



ECFIN *Economic Brief*

ECONOMIC ANALYSIS FROM EUROPEAN COMMISSION'S DIRECTORATE GENERAL FOR ECONOMIC AND FINANCIAL AFFAIRS

Financing the real economy

By Erik Canton

Introduction

In the aftermath of the economic and financial crisis, policymaking became more geared towards structural reforms to support the process of economic recovery, steered at the EU level through the reinforced economic governance. While there are encouraging signs that an economic recovery is underway in Europe, growth prospects are modest and further reforms remain necessary in order to restore productivity and reach the Europe 2020 targets. Priorities for the EU include, inter alia, restoring normal lending to the economy and promoting growth and competitiveness for today and tomorrow.

This article addresses the relationship between the real economy and the financial sector, asking the question: to what extent does the crisis in the financial sector cast a shadow on economic activity?¹

¹ This Economic Brief is based on DG ECFIN's Product Market Review 2013, prepared by the unit Product Market Reforms, with contributions from the unit Macroeconomy of the Euro Area and the unit Macroeconomic Impact of Structural Reforms.

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The purpose here is to explore how bank lending can affect the real economy, and how distress in financial institutions has influenced bank lending to firms. To better understand this complex issue, a multifaceted approach is adopted, and the relationship is examined from a firm-, sector-, and macro-level perspective. This Economic Brief presents the main findings.

Allocation of resources

Firstly, a broader perspective is taken by looking at how productive resources are allocated within sectors, with a specific focus on the role of market entry and exit in this process and the potential influence of credit constraints as an impediment to efficient resource allocation.

Entry and exit of firms (also known as "firm dynamics") is essential to improve productivity. According to Schumpeter's creative destruction, the birth of new,

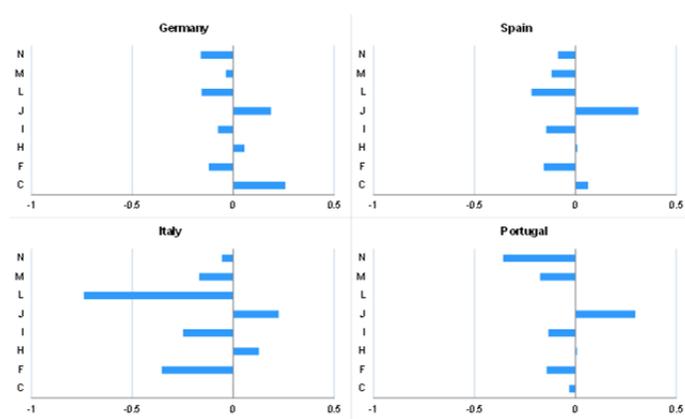
Summary

This article addresses the relationship between the real economy and the financial sector, asking the question: to what extent does the crisis in the financial sector cast a shadow on economic activity? Various potential linkages are investigated: perturbation of the firm entry and exit process, the impact of credit restrictions on export status and productivity, on investments, and on sectoral growth performance. Finally, results are presented on the impact of the financial distress in the banking sector on perceived access to finance difficulties. Policy efforts to revitalise competitiveness and investment, and to make sure that banks resume their role as financiers of new business activities, are of paramount importance to restore the process of economic growth.

innovative firms challenges the incumbent enterprises. The most productive firms expand their market shares, and attract resources in the form of people, knowledge and capital at the expense of the less productive ones. Investments necessary to start and expand a business are often financed by external funding. This requires well-functioning financial markets in the sense that resources are channelled from less productive to more productive firms. In normal times firm birth and death rates are positively related, but in the current crisis a decrease in the birth rate and an increase in the death rate are observed. Such decoupling of entry and exit frustrates an efficient reallocation of resources, and thereby the process of economic recovery.

Allocative efficiency (AE) is defined as the degree to which the most productive firms also have the highest market shares. Graph 1 presents a measure of allocative efficiency, using sectoral data on labour productivity for various firm size classes. The graph highlights that allocative efficiency in service sectors is lower than in manufacturing, possibly related to differences in exposure to international competition and excessive regulation of professional services.

