Measuring the contribution of private equity and venture capital to the UK economy in 2021

Prepared for the British Private Equity & Venture Capital Association

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Foreword

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For many years now, the role and value of private equity (PE) and venture capital (VC) within the UK economy have been under intense scrutiny. Much of this scrutiny has focused on a series of high-profile transactions and capital events, rather than addressing the underlying question: what is the economic contribution of private capital-backed businesses across the UK?

We decided to commission an objective, independent body to explore and analyse this in detail. This report is the outcome of that analysis.

Carried out by EY, the research provides an unbiased assessment of the economic value generated by private capital-backed businesses in the UK today. The fundamental findings demonstrate that PE and VC-backed companies contribute significant economic benefit to the UK economy.

PE and VC-backed businesses delivered £102 billion of GDP in 2021. This is approximately 5% of UK GDP. In terms of jobs, PE and VC-backed businesses employed 1.9 million workers last year. That represents 6% of the total jobs in the UK, and half a million more than the NHS. In other words: the share of jobs backed by private capital is greater than its contribution to national wealth.

What is particularly encouraging is that these jobs are spread across the length and breadth of the UK: over 50% are based outside of London and England's Southeast, and nearly 10% of PE and VC-backed jobs are in North West England.

We hope this report will be the first of many and provide an objective benchmark for the role of the private equity and venture capital industries in the UK's economic engine.

In every corner of the UK, BVCA members are supporting companies that are delivering economic value and creating jobs during these challenging times. This report is a reflection of that work.

Executive summary

This report estimates the current economic activity of, and related to, UK companies supported by private equity and venture capital firms within the UK economy in 2021. This analysis does not include the related activity of private equity firms and venture capital firms themselves. The estimates provide a snapshot of the economic footprint of economic activity supported by private equity and venture capital investments as measured by employment, employee earnings, and gross domestic product (GDP) in 2021. Throughout this report, any reference to economic activity supported by private equity and venture capital firms relates to the United Kingdom alone.

Key findings

Economic activity of private equity and venture capital backed businesses[1]

- **Employment and earnings contribution.** Private equity and venture capital backed businesses provide employment and earnings for hundreds of thousands of workers. Overall, in 2021, private equity and venture capital backed businesses employed 1.9 million workers, collectively earning £58 billion.[2] This reflects the economic activity supported by the investments of private equity and venture capital firms. The average worker at a private equity or venture capital backed business had earnings of approximately £30,000 in 2021.[3]
- **Share of economic activity.** Private equity and venture capital backed businesses directly generated £102 billion of GDP in 2021. GDP measures the contribution of a sector or industry to the production of goods and services within the United Kingdom. Private equity and venture capital backed businesses directly supported approximately 5% of GDP, 6% of employment, and 5% of gross earnings in 2021.

Economic activity related to private equity and venture capital backed businesses

- **Suppliers to private equity and venture capital backed businesses.** Suppliers to private equity and venture capital backed businesses employed an additional 1.2 million workers earning £37 billion and generating £63 billion of GDP in 2021.

[1] Except as otherwise noted, all numbers reflect all economic activity at private equity and venture capital backed businesses. Alternative figures are presented later in this report in which the numbers are pro-rated to account for cases where private equity and venture capital firms own less than 100% of a company. This is discussed further in the text of the report.

[2] Private equity and venture capital backed businesses are generally defined as those identified by PitchBook as of October 5, 2021. See body of report for more detail on methodology.

[3] This £30,000 is computed by dividing the £58 billion of employee earnings by the approximately 1.9 million jobs prior to rounding. Employee earnings reflects gross earnings. Gross earnings measures remuneration for employment excluding benefits and tax. Calculation includes both full- and part-time workers.

The £37 billion of earnings is included within the total GDP figure.

- **Related consumer spending.** The consumer spending of workers employed by private equity and venture capital backed businesses and their suppliers supported an additional 719,000 workers earning £19 billion and generating £43 billion of GDP in 2021.

Total economic activity of, and related to, private equity and venture capital backed businesses

In total, businesses supported by private equity and venture capital, their suppliers, and the related consumer spending supported an estimated 3.8 million workers earning £113 billion and generating £208 billion of GDP in 2021.

Ownership-adjusted results

Except as otherwise noted, throughout this report the economic contribution of private equity and venture capital backed businesses in the United Kingdom is presented without any adjustment for when private equity and venture capital firms do not own 100% of the equity of the businesses in which they invest. One might simply interpret this as a statement of fact — that is the assumption on which the analysis is based. However, one might attempt to move further along and ask whether the calculations are an appropriate measure of the economic activity attributable to the private equity and venture capital financing per se. There is no obviously correct answer to that question. From one perspective, the funding provided by private equity and venture capital firms may be necessary for many businesses to remain in operation, to grow, or, in the case of venture capital, to even exist. From this perspective, it might be appropriate to attribute all the activity to the financing of private equity and venture capital firms. An alternative perspective, however, is that the amount of economic activity attributable to private equity and venture capital financing should be adjusted to reflect the share of total ownership held by private equity and venture capital firms, which often is less than 100% of the equity of the businesses in which they invest.

Accordingly, Table E-1 displays the results unadjusted for company ownership shares, as well as the ownership-adjusted results. In particular, when taking the ownership adjustment into account, the direct economic contribution of private equity and venture capital backed businesses is reduced from 1.9 million workers to 1.6 million workers who earned £47 billion and generated £85 billion of GDP.

Table E-1. Total economic activity of, and related to, UK private equity and venture capital backed businesses, 2021

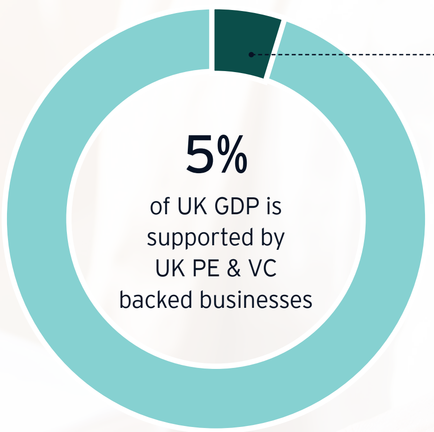
	UK PE & VC backed businesses	Suppliers to UK PE & VC backed businesses	Related consumer spending	Total
Unadjusted results:				
Employment (000s)	1,920	1,154	719	3,792
Employee earnings (£b)	58	37	19	113
GDP (£b)	102	63	43	208
Ownership-adjusted results:				
Employment (000s)	1,636	977	600	3,213
Employee earnings (£b)	47	31	16	94
GDP (£b)	85	53	36	175

Note: Employee earnings is defined as gross earnings and is included within the total GDP figure. This analysis does not include private equity firms and venture capital firms. Figures may not sum due to rounding.

Source: EY analysis.

Economic contribution of UK private equity and venture capital in 2021

Direct economic contribution of UK private equity and venture capital backed businesses, 2021



£102 billion of GDP generated by UK PE & VC backed businesses

1.9m jobs in UK PE & VC backed businesses

£58b of employee earnings directly supported by UK PE & VC backed businesses

Total economic activity of, and related to, UK private equity and venture capital backed businesses, 2021

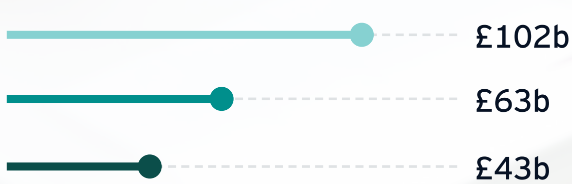
Total
3,792

Employment (000s)

Total
£113b

Employee earnings (£b)

Total
£208b



GDP (£b)

