

Counterpoint Global Insights

Public to Private Equity in the United States: A Long-Term Look

CONSILIENT OBSERVER | September 1, 2026

Introduction

Large institutional investors, including pension funds and endowments, have shifted their allocations in U.S. equities from public to private markets over the past 40 years. This change has had reverberations for investors, executives, policymakers, and asset managers of public and private equity.

For public equity, we include all of the stocks of companies that trade on an exchange in the U.S. The S&P 500, an index that tracks the stocks of 500 large companies in the U.S. and represents about 80 percent of the total market, had a solid 11.5 percent compound annual growth rate (CAGR) for the 40 years ended 2025. Still, there are today about one-half as many public companies as there were in 1996.

For private equity, we include buyouts and venture capital (VC). We examine long-term trends in each of these markets, including their size, patterns of how they have bought and sold businesses, and return on investment.

This report is an update of one from August 2020, and a lot has changed in the ensuing half dozen years. Most notably, the period of “easy money,” which started in 2009 when the Federal Reserve and other central banks lowered policy rates to essentially zero in the wake of the Great Recession, ended in 2021. As a result, the real yield on the 10-year U.S. Treasury note went from about -1.0 percent in late 2021 to roughly 2.4 percent in August 2026.

There have also been regulatory and business initiatives aimed at making investing in private equity more accessible to individual investors. Institutional investors have been the primary source of capital for this asset class, but a majority of surveyed money managers now expect that at least one-half of flows into private markets will come through investments targeted at individuals within the next couple of years.¹

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Private equity funds typically have lives of about 10 years and extension options. In rough terms, the managers of these funds use the first five years to enter investments and the second five years to exit them and return capital to the limited partners. In recent years, exits as a percentage of assets under management have been below historical averages, forcing private equity managers to take creative measures to provide liquidity to their investors.² This effect has been compounded by the fact that access to capital has made it easier for companies to remain private for longer periods than they did in the past.³

From the end of World War II through the early 1970s, many companies went public to raise capital to fund their growth. For instance, the number of public companies grew roughly fivefold from 1946 to 1976, as many companies needed to finance “their mass production and mass distribution.”⁴

Until the recent boom in generative artificial intelligence (GenAI), young companies generally relied more on intangible assets and had a less voracious appetite for capital. Further, the growing private market provided sufficient money to expand and offer liquidity to employees and some investors.

The rise of GenAI has changed this. Companies competing in this industry are spending huge sums to create supply that meets demand. Large public companies such as Microsoft, Amazon, and Alphabet have seen their free cash flow drop substantially as profit increases have been more than offset by a massive surge in capital expenditures.

Young companies in the GenAI industry, including OpenAI, Anthropic, and xAI, a division of SpaceX, have had rapid sales growth but substantial negative free cash flow. They must raise capital to fund operations and pay employees.

Equity capital raised through U.S. initial public offerings (IPOs) in the first half of 2026 alone would rank among the highest full-year totals in decades.

Stepping back, we can point to a few drivers of the move from public to private equity. First, sophisticated investors, including pension funds and endowments, have shifted their asset allocation toward private markets in recent decades. The motivations include attractive prospective investment returns and the benefit of diversification.

For example, Yale University’s endowment, run by its chief investment officer David Swensen from 1985 to 2021, delivered excellent long-term returns and is considered a pioneer in asset allocation. When Swensen took the helm in the mid-1980s, about 65 percent of the portfolio was allocated to U.S. equities, 15 percent to U.S. bonds, and none to private equity. Today, public equities, fixed income, and cash are less than 15 percent of the endowment’s allocation. Buyout and venture capital funds are 48 percent.⁵

