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**Capital Market Union and Growth Prospects for Small and Medium
Enterprises**

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Capital Market Union and Growth Prospects for Small and Medium Enterprises

by

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Abstract

One of the key aims of the CMU is easing the access of SMEs to credit and capital markets. This paper examines the role of SMEs in the European economy and their financial structure. It looks at the potential effects of the CMU, by specifically focusing on the informational market failures affecting SMEs finance. A fully integrated European Capital market will be beneficial to SMEs, and the European economy, if it does entice adequate large-scale technologies and actions to solve market failures related to informational issues. Otherwise, it may generate core-periphery outcomes, with peripheral regions and weaker SMEs further excluded from crucial sources of finance.

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1. Introduction

The CMU is expected, among other effects, to free financial resources for SMEs, improving directly and indirectly their access to credit and capital markets. It foresees measures specifically targeted to SMEs, like reducing information barriers and developing specialized segments of capital markets. More generally all areas of intervention envisaged by the Action Plan of the European Commission are expected to reduce the distance between SMEs and capital markets within the Union². The idea is that an integrated, larger and pan-European capital market: (i) will be more efficient both in terms of better risk allocation and lower operating costs, (ii) will be more resilient to shocks, (iii) will allow for deeper and broader European markets, respectively improving the intensive and the extensive margins of financial markets but also of the real economy.

In this paper, we raise a note of caution. A CMU may deliver integration and efficiency of capital markets, both desirable and well awaited in the European project, but that may create (national) winners and losers not only in financial markets but also, and probably more importantly, in the real economy.

Our key concerns are the market failures, especially related to informational issues, haunting SMEs' access to credit and financial markets. If the CMU is able to address the issues at the root of these market failures, then we will most likely face a further concentration of the financial sector in a European Core, still serving the whole Union and its SMEs wherever they are, similarly to the US market.

But if CMU only addresses the liberalization and integration of financial markets, without tackling specific issues concerning SMEs, then it will likely deliver a Core-Periphery outcome, both for financial markets and for firms and SMEs.

A crucial distinction is between soft and hard information. Soft information requires long term relationships and proximity. It can thus be seen as a 'centripetal force' promoting the geographical concentration of finance and production. On the other hand, codified hard information can be dealt with at a distance and is thus either a neutral or a 'centrifugal force' that hampers agglomeration.

² See Commission 2017, Communication from the Commission on the mid-term review of the capital markets union action plan.

Integration of capital markets may drain relationship lending which in this scenario remains the first source of funding for SMEs. If relationship lending is based on geographical proximity, only the SMEs close the core of the financial markets will have access to credit and periphery countries will lose both financial markets and real activities.

It is therefore crucial to investigate if and how the actions contemplated in the CMU will deliver not only further integration of financial markets, but also how they will address the specific issue of information processing of SMEs. In other words, a fully integrated European Capital market will be beneficial to SMEs, and the European economy, if it does entice adequate large-scale technologies and actions to solve market failures related to informational issues. We will discuss different channels through which the CMU entices positive outcomes in this respect.

Another crucial distinction concerns the characteristics of the SMEs involved. The information issue is especially relevant as far as global capital and especially equity capital, aims at financing firms' growth rather than survival. There is a crucial distinction between rapidly growing and efficient SMEs and firms that are small and remain such, either because their business model is inconsistent with growth, or because their managers/entrepreneurs are neither capable nor willing to make them grow. Identifying such growing firms requires a large amount of information, not easily processed into a hard format.

Dealing with SMEs is a highly risky affair anyway. Even if we just consider lending (which has lower information requirements than equity as also stagnant firms can repay their loans), it is still not easy to identify viable firms. Data that we will discuss show how the average share of non-performing loans is much higher for SMEs than for larger firms. Diversification by lending to large pools of small borrowers does not solve the problem. Even if lending is fully diversified catering a fully representative sample of SMEs, average failure rates will be higher than for large firms.

Direct access to an integrated CMU is an affair that should especially matter for fast growing or sufficiently sophisticated and transparent SMEs, particularly if we consider equity capital. Stagnant SMEs remain of course important from a welfare point of view, as they provide many jobs. However, it is difficult to see how they could acquire financial resources, beyond local boundaries. Even for them information processing is crucial, and, as we will discuss below, this might still happen through local banks.

Summing up, either an integrated capital market favors the development of technologies and actions to discriminate more efficiently than fragmented national ones between viable and non-viable SMEs or, from the stand point of SMEs, the CMU defeats its purpose, at best.

The organization of the paper is as follows. Section II illustrates the importance of SMEs in Europe and benchmarks countries in the world, their dynamics, and their financial structure. Section III discusses the informational issues of SMEs and how they are affected by capital markets integration. Section IV looks at the interaction between the CMU and the Single Market from the specific viewpoint of SMEs. Section V concludes with an analysis of specific actions of the CMU.

2. SMEs financing in Europe

2.1. The role of SMEs in the real economy

SMEs account for a large proportion of aggregate employment in most advanced countries (Figure 1). However, while very small SMEs, with less than 10 employees, account for nearly 40% of aggregate employment in Italy, they only account for less than 12% of employment in the US. Within European countries, Italy, Spain and Portugal have the largest share of employment in firms with less than 50 employees, while France and UK have the smallest.

Even in countries where they account for a smaller share of employment or where a large share of firms is extremely small and not growing, the contribution of young and small SMEs (those with less than 50 employees and up to 5 years old) to gross job creation is extremely relevant, and it is only in part balanced by high rates of job destruction (Figure 2).

The high rates of gross job creation and destruction of SMEs are mainly due to the fact that they are typically young firms, often with risky investment projects, leading to a much higher rate of default than larger corporations. Indeed, a large number of SMEs are new start-ups, which have a relatively high probability of default. In the Netherlands, for example, nearly 40% of start-ups become inactive within 3 years from foundation, although this share is much smaller in countries such as Belgium and Sweden, where it is less than 20%. The share of growing firms is in most countries very small, never above 10% (Figure 3).

The high probability of default clearly impacts also on job dynamics. Criscuolo et al (2014) show that start-ups that become inactive within 3 years from foundation account for nearly 80% of all job destruction in Japan and in the Netherlands, while this share is about 20% in Belgium. Symmetrically, growing and stable firms provide most of new jobs.

Although SMEs and especially start-ups account for a significant share of job creation, according to the results of the Survey on the access to finance of enterprises (SAFE) conducted by the ECB on a representative sample of about 15,000 European firms, larger and relatively older SMEs have higher rates of employment growth (Figure 4).

2.2. Ownership and financial structure of SMEs

The financing needs of SMEs largely depend on the fact that they are young, small and relatively opaque firms, and in the majority of cases they are family-run businesses. According to SAFE, most SMEs are owned by a family or by a group of entrepreneurs, and an equally significant share is owned by a single owner. The share of SMEs in which a venture capital firm or a business angel owns the largest stake is negligible in most European countries.

Since they face high fixed costs that hinder their ability to access more sophisticated sources of funding, such as public debt and equity, SMEs must resort mainly to bank loans to fulfill their needs of external finance. Figure 6, based on data from SAFE, shows that SMEs consider credit lines and bank loans as the most important sources of financing, together with leasing and trade credit. Equity capital is considered a relevant a source of funding by about 12% of total SMEs, relatively more so by those larger and with age between two and five years. Debt securities are considered a relevant source of funding by more than 3% of SMEs. In some countries, trade credit is also a very relevant source of funding.

The high relevance assigned by SMEs to bank financing clearly has relevant implications for their leverage structure. Indeed, SMEs are typically more leveraged than larger firms that have a better access to equity financing through IPOs. But at the same time, it is also true that very small SMEs may face stronger difficulties in obtaining bank credit, and therefore will be forced to employ mainly internal funding. The impact of each country's industrial and financial structure on firm's funding is therefore the result of many different elements.

On average, firm leverage (measured by the ratio of equity to total liabilities) is very different across European countries, ranging from about 40% in Greece (despite the large incidence of

smaller firms) to nearly 65% in Luxembourg (Figure 7). France, Germany, Italy, Spain and the United Kingdom, despite their very different industrial and financial structures, all have leverage ratios between 51% and 55%.

Focusing on SMEs, the SAFE survey presents again a remarkably diversified picture. Bank loans and credit lines are considered an important source of funding by more than half of SMEs in the majority of European countries, although with some variability, the more so in the case of credit lines (Figure 8).³

Loans involving support from public sources in the form of guarantees or reduced interest rates are also considered important in some European countries. Trade credits are a traditional source of funding for SMEs all over the world, as shown also by an ample empirical academic literature; among major European countries, values range from over 50% in the United Kingdom to less than 20% in Germany. As to debt securities and equity capital, the low average share of European SMEs that consider them as relevant sources hides sizeable cross-country differences. In the case of the Netherlands, about one quarter of SMEs consider equity capital as a relevant source of financing, while in Italy they are less than 2%. In the case of debt securities values are on average even lower.

When asked to rate possible policy interventions in a range of 0 to 10, SMEs stress the importance of making available measures easier to obtain, for example through the reduction of administrative burdens, and of tax incentives (Figure 9). Interestingly, facilitating equity investments is not considered a relevant issue, suggesting that the low relevance of equity financing is not due limits to its supply but rather to a precise choice of SMEs. Export and credit guarantees are considered as the least interesting type of policy intervention, suggesting that export credit is not a relevant issue for European SMEs (as typically they are unlikely to export anyway).

Guarantees for loans are also considered a relevant policy and indeed, especially after the crisis, they have become very relevant in some countries, as shown by Figure 10.

³ In the case of bank loans the precise amount of the loan and the dates of repayments are fixed, while in the case of a credit line the borrower can draw only part of the money at discretion up to an agreed maximum balance and interest is charged only on money actually withdrawn.

2.3. Supplying funds to SMEs

Having described what SMEs consider their most important sources of funding and how this impact their equilibrium financial structure, it is now important to understand what are the main suppliers of these funds, what is the incidence of SME financing in their asset portfolios, and what new players might possibly be attracted by a more effective CMU.

As it is clear from the evidence presented above, most of SME financing comes from banks. In the euro area, a bit more than a quarter of total lending to non-financial corporations is accounted by loans of less than 1 million of euros of total value, which are typically used as a proxy for loans to SMEs (Figure 11). This is indeed a much smaller share than that of employment in smaller firms, as shown in Figure 1 above. Interestingly, also in this case aggregate data hide large cross-country variability, with values ranging from over 50% in Portugal, to about 10% in Ireland and the Netherlands.

