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The Venture Capital Market in a Pandemic: Realities of Time and Future Prospects

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ABSTRACT

The **subject** of the research is the financial mechanism of the modern venture investment market under conditions of uncertainty and the requirements of accelerated innovative development. The study **aims** to analyze the impact of the pandemic on the sustainability of the institutional behavior of venture capital investment in the global and Russian markets. The authors apply such scientific **methods** as sampling, grouping, comparison, analogy, analysis, generalization, systemic-structural approach to assessing the development of the subject of research. The paper analyses the role of venture investment in the successful promotion of innovations using the example of the world's leading companies in 2016–2021. Successful examples of venture investment are presented. The study investigates the impact of the pandemic and lockdown on the level of volatility, composition and dynamics of venture capital investments in 2020–2021. The authors **conclude** that the pandemic has an impact on the sectoral redistribution of investments in favor of venture investments in medicine, biotechnology, the sector of information and communication technologies and solutions for business, education, healthcare, on market polarization (covid-negative, covid-positive, covid-neutral), on reducing the role of state funds and Russian accelerators, while increasing the interest and scale of participation of private institutions (foreign investors, business angels, syndicated angel investment), to increase of the volume of the Russian venture capital market by increasing the average ticket size despite the reduction in their number, to strengthen the practice reproduction of their own ecosystems by corporate institutions, to popularize venture capital investment deals in terms of mergers and acquisitions. **Prospects** for researching the venture capital market are associated with the constant attention to high-tech covid-positive projects, with the growth of transactions in the early stages, due to the increase in the number of professional communities, with the pinpoint development of specific tasks of an investor or corporation by accelerators, with venture investment of companies with the subsequent entry of the project into their own ecosystem, with the improvement of the state's restrictive measures aimed at a clear institutionalization of professional activities and increasing the financial stability of participants in the investment and innovation markets, with the stimulation of mechanisms for regional innovative development to attract capital to high-risk projects in the regions.

Keywords: pandemic; venture investment; venture market; startup; unicorn company; first public offering; state fund; investment portfolio; corporate investment; accelerator; business angel

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INTRODUCTION

Innovation is the result of intellectual activity in the form of development, invention, innovation, implying an increase in efficiency, rationalization of existing or the emergence of new processes or a specific object aimed at solving the urgent needs of society. Often innovations are the result of investments, focused on the implementation of the resulting developments, subsequent scaling, accompanied by the receipt of a commercial result in the form of profit [1, p. 24–25].

Innovation, inextricably linked with the concept of “investment”, allows an object of intellectual activity to become a final product or service. Since innovation involves a high degree of novelty, significant technical isolation, and an increased likelihood of negative research progress, projects with similar characteristics are accompanied by venture capital investments [2].

In this context, venture investment is understood as long-term financing (5–10 years) of a science-intensive project at the initial stage of development by providing private capital in exchange for a share of the company (innovator) or investment in high-risk securities characterized by a high degree of risk and attractive potential yield [3; 4, p. 29].

The role of venture capital investments in the successful promotion of innovations can be assessed by the example of the world famous companies created and developed by venture capital (Intel, Microsoft, Google, Facebook, Alibaba, Apple, WhatsApp, Yandex, Mail.Ru) (*Table 1*) [5, p. 44].

The companies listed in *Table 1* have a successful track record of attracting venture capital investments to create startups and subsequent developments, provide access to new markets, diversify regions of presence and expand the business. Some of them are “unicorns” that have a significant financial and technological impact on both the Russian economy and the world as a whole

(the emergence of social networks, payment systems, computers, phones, search engines, etc.) [6, p. 431].

The first public offering in different periods of time, regardless of the level of development of the venture capital market, contributed to large-scale capital raising (Apple’s largest exit in 1980 — \$ 101.2 million, Alibaba in 1999 — \$ 21.8 billion), an increase in the company’s capitalization on the day of placement (Alibaba — an increase of 40%, Apple — an increase of 32%, Yandex — an increase of 40%). The attracted venture capital has provided companies with incredible opportunities for development, as evidenced by the systematic increase in the capitalization of companies over the years [7].

VENTURE CAPITAL: A DILEMMA OF HIGH RISK AND HIGH RETURN

Despite the impressive profitability, venture investment is not the most popular way to invest money, which is to some extent associated with risks: a long investment period, the presence of a complex (phased) investment mechanism (*Table 2*) [8, p. 94].

The investment conditions, presented in *Table 2*, are difficult for many owners of financial capital since the culture of venture investment involves not only investing in a potential project but also the constant participation of the investor in its development [9]. We refer to the operational management of the company, the provision, along with material, intangible resources [10, p. 144]. On the other hand, the difficulty of choosing a project for financing is noted: a startup assessment in a general sense at the seed stage is impossible due to the lack of accounting, financial reporting, economic plans.

Finally, global statistics on venture projects do not attract market participants: 0.01% of projects reach a public offer or final sale of the project. Venture capital investments are associated with high risks of investment loss: on average, a venture capital fund invests in

Table 1

**The role of venture capital in the creation and growth of capitalization
of the world's leading companies in the dynamics of 2016–2021**

Company, venture capital recipient	Year of the deal	The amount of capital raised in the IPO	Company capitalization based on IPO results	Company capitalization, USD billion					
				2016	2017	2018	2019	2020	2021*
Intel Corporation	1968	\$ 2.5 million	N/a	172	215	219	279	213	261
Apple	1980	\$ 101.2 million	\$ 1.778 billion	609	860	794	1458	2269	2071
Microsoft	1986	\$ 61 million	\$ 780 million	483	662	780	1213	1692	1822
Google (Alphabet)	2004	\$ 1.67 billion	\$ 23.1 billion	539	729	360	461	526	1431
Mail.ru Group	2010	\$ 1 billion	\$ 5.71 billion	N/a	N/a	324	235	438	373
Yandex	2011	\$ 1.3 billion	\$ 9.99 billion	397	615	564	792	1517	1745
Facebook	2012	\$ 16 billion	\$ 104 billion	332	516	380	594	657	846
Alibaba	2014	\$ 21.8 billion	\$ 168 billion	217	441	441	544	625	609

Source: compiled by the authors according to RBC Investments, a reference portal for calculating the capitalization of companies, Portals: TAdadviser, Goldman Sachs, Celebrity net worth, Seoded.ru, Vedomosti, Repub-lic, EDN, Cnews, Forbes.

* Data provided as of 03.04.2021.

30 startups, of which a smaller part receives refinancing, and only one company becomes a successful profitable business.¹

At the same time, overcoming a number of limiting factors, the complexity of the mechanism implies high profitability: in Russia, it is 35% per year,² the possible maximum profitability is not limited by anything (for example, Pinterest brought 1900% profitability when it was publicly placed).³

¹ IPO: investment attraction rounds. URL: <https://www.rvc.ru/press-service/media-review/rvk/156690/> (accessed on 24.02.2021).

² Venture funds. URL: Фонды венчурные | InvestFuture (accessed on 24.02.2021).

³ The Midas list: which venture capitalist has earned 1,900x returns in the past. URL: «Список Мидаса»: кто из венчурных инвесторов получил в прошлом году 1900-кратную доходность (forbes.ru) (accessed on 24.02.2021).

The most profitable and at the same time rare investment in the venture capital market is financing a company that later acquires the status of a “unicorn”. We refer to a startup with a capitalization of \$ 1 billion or more. There are 500 unicorn companies in the world; in 2020, growth was 88 companies compared to 2019 (122 companies).⁴ The growth decline in growth is affected by the pandemic and the cancellation of planned first public offerings of companies: as a result, we know about 588 unicorn companies at the beginning of 2021. The largest concentration of highly profitable unicorn

⁴ The number of “unicorns” in the world. URL: [https://bloomchain.ru/newsfeed/kolichestvo-edinorogov-v-mire-dostiglo-500-v-2020-godu-jetot-status-obreli-89-startupov#:~:text=Исследования%20\(Архив\)-,Количество%20«единорогов»%20%D0%B4%D0%B8%D0%BD%D0%BE%D1%80%D0%BE%D0%B3%D0%BE%D0%B2%C2%BB%20](https://bloomchain.ru/newsfeed/kolichestvo-edinorogov-v-mire-dostiglo-500-v-2020-godu-jetot-status-obreli-89-startupov#:~:text=Исследования%20(Архив)-,Количество%20«единорогов»%20%D0%B4%D0%B8%D0%BD%D0%BE%D1%80%D0%BE%D0%B3%D0%BE%D0%B2%C2%BB%20) (accessed on 25.02.2021).

