

Do Family Firms Use Less Debt than Other Firms? Empirical Evidence from the Czech Medium and Large Companies

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Abstract: - This article examines if family firm characteristics affect capital structure. Past research suggest that family companies are more risk-averse and should be less dependent on debt than nonfamily firms. However, the role of family businesses in post-communist countries, including the Czech Republic, has been neglected so far and there has not been any significant research pertaining to this issue. We verify the hypothesis on a sample of 1500 Czech medium and large-sized companies using regression analysis. The period under consideration was 2009-2012. In all years, we find that the level of debt of family firms is significantly lower which is consistent with prior findings. Moreover, the liquidity levels seem to be greater which suggests a more prudent financing. The risk of transfer of control over the company to other people than family members in case of default, as well as a possible damage to family reputation, may be possible reasons for a higher risk aversion of Czech family firms.

Key-Words: - Capital structure; Liquidity; Family business; Czech Republic

1 Introduction

Family-controlled enterprises play a powerful role in the world economy constituting more than 30% of all companies with sales in excess of \$1 billion [7]. In most countries, regardless of company size, family businesses account for a major share of economy. It is therefore no wonder that interests of academicians have been attracted towards studying family businesses. As an emerging field, the family business discipline has been establishing especially in the two following directions: defining family business and measuring performance gaps between family and nonfamily businesses.

In spite of the fact that there is no unanimous agreement upon the definition of what constitutes a family business, each definition usually includes three dimensions [12]:

- One or several families hold a significant part of the share capital;
- family members retain significant control over the company, which depends on the distribution of capital and voting rights among nonfamily shareholders, with possible statutory or legal restrictions;
- family members hold top management positions.

In the Czech Republic, the family business has become an interesting research topic especially due to “succession issues”. While by the beginning of 1990’s we could hardly speak of any family businesses due to the existence of a state-controlled economy, some 25 years later it is quite common that owners (parents) have already transferred their businesses to their heirs or have at least started considering it. From this perspective the reality of family businesses in the Czech Republic starts to resemble the situation in other countries with free market economies around the world.

Despite the importance of family businesses in the world described above, the role of family businesses in the Czech Republic has been neglected and there has not been any significant project pertaining to this issue.

2 Problem Formulation

Family businesses are often supposed to aim to achieve a combination of financial and nonfinancial business goals. Some authors suggest that while family proprietors seek to continue their business across generations and to maximize its long-term value, managers of nonfamily firms focus on a shorter term, seeking mainly to satisfy shareholders and to pursue their own personal goals [3]. In addition, some studies suggest a presence of positive

benefits of family involvement such as friendly and intimate relationships among managers and owners, as well as employees, which has a positive effect on knowledge dissemination within the firm. It is also possible that family companies, especially the small ones, are not motivated to pursue financial objectives and often prefer to maintain the status quo [1].

However, the findings on the differences in performance are mixed. While many authors found evidence of a better economic performance of family firms compared to nonfamily firms, other authors present the opposite results: a negative relationship between family involvement and performance. However, many authors found no significant relationship between family involvement and performance; see [10] for a detailed overview.

Capital structure directly affects the financial risk of a company. Broadly speaking, capital structure can be viewed as the proportion of debt and equity. Family firms are no different than nonfamily firms in their need of financial resources. However, since the dynamics and intentions of family businesses differ from professionally managed firms, the capital structure is also supposed to be different. Of course, besides the family involvement, the capital structure of firms will be affected by various internal and external factors, including firm size, strategy, goals, and the nature and extent of family control [17].

In the past research, most authors found a more conservative financial policy of family businesses ([13]; [15]; [18]). One of the possible reasons is the risk aversion of the founding family, when the risk of loss of family control over a company motivates to a lower utilization of debt [16]. The long-term perspective and the intention and vision to continue the business across generations (intention for succession) [6] will also influence a family business' capital structure. A greater risk aversion could also be reflected in a lower utilization of short-term (risky) capital and higher levels of liquidity [1].

However, it should be also noted that some of the past studies advance the notion that the risk aversion depends on the situation of the family business and that the controlling family may take irrational risks to secure control over the firm [4].

With regard to the above mentioned facts and assumptions, we expect the existence of a negative relationship between family involvement and level of debt and liquidity and formulate the following hypotheses:

H1: Family firms are less dependent to external resources, i.e. have a lower debt ratio.

H2: Family firms have a higher current ratio which means they keep a larger buffer of short-term assets to cover their current liabilities thus reducing the financial risk.

