The Malawi Fertiliser Subsidy: Modalities and Impacts

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Outline

- Context
  - Staples productivity in poor rural economies & livelihoods
  - Malawi rural economy: poverty & the low maize productivity trap
  - Constraints on input use
- 2005/6 -2008/9 Input Subsidy Programmes
  - Lead in, broad achievements
  - Implementation issues
  - Wider impacts
  - Changing subsidy impacts on households & markets
- Conclusions
  - Lessons from / for Malawi
  - Challenges

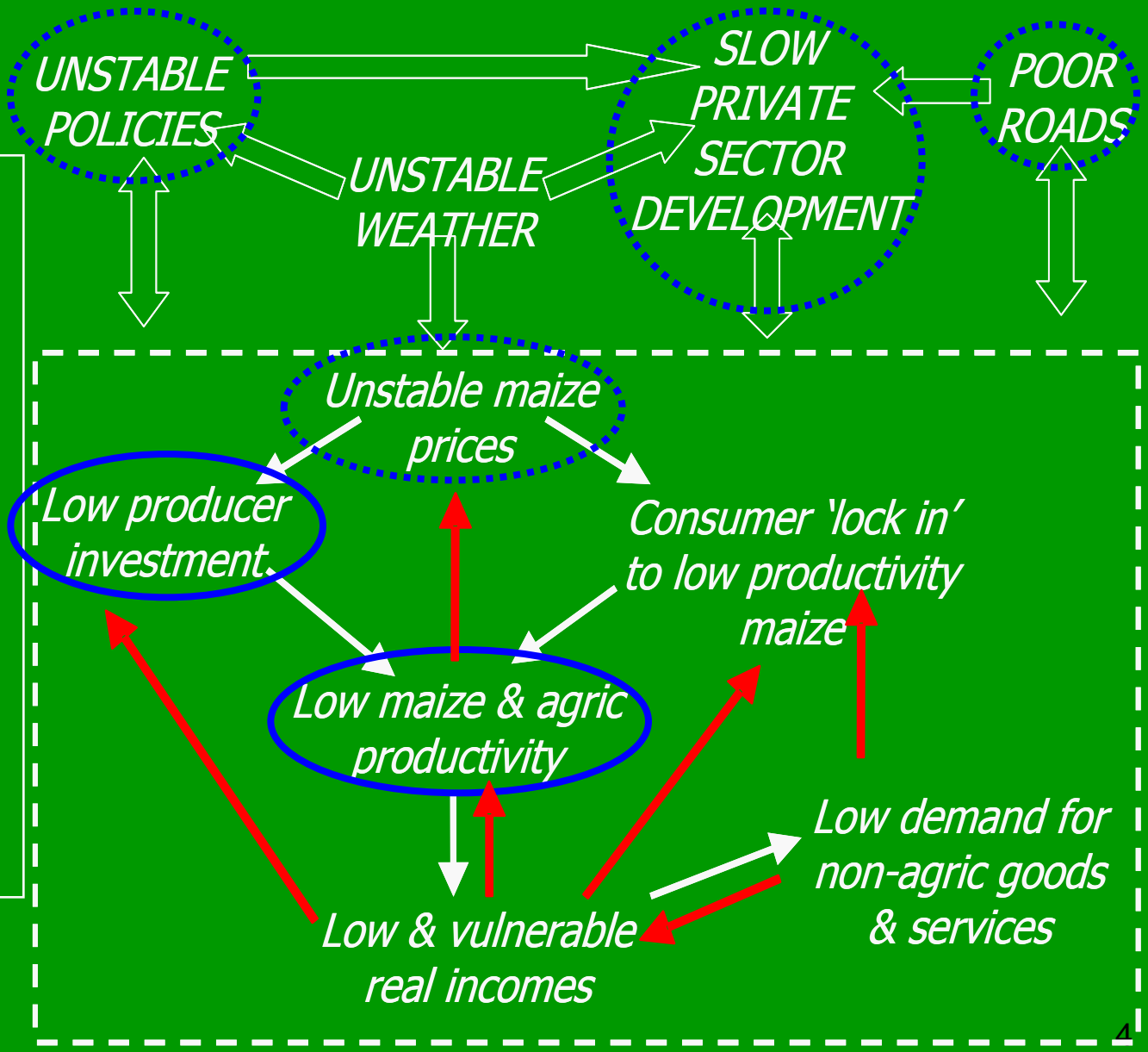
Staples in poor economies & livelihoods

