

## International Journal of Applied Business and Economic Research

ISSN: 0972-7302

available at http: www.serialsjournal.com

© Serials Publications Pvt. Ltd.

Volume 15 • Number 11 • 2017

# **Methodological Framework for Economic Valuation of Business Enterprises**

# Natalia A. Zavalko<sup>1,2</sup>, Igor Stepnov<sup>3</sup>, Tataiana V. Butova<sup>4</sup> and Veronika Kozhina<sup>5</sup>

#### **ABSTRACT**

In the economy, any actions subject to evaluation. Market-based management principles require the valuation of various objects of property (enterprise, business, intellectual property and other objects of property and non-property rights). The results of the valuation of various objects of ownership are one of the foundations for decision-making in the private and public sector. Valuation gives you a realistic idea of how the company will operate in the future. This is valuable for everyone: owners, managers, customers, suppliers, bankers, employees of insurance and tax services, investors. Valuation has become an integral tool in the Arsenal of the modern Russian businessman, financier, or Manager. Without the knowledge of the evaluation activities it is difficult to do in conditions of market economy and the entrepreneur and government official, and politics and the ordinary citizen. Valuation allows both buyer and seller to conclude a transaction based on the reasonable cost of goods, because the market value takes into account not only individual costs and expectations, how the market situation in General, market expectations, the current economic development, market reaction to the object of the transaction.

JEL Classifications: D21, D23, D24.

Keywords: Economics, economic valuation, business value, enterprise.

#### 1. INTRODUCTION

The process of assessing the business of enterprises is the basis for developing its strategy. Knowledge of the value of market value enables the owner of the facility to improve the production process, develop a set

<sup>&</sup>lt;sup>1</sup>Financial University under the Government of the Russian Federation, Moscow, Russia

<sup>&</sup>lt;sup>2</sup>Federal State Institution "State Research Institute of System Analysis of the Russian Federation Accounting Chamber" Moscow, Russia. Email: academy@fa.ru

<sup>&</sup>lt;sup>3</sup>Ryazan State Radio Engineering University, Ryazan, Russia

<sup>&</sup>lt;sup>4</sup>Financial University under the Government of the Russian Federation, Moscow, Russia

<sup>&</sup>lt;sup>5</sup>International Institute of Economics and Law, Moscow, Russia

of measures aimed at increasing the market value of the business. Periodically conducted cost estimation allows to increase management efficiency and, consequently, to avoid bankruptcy and ruin (Gryaznova & Fedotova, 2015, p. 512).

The theoretical and methodological basis of the study was the legislative and normative acts of the Russian Federation, publications in the open press, Internet resources, the results of applied research in the field of economics, theoretical and practical materials of Russian and foreign scientists.

In the course of the research methods of analysis and synthesis, system analysis, hierarchy analysis, expert assessments, scientific observation were used.

#### 2. THEORETICAL ANALYSIS

The assessment helps to make the right investment decision, while reducing traditional costs. If each member of the proposed transaction tried to evaluate a particular object, then its expenses would be quite significant as it would have to generate a certain information base to acquire computer program that would use only one or two times and could not pay for themselves.

The estimated activity - professional activity of subjects of evaluation activities, directed on establishment concerning objects of the assessment of a market value (Avramenko, 2015).

The estimated activity in the Russian Federation in accordance with international treaties of the Russian Federation, the Federal law of 29.07.1998 No. 135-FZ "On valuation activities in the Russian Federation", Decree of the Government of the Russian Federation dated July 6, 2001 No. 519 "On approval of valuation standards", the order of the Ministry of economic development of 20 July 2007 No. 256 "On approval of Federal valuation standard "General concepts of valuation, approaches to valuation and the requirements for evaluation", the order of the Ministry of economic development of 20 July 2007 No. 255 "On approval of Federal valuation standard "Objective of valuation and types of value," the Order of Ministry of economic development of 20 July 2007 No. 254 "About statement of Federal standard of valuation "Requirements for valuation report", as well as other Federal laws and other normative legal acts of the Russian Federation, regulating relations arising in the implementation of evaluation activities.

World practice of management of companies is increasingly focused on such economic category as their cost. Despite the ambiguity of this term in most cases under the value of a business entity refers to the market value of its capital.

Valuation of any enterprise (object) expresses a deliberate process of identifying in monetary terms the market value given the potential and real income it in each moment of time (Romanovsky & Vrublevskaya, 2015, p. 543).

