
Wheat production, consumption and trade in Uzbekistan

**Prepared for Regional econometric training of
young economists (Summer School)**

June 15, 2018

Outline

- Production support policies
- Consumption of wheat
- Trade policies on wheat

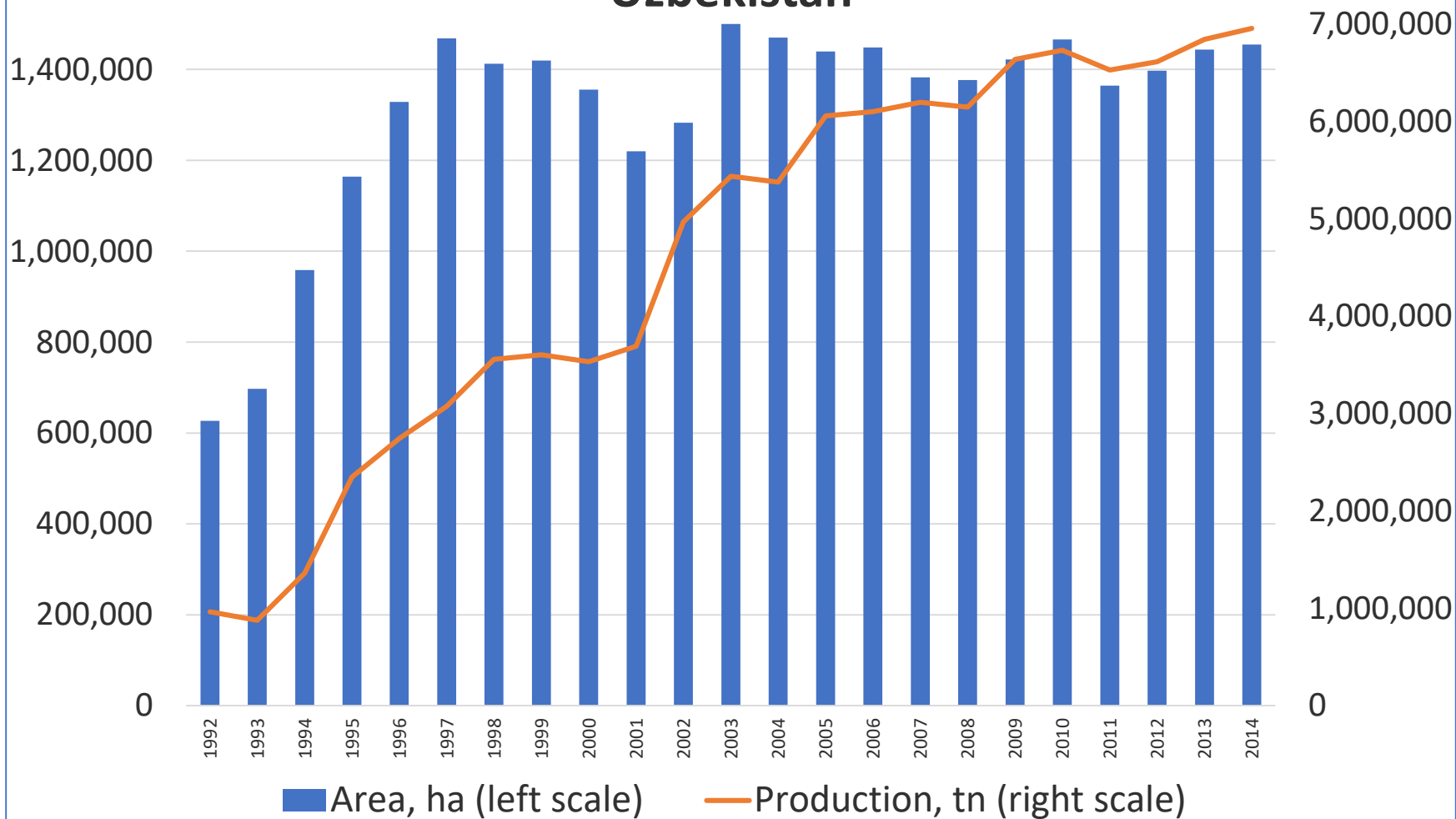
Production support policies

- Wheat (bread) is the major staple food in Uzbekistan. It represents 90% of total cereal production the rest being rice, rye and barley.
- Agricultural policies on wheat of the Government of Uzbekistan are not consistent on the one hand, the Government is committed to wheat self-sufficiency, but on the other hand the state procurement system does not provide much incentives for farmers to increase yield
- It should be noted that due to chronic underinvestment into agriculture, its share in GDP has decreased from 30% in 2001 to 17% in 2015. Official statistics shows that less than 5% of all investments is invested into agriculture.

