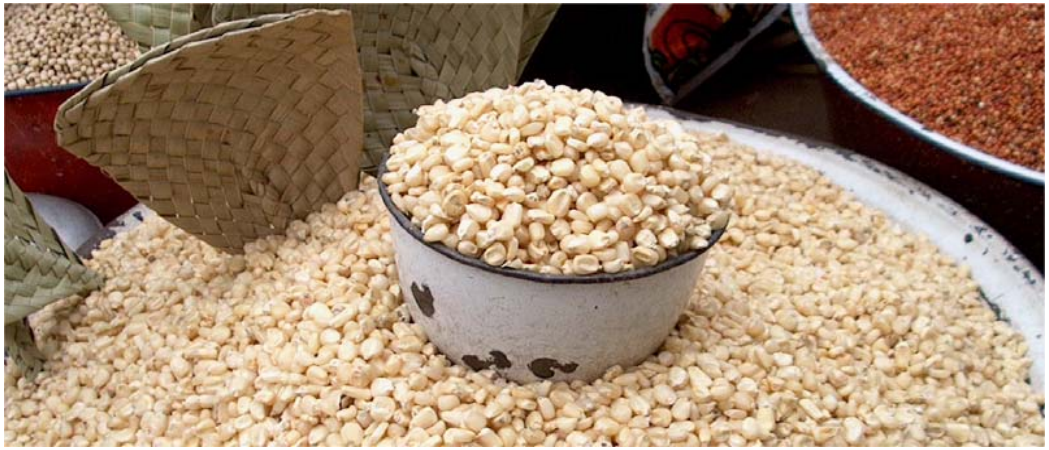
Unappreciated Facts about Staple Food Markets: The Potential for *Win-Win Outcomes* for Governments, Farmers, Consumers and the Private Sector

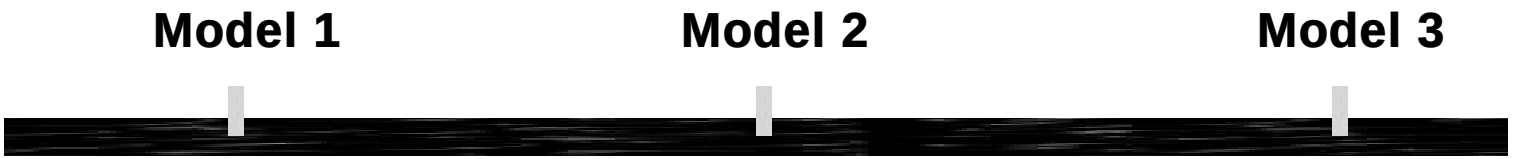


T.S. Jayne and colleagues
Michigan State University

Presented at the ACTESA/COMEA Conference "Awakening the Sleeping Giant: Making Grain Markets Work for Smallholder Farmers and Consumers in Eastern and Southern Africa

Lusaka, 10 May 2010

Competing models of the role of state and private sector in food markets:



Rely on markets; state role limited to:

- Public goods investment
- Regulatory framework
- Strengthening of institutions / defense of property rights
- Policies supportive of private sector entry and competition

Primary reliance on markets

- but role for *rules-based* state operations

- e.g., buffer stock release to defend stated ceiling price
- Marketing board purchases at stated price announced in advance
- Transparent rules for initiating state imports

Role for markets and *discretionary* state intervention

- Based on premise that private sector cannot ensure adequate food supplies in response to production shortfalls
- Justification for unconstrained role for state interventions in markets to correct for market failures

Organization of presentation

1. 4 under-appreciated facts about food markets in the region
2. discuss how these underappreciated facts affect the state's ability to create *win-win outcomes* for:
   - Farmers
   - Consumers
   - Private sector
   - Government

Fact #1

- Both E and S Africa are rapidly becoming food deficit regions
  - Urban populations growing much faster than the region's ability to feed it
  - Wheat imports rising rapidly – wheat is becoming the #1 staple in terms of consumer expenditures

Fact #2

- Land shortages are now a major constraint on:
  - Smallholders' ability to produce a food surplus
  - Only 25%-35% of smallholders sell grain
  - Land constraints will never allow 80-90% of smallholders to produce a surplus no matter how well markets function unless land constraints in smallholder farming areas are overcome

Fact #3

- Tangible evidence of improvements in smallholders' access to markets for both inputs and food

Fact #4

- Public investments with the greatest returns to ag growth and poverty reduction are:
  - infrastructural investment
  - R&D
  - conducive policies that support private investment in markets and production

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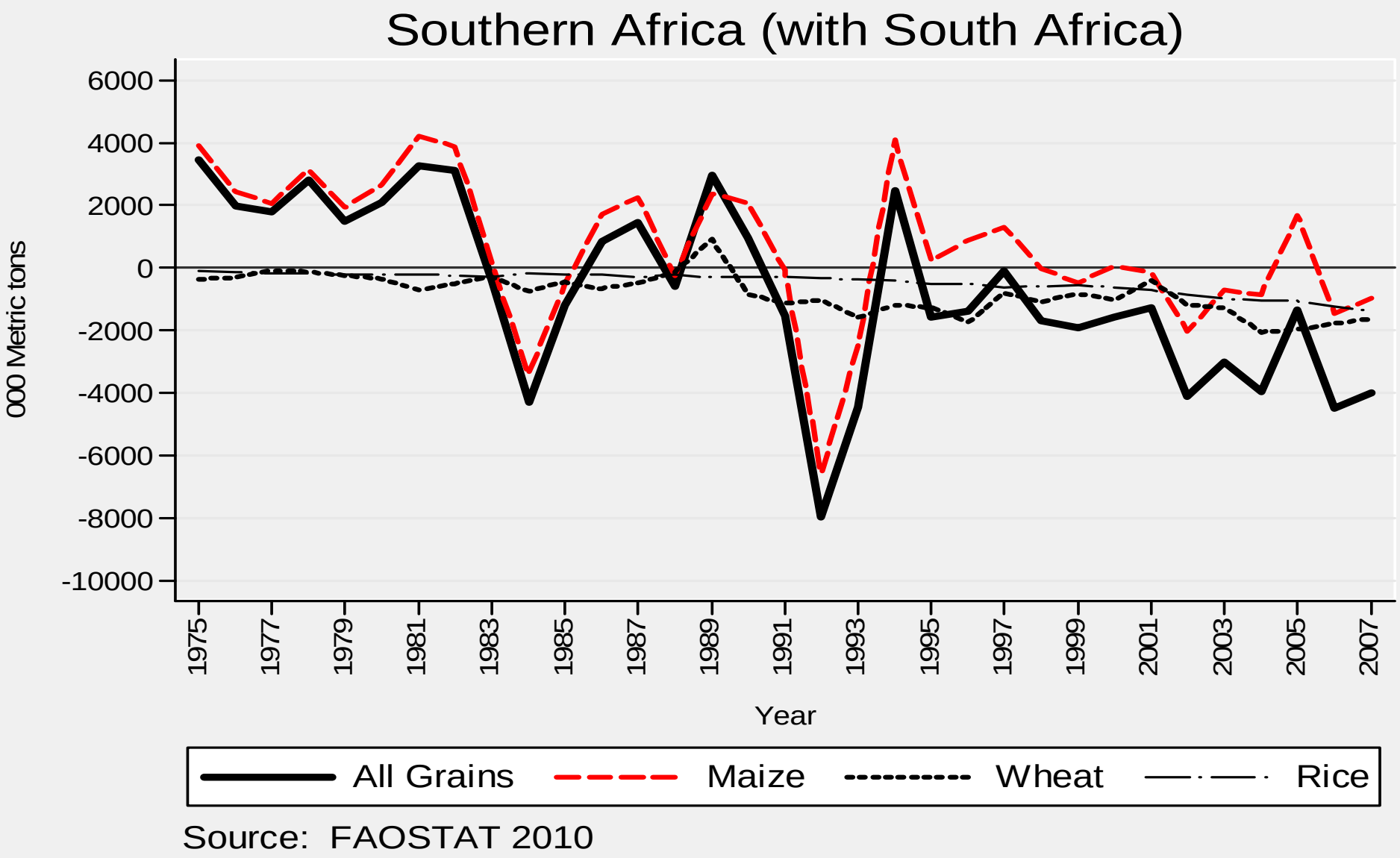
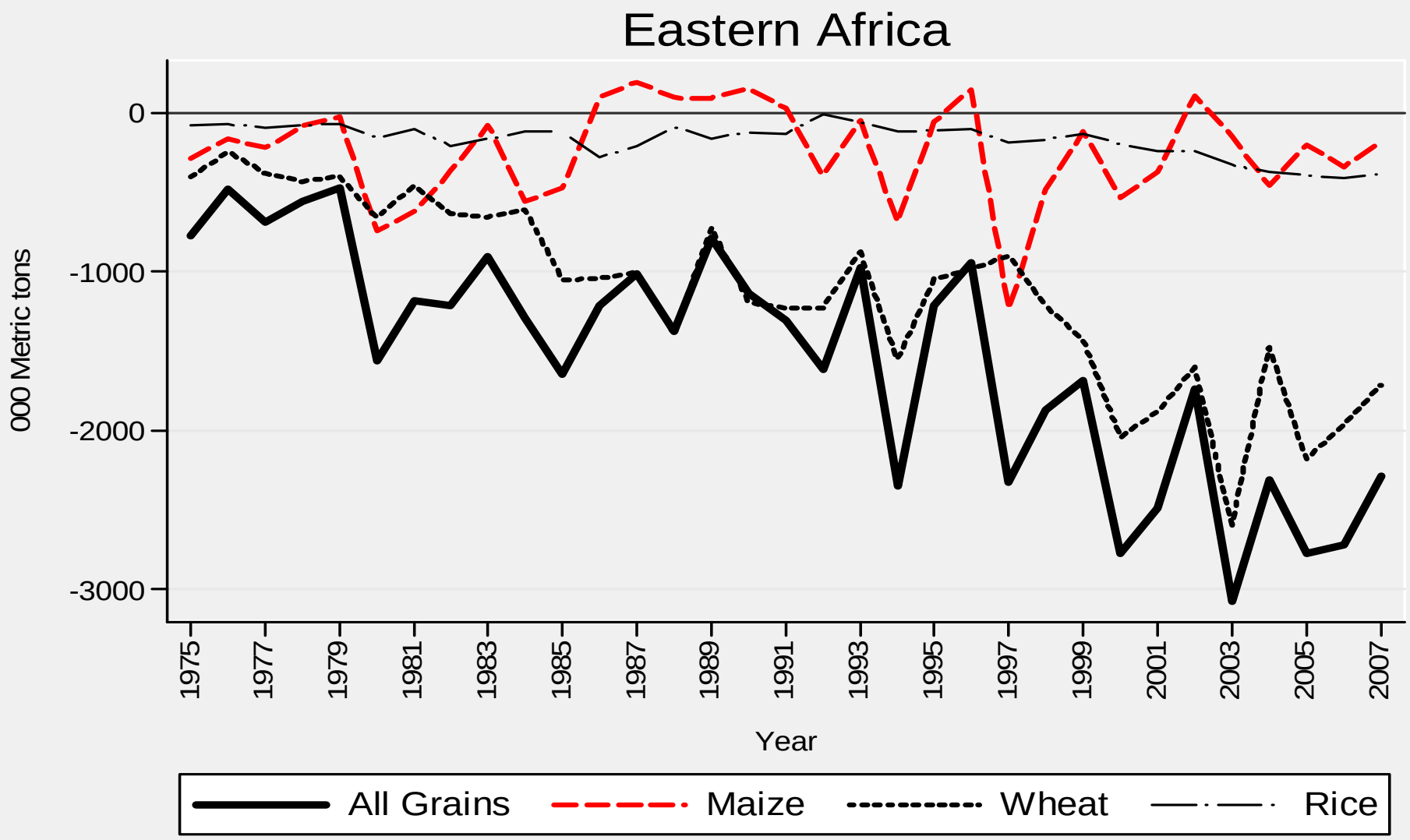
Net grain exports: 1975-2007



