



The Political Economy of Wheat Pricing in Uzbekistan

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Executive Summary

Wheat is an essential food product for Uzbekistan since it provides the largest share of calories and nutrition to the Uzbek people. Wheat also occupies the largest harvested area in the country. Wheat, along with cotton, is considered one of the Uzbekistan's two "strategic crops." Because of wheat's importance, the government has retained significant elements of the central planning system from Soviet times in the form of a state procurement system. Through the state's procurement, the government effectively not only controls procurement prices, but also dictates the area in which wheat should grow and the quantity produced. The system has consistently underpaid farmers for the wheat they produce. How sustainable and fiscally sound are these policies in the long run?

Because of its ability to set procurement prices below market prices, the government is also able to maintain significant subsidies for wheat flour, bread, and other wheat-based products available to all citizens. The government has asserted that subsidies for what is called "social bread" and wheat products protect vulnerable people and provide them with food security. How efficient are these subsidies without effective targeting?

In this case study, we discuss the **consequences of maintaining specific wheat production, consumption, and trade policies for different stakeholders**. We show that wheat prices are not only influenced by domestic policies but also by international factors. We also look at the ability of the current system to withstand negative external shocks such as the 2007–08 international food crisis. We approach the policy options from the viewpoint of different stakeholders—namely the government, farmers, and consumers. We also consider issues such as regional trade and its role in cushioning the shock of the international food crisis of 2007–08. Though we frequently refer to the initial conditions Uzbekistan faced in the beginning of the 1990s, we focus on the

period since 2007 to better understand the Uzbek government's evolving policies in wheat/flour/bread production, consumption, and trade.

Our **objective** is to identify and justify the most important **policy options to better respond to wheat price changes**. To achieve this objective, it is first necessary to understand the political economy of wheat pricing policy. We then provide a list of important policy options for stakeholders, ranging from abolishing the state procurement system to letting farmers decide to grow and trade crops of their choice; and from investing in technology and farmers' education to boost agricultural productivity to building analytical capacity to produce reliable and timely statistical information at the farm level. We conclude this case study with the hopeful observation that the government of Uzbekistan lowered import duties and excise taxes for wheat and other food products beginning on October 1, 2017.

Background

Uzbekistan has pushed hard to achieve self-sufficiency in wheat production, repositioning land and resources into the sector. However, the country remains one of the biggest wheat and flour importers in the region. In its *Grain Market Report* (2017), the International Grains Council (IGC) puts total grains production in Uzbekistan at 7.1 million metric tons in 2015–16, compared with 7.6 million in 2014–15. Total wheat imports are estimated at 2.2 million metric tons in 2015–16, a slight increase compared with 2.1 million metric tons imported in 2014–15.

One of the reasons Uzbekistan imports a significant amount of wheat is the low baking quality of domestically produced wheat. Kienzler et al. (2011) show that the country's current land tenure policies, which prioritize quantity over quality, do not stimulate diversification of wheat varieties and do not result in the production of better-quality wheat. Because of its low quality, a significant proportion

of domestically produced wheat is used to feed animals. Livestock farmers are increasingly using grey loaf bread to feed animals because the frozen bread prices make it competitive compared to, say, mixed fodder.

The more domestic bread and wheat products become subsidized, the higher the difference between state procurement prices and market prices. In this sense the procurement prices are “hostage” to subsidies and cannot be raised easily. Raising the procurement prices for wheat leads to increased costs of state-owned mills and bakeries, which in its turn would need to raise retail prices for bread or risk going bankrupt.

Production

Since 1991, wheat production has increased dramatically. In pursuit of wheat self-sufficiency, the government has increased the area harvested and taken the necessary steps to improve yields with a combination of improvements in seed quality and extension services. In the 1990s, the government also dismantled collective farms—*kolkhoz* and *sovkhoz*—and distributed agricultural land among farmers. As a result of these reforms, there are two types of agricultural producers—conventional farms, which are organized as legal entities and specialize in cotton, wheat, vegetables, or orchids (or a combination), and individual households that grow agricultural produce in their small land plots. The latter group is called *dekhan* farmers, and they operate with little coercion from the government in terms of what to cultivate, how to cultivate, and where to sell their harvest. Sometimes the former group is referred to as commercial farms, while the latter group is characterized as subsistence farming.

The local government authorities (district and regional authorities, called *khokimiyats* in Uzbek) dictate commercial farms’ choice of crops, find input suppliers (of seeds, fuel, and fertilizers), and set the

amount of harvest the farmers will have to sell to the government (more precisely, to a state-owned mill). The government also determines the procurement price, which is the price that farmers get for selling their harvested wheat to the state-owned mills. The state procurement prices for wheat and cotton, along with quotas for the harvest area and plans for yields and production for every region and district, are determined by the central government—the Cabinet of Ministers of Uzbekistan.

