ACCESSING FINANCE FOR INNOVATIVE EU SMES – KEY DRIVERS AND CHALLENGES

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ABSTRACT

Small and medium enterprises (SMEs) play a vital role in economic development, they offer the most economical use of capital in relation to job creation and provide the strongest channel for development and innovation. Innovation is recognized as an essential component of the economic growth process, broadly defined as development, deployment and economic utilization of new products, processes and services.

SMEs are crucial for helping economies to restructure quickly in response to changing economic, social and market conditions, under the impact of international financial crisis. However, SMEs can fulfill this potential if they obtain the finance necessary to start and develop their businesses. Access to finance is a key determinant for business start-up, development and growth for SMEs, including the innovative ones, and they have different needs and face different challenges.

The limited market power, lack of management skills, absence of adequate accounting records and insufficient assets, transaction costs and lack of collateral, all tend to increase the risk profile of SMEs. Moreover, uncertainty and informational asymmetries that characterize SMEs are amplified for innovative SMEs making it more difficult for them to access finance through traditional means.

*The current economic environment has brought SME needs into particular focus given the significantly tightened credit supply conditions arising from the reduced ability and willingness of banks to provide financing. In order to improve the access to finance for SMEs, the efforts should be focused at the European and national levels on solving the problems regarding working capital, improving entrepreneurship and financial environment in the long term***,** *attracting new financial resources, facilitating dialogue and consultation between governments, SMEs and financial institutions.*

Key words: financing, innovative SMEs, financial crisis

JEL: G32, M13, O31

1. INTRODUCTION

The SME sector represents an important actor in the complex process of developing a modern and dynamic economy. The arguments in favor of this fact consist of the substantial contribution of SMEs to the economic development (Biggs 2002), (Newberry 2006) and job creation, as well as their ability to adapt quickly to the structural changes in the global economy. SMEs are considered main actors for industrial growth (Acs & Audretsch 1987), a source of considerable innovative activity (Thurik 1996, Nooteboom 1994), they contribute to the development of entrepreneurship (Johnson & Cathcart 1979) and contribute to the competitiveness' increase (Song & Parry 1997).

An important part of the European economies (representing 99% of all enterprises and 57% of economic value added), SMEs are essential

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for the economic recovery. SMEs can act as catalysts for change, helping economies to restructure quickly in response to changing economic, social and market conditions. This is why it is important to support SMEs in order to help the whole economy to regain strength and to return to sustainable growth.

Despite the measure taken in order to support the SME sector, the main problem they have to face is the access to finance. In fact, it is recognized in the economic literature that these economy actors are in general confronted with the lack of financing sources (Berger & Udell 2005), (Ayyagari et al., 2006), (Beck 2007).

The ability of SMEs to access finance is important for facilitating new business start-up, funding business investment, and ensuring businesses reach their growth potential. The lack of finance can constrain cash flow and affect businesses' survival prospects.

Comparing with the large firms, the small and medium firms are particularly vulnerable because:

- they have weaker financial structures or lower capitalization;
- their activities are less diversified;
- they have lower or no credit ratings;
- they are heavily dependent on credit;
- they have fewer options for finance, especially in financial markets.

Different financial characteristics of SMEs compared with the larger ones require particular policy responses to foster a functioning finance market for them. Moreover, uncertainty and informational asymmetries are amplified for innovative SMEs, making it more difficult for them to access financing: returns to innovative activities are often uncertain; entrepreneurs may possess more information about the nature and characteristics of their products than potential financiers; innovative activities are usually intangible thereby making the assessment of their monetary values difficult. Thus financing innovative SMEs could be very risky and uncertain, making it difficult to come up with a mutually agreeable financing contract.

The international financial crisis represents another new threat for SME financing and development, related to innovation and competitiveness. In fact, the financial crisis has highlighted many structural weaknesses in the European economy. In the current period, reforms to achieve greater efficiency are urgent and feasible; alongside these reforms, continuous investment and smart fiscal consolidation are essential for the recovery. Also, the economic crisis has shown that there is a need for stronger integration of research and innovation in broader industrial and macro-economic policies.

Over the past two decades, the European Commission (EC) has aimed to develop a comprehensive range of financial policies and instruments to support SMEs with the most appropriate sources and types of financing at each stage of their life.

As highlighted in the Commission's Communication on the State of the Innovation Union 2012, an effective innovation policy requires a combination of three crucial dimensions: *Europe needs to reform, invest and transform*. The future beyond the crisis depends on having the capacity to transform the structure of the economy towards more knowledge-intensive and innovative industries and services (EC 2013a).

