

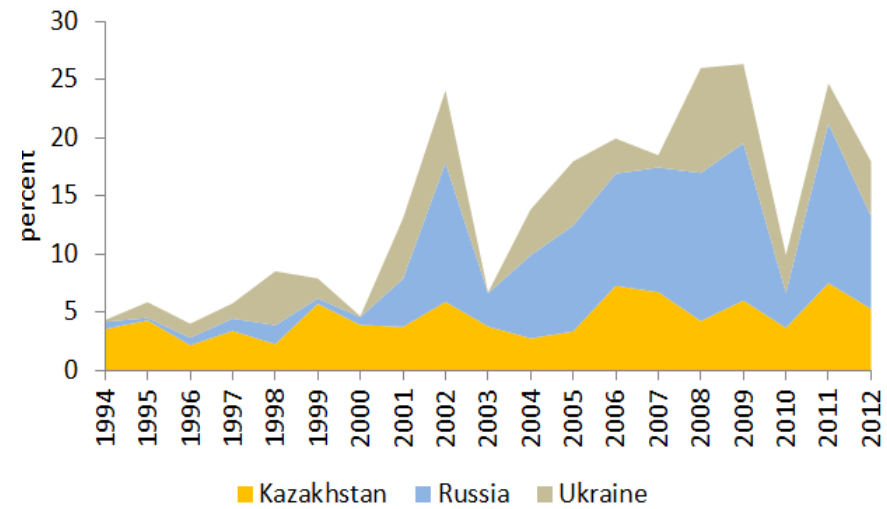
Farmers' perceptions of farm-level effects of recent changes in agricultural policy and macroeconomic developments in Russia

*IHTIYOR BOBOJONOV, LINDE GÖTZ, MARTIN PETRICK,
HEINRICH HOCKMANN AND THOMAS GLAUBEN*

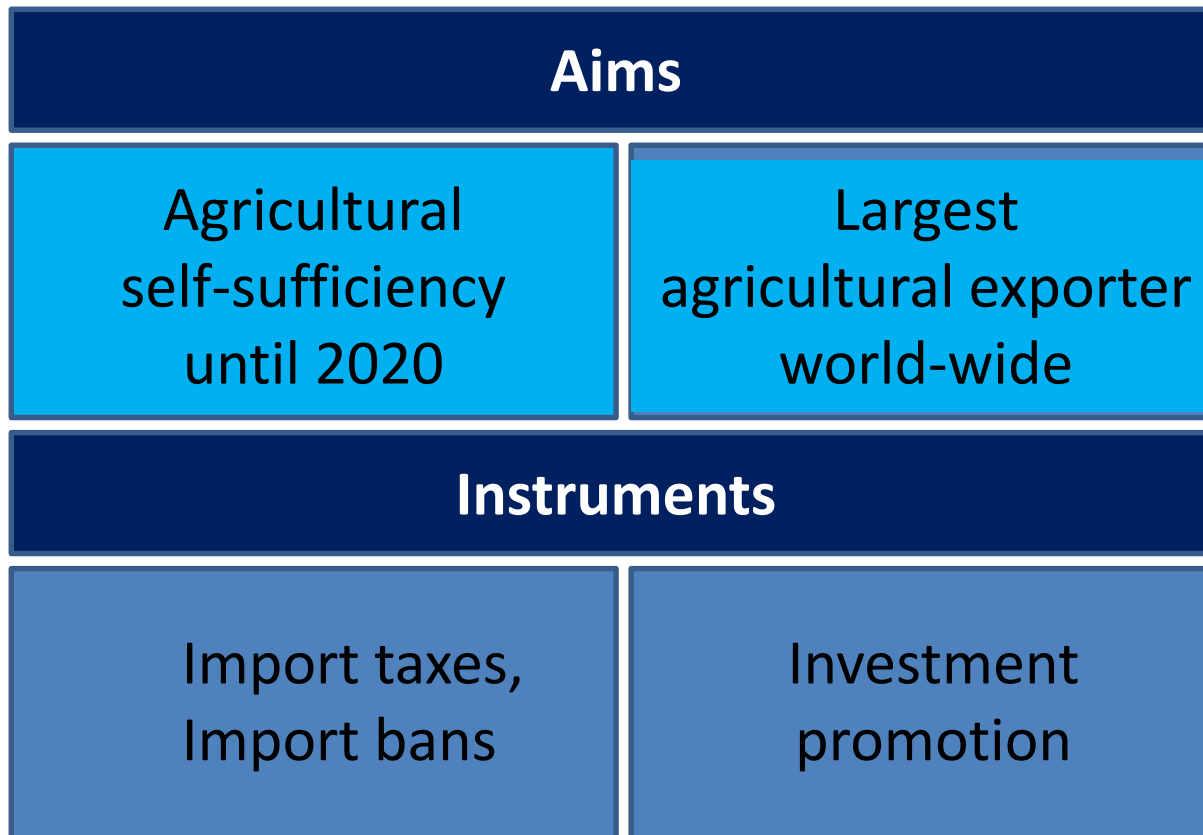
Samarkand Conference
2-4 November 2016
Samarkand, Uzbekistan

