

Adaptation of Investment Strategy to Changes in Foreign Economic Activity of the Enterprise



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Abstract: The article deals with the situation arising when enterprises engaged in investment activities, also has existing foreign economic relations. The problems that affect the formation of an investment strategy are described taking into account the risks created by external factors of the economic environment. A technique is proposed for adapting the investment strategy to situations arising in the course of an enterprise carrying out an active foreign economic activity. It is shown how the use of indicators and analysis of foreign economic activity, allow you to adapt investment activity to changing external conditions. An example of analysis and monitoring of changes in foreign economic indicators, and their impact on changes in the investment plans of the enterprise. The possibility of using this technique as an additional factor to protect the economic interests of investment enterprises is assessed.

Keywords : Adaptation, Changes, Enterprise, Foreign Economic Activity, Investment Strategy.

I. INTRODUCTION

Dynamic and effective development of investment activity is a prerequisite for the stable functioning of the enterprise. The key points of investment activity efficiency are a thorough analysis of investment projects and the presence of a balanced and verified investment strategy [1-3].

Investment strategies is a system of long-term goals of the organization's investment activities, determined by the general objectives of its development, as well as the choice of the most effective ways to achieve them.

One of the factors influencing the process of formation of the strategy of investment activity is the foreign economic activity of the enterprise [4-6].

The strategy being created should really evaluate the investment opportunities of the enterprise, ensure maximum use of its investment potential and suggest the possibility of active manoeuvring of investment resources, depending on changes in the state of the economic environment [7-8].

The investment strategy should be able to adapt to possible options for changing the overall strategy of the enterprise, taking into account the influence of factors arising from the implementation of foreign economic activity of the enterprise [9-12].

Speaking about the investment strategy, one cannot fail to mention the tasks that it must implement, the spectrum of the main tasks is presented schematically in Fig.1.

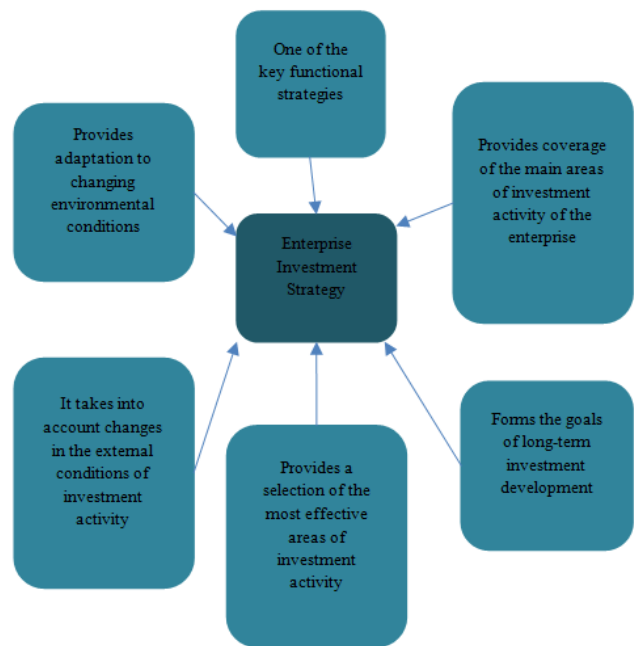


Fig. 1. Tasks solved by investment strategy

II. METHODOLOGY

The investment strategy refers to the future period of time; therefore, it is problematic to predict the results of its implementation with confidence. An additional factor contributing to the uncertainty arises when it comes to an enterprise conducting an active foreign economic activity. In such a situation, it is necessary to form an investment strategy with the ability to be quickly adapted to the changing environmental factors. Changes in domestic or foreign economic policy or the state of the economy of individual countries that occupy key positions in the global economy,

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causing shocks in the field of international economic relations, force enterprises with active foreign economic activity to adapt their own strategies to these changes, implementing a set of measures aimed at stabilizing the situation.

A. Factors of foreign economic activity affecting changes in the investment strategy of the enterprise.

The modern international environment is determined by factors, the totality of which fundamentally transforms modern business. These include:

1) The complexity and complexity of the external environment.

The number and variety of factors affecting the activities of the enterprise significantly increase in the implementation of foreign economic activity.