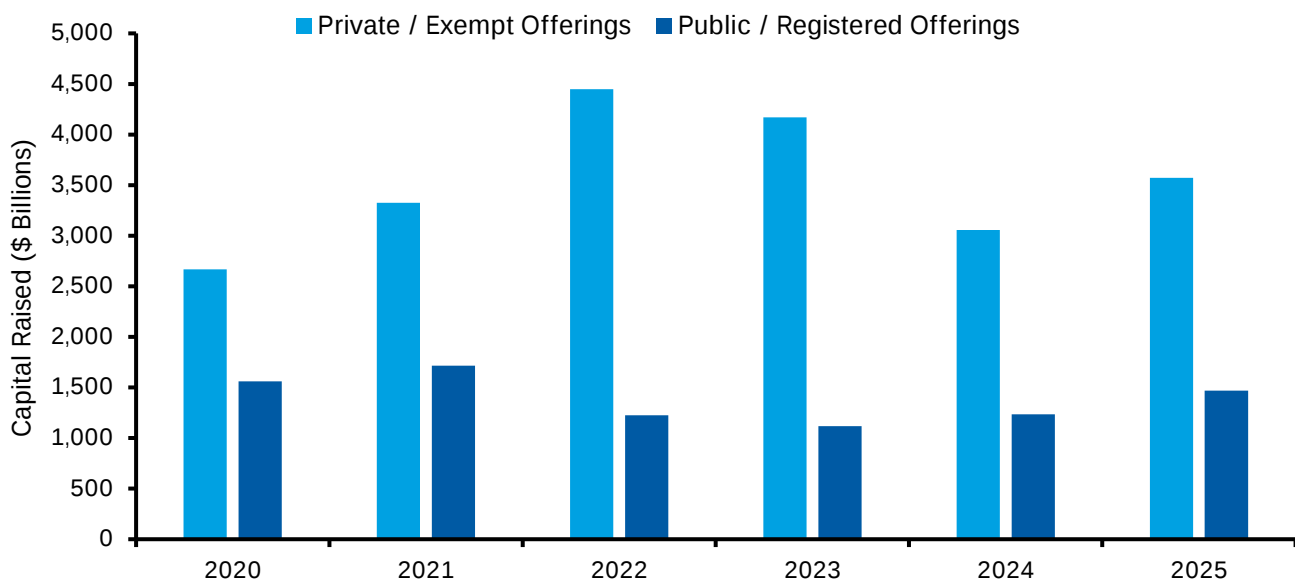
Second, the focus of entrepreneurial finance shifted from public to private markets backed by institutional evolution and regulatory change. Take the growth of late-stage investments as a case in point. Around 10 percent of investments were late stage in 1980 compared to about 70 percent in 2025.⁶

Companies have consistently raised more money in private markets than in public markets each year since the Great Recession.⁷ Exhibit 1 shows the capital raised in U.S. private markets was more than double that of public

markets from 2020 to 2025. This shift has implications for holding periods, the perceived volatility of the returns, and liquidity.

Regulation and legislation have also played an important role in the evolution of capital markets. A company's propensity to go public can be framed as a cost-benefit analysis, and the costs have risen since the 1990s.⁸ Deregulation, and in particular the National Securities Markets Improvement Act of 1996, increased the supply of private capital to startups and late-stage private companies.⁹

Exhibit 1: Sources of Capital Raised in U.S. Markets, 2020-2025



Source: Counterpoint Global and U.S. Securities and Exchange Commission, Office of the Advocate for Small Business Capital Formation, Annual Reports for fiscal years 2020-2025.

Note: Fiscal years; Reflects both debt and equity; Includes pooled investment vehicles.

Finally, there is the role of the “institutional imperative,” which Warren Buffett, chairman of Berkshire Hathaway, describes as “the tendency of executives to mindlessly imitate the behavior of their peers, no matter how foolish it may be to do so.”¹⁰ David Swensen wrote a very influential book called *Pioneering Portfolio Management*.¹¹ Yale moved into alternative investments early and generated a 13.7 percent CAGR during Swensen’s tenure, outperforming the average endowment by 3.4 percentage points per year.¹²

As we will see, lots of other endowments and pension funds followed suit and shifted their asset allocations away from a traditional mix of stocks and bonds toward a greater weighting of alternative investments, including buyout and venture capital funds. They have had mixed results.

We start by assessing where we are today. We focus on U.S. public equities, buyout funds, and venture capital funds. We do not cover other important alternative assets, including buyout and venture capital outside the U.S., real estate, private credit, natural resources, and infrastructure. The U.S. asset classes we review are generally the largest and oldest. Private equity technically refers to both buyout and venture capital funds, but it is common for industry professionals to use the labels “buyout funds” and “private equity” interchangeably.