- Introduction
- Recent macroeconomic changes
- Research questions
- Data and data properties
- Farmers' perceptions of recent changes
- Factors influencing productivity
- Preliminary conclusions

- 200 million ha agricultural land
- Large-scale black soils
- Population 144 million
- Large agricultural & food importer
- Largest grain exporter world-wide 2016/17
- Huge additional agricultural production potential
- Import substitution policy

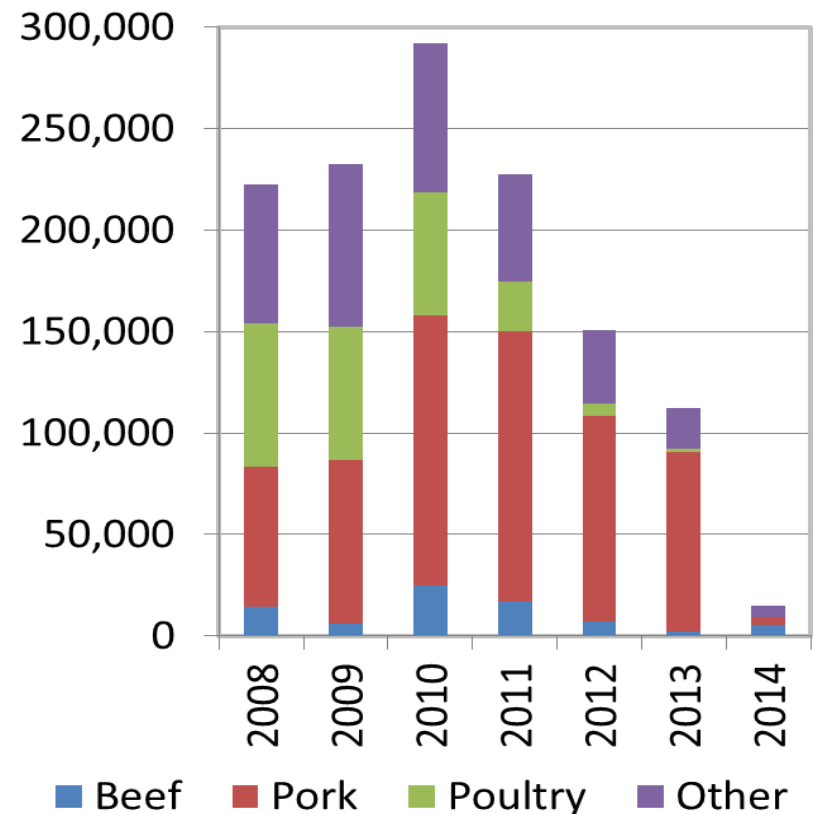


Development share of RUK's wheat exports in total world exports



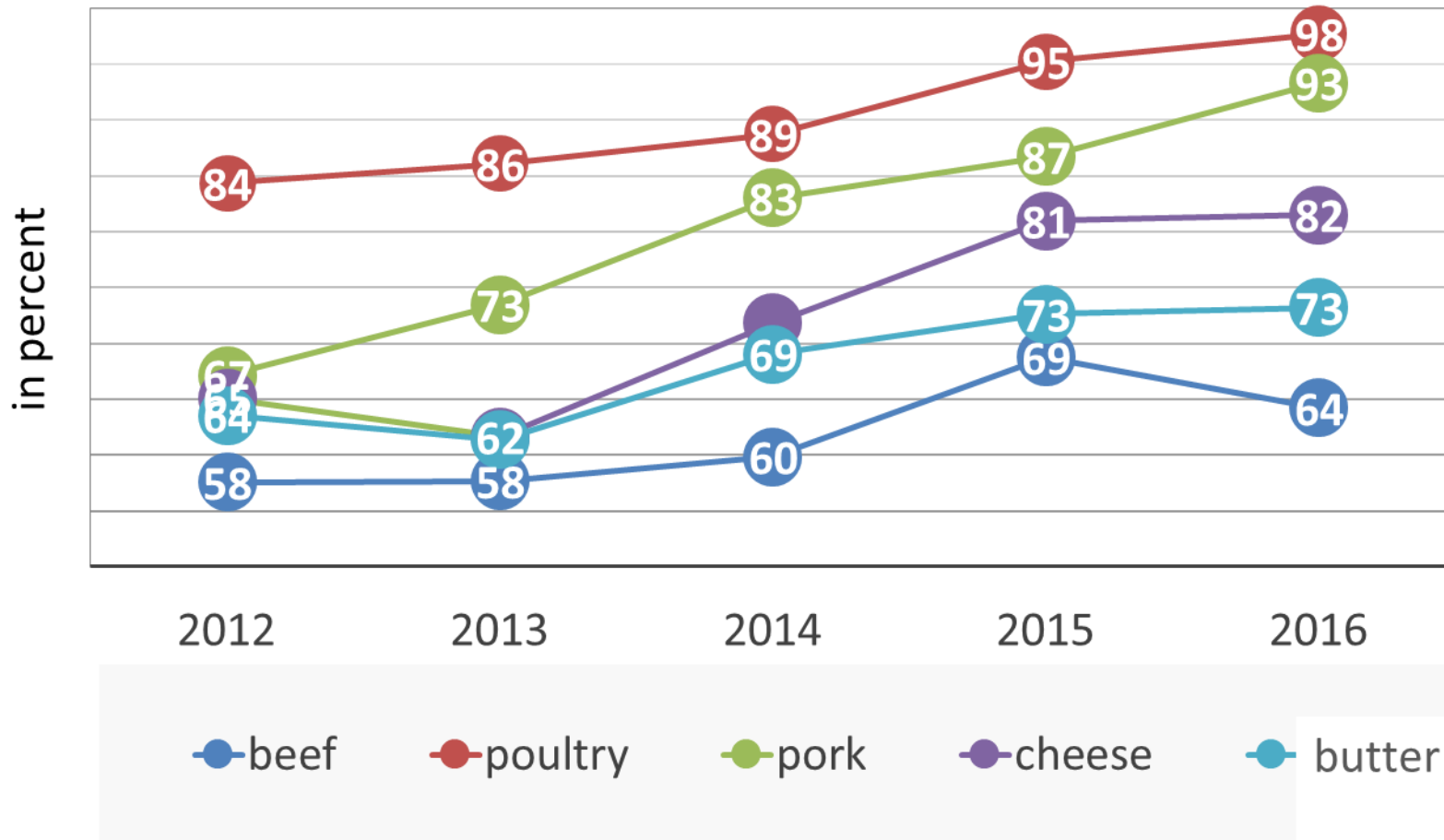
- Phytosanitary related import disruptions
- Sanctions of western countries against Russia
- Counter sanction measures, import ban of agricultural products
- Decline in oil prices
- Devaluation of the Rouble exchange rate

