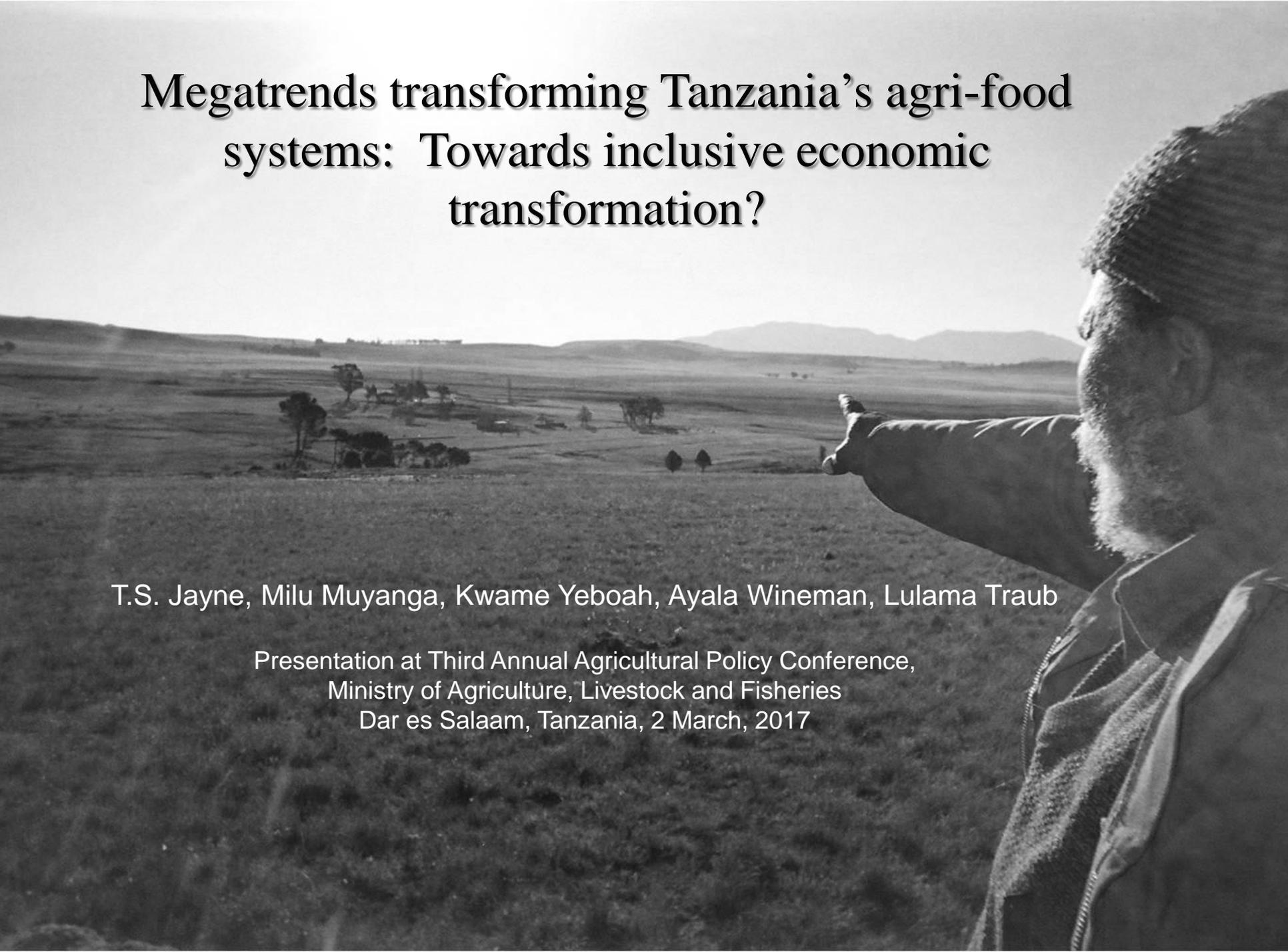


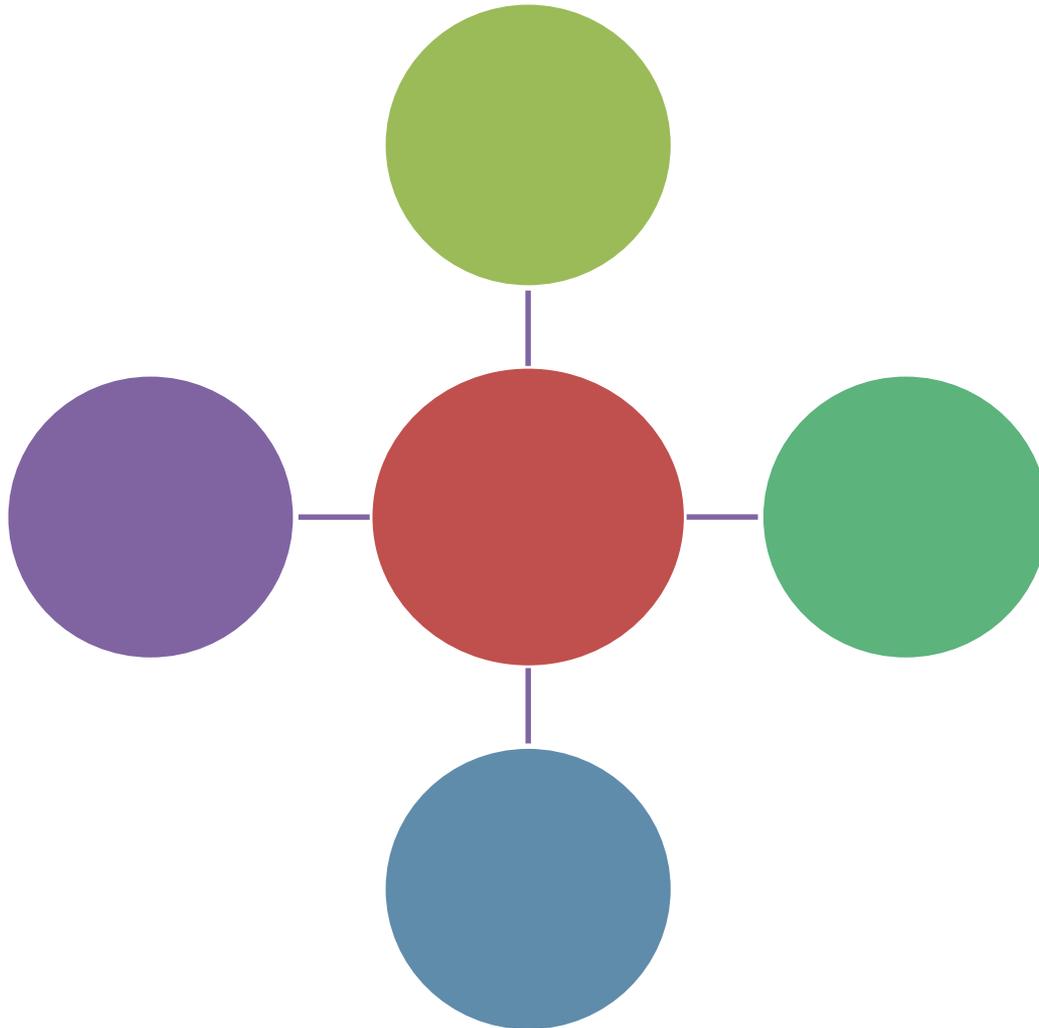
Megatrends transforming Tanzania's agri-food systems: Towards inclusive economic transformation?

T.S. Jayne, Milu Muyanga, Kwame Yeboah, Ayala Wineman, Lulama Traub

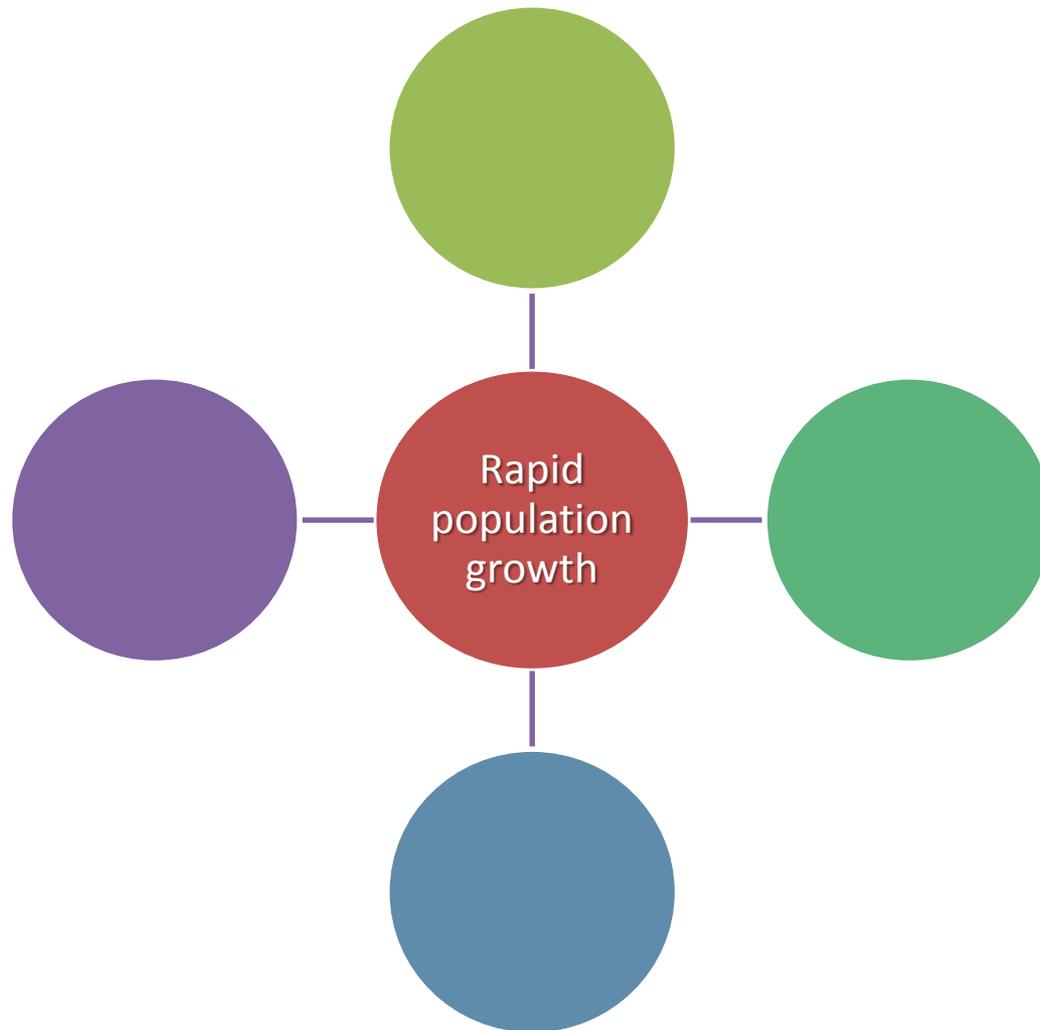
Presentation at Third Annual Agricultural Policy Conference,
Ministry of Agriculture, Livestock and Fisheries
Dar es Salaam, Tanzania, 2 March, 2017



