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Working Paper

European Small Business Finance Outlook: December 2016

EIF Working Paper, No. 2016/37

Provided in Cooperation with:

European Investment Fund (EIF), Luxembourg

Suggested Citation: Kraemer-Eis, Helmut; Lang, Frank; Torfs, Wouter; Gvetadze, Salome (2016) : European Small Business Finance Outlook: December 2016, EIF Working Paper, No. 2016/37, European Investment Fund (EIF), Luxembourg, http://www.eif.org/news_centre/publications/EIF_Working_Paper_2016_37.htm

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European Small Business Finance Outlook

December 2016

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Executive summary¹

This European Small Business Finance Outlook (ESBFO) provides an overview of the main markets relevant to EIF (equity², guarantees, securitisation, microfinance). It is an update of the ESBFO June 2016.

We start by discussing the general market environment, then look at the main aspects of equity finance and guarantees/SME Securitisation (SMESec)³. Finally, before we conclude, we briefly highlight important aspects of microfinance in Europe.

Market Environment:

- The outlook about the general economic environment has deteriorated slightly since the publication of the previous European Small Business Finance Outlook in June 2016.
- Monetary policy continues to drive down borrowing costs to NFCs to record lows, but outstanding loan volumes are still lagging.
- Borrowing costs differ widely between countries, especially for small loans.
- According to the ECB's bank lending survey, credit standards have again started to tighten for SMEs during the final quarter of 2016.
- SMEs report lack of public support to have negatively impacted their access to finance options.

Private equity:

- Following the severe crash of European private equity (PE) investment in 2008/2009, the activity has followed along a recovery path. Total PE fundraising has further increased in 2016.
- The VC segment, which is of particular importance for the financing of young innovative companies, has lagged behind, and activity levels were still far below their pre-crisis highs in 2016. Some of the remaining gaps were filled by business angels.
- Government agencies have continued to support the market recovery in order to incentivise additional deal flow and attract further private investment.
- Despite the general strength of the exit markets and still high valuations, political uncertainties and an expected tightening of the monetary policy, in particular in the USA, have limited the upward potential. Moreover, the number of VC-backed IPOs and

¹ This paper benefited from comments and inputs by many EIF colleagues, for which we are very grateful; we would like to express particular thanks to José Cabrita, Per-Erik Eriksson, Daniela Francoviccio, Ulrich Grabenwarter, Giovanni Inglisa, Carsten Just, Tomasz Kozłowski, Pablo Millan Cantero, Marco Natoli, Christine Panier, George Passaris, Dario Prencipe, Simone Signore, Tanja Tanayama, Arnaud Vanbellingen, Johannes Virkkunen and Will Vizard. We would also like to thank colleagues from AECM, Collier Capital, the ECB, EMN, Epsilon Research, Euler Hermes, Eurochambers, the Invest Europe research team, Go4Venture Advisers, Leaseurope and the UEAPME study unit for their support. All errors are of the authors.

² We are using the term "equity finance" to combine semantically the areas of Venture Capital and Private Equity. However, if we refer here to equity activities, we mainly consider those of EIF's investment focus, which includes neither Leveraged Buyouts (LBOs) nor Public Equity. The reader is also referred to the Private Equity glossary in Annex 1.

³ The term SME Securitisation (SMESec) comprises transactions backed by SME loans, leases, etc.

acquisitions has decreased in the first three quarters of 2016, compared to the previous year.

- Pricing/valuations, potential overheating and uncertainties in global and European markets and policy environment are the most important concerns for the PE markets.

SME Guarantees:

- Credit guarantees continue to be “the most widely used instrument [...] to ease SME access to finance” and to alleviate related market failures (OECD, 2016b).
- AECM statistics show that Italy and France exhibit the largest volume and number of outstanding SME guarantees. Related to GDP, Italy and Portugal have the largest markets. According to the OECD (2013), guarantees are particularly relevant “in those countries where a network of local or sectoral guarantee institutions is well established”.
- For HY1/2016, AECM preliminary data reports considerable increases in new guarantee issuance and outstanding guarantees. The growth in new guarantee activity was particularly strong in Turkey, Hungary and Spain. A relaunch of new guarantee activity in Greece led to a very dynamic development in new guarantee issuance in the country in the first half-year.

SME Securitisation:

- In terms of new issuances, the SMESec market is still relatively weak. The visible issued volume of SME deals in 2015 was only EUR 27bn, representing 13% of the overall securitisation issuance; in HY1/2016, only EUR 5bn has been issued.⁴ Retention rates remained very high (for SMESec 92% in HY1/2016).
- Overall, the SMESec market in Europe is underdeveloped and strengthening this market can be an effective way to facilitate the flow of funds to the real economy, while not creating too much distortion.
- Despite the financial and sovereign crisis, the European securitisation market has performed relatively well, with the SME segment showing low default rates.
- Although the fog is slowly lifting, regulatory uncertainty is still to be seen as the main impediment and negative spill-overs from a non-holistic regulation approach lead to unintended consequence that hinder market development.
- Reasonably defined criteria for high quality securitisations might be a way out of the current dilemma. Following the European Parliament’s compromise on new STS regulation on 08th December, the Trialogue discussions are expected to start early 2017. However new securitisation regulation can only be expected towards the end of 2017 and first ‘quality-labelled’ transactions will most likely not happen before 2018.
- There are several new initiatives on European level to support the revival of the European SMESec market.

⁴ As explained in the text, there is a significant part of this market that is not visible in the statistics (e.g. unrated bilateral transactions).

Microfinance:

- Microenterprises are important contributors to employment. Especially in countries with high unemployment rates, microenterprises act as a driving force fostering job creation. However, their overall business environment remains relatively unfavorable compared to their larger peers.
- According to the data from the latest ECB SAFE survey, microenterprises have perceived a slight increase in the external financing gap indicator. Moreover, the share of enterprises which see access to finance as their most important problem remained higher among microenterprises than among their larger peers.
- Access to finance is crucial not only for existing microenterprises, but also for those who are eager to create a business in order to escape poverty or unemployment and contribute to job creation. Aside the financial support, unemployed people are often in need of acquiring the necessary skills for success through coaching and mentoring.
- Microfinance is an important tool to overcome the effects of the crisis for some specific groups and in particular to support inclusive growth. Aside from these financial products and services, many European MFIs provide non-financial services as well.
- The recent EMN-MFC survey reports a remarkable growth both in the overall total value and the number of microloans provided by the surveyed Microfinance Institutions.

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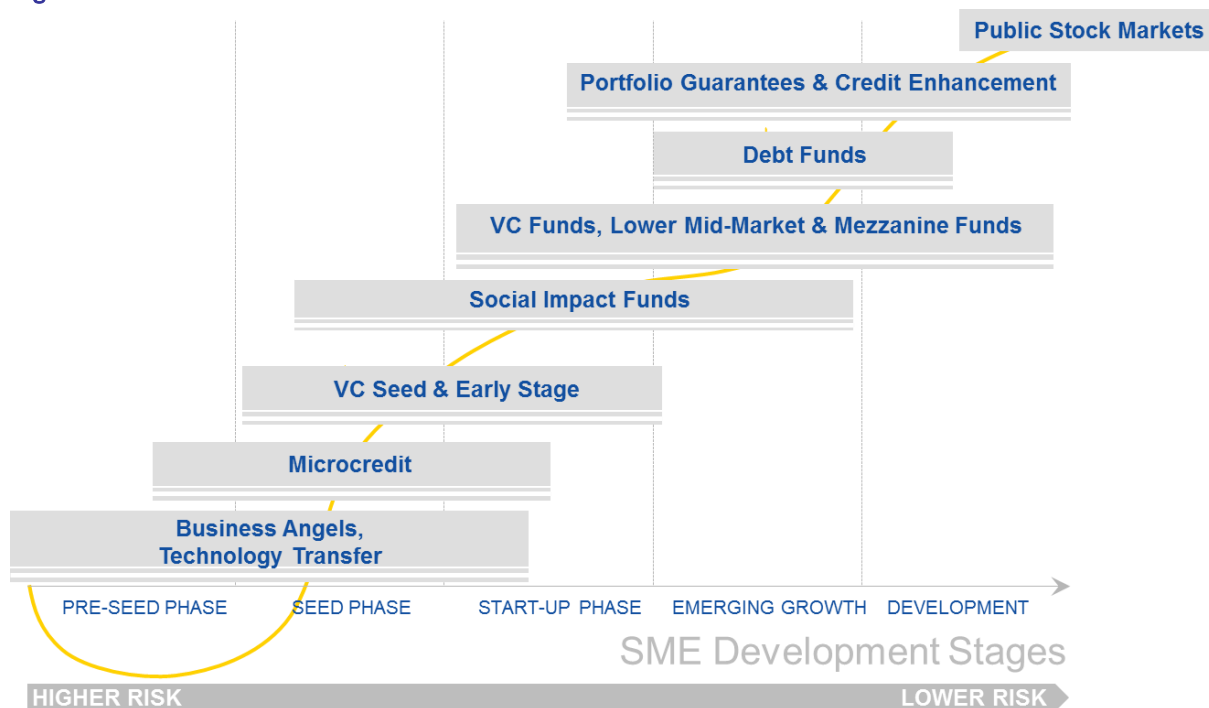
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1 Introduction

The European Investment Fund (EIF) is the European Investment Bank (EIB) Group's specialist provider of risk financing for entrepreneurship and innovation across Europe, delivering a full spectrum of financing solutions through financial intermediaries (i.e. equity instruments, guarantee and credit enhancement instruments, as well as microfinance). Figure 1 illustrates the range of EIF's activities:

Figure 1: EIF tool kit for SMEs



Source: EIF

The EIF focuses on the whole range of micro to medium-sized enterprises, starting from the pre-seed, seed-, and start-up-phase (technology transfer, business angel financing, microfinance, early stage VC) to the growth and development segment (formal VC funds, mezzanine funds, portfolio guarantees/credit enhancement).

Against this background, the European Small Business Finance Outlook (ESBFO) provides an overview of the main markets relevant to EIF (equity⁵, guarantees, securitisation, microfinance). The present edition is an update of the ESBFO June 2016.

We start by discussing the general market environment, then look at the main aspects of equity finance and SME guarantees, specifically the SME Securitisation (SMESec) markets. Finally, we briefly highlight important aspects of microfinance in Europe.

⁵ Please see footnote 2 concerning the term "equity finance".

2 General economic environment

2.1 Economic outlook

Since the publication of the previous ESBFO in June 2016 the global economic outlook worsened slightly, for the second consecutive semester. For 2016, the IMF (2016) revised its predictions for global growth downwards by 0.1 percentage points to 3.1%. The European Commission expects EU GDP growth (Table 1) over the next three years to hover in the 1.6-1.8 range, marginally below earlier predictions. The rise in pessimism is likely driven by the outcome of the Brexit referendum, which have only now been incorporated in the recent economic forecasts. In light of this, also investment growth (gross fixed capital formation) forecasts have been revised downward to 2.8 (from 3.0) for 2016. The downward revision is even stronger for 2017, where it amounted to 1.3 percentage points, to an investment growth of just 2.5 percent. The Commission hopes investment will pick up pace by 2018. The EU labour market on the other hand continues to perform consistently, registering a third consecutive decline in the unemployment rate, a trend which is expected to continue throughout the coming three years. Also deficit spending is declining, but budgets are not expected to balance before 2019.

Deflationary pressure continues to weigh on the European economy: price levels roughly remained constant throughout 2015, in line with the 2016 spring estimates. Inflation remains far below the ECB's target level: forecasts for 2016 remain unchanged at 0.3%, but inflation is expected to pick up again by 2017. It remains to be seen, however, whether the ECB's monetary policy efforts will effectively trickle down to the real economy.

Table 1: European Commission spring 2016 forecast for the EU

<i>(Real annual percentage change, unless otherwise stated)</i>				<i>Autumn 2016 estimates</i>		
	2013	2014	2015	2016	2017	2018
GDP	0.2	1.6	2.2	1.8	1.6	1.8
Private consumption	-0.1	1.2	2.1	2.1	1.6	1.5
Public consumption	0.4	1.0	1.4	1.8	1.2	1.3
Gross fixed capital formation	-1.5	2.6	3.5	2.8	2.5	3.1
Employment	-0.4	1.0	1.2	1.4	0.9	0.8
Unemployment rate (a)	10.9	10.2	9.4	8.6	8.3	7.9
Inflation (b)	1.4	0.5	0.0	0.3	1.4	1.4
Government balance (% GDP)	-3.2	-3.0	-2.1	-1.8	-1.5	-1.5
Gross government debt (% GDP)	87.3	88.5	92.6	91.6	90.6	89.4
	Contribution to change in GDP					
Private and Public Consumption	0	0.9	1.5	1.6	1.2	1.1
Investment and Inventories	0	0.9	0.6	0.3	0.5	0.6
Net exports	0.2	-0.1	0.2	-0.1	0.0	0.1

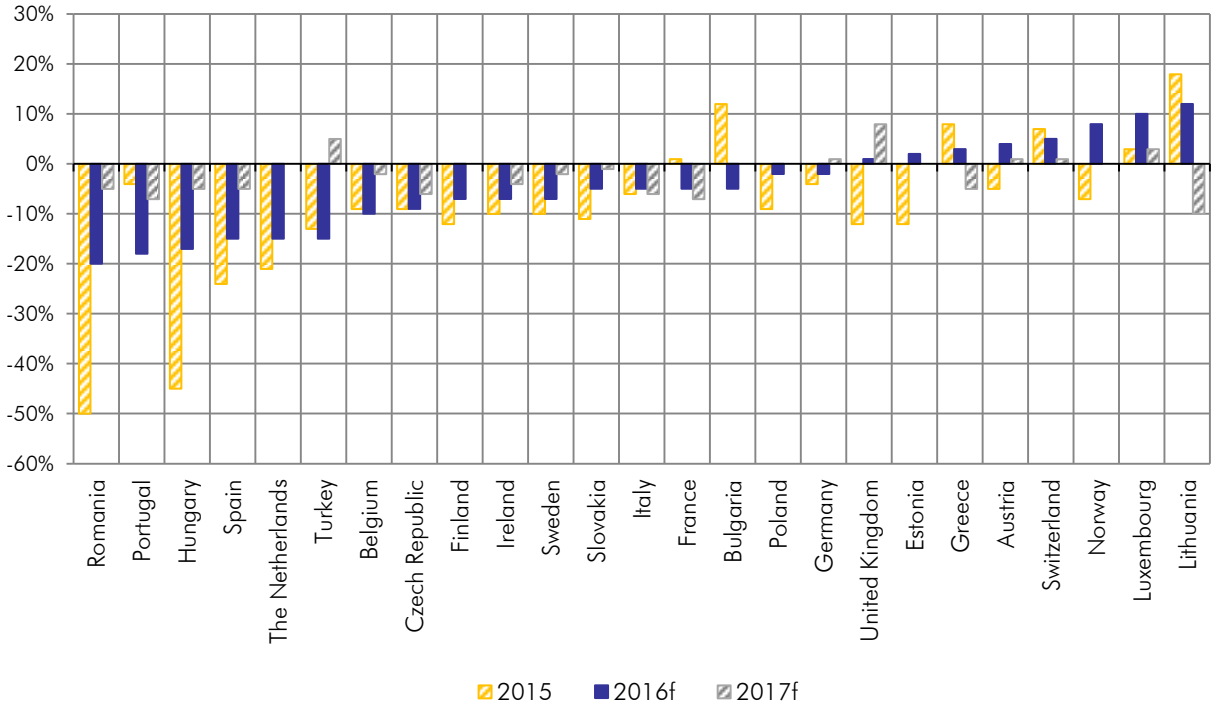
(a) Percentage of the labour force.

(b) Harmonised index of consumer prices (HICP), annual percentage change.

Source: European Commission (2016b)

The fragile economic recovery is reflected in the expected evolution of European insolvencies: the decreasing trend in European insolvencies is expected to continue in 2016, albeit at a slower rate (Euler Hermes, 2016). For 2016, the Euler-Hermes Insolvency Index (Euler Hermes, 2016), which measures the year-to-year percentage change in the number of insolvencies, forecasts a decrease in the number of Western European insolvencies by 8%. Also in Central and Eastern Europe insolvencies are expected to decline further (-4%). Figure 2 plots the index at the country level and shows that for 2016 the recovery-slowdown will occur in most European countries. Similar observations can be made for 2017, for which Euler Hermes predicts insolvencies to remain roughly constant, or decrease marginally, with the exception of Turkey and the UK.

Figure 2: Rate of change in insolvency, 2015-2017



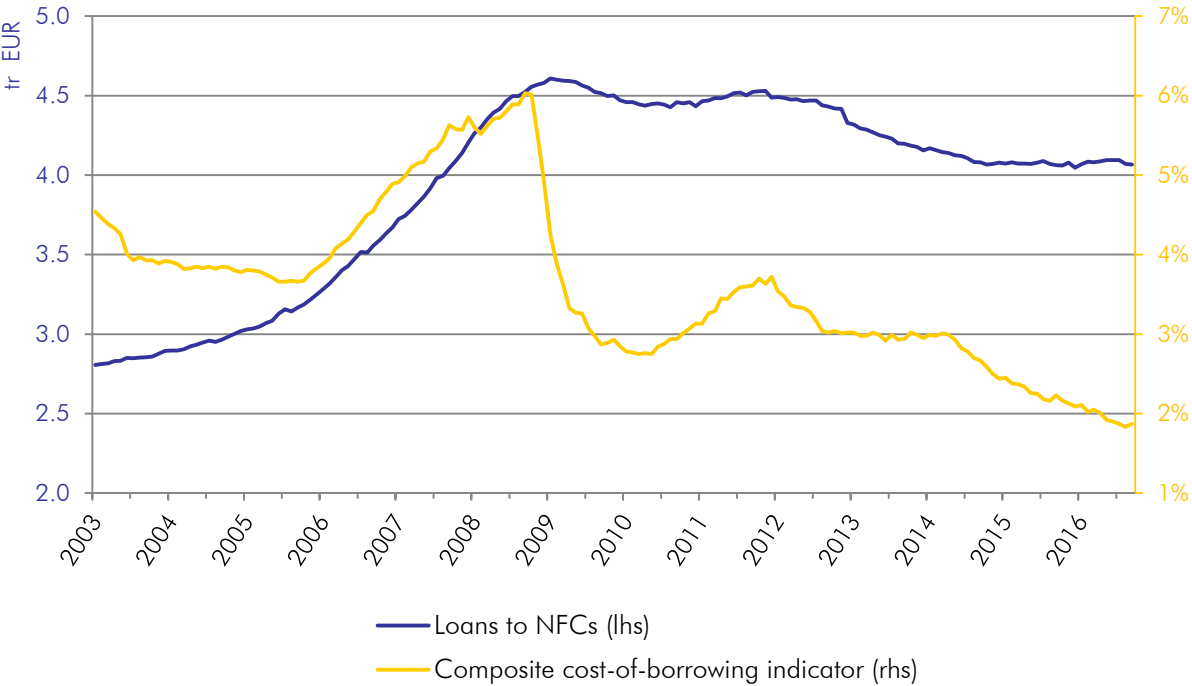
Note: 2016 and 2017 are forecasted values
 Source: Euler Hermes (2016)

2.2 Financial environment

Figure 3 illustrates how borrowing costs and outstanding loans to non-financial corporations (NFCs) evolved from their pre-crisis levels to where they are now. Over the past six months, borrowing costs to NFCs continued to decline: in May 2016, the ECB’s composite borrowing cost indicator⁶ dropped below the 2 percentage barrier for the first time since measurements, reaching a record low of 1.83% around August. Again, this decline was not accompanied by a corresponding increase in the amount of outstanding loans to NFCs, which has remained stagnant over the past two years, still hovering right above the EUR 4 trillion thresholds.

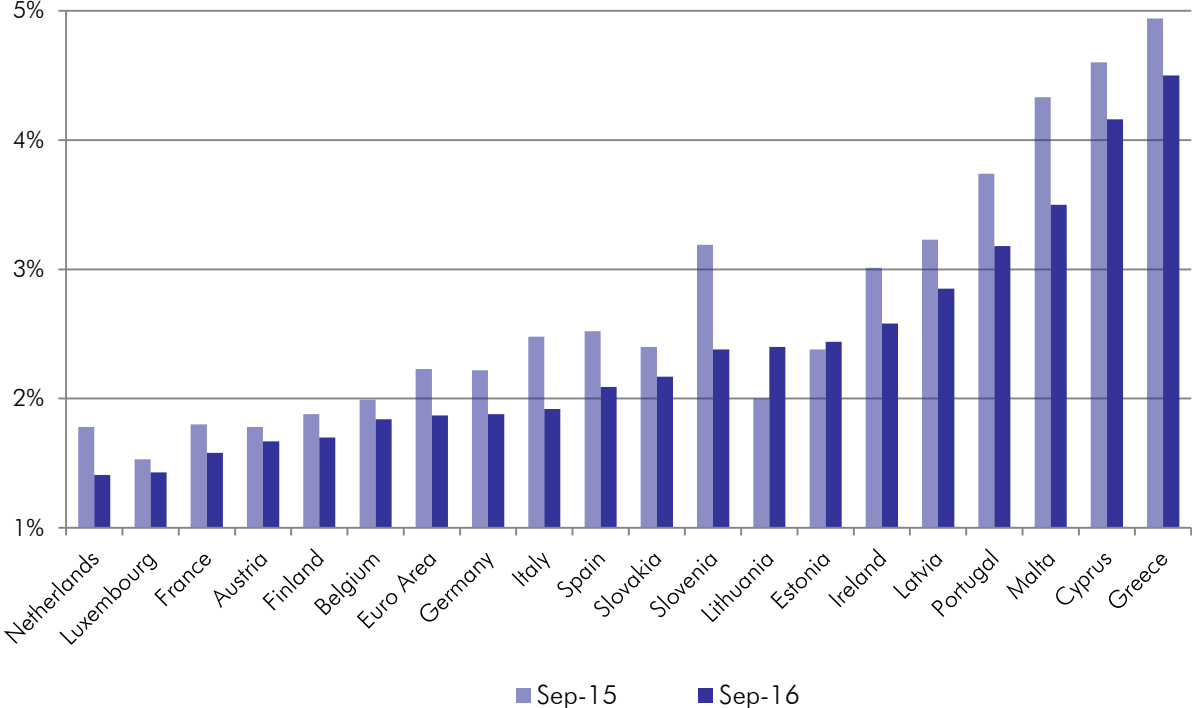
⁶ The composite borrowing indicator is a volume weighted average of borrowing cost of loans from different maturities. For an elaborate description of the methodology, see ECB (2013). It was constructed “to assess the effectiveness of the monetary policy pass-through across the euro area countries”.

Figure 3: Outstanding loans and composite cost-of-borrowing indicator for non-financial corporations in the Euro Area (until April 2016)



Source: ECB Data Warehouse

Figure 4: Cross-country heterogeneity in borrowing costs to NFCs



Source: ECB Data Warehouse

Within the Euro Area, the aggregate cost-of-borrowing indicator illustrated in Figure 3 masks a significant amount of underlying country heterogeneity. Figure 4 illustrates this by plotting the evolution of borrowing costs at the national level between September 2015 and September 2016.⁷ In line with the European trend, NFCs in all but two European countries experienced a decrease in borrowing costs. The decrease was particularly pronounced in Slovenia, Portugal and Italy. Cost of borrowing increased only in two Baltic countries: Lithuania and Estonia. Higher borrowing costs increase the cost of capital. This implies that countries like Malta, Greece, Cyprus and Portugal face a competitive disadvantage on export-markets, vis-à-vis countries in which firms have access to cheaper credit, like Luxembourg, the Netherlands or France.

In 2016, the EIB Group has started a new EU-wide annual survey to track changes in business investment, identify investment needs and understand investment constraints and financing requirements of enterprises. Once finalised, this survey will prove to be a valuable source of information on the investment climate in Europe (see Box 1).

Box 1: The new EIB Group Survey on Investment and Investment Finance (EIBIS)

The main module of the “EIB Group Survey on Investment and Investment Finance” (EIBIS) is based on interviews with 12,000 SMEs and larger corporates. It collects data on firm characteristics and performance, past investment activities and future plans, sources of finance (including firm-bank relationships), and challenges that businesses face. It is designed to be representative across different sectors, firm sizes and all 28 EU Member States. Furthermore, a panel of enterprise data will be built, which enables the analysis of investment and business environment trends over time.

In November, some provisional summary statistics and explorative analyses were published, based on preliminary data for seven countries (Finland, Germany, Greece, Italy, Portugal, Slovenia, and the UK). More information will be made available on www.eib.org/eibis. According to these provisional results, investment activities in 2015 varied significantly across countries and sectors. The highest investment intensities (investment outlays per employee) were reported in Finland, Germany and Slovenia. In terms of sectors, infrastructure exhibited the highest investment ratios. Investment intensities increased with firm size.

Uncertainty is perceived as the most important short-term barrier to investment in all countries but Germany. Firms report that the political and regulatory climate negatively affected their ability to carry out planned investments, while sector-specific business prospects and the availability of finance are seen more positively. In terms of longer-term barriers to investment, uncertainty tops the list (cited by 67% of firms), followed by the lack of skilled workers (the leading obstacle in Germany) and business regulation (particularly in Greece, Italy and Portugal).

With regard to investment finance, the data confirms firms’ strong reliance on internal sources (70% on average) and bank loans (60% of external finance on average). What is more, the data suggests that firms have, on average, little desire to change their financing mix. If anything, they tend to want more of the external finance types that they already heavily use, including bank lending and leasing.

⁷ While the European Small Business Finance Outlook is a semi-annual publication, the graph illustrates year-to-year differences to cancel out seasonal fluctuations and focus on the underlying trend.

Finance-constrained firms are most prevalent in Greece (22%), Slovenia (15%), Italy (12%) and Portugal (11%). To the extent that such finance constraints are driven by weak bank balance sheets, it is shown that – for the southern countries – this weakness tends to be passed through primarily by means of shorter maturities and lower amounts granted. Interestingly, the costs of funding or collateral requirements tend to vary much less with the weakness of lender balance sheets. Finance constraints tend to be negatively correlated with firm productivity, but this relationship breaks down with regard to firms that have recorded a loss in the last financial year.

Source: Bending and Brutscher (2016).

3 Small business economic environment

3.1 SME's economic outlook

SMEs are defined by the European Commission⁸ (EC) as firms having no more than 250 employees. In addition, they are required to have an annual turnover below EUR 50m, or a balance sheet total of no more than EUR 43m:

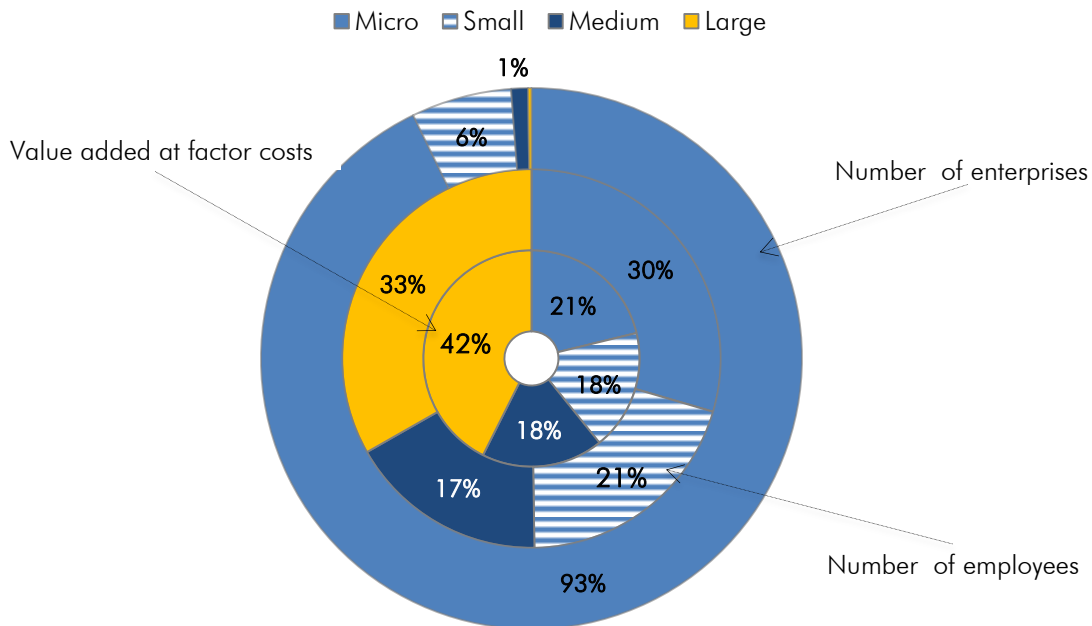
Table 2: EU definition of SMEs⁹

	Employees	Turnover	Balance sheet total
Micro	<10	≤ EUR 2m	≤ EUR 2m
Small	<50	≤ EUR 10m	≤ EUR 10m
Medium-sized	<250	≤ EUR 50m	≤ EUR 43m

Source: European Commission (2016a)

Small and medium-sized enterprises contribute significantly to job creation and economic growth. In 2015, nearly 23 million SMEs in the European Union made up 99.8% of all non-financial enterprises, employed around 91 million people (66.8% of total employment) and generated 57.4% of total added value (EUR 3,700bn), (see Figure 5).

Figure 5: SMEs, employment and value added in the EU, 2015



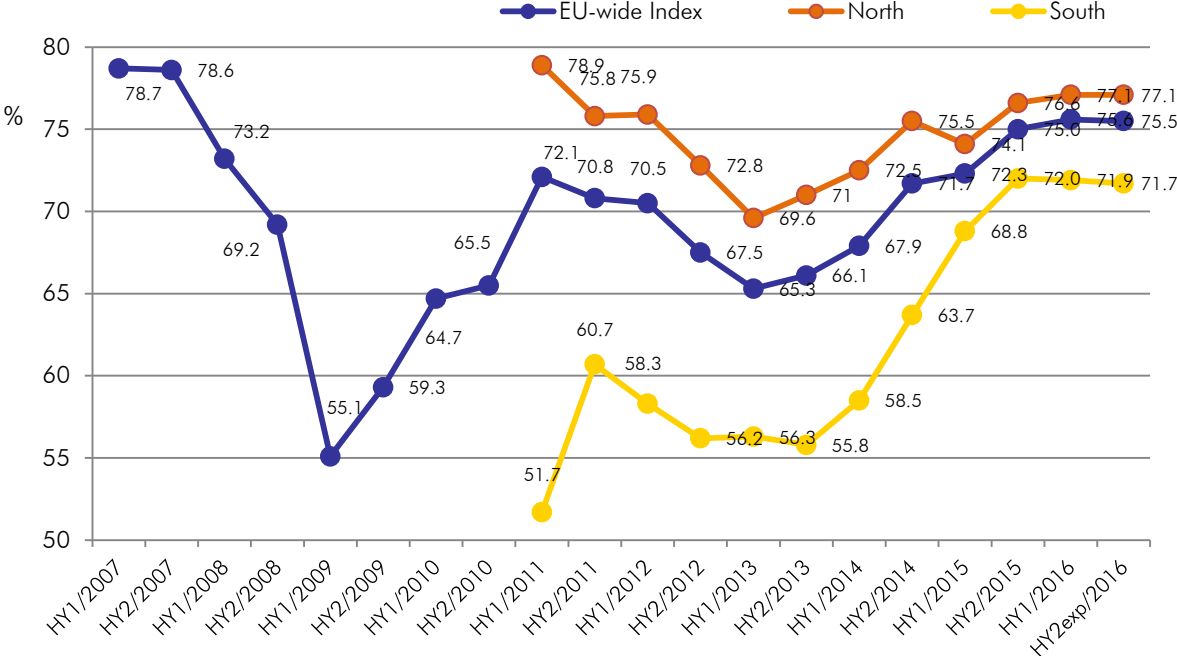
Source: European Commission (2016a)

⁸ Commission Recommendation of 6 May 2003.

⁹ In the context of defining enterprise categories, often also the category of mid-caps is mentioned in between the categories of SMEs and corporates. We define mid-caps as enterprises with a minimum of 250 and a maximum of 2,999 employees; moreover, there is the sub-category of small mid-caps, with a maximum of 500 employees.

UEAPME’s semi-annual EU Craft and SME Barometer provides information on SMEs’ perception on the current and future economic environment. In line with the general economic predictions of the EC and Euler Hermes, the UEAPME study unit (2016) concludes that the SME business climate has continued its gradual path to recovery over the first semester of 2016. Although their SME Business Climate Index remained above the 70 percent neutral level for the fifth consecutive semester, the upward evolution is expected to flatten over the second half of 2016 (Figure 6).¹⁰ In the North/Centre¹¹ of Europe the index is expected to remain flat. In the Southern/Peripheral¹² EU region the index decreased slightly for the second consecutive semester, a trend which is believed to continue during the second semester of 2016. This implies that the convergence between North and South that was recorded since UEAPME published this split for the first time in 2011 might not continue in the near future.

Figure 6: SME Business Climate Index



Source: UEAPME Study Unit (2016)

Figure 7 plots net responses¹³ for a number of different economic indicators contained in UEAPME’s semi-annual EU Craft and SME Barometer, such as the overall economic situation, turnover, employment, prices, investments and orders. Over the first semester of 2016, SMEs were positive about the overall economic situation they were facing. In particular turnover evolved favourably. SMEs remain optimistic for the second half of 2016: orders are predicted to increase

¹⁰ The UEAPME SME Business Climate Index is calculated as the sum of positive and neutral answers with regards to the overall situation for the business, averaged over the current situation and the expectations for the next period. It is based on the results of surveys conducted by UEAPME Member organisations two to four times a year in different regions all over Europe.

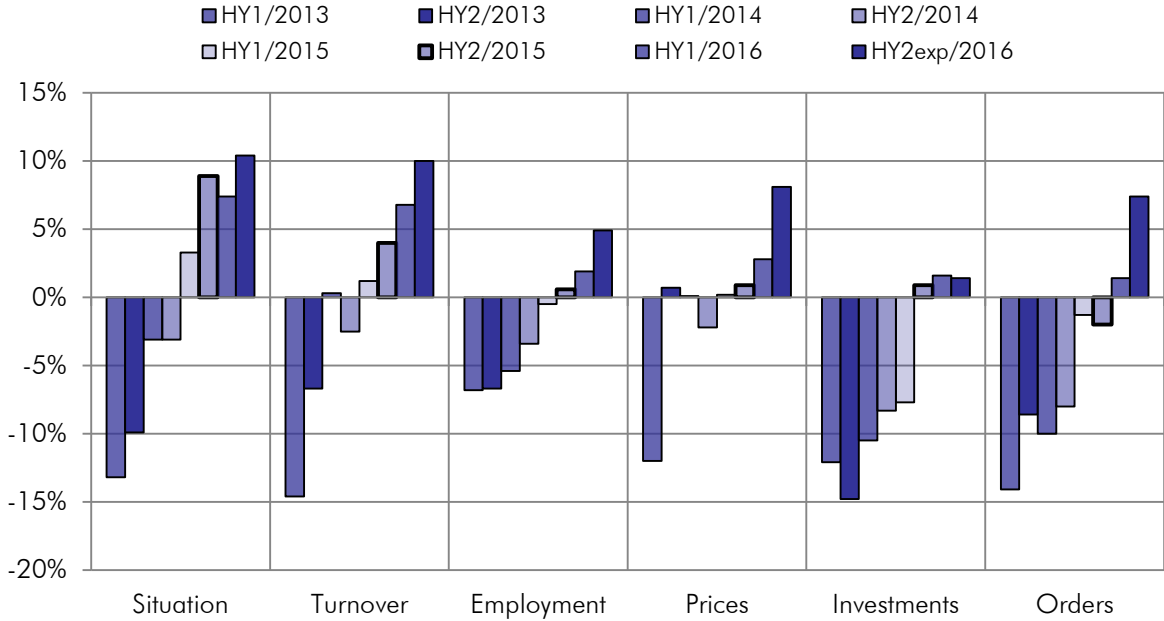
¹¹ Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Latvia, Lithuania, Luxembourg, Netherlands, Poland, Romania, Slovakia, Sweden and UK.

¹² Croatia, Cyprus, Greece, Ireland, Italy, Malta, Portugal, Slovenia and Spain.

¹³ The net response is calculated as the share of positive minus negative responses.

strongly and price levels are expected to rise accordingly. Concerning investments, SMEs are on the fence. Their opinion on the investment climate remains neutral and this is not expected to change this year. The recent Eurochambres (2016) Economic Survey¹⁴ largely confirms these conclusions, but warns about the effects of uncertainty on business investments.

Figure 7: Main Results of the EU Craft and SME Barometer HY2/2015



Source: UEAPME Study Unit (2016)

3.2 SME’s financial environment

3.2.1 Borrowing costs

The interest rate is an important determinant of loan demand, as it determines investment financing costs. Figure 3 and Figure 4 illustrated that overall borrowing costs in the Euro Area have been declining over the past few years, but large country-level heterogeneity exists. This section takes an in-depth look at borrowing costs by using ECB information on interest rate levels and newly euro-denominated loan volumes.¹⁵ Although this information is not made available by firm-size, it is published for three distinct loan size categories: small loans (<EUR 0.25m), medium-sized loans (EUR 0.25m – EUR 1m) and large loans (>EUR 1m). Interest rate data is further subdivided according to loan maturity. Assuming smaller loans are predominantly used by smaller firms,¹⁶ one

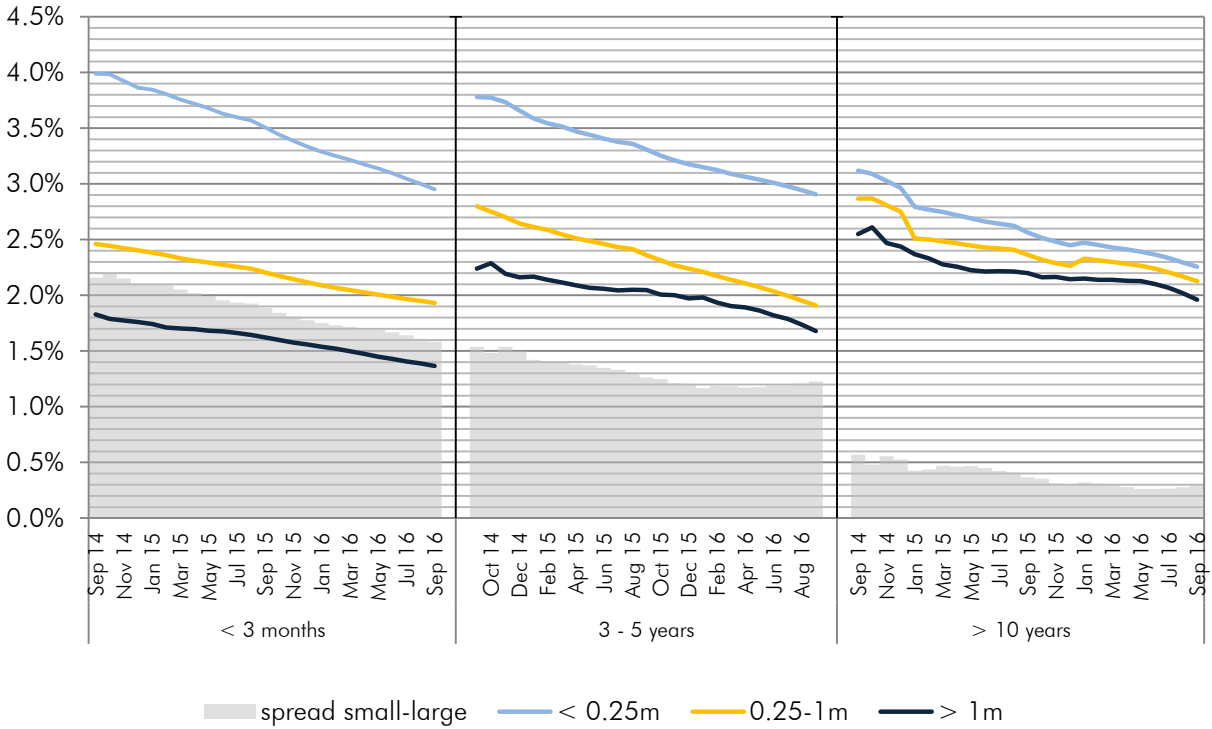
¹⁴ The Eurochambres Economic Survey is a European qualitative survey of business expectations for the year ahead. Conducted annually by the Chambers of Commerce and Industry, and coordinated by Eurochambres, the survey records the expectations of approximately 59,000 businesses in EU Member States and EU Candidate Countries on five economic indicators: business confidence, domestic sales, export sales, employment and investment. The Eurochambres Economic Survey has been conducted since 1993. For details on the methodology see Eurochambres (2016).

¹⁵ Concerning information regarding interest rates for microfinance please see chapter 6.

¹⁶ To better reflect lending conditions to SMEs specifically, rather than small loans in general, the data excludes interest rates on revolving loans and overdraft, since these instruments are arguably used independent of firm size.

can use this information to defer some conclusions on the different lending conditions faced by firms from different size classes.

Figure 8: Interest rates by loan size and maturity, and the interest rate size spread – Sep 2014 to Sep 2016

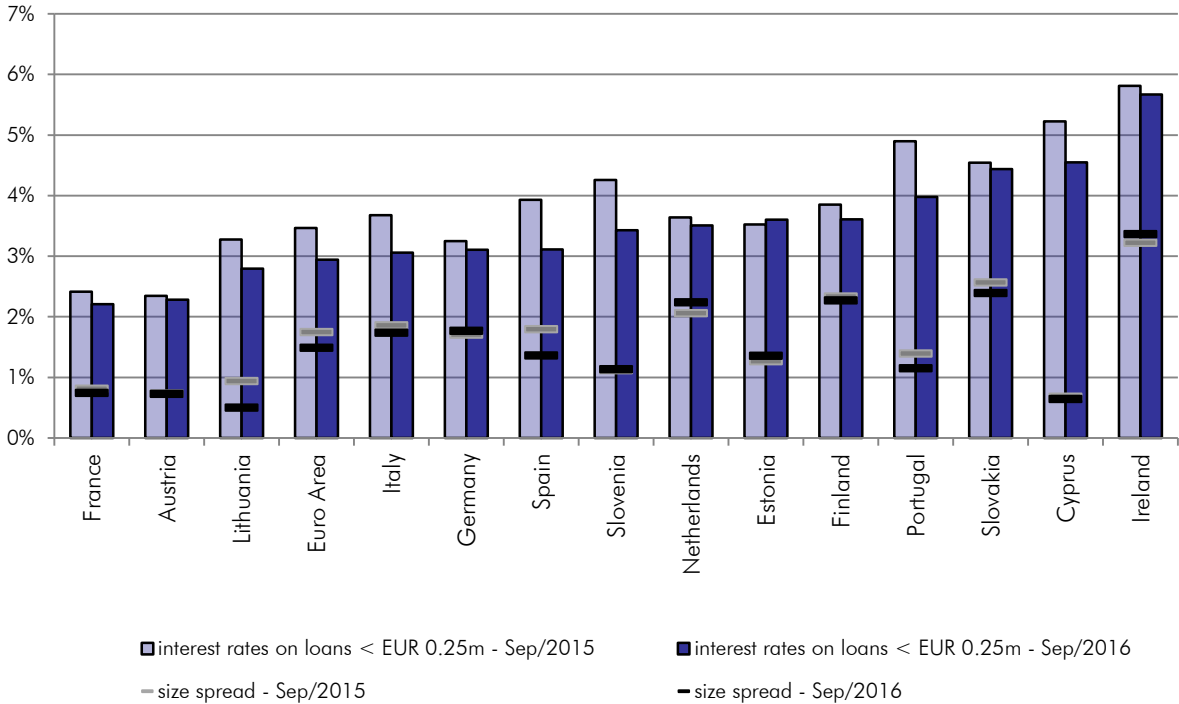


*The graph depicts the 12 month backward moving average floating interest rates charged by banks on loans to NFCs (other than revolving loans and overdraft)
 Source: ECB Data Warehouse, authors' calculations

Figure 8 illustrates the evolution of interest rate levels for different loan sizes, by maturity, over the past two years. The graph highlights several interesting findings: First, over the past six months, the ECB's QE efforts have continued to trickle down, resulting in declining interest rates for NFC loans, over all size-classes and all maturities. Second, regardless of maturity, small loans are burdened with higher interest rates, a phenomenon referred to as the size-spread hereafter. This is somewhat surprising, as traditional finance theory suggests that, *ceteris paribus*, the risk of default increases with loan size (Stiglitz, 1972). Two factors could explain why the inverse relationship between loan size and the interest rate breaks down for bank lending to NFCs. In the presence of fixed screening costs, small loans will carry a higher interest rate. Alternatively, smaller lenders could possess different characteristics (Moore and Craigwell, 2003), or use the borrowed funds for different financing purposes, such as funding working capital, instead of long term investment projects. Third, Figure 8 exposes an anomaly in the maturity spread of small loans. As a general rule, liquidity decreases with loan maturity. Long term loans will therefore carry higher interest rates. This reasoning indeed holds true for medium-sized and large loans. For small loans however, short term lending is actually more expensive. This can be interpreted as evidence for the presence of a fixed lending costs element, related to screening, or the specific characteristics of small loans.

