
Analytical Monitoring of Entity's Cash Flows as a Guarantee of Financial Security of the Region

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Abstract:

The paper provides theoretical and legal fundamentals of financial security as well as opportunities and restrictions of cash flows of the entity are analyzed. Authors suggest a set of cash flow analytical monitoring techniques. Using factorial analysis and chain substitution method, authors analyzed the performance and dynamics of entity's cash flows. A set of measures on the region's financial security are suggested

Keywords: *Financial security, cash flow, factorial analysis, references and guidelines, Statement of Cash Flows*

JEL Classification Codes: *G30, M40, M49*

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Introduction

Modern economic development in Russia could be characterized by dynamic shifts of inner and outer factors of business activity, causing the threat for financial interests and increasing financial risks in the course of business. The ability to react swiftly and properly as well as developing measures of minimizing the expose is a ticket to viable business in addition to being an inherent part of financial security both in region and nationwide. The paper is aimed at considering the financial security framework using the entities' cash flow analysis. We consider necessary solving the following problems:

- review theoretical and legal fundamentals of building the financial security of the region;
- analyze the opportunities and restrictions of cash flows of the entity;
- analyze the performance and dynamics of cash flows of the entity basing on the specific technique;
- develop the methodology of improving the financial security.

The object of the research is cash flows of the entity while the subject of the research includes theoretical and practical fundamentals of providing the financial security of the region. The novelty of the research consists in specific measures of providing the financial security of the entities.

Materials and methods

Current interconnection of financial security, performance of the entity, management, and investment policy determines the need in analytical monitoring framework as a guarantee of the region's financial security.

Terms of national security, economic security, and financial security are the conceptual basis of providing the national security framework. The Edict of the President N683 dt 31 December 2015 "On Russian Federation's National Security Strategy" includes the term of national security defined as "the state of protection of the individual, society, and the state against internal and external threats in the process of which the exercise of the constitutional rights and freedoms of citizens of the Russian Federation, a decent quality of life and standard of living for them, sovereignty, independence, state and territorial integrity, and sustainable socioeconomic development of the Russian Federation are ensured". The economic security term was first introduced in Federal Law "Concerning the State Regulation of Foreign Trade Activities". The economic security there was considered as "specific state of economy ensuring the adequate level of social, political, and military protection and Russian Federation's progressive development, sovereignty of economic interests to the internal and external threats".

Chernikova and Vysotskaya (2010) considers national security and economic security, as an inherent part, to be connected directly with forming, assigning, and applying funds in context of state's financial activity. Stated differently, financial security is an inherent part of economic and national security.

Arsentyev (2000) defines the financial security of Russia as “an essential part of economic security based on independence, efficiency, and competitiveness of the financial sector of Russia resulting in the set of measures and indicators of its state and defining the sustainability of finance, adequate assets' liquidity, and availability of monetary, currency, and gold reserves. Other researchers have defined financial security in a similar way (Ivanova *et al.*, 2017; Kuznetsova *et al.*, 2017; Mikhailova *et al.*, 2017; Menshchikova and Sayapin, 2016; Kosinova *et al.*, 2016; Sibirskaya *et al.*, 2016; Medvedeva *et al.*, 2015; Stroeva *et al.*, 2015; Thalassinos and Liapis, 2014; Thalassinos *et al.*, 2014; 2015; Thalassinos and Dafnos, 2015; Duguleana and Duguleana, 2015; Kalanotnis *et al.*, 2014; Xanthopoulos, 2014).

Truntsevsky (2007) notes that financial security of the entity implies a set of conditions when corporate funds are applied in a most efficient way to prevent threats and provide the sustainable business activity from now on.

Adoption of the Federal Law N115-FZ dt 7 August 2001 “On Countering Money Laundering and the Financing of Terrorism” caused issuing the Edict “On Authorized Body in Countering Money Laundering and the Financing of Terrorism”. Then a Committee of Financial Monitoring was founded but transformed into Federal Financial Monitoring Service, and all the legislative duties were conveyed to the Ministry of Finance.

