DETERMINING THE PRICE OF THE BUSINESS SHARE OF A BUSINESS IN A GROUP

[a]SIMONA HAŠKOVÁ, [b]PETR ŠULEŘ, [c]VERONIKA MACHOVÁ, [d]TOMÁŠ KRULICKÝ

Institute of Technology and Business, School of Expertness and Valuation, Okružní 517/10, 37001 České Budějovice, Czech Republic
email: [a]haskova@mail.vstecb.cz, [b]petr.suler@cez.cz, [c]machova@mail.vstecb.cz, [d]krulicky@mail.vstecb.cz

Abstract: The aim of this contribution is to focus on the issue of business enterprise valuation. This is the most demanding discipline within valuation, and the value of the business in question, which is determined by the valuation, may not always be the only correct and objective one. It is appropriate to use at least 2 valuation methods when valuating a business. These methods are divided into 3 main groups: Earnings methods, Market value methods and Assets methods. These three main groups are subdivided into several subgroups. For the creation of a financial plan, it is appropriate to process the financial and situational analysis of the business, preceding the valuation itself. The aim of the contribution is to describe individual methods, which are supported by specific examples and results. These include, for example, the methods: "Financial Analysis" = it is necessary to carry out a financial analysis first and determine the financial condition of the business. Financial analysis is one of the basic prerequisites for valuating a business. The objective of the financial analysis is to examine the financial health of the business or to better diagnose the financial side of the business and to establish the basis for the financial plan from which the yield value is derived. Another method is "Business Valuation" = the method expresses the instant value of a business as of the valuation date and is based on the principle of simplicity and comprehensibility. The method recognizes the business' market value and past liabilities prior to the valuation date. The last method is then the "Discounted Cash Flow Method" which is the primary earnings method for valuating a business. The following are the results of the examples using these methods. Further examples of these methods are given in these results. The results are supported by graphs and tables composed from own sources. Finally, the strengths and weaknesses of the company are summarized. The aim of this contribution was fulfilled.

Keywords: valuation, business, value, earnings, market, assets, methods, judgment, analysis, indicators.

1 Introduction

Expert practice often brings very interesting situations. Of course, the law and legal standards and standard procedures are trying to offer a methodology for determining the value of a business that can be used in most of the cases that an expert encounters in his practice. However, in isolated cases there will be situations where it is necessary to take into account the unique situation of the business, the stakeholder or even the evaluator. In this case, standardized methodologies would lead to a result that would distort reality. A typical case is a situation where we evaluate businesses in a group. Very often, one business helps another to some extent achieve its goals. Ideally, both businesses then benefit from a synergy effect. Such a synergy is, for example, achieved when it comes to businesses that are part of a single supply chain, and when they share a link between each other. However the synergy effect is also achieved through other legal relationships. It can be so that businesses in a group rent real estate to each other, or they can arrange for other services. The aim of this paper is to evaluate its suitability in practice and to reveal its weaknesses and strengths (Honkova 2012).

The issue of business valuation is the most demanding discipline within the valuation, and the value of the business that is determined by the valuation may not always be the only correct and objective one. The resulting value of a business is always influenced by the accuracy of the choice of the valuation method, where this choice depends on the purpose of the valuation, the status and nature of the business, and the availability of information to the expert. Mařík (2011) states that it is appropriate to use at least two valuation methods to assess a business. Vochozka (2012) states that value is a certain belief in future benefits. The equity-flow method is used to measure transactions for which the debt amortizes according to a fixed time schedule, which requires a formula that combines the leverage effect with the time-varying stock discount rate (Cooper, 2013). We investigate the market valuation of annual changes in the APIC, which is a bookkeeping account that captures the persistent differences between tax differences in stock remuneration (Brushwood, 2014). Methods and approaches to valuating businesses today are many. The choice of a particular method always depends on the objective of valuation, data availability, etc. Mařík (2011) divides the valuation method into three categories:

Earnings methods

- Discounted cash flow method.
- Capitalized net earnings method.
- Combined earnings methods.
- Method of economic value added.

Market value methods

- Valuation on the basis of market capitalization.
- Valuation based on comparable businesses.
- Valuation based on data of businesses listed on the stock exchange.
- Valuation based on comparable transactions.
- Valuation based on sectoral multipliers.

Assets methods

- Book value of equity on the basis of historical prices.
- Substance value on the principle of reproduction prices.
- Substance value on the principle of cost savings.
- Liquidity value.
- Assets valuation on the principle of market values.

For the creation of a financial plan, it is appropriate to process the financial and situational analysis of the business, preceding the valuation itself. The basic financial analysis of the valuated business was made as part of the valuation as well as the financial plan. Due to the low risk of the subject business, where business risk is largely eliminated by long-term lease agreements, a strategic financial analysis will not be prepared.

The aim of this paper is to determine the value of a 100% business share in a specific business and then to evaluate how the procedure had to be distinguished from conventional methodologies.

2 Data and methods

2.1 Data

The basic data was drawn from the file of the District Court for Prague – West and already processed expert opinions. This business is named NC XXX, s.r.o.[1] The specific task was to determine the value of a 100% stake in NC XXX, s.r.o., as of October 27, 2012, but at today's prices.

Description of the valuated business

The business was registered in the Business Registry (hereinafter "BR") on 9 August 2004. The evaluators have no data available until 31 October 2007. The business' registered capital amounted to CZK 1 million.

NC XXX, s.r.o. (hereinafter also referred to as "valuated business") was, as of the valuation date, owned by Mr. MJ with a share of 20% and by KM, a.s. with a share of 80%, and the ownership structure of the valuated business is not the subject of review. On 13 November 2007, NC XXX, s.r.o. purchased an older house in Prague in the cadastral area of Nusle for the price of CZK 10,561,780 from KM, a.s.[2] The sale contract was signed by Mr. MJ on behalf of both parties as Chairman of the Board of Directors of KM, a.s. on the one hand (the seller) and as the managing director of NC XXX, s.r.o. on the other hand (the

[1] For the purpose of this contribution, the name of the business was changed, as well as the names of individuals and other legal entities associated with the valuated business. Any similarity with other people and companies is purely accidental.
[2] Hereinafter referred to as building, premise or house No. 55/15.

buyer). Later, on 10 January 2008, the valuated business signed with KM, a.s. a contract for construction work and building modifications of a previously purchased house with the amount of CZK 69,691,825 and the completion and delivery of the finished reconstruction by December 20, 2009 at the latest (even in the case of this contract, Mr. MJ signs on behalf of both sides). Subsequently, on 21 December 2009, a lease contract was signed for a part of the reconstructed building No. 55/15 between NC XXX, s.r.o. and KM, a.s. with an agreed lease of fifteen years from 1 January 2010 to 31 December 2025. Subsequently, during the period between 2010-2011, NC XXX, s.r.o. also rented other parts of non-residential premises of house No. 55/15 to KM technology, s.r.o., KM energy, s.r.o. and SB, s.r.o. According to the signed lease contracts, the lessor was the recipient of rent and advances on energy and services. The amount of rent from all concluded and valuated rental contracts amounted to CZK 9.03 million per calendar year. In accordance with the lease, the landlord owned 5% of the cost of services and energy as a commission for the mediation of these supplies.

Subsequently, on February 27, 2012, a new lease contract (hereinafter referred to as the "lease agreement") was signed, which most likely aggregated most of the previously signed lease agreements. All non-residential premises in the reconstructed house No. 55/15, including 20 parking spaces, were leased under one rental contract of KM, a.s. The lease was signed for a fixed term from 1 March 2012 for a period of 23 years, until 28 February 2034. The lease agreement divided the lease period into two sub-stages. The first stage of the lease agreement was to be between March 1, 2012 and December 31, 2029, with a rent of CZK 6.3 million (the rent included a component for non-residential premises and a parking space). The second stage of the lease agreement was between January 1, 2030 and February 28, 2034, with a rent of CZK 3 million (the rent again included a component for non-residential premises and a parking space). The lease agreement was, according to available information, valid at the time of valuation, and the rent resulting from it was the most significant part of income for NC XXX, s.r.o. The models used to calculate post-valuation adjustments for crisis aftermath, market risk, and capital measures for derivates are subject to risk of liquidity due to a significant lack of available information to obtain model market parameters (Sourabh, 2013).

