Financing for SMEs: The Role of Crises

Cláudia Cardoso and Marta Sampaio

***Abstract*—The financial crisis of 2007-2009, in the US, was followed by several sovereign-debt crises and banking crises in Europe. One of the most discussed consequences of these crises was if there was an effect on the financing to the economy. Among the firms, small and medium-sized enterprises (SMEs) are traditionally considered more fragile and many authors engaged in the analysis of the financing conditions of these companies and the particular restrictions that they may face in the moment of a financial crisis. This is our starting point for an exploratory study on the behaviour of demand, supply and the cost of financing for SMEs. We conclude that, despite the decreased cost of financing have been higher for large firms than for SMEs, and after a period of scarcity of financing, the external financing available for the SMEs had overcome the needs, on the euro zone. There is also some evidence that there was a change on the structure of the sources of financing used by the SMEs.**

***Index Terms*—Bank loans, crisis, financing of firms, SMEs.**

I. Introduction

All companies need financing, either to start its activity, either in the course of the same, for investment or cash needs. The capital structure of the company reflects its choices and the availability of funding, and should be taken into account the purpose of financing and the consequences of the choice of own or outside capital. The availability and affordability of external financing are two of the major factors to explicate high levels of investment, production and employment. Financial crises, mainly when the bank sector is highly affected, may affect the supply of financing to the firms. It is expected that small and medium-sized enterprises (SMEs) suffer more with a crisis because they are more dependent on bank financing and they face more difficulties on using the financial markets.

On the aftermath of a set of financial/debt/banking crises, we intend to exploit how the crises affected the financing to SMEs, on the euro zone. The paper is organized as followed: first, we establish a background, using relevant literature on the subject; then, we present some exploratory data concerning price and quantity variables; and, finally, we draw our main conclusions.

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II. Background

On OECD countries, the bank financing remains the most standard form of external financing of SMEs. However, with banks facing increasingly strict prudential rules and changes on their business models, it becomes increasingly likely that the business environment will be characterized by a lower recourse to credit [1]. Consequently, an inferior recourse to credit will imply the use of other forms of financing (some examples, are the new uses for trade credit, leasing and hire-purchase; debt securities, and even crowdfunding). There is a growing variety of funding options available to SMEs, however, some are on an early stage of development or are available only to a small percentage of SMEs. Therefore, the importance of the bank sector for the financing of SMEs was not overcome.

Periods of crises in the banking sector lead the banks to seek to reduce exposure to risk, which by its turn can have an impact on bank loans [2], [3]. However, the decrease in credit-providing after the crisis can be explained, on the one hand, by the increase on credit restrictions imposed by banks, or, on the other hand, by the reduction on the demand for credit by businesses.

Reference [4] explored the characteristics of firms that may affect their access to financing. In this sense, they established that characteristics such as age, size and shape of property constitute the major characteristics of the firms able to conditioning the access to finance. They concluded that newer, smaller and national companies face more obstacles. So, size is an important factor, even when other variables are controlled.

Also in the study by [5], it can be concluded that larger and older companies are at a lower risk of rejection of bank loans. Notice also that there is usual a positive correlation between size and age, because the majority of firms start small at an early stage and then grow, gaining age and dimension simultaneously.

A study to identify the contribution of factors on the supply and demand side for the evolution of new loans granted to SMEs in Portugal, [6] concluded that smaller SMEs, with less ability to finance internally, seek more credit. On the other hand, banks offer higher credit to companies with higher income, as well as to companies with greater ability to present collaterals for the loans.

For [7], strong and long-term banking relationships allow certain benefits to both parties. The bank has access to private and company-specific information, and, on the other hand, the company achieves a higher availability and better credit conditions. However in the case of SMEs, this relationship is placed in question by information asymmetry due to the

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opacity of the information that SMEs transmit to funders. The relationship between accounting information and economic-financial performance is often questioned because of the lack of accounting rules as well as the lack of evaluation of accounting information (audits and risk rating agencies) [8]. The information asymmetry in the banking relationship raises problems of adverse selection, prior to granting credit, and moral hazard problems, after the granting of credit. Adverse selection arises due to uncertain or incomplete information in relation to the applicant or credit due to an inappropriate research by the lender for financing risk assessment analysis. Moral hazard arises due to the inability of lenders to control the actions of the tenderers when in possession of the funds borrowed [9]. Reference [10] argues that the problem of information asymmetry may be mitigated through a long-term relationship between the funder and the proponent of credit, since, in this way the funder possibly will collect, over time, greater private company information.