- Food in expenditures of the poor – rural & urban
- Income to land & labour
- Indirect linkages
- Growth – factor supply & domestic demand for structural transformations out of agriculture

	High potential staples	**Low potential staples**
Broad Role	Pro-poor growth	Least cost welfare, growth platform
Countries with Minerals	Support growth	Subsistence & support growth
Coastal, No minerals	Drive & support growth	Subsistence & support growth
Land locked No minerals	Major driver & then supporter	Subsistence

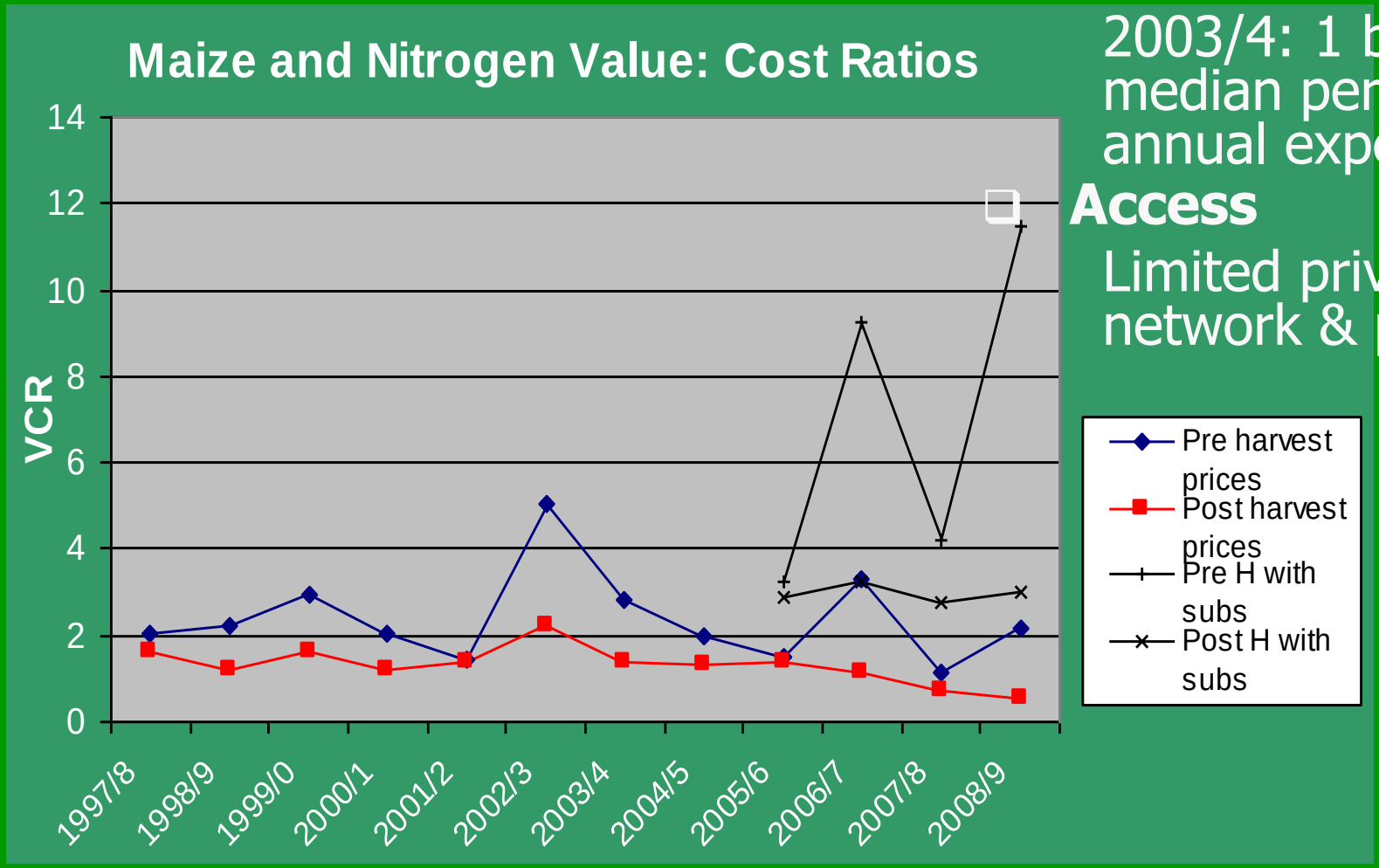
Malawi rural economy: poverty & the low maize productivity trap