2) Environmental variability.

The speed with which changes occur in the external environment is not amenable to any internal control. The modern world economy is undergoing profound and rapid changes. The issue now is not just about the growing tendency towards interdependence and transnationalization, but also about the state when the world system, having gained unity, turned out to be closed, closed, without any external periphery.

3) The interconnectedness of environmental factors.

A change in one factor with a certain force causes a change in a number of other factors. Uncontrollability of the environment. An enterprise operating on an external market has very limited possibilities for influencing the external context of conditions. Companies are forced to constantly adapt to change.

4) The turbulence of the environment.

Changes in the external environment occur with a high level of uncertainty and unpredictability.

It should be understood that often a foreign economic activity for an enterprise can be a priority development direction, and therefore the effect exerted by environmental factors on the development strategy is stronger.

In this regard, the process of adaptation of the investment strategy can be schematically represented in the form of Fig. 2.

The key feature is that, despite the fact that the source of the changes is the external environment, adaptation changes will be made taking into account the analysis of factors of the internal environment. The reason for this is the possibility of new potential threats or previously unrealized opportunities arising under the influence of changes in the external environment.

B. Assessment of the effectiveness of foreign economic activity as the basis for a change in strategy

The main source of income for the company in the implementation of foreign economic activity is income from exports and imports of goods and services. It is these incomes that serve as the basis for the formation of investment capital of the enterprise, which means that their correct assessment will be the basis for planning a development strategy.

Foreign trade operations differ from other business operations. Therefore, in carrying out the analysis of foreign economic activity, the analyst must take into account a number of aspects of foreign trade operations.

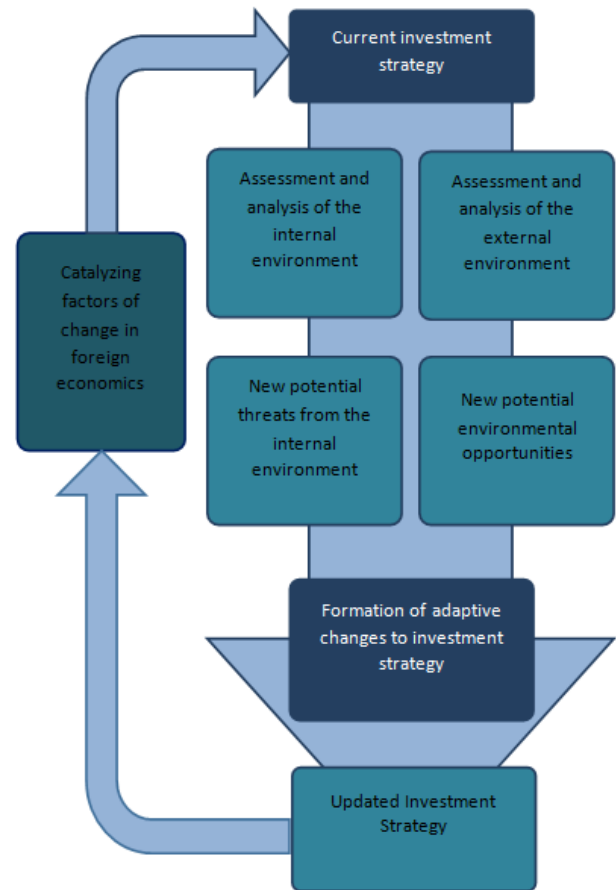


Fig. 2. The methodology of adaptive changes in investment strategy

The approach to assessing the effectiveness of foreign economic activity can be called the process of maximizing the positive foreign trade balance by specializing in the production and increasing the export of goods with maximum sales profitability. The concept of economic efficiency is, in general terms, productivity, that is, the ratio between the result and the resources spent on its achievement. The essence of the problems of economic efficiency lies in the plane of increasing economic results per unit of cost. What is typical for evaluating investment activity, a similar approach is also applicable.

To evaluate the effectiveness, it is proposed to consider a number of indicators of the financial and economic activity of the enterprise, among which are:

- manoeuvrability coefficient,
- coefficient of financial independence,
- financial stability ratio,
- financing ratio,
- intermediate liquidity ratio,
- current ratio,
- overall profitability,
- profitability of core business,
- return on current assets.

