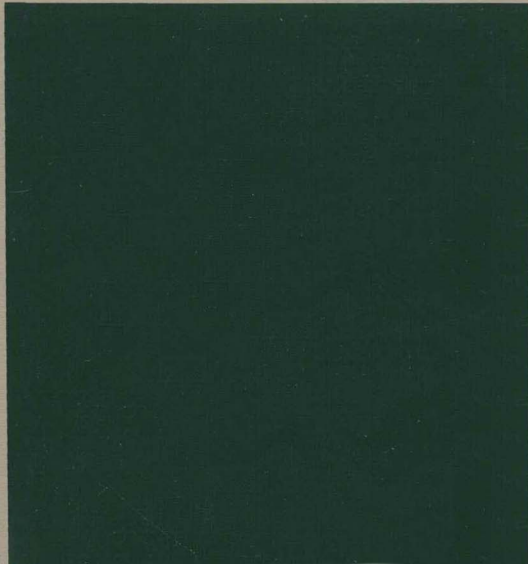


Valentin Litvin

**THE SOVIET
AGRO-INDUSTRIAL COMPLEX**
Structure and Performance



Westview Press
Delphic Monograph Series



The Soviet Agro-Industrial Complex

Structure and Performance

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The Soviet Agro-Industrial Complex

About the Book and Author

Drawing on first-hand knowledge of Soviet institutions, Dr. Litvin offers a useful taxonomy of the various ministries and research institutes involved in food administration in the USSR. In addition, he presents a comprehensive analysis of the structure and performance of the Soviet agro-industrial complex, examining the industries that produce material inputs for agriculture and those that process, store, and market food products. Dr. Litvin describes interfarm cooperation and agro-industrial integration at the micro level, as well as institutional and administrative changes at the macro level, including reforms initiated by Gorbachev. Finally, he discusses Soviet efforts to acquire Western agricultural technology and the potential within the new Soviet leadership for flexibility in dealing with this vital issue.

Dr. Valentin Litvin is a Soviet émigré who worked for several years at the USSR Academy of Agricultural Sciences.

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Valentin Litvin

Foreword

Brezhnev's ascent to power in 1964 occurred at a crucial juncture in Soviet history—the nation had just run out of reserves of potentially arable land.

If there is one unyielding constant running through the history of Soviet agriculture from the beginning of the Soviet period to the end of the Khrushchev era, it is the reliance on extensive farming, i.e., the continuing cultivation of new lands, as a primary means of expanding output. To feed a population that grew from 163 million in 1917 to 229 million in 1965, the area sown in the USSR was almost doubled. Slightly more than half of this increase occurred during the Khrushchev Virgin Land era.

Brezhnev, however, had no reserves; they had been exhausted by Khrushchev. If the nation was to continue experiencing the improvements in welfare to which it had become accustomed during the Khrushchev years, a shift to intensive farming would be necessary. Intensive farming, however, requires large investments in an agricultural machine-building industry, plant fertilization, irrigation and drainage projects, research facilities, and work training.

The opening act of the Brezhnev period was thus to move agriculture to the head of the capital rationing queue. At the March 1965 Plenum of the Central Committee of the Communist Party, agriculture's share of state investment was fixed at forty-one billion rubles, an amount which in Brezhnev's words was "equal to all of the investment in agriculture since 1945." For the first time in history, it was up to the defense, heavy industry, and consumer lobbies to squabble over the remainder, thereby setting in motion a massive structural, quantitative, and institutional transformation of Soviet agriculture.

Over the course of the period 1965–1980, the level of investment in agriculture increased dramatically. As Dr. Litvin shows, agriculture's share of total investment was increased from 16.9 percent during the period 1961–1965 to 26 percent in 1976–1980. Total capital stock in agriculture increased 3.2-fold; capital stock per worker, 3.7-fold; and capital stock per acre of agricultural land, by a factor of 3.3. Deliveries of fertilizer tripled, and the area of irrigated land more than doubled. Sown area, on the other hand, rose by only 2–3 percent, and the agricultural work force shrank by

more than 10 percent. On the output side of the ledger, gross agricultural output during the period 1975–1980 was up by more than 50 percent over the period 1961–1965, grain output was up by 57 percent, meat by 59 percent, milk by 43 percent, eggs by 119 percent, and vegetables by 53 percent.¹

The rapid threefold rise in the volume of investment precipitated sweeping technological and structural transformations. An ever-larger share of farm inputs now comes from an ever-increasing number of branches of industry, and concomitant with rising living standards, an ever-larger share of farm output is undergoing industrial processing and transformation prior to its point of consumption. Old institutions and methods of administration have been rendered obsolete.

