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INFLUENCE OF AGE ON SELECTED PARAMETERS OF INSOLVENT COMPANIES

Abstract

It is natural for the market economy that companies are forced to leave the market when they are not able to survive anymore. This paper is focused on the age structure of the companies in default. The age is considered a period between corporate establishment and insolvency declaration. The paper analyzes whether companies, which report financial accounting statements, have different age structure than non-reporting entities. Data sample consists of 212 companies (147 reporting and 65 non-reporting entities). Moreover, the analysis points out if corporate financial standing differ according to the age structure observed. Using descriptive statistics tools, the observed relationship between the company age and the frequency of insolvency cases is expressed. The evaluation of the financial standing is based on a ratio analysis. Indicators such as return on assets, return on sales, debt ratio, cash and non-cash liquidity, and asset turnover are applied. The results show there are not significant differences in the age structure between the reporting and non-reporting enterprises. Values of financial indicators seem to be independent on the age structure. The paper provides explanations and brings a classification of specific differences observed such as a distinction between reasons due to sector specificities and partly due to the specifics of the current business environment in the Czech Republic (monitored period 2014 – first quarter 2019).

Keywords

corporate insolvency, age of the enterprise, disclosure discipline, construction industry, the Czech Republic

JEL Classification

G33, M21

INTRODUCTION

Estimation of corporate bankruptcy is an essential issue of risk management. Nowadays the economic environment is more turbulent than in previous decades. Consequently, enterprises are not able to react flexible and have to leave the market. Many enterprises finish their existence already during the first years after establishment. Due to the turbulent environment, the current company life existence is shorter than in the past. Although corporate defaults are a natural part of the market economy, they could have serious consequences for many kinds of participants.

The relationship between the company age and the risk of default has become an issue of theory as well as practice. Post transition economies have undergone different changes in contrast to most developed free market economies. These changes could also influence the risk of default depending on the company age. According to the literature review, there is a lack of research focused on the post transition economies. This paper is focused on the age structure of enterprises in default and their financial standing in the Czech Republic, which is the example of the post transition economy. Old companies are in different position and therefore their financial standing could differ from newly established companies. The paper aims to estimate whether there are significant differences in financial standing depending on the company age.

1. LITERATURE REVIEW

Almost 50% of newly established entrepreneurial entities finished their existence within the first five years due to bankruptcy according to the Entrepreneurship 2020 Action Plan (2012). Cressey (2006) even proved that almost half of enterprises analyzed finished unsuccessfully in the first two and a half years of trading. Bradley and Rubach (2002) introduced comparable findings and confirmed that the second and the third year are connected with the highest risk of default, in contrast to Austrian companies that are highly affected until the fifth year (Kucher et al., 2018). Corporate defaults have serious consequences not only for individual participants as employees and entrepreneurs but also for economic systems affected (Lee et al., 2011; Peng et al., 2010).

Since establishment a company analyses its potential, competitiveness, and efficiency (Jovanovic, 1982). It takes some time and effort to learn enough to become flexible and be able to manage potential objectionable issues (Pakes & Ericsson, 1998). During these stages, entrepreneurial successes, including financial, have strong links with effectiveness of internal business environment management, particularly, human resource management (Bilan et al., 2020a), efficiency of marketing strategy (Sikora & Baranowska-Prokop, 2018) within the holistic system of business management. Some companies are not able to learn enough and they have to withdraw from the market at the end. Cressey (2006), Bradley and Rubach (2002), and Kücher et al. (2018) showed that the first year of the existence has the highest risk of default. Older companies have more experience (Doyle et al., 2007) and they have already managed many operational and financial difficulties during their life cycle. Kücher et al. (2018) highlight that young companies go bankrupt because of internal shortcomings, in contrary to the older companies whose bankruptcy is the result of increased competition or economic slowdown.

Jovanovic (1982) developed theoretical model describing the relationship between the company age and the risk of default. This distribution is positively skewed and could be described as in-

verted U. The visualization according to Korol (2019) is available in the Discussion section. This theoretical model has become an inspiration for Cressey (2006) and Kücher et al. (2018). Maubossin (2017) showed that the existence and significance of companies have become shorter over last several decades. These research activities mostly focused on companies trading in most developed market economies. There are almost no research findings for Central and Eastern Europe. Nehrebecka (2011) conducted the research of corporate life expectancy in Poland. Korol (2019), who focuses on corporate bankruptcy forecasting in Poland, also addressed this issue. Lukason (2018) analyzed dependencies of bankruptcies on corporate age and size in Estonia. Paudel and Devkota (2018) obtained similar dependencies investigating determinants of the small business performance in Nepal-India border. Besides, Korol's two-function model was also examined using case of Colombia (Arroyave, 2018) with evidences of high relevance of the results. Due to different development of post transition economies in comparison to most developed free market economies, this issue could be also analyzed in Central and Eastern Europe.