SMEs are riskier than larger firms, because they are typically younger, more opaque, and are often based on the knowledge and experience of a small number of entrepreneurs, often just one. Loans to SMEs are also charged higher interest rates, the more so during periods of financial distress (Figure 12).

Being on average riskier, SMEs also have a heavier impact on bank balance sheets, despite their smaller granularity that allows in principle for better diversification. Indeed, capital requirements on SME lending can be in some cases penalizing. Loans to SMEs are more likely to become non-performing than average loans to non-financial corporations (Figure 13). However, the impact on bank capital absorption can be different depending on the size of SMEs.

A relevant impact on SME financing could come from the securitization of bank loans. Although the incidence of securitizations is at the moment overstated (because banks securitize their own loans to obtain securities that they then use as collateral for central bank financing), their weight is not negligible (Figure 14). Simple and transparent securitizations have indeed been advocated by many commentators, including the BIS.

Apart from banks, institutional investors can be a relevant source of funding for non-financial corporations, and facilitating their access to financing SMEs is one of the key policies proposed within the CMU. However, the impact of such policies can be extremely heterogeneous depending

on the weight of institutional investors in each country, the more so if their portfolio choices show a significant degree of home bias.

The incidence of the most important institutional investors (investment funds, insurance companies and pension funds) is extremely diversified across most developed countries, ranging from a value of total assets close to three times GDP in Denmark, to less than 12% in Greece (Figure 15). Interestingly, also the composition is rather heterogeneous, with a high incidence of pension funds in some countries, and nearly no presence in others.

However, institutional investors are very unlikely to be able to play a significant role in the financing of SMEs by directly lending to them. Indeed, they hold a very limited amount of loans (that are typically shares of very large syndicated loans to large corporations), and their portfolio is biased towards equity and investment fund shares (Figure 16). Purchases of securities obtained from the securitization of bank loans to SMEs could nonetheless play a crucial role.

In addition, institutional investors prefer to invest their assets in their home country, as the academic literature has shown to be the case for most financial institutions. The ratio of assets that institutional investors invest domestically is in many countries in the order of 50% (Figure 17).

Additional sources of funding that have proved to be extremely important especially for innovative and fast growing SMEs are private equity and angel financing. However, these sources have a very limited incidence compared to the role of banks and institutional investors. The total value of private equity investment is at most in the order of 1% of GDP (Figures 18); that of angel financing is even smaller.

Interestingly, the funding of private equity firms shows a relatively high degree of international diversification, but they tend to finance mainly domestic activities (Figure 19). With the CMU in place, funds might therefore be attracted by countries with a stronger presence of private equity firms, which use to finance their local activities, to the benefit of domestic SMEs.

3 SMEs financing: market failures and solutions with the CMU

Why do SMEs face more adverse credit conditions than larger firms? Why does size matter in the determination of the availability and the cost of credit? How do market failures affect the provision of funding and generate this wedge between large and small firms?

The initial step requires understanding the technology of financing and how the acquisition of information helps contain the costs of potential bankruptcies. Let us start with the basic form of financing: lending. Providing loans requires appraising borrowers, monitoring them, and other activities implying considerable per-loan fixed costs, i.e. costs that are independent of the size of the loan. A simple and immediate consequence of these costs is that banks tend to charge higher interest rates for small loans than for large ones. Figure 12 shows clearly that small firms pay 50 to 100 basis points more than large ones for loans in all the main European countries. This difference can rise to up to 250-300 basis points during serious market distress.

The issue is even more severe for equity. In this case investors need not only to assess the financial viability of firms but also their growth prospects. In fact SMEs are typically undercapitalized. This is a serious impediment to their expansion. In general, entrepreneurs are endowed with different projects characterized by different levels of risks, the potential of which they know much better than potential investors. The consequent inability of investors to carry out an adequate risk assessment of entrepreneurs and their projects make them shy away from SMEs.

Undercapitalization has additional effects on the cost of debt, as argued by Bernanke and Gertler (1989) and the following “static trade-off theory”. When bankruptcy costs faced by a bank dealing with the bankruptcy of a debtor are high, more leveraged firms that face a higher probability of bankruptcy due to more severe difficulty in servicing debt (for example, when facing unexpected negative product demand shocks), are charged higher interest rates by banks. Fixed costs and bankruptcy costs therefore imply that SMEs, especially those with low equity, will face higher interest rates, *ceteris paribus*.

The higher level of interest rates generates a typical adverse selection problem. Safer borrowers refrain from borrowing. Higher interest rates apparently increase banks’ profits (when the price effect prevails), but eventually cause their drop because of the growing impairment provisions facing non-performing loans. As first argued by Stiglitz and Weiss (1981), banks may then prefer to cap interest rates and withhold loans, with the result that entrepreneurs with good and safe projects are left with too little or no borrowing. The higher interest rate required on smaller loans

because of the fixed costs of acquiring information, also makes adverse selection more frequent among SMEs borrowers than for large firms.

The information asymmetry problem and costly verification imply that banks are often unable to separate good and bad project. Technically, we may say that the market is unable to reach a 'separating equilibrium', in which good and bad projects are kept apart, and is stuck in a 'pooling equilibrium', in which all projects are treated alike. As a result, the pool of SMEs that are funded anyway includes "many", possibly too many, risky and inefficient small firms, whereas deserving ones get excluded. In other words, there is not just an issue of insufficient financial capital for SMEs but also an issue of inefficient composition of the pool of *actual* borrowers. This argument is consistent with the evidence reported in Section II that small firms have a much higher rate of non-performing loans than large ones.

The informational concerns in lending are also compounded by imperfect monitoring and consequent moral hazard. In a highly leveraged firm a small share of the total expected absolute gains or losses goes to the entrepreneur (even though the return on equity will be higher). Thus, because high leverage entrepreneurs exert little of their costly effort, firms are less likely to repay their loans. This moral hazard issue is generated by the absence of observability or verifiability of the entrepreneur's effort by banks that thus react constraining the credit to small firms with little equity.

On top of this, SMEs are also more opaque than large firms, with much less public information available, so that the issue of asymmetric information is even more severe. Large firms are subject to more stringent informational requirements (that cannot be applied to small firms, again for an issue of scale), which allow investors to better assess and identify their risks. Younger firms, which are smaller for obvious reasons, are even more opaque because signals concerning profitability and riskiness need time to be accumulated, making adverse selection stronger for younger and thus smaller firms.

In a similar vein, since a debtor has often the ability to capture some of the assets in the case of default, the entrepreneur of a highly leveraged firm faces higher incentives to default. Banks then react by restraining credit and requiring larger collateral and equity. Again, small and young firms that are typically less capitalized and with limited collateral to provide, suffer more than larger firm from this credit constraint.

Summing up, market failures can generate an inefficient amount of financing for SMEs and also a wrong allocation away from the most deserving firms. Can the CMU help?

3.1. Financing technologies and the information problem

Let us reason in terms of a fully integrated capital market as envisaged by the CMU. How can this improve the information problem, compared to fragmented national markets, and therefore reduce or spread more efficiently the risk of financing SMEs?

This can happen in two (mutually non-exclusive) ways. Either the CMU favors the development of efficient information technologies to distinguish between viable and non-viable SMEs, making it more likely to achieve a separating equilibrium. Or, if these technologies are ineffective, it fosters a better diversification and spreading of the risks and costs of financing SMEs, with benefits also in the case of a pooling equilibrium.

A basic common EU framework for providing uniform systems of information and standards would be extremely useful per se towards the achievement of separating equilibria. Reducing information barriers for SME finance is indeed a crucial objective of the CMU. There are several options here, and the scale of the CMU provides a powerful incentive to reduce such barriers. Possible measures include EU-wide business registers with standardized information, EU-wide comparable rating methodologies, EU-wide credit registers and a common Prospectus Regulation.

These measures have the potential to simplify the comparability of information and thus improve allocative efficiency with a better matching between supply and demand of funding. The implementation of such measures would of course force SMEs to comply with information requirements and procedures. The benefits of accessing a European pool of potential investors, would also provide powerful incentives to overcome the costs of adopting such measures. Elements of proportionality will be necessary anyway to sort out the trade-off between transparency and regulatory costly burdens on SMEs

While rules and standards for transparency would significantly help, financial instruments may in themselves develop technologies for information processes. How does the CMU affect the working of such technologies? We address this issue separately for banking and broader non-banking capital markets. We will then discuss the potential role of public guarantees and regulation.

3.1.1 Global Banking

Banks are likely to remain dominant in funding SMEs. In particular, because of the opaqueness of SMEs, it is hard to think that new technologies will be able to supplant the collection and processing of soft information through long-term banking relationships. As soft information is intrinsically difficult to standardize, relational banking will still play a crucial role in discriminating viable and non-viable SMEs. This may appear a 'back to the future' option, in contrast to the view of fully informed modern markets.

Note that, as discussed above, picking fast growing SMEs is not necessarily an objective of the lending-based business model of commercial banks. For a lender, what matters is that the borrower is able to pay back its loan, not how fast and how much it will be able to grow. The aim here is to reduce the average default rate of its loans. The information problem faced by banks is therefore simpler than the one faced by equity investors, for whom dynamic and fast growth matters a lot.

Yet, the CMU may have an important effect on the way in which soft information is used and processed by banks. Consider three possible developments of banking induced by the CMU.

The first one is that the CMU may favor further internationalization of the European banking sector. Foreign or transnational banks may have a different lending behavior from national ones, especially from those operating in local markets. On the one hand, they may use different, possibly more selective, lending technologies, not based on a long-term presence in local markets. On the other hand, they exert competitive pressure on local banks. Petersen and Rajan (1998) have put forward an argument that shows a relative incompatibility between strong competition and relationship lending. The idea is that incomplete contracts between a lender and a borrower are sustained through repeated interactions and expected future rents. When intense competition kicks-in these rents are reduced, if not swiped away, and the relationship breaks down. In this scenario, the sources of credits for SMEs may be negatively affected.

The integration of banking activities within the CMU may consequently force local credit systems to become more selective in their credit allocation towards viable SMEs. Within this logic, there is a shift away from the aim of providing financial support to local communities in a non-selective fashion (eventually lending also to firms that may not be viable as borrowers) towards a logic of cherry picking, with limited attention to local interests.

