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ANNUAL REPORT ON EUROPEAN SMEs 2015/2016

SME recovery continues

Internal Market, Industry, Entrepreneurship and SMEs

Annual Report on European SMEs 2015 / 2016

SME recovery continues

SME Performance Review 2015/2016

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EXECUTIVE SUMMARY

SMEs form the backbone of the EU28 economy. In 2015, just under 23 million SMEs generated €3.9 trillion in value added and employed 90 million people.

They accounted in 2015 for two thirds of EU28 employment and slightly less than three fifths of EU28 value added in the non-financial business sector.

The vast majority of SMEs are micro enterprises with less than 10 employees – such very small firms account for almost 93% of all enterprises in the non–financial business sector.

EU28 SMEs finally appear to have escaped from the fallout of the economic and financial crisis of late 2008 and 2009.

- Indeed, following a number of years of poor economic performance, EU28 SMEs experienced in 2015 good growth in value added for the second year in a row (3.8% in 2014 and 5.7% in 2015).
- For the first time since the recession, SME employment grew in 2014 (1.1%). In 2015, SME employment increased by 1.5%.

As a result of robust growth over the past two years, the level of value added generated by EU28 SMEs in 2015 in the non-financial business sector was almost 9% higher than in 2008. In sharp contrast, EU28 SME employment was still about 2% below its 2008 level.

SMEs had a good year in 2015 in almost all Member States. In 2015, SME value added increased in all but two Member States and SME employment increased in 27 of the 28 Member States. Obviously, the magnitude of the actual growth in value added and employment varied across Member States with some countries showing weaker growth than others. But the change is in the right direction in almost all Member States.

Of note is the fact that the recent EU28 SME employment growth is, on average, entirely due to the growing number of SMEs as the average number of staff employed by a SME has remained stable in 2014 and 2015 after falling markedly from 2008 to 2013.

The improved performance of EU28 SMEs reflects better macro-economic conditions in 2015, especially increases in domestic demand in the EU. The latter is particularly important for SMEs as most SMEs operate in sectors which have a low export-intensity, and when they export, SMEs do so mostly to other EU28 Member States. Moreover, in contrast to large enterprises, these exporting SMEs have rebalanced their exports to extra-EU markets to much lesser extent.

A detailed examination of the employment performance of EU28 SMEs in 2014 and 2015 reveals a great deal of diversity across sectors:

- a few small sectors (such as 'advertising and market research', 'legal and accounting services', 'office administration and support and other business services', 'services to buildings and landscaping', and 'employment activities') each show growth of more than 5% in employment. But, each of these sectors account for at most 3% of total EU28 employment in 2015;
- in contrast, a number of larger sectors such as, for example, 'retail trade', 'wholesale trade' and 'construction' which together account for 30% of total EU28 SME employment, recorded employment growth of about 2.0% or less in 2015.

The population of SMEs, particular micro SMEs, changes constantly, with many new businesses being born every year and many ceasing to operate. In particular young and small firms show high mortality rates.

The 2014-2015 SME Annual Report found that in recent years young SMEs created jobs (on a net basis), and the EU needs more young firms to create jobs. There are now no major differences between the EU and the USA as regards new firm creation. Start-ups are key contributors to the innovation and growth dynamics of the EU economy. However, many young enterprises fail in their early years and barriers to starting afresh dampen the potential gains that a strong start-up culture could yield. Public policies supporting more start-up dynamism through second chance will go some way towards improving the environment for start-ups and strengthening the overall employment creation performance of SMEs.

Often a business cessation is involuntary and results from creditor action to recover partially or fully debts owed to them. Bankruptcy procedures and similar involuntary business cessation procedures provide the legal framework for winding down such failing businesses.

The characteristics of the bankruptcy regimes vary considerably in terms of how punitive the regime is for honest entrepreneurs whose business failed and went bankrupt. A common finding from the academic literature is that a more punitive bankruptcy regime is likely to:

- deter potential entrepreneurs from starting a business because they do not want to face the consequences of the potential risk of bankruptcy; and,
- prevent honest entrepreneurs whose business failed from starting a new business again.

As a result, economies with more punitive bankruptcy regimes forego the value added and employment which would have been created by the businesses which would have been created by entrepreneurs actually deterred or prevented from doing so.

The results of the statistical analysis presented in the report shows that, in particular, the length of the discharge period has a negative and important impact on the level of entrepreneurship and the creation of new businesses. The lower level of entrepreneurship and business creation in turn holds back economy-wide output growth and employment creation.

For example, if all the Member States where the discharge period exceeds three years reduced it to three years, in the long run, the level of EU28 GDP (at constant prices) could be about 1.0% higher each year. The degree of uncertainty surrounding this estimate is high and the figure should be more viewed as an illustration of the likely effect of reducing the discharge period than a precise forecast. Nevertheless, it highlights the fact that the opportunity cost, in terms of foregone output and employment, of punitive bankruptcy regimes is far from insignificant.

The SBA second chance principle recognises the economic and social cost of bankruptcies, and aims to:

- on one hand, prevent bankruptcies by taking in time the measures required to prevent a business falling into a situation where cessation, voluntarily or involuntarily, is unavoidable; and
- on the other hand, ensure that honest entrepreneurs whose business went bankrupt do not face unsurmountable obstacles in starting a new business.

Unfortunately, this year's SBA review shows, among other, that:

- in only slightly more than half of Member States can the discharge from bankruptcy be achieved in 3 years or less;
- half of EU Member States treat re-starters on an equal footing with new start-ups; and,
- all the other SBA second chance policy measures are implemented in less than half of Member States.

Moreover, the SBA second chance principle is the one showing the least progress since 2008.

Therefore, the clear policy message emanating from both the analysis in the present report and the parallel assessment of the implementation of the SBA second chance principle is very clear: policy action is required urgently by Member States who have not yet taken action to implement fully all the SBA second chance principles. The fiscal cost is nil or very small and the benefits in terms of output and employment are likely to be important.

Source: Ant Clausen / Shutterstock

1. Introduction

Across the EU28, the contribution of SMEs[1] in the non-financial business sector[2] is considerable. SMEs make up 99.8% of all enterprises, 57.4% of value added, and 66.8 % of employment.

In 2015, just under 23 million SMEs in the non-financial business sector generated €3.9 trillion of value added and employed 90 million people.

Within SMEs, three categories of enterprise size can be distinguished: micro, small, and medium. The size-class definition used in the present report is based on the definitions used in the Structural Business Statistics (SBS) database maintained by Eurostat, and the definition is solely based on the number of people employed.

Table 1: EU definition of SMEs

Company Category	Employees	Turnover	Balance sheet total
Micro	< 10	< €2 million	< €2 million
Small	< 50	< €10 million	< €10 million
Medium -sized	< 250	< €50 million	< €43 million

Source: Commission Recommendation of 6 May 2003 concerning the definition of micro, small, and medium-sized enterprises. (2003/361/EC), Official Journal of the European Union, L 124/36, 20 May 2003

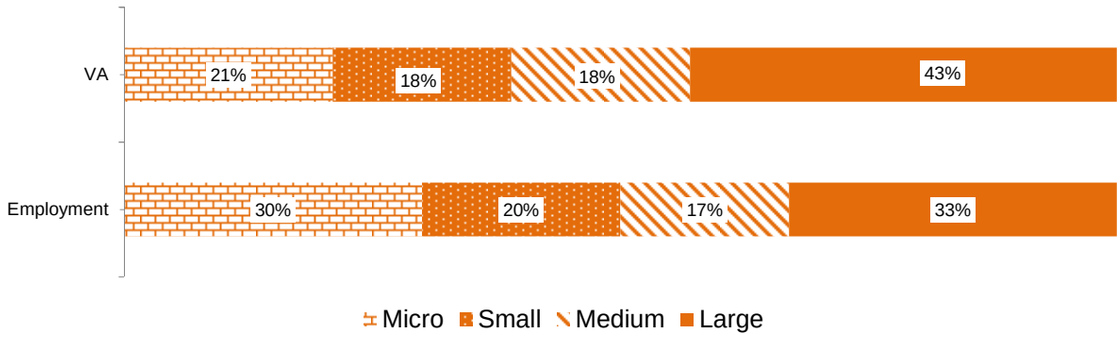
As shown in Figure 1 below, the three categories of SMEs each individually account for approximately 20% of the share of the total value added generated by the non–financial business sector, with large enterprises

[1] SMEs are defined as businesses which employ less than 250 staff and have an annual turnover of less than EUR 50 million, and / or their balance sheet total is less than EUR 43 million. See further information on: http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition/index_en.htm

[2] The non-financial business sector consists of all sectors of the economies of the EU28 or Member States, except for financial services, government services, education, health, arts and culture, agriculture, forestry, and fishing.

accounting for the remaining 40%. In terms of employment in the non-financial business sector, micro enterprises account for 30% of total employment, while medium and small enterprises account for about 20% each.[3]

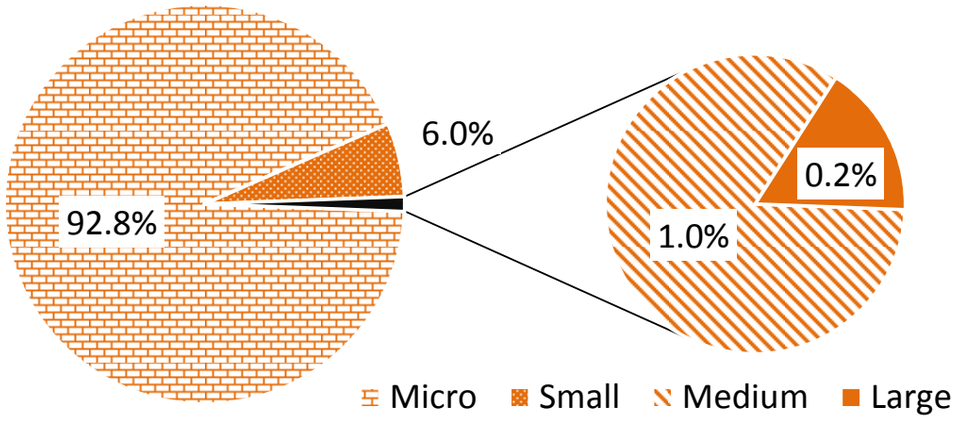
Figure 1: Value added and employment in the non-financial business sector in the EU28 by enterprise size, 2015



Source: Eurostat, National Statistical Offices and DIW Econ

The number of enterprises by size-class is less evenly spread, with micro enterprises accounting for 92.8% of enterprises, small enterprises accounting for 6.0%, and medium enterprises accounting for only 1.0%.

Figure 2: Number of enterprises in the non-financial business sector in the EU28 by enterprise size, 2015



Source: Eurostat, National Statistical Offices and DIW Econ

More detailed information about differences across Member States in the contribution of SMEs to total employment and value added of the non-financial business sector can be found in Annex III.2.

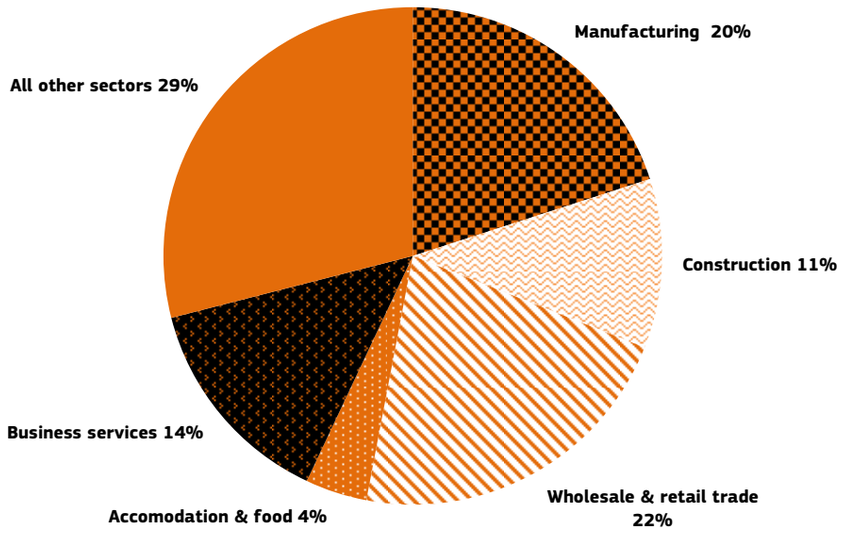
1.1 A brief snapshot of SMEs in the EU28 in 2015

In the non-financial business sector, the five most important SME sectors in terms of employment in the EU28 were 'accommodation and food', 'business services', 'construction', 'manufacturing' and 'wholesale/retail trade'.

[3] A full breakdown of number of enterprises, employment, and value added by firm size can be found in Annex III.1.

Together, these sectors accounted for 78% of SME employment and 71% of SME value added in 2015.

Figure 3: Breakdown of SME value added in 2015 by main sector, EU28

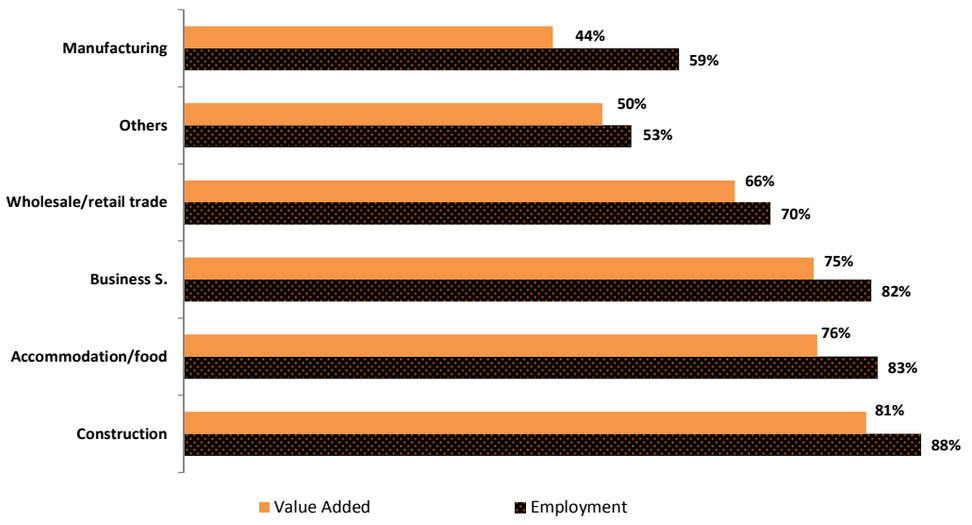


Source: Eurostat, National Statistical Offices and DIW Econ

Within these five sectors as a whole, in terms of total value added, the contribution of SMEs was 44% in 'manufacturing', 66% in 'wholesale/retail trade', and over 70% in 'business services', 'accommodation and food' and 'construction'.

Within each of these sectors, SMEs also account for a larger share of the value added and employment relative to large firms.

Figure 4: Relative contribution of SMEs to total non-financial business sector value added and employment in the five largest SME sectors in 2015, EU28



Source: Eurostat, National Statistical Offices and DIW Econ

Across Member States, the density of the SME population varies greatly across the EU28. Indeed, in 2015, the number of SMEs per hundred inhabitants ranged from 2.2 in Romania to 9.4 in the Czech Republic (see figure below).

Figure 5: Number of SMEs per 100 inhabitants in 2015

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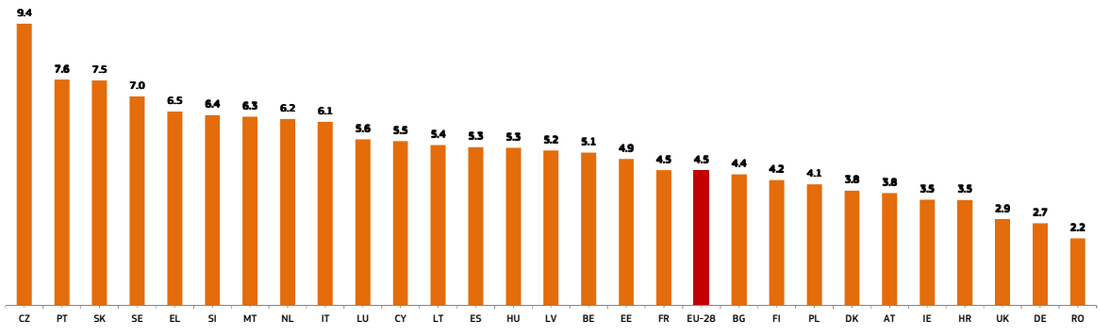
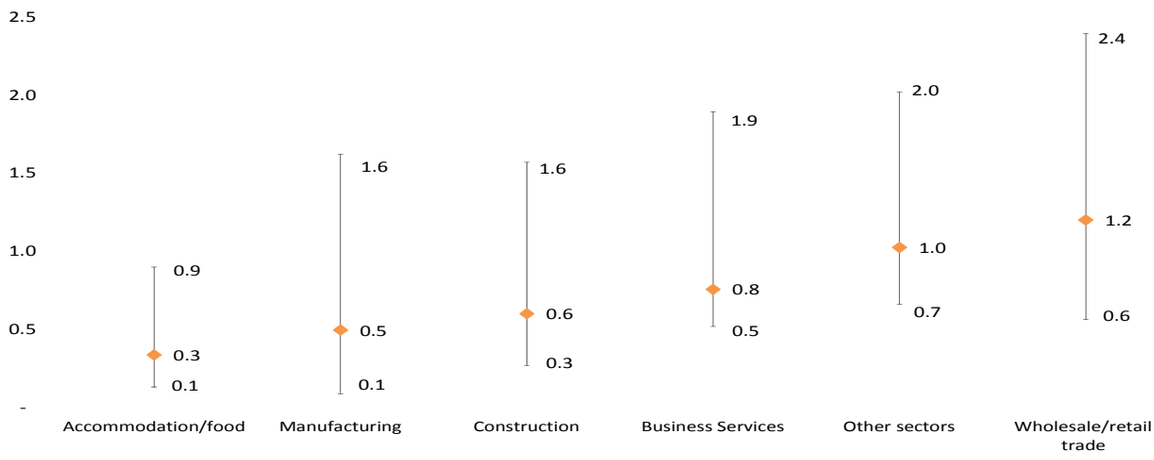


Source: Eurostat, National Statistical Offices and DIW Econ

The distribution of SMEs by sector across Member States was generally similar to the distribution observed at the EU28 level. For instance, the number of SMEs per hundred inhabitants was largest in the 'wholesale/retail trade' and 'business services' sectors across the majority of Member States.

A full breakdown of SME density at both sector and Member State level can be found in Annex III.3.

Figure 6: Number of SMEs per hundred inhabitants in 2015 by sector



Source: Eurostat, National Statistical Offices and DIW Econ
Note: Diamonds indicate the mean value, the bars give the range of values. The mean is equal to the average across the 28 Member States of the number of SMEs per 100 inhabitants.

1.2 SME Performance Review and the Small Business Act

The SME Performance Review is one of the main tools used by the European Commission to monitor and assess countries' progress in implementing the Small Business Act (SBA) on a yearly basis.

The SBA strives to foster SME development and remove obstacles to SME growth. It does not constitute a legal requirement but a series of guidance measures that can be adapted to suit each country's specific needs. This guidance is underlined by ten core principles:

1. **Entrepreneurship**: Creating an environment in which entrepreneurs and family businesses can thrive and entrepreneurship is rewarded.
2. **Second Chance**: Ensuring that honest entrepreneurs who have experienced bankruptcy are promptly given a second opportunity to succeed.
3. **Think Small First**: Designing rules modelled on the "Think Small First"[4] principle.
4. **Responsive Administration**: Making public administrations responsive to the needs of SMEs.
5. **State Aid and Public Procurement:** Adapting public policy tools to suit SME needs - facilitating SMEs' participation in public procurement and ensuring better access to State Aid for SMEs.
6. **Access to Finance**: Facilitating SMEs' access to finance and developing a legal and business environment conducive to the specific requirements of SMEs, including timely payments in commercial transactions.
7. **Single Market**: Helping SMEs to benefit more from the opportunities offered by the Single Market.
8. **Skills and Innovation**: Promoting the enhancement of skills in the SME workforce and all forms of innovation.
9. **Environment**: Enabling SMEs to transform environmental challenges into economic opportunities while acting sustainably.
10. **Internationalisation**: Encouraging SMEs to benefit from the growth of global markets and supporting them in this pursuit.

The Performance Review provides extensive information on the implementation of the measures from the SBA Action Plan, and on the performance of SMEs in EU Member States and seven partner countries (Albania, the Former Yugoslav Republic of Macedonia, Iceland, Moldova, Montenegro, Serbia, and Turkey).

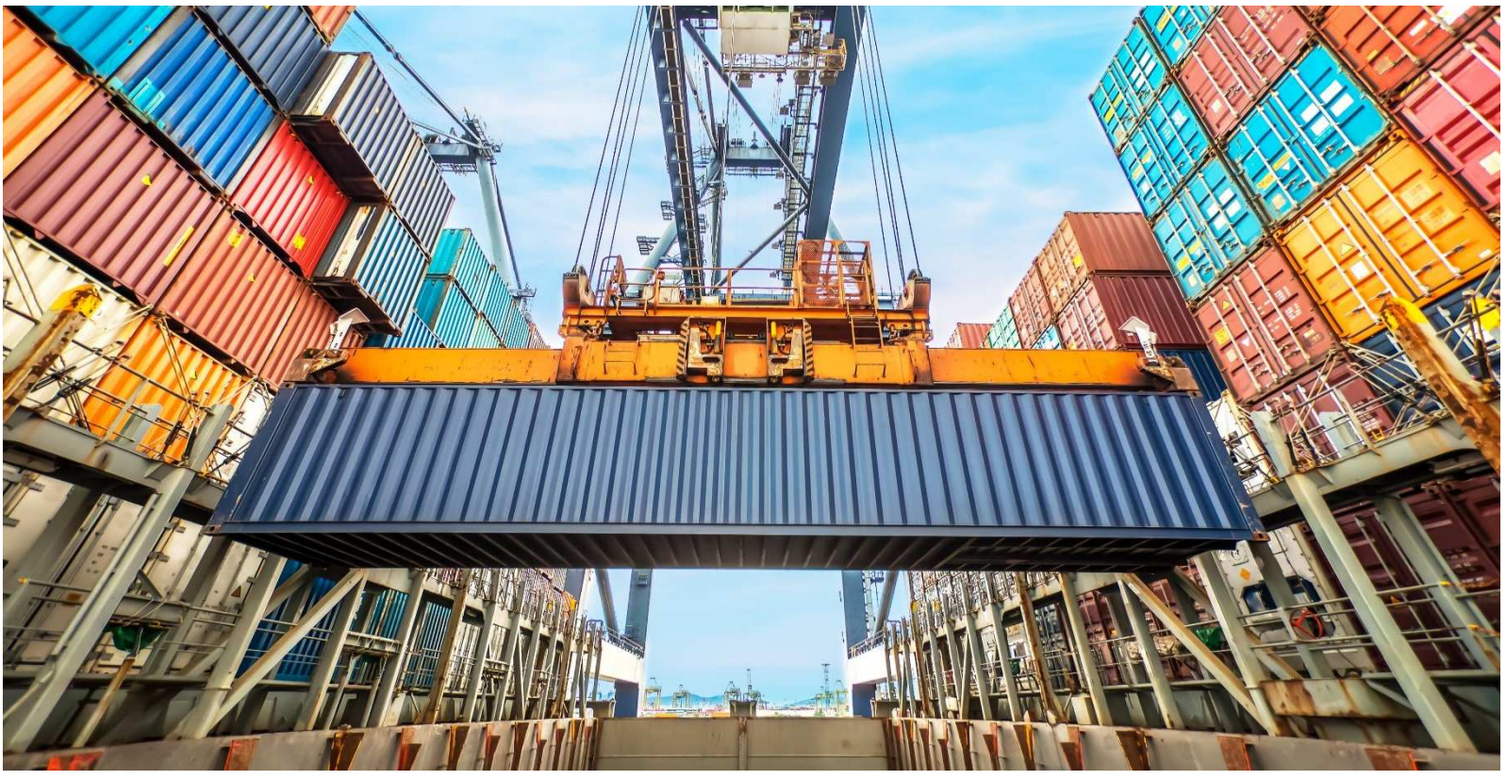
The output of this review consists of two parts: the Annual Report on European SMEs (i.e. the present report) and the SBA country fact sheets. Both the report and the factsheets are published by the Commission on its website.

1.3 Scope and objectives of the report

The structure of the SME Annual Report 2015-2016 is as follows:

Section 2 provides a top level summary of the economic performance of SMEs in the EU28 in 2015, discusses the macroeconomic and business conditions faced by SMEs, and compares the performances of EU SMEs and US SMEs.
Section 3 reviews in greater details the export, profitability, and employment performance of SMEs in the EU28 and discusses the future prospects of SMEs.
Section 4 focuses on the issue of bankruptcy and the SBA second chance principle, and the importance of ensuring that it is fully and effectively implemented.
Finally, section 5 concludes and presents a recommendation.

[4] The Think Small First principle requires that legislation takes SMEs' interests into account at the very early stages of policy making in order to make legislation more SME friendly. A range of tools is available to ensure the effective implementation of the principle. These include the application of an SME test to forthcoming legislative proposals, the use of specific SME provisions in legislation in order to avoid disproportionate burden on SMEs, the consultation of SME stakeholders, the work of the SME Envoy, the use of Common Commencement dates for legislation relevant for business, etc.



Source: MOLPIX / Shutterstock

2. SME Performance & Business Environment in 2015

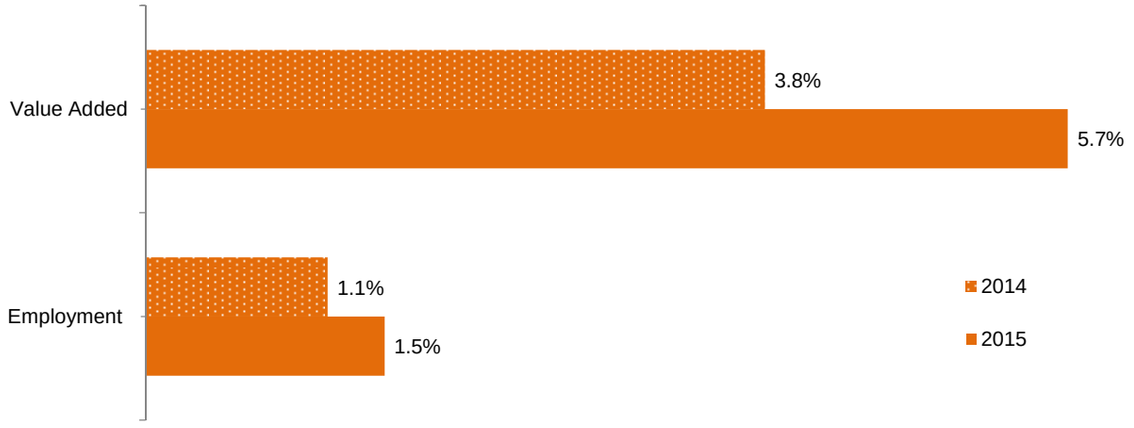
This section provides first a top-level summary of the economic performance of SMEs in the non-financial business sector. It then focuses on elements of the underlying context, including the potential impacts of the macroeconomic and business conditions which help shed light on the progress of SMEs. Finally, it compares and contrasts the performance of EU28 and US SMEs.

2.1 Overview of the recent economic performance of SMEs

Since 2013, SME employment followed a moderate growth path, growing by 1.1% in 2014 and 1.5% in 2015.

In contrast, SME value added has grown at a comparatively fast pace, posting growth of 3.8% in 2014 and 5.7% in 2015.

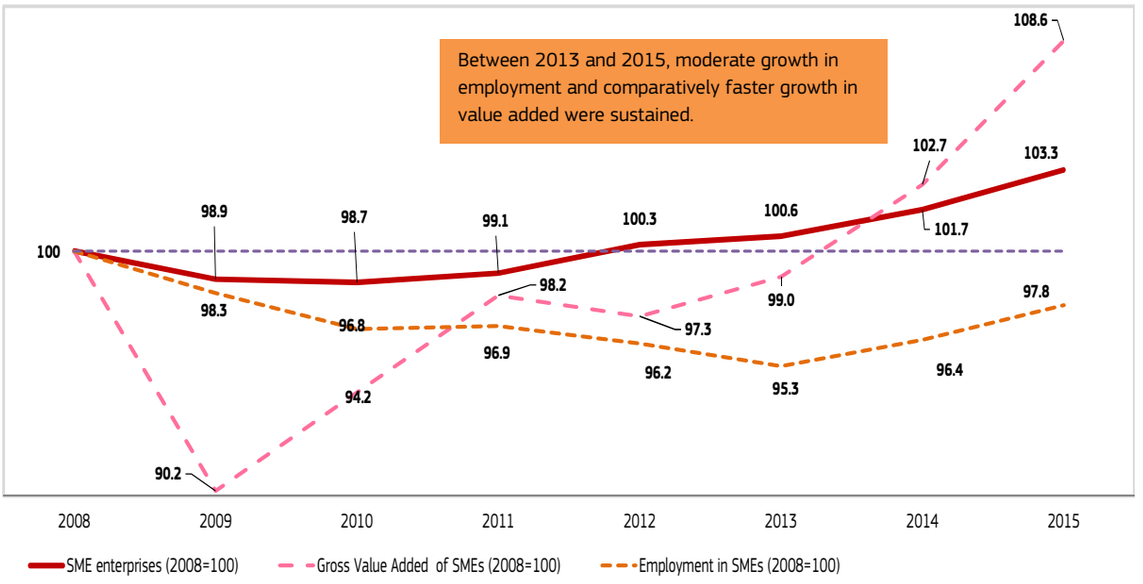
Figure 7 : SME employment and value added growth in 2014 and 2015, EU28



Source: Eurostat, National Statistical Offices and DIW Econ

The level of SME value added has exceeded the pre-crisis level since 2014. However, despite the modest growth experienced since 2013, the level of SME employment in SMEs in 2015 remained below pre-crisis levels.

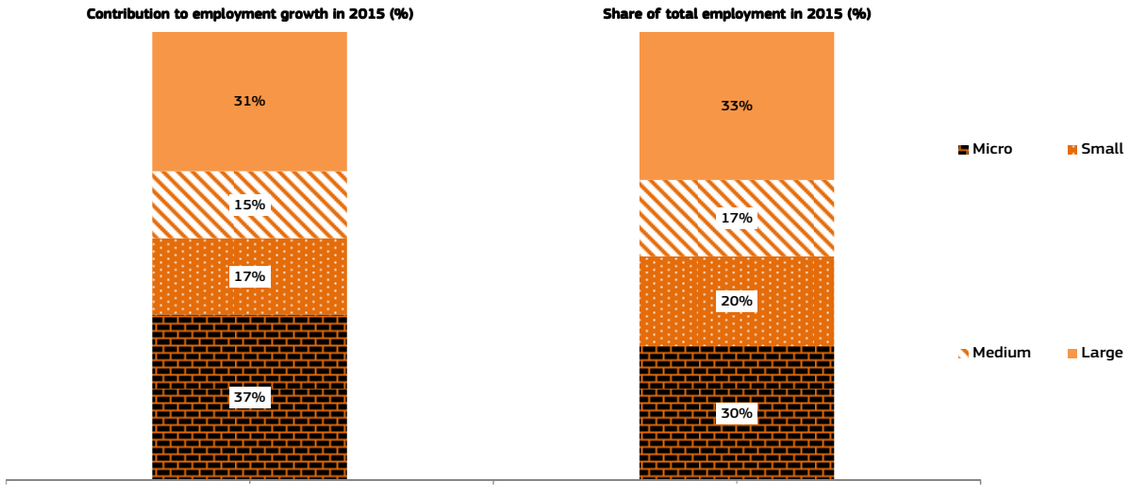
Figure 8: Number of SMEs in the EU28, SME value added and SME employment in the non-financial business sector 2008 to 2015, 2008=100



Source: Eurostat, National Statistical Offices and DIW Econ
Note: Series are indexed to 100 in 2008, Slovakia excluded due to series break in 2009, Netherlands excluded due to series break in 2013

Micro enterprises accounted for over half of the growth in employment among SMEs in 2015. In fact, micro enterprises accounted for 37% of the growth in total employment in the non-financial business sector in 2015. This strong contribution reflects to some extent the relatively large share of total employment that micro enterprises represent (30%).

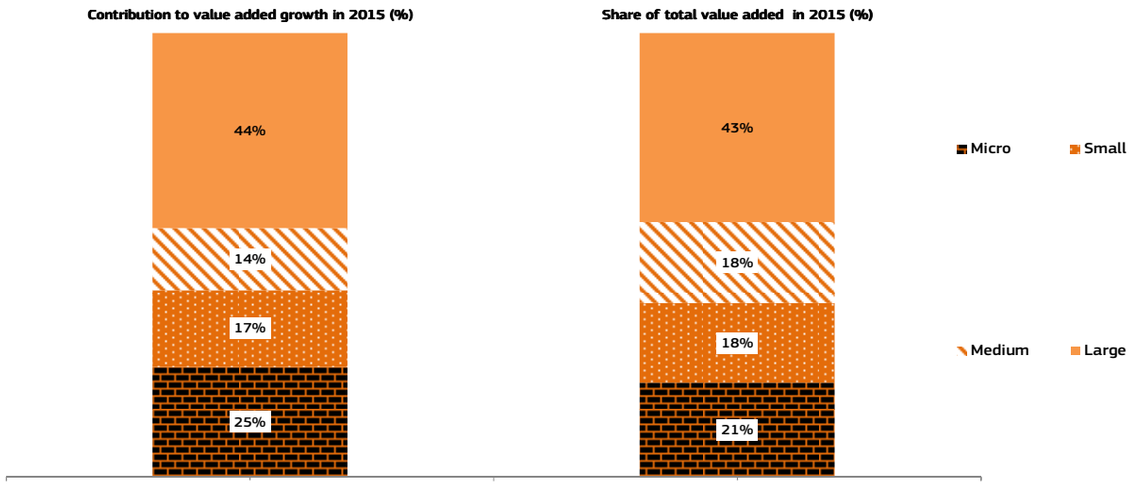
Figure 9: Contribution of different enterprise class sizes to employment growth and total employment in 2015 in the non-financial business sector, EU28



Source: Eurostat, National Statistical Offices and DIW Econ
Note: Contribution is calculated based on the relative share of the employment/value added change between 2014 and 2015 which occurred within each size class.

In the case of value added, nearly half of the growth was accounted for by large enterprises (44%) in 2015. But, micro enterprises remained the biggest contributor of all SME size classes (see Figure 10 below).

Figure 10: Contribution of different enterprise class sizes to value added growth and total value added in 2015 in the non-financial business sector, EU28

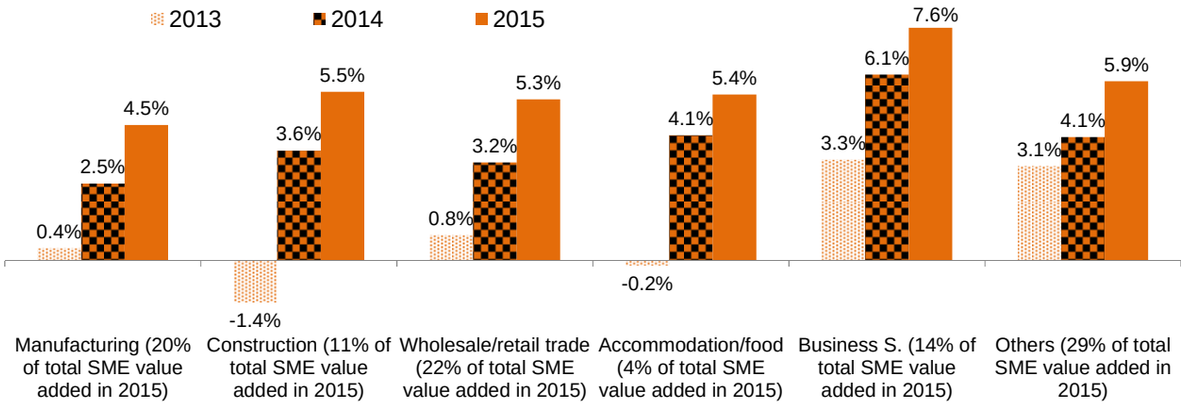


Source: Eurostat, National Statistical Offices and DIW Econ
Note: Contribution is calculated based on the relative share of the employment/value added increase between 2014 and 2015 which occurred within each size class.

From a sectoral perspective, 'business services' has consistently outperformed since 2013 all other sectors in terms of both value added and employment, showing growth of 7.6% in value added and 2.8% in employment in 2015.

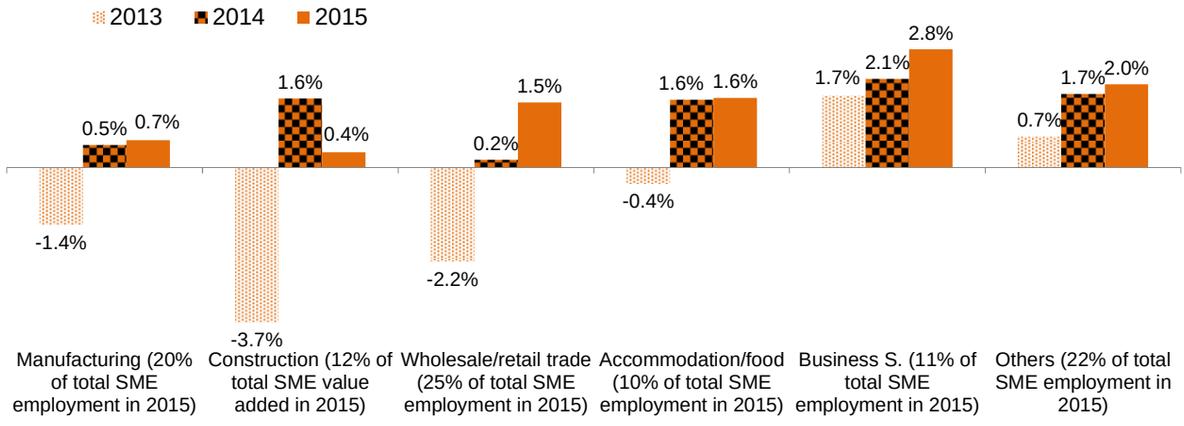
However, the 'wholesale & retail trade' sector contributed most to overall value added growth due to its size. Despite value added growing at a slower rate in 'wholesale and retail trade' than in 'business services' (5.3% compared to 7.6%), 'wholesale & retail trade' contributed most to SME value added growth overall, due its larger absolute size.

Figure 11: Annual growth in SME value added by sector in EU28, 2013-15



Source: Eurostat, National Statistical Offices, DIW Econ

Figure 12: Annual growth in SME employment by sector in EU28, 2013-15



Source: Eurostat, National Statistical Offices, DIW Econ

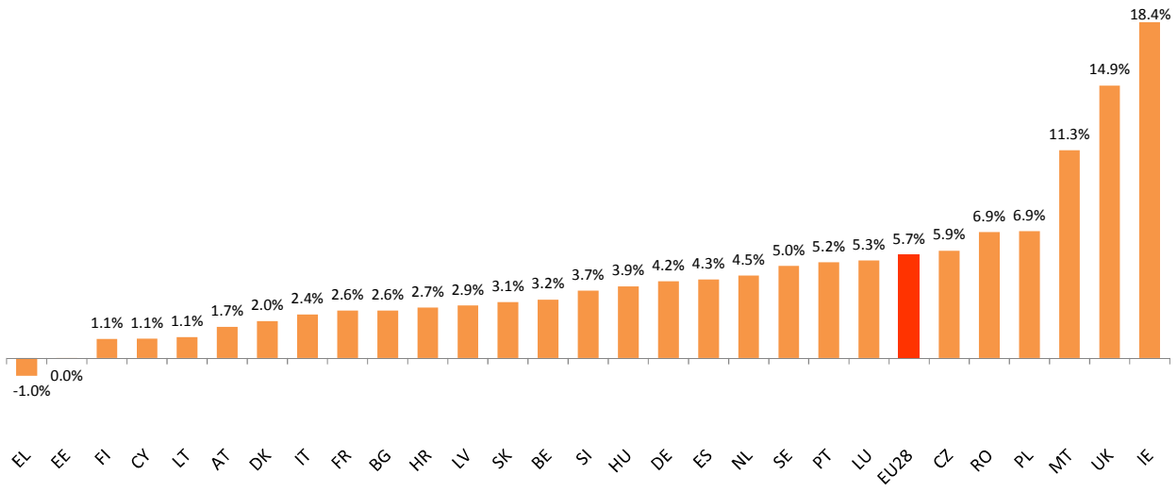
Overall, value added growth at the Member State level was generally positive: only two Member States (Estonia and Greece) experienced a decline in value added in 2015.

It should be noted that SMEs in a few Member States experienced considerably higher value added growth relative to the average EU28 level. In particular, value added growth in Ireland, the UK, and Malta was 18.4%, 14.9%, and 11.4% respectively. In the cases of Ireland and Malta, the strong growth in SME value added reflects strong economy-wide growth[5] while in the case of the UK, the strong growth in value added (measured in EUR) reflects the sharp appreciation of 11.3% of the £ relative to the € in 2015. As the next

[5] Especially in the 'real estate' and 'professional, scientific and technical activities' sectors in Malta and particularly in the 'ICT' sector in Ireland.

highest growth rate, at 6.9%, was recorded by Poland, the growth in these three countries was considerably higher than across the rest of the EU28.

Figure 13: EU SME value added annual growth by Member State, 2015



Source: Eurostat, National Statistical Offices, DIW Econ

Despite marked differences in overall SME value added growth among Member State, the growth sectors are largely the same across all Member States.