The process has resulted in the formation of what is referred to in Soviet literature as the *agro-promyshlenny kompleks* (agro-industrial complex), or APK, which is the subject of Dr. Litvin's study. Its magnitude is evident from the fact that it receives about one-third of all investment, has 30 percent of the nation's capital stock, and employs 40 percent of the country's work force. Its final product accounts for 75 percent of total trade turnover.² The APK consists of three technologically interdependent spheres: Sphere one comprises the industries producing material inputs for agriculture, such as tractors and other agricultural machinery and equipment, fertilizers, pesticides, construction, etc.; sphere two is agriculture itself; and sphere three consists of the agencies and industries procuring, transporting, processing, storing, and marketing products and goods made from agricultural raw materials. This complex is the subject of Chapter Two. As the Soviet APK has developed, the contribution to its final product made by spheres one and three has unrelentingly increased, while that of sphere two has decreased—a process that mirrors one that occurred in the United States several decades earlier.

There is, however, a difference. In the US, whatever the magnitude of the social and human costs, the process came about spontaneously in response to changes in the patterns and structure of costs, prices, income flows, and parity ratios that shifts in agricultural technologies produce. But in the Soviet setting, given its system of central planning of output, prices, and incomes, the creation of the requisite new enterprises and the management of the ever-increasing and shifting relative volumes of material, human, and financial flows through the expanding number of links between agriculture, industry, science, and education have been accomplished by fiat. This, as Dr. Litvin shows, has resulted in the creation of a growing number of ministries and agencies administering and providing services to agriculture.

Partially in response to the barriers the ministerial or branch method of administration poses to intersectorial exchanges, and hence effective in-

tegration, it was resolved in 1976 to foster "further development" of interfarm cooperation. Since the 1950s, at the initiative of local and farm officials and using farm funds, farms had been joining forces to set up various types of cooperative interfarm enterprises. These efforts included joint feed lots, construction enterprises, canning and processing plants, artificial insemination points, repair shops, etc. As of 1976, there were some 7,000 interfarm enterprises of all types, with a total of some 106,000 kolkhoz, sovkhoz, and other government shareholders with a capital stock of R2.6 billion, employing the equivalent of 367,000 full-time workers.³ By 1982 the number of such organizations had grown to 9,767, with a total of 159,732 shareholders, R6.1 billion in capital, and 813,400 employees.⁴

As a result of the encouragement given by the 1976 Resolution, newer and higher forms of interfarm and inter-enterprise cooperation evolved along both product and regional lines. In Chapter Three, along with a description of the organization of the Ministry of Agriculture and the USSR Academy of Sciences, Dr. Litvin presents a description and analysis of these new institutions and their problems. Dr. Litvin participated in all stages of the development of the 1976 Resolution, including the writing of the final draft for the CPSU, and he uses this document to give an insider's case study of the process by which decisions in the area of administration and management are reached in the USSR.

In Chapter Four, Dr. Litvin presents a comprehensive and detailed description of the process of gathering and disseminating scientific and technical information, both domestic and foreign, for agriculture. He analyzes the role of science in the Soviet agricultural revolution and the importance the Soviets place on acquiring Western agricultural technologies to continue it.

The quantitative, institutional, and administrative changes that Dr. Litvin describes have not only been numerous and complex—they have also been rapid. This fact has produced a serious research lag here in the West, one this study does much to overcome. While much has been written in the West about these recent changes in Soviet agriculture, all of these works have dealt at best with only single or narrow aspects of the process. Dr. Litvin's study is the first to provide a comprehensive description and analysis of the current structure, formation, and performance of the Soviet agro-industrial complex.

Dr. Litvin is eminently qualified to carry out this task. He holds a B.S. in Agricultural Economics from the Institute of World Economics and International Relations of the USSR Academy of Sciences; in addition, he has an M.A. in Western Culture from Moscow University. Prior to his arrival in the United States in 1979, Dr. Litvin was engaged in agricultural economic research and authored and co-authored many studies on both the Soviet and US agro-industrial complexes for the USSR Academy of Sciences. Over

and above these studies, some of which are cited in the present monograph, he is also the author of "Agro-Industrial Complexes: Recent Structural Reform in the Rural Economy of the USSR," which appeared in *The Soviet Rural Economy*.⁵

This book presents a wealth of facts and detail either unavailable elsewhere or not published in English. Whereas some of the material contained in the concluding section is bound to spark controversy in Western scholarly circles, it remains without a doubt that Dr. Litvin's work represents a valuable contribution to our understanding of the organization of Soviet agriculture.

Frank A. Durgin, Jr.
Portland, Maine

Notes

1. Statistics drawn from *Narodnoye khozyaystvo SSSR* (Moscow: Statistika) for the given years.
2. *Ekonomika sel'skogo khozyaystva*, no. 3 (1984), p. 4.
3. *Narodnoye khozyaystvo SSSR v 1980*, p. 262.
4. *Narodnoye khozyaystvo SSSR v 1982*, p. 274.
5. Roger C. Stuart, ed. (Totowa, N.J.: Rowman and Allanheld, 1983).