Germany's meat exports to Russia



Data source: COMTRADE

Self-sufficiency Russia



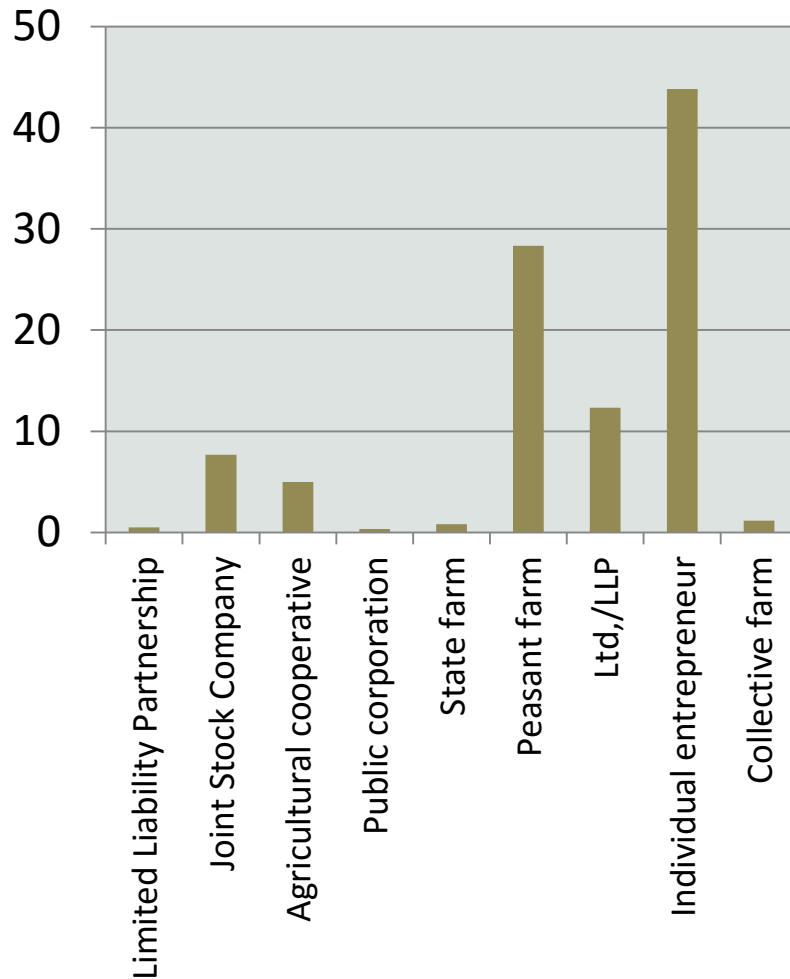
Source: Own illustration, data: USDA

- What are farm-specific effects of recent macroeconomic & agricultural policy developments?
- Which policies are successful in mobilizing production potential of agricultural producers?

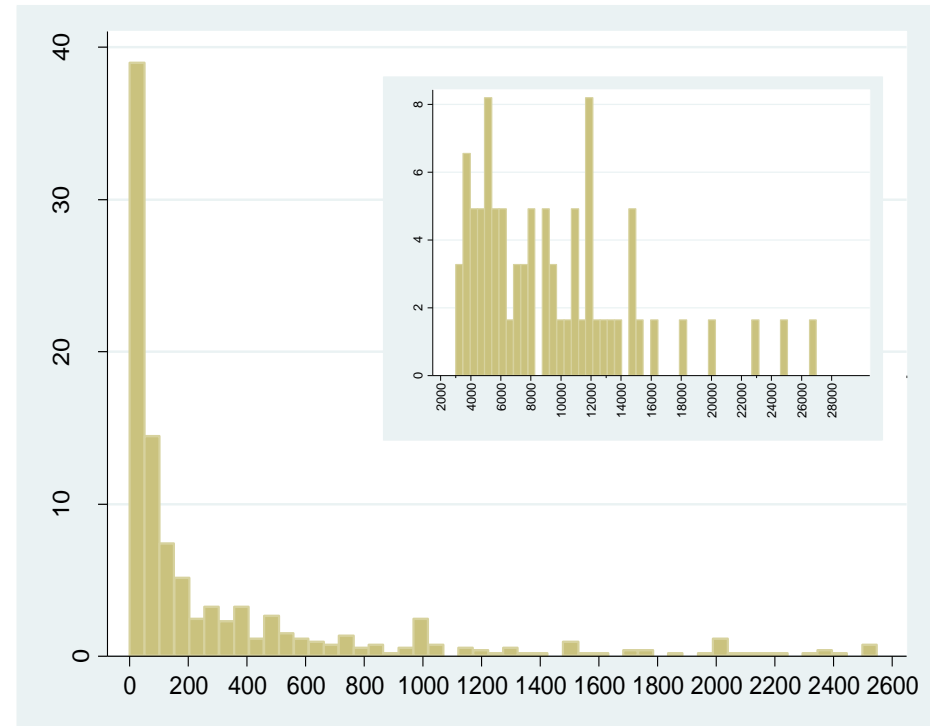
- Farm survey conducted in Russia (600 farms) and Kazakhstan (200 farms) in 2015
- Farm survey in Russia covers Stavropol, Novosibirsk, Belgorod, Riazan and Altai
- Questionnaire addresses a wide variety of topics, e.g.
 - Land ownership
 - Production & marketing
 - Inputs and assets
 - Human resources
 - Investment and finance

