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ROLE OF FORECASTING SUPPORT IN DECISION-MAKING PROCESS. THE CASE OF DEBT TO EQUITY CONVERSION

ROLA PLANOWANIA FINANSOWEGO W PROCESIE DECYZYJNYM NA PRZYKŁADZIE KONWERSJI ZOBOWIĄZAŃ NA KAPITAŁY WŁASNE

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Summary: The articles addresses the usefulness of financial forecasting. Thus, the objective of the paper is to propose a forecasting approach that supports decision-making process in the context of debt to equity conversion. Methodology adopted in the paper involves an example case explaining the conversion of liabilities into equity. The considerations in the paper support the argument that the structured approach to financial forecasting is essential to understand the impact of debt to equity conversion on the future position of a company as reflected in its financial statement. The structure of the article is as follows. The first part of the paper focuses on the issues related to information support of decision-making process. The next section refers to financial forecasting in the context of debt analysis. In the last section we describe the use case, and the article concludes with a summary of work to date.

Keywords: financial forecasting, debt to equity conversion.

Streszczenie: Artykuł podejmuje problematykę użyteczności planowania finansowego. Celem opracowania jest zaproponowanie podejścia do planowania, które wspomaga proces decyzyjny dotyczący konwersji zobowiązań na kapitały własne. Przyjęta metodyka obejmuje analizę przypadku zastosowania w praktyce działalności przedsiębiorstwa, w którym przeprowadzono konwersję zobowiązań na kapitały własne. Rozważania prowadzone w artykule uzasadniają stwierdzenie, że ustrukturyzowane podejście do planowania finansowego jest niezbędne w celu oceny wpływu procesu konwersji na przyszłą sytuację podmiotu i podjęcie właściwej decyzji. W pierwszej części artykułu omówiono problemy informacyjnego wspomagania procesu planowania finansowego, następnie wyjaśniono rolę planowania finansowego w kontekście konwersji zobowiązań na kapitały własne. W ostatniej części zaprezentowno przypadek zastosowania w praktyce oraz podsumowanie prowadzonych badań.

Słowa kluczowe: prognozowanie finansowe, konwersja zobowiązań na kapitał własny.

1. Introduction

The essence of financial analysis is to address various problems of the current short-term decision-making as well as long-term strategic planning. Both types of decisions refer to the appropriate level of debt. Liabilities are necessary sources of business financing, however, serve also as important causes of financial risk, and may draw to the bankruptcy of the company. The main factor associated with financial obligations is the lack of internally generated funds allowing for their repayment.

The problems associated with assuring on-going continuation of business operations in its current form and size are very common in the practice of Polish companies. The obligation of estimating the ability of a company to operate in the future results from many legal acts, thus lack of meeting this requirement may result in legal sanctions taken against managers.

One of the most common reasons of solvency problems and disability of a company to continue its operations is an excessive amount of liabilities in relation to equity or total assets. Value of equity serves as an information basis on the ownership structure of the economic entity. One of the fundamental functions of equity is its ability to absorb losses from operations, however, such a situation is a very serious warning signal about the financial stability of the business unit. Each type of activity associated with the risk requires the appropriate capital surplus. Among the most common restructuring activities is to strive for eliminating excessive financial liabilities and business practice has developed many ways to reduce liabilities.

The objective of the paper is to propose a forecasting approach that supports decision-making process. Methodology adopted in the paper involves an example case explaining the conversion of liabilities into equity. The considerations in the paper support the argument that the structured approach to financial forecasting is essential to understand the impact of debt to equity conversion on the future position of a company as reflected in its financial statement. Considering the limits of pages and limited possibilities of deeper discussion, the paper analyzes the problems of debt to equity swaps.

The structure of the article is as follows. The following section focuses on the issues related to information support of decision-making process. The next section refers to financial forecasting in the context of debt analysis. Section 4 describes the use case, and the article concludes with a summary of work to date.

