

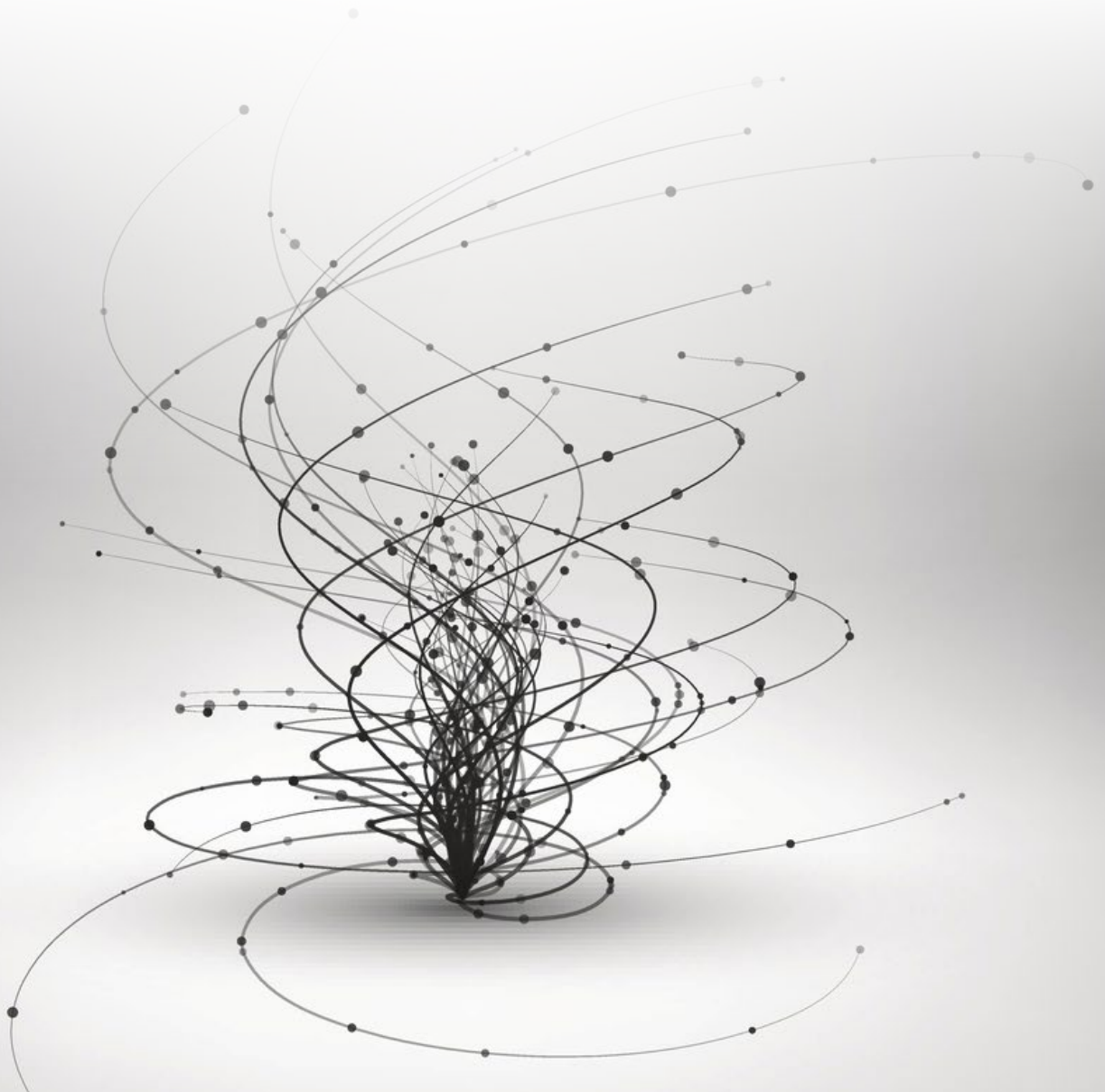


DOES
**ENTREPRENEURIAL
SUCCESS**
GENERATE ECONOMIC
GROWTH?

Does Entrepreneurial Success Generate Economic Growth?

ISBN: 978-1-906970-18-5 June 2018
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The Institute of Innovation and Knowledge Exchange (IKE) is the UK's professional body for innovators. It accredits and certifies innovation practices. The Institute's work is guided by the Innovation Council, which brings together over fifty senior business leaders representing different economic sectors.

Registered Institute Number: 07670707



INTRODUCTION



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Entrepreneurship has been touted by successive governments as one of the key trend indicators of reducing unemployment, improving productivity and generating economic growth. Societally, entrepreneurship continues to gain popularity, particularly amongst the millennial generation of all diverse backgrounds and ethnicities, where flexible work-life balance and the promise of being master of your own destiny offers a compelling work proposition. The versatility and confluence of modern day technology (e.g. sharing economy platforms) to pursue profitable self-fulfilment is also encouraging the vast scope of innovation-centred start-ups to be created.

According to the UK's Office of National Statistics, self-employment is growing and there has been a recent increase in business formation¹. However, do these increases qualify under the banner of 'entrepreneurism' or are they just as a result of active labour market programmes? How does UK entrepreneurship compare with other European countries within the EU? And, are there different dynamics in various sectors in business and industry, with differing expectations of enterprise longevity?

At the *Institute of Innovation and Knowledge Exchange*, we have conducted a landscape review to shed some light on these questions.

It is commonly accepted that High Growth Enterprises - as defined by the European Union's statistical agency Eurostat - are enterprises with an average annualised growth in the number of employees of more than ten percent per year over a three-year period, and who had at least ten employees when the growth began. These are the type of enterprises delivering employment and economic growth.

The UK has a relatively high rate of new enterprise formation and has a wide range of funding sources for their early years. Compared with other countries there is a fairly benign regulatory environment without excessively high interest rate spreads. However, this does not lead to longevity for micro businesses or any net positive employment from these 'one-to-four employee' enterprises. Long-term success and employment growth comes from enterprises that have been established with larger teams and a wider range of skills.

In terms of comparisons with Europe, the data suggests that the UK has a high rate of new enterprise births, exceeded only by Lithuania, Latvia and Portugal. However, the UK has a relatively low rate of new enterprises surviving over their fifth birthday, with about forty per cent surviving compared with Malta's eighty-seven per cent surviving. Despite the poor survival rate, the survivors have a relatively high average number of employees at five years, with only Romania and Lithuania having larger average employee numbers in post following the five-year mark. Social values associated with entrepreneurship are somewhat high in the UK, with only Romania, the Netherlands and Ireland being more positive about entrepreneurs. However, a relatively high proportion of the UK would still prefer to be employees rather than self-employed! Education and training providers have an important role to play in preparing and supporting individuals to develop their innovation skills and competencies, to underpin their entrepreneurial endeavours.

The popular view in the UK of dynamic and innovative small start-ups, led by individuals battling against a system unwilling to provide finance and support, may be misjudged. The smallest of start-ups end in failure, partly having failed to grow due to a lack of appropriate business planning and foresight, and partly down to poor cash management, despite there being fairly easy access to finance through a wide range of funding sources and opportunities. There is no data on the innovation activities of the smallest and youngest enterprises, but their productivity either comes from innovation or excessively hard work. The evidence regarding the demise of such start-ups points to a lack of more diverse skills than the ones needed to create the business in the first place. A greater diversity of skillset is often to be found in the larger teams of the bigger start-ups, and hence the reason for their better survival rates. These start-ups, characteristically are more innovative, become successful exporters, have greater business longevity and drive employment growth. Perhaps, a greater emphasis on entrepreneurial teams, with a focus on building business innovation skills, would deliver the employment and productivity growth so often sought after by the policy makers!

¹ONS: Trends in self-employment in the UK- Analysing the characteristics, income and wealth of the self-employed
7 February 2018

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1. WHAT IS ENTREPRENEURSHIP?

Starting from the following dictionary definition of an entrepreneur it is possible to examine a wide range of aspects of the process of entrepreneurship.

An entrepreneur is a person who sets up a business or businesses, taking on financial risks in the hope of profit.

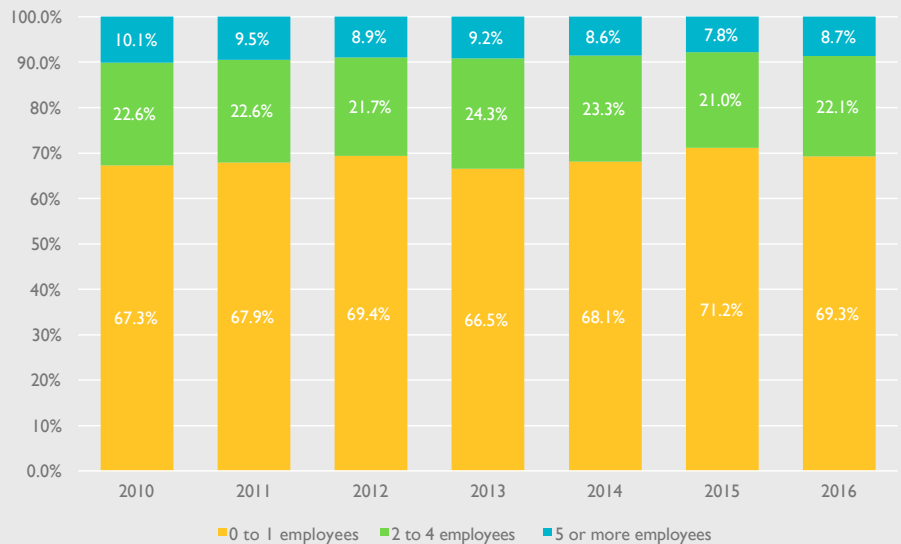
As defined by Oxford Dictionary

There is a wide range of literature and data sources that can provide insights into the entrepreneurial process. This review synthesises the available data, policy issues and academic literature to obtain as complete a picture as possible. The review starts by examining the size of enterprises at their establishment or birth.

1.1 Enterprise births by size at birth

Using data from PAYE, VAT and other registers, the UK's Office for National Statistics (ONS) produces business demography statistics that are presented in Figure 1 below.

Figure 1
Percentage of enterprise births by number of employees, UK 2010 to 2016



Source: ONS Business Demography

Figure 1 shows that the proportion of newly established enterprises by size has remained largely constant, despite the growing number of enterprise births shown in Figure 3. However, there is a suggestion that a growing proportion of enterprise births fall into the zero to one category. This might represent the impact of active labour market measures aimed at reducing unemployment by persuading people into self-employment (Román et al., 2013) and then some self-employed forming an enterprise as a vehicle for their self-employment. Overall, of the new enterprises established, every year saw over two thirds in the zero to one employee category. Under a quarter of those established had two to four employees and at maximum only 10.1 percent of new enterprises had more than five employees on establishment.

1.2 Growth rates of enterprises

There is little UK data on how the new enterprises, established by entrepreneurs, grow or fail. In particular, the data covering 'gazelles' or enterprises less than five years old, and fast growing, is not collected in the UK. However, the UK provide Eurostat with data on high growth enterprises that are defined as those with at least ten employees and an average employee growth rate of 10% or more per year, over a three-year period. Necessarily, this data does not only cover newly established enterprises. However, this does give an idea of sectors where companies are growing fast and where it is probable that new enterprises are also growing fast. Table 1 shows the sectors containing high growing enterprises with ten or more employees, as a proportion of all enterprises with ten or more employees in the sector. This shows that the information and communications sector has the highest proportion of high growth enterprises. Possibly, surprisingly, the water supply, sewerage, waste management and remediation sector has the second highest proportion of high growth enterprises. This possibly reflects a growth in companies engaged in recycling activities.