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1

Soviet Agriculture in Historical Perspective

Since the Bolshevik revolution of 1917, Soviet agriculture has undergone a number of institutional and structural reforms, the most radical socio-economic transformations of which were nationalization of the land and collectivization of agriculture. Nationalization of the land was proclaimed at the second All-Russian Congress of Soviets in November 1917. It established state ownership of land. The collectivization program was implemented in the late 1920s and early 1930s. Two main types of agricultural enterprises were created: the collective farm (*kolkhoz*) and the state farm (*sovkhov*).

On *kolkhozes*, the means of production and the production resources (except the land) are owned by the *kolkhozes* themselves, and the *kolkhozniks*, or farm workers, are employed by the *kolkhoz*. On *sovkhozes*, all the means of production belong to the state, and the workers are employees of the state. *Kolkhozes* receive a relatively limited number of plan quotas in the form of "sales plans" from the state; they organize their activities in accordance with production plans that are confirmed by a general meeting of the collective farmers. By contrast, *sovkhozes* receive a complete list of plan quotas from the state, including volume of production, volume of capital investments, planned profit and others. The after-tax income obtained by a *kolkhoz* belongs, strictly speaking, to the *kolkhoz*, while that income from a *sovkhov* which exceeds a certain guaranteed minimum income for the farms goes into the state budget. *Kolkhozes* have no limits on labor and wages; wages, which are paid in cash or in kind, are fixed by the *kolkhoz* management board (*pravleniye kolkhoza*). For *sovkhozes*, higher official organs provide staff lists, output norms, and work rates.

Kolkhozes and *sovkhozes* have different connections to the state budget. For example, *kolkhozes* use their own funds or loans from the State Bank

All quotations that were in Russian, whether written or verbal, have been translated by the author except when they are taken from secondary sources and already translated.

(Gosbank) to carry out capital construction, i.e., such construction is carried out at their own expense. Sovkhozos use their own savings and funds from the state budget as well. Soviet agro-economists call kolkhozos "socialist-type enterprises" and sovkhozos "consistently socialist-type enterprises." From the standpoint of Marxist philosophy, this reflects the existence of two forms of property in the USSR: cooperative property and state property. This distinction also produces an important difference in the systems of management. The general meeting of collective farmers is the highest governing body of the kolkhoz and is responsible for electing the chairman. The sovkhoz is governed instead by a director who is a representative of the state and is designated by an administratively superior organization.

A process of amalgamation of kolkhozos was carried out from 1950 until the mid-1960s, as neighboring kolkhozos within a certain vicinity were united almost mechanically into a single farm. This trend is often considered to be unimportant. The significance of this measure, however, goes beyond the bounds of simple consolidation. During the course of amalgamation thousands of kolkhozos were turned into sovkhozos. The official Soviet position is that this process of transformation was set in motion in order to bring the field sizes into more optimal alignment with existing technology, thereby permitting greater returns to scale as a result of the economy of scale. Between 1950 and 1965 the number of kolkhozos fell from almost 124,000, having an average of 165 households and 2,500 acres of sown area per farm, to 36,900, having an average of 426 households and 7,750 acres of sown area per farm. Since 1965, the process has continued but at a diminishing rate: By 1985 there were 26,200 kolkhozos, each having an average of 482 households and 8,750 acres of sown area.¹

At the same time, as a result of the opening up of new lands (the Virgin Lands Program, begun in 1954), the establishment of specialized vegetable and dairy product farms in the vicinity of large population centers, and the transformation of unprofitable farms into sovkhozos, the number of sovkhozos, or state farms, rose from about 5,000 in 1950 to 11,680 in 1965, and to 22,500 by 1985.²

In spite of the amalgamation of kolkhozos, sovkhozos are larger both in terms of acreage and livestock population; they are also more capital intensive (Table 1.1).