The Europe 2020 strategy relies to a large extent on efforts made at a state level, to which European instruments can contribute. Therefore, the progress towards a European Innovation Union is closely linked to the performance of EU member states in mobilizing reforms of research and innovation systems, investing in knowledge and making structural changes.

2. FINANCING THE INNOVATIVE SMES: FEATURES, CHALLENGES AND BARRIERS

2.1. Financing the lifecycle of innovative SMEs

SMEs are a very heterogeneous group, which includes a wide variation of firms, and a subset of SMEs is dynamic, innovative, and growth-oriented. Innovative SMEs are defined as having introduced innovation in at least one area, such as products, services, marketing, production or management.

SMEs are important for innovation in manufacturing and services. Some arguments in this sense could be their simple organizational structure, their low risk and receptivity as the essential features facilitating them to be innovative (Harrison & Watson 1998). Also, SMEs engage in technological innovations in a wide range of sectors and they are important sources of employment and productivity growth (Audretsch 2002).

business environment in which they operate (Burrone & Jaiya 2005).

In recent years, an increased interest has emerged in the role of young innovative companies in generating productivity growth and competitiveness. But compared with the US economy, young European firms reveal lower innovative capacity and most of them do not survive very long (Santarelli & Vivarelli 2007). Unsurprisingly, young innovative companies face financial constraints, both internal and external, significantly more than other innovation active firms. Also, regional dimension, business environment, knowledge intensive services, and high skilled labor are often seen as an important factor to determine the success or failure of young innovative firms (EC 2012). One of the characteristics of the innovative SMEs is that each growth phase has different financing requirements and these can be met by various sources (Figure 2.1).

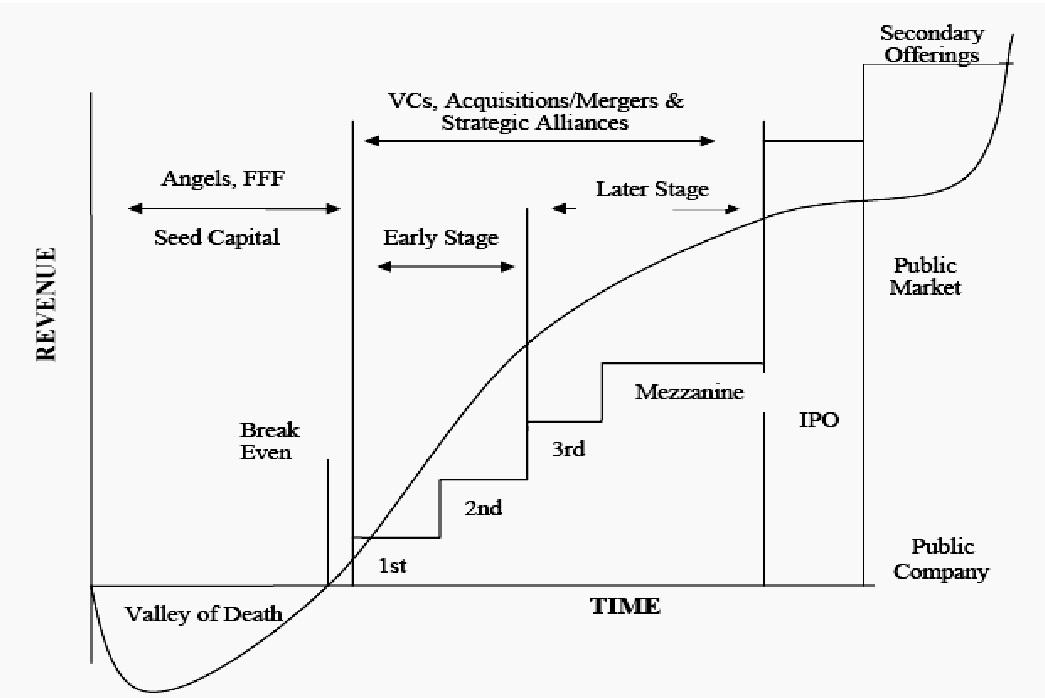

Figure 2.1. Financing lifecycle

Source: Mario Cardullo, 1999

However, the innovative capacity of SMEs tends to vary with the age profile of the companies, their size, their sector and the

Innovative start-ups tend to be highly risky with intangible assets while the perspective of years with negative earnings make extremely difficult to secure a loan from banks. Therefore, personal savings of entrepreneurs, family and friends are often the most important source of finance. Recognizing a higher risk associated with financing innovative start-ups, some countries have government guarantee schemes to fill possible financing gaps (Organisation for Economic Co-operation and Development-OECD 2004).