Table 2

The main characteristics of the stages of the venture capital investment process

Criterion	Seed stage	Startup	Series A	Series B	Exit
Investor	Environment, business angels, grants, crowdfunding	Business angels, grants, seed funds	Venture funds, early stage funds	Venture funds, private equity funds, bank loans, corporate funds	Strategic, portfolio investors, IPO
Investment amount	Up to \$ 250,000	Up to \$ 2,000,000	Up to \$ 10,000,000	Up to \$ 100,000,000	From \$ 100,000,000
Investor profitability	No profitability	Possibility of the first income/ significant expenses	Reaching the breakeven point, the first net profit	Possible profit of the company	Profit through the sale of shares (exit)
Risk level	The risk level gradually decreases with each subsequent stage				
Characteristics of the stage	Presence of an idea, conducting R&D, marketing research, drawing up a business plan	Organization of production, creating a prototype of a finished product	Launching on the market, completing R&D, creating a sales network, advertising campaign	Expansion of production and sales, increasing working capital	Issue of shares for exchange
Payback period of investments	Up to 10 years	5–7 years	4–7 years	2–5 years	x
Move on to the next stage, % of companies	10	15	40	30	x
% of projects excluded in relation to the first stage	85–90%	90%	95%	98%	99.9%
Barriers	Weakness of the idea, lack of a full-fledged team, underestimation of the market	Wrong business model, high competition among peers, technological risks	Errors in technology strategy, unreasonable costs, inexperienced leader as a manager	Low demand for a product, high competition, ineffective management decisions	Risk of loss of investment associated with the exit. Economically ineffective exit

Source: compiled by the authors according to the data of the Department of Research of the IIDF. URL: https://www.iidf.ru/upload/iblock/3b5/startup_way_2015.pdf (accessed on 24.02.2020).

Table 3

Presence of unicorn companies by country as of the end of 2020

Number of unicorn companies, pcs.	Country	Capitalization, USD billion	Number of unicorn companies, pcs.	Country	Capitalization, USD billion
290	United States	911.77	3	Sweden	16.2
139	China	540.81	2	Republic of Columbia	4.65
27	United Kingdom	114.95	2	South Africa	2.59
25	India	86.87	2	Spain	2.4
15	Germany	27.63	2	United Arab Emirates	3.5
11	Brazil	38.45	1	Bermuda	1.6
10	Israel	13.57	1	Estonia	4.3
10	South Korea	21.38	1	Belgium	2.36
9	France	10.99	1	Mexico	1.15
5	Indonesia	26.4	1	Lithuania	1.1
5	Switzerland	6.5	1	Uruguay	1.2
4	Hong Kong	14.35	1	Ireland	1.2
4	Japan	5.2	1	Finland	1
3	Australia	9.01	1	Croatia	1
3	Canada	6.6	1	Philippine Islands	1
3	Netherlands	5	1	Luxembourg	1
3	Singapore	19.1	TOTAL:		1,904.83

Source: compiled by the authors from the full list of unicorn companies. URL: The Complete List Of Unicorn Companies (cbinsights.com) (accessed on 25.02.2021).

companies was noted in the United States and China (290 and 139 business units, respectively), which is associated with a special stable system of financial support for startups in universities, foundations, business angels in Silicon Valley, with a developed culture of entrepreneurship (especially in the USA), advanced technology and manufacturing facilities (in China) [11].

The total capitalization of unicorn companies in the United States and China is \$ 1,452.58 billion (1.66% of the total global

economy). In total, all unicorn companies own 2.18% of the global GDP (gross domestic product), which indicates the significant potential impact of these companies both on the world economy as a whole and on the economies of individual states [12, p. 9]. The size of the capitalization of unicorn companies, their geographic presence is presented in *Table 3*.

In turn, unicorn companies can be divided into “decacorn” companies worth more than

\$ 10 billion and “hectocorn” companies worth more than \$ 100 billion, the most popular of which are presented in Table 4. The most important areas were identified as artificial intelligence, financial technology, and logistics — areas designed to keep businesses running in lockdown [13].

One of the most successful “unicorns” in the world of “hectocorn” is the fast-growing technology company Bytedance, which owns a number of popular online services based on the use of artificial intelligence technologies to personalize user interests (TikTok, Toutiao, Doyinee, etc.). The market value of the company at the end of 2020 was \$ 140 billion against \$ 75 billion in 2017.⁵ At the stage of the creation of the company, the financing of its activities was carried out by the owner, and subsequently, venture capital investments from General Atlantic and KKR & Co, Primavera Capital Group and SoftBank Group. Large-scale growth is associated with several venture investment rounds, including the first one aimed at the technological development of developments and their testing, and the subsequent ones were aimed at expanding and popularizing the developed services.⁶

Among the decacorns, the largest company is SpaceX, the first privately-owned US company to compete with government corporations for the development of the space industry. The company specializes in the production of reusable spacecraft, delivery of goods to the ISS, the development of tourist flights, the construction of a colony on Mars, etc. Currently, SpaceX has the status of a non-public organization, develops through venture funding by private and corporate investors. At the same time, the first public offering is planned, which will become one of the largest in the history of venture capital investment.

⁵ TikTok parent company gauging \$ 180 billion USD valuation. URL: Материнскую компанию TikTok оценят в \$ 180 млрд в новом раунде (vctr.media) (accessed on 06.03.2021).

⁶ The first Chinese startup without investment. URL: <https://vc.ru/story/55229-pervyy-kitayskiy-startup-bez-investitsiy-ot-baidu-tencent-ili-alibaba-istoriya-vladelca-tiktok-kompanii-bytedance> (accessed on 06.03.2021).

It should be noted that at the moment no Russian company has been able to achieve the status of a unicorn company. The candidates are Yandex, Avito, Telegram, Mail.ru Group. However, it does not seem appropriate to talk about the lack of interest in venture capital investments in Russia, since:

- there are startups actively using venture capital;
- investment platforms, including crowdfunding ones, function;
- the market can be considered harmonious due to the presence of large venture capital investors and communities, in particular, the Russian company is present in the world rating of investors by the number of funded unicorn projects (*Table 5*).

According to *Table 5*, in the world’s top-ranking of investors in high-risk projects, the 9th place is taken by the company — a resident of Russia — DST Global, which participates in the investment of 20 unicorn companies. Digital Sky Technologies (DST) is an investment company founded in 2005 by Y. Milner and G. Finger to invest in the Internet sector, including social networks, electronic payment systems, online games, and online trading. The company’s investment portfolio includes such large companies as Facebook, Twitter, Spotify, Airbnb, Alibaba Group. During the pandemic, the company conducted active investment activities, the results of which are shown in *Table 6*.

In 2020, the company completed major financing deals for high-tech companies focusing on the online sector and industries that are particularly popular in a difficult epidemiological situation.

Thus, the existing successful examples of venture investing enhance the interest of investors in this market with their profitability, the market is developing dynamically within the framework of world practice, systemic development has been noted in Russia as well. At the same time, the importance of studying the impact of the pandemic and blocking on the level of volatility, composition, and

Table 4

Examples of venture capital unicorn companies “decacorns” and “hetcocorns”

Company	Value (USD billion)	Unicorn status year	Country	Scope of the company	Investors
Hetcocorns					
Bytedance	140	2017	China	Artificial intelligence	Sequoia Capital China, SIG Asia Investments, Sina Weibo, Softbank Group
Decacorns					
SpaceX	74	2012	United States	Aerospace	Founders Fund, Draper Fisher Jurvetson, Rothenberg Ventures
Didi Chuxing	62	2015	China	Auto and transportation	Matrix Partners, Tiger Global Management, Softbank Corp.,
Instacart	39	2014	United States	Supply chain, logistics and delivery	Khosla Ventures, Kleiner Perkins Caufield & Byers, Collaborative Fund
Stripe	36	2014	United States	Fintech	Khosla Ventures, LowercaseCapital, capitalG
UiPath	35	2018	United States	Artificial intelligence	Accel, capitalG, Earlybird Venture Capital, Seedcamp
Global Switch	31	2016	United Kingdom	Hardware	Aviation Industry Corporation of China, Essence Financial, Jiangsu Sha Steel Group
Databricks	28	2019	United States	Data management and analytics	Andreessen Horowitz, New Enterprise Associates, Battery Ventures
Rivian	27,6	2019	United States	Auto and transportation	Amazon, Ford Motor Company, Cox Automotive
Nubank	25	2018	Brazil	Fintech	Sequoia Capital, Redpoint e.ventures, Kaszek Ventures
Epic Games	17,3	2018	United States	Development of computer games	Tencent Holdings, KKR, Smash Ventures
One97 Communications	16	2015	India	Fintech	Intel Capital, Sapphire Ventures, Alibaba Group
Yuanfudao	15,5	2017	China	Edtech	Tencent Holdings, Warbug Pincus, IDG Capital
DJI Innovations	15	2015	China	Hardware	Accel Partners, Sequoia Capital
SHEIN	15	2018	China	E-commerce and direct-to-consumer	Tiger Global Management, Sequoia Capital China, Shunwei Capital Partners

Source: Full list of unicorn companies. URL: The Complete List Of Unicorn Companies (cbinsights.com) (accessed on 25.02.2021).

dynamics of venture capital investments in 2020–2021 is underlined.

GLOBAL VENTURE MARKET: THE IMPACT OF THE PANDEMIC

After peaking in 2018, the activity of the global venture capital market is as follows. In terms of funding, there is a significant reduction in 2019, and the expected crushing drop amid the pandemic can be considered invalid as there is growth over the last year. At the stage of expansion, a significant increase was noted (twofold). On average, the volume of the venture capital market in 2020 reached \$ 300 billion, which is 4% more than in the previous period (*Fig. 1*).