2. Information support of decision-making process

Functioning of each business entity is dependent on both internal information flow and information exchange with external environment. The internal information system is the basis for making strategic decisions (e.g. investment decisions) as well as current operational analyses. The most important part of such a system is the financial information database in its broad sense, i.e. reflecting the company situation

with respect of entity's assets and sources of financing, changes in these components, and operating income [Elliot, Elliot 2006, p. 28]. The elements included in the cash flow statement are also very important, because this statement provides information on changes in cash and these changes are essential in forecasting the entity's financial position.

All financial information is generated on the basis of accounting records which represent any valuable changes in the enterprise.

Analysis of financial statement is crucial for managerial decisions. Studying the dynamics of changes in the individual items disclosed in the financial statement allows for determining significant trends, and is the basis for making decisions. The typical decisions may refer to rejecting orders from customers who have problems with meeting their financial obligations or reducing sales volumes of unprofitable products which may expose a company to financial losses in the future.

Static analysis of a financial statement is also useful, because is aimed to investigate the relationships between various items disclosed under assets and liabilities and financial results of the company in a specified period [Tjia 2004, p. 201]. Such analysis allows very often to determine the risk factors associated with these items, and thus may supply managers with information on how to reduce risk.

Financial reporting should also provide information on risk associated with running a business, specifically risk usually associated with liabilities. Information about the risk referring to various liabilities is a very important signal to managers and allows them to take appropriate steps as soon as possible [Zager, Zager 2006, p. 37]. Actions taken on the basis of such information are rather prudential and often they will not be beneficial to the individual entity in a short run.

Financial reporting should serve as the basis for system protecting against risk, however financial reporting itself is not able to prevent a company from risk, since financial reporting is about providing both general information and specific information sources.

In company management an important role in terms of information on risk factors play additional reports and supplementary information, which are not prepared in a strictly formalized way. Despite the lack of a structured approach such statements are very important, because they are complementary to the information contained in the compulsory financial statements prepared according to legal requirements. This is, however, information available only for internal users and some external bodies and institutions legally empowered to require such information.

3. Financial forecasting in the context of debt analysis

The lack of cash is the most common reason to seek external sources of financing. Nowadays obtaining financing for large investments is very often a difficult task. In the absence of market stability, many banks refuse financing in the form of loans, and even regular customers with an established position, who pay their financial

obligations on time have problems with obtaining additional financing. The alternative solution in this case may be the commitment of a leasing. Large business organizations with complex organizational structures also use other methods of obtaining financing like corporate bonds.

Ratio analysis is a comprehensive method used by financial analysts. This is due to the fact that the set of financial indicators and metrics allow for multifaceted evaluation of the validity and effectiveness of the financial obligations [Arnold, Eisemann 2007]. While building financial ratios it is possible to compare liabilities with various items included in the balance sheet, profit and loss account, as well as cash flow statement. The most commonly used indicator in assessing company equity is represented by the following relationship (see e.g.: [Samonas 2015, p. 39]):

$$\text{Debt to equity rato} = \frac{\text{Total liabilities}}{\text{Equity}} \times 100\%. \quad (1)$$

The lower the ratio the better financial position of the company. This ratio is used not only by banks, but also by potential investors. This is why managers want to maintain company equity in excess of the financial obligations or want to systematically decrease liabilities while simultaneously increasing capital. Especially in the case of financial problems as well as problems with obtaining external sources of financing managers use various opportunities to increase equity.

The amount of liabilities should be monitored by managers on an on-going basis. Moreover, the position of a company in terms of debt should be under managerial control by means of preparing various simulation scenarios for the purposes of financial forecast. Forecasting the future amounts of liabilities and relationship between debt and equity will allow for professional risk assessment as well as the selection of appropriate management instruments

Appropriate analysis of risks of excessive debt should be conducted along with the methodology depicted in Fig. 1.

Manager of the company with excess debt should make the right decision with regard to capital structure. Based on the ontology presented in Fig. 1 manager should be guided by the possibilities which are available. Key decisions are as follows:

- to increase revenues and decrease debt ratio,
- to convert liabilities into equity,
- other actions connected with increase of the equity (if possible),
- to initiate going bankrupt.