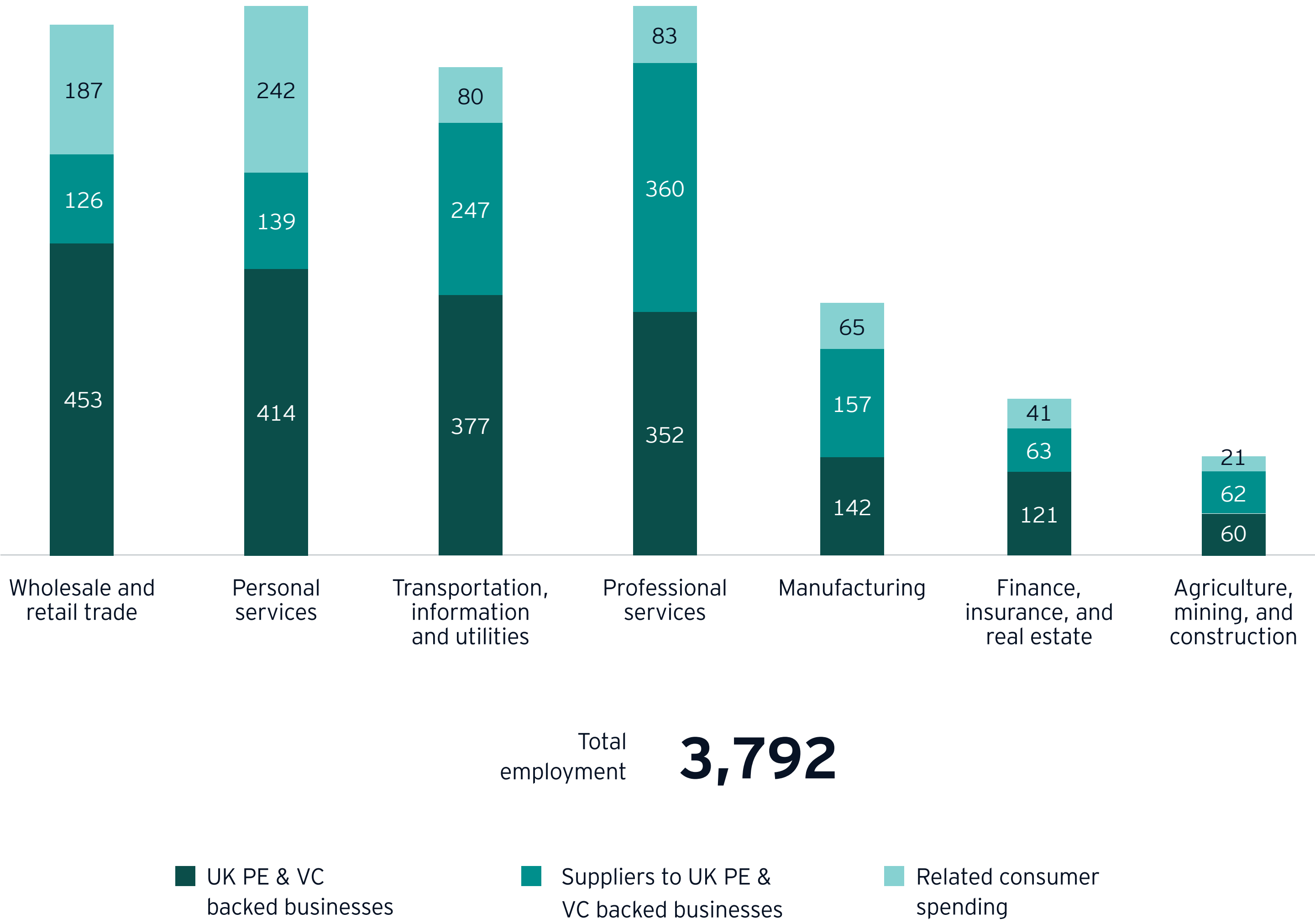
- UK PE & VC backed businesses
- Suppliers to UK PE & VC backed businesses
- Related consumer spending

Note: Employee earnings is defined as gross earnings and is included within the total GDP figure. This analysis does not include private equity firms and venture capital firms. Figures may not sum due to rounding.

Source: EY analysis.

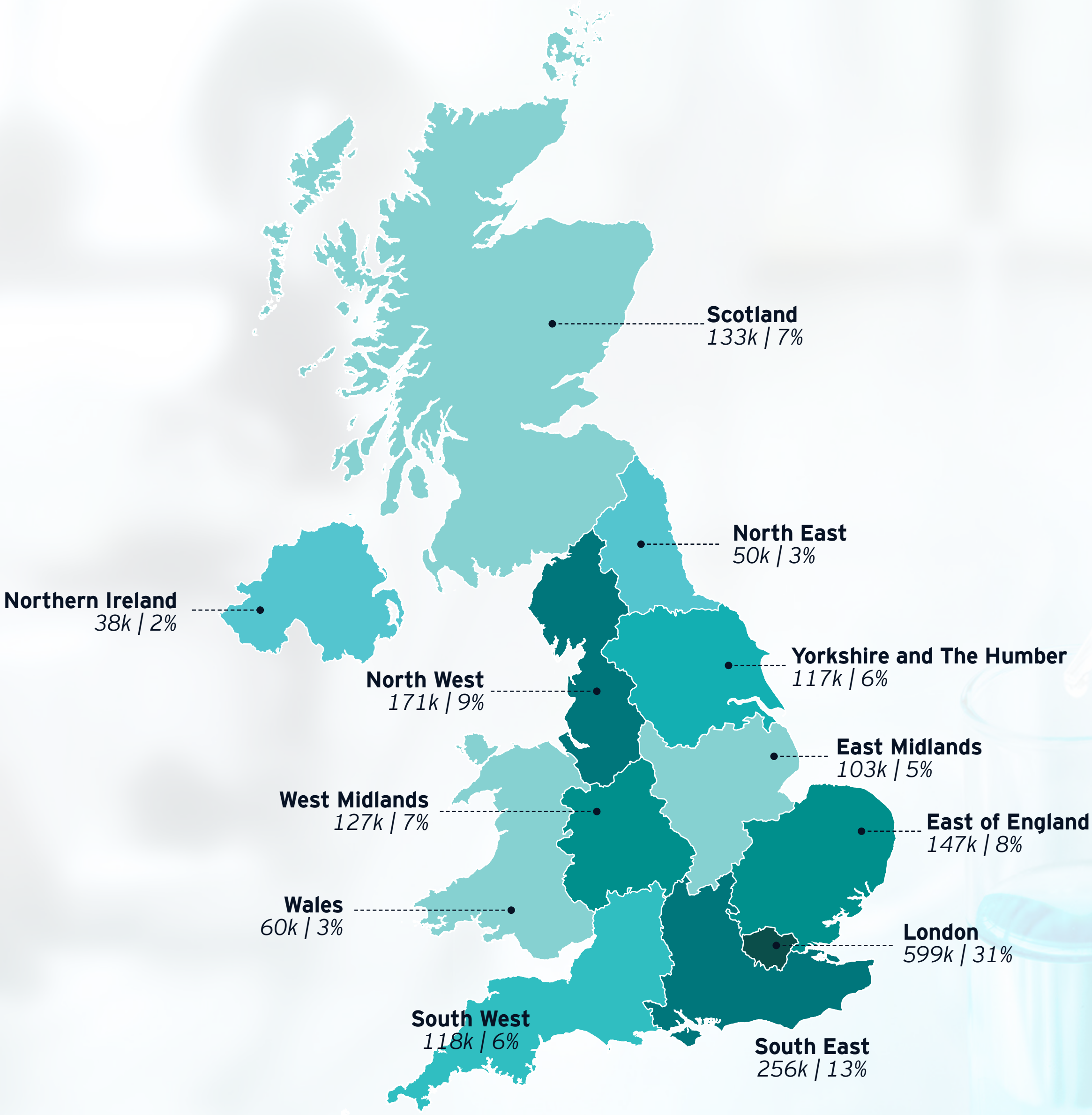
Total economic activity of, and related to, UK private equity and venture capital backed businesses by sector, 2021

Thousands of jobs



Direct economic contribution of UK private equity and venture capital backed businesses in 2021, by nation and region

Thousands of jobs | Proportion of total UK jobs



Contents

1 Introduction

Home

This report estimates the current economic activity of, and related to, companies supported by private equity and venture capital firms within the UK economy in 2021. This analysis does not include the related activity of private equity firms and venture capital firms themselves.[1] The estimates provide a snapshot of the economic footprint of economic activity supported by private equity and venture capital investments as measured by employment, employee earnings, and gross domestic product (GDP) in 2021. By providing information on the overall scope of economic activity supported by private equity and venture capital investments, measured and defined in several different ways, this report helps shed light on the reach of private equity and venture capital within the UK economy.

