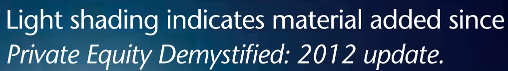
Appendix: Summaries of studies of buy-outs and private equity



Light shading indicates material added since
Private Equity Demystified: 2012 update.

Table 1: Pre-buy-out governance in P2Ps

Authors	Country	Nature of transactions	Findings
Maupin (1987)	US	P2P MBOs	Ownership concentration, price/book value ratio, cash flow to net worth, cash flow to assets, P/E ratio, dividend yield and book value of assets to original costs distinguish P2Ps from comparable non-P2Ps.
Singh (1990)	US	P2P MBOs, LBOs	Prior takeover attempt, cash flow to sales and net assets to receivables predict likelihood of buy-out.
Eddey, Lee and Taylor (1996)	Australia	MBOs	Takeover threat strongly associated with going private.
Weir, Laing and Wright (2005a)	UK	MBO, MBIs listed corporations	Firms going private have higher CEO ownership, higher institutional block-holder ownership, more duality of CEO and board chair but no difference in outside directors or takeover threats compared to firms remaining listed.
Evans, Poa and Rath (2005)	Australia	MBOs, acquisitions of listed corporations	Firms going private have higher liquidity, lower growth rates, lower leverage pre-buy-out, and lower R&D. Free cash flow (FCF) is not significantly different. Takeover threat less likely to be associated with going private.
Boulton, Lehn, Segal (2006)	US	Management and non-management-led P2Ps	Firms going private underperformed but had more cash assets than industry peers, and had higher relative costs of compliance with Sarbanes-Oxley.
Weir and Wright (2006)	UK	MBO, MBI, acquisitions of listed corporations	Firms going private have higher CEO ownership, higher institutional block-holder ownership, more duality of CEO and board chair but no difference in outside directors or takeover threats compared to firms subject to traditional takeovers.
Andres, Betzer and Weir (2007)	Europe	P2Ps	Companies with a high pre-LBO free float and weak monitoring by shareholders show high abnormal returns.
Wright, Weir and Burrows (2007)	UK	P2Ps	Irrevocable commitments for P2Ps depend on extent of takeover speculation, value of the bid and level of board shareholding, the premium offered to other shareholders and how active the private equity-bidder provider was in this market, especially in MBOs, less so in MBIs.
Cornelli and Karakas (2008)	UK	All P2Ps	Decrease in board size from pre- to post-P2P, especially for LBOs funded by experienced private equity firms.

Table 2: Financial returns to private equity and leveraged and management buy-outs

Authors	Country	Nature of transactions	Findings
Kaplan (1989)	US	LBOs	Investors in post-buy-out capital earn a median market-adjusted return of 37%.
Ljungqvist and Richardson (2002)	US	VC and LBO funds	Mature funds started 1981–1993 generate IRRs in excess of S&P 500 returns net of fees; returns robust to assumptions about timing of investment and portfolio company risk; buy-out funds generally outperform venture funds, these differences partially reflect differences in leverage used in investments; sample from one LP with disproportionate share of larger buy-out funds.
Jones and Rhodes-Kropf (2003)	US	VC and LBO funds	LBO funds have a value-weighted IRR of 4.6% and VC funds have a value-weighted IRR of 19.3%, commensurate with factor risks borne by investors; considerable variation in fund returns.
Cumming and Walz (2004)	US, UK, continental Europe, (39 countries)	MBO/MBI, LBO and VC	Private returns to investors in relation to law quality, fund characteristics and corporate governance mechanisms.
Kaplan and Schoar (2005)	US	VC and buy-out funds	LBO fund returns gross of fees earn returns in excess of S&P 500 but net of fees slightly less than S&P 500; unlike mutual funds is persistence in returns among top performing funds; higher returns for funds raised in 1980s; acknowledge that average returns potentially biased as do not control for differences in market risk and possible sample selection bias towards larger and first-time funds; funds raised in boom times less likely to raise follow-on funds and thus appear to perform less well.
Groh and Gottschalg (2006)	US and non-US	MBOs	Risk-adjusted performance of US buy-outs significantly greater than S&P index.
Knigge, Nowak and Schmidt (2006)	Multi-country	VC and buy-out funds	In contrast to VC funds, the performance of buy-out funds is largely driven by the experience of the fund managers regardless of market timing.
Driessen, Lin and Phalippou (2007)	US	VC and buy-out funds	Data from 797 mature private funds over 24 years shows high market beta for venture capital funds and low beta for buy-out funds, and evidence that private equity risk-adjusted returns are surprisingly low. Higher returns larger and more experienced funds mainly caused by higher risk exposures, not abnormal performance.
Froud, Johal, Leaver and Williams (2007); Froud and Williams (2007)	UK	Mid- and large-size funds	General partners in successful mid-sized funds can expect carried interest to generate £5–£15m on top of their salaries while general partners in large, successful funds can expect $50–150m.
Lerner, Schoar and Wongsunwai (2007)	US	VC and LBO funds	Early- and later-stage funds have higher returns than buy-out funds in funds raised 1991-1998; considerable variation in returns by type of institution; presence of unsophisticated performance-insensitive LPs allows poorly performing GPs to raise new funds.

Table 2: Financial returns to private equity and leveraged and management buy-outs (continued)

Authors	Country	Nature of transactions	Findings
Ljungqvist, Richardson and Wolfenzon (2007)	US	LBO funds	Established funds accelerate investments and earn higher returns when opportunities improve, competition eases and credit conditions loosen; first-time funds less sensitive to market conditions but invest in riskier deals; following periods of good performance funds become more conservative.
Metrick and Yasuda (2007)	US	VC and LBO funds	Buy-out fund managers earn lower revenue per managed dollar than managers of VC funds; buy-out managers have substantially higher present values for revenue per partner and revenue per professional than VC managers; buy-out fund managers generate more from fees than from carried interest. buy-out managers build on prior experience by raising larger funds, which leads to significantly higher revenue per partner despite funds having lower revenue per dollar; buy-out managers build on prior experience by raising larger funds, which leads to significantly higher revenue per partner despite funds have lower revenue per dollar.
Nikoskelainen and Wright (2007)	UK	MBOs	Private returns to investors enhanced by context-dependent corporate governance mechanisms.
Diller and Kaserer (2008)	Europe	VC and MBO funds	Highly significant impact of total fund inflows on fund returns. Private equity funds' returns driven by GP's skills as well as stand-alone investment risk.
Philappou and Gottschalg (2009)	US and non-US	LBO funds	After adjusting for sample bias and overstated accounting values for non-exited investments, average fund performance changes from slight overperformance to underperformance of 3% pa with respect to S&P 500; gross of fees, funds outperform by 3% pa; venture funds underperform more than buy-out funds; previous past performance most important in explaining fund performance; funds raised 1980–2003.
Lopez di Silanes, Phalippou and Gottschalg (2011)	Worldwide	Private equity investments	Median investment IRR (PME) 21% (1.3), gross of fees; one in 10 investments goes bankrupt but one in four has an IRR above 50%; one in eight investments held for less than two years, but have highest returns; scale of private equity firm investors is influential: investments held at times of a high number of simultaneous investments underperform substantially, with diseconomies of scale highest for independent firms, less hierarchical firms, and those with managers of similar professional backgrounds.
Maula, Nikoskelainen and Wright (2011)	UK	MBOs	Industry growth drives exited buy-out returns and is particularly high in MBOs, divisional buy-outs and top-quartile deals.

Table 2: Financial returns to private equity and leveraged and management buy-outs (continued)

Authors	Country	Nature of transactions	Findings
Robinson and Sensoy (2011)	US	Buy-out funds	Using data from a single LP, buy-out fund returns outperform public market benchmark.
Stucke (2011)	US	VC and buy-out funds	Previous studies' findings may be biased downwards due to data source used; severe anomalies in underlying data result from ceasing data updates. Many empirical results established using these databases may not be replicable with correct data; the claim that private equity has not outperformed public equity is unlikely to hold with true numbers.
Franzoni, Nowak and Phalippou (2012)	Worldwide	Liquidated buy-out investments	The unconditional liquidity risk premium on private equity is close to 3% annually and, the inclusion of this liquidity risk premium reduces alpha to zero.
Harris, Jenkinson and Kaplan (2012)	US	VC and buy-out funds	US buy-out fund net of fee returns have exceeded those of public markets for most vintages since 1984 using various benchmarks (eg, 3% pa using S&P 500) and various data sources from multiple LPs; but some data sources biased downwards in fund returns; both absolute performance and performance relative to public markets are negatively related to aggregate capital commitment.
Higson and Stucke (2012)	US	Buy-out funds	For almost all vintage years since 1980, US buy-out funds significantly outperformed S&P 500. Liquidated funds 1980–2000 delivered excess returns 450 basis points per year. of funds do better than the S&P; excess returns driven by top-decile funds; higher returns for funds set up in the first half of each of the past three decades; significant downward trend in absolute returns over all 29 vintage years; results robust to measuring excess returns via money multiples instead of IRRs.
Kleymenova, Talmor and Vasvari (2012)	Worldwide	Secondary buy-out funds	A PE fund interest is more liquid if the fund is larger, has a buy-out-focused strategy, less undrawn capital, has made fewer distributions and is managed by a manager whose funds were previously sold in the secondaries market; private equity funds' liquidity improves if more non-traditional buyers, as opposed to dedicated secondary funds, provide bids and overall market conditions are favourable.
Phalippou (2012)	US	Buy-out funds	Adjusting for size premium as buy-out funds mainly invest in small companies, average buy-out fund return is in line with small-cap listed equity.

