

THE NEXUS BETWEEN FINANCIAL TRANSPARENCY AND THE FINANCIAL OBSTACLE LEVEL OF THE ENTERPRISES IN THE WESTERN BALKAN REGION

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Abstract

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Access to finance plays a crucial role in the growth of small and medium enterprises (SMEs), thus affecting the development of the emerging countries. SMEs, which record their transactions under international accounting standards and use external auditors, finance their growth and working capital through formal external sources (Nizaeva & Coskun, 2018). In addition, the decision-making process of crediting depends particularly on the SMEs' financial reporting, thus it requires complete transparency of their financial reports. Taking into consideration the important role that financial transparency plays in the access to finance as well as its impact on the SMEs' growth, the main aim of this paper is to analyze the impact of the financial transparency on the financing obstacles of the SMEs operating in the Western Balkan countries, through the usage of the survey data collected from the 6th Business Environment and Enterprise Survey (BEEPS VI), enabled by European Bank for Research and Development (EBRD) and the World Bank, related to the survey time period 2018–2020. In this regard, probit and ordinary least squares (OLS) techniques have been employed, where the results reveal that financial transparency has a significant negative effect on the financing obstacles of the enterprises of the Western Balkan region. Besides financial transparency, firm-specific factors such as age and size have been included in the model and the findings show that crucial determinants of the financing obstacles these companies have in this region.

Keywords: Access to Finance, Financial Transparency, Enterprises, Western Balkan, Probit

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1. INTRODUCTION

Financial transparency is mandatory, thus the companies must provide financial transparency on their financial reports, through which they provide timely, meaningful, and reliable disclosures about the financial performance of their companies. Whenever the companies will want to raise their capital, they have to keep in mind that they need to provide transparent financial reports, which are also provided by the country's norms and regulations. On the other hand, contrary to the mandatory nature of financial reporting, auditing of financial information can be voluntary or mandatory, based on the country's juridical factors and norms.

Moreover, financial transparency is also important for investors to make their investment decisions. Thus, financial transparency is not only important due to its bedrock of the financial markets, but as well as for the essential importance of the investors. Although we are aware of the importance of the companies' financial transparency, the question that is to determine is how to increase the transparency of the companies. De facto, true transparency is what is needed to be reported and not just some data with unintended consequences and unnecessary reporting. For sure we can claim that private companies have to be responsible and accountable regarding their financial activities. They have to disclose the right information so that it can be sufficiently financially understood by the investors and creditors. In addition, it is also the government that needs to appear as a driving force to ensure and enhance at the same time increasing transparency of the companies.

It is also very important to mention that for creditors less information means less certainty. Thus, when financial statements are not very transparent, creditors are not sure about the real fundamentals and true risk of the company, therefore, in most cases, it can become an obstacle to access to finance.

In addition, when analyzing the access to finance of the companies, the accessibility to financial funds represents one of the main factors of the companies regarding the financial obstacles that they face when they try to access their finance which will, on the other hand, impact their company's growth process. Just like transparency, there are also some other crucial factors of the enterprises such as age and size of the companies that can affect the access to finance of the enterprises operating in both developed and developing countries.

Besides, previous studies have emphasized that the problem of crediting small and medium enterprises (SMEs) lies mainly in the loan market imperfections (Kallandranis & Drakos, 2021). In addition, the heavy reliance of SMEs on bank loans and their limited access to external sources of financing is a stylized fact (Farinha & Félix, 2015). Furthermore, under perfect capital markets firms are indifferent to funding their investment programs with internal or external funds, since external funds are a perfect substitute for internal capital, thus investment will depend on variables that are assumed to have a structural effect on its path without any reference to firm financial profile (Drakos & Kallandranis, 2005).

To our knowledge, some existing empirical research analyze the effect of financial transparency

on the level of the financial constraints of the enterprises in the developing and developed countries, yet there are no recent research conducted in this area for the region of the Western Balkans, where the focus on the financial transparency and its effects on the financial access is a real gap on this direction.

Therefore, the main aim of this research is to analyze the effect of the financial transparency on the level of financial obstacles of the enterprises that operate in six countries in Western Balkans: Albania, Bosnia and Herzegovina, the Republic of Kosovo, Montenegro, Serbia, and North Macedonia, thus the non-EU countries of Southeast European (SEE) countries. Excluding EU countries from the SEE region has been made due to the assumption that in this case, we face the same level of development and similar determinants of financing constraints and access to finance. Unlike Musta (2017), our study provides an analytical methodology of an empirical nature, while his study provides a comparison of the descriptive statistics of firm characteristics that impact financing constraints of the SMEs of the Western Balkans.