Graph 1: AE-index in 2010 for selected countries and sectors



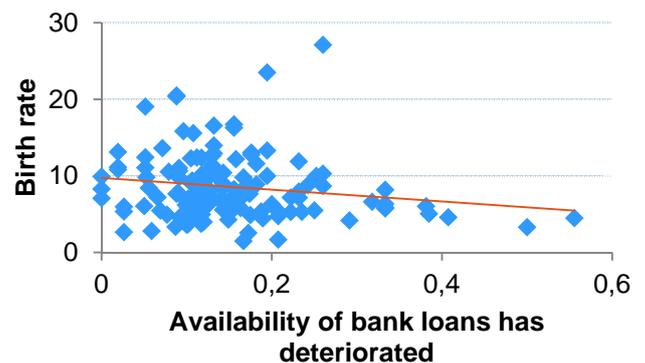
(1) Sectors are defined according to the Nace Rev. 2 classification with the following description: C manufacturing; F construction; H transportation and storage; I accommodation and food service activities; J information and communication; L real estate activities; M professional, scientific and technical activities; N administrative and support service activities.

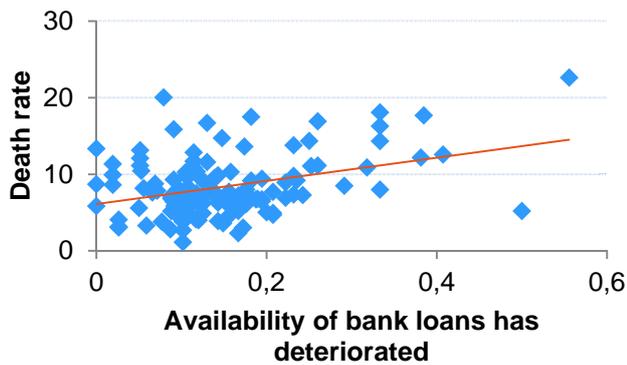
The estimate for AE is interpreted as the %-increase in industry productivity connected with the actual allocation of employment across firm size classes, relative to a baseline scenario in which employment is allocated randomly across the different firm size categories. A positive (negative) number for AE means that resources are allocated in a more (less) efficient way relative to

the baseline. Negative numbers point at forces in the economy preventing competition to work properly, such as excessive regulation, rent-seeking, ineffective procurement, clientelism. In German manufacturing the AE index is 23%, whereas in Italy and Spain the index is close to zero, and allocative efficiency is negative in Portuguese manufacturing. Services, with the exception of ICT services, typically exhibit negative allocative efficiency in the considered countries as well as in other EU Member States.

The indicator of allocative efficiency enables a further investigation on how policy interventions feed through the economy. In particular the potential gains from product market reforms may be underestimated when within-sector productivity differences of firms are ignored. Business dynamics, i.e. the process of entry and exit of firms in markets, is found to influence the level of allocative efficiency. Firm dynamics thereby influence the extent to which productive sources are allocated towards their most efficient use in the economy. In turn, birth and death rates of firms are related with access to finance conditions. Under more difficult financing conditions the process of business dynamics is disturbed, in the sense that death rates increase while birth rates decrease. Graph 2 illustrates this, using data from the SAFE survey of the European Commission/European Central Bank on (perceived) availability of bank loans. This may explain the earlier mentioned decoupling of the firm entry and exit process.

Graph 2: Business dynamics and access to finance





(1) Data refer to 2009-2010.

Source: SAFE survey and Eurostat.

Firm-level total factor productivity and export status before and after the crisis

If the financial sector facilitates an efficient allocation of resources in the economy, one would expect a relationship between the functioning of the financial sector and the performance of firms. Going deeper into the performance of firms, this Economic Brief next explores how credit constraints affect export status, both directly and indirectly, through the impact on productivity.

Using the EFIGE firm-level dataset and balance sheet data of firms from Amadeus, the analysis shows that the financial environment of the country in which a firm is located is an important determinant of its productivity level. Countries with a stronger financial development and higher supply of bank loans have higher average firm-level total factor productivity. Also, larger and financially healthier firms with lower indebtedness and a stronger ability to repay interests are typically more productive.

The financial crisis of 2008 has lowered average total factor productivity of surviving firms. This decrease in average productivity during the crisis years coincides with deteriorating health of the banking sector in the country in which firms operate and with falling domestic demand. The growth rate of credit supply decreased, while credit standards and non-performing loans held by banks rose substantially. The crisis period also coincides with falling consumer sentiment and rising unemployment rates. Firm-level productivity was negatively hit both by the change in credit supply conditions and the faltering domestic demand.

Highly productive firms are more likely to be exporters. However, little evidence is found that financial conditions at country level influence exporting status beyond the effect that financial conditions have on productivity. The exporting status of a firm does not appear to be directly influenced by the financial environment in which it operates. The role of domestic demand is found to be more important: when domestic demand falls, firms are more likely to export. This points at a countercyclical response of exports to domestic demand.

