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STATE AND FUNDS OF FUNDS IN VENTURE INDUSTRY DEVELOPMENT

O. F. MALASHENKOVA a

^aBelarusian State University, Niezaliežnasci Avenue, 4, 220030, Minsk, Belarus

The article analyses the successful world experience that defines a role of the state and government support programs of venture business development as the start catalyst of venture processes in the country. It is shown that the programs of direct state investments basically are typical for developed countries. It is proved that the developing countries achieved success thanks to found mechanisms. The article reveals an essence of fund of funds and its role in development of the venture industry. Here are given examples of the state support of venture business in different countries: Finland, Israel, the USA, Russia, Kazakhstan. Article will be interesting as to expert – investors, economists, scientists, post-graduate students, students, and a wide range of readers.

Key words: venture activities; fund of funds; government support; venture capital industry.

ГОСУДАРСТВО И ФОНДЫ ФОНДОВ В РАЗВИТИИ ВЕНЧУРНОЙ ИНДУСТРИИ

О. Ф. МАЛАШЕНКОВА¹⁾

1)Белорусский государственный университет, пр. Независимости, 4, 220030, г. Минск, Беларусь

Анализируется успешный мировой опыт в развитии венчурной индустрии, роль государства и государственных программ поддержки предпринимательства в этой области в качестве катализатора запуска венчурных процессов в стране. Показано, что программы прямых государственных инвестиций характерны в основном для развитых стран. Доказывается, что развивающиеся страны добивались успеха благодаря фондовым механизмам. Раскрывается сущность фонда фондов и его роль в развитии венчурной индустрии. Приводятся примеры государственной поддержки венчурного бизнеса в разных странах: Финляндии, Израиле, США, России, Казахстане. Статья будет интересна как специалистам – инвесторам, экономистам, научным работникам, аспирантам, студентам, так и широкому кругу читателей.

Ключевые слова: венчурная деятельность; фонд фондов; государственная поддержка; венчурная индустрия.

Today, the main source of competitive advantages of market participants is the ability to implement innovations, and at the level of economy on the whole – the incentives to invest in innovative development. In the Republic of Belarus the innovative development of the national economy was chosen as one of the priorities of socio-economic development for the years 2016–2020. Venture investment is recognized as one of the most effective mechanisms to accelerate the innovation processes in the economy all over the world.

The works of Western scholars and researchers such as Ph. Deville [1], R. Schmidtke [2] are devoted to the study of venture activities. Russian researches Yu. P. Ammosov [3], P. G. Gulkin [4], A. I. Nikkonen [5] were engaged in the study of venture activities. In the Republic of Belarus the research is not active enough. Among

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Автор:

Ольга Федоровна Малашенкова – кандидат экономических наук, доцент; заместитель декана по научной работе факультета международных отношений.

Author:

Olga Malashenkova, PhD (economics), docent; deputy dean for scientific work of the faculty of international relations. malashenkova@bsu.by Belarusian scientists A. V. Danilchenko [6], A. P. Grishanovich [7] deal with this issue. However, in our opinion, the role of the fund of funds in venture industry hasn't been fully analysed in Belarusian economic literature.

Venture activity originated in the USA in the 1930–1940s, when wealthy individuals who invested their own money in starting or expanding businesses acted as venture investors. Using the current terminology such investors are referred to as *business angels*. Today, business angels comprise the informal venture capital market. Successful experience in venture investment attracted to venture capital activity in the 1960–1970s a wide range of institutional investors, among which stood out major corporations, banks, and insurance companies. Such corporate venture investors began to act as a venture fund, representing their collective interests. Venture funds, corporations, banks, insurance companies and other institutional investors represent a formal or institutional venture capital market.

In Europe venture activity began to develop in early 1980s. A significant prerequisite for the dynamic development of venture industry in Europe was the existence of two decades of US experience, which allowed avoiding lots of mistakes and adapting to the established financial and management technologies.

