





## Abstract

Credit ratings are commonly used by lenders to assess the default risk, because every credit is connected with a possible loss. If the probability of a default is above a certain threshold, a credit will not be provided. The purpose of this study is to test whether credit ratings contribute valuable information on the creditworthiness of firms. Employing a large sample of Western German manufacturing firms, we investigate loan defaults. First, we estimate Probit models with publicly available information. Subsequently, we additionally use a credit rating and show that it contributes significantly to the regression fit. However, the publicly available information has an independent effect aside of the ratings. Simple calculations demonstrate that the interest rate has to increase significantly to compensate for a possible loss in case of default, if a firm has a weak rating.

### Acknowledgements

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# Notes

<sup>1</sup>The special issue of the Journal of Banking and Finance, Vol. 25, pp. 1–270 (January 2001), deals with the new Basle Capital Accord in more detail.

<sup>2</sup> See the special issue of the Journal of Banking and Finance, Vol. 29, pp. 2565–867 (November 2004), for recent research on credit rating, in particular Altman and Rijken (2004) and Löffler (2004).

<sup>3</sup> Including operating costs for a bank or any other institution does not alter this result as long as the costs are a ratio of the credit or of the interest rate multiplied with the credit.

<sup>4</sup> For example, see discussions on the paradigms of the 'liability of newness' and the 'liability of adolescence' (cf. Singh et al ., <u>1986</u> or Brüderl and Schüssler, <u>1990</u>). Another frequently discussed factor for survival is entry size (see Agarwal and Audretsch, <u>2001</u>, for a recent study).

 $^{5}$  Cf. for an empirical study on the effects of limited liability for growth and survival Harhoff et al . (<u>1998</u>).

<sup>6</sup> Actually, the ifo Konjunkturindex is published quarterly, but we use only the one from December in period t covering the first half of the year t+1.

<sup>7</sup> Excluding Berlin. Smaller states were mergerd to one dummy: Bremen with Hamburg and Saarland with Rhineland-Palatinate.

<sup>8</sup> The McFadden R <sup>2</sup> is often called likelihood ratio index (LRI) and is defined as with  $lnL_0$  being the log likelihood if only a constant term is included in the model in contrast to lnL as the maximized value of the log-likelihood function.

 $^9$  The Veall-Zimmermann R  $^2$  is defined as with , where n is the number of obervations.

 $^{10}$  According to Model IV, the interest rate would already be 12%.

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