

## THE FINANCE SYSTEM OF INNOVATION IN RUSSIA AND THE PROBLEMS OF EFFICIENCY

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*The article is devoted to the problems of financing vehicles of innovation. The place and role of economic development in innovation is determined. Current problems of efficiency enhancement of innovation activity in Russia are envisaged.*

**Keywords:** innovation development, financing methods, efficiency.

The innovative way of economic development is today unique for Russia. The overcoming of negative consequences of prolonged modernization and providing a long-term sustainable development requires multiple expansions of R & D costs, which improved financing and stimulation of innovative processes in the country.

Analysis of the innovation process in Russia will place the question about the influence of evolutionary system on supplying business solvency of economy and the budget system in the long run. The lack of clear program and the system of interrelation of the allocated financing with results of future condition is presented. The rate of innovative activity is constantly increasing in the world. This process comprises a growing number of countries. Yesterday technologies which were widely used in the developing countries are no longer operating. All fast-growing countries focus on the development of industries that are aimed at the breakthrough. The main Russia's GDP growth in 2011 was due to agriculture and natural resources sector.

The finance system of innovation is a complex interweaving of forms and sources. Until 1991, financing of innovation in Russia was based mainly on the budget appropriations. Financing vehicles of the implementation of the state innovation policy now is a system of supplying the innovation cycle with resources.

Currently, you we can use the following classification of innovation sources of funds:

According to ownership: State, Private, Public-private.

By source of funds:

- own budget and extra-budgetary funds, budget appropriation, by which the following target complex programs and state priority projects are carried out (for example, RFBR)

- loan and insurance funding,

- loan proceeds in the form of external (international loans) and domestic debt of the state (government bonds, debt and other loans)

- internal funds of economic entities (profit, depreciation charges, insurance indemnity, immobilize surplus of intangible asset, fixed and basic and current assets, etc.);

- funds received from stock trading, as well as contributions, special-purpose receipts, etc.;

- loan proceeds of economic entities in the form of bank and commercial loans,

- funds from a public-private partnership.

The organizational forms of innovation financing are:

- deficit spending

- Equity (corporate) finance

- Project Finance [1]:

Turn to the analysis of funding models that exist in modern states of the world. The basic model of financing of innovation is based on the stock market and called the market. The market model is characteristic for the U.S., UK and Canada. In the last few decades it has been extended in Israel, as well as many countries in continental Europe. In particular, during the second half of the 1990s, Belgium and the Scandinavian countries increasingly trended to this model, especially Sweden and Finland, but this model is still called the American, British-American or stock model [2, p. 62, 3, p.27, 4, p. 30].

A classic example of successful stock market participation in the financing of innovation is the activity of the American National Association of Securities Dealers Automated Quotation (NASDAQ). This area has become the most reliable and widely used channel for further development of venture capital in the USA.

A liquid market allows venture investors and business angels to sell their shares in the funded companies, without causing a significant decline in stock prices of these companies. Liquidity of the stock market is determined by its size, which in turn depends on the number of listed securities, as well as investment banks and companies providing financial services to private and institutional investors. An important condition for achieving an adequate level of liquidity of the stock market is high entrepreneurial activity in the country. Thus, the business venture was formed as a branch of the U.S. business in the period of rapid development of computer technology and gave a powerful impulse for the successful development of this field.

The main drawback of the market model is its instability, manifested primarily in the fact that this model creates an environment conducive to the formation of bubbles on the stock market. The problem of financial bubbles is constantly discussed in the scientific literature. The most comprehensive relationship of crisis with the formation of new technological mode in the economy is presented in the research of S. Glazev and A. Romanov [5, 6].

It is believed that the «overheating pressures» of the stock market and the subsequent formation of the bubble is an essential element of any significant stage of the innovation development (technological revolution). The well-known expert in the field of technological development K. Perez follows describes the process of the financial capital in the technological revolution: «One gets the money in new industries, and the other is directed to the development of new infrastructure, and the third for the modernization of existing industries, but most part of the money spinning frantically in the market, making new money, which leads to asset price bubbles, and creates an atmosphere of excitement in the ever-growing bubble. As a result, it has to burst, but when it happens, the changes have occurred. The new industries have grown; the new infrastructure has appeared...». [7, p.25].

A.A. Suetin explains the emergence of financial bubbles by trading large facilities at a price that are significantly different from the true ones. [8, p.14]: There are hypotheses that consider as a cause of financial bubbles, the systematic deviation of the market price of financial assets from their real value, speculation, irrational behavior of institutional investors.