Table 2 below shows, for each Member State, the contribution of various sectors to growth in total SME value added in the non–financial business industry in 2015. An empty cell for a particular sector means that this sector did not grow or experienced a drop in value added. In contrast, a high percentage figure indicates that a large proportion of the overall increase in SME value added in the non-financial business sector was contributed by that particular sector.

In general, the 'manufacturing', 'wholesale/retail trade' and 'other' sectors contributed most to growth in SME value added in the non-financial business sector across Member States. The 'business services' sector also accounted for a sizeable proportion of growth across most Member States. The 'construction' sector contribution to growth exceeded 20% in only four Member States (LT, PL, SE and SK). Finally, the 'accommodation and food' sector consistently accounted for only a small share of value added across all Member States.

Table 2: SME value added growth in 2015, breakdown of growth by sector and Member State

Country	Total Change across all sectors (EUR million)	Aggregate change across all sectors showing growth (EUR million)	Manufact. (C)	Construction (F)	Wholesale / retail trade (G)	Accommod. and food (I)	Busines s Services (M)	Other sectors
AT	1,785	1,785	21%	6%	22%	9%	2%	39%
BE	3,841	3,924		6%	24%	3%	25%	42%
BG	328	328	28%	19%	2%	0%	4%	46%
CY	54	69	20%		33%	19%	26%	2%
CZ	2,702	2,702	25%	11%	25%	4%	12%	24%
DE	32,905	32,905	15%	14%	17%	3%	17%	33%
DK	1,563	1,981	63%	10%			27%	

EE	- 0	78					37%	63%
EL	- 347	422			33%	8%	46%	13%
ES	11,167	11,167	11%	13%	28%	9%	16%	23%
FI	556	613	36%	15%			19%	30%
FR	13,295	16,695	23%		20%	5%	17%	35%
HR	305	305	31%	5%	24%	11%	3%	25%
HU	1,047	1,047	21%	9%	27%	4%	17%	23%
IE	7,835	7,835	19%	3%	22%	5%	14%	38%
IT	10,207	10,207	43%	0%	31%	8%	6%	11%
LT	104	132	28%	26%	37%	3%	6%	
LU	800	800	8%	7%	21%	3%	25%	37%
LV	212	212	35%	3%	6%	1%	15%	41%
MT	347	347	2%	7%	22%	8%	26%	36%
NL	8,942	8,942	17%	5%	37%	4%	21%	16%
PL	6,416	6,416	33%	35%	17%	1%	4%	10%
PT	2,433	2,433	28%	11%	29%	7%	6%	20%
RO	1,923	2,169		8%	31%	3%	14%	44%
SE	6,496	6,496	36%	35%	9%	2%	11%	7%
SI	425	450	50%		20%	4%	11%	15%
SK	552	552	33%	34%	12%	2%	1%	18%
UK	94,768	94,768	8%	14%	18%	4%	22%	34%
EU28	210,661	215,780	16%	11%	20%	4%	18%	30%

Source: Eurostat, National Statistical Offices, DIW Econ
Note: The strength of green shading indicates the size of the contribution of that sector to positive growth relative to other sectors in that Member State. In other words, dark green shading corresponds to sectors which accounted for a large share of growth in that Member State.

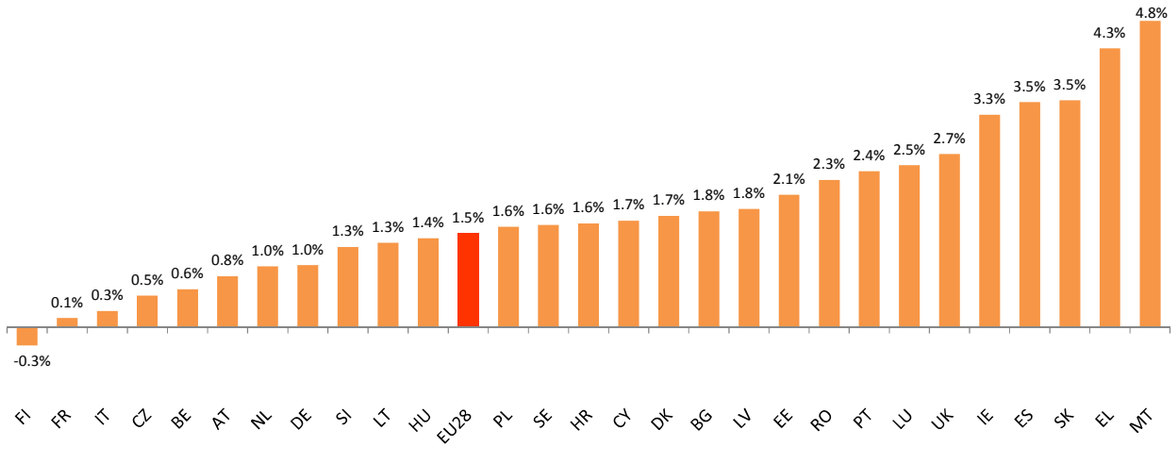
Comparing value added across different size classes, the picture was more diverse. Nevertheless, in 60% of Member States[6], micro enterprises accounted the most for overall growth, and of these, in a further 37% of Member States, over 50% of growth was due to micro enterprises.

EU28 employment growth was more evenly spread than value added growth across Member States, with all countries except Finland at least maintaining their 2015 employment levels.

Aside from Finland, all Member States either experienced stable employment or saw an increase in employment between 2014 and 2015, with growth ranging from 0.1% in France up to 4.8% in Malta. Finland was the only Member State to experience a decrease in employment, although the magnitude of this decrease was relatively small at -0.3%.

[6] Excludes Greece. See Annex III.10 for full breakdown of value added growth at the Member State and size class level.

Figure 14: EU SME employment growth by Member State, 2015



Source: Eurostat, National Statistical Offices, DIW Econ

The pattern of employment growth was similar to value added with micro enterprises accounting for a larger share of growth relative to small and medium enterprises in 70% of Member States.[7]

There were also consistent patterns in employment growth between Member States at sector level. These were generally similar to the trends in value added growth, with the largest contributions to employment growth arising from the 'other', 'business services' and 'wholesale/retail' sectors.

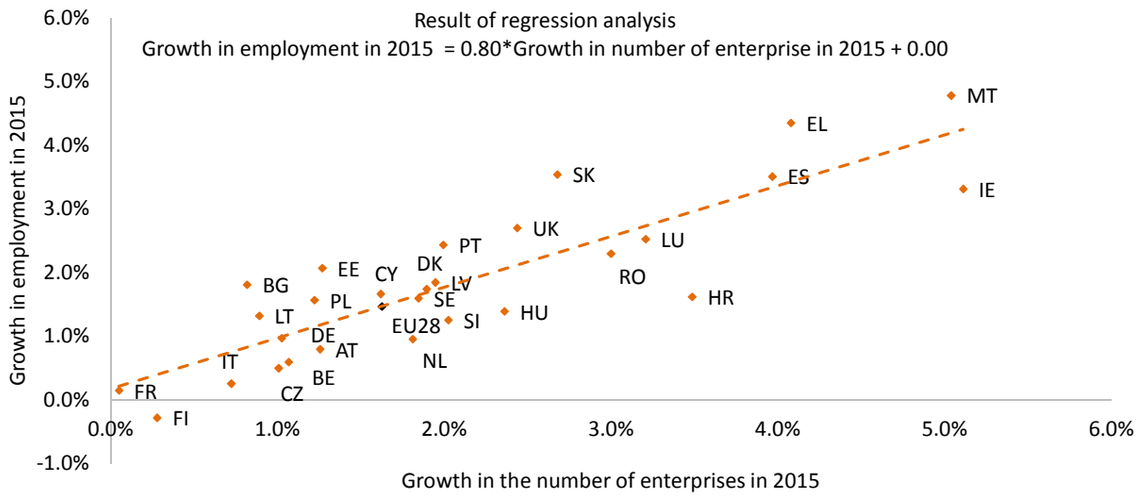
However, unlike the growth in value added, there was a lot of variability in the contribution of the 'manufacturing' sector to employment growth across individual countries. Interestingly, the Member States in which 'manufacturing' contributed to more than 30% of employment growth were mainly eastern European (Bulgaria, Estonia, Lithuania, Poland, and Slovakia), along with Portugal, the only non-eastern European country in this group.

See Annex III.10 for a full breakdown of SME growth rates for value added and employment at the Member State level across different size classes and sectors.

At the Member State level, employment growth was also strongly related to the growth in the number of enterprises. In 2015, a 1% increase in the number of enterprises translated into a 0.8% increase in employment.

[7] Excludes Finland

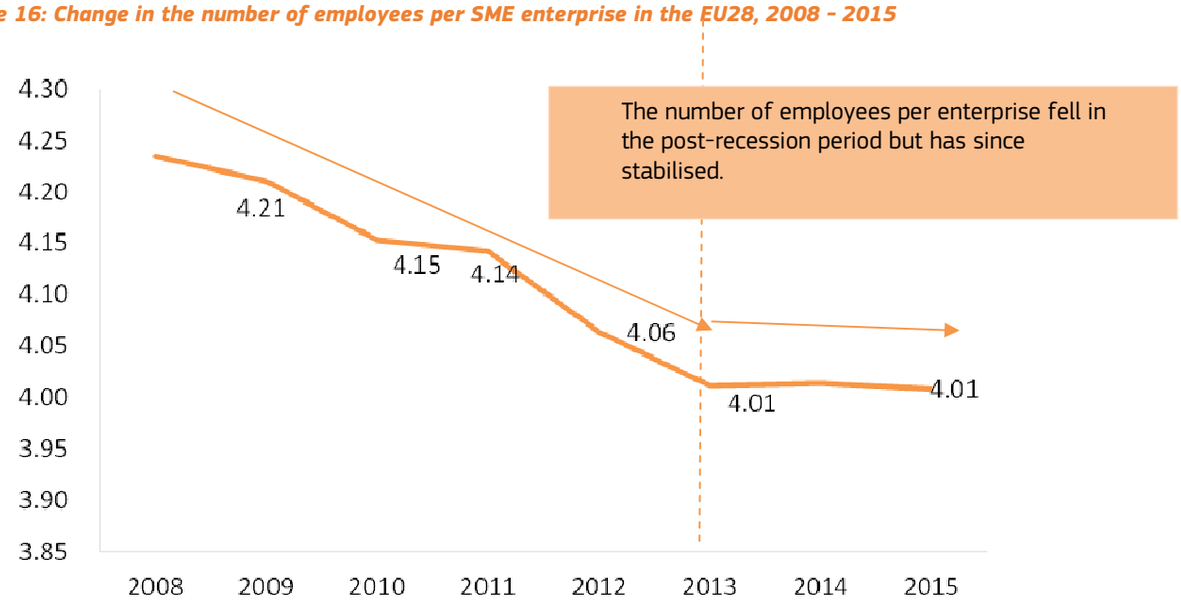
Figure 15: Growth in employment and number of enterprises in 2015, EU28



Source: Eurostat, National Statistical Offices, DIW Econ

Indeed, while the average number of employees per SME in the EU28 fell sharply in the post-crisis years (2008-2013), the numbers have stabilised since 2013 at 4.01 employees per enterprise. This suggests that employment growth in recent years has been driven by new enterprises rather than existing enterprises hiring workers.

Figure 16: Change in the number of employees per SME enterprise in the EU28, 2008 - 2015



Source: Eurostat, National Statistical Offices and DIW Econ
Notes: Netherlands and Slovakia not included

Box 1
The relationship between employment and number of enterprises

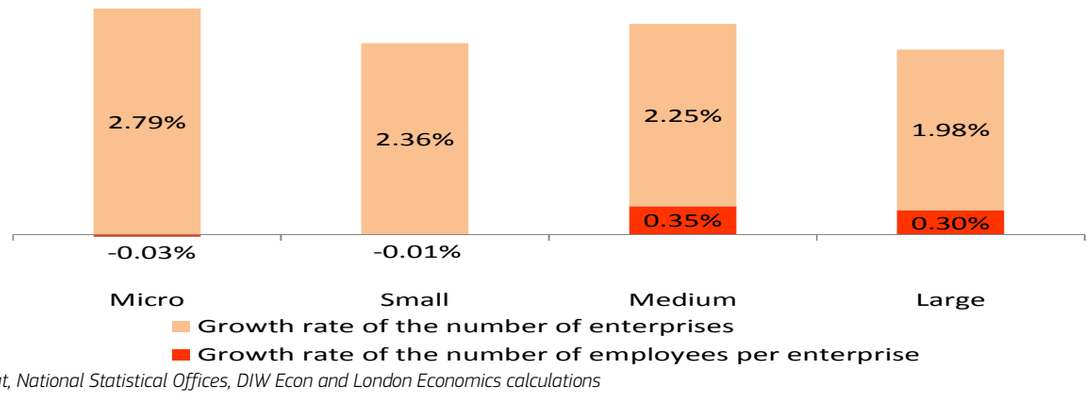
It is possible to breakdown the growth in SME employment into two main components:

- Growth in the number of SME enterprises: When new enterprises are set up they hire workers and as a result increase employment
- Growth in number of employees per SME enterprise: If existing and new enterprises hire more workers than before then employment will rise

For the period 2013-2015, growth in employment is split across these two categories by SME enterprise size as shown by the figure below. It shows that the bulk of the growth in employment in this period is accounted for by the growth in the number of enterprises rather than growth in the number of employees per enterprise.

In light of the abovementioned finding, enterprises have continued to remain relatively lean in recent years despite the climate of moderate growth.

Figure 17: Shares of EU employment growth accounted for by growth in the number of enterprises and growth in the number of employees per enterprise by enterprise size, 2013-2015



Source: Eurostat, National Statistical Offices, DIW Econ and London Economics calculations

2.2 Drivers of change

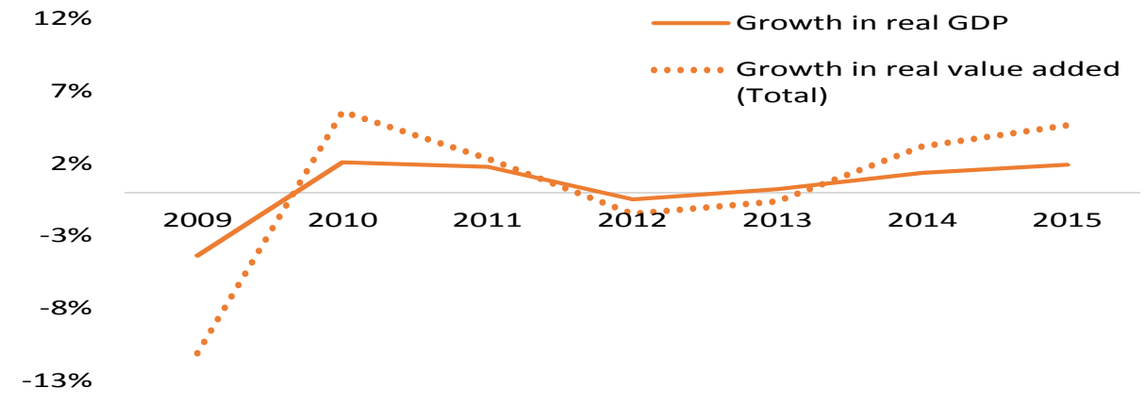
The first part of this section presents the context and background to the performance of EU28 SMEs in 2015. The second half provides a comparative analysis of the performance of SMEs in the USA relative to SMEs in the EU.

The economic performance of EU SMEs was strong relative to the EU economy as a whole. SME value added grew at 5.7% (4.5% in real terms[8]) in 2015. In contrast, real GDP growth was 1.9% at the EU28 level, while in

[8] London Economics calculations based on Ameco price deflator and DIW data.

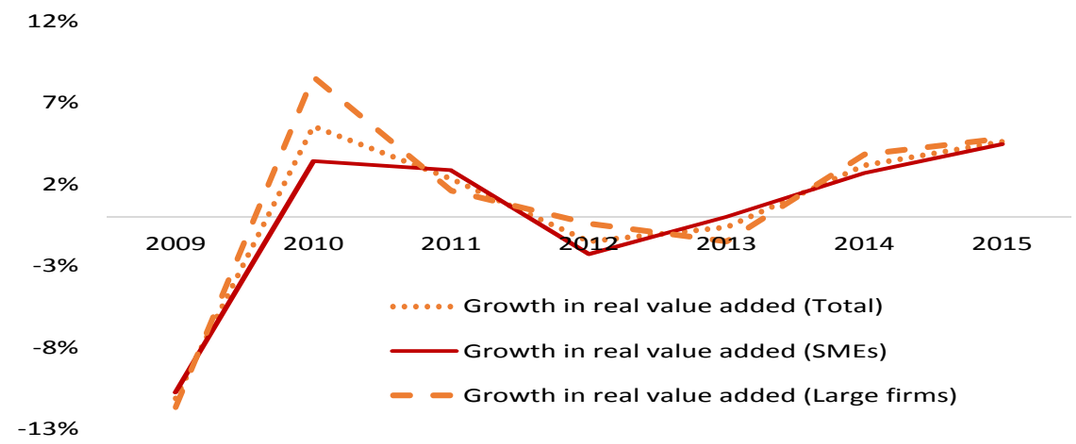
the euro area it was slightly weaker at 1.5%. This result can be explained by faster growth of value added in the non-financial business economy as a whole, rather than by SMEs outperforming large enterprises.

Figure 18: Growth of real GDP and value added in the non-financial business economy at the EU28 level between 2008 and 2015



Source: Ameco and LE calculations based on DIW

Figure 19: Growth in value added in large enterprises, SMEs and all enterprises in the non-financial business economy at the EU28 level between 2008 and 2015

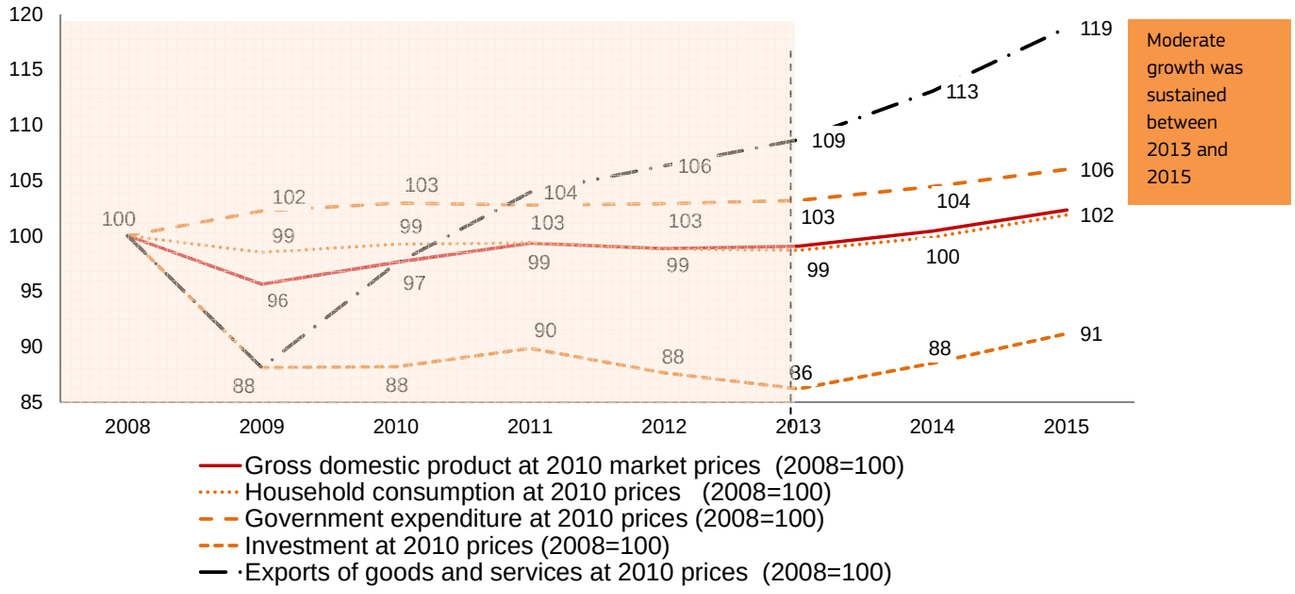


Source: Ameco and LE calculations based on DIW

2.2.1 The impact of aggregate demand on SME performance

Moderate GDP growth in the EU reflects variable growth patterns in aggregate demand. Between 2013 and 2015, growth in exports accelerated in particular relative to household consumption, government expenditure, and investment, as shown in figure 20.

Figure 20: Recent developments in GDP and demand aggregates at the EU28 level between 2008 and 2015



Source: Ameco
Note: Series are indexed to 100 in 2008. Investment refers to gross fixed capital formation, household consumption refers to private consumption expenditures, and government expenditure refers to final consumption expenditure of general government.

The impacts of different macroeconomic environments on specific SME sectors which would generally be anticipated are outlined in the table below.

Table 3: Potential impacts of macroeconomic environment on SME sectors

Macroeconomic environment	SME sectors particularly affected
Overall economic activity: real GDP across the EU28.	Level of SME activity and employment is heavily dependent on the overall level of economic activity in the economy.
Household consumption	Household demand has a significant impact on the performance of SMEs in the 'accommodation', 'retail and wholesale trade' and 'other' sectors.
Investment expenditures	Investment significantly affects employment in both 'construction' and 'business services'. Moreover, 'construction' value added is mainly impacted by gross fixed capital formation.
Exports of goods & services	Exports of goods and services typically stimulate SME value added in 'manufacturing'.

Source: SME Annual Report 2014
Note: Investment refers to gross fixed capital formation and household consumption refers to private consumption expenditures.

Bearing in mind the relationships described above, the following observations can be made regarding the impact of aggregate demand on SME performance in 2015:

- As growth in the exports of goods and services has been relatively strong, this may have impacted the value added growth of export-intensive SME sectors such as manufacturing. Moreover, eurozone SMEs exporting to non-eurozone countries are likely to have benefited from the weakening euro exchange rate in 2015, which would have made eurozone exports more competitive.

- Household consumption expenditure rose by 2% between 2014 and 2015, which may have had a positive impact on the '*accommodation*', '*retail*' and '*wholesale*' trade sectors.

- Investment increased by 3% between 2014 and 2015, which is likely to have positively impacted employment in the '*construction*' and '*business services'* sectors.

For further details of recent developments in macroeconomic conditions, see Annex III.4.

Box 2
Estimated impacts of macroeconomic variables on SME employment growth

The following is a rough estimate of the relationship between the growth of different macroeconomic variables and growth in SME employment for the years 2010-2015. The estimates reported below are derived from a panel econometric estimation of a series of simple models relating SME employment growth to growth in the macroeconomic variable of interest and a series of country and time dummies to capture the effects of all other potential drivers of SME employment growth.

GDP

- A 1% increase in GDP growth is associated with a 0.95% increase in employment growth.

Household consumption

- A 1% increase in household consumption expenditures is associated with a 0.63% increase in employment growth in the 'accommodation' sector.
- A 1% increase in household consumption expenditures is associated with a 0.81% increase in employment growth in the 'retail and wholesale trade' sector.
- A 1% increase in household consumption expenditures is associated with a 0.84% increase in employment growth in 'other' sectors.

Investment

- A 1% increase in investment expenditure is associated with a 0.63% increase in employment growth in the 'construction' sector.
- A 1% increase in investment expenditure is associated with a 0.26% increase in employment growth in the 'business services' sector.

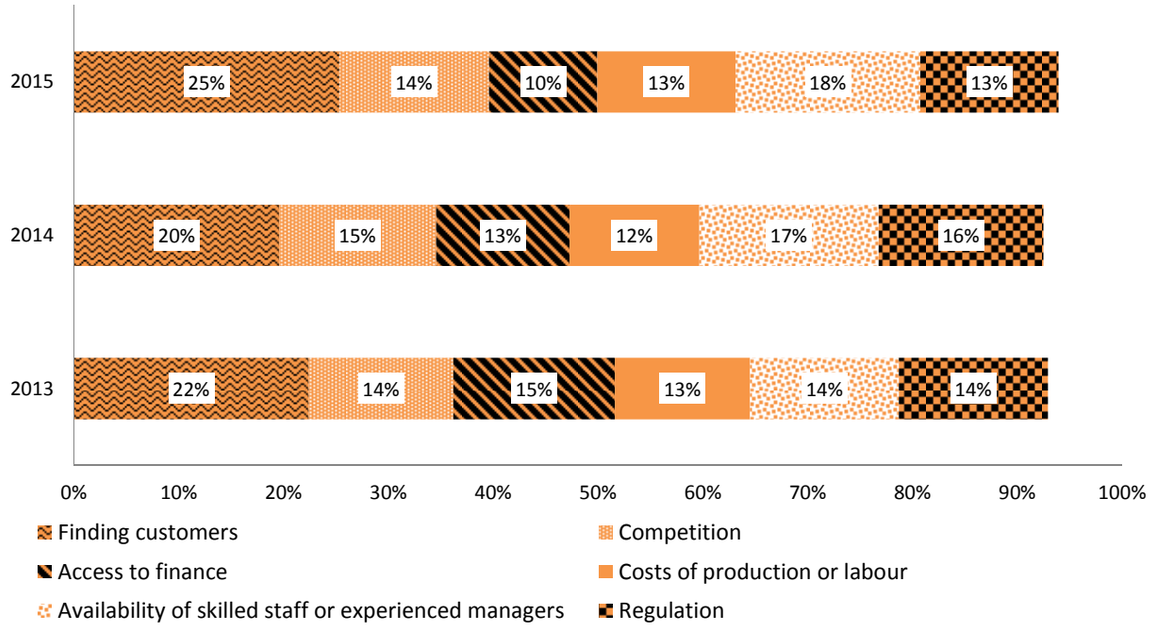
Exports of goods & services

- A 1% increase in exports of goods and services is associated with a 0.19% increase in employment growth in the 'manufacturing' sector.

2.2.2 The role of the business environment

The latest survey of financing conditions faced by SMEs, run jointly by EC DG Internal Market, Industry, Entrepreneurship and SMEs and the European Central Bank in autumn 2015, reported an increase in SMEs which experienced difficulties in finding customers compared to 2013 and 2014, whereas finding access to finance is comparatively less of a problem for SMEs.

Figure 21: Most pressing problems faced by SMEs – EU28 SAFE survey results, 2013, 2014 and 2015



Source: Safe Survey 2015

- 'Finding customers' remained the most pressing problem for SMEs. Although in more recent years the number of enterprises reporting this as their most pressing problem had decreased, this trend reversed between 2014 and 2015, with the number of enterprises reporting 'finding customers' as their most pressing problem rising by five percentage points.

- 'Availability of skilled staff or experienced managers' was the second most pressing problem. Over 20% of SMEs reported this was an issue in Belgium, Croatia, Finland, France, Latvia, Luxembourg, the Netherlands, Poland, Slovakia, and the UK.

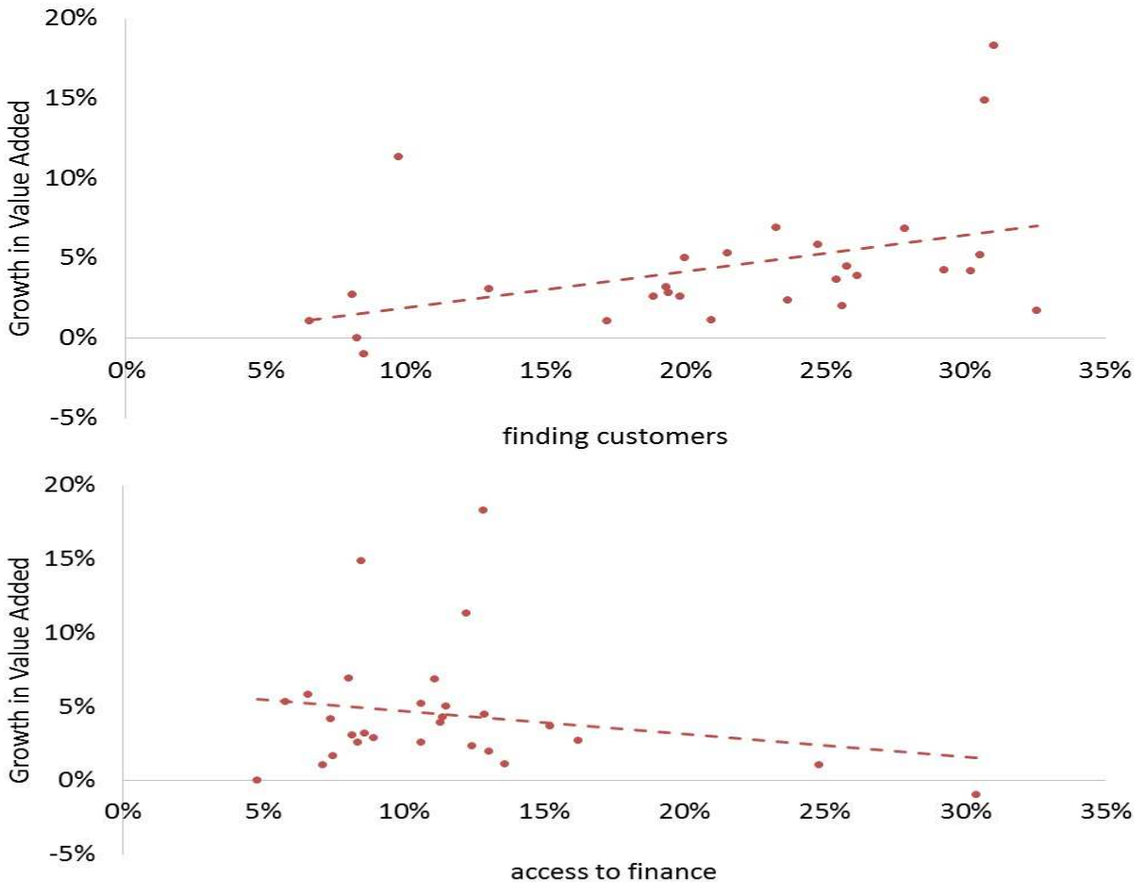
- Only 10% of enterprises reported 'access to finance' as their most pressing problem. However, in Cyprus and Greece this remains a major issue for SMEs, with over a quarter of them reporting this as their most pressing problem.

At the Member State level, the importance of issues faced by SMEs varied considerably. For instance, only 7% of Finnish enterprises reported that 'finding customers' was their most pressing problem compared with 33% for Austrian enterprises.

Interestingly, at the Member State level there was no evidence for a correlation between the most pressing problem reported and SME growth or levels of performance. This is illustrated in the charts below which show the relationship between growth in value added and the percentage of respondents reporting 'finding customers' and 'access to finance' as their most pressing problem. Although at first glance a relationship may appear to exist, it is in fact only due to a small number of outliers.

Please see Table 10 in Annex III.5 for further details.

Figure 22: Relationship between growth in value added in 2015 and EU28 reports of 'finding customers' and 'access to finance' as 'most pressing problems'



Source: Safe Survey 2015 and DIW data

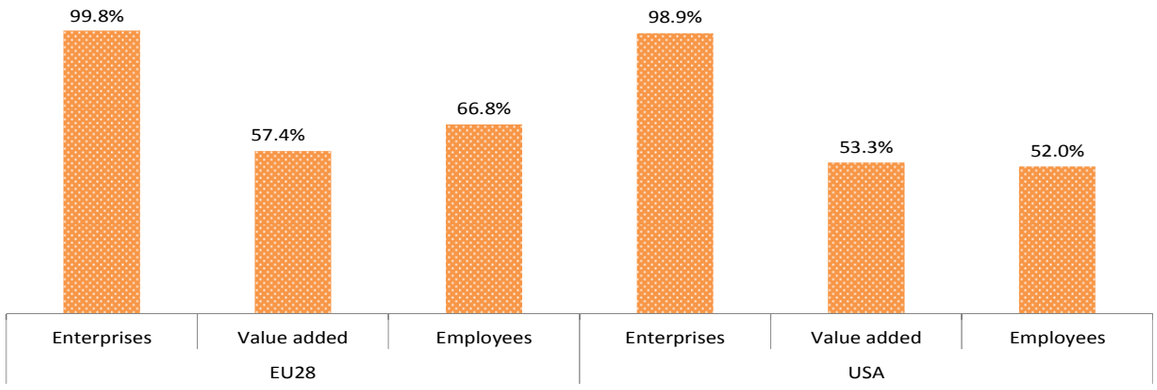
There were generally no major differences in the problems perceived by SMEs of different sizes. The only exception was '*availability of skilled staff or experienced managers*' which was generally less of a concern for micro enterprises (15%), relative to small (19%), and medium (20%) sized SMEs. However, this is unsurprising given that micro SMEs employ fewer staff.

A breakdown of the problems faced by SMEs at country level in 2015 can be found in Annex III.5.

2.3 Comparative analysis: How have SMEs in the EU28 fared relative to SMEs in the USA?

In the EU28, SMEs constitute a larger share of total non-financial business economy value added, and employment relative to SMEs in the USA.[9] This is despite the fact that the definition of an 'SME' in the USA is broader than in the EU28.[10]

Figure 23: Importance of SMEs in the EU28 relative to the USA, 2015

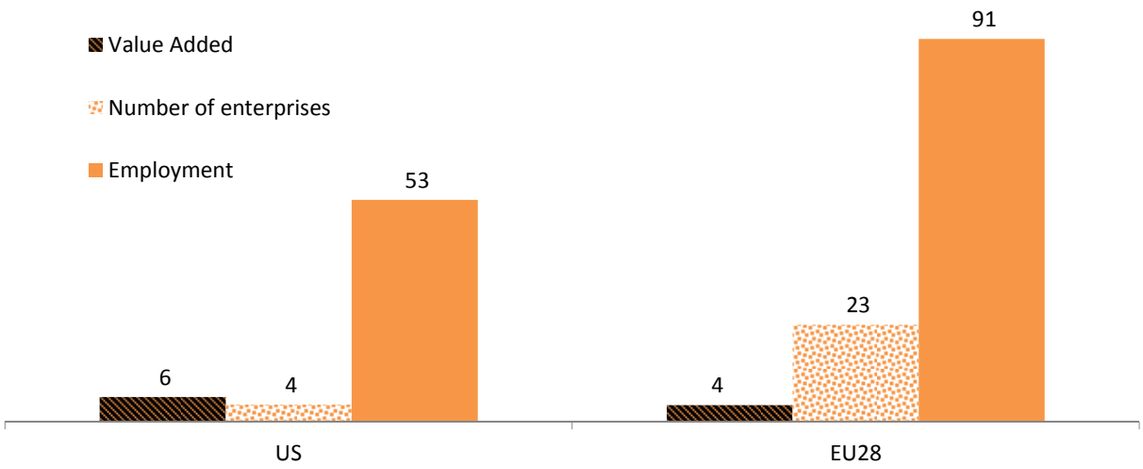


Source: Eurostat, National Statistical Offices and DIW Econ

In absolute terms, in 2015, there were substantially more SMEs and SME employees in the EU28 compared to the USA, yet SMEs in the USA contributed almost 3 times more value added than their EU28 counterparts.

This disparity in value added can be explained to some extent by the unfavourable €-US$ exchange rate at the time of writing. When comparing employment, value added, and enterprise per billion of GDP, the differential between value added in the EU28 and the USA becomes much less stark: value added per billion of GDP in the USA is only marginally higher than in the EU28. However, the difference in employment remains substantial, with employment per billion of GDP in the EU28 nearly twice the US level.

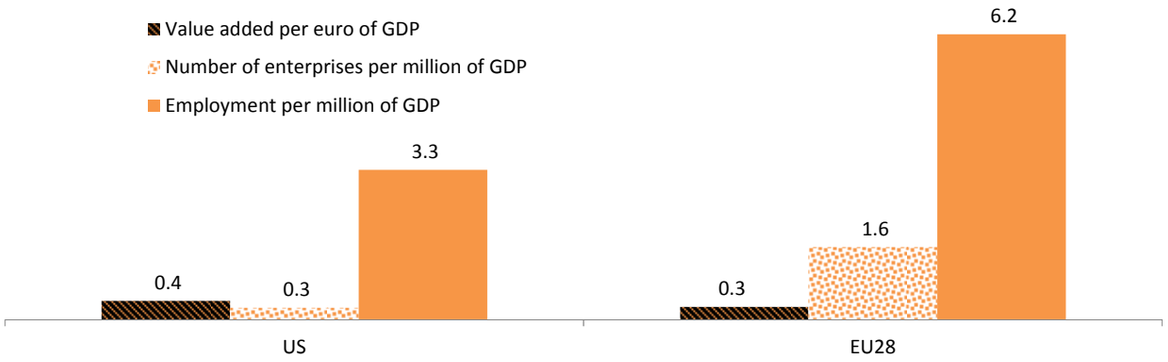
Figure 24: Importance of SMEs in the EU28 and the US in 2015 – Number of enterprises and employment measured in millions and value added in trillion of EUR



Source: Eurostat, National Statistical Offices and DIW Econ

9 A brief comparison of the performance of SMEs in the EU28 with the performance of their counterparts in a number of other countries (Albania, Brazil, Former Yugoslav Republic of Macedonia, Iceland, Japan, Moldova, Montenegro, Russia, Serbia and Turkey) is provided at Annex III.12.
10 The definition of SMEs in the US extends to firms with up to 300 employees, while it extends only to 250 in the EU28.

Figure 25: Importance of SMEs in the EU28 and US in 2015, measured in units of GDP



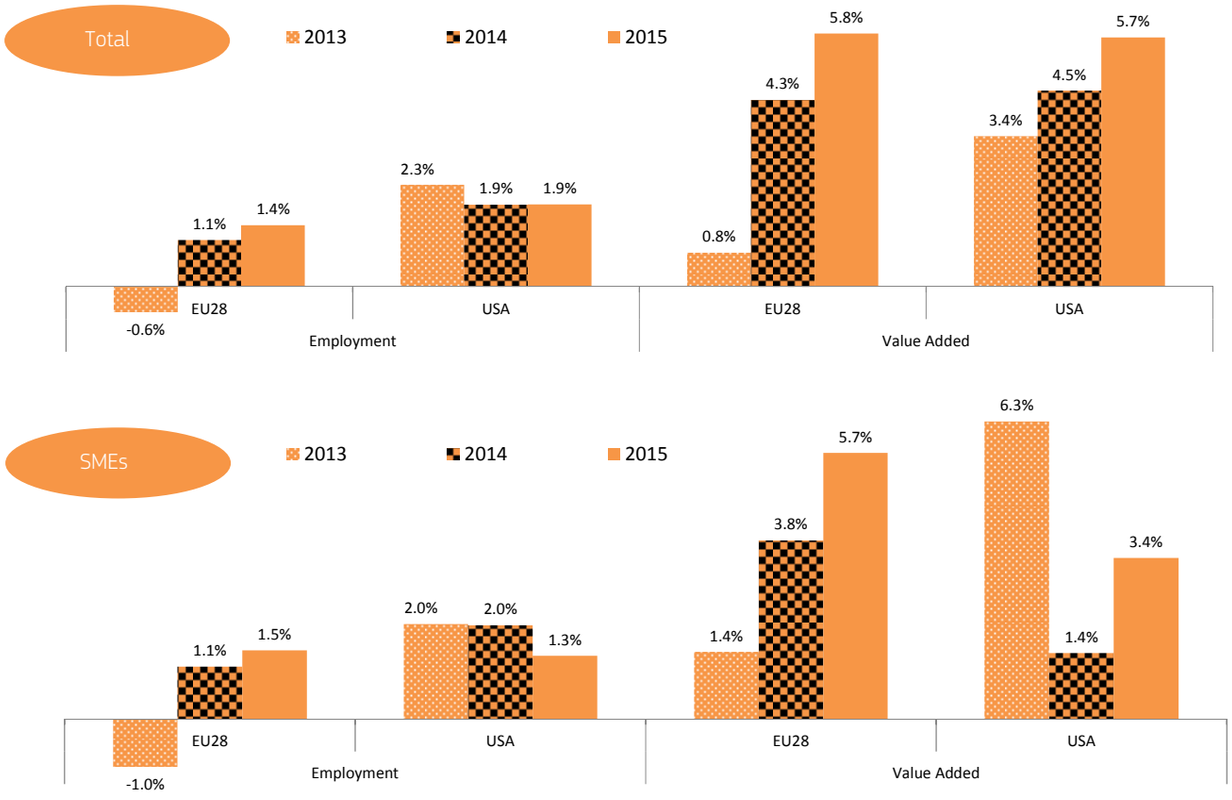
Source: Eurostat, National Statistical Offices and DIW Econ

A comparison of SME employment growth in the US and the EU28 in 2015, shows that despite higher employment growth in the USA non-financial business sector as a whole, SME employment growth was actually marginally lower in the USA (Figure 26).

Total value added growth in the non-financial business sector was similar in the EU28 and the USA. However, at the SME level, EU28 value added grew considerably faster than in the USA, by 5.7% compared with 3.4% in the USA.

This highlights the greater importance of SMEs in the EU28, in terms of driving value added growth in the non-financial business economy in 2015, unlike the USA where the main growth driver was large enterprises.