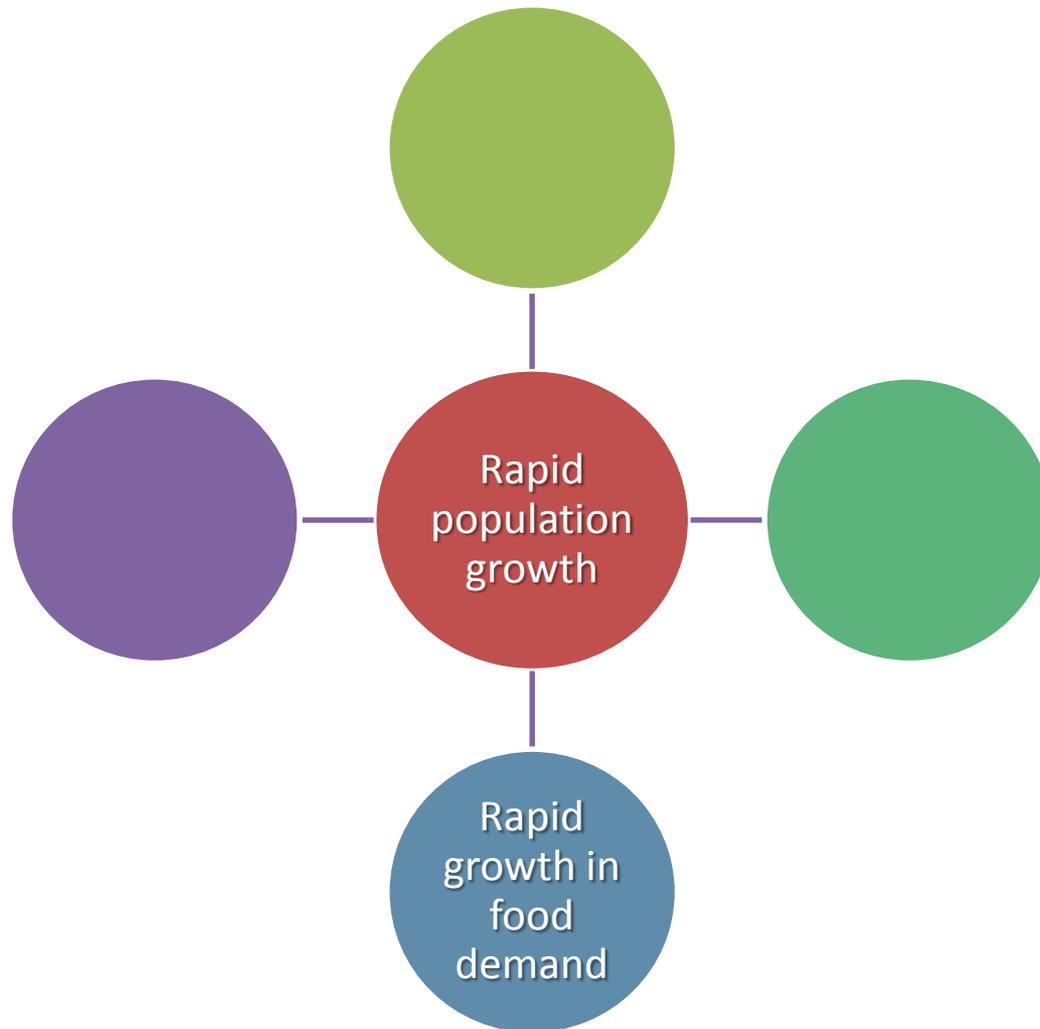
Five inter-related trends



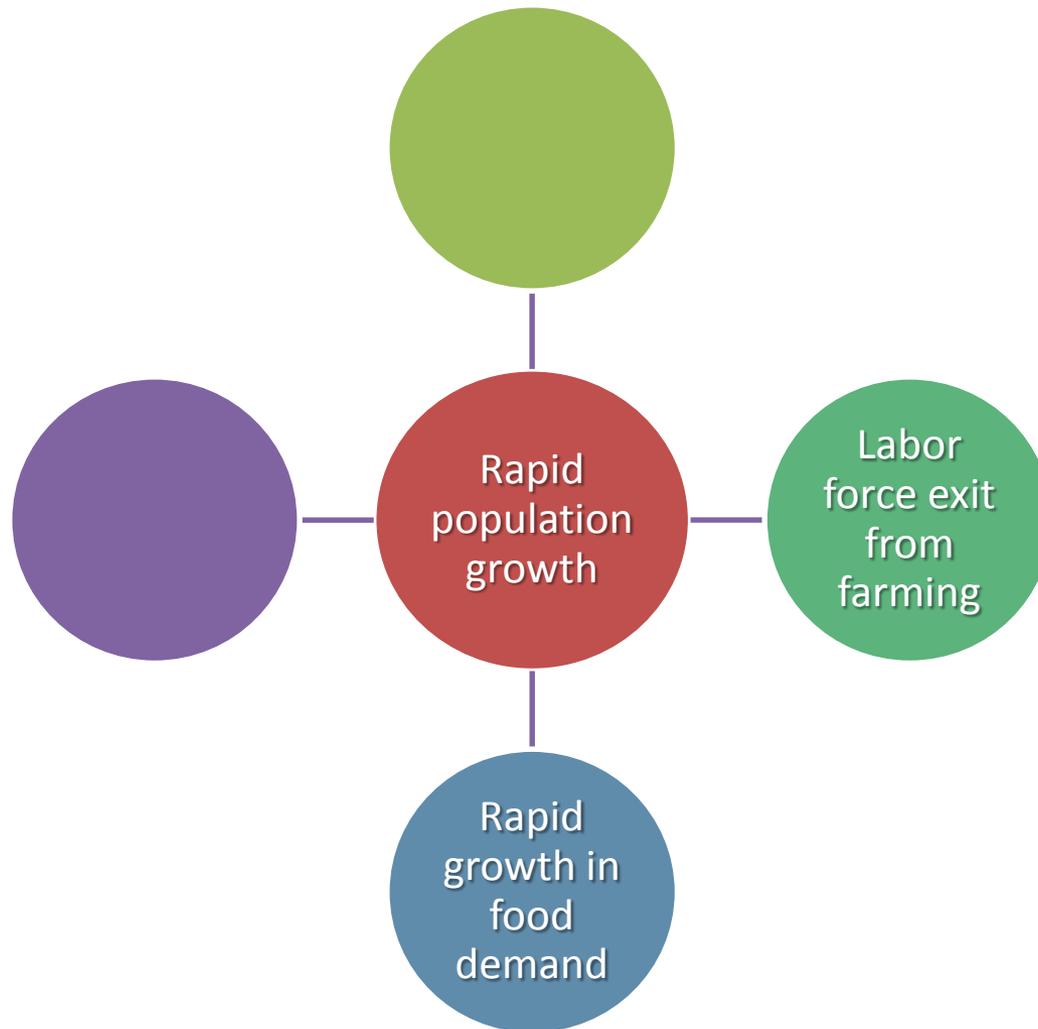
Five inter-related trends



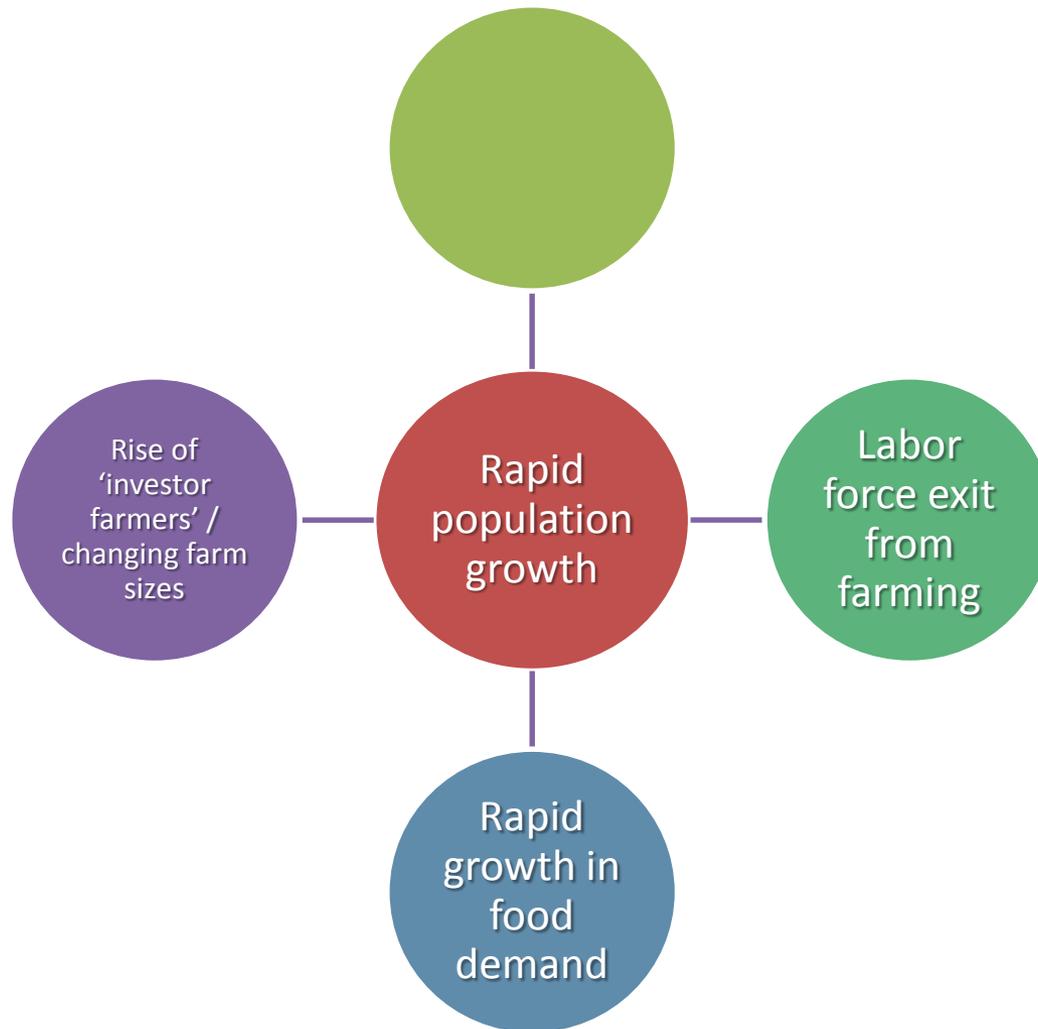
Five inter-related trends



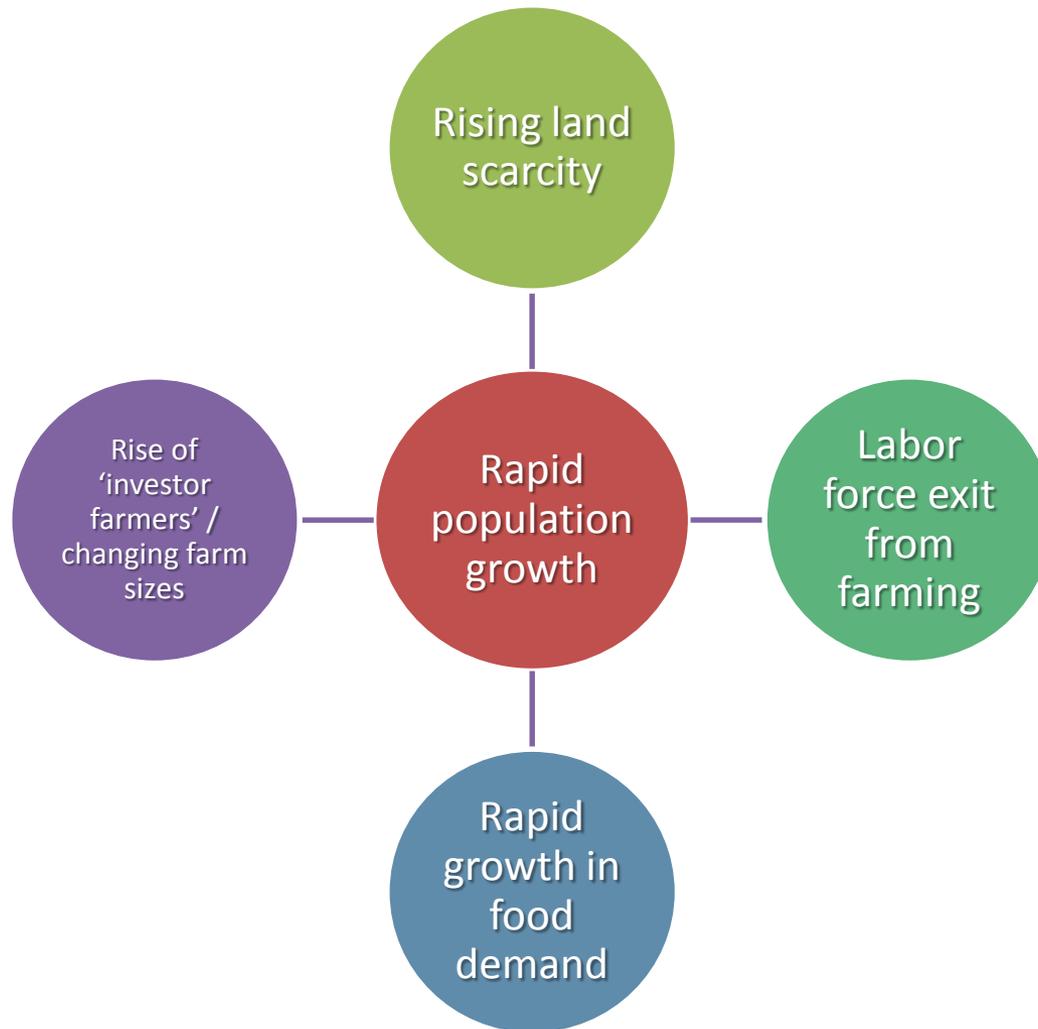
Five inter-related trends



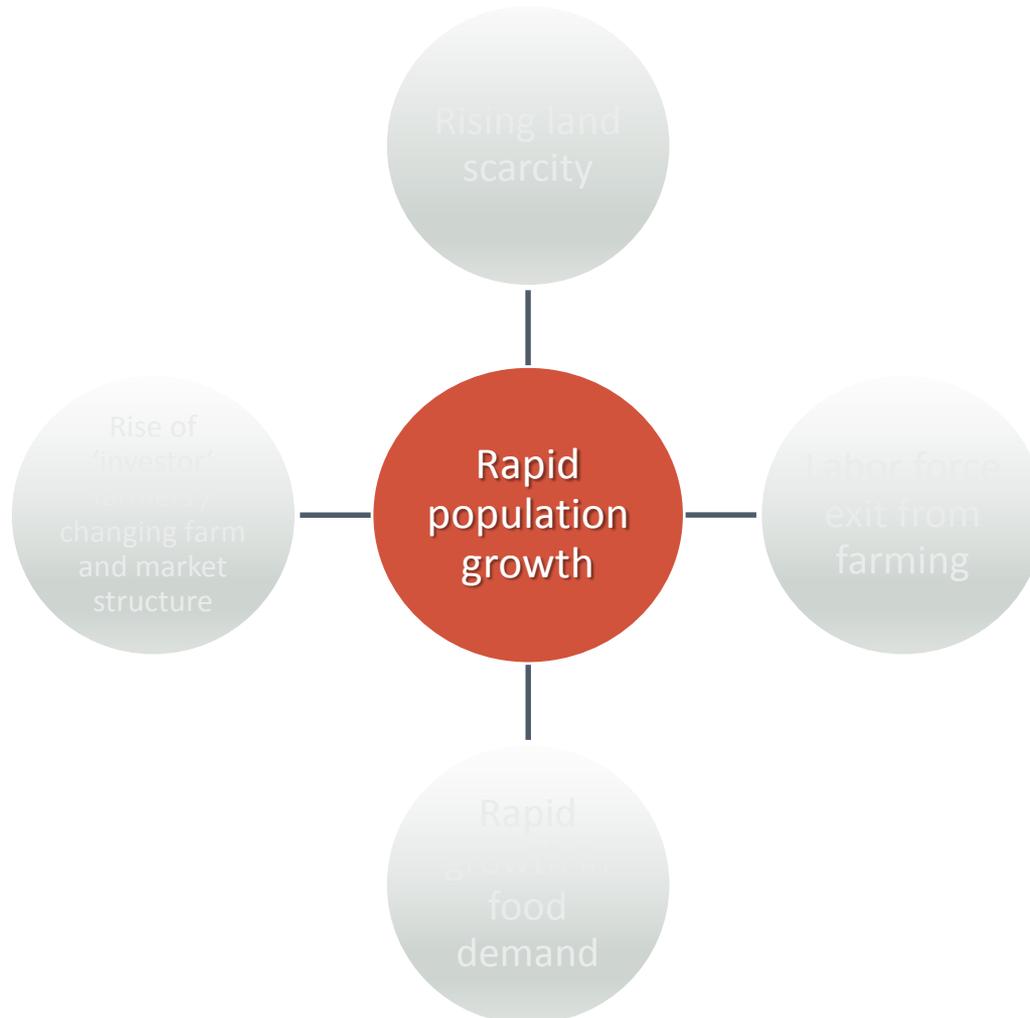
Five inter-related trends



