# Performance of high growth firms in Scotland

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## Abstract

High growth firms contribute disproportionately to economic growth. This paper summarises new data for Scotland, and compares performance to other UK regions in high growth performance. The analysis considers the proportion of the business base that achieves high growth, characteristics of high growth firms in terms of size and productivity, and the pattern of high growth across local authority areas. The analysis shows that high growth firms in Scotland contribute less to economic and productivity growth than those in other parts of the UK.

## 1. Introduction

A range of research and analysis shows that high growth firms (HGFs) contribute disproportionately to economic growth. For example, in the UK over the 2010-13 period, HGFs accounted for about 1% of all job creating firms but 18% of the jobs created by job creating firms[12]. HGFs are also more likely to be exporters, to innovate and to have higher levels of productivity than lower growth firms[13]. This suggests that HGFs are more likely to create higher quality, higher paying jobs.

The number of HGFs is an indicator in Scotland's National Performance Framework[14], and developing a better understanding of HGFs in Scotland will contribute to our evidence base on their contribution to economic and productivity performance.

This paper considers the latest data on high growth firms in Scotland, and uses the OECD definition: *all enterprises with 10 or more employees and annual average growth (employment or turnover) of more than 20% per annum over three years (equal to 72.8% growth)*[15].

The analysis is based on a HGF dataset published by the Office for National Statistics (ONS)[16], which provides data on the number of HGFs by UK Government Region and local authority areas from 2013 to 2016[17], providing four years of trend data. Data is provided on high growth in terms of employment growth (Employment HGFs), turnover growth (Turnover HGFs) and employment & turnover growth combined (Employment & Turnover HGFs)[18].

## 2. High growth firms in Scotland

Table 1 shows the number of HGFs in Scotland over the period 2013 to 2016 and the number experiencing growth in employment, in turnover and in employment and turnover. Firms in Scotland (and in all other UK regions) were far more likely to achieve high growth through increases in turnover than in employment, with few firms reaching high growth via increases in both employment *and* turnover.

In 2016, there were 910 Employment HGFs, employing just over 106,000 people. Employment in Scotland's 1,945 Turnover HGFs was 132,000, with just under 51,000 working in Employment & Turnover HGFs.

Over the four-year period, the general trend has seen an increase in the number of HGFs in Scotland, and Scotland's share of all UK HGFs has stayed relatively stable (Table 2).

[12] Moving on from the 'Vital 6%', ERC, 2014
[13] See for example High Growth Firms and Productivity - Evidence from the United Kingdom (Nesta 2013)
[14] Scotland's national Performance Framework
[15] Eurostat – OECD Manual on Business Demography Statistics
[16] High Growth Enterprises 2013-2016, ONS 2017
[17] For example, 2016 data refers to enterprises that have grown by at least 20% over the preceding three years i.e. 2013-2016
[18] ONS note that turnover data should be used with caution as they are derived mainly from administrative sources which they are unable to validate.

**Table 1:** Number and characteristics of HGFs in Scotland, 2013 - 2016

| | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|
| Turnover HGFs | 1,285 | 1,385 | 1,865 | 1,945 |
| Employment HGFs | 800 | 980 | 830 | 910 |
| Employment & Turnover HGFs | 340 | 415 | 405 | 435 |

**Source:** *ONS*

**Table 2:** HGFs in Scotland as a percentage of UK by characteristic, 2013 -2016

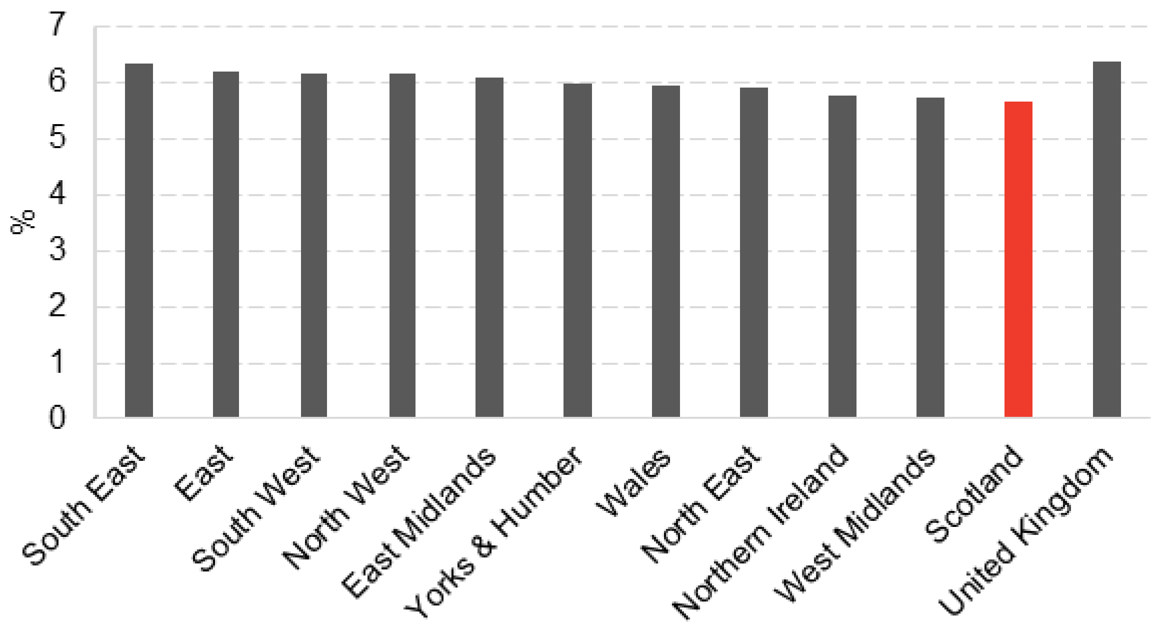
| | 2013 (%) | 2014 (%) | 2015 (%) | 2016 (%) |
|---|---|---|---|---|
| Employment HGFs | 6.4 | 6.9 | 6.8 | 6.7 |
| Turnover HGFs | 6.4 | 7.1 | 7.3 | 6.7 |
| Employment & turnover HGFs | 6.0 | 6.6 | 6.5 | 5.9 |