Manoeuvrability coefficient is calculated as follows:

$$K_m = \frac{WC}{C_{eq}} \quad (1)$$

where WC is working capital, C_{eq} is equity.

The coefficient in excess of 0.5, shows the ability of the enterprise to maintain the level of working capital and replenish working capital, if necessary, from its own sources. Thus, a decrease in this indicator will indicate that the investment policy of the enterprise is redirected from investing in attracting investments.

Methodology for calculating the financial independence ratio:

$$K_{fi} = \frac{C_{eq}}{BC} \quad (2)$$

where BC is the balance currency.

By the value of this coefficient, one can judge how independent the enterprise is from attracting capital owned by other organizations.

Financial stability ratio:

$$K_{fs} = \frac{C_{eq} + LTL}{BC} \quad (3)$$

where LTL is long-term loan loans. Shows the proportion of sources that the company can use in its activities for a long time.

Coefficient of financing – determines the parts of the property of the enterprise formed from borrowed funds, we will calculate it according to the formula

$$K_{fs} = \frac{C_{eq}}{C_b} \quad (4)$$

where C_b – borrowed capital

The most rigorous assessment of the company's liquidity is the intermediate liquidity ratio:

$$K_{il} = \frac{R_{st} + F_{st} + CF}{R_c} \quad (5)$$

where R_{st} – short-term receivables, F_{st} – short-term financial investments, CF – cash, R_c – current liabilities

At the same time, to determine the level of solvency of the enterprise, the current ratio will be used:

$$K_{cl} = \frac{A_c}{R_c} \quad (6)$$

where A_c – current assets.

Liquidity indicators are especially important given the above environmental factors, which can potentially destabilize the solvency of the enterprise, which in the presence of active investment projects can lead to disastrous consequences.

The coefficient of the overall profitability of the enterprise, shows the share of profit before tax in revenue from sales and is determined by the formula:

$$K_{prof} = \frac{P_{bt}}{S_r} \quad (7)$$

where P_{bt} is profit before tax, and S_r is sales revenue.

The profitability of the main activity is the indicator that allows you to assess the strengths and weaknesses of the enterprise. An effective activity of the enterprise is possible provided that the best result is achieved at the lowest cost.

$$K_{prof.m} = \frac{P}{C} \quad (8)$$

where P is the profit from the main activity of the enterprise, and C is the cost of production and sale of products.

Return on current assets:

$$K_{prof} = \frac{P_n}{CA_{avr}} \quad (9)$$

where P_n is net profit, CA_{avr} is the average annual value of current assets.

This indicator reflects the company's ability to provide a sufficient amount of profit in relation to the working capital used. The higher the value of this coefficient, the more efficiently used working capital.

These indicators allow to evaluate what opportunities the company has to achieve its goals, what resources it has, and what external factors must be taken into account when carrying out activities.

Changing these indicators is the catalyst that should initiate the process of reviewing and bringing adaptation changes into the investment strategy of the enterprise.

C. The adaptive investment strategy of the enterprise

The investment strategy is an effective tool for the long-term management of the investment activity of the enterprise, represents the concept of its development and determines as the master plan for the implementation of the investment activity of the enterprise:

- priorities of investment activities;
- forms of investment activity;
- the nature of the formation of investment resources of the enterprise;
- a sequence of stages for the implementation of long-term investment goals of the enterprise;
- boundaries of possible investment activity of the enterprise in areas and forms of its investment activity;
- a system of formalized criteria by which an enterprise model, implements and evaluates its investment activities.

The process of developing an investment strategy is an essential part of the overall system of strategic choice of an enterprise and includes:

- setting goals for an investment strategy;
- optimization of the structure of the formed investment resources and their distribution;
- development of investment policies for the most important
- aspects of investment activity;

- maintaining relationships with the external investment environment.

Thus, the investment strategy concretizes the goals of investment activity, the ways to achieve them by choosing specific methods, means, organizational mechanisms and tools for effective management of the processes of formation, distribution and use of investment resources.

The investment strategy itself is a complex concept that includes additional strategies ensuring the implementation of the global goals of the investment policy of the enterprise. They are presented schematically in Fig. 3; the figure clearly demonstrates all levels of nesting strategies that form the overall investment strategy of the enterprise.

