

BUSINESS PERFORMANCE

INVESTMENT BEHAVIOR OF ENTERPRISES IN 2019–2020

S. Aukutsionek

DOI: 10.20542/0202-179X-2020-4-3-17

IMEMO

Abstract: The article outlines the trends of 2019 – the first half of 2020 in the field of investment behavior of enterprises. The following aspects are examined: the level of investment activity both in terms of equipment purchases and total capital investment; the rating of factors limiting capital investment; the main sources of funds for investment and principal motives to invest; the features of borrowings from banks to finance investment.

Keywords: Russia; industry; industrial enterprises; capital expenditures; investments; investment plans; sources of financing; bank loans; marginal interest rate; investment motives.

1. Indicators of the Investment Behavior on the Whole

According to REB surveys, the investment activity of industrial enterprises in 2019 was relatively high. THE SHARE OF ENTERPRISES NOT PURCHASING ANY EQUIPMENT two or more months in a row equaled to 36%. This is 2 percentage points (p.p.) less than it was in 2018 and 9 p.p. less than in 2016. For 27 years of observation, only once (in 2006–2008) this indicator decreased even lower – to 30–34%. However, this record is likely to be broken, as in the first half of 2020 the average value of the indicator under consideration was only 27%.

If we shift our attention from equipment to the TOTAL VOLUME OF CAPITAL INVESTMENTS (over 12-month intervals), the situation looks almost as optimistic. The average share of enterprises that did not make capital investments during the previous 6 months and did not expect to make any in the following 6 months (relative to the timing of the survey)

amounted to 22% in 2019. This is 1 p.p. lower than it was in 2018 and 12 p.p. lower than in 2016. Though it should be taken into account that for the REB's sample the latter value is the anti-record over the last 20 years. Whereas lower (than in 2019) levels of the indicator were observed quite often throughout the entire observation period, starting from 1992 (for example, the record of 2006 was 12%).

An indirect measure of investment activity used in the REB studies is the DEGREE OF FULFILLMENT OF INVESTMENT PLANS. And here the situation looks no less optimistic. In 2019, the fulfillment of plans was 68%. Over the past twenty years, this is one of the lowest values of the indicator. As a rule, the more difficult is the economic situation, the worse the plans are executed. This dependence is confirmed by the 1990s (then the plans' implementation degree was 40–50%) and by the crisis of 2008–2009 (in 2009, the plans were implemented by only 62%). In recent years, the fulfillment of plans has been falling, but in 2020, a reversal of this trend seemed to happen: in the first half of the year, the value of the indicator increased to 73%.

2. Limiting Factors for Capital Investments

“Shortage of financial resources” is still holding the first place among the three major FACTORS CONSTRAINING THE CAPITAL INVESTMENTS of enterprises. Although the share of respondents highlighting this restriction was steadily decreasing since 2009, 46% of enterprises still experienced its negative impact in 2019. This is the lowest (annual) value of the indicator for the whole period of our observations (since 1992). Besides, in the first half of 2020, there were signs of its consolidation at the achieved level (45–46%).

The second place is habitually occupied by “high prices for equipment and construction”. Only the absolute rating of this factor is unusual: in 2019 it was 41% and remained approximately the same in the first half of 2020. The record low value of this indicator was noted in 2018 (36%). In all other years (since 1992), the “popularity” of the factor under

consideration among REB's respondents was noticeably wider, usually exceeding the 50% mark. "High bank interest rate" is on the third place in terms of frequency of references. In 2019, it was noted as the main constraint for capital investments by 22% of respondents. Its rating was slightly higher in 2018 – 23%. And in the first half of 2020 – 25%. It is remarkable that for all the previous 26 years of observations, such low rating of this factor was noted only once: in the pre-default and post-default period of 1997–2000 (22–24%).

The fourth most important is "low rate of return on investment projects", which was noted by 14% of respondents in 2019, and by 19% in the first half of 2020. It is worth reminding that the record high rating of this factor was in 2016 (20%); and the record low – in 1998 (4%).

Two factors with traditionally low (during the last 15–20 years) ratings complete this list; they are "excess of production capacity" (12% in 2019 and 8% in the first half of 2020) and "high indebtedness" (6% and 10%, respectively).

Special attention should be paid to the "uncertainty of general situation". Unlike the above-mentioned limiting factors, it is not tied up to specific economic parameters, but reflects the prevailing mood. The frequency of its mentioning by respondents can be considered as a synthetic assessment of the investment atmosphere as a whole: the less clarity, the worse for investment.