**Source:** *ONS*

The HGF rate is defined as the proportion of all 10+ employee firms that achieve high growth[19], and it can be used to compare Scotland's HGF performance with other parts of the UK.

In terms of employment growth, Scotland's HGF Employment rate it was 5.7% in 2016, the weakest performance of all UK regions (Chart 1). Scotland has been in the bottom quartile each year since 2013. To match the Employment HGF rate of the UK average (6.4%), Scotland would need an additional 113 HGFs, and a further 87 to reach the Employment HGF rate of the top quartile of UK regions (6.2%)[20].

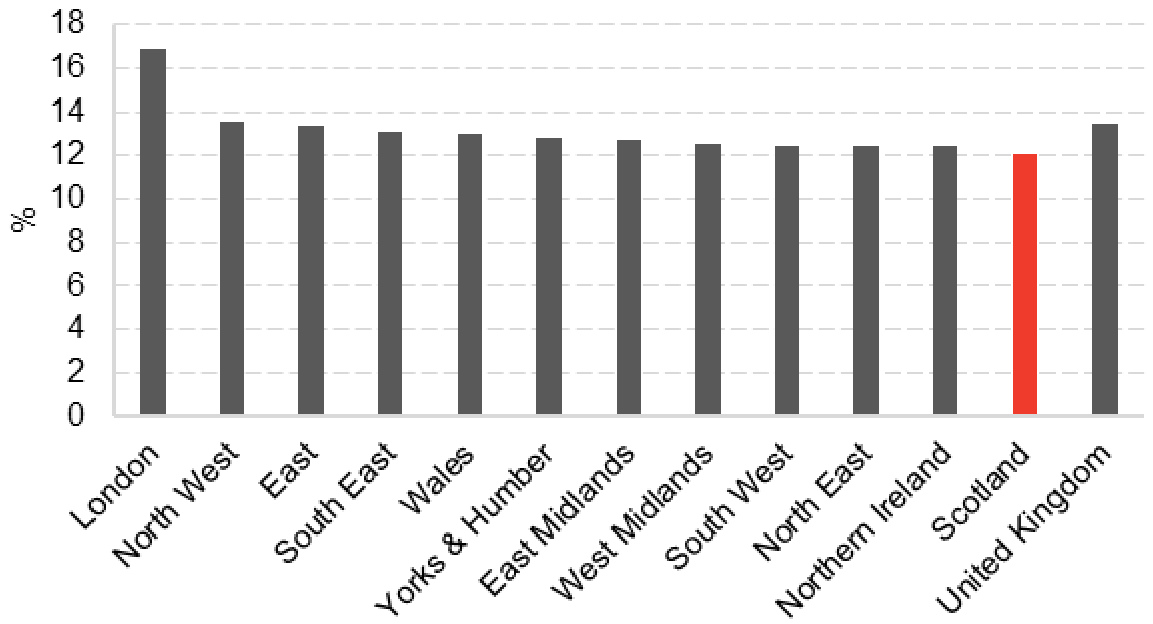
**Chart 1:** Employment High Growth Firm rate (%) by UK Region, 2016




**Source:** *ONS*

[19] The count of surviving enterprises with 10+ employees represents the starting point for the calculation of high growth units. Counts represent those units who were present in xx-3 with 10 or more employees and who survived to year xx. High Growth enterprises are then calculated from this population by measuring the change in employees between xx-3 and year xx. ONS (2017)
[20] Scottish Enterprise calculations for HGF gap estimates.