Table 2: Financial returns to private equity and leveraged and management buy-outs (continued)

Authors	Country	Nature of transactions	Findings
Axelson, Sorensen, and Stromberg (2013)	Worldwide	Buy-out deals from a large fund-of-funds	Gross of fee betas of 2.2%–2.4% and alphas of 8.3%–8.6% annually.
Castellaneta, Gottschalg and Wright (2013)	Europe and US	Private equity-backed buy-outs	Completeness of feedback on performance of past deals has a positive impact on the IRR of subsequent deals; this positive impact is moderated by the proportion of feedbacks on past deals showing negative returns.
Cornelli, Lichtner, Perembetov, Simintzi and Vig (2013)	Worldwide	Private equity funds	Private equity firms experiencing the highest turnover of executives between funds (or those in the top turnover tercile) outperformed those experiencing the lowest turnover (or those in the bottom turnover tercile) by 13.5%; funds that replenished with operational expertise demonstrated improved performance, especially during recessions; turnover of professionals with financial backgrounds did not impact performance; turnover of professionals with private equity experience negatively impacted performance.
Fang, Ivashina and Lerner (2013)	International	Direct investments by institutions in private equity	Solo investments by institutions outperform co-investments; outperformance driven by deals where informational problem not severe [proximity; late stage] and in peak years; poor performance of co-investment due to selective offering by fund managers of large deals.
Harris, Jenkinson, Kaplan and Stucke (2013)	US	VC and buy-out funds	Sustained significance for pre-2000 funds for buy-out funds and particularly for venture funds. Post-2000, mixed evidence of persistence in buy-out funds. Sorting by quartile of performance of previous funds, performance of the current fund is statistically indistinguishable regardless of quartile; performance-size relationship absent. Post-2000, performance in venture capital funds remains as persistent as pre-2000.
Sensoy, Wang and Weisbach (2013)	US	Investments by LPs in buy-out and venture funds	Superior performance of endowments in 1991–1998 due to greater access to top-performing VC funds; in 1999–2006 endowments do not outperform as as no longer have greater access to funds that are likely to restrict access, and do not make better investment selections than other types of institutional investors.
Valkama, Maula, Nikoskelainen and Wright (2013)	UK	MBOs	Governance variables have limited role in driving value creation but use of a ratchet is positively related to both equity and enterprise value returns; leverage has a positive impact on median and top-quartile equity returns; returns are driven by buy-out size and acquisitions made during holding period; the effect of industry growth is strong in insider-driven, divisional buy-outs, and top quartile transactions.

Table 3: Employment, wage and HRM effects

Authors	Country	Unit of analysis	Nature of transactions	Findings
Panel A: Employment effects				
Wright and Coyne (1985)	UK	Firm	MBOs	Forty-four per cent of firms shed employees on buy-out; 18% of pre-buy-out jobs lost subsequent re-employment but below pre-MBO levels.
Kaplan (1989)	US	Firm	LBOs	Small increase in employment post-buy-out but falls after adjusting for industry effects.
Lichtenberg and Siegel (1990)	US	Plant	LBOs, MBOs	Eight-and-a-half per cent fall in non-production workers over three-year period; production employment unchanged.
Muscarella and Vetsuypens (1990)	US	Firm	Reverse LBOs	Median number of employees fell between LBO and IPO but those LBOs without asset divestment reported median employment growth in line with top 15% of control sample; divisional LBOs more likely to increase employment than full LBOs.
Smith (1990)	US	Firm	LBOs	Small increase in employment post-buy-out but falls after adjusting for industry effects.
Wright, et al. (1990a)	UK	Firm	MBOs	Twenty-five per cent of firms shed employment on buy-out.
Opler (1992)	US	Firm	LBOs	Small increase in employment post-buy-out.
Wright, Thompson and Robbie (1992)	UK	Firm	MBOs, MBIs	Average 6.3% fall in employment on MBO but subsequent 1.9% improvement by time of study.
Robbie, Wright and Thompson (1992); Robbie and Wright (1995)	UK	Firm	MBIs	Thirty-eight per cent reduced employment.
Robbie, Wright and Ennew (1993)	UK	Firm	MBOs in receivership	Over three-fifths did not affect redundancies on buy-outs, a sixth made more than 20% redundant and the median level of employment fell from 75 to 58.
Amess and Wright (2007a)	UK	Firm	MBOs and MBIs	Employment growth is 0.51% higher for MBOs after the change in ownership and 0.81% lower for MBIs.
Amess and Wright (2007b)	UK	Firm	MBOs, MBIs, private equity- and non-private equity-backed	After controlling for endogeneity in selection of buy-outs, difference between employment effects of private equity- versus non-private equity-backed buy-outs not significant.

Table 3: Employment, wage and HRM effects (continued)

Authors	Country	Unit of analysis	Nature of transactions	Findings
Panel A: Employment effects				
Cressy, Munari and Malipiero (2007)	UK	Firm	Private equity-backed and non-private equity-backed companies	Employment in buy-outs falls relative to control group for first four years but rises in fifth; initial rationalisation creates basis for more viable job creation.
Work Foundation (2007)	UK	Firm	MBIs, MBOs	Based on same data as Wright, et al. (2007) and Amess and Wright (2007a), MBOs increased employment. MBIs tended to cut it. Remaining workers often experienced significantly less job security. Employment cuts may have been planned pre-buy-out.
Wright, et al. (2007)	UK	Firm	MBOs, MBIs	On average, employment initially falls but then grows above pre-buy-out level in MBOs; in MBIs, employment falls after buy-out; majority of MBOs and MBIs experience growth in employment.
Amess, Girma and Wright (2008)	UK	Firms	LBOs, MBOs, MBIs, acquisitions, private equity-backed and non-private equity-backed	Private equity-backed LBOs have no significant effect on employment. Both non-private equity backed LBOs and acquisitions have negative employment consequences
Davis, and et al. (2008)	US	Firm & establish-ment	Matched Private equity-backed and non-Private equity-backed firms and establishments	Employment grows more slowly in private equity cases than in control pre-buy-out and declines more rapidly post-buy-out but in 4–5th year employment mirrors control group; buy-outs create similar amounts of jobs to control and more greenfield jobs.
Weir, Jones and Wright (2009)	UK	Firms	P2Ps	Private equity-backed deals experienced job losses in years immediately after going private but employment increased subsequently, non-private equity-backed buy-outs increased employment after the first year post deal.
Jelic (2008)	UK	Firms	MBOs, MBIs	More reputable private quity firms associated with increases in employment in both post buy-out and post exit phases.
Goergen, O'Sullivan and Wood (2011)	UK	Firms	IBOs/MBIs of listed companies	Employment falls in the year immediately after the completion of the IBO compared with non-acquired firms; no parallel or subsequent increase in productivity or profitability.
Panel B: Wages				
Lichtenberg and Siegel (1990)	US	Plant	MBOs, LBOs	Decline in relative compensation of non-production workers.
Amess and Wright (2007)	UK	Firm	MBOs, MBIs	Average wages in both MBOs and MBIs are lower than their non-buy-out industry counterparts.

Table 3: Employment, wage and HRM effects (continued)

Authors	Country	Unit of analysis	Nature of transactions	Findings
Panel B: Wages				
Wright, et al. (2007)	UK	Firm	MBOs, MBIs	Wages grow post-buy-out compared to pre-buy-out year; the majority of MBOs and MBIs showed growth in wages.
Amess, Girma and Wright (2008)	UK	Firms	LBOs, MBOs, MBIs, acquisitions, private equity-backed and non-private equity-backed	Employees gain higher wages after acquisitions but lower after LBO.
Panel C: HRM effects				
Wright et al. (1984)	UK	Firm	MBOs	Sixty-five per cent of firms recognised unions before buy-out, falling to 60% afterwards; 40% of firms recognised one union; 8% of firms involved wider employee share ownership after buy-out.
Bradley and Nejad (1989)	UK	Division	NFC MEBO	Employee share ownership had greater effect on 'cooperation' than on performance but did improve employee cost consciousness.
Wright, et al. (1990a)	UK	Firm	MBOs	Fifty-eight per cent of firms recognised unions before buy-out, 51% afterwards; 52% of firms recognised one union; 14.3% of firms involved wider employees in shareholding; 6% had share option scheme pre-buy-out, 10.4% afterwards.
Pendleton, Wilson, Wright (1998)	UK	Firm and employees	Privatised MEBOs	Shareholding and participation in decision making associated with feelings of ownership; perceptions of employee ownership significantly associated with higher levels of commitment and satisfaction.
Bacon, Wright, Demina (2004)	UK	Firm	MBOs, MBIs	Buy-outs resulted in increased employment, adoption of new reward systems and expanded employee involvement; 'insider' buy-outs and growth-oriented buy-outs had more commitment-oriented employment policies.
Bruining, Boselie, Wright and Bacon (2005)	UK and Holland	Firm	MBOs	MBOs lead to increases in training and employee empowerment. These effects were stronger in the UK than in the Netherlands.
Amess, Brown and Thompson (2006)	UK	Firm	MBOs	Employees in MBO firms have more discretion over their work practices.
Work Foundation (2007)	UK	Firm	MBOs, MBIs	Based on data in Wright, et al. (2007) and Amess and Wright (2007), in the case of MBIs, significant cuts in wages generally took place.