Reference [11] studied the impact of the crisis on access to credit for SMEs, seeking to explain the evolution of loans to French SMEs. The two possible factors were reduced supply by banks or the decrease in demand by businesses. They concluded that, although there was evidence of a more cautious conduct by banks, SMEs were not very affected by the rationing of credit. Most of the decline of loans granted to SMEs between 2009 and 2010 is explained by the decrease in demand by companies (phenomenon explained by the decrease in activity and investment projects). This study contradicts the idea that the crisis creates a strong credit restriction. Reference [12] came to a conclusion similar to the German SMEs.

For the euro area, [13] found that credit rationed firms are more likely to use, and apply, for trade credit, but found no evidence that bank-constrained SMEs apply for, or use, the financial market. They are more likely to apply for grant finance. However, as we will see on the next part, subsidised loans (usually, granted by the State or the European institutions) diminished between 2009 and 2016. This is not surprising due to the Sovereign-debt crises that occurred in the euro area.

From the works presented, we can conclude that there is strong evidence that SMEs have greater difficulty in gaining access to external financing than large firms, but there is not the same unanimity as to the impact that crises have in the financing of SMEs.

III. The Impact of Crises, since 2007: An Exploratory Analysis

Since 2007, the world suffered from several economic and financial crises that many call of "Global Crisis". In the Euro area, since 2007, we can highlight two stages of this massive process of crisis. The first phase is related to the direct impact that the financial crisis of 2007-2009, which began in the United States, had in Europe. This impact was felt mainly in financial institutions that were more dependent on the North American market. Soon, the European banking system suffered exposure to American financial market, taking place some bankruptcies, public aid and restructuration of major financial groups. Then, the crisis spread to the States and public accounts. In this second phase, roughly between 2010 and 2013, several European countries had to be rescued by international institutions because they were not able to meet the responsibilities of public debt. There were specific bailout programs for some Euro area countries as Greece, Portugal, Cyprus, Ireland and Spain. The sovereign-debt crisis returned to affect the financial system, which is the greatest funder of States. The inability of States to comply with their commitments, linked to financial problems transmitted over the 2007-2009 crisis, will lead to changes in the manner of functioning of the financial system (in particular, changes to regulation and supervision) and the availability of funds to finance economic activity. Therefore, we focus our investigation on the aftermath of those crises, using data from 2007 to 2016.

Any market analysis involves two variables: quantity and price. In the case of financing of SMEs, let's also start from this approach. We will analyse data from the euro zone, from 2007.

The price dimension will be treated using two variables: the rate of interest to SMEs and the interest rate spread (SMEs/large firms), calculated as the difference between the interest rate for SMEs and the interest rate for large firms (Fig. 1).

In the euro area, the crises result on a decrease of the interest rate, for SMEs. That is due, largely, to the policy of the European Central Bank, which implemented a strategy of monetary expansion in order to avoid a deflation scenario. From 2007 to 2014, the SME interest rate decreased from nearly 6% to nearly 4%.

SMEs usually pay higher interest, than large firms. Between 2007 and 2014, the interest rate spread for SMEs increased on average by 0.47 percentage points, on 13 countries, of the euro zone, included on the Financing SMEs and Entrepreneurs: An OECD Scoreboard. Therefore, the financial crisis did not have the same impact for all the firms and SMEs did not beneficiate from the decrease of the interest rate as the large firms did.

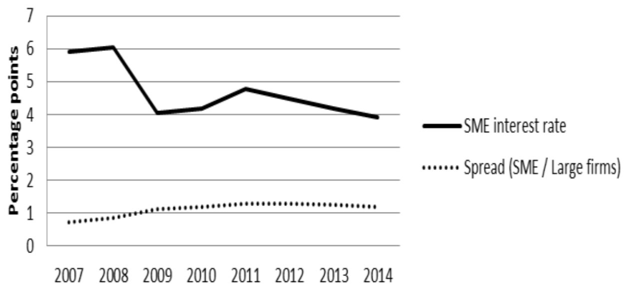

Fig. 1. Interest rate for SMEs and interest rate spread (averages for 13 countries of the euro zone) (Source of data: http://stats.oecd.org/Index.aspx?DataSetCode=SMES_SCOREBOARD).

Between 2007 and 2011, the growth of the spread is continuous both with the decrease or increase of the interest rate. From 2011, the spread seems to stabilize. Therefore, in most intense phases of crises, SMEs were the most penalized in terms of cost of financing. It should be noted that, in the case of companies already in debt with variable rate contracts, this situation is serious even if there is no demand for new financing.