- High poverty rates (50% <$0.40 in 2004)
- Small holdings (50% < 1.0ha)
- Continuous maize cultivation
- Declining soil fertility
- Recurring food insecurity
- Highly variable maize prices



Malawi: constraints on input use

- Highly variable maize prices
- **Profitability** low & variable, even for deficit households
- **Maize price 'tight rope'**
- **Affordability**
  - 2003/4: 1 bag = 10% median per capita annual expenditure
- **Access**
  - Limited private sector network & poor roads



2005/6 – 2008/9 Input Subsidy Programmes

- 2004 presidential elections: all parties campaigned on fertiliser subsidies, though different types

2005/6 – 2008/9 Input Subsidy Programmes

- 2004 presidential elections: all parties campaigned on fertiliser subsidies, though different types
- 2004/5 very poor harvest & subsequent high maize prices
- 2005/6 – 2008/9 maize & tobacco fertiliser & seed subsidy, targeted vouchers (2007/8 also cotton seed & chemicals, 2008/9 also storage chemicals & ea & coffee fertiliser)

	2005/6	2006/7	2007/8	2008/9
Subsidised fertiliser sales ('000MT)	132	175	217	???
% retail by private sector	0	28%	24%	0
Subsidised maize seed sales (MT)	??	4,500	5,500	??
Programme cost ($ million)	51	74	115	221
Incremental fertiliser sales (% subsidy sales: higher for poorer farmers)	70-80%	60-70%	??	??
Incremental maize production ('000MT)	550	700	??	??

2006/7 Implementation issues

- Targeting
  - Geographical and household
  - Varied combination of poverty and productive indicators.
  - Female-headed households less likely to receive fertilizer coupons, and received less per household.
  - Subsidy recipients were more wealthy than non-recipients in terms of land size, assets, incomes and expenditures
  - Incremental use greater for poorer households
- Timing of fertiliser distribution– affected by timing of voucher distribution and fertiliser tenders
- Diversion & fraud occurred, varying between areas, but majority of coupons and fertilisers reached farmers