Description of the economic activity of the valuated business

The most significant asset of the valuated business was the house No. 55/15, which was an instrument of rental income as of the date of valuation. The property was leased on a long-term basis as of the valuation date and the company had a stable and long-term income from renting the property. A certain pitfall in the lease agreement of 27 February 2012 may be the fact that it does not contain any mechanism to increase the agreed-upon rent, thus, assuming a generally expected increase in inflation affecting the growth of market value of rent from leased office space, the actual value of the rent would fall in the future, although the nominal value would be maintained. Another weak aspect of the lease agreement is the fact that by the end of the lease term – in 2030, the rent will fall by more than 50%. Other performance of the valuated business was related to the lease of property, e.g. as collateral and mediation of related services, but the available contracts failed to ascertain the expected development and range of services in the future, where the extent of these performances is partly observable from economic data and from the announcement of the managing director of the successor company RD, s.r.o.

For the sake of completeness, it should be noted that related to house No. 55/15, the business was the contractor in relation to a contract of work dated 26 April 2010, in which the client was KM, a.s. The valuated business committed to providing a complex service for the operation of a set of technical equipment of the building (TZB), cleaning services, landscaping and plant watering services in the interior of house No. 55/15. Given that there is no contract of work available and the price data from the contract are not known, the evaluator works further with the assumption that the costs of providing the services are the same as revenue resulting from the performance of the contract and therefore, overall, the contract has no impact on the value of the business. The evaluator will work only with proven expected earnings in future years – rent, in the business valuation.

Property description

The building No. 55/15 underwent extensive construction in 2009, during which the historic building was reconstructed and a new smaller building was built inside the courtyard. The buildings are used for administrative purposes.

Data sources

For the purposes of the valuation report, the data used will mainly be from the balance sheet and profit and loss statements for the years 2009-2013, the lease agreements concluded between NC XXX s.r.o. and KM, a.s. from 27 February 2012, the work contract S 406/10 from 30 April 2010 and the already prepared expert opinion report (the report was prepared by ABC Consulting, s.r.o. on 19 November 2012).

Other data used in this contribution are obtained from publicly available sources (Internet) such as the server justice.cz, business and self-employment register, collection of documents, VAT payers register, etc.

2.2 Methods

Financial analysis

Before the business can be valuated, it is first necessary to conduct a financial analysis of it and determine the financial condition of the business. Financial analysis is one of the basic prerequisites for valuating a business. The aim of the financial analysis is to check the financial health of the company or to better diagnose the financial side of the company and to establish the basis for the financial plan from which the yield value is derived (Mařík, 2011). The absolute indicators of the financial statements will be assessed, as well as the ratio indicators, focusing on the profitability and liquidity of the company. Financial analysis, such as valuation, solvency and capital adequacy, play a key role in bankruptcy (Simkovic, 2010).

Business valuation

The assets method expresses the business' immediate value as of the date of valuation and is based on the principle of simplicity and comprehensibility. The method recognizes the business' market value and revises its past liabilities prior to the valuation date.

As of the valuation date, the business performed economic activity (rental based on a long-term lease agreement, see above), therefore, the evaluator accepts the assumption of the future operation of the business in an unaltered state, i.e. continue to lease the property. If the economic potential of the business is high enough then the value determined by the earnings methods is usually higher than the assets value.

It is considered to be a market valuation of the value of the business share of an economically active entity, with the assumption of continuing the current activity in the future. Valuation based on an assets analysis suppresses the actual earnings potential of a business as a set of all tangible and intangible assets and merely notes the difference between the book value of the liabilities and the market value of the assets. We can see that there is a conflict between two concepts and values such as accounting and market value.

It was more appropriate to use earnings or market valuation methods for high earnings potential and the assumption of the continuation of economic activity. Market value methods, in particular methods based on comparison of comparable

businesses and transactions are not possible in this case due to the lack of available information and data.

It follows from the above that the most appropriate is the use of earnings valuation methods, however an asset method was also used, which expresses the value of the business as of the valuation date, but without taking into account the future earnings potential of the company.

In this respect, it is appropriate to recall the difference between the market value and the book value. The market value of a business is the estimated amount that measures the total value of the business from the perspective of the market - from the point of view of potential investors or buyers. The market value is defined as the estimated amount for which the property could be exchanged as of the valuation date between a willing buyer and a willing seller in an independent transaction in which both parties enter the market knowledgeable, consciously, deliberately and voluntarily. It is determined based on the value of all its assets. It depends on the results of its business activity and on the development of these results. Growth in the market value of a business is one of the fundamental objectives of financial management. Today, the general goal of a business is to maximize its market value.

Book value is the value of the assets reported in the financial statements, so it can be easily determined from the balance sheet of the business. This value is often used as a scale of valuation. The book value of a business is the value of its assets minus its liabilities valuated at historical prices and often deviates significantly from their current price. The book value of a business is only a guide to determining market value. Therefore, the book value of a business differs from the market (actual) value in practice.

Discounted cash flow method

The method of discounted cash flow is the basic earnings method for valuating a business (Mařík, 2011). Cash flows are a real income and therefore a real expression of the benefit of the business in question. The principle of the method consists of discounting the future cash flow time series. Theory distinguishes three basic DCF calculation techniques:

- „entity“ method; (entity = business as a whole),
- „equity“ method; (equity),
- „APV“ method; (adjusted present value).

The basic entity method expresses the free cash flows of the business as a whole that can be withdrawn from the business without jeopardizing its further operation. The result obtained with the DCF entity method can be interpreted as the amount of money that can be withdrawn from the business in question, provided it continues indefinitely, when the business' own and foreign resources (or liabilities) are not distinguished. Thus, the entity method excludes interest expense for interest-bearing capital from the expenses of the financial plan, expressing free cash flows to firm (FCFF) and therefore the valuation as well. Interest expense is not regarded as the standard costs associated with the operation of a business but as the remuneration of creditors for the provision of funds. The wide expert community, dealing with the problem of business debt, settles it by deducting the value of the liabilities (without interest) from the withdrawable monetary funds of the business. Given the considerable debt of the business in question, not including the interest paid in the calculation, in order to valuate the business share, we consider this method not very suitable for valuation.

The equity method, on the other hand, analytically distinguishes the sources of business financing and devotes itself to cash flows to equity (FCFE) rather than to creditors. The free cash flows to firm (FCFF) is first to be reduced by paid interest, subtracted by the so-called tax shield. It captures the tax savings stemming from a reduction in the tax base on interest expense, which in fact reduces the amount of monetary expenditure. The second step is to include repayments or, on the contrary, increase loans, which also has an effect on cash-flow.
In comparison, the entity method is very widespread and popular among the expert community and Czech literature is devoted to it more thoroughly. On the other hand, the equity method is little widespread among the experts, and unexplored in Czech literature.

Finally, the APV method is done in two steps, just like the entity method only with a zero debt assumption, and the value of the tax savings on interest (application of the tax shield); in the second step, the foreign capital is subtracted.

In order to determine the value of the business share, the earnings method of valuation, discounted cash flow will be used in the equity variant with the subsequent distinction of future business development into two periods. For each year of the first period, it is necessary to set a financial plan, and then to quantify the free cash flows to equity FCFE, in the second period the free cash flows are determined by a perpetuity model. The relevant literature recommends setting the length of the first period between 3-8 years for which it is relevant to prepare a financial plan. Due to the long-term lease agreement, the financial plan can be created with relative precision for the entire contract period, ie 2012-2034, and then, from 2035, to choose a perpetuity model of calculation.

Below is the calculation formula to measure the business share of the valuated business:

$$H = \sum_{t=1}^{T} \frac{FCFE_t}{(1 + n_{VK(z)i})^t} + \frac{FCFE_{T+1}}{n_{VK(z)T+i} - g} * \frac{1}{(1 + n_{VK(z)i})^T} \quad (1)$$

Where:

H – Business value.
$FCFE_t$ – Free cash flow to equity in the year t.
$N_{VK(z)i}$ – Cost of equity for a specific debt in the year
T – Number of years in the first period.
g – Growth rate in the second period.