At the same time, the number of concluded venture deals (about 30%) significantly decreased at all stages, especially at the late stage. Thus, there is an increase in the average check per deal, since the market volume has grown, and the number of deals has decreased significantly (*Fig. 2*).

Quarterly analysis of data for 2020 allows us to state a drop in volumes in the first quarter of 2020 while reducing investments at all stages. The market recovered in the following quarters; a Comparison of 4 quarters of 2019 and 2020 showed a similar volume of investments, which indicates a complete recovery of the market to average volumes (*Fig. 3*).

When comparing for six months, a decrease in the number of transactions was established (a decrease by 33% in the 1st half of 2020 compared to the 1st half of 2019), a decrease in the monetary volume of transactions (compared to the 1st half of 2019 and 2020 – by 4.1%, which in monetary terms amounts to \$ 5.7 billion). The pandemic returned the indicators for the number of transactions to the 1st half of 2014, and in terms of volumes – to the 1st half of 2019 (*Fig. 4*).

According to *Fig. 5*, the most significant drop in the number of transactions in the 1st half of 2020 compared to the same period in 2019 was observed for the seed stage projects

Table 5
Rating of world investors by the number
of unicorn projects in 2019

Company	Country	Number of funded unicorn projects, pcs.
Sequoia	United States	92
Tencent	China	46
Softbank	Japan	42
Tiger Fund	United States	36
IDG	China	31
Goldman Sachs	United States	24
Alibaba	China	22
Andreessen Horowitz	United States	20
DST Global	Russia	20
GGV Capital	United States	19

Source: Research of the number of unicorn startups in the world.
URL: <https://incruussia.ru/news/world-unicorns/> (accessed on 08.03.2021).

(by 1,888 transactions, by 35%). At the beginning of the pandemic, investors were not ready for the most risky investments and were focused on risk reduction in the framework of late-stage projects (Series B, C), including a preference for investing in existing portfolio companies, rather than financing new projects. In terms of the volume of transactions, a decrease was observed, respectively, for all stages, except for the less risky Series B, C (*Fig. 5*).

At the same time, many investors preferred to roll over the promised financing for an indefinite period until the epidemiological situation improves and economic stability is achieved. Projects, startups, and operating companies during the pandemic acquired new status related to the epidemiological situation, in particular:

Table 6

Investment by DST Global and its co-investors in 2020

Recipient of investment	Investment volume	About the company
Market Kurly	\$ 150 million from DST Global and other investors	Delivery of premium goods. Through the service, 3 million orders are served monthly. Capitalization for 2020 – \$ 780 million (South Korea)
Airwallex	\$ 160 million from DST Global and other investors	A unicorn company, a service that allows managing cross-border transfers, taking into account savings on the exchange rate (China)
Brex	\$ 150 million from DST Global and other investors	The unicorn company is engaged in the issue of corporate cards for IT startups with an increased credit limit (20 times) (USA)
Instacart	\$ 225 million from DST Global and General Catalyst	The application for the delivery of products, after investment, the company's capitalization is estimated at \$ 13.7 billion (USA)
Byju's	\$ 122 million from DST Global	During the investment, the company's capitalization amounted to \$ 10 billion, it is considered the most expensive educational startup in the world. Byju's designs online school education courses and exam preparation. 57 million users. (India)
Weee!	\$ 35 million from DST Global	Online store of Asian goods. The capitalization of the company after investments was \$ 500 million. (USA)

Source: Investor's investment DST. URL: <https://www.forbes.ru/tehnologii/408399-dostavka-produktov-i-finteh-vo-cto-to-investiroval-yuriy-milner-v-razgar-pandemii> (accessed on 11.03.2021).

- covid-negative — companies significantly affected by the pandemic (restaurant business, tourism, and logistics, entertainment, etc.);
- covid-positive — companies that have received a positive effect from the pandemic and isolation (online education, remote work tools, online entertainment, etc.);
- covid-neutral — companies that have not been affected by the coronavirus.

By company exits, data analysis for 2019–2020 confirmed a similar trend: the number

of exits fell by 26.71%, or by 277 deals; the reduction in the volume of exits amounted to 61.42%, or \$ 207 billion. In terms of the volume and number of exits, the venture capital market returned to the indicators of 2014 (Fig. 6).

A study of the situation in individual sectors allows us to note a significant increase in investment volumes in value terms: IT companies (an increase of 30%, up to 28.4 billion US dollars), payment systems

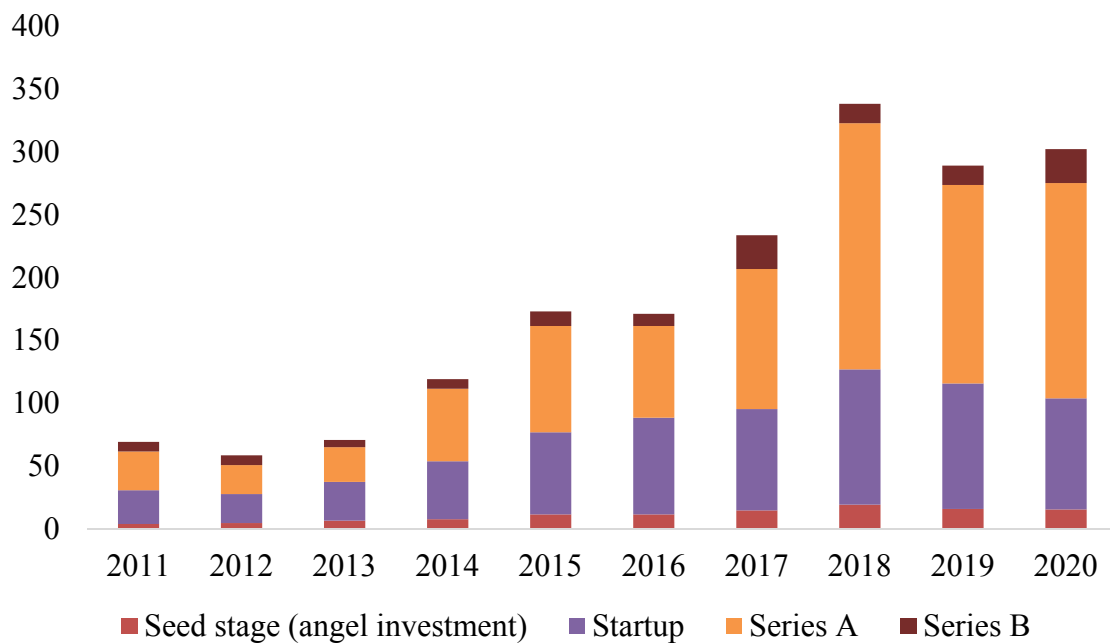


Fig. 1. The volume of the global venture capital market in dynamics by years, USD billion

Source: Global VC Report 2020: Funding and Exits Blow Past 2019 Despite Pandemic Headwinds. URL: <https://news.crunchbase.com/news/global-2020-funding-and-exit/#seed> (accessed on 12.04.2021).

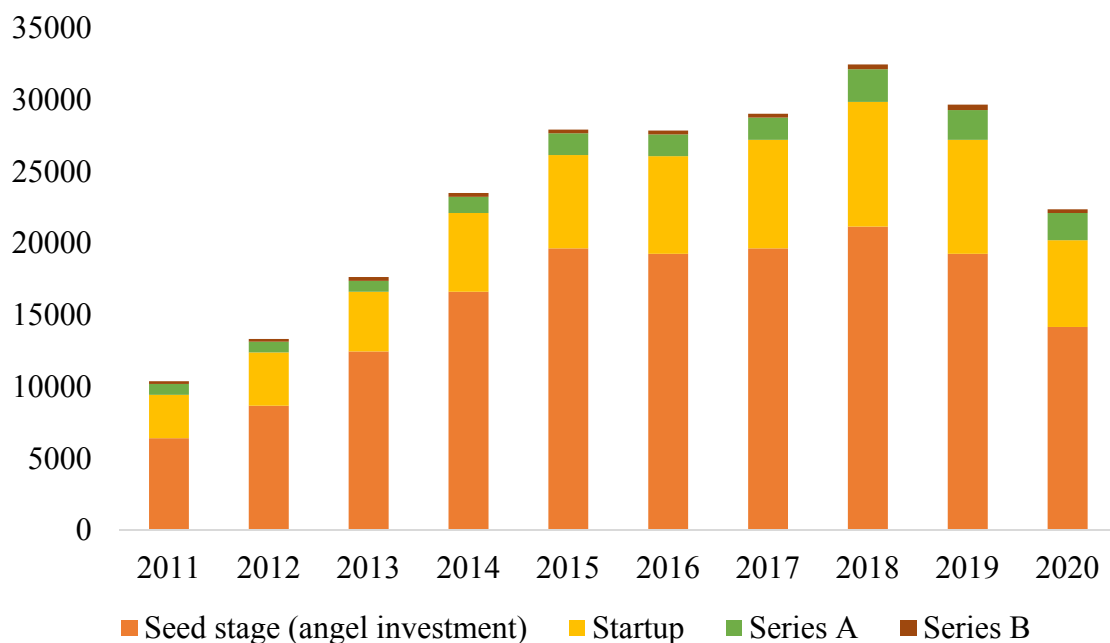


Fig. 2. The global venture capital market in dynamics by years by the number of deals, pcs.