Table 3: Employment, wage and HRM effects (continued)

Authors	Country	Unit of analysis	Nature of transactions	Findings
Panel C: HRM effects				
Bacon, Wright, Demina, Bruining and Boselie (2008)	UK and Holland	Firm	MBOs, MBIs, private equity-backed and non-private equity-backed	Insider buy-outs show greater increase in high commitment practices; buy-outs backed by private equity firms report fewer increases in high-commitment management practices.
Bacon, Wright, Scholes and Meuleman (2009)	Pan-European	Firm	All private equity-backed buy-outs above €5m transaction value	Negligible changes to union recognition, membership density and attitudes to trade union membership; absence of reductions in terms and conditions subject to joint regulation; more firms report consultative committees, which are more influential on their decisions, and increased consultation over firm performance and future plans; private equity firms adapt their approaches to different social models and traditional national industrial relations differences persist.
Boselie and Koene (2009)	Netherlands	Firm	Single firm private equity-backed buy-out negotiation	In private equity-backed buy-out negotiations, aloof top management can have negative effect on employee commitment and trust, exacerbating uncertainty and rendering HR-change initiatives powerless; binding effect of informal management practices undermined by financial pressures that dominated senior management decision making; divisional HR managers focused on divisional responsibilities in context of increasingly politicised relationships between division and centre; important for top management to engage with the organisation and introduce realistic people management initiatives; HR acting as a business partner with line management led to tension between corporate and divisional HR levels, limiting ability of local HR to engage with proactive corporate people management initiatives.
Bacon, Wright, Meuleman and Scholes (2011)	Europe	Firm	All private equity-backed buy-outs above €5m transaction value	Impact of private equity on high-performance work practices (HPWP) affected more by length of investment relationship than by countries where private equity is going to or is coming from; buy-outs backed by Anglo-Saxon private equity firms as likely to introduce new HPWP as those backed by non-Anglo-Saxon private equity firms.
Gospel, Pendleton, Vitols and Wilke (2011)	UK, Germany, Spain	Firm	Case of LBOs, hedge fund and SWF investments	Employment reductions in each case, though to varying extent; few changes in work organisation developments in employee voice and representation. National systems of labour regulation affect the extent to which worker representatives receive information after, though not during, the acquisition.

Table 4: Effects on debt-holders, taxation

Authors	Country	Nature of transactions	Findings
Effects on debt holders			
Marais, et al. (1989)	US	LBOs	No evidence of wealth transfer from pre-buy-out bondholders.
Asquith and Wizman (1990)	US	LBOs	Small average loss of 2.8% of market value to pre-buy-out bondholders. Bonds with protective covenants had a positive effect, those without experience negative reaction.
Cook, et al. (1992)	US	Division LBOs	Bondholders with covenants offering low protection against corporate restructuring lose some percentage of their investment.
Warga and Welch (1993)	US	LBOs	Bondholders with covenants offering low protection against corporate restructuring lose some percentage of their investment.
Taxation effects			
Schipper and Smith (1988)	US	LBOs	Tax savings account for small fraction of value gains in LBOs; significant correlation between estimated tax savings and buy-out bid premium.
Jensen, Kaplan and Stiglin (1989)	US	LBOs	Total amount of taxes collected by government does not decrease as a result of LBOs.
Kaplan (1989b)	US	LBOs	Tax savings account for small fraction of value gains in LBOs; significant correlation between estimated tax savings and buy-out bid premium.
Muscarella and Vetsuypens (1990)	US	Reverse LBOs	Few control sample firms had lower tax rates than buy-outs.
Newbould, Chatfield and Anderson (1992)	US	LBOs	LBOs would have paid significantly more tax depending on tax structure; Significant proportion of premia paid on LBO appears to be caused by reduction in taxes due to additional tax shields from debt; after Tax Reform Act 1986 less than 50% of premium paid on LBO can be attributed to reduction in taxes.
Renneboog, Simons and Wright (2007)	UK	P2Ps	No significant relationship between pre-P2P tax-to-sales ratio and shareholder wealth gains (premia) on announcement of P2P but bidders willing to pay higher premia for firms with lower debt-to-equity ratios which proxies for the tax advantage of additional interest deductibility and for the ease of financing the takeover operation.
Weir, Jones and Wright (2009)	UK	P2Ps	Tax paid is significantly below the industry average in each year post going private but is not statistically different in the year prior to going private, but lower tax may be a function of lower profitability reported post P2P rather than from the tax shield element of going private.

Table 5: Longevity

Authors	Country	Nature of transactions	Findings
Kaplan (1991)	US	LBOs	Heterogeneous longevity. LBOs remain private for median 6.8 years. Fifty-six per cent still privately owned after year 7. LBOs funded by leading private equity firms no more likely to stay private than other buy-outs; no difference in longevity of divisional or full LBOs.
Wright, et al. (1993)	UK, France, Sweden, Holland	MBOs	State of development of asset and stock markets, legal infrastructures affecting the nature of private equity firms' structures and the differing roles and objectives of management and private equity firms influence timing and nature of exits from buy-outs.
Wright, et al. (1994)	UK	MBOs	Heterogeneity of longevity influenced by managerial objectives, fund characteristics and market characteristics; larger buy-outs and divisional buy-outs significantly more likely to exit more quickly.
Wright, et al. (1995)	UK	MBOs, MBIs	Heterogeneous longevity. Greatest exit rate in years 3–5; 71% still privately owned after year 7. MBIs greater rate of exit than MBOs in short term consistent with higher failure rate of MBIs. Exit rate influenced by year of deal [ie economic conditions]. To achieve timely exit, private equity firms are more likely to engage in closer (hands on) monitoring and to use exit-related equity ratchets on management's equity stakes.
Gottschalg (2007)	Worldwide	Private equity-backed buy-outs	Average longevity of private equity investment five years; average length of private equity investment compares favourably with that of blockholders in public firms.
Strömberg (2008)	Worldwide	Private equity-backed buy-outs	Fifty-eight per cent of deals exited more than five years after initial transaction; exits within two years account for 12% and have been decreasing.
Caselli, Garcia-Appendini and Ippolito (2009)	Italy	Early and late stage private equity	Duration of investment shorter than in US and UK; exit primarily by trade sale; IRR positively related to initial undervaluation, target firm risk, private equity firm experience; fund size, lock-up clauses, puttable securities and exit ratchets.
Jelic (2011)	UK	Private equity-backed and non-private equity-backed MBOs and MBIs	Average time to exit 46 months; smaller private equity-backed deals take longer to exit; private equity-backed MBOs exit sooner, have higher exit rates but fewer liquidations; syndicated private equity-backed MBOs exit sooner; backing by more reputable private equity firms increases likelihood of IPO exit.
De Prijcker, Manigart, Maesseneire and Wright (2013)	Europe	Private equity-backed buy-outs	More efficient and high-growth buy-outs more likely to exit successfully, particularly through an IPO or secondary buy-out, but not through a trade sale; having a cross-border lead private equity investor further increases the likelihood of a successful exit, especially for secondary buy-outs; cross-border syndicate investors are more important in trade sale exits.

Table 6: Asset sales and disposals

Authors	Country	Nature of transactions	Findings
Bhagat, et al. (1990)	US	LBOs	Forty-three per cent of assets in hostile LBOs sold within three years.
Muscarella and Vetsuypens (1990)	US	Reverse LBOs	Forty-three per cent of reverse LBOs divested or reorganised facilities; 25% made acquisitions; divestment activity greater among full LBOs.
Kaplan (1991)	US	LBOs	Thirty-four per cent of assets sold within six years of buy-out.
Liebeskind, et al. (1992)	US	LBOs	LBOs show significantly greater reduction in number of plants than control sample of matched public corporations and divested significantly more businesses in terms of mean employees, revenues and plants but not in terms of median revenue and plants; LBO managers downsized more lines of businesses than in the control group.
Wright, Thompson and Robbie (1992)	UK	MBOs	Eighteen per cent sold surplus land and buildings; 21% sold surplus equipment.
Seth and Easterwood (1993)	US	Large LBOs	Five out of 32 firms were complete bust ups, all involving buy-out (private equity) specialists; 14 out of 32 firms refocused by divesting unrelated lines; 21 out of 32 firms engaged in business focus by divesting related lines and 9 out of 32 in market focus.
Easterwood (1998)	US	LBOs	The average abnormal returns to publicly listed bonds of LBOs around asset sales depends on whether firm experiences financial distress; distressed firms experience negative and significant wealth effects, no distressed firms experience positive and significant returns; evidence is consistent with returns being determined by whether divestment price exceeds, equals or is below expected price for the anticipated divestment.
Wright, et al. (2007)	UK and Europe	MBOs, MBIs	Partial sales of subsidiaries or divisions of buy-outs accounted for a third of total realised in the UK in 2001 but accounted for a quarter in 2005; number of partial sales generally ranges between 70 and 100 per annum; €9 bn was raised through partial sales in UK in 2005; in continental Europe partial sales accounted for less than a twentieth of total exit value in 2005.
Hege, Lovo, Slovin and Sushka (2010)	US	Divestments to private equity and corporate acquirers	Private equity deals generate greater seller returns relative to sales to strategic buyers and gains to firms that sell assets to private equity are related to type of exit transaction and the subsequent increase in the asset's enterprise value, which exceeds that of benchmark firms; sellers earn a significantly greater gain for assets that exit by IPOs or a sale to a strategic buyer rather than by a secondary buy-out.

Table 7: Post-exit effects

Authors	Country	Nature of transactions	Findings
Holthausen and Larcker (1996)	US	Reverse LBOs	Leverage and management equity fall in reverse buy-outs but remain high relative to comparable listed corporations that have not undergone a buy-out. Pre-IPO accounting performance significantly higher than the median for the buy-outs' sector. Following IPO, accounting performance remains significantly above the firms' sector for four years but declines during this period. Change is positively related to changes in insider ownership but not to leverage.
Bruton, et al. (2002)	US	Reverse LBOs	Agency cost problems did not reappear immediately following a reverse buy-out but took several years to re-emerge.
Jelic, Saadouni and Wright (2005)	UK	Reverse MBOs, MBIs	Private equity-backed MBOs more underpriced than MBOs without venture capital backing but perform better than their non-VC-backed counterparts in the long run. Reverse MBOs backed by more reputable VCs exit earlier and perform better than those backed by less-prestigious VCs.
Cao and Lemer (2007, 2009)	US	Reverse LBOs	For a sample of 526 RLBOs between 1981 and 2003, three- and five-year stock performance appears to be as good as or better than other IPOs and the stock market as a whole, depending on the specification. There is evidence of a deterioration of returns over the time.
Von Drathen and Faleiro (2008)	UK	LBO-backed and non-LBO-backed IPOs	For a sample of 128 LBO-backed IPOs and 1,121 non-LBO backed IPOs during 1990–2006 LBO-backed IPOs outperform non-LBO-backed IPOs and a stock market index; percentage of equity retained by buy-out group post offering drives outperformance.
Jelic and Wright (2011)	UK	MBOs, MBIs	Improvements in employment, leverage, sales efficiency and sales up to five years post-IPO, especially for more reputable private equity firms; no significant change in employment and efficiency following non-float exit.