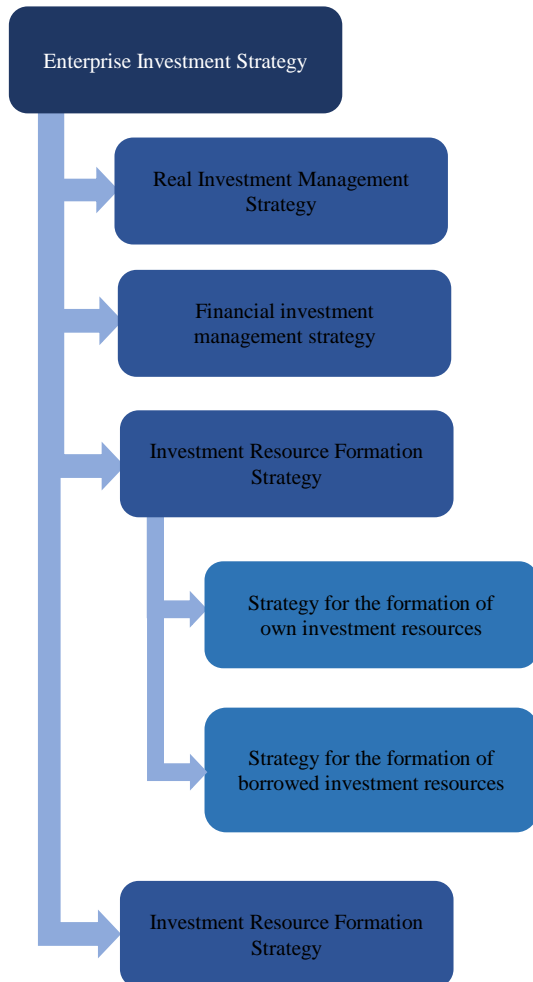


Fig. 3. Components of an enterprise investment strategy

Conducting an enterprise of active foreign economic activity, as already mentioned above, creates a situation when, in addition to typical factors determining investment policy, new factors appear that exert their share of influence. Among these factors, it should be noted:

- possible fluctuations in demand for exported products;
- expected price fluctuations for imported resources;
- the possible appearance on the foreign markets of competing goods or substitute products;
- a possible change in the political situation in foreign markets;
- the effect of inflation and currency fluctuations on the purchasing power of consumers and, accordingly, on sales volumes.

III. EXPERIMENT

As a basis for the experiment, we will use the performance of a steel mill for its existing capacities in the production of steel and metal. Compliance with the requirements of the task is the orientation of the enterprise on the export component of the market for the sale of finished products. The nature of the distribution of export products and sales in the domestic market is clearly shown in Fig. 4.

The share of exported products is 68% of total production, which indicates a strong dependence of the enterprise on environmental factors and the nature of the foreign economic activity.

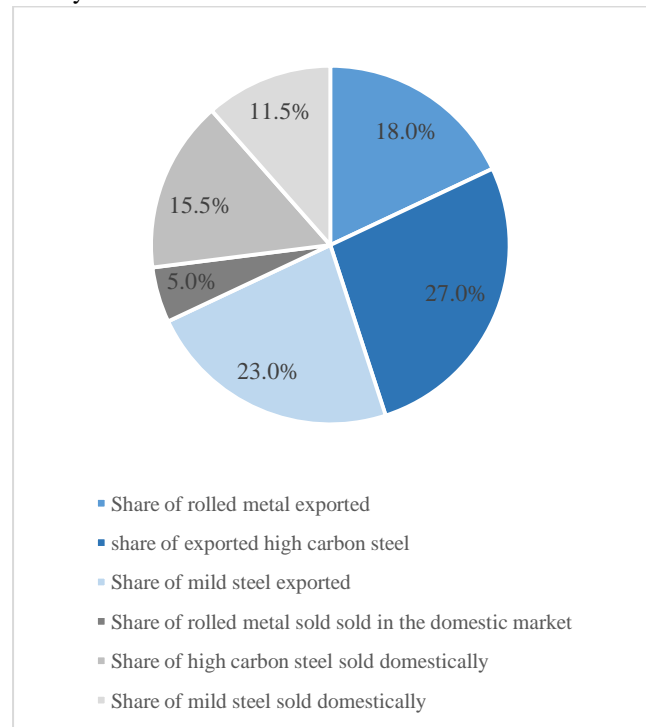


Fig. 4. Finished product export structure

In addition, the key factor in the economic activity of the enterprise is its dependence on scientific and technical developments in the field of metallurgy and machine tool construction - without its own scientific and technical capacities, enterprises are actively investing in research and development and equipment purchase.

