

Annual report on the performance of portfolio companies, XVI

16th Edition

18 January 2024





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Foreword

This is the 16th annual report on the performance of portfolio companies, a group of large, private equity (PE) owned UK businesses that met defined criteria at the time of acquisition. Its publication is one of the steps adopted by the PE industry following the publication of guidelines by Sir David Walker to improve transparency and disclosure, under the oversight of the Private Equity Reporting Group (PERG).

This report addresses many questions that various stakeholders may have on the impact of PE ownership on large UK businesses, by presenting facts and benchmarks to provide answers. The report is designed to be read stand-alone, summarising the accumulated data over the past 16 years of reporting; it also contains comparisons with last year's results and, for some measures, shows time series trends.

This year, the report covers 81 portfolio companies (as defined according to criteria set by the PERG) as at the 2022 financial reporting year (2021: 73), as well as a further 116 portfolio companies that have been owned and exited since 2005. The findings are based on aggregated information provided on the portfolio companies by the PE firms that own them — covering the entire period of PE ownership. This year, data was received covering 66 portfolio companies and one company has been given a first year exemption, resulting in a compliance rate of 83% (2021: 86%). On many measures of performance, the data on the current portfolio is combined with data from portfolio companies exited in 2022 and earlier, which provides over 100 data points, typically measuring performance over several years.

With a large number of portfolio companies, a high rate of compliance, and 16 years of information, this report provides comprehensive and detailed information on the effect of PE ownership on many measures of performance of an independently determined group of large UK businesses. The report comprises five sections:

Section 1: Introduction

Section 2: Summary findings

Section 3: Detailed findings

Section 4: Basis of findings

Section 5: Appendix – objective and fact base

This report has been prepared by Ernst & Young LLP (EY) teams at the request of the British Private Equity and Venture Capital Association (BVCA) and the PERG. The BVCA has supported EY in its work, particularly by encouraging compliance amongst its members and non-members. As in prior years, we welcome comments and suggestions on this report by contacting the members listed at the end of this report.

Yours faithfully

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2022 was a year characterised by significant challenges for the UK (and global) economy. Higher commodity prices resulting from the conflict in Ukraine, record inflation, increased interest rates, supply chain disruption and shifting UK political developments all led to reshaping the operating environment for companies across sectors. In this context, UK GDP growth declined from 7.6% in 2021 to 4.3% in 2022.

However, it was very much a year of two halves — with activity levels remaining robust through the first half, before a combination of higher inflation, and rising interest rates saw a significant slow towards the second half of the year.

Despite the macroeconomic and geopolitical headwinds, PE backed businesses in our sample have achieved strong growth across various metrics. However the results of this year's review of business performance do reflect the underlying economic conditions. Our analysis shows that aggregate trading results for the portfolio companies moderated slightly versus comparative levels in 2021, with revenue and EBITDA growth since acquisition of 7.0% and 4.9% (compound annual growth rate, "CAGR") respectively in 2022, compared with 7.8% and 6.0% CAGR respectively in 2021. Additionally, the metrics in some areas lag performance in comparison with public company benchmarks, both at an aggregate and sector level.

However, a full year free of COVID-19 restrictions in the UK saw a continued resurgence in activity in certain sectors, with year-on-year growth in 2022 significantly ahead of historical levels pre-COVID-19. Consumer facing businesses, in particular, performed strongly, reflecting the continued recovery from the impacts of lockdowns in 2020 and 2021, and the continued release of considerable pent-up demand through 2022. This trend was seen in both PE backed businesses and public companies in the Consumer sector. Furthermore, PE backed companies appear to have outperformed the ONS private sector benchmark in terms of year-on-year organic employment growth and average cost per head growth, as well as labour productivity growth.

The economy and deal markets continued to struggle into 2023, as interest rates continued to surge impacting the cost and availability of credit, and also bearing down on economic growth. In better news, inflation appears to have cooled and interest rates now appear to have peaked, with the next movements expected to be downwards, and this should provide some certainty to the sector. It will be very interesting to see how the 2023 results of PE backed businesses reflect these changes.

Peter Arnold

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Introduction

What are the objectives of this report?

The objective of this annual report is to present independently prepared information on key stakeholder questions, to inform the broader business, regulatory and public debate on the impact of PE ownership on large UK businesses

- ▶ This study by EY reports on the performance of the large UK businesses (the portfolio companies, referred to as 'PCs') owned by PE investors that meet the criteria determined by the PERG. It forms part of the actions implemented by the PE industry to enhance transparency and disclosure, as recommended in the guidelines proposed by Sir David Walker in November 2007.
- ▶ By aggregating information on the businesses that meet a defined set of criteria at the time of their acquisition, there is no selectivity or performance bias in the resulting data set. This is the most accurate way of understanding what happens to businesses under PE ownership.
- ▶ Key questions of interest to the many stakeholders in the portfolio companies that are addressed in this report include:
 - ▶ Do portfolio companies create jobs?
 - ▶ How is employee compensation affected by PE ownership, e.g., pay and pension benefits?
 - ▶ Do portfolio companies increase or decrease investment in capital expenditure, R&D and bolt-on acquisitions or partial disposals?
 - ▶ What are the levels of financial leverage in the portfolio companies, and how do they change over time?
 - ▶ How do labour and capital productivity change under PE ownership?
 - ▶ Do companies grow during PE ownership?
 - ▶ What is the level of gender diversity in the portfolio companies?
 - ▶ How do PE investors generate returns from their investments in the portfolio companies? How much is attributable to financial engineering, public stock market movement and strategic and operational improvement?
- ▶ The findings of this report constitute a source of information to inform the broader business, regulatory and public debate on the impact of PE ownership, by evidencing if its distinctive features affect the performance of large UK businesses.
- ▶ This is the 16th report covering performance data up to a latest date of June 2023. It is written to be read as a stand-alone report with comparisons with prior years' findings included for reference.

Introduction

Question		Page no.
What are the objectives of this report?	<ul style="list-style-type: none"> ▶ The objective of this annual report is to present independently prepared information on key stakeholder questions, to inform the broader business, regulatory and public debate on the impact of PE ownership on large UK businesses. 	6
What period does this report cover? How have any potential impacts from the COVID-19 pandemic been considered?	<ul style="list-style-type: none"> ▶ Data presented in this report reflects results of companies with a financial year ending between 30 June 2022 and 30 June 2023. The comparative period relates to financial years ending between 30 June 2021 and 30 June 2022. ▶ The data and analysis in this report includes periods impacted by the recovery from the COVID-19 crisis and comparative periods that were significantly impacted by COVID-19 pandemic. 	–
What factors does the reader need to consider?	<ul style="list-style-type: none"> ▶ Significant dispersions can be seen across the results of portfolio companies, specifically in trading activities. This is likely due to varying levels of recovery in trading results since the COVID-19 pandemic (which materially impacted results in the comparative period). ▶ In most measures this year, the results for the aggregate population is affected by the performance of one portfolio company which is deemed to distort the overall result. In these cases, the result excluding the outlier is presented and a separate bar or line is added to show the result including the outlier. 	64-65 54
What are the distinctive features of the PE business model?	<ul style="list-style-type: none"> ▶ The distinctive features of the PE business model include controlling ownership (typically active ownership) of its portfolio company investments, the use of financial leverage, and its long-term investing horizon. 	66
What are the criteria used to identify portfolio companies, and how are they applied?	<ul style="list-style-type: none"> ▶ Portfolio companies are identified at the time of their acquisition, based on criteria covering their size by market value, the scale of their UK activities and the remit of their investors. The criteria and their application are independently determined by the PERG. 	67-68
How robust and representative is the data set used in this report?	<ul style="list-style-type: none"> ▶ This year, data was received covering 66 portfolio companies. One company has been given a first year exemption, resulting in a compliance rate of 83% (2021: 86%). 	69–71
What are the time period and coverage of the measures used to evaluate performance?	<ul style="list-style-type: none"> ▶ The two main measures used in this report cover a) the entire period of PE ownership of all the portfolio companies (including past exits), i.e., from initial acquisition to latest date or exit, and b) the latest year and prior-year comparison of the current portfolio companies. 	72
What performance measures are presented in this report, and how do they interrelate?	<ul style="list-style-type: none"> ▶ This report presents a range of performance measures to test the impact of PE ownership on the portfolio companies' resources, productivity, trading, leverage and investor returns. 	73
How accurate are the individual portfolio company submissions?	<ul style="list-style-type: none"> ▶ The portfolio company submissions are mostly drawn from key figures disclosed in published, independently audited annual accounts. ▶ The data returned to EY teams is checked for completeness and iterated with the Portfolio Companies or PE firms as required. 	74

How robust is the data set used in this report?

Portfolio companies (as at 30 June 2023)

Portfolio company	General Partner (s)
Advanced Computer Systems/ACS	BC Partners
Alcumus Group Ltd ¹	Apax Partners
Alexander Mann Solutions	OMERS PE
Ambassador Theatre Group	Providence Equity Partners
Ascot Lloyd ¹	Nordic Capital
ASDA	TDR Capital
Automobile Association (AA)	Towerbrook Partners
Bourne Leisure	Blackstone
Care UK	Bridgepoint
Chime Communications	Providence Equity Partners
Citation Limited	KKR
CityFibre	Goldman Sachs
Civica	Partners Group
Clarion Events	Blackstone
Cobham Limited	Advent International
Constellation Automotive Group (BCA)	TDR Capital
David Lloyd Leisure	TDR Capital
Davies Group	BC Partners
Domestic and General Group	CVC Capital Partners
Edinburgh Airport	Global Infrastructure Partners
ESP Utilities	3i
esure group	Bain Capital
Evri (previously Hermes)	Advent International
Farnborough Airport	Macquarie
Froneri (RR Ice-cream)	PAI Partners
HC-One	Safanad/Formation Capital
Huws Gray	Blackstone
Hyperoptic	KKR
Infinis	3i
Instavolt ¹	EQT

Portfolio company	General Partner (s)
IRIS Software Group	Hg Capital / ICG
JLA	Cinven Limited
Kantar plc	Bain Capital
KCOM	Macquarie
LGC	Cinven Limited
M Group Services	PAI Partners
Medivet Group Ltd	CVC Capital Partners
Merlin Entertainments	Blackstone
Morrisons	Clayton Dubiler & Rice
Moto (owned with USS)	CVC Capital Partners
Motor Fuel Group / MFG	Clayton Dubiler & Rice
MyDentist	Palamon Partners
Network Plus Services ^{1,2}	OMERS PE
NewDay (owned with CVC)	Cinven Limited
Parkdean Holidays	Onex
PIB	Apax Partners
Premium Credit ¹	Towerbrook Partners
QA Training	CVC Capital Partners
RAC	CVC Capital Partners
RoadChef Motorways ¹	Macquarie
Rubix	Advent International
Shawbrook Bank	BC Partners
Stagecoach Group ¹	DWS Alternatives Global
Stonegate Pub	TDR Capital
Study Group International	Ardian
Sykes Holiday Cottages	Vitruvian
Ultra ¹	Advent International
VetPartners	BC Partners
Village Hotels	KSL Capital
Viridian (now Energia group)	iSquared Capital

Notes: ¹ Company is new to population; ² First year exemption provided

How robust is the data set used in this report? (cont.)

Portfolio companies (as at 30 Jun 2023) (cont.)

Portfolio company	General Partner (s)
Viridor Limited	KKR
Williams Lea Tag	Advent International
Witherslack	Mubadala Capital
WSH (Westbury Street Holdings)	Clayton Dubiler & Rice
Zellis	Bain Capital
Zenith	Bridgepoint
ZPG	Silver Lake

Note: 14 portfolio companies (and General Partners) have not complied with the reporting requirements for the financial year 2022 study. Refer to the 16th Annual PERG report for further details of the names of these portfolio companies

Exits of portfolio companies during the year to 30 June 2023

Portfolio company	General Partner (s)
Premium Credit	Cinven Limited
Vue Cinemas	OMERS PE

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Summary findings

Summary findings

It is not possible to accurately isolate the impact of the COVID-19 pandemic and recovery on the financial and operational data included in this report. It is evident, for a number of the criteria tracked in this report, that the year-on-year (YoY) results for 2022 continue to exhibit a different trend from that observed in many of the periods prior to 2020. We would expect the impact of the pandemic in 2020 and recovery in 2021 and continuing in 2022 to have been the material driver of this.

Question	Key findings	Page no.
How long does PE invest in the portfolio companies?	<ul style="list-style-type: none"> ▶ The average timeframe of PE investment in the portfolio companies is 5.9 years (2021: 5.9 years) for historical exits, i.e., from initial acquisition to exit. The current portfolio companies have been owned for an average of 4.4 years (2021: 4.2 years). 	16
Do PE-owned companies grow?	<ul style="list-style-type: none"> ▶ The portfolio companies have increased reported revenue at 7.0% CAGR since acquisition (2021: 7.8%) and EBITDA at 4.9% CAGR (2021: 6.0%); organic revenue and EBITDA has increased at 5.7% and 3.2% CAGR respectively since acquisition (2021: 4.9% and 4.3%). ▶ The portfolio companies outperformed the public company benchmarks at a (reported) revenue increase of 7.0% versus 5.4%. EBITDA growth of 4.9% underperformed the benchmark of 9.1% per annum. ▶ Portfolio companies reported higher YoY growth in organic revenue and EBITDA in 2022 than the previous years of the study (except 2021). This is likely driven by a recovery from the COVID-19 pandemic in both 2021 and continuing in 2022. ▶ There is a wide range of results in 2022 trading performance in the current portfolio companies at both a sector and company level, with the outperformance partly driven by the Consumer sector achieving higher growth in profitability (EBITDA) than other sectors. 	17–26
Do portfolio companies create jobs?	<ul style="list-style-type: none"> ▶ Reported employment under PE ownership has increased by 2.0% per annum (2021: 1.5%) since acquisition. Underlying organic employment growth (removing the effects of bolt-on acquisitions and partial disposals) has increased in 2022 (0.7% growth) in comparison with nil growth in 2021. ▶ Annual employment growth (CAGR) of the portfolio companies is slightly below (i) the private sector benchmark at 0.7% versus 1.0% growth (organic), and (ii) the public company benchmark at 2.0% versus 2.7% growth (reported). ▶ Organic YoY employment growth in the current portfolio companies, at 7.5%, has outperformed the ONS private sector benchmark of 1.2%. ▶ At the sector and company level, there is a wide range of growth in organic employment (-1.1% to 11.4%). The Health care and Other sector underperformed the remaining sectors in terms of YoY organic growth. 	27-30

Summary findings (cont.)

Question	Key findings	Page no.
How is employee compensation affected by PE ownership: pay, terms and pension benefits?	<ul style="list-style-type: none"> ▶ Average employment cost per head in the portfolio companies has increased by 2.7% per annum under PE ownership (2021: 2.1%). ▶ Average annual employee compensation growth under PE ownership of 2.7% is slightly lower than the UK private sector benchmark of 3.5% CAGR, however represents an increase compared with 2021 performance (2.1% CAGR in 2021). ▶ Average employment cost per head increased YoY by 5.1% in 2022 compared with 2021, higher than the long-term trend and the UK private sector benchmark of 2.1% growth over the same period. ▶ Around 28% (2021: 31%) of jobs in the portfolio companies (which will include both part-time and full-time jobs) have annual compensation of less than £12,500. This is impacted by a high proportion of workers in the Health care and Consumer sectors (lower average compensation per employee) and may be attributed to the mix of full-time versus part-time workers, with the Health care and Consumer sectors having 29% and 43% of the staff base on a part-time basis. Out of 66 current portfolio companies, 43 companies provided data for part time workers in 2022. ▶ There have been few changes in existing company defined benefit pension schemes under PE ownership. The aggregated value of liabilities of defined benefit schemes of current portfolio companies exceeds the value of assets; the average time to pay off the deficit is estimated as 4.8 years (2021: 4.5 years). 	31-37
Do portfolio companies increase or decrease investment in capital expenditure, R&D and bolt-on acquisitions or disposals?	<ul style="list-style-type: none"> ▶ There has been growth in most measures of investment at the portfolio companies whilst under PE ownership, with measures for Capex and R&D expenditure showing an increase compared with 2021 levels of growth. ▶ The YoY increase in operating capital employed was 8.1% in 2022, higher than the 6.4% increase in 2021. ▶ Of the current portfolio companies, 61% have made net bolt-on acquisitions whilst 12% have made net partial disposals, showing investment in bolt-on acquisitions ahead of partial disposals (2021: 57% and 10% respectively). ▶ PE investors, in aggregate, have used free cash flow and additional third-party debt to increase investment in the current portfolio companies. 	38-41

Summary findings (cont.)

Question	Key findings	Page no.
How does labour and capital productivity change under PE ownership?	<ul style="list-style-type: none"> ▶ Labour productivity YoY for portfolio companies has remained consistent at (i) 4.2% (2021: 4.2%) as measured by growth in EBITDA per employee, and (ii) 3.0% (2021: 3.1%) as measured by growth in Gross Value Added (GVA) per employee. ▶ Capital productivity has increased under PE ownership by 11.9% per annum (2021: 10.1%). ▶ Annual increase in labour productivity in the portfolio companies is lower than the public benchmarks for EBITDA per employee (at 4.2% versus 9.9%) but higher than the UK private sector benchmark for GVA per employee (at 3.0% versus 2.4%). ▶ GVA per employee of portfolio companies increased YoY by 9.4% in 2022, which represents higher growth compared with previous years of the study (except 2021). This is likely driven by a recovery from the COVID-19 pandemic in both 2021 and continuing in 2022. YoY growth in GVA per employee is higher than the UK private sector benchmark of 6.2% per annum (2021: 6.7%), with both results impacted by strong EBITDA performance in 2022. ▶ Capital productivity growth in the portfolio companies exceeds public company benchmarks, at 11.9% versus 1.0% growth per annum (2021: 10.1% versus -1.9%). Capital productivity growth for portfolio companies has outperformed the public company benchmark in every year of the study (from the time this metric has been reported on). 	42–46
What are the levels of financial leverage in portfolio companies?	<ul style="list-style-type: none"> ▶ In aggregate, combined current plus exited portfolio companies had an average leverage ratio of 6.5x gross debt to EBITDA at acquisition compared with an average leverage ratio of 6.9x at latest date or exit (2021: 6.6x and 6.9x respectively). ▶ The current portfolio companies show an increase in leverage under PE ownership, partially driven by businesses which have not yet fully recovered from the impact of COVID-19 in 2022. ▶ In aggregate, current portfolio companies had an average (net) leverage ratio of 5.9x net debt to EBITDA at acquisition compared with an average (net) leverage ratio of 7.2x at latest date or exit. 	41,47–48
What is the level of gender diversity in the portfolio companies?	<ul style="list-style-type: none"> ▶ Female representation is 51% (2021: 51%) at an overall employee level across the current portfolio companies and 20% (2021: 26%) at the director level. 40% (2021: 37%) of FTSE 250 board positions are held by females (source: Hampton-Alexander Review, Feb, 2023). 	49

Summary findings (cont.)

Question	Key findings	Page no.
<p>How do PE investors generate returns from their investments in the portfolio companies? How much is attributable to financial engineering, public stock market movement and strategic and operational improvement?</p>	<ul style="list-style-type: none"> ▶ The equity return from portfolio company exits is 3.0x (2021: 3.0x) the public company benchmark; c.41% of the additional return is attributed to PE strategic and operational improvement, and the balance from additional financial leverage. ▶ Whilst the results vary over time, the component of the gross return from PE strategic and operational improvement has increased in recent years. 	50-51

In aggregate, the portfolio companies under PE ownership have shown positive absolute growth in investment, productivity, revenue and, have experienced strong YoY growth in trading, employment and productivity measures in the last financial year. We assume that 2022 in-year performance will have been partly impacted by a continued post COVID-19 recovery. The results of this year's review also appear to reflect the challenging underlying economic conditions faced in 2022, including rising interest rates and inflation during the year.

The portfolio companies outperformed the benchmark comparatives for YoY measures of growth in employment, compensation and labour productivity (measured by GVA per employee), i.e., when comparing FY22 with FY21 across these metrics.

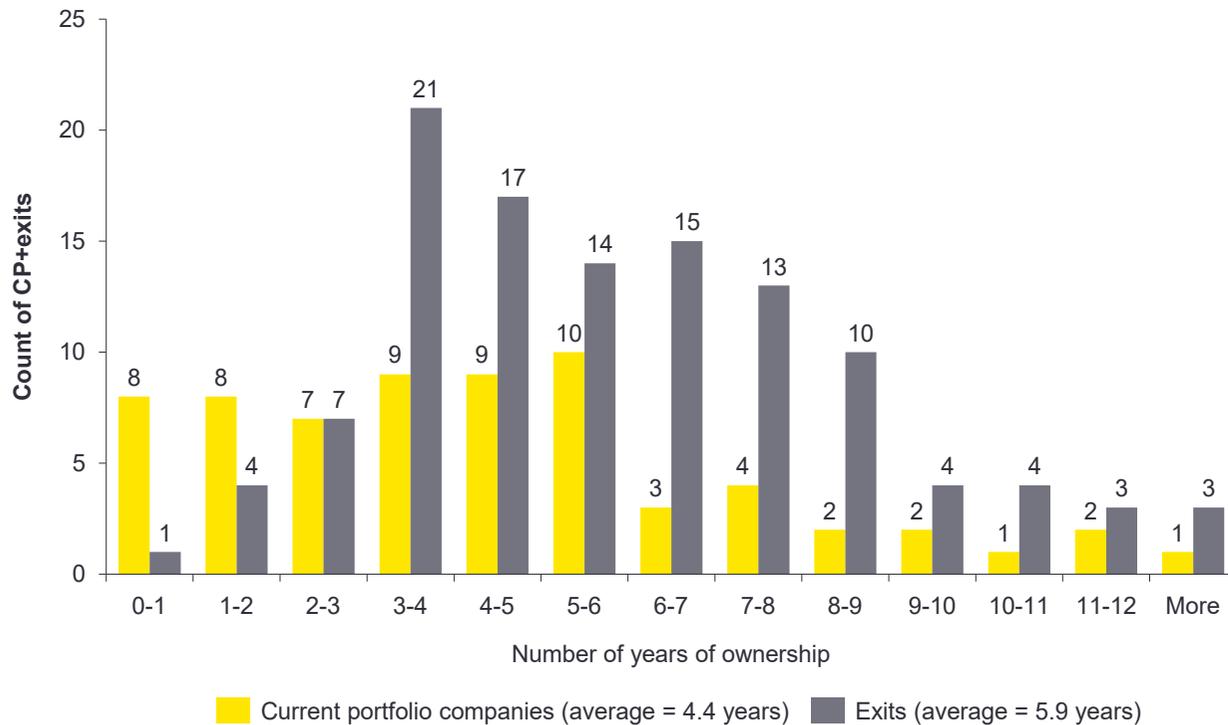
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Detailed findings

How long does PE invest in the portfolio companies?

Average timeframe of PE investment in the portfolio companies which have exited is 5.9 years, i.e., from initial acquisition to exit. Current portfolio companies have been owned for an average of 4.4 years

Distribution of years of ownership of portfolio companies



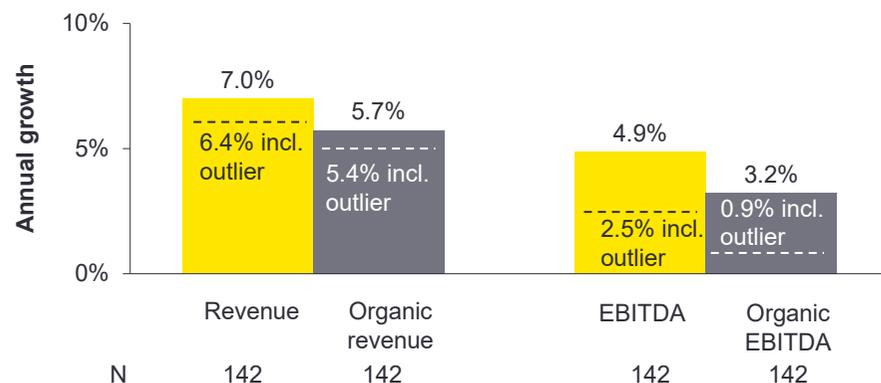
Note: The data set for most metrics in this report begins in 2007. Additional data for portfolio company exits includes investments realised starting in 2005.

- ▶ The PE business model seeks to achieve an investment return to its investors (pension funds, insurance funds, etc.) by realising greater equity proceeds than its initial equity investment at the time of acquisition. This may come from (amongst other levers) increasing earnings through the investment hold period and achieving higher exit multiples.
- ▶ The PE business model is long term:
 - ▶ For the 116 portfolio companies that have been exited since 2005, the average length of ownership is 5.9 years.
 - ▶ For the current group of 66 portfolio companies, the average active length of PE ownership is 4.4 years at 30 June 2023.
 - ▶ For the portfolio companies exited in 2022, the average hold period was 8.0 years (2021: 6.8 years).
- ▶ Looking at the profile of the historical exits as the best measure of the length of PE ownership, of the 116 exits, 90% were owned for more than three years, and 57% were owned for more than five years.

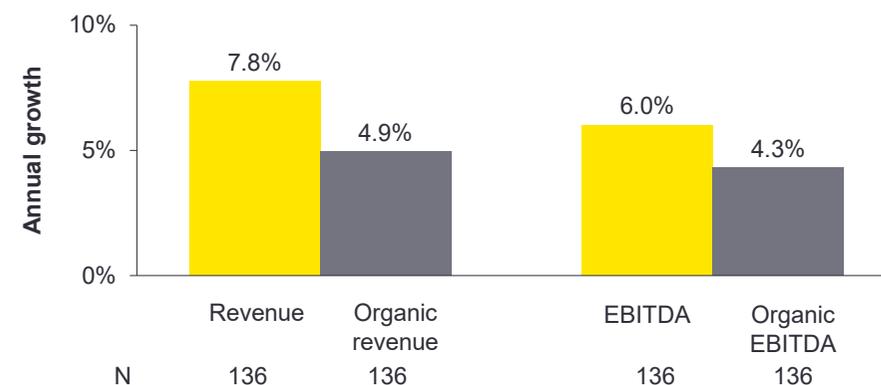
Do PE-owned companies grow?