For the last quarter of a century, the "clearest" in this respect was the period 1999–2008. The rating of this restriction factor fluctuated in the range of 11–18%. But then the "weather" sharply and significantly deteriorated. The "uncertainty of general situation" started to be mentioned twice as often among the factors holding back investment. The last two years have not reversed this trend: in 2019, the value of the indicator under consideration was 30%, and in the first half of 2020 – a record high 42%.

Table 1
Limiting Factors for Capital Investments

(Share of respondents who pointed out each factor as an important one, %) ¹⁾

Year	1. Shortage of financial resources	2. High prices for equipment and construction	3. High bank interest rate	4. High indebtedness	5. General uncertainty	6. Excess of production capacities	7. Low rate of return on investment projects	8. The amount of percentage points used
1997	73	50	22	40	21	20	7	233
1998	81	46	24	38	24	16	4	233
1999	82	54	24	27	18	16	5	226
2000	81	58	24	23	15	13	5	219
2001	81	58	25	22	13	12	7	218
2002	84	55	28	22	13	13	5	220
2003	80	53	26	17	14	11	8	209
2004	78	52	30	17	13	11	14	215
2005	78	51	31	13	17	12	12	214
2006	76	56	36	12	15	10	13	218
2007	74	63	31	8	11	10	18	215
2008	73	59	34	9	18	10	14	217
2009	80	51	35	9	34	10	12	231
2010	77	55	34	14	24	10	12	226
2011	75	54	32	11	22	8	14	216
2012	70	52	35	9	23	11	13	213
2013	69	48	36	8	24	12	16	213
2014	67	48	35	6	27	10	16	209
2015	59	51	42	9	31	9	12	213
2016	60	53	33	9	29	14	20	218
2017	58	53	31	7	25	12	18	204
2018	51	36	23	10	28	11	14	173
2019	46	41	22	6	30	12	14	171
2020 (1–2 quarters)	45	41	25	10	42	8	19	190

¹⁾ Respondents were offered to choose no more than three factors.

Column 8 of Table 1 shows the number of percentage points used by respondents. Let's explain what we are talking about. When answering the question about limiting factors, respondents are suggested to limit themselves to three main ones. Consequently, if all respondents indicated exactly three factors, then in all cells of the eighth column the number would be 300 (%). However, in fact, the majority of respondents indicate fewer factors (1 or 2; almost never there are chosen more than three, and those that do not indicate any factors are not included in the calculations). Therefore, the numbers in the eighth column are noticeably less than 300. This "shortage" can be interpreted in different ways. But in any case, it is clear that in the sample as a whole, the limit of "no more than three" for the group of factors under consideration is not rigid.

The differentiation of ratings by individual industries remained in 2019 very high. First of all, this refers to the prices for equipment and construction. If price dynamics was generally favorable for the chemical industry's enterprises (the rating of the factor – 12%), the situation seemed completely different in the timber industry complex and food industry (70 and 75%, respectively). Different industries remained to consider the economic situation of their enterprises rather dissimilar. While for most industries the rating of "general uncertainty" maintained at the level of 25–35%, in the light industry this indicator exceeded 70%.

Table 2**Limiting Factors for Capital Investments by Industry, 2019**(Share of respondents who pointed out each factor as an important one, %) ¹⁾

Industry	1. Shortage of financial resources	2. High prices for equipment and construction	3. High bank interest rate	4. High indebtedness	5. General uncertainty	6. Excess of production capacities	7. Low rate of return on investment projects	8. Amount of percentage points used
Iron and steel and non-ferrous metals	41	51	19	5	29	0	18	163
Machinery and metalworking	52	34	15	5	24	11	11	152
Chemicals and petrochemicals	41	12	40	1	26	13	33	166
Logging, woodworking, pulp-and-paper	33	70	23	3	33	17	9	188
Building materials	43	43	30	0	40	29	14	199
Light industry	30	57	29	14	72	28	13	243
Food industry	39	75	38	25	27	0	12	196
Spread between the maximum and minimum rating in 2019 (percentage points)	22	63	25	25	48	29	24	

¹⁾ Respondents were offered to choose no more than three factors.**3. Sources of Funds for Capital Investment**

Speaking about the MOST PLAUSIBLE SOURCES OF FUNDS FOR CAPITAL INVESTMENTS in the next 2–3 years, 44% of respondents indicated self-financing. Over the past quarter of a century, a higher rating of this source was noted only twice: in 2005 (48%) and in 2016 (45%).