The state procurement of wheat is intended to buy only 50 percent of the harvest farmers grow. On paper, farmers can sell the rest of the harvest to the market, making wheat an attractive crop to cultivate. This would work if the farmers could sell half of the wheat they harvest by the end of growing period. But in reality, a production plan set by the state procurement system exceeds actual harvest yield up to two times, leaving the farmers with little wheat to sell to the market. The scheme works this way: suppose a particular land plot can have a yield of 4 metric tons per hectare. The logical action would be to set the state procurement at 2 tons per hectare so that the farmer sells 2 tons to the government and keeps 2 tons. But the local *khokimiyat* often sets the yield from a particular land plot up to 8 tons per hectare, often procuring the entire harvest. This practice not only leaves farmers with little wheat beyond the state procurement, but also greatly inflates official yield statistics for wheat. Indeed, if the farmer sold 4 tons of wheat to the government, he or she must be left with 4 tons of additional wheat. Except there is no additional wheat, and the state procurement system takes away all harvested wheat at below-market prices.

Since 1991, Uzbekistan’s population has increased from 22 million to 33 million, and over 43 percent of the population is under 25 years of age. Faced with the challenge of providing the population with sufficient food, the Government of Uzbekistan has pursued the goal of self-sufficiency in the production and consumption of wheat and wheat products

such as bread and flour. Wheat is necessary to be able to produce these food items, but the quality of the produced wheat is not high. Actually, only 55 percent of domestically produced wheat can be used for flour production as a result of its softness (Lyddon 2015).

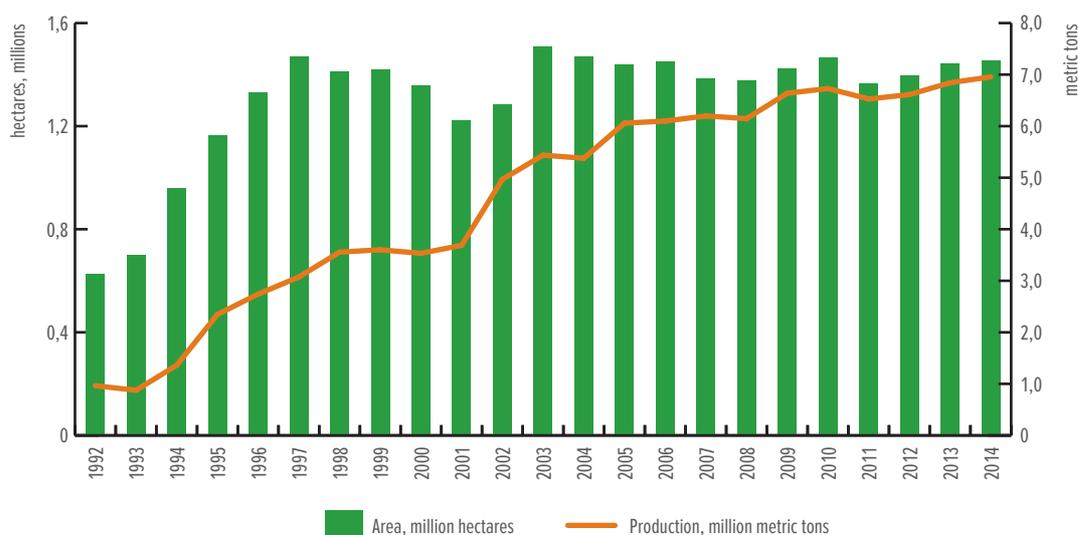
By the early 2000s the Government of Uzbekistan declared that it had successfully achieved wheat self-sufficiency by utilizing a combination of increased harvest area and yield. To achieve this self-sufficiency, the government had to increase area under wheat cultivation at the expense of cotton and livestock fodder crops such as barley, rye, and oats.

Figure 1 shows that both the harvested area and the production of wheat have significantly increased. The wheat harvest area has increased from 610,000 hectares in 1992 to 1,450,000 hectares in 2014, while production of wheat has increased from around 1 million metric tons to over 7 million metric tons for the same period (Figure 1).

In its *Regional Overview of Food Insecurity: Europe and Central Asia 2015*, the United Nations Food and Agriculture Organization (FAO) notes that Uzbekistan delivers state-supplied inputs at discounted prices to farms fulfilling state orders. The report explains that the yield improvement in Uzbekistan is due mainly to a switch from rainfed spring wheat cultivation to irrigated winter wheat cultivation.

Since 1991, per capita production of wheat has increased by more than five times—from 45 kilograms per capita in 1992 to 230 kilograms per capita in 2014. Almost all wheat in Uzbekistan is produced by commercial farmers. In 2014 there were 72,300 large commercial farms, specializing in growing cotton and wheat, and millions of small *dekhan* farms.¹ Of all these farms, 28,500 are diversified and are involved in the production of vegetables, melons, grapes, fruits, livestock, and other products. Although they occupy less than 5 percent of the arable land, *dekhan* farms produce around 60 percent of gross agricultural output and 92 percent of gross livestock goods (CER & UNDP 2013).