Although Nehrebecka (2011) focused on the corporate life expectancy in Poland, she addressed the issue of different industry sectors and their influence on the life expectancy, but not on the default probability. The longest life expectancy was detected in agriculture, the shortest in construction and transportation. Ganguin and Bilardello (2005) highlighted that some industries are riskier than others in the case of default. Different industry sectors can also perform different values of financial indicators. The industry sensitivity can be proved by leverage (Frank & Goyal, 2009; Oztekin, 2015; Stryckova, 2017), working capital and liquidity (Vlachý, 2018), corporate profitability (Jackson et al., 2018), assets growth, personnel turnover and performance changes (Bilan et al., 2020b), competitiveness and creditworthiness (Hájek et al., 2019). Specific industry branch influences the quality of financial performance estimated (Fairfield, 2009; Lee & Alnahedh, 2016) or quality of corporate bankruptcy prediction (Chava & Jarrow, 2004). According to these findings, industry

sector and life cycle stage (Karniouchina et al., 2013) can significantly affect results achieved regarding age structure and financial standing.

The length of corporate existence could be understood in many ways. The starting point could be the entrepreneur idea, company establishment or the first contract signed (Fayolle et al., 2014; Ganco & Agerwal, 2009). On the contrary the ending point can be expressed as the termination of production, dismissal of employees or termination of registration in the Business Register (Akhter et al., 2016; Habib & Hasan, 2016). This paper defines the length of corporate existence as the difference between the year of insolvency declaration and the year of corporate establishment. Insolvency declaration is not identical with the market exit but it shows the moment when the company is not able to exist anymore. Insolvency declaration also announces corporate bankruptcy officially according to the law. According to Smrcka (2013), majority of insolvency proceedings take many years in the Czech Republic. Consequently, termination of the registration in the Business Register would lead to distort results. Insolvency means general inability to pay debts (Crone & Finlay, 2012; Jardin, 2017), namely lack of liquidity and the inability to pay current liabilities (Korol, 2019). Additionally, default may be understood as a long-term state and therefore is determined as over indebtedness when the assets value is lower than the value of total debts (Moyer, 2005; Schonfeld et al., 2018; Altman, 1968). Insolvency seems to present the appropriate selection of the ending point.

2. AIMS

The paper aims to analyze whether company financial health differ according to the age structure observed. Old companies are in different position and therefore their financial state could differ from newly established companies. This paper has to determine the age structure of enterprises in default in the Czech Republic, which is the example of post transition economy. The companies are divided into separate groups according to their lifetime. Different aspects of financial standing such as profitability, liquidity, leverage, and activity are assessed. The financial standing of different age groups can be compared.

3. METHODOLOGY

The materials analyzed corporate reports included in the prepaid Albertina database in 2019. The analyzed years are specified further in this subpart. The corporate reports describe observations (individual enterprises) fulfilling predefined requirements. Each report characterizes one enterprise and contains annual financial statements such as balance sheet and income statement. The steps of a conducted analysis are introduced according to the methods applies. The explanation provided enables any other researchers to replicate the analysis carried-out in this research.

3.1. Materials and data

The aim is achieved using the data specified in this section. First, the entities with insolvency declaration have to be detected. Second, their financial statements have to be obtained. The Albertina database is a relevant source of information fulfilling purposes. Regarding insolvency announcement, the database itself provides the list of the companies, which declared insolvency or in other words went bankrupt according to Act. No. 182/2006 Sb. on Insolvency and its Resolution (generally called Insolvency Act). The database does not contain complete information for all observations. There are two missing pieces of information. The first thing is that the data of insolvency declaration is unknown although the enterprise is included in the list mentioned above. The missing information can be taken from additional data source. The relevant data sources are represented by the Business Register or Insolvency Register, which are accessible online. They are operated by the Ministry of Justice and therefore contain official information. Despite their qualities, these registers have some shortcomings (Smrčka, 2013).

First, the conducted research has to describe the age structure of the companies in default. The Albertina database has the limitations of being devoted to existing enterprises. Default cannot be detected for the unlimited period. The market exit (termination of registration in the business register) means that the database delists particular company. It leads to the con-

clusion that the list consists of the companies, which declared insolvency from 2014 to the first quarter of 2019. It should not be seen as a limitation but as an advantage that bankruptcies are not affected by the significant exogenous shock such as the recent global economic crisis. This issue is discussed by Svobodová (2013), Achim (2012), and Smrčka (2013).

