
The Diversification of Banking Capital Sources and Cash Flow Granularity in Merger and Acquisition Transactions

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Abstract:

The article analyzes banking merger and acquisition (M&A) market over the past three years. The conducted analysis has shown that there is a market outflow of foreign investors, while deals become larger, and banks are consolidating, including that with other non-banking sectors in order to strengthen market positions and consolidate capital, the cost of which is dependent on several factors.

The authors have developed price parameters characterizing banking capitals involved in transactions on M&A market. The price parameters include inflation rate, present discounted value, tax level, capital structure, interest rates for attraction and placement of funds of credit institutions, as well as the parameters, which have not yet been considered in the existing theories. These are the diversification level of capital sources and the granularity of the banking cash flows.

The authors put forward the hypothesis about the significant impact of these price parameters on the capital cost of banks involved in mergers and acquisitions (M&As), and proposed three optimization options, namely spatial, temporal, and spatiotemporal optimization. Confirmation of the hypothesis was reflected in spatiotemporal optimization of capital sources diversification and cash flow granularity of the credit organizations.

Keywords: *Mergers and acquisitions, price parameters, diversification of sources, granularity of cash flow, banking capital, spatial optimization, temporal optimization, spatiotemporal optimization, financial losses.*

JEL Classification: G21, G30, G34, G39.

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1. Introduction

Contemporary Russian market is quite modest as compared to American, European, or Asian sectors of the global M&A market. However, according to the statistics bulletin on "Mergers and Acquisitions" of the AK&M Information Agency, in Russia in 2016, the total amount of transactions increased by 46% and amounted to 75.8 billion USD. About the USA, this is primarily due to three major transactions in the oil and gas sector, namely the sale of 19.5% stake of "Rosneft" oil, company, buying minority stakes in Indian "Essar Oil" company, and the privatization of the "Bashneft". In the first half of 2017, the total amount of 247 transactions made up 21.06 bln USD with an average cost of 50.4 mln USD. Experts state that the previous slowdown in the growth rate of the Russian market of mergers and acquisitions was fully compensated in June 2017. June was marked by 46 transactions that was twice more than that in June of the last year (23 transactions), while their total value had increased by 2.1 times, i.e. to 11.12 bln USD versus 5.19 bln USD in June of last year (Mergers and acquisitions, n. d). As for the financial sector of deals with banks in the M&A market, in 2016 the largest deal involving the bank was the transaction on purchase by "Alpha-Group" consortium of "Ukrsotsbank" from Italian "UniCredit" bank group for 323 mln USD.

The banking transactions market was marked by the acquisition of foreign assets of "RBS (Kazakhstan)" in Kazakhstan and the "Marfin Bank" in Serbia by the owner of "Expobank". In 2016, in the M&A market, the transaction of 5.2% was made at the "Moscow Exchange MICEX-RTS" for 135 mln USD by British, American, and European investors, half of which were hedge funds (Mergers and acquisitions, n. d). The largest deals in the financial sector of M&A market in 2016 are presented in Table 1.

Table 1. *The largest deals in the financial sector of the market in 2016.*

Object of the transaction	Proportion of the transaction in the market, %	Volume of the transaction, mln USD	Affiliation of the investor and the amount of its transaction
Ukrsotsbank	99.8	323	Foreign investor
Rosgosstrakh "Zhizn"	100.0	161	Russian investor
MICEX-RTS	5.2	135	Foreign investor
"VSK" Insurance House	49.0	102	Russian investor
Far Eastern Bank	70.4	69	Russian investor
TOTAL	-	790	Foreign investor – 458; Russian investor – 332

Source: *Compiled by the authors according to (Mergers and acquisitions, n. d.)*

It is seen from Table 1 that the total amount of the largest deals in the financial sector of M&A market amounts to 790 mln USD that makes up about 2% of all transactions in M&A market in 2016. For comparison: in 2015, the amount of

transactions in the financial sector accounted for 1152.3 mln USD that made up 4.2% of all transactions in the market. This situation of reducing the overall proportion of major transactions in the financial sector on the M&A market is due to the caution of the investors, but more importantly, it is caused by banking regulator's policy, which continues conducting banks resolution and withdrawal of their licenses. Of the five major transactions given in Table 1, two deals (Ukrsotsbank, and MICEX – RTS) were carried out by foreign investors.