Figure 1: Wheat Production and Harvested Area in Uzbekistan



Source: FAO STAT, accessed June 15, 2017. <http://www.fao.org/faostat/en/#country/235>

¹ In Uzbekistan, all rural households that have household plots are considered *dekhan* farms. It is difficult to verify exact number of such households, but their number is estimated to be around 3 million.

Consumption

Uzbekistan is classified as a country with a wheat-based diet. According to the Ministry of Health of Uzbekistan guidelines, the wheat consumption norm in Uzbekistan is 110 kilograms of flour per person per year, or 147 kilograms grain equivalent. However, production and import statistics, as well as household surveys, indicate that actual consumption is much higher: earlier estimates have put it between 167 and 180 kilograms of bread (CER & UNDP 2005; Christensen 2003). Assuming that more recent data of domestic production (around 7 million metric tons) and imports (2.1 million metric tons) are correct, and all domestically produced and imported wheat and flour are consumed, consumption per capita is actually around 300 kilograms a year. Even assuming that official production statistics overstate actual production (see the discussion in the previous section), per capita consumption of wheat seems to be excessive.

The excessive consumption of wheat might in large part be explained by state subsidies for domestic flour and bread. Because of the state order and state procurement for wheat, the government is able to keep the price of a standard loaf of bread weighing 600 grams, baked from the first-grade flour (called a “grey loaf,” and popular among low-income consumers), from increasing. Indeed, the last time the price of grey loaf was increased was April 2013. Since

then it has been sold mainly in Tashkent city and all other major cities for 650 Uzbek soms (Figure 2).

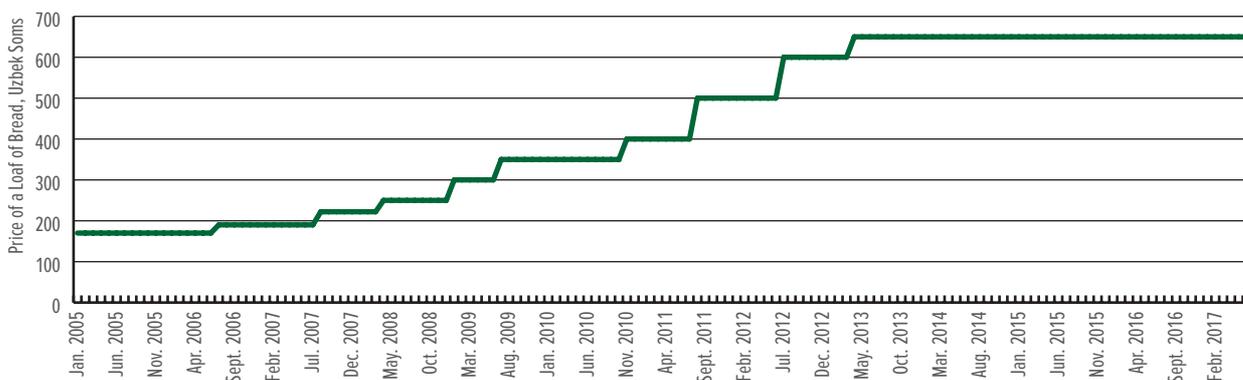
The low price of the grey loaf bread makes it extremely affordable to all groups of population, but fixing its price for several years and keeping it extremely low has resulted in the deterioration of its quality. Therefore more and more people prefer local bread (called *non* in Uzbek) baked in traditional local “tandoor” oven. Prices for this type of bread, baked and sold by private bakeries, are not subject to government regulations and can vary depending on supply and demand.

Trade

Since the mid-1990s, Uzbekistan has had one of the most restrictive trade regimes among the former Soviet Union countries. A ban on exporting certain food items, multiple exchange rates, a requirement for the repatriation of exports proceeds, and the mandatory sale of exports proceeds at the official exchange rates—this is not an exhaustive list of measures restricting exports and imports. In terms of wheat, the export of wheat is prohibited unless there is special permission from the Cabinet of Ministers.

Uzbekistan does not make public its trade statistics for commodities. We therefore rely on mirror statistics from other countries in estimating the volume of

Figure 2: Unit Price of a Loaf of Bread, in Uzbek Soms



Source: The Cabinet of Ministers’ resolutions for various periods.

wheat and flour being imported and exported. The US Department of Agriculture (USDA) estimates that Uzbekistan annually imports 2.1–2.2 million metric tons of wheat and flour from other countries, mainly from Kazakhstan and Uzbekistan (USDA 2017). The USDA also estimates that more than 90 percent of the wheat and flour is imported from Kazakhstan. Therefore Kazakhstan firmly remains Uzbekistan's main supplier of high-quality wheat and wheat flour.