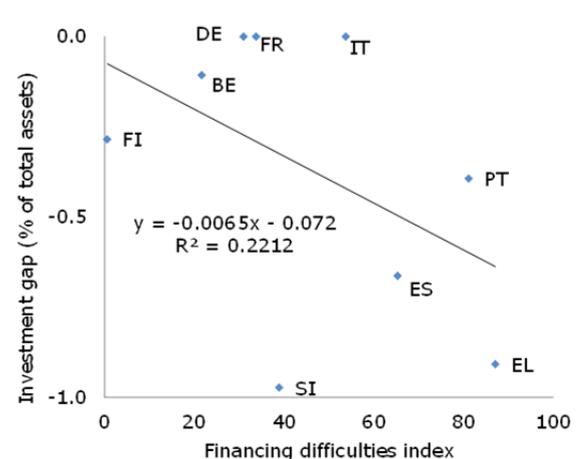
Capital reallocation into tradables

At the heart of the policy debate is the question how macroeconomic imbalances can be corrected, pointing to the likely need of capital reallocation into tradable sectors in vulnerable Member States. It appears that the relative profitability of firms in tradable sectors has recently been restored in most vulnerable MS, correcting the pre-crisis bias that encouraged excessive resource allocation to the non-tradable sectors.

There has, however, not yet been a significant relative increase in tradable sectors' fixed investment. Companies in tradable sectors of vulnerable Member States under-invest compared to their peers in non-vulnerable Member States, even after taking into account their current operating performance and financial health. Firms that are similar (in terms of some key characteristics) invest differently depending on whether they are located in a vulnerable Member State or not.

Financial difficulties explain part of the firms' most recent investment gap (see Graph 3). The micro-dataset of the Survey on access to finance of SMEs (SAFE) is used to estimate an index of financing difficulties. An analysis of underinvestment at firm level, controlling for alternative proxies of financing constraints, for expected firm profitability over the next three years, and for overall country-level heterogeneities (capturing *inter alia* general uncertainty) confirms these preliminary result on financing difficulties and firm investment. The analysis does not exclude the possibility that some demand-related factors were also at play in the underinvestment observed in 2011, or that some of the correlation between firm underinvestment and financing tightness may also reflect genuine differences in individual firms' risks. Still, the findings seem to point to the fact that financing difficulties could be among the binding constraints of the current resource reallocation process.

Graph 3: Financing difficulties and the investment gap, 2011



Industrial growth in the core versus the periphery

The growth performance of sectors is related to their dependence on external finance and the development of the financial sector. In the euro area, more developed financial markets have helped to mitigate the impact of the crisis on growth in sectors that are dependent on external finance. However, this effect varies depending on the phase of the crisis. In particular, well-developed markets for bank loans seem to have been a supporting factor in the early stages of the crisis, but not over the more recent 2010-11 period.

The link between the pre-crisis balance sheet structure of financial intermediaries and post-2009 growth performance is clearly different in the core euro area countries and in the periphery. In the former, a higher leverage of the financial sector and a higher degree of diversification of financial institutions' asset portfolio away from traditional lending before the crisis has had a more negative impact on post-2009 growth in industries which are more dependent on external funding than in industries mostly relying on internal funds. In contrast, in the euro area periphery post-2009 growth is negatively affected by the highly-leveraged financial sector with no significant differentiated effect on sectors which are more dependent on external funding.

Despite a higher dependence on external funding, the market services sectors seem to have been less affected than the manufacturing sector from the impairment of the market funding channels. Market services industries seem to have attracted most of the available credit in the euro area during the boom years. Yet, since

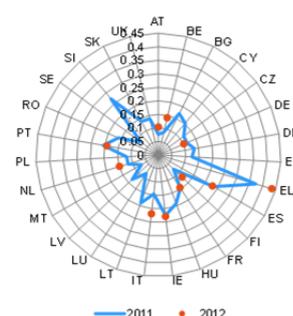
the crisis, industrial growth in these sectors has been mostly influenced by country-specific characteristics such as domestic demand shocks and not by their higher dependence on external funds.

Weaknesses in the financial sector and firms' perceived access to finance difficulties

Lack of access to finance can hamper firms from realising their growth potential and can lead to wasteful destruction of structurally viable and sound companies. Firms' perceptions regarding access to finance are studied, using results from the SAFE survey from the ECB/European Commission. Not surprisingly, firms' financial constraints are most pressing in Greece, Ireland, Portugal, Slovenia and Spain.

