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## THE ANALYSIS OF THE FINANCIAL CONDITION OF THE MOSCOW EXCHANGE AND THE ACCOMPANYING FINANCIAL RISKS

DOI:10.21008/j.0239-9415.2018.076.07

In article questions of the analysis of the financial risks connected with activity of financial institutions and first of all exchange structure are considered. The problem of increase of financial stability of the exchange is analyzed, potential and real risks are considered. On the basis of the analysis which is carried out in work the most important risks are revealed. Various classifications of risks are presented and sub classifications of each of groups are established. During the analysis the role of inflation and inflationary risks, and also their influences on financial stability of financial institutions and the exchange is studied. Also deflationary risks, currency risks and risks of an investment of the capitals are considered. Manifestation of risks at portfolio and real investments are analyzed. The separate group of risks connected with the organization of activity of the company is allocated reverse, settlement and commercial risks. Are considered. The technique of risks of Global Association of Risk Professionals is considered. In work the main coefficients defining financial stability of the company are calculated. In some cases the behavior of various risks as a result of application of a technique of IFRS is analyzed. The financial condition of the Moscow Exchange for the last five years with identification of key parameters of development is in detail analyzed. As conclusions on work the most essential risks in activity of the exchange are specified.

**Keywords:** financial risks, exchange structure, financial institutions, financial stability, financial market

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## 1. INTRODUCTION

Any economic entity conducts the activity in economic space. This space, being complex and multilevel structure, includes as a set of material categories – other economic entities, technical, capital, financial, etc. infrastructure, system of the right, etc. – and in a varying degree abstract – the level of interaction between participants of the economic relations, economic trust, business ethics, business reputation and many other things. Complexity of this environment of the participant of the economic relations generates both space for opportunities, and potential risks. These risks, being often an indirect criterion of the imputed profitability of this or that activity, reconstruct all system of the economic relations, their specifics, structure and an image of activity of economic subjects over time, and also serve as the driver of development of the new directions of business. And development of system of elimination or decrease in any risks, – whether it be financial or any other – is the most important and intensively developing from such directions.

Especially important these measures become in the context of the company considered in this work – the Moscow exchange. Being the largest versatile exchange platform in Russia, she is obliged to apply front lines and the royal standards of corporate management at all levels and in particular – on operational, and behind it – and on financial. Stability of functioning of a powerful share of the Russian financial market depends on quality of recognition, administration (management) and supervision of risks of the current activity of this company. And the exchange, acting nearly as the main organization in all Russian financial market, it is obliged to impose to itself requirements 10 times more that it shows to the companies issuers of securities which pass listing on its platforms. The mistake price for the organization involved in process of the organization of trade in the share, currency, urgent and monetary markets is too high, especially in the conditions of volatility of domestic economy, developed in recent years.

## 2. METHODS

Authors (Acharya, V. V., O. Merrouche. 2013.) say that risk – probability of receiving result, excellent from in advance planned; it is uncertainty of this or that indicator, probability of approach of an adverse event, a danger assessment under the authority of this or that activity.

Experts (Ashcraft, A., J. McAndrews, and D. Skeie. 2011) are understanding financial risk as probability of emergence of the event attracting partial or total loss of the capital, reduction or loss of the income, increase or emergence of losses. The financial risk results from the economic and economic relations connected with

monetary circulation, that is the financial relations and can mention as actually financial condition of the company, and, indirectly, its operating activities.

There are some classifications of financial risks by types. One of them (Baglioni, A., and A. Monticini. 2010) is stressing that financial risks are subdivided into three main types:

- 1) The risks connected with consumer ability of money.
- 2) The risks connected with capital investments (investment risks).
- 3) The risks connected with a form of the organization of economic activity.

In turn, each of three types includes the subspecies of risks. Refer also inflationary and deflationary risks, currency risks, risks of liquidity to the risks connected with consumer ability of money. Let's consider each of them.

