DUE DILIGENCE: ESTIMATION OF REVENUES OF AUDIT COMPANIES FROM SERVICES RENDERED IN THE RUSSIAN FEDERATION

Antonova Nadezhda
Kuban State University, 149 Stavropolskaya Str., Krasnodar, 350040 Russia

Abstract
The article draws attention to the fact that auditing companies (AC) are introducing new services to support M&A transaction (like due diligence (DD)). In Russia, very few studies have been carried out on DD, and all of them focused mainly on methodology and classification of the service within the system of audit services. DD market analysis has been never conducted before by Russian due to the absence of official statistics on its contribution to the revenues of AC. In that regard, this paper provides for hypothetical method for effective estimation of DD revenues of AC. As main research methods, analysis and synthesis of statistical data concerning activities of AC in Russia and surveys of respected information agencies on the state of global market of M&A transactions have been used. Percentage share and contribution to revenues of AC from DD service in the Russian Federation in 2014-2016 has been determined. Correlation analysis of the data allowed to draw a conclusion that the revenues of AC from DD in Russia depends directly on commissions from M&A transactions in the whole world and in Russia, as well as on the income of AC in Russia from other services except audit.

Keywords: Audit, Due-diligence, Mergers and acquisitions.

JEL code: G320, M420, M490.

Introduction
Research of history and methodology of DD is of particular concern abroad (Bing, 1996; Duffy, 1995; Gole, 2009; Mullins et al., 2007; Davis, 2009; Rosman, 2007; Cumming & Zambelli, 2016). There are many scientific studies, professional publications, tutorials and guides for the implementation of this service written mostly by American scholars (Grilly & Sherman, 2010; Murray, 2017; Woods, 2002; Sherer, 2015; Simmonds, 2016; Sinkin, 2005; Sinkin & Putney, 2014). This is due to the fact that historically the initial steps for implementation of DD were taken in the United States, where the Securities Act of 1933 and the Securities Trading Act of 1934 were issued obliging the brokers to disclose information on the stock market participants. It was therefore necessary to establish an analytical procedure that would allow brokers to generate and provide appropriate reports. Among the American scholars dealing with the history and development of DD methodology, Alexandra Reed Lajoux should be particularly recognized. Together with Charles Elson, she wrote “The Art of M&A Due Diligence”. The further development of DD has been forced by transformation of the banking sector in Europe. There have been attempts to develop the first standards for DD in the 1970s, in Switzerland. This was the result of reduction of state control and necessity of bank regulation. The Swiss Bank’s Due Diligence Agreement was signed in 1977. Thus, a unified approach was established for collecting information about clients when opening and maintaining accounts. Later, the principles embedded by the Swiss Bankers Association were implemented by all participants of the investment process. In 1991, Directive 91/308/EEC on prevention of the use of the financial system for purpose of money laundering was adopted. In accordance with the requirements of the directive, all financial
institutions should examine with special attention every transaction, which because of its nature can be connected with the legalization of proceeds derived from criminal activity. Thus, banks had been obliged to study and analyze clients and their transactions. The first Directive contributed to the development of the concept of DD in the financial sphere of Europe.

Nowadays DD focus is shifting to the field of professional services. Professional support of M&A transactions has become widespread among large companies rendering services in the field of audit, consulting, taxation including the companies of so-called Big Four: EY, PwC, KPMG, Deloitte. At the same time DD is still less standardized than other forms of audit activity. The final DD reports are confidential.

AC do not issue official reports on revenues generated by rendering DD service for statistical authorities. Therefore, it’s complicated to give an objective assessment of DD market in Russia solely on the basis of statistical data relating to AC provided by the Ministry of Finance. This determines the following research questions. What is the amount of revenues of AC from the rendering of the DD service in Russia? Is it possible to estimate these revenues using statistical data of global value of M&A transactions and data of Russian market of audit and consulting services?

It should also be noted that in the international multidisciplinary bibliographical and reference databases there is a wealth of information on DD. For example, the Wiley online library contains about 12,300 articles1. At the same time, there are only about 200 works of Russian scientists and practitioners2 (Guzov & Savenkova, 2013; Guzov & Savenkova, 2015; Kuter & Antonova, 2016) presented in the national bibliographic database Russian Science Citation Index, which is almost 60 times less than the number of foreign publications. Therefore, it seems appropriate to conduct study of DD, as it allows to expand knowledge about the procedure being investigated, to reveal new patterns and trends in the market of audit services, to provide a better understanding of existing problems in the field of DD, to create conditions for implementation of new ideas for improving the theory and practice of auditing.