Table 8: Distress, failure and recovery

Authors	Country	Nature of transactions	Findings
Bruner and Eades (1992)	US	LBOs	Given REVCO's debt and preference dividend obligations and its context, low probability could have survived the first three years.
Kaplan and Stein (1993)	US	LBOs	Overpayment major cause of distress.
Wright, et al. (1996)	UK	MBOs, MBIs	Failed buy-outs more likely than non-failed buy-outs to be more highly leveraged, have lower liquidity ratios, be smaller and have lower labour productivity.
Andrade and Kaplan (1998)	US	LBOs	Net effect of high leverage and distress creates value after adjusting for market returns.
Citron, Wright, Rippington and Ball (2003)	UK	MBOs, MBIs	Secured creditors recover on average 62% of loans in failed buy-outs.
Citron and Wright (2008)	UK	MBOs, MBIs	Multiple secured creditors do not lead to inefficiency in the distress process but lead secured creditors obtained significantly higher recovery rates than other secured lenders.
Strömberg (2008)	Worldwide	Private equity-backed buy-outs	No significant relationship between bankruptcy and deal size; divisional buy-outs significantly less likely to end in distress; private-equity backed deals somewhat more likely to go bankrupt; no major difference in probability of bankruptcy across time periods; buy-outs of distressed firms significantly more likely to fail.
Demiroglu and James (2009)	US	P2P LBOs	Buy-outs sponsored by high-reputation private equity firms are less likely to experience financial distress or bankruptcy ex-post.
Sudarsanam, Wright and Huang (2011)	UK	P2P LBOs	P2Ps significantly higher default probability than non-acquired firms that remain public; high bankruptcy risk at going private increases chance of subsequent bankruptcy; post-P2P bankruptcy likelihood less when P2P is an MBO and with independent board pre-P2P.
Hotchkiss, Smith and Stromberg (2011)	US	Private equity-backed and non-PE-backed firms obtaining leveraged loan financing	Fifty per cent of defaults involve private equity-backed firms; private equity-backed firms not more likely to default than other firms with similar leverage characteristics; recovery rates for junior creditors lower for private equity-backed firms; private equity-backed firms in distress more likely to survive as an independent reorganised company.
Borell and Tykvova (2012)	Europe	LBOs, non-LBOs	Private equity investors select companies which are less financially constrained than comparable companies and financial constraints tighten after buy-out, especially for stand-alone transactions and in times of cheap debt; private equity-backed companies do not suffer from higher mortality rates, unless backed by inexperienced private equity funds.
Wilson and Wright (2013)	UK	MBOs, MBIs, private equity-backed buy-outs, non-buy-outs	Buyouts have a higher failure rate (entering administration) than non-buy-outs with MBIs having a higher failure rate than MBOs which in turn have a higher failure rate than private equity-backed buy-outs-buyins.

Table 9: Operating performance changes post-buy-out

Authors	Country	Nature of transactions	Findings
Kaplan (1989)	US	LBOs	Profits and cash flows increase post-buy-out; operating income/assets up to 36% higher for LBOs compared to industry median.
Muscarella and Vetsuypens (1990)	US	Reverse LBOs	Operating income/sales increases by more than all of control sample firms; improvements in operating performance compared to control sample mainly due to cost reductions rather than revenue or asset turnover improvements.
Singh (1990)	US	Reverse LBOs	Revenue growth post-buy-out, working capital management and operating income better than industry comparators, especially for divisional LBOs.
Smith (1990)	US	LBOs	Operating cash flow per employee and per dollar of operating assets improves post-buy-out; working capital improves post-buy-out; changes not due to lay-offs or capex, marketing etc, expenditures; cash flow to employees 71% higher than industry median.
Opler (1992)	US	LBOs	Operating cash flow/sales ratio increased by 16.5% on average three years post-buy-out.
Bruining (1992)	Holland	MBOs	Buy-outs display significantly higher than industry average cash flow and return on investment.
Wright, Thompson and Robbie (1992)	UK	MBOs, MBIs	Sixty-eight per cent showed improvements in profitability; 17% showed a fall; 43% reduced debt days and 31% increased creditor days.
Smart and Waldfogel (1994)	US	LBOs	Median shock effect of buy-out [correcting for forecast performance] of 30% improvement in operating income/sales ratio between pre-LBO year and second post-LBO year.
Chevalier (1995)	US	LBOs	Consumers may face higher prices in supermarkets subject to LBO.
Wright, Wilson and Robbie (1996)	UK	Matched MBOs and non-MBOs	Profitability higher for MBOs than comparable non-MBOs for up to five years.
Desbrieres and Schatt (2002)	France	MBOs, MBIs	Accounting performance changes depend on vendor source of deal.
Cressy, Munari and Malipero (2007)	UK	MBOs, MBIs	Operating profitability of private-equity backed buy-outs greater than for comparable non-buy-outs by 4.5% over first three buy-out years.
Boucly, Thesmar and Sraer (2009)	France	LBOs	Post-LBO growth in sales, assets, productivity and jobs higher in industries that have insufficient internal capital.

Table 9: Operating performance changes post-buy-out (continued)

Authors	Country	Nature of transactions	Findings
Gaspar (2009)	France	LBOs	LBOs exhibit significantly higher operating returns of 2%-3% relative to matched control group, due to increase in gross margins, productivity gains and improved working capital utilisation.
Meuleman, Amess, Wright and Scholes (2009)	UK	Divisional, family and secondary buy-outs	Higher growth in divisional buy-outs.
Weir, Jones and Wright (2009)	UK	P2Ps	Performance deteriorates relative to the pre-buy-out situation but firms do not perform worse than firms that remain public and there is some evidence that performance improves; private equity-backed deals have a negative effect on profitability relative to pre-buy-out; private equity-backed deals performed better than the industry average; non-private equity-backed buy-outs' expenses lower after going private and profit per employee higher, z-scores improved.
Guo, Hotchkiss and Song (2011)	US	P2Ps	Returns to pre- or post-buy-out capital significantly positive except for firms ending in distressed restructuring. Returns to post-buy-out capital greater when deal financed with a greater proportion of bank financing, or when there is more than one private equity sponsor.
Jelic and Wright (2011)	UK	MBOs, MBIs, private equity-backed	Significant improvements in output for private equity-backed buy-outs exiting by IPO; performance of secondary MBOs declines during first buy-out but performance in second buy-out stabilises until year 3.
Wilson, Wright, Siegel and Scholes (2011)	UK	MBOs, MBIs, private equity-backed, non-private equity Companies	Private equity-backed buy-outs show stronger economic performance before and during recession than comparable private and listed companies; with up to 4.8% higher ROA.
Bernstein and Sheen (2013)	US	Private equity-backed restaurant establishments	Health and sanitation violations decline post private equity buy-out and correlate with increases in customer satisfaction and declines in menu prices and workers per outlet.
Wilson and Wright (2013)	UK	Private equity-backed and non-PE-backed buy-outs	For 1998–2011, private equity-backed buy-outs have significant and positive associations with cumulative average growth rates for three- and five-year periods. For 2008–2011, private equity-backed buy-outs are significant and positively associated with growth in all variables for both CAGR three- and five-year periods, indicating their growth has held up better than non-private equity-backed private companies.
Zhou, Jelic and Wright (2013)	UK	SBOs	Strong evidence of a deterioration in long run abnormal returns following SBO deals; SBOs also perform worse than primary buy-outs in terms of profitability, labour productivity and growth.

Table 10: Productivity changes in buy-outs and private equity

Authors	Country	Unit of analysis	Nature of transactions	Findings
Lichtenberg and Siegel (1990a)	US	Plant	Divisional and full-firm LBOs and MBOs of public and private companies	Plants involved in LBOs and MBOs are 2% more productive than comparable plants before the buy-out; LBOs and especially MBO plants experience a substantial increase in productivity after a buy-out to 8.3% above; employment and wages of non-production workers at plants (but not production workers) declines after an LBO or MBO; no decline in R&D investment.
Arness (2002)	UK	Firm	MBOs	MBOs enhance productivity; marginal value added productivity of labour is significantly higher than in comparable non-buy-outs.
Amess (2003)	UK	Firm	MBOs	MBOs have higher technical efficiency two years pre-MBO and lower technical efficiency three or more years before than comparable non-buy-outs; MBOs have higher technical efficiency in each of four years after buy-out but not beyond four years than comparable non-buy-outs.
Harris, Siegel and Wright (2005)	UK	Plant	Divisional and full-firm LBOs and MBOs of public and private companies	Plants involved in MBOs are less productive than comparable plants before the buy-out; they experience a substantial increase in productivity after a buy-out; plants involved in an MBO experience a substantial reduction in employment.
Davis, et al. (2009)	US	Firm/ establish-ment	Matched private equity backed and non-private equity backed firms and establishments	Private equity-backed firms increase productivity in two years post transaction on average by 2% more than controls; 72% of increase due to more effective management; private equity firms more likely to close underperforming establishments; as measured by labour productivity, private-equity backed firms outperformed control firms before buyout.
Wilson, Wright, Siegel and Scholes (2011)	UK	Firm	MBOs, MBIs, private equity-backed, non-private equity companies	Private equity-backed buy-outs show stronger economic performance before and during recession than comparable private and listed companies with up to 11% productivity differential.
Alperovych, Amess and Wright (2013)	UK	Firm	Private equity-backed LBOs	Post-buy-out efficiency increases in three years post-deal but mainly in first two years; divisional buy-outs show higher efficiency improvements than private and secondary buy-outs; there is a positive and significant effect of private equity firm experience on post-buy-out efficiency.