However initially there was a great difference between the US and European versions of venture investment. In Europe the role of the state in the economy was always higher than in the USA. Therefore, the legal mechanisms for venture activities were much weaker. In addition, European investors initially avoided investments in shares, preferring less risky fixed income bonds. The Europeans were also very different from the Americans in terms of the stages of financing: the biggest part of money was sent to the later stages of company development and financing of changes in ownership of the company such as takeovers and LBO¹. Another obstacle to the development of venture activity was a less developed patent law [3, p. 254].

At present venture business, which has developed into a powerful global industry, and proved to be one of the most effective tools of innovation development of the real sector of economy, has proved the effectiveness of venture investment institution in the developed countries. Successful international experience determines the role of the state and national programs of venture entrepreneurship development support as an activator of venture processes in the country. It was like this in the USA (SBIC), Finland (SITRA), Israel (Yozma). There were no countries in which the role of state in formation of this institution was negligible.

To start a venture system countries often use the mechanisms of public-private partnership, the purpose of which is to create an independent and profitable venture sector aimed at investing in small innovative enterprises. The mechanism of such public-private cooperation in venture industry lies in the direct share participation of the state in venture funds or through a fund of funds, as well as in financial assistance to private venture funds and innovative companies. Besides, the state should prepare companies for venture investors, funding them at the seed stage. Finally, the state can partially manage the creation of a venture infrastructure: preparation of innovative managers, organization of venture culture education centers for entrepreneurs, holding venture fairs – venues for investors and companies wishing to raise funds. In any case, the state acquires the possibility to recoup the investment through taxes collected from the companies created by the fund.

Formally venture investments are a special type of direct investments; the only difference is that venture investments are made during the start-up stage, early development or expansion of a business. Inherently funds of funds are private equity funds. With the help of the fund of funds many institutional investors get an opportunity to increase the profitability of their own funds through investment in venture capital funds. Thus, until recently in Europe some institutional investors, such as pension funds, have been prohibited from investing in high-risk venture capital funds. Nowadays the pension funds resort to investing in the fund of funds as a convenient way of distribution of investment risks. Only a single investment in the fund of funds is made, and its managers take care about creation of direct investment portfolios of the funds on the basis of the criteria set out in the Prospectus of the fund of funds. In Europe at the present time funds of funds take responsibility for more than 10 % of direct investments [8].

In general, in Europe the *fund of funds* means a fund that invests in other equity funds. This fund, which invests mainly in new funds, is called a *primary fund of funds*. The fund, which specializes in investing in existing funds, is called a *secondary fund of funds*.

Most commonly in the Russian language sources *fund of funds* appears as a structure with state participation. Besides, very often the state fund of funds is a non-profit one, i. e. it doesn't seek profit from its activities, as it has other purposes. So, the fund of funds can be created to enhance venture activity and create a network of private venture funds in the country. Creating a fund of funds is a way of direct state support of venture industry development in the country. The fund of funds allocates its funds in private venture funds, along with other investors, and is a kind of intermediary in the transfer of financial resources from the state to private venture funds. In addition, the fund of funds in some cases acts as a guarantor for private investors in reducing investment risks.

¹LBO (leveraged buy-out – leveraged (financed, supplemented, credited) buy-out – purchase of a major share of stock of a stock company using borrowed money, the assets of the company being acquired are used as collateral for the loans).

The world's experience shows that the model of public investment in innovative companies is used in the developed countries when the state venture fund invests in companies directly. In the developing economies the success has been achieved due to the investment models of public funds through a fund of funds [3].

Support programs for the development of innovations in the USA are one of the first models of direct public participation in the development of venture investment. We shall consider the major ones, which are SBIR and SBIC.