3 Results

Financial analysis

The evaluator had accounting statements (Balance Sheet and Profit and Loss Statements of the Valuated business) available for the period of 2009-2013, for reasons of matching the timing of the valuation date, as a baseline for the valuation, the data from the financial statements were always drawn as of the last day of the accounting period (business accounting period = 1 calendar year) and from financial statements compiled as of 15 October 2012. Statements prepared as of 15 October 2012 were probably prepared for the purpose of processing the valuation by ABC Consulting, s.r.o., which valued a business share of 20% as of October 15, 2012. Because of the unavailability of the financial statements as of the date of valuation, i.e. on October 27, 2012, the data had to be taken over from the last known period, which was the above-mentioned date. The evaluator agreed that, within 12 calendar days, events could not have occurred in the valuated business that would have a significant impact on the value of the business. This opinion is confirmed by the known structure of the results of the valuated business as of 31 December 2012, which does not show any significant and unjustifiable changes compared to the previous year (but the results do not enter the calculation). Additionally, the earnings valuation used in the present opinion is based on the prediction of the business' development and its earnings in the long-term future.

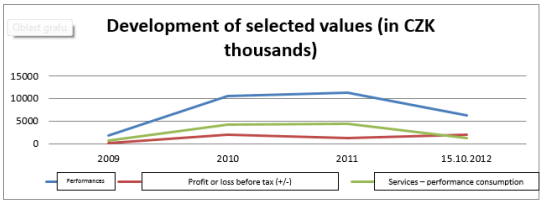
Analysis of financial statements

Balance sheet
From the accounting statements available to the evaluator, it is clear that the largest part of the business assets are fixed tangible assets. This is to a certain extent determined by the business purpose itself, where the company owns the house No. 55/15 and rented the premises in this house. Thus, the book value of the building and the land constitutes more than 95% of all business assets. Another significant asset item is receivables. The reason for the decreasing value of assets over the reference period can be seen as a result of the depreciation of the building.

Analyzing the liabilities side of the balance sheet, it can be ascertained that the valuated business uses mainly foreign sources to finance its activity (98% in 2009 to 87% in 2012). The largest foreign source of financing appears to be a bank loan, apparently drawn for the purpose of reconstructing the house in the amount of CZK 38 million in 2012 with a decreasing trend, a gradual amortization of the liability. Another significant liability was CZK 16.8 million, recorded under the line "Other liabilities". The third significant liability is Payables to stakeholders, board members and associates in the amount of more than CZK 10 million in 2012.

Profit and Loss statement
The development of selected values over time is shown in figure 1.

Figure 1: Development of selected business data



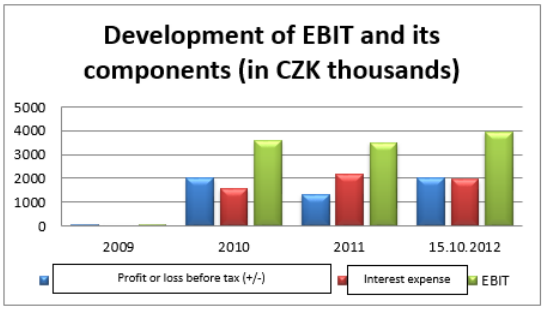
Source: Authors.

From the graph shown above, it is possible to first observe a dramatic increase in outputs likely to be related to the start of the rental of a property, and consequently their decline apparently related to the modification of the lease agreement and the decline in rents from the rented premises. It is possible to further observe the decrease in the performance consumption - probably related to the adjustment of the costs of renting and using the house. In the original lease agreement, the lessor provided energy and services to the tenant, the cost of these energies and services was subsequently charged to the tenant with a certain margin, but the new lease agreement stated that the services and energy were provided directly by the tenant. This inconsistency can be partly explained by other activities that have been implemented in the past by the valuated business. The drop in performance consumption - services, is countered by the positive result of the profit or loss before tax, which is almost inversely proportional with the decreasing consumption. It can be seen from the chart that during the monitored period, the business achieved positive economic results and therefore, in the long run, in regard of the signed lease agreement, has the assumption of continuing in this trend.

Analysis of ratio indicators

Quantification of selected indicators
One of the most important indicators of business analysis is EBIT (Earnings Before Interest and Taxes). This is profit before tax and interest expense, which allows a long-term comparison of the business development as such, irrespective of the tax rate and the interest rate. Estimates of EBIT can be made by summing the valuated business' profit and loss account as the sum of the profit before tax and N - interest expense. Taking into account the amount of foreign sources of financing, it is assumed that the interest expense has a significant effect on the profit and therefore EBIT is a better starting point. Figure 2 shows the evolution of EBIT and its components over the reporting period.

Figure 2: Development of EBIT of the subject business



Source: Authors.

The figure above shows the assumed decline in profit before tax and growth of EBIT.

Profitability indicators
Profitability indicators are often referred to as revenue indicators. Authors Váchal and Vochozka (2013) report ROA (Return on Assets) as the most widespread indicator in this area, which can be obtained as a ratio of EBIT and assets. Using asset profits, we are able to assess the effectiveness of using assets to generate earnings before tax and interest (EBIT). When applying a balance sheet rule that states assets are equal to liabilities, you can look at ROA from a finance source point of view. And that is to determine the rate of appreciation of all the resources of the enterprise.

The ROA final value should be higher than the interest rate on long-term foreign capital (loans and debts) and can be calculated from the following formula:

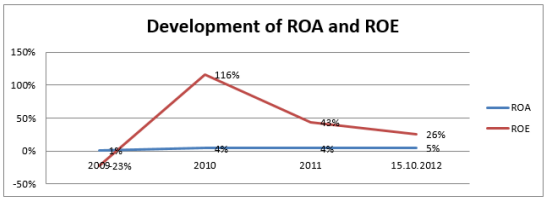
$$Return\ on\ Assets\ (ROA) = \frac{EBIT}{assets} \qquad (2)$$

Another significant indicator is Return of Equity (ROE). Using ROE, we can determine how many percent of net profit a single unit of equity has earned. The ROE should be higher than the interest rate of risk-free securities – guaranteed by the state. A low ROE rate could motivate the owners of the business to withdraw their capital from the business and invest it in other more profitable activities. The usual ROE is different for each industry and each market. However, ROE should be higher than ROA.

$$Return\ on\ Equity\ (ROE) = \frac{Profit\ after\ tax}{Equity} \qquad (3)$$

Figure 3 shows ROA and ROE developments between 2009-2013.

Figure 3: development of ROA and ROE



Source: Authors.

The figure shows that ROA was higher than ROE in 2009. The authors believe that the cause of this phenomenon was the cumulative loss of the business until 2009 from the past few years, when the business did not actually develop many

activities, and reconstructed the house, which was later leased and became the main asset of the business. It can be said that the assets of the business generated a profit at a tempo of 4%-6% in the monitored period, generally this value is considered lower. If we adhere to the balance sheet rule and equality of assets and liabilities, then we obtain a measure of appreciation of all resources. According to available data, this appreciation is higher than the interest rates of foreign capital.

Return on Equity (ROE) means the efficiency of using equity. It is possible to observe initially a period of considerable fluctuations, which is again attributed to the commencement of the economic activity (rental) of the valuated business in 2010. The apparent decrease in ROE in time is attributed to accumulation of undistributed profits of previous years, and thus the increase of equity.

Liquidity indicators
According to Vochozka (2011), liquidity is important from the point of view of the long-term functioning of the business, but in direct conflict with profitability. Liquidity of a business is related to funds in current assets, inventories, receivables and bank accounts. Liquidity can divide current assets into three levels that predict the liquidity level: current financial assets, short-term receivables and inventory.

Basic liquidity indicators include the current ratio, quick ratio and cash ratio.

The current liquidity indicator measures how many current assets cover short-term liabilities, i.e., if current assets turn to cash, and monitor how many times a business would be able to satisfy its creditors. The recommended current liquidity value should range from 1.6 to 2.5 but should never fall below 1.

$$Current\ liqudity\ ratio = \frac{Current\ assets}{Current\ liabilities} \quad (4)$$

The quick liquidity indicator is a more accurate statement of whether a business is able to meet its short-term liabilities because the inventory item, which is the least liquid, is not included in the equation. The recommended value should be in the range of 0.7-1.0, if the value equal to 1, the business is able to cover its liabilities.

$$Quick\ liquidity\ ratio = \frac{Current\ assets - inventory}{Current\ liabilities} \quad (5)$$

Cash liquidity assesses whether a business is able to repay its short-term liabilities at a given moment, the recommended value of this indicator should be around 0.2.

$$Cash\ liquidity\ ratio = \frac{Cash\ funds}{Current\ liabilities} \quad (6)$$

The specific liquidity levels of NC XXX, s.r.o. in the monitored years is offered by Table 1.