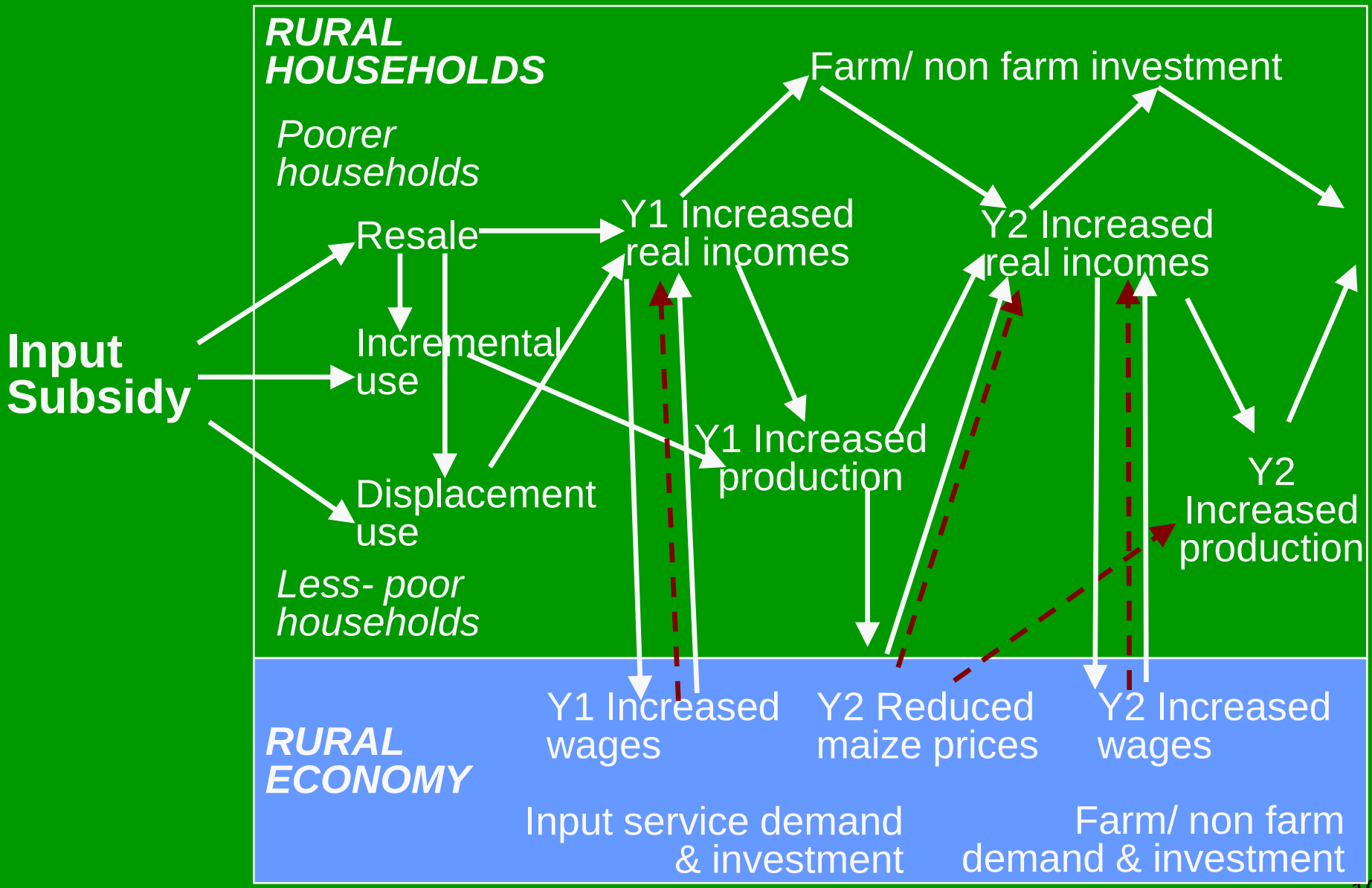
2007/8 and 2008/9 changes in geographical distribution, local modalities & timing

Impacts

- Data? – yields, number farmers, production, storage losses
- Benefit cost analysis: can be very good or very bad
  - 2006/7: 0.75 to 1.36
  - sensitive to yield increments & maize & fertiliser prices
  - fiscal efficiency sensitive to displacement rates
- Government financial analysis: other instruments more efficient/ effective for price stabilisation on its own?
- Private sector participation
  - 2005/6 & 08/9: only in imports, no retail subsidy sales
  - 2006/7 & 07/8: larger retail chains benefited, small stockists excluded, except for successful flexible seed vouchers
- *Livelihood & growth impacts*: improved food security, low maize prices (only in 2006/7), increased investments?, improved relationships & welfare perceptions?, increased wage rates?

Separation of subsidy & weather effects?