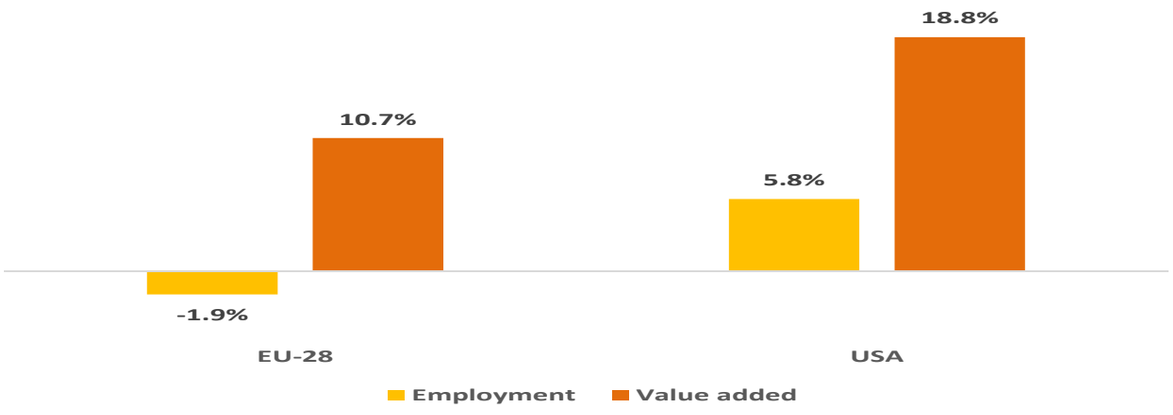
Figure 26: Growth rate (in %) of value added and employment in EU28 and the USA



Source: Eurostat, National Statistical Offices and DIW Econ

More generally, the USA outperformed the EU28 over the period since 2008, with the USA showing cumulative SME value added growth of 18.8% and cumulative SME employment growth of 5.8% versus only 10.7% cumulative growth in EU28 SME value added and a cumulative decline of 1.9% in SME employment.

Figure 27: Difference (in %) between level in 2015 and level in 2008 in EU28 and USA



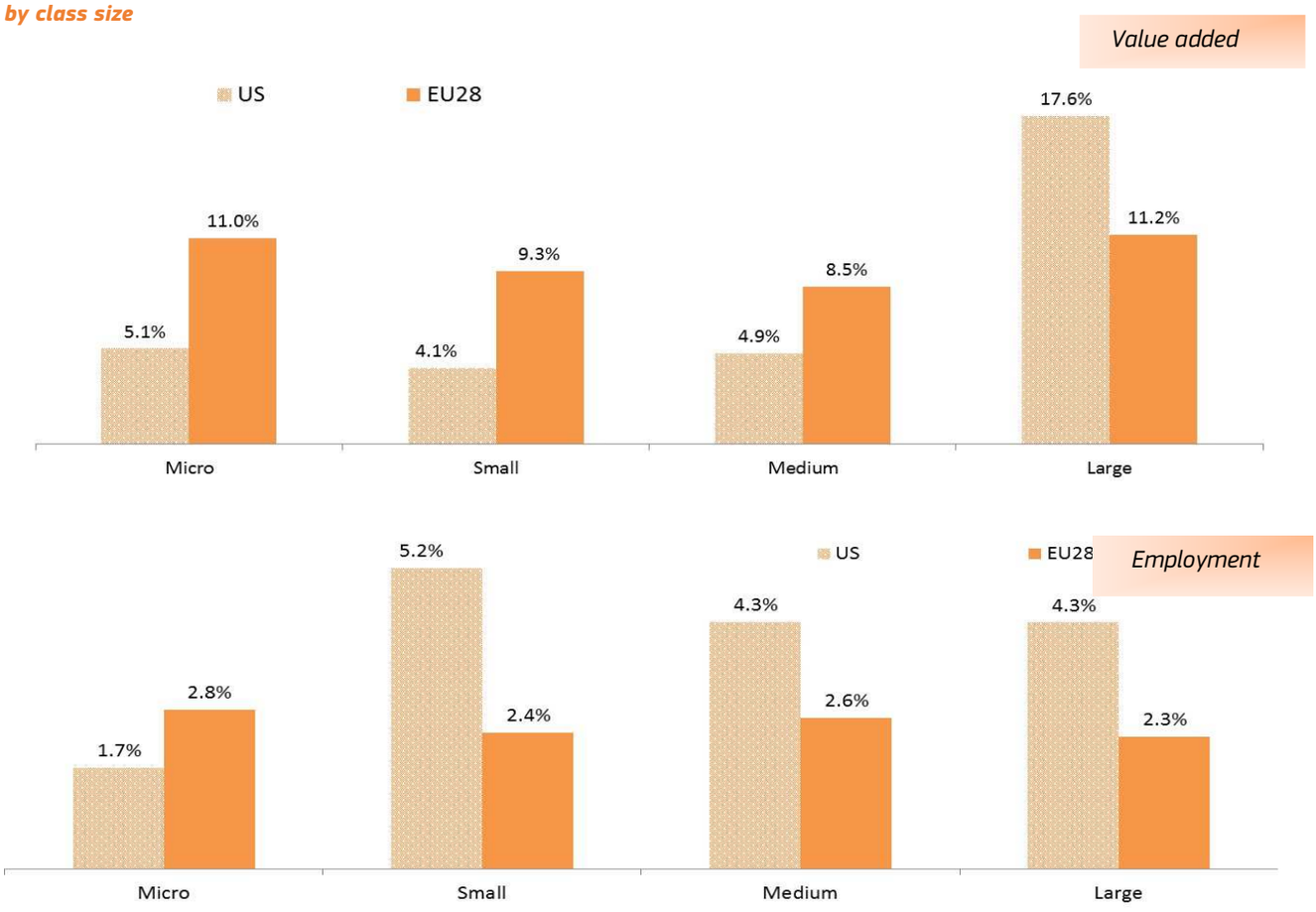
Source: Eurostat, National Statistical Offices and DIW Econ

Further differences between the USA and EU28 can be seen in terms of value added trends across different size classes of SME.

Between 2013 and 2015, growth in value added in the EU28 was higher across all size classes of SME compared to the USA with the biggest differences occurring in micro and small enterprises.

Employment growth in small and medium firms in the USA was faster than in the EU. However, employment in micro enterprises grew faster in the EU than in the USA.

Figure 28: Growth rate (in %) of value added and employment in EU28 and the USA between 2013 and 2015, by class size



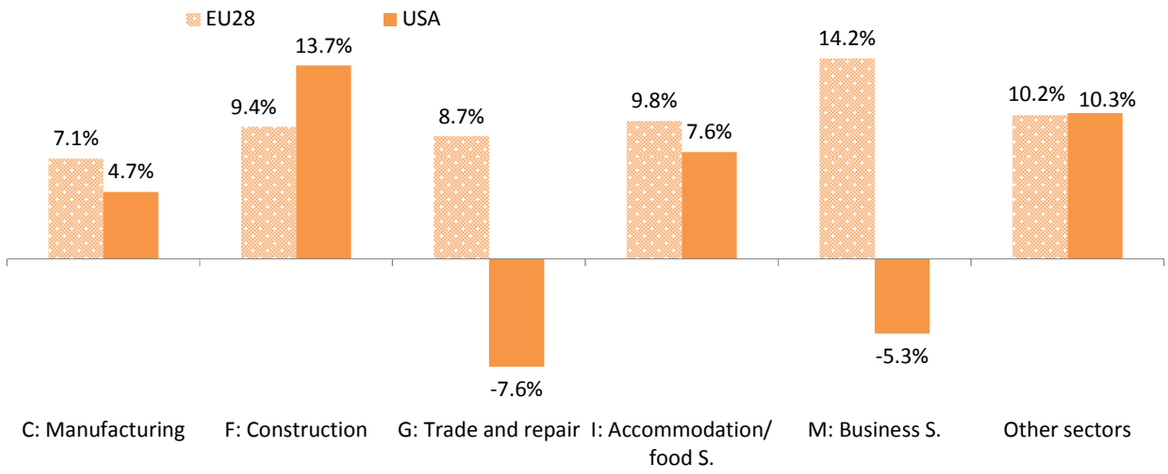
Source: Eurostat, National Statistical Offices and DIW Econ

Differences in value added growth in the USA and EU28 can also be observed at sector level.

Whereas 'business services' is the fastest growing sector in the EU28, the same sector in the USA shrank by 5% between 2013 and 2015. US SMEs in the 'trade and repair' sector also suffered a decline in the USA, in complete contrast to EU28 SMEs in this sector, which experienced high growth of 9%.

The 'construction' sector is the only sector of the 5 key sectors in which US value added growth was higher than in the EU28: at 14% compared with only 9% in the EU28.

Figure 29: Growth of value added (In %) in EU28 and the USA between 2013 and 2015 at the sector level



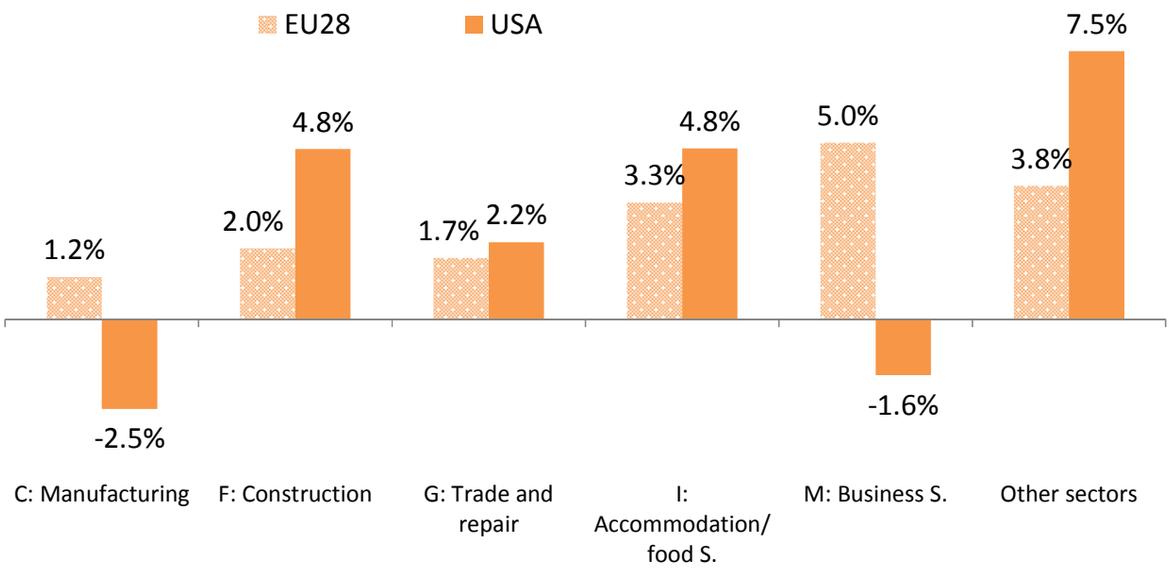
Source: Eurostat, National Statistical Offices and DIW Econ

Comparing employment growth at sector level, the sectors show substantial differences.

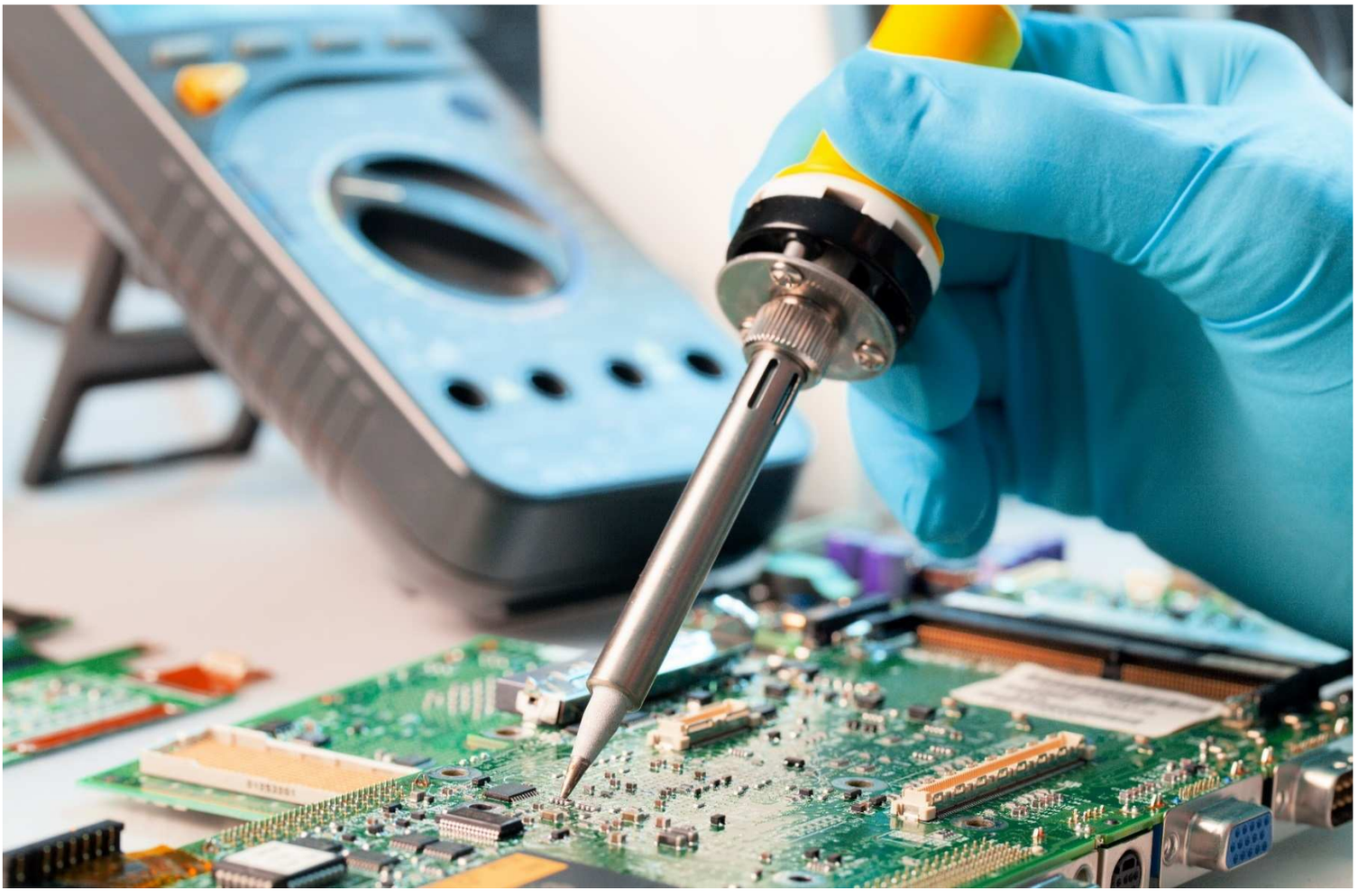
Employment growth in the USA was higher than in the EU28 in most sectors, with the exception of 'business services' and 'manufacturing'. In these two sectors, employment shrank in the USA.

Overall, employment growth at sector level was more even in the EU28 compared to the USA.

Figure 30: Employment growth (in %) in EU28 and the USA between 2013 and 2015 at sector level



Source: Eurostat, National Statistical Offices and DIW Econ



Source: Science Photo Shutterstock

3. Zooming in on SME employment, exports and profitability

This section explores the wider dynamics and performance of SMEs in the non-financial business sector by analysing their export performance, profitability, and employment performance. It concludes by discussing the future prospects for SMEs.

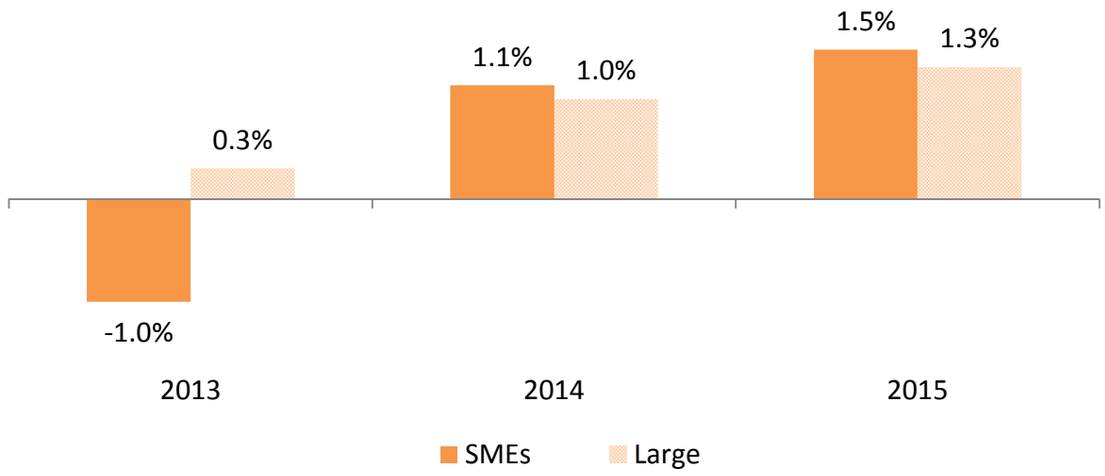
3.1 Employment performance of SMEs

This section examines in detail the contribution made by SMEs to EU employment dynamics in 2015.

SMEs employed over 90 million people across Europe in 2015, which equates to 67% of total non-financial business sector employment.

After a fall of 1% in 2013, SME employment rebounded in 2014, growing by 1.1%. SME employment growth continued into 2015, at a rate of 1.5%.

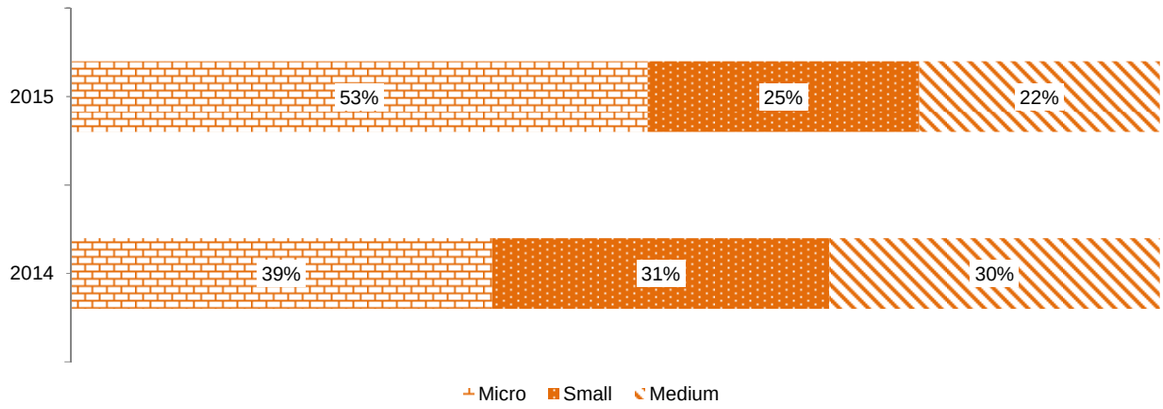
Figure 31: EU employment growth of SMEs and large enterprises, 2013-15



Source: Eurostat, National Statistical Offices and DIW Econ
Notes: Slovakia & the Netherlands have been excluded due to data series breaks

Micro enterprises drove over half of SME employment growth in 2015. The share of employment growth accounted for by micro enterprises rose by 14 percentage points between 2014 and 2015.

Figure 32: Shares of EU SME employment growth by enterprise size, 2014 and 2015



Source: Eurostat, National Statistical Offices and DIW Econ

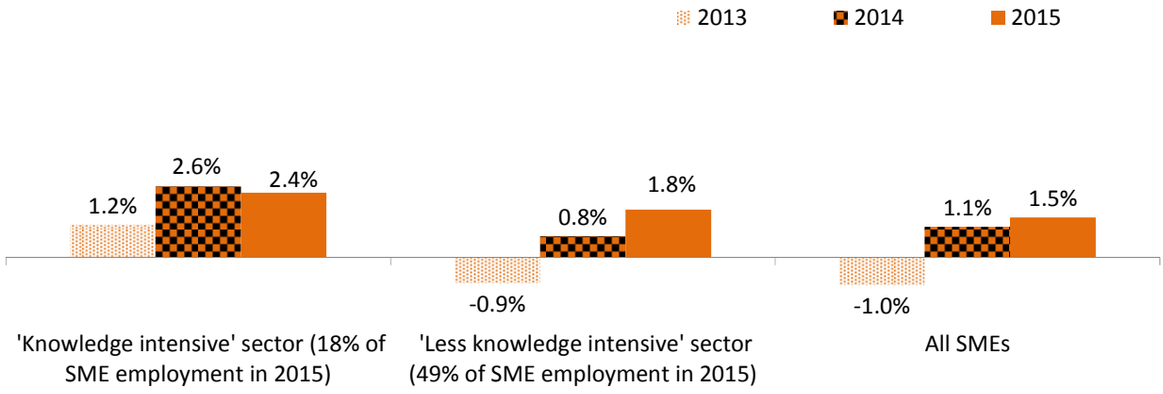
3.1.1 Differences in SME employment performance due to knowledge and technology intensity[11]

Over the period 2013-15, SME employment growth was consistently higher in the 'knowledge intensive' sector than in the 'less knowledge intensive' sector. Employment growth was 1.4 percentage points higher in the 'knowledge intensive' sector, although the gap between the growth rates in the two sectors narrowed in 2015 to only 0.6 percentage points.

The 'knowledge intensive' sector outstripped employment growth in the SME non-financial business sector as a whole, with growth of 2.4% in 2015, compared to only 1.5% in the wider SME non-financial business sector.

11 Definitions of knowledge and technology intensity are provided respectively in Annex III.6 and III.7.

Figure 33: EU SME employment growth in the 'knowledge intensive' and 'less knowledge intensive' sectors, 2013-15

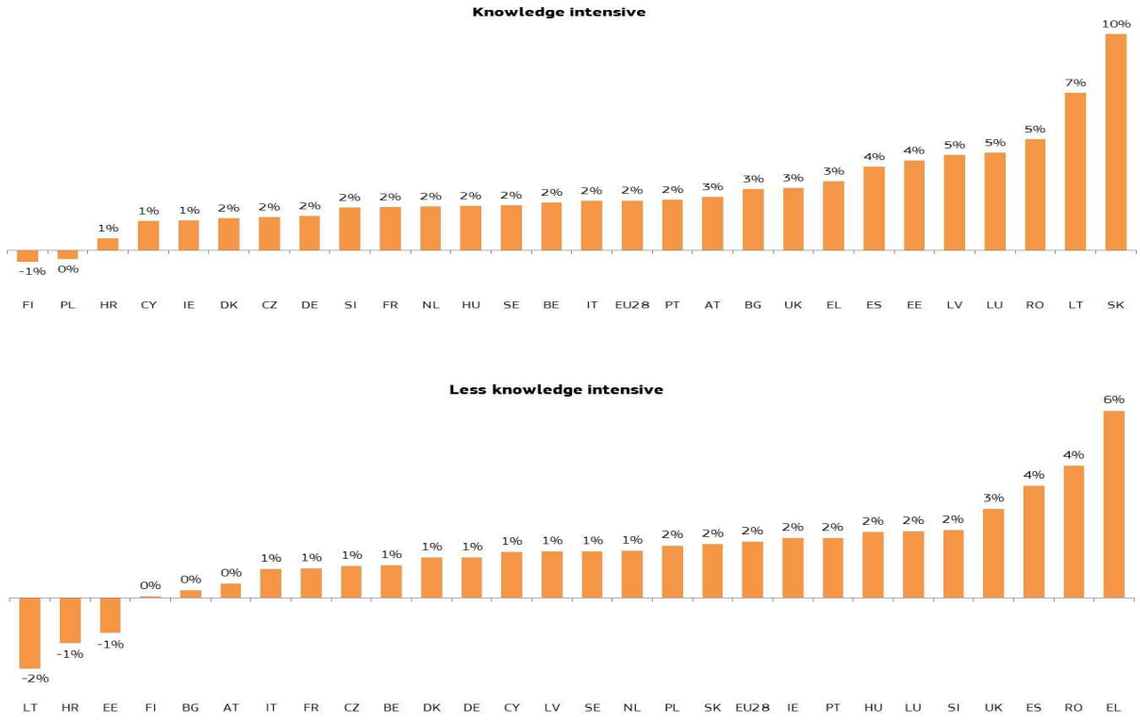


Source: Eurostat, National Statistical Offices and DIW Econ

There is wide variation in employment growth in the 'knowledge intensive' and 'less knowledge intensive' sectors at Member State level (for example, employment growth in the 'knowledge intensive' sector ranges from -1% to 10% across Member States).

Nevertheless, in 2015 the majority of countries experienced employment growth in both the 'knowledge intensive' sector and the 'less knowledge intensive' sector. The only exceptions were Finland and Poland (in the 'knowledge intensive' sector), and Croatia, Estonia and Lithuania (in the 'less knowledge intensive' sector).

Figure 34: EU SME employment growth of 'knowledge intensive' sectors and 'less knowledge intensive' sectors by Member State, 2015



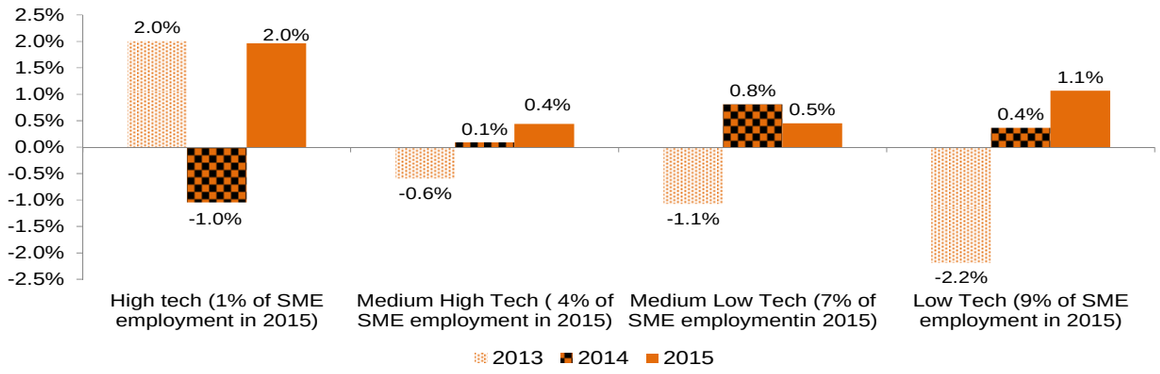
Source: Eurostat, National Statistical Offices and DIW Econ
Note: Malta not included because of missing data at the 2-digit sector level.

SME employment growth in the 'high tech' sector grew by 2% in 2015, exceeding the 1.5% overall growth rate across all SME sectors (as reported in the figure below).

However, employment growth in sectors with lower levels of technology intensity fell short of the average employment growth rate across all SME sectors: employment growth in the 'medium high', 'medium low', and 'low tech' sectors was 0.4%, 0.5%, and 1.1% respectively in 2015.

Additionally, each of these three sectors followed a pattern of employment contraction in 2013 followed by employment growth.

Figure 35: EU SME employment growth by technology intensity of sectors, 2013-2015



Source: Eurostat, National Statistical Offices and DIW Econ

Focusing on the 'high tech' sector, certain Member States experienced particularly high SME employment growth, including Lithuania (9%), Slovakia (12%), and the UK (11%). Additionally, 'high tech' SMEs in a number of other Member States also took on workers at a significantly higher rate than the EU28 average. In total, seven Member States posted employment growth of 5% or more in 2015 (Figure 36).

In contrast, SMEs in a number of Member States experienced a contraction in employment. Romania was the worst affected, with a 9% reduction in employment growth among 'high-tech' SMEs.

Figure 36: SME employment growth in the high tech sector by Member State, 2015

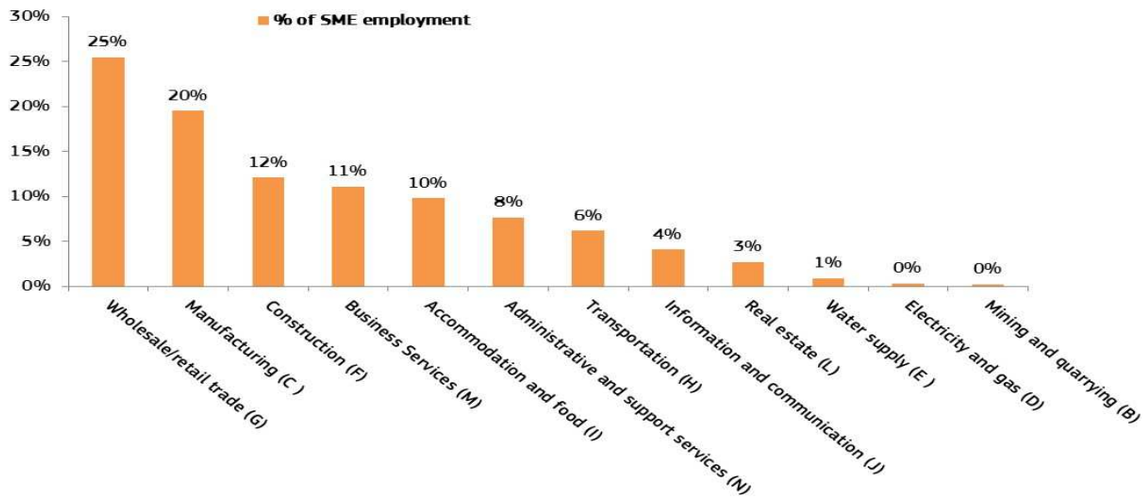
Source: Eurostat, National Statistical Offices and DIW Econ
Note: Malta not included due to poor data quality at the 2-digit sector level.

A Member State level breakdown of SME employment growth by other technology intensity sectors is provided in Annex III.8.

3.1.2 Employment performance at the sector level

This section considers employment performance at the sector level, including an analysis of employment growth at: i) one-digit NACE[12] level; ii) two-digit level for sectors that represent relatively large shares in total SME employment; and iii) two-digit level for sectors that experienced large changes in employment growth.

Figure 37: Employment shares at sector level in 2015, EU28



Source: Eurostat, National Statistical Offices and DIW Econ

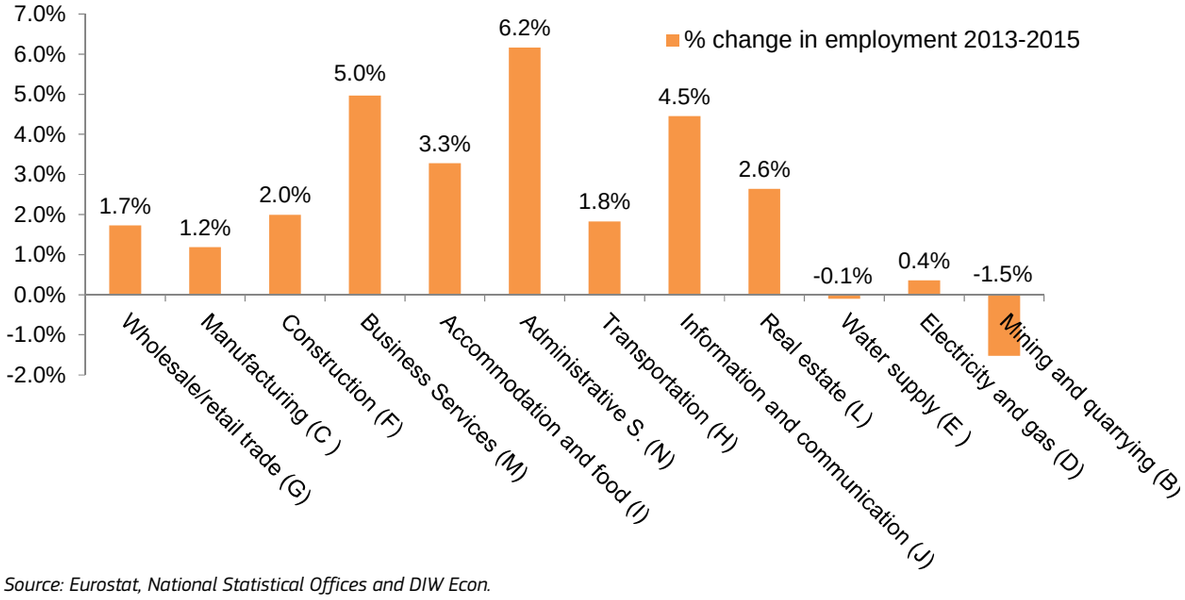
Between 2013 and 2015, the change in SME employment across sectors was diverse, with growth varying from -2% to 6%.

The lowest growth in SME employment was experienced by the three one-digit NACE sectors which account for the smallest shares of SME employment: 'mining and quarrying' and 'water supply' experienced decreases and the 'electricity & gas' sector experienced only a small increase.

At the other end of the spectrum, the highest growth in SME employment was in 'administrative services' (6%), followed by 'business services' (5%).

[12] NACE refers to the Statistical Classification of Economic Activities in the European Community, which is the standard industry classification used in the EU.

Figure 38: Employment growth at sector level between 2013 and 2015, EU28

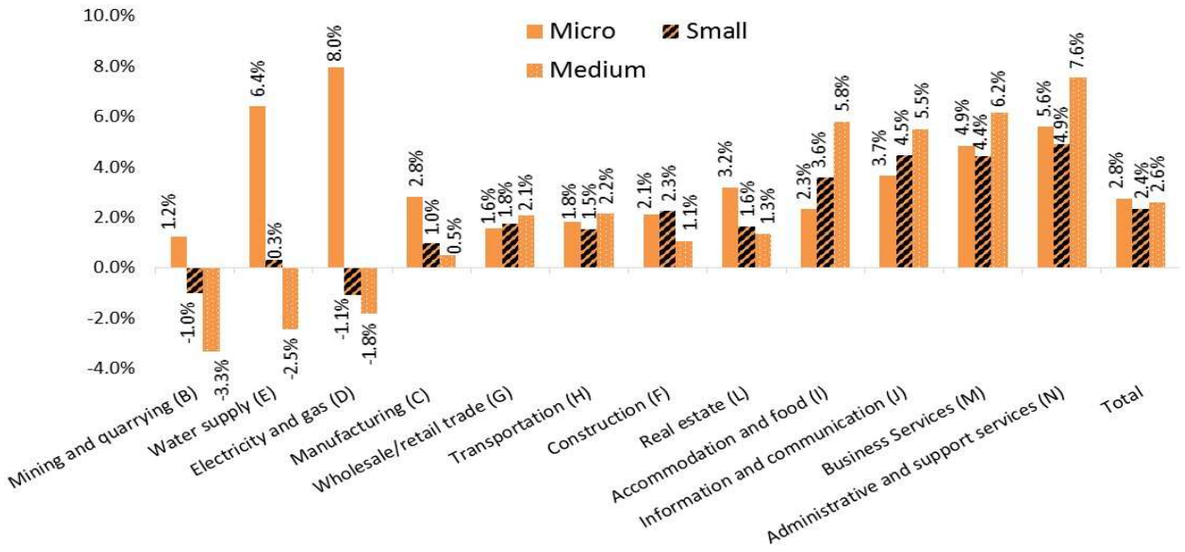


Source: Eurostat, National Statistical Offices and DIW Econ.

Employment trends across different size class can also be distinguished at sector level, although it is notable that micro enterprises have shown positive growth, regardless of the sector under consideration.

However, in those sectors where SME growth was highest, it was medium sized SMEs which grew fastest. At the other end of the scale, in sectors where SME growth was lowest, micro SMEs grew fastest, while medium and small SMEs experienced a drop. This suggests that the relatively high growth of micro enterprises was partly driven by larger enterprises downsizing in poorly performing sectors.

Figure 39: EU28 employment growth at sector level between 2013 and 2015 by size class



Source: Eurostat, National Statistical Offices and DIW Econ

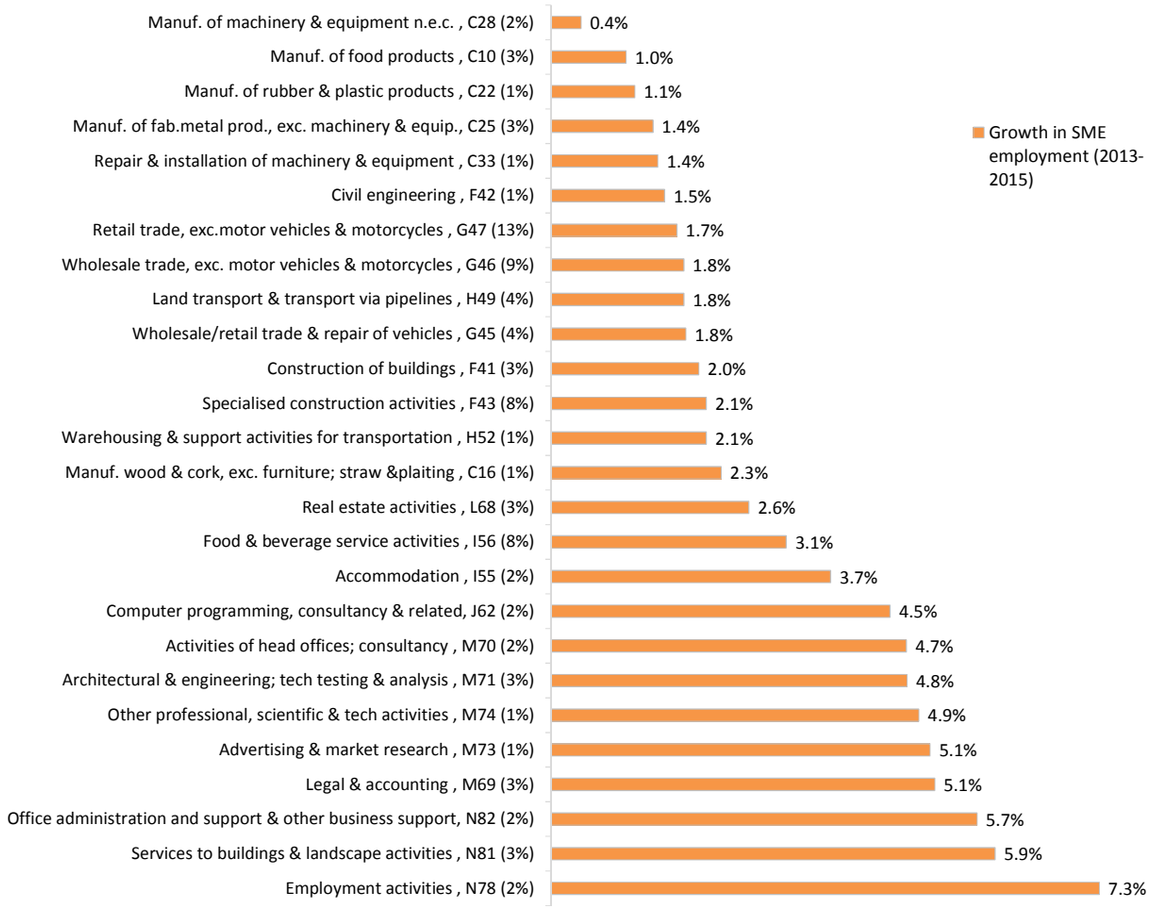
To gain a better idea of which sub-sectors are driving these overall trends, SME employment growth from 2013 to 2015 in all large[13] 2-digit NACE sub-sectors is analysed in the chart overleaf.

[13] Large sub-sectors refers to any sub-sector that accounts for more than 1% of SME employment in 2015.

It appears that sub-sectors from a given sector generally had similar rates of SME employment growth. For instance, the three fastest growing sub-sectors ('employment activities', 'services to building and landscape activities', 'office administration, office support & other business support') were all from the 'administrative services' sector. The next four fastest growing sub-sectors were from the 'business services' sector.

Although the pattern is more mixed across the remaining sectors, the general picture of similar sub-sector growth rates within sectors is the same.

Figure 40: EU28 employment growth between 2013 and 2015 in large 2-digit sub-sectors (the % shown in brackets is the % of total SME employment in 2015)



Source: Eurostat, National Statistical Offices and DIW Econ

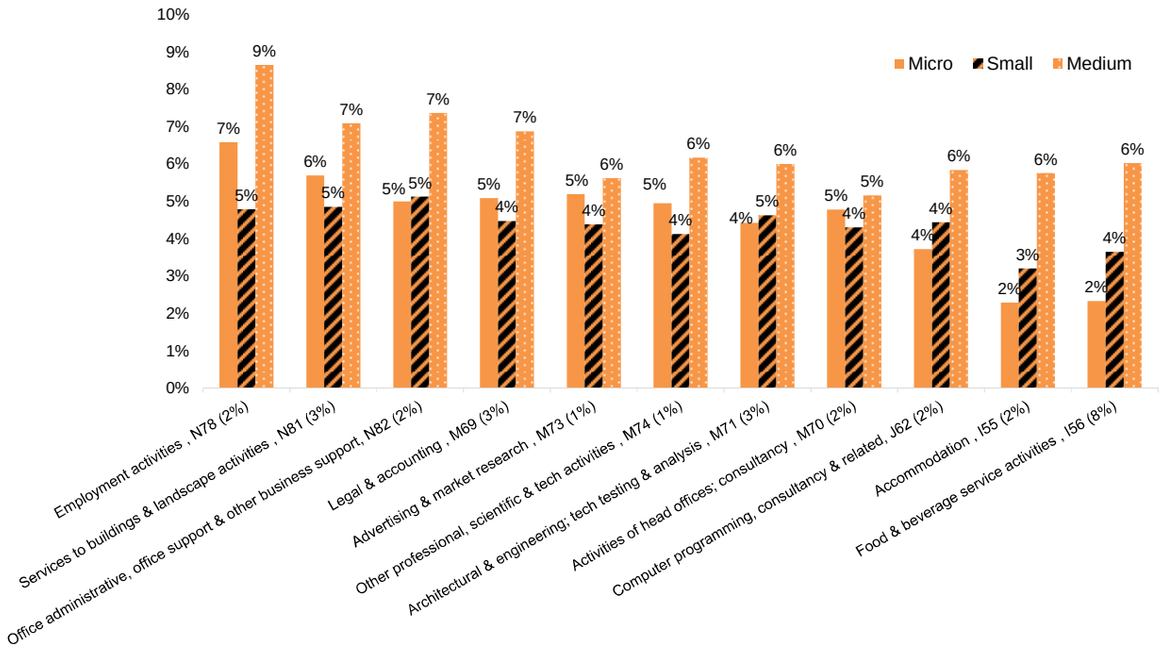
In order to further analyse employment growth by enterprise size, Figure 41 overleaf presents employment growth by SME size class for all sub-sectors where SME employment growth exceeded 3% between 2013 and 2015.

