

Findings from FSRP Research on Food Staples Markets: Implications for Investment Priorities to Promote Regional Trade

Jones Govereh, David Tschirley, and Michael Weber

On behalf of

**Michigan State University Food Security Group/
Food Security Research Project**

18 April

Lusaka

Roadmap

□ Background

- Urbanization
- Policy environment
- More diversified consumption
- Less variable production in southern Africa
- Less correlated production across countries in southern Africa
- FSEHS

□ Why so little policy change on trade?

□ Priorities for action

Urbanization

- Total population in ESA over next 25 years expected to rise by about 2/3
- But urban population growing much more rapidly than rural
 - 125% compared to 42%
- Means that total volume of food flowing through marketing channels will double, even if we assume no income growth
 - Modest income growth would push to at least 120%

Urbanization (2)

- Traditional marketing systems will continue to carry largest share of this food, and many are (woefully) inadequate even for current volumes
- Major investment is thus needed
 - Improved wholesale and retail (and assembly?) facilities
 - Transport infrastructure to reduce very high transport costs

Policy Environment

- 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
- But governments not relinquishing control over regional trade
 - So formal trade is still difficult in many countries
 - Trade is forced to be informal

Diversified Consumption

Percentage of Total Food Expenditure Allocated to Food Items in Selected Areas of Mozambique and Zambia

Food Items		Mozambique			Zambia			
		Maputo Province	Gaza and Inhambane Provinces	Manica and Tete Provinces	Lusaka	Kitwe	Kasama	Mansa
Urban	Maize	2.4	14.5	39.9	8.9	10.6	9.8	11.5
	Rice	7.8	9.8	4.4	2.5	2.8	3.4	2.7
	Wheat	15.5	6	2.9	11.8	11.3	6.2	7.3
	Cassava	1.3	5.2	0.5	0.3	0.8	2.0	4.1
Rural	Maize	9.1	12.2	48	----	----	----	----
	Rice	11.4	9.5	2.5	----	----	----	----
	Wheat	7.4	3.2	1.4	----	----	----	----
	Cassava	4.7	8.4	0.5	----	----	----	----

Data Source: Mozambique: IAF 2002, according to their definition of rural and urban; Zambia: 2007 FSRP Urban Consumption Survey, first round, as calculated by authors

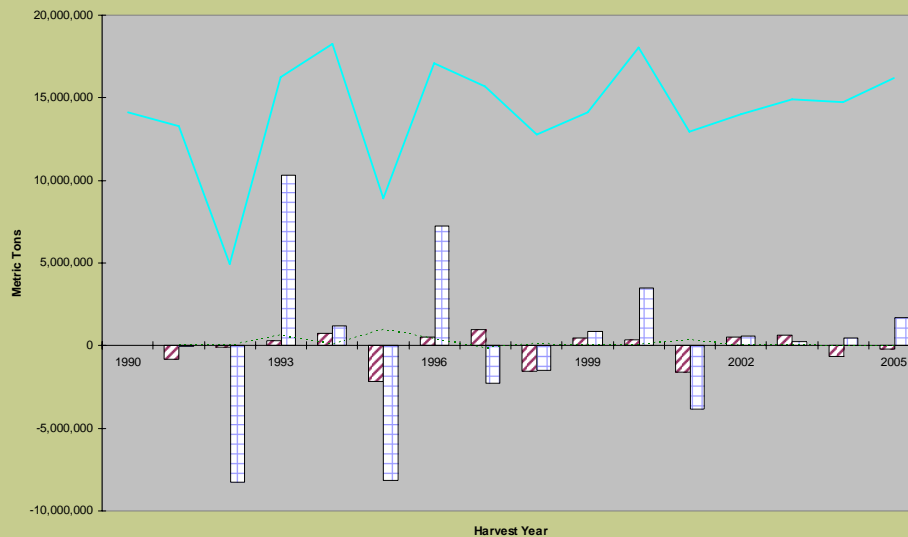
Diversified Consumption

Food Staple Budget Shares in Nairobi, Kenya

	1995	2003
	---- Share of expenditure on four staples ----	
Maize products	42	32
Wheat products	35	44
Rice	22	20
Cooking banana	1	4