Table 11: Strategy, investment, R&D and control system changes in buy-outs

Authors	Country	Unit of analysis	Nature of transactions	Findings
Wright (1986)	UK	Firm	MBOs	Divisional MBOs reduce dependence on trading activity with former parent.
Bull (1989)	US	Firm	MBOs, LBOs	Evidence of both cost reduction but greater managerial alertness to opportunities for wealth creation more important.
Kaplan (1989)	US	Firm	LBOs	Capex falls immediately following LBO.
Malone (1989)	US	Firm	Smaller LBOs	Major changes in marketing and NPD; cost control given greater importance.
Lichtenberg and Siegel (1990)	US	Plant	LBOs, MBOs	LBOs typically in low R&D industries. R&D fall both pre- and post-buy-out not statistically significant; R&D fall may be accounted for by divestment of more R&D-intensive divisions.
Muscarella and Vetsuypens (1990)	US	Firm	Reverse LBOs	Capex declines compared to pre-LBO.
Smith (1990)	US	Firm	LBOs	Capex and R&D fall immediately following LBO.
Wright, et al. (1990b)	UK	Firm	MBOs, MBIs	Divisional buy-outs reduce trading dependence on former parent by introducing new products previously prevented from introducing.
Green (1992)	UK	Firm	MBOs	Buy-out ownership allowed managers to perform tasks more effectively through greater independence to take decisions. Managers had sought to take entrepreneurial actions prior to buy-out but had been prevented from doing so because of the constraints imposed by parent's control.
Jones (1992)	UK	Firm	MBOs	Buy-outs result in better match between accounting control systems and context, with increased reliance on management control systems influenced by pressure to meet targets.
Wright, Thompson and Robbie (1992)	UK	Firm	Divisional, and full-firm MBOs of private companies	MBOs enhance new product development; 44% acquired new equipment and plant that would not otherwise have occurred.
Long and Ravenscraft (1993)	US	Division	LBOs and MBOs	LBOs result in a reduction in R&D expenditure but LBOs typically in low R&D industries; R&D intensive buy-outs outperform non-buy-out industry peers and other buy-outs without R&D expenditure.
Seth and Easterwood (1993)	US	Firm	LBOs	Buy-outs focus strategic activities towards more related businesses.

Table 11: Strategy, investment, R&D and control system changes in buy-outs (continued)

Authors	Country	Unit of analysis	Nature of transactions	Findings
Lei and Hitt (1995)	N/a	N/a	N/a	A theory paper. LBOs may lead to a reduced resource base for organisational learning and technology development.
Phan and Hill (1995)	US	Firm	LBOs	Buy-outs focus strategic activities and reduce diversification.
Robbie and Wright (1995)	UK	Firm	MBIs	Ability of management to effect strategic changes adversely affected by asymmetric information, need to attend to operational problems and market timing.
Wiersema and Liebeskind (1995)	US	Firm	Large LBOs	Large LBOs reduce lines of business and diversification.
Zahra (1995)	US	Firm	MBOs	MBOs result in more effective use of R&D expenditure and new product development.
Bruining and Wright (2002)	Holland	Firm	Divisional MBOs	MBOs result in more entrepreneurial activities such as new product and market development.
Bruining, Bonnet and Wright (2004)	Holland	Firm	MBOs	MBOs result in introduction of more strategic control systems that allow for entrepreneurial growth.
Brown, Fee and Thomas (2007)	US	Firm	Suppliers to LBOs and leveraged recapita-lisations	Suppliers to LBO firms experience significantly negative abnormal returns at announcements of downstream LBOs but not the case for leveraged recapitalisations. Suppliers who have made substantial relationship-specific investments are more negatively affected. This suggests increased leverage without accompanying change in organisational form does not lead to improved bargaining power.
Gottschalg (2007)	International	Firms	Private equity-backed LBOs	Pure restructuring deals less frequent than growth-oriented deals; combination of growth-oriented (acquisitions, new marketing and markets, new products, JVs etc) and restructuring-oriented (divestments, layoffs, cost-cutting, closure of non-core units etc) changes common; 43% had complete/partial replacement of management.
Lerner, Strömberg and Sørensen (2008)	Worldwide	Firm	Private equity-backed buy-outs	Buy-outs increase patent citations after private equity investment but quantity of patenting unchanged, maintain comparable levels of cutting-edge research, patent portfolios become more focused after private equity investment.

Table 11: Strategy, investment, R&D and control system changes in buy-outs (continued)

Authors	Country	Unit of analysis	Nature of transactions	Findings
Acharya, Hahn and Kehoe (2008)	UK	Firms	Private equity-backed LBOs	Significant replacement of CEOs and CFOs either at the time of the deal or afterwards and leveraging of external support important especially related to investee outperformance.
Cornelli and Karakas (2008)	UK	Firms	Private equity-backed P2Ps (LBOs and MBOs)	High CEO and board turnover during post-P2P restructuring.
Bloom, van Reenen and Sadun (2009)	Asia, Europe, US	Firms	Private equity-owned and other firms	Private equity management practices better than in other firms in terms of operational management, people-based management practices and evaluation practices.
Ughetto (2010)	Europe	Firm	Private equity-backed buy-outs	An increase in patenting post-buy-out.
Bruining, Wervaal and Wright (2011)	Holland	Firms	Private equity and non-private equity-backed buy-outs	Majority private equity-backed buy-outs significantly increase entrepreneurial management practices but increased debt negatively affects entrepreneurial management; entrepreneurial management positively affects exploration and exploitation, but the latter does not impact firm performance.
Cumming and Zambelli (2011)	Italy	Firms	Private equity-backed buy-outs	Following legislative changes, private equity investors become more involved in the management and governance of the target firm by increasing ownership stake, the use of convertible debt, adopting more control rights especially right to CEO and the right to take majority board position.
Gong and Wu (2011)	US	Firm	LBO	CEO turnover rate of 51% within two years of LBO; boards replace CEOs in companies with high agency costs, low pre-LBO ROA and entrenched CEOs.

Table 12: Drivers of post-buy-out changes

Authors	Country	Nature of transactions	Findings
Malone (1989)	US	Smaller private equity-backed LBOs	Management equity stake important driver of post-buy-out changes.
Thompson, Wright and Robbie (1992)	UK	MBOs, MBIs returning to market	Management team equity stake by far larger impact on relative performance of returns to equity investors from buy-out to exit than leverage, equity ratchets etc.
Denis (1994)	US	LBO and leveraged recapitalisation	Gains in LBO greater than in leveraged recapitalisation attributed to more important role of equity ownership and active investors in LBOs.
Phan and Hill (1995)	US	LBOs of listed corporations	Managerial equity stakes had a much stronger effect on performance than debt levels for periods of three and five years following the buy-out.
Robbie and Wright (1995)	UK	Smaller MBIs	Private equity firms less closely involved; debt commitment and covenants important trigger for corrective action.
Cotter and Peck (2001)	US	LBOs	Active monitoring by a buy-out specialist substitutes for tighter debt terms in monitoring and motivating managers of LBOs. Buy-out specialists that control a majority of the post-LBO equity use less debt in transactions. Buy-out specialists that closely monitor managers through stronger representation on the board also use less debt.
Cressy, Munari and Malipero (2007)	UK	MBOs, MBIs	Industry specialisation, but not buy-out stage specialisation, of private equity firm adds significantly to increase in operating profitability of private equity-backed buy-outs over first three buy-out years.
Cornelli and Karakas (2008)	UK	Private equity-backed P2Ps (LBOs and MBOs)	Board representation and active involvement by private equity firms changes according to private equity firm style and anticipated challenges of the investment; board size falls less and private equity firm representation higher when there is CEO turnover and for deals that take longer to exit.
Acharya, Hahn and Kehoe (2008)	UK	Private equity-backed LBOs	High levels of private equity firm interaction with executives during the initial 100-day value creation plan, creating an active board.
Acharya, Kehoe and Reyner (2009)	UK	Board members of large private equity portfolio firms and PLCs	Value creation focus of private equity boards versus governance compliance and risk management focus of PLC boards. private equity boards lead strategy through intense engagement with top management, PLC boards accompany strategy of top management. Almost complete alignment in objectives between executive and non-executive directors only in private equity boards. Private equity board members receive information primarily cash-focused and intensive induction during due diligence; PLC board members collect more diverse information and undergo a more structured (formal) induction.

Table 12: Drivers of post-buy-out changes (continued)

Authors	Country	Nature of transactions	Findings
Meuleman, Amess, Wright and Scholes (2009)	UK	Divisional, family and secondary buy-outs	Private equity firms' experience significant driver of higher growth in divisional buy-outs; private equity experience important influence on growth but not profitability or efficiency; intensity of private equity involvement associated with higher profitability and growth; amount of management investment insignificant or negative relationship with profitability or productivity change.
Demiroglu and James (2009)	US	P2P LBOs	Buy-outs sponsored by high-reputation private equities pay narrower loan spreads, have fewer and less restrictive financial loan covenants, use less traditional bank debt, borrow more and at a lower cost from institutional loan markets, and have higher leverage; no direct effect of private equity firm reputation on buy-out valuations.
Leslie and Oyer (2009)	US	P2Ps that IPO'd	Private equity-owned companies use much stronger incentives for top executives and have substantially higher debt levels. Little evidence that private equity-owned firms outperform public firms in profitability or operational efficiency; compensation and debt differences between private equity-owned companies and public companies disappear over a very short period (one to two years) after the private equity-owned firm goes public.
Pe'er and Gottschalg (2011)	US	LBOs	Positive association between a more aligned institutional context (US states dominated by Republican party) and volume of buy-out activity and different measures of performance for these buy-outs.
Alperovych, Amess and Wright (2013)	UK	Private equity-backed SBOs and non-SBOs	Private equity firm experience significantly increases efficiency post-buy-out.
Wilson and Wright (2013)	UK	Private equity-backed buy-outs and non-buy-outs	Extent of UK experience of private equity firms is significant and positively associated with growth in value added, assets, sales, equity and employment; foreign private equity firms are significant and positively associated with growth in asset and equity, but significant and negatively associated with employment growth; board size and director sector experience positively associated with growth; director age and number of directorships negatively associated with growth.
Zhou, Jelic and Wright (2013)	UK	SBOs	Private equity firm's reputation and change in management are important determinants of improvements in profitability and labour productivity, respectively; high debt and high percentage of management equity associated with poor performance measured by profitability and labour productivity; none of the buy-out mechanisms (ie, financial, governance, operating) generate growth during the secondary buy-out phase.