For clarity, the importance of adapting to changing environmental conditions, we present data on world steel production and consumption in the form of Table 1 and for clarity in the form of a graph of Fig. 5.

Table- I: World steel production and consumption indicators for the period 2006-2016

Indicators/Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
World steel production, million tons	1251	1327	1220	1414	1490	1553	1649	1674	1635	1589	1628
Growth rate, %	-	6,04	-8,05	15,9	5,41	4,21	6,21	1,5	-2,33	-2,81	2,45
Absolute growth (chain), billion tons	-	76	-107	194	77	63	96	25	-39	-46	39
World steel consumption, million tons	1120	1200	1179	1020	1210	1330	1564	1574	1532	1521	1540
Growth rate,%	-	7,14	-1,75	-13,49	18,63	9,92	17,59	0,64	-2,67	-0,72	1,25
Absolute growth (chain), billion tons	-	80	-21	-159	190	120	234	10	-42	-11	19



Fig. 5. Graph of changes in the global steel market

Despite the fact that over the past ten years the market has been showing steady growth, nevertheless, it is clear that in some periods there have been significant decreases in volumes. For any enterprise, such recessions will at least contribute to a slowdown and stagnation of growth rates, but

if the company is actively investing, such events can worsen the situation significantly.

As the data for the analysis, the company’s performance indicators for three years of work will be used; the data are presented in Table 2.

Table- II: Financial and economic indicators of the enterprise for three years of work

The name of indicators	Period			Absolute deviation		Relative, %	
	2016	2017	2018	2017 from 2016	2018 from 2017	2017 from 2016	2018 from 2017
Fixed assets, million USD	41331	44071	47237	2740	3166	6,63	7,18
Non-current assets, million USD	3731	4237	4987	506	750	13,56	17,7
Current assets, million USD	4796	6364	9902	1568	3538	32,7	55,6
Stocks, million USD	8175	8206	13900	31	5694	0,38	69,38
Revenue, million USD	48136	44081	47247	-4055	3166	-8,42	7,18
Cost of sales, million USD	-28739	-33720	-42263	-4981	-8543	17,33	25,34
Investment fund, million USD	1682	2325	2978	643	653	38,23	28,09
Gross profit (loss), million USD	18112	21003	35299	2891	14296	15,96	68,07
Selling, general and administrative expenses, million USD	-4896	-6822	-9113	-1926	-2291	39,34	33,58
Profit (loss) from operating activities, million USD	13216	14181	20475	965	6294	7,3	44,38
Financial expenses, million USD	1883	2807	4095	924	1288	49,07	45,89
Other expenses, million USD	-196	-1615	-5711	-1419	-4096	723,98	253,62
taxation, million USD	11137	9759	16380	-1378	6621	-12,37	67,85
Profit tax, million USD	62	-144	16	-206	160	-332,26	-111,11
Profit for the period (loss), million USD	11199	9615	16369	-1584	6754	-14,14	70,24
The average number of workers (SSH), people	13000	16500	20000	3500	3500	26,92	21,21

Also, as of 2018, a significant part of the funds of the fund used in investment activities

is generated from equity; this can be seen from the data presented in Fig. 6.

The nature of the activity and the structure of the enterprise's funds indicate that management does not seek to rely on borrowed funds. At the same time, it is clear that the cost of investment activity tended to increase, which indirectly indicates a fairly aggressive investment strategy of the enterprise.