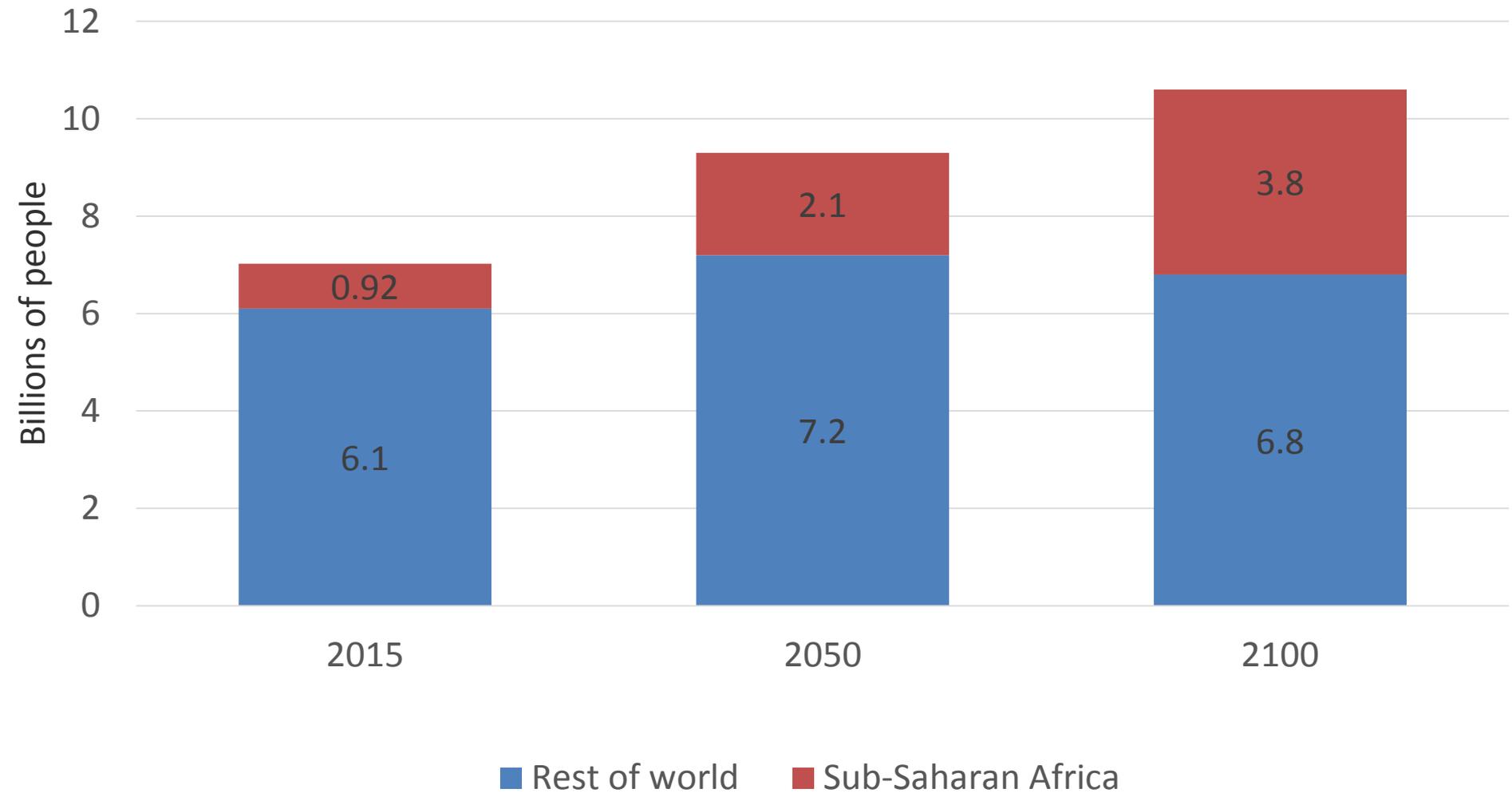
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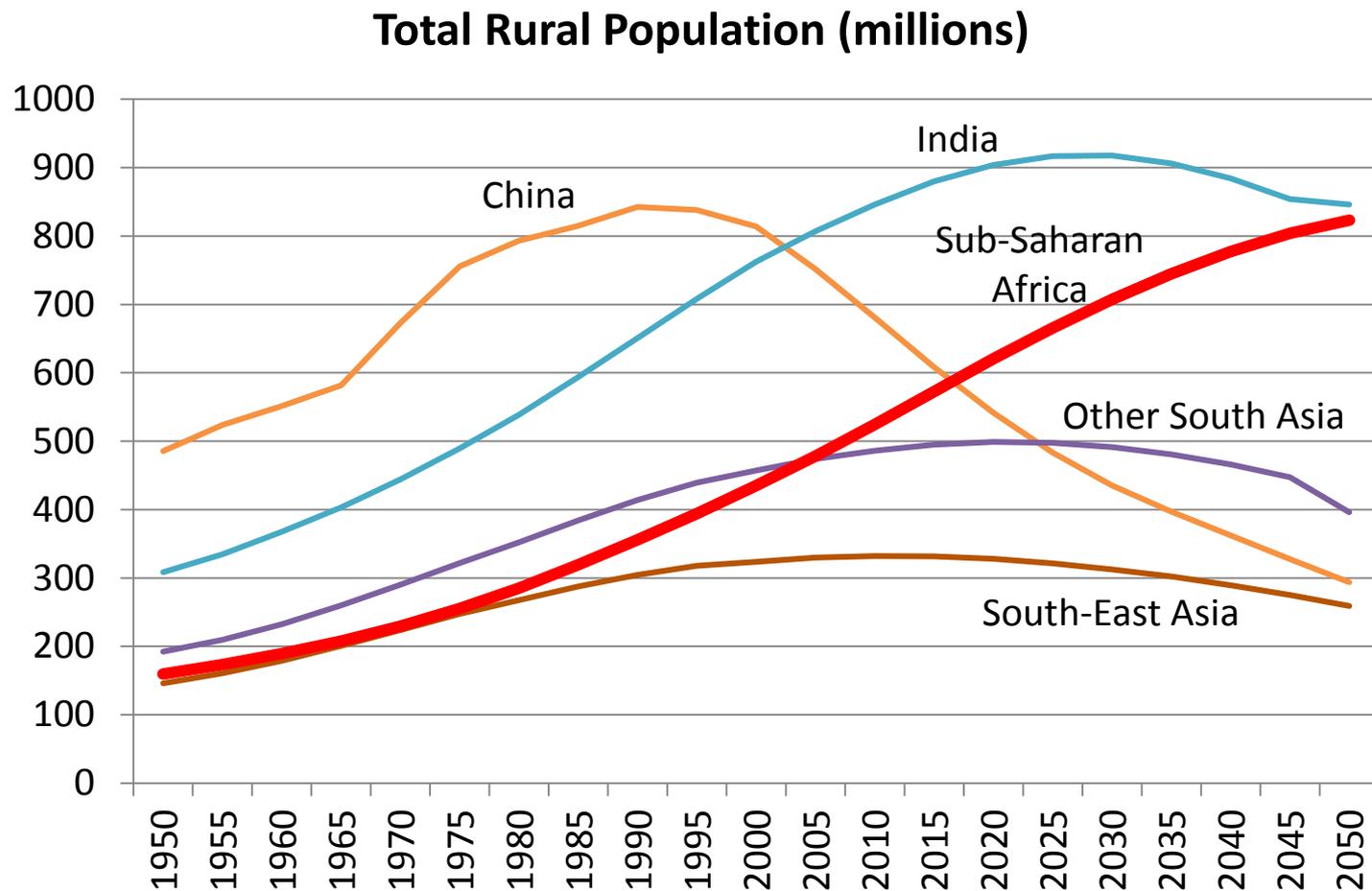
Five inter-related trends



Africa's rapid population growth

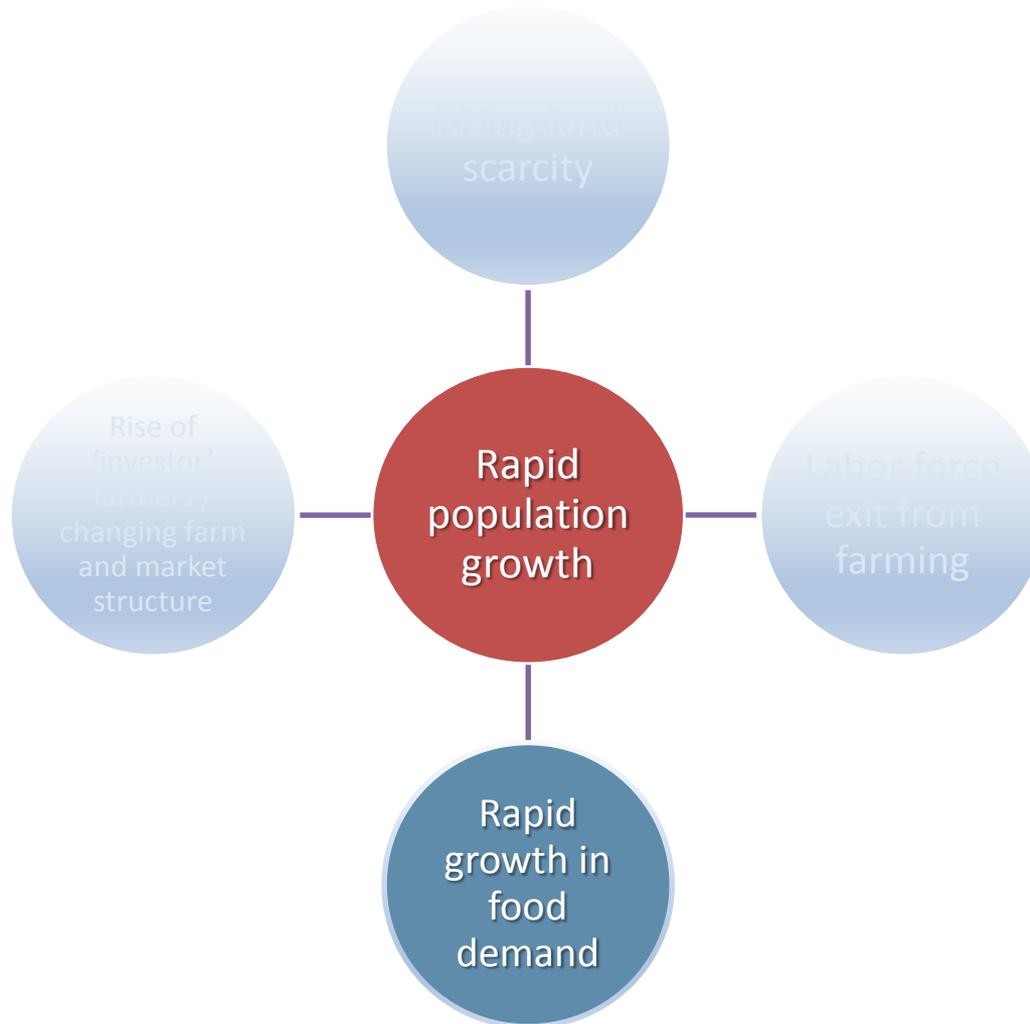


Sub-Saharan Africa: only region of world where rural population continues to rise past 2050