According to experts, over the past 10 years, "the purchases of banks by foreigners accounted to just 15% of the total number of transactions (28 deals), in monetary terms they exceeded 41% of the total volume, and amounted to more than 7 bln USD" (Banking mergers and acquisitions market: Current status and prospects, 2016). Thus, just two transactions exceeded the total amount of deals committed by Russian investors. Moreover, representatives of six countries, namely France, the USA, Norway, Sweden, Hungary, and Cyprus became key foreign buyers over the last years. Since 2009 there has been noted a massive outcome of foreigners as credit organizations from Russia, and eventually, between 2009 and 2015, out of the 28 deals on acquisitions of Russian banks by foreign companies 11 of them ended with the sale of their assets by foreigners.

This is partly due to the cost minimization as well as the overall political situation that resulted in a negative balance between the transaction sums of purchases and sales, which in 2017 exceeded 2 bln USD (Banking mergers and acquisitions market: Current status and prospects, 2016). The number of foreign investors is not enough, however successful deals already conducted in 2017 caused economic interest in foreign investors to enter the Russian market as financial investors see prospects in the development of Russian financial services sector in general. The Russian banking sector of M&As is driven by the needs for additional capital, the need to develop new sources of income, and further cost optimization.

Now we can expect further consolidation in the insurance market against the background of the desire to obtain synergy effects from horizontal integration with the banks considering increased competition between the major players and further tightening of regulation by the Central Bank of the Russian Federation. Therefore, even now certain banks have consolidated with non-banking financial institutions, e.g. brokerage companies and assets management companies.

This consolidation trend suggests that banks want to survive in the market, and for this reason they are ready to buy finance companies. Even today larger credit institutions and finance companies have access to cheaper sources of financing. They have established federal networks and have strong technological bases, offering customers better financial services. The trend of banks' influence contributes to strengthening their position in terms of their capital. However, the cost of capital is affected by a number of factors, including capital structure.

2. Main Points

Issues of cost and capital structure were raised by scientists long ago. In terms of methodology, they can be divided into neoclassical and institutional concepts. The first kind of theories, namely traditional theory, Modigliani-Miller theory, and static trade-off theory are based on the conditions of market perfection and rationality of economic subjects. The second type of theories considers the condition of information asymmetry and irrationality of economic agents. It includes signal theories, conflict of interest theory, and behavioral theories.

The basic methodological approaches to the study of capital are set forth in the fundamental works of J.I. Walras, W. Jevons, F. Quesnay, V. Le Cutro, K. Marx, A. Marshall, D. Ricardo, W. Petty, A. Pigou, P. Samuelson, J. Sinks, A. Smith, I. Fischer, D. Hicks, and K. Arrow, and others.

Issues associated with capital structure and its optimization were investigated in the works of M. Baker, S. Bikhchandani, M. Brennan, J. Wagler, D. Jepter, D. Durand, M. Jensen, X. Leland, S. Myers, N. Maloof, W. Meckling, M. Miller, F. Modigliani, J. Finnerty, J. Van Horn, D. Hirshleifer, F. Lee Cheng, E. Schwartz, J. Williams, and I. Welch.

Analysis of the impact of capital structure on the company performance was carried out in the empirical works of G. Zechner, T. Opler, S. Titman, E. Fischer, E. Fam, K. French, R. Henkel, A. Hovakimian, and others.

Cost approach to the valuation of financial relations and cost control of organizations can be found in the works of F. Black, T.G. Loznev, T. Copeland, T. Koller, V.V. Krivorotov, G. Murin, M. Scott, E.G. Patrusheva, L.D. Revutsky, D. Roch, K. Walsh and M. Scholes.

Aspects of capital formation and financial structure of the Russian economy are considered in the works of I.A. Blank, V.V. Bocharov, P.L. Vilensky, A.V. Grachev, R.G. Ibragimov, I. Ivashkovskaya, I.I. Igonina, V.V. Kovalev, O.A. Kuznetsov, V.N. Livshits, M.A. Limitovsky, N. B. Rudyk, S.A. Smolyak, E.S. Stoyanova, and T.V. Teplova.