As argued for example by Detragiache et al. (2008), this can have important implications on peripheral local markets. As far as the best firms get carried away towards funding from global banks, lending conditions for the other firms will likely worsen. As default rates in the pool of the worse firms is higher, credit for them will become dearer and scarcer. Before integration there was a pooling equilibrium where, because of the adverse selection issue discussed above, the worse borrowers had decent credit conditions. Financial market integration may lead to a separating equilibrium, in which conditions for good firms improve, but for smaller and more opaque SMEs they worsen.

The second and the third developments induced by the CMU on banks may arise also without entry of foreign banks in local markets. The second is that banks may more easily securitize loans in a larger market. After the financial crisis, most of securities backed by bank loans to SMEs are retained on banks' balance sheets to be used as collateral for central bank refinancing. An integrated European capital market may help banks dispose of such securities, reducing the capital absorption and hence the cost of SMEs' lending (Panetta and Pozzolo, 2017). Note that developing a framework for the securitization of SME loans is a key objective of the CMU. A third one, is that banks can develop new fee based lines of business, acting as advisors for SMEs willing to enter capital markets.

In these two latter cases the information technology would be slightly different from above (entry of foreign banks) and perhaps more favorable to weaker firms. Banks are probably the only institutions able to use the soft information they have built through long term relationships and transform it into hard information and scoring systems. Banks, especially large ones, have long and wide series of data and information on their clients. Global operations provide sufficient scale and benefits to them and to their clients to actually process such data and develop tools to classify and score borrowers. Especially in the case of securitization, local banks would have adequate information to effectively pool the risk of their borrowers and build tranching mechanisms for the securities they issue. Certainly securitization, but possibly also advisory services, would allow local banks to become information brokers and help local firms access indirectly (securitization) and directly (advisory) global markets, thus softening the core-periphery effect of the CMU. This development will take place even if foreign banks do not enter local markets

3.1.2 Capital markets

Consider now capital markets at large. Developing a package for SME listing on public capital markets is one of a key objective of the CMU.

Here information requirements might be more stringent than for banks, especially in the case of equity, where also the growth potential of the companies matters beyond their business viability. Moreover, there is a higher need for hard information, because capital markets match investments to investors through decentralized mechanisms and distant geographies. Since it would be too costly for individual investors to carry out adequate assessments of individual investments, information is therefore processed and provided by other agents who act as intermediaries in this process.

These information intermediaries act as such because they have a stake in such information processing. We distinguish two cases. In the first one, information will be processed by agents interested in preserving the functioning of a specific market and of its network externalities. In the second case, the agent has interest in providing accurate information as they are also investors with skin in the game.

The first case applies for example to pan-regional equity platforms where SMEs can list on multiple jurisdictions (e.g. Alternex, Finpoint). These forms of financing are still in their infancy but essential to achieve a critical mass of listings and liquidity unavailable to national platforms. At present, national differences still hinder the cross-country integration of such platforms (tax, listing and disclosure requirements, anti-fraud, post-trade, constraints on foreign ownership). Hence the CMU will crucially favor this process of integration and thus improve the matching of demand and supply with deeper and more efficient markets.

Platforms themselves, even though they are unlikely to have direct exposures towards the invested firms, have a strong interest in assessing participants to the market. Being these typically two-sided markets, the selection process is crucial, so as to attract as many investors as possible on the one side of the market and as many good firms as possible on the other side of the market. There is here of course a critical tension between the need for a low cost of entry into these markets for SMEs and the need of transparency. So, information requirements and assessment procedures (e.g. type of prospectus) will be lighter than in larger established markets, but, still, SMEs accessing these platforms would be inevitably subject to much higher scrutiny than if they remained outside capital markets. Entry and assessment procedures will be easier if the standardized common European information and rating procedures discussed above are in place.

Also, as these platforms may function on a crowdfunding principle, the behavior of the participants towards the community of the platform will also in itself provide with time important information on their viability. Note that the same principle would apply for lending platforms, even though with less stringent information requirements, as discussed for the case of banks.

The second case applies instead when the initial investment assessment is carried out by an agent that also participates in the investment and keeps some skin in the game.⁴ This is the case for asset backed securities, if they are retained by the originator (as discussed for banks above), and by venture capital, private equity funds and all sorts of funds of funds. Again, all these are measures envisaged within the CMU. Information is therefore directly processed and generated by the initial investor. Note that this process requires geographical proximity to the investment, and assessment of soft information. These investors, like local banks in the discussion above, act as information brokers from local to global markets, hence softening the centrifugal forces of integrated financial markets. Here again these types of instruments will benefit enormously from the CMU, as they will be able to tap a much larger mass of financial resources and investment options.

A similar principle could also work to convey long term investors like pension funds and insurance companies towards SMEs. Even though these institutions have the ideal time horizon to undertake such risky, but highly diversified investments, they frequently lack the scale and the investments capacity to select viable investments, or they are constrained to do so by regulatory or institutional impediments. Their investment could be intermediated by specialized investors able to process information as discussed above. Once more the CMU will likely lift several barriers against cross border investments facing these institutional investors.

3.1.3 Pooling equilibrium and public guarantees

The information processing technologies linked to specific financial instruments likely to expand under a CMU may help the achievement of a separating equilibrium as well as more and cheaper finance for good firms. The allocation of capital will therefore improve across the Union.

Yet, it is not obvious how thick will be the “layer of cream over the milk”. A generalized transition towards transparency and standardized information will certainly affect and is already affecting firms’ behavior. It is not, however, clear how high is the threshold (or how much milk will evolve

⁴ Clearly, the skin in the game must be enough to avoid moral hazard as well as originate and distribute syndromes.

into cream) and how many firms will stay below it. If the financial resources pooled by global markets will concentrate only on the most transparent firms and if the lower layer of more opaque firms is deep enough, than a core-periphery pattern in which some viable projects are not financed will likely emerge anyway.

Within this framework markets will not be able to support less transparent firms, which yet provide a large share of employment (see section II), as their financing will no longer be subsidized by the returns from good firms, and even risky start-ups with uncertain future. We have discussed at length information technologies that may attune such centrifugal forces and hence favor the inclusion of geographical and qualitative peripheries in the CMU. Nevertheless, whether centripetal or centrifugal forces will prevail cannot be assessed *ex ante*.

It is clear that there is anyway a potential scenario where public intervention might be necessary anyway, with a growing role of instruments like public guarantees. If the separating equilibrium leaves behind a large share of the population of firms, even though the CMU improves allocative efficiency, it may also generate a higher burden on public funding to deal with peripheries. Also in this framework, common European rules for managing guarantee funds will be useful instruments.

3.2. Empirical evidence on financial integration and SMEs

We have discussed how, from an analytical point of view, information technologies have a crucial impact on whether the CMU may or may not enhance the access of SMEs to capital markets. Of course, there is no empirical evidence on the impact of the CMU as yet, but many studies have looked at financial integration in general and how this has affected SMEs.

The bottom line of this literature is a differential impact depending on different types of firms and the status of local financial markets. In general, financial markets integration helps larger and more transparent firms comparatively more than small and opaque firms, unless integration puts discipline and increases efficiency of local financial markets.

In general terms, a common theme emerging in the empirical evidence is that small firms are generally at a comparative disadvantage in accessing external finance with respect to large firms (for example, Beck and Demirguc-Kunt; 2009, Beck et al., 2003; Beck et al. 2008; Rajan and Zingales, 1995).

If we consider financial integration, Berger et al. (2001), Christoffersen et al. (2006) and Gozzi et al. (2008) are among the many who show that cross-border banks lend relatively less to opaque firms

than local domestic banks. Also, Kang and Stulz (1997) confirm that foreign institutional investors hold disproportionately more shares of large firms. Consistently, Mian (2006) finds that larger internal distance (geographical and cultural) between the headquarters of a cross-border bank and its foreign branches makes the latter less likely to finance small firms.

In an assessment of the developments of the European Union on access to credit, Muradoglu et al. (2013) study how the mix of equity and credit changes with more financial integration. They show that small firms in the Euro area and in joining countries are not able to profit from the lower interest rates, and they are not able to move to longer debt maturity. They also do not increase debt capital and equity financing. These results confirm the relevance of adverse selection in the credit market for these firms which face higher interest rates and worse credit conditions than large firms.

As discussed above, stronger integration in financial markets tends to open the door to cross border banking. The effect of entry of foreign banks on access to credit for SMEs is complex with mixed evidence. Survey evidence shows lower reported impediments to access to credit for these firms when more foreign banks are around (Clarke et al., 2006). In fact, international banks may be more efficient, in terms of both scale and technologies, and thus able to lend also to less transparent firms, diversifying their portfolio. Moreover, their entry may force domestic banks to higher efficiency standards as well. However, Mian (2006) and Gormley (2006) claim that foreign banks may have even less information on local opaque SMEs and then lend less to them than their domestic counterparts. Claessens and van Horen (2014) and Bruno and Hauswald (2008) go a step further showing that this mixed evidence could be due to the combination of local available information and contractual environment: in countries in which there is more effective credit information sharing, foreign banks tend to have a stronger positive impact on SMEs lending. With respect to the CMU, specific actions designed to improve the transparency of SMEs may turn out to be a fundamental and necessary ingredient to improve the access to credit for these firms.

As argued above, more integrated financial markets also imply more intense competition. The evidence on the impact of competition on SMEs finance is once more mixed. Consistent with the prediction of the theoretical model of Petersen and Rajan (1995) discussed above, Cetorelli and Gambera (2001) show that young firms grow faster in countries with more concentrated banking systems and Bonacorsi di Patti and Dell'Araccia (2004) show that less transparent firms have better access to external finance when bank concentration is higher.

An opposing view is provided by Boot and Thakor (2000), who note that more intense competition (not measured as concentration) should reduce banks earning on relationship lending less than transactional lending, as the former is more protected from competitive pressures. Especially local banks should then concentrate more on the former, possibly enlarging the options of SMEs which mainly rely in relationship banking. Degryse and Ongena (2007) provide evidence of this mechanism in Belgium. Carbo-Valverde, Rodriguez-Fernandez and Udell (2009) show that in Spain more intense competition improved access to credit for SMEs.

From an empirical point of view, these apparently divergent observations may be reconciled noting that intensity of competition and concentration are different concepts. From a theoretical perspective, these two opposing forces will plausibly coexist, and which one will prevail depends on their relative strength in the specific environment of the CMU.