Table 1

UK high growth enterprises as a percentage of companies with more than 10 employees by sector, sorted by high growth in 2015

	2012	2013	2014	2015
Information and communication	17.3	17.5	18.6	16.6
Water supply; sewerage, waste management and remediation activities	16.8	19.0	17.9	14.6
Administrative and support service activities	13.5	14.5	15.5	13.6
Mining and quarrying	13.2	19.1	15.7	13.0
Transportation and storage	14.1	15.2	15.9	12.3
Professional, scientific and technical activities	10.9	12.0	12.6	11.5
Manufacturing	11.2	12.6	13.2	10.3
Wholesale and retail trade; repair of motor vehicles and motorcycles	11.0	11.2	11.6	9.5
Accommodation and food service activities	10.8	10.1	11.0	9.4
Construction	9.8	10.9	11.5	8.8
Real estate activities	8.7	9.0	9.7	8.3
Electricity, gas, steam and air conditioning supply	18.8	12.2	10.2	7.7
Financial and insurance activities	:	:	:	:
Business economy except activities of holding companies	11.7	12.3	12.9	12.8

Source: Eurostat Entrepreneurial Statistics

1.3 Sectors of enterprise births

Table 2 shows the sectors where new UK enterprises are concentrated, by comparing the number of new enterprises to the number of existing enterprises in that sector. The Business support activities sector has the largest proportion of new entrants, followed by the head offices and management consultancy sector. On closer inspection of the data than presented here, the bulk of those in this last sector were management consultants. The specialized construction trades, retail and computing sectors had static or declining ratios of new entrants to established enterprises.

Table 2

UK births as a percentage of existing enterprises by sector, sorted on 2016 percentage

	2010	2013	2016
Business support activities	6.0%	9.2%	11.7%
Activities of head offices; management consultancy activities	7.8%	8.3%	8.7%
Specialised construction activities	8.0%	7.1%	7.1%
Retail trade, except of motor vehicles and motorcycles	9.5%	7.9%	6.5%
Computer programming, consultancy and related activities	6.9%	7.1%	6.1%
Food and beverage service activities	7.1%	6.8%	5.8%
Other professional, scientific and technical activities	5.9%	5.8%	5.4%
Construction of buildings	3.2%	3.2%	4.4%
Land transport and transport via pipelines	1.9%	2.3%	3.6%
Architectural and engineering activities; technical testing and analysis	2.8%	4.3%	3.5%
Human health activities	2.2%	2.2%	2.6%
Wholesale trade, except of motor vehicles and motorcycles	4.2%	3.4%	2.4%
Education	1.4%	1.4%	2.3%
Wholesale and retail trade and repair of motor vehicles and motorcycles	2.6%	2.0%	2.1%
Other personal service activities	2.5%	2.5%	1.8%
Warehousing and support activities for transportation	0.3%	0.4%	1.6%
Employment activities	1.2%	1.1%	1.3%
Social work activities without accommodation	1.1%	1.0%	1.2%
Civil engineering	0.4%	0.8%	1.1%
Sports activities and amusement and recreation activities	1.2%	1.1%	0.9%
Manufacture of fabricated metal products, except machinery and equipment	0.6%	0.5%	0.7%
Creative, arts and entertainment activities	1.1%	0.8%	0.7%
Repair and installation of machinery and equipment	0.6%	1.0%	0.6%

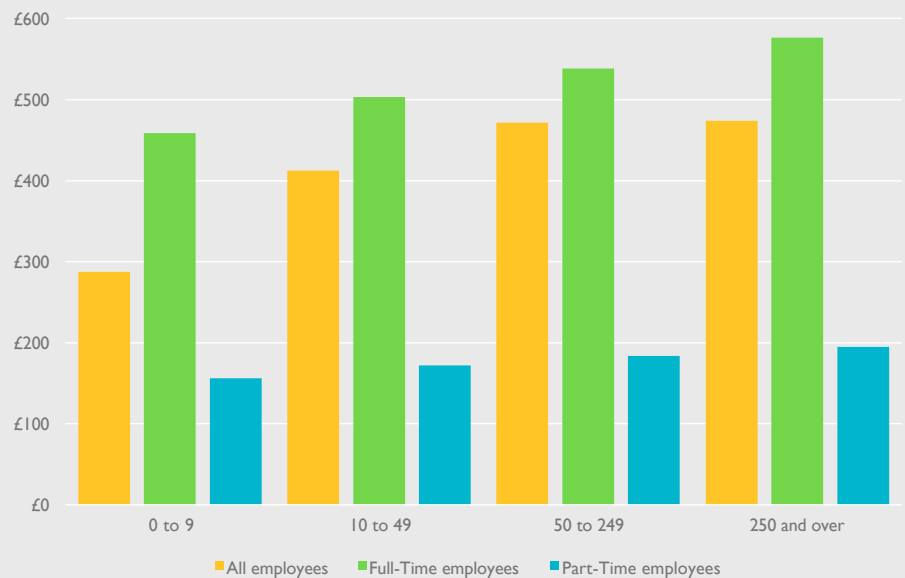
Source: ONS Business Demography

1.4 Income by employer size band

On the assumption that small firms, with less than ten employees, share to some extent the features of newly established enterprises, the following chart examines the median gross weekly earning of employees in these small establishments. These median earnings are compared with those for enterprises with 10 to 49, 50 to 249 and 250 plus employees. This analysis shows that the larger the employer the larger the median earnings. Using the crude assumption that median earning reflects average productivity levels, this also suggests that larger employers are more productive benefiting from economies of scale and role specialisation.

Figure 2

Median gross weekly earning by size of employer, 2017



Source: Annual Survey of Hours and Earnings (ASHE)

1.5 Not all the self-employed are entrepreneurs

There is often an assumption that all self-employed are entrepreneurs. In fact, there are many differences between sub-groups of the self-employed which influences whether or not they subsequently employ others and the sort of earnings they can command. To develop appropriate policies, and improve productivity and earnings, a better view of the disaggregated nature of self-employment is necessary. Such a breakdown has been undertaken by Williams et al., (2017) and some of the details are provided in Table 3. The recent growth of the 'gig economy', although



creating large numbers of self-employed people, is not leading to greater numbers of entrepreneurial enterprises being established (Burtch et al., 2018). In part this is because the gig economy is largely creating insecure and low paid work. This

provides two of the dimensions that are used to disaggregate the self-employed earnings and security of work. The additional dimension used in the analysis is if the self-employment is dependent or independent.

Table 3 shows the nine groups of self-employed derived from analysis of a range of UK data sources. The largest segment of the solo self-employed is category three or the low-paid independent but secure self-employed, which accounts for nearly a quarter of the solo self-employed. The next largest group is the mid-paid independent and secure self-employed who account for just under a fifth of the solo self-employed. The next two largest categories are low-paid insecure workers only differentiated on the basis of their independence.

Table 3

Segments of the self-employed workforce

Segment	Characterised by:	Types of occupations	Number	Proportion of solo self-employed (%)
1	Low pay, dependent, insecure	Driver and cleaners	348,200	8.9
2	Low pay, independent, insecure	Shopkeepers, artistic occupations and car mechanics	320,600	8.2
3	Low pay, independent, secure	Farm workers, builders, traders and tutors	889,900	22.7
4	Mid pay, dependent, insecure	Childminders and carers, and building labourers	156,500	4.0
5	Mid pay, dependent, secure	Building operatives/drivers	50,900	1.3
6	Mid pay, independent, secure	Trainers and coaches, IT and related professionals, financial advisers, business associate professionals, manufacturing managers, hair and beauty workers, skilled makers, gardeners, and restaurant and B&B owners	767,700	19.5
7	High pay, regulated, secure	Medical professionals	77,800	2.0
8	High pay, mid-independence, secure	Functional managers, construction and property managers, book-keepers, and TV/film technical roles	198,400	5.1
9	High pay, independent, secure	Legal and business professionals	162,400	4.1
	All segments		2,972,500	75.7
	Unallocated		954,800	24.3
	All solo self-employed		3,927,300	100.0
	Self-employed who employ others		754,700	
	Total self-employed		4,682,000	

Source: Based on Williams et al., 2017



Summary Entrepreneurs

In summary: Entrepreneurs are defined as people that have set up an enterprise in the hope of profit. Most, or over two thirds, of new UK enterprises have one or zero employees when established. More UK new enterprises start in high-growth sectors, such as information and communication technologies. However, there remains a strong focus on the construction sector. Sometimes, all the self-employed are considered to be entrepreneurs. This is not the case and the self-employed are very heterogenous. Most new enterprises do not grow and nearly 60 per cent fail before five years. On average, wages are lower in smaller rather than larger firms.

2. IS ENTREPRENEURSHIP A GROWING PHENOMENON?

For possibly ideological reasons, many Governments consider entrepreneurial activity to be beneficial. This, in turn, means that trends in entrepreneurial activity are an important indicator. However, discovering any trends is difficult mainly due to the erratic nature of the underlying trends, changing definitions and the need to account for enterprise deaths as well as births.

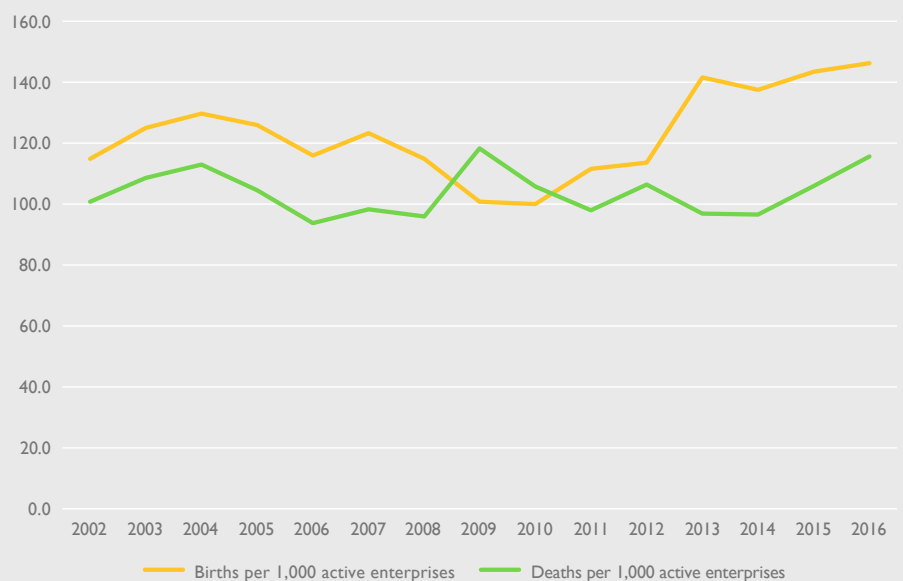


2.1 Trends in enterprise births and deaths

Figure 3 shows the number of births and deaths of enterprises per 1,000 active enterprises. The chart shows that the recession that started in 2008 caused a downturn in births of enterprises and an upturn in deaths. Overall, the number of births and deaths move within a relatively narrow band with some evidence of an upturn in births from 2013 and a possible upturn in deaths in 2016. This latter upturn may represent a change in unemployment benefit policies (Román et al., 2013) that encouraged the unemployed to establish their own businesses. The possible upturn in establishment deaths in 2016 could also represent the consequences of this benefits policy leading to a later higher death rate. However, more detailed data would be necessary to establish if these ideas are borne out in practice.

