

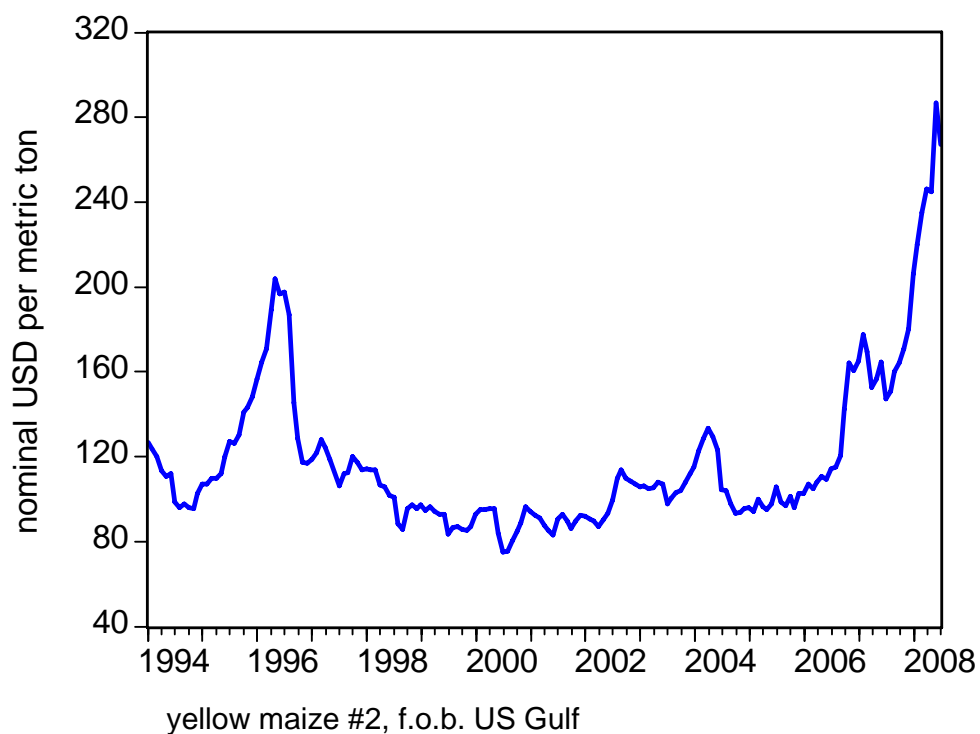
Rising World Food Prices and the Political Economy of Food in Eastern and Southern Africa



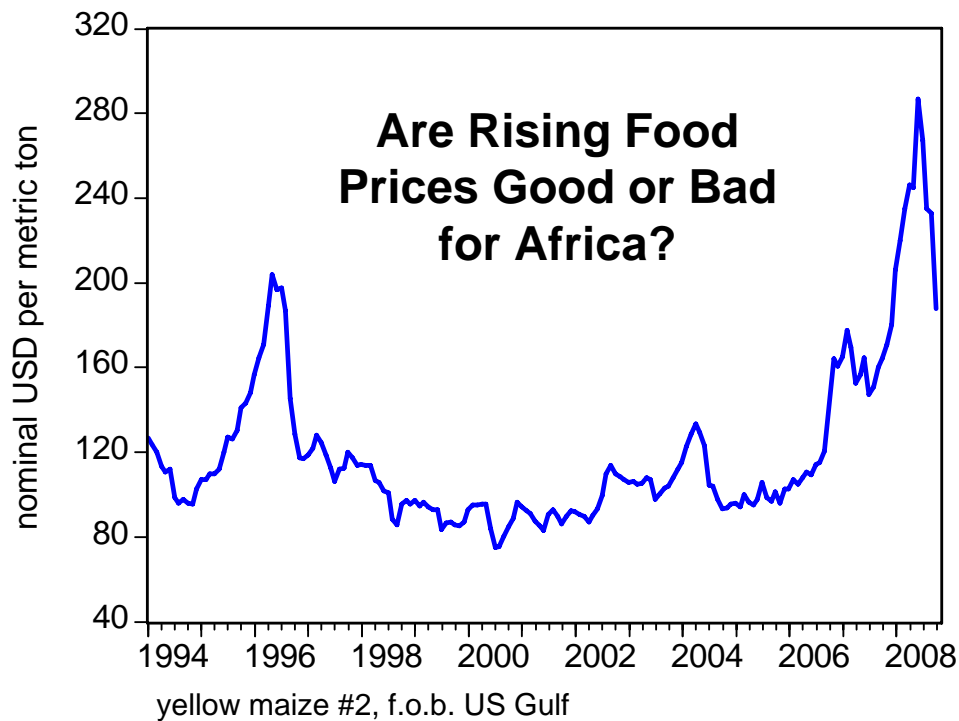
T. Jayne, A. Chapoto, I. Minde, and C. Donovan

Presentation at Michigan State University
sponsored by:
Center for the Advanced Study of International Development, CASID
Women and International Development (WID) Program,
Center for Gender in Global Context
November 7, 2008

International Maize Price, Jan. 1994 - Jul. 2008



International Maize Price, Jan. 1994 – Oct. 2008



Result of debate and subsequent poll in The Economist:

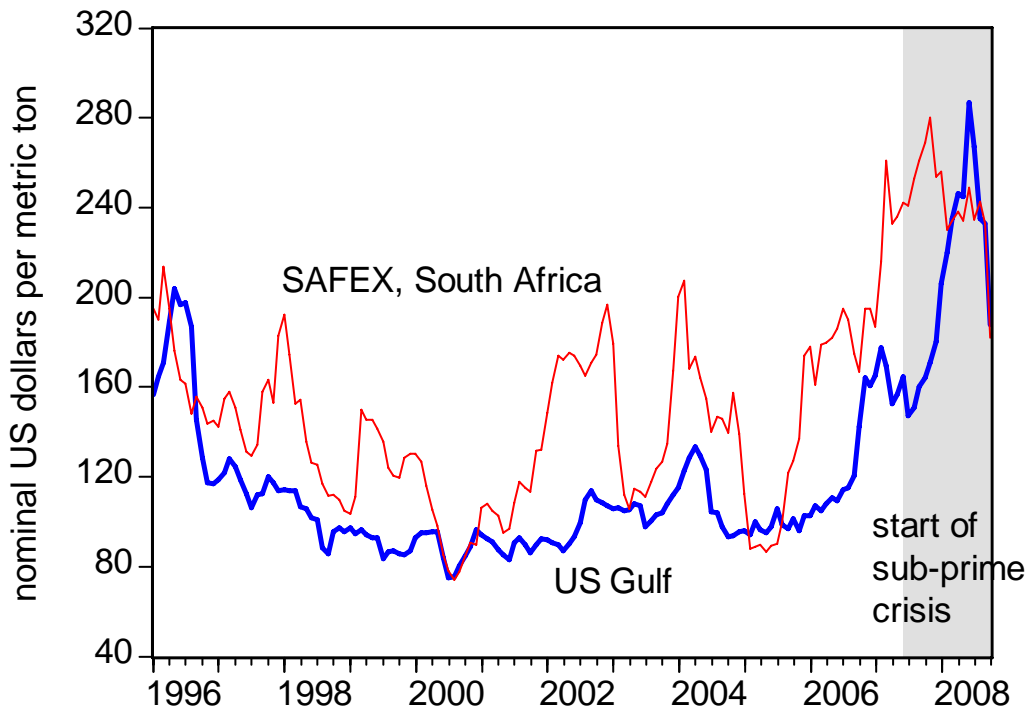
-
- Upside prevails: 56%
 - Downside prevails: 44%

Objectives:

1. to assess how changes in world prices have affected food and fertilizer prices in the region;
2. to determine likely effects on cropping patterns, food production, and the potential for food crises;
3. to examine how emerging political interests are affecting economic/social outcomes
4. to consider implications for states, donor agencies, and “new funding agents”

Why have world food prices risen so dramatically in 2007-2008?

- Initial explanations – structural shifts in world food supply and demand:
 - US bio-fuels policy
 - Rising incomes in large middle-income countries (e.g., China, India)
 - Climate change (e.g. recurrent drought in Australia)
- More recent explanations acknowledge these structural shifts but also include:
 - US sub-prime crisis and expansionary US monetary policy starting in mid-2007.