Most of the papers that have been investigating the role of the financial transparency and other firm characteristics on the access to finance have been covering a large set of developing countries, while this paper tries to focus on the non-EU developing countries of the SEE region that have similar macroeconomic factors like level of development, political stability, economic stability, regulatory and enterprise environment, financial infrastructure, etc.

The context of the conducted research on the firm-specific factors can be noticed in several papers (Beck & Demirgüç-Kunt, 2006; Hashi & Toci, 2010; Nizaeva & Coskun, 2018, 2019), yet no focus is been set on the financial transparency as an important firm-specific factor that affects the level of the financial obstacles of the enterprises, with a highlight in the Western Balkan region.

In this regard, to determine the effect of the financial transparency on the financial constraints level of the companies in the Western Balkans, the data from the six rounds of the Business Environment and Enterprise Survey (BEEPS VI) survey have been used (European Bank for Reconstruction and Development [EBRD], & the World Bank, n.d.). In this regard, several regression models like the panel ordinary least squares (OLS) and probit models have been utilized to investigate the relationship between the financial transparency and the financial obstacle level that enterprises face in the countries of the Western Balkans.

In addition, to our knowledge, this paper represents the first attempt to use these recent data on determining the effect of the financial transparency as an important factor of the companies that affects the level of the financial obstacles that the enterprises in the Western Balkans face in the recent years.

The structure of the paper is as follows. Section 2 reveals the literature review that incorporates the relevant literature regarding the factors of the firms that affect the level of the financial constraints of SMEs. Section 3 reveals the research methodology and data used in this analysis while Section 4 illustrates the main empirical findings and discussion of this research. Finally, Section 5 covers the conclusions and recommendations of this study.

2. LITERATURE REVIEW

The main focus of the firms' factors that impact the level of the financial constraints of the enterprises has attracted the attention of many scholars such as Beck, Demirgüç-Kunt, Laeven, and Maksimovic (2006), Beck and Demirgüç-Kunt (2006), Ayyagari, Demirgüç-Kunt, and Maksimovic (2008), Hashi and Toçi (2010), Nizaeva and Coskun (2018, 2019).

In their study, Hashi and Toçi (2010) have analyzed the association between financing obstacles and credit rationing of the SMEs in the following set of countries: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, North Macedonia, Romania, Serbia, and Montenegro, through the data of BEEPS 2002 and 2005 survey. The main findings of the ordered logit model that they have been incorporating reveal that older firms tend to face a higher level of financial constraints compared to smaller companies, interpreting such findings as a fact where the investment is derived more from internal funding.

In addition, while analyzing the effects of the firm's specific attributions on the financial constraints, Drakos and Kallandranis (2005) highlighted that the magnitude of excess sensitivity of the asymmetric response of this relationship depends on the firm's age, size, leverage, and dividend-paying.

The most recent study by Nizaeva and Coskun (2018) has been investigating the firm and country determinants that affect the level of the financial constraints of SMEs in the Western Balkans through pooled OLS and ordered probit model. In this regard, they have been utilizing data from the BEEPS V suggesting that the firm's size plays the most important role in determining the level of the financial constraints of SMEs in these countries.

Barth, Lin, and Yost (2011) have been analyzing the financial transparency effect on the level of the financial constraints of SMEs and their results reveal that the higher the transparency of the firms, the less level of financial constraints the firms face. Thus, by using external financial auditors their accounting recordings are in line with generally accepted accounting principles (GAAP) standards.

Aga and Reilly (2011) in their analysis by using data from firms operating in Ethiopia suggest that the companies that have accounting recordings are 6% more likely to have better access to finance compared to the firms that do not contain these accounting recordings.

In their paper, Van Caneghem and Van Campenhout (2012) by analyzing a sample of 79,097 companies from the Belgian and Luxembourgian area, tried to test if the amount and/or quality of financial statement information have an important impact on the financial obstacle level of SMEs. In addition, their results imply that both of these variables and the amount as well as the quality of financial statement information are positively related to SMEs' financial obstacle level.

Moreover, Ellul, Jappelli, Pagano, and Panunzi (2016) in their study have analyzed the nexus between transparency, access to finance, and investment and have concluded that there exists a strong positive relationship between them related to the firms depending more on external finance, while a negative correlation of transparency and tax pressure has been revealed for these companies.