While overall financing costs for Euro Area NFCs might be decreasing, Figure 9 indicates that the aggregates hide a significant amount of country-level heterogeneity. It plots the 12-month moving average of the interest rate charged to NFCs on loans not exceeding EUR 0.25m for the selection of countries for which data was available. It also depicts the size spread, defined as the excess interest rate charged on loans smaller than EUR 0.25m compared to loans with a value exceeding EUR 1m. Between September 2015 and September 2016, the interest rates charged on small loans in the Euro Area decreased further, as did the size spread. Small loans interest rates decreased or stagnated in all countries for which data was available, but Estonia, where it remained roughly constant. The decrease was most pronounced in Portugal, Spain and Italy. Per September 2016, small borrowers in France and Austria, where interest rates on loans smaller than EUR 0.25m hardly exceeded the 2 percent barrier, had access to the most favourable credit conditions in the Euro Area. On the other side of the spectrum, small borrowers in Ireland, Cyprus and Slovakia faced the most expensive borrowing conditions. Note that for many of the countries in which small loan interest rates are high, the size spread is also large. A high size-spread indicates a disadvantaged position for small firms vis-à-vis larger borrowers. For the third consecutive semester (see Kraemer-Eis et al., 2015a, 2015b, 2016), the size spread continued to increase in the Netherlands, further deteriorating Dutch SMEs' relative financing conditions. In other countries size spreads have declined further, most notably in Lithuania, where it decreased nearly 50 basis points.

Figure 9: Euro Area country-level interest rates on small loans and the loan size spread*



* The spread is calculated as the percentage point difference between loans exceeding EUR 1m and loans smaller than EUR 0.25m. 12months backwards moving averages were used to eliminate the influence of monthly outliers and focus on the underlying trend. Countries for which there was no sufficient data available are omitted.

Source: ECB Data Warehouse, authors' calculations

In conclusion, overall borrowing costs continue to decline but the financial environment faced by firms differs significantly between countries. Small businesses continue to face significantly different conditions compared to their larger counterparts as evidenced by sizeable size spreads in borrowing costs. Just as the interest rate for small loans itself, the size-spread displays a significant amount of country-heterogeneity.¹⁷ Of course, cross-country heterogeneity in interest rates could be explained by difference in the individual risk-profile of SMEs located in those respective countries. However, a recent study investigating the differences in cross-country interest rate variations on small loans found that such factors held little explanatory power (Carroll & McCann, 2015). Controlling for individual risk factors of SMEs, the authors concluded that national interest rate differences for SME lending were associated with institutional characteristics of the country such as, among others, recoverability of collateral and lack of competition in the banking sector. This latter explanatory factor appears to be particularly relevant for explaining the interest rate size-spread documented in Figure 8 and Figure 9. Large firms have greater bargaining power, vis-à-vis SMEs, which leads to lower interest rates (Berger and Udell, 2006), an effect which was evidenced by Affinito and Farabullini (2009).

3.2.2 SME financing from a supply perspective

The ECB's latest Bank Lending Survey (ECB, 2016b)¹⁸ provides an overview on the current state of the SME lending market from the perspective of the banks. Figure 10 illustrates how banks' perception of credit standards upheld to NFCs has changed.¹⁹ It plots the quarterly net change²⁰ in credit standards.

While credit standard continued to ease during the third quarter of 2016 for both SMEs and large firms, credit standards have again started to tighten for SMEs during the final quarter of 2016. This turnaround follows seven consecutive quarters of easing. Credit standards applied to large borrowers remained largely unchanged.

Figure 11 illustrates the factors that drove the change in credit standards to SMEs applying for bank loans. During Q3/2016 nearly all factors contributed to the easing of credit standards. Only the factors 'risk on collateral demanded' induced banks to tighten credit conditions. As was the case for the previous semester outlook, bank competition was the most important factor driving the easing of credit standards.

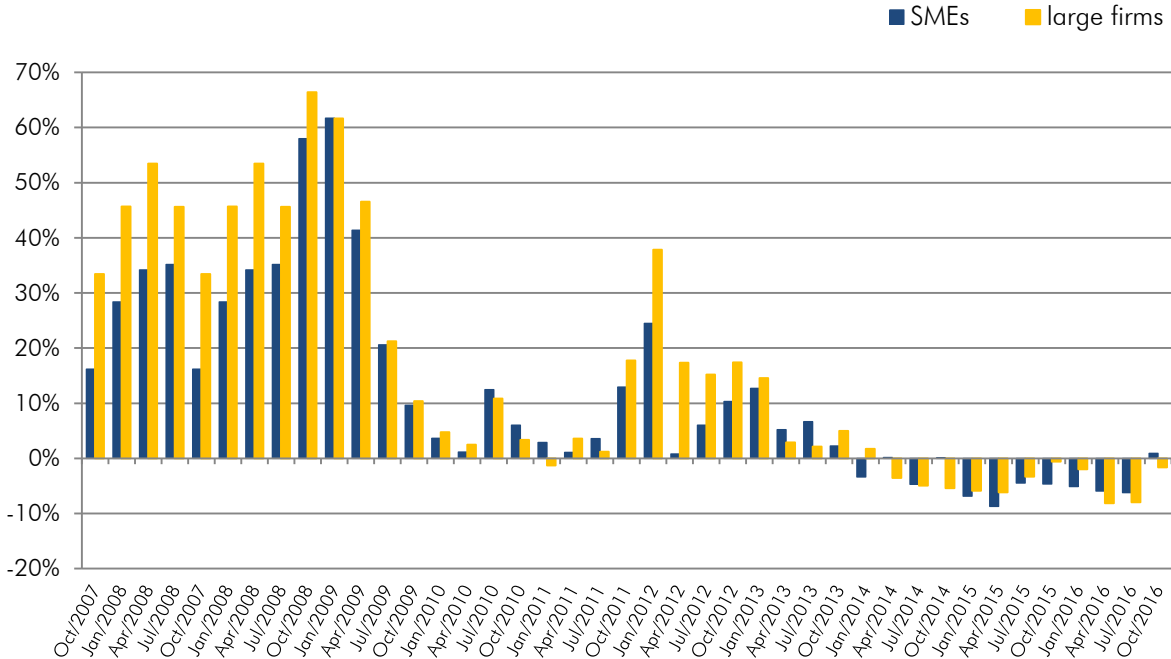
¹⁷ See also Wagenvoort et al. (2011) who show that the European market integration for small loans, in particular with a short rate fixation, has not yet been achieved, explaining the non-uniformity of bank lending rates on small loans across European nations.

¹⁸ This survey was conducted on 141 Euro Area banks and reports changes during the first quarter of 2016 (Q1/2016) and expectations of changes in the second quarter of 2016 (Q2/2016).

¹⁹ Banks are requested to answer the following question: 'Over the past three months how have your bank's credit standards as applied to the approval of loans or credit lines to enterprises changed?'

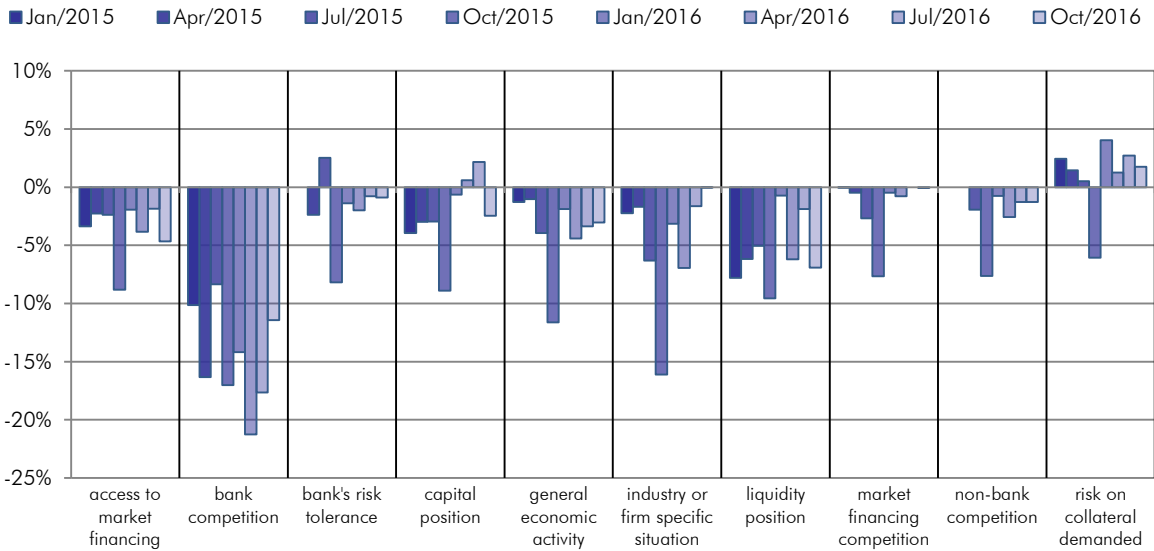
²⁰ The net change is calculated as the difference between the sum of the percentages of banks responding "tightened considerably" and "tightened somewhat", and the sum of the percentages of banks responding "eased somewhat" and "eased considerably", for loans to firms from different size classes.

Figure 10: Net changes in credit standards applied to the approval of loans or credit lines to enterprises (SMEs versus large enterprises)



Source: ECB Bank lending survey (ECB, 2016b)

Figure 11: Factors contributing to changes in credit standards to SMEs²¹



*Note: "Bank's risk tolerance" was only introduced to question 2 of the BLS in Q2/2015

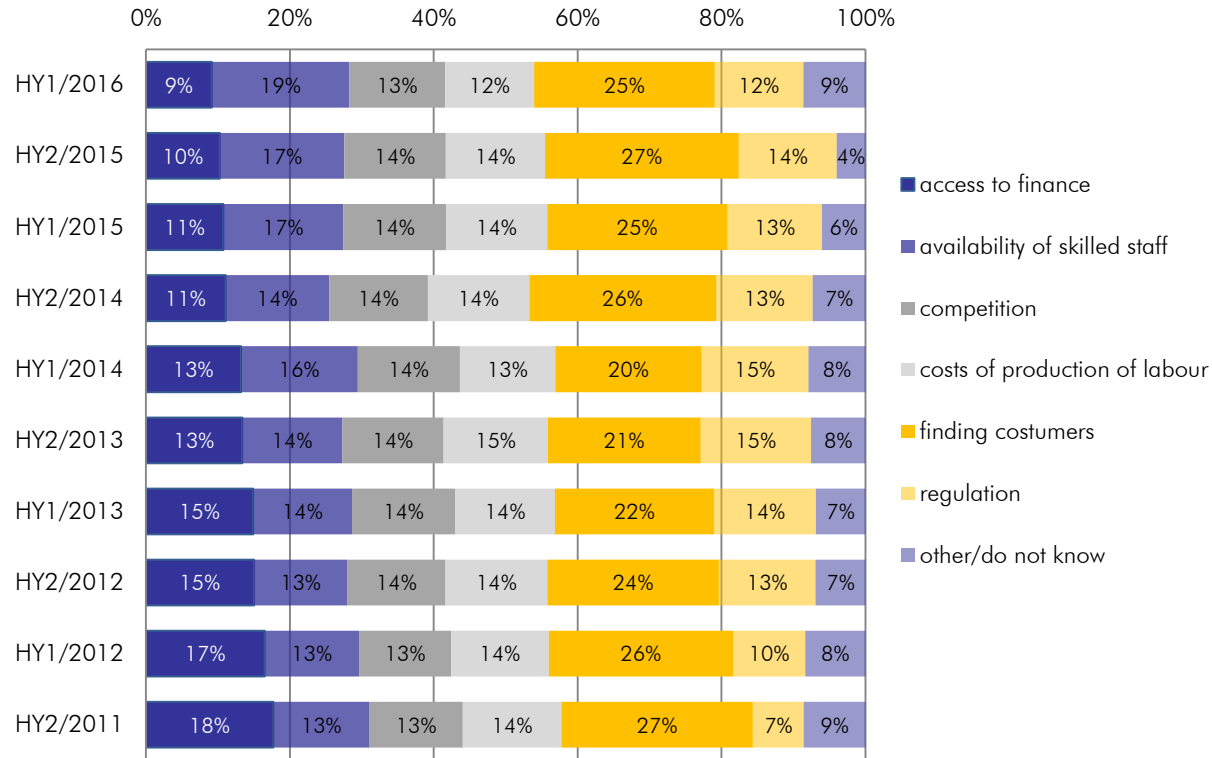
Source: ECB Bank lending survey (ECB, 2016b)

²¹ Banks were requested to answer the following question: Over the past three months, how have the following factors affected your bank's credit standards as applied to the approval of loans or credit lines to enterprises? The graph reports net percentage contribution of each factor to the tightening or easing of credit standards. The net percentage is defined as the difference between the percentage of banks reporting that the given factor contributed to a tightening and the percentage reporting that it contributed to an easing.

3.2.3 SME financing from a demand perspective

Having discussed the bank’s supply side perspective of the lending market, this section turns to the demand side and reports the most important results of the latest Survey on the Access to Finance of Enterprises (SAFE). Figure 12 lists the most important problems faced by SMEs in the Euro Area and illustrates how their relative importance changed over time. During the most recent semesters, access to finance has not been a major concern for SMEs. During the first half of 2016, only 9% of them rank it as their most important issue, down 1 percentage point from the previous period. On the other hand, the lack of availability of skilled staff has become increasingly important, with 19% of SMEs claiming it to be their most pressing problem, ranking second only after finding costumers (25%).

Figure 12: The most important problems facing Euro Area SMEs

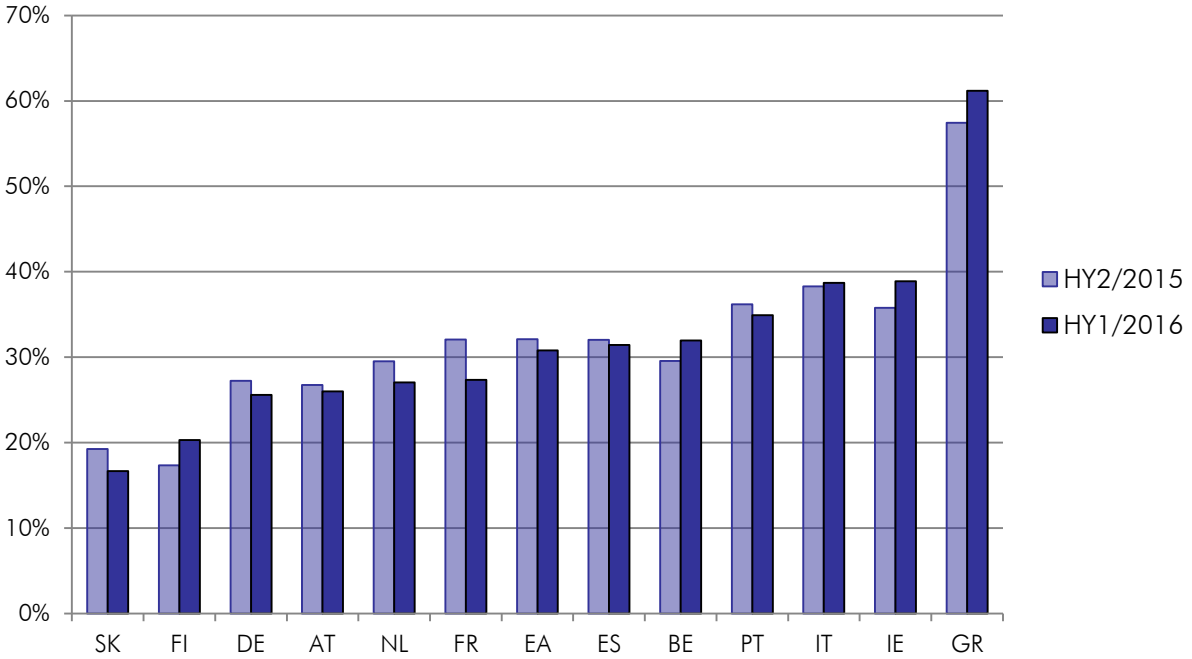


Source: ECB SAFE (ECB, 2016a)

Figure 13 provides more insight into the within-Euro Area heterogeneity underlying Figure 12. It plots per country the percentage of SMEs that considers access to finance as a highly important problem.²² This percentage varies significantly by country, with Greece convincingly leading the ranking (61%), a slight deterioration compared to the second semester of 2015. Figure 13 furthermore reveals that the situation deteriorated in Finland, Belgium, Italy, Ireland and Greece, although the changes were relatively modest. In all other countries, SMEs reported that access to finance became less problematic over the past six months.

²² Rating it 7 or higher on a scale of 10 for the survey item Q0b. Pressingness of problems that the firm is facing.

Figure 13: Percentage of SMEs ranking access to finance as a highly important issue

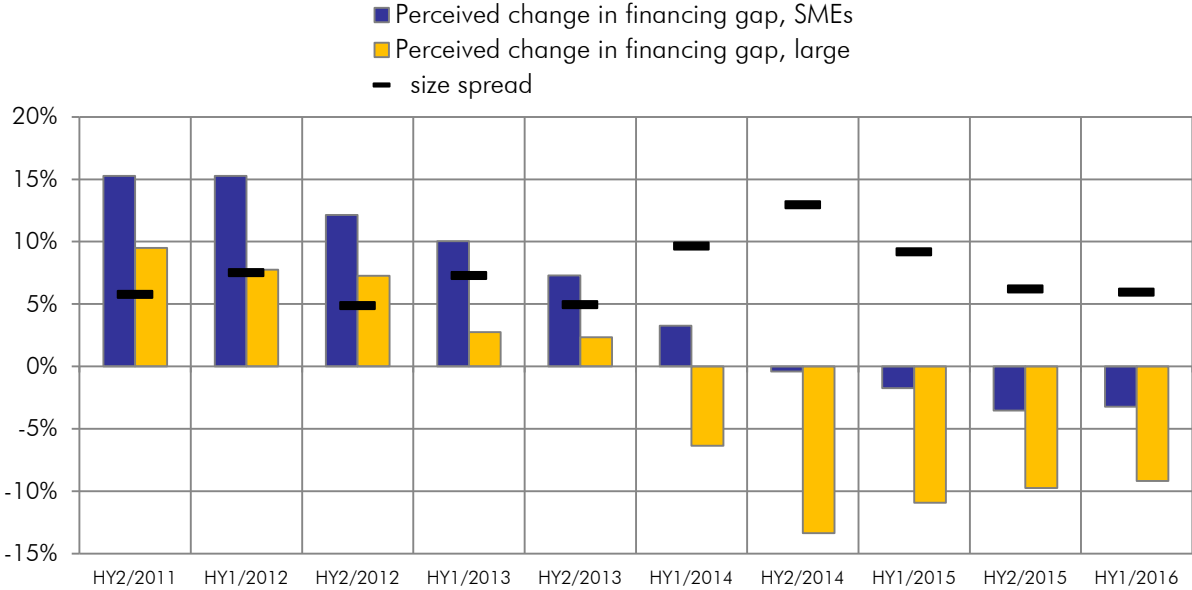


Source: ECB SAFE (ECB, 2016)

Figure 14 illustrates how SMEs’ perception of the external financing gap has evolved over the past 5 years and compares this to the gap perception by large firms. The external financing gap is a composite indicator constructed by the ECB, based on perceived changes in the needs and availability of external financing to firms (see footnote 23). During the first semester of 2016, SMEs reported they perceived the financing gap to be shrinking for the fourth consecutive semester. It is clear that large SMEs consistently experience more difficulties in accessing external finance, vis-à-vis large firms, as evidenced by the size-spread depicted in Figure 14. The size-spread in the gap perception between SMEs and large firms stayed constant during the first semester of 2016.

Figure 14 illustrates how SMEs’ perception of the (change in the) financing gap differed between countries. During the first semester of 2016, the external financing gap for SMEs was only perceived to be increasing in France and Greece. In both countries however, the rate at which the financing gap was believed to increase declined compared to the previous semester. Negative values were reported for all other countries, implying SMEs believe the gap between the supply and demand of external finance is shrinking. In general, the situation on external financing markets for SMEs has improved drastically compared to the 2011-2012 period: in particular in Ireland, Spain, Italy and Portugal.

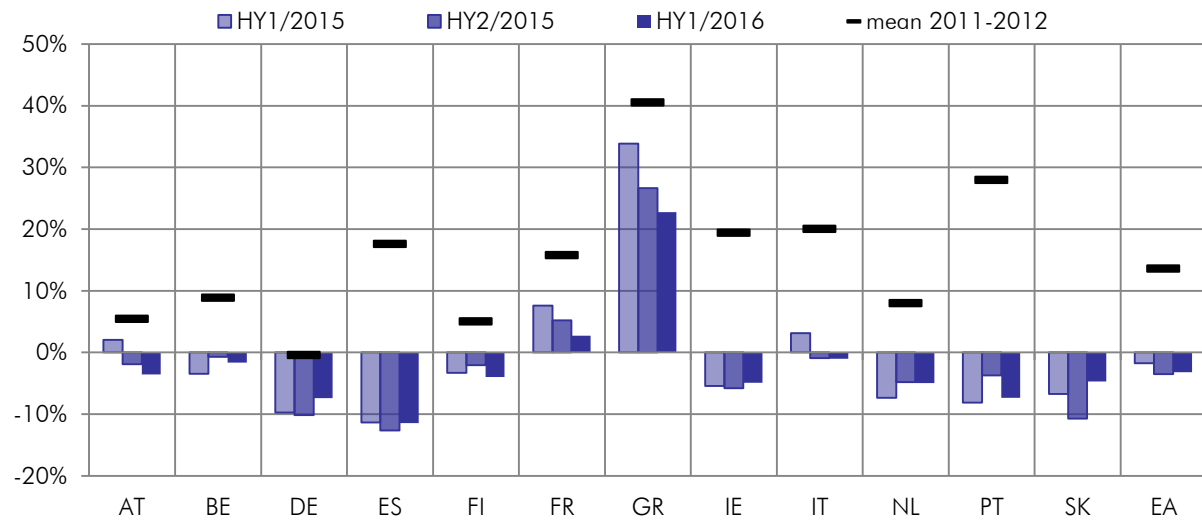
Figure 14: Perceived change in the external financing gap by SMEs and large firms²³



Note: Weighted net balance for enterprises and net percentage for banks.

Source: ECB SAFE (ECB, 2016)

Figure 15: Perceived change in the external financing gap by SMEs at the country-level



*The marker denotes the average level of the index throughout the four semesters of 2011 and 2012.²⁴

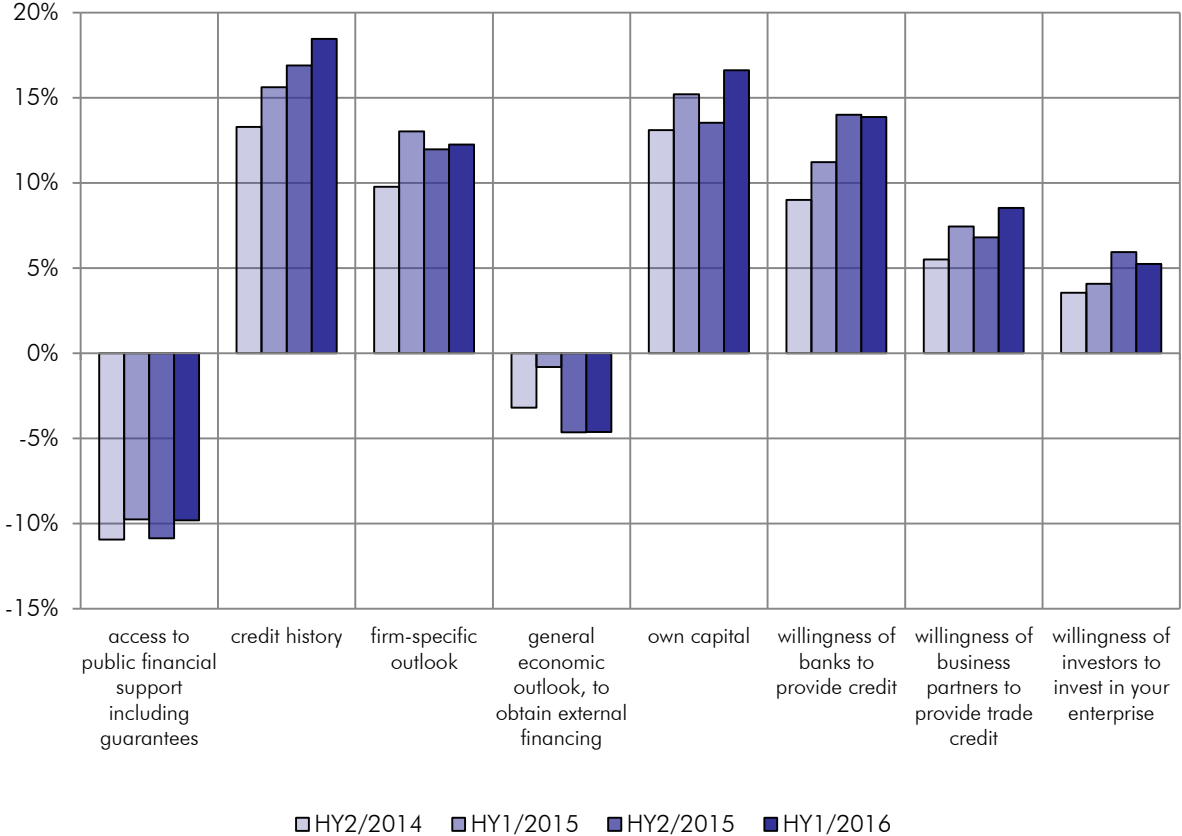
Source: ECB SAFE (ECB, 2016a)

²³ For each of the five financing instruments (bank loans, trade credit, equity, debt securities, bank overdraft), an indicator change in a perceived financing gap takes the value of 1 (-1) if the need increases (decreases) and availability decreases (increases). If firms perceive only a one-sided increase (decrease) in the financing gap, the variable is assigned a value of 0.5 (-0.5). The composite indicator illustrating the perception of firms' financing gap is the weighted average of the financing gap related to the five instruments. A positive value of the indicator suggests an increasing financing gap. Values are multiplied by 100 to obtain weighted net balances in percentages. The size spread depicts the percentage point difference (in absolute terms) between the perceived financing gap as reported by SMEs and the gap reported by large firms.

²⁴ During the period 2011-2012 the aftermath of the sovereign debt crisis had SMEs reporting the highest values of the perceived change in the financing gap.

The SAFE survey also asks about the factors which SMEs believe are driving the availability of external financing. Figure 16 illustrates how responses evolved over the last two years. During the first semester of 2016, all but two factors are reported to have contributed positively to the availability of external finance to SMEs in the Euro Area. Especially SMEs' own credit history, the availability of own capital and the willingness of banks to provide credit were important drivers. Two factors were believed to have contributed negatively to the availability of external finance: the general economic outlook and lack of access to public financial support, such as guarantees.

Figure 16: Change in factors driving the availability of external financing to Euro Area SMEs



Source: ECB SAFE (ECB, 2016a)

Turning to specific financing instruments, Figure 17 shows that over the first half of 2016, the relative importance of the usage of different funding sources by Euro Area SMEs stayed roughly constant. Bank products (loans and overdraft) remained the most popular financing products for SMEs in H1/2016. They were followed by leasing and hire-purchase (see Box 2). Equity and factoring make up just a small fraction of SMEs' external financing needs. In order to analyse the combined use of different financial instruments by SMEs, EIF has initiated a research project, of which we summarise the results in Box 3.

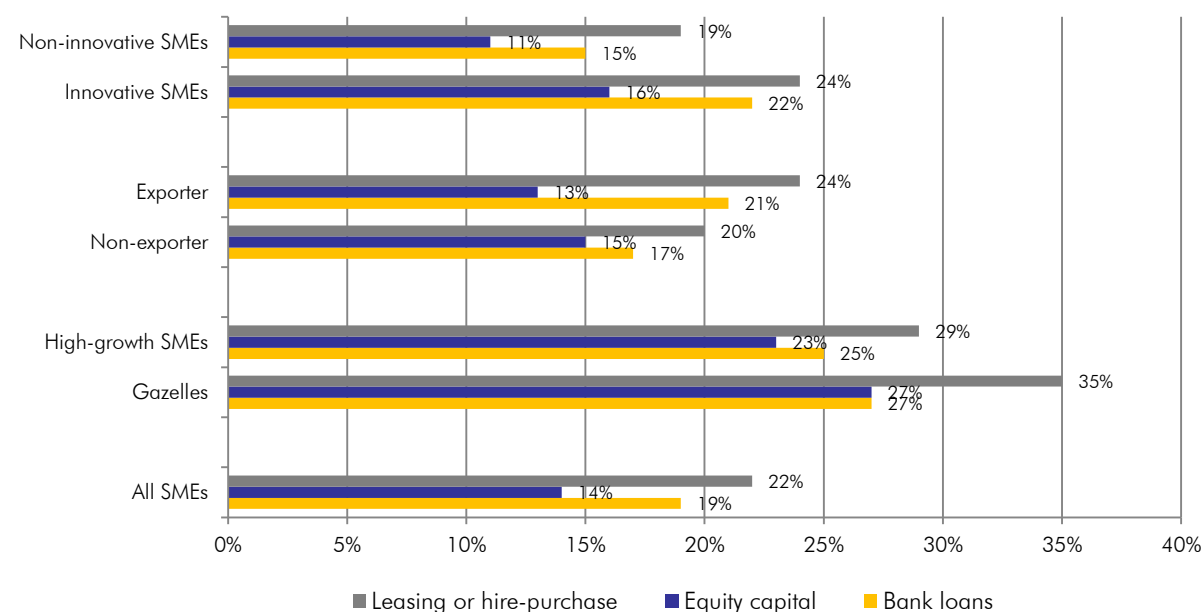
Box 2: SME leasing in Europe²⁵

In the EC/ECB SAFE survey for Europe²⁶, leasing and hire-purchase together rank as the third most relevant source of finance for SMEs in the EU, which is the same position as reported a year ago. More importantly, in the six months preceding the survey, it was the second most often used type of SME financing, after credit line/overdraft and before trade credit and bank loans. Poland, Germany, Estonia and Austria are the countries with the highest proportion of SMEs using leasing or hire-purchase, followed by the Scandinavian region and the UK. The use of leasing or hire-purchase grows with the firm size. High-growth, exporting and innovative SMEs tend to use leasing or hire-purchase more often than non-exporters or non-innovative firms.

Survey respondents stated that the availability of leasing or hire-purchase improved the most in the past six months compared to other external financing sources. Moreover, SMEs expected that the availability of leasing would continue to improve the most among all external financing sources in the coming 6 months. Leasing is also the source of finance with the largest proportion of SMEs signalling an increased need for it. The same holds true across SMEs of various characteristics, especially for innovative, exporting, high-growth firms and gazelles (high-growth firms that are up to five years old).

According to the survey, 24% of EU SMEs that expect to grow over the two years following the survey need financing amounts between EUR 25k and EUR 100k to materialize their growth ambitions. Given that the average lease contract size for equipment was EUR 30k in 2015 (Leaseurope, 2016a), leasing is well placed to address these SME needs (see Figure B.5).

Figure B.5: SMEs reporting an increased need for different external financing products in the past 6 months (Apr. – Sep. 2016) in the EU, by firm characteristics



Source: Leaseurope

²⁵ This text box is based on Leaseurope (2016b), and we would like to thank our Leaseurope colleagues for their support. Many of EIF's guarantee products for the benefit of SMEs are also available for leasing providers. Leaseurope and EIF compiled an overview of EIF's guarantee instruments in a fact sheet for the European leasing industry, which is available here: [http://www.leaseurope.org/uploads/EIF_2015%20factsheet_WEB\(singlepage\).pdf](http://www.leaseurope.org/uploads/EIF_2015%20factsheet_WEB(singlepage).pdf).

²⁶ Information based on the latest joint EC/ECB SAFE survey wave (April-Sept. 2016).

Box 3: Financing of European SMEs: Patterns, Determinants and Dynamics over Time

In a one-year research project guided, inter alia, by EIF's Research & Market Analysis and financed under the EIB Institute's "STAREBEI" (Stages de Recherche BEI) programme, researchers from the University of Trier looked into the patterns, determinants and dynamics of European SME financing.

Using new data, i.e. the 2015 wave of the EC/ECB Survey of the Access to Finance of Enterprises (SAFE), the project replicated previous research by Moritz (2015) and Moritz et al. (2015, 2016), which had been based on SAFE data from 2013. This approach aimed at investigating the cluster stability over time. By developing an empirical taxonomy of SME financing patterns in Europe using cluster analyses, the project results confirm the findings by Moritz (2015) and Moritz et al. (2015, 2016) and show that European SME financing is not homogenous, but that different financing patterns exist. The new cluster analysis identified seven distinct SME financing types, which differ in the use of financing instruments: mixed-financed SMEs with a focus on other loans, mixed-financed SMEs with a focus on retained earnings and sale of assets, state-subsidised SMEs, debt-financed SMEs, trade-financed SMEs, asset-based-financed SMEs, and internally-financed SMEs. Moreover, the SME financing types can be profiled according to their firm-, product-, industry-, and country-specific characteristics.

A part of the project consisted of a deeper analysis of the financing of micro-firms in Europe and the difference of micro-firms financing patterns to other SMEs. The cluster and regression analyses reveal that, regardless of age, firm size significantly affects the probability of using specific financing instruments. In particular, micro firms are more likely than small firms to be internally-financed and less likely to fall into the state-subsidised cluster, suggesting, inter alia, that micro firms appear to have difficulties to receive grants or subsidised loans.

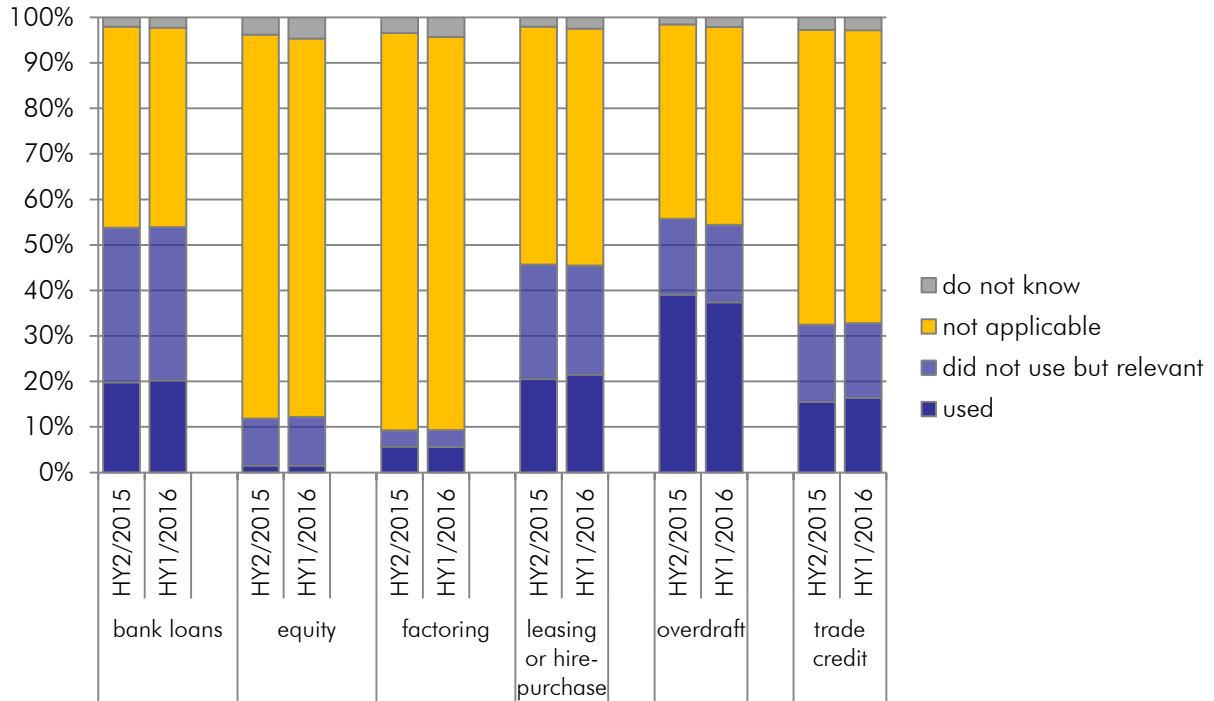
The detailed project results, which can support policymakers in assessing the impact of changes to SME financing policy measures, will be published in the EIF Working Paper series in 2017.

Source: Block and Masiak (2016)

Figure 18 provides some deeper insight in the availability of bank loans specifically. SMEs reported that the availability of bank loans for Euro Area SMEs continued to improve: during the first semester of 2016, 10.6% (net balance) of Euro Area SMEs reported they experienced an increased availability, a minor improvement compared to the second semester of 2015.

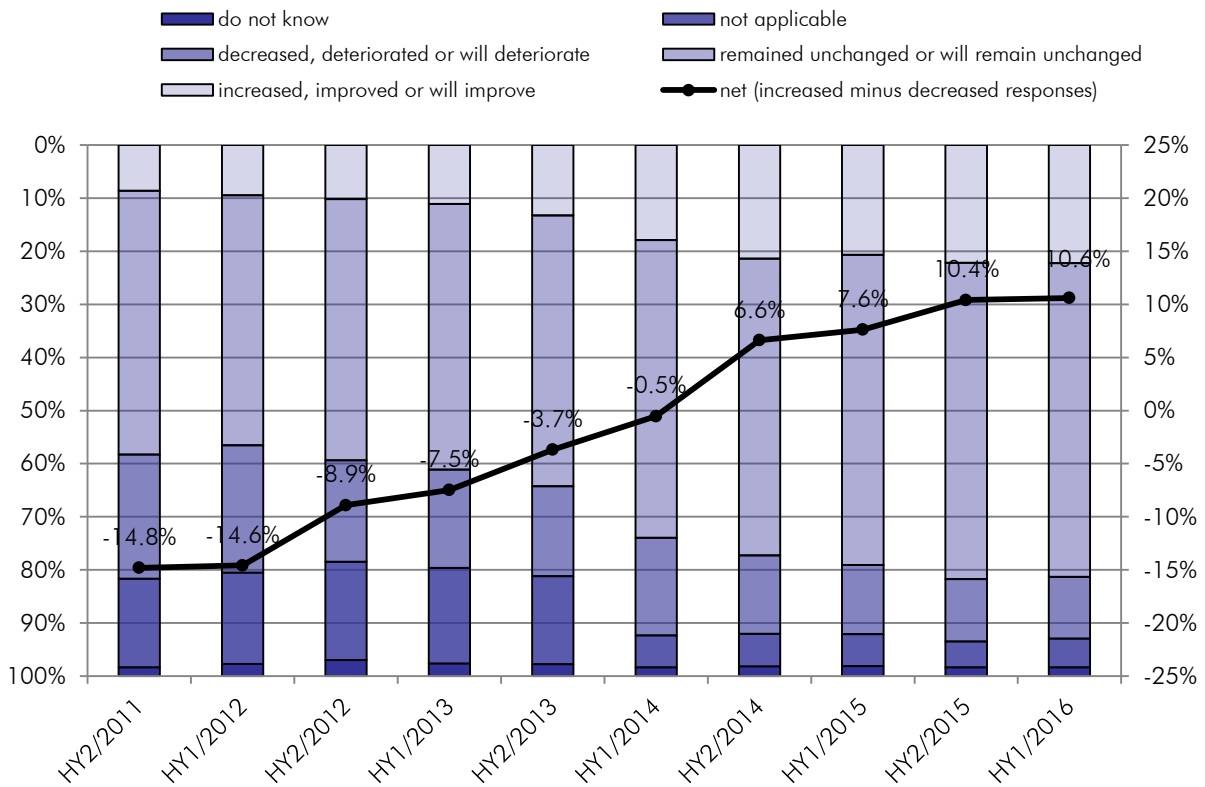
Overall, the outlook about the general economic environment has deteriorated slightly since the publication of the previous European Small Business Financing Outlook in June 2016. While monetary policy continues to be effective in driving down borrowing costs to in NFCs, lending volumes (and corresponding investments) are still lagging. In addition, aggregate European financing cost measures continue to mask large country-level disparities, in particular for small loans, evidences differences in underlying market conditions, such as disparities in competition on the market for small bank loans. The most recent waves of the ECB's BLS and SAFE survey brought to light mixed signals: SMEs' access to finance has continued to improve for most countries, but at the same time banks' credit standards for SME lending have again started to tighten during the final quarter of 2016. SMEs report lack of public support to have negatively impacted access to finance.

Figure 17: Sources of external financing of Euro Area SMEs



Source: ECB SAFE (ECB, 2016a)

Figure 18: Change in the availability of bank loans for Euro Area SMEs



Source: ECB SAFE (ECB, 2016a)

4 Private equity

4.1 Investment activity

4.1.1 Private equity funds

Box 4: Introductory information on Invest Europe data

In this chapter, numbers, diagrams and statements are to a large extent built on statistics from Invest Europe (formerly EVCA, the European Private Equity & Venture Capital Association), and we would like to thank our colleagues from the Invest Europe research team for their support.

Please do also note that Invest Europe private equity (PE) statistics do not include infrastructure funds, real estate funds, distressed debt funds, primary funds-of-funds, secondary funds-of-funds and PE/VC-type activities that are not conducted by PE funds. Further, activities of business angels and hedge funds as well as corporate acquisitions outside of dedicated corporate venture programmes are not included in the statistics. Invest Europe statistics can differ from the numbers reported by other data providers for the reasons just mentioned and due to, e.g., differences in methodology, definitions and interpretations of the PE fund and investment stages and geographical definitions (e.g. of “Europe”).

Invest Europe activity statistics are based on the PEREP_Analytics database, which monitors a total of 2,029 eligible PE firms representing EUR 564bn of capital under management, as of 31.12.2015. For 2015 the database recorded 1,200 PE firms, covering 91% of the total capital under management in Europe, that were active in fundraising, investments or divestments in Europe.

Due to on-going changes in the data collection process, which will further improve the statistics on European PE, final Invest Europe data for 2016 is not yet available. For fundraising, we were able to use statistics that we received from Invest Europe in November 2016. Please note that these data are preliminary and subject to change.

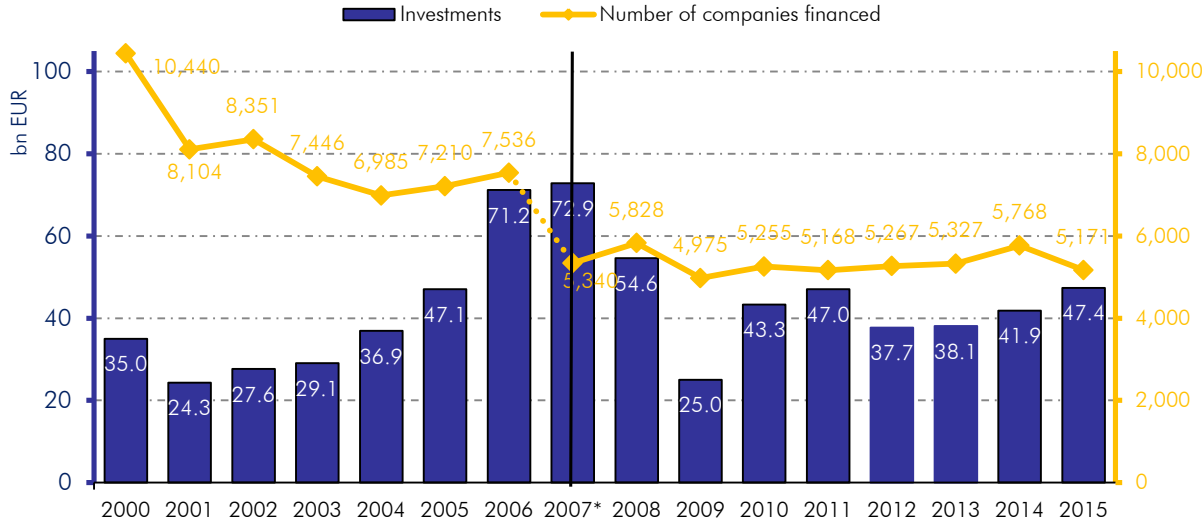
See, also for more details, Invest Europe (2016a) and the Invest Europe website (www.investeurope.eu).