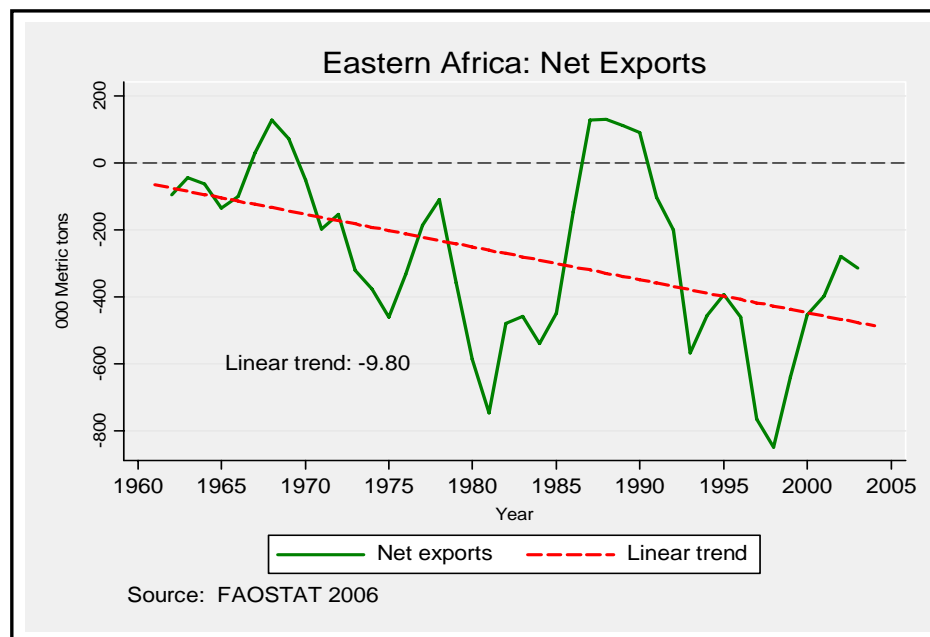


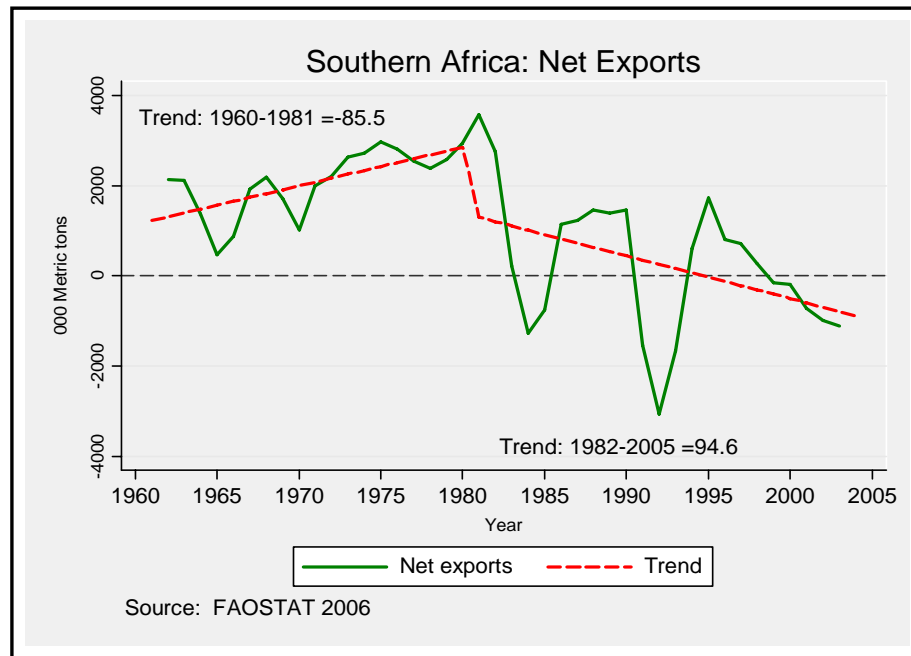
Impacts of higher world prices on
maize prices and the food situation
in eastern and southern Africa

Seven Main Findings:

1. Both E/S Africa turning into regional maize deficit
2. World food prices are tumbling but remain high in E/S Africa
3. Evidence that Zambia and Malawi will face a food crisis by early 2009, not because food prices are abnormally high, but because of slow recognition of deficits and need to import
4. The specter of food crisis is heightened by barriers to regional trade
5. Unreliable crop estimates → raising potential for food crises
6. Maize-fertilizer price ratios have declined → will have marked effect in parts of the region on cropping patterns, production, government budgets
7. Even though world food prices are rapidly falling, the food situation in E/S Africa will remain precarious at least into 2009

Finding 1: Gradual transition to structural grain deficit



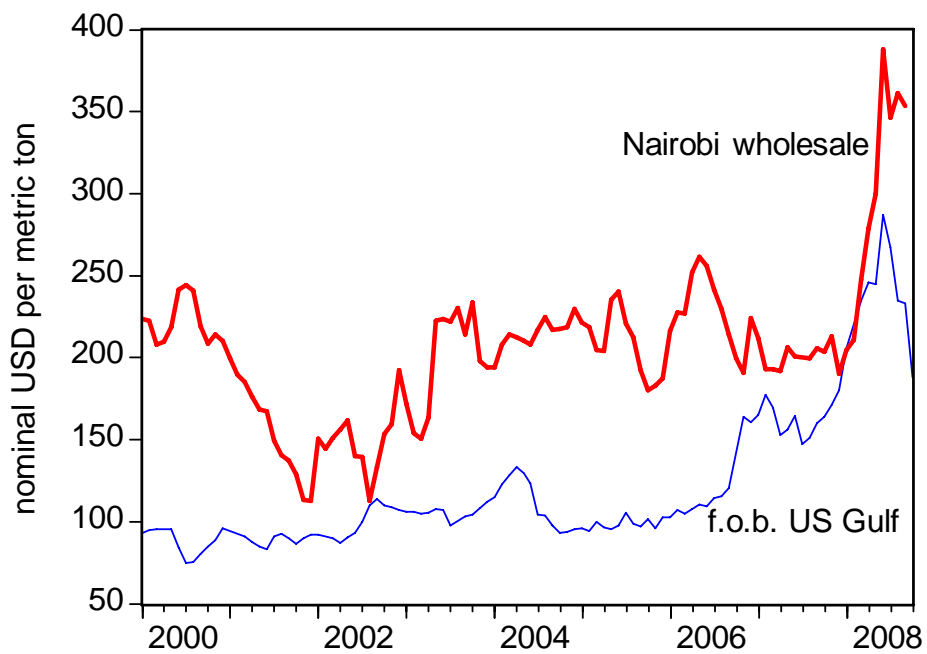


Finding 2:

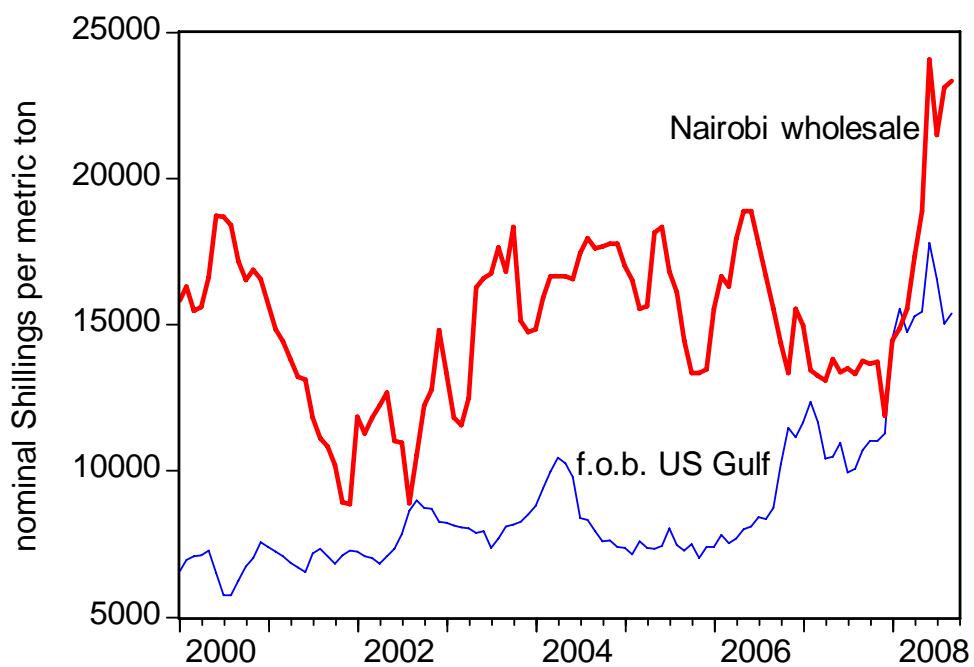
How have international prices affected maize prices in E/S Africa in 2007/08?

- Depends on how we look at it:
 1. in nominal US dollars
 2. in nominal local currency units
 3. in inflation-adjusted local currency units
 4. Maize prices relative to wage rates

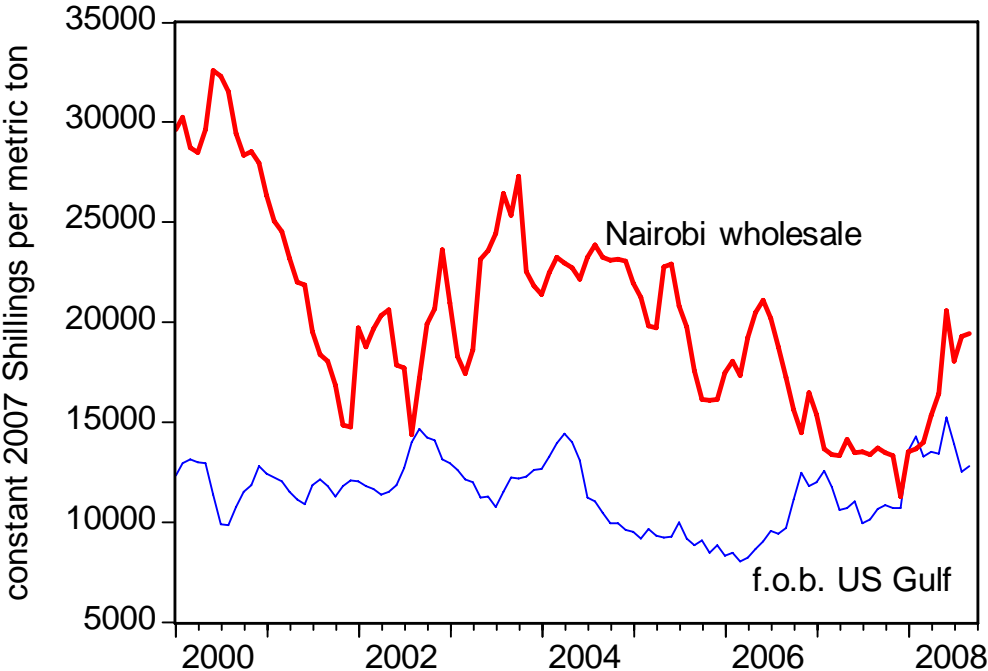
Nominal USD maize prices, Nairobi, Kenya