Figure 3

Births and deaths of enterprises per 1,000 active enterprises, UK 2002 to 2016



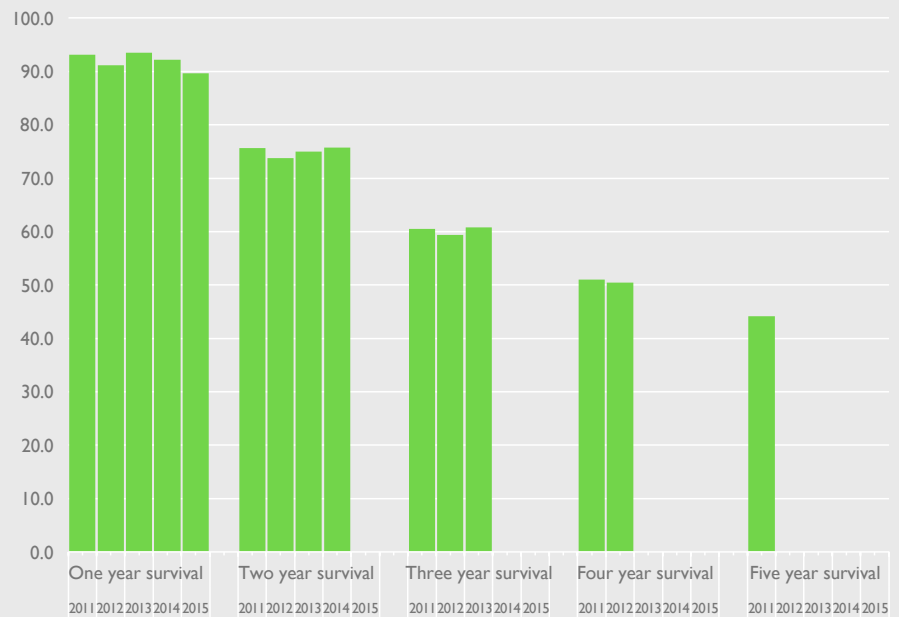
Source: ONS Business Demographics (Various years)

2.2 Survival rates of new enterprises

Figure 4 shows the proportion of each year's cohort that has survived. The striking feature of this is that there is relatively little change in these survival rates, with the one-year rate for five cohorts ranging from 89.7 per cent for those established in 2015 and 93.5 per cent for those established in 2013. This suggests that there is approximately a ten per cent loss in the first year, then by the second year almost a quarter no longer exist. By the third year about two fifths have disappeared and by the fourth year about a half have gone. By the fifth year 46 per cent of the enterprises established in 2011 had failed. Table 7 shows data for net employment gains of establishments fifteen years after formation by when 90 per cent of the firms were dead.

Figure 4

Survival rates for UK enterprises established in 2011 to 2015



Source: ONS Business Demographics 2017

Fifteen years after formation 90 per cent of the firms were dead



Table 4 provides more detailed data on the survival of enterprises by sector. This shows that the retail sector, as well as the professional services and health sectors, had relatively successful first years with about 94 per cent surviving. On the other hand, the finance and insurance sector was particularly unsuccessful, with only 86 per cent surviving their first year. However, over the five year period, other sectors become the winners and losers. The property sector, with 51 per cent of the initial enterprises surviving, does the best, while only 35 per cent of the accommodation and food starters survived to the five-year mark. The sectoral variation emphasises that the headline figures are averages and there is a wide variation between and within sectors and regions. It also indicates that there are different dynamics in each sector with differing expectations of enterprise lifespans and different challenges for sectors at different periods in their lives and at different periods of the business cycle.

Table 4

Enterprises established in 2011 survival rates by sector

	1-year per cent surviving	2-years per cent surviving	3-years per cent surviving	4-years per cent surviving	5-years per cent surviving
Production	92.0	73.9	59.2	50.6	44.7
Construction	92.1	72.9	57.6	48.5	42.2
Motor trades	93.4	74.1	57.9	47.9	42.1
Wholesale	93.6	71.1	52.9	43.8	37.7
Retail	94.3	75.1	58.6	48.6	41.9
Transport and storage (inc. postal)	93.0	71.6	55.3	46.1	39.6
Accommodation and food services	93.7	72.6	55.3	42.9	34.6
Information and communication	95.7	80.1	65.2	55.8	49.4
Finance and insurance (Excl. 6420)	86.1	72.7	57.7	50.1	43.7
Property	89.6	71.3	61.7	55.8	51.1
Professional, scientific and technical	94.7	79.9	65.3	55.7	48.5
Business administration and support services	89.1	71.6	56.6	47.0	38.5
Education	93.4	77.9	65.5	55.9	48.5
Health	94.2	81.1	69.2	60.4	54.1
Arts, entertainment, recreation and other services	92.8	74.8	61.0	51.6	45.0
Total	93.1	75.6	60.5	51.0	44.1

Source: ONS Business Demographics

2.3 Current size and sector composition of enterprises

The potential for growth is, in part, dependent on the existing size structure of each sector, which is shown in Table 5. If a sector is dominated by a few large companies, with few companies in the mid-range, as is the mining and quarrying sector, then this suggests it might be difficult to grow easily, as the economies of scale favour the largest companies. However, if there are plenty of small and medium sized companies in the sector, as in the construction and retail sectors, then this suggests that there is greater scope for growth in these sectors.

Table 5

UK enterprises by employee size band and sector, 2017

Industry	0 to 4	5 to 9	10 to 19	20 to 49	(50 to 249)	Large (250+)	Total
Agriculture, forestry & fishing (A)	131,205	12,115	2,970	1,025	410	65	147,795
Mining, quarrying & utilities (B, D, E)	9,260	1,920	1,210	705	375	150	13,620
Manufacturing (C)	86,195	19,715	12,825	9,265	6,020	1,235	135,250
Construction (F)	273,560	27,505	11,580	4,995	1,920	305	319,860
Motor trades (Part G)	55,595	12,775	4,055	1,700	765	185	75,075
Wholesale (Part G)	69,145	15,595	10,060	5,610	2,565	435	103,415
Retail (Part G)	142,585	34,495	12,640	4,975	1,630	480	196,800
Transport & storage (inc. postal) (H)	89,940	9,290	5,190	2,955	1,540	375	109,290
Accommodation & food services (I)	74,540	39,375	21,775	10,895	3,110	595	150,290
Information & communication (J)	195,710	9,870	5,855	3,470	1,740	385	217,025
Financial & insurance (K)	46,445	4,580	2,245	1,165	920	365	55,715
Property (L)	76,675	10,345	4,195	1,150	585	230	93,180
Professional, scientific & technical (M)	422,155	29,585	15,300	7,485	3,550	755	478,825
Business administration & support services (N)	183,835	22,615	11,085	5,645	3,940	1,065	228,185
Public administration & defence (O)	5,845	440	200	130	165	370	7,150
Education (P)	30,150	5,860	4,020	2,855	4,170	1,245	48,300
Health (Q)	69,335	17,400	15,355	11,775	5,135	1,110	120,105
Arts, entertainment, recreation & other services (R, S, T, U)	124,860	26,225	10,585	4,780	1,995	485	168,930
Column Total	2,087,030	299,710	151,140	80,575	40,530	9,825	2,668,810

Source: UK Business Counts via NOMIS

Summary Growth

Self-employment is growing and there has been a recent increase in enterprise formation, but this is probably not entrepreneurialism rather a result of active labour market programmes. Despite the recent increase in enterprise formation, there has been no significant increase or decrease in survival rates.



3. WHAT ARE THE PRIMARY DRIVERS OF ENTREPRENEURIAL GROWTH?

There appears to be a growth in the number of new enterprises being formed. However, to have a major economic impact the small start-ups need to grow into larger enterprises. This subsequent growth of new enterprises is examined in this section. It starts by examining the perceived barriers to growth in the UK. It then examines the ability of the new enterprises to access appropriate finance and the extent to which regulation and procedures make doing business difficult. Finally, this section examines the role of skills in the success of new enterprises and the other problems faced by businesses in general.



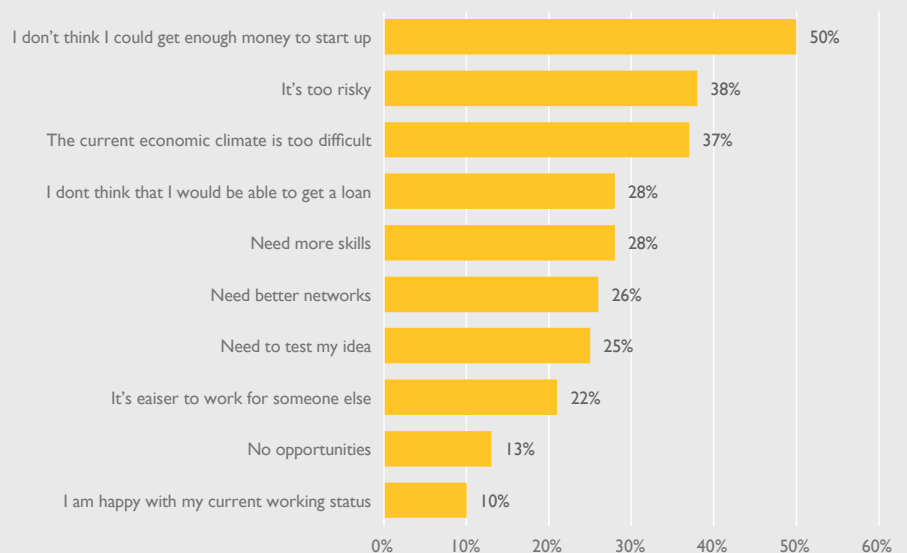
3.1 Perceived barriers to UK entrepreneurship

The Royal Bank of Scotland sponsors a series of surveys examining the barriers people think are the main obstacles to starting a new business in the UK. Figure 5 details the opinions of the barriers that might face them setting up a new enterprise by those who would like to set one up. The most important anticipated barrier is not having enough money or access to money. This is followed by a perception of risk, combined with a view that the current economic climate is too difficult.

The most important anticipated barrier is not having enough money or access to money

The lack of skills and networks represent a barrier for about a quarter of those who would like to set up a business. Finally, about one in five and one in ten respectively think it is easier to work for someone else and are happy with their current situation.

Figure 5
What do you think are/would be the biggest barriers to starting your own business, 2013



Source: RBS Enterprise Tracker, 2013

Another source (Table 6) confirms that the difficulty in obtaining finance is considered to be a major barrier to entrepreneurial activity. However, this source also highlights complex administrative procedures as another problem.

Table 6

Views in the UK about entrepreneurship and perceived barriers

	Strongly agree	Agree	Disagree	Strongly disagree	NK/NA
It is difficult to start one's own business due to lack of available financial support	39.4	38.7	11.4	3.5	6.9
It is difficult to start one's own business due to the complex administrative procedures	28.4	36.5	17.8	7.6	9.8
It is difficult to obtain sufficient information on how to start a business	16.2	26.5	30.1	15.2	11.9
One should not start a business if there is a risk that it might fail	18.3	17.3	35.1	27.1	2.3

Source: Eurobarometer (2010) *Entrepreneurship in the EU and beyond - A survey in the EU, EFTA countries, Croatia, Turkey, the US, Japan, South Korea and China*

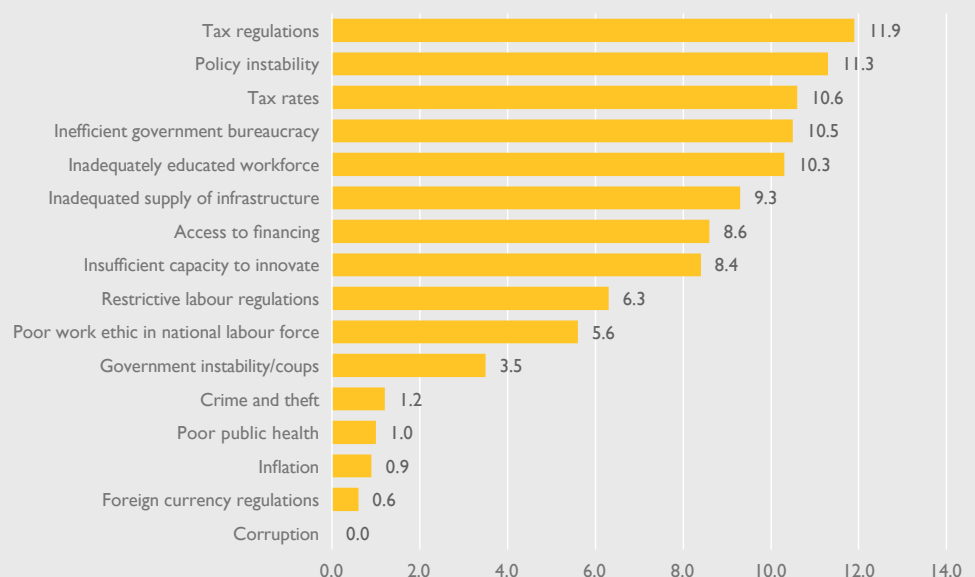
3.2 Availability of finance and appropriate skills

There is a suggestion that the availability of finance and appropriate skills are general problems for enterprises, regardless of size, growth rate and age. However, younger firms tend not to have the credit history to obtain cheap credit or, often, the knowledge of alternative funding mechanisms. The World Economic Forum studied the problems that businesses of all sizes and age face globally.