Companies supported by private equity and venture capital provide employment and earnings for hundreds of thousands of workers. Overall, in 2021, private equity and venture capital backed businesses employed 1.9 million workers, collectively earning £58 billion. This reflects the economic activity supported by the investments of private equity and venture capital firms. Throughout this report, any reference to economic activity supported by private equity and venture capital firms relates to the United Kingdom alone.

Suppliers to private equity and venture capital backed businesses employed an additional 1.2 million workers earning £37 billion and generating £63 billion of GDP in 2021. The consumer spending of workers of private equity and venture capital backed businesses and their suppliers supported an additional 719,000 workers earning £19 billion and generating £43 billion of GDP in 2021.

Overview of private equity

Private equity firms partner with investors to form funds that invest in companies in exchange for ownership stake (most often a majority equity stake). A typical investment aims to add value to the company through use of the private equity firm's access to capital and its strategic, financial, and operational expertise. The goal is to increase the value of the company by improving its performance and growth. This value can be added by changes in, for example, a target company's ambitions, risk appetite, core versus non-core activities, and asset allocation. Private equity firms typically operate more than one fund, and each fund can have a different focus in terms of sector focus, target company size, and/or geography.[2]

Ultimately, transforming the target company's operations generates returns for the private equity fund, the private equity firm that manages the fund, and the fund's investors. Private equity firms partner with a variety of investor types, including pension funds, university endowments, charitable foundations, and insurance companies.[3]

The most common private equity fund types are: (1) funds that invest in more mature businesses, and (2) growth equity funds.[4]

Funds that invest in more mature businesses

An established company may perform below its potential for a variety of reasons, such as increased competition, structural changes to an industry or its markets, or high overhead costs. Given that identifying and addressing the root cause of underperformance can require expertise and potentially incur significant costs, a private equity fund may be well-positioned to help increase the company's value.

Obtaining a controlling stake in such a company often requires significant investment. A private equity fund often finances acquisitions in part through debt issuance, sometimes a cost-effective method for such transactions. In a typical case, the target company's future cash flows are the collateral. The private equity fund generates returns on its investment by maximizing profits net of interest expenses and payments of the debt principal. A successful private equity fund typically has expertise in helping bolster the performance of companies in their target sector, and both the private equity fund and target company can benefit from a buyout.

In addition, achieving higher performance may require altering the company's strategy, making adjustments to higher-level management, or refocusing the company's business purposes by spinning off peripheral business components. Such structural changes to a company are not always welcome by all stakeholders, especially in the short term.[5]

Growth equity funds

Growth equity funds are private equity funds that invest in companies to support expansion during a period of potentially dramatic growth in a company's lifecycle. Growth equity target companies are often relatively mature, and thus tend to have established business models, revenues, and operating profits, but need additional funding to undertake a significant expansion. Such an expansion could include moving the company into new markets, facilitating new product development, or possibly a strategic acquisition.

The target company for a growth equity fund, were it not for private equity support, may experience significant cost and regulatory hurdles to raising public capital, and additionally, may be unable to rely on venture capital investment (see below). Growth equity funds, in effect, are a middle ground between venture capital that targets start-up companies and private equity funds that focus on well-established companies. Despite growth equity's relatively lower risk as compared to venture capital, growth equity funds are generally willing to take on a greater level of risk than a bank typically would.

Growth equity investors rely on an increase of revenue of the target company to generate returns, which can be accomplished by providing additional capital, as well as through strategic and operational support from the private equity firm. Growth equity funds typically undertake a significant role in the target company's day-to-day operations.

Overview of venture capital

Venture capital consists of private investment in start-up and early-stage companies in exchange for an ownership stake in the target company (most often a minority equity stake[6]). Venture capital firms aim to boost the value of the companies they target with the intention of selling them, or their ownership in them, for a profit. While private equity firms tend to invest in larger, well-established businesses, venture capital firms fund emerging companies that have yet to fully develop. For such early-stage companies, venture capital funding can be essential, especially since they are frequently unable to access traditional debt instruments, such as bank loans or capital markets.

Given that venture capital firms invest early in a company's lifespan, these investments are generally viewed as riskier relative to private equity. However, venture capital firms tend to reduce risk by investing in a broad range of companies within an individual fund with the objective that the gains from the superstars outweigh the losses from the underperformers. If a venture capital-backed business is successfully acquired or goes public through an IPO, the firm generally makes a profit, which is then distributed to the investors.

2 Economic activity of private equity and venture capital backed businesses

Home

Private equity and venture capital backed businesses provide employment and income for hundreds of thousands of workers and contribute to jobs in other sectors of the UK economy that are tied to the operations of private equity and venture capital backed businesses.

The economic activity described in this report includes the following indicators:

- **Employment.** Employment is measured as the total headcount of workers. For example, a company with three full-time workers and a company with two full-time workers and one part-time worker would both be measured as having three workers.
- **Employee earnings.** Employee earnings follows the definition of gross earnings as defined by the UK Office for National Statistics: remuneration for employment excluding benefits and tax.[7] Employee earnings is included within the total GDP figure and includes the earnings of both full- and part-time workers.
- **GDP.** GDP measures a sector's contribution to the production of all final goods and services produced in the United Kingdom.

In 2021, private equity and venture capital backed businesses included more than 9,600 UK companies employing 1.9 million workers. This reflects the economic activity supported by the investments of private equity and venture capital firms.

Table 1 displays the composition of employment at private equity and venture capital backed businesses in 2021.[8] The largest share of private equity and venture capital backed business employment was estimated to be in wholesale and retail trade. Wholesale and retail trade accounted for 453,000 jobs, or 24% of employment supported by private equity and venture capital backed businesses in 2021. This industry is businesses primarily engaged in retailing and wholesaling merchandise and rendering services incidental to the sale of merchandise.

Personal services employed the second largest share of private equity and venture capital backed business workers with 414,000 jobs, or 22% of employment. Personal services is primarily comprised of human health and social work activities, accommodation and food service activities, and education. Other industries included within personal services are arts, entertainment and recreation, as well as other service activities.

Private equity and venture capital backed business employment in transportation, information, and utilities is the third largest segment of the sector's employment. In particular, 377,000 workers were estimated to be employed in transportation, information, and utilities in 2021.[9] This is 20% of direct private equity and venture capital backed business employment. Included within this category are the industries information and communication, transportation and storage, water supply and waste management, and electricity, gas and steam (in order of decreasing employment.)

These three industry segments — wholesale and retail trade, personal services, as well as transportation, information, and utilities — comprise approximately two-thirds of total employment. Other significant segments of the sector include professional services (352,000 jobs; 18% of total), manufacturing (142,000 jobs; 7% of total), finance, insurance, real estate, rental and leasing (121,000 jobs; 6% of total), and agriculture, mining and construction (60,000 jobs; 3% of total).

Table 1. UK private equity and venture capital backed business employment by type of economic activity, 2021

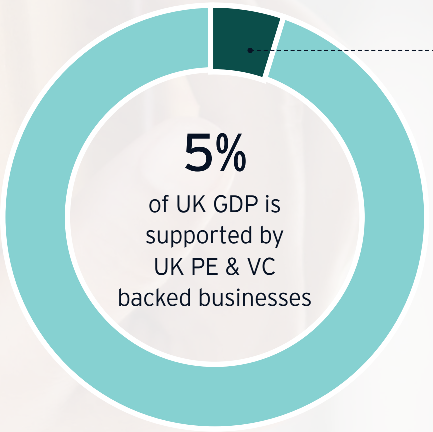
Thousands of jobs

	Jobs	
Wholesale & retail trade	453	24%
Personal services	414	22%
Transportation, information & utilities	377	20%
Professional services	352	18%
Manufacturing	142	7%
Finance, insurance, real estate, rental & leasing	121	6%
Agriculture, mining & construction	60	3%
Total employment	**1,920**	**100%**

Overall, in 2021, private equity and venture capital backed businesses employed 1.9 million workers earning £58 billion and generating £102 billion of GDP. This reflects the economic activity supported by the investments of private equity and venture capital firms.

