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Management of the Spheres of the National Economy in the Condition of the Digital Economy

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ABSTRACT

The article analyzed the main trends in the management of different spheres of the economy in Russia in the conditions of the digital economy at the current stage. The key trend that positively influenced the growth of agriculture in Russia is the technical modernization of the sector, the pace of which slightly decreased in 2016 due to the rise in price of foreign equipment.

Keywords: Digital economy, agriculture, Russia, developments, indicators, factors, conditions.

The digital economy as a kind of new idea was announced by the World Bank in 2016 in the World Development Report 2016: Digital Dividends. Important digital technologies in the Russian economy. The digital economy is a way of life, a new basis for the development of the system of public administration, economy, business, social sphere, the whole society. "The digital economy will become the basis for reforms throughout the country and will affect every company and every citizen of Russia," said Vladimir Putin. The basis for the creation of the digital economy is the widespread use of the Internet, mobile communications and information and computer technology (ICT).

According to the Ministry of Economic Development of the Russian Federation, the economy of Russia is beginning to come to life. For the I quarter of 2017, the index of industrial production, although insignificantly, increased (+0.1%). We decided to determine the main points of fall and growth during this period.

Fall points. The negative trend in the economy was a 0.8% decline in manufacturing, which was due to a reduction in metallurgical production (–8.9%), production of coke and equipment (–1.8%), and production of other (non-motorized) vehicles and equipment (–8.2%). The reduction of metallurgical production is caused by the decline in the production of the main types of metallurgical products. For example, in March, the greatest decline was observed in the production of seamless steel pipes for oil and gas pipelines (–20.8%), cold-drawn stainless steel wire (–45.1%), lead (–38.6%), alloys copper unprocessed (–27.4%) compared to the same period of the previous year.

The production of coke and equipment has slightly decreased. To a greater extent, this was affected by a decrease in the production of motor gasoline (–7.7%) and fuel oil (–7.7%). At the same time, the market needs for motor gasoline are fully covered. However, there is a decrease in gasoline exports to the countries of the Far Abroad, and to the CIS countries.

Production of other vehicles and equipment has decreased significantly, which is due to a reduction in the production of mainline diesel locomotives (+17.0%). At the same time, the production of freight cars in 2.1r., recreational and sports vehicles. The manufacturing industry is in fact an indicator of the development of the whole production, since it is here that a product is created, which then enters the national and international markets.

Heavy industry is developing very actively: production of motor vehicles, trailers and semi-trailers (+13.5%), as well as production of machinery and equipment (+8.2%). For a long time the engineering industry remained lagging behind and due attention was not paid to this. However, state support measures served as a stimulus to development. Evidence of this is the fact that by the end of 2015 the production of motor vehicles, trailers and semi-trailers fell by 23.1%, and the production of machinery and equipment - by 4.3%. Only in 2016 the situation began to be corrected. Here, the production of grain combines (+46.1%), which allowed to replace foreign analogues, as well as the production of freight cars (+28.8%), had a significant growth.

The growth of production of trucks was 6.9%. At the same time, Russian production can fully provide the Russian market with this product. The share of imports of these products has significantly decreased. For example, the share of import combines in the market in February fell to 5.2% compared to 14.2% in February 2016.

Stable growth rates for chemical production (+7.5%), production of rubber and plastic products (+4.8%). Separately it is worth noting a strong increase in synthetic rubber production in Q1 2017 (+17.9%), which is due to an increase in its domestic consumption. At the same time, demand on the external market is only increasing - 60% of the production is exported. Also, the production of fertilizers increased significantly (+8.8%). Domestic consumption of fertilizers is met through domestic production. At the same time, fertilizer exports as a whole declined due to nitrogen and potash fertilizers. The export of complex fertilizers has increased both in the countries of the Far Abroad and CIS countries.