Changing subsidy impacts on households & markets



Lessons: agronomic, economic, social effectiveness

- Clear potential benefits
- Need clear policy & programme objectives & consistent coordination with complementary policies & investments
  - Maize prices: levels & intra- & inter- seasonal stability
  - Social protection
  - Roads
  - Research, extension, holistic soil fertility management
- Need local accountability & clear targeting criteria
  - Household or geographical targeting, or smaller (per household) universal subsidy?
  - Scale (for market effects)
- Questions about private sector roles & voucher design
- Effects of political commitment, objectives, controls
- Need production & market information for policy makers
- Timing (private sector engagement, farmer decision making, timely application)

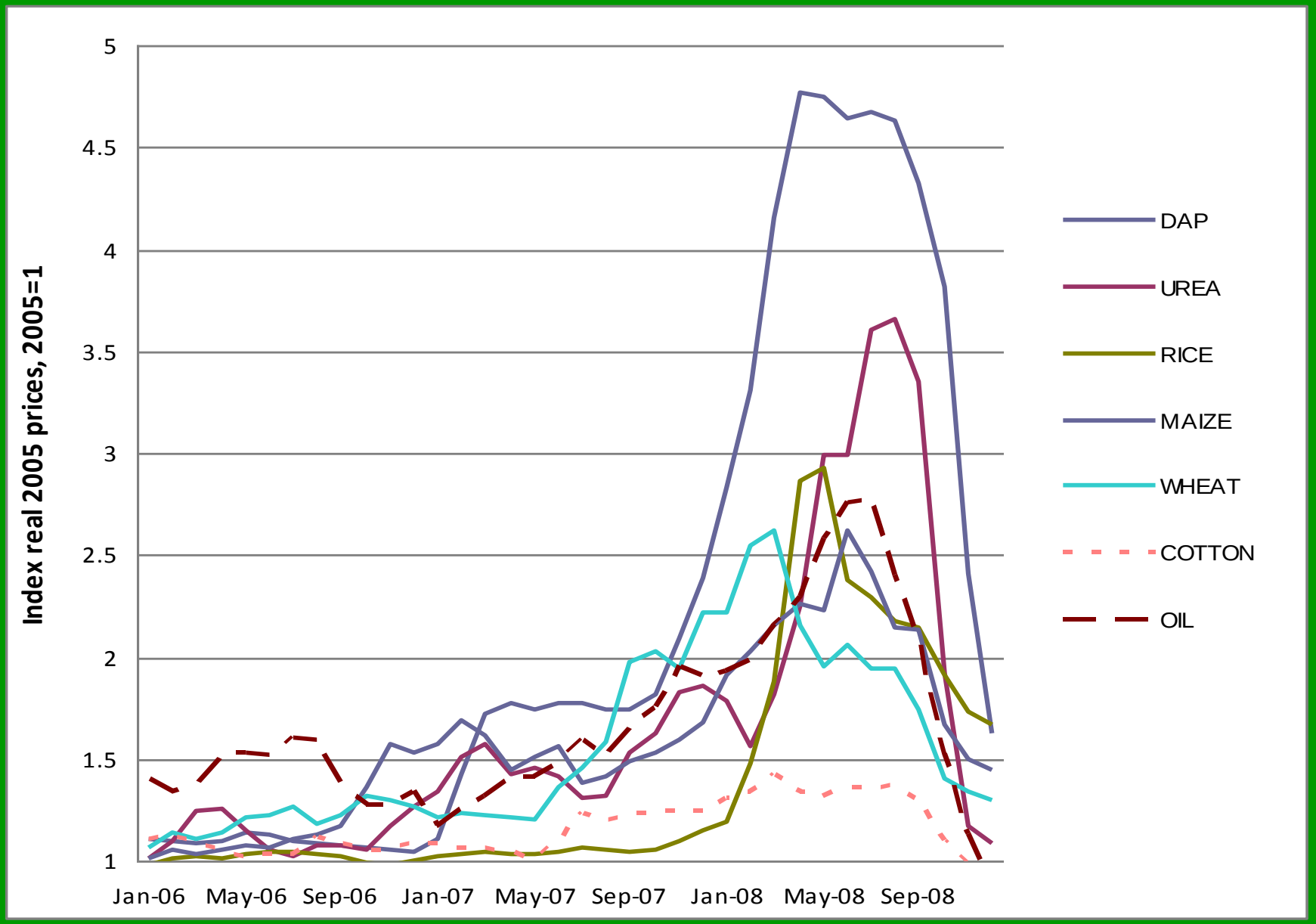
Lessons for other countries?