In the second phase of survival, investment is still highly risky with high failure rates and external sources become more important but firms are not large enough to attract venture capitalists. In general, business angels fill the gap between personal funds and institutional venture capital funds and contribute their expertise, knowledge and contacts both formally and informally to the business they invest in (Thompson & Sang-Mok 2002).

After the firm has passed through the early stage, it requires a further injection of capital to fund the growth of its manufacturing and distribution capacity. However, its reliance on intangible assets with uncertain cash flows still affects the access to debt financing. Moreover, low profitability and short track record make it unsuitable to raise equity through public listing.

Venture capitalists alleviate uncertainty and informational asymmetries associated with young firms by actively analyzing firms intensively before providing capital and monitoring them afterwards. Initial public offering (IPO's) also enables firms to obtain finance more cheaply from banks. A reduction in the cost of bank credit may partly be related to improved financial information associated with stock exchange listing. In any case, as firms become larger, they increasingly rely on institutional investors and banks as their primary source of finance (OECD 2004).

2.2. Main obstacles on financing innovative SME

In interdependent and integrated world economies, innovation became an essential component of the economic growth process. However, SMEs have to face a number of impediments to their growth and survival including limited access to financing.

The main obstacles to getting finance for SMEs are the following:

- the *informational asymmetries* between small businesses and investors;
- the *higher risk* associated with SME activities;
- the *transaction costs* in handling SME financing;
- the lack of *collateral*,
- *institutional and legal factors;*
- *constraints on the SME side* related to the quality of projects, negative attitude towards equity financing or inability to use the available source of financing.

Informational asymmetries are in general related to the privileged information for entrepreneurs that cannot be accessed by potential lenders or investors. Besides, the information SMEs can provide to external financiers (financial accounts, business plans, feasibility studies, etc.) often lacks accuracy and rigor, mostly because of the lack of management skills of small entrepreneurs.

In this case, an "adverse selection" problem can appear for the investor, who cannot make the correct choice between companies and projects. Besides, after the investors have supplied the funding, they may not be able to assess if the firm is utilizing the funds in an appropriate way, which can generate a "moral hazard" problem.

Informational asymmetries that characterize SMEs are amplified for innovative SMEs, making it more difficult for them to access finance through traditional means:

- first, the returns on innovative activities are often highly uncertain (development of new products and new processes in untested markets);
- second, entrepreneurs may possess more information about the characteristics of their products and processes than potential financiers;
- third, innovative activities are usually intangible, thereby making the assessment of their monetary values difficult before they become commercially successful.

Another difficulty faced by SMEs in accessing finance is related to their *higher risk* profile compared with the larger companies. SMEs face a more uncertain competitive environment than larger companies (they experience higher rates of failure); SMEs are comparatively less endowed in terms of human and capital resources to face economic challenges and there is the problem of inadequate information systems concerning profitability and repayment capacity.

For innovative SMEs, risks are even increased. It should be taken into consideration that the innovation cycle is a complex process that begins with an idea of a product and continues through prototype development and testing. The financing of this cycle needs a series of capital flows, and failure to finance any part of the cycle may cause the failure of the firm.

Another important issue in handling SME financing is the *transaction costs.* Irrespective of risk profile considerations, SME financing involves the following costs: administrative costs, legal fees, and costs related to the acquisition of information. In case of smaller loans or investments, it is more difficult to cover these costs.

The lack of collateral is related to debt financing. Lenders typically request *collateral* in order to mitigate the risks associated with the credit. The enterprise may be unable to provide sufficient collateral in the early stages and this problem is closely related to 'higher risk' and moral hazard issues. In case of innovative SMEs, the issue of collateral is even more severe due to the intangible nature of innovation activities and assets generated through such innovation.

In many countries, the obstacles to SME financing are generated by *institutional and legal factors,* such as:

- restrictive government regulations regarding the banking sectors, conservative lending policies, high interest rates;
- insufficiently developed legal systems effectively prevent the development of certain financing instruments, including the use of collateral as a risk-mitigating element;
- the underdeveloped "information infrastructure". There is a lack of credit bureaus and other mechanisms for collecting information on payment performance. This inevitably exacerbates informational asymmetries between enterprises and investors.