Tab. 1: Liquidity

	2009	2010	2011	15.10.2012
Current liquidity ratio	0.05	0.23	0.20	0.06
Quick liquidity ratio	0.05	0.23	0.20	0.06
Cash liquidity ratio	0.03	0.03	0.05	0.04

Source: Authors.

The table above includes indicators of current, quick and cash liquidity in the period 2009-15 October 2012. Liquidity assesses the ability of a business to cover its liabilities. However, even a relatively low level of liquidity does not mean that the company does not pay its liabilities. It rather expresses a certain risk of insolvency. The valuated business is, in the case of liquidity, inclined to rather risky financing (it does not generate sufficient quick funds to cover its liabilities, on the other hand such a state can be very effective).

Own risk analysis
As noted above, the main earnings of the valuated business stem from the long-term lease of the Property (see lease agreement signed until 28 February 2034). For the duration of this contract, the business has a guaranteed income of at least the amount of the rent. Due to the attractive location of the property (near the center of Prague), it is safe to assume that in the event of termination of the lease agreement with the current tenant, it will not be too complicated for the business to find a new tenant for the premises, which leads to the assumption that the activity of the valuated business can continue in the future. The low risk of renting property is also testified by the fact that, according to the Czech legal code, the rental of premises has almost no special conditions, so de facto everyone can be a tenant. The argument for this claim can be found, for example, in the income tax act, where the rental of space for flat rate calculations has its own specific category than other types of business.

On the other hand, the valuated business worked with a significant amount of foreign funding as of the valuation date and could be endangered by the unforeseen requirement to repay its liabilities. The evaluators did not have access to the complete documentation on foreign sources despite the request for submission of documents. The valuated business had payables to its manager, Mr. Martin Jelínek, as well as several liabilities to KM, a.s. and a liability to Česká spořitelna a.s. Because in several cases there were loans and borrowings between related parties, and the bank loan was bound by the contractually agreed repayment schedule, the evaluator assumes that the likelihood of an unexpected liability repayment requirement is minimal.

Business valuation

Assets method
The most recent known data from the balance sheet of NC XXX, as of 15 October 2012, where actual values of assets and liabilities were obtained, was used for valuation using the assets method. The evaluator had to work with the assumption that the values stated in the statements as of 15 October 2012 do not differ significantly from the values that were subsequently applied as of the valuation date, i.e. on 27 October 2012 (financial statements as of the valuation date are not available). The value of the property (land and buildings) was re-valuated by market prices. The book value does not have to faithfully correspond to the market value of the assets and liabilities, i.e. the value at which the type of asset could be transformed to a more liquid type, preferably to monetary funds. The market value is given by the market, supply and demand for the assets in question and expresses the value for which the type of asset could be exchanged for cash as of the valuation date. For this reason, the property is regarded as a certain amount of money that could be obtained through its sale.

The evaluator identified himself in this case with the procedure of the ABC Consulting Expert Institute, s.r.o. and the resulting market value set out in the expert opinion report of 19 November 2012. The evaluator did not determine the market value of the property by its own procedure because he did not know the status of the assessed property at the valuation date. Therefore, he only proceeded with a review of a previously prepared report, which had dealt with the subject in the past.

Assets valuation
As of 15 October 2012, the valuated business does not own long-term intangible assets. Tangible fixed assets were re-valued at market prices, which represent the actual value of the assets for which the assets could be sold on the market. NC XXX, s.r.o. owned land as of the date of valuation, which includes house No. 55, all in the cadastral area of Nusle. The value of fixed assets is expressed by Table 2.

Tab. 2: Tangible Fixed Assets (in CZK thousands)

Item	Sum
Land and buildings	62,712
Separate movable assets and sets of movable assets	0
Grow units of perennial crops	0
Basic herd and labor animals	0
Other tangible fixed assets	0
Tangible fixed assets under construction	0
Advances granted for tangible fixed assets	0
Valuation difference to acquired property	0
Tangible fixed assets	62,712

Source: Authors.

The valuated business did not own any fixed financial assets as of October 15, 2012. It did not have any inventory items as of 15 October 2012. The valuated business had no records of long-term receivables as of October 15, 2012.

Short-term receivables of NC XXX, s.r.o. were retained at their book value as of October 15, 2012 in the amount of CZK 251,000 because more detailed information on this account was not available (see Table 3 below).

Tab. 3: Short-term receivables (in CZK thousands)

Item	Sum
Trade receivables	551
Receivables from controlled and managed persons	0
Receivables from accounting units with significant influence	0
Receivables from partners, cooperative members and associates	0
Social security and health insurance	0
State – tax receivables	0
Short-term prepayments	0
Accrued assets accounts	0
Other receivables	0
Short-term receivables	551

Source: Authors.

The value of current financial assets is the subject of Table 4.

Tab. 4: Current financial assets (in CZK thousands)

Item	Sum
Cash	0
Bank accounts	561
Short-term securities and interests	0
Acquisition current financial assets	0
Current financial assets	561

Source: Authors.

The valuated business does not record time difference on the asset side as of 15 October 2012.

Payables valuation
Liabilities were valued for the purposes of the present valuation at book value. Wherever possible, the validity of the payables was verified on the basis of the contracts submitted.

The company recorded no reserves as of 15 October 2012. The value of the long-term liabilities is the subject of Table 5.

Tab. 5: Long-term payables (in CZK thousands)

Item	Sum
Trade payables	0
Payables to controlled and managed Persons	0
Liabilities to accounting units under substantial influence	0
Payables to partners, cooperative members and associates	0
Long-term advances received	0
Issued bonds	0
Long-term bills for payment	0
Accrued liabilities accounts	0
Other payables	16,929
Deferred tax liability	0
Long-term payables	16,929

Source: Authors.

The value of each item of short-term liabilities is presented in Table 6.

Tab. 6: Short-term payables (in CZK thousands)

Item	Sum
Trade payables	148
Payables to controlled and managed Persons	3,173
Liabilities to accounting units under substantial influence	0
Payables to partners, cooperative members and associates	10,287
Payables to employees	0
Payables to social security and health insurance	0
State – tax liabilities and subsidies	15
Short-term advances received	5
Issued bonds	0
Accrued liabilities accounts	0
Other payables	0
Short-term liabilities	13,628

Source: Authors.

Bank loans and assistance are quoted in Table 7.

Tab. 7: Bank Loans and Assistance (in CZK thousands)

Item	Sum
Long-term bank loans	39,995
Short-term bank loans	0
Short-term financial assistance	0
Bank loans and assistance	39,995

Source: Authors.

K As of15 October 2012, the valuated business does not record any accruals and deferrals on the liabilities side.

Recapitulation

The value of the business determined using the assets method is shown in Table 8.

Tab. 8: Valuation recapitulation (in CZK thousands)

Item	Sum
Assets value	63,524
Liabilities value	70,552
Net Asset Value	-7,028

Source: Authors.

The value of net assets of NC XXX, s.r.o., calculated by the assets method, is as of 27 October 2012: -7,028,000 CZK.

Discounted cash flow method
The evaluator assumes the operational necessity of all assets and liabilities included in the financial statements and will not make a correction for operationally unnecessary items. Free cash flows to equity are called FCFEs. The FCFE calculation is based on the adjusted operating income (see Table 9 below).

Tab. 9: FCFE Calculation

Mathematical operation	Item
	Adjusted operating profit or loss before tax
-	Interest expense
=	Adjusted operating income before tax
-	Adjusted tax on adjusted operating income
=	Adjusted operating profit after tax (i.e. adjusted operating income for owners)
+	Depreciation
+	Other costs that are not expenditures in a

	given period
-	Investment (in necessary operating capital, fixed assets)
-	Payments of interest-bearing foreign capital
+	Acceptance of new interest-bearing foreign capital
=	Free Cash Flow to Equity (FCFE)

Source: Edited according to Mařík (2011).