A recent study by Wanjau, Muturi, and Ngumi (2018) has investigated the relationship between financial transparency and firm's performance of companies listed in East African securities exchanges by applying the fixed effects regression model, where their findings suggest a positive and significant relationship between financial transparency and enterprise's performance.

In their study, Flaminiano and Francisco (2021) by applying the marginal effects of the means (MeMs) revealed that by increasing the usage of digital technologies for accounting and financial management, the probability of the firms being credit-constrained will decrease.

Moreover, enterprise characteristics like age, size, and transparency represent a common determinant of the level of the access to finance of enterprises (Beck et al., 2006).

Such a negative association is also present between the age of the company and the level of the financial constraints of SMEs (Beck et al., 2006; Ayyagari, Demirgüç-Kunt, & Maksimovic, 2013; Afandi & Kermani, 2014). On the other side, Angelini and Generale (2005) claim a negative nexus between the level of the financial constraints of the companies and their size.

A negative association is also present between foreign ownership and the financial constraints of SMEs in developing countries (Hashi & Toçi, 2010; Barth et al., 2011; Nizaeva & Coskun, 2018).

3. RESEARCH METHODOLOGY AND DATA SPECIFICATION

To investigate the effects of financial transparency on the level of the financial obstacles that the enterprises face in the region of the Western Balkans, in this paper, we have employed the panel OLS and probit regression methodology. In addition, the OLS technique has been only used for comparison purposes.

We know that OLS is a method for estimating the unknown parameters in a linear regression model, where it chooses the parameters of a linear function of a set of explanatory variables by the principle of least squares: minimizing the sum of the squares of the differences between the observed dependent variable (values of the variable being observed) in the given dataset and those predicted by the linear function of the independent variable (Goldberger, 1964). On the other hand, a probit regression model is a model where the dependent variable can only have two values, thus being a binary number. Thus, by being a binary response model, it can deal with the same analysis as the logistic regression model by using a similar technique as the logit regression model.

Since the dependant variable in the analysis is financial obstacles, which has been derived from the survey question: "Is access to finance, which includes its availability and cost, interest rates, fees, and collateral requirements, an obstacle to the operation of this establishment?", which ranged from 0 (no obstacle) to 4 (very severe obstacle), a dummy variable has been created in this regard with 0 and 1 values, so that a probit regression model except the OLS has been conducted to determine the relationship between the financial transparency and the financial obstacle level of the companies.

In addition, taking into consideration the data set included in this research, thus, due to the dependent variable being a binary number, the ordered probit or logit model might be seen as an alternative method for conducting this research.

The main novelty of this research relies on the usage of the most recent data taken from the BEEPS VI, which is conducted as a joint project between the EBRD and the World Bank (n.d.) for the time period 2018–2020. Moreover, the survey includes 41 countries and approximately 28,000 firms. However, this study focuses on the six non-EU developing countries of the SEE region, thus Albania, Bosnia and Herzegovina, Serbia, the Republic of Kosovo, North Macedonia, and Montenegro, known as the Western Balkans.

Following the research of several authors (Beck et al., 2006; Haneda, Ito, & Yonetani, 2014; Nizaeva & Coskun, 2018), we have the final sample of the enterprises that have been selected from the survey which is in total 1668 firms included in this dataset corresponding to the six countries of the Western Balkan. The distribution of the firms is as follows: Albania — 353 firms (21.16%), Bosnia and Herzegovina — 311 firms (18.64%), North Macedonia — 314 firms (18.82%); the Republic of Kosovo — 197 firms (11.81%); Montenegro — 138 firms (8.27%); and Serbia — 355 firms (21.28%).

Moreover, this paper uses the financing constraints as a set of the functions of firm-specific determinants, where the dependent variable of this paper is the access to finance or the financial obstacle level and due to the difficulty of its measures, following the previous studies that have used a dummy variable for using finance or not, as a proxy variable for access to bank finance, also in this paper, we have used a similar methodology.

For the financial obstacle level we have used a proxy where a dummy variable, *financial obstacle*, is derived from the following question: “*Is access to finance, which includes its availability and cost, interest rates, fees, and collateral requirements, an obstacle to the operation of this establishment?*”, which ranged from 0 (no obstacle) to 4 (very severe obstacle). We have to emphasize that the variable might have been simplified, due to the nature of this variable, which is a survey data based on a company’s opinion, yet BEEPS is an important joint survey conducted by reliable and estimated institutions like EBRD and the World Bank. On the other side, contrary to the mandatory nature of financial reporting, auditing of financial information can be voluntary or mandatory, based

on the country’s juridical factors and norms. Thus, financial transparency is considered as transparent if the financial reports have been audited by an external auditor and not transparent if they have not been audited by an external auditor.