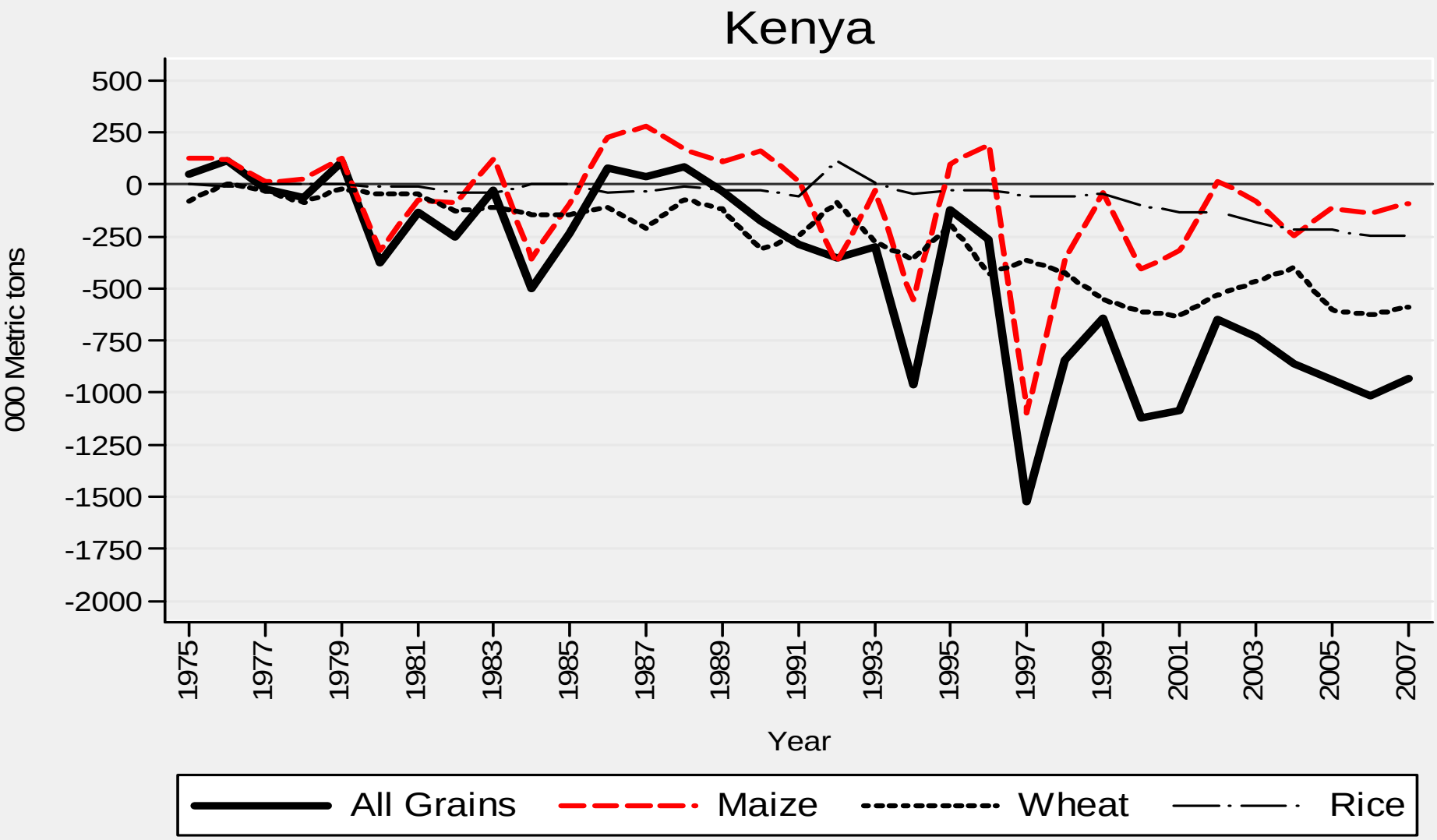
Source: FAOSTAT 2010

Net grain exports: 1975-2007



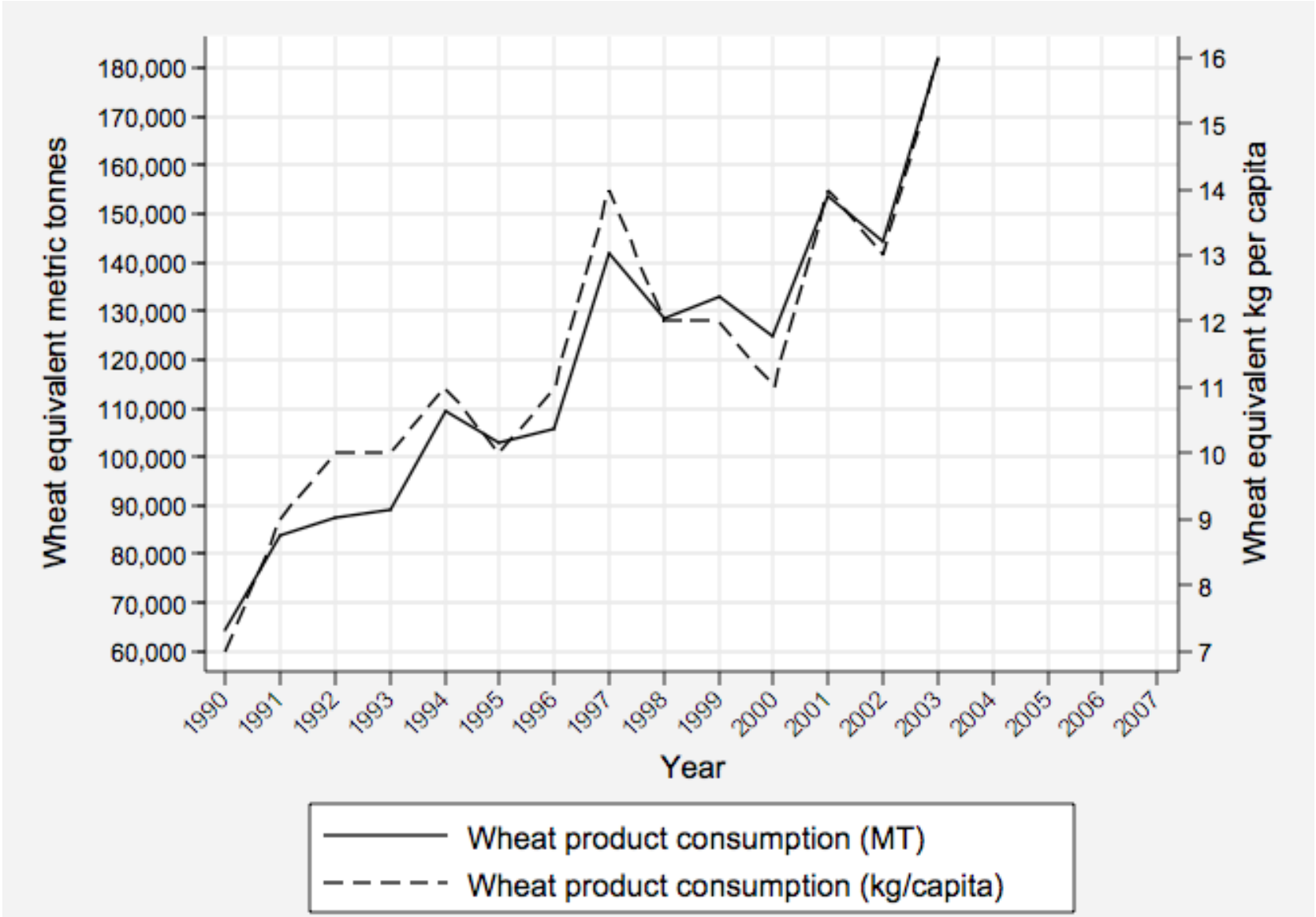
Source: FAOSTAT 2010

Net grain exports: Kenya



Source: FAOSTAT 2010

Wheat product consumption total (MT) and per capita (kg), Zambia



Diversification of consumption patterns due to increasing wheat imports

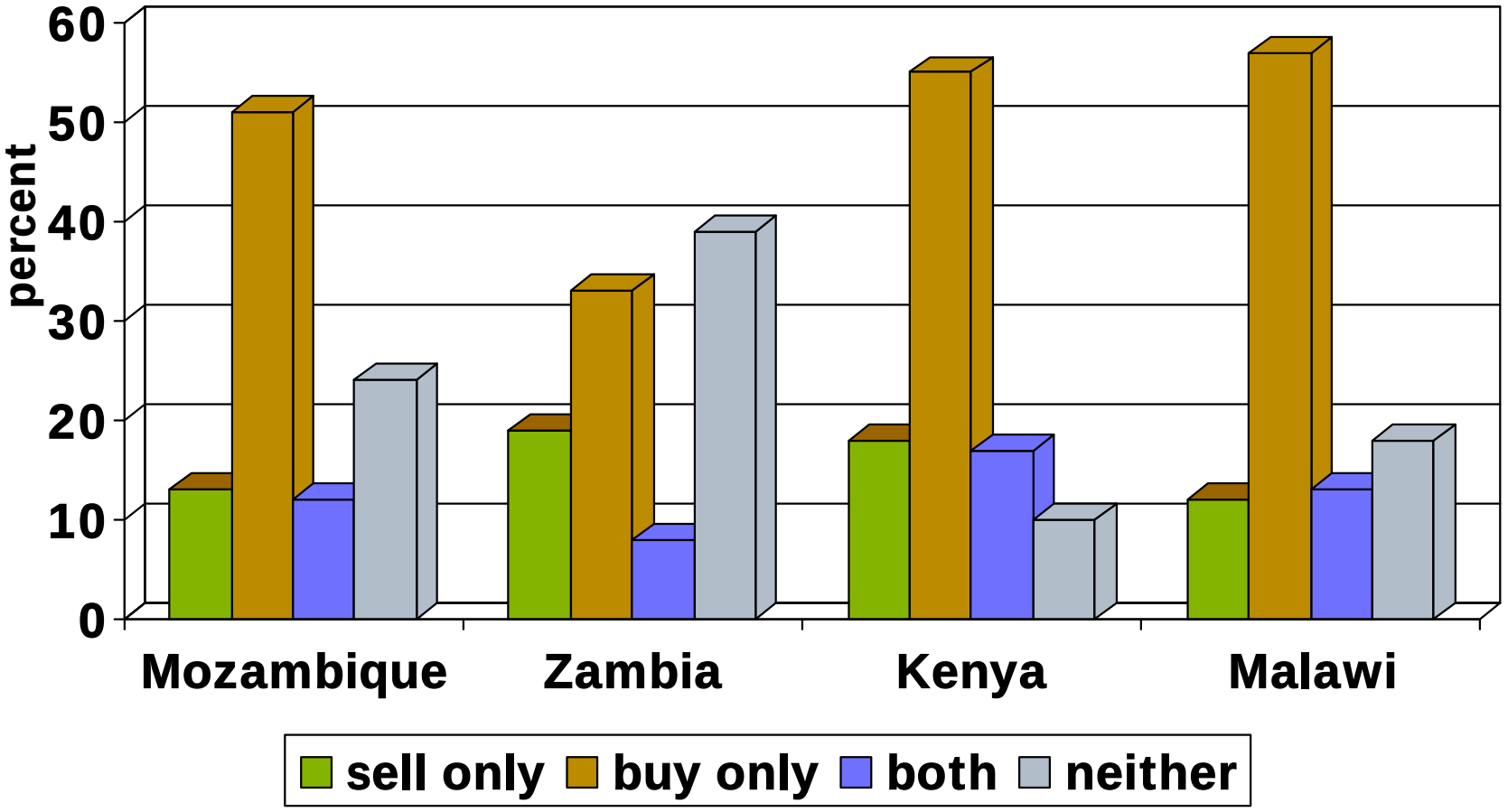
Urban center	Year	% share of main staples budget ("main staples" = maize, wheat, rice and cassava)				Main staples % share of total food budget
		Maize	Wheat	Rice	Cassava	