Source: Global VC Report 2020: Funding and Exits Blow Past 2019 Despite Pandemic Headwinds. URL: <https://news.crunchbase.com/news/global-2020-funding-and-exit/#seed> (accessed on 12.04.2021).

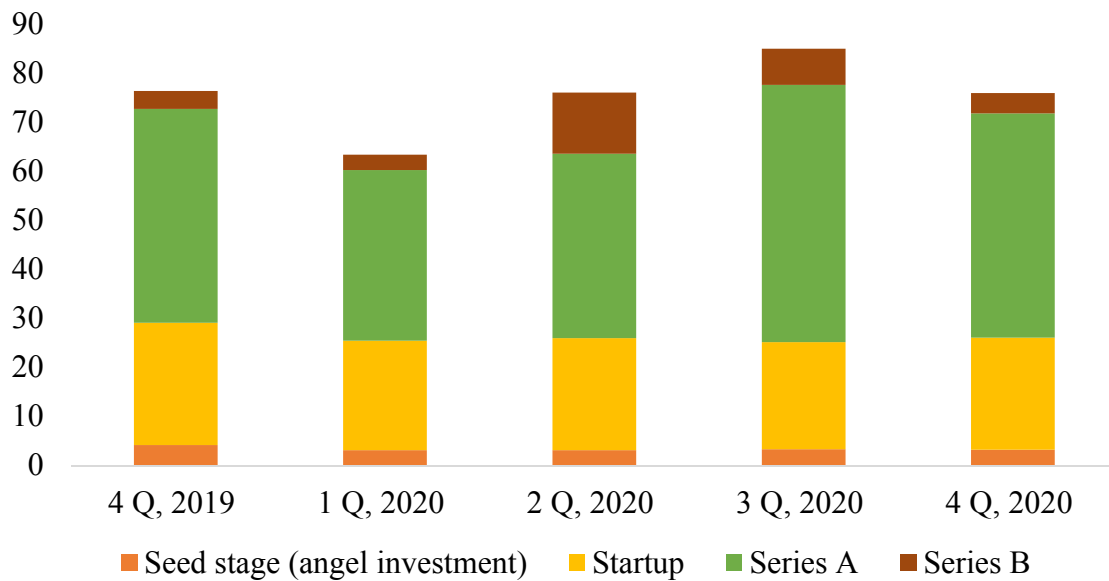


Fig. 3. Quarterly dynamics of the global venture capital market, USD billion

Source: Global VC Report 2020: Funding and Exits Blow Past 2019 Despite Pandemic Headwinds. URL: <https://news.crunchbase.com/news/global-2020-funding-and-exit/#seed> (accessed on 12.04.2021).

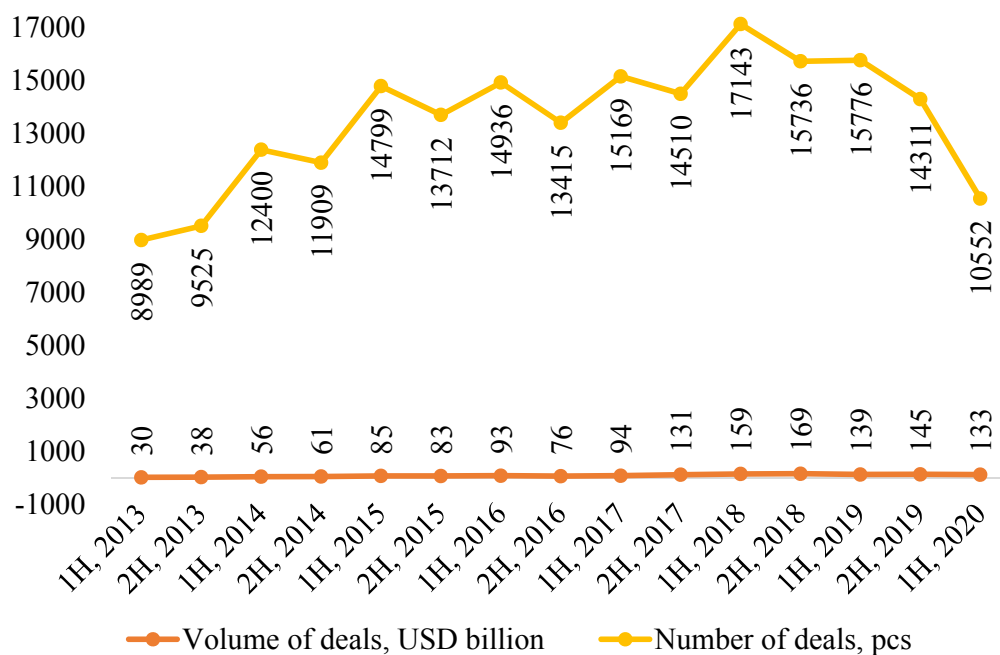


Fig. 4. Dynamics of indicators of the global venture capital market in 2013–2020

Source: Venture Russia: 1H 2020 Results. URL: ey-dsight-venture-russia-survey-rus.pdf (accessed on 15.04.2021).

(an increase of 52%, up to 9 billion US dollars), applications for mobile developers (growth by 68% to \$ 13 billion).

The participation of government institutions in the recovery of the venture capital market is noted in the United States: since May 2020, there has been a

support program related to the provision of government loans at a rate of 1%, the debt for which does not require repayment if the money was used within 24 weeks and 60% of them were covered by the costs of paying employees' salaries [14, p. 1]. The recipients of concessional loans were, among others,

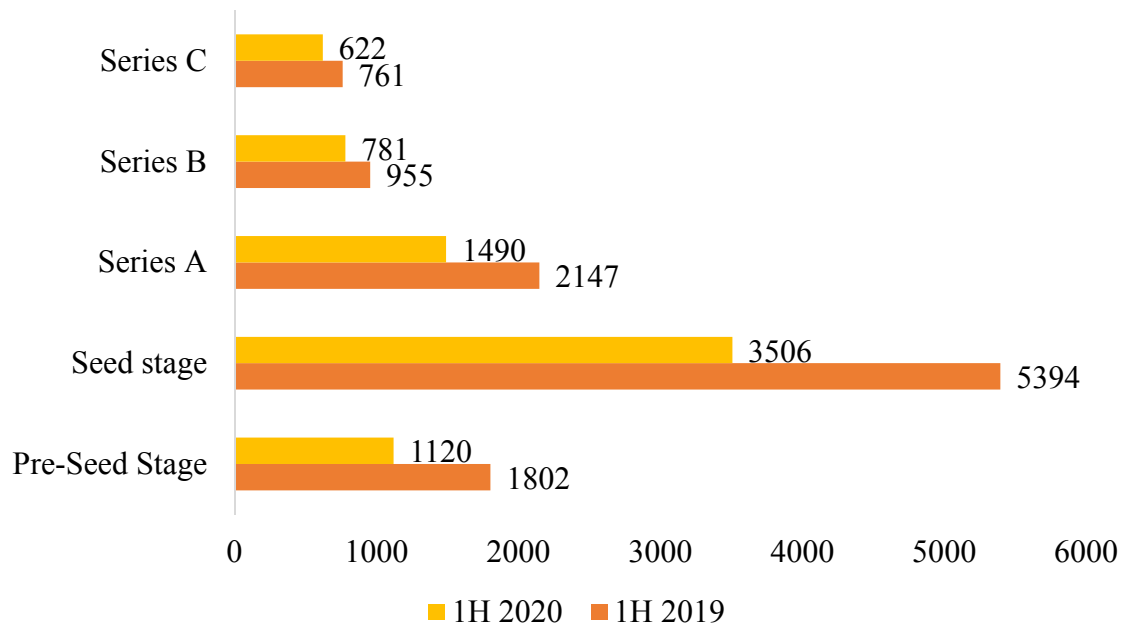


Fig. 5. Number of deals in the global venture capital market by investment stages in the 1st half of 2019–2020

Source: Venture Russia: 1H 2020 Results. URL: ey-dsight-venture-russia-survey-rus.pdf (accessed on 15.04.2021).