The average worker at a private equity or venture capital backed business had earnings of approximately £30,000 in 2021.[10] Private equity and venture capital backed businesses directly supported approximately 5% of GDP, 6% of employment, and 5% of gross earnings in 2021.[11]

Figure 1. Direct economic contribution of UK private equity and venture capital backed businesses, 2021



£102 billion of GDP generated by UK PE & VC backed businesses

1.9m jobs in UK PE & VC backed businesses

£58b of employee earnings directly supported by UK PE & VC backed businesses

Note: Earnings is defined as gross earnings. Employee earnings is included within the total GDP figure. The ratio of UK GDP supported by UK private equity and venture capital backed businesses in 2021 was calculated using seasonally adjusted UK GDP for 2021 as available on February 17, 2022 from the UK Office for National Statistics. Figures are rounded.

Source: PitchBook; Dun & Bradstreet; UK Office for National Statistics; EY analysis.

3 Economic activity related to private equity and venture capital backed businesses

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In addition to the direct economic activity of private equity and venture capital backed businesses, this report also estimates the related economic activity of: (1) suppliers to private equity and venture capital backed businesses, and (2) related consumer spending:

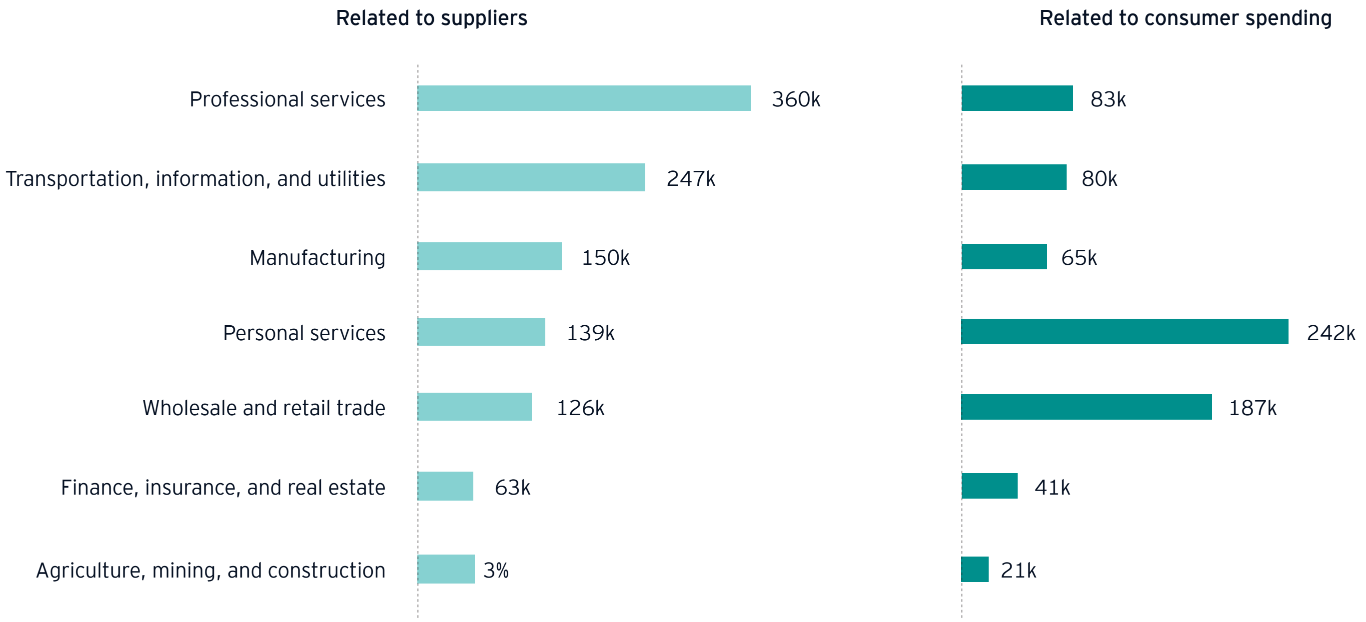
- **Suppliers to private equity and venture capital backed businesses.** Private equity and venture capital backed businesses purchase goods and services from other businesses, which support jobs, earnings, and GDP at these supplier businesses. For example, private equity and venture capital backed business spending on utilities, telecommunications, raw materials, and security, among other goods and services, supports sales at suppliers. Moreover, demand for these goods and services leads to additional rounds of economic activity as these supplier businesses purchase operating inputs from their own suppliers. Goods and services imported from abroad are not included in this report's estimates of economic activity.
- **Related consumer spending.** Related consumer spending refers to the consumer spending supported by workers in private equity and venture capital backed businesses and their suppliers. When these workers spend their earnings at businesses (e.g., grocery stores, retailers, cinemas), they support economic activity in those sectors. The earnings that these workers spend on food at a restaurant, for example, creates jobs at the restaurant and at farms, transportation companies, and other industries that are involved in the restaurant's supply chain.

The magnitude of the economic activity related to private equity and venture capital backed businesses is estimated based on the 2017 UK input-output analytical tables produced by the UK Office for National Statistics. The 2017 tables are the most recent available and were released in April 2021. See the Appendix for further details.

As displayed in Figure 2, suppliers to private equity and venture capital backed businesses were estimated to support 1.2 million jobs in 2021. The largest segments of suppliers to private equity and venture capital backed businesses were estimated to be professional services (360,000 jobs; 31% of total), transportation, information, and utilities (247,000 jobs; 21% of total), and manufacturing (157,000 jobs; 14% of total). These three supplier industries comprise about two-thirds of the total employment related to suppliers to private equity and venture capital backed businesses. The remaining related supplier employment includes personal services (139,000 jobs; 12% of total), wholesale and retail trade (126,000 jobs; 11% of total), finance, insurance, and real estate (63,000 jobs; 5% of total), and agriculture, mining, and construction (62,000 jobs; 5% of total).

Consumer spending of workers in private equity and venture capital backed businesses and their suppliers was estimated to support 719,000 jobs in 2021. The largest segments of employment related to the consumer spending of workers at private equity and venture capital backed businesses and their suppliers were estimated to be personal services (242,000 jobs; 34% of total), wholesale and retail trade (187,000 jobs; 26% of total), and professional services (83,000 jobs; 12% of total). These three industries comprise almost three-quarters of the related economic activity. The remaining employment related to the consumer spending of workers at private equity and venture capital backed businesses and their suppliers includes transportation, information, and utilities (80,000 jobs; 11% of total), manufacturing (65,000 jobs; 9% of total), finance, insurance, and real estate (41,000 jobs; 6% of total), and agriculture, mining, and construction (21,000 jobs; 3% of total).

Figure 2. Economic activity related to UK private equity and venture capital backed businesses, 2021



1.2

million jobs related to suppliers to private equity & venture capital backed busineses

719

thousand jobs related to consumer spending of workers in private equity & venture capital backed businesses and the suppliers to these companies

Note: Industry definitions are based on the UK Standard Industrial Classification (SIC). Figures may not sum due to rounding.

Source: EY analysis.

The total economic activity of, and related to, private equity and venture capital backed businesses by sector is detailed in Table 2. It is also disaggregated into the economic activity supported by private equity and venture capital backed businesses, suppliers to private equity and venture capital backed businesses, and related consumer spending.

Table 2. Total economic activity of, and related to, UK private equity and venture capital backed businesses by sector, 2021

Thousands of jobs

	UK PE & VC backed businesses	Suppliers to UK PE & VC backed businesses	Related consumer spending	Total
Wholesale & retail trade	453	126	187	766
Personal services	414	139	242	794
Transportation, information, and utilities	377	247	80	704
Professional services	352	360	83	795
Manufacturing	142	157	65	364
Finance, insurance, and real estate	121	63	41	226
Agriculture, mining, and construction	60	62	21	143
Total employment	**1,920**	**1,154**	**719**	**3,792**

Note: This analysis does not include private equity firms and venture capital firms. Figures may not sum due to rounding.