Nairobi	2003	36	39	25	0	28
Maputo Province	2002	9	57	29	5	27
Northern Mozambique*	2002	33	8	15	44	48
Lusaka	2007/8	39	49	11	1	20
Kitwe	2007/8	43	45	10	2	23
Mansa	2007/8	46	28	10	16	24

*includes Nampula city

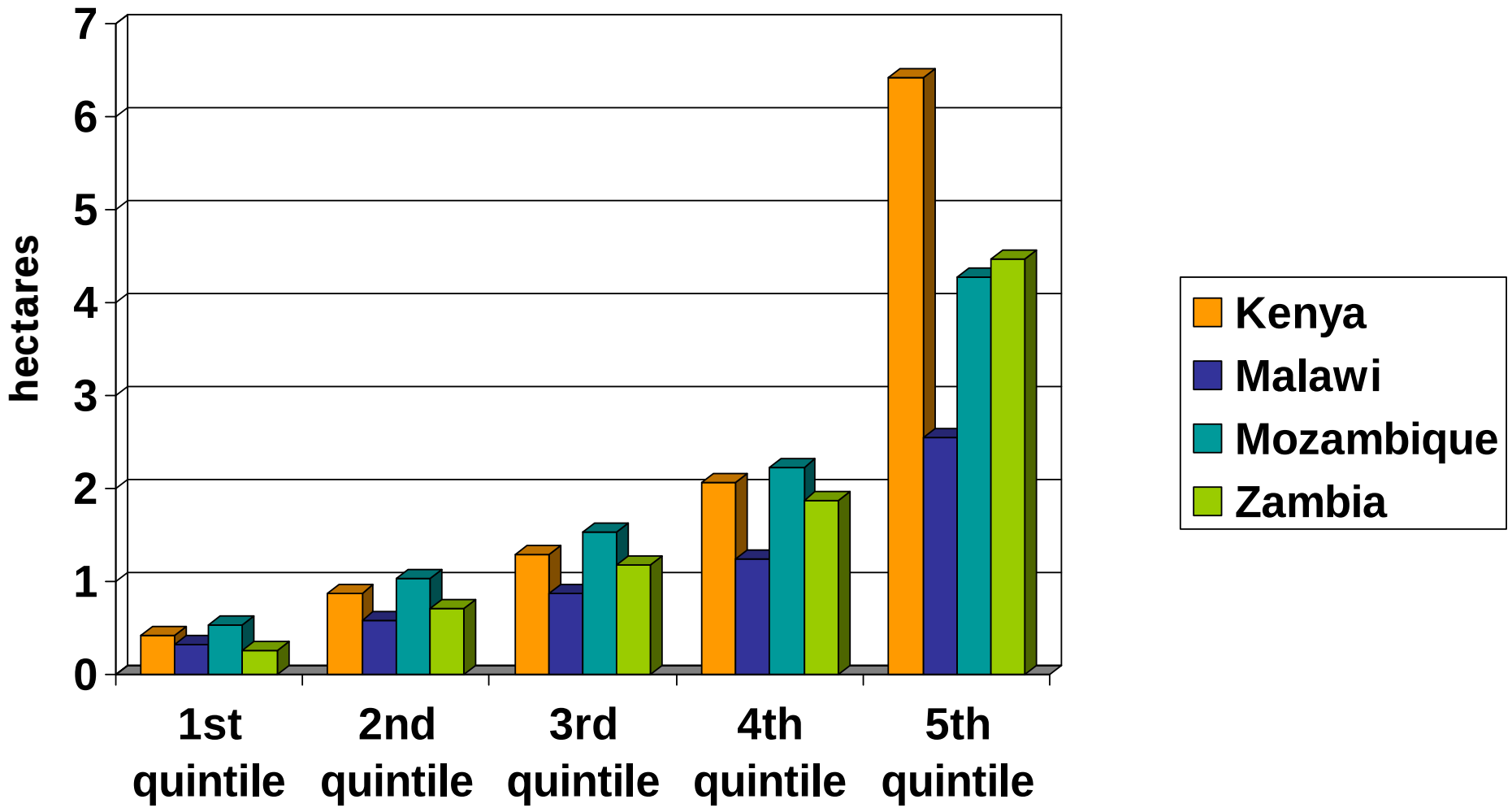
Fact #2

- Tackling rural poverty, promoting smallholder commercialization and enabling more farmers to become surplus producers will require expanding smallholders' access to land:
  - Only 25% of smallholders sell grain
  - Can market improvements enable 80%-90%?
  - Land and asset constraints prevent this