Following the severe crash of European private equity (PE) investment in 2008/2009, it had partially rebounded over 2010-2011. Following a setback in 2012, the recovery continued in 2013 and 2014, albeit at lower levels. In 2015, investments by PE funds located in Europe increased by 13%, compared to the year before, to EUR 47.4bn, according to Invest Europe data (see Figure 21; for more information on the Invest Europe data, see Box 4). In contrast, the number of companies financed decreased by 10% to 5,171 in 2015. Invest Europe statistics for PE investments in 2016 are not yet available.

In 2015, in terms of amounts invested, strong positive growth rates were recorded in the buyout (+15% to EUR 36.5bn) and growth capital (+11% to EUR 6.1bn) segments of the PE market. Venture Capital (VC) investments increased by 11% to EUR 4.0bn.

Within the VC market segment, investments with a focus on the start-up (+9% to EUR 2.1bn) and later stage (+11% to EUR 1.8bn) increased, but also seed investments²⁷ recorded a strong upswing (+26% to EUR 0.13bn); see Figure 20.

Figure 19: Investment activity by private equity firms located in Europe²⁸



*Invest Europe changed the data provider with effect from 2007 on. Since then, the activity statistics are based on data from PEREP Analytics.

Source: Authors, based on data from Invest Europe.

These developments were at least partially driven by the improved general economic situation and very favourable monetary and credit conditions, from which private equity – and in particular the buyout sector being the biggest segment of the market – has benefited.

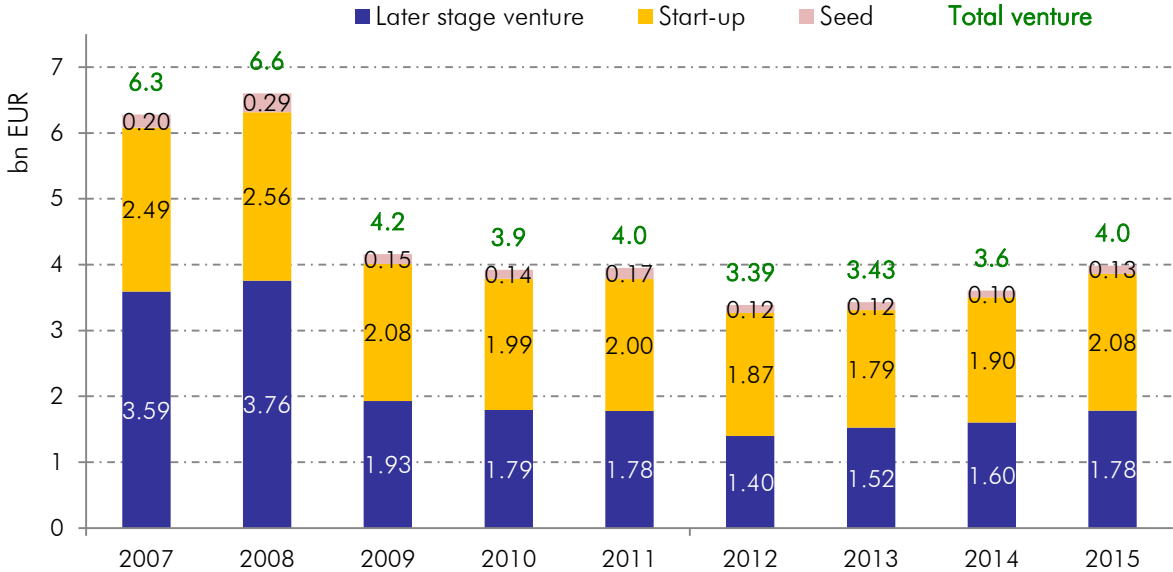
(Please note that the investment activities of Business Angels are not included in the Invest Europe statistics, see Box 4. As business angel financing is important for the financing of SMEs and innovation, we present more information in Chapter 4.1.2).

Due to ongoing changes in the data collection process, Invest Europe statistics for investments in 2016 are not yet available. According to information presented in Slush & Atomico (2016), capital invested in the European technology sectors in the first three quarters of 2016 was 7% higher than in Q1-3/2015. However, following a very strong first quarter, the invested amounts and the number of deals declined in the course of 2016. Please note that these data can differ from Invest Europe statistics (see Box 4 above for further explanation).

²⁷ With regard to seed investments, equity investments in Technology Transfer (TT) activities can contribute to reducing early-stage (pre-seed, seed and post-seed) funding gaps and sustain viable TT structures while generating over time financial returns for investors (EIF, 2016). TT activities encourage collaboration between research organisations and industry, the licensing of intellectual property rights, and the creation of start-up businesses and university spin-out companies. As a part of its TT activities, EIF supports business incubators. In the context of a cooperation with the University of Trier, EIF also contributed to a recent research project on incubator business models in Europe; an overview is provided in a previous ESBFO issue (see Kraemer-Eis, Lang, Torfs and Gvetadze, 2015b).

²⁸ The Invest Europe figures mentioned in this chapter show investment activity by PE firms located in Europe (“industry approach” or “office approach”). All investment figures are equity value, i.e. excluding leverage.

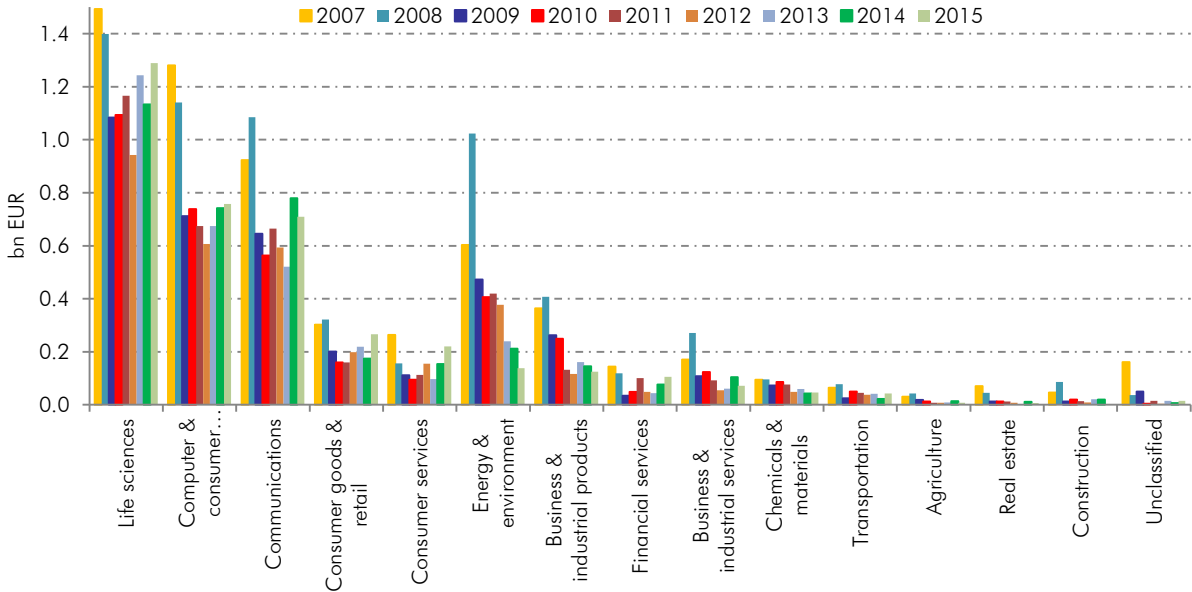
Figure 20: Venture Capital investment activity evolution in Europe



Source: Authors, based on data from Invest Europe.

Recent developments in venture investment by sector are shown in Figure 21. In the Invest Europe statistics, the relative importance of sectors shows certain stability over time: life sciences, computer/consumer electronics and communications remained by far the most relevant industries for venture investment. The share of life science in total VC investment activity even increased from 25% in 2007 to 34% in 2015.

Figure 21: Venture investment in Europe by sector, 2007-2015²⁹



Source: Authors, based on data from Invest Europe

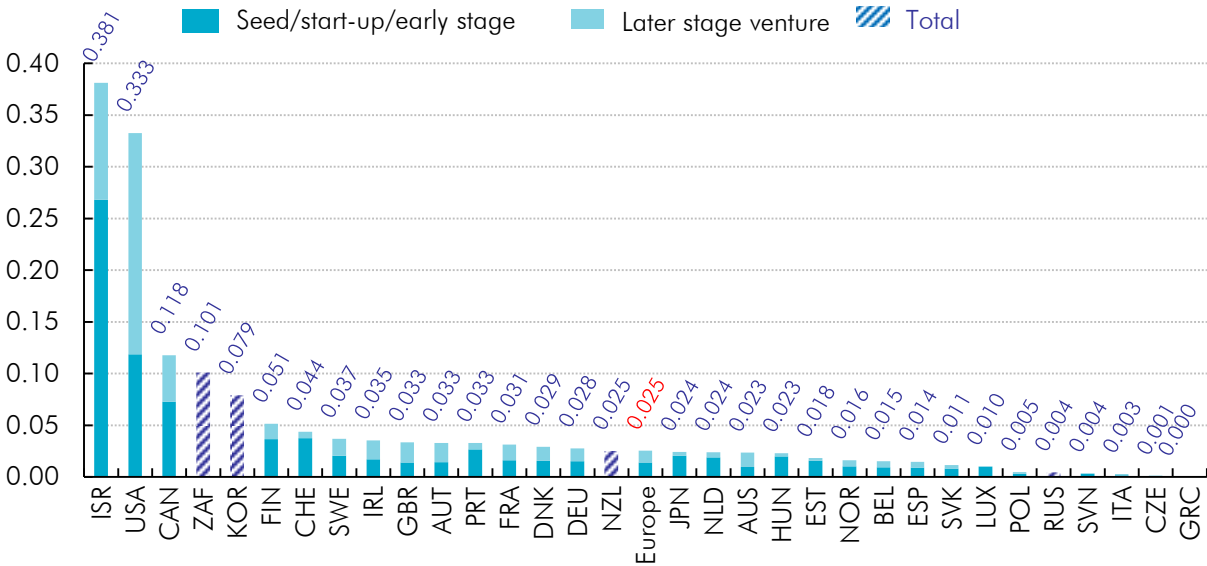
²⁹ This diagram and the related text are based on market approach (i.e. by country of portfolio company), due to data availability.

However, in particular the developments in the IT sphere have had a substantial impact on structural developments in the VC market. See Chapter 4.5.2 for a more detailed elaboration. Moreover, according to Invest Europe, market participants have observed more and more growth stage investments as follow-on investments in venture backed companies, which mean additional contributions from the PE industry that are not shown in VC investment statistics, but contribute to the growth stage investment statistics. In 2015 about EUR 1.1bn in growth stage investments was received by venture-backed companies, according to Invest Europe.³⁰

The geographical fragmentation of the European VC market

The European VC market has remained fragmented and is geographically far less homogenous than its US counterpart. Whilst the core markets in Europe (UK, France, Scandinavia and to some extent and in some sectors Germany) have seen some recovery since 2008, other countries continue to struggle with the size of their domestic VC market which is in no relation to their share in the aggregate GDP of the EU; Figure 22 provides an overview of VC investments as a share of GDP for OECD countries as well as a European average. Sizable differences in the development of the VC markets prevail, especially in the peripheral parts of the EU where markets not only suffer from subcritical size but equally from EU’s very fragmented institutional investor base.

Figure 22: Venture capital investments, % of GDP*



*2015, or latest available year

Source: OECD (2016a), Invest Europe.³¹

³⁰ As most of the data shown in this chapter, this number is based on statistics following the “industry approach” (or “office approach”), i.e. investment activity by PE firms located in Europe. Growth-stage follow-on investments in venture backed companies as per the “market approach” (i.e. investments by PE firms from inside and outside Europe in portfolio companies that are located in Europe) amounted to EUR 1.5bn in 2015.

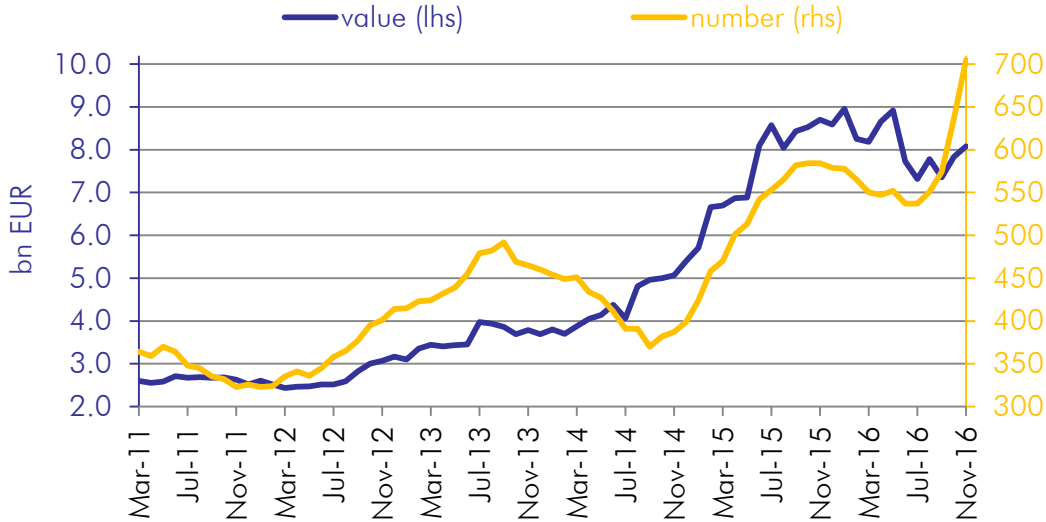
³¹ Source for Europe: Invest Europe. Europe = European average; Europe as covered by Invest Europe (i.e. EU minus Cyprus and Malta, but plus Norway, Switzerland, Ukraine, and those Ex-Yugoslavian countries that are not part of the EU).

However, when looking into the geographic dispersion of European VC activity in more detail, the picture becomes more complex. It seems that VC investors tend to target tech “hubs” rather than certain regions, based on the expertise developed in those hubs. Recent EIF research has shown that European hubs, and in particular those backed by EIF investments, act as the beating heart of a complex network of national and international investments. This claim is supported by data on investment amounts originated by hubs: 23% of these remains in the hub, 40% reaches out to other in-country locations and the remaining 37% travels beyond the national frontier (Kraemer-Eis, Signore and Prencipe, 2016). Since higher cross-border investments can be interpreted as signal of deeper integration of the European VC market, EIF may hold a vantage point in fostering the consolidation of a European-wide VC ecosystem.

Recent trends

Looking ahead, the challenges for a continuation of the recent recovery have increased in the course of 2016. Go4Venture Advisers’ early indicator, the European Tech Headline Transactions Index³², recorded, on average, only a sluggish sideward movement in the total value of investment deals since more than a year. In contrast, the number of deals has increased since summer (see Figure 23, which shows the index development on a 12-month rolling-horizon basis), accompanied by a moderate decline in the 12-month rolling-horizon average deal value.

Figure 23: European tech headline investment transactions (12-month rolling horizon)³³



Source: Authors’ calculations, based on Go4Venture Advisers data.

³² Go4Venture’s European Tech Headline Transactions Index “is a derivative index” which is “compiled [...] based on the deals reported in major trade publications and news feeds [...] as an early indicator of evolutions in the private investments market for European TMT companies. [...] TMT is defined to include Technology, including IT and Life Sciences (except drug discovery); Media, including Internet & Digital Media; Telecom Services (alternative operators only)”. For this and more information on definition and methodology see www.go4venture.com/

³³ In the two lines in the diagram, each data point shows the sum of the total value of deals (blue line) and the sum of the total number of deals (yellow line) observed in the month to which the respective data point is related and over the 11 months prior to that data point. For example, in July 2013, the total value of deals observed during the period from August 2012 to July 2013 amounted to EUR 4.1bn, and a total number of 480 deals were observed during the same period.

4.1.2 Business angels

As already mentioned, the Invest Europe activity data cover fundraising, investment and divestment from PE and VC firms in Europe. Certain segments outside the definition that Invest Europe applies for the collection of its activity statistics are not covered, e.g. business angels' activities. However, business angel financing has gained importance in recent years.

Business Angels (BAs) represent an important class of private equity investors, primarily consisting of high-net-worth individuals, usually with business or managerial experience. According to a recent study by Slush & Atomico (2016), 22% of all tech-related business founders invest as angels, with repeat entrepreneurs more active than first-time founders. BAs tend to invest their own money, either individually or in formal or informal syndicates, in businesses which are not publicly traded. (See, also for a general description of BA financing, Kraemer-Eis and Schillo, 2011; OECD, 2016b; OECD, 2011; BAND, 2016.)

BAs differ from VC funds, which primarily invest third parties' funds (e.g. institutional investors'). Angel-financed companies are typically in earlier stages of their development and the holding periods of BA investments are typically shorter than the corresponding periods in VC funds (Kraemer-Eis and Schillo, 2011). BAs' transaction costs are relatively low, which allows them to invest on a lower scale. They are geographically more dispersed than VCs and often invest in local markets. Moreover, BAs tend to be very 'hands-on' investors, providing also services beyond financing (e.g. mentoring, business advice and access to networks), hence they can play a central role in the start-up ecosystem, in particular for innovative firms (OECD, 2016b). According to several studies, BAs have a positive impact on the growth of the firms they invest in, their performance, and survival (Lerner et al., 2015; OECD, 2016b). The success of the investees seems to be strongly based on the services beyond financing that BAs provide (Kerr et al., 2011). There is evidence that BAs are relatively resilient to changing market cycles (OECD, 2016b), and angel investments in early-stage high-growth companies tended to increase during the crisis, as VC funds migrated to less risky later-stage investments (Kraemer-Eis, Lang and Gvetadze, 2013).

An increasing majority of BAs co-invest with other early stage investors in order to diversify risks (OECD, 2016b) and/or to improve their skillset and experience (Capizzi, 2015). Moreover, vehicles like crowdfunding platforms are used more often by BAs – in particular by younger and less experienced ones – as tools to find investment opportunities, thereby allowing them to make investments in a wider geographical area (OECD, 2016b).

However, there are difficulties in measuring the size of the business angel community, the main ones being identification and definition. BAs often stay anonymous and the details on their investments are rarely disclosed. Further, nothing can prevent an individual from identifying oneself as a 'virgin' angel, although he/she may have never actually invested. Others may have occasionally acted as angels, but are no longer looking for investment opportunities. Moreover, the so called "invisible market" makes a precise estimation of the angel market difficult. There are studies that the invisible part of the market is up to seven times greater than the visible part (CSES, 2012), while others estimate even a multiplier of around ten (EBAN, 2014, 2016). Such difficulties must be borne in mind when describing the market.

Currently there is no robust and consistent data available on the Business Angel market in Europe; published data is typically imprecise and can only be used as indication or very rough estimate. For the visible market segment, data is collected by angel associations from angel groups and networks. In the following, we use these statistics, as currently no better information is available. However, it is important to note the shortcomings of these statistics, which we take from the related EBAN disclaimer that we show in Box 5. Information on the state of angel investing in different European countries can also be found in BAE (2015).

Box 5: Introductory information on EBAN data

Due to its nature, the early stage investment market and especially the BA segment is difficult to quantify. An important part of the total investments is informal and not publicly reported. The estimate of the percentage of the invisible market is based on a study commissioned by European Commission to CSES about the Business Angels market in Europe. In some countries, the deals done through the 'visible market' (BANs, Federations) are not published, so in some cases the estimates may not correspond to the exact amounts invested by BAs. However, EBAN matched information from different sources, to validate the estimates for each particular market in order to have a higher degree of confidence on the data that is published.

Knowing the underlying limitations, the main objective of the EBAN statistics is to provide a better understanding of the European early stage market. The EBAN publication comprises information collected through direct surveys from BA networks, national federations and other early stage investors.

Source: EBAN (2016).

At a European level, the European Business Angel Network (EBAN), reported an increase in BA investment by 5%, compared to the year before, to EUR 6.1bn in Europe in 2015 (EBAN, 2016). However, this number is based on the assumption that the visible market, for which EBAN reports investments of EUR 607m, represents 10% of the whole market. The number of BAs is estimated at 310k (comprising 30k angels organised in networks and an estimated 280k "invisible" BAs), which represents an increase by 7% compared to 2014. While the market has been growing in terms of total amount invested as well as number of BAs, the number of deals decreased, which could be due to increased BA co-investment funds and syndication among angels. The number of BA networks (BANs) in Europe has been relatively stable at around 470 over the past three years. However, compared to 2003 the number increased by 17%.

Most of the BA activity within the EU is happening in the UK, Spain, Germany, France and Finland. When compared to GDP, total BA investment amounts are relatively high in Estonia, Finland and Portugal. In 2015, only 6% of BA deals targeted companies outside their home country; in some countries BA co-investment funds, tax break or grant schemes do not support or not even allow investment abroad (EBAN, 2016).

The average amount invested by a single BA per company increased by 6% to EUR 184k in 2015. This is well in line with the results of other studies (e.g. CSES (2012)), which estimated that BAs provided on average around EUR 100k to 200k per deal. According to EBAN (2016), investments per individual angel vary between EUR 9k and EUR 100k; the average investment per BA has remained relatively stable at EUR 20.0k in 2015 (EBAN, 2016).

ICT has continued to be by far the most attractive target sector for BA deals, both in terms of investment amounts (with a share of 22% of the total investment amount) and number of deals (37%), followed by mobile (13% of total amount, 7% of deals), biotech/life sciences (11%, 9%) and finance/business services (10%, 6%). Early stage and start-up phase companies have received the largest share of BA investments (40%), but also seed investments (32%) account for a considerable part of the market.

While co-investments with other BAs are still the most common deal form, the relevance of investments alongside early-stage funds has increased in the recent past. In some countries, governments created such funds with favourable terms for BAs' co-investment, inter alia supported by the European Angel Fund, an initiative advised by the EIF, which provides equity to BAs and other non-institutional investors for financing innovative companies in the form of co-investments.³⁴ Syndication among angels has also increased, inter alia due to co-investment schemes, in which the threshold amounts are relatively high for a single BA (EBAN, 2016).

As explained, the invisible part of the market is dominant – therefore, data availability for general statements is limited. However, it can be assumed that BAs behaviour did not move in the same direction like bank lending or venture capital supply during the crisis. Mason and Harrison (2013), e.g., showed for the UK that angel investment activity has held up since the onset of the crisis and they emphasise the economic significance of this market segment. Moreover, they underline the need for ongoing government support. Recent findings by Hellmann, Schure and Vo (2015) also suggest that public support for start-up financing should go beyond an exclusive support of (formal) venture capital, because additional policy measures for angel investors “would reach a different set of entrepreneurial companies that develop outside of the reach of venture capitalists”. Hence, “the central role of BAs is increasingly recognised by policy makers [...], and initiatives to support angel activities have expanded in recent years as part of a broader shift towards policies that aim to make equity-type instruments more widely available for start-ups and SMEs” (OECD, 2015a). According to the OECD (2016b), public-private co-investment schemes are able to catalyse the private market, “but only if the existing angel market is sufficiently well developed, so that a sufficient number of investor-ready deals can be financed and the government does not have to be overly engaged in matching supply and demand for early-stage equity”.

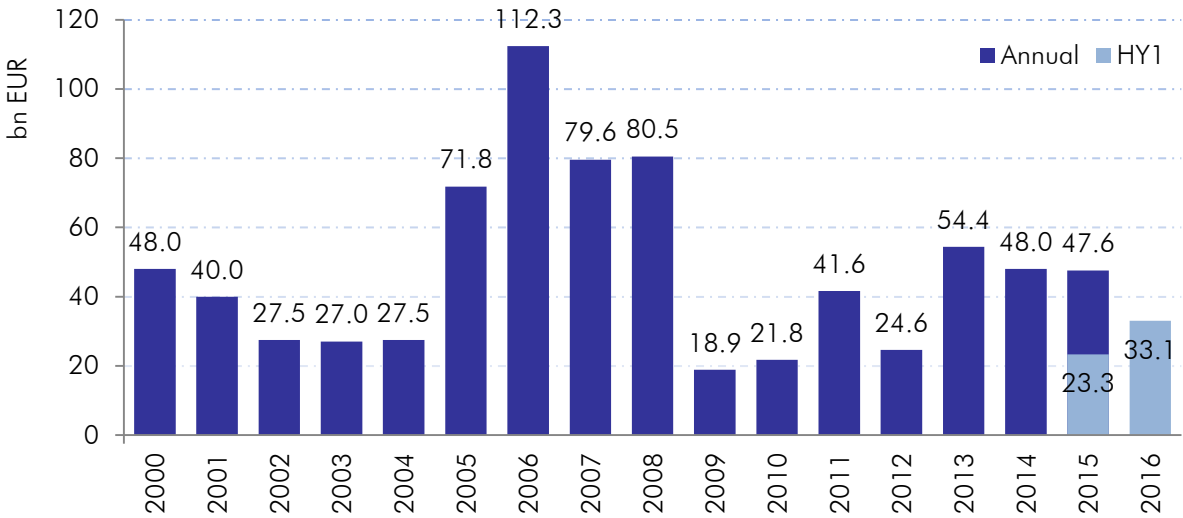
4.2 Fundraising activity

In 2015, total funds raised by PE firms located in Europe slightly decreased by 1% to EUR 47.6bn, compared to the year before and according to Invest Europe data (see Figure 24).³⁵ However, the numbers were well above the levels of the crisis years 2009-2012.

³⁴ See www.eif.org/eaf for more information about the EAF.

³⁵ Figures show fundraising activity (incremental amounts raised during the year) by private equity firms located in Europe (“industry approach” or “office approach”), except where otherwise stated.

Figure 24: Funds raised by private equity funds located in Europe (incremental amounts raised during year)

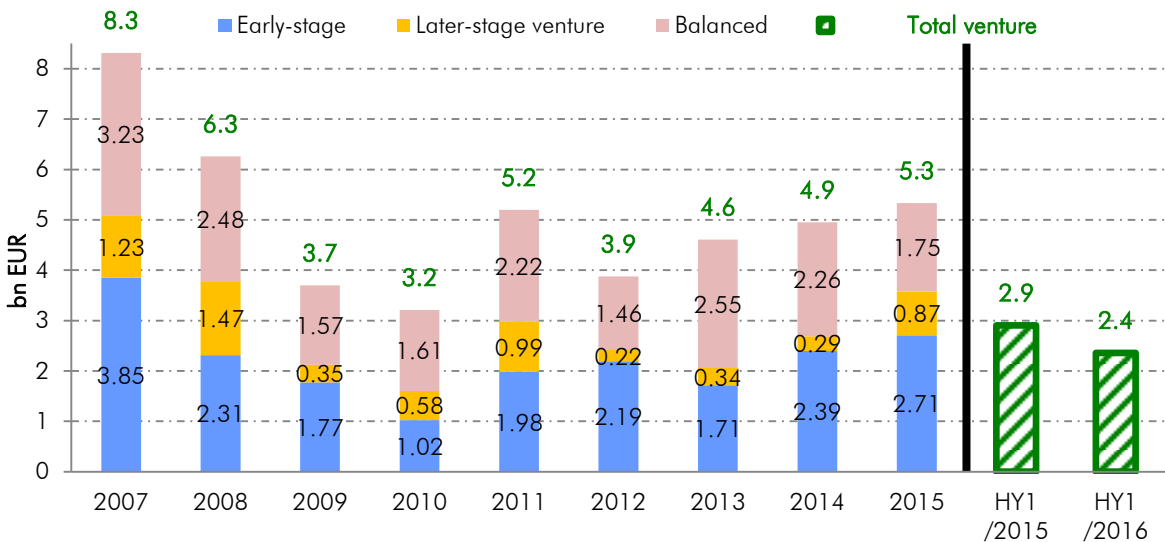


Invest Europe changed the data provider with effect from 2007 on. Since then, Invest Europe PE activity statistics are based on data from PEREP Analytics.

Source: Authors, based on data from Invest Europe

In the first half-year of 2016, total PE fundraising was at EUR 33.1bn, according to preliminary³⁶ Invest Europe data. This constitutes an increase by 36% compared to the second half-year of 2016, and a 42% increase compared to the first two quarters of 2015. Moreover, it is the highest value recorded for a half-year since 2008.

Figure 25: Funds raised by VC funds located in Europe (incremental amounts raised during year)



Source: Authors, based on data from Invest Europe

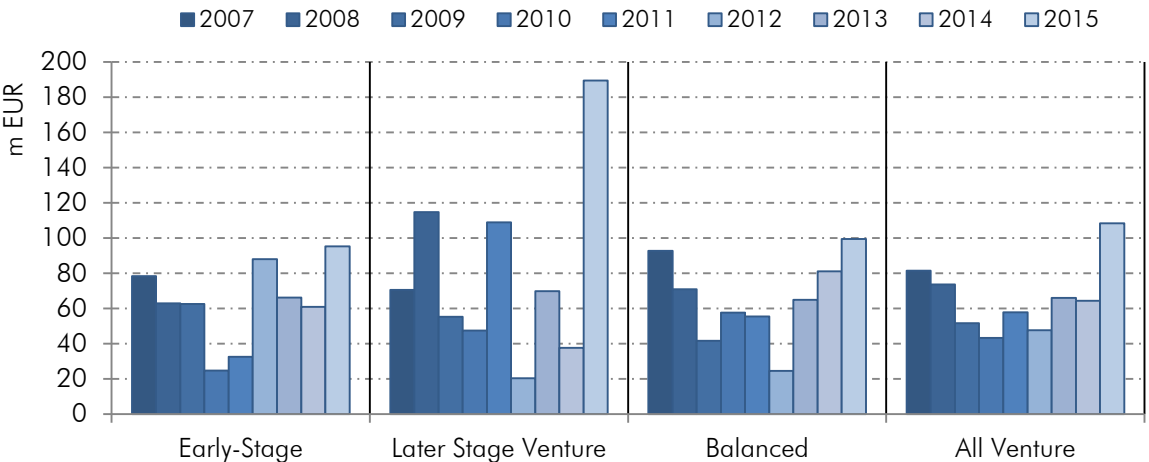
³⁶ Invest Europe data as of November 2016. Please note that these data are preliminary and subject to change. See Box 4 for more information.

In the venture capital segment, fundraising increased by 8% to EUR 5.3bn in 2015 (see Figure 25). This was the highest amount since the start of the crisis in 2008. While funds with a focus on early stage (+13% to EUR 2.7bn) and later stage venture (+195% to EUR 0.9bn) raised remarkably higher volumes, less funds were invested under a balanced stage focus (-22% to EUR 1.8bn).

In the first half of 2016, total VC fundraising was at EUR 2.4bn. This is almost the same level as in the previous half-year, but 19% lower than in the first two quarters of 2015.

In 2015, the average VC fund size has substantially increased to EUR 119m (see Figure 26). This is the highest level ever reached in the Invest Europe statistics, which started to record VC fund sizes in 2007; moreover, this statement is true for all three reported stage foci. The number of funds decreased from 50 in 2014 to 40 in 2015. This was driven by a decline in the number of smaller funds with a size of less than EUR 50m, which fell from 31 to 15, while the number of funds with a larger size increased from 19 to 25 (Slush & Atomico, 2016, based on Invest Europe data). Given the evidence in previous studies, which indicated that small fund size was one of the reasons for poor European VC performance (Kelly, 2011), the current finding might mean positive news.

Figure 26: Average VC fund size³⁷ (based on final closings, cumulative amounts raised since inception)



Source: Authors, based on data from Invest Europe

However, EIF internal analysis suggests that larger funds are often managed by teams that previously had smaller funds that performed well. Thus, the size would be a consequence rather than a cause. Larger fund size would be a sign of more successful GPs and more careful due diligence by LPs, which may indicate that achieving a larger fund size is associated with a certain market validation. Helping promising teams in demonstrating their investment skills and getting market validation in a smaller first time fund (as long as the fund size is not inefficiently small) is consequently a way to help with the next fundraising of such manager, and hence the VC ecosystem.

³⁷ The results for 2015 are based on 40 final VC fund closings (22 funds with an early-stage focus, 5 funds with a later stage focus and 13 funds with a balanced stage focus).

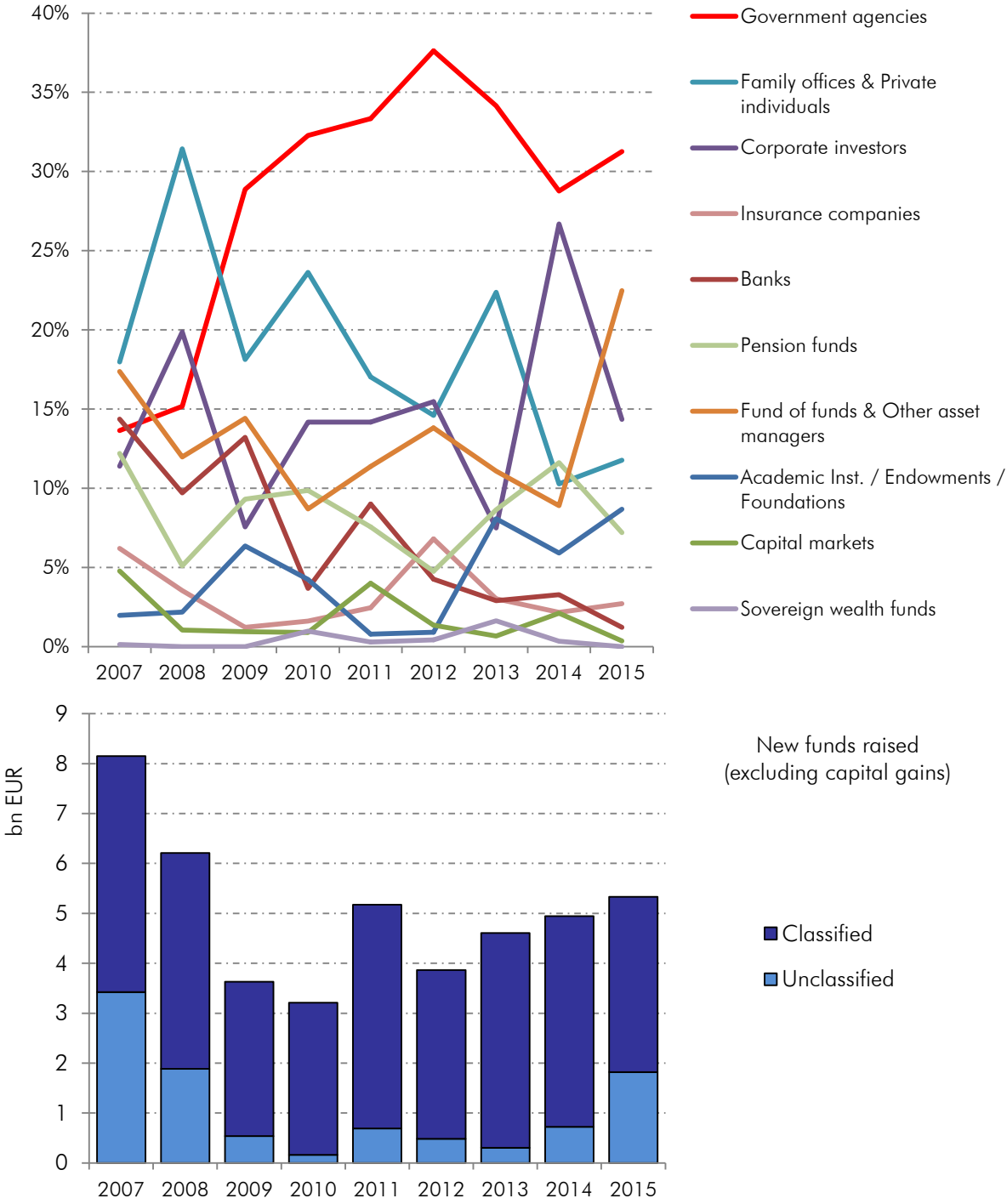
A sign of investors' cautious sentiment for VC as a consequence of the crisis has been the shift in the investor base, which went on during the past years (see Figure 27). According to Invest Europe figures, government agencies accounted for 31% of total investors into VC funds in 2015. However, even if the importance of government agencies is still unsatisfyingly high for the long term, it is noteworthy that government agencies continue to play their role and support the market in a counter-cyclical way, in particular in the times of an economic and financial crisis when total VC fundraising levels came down from EUR 8.3bn in 2007 to EUR 3.2bn in 2010 and EUR 3.9bn in 2012, respectively. This led almost "naturally" to an increased share of government agency fund investors. Since then, the government share decreased from its high at 38% in 2012 to 29% in 2014. It remains to be seen if the increase reported for 2015 will be confirmed in later issues of the Invest Europe statistics, i.e. when the relatively high share (34%) of yet unclassified fund investors will be more properly identified. Moreover, statistics for 2016 are not yet available.

Theoretical evidence and EIF's own research suggests that public VC support is relatively well targeted and achieving positive effects in Europe. In a study of investment patterns of different VC investor types, Bertoni, Colombo and Quas (2015) find that governmental VC (GVC) investors in Europe specialise in investments that do not attract private investors due to high information asymmetries and high failure risk, i.e. in particular in young, small seed-stage companies, and in certain sectors such as biotechnology and pharmaceuticals, in which time to market are long and new product development is very costly. This indicates that "in Europe, GVC has filled the entrepreneurial financing gap left by private VC investors".

In order to put EIF's activity in context, some calculations can be taken into account that were performed for a recent EIF Working Paper by Kraemer-Eis, Signore and Prencipe (2016), which shed more light on the impact of EIF on the VC ecosystem. The authors estimate, inter alia, that the VC investment activity backed by EIF represented 41% of total VC investments in Europe in 2014 (29% in 2007). The share directly attributable to EIF amounts to 10% (5% in 2007), which hints to the significant leverage that characterises EIF-backed investments. With regard to fundraising, the authors estimate that volumes backed by EIF in 2014 amount to 45% of the overall volumes collected by European VC investors (36% in 2007), against a share directly attributable to EIF totalling 12% (5% in 2007). More information can be found in Kraemer-Eis, Signore and Prencipe (2016); a longer summary is provided in the previous ESBFO edition (Kraemer-Eis, Lang, Torfs and Gvetadze, 2016). In addition, we give an overview of the growth patterns of EIF-backed start-ups in Box 6, further below).

Moreover, EIF is supporting an increasing number of first-time teams, and many VC funds in which EIF invested successfully managed to close with their full target size. It is also important to see that many of the more established VC funds being the pillars of Europe's VC market today would not be there without having been kick-started by EIF. This clearly indicates EIF's catalytic role for European VC, rather than a crowding-out effect. This view was confirmed in an Unquote Intelligence (2014) survey among General Partners (GPs) and Limited Partners (LPs), which found that "the overriding benefit of [public funding bodies'] (PFB) money is the crucial role it plays in attracting other investors". Moreover, "[h]aving PFB money in a fund does not deter other LPs from committing".

Figure 27: Investor base: Share of government agencies in VC fundraising³⁸



Source: Authors, based on data from Invest Europe

³⁸ Based on incremental amounts raised during year (in contrast to final closings only).

Box 6: Growth patterns of EIF-backed start-ups³⁹

Start-up growth is often treated as a stylised fact. However, in the literature we often find a lack of consensus with regards to the directions of firm growth and most importantly the drivers of such growth. Against this background, the second volume of the working paper series "The European venture capital landscape: an EIF perspective" addresses the theme of firm growth by analysing a hand-collected dataset of 2,951 EIF-backed start-ups. The analysis leverages on data collected from Bureau Van Dijk's Orbis database, addressing missing data concerns through the use of a robust re-weighting methodology. The aim of the paper is to establish a taxonomy of start-ups according to their growth trends. Using a wide range of descriptive statistics, the first part of the work documents the remarkable growth of EIF-backed start-ups, both on average and median terms. Average values of EIF-backed start-ups increase at least twofold for number of employees and total assets by the fourth year after investment date. Several profitability ratios indicate positive trajectories within a 7-year growth horizon. The second part of the work carries a cluster analysis that combines five different measures of firm medium-term development. Four main growth profiles are identified: a) under-performers, representing almost 13% of the portfolio, b) moderate performers, constituting 55% of all investees, and two types of out-performers. These are c) sale-based growers and d) patent-based growers, representing 12% and 20% of the portfolio respectively. Growth profiles tend to be persistent over time. In the first 7 years after investment, it is more likely that start-ups hold on to their profile than transition to another. The work presents numerous policy implications: on the one hand, it discusses the defining traits that compose the "genetic code" of EIF-backed – and possibly, *non* EIF-backed – European start-ups. On the other hand, it identifies and discusses a number of profiles of growth. Overall, the findings highlight the potential for EIF-backed VC start-ups to significantly contribute to the economic development and job creation across several regions of Europe.

Source: Signore (2016)

4.3 Divestment activity

Over the past years, the exit markets have shown remarkable strength. In 2013 and 2014, Invest Europe statistics had already recorded the highest PE divestment amounts ever. In 2015, total divestments by PE firms located in Europe recorded another increase, i.e. by 3% to EUR 41.0bn (see Figure 28).⁴⁰

Total divestments of portfolio companies based in Europe increased by 5% in 2015. That rise was mainly due to higher activity in the growth (increase by EUR 0.9bn, meaning +39%, to EUR 3.2bn) and buyout (+EUR 0.8bn, +2%, to EUR 34.3bn) capital segments of the market, but also divestments in the venture segment increased (+EUR 0.2bn, +10%, to EUR 2.1bn).⁴¹

A closer look at the details of the Invest Europe divestment statistics shows the remarkable strength of the exit markets in the recent past. As regards overall PE, the relative importance of write-offs continuously decreased since 2010, except for a slight increase in 2013 (see Figure 29). Trade sales and sales to another PE house together account for more than half of the total divestments

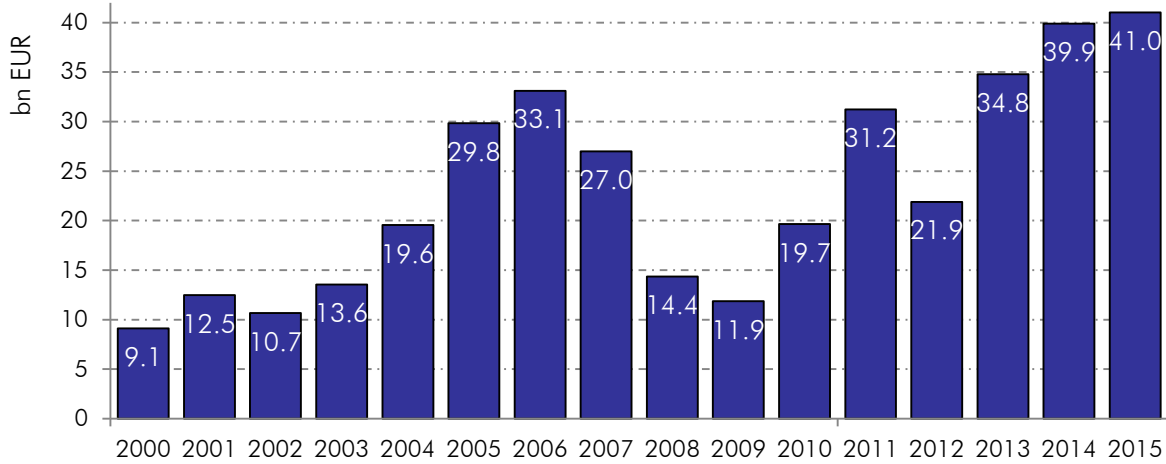
³⁹ This text box was contributed by Simone Signore.

⁴⁰ Invest Europe statistics show divestment amounts at cost, i.e. the total amount divested is shown as the total amount that had been previously invested, hence not including any profit on the investment.

⁴¹ The numbers for VC, buyout and growth divestments do not sum up to total PE divestments, as total PE divestments additionally include the rescue/turnaround and replacement capital market segments.

amounts. Moreover, the share of public offerings considerably increased to more than a quarter of all divestments in 2015, due to significantly stronger sales of quoted equity. In the VC market, the relative importance of write-offs decreased only slightly, while trade sales and sales to a financial institution increased.

