

The Impact of External Shocks on the Structure of Enterprise Financing: a Retrospective of 2000-2017

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Abstract— The authors carried out a research of changes in the structure of used financing sources on the basis of activity monitoring of about 300 enterprises of the Khabarovsk Territory during 2000 - 2017.

There were several external shocks (crisis periods) in the economy during the analyzed period: in 2004, 2008, and 2014. Enterprises operating in the region have steadily increased dependence on external sources of finance (banking and corporate capital) throughout the observation period, while own funds have tended to be washed out and redistributed in favor of parent companies. At the same time, equity was used to cover unprofitable activities and re-payment of past years borrowings with the practical lack of the possibility of refinancing them on modern, more attractive terms, with significant interest rates reduction.

The role of corporate loans replacing the regional potential of capital has significantly increased in the conditions of formation of vertically integrated structures. Accumulated during past years high debt load has formed a tendency to increase the debt burden on equity.

Monitoring of the dynamics and the liabilities structure of enterprises allowed to identify stable dependencies in changing the structure of financing sources of the real sector of economy on the territory, which can be used in the development and implementation of countercyclical support programs for enterprises at the regional level.

Keywords— *Far East, enterprise finance, regional economy, Khabarovsk Territory*

I. INTRODUCTION

The development of the Russian economy since the beginning of the 21st century is characterized by a significant volatility of development conditions, largely due to the dynamics of global markets. [1,2,3]. The economy of the Far Eastern regions, including the Khabarovsk Territory, historically focused on regional exports, is very sensitive to external shocks. [4] The opportunities in the growth of the production system depend on conditions in the capital market

and the financial strategy of enterprises. Therefore, when developing programs for the development of Far Eastern regions, it is necessary to study the dynamics and structure of funding sources not only in a short-term retrospective, but also during periods of external shocks.

The authors carried out a research of changes in the structure of used financing sources based on activity monitoring of about 300 enterprises of the Khabarovsk Territory. The enterprises, representing key industries of economy of the region participated in surveys conducted during 2000 - 2017.

II. RESULTS

The analysis showed that the most noticeable changes in formation of capital accumulation sources occurred during periods of external shocks in the economy. During the analyzed period, the Russian economy in general and its regional structures experienced several external shocks: in 2004, 2008, and 2014. Monitoring of the liabilities dynamics of enterprises operating in the Khabarovsk Territory made it possible to identify the most significant changes in the structure of financing sources of the real sector of the economy during periods of external shocks.

The steady growth of the role of external financing sources observed throughout the studied period was strengthened by the impact of crisis phenomena. During these periods the amount of equity either grew at a much lower rate than the raised funds (in 2004), or declined (in 2008 and in 2014). The last crisis period resulted in an almost absolute (90%) dependence of the regional economy on borrowed and attracted funds, including centralized, corporate sources of financing and, accordingly, dependence of the economic agents behavior on external factors (Table 1).

TABLE I. DYNAMICS OF THE CAPITAL OF THE ENTERPRISES OF Khabarovsk Territory and Sources of Its Formation

	Growth rate of total assets, %	Growth rate of equity capital, %	Growth rate of attracted capital, %	Financial leverage	Operational leverage	Self-financing level, %
2000	106,5	99,8	130,4	0,4	0,3	73,4
2001	103,2	98,1	123,5	0,3	0,2	76,2
2002	107,7	99,1	114,8	1,4	0,9	41,8
2003	108,1	105,8	109,7	1,5	0,9	40,5
2004	120,4	106,9	130,2	1,7	1,1	37,4
2005	121,9	102,5	137,1	1,7	1,2	37
2006	112,9	96,3	122,5	2,2	1,4	31,3
2007	132,5	231,9	108,8	2	1,1	33,7
2008	120,9	93,1	135,3	2,8	1	26,3
2009	105,6	100,9	107,3	2,9	0,8	26,0
2010	111,6	98,2	116,3597	3,3	0,8	23,0
2011	119,9	121,6	119,3	3,0	0,6	25,1
2012	115,9	109,7	118,3	2,8	1	26
2013	119,5	98,3	125,7	4,4	1,1	18,7
2014	109,5	79	119	4,8	1	17,2
2015	130,8	107,2	135,2	6,7	0,9	13
2016	104,8	89,5	107	8,7	1	10,4
2017, 9 month.	114	113,5	114	8,3	0,8	10,8

The increase in the role of attracted capital in financing the activities of enterprises was accompanied by changes in its structure.

In 2000-2003 the main source of attraction of the capital was building of accounts payable (table 2).

In 2004 - 2005, in conditions of low banking system liquidity (including regional level), accounts payable continued to be the main source of raised funds to ensure the current activity, and first of all - a significant growth in investments in receivables and inventories (Figure 1).

