

Updating Fixed Production Assets: Incentive Tools

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Abstract

Based on an analysis of national statistics on the structure and condition fixed production assets of Russian companies identified disparities in the structure of the fixed assets in Russia, as well as a high degree of wear and tear, (about 50%). In the study, the reasons for the poor state of basic production assets and identify opportunities to overcome the problem of low investment activity of domestic enterprises in the modernization of production is determined that one of the main constraints is the current tax system and the associated high cost of investment. Determined that under the tax laws do not give preferences to the expected positive effect, because it does not have a significant impact on reducing the cost of acquisition of machinery and equipment due to the high proportion of it indirect taxes (VAT, duties), which reduces the investment business opportunities at the same time holding back the development of domestic engineering and construction industry, which are created and the basic production assets (active and passive parts of them). As stimulus measures proposed substantial cuts in VAT and duties, and in high-tech equipment in strategic industries - complete their cancellation. Dropping out in connection with this budget revenues at the initial stage may compensate by increasing excise taxes on certain products that are detrimental to public health (alcohol and tobacco), increased taxation on the export of capital.

As a non-tax instruments to promote development of the proposed technical outsourcing (after-sales service of process equipment), the use of which will provide the companies who invest in technological renovation of production, significant cost savings by reducing the costs associated with the content in the state of highly specialized staff and simplify the process of enterprise management . The enterprises of mechanical engineering will be able to sustainable development and establishing long-term business relationships with client enterprises.

Keywords: investment, modernization, fiscal instruments, upgrade, equipment, service, promotion, price, structure

1. Introduction

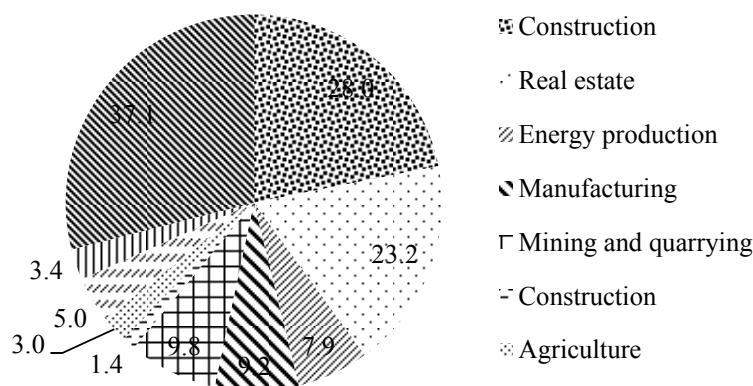


Figure 1. Fixed assets of the Russian Federation, the main activities at the beginning of 2012 (for the full carrying value of %% of total) (according to the Federal State Statistics Service / Industrial Production)

The economic growth of the state, which is based on the development of industrial production, requires constant updating of material and technical base of the industrial enterprises and investment in the sphere of production. Economic reforms that have taken place in the 90s, led to a significant change in the structure of fixed assets in

Russia in the total capital stock of the state decreased the proportion of fixed assets in industry, construction and agriculture, significantly increased the proportion of transport and communications. Existing structural imbalances persist (see Figure 1) and significantly reduce the opportunities for economic development.

The continuing trend of reducing the proportion of fixed assets in industry and agriculture in the total capital stock of the state is exacerbated by the high degree of depreciation of fixed assets (Table 1), which has a negative effect on the competitiveness of Russian enterprises.

In the current situation is paramount to develop and implement measures to encourage the process of renewal of the fixed assets and the development of basic industries (engineering, construction), which are the basic production assets (their active and passive parts).

2. Materials and Methods

Study of the problems of development and modernization of production carried out by using the following information database:

- National statistics on the state of the fixed assets in the Russian Federation, the dynamics and structure of investments in fixed assets, production indices of fixed assets;
- Tax law (Tax Code of the Russian Federation, "Main directions of tax policy of the Russian Federation for 2014 and the planning period of 2015 and 2016") with regard to the application of tax incentives and taxation of property, plant and equipment (direct, indirect);
- The results of research conducted by consulting firm for the development of production;
- Materials of scientific conferences;
- Scientific publications on the problems of modernization and development of the investment climate.