Source: UN 2013

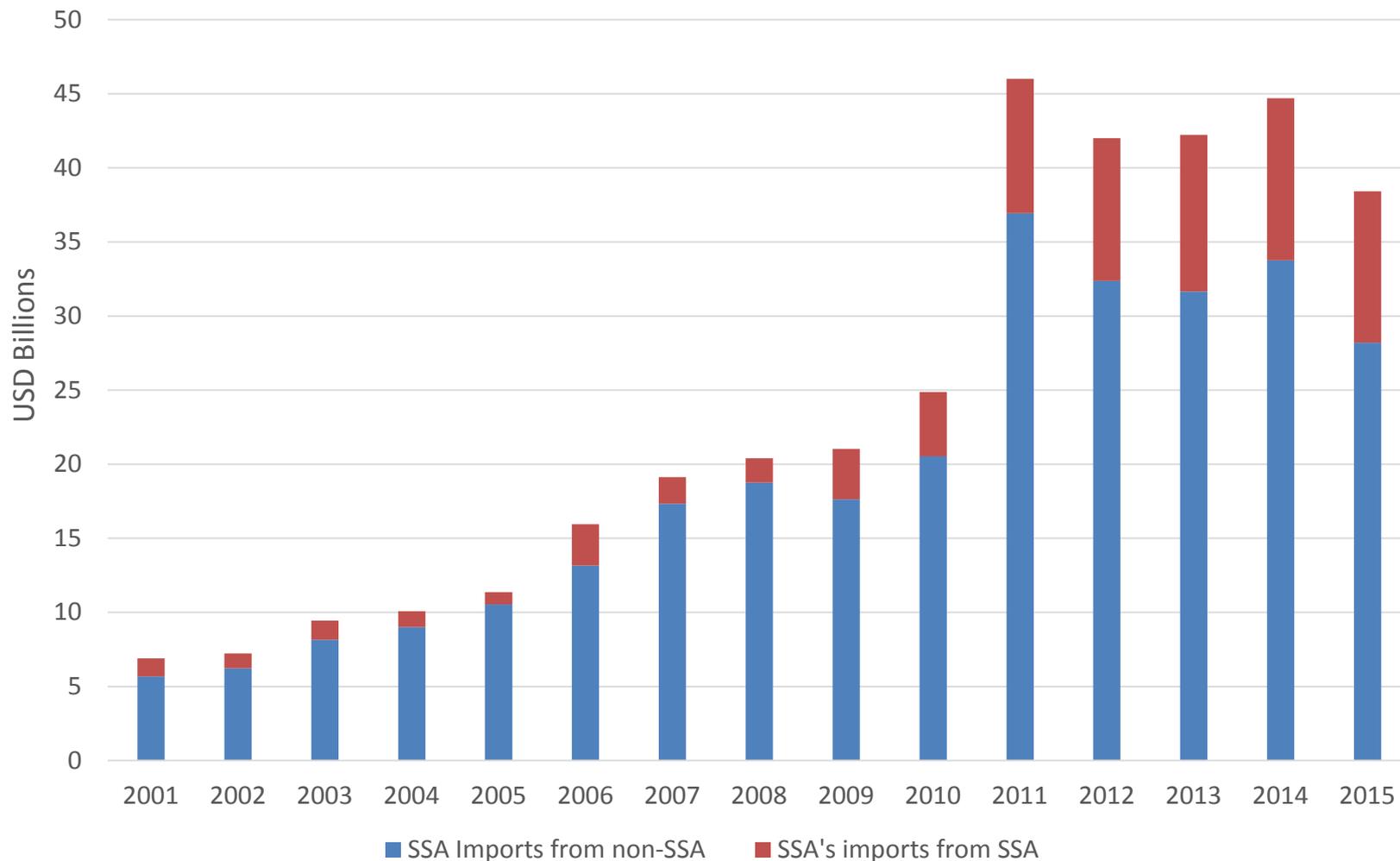
Five inter-related trends



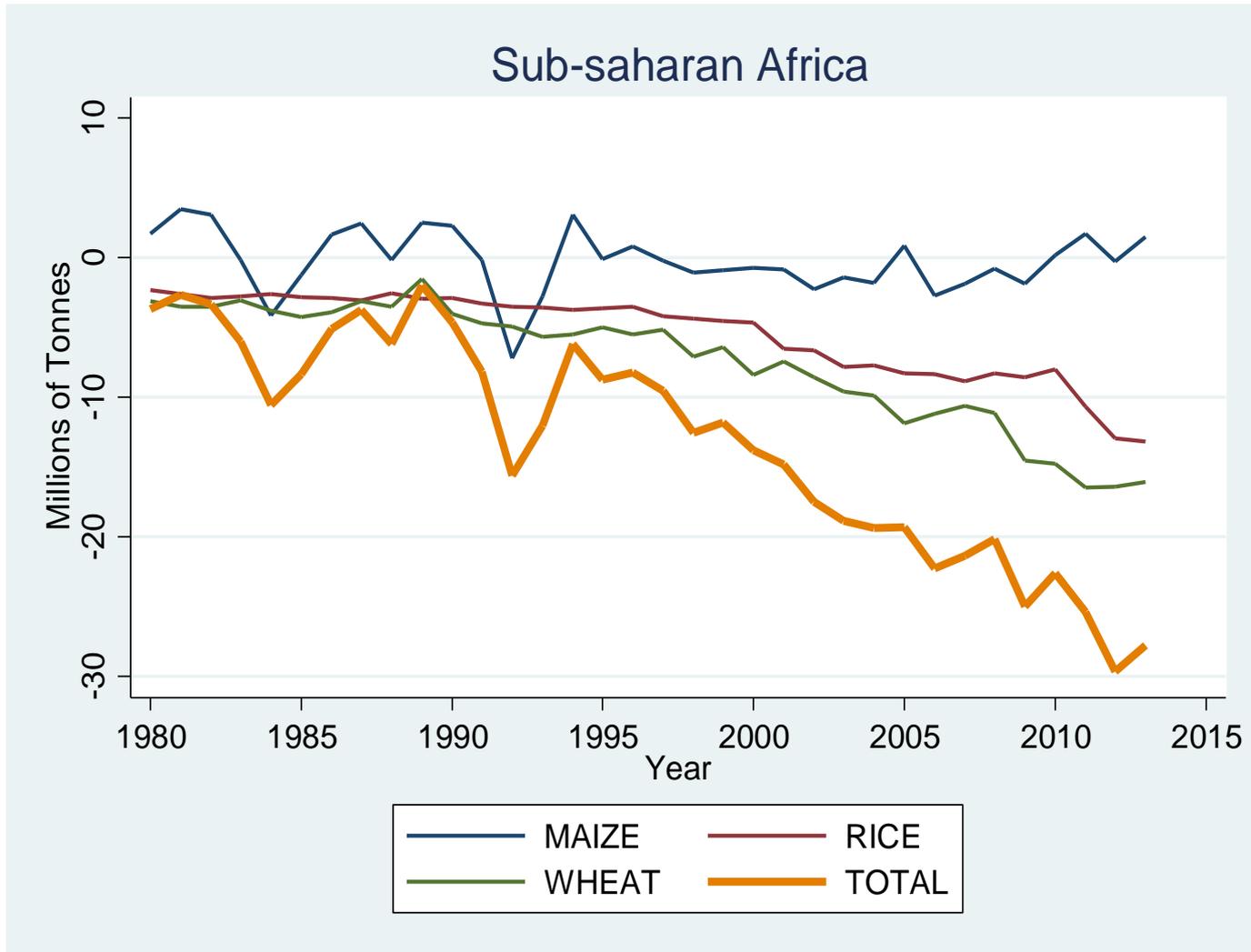
SSA Total Food Imports from 7 to 40 billion USD (2001-2015)

Tanzania food imports from 150 to 640 million USD (2001-2015)

(intra SSA trade from 1 to 10 billion USD)