Table 13: Secondary buy-outs

Authors	Country	Nature of transactions	Findings
Achleitner and Figge (2012); Achleitner, et al. (2012)	Europe and North America	SBOs	No difference in performance of primary and secondary deals.
Bonini (2012)	Europe	SBOs and primary deals	SBOs underperform compared to primary deals in terms of operating income.
Jenkinson and SoUS (2012)	Europe	SBOs and primary deals	SBOs underperform compared to primary deals in terms of operating income.
Wang (2012)	UK	SBOs	The positive effects of secondary buy-outs on firms' operating cash flows seem to be achieved through expansions, not by running the firms more efficiently.
Alperovych, Amess and Wright (2013)	UK	SBOs and private equity-backed non-SBOs	Secondary buy-outs remain below the average in terms of performance.
Arcot, Fluck, Gaspar and Hege (2013)	US and 12 European countries	SBOs	SBOs more likely if buyer fund under pressure to invest or seller fund under pressure to exit; buyers under pressure may pay relatively more and sellers under pressure accept lower prices; sellers under pressure have more bargaining power than buyers under pressure.
Degeorge, Martin and Phalippou (2013)	Worldwide	SBOs	SBOs underperform primary buy-outs in terms of cash multiples and IRR while their risk is similar; SBOs between specialised private equity firms perform better.
Zhou, Jelic and Wright (2013)	UK	SBOs and primary buy-outs	Strong evidence of a deterioration in long-run abnormal returns following SBO deals; SBOs also perform worse than primary buy-outs in terms of profitability, labour productivity and growth.

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Glossary

Source This glossary is adapted from one originally published by the European Private Equity and Venture Capital Association.

Absolute return The return an asset achieves over time, without comparison to the overall market, other assets or benchmarks.

Acquisition The obtaining of control, possession or ownership of a company.

Acting in concert Persons acting in concert are persons who, pursuant to an agreement or understanding (whether formal or informal), actively cooperate, throughout the acquisition by any of them acquiring shares in a company, to obtain or consolidate control of that company.

Alternative Investment Market (AIM) The London Stock Exchange's market for new, fast-growing companies. AIM offers the benefit of operating both an electronic quote and order trading facility. It commenced trading in June 1995.

Alternative investments/assets Investments covering among others private equity and venture capital, hedge funds, real estate, infrastructure, commodities, or collateralised debt obligations (CDOs).

Anchor LP An investor in a private equity/venture capital fund that commits a significant amount of the total fund-raising to the fund upfront.

Arm's-length The relationship between persons (whether companies or not) who deal on purely commercial terms, without the influence of other factors such as common ownership; a parent/subsidiary relationship between companies; existing family or business relationships between individuals.

Asset allocation A fund manager's allocation of his investment portfolio into various asset classes (eg, stocks, bonds, private equity).

Asset class A category of investment, which is defined by the main characteristics of risk, liquidity and return.

Asset cover One of the indicators used by banks to calculate debt ceiling. It is the extent to which debt is secured against the company's assets. Banks apply different weighting factors to various classes of asset, depending on their liquidity and the typical reliability of the valuation.

Asset deal A sale of assets not essential for the vendor's core business.

Asset stripping Dismantling an acquired business by selling off operational and/or financial assets.

Auction A process in which an investment bank or other corporate finance adviser invites several private equity houses to look at a particular company that is for sale and to offer a bid to buy it.

Basis point or bps One hundredth of a per cent (0.01%).

Beauty parade An accepted mechanism for an investee company to select a provider of financial and professional services. The investee normally draws up a shortlist of potential providers, who are then invited to pitch for the business.

BIMBO Buy-in-management-buyout. A combination of a management buy-in (MBI) and a management buy-out (MBO).

Bond A debt obligation, often secured by a mortgage on some property or asset of the issuer.

Break fee A break fee (also referred to as an inducement fee) is a sum agreed between the offeror and the target company to be paid to the offeror by the target only if specified events occur which prevent the offer from proceeding or if the offer fails.

Bridge financing Financing made available to a company in the period of transition from being privately owned to being publicly quoted.

Bridge vehicle A fund raised by a general partner on an interim basis, before launching a new fund. Bridge vehicles are often of a smaller size, compared to the normal fund.

Broker One who acts as an intermediary between a buyer and a seller of securities.

Business model The underlying model of a company's business operation.

Business plan A document which describes a company's management, business concept and goals. It is a vital tool for any company seeking any type of investment funding, but is also of great value in clarifying the underlying position and realities for the management/owners themselves.

Buy-and-build strategy Active, organic growth of portfolio companies through add-on acquisitions.

Buyback A corporation's repurchase of its own stock or bonds.

Buy-out A transaction in which a business, business unit or company is acquired from the current shareholders (the vendor).

BVCA British Private Equity and Venture Capital Association.

Capital gains If an asset is sold at a higher price than that at which it was bought, there is a capital gain.

Capital markets A marketplace in which long-term capital is raised by industry and commerce, the government and local authorities. Stock exchanges are part of capital markets.

Capital under management This is the total amount of funds available to fund managers for future investments plus the amount of funds already invested (at cost) and not yet divested.

Captive fund A fund in which the parent organisation of the management company contributes most of the capital ie, where the parent organisation allocates money to a captive fund from its own internal sources and reinvests realised capital gains into the fund.

Carried interest An entitlement accruing to an investment fund's management company or individual members of the fund management team. Carried interest becomes payable once the investors have achieved repayment of their original investment in the fund plus a defined hurdle rate.

Cash alternative If the offeror offers shareholders of the target company the choice between offeror securities and cash, the cash element is known as the cash alternative.

Cash flow EBITDA +/– Working Capital Movement – capital expenditure – taxation.

Chinese walls Deliberate information barriers within a large company to prevent conflict of interest between different departments.

Class of securities Classes of securities are securities that share the same terms and benefits. Classes of capital stock are generally alphabetically designated (eg, Class C Common Stock, Class A Preferred Stock etc).

Clawback option A clawback option requires the general partners in an investment fund to return capital to the limited partners to the extent that the general partner has received more than its agreed profit split. A general partner clawback option ensures that, if an investment fund exits from strong performers early in its life and weaker performers are left at the end, the limited partners get back their capital contributions, expenses and any preferred return promised in the partnership agreement.

Closed-end fund Fund with a fixed number of shares. These are offered during an initial subscription period. Unlike open-end mutual funds, closed-end funds do not stand ready to issue and redeem shares on a continuous basis.

Closing A closing is reached when a certain amount of money has been committed to a private equity fund. Several intermediate closings can occur before the final closing of a fund is reached.

Club deal A deal where several buyout houses pool their resources together when buying a company of significant size, which would be otherwise inaccessible for them alone, either due to the purchase price or fund investment restrictions.

Co-lead investor Investor who has contributed a similar share to the lead investor in a private equity joint venture or syndicated deal.

Collateral Assets pledged to a lender until a loan is repaid. If the borrower does not pay back the money owed, the lender has the legal right to seize the collateral and sell it to pay off the loan.

Commercial paper An unsecured obligation issued by a corporation or bank to finance its short-term credit needs (eg, accounts receivable or inventory). Maturities typically range from two to 270 days.

Commitment A limited partner's obligation to provide a certain amount of capital to a private equity fund when the general partner asks for capital.

Competent Authority A term used within Directives produced by the European Commission to describe a body identified by a member state of the EU as being responsible for specified functions related to the securities market within that member state. Areas of competence include the recognition of firms permitted to offer investment services; the approval of prospectuses for public offerings; the recognition and surveillance of stock markets. A member state may nominate different Competent Authorities for different areas of responsibility.

Completion The moment when legal documents are signed, normally also the moment at which funds are advanced by investors.

Compliance The process of ensuring that any other person or entity operating within the financial services industry complies at all times with the regulations currently in force. Many of these regulations are designed to protect the public from misleading claims about returns they could receive from investments, while others outlaw insider trading. Especially in the UK, regulation of the financial services industry has developed beyond recognition in recent years.

Concert parties Any persons or parties acting in concert (see definition of acting in concert).

Conditions precedent Certain conditions that a private equity firm may insist are satisfied before a deal is completed.

Confidentiality agreement (or non-disclosure agreement) An agreement in which an employee, customer or vendor agrees not to disclose confidential information to any third party or to use it in any context other than that of company business.

Conflict of interest For example, in a public to private transaction, a potential conflict of interest invariably arises if the directors of the target company are (or will be) directors of the offerer, in which case their support for the offer gives rise to a potential conflict with the interests of the shareholders of the target company.

Connected persons Companies related by ownership or control of each other or common ownership or control by a third person or company, and individuals connected by family relationships or, in some instances, by existing business relationships (such as individuals who are partners).

Contributed capital Contributed capital represents the portion of capital that was initially raised (committed by investors) which has been drawn down in a private equity fund.

Conversion The act of exchanging one form of security or common stock equivalent for another security of the same company (eg, preferred stock for common stock, debt securities for equity).

Convertible security A financial security (usually preferred stock or bonds) that is exchangeable for another type of security (usually ordinary shares) at a fixed price. The convertible feature is designed to enhance marketability of preferred stock as an additional incentive to investors.

