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Agrifood sector transformation and its implications on development of small farmers in Kazakhstan

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26-27 March 2015, Kaliningrad, Russian Federation
Integration processes in the CIS region and their implications for agricultural trade

Leibniz-Gemeinschaft

Content

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- Structural changes in Central Asia
- Emerging export opportunities
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Structural changes in Central Asia

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- Collectivization process during the FSU period
  - establishment of kolkhozes and sovkhozes
  - State procurement organizations and retail outlets instead of bazaars
- Collapse of agrifood sector in the early years of independence
  - High importance of subsistence farming
  - Growing share of food imports
- Developments in the last decade
  - Growing share of industry in GDP
  - Urbanization process
  - Re-emerging processing industry
  - Growing share of formal retail outlets

Emerging export opportunities

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Russia Looks to Boost Food Imports from Central Asia

Published by John C. K. Daly — December 22, 2014

SILK ROAD REPORTERS

Узбекистан к 2016 году может вдвое увеличить поставки овощей и фруктов в РФ

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Дата: 07.08.2014 11:39

НОВЫЙ ВЕК

Russian, Uzbek presidents to discuss boosting agricultural supplies to Russia

World December 10, 3:54 UTC+3

TASS

Читайте 13:36 []

Россия заинтересована в поставках плодоовощной продукции из Таджикистана

Almazbek Atambayev: Kyrgyzstan's accession to CU opens opportunities for local farmers

15/11/14 09:37, Bishkek – 24.kg news agency, by Darya

EURASIANET.org

Central Asia Stands to Gain as Russia Bans Western Food

August 8, 2014 - 2:30am, by *Chris Rickleton* Inside the Cocoon Eurasian Union Kazakhstan Kyrgyzstan Sanctions Tajikistan

TASS

Tajikistan to hugely raise fruit, vegetable exports to Russia

Economy August 12, 14:34 UTC+3

Казахстан возобновит поставки мяса в РФ и наладит экспорт в страны ЕС и ВТО

РОСБАЛТ

Constraints to boost agri-exports

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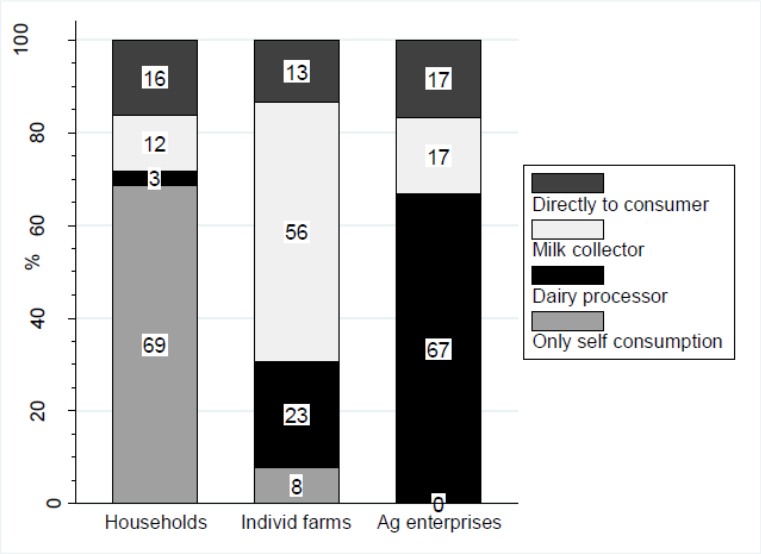
"…we shouldn't expect that our products to get straight to the supermarket shelves (in Russia)."	
"…the country must meet Russia's import requirements."	
"….the lack of a specialized laboratory that gives international certificates."	
"…to think about increasing the added value of our products."	
„…fruit and vegetable products from these countries do not always meet the phytosanitary regulations of the Customs Union"	

