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# Privatizing a State Farm in Kazakhstan

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***Abstract:** The dissolution of the Soviet Union severed the state-directed linkages between state-owned farms and agribusiness enterprises ordered by the command economic system. Likewise, the dissolution disrupted marketing channels connecting the agricultural sector of Kazakhstan with those of other former republics. The transition to a market economy requires a transformation in the political and economic structures of state-owned farms and state-owned agribusiness enterprises. Directors of state-owned farms in Kazakhstan face major challenges. The primary consideration is how the farm should be organized after privatization, that is, whether the farm should be transformed into a cooperative, a joint stockholding company, or divided into several private, individual farm operations or partnerships.*

***Key Words and Phrases:** Kazakhstan; Former Soviet Union, Agricultural sector; Privatization; Market economy*

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Much of the farmland in Kazakhstan was developed as a result of the Soviet Union's Land Development Act of 1954. Kazakhstan inherited large, state-owned farms (typically 50,000 to 150,000 acres, with 1,000 to 2,000 inhabitants) and agribusiness monopolies from the United Soviet Socialist Republics (USSR). State-owned farms were multi-product enterprises that had to meet production targets and delivery schedules specified by the government. The government controlled farm production and marketing decisions. State-owned agribusinesses responded to state-ordered quotas and were responsible for supporting the production of the large farms. Since prices and delivery dates were determined by the government, quality issues were not given appropriate economic consideration. In addition to the farming operation, the director of a state-owned farm was responsible for the social infrastructure of the village(s) on the farm, i.e., schools, medical clinics, retirement incomes of farm-member residents, housing and utilities, etc. Table 1 provides a chronology of important policy reforms and economic events in Kazakhstan.

Table 1.

*Chronology of Political, Legislative and Structural Economic Policy Events*

Year	Political, Legislative and Structural Economic Policy Events
1989	Reforms gave state-owned enterprises greater autonomy in production and marketing which partially lifted the system of central planning and disrupted trade between firms and payment flows between the republics.
1990	The first private, independent farms appeared in Kazakhstan through a pilot program authorized by the minister of agriculture of the former Soviet Union. Approved farmers were allowed to separate from the state or collective farm from which they originated with a specified amount of land to farm. The government provided subsidies for use of machinery and inputs.
1991	<p><i>January:</i> The Kazakh State Property Committee (SPC) was authorized with the responsibility of privatizing state-owned enterprises (SOEs) and housing.</p> <p><i>April:</i> Twenty percent of the prices of agricultural products were liberalized.</p> <p><i>August:</i> Legislation outlined the process to create private enterprises and joint-stock companies.</p> <p><i>December:</i> Kazakhstan became an independent republic, but its economic ties, financial and monetary, to the former Soviet Union (FSU) were maintained through the Commonwealth of Independent States (CIS).</p>
1992	<i>February:</i> The privatization of housing and small business was initiated. In the agricultural sector, the SPC began considering the transformation of state farms into collective farms.
1993	<p><i>January:</i> The privatization plan for medium- and large-scale enterprises called for implementation in stages. Medium-scale enterprises were to be sold through auctions and large-scale enterprises on a case-by-case basis.</p> <p><i>March:</i> A presidential decree formally addressed privatization of farming operations and agribusiness marketing firms. The decree provided the right to set up independent farms or unite on a voluntary basis in associations or cooperatives. State and collective farms could be transformed into private, independent enterprises, joint-stockholding companies, and cooperatives. The decree also granted workers the right to leave a farm, taking a plot of land and some property as a state farm was privatized.</p>

Table 1 (continued).

*Chronology of Political, Legislative and Structural Economic Policy Events*

Year	Political, Legislative and Structural Economic Policy Events
1993	<i>November:</i> The national currency, the tenge (T), was introduced, giving Kazakhstan the power to exercise monetary policy to reduce inflation, control the growth in money supply, and use the exchange rate as a policy instrument.
1994	<p><i>January:</i> About 20 percent of retail prices remained under administrative control, including bread and bakery products, and basic food products. State orders of livestock were removed, further liberalizing marketing of livestock products and agricultural prices. Subsidies to agricultural producers, e.g., subsidized credit or income transfers, were discontinued.</p> <p><i>April:</i> Another decree granted citizens the right to a lifetime, inheritable possession of land, giving them the right to possess, use or lease the land, but without title. The decree excluded transactions involving buying, selling, giving or mortgaging the land.</p> <p><i>December:</i> State orders of wheat were eliminated, allowing producers to market wheat and products freely.</p>

*Sources:* Ardayev; Russian and Commonwealth Business Law Report, 1993 and 1994; International Monetary Fund; American Embassy, 1994b.

Reforms for the agricultural sector call for a transformation of state-owned farms and agribusinesses into private entities. For a typical state farm, privatization entails the transformation of the operation into a) a cooperative enterprise, b) a joint stockholding company, or c) either a sole proprietorship or a partnership.<sup>1</sup> For a medium-sized agribusiness enterprise (one with 200 to 5,000 employees), a stockholding company has been the typical economic structure after privatization.<sup>2</sup>

*Decision Focus*

Vladimir Lyar, elected director of a former state farm, must propose a privatization plan to the member-residents who have elected him. In this plan, he must present the advantages and disadvantages of each of the

alternative forms of organizational and economic structure the farm can assume after privatization. He must address issues such as: a) the allocation of land and division of assets if the farm is to be divided or the criteria for issuing shares of stock, i.e., seniority, occupation, expertise, etc., to every member-resident; b) the proper mix of production (what and how much to produce); c) the marketing of agricultural commodities and food products (pricing, risk management and exchange procedures for inputs and outputs); d) performance of value-added activities; e) appropriate forms of strategic alliances; and f) support of the social infrastructure, i.e., schools, medical clinics, retirement of farm-member residents, upkeep of the roads, etc. The proposed plan put forth by Mr. Lyar must be approved by a majority of the member-residents.

### ***Background: The Agricultural Sector***

Kazakhstan accounted for 26 percent of the agricultural production of the former Soviet Union (FSU). The major commodities are small grains, meat and wool, but wheat is the country's principal commodity. Kazakhstan produced about one-third of all the wheat grown in the FSU, and, with independence, became one of the ten largest wheat exporting countries in the world.

In Kazakhstan, 23 percent of the population lives in rural areas and contributes one-third of the gross domestic product (GDP). Expenditures for food account for more than 50 percent of total household expenditures (World Bank). The principal market for Kazakh goods continues to be Russia and the FSU due to geographic isolation of Kazakhstan's resource endowments relative to the country's population centers and the distribution channels remaining from the Soviet economy. However, disintegrating economic ties within the FSU and greater access to products from outside the FSU have made this market more competitive. Trade with China has grown substantially, contributing to the reduction in the trade share with the FSU from 90 percent to about 70 percent of total trade (American Embassy, 1994a). China has become a market for agricultural commodities and farm machinery.