Less Variable Production

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



Less Variable Production(2)

- Coefficient of variation
 - 1990-99: 0.29
 - 1996-2005: 0.11
- Production in southern Africa seems to be less variable, not more
- Driven by RSA, but fell in every country except Zimbabwe

Less Correlation of Production

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

Less Correlation of Production

Correlation Coefficients on White Maize Prodn

		South Africa	Zambia	Zimbabwe	Mozambique	Malawi
South Africa	1990-1999		0.66**	0.93***	0.18	0.12
	1996-2005		0.36	0.51	0.04	-0.18
Zambia	1990-1999	0.66**		0.77***	-0.04	0.36
	1996-2005	0.36		0.27	-0.08	0.06
Zimbabwe	1990-1999	0.93***	0.77***		0.30	0.22
	1996-2005	0.05	0.27		-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

Less Correlation of Production

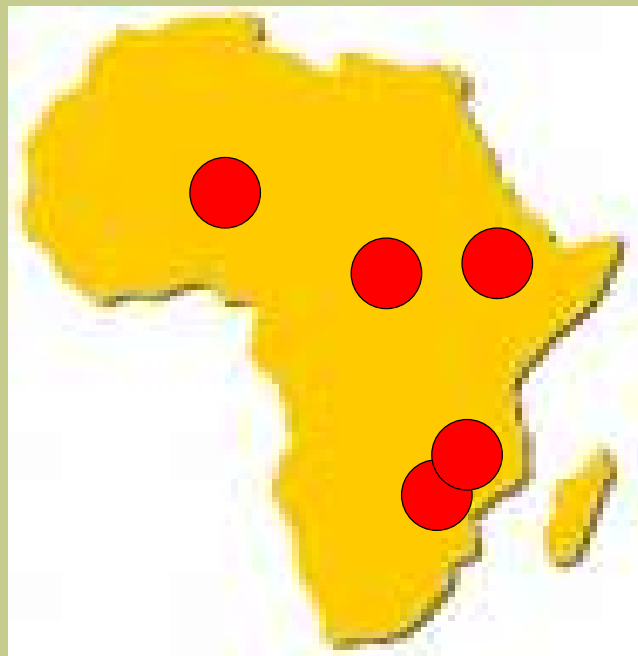
Correlation Coefficients on White Maize Prodn

		South Africa	Zambia	Zimbabwe	Mozambique	Malawi
South Africa	1990-1999		0.66**	0.93***	0.18	0.12
	1996-2005		0.36	0.51	0.04	-0.18
Zambia	1990-1999	0.66**		0.77***	-0.04	0.36
	1996-2005	0.36		0.27	-0.08	0.06
Zimbabwe	1990-1999	0.93***	0.77***		0.30	0.22
	1996-2005	0.05	0.27		-0.88***	0.21
Mozambique	1990-1999	0.18	-0.04	-0.30		0.65**
	1996-2005	0.04	-0.08	-0.88***		-0.20
Malawi	1990-1999	0.12	0.36	0.22	0.65**	
	1996-2005	-0.18	0.06	0.21	-0.20	

Greater prospect – and need – for trade

- Above factors all increase prospects, and need, for efficient domestic and regional trade
- Another factor
 - Food Security Enhancing Hotspots