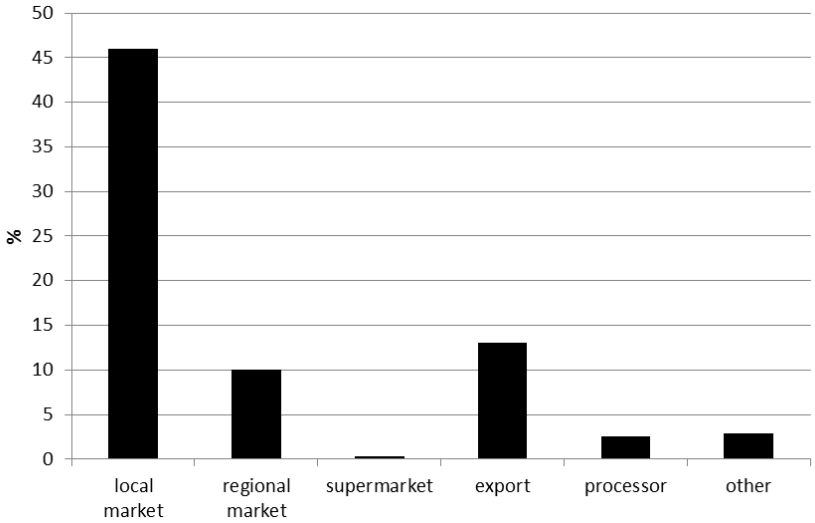
→ *Are there any additional challenges that need to be taken into account?*

Farm level marketing options



Marketing options in Kazakhstan

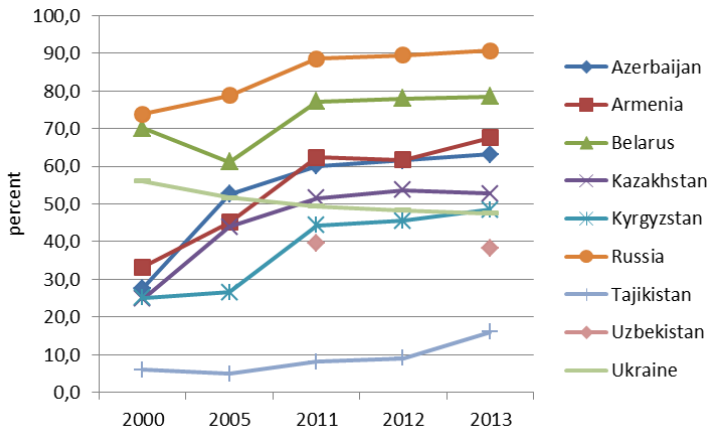
Source: Petrick and Oschakbayev, forthcoming



Marketing options in Kyrgyzstan

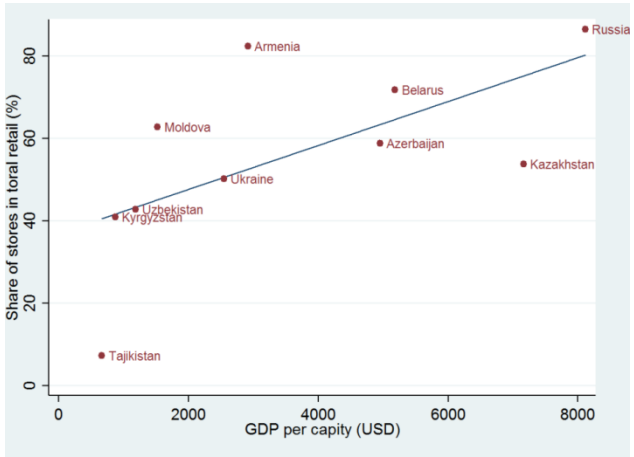
Source: own estimation based on DIW, 2011

Retail modernization in CIS

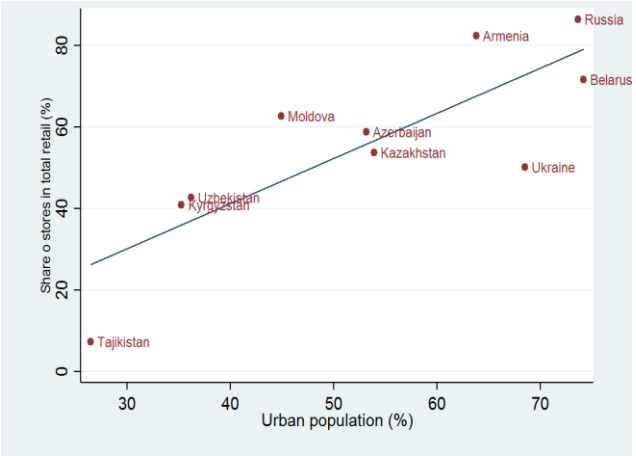


Share of modern retail (trade organization)

→How do these developments in the supply chain impact on small producers' welfare in CA?



