Private markets education

Leveraged buyout

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- Leveraged buyout is the largest segment of private market strategies as measured by assets under management.
- Buyout managers utilize leverage to take a controlling position in mature companies with the aim of growing earnings through value-add initiatives.
- Success in value-add initiatives typically drives return premiums above public markets over a long time horizon.

Source: Fotolia

Leveraged buyout in a nutshell

- The aim of leveraged buyout (LBO) investing is to use leverage to purchase a controlling interest in a company with the intention to improve profitability and exit at a higher multiple.
- Target firms are typically mature companies, later in their lifecycle with predictable cash flows.
- Buyout managers focus on enacting transformational change. Successful execution of these programs can improve earnings growth and exit opportunities.
- Potential sources of value-add include optimizing revenue growth, expanding margins, employing leverage, sale of noncore businesses, and management overhaul.
- Typical exit avenues include sale to a strategic partner, to another buyout fund, or IPO.
- Buyout delivered a median 16.1% pooled vintage year internal rate of return (IRR) and 1.71x total value to paid-in (TVPI) multiple over the 1993–2014 period. The standard deviation of vintage year IRR was 5.37% and 0.27x on a TVPI basis.
- Buyout strategies outperformed public markets by about 800bps when observing public market equivalent (PME) over the 1993–2014 period.
- Buyout returns are generally linked to economic cycles, with valuations, earnings growth, credit availability, and dry powder all influencers of returns.
- While returns are generally linked to equity markets, buyout funds expand investors' universe with exposure to active control transactions where fund managers have the flexibility to implement company-specific long-term change, some of which may not be macro dependent.
- With significant differences in manager performance, key risks to leveraged buyouts include leverage, operational execution, and exit timing. Other, more general private market risks also apply, including significant illiquidity of fund vehicles, limited control, and high fees.

This report is part of a series of short primers on specific private market strategies. You will find more information on the client portal. You can also contact your advisor for assistance.

Leverage buyout in a nutshell

16.1%	Median pooled IRR
~800bp	Median annualized IRR outperformance vs. public markets
1.71x	Median pooled TVPI (total value to paid in) multiple
-0.9%	Lower quartile IRR*
32.5%	Upper quartile IRR*
0.76	Correlation to public markets

Source: Based on historical data between 1993 and 2014 using Cambridge Associates data, UBS estimates. *Quartile IRR's reflect minimum and maximum value across vintage years.

What does the leveraged buyout strategy do?

Leveraged buyout (LBO) is the most active private equity strategy by historical assets under management (AUM) and the most familiar to investors. The aim of LBO investing is to use leverage to purchase a controlling interest in a company with the intention to improve profitability and exit at a higher multiple.

Target LBO investments

- Target firms are typically mature companies, late in their life-cycle, with predictable cash flows, tangible assets, and limited capital expenditures or working capital requirements.
- Target firms can be private, public, state-owned, spin-offs, family businesses, or secondary buyout companies from other private equity firms.
- Sector expertise is critical both at the macro level to identify underappreciated market areas, and at the micro level to find individual companies that offer better investment opportunities.
- Once a target is identified, sponsors carry out a purchase price analysis using assumptions about comparable valuations, leverage levels, and the potential future exit value of the investment.
- Buyout portfolios tend to be more concentrated (between 10 and 15 companies) compared to other strategies.