The second position in the 2019-ranking was taken by a loan from commercial banks – 33%. This is 5 p.p. more than in 2018, but still significantly inferior to its values for 2010–2017 (38–48%).

Table 3**Sources of Investment Funds in the Next Two or Three Years**

(Share of respondents who pointed out each source as the most plausible one, average data of two surveys, %)^{*)}

Year	1. The enterprise will save up all by itself	2. Loans from commercial banks	3. Funds from the domestic partner	4. Funds from the foreign partner	5. Funds from selling shares/bonds	6. Funds from the state	7. Other sources	8. The enterprise will get no funds	9. Difficult to answer
1996 ^{**)}	18	13	7	7	5	9	2	49	19
1997	22	15	9	8	5	7	10	41	19
1998	27	10	8	7	4	8	5	44	18
1999	42	18	8	4	3	8	2	37	12
2000	41	24	12	4	5	8	4	30	10
2001	44	26	10	4	3	6	4	28	10
2002	42	30	9	2	4	3	5	32	9
2003	43	37	9	2	3	4	3	27	8
2004	42	31	9	3	4	4	3	23	12
2005	48	41	10	2	3	4	3	22	8
2006	43	46	9	2	2	4	4	20	5
2007	42	47	10	3	2	4	3	20	7
2008	39	39	6	3	1	5	7	24	9
2009	33	36	6	2	1	8	5	30	12
2010	38	40	5	1	1	8	4	28	5
2011	37	42	4	2	2	11	2	27	3
2012	43	43	4	2	2	11	2	22	10
2013	42	48	4	1	3	11	1	22	5
2014	34	39	5	2	2	14	12	24	3
2015	44	39	9	1	2	13	8	22	1
2016	45	38	7	1	2	4	8	17	4
2017	44	47	5	1	2	7	5	17	6
2018	35	28	8	1	0	3	6	21	5
2019	44	33	3	0	0	7	5	19	10

^{*)} Respondents were offered to choose no more than two versions of answer.

^{**) Second half-year.}

The third place has long been firmly held by a group of respondents convinced of having no funds for capital investments and not expecting any in the next 2 or 3 years. In 2019, this group equaled to 19% of the sample. On the one hand, the number of such pessimists seems to be quite large. But on the other hand, it has decreased by almost 2.5 times, compared to, for example, 1996. And even if we assume that some pessimists “reside” under the heading “difficult to answer”, their total number in 2019 (19% + 10% = 29%) was one of the lowest for the entire observation period.

Still a very small part is assigned to the state. Only 7% of enterprises’ directors see it as the main source of funding. This is two times lower than in 2014 (the record year for this indicator).

As for other potential sources of investment funds, all of them have become insignificant in the last 10 years.

4. Bank Loans

As in previous years, the vast majority of manufacturers did not even try to find a BANK CREDIT FOR FINANCING CAPITAL INVESTMENTS. In 2019, the share of such enterprises was 83%. This is the highest value of the indicator for all the time of its measurement, since 1998. A year earlier (in 2018), the pessimism of manufacturers about the possibility of obtaining loans from banks was also record high – 79%. But in 2020, we saw a sharp decline in this indicator to 62% (Table 4). However, this “burst of optimism” was almost completely offset (or counterbalanced) by an equally sharp increase in the share of enterprises that tried to raise but did not receive a bank loan: from 8–11% in 2018–2019 to 24% in 2020.

As for other respondents, since 1998 we have seen that their bargaining power in negotiating their loans with banks was getting apparently stronger. While the likelihood of their success was 0.15–0.17 in 1998–1999 (i.e. only 1–2 out of 10 enterprises that sought investment loans were successful), it has surpassed 0.5 in 2002 (for the first time) and then rose to 0.72 in 2008. In 2013, we had a record high level of this indicator (0.77), which was almost repeated in 2017 (0.75). But then this favorable trend changed to the opposite one, which has been maintained already for the third year. In

2019–2020, the probability of a successful outcome in negotiations with banks was only 35–37%. In general, the structure of respondents' answers to the question about raising a loan in 2020 is very similar to that observed in 2000–2001 (see Table 4).