Figure 6 shows the range of problems that face businesses globally and many of these will be familiar to newly established businesses and micro businesses. Regulations, bureaucracy, policy instability, tax rates and skills dominate, with inadequate infrastructure and finding finance in the mid-range of concerns.

Figure 6

Most problematic factors for doing business globally



Source: World Economic Forum, Executive Opinion Survey, 2017

3.3 Availability of risk capital

Given the difficulty of obtaining bank loans by small newly established enterprises, there exist a range of alternative sources of risk capital that is essential for initial growth. Particularly important in the UK are accelerators. These accelerators are particularly aimed at new technology start-ups and provide advice and support, as well as often providing subsidised accommodation (Miller and Bound, 2011).

Table 7 shows that the UK is particularly well endowed with accelerators and the investment that they provide, with the UK having over twice the level of investments in the next best country Denmark.

Table 7

Investments through accelerators in Europe, 2015

Country	Investment (€m)	Number of start-ups
United Kingdom	10.0	1,124
Denmark	4.8	57
Spain	4.7	263
Germany	3.3	126
Italy	2.3	73
Bulgaria	2.0	40
Ireland	1.3	59
France	1.3	219
Netherlands	1.2	84
Hungary	1.1	26
Estonia	0.9	23
Sweden	0.5	29
Portugal	0.4	156
Total	37.5	2,574

Source: Afme (2017) *The Shortage of Risk Capital for Europe's High Growth Businesses*



Recently, with the development of online platforms, crowdfunding has become increasingly important as a source of funds for innovative start-ups.

Table 8 provides data on the extent of crowdfunding across Europe. This shows that the UK has vastly more crowdfunding activity than anywhere else in Europe. Germany, which comes second, has about the same number of investors, but less than quarter of the number of funded campaigns and vastly less invested using this method.

Table 8

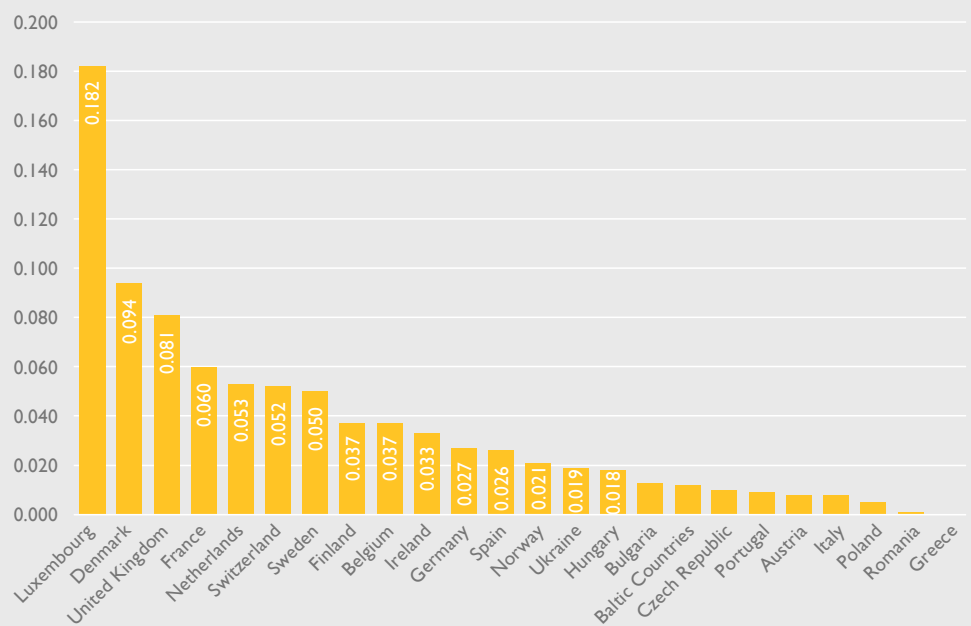
Country-by-country crowdfunding - a fragmented market

Country	Total crowdfunding amount invested (€)	Equity crowdfunding				
		Total equity capital raised (€)	Average raised (€)	Number of funded campaigns	Number of platforms	Average number of investors
Austria	7,168,756	4,040,564	192,408	21	3	190
Belgium	4,557,862	1,429,900	95,327	15	2	135
Estonia	21,344,923	214,520	53,630	4	1	40
Finland	24,619,182	7,695,522	366,453	21	3	237
France	91,473,570	10,638,958	379,963	28	8	184
Germany	108,575,923	35,464,894	347,695	102	15	235
Ireland	16,793,055	198,521	99,261	2	1	109
Italy	13,502,483	408,000	408,000	1	1	22
Netherlands	81,006,312	2,425,158	110,234	22	2	113
Poland	11,298,109	132,255	26,451	5	2	14
Portugal	546,441	75,008	75,008	1	1	116
Romania	689,798	176,540	176,540	1	1	18
Spain	32,811,437	7,281,822	142,791	51	9	49
Sweden	27,100,415	20,743,886	669,158	31	4	73
UK	2,400,209,446	263,834,396	627,290	419	16	239

Source: Crowdsurfer.com

Venture capital is another popular source of funding for high-growth innovative start-ups. Figure 7 shows the intensity of venture capital investments across Europe. This shows that the UK is the third most venture capital intensive country in Europe and is only exceeded by Luxembourg and Denmark, which have much smaller GDPs.

Figure 7
Venture capital investments as percentage of GDP, 2017



Source: Invest Europe (2018) 2017 European Private Equity Activity



Summary Drivers And Barriers

Overall, in the UK, access to funding is seen as the greatest barrier to setting up a new enterprise, followed by regulations. However, access to finance and regulations are problems for businesses of any size and age and are core to the process of operating an enterprise. Equally, the UK has over twice the amount of money invested through accelerators than the next largest investor, Denmark, as well as nearly half the number of start-ups supported by accelerators in Europe.

Similarly, in terms of crowdfunding for start-ups the UK had far more activity and funding than other European countries.

Finally, in terms of venture capital the UK came third in terms of investment as a percentage of GDP in Europe.

This suggests that funding is much less of a problem and other issues such as regulations and skills should also be addressed in the UK.

4. WHAT IS THE RELATIONSHIP WITH LARGER COMPANIES?

There is little information on the relationship between newly established small firms and larger firms. However, there is a growing literature and data covering the wider relationship between small firms and larger companies and this is the focus of this section. Not covered here is the perennial problem of large firms delaying paying smaller firms for good or services provided (Paul and Boden, 2011). However, there is data on recent changes in UK employment by sector; the sectoral pattern of high growth enterprises, and the difference in interest rates charged to small and large companies by country.

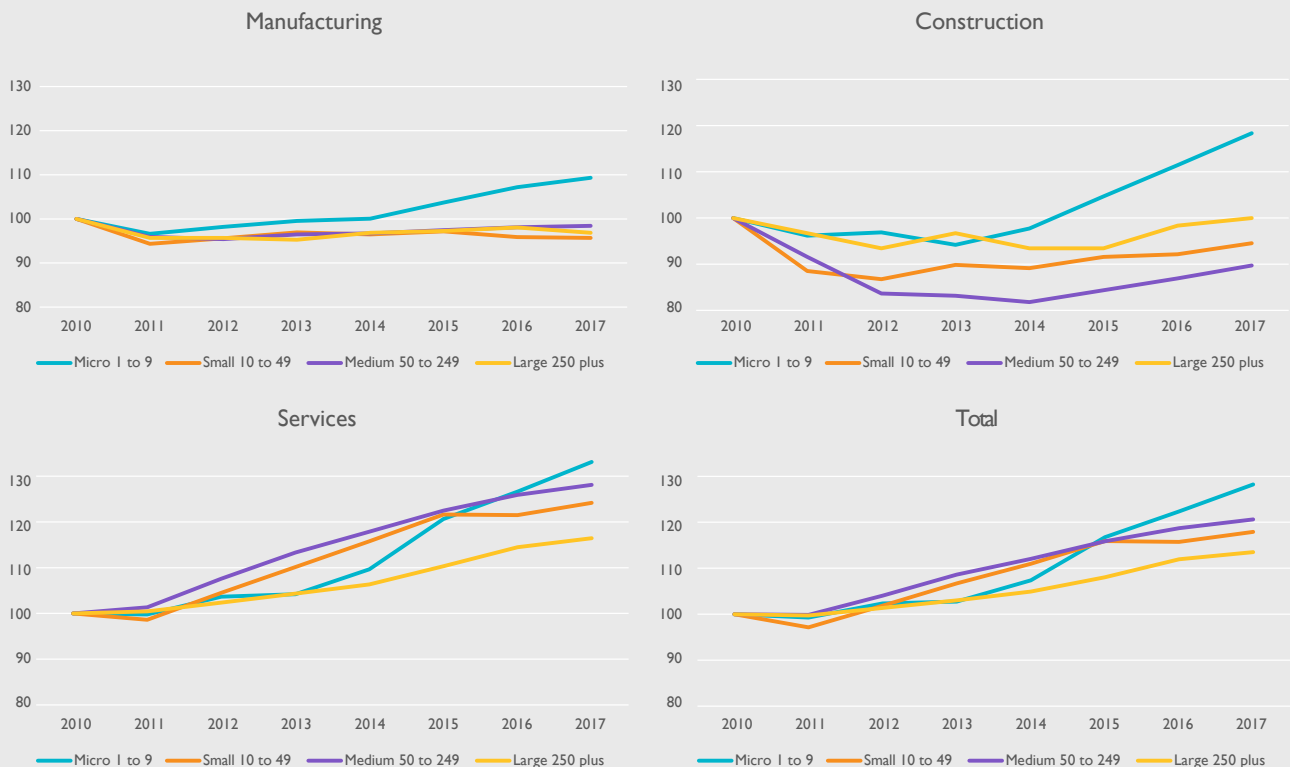


4.1 Change in employment by size and broad sector

Figure 8 shows the relative growth by sector of different sized enterprises. In the manufacturing sector the number of enterprises with more than 10 employees dropped between 2010 and 2011, then stayed stable from then on. However, the micro manufacturing enterprise, with less than 10 employees, similarly fell between 2010 and 2011, but from then grew until there were ten per cent more micro manufacturers in 2017 than in 2010. In the services sector all size bands grew from 2011 with initially the larger ones growing fastest, but by 2014 micro services took off until there were about a third more micro service companies in 2017 than in 2010.

Figure 8

Employment by enterprise size – number of jobs, 2010 = 100



Source: Inter-Departmental Business Register (IDBR) accessed via NOMIS

The construction sector saw a fall in the number of enterprises in all size classes until 2014 when all size groups started growing again. However, only the micro construction enterprises ended up in 2017 with more than in 2010. The total chart in Figure 8 shows growth in all size bands, but post 2014 the construction sector micro enterprises boost the growth rate of micro enterprises overall.