The purpose of this study is to conduct global and Russian M&A market analysis and analysis of auditing services market to determine the amount of revenues from rendering of the DD service and its share in total revenues of Russian AC in 2014 – 2016 by non-direct methods.

**Methodology of the study**

The study primarily analyzes the data on the conditions of the world and Russian mergers and acquisitions markets. The reference period is 2014-2016. This time frame was chosen to represent the most contemporary data available. As a database, annual reviews of information agencies Thomson Reuters and AK&M were used. The reviews took note of significant volumes of M&A transactions in both Russia and the world. The world mergers and acquisitions market reached $3,666.38 billion in 2016 despite the impact of crisis and continues to maintain a general positive trend. The trend line demonstrates a positive dynamics for the period 2014 - 2016 (Fig. 1).

Analysis of Russian M&A market for the same period revealed similarity of the tendency. At the same time, the market size of the Russian Federation in monetary terms by 2016 is determined at the level of 2805.85 billion rubles, that also confirms the significant volumes of M&A transactions (Fig. 2).

The potential of M&A transactions lies in the qualitative development of companies through synergies and the obtaining of new competitive advantages. It contributes for the

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1 According to the data of the official website http://onlinelibrary.wiley.com/.
2 According to the data of the official website https://elibrary.ru/.
improvement of the rates disclosed in the reports of companies and allows assessing their financial condition, cash flows and financial efficiency that increases investment attractiveness. Even though the current economic situation is characterized by positive dynamics, one should not forget about the threat of unpredictable changes.

Mergers and acquisitions are performed daily all around the world, their scale and complexity are unique and, at the same time, they are influenced by various factors that causes uncertainty in the future. These influencing factors can pose a risk, which entail both financial losses and loss of reputation. So, one should take into account that not all the transactions are successful. For example, "61% of all mergers and acquisitions do not pay off the investment made on them; 57% of merge companies lagged behind other similar representatives of the market in terms of development indicators and were forced to separate into independent companies" (Endovitsky, 2013). Only 30% of transactions supported by DD were successful (Cullinan et al., 2004) This often occurs because the experts, when planning and implementing professional procedures, may lose sight of factors that can indicate risks. Thus, risks can affect the success of

1 According to the data of the official website https://www.thomsonreuters.com
2 According to the data of the official website http://mergers.akm.ru/stats
capital transactions. That’s why investors are interested in obtaining high-quality professional support for such transactions. Assessment of revenues of AC from DD affirms the interest of the investors in this service.

For preliminary analysis of the Russian DD as an audit service, it is critical to answer simple questions: who is currently the main consumers of the service, when it’s necessary to use it, for what purposes is it provided?

As noted earlier, the key market players that drive the demand for this service are potential investors. An objective need for the service arises for the investors when it is required to obtain high quality professional support for capital transactions, such as mergers and acquisitions. The main purpose of DD is to assist the investor to reach an informed assessment of risks of the proposed capital transaction. Using DD report, which reveals all the information on risks accepted the investor will be able to make his own decision on further actions. After the analysis of Russian and world M&A market conditions, audit market structure in Russia has been considered. As a database, statistical compilation for the period 2014-2016, presented on the official website of the Ministry of Finance of the Russian Federation, were used\(^1\). It was noted that there are no special statistical reports and reviews with specific information on volume of DD service in value terms for specific periods of time. This makes it difficult, to some extent, to conduct market analysis. Therefore, an assessment of the DD market conditions in the Russian Federation based on analysis of available data has been carried out according to the algorithm depicted in Fig 3.

1. Determine the volume of M&A transaction support in the world market
2. Determine the volume of M&A transaction support in the Russian market
3. Determine the structure of the Russian market of audit services (the share of the audit-related and other services)
4. Compare volumes of transaction support in the Russian market with the volume of the market of audit services in Russia

Fig 3. Algorithm for assessing of the DD market conditions in the Russian Federation.

To reach the goal of the study the following indicators to be determined:
- "Annual total revenues from audit-related and other services in the total income of AC;"
- "Commission for transaction support in the field of M&A market in the Russian Federation excluding commissions to investing banks";
- "Commission for transaction support in the world M&A market";

The correlation between the listed above indicators and the indicator "Annual revenues from rendering DD service in the Russian Federation in the total income of audit and consulting companies" could be checked by calculating the correlation coefficients.