Aside from size and level of capital intensiveness, other differences still remained between kolkhozos and sovkhozos after the amalgamation campaign. However, in many respects these differences became purely nominal. In 1966, the collective farmer's labor norm—the workday (*trudoden'*)—was abolished and minimum guaranteed monetary wages were introduced. This is the same system that was applied to sovkhozos from the very beginning. Additionally, the state assigns all the basic plan quotas for kolkhozos and controls their income by means of the purchase price system. The chairman

of the kolkhoz is elected either by the farm's general meeting or by a meeting of representatives at the recommendation of local party organizations. The independence of the cooperative sector is quite limited.³

In 1958, machine-tractor stations (MTS) were eliminated. MTS played a dominant role during the 1930s and through the end of the 1950s. Due to both the inadequate number of tractors, grain harvesting combines, and other equipment in the USSR during the early years of Soviet power, and the kolkhozes' inability to operate and maintain them effectively, the state had a monopoly on most powered farm equipment until 1958. This was concentrated in some 8,000 MTS which performed work for the kolkhozes of a given region on a contract basis. As a result of an ever-increasing availability of machinery after 1950, MTS were disbanded and the equipment was sold to the kolkhozes. This was yet another attempt by the Soviet government to equate kolkhozes and sovkhozes. Construction of repair shops was also started on kolkhozes. These shops, however, had neither equipment, skilled mechanics, nor spare parts. As a result, instead of MTS, the State Committee for Supply of Production Equipment for Agriculture (Sel'khoztekhnika) was created to help relieve the situation by providing machinery and tractors. The economy of the kolkhozes, like that of sovkhozes, became even more strictly regulated, since prices for machinery, fertilizer, and services are fixed by the state.

One of the most important socio-economic transformations in the agrarian sector of the USSR economy is the private plot system. Since the early 1930s, a portion of state land, an extremely small portion, has been allocated for the personal use of collective and state farmers. On his private plot a Soviet peasant can grow potatoes, vegetables and other agricultural crops, and he is permitted to keep a limited quantity of livestock.⁴ The policy of the Politburo with regard to private plots has been less than uniform over time. Plots have been limited (for example, in the mid-1950s) or expanded (in the mid-1960s and 1970s), depending on the political situation and economic conditions. Since the mid-1970s, a consistent policy has been implemented which is aimed at supporting private plots. Kolkhozes and sovkhozes now help peasants to cultivate private plots and provide the farm workers with feed for livestock and poultry at moderate prices. At the same time there is always an inevitable competition between public and private farming: Kolkhozniks prefer to work on private plots rather than on the kolkhoz.

By 1985, private family plots of up to 2.5 acres were in use. Those being worked by collective and state farmers accounted for about 4 percent of total sown area in the USSR. The farmers used this land to produce up to 30 percent of the agricultural products in the Soviet Union, including 58 percent of the potatoes, 30 percent of the vegetables, 29 percent of the milk, 28 percent of the meat, 29 percent of the eggs, and 24 percent

of the wool.⁵ At present there are some 35 million private plots in the USSR. In 1985, 24 million head of cattle, or one-fifth of the total cattle population, was owned privately by collective and state farmers. In the same year, 14.1 million pigs were owned privately, accounting for more than one-fifth of the entire population of 78 million pigs. Over half of all poultry is under private ownership, and private plots provide up to 40 percent of the total income of collective farmers.⁶

Private use of land has led to the development of private trade in agricultural products. Since 1933, the so-called "collective farmers' markets" (*kolkhozyne rynki*) have been in operation everywhere, exhibiting market economy elements such as supply/demand interplay, competitive pricing, and so on. As of 1980 there were some 6,500 such markets throughout the USSR. Twenty-eight were in Moscow and served a total of 100 million customers. Prices at these markets considerably exceed those in state stores, reflecting the shortages within the state sector. In 1980, 15 percent of all agricultural products were sold in this way and in 1985, 12 percent.⁷ It is expected that during the 12th five-year plan period (1986–1990) the trade of the *kolkhozyne rynki* will increase. Kolkhozes and sovkhoses are permitted to sell at local private markets up to 30 percent of their potatoes, fruits, and vegetables as well as all above-the-plan amount of other products at local private markets. The amounts sold privately are expressed as state deliveries in the state procurements plan.⁸

Thus, there are three sectors in the agrarian economy of the USSR: the state sector (sovkhoses), the cooperative sector (kolkhozes), and the private sector (private plots). Table 1.2 indicates the share of each sector in terms of area of arable land and production.

In both ideological and political terms the existence of the private sector is undesirable. The numerous publications and speeches of Party officials and Soviet economists persistently call for a change in terminology, for a switch from the use of the term *chastnyy sektor* (private sector) to that of *vspomogatel'noye khozyaystvo* (auxiliary farming). Yet the existence of the private sector is an economic necessity and is a result of the low productivity of kolkhozes and sovkhoses. Clearly, complete socialization of agriculture, including the elimination of the private sector and the complete transformation of kolkhozes to sovkhoses, would correspond better with notions of "developed" or "mature" socialism. The state, however, is not in a position to take on the support of low-productivity kolkhozes, which would include capital construction, social security (if kolkhozniks were to be equated with their sovkhos counterparts), and so on. In this case economic necessity is stronger than ideological and political postulates. For this reason, two contradictory trends may be observed in the Politburo's agrarian policy: a process of socialization of agriculture and a simultaneous increase in the relative importance of the private sector.