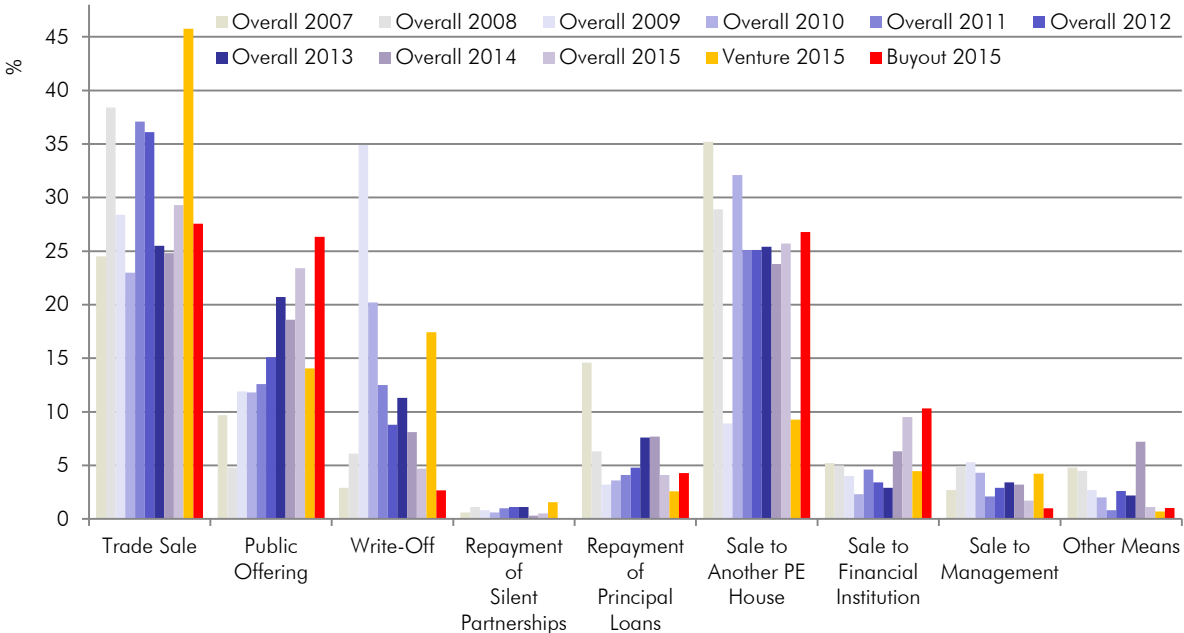
Figure 28: Divestments (by amount at cost divested) by private equity firms located in Europe



Invest Europe changed the data provider with effect from 2007 on. Since then, Invest Europe PE activity statistics are based on data from PEREP Analytics.

Source: Authors, based on data from Invest Europe

Figure 29: Divestment routes (shares)⁴²



Source: Authors, based on data from Invest Europe

⁴² Based on amounts at cost divested; industry/office approach (i.e. divestments by funds located in Europe). "Overall" figures are not the weighted average of the "buyout" and "venture" figures, as "overall" figures additionally include the growth, rescue/turnaround and replacement capital market segments. In the Invest Europe data, the category "Public Offerings" includes divestment on flotation (IPOs) and sale of quoted equity.

Invest Europe statistics for divestments in 2016 are not yet available. Other available information sends rather mixed signals about European exit activity. On the positive side, Slush & Atomico (2016) report a strong increase in the overall M&A exit deal value. However, the number of VC-backed M&A transactions has remained relatively stable (Dow Jones Venturesource, 2016; Slush & Atomico, 2016). Moreover, the number of larger VC-backed tech deals has stayed behind the performance reached in 2015 (Slush & Atomico, 2016). The number of IPOs has decreased in the first three quarters of 2016 compared to Q1-Q3/2015 (Dow Jones Venturesource, 2016, Slush & Atomico, 2016).

Besides that, current EIF insight suggests that the number of “fast” exits on the VC side (less than 2 years holding period) have tended to increase over recent years. This could be explained by fund managers tending to privilege a quick divestment due to current valuations, driven by a positive short term market sentiment, instead of longer term buy and build strategy.

4.4 Lower mid-market and hybrid debt/equity finance: An important market segment

Following EIF’s definition (see EIF, 2016), the lower mid-market (LMM) covers fund strategies targeting equity and mezzanine investments at growth and buyout stages with a particular focus on SMEs and mid-caps. EIF provides its core LMM products (equity, hybrid debt-equity⁴³ and private debt) as alternative sources of long-term finance to established businesses and later stage technology companies. In the current market context, a full range of equity products combined or not with a debt component proved highly successful, particularly for shareholding reorganisation, organic and external growth, restructuring or expansion.

During 2016 the EIF has been observing the continuation of the trend already identified in 2015 insofar as the lower-mid and mezzanine markets are concerned: relatively high levels of confidence in the business climate, higher levels of available liquidity, a growing deal flow and heightened exit activity, effectively confirming the recovery already observed in 2015. As a result, PE funds raised by reputable managers have been reaching, and in a material number exceeding, their fundraising targets. This is despite a backdrop where the overhang of uncertainty driven by the outcome of the Brexit referendum, the US presidential election and the Italian referendum on changes in the constitution did not cease to exist following the result of those suffrages. However, as mentioned in chapters 4.1 and 4.5, the PE market in general and the mid-market in particular continues to be prone to the risk of high valuations and potential overheating, which is caused by the ample liquidity in the markets. Once central banks start withdrawing from their expansionary monetary policy stance and consequently interest rates start to rise, these risks could quickly materialise in terms of impact on the returns for PE investors. The decline in the Argos Mid-Market Index⁴⁴ (–14% in value terms in the 1st quarter 2016 compared to the previous quarter, followed by a sideward movement in the 2nd quarter) could be interpreted as a related sign. According to Epsilon

⁴³ Hybrid debt-equity/mezzanine finance is a diverse asset class in between traditional senior debt and equity instruments. According to the OECD (2014b), “this form of finance has not received as much public attention as venture capital or specialised exchanges for SMEs, but it holds potential to respond to [...] critical problems in SME finance.”

⁴⁴ The Argos Mid-Market Index measures the evolution of euro zone private mid market company valuations. See Epsilon Research (2016c) for more information.

Research (2016a), investors were concerned, inter alia, about the global economic growth perspectives and the potential tightening of the monetary policy by the Fed. In addition, political uncertainty in the period before the Brexit decision might have contributed to a fall in prices paid by trade buyers (Epsilon Research 2016b). However, experienced managers are still able to invest in less visible mid-market companies and to provide added value in order to have them becoming more attractive and sustainable.

In the third quarter, however, the Argos Mid-Market Index bounced back and soared to a record level. According to Epsilon Research (2016c), the underlying increase in company valuations not only reflects a financial and micro-economic environment that has been very favourable to mergers and acquisitions (i.e. historically low interest rates, high treasury levels of companies and PE funds, an active external growth policy of industrial groups, and a need for consolidation in some sectors), but also the recovery in the stock market during that quarter.

4.5 PE prospects

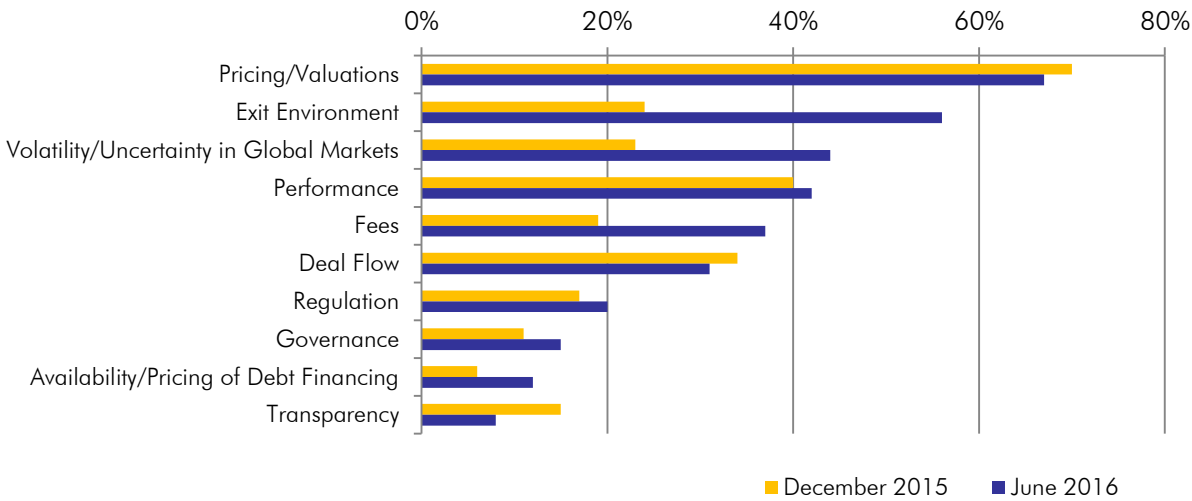
4.5.1 Current situation, risks and market actors' concerns

Following the severe crisis of European private equity and venture capital markets in the years 2008-2009 and beyond, remarkable positive developments have been observed in the recent past, at least in some parts of the markets. However, it remains still an open question if a sustainable longer-term positive trend can become prevalent. While in some cases an improvement in performance has indeed been driven by fundamental economic value, part of the upside performance may also be due to higher demand, as record high amounts of dry powder (Preqin, 2016d) are looking for investments. All this is to be looked at with caution. It is then, however, important to support those companies in their continued growth that have well-developing economic fundamentals, and to also help, through the support of financial intermediaries, additional and complementary businesses to maintain and strengthen the backbone of the European VC market, i.e. a strong and continued supply of new innovative companies. In addition, the VC ecosystem is developing, including the emergence of more and more successful incubators and accelerators. Should these trends continue, the potential returns of early-stage companies would have significantly positive impacts on the performance of VC investing.

The previous favourable developments in the PE/VC market might become even more strongly contested by risks related to the current economic, monetary and political environment. According to a recent Preqin survey⁴⁵, pricing/valuations were still perceived as the biggest challenge investors were facing (Preqin, 2016c). However, while the proportion of investors that raised this concern (67%) was almost the same as in the December 2015 survey (70%), investors were now much more concerned about the exit environment (56%) and the volatility/uncertainty in global markets (44%) than in the previous issue (24% and 23%, respectively); see Figure 30.

⁴⁵ The latest (i.e. June 2016) issue of the "Preqin Investor Outlook: Alternative Assets" is based, inter alia, on a series of interviews with 490 institutional investors from around the world, of which 33% are located in Europe (Preqin, 2016c).

Figure 30: Biggest challenges facing investors seeking to operate an effective PE program



Source: Preqin (2016a, b).⁴⁶

A Preqin survey among fund managers confirmed that pricing/valuations are perceived as the most important challenge that the PE industry will face in the coming months (Preqin, 2016c). Warning voices of possible overheating have been uttered since some time (e.g. Go4Venture Advisers, 2015), because of the strongly expansive monetary policy stance that has led to ample global liquidity and very low interest rates. In line with this, fundraising, liquidity and availability/pricing of debt financing were not among the upper ranks of investors’ biggest challenges (Preqin, 2016a,b).

Regulation is still among investors’ concerns, albeit only mid-table. Invest Europe (2016b) provides a comprehensive overview of the regulatory initiatives and changes and their potential impact on PE/VC in Europe. We cannot go into a detailed assessment of all the different rule sets here (just to mention a few names and “popular” abbreviations, e.g., the implementation of AIFMD, EuVECA, ELTIF, CRD IV, Solvency II, IORP, MiFID II/MiFIR, and various taxation rules).⁴⁷ Besides regulatory initiatives, structural market weaknesses such as the difficult access of smaller companies to IPO markets (see, for example, EU IPO Task Force, 2015), limit the upside potential of the European VC market.

Another key concern is the possibly longer period of uncertainty about the timing and nature of the UK’s departure from the EU, following the Brexit vote on June 23, which might have negative implications for the PE industry, investors and (potential) investee companies. Invest Europe (2016b) provides an overview of issues under discussion that might have an impact on PE.

⁴⁶ Please note that some response options that had been of relevance according to Preqin (2016b) were not reported in Preqin (2016c) anymore, i.e. “fulfilling investor requirements” (which had been relevant for 24% of investors according to Preqin, 2016b), “fundraising” (16%), “liquidity” (8%), “perception of the industry by the public” (6%), “correlation” (5%), “due diligence” (3%), “portfolio management” (2%).

⁴⁷ See Thomadakis (2016) for a discussion of the current EuVECA regulation, the recent EC proposal to extend this regulation, some of the issues that are not addressed in the EC proposal, and possible further options to improve access to finance for start-ups and SMEs.

According to the most recent Collier Capital (2016b) survey,⁴⁸ 37% of LPs expect a negative effect on European PE returns in case of a “hard” Brexit, while only 6% expect a positive effect. In contrast, the large majority of business founders have so far not perceived any effect on their respective company (Slush & Atomico, 2016)⁴⁹. Those founders that reported a negative effect stated to be mainly affected by increased uncertainty, currency fluctuations and the impact on market expansion.

4.5.2 Structural challenges affecting European PE and VC

Moreover, the PE and VC markets are challenged by economic developments of the last years that have resulted in significant structural changes in the global and European economic landscape. The digitalisation of the economy has led to a differentiation of market segments. On the one hand, companies in research-intensive sectors continue to follow more traditional growth models with capital-intensive development stages at the beginning of their life. On the other hand, companies in the digital space are able to start their activities with very limited resources but are exposed to unprecedented needs for funding in the internationalisation and globalisation of their business models. As a result, and depending of the sector and the business models of the companies, time-spans from start-up to global leader have shortened considerably and require companies to scale quickly to sustain the risk of seeing their business model being out-dated before they capture a significant market share. However, in Europe, too few start-ups survive beyond the critical phase of 2-3 years. Compared to the US, a much larger share of firms remains static and fewer companies manage to grow into large firms (European Commission, 2016c; Biosca-Bravo, 2011).

On a global level, the VC market has adapted to the new diversity of its target sectors. This has led to a bifurcation of the market between sometimes relatively small funds with the aim of scouting emerging business models whilst a new class of giant VC funds expands globally from the US, providing large scale capital to businesses in their global market expansion. In the large scale technology growth capital space Europe has no established players, which explains why European funding rounds especially in digital technology growth capital have typically been led by US VC growth capital funds. However, a number of growth stage VC funds have successfully completed their fundraising recently and hence, going forward aim to play the lead role in funding rounds of, for example, digital economy companies in Europe on their pathway to global category leaders.

In the shadow of companies driving or directly affected by the “digital revolution”, SMEs and mid-caps in traditional industries are reshaping their strategies for competing in a rapidly changing economic environment and are in need of flexible funding instruments with growth equity, mezzanine debt and hybrid debt to classical debt features. Moreover, EIF market insight shows that growth-stage companies are experiencing a serious lack of growth (follow-on) funding in order to accelerate their international expansion and to strengthen their position against global competitors.

⁴⁸ Collier Capital’s Global Private Equity Barometer is published twice-yearly and intends to give an overview of the plans and opinions of institutional PE investors (LPs) based in North America, Europe and Asia-Pacific (incl. the Middle East). The 25th edition (winter 2016-17) of the Global PE Barometer captured the views of 110 PE investors from round the world, surveyed in September-October 2016.

⁴⁹ A part of the results presented in Slush & Atomico (2016) is based on a survey among European business founders conducted in September and October 2016.

Durufflé, Hellmann and Wilson (2016) identify the creation of larger venture funds and a venture debt market, a reinvigoration of tech IPOs, improved markets for secondary shares and avoiding to sell companies too early as main elements of a strategy that would help Europe in catching up to the US in terms of scale-up funding.

Moreover, in order to strengthen investment capacities, co-investment can be a promising feature of the PE market. According to Coller Capital (2015), “most LPs expect co-investments to remain a fixed feature of the PE landscape”. Moreover, a large majority of LPs reported “that their co-investments have outperformed their overall PE portfolios in recent years” (Coller Capital, 2016a). In an EIF survey among VC fund managers in Germany, 66% of the participants saw a benefit from the availability of stable providers of co-investment capacity when addressing potential investment opportunities. 52% would have closed more investments if they could have relied on stable providers of co-investment capacity in the past (the share was notably high for managers of ICT funds at 71%). 57% of respondents listed too small fund size as one of the main reasons why they decided not to invest. 66% of participants saw a high or very high market need for such a co-investment product (source: EIF). This is even more relevant, as the large majority of LPs seems to believe “that the LP community lacks the necessary investment skills, experience and processes to make successful co-investments” (Coller Capital, 2015). Time constraints, a limited understanding of co-investment performance drivers, and the inability to recruit staff with the requisite skills were cited as “the main challenges preventing LPs from making successful co-investments”. However, the markets have started to develop and, looking forward, investors believe that the economics of co-investing will change. In the most recent Coller Capital survey, 62% of LPs expected more co-investment opportunities coming with fees and carried interest in the future (Coller Capital, 2016b).

4.5.3 Policy intervention in European PE and VC: Findings from recent studies

The challenges described in the preceding two chapters continue to create access to funding problems in the European VC market. The difficulties for young innovative companies to access seed and early stage finance increased during the crisis, as VCs became more risk-averse and focussed more on later stage investments (Wilson, 2015b). A Coller Capital (2013) study found that more than half of the global LPs believe that there are insufficient sources, other than VC, available to finance innovation and growth in Europe. This supports a view that public backing is needed in order to strengthen the market. We had outlined recent OECD findings on policy measures taken by governments to support seed and early-stage financing in previous issues of the ESBFO. Indeed, an Unquote Intelligence (2014) survey found that “public money remains absolutely critical to the European venture industry and is likely to remain so for the next five years”, and this has been particularly true for new funds, as most public funding bodies support first-time funds, while this is true for only approximately half of private investors. Besides the additional funding volumes, public investors’ participation in a PE/VC fund can also have a positive signalling effect on private investors, e.g. due to perceived strong due diligence requirements and an assumed relatively high stability of public LPs’ commitment to a fund. These advantages seem to outweigh the potential disadvantages (e.g. a possibly negative impact on speed and responsiveness or imposed restrictions in the investment strategy of the fund) of public

investors' participation. Moreover, Bertoni, D'Adda and Grilli (2016) show that in "thin" VC markets with low supply, which might be a good characterisation for many continental European markets, governmental VCs, by increasing the deal flow, can raise competition among investee companies and thereby elevate expected profits of independent VCs⁵⁰ with purely financial investment objectives. This may attract additional investors and trigger "the virtuous cycle of VC market development".

However, for public policy intervention in the VC market, the relationship between private VC activities and governmental support is as well important; it was analysed in several empirical studies: According to Colombo, Cumming and Vismara (2014), the design of a public VC investment scheme is relevant for their impact. In particular, governmental VC schemes seem to have been more successful when they acted alongside private investors, which would favour a governmental fund-of-funds set-up over direct public investments. Indeed, the focus of support instruments "has shifted from government equity funds investing directly to more indirect models such as co-investments funds and fund-of-funds" in OECD countries (Wilson, 2015b). Moreover, Brander, Du and Hellmann (2014), in a continuation of their 2010-study, find that enterprises funded by both governmental VC and private VC obtain more investment than enterprises funded purely by private VCs, and much more than those funded purely by governmental support. There is also a positive association between mixed governmental/private funding and successful exits, as measured by initial public offerings and acquisitions, attributable largely to the additional investment. Cumming, Grilli and Martinu (2014) show a higher likelihood of a positive exit for companies backed by independent and governmental VCs together than for companies that are backed by one of the two investor groups only. Moreover, Bertoni and Tykvová (2012) conclude "that syndicates between private and governmental venture capital investors, in which the private investor takes the lead, are the most efficient form in terms of innovation production that outperforms all other forms." However, as said earlier, public policy in the area of venture capital should go beyond an exclusive support of VC funds (see Hellmann, Schure and Vo, 2015), but rather aim to attract equity financing to Europe also from other sources, such as angel investors and crowdfunding (see Wilson, 2015a; see also Aubrey et al., 2015, for related policy recommendations to support growth firms).

4.5.4 Policy intervention in European PE and VC: A practical approach

In all, Europe therefore needs an integrated portfolio of funding instruments in support of the various segments of its start-up⁵¹, SME and mid-cap landscape to foster the recovery from the 2008 financial crisis and to unleash the full potential of EU companies' competitiveness and their contribution to Europe's economic growth and innovation. Instruments should be complementary to existing initiatives in terms of sector, stage or geographic focus. However, the dynamics of recent economic developments e.g. in the area of the digital economy, has made the segmentation between early stage and late stage VC somewhat redundant. Policy instruments that create artificial boundaries of development stages of businesses could be prohibitive to an efficient VC market.

⁵⁰ Independent VC fund managers act as general partner in a limited partnership in which the fund investors invest as limited partners. This is the most common legal structure for VC funds in Europe.

⁵¹ In order to shed some more light on the relationship between VC and start-ups, Brinckmann (2015) analysed, in cooperation with EIF RMA, the effect of entrepreneurs' profiles on the performance of VC-backed start-ups. We presented key parts of this work in the previous ESBFO issue (see Kraemer-Eis, Lang, Torfs and Gvetadze, 2015b).

Moreover, EU's VC markets show different development stages and so require different policy instruments. In less developed markets instruments may need to work strongly together with the actors in the informal VC markets (BAs, Incubators, TT Centres) and be complemented by flexible co-investment products to grow the domestic VC market. However, companies with global ambitions compete globally. Instruments investing in future industry leaders compete for investors who seek exposure to the best companies on a global scale, not with respect to a given geography. Therefore, giving flexibility in the geographic boundaries of policy instruments is not only key in retaining EU-based businesses in Europe but may attract non-EU based businesses to relocate to Europe. Based on these considerations, it appears vital to offer a flexibility of instruments adapted to diverse market conditions in the various geographies of the EU. Large-scale venture initiatives need however be associated with the knowledge of how to grow businesses to larger scale to make a desired impact on the EU's competitiveness.

Moreover, even if measures aiming at regulatory simplification, harmonization and promoting cross-border investment (e.g. the so-called pan-European passport for VC investors, which aims at ensuring that VC funds established in any EU Member State invest freely in other Member States) are another step in the right direction, more is needed to overcome the fragmentation of the European VC market (Bertoni, Colombo and Quas, 2015; see also chapter 4.1). Two new initiatives, the EIF NPI equity platform and the Pan-European Venture Capital Fund(s)-of-Fund (FoF) programme, could contribute to this (see Box 7).

In times of scarcity of private capital the temptation grows to construct policy instruments that substitute the private sector. However, there is in fact a need to use public sector resources with the primary objectives of mobilising private sector capital, as clearly demonstrated, for example, by the leverage factor built in the Investment Plan for Europe (see Chapter 7 for more details) and other instruments implemented by the EIF. One way to attract private investors to the VC market is a fund-of-fund approach (Acevedo et al., 2016), which is pursued by the EIF. As a reference catalytic investor in European venture and growth capital funds, EIF is actively working in the direction outlined above: EIF has increased its counter-cyclical role by providing financing solutions to boost entrepreneurship and innovation. In the coming years, EIF will continue to act as a cornerstone investor across the spectrum from technology transfer through venture capital to the lower mid-market and mezzanine financing. This will contribute, inter alia, to the EC's new "Start-up and Scale-up Initiative", which stated access to finance to be one of the biggest barriers to scaling-up businesses (the related EC Communication was published on 22 November 2016, see European Commission, 2016c). EIF's activity in the equity sphere also includes the launch and extension of new and pilot initiatives. Two recent initiatives are presented in Box 7.

Box 7: Strengthening the European VC market: two recent initiatives

EIF strongly contributes to two new initiatives that were launched in autumn 2016, i.e. a new equity platform that seeks to facilitate cooperation between EIF and national promotional institutions or banks (NPIs) across EU Member States, and the Pan-European Venture Capital Fund(s)-of-Funds programme.

The EIF-NPI Equity Platform aims at helping EIF and NPIs to promote and share knowledge and best practices amongst themselves. Its ultimate goal is to enhance access to funding for SMEs and midcaps, support defragmentation of equity markets, match national, EU and private sources of funding. This initiative is established on the occasion of the Investment Plan for Europe, and as a response to priorities set by EU stakeholders and NPIs. It will guide EIF and NPIs in implementing equity investments, including EFSI-related activities. In doing so, EIF and NPIs active across the EU will both contribute to the objective of supporting a well-functioning European Venture Capital and Private Equity market for the ultimate benefit of European SMEs and midcaps.⁵²

The second initiative, a new Pan-European Venture Capital Fund(s)-of-Fund (FoF) programme, aims to further address Europe's equity gap, the fragmentation of the VC market and to attract additional private funding from institutional investors into the EU VC asset class. The Programme is sponsored by the EU and forms part of the Investment Plan for Europe, the Capital Markets Union Action Plan, the Digital Single Market strategy, the Single Market Strategy and the Open Innovation strand of Horizon 2020. Under the Pan-European VC FoF programme EIF is looking to invest in private-sector led, market-driven Pan-European VC Fund(s)-of-funds, thereby using resources of the Horizon 2020 InnovFin Equity facility, EFSI Equity Instrument, COSME Equity Facility for Growth and EIF's own resources. Under the Pan-European VC FoF programme, EIF targets investments in qualifying Fund(s)-of-Funds for the aggregate target amount of EUR 300m. Additional funding may be available depending on the interest in the Programme. EIF will provide a maximum of 25% of the total commitments of a FoF, which will then in turn invest in investee funds on the basis of their investment strategy in order to make new finance available to European SMEs.⁵³

Source: EIF.

⁵² Sources and more information: http://www.eif.org/what_we_do/equity/news/2016/eif-npi-initiative-launch.htm and http://www.eif.org/what_we_do/equity/NPI/index.htm.

⁵³ Sources and more information: http://www.eif.org/what_we_do/equity/news/2016/efsi_pan-european_venture_capital_funds_of_funds.htm and http://www.eif.org/what_we_do/equity/paneuropean_venture_capital_fund_of_funds/index.htm. In addition, InnovFin Fund-of-Funds (InnovFin FoF) targets investments into fund of funds holding or targeting to build a portfolio of investments into underlying funds with significant early stage focus. It also provides significant funding to the separately managed Pan-European Venture Capital Fund(s)-of-Fund programme. More information can be found here: http://www.eif.org/news_centre/publications/eif_innovfin_venture_capital_en.pdf.

5 SME guarantees and SME Securitisation in Europe

5.1 SME guarantees

5.1.1 Market failure and policy response

Information asymmetries in the credit market: the rationale for public sector involvement

Public CGSs are used in many developed and developing economies to alleviate the constraints facing SMEs in accessing finance. Indeed, financial institutions are usually reluctant to extend uncollateralised credit to SMEs, even at high interest rates, in part because of the high costs of obtaining adequate information on the true credit quality of small, typically young companies. Many of these firms do not have the necessary amount and type of assets that could serve as collateral for the loan. As a result, many SMEs with economically viable projects cannot obtain the necessary financing from the regular system of financial intermediation. This phenomenon is often referred to as the SME financing gap: an insufficient supply of external financing to SMEs (OECD, 2006), the existence of which is driven by a market failure typical for the credit market: information asymmetries.⁵⁴ Information asymmetries can lead to credit rationing through either *moral hazard* problems or an *adverse selection* of low quality borrowers (Akerlof, 1970). Adverse selection occurs when banks cannot differentiate between good and bad projects. Higher interest rates will discourage businesses with the least risky projects to take out loans. This then implies that, for any given interest rate, inherently riskier projects will be overrepresented in the loan application pool (Jaffee and Russel, 1976; Stiglitz and Weiss, 1981). Moral hazard problems occur when limited liability in the event of default provides borrowers with an incentive to take up excessive risk.⁵⁵ This means that in the presence of asymmetric information, banks are reluctant to use higher interest rates, because it reduces equilibrium profits. As a consequence, their rational response is to keep the supply of credit below demand, rather than to increase the interest rate charged on loans.

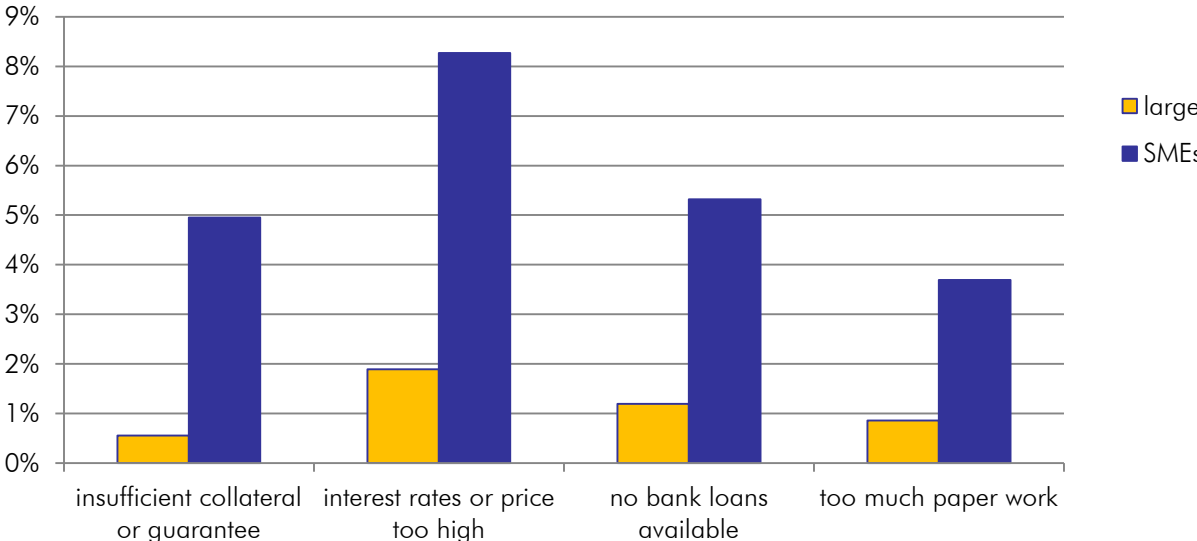
Credit rationing is particularly prevalent in the market for lending to SMEs, for two reasons. The first reason relates to their lack of collateral: the availability of collateral provides a way for borrowers to directly eliminate the asymmetric information problem. Pledging collateral in a loan-agreement allows firms to bindingly signal their true credit worthiness. However, firms do not always possess the required collateral. This holds especially true for small and medium sized enterprises (SMEs). The credit rationing result is therefore particularly relevant for this segment of firms, where failure to meet lenders' collateral requirements aggravates access to finance problems. In addition, the use of collateral comes with a number of drawbacks. For one, the collateral may be worth more to the borrower than to the financial institution providing the loan. In addition, the use of collateral increases the cost of borrowing, as it generally involves legal and other administrative procedures. The ECB/EC Survey on the Access of Enterprises (SAFE) confirms the argument that the insufficient availability of collateral and guarantees is indeed an important reason why SMEs consider bank loans not relevant for them (see Figure 31). The second reason

⁵⁴ See OECD (2014b) for an overview of market failures in SME lending and mitigation techniques.

⁵⁵ Both the adverse selection as well as the moral hazard argument crucially hinge on the insight that higher interest rates reduce the borrower's stake in the project underlying the loan (Tirole, 2010), which is an illustration of the typical principal-agent problem (Arrow, 1985).

SMEs are more affected by credit rationing than larger companies relates to the fact that credit market information asymmetries are more pronounced for small firms and the cost of monitoring them is higher. Large companies are required to adhere to corporate norms, legal standards, formal reporting requirements etc., whereas business decision making processes, transparency rules, dividing lines between company and personal assets are less defined for SMEs. SMEs are often young organisations, so that credit history and operational track records are by construction shorter compared to their larger counterparts. Market failures in the bank lending market therefore imply that many SMEs with economically viable projects will not be able to obtain the necessary financing from the regular system of financial intermediation.

Figure 31: Most important reason for bank loans being not relevant



Source: ECB Data Warehouse

Recently, two factors have contributed to a worsening of the SME financing gap. First, a number of studies have put forward the conclusion that credit constraint issues are further deepened by increasing market concentration in the banking sector. Ryan et al. (2014) for example, show how bank market power is associated with an increase in financing constraints, and thus leads to lower levels of SME investment levels. This conclusion is confirmed by Chong et al. (2013) who show that lowering market concentration in the banking sector indeed alleviates financing constraints. Given the strong consolidation in the European banking sector (Uhde and Heimeshoff, 2009; ECB, 2016c), these observations are particularly relevant for SMEs in Europe. Second, the sharp drop in real estate prices negatively impacted the credit availability to SMEs, who often use property assets as collateral (OECD, 2012).

Information asymmetries exist to a lesser degree if a strong relationship between lender and borrower has been established. Hence, unsurprisingly, most SMEs have a close relationship with one (sometimes two) “house bank(s)” (EBF, 2015). A close relationship with a lender makes the borrower well aware of what information needs to be provided, including the amount of collateral required (support in this regard is also given by third parties like, for instance, chambers and guarantee societies with specific knowledge of the local SME market). In addition, it enables the lender to know well not only the hard but also the soft facts of the borrower. Thus, through due

diligence/lenders' examination (screening) and by a firm's ability to signal its credit worthiness (incl. an institutional assessment or rating by an independent agency and the provision of collateral, information asymmetries can be reduced. However, this means that new or young firms with a lack of collateral and, by definition, without a track record, are the ones with the greatest degree of difficulty in accessing debt capital. These financing obstacles can also negatively affect productivity in the economy.

Given the strategic importance of SMEs as drivers of economic growth and innovation, it is of crucial importance to address the consequences or credit market failures in order to exploit the externalities from entrepreneurial dynamism (Honohan, 2009).

Using CGSs to alleviate the supply shortage

Guarantee mechanisms, "whereby should the borrower default the guarantor compensates a pre-defined share of the outstanding loan" (OECD, 2014b, 2015b), are a commonly used response to address the consequences of these kinds of market failures, as guarantees reduce the risk of lenders and favour the provision of financing to viable businesses that are constrained in their access to finance. Credit guarantee schemes (CGSs) "are used widely across economies as important tools to ease financial constraints for SMEs and start-ups" (OECD, 2013), in order to alleviate market failures in SME financing.

Moreover, loan guarantee programs expanded substantially in the years 2007-2011, as governments responded to the financial crisis. Carefully designed guarantee schemes have positive macroeconomic effects, meaning that the costs for the tax payers due to default payments are outweighed by the positive stimulating effects (such as on employment and tax revenue) of guarantees for the economy. In addition, "new elements were added to some of these programmes, such as reduced red tape and more rapid provision (i.e. 'express guarantees' [in Belgium]), and new instruments were created outside traditional guarantee programmes" (OECD, 2014b). Therefore, credit guarantee programs continue to be "the most widely used instrument at governments' disposal to ease SME access to finance" (OECD, 2015a; see also OECD, 2015c, 2016b). Moreover, guarantees are "increasingly targeting young and innovative firms in an effort to boost employment and value added" (OECD, 2016b). While CGSs do not alleviate information asymmetries directly, and hence do not address the root of the market failure,⁵⁶ they can increase the incentives of lenders to supply credit to SMEs by providing a substitute for collateral, and if designed correctly, increase overall welfare. Some studies have investigated the welfare effects of CGS policies and documented the superiority of CGSs compared to other instruments to alleviate welfare losses associated with credit market failures.

Arping et al. (2010) examine the conditions under which CGSs are socially preferred over government co-funding, using a moral hazard model in the spirit of Holmstrom and Tirole (1997).

⁵⁶ This would only be the case to the extent that CGS has a comparative advantage in screening activities, vis-à-vis traditional credit institutions. The way in which CGSs function in reality indicates this is likely not the case: in practice the credit appraisal of the final borrower is still executed by the lender and CGSs often guarantee full portfolios of loans and therefore do not maintain a personal relationship with the borrower.

They conclude that provided entrepreneurs are not substituting public for private collateral, a welfare-maximising strategy prefers CGSs over government co-funding of investment projects. Government involvement in the establishment and funding of CGSs can also be motivated by resolving coordination failure between private-sector entities, which prevents them from pooling their resources. Anginer et al. (2014) argue that when lenders are risk averse, efficient provision of guarantees may not occur on a private sector basis due to collective action problems, i.e. although the stakeholders are all aware of the problem, the lack of action comes from the misalignment of the private interests with those of the society. They also stress that the incentives for collective action are even weaker in economies with less developed financial systems. The state, on the contrary, is able to resolve the collective action frictions that get in the way of risk spreading. However, to achieve this objective, the state has to maintain the incentives for lenders to monitor projects efficiently, and to deter the borrower from excessive risk taking. This can be done by pricing guarantees in a way that ensures the expected losses being covered by the fees charged, and promotes the risk being shared with the private sector.

In addition, CGSs hold other advantages. First, the final lending decision stays with a market-based, private-sector entity – the bank –, which has the expertise and the necessary technology to evaluate credit applications and projects. This is likely to ensure a more efficient selection among borrowers than if the task is done by a public agency, since – given that the guarantee is partial - it leaves part of the risk with the privately operating lender. Second, compared to direct lending programmes, CGSs have much lower initial cash flow needs, and as such, have a leverage component. As a consequence, they can also be used when fiscal constraints are tight. However, the small initial cash outlay of credit guarantee schemes also has disadvantages. Honohan (2010) notes that, as a large number of borrowers can be reached with only relatively small initial costs in the short run, political incentives exist for the public sector to supply guarantees generously, while concealing the true long-term fiscal costs of a programme behind the uncertainty around the expected long-term losses on the guarantee portfolio. This can result in unexpected fiscal costs further down the road. Third, supranational CGSs can contribute to an efficient geographic distribution of credit. Results from a recent EIB survey on European CGSs (forthcoming, see Box 8) highlight that all but one existing CGSs choose to operate within the national borders of the country they are headquartered in. This can be explained by the existence of cross-border information frictions related to national legal frameworks that govern the functioning of CGSs. Supranational CGSs can therefore contribute to an efficient cross-border allocation of credit.

The importance of credit guarantee schemes has been confirmed, *inter alia*, in a recent joint Working Paper of the EIF and the European Commission (Asdrubali and Signore, 2015; see also VIWGCGS, 2014). Based on an analysis of the Multi-Annual Programme for enterprises and entrepreneurship (MAP) EU SME Guarantee Facility and focussing on Central, Eastern and South Eastern Europe (CESEE) countries, Asdrubali and Signore (2015) find significant positive effects of this EU guarantee programme on the beneficiary firms. By breaking down the sample by country, signature year, size and age classes, the authors find that micro and young SMEs have benefited the most from MAP-guaranteed loans in terms of economic additionality. See for more details Asdrubali and Signore (2015); a summary can also be found in a previous ESBFO issue (Kraemer-

Eis, Lang and Gvetadze, 2015a).⁵⁷ The use of CGSs in Western Europe has recently been investigated in a new EIF and EIB study; we present an overview in Box 8 below.

Box 8: New study on SME credit guarantees

In early 2017, the EIF and the EIB, which together form the EIB Group, will jointly publish a report on the use of Credit Guarantee Schemes (CGSs) for SME lending in Western European countries. It is the successor of an earlier study on the use of CGSs for SME lending in Central, Eastern and South-Eastern Europe (CESEE), which was published by the European Bank Coordination “Vienna Initiative” Working Group on CGSs (see VIWGCGS, 2014). The new report discusses the activity of CGSs and the use of these guarantees by banks in Western Europe.⁵⁸ It is largely based on the results of two surveys conducted by the EIB Group, one among national and regional CGSs and the other among large commercial banks. The surveys were distributed with the help of the European Association of Guarantee Institutions (AECM) and the Institute of International Finance (IIF).

The report provides insight into the institutional framework, driving motives and operational mechanisms of CGSs and the financial intermediaries that use them. The survey results reveal that, although the national frameworks of CGSs show a large country-by-country heterogeneity, CGSs in Western Europe are typically publicly owned, and are almost exclusively active in their home country only. In most cases they are non-profit, but have an obligation to be self-sustained, and they are capitalised upfront. Their risk management includes the use of government and EU counter-guarantees, e.g. from the EIF. The most important objective of guarantee institutions is to alleviate the collateral constraints by providing guarantees to both banks and non-bank intermediaries. However, the study reveals that credit guarantees may indeed be able to ease the need for collateral in SME lending, but they are not always able to perfectly substitute the role of collateral.

Providers and users of credit guarantees face a complex regulatory environment. One key aspect involves the prudential regulation of financial institutions; the capacity of guarantees to provide capital relief for banks is regulated by the CRDIV/CRR. Another important component is the legal framework of state aid, which governs the provision and pricing of guarantees provided by public entities. Guarantees bring about capital relief, and nearly half of banks reported this to be an important consideration in their use of CGSs.

There is a robust use of credit guarantees by financial institutions in Western Europe. The national/regional guarantee institutions are the main suppliers for guarantees to banks, while multinational providers such as the EIF also play an important role in guaranteeing bank loans, including by counter-guarantees to CGSs. Nearly all CGSs responded to the crisis by increasing their operations, most notably by guaranteeing working capital loans. For banks and CGSs alike, the main constraint hindering a more extensive use of credit guarantees is the lack of credit demand by SMEs. Restrictive EU state-aid laws, on the one hand, and cumbersome administrative duties on the other are identified by CGSs and banks respectively as further serious impediments for the credit guarantee activity.

Source: Chatzouz, M., Gereben, A., Lang, F. and Torfs, W. (2017, forthcoming)

⁵⁷ Schich et al. (2017) give an overview of evaluations of CGSs for SMEs. This forthcoming study is based on a literature review and an OECD/EC survey.

⁵⁸ The country coverage of the study goes beyond the traditional boundaries of Western Europe. This is due to the fact that the preceding report on CESEE covered mainly the member countries of the “Vienna Initiative”. Thus the new report covers all EU Member States that were not or only partially covered in VIWGCGS (2014), i.e. Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, Netherlands, Portugal, Slovenia, Spain, Sweden, UK.

In order to alleviate problems experienced by SMEs in accessing finance, the EIF is playing an important role. Through a wide range of financial intermediaries, such as banks, leasing companies, guarantee funds, mutual guarantee institutions, promotional banks, and other financial intermediaries, EIF can effectively provide both financing to SMEs and guarantees for SME financing. Apart from EIF guarantees for securitised SME financing instruments (see Chapter 5.1), EIF offers guarantees/counter-guarantees for portfolios of microcredits, SME loans or leases.⁵⁹

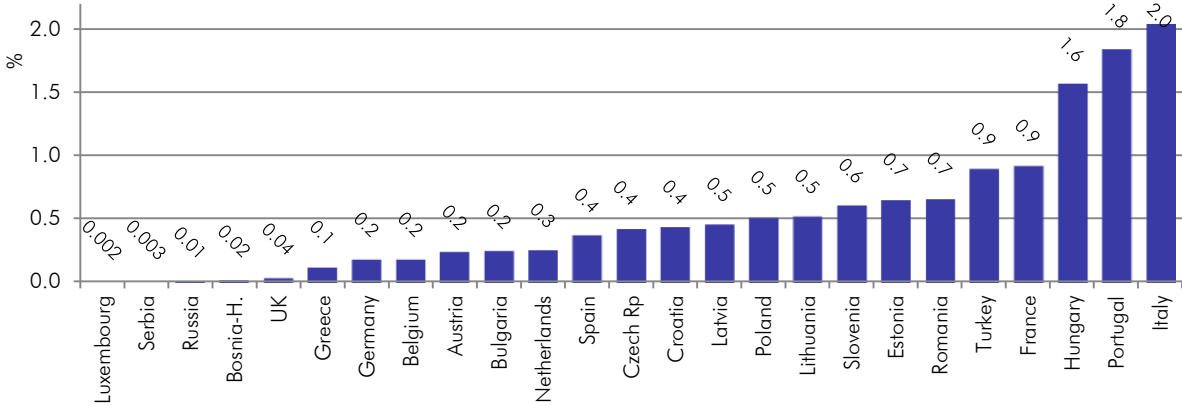
5.1.2 Market size and activity in 2016

Market information concerning CGS in Europe is gathered by AECM, the European Association of Guarantee Institutions.⁶⁰ In the following, we provide information about the countries with at least one AECM member to show the state and development of this important market segment.

Key figures, based on *outstanding guarantees* on SME loan portfolios (as at 30.6.2016 or latest available data), are presented in Table 3. In terms of total amounts of guarantee activities, the core countries are Italy (EUR 33.6bn), France (EUR 20.1bn), Turkey (EUR 6.5bn), Germany (EUR 5.6bn) and Spain (EUR 4.0bn). Italy also has the highest total *number* of outstanding guarantees (1,058,747), followed by France (682,572) and Turkey (427,565). The total number of SME beneficiaries in the portfolios of the AECM members amounted to almost 2.9m.