The aim is focused on the financial standing and its differences according to the age structure observed. Accounting data is a necessary output therefore financial statements are downloaded from the database and used for a further analysis. The financial data always describes the accounting year of one or two years before the insolvency. The main obstacle is that many enterprises do not comply with the disclosure discipline determined by the law in the Czech Republic. The non-reporting of financial statements is a general long-standing issue addressed by Strouhal (2014). Regarding insolvent enterprises, the non-reporting are observed more often (Bokšová & Randáková, 2013). Consequently, the data sample is divided into two subparts. The first subpart contains the reporting entities for which the financial standing can be determined. The second subpart consists of the non-reporting entities for which only age structure can be found out.

Theoretical part pointed out the importance of affected industry branch. The belonging to the specific industry sector influences the probability of default as well as the general values of the indicators describing corporate financial standing. Thus, only one industry branch is analyzed. It is essential to choose the appropriate sector. According to Pirohanic (2020) and Camska (2013), the branch CZ-NACE F Construction seems to be a good choice due to its homogeneity and especially a large absolute number of insolvent entities included in recent years.

Table 1 characterizes the data sample analyzed respecting the aforementioned conditions. The enterprises are divided according to their disclosure discipline and the year of the insolvency declaration. The last column and row provide summarized numbers for each data category. Companies are unevenly distributed. Time dependency may be not detected.

Table 1. Data sample structure

Source: Authors' calculations based on the Albertina database.

Year	Reporting companies	Non-reporting companies	All companies
2014	19	4	23
2015	37	4	41
2016	40	19	59
2017	30	25	55
2018	21	12	33
2019Q1	0	1	1
Total	147	65	212

3.2. Methods

The paper aims to analyze the age structure. The length of corporate existence is determined by two time moments. The first one is the establishment of an enterprise, which was available for all observations in the Albertina database. The second one is the insolvency declaration, whose year was not available and therefore the year has been taken from the Business Register. The length of corporate existence is defined as the difference between the insolvency declaration and enterprise establishment. The length is calculated according to Equation 1. This paper does not distinguish days of existence. It means only years are essential and the length of existence is measured in years.

$$\begin{aligned} \text{Length of existence} &= \\ &= \text{YEAR}_{\text{Declaration}} - \text{YEAR}_{\text{Establishment}} \end{aligned} \quad (1)$$

The length of existence is found out for each enterprise included in the data sample. The companies are grouped into the following intervals: 0-5 years of existence, 5-10 years of existence, 10-15 years of existence, 15-20 years of existence, 20-25 years of existence and above 25 years of existence (but shorter than 30 years). Single years cannot be analyzed because of the size of data sample. The research is carried out on a discrete basis. According to Table 1, the analysis can be conducted separately for data subsamples as well as for the merged data sample. Trend estimation is based on moving average. Moving average is an appropriate choice due to corporate default that does not occur from day to day but needs some time in the company to explode. The age of business is calculated in years. Consequently, this paper works with the tool of moving average.

The financial state of reporting entities can be determined by many methods and tools. In the case of the Czech Republic, market information recommended by Balcaen and Ooghe (2006) cannot be applied because almost none existing companies are publicly listed and regularly traded. One of the most preferred method is financial ratios (Vlachý, 2018; Jordan et al., 2011). This method evaluates the different aspects of financial situation such as profitability, liquidity, activity, and leverage. The limitation of this method is caused by several aspects analyzed, as well as by the undefined number of indicators. Vlachý (2018) and Jordan et al. (2011) provided general description of ratio indicators. Indicators are also discussed in connection to the risk of bankruptcy (Altman & Hotchkiss, 2010; De Laurentis et al.; 2010, Campillo et al., 2013; Kliestik et al., 2020). García (2009) emphasizes the earnings quality of insolvent enterprises. These discussions lead to efforts to construct models, which are able to predict potential default or bankruptcy. Among the most famous models that predict corporate financial distress Altman Z-Score (Altman, 1968) and Taffler models (Agarwal & Taffler, 2007) can be mentioned. The following list of indicators is set up, which is used for the evaluation of corporate financial standing. 10 selected indicators are presented below:

1. Classic Return on Assets (ROA) belongs to the most preferred indicators in the area of profitability. It is defined as EBIT over total company's assets. EBIT is calculated as net income and income tax paid plus interest expense. It is the kind of profit, which includes effects for owners, government, and creditors.
2. Modified Return on Assets (ROA) can be calculated with different kinds of profit. EBITDA, which contains also depreciation and amortization in comparison to EBIT, is chosen for analysis.
3. Return on Sales (ROS) is another example of profitability ratio. It compares a profit with sales generated. Different kinds of profit can be used for a calculation. ROS works with EBITDA in its nominator.
4. EBITDA is an absolute indicator showing the corporate success measured by the value

of profit achieved. Construction industry belongs to highly capital-intensive sectors therefore the value of depreciation and amortization creates the significant part of operational costs.