The market value of the object of evaluation is understood as the most probable price at which a given object of evaluation may be alienated in the open market in a competitive environment, when parties to a transaction act reasonably, having all necessary information, and the value of the transaction does not reflect any extraordinary circumstances, i.e. when:

one of the parties to the transaction is not obligated to dispose of the object, and the other party
is not obliged to accept execution;

- parties to the transaction are knowledgeable about the subject of the transaction and act in their own interests;
- the object of evaluation is shown in the open market through a public offer typical for similar objects of valuation;
- the transaction price represents a reasonable remuneration for the valuation object and coercion to commit the transaction in respect of parties to the transaction from any side;
- payment for the valuation object is expressed in monetary terms.

In addition to market value can be assessed and other types of project cost estimates, different from the market value:

- the value of the subject properties with limited market value of the subject properties, the sale
  of which on the open market is impossible or requires additional cost compared with the costs
  necessary for the sale of freely traded goods;
- the replacement cost of the object of evaluation the sum of expenses on creation of object similar to the object of valuation, at market prices existing at the valuation date, taking into account depreciation of the object of evaluation;
- the cost of reproduction of object of evaluation the amount of costs at market prices existing at
  the valuation date, the creation of the object identical to the object of evaluation, using identical
  materials and technologies, taking into account depreciation of the object of evaluation;
- the value of the subject properties under the current use value of the object of evaluation, determined on the basis of existing conditions and the purpose of its use;
- investment project cost estimate the cost of the object of evaluation, determined on the basis
  of its yield for the concrete person at the set investment purposes.
- the cost of property assessment for tax purposes the value of property valuation determined for calculation of the tax base and calculated in accordance with the provisions of normative legal acts (including inventory cost);
- residual value of the object estimation value of the object of valuation in case the object of
  evaluation must be alienated within a period less than the normal period of exposure similar
  objects;
- recycling project cost estimate the cost of the object equal to the market value of the materials
  he includes, taking into account disposal costs of the object of evaluation;
- special project cost estimate the cost to determine where in the agreement about the assessment
  or the regulatory legal act establishing the conditions not included in the concept of market or
  other value listed in these standards of evaluation (Grissom, 2014).

So, business valuation is a procedure whose purpose is to calculate the value of a business or enterprise, or shares in them. It is necessary for a variety of reasons – but one way or another, every Manager is faced with the problem of its implementation. Without knowing the value of it is quite difficult to take any

decisions to purchase or sell the rights of the owner. In more simple terms, the cost business is a reflection of the results of its operations. Under business valuation meant performed the following tasks:

- assessment the majority (otherwise, the control, blocking) stake in the company. It is most popular
  that gives the most complete picture of the value of the business as a whole or the value of the
  largest package of shares;
- assessment of a minority stake;
- assessment of the property, special attention is paid to the assessment of the company's assets
   buildings, constructions, networks and communications, land, vehicles and equipment, also carried out an analysis of financial flows of the enterprise;
- assessment of the company's shares quoted on the market. This is quite a special case that often comes down to analysis of prices, market conditions and determination of the discount rate.

#### 3. DISCUSSION

Methods used at formation and functioning of the strategic management system, are well known. In connection with the differences in the structure of strategic control within certain limits are used as empirical (observation, comparison, experiment), and theoretical methods.

To date, there are several approaches and implemented in their composition methods, which are given a monetary valuation of enterprise (business). In the domestic theory are declared and are borrowed from the Western practice three basic approaches to business valuation:

- income approach (income approach);
- the cost approach (asset based approach);
- comparative (market) approach (market approach).

Income approach - a set of methods of valuation of the valuation object based on the determination of expected income from the object of evaluation (Polyak, 2014; Mindlin, Melnichuk, Lisichkina, Golovanova & Litvinova, 2016).

Income approach in the valuation of real estate includes two methods:

- the income capitalization approach;
- discounted cash flow method.

The income capitalization approach is used when evaluating income-producing real estate. Income from real estate ownership can, for example, represent the current and future income from rent, income from a possible increase in the value of the property when it is sold in the future.

The result of this method is comprised of the cost of buildings and value of land.

It is advisable to allocate the main stages of the estimation procedure by the method of capitalization:

1. Estimated potential gross income. This is done on the basis of analysis of current rates and fares existing on the real estate market for comparable objects. Potential gross income (PGI) income,

which you can get from the property if 100% utilization without taking into account all losses and expenses. PGI depends on the size of the estimated object and received rents.