Africa's hunger hot spots well known



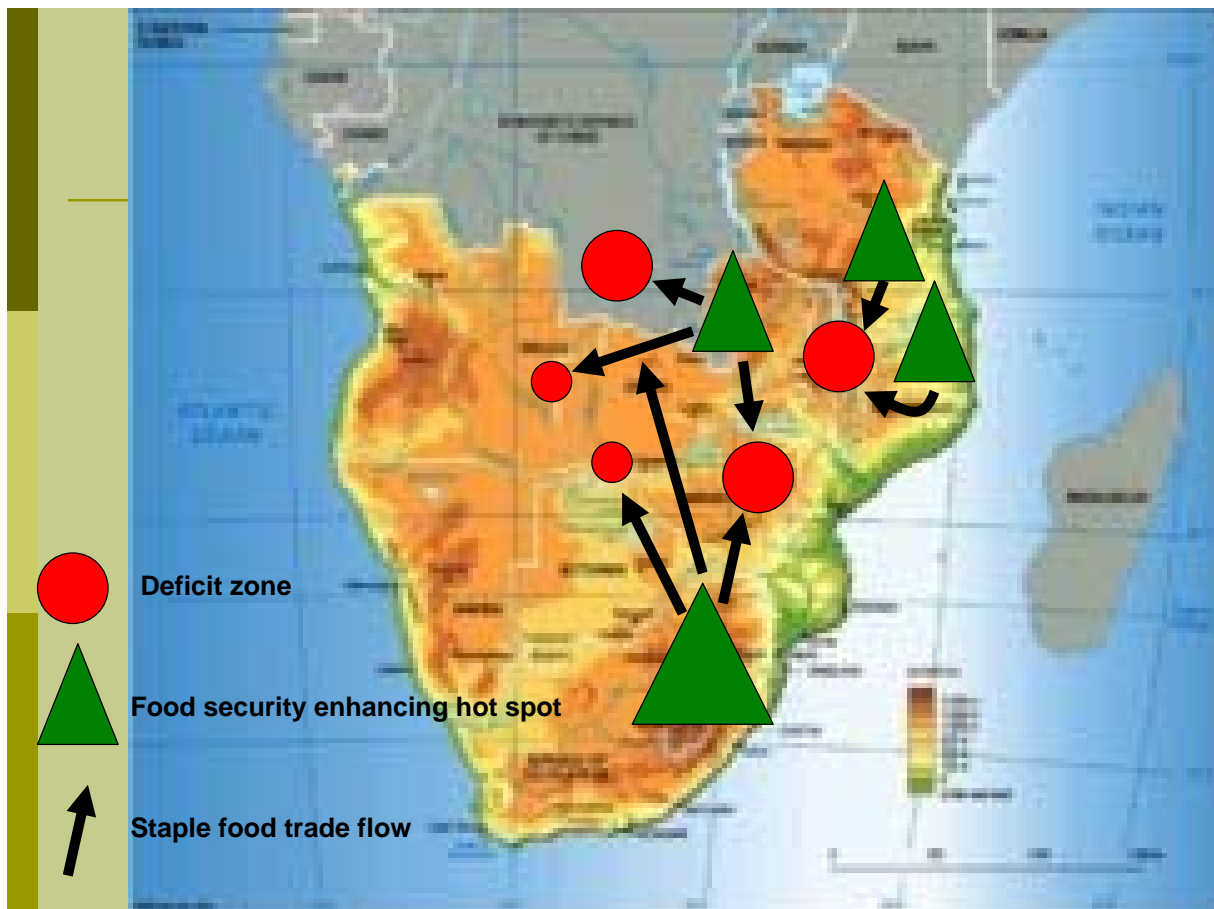
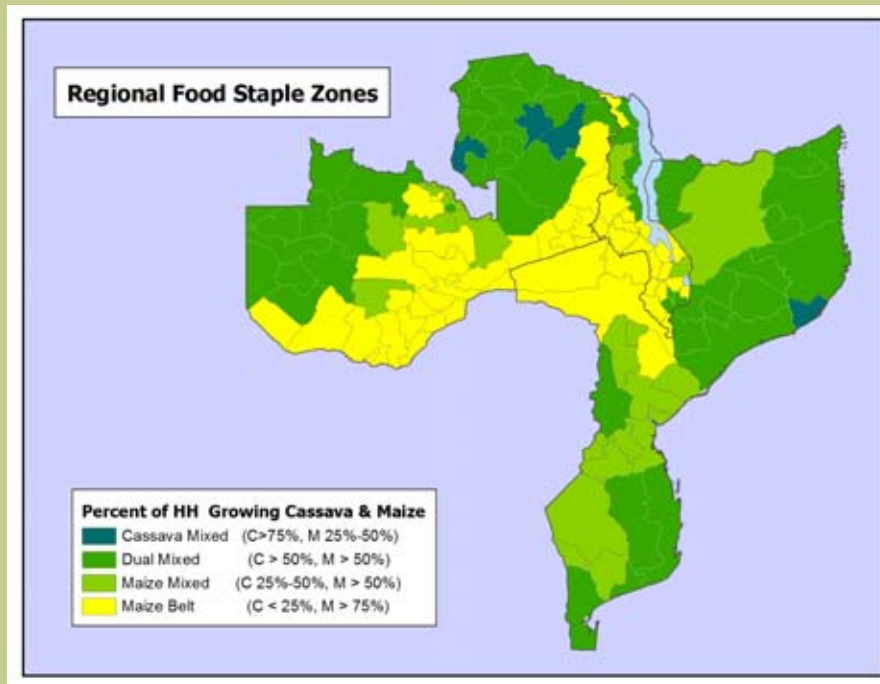
Less well-known are Africa's productive, surplus production zones



