. Kenya: 2003/04

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

		Person 1 (Government)	
		Action A	Action B
Person 2 (Private traders)	Action C	10 to govt / 10 to traders	
	Action D		

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In multi-period game, actions B-D should prevail;
but if no trust, then A-C would prevail

		Person 1 (Government)	
		Action A	Action B
Person 2 (Private traders)	Action C	10 to govt / 10 to traders	0 to govt / 100 to traders
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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

Food Items	Mozambique			Zambia				
	Maputo Province	Gaza and Inhambane Provinces	Manica and Tete Provinces	Lusaka	Kitwe	Kasama	Mansa	
Urban	Maize	2.4	14.5	39.9	8.9	10.6	9.8	11.5
	Rice	7.8	9.8	4.4	2.5	2.8	3.4	2.7
	Wheat	15.5	6	2.9	11.8	11.3	6.2	7.3
	Cassava	1.3	5.2	0.5	0.3	0.8	2.0	4.1
Rural	Maize	9.1	12.2	48	---	---	---	---
	Rice	11.4	9.5	2.5	---	---	---	---
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More reliable world market for white maize

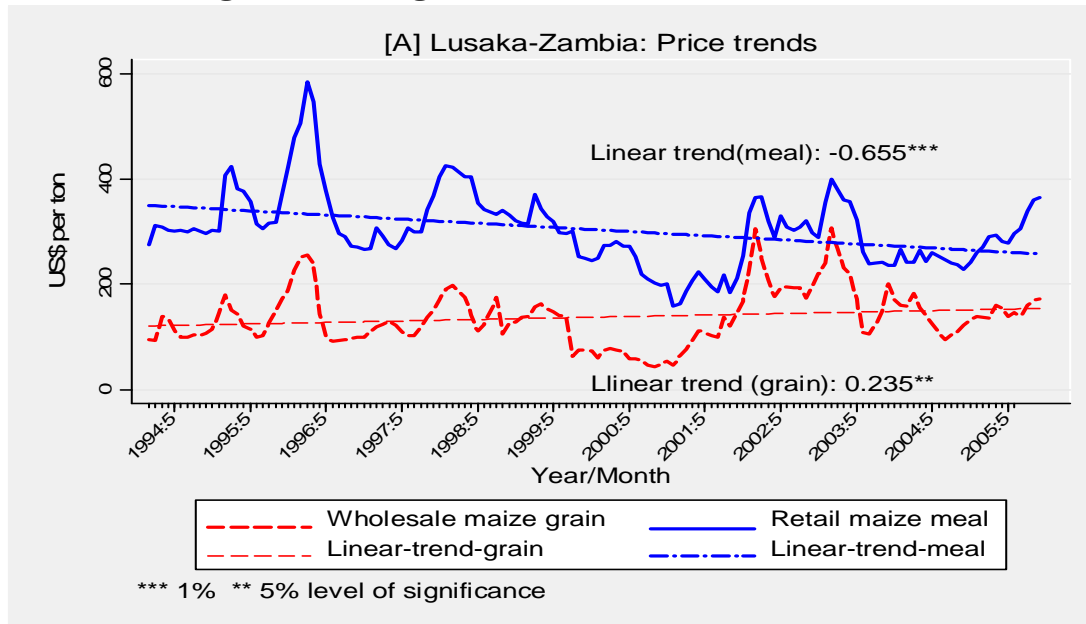
- In 1980s, white maize was the dominant staple and world market for white maize was very thin.
- Side effect of NAFTA: world market for white maize has grown greatly