Uzbekistan wheat exports are estimated at 400,000–450,000 metric tons of lower grade wheat in the 2015/16 harvest year. The export destinations are reportedly the Islamic Republic of Iran and Afghanistan.

Even before the 2007–08 food crisis, the Uzbek government encouraged the development of the domestic milling industry by imposing cascading tariffs on wheat and flour imports. Even before 2007–08, the government had set higher tariffs on the imports of flour, encouraging the domestic milling industry to import wheat and process it in the country. The 2007–08 food crisis accelerated this process, and in the subsequent years Uzbekistan has mainly imported wheat, not processed flour. In 2013–14, this situation caused trade frictions between Uzbekistan and Kazakhstan, when the Flour Millers Association of Kazakhstan lodged an official complaint with the Kazakh government over the cascading tariff structure Uzbekistan uses to encourage imports of wheat at the expense of flour.

In addition to import tariffs, in 2012 Uzbekistan introduced a 15 percent excise duty for flour, making imports of flour from other countries expensive compared to the imports of wheat. Beginning October 1, 2017, the Government of Uzbekistan abolished an excise tax on certain imported foodstuffs, including wheat flour.

These trade policies have led to a mushrooming of private mills, primarily located in close proximity to Tashkent. By 2016, the number of privately owned

mills had reached 60, with a combined annual wheat milling capacity of approximately 2 million metric tons. The majority of these mills use wheat imported from Kazakhstan. The private mills have established the Private Mill Entrepreneurs Association to lobby their interests.

The system of production and consumption may have succeeded in providing the population with affordable bread. However, universally subsidizing the consumption of bread is economically expensive and distorts incentives for producers and processors of wheat. This sends the wrong signals to producers and leads to inefficient allocation of scarce resources.

Policy Issues

All agricultural land in Uzbekistan is owned by the state. Local *khokimiyats* tightly control cropping patterns at large commercial farms, while *dekhan* farms are allowed to grow whatever the farmers wish. Additionally, unlike larger farms where leases must be renewed, leases for *dekhan* farms are lifetime holdings and can be transferred through inheritance. On paper, household plots cannot be sold, but in reality they are routinely sold and bought, with transactions disguised as selling and buying property on the land, not the land itself.

Uzbekistan produces winter wheat in irrigated as well as rainfed areas. In the 2014–15 crop year, of the estimated planted area of 1.45 million hectares, approximately 1.14 million hectares were irrigated. According to official figures, in the 2014–15 harvest year wheat production totaled 7.1 million metric tons. Despite official reports of a bumper crop, some independent observers believe that production numbers were overestimated, as usual. Overestimation of production happens because of Soviet-style planning and state procurement system: as noted earlier, commercial farmers have to sell 50 percent of their harvest to the state-owned mills, and can keep

the rest for personal use. However, the plan for production and yields is set in spring months at a much higher rate, usually 1.5–2 times higher than actual production and yield. Once set, the plan is not adjusted ex post and the farmers are forced to surrender 75–100 percent of their actual harvest.

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 (Table 1).

Table 1 shows that, in 2007, the difference between state procurement prices and domestic market prices for wheat was lowest—little more than 2 times. In subsequent years, the difference fluctuated significantly, but kept growing and reached 4.54 times in 2016—its highest value. The difference shows how much the government underpays farmers for wheat they produce and are forced to surrender at below-market prices. However, compared with 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 the farmers' own consumption or sold in the domestic market, which is not the case for cotton. Hence wheat provides access to cash, a major production factor.

The state-owned mills purchase wheat from farmers at fixed prices, process it into flour, and sell it to bakeries at specific prices. In general, this system allows the government to provide the population with affordable bread and some other products.

However, the system has created a number of problems that, in the longer run, have led to ineffective production and consumption of wheat products and to considerable financial losses for farmers and their employees.

The Government of Uzbekistan has justified the below-market state procurement prices for wheat by claiming it is necessary to protect low-income families from food insecurities. The increasing difference between state procurement and market prices shows to what extent consumers are being subsidized at the expense of farmers.

Apart from imposing a large burden on producers, subsidies for domestic flour and bread can have negative welfare consequences for consumers too. Parpiev and Yusupov (2011) examine the intriguing possibility that bread might be an inferior consumption good. To test this hypothesis, they construct a Tobit estimation with bread as a dependent variable and per capita expenditures and household size, among others, as explanatory variables. The results show that income elasticity of bread consumption for the full sample, as well as for all four quartiles of the 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—more than they really would like. And when income increases, they will decrease their consumption of bread by substituting it with other more desirable food.