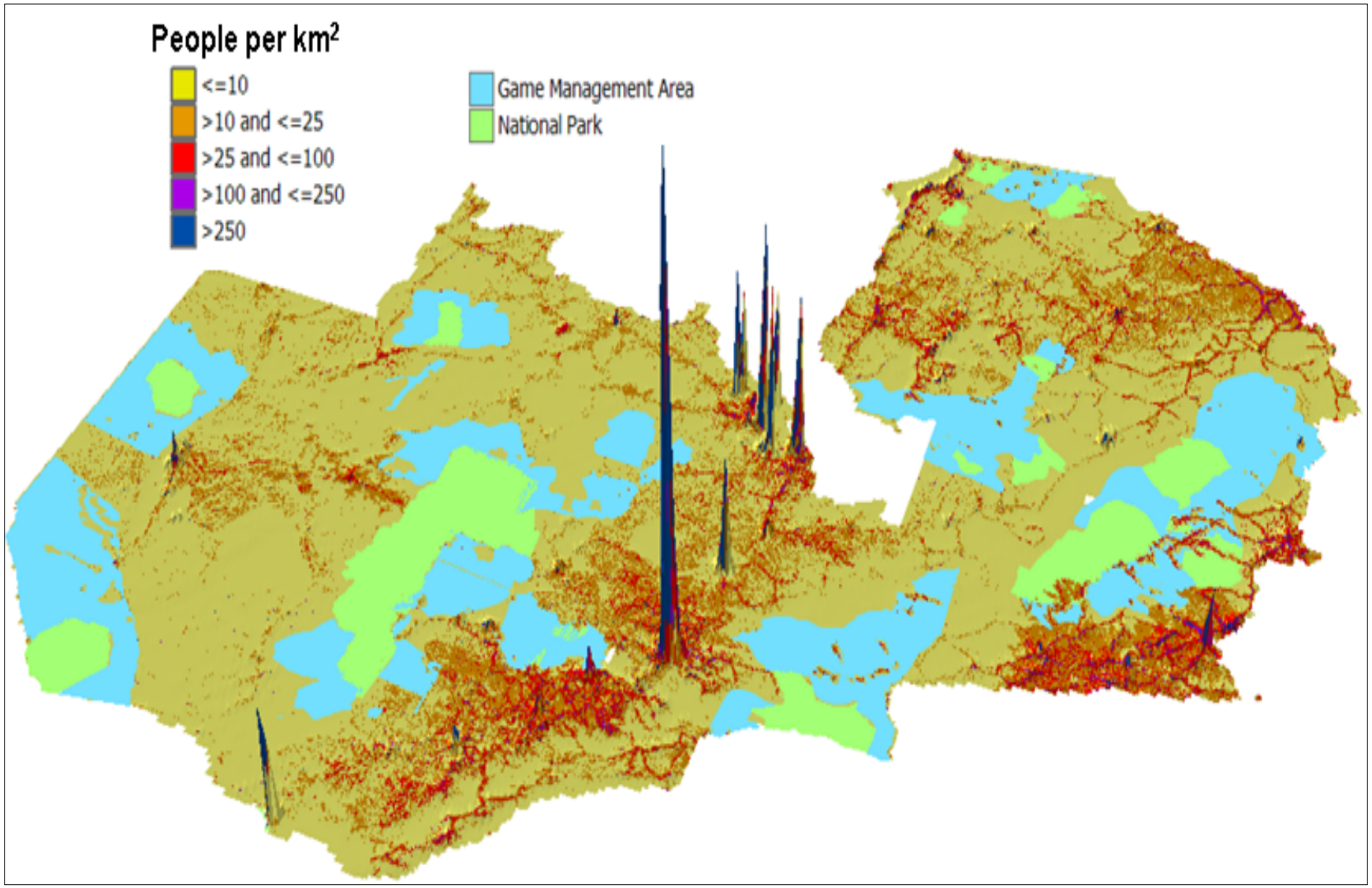
Smallholder Households' Position in the Maize Market



Farm size distribution: small-scale sector



Population Density and Distribution Zambia 2007



- Marketed grain surplus from smallholder sector is extremely concentrated:
  - 2% of farmers account for 50% of total grain sales

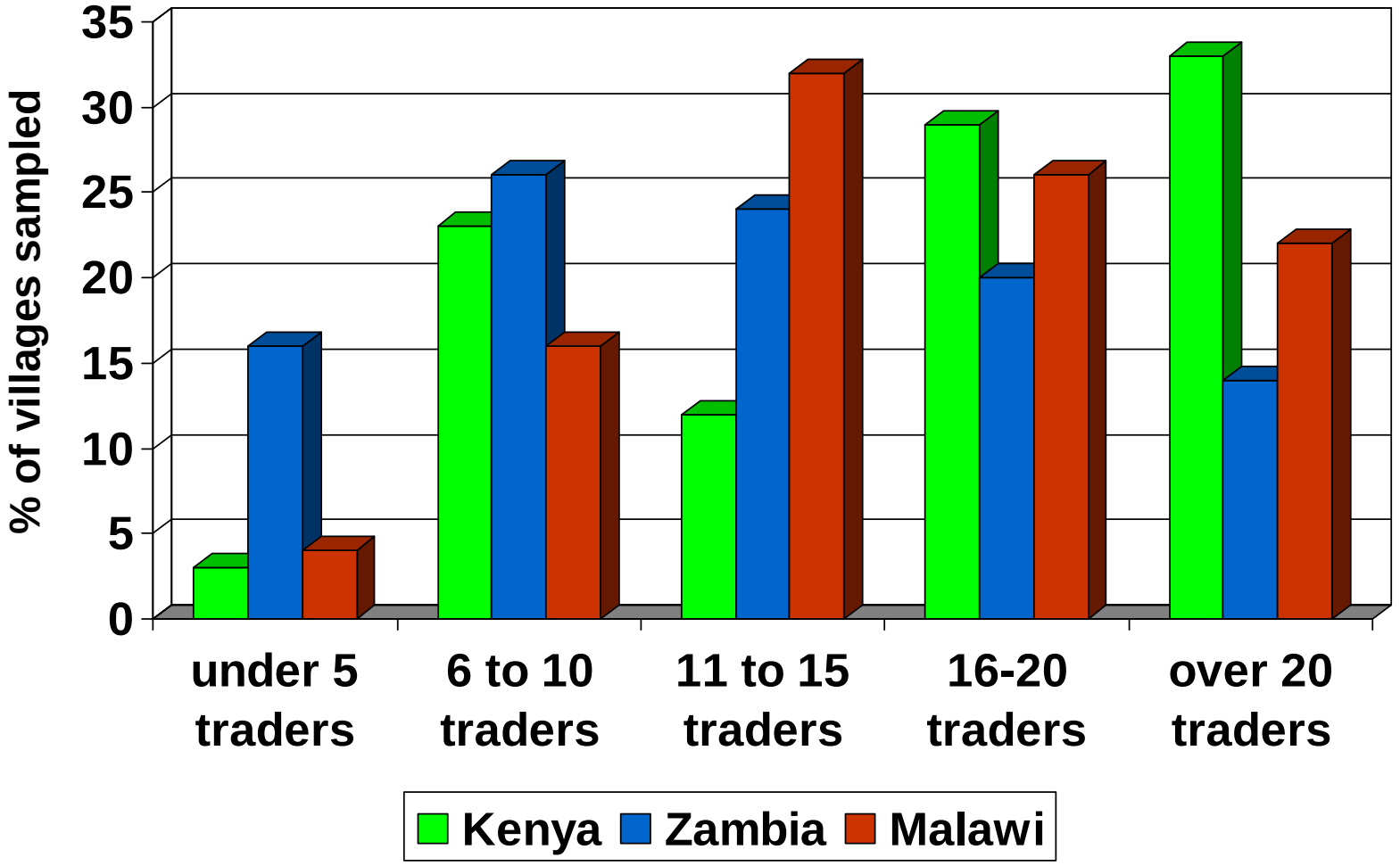
Characteristics of smallholder farmers, Zambia 2006/07

		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

Fact #3

- Tangible evidence of improvements in smallholders' access to markets for both inputs and food
  - this should raise the returns to future public investments to ag