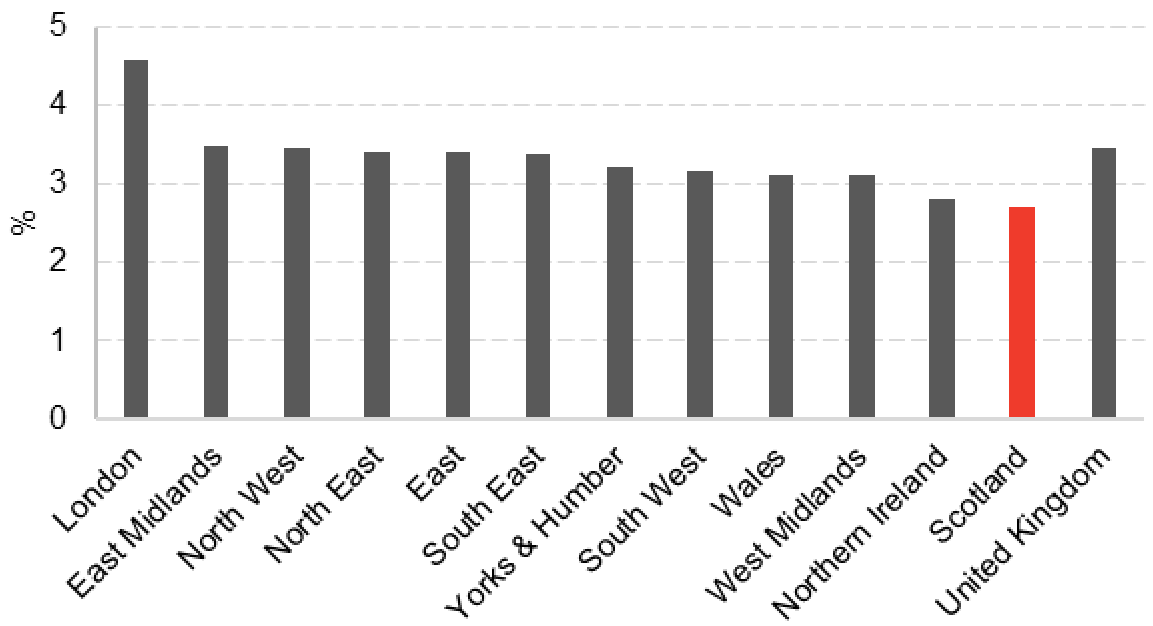
**Chart 2:** Turnover High Growth Firm Rate (%) by UK region, 2016




***Source:*** *ONS*

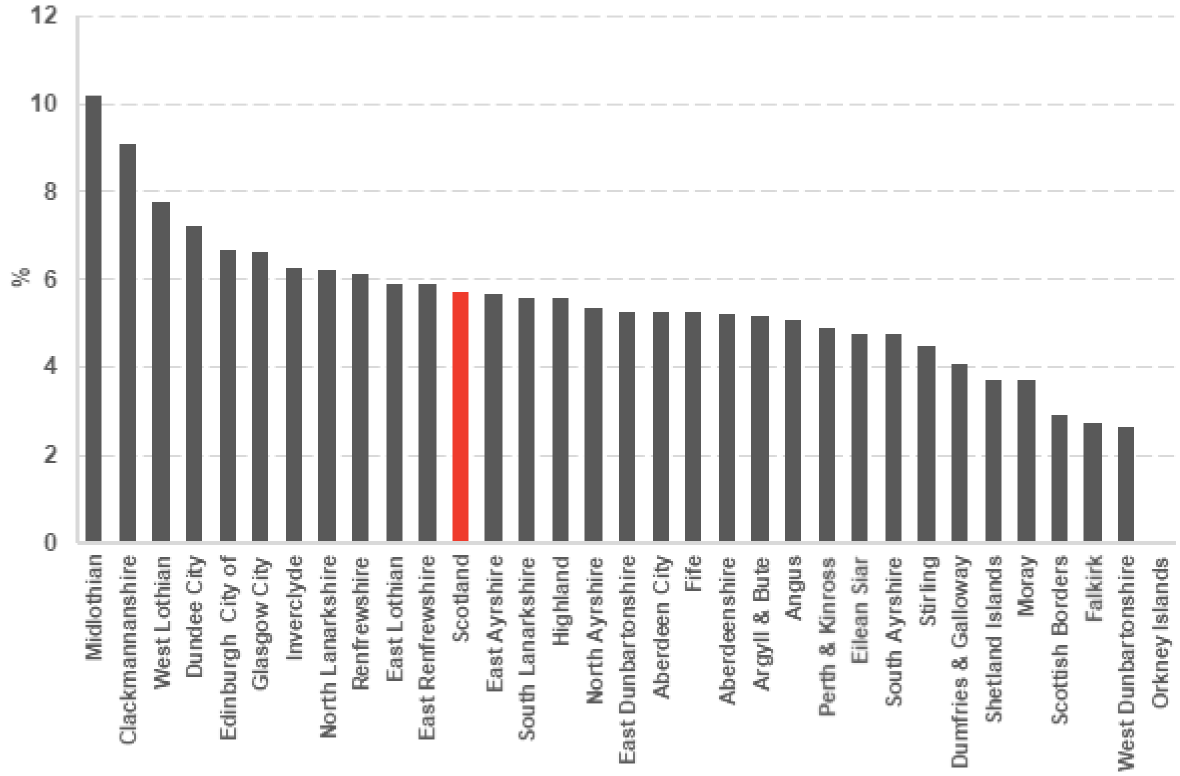
In terms of turnover growth, Scotland's HGF turnover growth rate was 12.1% in 2016, again placing it last of all UK regions (Chart 2). Scotland was also in the bottom quartile in 2013, ranked in 11th place, although performance improved relative to other regions in 2014 (ranked in 6th place) and 2015 (ranked in 5th place). It is not clear from the data alone why Scotland's relative performance has changed significantly over the period . To close the gap with the UK average rate, Scotland would need an additional 225 Turnover HGFs, and a further 200 to reach the rate of the top quartile of UK regions.