The SBIR Program (US government program of Small Business Innovation Research), sponsored by the US Agency for Support of Small Business - Small Business Administration (SBA), is one of the ways to overcome the "innovation barrier" which is a gap between researches and their implementation in the production. The strategy was to provide a part of the federal R&D funding for advanced applied researches, which would be focused on small high-tech firms and innovations, as well as to ensure the growing economic impact of R&D research funded by the government. It is important to point out that SBIR supports the ideas rather than the companies. The aim is to determine the feasibility of an idea and then help to turn it into commercial applications.

Another program, implemented and coordinated by the US Small Business Administration, is *Small Business Investment Company program* (SBIC), which was initiated by the US Congress in 1958 to provide small and medium-sized enterprises during their start-up, growth and subsequent expansion with risk (venture) and investment capital. Within the framework of this program, the US government through SBIC provides access to public funding for young growing companies provided by simultaneous fundraising from private investors in the ratio of 2:1 or 3:1, i. e., two or three parts of the capital must come from private sources. Within the framework of SBIC program, private companies undertake obligations to make limited types of investment, and, in return, they receive government subsidies, issuing bonds guaranteed by SBA. It is important to point out that both above-mentioned programs implement direct participation of the state in innovative companies without the mediation of a fund of funds [9].

An example of indirect participation of the state in venture investment can be funds of funds generated with a significant participation (up to 40 %) of the state. The most well-known of these funds are SITRA (Finland), the UK High Technology Fund; funds established with the participation of the Bank for Reconstruction (Germany).

The Finnish Innovation Fund SITRA has been operating in Finland. Within its framework private financing of start-ups and investment in regional funds to support technology companies co-exist. SITRA finances companies not according to the grant principle, but in a usual venture way, i. e. in exchange for a share part from 15 to 40 % and the sums of from 200 thousand to 2 million euros. SITRA has an extensive network of Finnish and international partners. Nowadays SITRA participates in more than 40 active funds, all in all its investment history amounts to participation in more than 50 venture capital funds [10]. By investing in domestic funds SITRA develops the financial market and supports the growth of new companies. At the same time, domestic investments increase the stability of business processes in public-private partnership. Investing in international funds provides access to information and contacts to help Finnish companies. In the process of international cooperation SITRA receives information about the technological and business trends. In general, SITRA has the status of an independent public fund under the auspices of the Parliament and it is managed as a fund, not as a government agency. This combination of factors, according to experts, has led Finland to one of the first places in Europe in the venture sector.

Another example of effective state participation in national venture activity direct support is Israel. Today, Israel is one of the world's largest exporters of high technology products.

Whereas in 1991 the country had only one venture fund with the capital amounting to 35 million US dollars, in 2016 there were about 70 active venture funds in Israel, out of which 14 were the international ones, while the venture investments volume amounted to 4.43 billion US dollars. To compare, in 2008 the venture investments volume in Israel amounted to 1.9 billion US dollars [11]. Most of the money has been coming from the USA and local sources. Two state support programs, namely an incubator program and Yozma program have become the most critical factor for such development. According to the Incubator program the Ministry of Science of Israel provided grants for projects meeting the criteria of an "innovative technological idea to create a product with export potential" under concessional terms. If successful, the project grant was returned to the state through the payment of royalties, in the case of failure the projects did not bear any obligations to the state. The state venture fund of funds Yozma with the capital of 100 million US dollars, provided venture funds with capital, investing in the starting-up stages of hi-tech projects. The overall result of this program was the fact that in the beginning of 1998 the total capital of the established 64 venture funds for investments in the sphere of high technologies amounted to 2 billion US dollars, the total capitalization of 100 largest hi-tech companies amounted to appx. 30 billion US dollars, and the high-tech sector took 67 % of the economy of Israel (at the time of the program launch in 1993 – 3 %).