5. Debt ratio focuses on corporate leverage and it shows proportion of debts used for financing. The ratio is constructed as total liabilities divided by total assets with no regard how they are financed.
6. Cash liquidity is the indicator comparing value of cash and its equivalents (in other words short-term financial assets) and short-term liabilities. It is essential according to Schonfeld (2019 and n.d.), who expressed the necessary operating cash as 15% of corporate short-term liabilities.
7. Company's liquidity is not based only on cash and its equivalents but also on other items of current assets. This ratio will exclude short-term financial assets. The nominator contains inventories and receivables and the denominator consists of short-term liabilities.
8. Another liquidity indicator is calculated as net working capital divided by assets. Net working capital is defined as the difference of current assets and short-term liabilities. Current assets consist of inventories, receivables, cash and its equivalents.
9. General activity ratio is commonly presented by sales divided by total assets. It compares the outcome of operational activities with all assets needed to achieve them.
10. Value of assets represents an absolute indicator which characterizes the size of an enterprise.

The first three indicators (and indicator 4 as well) describe the corporate profitability from different angles. Negative or extremely low values show that the company is not successful and is not able to change its activities in positive results. Indicators 6-8 are dedicated to liquidity achieved. The enterprise should have enough liquid assets to pay its operational activities expressed by short-term liabilities. Indicator 5 solves leverage. Extreme leverage

is even a reason for insolvency declaration (Korol, 2019). Indicator 9 is focused on company’s activity. On the one hand, the enterprise owns property, but on the other hand it is necessary to use its sources effectively and achieve sales. Indicators 4 and 10 are absolute and describe the size of a company. The absolute value of EBITDA is more the criterion of success than of the size generally.

These indicators are applied on 147 companies, which reported their financial accounting statements. It must be emphasized that the individual results are summarized and presented according to each age interval of existence defined above. The summarization is based on the general characteristic of descriptive statistics. Instead of mean, which is highly affected by outliers, the indicator median has been selected. It is used for general introduction of results and visualization, which enables better understanding. The results achieved are presented in tables and figures displayed in the next section.

4. RESULTS

The first step is to analyze and describe the age structure. Figure 1 displays the number of insolvent companies divided according to their age structure. It seems there are no significant differences between reporting and non-reporting entities. The highest numbers are reached by the youngest companies. Low numbers are attained by the companies that exist longer in general.

As the following step, these two data subsamples are not only visualized, but also moving average is applied, which describes the trend observed. The modelling does not work with the age intervals but with the annual data observed. Figure 2 presents the obtained results. The coefficients of determination (R^2) achieved prove that most data variability is caused by time shifts. Other factors seem less significant (all enterprises $R^2 = 77.5\%$, reporting enterprises $R^2 = 84.8\%$, non-reporting enterprises $R^2 = 58.8\%$). The coefficient of determination (R^2) for non-reporting enterprises is the lowest but it still explains almost 60% of data variability. It should be emphasized that the low coefficient is also influenced by the sample size.

The next step is the evaluation of corporate financial standing. In this case, it is possible to analyze companies that reported their accounting data. The applied indicators were introduced in the section Methods and use the same number codes. Absolute indicators such as EBITDA (indicator 4) and the value of assets (indicator 10) are expressed in thousand CZK. The other indicators belong to ratios. Figures 3 and 4 present absolute indicators characterizing the enterprise size. Median for all indicators divided according to the age structure can be found in Table 2.

EBITDA is more the measure of success than the enterprise size. The median of EBITDA till 20 years of existence is around zero. The oldest companies generated significantly more negative EBITDA than their younger competitors. The prof-