Adjusted Operating Income (AOI) is one of the basic variables in DCF business valuation. To the operating income of a business, one-off expenditure unrelated to operating assets, financial investment income and interest income arising from operating assets are added at this stage. It is therefore necessary to set the adjusted operating income in each year of the first phase, and in the first year of the second phase, as seen in the attached financial plan. The calculation of AOI is given in Table 10. In addition to participating in stocks investments, most of the products with variable annuities in today's market offer different types of investment guarantees that protect policyholders from the risk of their investment (Feng, 2010). Interest is focused on the valuation of stocks and consequently on the distribution of the future economic benefits of the merged business to each owner (Toll, 2011).

Tab. 10: Calculation of AOI

Mathematical operation	Item
	Operating income
-	Operating revenues which are one-off and unrelated to operating assets
+	Operating costs which are one-off and unrelated to operating assets
+	Revenue from financial investments and interest income, if they come from necessary operating assets
-	Financial costs related to the necessary operation assets
=	AOI before tax

Source: Edited according to Mařík (2011).

In the case of interest expense, this is the sum of all interest expense attributable to the period.

Adjusted tax is the corporate income tax, the table below shows the development of this tax in the Czech Republic in the years preceding the valuation. In the last three years, the tax rate is noticeably stable and no change is expected, so the tax rate of 19% will also be considered for all future periods.

Tab. 11: Development of the Corporate Tax Rate in the Czech Republic

	2005	2006	2007	2008	2009	2010	2011	2012
Corporate tax rate (%)	26	26	24	21	20*	19	19	19

Source: Edited according to the Tax Advisors Portal.

Depreciation is the accumulated depreciation in the given year. For the first year of the first part of the valuation, i.e. 2012, depreciation will be determined as an aliquot part of the total annual depreciation for 2012 attributable to the period from October 27, 2012-31. 12. 2012, i.e. 2 months. Depreciation accounting is not carried out on a daily basis, but at a lower frequency, therefore, only part of the depreciation for part of the year will be used. The depreciation amount was taken from the internal depreciation plan of the building and the chairs of the valuated business, which was available to the evaluator.

In the established financial plan, no other costs are considered, which are not expenditures in the given period.

Investments in the submitted expert's report are understood to mean funds that are collected in the valuated business to create a repayment fund. A certain form of investment also involves the loan repayment, which is a time-shifted investment, where the loan temporarily approximates the possibility of investing in real estate, as opposed to creating a repayment fund. Generally speaking, the opinion is based on the assumption that the extent of the real estate property will be stable in the following period and will only be maintained at the appropriate qualitative level which will ensure its economic use in the form of a tenancy relationship over a longer period of time (the dependence between the constructional and technical property status and rental rates is established). It can be stated that as of the date of valuation, house no. 55 owned by the valuated business is in a very good technical condition (in December 2009 a complex and extensive reconstruction of the building was completed worth about CZK 70 million), which implies the minimum investment intensity in the building in the future. The valuated business addressed the financial coverage of larger investment projects (extensive reconstruction) in the form of a loan. From the logic of the matter, it is possible to classify this process as a retrofit of the repairs fund, and thus also as a re-investment of funds into real estate. In the case of the valuated business, the evaluator foresees the above-mentioned investment scheme also in the future. For the calculation, a methodology has been set up, which foresees investments up to the end of 2034 at the amount of CZK 0 (the same year in which the lease contract ends). Repayments of loans, which, according to the above, represent some form of investment, are covered in this period. The evaluator is of the opinion that due to the extensive reconstruction carried out in 2009, it will not be necessary to carry out any major and economically expensive modifications to the subject of the lease by 2034. In the years leading up to 2034, a repayment fund would be created where the annual considered investment is based on the reproduction cost of the building at the end of its lifespan of the majority of the constructions and the number of years remaining until the end of the lifespan of the majority of the constructions.

The reproduction price of the building at the end of the lifespan of the majority of the constructions was determined from the reproduction price of the building in 2012 (CZK 58,923,964 – the price was determined by the administrative procedure in the Expert Report No. 2087-177 / 12 of 19 November 2012 and the evaluator agrees with this price), which was increased by hypothetical inflation until 2112. The chosen year is set with respect to the expected lifetime of the entire construction and at a stable annual inflation rate the building would be valued at about CZK 426.9 million. It is possible to assume at the same time that it would be necessary to invest in 80% of the construction elements in that year. From the point of view of the planning of annual investments from 2035, it is necessary to take into account the necessary amount for a comprehensive reconstruction and the period for which the funds can be stockpiled. The annual investment from 2035 can be calculated from the following relationship:

$$Annual\ investment\ from\ 2035 = \frac{Reproduction\ cost\ of\ the\ construction\ in\ 2112 * 80\%}{2034 - 2112} \quad (7)$$

The annual investment from 2035 amounts to CZK 4,378,462. However, as it is a plan that is not able to take into account the current investment needs in future years, it can be stated that the calculated amount may also represent the repayment of loans drawn on adjustments to the lease agreement. In this respect, there is a significant link between the investment and the repayment of the loans as mentioned above.

Table 12 lists the investment and depreciation plan, except for 2012, it is always an annual total. In 2012, it is depreciation in November and December 2012.

Tab. 12: Investment and depreciation plan (in CZK)

	2012*	2013	2014	2015	2016	2017	2018	2019
Invest.	0	0	0	0	0	0	0	0
Deprec.	272,820	1,526,195	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128	1,636,928

	2020	2021	2022	2023	2024	2025	2026	2027
Invest.	0	0	0	0	0	0	0	0
Deprec.	1,516,128	1,516,128	1,516,128	1,516,128	1,636,928	1,516,128	1,516,128	1,516,128

	2028	2029	2030	2031	2032	2033	2034	2035
Invest.	0	0	0	0	0	0	0	0
Deprec.	1,516,128	1,516,128	1,516,128	1,516,128	1,636,928	1,516,128	1,516,128	1,516,128

*October-December 2012.
Source: Authors.

Because the evaluator does not have complete credit and liability contracts to determine this value, the information on interest-bearing foreign capital is taken from ABC Consulting, s.r.o. prepared on 19 November 2012. The authors of the report state that they have internal data and internal financial plans. The evaluator only accepts the values without being able to verify them. For a list of liabilities and a repayment schedule, see below.

The growth rate of the business during the second phase, assuming the activity continues, is expressed as g. The expansion of the business' economic activities is not foreseen, and only the continuation of the rental of the property is expected. Therefore, the business performance will grow and cash flows will depend in particular on the growth of the market for renting office spaces in Prague, and therefore the amount of rent. The minimum rental growth rate in the second phase should be equal to the Czech National Bank's target inflation rate (2%). If the nominal rent would grow more slowly than inflation, the actual value of the rent would decrease. However, given the specificity of Prague and the local demand for the lease of office space, this can not be assumed. Therefore, the annual growth rate, due to caution, is selected at 2%. This is also true for other calculation items where nominal inflation is projected to increase.

Equity means capital belonging to the owners of the business and is generally considered to be the main carrier of business risk. Its participation in total capital is therefore seen as an indicator of the financial independence of the valuated business. Another major source of financing for most enterprises is foreign capital, without which the valuated business would not function. Foreign capital is, in fact, the debt of a company that must be repaid at a specified time. Depending on this time period, it can be divided into short-term foreign capital (up to one year) and long-term foreign capital (longer than one year).

Every capital costs something, or has its own costs. The cost of equity is the owner's desired return. Of course, even foreign capital is not provided for free. The cost of using the foreign capital is the interest and other expenses associated with its acquisition. In general, foreign capital is usually cheaper than equity. However, certain facts stand against the above statement. Utilizing a higher rate of foreign capital increases the indebtedness of the valuated business and thus reduces its financial stability. A high proportion of foreign capital increases the risk of corporate bankruptcy. Each added debt is more expensive and is more difficult to obtain, as potential creditors are worried about their capital in case of liquidation of a highly indebted business. A large range of foreign capital also limits management behavior.

The cost of equity is individual and results from alternative options for capital use by the investor. This is the expected interest that will be paid to the investor - the owner as a reward for equity. The evaluator does not evaluate the main activity of the company (rental of real estate) as a significant risk. In the investor's portfolio, therefore, it would rather occupy a conservative position with lower returns.