Day-to-day large companies suffer million losses by massive leakages. Number of employees involved into leakages increases and leads to unreliability and insecurity. Responsibility for the proper level of economic security falls not only on the security experts but the staff who is a party of security framework. Accounting information turns to be a key data containing sufficient risks of business activity of the entity.

Management staff should meet the contemporary requirements thus far. There we mean internal and external threats that are familiar to the management staff and could directly affect the economic security of the entity. Professional qualifications are vital in providing the security of the region as well as nationwide, since the proper recognition of every single entity's transactions directly affects the accuracy and precision in disclosure of macroeconomic indicators being the basis of state policy in different management levels. In addition to the common security issues managers should be acquainted with the every single business entity's security framework.

Thus, we highlight key lines in providing accounting and analytical support in the entity's economic security system:

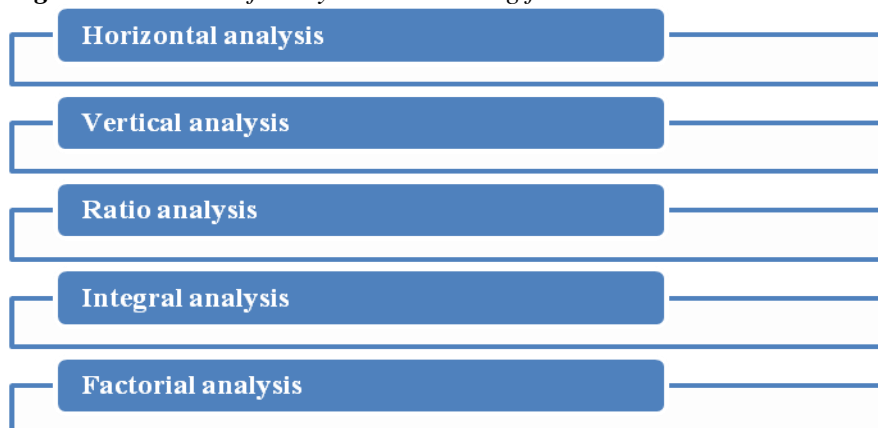
- financial performance diagnostics to prevent risks and bankruptcy;
- financial security and performance, prospective partners' reliability evaluation;
- security state validation and competitive market strategy determination;
- maintaining, multiplying and efficient applying of the entity's resource potential;
- management decision making in business activity due to threats and insecurities;
- maximum information support of the economic security framework of the entity and its units;
- facilitating the harmonization of the entity and its staff' needs and interests to minimize threats.

Lately Russian economy undergoes certain changes emphasizing the interplay between financial sustainability of business and socioeconomic development. The ability of the business in managing and maintaining cash flows is one of the major features of financial sustainability. So, availability of funds provides conditions for effective business and defines the development strategy. Thus, keeping the adequate funds level in current dynamic economic environment could only be fulfilled through balancing incomes and outcomes basing both on theoretical and practical guidelines in cash flows' management. Cash flows' analytical monitoring is defined by the following:

- cash flows form the basis of effective business development across the board;
- appropriate cash flows provide financial sustainability and financial solvency of the entity;
- improving the cash flows leads to viable business activity;
- proper cash flows' management reduces the lack of loan capital;
- cash flows' optimization leads to increasing the capital turnover speed;
- effective application of free funds facilitates increasing the scale of business, profits, and other incomes.

Methods of cash flows' analytical monitoring framework are illustrated in Figure 1