Farm type and farm size

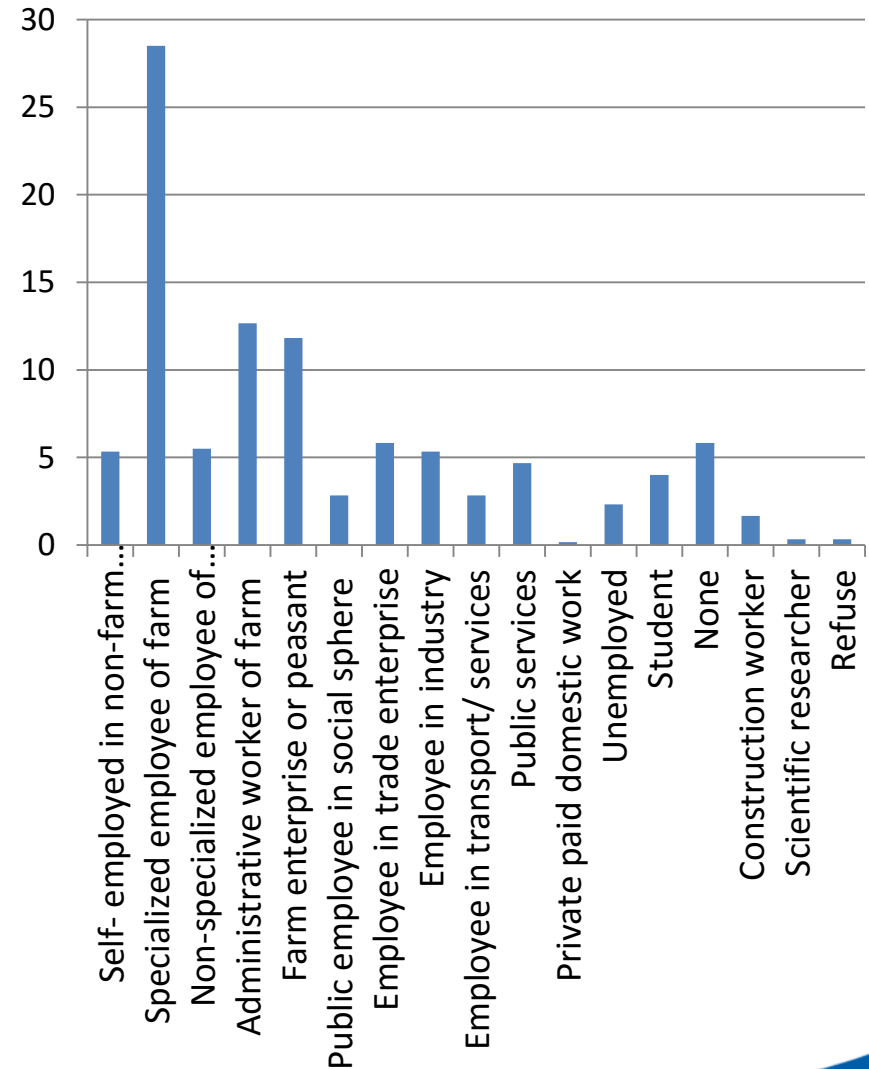
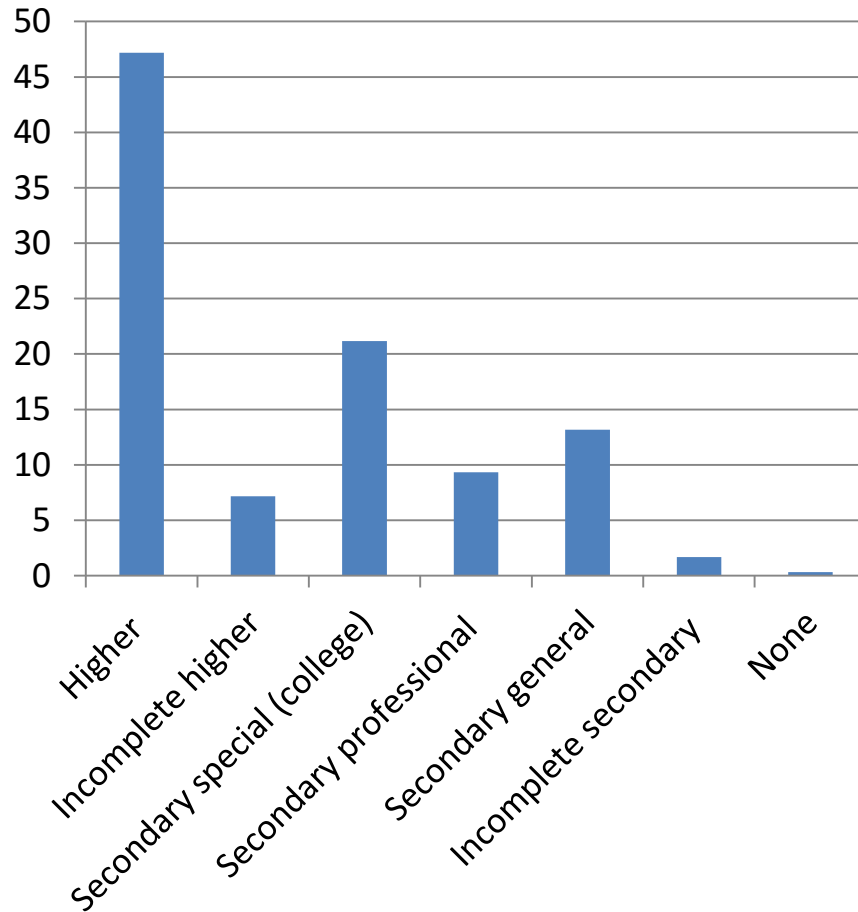
Type of farms in the survey