In addition, the dummy variable is formed where “major obstacle” and “very severe obstacle” are valued with 1; otherwise, the value is 0, which is important to be in a binary form regarding the probit model condition.

The independent variables that are included in the OLS and probit models are *financial transparency*, *age*, and *size* of the company. Thus, this also represents one of the main limitations of this study, because there are also other firm and country-specific factors that can significantly affect the level of the financial constraints of the SMEs.

Financial transparency has been used as a proxy derived from the question: “*Has the firm used an external auditor in the last fiscal year?*”. The variable financial transparency is valued as 1, if the firm has used an external auditor in the last fiscal year, on the contrary, it takes the value of 0. *Age* represents the years of operation of the enterprise in a certain country. Thus, the age of the firm is measured by subtracting the year of the firm’s establishment from the survey year. *Age*² represents the square of firm’s age as a variable. On the other hand, *size* represents the full-time employees present in the firm, derived from the question set as “*sampling size*”.

Table 1 represents the descriptive statistics of the variables that are included in the empirical analysis. Moreover, as it can be seen, the total number of observations is 1668, thus, representing also the total number of observations in this analysis. Moreover, regarding the *financial obstacle*, the mean value is 0.185, while the standard deviation is 0.48. In addition, since this is a dummy variable containing binary values, the minimum and maximum values are 0 and 1, respectively. Regarding *financial transparency*, the mean value is 0.475, while the standard deviation is 0.81. In addition, the minimum and maximum values are 0 and 1, respectively. As for the independent variable, *age*, the mean value is 15.85, while the standard deviation is 10.25. In addition, the minimum and maximum values are 1 and 111, respectively. Regarding the independent variable, *size*, the mean value is 1.435, while the standard deviation is 0.64. In addition, the minimum and maximum values are 1 and 2, respectively.

Table 1. Descriptive statistics of the survey data

<i>Variables</i>	<i>Observations</i>	<i>Mean value</i>	<i>Standard deviation</i>	<i>Minimum value</i>	<i>Maximum value</i>
<i>Financial obstacle</i>	1668	0.185	0.48	0	1
<i>Financial transparency</i>	1668	0.475	0.81	0	1
<i>Age</i>	1668	15.85	10.25	1	111
<i>Age</i> ²	1668	251.225	583.4	1	10404
<i>Size</i>	1668	1.435	0.64	1	2

Source: Authors' calculation.

4. EMPIRICAL FINDINGS AND RESULTS

Table 2 presents the findings of the analysis on the effects of financial transparency on the financial constraints level of the SMEs in the region of the Western Balkans as well as the impact of the rest

of the firm-specific factors that determine the financial obstacle level that these SMEs face in these countries.

In this regard, two models have been conducted: in the first model, the OLS regression methodology has been employed, while in

the second model, the probit model that has been used is presented the findings. In addition, the OLS technique has been only used for comparison purposes. The first model suggests the existence of a negative association between financial transparency and the financial constraints level of the SMEs, suggesting that the larger the companies the less financing constraints level they face. Regarding the relationship between firm's age and financial constraints level in SMEs in Western Balkan countries, the results claim a positive and significant relationship between these two variables. Therefore, older firms tend to face more financial obstacles compared to newly formed companies. Further, firm's ownership has a negative effect on the level of the financial constraints, where the companies that are owned more by foreign individuals face fewer financial constraints.

Next, we have used the probit technique in the second model which represents the base model where the interpretations are based, where the dependent variable — financial constraints — is coded with 1 (severe and major obstacles) and 0 (no obstacle or obstacles). The model shows similar results compared to those of the OLS, where a significant negative relationship is noticed between financial transparency and the financial constraints level of the SMEs in the Western Balkan region. Moreover, the findings have revealed a positive nexus between the age of the firms and the level of the financial constraints of SMEs. On contrary, a negative relationship can be suggested between the size of the firm and the level of financial constraints of these companies.

Table 2. Empirical findings (OLS and probit model)

Variables	(1) OLS model	(2) Probit model
<i>Financial obstacles (dependent variable)</i>		
Financial transparency	-0.16 (0.045)***	-0.162 (0.044)***
Age	0.014 (0.008)**	0.0166 (0.008)**
Age ²	-0.0001 (0.0001)	-0.001 (0.0001)
Size	-0.070 (0.097)	-0.072 (0.0969)
Number of observations	1668	1668
R ²	0.014	0.011

Note: Standard errors are reported in parenthesis.