The market economy means continuous interaction of all participants of the market with each other, their fight, and also their continuous adaptation under changes of a business environment. The change in price for finished goods or factors of production concerns to one of the most significant and notable changes. Reacting to reduction of demand or growth of the offer of any goods (service), the price of these goods (service), other things being equal, will fall; rise in price (reduction in cost) of raw materials for production of goods has to lead, besides, other things being equal, to growth (decrease) of the price of goods; expectations of the prices, volumes of a supply and demand, the price of goods substitutes and complementary goods and many other things are all this influences the current price of the mentioned goods. All these factors are in a varying degree not certain in the future, so, bear in themselves risks. And in this considered case such risks are called inflationary or deflationary if it is about growth or reduction of prices of goods, raw materials and so forth, respectively. Also the probability of real depreciation (rise in price) of money also keeps within this risk.

More rapid growth of cost of the raw materials used in production in comparison with growth of selling price of goods can be an example of manifestation of inflationary risk. Here it is possible to refer risk of too rapid growth of the price of goods in comparison with the prices of similar goods of competitors that attracts need of reduction of price of these goods, so, decrease in the income.

The deflationary risk means reduction of price of holiday goods that attracts decrease in the income, and also decrease in incentives to reproduction.

The currency risk by opinion of some authors (Beaupain, R., and A. Durre. 2013) is meant as probability of an adverse change of course of currency that can increase expenses on acquisition of factors of production or goods, or to lower the income from product sales. Especially the organizations conducting export-import transactions, including the trade, and also financial organizations (in particular, banks) having on balance, as a rule, large volumes of currency and currency financial instruments are subject to this risk.

The other authors (Govtan, O. J, 2011) consider the risk of liquidity in the context of this classification represents possibility of losses at implementation of secu-

rities or other assets (goods), owing to the small depth of the market or change of qualitative characteristics of an asset (goods).

The group of the risks connected with capital investments (investment risks) includes such subspecies of risks as risk of real investment, risk of financial investment (portfolio risk), risk of innovative investment. All these categories bear in themselves the risks of decline in yield including percentage and credit risks.

The general concept of investment risk by the opinion of another experts (Rykhtikova, N.A., 2012) means probability of emergence of losses (losses) as a result of implementation of the investment project. Considering that investments happen portfolio or real (straight lines), the first are formed two of listed risk subspecies from here: risk of real investment and risk of financial (portfolio) investment. The first includes the risks connected with implementation of real investment projects, that is including investments in fixed capital, construction, etc. The second is connected with investment into portfolio (financial) assets – securities, including derivative financial instruments, etc. At last, the risk of innovative investment is connected with investment into so-called research and developmental development.

Speaking directly about potential effects from investment in the listed directions, risks percentage and credit are allocated.

By some opinion (Lelchuk A. L 2014) the percentage risk designates possibility of losses of market value on financial instruments as a result of change of interest rates, or risk of non receipt (short-reception) of the income on differential of rates on attraction and placement (an investment, crediting) of means (in case of the credit organizations). This risk can also accompany placement of securities (in particular bonds with the fixed coupon rate) the issuer: the placed debt obligations will be served by it at higher rate, than in some future time point. The extent of this missed benefit from differential of rates on securities and a market rate will also be manifestation of this risk.

The credit risk is connected with possibility of failure to pay part or all sum, and also non-delivery of this or that asset with the debtor to the creditor. This risk is actual as for the organizations of real sector, representing possibility of nondelivery of goods or its non-payment, and for the financial organizations. It gets a special role by consideration of activity of the Central Contractor.

The third group of risks – the risks connected with the organization of economic activity – unites risk of the commercial credit, reverse, operational and settlement risks.

Some authors (Kaznacheeva E.V., 2014) are considering the risk of the commercial credit in many respects falls under category of the credit risk described above is a probability of non-delivery (short-delivery) of goods (service) in case of an advance payment or probability of non receipt of payment at a delay (payment by installments) of the goods delivered to the contractor.

Reverse risks are understood as probability of deficiency of financial resources during operating activities of the company. For example, in case of the uniform

speed of product sales payment for it arrives unevenly that conducts to cash gaps and deficiency of liquidity at the enterprise.

The operational risk is interpreted by some authors (Madeira A.G., 2014) as possibility of interruption or a stop of operating activities (business activity). According to Basel II, the operational risk is a risk of a loss as a result of inadequate or wrong internal processes, actions of employees or systems, or external events. This definition includes legal risk, but excludes strategic and reputation risks.