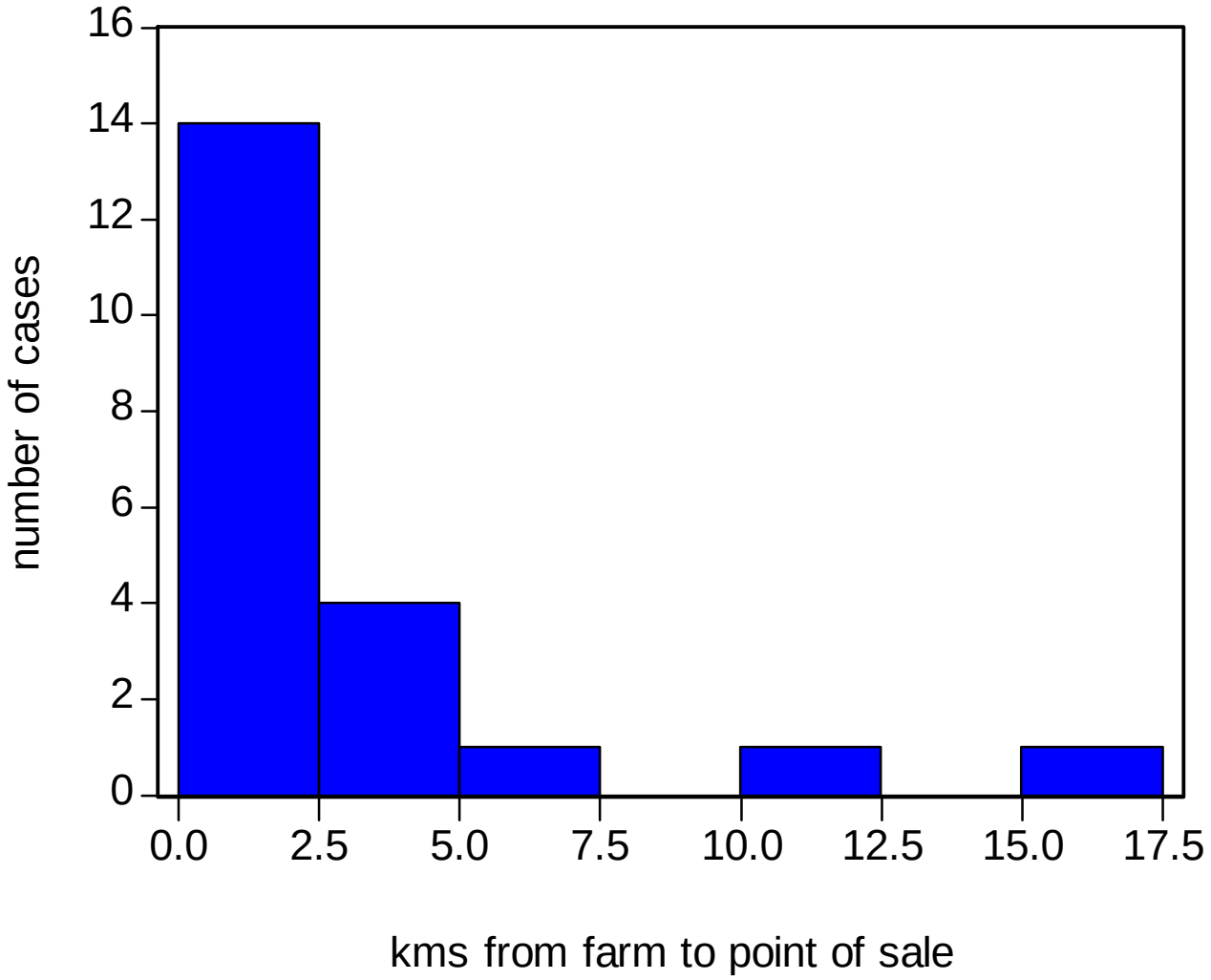
Number of traders "coming into this village to buy maize from farmers" – 2009 and 2010



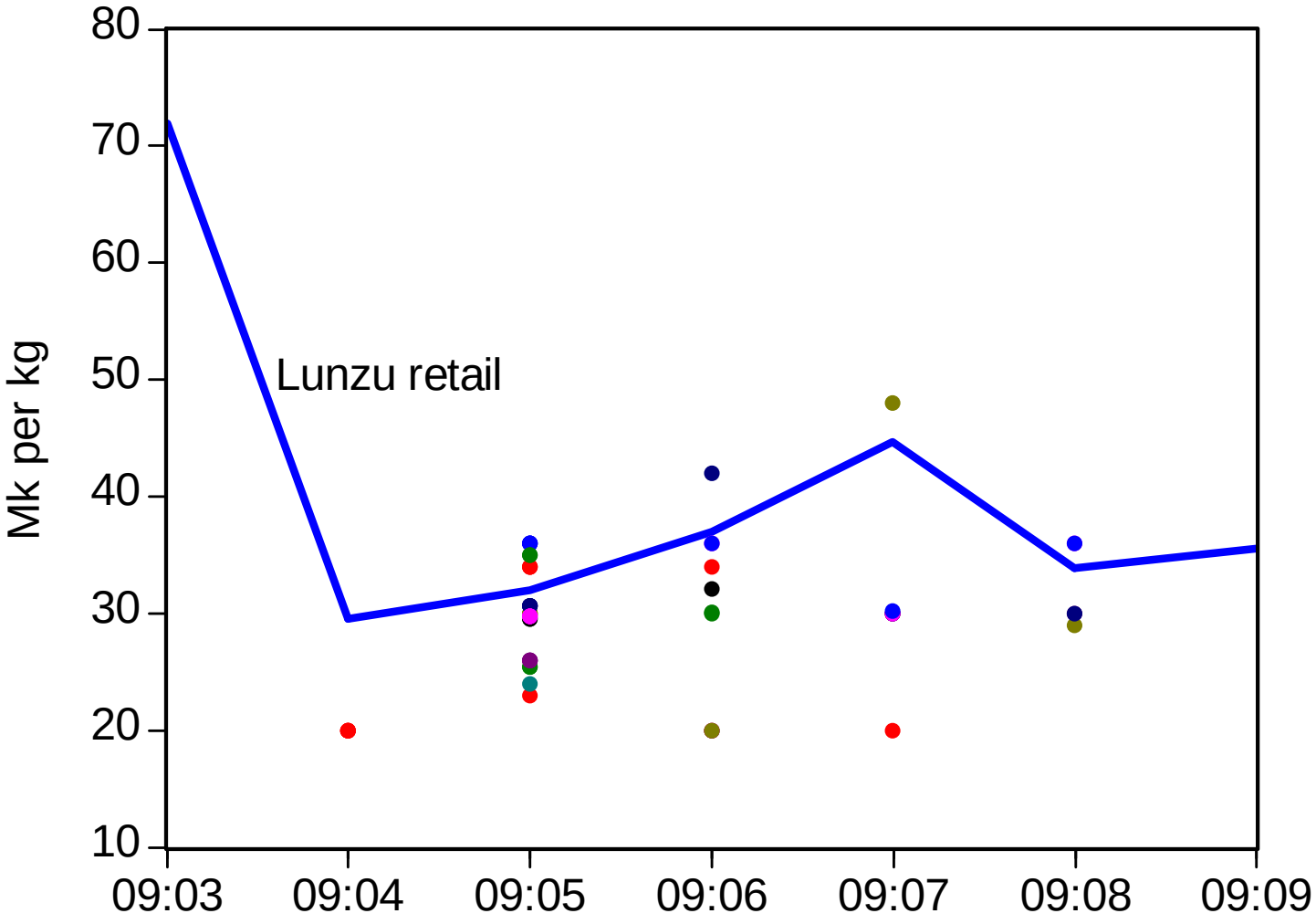
Farmers' access to markets

- Median distance travelled by farmers to point of maize sale in:
  - Kenya = 0 km
  - Malawi = 0 km
  - Zambia = 3 km
- Importance of cell phone ownership on ability to find buyers – over 65% of rural households in Kenya own cell phone

Household-reported distance: farm to point of maize sale, 2008/09 mkting season, accessible villages, Mulanje District



Lunzu retail price and farmer-reported prices received in remote villages in Blantyre District, 2009