Revenue growth since acquisition in the portfolio companies is 7.0% in 2022 (7.8% in 2021), while EBITDA since acquisition increased at 4.9% (6.0% in 2021)

Reported and organic revenue and EBITDA growth* since acquisition (CP+exits, 2022)



Reported and organic revenue and EBITDA growth since acquisition (CP+exits, 2021)



Refer to page 74. No changes have been made to underlying data for changes in accounting policies.

- ▶ Reported revenue and profit (EBITDA) CAGR growth over the entire period of private ownership to date is 7.0% for revenue and 4.9% for EBITDA.
- ▶ Organic revenue and profit (EBITDA) growth rates (excluding the effect of bolt-on acquisitions and partial disposals) is 5.7% and 3.2% CAGR respectively. As with other measures, there is variation by sector and within sectors, with the Industrials, Other and Infrastructure sectors showing the highest organic revenue growth rate of 7.8%, 7.9% and 8.2% respectively. The other sectors reflect organic revenue growth rates within a range of c.4.1% to c.4.6%.
- ▶ The trend differs slightly at a profit level, with the Health care sector showing the highest organic EBITDA growth rate since acquisition of 6.5%, whilst the remaining sectors achieved organic EBITDA growth ranges between c.2.1% to c.4.8%.

Note: Other is largely comprised of financial sector companies.

Organic revenue and EBITDA growth* since acquisition – by sector

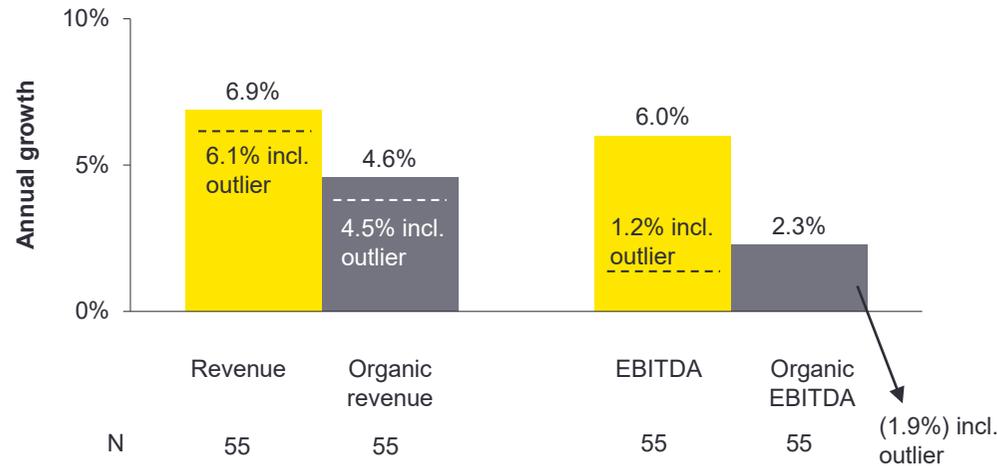
Sector	Organic revenue growth (CP+exits)	Organic EBITDA growth (CP+exits)
Industrial	7.8%	4.3%
Consumer	4.6%	2.3%
Health care	4.1%	6.5%
Infrastructure	8.2%	2.1%
Technology	4.6%	4.8%
Other	7.9%	3.6%

* Throughout this report, the measure of growth since acquisition represents a compound annual growth rate.

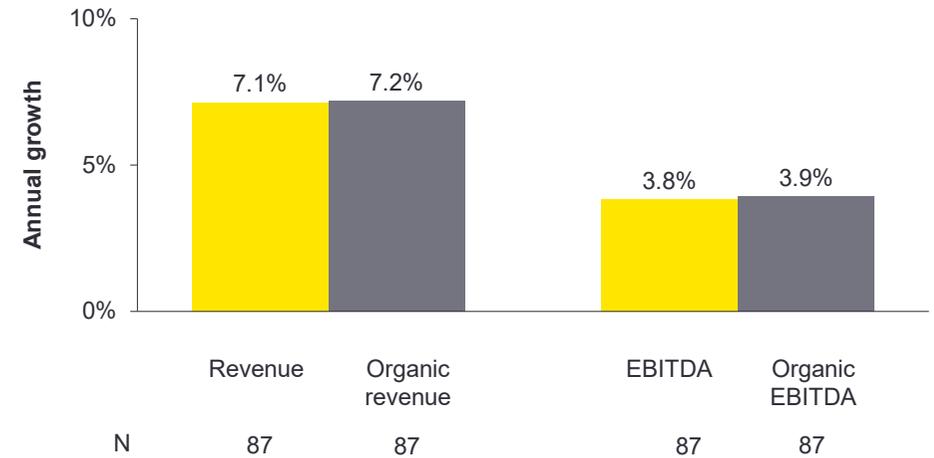
Do PE-owned companies grow? (cont.)

Sectors other than consumer (in aggregate) generated higher organic revenue and EBITDA growth than the Consumer sector. Organic revenue growth was 7.2% versus 4.6% and EBITDA growth was 3.9% versus 2.3% respectively.

Reported and organic revenue and EBITDA growth since acquisition (CP+exits, Consumer sector, 2022)



Reported and organic revenue and EBITDA growth since acquisition (CP+exits, Sectors other than consumer, 2022)



- ▶ The Consumer sector reported revenue and EBITDA annual growth over the entire period of private ownership to date is 6.9% and 6.0% respectively.
- ▶ Organic revenue and EBITDA annual growth (excluding the effect of bolt-on acquisitions and partial disposals) is 4.6% and 2.3% respectively.

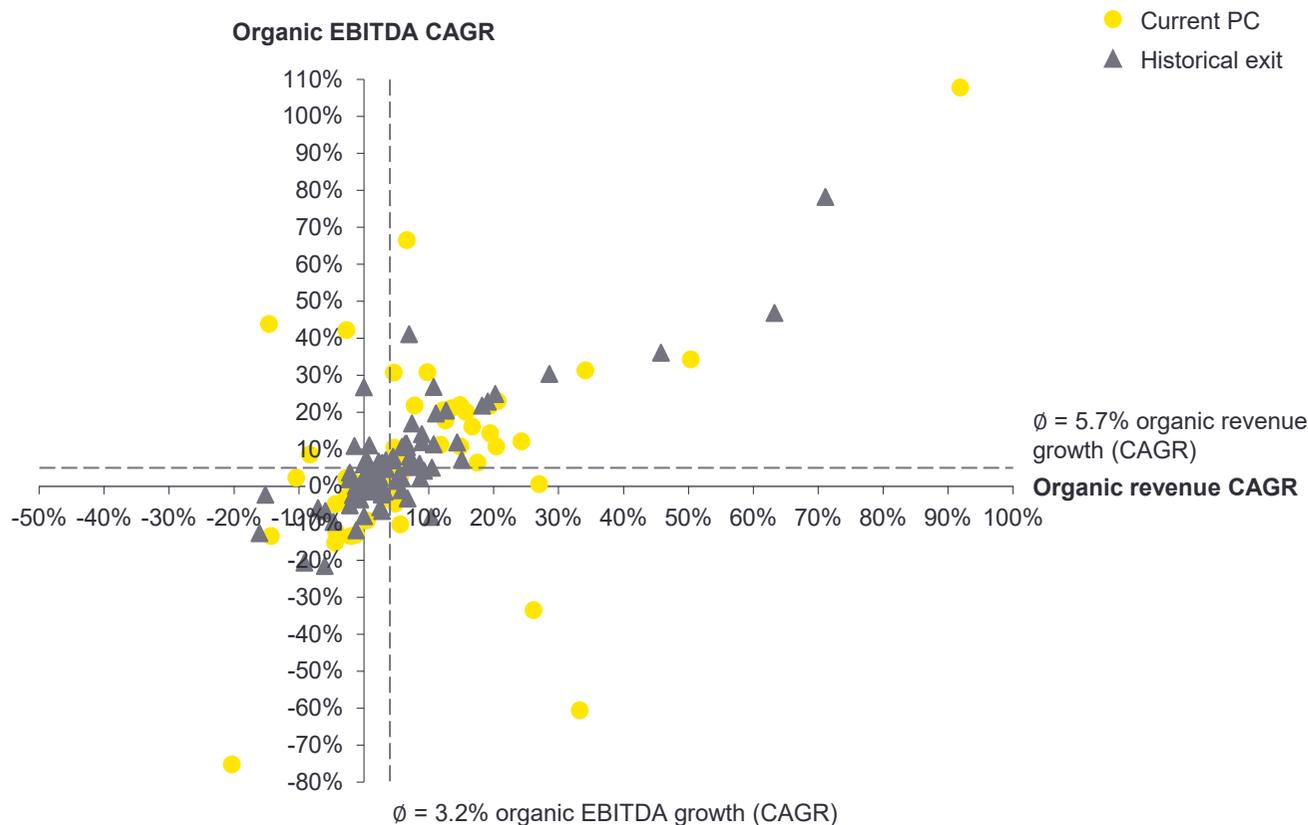
- ▶ Sectors other than Consumer comprises Industrials, Health care, Infrastructure, Technology and Other sector companies.
- ▶ Reported revenue and EBITDA annual growth over the entire period of private ownership to date is 7.1% and 3.8% respectively.
- ▶ Organic revenue and EBITDA annual growth is 7.2% and 3.9% respectively.

Do PE-owned companies grow? (cont.)

At the individual portfolio company level, there is a wide range of performance in organic revenue and EBITDA growth

Organic revenue and EBITDA growth by portfolio company since acquisition

Absolute organic revenue and organic EBITDA growth are measured as the change in organic revenue (or organic EBITDA) from the time of investment to exit or latest date, divided by organic revenue (or organic EBITDA) at the time of investment.

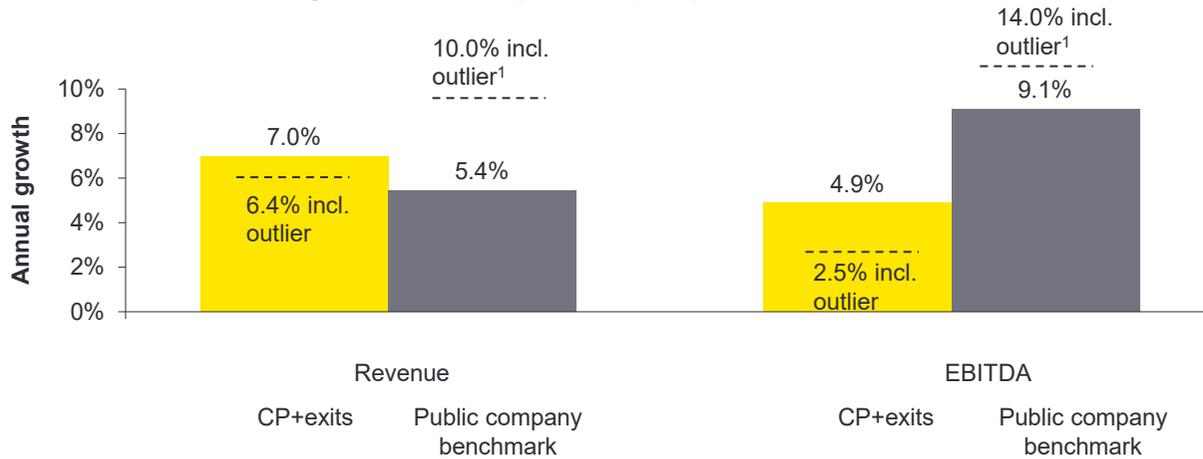


- ▶ The chart shows the data points of organic revenue and EBITDA growth for each of the current portfolio companies and historical exits, measured as the CAGR from acquisition to latest date or exit. This shows a wide range of outcomes around the average results.
- ▶ There are 78 portfolio companies with both positive organic revenue and EBITDA growth and 20 portfolio companies with both negative organic revenue and EBITDA growth.
- ▶ Individual portfolio company performance is affected by many factors, external and internal to the business. Not all portfolio companies grow under PE ownership, however some grow very quickly. The findings in this report combine all the data to test aggregated results and to compare them with private and public sector benchmarks.

Do PE-owned companies grow? (cont.)

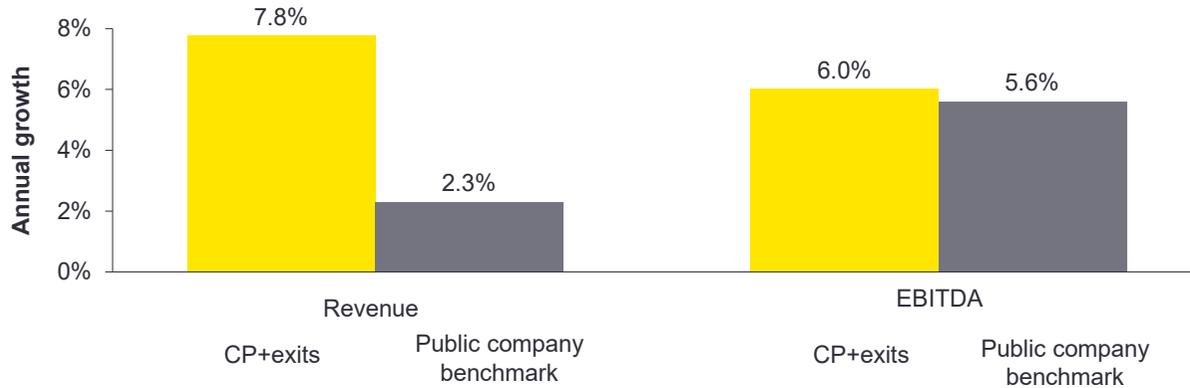
Revenue growth in the portfolio companies (7.0%) is comparatively at a higher rate than public company benchmarks (5.4%). EBITDA growth for portfolio companies (4.9%) is lower than the public company benchmark (9.1%)

Revenue and EBITDA growth since acquisition (2022)



- ▶ Reported revenue performance of the portfolio companies since acquisition outperformed the public company benchmark, whilst EBITDA growth is lower than the public company benchmark
- ▶ The long-term (since acquisition) growth rate of portfolio companies in 2022 is comparable with 2021 levels which reflected revenue growth at 7.8% and EBITDA growth at 6.0%.

Revenue and EBITDA growth since acquisition (2021)

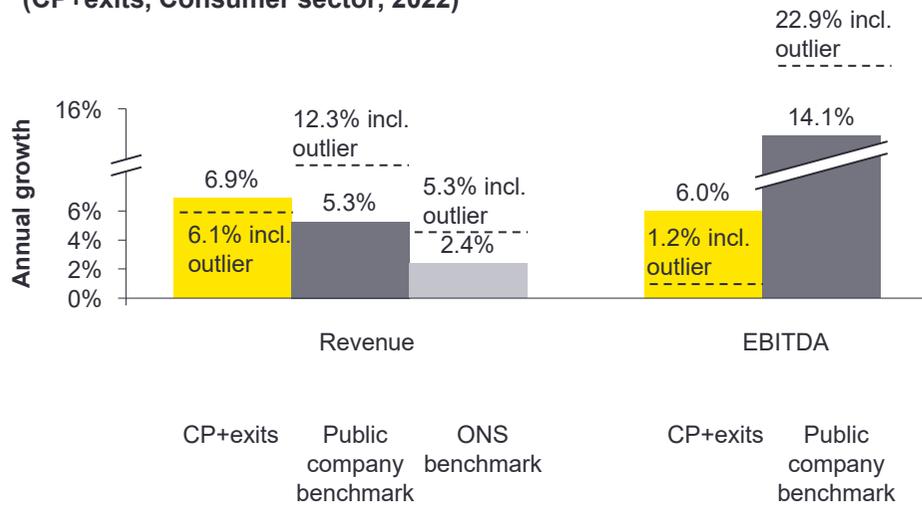


1. Note the public company benchmark is calculated on a weighted average basis with weighting based on pro forma EBITDA of the portfolio companies in the year of acquisition.

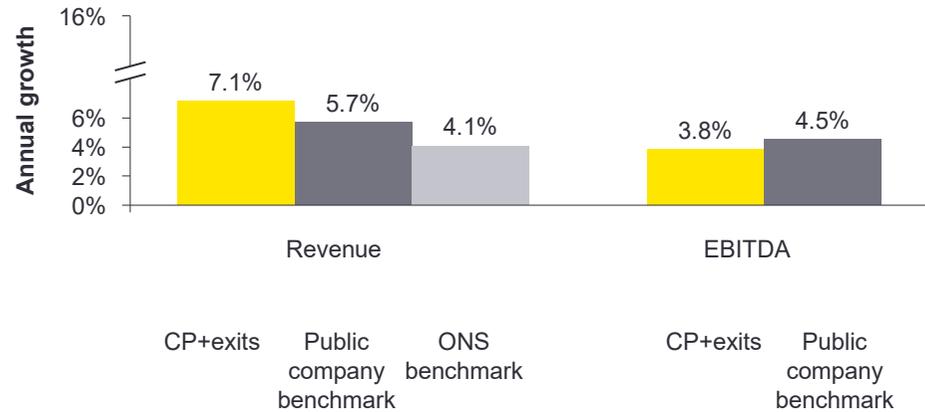
Do PE-owned companies grow? (cont.)

Revenue growth for both the Consumer sector and Sectors other than consumer is comparatively at a higher rate than benchmarks, however EBITDA growth has underperformed the public company benchmark

Revenue and EBITDA growth since acquisition (CP+exits, Consumer sector, 2022)



Revenue and EBITDA growth since acquisition (CP+exits, Sectors other than consumer, 2022)



- ▶ Reported revenue performance of the Consumer sector portfolio companies (since acquisition) of 6.9% outperformed the public and private (ONS) company benchmarks of 5.3% and 2.4% respectively.
- ▶ Reported EBITDA performance of the Consumer sector portfolio companies (since acquisition) of 6.0% is below the public company benchmark of 14.1%.

- ▶ Reported revenue performance of the Sector other than consumer portfolio companies of 7.1% outperformed the public and private (ONS) company benchmarks of 5.7% and 4.1% respectively.
- ▶ Reported EBITDA performance of the Sectors other than consumer portfolio companies (since acquisition) of 3.8% is below the public company benchmark of 4.5%.

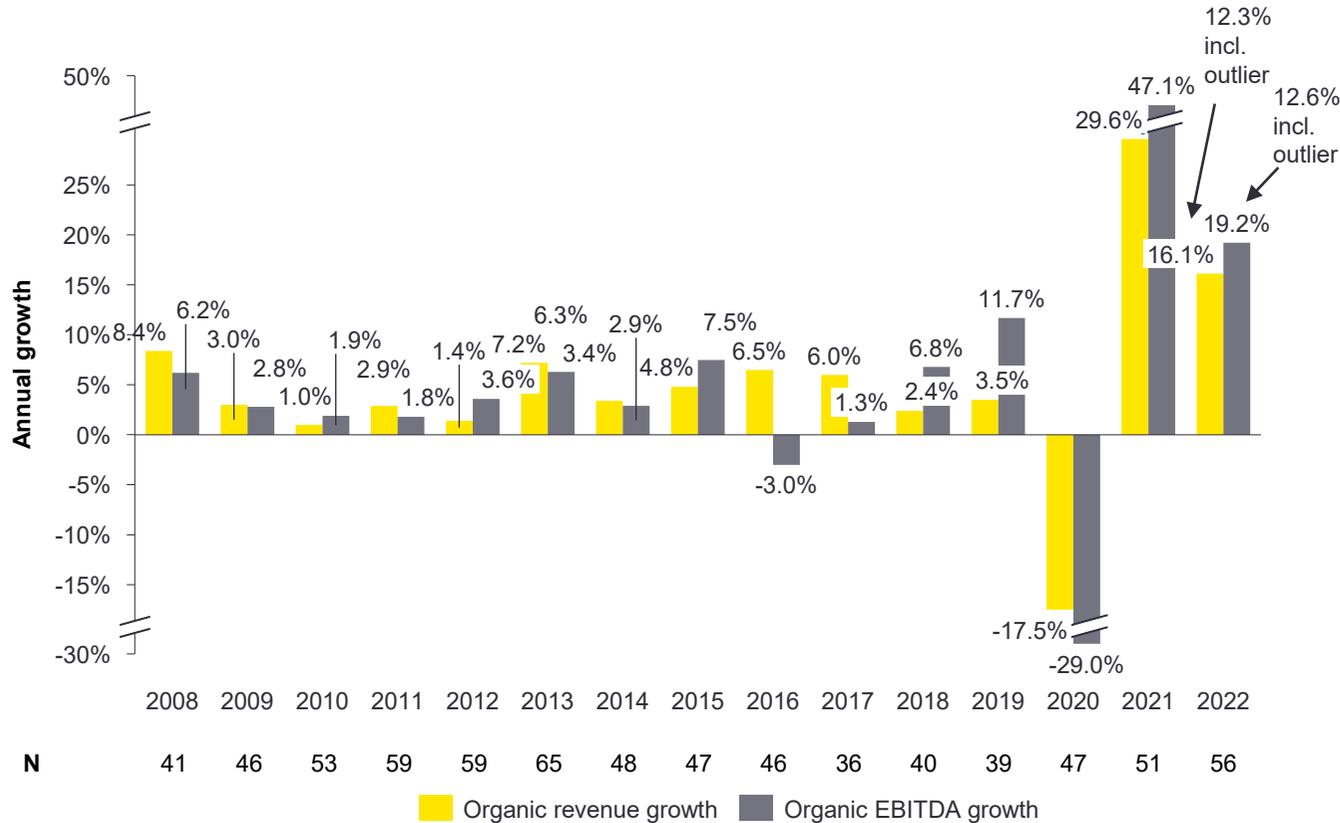
Note: The overall public company benchmark result is aggregated in the same way as for the portfolio companies, i.e., using the same weighting factors. Refer to page 56 for the benchmark's basis of preparation.

Note: ONS does not track information on EBITDA.

Do PE-owned companies grow? (cont.)

In 2022, current portfolio companies reported higher YoY growth in organic revenue and EBITDA than the previous years of the study (except 2021). This is likely driven by a recovery from the COVID-19 pandemic in both 2021 and continuing in 2022.

YoY organic revenue and EBITDA growth of current portfolio companies

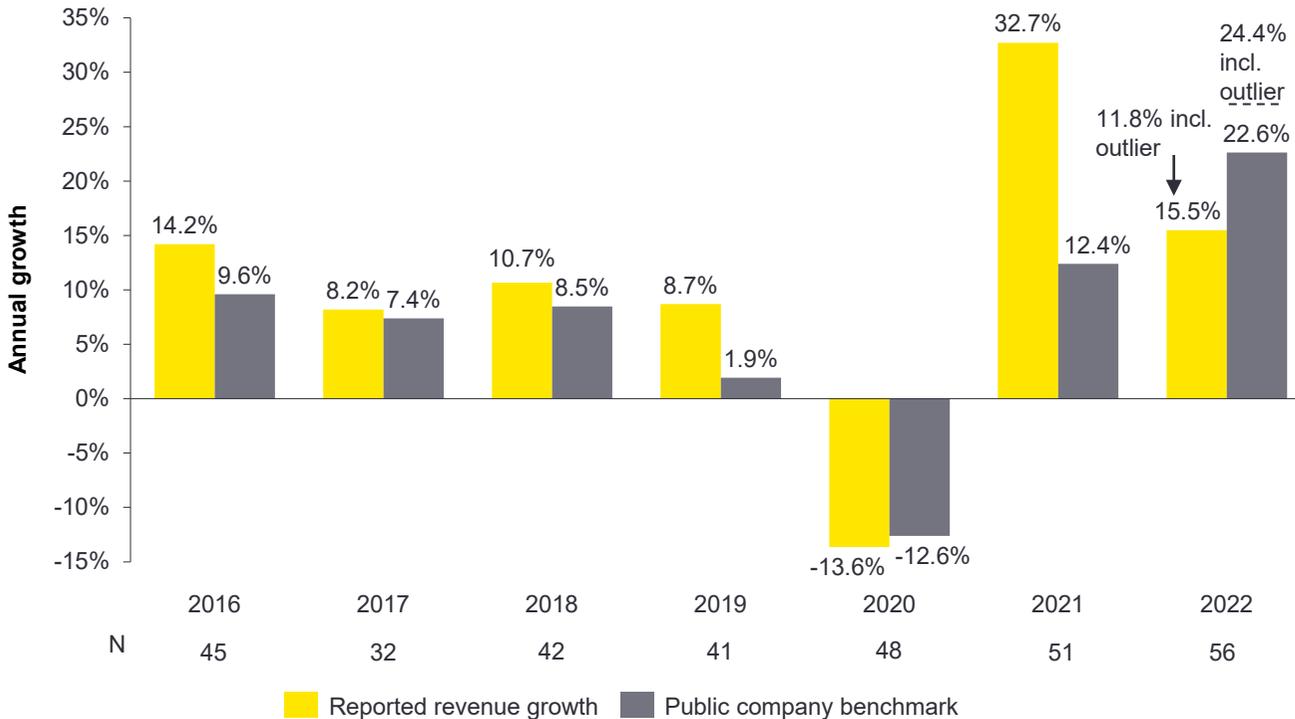


- ▶ 2022 reflects strong YoY growth in organic revenue and profit for the current portfolio companies with 16.1% revenue growth and 19.2% profit growth.
- ▶ 2021 represents significant growth likely in part due to the reversal of the impact of the COVID-19 pandemic on businesses in 2020, which appears to be continuing to some extent in 2022.

Do PE-owned companies grow? (cont.)