Few import barriers exist and agro-industrial exports are an important source of revenues for firms. Export licenses and a 25 percent tax on agricultural commodities and food products are obstacles to exporters (American Embassy, 1994a). Furthermore, exporting to cash-tight countries (like the FSU) and firms complicates trade, and barter continues to be a routine means of exchange.

Implementing a privatization program for the agricultural sector was difficult because of the initial structure of farming and agribusiness. Although private, independent farms appeared as early as 1990 as a privatization experiment, the government had neither legitimized a process for the redistribution of land for use by individuals, nor formally developed a process to privatize the state-owned agro-industrial complex. An independent farmer who was allowed to separate from a state or collective farm between 1990 and 1992 had access to subsidized credit (soft loans) and was able to acquire assets valued at a "book value" rather than at a market value.<sup>3</sup> This was an advantage that independent farmers did not have after 1992 because the government could no longer provide subsidized credit and asset prices were approaching their true market values. On the other hand, these "early privatizers" had no model for how to run a private farm and no experience in, or examples of, marketing products.

At the end of 1990 in Kazakhstan, 2,120 state farms accounted for 57 percent of agricultural land, 411 collectives accounted for 41 percent of the land, and 324 private, independent farms had two percent of the land (see Table 2).<sup>4</sup> In 1993, more than half of the 1,518 state farms were unprofitable, and more than one third of the collective farms were unprofitable (American Embassy, 1994a). By the end of 1994, there were 757 state farms and 434 collective farms, and 22,401 private, independent farms had been created. Table 3 presents the total number of agribusiness enterprises (farms and firms) and categorizes them by type.

### ***Background: The Macroeconomic Situation***

Kazakhstan became an independent republic in December, 1991, as a result of the dissolution of the Soviet Union; however, economic ties with, and financial and monetary policy linkages to, the FSU were maintained through the Commonwealth of Independent States (CIS). The CIS continued as a ruble zone to provide economic stability and maintain trade among the member republics.<sup>5</sup> However, the divided control between the supply of money by the Russian central bank and the creation of credit by each CIS-member made the demise of the ruble zone inevitable. Russia's loose monetary policy was inflationary, and with each republic creating credit denominated in rubles, the rate of growth in inflation was exacerbated in the entire ruble zone (International Monetary Fund). Table 4 lists selected macroeconomic statistics for 1990 to 1995, when available.

In November, 1993, the national currency, the tenge, was introduced, and the government implemented tight monetary policy to control the

Table 2.  
*Number of Farms by Types*

Farm Type	1990	1992	1993	1994 <sup>a</sup>
State Farms	2,120	1,648	1,518	757
Collectives	411	n/a	n/a	n/a
Private Farms	324	n/a	16,283	22,401

<sup>a</sup>Through December 31.

Source: The Academy of Agricultural Sciences, Republic of Kazakhstan.

Table 3.  
*Types of Farm and Agribusiness Enterprises, January 1995*

Types of Farm/Enterprise	Number
Total Agribusiness Enterprises	30,168
State Farms	757
Collective Farms	434
Private, Independent Farms	22,401
Agricultural Cooperatives <sup>a</sup>	487
Joint Stockholding Companies <sup>a</sup>	295
Other State-Owned Enterprises	2,182
Collective Enterprises	1,083
Small Private Agribusinesses <sup>b</sup>	2,331
Agribusiness Partnerships <sup>c</sup>	149
Service-Oriented Agribusinesses <sup>d</sup>	529

<sup>a</sup>These may be agribusinesses or corporate farms.

<sup>b</sup>May include retail, wholesale, or distribution firms.

<sup>c</sup>Larger enterprises such as processors or elevators jointly owned by more than one person or company.

<sup>d</sup>Enterprises such as chemical or machinery dealerships or service-oriented firms for hire, or machinery repair shops.

Source: The Academy of Agricultural Sciences, Republic of Kazakhstan.

Table 4.  
*Selected Macroeconomic Statistics for Kazakhstan.*

Statistic	1990	1991	1992	1993	1994	1995 <sup>a</sup>
Real GDP Growth (%)	-0.4	-13.0	-14.0	-15.3	-25.8	-10.2
Per Capita GNP (\$)	n/a	2,470	1,690	n/a	n/a	n/a
Government Expenditures (% of GDP)	31.4	32.9	24.3	n/a	n/a	n/a
Net transfers from FSU (% of GDP)	10.0	4.5	1.4	n/a	n/a	n/a
Agricultural Production (% change)	n/a	n/a	-15.0	n/a	n/a	-22.0
Retail Price Index	n/a	91	1480	784	290	24
Exchange Rates	n/a	1.8 <sup>b</sup>	156.4 <sup>b</sup>	6.3 <sup>c</sup>	33.6	58.3

n/a - not available.

<sup>a</sup>Through the first quarter.

<sup>b</sup>Rubles per dollars.

<sup>c</sup>Tenge introduced, tenge per dollars.

Sources: United Nations; U.S. Department of State; World Bank; International Monetary Fund; and Caravan Business News.

growth in the money supply and inflation, and to use the exchange rate as a policy tool. The government implemented tight fiscal policy by discontinuing subsidies of agricultural production and food consumption and by increasing government revenues through higher taxes and privatization sales. These macroeconomic policies caused the agricultural economy to contract after 1992. Table 5 presents agricultural production statistics for selected products. The government's decision to partially liberalize prices of outputs and inputs in an inflationary environment as the currency weakened added to the general price risk and uncertainty. The discontinuation of subsidized credit and higher input prices relative to output prices contributed to reduced capital investments, reduced the demand for inputs, made their procurement more difficult, and created a severe cash flow problem for producers.

The government began liberalizing prices of agricultural commodities and food products in 1992; however, the command marketing system was



Table 5.

*Production of Selected Agricultural Goods<sup>a</sup> and Livestock<sup>b</sup>*

Goods & Livestock	1989	1990	1991	1992 <sup>c</sup>	1993	1994	1995
Meat	1573	1548	1524	1258	1312	1047	n/a
Milk	5563	5642	5555	5265	5576	5217	n/a
Eggs	4233	4185	4075	3565	3288	2802	n/a
Cereals	18797	28488	11992	29772	n/a	n/a	n/a
Wheat	10784	16197	6889	18285	11585	9100	n/a
Rice	361	376	339	304	262	180	n/a
Barley	5309	8500	3085	8511	7148	5100	n/a
Oats	251	611	231	727	802	900	n/a
Corn	479	442	330	368	355	230	n/a
Soybeans	33	33	16	11	n/a	n/a	n/a
Potatoes	1783	2324	2143	2570	n/a	n/a	n/a
Tobacco	5	5	4	4	n/a	n/a	n/a
Cattle	9752	9818	9756	9592	9576	9347	8062
Cows	3273	3327	3367	3490	3687	3387	3387
Sheep/goat	36498	36223	35700	34556	34420	34208	24955
Hogs	3188	3264	3220	2976	2591	2445	1982
Horses	1581	1619	1626	1666	1704	1777	1800
Poultry	58400	59300	59900	59932	54031	52600	50000

<sup>a</sup>Thousand metric tons, except eggs which are in millions.