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

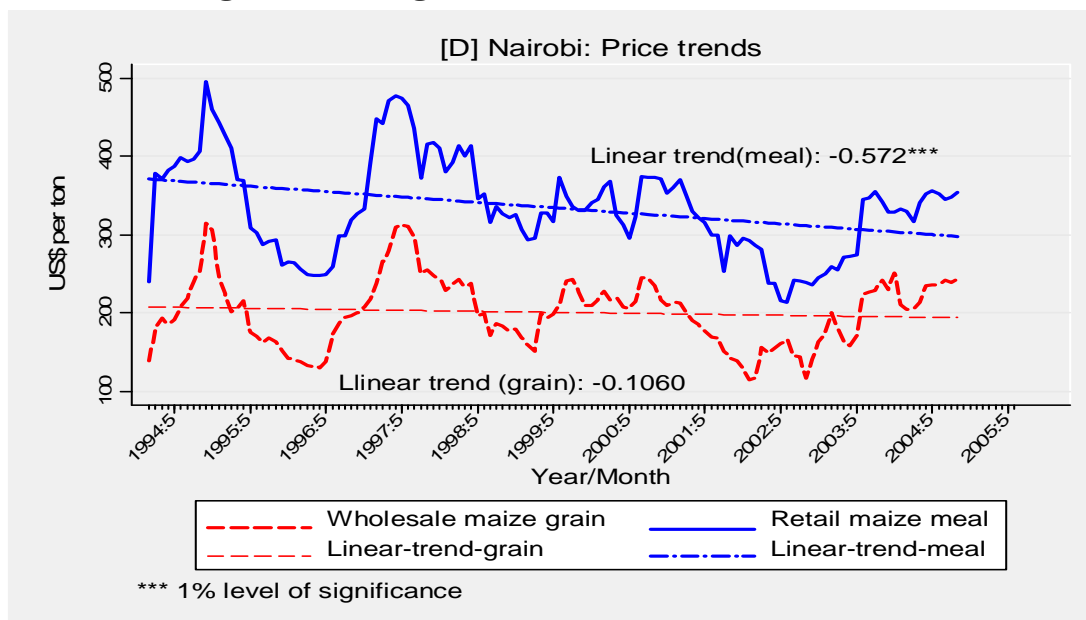
Improved Conditions for Trade (4)

□ Declining marketing costs



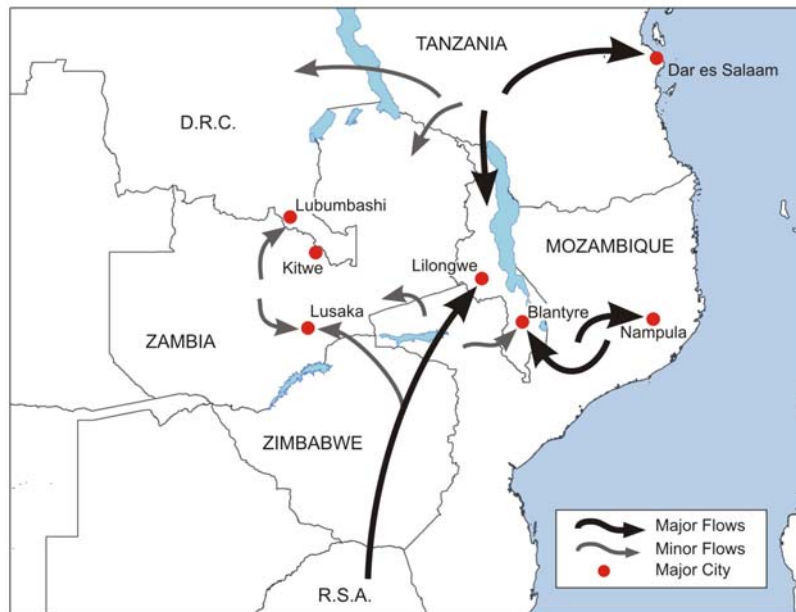
Improved Conditions for Trade (5)

□ Declining marketing costs



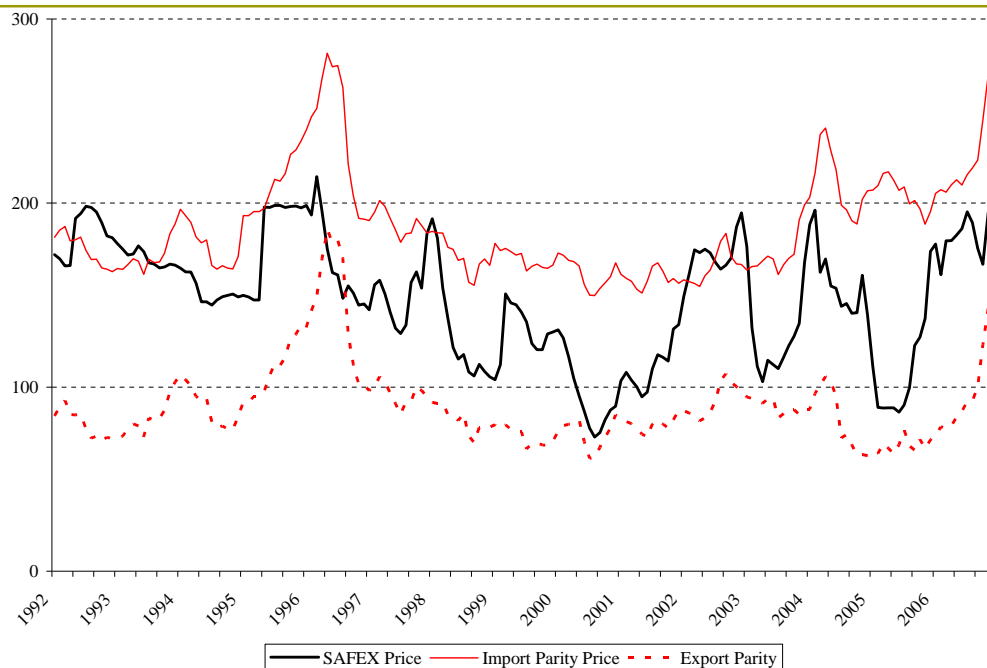
Improved Conditions for Trade (7)