- Critical features of Malawi?
  - Landlocked, maize reliance, poverty, importance of rural economy, high population density, remoteness / poor access, limited private sector market development, good macro-economic management, maize price politics & tightrope
  - How far will market & growth benefits accrue in other situations?
- Critical features of subsidy programme?
  - Involvement of private sector? Smart vouchers? Complementary seed? Logistical capacity? Political commitment? Complementary policies?
- Dangers of failure?
  - Opportunity costs of large scale funding, difficulties in controlling costs, dangers of fraud and/or subsidy capture, displacement, high fertiliser costs, bad weather
- Policy objectives, alternatives and complementarity?
  - Cost effectiveness, time scales, political economy

Challenges

- International fertiliser prices
- International maize prices

Commodity price indices 2006 to 2008
(2005 prices, 2005=1)



Global price & cost control challenges

- 2008/9 slightly reduced subsidised price
  - Total cost US$220 million, three times 2006/7 cost
  - 14% of 2007/8 national budget
  - 5.5% of GDP
- ?? International & domestic maize prices in 2009/10??

Benefit cost ratio:	2005/6	2006/7	2007/8	2008/9
high response	1.38	1.3	1.9	1.15
moderate	1.12	1.06	1.54	0.94
low response	0.86	0.81	1.18	0.72

	2005/6		2006/7		2007/8		2008/9	
Programme cost	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual
US$ million	36.4	51	53.6	74	82.1	115	139	221.4
% national budget	4.3%	5.6%	5.4%	8.4%	6.7%	8.9%	8.5%	13.5%
% GDP		2.1%		3.1%		3.4%		5.5%

Challenges

- International fertiliser & maize prices
- Cost control
- Scale and scope
- Targeting (geographical, hhold, crop): displacement, welfare, efficiency
- Implementation (critical information?, timing, efficiency, complementary activities, ...)
- Private sector engagement & effects
- Fraud
- Political commitment & control
- Trust, stability & flexibility
- Timescale, sustainability & exits
- Objectives – long/ short term, growth/ welfare
- Complementary policies & opportunity costs – soil fertility, social protection, growth
- Growth / welfare contexts (inter- and intra- national)

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Global price challenges

- Breakeven Maize prices in Malawi to achieve VCR of 2 with changing urea prices & different technical efficiencies

Year	Urea price $/mt		Grain: N ratio	Maize prices $/mt		
	Europe	Malawi		B/E	Actual	SAFEX
2006/7	220	470	15	135	100 – 160	250
2007/8	290	590	15	170	140 – 430	235
2008/9a	630	*1,260*	15	365	???	*275-160*
2008/9b	400	*800*	15	230	???	*160*
2006/7	220	470	20	100	100 – 160	250
2007/8	290	590	20	130	140 – 430	235
2008/9a	630	*1,260*	20	275	???	*275-160*
2008/9b	400	*800*	20	175	???	*160*

- 2008/9a B/E prices would be v damaging for the poor & the economy but around /above import parity (SAFEX + $100)

Future Agricultures Web links

- The Global Fertiliser Crisis and Africa: http://www.future-agricultures.org/pdf%20files/brieffertilisercrisis.pdf
- Towards 'smart' subsidies in agriculture? Lessons from recent experience in Malawi. NR Perspectives paper http://www.odi.org.uk/resources/specialist/natural-resource-perspectives/116-smart-subsidies-agriculture.pdf
- Malawi Agricultural Inputs Subsidy 2006/7 Final Evaluation Report: http://www.future-agricultures.org/pdf%20files/MalawiAISPFinalReport31March.pdf
- Rethinking Agricultural Input Subsidies in Poor Rural Economies: http://www.future-agricultures.org/pdf%20files/Briefing_input_subsidies.pdf