Typically, the magnitude of the rents depends on the location of the object, its physical condition (Arzhakov & Silnov, 2016), the availability of communications, the term of the lease, etc.

- 2. Estimated anticipated losses from underused property and the loss of the collection of payments. The decrease in PGI by the amount of losses yields a value of actual gross income (AGI).
- 3. Calculated projected costs for operation of the evaluated property. Recurrent expenditure to ensure the normal operation of the facility and restoration of income called operating expenses.

Operating costs can be divided into:

- fixed costs;
- quasi-variable or operating costs;
- the replacement costs or reserves.

Conditionally-constant expenses are, the amount of which is not dependent on the operational load of the facility and level of services provided (e.g., insurance payments).

Conditionally-variables include the costs, the size of which depends on operational load of the facility and level of services provided.

The main conditionally-variable expenses are utility costs, the costs of the site, management costs, salary of attendants, etc.

The replacement costs include the costs for periodic replacement of wearing components of the improvements (typically, such components include the roof, floor covering, sanitary equipment, fittings).

The calculation assumes that the money is being reserved, although most property owners, in fact, does not. If the owner plans to replace the wear improvements during the ownership period, the deductions must be taken into account when calculating the value of the property of the considered method.

- 4. Is determined by the projected net operating income by reducing the DIA in the amount of operating expenses.
- 5. Calculated the capitalization rate.

There are several methods for the determination of the latter:

- method of cumulative construction;
- method of determining the coefficient of capitalization taking into account compensation for capital expenditures;
- method related investment or investment technique of the group;
- method of direct capitalization.

The capitalization rate in real estate valuation consists of two elements:

- the rates of return on investments (rate of return on capital). This is compensation that should be paid to the investor for the value of money taking into account the time factor, risk and other factors associated with a particular investment (Ragulina, Lebedev & Popov, 2013).
- rate of return (compensation) of capital.

Under the return of capital refers to the repayment of the initial investment. Moreover, this element of the capitalization rate applies only to the wear, i.e. losing the cost of the assets.

The rate of return on capital is based on:

- the risk-free rates of return;
- the risk premium;
- the premium for the low liquidity of real estate;
- awards for investment management.

Using the income approach determines the present value of future income that will result from the use of the property (assets) and opportunities for further sale (Ragulina & Kamaev, 2013).

Thus, in assessing the business from the position of the income approach, the determining factor is income affecting the amount of project cost. The more the income subject to assessment, the higher the value it market value (ceteris paribus). The importance has a duration of receipt of income and the level of risk that accompanies the process.

#### 4. RESULTS

Many large Russian companies are moving to the concept of business management based on cost approach (Value Based Management). To managing for value has become possible, it is necessary to have available effective methods of business valuation. Methods of business valuation for managerial decision-making, proposed by Western economists Modigliani, Damodaran, Copeland, I do not find your application in our country where there is no developed market shares, and, therefore, does not exist and the market valuation of the enterprises themselves. Therefore, in the Arsenal of the domestic companies there are no adapted methods of business valuation (Silnov, 2016). All they have is a standard three approaches to valuation: discounted cash flow, comparison with analogues and determination of net asset value.

Some go further, and develop original methods, with greater visibility, like a summation of the upcoming profit for the forecast period or the value-added-based measure of economic profit (EP). The problem with these estimates is that they tend to receive a digital value of value of business, which would be characterized and management efficiency, and value of the enterprise market, and future attractiveness to investors. There is only a reference value sought by the estimates (Ilyaschenko & Chinakhov, 2012). The assessment of the cost of one and the same enterprise for the same purposes it is possible to obtain several estimates, which equally deserve the right to life. We can say that techniques that offers one balanced assessment of the value of the business can be used solely for the purpose of sale of the business in a particular form (Volodin et. al., 2014, p. 506).

In the framework of the concept of value management (VBM) the business valuation should be the basis for the following tasks:

- Development plans and development strategies of the enterprise;
- Assessment of the effectiveness of management;
- Assessment of the effectiveness of the company's activities;
- Determination of the real value of one share.

The business valuation must meet the following requirements: simplicity; clarity; validity; frequency; informative.

In order to control the cost of the most informative types of value are:

- Market value of the net assets.
- The capitalization of the business.
- The value of the business as a going concern, income (DCF) (Kolcina, 2014, p. 447).