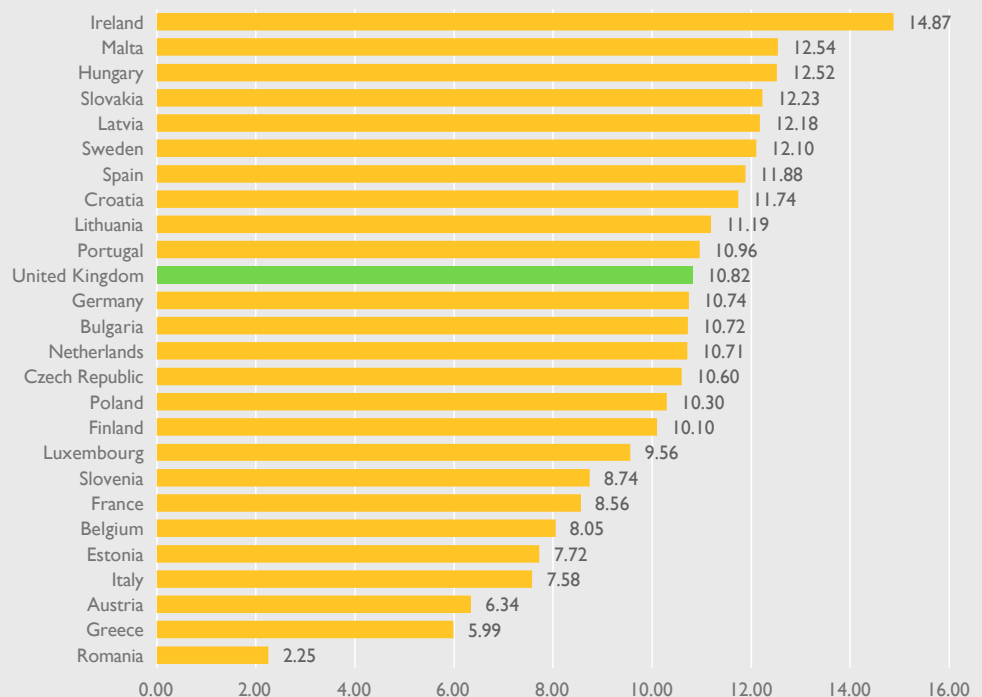
4.2 High growth enterprises by country

High Growth Enterprises are defined by Eurostat as enterprises with an average annualised growth in the number of employees of more than 10% per year over a three-year period and at least 10 employees when the growth began. These are the enterprises it is believed that deliver employment and economic growth.



Figure 9 shows the proportion of all enterprises with ten or more employees that are high growth, as defined above. This shows that the UK is at about mid-way in the range, but with no large countries with a higher proportion of high growth enterprises. As there is more scope for high growth enterprises in larger countries, this is significant.

Figure 9
High growth enterprises as a percentage of all enterprises with 10 or more employees, 2015



Source: Eurostat Entrepreneurial Statistics

4.3 Interest rate spreads

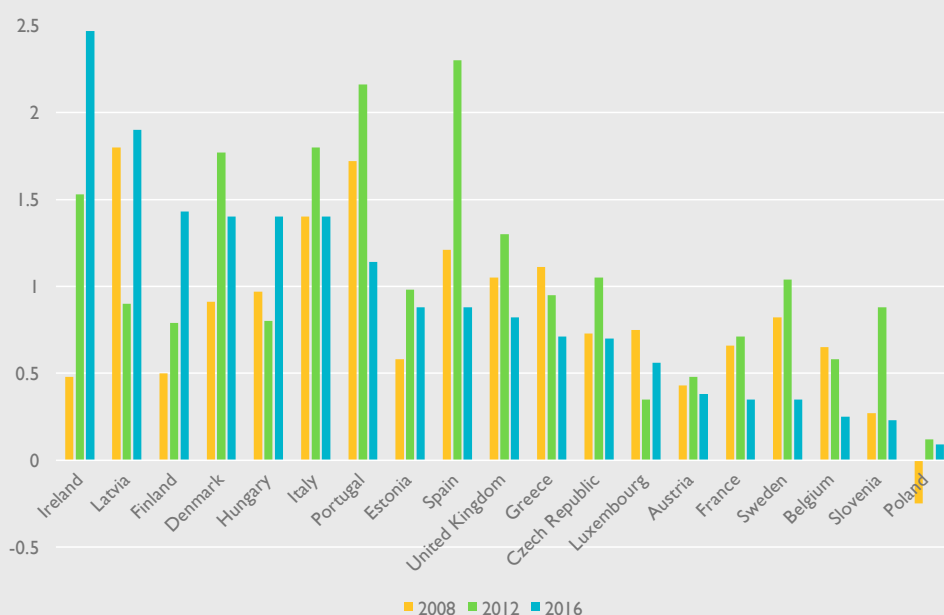
Interest rate spreads are the difference between the interest rates charged to Small and Medium-sized Enterprises (SMEs) and large enterprises.

The generally higher rates for SMEs potentially reflect three factors: firstly, the higher rates could reflect a higher perceived risk of SMEs defaulting on their loans; secondly, a belief that the bank can make higher returns from SMEs, as they have fewer alternative sources of funding, and; thirdly, there might be central bank or other regulatory efforts to reduce the spread. In practice, it is likely to be a mix of all three factors that determines the spread. Finally, it is possible that a low spread reflects low lending rates, with only the highest quality borrowers obtaining loans.


Higher spreads could reflect a higher risk appetite by banks, which produces higher lending and a greater number of SMEs in the national economy. However, overall, a higher spread means that small companies are paying more to invest in new innovative capital and this will reduce the contribution to productivity growth by these companies.

The national patterns shown in Figure 10 show a great deal of volatility, and no consistent international patterns, which suggests that three factors were at play with national issues dominating the extent of the spreads. Importantly, the UK is in the mid-range in terms of the spreads, and, showed greater stability in the pattern of spreads. Evidence from the UK also suggests that the 2008 recession caused banks to reduce risky lending and put greater emphasis on credit histories, both factors reducing finance for younger smaller companies (Cowling et al., 2016).

Figure 10
Interest rate spreads between loans to SMEs and to large enterprises



Source: OECD (2018) *Recent Trends in SME and Entrepreneurship Finance*



Summary Relations

The relationship between small businesses and larger ones is complex and appears to be mainly determined by national factors.

However, larger countries sustain larger companies, but the mix between medium and small sized companies does not appear to be determined by the size of the country.

Countries with an older population tend to have fewer high growth start-ups. This may be due to fewer gaps in the market, or fewer dynamic youths driving growth.

Larger companies find it easier to get access to finance and obtain preferential rates, but this might be due to longer credit histories which boost banks confidence in the ability to repay loans.

5. HOW DOES ENTREPRENEURSHIP IN THE UK COMPARE?

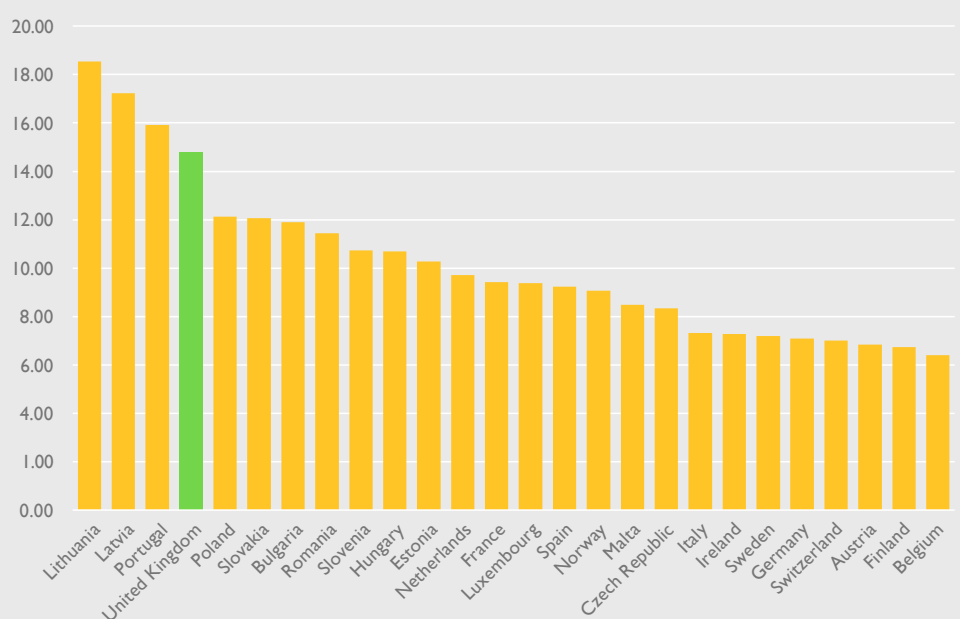


The best available data for international comparison of UK entrepreneurship comes from the European Union and the EU's statistical agency Eurostat. This section contains a series of charts and tables largely based on Eurostat data. The first two figures detail the comparative enterprise birth and death rates across Europe. This is followed by data on the growth of start-ups across Europe and the degree to which entrepreneurial activity is thought of positively. The final figure in this section details the attitudes towards different patterns of employment across Europe.

5.1 Enterprise birth rates across the European Union

Figure 11 shows the birth rates of enterprises across the European Union, with the UK having the fourth highest rate behind Lithuania, Latvia and Portugal. The UK's rate was also twice that of four countries Switzerland, Austria, Finland and Belgium.

Figure 11
Enterprise birth rates across Europe, 2015

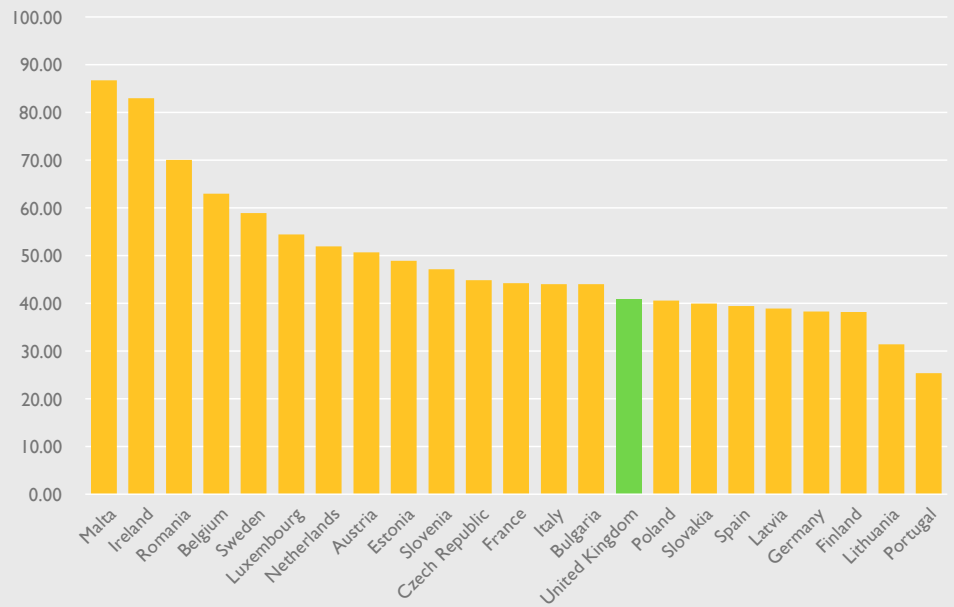


Source: Eurostat Entrepreneurial Statistics

5.2 Enterprise survival across the European Union

Figure 12 provides data on the proportion of enterprises set up five years previously still surviving in 2015. This shows that the UK, although it has a relatively high birth rate, has relatively few (41 per cent) of the start-up surviving at the five-year mark. This compares with Malta that has 87 per cent, over twice the UK's rate, surviving.