Source: EY analysis.

Table 3 summarizes the estimated economic activity of, and related to, private equity and venture capital backed businesses in 2021. The direct economic contribution of private equity and venture capital backed businesses was a total of 1.9 million workers throughout the economy who earned £58 billion and generated £102 billion of GDP. Employee earnings is included within the total GDP figure. Suppliers to private equity and venture capital backed businesses employed an additional 1.2 million workers throughout the economy who earned £37 billion and generated £63 billion of GDP. In addition, the consumer spending of workers at private equity and venture capital backed businesses and their suppliers employed 719,000 workers throughout the economy who earned £19 billion and generated £43 billion of GDP.

Table 3. Total economic activity of, and related to, UK private equity and venture capital backed businesses, 2021

Thousands of jobs

	UK PE & VC backed businesses	Suppliers to UK PE & VC backed businesses	Related consumer spending	Total
Employment (000s)	1,920	1,154	719	3,792
Employee earnings (£b)	58	37	19	113
GDP (£b)	102	63	43	208

Note: Employee earnings is defined as gross earnings and is included within the total GDP figure. This analysis does not include private equity firms and venture capital firms. Figures may not sum due to rounding.

Source: EY analysis.

4 Economic contribution by nation and region

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The distribution of jobs by nation and region of the economic activity of, and related to, private equity and venture capital backed businesses is displayed in Tables 4 and 5 and Figures 3 and 4.[12] The nations and regions estimated to have the most direct private equity and venture capital backed business employment are: (1) London (599,000 jobs; 31% of total), (2) South East (256,000 jobs; 13% of total), (3) North West (171,000 jobs; 9% of total), (4) East of England (147,000 jobs; 8% of total), and (5) Scotland (133,000 jobs; 7% of total). The nations and regions estimated to have the most employment at or related to private equity and venture capital backed businesses are, similarly, (1) London (1.1 million jobs; 28% of total), (2) South East (526,000 jobs; 14% of total), (3) North West (354,000 jobs; 9% of total), (4) East of England (310,000 jobs; 8% of total), and (5) Scotland (270,000 jobs; 7% of total).

Table 4. Direct economic contribution of UK private equity and venture capital backed businesses in 2021, by nation and region

Thousands of jobs

Nation/region	Jobs	Share	Nation/region	Jobs	Share
London	599	31%	South West	118	6%
South East	256	13%	Yorkshire and The Humber	117	6%
North West	171	9%	East Midlands	103	5%
East of England	147	8%	Wales	60	3%
Scotland	133	7%	North East	50	3%
West Midlands	127	7%	Northern Ireland	38	2%
			United Kingdom	**1,920**	**100%**

Note: Figures may not sum due to rounding.

Source: EY analysis.

Table 5. Economic activity of, and related to, UK private equity and venture capital backed businesses by nation and region, 2021

Thousands of jobs

Nation/region	Jobs	Share	Nation/region	Jobs	Share
London	1,056	28%	South West	246	6%
South East	526	14%	Yorkshire and The Humber	246	6%
North West	354	9%	East Midlands	217	6%
East of England	310	8%	Wales	121	3%
Scotland	270	7%	North East	101	3%
West Midlands	269	7%	Northern Ireland	77	2%
			United Kingdom	**3,792**	**100%**

Note: Figures may not sum due to rounding.

Source: EY analysis.

Figure 3. Direct economic contribution of UK private equity and venture capital backed businesses in 2021, by nation and region

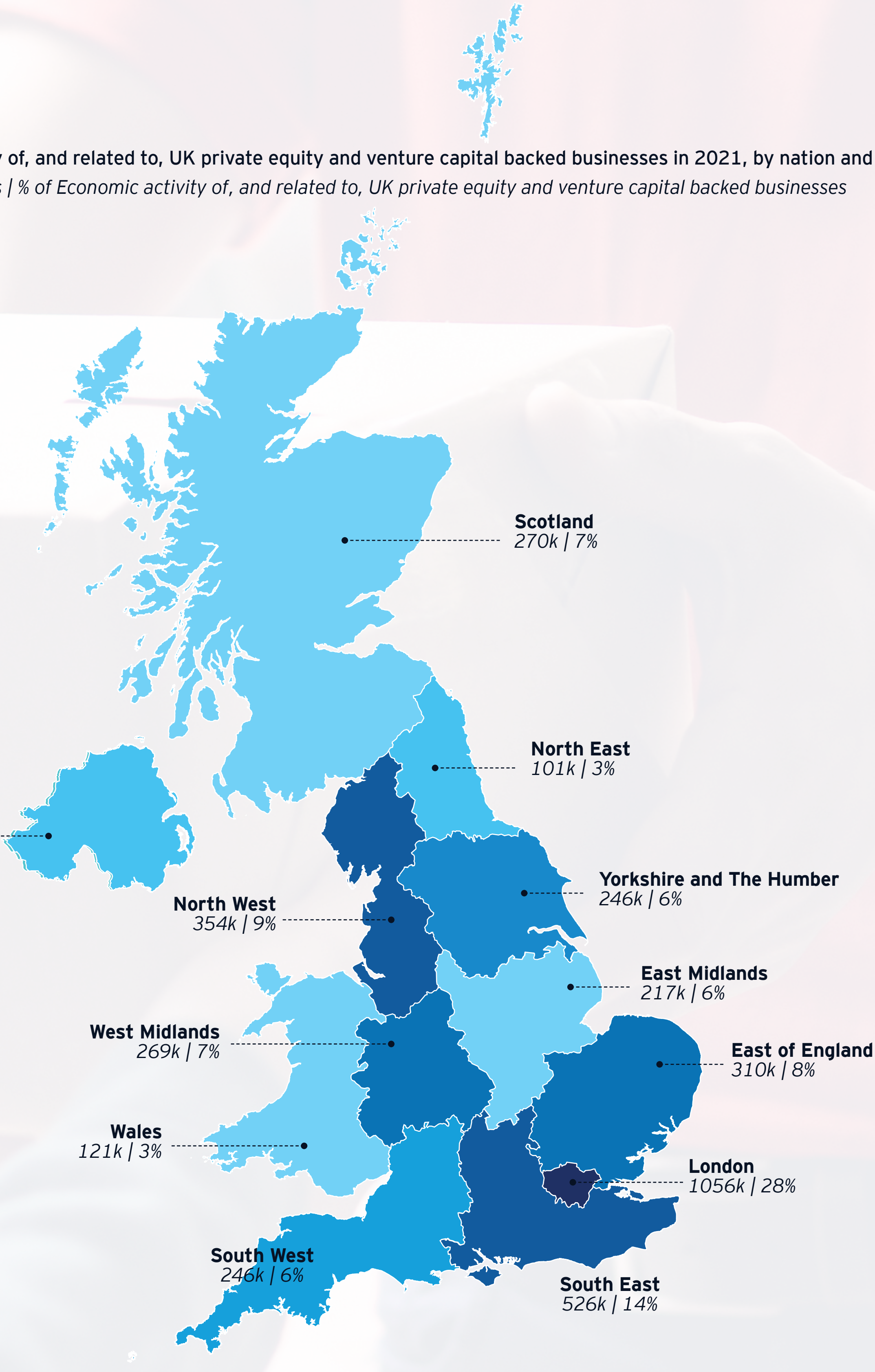
Thousands of jobs | % of direct private equity and venture capital backed business jobs

Note: This analysis does not include private equity firms and venture capital firms. Numbers are not pro-rated to account for cases where private equity and venture capital firms own less than 100% of a company. Figures may not sum due to rounding.

Source: EY analysis.

Figure 4. Economic activity of, and related to, UK private equity and venture capital backed businesses in 2021, by nation and region

Thousands of jobs | % of Economic activity of, and related to, UK private equity and venture capital backed businesses



Note: This analysis does not include private equity firms and venture capital firms. Numbers are not pro-rated to account for cases where private equity and venture capital firms own less than 100% of a company. Figures may not sum due to rounding.