Contemporary studies concern the interrelation between financial capital structure and the reasonable market value of the company, the maximization of which is considered from the standpoint of value approach to the company management, where the author examines in detail a number of concepts of interest's conflicts (agency theory, theories of corporate control and cost monitoring, the stakeholder's theory), as well as the contemporary behavioral theories (Legova, 2009; Allegret *et al.*, 2016; Thalassinos and Dafnos, 2015; Grima *et al.*, 2016; Pontoh, 2017). The author offers effective tools to resolve these contradictions, for example, by choosing the structure of the compensation package (property ownership, bonuses,

and stock options), linking thereby managers' income to the dynamics of equity cost and providing motivation to its preservation and growth, or proves that the contemporary theories, unlike the traditional ones, first of all, examine the actual structure of the company's capital, its relationship to the optimal structure, the process of adapting the capital structure to the optimal one, and its determinants (Legova, 2009). The issues of forming by Russian companies of capital structure in dynamic mode, in conjunction with corporate and macroeconomic factors influencing the chosen debt burden, as well as justification of the results of a comparative analysis of company's capital structure in emerging financial markets are considered in the research of just individual scientists (Kokreva, 2012; Thalassinos, 2008; Arvanitis *et al.*, 2012; Liapis *et al.*, 2013).

Capital structure in emerging financial markets is influenced by traditional determinants (profitability of total capital, size of the corporate capital, assets structure, and growth opportunities), as well as the specific factors reflecting the ownership structure, corporate governance, the level of information asymmetry, and industry affiliation. Some researchers link the optimal capital structure with such ratio of own and borrowed capital, which, given the peculiarities of commercial bank, allows the credit organization to maximize the profitability of own funds, that is, to receive maximum amount of net income from private capital that has been invested in the company activities (Zagainova, 2006; Thalassinos *et al.*, 2013).

We do not agree with this statement, given the significant imbalance in the proportion of borrowed capital of the bank in comparison with private means. Some scientists are exploring the cost of commercial bank considering the strategy of capital allocation (Bezuglova, 2018; Mitrokhin *et al.*, 2016). The author proposes considering the cost of capital of a commercial bank from the perspective of making investment decisions by the owners of the bank. At that, the author distinguishes the factors of investment value of the bank. Banking capital is studied by scientists according to the components, for example, valuation and management of equity capital of a commercial bank, linking it with the capital sufficiency and profitability (Khmaruk, 2012; Rusanov *et al.*, 2015), or by evaluating the entire capital of a credit institution primarily from the viewpoint of its formation process (Azizbaev, 2006; Zaini, 2017). A differentiated approach to estimating the cost of capital of a commercial bank based on the typology of credit organizations in terms of the region's gross product and the calculation of special regional coefficients is of interest (Koreshkov, 2015). Studies of some scientists are dealt with sources and factors of Russian banking capitals growth (Krylova, 2015).

Among the main sources we can distinguish the profit capitalization, attracting resources from the financial market through issuances of financial instruments, initial public offerings (IPOs), and attracting foreign capital (Thalassinos *et al.*, 2015). According to the author, dedicated internal and external sources of capital are sensitive to changes in market conditions, as well as national and international loan capital markets condition. We agree with the author of the research, because we

believe that exactly these sources are major ones, and largely replenish banking capital. Noted works have made a valuable contribution to the development of capital formation theories, including banking capital and sources of its replenishment, as well as to assessment of the impact of various factors.

In addition to that, it is advisable to identify the factors that characterize quantitative and qualitative price parameters of banking capital. Among price parameters characterizing the banking capital in M&As we distinguish the following ones (Table 2).

Table 2. *Price parameters characterizing the banking capital involved in M&As in the financial market*

Price parameters	Description of price parameters
1. Inflation	Accounting for both nominal and underlying inflation; the use of indicators such as inflation rate and inflation indices
2. Time value of capital	Accounting for the time value of money (compounding and discounting), determining the current and market value of capital, adjusting carrying value, and its change
3. Level of taxation	Accounting for tax corrector in the cost of debt, and taxation of credit institutions owners' income – in the value of dividends
4. Structure of capital	Accounting for capital structure in estimating the cost of owner's and debt capital, calculation of the weighted average cost of capital
5. Interest rates for attracting and allocating resources	Accounting for the level of income of allocating banking funds and the level of expenses of attracting banking resources
6. Cash flow duration	Accounting for the duration of the cash flow (continuous or discrete)
7. Diversification of capital sources	Accounting for the level of diversification of capital sources (cash flow from a single source or that from multiple sources)

Source: Compiled by the authors.