YoY reported revenue growth of the portfolio companies underperformed the public company benchmark in 2022

YoY reported revenue growth of current portfolio companies versus PLC benchmarks – all sectors

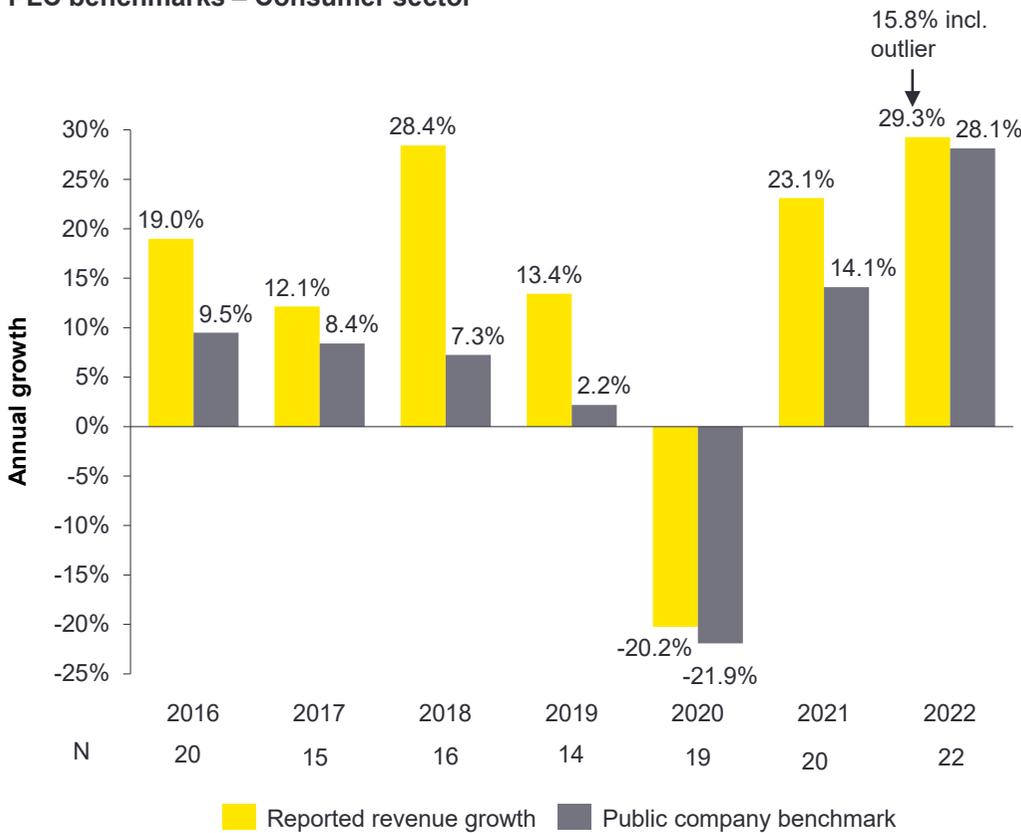


- ▶ 2022 reflects strong YoY growth in reported revenue for the current portfolio companies with 15.5% revenue growth.
- ▶ YoY reported revenue growth of the portfolio companies underperformed the public company benchmark (22.6%) in 2022.
- ▶ 2021 represents significant growth likely in part due to the reversal of the impact of the COVID-19 pandemic on businesses in 2020, which appears to be continuing to some extent in 2022.

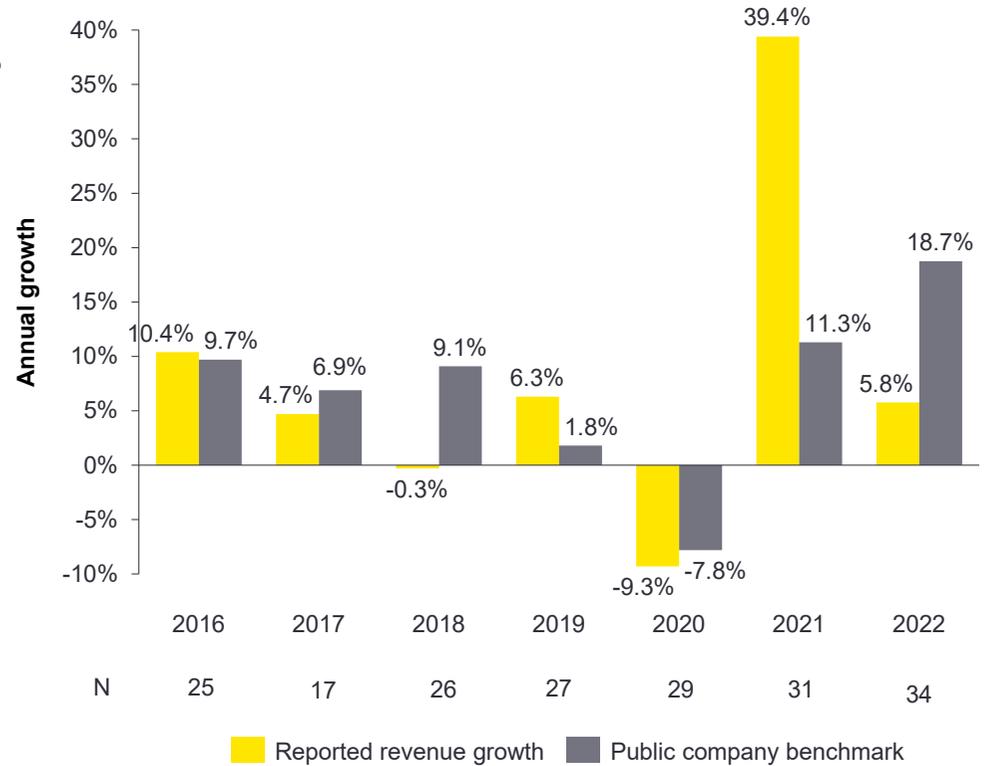
Do PE-owned companies grow? (cont.)

YoY reported revenue growth of the portfolio companies in the Consumer sector outperformed the public company benchmark in 2022, but underperformed the benchmark in Sectors other than consumer

YoY reported revenue growth of current portfolio companies versus PLC benchmarks – Consumer sector



YoY reported revenue growth of current portfolio companies versus PLC benchmarks – Sectors other than consumer

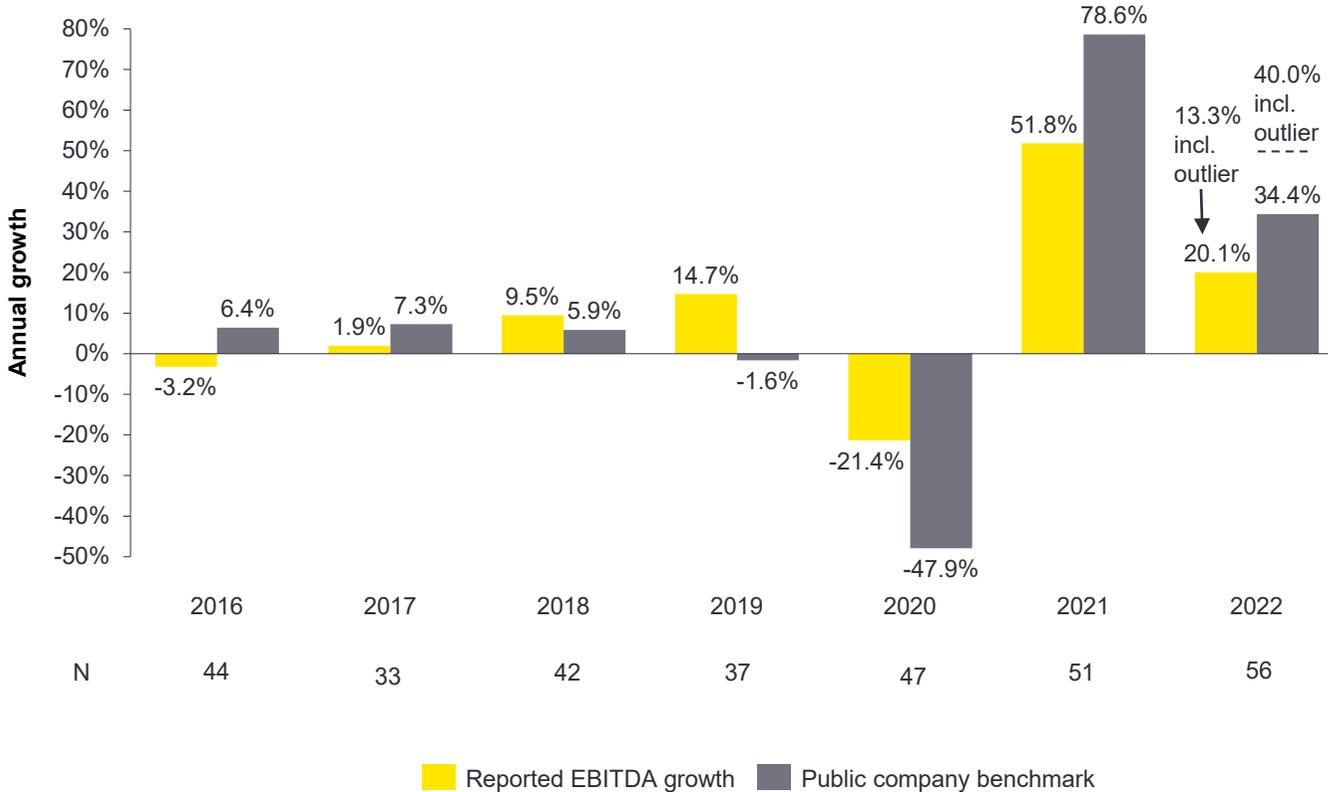


Do PE-owned companies grow? (cont.)

YoY reported EBITDA growth of the portfolio companies underperformed the public company benchmark in 2022

YoY reported EBITDA growth of current portfolio companies versus

- PLC benchmarks – all sectors

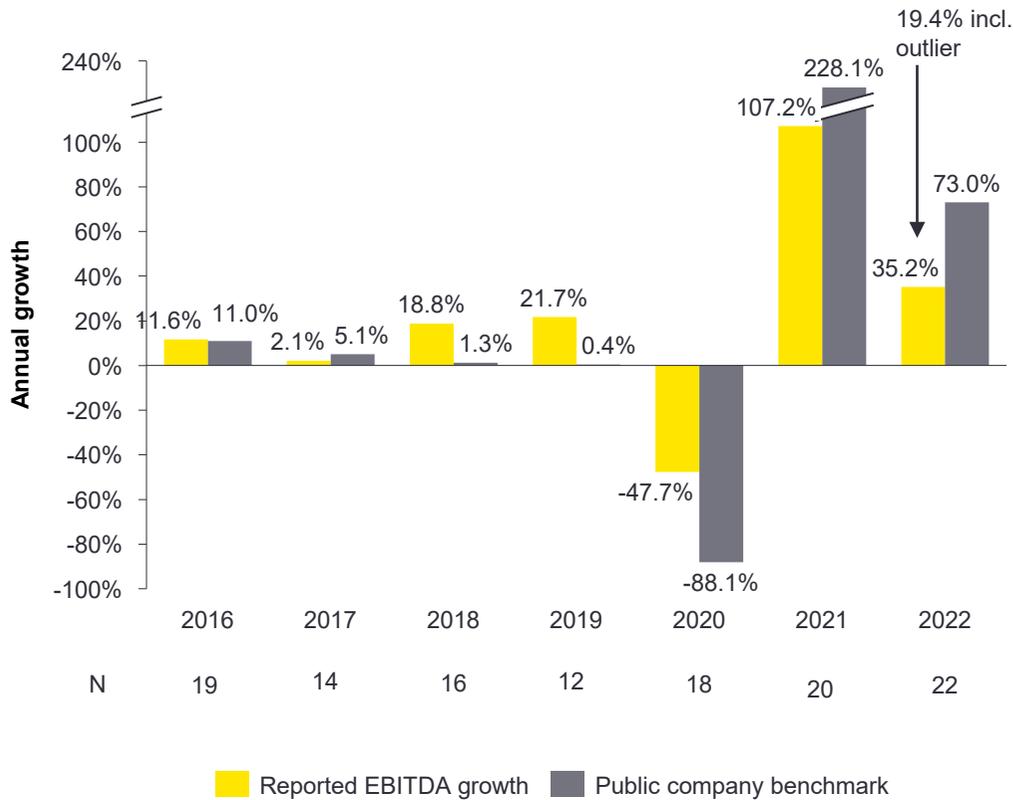


- ▶ 2022 reflects strong YoY growth in reported EBITDA for the current portfolio companies with 20.1% revenue.
- ▶ YoY reported EBITDA growth of the portfolio companies (20.1%) underperformed the public company benchmark (34.4%) in 2022.
- ▶ 2021 represents significant growth likely in part due to the reversal of the impact of the COVID-19 pandemic on businesses in 2020, and this recovery appears to be continuing to some extent in 2022.

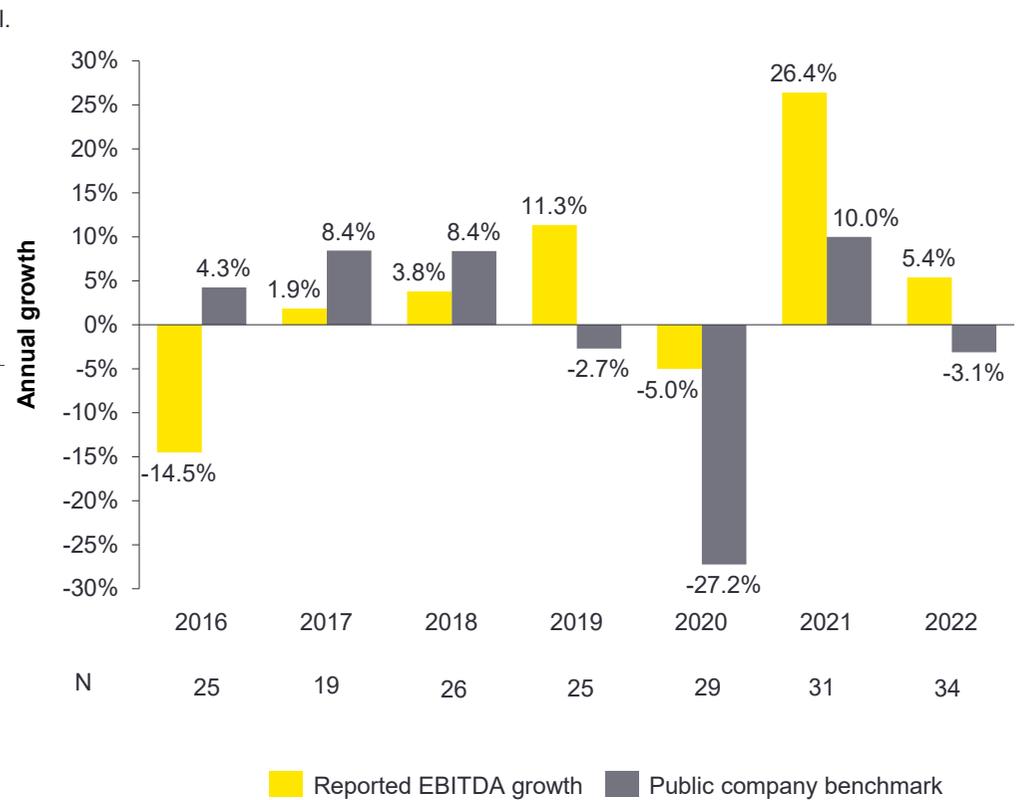
Do PE-owned companies grow? (cont.)

YoY reported EBITDA growth of the portfolio companies in the Consumer sector underperformed the public company benchmark in 2022, but outperformed the benchmark in the Sectors other than consumer

YoY reported EBITDA growth of current portfolio companies versus PLC benchmarks – Consumer sector



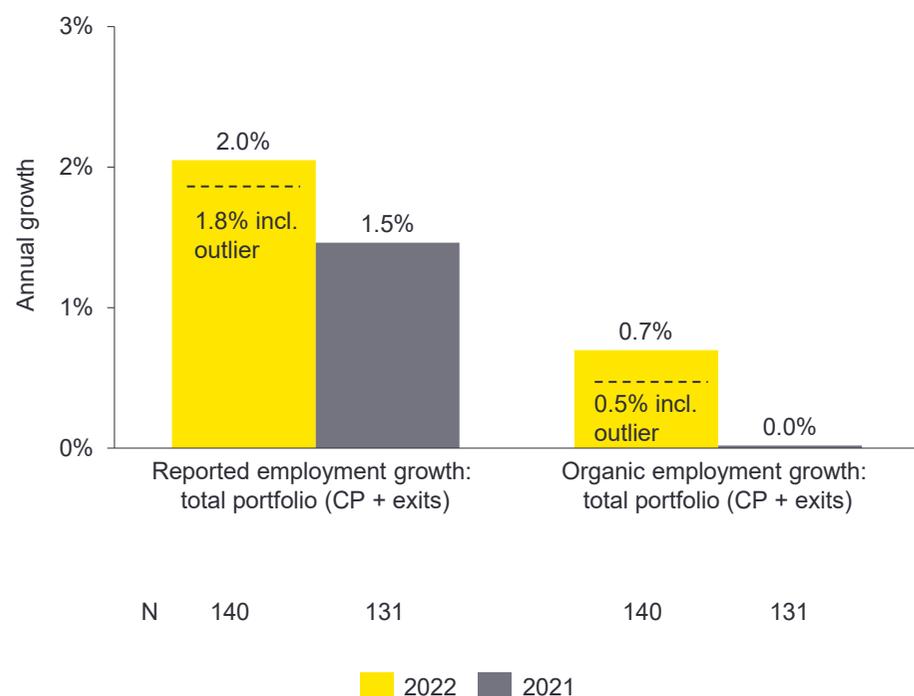
YoY reported EBITDA growth of current portfolio companies versus PLC benchmarks – Sectors other than consumer



Do portfolio companies create jobs?

Reported employment under PE ownership has increased by 2.0% per annum. Underlying organic employment growth (removing the effects of bolt-on acquisitions and partial disposals) has increased in 2022 (0.7% growth) in comparison with nil growth in 2021

Reported employment growth and organic employment growth



- ▶ Reported and organic employment growth of 2.0% and 0.7% reflects the cumulative CAGR of the portfolio companies from acquisition to the date of exit or latest year-end (i.e., latest year-end for current portfolio companies will be 2022).
- ▶ Additionally, private data has been obtained from each portfolio company to isolate the effect of bolt-on acquisitions and partial disposals that may distort reported employment trends. The underlying annual organic employment growth rate is 0.7% per annum.
- ▶ There are large movements at an individual portfolio company level.
- ▶ Organic employment growth differs across sectors, with Infrastructure, Consumer and Technology reflecting the highest long-term growth.

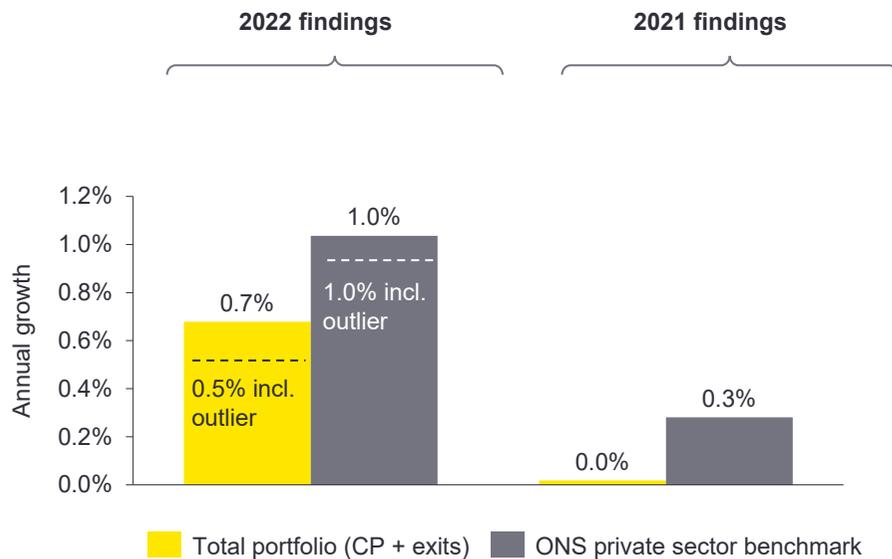
Reported and organic employment growth – by sector

Sector	Reported employment growth	Organic employment growth
Industrial	(3.7%)	(1.1%)
Consumer	3.0%	1.3%
Health care	1.2%	0.2%
Infrastructure	3.0%	1.4%
Technology	6.7%	1.3%
Other	5.6%	(0.6%)

Do portfolio companies create jobs? (cont.)

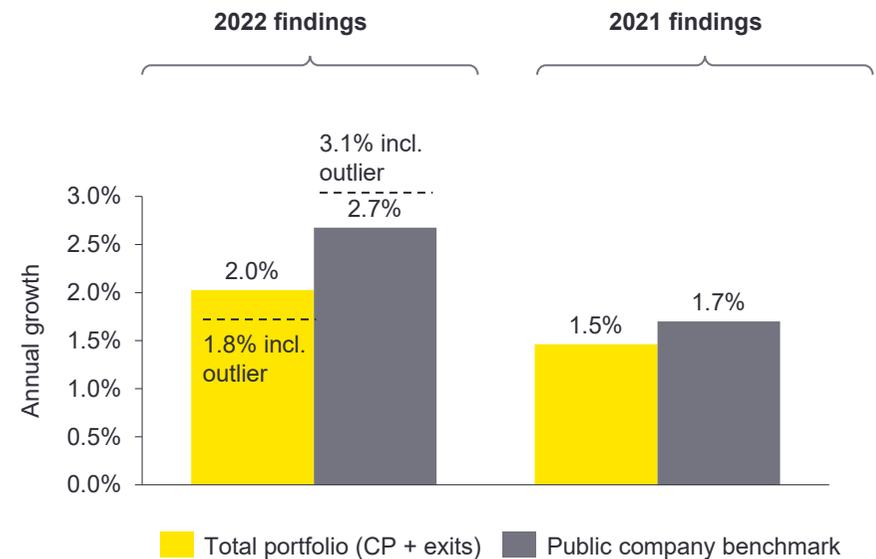
Annual organic employment growth for the portfolio companies is below the private sector benchmark of 1.0% (organic) and the public company benchmark of 2.7% (reported)

Organic employment growth versus UK private sector benchmarks



- ▶ Organic employment growth can be compared to ONS statistics which report on economy-wide employment trends for the UK private sector. The average annual organic employment growth rate of PE-owned companies is 0.7% in 2022 which is below the UK private sector employment growth of 1.0%.

Reported employment growth versus public company benchmark

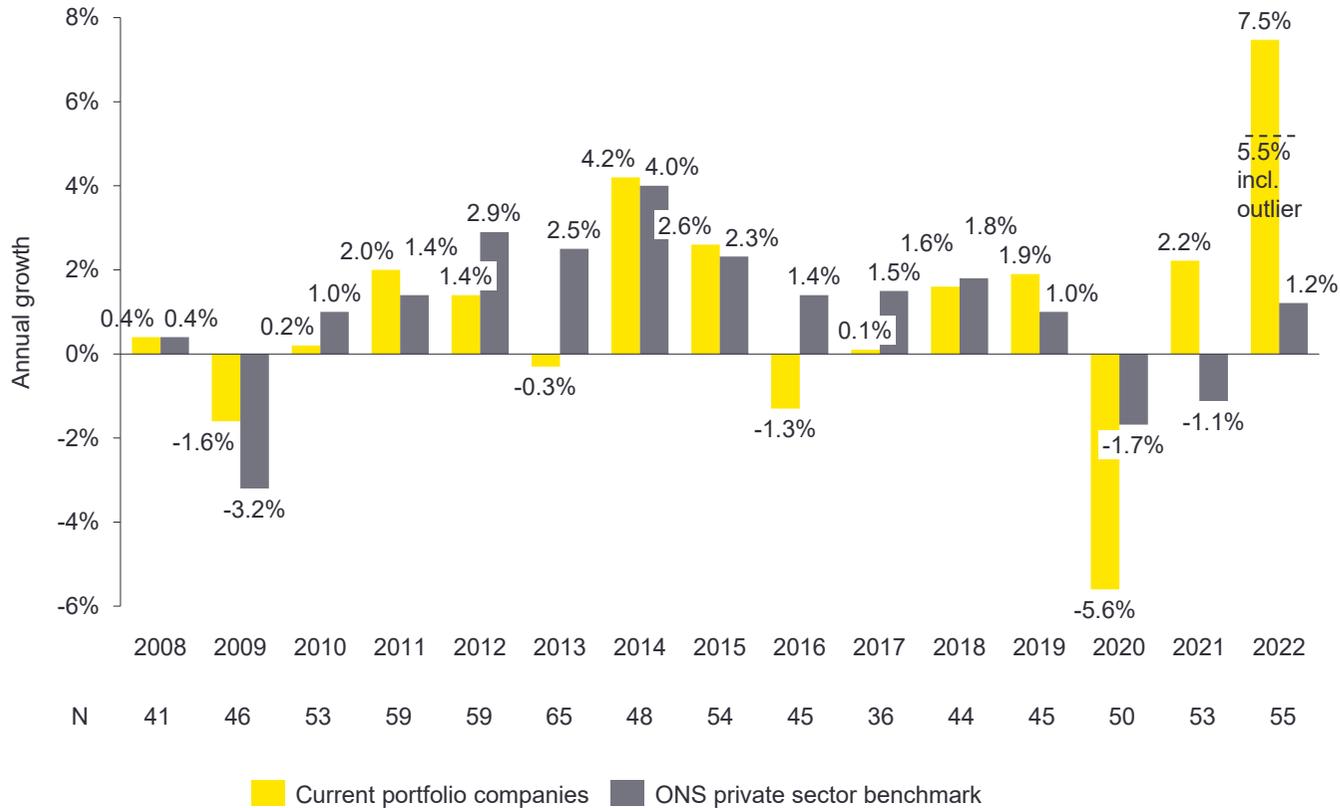


- ▶ Reported employment growth figures, as disclosed in annual reports by the portfolio companies and public companies, can also be compared. These figures include the effects of bolt-on acquisitions and partial disposals.
- ▶ The reported employment growth of the portfolio companies of 2.0% per annum is slightly lower than the public company benchmark of 2.7% per annum.