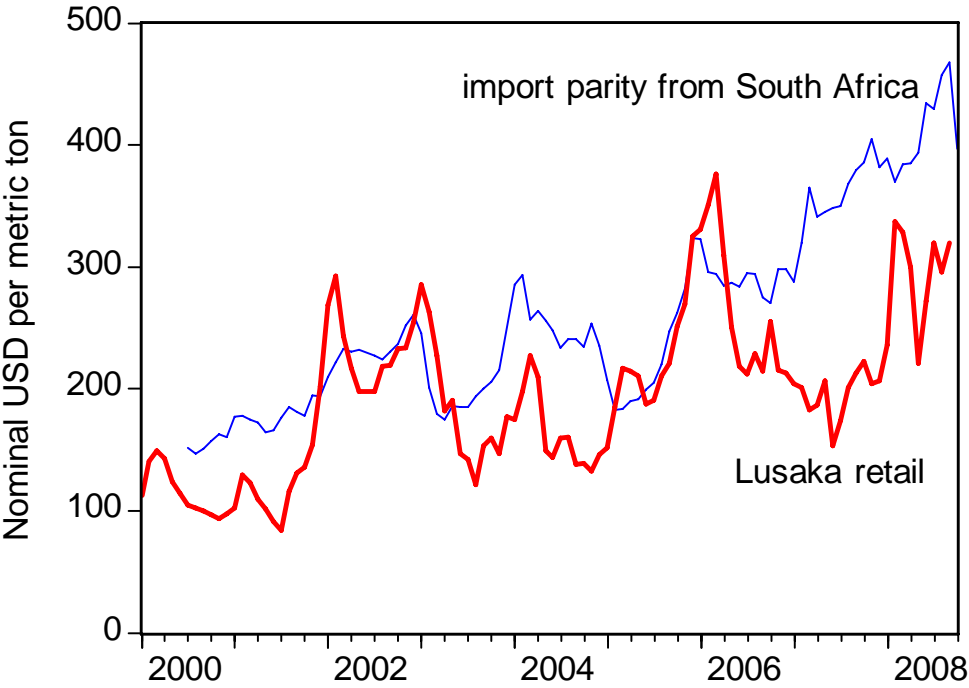
Nominal shillings maize price, Nairobi, Kenya



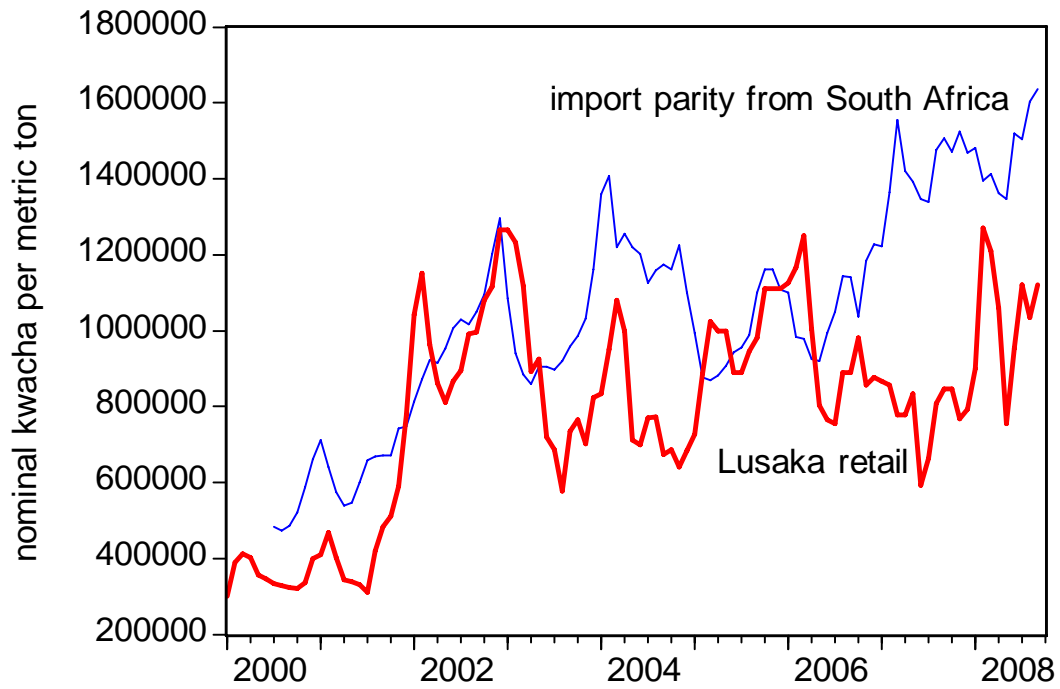
Constant shillings maize price, Nairobi, Kenya



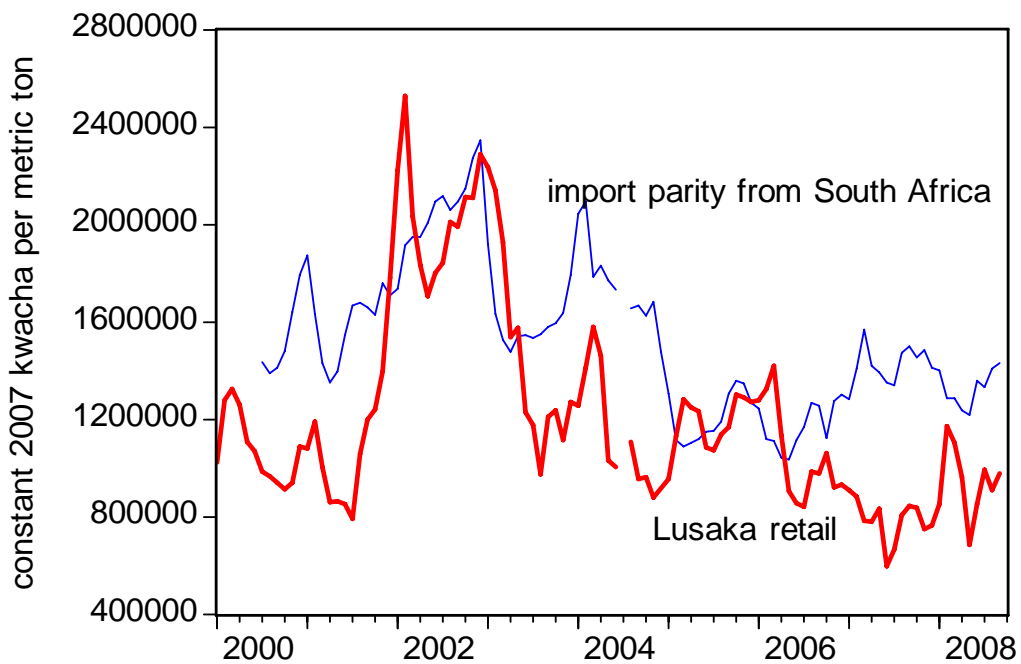
Nominal USD maize prices, Lusaka, Zambia



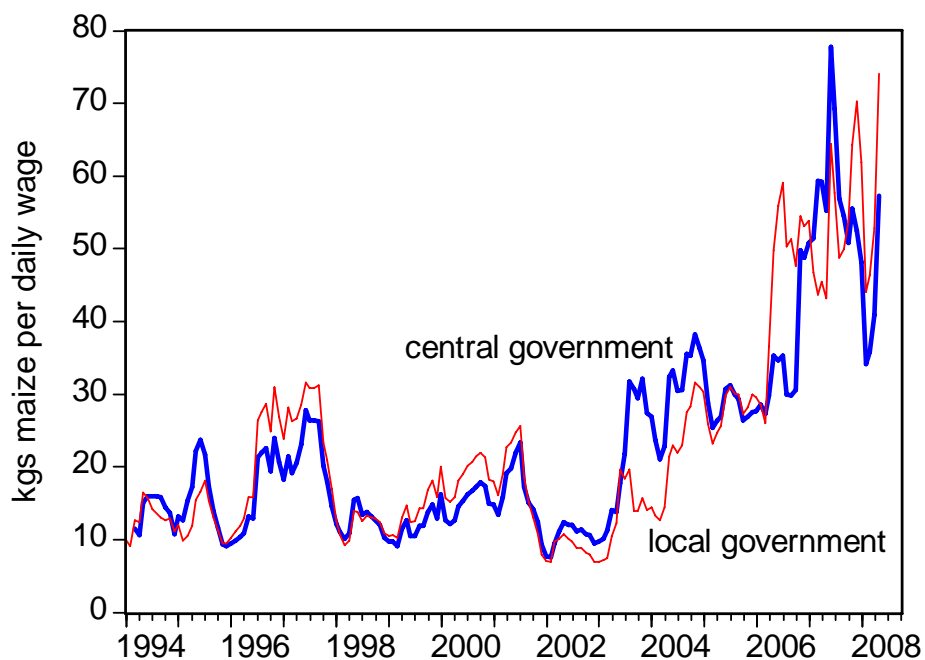
Nominal kwacha maize prices, Lusaka, Zambia