**Findings of the studies and discussion**

At the first stage, the volume of M&A transaction support in the world market provided and paid by customers in the form of commissions for professional support was determined. Detailed data on commissions for M&A transactions in the world market for the period 2014-2016, is presented in Table 1. The table shows that the value of commissions for M&A transaction

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\(^1\) According to the data of the official website https://www.minfin.ru/ru/performance/audit/audit_stat/
support in the world market increased by 3.30 billion dollars and amounted to 30.00 billion dollars. In relative terms, the commission for the period 2014-2016 did not exceed 1%.

At the second stage, the volume of M&A transaction support in Russian market was determined. As it is about Russian M&A market, the values of transactions have been converted from USD into ruble with regard to the annual average exchange rate (USD/RUB)\(^1\).

| №  | Indicator                                                                 | Year       |
|----|---------------------------------------------------------------------------|------------|
| 1  | Volume of the world M&A market, USD Billion.                              | 3485,27    |
| 2  | Commission for M&A transactions, USD Billion.                            | 26,70      |
| 3  | Share of commission in the total volume of transactions executed in the world, % (line2 ÷ line1) | 0,766      |
| 4  | Volume of the Russian M&A market, USD Billion.                           | 46,85      |
| 5  | Annual average exchange rate, RUB                                         | 33,61      |
| 6  | Volume of the Russian M&A market, RUB Billion (line4 ÷ col.5)            | 1808,88    |
| 7  | Commission for M&A transaction support in the Russian market, USD Billion. | 13,86      |
| 8  | Commission of investment banks for M&A consulting in Russia, USD Billion. | 0,1597     |
| 9  | Commission of investment banks for M&A consulting in Russia, RUB Billion (line5 ÷ line8) | 6,17       |
| 10 | Commission for M&A transaction support excluding commissions of investment banks in Russia, RUB Billion (line7 - line9) | 7,69       |

1 According to the data of the official website http://www.cbr.ru/currency_base/dynamics.aspx
The study makes the assumption that as the Russian market is an element of the global M&A market, therefore the share of commissions for the professional transaction support in Russia is equal to the share in the global market. Then, with regard to the data in Table 1, the value of commissions on transaction support in the Russian M&A market for 2014-2016 increased by 9.09 billion rubles and amounted to 22.95 billion dollars in 2016. In addition to AC, investment banks can also provide professional support for capital transactions.

Therefore, basing on Tomson Reuters reviews, we can determine the value of commissions for M&A consulting that was received by investment banks in Russia. Table 1 shows that the indicator decreased by 1.49 billion rubles and amounted to 4.68 billion rubles in 2016. The main purpose of this study is to determine the level and share of the revenues of AC provided by rendering of DD service. In this regard, the value of commissions on M&A transactions in the Russian market should be "cleared" of the indicator of commissions paid to investment banks for M&A transaction support. Thus, the commissions for M&A transaction support in Russia excluding the commissions of investment banks increased by 10.58 billion rubles and amounted to 18.27 billion rubles by 2016.

At the third stage, the structure of revenues of AC in the Russian Federation for the period of 2014-2016 has been analyzed. The total revenues of AC increased by 3.5 billion rubles and amounted to 57.1 billion rubles by 2016. The total revenues from the audit-related and other services in total revenues increased by 0.46 billion rubles since 2014 and amounted to 28.44 billion rubles in 2016. There is an opinion that main features of DD allow to consider it as the audit-related service (Kuter & Antonova, 2016). First, as it is not a part of audit, the audit and due have different objectives. Secondly, DD does not provide reasonable assurance on the assumption of the reliability of financial reports. Thirdly, DD is performed upon the agreement with the customer, and the final report is confidential (Guzov & Savenkova, 2015). Shares of revenues from the audit-related services in total revenues from audit-related services and other services are determined in proportional terms. The obtained values are multiplied by the amount of commissions for M&A transactions support in the Russian Federation excluding commissions of investment banks.

At the fourth stage, the share of revenues from rendering DD service in the total revenues of AC is calculated by dividing the amount of revenues from DD by the total revenues of AC. The calculations and analysis show the structure of revenues of Russian AC for the period of 2014-2016 with regard to DD (Fig. 4).
As it can be seen in the Fig. 4, share of revenues from rendering DD service in total revenues of AC for 2014-2016 increased by 1.2 times. In absolute terms, the revenues from rendering of DD service increased by nearly 0.26 billion rubles. Thus, there is positive dynamics which corresponds to the general tendencies of growth of commissions for support of capital transactions both in the world and Russian M&A markets, as well as in the market of audit services (Table 1).

