



# Institutional Changes and Their Impact on Agricultural Economics in Russia in 1952–2018



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**Abstract** The paper analyzes the impact of institutional changes on the dynamics of economic growth in Russian agriculture. The authors identified six specific periods of the development of Russian agriculture (1952–1958; 1959–1970; 1971–1981; 1982–1990; 1991–1998; 1999–present), associated with qualitative changes in institutions and affecting the economic dynamics of the industry. The violation in combining dominant and complementary institutions throughout the studied period is considered as the main mistake in building an institutional environment that causes stagnation and a decline in agriculture. The necessary changes are highlighted in the existing institutes of market and state regulation in Russia, which allow achieving sustainable economic growth in the agricultural sector.

**Keywords** Economic growth · Institutes · Institutional environment · Agriculture · Agricultural environment

## 1 Introduction

The evolution of the agri-food market in developed countries shows that, at the present stage, it is impossible to achieve effective regulation of the agricultural sector without a competent combination of dominant market and complementary state institutions. Moreover, the specific factors of the development of agricultural institutions in Russia do not allow for sustainable and rational competitive regulation, which leads to crises in agricultural production. In such conditions, it is possible to achieve sustainable

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economic growth in agriculture (an increase in the real gross agricultural product based on the proximity of factual levels to the trend and the pronounced positive long-term tendency in the development of the industry) only with the competent construction of rules and institutions, regulating the activities of economic agents in the agricultural sector.

We have set the following goals:

- To determine the role and importance of institutional changes for the economic growth of agriculture in Russia in 1952–2018;
- To give a reasonable assessment of such changes;
- To propose the necessary changes in the Russian institutional environment, allowing them to achieve sustainable economic growth in the agricultural sector.

## 2 Materials and Methods

The methodology of studying the influence of various factors on economic development is described in the framework of classical and Keynesian models of exogenous and endogenous economic growth [1, 14–16, 19].

In the institutional approach, the wealth of economic agents (households, firms, the state, etc.) depends not on the availability or ratio of different resources but on the way they are used by individuals. That is, economic growth and the well-being of the country depend not so much on the availability of the production factors but on the rules (institutions) by which they are used [2, 4, 5, 11, 12, 18, 23, 24]. At the same time, institutions are understood as a set of working rules that affect the behavior of economic agents in the social space, including the appropriate mechanisms for preventing deviant behavior [17].

In order to identify the relationship between institutional changes and economic growth in agriculture, we analyzed a set of formal institutions within dominant planned and complementary market (1952–1990), dominant market and complementary planned (1991–2018) institutions of regulating the Russian agricultural sector (legal information is available in the public domain on the legal information portals of the Government of the Russian Federation and the Central Committee of the Communist Party of the USSR [CPSU]).

The research methodology of dominant and complementary formal and informal institutions is presented in the work of Kirdina [13]. Effective interaction of a complex of institutions is achieved by following these rules:

1. The presence of dominant and complementary rules in the institutional environment;
2. The preservation of their roles (dominant or complementary) by institutions;
3. Ensuring the necessary combination of institutions.

The effectiveness of the institutional environment is ensured through compliance with the rules of its creation. It provides twice as much positive effect on economic growth than the quality of economic policy in a particular country [21].

The statistical base of the study was the collections “The National Economy of the RSFSR (Russian Soviet Federated Socialist Republic)” for 1956–1990 and (annual) and electronic data of single interdepartmental information and statistical system.

### 3 Results

Institutional changes in Russian agriculture allow us to distinguish several periods of agricultural development related to the multidirectional dynamics of the economic growth of the agricultural sector:

- 1) 1952–1958;
- 2) 1959–1970;
- 3) 1971–1981;
- 4) 1982–1990;
- 5) 1991–1998;
- 6) 1999–present (Fig. 1).

The allocation of periods occurs according to the basic dynamics of economic development. Thus, the spread of successful institutional innovations positively affects economic growth, while the postponement of necessary transformations hinders the development or leads to the economic recession.



**Fig. 1** Gross agricultural output at comparable prices in 2014, billion rubles. (chart on the left scale) and economic dynamics of the industry, % (chart on the right scale). *Source* Calculated by the authors based on [20, 22]

## 4 Discussion

### 4.1 1952–1958

Until the mid 20<sup>th</sup> century, Soviet Russia had an institutional environment with dominant state institutions for agricultural regulation (represented by state and cooperative-collective farm ownership, a mechanism for redistributing food products, cooperative forced labor, a rigid planning system), with an almost complete rejection of complementary market rules. The inefficiency of such a system was expressed in sharp fluctuations in agricultural production, which led to multiple negative consequences.