Source: EY analysis.

5 Ownership-adjusted results

Home

Except as otherwise noted, throughout this report the economic contribution of private equity and venture capital backed businesses in the United Kingdom is presented without any adjustment for when private equity and venture capital firms do not own 100% of the equity of the businesses in which they invest. One might simply interpret this as a statement of fact – that is the assumption on which the analysis is based. However, one might attempt to move further along and ask whether the calculations are an appropriate measure of the economic activity attributable to the private equity and venture capital financing per se. There is no obviously correct answer to that question. From one perspective, the funding provided by private equity and venture capital firms may be necessary for many businesses to remain in operation, to grow, or, in the case of venture capital, to even exist. From this perspective, it might be appropriate to attribute all the activity to the financing of private equity and venture capital firms. An alternative perspective, however, is that the amount of economic activity attributable to private equity and venture capital financing should be adjusted to reflect the share of total ownership held by private equity and venture capital firms, which often is less than 100% of the equity of the businesses in which they invest.

Accordingly, Table 6 displays the results unadjusted for company ownership shares, as well as the ownership-adjusted results.[13] When taking the ownership adjustment into account, the direct economic contribution of private equity and venture capital backed businesses is reduced to a total of 1.6 million workers who earned £47 billion and generated £85 billion of GDP. Employee earnings is included within the total GDP figure. Suppliers to private equity and venture capital backed businesses employed an additional 977,000 workers who earned £31 billion and generated £53 billion of GDP. In addition, the consumer spending of workers at private equity and venture capital backed businesses and their suppliers employed 600,000 workers who earned £16 billion and generated £36 billion of GDP.

Table 6. Total economic activity of, and related to, UK private equity and venture capital backed businesses, 2021

	UK PE & VC backed businesses	Suppliers to UK PE & VC backed businesses	Related consumer spending	Total
Unadjusted results:				
Employment (000s)	1,920	1,154	719	3,792
Employee earnings (£b)	58	37	19	113
GDP (£b)	102	63	43	208
Ownership-adjusted results:				
Employment (000s)	1,636	977	600	3,213
Employee earnings (£b)	47	31	16	94
GDP (£b)	85	53	36	175

Note: Employee earnings is defined as gross earnings and is included within the total GDP figure. This analysis does not include private equity firms and venture capital firms. Figures may not sum due to rounding.

Source: EY analysis.

6 Caveats and limitations

Home

The estimates of the economic contribution of private equity and venture capital backed businesses presented in this report are based on an input-output model of the UK economy and the data and assumptions described elsewhere in the report. Readers should be aware of the following limitations of the modelling approach and limitations specific to this analysis.

- **The results show a snapshot of current economic contributions.** The input-output modelling approach used in this analysis shows the 2021 economic contribution of private equity and venture capital backed businesses based on their relationships with other industries and households in the UK economy. The analysis is at a single point in time (i.e., 2021).[14] The results do not reflect or attempt to estimate an expansion, contraction, or any other changes, or related impacts, of these businesses.
- **Estimates are limited by available public information.** The analysis relies on information reported by UK government agencies (primarily the UK Office for National Statistics), and other publicly available sources (i.e., primarily PitchBook and Dun & Bradstreet). The analysis did not attempt to verify or validate this information using sources other than those described in the report.
- **Modelling the economic contribution of private equity and venture capital backed businesses relies on government industry classifications.** This report relates the activities of private equity and venture capital backed businesses to the operating profiles of various industries as defined by UK Standard Industry Classification (SIC) codes to most effectively estimate the economic contribution of private equity and venture capital backed businesses. Each business is classified into a single industry based on the primary SIC code generally as identified by Dun & Bradstreet. Diversified companies often operate across multiple industry activities. Workers at private equity and venture capital backed businesses are assumed to receive the average earnings of workers in their respective industry and to require the level of operating input purchases characteristic of the industries into which they have been categorized.
- **Modelling of average earnings at private equity and venture capital backed businesses relies on industry averages.** This report relates the activities of private equity and venture capital backed businesses to the operating profiles of various industries as defined by the UK SIC codes to most effectively estimate average earnings at private equity and venture capital backed businesses. Workers at private equity and venture capital backed businesses are assumed to receive the average earnings of workers in their respective industry and to require the level of operating input purchases characteristic of the industries into which they have been categorized.
- **Most recent input-output model available from the UK Office for National Statistics is for 2017.** Using an input-output model based on 2017 data may not fully capture differences in economic linkages in the UK economy between 2017 and 2021. These changes include, but are not limited to, those related to the COVID-19 pandemic.
- **Estimates do not reflect the economic impact of private equity and venture capital backed businesses.** This analysis does not attempt to estimate or indicate the effect or impact of the private equity and venture capital backed businesses on the UK economy. Rather, the analysis presents estimates of the economic contribution or footprint of private equity and venture capital backed businesses. An economic impact analysis might instead analyse the impact on the UK economy of a change to or in an industry or sector, perhaps due to a policy change, natural disaster, or some other exogenous factor. An economic impact analysis might attempt to account for the economic dynamics that occur in response to such a change and show the impact net of shifts of economic activity across different parts of the economy (e.g., industries, sectors) as impacts ripple through the economy.[15]
- **National and regional results are high-level estimates.** The national- and regional-level results are an allocation of the results to UK nations and regions with a high-level estimate based on the headquarters location of each company (for smaller companies by employment) and the industries in which private equity and venture capital backed businesses operate (for larger businesses by employment). An allocation approach is necessary because it is not possible to obtain sufficiently detailed data on private equity and venture capital backed businesses by nation and region from publicly available sources.

Appendix

Modelling approach

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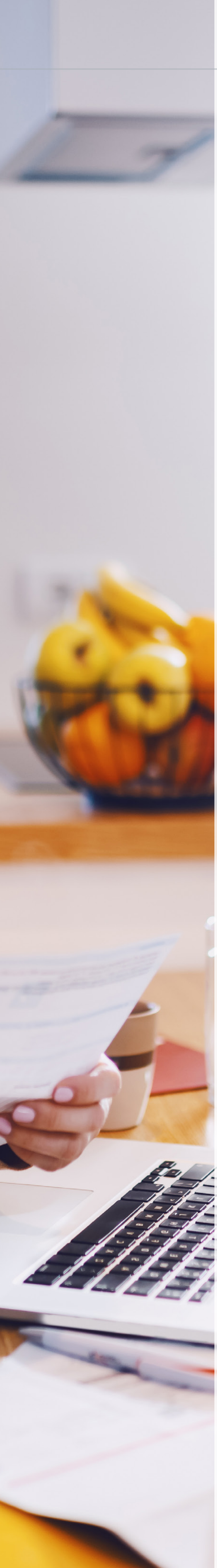

Technical details: Input-output model of the UK economy

This analysis uses an input-output model to estimate the economic contribution of UK private equity and venture capital backed businesses in 2021. The economic multipliers in this report were estimated based on the 2017 UK input-output analytical tables.[16] These input-out tables are produced by the UK Office for National Statistics and are the most recent year available. The 2017 UK input-output analytics tables were released in April 2021.[17]

The multipliers in this analysis' input-output model are based on the Leontief production function, which estimates the total economic requirements for every unit of direct output in a given industry based on detailed inter-industry relationships documented in the input-output model. The input-output framework connects supply from one industry to demand by another. The multipliers estimated using this approach capture all of the upstream economic activity (or backward linkages) related to an industry's production by attaching technical coefficients to expenditures. These output coefficients (pounds of demand) are then translated into pounds of GDP and earnings and number of employees based on industry averages.

Input-output modelling can include double counting in its indirect and induced estimates. For example, a venture capital-backed company's suppliers or suppliers of suppliers could be a venture capital-backed company and consumer re-spending of income supported by venture capital-backed businesses could be at venture capital-backed businesses or businesses with venture capital-backed suppliers. This limitation is due to the use of industry averages in estimating indirect and induced economic contributions in input-output modelling. This analysis includes an adjustment to remove double counting by assuming UK private equity and venture capital backed businesses are included in the indirect and induced contributions, by industry, proportional to their direct employment share in each industry.