However, it should be underlined that the constraints on the "demand side" also have an impact on accessing financing by SMEs. The following factors play a significant role:

- lack of satisfactory business plans, accounting and other information;
- low quality of projects submitted for financing;
- inability of SMEs to make the best possible use of available sources of funding (dealing with financial institutions);
- insufficiently high levels of profitability, liquidity and other business-financial performance criteria on the part of funding applicants;

- negative attitude displayed by SMEs toward equity financing control over the company by outsiders.

In a nutshell, financing innovative SMEs is risky and uncertain. Therefore, innovative SMEs appear to suffer from imperfections and inefficiencies in their use and access to various sources of finance.

3. EU SME FINANCING – RECENT TRENDS

The financial crisis increased the financing gap for SME financing. Banks tightened lending standards during the financial crisis. This resulted in shortened maturities, increased collateral requirements and higher interest rates (Dalberg 2011). In fact, one of the first difficulties reported by the SMEs is related to the access to financing as reported in the recent EC survey - "2013 SMEs' Access to Finance", November 2013 (Figure 3.1).

access to finance as the most pressing problem decreased (EC 2013b).

By level of innovation, 17% of innovator SMEs reported it as the most pressing problem whilst for non-innovators the percentage was only 13%. Considering the *access to finance* problem, Slovakia reported the issue as "extremely pressing" (42%), followed by Greece (28%) and Cyprus (26%). On the other hand, Estonia was the least likely to report *access to finance* as "extremely pressing" (3%), followed by Finland (5%) and the Czech Republic (5%) (EC 2013b). Regarding the recent sources of financing, external and internal, it was most common for EU SMEs to have used external financing only in the previous six months: just over half of the companies surveyed (54%) looked for external financing only, slightly lower than in 2011 (56%).

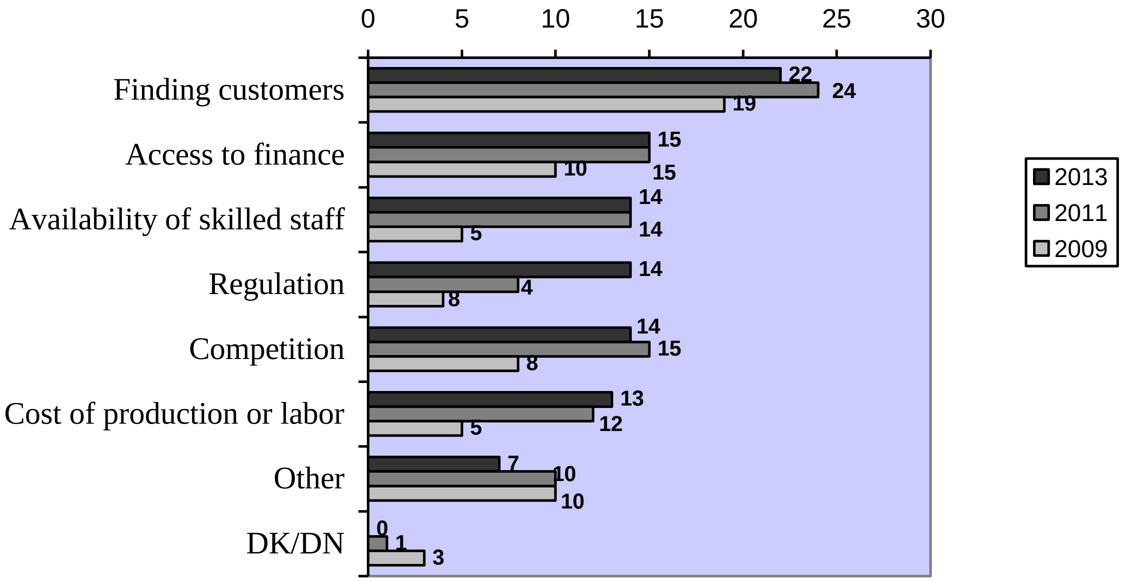

Figure 3.1. The most pressing problem faced by EU SMEs

Source: European Commission, "2013 SMEs' Access to Finance", November 2013

Micro SMEs (18%, i.e. 1-9 employees) were more likely to report access to finance as the most pressing problem compared to larger SMEs (12%-15%, i.e. 10-49 employees and 50-249 employees). Similarly, as the company turnover increased, the likelihood to report

For innovative firms, external finance preferences are very similar to other types of SMEs and bank loans were the most preferred source of financing (64%). Innovator SMEs were also more likely to access a loan (54%) than non-innovators (45%).