Subject domain of the research is:

- Fixed assets of organizations: cost, depreciation and update, repair and maintenance.
- taxation: tax preferences.
- Investments in fixed assets: sources of financing.

Outsourcing: technology outsourcing (after-sales service purchased technological equipment).

Aim of this study is to develop a scientific and practical recommendations to stimulate investment by Russian companies in the modernization of production and the development of domestic machine-building based on the improvement of tax instruments that reduce the tax burden on businesses and the development of after-sales service of fixed assets.

The study identified problem laid applied research of our scientists and practitioners presented in publications on the problems of development and modernization.

As research tools were used methods of statistical analysis, expert assessments, qualitative and quantitative study.

3. Results

3.1 Analysis of Fixed Assets State in Russia

Study data on the wear, renewal and disposal of fixed assets (Table. 1) indicates that, despite the rapid increase in the coefficient of the coefficient update disposal of fixed assets and their depreciation is increased and remains quite high - about 50%. Especially, the wear of machinery, equipment and vehicles and the share of investment in their update reduced (in 2012 compared to 2005, it decreased by 4.8%) (Table 3). (Merzlova & Sharkova, 2013)

Table 1. Depreciation, disposal and replacement of fixed assets in Russia *

Indicators	2005	2006	2007	2008	2009	2010	2011	2012
Wear rate (end of year: in %%)	45.2	46.3	46.2	45.3	48.8	47.1	47.9	48.6
Replacement rate (input of fixed assets as a% of the total value of fixed assets at the end of the year)	3.0	3.3	4.0	4.4	4.1	3.7	4.6	3.9
retirement rate	1.1	1.0	1.0	1.0	1.0	0.8	0.8	0.7

*) The table is compiled according to the Statistical Yearbook of Rosstat "Russia in Figures 2013year" / national wealth

Statistics show that over the past five years, the average age of cars and equipment for the economy is not significantly reduced, and in some sectors increases (Table 2), and it can not affect negatively on the performance and quality of products, services, work.

Table 2. Average (weighted) age of machinery and equipment industries in the Russian Federation (at year end), * %

	2008	2009	2010	2011	2012	2013
Machinery and equipment for all sectors of the economy including:	11.2	11.2	11.2	11.2	11.2	11.2
Agriculture, hunting and forestry	9.7	9.5	9.5	9.5	9.5	9.3
Fishing, fish farming	13.3	12.9	10.6	9.6	10.5	9.3
Mining and quarrying	7.8	8.3	8.1	7.6	8.3	8.2
manufacturing	11.9	11.9	11.9	12.0	12.4	12.2
Production and distribution of electricity, gas and water	15.2	15.4	14.6	14.2	15.2	14.9
construction	7.8	7.9	7.6	7.3	7.2	7.7
Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods for personal use	14.5	13.2	14.0	14.7	13.6	13.2
Hotels and restaurants	5.9	7.4	6.7	6.9	6.9	6.4
Transport and communications	9.9	10.3	10.4	10.1	9.7	9.9
financial activities	3.9	4.3	4.1	4.2	4.2	4.3
Real estate, renting and business activities	9.3	9.1	8.7	9.4	9.3	8.8
Public administration and defense; compulsory social security	12.0	9.5	8.2	8.3	7.8	7.7
Education	9.7	9.6	10.0	9.5	8.4	9.1
Health and social services	7.3	7.0	7.1	7.7	6.9	7.1
Other community, social and personal services	6.8	7.7	7.4	7.3	8.3	8.8

*) The table is compiled according to the Statistical Yearbook of Rosstat "Russia in Figures 2013 year" / Industrial Production

Table 3. Structure of investments in fixed capital by type of fixed assets (in % of total) *

Investments in fixed assets	2005	2006	2007	2008	2009	2010	2011	2012
Total	100	100	100	100	100	100	100	100
Incl by type of fixed assets:								
dwellings	12.0	11.8	13.0	13.6	15.3	12.2	12.7	15.2
Buildings (other than residential) and facilities	40.4	40.9	41.7	42.6	45.5	43.3	43.3	42.6
Machinery, equipment and vehicles	41.1	40.5	38.9	37.7	33.1	37.9	37.9	36.3
Other	6.5	6.8	6.4	6.1	6.1	6.6	6.1	5.9

*) The table is compiled according to the Statistical Yearbook of Rosstat "Russia in Figures 2013 year" / Investments.