From the selected price parameters characterizing banking capital, in our view, not all equally affect the cost of capital of credit institutions. For example, in contemporary conditions of low inflation (not exceeding 4%), calculation of indicators considering nominal and underlying inflation will not differ significantly. Given the fact that banks form daily balance, adjustment of capital cost will not make a significant difference in indicators, since they are mainly based on market value. Tax rate changes the price of capital, sometimes substantially, though bank cannot influence this circumstance, because this level develops objectively, and it is difficult to influence it. Structure of owner's and debt capital is largely determined by the credit and deposit policy of the bank, while the priority of debt capital in funding can provide certain advantages.

The change in the structure of capital contributes to a significant variation in the cost of capital, both upward and downward. In our opinion, the most priority price

parameters of banks are interest rates for attracting and allocating resources. This list is not limited by the price parameters of capital. In our opinion, we just highlighted the most important parameters.

According to some experts (Stepanov, 2014; Bondarenko, 2015; Gurieva *et al.*, 2015; Batischeva *et al.*, 2017), the cost of capital is greatly influenced by the growth rate of the loan portfolio and deposit base of the bank. To some extent, we agree with the authors, however, we believe that cost of capital of credit institutions is greatly affected by interest rates of attraction and allocation of commercial banking resources, rather than the growth rate of loans and deposits.

M&As can be short and medium term, with varying degrees of cash flow permanence or granularity, they may be carried out from one or more sources. This circumstance affects the cost of capital in such integration deals. In addition to the direct influence of the interest rate of capital attraction and allocation, price parameters in the form of interest rates should consider the present discounted value, cash flow duration, and the number of its sources. Regarding the present discounted value, compounding or discounting rates freely allow determining the future or present value of the capital. Definition of the cash flow duration and diversification of its sources to link price parameters of capital and assess their balance necessitate setting optimization problem of price parameters of the banking capitals involved in M&As. To solve the formulated problem, we consider three optimization options of price parameters of banking capitals involved in M&As, namely spatial, temporal, and spatiotemporal optimization (Table 3).

Table 3. Optimization of price parameters of banking capitals involved in M&As.

Terms and technology	Spatial optimization	Temporal optimization	Spatiotemporal optimization
Initial conditions	variously directed cash sources with the same duration are available	unidirectional cash sources with various durations are available	variously directed cash sources with various durations are available
Technology	a) selecting maximum diversification as a criterion; b) separating sources depending on reduction of diversification; c) selecting sources of significant diversification with equal duration	a) selecting maximum duration as a criterion; b) separating sources depending on reduction of cash flow duration; c) selecting unidirectional sources with maximum duration	a) selecting maximum diversification and duration of cash flow as a criterion; b) ensuring simultaneous use of various sources; c) providing an integrated approach to the maximum cash flow duration; d) calculating many options using the successive iterations method

Source: Compiled by the authors.

Spatial optimization of price parameters of the banking capitals involved in M&As. The optimization is performed under the following conditions: variously directed cash sources with the same duration are available. It is necessary to reduce financial losses from non-diversified sources of banking capitals involved in transactions on M&A market.

Spatial optimization technology of banking capital sources:

1. Choosing criterion which is used to define price parameters of banking capital in the context of minimization of losses from non-diversified sources of cash flows with equal duration.
2. Cash sources with equal duration are ranked according to the degree of decline in diversification. To ensure minimization of losses, priority is given to sources of constant cash flow with high diversification.
3. Selecting the source, which meets the required criteria most efficiently; priority is given to highly diversified sources with cash flows of the same duration.

Temporal optimization of price parameters of banking capitals involved in M&As. The optimization is performed under the following conditions: unidirectional cash sources with various durations are available. It is necessary to reduce financial losses resulting from discrete banking cash flow sources involved in transactions for M&As.

Temporal optimization technology of resources involves the following:

1. Choosing criterion which is used to define price parameters of banking capitals in the context of minimization of losses caused by granularity of cash flow of unidirectional sources.
2. Distributing sources by the degree of increasing granularity of the unidirectional cash flows. Priority is given to unidirectional sources with minimal discrete cash flow.
3. Choosing the source, which most efficiently meets the required criteria; constant unidirectional cash flow.