Leverage, holding period, and exit

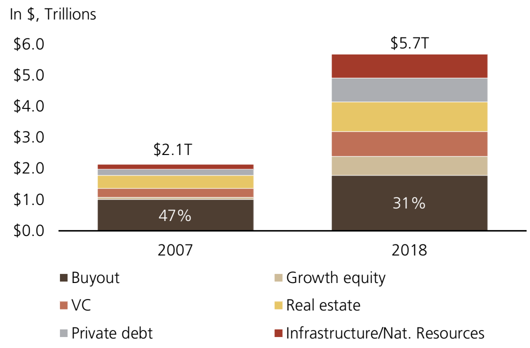
- Overall, returns are driven by leverage, multiple expansion, and earnings growth. Earnings growth is a critical driver as it can influence both a higher exit multiple and the ability to pay down debt.
- Debt is usually tranched between senior and junior debt, and is sourced from banks, institutions, or private debt funds.
- Leverage levels typically range between 50% and 75%. Assets and cash flows are used as collateral.
- The holding period for a particular investment can range from 2–5 years, with the total fund duration typically 10 years with two one-year extensions.
- During the holding period, macro dynamics as well as operational value-add projects (covered in the next section) can influence earnings.
- Sponsors have three main avenues to exit investments: trade sale to a strategic partner (i.e., a firm in a similar line of business), secondary buyout (i.e., sale to another LBO fund), or via IPO.
- LBO firms typically favor trade sales as they can help speed up the exit process given familiarity of the business, and achieve higher exit valuations due to perceived synergies.

Sources of value-add

By utilizing their operating experience and network of executive professionals, buyout funds seek to add value for investors by sourcing and enacting transformational change through control positions in mature companies.

Fig. 1: The private market industry has grown rapidly in the last decade

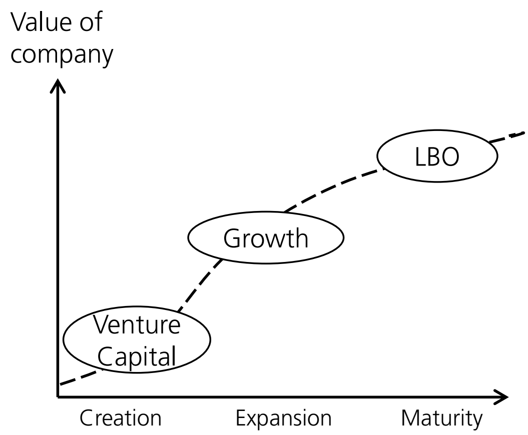
With USD 1.8trn, buyout is the largest private equity strategy by AUM



Source: Preqin. Total exposure (unrealized value + dry powder) as of year-end for 2007, 30 June for 2018.

Fig. 2: Investing in a company's life cycle

Buyout investors typically seek to invest in mature businesses



Source: UBS

- **Improving revenue growth:** Buyout managers look to uncover underperforming businesses and improve existing ones. Levers include price increases, entering adjacent and underserved markets, and refocusing product development.
- **Expand margins**: Buyout managers that excel in implementing lean operations can drive earnings growth that is less dependent on the macro environment. Improved procurement practices, supply chain management, and capacity utilization are examples used to expand gross margins. Eliminating redundant administrative functions can further reduce common costs across portfolio companies.
- **Sale of noncore businesses:** Buyout managers can shed noncore assets to refocus management toward primary businesses. Proceeds may be used to pay down debt to further increase equity value.
- **Sourcing proprietary deals:** Buyout funds with extensive sourcing capabilities and pipeline of proprietary deal flow can improve deal speed and quality versus relying on a competitive auction process.
- **Optimizing capital structure:** Successful buyout managers can skillfully deploy or reduce leverage to optimize capital structure and enhance returns, using ongoing cash flows to pay down debt and increase equity value.
- **Management overhaul:** Buyout managers may overhaul existing management teams by utilizing their network of executive professionals to source talent.
- **Managing exit process**: Buyout managers need to adeptly assess the timing and exit method to maximize realized gains.

Performance analysis

Introduction to vintage year returns

- Private market returns are assessed using vintage year performance, which reflects the sum of all cash flows (contributions, distributions) from funds incepted in the referenced year.
- For example, if hypothetical fund ABC reported vintage year 2005 IRR of 15%, ABC was incepted in 2005 and the IRR reflects all investment activity performed over the course of its lifecycle: contributions and distributions made in 2005, 2006, 2007, etc., until the end of the fund.
- If hypothetical fund XYZ reported vintage year 2008 TVPI of 1.3x, the fund returned USD 1.30 for every USD 1 invested through the duration of the fund's life (2008–2018).