It is also conceivable that the effects of competition on SMEs lending depend on the local environment in terms of the quality and sharing of information about firms (e.g. a more transparent environment increases the possibility to transfer collaterals between lenders). Hence, also with respect to the potential effects of competition, the CMU specific actions designed to improve the transparency of SMEs can be fundamental, if not necessary, ingredients for the improved access to credit of these firms.

In this respect, a further twist considered by the literature is the level of development of the financial markets that get integrated in a broader system. The disadvantage of small firms is stronger when financial markets are less developed and the the size of the banking sector is smaller (e.g., Beck et al., 2008; Beck et al., 2008). Lucey and Zhang (2011) show that, in developing countries, with financial integration larger firms obtain more debt (and with longer maturity) and issue more equity than small firms. In their analysis of Eastern Europe, Giannetti and Ongena (2009) show that access to debt increases with the entry of cross-border banks, but only for large firms. In particular, these banks tend to concentrate on larger firms more active in the production of tradables (Agenor, 2003).

Generally, the benefits of integration in local markets are higher if integration in itself induces an efficient improvement of local financial institutions. Beck et al. (2005) find that in this case small firms can benefit more than large ones. On a similar note, Popov and Ongena (2011) have shown that further integration of interbank market allows small firms to obtain better credit conditions

and lower interest rates, the more so if integration generates more competition in the local banking sector.

4. CMU, SMEs and the Single Market

An important specific aspect of the implications of capital market integration for European firms, and in particular for SMEs, is the extent to which the CMU can be expected to complement the Single Market by fostering firm participation. This is relevant for the development of SMEs with high growth potential, given that in perspective they are the ones more likely to trade their products internationally. Beyond SMEs' dynamics, it is also relevant for the everyday operations of all SMEs, no matter whether high-growth or not. In this respect, CMU can indeed play an important role not only in complementing the Banking Union and reinforcing the Economic and Monetary Union (EMU) but also in promoting the Single Market for goods and eventually services (ECB, 2015).

The Single Market is an ongoing ambitious project with the aim of allowing firms to trade their products seamlessly across borders thanks to the dismantling of tariff and, more saliently nowadays, non-tariff barriers (NTBs). These are barriers that “arise from laws, technical regulations and practices, and create obstacles for trade. NTBs can be of a general character, such as problems with the implementation and enforcement of EU law at the national level, missing or differing e-government solutions, or complex VAT requirements in intra-EU trade” (European Parliament, 2017). Broadly speaking, they tend to originate from asymmetries in laws and regulations as well as in the requirements and the collection of information relevant for the implementation of those laws and regulations. These asymmetries create additional costs for firms considering operations in multiple national markets, asymmetries that are particularly penalizing for the cross-border activities of SMEs.

That SMEs are particularly affected can be easily explained relying on recent advances in international trade theory and empirics (Melitz and Redding, 2014). All industries are populated by firms with different efficiency, which manifests itself in terms of different turnover and profitability. Only firms that are efficient enough are able to generate the amount of cash needed to pay for the costs of internationalization associated with tariff and non-tariff barriers, either

directly through internal funds or indirectly through bank loans, equity and bond markets. That is why such barriers are particularly hard to overcome by SMEs that are typically less efficient or less profitable than bigger firms.

In this respect, a key challenge for the European Union is to promote the Single Market in an inclusive way by making it not only 'deeper' but also 'broader'. On the one hand, 'deepening' means that firms that are already active in the Single Market can get even more involved. For example, bigger firms that already export can export more, thus further benefiting from European integration. On the other hand, 'broadening' means that firms that are currently inactive in the Single Market can start being involved. For example, smaller firms that do not export can start exporting, thus reaping the benefits they were excluded from. In other words, deepening is about the 'intensive margin' of international participation in the Single Market, broadening is about its 'extensive margin'.

The development of the Single Market has generally followed a straightforward logic bundling intensive and extensive margins: if (tariff and non-tariff) barriers are removed, all firms get more involved in international transactions and this spreads the gains from trade across the entire firm size distribution. In reality things are more complicated. Sure enough, lower barriers improve participation both at the intensive and the extensive margins. Yet, unless all barriers are erased, less efficient firms at the bottom of the size distributions (which are typically a large fraction of the total number of firms) remain excluded. These firms suffer from competition in their domestic markets by more efficient foreign competitors without gaining access to foreign markets. They are therefore forced to downsize and possibly to shut down altogether. This explains why SMEs often feel that European integration (and, more broadly, globalization) is not good for them. Such feeling is strengthened by the fact that lower NTBs are usually achieved through compulsory adherence to new harmonized rules implying additional costs. It makes sense for bigger firms to pay those costs in order to get access to the Single Market. Differently, as long as access does not materialize for smaller firms, SMEs feel they end up paying the corresponding costs for nothing. While the Single Market may create a 'level playing field' among firms of comparable efficiency, it may not do so among firms with different efficiency: remaining trade barriers tend to be biased against SMEs.

More difficult access to finance for SMEs magnifies this pattern of exclusion. The Single Market can be beneficial to SMEs only if the additional competitive pressures it generates for them in

their domestic markets come with enhanced access for them to foreign markets. The costs of internationalization require, however, specific funding. As these costs are already higher for firms in the periphery due to their remoteness, any development in the capital markets making also their funding disproportionately expensive will support the emergence of mutually reinforcing ‘twin core-peripheries’ , one in the real economy and the other in the financial economy.

This offers a word of caution on the impact of the CMU: how much will the CMU contribute not only to the deepening but also to the broadening of the Single Market? In terms of the latter, three aspects of the CMU we already discussed seem to be crucial (ECB, 2015): (1) “enhancing the availability and standardization of information (especially of SME credit information)”; (2) “developing a simplified and harmonized accounting framework for SMEs”; (3) “developing alternative sources of financing to cater for the specific needs of smaller firms (e.g. further developing alternative investment markets designed for issuance of SME bonds, or peer-to-peer funding)”. Both (1) and (2) have to be handled with care to avoid the outcome in which they end up creating additional costs for SMEs to no avail with finance still not flowing to them.

A way to prevent this sort of outcome would be for the CMU to target also the kind of funding that represents the blood of SMEs’ everyday activities, beyond any consideration about their growth potential. This funding includes trade finance, factoring and accounts receivable financing, through which firms use their receivables (such as outstanding invoices to domestic and foreign customers) as collateral in a financing agreement. On the one hand, trade and receivables financing represents an important direct source of short-term working capital for SMEs, complementing bank finance especially during recessions. On the other hand, it also allows SMEs to outsource their accounts receivable administration and collection activities, turning the fixed costs of maintaining dedicated in-house departments into variable costs depending on the level of sales realized (Bakker and Gross, 2004). Trade and receivables financing is quite sizeable. According to the EU Federation for the Factoring and Commercial Finance Industry (euf.eu.com), in 2016 the total turnover for the factoring and commercial finance industry across the EU was 1.5 Trillion Euros, with the factoring industry turnover representing 10.4 % of EU GDP.

The CMU could foster the efficiency of trade and receivables financing in two main ways. A first problem with this type of financing in the EU today is that the national segmentation of its markets and the resulting home bias of its operations limit its potential contribution to the cause of the Single Market. Cross-border sales of products would require cross-border trade and

receivables financing but this is largely unavailable. Another problem is that the procedures of trade and receivables financing are still vastly paper-based, which makes them unnecessarily cumbersome and unappealing especially for SMEs. As suggested by ECB (2015), a “better functioning and much more efficient trade financing market could be built on the grounds laid down by the Single Euro Payments Area (SEPA) scheme (adopted and adhered to by almost 7000 banks in Europe), in particular when the emerging initiatives to create pan-European scheme(s) for SEPA-based e-invoicing are taken into consideration. In an open and standardized e-invoicing scheme, the acceptance of invoices by debtors as valid claims on themselves could happen in real time; all necessary information could be immediately available to potential bank or non-bank financing parties anywhere in Europe. Furthermore, such a standardized electronic scheme could greatly facilitate the securitization of trade receivables, providing even better financing conditions for SMEs. The Commission’s report on achieving greater legal certainty in cases of cross-border transfers of claims for factoring and other means of financing should provide a deeper analysis of the potential barriers to building such a pan-European scheme.”

5. Taking stock: CMU’s specific actions and concluding remarks

The CMU is expected to free financial resources for high-growth and more productive SMEs. The idea is that an integrated, larger and pan-European capital market: (i) will be more efficient in terms of both better risk allocation and lower operating costs; (ii) will be more resilient to shocks; (iii) will allow for deeper and broader European marketplace, improving SMEs’ involvement not only in EU financial markets but also in the Single Market for goods and services.

The Commission’s Action Plan contemplates several activities that are organized in 7 areas of intervention:⁵

1. Strengthening supervision and building capital markets capacity in the EU (also contemplating the development of local and regional capital markets);
2. Financing for innovation, start-ups and unlisted companies;
3. Making easier for firms to raise money on public markets;
4. Strengthening banking capacity to support the economy;

⁵ See Commission 2017, Communication from the Commission on the mid-term review of the capital markets union action plan.

5. Investing for long-term, infrastructure and sustainable investments;
6. Fostering retail investment;
7. Facilitating cross-border investments.

The several activities contemplated in the different areas are more than thirty. We do not intend to systematically review all them, but rather discuss those that directly or indirectly will affect SMEs. First, measures that directly tackle SMEs include:

- a- Reducing information barriers for SME finance;
- b- Developing European Secured Notes (covered bonds) for SME loans;
- c- Developing principles for banks' feedback to declined SME credit applications;
- d- Developing a package for SME listing on public capital markets;
- e- Developing a framework for the securitization of SME loans.

Second, although not explicitly addressing SMEs, many of the other areas and activities of the Action Plan will have a significant impact on this type of firms. First, at a general level, the elimination of several existing barriers towards the formation of truly integrated European capital markets will reshape the supply side of European finance as well as its demand side. SMEs will be at the center of these changes both for their disproportionate need of capital and for the options that may open up. Some specific actions will also indirectly affect SMEs, in particular:

- f- The development of a secondary market for NPLs benefiting SMEs as originators of risky loans;
- g- The reform of the European Venture Capital Funds (EuVECA) Regulation² and the steps towards establishing a pan-European Venture Capital Fund-of-Funds;
- h- The expansion of innovative forms of financing, such as crowdfunding;
- i- Harmonization along several dimensions, from legal provisions and the protection of minority investors, to insolvency laws, contracts enforcement, taxation regimes.