Informal trade: South East Africa market shed



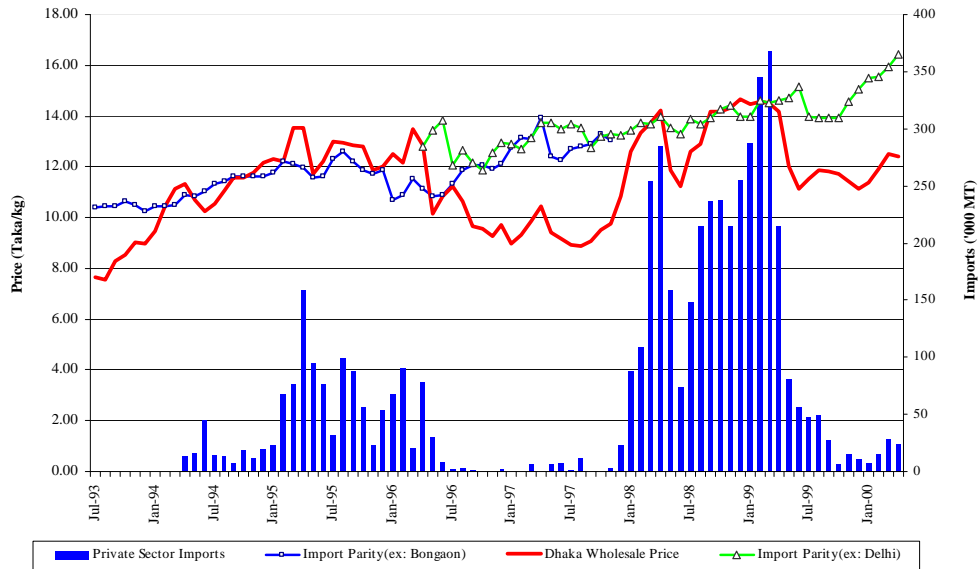
Source: Haggblade

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



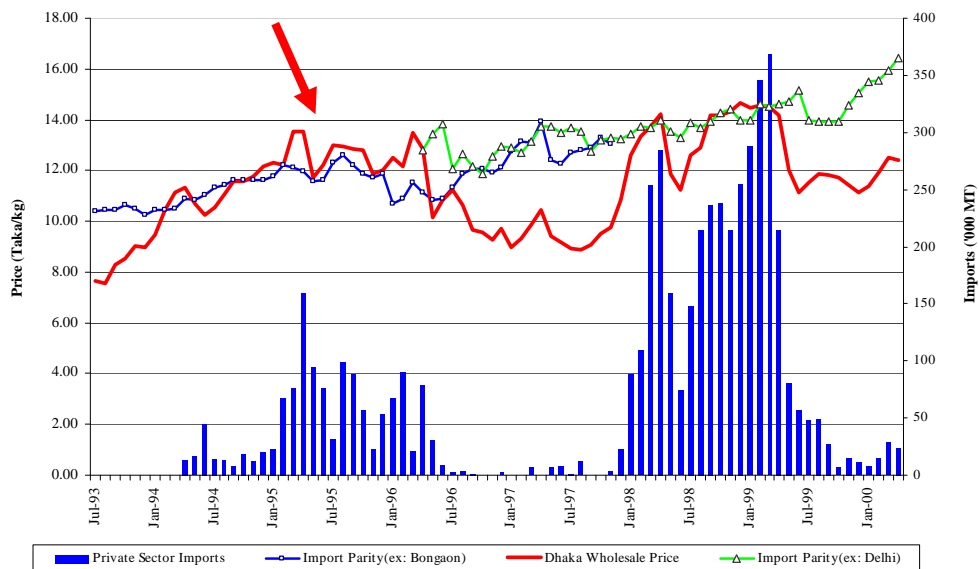
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Trade can and does work in some cases (Bangladesh)



