

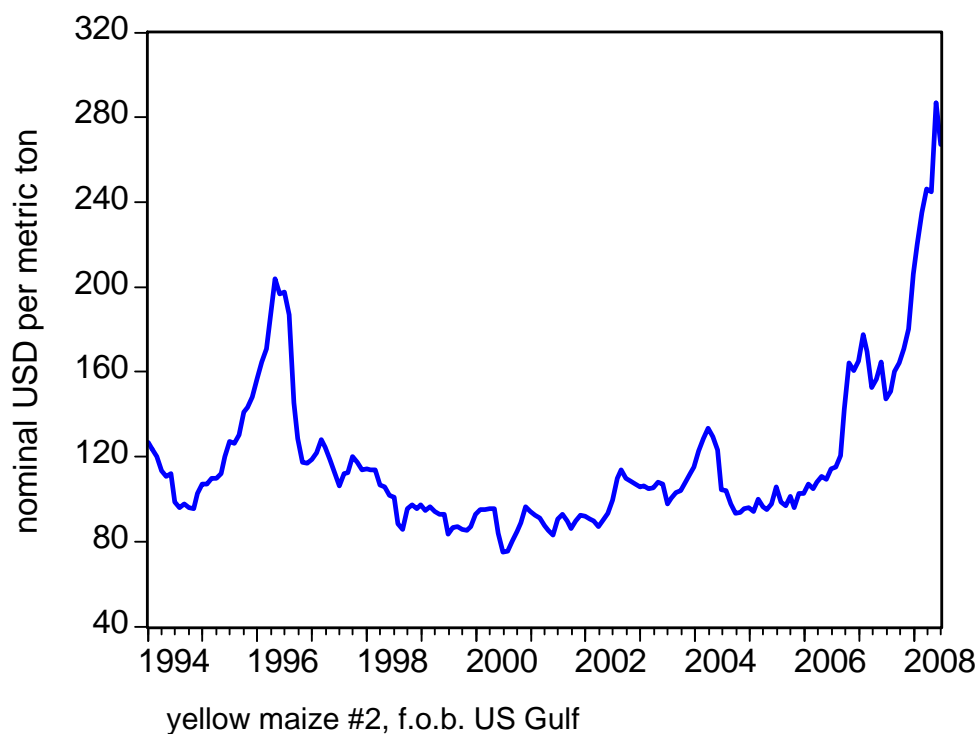
The 2008/09 Food Pricing and Food Security Situation in Eastern and Southern Africa: Implications for Immediate and Longer-Run Responses



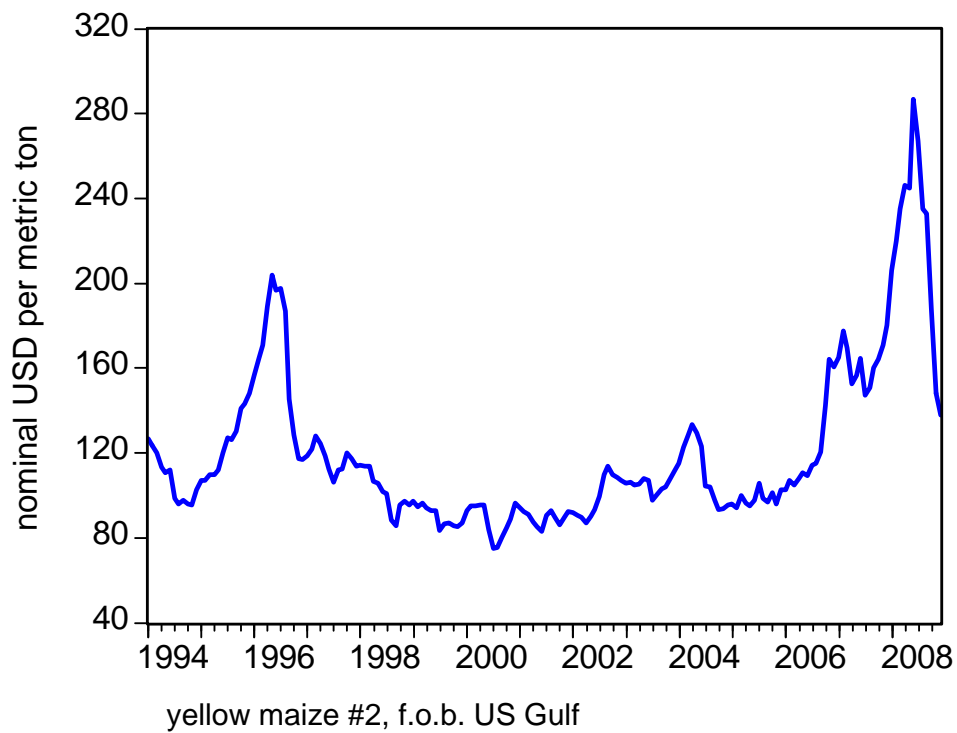
T. Jayne, A. Chapoto, I. Minde, and C. Donovan

USAID Africa Bureau seminar on Agricultural Markets
Washington, D.C., January 13, 2009

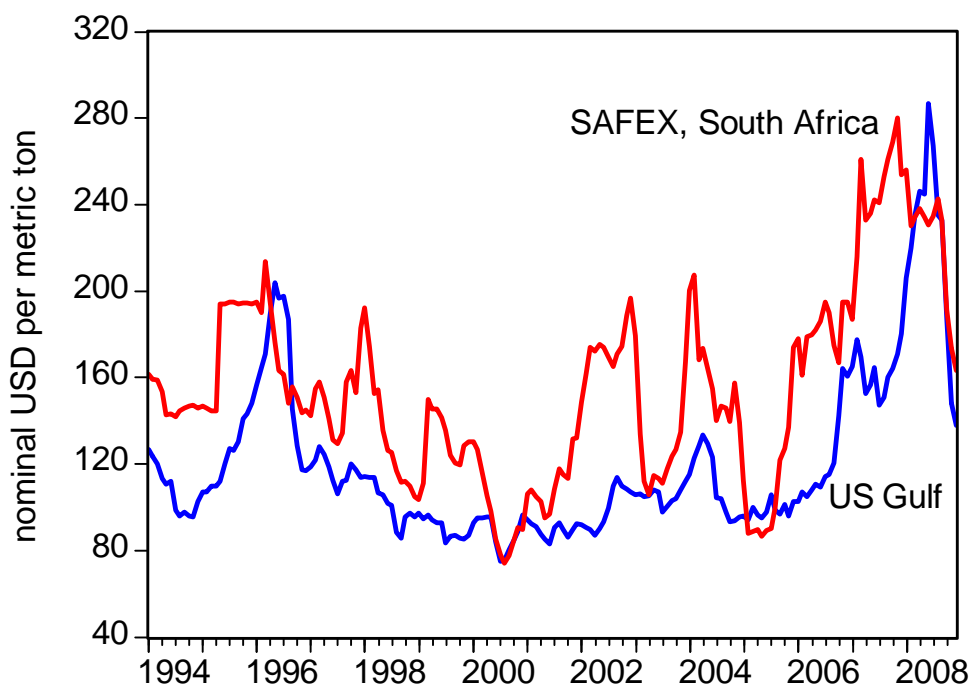
International Maize Price, Jan. 1994 - Jul. 2008