The sawmill complex is developing. Wood processing and production of wood products grew (+4.2%) and pulp and paper production (+8.9%). Russian production in this case almost completely replaces the import. Import is insignificant - 0.009 million cubic meters. m. At the same time, rare types of wood are supplied. In March, the greatest growth was registered in the production of wooden factory buildings (135.8%), wooden windows and their boxes (140.1%), fuel pellets (134.8%) and fuel chips (122.0%). In particular, during this period the production of paper and paperboard (102.5%), wood pulp (103.0%), cardboard corrugated in rolls or sheets (101.3%). Separately, it should be noted that a slight increase in mining (+1.2%), the electricity supply sector increased (+1.3%). The volume of commercial cargo transportation grew by 3.1%. In this sector of the economy, the volume of air traffic increased most (+23.9%). In general, the freight turnover grew by 6.6%, and passenger turnover - by 9.7%.

Tendencies of domestic agriculture. The acute problems of the agricultural sector, caused by the inept policy of regulating this industry in the 1990s, were smoothed to the middle of the two thousandths thanks to the state support of domestic farmers. Today, analysts note two main trends that have a direct impact on the situation in the industry [1].The key trend that positively influenced the growth of agriculture in Russia is the technical modernization of the sector, the pace of which slightly decreased in 2016 due to the rise in price of foreign equipment. State subsidies to farms - a powerful engine of progress in the industry. The main areas in which the government invests money are hothouse vegetable growing, pig farming and seed farming. The volume of loans to agricultural producers as of May 2016 exceeded the previous year's results by two times - but this trend is observed only among large-scale projects, while small-scale farms face bureaucratic difficulties [1].

Lending of seasonal field works. According to the data of large financial organizations lending to the industry, the volume of loans granted for carrying out seasonal field work as of July 13, 2017 amounted to 167.9 billion rubles or 106.2% of the corresponding date of 2016, Rosselkhozbank issued 141.8 billion rubles (137.1%), PJSC Sberbank - 26.3 billion rubles (47.9%). Production of basic agricultural products by types of enterprises is presented in Table 1.

Table 1
Production of basic agricultural products by types of enterprises
(percent of total production volume)

	1992	*2000*	*2010*	*2012*	*2013*	*2014*	*2015*	*2016*
			Agricultural enterprises					
Grains (weight after processing)	97.4	90.8	77.1	76.8	74.5	73.7	72.7	71.4
Sugar beet	97.8	94.5	88.7	87.6	89.6	89.2	89.0	88.1
Sunflower seeds[1]	93.0	84.3	73.0	72.1	70.5	70.1	70.3	68.7
Potatoes	21.2	7.5	10.5	13.1	10.9	12.1	13.8	13.6
Vegetables	44.5	22.9	17.1	17.1	16.3	16.5	17.9	18.9
Fruit and berries	49.0	15.7	15.0	21.8	21.2	21.5	21.6	23.7
Livestock and poultry for slaughter (slaughter weight)	64.0	40.2	60.6	66.9	70.3	72.4	74.5	76.1
Milk	68.1	47.3	44.9	46.5	46.0	46.7	47.8	49.0
Eggs	73.9	70.8	77.1	78.0	78.1	77.8	78.5	79.1
Wool (physical weight)	67.0	37.8	19.7	17.8	18.3	17.9	17.0	…

(*Contd...*)

	1992	2000	2010	2012	2013	2014	2015	2016
Household enterprises								
Grains (weight after processing)	0.5	0.8	1.0	1.0	0.9	1.0	1.0	0.9
Sugar beet	0.2	0.6	0.4	0.4	0.5	0.5	0.4	0.2
Sunflower seeds[1)]	1.2	1.2	0.6	0.5	0.4	0.5	0.4	0.4
Potatoes	78.0	91.2	84.0	78.9	82.3	80.4	77.6	77.9
Vegetables	54.7	74.7	71.5	69.1	69.4	69.9	67.0	66.5
Fruit and berries	50.7	84.1	82.8	76.6	77.3	76.7	76.3	74.4
Livestock and poultry for slaughter (slaughter weight)	35.3	58.0	36.5	30.2	26.9	24.7	22.6	21.0
Milk	31.4	50.9	50.4	48.1	48.1	47.1	45.6	44.0
Eggs	26.0	28.8	22.1	21.2	21.2	21.4	20.6	19.9
Wool (physical weight)	32.2	56.8	54.4	52.0	49.1	49.0	49.2	…
Peasant (farm) enterprises[2]								
Grains (weight after processing)	2.1	8.4	21.9	22.2	24.6	25.3	26.3	27.7
Sugar beet	2.0	4.9	10.9	12.0	9.9	10.3	10.6	11.7
Sunflower seeds[1]	5.8	14.5	26.4	27.4	29.1	29.4	29.3	30.9
Potatoes	0.8	1.3	5.5	8.0	6.8	7.5	8.6	8.5
Vegetables	0.8	2.4	11.4	13.8	14.3	13.6	15.1	14.6
Fruit and berries	0.3	0.2	2.2	1.6	1.5	1.8	2.1	1.9
Livestock and poultry for slaughter (slaughter weight)	0.7	1.8	2.9	2.9	2.8	2.9	2.9	2.9
Milk	0.5	1.8	4.7	5.4	5.9	6.2	6.6	7.0
Eggs	0.1	0.4	0.8	0.8	0.7	0.8	0.9	1.0
Wool (physical weight)	0.8	5.4	25.9	30.2	32.6	33.1	33.8	…