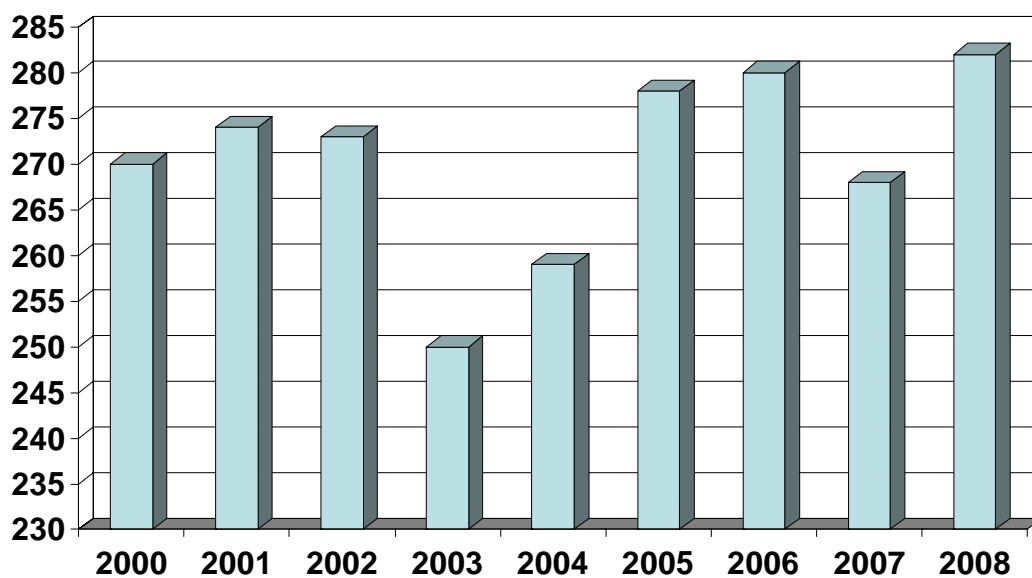
Constant 2007 maize prices, Lusaka, Zambia



Kilograms of maize capable of being purchase per daily wage rate for Zambian government employees

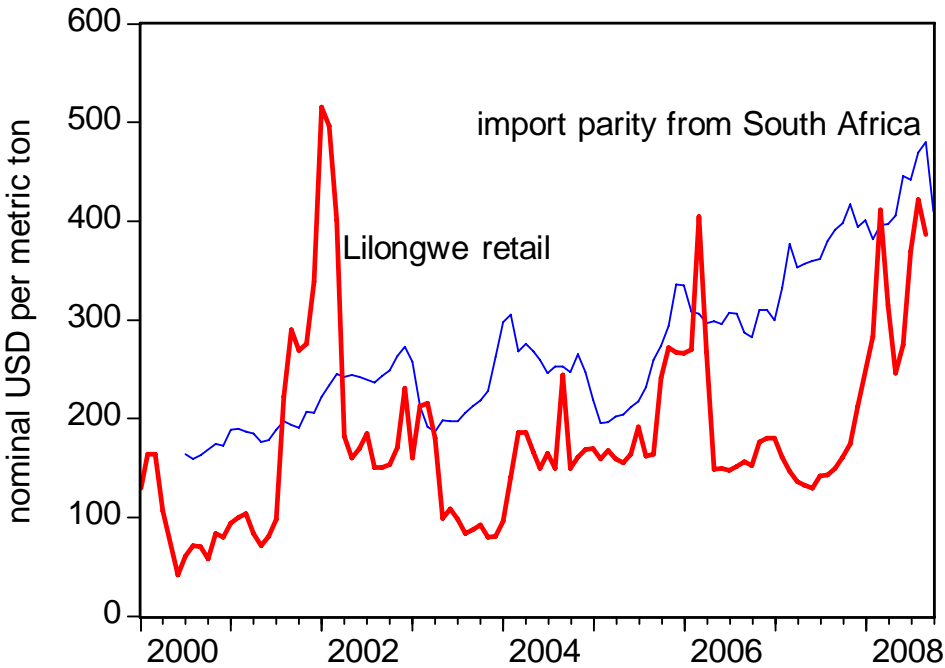


Ratio of rice prices to Bamako civil service salary index

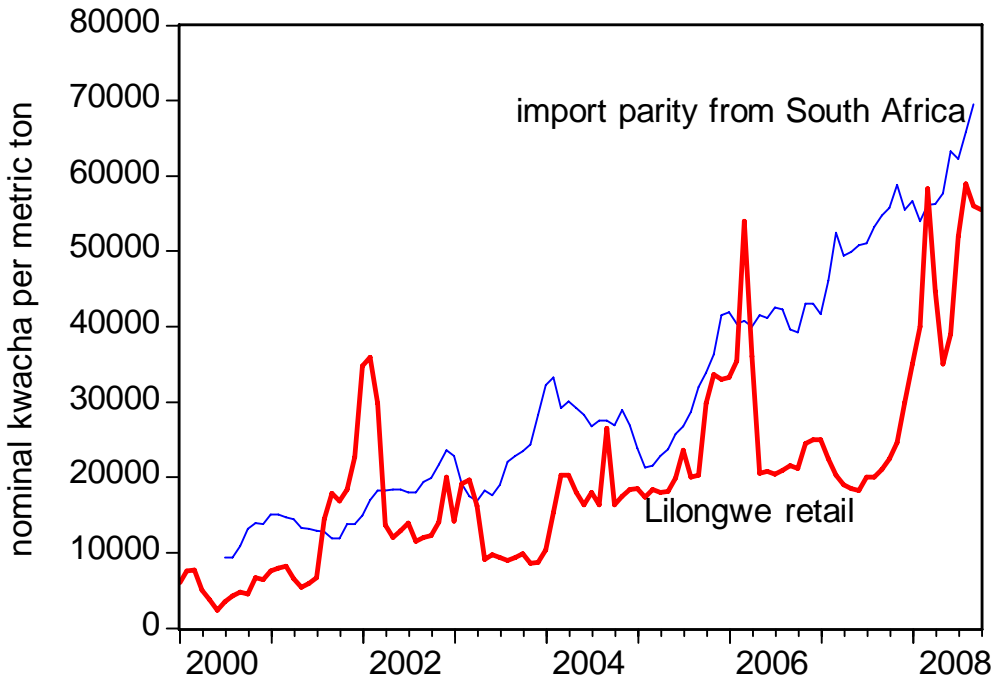


Source: Dembele et al., 2008

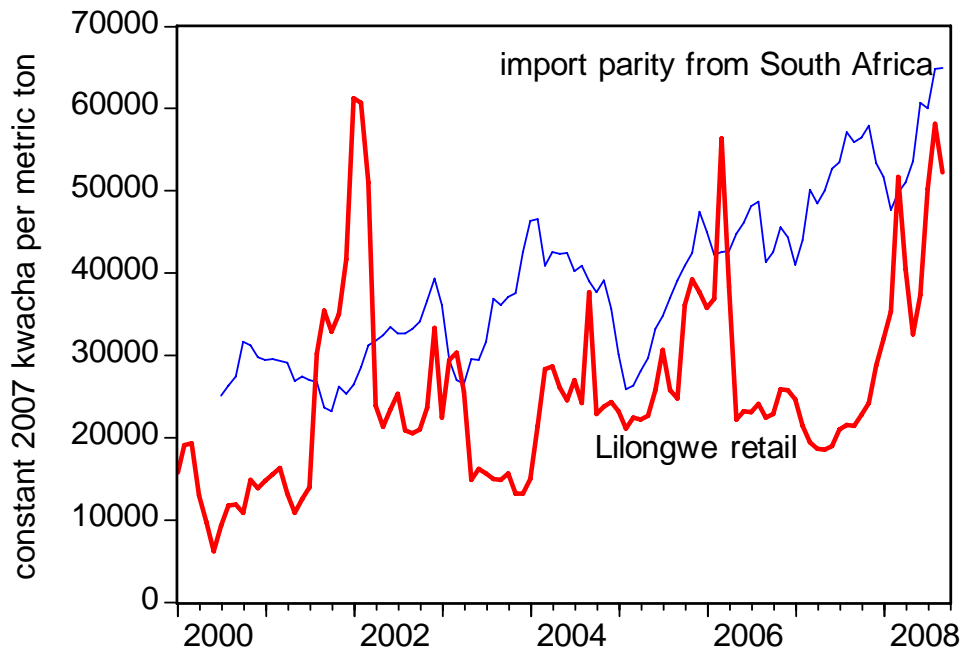
Nominal USD maize prices, retail Lilongwe, Malawi



Nominal kwacha maize prices, retail Lilongwe, Malawi



Constant kwacha maize prices, retail Lilongwe, Malawi



Finding 3:

Evidence of food crises emerging in Zambia and possibly Malawi in early 2009

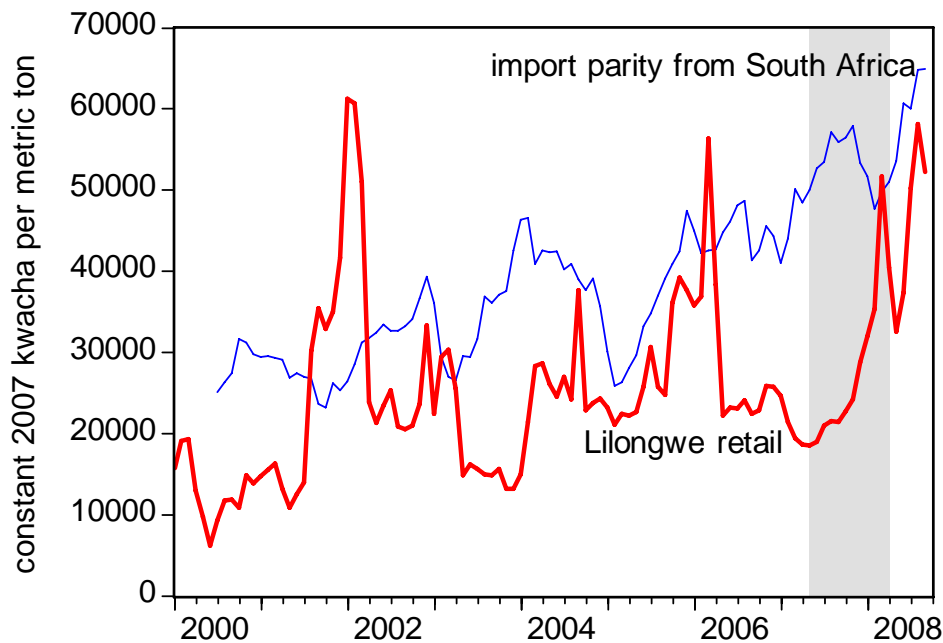
- not because food prices are abnormally high, but because of physical shortages.
- In both countries, national maize supplies may be depleted before the 2009 harvest
- However, neither the Zambian nor Malawian government has initiated plans to import maize and both governments have directly or indirectly inhibited the private sector's incentives to do so.

Finding 4:

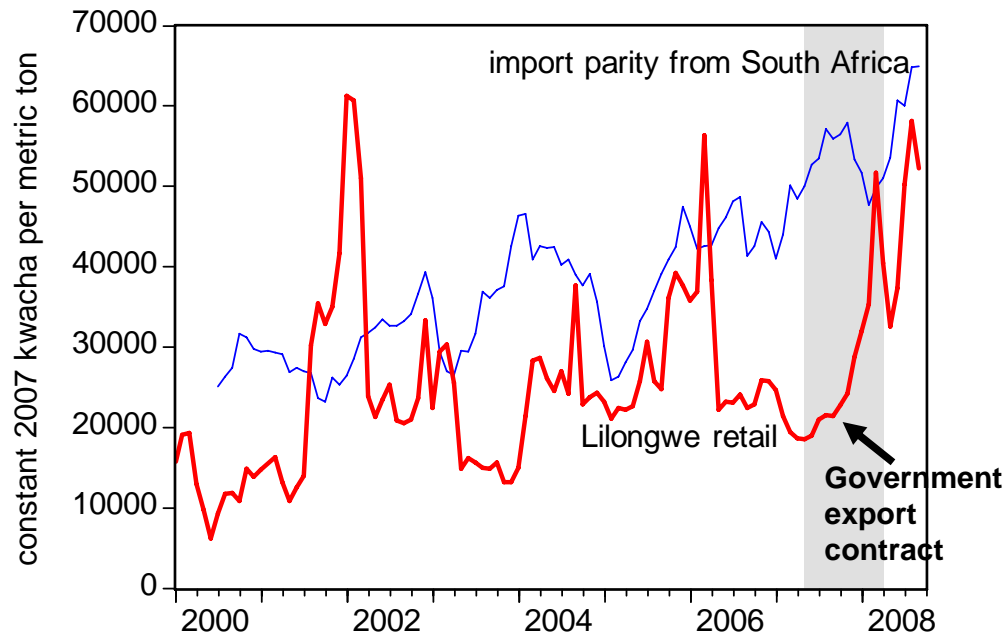
National crop production estimates are in some countries increasingly unreliable

- Why important? Government trade decisions, marketing board behavior, WFP local procurement, etc, are all informed by crop production and demand estimates
- Evidence of political factors creeping in
 - example: Malawi, 2007/08 and 2008/09

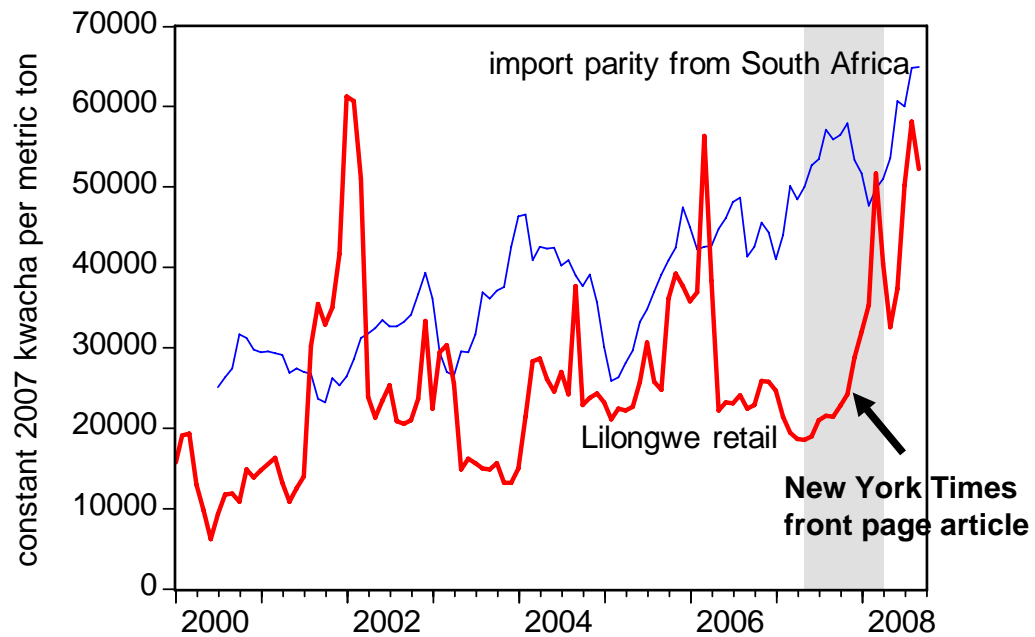
Constant Maize Prices in Lilongwe, 2000-2008



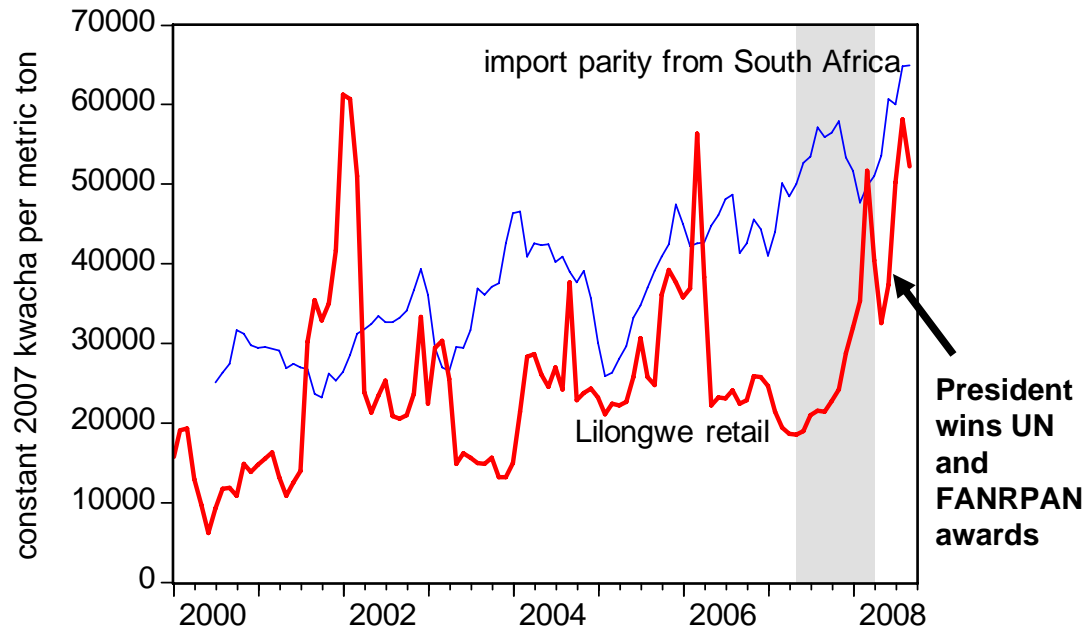
Constant Maize Prices in Lilongwe, 2000-2008



Constant Maize Prices in Lilongwe, 2000-2008



Constant Maize Prices in Lilongwe, 2000-2008



Finding 5:

Opportunities to relieve maize deficits and stabilize prices are hindered by regional trade barriers