Table 2. Correlation between the indicators for analysis of DD market in the Russian Federation for the period of 2014-2016

| line | Indicator                                                                 | Year       | 2014  | 2015  | 2016  | Correlation Coefficient (CC) | Type          |
|------|---------------------------------------------------------------------------|------------|-------|-------|-------|----------------------------|---------------|
| 1    | Commission on M&A transactions support in the world market, USD Billion. | 2014       | 26,70 | 29,40 | 30,00 | 0,993                      | direct, strong|
|      |                                                                           | 2015       | 26,70 | 29,40 | 30,00 |                           |               |
| 2    | Commission on M&A transactions support in the Russian market excluding commissions of investment banks, RUB Billion | 2014       | 7,69  | 13,30 | 18,28 | 0,983                      | direct, strong|
|      |                                                                           | 2015       | 7,69  | 13,30 | 18,28 |                           |               |
| 3    | Annual total revenues from audit-related services and other services in total revenues of AC, RUB Billion | 2014       | 27,98 | 28,27 | 28,44 | 0,998                      | direct, strong|
|      |                                                                           | 2015       | 27,98 | 28,27 | 28,44 |                           |               |
| 4    | Revenues from DD in the Russian Federation in total revenues of AC, RUB Billion | 2014       | 0,85  | 1,03  | 1,11  | X                          | X             |

Calculation of correlation coefficients (Table 2) revealed a strong direct correlation between the indicators of revenues from rendering of DD service in Russia and the commissions for M&A transactions support in the world and in Russia, as well as total revenues of the AC from audit-related and other services. Thus, it can be concluded that as the volume of M&A transactions increases, the volume of commissions from supporting of such transactions increases as well. In turn, the increase in M&A commissions has a positive impact on the revenues of the AC because of the profit generated by providing support of these transactions, which leads to an increase in
revenues from rendering DD service. Based on the conducted correlation analysis of data for the period 2014-2016, there is a correlation that confirms the positive dynamics both in absolute and relative terms, and, consequently, the availability of demand from investors for the service of legal diligence in the Russian Federation.

The correlation data analysis from the period of 2014-2016 draws a relationship that confirms the positive dynamics in both absolute and relative terms, and, consequently, identifies demand from investors for DD services in the Russian Federation.

Conclusions

Based on the results of the study, the following operations have been performed:
- trend lines for global and Russian M&A market in 2014-2016 have been constructed;
- trend for Russian market of audit services in 2014-2016 has been established;
- amount of revenues of AC from the rendering of DD service in Russia in 2014-2016 has been determined;
- the relationship between the total value of M&A transactions and the amount of revenues of AC from the rendering of DD service in Russia has been established.

The study analyzed the data of the annual reviews of authoritative information agencies about the global and Russian M&A markets, as well as official statistics on the structure of revenues of Russian AC for the period of 2014-2016. It has been established that the following positive trends have been observed in the markets under consideration in the past three years:
- value of M&A transactions in the global market has been increased by $181.11 billion dollars;
- value of M&A transactions in the Russian Federation has been increased by 996.97 billion rubles;
- commissions for M&A transactions in the global market have been increased by 3.3 billion dollars,
- commissions for M&A transactions in Russia have been increased by 10.58 billion rubles;
- revenues of Russian AC have increased by 3.5 billion rubles.

The algorithm presented in the article allowed analyzing and estimating the share and amount of revenues of AC received from rendering DD service in the Russian Federation, considering the features and trends of the world and Russian M&A markets and in Russian market of audit services. The results of the study enable us to characterize the emerging trends of the market of audit services based on the estimating of the amount of revenues of AC from rendering of the DD services. As can be seen from the above, the revenues of AC from the rendering of DD services have increased by 0.26 billion rubles and totalled 1.11 billion rubles in 2016. During 2014-2016, the share of revenues of AC from rendering of DD service has been increased by 0.35% and totalled 1.94%. The efficiency of the algorithm is confirmed by the high degree of relationship between the "Annual revenues from rendering DD service in the Russian Federation in the total revenues of the AC " and the "Commissions for M&A transactions support in the world market" (CC = 0.993), “Commissions on M&A transactions support in the Russian Federation excluding commissions of investment banks”(CC = 0.983), "Annual total revenues from audit-related and other services in the total revenues of AC”(CC = 0.998).

Based on the results of the study, the dependence of the growth of revenues of Russian AC from rendering of DD services on growth of M&A transaction commissions and growth of the total revenues of AC from audit and other services has been established. It is concluded that an increase in the volume of M&A transactions leads to an increase in the volume of commissions for the
professional support of such transactions, which contributes to the growth of the revenues of AC from rendering of DD services.

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