[1]Since 2010 – weight after processing.
[2]Including individual entrepreneurs.
Source: Federal State Statistic Service of the Russian Federation, http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/en/figures/agriculture/

Indicators of agricultural upturn: In the crisis year of 2015, the production index of all sub-sectors of agriculture was 103%, with the maximum growth being shown by gross grain harvest, whose volumes exceeded the result of the previous year by 5%. Animal husbandry was on the second place in terms of raising the indicators - the result of 2014 was exceeded by 4.2%.

Crop production: The Russian Federation owns 10% of the world's arable land, and slightly more than 70% of this territory is owned by various agricultural organizations. In 2014, the sown areas were distributed as follows [1]:

- 58.8% - cereals;
- 21,8% - fodder crops;
- 14.2% - oilseeds;
- 5.2% - vegetables and industrial crops.

The leading areas for crop production include the Volga region, the Urals, the North Caucasus and Western Siberia. Russia ranks third in wheat production (59.7 thousand tons in 2014). The second significant cereal that is grown in Russia is barley, more than 70% of which is used for feed purposes, and the third - corn. Course of harvesting works. In the regions of the Southern and North-Caucasian federal districts, harvesting of grain and leguminous crops continues. Separate regions of the Central and Volga federal districts have begun to harvest. As of July 13, 2017, in the whole country grain was threshed from the area of 2.7 million hectares (in 2016 - 4.0 million hectares), threshed 12.2 million tons of grain (in 2016 - 16.8 million tons) with a yield of 44.9 centner/ha (in 2016 - 42.3 centner/ha) [3].

In the Southern Federal District, cereals and legumes were threshed from an area of 1.9 million hectares (in 2016 - 2.6 million hectares). Ground threshed 8,8 million tons of grain (in 2016 - 11,3 million tons) with productivity 46.7 c/ha (in 2016 - 43.9 c/ha). In the North Caucasus Federal District 832.9 thousand hectares were threshed (in 2016 - 1.2 million hectares). 3.4 million tons of grain were threshed (in 2016 - 4.8 million tons), with a yield of 40.8 c/ha (in 2016 - 40.8 c/ha) [3].

Wheat winter and spring in the whole country is threshed from the area 1.9 million hectares (in 2016 - 2.8 million hectares). Nominated 9.0 million tons of grain (in 2016 - 12.2 million tons), with a yield of 46.9 c/ha (in 2016 - 43.8 c/ha). Barley winter and spring is threshed from an area of 548.7 thousand hectares (in 2016 - 610.2 thousand hectares). 2.3 million tons have been harvested (2.5 million tons in 2016) with a yield of 42.5 centners per hectare (in 2016 - 40.3 centners per hectare). Winter rape in the Republics of Adygea, Crimea, North Ossetia-Alania, Krasnodar, Stavropol Krai and the Chechen Republic is threshed from the area of 57.4 thousand hectares (in 2016 - 40.8 thousand hectares), 118.3 thousand tons were threshed (in 2016 - 80.3 thousand tons), the yield is 20.6 c/ha (in 2016 - 19.7 c/ha) [3].