Analyzing the structure of the main sources of investment in fixed assets (Table 4), it should be noted that in modern conditions borrowed funds are the main source of capital investments in the technical re-equipment of production assets, which account for 54.6%.

Table 4. Investments in fixed capital by source of funding (2005-2012)*, %

Indicators	2005	2006	2007	2008	2009	2010	2011	2012
Investments in fixed assets - total	100	100	100	100	100	100	100	100
Incl by source of funds:								
<i>own funds</i>	44.5	42.1	40.4	39.5	37.1	40.0	41.9	45.4
<i>Borrowed funds</i>	55.5	57.9	59.6	60.5	62.9	59.0	58.1	54.6
Among them:								
bank loans	8.1	9.5	10.4	11.8	10.3	9.0	8.6	7.9
Borrowings from other organizations	5.9	6.0	7.1	6.2	7.4	6.1	5.8	5.4
<i>budget funds</i>	20.4	20.2	21.5	20.9	21.9	19.5	19.2	17.0

*) The table is compiled according to the Statistical Yearbook of Rosstat "Russia in Figures 2013 year" / Investments.

Low investment activity of enterprises due to limited financial resources, which in turn is related to the following factors:

1. high cost of machinery and equipment,
2. high tax burden on businesses, limiting the financial ability of enterprises to implement the projects of technical re-equipment of production;
3. absence of a developed national system of after-sales service of fixed assets, which allows not only extend the life of fixed assets without loss of power, but under certain conditions, to modernize under the after-sales service, as well as to optimize the costs associated with the organization of the maintenance and repair of equipment during his lifetime.

3.2 Tax Policy and Production Modernization

In order to promote investment in the renewal of fixed assets by the state have been taken measures aimed at reducing the tax burden on enterprises:

- Use of residues of value added tax (VAT). In accordance with the standards established by the Tax Code, the amount of VAT payable to the budget, the taxpayer independently determined as the difference between the amounts of VAT on the sale of goods (works, services, etc.) And the amounts of "input" VAT that is a tax that was presented to the organization, the taxpayer suppliers when purchasing their goods chargeable when performing construction activities for the needs of the organization, has been paid by the taxpayer at customs when importing goods into the territory of the Russian Federation.
- Regarding the taxation of property companies: changes in the list of objects of taxation on property of organizations that provide an exception to the object of taxation of movable property (machinery and equipment), received from the 01.01.2013 registered as fixed assets. (2) Thus, the implementation of the modernization of production should be provided cost savings of enterprises associated with investments in new equipment.
- In order to promote the process of renovation of fixed assets in 2013, the procedure for the recovery of income amount "bonus depreciation" taken into account in the organization costs when making investments. We are talking about one-time write-off for expenses of not more than 10% (no more than 30% - in the case of fixed assets related to the third - seventh depreciation groups) of the original value of fixed assets, which should lead to a decrease in revenues from corporate profits. However, the implementation of such fixed assets within the 5-year period from the date of entry into service, provided for restoration of "bonus depreciation" of income, and double. This situation limited the widespread use of the mechanism of "bonus depreciation" in practice. (2) Subject to the changes, beginning in 2013, the amount of "bonus depreciation" subject to recovery in income only if the fixed assets realized the person who is interdependent with respect to the taxpayer. Your changes have been designed to have a significant impact on the practice of "bonus depreciation" as their introduction was shot a number of barriers to the use of conscientious taxpayers.

Reduction of customs duties on imported into the territory of the Russian Federation in connection with the equipment Russia's WTO accession also lead to a greater investment in the modernization of production enterprises.