Medium enterprises posted consistently higher employment growth than their micro and small counterparts in the sub-sectors analysed.

This finding may appear to contradict the aforementioned finding that the main driver of SME employment growth between 2013 and 2015 was micro enterprises. However, this contradiction can be explained by the higher employment levels of micro enterprises in these sectors relative to medium sized enterprises. Thus, even with lower employment growth, micro SMEs can still account for a larger proportion of the total increase in SME employment than medium-size SMEs.

Moreover, more generally, the sub-sector analysis broadly shows that the relatively strong performance of micro enterprises which was previously noted in Section 2.1 occurred across sub-sectors. Across 60% of all the sub-sectors, micro enterprises experienced a larger increase in employment between 2013 and 2015 than either small or medium sized SMEs.

Figure 41: EU28 employment growth by size class between 2013 and 2015 in large 2-digit sectors with growth rates above 3% (the % in brackets is the % of SME employment in 2015)



Source: Eurostat, National Statistical Offices and DIW Econ. Slovakia & the Netherlands have been excluded due to data series break.

3.2 Export performance of SMEs

As previously noted, the recovery of the EU economy was almost entirely driven by strong external demand for goods and services, whereas domestic demand showed almost no growth from 2009 to 2013, and only moderate growth in 2014 and 2015.[14]

This section assesses the extent to which SMEs have shared in the export uplift from which the EU economy benefited.

In 2013, only about 1.2 million SMEs in the EU28 non-financial business sector (excluding the Czech Republic, Ireland, Luxembourg, and Spain because of lack of data) were engaged in export activities.

[14] EU-wide final domestic demand grew cumulatively by 0.7% from 2009 to 2013, by 1.5% in 2014, and by 2.0% in 2015.

Box 3
Export data

The analysis below uses detailed export data from the Eurostat Comext database, which provides information on the value of exports of goods and services and the number of exporters by firm size class for almost all Member States. Moreover, the Comext database provides information on exports of all economic sectors in the non-financial business economy, except the hospitality sector.

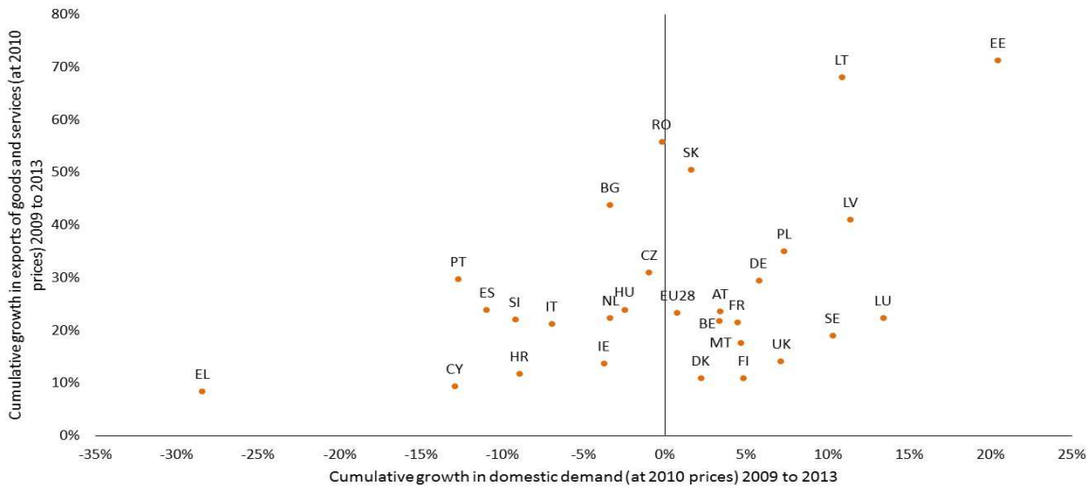
Unfortunately, the data on exports by enterprise size are currently only available until 2013. Moreover, while the data on the value of exports by enterprise size are relatively comprehensive from 2009 onwards, they are patchy in terms of the number of exporters by enterprise size, and only provide good coverage of the SME sector from 2011 onwards.

Due to the data limitations noted above, this analysis focuses mainly on the evolution of exports of goods and services over the period 2009-2013.

Exports of goods and services (in constant prices) by all enterprises grew much more than domestic demand (in constant prices) in all EU Member States. In fact, in all Member States (including those countries which faced major economic crisis), there was growth in exports of goods and services (in constant prices) from 2009 to 2013, and in the vast majority of cases, this growth exceeded 20%.

- Four countries (EE, LT, SK and RO) showed cumulative growth in exports of goods and services (in constant prices) of 50% and more over the period 2009 to 2013.
- Five countries (BG, CZ, LV, PL and PT) posted cumulative export growth (in constant prices) of 30% to 49% over the same period.
- Ten countries (AT, BE, DE, FR, ES, HU, IT, LU, NL and SL) experienced cumulative export growth (in constant prices) of 20% to 39%.
- Seven countries (DK, FI, HR, IR, MT, SE and UK) showed growth in exports of goods and services (at constant prices) of 10% to 19%.
- Only two Member States (CY and EL) posted export growth (at constant prices) of less than 10%.

Figure 42: Cumulative growth in final domestic demand (at 2010 prices) and exports of goods and services (at 2010 prices), 2009-2013

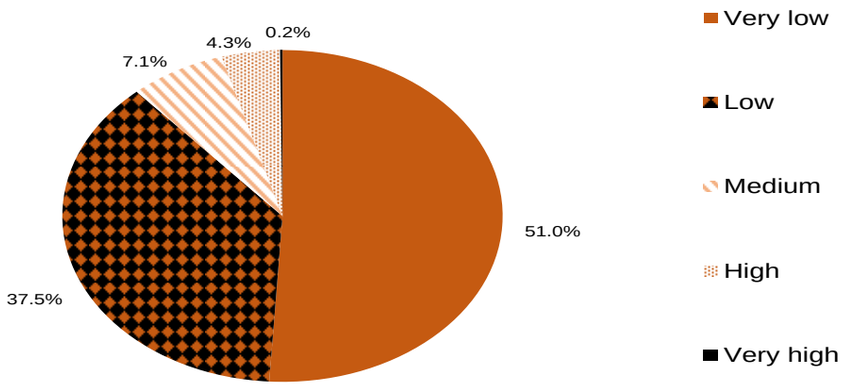


Source: Ameco

Before examining the export performance of the SME sector, it is important to note that most SMEs are active in sectors which are *not* traditionally export oriented. For example, the 2014-2015 SME Annual Report highlighted the following key facts:

- The vast majority of SME employment (88.5% of total SME employment in 2015 as shown by Figure 44 below) is in very low or low export-oriented industries. A sector's export intensity is assessed on the basis of the ratio of sector exports to total final demand sales. Such industries include 'Repair & installation of machinery & equipment', 'Retail trade, except motor vehicles & motorcycles', 'Land transport & transport via pipeline' and 'Accommodation & food services'. (See Annex III.9 for a detailed definition of the various export-intensity classes, and the export-intensity of the various economic sectors of the economy).
- At the EU27 level, net SME employment losses over the period 2008-2013 were much larger in sectors with a high export propensity than in sectors with a low export propensity. Examples of sectors of high and very-high export intensity include: 'Manufacturing of motor vehicles, trailers and semitrailers', 'Manufacturing of other transport equipment' and 'Manufacturing of basic pharmaceutical products & preparations'.

Figure 43: Breakdown of EU28 SME employment by level of export intensity 2015



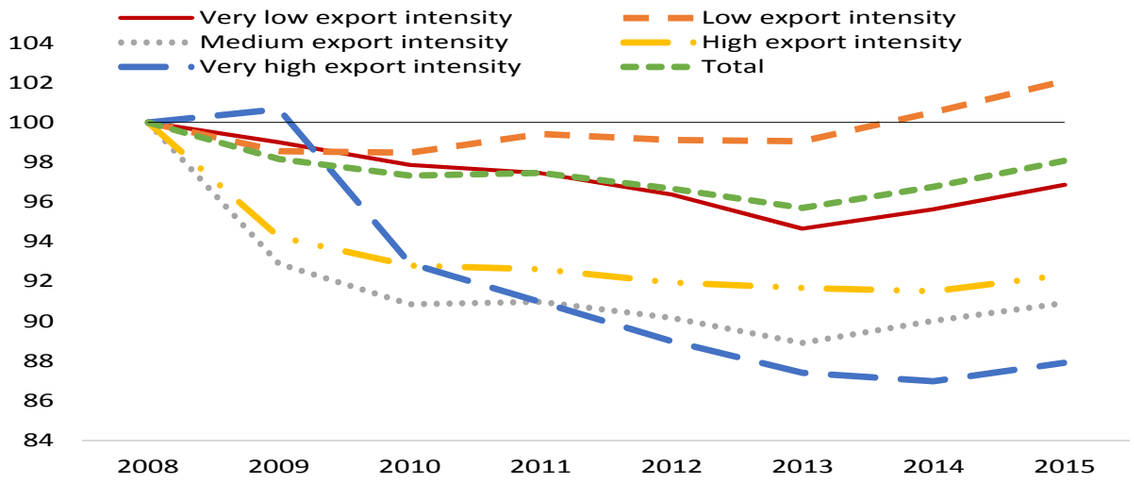
Source: DIW econ
Note: See Annex III.9 for precise definition of the various export-intensity groupings and .allocation of different industrial sectors to various export-intensity groupings.

Value added in the five export intensity groupings has by now surpassed pre-recession levels, although the pattern of growth across the five groupings since the recession has been quite different. While value added dropped in 2009 across *all* export intensity groupings, the rates and pattern of recovery up to 2013 differed across export intensities. However, since 2013, *all* export intensity groupings have experienced steady growth in value added at similar rates.

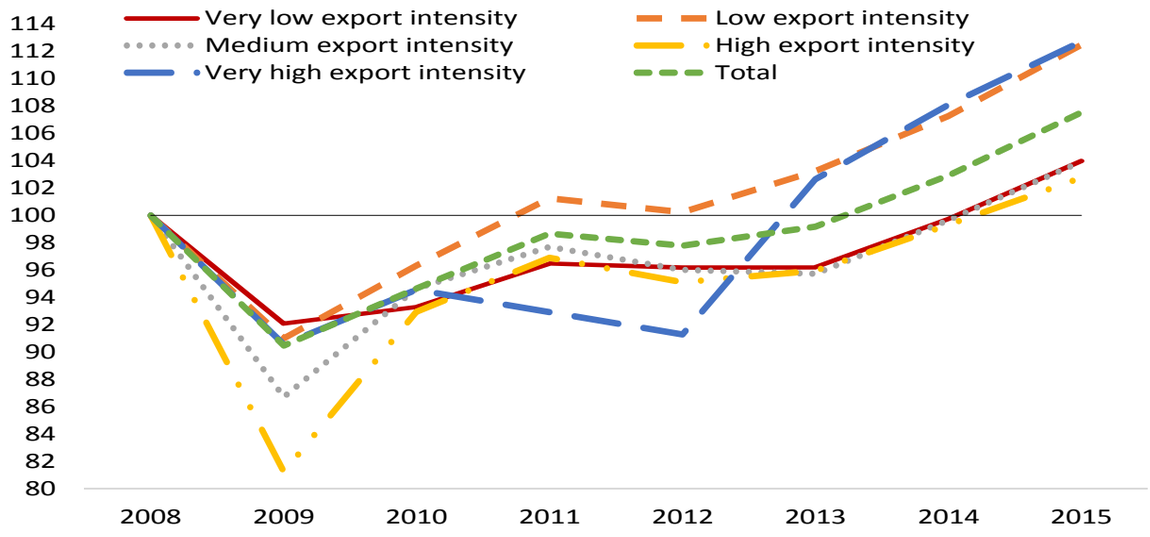
Conversely, employment showed a very different picture. The low export intensity grouping is the only grouping where employment has recovered to pre-recession levels. This reflects the fact that while employment in the low export intensity grouping has been steadily recovering since 2010, employment in the remaining export intensity groupings have only shown signs of recovery since 2013 and 2014.

Figure 44: Level of EU28 SME value added and employment, according to export intensity, 2008 to 2015 (2008=100)

Employment



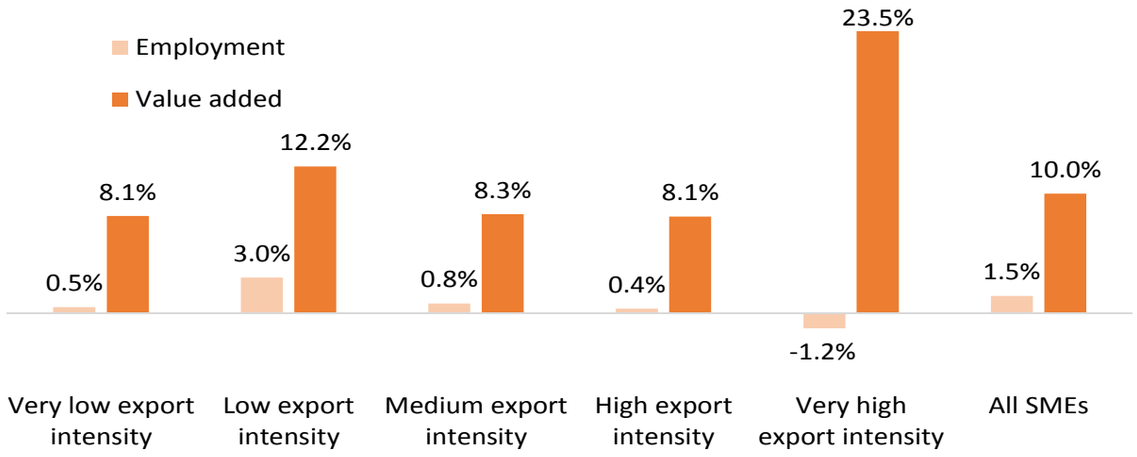
Value added



Source: Eurostat, National Statistical Offices, DIW econ
Note: See Annex III.9 for precise definition of the various export-intensity groupings and .allocation of different industrial sectors to various export-intensity groupings.

For the EU SME sector as whole, the cumulative increase in value added over the most recent period (2012 to 2015) was 8.5 percentage points higher than the cumulative employment growth over the same period. A broadly similar difference was observed across all export-intensity groupings, except in the high export intensity grouping, which showed a much higher differential of almost 25 percentage points.

Figure 45: Cumulative growth in EU28 SME value added and employment in different export-intensity groupings, 2012 to 2015

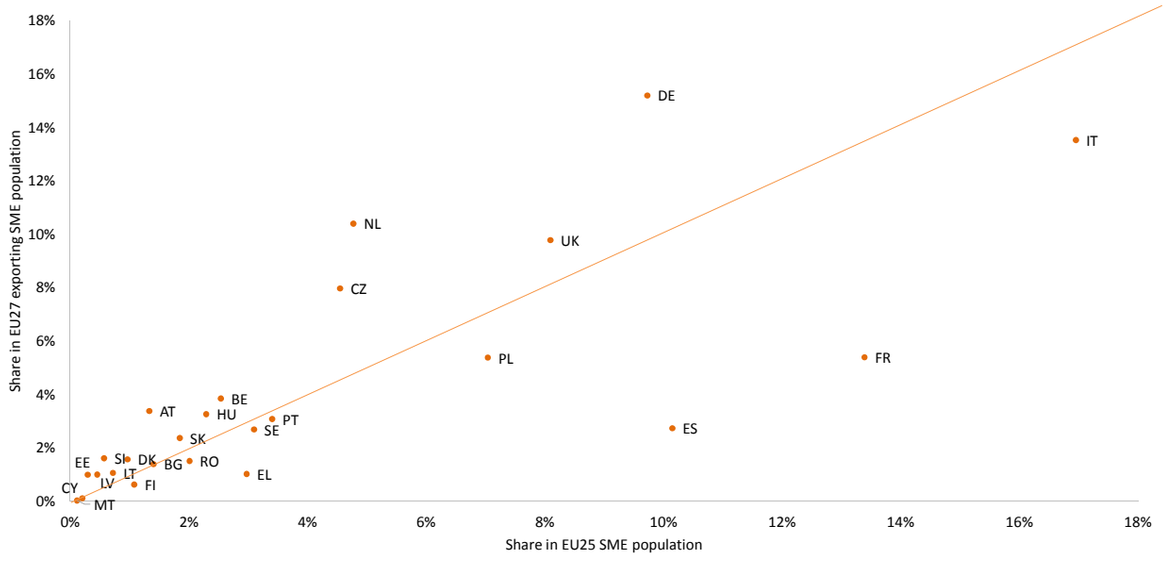


Source: Eurostat, National Statistical Offices, DIW econ
Note: See Annex III.9 for precise definition of the various export-intensity groupings and .allocation of different industrial sectors to various export-intensity groupings.

While the number of exporting SMEs is much smaller than the overall number of SMEs in the EU, the distribution of the overall EU SME population and the EU SME exporting population is broadly similar. In 22 Member States, the difference between the share of EU exporting SMEs and the share of overall EU SME population ranges from -2 percentage points to +2 percentage points. The exceptions are:

- CZ, DE and, NL where the country's share of EU28 exporting SMEs exceeds by 3 percentage points or more the Member State's share of EU28 SMEs.
- FR, ES and IT where the share of exporting SMEs is lower by 3 percentage points or more than the Member State's share of EU28 SMEs.

Figure 46: EU Member States' share of SME population and exporting SME population, 2013



Source: Eurostat, London Economics
Note: Croatia, Ireland, and Luxembourg excluded because of lack of data. The SME population (both total and exporting) comprises SMEs active in the non –financial business economy, excluding 'Food and beverage service activities' as external trade data are not available for this sector.

It is noteworthy that in the majority of Member States, the number of exporting SMEs either grew by more (or fell by less) than the total number of SMEs in the non-financial business sector from 2011 to 2013, the period for which accurate information on the number of exporting SMEs is currently available.

The exceptions were AT, BE, CY, DK, EE, EL, LT, LV, NL and UK. In these Member States, the number of exporting SMEs either:

- increased by less than the overall SME population (AT, EE, LT, LV, NL, and UK); or
- fell while the overall SME population increased (BE, CY); or
- decreased by more than the reduction in the SME population (DK and EL).

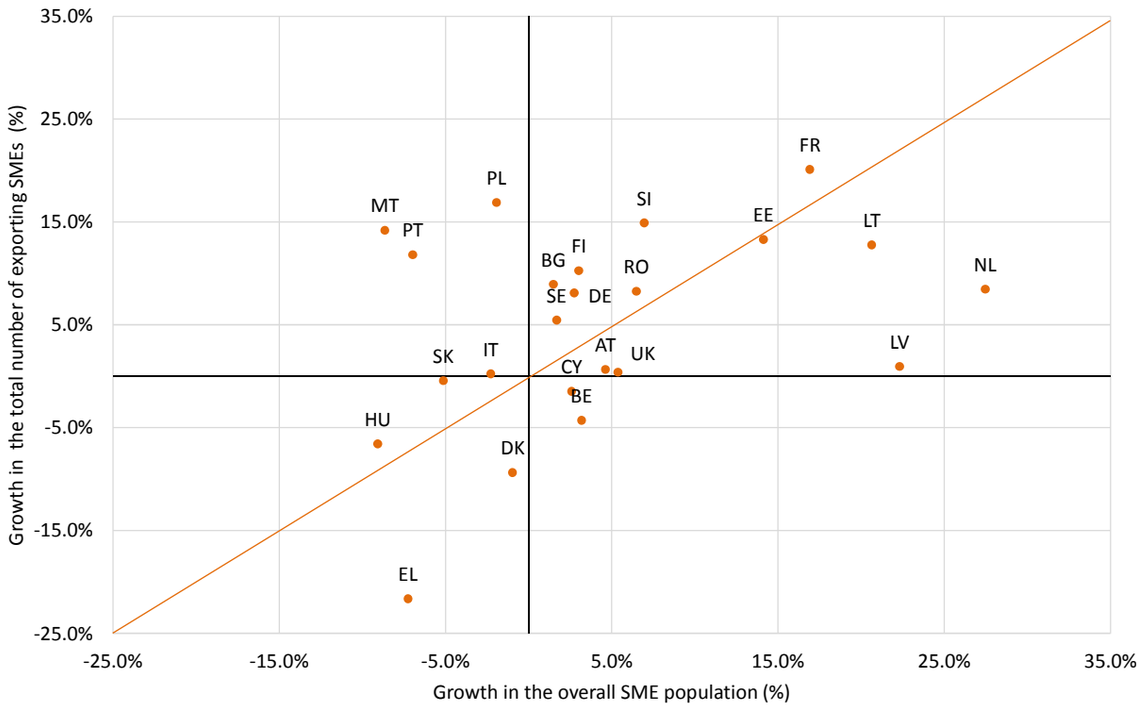


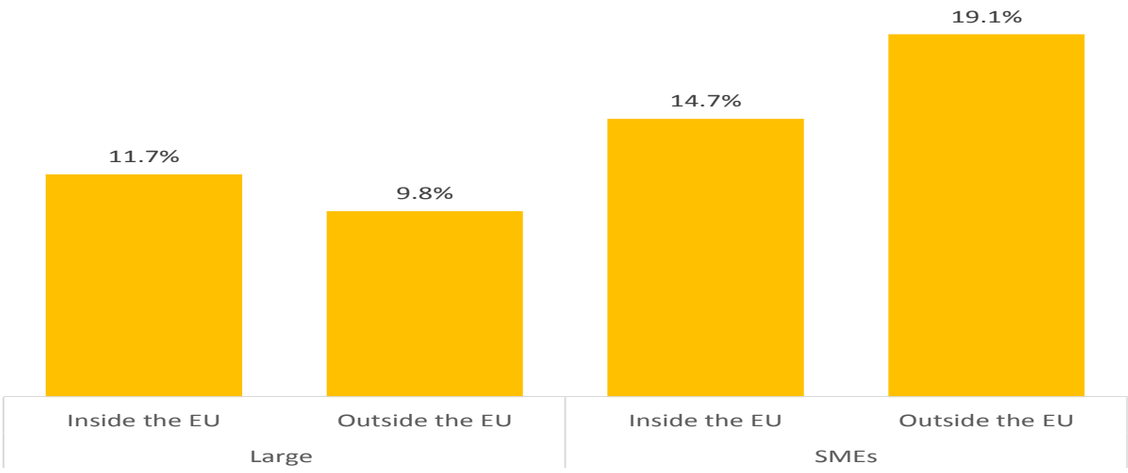
Figure 47: Growth in the overall SME population and the exporting SME population – 2011-2013

Source: Eurostat, London Economics
Note: Croatia, Czech Republic, Ireland, Luxembourg, Spain excluded because of lack of data. The SME population (both total and exporting) comprises SMEs active in the non –financial business economy excluding 'Food and beverage service activities' as external trade data are not available for this sector.

Of the 1.2 million exporting SMEs, 1 million were exporting to the EU27 and 0.6 million were exporting to countries outside the EU27, and a number of these SMEs were exporting to both.

The number of SMEs engaged in extra-EU exporting increased by 20% from 2011 to 2013, while the number of SMEs exporting into the EU increased by about 15% in the same period. Nevertheless, in 2013, the number of SMEs exporting within the EU was still approximately two thirds greater than the number of SMEs exporting to markets outside the EU.

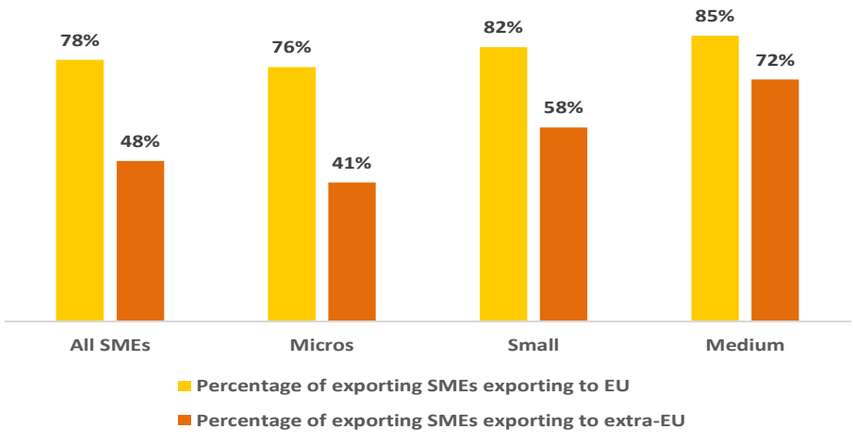
Figure 48: Growth in the EU exporting population (SMEs and large corporations) engaged in intra-EU and extra-EU exports 2011 to 2013



Source: Eurostat, London Economics
Note: Croatia, Czech Republic, Ireland, Luxembourg, Spain not included in EU total because of lack of data
In this figure, 'inside the EU' refers to EU27 and 'outside the EU' refers to non-EU27.

The difference between the relative importance of the EU[15] and the non-EU export markets for exporting SMEs reduces considerably according to the size of the SMEs. For example, exporting micro SMEs tend to export mainly within the EU, with less than 50% engaging in outside the EU exports. In contrast, 85% of exporting medium-size SMEs are exporting within the EU and 72% are exporting outside the EU.

Figure 49: Percentage of EU SMEs exporting within the EU and outside the EU by SME size class in 2013



Source: Eurostat, London Economics
Note: Croatia, Czech Republic, Ireland, Luxembourg, Spain not included in EU total because of lack of data
In this figure, 'within the EU' refers to EU27 and 'outside the EU' refers to non-EU27.

Across Member States, very different patterns can be seen in terms of the relative importance of export markets inside the EU and outside the EU for SMEs.

In the case of ES and MT, the percentage of SMEs exporting outside the EU is markedly higher than the share of SMEs exporting within the EU. The main destination for Maltese exports outside the EU as reflected by data on

[15] Based on the importance of intra-EU27 exports versus extra-EU27 exports.

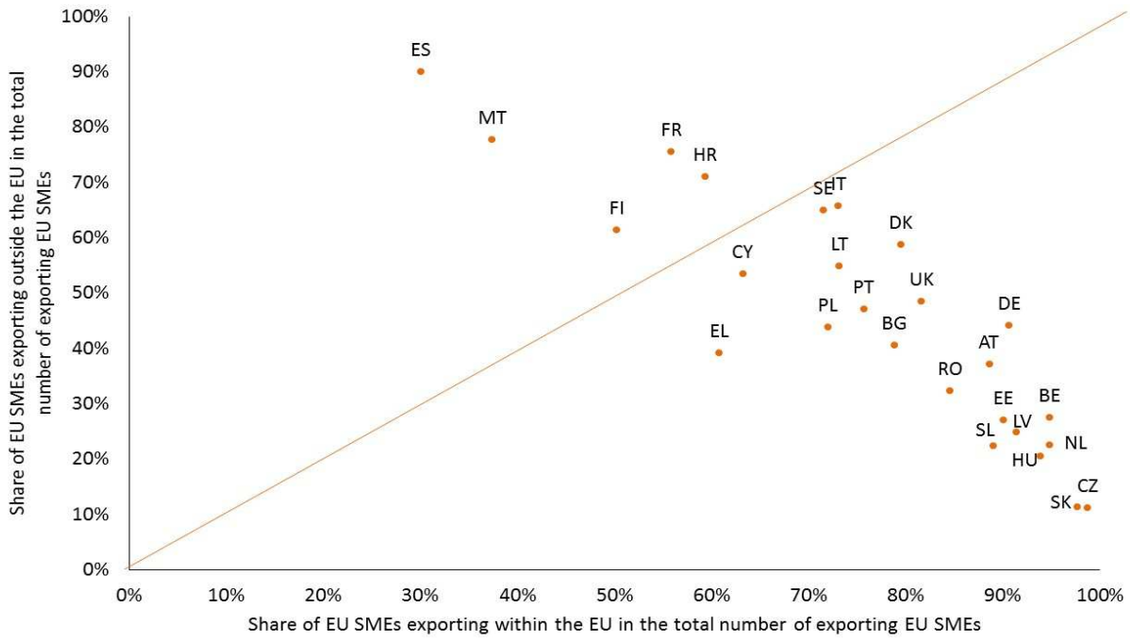
total exports is North Africa. In ES, North Africa is also an important export partner outside the EU, but the main export partners are Switzerland and other non-EU European countries.

A similar pattern can be observed in the case of FI, FR, and HR, but the differences in the relative percentages of SMEs exporting inside the EU and outside the EU are less pronounced. In the case of France, no particular country stands out as a specific export partner, whereas in Finland, exports to Russia are most notable in terms of their importance, and in Croatia, exports to non-EU Balkan countries are significant.

In contrast, in AT, BE, CZ, DE, EE, HU, LV, NL, RO, and SL, the percentage of SMEs exporting to markets *outside* the EU is less than half the percentage of SMEs exporting within the EU.

The percentage of SMEs exporting within the EU is also higher than the share of SMEs engaged in exporting *outside* the EU in BG, CY, DK, EL, IT, LT, PL, PT, SE and UK. However, the differences are much less pronounced than in the case of the previous set of Member States.

Figure 50: Percentage of SMEs exporting inside the EU and outside the EU by EU Member State in 2013



Source: Eurostat, London Economics
Note: Ireland and Luxemburg excluded due to lack of data.

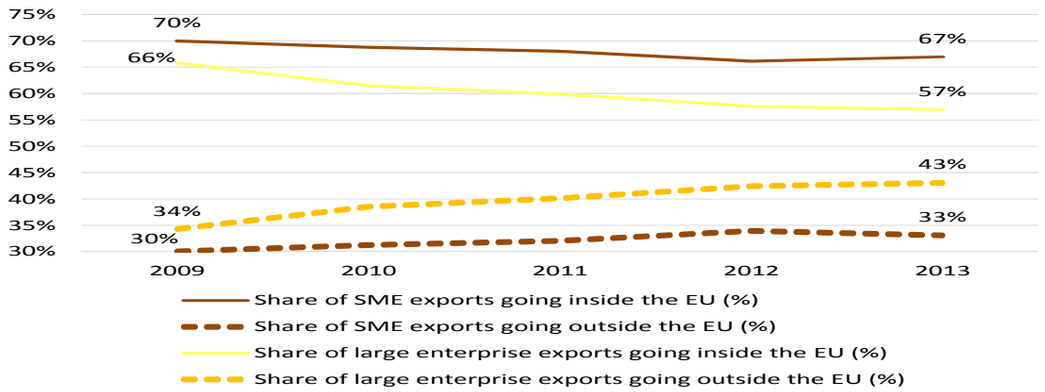
Although the number of SMEs exporting *outside* the EU has increased markedly in recent years, the EU continues to remain the main export destination (in value terms) for SME exports. Indeed, in 2013, such exports accounted for 67% of the total value of SME exports.

Information on countries outside the EU which are the prime export destinations is only available for a subset of 12 countries.[16] Based on this subset of twelve countries, the four largest export destinations in 2013, as measured by trade value, were China, Russia, Switzerland, and the USA. Interestingly, this held true for both SMEs and large enterprises.

However, the share of exports outside the EU in the total value of SME exports increased by only 3.1 percentage points between 2009 and 2013. In comparison, for large enterprises, this share has increased by 8.9 percentage points.

[16] Austria, Belgium, Czech Republic, Germany, Hungary, Lithuania, Netherlands, Poland, Portugal, Romania, Slovenia and Spain.

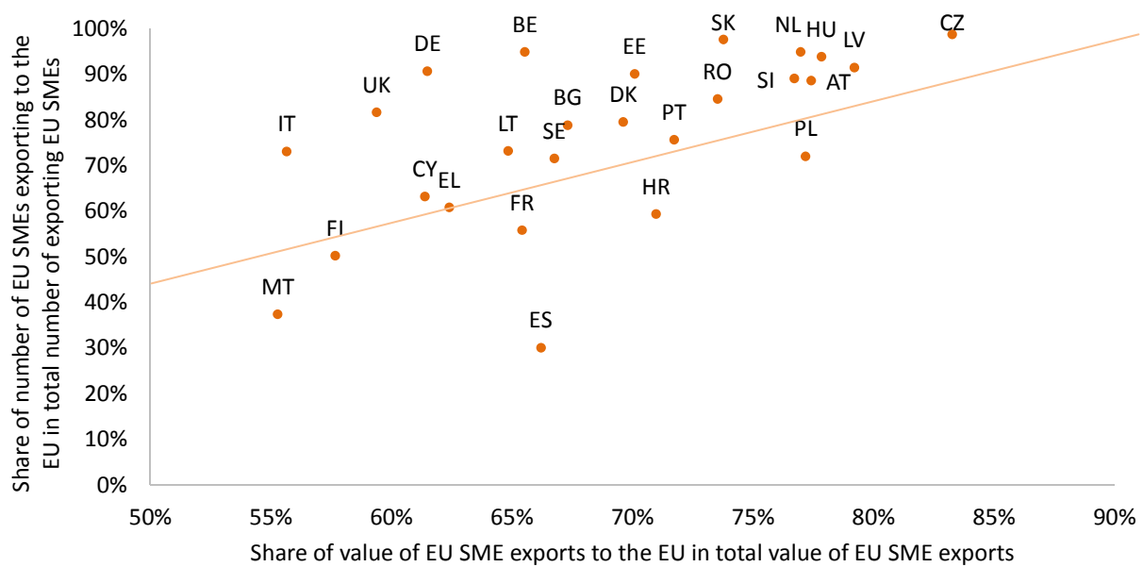
Figure 51: Shares of EU exports inside and outside the EU in total export value of SMEs and large enterprises in 2009 to 2013



Source: Eurostat, London Economics
Note: Croatia, Greece, Ireland, Lithuania, Luxembourg, and Slovenia not included in EU total because of lack of data.

But, even in countries where a majority of SMEs export to countries outside the EU, the EU remains the major export market in terms of the value of SME exports.

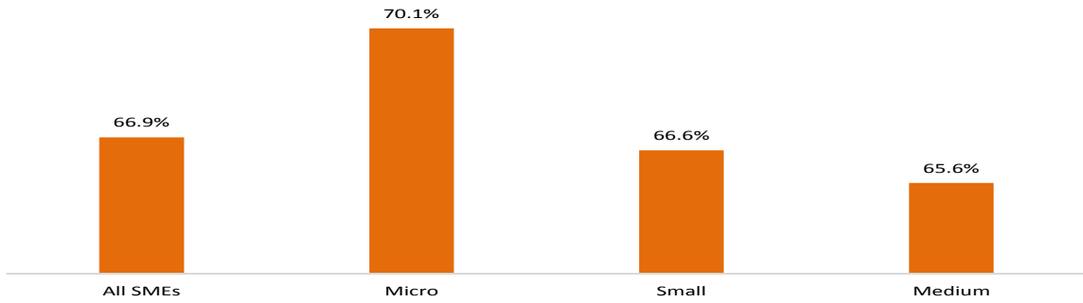
Figure 52: Share of value of EU SME exports to EU in total value of EU SME exports, relative to share of number of EU SME exports to EU in total number of EU SME exports, 2013



Source: Eurostat, London Economics
Note: Ireland and Luxembourg are not included as no data is available for 2012.

The relative importance of the EU market for SME exports (in value terms) varies comparatively little across SME size class, falling slightly from 70.1% for micro SMEs to 65.6% for medium size SMEs.

Figure 53: Share of value of EU SME exports to EU in total EU SME exports by SME class size, 2013



Source: Eurostat, London Economics
Note: Croatia, Ireland, and Luxembourg not included in EU total because of lack of data

3.3 Profitability of SMEs

This section analyses the profitability of SMEs across Member States at the 1-digit sector level, and compares profitability across SMEs and large enterprises.

Across the EU, the average level of profitability of SMEs for the years 2012 and 2013 varied from €0.05 in profit per €1 of sales in France to €0.16 in profit per €1 of sales in the UK.

Box 4
Profitability data

In order to calculate EU-wide profitability, data was collected from Eurostat's Structural Business Statistics.

Due to large amounts of missing data in 2014, this analysis focused on the average profitability in the years 2012 and 2013. This analysis excluded the 'real estate' sector as there were a large number of data gaps in this sector.

Further data gaps are flagged in the text.

Table 4: Profitability of SMEs in the non-financial business sector (excluding 'real estate') by country, average level for 2012 and 2013

Country	Profitability – € per €1 of sales
France	0.05
Sweden	0.07
Slovenia	0.07
Portugal	0.07
Hungary	0.08
Latvia	0.08
Finland	0.08
Bulgaria	0.08
Lithuania	0.08
Czech Republic	0.08

Netherlands	0.08
Belgium	0.08
Estonia	0.08
Austria	0.09
Spain	0.09
Romania	0.09
Croatia	0.09
Italy*	0.09
Denmark	0.09
Poland	0.10
Greece	0.10
Cyprus	0.10
Slovakia	0.11
Ireland**	0.11
United Kingdom	0.16
EU28	*0.09*
Countries with missing sectors	
*Luxembourg****	*0.04*
*Germany****	*0.09*
*Malta****	*0.12*

Source: Eurostat
Note: Excludes 'real estate' sector due to data gaps.
** Profitability for sector I in 2013 for Italy was missing, as a result the same profitability for sector I was assumed for both 2012 and 2013.*
*** Profitability for Ireland was based on 2012 data*
**** Luxembourg excludes sector N, Germany excludes sectors D and E, Malta excludes sectors D and M.*

In order to assess whether some SME sectors are systematically more profitable than other sectors, for each Member State all sectors were ranked on the basis of their profitability with a rank of 1 given to most profitable SME sector and rank of 11 to the least profitable SME sector.

If a particular SME sector were to be the most profitable in all Member States, it would be shown as ranking first in 100% of the Member States in the figure below. In fact, the figure below shows generally a high degree of variability in terms of the sectoral ranking of profitability. The main notable exceptions are:

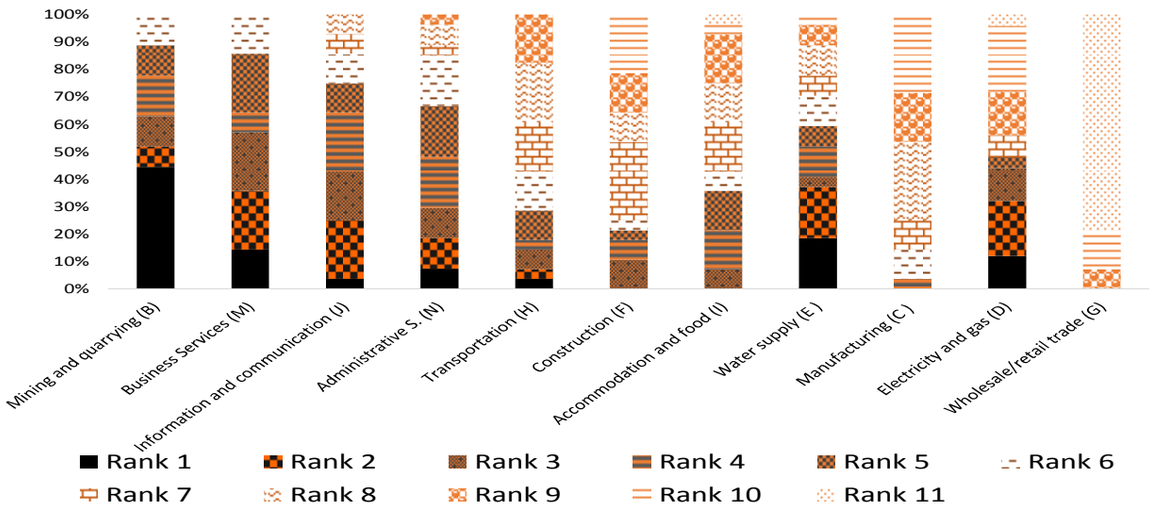
- 'Mining and quarrying' which is the most profitable or second most profitable SME sector in 50% of Member States;
- 'Wholesale and retail trade' which is the least profitable sector in 80% of Member States. At the EU28 level, for every €1 of sales, this sector makes only €0.05 in profit. This is six times lower than the profitability of €30 cents in the 'mining and quarrying' sector.

The 'manufacturing' sector was also not especially profitable. It only ranked in the top five most profitable sectors in 4% of countries.

The 'electricity and gas' and 'water supply' sectors were the most varied sectors in terms of ranking, with both high and low rankings across Member States.

A full breakdown of profitability at sector and Member State level can be found in Annex III.11.

Figure 54: Profitability of SMEs at sector level by rank



Source: Eurostat
Note: Ranks ranked at Member State level by level of profitability. The lower the rank, the more profitable the sector.
Rankings can be affected by missing values in some sectors for certain countries i.e. if a country has two missing values then the rankings will range from 1 to 9 rather than 1 to 11.The percentages refer to the percentage of Member States in which a sector was given a specific rank.

Comparing the average profitability in 2012 and 2013 of SMEs and large enterprises, it can be observed that large enterprises were generally more profitable than SMEs. This was the case in 63% of Member States.

However, there was only a small difference in profitability between SMEs and large enterprises at EU aggregate level: per €1 of sales in the EU28, large enterprises were only €0.01 more profitable than SMEs.