<sup>b</sup>Livestock units are in thousands of head.

<sup>c</sup>In 1992, ideal weather conditions coupled with government subsidies resulted in record grain yields.

Source: International Monetary Fund; USDA-ERS; Emerging Democracies Office, circulars.

still in effect because the state continued to require producers to deliver specified quantities of agricultural commodities (state-ordered quotas) at government-determined prices. Price controls applied only to quantities under the state-ordered quota. The state-ordered quota was eliminated for

livestock products in 1994 and for wheat in 1995, allowing farms and agribusinesses to discover prices freely.

The consequences of the policy combination of the state-ordered quotas and liberalizing input prices were adverse for the agricultural sector. State-ordered quotas of livestock and wheat products limited the enterprises' ability to benefit from marketing; farms delayed restructuring their mix of crop and livestock production because they were obligated to meet state-ordered quotas; farms and agribusinesses were forced to absorb losses on state-ordered quotas because the government-determined prices were adjusted more slowly than the rate of inflation; untimely payments by the government worsened producers' cash flow; and input prices, with fewer controls, approached world levels faster than commodity and food prices.

### *Privatization in the Agricultural Sector*

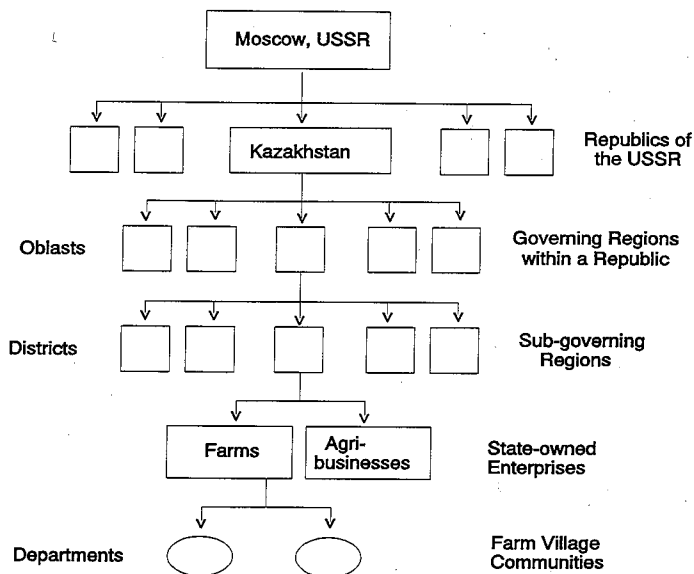
Prior to the economic reforms, the director of a state-owned enterprise (SOE) was expected to follow the five-year plan passed from Moscow to the republic to the oblast, a regional governing area within a republic, to the district, a local governing area within an oblast, and finally to the SOEs (see Figure 1). Practically all major production decisions were outlined in the five-year plan: the number of acres planted, number of animals, and crop and livestock targets for meat, flour, dairy and other food and beverage production.

Inputs were supplied to SOEs based on annual budget plans based on the historical productivity of a farm or enterprise and the previous year's allocation. In the budget plan, the director of the SOE specified the input requirements such as feed, seed, fuel, chemicals, basic materials, and parts, and sent it to the district administrator (DA). The DA collected budget plans for each farm or firm in the district, and passed the plans to the oblast administrator (OA) with his endorsement. The command system, administered through the Communist Party, ensured that the recommendations of the DA reflected the productive abilities of the farm or firm and the performance of the directors of the SOEs in his district.<sup>6</sup> Budget plans were sent along the chain of command illustrated in Figure 1.

Capital inputs such as new machinery, equipment, and buildings or investments in social infrastructure were proposed in two-year plans. The DA considered proposals from each of the SOEs in the district in an approval process identical to that of the annual budget plan. Moscow decided how many tractors, combines, and other capital inputs each republic would receive. Funding for agriculture appeared as a line item in

Figure 1.

*The Chain of Command as it Existed in the Centrally Planned Economic Structure*



the budget, and transfers to the republics were made. Each republic determined how best to allocate funds and capital inputs across oblasts to meet the targets for the republic specified in the five-year plan. In turn, each OA determined how to allocate these funds and inputs across districts, and DAs allocated funds and inputs across SOEs.

Presidential decrees issued in 1993 and 1994 outlined the rights of individuals or firms to privatize and the process by which an SOE could privatize. The decrees specified three new types of organizational structure for a state farm to become "privatized": a cooperative farm; a joint stockholding company; and a private, independent farm or partnership. Changes in organizational structure differ in terms of the degree of political autonomy the director of an enterprise has from the influence of political administrators, and in the structural change within the economic unit and ownership of the assets. For example, the assets of a state farm or a collective are still owned by the state; hence, the OA or DA can influence decisions relating to the operation and social infrastructure requirements.

In the transformation of a state farm to a cooperative enterprise, the assets of a state farm are subdivided into interrelated enterprises with

divided ownership of assets, separate land-use rights, and independent farm managers.<sup>7</sup> The economic unit remains a large-scale, integrated, multi-product operation that includes one or more villages (departments) for which the farm is responsible for the social infrastructure.

The joint stockholding company is one in which the assets of a state farm are divided according to shares of stock, typically with shares held by members of the worker-collective and management, the other member-residents, and the government. The joint stockholding company is responsible for maintaining the social infrastructure. Member-residents are allowed to leave a farm, but must transfer all shares (through sale or gift) to members of the worker collective. The stock-holding companies are all closed to people who are not member-residents. A securities market does not yet exist, and it is uncertain when the government will implement its plans to initiate a secondary market for shares of stock.

The private, independent farm is a sole proprietorship or partnership allowed to separate from a state, collective, or cooperative farm. Private farms are expected to pay taxes directly to the government after a three-year moratorium, rather than contribute to the social infrastructure of the farm from which it originated. Private farms that fail are usually reintegrated with the enterprise from which they separated.

### ***Background: Petrovich State Farm***

In 1961, Petrovich State Farm was formed from three collective farms, each with one village. The farm is located in the oblast of Akmolinsk in the northern part of the country, some 100 kilometers from Akmola, the capital of the oblast, and 500 miles from the Russian border. Petrovich Farm was one of nine state farms within its district. Vladimir Lyar was appointed director of the state farm by the DA in 1986, then elected in 1991 by the resident-members to oversee the farm's privatization. Petrovich Farm is well-run and has been profitable since the government stopped providing subsidies to the agricultural sector.