This is a very ambitious plan with a wide array of actions. If it is conducted as expected, it will certainly impact the European economy at large, from its capital markets to the real economy of the member states. As the plan contemplates several actions on different dimensions and targets at the same time, the depth of its impact and its' several effects will depend on the actual implementation of all these actions. In particular, we can envisage for SMEs very different outcomes, from great new opportunities for fast growing young small firms that can generate a

strong impact on European employment and development to less benign scenarios. Since the hype about CMU is more common than an analysis of its perils in case of incomplete and disorganized implementation, we will focus more the latter.

As previously discussed, we can expect that SMEs will continue to obtain significant part of credit from banks. A more integrated European banking sector can allow for better matching and deeper risk sharing, which, together with more intense competition, may expand credit supply to SMEs. We have however seen that for this positive effect to effectively materialize more information about SMEs must become available and shared. It is thus fundamental that the specific actions contemplated in the action plan (points a-, c- and i- above) are taken to the end, possibly even before other actions.

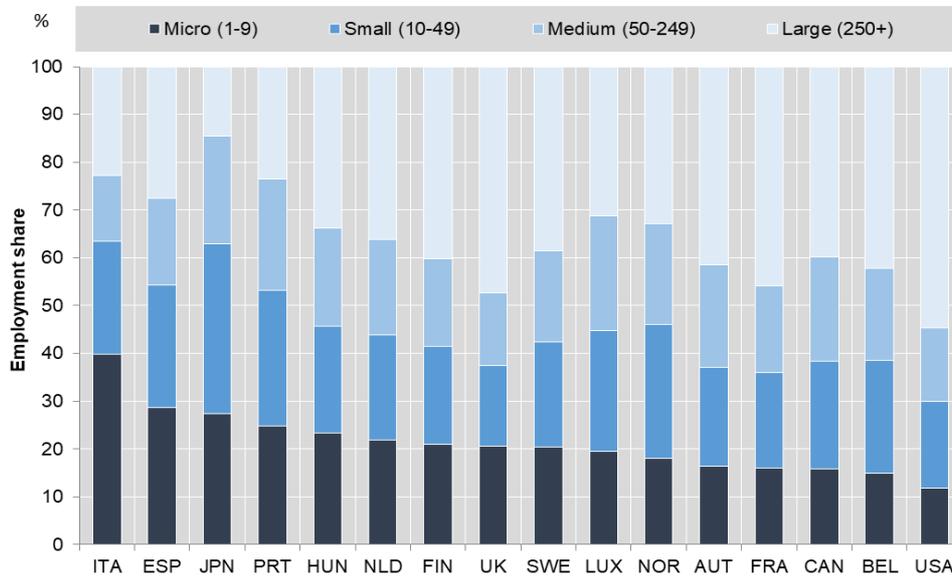
Related to the possible developments of bank lending, we see a possible reduction of relationship lending to SMEs not necessarily as a negative outcome. The expansion of other sources of funds may better accompany high tech SMEs with opportunities of fast grow. Actions b-, d-, e- are thus fundamental pillars for an effective CMU specifically designed for SMEs. The first two respectively refer to fostering the emissions of covered bonds by SMEs and the listing on public capital markets. But, in our view, action e- on securitization will be a real game changer for SMEs. As we have discussed in the previous pages, securitization could directly address the needs of SMEs without requiring very deep changes in the organization and associated costs for these firms, as for example in the case of receivables. A deep European market of securitized credit to the SMEs has the potential not only to boost their opportunities, it can also allow one to address the NPL issue plaguing many European national banking sector (see *The European Economy*, issue 1 2017). Also in the case of standardization it is imperative that information and standardization of securitized credit is profoundly improved. Only if this were the case, other actions contemplated in the plan could deploy their complementarities. Indeed, action h- with the development of European platforms to trade NPL and other ABS will function and prosper only if they can rely on clear and transparent transactions.

Information will also be the key ingredient for action g- on venture capital, although of a different kind. In this respect, the CMU should conceive a policy that at the moment seems less clearly conceived than other actions, as venture capital and private equity will in any case require proximity to conduct effective due diligence and assessment. At the same time, SMEs should be guided in delivering standard financial and economic reporting of their activities and plans. A large

European market for venture capital and private equity, possibly organized on pan-European platforms, will very likely ignite this source of funding that is currently lagging behind in Europe. In this context, size matters because the matching will be much more effective the larger the market is, both on the demand and the supply sides.

Figures

Figure 1 - Share of employment by firm size and by country



Averages between 2001 and 2010 (except few countries for which data are not available during the whole sample period). Source: Criscuolo et al. (2014)

Figure 2 – Contribution of young and small SMEs to job creation and destruction

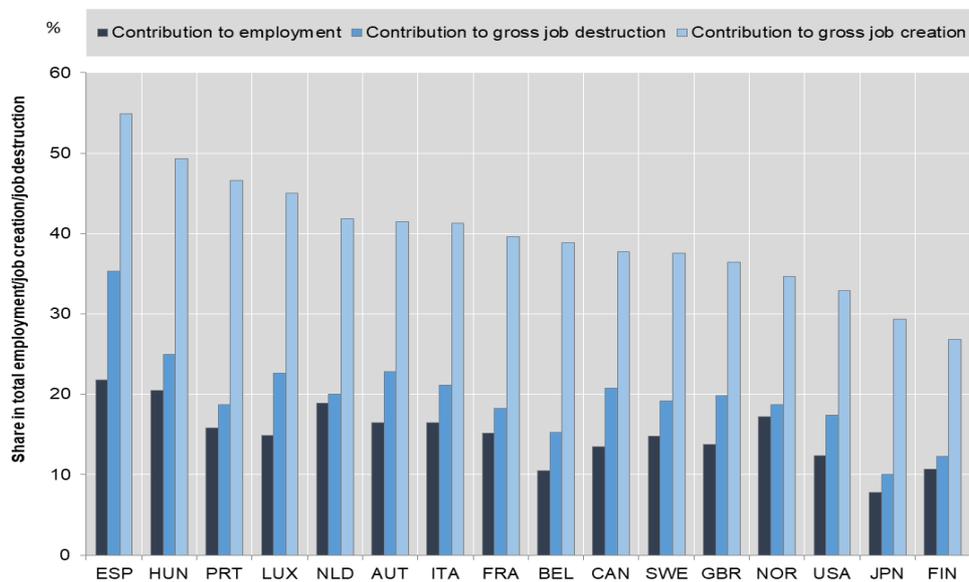


Figure 3 – Three-year survival and growth performance of micro start-ups

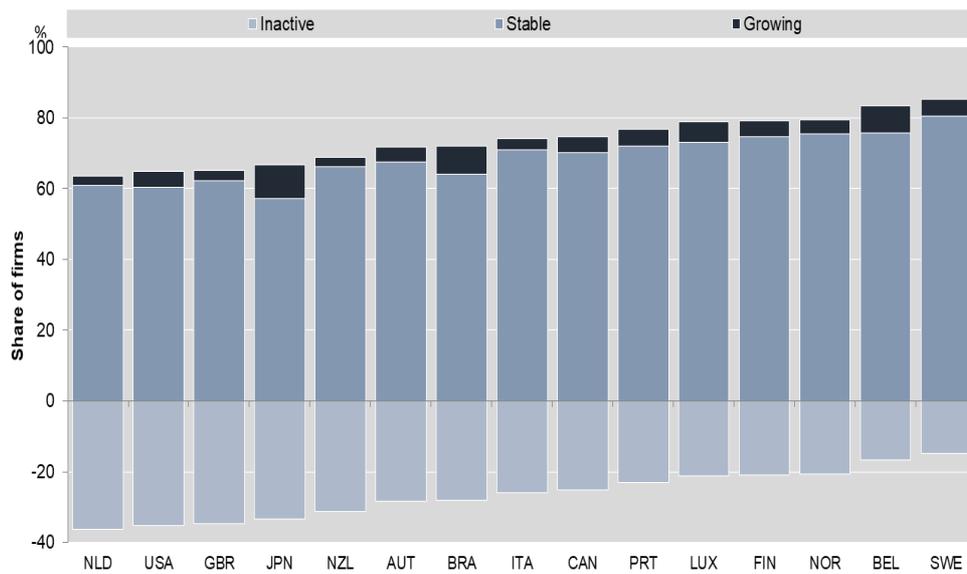
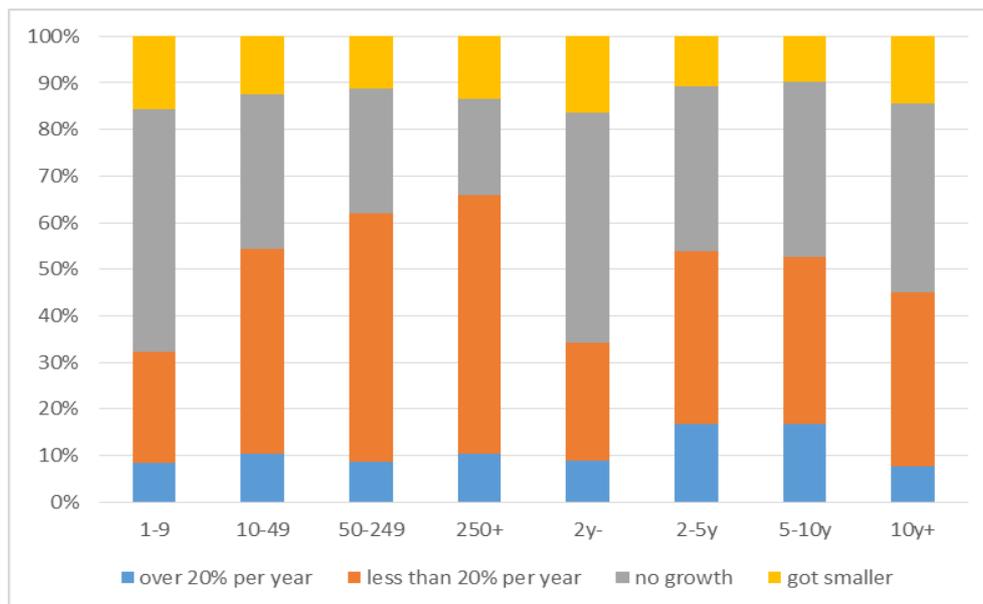
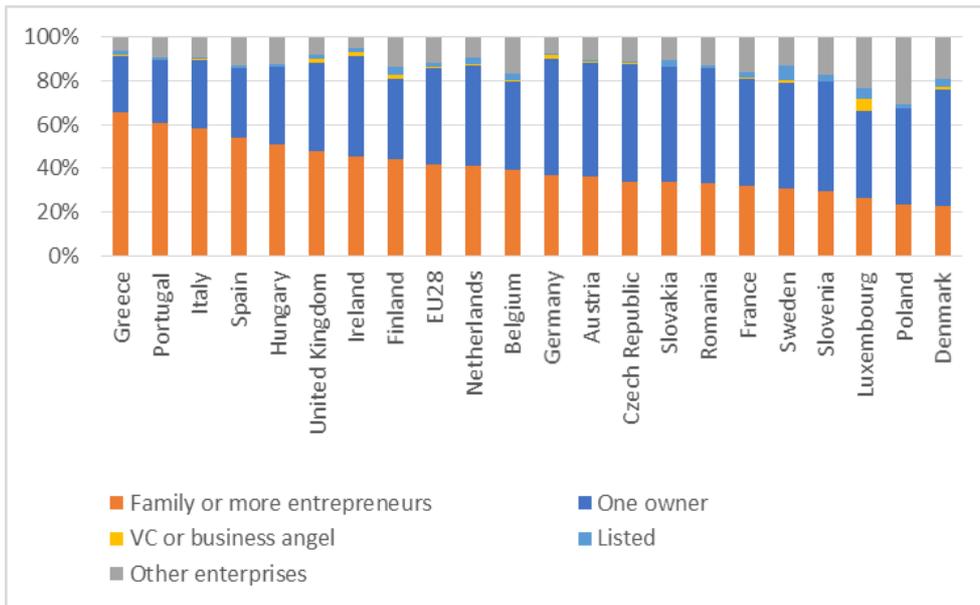