Settlement risk – the risk connected with non-execution or a delay of execution of payments in system of execution of transactions.

At the same time, considering specifics of the company considered within this work, it would be more pertinent to consider the classification of risks offered by the International association of specialists in risk management (to GARP – Global Association of Risk Professionals) in the Standard principles of risk management (GARP – Generally Accepted Risk Principles). Main types of risks include:

- Market risk,
- Credit risk,
- Risk of liquidity,
- Operational risk,
- Risk of an event.

On this classification, the market risk represents possibility of negative change of cost of assets as a result of fluctuation in prices of assets, interest rates, exchange rates, the prices of actions, bonds and goods. It also includes percentage risk, currency risk.

Credit risk – risk of inability of the contractor to fulfill the obligations. It means risk of a default, risk of change of a rating (trust), risk of early repayment.

Risk of liquidity – possibility of the losses caused by impossibility to buy or sell an asset in the necessary quantity for rather short period of time owing to deterioration of market conditions. It includes risk of spread when the difference of the buying prices and sale of an asset can lead to decrease in profit or emergence of a loss; risk of cash gaps when the company lacks for liquidity (cash or their highly liquid equivalents) for ensuring the current activity (implementation of obligations to contractors) owing to unevenness of a receipt/expenditure of means in the period of time.

Operational risk – possibility of unforeseen losses owing to technical mistakes when carrying out operations, deliberate and unintentional actions of the personnel, emergencies, failures of the equipment, etc.

Risk of an event (business risk) – possibility of unforeseen losses owing to force majeure circumstances, changes of the legislation, actions of government bodies, etc. Here the mentioned earlier tax, legal, transfer risks, risk of loss of reputation, natural disasters and some other enter.

These are main types of risks, according to classification of the International association of specialists in risk management. Further in this work risks, factors of their emergence, and also the ways of their elimination considered in the context of the Moscow Exchange company will include risks from this classification, and also

the risks specified by the company in the financial statements kept according to International Financial Reporting Standards.

### **3. FINANCIAL RESULTS OF MOSCOW EXCHANGE AND COEFFICIENT ANALYSES**

By consideration of financial results of the Company it was revealed that two main sources of profit of the Company – interest and Commission income – grew with CAGR at the level of 22,9 and 12,1% respectively during 2011-2016. The commission income increased steadily throughout all considered period. Interest and other financial income also grew during 2011-2015, but for the first time decreased in 2016 that is connected with considerable decrease in the client remains on accounts of the exchange, and also with decrease in rates in economies of the Russian Federation and the CIS.

The net profit of the company grew with CAGR at the level of 24,7% for the considered period, nevertheless, it not the most informative indicator for this work. It makes sense to pay attention to the operating income growing with CAGR of 17%, and also operating profit and profit to the taxation – from 22,5% and 24,1% respectively. It follows from this that management of the company has the high level of examination in the sphere that was expressed at the advancing rates of a gain of net profit in comparison with the operating income, operating profit and profit to the taxation. It speaks first of all about ability to increase the income the advancing rates in comparison with expenses.

So, two main items of expenditure – expenses on the personnel and administrative expenses, grew moderate rates – on 8,7 and 7,5% respectively that is much lower than growth rates of the largest sources of the income. Thus, it is possible to note that the exchange shows effective control over expenses during the considered period.

It also confirms the analysis of coefficient "Expenses/income". Its average value – 0,38. During all considered period it did not rise higher than 0,51. As for its dynamics, it decreased with 0,5 in 2011 to 0,28 in 2016 that again confirms efficiency of the policy on cost management pursued by management of the company.

For the analysis of balance of the Moscow exchange the author of work used the analysis of coefficients. Considering specifics of activity and balance of the Company, many of the coefficients which are traditionally used for an assessment of financial stability could not be used. By part from them data on the Russian Accounting Standards (RAS) which are in many respects not representative in this case, and on part were required - there were no necessary articles of balance in the report of IFRS.