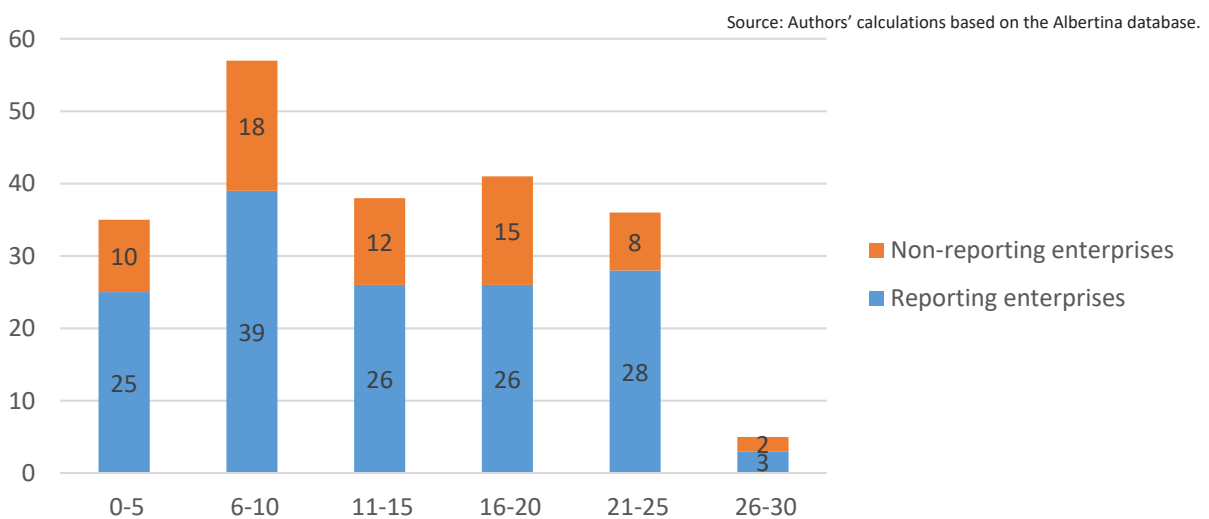


Figure 1. Age structure observed

Source: Authors' calculations based on the Albertina database.

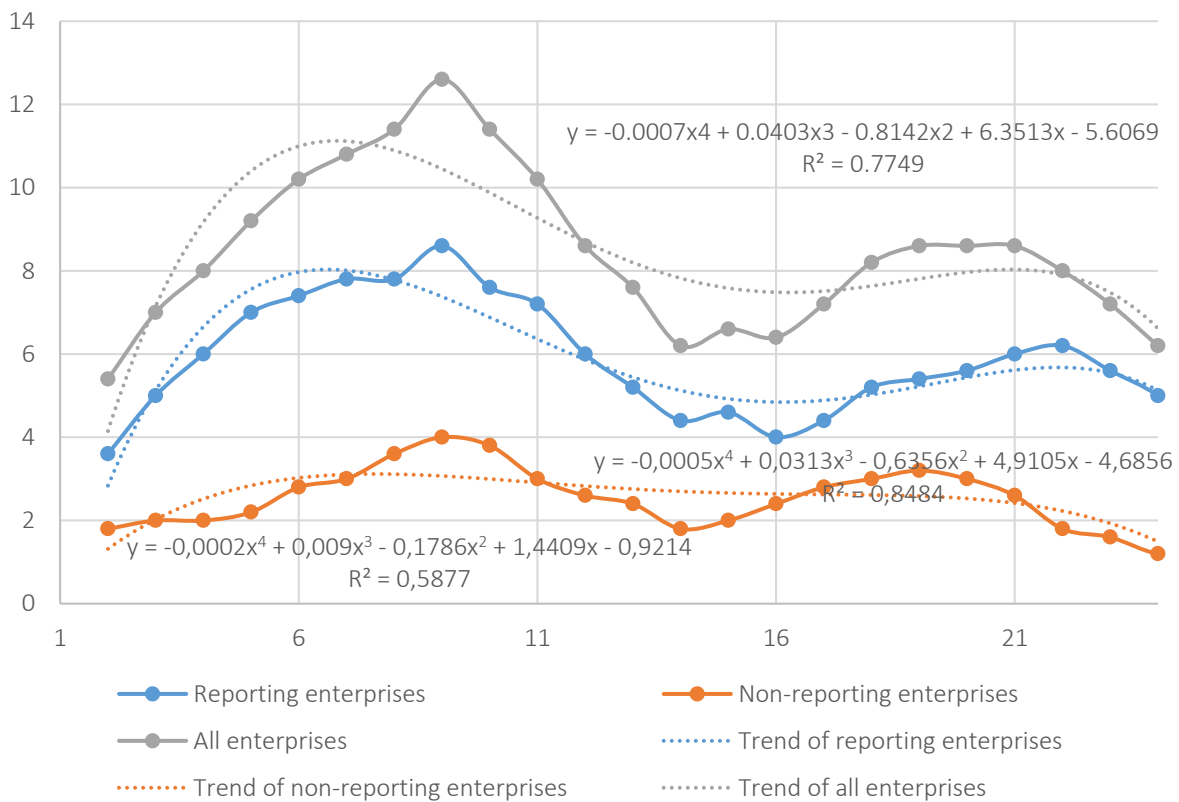


Figure 2. Trends modelled by 5-year moving average

it EBITDA does not reflect financing and depreciation and still the companies are not able to generate positive outcomes one or two accounting years before the insolvency declaration. For EBITDA margin (EBITDA over sales, marked as indicator 3), more warning signals are discovered. This indicator can be calculated only for 116 enterprises. It means that 31 enterprises generated sales equal to zero 1-2 accounting years before the insolvency declaration.