The evaluator set the percentage of the cost of equity equal to the sum of the risk-free rate and the business risk premium. The risk-free rate was set by the Ministry of Industry and Trade for the 1st-3rd quarter of 2012 for CZ NACE group L "Real estate activities" at 2.55%. The risk premium for business risk was set by the same body for the same period and the same group at 4.03% for businesses under domestic control. The total cost of equity is 6.58%.

FCFF Calculation
As mentioned above, the first valuation step is the quantification of the adjusted operating income.

The evaluator considered the first phase of the valuation only with the earnings guaranteed by the Lease agreement. The signed Lease agreement set the rental income until February 28, 2034, and the lease is expected to be released in the amount of future market rental value. Market growth is expected to grow at a rate of growth of 2% (in line with inflation) and also during the years of set rent.

As the first step of the second phase, 2035 is considered as the first full calendar year with an income in the amount of market rent value. For reasons of caution and risk, finding the right tenant, the evaluator considers the loss of future market rent at 15% from March 2034.

Table 13 presents a projection of the expected development of annual market rent value of the rented property.

Tab. 13: Expected growth of market rent value (in CZK)

	2012	2013	2014	2015	2016	2017	2018	2019
Market rent value	6,300,000	6,426,000	6,554,520	6,685,610	6,819,323	6,955,709	7,094,823	7,236,720

	2020	2021	2022	2023	2024	2025	2026	2027
Market rent value	7,381,454	7,529,083	7,679,665	7,833,258	7,989,923	8,149,722	8,312,716	8,478,971

	2028	2029	2030	2031	2032	2033	2034	2035
Market rent value	8,648,550	8,821,521	8,997,951	9,177,910	9,361,469	9,548,698	9,739,672	9,934,465

Source: Authors.

The table in attachment 1 reflects the projection of the operating result. As a result of the CNB's inflation target, the 2% growth rate of items of performance consumption, taxes and fees, other operating costs, is considered due to inflation.

Performance consumption is made from items of services and material and energy Consumption. The annual material and energy consumption was set at CZK 50,000 based on available data from the profit and loss statement. Expenditure services have been determined on the basis of historical data and the assumption that further contracts between the lessee and the lessor are not available to the evaluator, see above. Value added expresses the difference between business performance and performance consumption.

The taxes and fees item is based on data from past years.

Depreciation of intangible and tangible fixed assets (hereafter IFA, TFA) are taken from internal depreciation plans available to the evaluator.
Other operating expenses are based on the data included in the financial statements for the previous accounting period.

In the following years, there are no one-off operating costs that are unrelated to operating assets or financial investment income and interest income if they stem from necessary operating assets. On the other hand, the financial expenses associated with the assets needed for operation are estimated, the amount is determined from the past, and it does not end with the repayment of liabilities, even after the foreign funds have been paid, the business will have some expenses, e.g. for bank account management, etc. The financial costs are expected to increase again by 2%, same as inflation. AOI before tax is shown in Table 14.

Tab. 14: Adjusted operating income before tax (in CZK)

	2012*	2013	2014	2015	2016	2017	2018	2019
Financial expenses	3,125	15,300	15,606	15,918	16,236	16,561	16,892	17,230
AOI before tax	692,847	4,267,505	4,267,446	4,257,117	4,246,582	4,235,837	4,224,876	4,213,696

	2020	2021	2022	2023	2024	2025	2026	2027
Financial expenses	17,575	17,926	18,285	18,651	19,024	19,404	19,792	20,188
AOI before tax	4,202,292	4,190,661	4,178,797	4,166,695	4,154,352	4,141,761	4,128,919	4,115,820

	2028	2029	2030	2031	2032	2033	2034	2035
Financial expenses	20,592	21,004	21,424	21,852	22,289	22,735	23,190	23,653
AOI before tax	4,102,459	4,088,831	774,930	760,751	746,289	731,537	5,115,424	6,145,438

*October-December 2012.
Source: Authors.

Interest expense and interest-bearing foreign capital payments are shown in the tables in Attachment 2 (values are taken from the report of 19 November 2012).

The value of the first phase of the company was calculated at CZK 4,777,418.29, the value of the second phase (from 2035 to infinity) was calculated to the amount of CZK 10,007,471.92.

The calculated value of the valuated company using the Discounted Cash Flow - Equity method was CZK 14,784,890 as of the valuation date.

4 Recapitulation

The value of the business determined using the assets method came to CZK -7,028,000. Using the method of discounted cash flows in the equity variant, CZK 14,784,890 was the final sum of calculation. If we include the impact of inflation, we will obtain the value of the business share of NC XXX, s.r.o. increased by inflation and after the rounding at CZK 15,135,000. Table 15 shows the actual development of yearly inflation.

Tab. 15: Development of inflation in the Czech Republic

	2013	2014	2015	2016*
Inflation	1.4%	0.4%	0.3%	0.3%

*As of June 2016.
Source: Authors.

5 Conclusion

The aim of the contribution was to determine the value of a 100% business share in a specific business and then to evaluate how the procedure has to be distinguished from conventional methodologies.

The evaluator first analyzed the business performance for the years prior to the valuation day and, using financial analysis tools, concluded that the valuated business had the preconditions for continuing its economic activity and thus the income potential for its owners as of the valuation date. The weakness of the business is a high share of foreign capital (more than 90%), which brings some uncertainty and financial instability. While preserving the assumption of going concern, the business will repay its liabilities by 2034 and will then operate at a minimal cost. In addition, leased real estate will not have to be burdened with legal defects - collateral. It can be said that in the long run, real estate is an asset that provides protection against inflation. In the long run, it can be expected that the value of the property owned by the valuated business will continue to grow. In assessing the business, however, it is necessary to look not only at this fact and the long-term trend of real estate prices, but also on the aforementioned risks attached to the valuated business.

For the valuation, two methods were selected and processed, namely assets and earnings methods. By the assets method, the negative value of the business was CZK -7 028 000. This method works by comparing the market value of assets and the book value of liabilities as of a certain date, but is unable to take into account the earnings potential of the business. The negative value found confirmed, in conjunction with the financial analysis carried out, the need to further continue the activities of the valuated business in order to repay past liabilities. Based on the results of the assets method and the financial analysis, the earnings method was applied. The earnings method quantified the business revenue potential for its owners and confirmed the ability of the business to repay its liabilities and to provide a reasonable profit to the owners.

The value of the 100% business share in NC XXX, s.r.o., as of October 27, 2012 at today's prices, amounts to 15,135,000 CZK.
The valuation of the business, which has been firmly linked to another company, namely KM, a.s., is fundamentally different from a standard valuation, and it differs in two specific points. First of all, the discounted cash flow method had to be used in the equity variant. A number of experts use the entity variant (for example, ABC Constulting, s.r.o.). Unfortunately, they do not realize that they set the value of the business not only for the owners but for all the investors (i.e. those that provide foreign capital). The result is then relatively highly disturbed when it comes to valuating the business share. Secondly, it was necessary to process a share of foreign capital as if it were equity (i.e., a loan from KM, a.s.). If this were not the case, KM itself (as the majority owner of the valuated business) would have to file a bankruptcy petition for the valuated business (as a majority owner of the valuated business). In addition, KM, a.s. was the main and perhaps the only customer of the valuated business. Thus a relationship was set up, which corresponded exclusively to the ownership relationships, not to the relationship between the creditor and the borrower. These deviations to determine the value of NC XXX, s.r.o. had a significant influence. However, it was necessary to process them in order to determine the true value of the business.
The aim of the contribution was therefore fulfilled.

The main conclusion of the contribution can be formulated as follows: In the case of the valuation to determine the value of a business share, it is most important to determine the actual value of the share, not to comply with the standardized methodology. What is more important is the principle of realistic representation of reality rather than the consistent application of standards.