Historical performance and comparisons versus public market returns

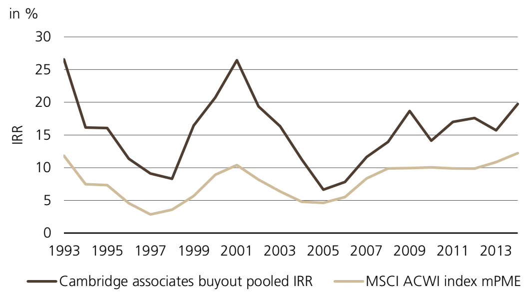
- Using Cambridge Associates data, buyout delivered a median 16.1% pooled vintage year IRR and 1.71x TVPI over the 1993–2014 period.
- The standard deviation of vintage year IRR was 5.37% and 0.27x on a TVPI basis over the 1993–2014 period.
- Global buyout strategies outperformed public markets when observing PME (public market equivalent) returns. With the median MSCI ACWI PME of 8.3%, buyout outperformed global listed equities by about 800bps per annum over the 1993–2014 period.

Table 1: Median pooled performance for vintage years 1993–2014

	Global Buyout	Global Growth	US VC
Median Pooled IRR (%)	16.11	12.80	15.10
Std Deviation IRR (%)	5.37	10.01	30.95
Median Pooled TVPI	1.71x	1.66x	1.75x
Std Deviation TVPI	0.27x	0.59x	1.48x

Source: Cambridge Associates, UBS

Fig. 3: Buyout pooled IRR vs. MSCI ACWI PME
Buyout has outperformed public markets across vintage years 1993–2014



Source: Cambridge Associates, UBS

- Buyout returns have consistently outperformed the MSCI ACWI PME in all 22 vintage years observed, indicating a durable return premium historically.
- We observe significant differences in lower quartile versus upper quartile returns, indicating elevated dispersion between fund managers and highlighting the importance of manager due diligence.

How do buyout returns compare versus other private equity strategies?

- Buyout strategies generated the highest median IRR and TVPI multiples versus growth equity and venture capital strategies.
- Buyout funds target mature companies with recurring cash flows. As a result, buyout returns exhibit lower variability versus other private equity strategies when observing the standard deviation in IRR and TVPI multiples.
- Per vintage year, buyout funds also show fewer outliers compared to growth equity and venture capital.

Leveraged buyout and the business cycle

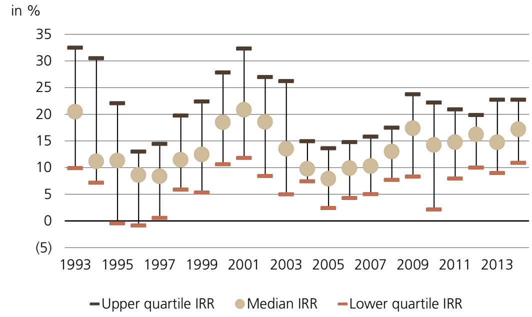
- Buyout returns are generally linked to economic cycles, with valuations, earnings growth, credit availability, and dry powder all influencing returns.
- The IPO and M&A environment can affect exit opportunities for buyout managers.
- Buyout returns were highest soon after public market peaks (2001 and 2009 vintages). These periods exhibited lower purchase price multiples, cost of capital, and competition for deal flow.
- Buyout returns were lowest a few years before the dot-com bubble (1998 vintage) and global financial crisis (2005 vintage). These periods exhibited higher purchase price multiples, higher cost of capital, and heightened competition for deal flow.
- Buyout managers have fared well versus public markets before and during prior market peaks.
- When observing performance before the financial crisis, buyout returns in 2006–2007 vintage years outperformed the MSCI ACWI PME by around 280bps. Additionally, before the dot-com bubble in 1999–2000, these vintage years outperformed the MSCI ACWI PME by around 1,100bps.
- When observing performance during the financial crisis, buyout returns in the 2008 vintage year outperformed the MSCI ACWI PME by some 400bps. Additionally, during the dot-com bubble in 2001–2002, these vintage years outperformed the MSCI ACWI PME by some 1,300bps.