Table 4
Distribution of Enterprises by their Efforts and Success
in Raising an Investment Loan over the Past Twelve Months
 (The average of the two semi-annual surveys, %)

Year	Enterprises not trying to raise a bank investment loan within a year (%)	Enterprises trying to raise a bank investment loan within a year		
		Of which:		
		Raised no loan (%)	Raised a loan (%)	Relation of successful applicants to the total number of loan applicants
	(1)	(2)	(3)	(4) = (3):[(2)+(3)]
1998	58	35	7	0.17
1999	66	28	5	0.15
2000	69	22	9	0.29
2001	63	21	16	0.43
2002	67	16	17	0.52
2003	65	17	17	0.50
2004	63	17	20	0.54
2005	61	17	22	0.56
2006	60	15	25	0.64
2007	59	14	27	0.66
2008	68	9	23	0.72
2009	67	18	15	0.45
2010	68	13	19	0.59
2011	66	9	25	0.73
2012	70	9	20	0.69
2013	68	7	24	0.77
2014	66	12	21	0.64
2015	71	7	22	0.76
2016	74	10	16	0.62
2017	76	6	18	0.75
2018	79	8	13	0.62
2019	83	11	6	0.35
2020	62	24	14	0.37

The “high level of the bank interest rate” was still mentioned among main DIFFICULTIES IN NEGOTIATING CREDIT AGREEMENTS. As can be seen from Table 5, this very problem was the key issue in concluding credit agreements for 54% of enterprises in 2019–2020. This volume is close to average value of the past 20 years.

As for other reasons, their importance, according to respondents, was clearly secondary in 2019–2020.

Table 5

**Main Difficulties in Concluding Credit Agreements
with Banks for Financing Capital Investment**

(Share of enterprises who pointed out each problem of the total number of investment loans applicants in the last 12 months, %)

Year	Main difficulties in concluding agreements				
	High bank interest rate	Risk of loan default	Term of a loan	Problem of collateral	Size of a loan
1998	66	60	37	26 ¹⁾	17
1999	75	46	36	29	18
2000	91	55	36	36	18
2001	53	24	27	34	18
2002	49	27	26	27	13
2003	48	21	25	45	16
2004	48	22	24	48	15
2005	55	21	23	42	15
2006	55	16	19	51	7
2007	50	19	20	40	10
2008	66	15	24	39	16
2009	56	18	16	43	10
2010	53	18	10	47	8
2011	51	9	14	38	12
2012	52	7	13	47	21
2013	53	12	5	46	19
2014	53	18	10	48	12
2015	80	21	20	57	14
2016	63	17	17	37	16
2017–2018	46	23	15	43	18
2019–2020	54	9	13	15	17

¹⁾ Second half of 1998.

5. Efficiency of capital investments

REB's respondents estimate the potential rate of return on investment and investment risk indirectly, using a MARGINAL INTEREST RATE (MIR), which is determined in the questionnaire as the maximum bank interest rate at which the enterprise would still take a rouble loan for a period of 2 to 3 years to finance its capital investments.

Table 6
Marginal Interest Rate, Anticipated Price Increase and
Marginal Real Interest Rate (%)

Year	Marginal interest rate (MIR)	Annualized rate of price increase, anticipated by the respondents		Difference between MIR and anticipated rate of price increase (marginal real interest rate)	
		For inputs and outputs	For outputs only	(4) = (1) – (2)	(5) = (1) – (3)
	(1)	(2)	(3)	(4) = (1) – (2)	(5) = (1) – (3)
2010	7.6	8.6	7.1	–1.0	+0.5
2011	7.3	13.4	10.2	–6.1	–2.9
2012	7.5	7.1	4.0	+0.4	+3.5
2013	7.6	9.2	7.1	–1.6	+0.5
2014	7.8	7.1	4.0	+0.7	+3.1
2015	8.8	16.0	12.3	–7.2	–3.5
2016	7.8	9.7	7.1	–1.9	+0.7
2017	6.7	7.6	4.0	–0.9	+2.7
2018	6.5	8.4	4.0	–1.9	+2.5
2019	5.3	4.5	2.0	+0.8	+3.3
2020 ^{a)}	5.0	8.1	3.0	–3.1	+2.0

^{a)} First half of the year

NOTE: Table 6, starting with Issue № 4 for 2020, is calculated slightly differently than before. The main difference is that now between the beginnings of the annual intervals for which the expected price growth rates are taken and the time of answering the question about MIR, the minimum possible interval of 1 month is constantly maintained. This makes the estimates in columns (4) and (5) more consistent with the theoretical concept of “real interest”.

On average of 4 surveys made in 2019, the marginal bank loan interest rate was 5.3%, and in the first two quarters of 2020 – 5%.