**Chart 3:** Employment & Turnover High Growth Firm Rate (%), 2016



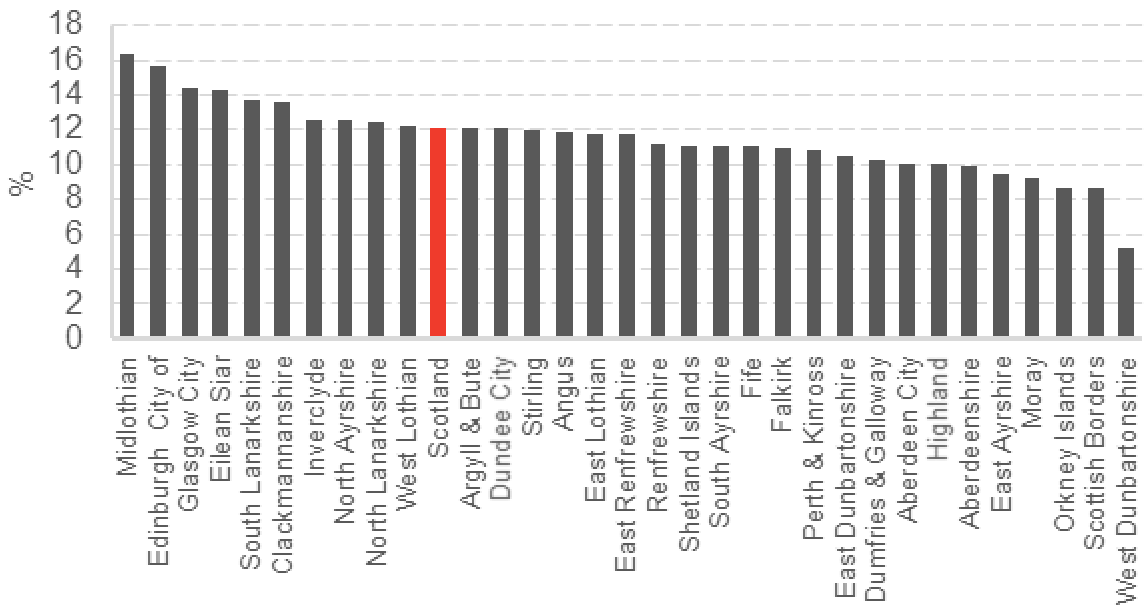

***Source:*** *ONS*

**Chart 4:** Scottish Local Authority Employment HGF rate, 2016 (%)



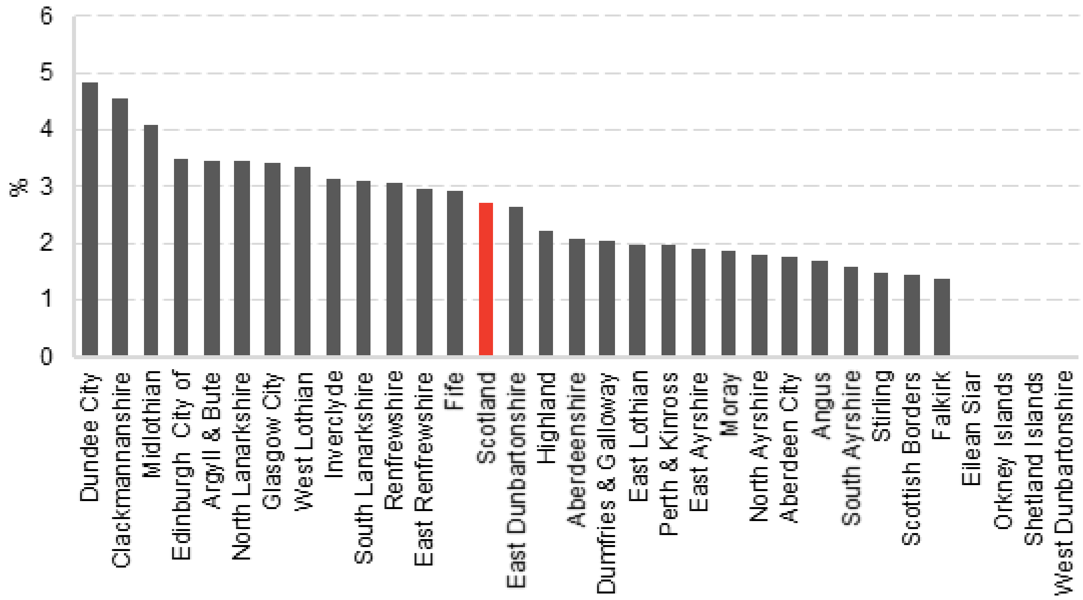

***Source:*** *ONS*

**Chart 5:** Scottish Local Authority Turnover HGF rate, 2016 (%)




***Source:*** *ONS*

**Chart 6:** Scottish Local Authority Employment & Turnover HGF Rate (%), 2016




**Source:** *ONS*

In terms of employment *and* turnover growth, Scotland's HGF rate was 2.7% in 2016, ranking it (again) as the weakest of all UK regions (Chart 3) and Scotland was in the bottom quartile of UK regions in 2013, 2014 and 2015. To match the UK average rate, Scotland would need an additional 120 Employment & Turnover HGFs, and a further 121 to match the rate of the top quartile of UK regions.