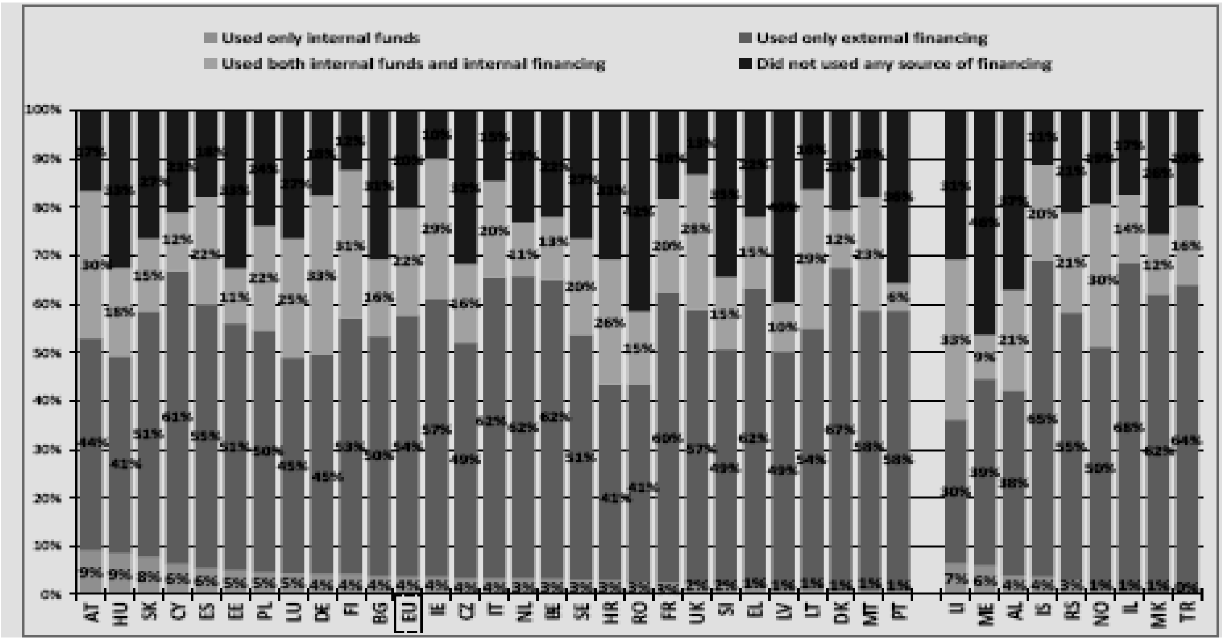

Figure 3.2. EU SMEs: use of internal funds and external financing

Source: European Commission, "2013 SMEs' Access to Finance", November 2013

In general, there are no statistically significant differences between SMEs and innovator SMEs in accessing finance sources. At the European level, one in five firms (20%) had not used any source of financing in the past six months, the same level as seen in 2011. Avoidance of usage of any form of financing was especially high among SMEs in Romania, Latvia and Portugal (36%-42%, almost twice the EU average of 20%), (Figure 3.2).

Internal funds were used as one of (or the only) source of financing by 26% of EU SMEs in the previous six months. This is only slightly above the 2011 levels (24% for the EU 27) suggesting that the need for retained earnings and assets followed a rather stable trend (Figure 3.3).

Many other sources of financing continue to be widely used, as in 2011 in particular, bank overdrafts (39%, comparable to 2011 level of