Table 2 presents the median of selected indicators divided into analyzed age categories. It should be noted that standard deviation or variance does not taking into account indicator value and variation coefficient respecting indicator value and reach extreme numbers. The brief description of indicators applied is mentioned. The first four indicators describe profitability, the fifth indicator is dedicated to leverage, indicators 6-8 characterize the level of enterprise

Source: Authors' calculations based on the Albertina database.

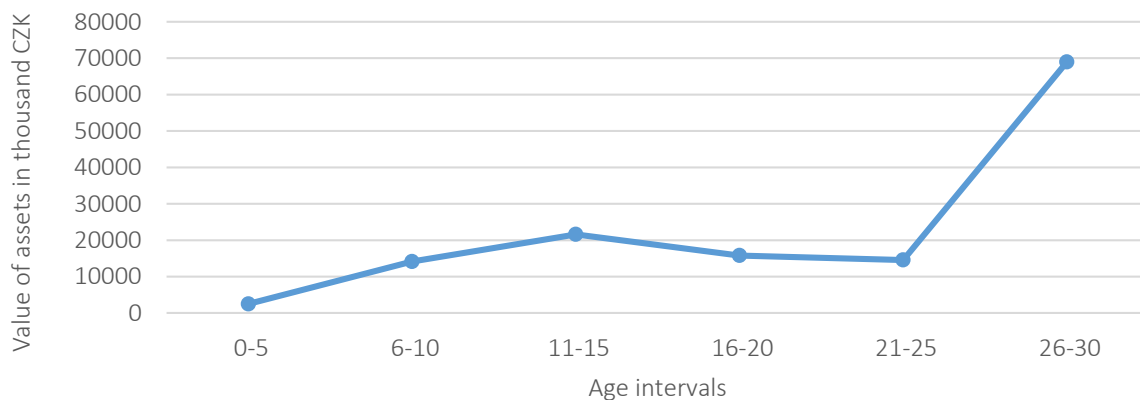


Figure 3. Value of total enterprise assets (measured in thousand CZK)

Source: Authors' calculations based on the Albertina database.

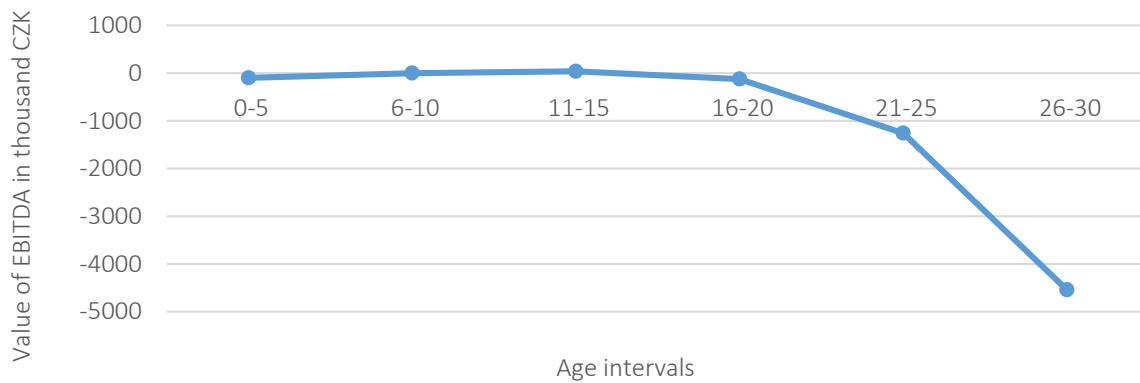


Figure 4. Value of enterprise EBITDA (measured in thousand CZK)

Table 2. Median of selected financial indicators

Source: Authors' calculations based on the Albertina database.

Indicator	Intervals of existence in years					
	0-5	5-10	10-15	15-20	20-25	25-30
Indicator 1	-0.065	-0.001	0.000	-0.010	-0.149	-0.104
Indicator 2	-0.020	0.000	0.001	-0.009	-0.142	-0.081
Indicator 3	-0.023	-0.009	0.019	0.024	-0.098	-0.100
Indicator 4 (in thousand CZK)	-99	0	39	-124	-1,258	-4,543
Indicator 5	1.057	1.019	0.917	1.012	1.116	1.094
Indicator 6	0.079	0.042	0.036	0.015	0.026	0.038
Indicator 7	0.769	0.767	0.911	0.693	0.620	0.585
Indicator 8	-0.065	-0.068	0.067	-0.143	-0.201	-0.279
Indicator 9	1.232	0.100	0.941	0.470	1.597	0.812
Indicator 10 (in thousand CZK)	2,494	14,137	21,585	15,787	14,555	68,965

liquidity, indicator 9 is focused on activity, and indicator 10 represent the asset size.