Retail modernization and GDP per capita



Retail modernization and urban population

Source: own presentation based on CISStat (2014)

Case study: Kazakhstan

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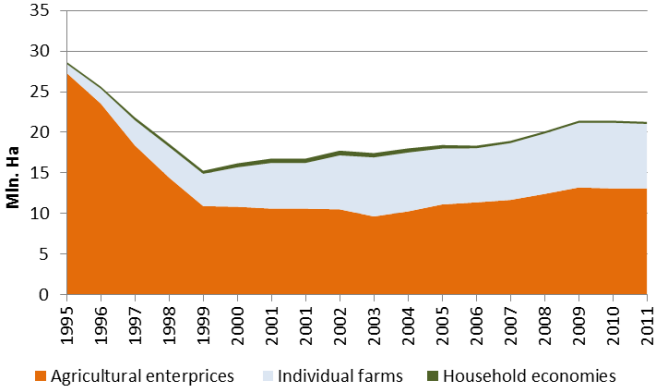
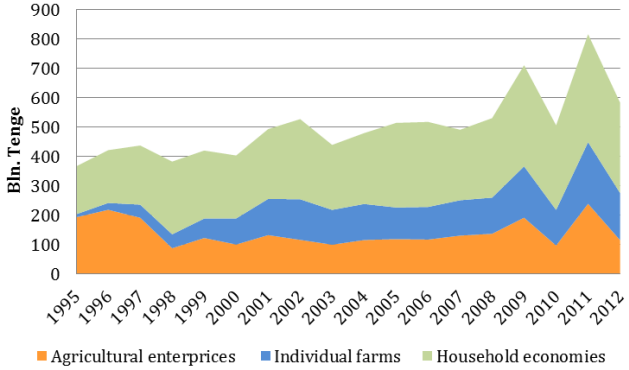
Large

Small

- Large share of land occupation by enterprises
- Monoculture in grain but important role in the export growth
- High volatility of production associated with weather and prices
- Low input use strategy as risk management option (e.g. insurance does not provide hedging effect)
- Diversified production patterns at smaller units
- Production of high value commodities (comparative advantage)



