Using the Market During Food Crises: What has been Learned in Southern Africa over the Past Decade?

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Focus of the Paper

- What has been learned by government in the region about using markets to facilitate emergency response?
- Looks at crises of 1992/93, 1995/96, 2001/02, 2002/03, 2005/06
  - Focus primarily on three perceived crises since 2000
  - And primarily on Zambia, Malawi, and Mozambique
  - (presentation will focus on Zambia and Malawi)

Roadmap

- Background
- Production and price patterns in southern Africa since 1990
- Variety of perceived crises
- Zambia and Malawi in 2001/02 and 2002/03
- Implications and final thoughts

Background

- Efficient and integrated markets save lives during crises, in two ways:
  - Directly by increasing availability and reducing prices in deficit areas
  - Indirectly by reducing the scope and cost of the required emergency response
- Increasing concern
  - Triple threat, new variant famine
  - Three perceived crises already this decade

Background (2)

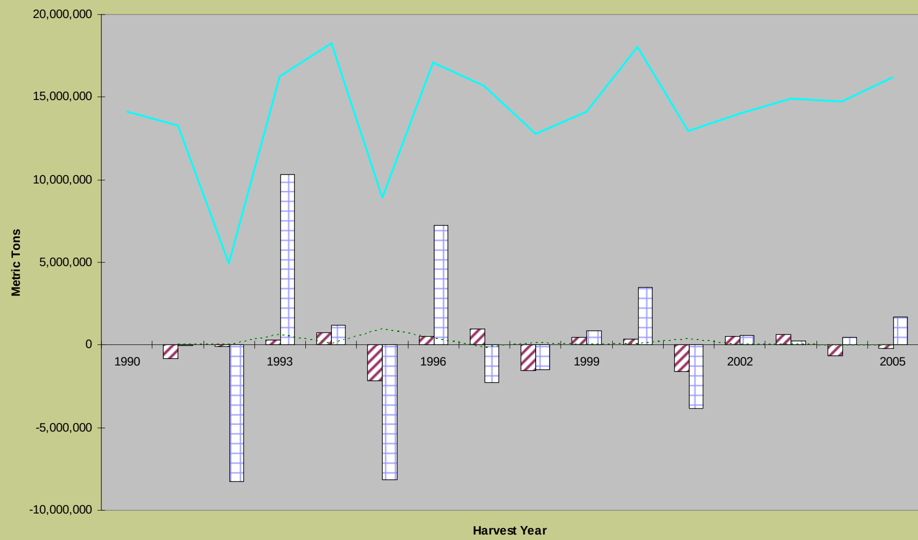
- Changed policy environment since early 1990s
  - Fewer government subsidies to maize sectors
    - More diversified production (cassava, groundnuts, s. pot.)
  - Less government control of domestic trade
    - Small-scale maize milling and informal marketing systems
  - Much more informal border trade
- More diversified consumption
- Should reduce reliance on external assistance
- But mounting market skepticism

Production and price patterns

- Common perceptions about production in southern Africa
  - Highly variable; more so recently?
  - Declining in per capita terms
  - Highly covariant across countries; more so recently?

Production and price patterns (2)

Maize prod'n in RSA, Moz, Zambia, Malawi, Zimbabwe



Production and price patterns (2)

- Coefficient of variation
  - 1990-99: 0.29
  - 1996-2005: 0.11
- Driven by RSA, but fell in every country except Zimbabwe

Production and price patterns (3)

Correlation Coefficients on White Maize Production

		South Africa	Zambia	Zimbabwe	Mozambique	Malawi
South Africa	1990-1999		0.66**	0.93***	0.18	0.12
	1996-2005				0.04	-0.18
Zambia	1990-1999	0.66**		0.77***	-0.04	0.36
	1996-2005				-0.08	0.06
Zimbabwe	1990-1999	0.93***	0.77***		0.30	0.22
	1996-2005				-0.88***	0.21
Mozambique	1990-1999					0.65**
	1996-2005					-0.20
Malawi	1990-1999				0.65**	
	1996-2005				-0.20	

Data sources: FAOSTAT

Production and price patterns (3)