Carrying out the coefficient analysis of the company, it is necessary to begin with an assessment of profitability of its activity as one of the main criteria of efficiency of the company. Despite universality of approach to an assessment of coefficients, in this concrete case it is necessary to make some reservations concerning values of coefficients. The corrected profitability of assets (ROA – Return on Assets) at the Moscow exchange was very low for the considered period – on average 2,4%. The maximum value equaled 3,6%, minimum – 1,2%. Despite the seeming inefficiency, even considering a correcting on assets of the Central Contractor, value is acceptable, considering large volumes of means of bidders brought into accounts of the exchange, and also level of safety of investments of these assets.

Profitability of the capital averaged 19,6% for the considered period, maximum – 24,5% in 2015, minimum – 14,2% – in 2013. These values are rather moderate that is connected with large rather large volumes of retained earnings – the exchange tries to reinvest the earned profit for increase in the stability, bigger reliability of performance of obligations before contractors, and also increases of level of trust of clients. In a root, rather low ROE value too results from impressive volumes of means of bidders and that is more important, obligations of the Central Contractor.

The most evident is the profitability indicator on operating profit. In a case with the Moscow exchange this indicator was also corrected on specifics of activity of the company – instead of the classical approach showing private operating profit and revenue, the revenue was replaced with the operating income here. With this type of profitability the Company shows the high level of efficiency: average value shows 64% – high level for the Russian financial and non-financial sector. The maximum value made 75,5% in 2015, minimum – 54,6% in 2011. The company shows the steady growth of an indicator from 2011 to 2015 – in 2016 efficiency decreased a little.

The profitability calculated by division of interest and other financial income into financial investments (including money and their equivalents), shows efficiency of placement of assets in financial instruments and deposits/loans to other organizations. It averaged 2,6% during 2011-2016 that approximately at the level of a risk-free rate in US dollars. Level of safety of these investments, and also that fact that they are financed from the sources which are not belonging to the company (mainly, means of bidders), similar operations have special appeal to the exchange.

If to correct this formula on the size of money and their equivalents, average profitability for the period will make 9,8% that at the level of average profitability of medium-term federal loan bonds for the considered period. The profitability rate kept above profitability of federal loan bond here in 2012-2014, but below – in 2015-2016 if to consider effect of a course gain along with coupon profitability.

Despite smaller relevancy of fixed assets in activity of the Moscow exchange, except for directly servers providing continuous reception, processing, storage and data transmission, the author of work considered such indicators of efficiency of use of fixed assets as a capital intensity, capital productivity, profitability of fixed

assets. At calculation of the first two indicators instead of revenue the indicator the operating income was used.

The capital intensity during 2011-2016 averaged 0,235 that is rather high for the company operating mainly with not physical, financial assets. Maximum this indicator was recorded in 2011 – 0,338%. Since then the indicator gradually decreases, up to a minimum in 2015 – 0,148.

Capital productivity shows quite high efficiency for the Russian business in general – on average 4,62 during 2011-2016. Nevertheless, for the company of a profile of the Moscow exchange it is rather low indicator. The minimum value made 2,962 in 2011, maximum – 6,767 in 2015.

Profitability of fixed assets, even despite specifics of business of the Moscow exchange, is high – 238,7% on average for 2011-2016. The maximum value, as well as earlier, is reached in 2015 – 409,8%. Minimum – 117% in 2011.

One more important analysis stage of efficiency and stability of the company is the analysis of indicators of turnover.

Coefficients of turnover of assets (it is fast.) and the current assets at the company are at the low levels, again owing to large volume of client means. Average value on indicators makes 0,05 and 0,056 respectively.

Turnover of own capital for the period averaged 0,408 that is the acceptable indicator. Nevertheless, its value in general decreases since 2011 – owing to the advancing growth of own capital in comparison with the operating income.

The coefficient of turnover of the loan capital calculated according to the reporting of the company does not bear high semantic loading as debt loading was almost zero in scales of the company in 2012-2013 (coefficient of turnover 1067 and 483 respectively), and rather low – in 2011 (6,6) After 2013 debt loading at the company is absent.

The company shows the high level of a covering of accounts payable the operating income – on average 7,486. In 2016 this coefficient considerably grew – to 14,757 with 7,492 in 2015 owing to almost double decrease in accounts payable and almost not changed operating income.

#### 4. DISCUSSION

The coefficient of turnover of financial investments which is for the Company one of key on average showed value 0,203 that is not really high for 2011-2016, considering that fact that on financial investments not interest income, but operational share. Nevertheless, similar can say that the company chooses the safest (and, therefore, the least profitable) objects of investments.