Do portfolio companies create jobs? (cont.)

YoY organic employment growth in the current portfolio companies in 2022 outperformed the private sector benchmark (at 7.5% versus 1.2%)

Organic employment growth, YoY versus UK private sector benchmark



- ▶ The year-on-year trend in organic employment growth for the portfolio companies in 2022 represents strong YoY growth.
- ▶ YoY organic employment growth in the current portfolio companies in 2022 outperformed the ONS private sector benchmark (at 7.5% versus 1.2%).
- ▶ Organic employment growth of the portfolio companies ranged between 5.0% to 11.4% with the exception of Health care and Other sectors.

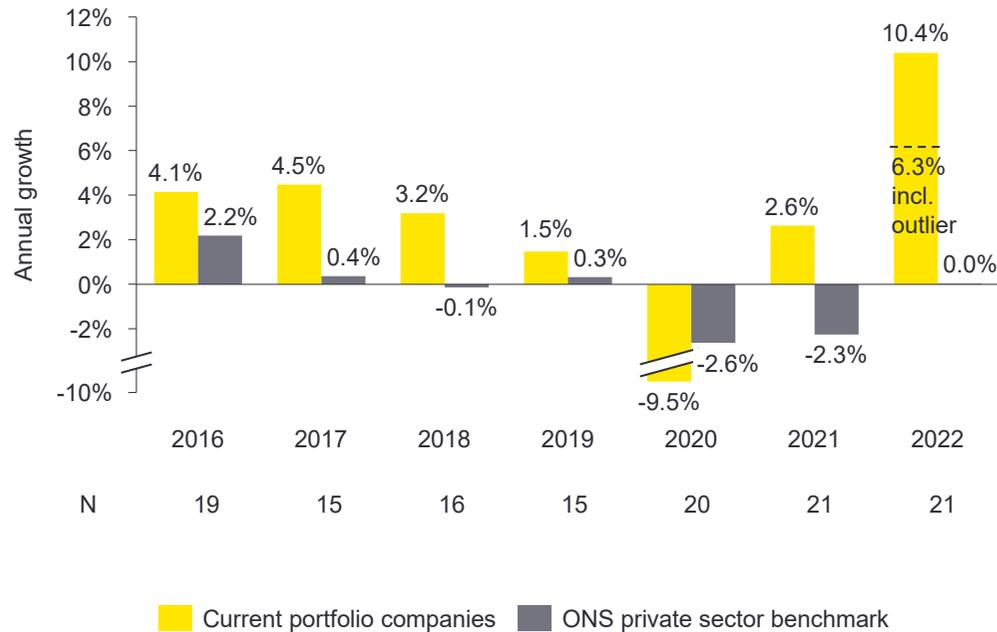
Organic employment growth (YoY) – by sector

Sector	YoY organic employment growth (CPs)
Industrial	5.0%
Consumer	10.4%
Health care	1.4%
Infrastructure	11.4%
Technology	7.6%
Other	(1.1%)

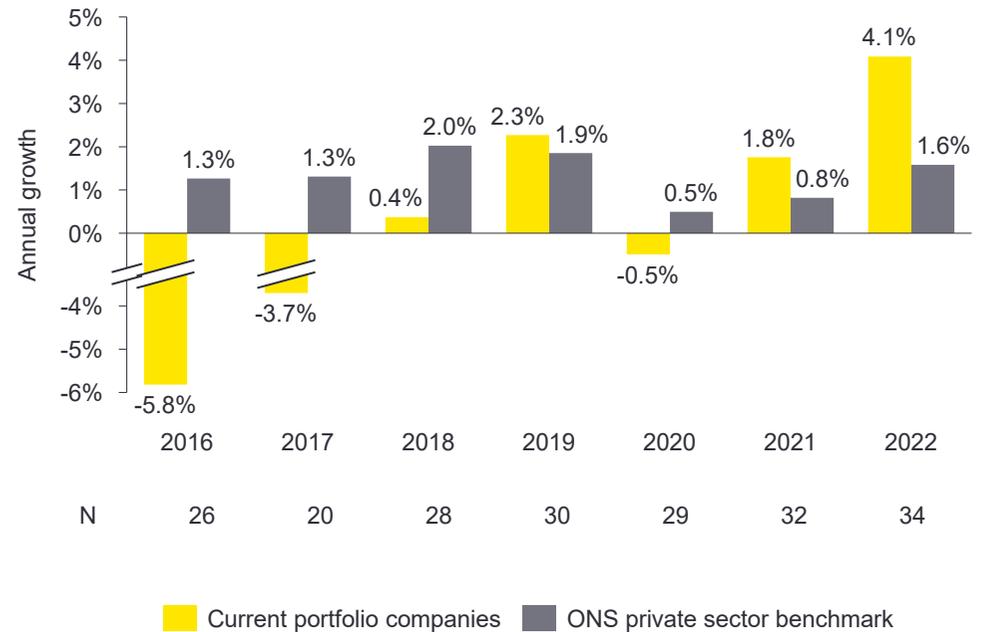
Do portfolio companies create jobs? (cont.)

YoY organic employment growth in the current portfolio companies outperformed the private sector benchmark for the Consumer sector and Sectors other than consumer (in aggregate)

Organic employment growth, YoY versus UK private sector benchmark (CP, Consumer sector, 2022)



Organic employment growth, YoY versus UK private sector benchmark (CP, Sectors other than consumer, 2022)

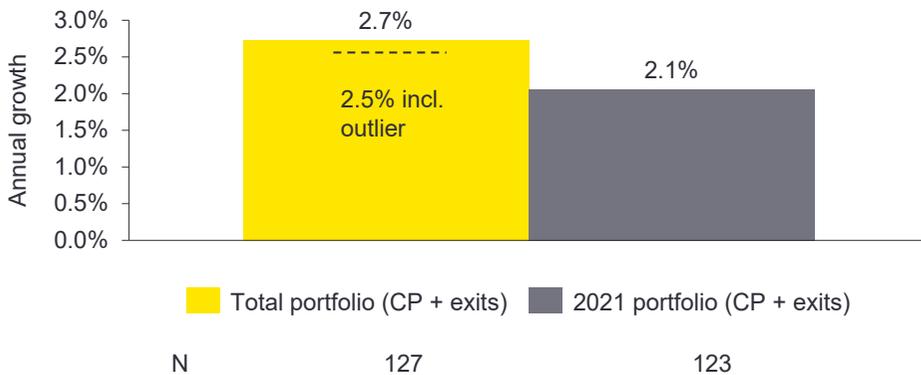


- ▶ The year-on-year trend in organic employment growth for the Consumer sector in 2021 and 2022 appears to reflect a recovery in organic employment growth after the decline in 2020 likely driven by COVID-19 pandemic.
- ▶ The Consumer and Sectors other than consumer outperformed the ONS private sector benchmark in 2022.

How is employee compensation affected by PE ownership?

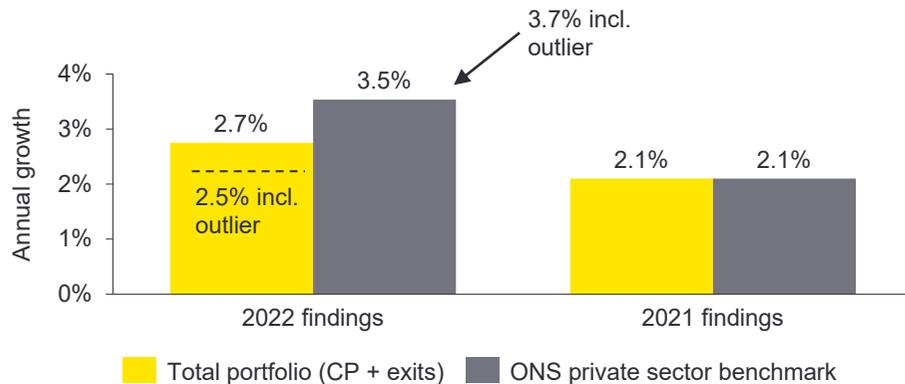
Average employment cost per head in the portfolio companies has increased by 2.7% per annum under PE ownership, which is lower than the UK private sector benchmark (3.5%), but higher than the growth for portfolio companies in 2021 (2.1%)

Growth in average employment cost per head



- ▶ This report uses average employment cost per head as a measure of employee compensation. It is noted that this metric will not equate precisely to a like-for-like change in employee compensation, due to changes in the composition of companies, numbers of employees at differing pay levels and terms, changes in taxes, working hours, bonus schemes, overtime rates and annual base pay awards etc.
- ▶ The average employment cost per head has increased by 2.7% per annum under the entire period of PE ownership, above the 2021 findings of 2.1%.
- ▶ The average annual employment cost per head increase of 2.7% in the portfolio companies is lower than the ONS private sector benchmark of 3.5% over comparable time periods.

Growth in average employment cost per head



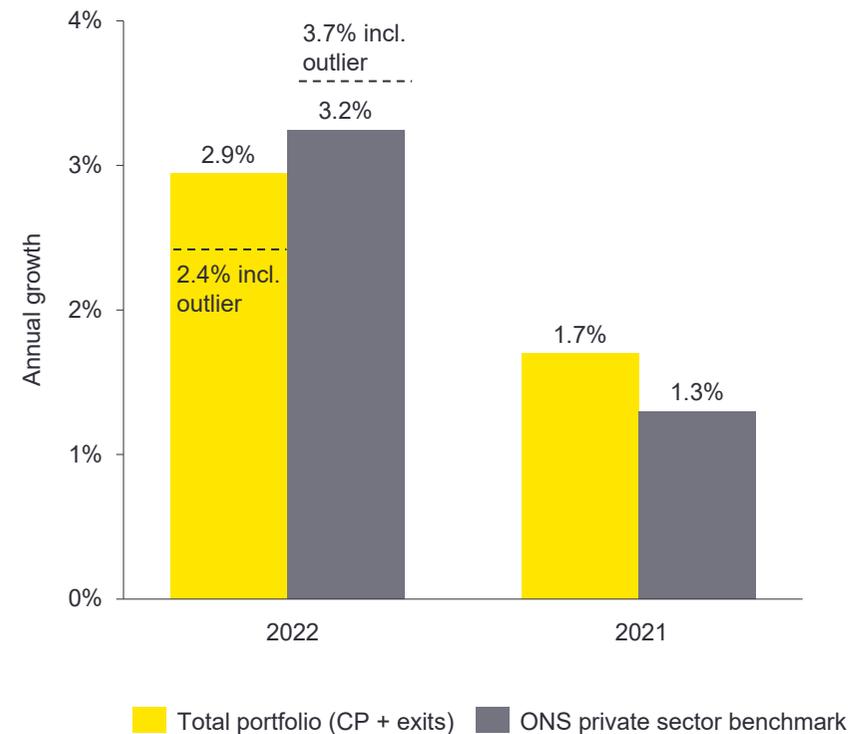
Growth in average employment cost – by sector

Sector	Growth in average employment cost (since acquisition)
Industrial	2.8%
Consumer	2.9%
Health care	4.2%
Infrastructure	3.5%
Technology	1.1%
Other	3.4%

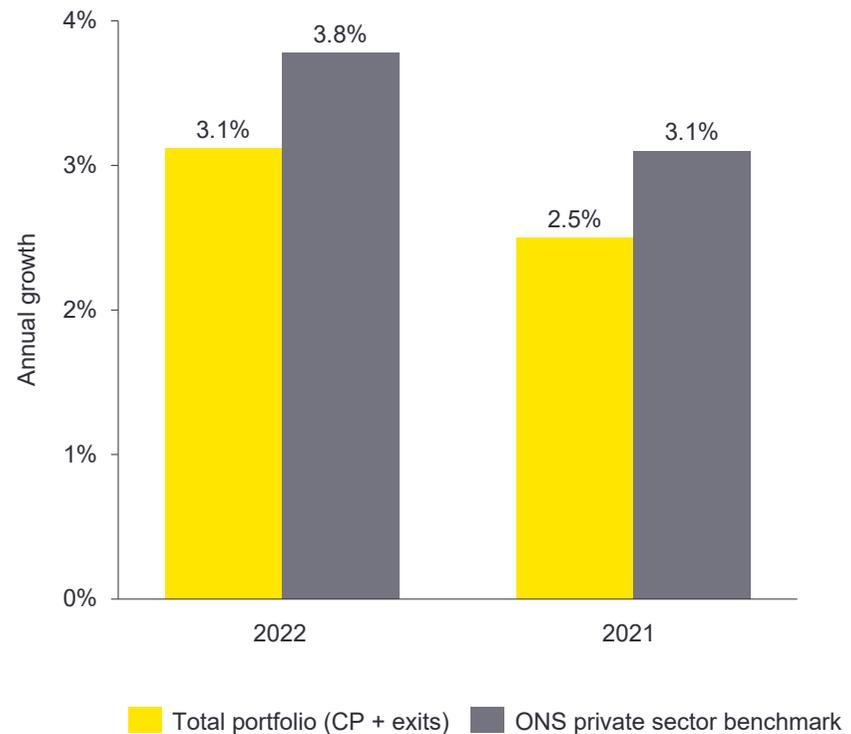
How is employee compensation affected by PE ownership? (cont.)

Average employment cost per head for the Consumer sector and Sectors other than consumer is slightly below the UK private sector benchmark – Consumer sector (2.9% versus 3.2%) and Sectors other than consumer (3.1% versus 3.8%)

Growth in average employment cost per head since acquisition (Consumer sector, 2022)



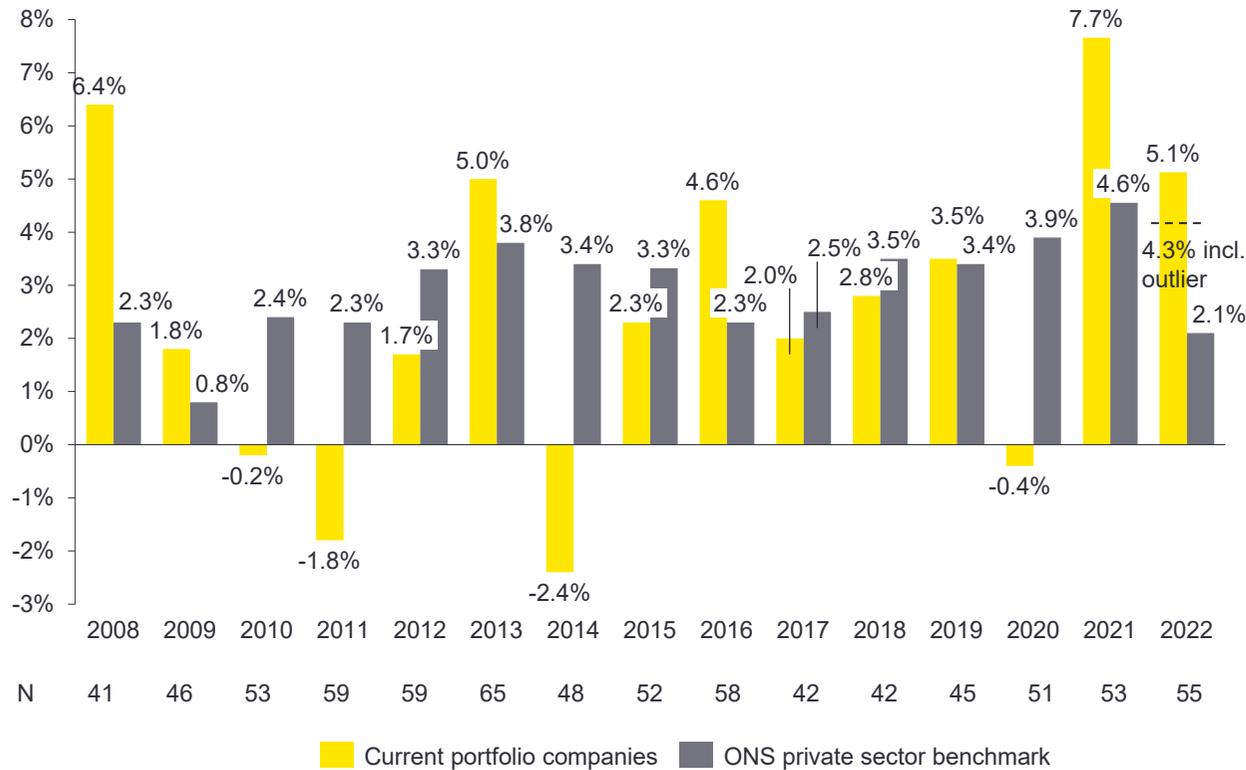
Growth in average employment cost per head since acquisition (Sectors other than consumer, 2022)



How is employee compensation affected by PE ownership? (cont.)

YoY growth in average employment cost per head for portfolio companies is 5.1% in 2022, higher than the YoY trend in previous years of the study (except 2021) and higher than the UK private sector benchmark of 2.1% over the same period

YoY average employment cost per head growth



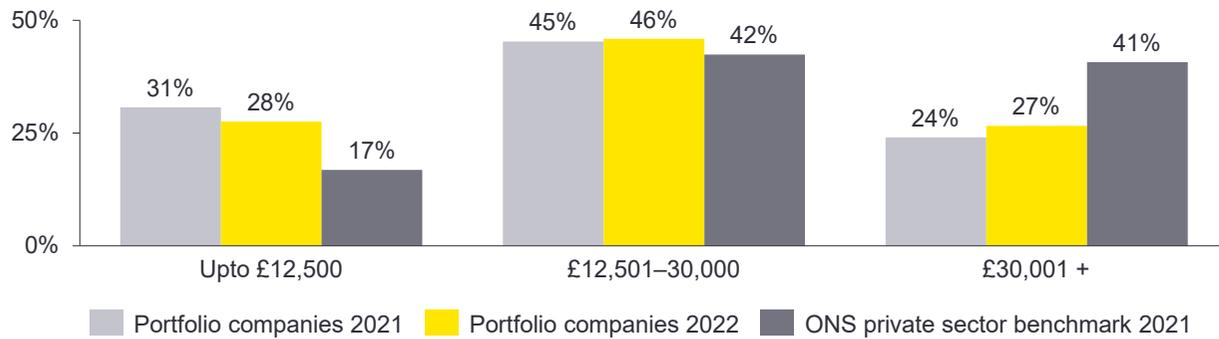
- ▶ The year-on-year growth in average employment cost per head for the portfolio companies has exhibited some YoY variability, particularly when compared with the overall stable pattern of average compensation increases in the UK private sector overall since 2009.
- ▶ Part of the variability in the portfolio company data in more recent years likely reflects the impact of the COVID-19 pandemic and subsequent recovery.
- ▶ As shown below, there is a wide range of results across the sectors in 2022 for the current portfolio companies, with all sectors reflecting growth in average compensation per head.

Sector	2021/22 growth in average employment cost per head
Industrial	1.6%
Consumer	4.2%
Health care	5.2%
Infrastructure	9.0%
Technology	6.1%
Other	12.0%

How is employee compensation affected by PE ownership? (cont.)

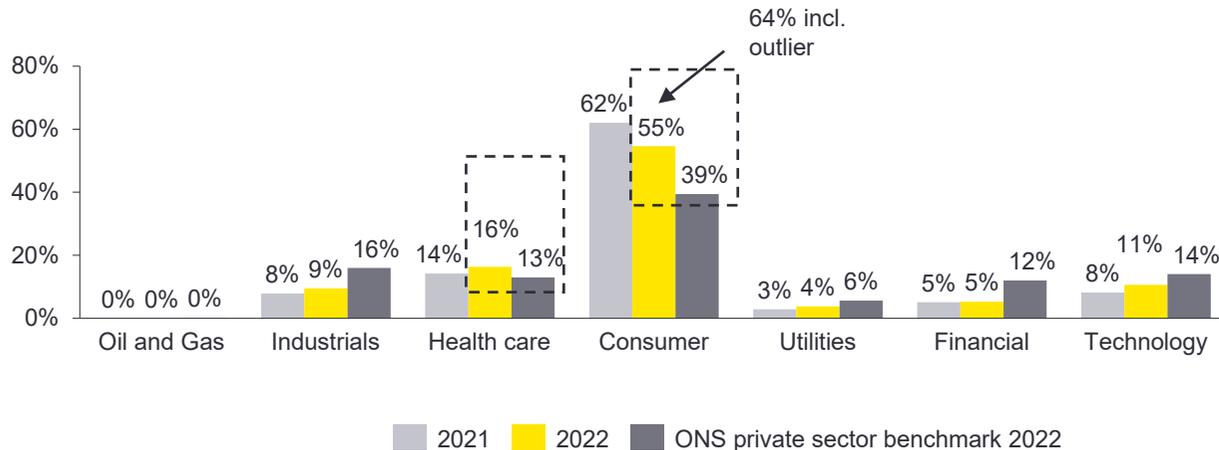
Around 28% of the jobs in the portfolio companies (which will include both part-time and full-time jobs) have an annual compensation of less than £12,500. This is impacted by a high proportion of workers in the Consumer and Health care sectors

YoY average employment cost per head growth



Note: ONS benchmark data for the salary band was unavailable for the year 2022 at the time of preparing this report.

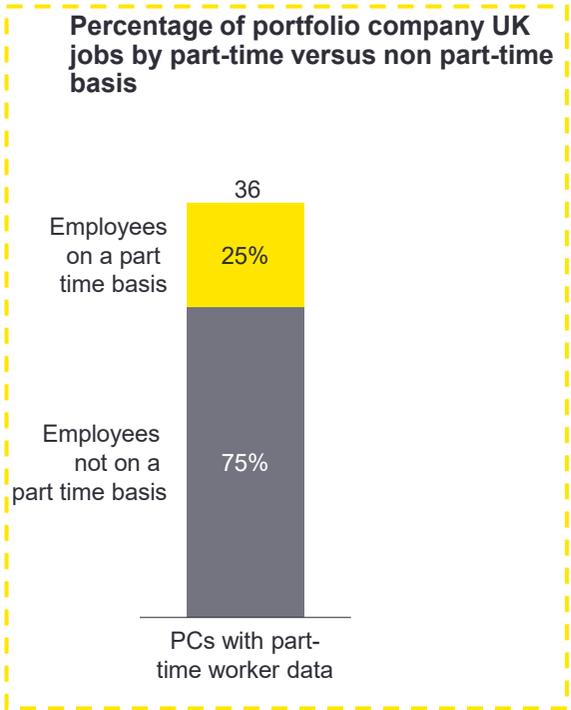
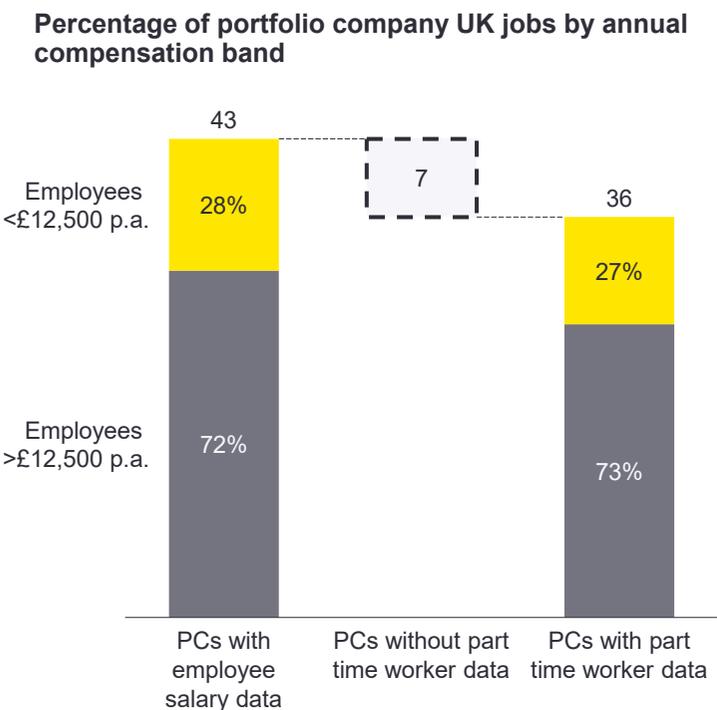
Percentage of portfolio company jobs by sector



- ▶ Data on employment by annual compensation is requested from the portfolio companies, to understand employment trends and practices further.
- ▶ The portfolio companies have a high portion of jobs earning less than £12,500 per annum 28%, in relation to the UK private sector as a whole where 17% of jobs are in this compensation range.
- ▶ Part of the higher portion in the lower compensation range among portfolio companies may be influenced by sector mix, with the portfolio companies weighted towards the Health care and Consumer sectors. 71% of jobs in the portfolio companies are in the Health care and Consumer sectors, in comparison with 52% in the UK private sector, with the Health care and Consumer sectors having a lower average cost per head compared with the other sectors.
- ▶ Another factor driving the lower annual compensation range among portfolio companies may be attributed to the mix of full-time versus part-time and zero-contract workers. See the following page for further details.

Are the employees with annual compensation of less than £12,500 mostly on a part-time basis?