Spatiotemporal optimization of price parameters of banking capitals involved in M&As. The optimization is performed under the following conditions: variously directed capital sources with various durations are available. It is necessary to reduce financial losses caused by the granularity and non-diversified sources of banking capital involved in transactions on M&A market.

Spatiotemporal optimization technology of resources involves the following:

1. The horizon of using price parameters of banking capitals is up to 5 years and more.

2. Banks can simultaneously establish price parameters by duration and diversification.
3. Consideration of macroeconomic factors (abrupt change in the level of taxation, inflation changes, significant dynamics of the financial market and the banking services market, etc.) and internal factors (change in the profitability of operating activities, assets, investment, capital).
4. The integrated approach to formation of price parameters of banking capitals according to the criteria responsible for minimizing financial losses from non-diversification and granularity, as well as cash flow sources.
5. Multiple calculations of price parameters optimization of banking capitals for both short-term period and long-term perspective.
6. Using the successive iterations method to solve the problem of choosing the optimal price parameters of banking capitals involved in M&As.

In the short term of spatiotemporal optimization of price parameters of the capital it is advisable to put emphasis on a temporal optimization. Otherwise, financial losses in the long term may grow significantly because of the increased probability of financial risks from non-diversified sources of different duration. The technology provides for the separation of sources depending on reducing the maximum diversification and increasing granularity of cash flow.

In the long-term strategic perspective of the spatiotemporal optimization of price parameters of capital it is advisable to focus on spatial optimization, because strategic goals of banks development allow for the expansion of forms and types of sources providing financial resources, and their preservation at a non-decreasing level.

3. Materials and Methods

During research, we revealed a number of opinions and controversial issues, the discussion of which will be undoubtedly useful to understanding and perception of theoretical provisions, and obtaining practical recommendations in the course of mastering educational programs on "Banking" major, as well as useful for banking regulator practitioners, Russian credit organizations, and financial institutions, involved in M&As in the financial market.

Discussion of key issues relating to the assessment of the factors influencing banking capital, primarily, the diversification of capital sources and granularity of cash flow in the M&A market, were held at the conferences and round tables at universities, credit institutions and non-banking financial companies. This helped identifying unresolved problems, discussing issues under interest, developing a common platform of categorical apparatus, and obtaining a competent opinion on topics of interest.

Processing of expert opinions has been conducted on a science based questionnaire. The use of university laboratories, library fund, and modern computer technologies contributed to the production of accurate and reliable research outcomes in the assessment of factors influencing banking capital in M&As.

4. Results

The analysis findings allow tracing the influence of factors on the formation and functioning of banking capital, determining price parameters of the credit organizations' capital, describing its quantitative and qualitative criteria, as well as optimizing in the space banking capital sources involved in M&As in the financial market through diversification, and optimizing in time by considering the granularity of cash flow involving by the bank to replenish its capital. Conducted studies and calculations have allowed drawing the following conclusions.

- The Russian banking market of M&As is insignificant in terms of both the volume and the number of transactions, including those, involving the participants from foreign companies. The number of foreign investors is not enough, however, the latest successful transactions cause their interest, and in this regard, there are prospects for further development of the financial sector of the Russian M&A market.
- Further consolidation of financial services market segments continue developing on the background of bank resolution policy conducting by banking regulator. First, credit institutions are amalgamating through merging with insurance companies and other non-banking financial sectors to identify new sources of revenue, reduce costs and, most importantly, consolidate capital.
- For diversified assessment of the capital value of banks involved in M&As in the financial market, we have identified factors characterizing the price parameters of capital for credit institutions. These factors include inflation, time value of capital, tax rate, capital structure, interest rates of banking resources attraction and allocation. We have also identified new factors affecting banking capital, such as the diversification level of capital sources and the granularity of cash flow. Without considering the impact of newly identified factors, banks can incur quite essential financial losses.
- To reduce financial losses associated with low diversification of capital sources and a high granularly of cash flow, the authors proposed a technology to optimize these price parameters of banking capitals individually and simultaneously, namely spatial optimization to increase the diversification of capital sources, temporal optimization to reduce the granularity of cash flow of credit institutions, and spatiotemporal optimization for simultaneous optimization of capital sources diversification and reduction of granularity of cash flow of banking capitals, involved in M&As.

