IS THERE A RELATIONSHIP BETWEEN CREDIT INFORMATIONEXCHANGE AND ENTREPRENEURSHIP? A CROSS COUNTRY EVIDENCE

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Abstract:

It's widely admitted that credit information sharing has a positive effect on bank lending, mainly by improving transparency, competitiveness and lowering interest rates. While many studies investigated the effect of credit information sharing on banking lending none focus on its direct effect on entrepreneurship. We try to fill this gap by analyzing the relationship between the two major credit information schemes sharing which are the Credit Registers and the Credit Bureaus, and the density of new businesses. We find that there is a positive significant relationship between both systems and new firms' density. Nonetheless, we observe that the Credit Bureaus Scheme which is based on unconstrained cooperation has a higher effect. Our results suggest that governments should give more importance on credit information sharing while prioritizing Credit Bureaus cooperation.

Keywords: Entrepreneurship, banking, credit information exchange.

1. Introduction

The availability of information about barrowers' characteristics and their indebtedness has important effects on credit markets activity as money and information represent the two basic banks' inputs(Jappelli and Pagano, 2000).When analyzing loan applications, banks need a sufficient amount of information to assess projects and borrowers' riskiness. The quality and the accuracy of the information may vary from an economy to another.

Moreover, in general the data corresponding to barrowers' characteristics is not freely available. Therefore, banks which cannot access this kind of data face asymmetric information problems which may hinder the efficient allocation of lending(Pagano and Jappelli, 1993).

In order to mitigate this problem, financial institutions tend to ask for collaterals that cover at least 100% of the credit amount, nevertheless this is problematic for small and new firms, especially startups that lack of sufficient collateral and rely on innovative projects. Another solution would be to collect the information at the root, for example by interviewing applicants or visit their business before granting the loan, nevertheless this methodology consumes an important amount of resources especially for banks operating at large scales.

A more efficient alternative suggests exchanging information about potential borrowers with other lenders, which can be voluntary or imposed by government regulation.

Imposed information exchange often takes the form of public credit registers managed by central banks while voluntary exchange is mainly materialized through credit bureaus. According to Padilla and Pagano (2000), a suitable information sharing system between a pool of creditors acts as a disciplinary device. Borrowers are aware that their defaults on a lender are systematically reported to other lenders, therefore their incentives to perform are improved.

Furthermore, Kallberg and Udell (2003)find that formal information exchanges adds economic value to lenders beyond the information that is available in borrowers' financial statements.

Pagano and Jappelli (1993), using a pure adverse selection modelpoint out that information sharing improves the borrowers pool, reduces loan interest rates and decreases loan defaults. Additively, one of the rare empirical study conducted in this domain by Jappelli and Pagano (1999) finds that bank lending as scaled by GNP is higher and proxies for default rates are lower in countries where lenders share information regardless of the private or public nature of the information sharing mechanism.

They also observe that countries with voluntary credit information exchanges are less likely to start a public credit register. Finally, Brown et al. (2009) show that information shar in gis associated with improved availability and lower cost of credits. Such effect is especially desirable in the Middle East and North Africa countries where banks mention regularly lack of transparency among small and medium-size enterprises to be the main obstacles for lending (Rocha, 2011).

While these researches focus mainly on the impact of credit information on bank lending, they do not tackle the direct relationship between credit information systems and entrepreneurship incentives. Indeed, regardless of the structure of financing, the decision of creating a new

business entity may be affected by the consideration of future information disclosure which might be assimilated to a transparency factor. Further, the availability of information in a systematic and dynamic manner may reduce significantly the credit processing times which should foster investors who are averse to bureaucratic procedures.

2. Methodology

We rely on the World Bank Doing Business Dataset, which displays several entrepreneurial related measures across 136 countries. Given that many economies employ either a credit registers or a credit bureaus system, we employ two simple linear models in order to assess the credit information exchange's effect on entrepreneurship. In both models, our dependent variable is the New Business Entry Density which is defined as the number of newly registered corporations per 1,000 working-age people (age between 15 - 64). 4

We regress it on the Credit Registry Coverage (in % of adults) in the first model (Model 1) while in the second (Model 2) our explanatory variable is the Credit Bureaus Coverage (in % of adults). Finally, in order to simplify the interpretations, we make a Log-Log transformation on the models' variables. There are 90 countries which have a credit bureau system and 67 countries which rely on the credit registry system, also 33 use both.

3. Findings

Table 1 and 2 report the regression results according to Model 1 and Model 2, respectively. Figure 1 exhibits graphically the linear relationship between our dependent variable and the explanatory one according to each model. We observe that both the Credit Registry Coverage and the Credit Bureaus Coverage have a significant impact on New Business Entry(p-value < 5%), although we remark that Credit Bureaus scheme has a higher effect.

These results suggest that the set-up of a credit reporting system and the extent to which it is implemented has a significant positive effect on new firms' establishment. Therefore, economies should give more importance to such systems. Finally, according to the results, it's more interesting to focus on a private credit reporting scheme based on cooperation rather than on a public constrained one.

