

## **Credit Risk Evaluation in the Small Business Activity: Individual Aspects at the Macroeconomic Level**

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The paper is aimed at the statistical methodology investigation for credit risk assessment and its application in the small business area. A three-step procedure was elaborated as a technique which had originally been developed under the Basel II Internal Rating Based approach. Traditional indicators of the banks' sustainability were transformed into the ones that capture the inner side of entrepreneurial activity, the relationship with investors, and the consequent outcome. Having been processed at the individual level the results were aggregated for the macroeconomic analysis.

It is commonly asserted that small business activity stimulates economic growth. However, there is lot of debates about what kind and amount of financial capital is more favourable for the efficient functioning of a small firm. In this area the "overinvestment" problem is often considered in the literature as a result of asymmetric information and excessive risk seeking of the actors. The contribution of the following research lies in the overall effect estimation: the "risk burden" caused to the economy by entrepreneurial activity was evaluated. The consequences of the excessive credit risk acceptance by private investors were provided as well as the opportunity to take and transform these risks into the valuable input element to the overall economic growth.

The methodology validation was realised under Global Entrepreneurship Monitor (GEM) conceptual framework. Three parameters were modelled from the GEM data: the probability of default among early entrepreneurs (with the help of discriminant and regression analysis); exposure at default in terms of the implied riskiness of the business activity (non-parametric tests were used for the interconnection revelation between the degree of riskiness and the amount of attracted capital); and loss given default based on the investors' expectations about future returns (direct indicator adjusted to the sample size). Finally, a macroeconomic indicator of possible losses among young businesses, if they attracted informal capital, had been received for 42 countries in 2006 and in 2007.

As a result, informal investments are inefficient when the concentration of credit risk in the economy is rather high. Investors' expectations about the entrepreneurial growth of the firm are pessimistic, anticipated returns on investments are too low to be economically reasonable. The outcome leads to the irrecoverable losses, both financial (short-received profitability) and non-financial (decreased output, the lack of innovativeness, flexibility, and inventiveness).

The implication of the research is confined to the interpretation of entrepreneurial growth, since it can turn out to be inefficient in terms of wrong financing incentives. For some countries (BRIC) private capital is useful for the start-up development, where as for other ones (Sweden, USA) informal credits should be treated carefully because they have a straight impact on the outcome of entrepreneurial activity.

It is possible to constraint the undesirable flows by means of formalisation of informal capital by stimulating the formal side of small business financing. Moreover, the volume of the credit risk taken by private investors (in the form of the received characteristic of economic losses) can be also regarded as a leading indicator of the possible economic downturn.

*Keywords:* Global Entrepreneurship Monitor (GEM), early-stage entrepreneurship, credit risk, informal capital