However, despite the measures taken by the state, the dynamics of investment in fixed assets for the year after the adoption of the designated measures have not improved, and according to Rosstat data for 2013 the volume of investments in fixed assets decreased by 0.3%. (5)

In addition, Russia's membership in the WTO, providing a significant reduction or complete abolition of duties on imported technology, construction, scientific and measuring equipment, leads to a reduction in domestic production of machinery and equipment (Table. 5) and higher (compared to foreign analogs) the cost of their production.

Table 5. The index of machinery and equipment * % to the previous year

	2011	2012
Production of machinery and equipment	109.5	100.4
Production of vehicles and equipment	124.8	112.7
Production of electronics and optical equipment	105.1	104.3

*) The table is compiled according to the Statistical Yearbook of Rosstat "Russia in Figures 2013 year" / Industrial Production.

Thus, today in the structure of imports predominate share of the "Machinery and equipment, vehicles". So, in 2012, it accounted for 50.3% (an increase of 2.1 percentage points), two thirds of which is occupied by the means of labor (machinery and equipment). (5) For example, the share of imports of electrical equipment of leading customers, including JSC "FGC UES", JSC "IDGC Holding", JSC "RusHydro", JSC "RAO Energy System of East", for a total value of fixed assets is about 70%. (6)

Given the key importance for the development of the electric power industry of the national economy and the increasing trends of the EU's power to impose economic sanctions on Russia, the situation poses a threat to the security not only of the domestic power, but also a balanced development of the entire national economy.

It is clear that, despite the legislative consolidation designated tax incentives intended to boost business investment to renewal of production assets, the expected effect of their introduction has not been reached.

What is seen as the reason? It is obvious that the current tax system does not fully take into account the regulatory function of indirect taxes, which include VAT and duties. Included in the cost of acquisition of fixed assets are considerably increases the cost of investment in fixed assets, in spite of the existing tax preferences. Provided as a means for reducing the tax burden on businesses, the tax deduction for the value added tax (VAT) on the purchase and construction of fixed assets, defined as the difference between the amounts of VAT charged now with the realization of goods (works, services, etc.) And the amounts "input" VAT. (3) Thus, the entrepreneur, investing in the formation and development of the material-technical base of the enterprise (construction, purchase of equipment), even before receiving income from the sale of the investment project diverts a significant portion of funds for the payment of indirect taxes.

For most first-time entrepreneurs is becoming a serious barrier. Moreover, international experience shows that most developed countries use indirect taxes only for the regulation of individual sectors of the economy, and filling the state budget revenues is due to the payment of direct taxes - income, revenues, which are a source of development and growth that is interested and business and government. The current situation leads to a reorientation of investments of Russian entrepreneurs to the economies of "soft" tax regime and further stagnation of domestic engineering and construction - basic industries, creating assets.

3.3 Technical Outsourcing as a Tool to Promote the Upgrading of Production

So, one of the main constraints on the development of domestic production is high depreciation of productive assets, lack of automation, robotics manufacturing processes, and as a consequence - the technological backwardness of Russian producers from overseas in the major sectors of the economy. Overcoming the identified problems facing the problem of lack of sufficient financial resources of enterprises in the technical re-equipment, due to, as mentioned above, the tax burden on business and the high cost of the means of production. The imperfections of the current tax system is one of the factors constraining investment by Russian companies in the modernization of production, and the problem of underdevelopment joins national system of after-sale maintenance of acquired businesses of fixed assets (technical outsourcing). This situation reduces the attractiveness of engineering enterprises from potential customers and thus reduces the possibility of the development of the industry.

When the skillful organization of after-sales service can become a crucial source of income, due to mismatch of the product life cycle (ZHTTS) and services. Peak growth product comes in 2-3 years, and the life cycle of this product related services shall be extended to 15 years. The life cycle of related (service) service consists of the following four steps:

1. Phase of rapid growth - from the time of first sale of the goods to the growth stage of the product life cycle.
2. The transition period - from the growth stage to the growth stage ZHTST request service.
3. Stage of maturity - the stage of growth of services to the last sale of the goods.
4. Stage decline - from the last sale of the goods to the end use of the product the last known user.

Up to 70% of revenues from the sale of services accounts for the last two stages, for the following reasons:

- the cumulative effect of an increase in prices for maintenance services;
- the possibility of upgrading equipment, carried out over a sufficiently high prices;
- provision of additional facilities to the extent of physical and technological obsolescence.