HGFs of at least one definition can be found in each local authority area in Scotland. The largest number were in the cities of Glasgow, Edinburgh and Aberdeen (Appendix 1). Considering HGF rates (Charts 4 to 6), Midlothian had the highest Employment HGF and Turnover HGF rate in 2016, and West Dunbartonshire had the lowest. Overall, rural local authority areas tended to have lower HGF rates.

## 3. Characteristics of HGFS

*Average HGF Size*

High growth firms tend to be larger than the general population of firms with 10+ employees[21]. The pattern of firm size and by HGF type is broadly the same across each of the UK regions: the largest firms are Employment HGFs and Employment & Turnover HGFs. All three types of HGF are on average larger than HGF employment and HGF employment and turnover firms.

Scotland's HGFs are smaller in terms of employment than the UK average, and smaller than most other UK regions (Charts 7 to 9)

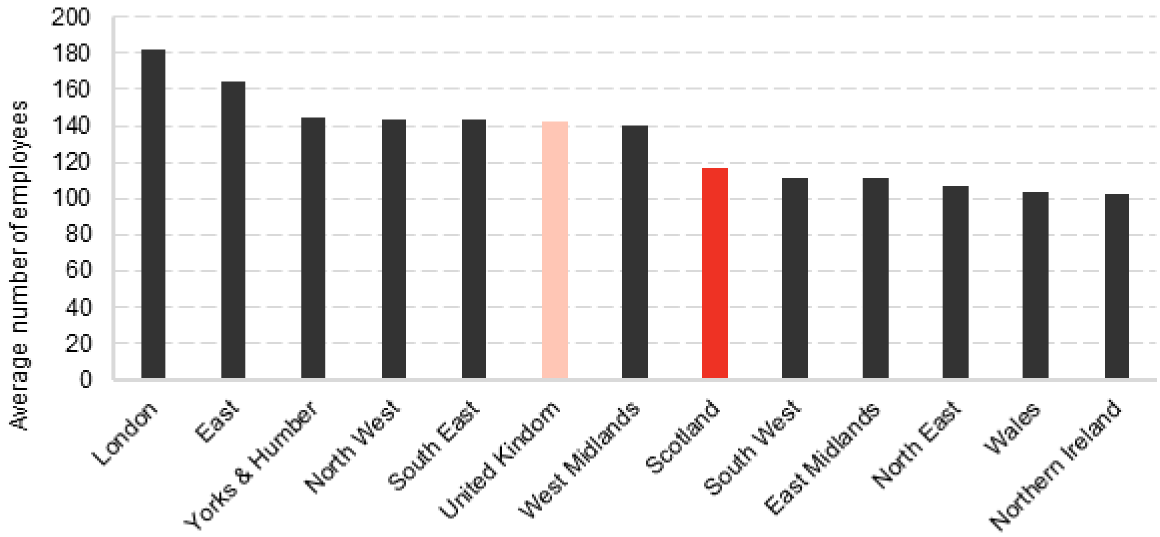
[21] Business Population Estimates (UK Government) have data on total employment and turnover by firm size band.