Correlation Coefficients on White Maize Prodn

		South Africa	Zambia	Zimbabwe	Mozambique	Malawi
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	1996-2005		0.36	0.51	0.04	-0.18
Zambia	1990-1999	0.66**		0.77***	-0.04	0.36
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Zimbabwe	1990-1999	0.93***	0.77***		0.30	0.22
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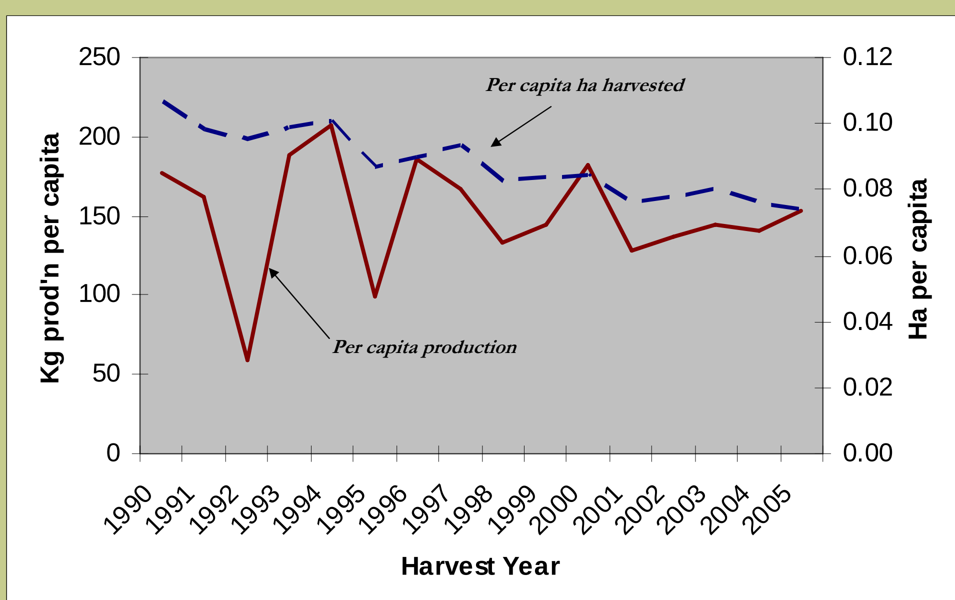
Production and price patterns (4)

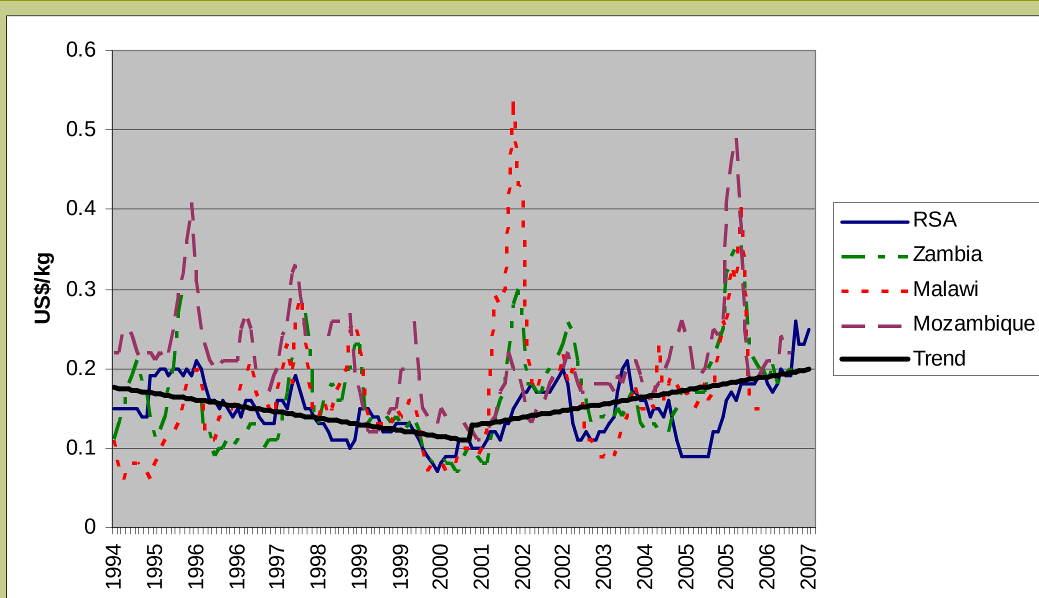
Per capita maize prod'n & area harvested: RSA, Moz, Zambia, Malawi, Zim



Production and price patterns (4)

- Steady per capita production, declining per capita area harvested
- Per capita production unambiguously fell only in Zambia (other than Zimbabwe)
  - This more than made-up for by rise in cassava production

Production and price patterns (5)