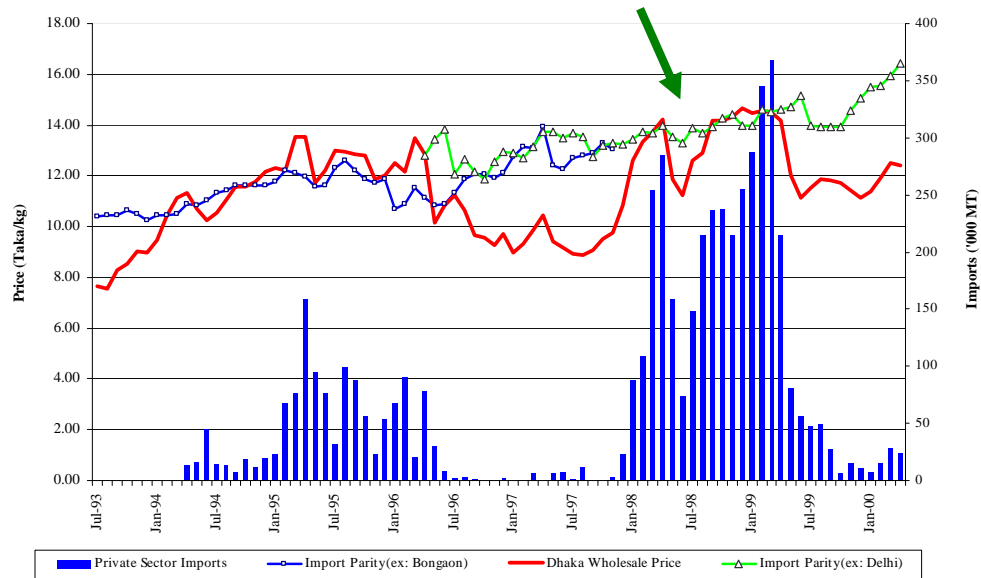
Source : Dorosh (2001).

Trade can and does work in some cases (Bangladesh)



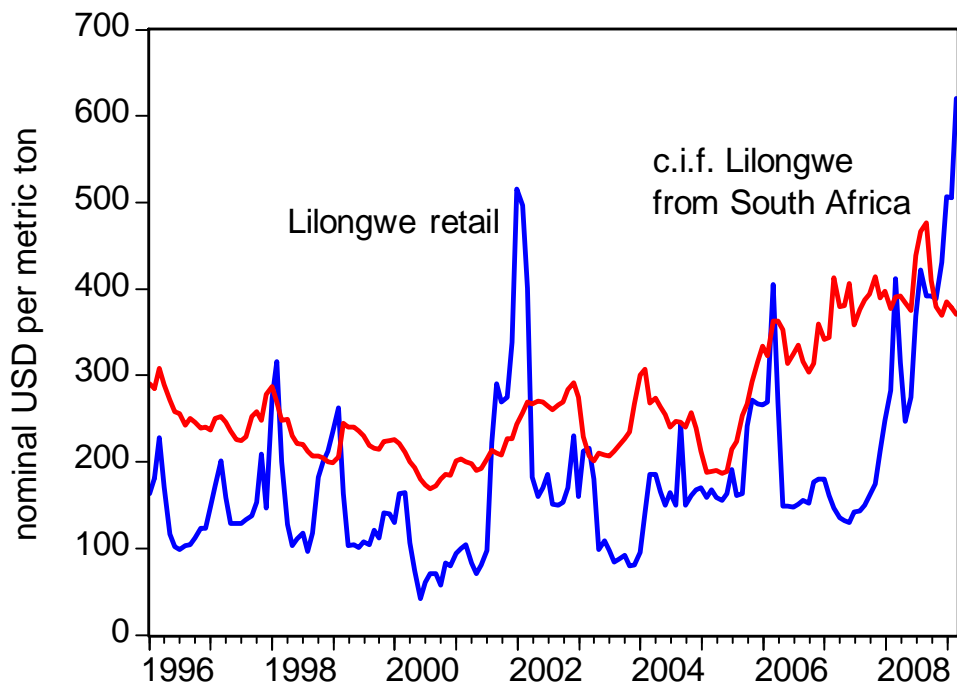
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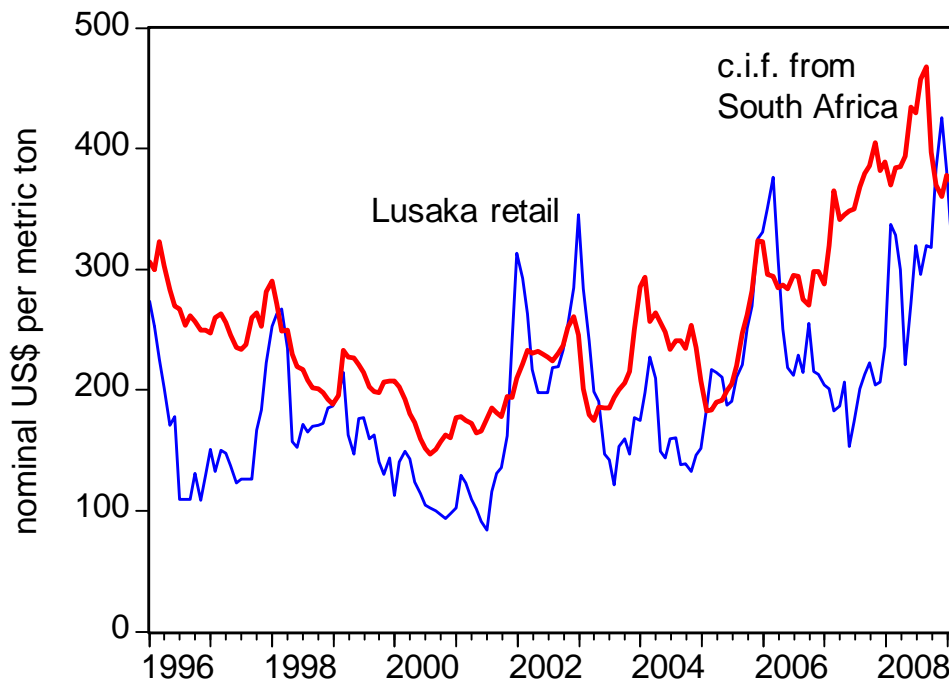