Compared to the value of economic activity, guarantees are relatively important (measured by the volume of outstanding guarantees in portfolio as a percentage of GDP) in Italy (2.0%), Portugal (1.8%) and Hungary (1.6%), as shown in Figure 32. According to the OECD (2013), guarantees are particularly relevant “in those countries where a network of local or sectoral guarantee institutions is well established”. In the full year 2015, the *new* guarantee activity was strongest, related to GDP, in Hungary, Portugal, Italy, Poland and Turkey (see Figure 33).

Figure 32: Volumes of outstanding guarantees in portfolio scaled by GDP*



*As at 30.06.2016 or latest available data
Sources: AECM (provisional figures).

⁵⁹ See for more information the EIF website www.eif.org.
⁶⁰ We thank our colleagues from AECM for their support. AECM has currently 41 members in 21 EU Member States plus Bosnia and Herzegovina, Russia, Serbia and Turkey. In the AECM member countries, the AECM members cover all or almost all SME guarantee activity. Some AECM members are national associations or networks and thus have their own member organisations. AECM has purely private, mutual, public, and public-private mixed members. Source: AECM.

Table 3: Guarantees and number of SME beneficiaries in portfolio, AECM members by country, HY1/2016

Country	Volume [k EUR]	Number	Implied average guarantee size [k EUR]	Number of SME beneficiaries
Austria	822,986	5,537	148.6	5,395
Belgium ^a	791,848	10,072	78.6	8,028
Bosnia-Herzegovina	7,697	60	128.3	1
Bulgaria	112,677	2,034	55.4	1,904
Croatia	192,892	1,676	115.1	1,556
Czech Rep.	709,829	8,503	83.5	6,300
Estonia	132,884	1,316	101.0	990
France ^c	20,098,796	682,572	29.4	571,899
Germany	5,598,333	46,893	119.4	45,955
Greece	210,890	62,204	3.4	61,963
Hungary ^e	1,735,901	47,722	36.4	40,185
Italy ^{a,d}	33,566,242	1,058,747	31.7	1,348,767
Latvia	112,496	730	154.1	565
Lithuania	195,901	2,500	78.4	2,268
Luxembourg	979	48	20.4	48
Netherlands	1,747,694	89,859	19.4	47,508
Poland ^{c,d}	2,215,483	98,530	22.5	98,530
Portugal	3,310,924	90,107	36.7	50,404
Romania ^{a,b,e}	1,062,183	10,329	66.8	9,276
Russia	92,189	1,199	76.9	846
Serbia	10,272	604	17.0	536
Spain ^d	4,044,029	69,298	58.4	120,821
Slovenia	235,954	1,794	131.5	1,794
Turkey ^c	6,493,993	427,565	15.2	420,893
UK ^a	995,791	11,915	83.6	11,915
Total	84,498,863	2,731,814	30.8	2,858,347

^aFor data availability reasons, AECM statistics for HY1/2016 show the HY2/2015 business figures of all Italian AECM members, the British AECM member, two Romanian AECM members and one Belgian AECM member.

^bIn the case of Romania, one AECM member did not report the number of guarantees outstanding; hence, the average guarantee size is calculated based on the number of the remaining AECM members.

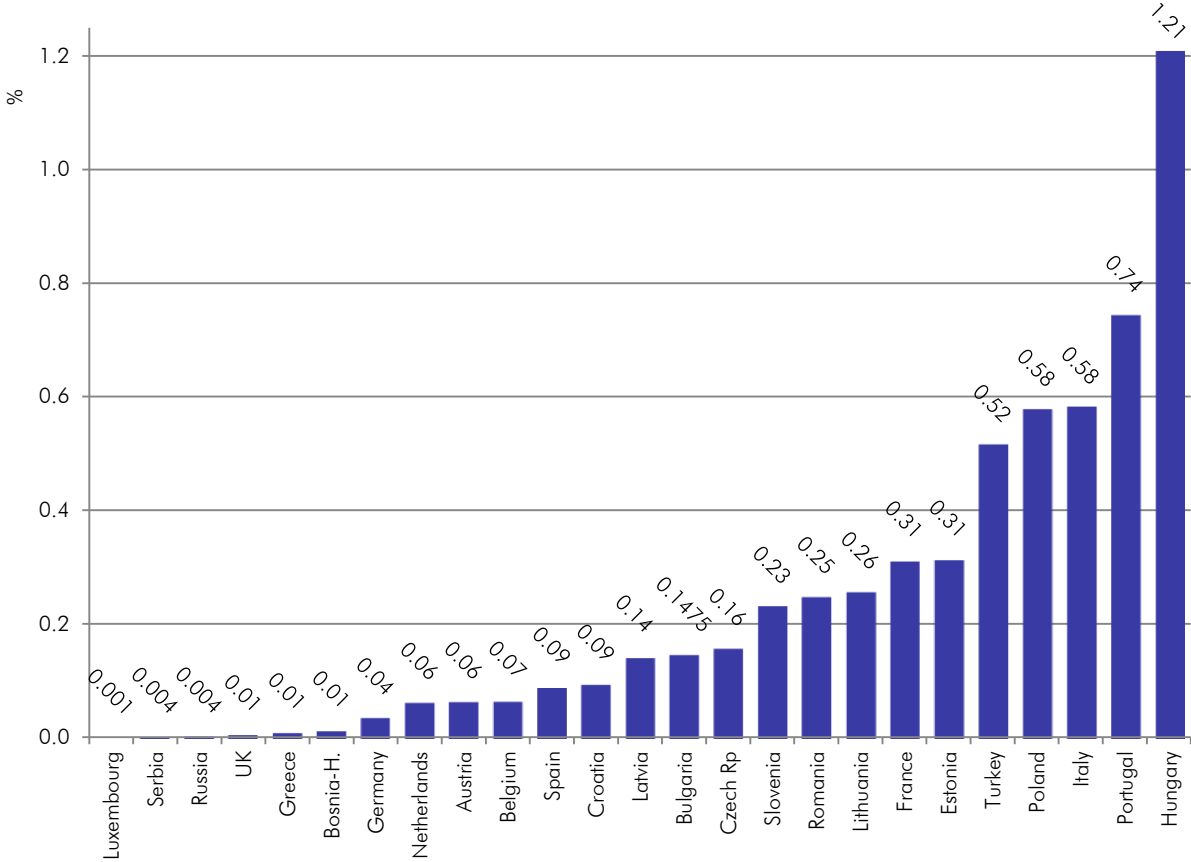
^cIn the cases of France, Poland and Turkey, the number of SME beneficiaries partly contains estimated data. In the case of France, this is also true for the number of outstanding guarantees.

^dFor Italy and Spain, the number of SME beneficiaries is reported to be higher than the number of guarantees. For Poland, the new business volume of 2015 is reported to be higher than the outstanding volume. In all cases, this is due to different reporting approaches (e.g. some SMEs are members of guarantee networks but do currently not use any guarantee; current years are not added to outstanding volumes).

^eFor one Hungarian and one Romanian AECM member, the numbers contain counter-guarantees.

Source: AECM (provisional figures) and own calculations.

Figure 33: Volumes of guarantees granted in the full-year 2015 scaled by GDP



Source: AECM (provisional figures), IMF, own calculations.

In the first half-year of 2016, new guarantee activity by AECM members has, on average, considerably increased. Compared to the previous half-year, the total volume new guarantees provided by the AECM members increased by 1.4% (Table 4); compared to the first half-year of 2015, the increase was even more pronounced (+7.1%).

This dynamic development was mainly driven by strong growth rates of some bigger AECM members, e.g. in Turkey (+36% compared to the previous period), Hungary (+14%) and Spain (+17%). The most remarkable percentage surge was recorded in Greece (+364%), where the new guarantee activity of the Greek AECM member was basically relaunched in 2016, following a longer period of budget consolidation in the end of 2015. However, due to relatively small size of the guarantee activity in this country, this recent increase is rather small in absolute amounts (EUR 7.3m) compared to the increase (EUR 202m) in the total activity of AECM members.

Table 4: New guarantees provided by AECM members in 2015 and HY1/2016 by count

Country	Volume [k EUR]				% change	
	2015	HY1/2015	HY2/2015	HY1/2016	HY1/2016 vs. HY2/2015	HY1/2016 vs. HY2/2015
Austria	216,937	69,517	147,420	122,397	-17.0%	76.1%
Belgium	266,944	127,513	139,431	157,546	13.0%	23.6%
Bosnia-Herzegovina	1,839	454	1,385	385	-72.2%	-15.2%
Bulgaria	65,098	37,957	27,141	40,463	49.1%	6.6%
Croatia	41,819	23,079	18,740	15,294	-18.4%	-33.7%
Czech Rep.	258,941	157,330	101,611	64,521	-36.5%	-59.0%
Estonia	64,176	30,349	33,827	52,572	55.4%	73.2%
France	6,816,170	3,364,995	3,451,175	3,352,800	-2.9%	-0.4%
Germany	1,093,500	488,887	604,613	523,400	-13.4%	7.1%
Greece	17,169	15,173	1,996	9,260	363.9%	-39.0%
Hungary	1,314,309	613,622	700,688	800,773	14.3%	30.5%
Italy ^a	9,553,492	4,766,416	4,787,076	4,787,076*	0.0%*	0.4%*
Latvia	34,614	16,526	18,088	11,047	-38.9%	-33.2%
Lithuania	95,913	41,400	54,513	71,963	32.0%	73.8%
Luxembourg	318	201	117	78	-33.3%	-61.2%
Netherlands	420,216	187,356	232,860	281,833	21.0%	50.4%
Poland ^d	2,304,220	1,076,605	1,227,615	1,044,042	-15.0%	-3.0%
Portugal	1,336,248	485,752	850,496	720,162	-15.3%	48.3%
Romania ^a	398,709	188,299	210,410	117,834*	-44.0%*	-37.4%*
Russia	49,243	22,796	26,447	18,773	-29.0%	-17.6%
Serbia	n.a.	n.a.	1,182	434	-63.3%	n.a.
Spain	974,407	494,080	480,327	561,712	16.9%	13.7%
Slovenia	89,589	36,443	53,146	49,256	-7.3%	35.2%
Turkey	3,420,162	1,852,117	1,568,045	2,136,834	36.3%	15.4%
UK ^a	n.a.	n.a.	159,710	159,710*	0.0%*	n.a.
Total	28,994,925	14,096,866	14,898,059	15,100,165*	1.4%*	7.1%*

^aFor data availability reasons, AECM statistics for 2015 show the 2014 business figures of all Italian AECM members; for the same reason, AECM statistics for HY1/2016 show the HY2/2015 business figures of all Italian members, the British and one Romanian member of AECM (numbers and calculations based on these numbers are indicated by *). For the British and the Serbian member, data is provided only following their joining of AECM (i.e. from HY2/2015 onwards).

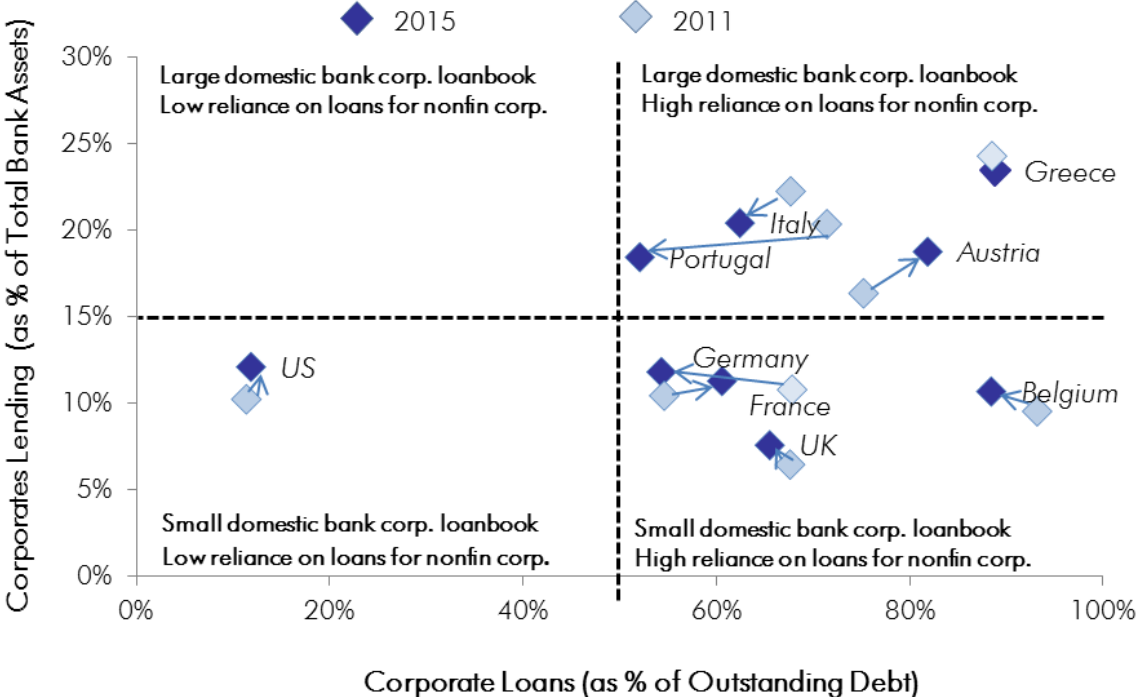
^dFor Poland, the new business volume is reported to be higher than the outstanding volume. This is due to different reporting approaches (e.g. some SMEs are members of guarantee networks but do currently not use any guarantee; current years are not added to outstanding volumes).

Source: Own calculations, based on AECM (provisional figures).

5.2 SME Securitisation⁶¹

European SMEs rely heavily on bank lending; Figure 34 provides an indication based on IMF data. As outlined in more detail in Kraemer-Eis (2014), this ratio is moving towards more capital market action: Cour-Thimann and Winkler (2013) state that external financing of the non-financial corporate sector (financing other than retained earnings) is dominated by bank financing (in the euro area). However, as the authors point out, this split refers to the stock - in terms of flows the figures fluctuate significantly: in particular as the corporate sector can to some extent substitute bank lending with other sources of finance. For SMEs, this possibility exists only to a very limited extent. During the crisis part of the declining bank lending was offset by an increase in capital market funding (see Figure 35): debt securities issued by corporations (but also quoted shares issued) increased. But, "such substitution is primarily possible for large corporations; it is less so for small and medium-sized firms, which constitute the bulk of employment and activity in the euro area" (Cour-Thimann and Winkler, 2013).

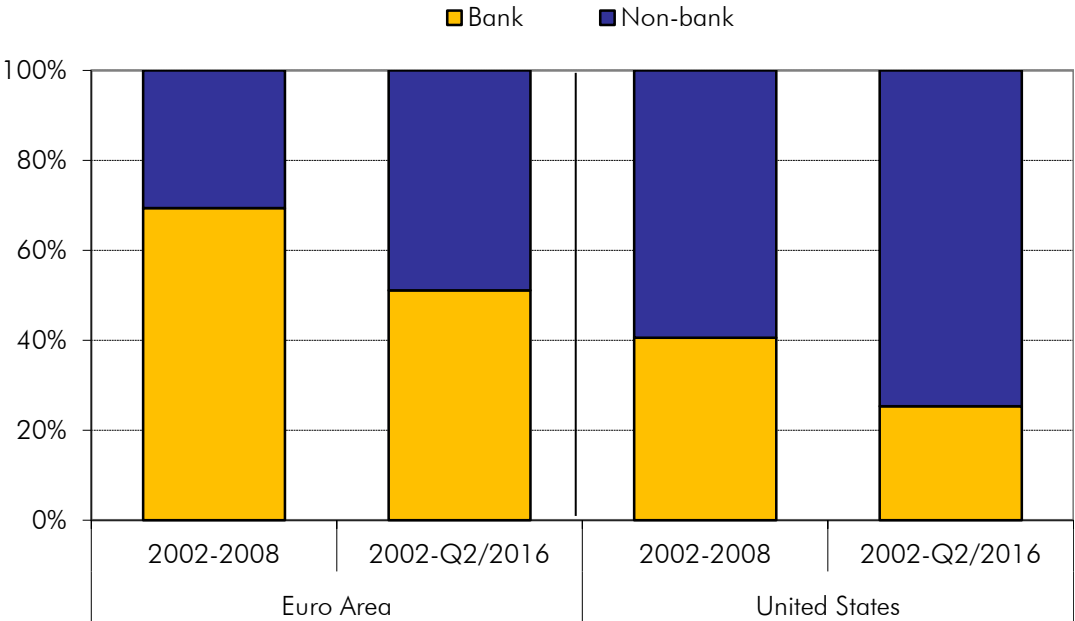
Figure 34: Reliance on bank financing by non-financial corporations (in %)



Source: Authors, based on IMF (2012) and updated information (as per YE/2015).

⁶¹ The term SME Securitisation (SMESec) comprises transactions backed by SME loans, leases, etc. It is important not only to look at banks/lending when analysing SMESec, but equally at leasing companies, which form part of the securitisation market. Given that bank financing is and will be less available for leasing companies post-crisis, it can be expected that SMESec will be particularly relevant in the leasing area. For more information on the importance of leasing for SMEs finance, see Kraemer-Eis and Lang (2012 and 2014).

Figure 35: Funding of non-financial corporations in the euro area and the United States (shares in accumulated debt transactions)



Source: Authors, based on Cour-Thimann and Winkler (2013), with updated data (as per Q2/2016).

As we stated already in our previous publications: securitisation per se is not good or bad - it is a toolbox, an instrument, a technique. As such it is value-free; but its aggressive, opaque, and overly complex use by some market participants has negative consequences for ultimately both issuers as well as investors. Negative repercussions are however also created by an overly simplified discussion where everything related to structured finance is lumped together and sometimes dismissed or branded as “toxic”. The instrument is neither “toxic” nor is the underlying asset (in the case of SMESec: SME loans/leases) “toxic waste”.

On the contrary - loans to SMEs are a key driver for the functioning of the economy and, properly applied, the securitisation technique is a replicable tool that can enhance access to finance for SMEs. Using this instrument in developed capital markets, public sector support for SMEs (e.g. guaranteeing mezzanine tranches) can create multiplier effects - and hence it is an efficient use of public resources, which is especially important against the background of a high public debt burden in many key countries. “Taken together, strengthening SME securitisation may be one of the most effective ways to facilitate the flow of funds to the real economy, while not creating too much distortion” (Kaya, 2014).

The reputation of the SME securitisation market segment is continuously improving; a de-stigmatisation is happening, and the general perception is shifting from one of “toxic waste” to a means that could help overcome the negative effects of the crisis. However, as we will see later, SMESec placed with investors currently represents only a very small portion of the total issuance and there is for the time being only a very limited primary market.

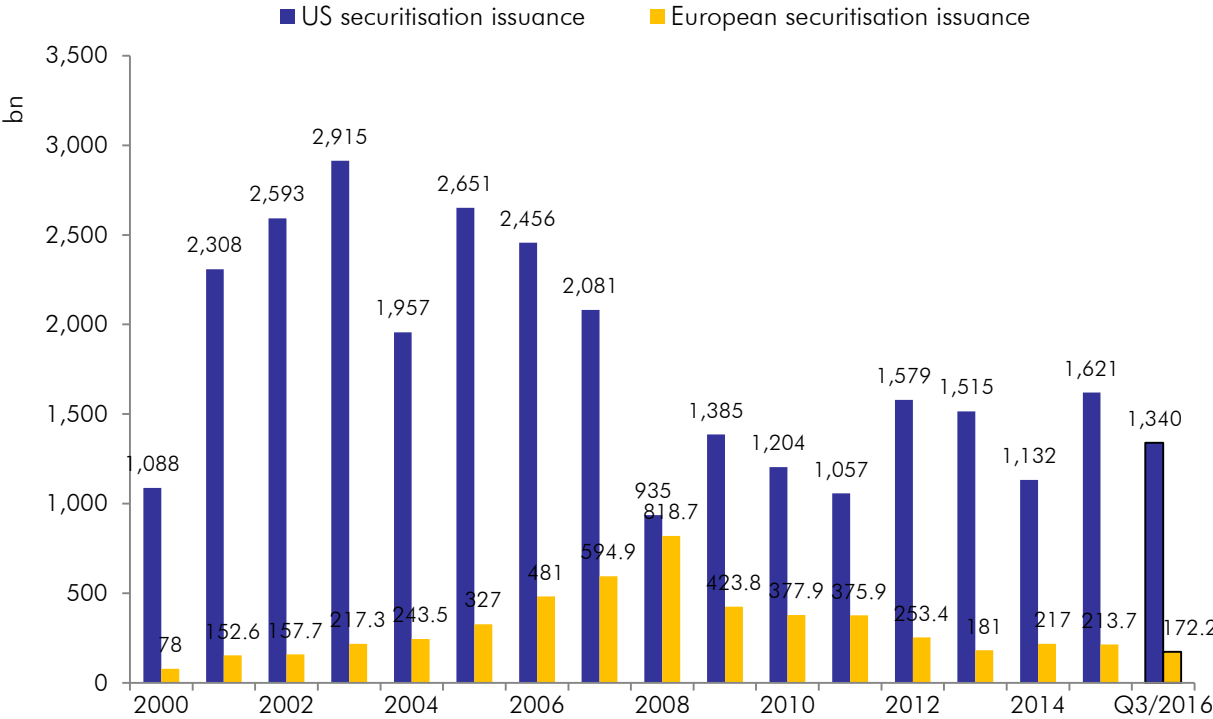
5.2.1 SMESec market activity⁶²

The European securitisation market had grown steadily from the beginning of the previous decade until the outbreak of the crisis. However, the European market is much smaller than its US peer (see Figure 36). During the crisis, issuance remained initially at high levels (compared to pre-crisis values) in Europe, but these volumes were almost exclusively driven by the eligibility of ABS as collateral for ECB liquidity operations;⁶³ then the overall market activity decreased to the 2003/2004 levels, in particular due to regulatory uncertainties⁶⁴ and tighter euro system collateral rules.

Securitisation is a technique that needs significant know-how and sophisticated actors on the supply and demand side. However, in line with the shrinking activity volumes, the number of active market participants are also declining: there are a reduced number of active securitisation professionals, i.e. at investors, issuers, agents, etc.

To date, public issuance is still hindered in particular by the regulatory framework (and related uncertainties) that makes transactions less attractive for originators and investors, by the availability of cheap funding for banks, as well as by ECB eligibility rules under the repo-collateral framework that favour alternative instruments, such as sovereign bonds or secured or unsecured bank debt.

Figure 36: Securitisation issuance Europe versus US (annual issuance 2000 – Q3/2016, bn EUR)



Source: Authors, based on data from AFME/SIFMA

⁶² If not flagged otherwise, the data source is AFME, the Association for Financial Markets in Europe.
⁶³ The ECB's asset repurchase or "repo" facility allows (among other assets) Asset Backed Securities to be used as collateral for funding.
⁶⁴ See for details concerning the regulatory developments e.g. AFME (2016b).

Issuance

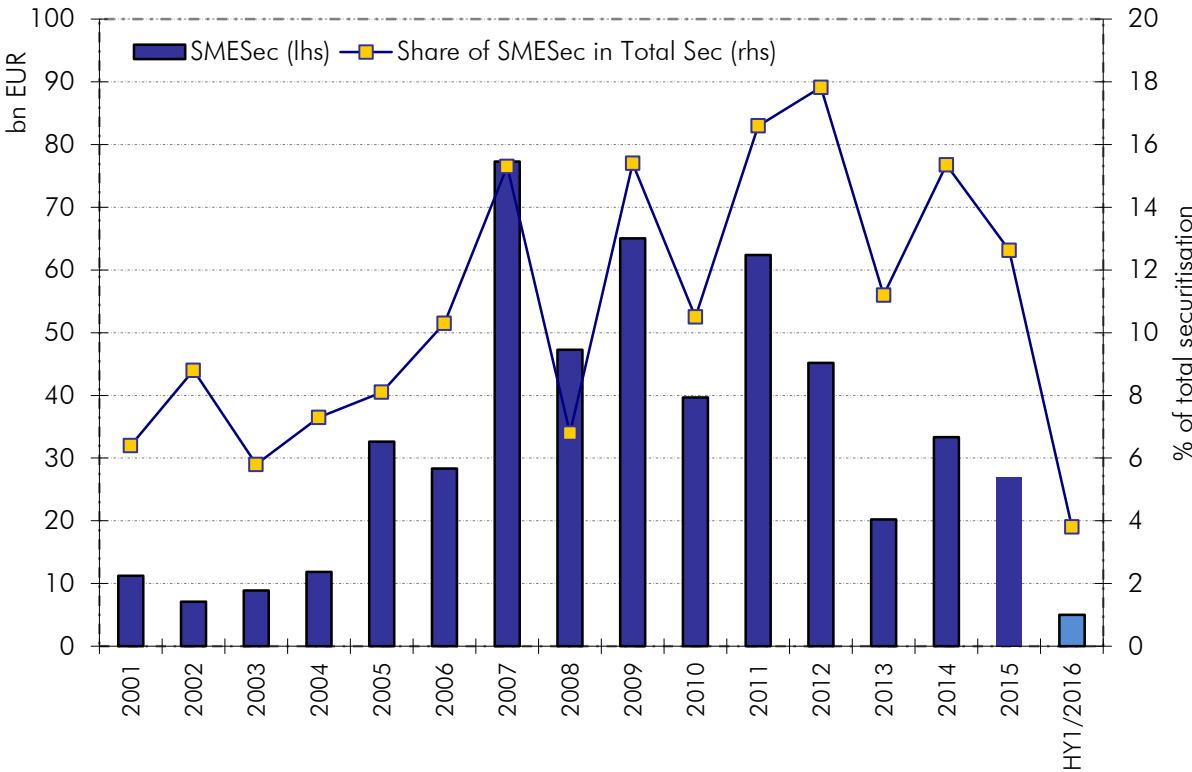
The most active markets in 2015 in terms of *overall securitisation issuance* were UK (market share: 21%), Germany (21%), Italy (15%), Spain (12%), the Netherlands (10%) and France (8%). The overall market activity in 2015 (EUR 214bn) was similar to 2014 (EUR 217bn). In 2016, so far (HY1), a volume of around EUR 131bn has been issued, an increase of 54% compared to HY1/2015 – the four main markets represent more than 75% of the activity: UK (24%), the Netherlands (20.5%), Spain (16%), and Italy (15.7%).

SMESec issuance is still suffering from the crisis and remains at low levels. The overall issued volume of SME deals in 2015 (EUR 27bn) was well below the 2014 values (EUR 33bn, see Figure 37). This year, due to a weak Q2, HY1 SME issuance was lower than the one in HY1/2015 (EUR 5bn compared to EUR 8.7 (compared to 19.3bn in HY1/2014)). The market share of SMESec in overall securitisation issuance rose (with some volatility) from 6% in 2001 to 18% (of total yearly issuance) in 2012, the highest value ever registered in Europe. This, however, came about due to the base effect, as the overall activity went down (while SMESec activity decreased slightly less). In 2015, the share of SMESec was 13%, slightly lower than the year before (15%); in HY1/2016 the share was only 3.8%. We observe that total European ABS issuance volumes have roughly been stable during the last three years, while the specific weights of the different asset classes have been shifting. SMESec has been decreasing year to year due to a lower origination activity and to shrinking SME stocks in the financial intermediaries' loan books.

During the crisis, also the large volumes of synthetic SMESec transactions, that were evidenced pre-2007 on SME portfolios dominated primarily by German SMEs on the back of KfW's PROMISE program, virtually disappeared. Rating downgrades, based on revised rating agency criteria (i.e. counterparty and country ceiling criteria, without grandfathering), on downgrades of counterparties involved in the transactions, and on negative credit trends, contributed to the overall negative market sentiment.

However, it is important to note that the AFME data used above and in many of the following figures classifies only *lending*-based transactions in the SME basket. Most leasing-based transactions, classified in AFME's data under ABS Leases in the overall ABS basket, are de-facto SME transactions. Moreover, in the securitisation market, there are often (synthetic) transactions on a bilateral or club basis that are not visible in the official statistics. According to BoA/ML (2016) there was recently a significant rise in number and volume of synthetic SME transactions, driven by risk transfer, asset liability management aspects, and regulatory capital considerations. Based on their discussions with market participants, the authors estimate that the volume of such transactions (mainly based on large diversified SME portfolios and trade receivables) might well be in the area of EUR 60bn accumulated over the last two years (BoA/ML, 2016). These transactions do not appear in the statistics. Therefore, the numbers, shown here, are an underestimation of the total SMESec market size and can be seen as a lower bound.

Figure 37: SMESec issuance in Europe (volume and share of total securitisation, bn EUR and %)



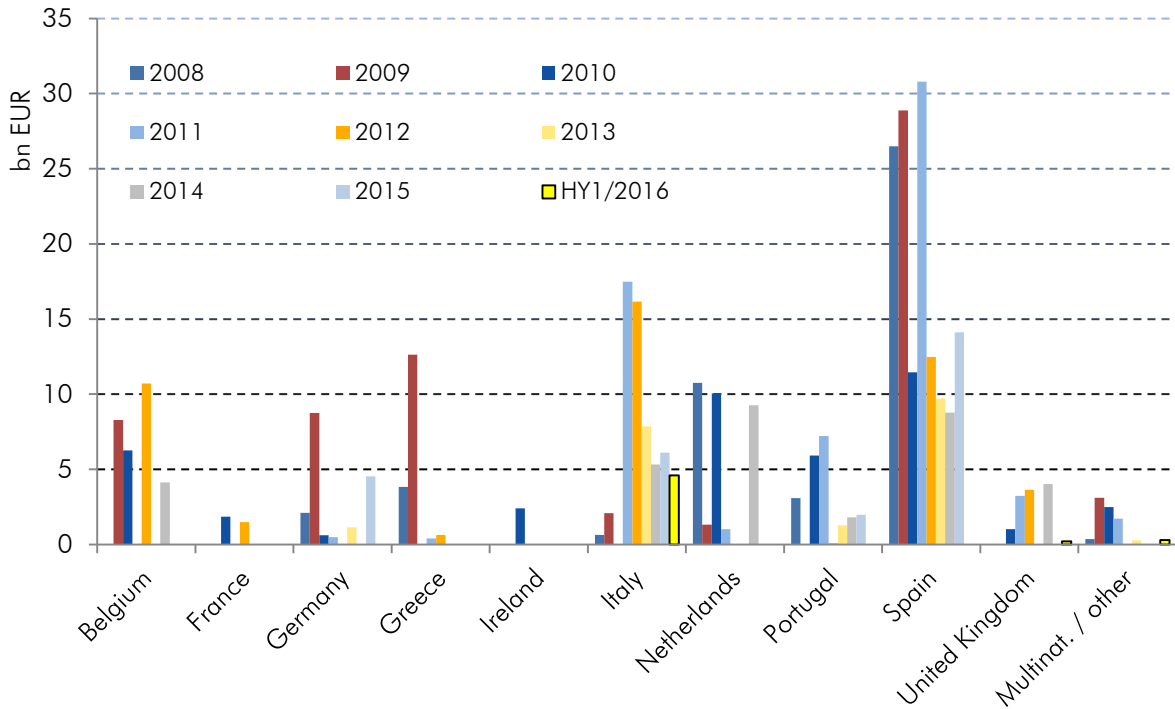
Source: Authors, based on data from AFME and own calculation

In terms of countries, the market activity is concentrated: The SME related issuance in 2015 occurred only in Spain (EUR 14.1bn, 53% of SME issuance), Italy (EUR 6.1bn, 23%), Germany (EUR 4.5bn, 17%), and Portugal (EUR 2bn, 7%). In HY1/2016 transactions happened mainly in Italy (90%) – see as well Figure 38 for an overview of the SMESec issuance by country during the crisis.

Typical originators are large banks or banking groups – some of them are active as originators in several countries (e.g. UniCredit, Raiffeisen, ING Group), but as well mid-sized banks. Moreover, in particular in the field of leasing, non-bank asset finance providers are active as originators; for instance, Alba Leasing in Italy and the small and medium size asset-finance providers in the UK which are the primary target recipients of the British Business Bank’s ENABLE program.⁶⁵

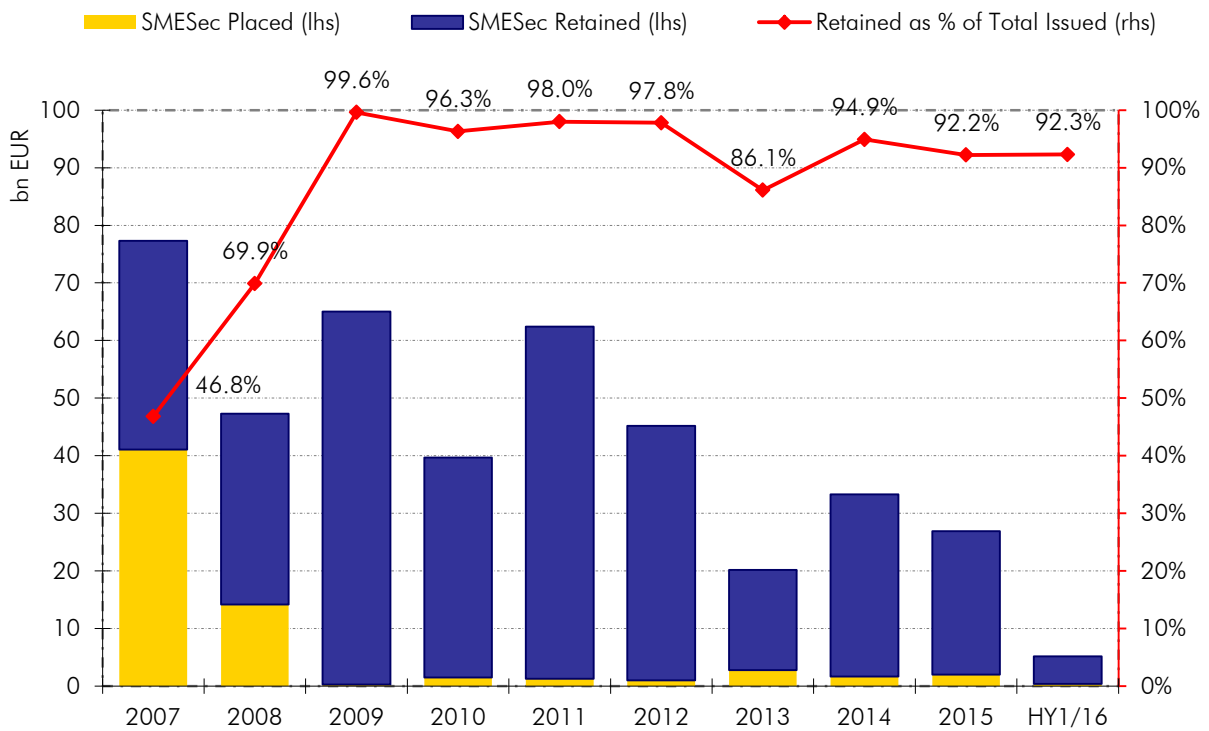
⁶⁵ See for more information e.g. <http://british-business-bank.co.uk/become-a-partner/wholesale-solutions/>

Figure 38: European SMESec issuance during the crisis (by country, in bn EUR)



Source: Authors, based on data from AFME

Figure 39: European SMESec by retention (bn EUR and %)



Source: Authors, based on data from AFME

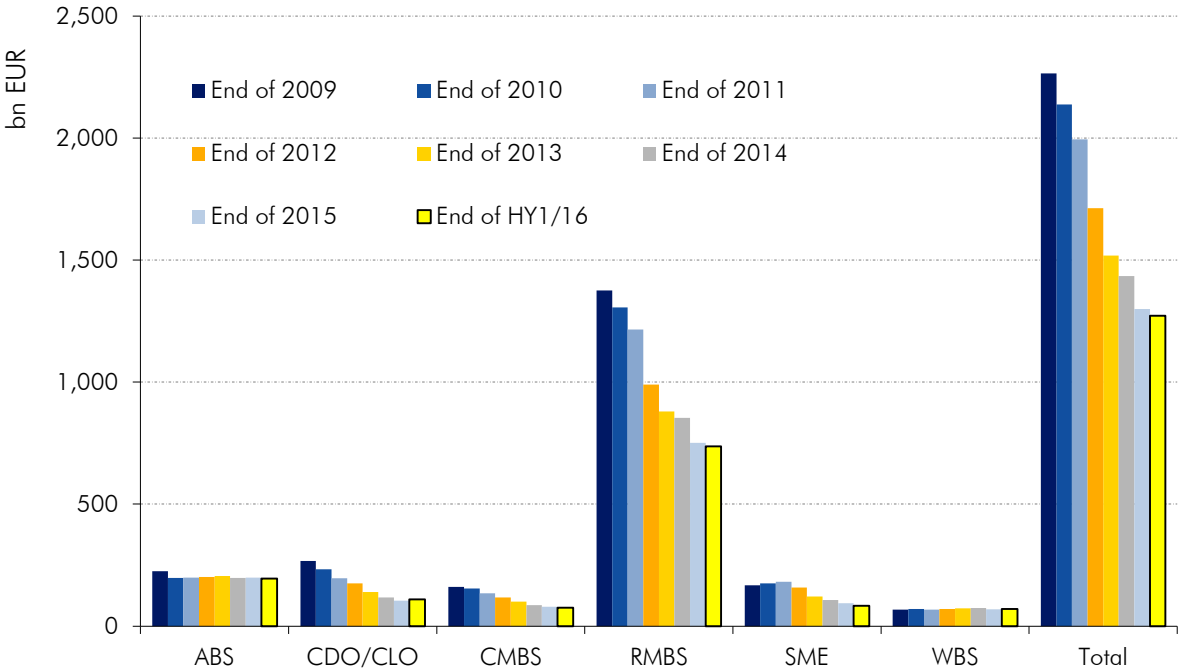
As already mentioned, it is important to note that only a very small fraction of the issuance has been placed with investors (see Figure 39): the nature of the SMESec market changed from a developing market (pre-crisis, with most transactions placed in the primary market) to a purely retained/ECB repo-driven market during the crisis (with almost no placement on the primary market). This shift led to liquidity drying up and originators accepting higher all-in costs as, in addition to the credit enhancement, the repos envisage considerable haircuts to the face value of the notes.

Outstanding

Due to low new activity levels, the volume of *total outstanding securitisation transactions* (see Figure 40) is on a downward trend (negative net supply). Compared to the end of 2014, until end of 2015, the total outstanding decreased by almost 10%, from end of 2015 to end of HY1/2016 it decreased by another 2%. Since the end of 2009, the volume of total outstanding securitisation transactions decreased by 44%. During the same period, the volume of outstanding SMESec transactions decreased by 50%, from EUR 168bn to EUR 84.1bn (end of HY1/2016).

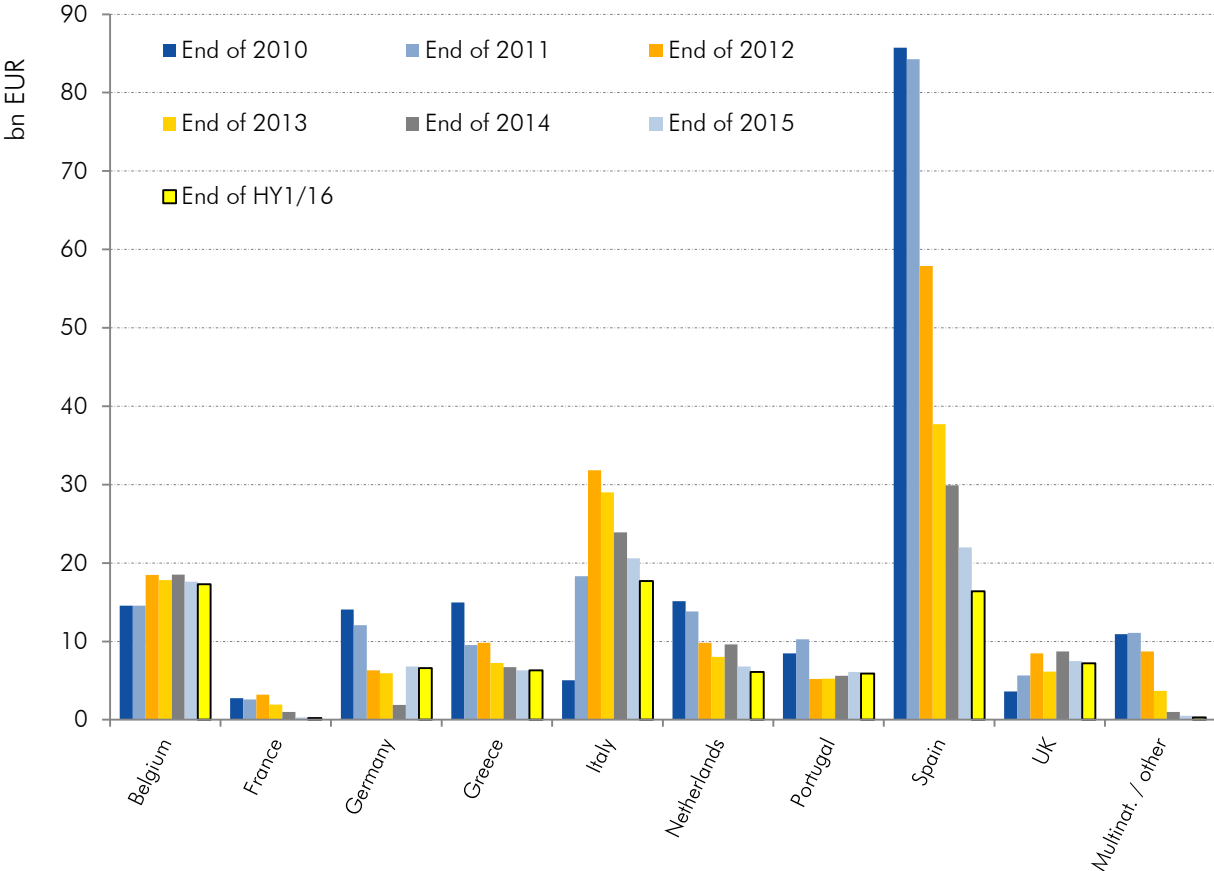
Breaking down SMESec volumes per end of HY1/2016 by country shows, that Spain (19.5) lost its leading position to Italy (21.1%) and Belgium (20.6%), see Figure 41. These three markets together account for more than 61% of the overall SMESec outstanding.

Figure 40: European outstanding securitisation transactions by collateral (bn EUR)



Source: Authors, based on data from AFME

Figure 41: European SMESec outstanding volume by country (bn EUR)



Source: Authors, based on data from AFME

SMESec performance trends

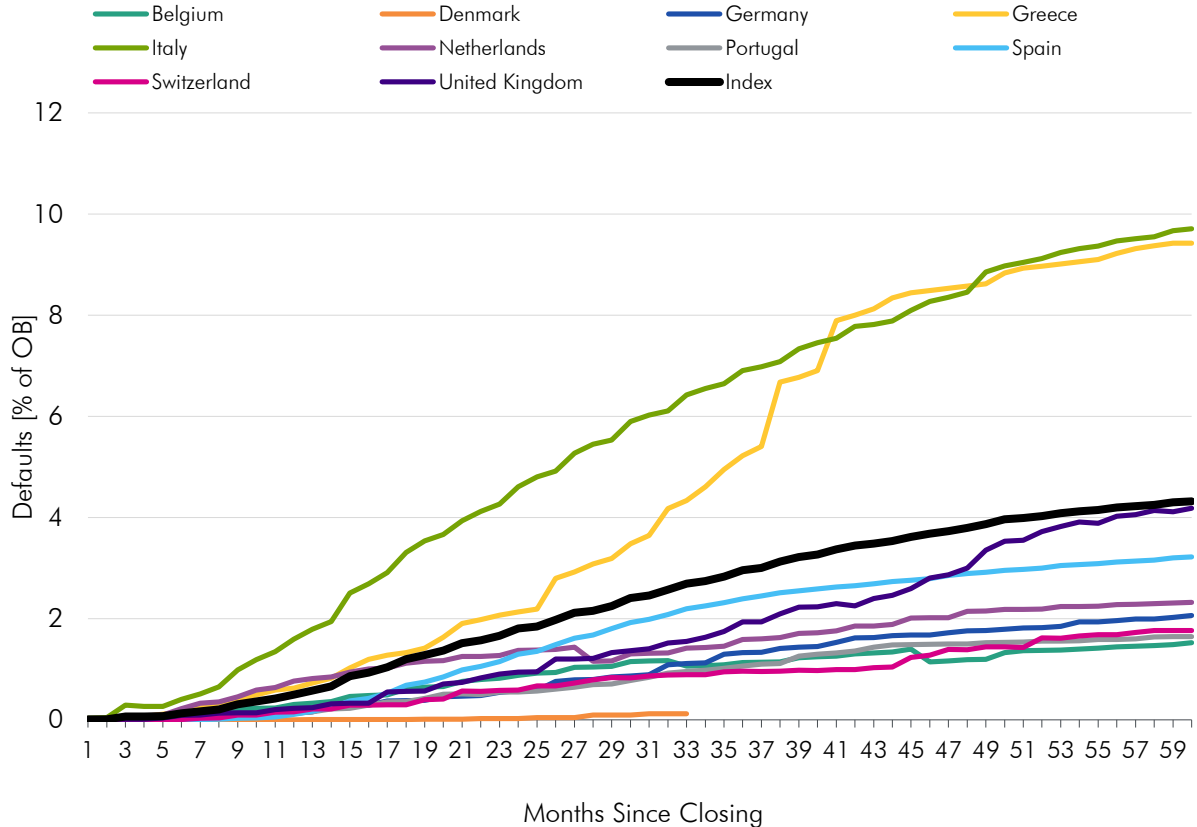
Despite the financial and sovereign crisis and the prolonged negative economic cycle, the European securitisation market in general has performed relatively well with comparatively low default rates.⁶⁶ The low losses are not only based on the typically high granularity, diversification and seasoning of these transactions, but also on the structural features (such as large credit enhancement) that helped counterbalance the negative effects of the deteriorating European economy (i.e. increased SME default rates).