Buyout in your portfolio

- Buyout funds can add differentiated sources of return as they expand investors' universe with exposure to managers that have flexibility to implement company-specific, long-term change. These changes may or may not be linked to the economic environment.
- Buyout funds can earn a premium above public market returns for providing long-term capital, enabling this active approach to sourcing, executing, and managing control equity investments.

Fig. 4: Buyout return dispersion per vintage year

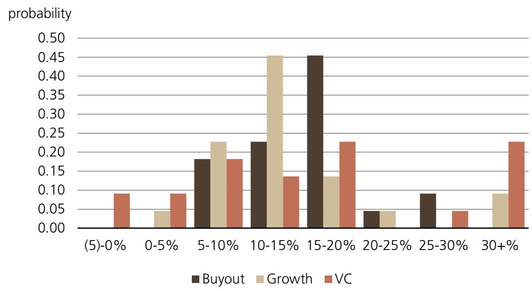
High level of dispersions within each vintage year shows importance of manager selection



Source: Cambridge Associates, UBS

Fig. 5: Return distribution across private equity strategies for vintage years 1993-2014

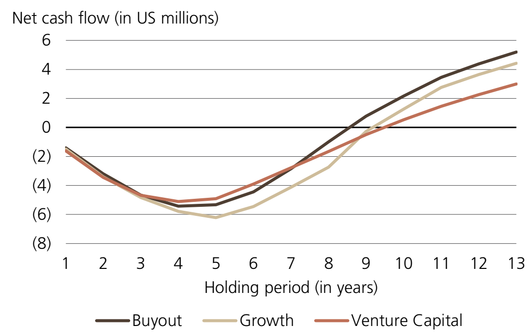
Buyout vintage year returns displayed more concentration versus other PE strategies



Source: Cambridge Associates, UBS

Fig. 6: Cumulative net cash flows of various private equity strategies ("J" Curve)

Buyout strategies typically first to break even versus other PE strategies



Source: Preqin, UBS. Figures normalized to USD 10m commitment

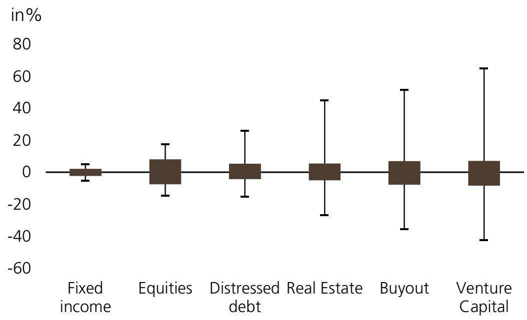
- Buyout funds are longer-term investments that can take 8–9 years to break even when measuring historical cash flows. This duration is about a year shorter than that of growth equity and venture capital funds as those strategies invest in earlier-stage companies that could take longer to develop and realize value.

Risks

- Risks of investing in underlying companies include substantial deal-related leverage, portfolio companies' potential inability to service this debt, and deal timing.
- Risks of investing in buyout funds include blind pool structure, potential for unwanted or unintended sector risks or concentration, and competition for investment opportunities from strategic buyers and other buyout firms.
- Given the complex nature of pooling together financial, business, and managerial resources, there are execution risks in enacting transformational change.
- Ability of private equity funds to exit portfolio company investments and return capital to investors is dependent on prevailing equity market conditions.
- Other, more general private market risks also apply, including significant illiquidity of fund vehicles, limited control, disclosure, and transparency on underlying holdings, and high fees. These risks cannot be fully eliminated, but can be reduced through extensive institutional due diligence and rigorous investment and monitoring processes.