Table** 5: **Difference between the profitability of SMEs and large enterprises in the non-financial business sector (excluding 'real estate') by country, average level for 2012 and 2013

Country	Profitability of SMEs (€ per €1 of sales)	Profitability of large enterprises (€ per €1 of sales)	Difference (€)
Ireland**	0.11	0.19	-0.08
Romania	0.09	0.14	-0.05
Latvia	0.08	0.12	-0.04
Croatia	0.09	0.13	-0.04
Portugal	0.07	0.11	-0.03
Slovenia	0.07	0.10	-0.03
Poland	0.10	0.12	-0.03
Hungary	0.08	0.10	-0.02
Netherlands	0.08	0.10	-0.02
Czech Republic	0.08	0.10	-0.02
Bulgaria	0.08	0.09	-0.01
Sweden	0.07	0.08	-0.01
France	0.05	0.06	-0.01
Denmark	0.09	0.10	-0.01
Spain	0.09	0.09	0.00
Austria	0.09	0.09	0.00

Italy*	0.09	0.09	0.00
Belgium*	0.08	0.07	0.02
Finland	0.08	0.06	0.02
Slovakia*	0.11	0.08	0.03
United Kingdom	0.16	0.09	0.07
EU28	0.09	0.08	0.01
Countries with missing sectors			
Cyprus***	0.10	0.19	-0.10
Luxembourg***	0.04	0.07	-0.03
Estonia***	0.07	0.10	-0.03
Lithuania***	0.08	0.07	0.01
Germany***	0.09	0.07	0.02
Greece***	0.10	0.07	0.03

Source: Eurostat
Notes: Excludes real estate sector due to data gaps, Malta is excluded due to data gaps
** The profitability for sector I in 2013 for Italy & Belgium was missing, as result the same profitability for sector I was assumed for both 2012 and 2013. The profitability for sector E in 2013 for Slovakia was missing, as a result the same profitability for sector E was assumed for both 2012 and 2013.*
*** Profitability for Ireland was based on 2012 data*
**** Luxembourg excludes sectors N and B, Germany excludes sectors D and E, Greece excludes sector D , Cyprus excludes sectors B and E, Lithuania excludes sector B, Estonia excludes sector M.*
Countries are listed in the table on the basis of the size of the difference between the profit rates of the SMEs and the large enterprises.

Considering the change in average SME profitability between the average level in 2008 and 2009 and the average level in 2012 and 2013, SME profitability generally decreased, with SME profitability across the EU28 falling by 6%.

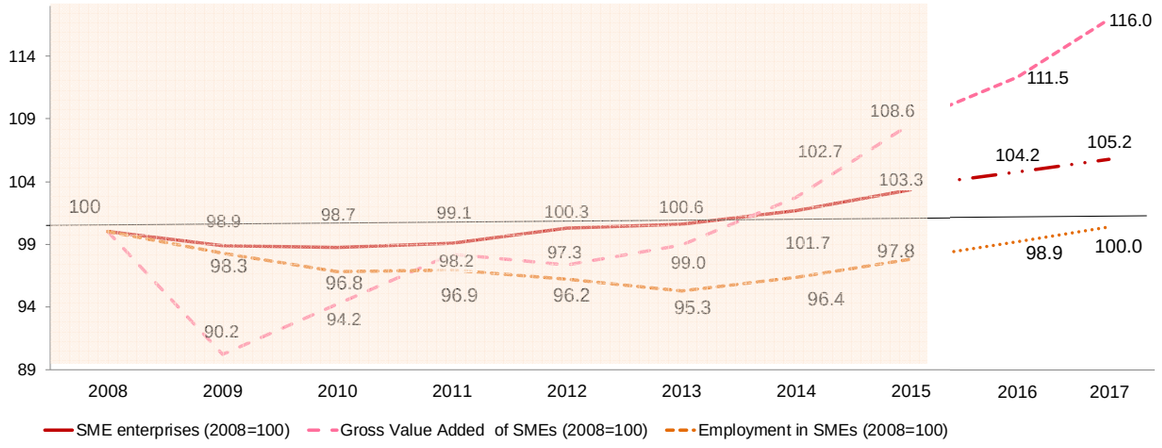
Indeed, at Member State level, out of the countries considered, SME profitability fell in all but seven countries: Belgium, Denmark, Estonia, Hungary, Lithuania, Slovakia, and United Kingdom.

There was greater heterogeneity across sectors in terms of the growth of SME profitability, with growth in the SME profit rate in the EU28 in the sectors of 'mining and quarrying', 'manufacturing', 'information and communication', 'business services' and 'administrative services'. In contrast, the largest drop in SME profitability at EU28 level occurred in the 'wholesale and retail trade sector', where profitability fell by 17%.

3.4 The 2016 and 2017 outlook for SMEs

The outlook for SMEs is for moderate growth in employment and relatively fast growth in value added to continue in 2016 and 2017.

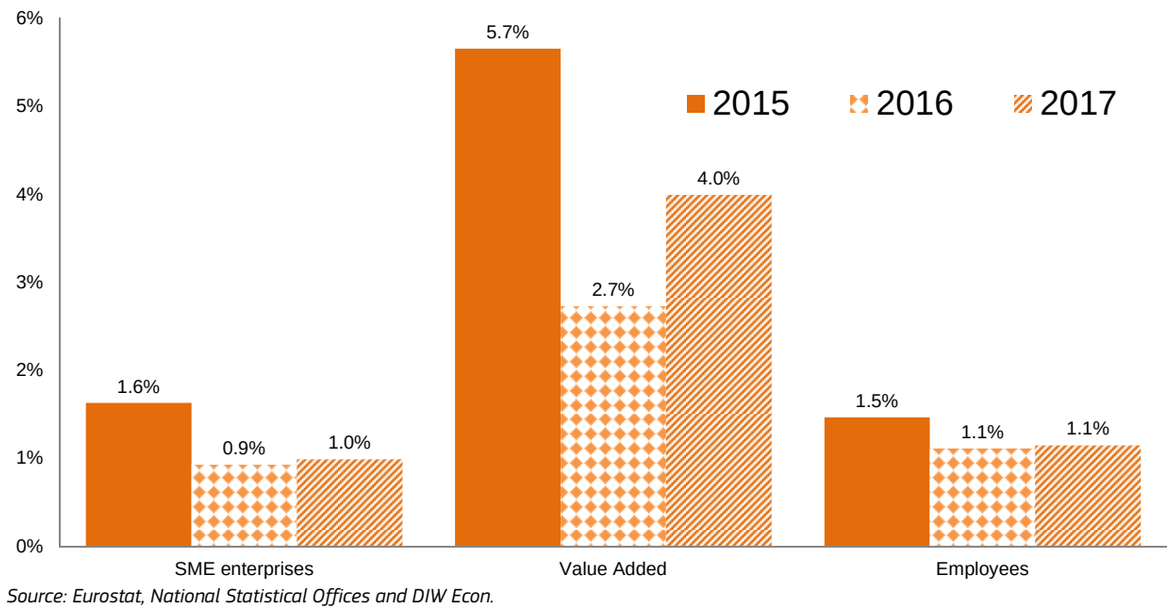
Figure 55: Performance and projections for number of SMEs in the EU28, value added generated by these SMEs and number of persons employed by these SMEs, 2008 to 2017 (2008=100)



Source: Eurostat, National Statistical Offices and DIW Econ
Notes: Slovakia & the Netherlands have been removed due to a break in the series. Series are indexed to 100 in 2008. The robustness of EU-level forecasts may be impacted by the uncertainty caused by BREXIT.

Relative to 2015, annual growth in SME value added and employment is anticipated to slow slightly during 2016 and 2017, as shown in the figure below.

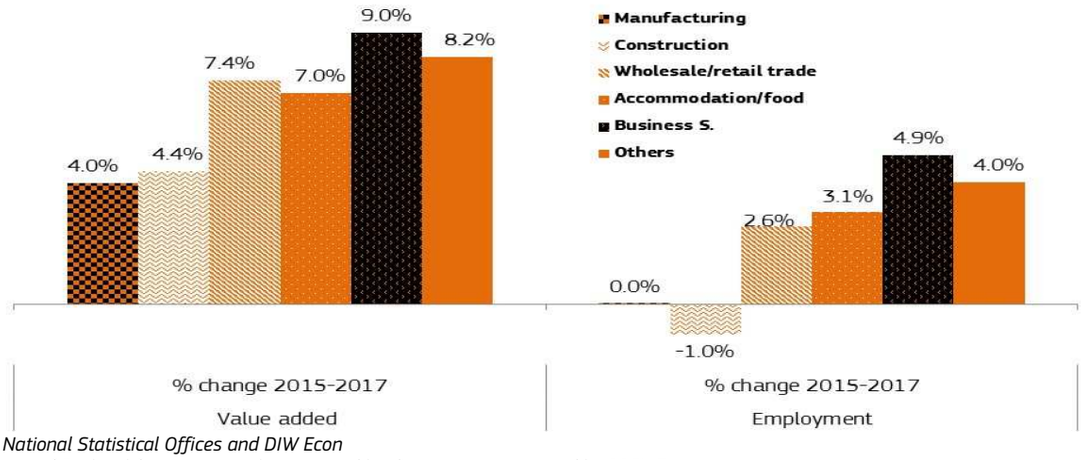
Figure 56: Projections of the growth in the number of SMEs in the EU28, value added generated by these SMEs and number of persons employed by these SMEs in 2016 and 2017



Source: Eurostat, National Statistical Offices and DIW Econ.
Note: The robustness of EU-level forecasts may be impacted by the uncertainty caused by BREXIT.

At sector level, the forecast is for SMEs in the 'construction' and 'manufacturing' sectors to continue to underperform relative to other sectors, whereas 'business services' will continue as the fastest growing sector in terms of both value added and employment.

Figure 57: Forecast growth of EU28 SMEs by sector, change from 2015 to 2017

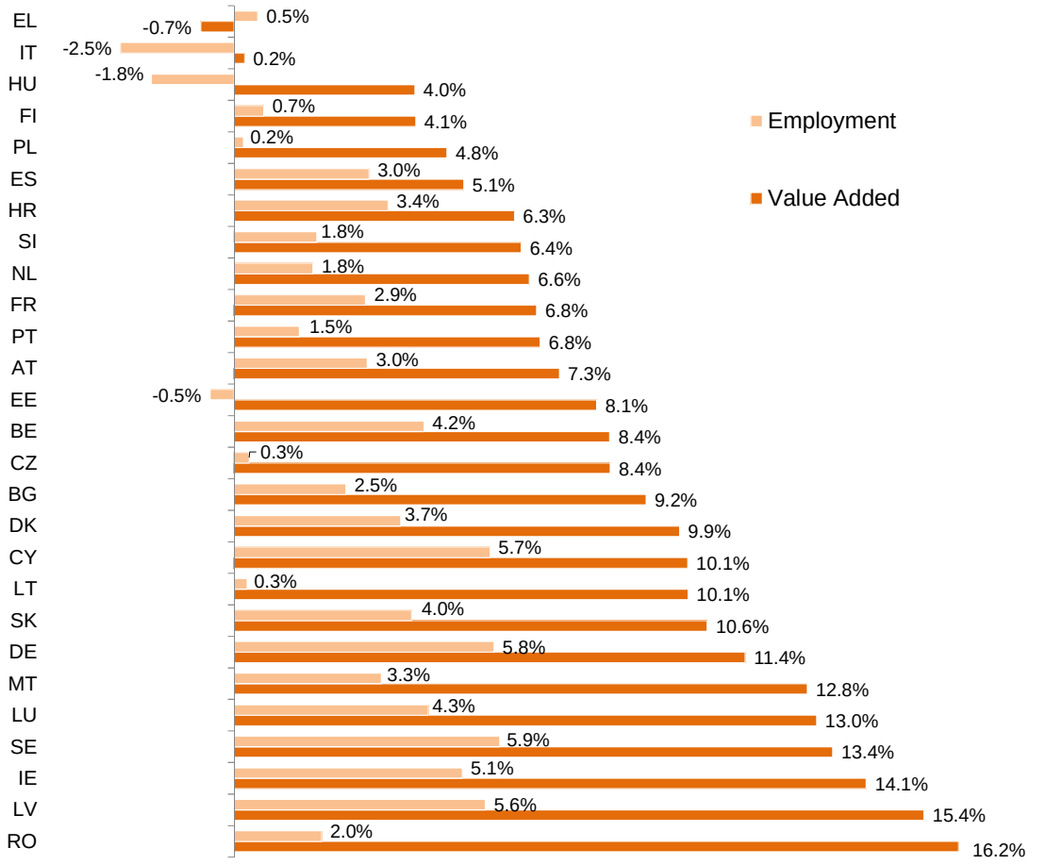


Source: Eurostat, National Statistical Offices and DIW Econ
Note: The robustness of EU-level forecasts may be impacted by the uncertainty caused by BREXIT.

At the Member State level, one observes that:

- In nearly all countries, predictions for growth of value added are considerably higher than predictions for employment growth.
- Italy, Hungary, and Estonia are all predicted to undergo a contraction in employment, whereas employment is predicted to rise in the remaining EU28 countries.
- While Greece is the only country in which value added is forecast to fall, substantial variability of growth in value added is predicted across all other countries.
    - Only five countries aside from Greece have predicted value added growth of less than 5%.
    - Ten Member States (Romania, Latvia, Ireland, Sweden, Luxembourg, Malta, Germany, Slovakia, Lithuania and Cyprus) are expected to experience double-digit growth in value added from 2015 to 2017, with the highest projected growth in Romania, at 16.2%.

Figure 58: Forecast growth of SME value added and employment from 2015 to 2017 in Member States



Source: Eurostat, National Statistical Offices and DIW Econ
Note: Forecasts for the UK have not been included as robust forecasts are not possible due to the uncertainty caused by BREXIT.

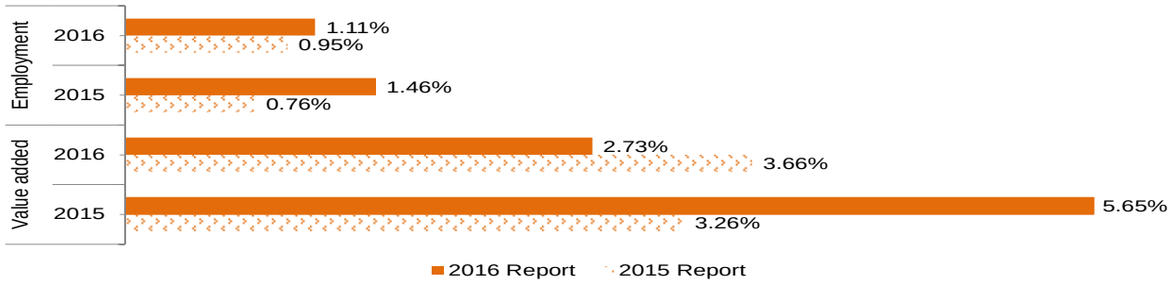
3.4.1 How have expectations changed?

The current nowcasts for the growth in 2015 are higher than projections shown in the 2014-2015 SME Annual Report for both value added and employment. As to forecasts for 2016, this 2015-2016 SME Annual Report predicts lower value added but higher employment growth relative to the forecasts for 2016 shown in the last year's report.

Nowcasts for 2015 show stronger growth due to lower-than-anticipated commodity prices and stronger-than-expected domestic demand across the EU28 and the 2016 forecasts are stronger due to higher-than-previously-predicted, albeit still moderate, economic growth in the EU.[17]

[17] These projections were completed in the spring of 2016, before the UK referendum of June 23, 2016. The outcome of the referendum is expected to dampen growth in the EU and more particularly in the UK.

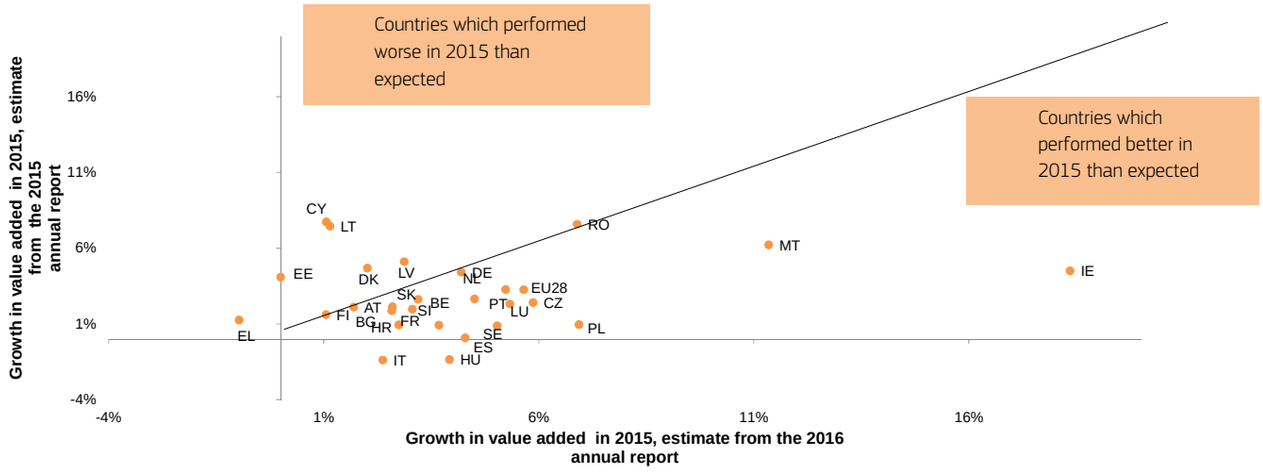
Figure 59: Comparison of nowcast (for 2015) and forecast (for 2016) projections for EU28 SME performance between the current report and the 2014/2015 SME Annual Report



Source: Eurostat, National Statistical Offices and DIW Econ
Note: The robustness of EU-level forecasts may be impacted by the uncertainty caused by BREXIT.

However, despite the nowcasts for 2015 for value added being more positive overall at EU28 level, compared to the forecasts from 2015, at Member State level the picture has been more varied. Reflecting the May 2016 macro-economic nowcasts and forecasts produced by EC DG Economic and Financial Affairs, value added nowcasts for 2015 have been revised down (relative to the 2015 forecasts in the 2014-2015 SME Annual Report) in Cyprus, Denmark and a number of central European countries such as Bulgaria, Estonia, Latvia, Lithuania, and Romania.

Figure 60: Comparison of SME value added growth in 2015 at the EU28 Member State level between the 2015 SME Annual Report and current nowcasts

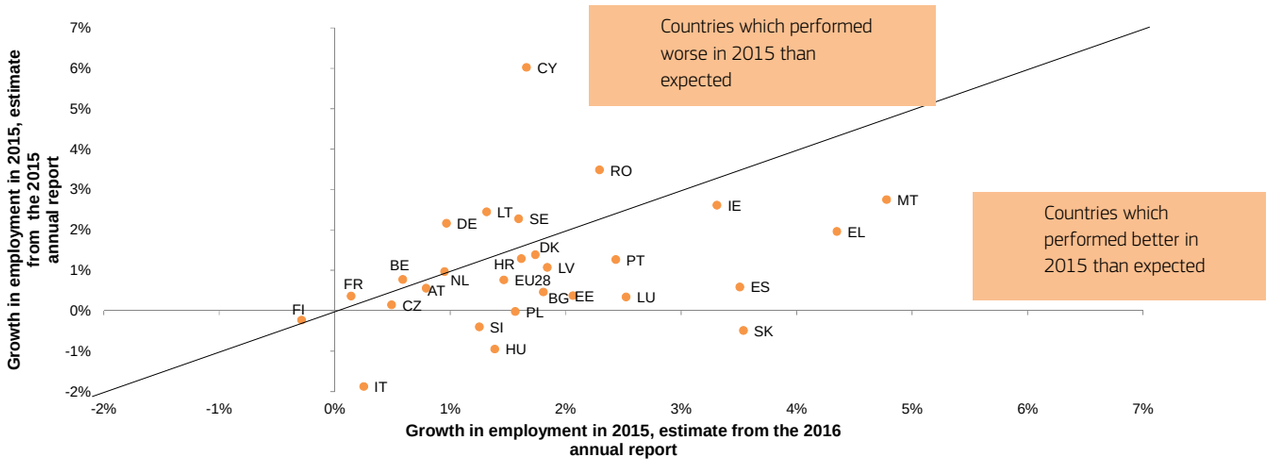


Source: Eurostat, National Statistical Offices and DIW Econ
Notes: Estimate from the 2016 Annual Report is a nowcast, estimate from the 2015 Annual Report is a forecast. Forecasts for the UK have not been included as robust forecasts are not possible due to the uncertainty caused by BREXIT.

Comparing the employment nowcasts from this report to the forecasts from the 2014-2015 SME Annual Report, one notes that in Lithuania, Cyprus and Romania both value added and employment expectations were revised downward.

The other countries where employment in 2015 fared worse than previously forecasted are Finland, France, Belgium, Germany and Sweden.

Figure 61: Comparison of SME value added growth in 2015 at the EU28 Member State level between the forecasts in the 2015 SME Annual Report and current nowcasts



Source: Eurostat, National Statistical Offices and DIW Econ
Notes: Estimate from the 2016 annual report is a nowcast, estimate from the 2014-2015 SME Annual Report is a forecast. Forecasts for the UK have not been included as robust forecasts are not possible due to the uncertainty caused by BREXIT

Source: ER / Shutterstock

4. Giving entrepreneurs a second chance and economy-wide dynamism

4.1 Introduction

In the aftermath of the economic downturn of 2008-2009, many SMEs failed. Some were closed voluntarily by their owners, whilst many others were liquidated or went bankrupt. Although very few countries report bankruptcy data specifically for SMEs, the overall trend in business bankruptcies and other forms of involuntary cessation of business activities[18] provides a clear picture of the situation faced by the SME sector, since SMEs account for more than 99% of all enterprises in Member States.

[18] The EC website *https://e-justice.europa.eu/content_insolvency-303-en.do?clang=en* provides detailed information on the various forms of involuntary business cessation processes which exist in the different Member States.

The 2014-2015 SME Annual Report found that in recent years young SMEs created jobs (on a net basis) , and the EU needs more young firms to create jobs. There are now no major differences between the EU and the USA as regards new firm creation. Start-ups are key contributors to the innovation and growth dynamics of the EU economy. However, many young enterprises fail in their early years and barriers to starting afresh dampen the potential gains that a strong start-up culture could yield. Public policies supporting more start-up dynamism through second chance will go some way towards improving the environment for start-ups and strengthening the overall employment creation performance of SMEs.

The importance of a well-functioning second chance regime for SMEs, and the potential contribution of such a regime to SME employment and general economic growth in the EU28, is explored in greater detail below. In this regard, the chapter will examine the state of implementation of the SBA second chance principle. This principle not only aims to ensure that a country's bankruptcy regime does not deter entrepreneurship and business creation but also prevents bankruptcies by providing assistance to struggling businesses before it is too late.

More precisely, this chapter:

Presents background information on business births and deaths. It briefly highlights, on the basis of a number of case studies, the challenges faced by entrepreneurs wishing to start a new business after bankruptcy or after having voluntarily closed a failing business.
Discusses the key findings of an empirical EU-wide analysis of the impact of national bankruptcy regimes on entrepreneurship and on economic growth in general.
Concludes by (a) discussing the extent to which the SBA second chance principle is implemented and effective in helping failed 'honest' entrepreneurs to start afresh, and (b) identifying the measures which still need to be implemented.

Of particular interest are the legal arrangements and decisions which force a business to involuntarily cease to operate. Bankruptcies and involuntary liquidations are the most common arrangements and decisions. In practice, the usage of the different legal forms of involuntary business cessation and the reporting of such arrangements and decisions varies across Member States. Therefore the information provided in Table 6 focuses on *trends* in involuntary business cessations, rather than the actual incidence of involuntary business cessations.

The table below shows for each Member State:

The **year** during which the number of business bankruptcies and other forms of involuntary business cessations hit their **peak** following the onset of the financial and economic crisis in 2008. These peaks are highlighted in **red** in the table below.
The **year** during which the number of business bankruptcies and other forms of involuntary business cessations hit their **lowest level** following the onset of the financial and economic crisis in 2008. These lows are highlighted in ***green italics*** in the table below.

The underlying data series for Table 6 can be found in Annex III.13.

A few key points are worth noting:

1. In a number of Member States, the peak was reached during the initial years of the crisis, i.e. in 2009 (Austria, Estonia, Finland, France, Lithuania, United Kingdom) or in 2010 (Denmark, Hungary, Latvia).
2. In contrast, in another larger set of Member States, the peak was reached later, in 2012 (Luxembourg, Portugal) or in 2013 (Belgium, Bulgaria, Cyprus, Czech Republic, Luxembourg, Netherlands, Spain, and Sweden).
3. Moreover, in 16 of the 20 Member States for which data is available on the number of bankruptcies and other involuntary business cessation procedures for 2008 and/or 2007, the level of bankruptcies and other involuntary business cessation procedures remained high in 2014 and has not yet returned to its pre-crisis level (Belgium, Cyprus, Czech Republic, Denmark, Finland, France, Estonia, Ireland, Italy, Lithuania, Luxembourg, Portugal, Slovakia, Spain, Sweden, and United Kingdom).

Table 6: Trends in number of business bankruptcies and other forms of involuntary business cessations in selected Member States 2007 to 2014 (series are indexed to 2009=100)

Member State	2007	2008	2009	2010	2011	2012	2013	2014
AT	91.2	91.5	100.0	92.4	85.0	87.5	79.1	*78.6*
BE	*81.5*	90.0	100.0	101.6	108.5	112.4	124.6	114.0
BG			100.0	125.2	145.1	177.6	193.8	170.6
CY	88.7	*84.9*	100.0	107.5	114.5	83.6	118.9	102.5
CZ	*67.3*	72.3	100.0	109.1	119.7	131.0	151.1	144.3
DK	*42.0*	65.0	100.0	113.2	95.8	95.6	87.4	70.9
EE	*19.1*	40.1	100.0	97.4	59.1	46.9	43.5	40.6
EL	144.5	101.1	100.0	100.0	125.4	116.9	110.4	*93.0*
ES	19.9	55.6	100.0	94.5	109.5	148.9	167.2	114.0
FI	68.8	79.8	100.0	87.5	90.0	90.4	95.6	91.2
FR	*81.2*	87.9	100.0	95.5	94.1	96.7	99.0	98.9
HU		84.7	100.0	104.4	83.0	*68.7*	93.1	149.1
IE	*53.6*	66.0	100.0	100.8	113.0	109.0	95.6	
IT	*65.6*	80.0	100.0	119.7	129.5	130.6	150.6	167.5
LT	*32.9*	51.9	100.0	88.8	69.0	76.0	84.2	91.4
LU	95.1	82.8	100.0	132.5	141.1	151.5	151.4	122.7
LV	0.0	56.4	100.0	121.9	41.2	40.0	*36.5*	42.9
NL			100.0	88.8	*88.1*	105.9	120.7	95.7
PT	*68.5*	92.5	100.0	107.2	124.4	175.3	158.1	105.3
SE	*75.8*	82.5	100.0	95.2	91.1	97.8	100.8	93.7
SK	*61.2*	90.9	100.0	124.6	135.9	130.4	142.8	148.6
UK	*62.8*	86.2	100.0	85.8	89.7	85.5	75.9	69.7

Sources: London Economics, based on data from: AT: Kreditschutzverband; BE: Statistics of the Belgium Federal Public Service Economy; BG: provided by official of Ministry of Economy; CY: Department of Registrar of Companies and Official Receiver; CZ: CRIF from Insolvency Register of Ministry of Justice: DK: Statistics Denmark; EE: Krediitiinfo SA; EL: OECD; ES: OECD; FI: Statistics Finland; FR: Insee; HU: Hungarian Central Statistical Office; IR: Dept of Jobs, Enterprise and Innovation; IT: Cerved; LT: Statistics Lithuania; LU: Statec; LV: Lursoft; NL: Statistics Netherlands; PT: COSEC SA; SE: Swedish Agency for Growth Policy Analysis; SK: Ministry of Justice; UK: Insolvency Service.
Notes: Figures highlighted in green italics represent the year during which the number of business bankruptcies and other forms of involuntary business cessations was lowest between 2007 and 2014. The figures in red represent the year during which the number of business bankruptcies and other forms of involuntary business cessations reached its highest level. The data used to analyse trends in different Member States cover all enterprises. However, since SMEs account for approximately 99% of all enterprises, the economy-wide trends should be highly reflective of developments among SMEs.
Indexed series for BE, CZ, DK, FR, PT, NL are based on the total number of declared bankruptcies. Series for SK, LU, CY, BG, and SE are based on the total number of court ruled bankruptcies while the index series for ES is based on court ruled bankruptcies for firms with employees. The indexed series for LT, AT, and LV are based on the total number of insolvency proceedings undertaken. In FI, EE, IT, the indexed series is based on the number of enterprises starting bankruptcy proceedings. In HU, the indexed series is based on the combined number of liquidation and insolvencies while in the UK, it is based on the number of both voluntary and compulsory company liquidations and in IE, it is based on the number of firms undergoing examinership, receivership and liquidation.

In some countries, the annual data on bankruptcies or other involuntary procedures refer to the year when a particular business cessation procedure was *started*. In other countries, the data refer to the year when the procedure was *completed*. Therefore, the peaks and troughs reported in the table above may not be strictly comparable. However, what is indisputably clear from this data is that many SMEs were subject to involuntary business cessation procedures during the financial and economic crisis of 2008/09 and its aftermath.

To underline this, the Impact Assessment of the Commission Recommendation on a New Approach to Business Failure and Insolvency[19] noted that "*an average of 200,000 firms went bankrupt each year in the EU, resulting in direct job losses totalling 5.1 million over three years*".

Many of the owners of these bankrupted SMEs may wish to start a new business. However, as will be shown later in this chapter, entrepreneurs who desire to launch a new business, i.e. the so-called re-starters, face numerous obstacles in the EU28.

In a situation where involuntary business cessation is highly likely, some entrepreneurs may close down their business voluntarily before the financial health of their business has irremediably deteriorated. However, even if such entrepreneurs avoid bankruptcy, they may be held back from creating new businesses because of the problems and challenges they will face in starting afresh.

As a result, economic and employment growth are inhibited, and the EU economy is not operating as productively as it could. The negative economic impact of discouraged re-starters could be sizeable, as shown in the example presented below.

Box 4

Illustrative impact on employment of reducing bankruptcies in EU28

The Impact Assessment of the Commission Recommendation on a New Approach to Business Failure and Insolvency noted that "an average of 200,000 firms went bankrupt each year in the EU".

Assuming that the distribution of bankrupt SMEs and large enterprises is the same as the underlying population of enterprises, approximately 99% of the 200,000 firms which went bankrupt every year were SMEs.

Furthermore, assuming that 50% of the owners of bankrupt SMEs would have re-started a new business if it had been easier to do so, an additional 99 000 new businesses would have been created each year over the period 2009 to 2014.

- In 2014, on average across the EU28, each SME created roughly 4 jobs. If one assumes that each additional SME would also have created 4 jobs, the total additional employment resulting annually from the additional SMEs would have been 396 000.
- In contrast, on average across the EU28, newly created SMEs created 2 jobs. Thus, if one assumes conservatively that each additional SME created only 2 additional jobs, then the total additional employment resulting annually from the additional SMEs would have been 198 000.

As a result, the total additional employment would be between 198 000 and 396 000.

As the cumulative number of additional SMEs would have increased each year by the annual number of new SMEs, in 2014, (i.e. after five years), the EU28 SME population would have included 594 000 additional SMEs and total SME employment would have increased in the range of 1 188 000 and 2 376 000 jobs.

This conclusion of missed economic growth opportunities is supported by academic studies showing that 'harsh' bankruptcy regimes, from which it is difficult to get discharged and start a new business, inhibit entrepreneurship, employment creation, economic growth, and innovation for two main reasons:

- First, the fear of lengthy and costly bankruptcy procedures and of the stigma associated with business failure. This may discourage some potentially new entrepreneurs from ever starting a business in the first place.
- Second, economies with lengthy and costly bankruptcy procedures are likely to forego the economic dynamism of potential business re-starters, who face numerous and costly obstacles in trying to re-

[19] *Commission Staff Working Document – Impact Assessment Accompanying the document Commission Recommendation on a New Approach to Business Failure and Insolvency {C(2014) 1500 final}{SWD(2014) 62 final}, Brussels, 12.3.2014, SWD(2014) 61 final.*

start a business, and out of discouragement may give up totally on the idea of launching a new business venture.

In response to such concerns and to stimulate entrepreneurship, the European Commission recommended in 2014 a new approach to business failure and insolvency which proposed that the bankruptcy discharge period of "honest" entrepreneurs should not exceed three years.[20]

The importance of giving honest entrepreneurs a second opportunity to start a new business had already been recognised by the second principle of the Small Business Act for Europe (SBA) adopted in 2008. This principle states that the Member States should ensure that honest entrepreneurs who have faced bankruptcy quickly get a second chance.

The relevant passage of the SBA[21] notes that the Commission "will continue to promote a second chance policy by facilitating exchanges of best practices between Member States" and "the Member States are invited to:

- promote a positive attitude in society towards giving entrepreneurs a fresh start, for example through public information campaigns;
- aim to complete all legal procedures to wind up the business in the case of non-fraudulent bankruptcy within a year; and
- ensure that re-starters are treated on an equal footing with new start-ups, including in support schemes."

Thus, a well-functioning "second chance" system could be defined as including the following four elements:

- Completion of legal procedures to wind up the business in the case of non-fraudulent bankruptcy within a year;
- Discharge from bankruptcy within no more than three years in the case of honest entrepreneurs;
- Level playing field between re-starters and de novo starters, including in support schemes; or
- Information and communication programs and policies aiming at eliminating the stigma of failure in the case of bankruptcy by an honest entrepreneur.

Moreover, the importance of not missing out on the potential contribution to economic and employment growth by entrepreneurs, who may be held back by the fear of the consequences of failure or by actual failure, was highlighted in the European Commission's recently released Single Market Strategy.[22] Under the pillar "*Helping SMEs and start-ups to grow*", the Strategy notes that:

"The effects of bankruptcy also deter people from entrepreneurial activity. The fear of the social stigma, legal consequences and the inability to pay off debts is stronger in Europe than in many other parts of the world, for example, because of much longer debt discharge periods. This is a significant disincentive for entrepreneurs to start up a business. Entrepreneurs need to know that they will have a second chance. Building on existing work, the Commission will support bona fide entrepreneurs and put forward a legislative proposal on business insolvency, including early restructuring and second chance, to ensure that Member States provide a regulatory environment that is able to accommodate failure without discouraging entrepreneurs from trying new ideas."

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[20] *Commission Recommendation of 12.3.2014 on a new approach to business failure and insolvency, Brussels, 12.3.2014 C(2014) 1500 final. This Recommendation builds on the Final report of the Expert Group, A second chance for entrepreneurs – prevention of bankruptcy, simplification of bankruptcy procedures and support for a fresh start, European Commission, DG Enterprise and Industry, 2011.*

[21] Communication from the Commission to the Council, the European Parliament, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, "Think Small First A Small Business Act" for Europe, Brussels, 25.6.2008, COM(2008) 394 final.

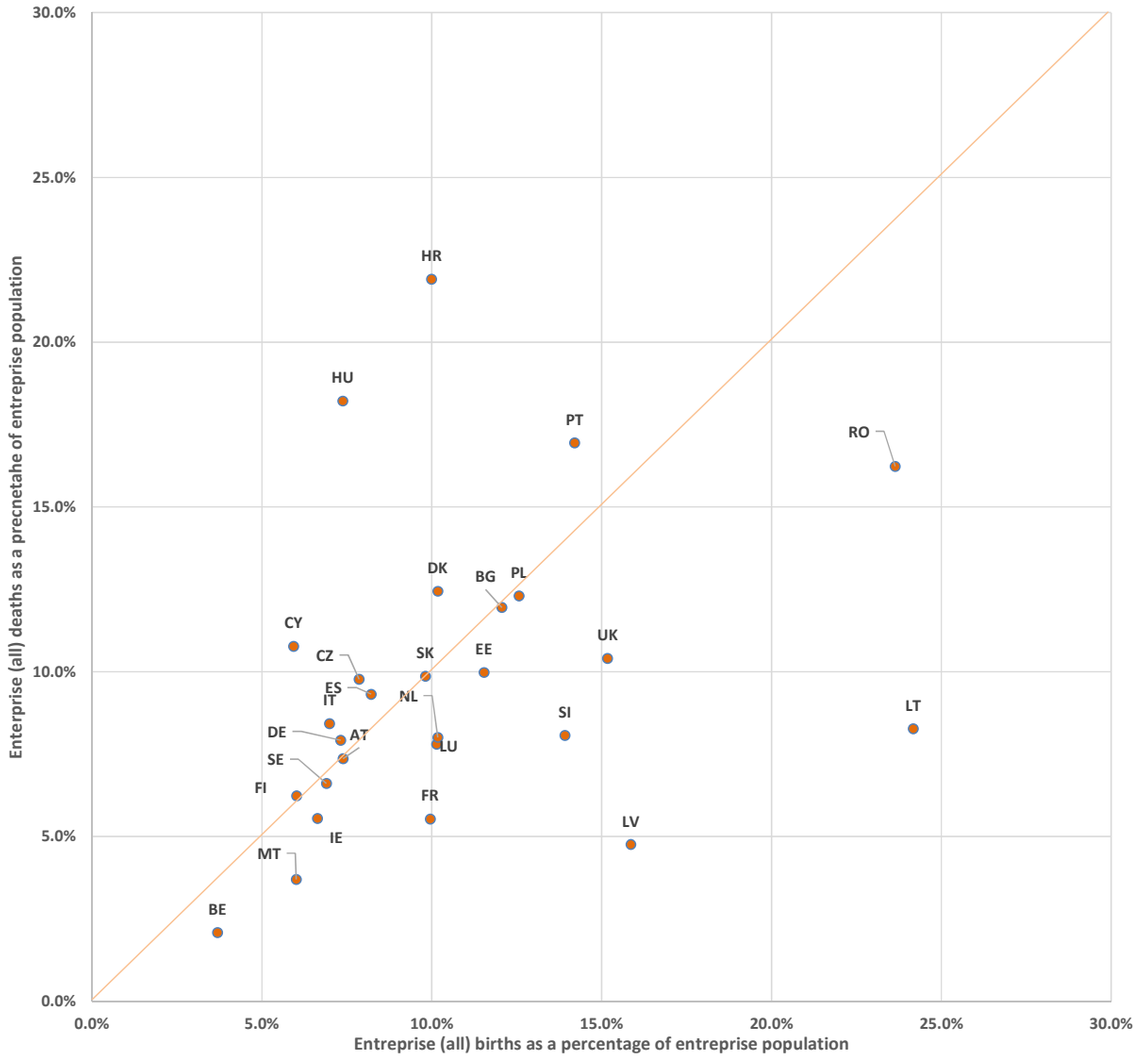
[22] *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Upgrading the Single Market: more opportunities for people and business, {SWD(2015) 202 final}, {SWD(2015) 203 final}, Brussels, 28.10.2015, COM(2015) 550 final.*

4.2 Business births and deaths in the EU

The latest data available from Eurostat show that in 2013, across EU Member States, the average business birth rate (defined as the ratio of business births in 2013 relative to the SME population in the previous year) was 11%, and the average death rate (defined as the ratio of business deaths in 2013 relative to the SME population in the previous year) was 10%.

For the majority of Member States, the difference between birth and death rates (for voluntary and involuntary reasons) was small, ranging from -2 percentage points to +2 percentage points. Only 6 Member States (FR, LT, LV, SI, RO, and UK) experienced markedly higher business birth rates than death rates in 2013, while the opposite was observed in 4 Member States (CY, HR, HU, and PT).