The multipliers presented in this report include UK private equity and venture capital backed businesses, their suppliers, and related consumer spending. Economic activity at suppliers to UK private equity and venture capital backed businesses is attributable to operating input purchases from UK suppliers. Economic activity related to consumer spending is attributable to spending by UK private equity and venture capital backed business and supplier employees based on household spending patterns. On average, UK private equity and venture capital backed businesses are estimated to have an employment multiplier of 2.0, an employee earnings multiplier of 2.0, and a GDP multiplier of 2.0.

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Endnotes

1. This differs from a recent EY report on the economic contribution of the US private equity sector to the US economy, which includes private equity firms in the analysis. However, as noted in the US economic contribution report, results are not sensitive to including or excluding the employment and labour income of private equity firms (i.e., the economic contribution estimates are primarily a result of portfolio companies). A second difference is this report includes both private equity and venture capital whereas the US economic contribution report includes only private equity. See EY, E*conomic contribution of the US private equity sector in 2020*, May 2021. https://www.investmentcouncil.org/wp-content/uploads/ey-aic-pe-economic-contribution-report-final-05-13-2021.pdf
2. See, for example, British Private Equity & Venture Capital Association, B*VCA Report on Investment Activity 2020*, September 2021. https://www.bvc a.co.uk/Portals/0/Documents/Research/Industry%20Activity/BVCA-RIA-2020.pdf
3. See, for example, British Private Equity & Venture Capital Association, *BVCA Report on Investment Activity 2020*, September 2021. https://www.bvca.co.uk/Portals/0/Documents/Research/Industry%20Activity/BVCA-RIA-2020.pdf
4. For the purposes of this study all deals in both subcategories will be referred to as private equity funds.
5. Notably, given the access to capital and expertise of private equity firms, private equity-backed companies can be well-positioned to experience rapid growth and restructuring as compared to similar companies that are not backed by private equity. Davis et al. 2021, for example, analyses 9,800 private equity buyouts of US companies between 1980 and 2013 and finds significant labour productivity gains at post-buyout businesses relative to control businesses. The authors also highlight significant heterogeneity within their data and analysis. For example, with respect to employment, on average, public-to-private buyouts resulted in significant employment declines and private-to-private buyouts and secondary deals resulted in significant employment increases. A key limitation, however, is that the authors focus on only the first two years after the buyout. See Steven J. Davis, John Haltiwanger, Kyle Handley, Ben Lipsius, Josh Lerner, and Javier Miranda, (2021), "The (Heterogenous) Economic Effects of Private Equity Buyouts," Hoover Institution Economics Working Paper 21112, July 2021.
6. For example, data from a sample of 3,105 company-years from 1,809 different venture capital backed companies collected by a biannual survey by VentureOne from 2002-2007 found that approximately 77% of all company-years had minority venture capital ownership. See Ola Bengtsson and John R. M. Hand, (2011), "CEO compensation in venture-backed firms," *Journal of Business Venturing* 26(4): pp. 391-411.
7. See UK Office for National Statistics, *Explaining income and earnings: important questions answered*, August 2019. https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/methodologies/explainingincomeearningsandthegenderpaygap

8. Companies are classified based on the UK Standard Industrial Classification (SIC) hierarchy, which is commonly used in government statistics. Company SIC codes were generally identified using Dun & Bradstreet. Industry aggregates are defined as follows. Agriculture, mining, and construction includes sections A, B, and F; manufacturing includes section C; transportation, information, and utilities includes sections D, E, H, and J; wholesale and retail trade includes section G; finance, insurance, and real estate includes sections K and L, personal services includes sections I, O, P, Q, R, and S; and professional services includes sections M and N. The breakdown of direct employment by PitchBook primary industry sector is as follows. Consumer products and services accounted for 767,000 jobs, or 40% of direct employment supported at UK private equity and venture capital backed businesses in 2021. Business products and services employed the second largest share of UK private equity and venture capital backed business workers with 558,000 jobs, or 29% of employment. Healthcare accounted for 189,000 jobs, or 10% of employment. Other Pitchbook primary industry sectors include information technology (208,000 jobs, 11%), financial services (103,000 jobs, 5% of employment), energy (77,000 jobs, 4% of employment), and materials and resources (17,000 jobs, 1% of employment.)
9. Section J, the information & communication industry, accounted for 200,000 jobs, or 10% of employment directly supported by UK private equity and venture capital backed businesses in 2021.
10. This £30,000 is computed by dividing the £58 billion of employee earnings by the approximately 1.9 million jobs prior to rounding. Employee earnings is gross earnings. Calculation includes both full- and part-time workers.
11. The ratio of UK GDP supported by UK private equity and venture capital backed businesses in 2021 was calculated using seasonally adjusted UK GDP for 2021 as available on February 17, 2022 from the UK Office for National Statistics (i.e., £2.2 trillion). The ratio of UK employment supported by UK private equity and venture capital backed businesses in 2021 was calculated using seasonally adjusted UK employment for 2021 as available on February 17, 2022 from the UK Office for National Statistics (i.e., 32 million). The ratio of UK gross earnings supported by UK private equity and venture capital backed businesses in 2021 was calculated using UK employee compensation for 2021 as available on February 17, 2022 from the UK Office for National Statistics (i.e., £1.2 trillion).
12. National and regional results are high-level estimates. The national- and regional-level results are an allocation of the UK results to UK nations and regions with a high-level estimate based on the headquarters location of each company and the industries in which UK private equity and venture capital backed businesses operate. An allocation approach is necessary because sufficiently detailed data on UK private equity and venture capital backed businesses are not available by nation and region from publicly available sources. For example, for a given private equity or venture capital backed company only a total employment number is available, not a number by nation and region.

In aggregate, the geographic distribution of private equity and venture capital backed companies by headquarters location is broadly consistent by size of venture capital and private equity backed company. For example, in the London region, the share of venture capital and private equity backed company employment by headquarters location is 48% for companies with 0 to 100 employees, 42% for companies with 100 to 250 employees, 38% for companies with 250 to 500 employees, 35% for companies with 500 to 1,000 employees, 42% for companies with 1,000 to 5,000 employees, 29% for companies with 5,000 to 10,000 employees, and 42% for companies with more than 10,000 employees. It is 40% for all venture capital and private equity backed companies. This can be seen across the nations and regions in this analysis. In the Yorkshire and The Humber region, for example, the share of venture capital and private equity backed company employment by headquarters location is 4% for companies with 0 to 100 employees, 5% for companies with 100 to 250 employees, 6% for companies with 250 to 500 employees, 7% for companies with 500 to 1,000 employees, 6% for companies with 1,000 to 5,000 employees, 6% for companies with 5,000 to 10,000 employees, and 6% for companies with more than 10,000 employees. It is 6% for all venture capital and private equity backed companies.

Additionally, the share of venture capital and private equity backed company employment by nation and region by headquarters location is broadly consistent with the distribution of total UK employment by nation and region except for the London region. In particular, comparing share of total UK employment to share by headquarters location of venture capital and private equity backed businesses, it is 3% and 3% in North East, 11% and 7% in North West, 8% and 6% in Yorkshire and The Humber, 7% and 3% in East Midlands, 8% and 7% in West Midlands, 9% and 8% in East of England, 17% and 40% in London, 13% and 14% in South East, 8% and 4% in South West, 4% and 1% in Wales, 8% and 5% in Scotland, and 3% and 1% in Northern Ireland. UK total employment shares were calculated from 2019 employment data reported by the UK Office for National Statistics.