Each of the available decisions should be made based on information derived from the financial statement, projections of future performance on the cost of debt, and possibility to increase the scale of business operations in the future. The key element supporting the managerial decision is to determine the prerequisites conditions based on the discussed factors. In the following part of the paper we present the intelligent decision support framework describing the process of converting liabilities into equity.

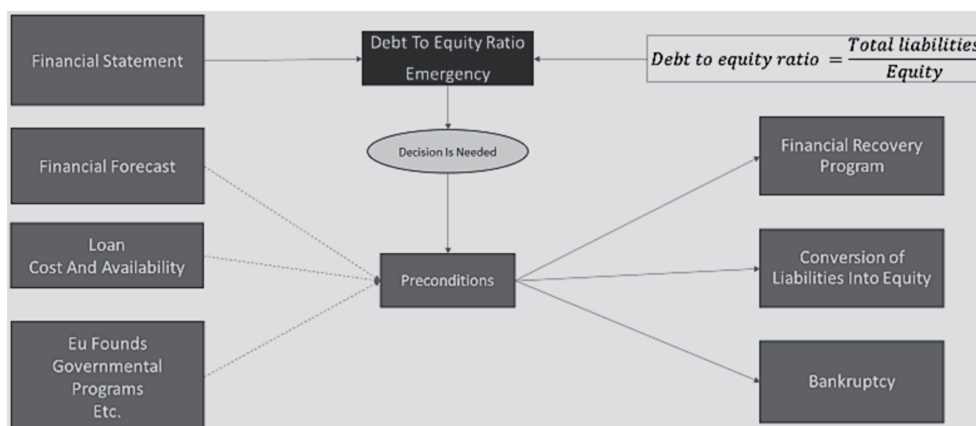

Fig. 1. Decision-making scheme

Source: own elaboration.

The information on liabilities is very important and helpful in estimating the entity's ability to continue its operations. Reliable information on total financial obligations of the entity is very important especially while deciding on strategic objectives, which affect both strategic plans and operational budgets. Information on liabilities disclosed in the balance sheet, however, is not enough, thus it is necessary to develop more detailed information as reflected in the pro-forma financial statements.

The process of forecasting financial statements is essential in effective management of any company. This allows managers to look into the future and analyze various scenarios. First of all, preparing prof-forma statements allows to recognize conditions and constraints in which a company is likely to operate. Financial forecast is obviously uncertain but acceptable version of the future position of the company. All financial projections should be adjusted taking into account industry in which company operates as well as macroeconomic and strategic factors [Muntermann 2007, p. 67], and managerial experience. The financial forecast is complementary to the financial analysis conducted based on historical data, and this is the next step informing about possible future threats to the enterprise.

Making decisions based on forecasted financial statements is dependent on the forecast horizon. Longer forecast period is more useful, however, there is a problem of reliability of such forecasting. Financial forecasts are often distorted, because it is not possible to foresee all circumstances, especially those which are beyond the control of the company.

Among the key factors hindering the preparation of accurate predictions are the following:

1) failure to determine future prices and other market factors,
2) problems with determining market demand for selected products and services,
3) limited access to important raw materials,
4) loss of key personnel of the company,
5) unpredictable machine breakdowns,
6) changes in legislation,
7) unidentified risks which considerably reduce future earnings.

The appropriate process of financial planning should be based on the largest possible amount of relevant factors. These factors should include: changes in the market structure, behavior of most important competitors, potential future difficulties, opportunities in the environment, other factors. The comprehensive process of financial forecasting is conducted based on the conjunction of many assumptions. Various assumptions may trigger off different scenarios, however effective forecasting should average out optimistic and pessimistic ones.

Identification of the real threat of bankruptcy is a difficult task, which is always associated with the arbitrary decisions made by managers. Managerial mistakes are often revealed after a long time on the basis of an extensive auditing techniques. According to legal requirements the bankruptcy of the company is unavoidable if there is a negative equity, i.e. debt exceeds total assets. Creditors aware of the fact that they can have difficulties in getting their money back on time are willing to convert these liabilities into equity shares. This gives them hope for future benefits, such as dividends or increases in stock prices. Moreover, being stockholders give them rights to influence decision-making process. The company which converts debt into equity is better off, because its financial standing increases, which results in a reduction of borrowing costs. General financial situation improves, because the balance sheet discloses lower debt, and penalty interest is not charged any longer. Financial liquidity also increases, which triggers off the ability of a company to take new loans.