Literature:

1. Brushwood, J. D.: The Market Valuation of the Permanent Book-to-Tax Differences Generated by Stock-Based Compensation Awards. *Journal of the American Taxation Association.* 2, 1-20.
2. Cooper, I. A.: Consistent valuation of project finance and LBOs using the flows-to-equity method. *European Financial Management.* 1, 34-52.
3. Czech National Bank. Cílování inflace ČNB [CNB inflation targeting] [online]. 2016. Available at: https://www.cnb.cz/cs/menova_politika/cilovani.html#inflacni_cile
4. Czech Statistical Office. Vývoj meziroční inflace [Annual inflation] [online]. 2016. Available at: https://www.czso.cz/csu/czso/mira_inflace
5. Czech Republic. Zákon č. 151 ze dne 17. června 1997 o oceňování majetku a o změně některých zákonů [Law No 151 of 17 June 1997 on the valuation of assets and amending certain laws].
6. Decree of the Ministry of Finance No. 3/2008 implementing Act No. 151/1997 Coll., On Valuation of Property and on Amendment to Certain Acts, as amended (Valuation Decree)
7. Dřínovský, L., Sršeň, P.: Tržní hodnota podniků [Market value of enterprises]. *Soudní inženýrství [Forensic Engineering]*. 2005, 16(4), 233-236.
8. Expert Opinion No. 2087 – 177/12 on the value of the share in NC XXX, s.r.o. (20%) prepared on 19 November 2012 by the ABC Consulting, s.r.o.
9. Expert Opinion No. 2691 – 131/15 on the determination of the value of 100% share in NC XXX, s.r.o. prepared on 19 October 2015 by Kreston ABC Consulting.
10. Feng, R. H.: Analytical valuation and hedging of variable annuity guaranteed lifetime withdrawal benefits. *Insurance Mathematics & Economics. 7*2, 36-48.
11. Financial Statements of NC XXX, s.r.o. for years available – Public register and collection of documents [online] 2016. Available at: https://or.justice.cz/ias/ui/rejstrik.
12. Honkova, I.: Assessment of the DCF Method in company valuation. *Hradec Economic Days*. 7, 296.
13. Ministry of Finance of the Czech Republic. Makroekonomická predikce České republiky – říjen 2012 [Macroeconomic forecast of the Czech Republic – October 2012 [online]. 2012. Available at: http://www.mfcr.cz/cs/verejny-

sektor/makroekonomika/makroekonomicka-predikce/2012/makroekonomicka-predikce-2012-8015
14. Nájemní smlouva č. 201109 uzavřená mezi KM, a.s. a NC XXX, s.r.o. ze dne 27. 2. 2012 vč. dodatku č. 1 ze dne 25. 4. 2012 [Lease Agreement No. 201109 concluded between KM, a.s. and NC XXX, s.r.o. of 27 February 2012 incl. of Supplement No. 1 of 25 April 2012].
15. Portal of Tax Advisors. Vývoj sazby daně z příjmů právnických osob v ČR [Development of the corporate income tax rate in the Czech Republic] [online] 2016. Available at: http://www.danarionline.cz/sazby--vzory--tabulky/uzitecne-tabulky/vyvoj-sazby-dane-z-prijmu-pravnickych-osob/
16. Revenda, Z., Mandel, M., Kodera, J., Musílek, P., Dvořák, P.: *Peněžní ekonomie a bankovnictví [Monetary Economics and Banking]*. 6. ed. Prague: Management Press, 2015. ISBN 978-80-7261-279-6.
17. Siegel, J. J.: *Investice do akcií: běh na dlouhou trať [Investment in Shares: Long Distance Running]*. Prague: Grada, 2011. Finance (Grada). ISBN 978-80-247-3860-4.
18. Simkovic, M.: The Evolution of Valuation in Bankruptcy. *American Bankruptcy Law Journal*. 91(2), 299-310.
19. Smlouva o půjčce č. SP 01/10 uzavřená mezi KM, a.s. a NC XXX, s.r.o. ze dne 26. 3. 2010
20. Smlouva o úvěru č. 7/10/LCD uzavřená mezi Českou spořitelnou a NC XXX, s.r.o. ze dne 18. 1. 2010 [Loan Agreement No. 7/10 / LCD concluded between Česká spořitelna and NC XXX, s.r.o. of 18 January 2010].
21. Smlouva o úvěru č. MJ IV. uzavřená mezi Milanem Jelínkem a NC XXX, s.r.o. ze dne 5. 3. 2012 [Loan Agreement No. MJ IV. concluded between Milan Jelínek and NC XXX, s.r.o. of 5. 3. 2012].
22. Soudní spis – spisová značka 10 C 177/2015, Okresní soud Praha západ [Court file - file number 10 C 177/2015, District Court Prague West].
23. Sourabh, S.: Liquidity risk in derivatives valuation: an improved credit proxy method. *Quantitative Finance*. 18, 467-481.
24. Synek, M.: *Podniková ekonomika [Business Economics]*. 2. ed. Prague: C. H. Beck, 2000, 456 p. ISBN 80-7179-300-4.
25. Toll, C.: Valuation of company merger from the shareholders' point of view. *Amfiteatru Economic*. 46, 836-852.
26. Váchal, J., Vochozka, M.: *Podnikové řízení [Business Management]*. Prague: Grada, 2013. ISBN 978-80-247-4642-5.
27. Vochozka, M.: *Metody komplexního hodnocení podniku [Methods of comprehensive company evaluation]*. 1. ed. Prague: Grada Publishing, 2011. 246 p. ISBN 978-80-247-3647-1;

Primary Paper Section: A

Secondary Paper Section: AH

Attachments

Attachment 1: Projection of Operating Income (in CZK)

	2012*	2013	2014	2015	2016	2017	2018
Performances	1,050,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000
Perf. consumption	68,500	411,000	419,220	427,604	436,156	444,880	453,777
Value added	981,500	5,889,000	5,880,780	5,872,396	5,863,844	5,855,120	5,846,223
Taxes and fees	6,667	40,000	40,800	41,616	42,448	43,297	44,163
IFA and TFA depreciation	272,820	1,526,195	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128
Other oper. costs	6,667	40,000	40,800	41,616	42,448	43,297	44,163
Operating Income	695,347	4,282,805	4,283,052	4,273,036	4,262,819	4,252,398	4,241,768

	2019	2020	2021	2022	2023	2024	2025
Performances	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000
Perf. consumption	462,853	472,110	481,552	491,183	501,007	511,027	521,247
Value added	5,837,147	5,827,890	5,818,448	5,808,817	5,798,993	5,788,973	5,778,753
Taxes and fees	45,046	45,947	46,866	47,804	48,760	49,735	50,730
IFA and TFA depreciation	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128
Other oper. costs	45,046	45,947	46,866	47,804	48,760	49,735	50,730
Operating Income	4,230,926	4,219,867	4,208,587	4,197,082	4,185,346	4,173,375	4,161,165

	2026	2027	2028	2029	2030	2031	2032
Performances	6,300,000	6,300,000	6,300,000	6,300,000	3,000,000	3,000,000	3,000,000
Perf. consumption	531,672	542,306	553,152	564,215	575,499	587,009	598,749
Value added	5,768,328	5,757,694	5,746,848	5,735,785	2,424,501	2,412,991	2,401,251
Taxes and fees	51,744	52,779	53,835	54,911	56,010	57,130	58,272
IFA and TFA depreciation	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128
Other oper. costs	51,744	52,779	53,835	54,911	56,010	57,130	58,272
Operating Income	4,148,711	4,136,008	4,123,051	4,109,834	796,353	782,603	768,578

	2033	2034	2035
Performances	3,000,000	7,398,934	8,941,019
Perf. consumption	610,724	622,939	635,398
Value added	2,389,276	7,181,815	7,808,898
Taxes and fees	59,438	60,627	61,839
IFA and TFA depreciation	1,516,128	1,516,128	1,516,128
Other oper. costs	59,438	60,627	61,839
Operating Income	754,272	5,138,614	6,169,092

*October-December 2012.
Source: Authors.

Attachment 2: Interest expense and Interest-bearing foreign capital repayments

Plan for financing by a loan from Česká spořitelna a.s. (in CZK thousands)

	2012*	2013	2014	2015	2016	2017	2018	2019	2020
Interest rate	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%
State as of 1.1.	39,995	39,019	33,499	27,979	22,459	16,939	11,419	5,899	379
Interest paid	206	1,363	1156	948	741	533	326	118	7
Payment	976	5,520	5,520	5,520	5,520	5,520	5,520	5,520	379
State as of 31.12.	39,019	33,499	27,979	22,459	16,939	11,419	5,899	379	0

*October-December 2012.
Source: Edited according to expert report dated 19 November 2012.