Figure 62: Business birth and death rates – all enterprises, 2013



Source: Eurostat, London Economics
Note: No data for Greece. Data for Ireland and Poland is from 2012 as 2013 data are not yet available

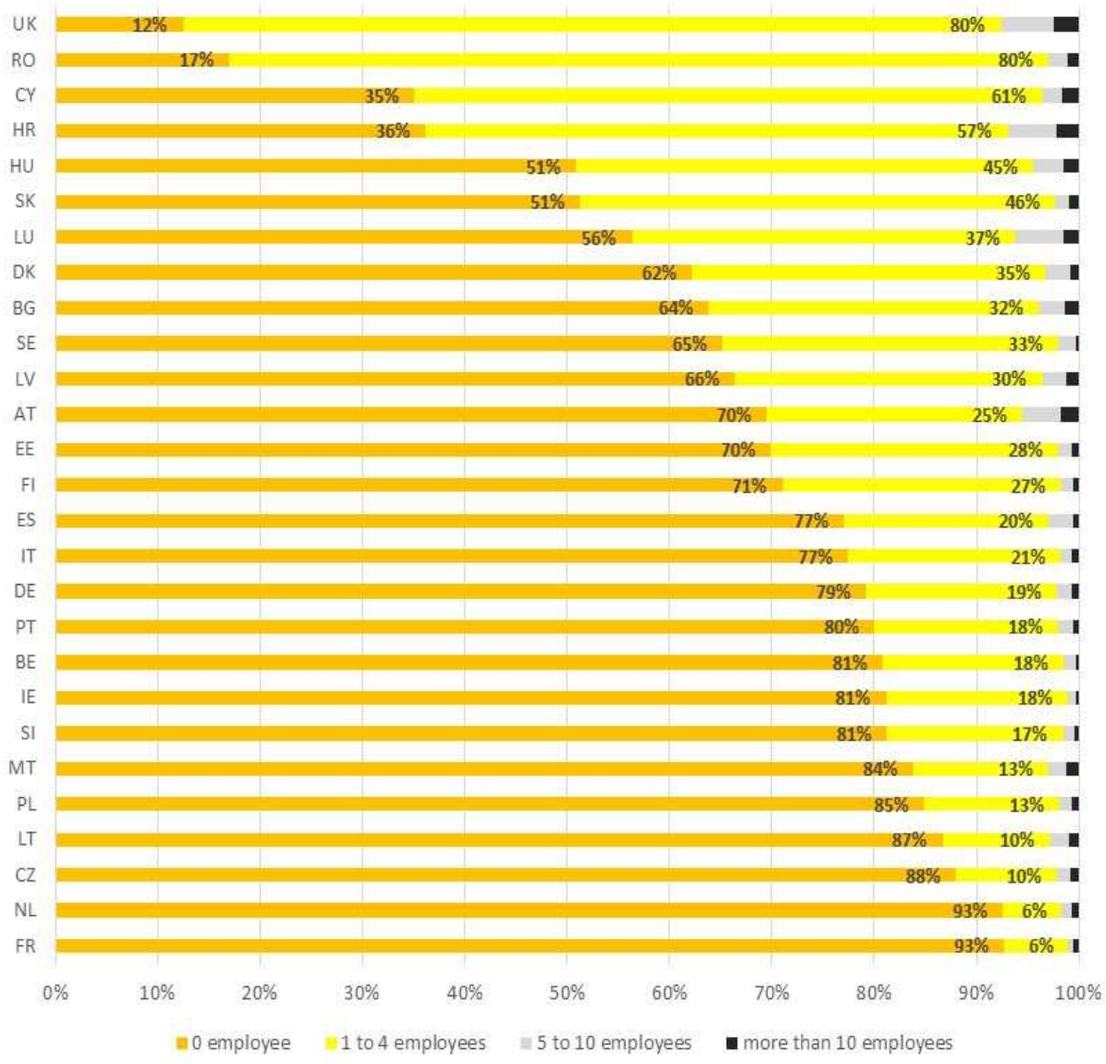
Very small businesses (i.e. businesses with 0 to 4 employees) accounted for almost all of the business births in the different Member States in 2013.

- In all but four Member States, very small businesses accounted for 95% or more of all business births.
- In four Member States (AT, HR, LU, and UK), these businesses accounted for between 90% and 94% of all business births.

Moreover, in 2013 these births were concentrated among businesses with 0 employees in many Member States:

- in all but 4 Member States (CY, HR, RO, and UK), businesses with 0 employees accounted for 50% of all business births in 2013.
- In 10 Member States (BE, CZ, FR, IE, LT, MT, NL, PL, SI and PT), this enterprise size class accounted for 80% or more of all business births.

Figure 63: Share of enterprise size classes in total enterprise births in 2013



Source: Eurostat, London Economics.
Note: No data for Greece. Data for Ireland and Poland from 2012 as 2013 data are not yet available.

The same pattern can be observed in the case of business deaths, with very small firms accounting for almost all business deaths.

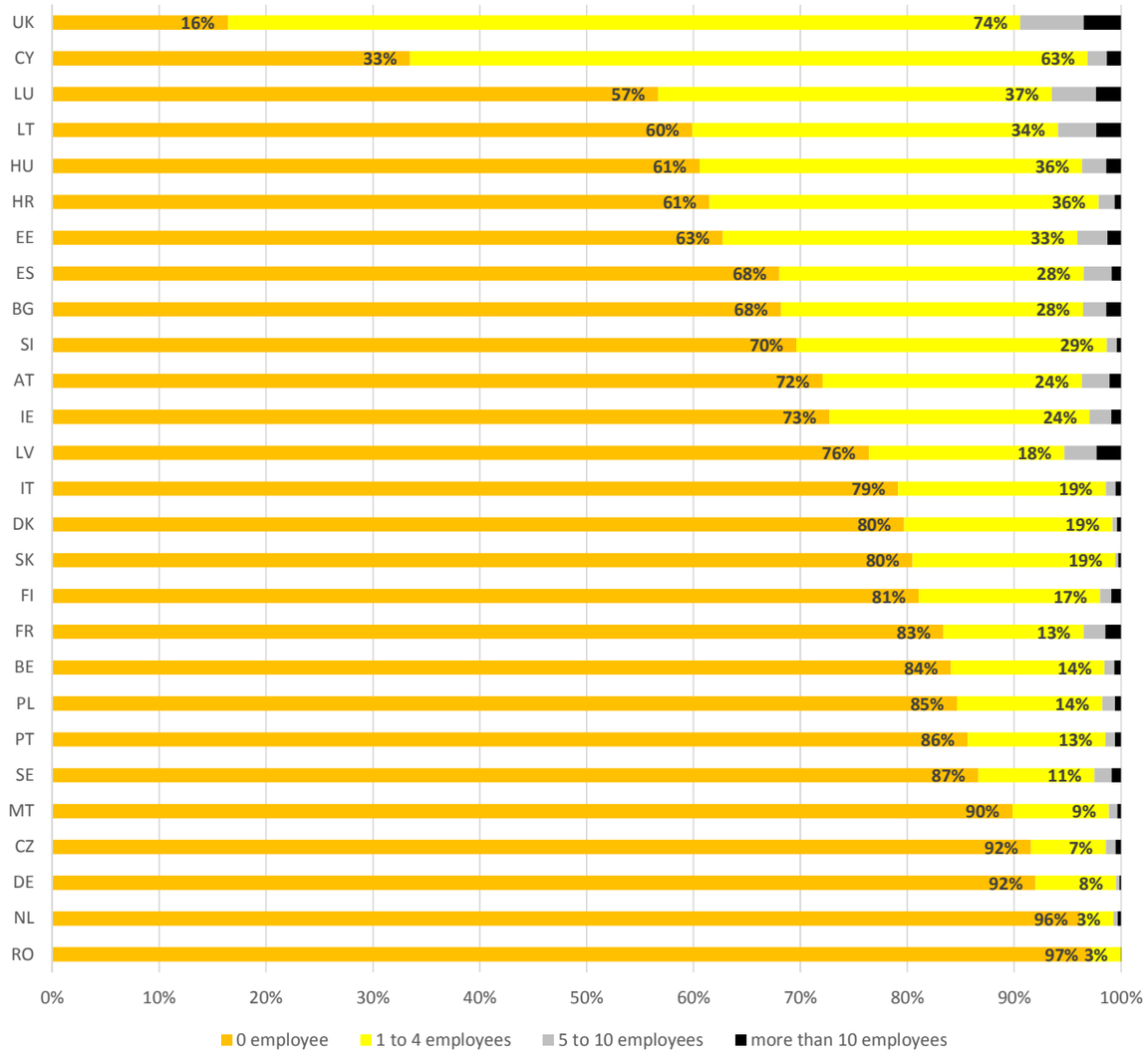
- Firms with 0 employees and 1 to 4 employees accounted for 98% or more of all business deaths in 15 Member States (BE, CZ, DE, DK, FI, HR, IT, MT, NL, PL, PT, RO, SE, SI and SK) and for between 95% and 97% of all business deaths in 9 other Member States (AT, BG, CY, FR, EE, ES, HU, IE and LV).
- In the other three Member States (LU, LT, and UK), the two enterprise size classes accounted for between 91% and 93% of all business deaths in 2013.

As in the case of business births, in many Member States business deaths in 2013 were also highly concentrated among businesses with 0 employees:

- Such businesses accounted for more than 50% of all enterprise deaths in all but two Member States (CY and UK).

- In 13 Member States (BE, CZ, DE, DK, FI, FR, MT, NL, PL, PT, RO, SE, and SK), businesses with 0 employees accounted for 80% or more of all enterprise deaths.

Figure 64: Share of enterprise size classes in total enterprise deaths in 2013



Source: Eurostat, London Economics
Note: No data for Greece. Data from Ireland and Poland from 2012 as 2013 data are not yet available.

Business birth and death rates are far from insignificant across EU Member States and the actual population of businesses is constantly changing. Nevertheless, in 2013, the ratio of net business births (i.e. births minus deaths) to the overall number of business births was generally much lower than 1.

For example, the average net birth ratio across Member States was only 0.5 for firms of 1 to 4 employees. This implies that two new firms with 1 to 4 employees have to be born in order to increase the overall number of firms by 1. In the case of firms with 0 employees, 5 to 10 employees, and more than 10 employees, the net business birth rates stood at respectively 1.6, 0.7, and 0.5.[23]

As shown in the following figure, net birth rates vary considerably across Member States for firms with 0 employees, however negative net birth rates can be observed in the majority of Member States.

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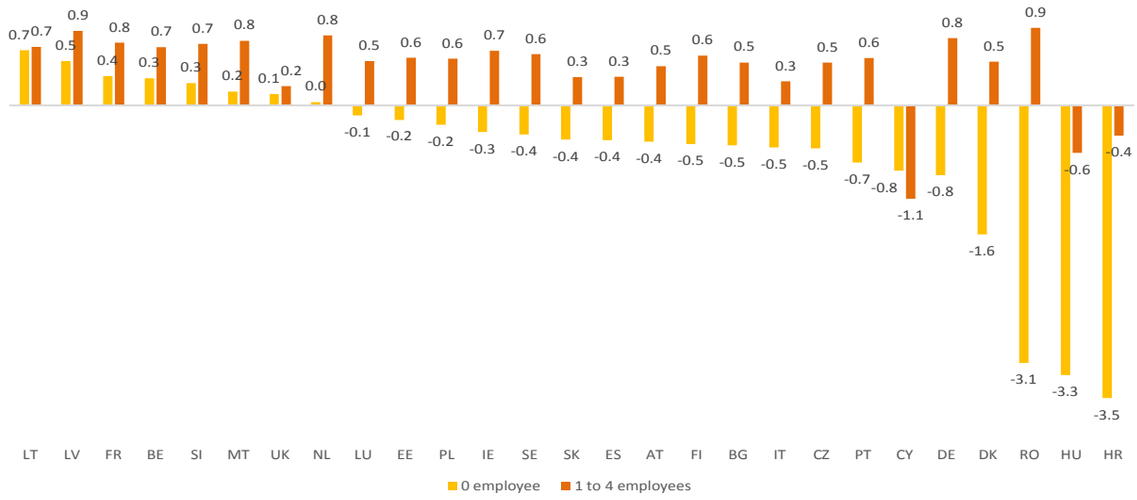
[23] *When more firms die than are born, the total number of firms which need to born in order to increase the overall number of firms is equal to 1 + the absolute value of the negative net birth rate.*

In contrast, the net birth rate of firms with 1 to 4 employees varies much less across Member States and is positive in all but 3 Member States (CY, HR, and HU).

Figure 65: Ratio of net enterprise creation to number of enterprise births in 2013

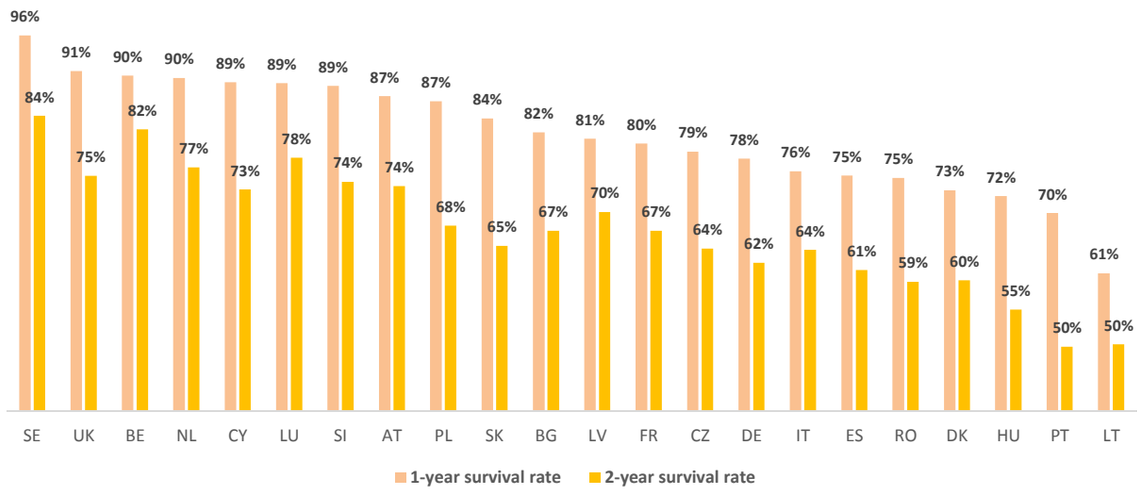


Source: Eurostat, London Economics.
Note: Data for Ireland and Poland is from 2012 as 2013 data are not yet available.

So far this analysis has highlighted the major role played by firms with 0 employees or 1 to 4 employees in the overall dynamics of the business population. Many of these small business are run by self-employed individuals.

A more granular analysis of enterprise mortality rates shows that young firms experience particularly high death rates. While such business deaths may occur for a variety of reasons, a major factor is bankruptcies and other forms of involuntary business cessations. For example, on average across Member States, only 82% of firms created in 2012 and 67% of firms created in 2011 survived into 2013. In other words, one third of newly created firms die before their second birthday.

Figure 66: 1-year and 2-year survival rates of newly created firms – all enterprises - 2013

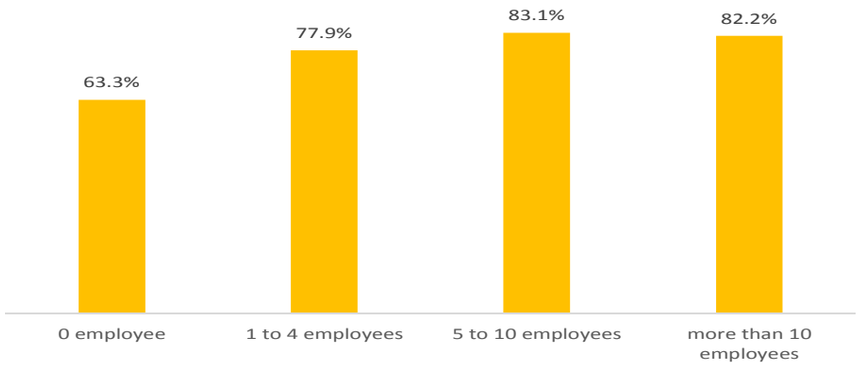


Source: Eurostat, London Economics.
Note: No data for Croatia, Estonia, Finland, Greece, Ireland, and Malta.

The low survival rate of new businesses reflects mainly the high death rate of firms with 0 employees. Less than 2/3 of such firms survive to their second anniversary. The two-year enterprise survival rate

increases somewhat with enterprise size. But even in the case of enterprises with more than 10 employees, almost 1/5 do not survive to their second anniversary.

Figure 67: Average 2-year survival rates of newly created firms across Member States by enterprise ***size class***



Source: Eurostat, London Economics
Note: No data for Croatia, Estonia, Finland, Greece, Ireland, and Malta.

4.3 Non-performing SME loans across the EU

Many factors may cause involuntary business cessation, including being unable to service business debts or pay back debts when they are due.

However, business creditors may not always take immediate action after a breach of the terms and conditions of a loan. Instead, they may carry business loans on their books as 'non-performing'. The reasons for such forbearance are multiple. For example, creditors may believe that the financial situation of the business is likely to improve in the not too distant future, and that the business will once again be able to meet its debt obligations. Or they may be of the view that, in the light of prevailing market conditions, the debt recovery rate is likely to be very low for an immediate involuntary business cessation, and therefore it would be better to wait for market conditions to improve before forcing an involuntary business cessation.

Given the variety of reasons leading creditors to hold non-performing SME loans on their books, information on non-performing loans is not a perfect predictor of the outcome for future SME bankruptcies and other forms of involuntary business cessations.

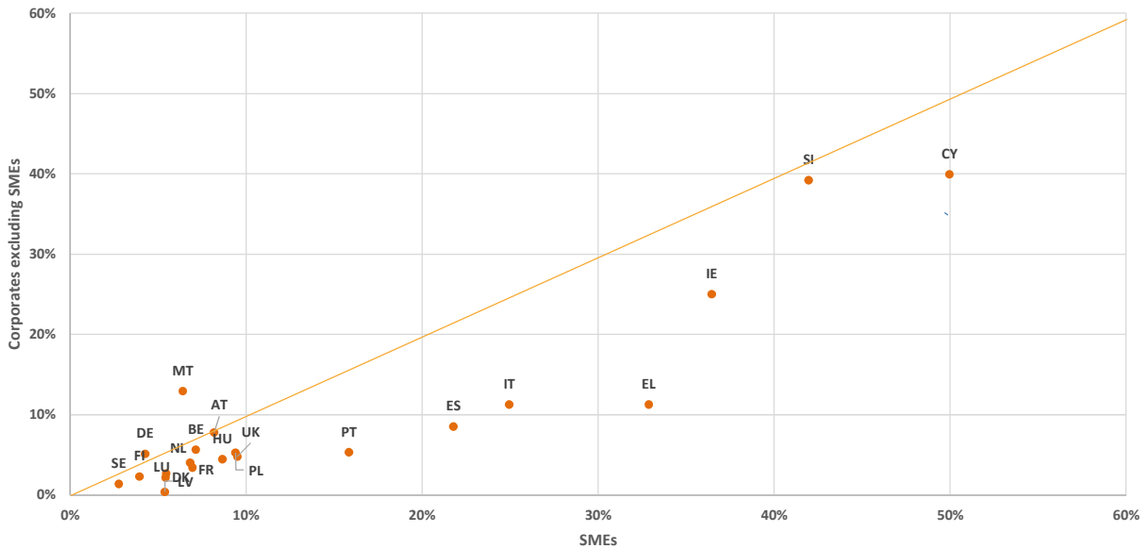
Nonetheless, information about the overall volume of non-performing SME loans in the total SME portfolio provides an indication of potential future stress in the SME sector. This is especially the case in Member States where the economy-wide ratio of non-performing SME loans to the total SME loan book is high, either by historical standards, or in comparison with the level of the same indicator in other Member States. Such information is provided in Table 7.

The data released by the European Banking Authority on the results of the 2014 bank stress tests provide the most comprehensive and comparable publicly available data on non-performing SME loans in the EU.

The main points to note from this exercise are the following:

- Across Member States the average rate of defaulted SME loans on the books of banks was 15% in 2013 compared to 10% for non-SME corporates.
- In all but 3 Member States (AT, DE, and MT) of the 21 Member States in which the stress testing was undertaken, the SME default rate was higher than the non-SME corporate default rate.
- The rate of SME loan default was less than 10% in all but seven Member States (CY, ES, EL, IT, IE, PT, and SI). The default rate in Portugal was 16%, whereas it exceeded 20% in the other six Member States, and reached as high as 50% in Cyprus. With the exception of Slovenia, in all these Member States with high SME loan default rates, the default rate of non-SME corporate loans was markedly lower than for SME loans.

Figure 68: Value of defaulted loans as a percentage of total value of loan book - 2013



Source: London Economics analysis of EBA 2014 EU-wide stress test results available at http://www.eba.europa.eu/risk-analysis-and-data/eu-wide-stress-testing/2014/results
Note: No data are available for Bulgaria, Czech Republic, Estonia, Lithuania, Romania, and Slovakia.

Data for a somewhat longer period are also available for a small number of Member States. While the definition of non-performing loans in this case is not harmonised across Member States, in three of the six Member States for which data are publicly available, the ratio of non-performing SME loans has been rising in recent years. In 2014 it ranged from 17% - 21% in Hungary, Italy, and Portugal (three Member States particularly affected by the economic crisis).

In contrast, the ratio was broadly stable at about 10% in Slovakia, whilst in Estonia it has been declining since 2010.

Table** 7: **Proportion of non-performing SME loans- selected Member States - 2007-2014

Member State	2007	2008	2009	2010	2011	2012	2013	2014
EE	0.9	3.6	7.4	8.2	6.3	5.2	3.3	3
FI	1.1	1.8	3.4	4	4.5	4.6	5.4	
HU		5.4	8.9	12.8	15.9	22.3	18.6	20.7
IT	6.8	7.3	8.5	9.4	10.6	11.9	14.3	16.7
PT	2.2	2.9	5.0	5.4	8.2	12.2	15.6	17.3
SK						10.4	9.9	10.3

Sources: Bank of Estonia, Bank of Finland, Bank of Hungary, Bank of Italy, Bank of Portugal, National Bank of Slovakia

To summarise, the ratio of non-performing SME loans appears to be high in many of the Member States particularly hard hit by the economic crisis (CY, EL, ES, HU, IE, IT, PT and SI). This suggests that the SME sector in these countries may experience further high levels of involuntary SME business cessation if the economic outlook does not improve markedly over the coming years.

4.4 Challenges faced by re-starters

As part of the preparation of the 2016 SME Annual Report, twelve qualitative interviews were conducted with entrepreneurs who either voluntarily shut down their business because it was failing, or who underwent an

involuntary business cessation and subsequently re-started a business.[24] The purpose of these interviews was to identify the challenges the entrepreneurs faced in launching a new business venture after having 'failed'.

The detailed write-up of these interviews is provided in the companion Special Study and the main issues highlighted by these entrepreneurs are listed below.

The most commonly cited reasons for failure were the financial crisis and insufficient demand for the products/services offered, due to either pricing or fundamental issues with product design. Financing issues, which varied from the time required to attract investors and, more generally, to being able to attract and maintain sufficient investment, were also commonly reported.

Entrepreneurs also criticised both the lack of transparency and the time required to undertake bankruptcy proceedings. They also cited unexpected fees and difficulties in dealing with banks and insolvency administrators.

Entrepreneurs also mentioned difficulties accessing financing during bankruptcy and a common suggestion for improvement was that more funding should be provided to entrepreneurs. More generally, the case studies highlight that, although the perception of failed entrepreneurs is improving, more progress still needs to be made.

One of the issues highlighted by a number of the business re-starters interviewed for the study is the difficulty in obtaining finance, especially bank credit, after bankruptcy.

In order to obtain more information about this issue, a short survey was conducted of national banking associations (and some lenders) to gather information on the impact of bankruptcy on the availability and cost of bank credit.

The results suggest that in many instances it would be difficult for an entrepreneur, whose previous business went bankrupt, to obtain unsecured bank credit and, to a lesser extent, to obtain secured credit.

4.5 Why do the features of the bankruptcy regime matter?

The preceding discussion highlighted the fact that, each year, numerous businesses, especially young businesses and small businesses, cease to operate, often involuntarily. Moreover, entrepreneurs who wish to launch a new business, following a business failure, face numerous challenges in doing so.

Obviously, the closing down of failed businesses is an intrinsic part of a dynamic economy. However, a 'punitive' bankruptcy regime may entail high opportunity costs in terms of lost economic and employment growth, because such a regime deters first-time entrepreneurs from ever starting a business, and also prevents honest entrepreneurs, whose businesses went bankrupt, from starting a new business.[25]

The SBA second chance principle aims to limit the potential negative effects of bankruptcy by ensuring, first of all, that businesses running into problems do not end up bankrupt, and secondly, that honest entrepreneurs, whose businesses went bankrupt, can start a new business if they so wish.

This section provides a summary of a statistical analysis of the impact of specific features of bankruptcy regimes on entrepreneurship and economic growth and the subsequent section reviews briefly the current state of implementation of the SBA second chance principle.

The starting point of the statistical analysis undertaken for this year's Annual Report is an academic study by Armour and Cumming (2008)[26]. It is the only study which focuses on Europe (and a few non-European countries) and covers the period 1990 to 2005. The empirical analysis for the 2016 SME Annual Report updates the Armour and Cumming analysis to 2015 and covers all EU28 Member States. The results of the empirical analysis undertaken for the 2016 Annual Report and the data used in the empirical analysis are described in detail in the Special Study document accompanying the present report.

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[24] The 12 case studies cover a range of countries (CH, EI, ES, FR, IE, HU and UK) and sectors (construction, manufacturing, ITC, retail trade, printing and transport) and are presented in detail in the companion Special Study document.
[25] The academic literature reviewed in the companion Special Study consistently stresses these two points.
[26] Armour, J. and Cumming, D. (2008), *Bankruptcy Law and Entrepreneurship, American Law and Economics Review, V10 N2 2008, pp. 303–350.*

The features of the national bankruptcy regime covered by the Armour and Cumming analysis are the following:

- Availability of discharge from bankruptcy (yes or no).
- Length of discharge period (in countries where no discharge is possible, Armour and Cumming use the average life expectancy of entrepreneurs as a proxy).
- Generosity of exemptions from a bankrupt's assets.
- Impact on the bankrupt's civil and economic rights, such as voting rights, or the ability to open a bank account.
- Level of difficulty faced by the debtor in agreeing discharge with creditors.

In addition, Armour and Cumming take account of the following factors which may also influence the level of entrepreneurship:

- Minimum capital requirements for creating a limited liability company - the lower the requirements, the less incentive there is to create a business which is not incorporated and the more incentive there is to become self-employed.
- Real GDP growth – the higher (lower) the rate of GDP growth is, the lower (higher) the incentives are for starting a business, because the labour market provides enough opportunities.
- Real R&D growth – strong growth in R&D is likely to stimulate entrepreneurship as more funding is expected to be available for start-ups as well.
- Stock market growth - strong growth in the stock market is expected to stimulate entrepreneurship, because it becomes easier to bring new companies to the stock market (IPOs).
- Income taxes – high taxes on wages may stimulate entrepreneurship because there is an incentive to earn non-wage income such as dividends.

The Armour and Cumming model was originally estimated for the period 1990 to 2005, and the countries covered by the authors' analysis are Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Spain, Sweden, United Kingdom, and USA.

The key conclusions of the original study are that:

- The extent to which a bankruptcy regime is 'punitive' is the most significant factor, statistically and economically, in explaining differences in the level of entrepreneurship across the 15 countries, and matters more than economic determinants such as GDP growth and stock market returns.
- With regard to the discharge period and being able to start afresh relatively quickly, a move from the least generous regime (no discharge) to the most generous regime (immediate discharge), is associated with an increase in the average ratio of self-employment to total employment of around 3.8%.
- High minimum capital requirements are negatively associated with self-employment, and the combined effect of high minimum capital requirements and a highly 'punitive' bankruptcy regime is particularly negative for self-employment.

The data on features of bankruptcy regimes in the various Member States, which were required for the update of the original study, were provided by the PwC Network of Insolvency Experts, and the empirical analysis covers the period 1995 to 2005.

The findings from the analysis using the updated data are similar to those of the original study. A reduction in the discharge period increases the share of self-employment in total employment (see Special Study companion document for detailed estimations).

The updated model which, like Armour and Cumming, focused on self-employment as a proxy of entrepreneurship, was also re-estimated using the number of new enterprises[27] as an indicator of entrepreneurship.

The econometric results indicate that reducing the number of years to discharge could potentially increase the number of new businesses throughout the EU.

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[27] *This measure is a gross measure of new enterprises created each year. It is higher than the annual change in the number of enterprises, because the latter measure is a net measure, which is equal to the difference between the number of businesses created and the number of businesses closed down each year.*

In the Special Study companion document, two impacts are estimated, namely: the impact of reducing the current level of discharge years to the level suggested by Second Chance (i.e. 3 years), and also the impact of reducing the current level of discharge years even further to one year.

As shown in the Special Study companion document, some countries already had in 2015 a discharge period of less than 3 years, and, in some instances, the period was even shorter: one year or less. This is the case of Belgium (less than 1), Bulgaria (1), Denmark (3), Estonia (3), France (3), Ireland (3), Latvia (3), the Netherlands (3), Poland (1), Slovakia (3) and the United Kingdom (1).

In contrast, in a number of countries, bankrupt entrepreneurs have no possibility to shed eventually their bankrupt status (Cyprus, Greece, Hungary, Italy, Lithuania, Malta, Portugal and Romania) as no discharge exists.

The estimated impact of the length of the discharge period on the creation of new businesses reflects two different factors.

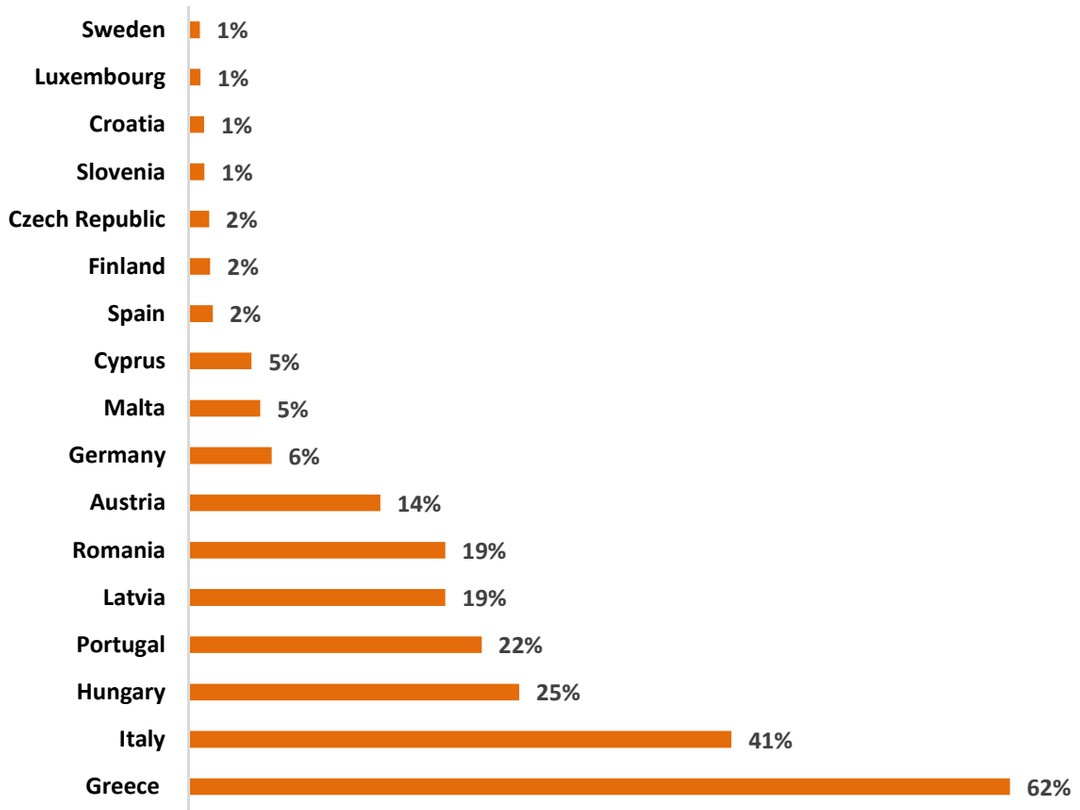
A shorter discharge period:

- is less likely to deter potential new entrepreneurs from starting a business.
- allows honest entrepreneurs, whose businesses have failed, to start up a new business relatively quickly.

In countries which already have short discharge periods, it is likely that any further reduction would result in only marginal growth in entrepreneurship. For example, for an economy like France, reducing the discharge period from 3 years to less than one year would result in an estimated annual increase in new businesses of only 4%.

At the other end of the spectrum, Member States where no discharge is possible could greatly benefit from implementing the SBA second chance recommendation that the discharge period be 3 years (see figure 69).

Figure 69: Percentage increase in the number of new enterprises if the discharge period is reduced to 3 years in Member States where the discharge period is currently greater than 3 years

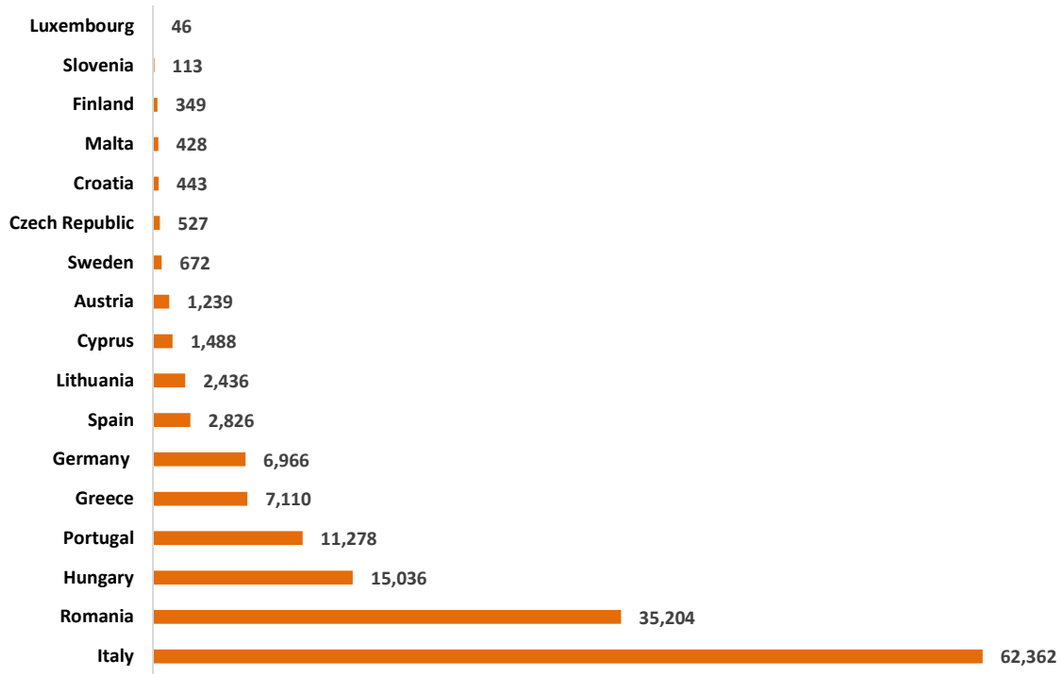


Source: London Economics analysis
Note: Countries which already have a discharge period of less than three years (Belgium, Bulgaria, Denmark, Estonia, France, Ireland, Latvia, Netherlands, Poland, Slovakia and United Kingdom) are excluded from the figure above.

If all the Member States where the discharge period is currently greater than 3 years adopted a 3-year discharge period, the average number of new SME businesses[28] created each year would increase by 5.6%.

[28] This assumes that all newly created businesses are SMEs since it is unlikely that a newly created company would have 250 or more employees, the criteria for being classified as a large enterprise.

Figure 70: Increase in the number of jobs if the discharge period is reduced to 3 years in Member States where the discharge period is currently greater than 3 years



Source: London Economics analysis
Notes: Countries which already have a discharge period of less than three years (Belgium, Bulgaria, Denmark, Estonia, France, Ireland, Latvia, Netherlands, Poland, Slovakia and United Kingdom) are excluded from the figure above.
For each Member State, this result assumes that the average number of employees per new firm is equal to the weighted average of employees per firm which were created in the latest year for which data is available from the Eurostat business demography statistics. Estimates are weighted as Eurostat provides firm size data by size class: in turn, the median value of the size class was generally considered. Firms with 10 or more employees were assumed to have 10 employees only as only a small number of newly created firms will have a workforce large than 10. As Greece is not included in this database, it was assumed that Greece had the same average number of employees per firm created than the EU average.

The impact of this annual growth in new enterprises on employment would be twofold:

There would be a direct impact, which would be the increase in employment directly due to the new enterprises.

There would be an indirect impact, which would be the increase in employment due to the impact of enterprise growth on the wider economy.

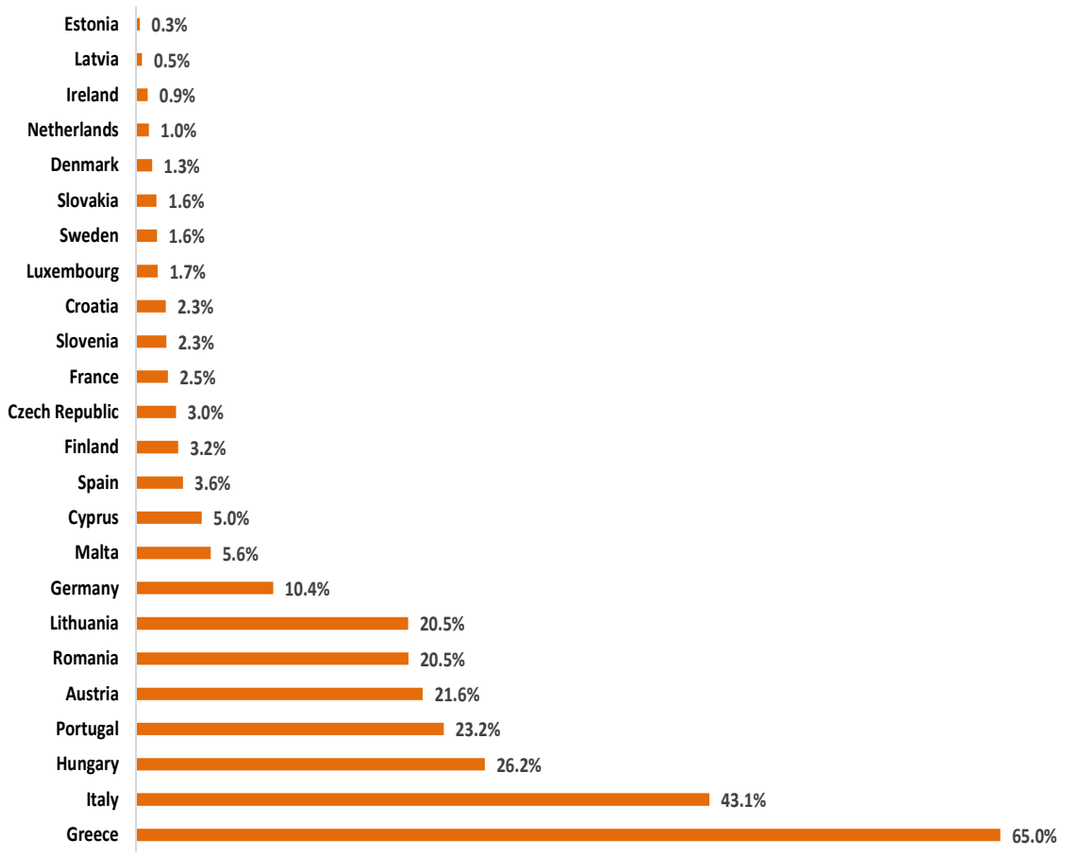
Considering the direct impact of new enterprises on employment only, employment in new SME businesses would rise by an additional 4.4% each year.[29] However, as only the direct impact on employment in new SME businesses is accounted for, this should be considered an underestimate.

Considering the overall economy, assuming a mortality rate of 20% of these additional SMEs, this is equivalent to an additional increase each year in total enterprises of 0.3% and in employment of 0.1%.
In levels, in the first year of growth, this translates into the creation of 75,021 additional EU28 SME businesses providing jobs to 148,521 individuals.

If instead of implementing the SBA second chance recommendation that the discharge period be 3 years, Member States, where the discharge period is currently greater than a year, adopted a 1-year discharge period then the impact of enterprises would be even larger as shown by Figure 69 below.

[29] For each Member State, this result assumes that the average number of employees per new firm is equal to the weighted average of employees per firm which were created in the latest year for which data is available from the Eurostat business demography statistics. Estimates are weighted as Eurostat provides firm size data by size class: in turn, the median value of the size class was generally considered. Firms with 10 or more employees were assumed to have 10 employees only as only a small number of newly created firms will have a workforce large than 10. As Greece is not included in this database, it was assumed that Greece had the same average number of employees per firm created than the EU average.

Figure 71: Percentage increase in the number of new enterprises if the discharge period is reduced to a year in Member States where the discharge period is currently greater than a year

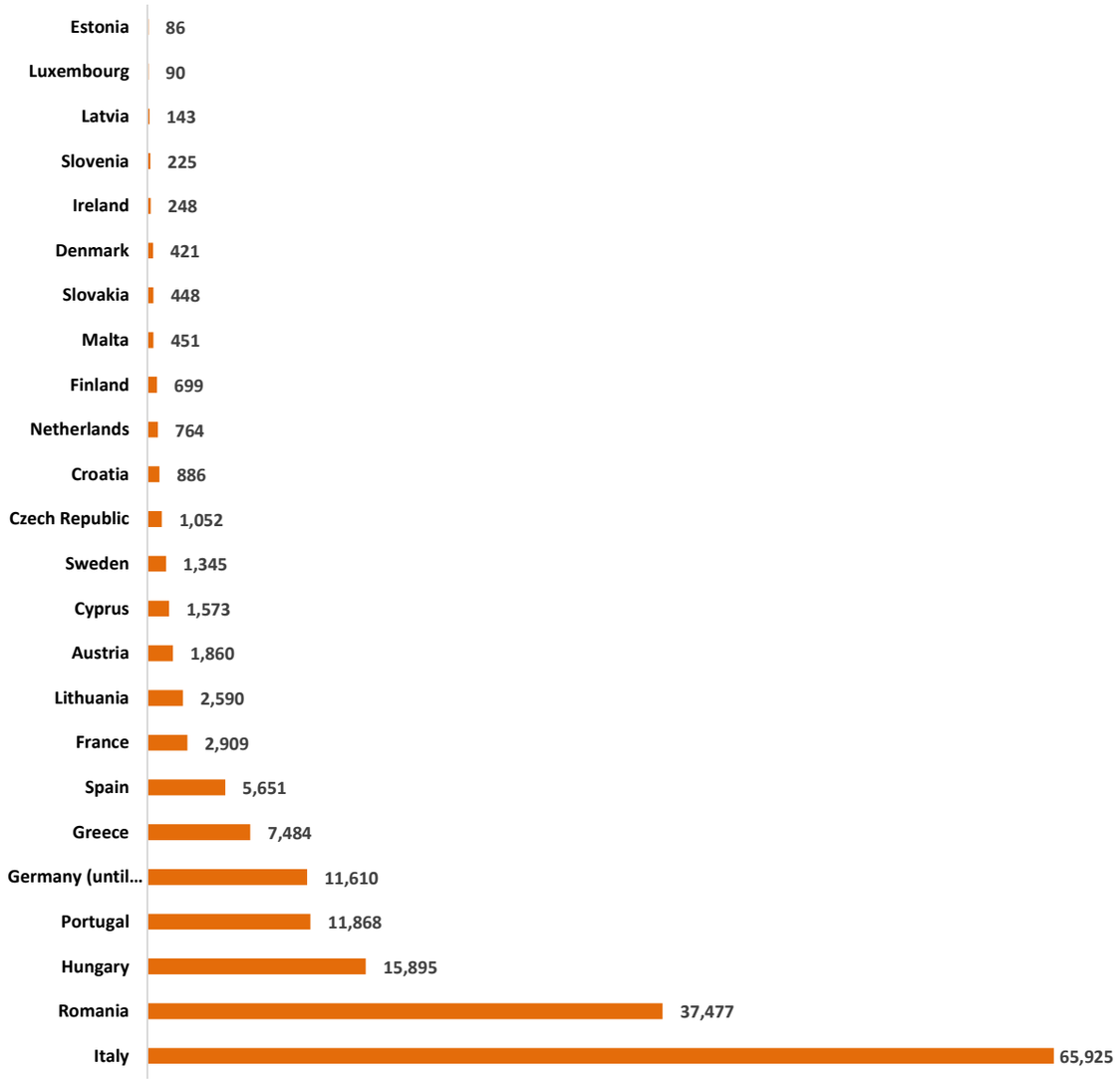


Source: London Economics analysis
Note: Belgium, the UK, Bulgaria and Poland are excluded from the figure above as they already have a discharge period of 1 year or less.