In the context of the aftermarket question influence the cost and quality of such services on the operating cost of purchased equipment, and controlling costs in the enterprises it is necessary to move from accounting unit cost of production (machinery, equipment) to the cost of ownership of this product. This approach takes into account the interests of both producers and consumers of the means of production. In enterprise-consumers an opportunity to optimize costs by choosing between buying equipment with the possibility of after-sales service or without it.

Transfer now acquired assets at the after-sales service prolongs the life of fixed assets without premature loss of power and cost savings by eliminating the dedicated staff of content, regardless of the amount of equipment they serve and the volume of repair work performed. Interest is determined by the manufacturer of the establishment of long-term business relationships with companies, consumers, business diversification, additional substantial source of income that enhances competitive advantage.

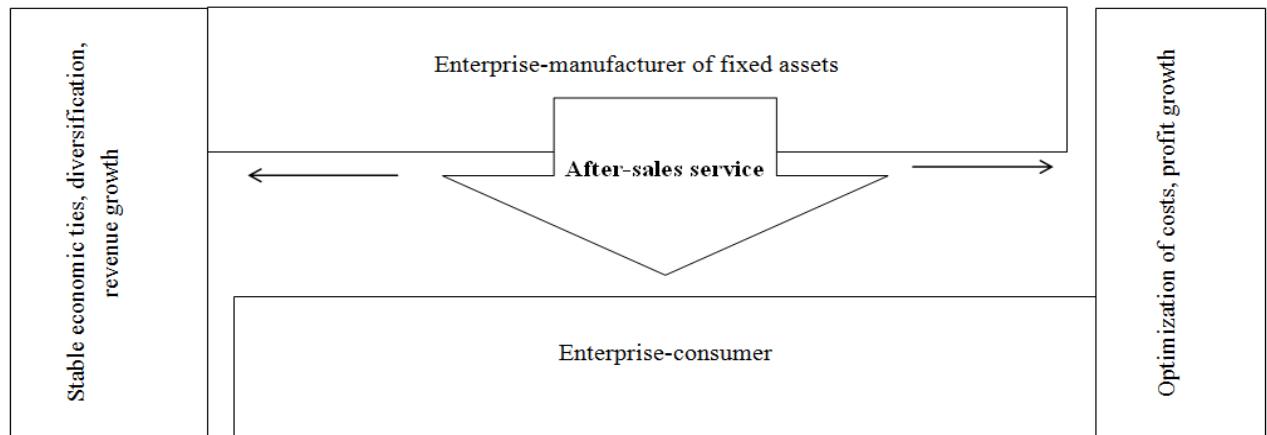


Figure 2. Benefits of after-sales service

4. Conclusion

In terms of innovative development of the economy and increased competition obsolescence of fixed assets is far ahead of the physical and reduces the useful lives are. Need for more intensive technical and technological modernization of enterprises requires considerable financial investments to development of material and technical base, with the current high tax burden the strength is not all entrepreneurs.

It is obvious that in these conditions the improvement of tax policy should be aimed primarily at reducing the tax burden on business in the industrial sector, and is associated with a significant reduction, and in some (priority) areas - the abolition of indirect taxes (VAT, duties) for means of production. This regulatory measure will create conditions for the development of investment activity of domestic producers, reducing capital flight from the country, with falling budget revenues at the initial stage can be absorbed by the increase in excise tax rates for certain types of alcoholic beverages, tobacco products, the introduction of increased taxation on the export of capital from countries.

Effective tool for revitalization technological modernization of the system is the development of technical outsourcing (after-sales maintenance of acquired businesses of fixed assets). Together with the use of tax incentives after-sales service of process equipment allows additional savings businesses, freeing it from the costs associated with the maintenance of highly specialized personnel, and simplifies the structure and process management.

It is known that the life cycle of the provision of services and, in particular, services for maintenance of the equipment produced significantly higher life cycle of the equipment itself (as a product). Therefore, the development of after-sales service will ensure a steady income of company-producers, regardless of fluctuations in demand for manufactured equipment.

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