The track record of SMESec in Europe is relatively limited: the market started only towards the end of the 1990s – at the time, this segment was relatively unknown to investors and rating agencies (based on the novelty of the applied tools, but as well based on the heterogeneity of SMEs/SME loans), and the securitisation technique was also new to most of the originators – and many banks were not in a position to securitise SME loans (a typical hurdle is represented by the IT infrastructure that has to be able to adequately support the securitisation transactions).

⁶⁶ With some exceptions, i.e. the non-granular hybrid transactions (German Mezzanine CDOs). For more details see Kraemer-Eis, Passaris, and Tappi (2013).

On the one hand, before the crisis started, SMESec volumes were small compared to the overall securitisation market – and the market had not had much time to develop. On the other hand, the limited track record was one of the reasons for the relatively conservative SMESec structures which could explain the relatively good SMESec performance in Europe compared to other segments of the European securitisation market and to the US.⁶⁷ Figure 42 and Figure 43 show the cumulative credit events or defaults on original balance by country and by vintage (of the SME transactions in the EMEA region rated by Moody’s).

Figure 42: EMEA ABS SME loan and lease cumulative credit events or defaults on original balance (seasoning by country)⁶⁸



Source: Moody’s (2016)

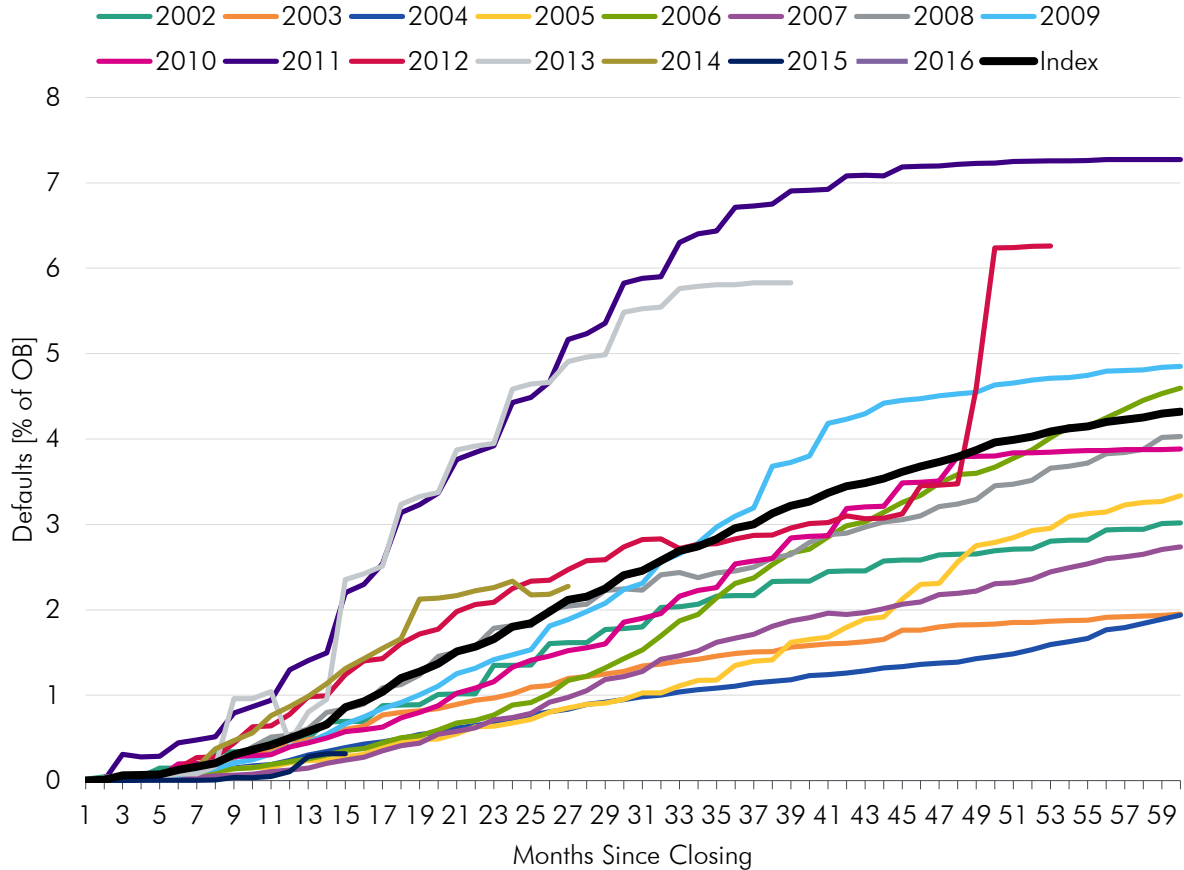
⁶⁷ According to Standard & Poor’s (2014), only 1.58% of European Structured Finance notes (rated by Standard & Poor’s) outstanding in mid-2007 had defaulted by mid-2014. The cumulative default rate for SMESec transactions was at 0.55% – for comparison: the cumulative default rate for US Structured Finance notes was at 19.3%, the one for CDO of ABS was at 41.08%. Similar statements can be made for transactions rated by Fitch or Moody’s. See also EBA (2014) for an analysis of historical credit performance of the securitisation market. It is sometimes stated that securitisation might lead to higher risk taking by banks (or lower lending standards). This is neither confirmed by performance data, nor by research. In a recent study, Kara, Marques-Ibanez, and Ongena (2015), analysing data from the euro-denominated syndicated loan market, found out, that in the run up to the financial crisis, banks, relying on securitisation, did not lower their lending standards more than other institutions.

⁶⁸ Terminated transactions are included in the index calculation, hence here “cumulative” curves can show as well a drop. Moody’s believes that this information must be included for an accurate representation of trends over time. Additionally, Moody’s notes show that vintage seasoning charts might move unexpectedly for the last few data points, because transactions start at different points in time within a vintage and, hence, some transactions may be more seasoned than others. The index includes only the transactions rated by Moody’s.

As explained in more detail in our previous working papers, the SMESec market has also been hit by a wave of downgrades due to weaker (crisis-driven) performance effects in the underlying portfolios, as well as the rating methodology changes. Typically, AAA tranches show strong rating stability, but during the crisis also AAA and AA tranches migrated downward. This was mostly driven by downgrades of the respective country/sovereign ratings, and the limitation by the country ceilings, or they may be driven by downgrades of (not replaced) counterparties (whose rating is in turn affected by the respective sovereign ratings).

The rating transition data shows that the downgrade pressure for SME transactions persists across all tranche levels. The example below (Table 6) shows the rating migration of SME Collateralised Loan Obligation (CLO) transactions (rated by Fitch, migration since transaction closing). For example, of all the tranches initially rated AAA, 63% (by number⁶⁹) have paid in full (pif), 15% are still AAA, 4% moved down to AA etc.

Figure 43: EMEA ABS SME loan and lease cumulative credit events or defaults on original balance (seasoning by vintage)



Source: Moody's (2016)

⁶⁹ Relative to the number of tranches in a given initial rating category.

Table 5: Fitch European SMEs Rating Transition Matrix (October 2016)⁷⁰

% of tranches		Current rating									
		PIF	AAAsf	AAsf	Asf	BBBsf	BBsf	Bsf	CCCsf	CCsf	Csf
Initial Ratings	AAAsf	63%	15%	4%	13%	4%	0%	2%	0%	0%	0%
	AAsf	39%	4%	36%	7%	0%	11%	4%	0%	0%	0%
	Asf	9%	0%	22%	44%	6%	13%	6%	0%	0%	0%
	BBBsf	8%	0%	4%	0%	19%	12%	19%	0%	35%	4%
	BBsf	0%	0%	0%	0%	0%	46%	8%	15%	23%	8%
	Bsf	0%	0%	0%	13%	0%	25%	63%	0%	0%	0%
	CCCsf	0%	0%	0%	0%	0%	25%	0%	0%	25%	50%
	CCsf	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
	Csf	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Source: Fitch (2016)

5.2.2 SMESec prospects

In general, a well-functioning securitisation market can be essential in helping financial intermediaries broaden their funding base, achieve capital relief and ultimately, increase their SME financing. However, the SMESec market in Europe is still underdeveloped. There are many advantages of SMESec – for banks, for investors, and – most importantly - for the SMEs (see for a detailed discussion Kraemer-Eis, Schaber, and Tappi (2010), Wehinger and Nassr (2015), Aiyar, Al-Eyd et al.(2015), or the recent joint statement of eight leading trade associations: AFME et al. (2016)).

A recovery and development of the primary securitisation markets could play a role in unlocking credit supply and economic recovery. Moreover, in addition to the direct effects of the SMESec markets, there are indirect benefits to SMEs from the development of other securitisation segments that free up space on bank balance sheets to allow for further SME lending (AFME et al., 2016). However, this will only be to the benefit of SMEs if the freed-up capital / fresh liquidity is going to be used to finance the real economy (i.e. for new SME lending).

As described, even 7 years after the start of the financial crisis, the European SMESec has still not recovered. Unbalanced regulation is still to be seen as main impediment. We provide an overview over latest developments in Kraemer-Eis, Passaris, Tappi and Inglisa (2015) and do not go into details here. Most individual proposed regulations make sense on a stand-alone basis, but negative spill-overs from a non-holistic approach might lead to unintended consequence that hinder a market development. For instance, the proposed Capital Requirements Regulation's (CRR) article 270 provides certain regulatory capital advantages to the originators in the context of synthetic transactions executed with a multi-lateral development bank; however, such advantage is not achievable if a private investor also enters into the transaction, which is a non-desirable outcome, we believe.

⁷⁰ The addition sf indicates a rating for structured finance transactions.

Originators and investors need to have certainty and clarity. Short and medium term perspective, reasonably defined criteria for high quality securitisations HQS (incl. SMESec) - which should comprise of structures that are simple, transparent and efficient and which should receive preferential regulatory treatment - could be a way out of this dilemma.⁷¹ We fully support the statement that “[T]he development of a simple, transparent and standardised securitisation market constitutes a building block of the Capital Markets Union (CMU) and contributes to the Commission’s priority objective to support job creation and a return to sustainable growth. A high quality framework for EU securitisation can promote integration of EU financial markets, help diversify funding sources and unlock capital, making it easier for credit institutions and lenders to lend to households and business” (European Commission, 2015).

Interpreting potential effects of the current proposals, it has to be borne in mind that the proposed risk weights for HQS will still result in increased capital requirements for IRB banks compared to today. Moreover, another perspective regarding HQS - mentioned by some market participants - is, that it can even circumvent a proper securitisation market recovery if “everything but HQS” is still seen as being toxic. The legislative process for the European Commission’s proposal had moved to the European Parliament. On 08.12., the ECON Committee of the European Parliament voted on its compromise text for the draft STS securitisation legislation. This text is an amended version of the original European Commission text and will be brought together with the Council text agreed last December. The two will be subject to a reconciliation process involving the European Commission, the European Council, and the European Parliament – the Trilogue negotiation. This process is expected to start in January or early February 2017 (Bell, 2016, AFME, 2016b). At this stage it is not possible to estimate how long the negotiation will take. From our perspective, the new securitisation regulation can only be expected towards the end of 2017 at the earliest and first ‘quality-labelled’ transactions will not happen before 2018.

The EIB Group, leveraging on the structured finance capabilities of EIF, has engaged in providing responses to several consultations aiming at testing market’s sensibility in respect of high quality securitisation. The response to “Criteria for identifying simple, transparent and comparable securitisations” published by BCBS-IOSCO provides an exhaustive summary of our view on this topic⁷². The fog around the future regulation design is lifting – which is good in order to reduce the respective uncertainty. We note that the approach likely to be steering the forthcoming regulation suggests a “light” set of high quality criteria, which in turn translates in a marginal (rather than substantial) reduction in the risk-weights.⁷³ Concerning the forthcoming Capital Requirements Regulation, in our opinion, more could be achieved with a view to both increasing the breadth of the market for synthetic transactions - we discussed the “different synthetic faces” in our previous

⁷¹ We use here HQS as term – in the current discussion, also other terminologies are used in the same context, e.g. STS (simple, transparent, and standardised) securitisation, used e.g. by the ECB, or STC (simple, transparent and comparable) securitisation, used by BCBS-IOSCO, or SST (simple, standard and transparent) securitisation, used by the European Banking Authority. September’s proposed regulation published by the European Commission suggests that the STS acronym will prevail in European regulation.

⁷² EIB Group’s response is available at the consultation’s web page:

<http://www.bis.org/bcbs/publ/comments/d304/overview.htm>

⁷³ See also in this context the Working Document by Rapporteur Tang for the European Parliament, Committee on Economic and Monetary Affairs (European Parliament, 2016).

ESBFO - and to reduce the overall reliance on rating agencies, especially with a view to establishing a level playing field among different asset classes and funding instruments.⁷⁴

In November 2014, the ECB started its Asset Backed Purchase Programme (ABSPP). The overall objective is to enhance the transmission of the monetary policy, support the provision of credit to the Euro Area economy and, as a result, to provide further monetary policy accommodation. The ECB's support of the ABS market in general, and the SMESec market in particular, is a positive step. However, the programme has so far not achieved significant volumes, moreover, as it is based on publicly placed transactions, there is almost no direct impact on the SME segment on the market. As per end of October 2016, EUR 21.261bn have been bought by the ECB (mainly in the secondary market), compared to around EUR 197.741bn under the Covered Bond Purchase Programme (source: ECB⁷⁵).

From the perspective of direct public support, strengthening the SME securitisation market can be an effective way to facilitate the flow of funds to the real economy, while not creating too much distortion. In this respect, public initiatives that support SMESec may be helpful though of course, in doing this, the introduction of new risks should be avoided (for instance, securitisation transactions have to be transparent and have standardised structures; in addition, originators have to have sufficient *skin in the game* to avoid moral hazard (Kaya, 2014)). Moreover, these initiatives can be an efficient way of using public resources as they lead to a multiplier effect.

Integrated EU capital markets (and their need for transparency and standardisation) and the relative complexity of securitisation techniques require considerable know-how and show the necessity for specialised institutions. As an established and respected player in the European market, EIF can play a role via market presence, reputation building, and signalling. Its securitisation activities, as well as initiatives and latest developments are explained in detail in Kraemer-Eis, Passaris, Tappi and Inglisa (2015).

Over the recent past, EIF has been involved in a number of diverse and innovative transactions. Market appetite has been especially strong with respect to (i) synthetic securitisation and (ii) warehousing facilities. With respect to the former, EIF has provided guarantees to Italian, Austrian, German and French financial intermediaries, allowing them to partially release regulatory capital absorbed by the securitised portfolios. On the funding front, warehousing transactions have dominated the scene, with EIF partnering with the British Business Bank in the UK as guarantor of the ENABLE Programme⁷⁶. We expect synthetics and warehouses to represent an important portion of our future pipeline. Moreover, new types of transactions are appearing on the market, and new

⁷⁴ See Council of the EU (2015).

⁷⁵ <https://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html>. On 10.09.2015, the ECB clarified its intention to buy mezzanine tranches of European ABS with an eligible third party guarantee. However, the ECB's requirement of a *guarantee on demand* ("The guarantee shall be payable on first demand independently of the guaranteed marketable asset or credit claim") leads for guarantors to a gap between their payment obligation to ECB (on demand) and the receipt of payment from the mezzanine ABS tranches. This feature limits the number of potential guarantors significantly since a wrap of this sort would not be a market standard. To our knowledge there were so far no transactions of this kind.

⁷⁶ The most recent transaction in the framework of the ENABLE Programme has been closed with Henry Howard Finance, an asset-finance provider, further details are available at: http://www.eif.org/what_we_do/guarantees/news/2016/eif_british_business_bank_enable.htm

initiatives are emerging. We presented in our previous ESBFO⁷⁷ an example of a new type of transaction (SBOLT-2016-1) that can be seen as a milestone in the area of marketplace lending securitisation. Furthermore, a new platform as cooperation between EIF and National Promotional Institutions (NPIs), ENSI, has been launched (see Box 8).⁷⁸ In addition, Italy recently opted-in to the SME Initiative as the first country to implement the securitisation instrument (see Box 10).

Box 9: ENSI: Enhanced cooperation to support SME securitisation in Europe

The EIF-NPIs Securitisation Initiative, ENSI, is a cooperation platform between EIF and several National Promotional Institutions (NPIs) – and more generally, economic development institutions in the EU – to encourage SME lending via the capital markets. The ENSI partner institutions are EIF, part of the EIB Group, bpiFrance (FR), British Business Bank (BBB, UK), Cassa di Risparmio di Padova e Rovigo (CRP, IT), Kreditanstalt für Wiederaufbau (KfW, DE), Instituição Financeira de Desenvolvimento (IFD, PT), Instituto de Crédito Oficial (ICO, ES) and Malta Development Bank Working Group (MT).

The objective of this joint cooperation in SME Securitisation transactions is to improve the availability of finance to SMEs in Europe by revitalising the SME Securitisation market while catalysing resources from the private sector. The ENSI cooperation started in early 2016.

The working group defines standard procedures and minimum criteria under which the respective NPIs are generally willing to participate in securitisation transactions. Furthermore, the working group liaises with the European Commission to discuss deployment options for funds out of the EFSI for the purpose of securitisation transactions.

ENSI offers a number of advantages to NPIs:⁷⁹

- 1) It can provide funding and capital relief, reduction of portfolio concentration and/or deconsolidation of SME portfolios to financial intermediaries, subject to compliance with the applicable mandates and internal guidelines of the ENSI partner institutions.
- 2) A single-contact access to a pool of joint support measures provided by ENSI partner institutions.
- 3) A harmonised and transparent framework with streamlined procedures.
- 4) Co-ordination and strengthening of promotional activities across European promotional institutions in a flexible, efficient and transparent manner.

To-date, four Italian transactions and one UK agreement have been closed under this program. As example, in October 2016 the EIF and KfW have invested in a new securitisation transaction by purchasing EUR 49m of mezzanine and EUR 90m of senior notes. The transaction, which is backed by a portfolio of leases to German SMEs, originated by abcfinance group Cologne, was arranged by Raiffeisen Bank International AG. The involvement of KfW and EIF allows abcfinance group to raise long term funding, which will be reinvested by granting new leases to German SMEs in the next two years.

⁷⁷ Kraemer-Eis, Lang, Torfs, and Gvetadze (2016).

⁷⁸ The development of this platform happens in parallel to the development of the above mentioned EIF-NPI equity platform.

⁷⁹ For more details see: http://www.eif.org/what_we_do/guarantees/ENSI/index.htm

Box 10: The SME Initiative

The SME Initiative is a joint financial instrument of the EC and the EIB Group which aims at stimulating SME financing by providing partial risk cover for SME loan portfolios of originating financial institutions. Alongside the European Structural and Investment Funds (“ESIF”) resources contributed by the Member States, the SME Initiative is co-funded by the European Union through COSME and/or Horizon 2020 resources as well as EIB Group resources. The SME Initiative is currently operational in Bulgaria, Finland, Italy, Malta, Romania and Spain. In the future, it may be extended to other EU Member States.

The initiative contemplates the implementation of up to two products: an uncapped portfolio guarantee instrument and a securitisation instrument. Via the SME Initiative, the EIF offers selected financial intermediaries (e.g. banks, leasing companies, guarantee institutions, debt funds) loss protection and potential capital relief at an advantageous cost. In return for this risk-sharing, the financial intermediaries undertake to provide SME loans, leasing and/or guarantees at favourable terms (for example, reduced interest rates and collateral requirements for the final recipients). Financial Intermediaries are selected through EIF via an Open Call for Expression of Interest.

On 17th October 2016, EIF, the Republic of Italy, the EIB and the EC, announced the launch of the SME Initiative in Italy. Italy is the first Member State of the EU to adopt the securitisation instrument (the so-called Option 2) and for the first time under the SME Initiative, the blending of the EU structural funds, the national and EIB Group resources is made with funds from the COSME programme. The initiative is expected to generate more than EUR 1.2bn of new debt finance to SMEs in the “Mezzogiorno” of Italy.⁸⁰

⁸⁰ For more information see: http://www.eif.org/what_we_do/guarantees/sme_initiative/index.htm

6 Microfinance market

6.1 Microfinance and social inclusion

6.1.1 What is Microfinance?

“Microcredit is generally recognised [...] as an effective financing channel for job creation and social inclusion, which can attenuate the adverse effects of the current financial crisis while contributing to entrepreneurship and economic growth in the EU” (European Commission, 2012b). In Europe, microfinance consists mainly of small loans (less than EUR 25,000) that are tailored to microenterprises (see Box 11 for an elaboration on some definitions) and people who aspire self-employed but face difficulties in accessing the traditional banking system. Throughout the EU, 99% of all start-ups are micro or small enterprises, one third of which were launched by unemployed people.

Box 11: What is “micro”?

A **microenterprise** is any enterprise with fewer than 10 employees and a turnover below EUR 2m (as defined in the Commission Recommendation 2003/361/EC of 6 May 2003, as amended).

A **microfinance institution (MFI)** is an organisation/financial intermediary that provides microfinance services. There is a wide spectrum of different MFI business models in Europe.

Microcredit in general is defined by the European Commission as a loan or lease under EUR 25,000 to support the development of self-employment and microenterprises. It has a double impact: (1) an economic impact, as it allows the creation of income generating activities, and (2) a social impact, as it contributes to the financial inclusion and, thus, to the social inclusion of individuals.

Microfinance, as a general term, is traditionally defined as the provision of basic financial services to poor (low-income) people who traditionally lack access to banking and related services (CGAP Definition, Consultative Group to Assist the Poor). However, more and more often, the definition is used in a wider sense, also to include financial services to existing microenterprises. This wider concept is used in the present text and in order to achieve a pragmatic approach, we follow a differentiation introduced by EMN (2012):

Microenterprise lending = micro-lending to existing enterprises. Organisations that implement the lending model of microenterprise lending tend to focus on the upper end market of microfinance, providing loans to bankable or nearly bankable microenterprises that have difficulties accessing loans up to 25,000 EUR from commercial banks due to risk aversion or lacking liabilities. The average volume of the provided loans is markedly higher than in the model of social inclusion lending, meant to support the start or stabilisation of microenterprises with a growth perspective. The maximum loan sizes go up to 25,000 EUR (or even higher in some cases).

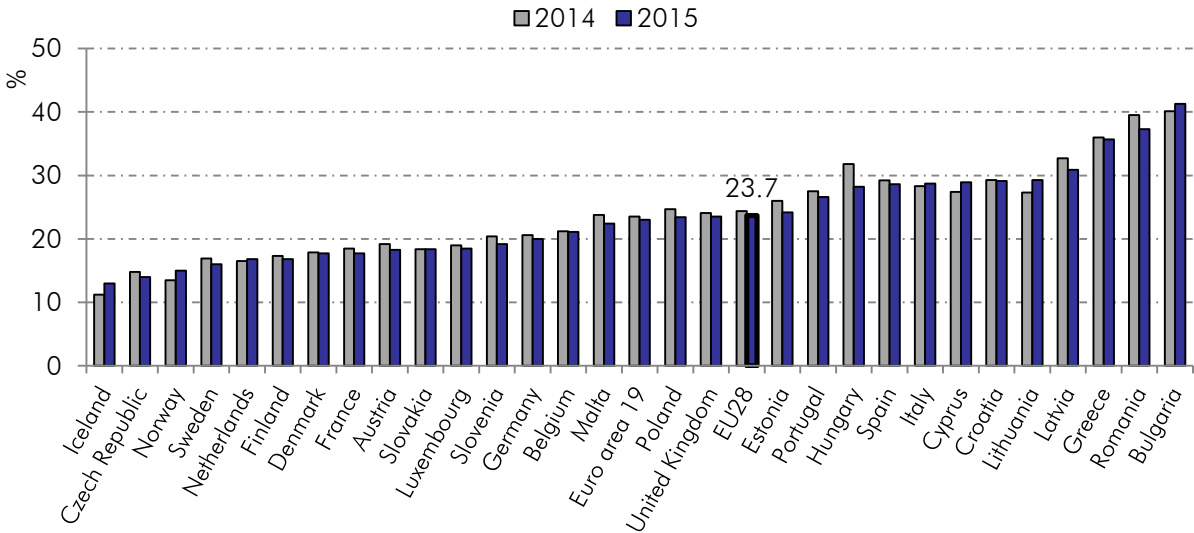
Social inclusion lending = lending to self-employed individuals that are excluded from banking services, due to their socioeconomic status of being socially excluded or (long term) unemployed and/or belonging to financially excluded population groups like ethnic minorities or young people. The average loan sizes are relatively low, meant to support basic income creating activities.

EIF has conducted extensive research on the European microfinance market (see for example, Kraemer-Eis and Conforti (2009) and Bruhn-Leon, Eriksson and Kraemer-Eis (2012)), in which they conclude that there is no common microfinance business model in Europe. Instead, it was found that the market is highly fragmented and diverse, characterised by a wide spectra of final beneficiaries and financial intermediaries. Part of this fragmentation has geographical roots, as the role of microfinance is seen very differently across Europe. In Western Europe, microfinance is considered to be a social policy tool, as it serves businesses that are not commercially attractive for the mainstream financing providers, but nevertheless are able to create social value. In Eastern Europe on the other hand, microfinance is seen as a business activity, which targets viable microenterprises that are financially excluded because the traditional credit market remains underdeveloped (for a discussion on the principles driving credit rationing, see subchapter 5.1.1).

6.1.2 A support tool for necessity-driven business creation

Microfinance is an essential tool to facilitate necessity-driven business creation, which arises when entrepreneurship is driven by push-factors that originate from adverse conditions in the labour market. That is, when a combination of poor labour market prospects and poverty drives people to start new businesses. This is not to say that every unemployed individual would be eligible to become a successful entrepreneur, but it does imply that countries faced with adverse labour market conditions provide a fertile ground for necessity-driven entrepreneurial activity. Therefore, this section discusses some important indicators related to unemployment, poverty and social exclusion.

Figure 44: People at risk of poverty or social exclusion (percentage of total population)



Source: Authors, based on data from Eurostat

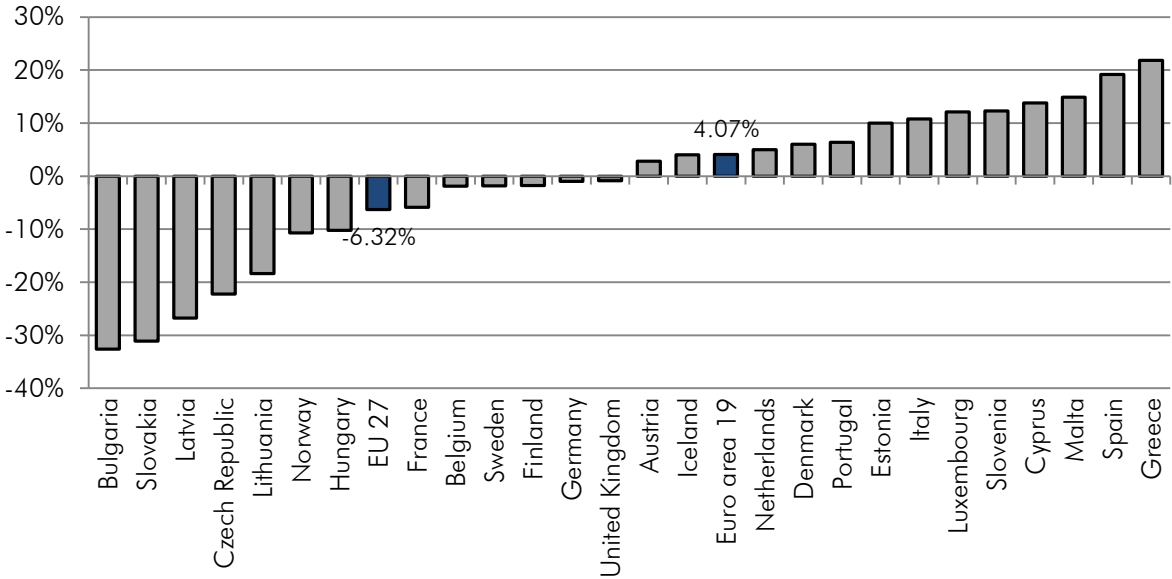
In the context of the Europe 2020 social inclusion targets, Eurostat has constructed the “people at risk of poverty or social exclusion” indicator⁸¹, depicted in Figure 44. The indicator corresponds to

⁸¹ See the Eurostat internet site on the Europe 2020 indicators at: http://epp.eurostat.ec.europa.eu/portal/page/portal/europe_2020_indicators/headline_indicators

the sum of individuals who are at risk of poverty, after social transfers, are severely materially deprived, or are living in households with very low work intensity.⁸² Per 2015, nearly one fourth of EU-28 citizens were at risk of poverty and social inclusion. The highest rates were recorded in some Eastern European countries (Bulgaria, Romania). The geographical subdivide in poverty risk becomes clear when considering the mostly Nordic and Western European countries on the other side of the spectrum (Iceland, Norway, Netherlands, Sweden).

That the global financial and sovereign debt crisis has had a detrimental impact on the progress towards achieving the Europe 2020 goals becomes clear from Figure 45, which illustrates the relative change (in percentage terms) since 2006. Interestingly, while poverty risk in absolute terms was highest in the East of Europe, in the post-crisis period Western European countries clearly fared worse. In the New Member States (NMS) taken together, the number of people at risk of poverty or social inclusion decreased by 25% from 2006 to 2014. This contrasts with the EU15 members, which show a marked increase of 6%. In fact, apart from France and Belgium in none of the Western European Euro countries, the number of people at risk of poverty or social inclusion decreased since 2006.

Figure 45: Number of people at risk of poverty or social exclusion, relative change since the crisis (2006-2015)

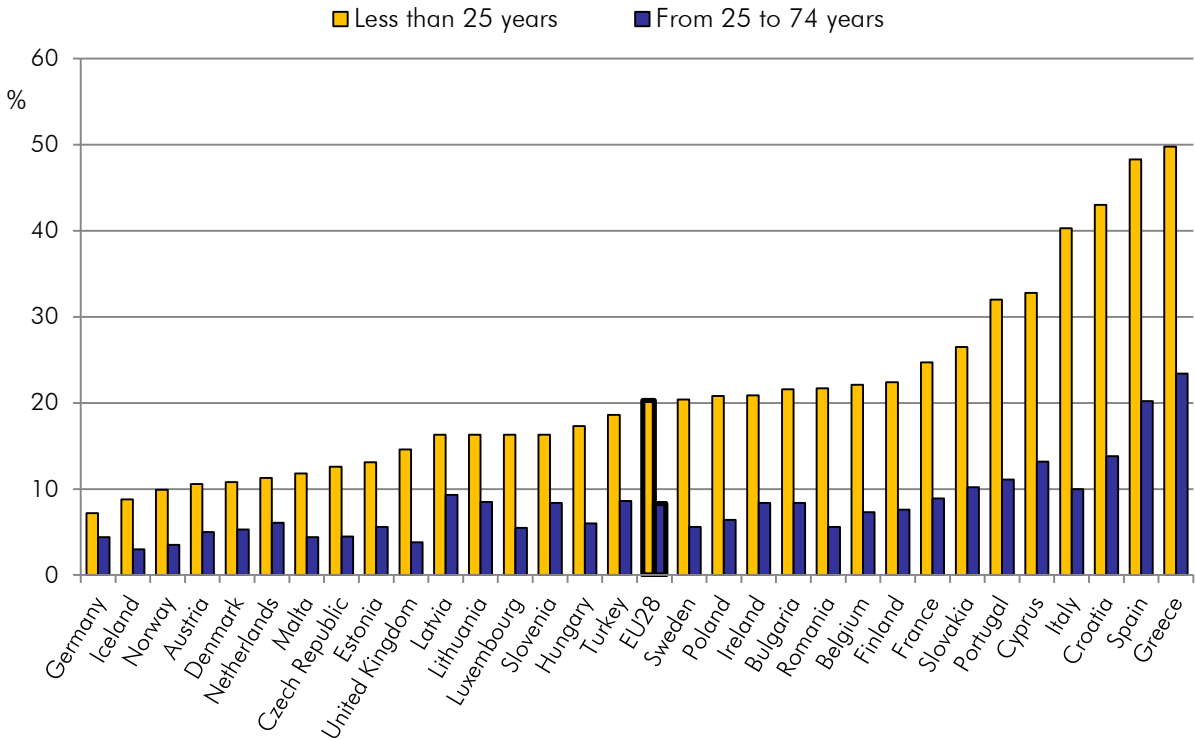


Source: Authors, based on data from Eurostat

⁸² Individuals are only counted once, even if they are present in several sub-indicators. At risk-of-poverty are persons with an equivalised disposable income below the risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income (after social transfers). Material deprivation covers indicators relating to economic strain and durables. Severely materially-deprived persons have living conditions severely constrained by a lack of resources. People living in households with very low work intensity are those aged 0-59, living in households where the adults (aged 18-59) worked less than 20% of their total work potential during the past year. For more information please see: http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=t2020_50

The statistics depicted in Figure 44 and Figure 45 are relevant because people at risk of poverty are a potentially important group of business creators, since a decision to start a business often arises out of necessity. According to the Eurobarometer Survey on Entrepreneurship (European Commission, 2012a), the majority of self-employed people indicated that dissatisfaction with their previous work was an important decision to start a business. In line with this, the OECD (2014a) reports that the majority of entrepreneurs start businesses to improve their economic situation (OECD, 2014a).⁸³

Figure 46: Unemployment rate by age groups, 2015



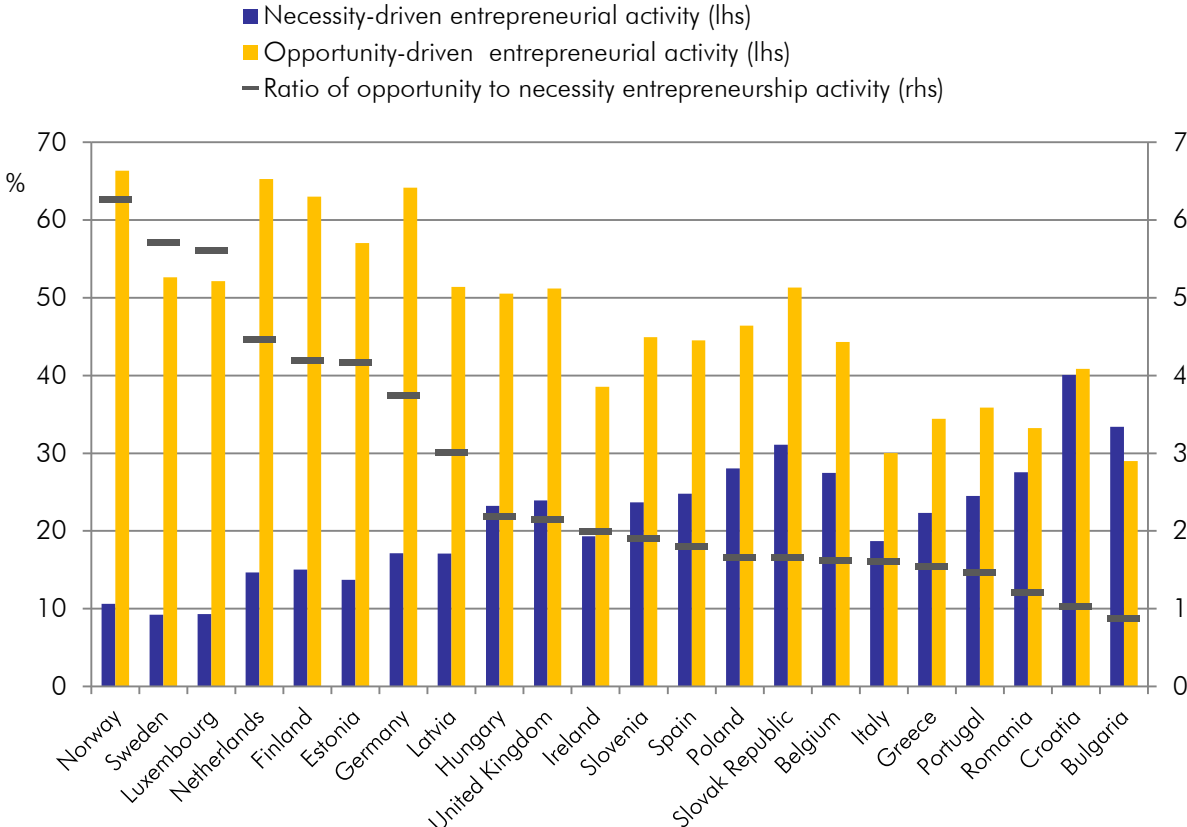
Source: Authors, based on data from Eurostat

Since adverse labour market conditions are the most important driver for necessity-driven entrepreneurship, Figure 46 plots the unemployment rate for a number of European countries. In the aftermath of the 2007-financial crisis, unemployment remains one of Europe’s main challenges, in particular for the age cohort of workers under 25. Long term unemployment spells can lead to a loss of skills, or labour market discouragement in general, which is particularly problematic among young workers, as it can result in a lost generation of workers (Choudhry et al., 2012). Supporting measures to facilitate the transition of these worker groups from unemployment to self-employment are therefore of crucial importance (OECD, 2014a; European Commission, 2014).

⁸³ According to the Eurobarometer Survey on Entrepreneurship (European Commission, 2012a), in most countries of the EU, the majority of self-employed people found dissatisfaction with their previous work very important in their decision to start a business.

The incidence of necessity-driven entrepreneurial decisions is illustrated by country in Figure 47. The highest rates are recorded in Croatia, Bulgaria and Slovakia, where around a third of entrepreneurs started their business because they had no better options in the labour market. Belgium unexpectedly joins the top of the ranking which records a necessity-driven entrepreneurial rate of 27.5%, a rate that exceeds rates recorded in Greece. The relatively low rate in countries like Greece and Latvia could of course point to existing barriers to entrepreneurship there, such as limited access to external finance, which stops aspiring entrepreneurs to effectively start a business.

Figure 47: Necessity-driven entrepreneurial rates (2015)



Source: GEM 2015/16 Global Report

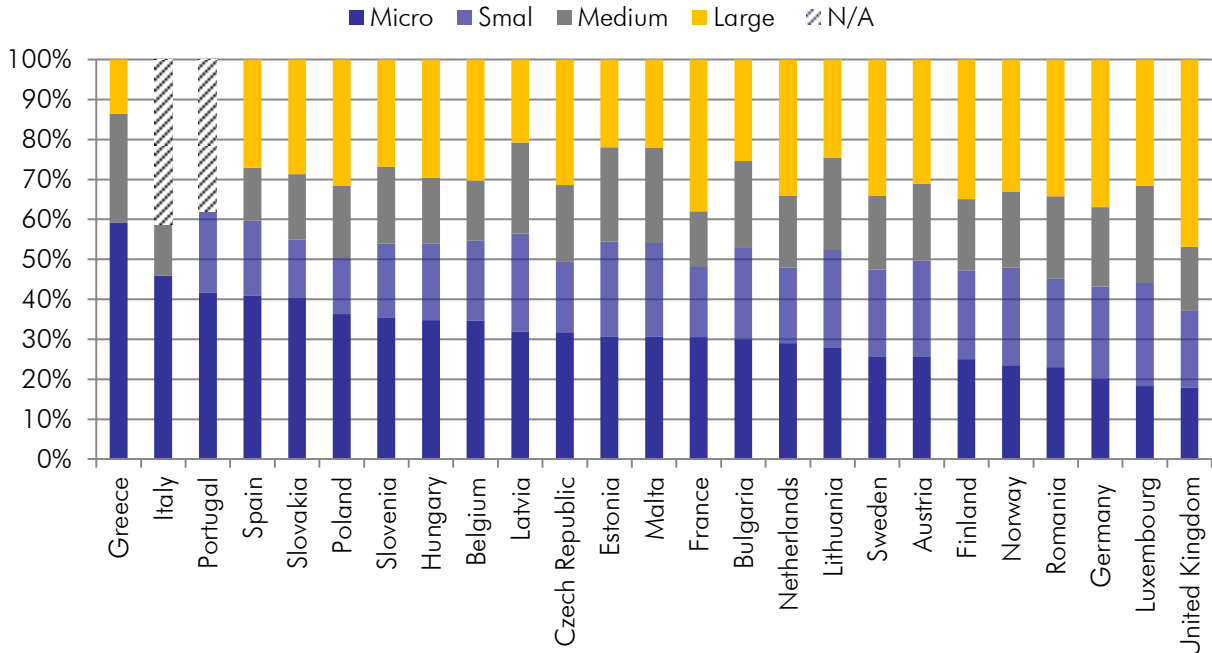
As mentioned above, necessity-driven entrepreneurs are motivated to improve their economic situation and very often become self-employed, however, opportunity-driven entrepreneurs are much more likely to survive and employ people (GEM, 2016).

In light of the adverse labour market impact of the financial and sovereign debt crisis, it remains of utmost importance to provide those labour market segments that suffered most with the necessary opportunities to improve upon their fortunes. Microfinance, characterised by a high degree of flexibility in its implementation, is a product that can be tailored to support the needs of aspiring entrepreneurs from disadvantaged labour market segments. Given the sector of microenterprises is prone to market failures in the external financing market, it should be considered a crucial policy tool in alleviating the negative impact of the crisis on European labour markets.

6.2 The demand for microfinance: microenterprises and their finance decisions

Microenterprises, making up 93% of all European businesses, are important contributors to employment and account for 30% of total employment (European Commission, 2016a). Micro-businesses seem to be relatively more important in countries with elevated unemployment levels. In Spain, Portugal and Italy employment by microenterprises accounts for more than 40% of total employment and in Greece this amounts to almost 60% (Figure 48).