Covenant lite (cov-lite) loan A loan with lighter or no covenants, providing the borrower more operational flexibility while limiting the lender's protection against strong changes in his/her financial performance.

Covenants An agreement by a company to perform or to abstain from certain activities during a certain time period. Covenants usually remain in force for the full duration of the time a private equity investor holds a stated amount of securities and may terminate on the occurrence of a certain event such as a public offering. Affirmative covenants define acts which a company must perform and may include payment of taxes, insurance, maintenance of corporate existence etc. Negative covenants define acts which the company must not perform and can include the prohibition of mergers, sale or purchase of assets, issuing of securities etc.

Credit spread The difference in yield between two securities that are identical (in maturity and duration) except for their credit quality. Often the credit spread is used to compare corporate bonds with government bonds.

Cumulative dividend A dividend which accumulates if not paid in the period when due and must be paid in full before other dividends are paid on the company's ordinary shares.

Cumulative preferred stock A form of preference shares which provide that, if one or more dividends is omitted, those dividends accumulate and must be paid in full before other dividends may be paid on the company's ordinary shares.

Deal flow The number of investment opportunities available to a private equity house.

Debenture An instrument securing the indebtedness of a company over its assets.

Debt service Cash required in a given period to pay interest and matured principal on outstanding debt.

Debt:equity ratio A measure of a company's leverage, calculated by dividing long-term debt by ordinary shareholders' equity.

Defined Benefit Plans A pension plan that promises a specified benefit to be paid to the employee at retirement. In a Defined Benefit Plan the company bears the risk of the pension scheme being under-funded.

Defined Contribution Plans A pension plan that does not promise a specific amount of benefits at retirement. Both employee and employer contribute to a pension plan, the employee then has the right to the balance of the account. This balance may fluctuate over the lifetime of the pension plan.

Delisting The removal of a company from a listing on an exchange.

Derivative or derivative security A financial instrument or security whose characteristics and value depend upon the characteristics and value of an underlying instrument or asset (typically a commodity, bond, equity or currency). Examples include futures, options and mortgage-backed securities.

Dilution Dilution occurs when an investor's percentage in a company is reduced by the issue of new securities. It may also refer to the effect on earnings per share and book value per share if convertible securities are converted or stock options are exercised.

Distribution The amount disbursed to the limited partners in a private equity fund.

Dividend cover A ratio that measures the number of times a dividend could have been paid out of the year's earnings. The higher the dividend cover, the safer the dividend.

DPI (Distribution to Paid-In) The DPI measures the cumulative distributions returned to investors (limited partners) as a proportion of the cumulative paid-in capital. DPI is net of fees and carried interest. This is also often called the 'cash-on-cash return'. This is a relative measure of the fund's 'realised' return on investment.

Drag-along rights If the venture capitalist sells his shareholding, he can require other shareholders to sell their shares to the same purchaser on the same terms.

Drawdown When investors commit themselves to back a private equity fund, all the funding may not be needed at once. Some is used and drawn down later. The amount that is drawn down is defined as contributed capital.

Due diligence For private equity professionals, due diligence can apply either narrowly to the process of verifying the data presented in a business plan/sales memorandum, or broadly to complete the investigation and analytical process that precedes a commitment to invest. The purpose is to determine the attractiveness, risks and issues regarding a transaction with a potential investee company. Due diligence should enable fund managers to realise an effective decision process and optimise the deal terms.

Earn-out An arrangement whereby the sellers of a business may receive additional future payments for the business, conditional to the performance of the business following the deal.

EBIT Earnings before interest and taxes – a financial measurement often used in valuing a company (price paid expressed as a multiple of EBIT).

EBITDA Earnings before interest, taxes, depreciation and amortisation – a financial measurement often used in valuing a company (price paid expressed as a multiple of EBITDA).

Envy ratio The ratio between the effective price paid by management and that paid by the investing institution for their respective holdings in the Newco in an MBO or MBI.

Equity Ownership interest in a company, represented by the shares issued to investors.

Equity kicker In a mezzanine loan, equity warrants payable on exit.

Equity ratio One of the indicators used by banks to calculate debt ceiling. It consists of net equity divided by the company's total assets. Banks apply yardstick ratios for different industry sectors to arrive at a minimum level of funding that shareholders are required to contribute.

EVCA European Private Equity and Venture Capital Association. European trade body representing the venture capital and private equity industry.

Exercise price The price at which shares subject to a stock option may be purchased. Also known as the strike price.

Exit Liquidation of holdings by a private equity fund. Among the various methods of exiting an investment are trade sale; sale by public offering (including IPO); write-offs; repayment of preference shares/loans; sale to another venture capitalist; sale to a financial institution.

Exit strategy A private equity house or venture capitalist's plan to end an investment, liquidate holdings and achieve maximum return.

Expansion capital Also called development capital. Financing provided for the growth and expansion of a company. Capital may be used to finance increased production capacity; market or product development; or provide additional working capital.

Financial secondaries A secondary deal involving a fund's portfolio of companies that are relatively mature (five to seven years old), with some exits already realised, but not all capital drawn down.

Financial Conduct Authority (FCA) A UK independent non-governmental body which exercises statutory powers under the Financial Services and Markets Act 2000. The FCA is the Competent Authority which regulates the securities industry in the UK.

Free cash flow Free cash flow is defined as the after-tax operating earnings of the company, plus non-cash charges (eg, depreciation), less investment in working capital, property, plant and equipment, and other assets.

Fund A private equity investment fund is a vehicle for enabling pooled investment by a number of investors in equity and equity-related securities of companies (investee companies). These are generally private companies whose shares are not quoted on any stock exchange. The fund can take the form either of a company or an unincorporated arrangement such as a limited partnership.

Fund-of-funds A fund that takes equity positions in other funds. A fund-of-funds that primarily invests in new funds is a primary or primaries fund-of-funds. One that focuses on investing in existing funds is referred to as a secondary fund-of-funds.

Fund size The total amount of capital committed by the limited and general partners of a fund.

Fund-raising The process in which private equity firms themselves raise money to create an investment fund. These funds are raised from private, corporate or institutional investors, who make commitments to the fund which will be invested by the general partner.

General partner (GP) A partner in a private equity management company who has unlimited personal liability for the debts and obligations of the limited partnership and the right to participate in its management.

General partner's commitment Fund managers typically invest their personal capital right alongside their investors' capital, which often works to instil a higher level of confidence in the fund. The limited partners look for a meaningful general partner investment of 1% to 3% of the fund.

Goodwill The value of a business over and above its tangible assets. It includes the business's reputation and contacts.

Grandfather rights Special rights given to a limited partner to access a follow-on fund, after having been invested in the previous fund.

Hedge fund An investment vehicle, where managers invest in a variety of markets and securities, to achieve the highest absolute return. Investments could be either made in financial markets, using stocks, bonds, commodities, currencies and derivatives, or by using advanced investment techniques such as shorting, leveraging, swaps and using arbitrage.

Hedging An investment that is made to offset the risk of price movements of one security, by taking an opposite position in a different security, hence balancing the risk of the first investment. Examples are derivatives, such as options and futures, linked to a certain security.

High-yield bonds These play a similar role to mezzanine finance in bridging the gap between senior debt and equity. High-yield bonds are senior subordinated notes not secured against the assets of the company, and which therefore attract a higher rate of interest than senior debt.

Hurdle rate A rate of return that must be achieved before a private equity fund manager becomes entitled to carried interest payments from a fund; usually set as an IRR (internal rate of return) but related to the risk free rate of return an investor could obtain in the same country as the fund is investing in.

Independent fund One in which the main source of fund-raising is from third parties.

Information rights A contractual right to obtain information about a company, including, for example, attending board meetings. Typically granted to private equity firms investing in privately held companies.

Institutional buy-out (IBO) Outside financial investors (eg, private equity houses) buy the business from the vendor. The existing management may be involved from the start and purchase a small stake. Alternatively, the investor may install its own management.

Interest cover One indicator used by banks to calculate debt ceiling. It consists of EBIT divided by net interest expenses. This ratio is a measure of the company's ability to service its debt.

IPO (Initial Public Offering) The sale or distribution of a company's shares to the public for the first time. An IPO of the investee company's shares is one of the ways in which a private equity fund can exit from an investment.

IRR (Internal Rate of Return) The IRR is the net return earned by investors (limited partners) from the fund, from inception to a stated date. The IRR is calculated as an annualised effective compounded rate of return using monthly cash flows to and from investors, together with the residual value as a terminal cash flow to investors. The IRR is therefore net ie, after deduction of all fees and carried interest. In cases of captive or semi-captive investment vehicles without fees or carried interest, the IRR is adjusted to create a synthetic net return using assumed fees and carried interest.

IRR, definition of An IRR is the value of *r* that satisfies this equation where *Ct* is the annual cash flow in year *t* and *NPV* is the net present value (equal to zero).

$$NPV = \sum_{t=0}^{N} \frac{C_t}{(1+r)^t} = 0$$

J curve The curve generated by plotting the returns generated by a private equity fund against time (from inception to termination). The common practice of paying the management fee and start-up costs out of the first drawdowns does not produce an equivalent book value. As a result, a private equity fund will initially show a negative return. When the first realisations are made, the fund returns start to rise quite steeply. After about three to five years the interim IRR will give a reasonable indication of the definitive IRR. This period is generally shorter for buy-out funds than for early stage and expansion funds.

Junk bond A junk bond is a bond or company debt, which is rated as 'BB' or lower, indicating a higher risk of 'not' being repaid by the company. Junk bonds are also known as 'high-yield bonds'. Within the private equity market, junk bonds are related to buyout investments, when bonds of a transaction are rated as 'BB' or lower. See also high-yield bonds.

LBO (leveraged buyout) A buy-out in which the Newco's capital structure incorporates a level of debt, much of which is normally secured against the company's assets.

