Assessing financial constraints at the firm level: a credit rationing approach

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Venue: Seminar Room, Department of Economics and Management

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Abstract

We propose two new indicators of the extent of financial constraints firms may face. The first indicator directly stems from the microeconometric rationing model proposed by Kremp and Sevestre (2013). This model allows estimating the probability that a firm is rationed by banks in its demand for loans using a disequilibrium model and taking into account the sample selection issue induced by the presence of firms with zero credit. The second indicator partly follows the methodology used by Kaplan-Zingales (1997), Hadlock and Pierce (2010) and others. It consists of the predicted value of the latent variable underlying a multinomial logit model aimed at predicting the extent of credit rationing. However, while in previous studies the classification into groups of firms with different levels of financial constraints is based on a preliminary analysis of a vast amount of financial information about firms, the classification we use here is based on firms’ own declaration regarding the extent of their credit rationing they face. Indeed, the classification we use is based on firms’ answers to a specific quarterly survey run by the Banque de France about SMEs and Medium-Sized firms’ access to bank loans.

We show that our two indicators behave quite satisfactorily as smaller and younger firms, as well as those with a bad rating from the Banque de France appear to face higher financial constraints.

Moreover, the correlations of these two indicators with a number of financial ratios are consistent with what is expected; e.g. more profitable firms are less financially constrained while those with an already large indebtedness are more constrained. Interestingly, firms investing more are more constrained, thus confirming the importance of allowing for the demand side when assessing financial constraints. Furthermore, we show that when it comes to predicting firms’ own declaration of their financial constraints, our two indicators outperform previously existing indicators.