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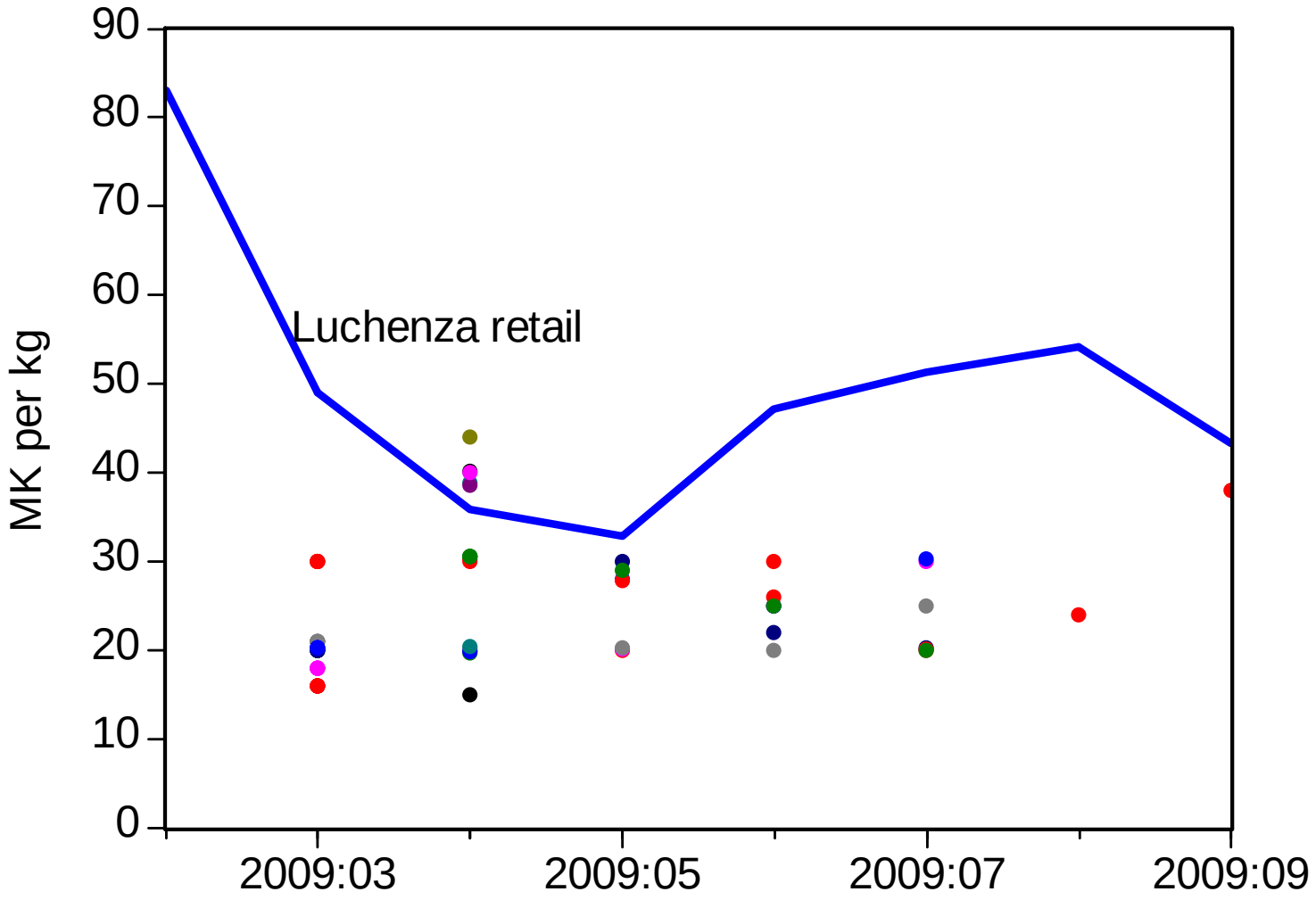
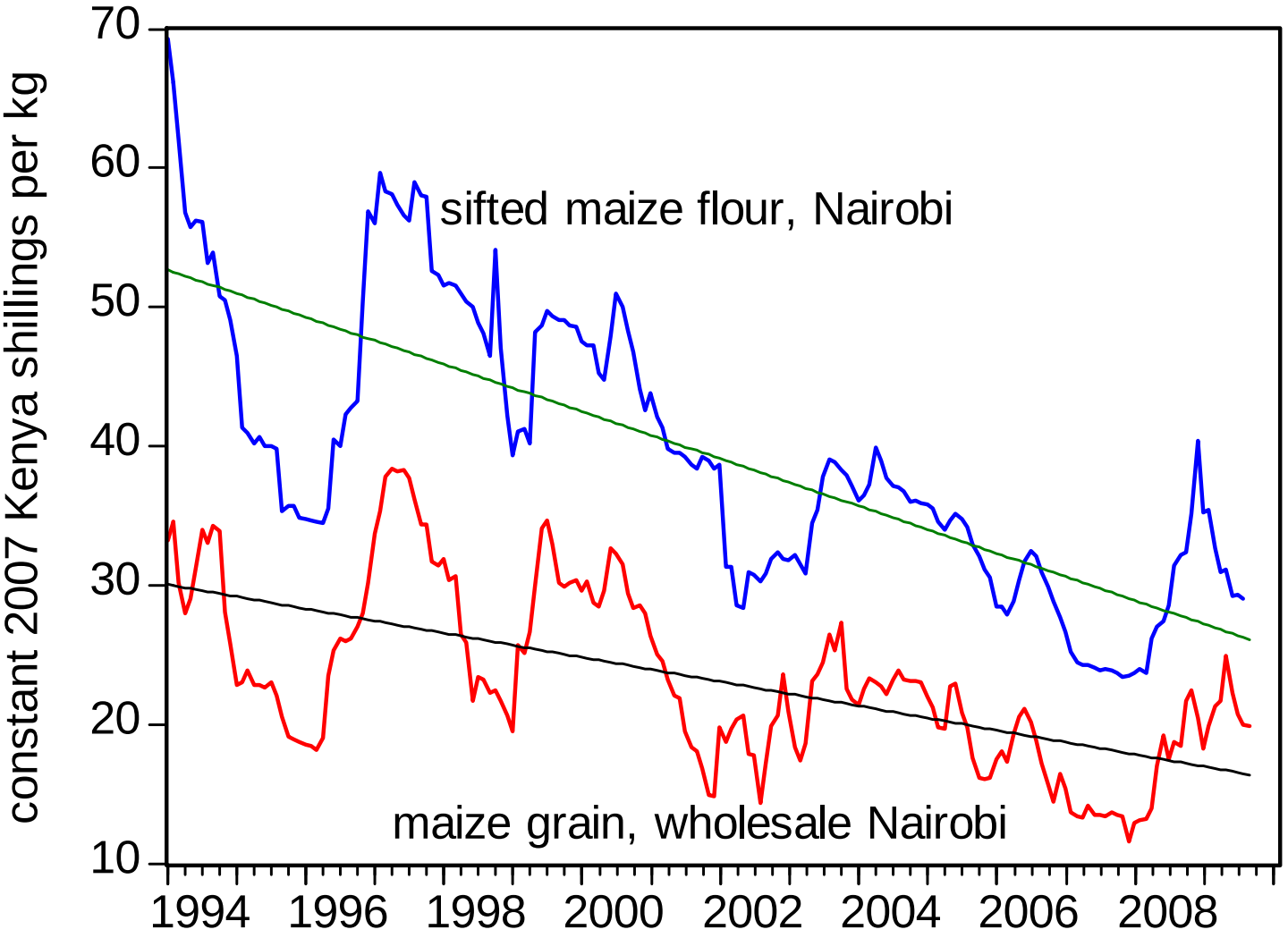
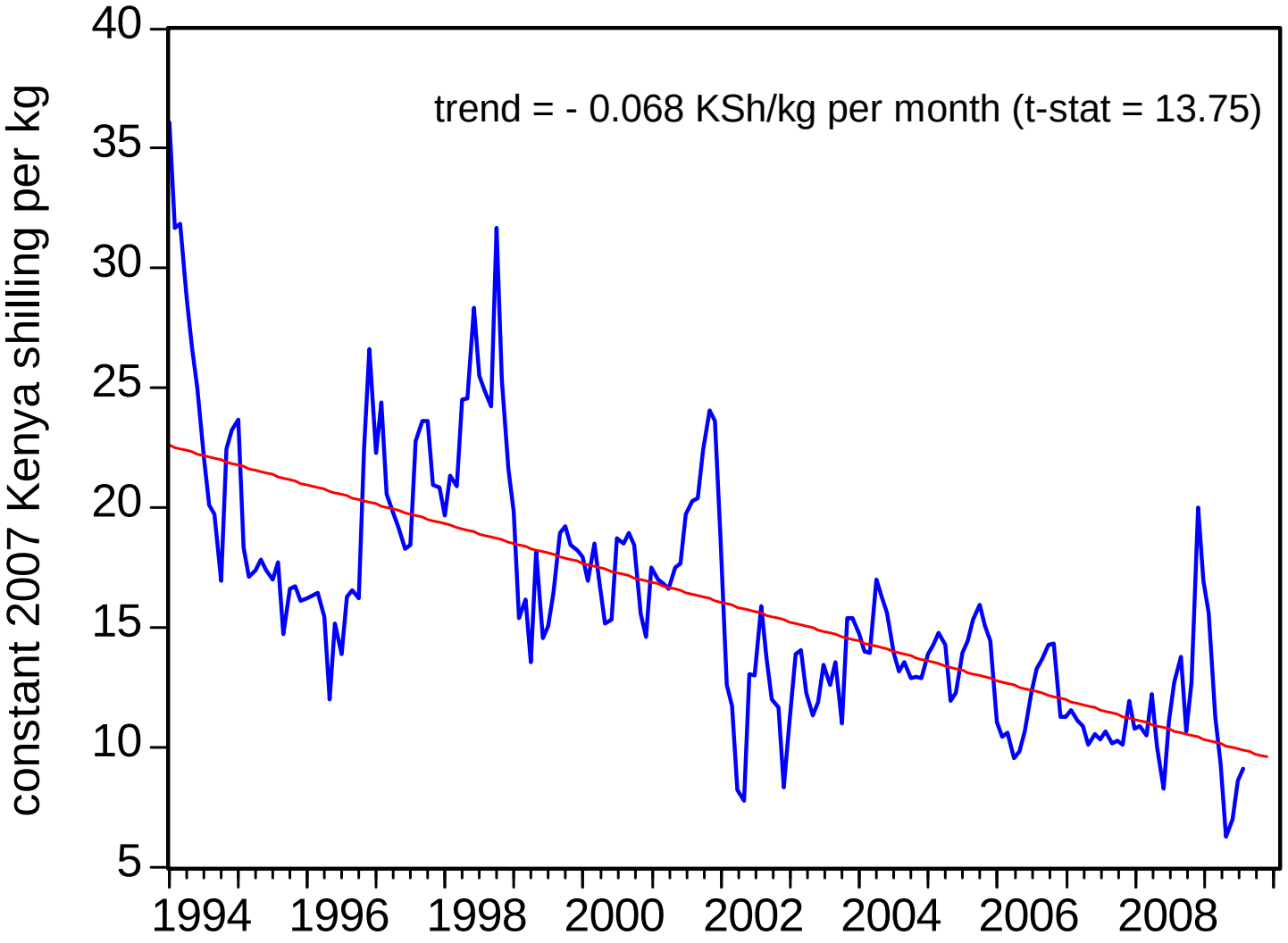