A comparison of these values will determine the strategic decision-making, such as determining the areas of investment, and selection of the disposition of property (sale, liquidation, reorganization), change range, the justification of the place of the enterprise market, as well as operational decisions related to the motivation of staff and measures to increase profit.

Structurally, one can imagine a system of VBM (value-based management) on the upper level of the value factors, as shown in Figure 1.

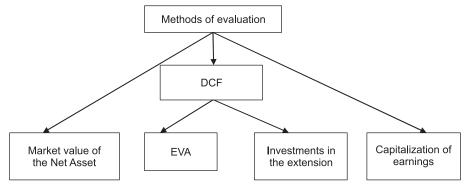


Figure 1: System of VBM

The market value of net assets

- the sale of the property;
- reorganization projects;
- selection.

#### EVA:

- motivation;
- efficiency rating;

search areas of investment.

Investments in the expansion:

- guarantee growth;
- potential in the future;
- motivation.

Capitalization of earnings:

- sale of business;
- comparison with analogues;
- the issuance of securities.

The diagram shows the methods of evaluation of the business and management needs that can be met based on them. The value of the discounted cash flows (DCF) by itself is not significant, so it makes sense to decompose it into factors that have the greatest impact on the value of the business. In this case, is an economic profit (Economical Value Added), which shows added for the period cost including opportunity cost and the volume of investments directed to the expansion, which will add value in the future (Kolpakova, 2014, p. 496).

The integrated use of the proposed methods of business value assessment will allow to digitalize the results of operations for past periods and to establish a base for management decisions to increase business value for its shareholders.

Business solutions based on the proposed evaluation system will be within the framework of the classical theory of value based management, taking into account Russian specifics. Consider methods of an estimation of business value in more detail (Avramenko, 2015).

- 1. The market value of the net assets: Indicator is required to determine the price at which can be sold to business as a property complex. In case, the rating obtained by other methods, will be lower than net asset value, there is a sense to consider selling the business or its reorganization.
  - To determine the market value of the net assets must at least 1 time per year to evaluate the fixed assets of the company's own forces or by independent appraisers.
- 2. The capitalization of the business: Valuation of the business, obtained by the method of capitalization of profit, allows us to give a rapid assessment of a company's value and shows the minimum amount which can be sold business as a going concern in the shortest possible time. This is a clear indicator essentially represents the amount of profit to be received under existing conditions for the expected period of return on investment.

There are several ways to determine the discount rate, the choice of the method of its calculation depends on a number of conditions such as the availability of reliable information on yields in different markets, understanding the capital structure and so on. Some Russian companies determine the required rate of return (the discount rate) the expert method, based on expectations of owners in relation to their business. This discount rate is fixed for a certain period of time

and is valid for all projects and tasks within the company. Practice shows that the magnitude of the required return stipulated by Russian industrial enterprises operating in traditional sectors of the economy varies in the interval from 20 to 30%.

3. The value of the business as a going concern, income (DCF): Shows the amount of free cash flow that can be accumulated by the business over a period of time, taking into account alternative possibilities. With measure, you can assess the potential business, its competitive advantages and the maximum price that can be sold to a business or part of it. The calculation of discounted cash flow should take into account the difficulties of long-term planning in the Russian context. As a rule, in Russia, is planned for one year, future is set to a specific growth rate of key indicators.

The planning horizon is chosen based on the process cycle or depending on the requirements of owners to payback period of the business. For Russian industrial enterprises to correctly use a planning horizon of 3 to 5 years.

- 4. **Key value drivers: the EVA and investment in development:** The value calculated by DCF method, is a profitable feature of the business. However, for management purposes, this method does not shows the sources of value creation. You have already created the cost of business is characterized by a measure of economic profit. Creating business value in the future will depend on the size of investment in the development. Of course, investing does not mean that they will be profitable, there are certain risks, but the fact of investment means that:
  - Funds have been found;
  - Acquired or created certain tangible or intangible assets;
  - The business management aware of the need for development and is interested in expanding the business.

The choice of method of business valuation depends on the purpose for which it is held. For the purposes of cost management, the company can use several methods of assessment, and, accordingly, some indicators of value. These indicators are not subject to integration, they are analyzed separately, are compared to each other and are used for making various management decisions.

As possible types of value include: capitalization of earnings, the market value of the net assets and the sum of the discounted cash flows of equity capital.