3 Methodology and Data

In order to examine the influence of family control on capital structure, we employed multiple linear regression (OLS) which can be specified as:

$$Y = \beta_0 + \beta_1(FB) + \Phi(\text{Control variables}) + \varepsilon_i \quad (1)$$

for firms $i = 1, 2, \dots, n$, where:

- Y denotes the dependent variable,
- FB is a binary variable which equals 1 in i is a family-controlled enterprise and 0 otherwise,
- Control variables are other variables that are supposed to affect a firm's capital structure.
- ε_i represents the random error,
- n is the sample size.

The null hypothesis is that family control has no effect to capital structure of companies. This hypothesis is tested against the alternative hypothesis which states that family control does affect a firm's capital structure. A statistically significant coefficient β_1 will indicate the rejection of the null hypothesis.

As stated above, FB is a "flag" (binary variable) signaling whether i is a family firm or not. Another possible approach could involve the share of family in ownership, management, or control. However, we do not believe that such indicators actually capture the *true* level of family influence over a company [11].

As dependent variables, we used two measures of capital structure:

- Debt ratio DR (Liabilities over assets),
- Current ratio CR (Current assets over current liabilities).

Besides the binary FB variable, the following independent control variables have been introduced in the model (all absolute amounts are denominated in Czech crowns CZK):

- NOEMP – the number of employees as a proxy for firm size;

- EBIT – earnings before interest and taxes (CZK);
- ROE – return on equity (Net earnings/Equity);
- ROA – return on assets (EBIT/Total assets) which measures the ability of a firm to create profits;
- LABPR – labor productivity (Value added/Number of employees);
- ASSETS – total assets (CZK);
- SALES – revenue (CZK);
- INVTO – inventory turnover (Revenue/Inventory) which measures the liquidity of inventory;
- LIABTO – liability turnover (Revenue/Short-term liabilities) which measures the ability to cover current liabilities;
- SE – the ratio of revenue over equity which measures the ability of generate sales using equity.

3.1 Data

The collection of data is challenging since there is no Czech database of family companies and economic subjects have no legal obligation to disclose whether there are family businesses or not [9]. We used our database of Czech family firms used in past research which was created using the surname matching approach [5].

As mentioned above, the capital structure also depends on firm size and industry. To eliminate such differences we created pairs of family and nonfamily firms. We assigned to every family company a set of companies which operate in the same industry (classified by the five digit code NACE) which helped neutralize differences due to different industries. Subsequently, from the set of companies operating in the same industry, we selected the company with the closest number of employees, and if there were multiple companies with the same number of employees, we selected the company with the closest turnover. This way, the differences due to firm size have been mitigated.

The final sample contains only large and medium-sized firms which is similar to the study of Menéndez-Requejo [14] who used the matched-pair investigation to compare family and nonfamily firms.

The data was gathered for the period 2009-2012 and the basic characteristics are displayed in the following Tab. 1. The sample sizes are displayed for individual years, as well as the means of dependent and independent variables.

Tab. 1 Data description

	2009	2010	2011	2012
Sample size (<i>n</i>)	1518	1523	1509	1410
Means				
DR (%)	54.6	53.5	53.2	51.6
CR (-)	1.62	1.57	1.57	1.69
NOEMP (-)	171	172	186	190
EBIT (mil. CZK)	16.7	21.3	21.1	27.7
ROE (%)	8.35	7.93	8.63	6.75
ROA (%)	4.95	4.85	4.82	4.60
LABPR	129	133	131	137
ASSETS (mil. CZK)	295.2	308.3	330.2	364.4
SALES (mil. CZK)	254.6	284.1	316.8	360.9
INVTO (-)	7.25	7.37	7.66	7.06
LIABTO (-)	3.33	3.50	3.63	3.74

4 Results

In this section, we will present and discuss the results for debt ratio and liquidity.

After having checked the Pearson correlations among independent variables, we do not see any particular significant correlations to cause concern about multicollinearity problems. The only significant correlations were observed in the case of EBIT and ASSETS and SALES.

4.1 Debt ratio

Table 2 displays the regression results where the level of debt (debt ratio) is the dependent variable.

The independent variables that are particularly statistically significant in explaining the debt ratio are EBIT, LABPR, ASSETS, SALES, FB and LIABTO. Among others, the results support a hypothesis that more profitable firms use less debt than less profitable firms. Also, more productive companies (in terms of labor productivity) use more debt than less productive firms. Companies which generate more sales also need less external financing. However, we don't find any strong influence of the number of employees to the level of debt (the results are mostly non-significant and mixed).

The coefficient of the FB variable is statistically significant and negative, which is consistent with the hypothesis H1 and support the idea that family businesses use less debt financing than nonfamily businesses.