Distribution of farm size

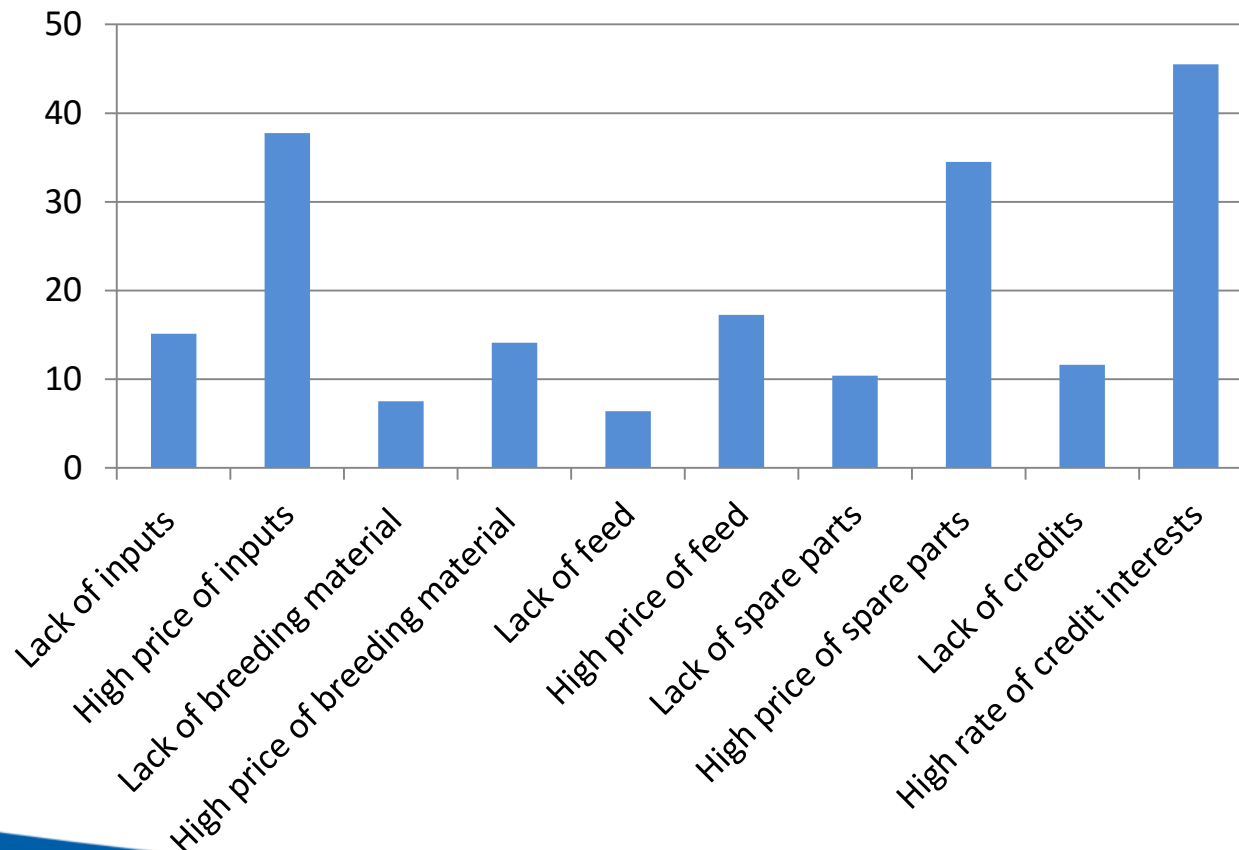


Education and former employment



Impact of macroeconomic changes on farmers' perceptions

- Did changing trade relations of Russia with other countries affected your business?



Variable	Nb. Of obsv.	Mean	Std. Dev.	Min	Max
Education years	600	14,4	2,0	0	16
Female	600	0,3	0,5	0	1
Agricultural education	600	0,4	0,5	0	1
Management position	600	0,1	0,3	0	1
Age	600	48,1	10,4	20	99
Livestock production	600	0,2	0,4	0	1
Share of livestock production in the revenue	599	19,5	33,2	0	100
Agroholding membership	600	0,04	0,2	0	1
Marketing with contract	600	0,6	0,5	0	1
Subsidy access (dummy)	600	0,4	0,5	0	1
Subsidy received for crop production	585	632,6	4087,9	0	8E+04
Value of subsidies received for insurance	590	1283,8	3328,2	0	27000
Agricultural profits, Rubl	600	440492,8	2748805,0	0	6E+07
Value of machinery, Rubl	582	10500000,0	32600000,0	0	6E+08
Agricultural revenues, Rubl	565	27800000,0	173000000,0	2300	4E+09
Labor costs, Rubl	576	5589349,0	57100000,0	0	1E+09
Material and input costs, Rubl	600	4266598,0	25100000,0	0	5E+08

Determinants perceptions of input prices

	Coefficient	Standard error	Z-value	P>z
Age, years	-0,011	0,005	-1,97	0,048
Female headed farm, dummy	0,019	0,118	0,16	0,875
Employment in management positions	-0,031	0,165	-0,19	0,853
Small farm (<300), dummy	0,334	0,135	2,47	0,013
Livestock farm	0,226	0,151	1,5	0,134