The main obstacle in Russia is the lack of a developed stock market and high uncertainty of long-term planning.

Using the proposed system estimates the business costs associated with the market valuation of the property. However, without it, the business valuation meaningless, as the financial assets of the majority of domestic companies because of the nature of accounting, are undervalued.

#### 5. CONCLUSION

Thus, the valuation gives you a realistic idea of how the company will operate in the future. Business valuation is a procedure whose purpose is to calculate the value of a business or enterprise, or shares in

them. It is necessary for a variety of reasons – but one way or another, every Manager is faced with the problem of its implementation. Without knowing the value of it is quite difficult to take any decisions to purchase or sell the rights of the owner. In more simple terms, the cost business is a reflection of the results of its operations.

To date, there are several approaches and implemented in their composition methods, which are given a monetary valuation of enterprise (business). In the domestic theory are declared and are borrowed from the Western practice three basic approaches to business valuation:

- income approach (income approach);
- the cost approach (asset based approach);
- comparative (market) approach (market approach).

Income approach - a set of methods of valuation of the valuation object based on the determination of expected income from the object of valuation; the cost approach – a set of methods of valuation of the valuation object based on the determination of expenses necessary for restoration or replacement of the object of evaluation, taking into account its wear; the comparative approach – a set of methods for assessing the value of the assessment based on comparison of the object of valuation with similar objects, in respect of which the information about the prices of deals with them.

Each of these approaches contains several possible application methods. These approaches have certain strengths and weaknesses, and have a suitable field of application. However, when assessing the value of a business with the purpose of increase of reliability of calculations, the value normally uses several approaches and methods that complement each other.

The choice of method of business valuation depends on the purpose for which it is held. For the purposes of cost management, the company can use several methods of assessment, and, accordingly, some indicators of value. These indicators are not subject to integration, they are analyzed separately, are compared to each other and are used for making various management decisions.

As possible types of value include: capitalization of earnings, the market value of the net assets and the sum of the discounted cash flows of equity capital.

### References

Avramenko, S.V. (2015). The features of determining the discount rate in the valuation of enterprises. Securities, 1, 3-9.

Arzhakov, A.V., & Silnov, D.S. (2016). New approach to designing an educational automated test generation system based on text analysis. *ARPN Journal of Engineering and Applied Sciences*, 11(5), 2993-2997.

Grissom, T.V. (2014). Determining the type of value: its place in the evaluation process. Evaluation issues, 4, 19-24.

Gryaznova, M.A. & Fedotova, M.A. (2015). Business valuation: a textbook. Moscow: Finances and statistics.

Ilyaschenko, D.P., & Chinakhov, D.A. (2012). Investigating the influence of the power supply type upon the weld joints properties and health characteristics of the manual arc welding doi:10.4028/www.scientific.net/MSF.704-705.608

Kolcina, N.V. (2014). Finances of enterprises: a textbook for university. Moscow: Unity-Dana.

Kolpakova, G.M. (2014). Finance. Money turnover. Credit: a training manual. Moscow: Finances and statistics.

#### Methodological Framework for Economic Valuation of Business Enterprises

- Mindlin, Y.B., Melnichuk, M.V., Lisichkina, Y.S., Golovanova, N.B., & Litvinova, S.F. (2016). The formation of cluster systems of education in the Russian federation. *International Review of Management and Marketing*, 6(6), 247-252.
- Polyak, G.B. (2014). State and municipal finance: a training manual. Moscow: Unity-Dana.
- Ragulina, Y.V., & Kamaev, R.A. (2013). Peculiarities of state real estate management in a big city under federalism. *Actual Problems of Economics*, 149(11), 478-483.
- Ragulina, J.V., Lebedev, N.A., & Popov, A.S. (2013). Areas of local self-government functioning in Moscow city. *Actual Problems of Economics*, 148(10), 438-445.
- Romanovsky, M.V. & Vrublevskaya, O.V. (2015). Finance, money circulation and credit: A Training Manual. Moscow: Urait.
- Silnov, D.S. (2016). Special features of radio interception of APCO P25 messages in Russia. International *Journal of Electrical and Computer Engineering*, 6(3), 1072-1076. doi:10.11591/ijece.v6i3.9843.
- Volodin, A.A. et. al., (2014). Finance management (enterprise finance): a textbook for universities. Moscow: Infra-M.