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The sustainability of economic growth in agriculture of Russia as a result of incompleteness of institutional changes

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Abstract
The article posed the problem of determining the value of the formal rules change, shaping the institutional environment as a whole. Its impact on sustainable economic development in the agricultural sector of the Russian economy in the period from 50th to 90th. XX century. Identified institutions, reducing the volatility of market conditions on the agricultural markets: the policy of creating buffer stocks; State support of prices, aimed at eliminating the seasonal volatility; the program of compensation payments, leveling profitability of production by region.

Keywords: *Agriculture, balance, institutions, market conditions*

JEL Classification: *E32, O13, O43*

1. Introduction

Economic growth in agriculture can be considered as a means of improving food security, social well-being of citizens and the competitiveness of domestic production. The functioning of the economy is characterized by a significant role of institutional factors in the way of economic development. In this connection **there is a need to examine institutions as factors of economic growth**.

The main factors of economic growth are considered in two basic models - the Keynesian and classical. In agriculture for economic growth understand multifaceted category that includes: economic sustainability, expanded reproduction resources, innovation development, improving the environment, sustainable development of rural areas (Gordeev, 2009, p. 15; Ushachev, 2009, p. 12). Developed is the understanding of the impact on economic growth of institutional factors (Hamilton, 1932; Porokhovsky, 2010; Shastiko, 1998). However, so far little examined the impact of the institutional environment on the growth of agriculture in Russia.

Before us is the following **objectives** - to define the role and importance of the institutional aspects that form the institutional environment in general and its impact on sustainable economic development; consideration of the specifics of Russian agricultural sector in historical perspective; describe the institutional mechanisms that stabilize prices and incomes in agriculture.

2. Data and Methods

The essence of the institutional approach to the economy, is that the wealth of nations, businesses, individual citizens depends not only on the resources available to the subject, but on the rules by which it can use these resources (North, 1997, p. 44). Typically, for a long time in the state-dominated institutions of the same type of economy (planned or market). Institutes of the different type of economy play a supporting role and act as a complementary, enabling institutional environment sustainability. In the surrounding economy, it takes on a variety of forms of economic integration: the stock exchange and government regulation of private

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joint-stock companies and state-owned enterprises, private farms and cooperatives, etc. That is, the interaction of institutions of market and planned economy.

Effective interaction of dominant and complementary institutions is achieved, according to the Russian economist Kirdina S.G., subject to the following rules:

1. Mandatory presence in the institutional environment of dominant and complementary institutions.

2. Save for each group of institutions, their roles - should remain dominant dominant and complementary - complementary.

3. Providing the necessary combination between institutions (Kirdina, 2014, p. 131-134).

Balance of institutions is a major obstacle to sustainable agriculture. Thus, in countries with a high quality of institutions and high-quality economic policy economic growth amounted to 2.4%; in countries with high institutional quality and low quality of economic policy - 1.8%; in low quality of institutions and high quality of economic policy - 0.9%; in low quality of both factors - 0.4% (Tambovtsev, 2009 p. 11). A study of sustainability of agricultural production must also take into account the long-term cyclical fluctuations in the agri-food market (Gaysin, 2014, p. 13). When writing the work was used educational and scientific literature. Statistical information for writing the work was taken from public databases of the Russian Federation and the declassified data CSM RSFSR territorial body of data the Federal State Statistics Service. The methodological basis for writing the work was easy chair of political economy RSAU-MTAA and Lomonosov Moscow State University. In the preparation of the information, its processing have been used various methods of investigation of economic phenomena: historical, logic, calculation and constructive, Economics and Statistics, and others.

3. Results and Discussion

3.1 Institutional changes in historical perspective (the second half of XX - beginning of XXI centuries)

In Soviet Russia the institutional design was not directed at the fundamental changes in the specification of property rights and transaction costs levels, but mainly on the institutional changes such as the introduction of new rules of management, new forms and methods of public administration sector, the improvement of public support mechanisms for agricultural enterprises.

Table 1: The main indicators of economic development of agriculture in Russia (1950-2014 gg.)
(Statistical compilations "RSFSR National Economy", 1956-1990)

Indicators*	Units	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	91-99	00-14
Gross agricultural output at constant prices in 2014	billion rubles	1886	2645	2960	3588	3897	4040	4204	4702	3341	3494
Productivity in agriculture	thous. rub./slave	100	170	226	292	340	364	379	449	336	496
Gross agricultural output per 1 hectare of sown area	thous. rub./ha	19	23	23	29	31	32	35	39	32	45
Gross agricultural output per capita	thous. rub./person	18	23	24	28	29	30	30	32	22	24

*on average per year

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Down to the middle ***of 50-ies of the XX century****, the institutional environment of agriculture* can be described as a system with the basic institutions of a planned economy, resulting from complete failure of the complementary institutions of a market economy. Institutions agricultural production planning and binding supplies helped farmers to adapt to the extreme conditions of wartime. But in peacetime, such institutional environment leads to a lack of economic independence, opportunistic behavior, weak material interest of the collective farmers in the results of their labor.