The other dimension we want to address is the quantity. First, we examine the structure of the sources of financing effectively used by euro area SMEs, in 2009 and 2016 (Fig. 2). Notice that data are the percentage of firms that used some type of source of financing, and they do not account for the volume of money involved on each operation. From 2009 to 2016, the structure of financing for SMEs changed. In 2009, almost half of the firms used retained earnings for financing. That percentage declined a lot and, in 2016, they were less than 20%. One of the reasons could be the decline of earnings during the crises. The other two sources of financing that were less used in 2016 than in 2009, were bank loans and subsidised loans. Regardless of the absence of data of 2009, for leasing and hire-purchase, factoring and other sources, we see that overall the percentage of SMEs who used financing decreased, between 2009 and 2016. Therefore, these are indicators of market shrinkage.

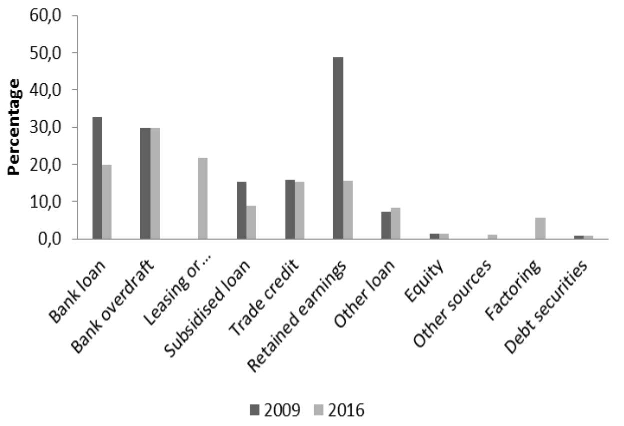

Fig. 2. Financing structure of euro area SMEs - Weighted percentage of SMEs that used those sources of financing in the past six months (Source of data: http://www.ecb.europa.eu/stats/money/surveys/sme/html/index.en.html).

In a traditional market analysis, the quantities and prices actually charged are the result of supply and demand. In our case, we start by inspecting the differential between these two market forces through the variations of the external financing gap perceived by euro zone SMEs. The external financing gap is the difference between the needs and the availability of external financing.

In Fig. 3, we see that the gap is positive until 2014. This means that there was a shortage of external funding available for the needs of SMEs. This shortage was highest between 2011 and 2012, years after the American financial crisis, but on full debt crisis in several countries, such as Greece, Ireland and Portugal. From there, and also following the lowering of the interest rates, the gap has been decreasing. From 2015, the gap becomes negative, which means that the availability exceeds the needs of external financing. This is the most interesting part of this evolution because we reach an unexpected result to an aftermath of crises: there is no obvious scarcity of financing for euro area SMEs.

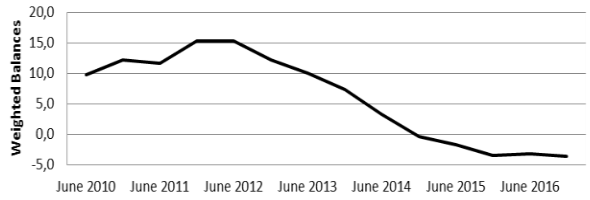

Fig. 3. Change in the external financing gap perceived by euro zone SMEs (Source of data: http://www.ecb.europa.eu/stats/money/surveys/sme/html/index.en.html).

With those data, we cannot assess what determined the decline of the gap: a fall of needs or an increase in the availability of funding? Or both? If there was an increase in the availability of funding, that is a good thing because it may mean that business investment intentions had the necessary funds to be implemented. This means that the production capacity in the future will not be compromised. But, if the decrease of the gap was due to a decrease in demand by companies that could mean that businesses are reducing investment or even disinvesting. References [12], [13] point on that direction.

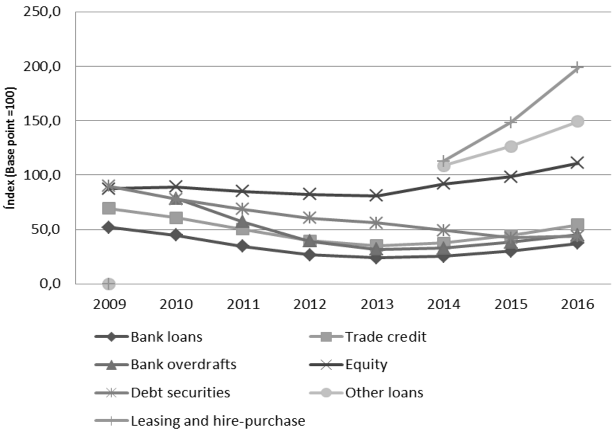

Fig. 4. Change in the availability of external financing for euro area SMEs (averages for 13 countries of the euro zone) (Source of data: http://www.ecb.europa.eu/stats/money/surveys/sme/html/index.en.html).