In 1992, Petrovich State Farm employed 800 workers in non-farm and farm occupations, and maintained a total population of 1,800 persons (see Table 6). However, since Kazakhstan's independence, people of non-Kazakh ethnicity have decided to return to Russia or other republics of the FSU. For Petrovich State Farm, emigration and people leaving for the cities has reduced the population to 1,500 member-residents and 600 workers. The farming operation includes 42,000 hectares with 28,000 hectares of arable crop land, 2,000 head of cattle, 10,000 hogs, 20,000

Table 6.

*Number of Employees and Residents on Petrovich Farm*

Number	1992	1995
Population	1,800	1,500
All Workers	800	600
Non-farm	300	200
Farm	500	400
Crops	120	120
Livestock	180	100
Management	200	180

Source: Interview with Director Vladimir Lyar.

Table 7.

*Agricultural Production on Petrovich Farm*

Production	1982-91	1992	1993	1994
----- number of head -----				
Cattle	2,500	2,500	2,500	2,000
Dairy cows	800	800	800	700
Hogs	10,000	10,000	9,000	7,000
----- metric tons -----				
Grains	30,000	45,000	32,000	25,000
Meat	800	800	700	600
----- liters -----				
Milk	2,400	2,300	2,200	2,000

Source: Interview with Director Vladimir Lyar.

Table 8.

*Hectares Allocated by Crop on Petrovich Farm*

Hectares	1990-93	1994
Total Area <sup>a</sup>	42,000	42,000
Agricultural Land <sup>b</sup>	39,000	39,000
Wastelands	6,000	6,000
Pastures	5,000	5,000
Arable Cropland	28,000	28,000
Summer Fallow	5,000	5,000
Seeded Area	23,000	23,000
Crops:		
Grain	20,000	20,000
Spring Wheat	9,000	15,000
Durum Wheat	4,000	1,000
Feed Grains	7,000	4,000
Forage	2,600	2,500
Vegetables <sup>c</sup>	400	500

<sup>a</sup>Total area includes agricultural land and housing area.

<sup>b</sup>Agricultural land includes production facilities.

<sup>c</sup>Vegetable production is for own-consumption.

Source: Interview with Director Vladimir Lyar.

hectares of seeded grain, 5,000 hectares of summer fallow, with the remaining hectares in forage, usually corn (Tables 7 and 8). Another 400 hectares produce food for on-farm consumption, including vegetables, sunflower, buckwheat and potatoes. There are 50 combines, 120 tractors of all sizes, and 90 trucks.

The livestock operations are unprofitable, but capital equipment and farm structures for hogs, cattle breeding, and dairy operations exist. Hog and cattle numbers, including dairy cows, have declined, reducing the production of meat, milk and other dairy products. Part of the meat and milk production is for own-consumption, or is bartered for parts or other

goods or services. High input costs led to high kill rates, low meat prices and further liquidation of the herds. In general, slaughter houses and meat-packing plants are operating at high rates of capacity as producers throughout the country continue to liquidate herds.

The farm has a feed mill to support the livestock operations. Feed grain production supplies the feed mill and is linked to livestock production. Wheat is the most profitable commodity. With the exception of the bumper crop in 1992, crop yields as a whole have declined, a trend throughout the country. This is a result of lower fertilizer and chemical application rates compared with production during the Soviet era. Higher input costs and the elimination of subsidies account for the reduction in application of these inputs.

### *Marketing and Linkages to Agribusinesses*

In spite of the emergence of private grain elevators, mills, dairy processors and meat-packing facilities, restructured state and collective farms continue to sell commodities to enterprises in the district to which the farm historically delivered. Many agribusiness enterprises such as elevators and processors have been privatized as joint stockholding companies with some of the stocks sold or given to the farms that supply them with commodities. This was an effort to prevent agribusiness firms from having too much market power relative to the farms. Hence, stockholding farms have sought to become vertically integrated through ownership in stockholding agribusiness enterprises. The small private, independent producers may sell commodities in formal markets in the city such as the central market or small retail shops or kiosks, or in informal markets such as a roadside stand on the outskirts of a town. Cooperatives, which usually include producers and processing facilities, move commodities through their facilities to profit from the value-added activities. Figure 2 sketches the commodity marketing channels by type of farming enterprise, and Figure 3 for capital availability, input requirement and the method of exchange by commodity or food product.

To facilitate the barter of wheat for fuel, the government has introduced "bills of exchange." For example, a farm in need of fuel during the planting season typically does not have cash to buy the fuel, or sufficient commodity in storage to exchange for the fuel. The bill of exchange acts as a forward contract between the producer and the fuel supplier. The government establishes the price of fuel depending on the location of the fuel supplier relative to the farm. The price of wheat to be exchanged for