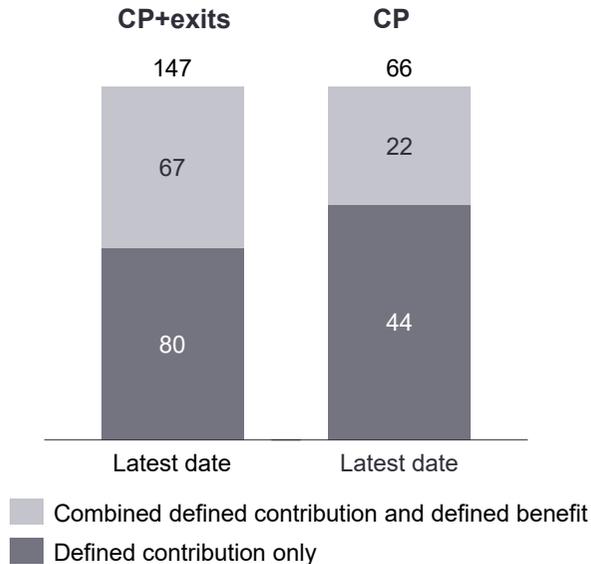
Around 27% of the jobs in the portfolio companies which have provided part-time data (36 portfolio companies) have an annual compensation of less than £12,500. 25% of employees in these portfolio companies are employed on a part-time basis



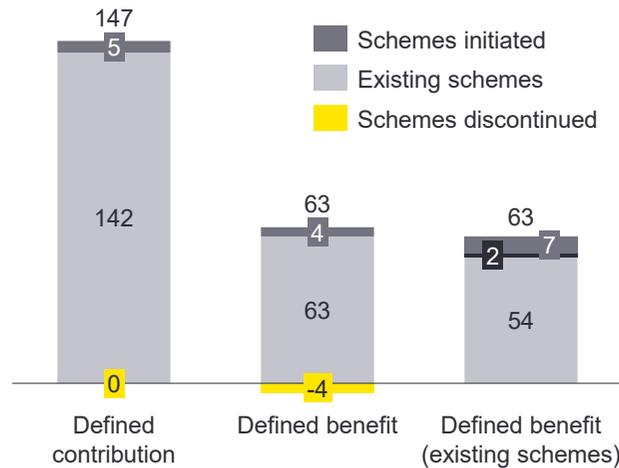
- ▶ For the portfolio companies that have provided both annual salary band data and part-time worker data (36 companies), 27% of jobs have an annual compensation of less than £12,500. This compares with 25% of employees (for the same cohort) being employed on a part-time basis.
- ▶ This would suggest that part-time workers may be a factor driving the lower annual compensation range among portfolio companies.

How is employee compensation affected by PE ownership?

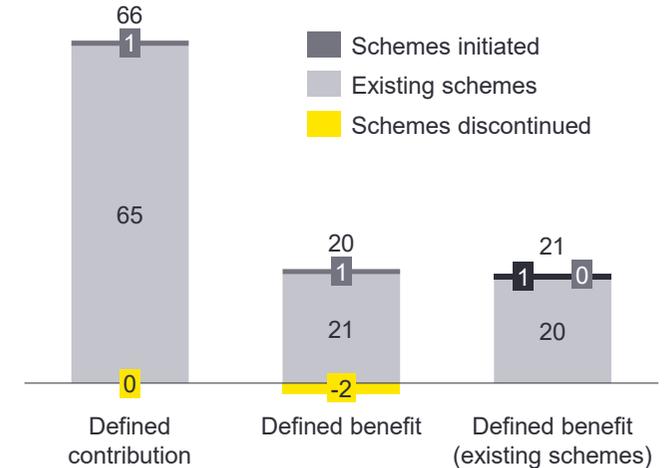
Distribution of companies by type of pension schemes



Changes to pension schemes under PE ownership (CP+exits)



Changes to pension schemes under PE ownership (CP)



- ▶ Of the 152 portfolio companies that have provided pension information (including exits), 147 reported that they offer pension schemes to their employees (80 offer defined contribution (DC) schemes only, 67 offer a combination of defined benefit (DB) and DC schemes, and none offers DB schemes only). Two historical exits reported that they did not provide any pension scheme to their employees.
- ▶ Of the 67 companies including both DC and DB, 63 companies had a DB scheme in place prior to acquisition, of which 13 sought approval from the regulator at the time of their investment.

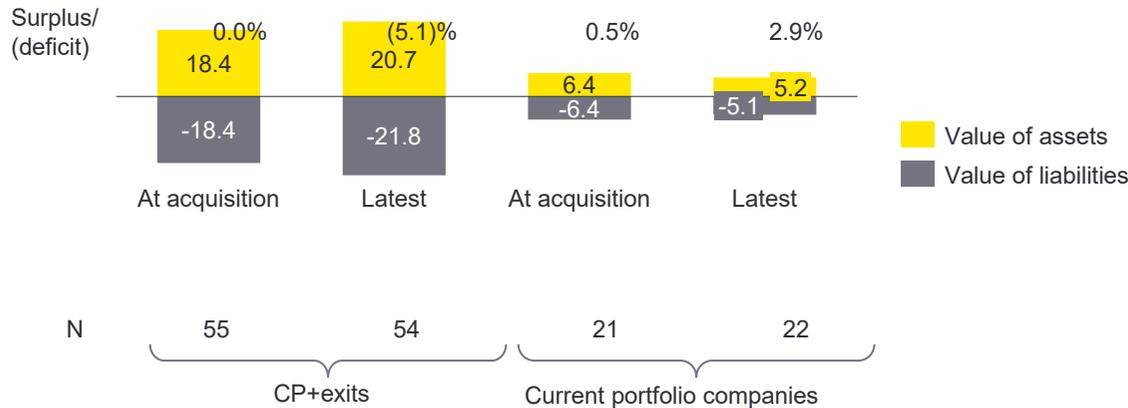
- ▶ Over the 16 year period of this study, there have been changes to portfolio company pension schemes (noting minimal changes in 2022):
 - ▶ At five portfolio companies, new DC schemes have been initiated, two of which only had a DB scheme at the time of acquisition and three of which had no pension scheme at the time of acquisition.
 - ▶ At four portfolio companies, new DB schemes have been initiated, and four schemes have been closed.
 - ▶ Also, seven DB schemes were closed to accruals for existing members and two for new members.

- ▶ Under PE ownership, there have been changes to Current Portfolio company pension schemes (noting minimal changes in 2022):
 - ▶ At one portfolio company, a new DB scheme has been initiated.
 - ▶ Two DB schemes were discontinued.
 - ▶ One DB scheme was closed to accruals for new members.

How is employee compensation affected by PE ownership? (cont.)

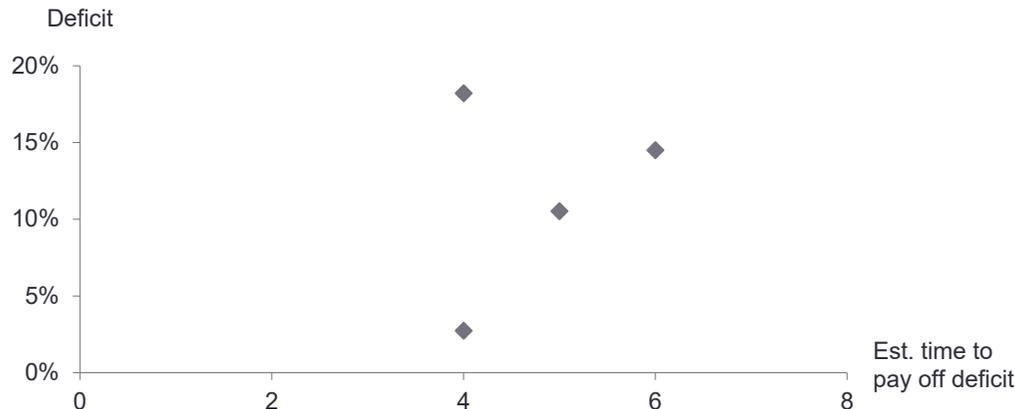
To date, the aggregated value of liabilities of defined benefit schemes of current portfolio companies is lower than value of assets; the average time to pay off the deficit is estimated as 4.8 years, a slight increase from 4.5 years in the 2021 report

Defined benefit pension schemes: liabilities/assets over time (£bn)



- ▶ The deficit at latest date of -5.1% is lower than the previous year (-6.0%) and reflects a slightly higher payoff timeline (4.8 years versus 4.5 years as per the 2021 report).

Defined benefit pension schemes: time to pay off deficit (CP)

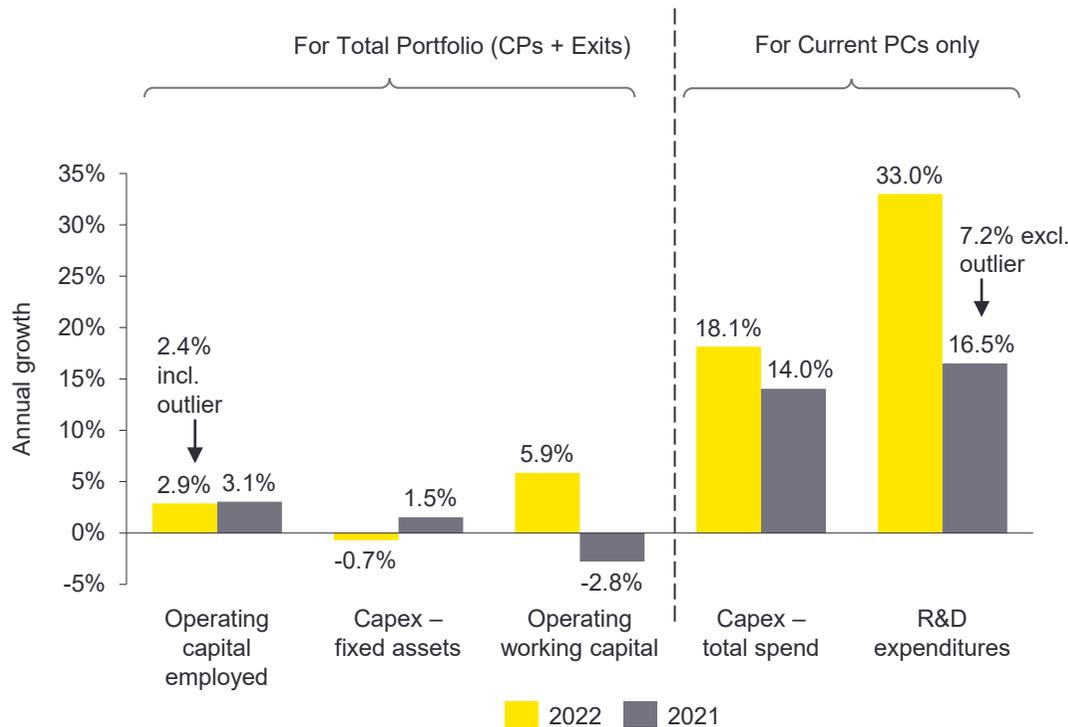


- ▶ Of the 22 current portfolio companies offering defined benefit pension schemes, eight reported deficits:
 - ▶ Four companies reported the estimated time to pay off the deficit, which on average is 4.8 years.
 - ▶ Four did not provide detail on estimated time to pay off the deficit or reported that this was 'under discussion'.

Do portfolio companies increase or decrease investment?

Investment in operating capital employed for portfolio companies was 2.9% in 2022, slightly lower than 3.1% in 2021

Growth in measures of investment since acquisition



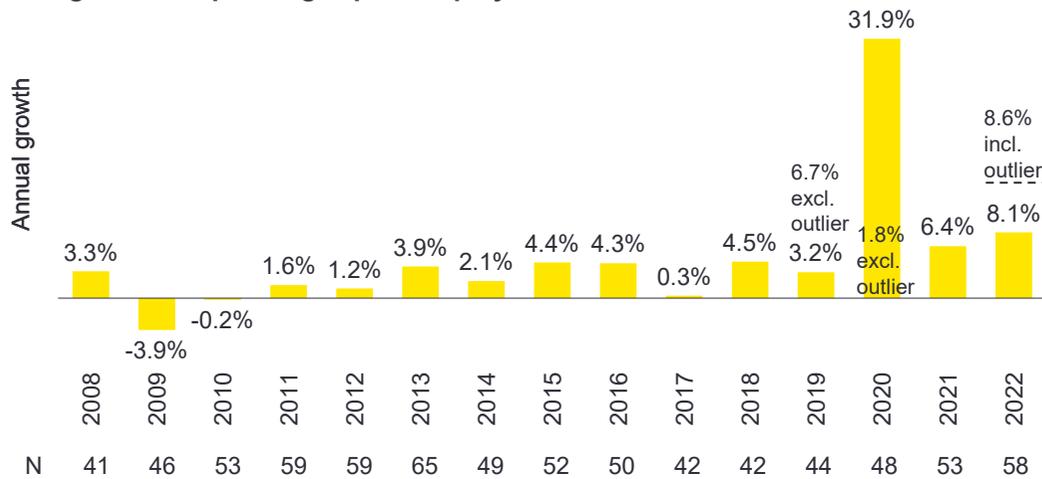
N (2022)	125	65	123	60	11
N (2021)	121	64	122	54	9

- ▶ There has been growth in all measures of investment (except operating working capital) at the portfolio companies whilst under PE ownership.
- ▶ Operating capital employed for current and exit portfolio companies is slightly below at an annual average rate of 2.9% versus 2021 (3.1%). This measure comprises growth in tangible fixed assets (property, plant and equipment) and operating working capital (stock, trade debtors and creditors).
- ▶ The tangible fixed asset capital expenditure relates to investment in property, plant and equipment, and has decreased at 0.7%. Operating working capital has increased by 5.9% per annum; note that this will be impacted by the working capital profile (and underlying sector/nature) of the portfolio company.
- ▶ Total investing activities in current portfolio companies have increased by 18.1%, showing an increase compared with the level of growth in 2021 of 14.0%. This includes all tangible/intangible investments (some of which relate to bolt-on acquisitions).
- ▶ Total R&D expenditure increased by 33.0% per annum under PE ownership, though we note the small sample size.

Do portfolio companies increase or decrease investment?

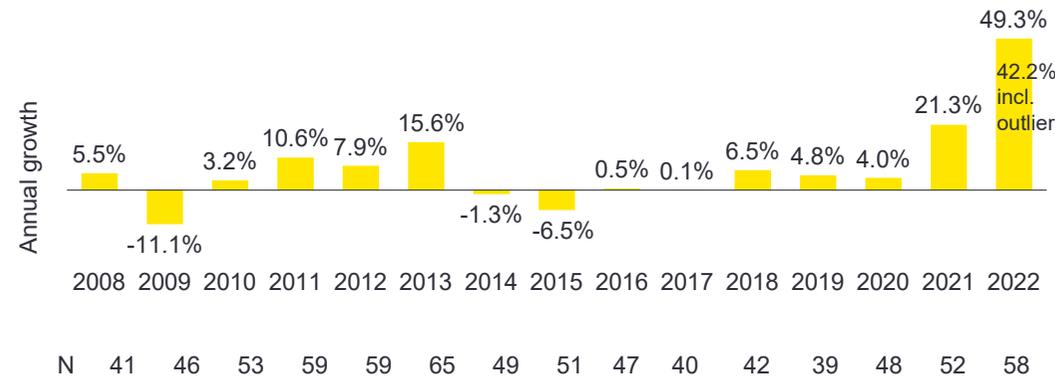
YoY growth in operating capital employed for portfolio companies was 8.1% in 2022, higher than 6.4% in 2021

YoY growth in operating capital employed



- ▶ YoY growth in operating capital employed in 2022 was 8.1%, an increase from 6.4% in 2021.
- ▶ In 2020, higher growth compared with 2019 is impacted by significant movements in fixed assets in two large portfolio companies. The growth in operating capital employed would be 1.8% when adjusted for these companies, which is more in line with growth observed over the historical period.
- ▶ YoY growth in capital expenditure in 2022 was 49.3%, an increase from 21.3% in 2021.
- ▶ The CAGR of current portfolio companies over the last fifteen years is 2.9% for operating capital employed and -0.7% for capital expenditure on tangible assets.

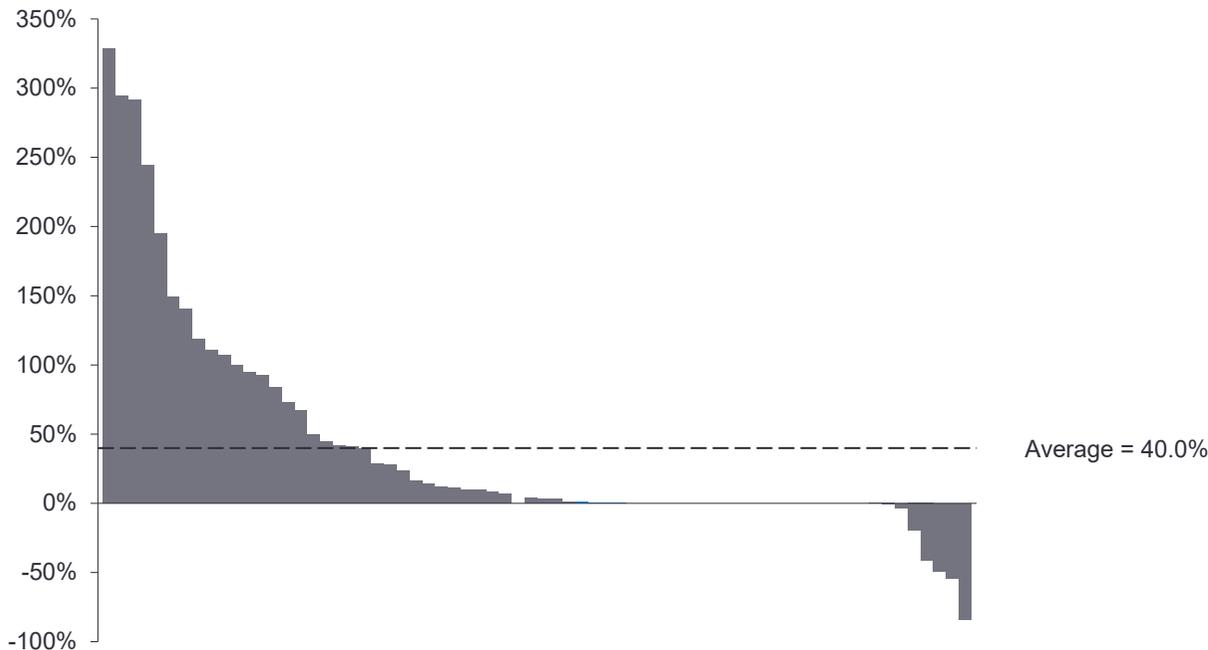
YoY growth in capital expenditure on tangible assets



Do portfolio companies increase or decrease investment? (cont.)

61% of the current portfolio companies have made net bolt-on acquisitions, whilst 12% have made net partial disposals, showing investment in bolt-on acquisitions ahead of partial disposals

Revenue impact of bolt-on acquisitions and partial disposals, current portfolio companies



- ▶ In addition to investment in existing businesses, there has been investment in bolt-on acquisitions, as well as partial disposals. The chart shows an analysis of the relative significance of all bolt-on acquisitions and partial disposals by individual portfolio companies, by measuring the resulting net revenue growth or decline relative to the first year, or base figure.
- ▶ Revenue trends for 40 (61%) and 8 (12%) of the 66 portfolio companies under PE ownership include the of impact bolt-on acquisitions and partial disposals respectively. This is in line with the previous year, and thus there is a continued trend in more investment in bolt-on acquisitions than from partial disposals. 18 portfolio companies (27%) have reported no M&A activity under their current PE owners.
- ▶ There are some portfolio companies where bolt-on acquisitions or partial disposals are material in size relative to the original portfolio company. In the current population, ten portfolio companies have made acquisitions that have increased revenue by more than 100%, and two portfolio company has disposed of more than 50% of revenue.

Note: % on the Y-axis measures the net impact of acquisitions and disposals on revenue (since acquisition) as a % of revenue in Year 1 of the study for a given portfolio company

Do portfolio companies increase or decrease investment? (cont.)

PE investors, in aggregate, have used free cash flow and additional third-party debt to increase investment in the current portfolio companies

Movements in net debt, acquisition to latest date (current portfolio companies)

Sector	Net debt (£bn)	Net debt/ EBITDA
Net debt at acquisition	42.5	5.9
Operating cashflow post tax and interest payments, pre capex	(8.0)	
Net funds to equity investors	8.6	
Capex (organic plus bolt-on acquisitions net of disposals)	37.9	
Increase/(decrease) in net debt	38.5	
Net debt at latest date	81.1	7.2

Note: There are a few factors for consideration relating to net debt which represents an accounting measure and includes:

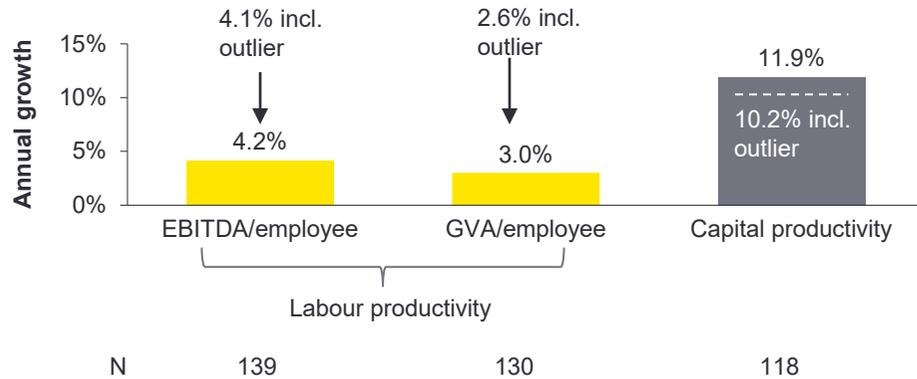
- ▶ *In some cases, lease liabilities, specifically financial leases recognised under IFRS 16 which became effective in January 2019.*
- ▶ *Debt obtained by Consumer finance providers to fund their normal business of Consumer lending, which is typically backed by the customer advances book (i.e., trade finance in nature).*

- ▶ Analysing the cash flows of the portfolio companies allows scrutiny of the sources and uses of funds during the period of PE ownership.
- ▶ Since acquisition, the current portfolio companies have generated £8.0bn of free cash flow, i.e., after most investing, financing and tax payments. These funds could have been returned to investors by paying dividends, or by paying off third-party debt. Whilst there have been payments to equity investors totalling £8.6bn, this has been more than offset by an aggregate additional investment of £37.9bn.
- ▶ To fund this investment in the portfolio companies, third-party debt (net debt) has increased by a net £38.5bn. As profit (or EBITDA) has grown in line with net debt albeit slower, the leverage ratio of net debt to EBITDA has increased from 5.9x at acquisition to 7.2x to date.
- ▶ 51 of 63 current portfolio companies generated positive free cash flow (before interest costs and after capex investment) in the current reporting year.

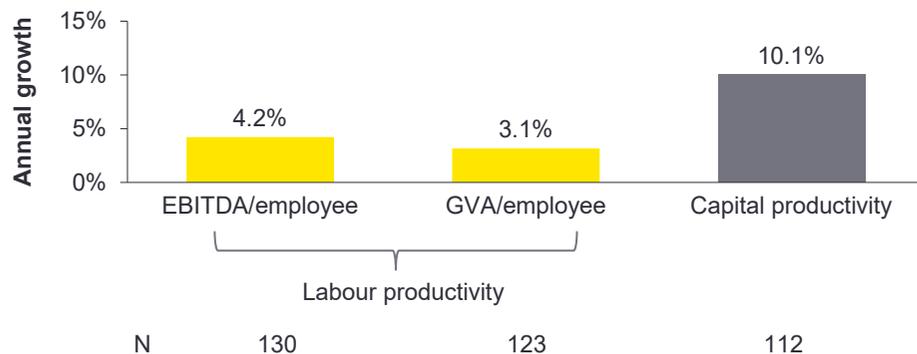
How does productivity change under PE ownership?

Labour productivity has increased under PE ownership by 4.2% and 3.0% as measured by EBITDA per employee and GVA per employee respectively; and capital productivity has increased by 11.9% per annum respectively

Growth in labour productivity and capital productivity since acquisition (CP+exits, 2022)



Growth in labour productivity and capital productivity since acquisition (CP+exits, 2021)

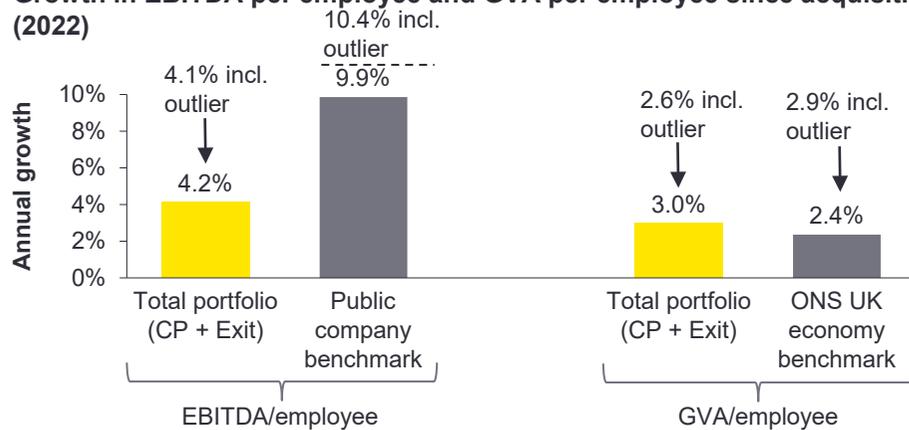


- ▶ Economic impact is a function of both changes in productivity and growth in resources. To assess the performance of the portfolio companies on labour productivity, two measures have been analysed:
 - ▶ Profit (or EBITDA) per employee, which can be benchmarked to public companies. On this measure, the portfolio companies have increased labour productivity by 4.2% per annum.
 - ▶ GVA (Gross Value Added) per employee, which is often used by economists and can be benchmarked to the UK private sector. This is calculated as total EBITDA after adding back total employment cost divided by the number of employees (as reported by portfolio companies). On this measure, the portfolio companies have increased labour productivity by 3.0% per annum.
- ▶ Capital productivity is measured as revenue over operating capital employed. The portfolio companies have increased capital productivity by 11.9% per annum.
- ▶ Part of the variability in the portfolio company data on a sector basis is due to changes taking place at one or more portfolio companies in a year that influence the overall result.

How does productivity change under PE ownership? (cont.)