Land use for crop production by farm types



Gross Agricultural Output by farm types

Average farm sizes in 2011

	farm size, ha
Agricultural enterprises	6900
Individual farms	286
Households	0,11

Source: Statistical Agency of Kazakhstan

Transformation in *agrifood* sector

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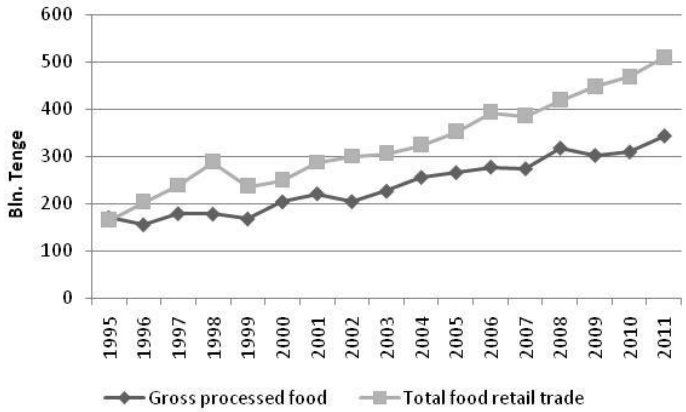
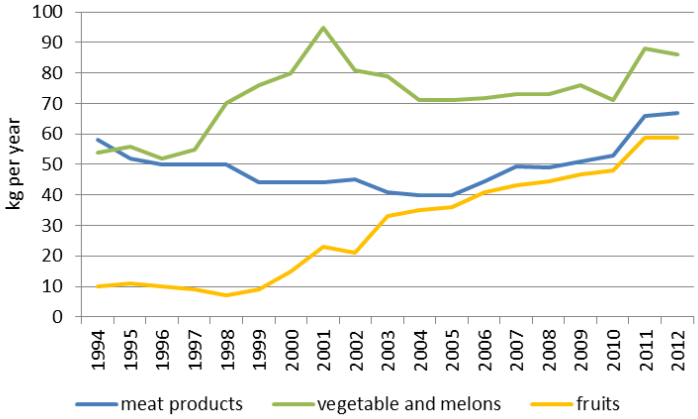
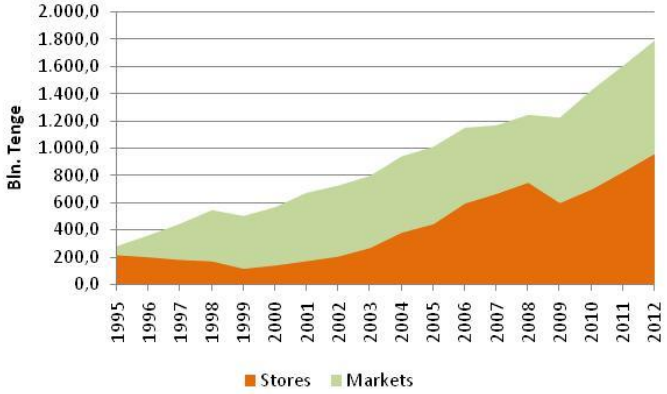
- Growing demand for packaged and processed food
- Growing share of formal retail channels
- Growing demand for fruit, vegetable and livestock products
- Developments in the processing industry



Food retail trade and processed food volume



Per capita consumption of some commodities



Gross value of retail trade according to the trade channels

Regional diversity in agriculture

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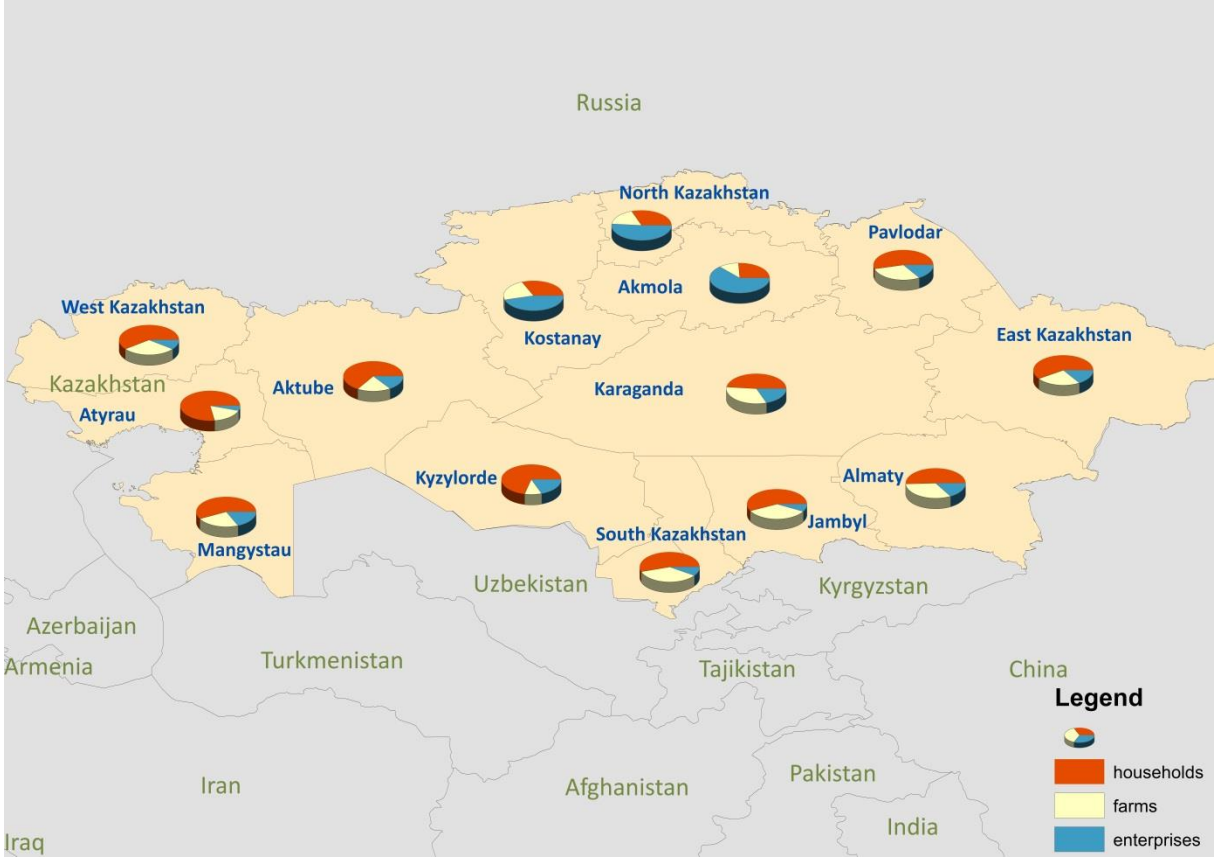
- Agro-ecology
- Population density and land availability
- Off-farm employment options
- Market infrastructure and access
- Processing industry
- Contract options