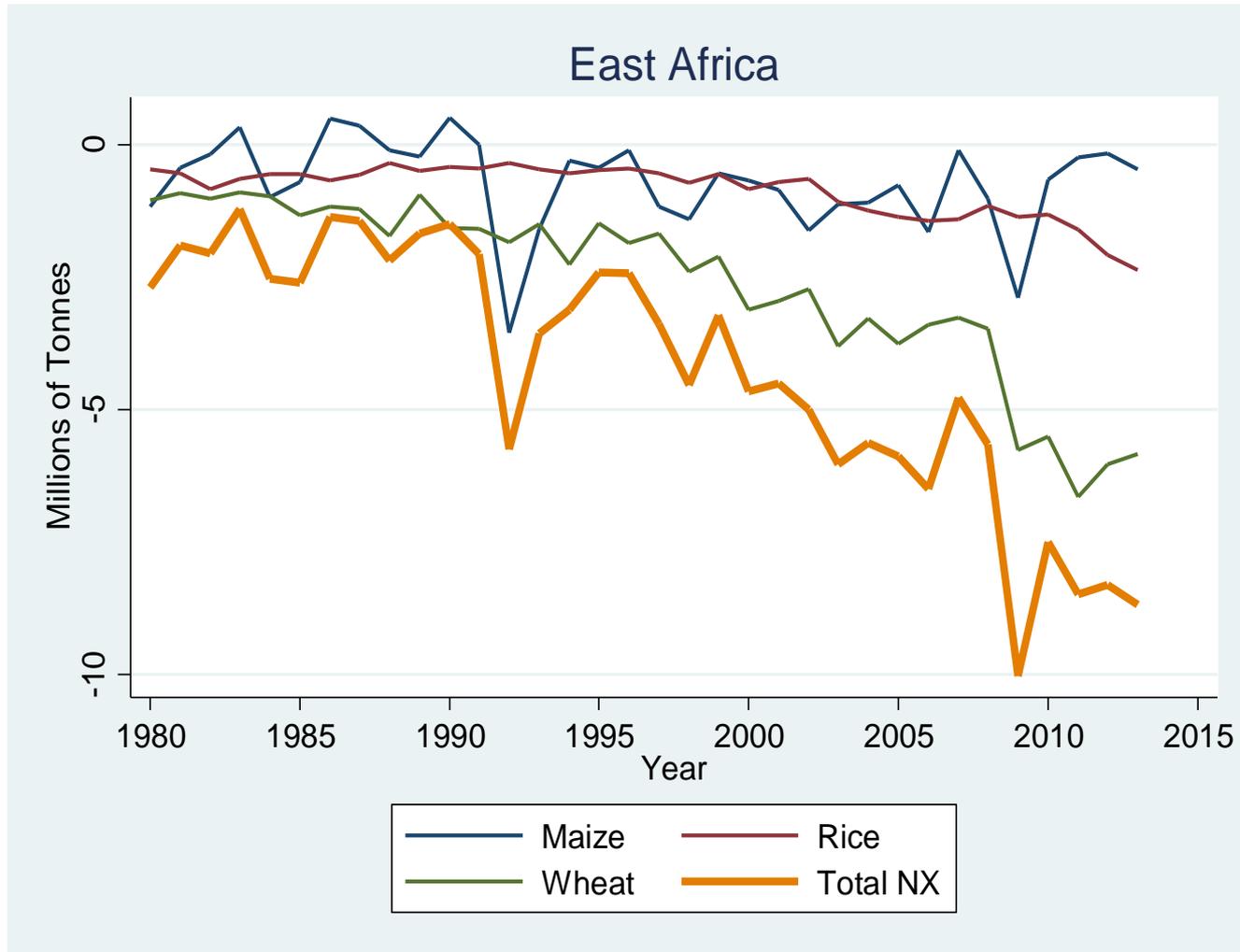


Net cereal exports, Sub-Saharan Africa

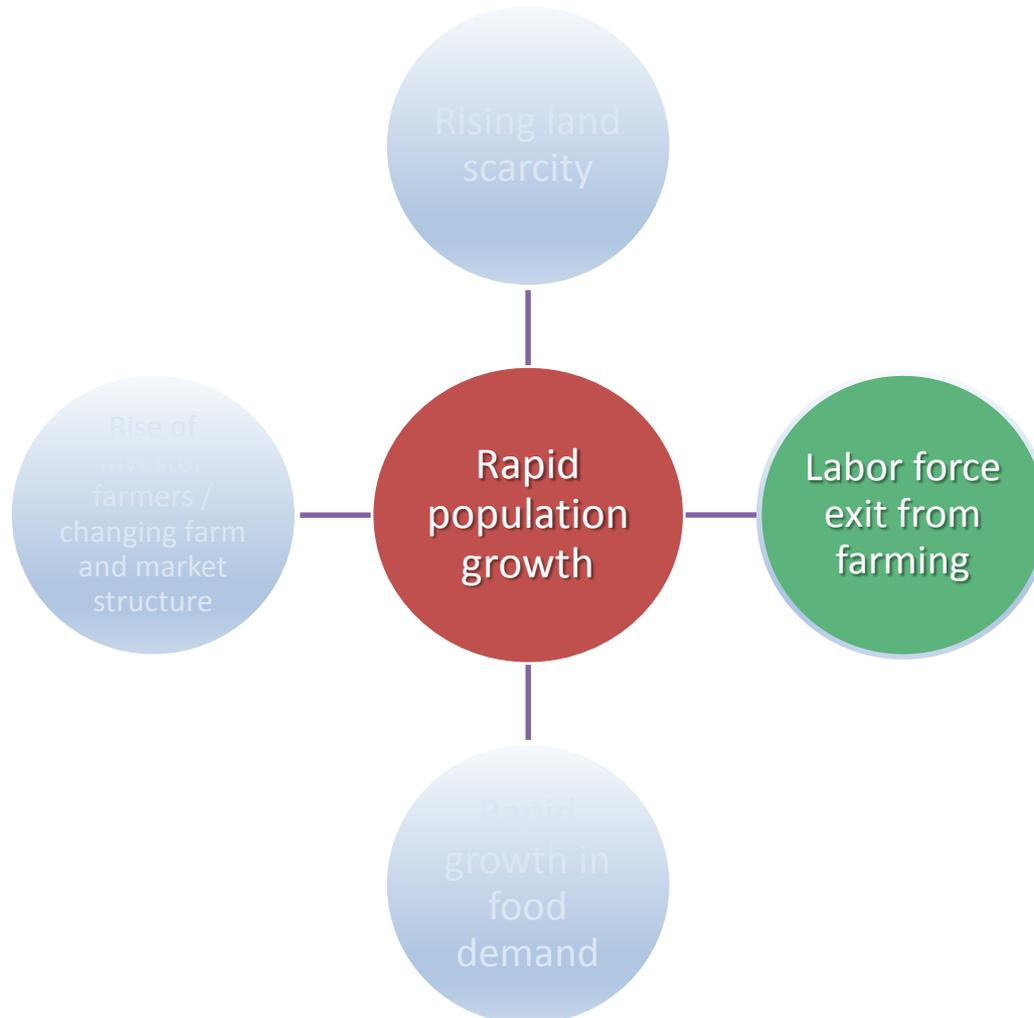


Source: FAOSTAT, 2016

Net cereal exports, East Africa Region



Five inter-related trends

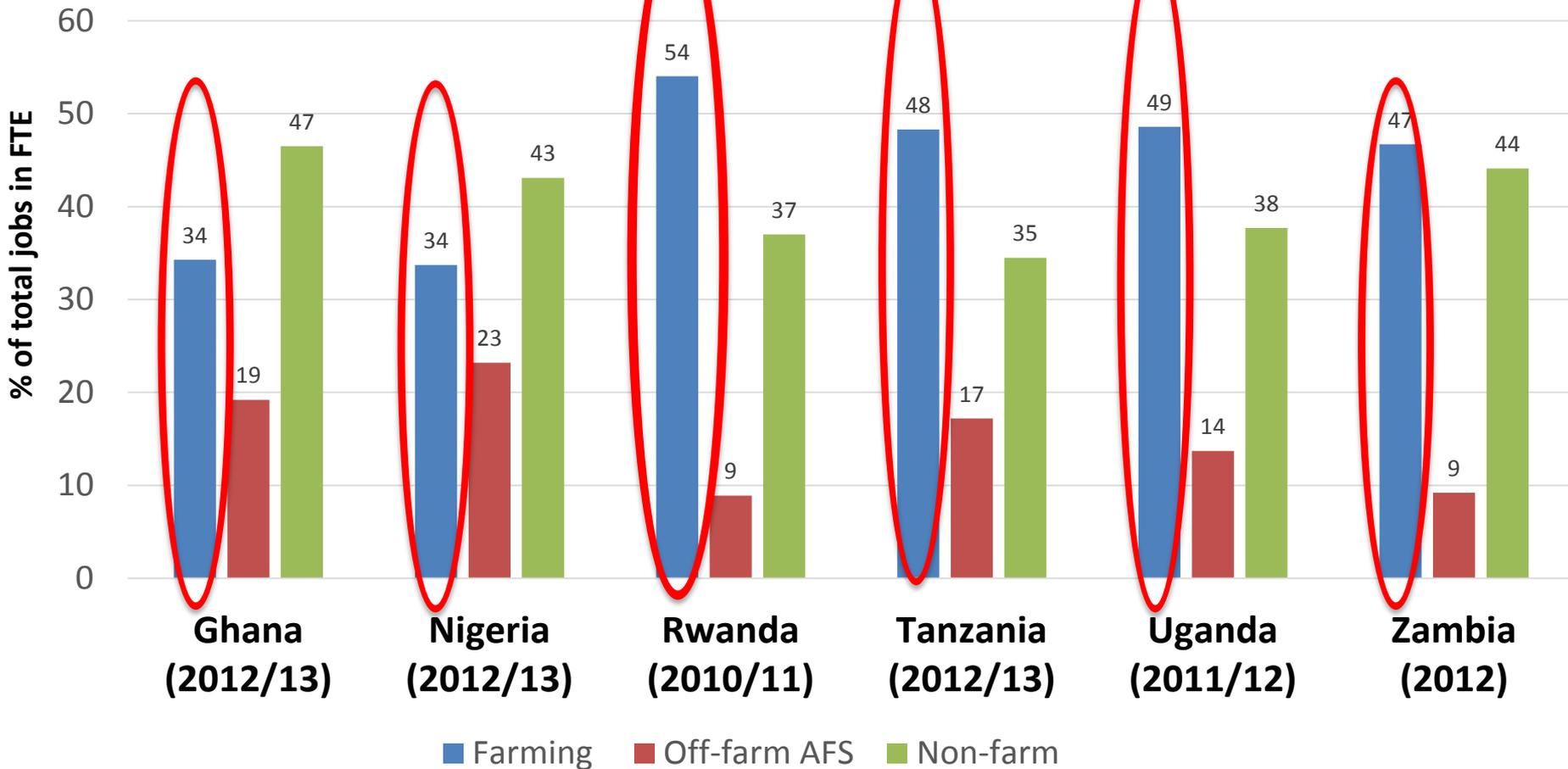




Employment trends

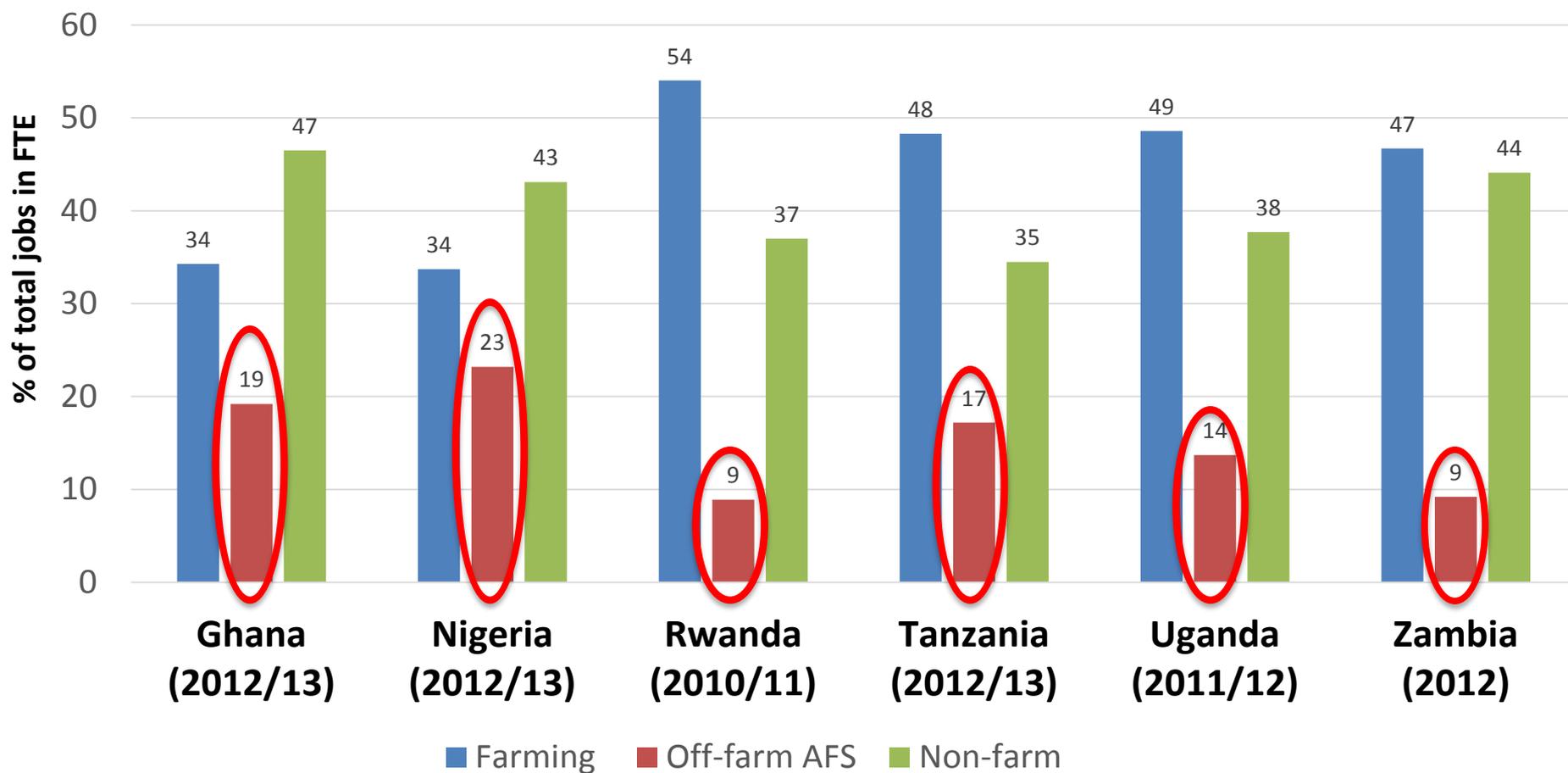
Farming remains largest single employer of workforce

Sectoral employment shares of total jobs in FTE



Farming remains largest single employer of workforce

Sectoral employment shares of total jobs in FTE



Off-farm AFS jobs largely in commerce -- less than 5% of all jobs are in agro-processing

Country	Survey years	Farming	Agro-processing	Downstream commerce and distribution	Non-farm
		% of FTE jobs	% of FTE jobs	% of FTE jobs	% of FTE jobs
Ghana	2005/06	43.5	6.3	8.6	41.6
	2012/13	34.3	3.7	15.5	46.5
Nigeria	2010/11	30.6	2.3	18.7	48.2
	2012/13	33.7	4.6	18.6	43.1
Rwanda	2005/06	65.7	0.4	7.4	26.6
	2010/11	54.0	1.2	7.7	37.0
Tanzania	2010/11	47.3	2.5	15.0	35.2
	2012/13	48.3	1.6	15.6	34.5
Uganda	2005/06	57.0	2.8	10.2	30.0
	2011/12	48.6	1.7	12.0	37.7
Zambia	2005	61.2	1.6	3.1	34.1
	2012	46.7	2.1	7.1	44.1

Five inter-related trends

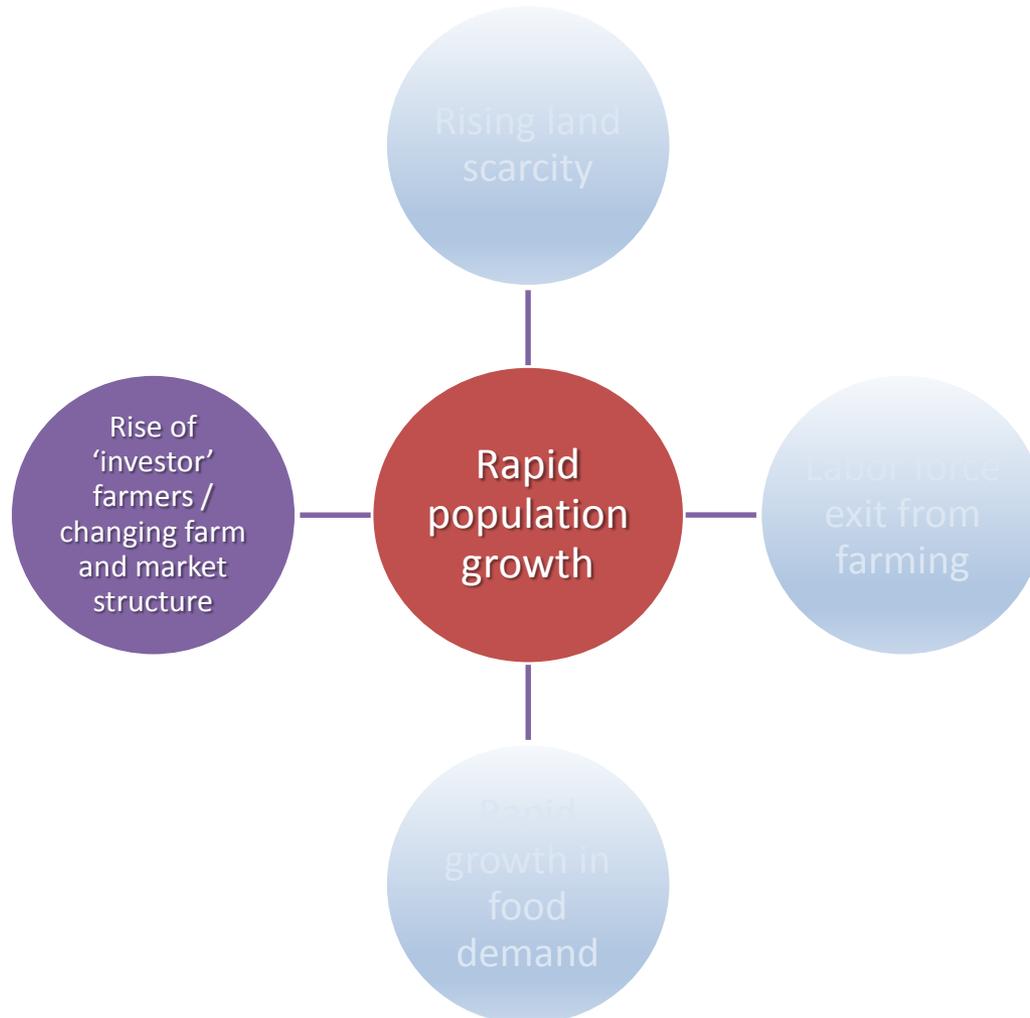
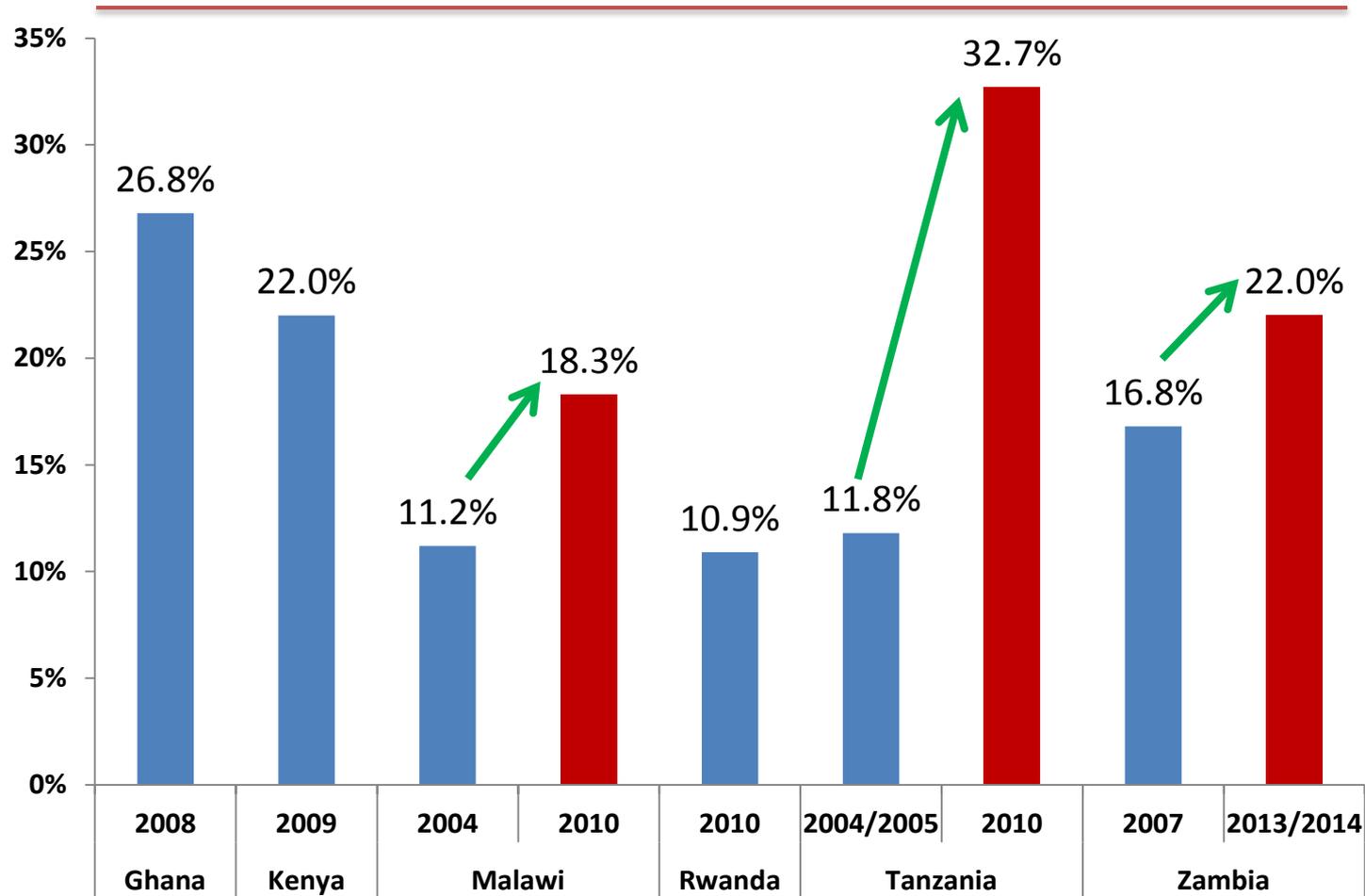