Indeed, if all the Member States where the discharge period is currently greater than a year adopted a 1-year discharge period, the average number of new SME businesses[30] created would be 6.6% higher each year.

[30] This assumes that all newly created businesses are SMEs since it is unlikely that a newly created company would have 250 or more employees, the criteria for being classified as a large enterprise.

Figure 72: Increase in the number of new jobs if the discharge period is reduced to less than a year in Member States where the discharge period is currently greater than a year



Source: London Economics analysis
Note: Belgium, the UK, Bulgaria and Poland are excluded from the figure above as they already have a discharge period of 1 year or less. For each Member State, this result assumes that the average number of employees per new firm is equal to the weighted average of employees per firm which were created in the latest year for which data is available from the Eurostat business demography statistics. Estimates are weighted as Eurostat provides firm size data by size class: in turn, the median value of the size class was generally considered. Firms with 10 or more employees were assumed to have 10 employees only as only a small number of newly created firms will have a workforce large than 10. As Greece is not included in this database, it was assumed that Greece had the same average number of employees per firm created than the EU average.

Considering only the direct impact of new enterprises on employment, employment in new SME businesses would rise by an additional 5.1% each year.[31]

Considering the overall economy, assuming a mortality rate of 20% of these additional SMEs, this is equivalent to an additional annual increase in total enterprises of 0.3% and of a 0.1% increase in employment.

In levels, in the first year of growth, this would translate into the creation of 88,422 additional EU28 SME businesses each year providing jobs for 171,699 employees.

[31] See footnotes 29 and 30.

4.6 Entrepreneurship and economic growth

In order to assess the potential impact of an increased number of SME enterprises on EU28 GDP (at constant prices), a simple vector autoregression (VAR) was run for the EU28 economy as a whole.[32] The variables used in the VAR model were EU28 GDP, EU28 economy-wide employment levels, and the number of SME enterprises in the EU28. The model was estimated over the period Q1 2005 to Q4 2015.

Detailed estimations and analysis of the empirical results are provided in the Special Study accompanying the 2016 SME Annual Report.

The key estimates of the VAR model show that, in the long run, an increase of 1% in the number of enterprises[33] results in an increase of 3% in GDP at constant prices. However, the confidence interval[34] around this 3% estimate is relatively large, and the effect on GDP at constant prices could be as low as 0.7% or as high as 5.9%.

The combination of the previously-reported impact on the number of newly created businesses arising from a reduction in the discharge period to three years in all the countries where it still exceeds this period and the estimated impact of an increase in the number of new enterprises on GDP yields the result that the level of EU28 GDP (at constant prices) will experience an additional annual increase of between 0.2% and 2.1% in the long run, with the central estimate being 1.0%.[35]

The degree of uncertainty surrounding this estimate is high, and therefore the figure should be more viewed more as an illustration of the likely effect of reducing the discharge period, rather than as a precise forecast. Nevertheless, it highlights the far from insignificant fact that the opportunity costs of punitive bankruptcy regimes, in terms of foregone output of punitive bankruptcy regimes is far from insignificant.

4.7 Implementation of the SBA second chance principle

The previous sections have highlighted the fact that many SMEs have undergone an involuntary business cessation procedure in recent years and that, in some countries (especially in countries were the share of non-performing SME loans in total SME loan book is high), the SME sector may continue to experience a high level of such procedures. This in itself will tend to dampen economic activity.

More importantly, the key findings of the consultations with business re-starters, along with the results of the survey of national banking associations, suggest that business re-starters face many challenges in launching a new business after a 'failure'.

Moreover, the statistical analysis highlights the fact that the 'harshness' of a bankruptcy regime has a detrimental impact on entrepreneurship, and that reducing the discharge period in particular would have a stimulative effect on economic growth and, therefore, on employment.

The SBA second chance principle specifically recognises these economic and social costs of bankruptcies and aims to:

- prevent bankruptcies, by taking timely measures to stop businesses from falling into situations in which cessation, voluntary or involuntary, is unavoidable; and,
- ensure that honest entrepreneurs, whose previous businesses have gone bankrupt, do not face unsurmountable obstacles in starting a new business.

Although the benefits of reducing the harshness of a bankruptcy regime are clear, and the requisite policy measures do not imply a large drain on the public purse, progress in implementing the SBA second chance principle has been very slow.

---

[32] A VAR model aims to explain simultaneous movements of each variable in the model by changes in the contemporaneous and lagged values of all the other variables in the model and also changes in the lagged values of the variable itself.
[33] After a sustained period.
In the case of a reduction of the discharge period to 3 years, it would take 4 years for a 1% increase to be achieved. In the case of a reduction of the discharge period to 1 year, it would take 3 years for a 1% increase to be achieved.
[34] The confidence interval is the range a predicted value can take with the same statistical probability.
[35] The change in GDP will be annual as decreasing the discharge period will lead to an annual increase in the number of enterprises.

This may be due to concerns that relaxing the bankruptcy regime may potentially increase the incidence of fraudulent bankruptcies. As a result, providers of finance of SMEs may view SMEs as being more risky more generally and curtail SME financing.

In fact, this year's SBA review[36] shows, among other findings, that (see table below):

- in only slightly more than half of Member States can discharge from bankruptcy be achieved in 3 years or less;
- only half of Member States treat business re-starters on an equal footing with new start-ups and;
- less than half of Member States have implemented all the other SBA second chance policy measures.

Above all, it is noteworthy that since 2008, out of all the SBA principles, it is the SBA second chance principle which has shown least progress in being implemented.

Table 8: State of implementation of SBA second chance principle - 2016

Policy measures of SBA second chance principle	Number of Member States having implemented second chance policy measure in 2016
Are legal procedures connected to bankruptcy completed within a year?	10
Is discharge from bankruptcy achieved in a maximum of three years?	15
Are business re-starters (entrepreneurs who have undergone non-fraudulent bankruptcy) treated on an equal footing with new start-ups?	14
Are there national information campaigns (or other measures, such as training, information sessions on procedures, etc.) aimed at reducing the stigma of failure?	5
Is there the possibility of automatic discharge for honest entrepreneurs after liquidation?	6
Are there fast-track and specific procedures in place for SMEs?	6
Are there early warning and help-desk mechanisms in place to prevent or coach entrepreneurs going into bankruptcy?	12

Source: European Commission (2016) 2016 EU28 SBA Fact Sheet

[36] See European Commission (2017) *2017 EU28 SBA Fact Sheet.*

Source: Amy Johansson / Shutterstock

5. Conclusions and Recommendations

SMEs accounted for most of the growth in valued added and employment in the EU non-financial business sector in 2014 and 2015.

This fact alone warrants paying considerable policy attention to SMEs to ensure that they can thrive. In this regard, it is important to note that most SMEs focus on their domestic market, and among those SMEs engaged in export activities, the EU is typically the most important export market.

The population of EU SMEs, particular micro SMEs, changes constantly, with many new businesses being born every year, and many ceasing to operate. In particular, young and small firms show high mortality rates.

The 2014-2015 SME Annual Report found that in recent years young SMEs created jobs (on a net basis), and the EU needs more young firms to create jobs. There are now no major differences between the EU and the USA as regards new firm creation. Start-ups are key contributors to the innovation and growth dynamics of the EU economy. However, many young enterprises fail in their early years and barriers to starting afresh dampen the potential gains that a strong start-up culture could yield. Public policies supporting more start-up dynamism through second chance will go some way towards improving the environment for start-ups and strengthening the overall employment creation performance of SMEs.

In general, an economy benefits from a dynamic and constantly changing SME population, in which new products and services are brought to market by new businesses, and firms which are unable to operate on a sustainable basis cease to operate.

Business cessations are often involuntarily, resulting from creditor action to fully or partially recover debts. Bankruptcy procedures and similar involuntary business cessation procedures provide the legal framework for winding down such failing businesses.

However, as shown in the report and the companion Special Study, the characteristics of national bankruptcy regimes vary considerably in terms of how punitive the regime is for 'honest' entrepreneurs, whose businesses have gone into bankruptcy.

Such diversity of regimes reflects a variety of factors, such as differences in legal systems, historical experience with particular procedures, and societal views of bankrupt entrepreneurs. Although the differences in the specific features of national bankruptcy regimes are generally understandable, it is important to note that more punitive regimes are likely to:

- deter potential entrepreneurs from starting a new business, due to their unwillingness to risk the potential consequences of bankruptcy.
- prevent honest entrepreneurs, whose businesses have failed, from starting a new business.

As a result, economies with more punitive bankruptcy regimes forego the potential growth in value added and employment which could have been created by entrepreneurs who are currently deterred or prevented from starting new businesses.

In particular, the results of the statistical analysis presented in this report show that the longer the discharge period lasts, the more negative and significant is the impact on the level of entrepreneurship and the creation of new businesses. In turn, this lower level of entrepreneurship and business creation holds back economy-wide output growth and employment creation.

For example, if all the Member States in which the discharge period currently exceeds 3 years reduced the period to a maximum of 3 years, in the long run, the level of EU28 GDP (at constant prices) could increase by about 1.0% annually. However, the degree of uncertainty surrounding this estimate is high, and therefore the figure should be viewed more as an illustration of the likely effect of reducing the discharge period, rather than as a precise forecast. Nevertheless, it highlights the far from insignificant opportunity costs of punitive bankruptcy regimes, in terms of foregone output and employment.

The SBA second chance principle specifically recognises these economic and social costs of bankruptcies, and aims to:

- prevent bankruptcies, by taking timely measures to stop businesses from falling into situations in which cessation, voluntary or involuntary, is unavoidable; and
- ensure that honest entrepreneurs, whose previous businesses have gone bankrupt, do not face unsurmountable obstacles in starting a new business.

Although the benefits of reducing the harshness of a bankruptcy regime are clear, and the requisite policy measures do not imply a large drain on the public purse, progress in implementing the SBA second chance principle has been very slow.

In fact, this year's SBA review shows, among other findings, that:

- in only slightly more than half of Member States can discharge from bankruptcy be achieved in 3 years or less;
- only half of Member States treat business re-starters on an equal footing with new start-ups;
- less than half of Member States have implemented all the other SBA second chance policy measures.

Above all, it is noteworthy that since 2008, out of all the SBA principles, it is the SBA second chance principle which has shown least progress in being implemented.

In conclusion, a very clear key policy message shines out from both the analysis in the present report and the parallel assessment of the implementation of the SBA: policy action is urgently required by all those Member States which have not yet fully implemented the SBA second chance principle. The fiscal cost to Member States would be nil or very small, whereas the resulting benefits, in terms of output and employment, are likely to be economically significant.

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III. DEFINITIONS AND ADDITIONAL TABLES, GRAPHS, AND CHARTS

III.1. SMEs in the EU28 in 2015

Table 9: SMEs and large enterprises: number of enterprises, employment, and value added in the EU28 in 2015

	Micro	Small	Medium	SME	Large	Total
Enterprises						
Number	21,356,252	1,378,702	224,647	22,959,600	44,458	23,004,059
%	92.80%	6.00%	1.00%	99.80%	0.20%	100.00%
Persons Employed						
Number	40,057,408	27,503,428	23,170,352	90,731,192	45,168,732	135,899,904
%	29.50%	20.20%	17.00%	66.80%	33.20%	100.00%
Value Added						
EUR Billion	1,453,926	1,233,270	1,250,907	3,938,103	2,923,873	6,861,976
%	21.20%	18.00%	18.20%	57.40%	42.60%	100.00%

Source: Eurostat, National Statistical Offices, and DIW Econ

III.2. Share of SME employment, enterprises and value added in the total non-financial business economy in 2015

At the Member State level, it is possible to distinguish differences across countries in the shares of SME employment, enterprises and value added in the total non-financial business sector.

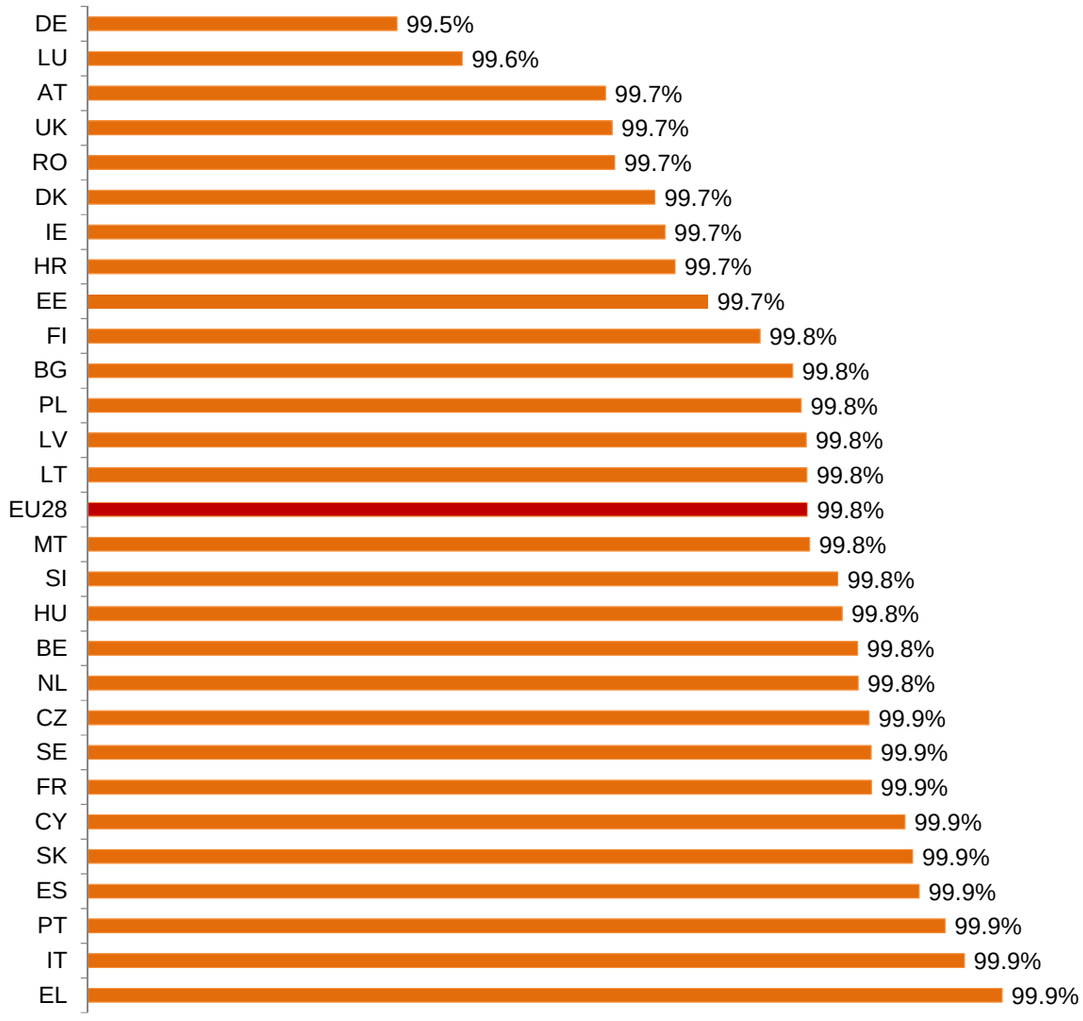
There are nine Member States in which SMEs account for over 75% of employment. These are either Southern or Eastern European countries (Greece, Cyprus, Malta, Italy, Poland, Latvia, Estonia, Lithuania and Bulgaria)

There are three Member States where SMEs account for less than 65% of employment (United Kingdom, Germany and France)

As to value added, SMEs contribute 50% or more of the value added generated by the non-financial business sector in all Member States with the exception of Ireland where only 47% of value added is contributed by SMEs. There are a further five Member States where less than 55% of value added is contributed by SMEs: Romania, United Kingdom, Hungary, Poland and Germany.

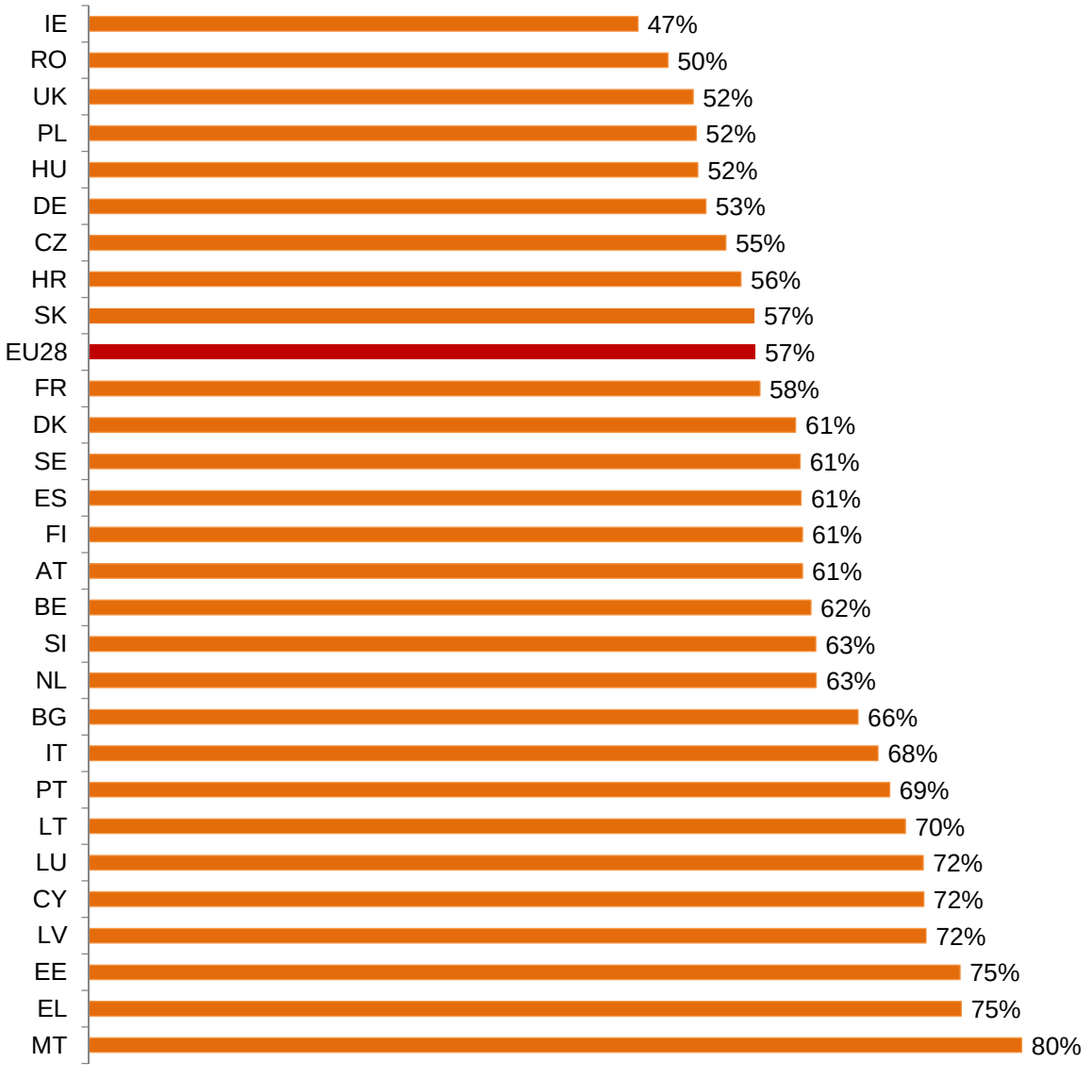
On the other end of the spectrum, there are seven countries where SMEs account for 70% or more of value added the non-financial business sector. These countries are Malta, Greece, Estonia, Latvia, Cyprus, Luxembourg and Lithuania.

Figure 73: Relative contribution of SMEs to total non-financial business sector enterprises across EU28 Member States in 2015



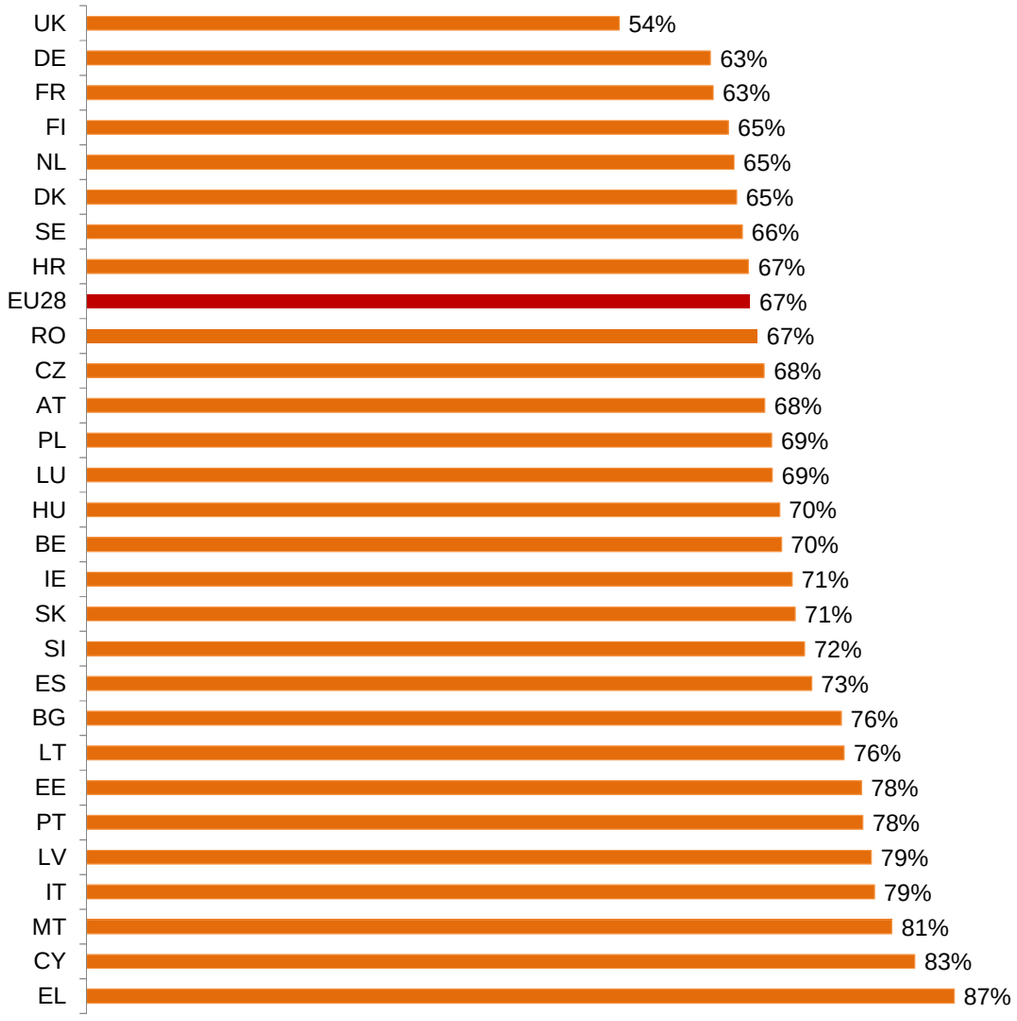
Source: Eurostat, National Statistical Offices, and DIW Econ

Figure 74: Relative contribution of SMEs to total non-financial business sector value added across EU28 Member States in 2015



Source: Eurostat, National Statistical Offices, and DIW Econ

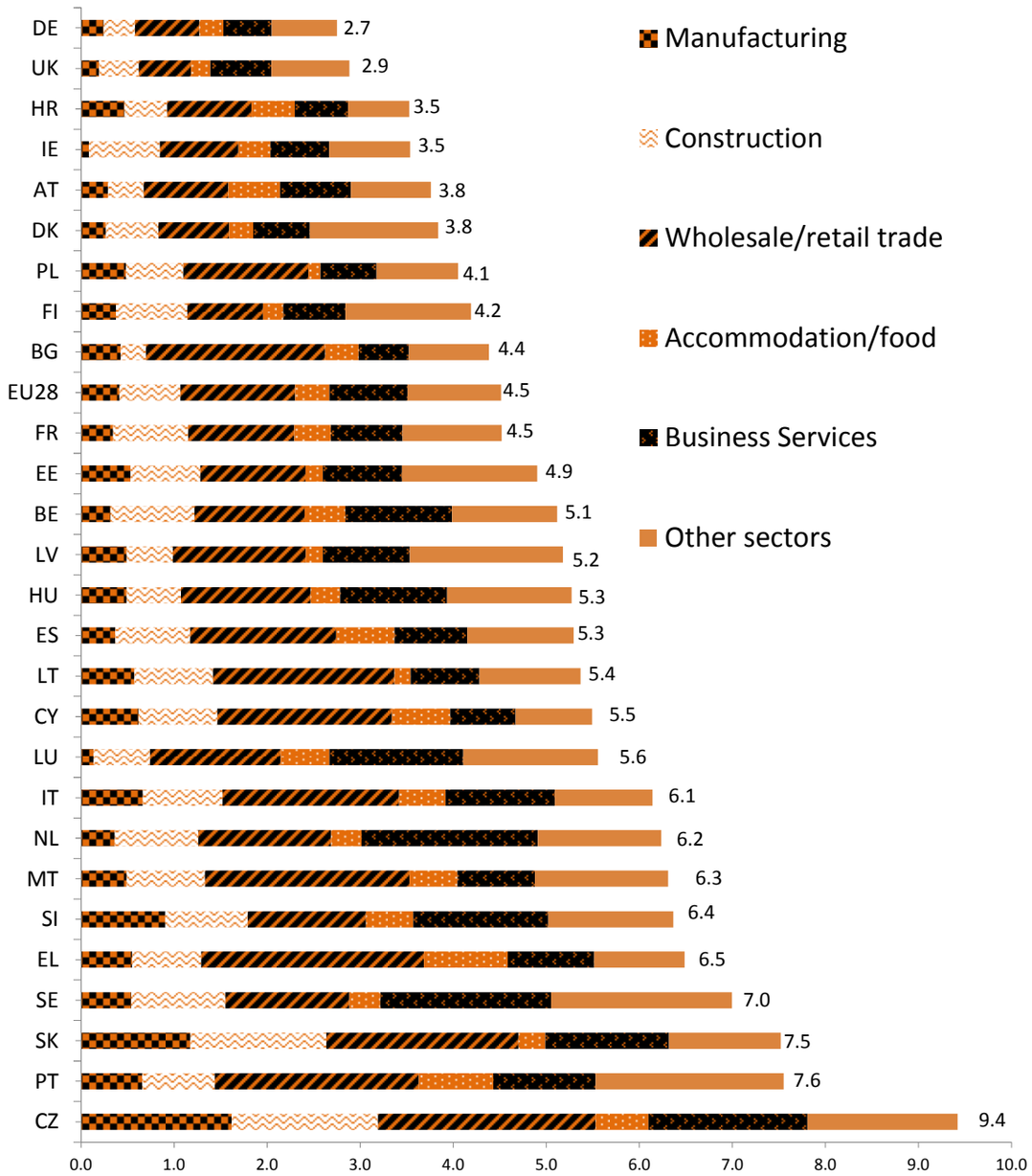
Figure 75: Relative contribution of SMEs to total non-financial business sector employment across EU28 Member States in 2015



Source: Eurostat, National Statistical Offices, and DIW Econ

III.3. Density of enterprises by sector

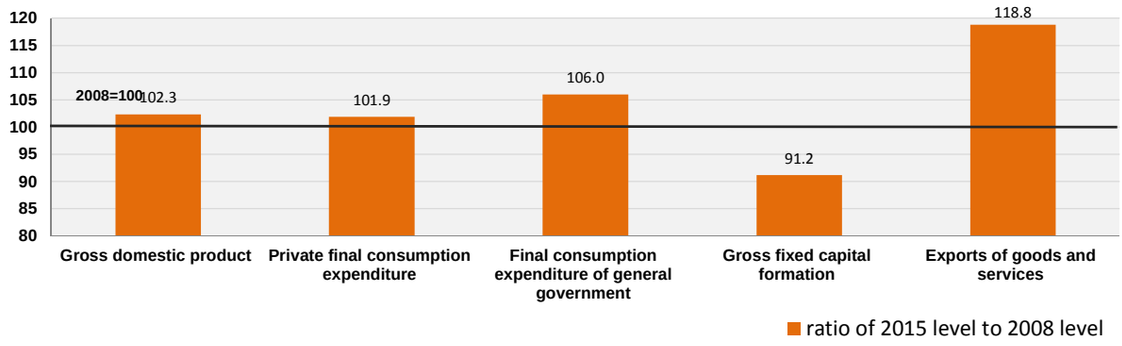
Figure 76: Number of SMEs per population in hundreds, by sector



Source: Eurostat, National Statistical Offices and DIW Econ

III.4. Recent developments in macroeconomic conditions

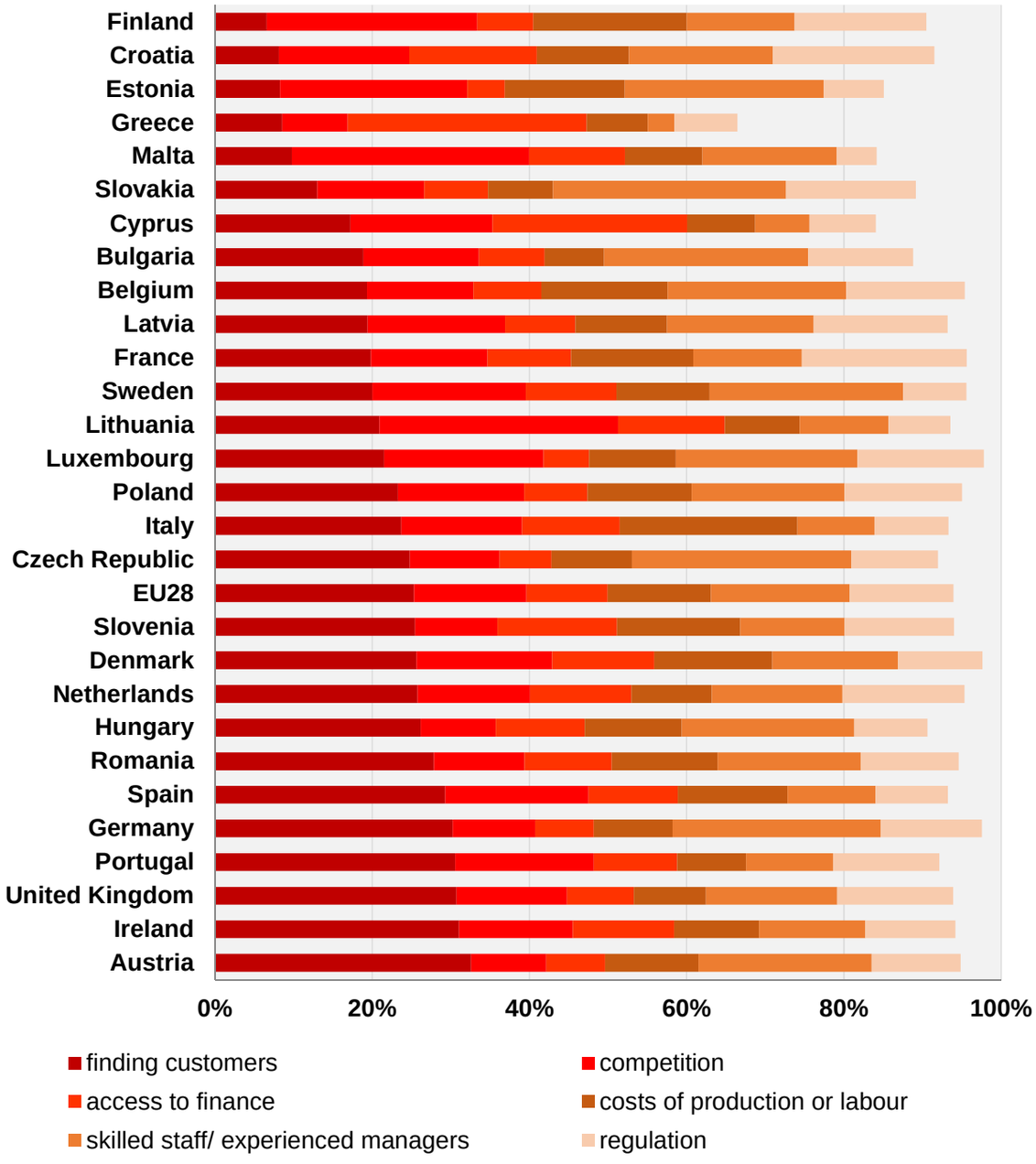
Figure 77: Extent of recovery in aggregate demand components at the EU28 level, 2015



Source: Ameco

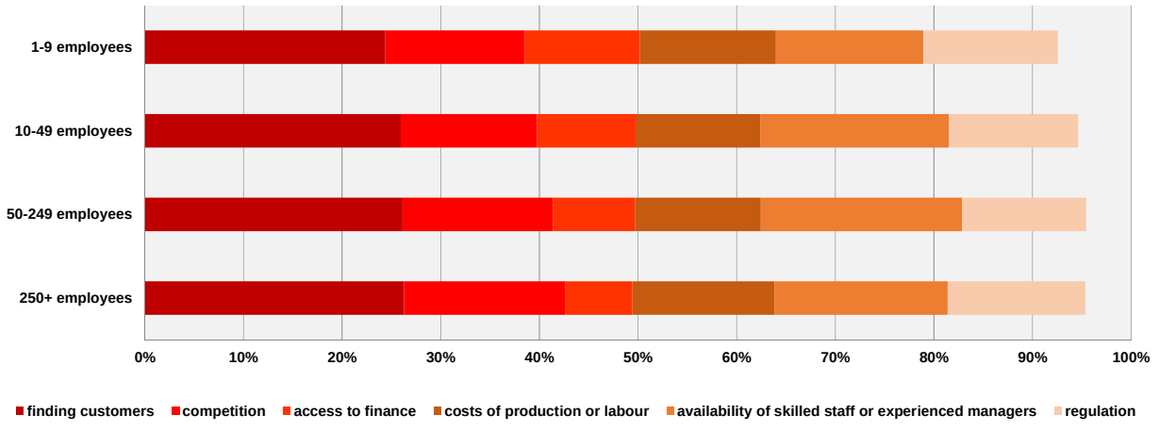
III.5. Additional results from the Survey on Access to Finance (SAFE)

Figure 78: Most pressing problems faced by SMEs – results of the SAFE 2015 wave by EU28 Member State.



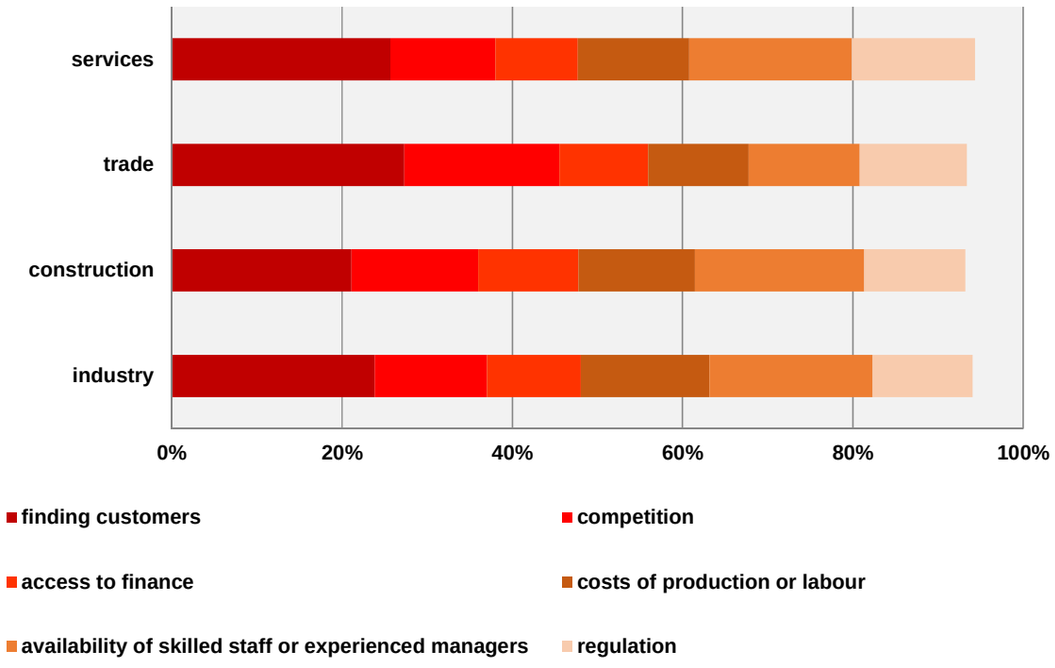
Source: SAFE survey 2015

Figure 79: Most pressing problems faced by SMEs and large enterprises – results of the SAFE 2015 wave by size class



Source: SAFE survey 2015.

Figure 80: Most pressing problems faced by SMEs– results of the SAFE 2015 survey by sector

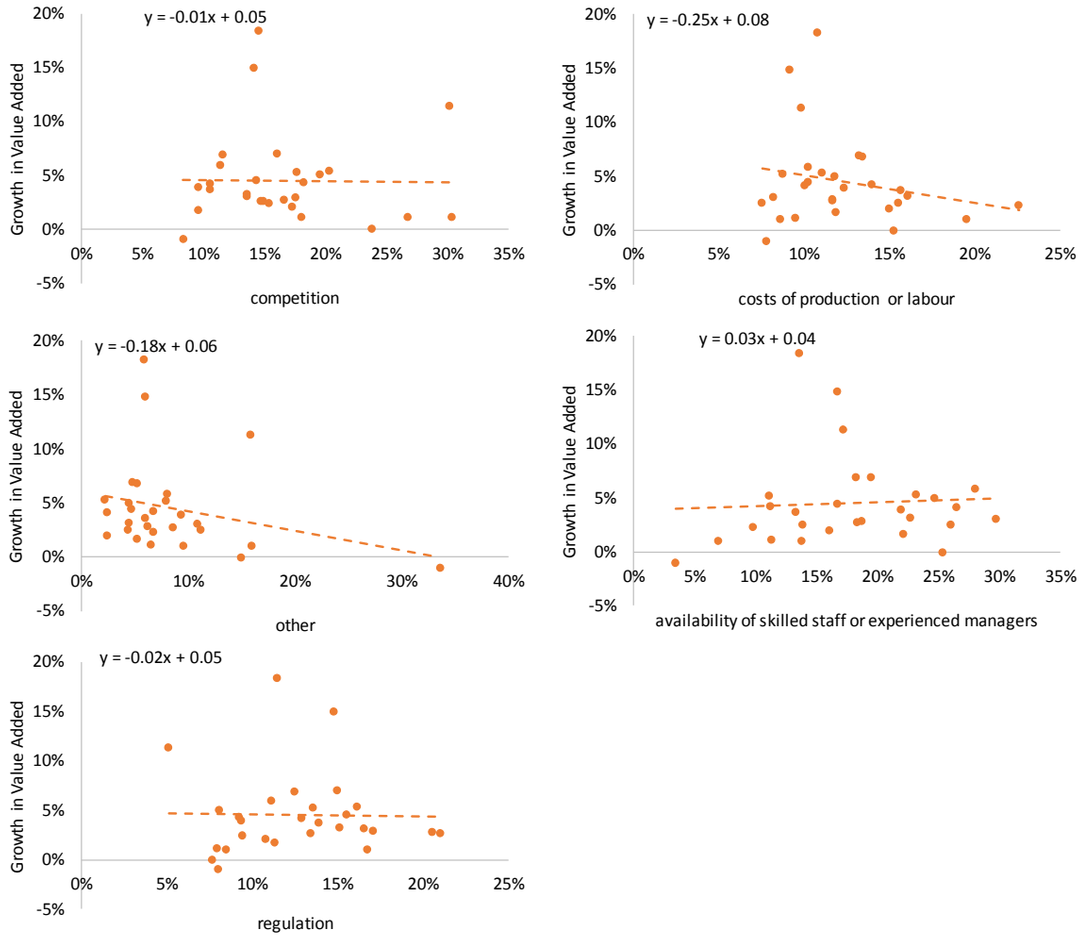


Source: SAFE survey 2015.