Figure 2.  
Marketing Channels for Selected Agricultural Commodities

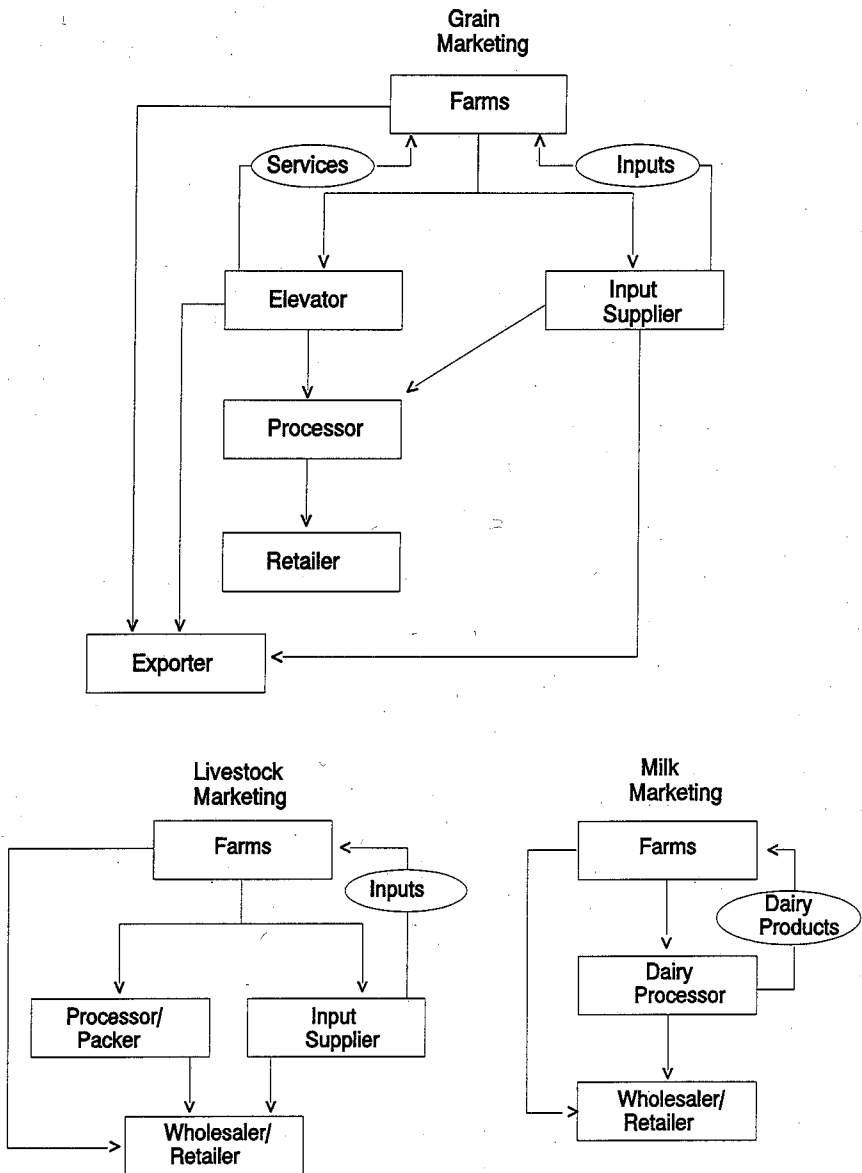
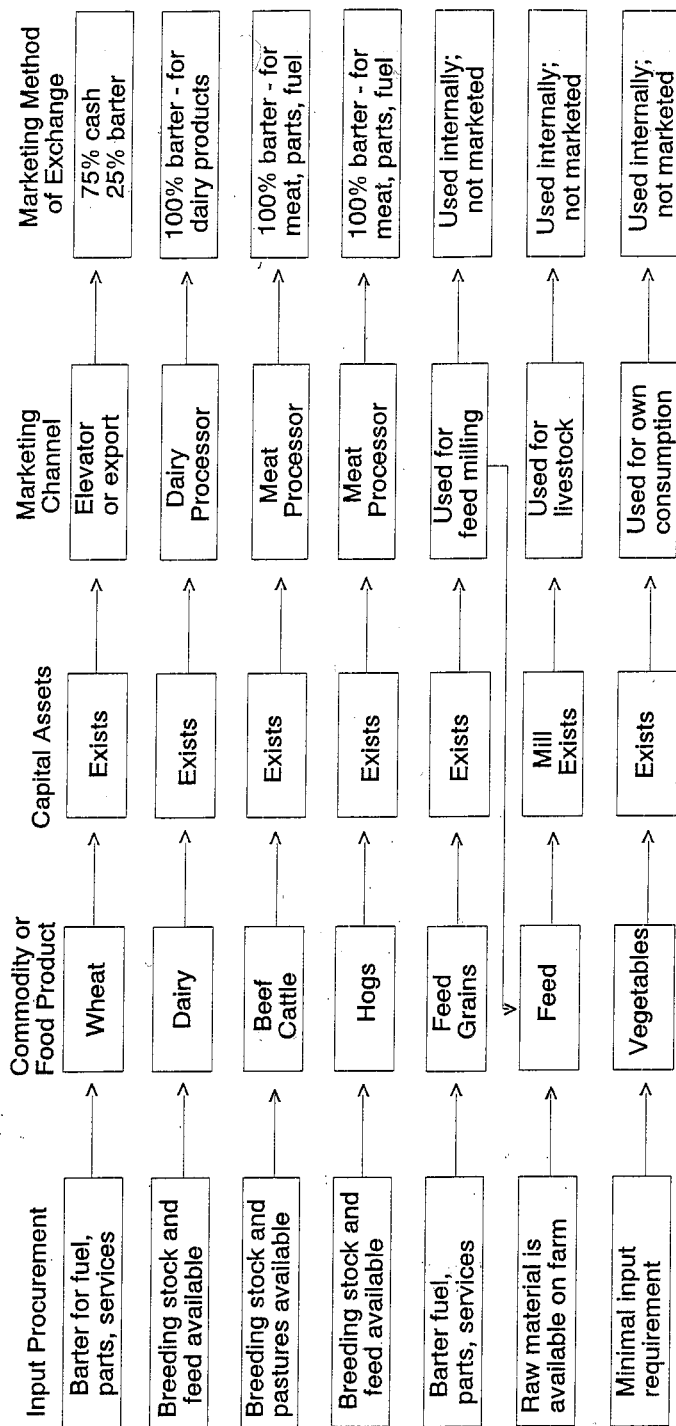




Figure 3.

*Input Procurement, Capital Assets, Marketing Channels and Method of Exchange for Agricultural Commodities and Food Products by Petrovich Farm*



fuel is determined at planting. Fuel is delivered at planting and wheat is delivered at harvest. The contract also specifies the grade of wheat. In mid-1995, the exchange of wheat for fuel was 2.4 tons of grain for one ton of fuel. Bills of exchange are issued at the oblast level based on estimates of wheat production in the oblast. However, the OA only grants bills of exchange to dependable producers.

Price liberalization has brought commodity prices and asset values closer to world prices, and now prices more accurately reflect the local supply and demand conditions. For example, in 1990 one liter of milk could be exchanged for two liters of gasoline; however, in 1995, three liters of milk could be exchanged for one liter of gasoline.

A grain exchange, based in Almaty, began monitoring all grain exports from Kazakhstan in 1995. Grain for export must be approved and certified. Physical commodity is not taken through the grain exchange, and the government does not take possession of the grain. Export prices are determined by buyers and sellers privately, but the export price must be cleared by the grain exchange, which is regulated by the Pricing Committee. The grain exchange exists to discourage exporters from evading payment of the proper tax. In the absence of the grain exchange, a buyer and seller could disclose a lower price than the actual price and split the tax savings. The grain exchange also records prices and disseminates information, although it is difficult to get regular information about prices of wheat from the exchange, and it is not yet possible to get price information on a real-time basis.

With the difficulty during the economic transition, the president of Kazakhstan has issued decrees allowing farm enterprises to develop strategic alliances between farms and agribusinesses, farms and corporate conglomerates, and joint ventures with foreign enterprises. As non-farming agribusinesses have been converted into joint stockholding enterprises, the government has provided shares of stock to state farms in the district at low cost or no cost. It is common for the farms in a district to have majority control over the shares of a district-level elevator, processing facility, and/or meat-packing plant. Even though the joint stockholding agribusinesses have not yet paid dividends, the controlling interest that the farms have in these enterprises helps reduce the price risk to producers and encourages vertical integration. Petrovich Farm is a shareholder of stocks in a dairy processor, a grain elevator, and a meat-packing plant.