Profitability ratios are very low and they reach mostly negative values. Indicator 5 solving leverage exceed one in most cases. It means that more than 50% of the analyzed companies are over indebted. Value of their debts is higher than value of their assets. Companies in the interval 10-15 years of existence are less indebted. Liquidity ratios are focused on the short-term ability to pay debts. For cash and its equivalents, it is possible to observe that the youngest enterprises show the highest level of cash but the cash level decreases, and this level increases for the oldest enterprises. In addition, younger companies tend to have higher non-cash liquidity (indicator 7). The most warning results are achieved regarding indicator 8, which works with net working capital. Companies show most-

ly negative net working capital and its proportion to total assets decreases as they become mature. Activity ratio (indicator 9) reaches the values around 1 for most age categories.

5. DISCUSSION

It is highlighted (Cressey, 2006; Bradley & Rubach, 2002; Kucher et al., 2018) that the age structure of the defaulted enterprises should not be homogeneous and variances need to be expected. Figure 1 provides evidence in this area. It supports the statement that the age structure is not homogeneous and there are differences according to the age. Younger enterprises are affected most often than mature companies. Longer business existence leads to a decrease in the number of defaults. Older enterprises have more experience and are

able to react and handle crises. Still the findings do not fully correspond with Cressey (2006), Kücher et al. (2018), Bradley and Rubach (2002). Results showed that companies went bankrupt later. The highest default rate has been observed in the category of 6-10 years, comparing to previous findings, which mentioned younger companies the most.

Some discrepancies could be mentioned. The companies are generally not established equally because they are set up in waves following macroeconomic cycle, specific conditions connected with analyzed industry sector, government supportive incentives, and even political shocks. In the case of the Czech Republic, the general establishing boom was triggered by Velvet revolution in 1989, which caused the end of the command economy and the beginning of the free market economy where private ownership creates the foundation of entrepreneurship activities. It explains why the data sample does not contain any enterprise older than 30 years. The number of enterprises before 1989 was significantly lower than in the 1990s and mostly large companies existed before. It should be noted that the recent global economic crisis did not provide an incentive to establish the businesses especially in the sector of construction. It could lead to the lower numbers observed among young companies.

Jovanovic (1982) introduced the model describing the relationship between the company age and the risk of default. Korol (2019) introduced the visualization. The enterprise age serves as an independent variable and the risk of default as the dependent one. The first years of existence are associated with a high probability of company default. After the first years, the probability decreases and with increasing age, the limit of probability begins to approach zero (convex convergence to zero). These conclusions are based on the probability of default. It should be highlighted that Figure 1 does not display this described relationship of enterprises' age. Due to the sample size and the different times of establishment, it is impossible to calculate this probability. In contrast to, it has not been the aim announced.

Modelling trends by moving average (Figure 2) shifts results closer to theoretical curve describing the relationship of age and probability of de-

fault (visualization provided by Korol, 2019). The trend gained does not converge convex to zero. Firstly, the theoretical curve displays the probability. Secondly, there are almost none companies existing longer than 30 years in the Czech Republic. As it has been noted, there are older companies in the sample and therefore the second peak occurs and does not descend monotonously. It is caused by the unequal establishment. The construction industry has also its specificities, among them long production cycle and extreme sensitivity to macroeconomic cycle. As a result crises could last longer and corporate bankruptcies are starting to run slower than in sectors with significantly shorter production cycle. Macroeconomic sensitivity also influences the number of established and defaulted entities in particular years. The results observed could be still a partial consequence of the recent global economic crisis as a weak incentive to establish businesses.

Two subsamples were analyzed, reporting and non-reporting entities. It should be emphasized that reporting does not have observable causality with the length of existence. For the enterprise, the decision to report or not to report regularly on time seems to be caused by other factors.

Figure 3 described the enterprise size expressed as the value of corporate assets. Czech enterprises mostly enter insolvency proceeding almost without any valuable property (Čámská, 2013; Smrčka et al., 2013). Figure 3 provides evidence for this statement. Young companies do not have large amounts of property before the insolvency declaration. Old and mature companies have significantly higher value of their total assets. The highest value is attained by the oldest enterprises. It should be pointed out that there are only two enterprises belonging to the oldest category and therefore it does not seem statistically significant. The observed results can be explained by the fact that mature companies needed more property for their business activities, as construction industry is the example of capital intensive industry. In contrast to, the absolute value of total assets does not reach high levels taken into account all machinery needed. This partly confirms the statement about property emptiness. It would have a sense to analyze the time development and expected decrease of assets owned.