Institutional changes in agriculture started in 1952 and were formalized at the Plenum of the Central Committee of the CPSU in 1953. The transformation took place along several tracks (reducing the bureaucratic burden on collective and state farms; eliminating strict regulation of all gross indicators; weakening the redistribution institution; increasing purchase prices for firms by the state) and was aimed at maintaining an institutional balance between dominant state and complementary market institutions in favor of the latter.

The following positive results show the effectiveness of institutional changes: an increase in labor productivity by 75–83%, an increase in the yield of grain and vegetables by 40%, sunflower by 100%, meat production by 36%, milk by 55%, and eggs by 54%, the use of fertilizers also increased by 81%. The average annual economic growth of agriculture over this period equaled 7.6%. Cumulative agricultural growth at comparable prices was 67%.

### 4.2 1959–1970

The next period of agricultural development was accompanied by political instability and chaotic institutional changes. The March Plenum of the CPSU Central Committee of 1962 revived the previous ineffective institutions of state regulation of agriculture. The principle of complementary institutions was not followed, which led to the slowdown in the economic growth of the agricultural sector in 1959–196 (in 1963, the same output was produced at comparable prices as in 1952). The scientific discussion of agricultural economists during this period confirmed the need for the further development of complementary market institutions. However, the leadership of the country took a different path and concentrated on intensifying production (increasing the production of mineral fertilizers, expanded reclamation programs, and mechanizing agriculture) within the framework of the existing rules for regulating the industry.

The transformation of state regulatory institutions allowed to increase production in agriculture—labor productivity increased by 60%, gross grain harvests increased

by 30%, meat production—by 66%, milk production—by 43%, and egg production—2.5 times. The average annual economic growth of agriculture over this period equaled to 5.3%. However, unlike in the previous period, this growth was unstable and varied from  $-7\%$  to  $+14\%$ . Cumulative agricultural growth at comparable prices was 43%.

### **4.3 1971–1981**

The beginning of the 1970s became the time of choice between two options: maintaining the existing institutional environment with low and unstable growth rates or switching to the introduction of complementary market institutions to increase the growth of agriculture and reduce its volatility. The leadership of the country abandoned the necessary changes and directed its efforts towards increasing the role of state institutions, which resulted in several ill-conceived and unsuccessful projects:

- Unsuccessful transition to the second virgin soil in the Nonblack Soil Zone;
- Expensive and rent-oriented activities to intensify agriculture (land reclamation, chemicalization of the industry);
- Increase in the size of agricultural enterprises beyond the reasonable boundaries of intra-company management. The size of enterprises more than tripled (sown area changed from 1.2 to 7.3 thousand ha, the number of livestock animals from 279 to 2,407).

The conservation of an inefficient institutional environment did not allow for the efficient development of the industry, which led to economic stagnation. By 1981, Russia produced in the prices comparable to the prices in 1971. The average annual economic growth of agriculture for this period is 0.01%. Cumulative agricultural growth at comparable prices—0%.

### **4.4 1982–1990**

In the 1980s, the government tried to get out of this difficult situation in agriculture (the stagnation of domestic production and large-scale increase in imports). In general, they can be described as attempts at cosmetic restoration: the material and technical base of agriculture was developing, the material interest of rural workers increased; the role of science intensified. Despite some positive results, the postponement of the full introduction of complementary institutions of market regulation could not lead to significant shifts in agricultural production in the country. The institutional environment of Soviet agriculture rejected alien market elements.

Despite an almost two-fold increase in agricultural support, the average annual economic growth of agriculture is 1.7%, and the cumulative growth in comparable prices is 23.7%.

## 4.5 1991–1998

Unstable dynamics of economic indicators may accompany the process of institutional changes, but the long-term result of positive transformations should be an increase in the production indicators of the reformed object.

The transformation of Soviet agriculture after 1990 required a long-term economic reform, which would gradually bring the necessary improvements and result in a long-term increase in economic growth. However, in 1991, another way was chosen for agriculture in Russia, which included changing the allocation of resources, transforming property relations, reproduction relations, and income distribution relations as part of the general economic reform in the country.

The process of institutional transformation of agriculture began with the reorganization of owners. Collective farms and state farms were transferred to joint-stock companies, partnerships, agricultural cooperatives, and peasant farms. Three years after the start of the reform, 95% of households underwent reorganization, of which 34% retained their status. The sharp changes in property relations in the context of its weak specification, not only in comparison with the countries of Western Europe but even in comparison with the previous socialist system, led to the fact that a narrow circle of people appropriated a large part of social wealth. By 2000, 1.3% of the largest farms in agriculture concentrated 89% of all industry profits.