Tab. 2 Regression results: Debt ratio

	2009	2010	2011	2012
Constant	72.62	71.54	72.47	66.57
NOEMP	-0.007*	-1E-4	0.007*	0.005
EBIT	-1.8E-5*	-2E-5**	2E-5	-3E-5*
ROE	0.0002	0.001	0.101	2E-5
ROA	-0.017	0.003	-1.10***	-0.05**
LABPR	0.002**	0.001**	0.006***	0.003**
ASSETS	-1E-5***	-7E-6***	-1E-5***	-3E-6
SALES	1E-5***	6E-6***	5E-6***	4E-6**
FB	-3.9**	-5.2***	-5.2***	-4.6***
INVTO	-5.5E-5	0.0003	0.0005	-0.0001
LIABTO	-3.5***	-3.5***	-2.8**	-2.9***
SE	0.002	0.003	0.101**	0.042*
Adj. R2	0.19	0.22	0.31	0.20
F-test	32.1***	39.2***	62.3***	31.4***

Note: *** Significant at the 1% level.

** Significant at the 5% level.

* Significant at the 10% level.

4.2 Current ratio

Table 3 displays the regression results where the liquidity (current ratio) is the dependent variable.

In this case, we observe that the number of employees (NOEMP) negatively affects liquidity (significant observations). On the other hand, the value of assets (ASSETS) positively affects liquidity.

Other independent variables that are statistically significant in explaining the current ratio are SALES (surprisingly a negative relationship), and LIABTO (the higher the liability turnover, the higher current ratio).

Concerning the FB variable, significant results (at the 10% level) are obtained in 2009, 2011 and 2012. Thus, family involvement seems to affect liquidity, but to a lower extent than the debt ratio. However, care must be taken when interpreting the results. A low level of liquidity is not desirable since the level of risk is increased (this effect should be higher in the case of family businesses which is supported by the regression results), but a considerably higher level of liquidity is also not desirable because of the opportunity costs associated with employing too many current assets which bear a zero or negligible return.

Tab. 3 Regression results: Current ratio

	2009	2010	2011	2012
Constant	0.559	0.695	0.660	-0.199
NOEMP	-5E-4*	-6E-4**	-0.001**	-0.001**
EBIT	-6E-7	6E-6***	1E-6	-2E-7
ROE	1E-5	7E-5	-0.001	-7E-4
ROA	-0.001*	-0.001**	0.003	-0.002
LABPR	-4E-5	-8E-5	-1E-4	-6E-5
ASSETS	1E-6***	6E-7***	8E-7***	1E-6***
SALES	-1E-6**	-8E-7***	-6E-7***	-7E-7**
FB	0.185*	0.118	0.177*	0.305**
INVTO	-3E-5	-4E-5**	-5E-5*	-3E-5
LIABTO	0.40***	0.357***	0.366***	0.55***
SE	-4E-7	-3E-4	-0.01***	-0.007**
Adj. R2	0.35	0.38	0.37	0.39
F-test	75.9***	86.8***	79.1***	82.5***

Note: *** Significant at the 1% level.

** Significant at the 5% level.

* Significant at the 10% level.

5 Conclusion

Apart from discussing the influence of control variables, we may confirm that our regressions support the hypotheses H1 and H2. Family firms seem to use less debt than their nonfamily counterparts.

On one hand, debt financing is an attractive way to fund business growth when the cost of debt is less than the cost of equity. In such conditions, debt acts as a lever which raises a company's return on equity. On the other hand, debt increases the risk of default and the risk of transfer of control over the company to other people than family members in case of default. A greater risk aversion is reflected in a pursuit for less risky strategies, including financial policy. From this viewpoint, family members may also want to avoid damaging their family's reputation. Another possible reason why family firms prefer less debt and greater liquidity may be the fact that creditors could play a monitoring role and impose undesirable constraints on family firms [8]. To sum up, we may suppose that Czech family firms are more risk-averse than nonfamily firms and prefer less debt. From that point of view, Czech family businesses seem to be no different than family firms from other countries.

Studying the Czech sample of family businesses is a contribution to the current academic debate on differences between family and nonfamily firms. The Czech conditions are different from the Western countries since the history of modern family businesses starts in 1989 due to the existence of a state-controlled economy before that year.

The study also has certain limitations. Our sample contained only large and medium-sized firms. Moreover, not all Czech family businesses were included in the sample; some of them were not detected by our surname-matching approach. On the other hand, the studied sample is large enough to test the differences between family and nonfamily firms.

The future research will focus on the reasons why family businesses actually prefer less debt than their nonfamily counterparts. Such an analysis will have to be qualitative in nature.

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