Table 1: OLS results for Model 1

	Estimate	Std.Error	t value	Pr(>/t/)
Intercept	-1.42667	0.30460	-4.684	1.51e-05
Log Credit Registry Coverage	0.55880	0.09765	5.723	3.00e-07

R squared	0.3385
Residual Standard error	1.326
F-statistic	3.002e-07
p-value	

Table 2: OLS results for Model 2

	Estimate	Std.Error	t value	Pr(>/t/)
Intercept	-1.1461	0.5021	-2.283	0.024896
Log Credit Bureaus Coverage	0.8221	0.1409	5.836	0.000976

R squared	0.1181
Residual Standard error	1.364
F-statistic	0.0009763
p-value	

Figure 1: OLS estimation on the relationship between Business Density and Credit Information institutions.
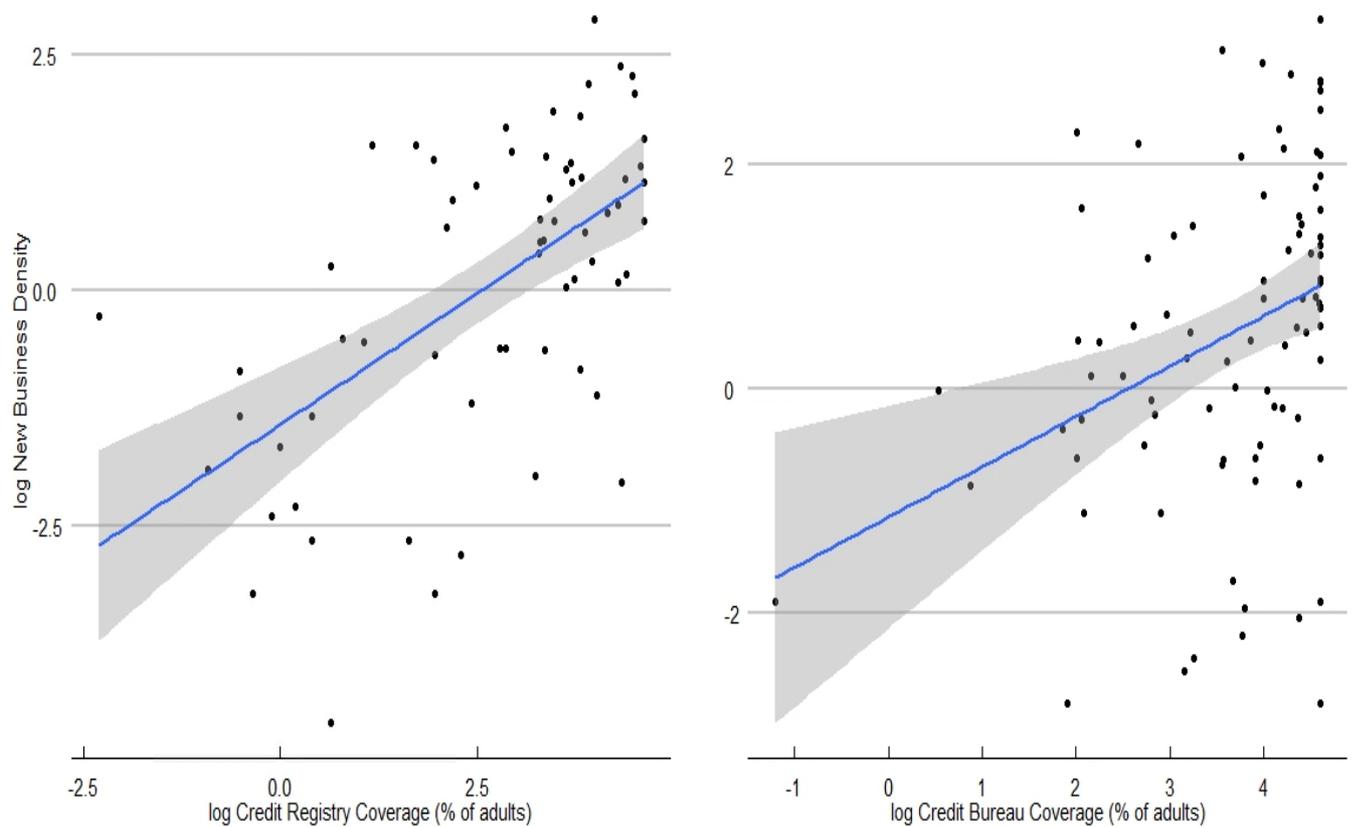
4. Conclusion

Using two simple linear regression models, we investigated the impact of credit information sharing on entrepreneurships based on a cross-sectional dataset that includes 136 countries. We find that credit information sharing materialized by Credit Registers and Credit Bureaus Coverage has a positive significant effect on entrepreneurships' dynamics suggesting that economies should attribute a real importance on the quality and implication of such schemes while prioritizing a spontaneous information exchange approach.

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