The corporate performance has been analyzed using the selected financial indicators such as profitability, liquidity, leverage, and activity ratios. Profitability ratios do not reach satisfactory values because they are negative (Jordan et al., 2011) and show that internal inefficiency is a significant issue. Companies cannot exist when they are not able to be profitable from their core activities. In the case of leverage, majority of companies were over indebted. The oldest companies are more levered, which shows that they have better access to this financial source. Better access could be caused by their maturity because the creditors are more willing to provide sources to entities, which exist longer. Enterprise liquidity is generally low in the sample. Younger companies usually hold more liquid assets than their older counterparts do. The median does not still reach the value recommended by Schonfeld (2019) of 0.15 in the case of cash liquidity. The position of older enterprises could have the same explanation as the over indebtedness. The companies that exist longer are more trustworthy partners and therefore they have access to large amounts of short-term liabilities than their younger competitors. It causes lower liquidity among older companies. The values of activity ratio (indicator 9) exceed or are close to 1 for many age groups. Therefore, they reach almost satisfactory values (Vlachý, 2018). This observation shows that the companies have markets and customers. It should be added that the sample consists of 31 enterprises generating sales equal to zero 1-2 accounting years before the insolvency declaration. From the entrepreneurship point of view, these companies were dead already before the insolvency

announcement because they showed no operational activity. The activity ratio should be also analyzed in the relationship to the asset development. The satisfactory value of activity ratio could be influenced by the decrease of assets in time. Due to lower value of assets, lower value of sales causes satisfactory level of activity.

The results obtained could be summed up as follows. Three possible phases can be observed. The first phase shows the youngest companies bankrupting. They were not able to manage their existence. There could be different reasons such as weak management that is not able to react, inappropriate strategic decisions around the enterprise establishment, missing markets, complicated access to capital, etc. Older companies have sufficient market opportunities. The second phase are companies in the category 10-15 years. These companies choose different scenarios of development. Therefore, there are various reasons causing bankruptcy. As the reasons for default, it can be mentioned growth problems, management and instability caused by changes. The third phase is connected with the oldest companies, whose history is already quite long. There are other warning signals. They have more assets, they try more intensively to restructure the company and avoid the bankruptcy. Their access to debts already mentioned above is less complicated. Before the default, restructuring efforts are more intense. It could be proved by more negative EBITDA, EBITDA margin, more significant decrease of liquidity etc. The oldest enterprises should solve efficiency issues and their instability that is caused by the shortage of changes implemented by management.

CONCLUSION

This paper was focused on the age structure of insolvent enterprises and their financial state. The results showed that there are some discrepancies of the age in contrast to theoretical expectations. The first most worthy finding is connected with unequal establishment of companies caused by the command economy before the 1990s in the Czech Republic. There was limited number of companies before 1990. Early 1990s were associated with the enormous boom of the entrepreneurial entities. The unequal establishment also leads to unequal market exit and influences the number of defaulted entities. It is noteworthy that there were no significant differences in the age structure between the reporting and non-reporting enterprises. Disclosure discipline is not influenced by the enterprise age.

According to geopolitical historical dependency, these findings would be comparable for countries in Central and Eastern Europe, which are called post-transitional, in contrast to the developed market economies. Other relevant factors can be macroeconomic situation, government incentives or industry specifics. Among industry specifics, the length of the production cycle or capital intensity could be pointed out. Both factors, longer production cycle and higher capital intensity, lead to slower emergence of corporate default. When these factors work jointly, the emergence would be even slower. The statement of the industry specifics could be widely applicable regardless of geopolitical development and partly of macroeconomic situation. Macroeconomic situation would influence some industry sectors more than the others because of their sensitivity.

The evaluation of financial standing provided unsatisfactory results in almost all aspects tested. It does not matter whether the analysis was carried out in the area of profitability, liquidity, activity, and leverage. The financial standing mostly seems independent on the age structure from statistical point of view although some reasons for different observations are provided. Old companies are in different position and therefore their financial standing could slightly differ from newly established companies.

Future steps of research should lead to other industry sectors for finding out similarities and differences. The results of this paper cannot be generalized because only one industry branch was analyzed. Other efforts could be directed to derivation of default probability in different age categories. It should be respected that the risk profile is influenced by the specifics of industry sectors and macroeconomic sensitivity. Different periods employed could enlarge the used data samples. This issue seems underdeveloped in the literature and therefore the results achieved could not be compared with other post transition economies. The international comparison could be also very promising step of the research in the area of Central and Eastern Europe.

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