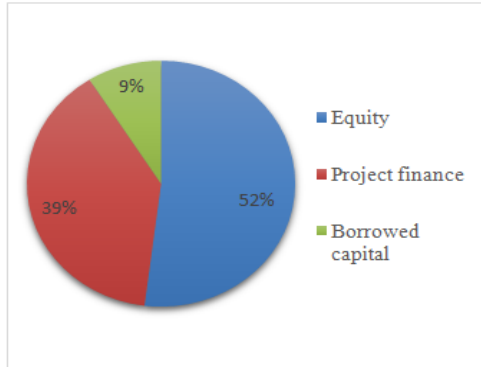


Fig. 6. Structure of sources of financing investment activity

IV. RESULT AND DISCUSSION

Over the period under review, the indicator of non-current assets shows a positive trend, which is associated with the constant replenishment of fixed assets of the enterprise (the value of which also increased in 2016-2018 by 6.63 and 7.18%, respectively).

The company's revenue in 2017 decreased compared to 2016 by 8.42%, which amounted to a difference of \$ 4055 million. This factor led to an increase in the share of borrowed capital among sources of financing investment activity in 2017. (fig. 7). In 2018, on the contrary, there was an increase in revenue of USD 3,166 million. However, with the growth rate of 7.18%, the enterprise was not able to restore the revenue to the level of 2013.

As can be seen from Table 2, after a slight decrease in net profit by 13.78% in 2017, in 2018 there was an increase of 69.8%. It is worth noting that the trend in the company's profit before tax is similar: a decrease of 12.37% in 2017 is replaced by an increase of 67.85% in 2018.

This factor is explained by changes in the structure of products sold, as well as a review of a number of high-risk and costly investment projects that do not give much effect in the short term.

Nevertheless, previously invested projects began to bear fruit, which allowed expanding the material and technical base and led to the fact that the value of current assets of the enterprise also increased in 2017. The chain growth rate was 32.7% (or \$ 1,568 million.), and in 2018 - 55.6% (or 3538 million USD.).

We will continue the analysis of the results by calculating the main indicators and comparing them with the normative data; the general results for convenience are summarized in Table 3.

Table- III: Calculation of key performance indicators of the enterprise

Index	Normative value	2016	2017	2018
Maneuverability coefficient	0,2-0,5	0,2	0,2	0,2

Financial independence ratio	> 0,5	0,4	0,3	0,4
Financial stability ratio	0,8-0,9	0,7	0,7	0,7
Financing ratio	>1	0,5	0,5	0,7
Interim liquidity ratio	0,7-1	0,6	0,5	0,7
Current ratio	1,5 - 2,5	0,7	0,8	1
Total profitability,%	-	31	39,2	41,9
Profitability of the main activity,%	-	37,2	35,1	42,9
Return on sales,%	-	24,6	17,8	25,1
Return on current assets,%	-	41,9	32,1	34,4

It is noticeable that the company demonstrates the ability to maintain the level of its working capital and replenish working capital, if necessary, from its own sources, since the manoeuvrability coefficient reaches the standard value (0.2 during 2016-2018).

It should be noted that in all periods the manoeuvrability coefficient reached a lower threshold value (since the recommended value of the indicator can fluctuate in the range of 0.2-0.5), which indicates the predominant investment of the enterprise in slowly implemented investment projects.

It is also noticeable that in 2016 the share of equity was at 40%, in 2017 - 30%, in 2018 - 40%, which indicates the stability of the organization, and a decrease in the share of borrowed capital. This indirectly indicates that the investment strategy with an extremely aggressive one has been replaced by a more cautious one.

The financial stability ratio equal to 0.7 (with a normative value of 0.8-0.9) showed that 70% of the asset of the enterprise was financed from sustainable sources during 2016-2018, which indicates the stability of exports and balanced financing of investment projects during this period

Given the level of the coefficient of financing during 2016-2017. (0.5), at the expense of own funds 50% of the property was formed, and in 2018 - 70% (coefficient value - 0.7), which indicates a slight risk of bankruptcy.

You should also pay attention to the distribution of sources of formation of the investment fund of the enterprise; the data are presented in Fig. 7.