Figure 1. *Methods of analytical monitoring framework*

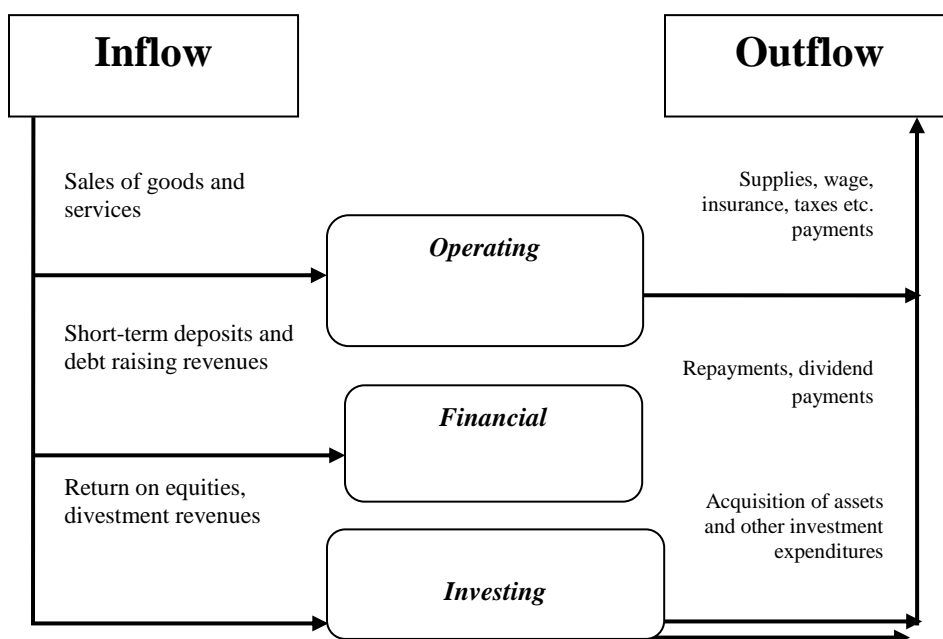


In order of Figure 1, we note that horizontal analysis provides the data on dynamic indicators, vertical analysis indicates the data on the structure of cash flows, ratio analysis highlights the financial sustainability indicators such as liquidity, solvency, turnover ratio etc., integral analysis presents data on cash flows cycle's SWOT analysis, factorial analysis measures the effect of factors on the total ratio. According to economists, cash flows are generated in process of operating, financial, and investing activity.

In order to provide viable business activity all activity types include inflows and outflows of funds and when subtracted, resulting in net cash flow.

The pattern of cash flows is shown in Figure 2.

Figure 2. Cash flows' pattern



In order of Figure 2, the cash flow of operating activity includes proceeds from goods and services and taxes, insurance, supplies, and other outsourcing costs. Investing cash flow consists in revenues and payments connected with financial investments, managing assets, securities, investment portfolio, and other cash flows providing the investing activity. Financial cash flows imply incomes and outcomes of debts, dividends, interests on deposits, and other financial activity funds.

Whereas authors Sheremet A., Grosul V., Antonova E. note that comprehensive analysis implies analyzing financial performance together with data on cash flows. (Grosul *et al.* 2013). Thuswise we consider Cash Flow Statement as an informational background of analytical monitoring. The report includes a set of

indicators on cash flows for a certain period. The feature of the Cash Flow Statement is reliable information on incomes and outcomes for a certain period stretch. Internal and external parties are provided with the contents to evaluate the needs of the entity in proper applying of the funds. Moreover, the Statement provides the data on net income and related incomes and outcomes.

The reference Cash Flow Statement is provided in the Table 1. There we applied factorial analysis for analytical monitoring purposes.

Table 1. Cash Flow Statement (Reference XXX enterprise), kRUB

Index	Notation	Current year	Previous year	Diff.	
				Abs., Δ, +/-	Rel, %
1	2	3	4	5	6
Cash at the beginning of the year	(C _b)ОДСН	68	44	24	0,54
Cash flow from operating activities:	(CF _{op})ДДС _{тек}	3154	1820	1334	0,73
Cash received from customers					
Cash paid for operating activities	(CP _{op})В _{тек}	(2251)	(1680)	571	0,34
Net cash flow from operating activities	(NCF _{op})ЧДС _{тек}	903	140	763	5,45
Cash flow from investing activities	(CF _{inv})ДДС _{инв}	(287)	(116)	171	1,47
Purchase of property, plant, and equipment					
Net cash provided by investing activities	(NCF _{inv})ЧДС _{инв}	(287)	(116)	171	1,47
Cash flow from financing activities	(CF _{fin})ДДС _{фин}	450	-	450	-
Cash received from borrowings					
Net cash provided by financing activities	(NCF _{fin})ЧДС _{фин}	450	-	450	-
Net increase (decrease) in cash and cash equivalents	(NI _{cf})ЧУ _{дс}	1066	24	1042	43,4
Cash at the end of the year	(C _e)ОДС _к	1134	68	1066	15,68