In the early 50-ies of XX century agriculture Soviet Russia was characterized by extremely difficult situation. The turning point that led to institutional changes in the existing agricultural structure became Plenum 1953 changes were made all the institutions of the agrarian sector: Property Institute, Institute of obligatory deliveries to the state of production, the Institute co-operative labor, Planning Institute.

Changes in this period were directed primarily at the observance of the institutional balance of conditions, ie, for the dynamic development in a planned agriculture tried to develop complementary institutions of a market economy (financial stimulation of workers, the development of commodity-money relations, indicative planning). On the other hand, the process of state-owned farms institute gain operation (state farms), to the detriment of the collective and individual farms.

Changes in the institutional environment, agriculture, pledged **in 1953 and continued in 1954-1958** contributed to *strong economic growth in agriculture* (average growth rate of gross output of 7.5% per year). However, the resistance of the bureaucracy, dogmatism of some leaders, errors in management and planning of agricultural production has led *to the decay of this growth* (**1959-1963 years**).

The deterioration in economic performance and increased costs have led to an understanding of the need for transformation of the existing institutional framework of agriculture.

In the years **1964-1970** to implement the proactive design of formal institutions, aimed at the gradual change in the institutional environment of agriculture. There has been an increase in purchase prices, decline in state procurements; a significant increase in investment in agriculture; land reclamation; mechanization machines.

We decide to continue the policy that was carried out in the early 50-ies of XX century. Turn on this path proved beneficial farming has *grown steadily* (5.3% annually).

Further development of agriculture (**1971-1981** years) was associated with decreased return on investment of material resources. Accepted by the concentration of production measures led to an ever greater nationalization of production. All tactical actions taken (by the development of agriculture chernozem zone of RSFSR, the strengthening of inter-farm cooperation, the material and technical base) *further pushed the entire system of agricultural production away from the revival of the complementary institutions of a market system*. Formed institutional environment agriculture constrained progressive development of society and *slowly began to stagnate* (-0.25% annually).

Country in the years 1971-1981 *has lost chance for the formation of the institutional environment of agriculture*, on the transformation of the socialist planned economy to a mixed system.

Trying to reform the agriculture undertaken in the **1982-1990** biennium. when it adopted the "Food Program of the USSR for the period till 1990". Ongoing institutional changes have allowed for the first time to *ensure high rates of economic growth in agriculture* (1982-1983

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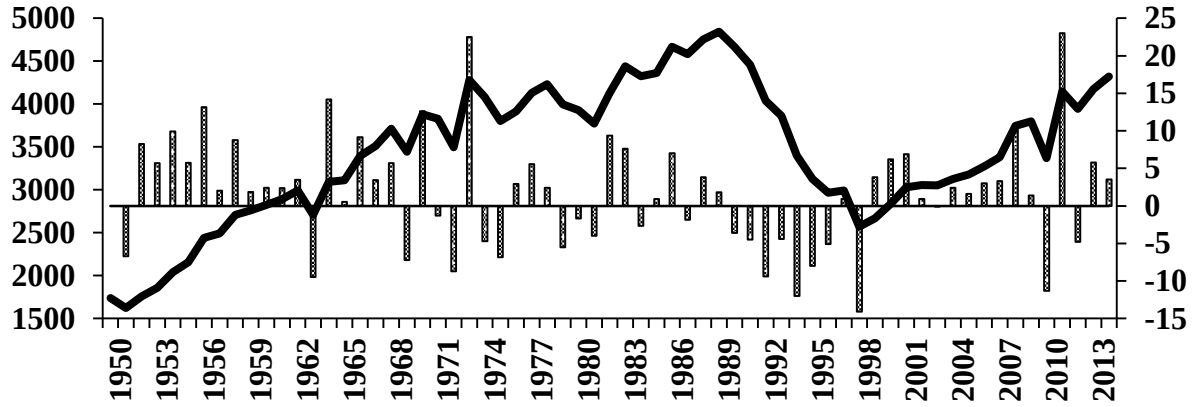
years of 8.5% per year). However, further development of agriculture (**1984-1990** years) Characterized by the *instability of economic growth*.