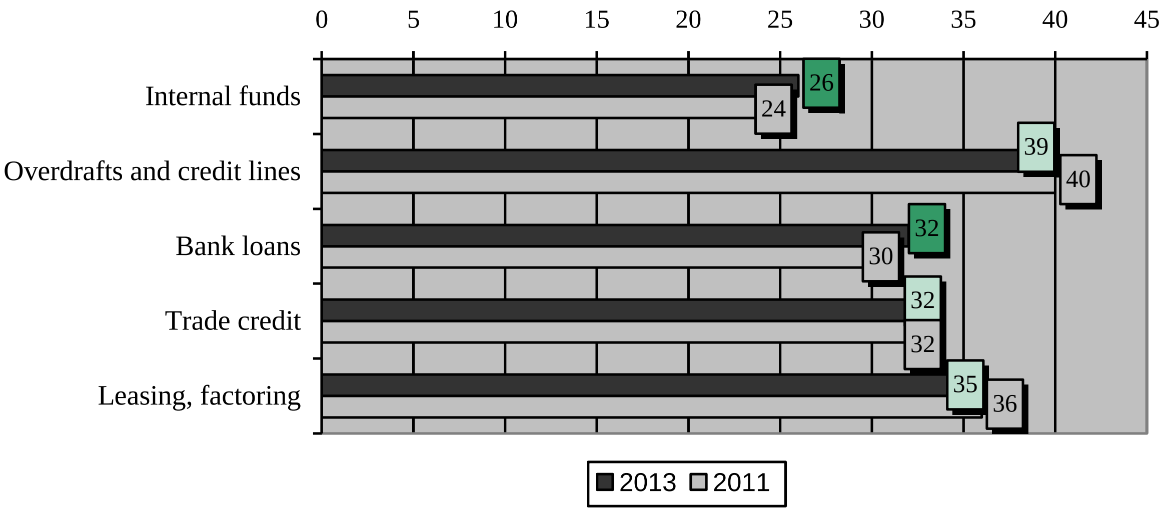

Figure 3.3. Financing structure of euro area for SMEs

Source: European Commission, "2013 SMEs' Access to Finance", November 2013

40%). Close behind were leasing/hire purchase/factoring (35%, very close to 2011 level of 36%), trade credit (32%, the same as 2011 levels) and bank loans (32%, very close to 2011 level of 30%).

The two largest obstacles to external funding identified by SME managers were insufficient collateral and interest rates being too high – both were selected by 20% of managers in 2013, the same as in 2011, whilst the proportion claiming insufficient collateral dropped by two percentage points (Figure 3.4).

non-innovators (1%). In terms of the levels internal funds usage, there was a significant difference between innovator SMEs (28%) versus the non-innovators ones (23%). Both in terms of changes in firm's own capital and firm's own credit history, innovator SMEs reported higher levels of improvement compared to non-innovators (29% vs. 23% for firm's own capital and 24% vs. 21% for firm's credit history) (EC 2013b).

Innovative SMEs were more likely to show high levels of turnover growth (16% in 2013) than non-innovators (10%) and less likely to

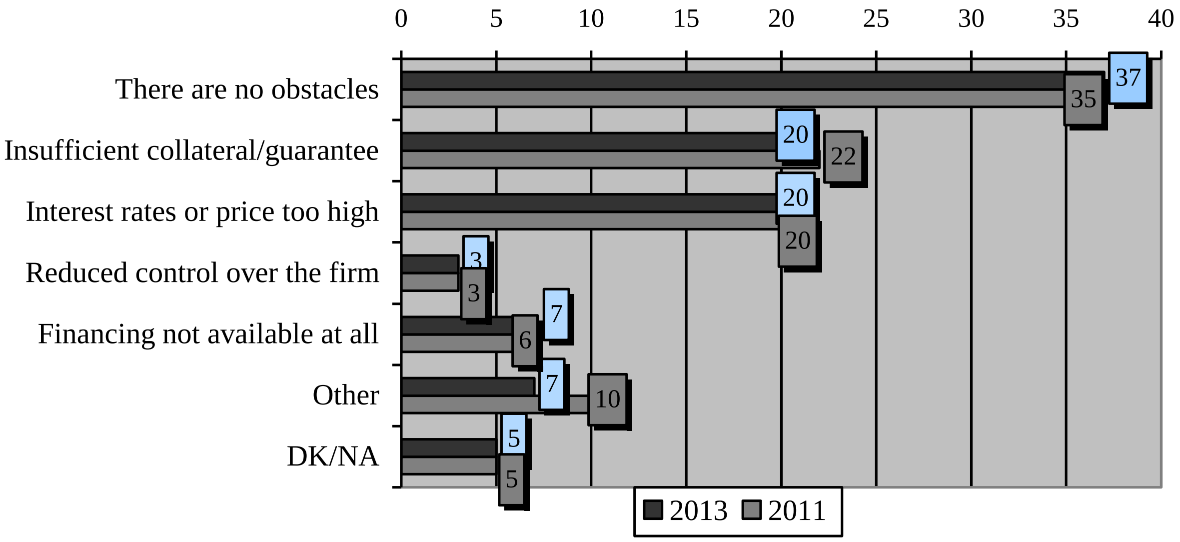

Figure 3.4. Most important limiting factor to get external financing

Source: European Commission, "2013 SMEs' Access to Finance", November 2013

Amongst innovator firms that prefer bank or other loans as their source of external financing, 33% of innovators said they foresaw no problems in obtaining funds, compared to 42% of non-innovative firms. Innovator firms were significantly more likely than non-innovative firms to report that the availability of bank loans would increase, with 16% of innovators and 11% of non-innovators saying that availability would improve (EC 2013b).