Note: Prices in RSA are SAFEX cash prices for white maize grain; all others are white maize grain prices at retail. Mozambique is a mean of Maputo, Xai-Xai, and Maxixe in the south; Zambia is a mean lf Lusaka, Choma in the south, and Chipata in the east; Malawi is a mean of Lilongwe, Karong, and Nkata. The trend is from a linear regression of the pooled data. Source: Zambia: Central Statistical Office; Mozambique: SIMA; Malawi: FEWSNET

Production and price patterns (5)

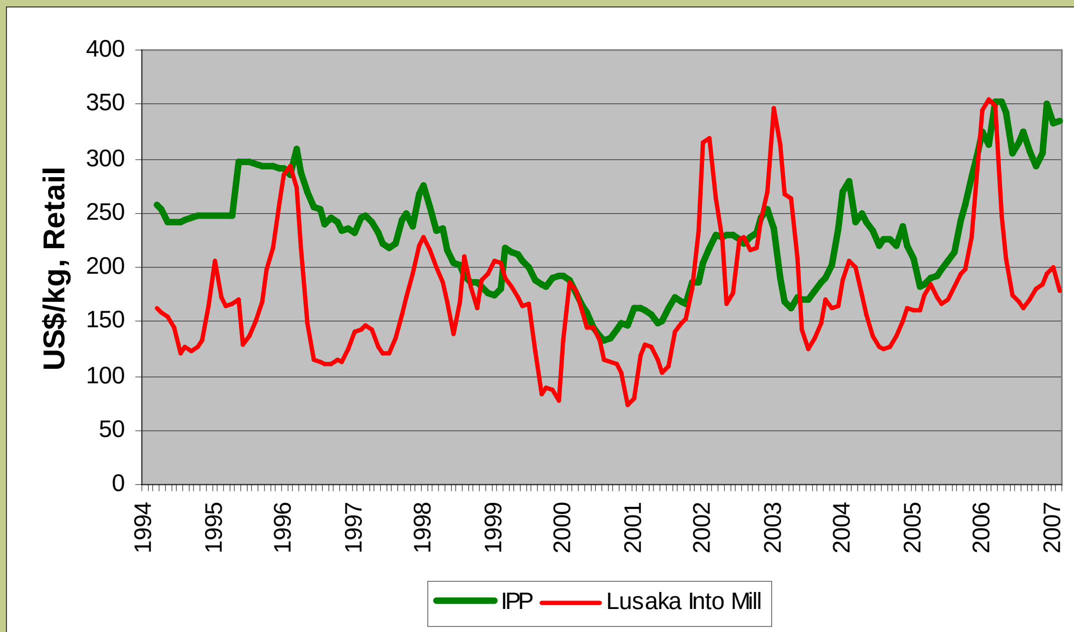
- No significant trend (in nominal US$)
- Coefficient of variation
  - 1990-1999: 0.37
  - 1996-2005: 0.38

Variety of Perceived Crises

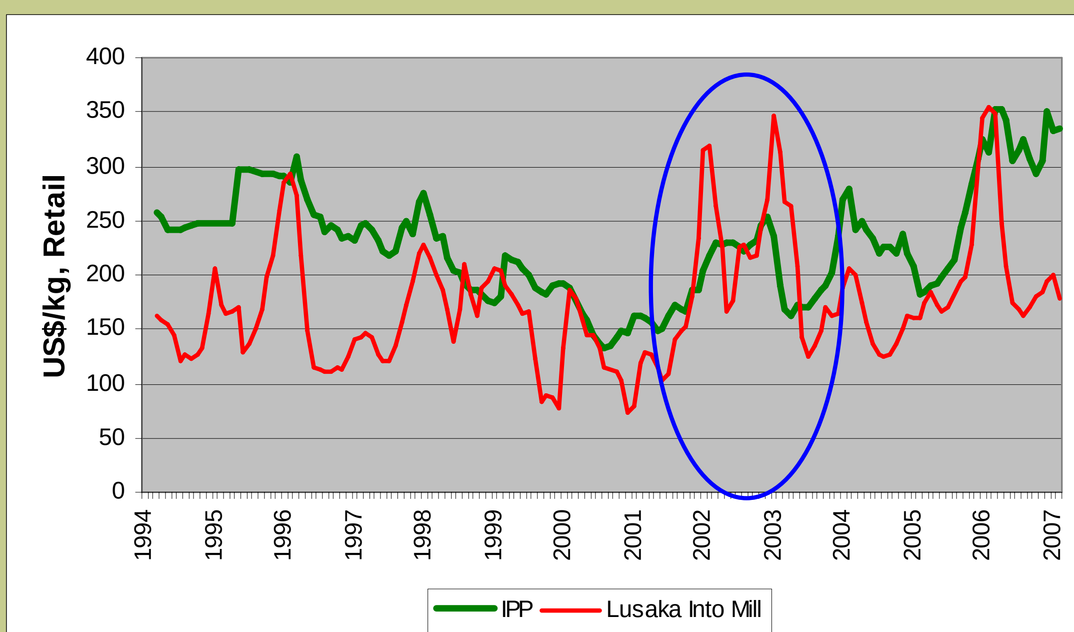
Marketing year	Regional Situation		
	Prod'n Outcome	Beg. Stocks	Overall Supply
1992/93	**-65%**	Very low	Massive deficit, > 10 mmt
1995/96	**-37%**	Very high, > 4mmt	Deficit 2 mmt
2001/02	**-9%**	About average, > 2mmt	Small deficit, ~ 1mmt
2002/03	**-1%**	Historically low, <500,00 mt	Deficit up to 3mmt
2005/06	+15%	Above average, ~ 3 mmt	Surplus up to 2 mmt