Education, years	-0,038	0,029	-1,29	0,197
Agricultural education	-0,089	0,126	-0,71	0,478
Agriholding membership	-0,180	0,259	-0,7	0,486
Subsidy access	0,325	0,114	2,85	0,004
Marketing with contract	0,173	0,125	1,38	0,167
Formal supply chain access	0,151	0,126	1,2	0,231
Ryazan, dummy	-0,275	0,151	-1,82	0,069
Belgorod, dummy	-0,387	0,153	-2,53	0,011
Constant	0,528	0,507	1,04	0,298

	Coefficient	Standard error	T-value
Land	0,134	0,053	2,52
Labor costs	0,410	0,046	8,93
Material costs	0,081	0,021	3,81
Machinery value	0,236	0,066	3,57
Share of livestock in revenue	0,002	0,002	0,84
Subsidy access	-0,028	0,159	-0,18
Marketing with formal contract	0,359	0,153	2,35
Cooperative membership	-0,111	0,180	-0,61
Female headed	0,025	0,152	0,17
Agroholding member	0,990	0,319	3,1
Social education	-0,169	0,144	-1,17
Ryazan	-0,556	0,188	-2,96
Negative effect of changes (dummy)	-0,510	0,743	-0,69
Constant	4,583	0,895	5,12
Prob > F	0,000		
R-squared	0,601		

- Farmers perceive increasing expenses for inputs and materials as the main negative effect
- In Ryzan and Belgorod oblasts relatively less farmers feel affected by changes
- Younger and smaller farms feel more effected by increased input prices
- Farmers with access to formal supply chains and agroholding membership exhibit relatively higher productivity
- Farmers did not perceive negative effects of price increases on farm productivity

Thank you for your attention!!!