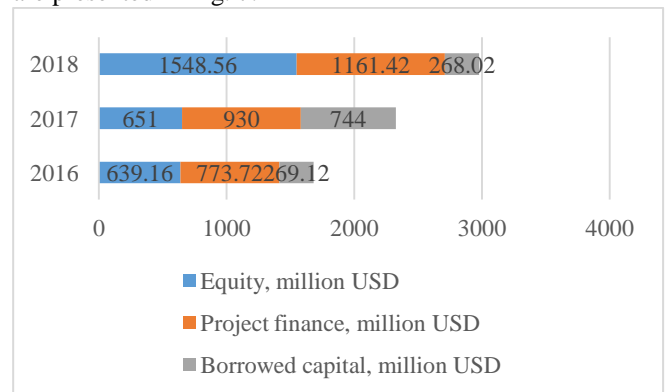


Fig. 7. Distribution of investment fund financing sources

The data show that a steady increase in export volumes made it possible to symmetrically strengthen the investment strategy of the enterprise. Initially focused on aggressive market dominance, it was adapted in 2017 to more balanced development.

Despite the overall increase in the size of investments, it is noticeable that in 2017 the share of borrowed capital increased, and then decreased in 2018. This was partially influenced by the loss of revenue from foreign markets, which also shows a decrease in liquidity indicators and a lack of equity in 2017. The intermediate liquidity ratio in 2016 was 0.6, in 2017 it fell to 0.5, and in 2018 it increased and reached the lower limit of the normative value - 0.7.

V. CONCLUSION

Analysis of foreign economic activity is closely related to the ability of the enterprise to adapt its own investment strategy. By the nature of these economic disciplines, they are somewhat of a single orientation, which makes us more attentive to the change in indicative indicators and quickly adapt the strategy.

For enterprises engaged in active foreign economic activity, indicative indicators of its analysis should serve as beacons indicating both the dangers and the possibility of implementing investment plans.

REFERENCES

1. Bondarenko, S., Laburtseva, O., Sadchenko, O., (...), Haidukova, O., Kharchenko, T., Modern lead generation in internet marketing for the development of enterprise potential, 2019, International Journal of Innovative Technology and Exploring Engineering, 8(12), pp. 3066-3071
2. Charles R. Chaffin EdD, Investment Strategies, May 2019, DOI: 10.1002/9781119642473.ch38
3. Bondarenko, S., Verbivska, L., Dobrianska, N., (...), Pavlova, V., Mamrotska, O., Management of enterprise innovation costs to ensure economic security, 2019, International Journal of Recent Technology and Engineering, 8(3), pp. 5609-5613.
4. Prokopenko, O., Kysly, V., Shevchenko, H., Peculiarities of the natural resources economic estimation under the transformational conditions, 2014, Economic Annals-XXI, 7-8, pp. 40-43.
5. G.G. Gaidai, Investment portfolio of the enterprise as an important component of investment strategy, January 2019, DOI: 10.33744/2308-6645-2019-2-44-048-055
6. Daniel Giamouridis, Systematic Investment Strategies, November 2017, Financial Analysts Journal, 73(4), pp. 10-14 DOI: 10.2469/faj.v73.n4.10
7. Dobina T., Haidukevych K., Panchenko S., Petrova I., Sabadash J. Effectiveness Analysis of Entrepreneurship Model of Development Qualities of Future Managers, Journal of Entrepreneurship Education, 2019, Volume 22, Issue 3.
8. Małgorzata Tarczyńska-Luniewska, Investment strategies - Strategic investment, January 2014, Transformations in Business and Economics 13(2B), pp. 625-636
9. J-Emeterio Navarro-Barrientos, Adaptive investment strategies for periodic environments, February 2008, Advances in Complex Systems, 11(05), pp. 761-787 DOI: 10.1142/S0219525908001933
10. Kevin D Mahn, The Impact of Sustainable Investment Strategies, May 2016, The Journal of Investing, 25(2), pp. 96-102 DOI: 10.3905/joi.2016.25.2.096
11. Mirco Mahlstedt, Rudi Zagst, Inflation Protected Investment Strategies, March 2016, Risks, 4(2), pp. 1-21 DOI: 10.3390/risks4020009
12. Nishal Moodley, Chris Muller, Mike Ward, Director Dealings as an Investment Strategy, January 2016, SSRN Electronic Journal, 40(2), pp. 105-123 DOI: 10.2139/ssrn.2477706