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Livestock Raising

Domestic animal husbandry develops in 4 main directions [1]:

- Cattle breeding (60% of gross turnover, livestock - 19.29 million);
- Sheep breeding (from 2000 to 2014, the number of livestock increased by 10 million, amounting to 22.25 million head);

- Pig breeding (19.6 million heads according to 2014 data);
- Poultry farming (from 2000 to 2014 the number of livestock increased one and a half times, reaching 529 million).

Livestock Raising

In January-June 2017, farms of all categories, according to estimates, produced 6.5 million tons of livestock and poultry for slaughter in live weight, which is 3.8% more than in 2016. Production for slaughter of pigs increased by 4.3%, birds - by 5.2%. Production of cattle, as well as sheep and goats decreased by 0.5% [3]. Milk production amounted to 15.3 million tons (100.9% by 2016), including in agricultural organizations - 7.9 million tons (102.7%) with an average milk yield per cow of 3,176 kg, which is more than 2016 year on 157 kg or 5,2%.

The production of eggs increased by 2.0% as compared to 2016 and amounted to 22.2 billion pieces. Average egg production in the agricultural organizations decreased by 0.6% (1 piece) and amounted to 153 pieces.

As of July 1, 2017, on farms of all categories, according to estimates, there were 19.6 million head of cattle (98.2% by July 1, 2016), including cows - 8.3 million head (98.7% %); the number of pigs was 23.6 million head (101.0%), sheep and goats - 27.7 million heads (99.5%), poultry (in agricultural organizations) - 448.4 million heads (103.2%) [3].

Table 2
Production of basic animal husbandry products (enterprises of all types)

	1992	*2000*	*2005*	*2010*	*2012*	*2013*	*2014*	*2015*	*2016*
Livestock and poultry for slaughter (slaughter weight), mln. ton	8.3	4.4	5.0	7.2	8.1	8.5	9.1	9.6	9.9
Milk, mln. ton	47.2	32.3	31.1	31.8	31.8	30.5	30.8	30.8	30.7
Eggs, bln. pieces	42.9	34.1	37.1	40.6	42.0	41.3	41.9	42.6	43.5
Wool (physical weight), thou. ton	179	40	49	54	55	55	56	56	…

Source: Federal State Statistic Service of the Russian Federation, http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/en/figures/agriculture/

Table 3
Productivity of livestock and poultry (agricultural enterprises; kilograms)

	1992	*2000*	*2005*	*2010*	*2012*	*2013*	*2014*	*2015*	*2016*[1]
Milk yield per one cow	2243	2341	3280	4189	4521	4519	4841	5140	5908
Average annual egg-laying capacity[1], pieces	224	264	301	307	306	305	308	310	308
Average annual wool clip per sheep (physical weight)	3.2	3.2	2.8	2.3	2.3	2.3	2.4	2.3	2.8
Output of livestock husbandry per one animal:									
Cattle	84	79	94	105	110	109	116	121	133
Hogs and pigs	61	62	107	155	185	187	199	205	202

Source: Federal State Statistic Service of the Russian Federation, http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/en/figures/agriculture/.

As of July 6, 2017, the Ministry of Agriculture of the Russian Federation to the constituent entities of the Russian Federation has brought limits to budget obligations totaling 139.0 billion rubles. The maximum amount of financing as of the indicated date was 75.4 billion rubles. Subjects for state support of agriculture to direct beneficiaries are listed 70.0 billion rubles or 92.9% of the maximum amount of funding. In accordance with the agreements, in the budgets of the constituent entities of the Russian Federation, 29.2 billion rubles are provided for state support to agriculture, of which, according to the accounts of the subjects, 15.2 billion rubles or 52.1% of the stipulated amount were transferred to the recipients [3].

The state of the food and processing industry. In January-May, 2017, the positive dynamics of production in the food and processing industry remained at a certain slowdown in growth rates compared with the corresponding period in 2016. The index of food production amounted to 103.9% against 105.8% in 2016. The volume of production of livestock and poultry for slaughter, as well as milk in agricultural organizations, which are the main suppliers of raw materials for processing, have a certain effect on the work of processing enterprises [3].