Figure 12
Percentage of start-ups surviving after 5 years across Europe, 2015

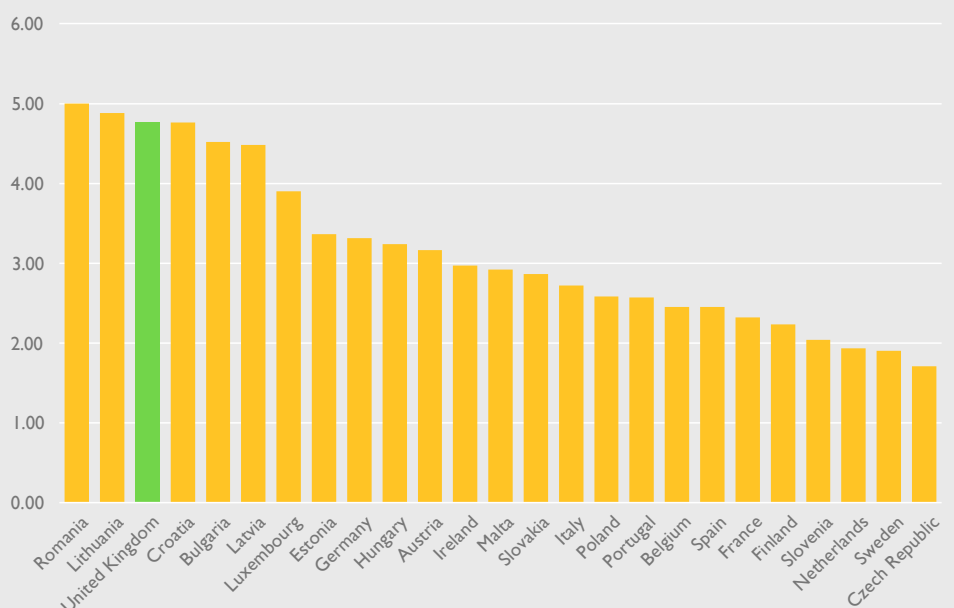


Source: Eurostat Entrepreneurial Statistics

5.3 Growth of new enterprises across Europe

One measure of the growth of new enterprises is the average number of employees of surviving enterprises five years after foundation, as shown in Figure 13. This shows that, apart from Romania and Lithuania, the UK has the highest average number of employees amongst enterprises that are five years old. This reflects on a combination of relatively high growth new enterprises and a relatively high average size of enterprises at formation.

Figure 13
Average number of employees of five-year-old enterprises across Europe, 2015



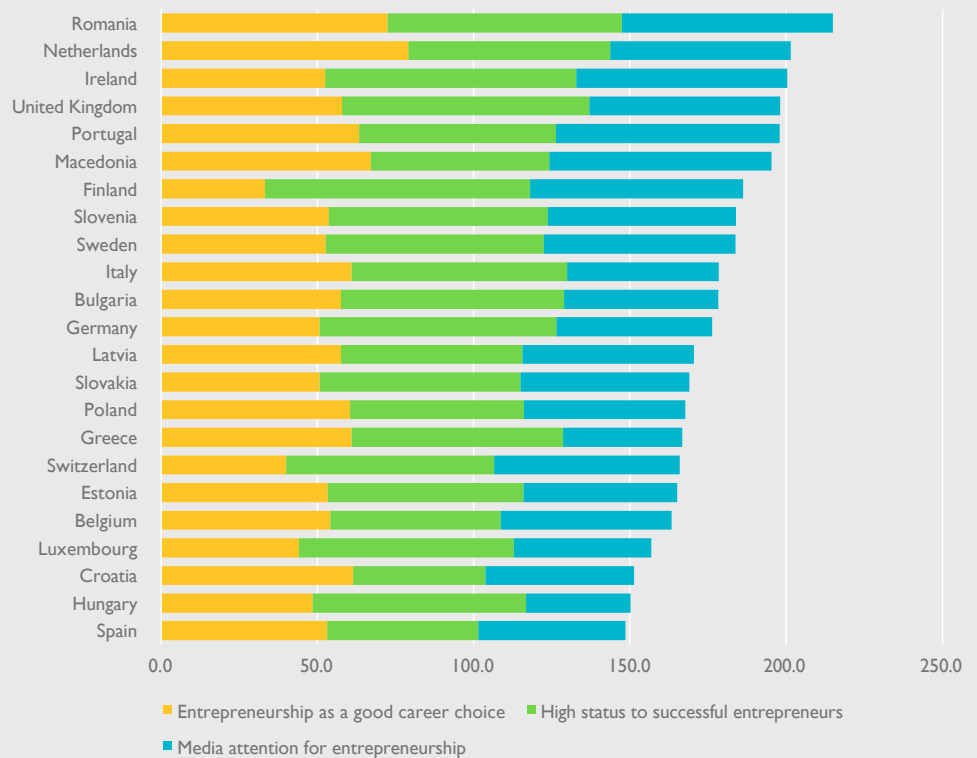
Source: Eurostat Entrepreneurial Statistics

5.4 Views of entrepreneurship

One driver of entrepreneurship is how entrepreneurship is viewed by society. Figure 14 provides data on whether entrepreneurship is perceived as a good career choice. Whether people assign high status to entrepreneurs and whether they feel the media provides positive images of entrepreneurship. Between these three measures an overall indicator of societal valuation of entrepreneurship can be generated. This shows the UK has a relatively high valuation of entrepreneurship, with only Romania, the Netherlands and Ireland having higher values.

Figure 14

Societal valuation of entrepreneurship



Source: Global Entrepreneurship Monitor 2015/16 Global Report

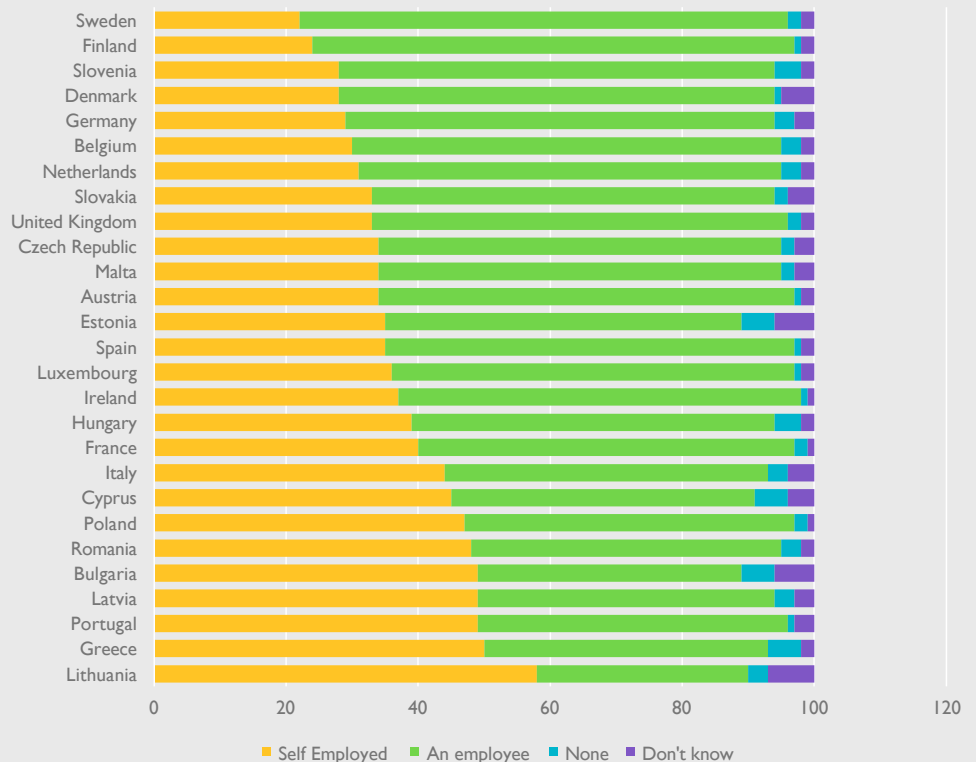


The UK has a relatively high valuation of entrepreneurship, with only Romania, the Netherlands and Ireland having higher values

5.5 Employment preferences

An important driver of entrepreneurship is whether individuals would prefer to be self-employed or an employee. Figure 15 provides information on this factor, with the data showing a relatively high preference for employment rather than self-employment in the UK.

Figure 15
Employment Preferences by Country, 2012



Source: Flash Barometer (2012) Entrepreneurship in the EU and beyond



Summary Comparisons

In terms of comparisons with Europe, the data suggests that the UK has a high rate of new enterprise births, only exceeded by Lithuania, Latvia and Portugal. However, the UK has a relatively low rate of new enterprises surviving over their fifth birthday, with about 40 per cent surviving compared with Malta's 85 per cent surviving.

Despite the poor survival rate, the survivors have relatively high average number of employees at five years with only Romania and Lithuania having larger average five-year olds. Values associated with entrepreneurship have a relatively high valuation in the UK, with only Romania, the Netherlands and Ireland being more positive about entrepreneurs. Despite this, a relatively high proportion of the UK would like to be employees rather than self-employed.

6. DOES THE UK HAVE THE RIGHT CONDITIONS AND POLICIES TO SUPPORT ENTREPRENEURSHIP?

The UK has a relatively high rate of new enterprise formation and has a wide range of funding sources for their early years. Compared with other countries there is a relatively benign regulatory environment without excessively high interest rate spreads. However, this does not lead to longevity for micro businesses or any net employment from these 1 to 4 employee enterprises. Long-term success and employment growth comes from enterprises established with larger teams, and, a wider range of skills.

6.1 Long-term employment growth

A key measure of whether or not the UK has appropriate conditions and policies to support entrepreneurship is 'how many jobs are created 15 years' after the enterprises were formed.

Table 9 presents such data which recognises that most firms do not survive that long but those that do have grown and there is a net employment gain. This is based on an analysis by Anyadike-Danes and Hart (2018) who examined the cohort of enterprises established in 1998. In 1998, 239,600 were established and 15

years later 26,200 were surviving, a 10.9 per cent survival rate.

This shows that after 15 years, those enterprises which had one to four employees were particularly hard hit by attrition and overall there was a fall in employment of 4,200. However, there were a group of 1-4 employee, at start-up, which had remained small and showed a small net gain in employment of 6,500, the main losses being those that had expanded to 20 plus employees. However, in the long term, the major

gains to net employment came from those enterprises that started up with more than 20 employees with a net gain of 199,900 employees.

The reasons for the relative failure of the micro businesses need further examination. It is possible that these micro businesses did not have the skills, or capital, to come through the 2008 recession. This is speculation, as the main losses, in terms of firms, occurred within the first nine years and after that losses slowed down significantly.

Table 9

Net job creation 15 years after formation

1,000's	At Birth, 1-4 employees	At Birth, 5-9 employees	At Birth, 10-19 employees	At Birth, 20+ employees	All
At 15, 1-4 employees	6.5	18.6	22.7	91.6	139.3
At 15, 5-9 employees	-2.8	0.3	3.0	23.4	24.3
At 15, 10-19 employees	-2.1	-1.0	0.2	30.5	27.7
At 15, 20+ employees	-5.8	-1.8	-6.8	54.4	40.1
All	-4.2	16.1	19.6	199.9	231.5

Source: Anyadike-Danes and Hart (2018) – Table 2

Most firms do not survive that long but those that do have grown and there is a net employment gain

6.2 Access to finance

Given the relatively benign interest rate spreads for the UK and high levels of accelerator support, crowd funding and venture capital, it is necessary to examine the overall levels of lending to SMEs.