Table 1: Changes in farm structure in Tanzania (2008-2012), National Panel Surveys

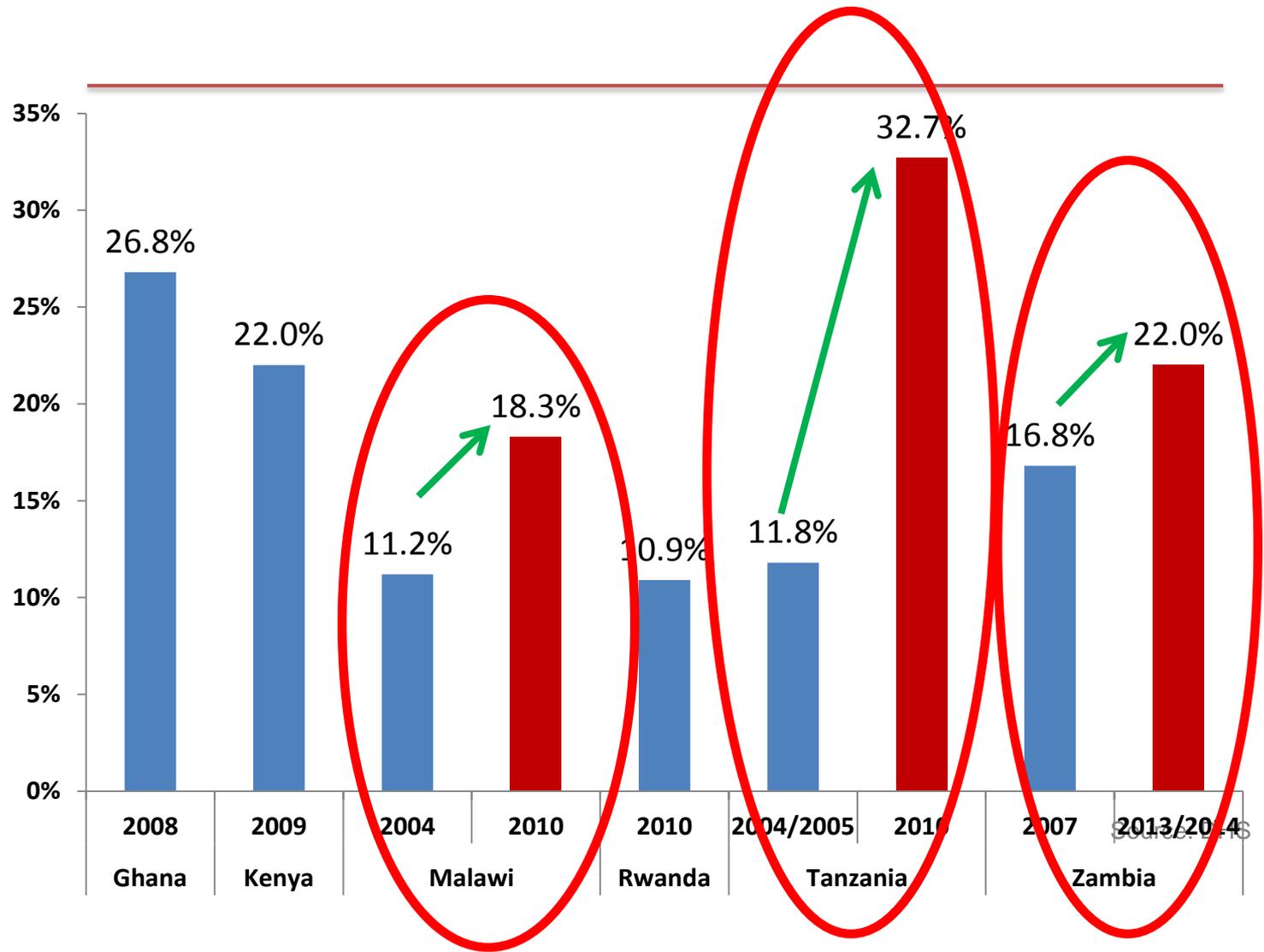
Farm size	Number of farms (% of total)		% growth in number of farms between initial and latest year	% of total operated land on farms between 0-100 ha	
	2008	2012		2008	2012
0 – 5 ha	5,454,961 (92.8)	6,151,035 (91.4)	12.8	62.4	56.3
5 – 10 ha	300,511 (5.1)	406,947 (6.0)	35.4	15.9	18.0
10 – 20 ha	77,668 (1.3)	109,960 (1.6)	41.6	7.9	9.7
20 – 100 ha	45,700 (0.7)	64,588 (0.9)	41.3	13.8	16.0
Total	5,878,840 (100%)	6,732,530 (100%)	14.5	100.0	100.0

% of National Landholdings held by Urban Households

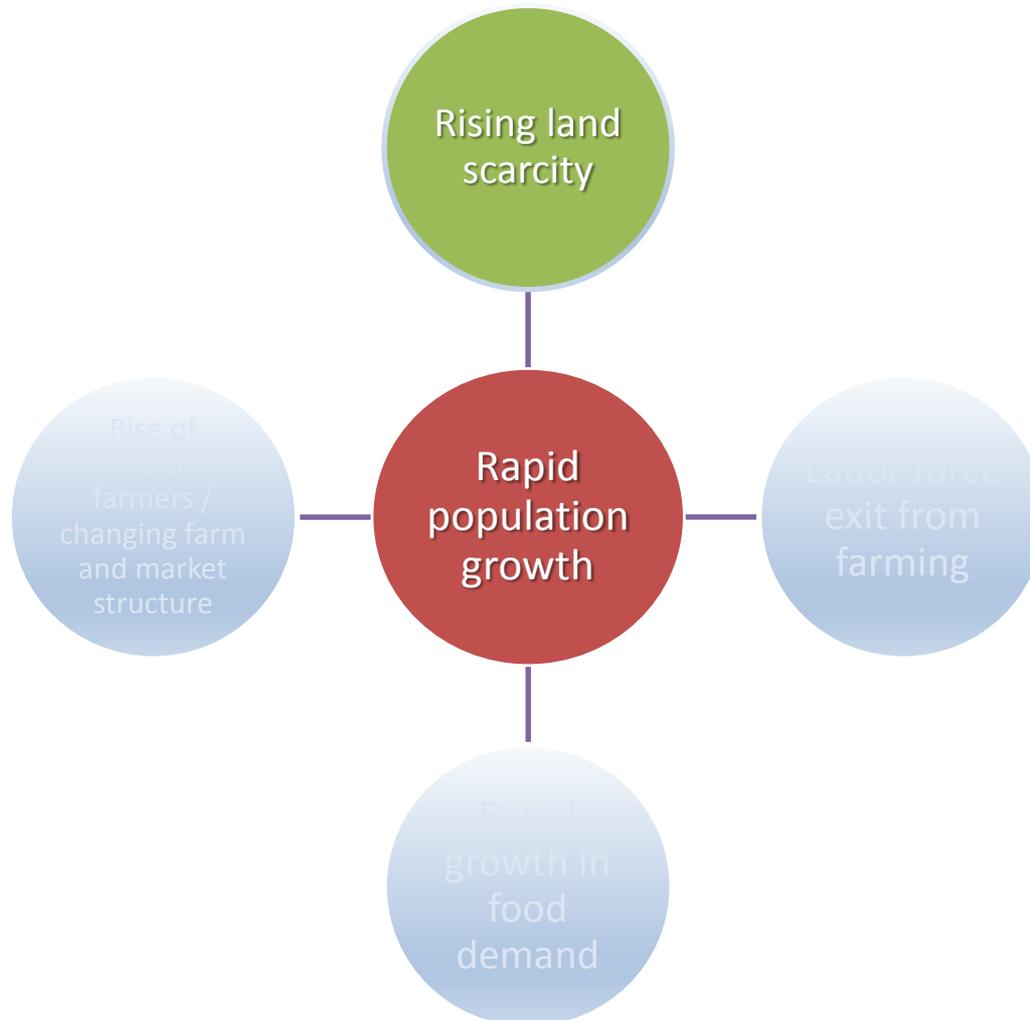


Source: Demographic and Health Surveys, various years between 2004-2014.