For example, Graph 4 shows the percentage of firms indicating that access to finance is the most pressing problem. Access to finance is the most pressing problem for about 15% of the companies in the EU. There are however substantial cross-country differences. For Spain, Ireland, Portugal and Slovenia this percentage is above 20%, and for Greece 37%. Countries in which relatively few firms indicate access to finance as the most pressing problem include Austria, Belgium, Finland, Luxembourg, Malta and Sweden. The situation in 2012 did not change importantly, with the exception of a further increase in the fraction of firms indicating access to finance as their most pressing problem in Belgium, Greece, Italy and the Netherlands.

Graph 4: Firms indicating access to finance as the most pressing problem (fraction of firms)



(1) This figure summarises the responses to the question what is the most pressing problem the firm is facing. The indicator takes value 1 if the firm replies "access to finance" and 0 otherwise. Alternative answers are: finding customers; competition; costs of production or labour; availability of skilled staff or experienced managers; regulation; other; don't know. Source: SAFE survey.

The SAFE survey includes several other questions providing insight into access to finance restrictions, for example a question on whether firms have not applied for a bank loan because of fear of being rejected (known in the literature as discouraged borrowers).

The analysis searches for determining factors of these perceived bank credit difficulties. Part of the understanding of perceptions is found in the firms' characteristics. In particular the firm's age, size and its growth performance are important explanatory variables. For example, the phenomenon of the discouraged borrower is predominantly observed among young, small firms with negative recent growth of their turnover. Also, product innovation does not seem to help escaping financial constraints, which may imply that innovation is delayed and the process of creative destruction in which young innovative firms replace inefficient firms is impaired.

The financial health of the banking sector plays a role in perceived credit difficulties. A lower return on equity of banks corresponds for example to an increased probability to mention access to finance as the most pressing problem for the firm. This may also be symptomatic of the increased fragmentation of the financial system along national borders, with a retrenchment of financial activities to domestic markets as mentioned in the Annual Growth Survey 2013.

Conclusion and policy implications

The results of the analyses confirm the relevance of the current policy focus and provide additional insights for policy initiatives in the context of recovery from the economic and financial crisis.

The main findings can be summarised as follows. First, market entry and exit of firms (firm dynamics) is necessary for an efficient allocation of resources. Limited access to finance can frustrate business dynamics, thereby impeding resources to flow from low-productive to high-productive firms, leading to lower allocative efficiency. Second, access to finance difficulties have a negative impact on a firm's productivity level, and thereby on its chances to become an exporter. Third, access to finance difficulties reduce investments, also in export-oriented sectors where profitability has improved, thus negatively affecting the repair of imbalances in vulnerable Member States. Fourth, for those sectors that rely on outside financing the adverse growth impact of the crisis was mitigated in countries with more developed financial markets. Finally, survey

data reveals that firms face less access to finance difficulties in countries with a healthier financial sector.

Policy efforts to revitalise competitiveness are of paramount importance to absorb the productive sources in the form of people and capital that have become idle during the crisis. A failure to do so will result in non-trivial social and economic costs, and permanent damage in the form of depreciated human capital due to prolonged spells of unemployment. Intensified competition through market entry would lead to welfare gains for consumers in terms of lower prices and/or increased quality of goods and services.

Firm dynamics are intimately connected with the business environment and the quality of public institutions. Structural reforms in general, and more particularly those affecting the market functioning in the non-tradable sector (in light of the relatively low allocative efficiency measured in services) and general framework conditions related for example to the formalities to start a business, the quality of the judicial system, insolvency regulation, red tape, innovation etc., should therefore continue to be implemented.

A key policy action is to make sure that banks resume their role as financiers of new business activities and lenders to viable firms, in particular in those parts of the corporate sector that rely mostly on bank funding (obviously without compromising the financial sector's competencies to select the most promising projects). This would improve firm-level productivity and the company's chances to penetrate foreign markets, and would facilitate efficient allocation of productive resources.

The role of the financial sector in supporting the recovery in the EU is acknowledged at the EU level through various ongoing policy initiatives addressing financial fragmentation and the health of the banking system. More stringent banking regulation and the build-up of a Banking Union are paramount priorities. Policymakers also continue to be engaged in initiatives that could facilitate SME lending in the short term. A further development of bond and equity markets as alternative funding channels for the corporate sector would enable industries dependent on external funds in time of crisis to shift away from a temporarily impaired channel towards other market channels, thereby increasing the resilience of the corporate sector.