Coefficients of financial dependence and autonomy of the exchange are a little distorted by specifics of its balance. It is possible to note nominally low coefficient of an autonomy corrected on the size of assets of the Central Committee which



averaged 0,13 at normal value more than 0,5. It speaks big, in comparison with own capital, amount of money of bidders. The coefficient of financial dependence was on average at the level of 0,87 that rather highly and could threaten financial stability of the company, if not its strategy of placement and earnings – attraction of financial resources of bidders and their placement in highly liquid safe assets.

Summarizing the analysis of coefficients of the company, it should be noted specificity of its strategy. Despite negatively high/low values of a number of coefficients, to activity and stability of the company at the time of writing of this work anything significantly does not threaten. Nevertheless, in case of bankruptcy or deterioration of a credit rating of issuers of securities in which the exchange invests, or problems in large banks where the exchange places money, the exchange risks to receive the substantial damages menacing to its financial stability. This problem will be considered in more detail further in this work.

Carrying out the analysis of financial stability of the company, it is necessary to approach a problem in a complex, both detailed consideration and the analysis of articles of the reporting of IFRS – one of ways of achievement of a goal.

The special attention should be paid to two main types of the income of the exchange – commission and percentage. Let's consider the first of them.

Commission income of the exchange represents payments for rendering Services in the organization of the auction on sectors of the market (monetary, currency, share, urgent), for settlement and depository services, and also royalties for provided ON, providing information and other services.

In 2011 in structure of the commission income of the exchange the income from the organization of the auction in stock market – 42% (4,2 billion rubles) prevailed. On the second and third places there was income from depository and settlement services (18%, 1,8 billion rubles) and the organizations of the auction in the currency market (16%, 1,6 billion rubles). Only gaining steam, monetary market made 10% (1 billion rubles) of the total volume of commission charges, the forward market, also owing to the low-development for the Russian market, occupied 8% (0,8 billion rubles). The income from realization ON, technical and information services made in the sum about 5% (0,5 billion rubles).

By 2016 the structure considerably changed. Increase of diversification of sources of the commission income takes place: at one segment of services the share in structure does not exceed 25%. The monetary market according to the generated income came out on top (4,8 billion rubles), having shown a gain in 402% for 2011-2016. The income from this direction constantly grows, as well as trading volumes.

The currency market, having received a positive impulse from the admission of natural persons to the auction of currency at the exchange in 2013, now occupies 22% (4,3 billion rubles), having increased by 176% in 2011-2016.

Services of depository and settlement operations generate 18% (3,6 billion rubles) of the commissions of the exchange, having increased by 101% for the considered period – as at the expense of increase in assets stored in National the calcu-

lation depositaries entering into Moscow Exchange Group and due to positive experience of introduction of new technologies and instruments, for example, of a number of operations with the Central Contractor. (Central Committee).

The stock market which was earlier occupying a considerable share from the total amount of the income makes only 18% (3,5 billion rubles) now, being on the fourth place. It is only of the largest segments of the market, shown negative dynamics of the commission income. It is connected first of all with considerable decrease in a trading volume in stock market that was caused as natural outflow of liquidity from the financial markets of developing countries during the post-crisis period, and with negative tendencies in the Russian economy, policy. Confrontation with the countries of the West considerably weakened this segment of the market.

The forward market occupying 10% (2 billion rubles) of commission charges in 2016 against 8% in 2011, nevertheless, showed a high gain for the period – 155%. In many respects it is result of natural development and "growing" of the domestic market.

7% (1,4 billion rubles) of the commission income are the share of the income from realization of information services and the software and technical services now. Commission charges from information services showed a gain in 170% (with 279 to 752 million rubles), from realization ON and technical services – 200% (with 212 to 636 million rubles). In general, growth both in relative, and in absolute expression of these two directions of business is very positive for the company, allowing not only to diversify sources of the income, but also to show ability of the company to creation of hi-tech competitive and demanded production with a high value added. It is conditionally possible to divide sources of interest income into two main sources: securities and other financial instruments; means on correspondent accounts and deposits in the financial organizations.