5. Discussion

1. During using the actual values of price parameters except for the diversification and the granularity of the banking capitals involved in M&A markets, it is necessary to account that the level of inflation should be taken from official sources, such as for example, website of the Central Bank of the Russian Federation. However, it should be remembered that the data available from banking regulator reflect inflation, defined as the consumer prices growth rates comparing with those corresponding to the same month of the previous year. When it is necessary to take account of inflation for several years, it is advisable to make a calculation considering the core inflation indicators. The level of taxation reflects country, in which owners of capital are affiliated, because interest rates for dividend taxation for residents and non-residents are different. Interest rates of attraction and allocation of banking resources are used at the time of computation of capital cost of a bank, however, to enhance the objectivity of the data, it is advisable using in the calculation weighted average rates for several years, provided a relatively stable macroeconomic situation. Despite these reservations, involving several actual capital cost values of the banks involved in M&A market transactions, accounting for the influence of these factors will increase the accuracy of the estimation of such influence.

2. Regarding accounting price parameters of banking capital, such as the diversification of sources and granularity of cash flow, we should note that in fact banks usually have neither single source of capital nor the equal duration of cash flow. Therefore, typically the spatiotemporal optimization is used while increasing diversification of capital sources and reducing the granularity of cash flow. Such a practical approach somewhat reduces the opportunities for optimizing price parameters and increases the complexity of the multi-optional calculations based on the successive iterations method, however enhances the effectiveness of the research results on the cost of banking capitals involved in M&As.

3. Price parameters characterizing the formation of capital cost of a bank are reflected in the balance sheet. However, these figures can have a considerable scatter of the actual values due to the impact of risks, which may occur in the M&A market. This circumstance must be considered, because the values of the parameters depend on the effectiveness of the risk management policy conducted by a credit institution, as well as resolution policy of banking sector pursued by banking regulator over the past few years. While setting interest rates for attraction and allocation of banking recourses, it would be appropriate also to consider banking competition on the M&A market. However, now in Russia, in our view, competition has little effect because the number of banks in the Russian market has declined significantly, primarily relating to the purging of the banking sector by the Central Bank.

4. The results obtained by the authors do not contradict the basic provisions of the theory of capital structure and cost with allowances made for the functioning specifics of credit institutions. Optimization of capital price parameters, such as the diversification of sources and granularity of cash flow of banks involved in

transactions for M&As, has helped identifying the main directions for further research, namely:

- to extend the range of price parameters of banking capitals involved in the transactions in the M&A market to assess the impact for each price parameter individually, while paying special attention to the negative impact reducing the cost of credit institutions capital;
- to develop the technology for estimation of the price parameters characterizing the cost of banking capitals involved in M&As in the financial market. To consider in the spatiotemporal optimization the weighted average estimations of different sources with different duration of the cash flow of banking capital;
- to develop the border values of the price parameters characterizing the cost of banking capitals involved in M&As in the financial market, the breaking of which may lead to incorrect definition of banking capital cost;
- to formulate and establish a system of criteria for the classification of price parameters of banking capitals involved in M&As in the financial market;
- to develop financial technologies for improvement of the spatial structure of capital sources and increasing the duration of the cash flow of banks involved in M&As in the financial market;
- to design development strategy of banks involved in M&As in the financial market considering the optimization of the price parameters of their capital.

6. Conclusion

The conducted study yielded the following results and allowed formulating several conclusions and proposals.

1. We revealed reasonable necessity to expand the range of price parameters of banking capitals involved in the transactions in the M&A market to assess the impact of each price parameter individually.
2. We gave the estimation of the Russian banking market of M&As from the viewpoint of number of transactions and their volume compared to other sectors of the global market of M&As, including foreign sectors and prospects to attract them to the Russian market.
3. We carried out analysis of the trends of banks consolidation with other market participants on the background of banking sector resolution policy conducting by the Central Bank of Russia. The analysis has shown that for obtaining new revenues, reducing costs, consolidating banking capitals, and retaining positions of presence on the Russian financial market, banks should unite, including with non-banking credit organizations.
4. Based on the suggested price parameters of the banking capitals involved in M&As, we suggested the technology allowing optimization of the price parameters, such as diversification of capital sources and the granularity of cash flow. The analysis has shown that the spatiotemporal optimization is the most effective and practical option, which allows both increasing the diversification of banking capital sources and reducing the granularity of cash flow.

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