The annual increase in labour productivity in the portfolio companies is between 3.0% and 4.2% in 2022, and is lower than the public benchmarks for EBITDA/employee and higher than the UK private sector benchmark for GVA/employee

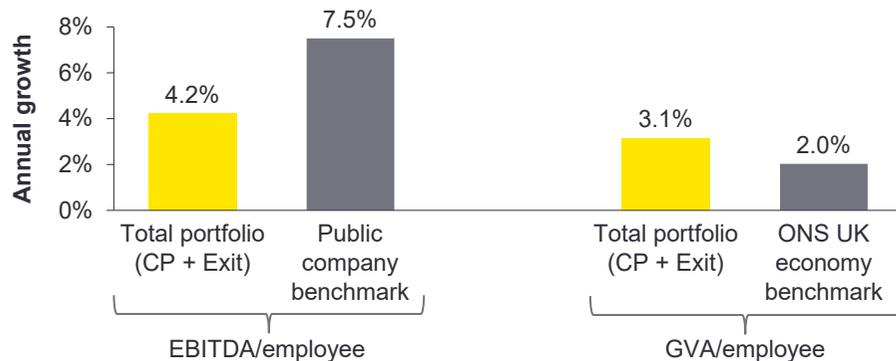
Growth in EBITDA per employee and GVA per employee since acquisition (2022)



- ▶ On the profit (EBITDA) per employee metric, the portfolio companies have seen a lower increase in labour productivity compared with the public company benchmark.
- ▶ GVA per employee has increased at a faster rate compared with the ONS UK economy benchmark.
- ▶ 2022 findings across both measures for portfolio companies have remained consistent with 2021.

Sector	Growth in EBITDA/employee	Growth in GVA/employee
Industrial	5.3%	3.2%
Consumer	5.7%	3.8%
Health care	5.7%	5.1%
Infrastructure	1.6%	2.2%
Technology	8.2%	1.6%
Other	0.3%	1.6%

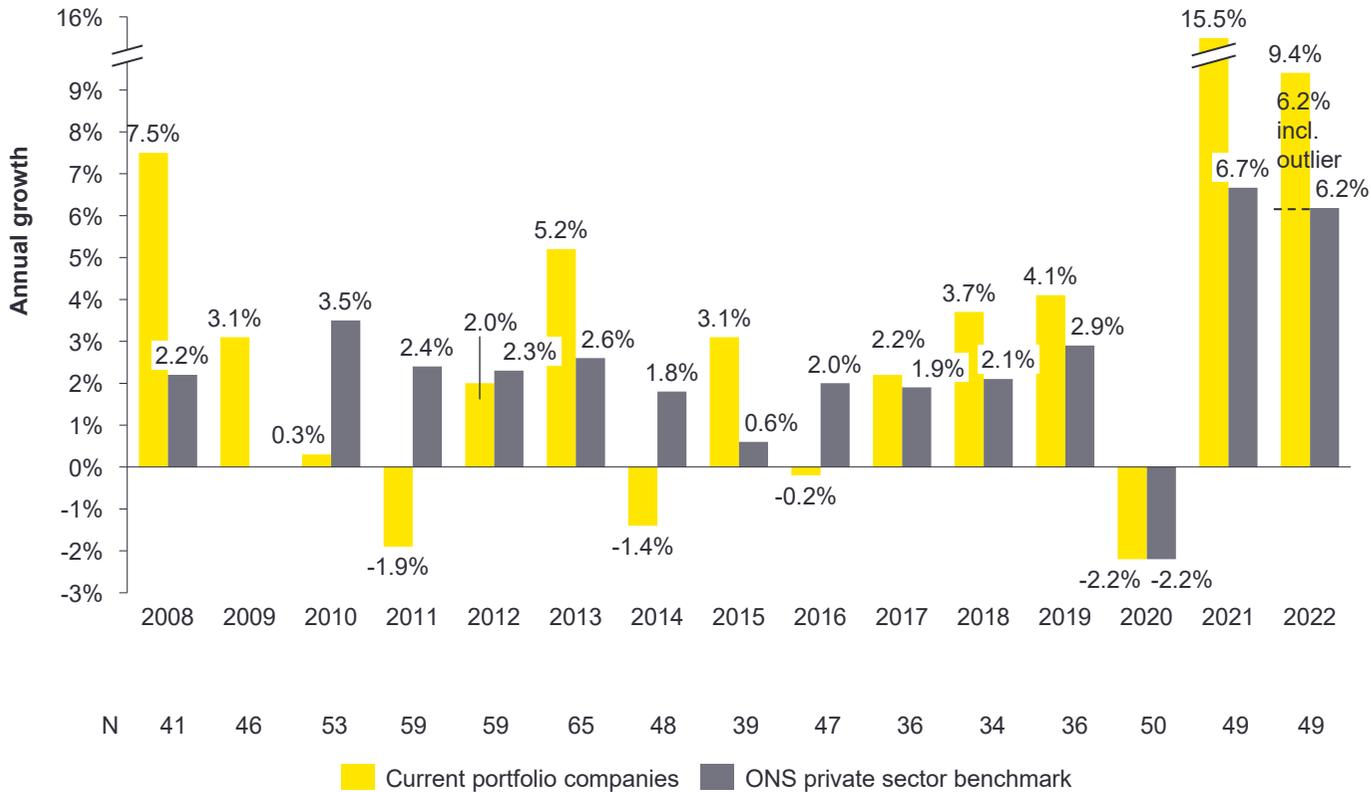
Growth in EBITDA per employee and GVA per employee since acquisition (2021)



How does productivity change under PE ownership? (cont.)

GVA per employee of portfolio companies increased by 9.4% YoY versus 15.5% in 2021, faster than the UK private sector benchmark

YoY growth in GVA per employee, portfolio companies versus private sector benchmark

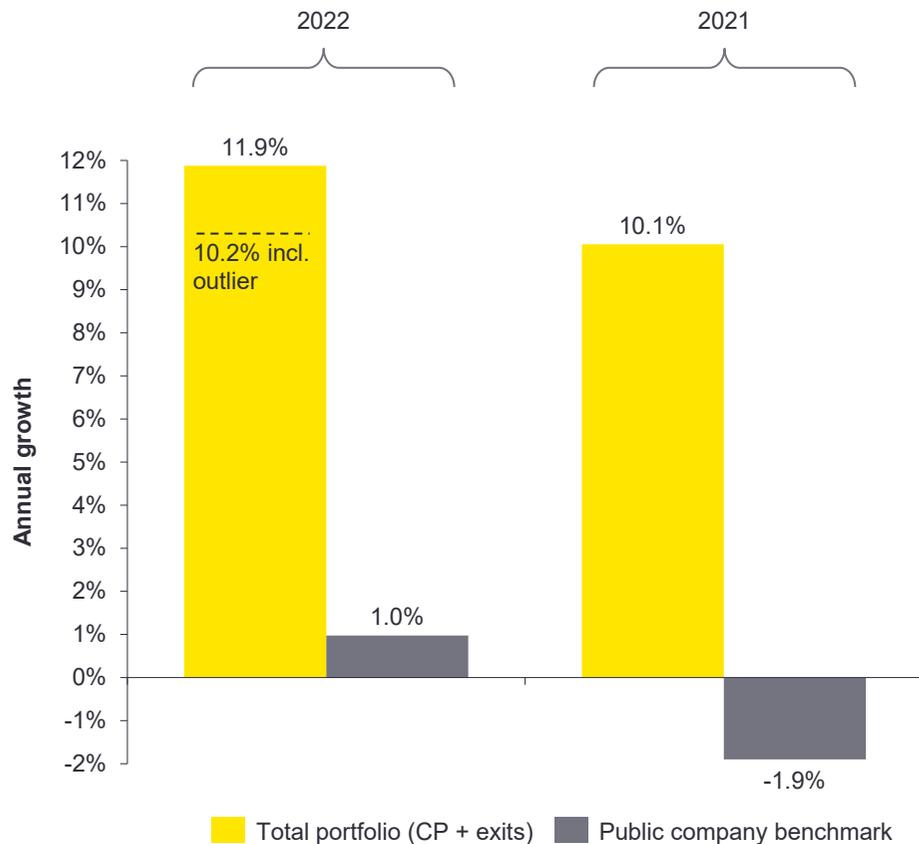


- ▶ Labour productivity in portfolio companies increased by 9.4% in 2022, faster than the private sector benchmark growth of 6.2%.
- ▶ This increase in labour productivity was driven by the increase in portfolio companies' EBITDA and employment cost in 2022 compared with 2021.
- ▶ As with other measures in this report, the year-on-year growth in GVA per employee varies for the portfolio companies compared with a more consistent trend in the UK private sector benchmark (with the exception of 2020).
- ▶ The CAGR for GVA per employee for the total portfolio companies (CP+exits) since acquisition is 3.0%.

How does productivity change under PE ownership? (cont.)

Capital productivity growth in the portfolio companies exceeds public company benchmarks at 11.9% versus 1.0% growth per annum

Growth in capital productivity since acquisition



- ▶ There is no economy-wide data reported on capital productivity; hence capital productivity growth in the portfolio companies is compared with the public company benchmark. This shows that the portfolio companies have grown capital productivity faster, by 11.9% per annum in 2022 versus 1.0% per annum in 2022.
- ▶ It seems most likely that the portfolio companies have been more effective in generating revenue growth from existing investments compared with the public company benchmark.

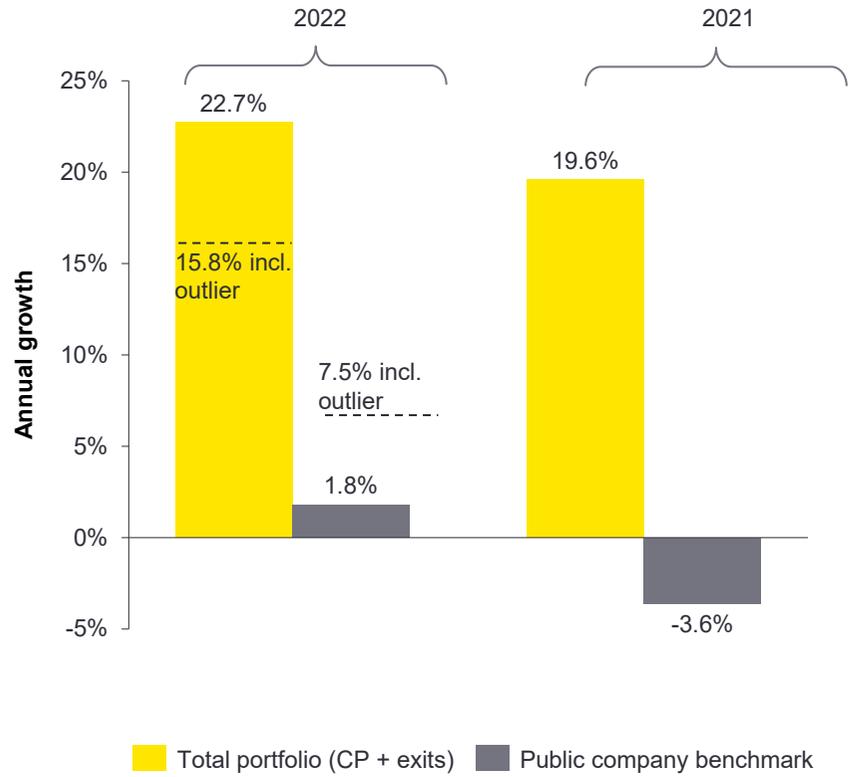
Growth in capital productivity – by sector

Sector	Growth in capital productivity
Industrial	17.2%
Consumer	22.7%
Health care	7.1%
Infrastructure	(0.2%)
Technology	(15.9%)
Other	(1.9%)

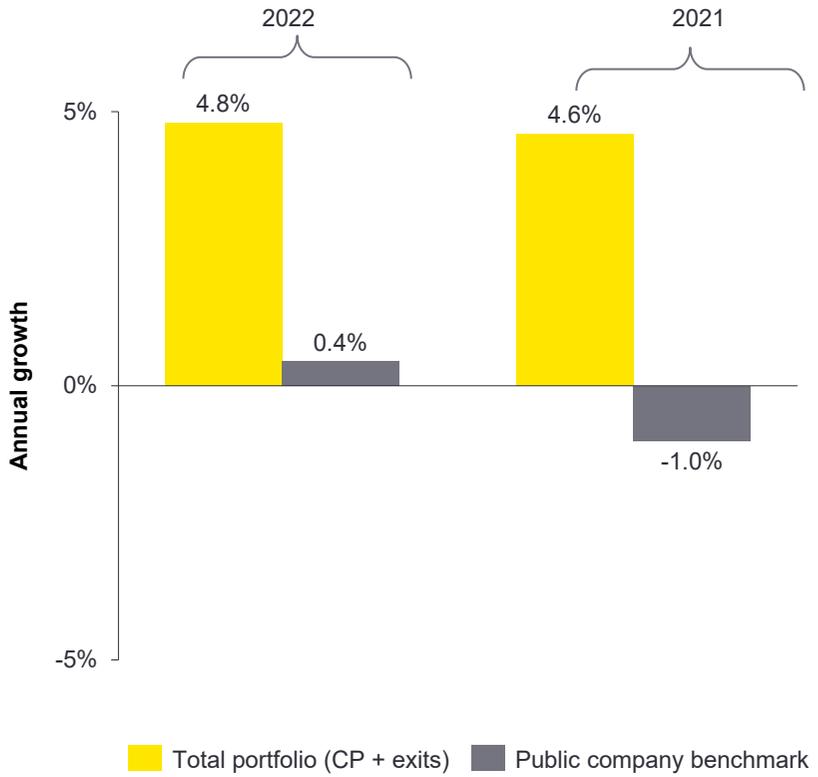
How does productivity change under PE ownership? (cont.)

The Sectors other than consumer (aggregated) have lower growth in capital productivity (4.8%) than the Consumer sector (22.7%) in 2022

Growth in capital productivity since acquisition (Consumer sector, 2022)



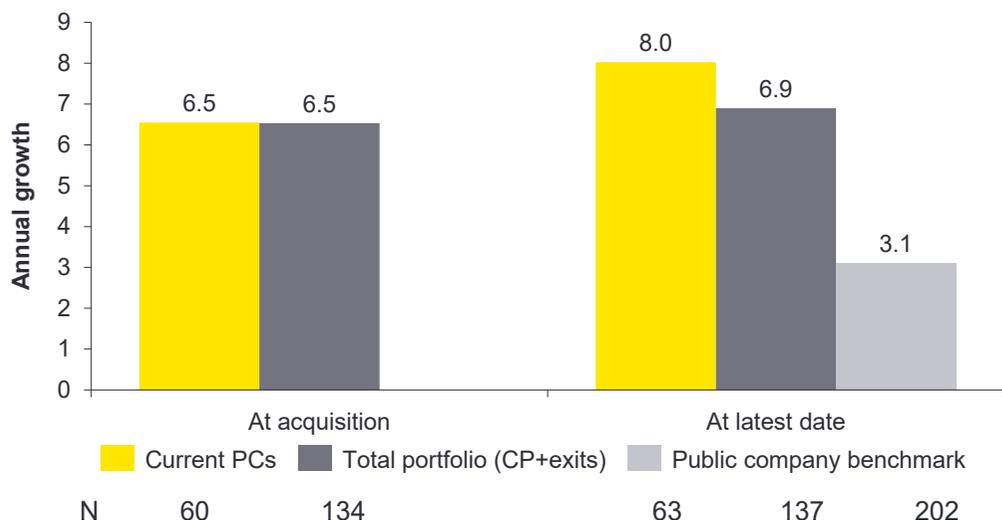
Growth in capital productivity since acquisition (Sectors other than consumer, 2022)



What are the levels of financial leverage in the portfolio companies?

In aggregate total portfolio companies had an average leverage ratio of 6.5 gross debt to EBITDA at acquisition and 6.9 at latest date or exit

Debt to EBITDA ratio (at acquisition and latest date)



Debt to EBITDA ratio – by sector

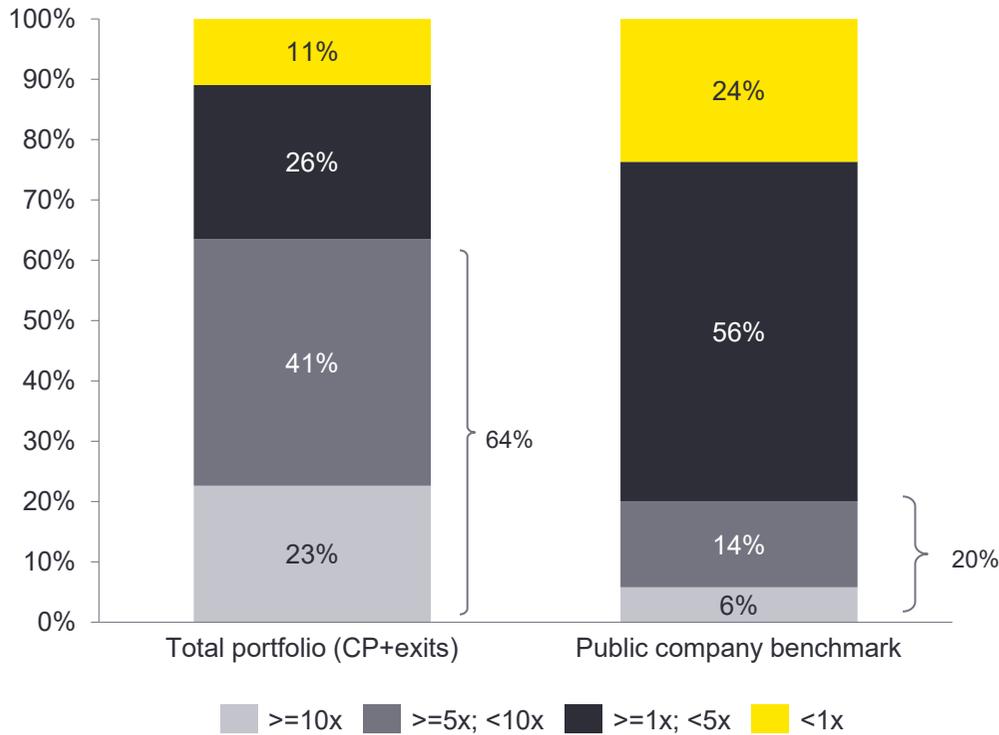
Sector (CP+exits)	Debt to EBITDA at acquisition	Debt to EBITDA at latest date/exit
Industrial	5.7	7.3
Consumer	6.5	6.1
Health care	7.2	7.2
Infrastructure	6.3	8.8
Technology	7.7	6.7
Other	7.3	9.0

- ▶ One measure of financial leverage is the ratio of gross debt to EBITDA.
- ▶ Across the current portfolio companies, debt has increased from 6.5x at acquisition to 8.0x at latest date, which is primarily driven by businesses which have not yet fully recovered from the impact of COVID-19 in 2022.
- ▶ When interpreting this metric, there are a few factors for consideration relating to gross debt, which represents an accounting measure and includes:
 - ▶ Lease liabilities, specifically financial leases recognised under IFRS 16 which became effective in January 2019.
 - ▶ Debt obtained by Consumer finance providers to fund their normal business of Consumer lending, which is typically backed by the customer advances book (i.e., trade finance in nature).
- ▶ This differs to the definition of leverage typically used in an M&A transaction context, which would likely exclude lease liabilities and include cash to calculate net debt.
- ▶ Other factors for consideration include:
 - ▶ For certain portfolio companies, a delayed financing occurred whereby equity finance was used at acquisition and debt was received shortly after acquisition.
 - ▶ EBITDA represents figures reported in the statutory accounts and is not presented pro forma for the part-year impact of acquisitions or disposal. When compared with debt on the balance sheet at the reporting date, this may overstate the leverage ratio for highly acquisitive portfolio companies.
- ▶ Across the total portfolio, the leverage ratio averaged 6.5x at the time of initial investment by the PE owners and 6.9x at latest date or exit, indicating that debt has grown at a slightly higher rate to growth in profit. Leverage trends from acquisition to latest or exit date have differed across sectors, with leverage increasing under PE ownership in all sectors except Technology and Consumer.
- ▶ The public company benchmark does not represent a consistent portfolio of companies YoY (see page 56 for further details of criteria). YoY changes in the composition of benchmark companies resulted in a number of more highly leveraged companies in 2022 being replaced by less highly leveraged companies in 2023.

What are the levels of financial leverage in the portfolio companies? (cont.)

Portfolio companies have much higher levels of financial leverage than public companies: 64% of portfolio companies have a debt-to-EBITDA ratio above 5x, versus 20% of publicly listed companies

Comparison of financial leverage (debt to EBITDA ratio at latest date)



- ▶ One distinctive feature of the PE business model is that it typically uses greater financial leverage than most public companies. More debt and less equity at the time of investment increases the effect of change in enterprise value at exit on equity return, both up and down.
- ▶ On the metric of gross debt to EBITDA, the portfolio companies (CP+exits) averaged 6.9x compared with the public company benchmark of 3.1x, showing higher levels of financial leverage in the portfolio companies. Whilst 64% of portfolio companies have leverage ratios above 5x, this is true for only 20% of companies in the public company benchmark.

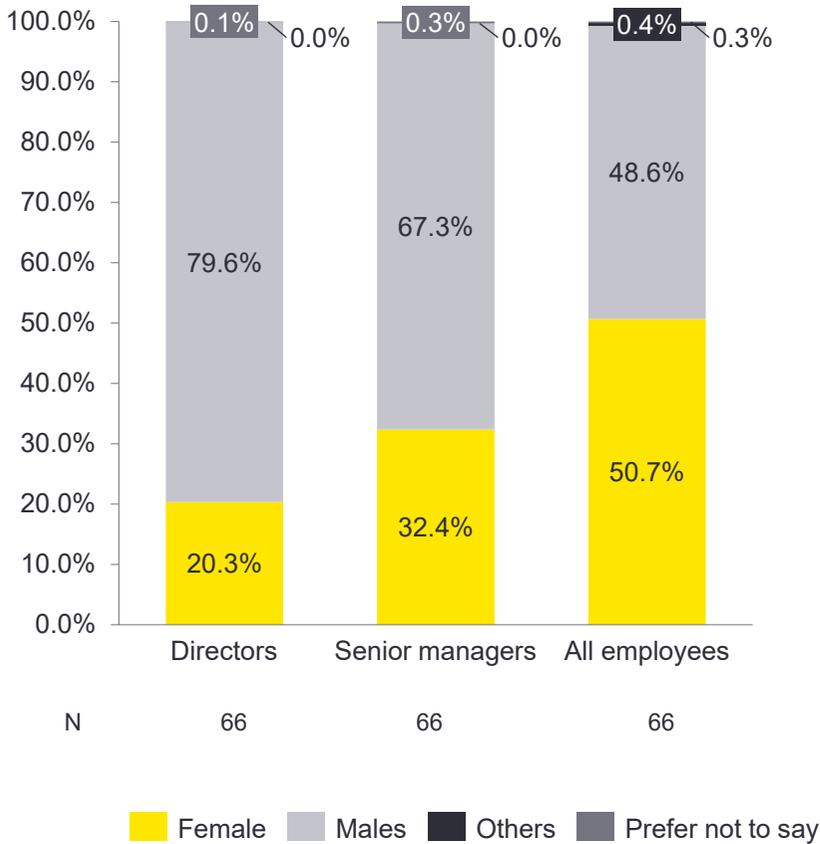
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202

What is the level of gender diversity in the portfolio companies

Female representation is 51% (51% in 2021) at an overall employee level across the current portfolio companies and 20% at the Director level. 40% of FTSE 250 board positions are held by females (source: Hampton-Alexander Review)

Gender diversity amongst portfolio companies by designations



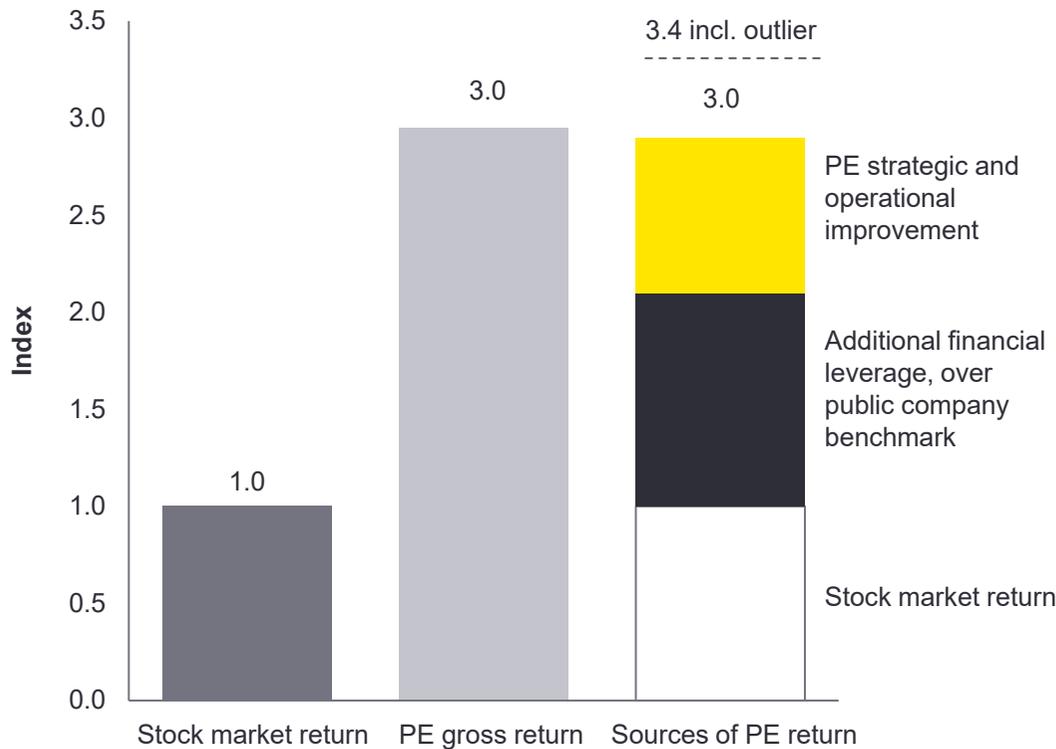
- ▶ Gender diversity may provide an additional lever for value creation within firms' portfolios.
- ▶ Female representation is 51% (2021: 51%) at an overall employee level across the current portfolio companies reporting the data, mostly driven by the Health care sector (82% female), while all other sectors are male dominant, i.e., there is a skew when looked at on a sectoral basis.
- ▶ 20% (2021:26%) of directors in the portfolio companies are females. This compares with 40% (2021: 37%) of FTSE 250 board positions held by females (source: Hampton-Alexander Review, Feb, 2023*).