**Table 3:** Average HGF firm size (number employed) Scotland and UK, 2016

| | Number of Employees | |
|---|---|---|
| | **Scotland** | **UK** |
| Employment HGF | 117 | 143 |
| Employment & Turnover HGF | 116 | 140 |
| Turnover HGF | 68 | 92 |
| All 10+ emp | 65 | 72 |

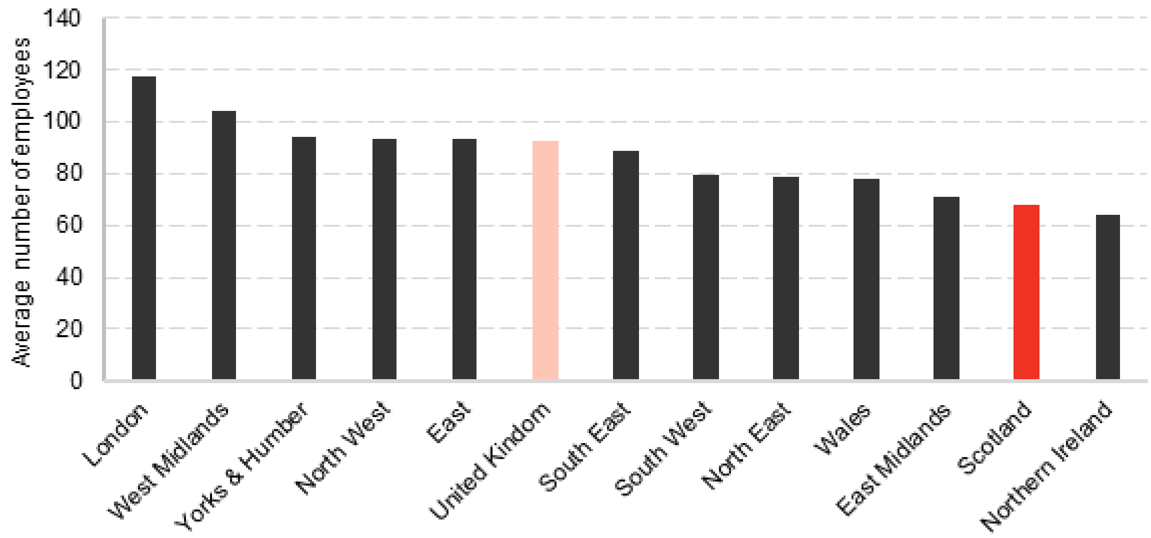
***Source:*** *ONS*

**Chart 7:** Average number of employees per Employment HGF by UK region, 2016



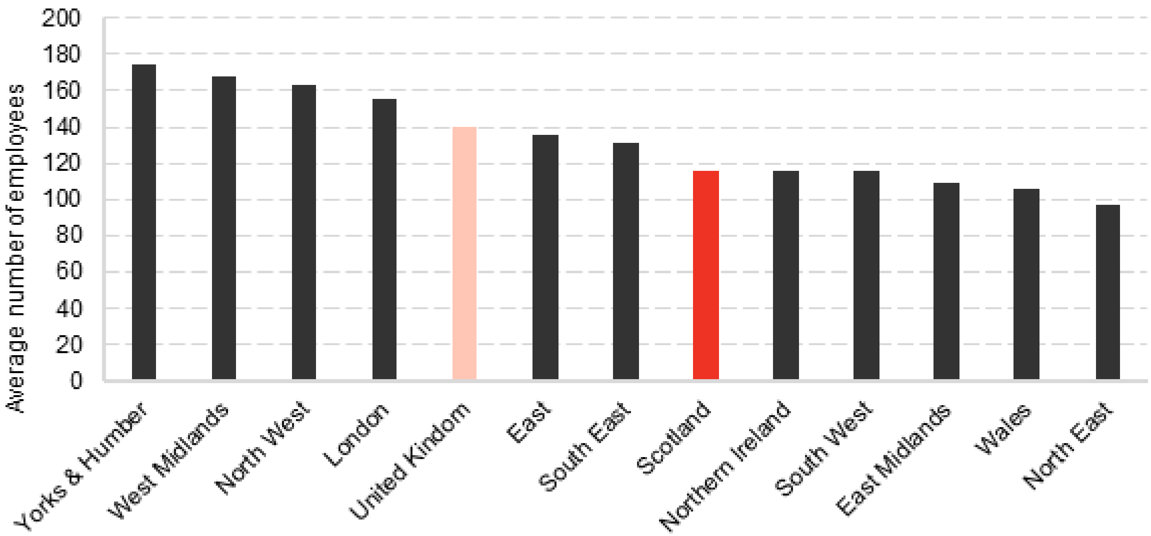

***Source:*** *ONS*

**Chart 8:** Average number of employees per high Turnover HGF by UK region, 2016




***Source:*** *ONS*

**Chart 9:** Average number of employees per Employment & Turnover HGF by UK region, 2016




***Source:*** *ONS*

## *HGF Productivity*

**Table 4:** Index of Productivity of HGFs by UK region, 2016 (United Kingdom = 100)

| | Index of Productivity, UK=100 | | |
|---|---|---|---|
| **UK Region** | **Turnover HGF** | **Employment HGF** | **Employment and Turnover HGF** |
| United Kingdom | 100 | 100 | 100 |
| London | 236 | 133 | 137 |
| South East | 77 | 138 | 159 |
| East | 56 | 59 | 58 |
| Scotland | 54 | 81 | 77 |
| West Midlands | 54 | 104 | 109 |
| North East | 53 | 57 | 59 |
| South West | 51 | 80 | 61 |
| North West | 49 | 78 | 70 |
| Northern Ireland | 48 | 93 | 100 |
| Wales | 41 | 98 | 103 |
| East Midlands | 40 | 68 | 78 |
| Yorks & Humber | 38 | 66 | 56 |