Plan for financing by a loan from Milan Jelínek (in CZK thousands)

	2012*	2013	2014	2015	2016	2017	2018	2019	2020
Interest rate	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%
State as of 1.1.	10,287	10,287	10,287	10,287	10,287	10,287	10,287	10,287	10,287
Payment	0	0	0	0	0	0	0	0	989
Interest paid	0	386	386	386	386	386	386	386	386
State as of 31.12.		10,287	10,287	10,287	10,287	10,287	10,287	10,287	9,298

	2021	2022	2023	2024	2025	2026	2027
Interest rate	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%
State as of 1.1.	9,298	8,218	7,138	5,958	4,658	3,238	1,688
Payment	1,080	1,080	1,180	1,300	1,420	1,550	1,688
Interest paid	349	308	268	224	175	121	63
State as of 31.12.	8,218	7,138	5,958	4,658	3,238	1,688	0

*October-December 2012.
Source: Authors.

Plan for financing by a loan from KM, a.s. (in CZK thousands)

	2012*	2013	2014	2015	2016	2017	2018	2019	2020
Interest rate	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%
State as of 1.1.	16,929	23,829	23,829	23,829	23,829	23,829	23,829	23,829	23,829
Withdrawal	6,900	0	0	0	0	0	0	0	0
Payment	0	0	0	0	0	0	0	0	3,240
Interest paid	165	896	896	896	896	896	896	896	840
State as of 31.12.	23,829	23,829	23,829	23,829	23,829	23,829	23,829	23,829	20,589

	2021	2022	2023	2024	2025	2026	2027
Interest rate	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%
State as of 1.1.	23,829	20,589	17,349	14,109	10,869	7,629	1,149
Withdrawal	0	0	0	0	0	0	0
Payment	3,240	3,240	3,240	3,240	3,240	3,240	1,149
Interest paid	718	596	475	352	231	109	9
State as of 31.12.	17,349	14,109	10,869	7,629	4,389	1,149	0

*October-December 2012.
Source: Edited according to expert report dated 19 November 2012.

Plan for financing by a loan from KM, a.s. (in CZK thousands)

	2012*	2013	2014	2015	2016	2017	2018	2019	2020
Interest rate	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%
State as of 1.1.	0	0	1,020	3,040	4,970	6,800	8,540	10,180	11,710
Withdrawal	0	1,020	2,020	1,930	1,830	1,740	1,640	1,530	160
Payment	0	0	0	0	0	0	0	0	0
Interest paid	0	6	99	139	210	278	342	402	443
State as of 31.12.	0	1,020	3,040	4,970	6,800	8,540	10,180	11,710	11,870

	2021	2022	2023	2024	2025	2026	2027	2027	2029
Interest rate	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%
State as of 1.1.	11,870	12,000	12,020	12,020	12,020	12,020	12,020	8,920	3,870
Withdrawal	0	0	0	0	0	0	0	0	0
Payment	130	20	0	0	0	0	3,100	5,050	3,870
Interest paid	448	452	452	452	452	452	408	242	55
State as of 31.12.	12,000	12,020	12,020	12,020	12,020	12,020	8,920	3,870	0

*October-December 2012.
Source: Edited according to expert report dated 19 November 2012.

Plan for financing by a loan (in CZK thousands)

	2012*	2013	2014	2015	2016	2017	2018	2019	2020
Interest rate	0.00%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%
State as of 1.1.	0	0	750	750	850	1,250	1,650	2,250	2,700
Withdrawal	0	750	0	100	400	400	600	450	850
Payment	0	0	0	0	0	0	0	0	0
Interest paid	0	14	28	30	39	55	73	93	118
State as of 31.12.	0	750	750	850	1,250	1,650	2,250	2,700	3,550

	2021	2022	2023	2024	2025	2026	2027	2027	2029
Interest rate	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%	3.76%
State as of 1.1.	3,550	4,050	4,500	4,920	5,420	5,920	6,420	7,970	8,570
Withdrawal	500	450	420	500	500	500	1,550	600	0
Payment	0	0	0	0	0	0	0	0	800
Interest paid	143	161	177	194	213	232	271	311	307
State as of 31.12.	4,050	4,500	4,920	5,420	5,920	6,420	7,970	8,570	7,770

	2030	2031	2032	2033
Interest rate	3.76%	3.76%	3.76%	3.76%
State as of 1.1.	7,770	2,920	6,020	1,020
Withdrawal	0	3100	0	0
Payment	4,850	0	5,000	1,020
Interest paid	201	168	132	19
State as of 31.12.	2,920	6,020	1,020	0

*October-December 2012.
Source: Edited according to expert report dated 19 November 2012.

Adjusted Operating Income before tax (in CZK)

	2012*	2013	2014	2015	2016	2017	2018	2019
AOI before tax	692,847	4,267,505	4,267,446	4,257,117	4,246,582	4,235,837	4,224,876	4,213,696
Interest expense	372,083	2,665,791	2,565,791	2,399,791	2,272,791	2,148,791	2,023,791	1,895,791
Adjusted Income before tax	320,763	1,601,714	1,701,655	1,857,326	1,973,791	2,087,045	2,201,085	2,317,905
Adjusted tax	60,945	304,326	323,314	352,892	375,020	396,539	418,206	440,402
Adjusted Income after tax	259,818	1,297,388	1,378,340	1,504,434	1,598,771	1,690,507	1,782,879	1,877,503
Depreciation	272,820	1,526,195	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128
Other expenses	0	0	0	0	0	0	0	0
Investments	0	0	0	0	0	0	0	0
Foreign capital payments	976,000	5,520,000	5,520,000	5,520,000	5,520,000	5,520,000	5,520,000	5,520,000
Acceptance of foreign capital	6,900,000	1,770,000	2,020,000	2,030,000	2,230,000	2,140,000	2,240,000	1,980,000
FCFE	6,456,638	-926,417	-605,532	-469,438	-175,101	-173,365	19,007	-146,369

	2020	2021	2022	2023	2024	2025	2026	2027
AOI before tax	4,202,292	4,190,661	4,178,797	4,166,695	4,154,352	4,141,761	4,128,919	4,115,820
Interest expense	1,787,798	1,658,605	1,517,997	1,372,389	1,222,021	1,071,141	914,749	751,469
Adjusted Income before tax	2,414,494	2,532,056	2,660,800	2,794,306	2,932,331	3,070,620	3,214,170	3,364,351
Adjusted tax	458,754	481,091	505,552	530,918	557,143	583,418	610,692	639,227
Adjusted Income after tax	1,955,740	2,050,965	2,155,248	2,263,388	2,375,188	2,487,203	2,603,478	2,725,124
Depreciation	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128
Other expenses	0	0	0	0	0	0	0	0
Investments	0	0	0	0	0	0	0	0
Foreign capital payments	4,608,000	4,320,000	4,320,000	4,420,000	4,540,000	4,660,000	4,790,000	5,937,000
Acceptance of foreign capital	1,010,000	630,000	470,000	420,000	500,000	500,000	500,000	1,550,000
FCFE	-126,132	-122,907	-178,624	-220,484	-148,684	-156,669	-170,394	-145,748

	2028	2029	2030	2031	2032	2033	2034	2035
AOI before tax	4,102,459	4,088,831	774,930	760,751	746,289	731,537	5,115,424	6,145,438
Interest expense	553,000	362,000	201,000	168,000	132,000	19,000	0	0
Adjusted Income before tax	3,549,459	3,726,831	573,930	592,751	614,289	712,537	5,115,424	6,145,438
Adjusted tax	674,397	708,098	109,047	112,623	116,715	135,382	971,931	1,167,633
Adjusted Income after tax	2,875,062	3,018,733	464,883	480,128	497,574	577,155	4,143,494	4,977,805
Depreciation	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128	1,516,128
Other expenses	0	0	0	0	0	0	0	0
Investments	0	0	0	0	0	0	0	4,378,462
Foreign capital payments	5,050,000	4,670,000	4850000	0	5,000,000	1,020,000	0	0
Acceptance of foreign capital	600,000	0	0	3,100,000	0	0	0	0
FCFE	-58,810	-135,139	-2,868989	5,096,256	-2,986298	1,073,283	5,659,622	2,115,471

*October-December 2012.
Source: Authors.