International Maize Price, Jan. 1994 - Dec. 2008



International Maize Prices, Jan. 1994 - Dec. 2008

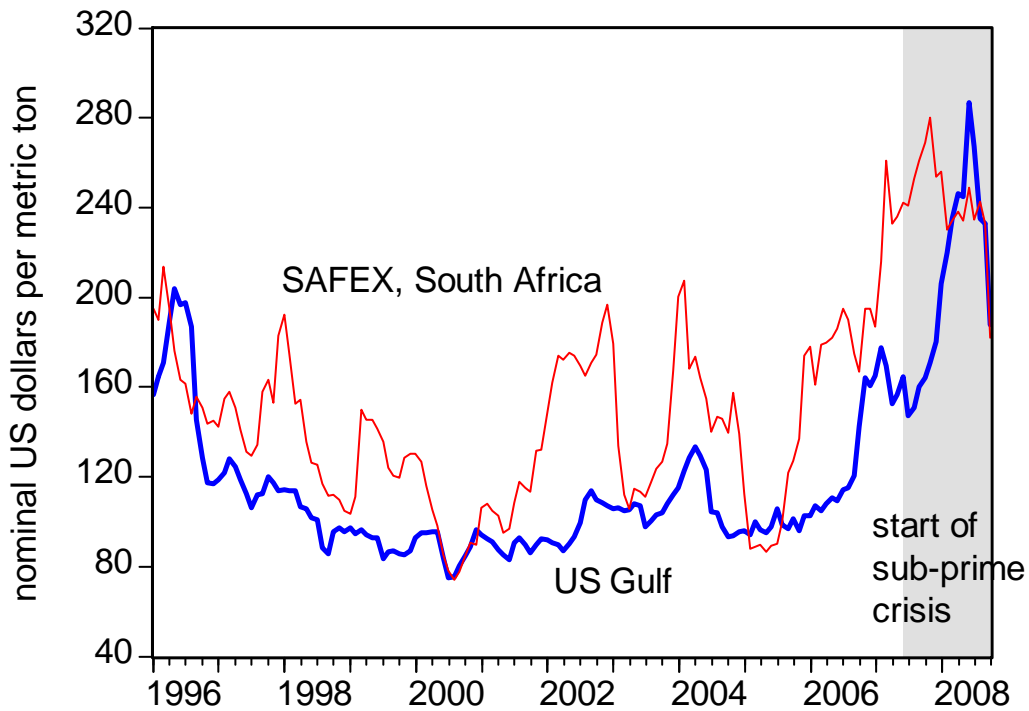


Objectives:

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 consider implications for national policies and regional initiatives (e.g., CAADP, ACTESA)

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

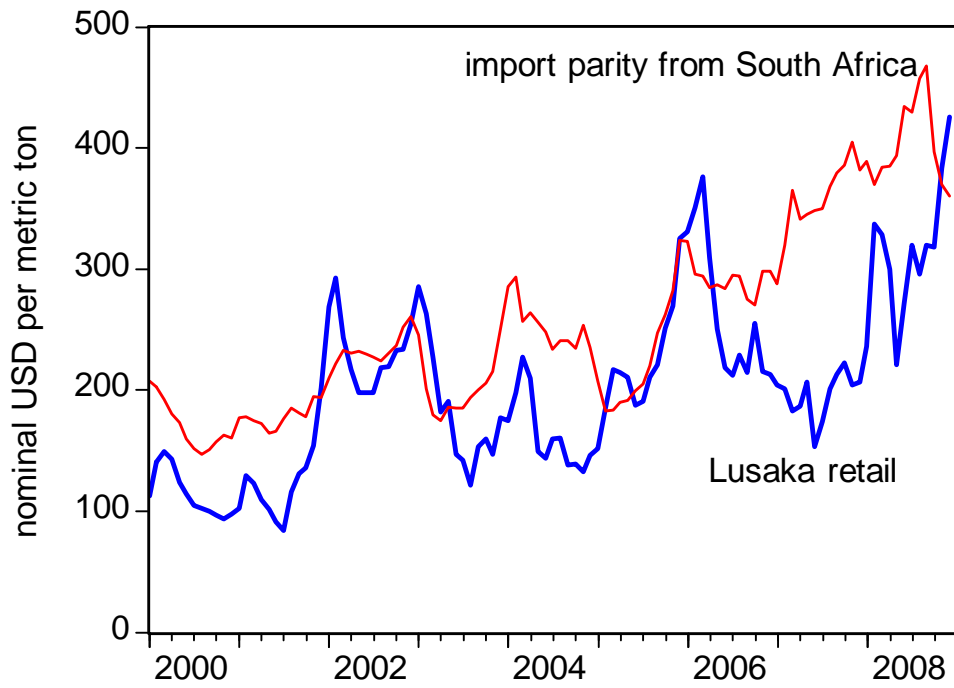
Five Main Findings:

1. World food prices are tumbling but continue to rise in many parts of E/S Africa
2. Evidence that Zambia and Malawi will face a food crisis by early 2009, not because world food prices are abnormally high, but because of slow recognition of the need to import
3. Unreliable crop estimates → raising potential for food crises
4. The specter of food crisis is heightened by barriers to regional trade
5. Even though world food prices are rapidly falling, the food situation in E/S Africa will remain precarious at least into 2009