***Source:*** *ONS*

Productivity is measured as turnover per employee. Although the turnover figures should be used with caution, the data suggest Scotland performed relatively strongly for productivity for Turnover HGFs (4th out of 12 UK regions). For Employment HGF and Employment & Turnover HGFs, Scotland was ranked 6th and 7th respectively. London and the South East of England had highest HGF productivity levels for all types of HGF (Table 4).

Generally, in most of the UK regions, Turnover HGFs have on average the highest labour productivity levels, and Employment HGFs the lowest. Turnover HGFs also have average higher productivity levels than all 10+ employee firms in each UK region (Table 5.

**Table 5:** Index of average HGF productivity levels relative to all 10+ employees firms (UK = 100) by UK region, 2016

| UK Region | Index of Productivity, All 10+ employee firms = 100 | | | |
|---|---|---|---|---|
| | Turnover growth | Employment HGF | Employment & Turnover HGF | All 10+ employee firms |
| East | 125 | 56 | 63 | 100 |
| East Midlands | 104 | 73 | 97 | 100 |
| London | 296 | 71 | 84 | 100 |
| North East | 143 | 65 | 78 | 100 |
| North West | 110 | 73 | 75 | 100 |
| Northern Ireland | 122 | 100 | 123 | 100 |
| Scotland | 121 | 76 | 84 | 100 |
| South East | 114 | 87 | 114 | 100 |
| South West | 131 | 86 | 76 | 100 |
| Wales | 106 | 107 | 130 | 100 |
| West Midlands | 105 | 86 | 103 | 100 |
| Yorks & Humber | 100 | 72 | 71 | 100 |
| United Kingdom | 185 | 78 | 90 | 100 |

***Source:*** *ONS*

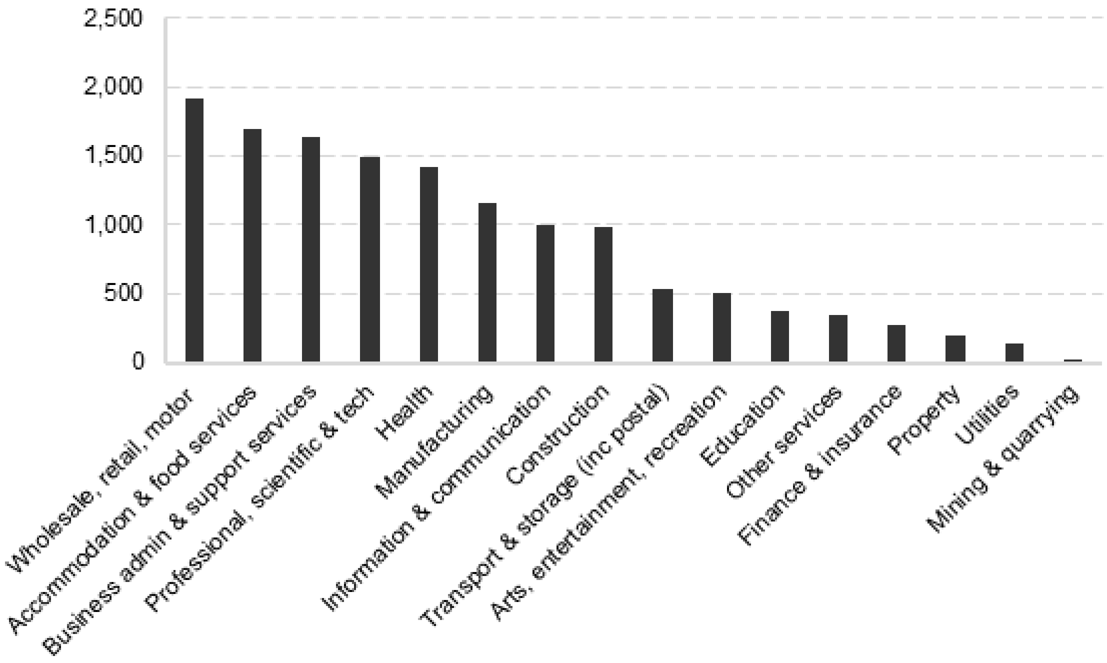
## *Sector of HGFs*

Sector data on HGFs is only available for the UK as a whole, and only for Employment HGFs[22]. It is thought likely that Scotland's HGF sectoral mix will be broadly similar to the UK's. The largest three sectors for Employment HGFs in 2016 in the UK were wholesale/retail, accommodation & food services and business administration & support services, which together accounted for almost 40% of all HGFs (Chart 10).