**This includes non-executive positions, consistent with the measure used to represent gender diversity in the portfolio companies.*

How do PE investors generate returns from their investments in the portfolio companies?

The equity return from portfolio company exits is 3.0x the public company benchmark; c.41% of the additional return is due to PE strategic and operational improvement, and the balance from additional financial leverage

Gross equity return and sources of return, portfolio company exits 2005–21



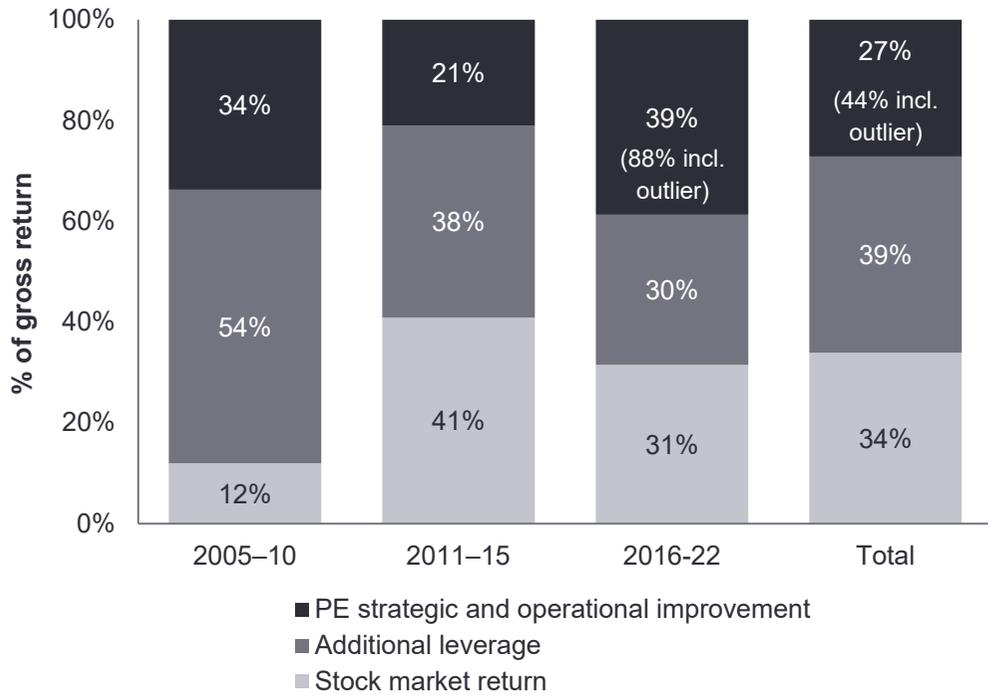
- ▶ The portfolio companies owned and exited by their PE owners achieved an aggregate gross equity investment return significantly in excess of benchmarked public companies, by a factor of 3.0x (compared with the equity return from investment in public companies matched by the same timeframe as each portfolio company investment). This is consistent with the returns multiple in 2021 of 3.0x.
- ▶ For public and PE, the measure of gross return is before the fees and charges incurred by investors.
- ▶ The source of the PE return over and above public company return comprises the amount attributable to additional financial leverage and PE strategic and operational improvement.

How do PE investors generate returns from their investments in the portfolio companies? (cont.)

Whilst the results vary over time, the component of the gross return from PE strategic and operational improvement has grown in recent years

Returns attribution, portfolio company exits 2005–21

► Analysing the sources of PE returns over time, here expressed by year of exit of the portfolio companies, shows some variation but also a consistent element of PE strategic and operational improvement.



N	19	47	33	99
Average hold time (years)	4.6	6.1	7.0	6.1

4

Basis of findings

Basis of findings

Question		Page no.
How is the portfolio company data aggregated?	<ul style="list-style-type: none"> ▶ The findings in this report are aggregated across all portfolio company data points, to give insights into the systematic effects of PE ownership of the portfolio companies. 	54
Is the profile of the portfolio companies skewed by sector or size?	<ul style="list-style-type: none"> ▶ The portfolio companies are skewed towards the Health care and Consumer sectors, accounting for 81% of employment versus 54% in the UK private sector. The portfolio companies are typically smaller than the public companies that make up the public company benchmark used in this report. ▶ There is variation by sector across many of the performance measures in this report. The Consumer sector tends to perform above the other sector groupings, whilst Industrials tends to perform the worst. 	55
How are the benchmarks derived and calculated?	<ul style="list-style-type: none"> ▶ The benchmarks used in this report are compiled from published information, matched by sector and timeframe to individual portfolio companies, and aggregated using the same methodology as portfolio company results. 	56-57
What is the returns attribution methodology?	<ul style="list-style-type: none"> ▶ The returns attribution methodology separates out the effects of additional financial leverage and public stock market performance to test for evidence of outperformance by PE investments in the portfolio companies. 	58–61

How is the portfolio company data aggregated?

The findings in this report are aggregated across all portfolio company data points, to give insights into the systematic effects of PE ownership of the portfolio companies

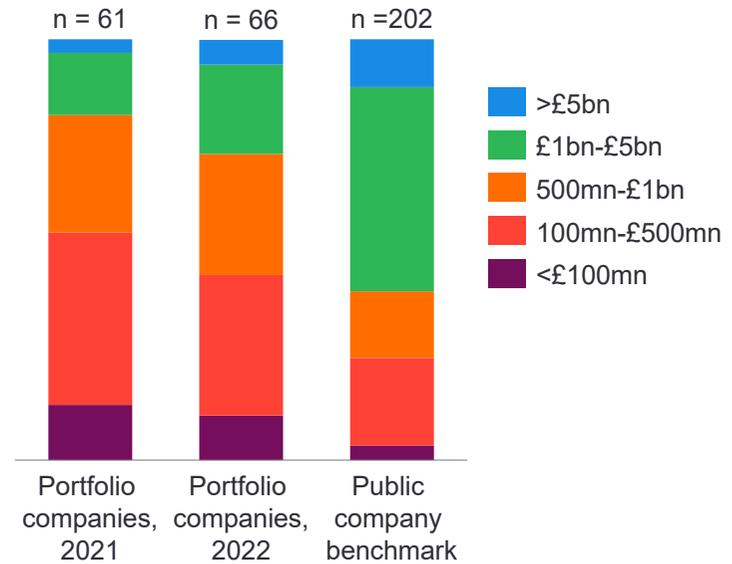
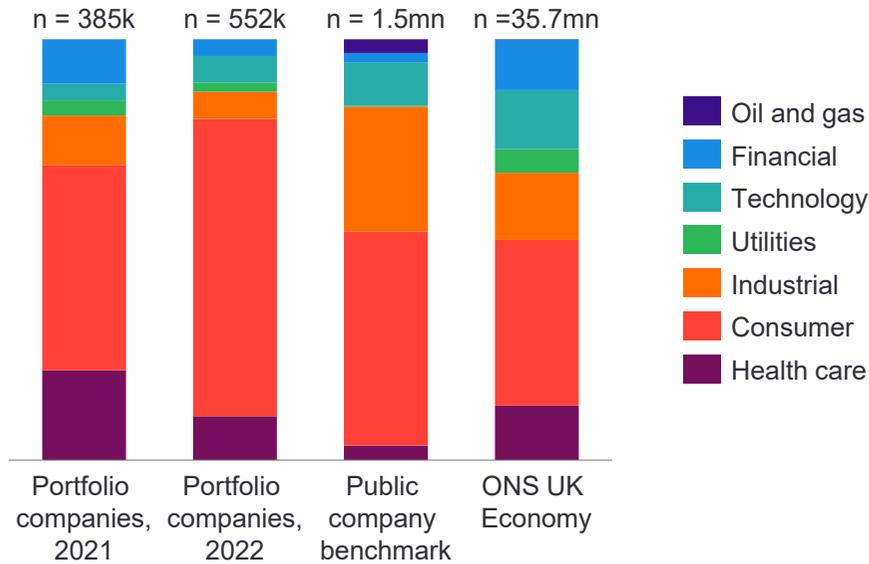
- ▶ The most accurate way of assessing the effect of PE ownership on the portfolio companies is to aggregate all of the data to present a single, overall result. Given the independent control of portfolio company selection criteria by the PERG, the size of the population and the high degree of compliance, these aggregated findings provide insight into several key questions asked about the effect of PE ownership on large UK businesses.
- ▶ Aggregating the data across all of the portfolio company data points avoids the bias that originates from selective use of either the best or the worst on any measure - which may be correct individually but is not the right basis of a generalised view on the effect of PE ownership.
- ▶ There are two main average growth measures used in the report:
 - ▶ CP+exits: this measures the change from acquisition to the latest date or exit. As a result, it measures performance over the longest time period possible of PE ownership and includes the largest number of data points.
 - ▶ YoY: this measures the change in the current year from the prior year for current portfolio companies.
 - ▶ It should be noted that for the CP+exits measure, there is a calculation of average growth rates over different time periods across the portfolio companies, which creates some inherent inaccuracy. To avoid any significant distortion, the calculated average growth rate is tested against the simple check of percentage total change in factor/average length of holding period.
- ▶ Many growth measures including revenue, profit, organic employment, capital expenditure and cashflow require a comparison of full current year with full prior year to avoid the error inherent in annualising partial-year figures. This means that there is a delay from the time of acquisition by PE investors to when these year-on-year results can be incorporated in the analysis.
- ▶ In all findings, the figures presented include all the data points from the portfolio companies, except in specific situations where it is not possible to include individual companies, e.g., not provided in data template or a negative starting figure on growth rates, where this is noted on the chart. In some measures in some years, the calculated average is affected by the performance of one or two portfolio companies. In a few instances, this is deemed to distort the overall result, in which case either (i) the actual result is presented unchanged and a separate bar or line is added to show the result if the outlier(s) is excluded or (ii) the result is presented excluding the outlier(s) and a separate bar or line is added to show the result if the outlier(s) is included.
- ▶ Average growth rates, a frequent performance measure in this report, are weighted averages in order to best measure economic impact, e.g., employment growth rates are weighted on the number of employees at acquisition. If numerical averages are used, this is noted.

Is the profile of the portfolio companies skewed by sector or size?

The portfolio companies are skewed towards the Consumer and Health care sector, accounting for 81% of employment versus 54% in the UK private sector as a whole; the portfolio companies are smaller than the public companies that make up the public company benchmark used in this report

Industry sector mix by employment: portfolio companies, public company benchmark and UK economy

Company size mix (based on revenue): portfolio companies and public company benchmark



- ▶ The portfolio companies are active across a wide range of industry sectors, the mix of which has changed as the composition of the portfolio companies evolves.
- ▶ Of the current portfolio companies, 81% of employment is in the Consumer and Health care sector, compared with 54% in the UK economy. Conversely, portfolio company employment in the financial sector is 4% of the total, compared with 12% for the UK economy as a whole.
- ▶ The public company benchmark group has been selected on size set at the largest and smallest deal sizes in the entire portfolio company group (CP+exits) from all companies listed on the London market.
- ▶ Within this range, the population of portfolio companies is smaller in terms of revenue size, with a large share of companies below £500mn in annual revenues and relatively few above £1bn.

How are the benchmarks derived and calculated?

The benchmarks used in this report are compiled from published information, then matched by sector and timeframe to individual portfolio companies, and aggregated using the same methodology as aggregating portfolio company results

Sector	Current portfolio companies	Companies in public company benchmark
Consumer	41%	39%
Health care	10%	4%
Utilities	7%	3%
Industrials	9%	31%
Technology	16%	12%
Others	16%	10%
Total	100%	100%

% of total n counts of respective populations

Public company benchmark

- ▶ There are no readily available benchmarks on company performance to compare with the portfolio companies. Public company benchmarks are prepared as follows:
 - ▶ All 561 primary listed companies on the London Stock Exchange (LSE) at July 2023 (i.e., the date of listing obtained from the LSE website).
 - ▶ The following are excluded on the basis of no sector overlap: 307 in basic materials and equity investment trusts, OEICs and other financial or non-comparable sector entities (e.g., real estate investment and services, real estate investment trusts, banks, equity and non-equity Investment instruments), 25 companies with market capitalisation less than £210mn, the size threshold for take-privates in the PERG criteria, 26 companies with market capitalisation greater than £11bn (the market capitalisation of the largest portfolio company over the period of this study)
 - ▶ One PLC is excluded due to a significant variance in EBITDA between Capital IQ and the audited financial statements. (Note: we have only sample checked a selection of public companies' capital IQ data to their audited accounts).
 - ▶ This results in 202 public companies in the benchmark group, with a sector composition as shown in the table. Refer to the next page for a PLC n-count reconciliation.
- ▶ Public company data is sourced from Capital IQ (Calendar year data) and aggregated at the sector level to produce sector benchmarks for each measure over time. Sector benchmarks are matched to individual portfolio companies, by sector and also over the same timeframe. The overall public company benchmark result is then aggregated in the same way as for the portfolio companies, i.e., using the same weighting factors.

UK private sector benchmark

- ▶ For the UK private sector benchmarks, data is sourced from ONS reports. Time periods are matched for each portfolio company and the result is aggregated - again in the same way as for the portfolio companies, i.e., using the same weighting factors.

How are the benchmarks derived and calculated? (cont.)

The benchmarks used in this report are compiled from published information, then matched by sector and timeframe to individual portfolio companies, and aggregated using the same methodology as aggregating portfolio company results

	Numbers	Sub-sectors excluded in benchmark	Sub-sectors included in benchmark
PLC listing extracted from LSE – all FTSE shares (A)	561		
Excluded based on sectors:			
Real estate	51	All sectors excluded	
Financials	232	a) Banks, b) Mortgages, c) Life and health insurance, and d) Financial exchange and data	a) Consumer finance, b) IB and brokerage, c) Property and casual Insurance, d) Specialised finance, and e) Transaction and payment processing services.
Materials	22	a) Diversified metals and mining, b) Copper, c) Gold, d) Steel, and e) Chemicals	a) Construction materials, and b) Paper and plastic packaging products and materials
Agricultural products and services	1		
Marine transportation	1		
Excluded based on sectors – total (B)	307		
Further exclusions:			
Companies with market cap > £11bn	26		
Companies with market cap < £210m	25		
Other	1		
Further exclusions – total (C)	52		
Companies Included in PLC benchmark (A-B-C)	202		

Note: There is no specific definition for sector exclusion, it is based on judgement using Capital IQ's primary industry as a base, and excluding sectors that are not comparable with the BVCA population.

What is the returns attribution methodology?

The returns attribution methodology separates out the effects of additional financial leverage and public stock market performance to test for evidence of outperformance by PE investments in the portfolio companies

- ▶ One of the most common measures of investment return used by PE investors is equity multiple, i.e., equity realised divided by equity invested, before all fund-level fees and charges. This data, which is not typically disclosed, is provided on the portfolio company data templates.
- ▶ To analyse the sources of any investment return, the 'returns attribution' calculation analyses the gross equity multiple and attributes any equity gain (or loss) to three components:
 - ▶ Additional leverage: the effect on the equity multiple of the additional financial leverage PE firms place on a company above the average public company sector levels. To calculate this effect, the capital structure of each investment is adjusted to match the average financial leverage levels of public company sector benchmarks; typically, this reduces the amount of debt and increases the amount of equity thereby reducing the equity return. The adjusted capital structure also takes into account interest savings over the holding period as well as the changes in net debt that took place during ownership; any leveraged dividends received by equity investors are moved to the date of exit, and the exit capital structure is adjusted for dividends. The difference between the original investment equity multiple and the adjusted equity multiple is the effect of additional leverage.
 - ▶ Public stock market returns: the effect on the equity multiple of underlying gain in the sector that an investor could have achieved by investing in public stock markets. This effect is calculated by determining the total shareholder return (TSR) earned in the public company benchmark sector over the same timeframe as the PE investment. Both measures of equity return capture sector earnings growth, valuation multiple changes and dividend payments. The public stock market return TSR is converted into an equivalent equity multiple figure and then compared with the investment return after the adjustment for additional leverage, i.e., when both public and PE have the same capital structure.
 - ▶ PE strategic and operational improvement: this is the component of the equity multiple that is not explained by additional leverage or public stock market returns, so it captures all the incremental effects of PE ownership versus public company benchmark performance, i.e., in earnings growth, valuation multiple change and dividends. The component of the equity multiple for PE strategic and operational improvement is calculated by subtracting the market return from the equity multiple adjusted for additional leverage.
- ▶ Consistent with other analyses in this report, the benchmarks and calculations are applied at the individual portfolio company level and then aggregated to produce the overall findings presented in this report.
- ▶ It should be noted that there is no standard methodology for the returns attribution calculation. The methodology in this report has been discussed with the PERG and the Global Capital Committee of the BVCA, and their comments have been incorporated.

Returns attribution methodology – illustrative example

In the illustrative example presented below, we show the return (gross and by component) achieved by PE Fund X for its investment in Portfolio Company A, as calculated in accordance with the Returns Attribution methodology. The scenario assumes:

- ▶ Company A, operating in the Consumer sector, was invested in by PE Fund X on 25 March 2013 at an enterprise value of £1.2bn (EV) and exited on 10 May 2017 at an EV of £3.0bn
- ▶ PE Fund X funded the investment via cash equity of £500mn and received a gross equity cash return of £1.5bn on exit, achieving a gross equity multiple of 3x (no dividends were received over the investment period)

Note: This example represents dummy data and is not reflective of any return metrics received in respect of portfolio company exits included in this report

Gross equity multiple achieved by PE Fund X (Step 1)

All units in £m	Date:	25-Mar-13	xx-xxx-xx	10-May-17
	Event:	Acquisition	Dividends	Exit
Enterprise value:		1,200		3,000
Capital structure:	Equity	500		1,500
	Debt	700		1,500
	EV	1,200		3,000
Equity returns:	Equity in	(500)	-	-
	Equity out	-	-	1,500
	Net equity flow	(500)	-	1,500
Deal returns:	Equity multiple			3x
Debt/EV		58%	A	50%

A. Equity multiple – calculated as total equity in (£500mn) / total equity out (£1,500mn), reflects the gross equity multiple achieved (3x) by PE Fund X on its investment in Portfolio Company A.

Key: ■ Data provided by PE Fund X (illustrative)

Returns attribution methodology – illustrative example (cont.)

Impact of additional leverage (Step 2)

All units in £mn		Date:	25-Mar-13	xx-xxx-xx	10-May-17
		Event:	Acquisition	Dividends	Exit
Enterprise value:			1,200		3,000
Capital structure:	Equity D		961	D	2,055
	Debt C		239	E	945
EV			1,200		3,000
Equity returns:	Equity in		(961)	-	-
	Equity out		-	-	2,055
	Net equity flow		(961)	-	2,055
Deal returns:	Equity multiple			F	2.1x
Debt/EV			20%		32%
Debt/EV (avg)				B	26%

B. Benchmark Debt/EV – represents a benchmark calculated based on the weighted average debt to capital ratio (Debt/EV) for a group of PLC companies in the same sector and over the same investment period as Portfolio Company A. In this example, the weighted average debt to capital ratio of the PLC companies is 20% at acquisition date and 32% at exit date, with an the average financial leverage level of 26%.

C. Debt at acquisition – calculates the value of debt funding (£239m) at acquisition required to match the average Debt/EV ratio (26%) of the Benchmark.

D. Equity investment – derived based on the assumption that there is no change in enterprise value at acquisition or exit date, i.e., EV of £1,200m less £239m of debt funding.

E. Debt at exit – calculated as debt at acquisition in (C) at £239m plus the movement in debt in step 1 of £800m (between acquisition and exit date) less post-tax interest savings assumed on the differential between at acquisition debt in Step 1 (£700m) versus debt at acquisition calculated in (C) at £239m. This assumes an after tax cost of debt at c.5%.

F. Impact of additional leverage – an equity multiple of 2.1x was achieved assuming leverage in line with the public company benchmark, resulting in an incremental return of 0.9x (compared with Step 1) due to additional leverage.

Returns attribution methodology – illustrative example (cont.)

Public stock market return (Step 3)

All units in £mn		Date:	25-Mar-13	xx-xxx-xx	10-May-17
		Event:	Acquisition	Dividends	Exit
Equity returns:	Equity in		(500)	-	-
	Equity out		-	-	H 679
	Net equity flow		(500)	-	679
Deal returns:	Equity multiple				1.4x
	IRR %				G 8%

G. Public stock market return – represents a benchmark calculated based on the weighted average total shareholder return for a group of PLC companies in the same sector and over the same investment period as Portfolio Company A. This 8% includes both capital growth and dividend payments on PLC benchmark companies (source: S&P Capital IQ).

H. Exit equity out – calculated based on the assumption that the same level of equity is invested as that in Step 1 with growth over the investment period equal to the benchmark public stock market return.

I. PE strategic and operational improvement – calculated as the component of the gross return (3.0x) not explained by additional leverage (0.9x) in Step 2 or public stock market return (1.4x) in Step 3.

Components of return

Gross equity multiple (Step 1)	3.0x
Less: impact of additional leverage (Step 2)	(0.9)x
Less: public stock market return (Step 3)	(1.4)x
PE strategic and operational improvement	I 0.7x

It should be noted that there is no standard methodology for the returns attribution calculation. The methodology in this report has been discussed with the PERG and the Global Capital Committee of the BVCA, and their comments have been incorporated.

Key: ■ Data provided by PE Fund X (illustrative) ■ Key figure

Glossary

		Performance measure	Methodology
Resources	Labour	Employment	
		Reported	Reported employment is based on number of FTEs as reported by the portfolio companies.
		Organic	Measures the number FTEs after excluding for impacts of M&A
		Employment cost	
		Avg. employment cost per head	Employment cost represents salary expense excluding pension
	Pension provision (surplus/deficit)	Percentage of net assets/market liability of the total market value of the pension scheme assets	
	Gender diversity	Percentage of employees that are female versus male versus unspecified	
	Capital	Operating capital employed	Operating capital employed is defined as the sum of fixed assets and working capital, where: <ul style="list-style-type: none"> ▶ Tangible fixed assets is based on reported figures by the portfolio companies ▶ Working capital is calculated as trade debtors + stock — trade creditors (as reported)
Productivity		Labour productivity	Calculated as the sum of EBITDA/employee and GVA/employee
		EBITDA/employee	EBITDA per employee as reported by the portfolio companies
		GVA/employee	GVA per employee calculated as total EBITDA + total employment cost (as reported by portfolio companies)
		Capital productivity	Calculated as revenue/operating capital employed, weighted by pro forma capital employed

Abbreviations		Abbreviations	
CP	Current portfolio; represents a portfolio company still under ownership by the same PE Fund in this years study	ONS	UK private sector benchmark
CAGR	Compounded annual growth rate	PC	Portfolio companies, being large UK businesses owned by PE investors that meet the criteria determined by the PERG
DB	Defined benefit scheme	PE	Private equity
DC	Defined contribution scheme	PERG	Private Equity Reporting Group
EBITDA	Earning before interest, tax and depreciation and amortisation	PLC	Public limited company
GVA	Gross Value Added	R&D	Research and development
M&A	Merger and acquisitions	YoY	Year-on-year

5

Appendix – objective and fact base

Key factors for consideration in this report

It is expected that the COVID-19 pandemic and subsequent recovery materially impacted the results in 2020 and 2021 and YoY result of 2021 / 2022 in this report, with a significantly higher level of dispersion seen in results across the portfolio companies, specifically in the trading metrics, compared with pre-2020 results. It is not possible to isolate the economic (or employment) impacts from the COVID-19 pandemic across the portfolio (or its component companies)

We highlight the following key factors that should be considered when reading this report:

- ▶ This report covers a period and comparative period (2022 and 2021) impacted by the social and economic effects of the pandemic. The specific impacts of the pandemic on individual companies (and the aggregate portfolio) cannot be robustly isolated, but we note:
 - ▶ A wide spread of trading results can be seen in 2022 and 2021 across the portfolio companies (both the long-term and current portfolio company cohorts). This is evidenced in the table on the following page, which presents the weighted average YoY growth rate and the standard deviation of results of the current portfolio (in each year) for 2018–2022. This indicates a similar standard deviation (an indication of higher deviation/dispersion in growth rates across the portfolio of companies) across the portfolio companies for revenue growth in 2022 compared with 2021 and significantly higher than in prior years (except 2021).
 - ▶ EBITDA standard deviation growth was lower in 2022 than 2021 across the portfolio companies.
 - ▶ The spread of results measuring employment growth, as well as capital employed, is not as significant in 2022 compared with 2021.
 - ▶ Refer to the following page, where we disclose the average growth and standard deviation measure for the key measures, as an indicator of the dispersion of performance across the portfolio.
- ▶ As in any year of this study, there is a degree of sectoral skew in the portfolio companies when compared with the public benchmark.
- ▶ The data tracks in year performance and cumulative performance over time. The cumulative performance reflects each relevant portfolio company from date of entry in the study to date of exit (but — clearly — does not track performance after exit). In certain cases, the trends in the cumulative data appears to be impacted by the materiality of the in-year movement (e.g., employment) and so may be considered a cyclical rather than structural factor. Readers should look at the cumulative data and the longer time series of in-year data.
- ▶ Relative to the ONS private sector benchmark for analysis of employee compensation, there is a skew in the current portfolio towards Consumer and Health care jobs in the portfolio companies which impacts the analysis in the current year, however the nature of the long-term study is that the mix of PE portfolios will evolve over time. Note that the ONS benchmark data for the salary bands were unavailable for 2022 at the time of preparing this report, so we presented salary band data for 2022 BVCA population with the ONS benchmark data for 2021.
- ▶ The YoY employee cost per head analysis may be impacted by furlough receipts factored into the employment cost in 2020 reported by both the portfolio companies in their submissions and the companies included in the ONS private benchmark. As for the wider economic impacts of the COVID-19 pandemic, this cannot be isolated.