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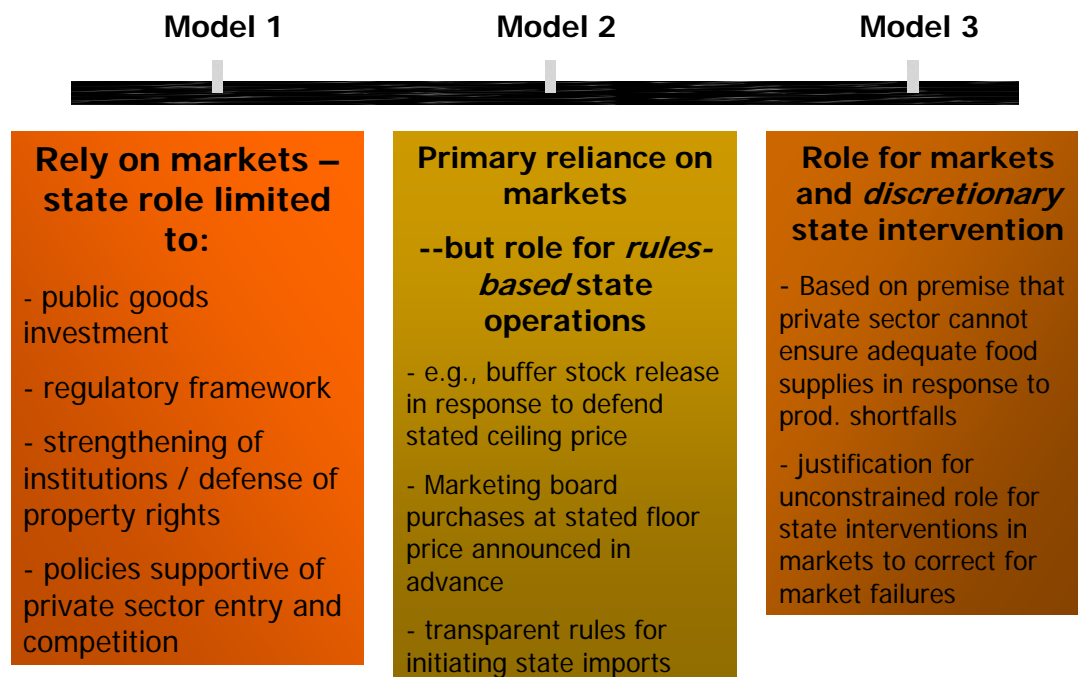
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- Yet in two countries of Southern Africa (Malawi and Zambia), food prices commonly shoot over import parity
- *Why?*

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:



- 
-
- 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