Regarding the availability of equity investments, there was only one percentage point difference between innovators (2%) and be stable non-growers (19% versus 26%). The proportion of innovator managers who selected other types of external financing was also close to the overall averages, with no significant differences.

4. MEASURES TOWARDS BETTER FINANCING FOR INNOVATIVE SMES

There is a general recognition that the availability of adequate financing is crucial for business growth and development.

Policies to reduce financing gaps faced by innovative SMEs can be framed into three directions (OECD 2004):

- First is to ensure the operation of efficient financial markets so as innovative SMEs to have access to a reasonably priced credit;
- Second is to reduce uncertainty and risks associated with financing innovative SMEs;
- Third is to reduce information asymmetries between innovative SMEs and potential investors.

a) Increase the efficiency of financial markets can be ensured by following measures:

- A viable equity market is needed with the following: well-trained fund managers who can properly access the risk profile of innovative SMEs; a viable exit mechanism such as secondary stock markets; investment regulations that are flexible enough to allow institutional investors to participate in the equity financing of innovative SMEs. In this case, innovative SMEs need to have access to government programs, bank loans or foreign equity markets for financing;
- It is important that investors evaluate the nature and quality of the assets that innovative SMEs create and develop. Innovative SMEs should aim to develop a reporting system about the nature of their intangible assets (skills, intellectual property rights, etc.);
- A stable competitive banking industry needs to be ensured. Through a proper regulatory framework, governments need to encourage commercial banks to make their credits available to innovative SMEs and increase transparency of lending practices;
- The capacity to evaluate innovative SME credit worthiness should be strengthened by using information technology and statistical tools by financial institutions.

b) Reducing uncertainty and risks associated with financing innovative SMEs can be ensured by the following measures:

- Effective management of public sector loan guarantee or equity guarantee programs in order to reduce risks associated with financing innovative SMEs;
- Usage of privately led insurance schemes for innovative SME loans through small business associations that can provide an insurance (or guarantee) on bank loans;
- Governments stimulating the provision of private risk capital through co-investment and reducing taxes on capital gains for investment in SMEs by venture capital funds;
- New systems needed to evaluate the credit risk of SMEs on a company basis rather than on a sectorial basis.

c) Reducing informational asymmetries between innovative SMEs and potential investors can be done by following measures:

- Improve the transparency of corporate performance; this would help overcome information asymmetries between borrowers and financial institutions;
- Increase access to global capital markets. Governments can provide information on raising funds in global capital markets and support the formation of transnational business networks;
- Improve information on the creditworthiness of potential borrowers, by promoting the establishment of credit bureau and "credit mediators" in order to support SMEs to elaborate business plans and financial projections;
- Support the SME managers to better understand the financing options available, including existing government programs.

There are already a large number of government programs to deal with SME financing constraints. But these programs are often characterized by overlap, fragmentation and competition among managing agencies. Improving the provision of general information on SME-related government measures is crucial for the implementation of government policy and programs. It could be facilitated in partnership with business service providers or business associations.

The economic crisis has shown that there is a need for stronger integration of research & innovation in broader industrial and macro-economic policies. Most EU member states are engaged in the strategic priority setting of specific science and technology profiles. They use a combination of criteria for their choices: dialogue with industry on their needs for new knowledge and technologies, dialogue with stakeholders on major societal challenges in the country and beyond, and efforts to streamline the national priorities with thematic priorities at the EU level.

At the European level, the major instruments to provide direct support and a favorable environment for growth of SMEs are:

- the Horizon 2020 - Program for Research and Innovation for 2014-2020 with a €80 billion budget;
- Program for the Competitiveness of Enterprises and SMEs (COSME) with a €2.3 billion budget.

The major contributions of Horizon 2020 to SME development are:

- the provision of financial support to own innovation projects by the SME instrument;
- the possibility to engage in the context of large projects with research institutions and to access specific financial instruments for technology and innovation based firms.