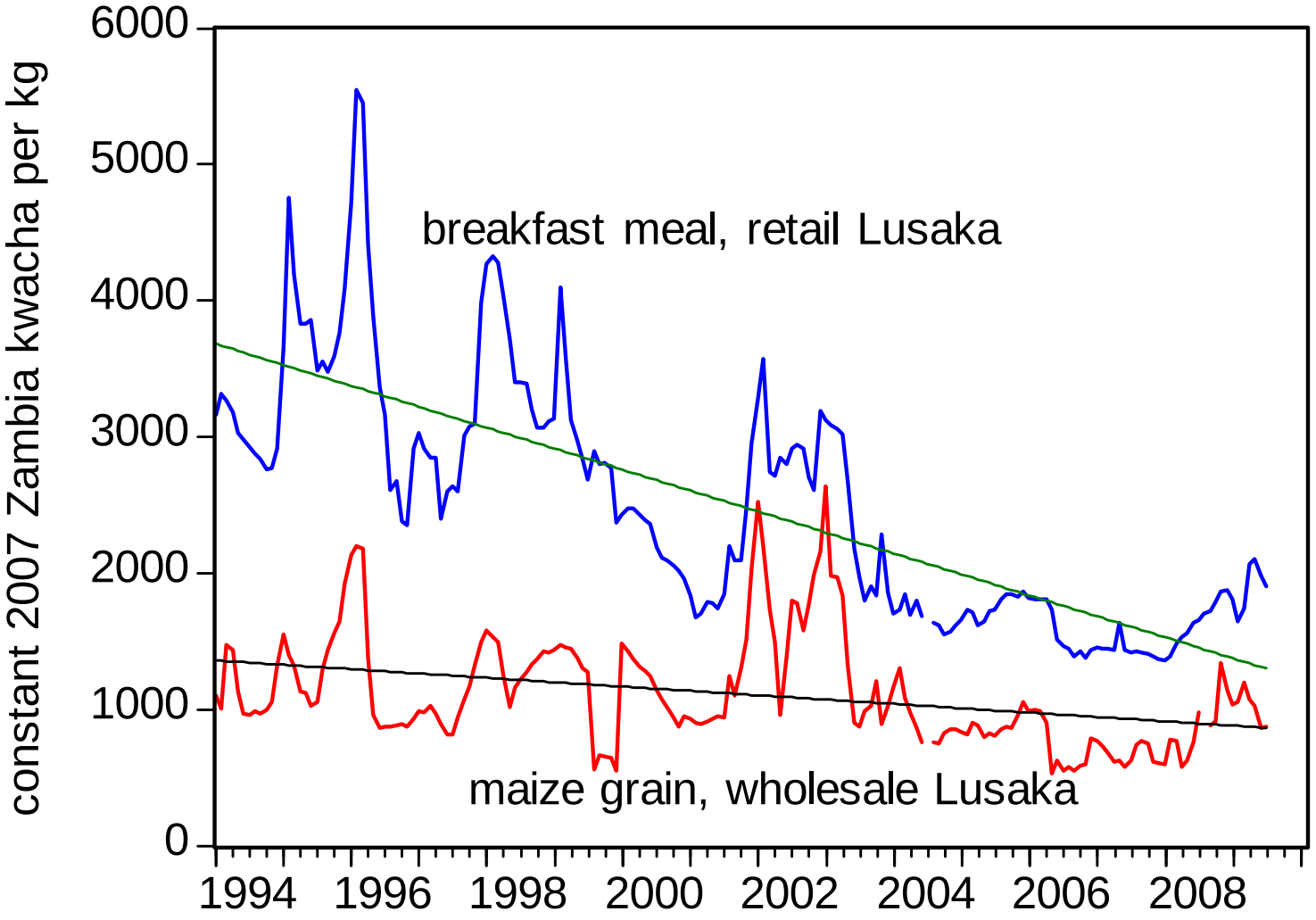
Nairobi, Kenya: Price trends for retail sifted maize meal and wholesale maize grain



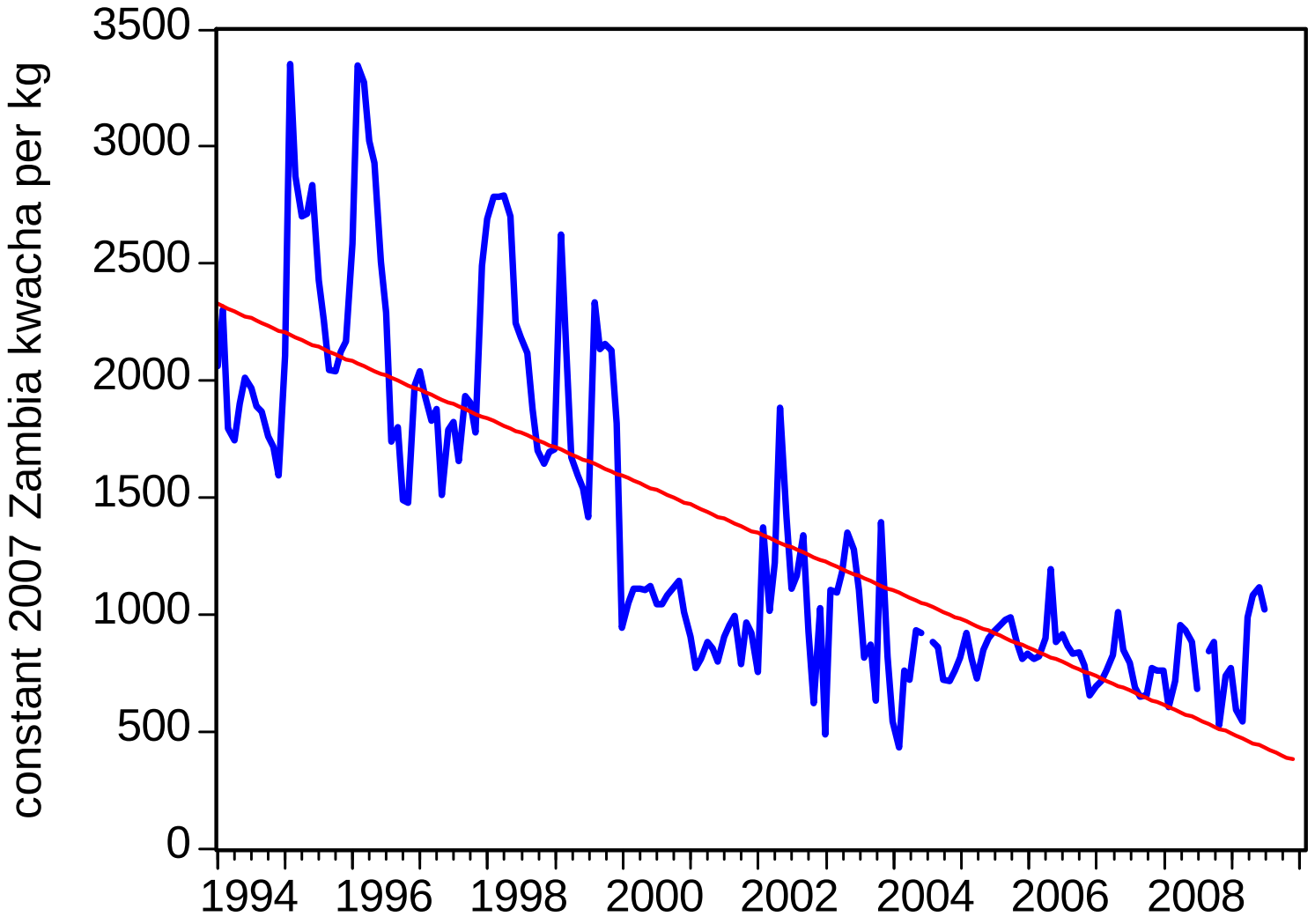
Difference between retail maize meal – wholesale grain, Nairobi



Lusaka, Zambia: Price trends for retail breakfast meal and wholesale maize grain



Graph of difference between retail maize meal – wholesale grain, Lusaka



Under-provision of rural storage

5 main reasons:

1. Multiple harvests per season in some areas (eg., Kenya, Tanzania, Uganda)
2. Unpredictable government operations that affect normal seasonal pattern of prices (eg., export bans, stock releases at concessionary prices)
3. Lack of confidence in crop production forecasts
4. Uncertainty as to disposition of marketing board silos
5. Lack of quality standards wrt moisture content

Fact #4

- Public investments with the greatest returns to ag growth and poverty reduction leading to Asian green revolution are:
  - infrastructural investment
  - R&D
  - conducive policies that support private investment in markets and production

Ranking of Alternative Investments: Meta-Study Evidence from Asia and Africa

Productivity Drivers	The Economist	IFPRI study
Policies		
Road investment		
Agricultural R&D		
Agricultural extension services		
Credit subsidies		
Fertilizer subsidies		
Irrigation		

Ranking with respect to *Agricultural Growth:* Evidence from Asia

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Policies	1	
Road investment	2	1
Agricultural R&D	3	2
Agricultural extension services	4	4
Credit subsidies	7	3
Fertilizer subsidies	5	5
Irrigation	6	6

Recommendations/ proposals

1. Lease some marketing board silos in need of rehabilitation to private sector: win-win by leasing > 10 years.
   i. Farmers and private sector benefit from increased supply of storage facilities
   ii. Government benefits from capital investment in rehabilitated storage
2. Donors pay cost of SAFEX option contracts in return for ensuring open regional trade
   i. Should reassure governments that adequate supplies will be available, and can therefore commit to a rules-based system (Model 2)