The stock market, which underlies the market model, allows innovative companies to gain the access to the additional capital and to carry out a profitable exit from the investment for venture investors and business angels. At the same time, the market model is not functioning successfully in all countries. The ability of the securities market to promote the development of innovative business is largely determined by the law and the level of market liquidity. Where the economic environment is inadequate, stock prices are volatile, and the markets themselves more conducive to financial speculation rather than

long-term investment. It is difficult to talk about financial stability in this situation.

The features of a distinct element of economic structures are a peculiarity of the business venture. Moreover, the largest independent venture capital firms are in the United States, developing on the basis of external ventures and the lowest – in Japan, existing in domestic venture capital divisions of large industrial companies. But regardless of the organizational form, they are flexible and mobile structures and are characterized by extremely high and purposeful activity of the employees and their partners of the venture business in the successful commercialization of early ideas, technologies, object of the invention, and with minimal effort.

The emergence of risk form of financing is inextricably linked with the growing difficulties of introducing scientific achievements in production, mass emergence of the research enterprise and the high demand for the capital, inability to meet the traditional banking institutions. In addition, the great risk is encouraged by a possibility to have gained a much larger win, if to invest capital into innovations, than in guaranteed government securities or in shares of corporations and banks, or even playing at stock exchange.

In October 2011, the Federal Government approved the Concept of creation the Center of education, research and development in Tomsk region. The project includes two stages till 2020.

The first stage – 2011-2015 - suggests the involvement and development of investments, including the development of research and education park, university campus, innovation infrastructure, accompanied by transport and social infrastructure, the strengthening of institutions with innovative orientation, including the involvement of large companies into the region, the development of research and education complex, continuous and multi-level education and innovative entrepreneurship.

The second stage – 2016-2020 years – to achieve innovation and technology leadership in priority areas of modernization of the Russian economy and the key project results is scheduled.

Preliminary funding of the project for 2011-2013 from all sources of funding is 39 922.1 million rubles. 45.8 % - off-budget funds, 54.2 % – on account of budget. Budgetary funds – 75.2 % (16,250.2 million) from federal budget and 24.8 % or 5370.5 million rubles from regional budget [9].

The main indirect way of improving innovative activity is tax credits and promotional taxation for corporations that own or public R & D programs. These measures are sometimes referred to as «tax expenditures». In some countries (Canada, Australia, Ireland, the Netherlands, Belgium, etc.) «tax expenditures» on research and development exceeds the budget.

To encourage investment in R & D by the private business tax tools are directly related to the income tax and are divided into two categories:

- tax bonanza – in this case, firms which invest in the research and development, are allowed to deduct these expenses from taxable income or income spent on R & D, for example in Russia, a so-called «bonus depreciation» as a tax expense;

- tax credit – in this case, firms which invest in research and development are allowed to deduct a specified percentage of R & D expenditure from taxable income or income tax credit is granted to Russia in the amount of taxes paid is not intended for investment.

Recently, there was a noticeable shift in emphasis from the use of tax concessions to the tax credit in the practice of tax incentives for R & D in the OECD countries. [10] In France, since 2005, the amount of finance, allocated to French companies on the basis of tax research credit, is being started to exceed the value of direct government support of high-tech businesses.

In the tax systems of most OECD countries, including the United States, the costs on research and development are regarded either as an investment expenditures and are depreciated over 5 years from the date of implementation, or as business costs and being tax deductible in the current period. The choice of method of writing off the costs for R & D is up by the entrepreneur.

In the U.S., the tax credit for research and development allows to return an amount of finance equal to 20% of incremental R & D expenditure from already paid taxes during the current year. This concession is applied only to the research and development activity carried out in the U.S. The tax credit has a powerful stimulating influence on the effective implementation of the long-term research by companies, emergently important for a new economy. Such credits have a positive impact at the early stages of the development of firms and are especially effective in small businesses. [11].

In summary, there are three main groups of tax tools to encourage innovation:

- Tax exemption of public and private non-profit organizations (value-added taxes, wealth tax, land tax, and the elimination of customs duties on import of scientific equipment, etc.);

- Tax concessions that encourage companies to spend more money on research and development;

- Tax concessions for start-up companies at the early stages of their activity.