Note: Production outcomes are relative to the 1990-2005 mean.
Source: FAOSTAT for production data; FEWSNET for stocks; INTERFAIS for food aid

Zambia



Zambia



Zambia, 2001-02: Chronology

- May: "Significant drop" in maize harvest
- July: commercial import need = 200,000 mt
- August: Government announces will import 200,000 mt and sell at $75 subsidy to millers
- October: government imports still delayed
  - Private sector has not imported
- Maize grain prices surge over $300/mt, meal > $350/mt

Zambia, 2001-02: Assessment

- Three effects
  - Stymied private imports
  - Temporary maize shortages and high prices
  - Government subsidy to millers not fully passed-on to consumers

Zambia, 2002-03

- Clear warnings on dimension of problem in June
  - "Government has sufficient information … firm import commitments need to be made very quickly"
- Government works with "private sector" to import 300,000 mt
  - Only millers, no import permits granted to traders
  - Most concentrated sector in the system!
  - Higher cost product

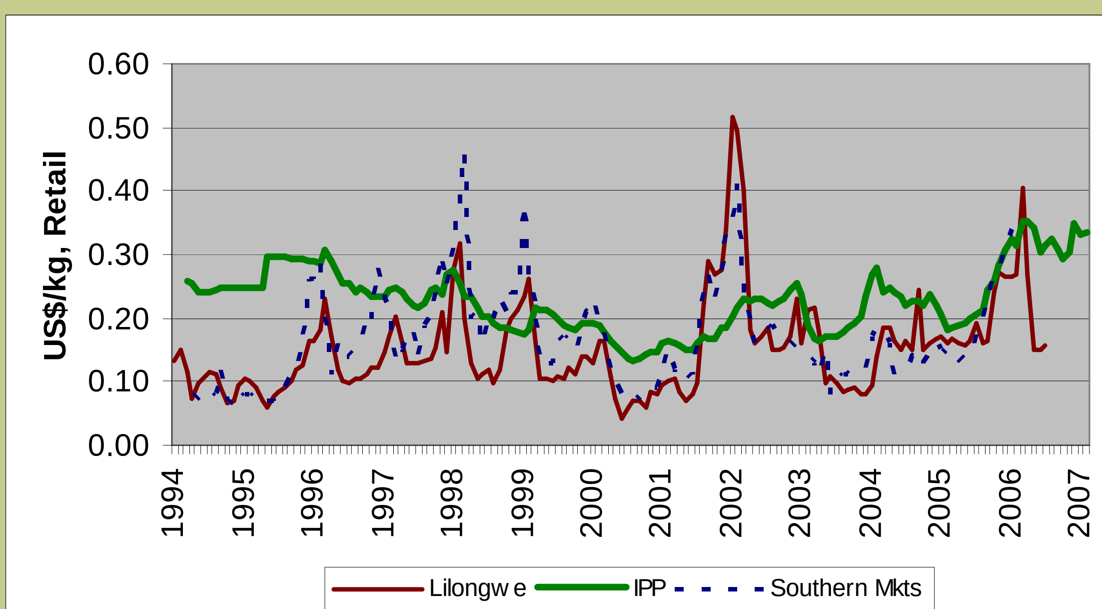
Zambia, 2002-03

- Government accuses "private sector" of not importing enough
  - Millers disagree, of course
- Prices surge well above IPP again
  - Clearly, more <u>should</u> have been imported
- Opening imports to traders would have protected consumer's interests
  - Lower prices
  - More <u>grain</u> available milling in hammer mills