This sectoral profile may in part explain why Employment HGFs have on average lower productivity, as jobs in the three largest sectors are generally lower paid, in particular wholesale/retail and accommodation & food services where average wages/salaries are 67% and 42% respectively of the overall average for the private sector economy[23].

[22] Count of 'high growth' enterprises for the period 2010 to 2016 by district, counties, unitary authorities and standard industrial classification, ONS (2017)
[23] Scottish Annual Business Statistics, 2015 figures

**Chart 10:** Number of Employment HGFs in the UK by sector, 2016




**Source:** *ONS*

## 4. Conclusions

Key findings from this analysis of HGF data are that:

- Scotland's HGF rate lags most and in some cases all UK regions, and this has been the case for most years over 2013-16;
- Scotland's HGFs tend to be smaller than those in most other UK regions, and have lower levels of productivity.

This suggests that HGFs in Scotland play a far less significant role in boosting economic and productivity growth than those in other UK regions. To illustrate the impacts of this 'performance gap', were Scotland's Turnover HGF rate to match the UK average with average employment in each HGF being the same as the UK's, this would result in 20,700 more people employed in high productivity firms[24] in Scotland.

From the ONS data alone it is not possible to explain why Scotland's HGF rates lags all other UK regions. Other data and research does, however, show that Scotland performs less well than many other UK regions on key drivers of business growth. For example, Scotland's businesses tend to be less innovative than those in other UK regions[25], are less likely to invest in R&D[26] and are less likely to be exporters[27]. Also, Scotland has a lower business density than nearly all other UK regions, and this may reduce competitive pressures and business growth dynamism[28].

Further research that could help our understanding of HGF dynamics would be an analysis of performance by sector across the UK regions, and whether there is a sectoral dimension to Scotland's lower HGF rates

[24] Scottish Enterprise calculation
[25] UK Innovation Survey, UK Government (2018)
[26] Scottish Government BERD Tables
[27] Annual Business Survey Exporters and Importers, ONS (2017) and DIT national survey of registered businesses' exporting behaviours, attitudes and needs 2017, DIT (2018)
[28] Business Population Estimates for the UK And Regions, ONS (2016)

(for example, the recent downturn in the oil and gas sector as a result of low oil prices is very likely to have affected the growth of a large number of oil and gas companies and suppliers – as the ONS data shows). Also, a more in-depth analysis of HGF rates in Scotland's cities and how this compares to cities in other UK regions may highlight whether there is any geographical dimension to Scotland's relatively weak HGF performance.

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## Appendix 1

Number of HGFs by Scottish local authority area, 2016[29]

| | Employment HGFs | Turnover HGFs | Employment & Turnover HGFs |
|---|---|---|---|
| Glasgow City | 145 | 315 | 20 |
| Edinburgh City | 115 | 270 | 20 |
| Aberdeen City | 60 | 115 | 5 |
| Aberdeenshire | 50 | 95 | 10 |
| Highland | 50 | 90 | 5 |
| Fife | 45 | 95 | 10 |
| North Lanarkshire | 45 | 90 | 20 |
| South Lanarkshire | 45 | 110 | 5 |
| West Lothian | 35 | 55 | 5 |
| Dundee City | 30 | 50 | 5 |
| Renfrewshire | 30 | 55 | 5 |
| Midlothian | 25 | 40 | 60 |
| Perth & Kinross | 25 | 55 | 0 |
| Dumfries & Galloway | 20 | 50 | 5 |
| Angus | 15 | 35 | 25 |
| Argyll & Bute | 15 | 35 | 75 |
| East Ayrshire | 15 | 25 | 20 |
| East Lothian | 15 | 30 | 5 |
| North Ayrshire | 15 | 35 | 10 |
| South Ayrshire | 15 | 35 | 5 |
| Stirling | 15 | 40 | 5 |
| Clackmannanshire | 10 | 15 | 25 |
| East Dunbartonshire | 10 | 20 | 0 |
| East Renfrewshire | 10 | 20 | 10 |
| Falkirk | 10 | 40 | 15 |
| Inverclyde | 10 | 20 | 5 |
| Moray | 10 | 25 | 0 |
| Scottish Borders | 10 | 30 | 5 |
| Eilean Siar | 5 | 15 | 25 |
| Shetland Islands | 5 | 15 | 5 |
| West Dunbartonshire | 5 | 10 | 0 |
| Orkney Islands | 0 | 10 | 15 |
| Scotland | 910 | 1,945 | 435 |

[29] Data rounded by the ONS to the nearest 5 for reasons of confidentiality