It is known that the income from an investment in securities and other financial instruments increased the share in the total amount of interest income from 59% in 2011 to 68% in 2016. Respectively, the share of interest income of investment of funds on correspondent accounts and in deposits decreased with 41 to 32%. In many respects it is result of much lower profitability of investment of funds the last way.

So, average profitability of investment of funds in deposits and on correspondent accounts made 1,5% per annum during 2011-2016 that corresponds to a risk-free rate on dollar deposits in banks of such developed countries as the USA, Germany, Great Britain. At the same time, average annual profitability on percent on investments into securities and other financial instruments made 6,7% for the period that is slightly lower than a rate of percentage profitability of federal loan bond, however the difference between rates on deposits and corresponding accounts and securities costs the companies of billions of rubles so faster gain of the income (and investments) in securities and financial instruments (298% for 2011-2016) in comparison with deposits and corresponding accounts (167%) is quite reasonable and answers the purposes of management of the company on maximizing profitability of investments of resources of the exchange.

With the purpose to understand stability of contractors of the exchange according to transactions of investment of funds in the form of money and their equivalents, it should be taken into account structure of this article of the report of IFRS.

Apparently from the provided table, the exchange places means mainly in large financial institutions worldwide. In the report of the company it is said that it places funds of the guarantee providing (GP) and the Fund of a Covering of Risks (FCR) for current accounts in banks of OECD, the Russian Federation and the Central Bank of the Russian Federation. To two score not below VVV on classification of the international rating agency Fitch has to be assigned to the first. Apparently from the provided table, the exchange prefers to store the greatest share of money on accounts in banks of OECD. Most likely that these banks represent optimum option of a combination of the greatest profitability to the smallest possible risk. Considering similar structure of contractors of investment of funds, there is clear a low profitability of investment of capital on corresponding accounts and deposits calculated earlier.

## 5. CONCLUSIONS

Summarizing the risks considered above, potentially such risks as are the most dangerous:

- Percentage,
- Credit,
- Geographical concentration,
- Regulatory.

In percentage risk sharp increase of rates in economy, capable to reduce the size of the capital of the exchange can be the most sensitive. Even growth of a rate by 150 bps causes a loss of 4,1 billion rubles (as of December 31, 2016). More significant growth in a rate, like observed in 2014-2015, can increase potential losses to tens of billions of rubles. At the same time, most likely, similar economic shock will lead to significant growth in a trading volume at the exchange that will favorably be reflected in its commission income. Both these effects the short-term. In middle term cases, other things being equal, will be observed growth of interest income – as owing to increase of interest rates under which the exchange places means, and owing to probable inflow of means of domestic bidders, including natural persons. The foreign capital can start removing funds from the Russian stock market, nevertheless, it will be compensated both due to the mentioned replacement with domestic participants, and due to new inflow of foreign liquidity – owing to much the fallen prices of financial assets - as natural reaction to increase of market rates.

The credit risk is presented mainly by two risk factors – risk of placement of considerable resources in several organizations and risk of the Central Contractor.

87% of money (331 billion rubles) and their equivalents are placed on accounts of 6 contractors, and the rest on means on accounts of each of these contractors exceeds 10% of the capital of the exchange. However, in view of average profitability of placement of these means, almost equal rate without risk in dollars, it is possible to draw a conclusion on the high actual and meant by the local market credit reliability of these contractors, even despite the worsened rating credit quality of the assets placed in them.

The risk of the Central Contractor follows, mainly, from risk of considerable deterioration of a condition of the parties of transactions with participation of the Central Committee. The covering of the cost of the placed assets accepted in providing at the level of 111% with their market (settlement) value makes the considerable buffer in case of approach of a risk event, however is insufficient in case of shock, sharp deterioration of a condition of one of the parties of the transaction, for example, in case falling of cost of the securities accepted in providing the Central Committee coincided on time with considerable decrease in solvency and liquidity of the participant of the transaction. As one of negative options of succession of events, the Central Committee can demand recapitalization of providing according to obligations of the transaction, but be refused owing to absence/ insufficiency of liquidity at the problem party of the transaction, and implementation of the securities of this party which are earlier accepted in providing will yield a loss owing to a negative difference between the current market (settlement) value of the assets accepted in providing and its value on which it was accepted. As appears from the reporting of the company, any of assets or obligations of the Central Committee was not delayed during 2011-2016.