Figure 4 – Employment growth



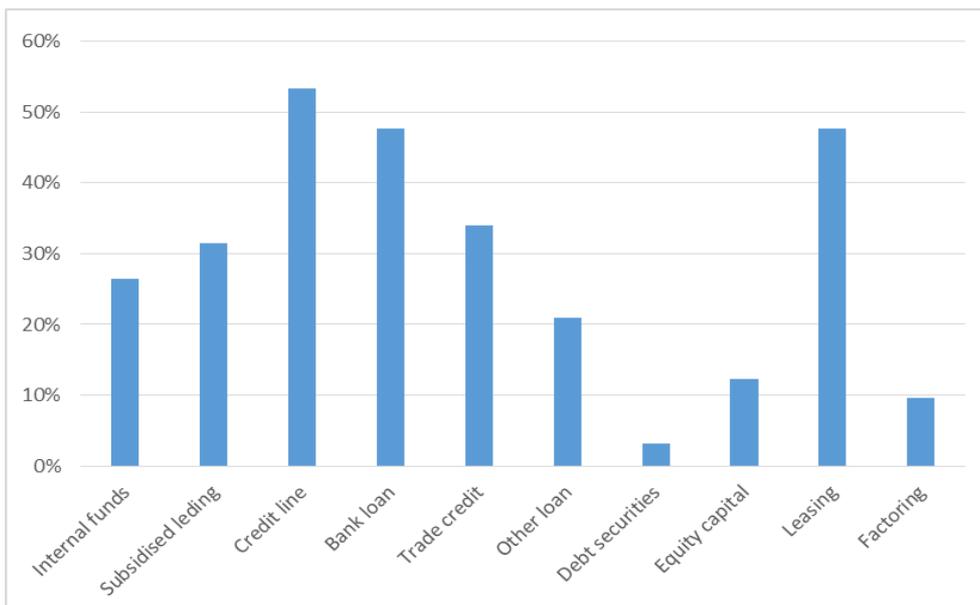
Averages between 2013 and 2015. Source: ECB Survey on the access to finance of enterprises (SAFE).

Figure 5 – Ownership structure of SMEs



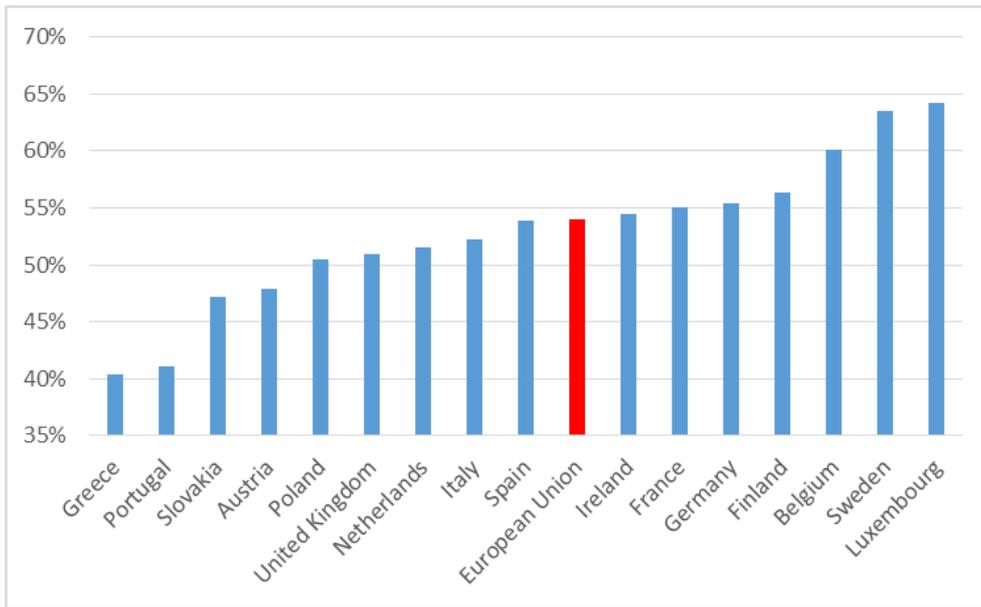
Data refer to October 2017. Source: ECB Survey on the access to finance of enterprises (SAFE)

Figure 6 – Relevance of sources of funding



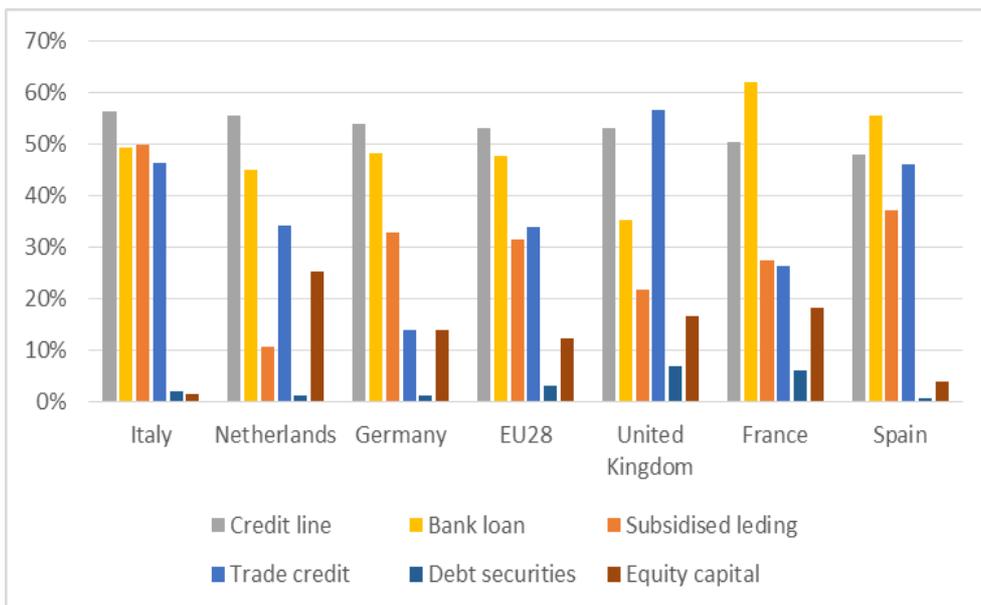
Share of firms that answered that the specific source of financing is relevant, that is, it has been used in the past or it is considered to be used in the future. Source: ECB Survey on the access to finance of enterprises (SAFE)

Figure 7 – Firm leverage



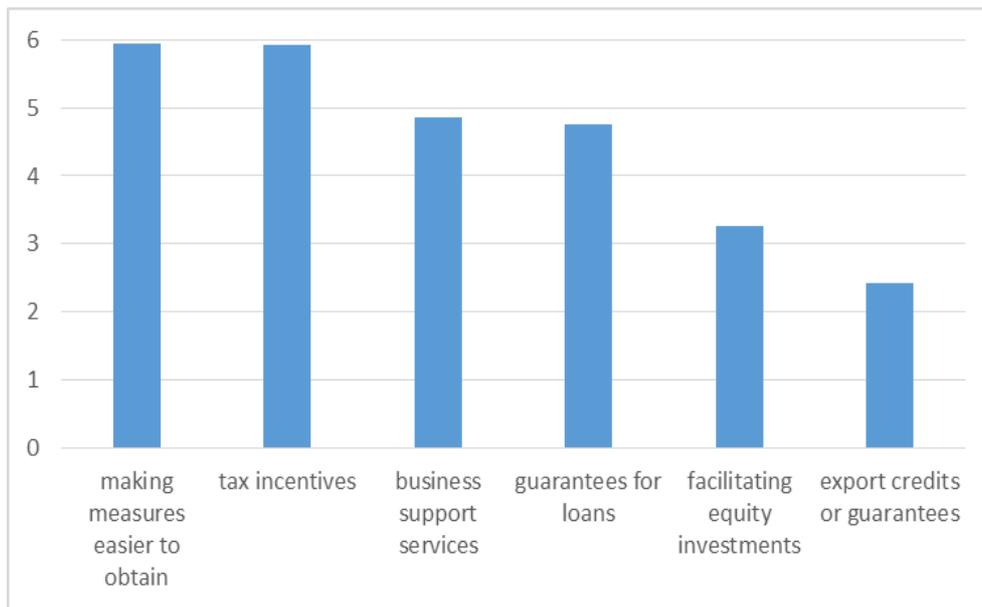
Share of equity to total liabilities in 2016. Source: Eurostat