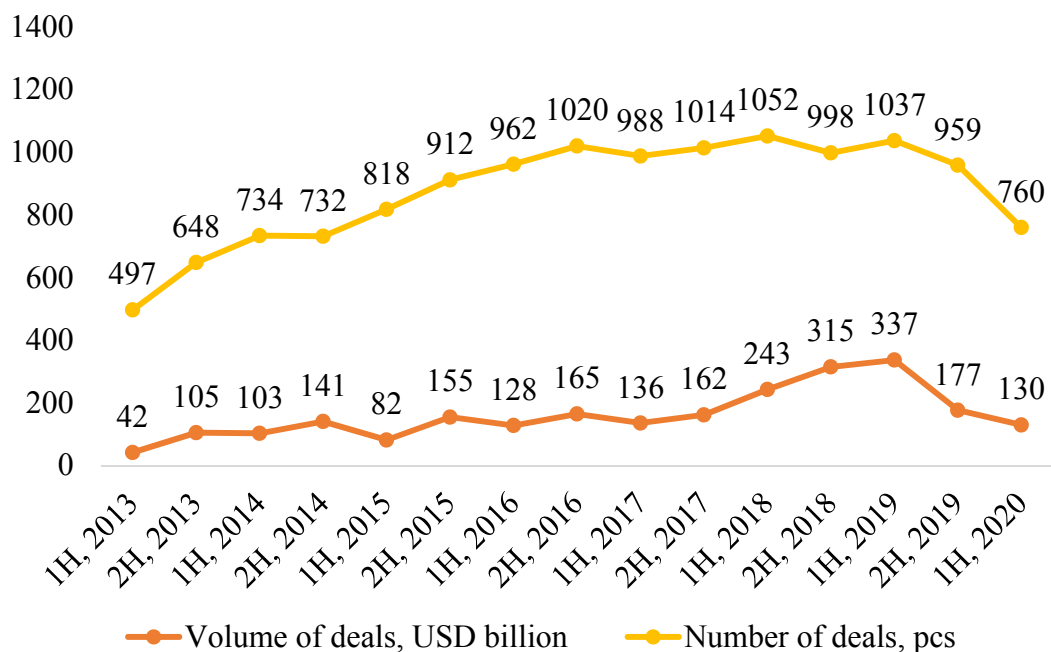


Fig. 6. Dynamics of the number and volume of exits in the global venture capital market in 2013–2020, USD billion

Source: Venture Russia: 1H 2020 Results. URL: ey-dsight-venture-russia-survey-rus.pdf (accessed on 15.04.2021).

venture funds — Andreessen Horowitz, Index Ventures and Foundation Capital. In total, 5,650 companies representing the venture capital sector in the United States were granted an estimated \$ 5.2 billion in PPP loans.⁷

Most countries interested in developing technology entrepreneurship, innovation potential and venture capital investments have launched various programs to support startups and SMEs. In France, deferrals were introduced for paying taxes and insurance premiums, paying on loans, issuing guarantees to raise loans and canceling utility bills. Italy has abolished taxes for startups with income of less than € 2 million, offers a deferred tax payment for companies with higher incomes, and issues government guarantees. Portugal similarly provides for tax deferral, government guarantees and salaries from the government budget to support business. In general, in European countries, the approach to supporting start-ups and enterprises implementing them is substantially similar. However, there is no direct financing in the form of non-performing loans, as in the United States, and therefore the American approach is considered more effective than the approaches of other countries, since tax deferrals do not eliminate the subsequent need to pay them.⁸

On a global scale, the alleged collapse of the venture capital market did not happen, the pandemic changed the state of the market at the level of correction and nothing more, the volumes did not decrease critically, government agencies provided support, the focus shifted within the priority industries, venture capital investment continues to develop and attract new market participants [15]. Simultaneously with global trends

in conditions of extreme instability and uncertainty, the importance of analyzing the venture capital market in Russia is assumed.

MAIN TRENDS OF THE RUSSIAN VENTURE MARKET IN 2020

For the Russian venture capital market, the pandemic has become an impetus for further development. Compared to 2019, the market has doubled: the volume of public deals with the participation of Russian startups in 2020 amounted to 21.9 billion rubles against 11.6 billion rubles in 2019. It should be considered that this indicator was significantly influenced by several large deals. Thus, startup Miro raised \$ 50 million from the American fund Iconiq Capital;⁹ a venture loan from Alfa-Bank was provided for the creation of an ivi online video streaming service in the amount of 3.7 billion rubles; Investments of VEB Ventures in the Doktor Ryadom project amounted to 1 billion rubles, investments of a private investor R. Abramovich in the gaming service 100 Industries amounted to 20 million dollars. At the same time, the number of deals increased: growth compared to 2019 was 34.33%, or 46 deals. In 2020, compared to the previous year, the growth in the volume of the venture capital market was noted in foreign investment (the highest growth rate — 316.67%), corporate investment (growth rate — 108%), private investment (growth rate — 236.36%). The impact of the pandemic on the public sector was negatively reflected: the decrease in investment volumes of state funds and accelerators is 27.91 and 57.42%, respectively.¹⁰

Interest on the part of foreign venture investors is mediated by the cost of participating in projects: Russian startups often require less investment, which allows

⁷ Over 8,000 privately backed companies got billions in PPP loans, SBA data shows. URL: <https://pitchbook.com/news/articles/private-backed-companies-got-billions-in-ppp-loans-sba-data> (accessed on 15.04.2021).

⁸ Support measures for startups in Europe during the pandemic. URL: <https://vc.ru/finance/118575-kak-v-evrope-podderzhivayut-startapy-v-period-pandemii> (accessed on 17.04.2021).

⁹ Startup with Russian roots — Miro. URL: <https://www.forbes.ru/karera-i-svoy-biznes/398957-rossiyskiy-startap-miro-privlek-50-mln-ot-fonda-s-uchastiem-cukerberga> (accessed on 17.04.2021).

¹⁰ Russian venture market in 2020. URL: <https://incrusia.ru/understand/vc-2020/> (accessed on 15.04.2021).

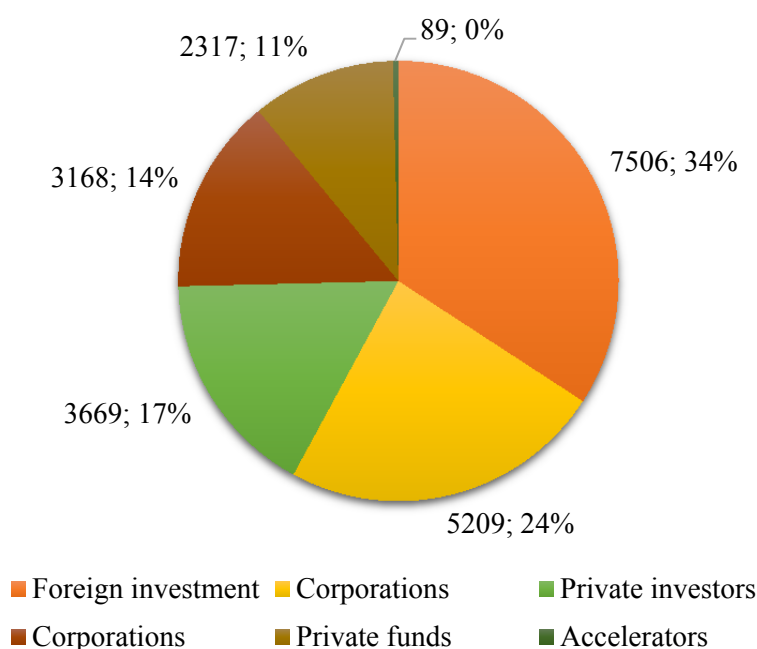


Fig. 7. Structure and volumes of the Russian venture capital market in 2020

Source: Russian venture market in 2020. URL: <https://incruussia.ru/understand/vc-2020/> (accessed on 15.04.2021).

the investor to differentiate risks by financing a larger number of projects. The institutional structure of the Russian venture capital market for 2020, shown in Fig. 7, confirms the interest of the owners of foreign capital.

The aforementioned Miro project is a platform for remote work which helps to conduct online meetings and seminars, exchange photos, videos, and text documents. In 2018, the company raised \$ 25 million from the American venture capital company Accel and the AltaiR Capital fund, previously this fund invested \$ 1.3 million in a startup. During the pandemic, the startup managed to attract a record amount of investment in its entire history from the Iconiq Capital fund, which previously conducted successful investment deals with such unicorn companies as GitLab, Houzz, Robinhood, Epic Games, SurveyMonkey, Netskope.¹¹

The second largest sector (24% of the market, 5,208.6 million rubles) also reached

this level due to the concentration of capital in one large deal: a venture loan was provided to the online video streaming service ivi Alfa-Bank in the amount of 3.8 billion rubles. Excluding this deal, the volume of the sector decreased by half compared to the previous year.

The pandemic has made its own adjustments to the corporate investment market: previously created ecosystems continued to develop, more and more corporations began to build their own ecosystems. In particular, in the banking system, this interest is associated with the possibility of expanding the client base for the development of the main line of business through a presence in sectors not related to banking activities. The amendments presuppose the transformation of development vectors: the emergence of significantly “sagging” sectors [services related to the offline activity (ticket booking, travel)] and, conversely, the accelerated development of contactless services, online sales. Market growth is confirmed by the size of the average ticket by segment (Table 7) in

¹¹ Startup with Russian roots — Miro. URL: <https://www.forbes.ru/karera-i-svoy-biznes/398957-rossiyskiy-startap-miro-privlek-50-mln-ot-fonda-s-uchastiem-cukerberga> (accessed on 17.04.2021).

Table 7

Average ticket size in the Russian venture capital market by sector in 2019–2020, RUB million

Investor category	2019, average ticket, RUB million	2020, average ticket, RUB million	Relative change, %
Foreign investment	204.3	312.8	+53.1
Corporate investors	115.0	157.8	+37.2
State funds	208.5	117.3	–43.7
Private funds	82.0	92.7	+13.0
Private investors	64.5	66.7	+3.4
Accelerators	4.6	5.6	+21.7

Source: Russian venture market in 2020. URL: <https://incruussia.ru/understand/vc-2020/> (accessed on 15.04.2021).