Let us calculate the effect of factors on the target index NI_{cf} applying the factorial analysis. The function is:

$$\Delta x_i y = f(x_1^1, \dots, x_{i-1}^1, x_i^1, x_{i+1}^0, \dots, x_n^0) - f(x_1^1, \dots, x_{i-1}^1, x_i^0, x_{i+1}^0, \dots, x_n^0) \quad (1)$$

According to Table 1 the factor model of NI_{cf} is:

$$NI_{cf} = NCF_{op} - NCF_{inv} + NCF_{fin} \quad (2)$$

Chain substitutions' calculating algorithm is realized in two steps:

1) Substituting the indicators in formula (2) with the current year ones:

$$NI_{cf\ 0} = 140 - 116 + 0 = 24 \quad (3)$$

$$NI_{cf\ 1} = 903 - 116 + 0 = 787 \quad (4)$$

$$NI_{cf\ 2} = 903 - 287 + 0 = 619 \quad (5)$$

$$NI_{cf\ 3} = 903 - 287 + 450 = 1066. \quad (6)$$

2) Evaluating the effect of factors

$$\Delta NI_{cf\ op} = NI_{cf\ 1} - NI_{cf\ 0} \quad (7)$$

$$\Delta NI_{cf\ inv} = NI_{cf\ 2} - NI_{cf\ 1} \quad (8)$$

$$\Delta NI_{cf\ fin} = NI_{cf\ 3} - NI_{cf\ 2} \quad (9)$$

$$\Delta NI_{cf\ op} = 787 - 24 = 763;$$

$$\Delta NI_{cf\ inv} = 619 - 787 = -168;$$

$$\Delta NI_{cf\ fin} = 1066 - 619 = 447$$

We note that for checking purposes the sum of factors should be equal to the total ΔNI_{cf} gain:

$$\Delta NI_{cf\ op} + \Delta NI_{cf\ inv} + \Delta NI_{cf\ fin} = \Delta NI_{cf} \quad (10)$$

$763 + (-168) + 447 = 1042$, as we can see, the equality is identical and, therefore, no errors occurred.

Results

After conducting chain substitutions' factorial analysis we consider that net increase in cash was mostly affected by operating activity flows and resulted in 763 kRUB gain. Net cash provided by investing activities increased by 171 kRUB and caused decreasing in net cash by 168 kRUB due to the investments of the entity. It should be noted that net change in cash was significantly affected by financial activities cash flow and resulted in 447 kRUB gain. The effect was increasing for long or short-term debts in current year.

Consequently, factorial analysis of the Cash Flow Statement's data indicates that the entity expects increasing of cash flows from all types of activity to provide its financial security. The factorial analysis of the performance gives an opportunity to evaluate and forecast results of the business activity providing its financial security.

Conclusions and recommendations

Meantime, as Sholokhova (2012) notes, the following ways to improve financial security are applied in Russia:

- setting limits of foreign equity participation in Russian business;
- Industry limits (restrictions of foreign investments in critical industries);
- effective foreign investment monitoring and control system development.

Measures of proper resources applying and leading to the synergy are highly important to improve the financial security level. Thus, we highlight a set of results of improving the financial security components:

- 1) Increasing the efficiency of business according to the industry features;
- 2) Threats and risks' cost saving;
- 3) Meeting the requirements of all business parties.

The essential output of cash flows' monitoring framework is maintaining of financial interests of the business. Analytical monitoring of financial flows involves the following:

- monitoring and analysis of cash flows and trends of factors' shifts;
- evaluating the effect of inner and outer factors on cash flows and overall financial security level;
- forecasting of the financial security level changes including factors effect;
- developing the managerial decisions' informational support framework, maintaining cash flows as a basis of long-term financial security.

We consider analytical monitoring a drastic measure in achieving a goal of providing the proper financial security level under uncertainty of expected results and risks, resulted in economic benefits. A set of abilities in meeting the requirements of economic development is a guarantee of good-conducted analytical monitoring.

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