The increase in equity may be conducted by means of the conversion of the liabilities into equity, i.e. issuing new shares and distributing them to creditors [Kufel et al. 2006]. This operation allows the enterprise to strengthen its credibility and significantly increases the asset management ratios [Manaligod 2005, p. 3]. Such a conversion contributes to the decrease in debt and increases financial liquidity. This method of raising equity capital is particularly important in a weak financial position, when the company is not able to serve its obligations or is threatened with bankruptcy [Beier, Prinzivalli 2003]. Increase in equity may thus contribute to the stabilization of the company. Unfortunately, in such a situation, there are additional risks like loss of control over a company by the current owners.

In order to prepare the right decision on the possible conversion of liabilities into equity managers should conduct a number of studies and analyzes confirming the validity of such an operation. Preconditions which enable making the right decision are presented in Fig. 2.

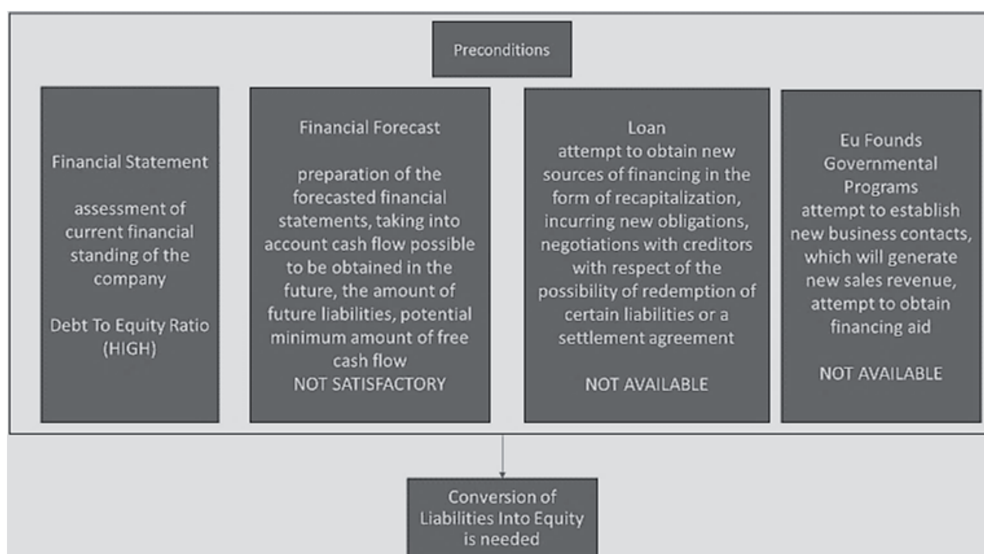

Fig. 2. Preconditions of conversion liabilities into equity

Source: own elaboration.

The most important factors that describe the decision-making process presented in the figure include:

1) assessment of current financial standing of the company based on: debt structure ratio, debt to equity ratio, liquidity ratios,

2) preparation of the forecasted financial statements, taking into account cash flow possible to be obtained in the future, the amount of future liabilities, potential minimum amount of free cash flow, outlook to obtain additional financing,

3) estimation of the indicators proposed above based on the forecasted financial statement,

4) attempt to establish new business contacts, which will generate new sales revenue,

5) attempt to obtain financing aid,

6) attempt to obtain new sources of financing in the form of recapitalization, incurring new obligations,

7) negotiations with creditors with respect of the possibility of redemption of certain liabilities or a settlement agreement.

If the above recommendations don't deliver the reliable information about the ability of the company to continue its operations, then the only way to avoid bankruptcy is to negotiate with creditors the conversion of liabilities into share capital.

4. Example of an analytical sequence supporting the decision to convert liabilities into equity

Improvement of the financial situation should be a dominant objective of managers. Support for the executives should also be given, as far as possible by the owners. An example of a sequential decisions that can be made to avoid the threat of bankruptcy is presented with the following use case. In the analyzed example, the company is the provider of specialist road works. Basic information describing the financial situation over three years is shown in Table 1.