Project	Investment volume, RUB million	Investors
NtechLab	RUB 1,000 million	RDIF, the leading sovereign wealth funds in the Middle East
Doktor Ryadom	RUB 1,000 million	VEB Ventures
Alphaopen	RUB 260 million	VEB Ventures, Orbita Capital Partners
Promobot	RUB 200 million	Far East High Technology Fund
CM.Expert	RUB 200 million	Skolkovo Ventures

Fig 8. The largest investment deals by the Russian state funds in 2020

Source: Russian venture market in 2020. URL: <https://incruussia.ru/understand/vc-2020/> (accessed on 15.04.2021).

the main sectors of venture capital investment in Russia.

The state funds are the exception, for which the indicator in 2020 decreased by 43.7% compared to the previous year for the following reasons: the closure of subsidiary funds of JSC Russian Venture Company

(JSC RVC); political instability in the management staff of RVC JSC; reforming development institutions — previously, individual development institutions were transferred to the management of VEB (Vnesheconombank) and RDIF (Russian Direct Investment Fund); economic

Project	Investment volume, RUB million	Investors
Magic Kids	9.1.	Starta Ventures
LoyalMe	9.1	Starta Ventures
Slidepage	8.4.	Starta Ventures
NeuraLoom	8.4	Starta Ventures
Everytale	7.6	Starta Ventures

Fig 9. The largest investment deals by the Russian accelerators in 2020

Source: Russian venture market in 2020. URL: <https://incruussia.ru/understand/vc-2020/> (accessed on 15.04.2021).

downturn, sanctions, devaluation of the ruble, the consequences of COVID-19. The financial resources of the state were redistributed to solve more global problems than to support the venture capital market.

In total, in 2020, at the expense of state funds, 27 deals were carried out for a total amount of 3,167.5 million rubles, of which two (projects NtechLab and Doktor Ryadom) — 2 billion rubles (Fig. 8). The most active federal investors are IIDF (Internet Initiatives Development Fund) and VEB Ventures, from regional state funds — Moscow City Venture Investment Development Fund.

As for the activities of corporate accelerators, the decrease in the number of deals is 64.4%, and the volume of completed deals — 57.4% compared to 2019; in 2020, 16 deals were carried out for a total amount of 89.4 million rubles (Fig. 9).

In general, the accelerator sector is represented by two active investors who financed the projects — Starta Ventures and Pulsar VC, with the market volume divided by 73.16 and 26.84%, respectively. Currently, the activities of accelerators can be considered insufficiently active, however, there is a wide interest in this institutional investment model from large corporations — Rosselkhozbank, MTC, Gazpromneft, etc., which are interested in expanding their

innovative potential through technologies offered by startups.

Projects initiating cooperation with state development institutions, funds, due to the impossibility and significant risks of freezing funding, began to look for other ways to raise funds. The replacement was investment from business angels: this institutional sector tripled in 2020 and, with the exception of the major 110 Industries deal, the segment doubled.

It should be clarified that the gaming company 110 Industries, which has been operating since 2017 as a production center for the creation of the concept of premium games, has previously attracted venture capital investments, in particular, \$ 3 million from the founders, and later — \$ 1.1 million from private venture investors. In 2020, a subsequent round of investment was held with the attraction of \$ 20 million from investment companies Norma Investment, GEM Capital, etc.

The active work of business angels supported investment development in the early stages (pre-seed and seed), which in the future if the trend continues, will change the investment culture in general and increase the influence of angel investments, approaching the US level. At the same time, the practice of business angel communities focused on

Table 8

Syndicated investment deals of the Russian business angels in 2020, RUB million

Investment project-recipient	Amount of investment, RUB million	Investors	Sphere
Fura	160	Svyatoslav Wilde, Alexander Popov, Swiss-Russian Foundation	Logistics and delivery
URent	150	Andrey Vinograd, Andrey Azarov, Mikhail Geisherik	Transport
K-Skai	130	Denis Ilatovsky, Spartak Zabolotsky	Healthcare
Mnogo Lososya	100	Alexander Sysoev, Pavel Dmitriev, Stepan Dmitriev, Maxim Penkin, Peter Sergeev, Alexey Tolokonnikov	Foodtech
Bright Kitchen	100	Stepan Dobrovolsky, Demyan Kudryavtsev, Sergei Anuryev, Ilya Varlamov	Foodtech
Muzlab	77	Andrey Danilov, Sergey Yamshchikov, Eduard Tiktinsky	Video, audio
Карусель	40	Artem Ermolaev, Andrey Belozarov	Transport
Jetlend	37.5	Dmitry Shklyar, Andrey Chernetsov	Finance
Финансист	37	Victor Savyuk, Pavel Orlov, Mikhail Bazhenov, Alexander Sokolov, Mikhail Gavrilov	Finance

Source: Russian venture market in 2020. URL: <https://incruussia.ru/understand/vc-2020/> (accessed on 15.04.2021).

joint project financing and risk differentiation is being promoted. In turn, startups have more opportunities to raise funds due to the cooperation of business angels. Examples of syndicated angel investment deals in 2020 are presented in *Table 8*.

Attention should also be paid to the transformation of the sectoral preferences of investors in the venture capital market: the continued popularity of the information and communication technology (ICT) sector and the increased popularity of the healthcare and biotechnology sector in 2020 compared to 2019 (*Fig. 10*).

At the end of 2020, according to *Fig. 11*, the most popular areas of venture investment in the ICT sector were solutions for business (6507.0 million rubles), video and audio technologies (3854 million rubles), and the healthcare sector (2179.1 million rubles.).

The medical sector has objectively acted as the main beneficiary of changes in the venture capital market: the industry has become a leader in investments in pharmaceuticals, medical equipment, IT platforms, and remote diagnostics. At the same time, serious venture investments have been renewed in this segment. A major deal took place, in which VEB Ventures (a subsidiary of VEB) invested 1 billion rubles to the Doktor Ryadom project,¹² related to online patient consultations. The project is focused on solving the problem of the lack of qualified specialists in remote regions of the country, the availability of health care. At the end of 2020, according to the Doktor Ryadom company, the demand for telemedicine

¹² Investing in the Doktor Ryadom project. URL: «Доктор рядом» получит 1 млрд рублей финансирования от VEB Ventures. ПРАЙМ, 13.05.2020 (1prime.ru) (accessed on 23.03.2021).

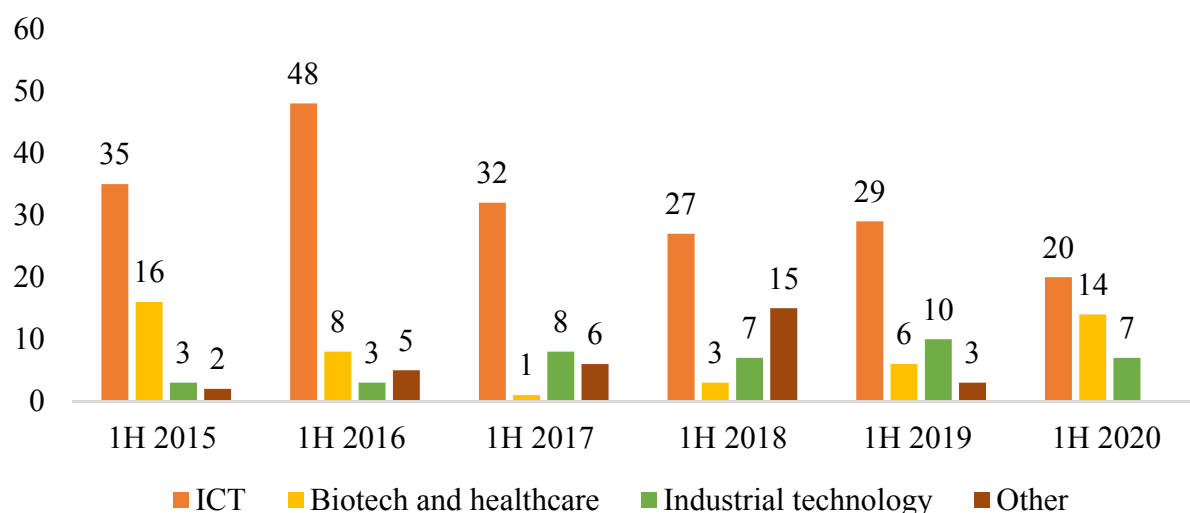


Fig. 10. Dynamics of the volume of venture capital investment by industry sectors in the 1st half of 2015–2020, USD million

Source: Overview of the Russian private equity and venture capital market for the 1st half of 2020. URL: [RVCA-yearbook-I-2020-Russian-PE-and-VC-market-review-ru.pdf](#) (accessed on 24.03.2021).