The reformation of property relations has occurred, including farmland. The main goal of the changes was to transfer state agricultural land to the ownership of labor collectives and residents of rural areas and to form productive farms in the countryside. However, the formation of private farms through the destruction of previous cooperative enterprises (the land was forcibly seized from collective farms and state farms in favor of new enterprises) undermined the livestock feed base and led to the withdrawal of the best land from agricultural production. In large agricultural organizations, sown areas decreased by 46 million hectares, which was not offset by an increase in sown areas by farmers (+15 million hectares) and households (+13 million hectares).

As a result of the reform, the correlation between the dominant and complementary institutions was to change (the introduction of dominant market institutions and a decrease in the role of complementary state institutions for agricultural regulation). However, due to the administrative imposition of market institutions, hasty reforms, increased price disparity, and the lack of a high-quality state regulatory mechanism, a newly-formed system consisted of the following institutional dimensions:

- The market economy of large agricultural holdings integrated into the world capitalist system;
- The subsistence farming of personal, horticultural, and cooperative farms in rural areas;
- The planned economy of the former collective farms *de jure* switched to other forms of management, but *de facto* preserved socialist production scheme).

In Russian agriculture in 1991–1998, institutional changes did not take into account the basic principles of the institutional design described above. The chosen method of transformation led to serious negative consequences for the development of the industry.

Favorable weather conditions did not compensate for the economic decline in production in 1991–1998. The average annual economic decline in production amounted to  $-6.6\%$ . The cumulative decline in gross production amounted to  $-44.9\%$ , in livestock production  $-55\%$ , and in crop production  $-38\%$ .

#### **4.6 1999–Present**

The conservation of an ineffective institutional environment in agriculture led to increased monopolization of the industry and an increase in the role of managers of large farms in the current agricultural policy. However, the very fact of stabilization of the system of institutions could lead to a period of economic recovery growth in agriculture in 1999–2001, which was replaced by the stagnation of production in 2002–2005.

The strengthening of complementary state institutions for agricultural regulation, which has been taking place since 2006, became the turning point in the institutional environment of Russian agriculture (Priority national project Development of Agribusiness 2006–2007, State agricultural development programs 2008–2012, 2013–2020). In 2013, the protection of the Russian domestic market led to a change in the situation on the domestic agri-food market (a decrease in the share of imported food). Institutional changes during this period were aimed at introducing complementary institutions of state regulation into the market system.

The average annual growth rate in 1999–2001 accounted for  $5.6\%$ . This was followed by the stagnation of 2002–2005, the economic growth of 2006–2008 ( $4.6\%$ ), deceleration of development in 2009–2012 ( $1\%$ ), acceleration of development since 2014 ( $4\%$ ). In 2016, Russian agriculture managed to restore production to the level of 1990 (in terms of gross indicators). During 2014–2018, there have been trends towards an increase in production growth rates in particular sub-sectors of agriculture. However, the growth itself is extremely volatile.

Currently, Russia has developed a system of dominant market and complementary state institutions. Until now, in Russia, there has not been a full-fledged launch of competitive market institutions and institutions of state regulation, which would take into account the degree of the development of the agri-food market in the country.

#### **4.7 *Improving the Institutional Environment of Agriculture in Russia***

The creation of an effective institutional environment in modern Russia involves the conscious creation of quality institutions through transforming:

- Market institutions (institution of competition, the institution of entrepreneurship, the institution of market coordination of prices);
- Institutions of state regulation of the agricultural sector affect the economic growth of the industry (institutions supporting incomes of agricultural producers);
- Institutions of state regulation of the agricultural sector affect the sustainability of the economic growth of the industry (institutions to support demand, institutions to stabilize the situation).

The development of market institutions in Russian agriculture should be aimed at the development of new institutions to ensure access to the markets of small and medium producers. It is necessary to develop and adopt several formal rules for the formation of such organizations as ecobazars, electronic and vending B2B and B2C trading, the creation of outbound trading networks, and the development of cooperation and collective farm markets. At the same time, it is necessary to combat the increasing disparity in prices between agriculture and industry by increasing the effectiveness of antitrust policies aimed at regulating natural monopolies.