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 soms per metric ton	356	520	560	720	1,050	1,150	1,200	1,400	1,900	2,500
Average state procurement price, thousand soms per metric 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

Because government regulations have kept the price of the domestic bread and other wheat products low, these products have remained affordable to low-income households. But big price distortions have led to inefficiencies in production, processing, and consumption. Instead of moving away from bread and other wheat products as a result of the improved well-being, we observe increased per capita consumption of wheat and wheat products by consumers. Indeed, the increase in production per capita has been accompanied by an increase in the volume of imports for wheat. Through across-the-board subsidization of bread baked from domestic flour, the government policy has probably led to the substitution of other products in the diet with cheap bread and flour products.

The 2007–08 International Price Shocks

International wheat prices skyrocketed in 2007 (Figure 3). The price of hard red winter wheat per metric ton jumped from US\$204.31 in 2006 to US\$368.62 in 2007. Figure 3 shows that currently wheat prices are on a decreasing trend.

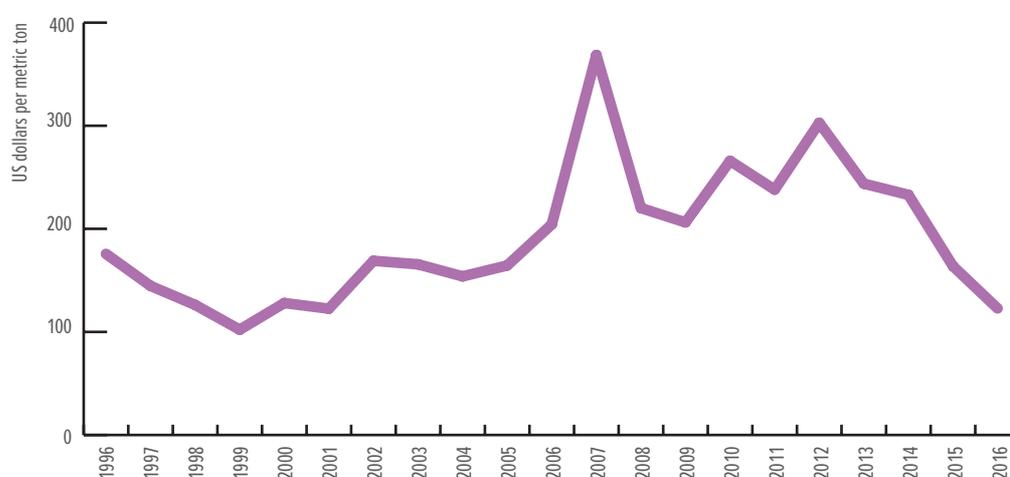
This 2007–08 price jump in international markets had a significant impact on local prices in Uzbeki-

stan. Imported flour prices jumped and increased by 52 percent (Table 2). Subsequently this had an impact on domestic wheat and flour prices, which went up by 46 percent in 2008. The domestic price for the grey loaf of bread, though heavily subsidized, also increased by 40 percent in 2009. Those were the biggest price changes in the last decade.

It is evident that 2007–09 price hikes for wheat products (flour and bread) were primarily caused by the international price increases for wheat. In 2007, the domestic price of the imported flour and wheat jumped by more than 50 percent, two times faster than overall food price inflation for the year. The following year the price increases transmitted to domestic wheat and flour and, finally, domestic bread. From Table 2 we can see that smaller but similar price increases took place in 2015–16, but the root causes of those price hikes were different—the latter episode of price increases was the result of domestic factors, not external ones.

The Government of Uzbekistan reacted to the 2007–08 food crisis with a combination of supply-side and demand-side measures. On the supply side, the government increased the harvest area for wheat by 50,000 hectares as part of the Anti-

Figure 3: International Wheat Prices



Source: IMF Primary Commodity Prices 2017. <http://www.imf.org/external/np/res/commod/index.aspx>

Table 2: Staple Food Price Increase between 2005 and 2016 (December to December), Percent

Year	Bread	Flour (imported)	Flour (domestic)	Wheat (domestic)	Food price inflation (Laspeyres index)
2005	0.0	5.8	5.5	6.5	22.7
2006	11.8	11.7	11.0	11.2	15.9
2007	17.0	52.4	25.9	24.0	26.0
2008	12.5	30.3	46.1	46.9	37.5
2009	40.0	2.6	7.7	7.9	12.5
2010	14.3	29.2	28.6	28.4	35.4
2011	25.0	29.0	22.2	45.8	39.4
2012	20.0	20.0	13.6	9.5	8.0
2013	8.3	-10.4	0.0	4.3	6.9
2014	0.0	11.6	20.0	16.7	26.3
2015	0.0	45.8	33.3	35.7	20.8
2016	0.0	14.3	30.0	31.6	18.7

Source: Authors' estimates.

Note: The prices of commodities are for Tashkent city only. The Laspeyres index is used to measure the price development of the basket of goods and services consumed in the base period. It is also known as a base-weighted index.