Another development is the strategic linkage between farms and corporate conglomerates with primary interests in energy, mining, agribusiness and trading. A strategic linkage with a corporate conglomerate is advantageous for the farm because conglomerates have access to cash. The

conglomerate may purchase inputs for a farm in exchange for commodity to be delivered at some specified time. Or, a farm may sell any part of its operation to the conglomerate in exchange for cash or construction of new facilities or capital inputs. This possibility of a linkage may allow Petrovich Farm to improve grain yields, to take on more commodity marketing functions, or to perform value-added activities related to food production and marketing. Corporate conglomerates have been willing to buy agribusiness interests that are unprofitable in the short run and are able to absorb the losses until the market stabilizes in the near future.

Petrovich Farm also has contacts with a German firm and will undertake discussions for small-scale joint venture opportunities as a means to attract capital investment and expand into value-added activities in the operation's core competencies.

In general, no special relationships with input suppliers other than fuel suppliers exist. Input suppliers also face a cash flow problem and do not have access to credit. Input suppliers have many outstanding debts from their customers and often barter with producers. Perhaps closer ties will develop in the future when the agricultural economy is more stable and as credit becomes more available.

### *Social Infrastructure*

The DA and OA no longer have direct control over investments in social infrastructure because funding has not been provided by the oblast. The law specifies that the social infrastructure be financed from the national budget, but in practice there is no money in the budget to comply with this law. The government covers the salaries of teachers and doctors (although payments are untimely in most cases), but all other costs are paid by the farm. As a result, stockholding and cooperative farms contribute to residents' schooling and medical expenses, pay for the upkeep of roads, fund construction projects, etc. Pensions are paid by the government to retired persons, but these must be supplemented by the director of the farm, usually through food and income transfers.

### *Final Considerations*

Kazakhstan continues to make the transition from a command economy to a market economy. Therefore, many of the institutions that exist in market economies are either not present or are very crude. Specialized intermediaries that facilitate the exchange of commodities (with the

exception of standardized weights and measures, and research and extension) did not exist in the command economy, and the exchange process is still very inefficient as barter continues to be a common means of exchange. The government's role as a facilitator is largely nonexistent. The lack of credit has affected all actors involved in agricultural and food marketing. Coordination and strategic alliances are means of overcoming the difficulties associated with a lack of financing.

## Notes

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1. A joint stockholding company is a state-owned enterprise (a firm or farm) that has been privatized by issuing stocks according to the value of the assets of the enterprise. After assessing the value of the assets, the government either sells or gives the shares of stock to the employees of the enterprise and can reserve the right to keep some of the shares to be sold at a later date. For a state-owned agribusiness enterprise (an elevator or processor), the government typically gives shares of stock to the workers and sell shares (or gives) shares to the farms which provide the firm with agricultural commodities. For a state farm, the government usually gives the workers and residents of the farm the stocks and keep shares for later distribution. Profitable stockholding farms will usually buy the shares of stock that the government controls.
2. A medium-scale enterprise is defined as one with 200 to 5,000 employees. Large-scale enterprises (more than 5,000 employees) are privatized through sales on a case-by-case basis, usually with participation from foreign investors. In the agricultural sector, the large-scale privatization program has not been successful as only one enterprise has been sold, a tobacco interest. A margarine interest had the interest of a foreign

- buyer, but the deal fell through when the enterprise was unable to procure sufficient raw material from the local farms producing oilseeds.
3. In the early 1990s, the value of assets (buildings, machinery, etc.) was not well-defined in absolute terms or in relative terms. Hence, the "book value" represented a naive appraisal of an asset and typically reflected a fraction of its true market value.
  4. The difference between the structure of a state farm and a collective farm is primarily political. The director of a state farm is politically appointed rather than elected by the worker-collective. The economic structures of the state and collective farms are such that the assets are owned by the state.
  5. After the dissolution of the Soviet Union, many of the newly independent republics joined Russia to form the CIS to maintain close economic ties and accepted the Russian ruble as their currency, relinquishing most monetary policy to the Russian Central Bank. The newly independent countries of the FSU continuing to use the ruble as their currency, became known as the ruble zone.
  6. The failure of a political administrator to properly supervise the activities of the enterprises under his jurisdiction (such as not meeting production targets) could result in a demotion of the administrator. Hence, administrators had an incentive to review proposals carefully, and to provide the better performing enterprises with resources.
  7. Kazakhs do not have a history of land ownership. By decree, individuals and firms have the right to the use of land for life, but do not have the right to own the land.

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## Teaching Notes

### Overview

The dissolution of the Soviet Union severed the state-directed linkages between state-owned farms and agribusiness enterprises that had been ordered by the command economic system. The dissolution disrupted the marketing channels that connected the agricultural sector of Kazakhstan with the other former republics. The transition to a market economy required a transformation in the political and economic structures of state-owned farms and state-owned agribusiness enterprises. However, this transition was being encouraged, with the government neither legitimizing a process for the redistribution of land for use by individuals nor formally developing the necessary institutions to privatize the state-owned agro-industrial complex.

Directors of state-owned farms in Kazakhstan faced major challenges during this restructuring. The primary consideration is how the farm should be organized after privatization, i.e., whether the farm should be transformed into a cooperative, a joint stockholding company, or divided into several private, individual farm operations or separate partnerships. Related issues to be determined are:

1. What should be produced on the farm, given that five-year production plans no longer exist; that state-ordered deliveries of agricultural commodities at government-determined prices have been eliminated;

and that production and consumption subsidies of agricultural commodities and food products have been discontinued?

2. How should the farm market agricultural commodities and food products?
3. What value-added activities should the new enterprise perform?
4. What types of strategic alliances can be developed during the period of transition when credit is very tight, agricultural price uncertainty is very high, and barter is a common form of exchange?
5. How should the social infrastructure, i.e., schools, medical clinics, retired farm-member residents, etc., be supported?

### *Objectives of the Case*

The case exposes the student to the difficulties inherent in an emerging market economy such as Kazakhstan. Economists and business specialists have proposed a wide variety of prescriptions for the transition from a command economy to a market economy. This case presents the complexity of balancing interrelated objectives; such as the pursuit of economic growth, which is stifled by the need for tight macroeconomic policies; privatizing state-owned monopolistic enterprises, which have drained the state of scarce resources, to give birth to highly integrated oligopolistic enterprises; and activating deregulation and price liberalization to impose market discipline without relieving enterprises of the burden of maintaining the social infrastructure. Upon completing this case, the student should:

- realize the need for the supporting market institutions that facilitate agricultural production, marketing, and exchange in a developed market economy;
- understand how the general macroeconomic climate and policies affect a specific agribusiness enterprise; and
- appreciate the difficulty in making production, marketing and business strategy decisions when political, economic and social considerations are involved.