Figure 1 – Economic development of Russian agriculture in the years 1950-2014 (left scale / EP Agriculture / - billion rubles in comparable prices of 2014, right scale / chain growth rates / - %)



(Statistical compilations "RSFSR National Economy", 1956-1990)

The fundamental factor that contributes to a drop in growth of the agricultural sector, can be regarded as imperfect institutional environment, which is reflected in the shortcomings of the planned economy system. *There was an increase in transaction costs in agriculture*:

- At the management level of enterprises lacked incentives to the introduction of scientific and technological progress (transaction costs of identifying alternatives).

- Employees of farms had little interest in the results of their work (transaction costs of opportunistic behavior).

- Rigid system of public prices and tariffs led to a faster growth of costs with respect to increments of gross production (transaction costs of negotiating).

- Extra-large collective and state farms are generally worked efficiently (Lipnitsky, 2014, p. 27-28) (transaction monitoring costs).

In the 80 years I had the opportunity to radically change the situation in the agricultural sector. But because of the imperfection of the whole institutional environment that did not happen agriculture. *The main mistake in the construction of the institutional environment of agriculture Soviet Russia was non-optimal ratio of base (scheduled) and complementary (market) institutions.* Totally dominated institutions of the planned economy - Institute of socialist property, the institution of compulsory deliveries to the state, the institution of the cooperative work, Institute of production planning. It blocks the natural development of the institutions of a market system. Such an institutional system would not be viable without deep reforms, which resulted in a deep systemic crisis in the 90-ies of XX century.

Central planning of the agricultural markets need to replace its system of market regulation. Institutional environment demanded the release of the monopoly of large farms and the formation of diverse forms of ownership and organization of production. However, it so happened that instead of evolutionary institutional reforms of the agricultural market has been carried out "shock" revolutionary transition that does not contribute to the success of the reforms (**1991-1998** years). Reforms of the 90s represented a fundamental reform of agriculture in Russia and included: agro reforms, land reforms, reforming the state management of agriculture system. Ill-conceived macroeconomic policy of the Russian state in the 90s *dealt a serious blow to agriculture* (45% drop by 1998).

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Institutional reforms after the default of 1998 should be divided into two stages. The first phase (**1999-2005**) can be characterized as a period of unsustainable growth of agriculture with minimal government support. subsidizing of interest rates on short-term loans in the amount of 2/3 of the Central Bank rate: During this period, some of the tools in support of agricultural producers have been taken introduction of the single agricultural tax; Russian Agricultural Bank education; adoption of the program of financial recovery of enterprises. At the same time, to ensure qualitative changes in the agricultural sector, these measures were not enough.

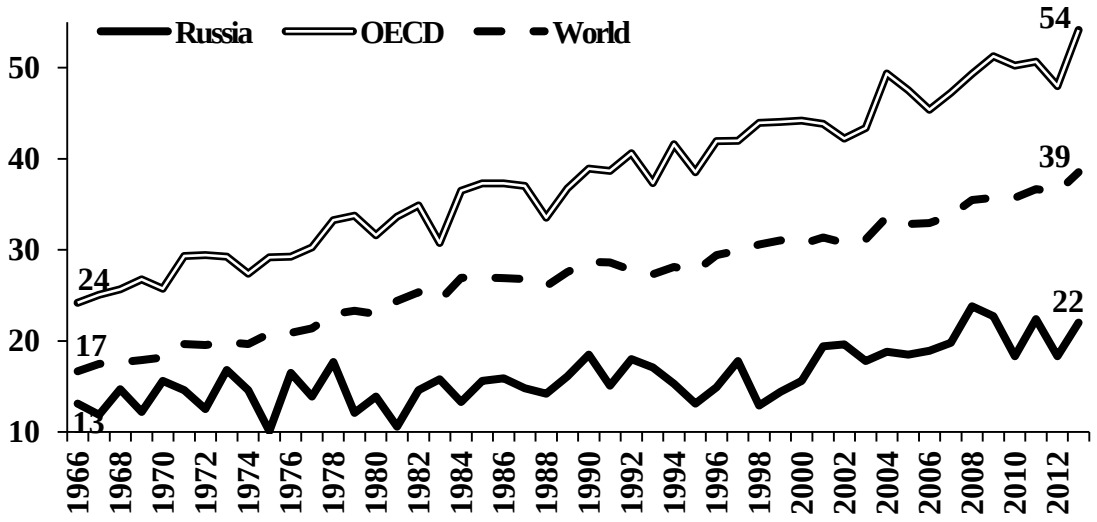
The second phase **starts in 2006**. This period is characterized by strengthening the institutional design of the state of the agricultural market. Accepted targeted development program, a national project, the state program of development. In general, the implementation of government measures to agribusiness development was positive: for 9 years, agricultural growth was 32%.

