Financial market changes and SMEs choice of preferences between financial and non-financial stakeholders

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Small and medium enterprises (SMEs) are commonly considered as an important pillar of emerging economies, see Kersten et al. (2017), Yoshino and Taghizadeh-Hesary (2019), Wellalage and Fernandez (2019), and references therein. Still, a rather limited access to finance for SMEs represents a common handicap for the acceleration of economic development in both developed and developing markets, as analyzed in Casey and O´Toole (2014), Lee et al. (2015), Andrieu et al. (2018), McGuinness et al. (2018), and Schwab et al. (2019). The problem of insufficient financing to SMEs has been attracting a lot of attention from academic community and policy makers especially since the adverse impacts of the recent global financial crisis, which began to unfold in the second half of 2007, see Garbó-Valverde et al. (2016), Degryse et al. (2018), and Gupta and Gregoriou (2018) among many other researches on these subject.

Following the global financial crisis, access of SMEs to stable finance was severely damaged. In particular, Chakravarty and Xiang (2013), and Yoshino and Taghizadeh-Hesary (2019) emphasize the growing problem of information asymmetry. This situation is aggravated by a relatively high default risk of SMEs and lack of good collateral, perhaps with exception for manufacturing SMEs; see Andrieu et al. (2018).

The *aim* of our research is to investigate whether the determinants of SMEs trade credits suffered substantial changes due to the recent global financial crisis. In particular, our research is focused on trade credits taken for purchasing SMEs´ fixed assets. Earlier works reveal determinants of the total value of trade credits or trade credits for financing working capital.

We analyze influence of a wide set of firm-level factors – equity concentration, state and foreign participation in the equity, the firm's age, receiving of state subsidies, as well as macroeconomic drivers. Our analysis is based on the original sample including the firm-level survey data from the 18 former Eastern bloc countries.

Our *contribution* to the existing literature is threefold. First, it contributes new data on purchase of fixed assets with funds raised as trade credits from suppliers. Our study provides specific details regarding the purposes of fund raising, especially shedding light on financing of fixed assets and reveal the determinants of the intensity of use trade credits. In our study, we focus on long-term trade credits from counterparties.

Second, our paper is among rather rare studies which investigate how the recent global financial crisis influenced the determinants of the use of SMEs trade credit. As far as we are aware, it is the first that documents how SME firm-level factors, such as equity concentration, state and foreign participation in equity, SME age, and state subsidies influence the intensity of use of trade credits. We perform comparative analysis of the determinants during the pre-crisis and post-crisis periods, and show that before the crisis banks loans and trade finance are complementary sources while after the crisis this relationship does not hold any more, as we observe augmenting use of the trade credit not accompanied by the growth of bank financing.

Third, the geographic coverage of our research represents an important enhancement to the existing body of the literature, as we cover the emerging countries of the former Eastern bloc, which are not properly addressed in the exiting research on SME themes. We employ Business Environment and Enterprise Performance Surveys (BEEPS) developed by the World Bank and the European Bank. Hence, our results are potentially useful for improvement of the access of SMEs to finance in the regions where the culture of the entrepreneurship is less advanced than in the developed economies.

We put forward *the following hypotheses* regarding the determinants of the intensity of use of trade credits by SMEs:

H1. The share of trade credits in the fixed assets depends on the concentration of equity. The presence of a sole owner or a large controlling owner is considered by SME counterparties as a risk factor. The perception of this risk depends on the macroeconomic environment.

H2. The share of trade credits in the fixed assets depends on inflation. Expensive money narrows the possibilities of trade crediting.

H3. The age of the company has a positive effect on the share of trade credits.

H4. Government support (subsidies) has a positive effect on the intensity of the use of trade credits, this effect is more pronounced in the post-crisis period.

H5. Trade credits and bank loans are complementary, not alternative sources of financing.

Our study is based on the survey of economy's private sector - "EBRD - World Bank Business Environment and Enterprise Performance Survey (BEEPS)". The focus of our research is on the specifics of making decisions on the financing of businesses by SMEs.

The *sample* includes more than 20 000 observations from 18 emerging Eurasian markets for the pre-crisis (2002-2005) and the post-crisis (2011-2014) periods. We compare the results of econometric calculations for the two sub-periods - before and after the global financial crisis of 2008–2009.

An important issue is the *methodology* of research based on the survey data due to possible sample bias: an answer to one question may depend on answers (or gaps in answers) to other related questions. Analyzing the data presented, we assume that the intensity of use of trade credits depends on the propensity of companies to disclose information about sources of funding. We apply an original methodology – the Heckman model which allows us to solve the problem of sample bias.

The *results* of our calculations show that if the company is an SME, as well as with state participation in the capital of over 50%, there is a decrease in the probability that the company will disclose information on sources of funding. We conclude that SMEs and companies with state participation are more closed.

Our study allows us to range determinants of trade credits used for purchase of fixed assets by statistical significance. Before the global financial crisis, the most significant determinants are: concentration of the equity capital (and especially the presence of the sole owner) and using of bank loans and retained earnings for purchase of fixed assets. These key determinants are followed by the share of foreign ownership and inflation. After the crisis, the list of most significant determinants change, they are: the share of foreign ownership, state subsidies and retained earnings for purchase of fixed assets. Other significant determinants are equity concentration and firm age.

We have obtained original conclusions on the impact of the structure and concentration of equity capital on the share of trade credits in fixed assets. If the company has a sole owner, in the pre-crisis period, the value of trade credits decreases, and in the post-crisis period it increases. Before the crisis, the share of trade credits is significantly positively affected by the diversified structure of equity capital. We explain this by the change in the macroeconomic environment and the priorities of risk assessment by suppliers in the post-crisis period. In the both periods, if the stake of 75% or more (but less than 100%) of the company's shares belongs to one owner, the value of trade credits decreases.

For firms with foreign participation in equity capital, there is a higher value of trade credits in the pre-crisis period and lower in the post-crisis time. We explain this by the change in trust to foreign companies from the national suppliers after the crisis. If SMEs are provided with government subsidies, then, in the post-crisis period there is a higher value of trade credits. During the both periods, bank loans and trade credits are complementary sources of financing. On the contrary, retained earnings and trade credits are substituting funding sources. The role of firm’s age also changes: in the pre-crisis period more trade credits are given to older firms, but after the crisis more trade credits are given to younger firms.

The results can be useful for both the companies to better understand the business environment and regulators in order to carry out reforms that support the effective private economic activities of SMEs. The *policy implications* are the following. First, it is necessary to conduct a pro-active policy toward development of trade credits including insurance mechanisms and stimulating large suppliers to work with SMEs. Second, it is necessary to increase information transparency of SMEs, to promote initiatives on collecting history of financial statements and equity structure of SMEs, to implement best practices of corporate government from the developed countries. Third, there should be mechanisms of government support for SMEs, especially during the periods of financial crises. It can be recommended to actively encourage foreign owners to increase information transparency and the quality of corporate government of SMEs.