### *Use of the Case*

The case is well-suited for use by college students in agricultural economics, marketing and Russian and/or East European studies. The user need not have an extensive background in agriculture or any other scientific discipline, and the technical content is not highly specialized, although

some understanding of the U.S. agricultural marketing system and the organization of a command economy may be useful. Instructors should direct students to focus on the difficulty of transforming a command economy and state-owned enterprises, including the implementation of necessary economic policies, market institutions and regulations. The students should be pushed to explain the advantages and disadvantages of alternative forms of business organization; make a recommendation based on their plans for production, marketing and business strategy; and defend their recommendation for privatizing an enterprise.

Through the use of this case, students must: consider the effect of a generally unfavorable macroeconomic environment and the policies designed to stabilize the economy on a particular enterprise; realize which institutions provide the framework for a market economy and facilitate the exchange of goods and services in a marketing system; and understand the economic factors that affect the supply of and demand for agricultural commodities and food products.

The instructor must illustrate the role of a system of barter when the macroeconomic conditions are unfavorable and market institutions do not exist. Virtually all economies in transition have experienced declining agricultural output, high inflation and devaluation of the currency. Students should also understand how difficult privatization in the agricultural sector is because of land-use issues, property rights and imperfect competition in production and marketing.

### ***Discussion Questions***

***Question 1. Business Organization.*** *Should the farm be transformed into a cooperative, a joint stockholding company, or divided into several private, individual farm operations or separate partnerships?* The first point regarding the decision to transform is that there are two principal objectives, the collective welfare of the farm as a unit and the welfare of each individual member. Remember that the change in the business organization that is to be proposed by a director must still be approved on a democratic majority-rule basis. Hence, students must be prepared to discuss and evaluate each type of organization so the voting members can make an informed decision. Recall that large enterprises in the command economies had a "social function" in addition to the production function. So, whichever type of organization is proposed, the proposal must include an adequate explanation of how the social welfare of the member-residents will be affected.



Dividing the farm into several private, individual farm operations is probably the least desirable solution. Land is not homogeneous and assets such as tractors or buildings are not easily divisible. Furthermore, the social infrastructure would suffer if the farm were divided into many individual operations because a free-rider problem would most likely arise. One possible benefit is that by creating several farms, only the best operations and managers would survive. While this would be beneficial, it would be a tough adjustment for the many likely losers. There is also a strong case to be made about economies of scale, economies of scope and specialization that should enter into the discussion. Hence, the type of commodity(ies) and location of the farm to cities should also been given appropriate consideration.

The farm could also be divided into interrelated cooperatives without too much difficulty and the social infrastructure could be supported by taxing the integrated, but separate, enterprises. The enterprises could be subdivided by type of operation and farm managers elected by individuals currently working in those operations. The former member-residents can elect a board of directors to oversee the entire operation and report the financial state of the cooperative quarterly or semi-annually. The problem with this solution is that not all operations are profitable at the start, and this may not be an equitable solution for workers, especially if the profitable operations need to subsidize the unprofitable operations continuously. Such a solution may delay the rationalization that may be required. Although this form of privatization has been common, the social infrastructure under this type of business arrangement has suffered because the tax collecting from the separate enterprises has been inefficient and tax avoidance has been common.

The joint stockholding company is a preferred form of privatization in the northern part of Kazakhstan. Under this arrangement, shares of stock can be issued to every member-resident according to agreed criteria such as seniority, occupation, expertise, etc. Once this is determined, every member will profit from an increase in productivity, risk management, and marketing. Although a stock market does not exist, it should not be too difficult for the country to initiate a securities exchange. As long as the stockholding company remains "closed," the advantage of being able to attract outside investors is delayed. The joint stockholding company can sell unprofitable operations to expand production in the more profitable operations. This allows all workers to benefit, even those in an operation offered for sale.

Finally, the social infrastructure of the enterprise remains the problem of the whole enterprise. Until the government assumes the responsibility

of the social infrastructure, increased investment in schooling, rural medical clinics, roads, housing and supplemental support of retirees is most likely to occur by keeping the enterprise whole. Perhaps some of the social infrastructure, such as rural medical clinics and schooling, could be privatized.

**Question 2. Production Plan.** *What should be produced on the farm, given that five-year production plans no longer exist; that state-ordered deliveries of agricultural commodities at government-determined prices have been eliminated; and production and consumption subsidies of agricultural commodities and food products have been discontinued?* The case discussed the various production activities of the enterprise, noting that wheat is a profitable commodity and livestock and dairy products are unprofitable. Seeded area for wheat and other grains has been maintained. With price liberalization and the elimination of the state-ordered quota, the enterprise has reduced its livestock production and scaled back the dairy operation. However, since building, equipment and expertise exist, the farm still operates the dairy and livestock operations. Recall that, at the present time, the "social function" implies that the enterprise cannot simply maximize production subject to the costs of production. Hence, production for own-consumption means land, capital and variable inputs are allocated to the production of these goods. Livestock and milk are bartered for inputs and related goods and services. Some commodities are needed for bartering inputs and other goods and services. The producer must balance bartering constraints against profit-maximizing behavior. Part of the decision depends on how the enterprise allocates resources across operations.

Clearly, the "social function" is a constraint affecting short-run and long-run production and marketing decisions. Until the government can realistically impose an income tax or implement a viable consumption tax, the enterprise must still support the social infrastructure in the short and medium run. In addition, when other sectors of the economy begin to grow, one might expect that labor will leave the agricultural sector. This may reduce the social burden to the enterprise in the long run. Issues related to input procurement, economies of scale and scope, value-added, and productivity and specialization must be considered.

**Question 3. Marketing Plan.** *How should the farm market agricultural commodities and food products?* The important point here is that barter and credit availability are constraints to marketing. Joint ventures and strategic alliances with firms that have access to cash are very important. In addition, because the farm has stocks in joint stockholding agribusinesses, the farm should continue to cooperate with these enterprises. As long

as credit is tight, the farm should continue to engage in forward contracts that involve barter. Issues related to market location (domestic and foreign); characteristics of agricultural commodities; and characteristics of demand must be considered.

**Question 4. Performance of Value-Added Activities.** *What type of value-added activities should the enterprise perform?* A large-scale enterprise must take advantage of marketing opportunities in value-added food products with higher profit margins. It may still market grain and other commodities, but there are possibilities to perform value-added activities such as wheat milling to produce flour. The enterprise may want to consider the possibilities of producing bread, pasta or other wheat products. Proper consideration must be given marketing of perishable agricultural commodities and food products, and issues related to storage of commodities and/or food products, transportation and handling. The case notes that Akmola, the closest city and capital of the oblast, is about 100 kilometers away, an hour's drive.