For a long time after the default of 1998, the overwhelming majority of enterprises agreed to take additional bank loans for capital investments

only at a negative real interest rate (see Table 6). Since 2009, this trend has begun to break, although we cannot be quite sure that the real interest rate turned into the positive one. A lot depends on how price expectations are measured. For example, if we measure the expected inflation in the prices for the main output of enterprises, the “real interest rate” in the last 5 years has ranged from +2 to +3.3% (the last column in Table 6).

Table 7
Distribution of Enterprises by Volume of Production Capacities
against Expected Demand for their Output in 12 Months
 (Average of four quarterly surveys, %)

Year	Volume of capacities against future demand			
	1. Excessive	2. Normal	3. Insufficient	4. Balance: (4)=(3)-(1)
1998	60	35	5	-55
1999	50	40	10	-40
2000	43	45	12	-31
2001	42	48	10	-32
2002	43	49	8	-35
2003	37	51	12	-25
2004	37	53	10	-27
2005	39	49	12	-27
2006	31	54	15	-16
2007	26	58	16	-10
2008	29	64	7	-22
2009	40	50	10	-30
2010	28	62	9	-19
2011	23	65	12	-11
2012	27	61	12	-15
2013	22	66	10	-12
2014	22	69	9	-13
2015	24	66	10	-14
2016	29	60	11	-18
2017	25	65	10	-15
2018	23	73	4	-19
2019	17	77	6	-11
2020 1 st and 2 nd quarters	13	74	13	0

When assessing the EXISTING VOLUME OF PRODUCTION CAPACITIES AGAINST THE DEMAND FOR ENTERPRISES' OUTPUT EXPECTED IN 12 MONTHS, the REB's respondents used the characteristic "excessive" almost three times more frequently than the characteristic "insufficient" (17 and 6% respectively). The overall balance of these estimates was negative (minus 11 percentage points). These expectations look quite contradictory. On the one hand, the overall balance was close to a record level and did not look abnormally high by the standards of the last two decades. On the other hand, there were record-low (17%) and record-high (77%) estimates of "excessiveness" and "normality" of the volume of production capacity. The data for the first half of 2020 seems to confirm the trend of recent years towards a radical change in the balance of estimates: for the first time in the entire observation period, it was not negative (see Table 7).

6. Investment motives

In the summer of 2019, the share of respondents with technological INNOVATIONS in the last 1.5 years amounted to 61%. For the whole post-default period, this is the lowest level of the innovative activity. In 2020, the situation slightly improved and the share of innovators increased to 74%. On average, in these two years, the respondents mentioned product innovations about 1.5 times more often than process innovations. However, the answers "equally both types of innovations" still prevailed noticeably.

Table 8
Distribution of Enterprises by Type of Innovative Activity (%)

Year ¹⁾	Share of enterprises having introduced innovations in the past 1.5 years (%)			
	Total	Of which:		
		Mostly product innovations	Mostly process innovations	Equally product/process
1990–1992 ²⁾	58	31	27	⁴⁾
1993 ³⁾	62	38	24	⁴⁾
1994	60	38	22	⁴⁾
1995	63	46	17	⁴⁾
1996	62	41	21	⁴⁾
1997	52	35	16	⁴⁾
1998	68	41	15	15
1999	76	43	33	⁴⁾
2000	76	39	10	26
2001	76	33	14	28
2002	80	31	14	35
2003	77	31	17	29
2004	79	29	17	33
2005	79	21	20	38
2006	79	24	20	35
2007	84	27	16	43
2008	84	18	23	43
2009	77	23	25	29
2010	75	24	26	25
2011	73	21	23	29
2012	84	18	20	46
2013	72	23	14	35
2014	76	22	16	39
2015	76	16	10	49
2016	67	13	22	31
2017	68	24	15	29
2018	70	16	22	32
2019	61	27	7	27
2020	74	9	15	50

¹⁾ Surveys are conducted once a year in August.

²⁾ Ex post assessment obtained in the January 1993 survey.

³⁾ The July survey.

⁴⁾ This version of answer was not envisaged in the questionnaire.

In general, the innovative component of capital investment was highly noticeable in 2019, though it was not the dominant one (unlike most of recent years). For instance, our respondents named the following MAIN CAPITAL INVESTMENT OBJECTIVES: introduction of new products – 34%, cost reduction – 27%, increase in production capacity – 32%. Furthermore, the level of the latter indicator for the entire observation period is second only to the record of 2018, when 45% of REB's respondents indicated capacity expansion.