Figure 48: Relative employment share by microenterprises compared to other enterprise size classes, 2014

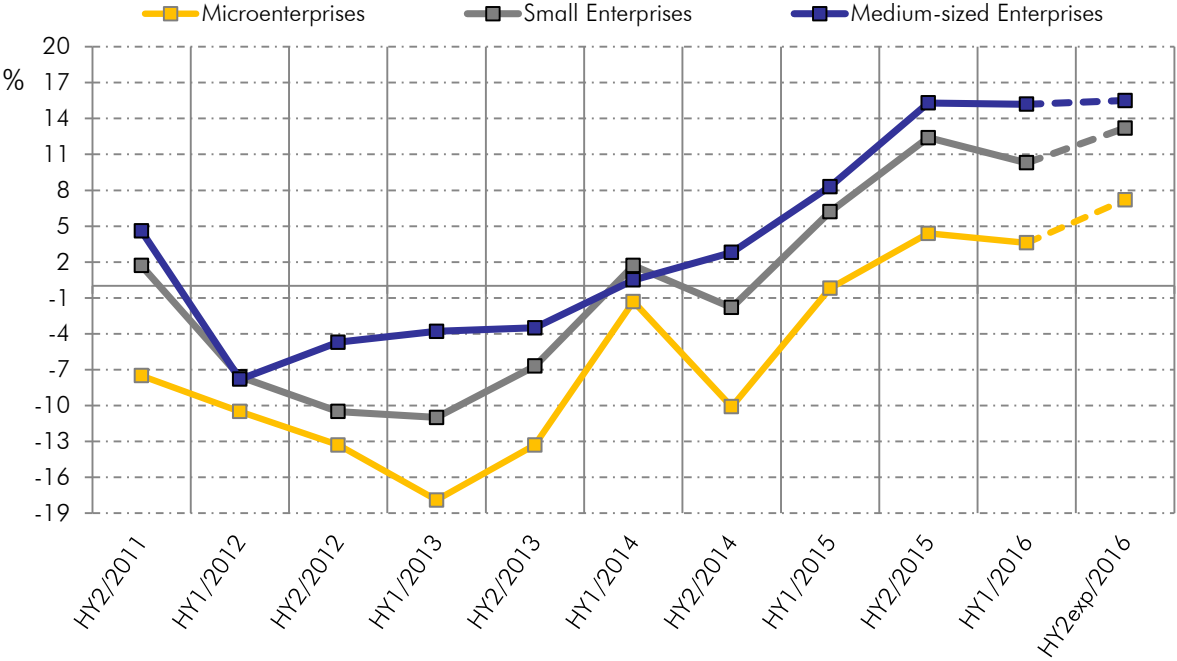


Source: Eurostat

While microenterprises are an important element in the European economic fabric, they generally face more challenging conditions compared to their larger counterparts. This is evidenced by Figure 49, which illustrates microenterprises’ perception about the current economic climate and compares it to larger firms’ perception. For the first half of 2016, microenterprises are on balance expecting a positive change (7.2%) in their overall situation, thereby being significantly less optimistic than their larger counterparts. The UEAPME survey furthermore reveals that they expect their investment climate to worsen (UEAPME, 2016). Given the importance of microenterprises in sustaining employment levels of vulnerable labour market groups, policy makers ought to be cautious for a situation of underinvestment.

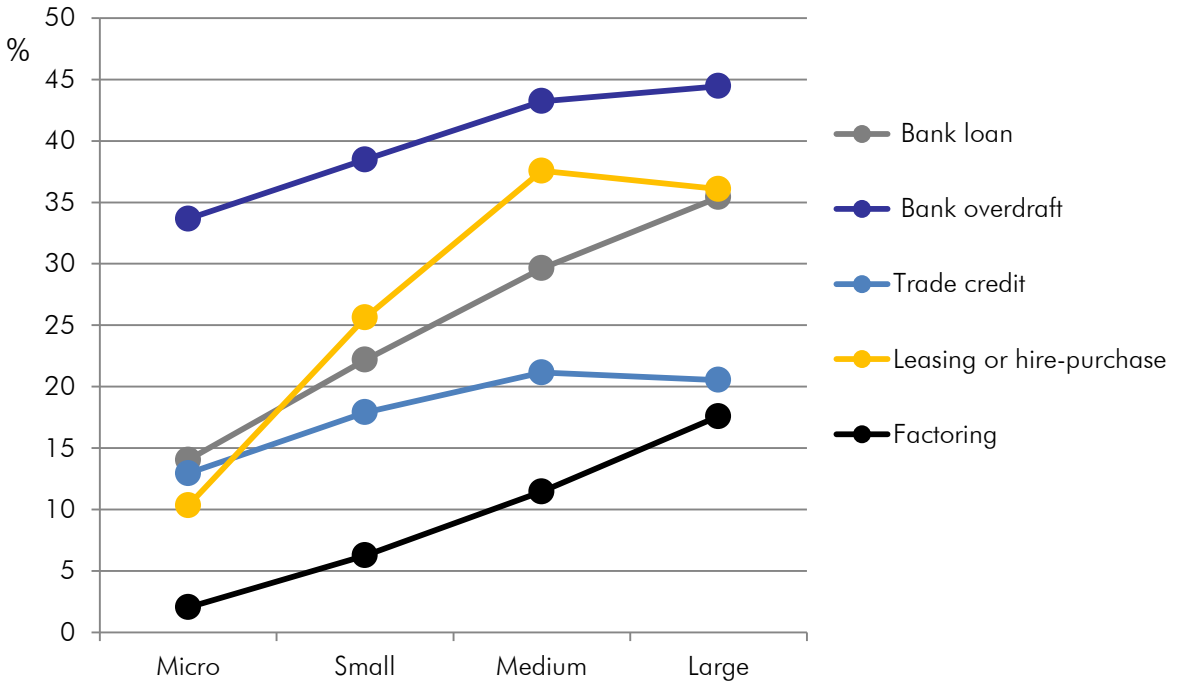
Microenterprises, on balance, reported slightly increased needs for bank loans. However, they use bank loans and other external financing sources considerably less than other SME size classes, presumably due to difficult access to finance. Figure 50 shows that the usage of different financing sources on average typically increases with the size of the SME (ECB, 2016a).

Figure 49: Overall situation of European microenterprises compared to other size classes



Source: UEAPME Study Unit (2016)

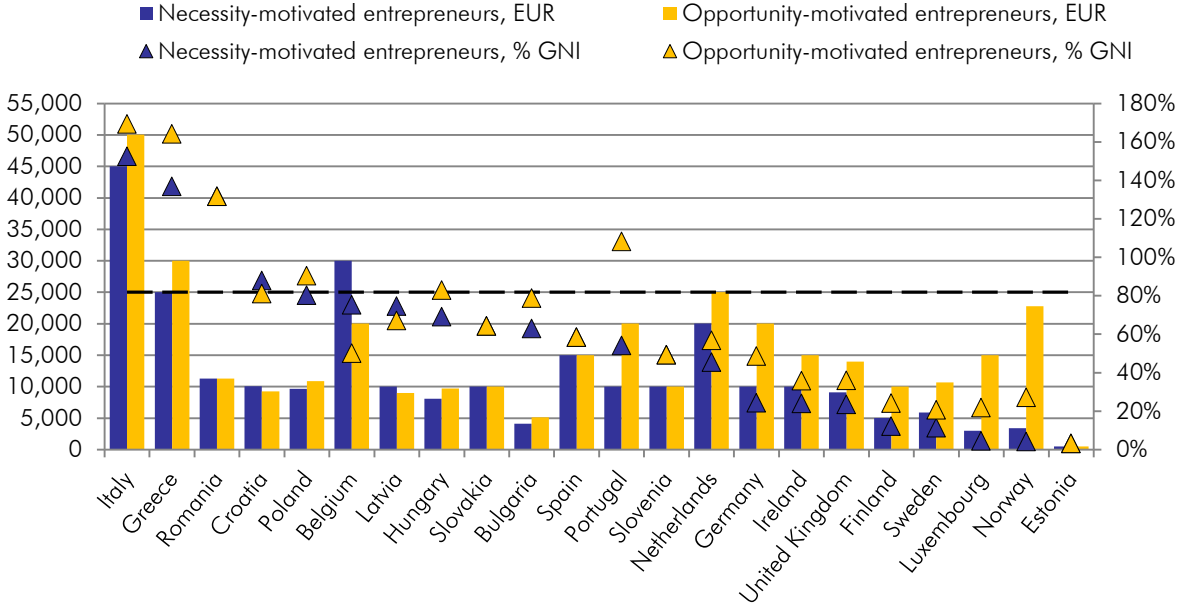
Figure 50: Different financing sources used by enterprises (by enterprise size class), 2016



Source: Authors, based on ECB SAFE (2016a) data

The initial funding needed for entrepreneurs to start a business varied considerably across countries both, in terms of absolute amounts and adjusted by the Gross National Income (GNI) per capita⁸⁴. The amount of funding needed by opportunity-driven entrepreneurs exceeded the amount needed by necessity-driven entrepreneurs in most of the countries (GEM, 2016).

Figure 51: Average amount of funding needed by early-stage entrepreneurs, 2015



Source: GEM 2015/16 Global Report

6.3 The supply of microfinance: a sector characterised by significant diversity

European microfinance providers are very diverse across Europe. In addition to commercial banks that target microenterprises as part of their general SME lending activity, the spectrum of European microcredit developers includes many profit-oriented and non-profit associations: microfinance associations, credit unions, cooperatives, Community Development Financial Institutions (CDFIs), non-bank financial institutions (NBFIs), government bodies, religious institutions and Non-Governmental Organisations (NGOs). The focus of MFIs’ activities changes from Western to Eastern Europe. Most of the MFIs in Eastern Europe are mainly focused on micro-lending. In contrast, Western European MFIs provide a more diversified set of financial products, not only to microenterprises but to bigger enterprises as well. Moreover, Eastern European MFIs are more focused on providing financial products and services, while Western European MFIs provide both, financial and non-financial products and services. The duality indicates that the development stage of the microfinance sector is highly dependent on the geographic market under consideration.

The recent survey by EMN-MFC⁸⁵ shows a high diversity with regard to social target groups and societal policy goals. Almost two thirds of all surveyed MFIs reported that their main mission was

⁸⁴ In order to present a more meaningful indicator for loan sizes across countries, it is common to adjust them by the Gross National Income (GNI) per capita.

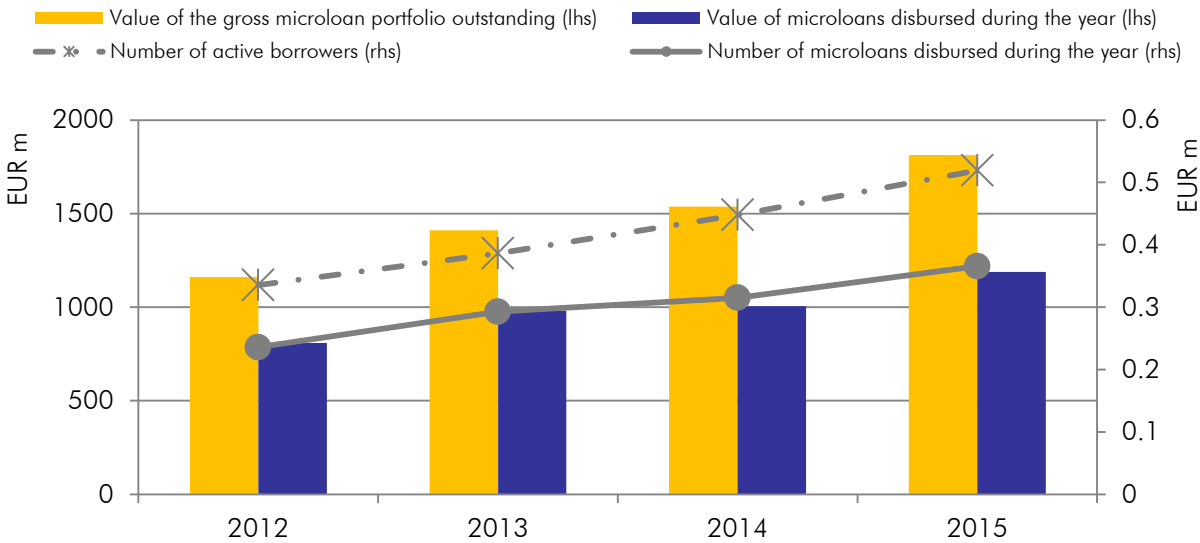
⁸⁵ The European Microfinance Network (EMN) and Microfinance Center (MFC)’s *Overview of the microcredit sector in Europe for the period 2014-2015* is based on a survey among 149 MFIs in 22 countries.

financial inclusion (72%), followed by job creation (70%), and social inclusion and poverty reduction (59%).

Estimates reveal that for 2015, a minimum of 747,265 (+13% compared to 2014) microenterprises and start-ups received support by the surveyed organisations. Over that same period, total lending volume increased by 15% and reached EUR 2.5 billion.

In order to follow a growth trend in a longer time interval, a subset of 50 MFIs was chosen, which were participants of both, the current EMN-MFC survey 2014-2015 and the EMN survey 2012-2013 (EMN, 2014, EMN-MFC, 2016),(see Figure 52 below).

Figure 52: Evolution of microfinance in Europe



Source: Authors, based on data from EMN-MFC (2016)

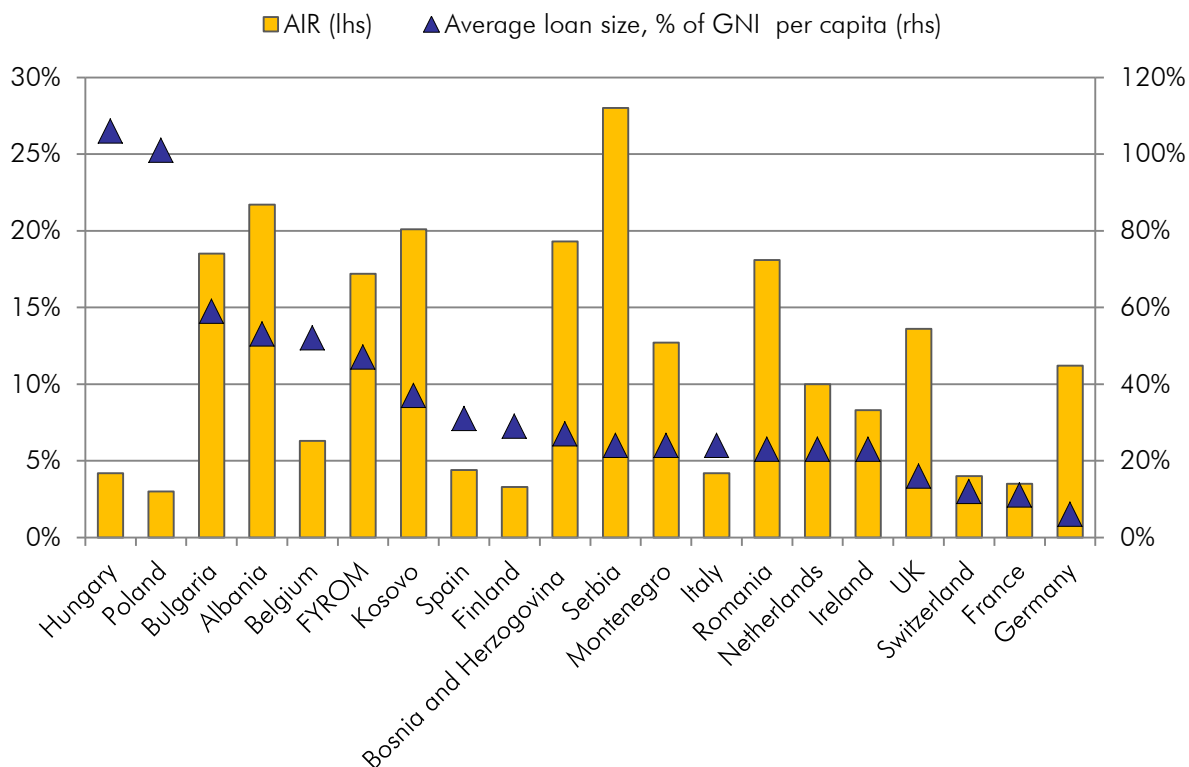
Regarding the average loan size, it remained nearly stable over the last 2 years (EUR 6,104 in 2014 and EUR 6,072 in 2015). The average loans sizes adjusted by the GNI per capita are higher in Eastern European countries than in Western European countries, meaning that western clients are relatively poorer. It again indicates the fundamental difference in the role of microfinance in these two regions of Europe.

The average sizes of microloans are quite different for business and personal consumption: in 2015, the average business loans were almost five times higher than the average personal microloans (EUR 7,947 versus EUR 1,697). The average interest rate charged by the surveyed MFIs for business consumption purpose was 10.7% with an average loan term of 41 months, while the average interest rate charged for personal consumption purpose was 19.0% with an average loan term of 30 months (EMN-MFC, 2016).

Moreover, characteristics of microloans for business purposes are diverse across countries (Figure 53). According to the recent EMN-MFC survey for the period 2014-2015, the average interest rate among the surveyed microfinance providers amounted to 10.7% in 2015, but ranged from 3% in

Poland and Finland, to as high as 18% in Bulgaria and Romania, and even higher in non-EU Balkan states.

Figure 53: Microcredit conditions in Europe



Note: AIR is average interest rate, GNI is Gross National Income
 Source: Authors, based on data from EMN-MFC (2016)

Interest rates vary across the types of MFIs. NBFIs charge on average the highest interest rates for business loans, and NGOs and Government bodies charge the lowest. Among other reasons, interest rates charged by MFIs depend on their funding structure. For example, in Poland, where the average interest rate is the lowest, 30% of funding sources come from grants, while in Bulgaria, Romania and in non-EU Balkan countries the surveyed MFIs don't depend on grants at all.

Microloan amounts and terms also vary greatly across and within the types of MFIs. The average loan size as a percentage of GNI per capita reported by NGOs is significantly higher than reported by NBFIs (52.2% versus 29.6%). Moreover, NGOs in Eastern Europe reported 74.6%, while their western counterparts reported 17.3%, on average. Regarding the average microloan term, NGOs reported 46 months, while NBFIs reported 37. Within the surveyed NGOs, terms varied from 5 to 96 months (EMN-MFC, 2016).

The differences in average interest rates are typically related to differences in the legal framework, MFI business models, pricing policies, refinancing cost, cost structure and the subsidy levels. Micro-loans are usually offered with a special focus on social inclusion. Higher interest rates ("high" compared to "standard" lending business) for micro-loans typically reflect the non-subsidised, cost-covering business models (often MFIs in the central-eastern part of the EU), while the lower interest

rates are reflecting higher prevalence of social microfinance, corporate social responsibility initiatives, and MFIs with subsidised, partly grant-dependent business models (often in the western part of the EU). Typically, for-profit institutions charge higher interest rates (cost coverage) and grant larger loans (economies of scale). However, it is important to note that profit orientation is consistent with a socially-oriented investment strategy. In fact, the micro-loan business model, if operated on sustainable terms in the long run, inherently requires relatively high interest rates (Bruhn-Leon, Eriksson, and Kraemer-Eis, 2012).

6.4 The microenterprise financing gap

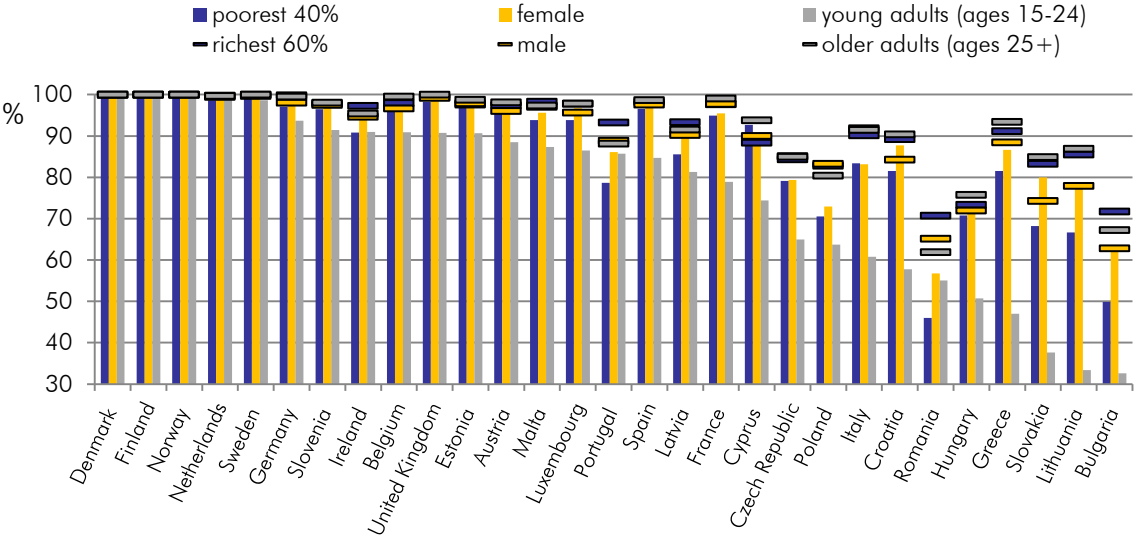
The challenges for microenterprises to access external financing are even greater than for other (bigger) types of SMEs. Almost by construction, these are young firms without prior track record or formal reporting obligations. In addition, necessity-driven entrepreneurs, again by definition, are highly unlikely to meet the required collateral requirements often demanded by traditional finance market players (OECD/ European Commission, 2014). This implies that credit rationing becomes particularly relevant for this sub segment of the market.⁸⁶ This section discusses some indicators that illustrate how access to finance often is restricted for vulnerable labour market segments and microenterprises.

Financial inclusion, at its most basic level, starts by having access to a simple bank account. The Global Findex, the financial inclusion survey⁸⁷ illustrates how financial inclusiveness varies strongly between countries and social groups (see Figure 54). In countries like Denmark, Finland, and Norway, 100% of the respondents reported having accounts in financial institutions, regardless of the social group they belong to. This contrasts strongly with countries like Romania, Bulgaria and Hungary, which on average do not only have lower levels of financial inclusion, but also higher within-country social disparities. The highest gap in account penetration between rich and poor was observed in Romania (25%) and in Bulgaria (22%). On average, women reported lower account-holding rates than men. Significant gender gaps are observed in Romania and Poland, but surprisingly also in France. Account ownership also difference between age groups (ages 15–24 vs age 25 and above). The age gap is particularly pronounced in Lithuania (54%), followed by Slovakia (47%) and Greece (46%).

⁸⁶ For a full discussion on the mechanisms underlying finance market failures and credit rationing, see 5.1.1

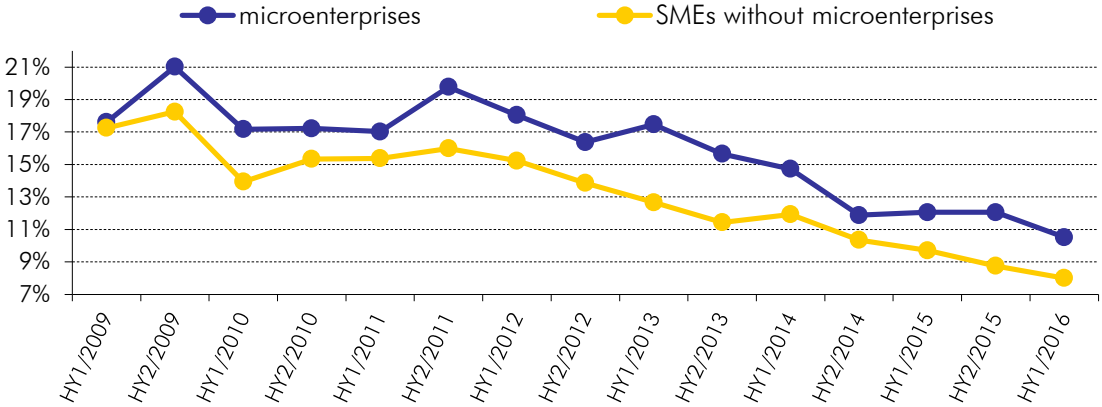
⁸⁷ The Global Financial Inclusion (Global Findex) database, launched by the World Bank in 2011, provides comparable indicators showing how people around the world save, borrow, make payments, and manage risk. The indicators in the 2014 Global Financial Inclusion (Global Findex) database are drawn from survey data covering almost 150,000 people in 143 economies - representing more than 97 percent of the world's population.

Figure 54: The percentage of respondents who report having an account at a bank or another type of financial institution



Source: Global Index Database

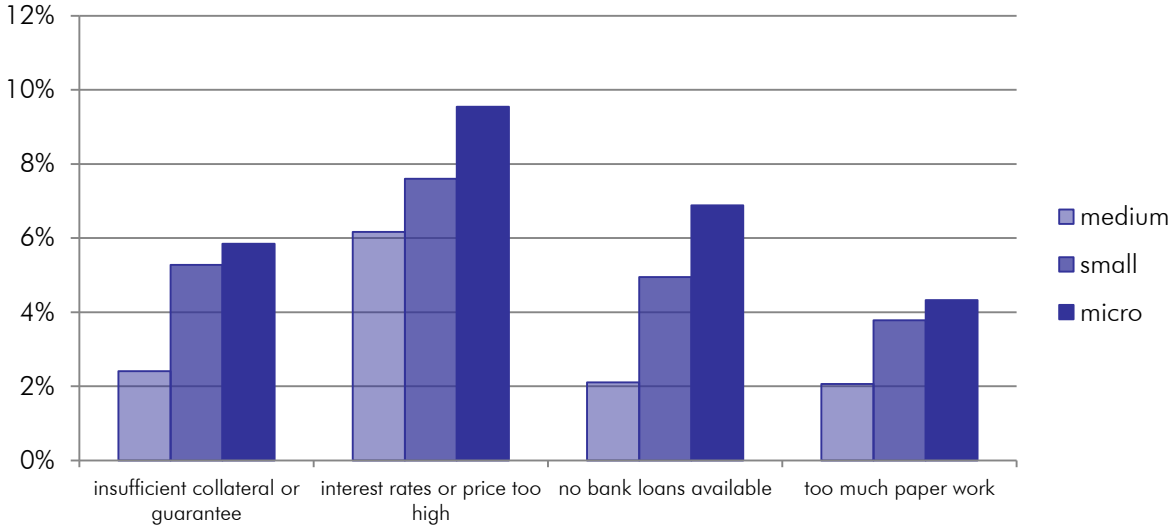
Figure 55: Share of enterprises reporting access to finance as their most important problem



Source: Authors, based on data from ECB (2016), Statistical Data Warehouse

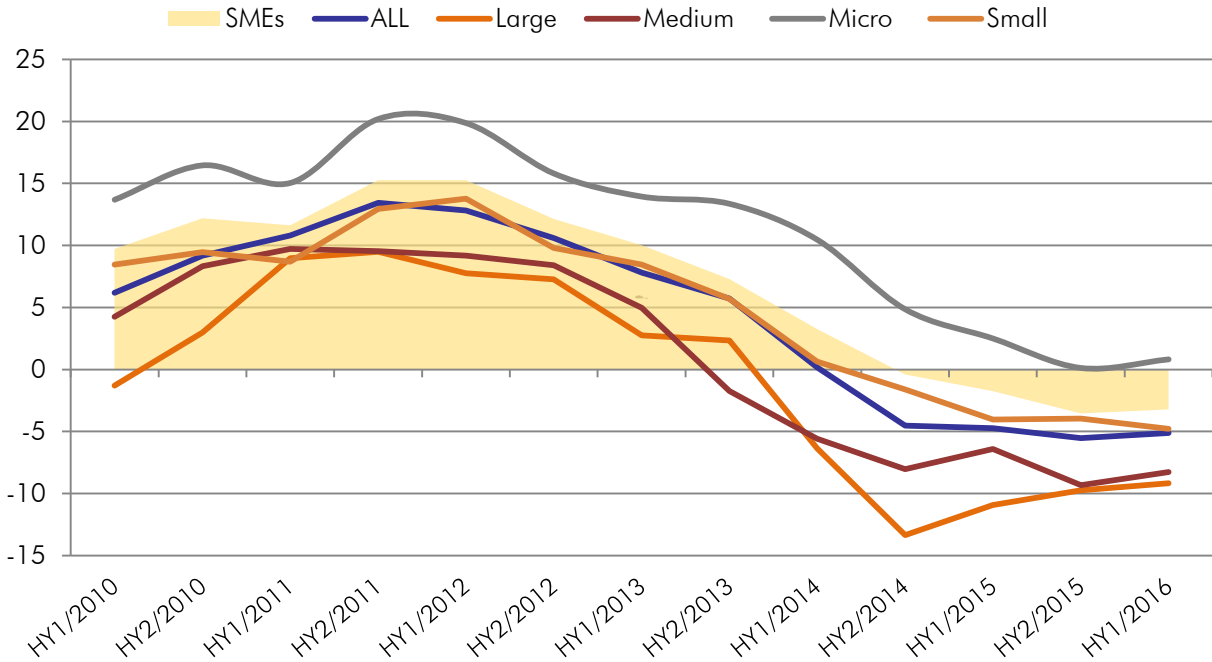
The ECB survey on the access to finance of enterprises (SAFE) in the Euro Area (ECB, 2016a) provides additional insights regarding the financing situation of European microenterprises. According to the latest SAFE survey, the share of microenterprises which see “access to finance” as their most important problem, decreased (Figure 55). Importantly, it consistently exceeds the share of bigger SMEs. This is in line with a report of the ECB (2016a) that states that bank loan rejection rate is still the highest for microenterprises (12%), compared to 7% for small firms and 3% for medium-sized firms. Consequently, the share of microenterprises that did not apply for a loan due to fear of rejection (discouraged borrowers) remains high at 9%. 44% of the SMEs did not use bank loans because it was not a relevant source of financing. Among them, proportionally more microenterprises indicated “insufficient collateral or guarantee”, “interest rates or price too high” and “too much paperwork” is involved (see Figure 56).

Figure 56: Reasons for bank loans being not relevant (by enterprise size class), 2016



Source: Authors, based on ECB SAFE (2016a) data

Figure 57: Perceived change in the external financing gap (by firm size)



Source: Authors, based on ECB SAFE (2016a), Statistical Data Warehouse

Figure 57 shows how microenterprises report on changes in their perceived financing gap and compares this to other company size classes. Also here it becomes apparent that microenterprises believe they operate in a more challenging environment than larger firms: not only are they consistently less positive about their financing situation, it is also the only size class that is still perceiving their financing gap to have been growing during the first semester of 2016 (although marginally so).

6.5 Microfinance prospects

Microenterprises in general, and workers from vulnerable labour market segments that cherish entrepreneurial ambitions specifically, are still burdened by significant difficulties in accessing financial resources from traditional credit channels. Microenterprises still face a tight credit supply by mainstream banks with a high risk aversion and increasing need to de-leverage their balance sheets. Disadvantaged groups, such as long term unemployed, or workers with a migrant background, lack the necessary collateral to secure loans from traditional loan providers. In this environment, lending might be allocated away from small, young and opaque firms as they are perceived to be more risky than their larger peers and have smaller financing needs which are difficult to cover in a cost-efficient manner by mainstream funding providers.

Financial inclusion of potential business creators is especially important in countries with high unemployment numbers. In addition to the financial support, unemployed people or clients from other vulnerable groups are often in need of acquiring the necessary skills for success through coaching and mentoring. Well trained entrepreneurs are better able to repay loans. Therefore, aside from these financial products and services, many European MFIs provide non-financial services as well, but without public support cost-free non-financial services may become a burden for MFIs (EMN-MFC, 2016).

Against the background of the current difficult conditions, support on a European level has become of central importance – via funding, guarantees and technical assistance to a broad range of financial intermediaries, from small non-bank financial institutions to well-established microfinance banks – in order to make microfinance a fully-fledged segment of the European financial sector. Bruhn-Leon, Eriksson and Kraemer-Eis (2012) discuss the rationale for public support in the microfinance area and explain how European policy – through the EIF - currently supports the microfinance sector under the Progress Microfinance mandate. The intervention logic is based on the market structure of the microfinance sector and its characterising diversity. It seeks to maximise outreach through a flexible investment approach in terms of eligible types of investments and types of financial intermediaries. The key target group are non-bank MFIs, but the range of financial intermediaries is extended also to banks with good outreach to microfinance clients, such as cooperative banks or micro-banks.

Results show so far that non-bank MFIs have been the most active lenders over the first five years of Progress Microfinance, as their main focus is micro-lending, unlike banks. Moreover, many non-bank MFIs have made use of the flexibility under Progress Microfinance to provide funding and risk coverage denominated in local currency. Progress Microfinance that was launched in 2010 has in April 2016 reached the end of the investment period. It has reached micro-borrowers across 23 countries within EU-28. It is estimated that Progress Microfinance will mobilise more than EUR 500m of new micro financing to around 60,000 micro-borrowers, most of which are start-ups.

In mid-2015 the Progress Microfinance successor program, the program for Employment and Social Innovation (EaSI) was launched. It has a wider geographical scope within Europe and also targets lending to social enterprises.

EaSI contributes to the Europe 2020 strategy by supporting the EU's objective of high level employment, adequate social protection, fighting against social exclusion and poverty and improving working conditions.

The initial EC resources for EC guarantees, EUR 96m, benefits since end-2016 from the front-loading mechanism under EFSI. In 2017 the resources are likely to more than double thanks to additional EFSI support. 2017 will also see the launch of EaSI capacity building investments, e.g. through direct and indirect equity in non-bank lenders and funds investing in non-bank lenders respectively. Also, in 2017 the activity to provide senior loans and subordinated loans to financial intermediaries will be resumed, building on a similar fund model like the one successfully used under Progress Microfinance.

The high demand for the EaSI guarantee instrument has been reaffirmed throughout the whole year of 2016 with an estimated 40 signed guarantee agreements by year end 2016 covering 20 countries (including Albania, Montenegro and Serbia outside of EU-28). Over time these guarantee agreements will mobilise around EUR 750m of new financing to micro-borrowers and social enterprises.

7 Concluding remarks

The financing outlook of European SMEs has remained relatively stable since the publication of the last ESBFO in June 2016. Even though the situation improved noticeably over the past two years, a significant proportion of European SMEs still experience barriers in access to finance. Furthermore, this proportion varies strongly from country to country. In addition, worries about the general economic outlook weighed on firms' investment decisions and in many countries there is a low growth trap. Uncertainty is the enemy of investment - the already high level of uncertainty regarding the economic outlook was magnified this year by the expressed will of the British people to leave the European Union. Moreover, the outcome of the US elections in November and related potential adjustments of economic policies, the "no" result in the referendum on constitutional reform in Italy in December, followed by the resignation of prime minister Renzi, as well as a number of upcoming elections in Europe, i.e. in the Netherlands, France, and Germany, contribute to the uncertainty.

For EIF, it is a key priority to help establish a well-functioning, liquid *equity market* that attracts a wide range of private sector investors. In doing so, EIF aims at leveraging its market assistance and seizing market opportunities in all areas of the equity eco-system which are relevant to the sustainable development of the industry. EIF has increased – as the key catalytic investor in European venture and growth capital funds – its counter-cyclical role in providing financing solutions to boost entrepreneurship and innovation. In the coming years, EIF will continue to act as a cornerstone investor across the spectrum of Technology Transfer through Venture Capital to the Lower Mid-Market and mezzanine financing. This also includes the launch and extension of new/pilot initiatives.

In the areas of *credit guarantees* and *securitisations*, EIF cooperates with a wide range of financial intermediaries. They include: banks, leasing companies, guarantee funds, mutual guarantee institutions, promotional banks, and other financial institutions that provide financing or financing guarantees to SMEs. Given that SMEs have no direct access to the capital markets, banks are typically the most important source of external SME finance. Hence, funding limitations of banks have direct impact on SME lending capacity. For loans to SMEs, a standardised, highly transparent and quality-controlled securitisation market could transform these illiquid loans into an asset class with adequate market liquidity.

Finally, *microfinance* is an important contribution to overcoming the effects of the crisis, and in particular to supporting inclusive growth. EIF provides funding, guarantees and technical assistance to a broad range of financial intermediaries, from small non-bank financial institutions to well-established microfinance banks to make microfinance a fully-fledged segment of the European financial sector. Moreover, EIF intends to sustain its support of microcredit, social investments, and participation in the increasing number of social finance institutions that are being established in the EU Member States.

In the context of SMEs' access to finance, the *G20/OECD High-Level Principles on SME Financing* (G20/OECD, 2015) are interesting and relevant (see Box below). EIF's actions and approach are in line with the spirit of these principles.

Box 12: G20/OECD High-Level Principles on SME Financing (G20/OECD, 2015)

These principles, welcomed by the G20 leaders during the Antalya summit in November 2015, are addressed to G20 and OECD members and other interested economies, to support their efforts to enhance access to finance to a diverse range of financing instruments by SMEs, including micro-enterprises, and entrepreneurs. The principles are voluntary and non-binding, and build on existing international financial principles and guidelines.

Cross-cutting policy strategies to enhance SME access to finance are needed to provide a coherent framework for government actions in this area, within the broader policy ecosystem for SMEs. Such strategies are instrumental to define specific policy objectives; design, coordinate and implement policy measures; and to provide a framework for monitoring and evaluation.

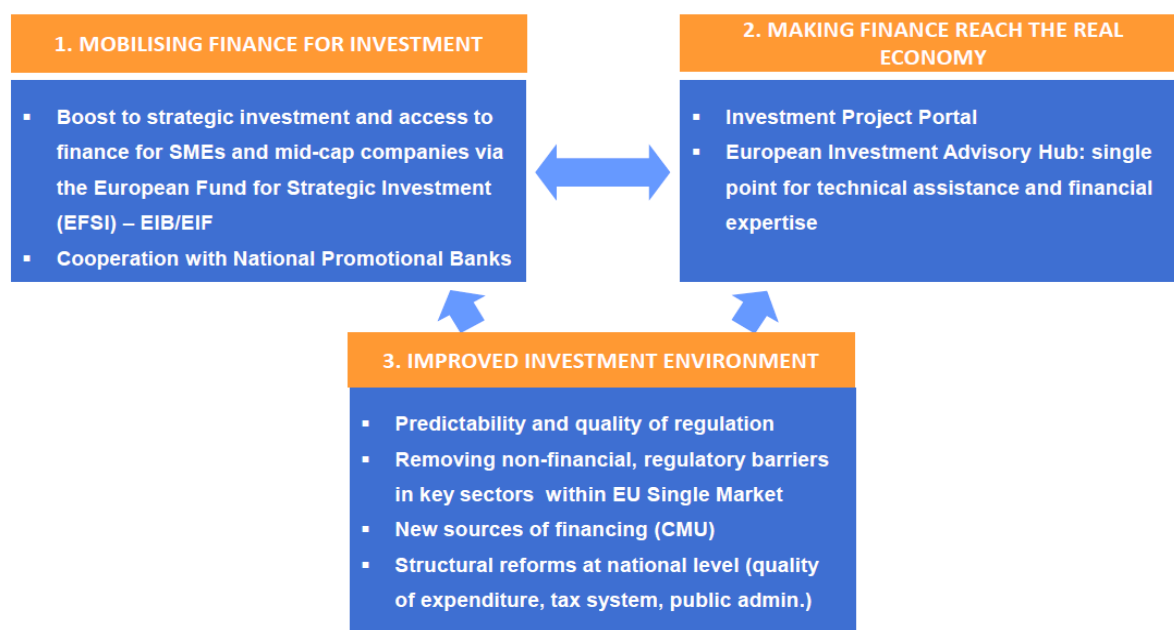
The principles that follow may serve the development of such strategies. They can apply to diverse circumstances and different economic, social and regulatory environments.

1. Identify SME financing needs and gaps and improve the evidence base.
2. Strengthen SME access to traditional bank financing.
3. Enable SMEs to access diverse non-traditional financing instruments and channels.
4. Promote financial inclusion for SMEs and ease access to formal financial services, including for informal firms.
5. Design regulation that supports a range of financing instruments for SMEs, while ensuring financial stability and investor protection.
6. Improve transparency in SME finance markets.
7. Enhance SME financial skills and strategic vision.
8. Adopt principles of risk sharing for publicly supported SME finance instruments.
9. Encourage timely payments in commercial transactions and public procurement.
10. Design public programmes for SME finance which ensure additionality, cost effectiveness and user friendliness.
11. Monitor and evaluate public programmes to enhance SME finance.

We close with a brief look at an important element of EIF's work: its involvement in the *Investment Plan for Europe* (IPE)⁸⁸. The IPE is based on three pillars, mobilising finance for investment, making finance reach the real economy, and improved investment environment, see Figure 58.

⁸⁸ See <http://www.eib.org/efsi/index.htm> and http://www.eif.org/what_we_do/efsi/index.htm.

Figure 58: Pillars of the IPE



Source: European Commission

As part of this investment plan's pillar one, the European Fund for Strategic Investments (EFSI) aims to unlock additional investments of at least EUR 315bn over a three year period by addressing market gaps and mobilising private resources. EFSI is a strategic partnership between the EC and the EIB Group. The EIB Group contributes EUR 5bn to the initiative alongside a EUR 16bn guarantee from the EU budget. Currently, EFSI has two components (see as well Figure 60):

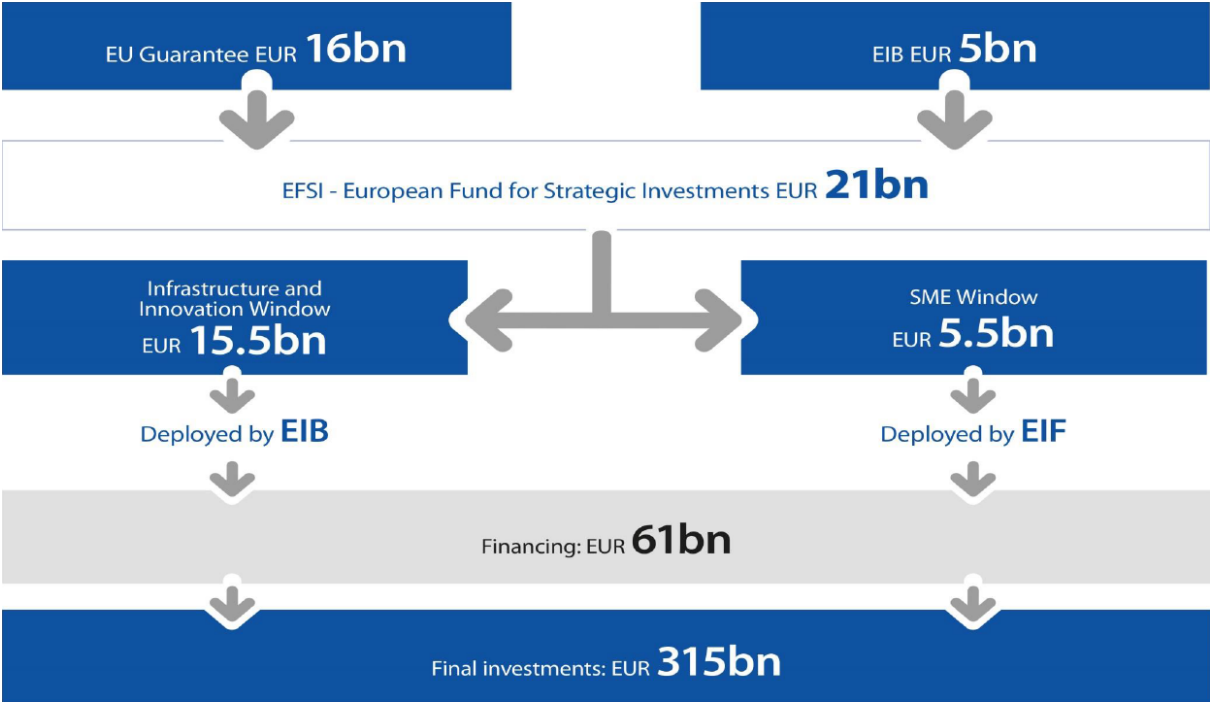
- the Infrastructure and Innovation Window (EUR 15.5bn), deployed through the EIB, and
- the SME Window (EUR 5.5bn), implemented through EIF. The financial instruments used for the purposes of the EFSI SME Window are mainly guarantees and equity investments.

The resources under EFSI enable EIF to deploy its existing support for SMEs at a higher and faster rate than initially planned to satisfy strong demand of support to SME access to finance. During the first phase, initial EFSI resources under the SME Window are being used to accelerate and enhance the deployment of existing EU flagship programmes which EIF manages – i.e. COSME, InnovFin – and to significantly increase the Risk Capital Resources (RCR) mandate for equity investments, which EIB has entrusted to EIF. Thanks to EFSI, also the RCR equity mandate which EIF manages on behalf of EIB has been increased by EUR 2.5bn.

In the second phase of the EFSI SME Window (started in 2016), new products are being rolled out, including a new Pan-European Venture Capital Fund(s)-of-Funds programme⁸⁹, products for social impact and microfinance, as well as products in relation to the new equity and securitisation platforms, introduced above.

⁸⁹ See Box 7 in chapter 4.5.4.

Figure 60: EFSI structure



Source: EIB Group

The implementation of the EFSI SME window is well on track, as per mid November 2016, 234 transactions have been signed in 27 countries, covering already around 70% of the total foreseen EFSI SME Window contribution, with expected mobilised investments of around EUR 67bn.⁹⁰ The demand from intermediaries to finance SMEs remains very high. Based on the success of the EFSI implementation, the European Commission on 14th September 2016 proposed an extension of EFSI by increasing its firepower and duration and to reinforce its strengths (European Commission, 2016d). European Union economy and finance ministers approved in principle the extension of the Investment Plan for Europe and EFSI at the Ecofin Council on 6th December 2016, passing the ball to the European Parliament, which must now give its view on the draft legislation before it can be formally adopted.

⁹⁰ Latest EFSI figures can be found here (http://ec.europa.eu/priorities/publications/investment-plan-results-so-far_en).