There are also additional information and explanations given:

- dominant owner possesses 85% of shares,
- long-term liabilities is a 10-year investment loan (the deadline for full repayment in 8 years),
- 90% of short-term liabilities are liabilities tied with only one supplier.

Company delivers long-term construction services, of which the payments are carried out after the completion of the scheduled work.

Table 1. Selected financial information (in PLN)

Specification	2014	2015	2016
Share capital	600 000	600 000	600 000
Supplementary capital	600 000	430 000	30 000
Net Income	–170 000	–400 000	–90 000
Long-term debt	400 000	360 000	320 000
Short-term debt	500 000	900 000	1 300 000
Net fixed assets	1 300 000	1 200 000	1 100 000
Short-term receivables	400 000	600 000	800 000
Short-term investments including cash	600 000	200 000	80 000

Source: authors' own elaboration on the basis of the analyzed company.

Preliminary analysis of the situation draws to the conclusion that the financial standing of the company is not very bad and there is no evidence that the company will not be able to continue its business activities in the future. Debt to equity ratio calculated according to the formula (1) is presented in Table 2.

The increasing level of debt to equity ratio serves as the basis for the decision on the conversion of liabilities into equity. Financial performance demonstrated by the company significantly impedes the acquisition of external financing. The final decision should be made only after a detailed analysis of forecasts of selected balance sheet values. Table 3 presents the forecast of chosen values necessary for making a proper decision.

Table 2. Debt to equity ratio (%)

Debt to equity ratio	2014	2015	2016
	87	200	300

Source: authors' own elaboration on the basis of the analyzed company.

The forecast was prepared based on the following assumptions:

1) customers will slightly start paying money back,
2) just few new customers will not be acquired,
3) the amount of short-term liabilities will be increased by sanction fees,
4) the cash position will not be improved.

Table 3. Forecast of chosen financial data

Specification	2017	2018	2019
Share capital	600 000	600 000	600 000
Supplementary capital	0	0	0
Net Income	–260 000	–370 000	–470 000
Long-term debt	280 000	240 000	200 000
Short-term debt	1 380 000	1 500 000	1 700 000
Net fixed assets	1 000 000	900 000	800 000
Short-term receivables	800 000	700 000	640 000
Short-term investments including cash	80 000	20 000	10 000

Source: authors' own elaboration on the basis of the analyzed company.

While analyzing the projection of selected items it should be noted that in case of pessimistic scenario debt to equity ratio may reach dangerous values. In the last forecasted year, this ratio may reach the level of nearly 1500%, which is the terrible result from the perspective of all stakeholders.

Equity can amount to many times less than the amount of liabilities. As shown in the example, the conversion of liabilities into equity should be immediately negotiated even if this is unfavorable for current owners.

5. Conclusions

The analyzed example leads to the conclusion that the conversion of liabilities into equity should be carried out when there is a dominant owner with high potential for raising capital. Decrease in financial liabilities is highly desirable to improve financial standing, but it cannot be done at any price. The considerations contained in the paper underline the need for in-depth analysis of the conversion of financial liabilities into equity.

Conversion of liabilities into equity is closely linked with the likelihood of loss of corporate control. Such a decision should be taken if the only alternative is going

bankrupt. A key tool of decision support for a manager is a financial forecasting, because based on financial planning managers are able to determine the chances of survival of the company. Financial forecasts prepared in a proper way may avoid to make an unnecessary decision to convert liabilities. This is why on the one hand forecast prepared under pessimistic scenario may lead to loss of control, on the other the optimistic scenario may cause bankruptcy of the company.

Financial forecasting is an important tool provided the future scenarios are estimated in the most accurate way. A comprehensive assessment of the accuracy and quality of the prediction can be made in the future. It is necessary to carry out research oriented towards identifying key factors that determine the high accuracy of the forecast. An important issue is the contextual financial forecasting adopted to the future decisions under consideration. It is also necessary to develop a methodology using macroeconomic and industry-specific indicators related to the company environment and provided by various external experts and professional institutions.

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