# Bocconi

### **COMPNET WORKSHOP**

# **Credit constraints: empirical micro studies**

Discussion by

Carlo Altomonte

(Bocconi University & Bruegel)

**European Central Bank** 

Frankfurt, 24-25 June 2013



### **Different stories of credit constraints**

- 1. **Cyclical demand conditions**: less credit disbursed during the crisis due to lower demand by firms => cyclical feature, nothing structural
- 2. Demand + adverse selection: less credit disbursed due to a shift in the quality of demand for credit => from financing of investment to financing of working capital => relatively more fragile firms increase demand for credit => rational response to an adverse selection problem
- 3. Credit crunch: firms that would have received credit before the crisis are not receiving it afterwards => credit crunch (dysfunctional inter-banking markets, bank-sovereign negative feedback loop, etc.)
- 4. Credit crunch with bias: a credit crunched financial system might change its methods of credit allocation and not be able to optimally distribute credit (i.e. identify those firms that would marginally benefit more from credit, e.g. exporters). Extent of credit crunch might also be heterogeneous across lending institutions.

# **Methodological issues**

- Identification of credit rationed firms: typically a dummy that identifies firms that have requested but not obtained credit. Also distinction between severe (no credit) and moderate (higher cost) credit constraint.
- Alternatively, balance sheet proxies (Whited-Wu, Financial Independency, Index of Financial Pressure, ...) => imply 'efficient' credit market (observable characteristic correlated to probability of being credit constrained)
- Definition of appropriate counter-factual: double self-selection problem. Ideal control groups is those firms that have not received credit now but would have received it before the crisis, taking into account the probability of demand for credit before and after the crisis (the latter is also endogenous to the prevailing market conditions). Risk of endogeneity otherwise.
- Assessment of welfare maximizing equilibrium: ex-ante, credit should go to those firms benefitting from higher marginal returns for each cost-equivalent unit of extra-credit => more productive firms? Level vs. productivity growth? Exporters? Extensive or intensive margin of export?

# **Cross-country European evidence (EFIGE)**

- Identify 'switchers' as firms that over the period 2002-2009 are able to grow over the 7<sup>th</sup> decile of the sample distribution of productivity => firms over this decile have a >95% probability of being internationally active (our definition of 'competitive' firms).
- They are also more innovative, pay wages in line with productivity, etc.
- Those switching firms tend not to be credit constrained (based on both the credit-dummy variable or balance sheet information).
- However, most notably, these firms tend NOT to use bank credit as source of external finance. Rather, they tend to grow through internal financial resources.