Experience shows that the tax concessions included in the first group do not provide any significant incentive to make additional investment in research and development. If the public and private non-profit organizations are forced to pay all the legal taxes, the Government should compensate these costs by increasing in the level of funding. The only advantage of this group of tax concessions is that the overall cost structure of state organizations will be

relatively lower than other organizations have. It will lead to their competitive growth.

As in many other countries, the Russian State research and development institutes and universities are free of value added tax. This applies to research work funding by the Government, as well as research performed under contracts with the business. Tax concessions on income do not apply to public research institutions and universities, as the purpose of their work is making a profit.

Chubais said at the St. Petersburg International Economic Forum, that 13 new plants of nanotechnology put into operation in 2011, and another 16 are planned to set in operation in 2012. In the long term 60 plants will be opened in the future. All these plants are now combined into 14 clusters from metalwork and polymers to medical cluster, which includes the treatment, diagnosis, surgery [12].

The statement of the President Vladimir Putin at a meeting of Presidential Council for economic modernization and innovative development of Russia in June 2012 runs that Russia has a whole system of development institutions: the Russian Venture Company, Rusnano, the Russian Fund for Technological Development, Skolkovo, the Fund for Assistance to Small Innovative Enterprises in science and technology. Besides, much is being done to use the modern tools of innovation policy: tax concessions for innovative companies, possibility to create small innovative enterprises at the universities and research institutes, an application of a significant promotional rate of insurance payment – 14 %. 1 715 new innovative enterprises are running in Russia today. Global experience has shown that small innovative business tends to develop and introduce innovations. More than half of innovative products are created in this sector. 115 technology transfer centers and 177 business incubators were created, 25 innovative regional clusters were selected, where the programs will be implemented with the government support. Tomsk Region is included into a cluster «Pharmaceutics, medical technology and information technology of Tomsk region», specialization «Medicine and pharmaceutics, IT, electronics», which is quite legal.

Desire to develop Nano sector is very useful, but at the same time it is necessary to put the issue of assessing the effectiveness of the investment. Clearly, this is an area of high-risk investments; this efficiency cannot be instantaneous. The Court of Accounts of the Russian Federation on the basis of analysis of the effective application by economic entities with state participation and public corporations of funds for investment purposes has concluded that 9 large joint-stock companies with state participation (PLC «Gazprom», PLC «Oil Company» Rosneft», PLC «Federal Grid Company of United Energy System», PLC «INTER RAOUES», PLC «Russian Railways» PLC «Svyazinvest», PLC «Aeroflot», PLC «Sovcomflot», PLC «Special Economic Zones») do

not fully implement investment programs, plans for capital construction and putting into operation. This situation leads to an increase of constructions in progress, increase the cost of construction, with import machinery purchased mainly (PLC «Aeroflot», PLC «Sovcomflot2), there is no proper control over the achievement of economic efficiency, taken into account the decision of including objects of construction into the investment program [13]. Only 67 % of the 15 reviewed organizations adopted a strategy (program) of its activities. With a total investment of these companies in 2009–2010, more than 3.7 trillion rubles (more than 400 billion rubles are derived from the federal budget) are used ineffectively, and in some cases with a low efficiency. Auditors see the reason in the absence of a clear research focus and general imbalance of innovation system. According to their views, the increase in R & D expenses by 15 % should bring an additional 1 % to growth of GDP. However, this trend is not observed in Russia: from 2002 to 2010, funding for scientific research has increased by six times, but the corresponding increase in GDP was not occurred, the number of patents has not been yet grown up this time.

Due to the Research Institute of Battelle Memorial Institute, Russia's expenses on R & D amounted to 1 % of GDP in 2011, or 23.1 billion dollars. Russian indicators look more considerable among countries - neighbors of the BRICs: China spent on innovation 153 700 000 000 dollars last year, or 1.4 % of GDP, India – 36.1 billion, or 0.9 % of GDP, Brazil – 19.4 billion, or 0.9 % of GDP. Last year the growth of GDP in Russia, according to preliminary data, was 4.3%. Over the next ten years Russia will increase R & D funding by more than half, to 2.5–3 % of GDP [14].

Alongside the improvement of the institutional environment the Government supported pointed innovative projects within five priority areas of technological development. A total number is 37 projects; with a financial support about 100 billion from the federal budget for 2010–2012. [15]

Thus, challenging questions of nanotechnology development and policy of modernization of the Russian economy has been justified over the next ten years. However, it is important to increase the responsibility for the efficiency of large amounts of funding. Now the speed of implementation of economic development programs is insufficient.

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