Fig. 7: Public vs. private manager fund returns

Buyout similar to other private equity strategies as it exhibits higher dispersion compared to traditional markets



Source: Preqin, Bloomberg, UBS. Dispersion of fund returns relative to median performance. Data references 1995-2015 for private market funds, 1995-2017 for traditional equity and fixed income funds

Appendix

Selected definitions

- **Correlation**: the degree to which the fluctuations of one variable are similar to those of another.
- **Leverage**: the use of borrowed capital or instruments to increase the potential return (but also potential losses) of an investment, a simple example is a mortgage used in real estate transactions.
- **Leveraged buyout funds**: a private equity strategy using borrowed capital to gain control of a company.
- **Illiquidity premia**: the premium that an investor can demand depending on how difficult it is to convert the underlying security can be converted to cash.
- **Multiples**: a term that measures some aspect of a company's financial well-being, determined by dividing one metric by another metric. The metric in the numerator is typically larger than the one in the denominator, because the top metric is usually supposed to be many times larger than the bottom metric.
- **Multiple expansion**: describes the way a particular valuation metric increases to reflect a higher value assigned to an underlying investment.
- **Value add**: describes the operational, business, or structural improvements private market managers seek through underlying portfolio investments.
- **Cash flows**: cash flow is the net amount of cash and cash-equivalents being transferred into and out of a fund.
- **Public Market Equivalent (PME):** a method that converts public market returns to a benchmark that can be compared to private market returns.
- **IRR**: a return method used to evaluate private market investments and reflects the discount rate at which the present value of an investment's future cash flow equals the cost of the investment.
- **TVPI (Total Value to Paid In**): a return metric that describes the total capital distributed back to the investor + residual value left in the fund divided by invested capital.
- **Exit**: the time period in which an investor can convert holdings into cash to be liquidated over a designated period of time.
- **IPO**: the first sale of stock by a private company to the public. Also referred to as an "initial public offering."
- **Standard deviation**: a measure of the degree to which individual values vary from the distribution mean. The higher the number, the greater the risk.
- **Dry powder**: refers to cash reserves kept on hand by a private markets firm to cover future obligations, purchase assets or make acquisitions.
- **J-curve**: illustrates a period of initial negative cash flows (contributions) towards positive cash flows (distributions back to the investor) over a period of time.
- **Sponsor**: the general partner in a limited partnership who organizes and signs up investors.
- **Secondary buyout**: describes a sale between private market firms
- **Trade sale/strategic sale**: describes a sale of a business to another business operating in a similar industry.
- **Senior debt**: loans or debt securities that have claim prior to junior obligations and equity on a corporation's assets in the event of liquidation.

- **Junior debt**: loan or security that ranks below other loans or securities with regard to claims on assets or earnings. In the case of borrower default, creditors who own subordinated debt won't be paid out until after senior debt holders are paid in full.
- **Vintage year**: is the year in which the first influx of investment capital is delivered to a project or company. This marks when capital is contributed by venture capital, a private equity fund or a partnership drawing down from its investors.
- **M&A**: mergers and acquisitions is a general term that refers to the consolidation of companies or assets through various types of financial transactions. M&A can include a number of different transactions, such as mergers, acquisitions, consolidations, tender offers, purchase of assets and management acquisitions.
- **Blind pool**: money collected from several people which is put into a fund and invested for their profit. It is left unspecified which properties are to be acquired.
- **Unit economics**: a measure of direct revenues and costs on a unit basis for a particular business model.
- **Minority stake**: reflects a non-controlling interest that is less than 50% of a particular entity.
- **Spin off**: describes the separation of an independent company from a larger parent.
- **Control provisions**: designed to provide a level of influence over significant operational and business matters.
- **Redemption rights**: gives investors the right to force a company to repurchase their shares after a period of time.
- **Idiosyncratic risk**: risk associated with a narrow set of factors pertaining to a particular company. Risk that has little association with overall market risk.
- **Tag-along provisions**: provides a minority shareholder the right to join in on a sale of a company that is initiated by a majority shareholder.

Appendix

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