Figure 16 provides some data from the OECD, which shows the trends in new SME lending in 2014, 2015, and 2016. This shows lending growing in the UK in 2014 and 2015, but falling in 2016. The UK growth and falls in lending were not as extreme as in Denmark or many of the other countries, which showed falling lending over the whole period, most notably in Greece.



Figure 16
Trends in new SME lending - 2014, 2015 and 2016



Source: OECD (2018) *Recent Trends in SME and Entrepreneurship Finance*



6.3 Venture capital

Venture capital traditionally lends large sums of money generally in return for future equity, following an Initial Public Offering (IPO). Most venture capital investments are written off when the new enterprise fails.

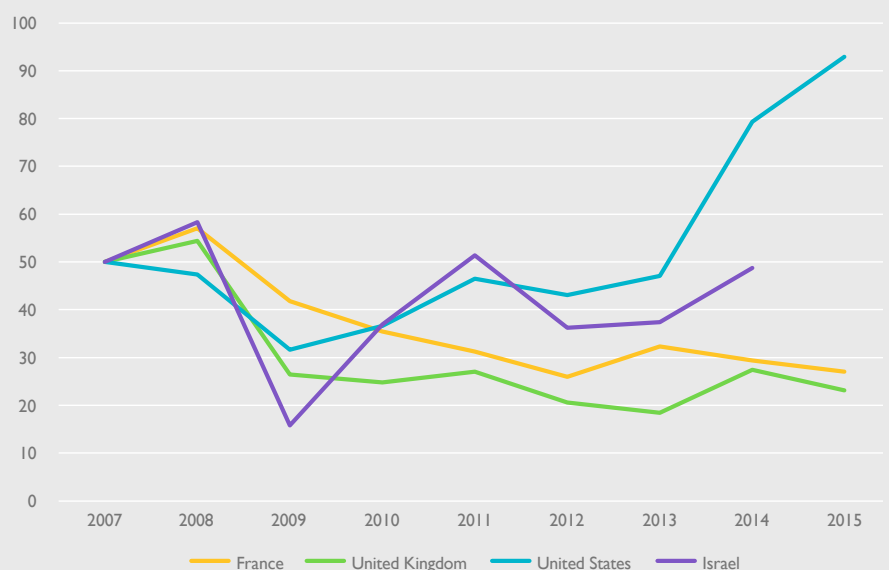
However, the ten per cent that succeed earn the investors high returns, as well as covering the losses elsewhere.

However, returns outside of the US and Israel, have been lower, possibly due to institutional differences and possibly due to lack of skills in Europe (Hege et al., 2003). A later study found that general human capital amongst the venture capital team, if anything, had a negative impact.

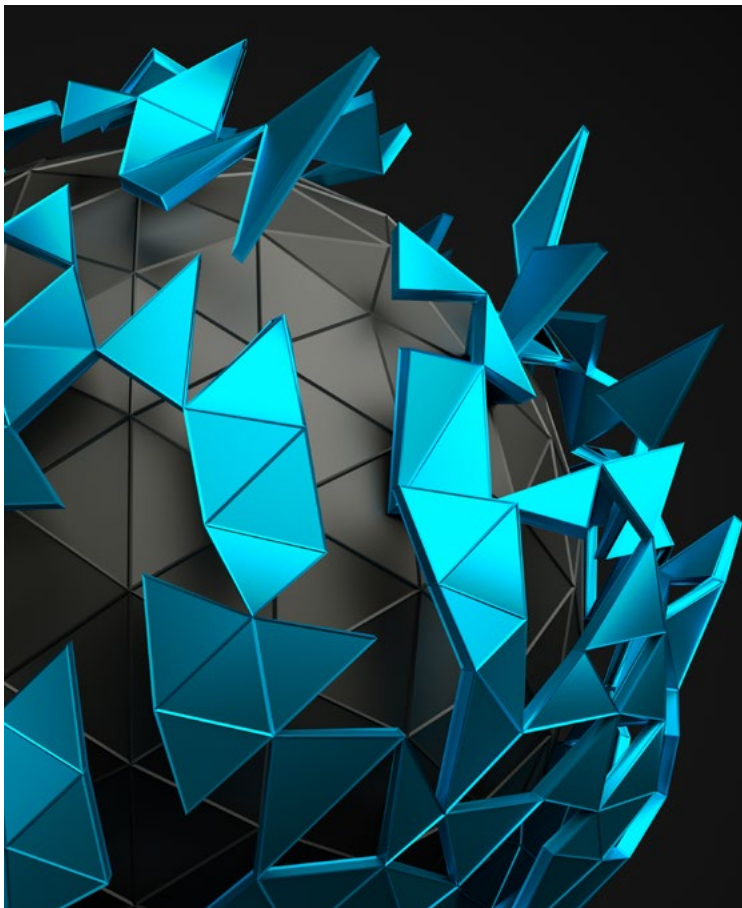
However, human capital specific to the new venture was beneficial (Dimov and Shepherd, 2005). These lower returns in Europe, including the UK, may explain the relative decline in VC funding in the UK and France since 2007.

Figure 17

**Growth of
venture capital
investments
(2007 = 100) in
main VC markets**



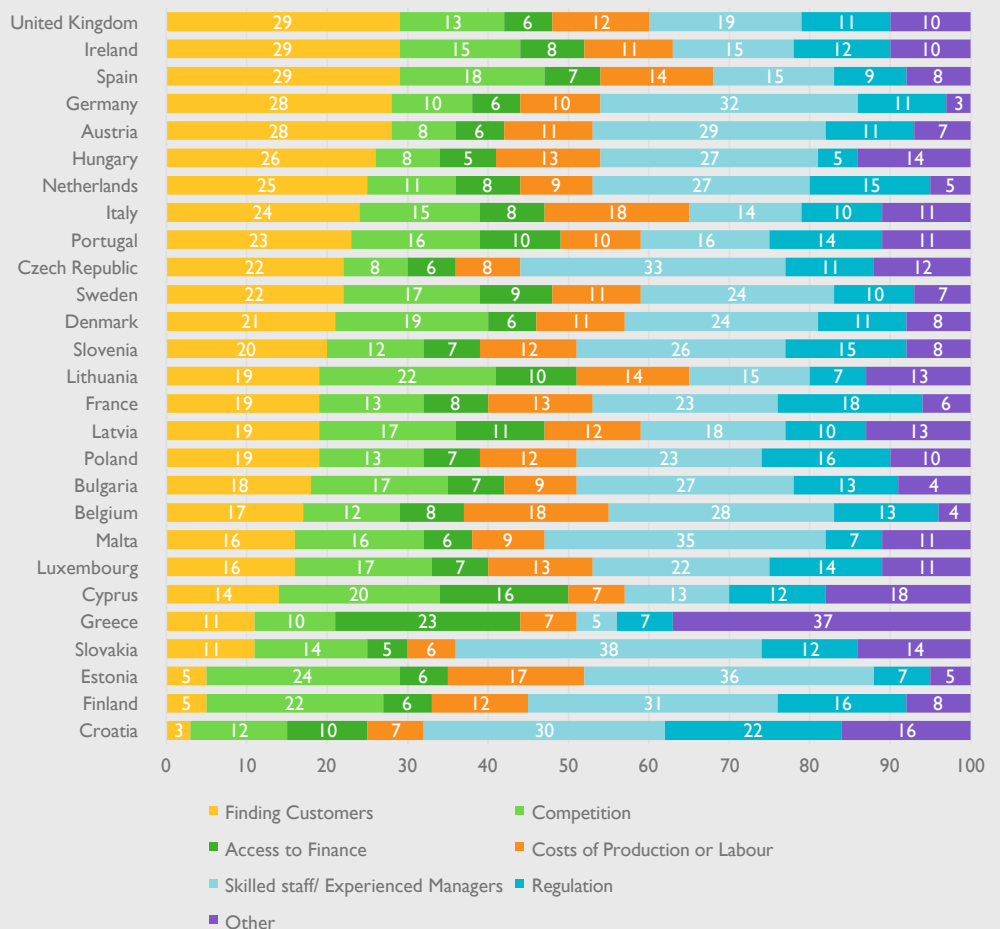
Source: OECD Financing SMEs and Entrepreneurs 2017



6.4 Barriers to entrepreneurship across the European Union

Despite the concerns about finance, when entrepreneurs were asked about the relative importance of a range of problems that they had faced in the last six months, finding customers and finding skilled staff and experienced managers were more important problems across Europe. The UK enterprises were the most likely to mention finding customers, but for all the other problems their responses were in the mid-range of low-range.

Figure 18
Relative importance of a range of problems to enterprise in last six months



Source: Survey on the access to finance of enterprises (SAFE)

6.5 Days taken to form a company

A common measure of regulatory efficiency is the number of days it takes to form a company. Table 10 provides this information for European countries and shows the improvements from 2007 to 2017. The UK is quite fast, at 4.5 days, but not the fastest, with Denmark, Estonia, France and the Netherlands taking one day less than the UK. Despite this, the UK is much faster than Austria (21 days) and Poland (37 days) and the improvement on the 2007 baseline is quite good, but not as impressive as Slovenia which improved from 61.5 days to seven days.



Table 10

Days taken to form a company, 2007, 2012 and 2017

Country Name	2007	2012	2017
Denmark	6.5	6	3.5
Estonia	6.5	6.5	3.5
France	7	6.5	3.5
Netherlands	8	5	3.5
Belgium	4	4	4
United Kingdom	10.5	11.5	4.5
Ireland	13	10	5
Portugal	6.5	5.5	5
Lithuania	26	19.5	5.5
Latvia	16	15.5	5.5
Italy	13	8	6.5
Hungary	17	7	7
Slovenia	61.5	7.5	7
Sweden	16	16	7
Czech Republic	17	15.5	9
Germany	18	14.5	10.5
Greece	38	11	12.5
Slovak Republic	27	14.5	12.5
Spain	60	30	13
Finland	14	14	14
Malta		38.5	16.1
Luxembourg	24	16.5	16.5
Austria	25	25	21
Poland	45	39	37

Source: World Bank World Development Indicators

Summary Conditions

At fifteen years, despite some enterprises which started with one to four employees surviving, the losses and low average growth means that these are associated with a net loss in employment. The employment growth at 15 years comes from larger enterprises at birth, especially with those with 20 or more employees at birth. Despite this, the bulk of support is aimed at the more numerous micro start-ups.



7. CAN ENTREPRENEURSHIP IMPROVE PRODUCTIVITY?

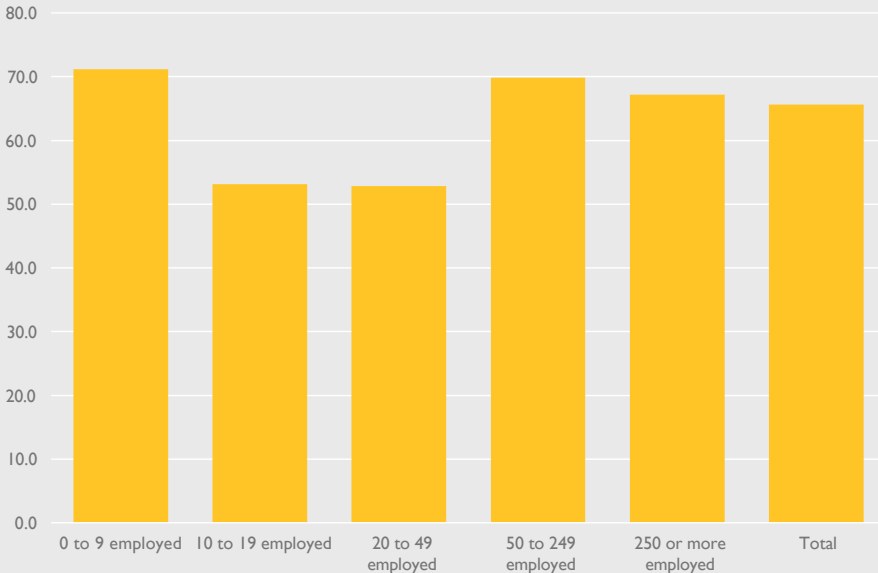
Given the stagnation in productivity growth in the UK, there is the hope that greater entrepreneurship might lead to greater productivity growth. This section examines this argument, using UK data on productivity by size of enterprise, European data on innovation, and exporting, by size of enterprise, in order to address this issue.