Crisis Programme to mitigate the impact of global financial crisis on domestic consumers. In addition, starting in 2008, the government also increased area for the cultivation of vegetables by 50,000 hectares. Both increases have been enacted at the expense of the cotton harvest area. The government also increased procurement price for domestic wheat it uses to buy wheat from commercial farms by 17.5 percent in 2008, a significant increase compared to previous years when the average procurement price was in low single digits. On the demand side, the government continued to heavily subsidize domestic flour and wheat. But the price pressure from the international markets forced the government to react and increase the price of domestic grey loaf bread by 40 percent in 2009.

Stakeholders

Stakeholders can be divided into four groups: governmental entities at regional and national levels, consumers, farmers, and private millers.

Governmental Entities

The government is represented by the Cabinet of Ministers, the state-controlled joint-stock company Uzdonmahsulot, and regional and district *khokimiyats*. Uzdonmahsulot deals with the purchase, storage, and processing of state procurement wheat. Uzdonmahsulot is comprised of 44 state-owned mills, their branches, and bakeries. By a presidential decree, Uzdonmahsulot is the only legal entity that is entrusted by the government to purchase and store wheat; produce flour and wheat products such as grey loaf bread, macaroni, and others; control the quality of wheat farmers surrender to the government; attract foreign investment to the wheat processing sector; and help its member companies improve the quality of the wheat products they produce. The list of tasks indicates that Uzdonmahsulot, like many other state-controlled joint-stock companies, have conflicting tasks: on the one hand, it is the only contractor for farmers for wheat they surrender within the state procurement system; on the other hand, they control the quality of wheat and determine the price the farmers are entitled to set

for their harvest. By definition, the government and companies representing the government have highest capability of shaping policies concerned with the production, processing, and consumption of wheat.

Farmers

The farmers are represented by 60,695 commercial farms specializing in the production of cotton and wheat, with an average farm size of 52.7 hectares. Commercial farmers do not own land—rather they lease it from the government, and the lease contracts specify the exact areas that have to be sown with cotton and wheat. The 1998 law “On Farming” further stipulates that leased land should be cultivated with due diligence so as to yield a certain minimum harvest of cotton and wheat per hectare. Presidential Decree No. 3342 (October 2003) states that any deviation from the sowing pattern prescribed in the land lease contract is a grave violation constituting grounds for termination of the farm’s lease. Through these tenure-linked obligations, the commercial farmers actually inherited the burden of fulfilling state orders for cotton and wheat that had been traditionally borne by collective and state farms during Soviet times. Commercial farmers have become the state’s official suppliers of these strategic commodities. Farmers unite into farmers’ associations (since 2015 these have been renamed the “Council of Farmers”) and try to affect policy making through these professional associations. However, the Council is not an independent entity, as it depends on local executive power in matters such as the implementation of existing agricultural policies and development of new policies. The voicelessness and powerlessness of farmers have become notorious in the society. One sign of their voicelessness are the “selector meetings” that regional and district *khokimiyats* organize almost daily and that all farmers have to attend for several hours a day: the meetings frequently feature crass comments toward farmers who have not strictly followed instructions of the authorities.

Consumers

Consumers are represented by the entire rural and urban population. Many important decisions concerning consumers and their diet are taken without their input. The major decision that affects consumers’ diet is the subsidization of domestic flour and wheat products. To provide support to low-income households, the government continues to regulate the prices of several basic foods, including wheat flour and bread. The policy has affected wheat consumption in important ways: in the short run, the government has successfully curbed price increases for wheat flour and bread, but in the medium and long run the policy has killed farmers’ incentives to grow wheat and increase its yield.

Private Millers

Private millers are represented by about 60 mills that, combined, process up to 2 million metric tons of wheat annually. As a rule, they are much smaller than the state-owned mills, but arguably much more efficient. Private mills specialize in processing imported Kazakh hard wheat and therefore can sell flour at higher prices than their state-owned counterparts. They are also equipped with newer equipment and can produce a wider range of wheat products suitable for different needs and tastes.

Policy Options

Wheat and bread play a significant role in the daily dietary and consumption needs of Uzbek households. It is one of the most challenging tasks to get the balance right for all stakeholders involved to make wheat policy work. Wheat production is seasonal and bread is in high demand. The current state procurement policy is not sustainable and a set of policy options are proposed to make the wheat sector more productive:

1. Abolish the state procurement system and privatize the state-owned mills and bakeries

The abolishment of the rigid state procurement system would allow farmers to get a fair price for their products and cultivate agricultural crops of their choice. But this policy option assumes that price of wheat products the state-owned mills and bakeries produce would be set according to the demand and supply in the market. This in turn raises the issue of compensation for low-income households and the consequences of a price increase for the most important staple food, wheat. Compensation in the form of additional cash benefits to the vulnerable would put a burden on the state budget, but its distortionary effect would be much lower than the subsidies that keep the prices low for every consumer and thus give perverse incentives to the market

participants. The government should always target households that are below the national poverty line instead of providing blanket subsidies of all consumers at the expense of farmers or state budget.