Key factors for consideration in this report (cont.)

It is expected that the COVID-19 pandemic and subsequent recovery materially impacted the results in 2020 and 2021 and YoY result of 2021 / 2022 in this report, with a significantly higher level of dispersion seen in results across the portfolio companies, specifically in the trading metrics, compared with pre-2020 results. It is not possible to isolate the economic (or employment) impacts from the COVID-19 pandemic across the portfolio (or its component companies)

- The table below shows the weighted average growth and standard deviation measure for the key metrics analysed, as an indicator of the dispersion of performance across the portfolio.

	Weighted average result (YoY)					Standard deviation (current PCs)				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
Revenue	2 %	4 %	(18%)	30%	15%	10 %	6 %	24 %	24%	21%
EBITDA	7 %	12 %	(29%)	47%	7%	23 %	17 %	75 %	48%	25%
Employment (# of jobs)	2 %	2 %	(6%)	2%	5%	8 %	16 %	13 %	15%	15%
Employment cost per head	3 %	4 %	(0%)	8%	5%	7 %	9 %	11 %	11%	10%
Capital employed	5 %	3 %	32 %	6%	2%	81 %	377 %	550 %	82%	60%

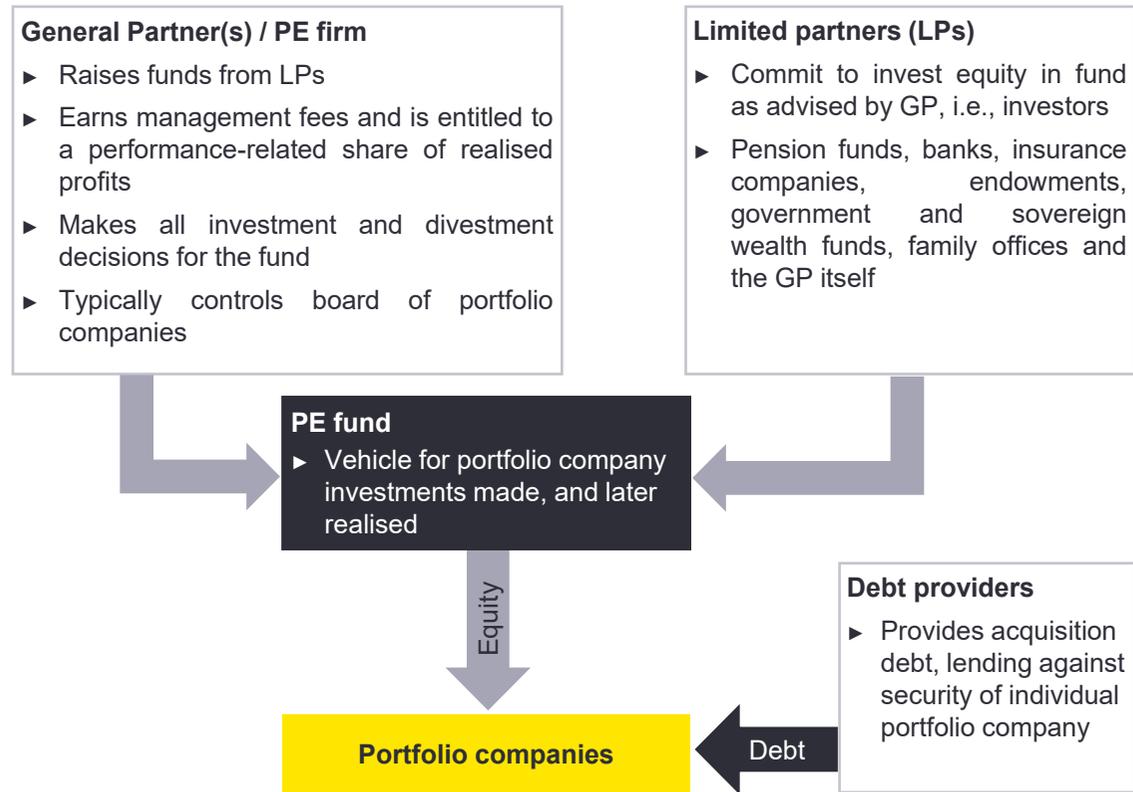
What are the distinctive features of the PE business model?

The distinctive features of the PE business model include ownership of its portfolio company investments, the use of financial leverage, and its long-term investing horizon

Distinctive features of the PE business model

- ▶ **Long term:**
 - ▶ Limited Partners (LPs) make an investment commitment to a PE fund of c.10 years. LPs include public pensions, wealth funds and public and private companies.
 - ▶ Typically, equity capital is invested for the first five years and realised in the second five years with a typical investment horizon of three to seven years per portfolio company investment (average in this study is six years).
 - ▶ There are restrictions on withdrawing commitments from the fund, thereby allowing a long-term investment period. This is in contrast with many other financial investors (e.g., hedge funds, public equity funds) who invest in publicly traded shares that have few restrictions on buying or selling.
- ▶ **Ownership of portfolio companies:**
 - ▶ The PE fund typically acquires all or a majority of the equity in its portfolio companies giving it (as advised by the GP) control of the board, strategy, management and operations of the company.
 - ▶ Most other financial investors (e.g., hedge funds and public equity funds) acquire minority shareholdings with no direct influence over management or strategy.
- ▶ **Use of financial leverage:**
 - ▶ In acquiring portfolio companies, third-party debt is used, and this is secured on the portfolio company itself, alongside equity provided by the PE fund.
 - ▶ The leverage levels applied to portfolio company investments are typically higher than public company benchmarks.

Diagram of the illustrative PE structure



Note: some PE-like investors (as defined by PERG) have a different business model

What are the criteria used to identify portfolio companies, and how are they applied?

Portfolio companies are identified at the time of their acquisition, based on criteria covering their size by market value, the scale of their UK activities and the remit of their investors. The criteria and their application are independently determined by the PERG

- ▶ The criteria for identifying portfolio companies, and their application, are determined by the PERG (see privateequityreportinggroup.co.uk for details of composition and remit).
- ▶ A portfolio company, at the time of its acquisition, was:
 - ▶ ‘Acquired by one or more PE firms in a public-to-private transaction where the market capitalisation together with the premium for acquisition of control was in excess of £210mn, and either more than 50% of revenues were generated in the UK, or UK employees totalled in excess of 1,000 full-time equivalents’
- Or
- ▶ ‘Acquired by one or more PE firms in a secondary or other non-market transaction where enterprise value at the time of the transaction was in excess of £350mn, and either more than 50% of revenues were generated in the UK, or UK employees totalled in excess of 1,000 full-time equivalents’
- ▶ And where PE firms are those that manage or advise funds that own or control portfolio companies or are deemed after consultation on individual cases by the PERG, to be PE-like in terms of their remit and operations
- ▶ The companies and their investors that met the criteria were identified by the BVCA and then approved by the PERG.
- ▶ As in prior years, the portfolio companies that volunteered to comply with the disclosure aspect of the Guidelines, but did not meet all of the criteria above at acquisition, are excluded from this report.

What are the criteria used to identify portfolio companies, and how are they applied? (cont.)

Movements in the number of portfolio companies

	Exist 2005–06	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
At 1 January		37	42	47	43	64	73	72	70	61	59	50	55	55	61	64	73	
Portfolio companies introduced/excluded with changes in PERG criteria		-	-	-	12	4	-	(2)	-	-	(2)	-	(1)	-	-	-	-	11
Adjustments to prior years*		-	-	-	-	-	-	-	-	-	-	-	-	-	-	(1)	-	(1)
Acquisitions of portfolio companies		10	5	-	11	8	7	10	7	11	5	13	10	10	8	16	10	141
Exits of portfolio companies		(9)	(5)	-	(4)	(2)	(3)	(8)	(10)	(13)	(12)	(8)	(9)	(4)	(5)	(6)	(2)	(116)
Portfolio companies at 31 December		42	47	43	64	73	72	70	61	59	50	55	55	61	64	73	81	
Exits and re-entrants		1	-	-	1	1	3	5	-	1	3	3	1	-	2	2	1	24
Number of exits by IPO		-	-	-	-	-	1	3	8	5	2	-	-	1	1	-	-	21

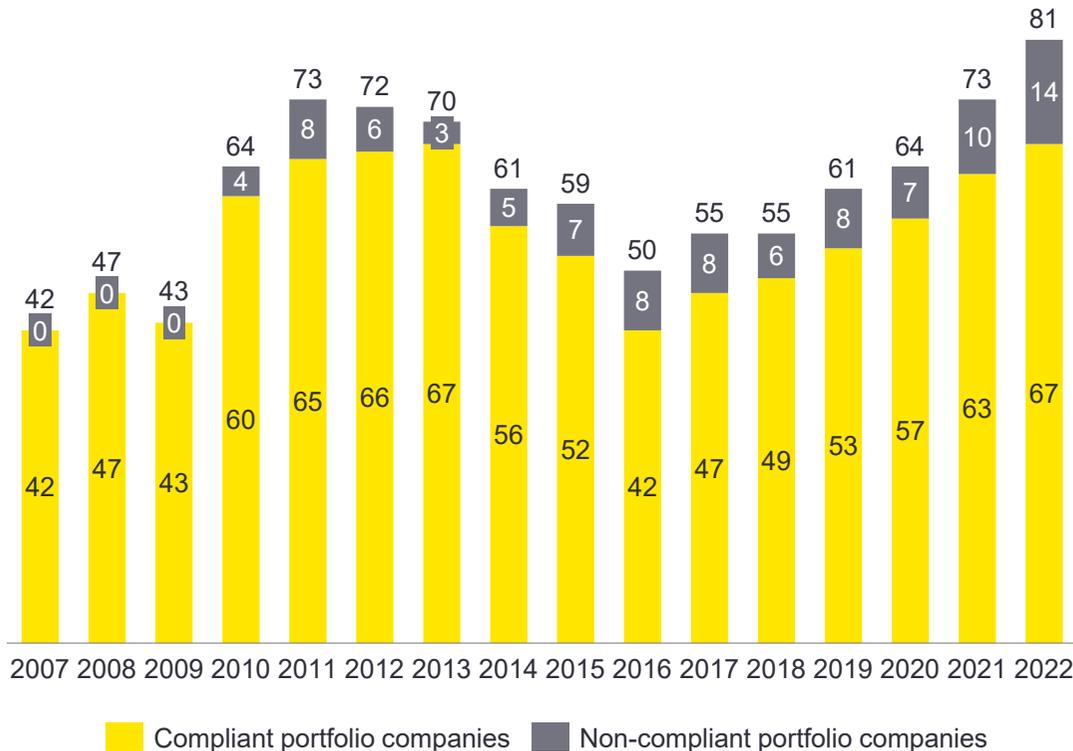
* *Portfolio company excluded from scope*

- ▶ In 2010, the criteria used to determine the portfolio companies were changed by the PERG, by lowering the entry enterprise value threshold. This brought in a total of 12 new portfolio companies. In 2013, the PERG decided that two portfolio companies that had made significant disposals and was as a result well below the size criterion, would be excluded from the population; a similar decision was taken for two portfolio companies in 2016. In 2018, one portfolio company was removed due to restructuring, which diluted ownership below the threshold requirements for the population.
- ▶ In 2017, the PERG undertook a consultation process to establish which portfolio companies are 'Infrastructure'-like and, therefore, should be excluded from the list of portfolio companies. This resulted in Thames Water being excluded from the 2017 report onwards, Associated British Ports from the 2016 report onwards and Anning ton Homes from the 2013 report onwards.
- ▶ The effect of PE ownership on a business is evaluated from the date of acquisition to the date of exit. The date of exit is defined as the date of completion of a transfer of shares, which means that the PE fund no longer has control, or, in the case of IPO onto a public stock market, the date of the first trade.

How representative is the data set used in this report?

The aggregated data in this report covers 89% of the total population of portfolio companies (as defined by PERG). This year, compliance for the current portfolio companies was 67 of 81, or 83%

Number of portfolio companies on 31 December, and compliance

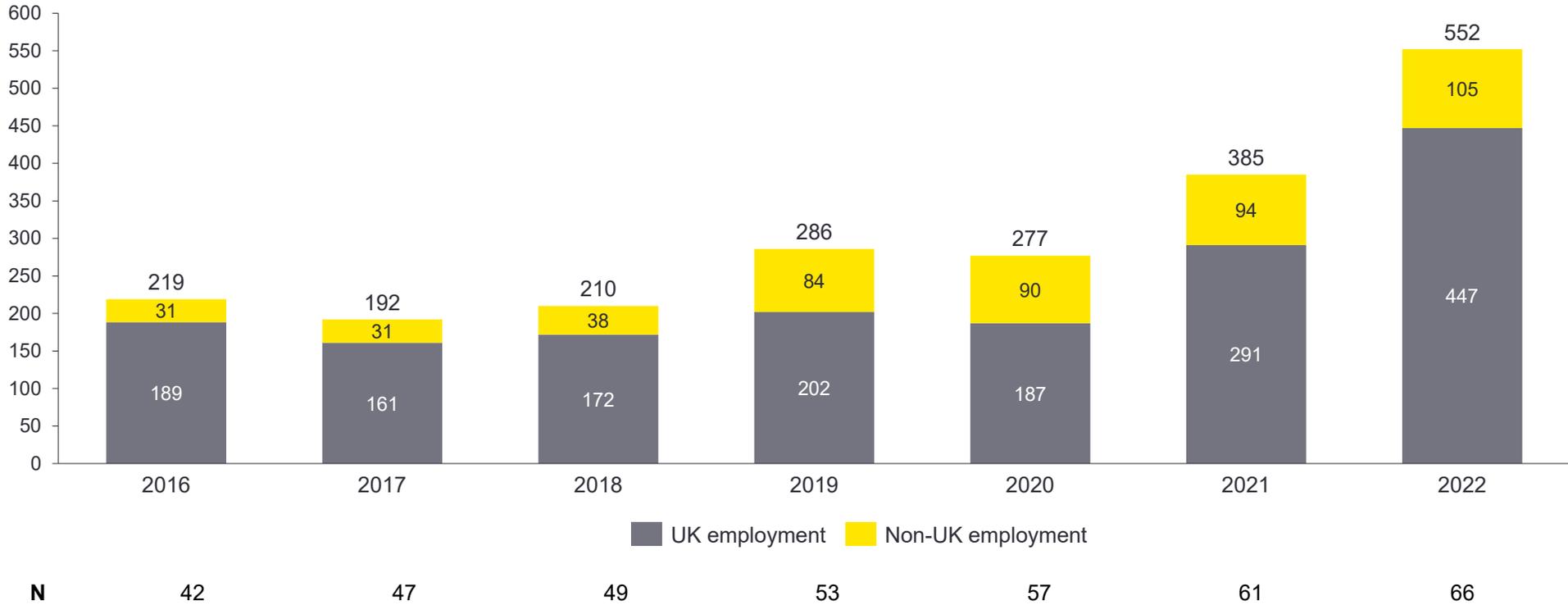


- ▶ PE firms were requested to complete a data template for each of their portfolio companies, for the purposes of preparing this report. Individual portfolio company submissions were reviewed by EY and were accepted or rejected depending on their completeness. In certain analyses in this report, specific data from some portfolio companies has been excluded from our analysis (discussed further in the Key Considerations on the previous pages).
- ▶ Compliance by current portfolio companies is at 83% in 2022 and has ranged between 83%–90% historically since 2010. In many measures of performance, data covers both current portfolio companies as well as those owned and exited.
- ▶ Of the group of 116 former portfolio companies (exits), 17 were not required to submit full data template, of which a) 14 relate to exits in the period 2005–07, and b) three relate to exits post 2007.
- ▶ Compliance of the remaining exited portfolio companies is 93 out of 99 or 94%.
- ▶ This year, compliance for the current portfolio companies was 67 out of 81, or 83%. Of these, one portfolio company was given a first year exemption.
- ▶ Therefore on this measure of the current portfolio and exits (CP+exits), the total population is 180, and there is data reported on 160, a compliance rate of 89%.
- ▶ For returns attribution, which is only measured on exits, compliance is 100 out of 116 or 86%;
- ▶ Out of the two exits in 2022, one portfolio company provided the data and one portfolio company is in liquidation.

How representative is the data set used in this report? (cont.)

The current portfolio companies in 2022 reported total employment of 552k (66 portfolio companies) including both UK and non-UK employees significantly higher than the 385k in 2021

YoY employment for current PCs (represented by number of jobs)



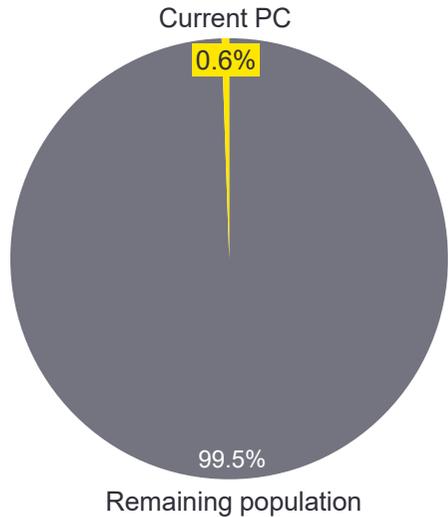
- ▶ The chart above show total employment of the current portfolio companies in each respective year of the study.
- ▶ The 66 current portfolio companies in 2022 contributed 552k total number of jobs which compares with 385k total number of jobs contributed by the 61 current portfolio companies in the 2021 study.

Note: Employment numbers represent average FTEs as reported by portfolio companies.

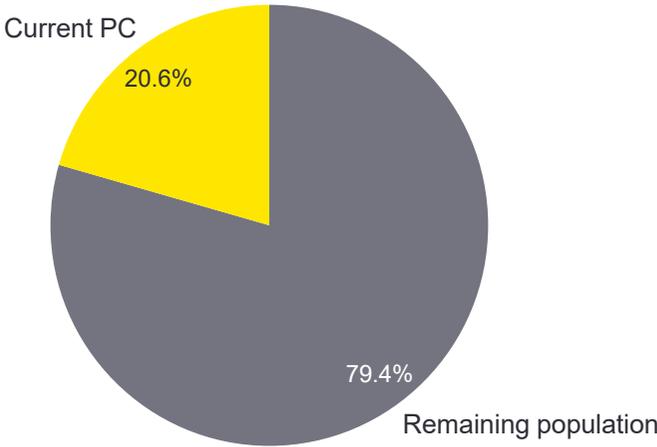
How representative is the data set used in this report? (cont.)

Current portfolio companies in this study represent 1% of UK companies in PE/VC backed businesses and account for 20.6% of total employment of PE/VC backed businesses. (Source: Measuring the contribution of private equity and venture capital to the UK economy in 2023)

Total number of current portfolio companies as % of UK companies in PE/VC backed businesses



UK employment of current portfolio companies as % of UK PE/VC backed businesses



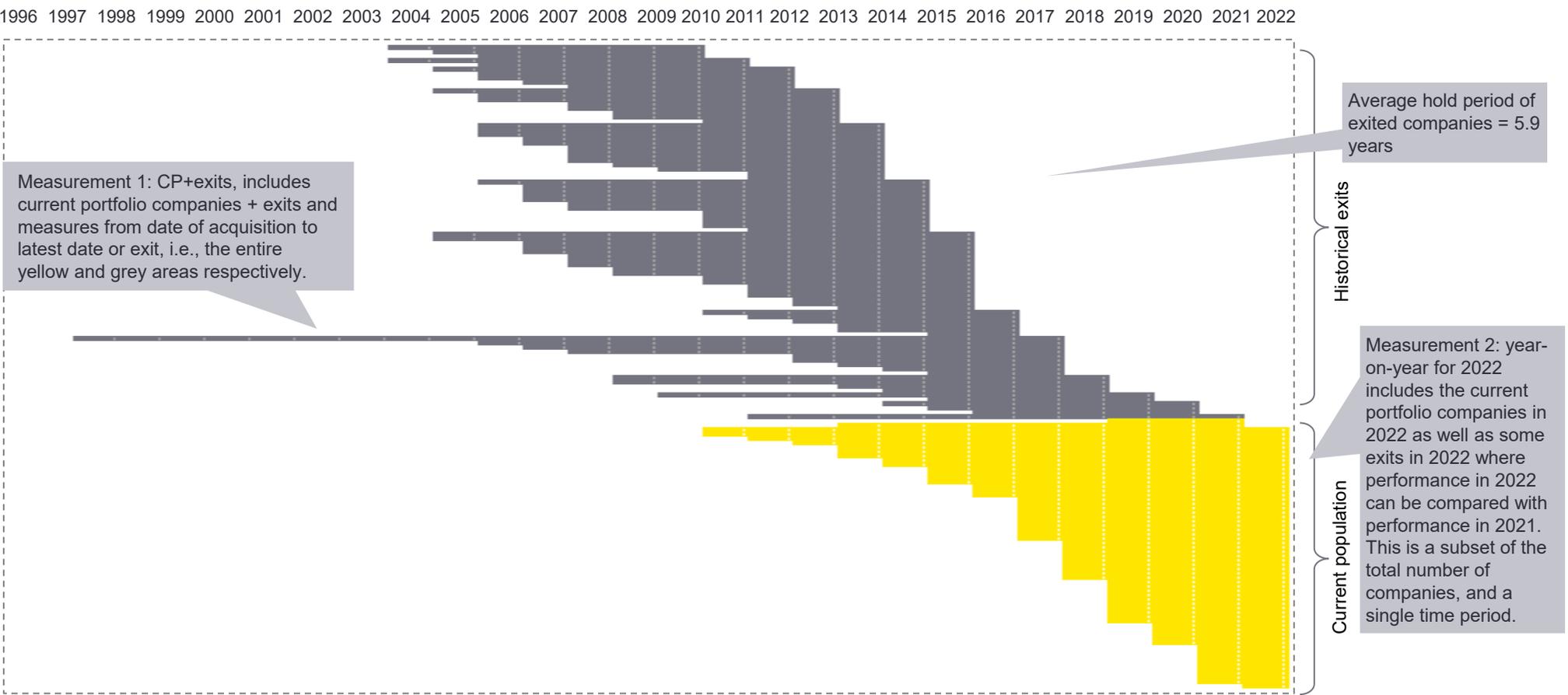
- ▶ The chart above represents the contribution of current portfolio companies to the UK PE/VC backed businesses in terms of, a) number current portfolio companies (66) in this report with the UK companies (12,000) in PE/VC backed businesses, and b) total number of UK employees (447k) in the current portfolio companies with the UK employees (2.2mn) of PE/VC backed businesses.
- ▶ Information on the number of UK PE / VC backed businesses and their UK employees is taken from an EY study commissioned by the BVCA (Economic contribution of UK private equity and venture capital in 2023), published April 2023.

What are the time period and coverage of the measures used to evaluate performance?

The two main measures used in this report cover a) the entire period of PE ownership of all the portfolio companies, i.e., from initial acquisition to latest date or exit, and b) the latest year-on-the-prior-year comparison of the current portfolio companies

Period of ownership of portfolio companies by PE investors

Note: the data set for company exits includes investments realised starting 2005 versus 2007 for the main data set.



What performance measures are presented in this report, and how do they interrelate?

This report presents a range of performance measures to test the impact of PE ownership on the portfolio companies' resources, productivity, trading, leverage and investor returns

Overview of performance measures in this report

Change in resources		Plus change in productivity	Leads to changes in trading outcomes	Plus change in financial leverage	Leads to equity returns to investors (at exit)
Labour	Capital				
Employment	Operating capital employed	Labour productivity	Revenue	Net debt	Returns attribution
▶ Reported	▶ Tangible fixed assets	Capital productivity	▶ Reported		
▶ Organic (excluding M&A)	▶ Operating working capital		▶ Organic (excluding M&A)		
Employment cost	▶ Capital expenditure		Profit, defined as earnings before interest, tax, depreciation and amortisation (EBITDA)		
▶ Average employment cost per head	▶ R&D		▶ Reported		
▶ Pension provision	M&A investment		▶ Organic (excluding M&A)		
▶ Gender diversity	Dividends (as alternative use of cash to investment)				

Refer to the *Basis of findings* section for further details on how the performance measures are calculated.

Notes:

Where the sample size permits, measures are reported by sector grouping as well as in aggregate.

Many measures are compared with benchmarks of the UK private sector economy and public companies. See section 4 for further details of the methodology.

How accurate are the individual portfolio company submissions?

The portfolio company submissions are drawn from key figures disclosed in the published independently audited annual accounts

1. The BVCA and EY contacted the PE firms in July 2023 and requested a standard data template to be completed for each portfolio company. For exits, the same data template was updated for the final year of PE ownership, as well as data required to complete the returns attribution analysis. Whilst it is the responsibility of the PE firm to ensure compliance, in many cases, the portfolio company submit the information directly.
2. The portfolio companies have annual accounts that have been independently audited (though we note a small number of companies provided data not yet signed off by auditors, e.g., due to delay in the audit process) Completion of the data template drew on information available in company accounts and further information that was prepared from portfolio company and PE firm sources. This data enabled analysis, among other things, of the impact of acquisitions and disposals, and movements in pension liabilities and assets. The data template incorporates several in-built consistency and reconciliation checks, and also requires key figures to be reconciled to figures in the annual accounts.
3. The data templates returned to EY were checked for completeness and iterated with the PE firms as required. EY undertook independent checks on a sample of the returns against published company accounts. This found no material discrepancies.
4. The data is not adjusted for any periodic changes in accounting policies. Thus, there may be year-on-year differences caused by changes in accounting policies.

Clarifications on the data used

Consistency with historical reporting: general

The data collection process, methodology of analysis, data sources and calculations in this report are materially consistent with historical reporting procedures. Where any deviations occur, this has been referred to as part of the analysis.

The figures presented throughout this report include all the data points provided by the portfolio companies for each analysis. There are instances where it is not possible to include individual companies on specific analysis, (e.g., not provided comparable data in the template or a negative starting figure on growth rates). In order to reflect this, we have presented the n counts in each analysis, where applicable.

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