Firm Heterogeneity, Access to External Financing and Firm Growth[1]

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Summary

Motivation and Research Questions

Europe's economic success depends on the competitiveness and growth of European enterprises. Access to external financing is essential for enterprises to invest, innovate and grow. As a consequence of financial market imperfections, 'financing gaps' may limit enterprises' investment and growth options when viable projects cannot be financed. Evidence based on theory, empirical analysis and surveys indicates that such 'financing gaps' are likely to be more binding for certain types of enterprises including start-ups, young, innovative, small scale, domestic enterprises and more technologically advanced industries. It has been widely documented that during recessions and financial crises, financial factors, such as collateral constraints and debt overhang, exacerbate the financial constraints faced by enterprises. The crisis had a varied effect on the EU economy, with some countries experiencing very large contractions in output and marked falls in property values. Given this heterogeneity, the recent financial crisis has had uneven effects across countries, industries and enterprises. Because of the depth of the financial crisis, it is often concluded that weak demand has held back credit growth. However, the allocation of credit may also be uneven across enterprise classes linked to financial market inefficiencies.

Understanding the nature and extent of financing constraints faced by specific types of enterprises and industries and how they impact on their investment and growth is crucial in the design of effective policies. This study provides novel empirical evidence to inform policy measures and instruments in order to assist EU SMEs in obtaining access to external financing and to support enterprise growth.

[1] This presentation is based on an article to be published in the European Competitiveness Report 2014. The views expressed in this paper are purely those of the authors and may not in any circumstances be regarded as stating an official position of the European Commission.

The empirical analysis undertaken for this chapter is based on insights from the most recent relevant theoretical and empirical literature.[2] The novelty of this empirical analysis is threefold: (i) it considers both supply-side and demand-side financial market imperfections and identifies the nature and extent of financing constraints for specific types of enterprises, industries and EU countries following the recent financial crisis; (ii) it uses a unified econometric framework to analyse the effects of financing constraints on investment, employment, productivity and exporting over and above demand and cyclical factors across different types of enterprises and industries; (iii) it identifies the heterogeneity of the effects of the recent financial crisis on the responsiveness of investment, employment, and productivity to financial factors across different types of enterprises and industries.

This study focuses on the following three key policy issues: (i) the nature and extent of financing constraints faced by specific types of enterprises and industries and the extent to which they are linked to financial market imperfections; (ii) how financial dependence has affected the behaviour and the performance of EU firms over the recent period with respect to investment, employment, productivity and export performance; and (iii) policy implications and policy recommendations to assist domestic SMEs in obtaining access to external financing and support firm growth by addressing financial market imperfections.

Research Findings

Information asymmetries, and thus the level of access to external finance, differ across a range of different types of enterprises.[3] To examine the financing constraints enterprises' face, this analysis was undertaken using the ECB SAFE[4] data set. *Actual* and *perceived* financing constraints were measured for all types of firms based on their direct responses to credit applications and rejections, and perceived financing constraints. In SAFE, data on credit applications covers bank loans, bank credit for working capital, trade credits, and other forms of external finance. Two time periods were analysed corresponding to the data available in the ECB/EC SAFE survey for all EU member states: April – September 2011 (H1 2011) and April – September 2013 (H1 2013). The results from the analysis of the SAFE data set show that *smaller firms face greater perceived and actual constraints compared to*

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[2] The full analysis is available in the Background Study for this article, Siedschlag, I., C. O'Toole, G. Murphy, B. O' Connell, *Access to External Financing and Firm Growth*, May 2014.

[3] For a review of this evidence see Gerler, M. and S. Gilchrist (1993). "The Role of Credit Market imperfections in the Monetary Transmission Mechanism: Arguments and Evidence", Scandinavian Journal of Economics, 95(1): 43-64.

[4] http://sdw.ecb.europa.eu/

larger firms. Credit rationing (rejection of credit applications) is the most common financing constraint.

In order to test for market imperfections, a bivariate probit model was constructed incorporating controls for financial performance such as turnover, profit and credit history. The model was estimated on the same SAFE data. The empirical results indicate that *both actual and perceived financing constraints are higher for small and micro firms, with actual financing constraints decreasing with firm size and age.* As noted above, *market imperfections* can be linked to *information asymmetries*. On the one hand, banks may not have sufficient financial information on firms who want to borrow, which is discouraging them from lending. On the other hand, firms may not have sufficient knowledge of potential lenders or may be discouraged from borrowing due to a belief that banks will not lend to them, so they will miss out on borrowing opportunities.

In order to examine the impact of external financing on firm growth three econometric models were constructed to analyse the impact on *investment, employment and productivity*. The models were estimated using the Amadeus data set which includes information from the financial accounts of firms in Europe.

The main findings were that *small and young firms are more dependent on external finance to fund new investment compared to other types of firms. Also, small and young firms are more sensitive to the interest burden on borrowing, compared to other types of firms.* The results also showed that younger and smaller firms are being driven to accept shorter term credit arrangements, possibly because they are having difficulty obtaining longer-term loans, which are more suitable for funding long term investment projects. In terms of sectors, access to external finance is a more important driver of new investment in manufacturing and construction sectors than in services.

Long term credit is very important to all firms for them to take on new staff. Domestic-owned SMEs and very small (micro) firms depend on long term credit the most to expand their workforce. In general, rising firm productivity (total factor productivity) is strongly associated with increasing cash flows.

Using the EFIGE[5] data set a further model was constructed to examine the relationship between financial factors and exports. The results of the model revealed that *firms which are less financially constrained are more likely to export, possibly because these firms have the*

[5] http://www.efige.org/

available funds to overcome the sunk costs of entry into export markets. However, financial constraints do not affect the export sales intensity of those firms that are already exporting.

Policy Implications

Because small and young enterprises suffer from imperfections in the market for bank lending, whilst they are also the groups of firms that benefit the most from such lending to drive firm growth, there is also a need to provide affordable long-term credit to these groups of enterprises. This need is reinforced by the fact that small and young firms are more sensitive to the interest burden on loans than other types of firms.

On the side of lenders, traditional policy support mechanisms such as loan guarantees, risk-sharing initiatives and direct loan facilities are able to help small and young enterprises obtain credit. In addition, public support for other sources of financing, such as equity financing in the form of venture capital financing, for small and young firms, also helps mitigate against the disadvantages that these firms face in the market for bank credit, by diversifying the sources of finance available to them. Information asymmetries could be addressed by standardising the financial information on SMEs through the establishment of, for example, centralised credit rating agencies, on a national or EU level. These could be used as a source of reference by all banks, similar in purpose to the credit ratings issued on government, municipal and corporate debt.

On the side of borrowers, policy measures should be introduced that boost the market knowledge of small and young enterprises, as well as training in the preparation of loan proposals.

Improved access to external financing is likely to foster export participation over the long term. Specific policy measures to help companies to start to export could be in the form of export credits and insurance. This would represent a slight departure from current trade policy which puts more focus on supporting existing exporters.

Given the variation in the severity of the financial crisis across countries, policy measures and instruments to improve SMEs' access to external finance should take into account country specific conditions, i.e. priority should be given to policy support in those economies worst affected, whilst maintaining the need to support viable enterprises.