Figure 81: Relationship between growth in value added in 2015 and most pressing problems reported

The five figures below show for each problem the relationship (or lack of relationship) between growth in SME value added in 2015 and the percentage of respondents to the SAFE survey reporting the particular issue as the most pressing problem in each Member States.

Each dot on a figure represents a Member State. The figures also show the estimated relationship between growth in value added (the y variable) and the percentage of respondents reporting the issue as a most pressing problem (the x variable).



Source: Safe Survey 2015 and DIW data.

Table 10: Most pressing problems faced by SMEs – correlation matrix for EU28 SAFE survey results 2015

	finding customers	*competition*	*access to finance*	*costs of production or labour*	*availability of skilled staff or experienced managers*	*regulation*	*other*
Correlation between different pressing issues							
finding customers	-						
competition	-0.5	-					
access to finance	-0.2	-0.2	-				
costs of production or labour	-0.1	0.1	-0.2	-			
availability of skilled staff or experienced managers	0.0	-0.1	-0.7	-0.1	-		
regulation	0.0	-0.2	-0.3	0.1	0.2	-	
other	-0.6	0.0	0.7	-0.3	-0.4	-0.4	-
Correlation between 2015 growth rates and pressing issues							
Value Added	0.4	0.0	-0.2	-0.2	0.1	0.0	-0.3
Enterprises	0.3	-0.3	0.0	-0.1	0.0	0.1	-0.1
Employment	0.3	-0.2	0.0	0.0	-0.2	0.2	-0.2
Correlation between levels and pressing issues							
Level of value added	0.4	-0.2	-0.2	0.1	0.0	0.2	-0.3
Level of Employment	0.4	-0.3	-0.2	0.2	0.0	0.1	-0.3

Source: London Economics based on SAFE survey 2015 and DIW data

III.6. Definition of Knowledge Intensive Services

The group of Knowledge intensive services is classified according to EUROSTAT and regroups the following service industries (NACE 2 classification):

High tech services:

- J59 Motion picture, video and television programme production, sound recording and music publishing activities
- J60 Programming and broadcasting services
- J61 Telecommunications
- J62 Computer programming, consultancy and related activities
- J63 Information service activities
- M72 Scientific research and development

Market services:

- H50 water transport
- H51 Air transport
- M69 legal and accounting activities
- M70 Activities of head offices, management consultancy activities
- M71 Architectural and engineering activities; technical testing and analysis
- M73 Advertising and market research
- M74 Other professional, scientific and professional services
- N78 Employment activities
- N80 Security and investigation activities

Other KIS

- J58 Publishing activities
- M75 Veterinary activities

The remaining sectors are part of the Less Knowledge Intensive Services and are allocated as follows:

- Market services
  - G45 Wholesale and retail trade and repair of motor vehicles and motorcycles
  - G46 Wholesale trade except of motor vehicles and motorcycles
  - G47 Retail trade, except of motor vehicles and motorcycle
  - H49 Land transport and transport via pipelines
  - H52 Warehousing and support activities for transportation
  - I55 Accommodation
  - I56 Food and beverage service activities
  - L68 Real estate activities
  - N77 Rental and leasing activities
  - N79 Travel agency, tour operator reservation service
  - N81 Services to buildings and landscape activities
  - N82, Office administrative, office support and other business support activities;

Other

- H53 Postal and courier activities.

III.7. Definition of High Tech (Manufacturing) Sectors

The group of manufacturing industries can be divided into:

High tech industries - manufacture of basic pharmaceutical products and pharmaceutical preparations (C21) and manufacture of computer, electronic and optical products (C26);

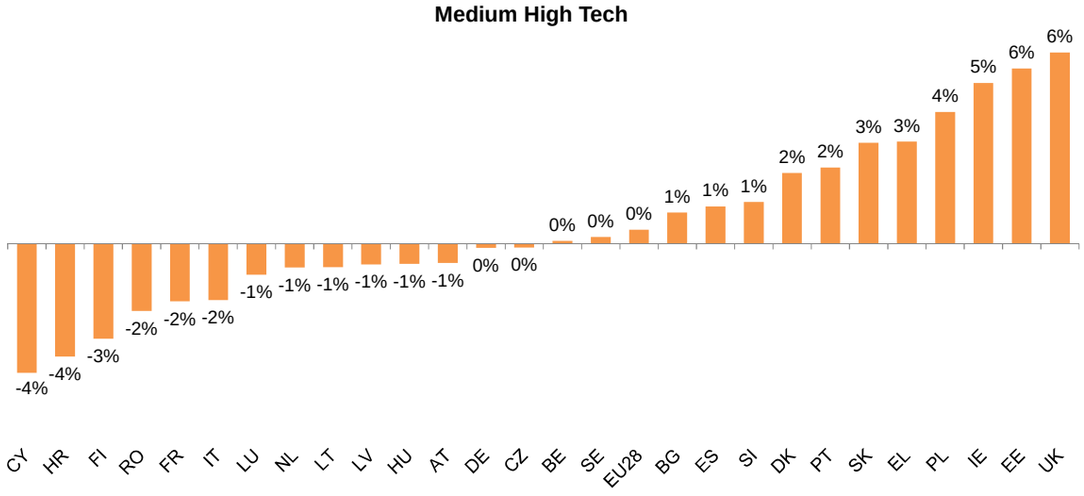
Medium-high-tech industries manufacture of chemicals and chemical products (C20), manufacture of electrical equipment (C27), manufacture of machinery and equipment n.e.c. (C28), manufacture of motor vehicles, trailers and semi-trailers (C29), manufacture of other transport equipment (C30);

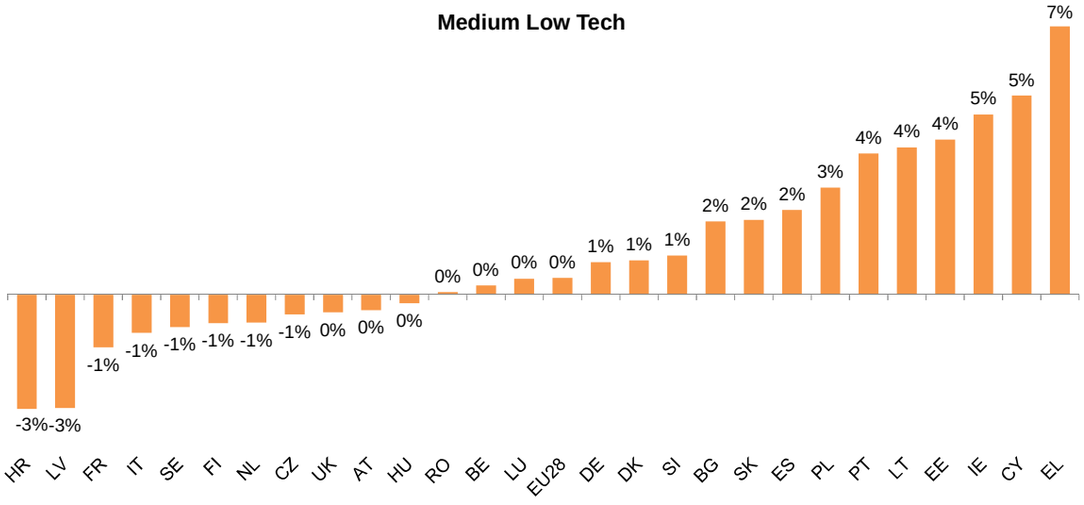
Medium-low-tech industries - manufacture of coke and refined petroleum products (C19), manufacture of rubber and plastic products (C22), manufacture of other non-metallic mineral products (C23), manufacture of

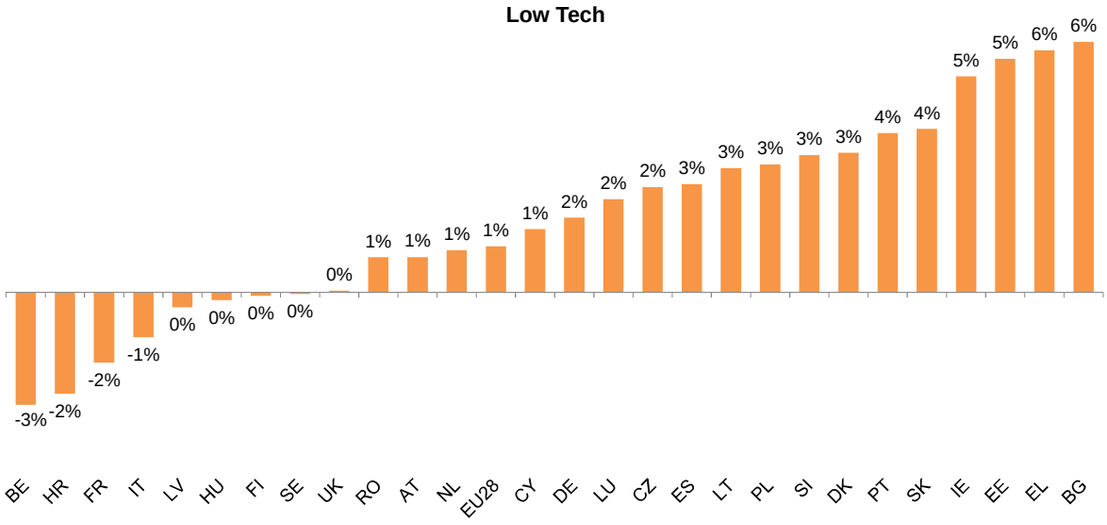
basic metals (C24), manufacture of fabricated metal products, except machinery and equipment (C25), repair and installation of machinery and equipment(C33);
Low-tech industries - manufacture of food products (C10), manufacture of beverages (C11), manufacture of tobacco products (C12), manufacture of textiles (C13), manufacture of wearing apparel (C14), manufacture of leather and related products (C15), manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials (C16), manufacture of paper and paper products (C17), printing and reproduction of recorded media (C18).

III.8. Employment growth by technology intensity of sectors at Member State level, 2015

Figure 82: SME employment growth in the medium-high, medium-low and low tech sectors by Member State, 2013- 2015







Note: Slovakia & Netherlands are not included due to a break in the series
Source: Eurostat, National Statistical Offices, DIW econ

III.9. Export intensity definitions

Table 11: Definition of export intensity

Sector identifier	Definition of sector
1	Very low (exports over total sales between 0 and 5%)
2	Low (exports over total sales between 5 and 10%)
3	Medium (exports over total sales between 10 and 20%)
4	High (exports over total sales between 20 and 40%)
5	Very high (exports over total sales above 40%)

The table below shows the specific export intensity of each sector.

Table 12: Sector specific export intensity levels

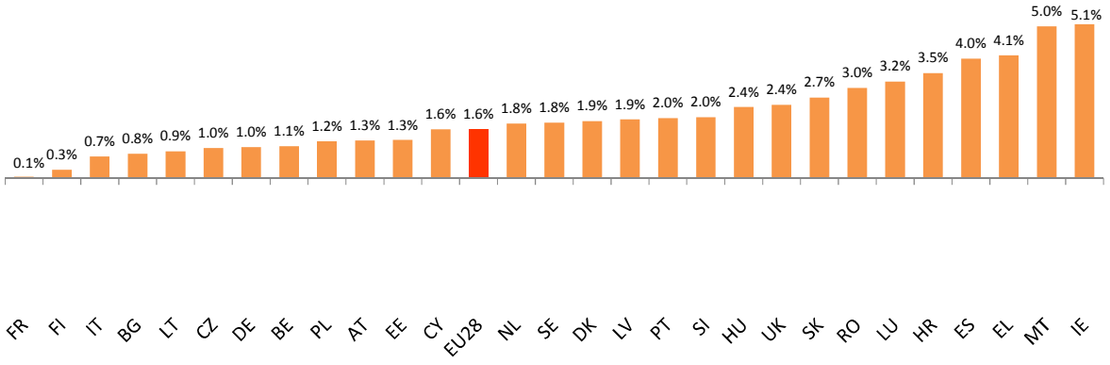
Industry	**Sector intensity**
Mining	2
Manuf. of food products ; Manuf. of beverages ;Manuf. of tobacco products	2
Manuf. of textiles ; Manuf. of wearing apparel ;Manuf. of leather & related products	3
Manuf. wood & cork, exc. furniture; straw & plaiting	2
Manuf. of paper & paper products	3
Printing & reproduction of recorded media	1
Manuf. of coke & refined petroleum products	3
Manuf. of chemicals & chemical products	4
Manuf. of basic pharmaceutical products & preparations	4
Manuf. of rubber & plastic products	3
Manuf. of other non-metallic mineral products	2
Manuf. of basic metals	3
Manuf. of fabricated .metal products., exc. machinery & equip.	2
Manuf. of computer, electronic & optical products	4
Manuf. of electrical equipment	4
Manuf. of machinery & equipment n.e.c.	4
Manuf. of motor vehicles, trailers & semitrailers	4
Manuf. of other transport equipment	5
Manuf. of furniture ; Other manufacturing	3
Repair & installation of machinery & equipment	1
Electricity, gas, steam & air conditioning supply	1
Water collection, treatment & supply	1
Sewerage ; Waste collection, treatment & disposal; recovery ; Remediation activities & other waste management	2
Construction	1
Wholesale/retail trade & repair of vehicles	1
Wholesale trade, exc. motor vehicles & motorcycles	2

Retail trade, exc.motor vehicles & motorcycles	1
Land transport & transport via pipelines	1
Water transport	4
Air transport	4
Warehousing & support activities for transportation	2
Postal & courier activities	1
Accommodation and food services	1
Publishing activities	1
Motion picture, video & TV programme production, recording & music publishing; Programming & broadcasting activities	1
Telecommunications	1
Computer programming, consultancy & related; Information service activities	2
Real estate activities	1
Legal & accounting ; Activities of head offices; consultancy	2
Architectural & engineering; tech testing & analysis	2
Scientific research & development	3
Advertising & market research	2
Other professional, scientific & tech activities ; Veterinary activities	3
Rental & leasing activities	2
Employment activities	1
Travel agency, tour operator & reservation s.	1
Security & investigation activities ; Services to buildings & landscape activities ; Office administrative, office support & other business support	2

Source: London Economics based on Eurostat EU27 input-output table

III.10. Growth rates of value added, employment and number of enterprises at the Member State level, 2015

Figure 83: Growth of SME enterprises, 2015



Source: DIW Econ

Table 13: SME employment growth in 2015, breakdown of positive growth by sector

Country	Total Change	Positive change	Manufact. (C)	Construction (F)	Wholesale / retail trade (G)	Accomm. and food (I)	Business Services (M)	Other sectors
AT	14,644	17,032			18%	14%	32%	37%
BE	11,167	16,401			13%	5%	49%	33%
BG	25,741	25,741	49%	17%	11%	3%	0%	19%
CY	2,799	2,799	11%	2%	20%	11%	36%	20%
CZ	11,860	19,028	21%		30%	11%	27%	11%
DE	163,594	171,693	10%		22%	9%	28%	31%
DK	18,468	18,468	17%	22%	20%	5%	11%	24%
EE	6,579	8,062	53%	42%				5%
EL	77,821	84,899	15%		47%	19%	8%	11%
ES	272,460	272,460	11%	18%	26%	13%	13%	20%
FI	-2,687	1,700					80%	20%
FR	13,659	81,366			23%	7%	29%	40%
HR	11,282	13,172		24%	5%	7%	42%	21%
HU	23,874	24,834		9%	46%	11%	22%	11%
IE	27,365	27,365	16%	41%	9%	5%	4%	24%
IT	28,564	81,756			22%	9%	36%	32%

LT	9,025	14,900	30%	39%			20%	10%
LU	4,280	4,280	3%	15%	16%	6%	27%	33%
LV	8,766	9,031		22%	18%	4%	19%	37%
MT	4,841	4,841	4%	6%	19%	9%	27%	35%
NL	33,192	41,883			24%	11%	37%	28%
PL	89,979	97,756	43%	14%	25%	3%		15%
PT	54,765	54,765	34%	12%	20%	8%	5%	20%
RO	58,289	68,765			47%	9%	5%	39%
SE	32,022	32,907		22%	21%	7%	25%	26%
SI	5,253	5,253	23%	5%	15%	6%	34%	18%
SK	35,423	36,772	32%		2%	0%	36%	31%
UK	266,037	266,037	10%	10%	19%	12%	19%	30%
EU28	1,309,064	1,309,060	9%	3%	27%	11%	21%	29%

Source: DIW Econ

Table 14: SME value added growth in 2015, breakdown of positive growth by size class

Country	Total Change (EUR million)	Positive change (EUR million)	Micro	Small	Medium
AT	1,785	1,785	33%	24%	43%
BE	3,841	4,082	8%	92%	
BG	328	328	49%	36%	14%
CY	54	74	100%		
CZ	2,702	2,702	62%	17%	21%
DE	32,905	32,905	38%	32%	30%
DK	1,563	1,563	21%	25%	54%
EE	0	50	100%		
EL	-347	0			
ES	11,167	11,167	57%	19%	25%
FI	556	556	21%	48%	31%
FR	13,295	13,295	70%	26%	4%
HR	305	305	34%	15%	51%
HU	1,047	1,047	24%	49%	26%
IE	7,835	7,835	39%	11%	50%
IT	10,207	10,207	61%	16%	24%
LT	104	204	69%	31%	
LU	800	800	41%	32%	27%
LV	212	212	51%	42%	7%
MT	347	347	44%	46%	10%
NL	8,942	8,942	14%	48%	38%
PL	6,416	6,416	49%	26%	25%

PT	2,433	2,433	28%	44%	27%
RO	1,923	1,923	58%	26%	16%
SE	6,496	6,496	37%	42%	22%
SI	425	425	39%	28%	33%
SK	552	643	100%		
UK	94,768	94,768	44%	32%	24%
EU28	210,662	210,662	44%	31%	25%

Source: DIW Econ

Table 15: SME employment growth in 2015, breakdown of positive growth by size class

Country	Total Change	Positive change	Micro	Small	Medium
AT	14,644	14,644	57%	30%	13%
BE	11,167	11,306	77%	23%	
BG	25,741	25,741	34%	36%	30%
CY	2,799	2,961	97%		3%
CZ	11,860	12,578	98%		2%
DE	163,594	163,593	31%	33%	36%
DK	18,468	18,468	13%	40%	47%
EE	6579	6579	55%	18%	27%
EL	77821	77821	60%	25%	15%
ES	272,460	272,460	66%	16%	18%
FI	-2,687	0			
FR	13,659	35,082	86%	14%	
HR	11,282	12,408	87%	13%	
HU	23,874	23,874	66%	33%	0%
IE	27,365	27,365	38%	28%	35%
IT	28,564	69,399	100%		
LT	9,025	9,025	63%	27%	10%
LU	4,280	4,280	47%	0%	53%
LV	8,766	8,766	59%	16%	25%
MT	4,841	4,841	52%	19%	30%
NL	33,192	33,192	32%	12%	56%
PL	89,979	89,979	63%	24%	13%
PT	54,765	54,765	41%	32%	27%
RO	58,289	58,289	36%	56%	8%
SE	32,022	32,022	41%	17%	42%
SI	5,253	5,361	95%		5%
SK	35,423	35,423	81%	9%	10%
UK	266,037	266,037	22%	39%	39%
EU28	1,309,064	1,309,060	53%	25%	22%

Source: DIW Econ

Table 16: SME valued added growth in 2015, breakdown of positive growth by size class and sector

Country	Total Change	Postitive change	Manufacturing (C)			Construction (F)			Wholesale/retail trade (G)			Accommodation and food (I)			Business Services (M)			Other sectors		
			Micro	Small	Medium	Micro	Small	Medium	Micro	Small	Medium	Micro	Small	Medium	Micro	Small	Medium	Micro	Small	Medium
AT	1,785	1,785	0%	3%	17%		2%	4%	7%	8%	8%	4%	4%	2%	1%	1%	1%	21%	6%	11%
BE	3,841	4,263					8%	1%	2%	22%		1%	2%		4%	21%		5%	35%	
BG	328	363		17%	13%		12%	5%	1%	2%		0%	0%		1%	2%		47%		
CY	54	89	26%		1%	5%			21%	4%	1%	8%	3%	4%	17%	3%	1%	7%		
CZ	2,702	2,702	8%	5%	12%	7%	2%	2%	15%	6%	4%	3%	1%	0%	9%	2%	1%	20%	2%	2%
DE	32,905	32,905	3%	6%	6%	6%	6%	2%	5%	6%	6%	1%	1%	1%	9%	5%	3%	14%	8%	12%
DK	1,563	2,206	7%	20%	29%	5%	8%								12%	2%	11%			6%
EE	- 0	85													25%	7%	3%	55%	11%	
EL	- 347	422							18%	9%	7%	4%	2%	2%	24%	10%	12%	5%	2%	6%
ES	11,167	11,244	4%	4%	3%	12%		1%	14%	7%	7%	5%	2%	2%	9%	3%	4%	12%	4%	7%
FI	556	646		18%	18%		14%	4%							10%	5%	3%	18%	7%	3%
FR	13,295	16,727	15%	7%	1%				17%	2%	0%	4%	1%		9%	7%	1%	21%	12%	2%
HR	305	309	6%	6%	18%	3%		4%	3%	7%	14%	1%	2%	8%	1%	1%	1%	21%		4%
HU	1,047	1,052		12%	9%	2%	6%	2%	6%	13%	7%	1%	2%	1%	7%	6%	3%	8%	10%	4%
IE	7,835	7,881	5%	1%	14%	3%		0%	9%	4%	9%	1%	1%	3%	9%	2%	3%	12%	5%	20%
IT	10,207	10,569	11%	15%	16%	2%		0%	23%	3%	5%	6%	1%	1%	5%	0%	0%	12%		0%
LT	104	227	20%	17%		23%	6%		8%	7%	6%	0%	1%	1%	2%	1%	1%	8%		
LU	800	800	1%	4%	3%	2%	4%	1%	6%	7%	7%	2%	1%	0%	13%	7%	6%	17%	9%	10%
LV	212	281	17%	10%		18%			1%	2%	2%	0%	0%	0%		11%	8%	9%	12%	10%
MT	347	352	1%	2%		5%	3%		8%	11%	2%	2%	2%	3%	12%	13%	1%	16%	14%	5%
NL	8,942	8,942	1%	6%	10%	1%	2%	2%	4%	19%	14%	1%	2%	1%	5%	10%	6%	2%	9%	4%
PL	6,416	6,416	10%	10%	14%	25%	6%	3%	7%	5%	4%	0%	0%	0%	3%	1%	1%	4%	3%	3%
PT	2,433	2,433	4%	11%	13%	4%	5%	3%	7%	16%	6%	2%	3%	1%	3%	2%	1%	9%	7%	3%
RO	1,923	2,169				4%	1%	2%	9%	14%	8%	1%	1%	1%	7%	5%	2%	32%	7%	6%
SE	6,496	6,496	9%	17%	11%	17%	15%	3%	3%	3%	3%	1%	1%	0%	5%	3%	3%	2%	3%	2%
SI	425	453	15%	14%	20%	1%			7%	7%	6%	2%	1%	1%	6%	4%	2%	7%	4%	4%
SK	552	668	35%		2%	32%			10%	1%		1%	0%	0%	1%	0%		18%		
UK	94,768	94,768	2%	3%	3%	9%	4%	2%	6%	7%	5%	2%	2%	1%	11%	6%	5%	15%	11%	9%
EU28	210,662	210,661	4%	5%	6%	7%	3%	2%	8%	7%	5%	2%	2%	1%	9%	6%	4%	14%	9%	8%

Source: London Economics based on DIW
Note: Total and positive change given in EUR

Table 17: SME employment growth in 2015, breakdown of positive growth by size class and sector

Country	Total Change	Postitive change	Manufacturing (C)			Construction (F)			Wholesale/retail trade (G)			Accommodation and food (I)			Business Services (M)			Other sectors		
			Micro	Small	Medium	Micro	Small	Medium	Micro	Small	Medium	Micro	Small	Medium	Micro	Small	Medium	Micro	Small	Medium
AT	14,644	17,799	1%	3%		0%			8%	5%	5%	7%	4%	3%	18%	7%	6%	14%	8%	13%
BE	11,167	16,777						2%	7%	5%	1%	3%	1%	0%	37%	9%	3%	19%	11%	3%
BG	25,741	25,741	8%	20%	21%	12%	5%	0%	6%	3%	2%	1%	1%	1%	0%	0%	0%	7%	6%	6%
CY	2,799	3,058	8%	0%	2%	8%			20%			9%	0%	1%	32%	1%	1%	17%		1%
CZ	11,860	20,830	26%						16%	7%	5%	6%	3%	1%	17%	4%	4%	10%		2%
DE	163,594	176,545	2%	7%	1%	3%			6%	7%	9%	2%	4%	3%	10%	9%	8%	6%	7%	17%
DK	18,468	18,468	3%	7%	8%	5%	11%	6%	1%	8%	10%	1%	2%	2%	1%	4%	7%	2%	8%	14%
EE	6,579	8,062	20%	12%	21%	33%	6%	3%										4%	0%	1%
EL	77,821	85,125	3%	5%	6%			0%	33%	10%	3%	13%	4%	1%	6%	1%	1%	8%	2%	1%
ES	272,460	272,460	6%	1%	4%	14%	1%	2%	17%	5%	3%	8%	3%	2%	9%	2%	2%	11%	4%	5%
FI	- 2,687	1,828	5%	2%	1%	4%			14%	8%	5%	5%	4%	2%	12%	5%	4%	12%	7%	10%
FR	13,659	85,438						5%							26%	24%	24%	7%		14%
HR	11,282	13,550		4%					20%	1%	1%	7%			28%			30%	5%	3%
HU	23,874	26,040	3%			22%	0%	2%	4%	1%	1%	5%	1%	1%	31%	7%	3%	15%	5%	1%
IE	27,365	27,365	3%	1%		7%	2%		24%	15%	5%	5%	4%	1%	15%	4%	2%	6%	4%	1%
IT	28,564	87,465	1%	5%	10%	17%	13%	11%	3%	3%	3%	1%	1%	3%	2%	1%	1%	14%	4%	6%
LT	9,025	14,900	5%						17%	3%		7%	1%		33%	2%		23%	8%	
LU	4,280	4,383	14%	12%	5%	26%	9%	4%							16%	3%	2%	5%	2%	3%
LV	8,766	9,101	1%		4%	6%		10%	7%	1%	7%	4%	1%	1%	17%	1%	9%	11%	1%	21%
MT	4,841	4,841	1%			9%	4%	8%	11%	4%	4%	2%	1%	1%	16%	2%	2%	19%	6%	11%
NL	33,192	44,011	3%	1%	0%	5%	0%	0%	12%	4%	3%	3%	2%	5%	16%	6%	4%	13%	6%	16%
PL	89,979	102,399			5%			0%	9%	5%	9%	6%	3%	2%	20%	7%	9%	6%	3%	17%
PT	54,765	54,765	13%	13%	15%	12%	3%		20%	3%	2%	2%	0%	0%				14%	2%	
RO	58,289	71,108	6%	14%	14%	7%	4%	2%	11%	6%	4%	4%	3%	1%	4%	1%	1%	9%	4%	6%
SE	32,022	35,408	1%				3%		16%	21%	9%	2%	5%	2%	2%	2%	1%	10%	16%	11%
SI	5,253	5,867			7%	12%	4%	5%	7%	5%	7%	3%	2%	1%	11%	6%	7%	7%	6%	11%
SK	35,423	37,688	25%	0%		9%			10%	0%	4%	5%	0%	1%	25%	2%	3%	14%		3%
UK	266,037	266,037	12%	6%	14%	2%			1%	0%	0%	0%	0%	0%	34%	1%		27%	3%	0%
EU28	1,309,064	1,324,883	6%	3%	1%	9%	1%	0%	2%	10%	7%	1%	7%	5%	2%	8%	9%	2%	10%	17%

Source: London Economics based on DIW

III.11. Profitability at the sector level

Table 18: SME profitability in € per €1 of sales – average 2012-2013

Country	Mining and quarrying (B)	Manufactur. (C)	Electricity and gas (D)	Water supply (E)	Construction (F)	Wholesale / retail trade (G)	Transportation (H)	Accommodation and food (I)	Information and communication (J)	Busines s Services (M)	Administrative and support services (N)
AT	0.17	0.09	0.04	0.17	0.11	0.04	0.18	0.17	0.16	0.19	0.22
BE	0.12	0.08	0.14	0.10	0.11	0.04	0.11	0.15	0.16	0.22	0.21
BG	0.32	0.11	0.17	0.14	0.08	0.04	0.12	0.13	0.15	0.19	0.14
CY	0.32	0.09	0.64	0.36	0.15	0.04	0.11	0.25	0.12	0.23	0.20
CZ	0.15	0.11	0.08	0.10	0.10	0.04	0.11	0.12	0.11	0.18	0.14
DE	0.16	0.08			0.11	0.04	0.14	0.16	0.23	0.24	0.19
DK	0.74	0.09	0.05	0.30	0.08	0.04	0.10	0.10	0.16	0.11	0.12
EE	0.20	0.09	0.22	0.14	0.08	0.04	0.09	0.10	0.15	0.15	0.21
EL	0.22	0.12		0.34	0.27	0.05	0.31	0.10	0.16	0.24	0.12
ES	0.21	0.08	0.20	0.19	0.09	0.05	0.17	0.10	0.11	0.19	0.12
EU28	0.31	0.09	0.07	0.12	0.12	0.05	0.13	0.12	0.19	0.21	0.17
FI	0.13	0.06	0.14	0.20	0.11	0.05	0.14	0.08	0.10	0.12	0.13
FR	0.13	0.05	0.17	0.11	0.06	0.03	0.08	0.07	0.13	0.08	0.09
HR	0.38	0.10	0.10	0.20	0.10	0.05	0.13	0.17	0.15	0.18	0.12
HU	0.26	0.09	0.04	0.09	0.09	0.04	0.14	0.04	0.18	0.15	0.15
IE	0.13	0.15	0.32	0.12	0.20	0.06	0.10	0.07	0.35	0.13	0.11
IT	0.37	0.09	0.07	0.12	0.12	0.05	0.08	0.14	0.13	0.35	0.12
LT	0.28	0.09	0.17	0.16	0.08	0.06	0.09	0.08	0.16	0.19	0.14
LU	0.23	0.08	0.04	0.21	0.07	0.02	0.06	0.11	0.15	0.11	
LV	0.26	0.11	0.15	0.22	0.09	0.04	0.12	0.09	0.15	0.13	0.13
MT		0.14		0.33	0.20	0.06	0.17	0.18	0.20	0.27	0.18
NL	0.20	0.09	0.08	0.14	0.11	0.05	0.11	0.18	0.20	0.14	0.15

PL	0.14	0.12	0.08	0.20	0.16	0.05	0.11	0.12	0.21	0.23	0.14
PT	0.13	0.08	0.11	0.22	0.05	0.03	0.17	0.09	0.12	0.17	0.19
RO	0.28	0.11	0.20	0.07	0.14	0.05	0.11	0.09	0.16	0.16	0.14
SE	0.11	0.06	0.17	0.25	0.08	0.04	0.08	0.08	0.09	0.09	0.12
SI	0.12	0.08	0.04	0.08	0.08	0.04	0.13	0.10	0.13	0.13	0.07
SK	0.25	0.10	0.12	0.16	0.20	0.06	0.15	0.17	0.25	0.18	0.27
UK	0.47	0.17	0.20	0.18	0.24	0.06	0.22	0.19	0.28	0.33	0.28

Source: Eurostat and London Economics

Table 19: Sectoral ranking based on SME profitability 2012-2013 (as reported in previous table)

Country	Mining and quarrying (B)	Business Services (M)	Information and communication (J)	Administrative and support services (N)	Transportation (H)	Construction (F)	Accommodation and food (I)	Water supply (E)	Manufacturing (C)	Electricity and gas (D)	Wholesale/retail trade (G)
AT	4	2	7	1	3	8	5	6	9	10	11
BE	6	1	3	2	7	8	4	9	10	5	11
BG	1	2	4	6	8	10	7	5	9	3	11
CY	3	5	8	6	9	7	4	2	10	1	11
CZ	2	1	6	3	5	9	4	8	7	10	11
DE	4	1	2	3	6	7	5		8		9
DK	1	5	3	4	6	9	7	2	8	10	11
EE	3	5	4	2	8	10	7	6	9	1	11
EL	5	4	6	8	2	3	9	1	7		10
ES	1	3	7	6	5	9	8	4	10	2	11
FI	5	6	8	4	3	7	9	1	10	2	11
FR	3	6	2	5	7	9	8	4	10	1	11
HR	1	3	5	7	6	10	4	2	8	9	11

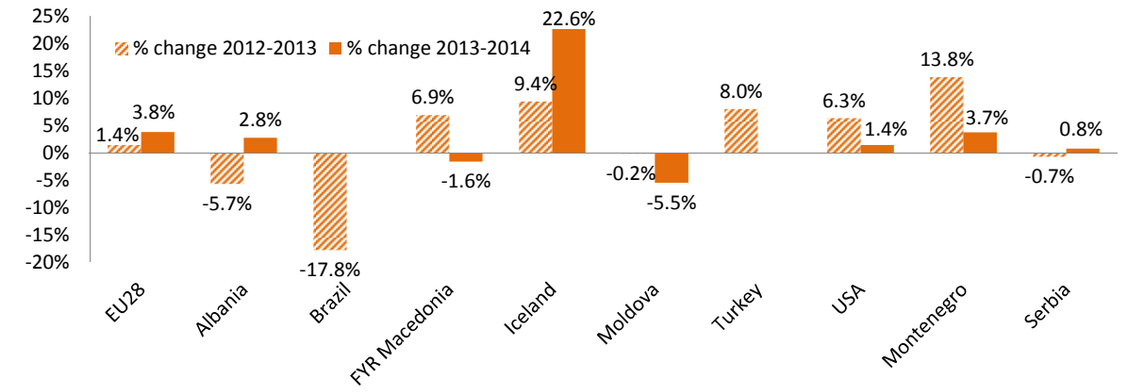
HU	1	3	2	4	5	7	11	8	6	9	10
IE	6	5	1	8	9	3	10	7	4	2	11
IT	1	2	4	6	9	7	3	5	8	10	11
LT	1	2	5	6	7	10	9	4	8	3	11
LU	1	4	3		8	7	5	2	6	9	10
LV	1	6	4	5	7	10	9	2	8	3	11
MT		2	4	5	7	3	6	1	8		9
NL	1	5	2	4	8	7	3	6	9	10	11
PL	6	1	2	5	9	4	7	3	8	10	11
PT	5	3	6	2	4	10	8	1	9	7	11
RO	1	3	4	5	8	6	9	10	7	2	11
SE	4	6	5	3	9	8	7	1	10	2	11
SI	4	3	2	9	1	7	5	8	6	11	10
SK	2	5	3	1	8	4	6	7	10	9	11
UK	1	2	3	4	6	5	8	9	10	7	11
EU28	1	2	3	4	5	6	7	8	9	10	11

Source: Eurostat and London Economics
Note: Ranks give relative rank of each sector within each country

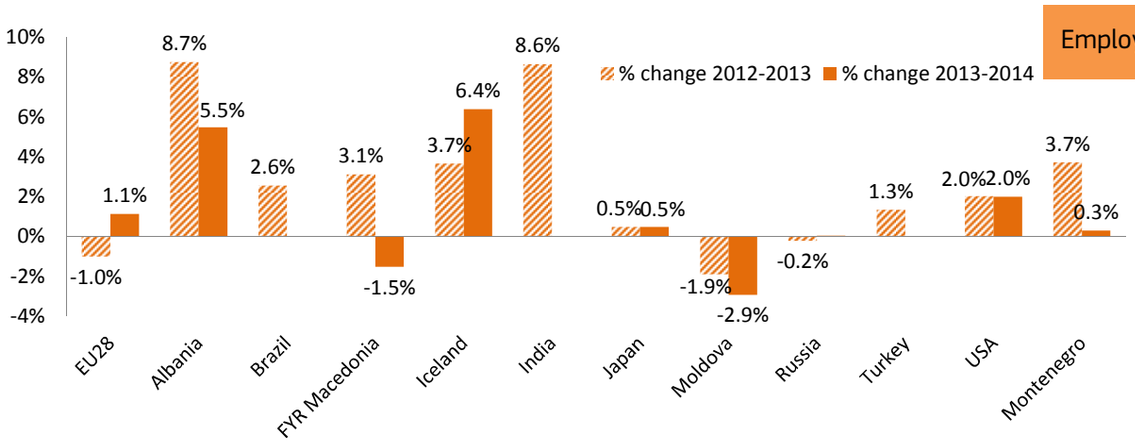
III.12. An overview of SME performance in the partner countries of the European Union

Value Added

Figure 84: Growth of SMEs in EU28 and selected other countries – 2012 to 2013 and 2013 to 2014



Employment



Source: Eurostat, National Statistical Offices, DIW econ
Note: Missing bars indicate that data is missing for these years.

III.13. Number of business bankruptcies and other forms of involuntary business cessations

***Table 20**: Trends in number of business bankruptcies and other forms of involuntary business cessations in selected Member States 2007 to 2014 (series are indexed to 2009=100)*

Member States	Bankruptcy data	2007	2008	2009	2010	2011	2012	2013	2014
Austria	Number of insolvency proceedings (Both open and non-open proceedings)	6,295	6,315	6,902	6,376	5,869	6,041	5,459	5,423
Belgium	Number of bankruptcies	7,680	8,476	9,420	9,570	10,224	10,587	11,740	10,736
Bulgaria	Number of insolvency cases by court			1,391	1,741	2,019	2,470	2,696	2,373
Croatia	-								
Cyprus	Number of court orders issued	141	135	159	171	182	133	189	163
Czech Republic	Bankruptcies total (all business entities including corporations and sole traders)	1,000	1,074	1,486	1,621	1,778	1,946	2,245	2,145
Denmark	Bankruptcies in all companies	2,401	3,709	5,710	6,461	5,468	5,456	4,993	4,049
Estonia	Number of companies that have declared insolvency	202	423	1,055	1,028	623	495	459	428
Finland	Bankruptcy proceedings instituted	2,254	2,612	3,275	2,864	2,947	2,961	3,131	2,986
France	Number of bankruptcies	51,343	55,562	63,205	60,330	59,493	61,095	62,549	62,493
Greece	-	513	359	355	355	445	415	392	330
Hungary	Number of liquidation and insolvencies		9,247	10,915	11,392	9,063	7,494	10,167	16,272
Ireland	Examinership, receivership and liquidation of firms	1,436	1,768	2,680	2,701	3,028	2,922	2,561	
Italy	Number of businesses starting bankruptcy proceedings	6,154	7,511	9,383	11,232	12,149	12,258	14,129	15,714
Latvia	Declaration of insolvency proceeding		1,252	2,219	2,705	914	887	810	953
Lithuania	Number of bankruptcy processes	606	957	1,844	1,637	1,273	1,401	1,552	1,686
Luxembourg	Bankruptcies pronounced by court	659	574	693	918	978	1,050	1,049	850
Malta	-								

Netherlands	Business and institutions declared bankrupt			6,942	6,162	6,117	7,349	8,376	6,645
Portugal	Bankruptcies total	2,612	3,528	3,815	4,091	4,746	6,688	6,030	4,019
Poland	-								
Romania									
Slovakia	Number of enterprise ruled bankrupt	169	251	276	344	375	360	394	410
Slovenia	-								
Spain	Number of enterprises, with employees, ruled bankrupt	947	2,640	4,751	4,489	5,200	7,074	7,942	5,417
Sweden	Number of court ruled bankruptcies	5,791	6,298	7,638	7,274	6,958	7,471	7,701	7,158
UK	Number of companies liquidated (voluntary & compulsory)	16,595	22,792	26,443	22,676	23,732	22,607	20,070	18,425

Sources: London Economics, based on data from: AT: Kreditschutzverband; BE: Statistics of the Belgium Federal Public Service Economy; BG: provided by official of Ministry of Economy; CY: Department of Registrar of Companies and Official Receiver; CZ: CRIF from Insolvency Register of Ministry of Justice: DK: Statistics Denmark; EE: Krediitiinfo SA; EL: OECD; ES: OECD; FI: Statistics Finland; FR: Insee; HU: Hungarian Central Statistical Office; IR: Dept of Jobs, Enterprise and Innovation; IT: Cerved; LT: Statistics Lithuania; LU: Statec; LV: Lursoft; NL: Statistics Netherlands; PT: COSEC SA; SE: Swedish Agency for Growth Policy Analysis; SK: Ministry of Justice; UK: Insolvency Service

Notes: Figures highlighted in green italics represent the year during which the number of business bankruptcies and other forms of involuntary business cessations was lowest between 2007 and 2014. The figures in red represent the year during which the number of business bankruptcies and other forms of involuntary business cessations reached its highest level. The data used to analyse trends in different Member States cover all enterprises. However, since SMEs account for approximately 99% of all enterprises, the economy-wide trends should be highly reflective of developments among SMEs.

Indexed series for BE, CZ, DK, FR, PT, NL are based on the total number of bankruptcies. Series for SK, LU, CY and SE are based on the total number of court ruled bankruptcies while the index series for Spain is based on court ruled bankruptcies in firms with employees. The indexed series for LT, AT, FI and LV are based on the total number of insolvency proceedings undertaken. In FI, EE, IT, the indexed series is based on the number of entreprises starting bankruptcy proceedings. In HU, the indexed series is based on the combined number of liquidation and insolvencies. In the UK, it is based on the number of both voluntary and compulsory company liquidations while in IE, it is based on the number of firms undergoing examinership, receivership and liquidation.

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