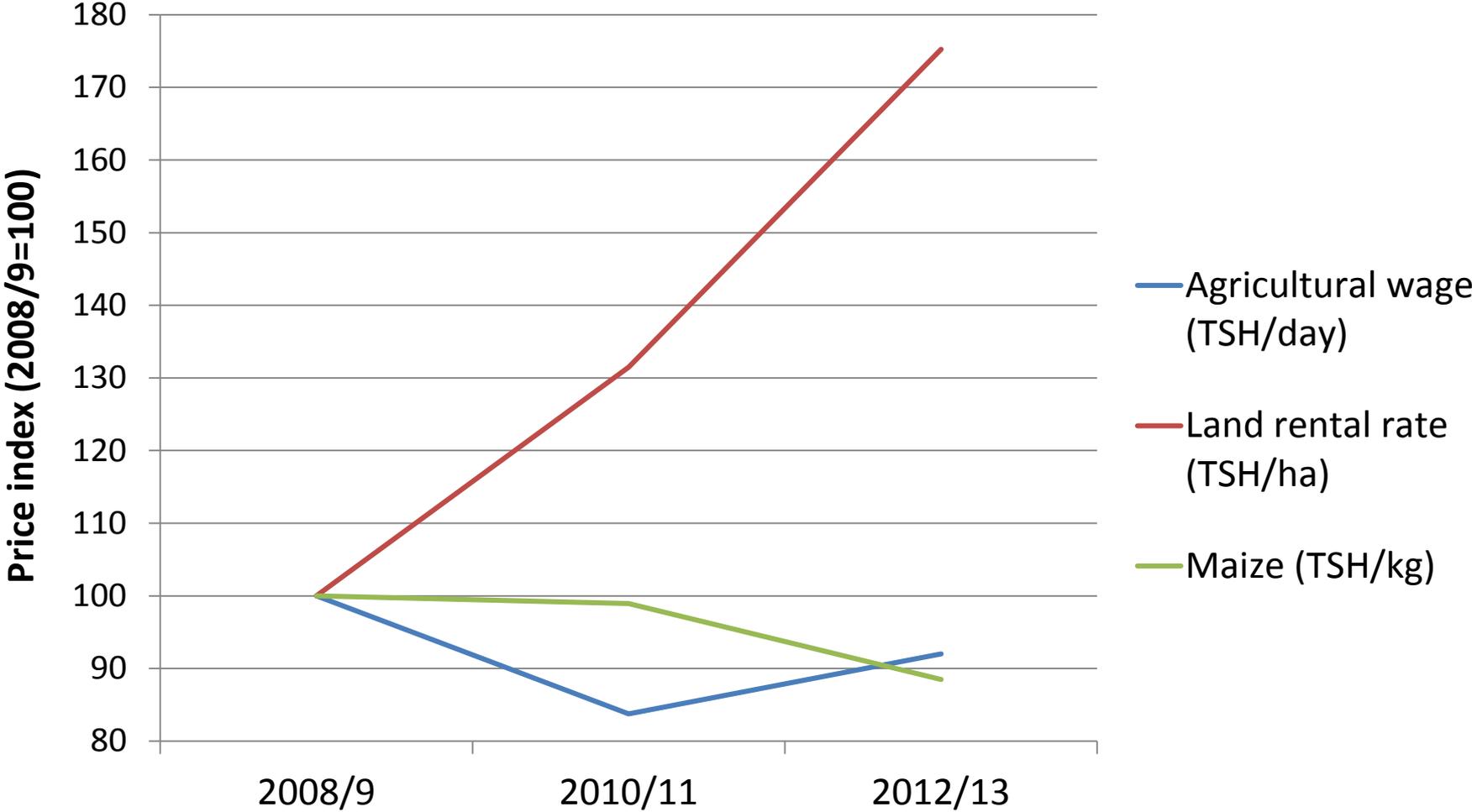
% of National Landholdings held by Urban Households



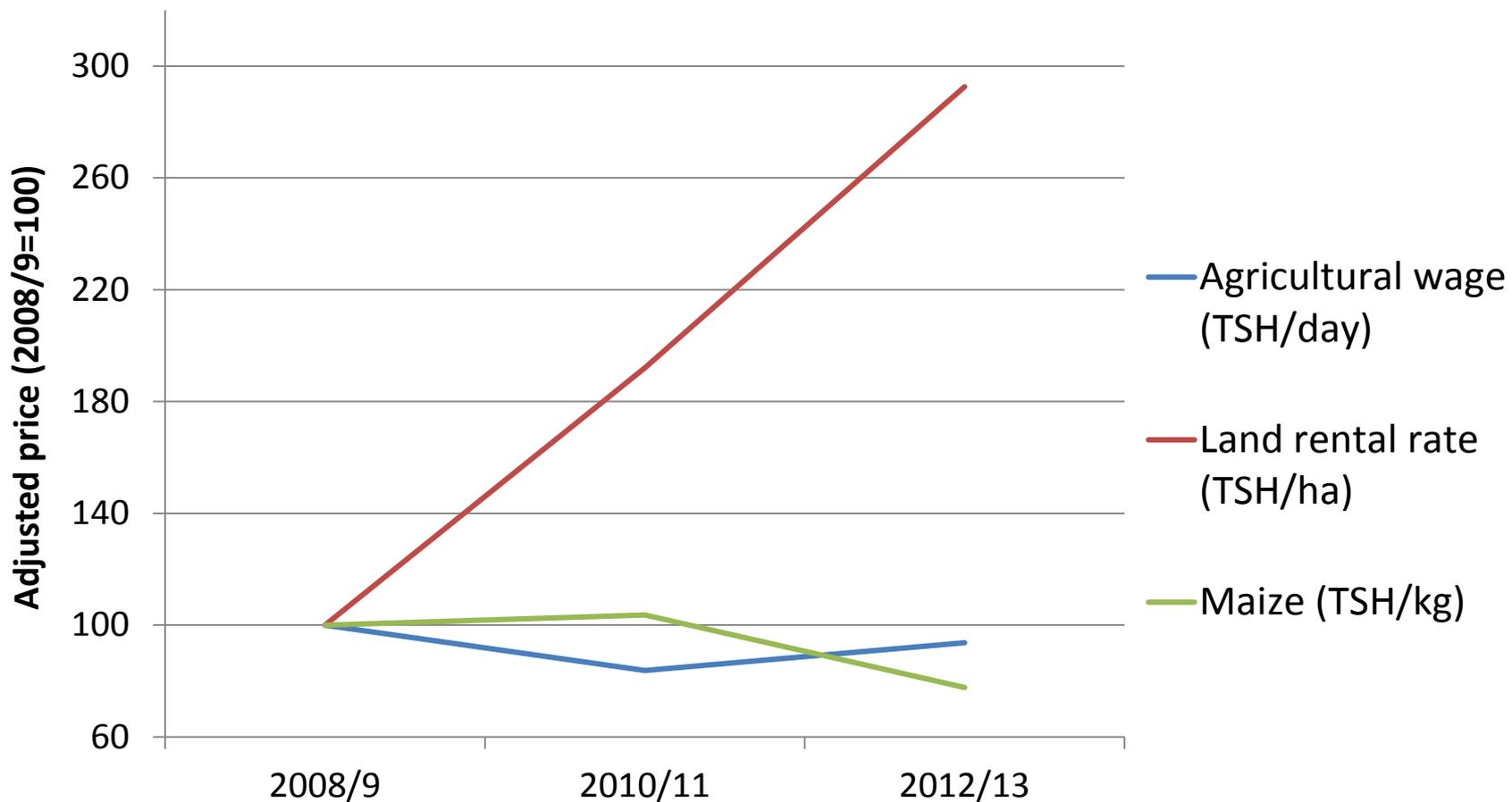
Five inter-related trends



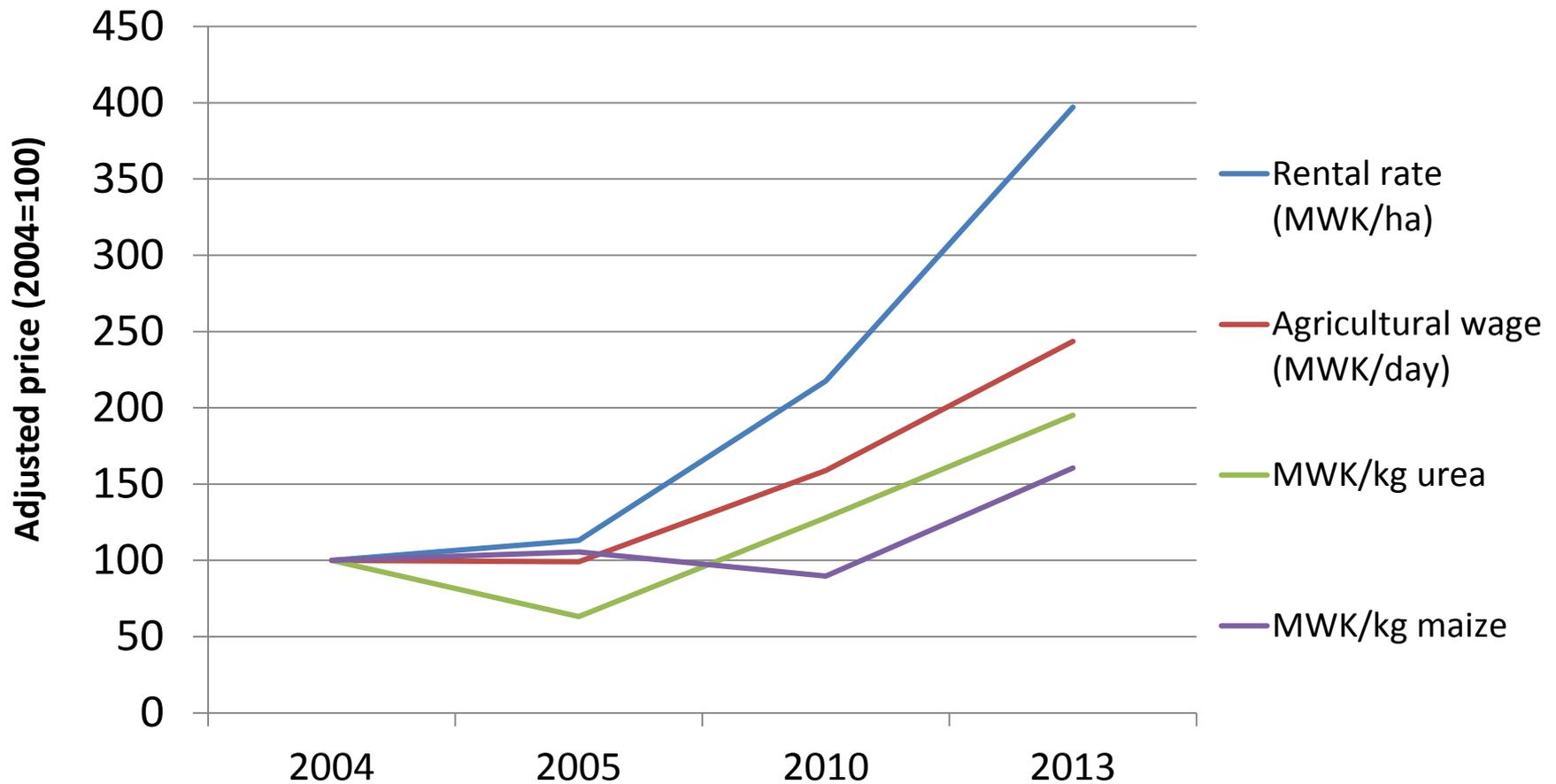
Output and factor price indices, northern Tanzania