Lead investor Investor who has contributed the majority share in a private equity joint venture or syndicated deal.

Leverage loan market The market in which leverage loans are syndicated by a lead bank and hence sold on to other borrowers.

Leveraged recapitalisation Transaction in which a company borrows a large sum of money and distributes it to its shareholders.

LIBOR See London Inter-bank Offer Rate.

Limited partner (LP) An investor in a limited partnership (ie, private equity fund).

Limited partnership The legal structure used by most venture and private equity funds. The partnership is usually a fixed-life investment vehicle, and consists of a general partner (the management firm, which has unlimited liability) and limited partners (the investors, who have limited liability and are not involved with the day-to-day operations). The general partner receives a management fee and a percentage of the profits. The limited partners receive income, capital gains and tax benefits. The general partner (management firm) manages the partnership using policy laid down in a partnership agreement. The agreement also covers, terms, fees, structures and other items agreed between the limited partners and the general partner.

Listing The quotation of shares on a recognised stock exchange.

London Inter-bank Offer Rate (LIBOR) The interest rate that the largest international banks charge each other in the London inter-bank market for loans. This is used as a basis for gauging the price of loans outside the inter-bank market.

Management buy-in (MBI) A buy-out in which external managers take over the company. Financing is provided to enable a manager or group of managers from outside the target company to buy into the company with the support of private equity investors. Where many of the non-managerial employees are included in the buy-out group it is called a management/employee buyout (MEBO).

Management buyout (MBO) A buy-out in which the target's management team acquires an existing product line or business from the vendor with the support of private equity investors.

Management fees Compensation received by a private equity fund's management firm. This annual management charge is equal to a certain percentage of investors' initial commitments to the fund.

Market capitalisation (or market cap) The number of shares outstanding multiplied by the market price of the stock. Market capitalisation is a common standard for describing the worth of a public company.

Mezzanine finance Loan finance that is halfway between equity and secured debt, either unsecured or with junior access to security. Typically, some of the return on the instrument is deferred in the form of rolled-up payment-in-kind (PIK) interest and/or an equity kicker. A mezzanine fund is a fund focusing on mezzanine financing.

Net debt Net debt is calculated as short- and long-term interest-bearing debt minus cash (and equivalents). The concept of net debt is the same under cash- and accrual-based financial reporting. High levels of net debt impose a call on future revenue flows to service that debt.

Newco A generic term for a new company incorporated for the purpose of acquiring the target business, unit or company from the vendor in a buy-out transaction.

Non-Executive Director (NED or NXD) A member of the board of directors of a company who has no management or executive function within the underlying company.

Offer The offer (or bid) made for the target company by the Newco offeror established by the private equity provider and the participating directors of the target company (those directors who are part of the management buy-out team).

Open end fund A fund which sells as many shares as investors demand.

Option A contractual right to purchase something (such as stock) at a future time or within a specified period at a specified price.

Ordinary shares (or common shares:stock) Owners of ordinary shares are typically entitled to vote on the selection of directors and other important issues. They may also receive dividends on their holdings, but ordinary shares do not guarantee a return on the investment. If a company is liquidated, the owners of bonds and preferred stock are paid before the holders of ordinary shares.

PE ratio Price/earnings ratio – the market price of a company's ordinary share divided by earnings per share for the most recent year.

Payment in kind (PIK) A feature of a security permitting the issuer to pay dividends or interest in the form of additional securities of the same class.

Permanent establishment A permanent establishment is, according to the OECD definition, a fixed place of business through which the business of an enterprise is wholly or partly carried on. Within private equity, permanent establishment refers to the possibility that a limited partner, either owning or having a stake in a private equity or venture capital fund, is considered as a resident of that country and hence liable for the national taxation.

Pillar one pension Pillar one refers to the public pension provisions, which are provided by the government.

Pillar two pension Pillar two refers to the occupational pension provisions, which are provided by the employer.

PIPE Generally referring to a private investment in public equity.

Placement agent A person or entity acting as an agent for a private equity house in raising investment funds.

Portfolio company (or investee company) The company or entity into which a private equity fund invests directly.

Preference shares (or preferred stock) Shares which have preference over ordinary shares, including priority in receipt of dividends and upon liquidation. In some cases these shares also have redemption rights, preferential voting rights, and rights of conversion into ordinary shares. Venture capitalists generally make investments in the form of convertible preference shares.

Primary loan market (or syndicated loan market) Market in which a new loan is syndicated/sold. See syndicated loan.

Public offering An offering of stock to the general investing public. For a public offering, registration of prospectus material with a national competent authority is generally compulsory.

Public-to-private A transaction involving an offer for the entire share capital of a listed target company by a new company – Newco – and the subsequent re-registration of that listed target company as a private company.

Quartile The IRR which lies a quarter from the bottom (lower quartile point) or top (upper quartile point) of the table ranking the individual fund IRRs.

Ratchet/sliding scale A bonus where capital can be reclaimed by managers of investee companies, depending on the achievement of corporate goals.

Recapitalisation Change in a company's capital structure. For example, a company may want to issue bonds to replace its preferred stock in order to save on taxes. Recapitalisation can be an alternative exit strategy for venture capitalists and leveraged buyout sponsors.

Redemption Repurchase by a company of its securities from an investor.

Representations and Warranties ('Reps and Warranties') Declarations made by the seller of one or more target companies in relation to the financial, legal and commercial status of the target companies, the financial instruments to be issued, the assets owned or used and the liabilities due, and whereby such persons represent and warrant that such declarations are true and correct as of a certain date.

Retail investor A non-institutional investor who purchases securities for his own account.

Revolving facilities A committed loan facility allowing a borrower to draw down and repay amounts (up to a limit) for short periods throughout the life of the facility. Amounts repaid can be re-borrowed, thereby combining some of the flexibility of the overdraft facility with the certainty of a term loan.

RVPI (Residual Value to Paid-In) The RVPI measures the value of the investors' (limited partners') interest held within the fund, relative to the cumulative paid-in capital. RVPI is net of fees and carried interest. This is a measure of the fund's 'unrealised' return on investment.

SEC Securities and Exchange Commission in the US.

Secondary investment An investment where a fund buys either a portfolio of direct investments of an existing private equity fund or limited partners' positions in these funds.

Secondary loan market Market in which loans trade after their primary market syndication.

Secondary market A market or exchange in which securities are bought and sold following their initial sale. Investors in the primary market, by contrast, purchase shares directly from the issuer.

Secured debt Loans secured against a company's assets.

Semi-captive fund A fund in which, although the main shareholder contributes a large part of the capital, a significant share of the capital is raised from third parties.

Senior debt A debt instrument which specifically has a higher priority for repayment than that of general unsecured creditors. Typically used for long-term financing for low-risk companies or for later-stage financing.

Share purchase agreement Agreement further to which one or more purchasers buy shares issued by one or more target companies from one or more sellers. The agreement will set out the type and amount of shares sold, the representations and warranties, the indemnification in the event of misrepresentation and may also include post-closing covenants (such as the obligation for the sellers not to compete with the purchasers).

Squeeze-out Statutory provisions entitling an offeror who has acquired the support of a certain percentage of shareholders to acquire the balance of shares in the target company.

Staple financing A prearranged financing package that a financial adviser or investment bank offers to the potential buyer in an auction process, when putting up a company for sale.

Subordinated debt (junior debt) Debt that ranks lower than other loans and will be paid last in case of liquidation.

Subscription agreement Agreement further to which one or more investors undertake to subscribe for shares. The agreement will set out the type and amount of instruments to be issued, the representations and warranties, the indemnification in the event of misrepresentation and may also include post-closing covenants (such as further investment obligations or restrictions on the transfer of the instruments that will be acquired).

Syndicated loan A very large loan in which a group of banks work together to provide funds for one borrower. There is usually one lead bank that takes a small percentage of the loan and syndicates the rest to other banks.

Target company The company that the offeror is considering investing in. In the context of a public-to-private deal this company will be the listed company that an offeror is considering investing in with the objective of bringing the company back into private ownership.

Tax transparency A fund structure or vehicle is tax transparent when the fund itself is not liable to taxation and the investment in an underlying company is treated as if it would be a direct investment for the initial investor (the LP), who is taxed only when the investment structure distributes its gains and revenues.

Trade sale The sale of company shares to industrial investors.

TUPE Transfer of Undertakings (Protection of Employment) Regulations 2006. UK legislation designed to protect employees' interests when either assets are sold or operations are transferred by employers without selling a company's shares.

TVPI (Total Value to Paid-In) TVPI is the sum of the DPI and the RVPI. TVPI is net of fees and carried interest.

Unsecured debt Loans not secured against a company's assets.

Upper quartile The point at which 25% of all returns in a group are greater and 75% are lower.

Vesting The process by which an employee is granted full ownership of conferred rights such as stock options and warrants (which then become vested rights). Rights which have not yet been vested (unvested rights) may not be sold or traded and can be forfeited.

Vintage year The year of fund formation and first drawdown of capital.

Warrants Type of security usually issued together with a loan, a bond or preferred stock. Warrants are also known as stock-purchase warrants or subscription warrants, and allow an investor to buy ordinary shares at a predetermined price.

Warranty Statement, usually contained in a share subscription or purchase agreement, as to the existing condition of the company which, if not true, supports a legal action for compensation by way of money damages.

Weighted average cost of capital Weighted average cost of capital is a discount rate used in valuation models reflecting the opportunity cost of all capital providers, weighted by their relative contribution to the company's total capital.

Write-down A reduction in the value of an investment.

Write-off The write-down of a portfolio company's value to zero. The value of the investment in the portfolio company is eliminated and the return to investors is zero or negative.

Write-up An increase in the value of an investment. An upward adjustment of an asset's value for accounting and reporting purposes.

Yield The rate of return on a debt instrument if the full amount of interest and principal are paid on schedule. Current yield is the interest rate as a percentage of the initial investment.

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