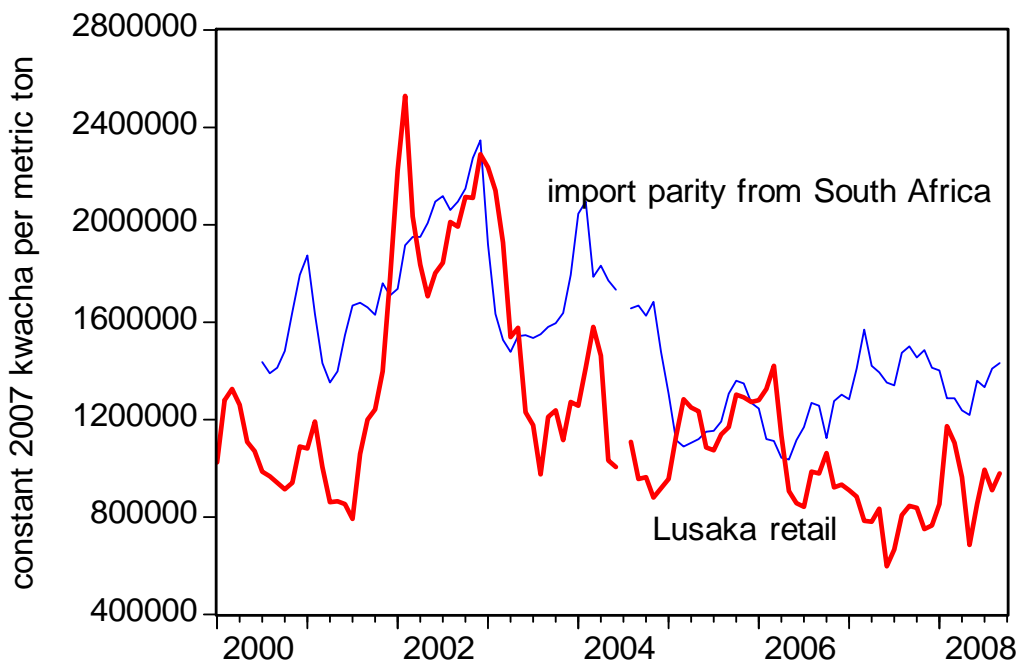
Finding 1:

Despite the tumbling of international maize prices, maize prices in many parts of E/S Africa continue to rise

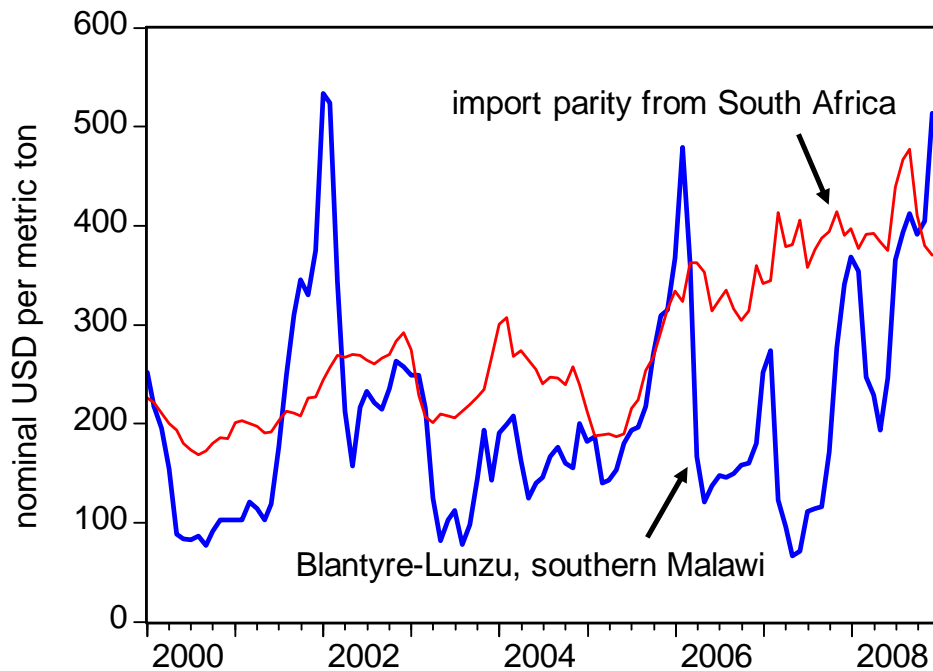
Nominal USD maize prices, Lusaka, Zambia



Constant 2007 maize prices, Lusaka, Zambia



Nominal USD maize prices, retail Lilongwe, Malawi



Finding 2:

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

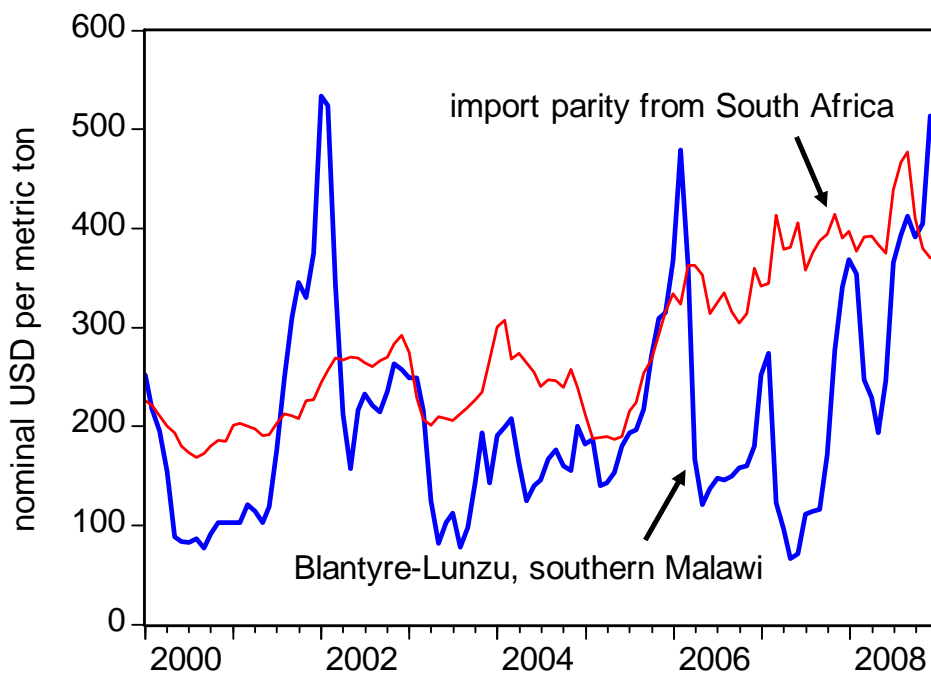
- not because world food prices are abnormally high, but because of physical shortages
 - ADMARC rationing its sales to consumers
- Domestic prices > \$500/mt. Cost of importation from South Africa < \$380
- However, import licenses were arranged only in December for Zambia; and still have not been issued in Malawi