Figure 8 – Relevance of different sources of financing



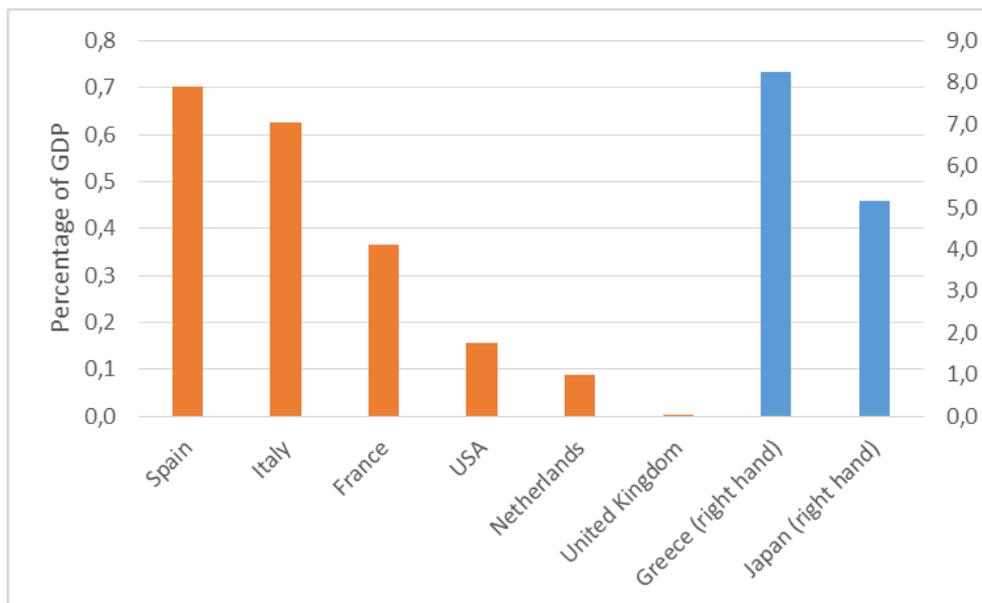
Share of firms that answered that the specific source of financing is relevant, that is, it has been used in the past or it is considered to be used in the future. Source: ECB Survey on the access to finance of enterprises (SAFE)

Figure 9 – Preferred policy interventions



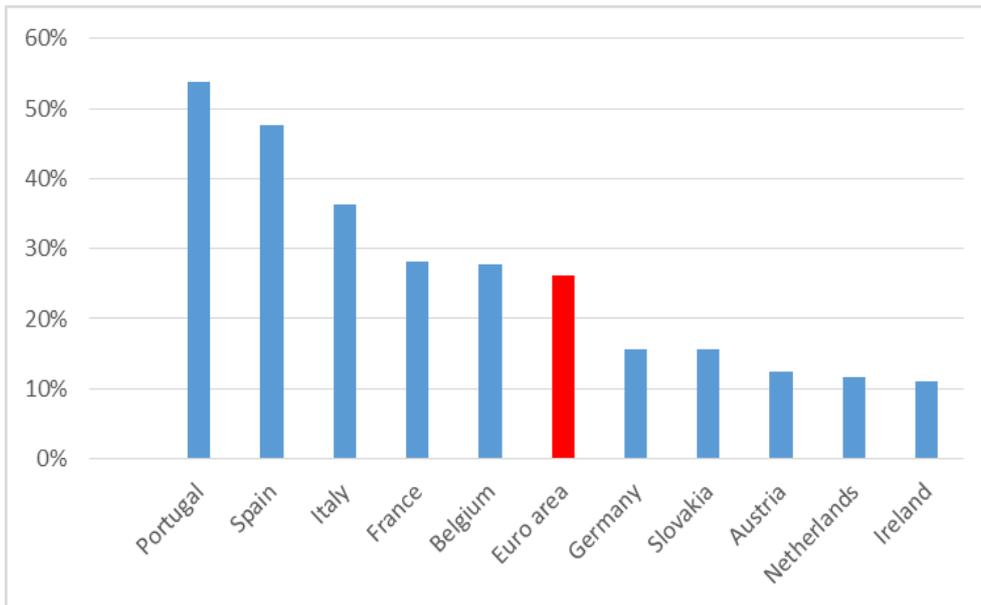
Average score assigned by respondents in a scale from 0 to 10. Source: ECB Survey on the access to finance of enterprises (SAFE)

Figure 10 – Government loan guarantees to SMEs



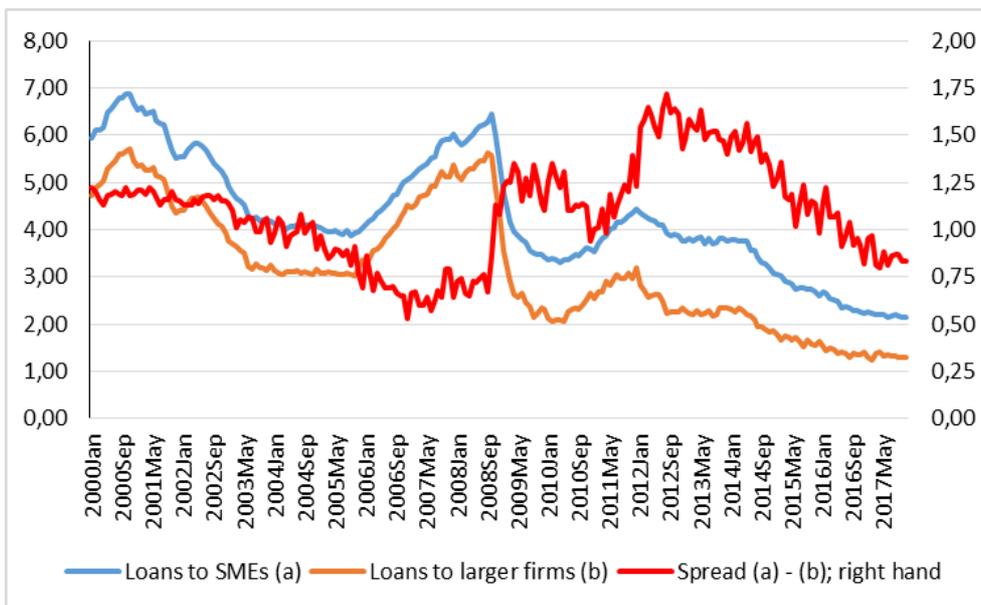
Source: OECD.

Figure 11 – Share of lending to SMEs



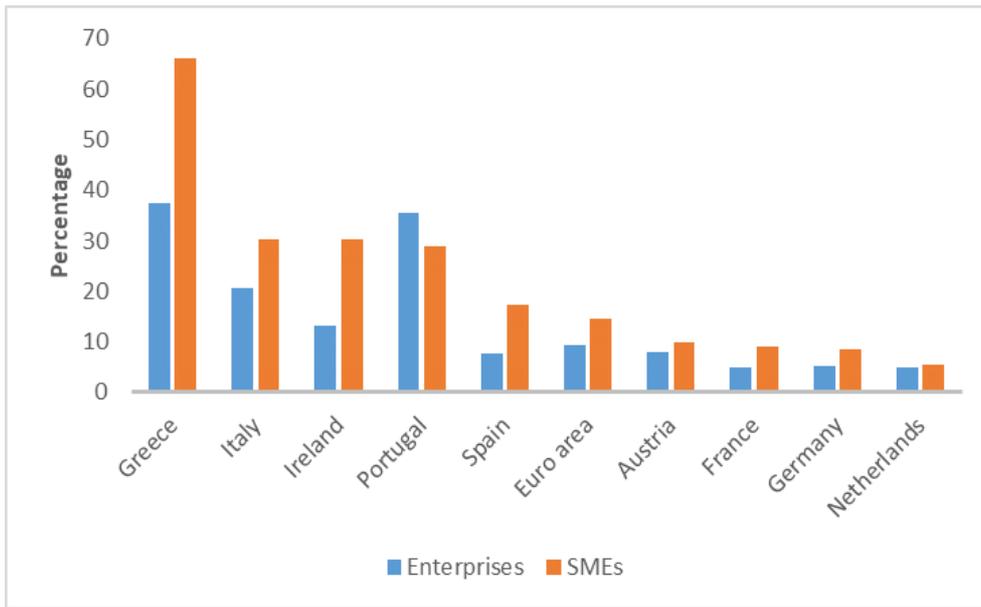
Loans to SMEs are proxied by loans to of up to €1m. Source ECB

Figure 12 – Interest rates on new loans to SMEs and larger corporations



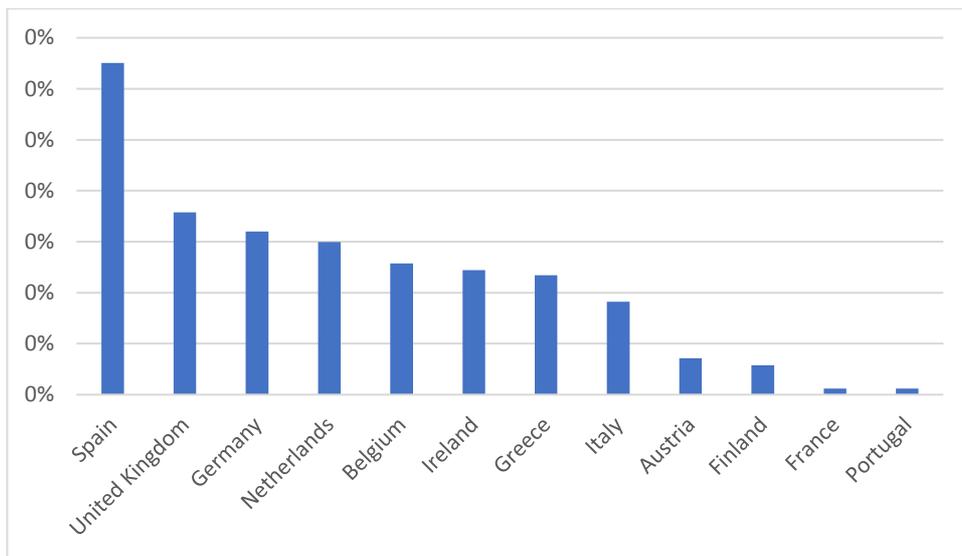
Loans to SMEs are proxied by loans to of up to €1m. Source ECB