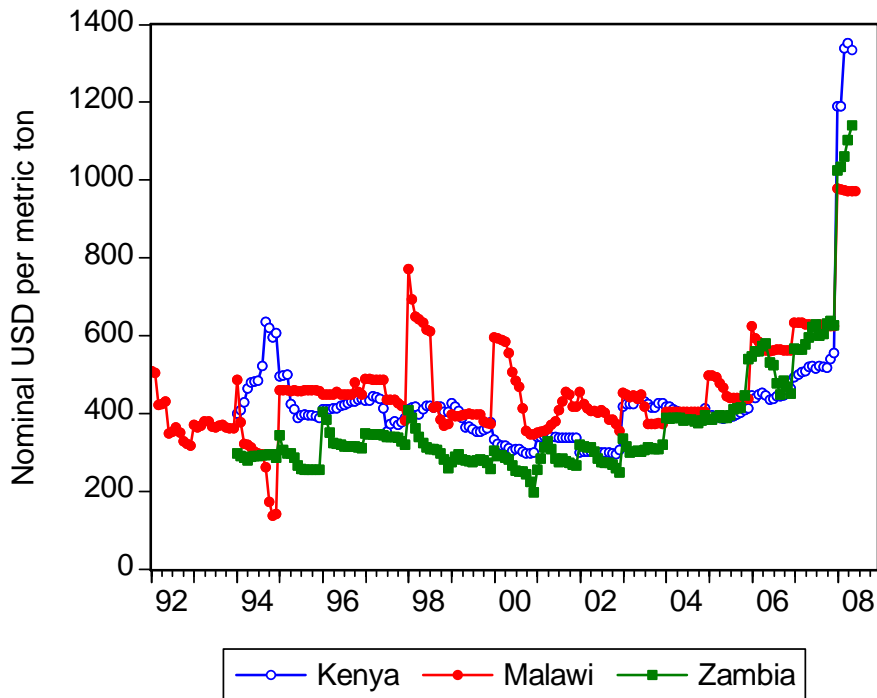
- Tanzania, Zambia, Malawi all have export bans
- Various trade impediments that raise costs to consumers and reduce prices to farmers



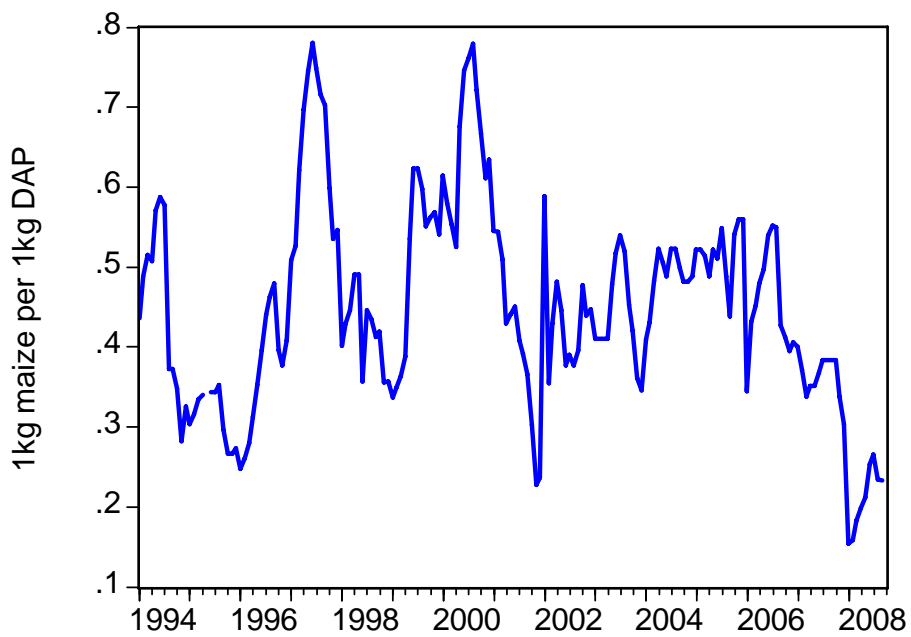
Finding 6:

Decline in fertilizer use on staple crops in the region in 2008.

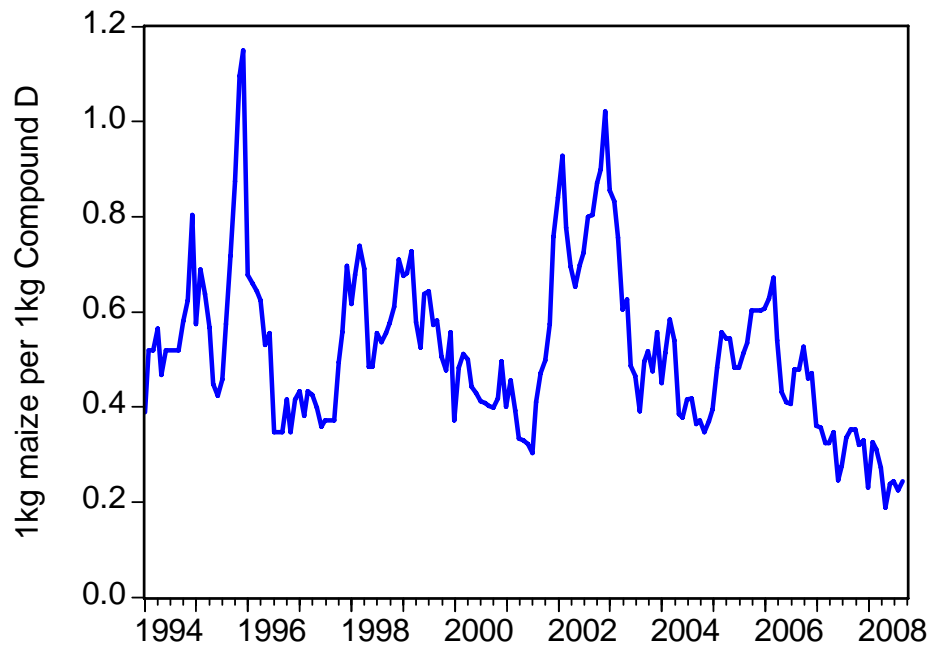
Fertilizer price trends



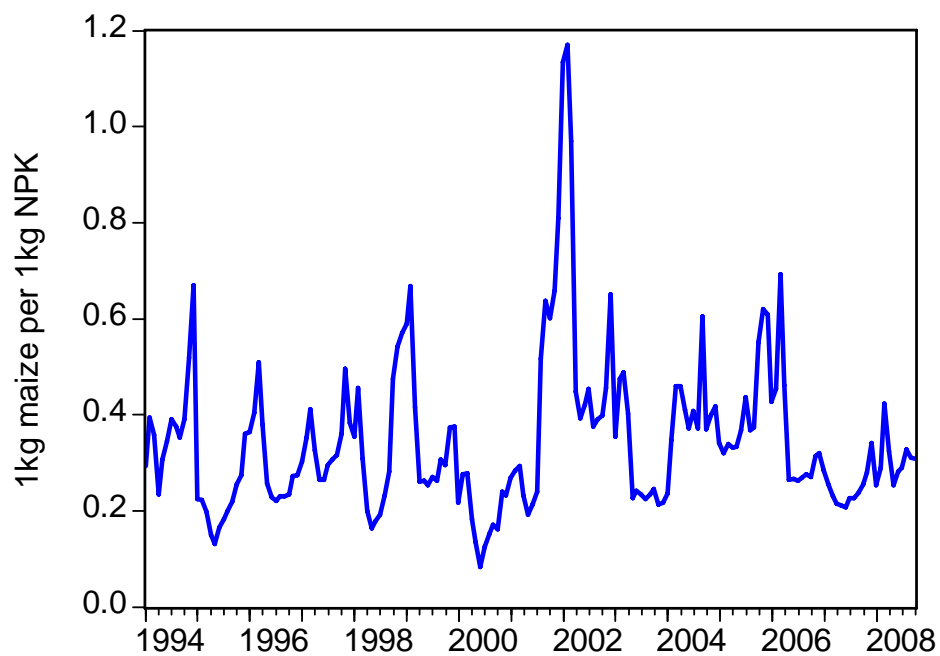
Maize-fertilizer price ratios, Kenya



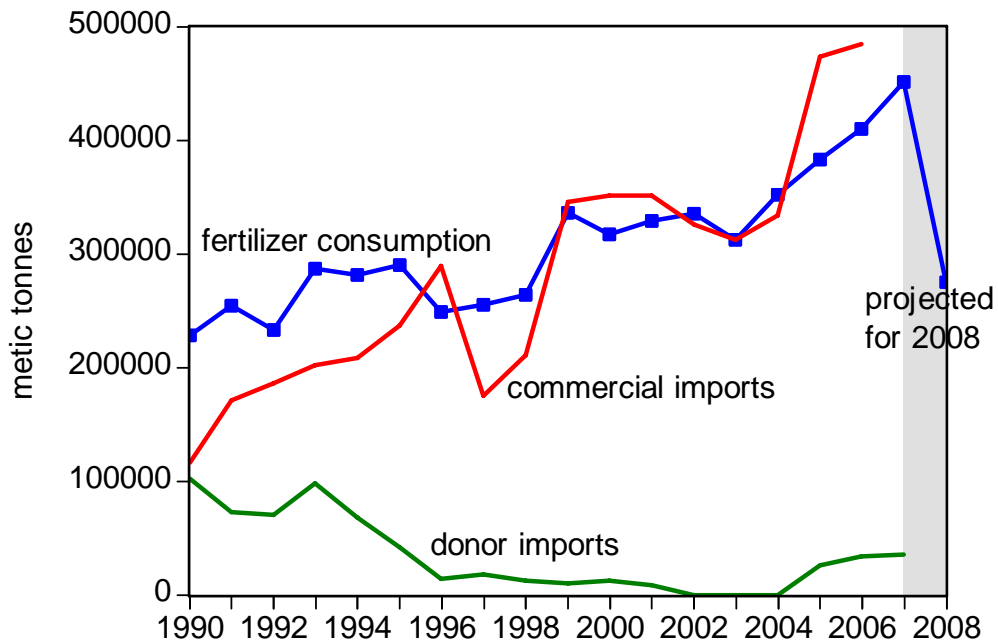
Maize-fertilizer price ratios, Zambia



Maize-fertilizer price ratios, Malawi



Trends in fertilizer use, Kenya



Finding 6:

Decline in fertilizer use on staple crops in the region in 2008. Anticipated outcomes:

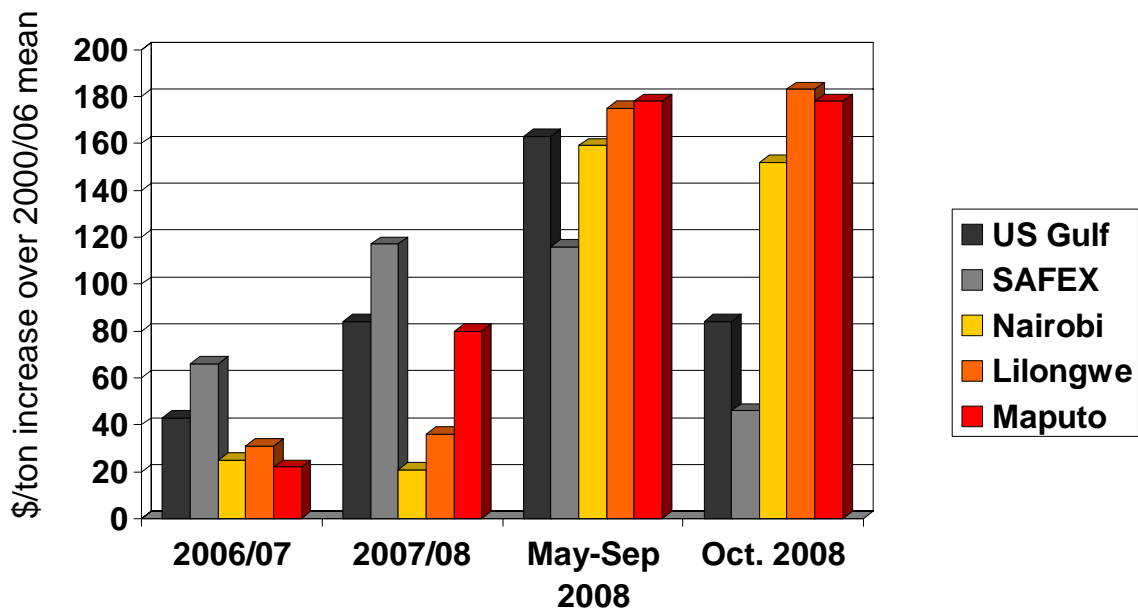
1. less fertilizer used on maize and other crops in the coming cropping season
 2. lower 2009 yields and production
 3. continued upward pressure on maize prices
 4. possible shift in area out of crops that require heavy fertilization for profitability and into crops that are profitable even at low or no fertilizer use
- most discernable in countries that make relatively intensive use of fertilizer
 - least so in countries where fertilizer use is negligible

Finding 7:

High fertilizer prices in 2008 are likely to contribute to high food prices in 2009 in the region, even if world food prices continue to decline.

- Even though international prices are tumbling, no evidence of this yet in interior markets

Mean price rises over historical
(2000-2006 averages)



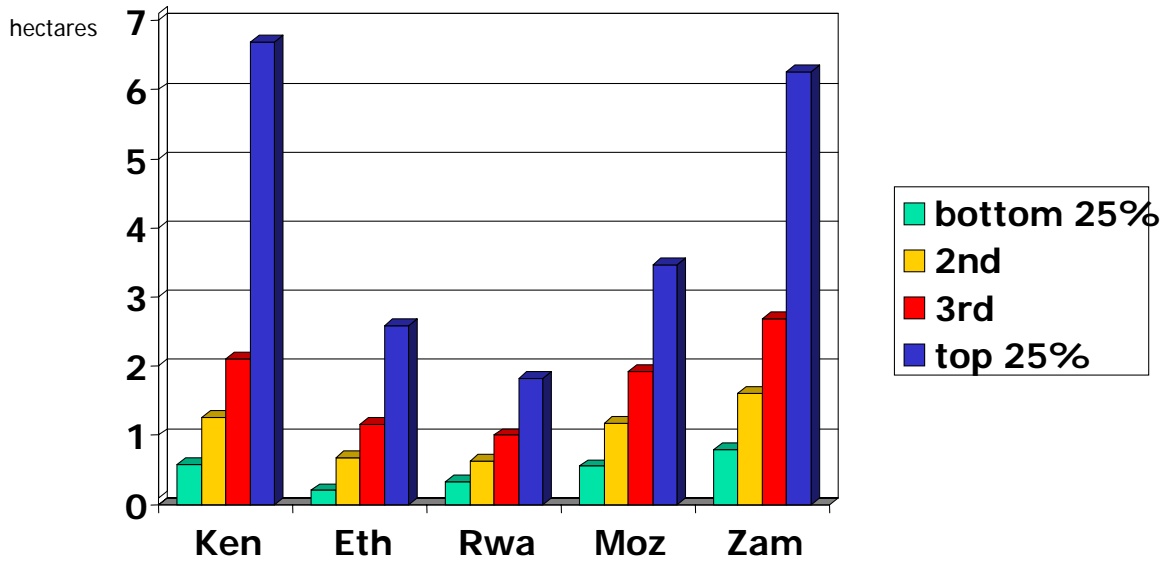
Upshot on food prices:

1. In local currency units, 2008 maize prices are very high, but comparable to levels seen before in past decade, and not as high as in USD terms – Why?
 - Exchange rate appreciation in some countries, driven by
 - Debt reduction - HIPC
 - Donor budget support
 - investment by China
 - US monetary policy (transitory)
2. Hence, countries in the region differ in terms of their exposure to rising global food prices
3. World prices are declining, but regional prices remain very high

Will smallholder farmers be able to take advantage of higher grain prices?

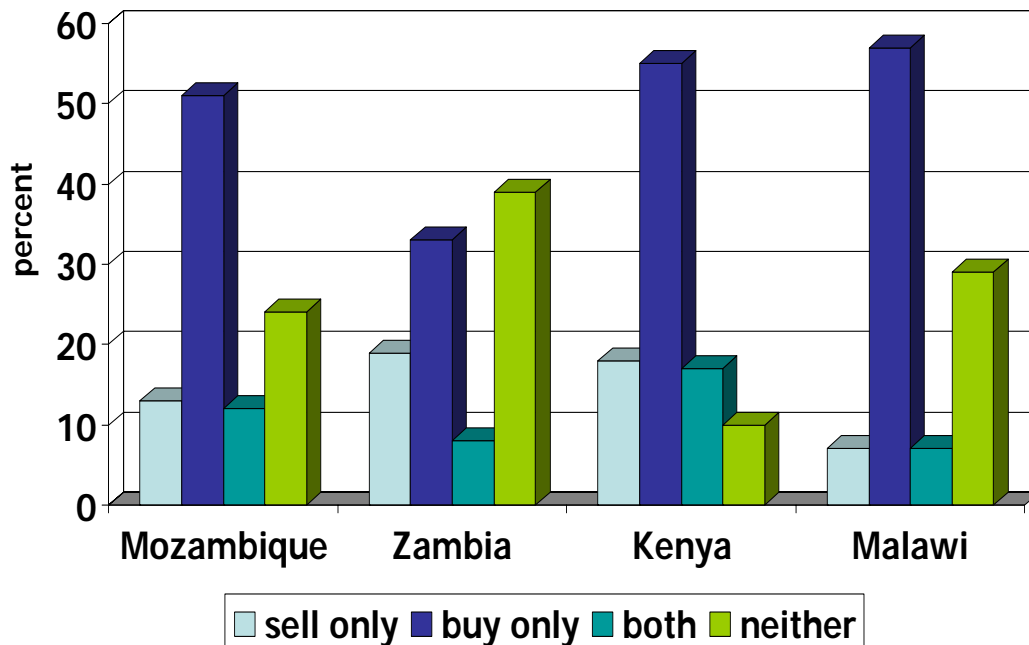
- Main determinants:
 - Access to land / farm structure
 - productive assets
 - input prices
 - access to markets
- Emerging land pressures are generating fundamental challenges for broad-based rural income growth

Farm size distribution: Small farm sector



Source: Jayne, Mather, Mghenyi, 2006

Smallholder Households' Position in the Maize Market



Characteristics of smallholder farmers, Zambia 2003/04

	N=	Farm size (ha)	Asset values (US\$)	Gr. Rev., maize sales (US\$)	Gr. Rev., crop sales (US\$)	Total hh income (US\$)
Top 50% of maize sales	31,328 (2%)	4.3	1,132	720	1163	2,932
Rest of maize sellers	328,561 (26%)	1.6	316	88	193	634
Households not selling maize	907,255 (72%)	0.9	231	0	97	415

Upshot on smallholder behavior:

- **Short run:** A small minority of relatively better-off farmers will be able to take advantage of higher food prices
 1. Most smallholders, who are net buyers of food, and urban consumers, will be worse off
 2. Rural and urban poverty rates likely to rise
 3. Reduction in incentives to use fertilizer → yields down → increasingly likelihood of needing to import in 2009
 4. Shifts in cropping patterns toward staple food (including roots and tubers), away from export crops
- **Longer-run:** could be positive for Africa if accompanied by supportive public investments and policies

Implications for food security policy?