Finding 3:

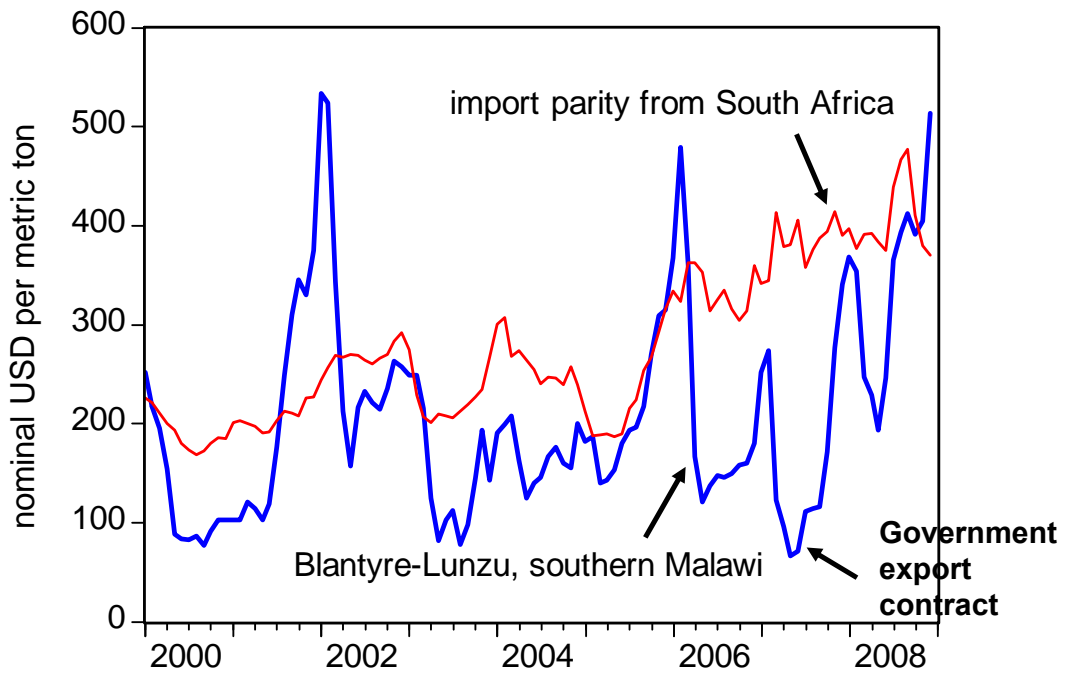
National crop production estimates are in some countries increasingly unreliable

- Why important? Crop production and demand estimates guide government trade decisions, marketing board behavior, WFP local procurement, etc,
- Evidence of political factors creeping in
 - example: Malawi, 2007/08 and 2008/09

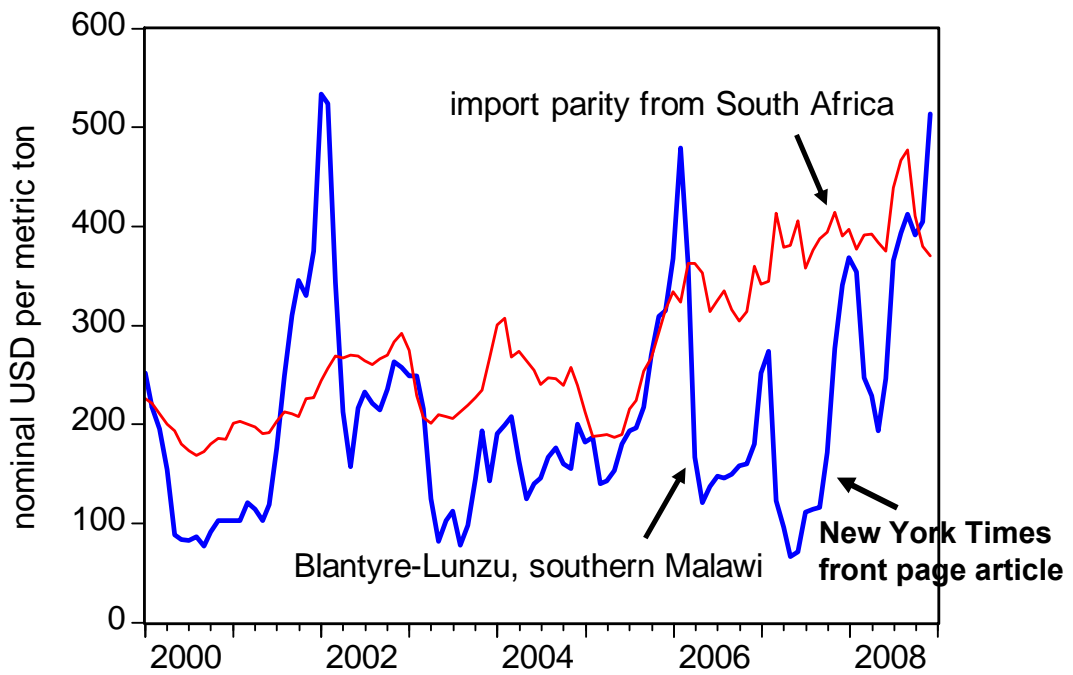
Nominal USD maize prices, retail Lilongwe, Malawi