Figure 13 – Share of non-performing loans to total loans



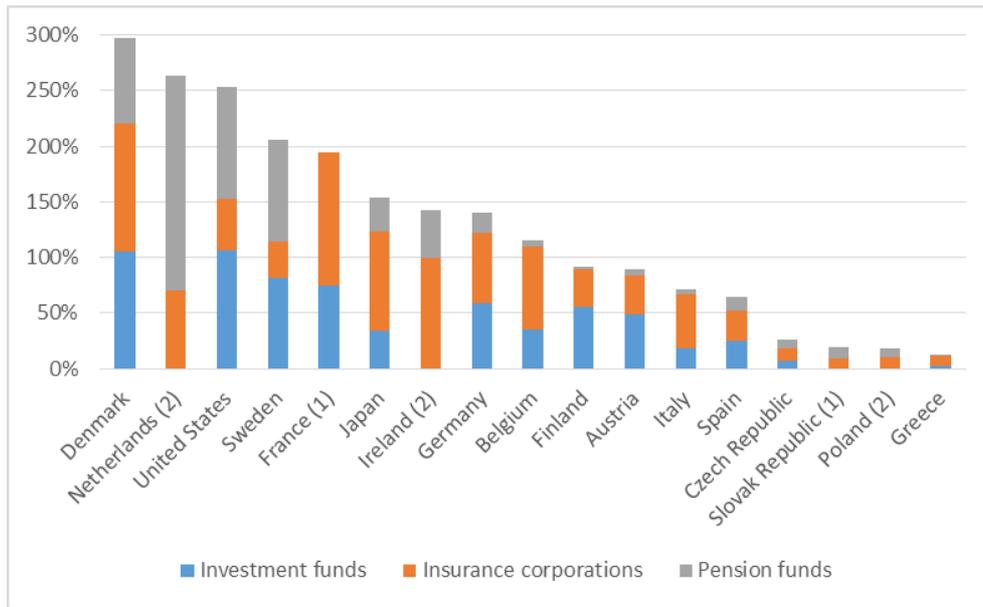
Data refer to March 2016. Source: EBA

Figure 14 – Outstanding value of securitizations



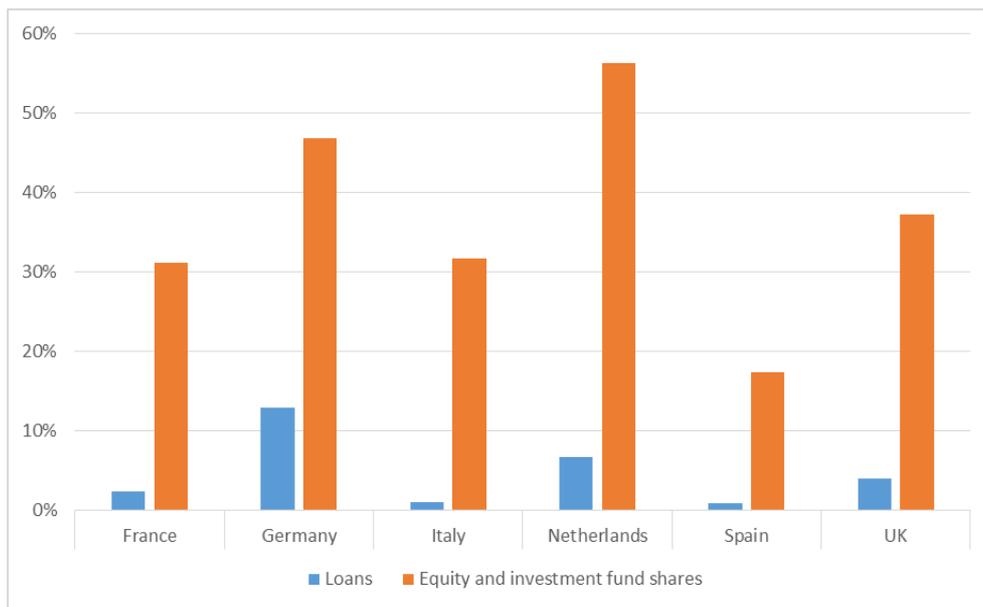
Percentages over GDP, by country of origin of collateral. Source: AFME (2017)

Figure 15 – Size of institutional investors



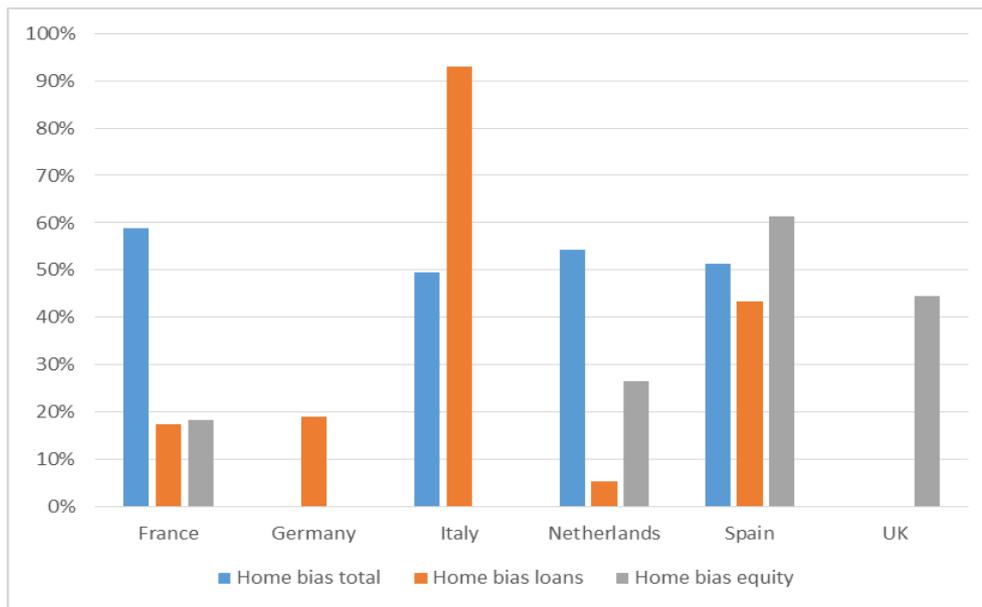
Percentages over GDP. (1) Excludes pension funds; (2) excludes investment funds. Source: OECD

Figure 16 – Portfolio composition of institutional investors



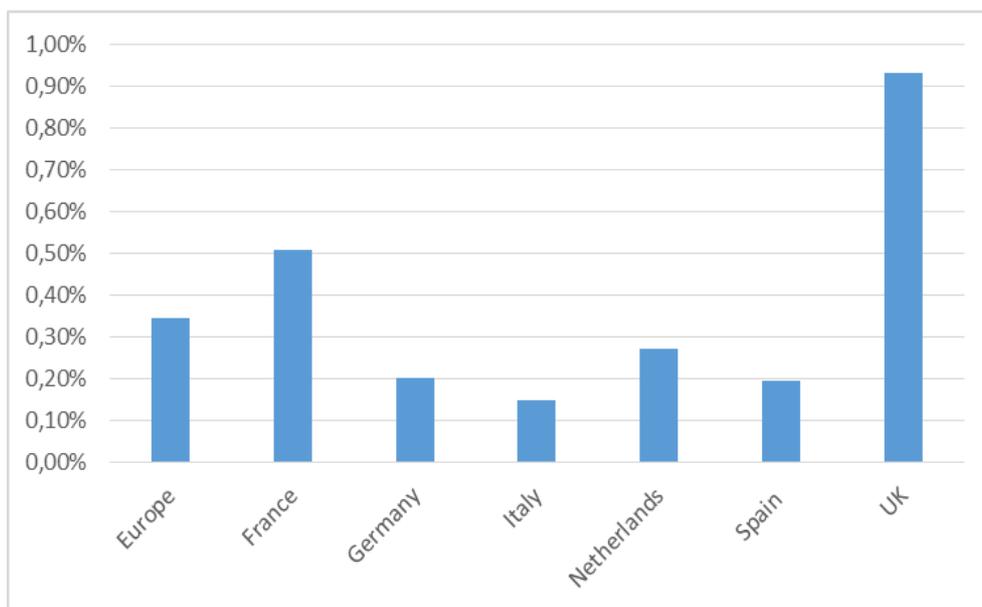
Source: OECD

Figure 17 – Home bias in the portfolio of institutional investors



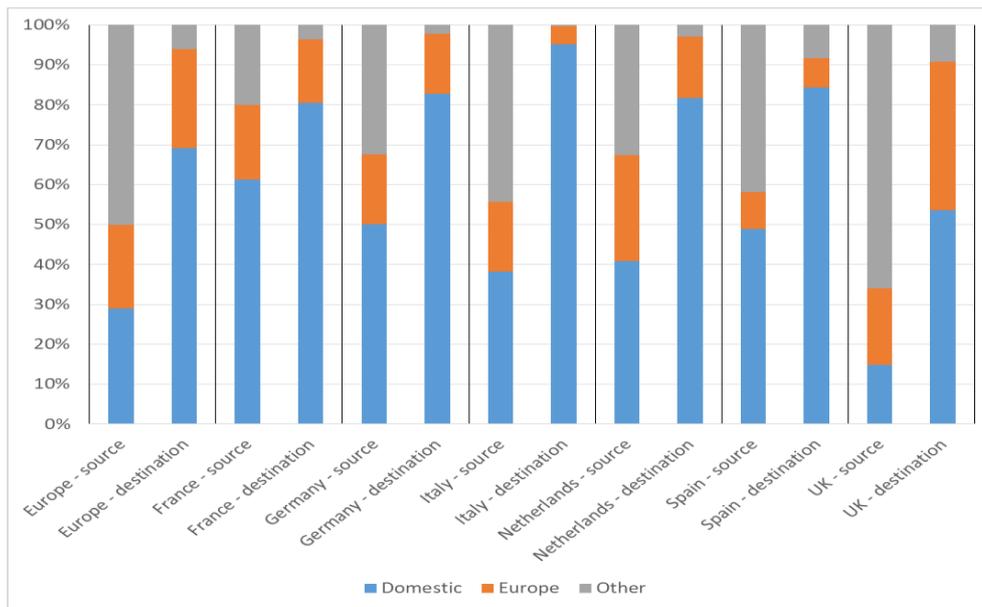
Share of assets that institutional investors invest domestically. Source: OECD

Figure 18 – Private equity financing over GDP



Data refer to 2016. Source: InvestEurope

Figure 19 – Sources and destinations of private equity financing



Data refer to 2016. Source: InvestEurope

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