Fig. 1. Structure of assets of enterprises of Khabarovsk Territory, %

The policy of increasing capital, financed mainly from own funds and accounts payable was economically effective in 2000-2004: the growth rate of sales revenue exceeded capital growth. Indicators of turnover and return on assets grew. Since 2005, in general, the growth of the enterprises' assets has not been accompanied by an adequate expansion of their market share (revenue growth), which has led to a deterioration in business activity and return on assets (table 3).

TABLE II. ROLE OF THE ATTRACTED CAPITAL IN FINANCING THE ASSETS OF ENTERPRISES IN PERCENTAGE TO THE VALUE OF ASSETS AT THE END OF THE YEAR

Year	Attracted capital – total	including				Share of interest to pay in profit on sales, %
		accounts payable	Bank credits			
			total	long-term	short-term	
2000	26,6	18,9	1,7	0,1	1,6	2,2
2001	23,8	16,4	3,8	1,8	2,0	37,1
2002	58,2	33,5	15,9	8,6	7,3	51,2
2003	59,5	30,0	18,9	10,7	8,2	46,3
2004	62,6	35,3	17,2	9,2	8,0	34,1
2005	63,0	36,5	18,1	12,4	5,6	32,4
2006	68,7	32,0	28,3	19,4	8,9	39,5
2007	66,3	25,0	31,5	16,1	15,4	42,4
2008	73,7	24,4	30,2	19,8	10,4	55,7
2009	74,0	27,3	21,2	12,0	9,2	63,2
2010	77,0	27,2	30,8	20,1	10,7	54,0
2011	74,9	22,4	23,2	17,0	6,2	45,2
2012	74,0	33,9	17,4	8,1	9,3	34,4
2013	81,3	42,3	19,1	9,8	9,4	39,7
2014	82,8	35,4	23,3	15,1	8,2	58,9
2015	87,0	29,0	20,0	14,2	5,8	86,0
2016	89,6	28,1	14,3	10,1	4,2	114,4
2017, 9 month.	89,2	18,2	8,7	5,7	3,0	187,3

In 2005-2007 the role of accounts payable in working capital financing was reduced and maintained at a level allowing enterprises not to risk their financial stability. "Decrease in influence of an accounts payable on capital formation was compensated by bank lending, whose share in the sources of enterprise financing showed a growth trend from 2000 (1.7 %) to 2007 (31.5%) in the conditions of lower average interest rates on bank loans received in rubles (from 31.5% in 2000 to 13.5% in 2007). As our works showed, the significant increment of long-term loans allowed the enterprises to carry out investment activities and maintain financial stability. [5.6].

III. CONCLUSION

After entering the external sanctions period in 2014 and their further expansion, the situation changed dramatically. This happened in the Russian economy [7,8,9], and in the economy of the Far East. Thus, the role of borrowed capital, primarily non-bank capital, attracted to compensate regional losses caused by sanctions, has significantly increased in the structure of financing sources for the enterprises of the

Khabarovsk Territory. The most significant increase was observed in the value of non-bank loans in the formation of regional economy capital, including funds of vertically integrated structures. In 2014-2017, there was a debt growth of enterprises in the regional economy, which ultimately led to an increase in the output of capital in the real sector of the economy in the form of servicing loan liabilities, including bank loans, both in the financial sector and vertically integrated structures. In the period from 2013 to 9th months of 2017, the share of interest payable in profits from sales increased from 39.7% to 187.3%, i.e. according to the results of 9 months of 2017, the burden of servicing of borrowings exceeded the financial result from the main activity of companies in the Khabarovsk Territory almost twice (Table 2).

TABLE III. INDICATORS OF THE EFFECTIVENESS OF THE REAL SECTOR OF THE ECONOMY OF THE KHABA-ROVSK TERRITORY

	Turnover of capital (number of turnovers per year)	Profitability of capital (assets),%
2000	0,426	5,5
2001	0,371	2,2
2002	0,874	1,6
2003	0,969	3,4
2004	1,067	5,1
2005	0,955	2,6
2006	0,941	2,3
2007	1,065	3
2008	0,946	-1,4
2009	0,681	-0,4
2010	0,725	-0,2
2011	0,739	1,7
2012	0,631	3,9
2013	0,580	2,3
2014	0,605	-4,9
2015	0,468	-0,3
2016	0,366	4
2017, 9 month.	0,259	0,5

At the same time the attracted resources did not become an indicator of the development of investment activity and the formation of basis for further development (there was a tendency to reduce fixed assets), but were followed by a diversion of capital in the operating advance (increasing financial investments and accounts receivable). Unlike the period of 2004-2014, when the formation of calculations shuts net attraction of financial resources in a production process, in 2015-2017, there was a diversion of funds from the sphere of production in advance of financial transactions, mainly trade and services.

Thus, external shocks caused a significant change in the structure of capital, the increased role of attracted capital in financing the activities of enterprises. Against the background of slowdown in economic activity of the regional enterprises (reduction in capital turnover) and formation in 2014-2015 of unprofitability of investments in assets, capital was derived from the real economy of the region for servicing borrowings and redistribution in favor of parent companies.

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