The risk of geographical concentration is expressed mainly in high susceptibility to credit risk of contractors on placement of money from the countries of OECD. As it was already mentioned above, the average rate of profitability on the placed means, proceeding from market rules, reflects the high level of reliability of these contractors, at least in local level.

One more significant risk for the Moscow exchange is the regulatory risk, and mainly probability of reduction of tariffs, fining for the overestimated tariffs, and also restriction in investment into the Russian national debt from nonresidents. All three risks are represented rather probable and realized. The first two risks bear the moderate level of threat for financial performance of the exchange. Restriction in investment into the Russian national debt - the factor, sharply negative for finance of the company, capable considerably to worsen a condition of the Russian debt market, growth of economy, solvency of the state, to cost hundreds of billions of rubles of Russia and billions – the exchange on the horizon of several years after introduction of such restriction.

The conducted research confirmed financial stability and efficiency of the company the Moscow exchange. Such risks as appeared the main risks revealed during research:

- Credit,

- Percentage,
- Regulatory,
- Decrease in the income.

The credit risk is expressed mainly by high concentration (87%) of money on accounts at 6 contractors where the remains on operations with each of contractors exceed 10% of the capital of the company. Sharp deterioration of a financial condition of these contractors can lead to depreciation of assets or, as a last resort, their full loss. Indirect confirmation of the financial state meeting requirements risk management is average profitability on the placed means at the level of risk-free (in US dollar).

Also sharp and simultaneous deterioration of a financial condition of the parties in the transactions with the Central Committee depositing securities as a deposit for involvement of funds (repo operation) and issuers of the deposited securities that can lead to sharp depreciation of the specified securities and insolvency of the participant of the transaction, them depositing can be a factor of credit risk. However the historical data published by the company specify that during 2011-2016 any of assets or obligations of the Central Committee was not delayed. Also the company carries out regular monitoring of providing, limitation and a margined positions at implementation of similar transactions.

The percentage risk poses moderate threat for a financial condition of the Moscow exchange only at considerable (about 1000 bps) change of interest rates, in particular, in case of their increase. It conducts to losses because of discounting of market prices of the securities which are in a portfolio of the exchange. At the same time, sharp raising of interest rates, proceeding from historical data, will lead to inflow of liquidity from domestic investors, and also, perhaps, foreign – owing to substantial increase of profitability of a number of financial instruments. It will increase volumes of the client remains on accounts of the exchange, its commission charges and interest income. The increase of volatility assumed in that case – as from the point of view of additional inflow of the speculative capital (interest income) will be also favorable, and from the commission income of the exchange. Deterioration of a condition of a bond market has to be in that case compensated by revival in the monetary market owing to broad need for short-term funding – first of all, from the credit organizations.

The regulatory risk represents probability of reduction of tariffs and introduction of penalties in medium-term prospect if the Federal Antimonopoly Service proves that the exchange used a dominant position in the market and carried out unreasonable increase of tariffs for a number of the services.

#### **Gratitude (Acknowledgements)**

Article is written on subject NIR "Management of financial risks at the micro and macro level No. 061-111-0-000.

The work is performed according to research program "Financial risk Management on micro and macro level" number of subject 061-111-0-000.

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## ANALIZA KONDYCJI FINANSOWEJ MOSKIEWSKIEJ GIELDY PAPIERÓW WARTOŚCIOWYCH I TOWARZYSZĄCE RYZYKO FINANSOWE

### Streszczenie

W artykule przedstawiono analizę ryzyka finansowego związanego z działalnością instytucji finansowych Moskiewskiej Giełdy Papierów Wartościowych. Dokonano klasyfikacji ryzyk i ustalono podklasyfikację każdej z przyjętych grup. Podjęty problem badawczy uwzględnia również rolę inflacji i ryzyka inflacyjnego, a także ich wpływ na stabilność finansową instytucji finansowych i giełdę. Konkluzja pracy przedstawia najważniejsze ryzyka związane z działalnością giełdy.

**Słowa kluczowe:** ryzyko finansowe, struktura wymiany, instytucje finansowe, stabilność finansowa, rynek finansowy