**Question 5. Strategic Alliances.** *What types of strategic alliances can be developed during the period of transition when credit is very tight, agricultural price uncertainty is very high, and barter is a common form of exchange?* The decision here is to focus on whether some of the unprofitable production units can be sold to a corporate conglomerate in exchange for investments in wheat milling capability to produce flour and/or other value-added products such as bread and pasta. The case notes that the enterprise has contacts with a German firm to discuss small-scale joint venture opportunities. Perhaps this is one way the enterprise can expand into wheat milling to produce flour. The strategic linkages with a corporate conglomerate should be considered. These firms have access to cash and are willing to work with the large farms. This relationship may be as simple as a credit arrangement; however, the conglomerates typically want more than a credit arrangement. The case noted the Petrovich Farm is generally profitable and reliable, but has some unprofitable operations. Another possibility would be to sell unprofitable livestock operations to a conglomerate in exchange for cash to expand into wheat milling capacity or storage capability. Storage capability can be very beneficial to the farm in the marketing of grain and/or flour. An arrangement to sell unprofitable parts of the operation in exchange for construction of storage facilities may be a possibility. The conglomerate with its diversified portfolio has the funds necessary to make capital investment in the livestock operation and can ride out the short-run economic instability and has the willingness to do so. The farm can supply the grain needed to feed the operation, and this may be part of an arrangement between the farm and the conglomerate.

The farm also has an incentive to work with the grain elevator, the meat packer and the dairy processor in which it is a stockholder. This farm continues to market grain, milk and livestock to these agribusiness enterprises. How might this vertical integration evolve in the future and what should the relationship look like in the future? How can the farm, which has connections with a German firm that is interested in a joint venture, benefit from this type of venture? How can the farm develop arrangements with corporate conglomerates to rationalize the overall farming enterprise?

**Question 6. Social Infrastructure.** *How should the social infrastructure, i.e., schools, medical clinics, retired member-residents of the farm, etc., be supported?* This decision is probably the most interesting of all because Western firms typically do not have to deal with such a wide range of social issues, and those firms that did guarantee employment for life have sought to discontinue the practice. Issues, such as growth and equity; the old versus the young; present consumption versus saving and investment, should be discussed.

## ***Epilogue***

In March, 1992, regional political administrators and the oblast-level State Property Committee (SPC) held a conference to privatize this farm. Once the SPC gave approval for the privatization of state farms, Mr. Lyar proposed the privatization of the farm after a vote of the worker collective and member-residents. In April, the SPC approved the privatization and Petrovich became the first state farm in the oblast to "privatize." Mr. Lyar ran for the position of director unchallenged. The process of transforming this farm set a precedent for the oblast, and the by-laws that were established served as a working document for other state farms that were to be transformed into collectives.

In June 1994, the farm became a closed, joint stockholding company that was 100 percent owned by the director, the worker collective, and member-residents, with the director as the majority shareholder. The transformation of this farm is representative of the process of the privatization program in the agricultural sector; however, the unique success of the enterprise has enabled it to acquire full ownership control, i.e., the state does not own any shares.

Shares were distributed to member-residents who had been on the state farm at least five years. The number of shares given per person depended on the number of years one had lived on the farm, the type of work one was engaged in, and the average wages one received for the five years

prior to privatization. Members preferring a cash buy-out were given T100 (\$3.00) per share. This formulation was approved by the worker collective and member-residents. Those that took the buy-out and are still employed are considered hired workers. Outsiders cannot buy stocks, and those who leave must sell or transfer shares to members. The price of a share is determined in an open market, and a notary public makes the sale legally binding. Reserve shares of stock exist, but have not been issued.

Petrovich Farm has a strategic linkage with a Kazakh-owned corporate conglomerate with interests in energy, mining, agribusiness and trading. Corporate conglomerates are financially sound because they have access to exportable commodities that can generate hard currency or be bartered for goods that maintain their value over time. Many corporate conglomerates have been willing to invest in agricultural projects during this period of instability to position themselves in the future when the market stabilizes.

In 1994, Petrovich sold its hog operation to AZAT. Hog production was the most unprofitable operation of this farm and hog numbers were steadily decreasing, a trend that is consistent throughout the country. Although AZAT is losing money in the short run, it is financing its losses with revenues from its other interests. In 1995, AZAT increased the number of hogs to 9,000 head and is expecting to lose T15 million (\$240,000). AZAT pays the workers on time at a higher wage rate than what Petrovich paid. Those workers deciding to work for AZAT were required to sell their shares of stock in Petrovich Farm, which merely amounted to a transfer of shares to family members still working on Petrovich Farm.

Petrovich Farm has expanded its farming activities into value-added food production such as pasta production in 1994. The pasta operation began as a three-way joint venture between a German firm, AZAT, and Petrovich Farm. AZAT's share of this venture was purchased in exchange for the hog operation. Petrovich's share is 91 percent and 9 percent is owned by the German firm. The German firm receives 9 percent of the profit which is determined on the following basis: An estimate of costs is subtracted from quantity produced multiplied by the price of pasta, which is T50 per kilogram (80¢). Nine percent of this estimated profit is paid in cash to the German firm. The rest of the sales are sold primarily through barter arrangements. The venture is considered an alternative to borrowing from a bank.

A grain mill and flour mill were constructed for operation in the fall of 1995. It is expected that 5,000 tons of flour will be produced. The objective of the flour mill is to begin producing bread, taking advantage of the value added to wheat and the favorable market for wheat products. At

present, the grain mill is being financed by AZAT, but it will be 100 percent owned by this farm in a deal that includes a feed mill owned by Petrovich farm and feed grains to be supplied to AZAT. The strategic alliance with AZAT provided a means to rationalize the overall operation, cutting hog production and feed milling and expanding into wheat production and wheat milling, flour milling, and production of food products.

Other value-added ventures include a small bakery that produces cakes and biscuits for the local community market, and a small cafeteria that is a not-for-profit enterprise. Expansion of the bakery for cakes and biscuits is unlikely because the major market, Akmola, is too far removed. Future plans include the construction of on-farm storage of grain and storage of flour (which is in progress) to provide the enterprise greater control over grain and flour marketing.

With respect to the social infrastructure, the state covers the base salaries of teachers and physicians, but all other costs are paid by the farm. As a result, privatized farms have taken on the responsibility to help support their residents' schooling, medical expenses, upkeep of roads, etc. Pensions are paid by the government to retired persons, but these must be supplemented by the director of the farm usually through food transfers. It has been the policy of Mr. Lyar and the board of directors to help members pay for their utilities and the construction of housing. Since privatizing, twenty new private houses have been constructed, and a sports complex, a recreation area, a small store, and a small medical clinic have been added to the infrastructure.