Moreover, Horizon 2020 provides direct support to the Enterprise Europe Network, a key player in improving SMEs' access to funding opportunities. In June 2013 the European Commission expanded the single portal on EU finance by including the EU structural funds. This merger enables an easier access to information, advice and expertise for businesses longing for finance.

The domains of major activities of the COSME program are: providing access to financing for growth oriented companies that do not fall under the focus of Horizon 2020; developing better framework conditions for SME growth in sector of strategic interest, in particular through clusters; supporting the internationalization of SME business activities.

The SME support will be targeted with a dedicated SME instrument for which highly innovative SMEs with a clear commercial ambition and the potential for high growth are the prime target.

The SME instrument offers business support such as: innovation grants for feasibility assessment purposes; innovation development; free-of-charge business coaching; access to a wide range of innovation support services; access to risk finance in order to facilitate the commercial exploitation of the innovation.

“Innovation in SMEs” also includes actions that provide indirect support to SMEs in the form of tailored services and projects (innovation management capacity building, IPR management, etc.), networking, mobilization actions for innovation service providers and policymakers. Also, it includes activities intended to support entrepreneurship, internationalization, and improving access to markets (through the COSME program).

Horizon 2020 actively supports SMEs by providing both direct and indirect financial support to increase their innovation capacity. “Innovation in SMEs” aims at creating a bridge between the core of the framework program - support to research, development and innovation projects - and the creation of a favorable ecosystem for SME innovation and growth.

5. CONCLUSION

SMEs, especially the innovative sector, are one of the sectors most affected by the international financial crisis. The current economic environment has brought SME needs into particular focus given the significantly tightened credit supply conditions arising from the reduced ability and willingness of banks to provide the financing, higher risk margins, more demand for collateral/securities, and financial difficulties on investment.

These constraints hampered investment and innovation, and thus growth, employment and welfare. In addition, lack of skills at various levels (entrepreneurs, banks, firm owners) may also be important. Various measures for improving the situation are feasible and realistic and should be targeted at SMEs themselves, financial intermediaries, and at public policy in general.

Debt financing continues to be the primary source of financing for SMEs in Europe, much more important than venture capital. This implies that an efficient functioning of credit markets is of utmost importance for SMEs to thrive.

The venture capital plays a small role in financing SMEs and this underlines the lack of developed venture capital markets in most European countries. This issue seems particularly important for the most innovative and expansionary firms. A more prominent role in SME financing should be played by the venture capital and more generally risk capital, in order to avoid cyclical fluctuations.

The survival of innovative SMEs is based mostly on the financing measures and opportunities offered to these firms. In order to improve their access to finance, the efforts should be focused on:

- solving the problems regarding the working capital (making guarantee effective, solving the cash flow problems);
- assisting innovative start-ups in accessing financing programs;
- improving the SME and entrepreneurship financial environment in the long term;
- accessing modern financing instruments such as mezzanine financing, venture capital or business angels;
- improving SME and entrepreneurs' information and competencies;
- facilitating dialogue and consultation between governments, SMEs and financial institutions.

Overcoming the present difficult conditions for SMEs and entrepreneurs requires effective short-term measures that need, however, to be linked to structural improvements in the long term in the SME financial environment in order to be successful and to restore growth.

Therefore, the appropriate broader framework conditions are a critical determinant for SME financing. Under these circumstances, there is a need for reliable governance, tax, regulatory and legal frameworks that provide a reliable playing field for all economic entities.

At the European level, a lot of effort was done in the last two decades regarding the SME financing and innovation support. In fact, access to finance, entrepreneurs and innovation of SMEs are at the core of the EU 2020 strategy and its major instruments Horizon 2020, COSME and Regional Funds.

The objective of SME support in Horizon 2020 is to stimulate growth by means of increasing the levels of innovation in SMEs, covering their different innovation needs, thereby creating more fast-growing, internationally active SMEs. "Innovation in SMEs" is focused on creating a bridge between the core of the framework program - support to research, development and innovation projects - and the creation of a favorable ecosystem for SME innovation and growth.

A dedicated SME instrument is a novel approach to support SMEs' innovation that aims at supporting projects to launch the company into new markets, to promote growth, create high returns of investment and to address all types of innovative SMEs.

The EU initiatives should be correlated with the national ones in order to support the financing and development of SMEs and thus the economic growth. The measures that most governments are taking or planning to take to counteract the effects of the crisis and stimulate their economies should include easing SME and entrepreneurship access to finance.

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