The outcomes in E/S Africa will be influenced greatly by political response:

1. Future role of marketing boards and price stabilization
2. Input subsidy programs
3. Commitment to public goods investments
4. Commitment to open borders/regional trade
5. US/EU policy toward flexible food aid response (cash vs. food depending on situation)
6. US energy policy
7. US/EU agricultural and trade subsidy policies

Export bans and trade restrictions

- Generally doesn't stop trade from occurring but raising smuggling costs, which depress prices for farmers and raise costs for consumers
- Fact: only 5% of all grain imported by Africa countries comes from other African countries – 95% of imports is grown by farmers on other continents

Export bans and trade restrictions

- Generally doesn't stop trade from occurring but raising smuggling costs, which depress prices for farmers and raise costs for consumers
- Fact: **only 5% of all grain imported by Africa countries comes from other African countries – 95% of imports is grown by farmers on other continents**

What about fertilizer?

- Major gains can be achieved by reducing the costs of delivering fertilizer to farmers and raising the efficiency of fertilizer use
 - Survey findings show wide variations in fertilizer use efficiency even within same village
- What about fertilizer subsidies?
 - Compelling on paper, but need to overcome political capture

Zambia	Total Income	Assets	Landholding size
	'000 kwacha per capita		ha per capita
Fertilizer source:			
<i>Households not acquiring fertilizer:</i>	266	173	.15

Source: Govereh et al, 2006

Zambia	Total Income	Assets	Landholding size
	'000 kwacha per capita		ha per capita
Fertilizer source:			
<i>Households not acquiring fertilizer:</i>	266	173	.15
<i>Cash purchases from private retailers:</i>	774	342	.20

Source: Govereh et al, 2006

Zambia	Total Income	Assets	Landholding size
	'000 kwacha per capita		ha per capita
Fertilizer source:			
<i>Households not acquiring fertilizer:</i>	266	173	.15
<i>Cash purchases from private retailers:</i>	774	342	.20
<i>Government Fertilizer Support Program (50% subsidy)</i>	804	425	.23

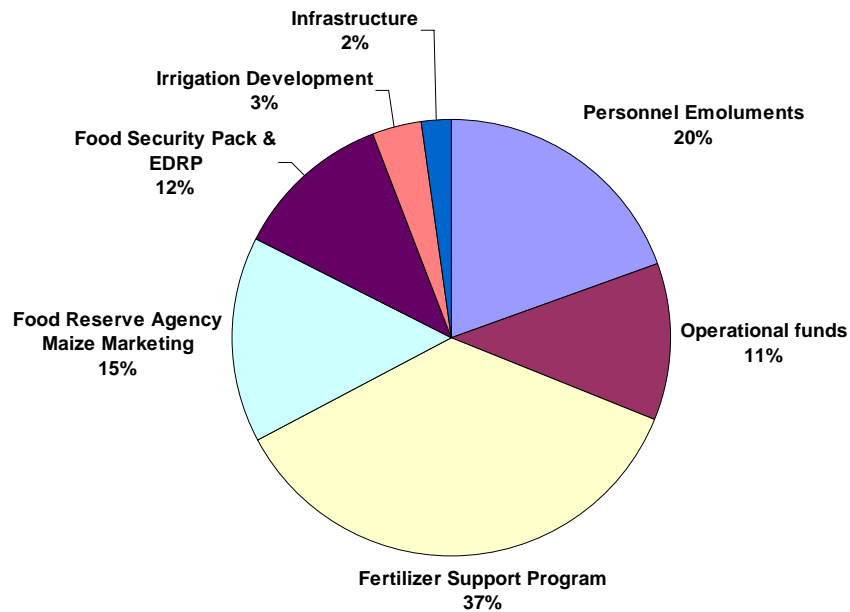
Source: Govereh et al, 2006

IFPRI review of rate of return studies:

	Returns
Subsidies	Negative – 12%
Investments	
- research & extension	35% to 70%
- roads	20% to 30%
- education	15% to 25%
- communications	10% to 15%
- irrigation	10% to 15%

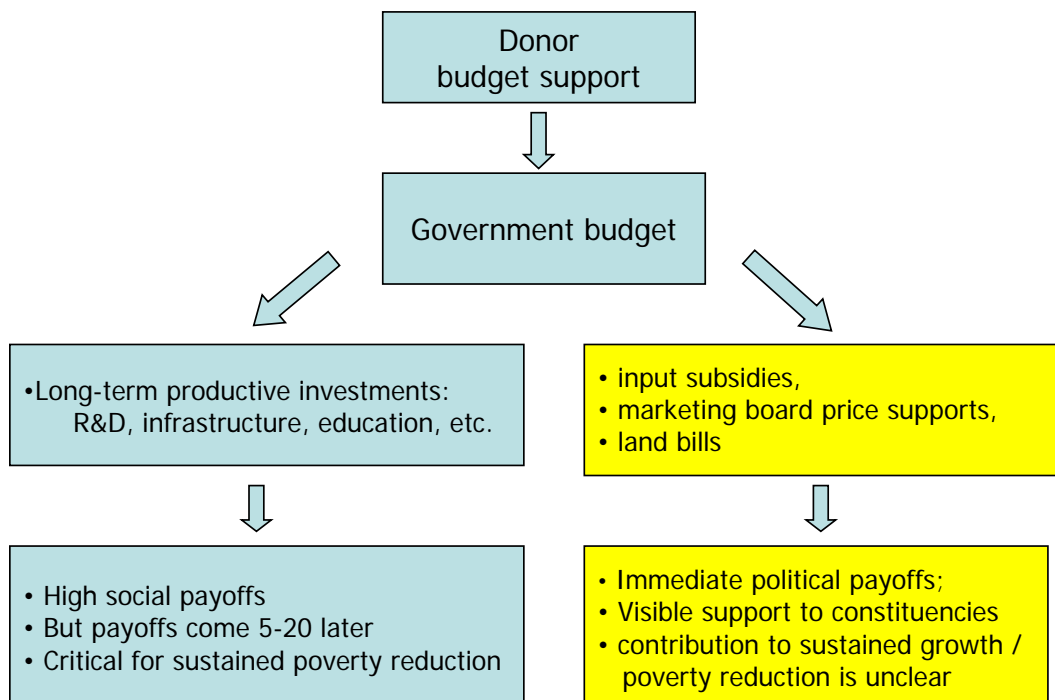
If we believe these findings, they have major implications for government and donor response

Budget allocation to Agricultural Sector in Zambia: ZMK465 million in 2005



Source: Govereh et al, 2006

Political economy of public resource allocation



-
- ❑ As massive as the poverty problems are now, they will be much greater unless budgets are re-allocated sooner or later to investments that will make the economy productive in the long-term:
 - Population growth w/o productivity growth → civil strife
 - Not a viable option to have more and more “state failure” in Africa

Possible Response Options for Consideration:

	Good harvest	Production shortfall
Response options for governments		
Response options for donors		

Possible Response Options for Consideration:

	Good harvest	Production shortfall
Response options for governments	<ul style="list-style-type: none"> • Income support (food for work, cash transfers) for vulnerable groups • Production contracts • local food purchase • build cash reserves for import when needed 	
Response options for donors		

Possible Response Options for Consideration:

	Good harvest	Production shortfall
Response options for governments	<ul style="list-style-type: none"> • Income support (food for work, cash transfers) for vulnerable groups • Production contracts • local food purchase • build cash reserves for import when needed 	
	<ul style="list-style-type: none"> • ramp-up investment in crop science, infrastructure, irrigation, farmer knowledge 	
Response options for donors		

Possible Response Options for Consideration:

	Good harvest	Production shortfall
Response options for governments	<ul style="list-style-type: none"> • Income support (food for work, cash transfers) for vulnerable groups • Production contracts • local food purchase • build cash reserves for import when needed 	<ul style="list-style-type: none"> • remove tariffs/taxes on food imports • position early for food import • seek imported food aid (not local purchase)
	<ul style="list-style-type: none"> • ramp-up investment in crop science, infrastructure, irrigation, farmer knowledge 	
Response options for donors		

Possible Response Options for Consideration:

	Good harvest	Production shortfall
Response options for governments	<ul style="list-style-type: none"> • Income support (food for work, cash transfers) for vulnerable groups • Production contracts • local food purchase • build cash reserves for import when needed 	<ul style="list-style-type: none"> • remove tariffs/taxes on food imports • position early for food import • seek imported food aid, not local purchase
	<ul style="list-style-type: none"> • ramp-up investment in crop science, infrastructure, irrigation, farmer knowledge 	
Response options for donors	<ul style="list-style-type: none"> • Support local crop science • Resources for local food purchase or imports • Support improved crop production estimates and market information • Support overhaul of food balance sheet approach • Reconsider energy policy and impacts on food prices and climate effects 	

Summing Up

1. Despite up/down gyrations, world prices likely to remain at higher mean levels than in past
2. Short run distributional effects: relatively few will gain – many will lose
3. Poverty likely to rise
4. Long-run opportunities for Africa, but whether these opportunities are captured depends on governance
 - political responses will greatly influence outcomes
 - can a coalition be formed to use public resources in ways that would contribute to equitable development?
 - from where will this coalition emerge?



thank you

	period	Ag. Growth rate (FAO)	AgGDP (WB)
Malawi	1990-2006	+3.26	+5.70
Mozambique	1990-2006	+4.76	+5.21
Kenya	1990-2006	+2.15	+2.69
Zambia	1990-2006	+1.41	+2.82
Sub-Saharan Africa	1990-2006	+2.98	+3.43