*, **, *** indicate 10%, 5%, and 1% of the significance levels, respectively.

Source: Author's calculations.

Taking into consideration the main findings of this research, several suggestions should be highlighted, especially those that are linked with the improvement of the financial transparency of SMEs in developing countries.

As for the revealed results, they suggest that there exists a negative relationship between financial transparency and the level of financial constraints of the SMEs operating in the Western Balkans. In addition, they emphasize the importance of the high level of the firms' financial transparency to decrease the level of the financial constraints that these firms face in their lifecycle. In addition, these results are in line also with Ellul et al. (2016), Nizaeva and Coskun (2018), and Flaminiano and Francisco (2021).

Finally, the negative association between the financial transparency and the level of financial

constraints that SMEs face in their lifecycle implies the importance and appropriate measures to be taken by the SMEs operating in these six countries of the Western Balkans to increase their financial transparency to face less financial constraints that will have a certain positive effect in their country's growth.

5. CONCLUSION

The main objective of this study is to investigate the effect of financial transparency as an important determinant of the level of financial constraints of the SMEs in the Western Balkan countries: Albania, Bosnia and Herzegovina, the Republic of Kosovo, Montenegro, North Macedonia, and Serbia.

Financial transparency is very important for creditors and investors to make their decisions regarding granting loans and providing finance for investments. Thus, financial transparency is not only important due to its bedrock of the financial markets, but as well as for its essential importance for creditors and investors. When analyzing the access to finance of the companies, the accessibility to financial funds represents one of the main factors of the companies regarding the financial obstacles that they face when they try to access their finance which will, on the other hand, impact their company growth process.

The data are gathered from the BEEPS VI, for the time period 2018–2020 (EBRD, & the World Bank, n.d.). To accomplish the objectives of this study, two models were conducted: the first model empirically investigated the determinants of the financial obstacles of the SMEs in the Western Balkan countries by using the OLS model. Later, a probit regression is conducted to investigate the effects of financial transparency as a determinant of the financial constraints of the SMEs in the Western Balkans. A probit model was used to measure the nexus between the financial obstacle level and the firm's factors such as financial transparency, age, and size. The probit model was chosen as an appropriate model since in this empirical analysis the BEEPS only provided information as to whether or not the company had access to finance, creating a binary value variable. On the other hand, the independent variables were financial transparency, the age of the company as well as the size of the enterprise.

Taking into consideration the data gathered from the BEEPS, the OLS and probit results are consistent with other findings, revealing that the firms using an external auditor in the last two years in their firm face smaller financial constraints, while large firms face fewer financing obstacles than small firms, while older firms are more financially constrained than the new enterprises. In addition, in the context of the ownership, findings reveal that SMEs with high foreign ownership of the firms, report fewer financial constraints.

Taking into account such results, it is important to emphasize the vital role of the financing transparency as an important determinant of the financing constraints that SMEs face in the Western Balkan region, highlighting the need for the policymakers to address the potential reforms in achieving better financial and accounting regulations, efficient governance and enforcing international accounting standards.

The main limitations lay in the lack of data availability for the short comes regarding the level of the financial constraints of the SMEs based on self-reported categories rather than data taken from their financial statements. Even though insights from this analysis regarding the effects of financial transparency and other factors like age and size of the companies affect the access to finance of the companies in the Western Balkan region, these research findings were based on managers'/owners' self-reporting which in some cases can produce positive response bias. Thus, it is recommended to explore such nexus by obtaining the data also from different sources like financial lending officers. Yet, BEEPS is an important and reliable database available for cross-country and firm-level data. Also, another limitation is regarding the financial transparency of the SMEs, where an enterprise is considered as being transparent if their financial reports have been

audited by an external auditor and not transparent if their financial information has not been audited by an external auditor during the fiscal year.

Another limitation of this study is that country-specific characteristics were not taken into account such as business and regulatory environment, political instability, economic development, and financial development, which besides the firm's characteristics can significantly affect the level of the financial constraints of SMEs in developing economies. Moreover, the results of the empirical analysis have not taken into consideration country heterogeneity, and thus do not control for country unobservable, which might affect the validity of the estimations. Thus, we recommend in the next research, besides the firm's characteristics, to take into account country-specific indicators that affect the level of financial obstacles that SMEs face in developing economies.

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