Share of farm types in Gross Regional Agricultural Product in 2011;
Source: Own presentation based on data from StatKaz (2012)

Data

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Panel data from 14 regions of Kazakhstan for the period 1995-2011:

- Gross agricultural output of individual farms
- Gross agricultural output of households
- Retail food trade
- Value of processed food
- Share of modern trade outlets
- GRAP and GRIP
- Share of livestock production in ind. farm revenues
- Share of livestock production in household revenues
- Prices of main agricultural products

Photo: Prischepov, 2013

Determinants of agrifood sector development

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	Modern retail		Food processing	
	Coefficient	Std. Err	Coefficient	Std. Err
GRP per capita	-0.179	0.09	-0.117	0.12
Urbanization	0.417*	0.19	0.617*	0.25
Information services	0.050**	0.02	-0.027	0.02
Marketing and advertisement services	0.078*	0.04	0.118*	0.05
Constant	1.512*	0.75	6.136***	0.98
R^2	0.828		0.921	
Adjusted R^2	0.798		0.907	

*Legend: * p<0.05; ** p<0.01; *** p<0.001*

Impact on individual farmers' revenues

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	Coefficient	Std. Error
Retail food trade	0.335***	0.08
Modern retail	0.241*	0.11
Food processing	0.351**	0.11
Share of livestock production in farm revenues	-0.220***	0.05
Share of non- agricultural sector in GRP	-0.637***	0.16
Grain price	0.300*	0.14
Meat price	0.514**	0.18
Neighborhood with Almaty oblast	0.718***	0.19
constant	-8.696***	2.52
R^2	0.941	
Number of obs. (N)	180	

*Legend: * p<0.05; ** p<0.01; *** p<0.001*

Impact on household producers' revenues

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	Coefficient	Std. Error
Retail food trade	0.022	0.032
Modern retail	0.118**	0.044
Food processing	-0.001	0.043
Share of livestock production in household revenues	-0.535***	0.099
Share of non-agricultural sector in GRP	-0.155*	0.061
Grain price	-0.008	0.058
Meat price	0.092	0.073
Neighborhood with Almaty oblast	0.483***	0.076
constant	5.998***	0.997
R^2	0.962	
Number of obs. (N)	193	

*Legend: * p<0.05; ** p<0.01; *** p<0.001*

Results

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- Important role of urbanization process on agrifood sector development
- Increasing food retail enabled small farms to improve their revenues
- Individual farmers gain more benefits compared to household producers
- Structural changes in retail have positive impact on private farms, but not on households
- Food processing has positive effect on individual farms and limited impact on household producers
- Access to market has significant positive effect, especially for individual farms

Conclusions

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- Important role of industrialization and urbanization
- Spillover effects of agrifood industry development to small producers
- Need for investment into rural infrastructure (e.g. roads, service organizations)
- Slow developments in the formalization of the procurement mechanisms
- Reducing transaction costs for household producers in order to boost export potential of the country

Thank you for your attention!!!

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