Recommendations/ proposals

3. Take measures to relieve land constraints on smallholder market participation:
   i. Public investments in currently under-utilized areas (e.g., Gokwe, Zimbabwe)
   ii. Support staple food productivity growth through R&D, crop science, extension
   iii. Promote crop diversification into higher-valued crops
4. Help farmers with marketing skill training

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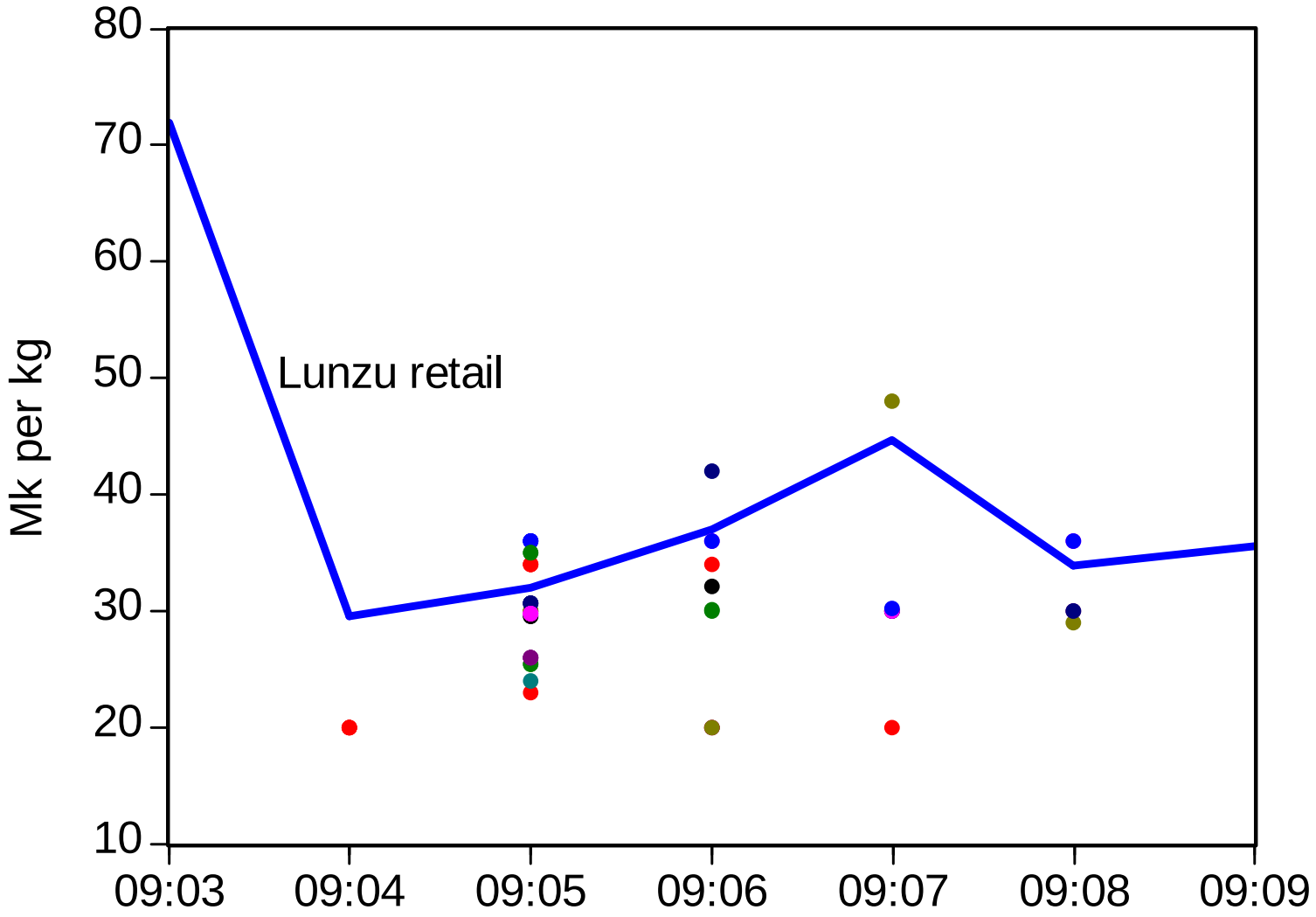

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   i. KMDP example, Kenya

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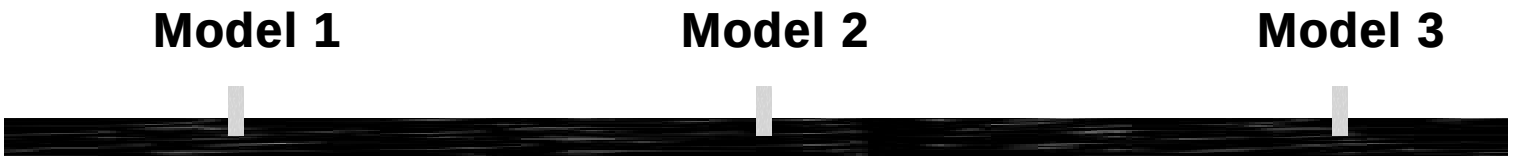

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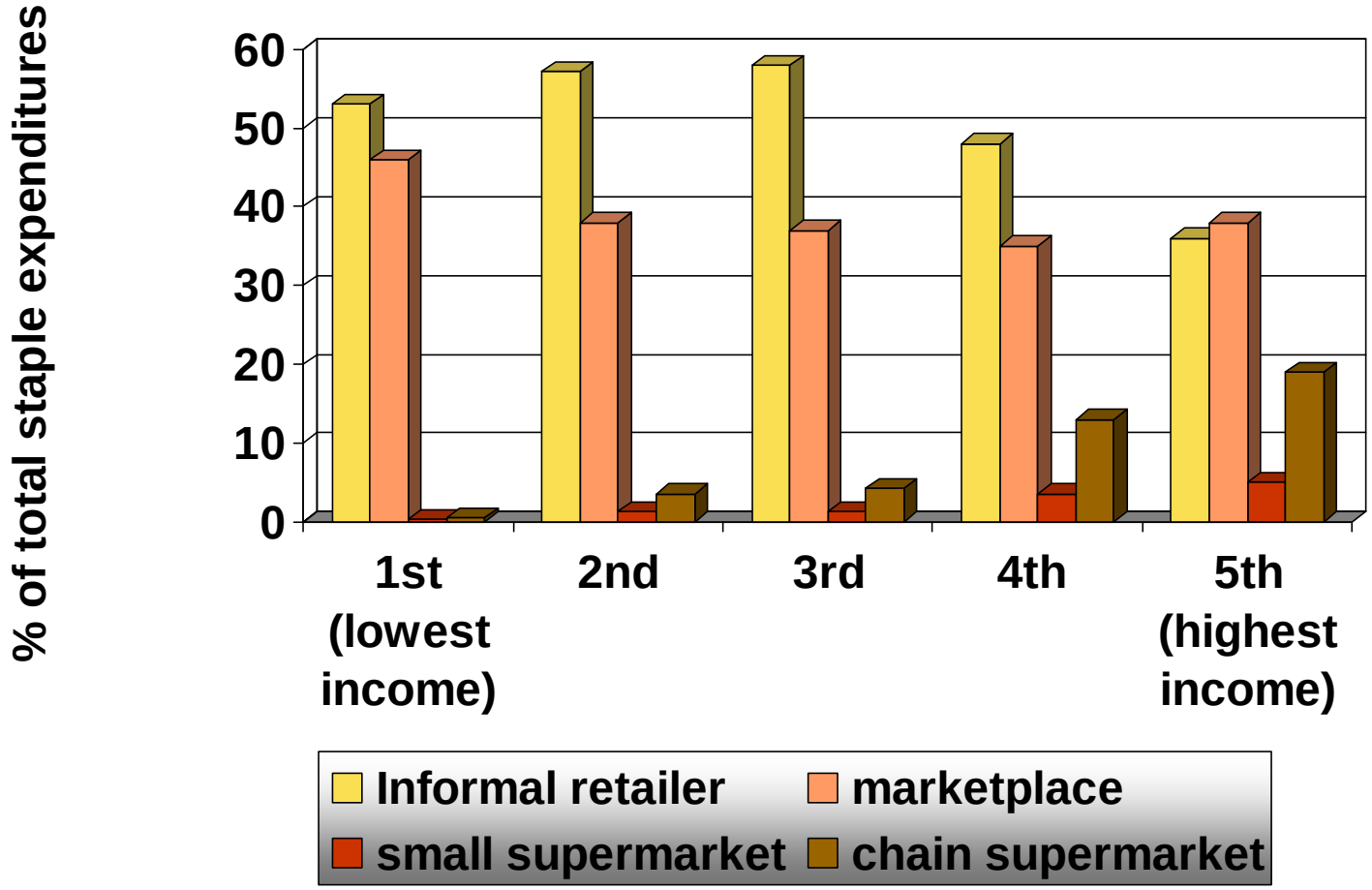
Asante sana, zikomo, twalumba, tantenda, obrigado, thank you…..

Figure 15. Shares of consumers' expenditures on staple food products by retailer type, four cities of Zambia, 2008



Shares of Consumers' expenditures on staple food products by retailer type, Nairobi, Kenya, 2003