Chapter 5

Global Crisis and Financial Distress Likelihood of SMEs: Some Evidence From Panel Data Regression

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ABSTRACT

In the aftermath of the global financial crisis, this chapter sheds light on the determinants of the financial distress costs between Italian and German small and medium enterprises (SMEs). The authors propose an innovative formulation of the expected costs originated by financial distress expressed as the product of the expected financial distress likelihood times the total amount of the financial distress costs if insolvency does occur. The model is estimated using panel data methodology on samples from two European countries (Italy and Germany). The results indicate that the amount of ex-post costs depends on derivative financial instruments, intangible assets, and relation with local banks (small local banks rather than large banking groups).

INTRODUCTION

This study is the continuation of a search (Quintiliani, 2017b) finalized to estimate the expected costs of financial distress, quantified in terms of product among financial distress likelihood and costs sustained by the insolvent society.

Compared with the previous one, the survey model analyzes SME samples from two European countries, Italy and Germany, whose financial and entrepreneurial systems show significant differences.

Data were extracted from Amadeus (a high quality European database), BvD databases (Aida and Mint Italy) and panel data methodology was used to control for potential endogeneity and unobservable heterogeneity.

The results obtained for each country taken individually, empirically validate our model, revealing that most parameters are significant and with the expected signs.

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More specifically, the financial costs decrease in relation to the company’s increased ability to use intangible assets, in relation to use of derivatives and in relation to the local roots of the banks (local banks rather than international banking groups).

Our paper provides valuable insights and contributions to the literature about the expected behaviour and value of a SME in financial distress.

We develop a definition of financial distress based on financial criteria (Keasey et al., 2015; Quintiliani, 2017b; Quintiliani, 2017a): «Namely, a firm is defined in difficulty every time that the cash flows coming from the operational activities (EBITDA) are inferior to financial expenses for at least two consecutive exercises and it has a deteriorated financial structure (decreasing trend, among two periods, of the solvency ratio “NetWorth ÷ Total Debt” accompanied by a fall in its NetWorth)».

Considering that the expected (ex-ante) cost of financial distress is a function of both the probability of financial distress and of the consequences of running a firm in financial distress, we propose an innovative specification of the expected (ex-ante) costs of financial distress that shows the interplay of the financial distress likelihood and the variables which are the main determinants of the consequences of financial distress (total value lost by the enterprise at the end of a period of financial distress)».

The entity of the financial costs, ex-post crisis, is tightly connected with the immaterial endowment of the enterprise in financial difficulties, with the taking root level on the territory of the bank and with the use of derivatives; while the first two variables are useful to reduce informational asymmetries and thus to facilitate access to (re)financing, the third variable reduces the likelihood of financial crisis.

The remainder of the paper is organized as follows. Section 2 explains literature reviews. Section 3 explains the theoretical arguments behind our hypotheses and present the model (borrowed, partly, by Keasey et al., 2015; Quintiliani, 2017b). The results and conclusions are discussed in Section 4.

BACKGROUND

The literature on the SMEs underlines that one of the principal characteristics of the SMEs are the elevated financial distress likelihood (Keasey & Watson, 1993; Andrade & Kaplan, 1998; Frank & Goyal, 2009; Mac & Bhaird, 2010) and it needs to investigate their financial structure to understand fully the reasons for the failure.

Capital structure theory begins with the Modigliani and Miller (1958) paradox of “capital structure irrelevance”, where firm value is not affected by its financing mix. Since then, corporate finance literature has grown enormously and basically distinguishes between two main theoretical approaches (Balios et al., 2015): i) the trade-off theory, ii) the pecking order theory.

The core of the trade-off theory refers to the balancing process of benefits of debt (tax shield, reduction of agency costs of equity, lower issuance costs) and costs of debt (direct and indirect financial distress costs, rising agency costs of debt) which leads to the concept of an optimal capital structure.

The second was developed mainly by Myers (1984) and Myers and Majluf (1984), based mainly on informational asymmetries, and states that firms do not typically aim at a target debt ratio, but their financing decisions follow a hierarchy, with a preference for internal over external finance and for debt over equity. Asymmetric information has generated various other approaches such as the signaling theory by Ross (1977), and the market timing approach developed by Lucas and Mcdonald (1990).

SMEs present distinct specificities that must be considered. For example, there are actually no (or very few) agency costs of equity, because managers are, most likely, also the owners of the SMEs.
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