Efforts aimed at SMEs would possibly have a negative impact, as the standard definition of SMEs includes the groups with the lowest productivity

7.1 Productivity by size of enterprise

The data on Gross Value Added in thousands of Euros per person, per year; data by size of enterprise supports the argument about entrepreneurs driving up productivity, as the highest productivity is found amongst the smallest enterprises with between zero and nine employees. However, the enterprises with more than fifty employees also had similar productivity levels, while enterprises with between ten and 49 employees had the lowest productivity. This suggests efforts aimed at SMEs would possibly have a negative impact, as the standard definition of SMEs includes the groups with the lowest productivity.

Figure 19
UK gross value added in thousands of Euros per person per year by size class, 2014



Source: Eurostat Entrepreneurial Statistics

7.2 Innovation activity by size of enterprise



The Community Innovation Survey (CIS) asks about product or process innovation in the widest sense and Table 11 presents the innovators as a percentage of the enterprise in all enterprises in the same size band. This shows German enterprises to be the most innovative, driven largely by its larger ones with 94 per cent of those with 250 or more employees innovating and 75 per cent of those with 50 to 249 employees. Generally, a higher proportion of the larger enterprises report some form of innovation. Overall, the UK has only Germany, Luxembourg, Belgium and Ireland with a higher proportion of innovative enterprises. However, the UK's enterprises with 250 or more employees are noticeably underperforming with 20 countries with higher levels of innovation activity in that size band.

Table 11

Innovation activity by size of enterprise percentage of enterprises in size band

	10 to 49 employees	50 to 249 employees	250 employees or more	Total
Germany	62.9	75.5	93.9	67.0
Luxembourg	63.1	68.1	83.0	65.1
Belgium	59.4	74.2	86.0	64.2
Ireland	57.3	71.7	85.5	61.0
United Kingdom	58.5	65.7	69.0	60.2
Austria	54.1	74.5	89.3	59.5
France	51.9	70.1	84.1	56.4
Netherlands	50.4	70.6	78.8	55.3
Finland	51.6	65.6	79.0	55.3
Sweden	50.5	67.0	79.8	54.2
Portugal	50.7	65.4	83.7	54.0
Greece	49.7	55.2	86.4	51.0
Denmark	45.5	58.1	75.0	49.5
Italy	45.0	68.2	84.8	48.7
Slovenia	39.7	63.1	87.2	45.9
Lithuania	36.6	63.2	87.7	43.3
Czech Republic	35.2	59.1	77.2	42.0
Cyprus	38.3	57.0	72.1	41.8
Malta	35.6	61.0	72.4	41.2
Croatia	36.0	50.3	68.8	39.7
Spain	32.0	54.9	77.1	36.4
Slovakia	28.5	37.9	54.7	31.8
Estonia	21.8	41.1	57.0	26.5
Bulgaria	20.6	38.8	78.3	26.1
Hungary	21.7	35.9	55.1	25.6
Latvia	20.8	40.1	68.5	25.5
Poland	15.7	35.0	61.3	21.0
Romania	11.5	15.0	26.9	12.8

Source: Eurostat Community Innovation Survey (CIS)

7.3 Exports by size of establishment

Exports are another indicator of productivity. If people in other countries want to buy an enterprise's products at the price asked, then the quality and value must be competitive. Table 12 examines trade within the EU and Table 13 trade outside of the EU. Both tables have been sorted to show the greatest exports from micro employers, with less than ten employees at the top.

Table 12 examines intra-EU exports where it would be expected micro business would have advantages over Extra-EU exports. Malta, where micro businesses are dominant, has 55 per cent of all Intra-EU exports from Malta coming from micro businesses. The UK's micro businesses also do well, with 21 per cent of Intra-EU exports from the UK. Belgium's micro businesses do particularly well, with 46 per cent of all Belgian Intra-EU exports coming from them.

Table 12

Intra EU exports by size of exporter and overall value

	Fewer than 10 employees	From 10 to 49 employees	From 50 to 249 employees	250 employees or more	Unknown Size	Total Value (1,000's of Euros)
Malta	54.60%	4.80%	10.80%	:	:	1,079,197
Belgium	45.80%	10.50%	13.20%	29.50%	0.90%	257,624,704
Hungary	25.70%	5.90%	14.80%	52.80%	0.80%	72,197,218
United Kingdom	21.30%	9.20%	17.50%	45.80%	6.20%	184,052,566
Romania	19.20%	8.10%	17.80%	54.40%	0.40%	40,228,138
Sweden	18.10%	8.70%	16.20%	54.90%	2.10%	73,802,727
Greece	17.80%	16.80%	23.20%	39.30%	2.90%	14,025,419
Latvia	17.20%	25.00%	36.00%	18.10%	3.70%	7,566,875
Estonia	16.80%	18.60%	31.90%	31.50%	1.30%	8,694,732
Austria	16.30%	12.80%	23.50%	46.20%	1.20%	96,519,424
Croatia	14.80%	12.30%	24.60%	36.60%	11.60%	7,685,902
Cyprus	13.50%	17.30%	25.90%	7.70%	35.70%	1,308,946
Lithuania	13.50%	15.70%	26.60%	36.00%	8.10%	14,048,685
Spain	11.80%	13.30%	22.20%	45.30%	7.40%	165,643,708
Ireland	11.70%	6.70%	13.60%	66.80%	1.30%	59,844,160
Bulgaria	11.50%	13.30%	22.50%	46.70%	5.90%	14,852,925
Slovenia	9.80%	10.80%	17.80%	36.90%	24.80%	21,868,517
Portugal	9.20%	16.10%	27.00%	41.00%	6.70%	36,071,085
Netherlands	7.70%	12.80%	22.60%	21.70%	35.20%	391,037,593
Slovakia	7.70%	5.90%	12.30%	60.90%	13.20%	57,986,407
Denmark	7.30%	16.10%	23.70%	39.50%	13.40%	52,791,302
Luxembourg	5.50%	12.70%	18.40%	23.40%	40.10%	13,007,702
Italy	5.20%	17.50%	29.90%	44.20%	3.20%	225,978,155
Poland	5.10%	7.50%	15.90%	52.80%	18.80%	142,383,476
Finland	4.10%	9.40%	23.90%	60.80%	1.80%	31,794,364
Czech Republic	3.40%	6.50%	14.00%	43.00%	33.20%	118,475,483
Germany	3.10%	5.90%	12.80%	61.80%	16.30%	692,808,216
France	3.10%	5.30%	9.50%	65.60%	16.50%	269,935,912

Source: Eurostat Trade Statistics

Table 13 provides comparable data but covering exports to outside of the EU. Here it is considered that micro businesses will be at a relative disadvantage, as Extra-EU trade involves compliance with a wider set of regulations and greater bureaucracy. Again, the Intra-EU export success of Belgian micro enterprises is reflected in their 35 per cent of all Belgian Extra-EU exports. The UK micro businesses are less successful in terms of Extra-EU exports, capturing only nine per cent of the UK exports which are dominated by businesses with 250 or more employees. Apart from France and Germany, this is the highest proportion of Extra-EU exports that come from this largest size class.

Table 13

Extra EU exports by size of exporter and overall value

	Fewer than 10 employees	From 10 to 49 employees	From 50 to 249 employees	250 employees or more	Unknown Size	Total Value (1,000's of Euros)
Belgium	34.90%	6.10%	24.30%	28.30%	6.40%	100,208,371
Hungary	28.70%	3.70%	12.40%	49.50%	5.80%	16,595,192
Malta	24.90%	16.80%	6.10%	:	:	1,284,628
Estonia	21.70%	11.80%	38.80%	15.30%	12.30%	2,875,811
Latvia	15.00%	14.10%	31.20%	16.30%	23.40%	3,371,636
Austria	11.60%	6.70%	17.50%	56.80%	7.40%	41,237,357
Slovenia	11.00%	8.40%	16.20%	35.60%	28.80%	6,924,045
Croatia	10.50%	12.20%	16.70%	49.80%	10.80%	3,974,526
Portugal	9.50%	16.30%	22.30%	40.10%	11.80%	13,562,916
Spain	9.10%	12.80%	20.50%	46.30%	11.30%	88,955,737
Bulgaria	8.80%	14.50%	15.00%	56.70%	5.00%	8,024,699
United Kingdom	8.70%	6.90%	11.00%	66.50%	6.80%	230,285,913
Greece	7.90%	11.20%	18.80%	60.40%	1.70%	11,800,037
Lithuania	7.90%	9.50%	15.20%	26.00%	41.30%	8,855,207
Romania	7.90%	7.20%	14.60%	63.80%	6.50%	14,364,406
Ireland	6.40%	10.80%	18.50%	62.00%	2.40%	52,563,183
Italy	6.40%	16.70%	25.70%	43.50%	7.70%	186,316,004
Netherlands	5.20%	8.20%	23.70%	31.40%	31.50%	123,926,811
Poland	5.10%	7.40%	13.60%	54.70%	19.20%	37,066,304
Cyprus	4.60%	18.70%	11.20%	9.30%	56.10%	1,651,819
Slovakia	4.00%	2.70%	8.40%	73.10%	11.80%	9,858,851
Denmark	3.80%	9.00%	21.20%	52.00%	13.90%	33,299,973
Sweden	3.70%	9.10%	17.00%	64.40%	5.80%	52,405,755
France	3.50%	4.20%	7.70%	71.70%	12.90%	187,294,853
Finland	3.40%	7.80%	20.40%	61.20%	7.20%	22,088,595
Czech Republic	3.00%	4.40%	11.80%	46.90%	34.00%	23,877,570
Luxembourg	3.00%	11.90%	13.40%	47.60%	24.20%	2,415,017
Germany	2.50%	4.20%	9.00%	74.70%	9.60%	503,014,161

Source: Eurostat Trade Statistics



Summary Productivity

Micro enterprises with one to four employees are relatively the most productive, closely followed by the largest enterprises. Those with between 10 to 49 employees having, on average, the lowest productivity. Innovation, which in the long run leads to productivity growth, is found to be amongst enterprises with 10 to 49 employees more similar to those with 250 or more employees in the UK. However, this is more due to a comparatively low rate of innovation amongst the larger companies in the UK. The UK's micro businesses fare quite well in terms of Intra-EU exports but are much less successful in terms of the more complex and bureaucratic Extra-EU exports.

8. CONCLUSIONS



The popular view in the UK of dynamic and innovative small start-ups, led by individuals battling against a system unwilling to provide finance and support, may be misjudged. The smallest of start-ups end in failure, partly having failed to grow due to a lack of appropriate business planning and foresight, and partly down to poor cash management, despite there being fairly easy access to finance through

a wide range of funding sources and opportunities. There is no data on the innovation activities of the smallest and youngest enterprises, but their productivity either comes from innovation or excessively hard work. The evidence regarding the demise of such start-ups points to a lack of more diverse skills than the ones needed to create the business in the first place. A greater diversity of skillset is often to be found in the larger teams of the bigger

start-ups, and hence the reason for their better survival rates. These start-ups, characteristically are more innovative, become successful exporters, have greater business longevity and drive employment growth. Perhaps, a greater emphasis on entrepreneurial teams, with a focus on building business innovation skills, would deliver the employment and productivity growth so often sought after by the policy makers!



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