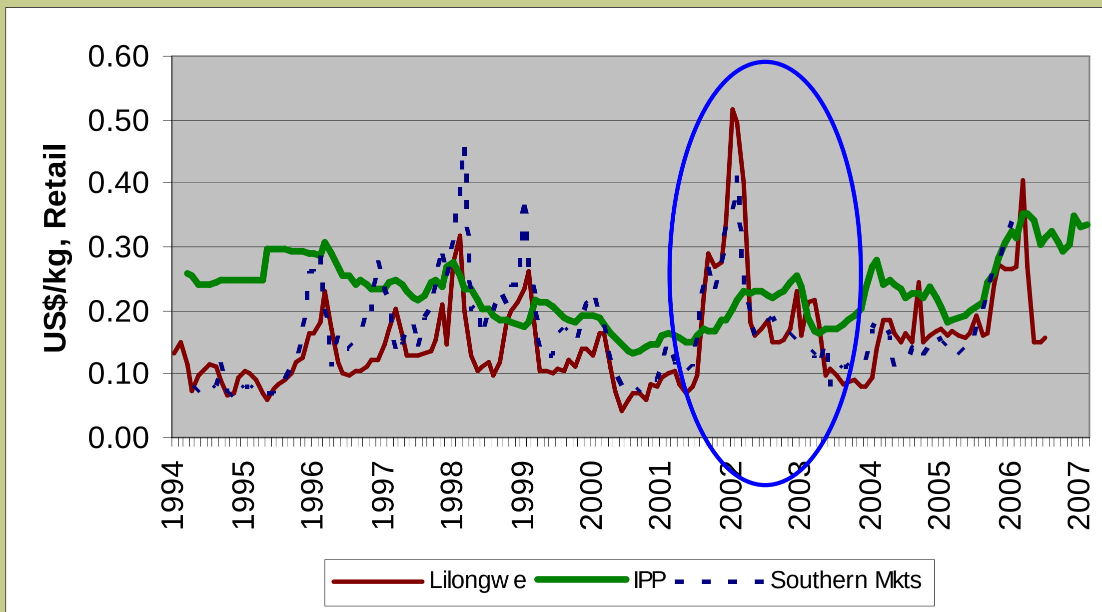
Malawi

- Heavy government involvement in maize market
  - Control of external trade
  - NFRA maintains food reserve
    - Rules of engagement very unclear
  - ADMARC buys from NFRA, sells at retail, often below market rates
- Very risky for formal private traders to import
- Informal trade can adapt, but geographical scope is limited

Malawi



Malawi



Malawi, 2001/02

- "Cognitive dissonance"
  - Maize production lower than last year but ~ average
  - High reported tuber production
  - Higher maize production reported in Mozambique
  - Prices in Malawi and N. Mozambique in normal ranges in June
  - Then …
  - Prices in July surge in Malawi and N. Mozambique
    - Continue to record highs after that

Malawi, 2001/02

- Government announces import plans of 150,000 in late August
- Raises to 220,000 by October
- January, 2002: only 40,000 had arrived

- Closed borders and controlled internal trade based on conviction that traders would exploit farmers and consumers

Malawi, 2002/03

- Abundant EW → avoid last year's mistake!
- 250,000 mt government imports, 150,000 mt food aid → covers estimated deficit
- But 150,000-250,000 mt of maize enters informally from N. Mozambique and Tanzania <u>before</u> food aid and government imports arrive → <u>big surplus</u>
- March 2003: government begins selling surplus on domestic market

Malawi, 2002/03

- Prices in south fall throughout the marketing season
  - Longest continuous price fall in 10 years
- No storage incentives
- Big production disincentive for N. Mozambique

Conclusions, Implications

- Great inertia in policy response
- Influence of multi-party democracy
- Main elements of better policy seem clear
  - Government focuses on emergency response,
  - Shares all information
  - Opens borders to imports
- But how does policy change?
  - Theories of policy change

Conclusions, Implications (2)

- Need more detailed understanding of competitiveness of import/export market
  - Bangladesh/Madagascar example
- Limits of informal trade