Where are Africa's surplus food staple production zones?

- Areas of favorable rainfall or economical irrigation
 - Irrigation: South Africa
- Dual staple zones
 - cassava & maize (N. Zambia)
 - banana, cassava & maize (Uganda)
 - irish potato, cassava & maize (N. Mozambique)
 - cassava, rice, maize (S. Tanzania)

Dual staple zones



Linking surplus (FSEHS) zones with deficit zones

- Improves food security in deficit zones
- Reduces price volatility
- Improves producer incentives in surplus zones
- Accelerates agricultural growth
- Needed now more than ever in era of historically high staple food prices

Why so little change in trade policy?

- **Market Structure:** How does a country like Malawi make the transition?
 - Bangladesh/Madagascar example
 - The limits of informal trade
- **Rent Seeking:** In a poor economy, government is the main focus of profit seeking
- **Politics:** Does a move to multi-party democracy make it more difficult to follow “good” trade and marketing policy?

Why so little change in trade policy? (2)

□ **Culture:** “The Wicked Problem”

- “... beliefs are grounded in competing cultural norms and resolution resists factual analysis”
- “... it is the *social complexity* of these problems, not their technical complexity, that overwhelms most current problem solving ... approaches”

Pause for discussion

Policy change is crucial

- Open borders, clear and transparent rules and behavior by government
- But this change has to come in response to pressure from within
 - Is EAGC a model for southern Africa?
 - Broadening the understanding of how markets work
 - Providing concrete, actionable programs to improve trade
- Improved statistical and market information is fundamental to building understanding and improving decision making

Modernize the marketing system

- Takes public investment
 - Modern private retailers are not going to modernize the marketing *system*
- Support WRSs where there is a large enough commercial sector to make it potentially feasible
 - Farm and processing levels
- Commodity exchanges might be a useful tool that could grow hand-in-hand with WRSs
- Other approaches to underwrite the risk of banks lending to the commercial trade
- Work with WFP to support these types of innovations in collaboration with the commercial trade

Modernize the marketing system (2)

- Improved “traditional” market places
 - Better hard infrastructure linked to improved market information
 - Governance is key
 - Public-private partnership
 - Need different legislation to facilitate this
 - Using IT to post real-time prices in markets and make near-real time information available outside the market (SMS)
 - Don’t forget radio!
 - Don’t forget wholesaling!
 - Simple physical improvements may often be the best

Thank You