There are 2 funds of funds in the Russian venture capital market. The first one was created at the initiative of the Ministry of Science and Technology of the Russian Federation by the Government Decree dated March 10, 2000 and is called the Venture Innovation Fund (VIF), whose task is to help to create regional / sector funds using Russian and / or Western capital. VIF is a non-profit organization in the form of a fund with a volume of fixed capital of 200 billion Russian roubles, which was intended to be a founder of commercial venture funds focused on science intensive industry in Russia in order to share their investment risks [12]. VIF launch performed two tasks at once: working out a form for the organization of funds under the Russian jurisdiction – a simple partnership agreement – and the creation of a support mechanism, alternative to the tax incentive difficult to implement. Weaknesses of VIF organization are its small size and limited participation in the venture fund only up to a volume of 10 % of the total fund size. In the developed countries, the same threshold for the "funds of funds" can be up to 40–50 %.

The second state fund of funds, OJSC Russian Venture Company (OJSC RVC), was established on June 7, 2006 by the Russian Government Decree No. 838-p. RVC is a state venture fund of funds and development institute of the Russian Federation, one of the key tools of the state in building its own national innovation ecosystem. Since its founding, RVC activities have been focused on two tasks: creating the conditions to attract private capital to the development of innovative entrepreneurship in Russia and creating the necessary infrastructure. RVC invests through venture funds set up jointly with private investors. Total funds generated by RVC as of the beginning of 2016 reached 23 (including 2 funds under foreign jurisdiction), their total volume amounting at 33.7 billion Russian roubles. Taking into account the aims and objectives of the Strategy of innovative development of the Russian Federation for the period up to 2020, RVC also generates nonfinancial instruments, including: the creation of an innovative infrastructure, the contribution to globalization of Russian innovation industry, the promotion and popularization of technological entrepreneurship, measures that improve skills of participants. RVC also acts as a competence center, which aims to create the necessary outlines of the interaction between the individual elements of the innovation ecosystem, accumulate and promote the best practice, implement optimization, integration and scaling of market mechanisms, and promote the emergence of new tools to support innovation activities.

Russian Venture Company was created following the example of the Israeli program Yozma. The differences between the programs lie in the following parameters: volume (Yozma had less capital equal to 100 million US dollars), rate of return (Russian rate is lower – 5 %, but not higher than inflation, Yozma money was given under LIBOR + 1 %) and the scheme of work with funds (Yozma conducted negotiations with each fund individually; RVC selects funds in open competition). The rest of the schemes features are similar. What is particularly noteworthy is the fact that Yigal Erlich, the organizer of Yozma, in the beginning of RVC activities worked in the Board of Directors of the Russian fund of funds, which also included another foreign expert Esko Aho – the head of the Finnish State Venture program SITRA. In general, this approach passes the decision-making right from the officials to the private sector.

According to the opinion of Igor Agamirzyan, RVC CEO and Chairman of the Board, "the most important strategic resource and reliable support for RVC will always be its partner network, represented by thousands of organizations, investors, business angels, experts, entrepreneurs, scientists and researchers" [13].

Another CIS state with a clear public support of venture industry is Kazakhstan. With the adoption of the Strategy of industrial-innovative development of Kazakhstan for the years 2003–2015 the Republic of Kazakhstan headed to creation of a competitive innovation economy. The key role in its formation and development was assigned to the National Innovation Fund.

JSC National Innovation Fund (JSC NIF) was created by the Decree of the Government of the Republic of Kazakhstan dated May 30, 2003 with 100 % state share in the authorized capital of USD 150 mln. The purpose of the fund was to improve the overall innovation activity in the country, including the promotion of high-tech and science intensive enterprises. Since 2006 JSC NIF is a part of State Holding FSD Kazyna. The Fund invests in innovative projects, issues grants for development of experimental R&D projects, is engaged in the development of venture and innovation infrastructure. Among other things, JSC NIF is aimed to perform the functions of a fund of funds [14].