Accordingly, the high-level national and regional analysis in this report is estimated as follows. Direct employment (i.e., employment at venture capital and private equity backed companies) is generally allocated by headquarters location for companies with fewer than 1,000 employees and allocated based on the national and regional share of UK employment by industry for companies with 1,000 or more employees. This high-level adjustment is made because not all of a company's employment is located in a company's headquarters location. A restaurant chain, for example, may be headquartered in the London region but have restaurants and employment across the United Kingdom. Companies with 5,000 or more employees were manually reviewed as to whether their employment was concentrated in the nation or region of their headquarters location. Notably, because the share of venture capital and private equity backed company employment by headquarters locations for each nation and region is broadly consistent with the distribution of UK employment by nation and region, results are generally not sensitive to this adjustment except for in the London region.

Additionally, venture capital and private equity backed companies are assumed to purchase goods and services from other businesses based on the average location of a supplier by industry of the supplier. While both this assumption and the reallocation of headquarters employment based on industry distribution patterns are not likely to be accurate for any particular company, it provides a high-level analysis of magnitude of economic activity supported by nation and region. Moreover, the information presented above and the significant portion of UK economic activity represented by venture capital and private equity backed companies suggests, in aggregate, venture capital and private equity backed companies may reflect economy and industry averages. Finally, economic activity related to consumer spending is allocated by nation and region based on the estimated national or regional employee earnings supported by venture capital and private equity backed companies and their suppliers.

13. These values are pro-rated to account for cases where private equity or venture capital firms own less than 100% of a private equity or venture capital backed company. Private equity-backed companies are prorated by 5% and venture-capital backed companies are prorated by 75%. The average share of private equity backed companies owned by private equity firms, estimated to be approximately 95%, was calculated based on Thomson Reuters data available for private equity deals in the UK over the past 10 years. The proration adjustment removes the share not owned by private equity firms. The average share of venture capital backed companies owned by venture capital firms, estimated to be approximately 25%, is based on a sample of approximately 1,800 venture capital backed company contracts across approximately 1,500 unique venture capital backed companies. The construction of this sample and summary statistics can be found in Ola Bengtsson, (2011), "Covenants in Venture Capital Contracts," Management Science 57(11): pp. 1926-1943 and S. Abraham Ravid and Ola Bengtsson, (2011), "Geography and style in private equity contracting: Evidence from the U.S. venture capital market," Working Paper: SSRN: 1782382. The proration adjustment removes the share not owned by venture capital firms. Limitations to available venture capital data are discussed in Steven N. Kaplan and Josh Lerner, (2017), "Venture Capital Data: Opportunities and Challenges," in *Measuring Entrepreneurial Businesses: Current Knowledge and Challenges*, Haltiwanger, Hurst, Miranda, and Schoar.

14. EY was provided 2021 data on private equity and venture capital backed companies by PitchBook. These data were provided on October 5, 2021 and are continuously updated by PitchBook. Private equity and venture capital backed businesses are defined as those identified by PitchBook as of that date. An exception is made for BAE Systems, which was reclassified as formerly private equity backed after October 5, 2021. That is, the company was excluded from the analysis. Private equity and venture capital backed companies only include those that are currently backed, headquartered in the United Kingdom, and have an ownership status of privately held (backing), in IPO registration, or publicly held. In order to classify each company based on the UK SIC hierarchy, as well as supplement PitchBook's data with additional employment and revenue data for entities lacking this information through PitchBook, the PitchBook company list was matched to data from Dun & Bradstreet (D&B). The resulting dataset was reviewed and cleaned as per the following steps: estimating UK-specific employment for the top 100 companies (the top 100 companies were determined based on unadjusted PitchBook employment data, or D&B employment data when PitchBook data was missing), verifying SIC code matching for a subset of companies, as well as additional review of companies with greater than 1,000 jobs (based on unadjusted PitchBook employment data, or D&B employment data when PitchBook data was missing).

UK-specific employment was estimated for the top 100 companies given that PitchBook employment values represent global employment as opposed to UK employment. EY manually reviewed the top 100 companies and, when available, checked their financial statements to identify UK shares of total company revenue. When this information was unavailable, company websites were reviewed for indicators such as the UK share of total company locations. These ratios determined UK employment estimates for the top 100 companies. The remaining companies' employment values were not adjusted to reflect UK-specific employment estimates.

The next step of the data cleaning procedure was to verify SIC code matching for a subset of companies, given that certain issues arise in the process of matching PitchBook data to D&B data. For instance, if certain companies were matched based on the company legal name provided by PitchBook, these companies would be classified under SIC codes associated with holding companies as opposed to the SIC code associated with the company's primary activity. In addition, companies may have been matched incorrectly, resulting in an incorrect SIC code classification, or an SIC code may simply not be provided. To address these issues, EY manually reviewed the SIC codes for all companies with at least 1,000 jobs (based on unadjusted PitchBook employment data, or D&B employment data when PitchBook data was missing), and when errors were identified, manually updated the SIC codes based on PitchBook descriptions of the company's primary function. Additionally, since the majority of the SIC code matching errors were due to the aforementioned holding company categorization issue, EY manually reviewed each company classified under SIC codes associated with holding companies within the full dataset and adjusted the SIC codes as needed.

For companies with greater than 1,000 jobs, EY verified whether there are active investors in the business according to PitchBook, and manually reviewed and excluded transactions involving portfolio acquisitions. For example, National Australia Bank was included in the PitchBook dataset by default, but EY manually excluded it. In addition, companies backed by not-for-profit venture capital firms were excluded. All publicly held entities within the dataset were checked for if they had current venture capital or private equity backing.

For companies with missing employment data, the company's industry, revenue, and EBITDA were used to impute employment when revenue or EBITDA were available. The earnings paid to employees of private equity and venture capital backed companies, as well as GDP generated by private equity and venture capital backed companies, were estimated from industry averages with the UK Office for National Statistics.

Additionally, in order to account for PE-backed companies potentially excluded from the PitchBook data, companies that are expected to meet the Private Equity Reporting Group (PERG) criteria for reporting under the Walker guidelines for 2021 were added if not otherwise included in the data. The PERG is an independent entity overseeing further transparency and disclosure within the private equity industry in the United Kingdom. The criteria to be in PERG are as follows. The UK company must have been acquired by one or more PE firms in a public to private transaction where the market capitalization together with the premium for acquisition of control was in excess of £210 million and more than 50% of revenues were generated in the United Kingdom or UK employees totalled in excess of 1,000 full-time equivalents; or the UK company must have been acquired by one or more private equity firms in a secondary or other non-market transaction where the enterprise value at the time of the transaction was in excess of £350 million and over half of revenues were generated in the UK or UK employees totalled in excess of 1,000 full-time equivalents.

The list of companies expected to meet the PERG criteria for reporting under the Walker guidelines for 2021 was compiled by pulling data from CMBOR, Preqin, Mergermarket, Unquote, and PitchBook, considering entities with an enterprise value of at least £200m, a private equity transaction type, and indication of having a UK presence. Then, the revenue and employment criteria as outlined by PERG (indicated above) are applied, to identify relevant companies.

Finally, of the more than 9,600 companies meeting the criteria set out in this report, 20 of these companies are listed by Pitchbook as having zero employees and just over 530 companies are listed by Pitchbook as having no employee data. It is beyond the scope of this analysis to investigate each individual transaction. While the number of UK businesses backed by PE and VC may be somewhat overstated if these businesses are not still backed by PE and VC, the number of UK employees may be somewhat understated if some of the businesses for which Pitchbook does not have employee data have employees.

15. A key point is that an economic impact analysis typically attempts to estimate impacts that net out shifts in economy activity across industries and sectors as the economy moves from its initial equilibrium to its new equilibrium. In contrast, an economic contribution analysis shows the gross amount of economic activity tied to an industry or sector directly, and through its suppliers and related consumer spending. Other modelling frameworks are used to account for the shifts in economic activity and estimate net impacts.
16. See UK Office for National Statistics, *UK input-output analytical tables – industry by industry,* April 2021. https://www.ons.gov.uk/economy/nationalaccounts/supplyandusetables/datasets/ukinputoutputanalyticaltablesindustrybyindustry.
17. Note that the most recent data available are for 2017, which may not fully capture differences in economic linkages in the UK economy between 2017 and 2021. These changes include, but are not limited to, those related to the COVID-19 pandemic.

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