The main mistake in the construction of the institutional environment of agriculture of modern Russia in the 90 years it has been less than optimal ratio of base (market) and complementary (planned) institutions. Complete rejection of the existing institutional system and the transition to the market without taking into account the effect of complementary institutions led to a disastrous drop in production. Only after the beginning of the institutional design of formal institutions in agriculture began a steady economic growth in this sector.

3.2 Institutional mechanisms for the stabilization of prices and incomes in agriculture

In modern Russia, **two groups of factors causing unstable price dynamics in Russian agriculture**. *The first group of factors* of price volatility associated with unstable dynamics of the growth of the gross output of the industry, which, in turn, is due to its high shaken in the plant, with high volatility from year to year in crop yields (Fig. 2). Unstable yields in Russia is due, along with the influence of climatic factors, and factors such as the lack of investment in modern agricultural technology in breeding, seed production, land reclamation, etc.

Figure 2 – Yields of crops, kg/ha



(Statistical compilations "RSFSR National Economy", 1956-1990; Statistical data Unified interdepartmental statistical information system (1991-2014))

Along with fluctuations in yield volatility in prices affected by *factors related to changes in the agricultural market situation, food*. These factors, for example, may be an increase in foreign economic demand for domestic grain, causing export growth or change in sentence structure.

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The action of institutions and institutional arrangements for sustainable economic growth is mainly in two directions. The first direction includes **institutes of innovative development of agriculture**, to ensure the stability of the dynamics of crop yields mitigating the impact of climate instability on productivity (Golubev, 2013, p. 61-77). It institutes aimed at the introduction of advanced agricultural technologies, produces a more valuable in economic and biologically intensive varieties on a large-scale land reclamation and others.

The priority model of institutional interaction of enterprise structures of the agricultural sector are *clusters*, understood as the organizational and economic type of innovations in agriculture. The interactions in these systems can be represented by two models: 1) forming a cluster around a large subject, in fact the core of the cluster, which gathers the smaller entities; 2) association of independent, equal in scale enterprises to support each other, which increases the stability of their growth. The advantage of such networks in agriculture is their high cost-effectiveness due to low transaction costs.

A separate issue is the distribution system innovation in the agricultural sector. Successful international experience suggests that the new institutions and their corresponding formal rules often formed by the practice of private initiative. Transfer to replicate innovations in agriculture through a variety of mechanisms. However, recent studies have shown that despite the rapid growth in the world of new development institutions in the industry, in agriculture with all such tasks copes *system of agricultural counseling* (Kozlov, 2014, p. 82-83).

The institutional environment may have an impact on the sustainability of economic growth in agriculture - **impact on the state of the market** to mitigate the volatility of prices and incomes in agriculture for years, seasonal, in the territories. This impact is on the main elements of the agro-food market situation - the demand and supply for the purpose of changes in market prices.

As the formation and development of the agricultural market, the transition to a phase of saturation it is possible to increase in the amplitude of the short-term price and income fluctuations in the food market. To reduce or eliminate the amplitude of short-term fluctuations abroad and in Russian *policy is used stabilizing pricing environment* (policy of creating a "buffer" stocks).

Institutional mechanism for the stabilization of situation is mainly used in the grain market. The market mechanism is not able to stabilize the proposal to the grain market at the level of demand at a competitive cost effective balance, and therefore not able to provide both price and income stability of producers over the years.

The mentioned leads to the conclusion that in order to stabilize prices and incomes of grain producers is objectively necessary state intervention in the processes of formation and functioning of the grain market by making use of leverage, regulate supply and demand. In a good year the demand from the population and enterprises of grain is less than its supply. Due to the excess grain market prices fall. State in this situation, the following measures can be taken to save on the annual average price level:

1. Reduction of supply of grain in the domestic market due to increased government spending on promotion of grain to the world markets, for the construction of port terminals, etc. This path is not always possible, because it depends on the world grain market conditions and many other factors.

2. Increased demand for grain by the state purchasing interventions on the grain market. At the operational implementation of the measures, with adequate allocation of budgetary funds for the purchase of grain the total demand for grain will increase the market prices rise. Since

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2001, the Russian government is using a policy of purchasing interventions to stabilize the grain market.