Output and factor price indices, western Tanzania

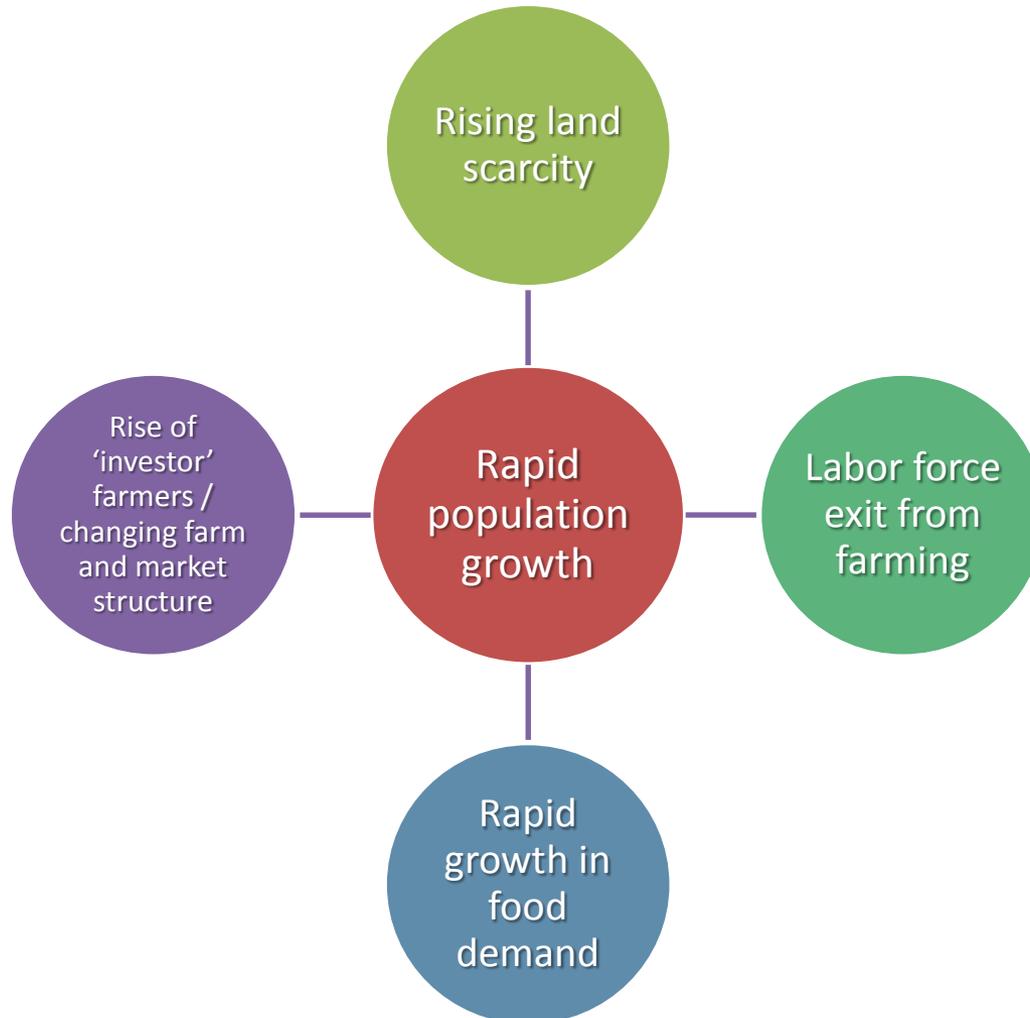


Output and factor price indices, rural Malawi, 2004-2013

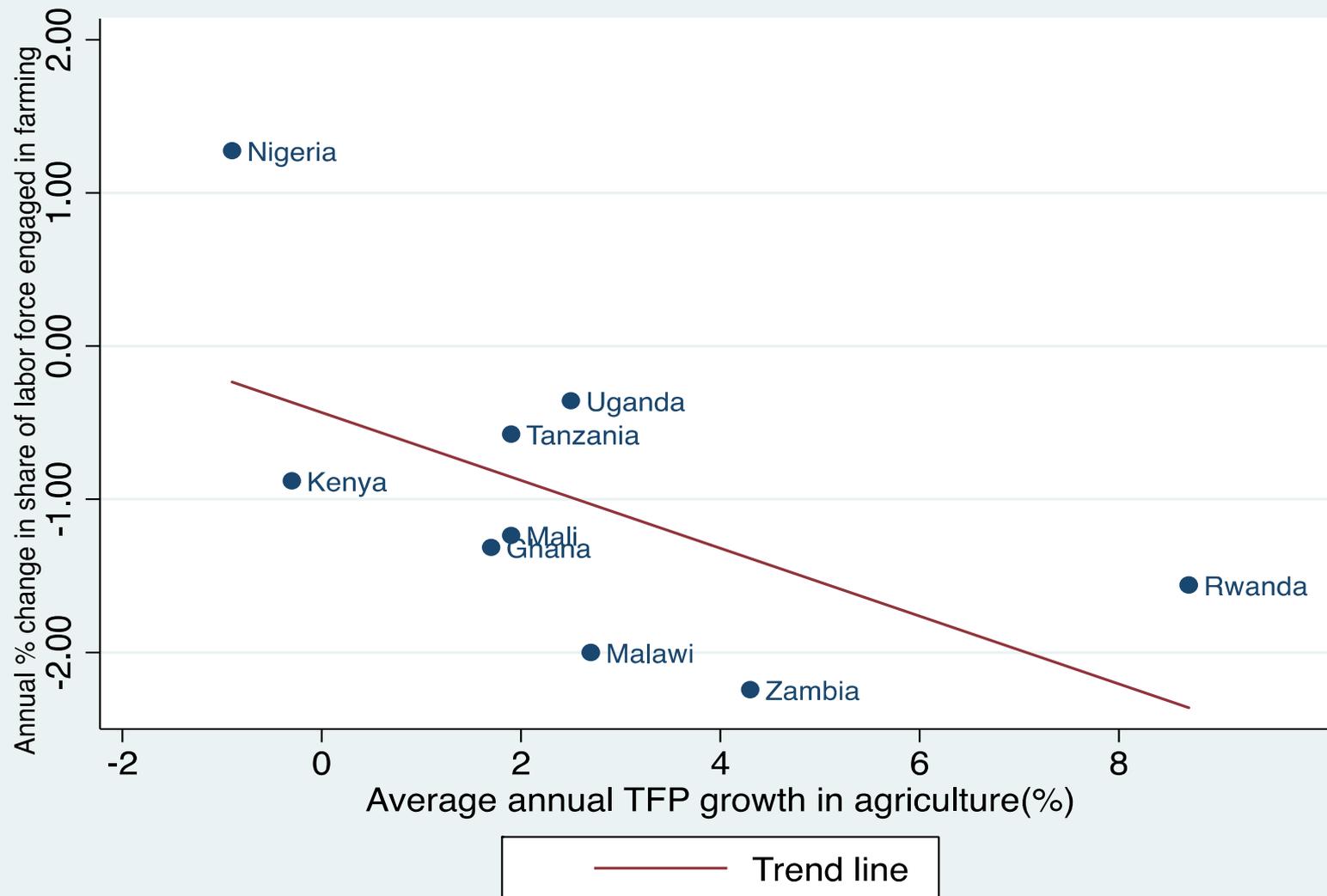


Sources: IHS for land and wages; FEWSNET for urea and maize

Five inter-related trends



Share of labor force in farming is declining most rapidly where agricultural productivity growth is highest



Non-farm labor productivity growth linked to lagged agricultural productivity growth

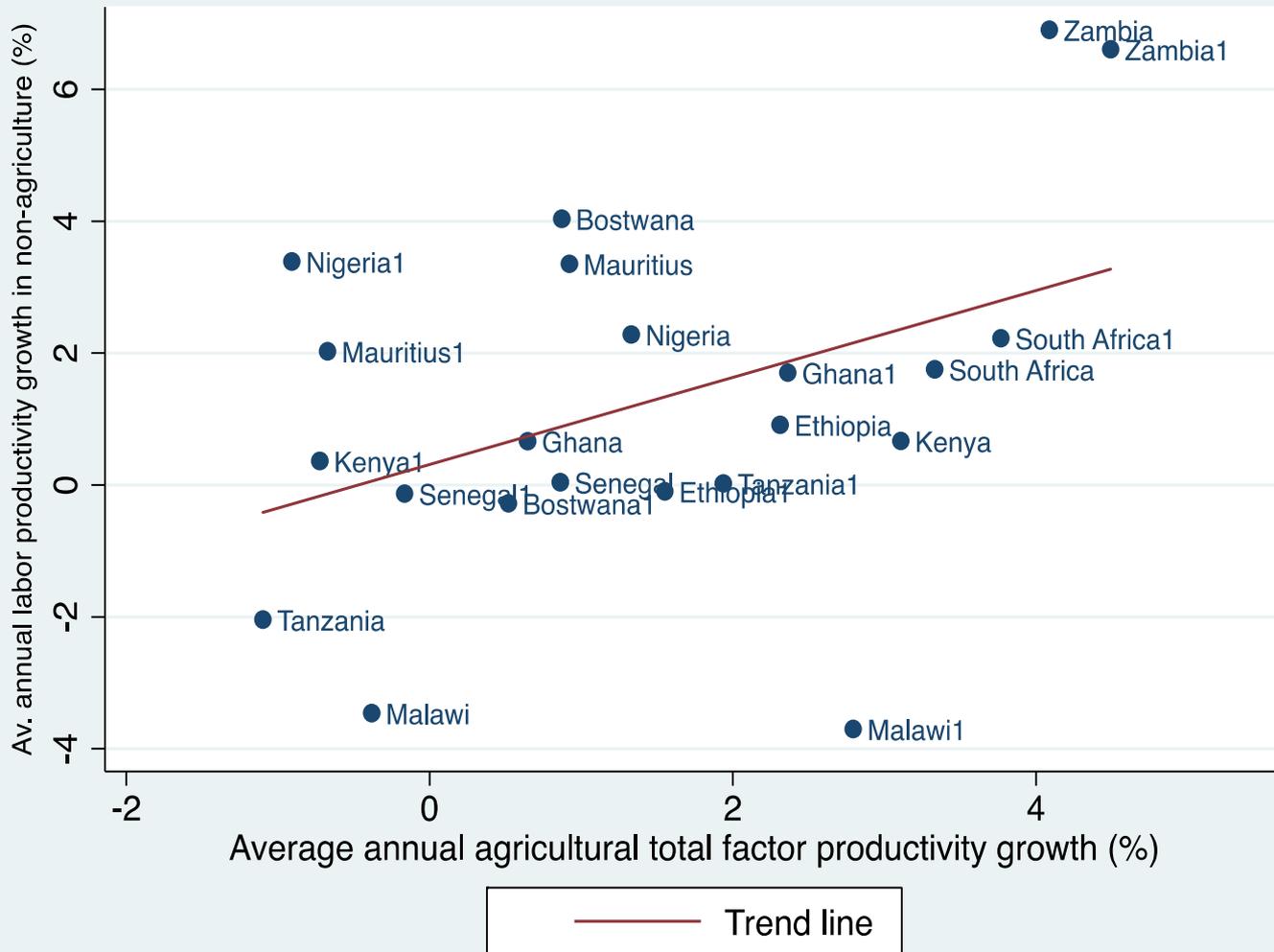


Table 1. Factors associated with changes in proportion of labor force in farming, 11-country annual pooled data, 1995-2011

	Fixed effect model	
	(i)	(ii)
Log lag labor productivity in agriculture	-0.133* (-2.15)	-0.284** (-2.77)
Log lag labor productivity in non-agriculture	-0.0121 (-0.23)	-0.176 (-1.89)
Other covariates		
Index of governance (lagged)	-0.0205 (-0.45)	0.0698 (1.06)
Time trend	-0.00961*** (-4.62)	-0.00458 (-0.96)
Population density	-0.00181 (-1.51)	-0.00475 (-1.89)
Road density	-	-0.000260 (-0.21)
Constant	-0.519** (-3.07)	0.0690 (0.20)
Number of observations	161	78
Number of Countries	11	10
Adjusted/Overall R-square	0.71	0.87
Time period	1995-2011	1995-2011

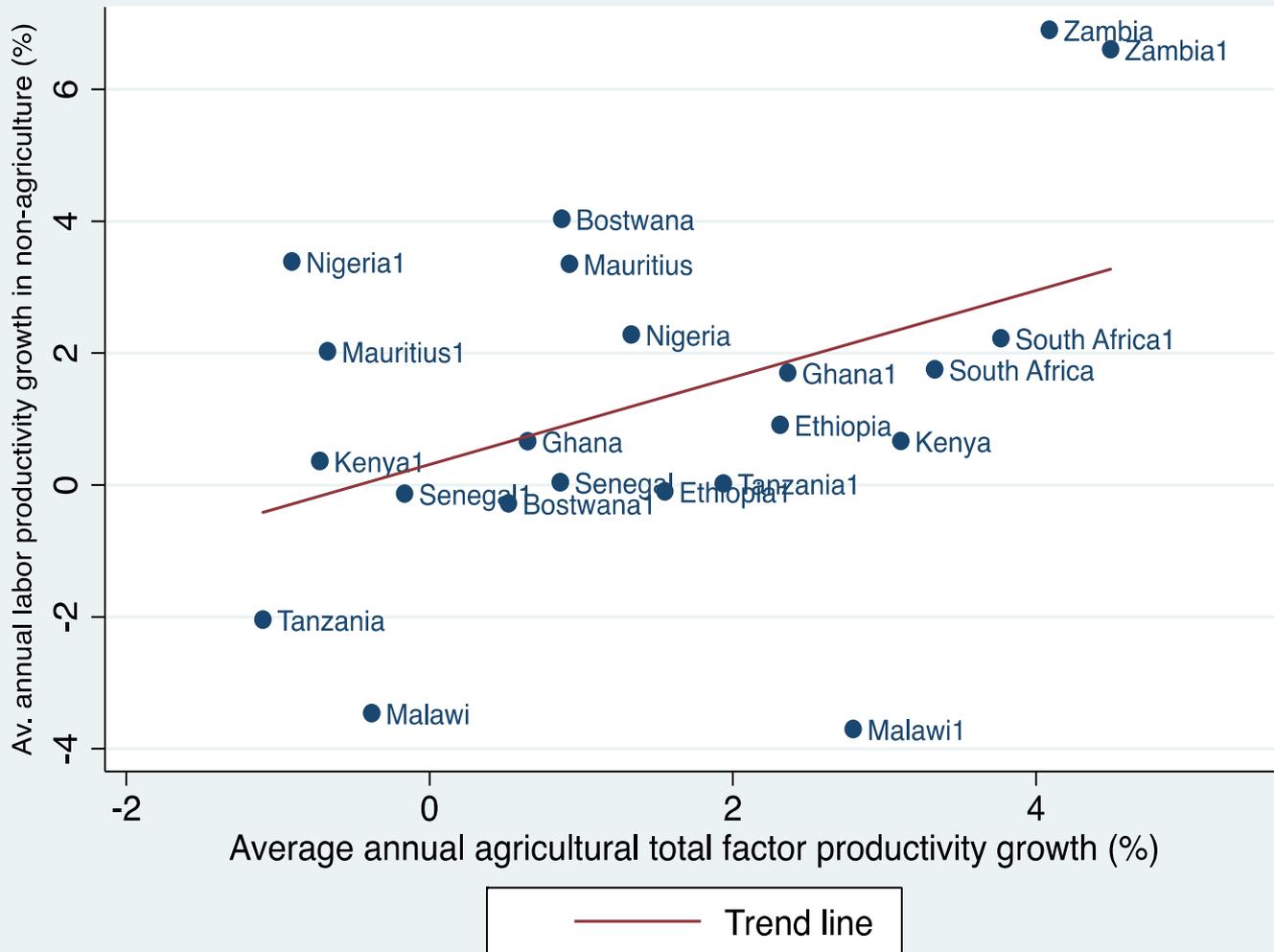
Conclusions

1. Goal of INDUSTRIALIZATION in Tanzania will require inclusive agricultural productivity growth!
2. Performance of farm sector will continue to exert major influence on job growth in overall economy
 - Multiplier effects
 - Ag productivity growth influences
 - pace of labor force exit out of farming
 - Labor productivity in broader economy
3. What will ag sector look like in era of rising land prices, youth exit out of farming, rise of medium-scale farms?

Conclusions

4. Strategies that raise productivity and profitability of farming is critical to expanding employment opportunities and improving youth livelihoods

Non-farm labor productivity growth linked to lagged agricultural productivity growth



Conclusions

4. Strategies that raise productivity and profitability of farming:
 - Agricultural R&D and extension systems
 - Improved seed + fertilizer: crucial but incomplete
 - Farm management “best practices”
 - Well resourced public agricultural institutions
 - Basic education, soft skills
 - Inspiration
 - Policy/enabling environment to attract private investment

Bottom line: goal of INDUSTRIALIZATION in Tanzania will require inclusive agricultural productivity growth!

Thank You



Farming remains key source of new jobs but largest source of new FTE jobs come from non-farm sector

Sectoral shares in new FTE jobs created