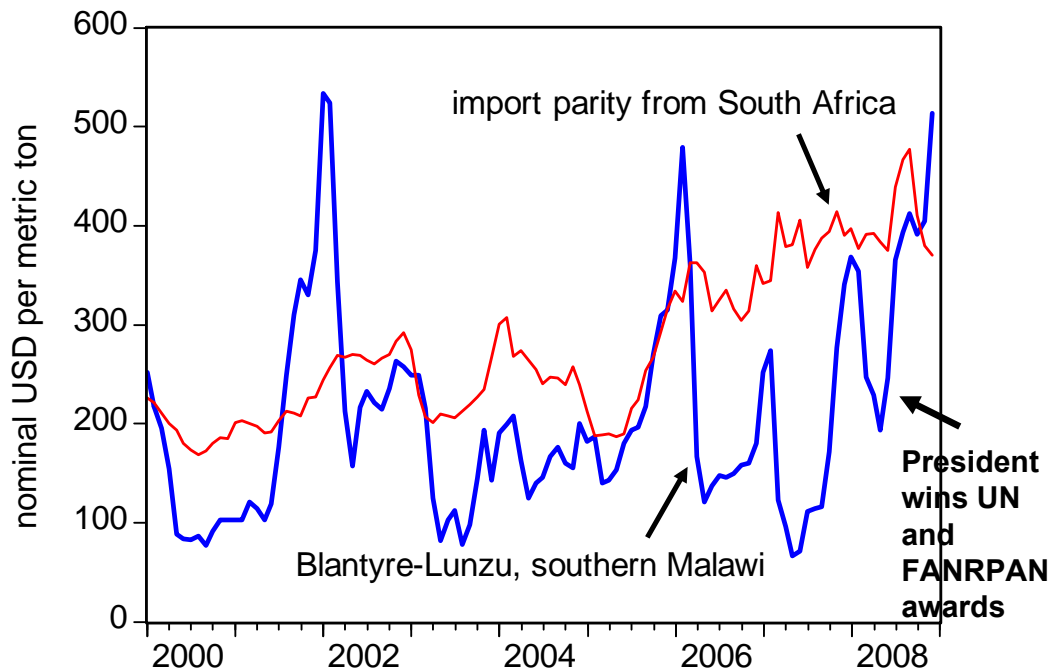
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Finding 4:

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

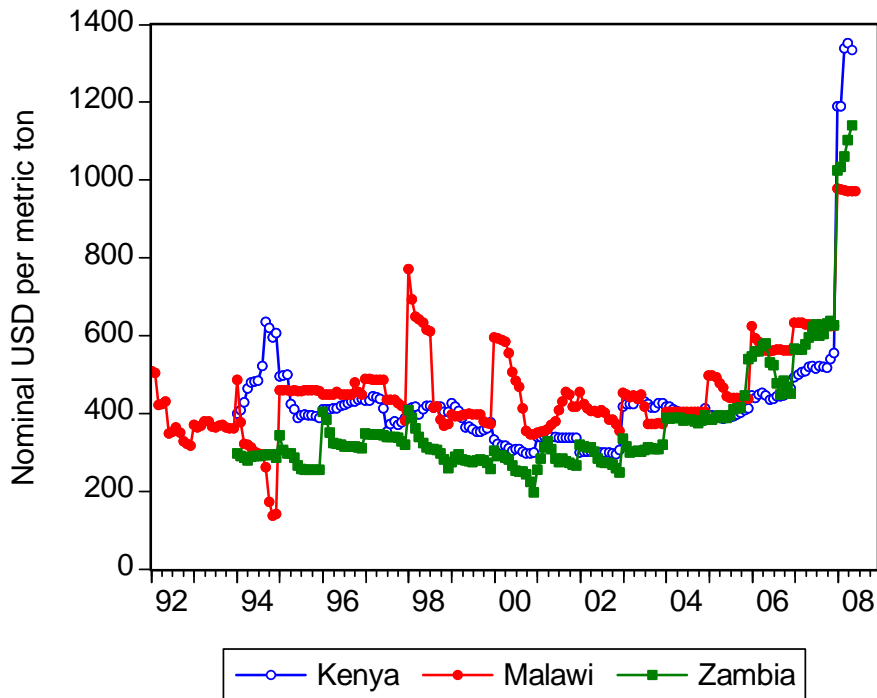
- Tanzania, Zambia, Malawi all have export bans
- Various trade impediments that raise costs to consumers and reduce prices to farmers



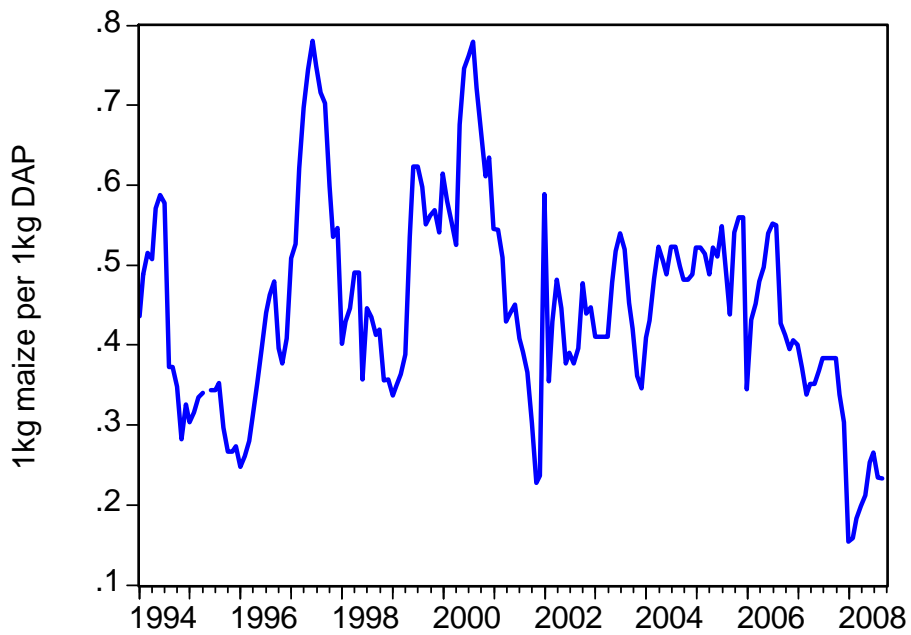
Finding 5:

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

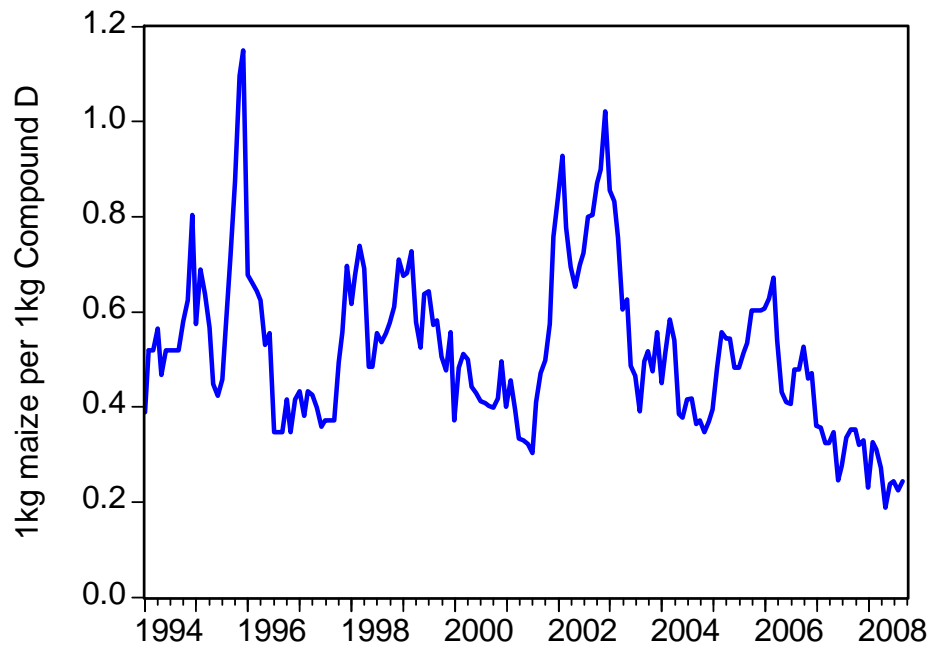
Fertilizer price trends



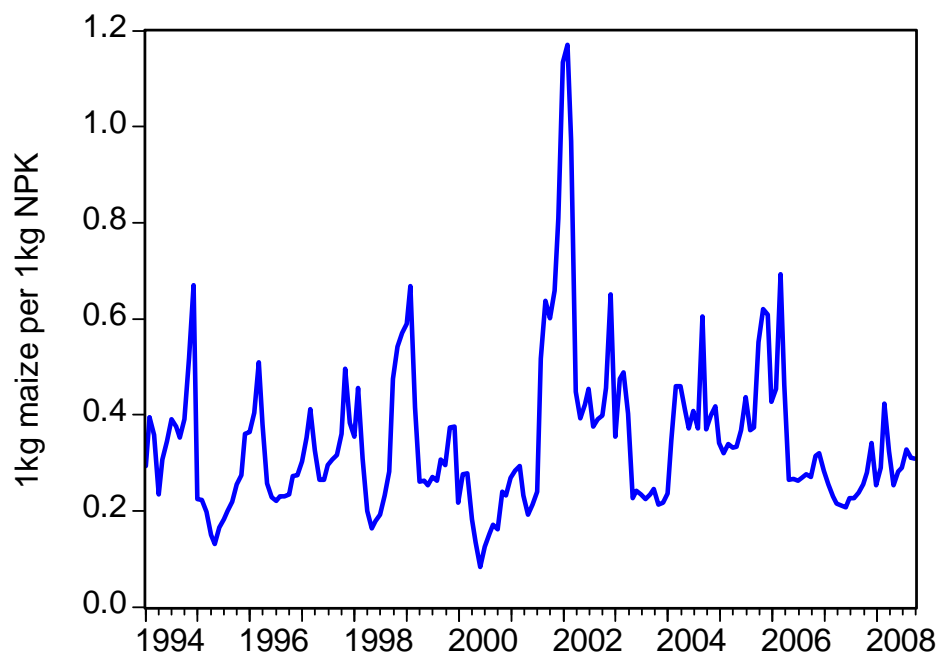
Maize-fertilizer price ratios, Kenya



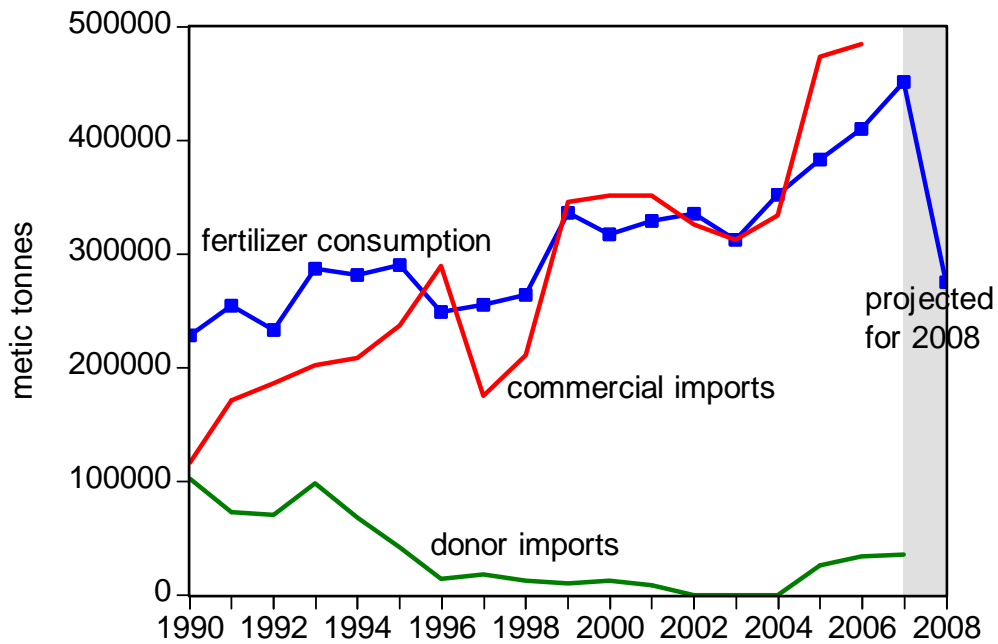
Maize-fertilizer price ratios, Zambia



Maize-fertilizer price ratios, Malawi



Trends in fertilizer use, Kenya



Finding 5:

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

What to do:

1. Focus on reducing costs in distributing fertilizer to farmers
2. Focus on helping farmers to improve efficiency of fertilizer use

Profitability of using fertilizer (Value Cost Ratio):

$$\frac{\text{Farm-gate Maize Price}}{\text{Farm-gate Fertilizer Price}} * \frac{\Delta\text{kg maize}}{\Delta\text{kg fert}}$$

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. Reduction in incentives to use fertilizer → yields down → increasingly likelihood of needing to import in 2009
 3. 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:

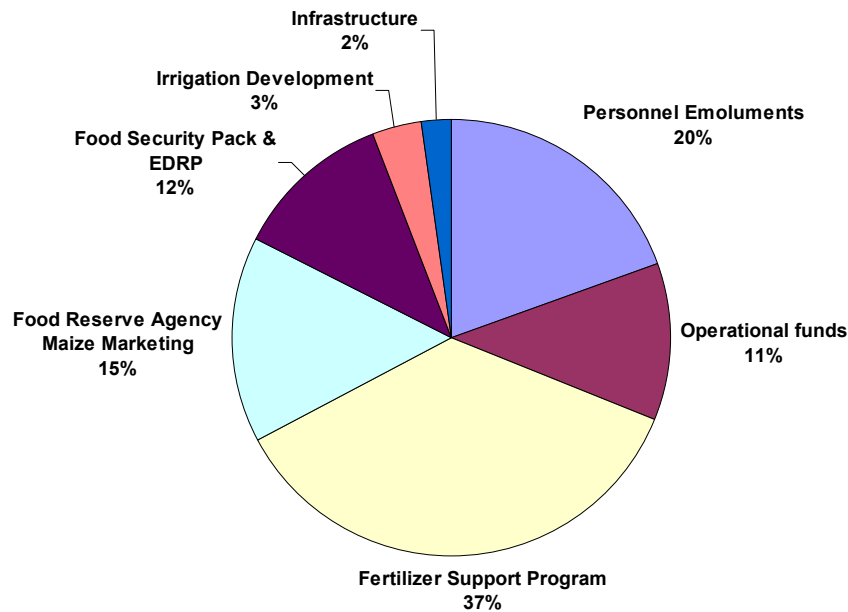
1. How seriously governments and donors commit to smallholder agriculture
 1. Not just how much to spend on agriculture, but how the funds are spent
 2. Commitment to support the development of markets
 3. Commitment to public goods investments
2. US/EU/WFP policy toward flexible food aid response (cash vs. food depending on situation)
3. US energy policy
4. US/EU agricultural and trade subsidy policies

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

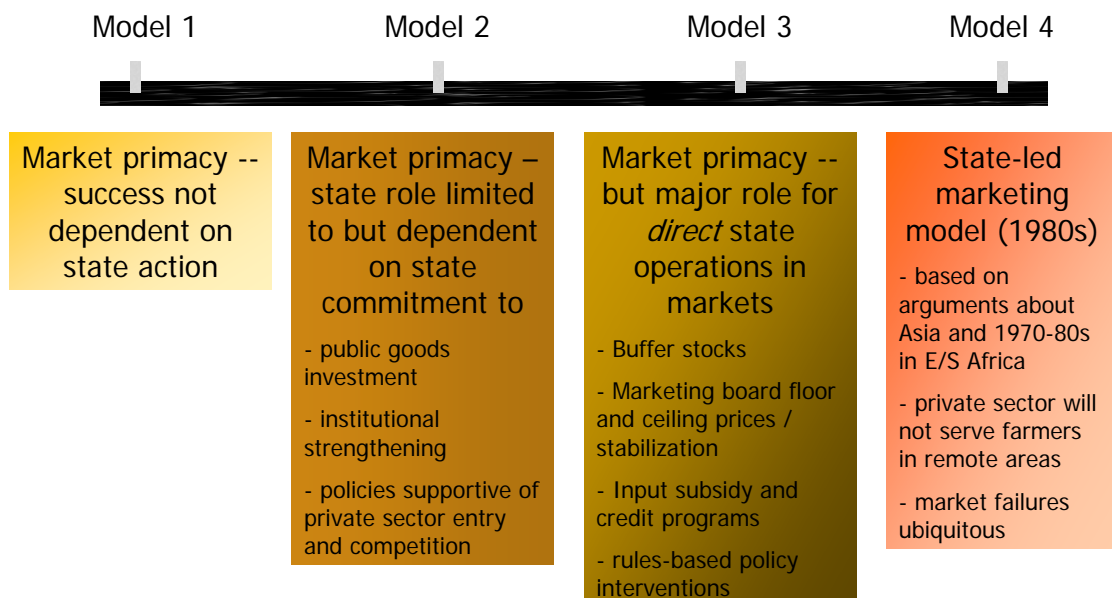
Export bans and trade restrictions

- 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

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Alternative models of staple food market development to guide ACTESA and CAADP Pillar 2 implementation:



Possible Response Options for Consideration:

	Good harvest	Production shortfall
Response options for governments		

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Response options for regional initiatives (e.g. Pillar 2 of CAADP)		

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Response options for regional initiatives (e.g. Pillar 2 of CAADP)	<ul style="list-style-type: none"> • Support improved crop production estimates and market information • Support overhaul of food balance sheet approach • support for infrastructural improvements (road, rail, ports, communications) • support for credit guarantees for private investment in storage facilities 	