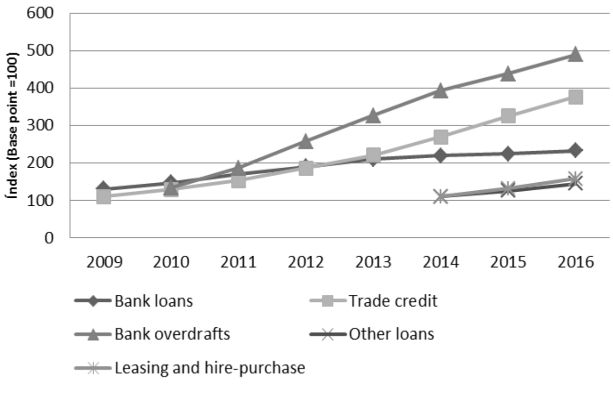

Fig. 5. Change in external financing needs of euro area SMEs (averages for 13 countries of the euro zone) (Source of data: http://www.ecb.europa.eu/stats/money/surveys/sme/html/index.en.html).

To try to answer some of these questions, let's examine the availability and need for some sources of funding for SMEs. In Fig. 4 (for the supply side) and Fig. 5 (for the demand side), we can see the evolution, in terms of volume, and analyse the behaviour, by type of funding. Apparently, there was not only a volume effect but also a change of structure on the financing of SMEs.

First, we start for the most important source of financing for SMEs: the financing from banks. We started by arguing that SMEs do not have the same financing opportunities as larger firms; therefore, they rely on financing from banks. However, since 2009, the availability of bank loans and bank overdrafts decreased until 2013. After, they increased but without reaching the initial values. The reduction is larger on bank loans, by far. On the demand side, SMEs needs for bank overdrafts increased more than SMEs needs for bank loans. That could be a signal that the needs of financing of SMEs, during the crisis, are focused on the short term (for which, the use of bank overdrafts is more suitable).

Another important source of finance for SMEs is trade credit, i.e., business-to-business loans. Once again, this source of funds is more suitable for short term needs and, usually, is not used to support long term investment. The decrease on the availability of trade credit is not as sharp as for bank loans and over draft. The needs for trade credit enlarged almost as the needs for bank overdrafts, which is likely because they are cover the same type of needs (being the uses of bank overdrafts more ample).

On the supply side, Fig. 4 shows the changes on the availability of debt securities and equity. However, we do not have the evolution on the demand side for these two sources of funds. We see that the availability of debt securities decreased, since 2009, without a clear recovery after 2013 as the other sources of financing. The behaviour of equity is rather different. The availability of equity stood stable during the nastiest years of the crisis, and had a clear improve since 2013. The capital market and entrepreneurs gave a strong response to the scarcity of funds for SMEs and, in 2016 the availability of equity is higher than in 2008 (the basis year for this variable).

Finally, we have data for the last three years for leasing and hire-purchase and other loans. Hire-purchase is a system by which a buyer pays for a thing in regular instalments while using it. Other loans included those from family, friends or related companies There is a substantial growth on the supply side, where the availability of leasing and hire-purchasing nearly duplicate. The change on the demand side was smaller. Consequently, this segment of the financial market contributed for the decrease of the external financing gap perceived by euro zone SMEs. This is an interesting result because it seems that diversification was one of the answers of the economy to the banking crisis, for allocation of resources.

IV. Conclusion

The importance of SMEs in the European corporate sector, while generating product and employment, justify the attention to the availability of resources that the financial system dedicates to them. In the context of the euro zone, on the post-crisis, it adds the role that funding this kind of firm has to the transmission mechanism of monetary policy and the consequent success of that policy to put the euro zone on a route to growth.

We check that SMEs saw their financing costs worse-if, in relative terms, vis-à-vis large enterprises. This situation should deserve attention of politicians in the sense that you can put into question the competitiveness of these companies, especially in markets where they compete with large companies. For future research, it should be examined how specific support to SMEs, in the context of EU, compensate or not the evolution of the interest rate differential.

We saw that now, after a period of scarcity, the financing needs of SMEs are met by the availability of funding. We showed that there were some changes on the structure of the sources of financing. However, future research will be made to the volume and use of the diverse types of financing. In particular, we would like to examine if the banking crisis and the consequent strengthening of supervisory mechanisms have changed the behaviour of bank credit, forcing small companies to find alternative sources of financing, or to reduce the demand for funding, lowering investment. It would be also interesting to analyse which are the alternatives sources of financing that could be successful on financing SMEs, namely the up-to-date forms of financing as the business angels, venture capital or equity crowdfunding.

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