2. Introduce a number of changes that would significantly improve efficiency of wheat production and consumption without abolishing the state procurement for wheat

This option would include abandoning the current rigid practice of setting the land areas that must be allocated to wheat. Under this option, state procurement contracts should specify only the quantities of wheat that farmers have to sell to the government, without specifying the area of land to be reserved for these crops. If farmers were given the opportunity to

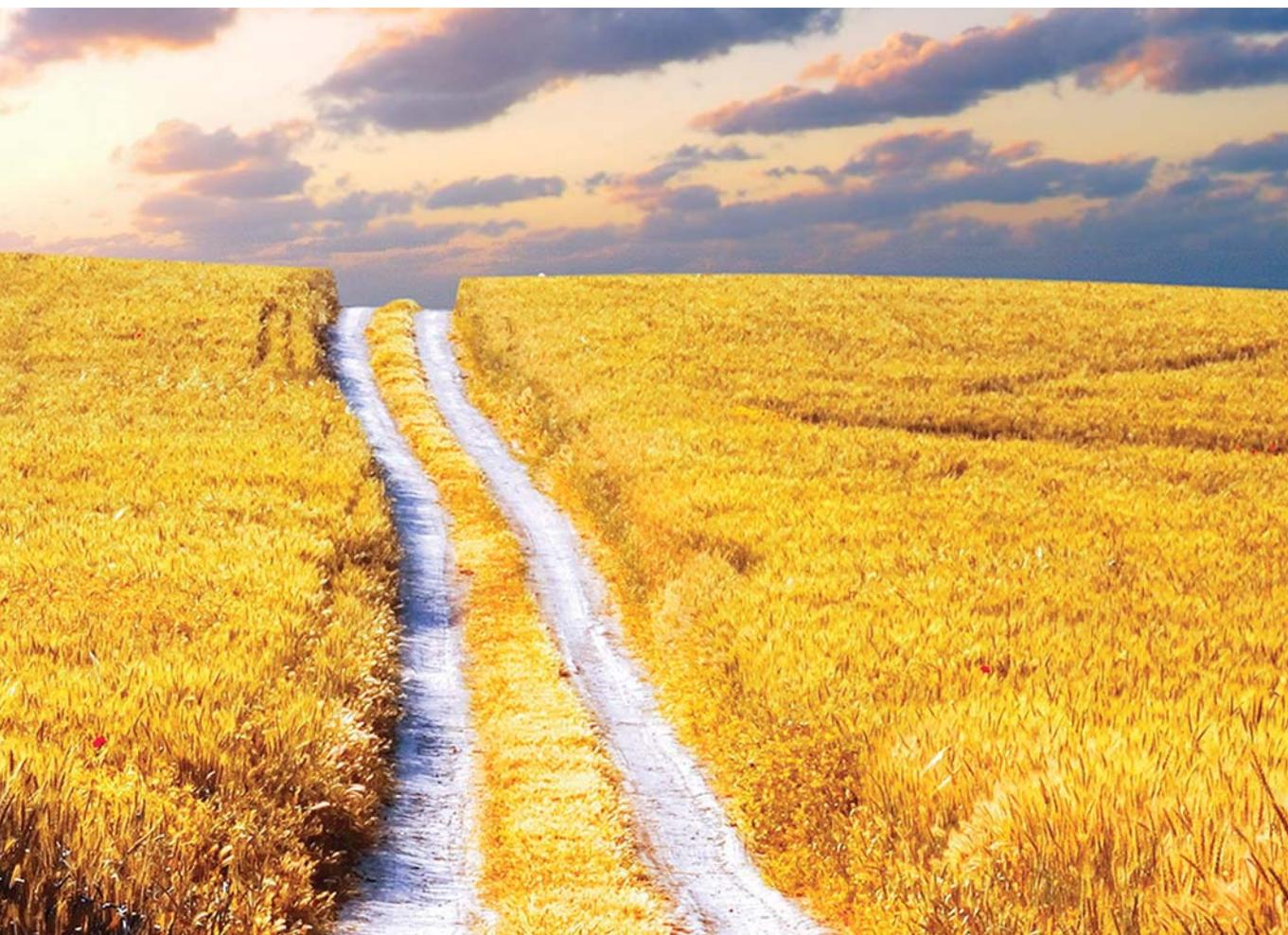


optimize the cropping pattern (the “freedom to farm” principle), they would have greater incentive to produce the prescribed quantities of cotton and wheat for government procurement on less arable land. As a result, significant areas of land would be released for other crops, such as vegetables and feed crops. These changes would raise farmers’ income and improve the well-being of the rural population whose livelihoods depend on agriculture.