Summing Up

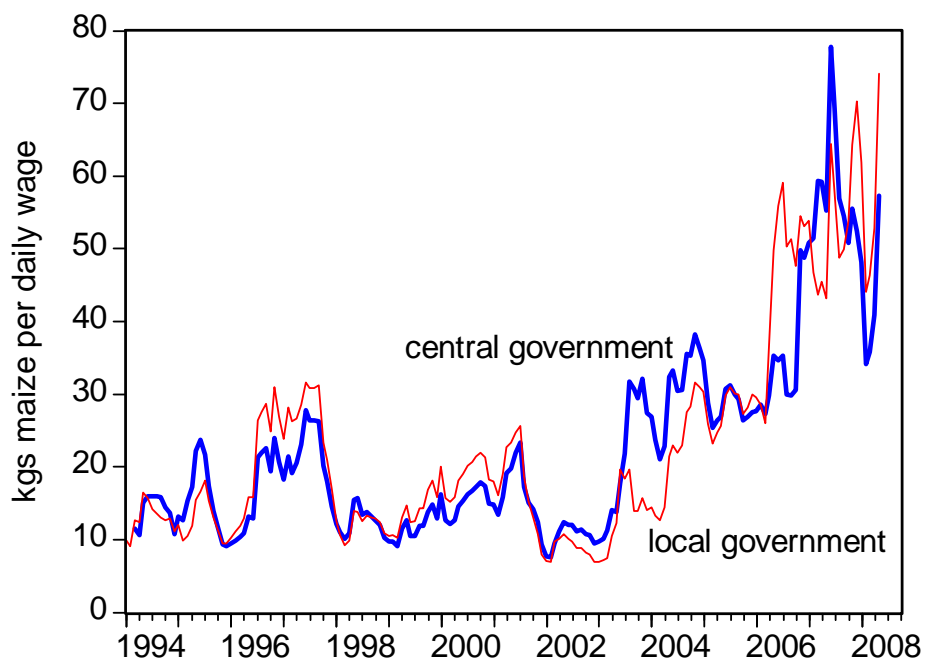
1. Despite up/down gyrations, world prices likely to remain at higher mean levels than in past
2. Short run distributional effects: relatively few will gain – many will lose
3. Long-run opportunities for Africa are positive, but whether these opportunities are captured depends on governance
 - political 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?



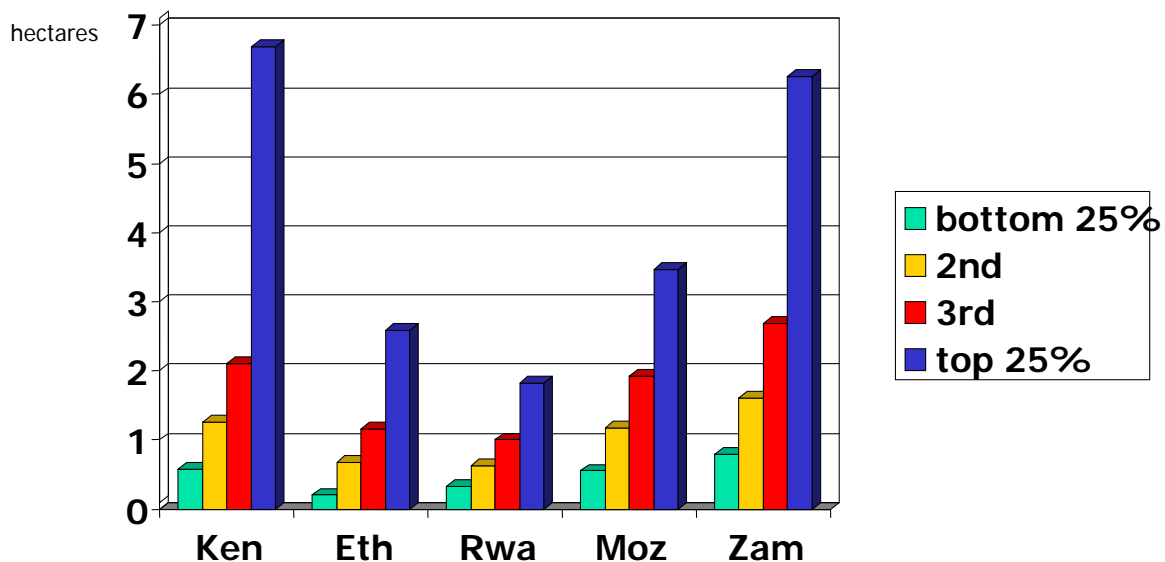
thank you

	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

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

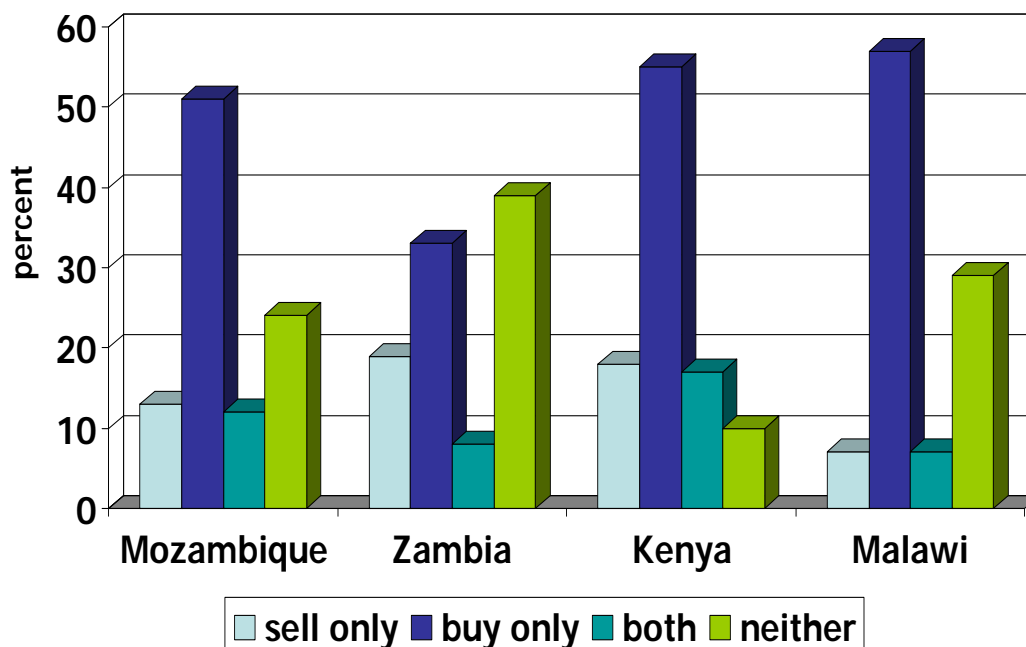


Farm size distribution: Small farm sector



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

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

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<i>Government Fertilizer Support Program (50% subsidy)</i>	804	425	.23

Source: Govereh et al, 2006

Political economy of public resource allocation