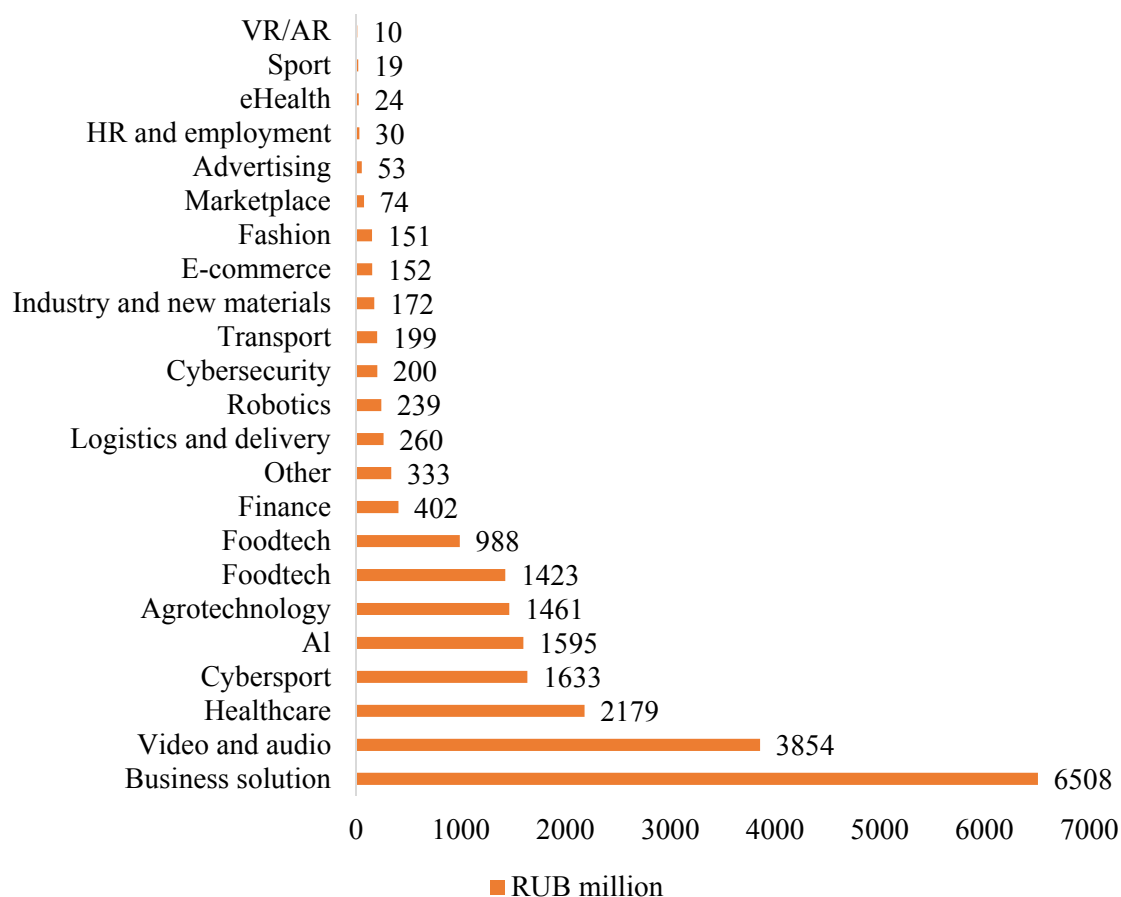


Fig. 11. Directions of venture capital investment in Russia in 2020, RUB million

Source: Russian venture capital market in 2020. URL: <https://incruussia.ru/understand/vc-2020/> (accessed on 15.04.2021).

services increased 10 times compared to the previous year, which indicates a significant social effect of investments.

Retail is no less important in terms of business decisions. In 2020, Russians spent 3.22 trillion rubles on online shopping, which is 1.6 times more than in 2019. New rounds of investments in Avito and Ozon marketplaces are examples of major deals that confirm the interest of global investors and the attractiveness of Russian companies in the e-commerce sector. The latter held a public offering of American depositary shares on the NASDAQ stock exchange in November 2020, as a result of the placement, \$ 990 million was raised, and the company's capitalization exceeded \$ 7.4 billion. In addition to these funds, \$ 135 million was received from the company's shareholders during a private placement of 67.5 million shares and the sale of Baring Vostok and AFK Sistema.¹³

The third beneficiary of the pandemic is the EdTech sector (educational services). Previously, online education was in its infancy, platforms gradually appeared, including the market leader (Netology Group) and its projects. During the pandemic, the projects "Virtual class" from the company "Uchi.ru" (a resident of Skolkovo), "SberClass" from "Sber", additional interest in existing programs and platforms "InternetUrok", "Foxford" from "Netology-group" were launched. Currently, the problem of introducing high-quality distance education has not been fully resolved and requires further investments in industry innovations.

The relevance of the use of new educational technologies has determined the popularization of the direction of "video and audio". Zoom's conferencing platform has grown 125% since its April 2019 IPO during the pandemic and has been used by over

300 million users daily.¹⁴ The growth in the value of shares in 2020 amounted to 730.86% relative to the maximum value.

In general, the Russian venture capital market underwent a significant transformation without significant losses in market volumes, which was achieved due to the prevalence of the largest deals in industry volumes, attracting foreign capital and significant participation of private investors. At the same time, it should be noted the importance of studying trends at the final stages of the venture capital investment process.

VENTURE CAPITAL STARTUP DEVELOPMENT RESULTS: IPO TRENDS

The logical completion of the development of a startup, its last stage is the exit or IPO (First Public Offering), statistics on exits of companies are of particular importance for the analysis of the venture capital market. Entering a company on the stock exchange is a procedure for increasing capital through private or public offering [16, p. 391].

In 2020, under the influence of the pandemic, a certain transformation of the IPO market took place: there was no significant reduction or increase in the number of deals, but there was a change in investor interest in such securities. Due to the significant volatility of the market, there was a decrease in quotations of oil of all brands, stocks, bonds, as well as a decrease in interest rates on deposits. The forecast for the coming year was broadcasted as extremely pessimistic; the degree of uncertainty grew; investors began to look for ways not only to preserve their savings but also to increase them. One of the most attractive ways to invest in such conditions was investing in an initial public offering since this method provides high

¹³ Ozone rose at the opening of US trading. URL: https://www.rbc.ru/technology_and_media/24/11/2020/5fbcf4f39a794716275b7d48 (accessed on 26.03.2021).

¹⁴ End of the Zoom era. URL: <https://www.forbes.ru/tehnologii/413573-konec-epohi-zoom-kak-glavnyy-servis-pandemii-perezhivaet-obviniya-v-utechke> (accessed on 28.03.2021).

returns even during periods of significant downturns in the entire market.

The continued growth of the money supply in the country led to a decrease in the refinancing rate, interest rates on loans and deposits. In 2020, the officially announced inflation rate was 4.9%.¹⁵

These changes entailed the transformation of the entire investment market, in particular, the demand for services and products of the securities market has grown significantly [17, p. 55]. According to BCS Express, in 2020 the number of customers increased from 6.5 to 13.4 million, including active customers from 4.1 to 8.1 million.¹⁶ According to the Moscow Exchange, for 11 months of 2020, the inflow of funds from individuals into Russian shares amounted to 300 billion rubles against 47 billion rubles a year earlier. According to the Bank of Russia, by the end of the third quarter of 2020, the total value of securities in the accounts of retail investors in the depositories of the Russian Federation, excluding investments in mutual funds (Mutual investment funds) and securities in trust portfolios, was 4.7 trillion rubles (growth by 45% per year).¹⁷

For a long time, the government stimulated positive dynamics in the form of growth in the volume of private investments in the stock market by creating comfortable conditions for investors. This is primarily about the introduction of tax incentives, increasing the level of financial literacy of the population through cooperation with large banks in terms of creating educational platforms. However, the interest rate cut had the greatest impact. During the pandemic, government authorities faced not a predicted influx of investors, but an increase in their number at times, which

entailed significant difficulties: the market became unpredictable (such investors cannot be considered qualified in investment matters) and unproductive in relation to the national economy (many investors preferred to invest not in the objects of the Russian economy, but in the investment proposals of well-known global companies-giants).

In view of the growing uncertainty in the stock market, a number of decisions were made to regulate it:

- dividing investors into two categories — qualified and unqualified;
- increase in the personal income tax (personal income tax) rate from 13 to 15%;
- introduction of a tax on coupon income on corporate bonds, etc.

The division of investors into categories is aimed at limiting the investment activity of unqualified investors, directing investments in instruments with a low level of risk — securities of Russian issuers, investment units, foreign currency, precious metals, and bonds. On the part of the state, the measures taken are understandable and logical, since the market takes an organized form; the actions of unqualified investors are ordered within the permitted instruments; the market becomes more loyal to forecasts; investment in the national economy is stimulated, and an increase in taxes, considering the growth in the number of investors, can bring additional income to the state budget.

The innovations do not arouse interest among private investors, since most investors are recognized as unqualified, which means that their activities are limited, respectively, and the profitability, which is comparable, without taxes, with the profitability on deposits.

For qualified investors, higher tax rates, tougher procedures for obtaining tax deductions, as well as criteria for obtaining status are additional obstacles to professional activity. Substantially restrictive innovations can eventually lead not only to an outflow of investors to foreign brokers but also to

¹⁵ Rosstat on the assessment of inflation at the end of 2020. URL: <https://www.banki.ru/news/lenta/?id=10939826> (accessed on 26.03.2021).

¹⁶ Results of public offerings on the Moscow Exchange in 2020. URL: <https://bcs-express.ru/novosti-i-analitika/kto-poiavilsia-na-moskovskoi-birzhe-v-2020> (accessed on 26.03.2021).