ANNEX

Annex 1: Private Equity Glossary

(selection, from EVCA/Invest Europe)

- **Buyout:** A buyout is a transaction financed by a mix of debt and equity, in which a business, a business unit or a company is acquired with the help of a financial investor from the current shareholders (the vendor).
- **Buyout fund:** Funds whose strategy is to acquire other businesses; this may also include mezzanine debt funds which provide (generally subordinated) debt to facilitate financing buyouts, frequently alongside a right to some of the equity upside.
- **Capital weighted average IRR:** The average IRR weighted by fund size.
- **Carried interest:** A share of the profit accruing to an investment fund management company or individual members of the fund management team, as a compensation for the own capital invested and their risk taken. Carried interest (typically up to 20% of the profits of the fund) becomes payable once the limited partners have achieved repayment of their original investment in the fund plus a defined hurdle rate.
- **Closing:** A closing is reached when a certain amount of money has been committed to a private equity fund. Several intermediary closings can occur before the final closing of a fund is reached.
- **Commitment:** A limited partner's obligation to provide a certain amount of capital to a private equity fund when the general partner asks for capital.
- **Deal flow:** The number of investment opportunities available to a private equity house.
- **Disbursement:** The flow of investment funds from private equity funds into portfolio companies.
- **Distribution:** The amount disbursed to the limited partners in a private equity fund.
- **Divestment:** See exit.
- **Drawdown:** When investors commit themselves to back a private equity fund, all the funding may not be needed at once. Some is used as drawn down later. The amount that is drawn down is defined as contributed capital.
- **Early stage:** Seed and start-up stages of a business.
- **Early stage fund:** Venture capital funds focused on investing in companies in the early part of their lives.
- **Exit:** Liquidation of holdings by a private equity fund. Among the various methods of exiting an investment are: trade sale; sale by public offering (including IPO); write-offs; repayment of preference shares/loans; sale to another venture capitalist; sale to a financial institution.
- **Expansion capital:** Also called development capital. Financing provided for the growth and expansion of a company, which may or may not break even or trade profitably. Capital may be used to: finance increased production capacity; market or product development; provide additional working capital.
- **Follow-on investment:** An additional investment in a portfolio company which has already received funding from a private equity firm.
- **Fund:** A private equity investment fund is a vehicle for enabling pooled investment by a number of investors in equity and equity-related securities of companies (investee companies). These are generally private companies whose shares are not quoted on any stock exchange. The fund can take the form either of a company or of an unincorporated arrangement such as a limited partnership. See limited partnership.

- **Fund of Funds:** A fund that takes equity positions in other funds. A fund of fund that primarily invests in new funds is a Primary or Primaries fund of funds. One that focuses on investing in existing funds is referred to as a Secondary fund of funds.
- **Fund size:** the total amount of capital committed by the limited and general partners of a fund.
- **Fundraising:** The process in which venture capitalists themselves raise money to create an investment fund. These funds are raised from private, corporate or institutional investors, who make commitments to the fund which will be invested by the general partner.
- **General Partner:** A partner in a private equity management company who has unlimited personal liability for the debts and obligations of the limited partnership and the right to participate in its management.
- **General Partner's commitment:** Fund managers typically invest their personal capital right alongside their investors' capital, which often works to instil a higher level of confidence in the fund. The limited partners look for a meaningful general partner investment of 1% to 3% of the fund.
- **Generalist fund:** Funds with either a stated focus of investing in all stages of private equity investment, or funds with a broad area of investment activity.
- **Holding period:** The length of time an investment remains in a portfolio. Can also mean the length of time an investment must be held in order to qualify for Capital Gains Tax benefits.
- **Horizon IRR:** The Horizon IRR allows for an indication of performance trends in the industry. It uses the fund's net asset value at the beginning of the period as an initial cash outflow and the Residual Value at the end of the period as the terminal cash flow. The IRR is calculated using those values plus any cash actually received into or paid by the fund from or to investors in the defined time period (i.e. horizon).
- **Hurdle rate:** A return ceiling that a private equity fund management company needs to return to the fund's investors in addition to the repayment of their initial commitment, before fund managers become entitled to carried interest payments from the fund.
- **Inception:** The starting point at which IRR calculations for a fund are calculated; the vintage year or date of first capital drawdown.
- **Institutional investor:** An organisation such as a bank, investment company, mutual fund, insurance company, pension fund or endowment fund, which professionally invest, substantial assets in international capital markets.
- **Internal rate of return (IRR):** The IRR is the interim net return earned by investors (Limited Partners), from the fund from inception to a stated date. The IRR is calculated as an annualised effective compounded rate of return using monthly cash flows to and from investors, together with the Residual Value as a terminal cash flow to investors. The IRR is therefore net, i.e. after deduction of all fees and carried interest. In cases of captive or semi-captive investment vehicles without fees or carried interest, the IRR is adjusted to create a synthetic net return using assumed fees and carried interest. For the avoidance of doubts: IRR means the financial IRR and not the economic IRR, i.e. it does not account for any externalities.
- **IPO (Initial public offering):** The sale or distribution of a company's shares to the public for the first time. An IPO of the investee company's shares is one the ways in which a private equity fund can exit from an investment.
- **Later stage:** Expansion, replacement capital and buyout stages of investment.
- **Leverage buyout (LBO):** A buyout in which the New Company's capital structure incorporates a particularly high level of debt, much of which is normally secured against the company's assets.
- **Limited Partnership:** The legal structure used by most venture and private equity funds. The partnership is usually a fixed-life investment vehicle, and consists of a general partner (the

management firm, which has unlimited liability) and limited partners (the investors, who have limited liability and are not involved with the day-to-day operations). The general partner receives a management fee and a percentage of the profits. The limited partners receive income, capital gains, and tax benefits. The general partner (management firm) manages the partnership using policy laid down in a Partnership Agreement. The agreement also covers, terms, fees, structures and other items agreed between the limited partners and the general partner.

- **Management fees:** Fee received by a private equity fund management company from its limited partners, to cover the fund's overhead costs, allowing for the proper management of the company. This annual management charge is equal to a certain percentage of the investors' commitments to the fund.
- **Mezzanine finance:** Loan finance that is halfway between equity and secured debt, either unsecured or with junior access to security. Typically, some of the return on the instrument is deferred in the form of rolled-up payment-in-kind (PIK) interest and/or an equity kicker. A mezzanine fund is a fund focusing on mezzanine financing.
- **Multiples or relative valuation:** This estimates the value of an asset by looking at the pricing of "comparable" assets relative to a variable such as earnings, cash flows, book value or sales.
- **Pooled IRR:** The IRR obtained by taking cash flows from inception together with the Residual Value for each fund and aggregating them into a pool as if they were a single fund. This is superior to either the average, which can be skewed by large returns on relatively small investments, or the capital weighted IRR which weights each IRR by capital committed. This latter measure would be accurate only if all investments were made at once at the beginning of the funds life.
- **Portfolio company:** The company or entity into which a private equity fund invests directly.
- **Pre seed stage:** The investment stage before a company is at the seed level. Pre-seed investments are mainly linked to universities and to the financing of research projects, with the aim of building a commercial company around it later on.
- **Private Equity:** Private equity provides equity capital to enterprises not quoted on a stock market. Private equity can be used to develop new products and technologies (also called venture capital), to expand working capital, to make acquisitions, or to strengthen a company's balance sheet. It can also resolve ownership and management issues. A succession in family-owned companies, or the buyout and buying of a business by experienced managers may be achieved by using private equity funding.
- **Private Equity Fund:** A private equity investment fund is a vehicle for enabling pooled investment by a number of investors in equity and equity-related securities of companies. These are generally private companies whose shares are not quoted on a stock exchange. The fund can take the form of either a company or an unincorporated arrangement such as a Limited Partnership.
- **Quartile:** The IRR which lies a quarter from the bottom (lower quartile point) or top (upper quartile point) of the table ranking the individual fund IRRs.
- **Rounds:** Stages of financing of a company. A first round of financing is the initial raising of outside capital. Successive rounds may attract different types of investors as companies mature.
- **Secondary investment:** An investment where a fund buys either, a portfolio of direct investments of an existing private equity fund or limited partner's positions in these funds.
- **Seed stage:** Financing provided to research, assess and develop an initial concept before a business has reached the start-up phase.
- **Start-up:** Companies that are in the process of being set up or may have been in business for a short time, but have not sold their product commercially.

- **Target company:** The company that the offeror is considering investing in. In the context of a public-to-private deal this company will be the listed company that an offeror is considering investing in with the objective of bringing the company back into private ownership.
- **Top Quarter:** Comprises funds with an IRR equal to or above the upper quartile point.
- **Track record:** A private equity management house's experience, history and past performance.
- **Venture Capital:** Professional equity co-invested with the entrepreneur to fund an early-stage (seed and start-up) or expansion venture. Offsetting the high risk the investor takes is the expectation of higher than average return on the investment. Venture capital is a subset of private equity.
- **Venture Capitalist:** The manager of private equity fund who has responsibility for the management of the fund's investment in a particular portfolio company. In the hands-on approach (the general model for private equity investment), the venture capitalist brings in not only moneys as equity capital (i.e. without security/charge on assets), but also extremely valuable domain knowledge, business contacts, brand-equity, strategic advice, etc.
- **Vintage year:** The year of fund formation and first drawdown of capital.
- **Volatility:** The volatility of a stock describes the extent of its variance over time.
- **Write-off:** The write-down of a portfolio company's value to zero. The value of the investment is eliminated and the return to investors is zero or negative.

Annex 2: Securitisation Glossary

- **Attachment Point:** The attachment point is the level of subordination that a particular tranche has beneath it. The attachment point is a proxy of percentage of the transaction that will absorb losses before the senior tranche is adversely affected.
- **Credit Default Swap:** An agreement used in synthetic securitisations where the originator (protection buyer) sells the credit risk of an underlying portfolio to a counterparty (protection seller) without transferring the ownership of the assets.
- **Credit Enhancement:** Refers to one or more measures taken in a securitisation structure to enhance the security, the credit quality or the rating of the securitised instrument, e.g. by providing a third party guarantee (such as the EIF guarantee). The credit enhancement could be provided in the form of:
 - (i) Structural credit enhancement (tranching of the transaction in senior, mezzanine and junior tranches);
 - (ii) Originator credit enhancement (cash collateral, profit retention, interest sub-participation);
 - (iii) Third party credit enhancement (e.g. EIF or monoline insurers).
- **Credit Linked Notes (CLN):** A security issued by an SPV (or directly from the balance-sheet of the originator) credit-linked to the default risk of an underlying portfolio of assets. Usually used in synthetic securitisations for the mezzanine tranches of a transaction.
- **Collateralised loan obligations (CLOs)** are a form of securitisation where payments from multiple middle sized and large business loans are pooled together and passed on to different classes of owners in various tranches.
- **First Loss Piece (FLP):** Part of a securitisation transaction which is usually kept by the originator (as an "equity piece") and which covers the risk of first loss in the portfolio. Its size is a function of the historical losses, so as to protect the investors against the economic risk (estimated loss) of the transaction. **Issuer:** Refers to the SPV which issues the securities to the investors.

- **Kirb:** means the sum of the expected loss and regulatory capital that a financial intermediary assigns to an exposure (a portfolio) by using an Internal Rating Based (IRB) approach.
- **Mezzanine Risk:** Risk or tranche which is subordinated to senior risk, but ranks senior to the FLP.
- **Originator:** The entity assigning receivables in a securitisation transaction (funded transaction) or seeking credit risk protection on the assets (unfunded transaction).
- **Primary market:** The market in which securities are issued.
- **Secondary market:** The market where issued securities are traded.
- **Senior:** The class of securities with the highest claim against the underlying assets in a securitisation transaction. Often they are secured or collateralised, or have a prior claim against the assets. In true sale structures they rank senior in the cash flow allocation of the issuer's available funds.
- **Servicer:** Refers to the entity that continues to collect the receivables, enforcement of receivables, etc. Generally, the originator is also the servicer.
- **Special Purpose Vehicle (SPV):** Issuing entity holding the legal rights over the assets transferred by the originator. An SPV has generally a limited purpose and/or life.
- **Subordinated:** The classes of securities with lower priority or claim against the underlying assets in a securitisation transaction. Typically, these are unsecured obligations. They are also called Junior (or Mezzanine) notes and bonds.
- **Synthetic securitisation:** A transaction where the assets are not sold to an SPV but remain on balance sheet; and where only the credit risk of the assets is transferred to the market through credit default swaps or credit linked notes.
- **Tranche:** A piece, a portion or slice within a structured transaction.
- **Portfolio Tranching Cover:** The technique by which an Originator can buy protection on a portfolio. Such protection is only activated when the losses exceed a given threshold (Attachment Point).
- **True sale:** It refers to the separation of the portfolio risk from the risk of the originator, i.e. there is a non-recourse assignment of assets from the originator to the issuer (special purpose vehicle). To be contrasted with synthetic securitisations where only the underlying credit risk is transferred.
- **Whole Business Securitisation (WBS):** Securitisation of the general operating cash flow arising from a certain line or area of the business of the originator over the long term.

Annex 3: List of acronyms

- ABCP: Asset Backed Commercial Paper
- ABSPP: Asset Backed Securities Purchase Programme
- AECM: European Association of Mutual Guarantee Societies
- AFME: Association for Financial Markets in Europe
- AIFMD: Alternative Investment Fund Managers Directive
- AIR -Average interest rate
- BA: Business Angel
- BAE – Business Angels Europe
- BAN: Business Angels Network
- BCBS-IOSCO: Basel Committee on Banking Supervision-Board of the International Organisation of Securities Commissions
- BIS: Bank for International Settlements
- BLS: Bank Lending Survey
- bn: billion

- bp: basis point(s)
- CDFIs: Community Development Financial Institutions
- CDO: Collateralised Debt Obligation
- CDP: Cassa Depositi e Prestiti, Italy
- CESEE (countries): (countries in) Central, Eastern and South-Eastern Europe
- CGAP: Consultative Group to Assist the Poor
- CGS: Credit Guarantee Scheme
- CLN: Credit Linked Note
- CLO: Collateralised Loan Obligation
- CMU: Capital Markets Union
- COM: European Commission (also: EC)
- COSME: Programme for the Competitiveness of enterprises and SMEs (COSME) 2014-2020
- CRD: Capital Requirements Directive
- CRR: Capital Requirements Regulation
- EAF: European Angels Fund
- EBA: European Banking Authority
- EBAN: European Business Angels Network
- EBF: European Banking Federation
- EC: European Commission (also: COM)
- ECB: European Central Bank
- EFSI: European Fund for Strategic Investments
- EIB: European Investment Bank
- EIF: European Investment Fund
- ELTIF – European Long-Term Investment Fund
- EMEA: Europe, Middle East, and Africa
- EMN: European Microfinance Network
- EREM: EIB Group Risk Enhancement Mandate
- ESBFO: European Small Business Finance Outlook
- ESIF: European Structural and Investment Fund
- EU-28: the 28 EU Member States
- EUR: Euro
- EuVECA: European Venture Capital Fund Regulation
- EVCA: European Private Equity & Venture Capital Association
- FLP: First Loss Piece
- FLPG: First Loss Portfolio Guarantee
- FoF – Fund of Fund(s)
- FYROM: Former Yugoslav Republic of Macedonia
- GDP: Gross Domestic Product
- GEM: Global Entrepreneurship monitor
- GNI is Gross National Income
- GP: General Partner
- GVC – governmental VC investor
- HICP: Harmonised index of consumer prices
- HQS: High Quality Securitisation
- HY: Half Year
- ICT: Information and communications technologies
- IIF – Institute for International Finance
- IMF: International Monetary Fund
- InnovFin: EU Finance for Innovators
- IORP – Institutions for Occupational Retirement Provision
- IPO: Initial Public Offering
- IRB: Internal Ratings Based
- IRR: Internal Rate of Return
- IT: Information Technology
- IVC – independent VC investor

- k: thousand
- KfW: Kreditanstalt für Wiederaufbau, Germany
- Kirb: IRB capital requirements for the underlying pool of securitised assets
- LBO: Leveraged buy out
- LP: Limited Partner
- M&A – mergers and acquisitions
- m: million
- MAP: Multi Annual Programme for Enterprise and Entrepreneurship
- MFC (Microfinance Center)
- MFI (in the context of ECB): Monetary Financial Institutions
- MFI (in the context of microfinance): Microfinance Institution
- MiFID – Markets in Financial Instruments Directive
- MiFIR – Markets in Financial Instruments Regulation
- NBFIs: Non-bank Financial Institutions
- NFC: Non-financial corporation
- NGO: Non-Governmental Organisation
- NPI: National Promotional Institution
- NPL: Non-performing loan
- OECD: Organisation for Economic Co-Operation and Development
- PCS: Prime Collateralised Securities
- PE: Private Equity
- PFB: Public Funding Body
- pif: paid in full
- Q: Quarter
- QE: Quantitative Easing
- RCR: Risk Capital Resources
- RMA: Research and Market Analysis
- RMBS: Residential mortgage backed securities
- RSI: Risk-Sharing Instrument for Innovative and Research oriented SMEs and small mid-caps
- SAFE: Survey on the Access to Finance of Enterprises
- sf: Structured Finance
- SFA: Supervisory Formula Approach
- SIA: Social Impact Accelerator
- SME: Small and medium sized enterprise
- SMESec: SME Securitisation (comprising transactions based on SME loans, leases etc.)
- SPV: Special Purpose Vehicle
- SSM: Single Supervisory Mechanism
- SST: simple, standard and transparent
- STC: simple, transparent and comparable
- STS: simple, transparent and standardised
- TMT: Technology, Media, Telecom
- TT: Technology transfer
- UEAPME: European Association of Craft, Small and Medium-sized Enterprises
- UK: United Kingdom
- US: United States
- VC: Venture Capital
- WBS: Whole Business Securitisation

References

- Acevedo, M.F., Adey, M., Bruno, C., del Bufalo, G., Gazaniol, A., Lo, V., Metzger, G., Perez, B.N., van der Schans, D., and Thornary, B. (2016). France, Germany, Italy, Spain and the United Kingdom – Building Momentum in Venture Capital across Europe. Published by Bpifrance, CDP, ICO, British Business Bank, KfW. December 2016.
- Affinito, M., and Farabullini, F. (2009). Does the law of one price hold in euro-area retail banking? An empirical analysis of interest rate differentials across the monetary union. *International Journal of Central Banking*, 5(1), 5-37.
- AFME (2016a). Securitisation data report Q2/2016 (and earlier reports). <http://www.afme.eu/Documents/Statistics-and-reports.aspx>
- AFME (2016b). AFME Securitisation Data Snapshot Q3/2016. <http://www.afme.eu/Documents/Statistics-and-reports.aspx>
- AFME, EBF, eurofinas, Leaseurope, DSA, efama, ICMA, Pensions Europe (2016). The importance of securitisation for jobs and growth in Europe. October 2016. <http://www.ebf-fbe.eu/wp-content/uploads/2016/10/Importance-of-Securitisation-in-Europe-10-October-2016-Final.pdf>
- Aiyar, S., Al-Eyd, A., Barkbu, B., and Jobst, A. (2015). Revitalizing Securitization for Small and Medium-Sized Enterprises in Europe. IMF Staff Discussion Note SDN/15/07. May 2015. <http://www.imf.org/external/pubs/cat/longres.aspx?sk=42859>
- Akerlof, G. A. (1970). The Market for “Lemons”: Quality Uncertainty and the Market Mechanism. In: *Quarterly Journal of Economics*. Vol. 84, No. 3, pp. 488–500.
- Anginer, D., De la Torre, A., and Ize, A. (2014). Risk-bearing by the state: When is it good public policy?. *Journal of Financial Stability*, 10, 76-86.
- Arping, S., Lóránth, G., and Morrison, A. D. (2010). Public initiatives to support entrepreneurs: Credit guarantees versus co-funding. *Journal of Financial Stability*, 6(1), 26-35.
- Arrow, K. J. (1985). The Economics of Agency. In: J. W. Pratt und R. J. Zeckhauser, Principals and Agents: The Structure of Business. 1985.
- Asdrubali, P. and Signore, S. (2015). The Economic Impact of EU Guarantees on Credit to SMEs. Evidence from CESEE countries. European Commission’s European Economy Discussion Paper 002 and EIF Working Paper 2015/29. July 2015. http://ec.europa.eu/economy_finance/publications/eedp/pdf/dp002_en.pdf and http://www.eif.org/news_centre/publications/eif_wp_29_economic-impact-guarantees_july15_fv.pdf
- Aubrey, T., Thillaye, R., and Reed, A. (2015). Supporting investors and growth firms: A bottom-up approach to a Capital Markets Union. Policy Network. 9 June 2015. <http://www.policy-network.net/publications/4916/Supporting-Investors-and-Growth-Firms>
- BAE (2015). The European business angels market – an approximation. <http://www.businessangelseurope.com/Knowledge%20Centre/Research%20%20Data/BAE,%20The%20European%20Business%20Angel%20Market.pdf>
- BAND (2016). BANDquartal: How to explore the landscape of Angel Investing in Europe. Issue 1/2016. http://www.business-angels.de/wp-content/uploads/2016/07/BANDquartal-1_16.pdf
- Bell, Ian (2016). European Parliament agrees the text on STS securitisation. In: PCS newsletter, 08.12.2016.
- Bending, T. and Brutscher, P. (2016). The EIB Investment Survey: a preview. In: EIB (2016). Investment and Investment Finance in Europe. http://www.eib.org/attachments/efs/investment_and_investment_finance_in_europe_2016_en.pdf

- Berger, A. N., and Udell, G. F. (2006). A more complete conceptual framework for SME finance. *Journal of Banking & Finance*, 30(11), 2945-2966.
- Bertoni, F. and Tykvová, T. (2012). Which form of venture capital is most supportive of innovation? ZEW Discussion Papers. No. 12-018. <http://ftp.zew.de/pub/zew-docs/dp/dp12018.pdf>
- Bertoni, F., Colombo, M.G., and Quas, A. (2015). The patterns of venture capital investment in Europe. *Small Business Economics*, 45(3), 543-560.
- Bertoni, F., D'Adda, D., and Grilli, L. (2016). Cherry-picking or frog-kissing? A theoretical analysis of how investors select entrepreneurial ventures in thin venture capital markets. *Small Business Economics*, 46(3), 391-405.
- Block, J. and Masiak, C. (2016). Financing of European SMEs: Patterns, Determinants and Dynamics over Time. Research project financed by the Starebei programme. Final report. Mimeo.
- BoA/ML (2016). European SF 2016-2017: on the threshold of an watershed year. Bank of America/Merrill Lynch, 30.11.2016.
- Brander, J.A., Du, Q., and Hellmann, T. (2014). The effects of government-sponsored venture capital: international evidence. *Review of Finance* (2014). 17.03.2014. <http://rof.oxfordjournals.org/content/early/2014/03/17/rof.rfu009.abstract>
- Bravo-Biosca, A. (2011). A look at business growth and contraction in Europe. Nesta Working paper 11/02. December 2011. www.nesta.org.uk/wp11-02
- Bruhn-Leon, B., Eriksson, P.-E., and Kraemer-Eis, H. (2012). Progress for microfinance in Europe. *EIF Research & Market Analysis. Working Paper 2012/013*. January 2012. http://www.eif.org/news_centre/research/index.htm
- Capizzi, V. (2015). The Returns of Business Angels' Investments and Their Major Determinants. In: *Venture Capital: An International Journal of Entrepreneurial Finance*. Vol. 17, No. 4, 2015.
- Carroll, J., & FSD, F. M. (2016). Understanding SME interest rate variation across Europe. *Quarterly Bulletin Articles*, 60-76.
- Chatzouz, M., Gereben, A., Lang, F., and Torfs, W. (2017). Credit Guarantee Schemes for SME lending in Western Europe. A joint EIB and EIF study. Forthcoming.
- Chong, T. T. L., Lu, L., and Ongena, S. (2013). Does banking competition alleviate or worsen credit constraints faced by small-and medium-sized enterprises? Evidence from China. *Journal of Banking & Finance*, 37(9), 3412-3424.
- Coller Capital (2013). Global Private Equity Barometer. Winter 2013-14. http://www.collercapital.com/uploaded/documents/Publications/2013/Coller_Capital_Global_Barometer_-_Winter_2013.pdf
- Coller Capital (2015). Global Private Equity Barometer. Summer 2015. June 2015. http://www.collercapital.com/Uploaded/Documents//Publications/2015/Global_Private_Equity_Barometer_Summer_2015_WEB.pdf
- Coller Capital (2016a). Global Private Equity Barometer. Summer 2016. June 2016. http://www.collercapital.com/Uploaded/Documents//Publications/2016/Coller_Capital_Global_Private_Equity_Barometer_Summer_2016_Web.pdf
- Coller Capital (2016b). Global Private Equity Barometer. Winter 2016-17. December 2016.
- Colombo, M.G., Cumming, D.J., and Vismara, S. (2014). Governmental Venture Capital for Innovative Young Firms. July 25, 2014. Available at SSRN. <http://ssrn.com/abstract=2471469> or <http://dx.doi.org/10.2139/ssrn.2471469>

- Cour-Thimann, P. and Winkler, B. (2013). The ECB's non-standard monetary policy measures. The role of institutional factors and financial structure. ECB Working Paper Series. No 1528. April 2013. <http://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1528.pdf>
- CSES (2012). Evaluation of EU Member States' Business Angel Markets and Policies. Final Report. October 2012.
- Cumming, D.J., Grilli, L. and Murtinu, S. (2014). Governmental and independent venture capital investments in Europe: A firm-level performance analysis. In: Journal of Corporate Finance. In Press, Corrected Proof. Available online 24 October 2014. <http://dx.doi.org/10.1016/j.jcorpfin.2014.10.016>
- Dow Jones Venturesource (2016). Venture Capital Report Europe 3Q 2016. http://images.dowjones.com/wp-content/uploads/sites/43/2016/10/19075529/DJ-VentureSource-Europe_3Q16.pdf
- Duruflé, G., Hellmann, T. and Wilson, K. (2016). From Start-up to Scale-up: Examining Public Policies for the Financing of High-Growth Ventures. Prepared for the CEPR/Assonime Programme on "Restarting European Long Term Investment Finance". Draft – September 2016.
- EBA (2014). EBA Discussion Paper on simple standard and transparent securitisation. European Banking Authority. 14.10.2014. <https://www.eba.europa.eu/documents/10180/846157/EBA-DP-2014-02+Discussion+Paper+on+simple+standard+and+transparent+securitisations.pdf>
- EBAN (2014). Statistics Compendium. <http://www.eban.org/wp-content/uploads/2014/09/13.-Statistics-Compendium-2014.pdf>
- EBAN (2016). European Early Stage Market Statistics 2015. May 2016. <http://www.eban.org/wp-content/uploads/2016/06/Early-Stage-Market-Statistics-2015.pdf>
- EBF (2015). Financial Dialogue. Fostering financial knowledge among European SMEs. <http://www.ebf-fbe.eu/publications/thematic-publications/>
- ECB (2013). Cost of borrowing indicators: methodological note. DG Statistics, ECB Public. 2013.
- ECB (2016a). Survey on the access to finance of enterprises in the Euro Area. April 2016 to September 2016. November 2016. <https://www.ecb.europa.eu/stats/money/surveys/sme/html/index.en.html>
- ECB (2016b). The Euro Area bank lending survey. Third quarter 2016. October 2016. <https://www.ecb.europa.eu/stats/money/surveys/lend/html/index.en.html>
- ECB (2016c). Report on financial structures. October 2016. <https://www.ecb.europa.eu/pub/pdf/other/reportonfinancialstructures201610.en.pdf?592b728066f71be0788991e606b504bd>
- EIF (2016). Annual Report 2015. Supporting smart, sustainable and inclusive economic growth for SMEs. 02.05.2016. http://www.eif.org/news_centre/publications/eif_annual_report_2015.pdf
- EMN (2012). Bendig, M., Unterberg, M., and Sarpong, B. (2012). Overview of the Microcredit Sector in the European Union 2010-2011. European Microfinance Network (EMN). 27.12.2012. http://www.mikrofinanz.net/fileadmin/user_upload/dateien/pdf/overview2010-2011-final.pdf
- EMN (2014). Bendig, M., Unterberg, M., and Sarpong, B. (2014). Overview of the Microcredit Sector in the European Union 2012-2013. European Microfinance Network. September 2014. http://www.europeanmicrofinance.org/docs/emn_publications/emn_overview/Overview2012-2013_Nov2014.pdf

- EMN-MFC (2016). Microfinance in Europe: A Survey of EMN-MFC Members. Report 2014-2015. 2016. http://www.europeanmicrofinance.org/index.php?rub=publications&pg=microfinance-overview-surveys&spg=survey_report_2014_2015
- Epsilon Research (2016a). Argos Mid-Market Index. Q1 2016. <http://www.epsilon-research.com/Market/Argos>
- Epsilon Research (2016b). Argos Mid-Market Index. Q2 2016. <http://www.epsilon-research.com/Market/Argos>
- Epsilon Research (2016c). Argos Mid-Market Index. Q3 2016. <http://www.epsilon-research.com/Market/Argos>
- EU IPO Task Force (2015). EU IPO Report. Rebuilding IPOs in Europe : Creating jobs and growth in European capital markets. European Issuers, EVCA, FESE. March 2015. http://www.europeanissuers.eu/_mdb/spotlight/44en_Final_report_IPO_Task_Force_20150323.pdf
- Euler Hermes (2016). Macroeconomic, Country Risk and Global Sector Outlook. Economic Outlook. October, 2016.
- Eurochambres (2016). Economic Survey 2016.
- European Commission (2012). Report from the Commission to the European Parliament and the Council on the application of Directive 2006/48/EC to microcredit. COM (2012) 769 final. 18.12.2012.
- European Commission (2015). Proposal for a regulation of the European Parliament and of the Council laying down common rules on securitisation and creating a European framework for simple, transparent and standardised securitisation and amending Directives 2009/65/EC, 2009/138/EC, 2011/61/EU and Regulations (EC) No 1060/2009 and (EU) No 648/2012. COM(2015)472 final. 2015/0226(COD). <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015PC0472&from=EN>
- European Commission (2016a). Annual Report on European SMEs 2015/2016 – SME recovery continues. 2016. http://ec.europa.eu/growth/smes/business-friendly-environment/performance-review-2016_en
- European Commission (2016b). European Economic Forecast, Autumn 2016. http://ec.europa.eu/economy_finance/publications/eeip/pdf/ip038_en.pdf
- European Commission (2016c). Europe's next leaders: the Start-up and Scale-up Initiative. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. COM(2016) 733 final. 22.11.2016.
- European Commission (2016d). Proposal for a Regulation of the European Parliament and of the Council amending Regulations (EU) No 1316/2013 and (EU) 2015/1017 as regards the extension of the duration of the European Fund for Strategic Investments as well as the introduction of technical enhancements for that Fund and the European Investment Advisory Hub. Brussels, 14.9.2016 COM(2016) 597 final 2016/0276 (COD). <https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-597-EN-F1-1.PDF>
- FitchRatings (2016). SME CLO Compare. October 2016.
- G20/OECD (2015). G20/OECD High Level Principles on SME Financing. <https://www.oecd.org/finance/G20-OECD-High-Level-%20Principles-on-SME-Financing.pdf>
- GEM (2016). 2015/16 Global Report. global entrepreneurship monitor.
- Go4Venture Advisers (2015). European Venture & Growth Equity Market Monthly Bulletin. March 2015. 02.05.2015. <http://www.go4venture.com/bulletin/>

- Hellmann, T.F., Schure, P., and Vo, D. (2015). Angels and Venture Capitalists: Substitutes or Complements? (February 23, 2015). Available at <http://ssrn.com/abstract=2602739> or <http://dx.doi.org/10.2139/ssrn.2602739>
- Holmstrom, B. and Tirole, J. (1997). Financial intermediation, loanable funds, and the real sector. *the Quarterly Journal of Economics*, 663-691.
- Honohan, P. (2010). Partial credit guarantees: principles and practice. *Journal of Financial Stability*, 6(1), 1-9.
- IMF (2016). World Economic Outlook – October 2016.
- Invest Europe (2016a). 2015 European Private Equity Activity. Statistics on Fundraising, Investments & Divestments. May 2016. <http://www.investeurope.eu/media/476271/2015-european-private-equity-activity.pdf>
- Invest Europe (2016b). Public Affairs Overview. Invest Europe members only. September 2016. <http://www.investeurope.eu/media/507185/InvestEurope-PA-Overview-September-2016.pdf>
- Jaffee, D.M. and Russel, T. (1976). Imperfect information, uncertainty and credit rationing. In: *Quarterly Journal of Economics*. Vol. 90. November 1976.
- Kara, A., Marques-Ibanez, D., and Ongena, S. (2015). Securitization lending standards: evidence from the European wholesale loan market. International Finance Discussion Papers 1141. August 2015. <http://www.federalreserve.gov/econresdata/ifdp/2015/files/ifdp1141.pdf>
- Kaya, O. (2014). SME financing in the Euro Area. New solutions to an old problem. EU Monitor – Global Financial Markets. Deutsche Bank Research. 14.10.2014. https://www.dbresearch.com/PROD/DBR_INTERNET_EN-PROD/PROD000000000344173/SME+financing+in+the+euro+area%3A+New+solution+s+to+an+old+problem.PDF
- Kelly, R. (2011). The performance and prospects of European Venture Capital. EIF Working Paper 2011/009. May 2011. http://www.eif.org/news_centre/research/index.htm
- Kerr W.R., Lerner, J., and Schoar, A. (2011). The Consequences of Entrepreneurial Finance: Evidence from Angel Financings. *Review of Financial Studies*. Vol. 27, No. 1. Pp. 20-55. <http://rfs.oxfordjournals.org/content/early/2011/10/08/rfs.hhr098.full>
- Kraemer-Eis, H. (2014). Institutional non-bank lending and the role of Debt Funds. With contributions from F. Battazzi, R. Charrier, M. Natoli, M. Squilloni. EIF Working Paper 2014/25. October 2014. http://www.eif.org/news_centre/publications/eif_wp_25.pdf
- Kraemer-Eis, H. and Conforti, A. (2009). Microfinance in Europe. A market overview. EIF Working Paper 2009/001. http://www.eif.org/news_centre/research/index.htm
- Kraemer-Eis, H. and Lang, F. (2012). The importance of leasing for SME finance. EIF Working Paper 2012/15. 22.08.2012. http://www.eif.org/news_centre/research/index.htm
- Kraemer-Eis, H. and Lang, F. (2014). The importance of leasing for SME financing. In: World Leasing Yearbook 2014. Euromoney. January 2014. http://www.eif.org/news_centre/research/eif_euromoney_importance-of-leasing-for-smes_fv.pdf
- Kraemer-Eis, H. and Passaris, G. (2015). SME Securitization in Europe. In: *The Journal of Structured Finance*, Vol. 20, No. 4, Winter 2015.
- Kraemer-Eis, H. and Schillo, M. (2011). Business Angels in Germany - EIF's initiative to support the non-institutional financing market. EIF Working Paper 2011/011. November 2011. http://www.eif.org/news_centre/research/index.htm
- Kraemer-Eis, H., Lang, F., and Gvetadze, S. (2013). Bottlenecks in SME financing. In: Kolev, A., Tanayama, T., and Wagenvoort, R. (ec. eds.) (2013). *Investment and Investment Finance in*

- Europe. EIB Economics Department. Pp. 277ff.
http://www.eif.org/news_centre/publications/Bottlenecks-in-SME-financing.htm
- Kraemer-Eis, H., Lang, F., and Gvetadze, S. (2015a). European Small Business Finance Outlook. EIF Working Paper 2014/28. EIF Research & Market Analysis. June 2015.
 - Kraemer-Eis, H., Lang, F., Torfs, W., and Gvetadze, S. (2015b). European Small Business Finance Outlook. EIF Working Paper 2015/32. EIF Research & Market Analysis. December 2015. http://www.eif.org/news_centre/research/index.htm
 - Kraemer-Eis, H., Lang, F., Torfs, W., and Gvetadze, S. (2016). European Small Business Finance Outlook. EIF Working Paper 2016/35. EIF Research & Market Analysis. June 2016. http://www.eif.org/news_centre/research/index.htm
 - Kraemer-Eis, H., Passaris, G., and Tappi, A. (2013). SME loan securitisation 2.0 – Market assessment and policy options. EIF Working Paper 2013/019. EIF Research & Market Analysis. October 2013. http://www.eif.org/news_centre/publications/EIF_Working_Paper_2013_19.htm
 - Kraemer-Eis, H., Passaris, G., Tappi, A., and Inglisa, G. (2015). SME Securitisation – at a crossroads? EIF Working Paper 2013/031. EIF Research & Market Analysis. December 2015. http://www.eif.org/news_centre/publications/eif_wp_31.pdf
 - Kraemer-Eis, H., Schaber, M., and Tappi, A. (2010). SME loan securitisation. An important tool to support European SME lending. EIF Working Paper 2010/007. EIF Research & Market Analysis. October 2010. http://www.eif.org/news_centre/publications/eif-wp_2010_007_smesec.pdf
 - Kraemer-Eis, H., Signore, S., and Prencipe, D. (2016). The European venture capital landscape: an EIF perspective. Volume I: The impact of EIF on the VC ecosystem. EIF Working Paper 2016/34. EIF Research & Market Analysis. June 2016. http://www.eif.org/news_centre/research/index.htm
 - Leaseurope (2016a). Annual Survey 2015. <http://www.leaseurope.org/uploads/documents/stats/European%20Leasing%20Market%202015.pdf>
 - Leaseurope (2016b). Leasing to SMEs in Europe. Based on the Survey on the Access to Finance of Enterprises (SAFE) by the EC and ECB. Brussels. December 2016. Mimeo.
 - Lerner, J., Schoar, A., Sokolinski, S., and Wilson, K. (2015). The Globalisation of Angel Investment. Bruegel Working Paper 2015/09. August 2015. <http://bruegel.org/wp-content/uploads/2015/09/WP-2015-091.pdf>
 - Mason, C.M. and Harrison, R.T. (2013). Business angel investment activity in the financial crisis: UK evidence and policy implications. July 2013. http://www.gla.ac.uk/media/media_286594_en.pdf
 - Moody's (2016). EMEA ABS SME loan and lease indices – June 2016. 22.06.2016.
 - Moritz, A. (2015). Financing of Small and Medium-Sized Enterprises in Europe – Financing Patterns and 'Crowdfunding'. Dissertation. http://ubt.opus.hbz-nrw.de/frontdoor.php?source_opus=945
 - Moritz, A., Block, J.H., Heinz, A. (2015). Financing Patterns of European SMEs: an Empirical Taxonomy. EIF Working Paper 2015/30. 16 November 2015. http://www.eif.org/news_centre/research/index.htm
 - Moritz, A., Block, J.H., Heinz, A. (2016). Financing Patterns of European SMEs - an Empirical Taxonomy. In: Venture Capital 18 (2): 115–148.
 - OECD (2006). The SME Financing Gap. Vol. 1. Theory and Evidence, OECD Publishing, Paris.
 - OECD (2011). Financing high-growth firms. The role of angel investors. December 2011.

- OECD (2012), Financing SMEs and Entrepreneurs. An OECD Scoreboard 2012, OECD Publishing, Paris.
- OECD (2013). SME and Entrepreneurship Financing: The Role of Credit Guarantee Schemes and Mutual Guarantee Societies in supporting finance for small and medium-sized enterprises. Final Report. CFE/SME(2012)1/FINAL. Unclassified. 30.01.2013.
- OECD (2014a). Entrepreneurship at a Glance 2014. http://www.oecd-ilibrary.org/industry-and-services/entrepreneurship-at-a-glance-2014_entrepreneur_aag-2014-en.
- OECD (2014b). Financing SMEs and Entrepreneurs 2014. An OECD Scoreboard, OECD Publishing, Paris.
- OECD (2015a). Financing SMEs and Entrepreneurs 2015. An OECD Scoreboard, OECD Publishing, Paris.
- OECD (2015b). The Missing Entrepreneurs 2015, OECD Publishing, Paris.
- OECD (2015c). New Approaches to SME and Entrepreneurship Financing: Broadening the Range of Instruments. <https://www.oecd.org/cfe/smes/New-Approaches-SME-full-report.pdf>
- OECD (2016a). Entrepreneurship at a Glance 2016, OECD Publishing, Paris.
- OECD (2016b). Financing SMEs and Entrepreneurs 2016. An OECD Scoreboard. April 2016. <http://www.oecd.org/cfe/smes/financing-smes-and-entrepreneurs-23065265.htm>
- OECD/The European Commission (2014). The Missing Entrepreneurs: Policies for inclusive entrepreneurship in Europe. 2014.
- Preqin (2016a). Preqin Investor Outlook: Alternative Assets H1 2016. <https://www.preqin.com/docs/reports/Preqin-Investor-Outlook-Alternative-Assets-H1-2016.pdf>
- Preqin (2016b). Preqin Investor Outlook: Alternative Assets H2 2016. <https://www.preqin.com/docs/reports/Preqin-Investor-Outlook-Alternative-Assets-H2-2016.pdf>
- Preqin (2016c). Private Equity & Venture Capital Spotlight. Volume 12, Issue 9. December 2016. <https://www.preqin.com/docs/newsletters/pe/Preqin-Private-Equity-Spotlight-December-2016.pdf>
- Ryan, R. M., O'Toole, C. M., and McCann, F. (2014). Does bank market power affect SME financing constraints? *Journal of Banking & Finance*, 49, 495-505.
- Schich, S., Cariboni, J., Naszodi, A., Maccaferri, S. (2017). Evaluating Publicly Supported Credit Guarantee Programmes for SMEs: Literature Review and Synthesis of Responses to an OECD/EC Survey. OECD Financial Market Trends. Forthcoming
- Slush and Atomico (2016). The State of European Tech. 2016 edition. November 2016. www.atomico.com/InventedHere
- Standard & Poor's (2014). Seven years on, the cumulative default rate for European Structured Finance is only 1.6%. S&P Credit Research. 26.08.2014.
- Signore, S. (2016). The European venture capital landscape: an EIF perspective. Volume II: growth patterns of EIF-backed startups. EIF Working Paper 2016/34, EIF Research & Market Analysis.
- Stiglitz, J.E. and Weiss, A. (1981). Credit Rationing in Markets with Incomplete Information. In: *The American Economic Review*, Vol. 71, No. 3, pp. 393-410.
- Tanveer Choudhry, M., Marelli, E., & Signorelli, M. (2012). Youth unemployment rate and impact of financial crises. *International journal of manpower*, 33(1), 76-95.
- Thomadakis, A. (2016). Nothing ventured nothing gained: How the EU can boost growth in small businesses and start-ups. ECMI Research Report. No. 10/November 2016. https://www.ceps.eu/system/files/ECMI%20RR2_AT_VentureCapitalMkt_final.pdf

- Tirole, J. (2010). *The theory of corporate finance*. Princeton University Press.
- UEAPME Study Unit (2016). *The EU Craft and SME Barometer 2016/H2*. October 2016.
- Uhde, A. and Heimeshoff, U. (2009). Consolidation in banking and financial stability in Europe: Empirical evidence. *Journal of Banking & Finance*, 33(7), 1299-1311.
- Unquote Intelligence (2014). *The Role of Public Funding Bodies in European Venture Capital*. Q2 2014.
- VIWGCGS (2014). *Credit Guarantee Schemes for SME lending in Central, Eastern and South-Eastern Europe*. A report by the Vienna Initiative Working Group on Credit Guarantee Schemes. November 2014. <http://www.eib.org/infocentre/publications/all/viwg-credit-guarantee-schemes-report.htm>
- Wagenvoort, R. J., Ebner, A., & Borys, M. M. (2011). A factor analysis approach to measuring European loan and bond market integration. *Journal of Banking & Finance*, 35(4), 1011-1025.
- Wehinger, G. and Nassr, I (2015). Unlocking SME finance through market-based debt: Securitisation, private placements and bonds, In: *OECD Journal: Financial Market Trends*. April 2015. <http://www.oecd.org/daf/fin/financial-markets/Unlocking-SME-finance-through-market-based-debt.pdf>
- Wilson, K. (2015a). How to unleash the financing of high growth firms in Europe: 10 recommendations for catalysing growth. Bruegel blog. 27 May 2015. <http://www.bruegel.org/nc/blog/detail/article/1636-how-to-unleash-the-financing-of-high-growth-firms-in-europe/>
- Wilson, K. (2015b). *Policy Lessons from Financing Innovative Firms*. OECD Science, Technology and Industry Policy Papers, No. 24. OECD Publishing, Paris. 24 June 2015. <http://dx.doi.org/10.1787/5js03z8zrh9p-en>

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