In comparison with 2016, the volume of production of beef (by 2.4%), pork (by 7.9%), meat and offal products of food poultry (by 4.1%), sausage products (by 7.2%), (by 6.4%), sunflower oil (by 21.9%), butter (by 5.6%), cheeses (by 2.9%), cheese products (by 11.5%), cereals (by 10.0%), confectionery products (by 8.8%), macaroni products (by 4.9%). The production of mixed fodders (by 6.4%) and premixes (by 26.9%) also increased [3].

A decrease in the production of canned meat (by 11.5%), wheat flour and rye-wheat flour (by 6.8%), bakery non-durable products (by 1.5%), juices from fruit and vegetables (by 27.1%). At the level of the last year, the production of fermented milk products (100.0%) remained, milk production remained practically unchanged (99.7%) [3].

Volumes of export and import of agricultural products in Russia. A significant role in the growth of agricultural indicators in Russia in 2015 was played by the food embargo imposed by the Russian government in response to sanctions: a reduction in imports led to a sharp increase in the consumption and production of Russian products. In 2014, agricultural products were imported to Russia by $ 39.9 billion, and in 2015 this figure fell to $ 26.5 billion. For 12 months, Russia imported 30% less imported meat, 44% less fish and 36.5% cheeses and cheese products. The changes also affected the composition of the importing countries-now the products are supplied mainly to the countries of the far abroad and the CIS. Exports, on the contrary, pleased with the active growth: the export of poultry and pork meat increased by 20%, and the volumes of wheat and sunflower oil sold to foreign partners increased [1].

According to the operative data of the Federal Customs Service, in January-May 2017, food and agricultural raw materials were imported to the Russian Federation by $ 11248.9 million, or by 14.0% more than in 2016 when it was imported to 9843, $ 2 million. In the commodity structure of imports, the share of food products and agricultural raw materials in January-May 2017 decreased by 1.5 percentage points compared to 2016 and amounted to 13.8% [3].

In January-May 2017, physical volumes of imported purchases of fresh and frozen meat (by 4.2%) of poultry meat (by 16.0%), fresh and frozen fish (by 15.1%), dry milk (by 17% 9%), butter (21.4%), citrus fruits (4.6%), coffee (3.6%), tea (9.4%), cereals (17.4%), sunflower oil (6.5 times), products and canned meat (by 3.0%), cocoa beans (by 26.5%), products containing cocoa (by 22.9%), alcoholic and nonalcoholic of beverages (by 33.6%). Import of raw sugar decreased (by 30.7 times), sugar of white (by 11.8%), tobacco products (by 7.4%) [3].

In a number of positions of agricultural raw materials and food, the average contract prices have risen. The highest increase in prices was noted for fresh meat and ice cream (by 22.8%), poultry (by 25.7%), fish (by 8.1%), milk and cream condensed (by 11.6%), butter (in 1, 6 times), coffee (by 21.7%), products and canned meat (by 20.4%), raw sugar (1.6 times), products containing cocoa (by 4.8%) [3]. Export of food products and agricultural raw materials in January-May 2017 amounted to 7343.6 million US dollars, which is 16.6% more than in 2016. Compared to January-May 2016, wheat exports grew by 20.5%, vodka - by 1.7 times [3].

Problems and development prospects. In general, Russian agriculture is experiencing a stage of recovery, but at the same time, several important problems remain unresolved. Despite the steady growth in annual indicators, the discrepancy between the structure of supply and demand continues to hang over the industry with the sword of Damocles. Low solvency of the lion's share of the population lowers consumer demand and causes a decline in prices as a result of the market overflow, which adversely affects the profitability of agricultural enterprises [1]. To increase the indicators of agriculture, the government plans to focus on the following areas:

- Import substitution;
- Increasing the involvement of the state in improving agriculture;
- Attraction of investments;
- Development of the national scientific base;
- Support of farms.

According to experts [1], the most active in the coming years will be the development of pig breeding, hothouse vegetable production, production of export products (oilseeds and cereals). The data show that the Russian economy has outlook for growth, but there are weaknesses. In general, industrial production begins to develop, and this is a good signal.

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