Production support policies

- Since early 2000s, growth rate of agricultural production has exceeded growth rate of population. As a result, production of agricultural produce per capita has increased.
- Production of wheat has rapidly increased from around 610,000 tons in 1991 to 2,347,000 tons in 1995. By 2013, production of wheat has reached 6.6 mln tons.
- Wheat yield has increased by 17% in the last 10 years, second lowest yield increase after cotton yield. Wheat and cotton have been subject to the state procurement, while other crops have not been subjected to it.

Figure 1. Wheat production and harvested area in Uzbekistan



Production supply policies

- The state buys almost all of the wheat produced by farmers at a fixed procurement price, which is much below the market price for domestic wheat and flour. Compared to the other strategic crop, cotton, wheat is harvested in June, allowing farmers to cultivate a second crop during the same year. In addition, wheat can be retained for own consumption of the farmers or sold in the domestic market, which is not the case for cotton. Hence wheat provides access to cash, a major production factor.
- Government also provides support to producers in the form of bank loans, seeds, fertilizers and pest control.
- Table 2 shows that as a result of improved yields, food availability has significantly improved.

Consumption of wheat in Uzbekistan

- Wheat and wheat products (flour, macaroni, and other products) constitute major part of Uzbek people's diet
- Table 3 shows there is a clear relationship between income level and consumption of meat, dairy products, fruits and vegetables.
- It is worth mentioning that the poorest 20% of households get 73% of their daily calorie intake from cereals, and primarily from wheat.

Wheat consumption

- The wheat consumption norm in Uzbekistan is 110 kg flour/person/year, or 147 kg wheat equivalent. However, data from household surveys indicates that actual consumption is much higher: some estimates put it between 167 and 180 kg bread (Cornia et al., 2003 and Christenson, 2003).