In the developed countries for decades in the twentieth century, actively used such *institutional mechanism as state support for agricultural prices* (Gaysin, 2014, p. 58-60, 73-76), in order to eliminate their seasonal volatility and, accordingly, the oscillation of income, for example, in the grain market. One of the most common forms of this institute price and income support programs were government loans of bottom (of the program supported by the price).

The mechanism of action of this institution is as follows:

- Issue in the fall after harvest producers received loan secured products at preferential interest;

- Calculation of a credit on the collateral rate (for supporting the price, usually at the level of the market price or slightly above it);

- Repayment of the loan in the spring: the products on the collateral rate or amount of money from the sale of products.

Widely used in world practice institutional mechanisms to mitigate fluctuations in prices and incomes, leveling the yield of production by region and climatic zones.

A promising institutional mechanism aimed at addressing the lack of financial credit resources are *agricultural receipts*. This experience tested in Brazil and the Ukraine. Agricultural receipt - a document of title, retaining the unconditional obligation to the farmer of the debtor, secured by the pledge, to supply agricultural products or to pay money to certain conditions in it. The introduction of this financial mechanism is intended for financing of small and medium-sized businesses, as their access to credit resources of commercial banks is limited, despite the partial compensation of bank interest by the state. Agriculture released not only allow farmers to raise the necessary resources for crop production, but also protect the interests of the creditor.

4. Conclusion

1. The main mistake in the construction of the institutional environment of agriculture Soviet Russia was non-optimal ratio of base (scheduled) and complementary (market) institutions, which led to the instability of the economic growth of agriculture.

2. The main mistake in the construction of the institutional environment of agriculture of modern Russia in the 90 years it has been less than optimal ratio of base (market) and complementary (planned) institutions. Complete rejection of the existing institutional system and the transition to the market without taking into account the effect of complementary institutions led to a disastrous drop in production.

3. Based on the analysis of the agricultural market dynamics isolated institutions, promote economic growth: innovation development institutes and institutions that affect the state of the market.

4. Disclosure of the institutions, reducing the volatility of the situation on the markets of agricultural crops: the policy of creating buffer stocks; State support prices, aimed at eliminating the seasonal volatility; program of compensatory payments; alignment of profitability by region of production.

References

[1] Gaysin R.S. (2014). *Market equilibrium in the agricultural sector of the economy: the manual*. Moscow: Publisher RSAU-MTAA.

[2] Golubev, A. (2013). Innovation and tradition of the Russian agricultural complex. *World Russia: Sociology, Ethnology*, T. 22. № 1, p. 61-77.

[3] Gordeev, A.V. (2009). The state program of agricultural development: the first year of its implementation. *Economics of agricultural and processing enterprises*. №1, p. 1-5.

[4] Hamilton W. (1932). *Institution. Encyclopaedia of the Social Sciences*. New York, v. VIII.

[5] Kirdina S.G. (2014). *The institutional matrix and the development of Russia: an introduction to the X-Y-theory. Edition 3, revised, enlarged and illustrated.* St. Petersburg: Neostor-History.

[6] Kozlov, V.V. (2014). *Institutes of innovative development of agriculture: the practice and science of AV Chayanov to the present day. Present and future of the agro-industrial complex of Russia*. Moscow: FGBNU "Rosinformagrotech".

[7] Lipnitsky T.V. (2014). *Agricultural Russia: state and development trends*. Moscow: AgriPress.

[8] North D. (1997). *Institutions, Institutional Change and Economic Performance*. Moscow: Fund economic book "Elements".

[9] Porokhovsky A.A. (2010) *General economic theory. Introductory course. In 3 Vol. Bk. 1*. Moscow: Publishing House "Code".

[10] Shastiko A.E. (1998) The neo-institutionalist economics. Moscow: TEIS.

[11] Statistical compilations. (1956-1990). *"RSFSR National Economy" (Annual)*. [Electronic resource]. Access: http://istmat.info/node/21356, free.

[12] Statistical data Unified interdepartmental statistical information system (1991-2014). *Statistical data on the Ministry of Agriculture* [Electronic resource]. Access: http://www.fedstat.ru, free.

[13] Tambovtsev V.L. (2009). Fundamentals of institutional design: Textbook. allowance. Moscow: INFRA-M.

[14] Ushachev I.G. (2009). Economic growth and the competitiveness of agriculture in Russia. *Economics of agricultural and processing enterprises*. No. 3, p. 1-10.

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