3. Help farmers diversify their income sources from various crops and assist households to diversify their nutritional intake

Diversifying dietary intake from only bread to include, for example, fruits and vegetables would make diets healthier and put less pressure on high-demand

wheat products. Farmers would also be incentivized to grow more fruits and vegetables (cash crops). This diversification and farmer education could be achieved through investing in the Council of Farmers to improve the quality of wheat and other crops grown in Uzbekistan. The introduction of intensive technologies and the integration of specific agricultural knowledge to production would help farmers boost their output and help them export to neighboring countries such as Afghanistan, China, Kazakhstan, Russia, and Turkey. The government could help the Council to invest in upgrading soil quality and addressing salinization and help farmers better prepare for challenges brought about by climate change. Climate change will bring warmer temperatures and lower precipitation in summer—the most important vegetation period for many crops. The government should work together with the international community—such as the World Bank, the FAO,



the International Center for Agriculture Research in the Dry Areas (ICARDA), and the International Food Policy Research Institute (IFPRI)—to share and exchange know-how to have better policy instruments for climate change adaptation.

4. Build and maintain a national statistical capacity to collect timely and reliable statistics on crop production, trade, and consumption, including wheat

Currently the national statistics on wheat do not match the statistics provided by the international organizations. There is divergence in final numbers and methodology used for wheat data collection. Accurate farm-level statistics would help both policy makers and farmers to see a clear general picture of the agricultural sector and help researchers generate evidence to inform policy making. The quality of policy options highly depends on the quality of farm-level data collected. Unreliable or lacking statistics may lead to bad science and bad policy making in the long-run.

Assignment

Your task is to compare the different policy options from the viewpoint of a welfare analysis for different stakeholders (farmers, consumers, millers, and government agencies) and help policy makers choose the best policies for the wheat sector in the long run. You can also use a cost-benefit analysis approach to better understand the economic, social, environmental, and food security implications behind those policies.

Policy Recommendations

Wheat (and wheat products such as flour and bread) production, consumption, and trade in Uzbekistan

are severely distorted. The distortions are introduced by the government through state order and the state procurement system, consumption subsidies for bread and domestic wheat, and a highly regulated trade regime. Removal of these distortions would undoubtedly improve the allocation efficiency of resources; improve incentive mechanisms for producers, processors, and traders; and correct bias against the consumption of low-nutrition and high-gluten bread and other products.

In terms of agricultural policy, we emphasize the importance of diversifying agricultural production and adjusting the current wheat-dominated production policy. Given the low yields per hectare, poor quality, and marginal nutritional value of the wheat produced in Uzbekistan, reducing its predominance in crop cultivation would result in more competitive produce on the international market and enhance efficiency in production. Furthermore, farmers grow wheat on irrigated land, which reduces their marginal return and, moreover, wastes valuable water resources.

From a welfare point of view, the government should abolish excessive universal consumption subsidies and implement targeted aid similar to the food stamp programs implemented in various countries. From a political economy perspective, it is also essential to maintain food reserves and create monetary reserves in order to provide a buffer against sudden supply shocks.

Despite its declared self-sufficiency in wheat, Uzbekistan has remained a big importer of wheat and flour from Kazakhstan and Russia. An overall assessment of the wheat self-sufficiency policy is not clear-cut and its success should be judged in connection with the economic, political, and social costs of the policy. For example, expanding wheat cultivation has greatly reduced the area devoted to other grains and fodder crops. Coupled with this, the policy may have negatively affected the supply to market of other food and fodder crops, with consequences for the population's diet and nutrition.

Through the state procurement system and state-owned mills, the government can maintain very low prices for domestic bread (grey loaf). The price of bread and other wheat products is regulated by the government: price changes are infrequent and uniform all over the country. This means that the burden of subsidies is mainly born by farmers.

Subsidized consumption of bread and other wheat products has led to large inefficiencies. Though the subsidization is intended to serve the poor, because of the universality of subsidization, other segments of the population in addition to the poor would benefit from subsidies. Therefore a considerable portion of the benefits accrued from low prices for domestic flour and bread would be accrued by people who can afford a real market price for bread and flour. The burden of subsidies falls on the commercial farmers and their workers. Considering that,

among those employed in agriculture, the poverty rate is higher than the average across the country, one could assume that, owing to low state procurement prices in the country, subsidies result in losses to grain producers, rather than improving food availability for the poor.

The decrease in farmers' incomes and the decrease of investment in agriculture over the long term may lead to food insufficiency, instead of providing the population with affordable bread and wheat flour. State procurement for wheat in Uzbekistan has acted as an indirect tax on farmers and their employees. Intended as a populist measure, the bread subsidies did not help to protect the poor population. Instead of universal subsidies, programs targeting poor and vulnerable households would have better protected the poor, distorted incentives for farmers less, and been more cost-effective in the long run.

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