¹⁷ Massive stock market disease. URL: <https://www.interfax.ru/business/741711> (accessed on 26.03.2021).

Table 9

Largest investment deals by sectors of the Russian economy in 2020

Object of the deal	Customer	Seller	Acquired share, %	Transaction amount, USD million
Innovation and technology				
ICS Holding	USM Telecom	Anton Cherepennikov	100.00	2039.00
Yandex.Market	Yandex	Sberbank	45.00	606.00
Yandex	Alexander Abramov, VTB Capital; Roman Abramovich, Alexander Frolov	Yandex	3.50	600.00
Rostelecom data processing centres	VTB Bank	Rostelecom	44.80	465.00
Yandex	NASDAQ Investors	Yandex	2.30	400.00
Consumer Markets				
OZON Holdings	NASDAQ Investors and Moscow Exchange, Baring Vostok Capital Partners, Sistema	OZON Holdings	20.40	1274.00
Detsky Mir Group	Altus Capital	Existing shareholders	25.00	389.00
Detsky Mir Group	Moscow Exchange Investors	Sistema, RCIF	40.90	438.00
Apteka 36,6	-	Tacticum Capital	14.10	183.00
Barilla Rus	RDIF	Barilla G.e R. Fratelli S.p.A	-	153.00
Transport and infrastructure				
Aeroflot – Russian Airlines	Moscow Exchange Investors	Aeroflot – Russian Airlines	54.60	1048.00
TransContainer	Delo Group	Enisey Capital, VTB Bank	49.60	764.00
Sovcomflot	Moscow Exchange Investors	Sovcomflot	17.20	548.00
Almaty International Airport	TAV Havalimanlari Holding, VPE Capital	Venus Airport Investments, Timur Kulibayev	100.00	415.00
VRK-2	Novaya vagonoremontnaya kompaniya	Russian Railways	100.00	154.00

Table 9 (continued)

Object of the deal	Customer	Seller	Acquired share, %	Transaction amount, USD million
Telecommunications and media				
Turkcell	Turkey Wealth Fund, Грyнна LetterOne	Telia Company AB, Cukurova Holding	37.80	834.00
MTC	MTC	N/a	2.40	187.00
Akado Group	AVK Investments	Renova Group of Companies	51.00	145.00
Rambler	Sberbank	Alexander Mamut	45.00	136.00
HeadHunter	NASDAQ Investors	Goldman Sachs	9.90	101.00
Banking and insurance				
TCS Group	London Stock Exchange Investors	Oleg Tinkov, Oleg Tinkov Family Trust	5.30	325.00
VTB Bank	Financial corporation "Otkritie"	N/a	4.10	198.00
SOVEST	Sovcombank	QIWI	100.00	86.00
Reserve mutual fund	MTC	Sistema	N/a	77.00
Reserve mutual fund exchange	MTC	Sistema	N/a	50.00

Source: M&A market in Russia in 2020 according to KPMG data. URL: <https://www.tadviser.ru/images/4/43/Ru-ru-ma-survey-2020-fin.pdf> (accessed on 02.05.2021).

aggressive trading on the exchange in order to achieve the status of a qualified investor (one of the criteria is the presence of assets in the amount of 6 million rubles), which leads to even greater risks on the part of the investor and weakening the state's ability to regulate the market.

The changes were also not welcomed by brokers, many of whom work in the banking group structure, as they stimulate the outflow of existing investors to foreign brokers, while the obligation to provide exams and the complexity of the IT infrastructure increases the volume of their work, requiring additional costs.

Despite the high degree of uncertainty, the suspension of economic activity on a global

scale during the pandemic, the introduction of significant changes in the legal framework for the functioning of investment entities, the market volume has increased.

The growth in the number of investors, stabilization in the second half of the year, and high liquidity in the market gave impetus to the public offering of companies' shares, as well as the conduct of investment deals in terms of mergers and acquisitions. The most significant investment deals in 2020 are presented in *Table 9*.

As per *Table 9*, there is an interest in investing both through the stock exchange and through standard speculation on the purchase/sale of shares or companies in general. The most active investors of the

year are Sberbank of Russia (PJSC), VTB Bank (PJSC), and private investors in various exchanges, such as Moscow, London, and the US.

At the same time, it should be noted that the number of deals decreased by 103 in absolute terms and by 15.4% compared to the previous year; in terms of the volume of deals, a 5% decrease is similarly noted, despite the fact that 2019 is considered the most productive year since the imposition of sanctions.¹⁸

Despite the positive overall dynamics of the market, one cannot fail to note the manifestation of the negative impact of the pandemic. In particular, many companies have started to pursue more conservative short-term development strategies, especially in terms of initial public offerings. Many IPOs planned for 2020 were postponed indefinitely (Pobeda Airlines, VkusVill retail food chain, Yandex.Taxi, FixPrice, Segezha Group, Sibur, ivi, etc.).¹⁹

In general, venture capital investments during the pandemic have demonstrated significant resilience to the crisis. This is largely due to its key long-term target (5–10 years). Moreover, venture capital funds consider the onset of the crisis in the perspective of the implementation of investments (they consider a mid-term crisis on average 1–2 years).²⁰ The critical decline of the venture capital market, predicted by analysts, did not happen, and the result of the pandemic was its systematic development. An increase in the volume of the market is noted, however, it is emphasized that the corresponding optimistic result was achieved due to the

large deals, incomparable with the volume of the existing market as a whole [18, p. 843]. Accordingly, with the exception of the previously mentioned deals, we see the following trend: in the first half of 2020, there was a decline in all sectors of venture investment, which is objectively mediated by the emerging uncertainty in the market; in the second half of the year the market recovered and, moreover, showed positive dynamics, comparable to the same periods of previous years.²¹

CONCLUSIONS

The research shows that the consequences of the pandemic were significant, but not critical; The venture capital market has transformed in a number of areas, with the following trends emerging:

- increased interest in venture capital investments due to its applicability in conditions of economic uncertainty — absorption of risks through a long investment cycle;
- a decrease in interest in projects of the pre-seed and seed stages in favor of not only more mature projects but also start-ups of large market players, ensuring the stability of their development;
- prolongation of investments in favor of portfolio projects, companies, and not the search for new startups;
- significant growth of the Russian investment market due to the largest deals, incommensurate with the volume of the market as a whole;
- significant interest of foreign investors in Russian companies due to the lower cost of investments;
- a significant increase in the volume of private investment due to angel investments;

¹⁸ M&A market in Russia in 2020 according to KPMG data. URL: <https://www.tadviser.ru/images/4/43/Ru-ru-ma-survey-2020-fin.pdf> (accessed on 02.05.2021).

¹⁹ The most famous IPOs of the year. URL: <https://www.finam.ru/analysis/forecasts/premery-2020-samye-zametnye-ipo-goda-20201221-142531/> (accessed on 04.05.2021).

²⁰ The economic impact of the pandemic has adjusted investment strategies. URL: <https://trends.rbc.ru/trends/innovation/5f44d01a9a79474224070013> (accessed on 17.04.2021).

²¹ Global VC Report 2020: Funding and Exits Blow Past 2019 Despite Pandemic Headwinds. URL: <https://news.crunchbase.com/news/global-2020-funding-and-exit/#seed> (accessed on 12.04.2021); Venture Pulse Q4 2020, Global analysis of venture funding — KPMG Private Enterprise. URL: <https://assets.kpmg/content/dam/kpmg/xx/pdf/2021/01/venture-pulse-q4-2020-report-global.pdf> (accessed on 05.05.2021).

- a decrease in the role of public funds in connection with a difficult political situation and a change in the organizational structure of the activities of development institutions;
- significant sectoral redistribution of venture capital investments, popularization of medical science and biotechnology, education, video and audio, business solutions that meet the current needs of society;
- maintaining the general indicators of the IPO market with the simultaneous extension or cancellation of the exits of some companies;
- a significant inflow of private investors to the exchange due to the reduction in the key rate of the Central Bank of the Russian Federation (CB), the subsequent institutional and organizational transformation of the market;
- a slight decrease in M&A activity.

However, one cannot speak of the prospect of greater investment growth than in 2020. According to the authors, the reasons for the projected decline in investment activity are as follows:

- in 2020, the inflow of private investors to the exchange is associated with the previously noted decrease in the exchange rate of the Central Bank of the Russian Federation.

However, in 2021, for the first time since 2018, an increase in the rate to 4.5% was recorded, which means the likelihood of an increase in interest rates on deposits, which more easily bring financial results and do not require professional knowledge, in contrast to the use of securities market instruments;

- the funds attracted to the stock exchange to a greater extent represent the previously accumulated savings of the population, which cannot be attracted again in the proper volume;
- private corporate investors during the pandemic faced significant difficulties in carrying out their operations on the Internet. Many covid-negative companies suffer significant losses due to a lack of demand for their own products or services. In this regard, the corporate investor will direct resources to restore their own business, and not to the external market and venture investment instruments;
- for some technology companies, financial difficulties are similarly characteristic, which is accompanied by the refusal to conduct exits, the suspension of project financing, a shift in the focus of priority business areas, the reorganization of portfolios considering the optimization of economic costs.

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