The transformation of state regulatory institutions that ensure economic growth in agriculture should aim to develop the institution of preferential taxation of agriculture (currently, in Russia, the amount of taxes exceeds the amount of subsidies to the agricultural sector). In this regard, it is possible to apply tax credits for innovative and new small and medium-sized agricultural enterprises and to improve the rules for bonification. An alternative way not violating the market price mechanism is the use of unrelated agricultural support, described in detail in the paper by Gaysin and Migunov [7].

The twenty-year development of market agriculture in Russia implies a less perfect structure of the agri-food market in comparison with developed countries, which involves the further use of institutions that ensure sustainable positive dynamics in the development of the industry. Such institutions include those supporting the demand in the agri-food market and institutions for stabilizing the agri-food market [6, 8, 10].

## **5 Conclusion**

1. The study of the historical development of agriculture made it possible to identify six periods of the economic cycle of the agricultural sector, associated with various changes in the structure of institutions. It is shown that the main



- mistake in building the institutional environment was the non-optimal ratio of basic dominant and complementary institutions of agricultural regulation.
2. Based on the dynamics of agricultural development in Russia over a long period, the main groups of institutions that affect the economic dynamics of the agricultural sector (market institutions, state regulation institutions for economic growth, and institutions ensuring the sustainability of such growth in agriculture) are identified. The direction of the transformation of the presented institutions to ensure the economic growth of agriculture in modern Russia is proposed.

## References

1. Becker G, Barro R (1988) A reformulation of the economic theory of fertility. *Quart J Econ* 103(1):1–25
2. Commons JR (1931) Institutional economics. *Am Econ Rev* 21(4):648–657
3. CPSU. (1983–1990). The Communist Party of the Soviet Union in resolutions and decisions of congresses, conferences, and plenums of the Central Committee (1898–1988), Moscow, Russia
4. Davis L, North D (1971) Institutional change and American economic growth. Cambridge University Press, Cambridge
5. Galbraith JK (2008) The new industrial state. Eksmo, Moscow
6. Gaysin RS, Migunov RA (2015) The institutional mechanisms for stabilizing the agro-food conjuncture in the grain market. *Agric Econ Russia* 12:49–54
7. Gaysin RS, Migunov RA (2017) Improving rules of unbound per hectare providing support producers income: the German experience and lessons for Russia. *Agric Econ Russia* 10:2–10
8. Gaysin RS, Migunov RA (2018) Institutions support for consumption and demand for food in the USA and Russia. *Russian Econ J* 2:104–116
9. Gaysin RS, Migunov RA (2018) Unstable growth in food production and consumption in Russia. *Agric Econ Russia* 3:13–16
10. Guziy SV, Migunov RA (2017) The sustainability of economic growth in agriculture of Russia as a result of the incompleteness of institutional changes. In *The Agri-Food Value Chain: Challenges for Natural. Resources Management and Society*. The Slovak University of Agriculture in Nitra, Nitra, Slovakia, pp 129–136
11. Hamilton W (1932) Institution. *Encyclopedia of the social sciences*. New York
12. Hamilton W (1993) Institution. *The Economics of Institutions*. Edward Elgar, Aldershot
13. Kirdina SG (2014) The institutional matrix and the development of Russia: An introduction to the X-Y-theory (Ed. 3, revised, enlarged, and illustrated). Neostor-History, St. Petersburg
14. Kuznets S (1973) Modern economic growth: findings and reflections. *Am Econ Rev* 63(3):247–258
15. Kuznetz S (1955) Economic growth and income inequality. *Am Econ Rev* 45(1):1–28
16. Lucas R (2002) Industrial revolution: Past and future. In *Lectures on Economic Growth*. Harvard University Press, Cambridge, pp 109–188
17. Migunov RA (2018) Institutional environment for agricultural economic growth. (Dissertation of Candidate of Economics). Publishing house of the RSAU-MTAA, Moscow, Russia
18. North D, Thorns R (1973) The rise of the Western world. Cambridge, UK
19. Romer P (1990) Endogenous technical change. *J Polit Econ* 98(5):71–102
20. State Statistical Publishing House (1956–1990). RSFSR national economy (Annual). Statistical compilations. <https://istmat.info/node/21356>
21. Tambovtsev VL (2009) Fundamentals of institutional design. INFRA-M, Moscow

22. Unified Interdepartmental Information and Statistical System (1991–2020). Statistical data on the Ministry of Agriculture. <https://www.fedstat.ru>
23. Veblen T (1899) *The theory of the leisure class: an economic study of institutions*. Macmillan, New York
24. Williamson OE (2000) The new institutional economics: taking stock, looking ahead. *J Econ Liter* 38(3):595–613