At the end of 2016 JSC NIF was a partner of 4 local venture funds in Kazakhstan, established jointly with local investors on a public-private partnership basis. With the participation of the JSC "NIF" 8 regional industrial parks have been created in Kazakhstan, and three design-engineering departments have been successfully working. Furthermore, NIF is also a partner in five leading foreign venture funds, covering Europe, the USA, Israel, and South-East Asia. The fund participation in foreign venture funds allowed transferring of advanced technologies. Some results of JSC NIF activity in foreign venture funds have shown a high degree of profitability of the invested assets, and the resulting profit amounted to more than 300 %.

Venture activity, proven worldwide as an effective tool for the innovative development of economy, has not received significant support from the state in Belarus [15]. Formation of the favourable economic environment

to attract national and foreign venture capital to the innovation sector of the economy could begin with the creation of a Belarusian fund of funds – Belarusian Venture Company (BVC) in 2008, but the project was rejected. A more effective step was taken in 2010, when the Belarusian Innovation Fund was authorized to act as a public venture capital fund financing (on a return basis) high-risk projects. The need for an obligatory presence of the public customer does not allow considering this funding mechanism as a venture one. Lack of experience in the management of venture processes is forcing the government to cooperate with more successful countries. Thus, in December 2016 an agreement to establish a joint Russian-Belarusian venture investment fund was signed. The targeted fund size amounts to 1.4 billion Russian roubles, 700 thousand Russian roubles from the Belarusian part and the same amount from the Russian part, with the possibility of further increase upon investors' decision. At the first stage the Belarusian Innovation Fund (Belinfond), RVC and RVC Infrafond invest at a rate of 50 %, 49 % and 1 % respectively. The period of fund operation is 10 years with the possibility of renewal after the joint evaluation of results. RBFVI project is implemented within the framework of work of the Ministry of Economic Development of Russia, Russian Venture Company and the State Committee for Science and Technology of Belarus to develop a common technological space and venture capital market within the EEU. Since the beginning of the new Fund operation the representatives of the national technological community received an opportunity to participate in RVC initiatives and projects, aimed at development of innovative entrepreneurship ecosystem, and use RVC for bringing joint high-tech projects and innovative Belarusian companies to the stock markets.

The state support mechanism of venture infrastructure development by means of a fund of funds hasn't been implemented in Belarus yet. However, such structure would be a significant incentive for the creation and development of a joint public-private venture funds network in the Republic of Belarus. The advantage of successful experience of other countries is also worth taking in terms of connecting the leading technology companies of the world, building the knowledge, experience and technology sharing system, training and professionalism enhancement of local managers. Public funds would reduce the risks for private investors; play the role of an activator and agitator while attracting private funds to the venture industry of the country. The success of venture funds could demonstrate incentives for large-scale coming of private investors to the venture industry, both domestic and foreign, including commercial banks, pension funds and insurance companies.

So, the direct state support of venture innovative business takes two forms: direct public investment in innovative companies and the investment of public funds through a fund of funds in private venture funds. Global experience has shown that the programs of "direct unmediated investments" are mainly typical of the developed countries. The developing countries have been successful due to "fund" mechanisms.

This process is explained by several factors. Firstly, the developing countries need technical expertise to create a venture industry. In addition, the developing countries need access to the actual functioning venture funds and management companies, communication with venture capitalists, as in the global venture business personal connections and experience play the most important role in many situations. Secondly, the presence of a mature state system is necessary. The ability of the state to make decisions effectively and pursue public interests is the key element of success. However, an excessively active involvement of officials in economic decisions is not always justified and effective. For example, in Korea when starting-up a venture project, direct technology investments were allocated for political, rather than technological reasons and resulted in "little effect". In a similar way, it was made in Japan, where the same policy resulted in distribution for political reasons and failed. In general, the most successful venture programs are funded by governments but managed by professionals from the private sector.

The world practice shows that the more the country is lagging behind in technological development, the more the government should concentrate on direct financial incentives for innovative activity in general and venture capital in particular. Given the number of problems in the development of science-technology and investment spheres of Belarus, we can say that the state financial support of venture investment is a prerequisite for an effective start-up and development of the venture industry in the country

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