Figure 2. Unit Price of a Loaf of Bread, in Uzbek Soums

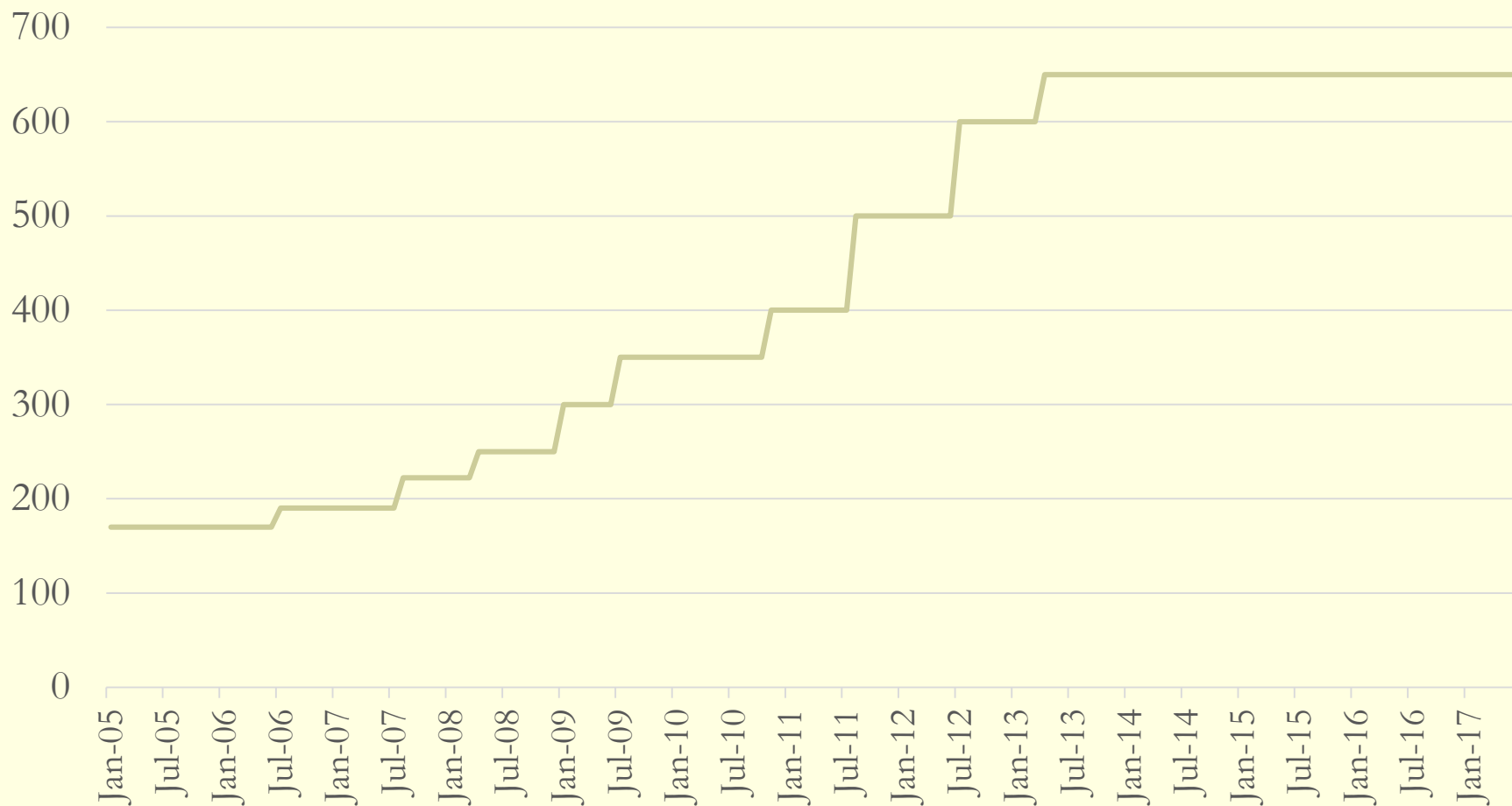


Table 1: Average Domestic Market Prices and Average State Procurement Prices for Wheat

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Average domestic market price, thousand soums per ton	356	520	560	720	1050	1150	1200	1400	1900	2500
Average state procurement price, thousand soums per ton	171	187	224	262	336	378	420	462	504	551
Difference between market prices and procurement prices, times	2.08	2.78	2.50	2.75	3.12	3.04	2.86	3.03	3.77	4.54

Source: The Cabinet of Ministers' resolutions for state procurement prices and *Potrebitel* newspaper for domestic market wheat prices

Policy options

- Abolish the state procurement system and privatize the state-owned mills and bakeries
- Introduce a number of changes that would significantly improve efficiency of wheat production and consumption without abolishing the state procurement for wheat
- Help farmers diversify their income sources from various crops and assist households to diversify their nutritional intake
- Build and maintain a national statistical capacity to collect timely and reliable statistics on crop production, trade, and consumption, including wheat

Wheat consumption

- Parpiev and Yusupov (2011) test an intriguing possibility that bread might be an inferior consumption good. To test this, Parpiev and Yusupov (2011) construct a Tobit estimation with bread as a dependent variable and per capita expenditures and household size as an explanatory variables among others. The results show that income elasticity of bread consumption for full sample, as well as for all four quartiles of population is consistently negative and statistically significant, indicating that bread is an inferior and income inelastic good (necessity).
- The inferior nature of bread in Uzbekistan means that people, especially the poorest households, might be consuming too much bread than they really would like. And when income increases, they will decrease their consumption of bread by substituting it away with other more desirable food.

Table 4. Tobit estimations: Dependent variable – Bread

	Full sample	Poorest	2nd quartile	3rd quartile	Richest
Log PCE	-0.053***	-0.065**	-0.078**	-0.071***	-0.03***
	[0.003]	[0.029]	[0.037]	[0.022]	[0.003]
Log HH size	-0.009**	0.010	-0.018	-0.018**	0.007**
	[0.004]	[0.021]	[0.012]	[0.008]	[0.003]

Trade policies

- Trade regime of Uzbekistan is one of the most overregulated among all transition countries
- According to some estimates, a significant portion of demand for wheat (up to 47%) is covered by importing wheat from Kazakhstan and Russia.
- The Government regulates the trade in wheat by a combination of tariff and non-tariff barriers. The nature of such regulation has significantly changed after the global economic and financial crisis of 2008-09.

Trade policies

- Despite declaring self-sufficiency in wheat production and consumption, Uzbekistan has remained a big importer of wheat and flour from Kazakhstan and Russia. The overall assessment of the wheat self-sufficiency policy is not clear-cut and its success should be judged in connection with economic, political, social costs of the policy. For example, expanding wheat cultivation has greatly reduced the area devoted to other grains and fodder crops.
- This raises an interesting question if Uzbekistan possesses a comparative advantage in producing wheat at all. And whether the wheat self-sufficiency has affected supply to market of other food and fodder crops, with significant negative consequences for the population's diet and nutrition.

Uzbekistan: Top 5 agricultural exports to and imports from top 5 countries in 2017

Source: UN Comtrade database)

Exports (mln USD)

Fruit and nuts, edible; peel of citrus fruit or melons	345.2
Vegetables and certain roots and tubers; edible	117.0
Preparations of vegetables, fruit, nuts or other parts of plants	28.8
Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit, industrial or medicinal plants; straw and fodder	4.3
Sugars and sugar confectionery	3.4

Imports (mln USD)

Cereals	210.4
Animal or vegetable fats and oils and their cleavage products; prepared animal fats; animal or vegetable waxes	161.6
Products of the milling industry; malt, starches, inulin, wheat gluten	124.4
Sugars and sugar confectionery	68.3
Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit, industrial or medicinal plants; straw and fodder	48.6

Uzbekistan: Investments into agriculture (% of total investments)