Lay of the Land

We start by examining the size, investor flows, investor returns, distribution of investment returns, and dispersion of returns for buyout funds, venture capital funds, and U.S. public equities. We also comment briefly on persistence, the degree to which past results anticipate future results, for buyout and venture capital funds.

Size. As of year-end 2025, there were approximately 3,500 listed companies in the U.S., roughly 13,500 firms owned by private equity buyout funds, and more than 50,000 companies backed by venture capital firms.¹³ The average market capitalization for a public company was roughly \$20.7 billion at the end of 2025, up from about \$800 million in 1976, adjusted for inflation.

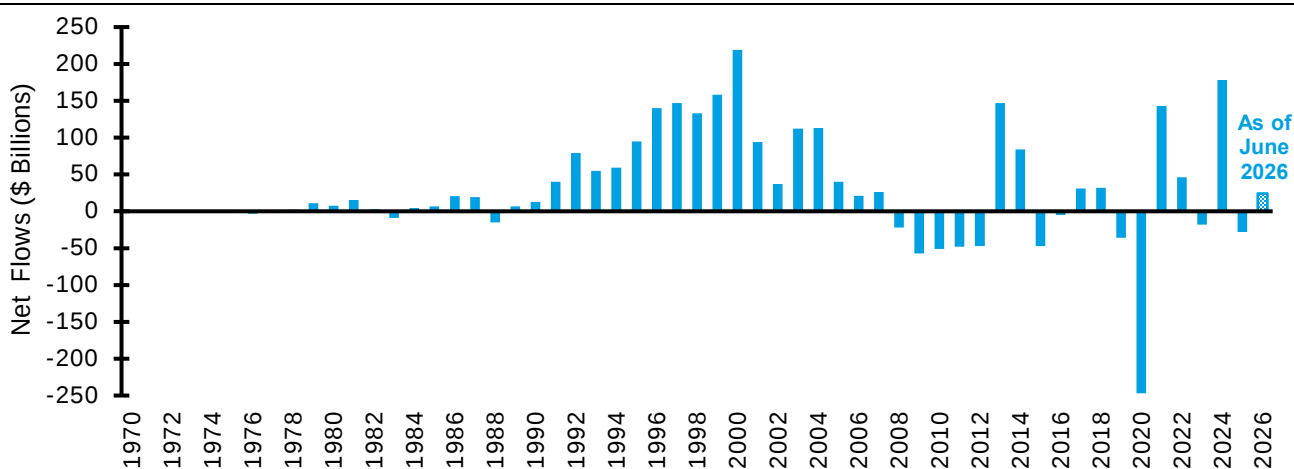
U.S. domestic equity mutual funds have assets under management (AUM) of \$12.7 trillion, with active funds controlling \$7.2 trillion and index funds \$5.4 trillion, at year-end 2025. U.S. domestic equity exchange-traded funds manage \$8.6 trillion, with active funds controlling \$0.5 trillion and index funds \$8.1 trillion. These figures do not include \$9.9 trillion in separately managed accounts and collective investment trusts.¹⁴ The capitalization of U.S. public equities was approximately \$72.5 trillion as of December 31, 2025.

Buyout funds in the U.S. have an estimated \$2.9 trillion in AUM as of September 30, 2025.¹⁵ This includes \$0.8 trillion in “dry powder,” money committed by limited partners but not yet drawn. Because buyout firms acquire companies using a substantial amount of debt, purchasing power is higher than dry powder.

Venture capital funds have AUM of approximately \$1.4 trillion, which includes dry powder of \$0.3 trillion.¹⁶ Notwithstanding the desire of many large investors to increase their exposure to private equity, the market capacity is substantially smaller than it is in public markets.

Investor Flows. Exhibit 2 shows investor flows into U.S. equity mutual funds and equity exchange-traded funds (ETFs) from 1970 through June 2026. Flows mostly followed the market for the first four decades of this period as investors generally bought equity funds after the market rose and sold after the market fell. This relationship has weakened since the Great Recession. Notwithstanding generally attractive returns in the stock market, equity funds have had outflows in a majority of the years since 2008. For example, investors withdrew \$28 billion in 2025 even though the S&P 500 had a total return of 18 percent.

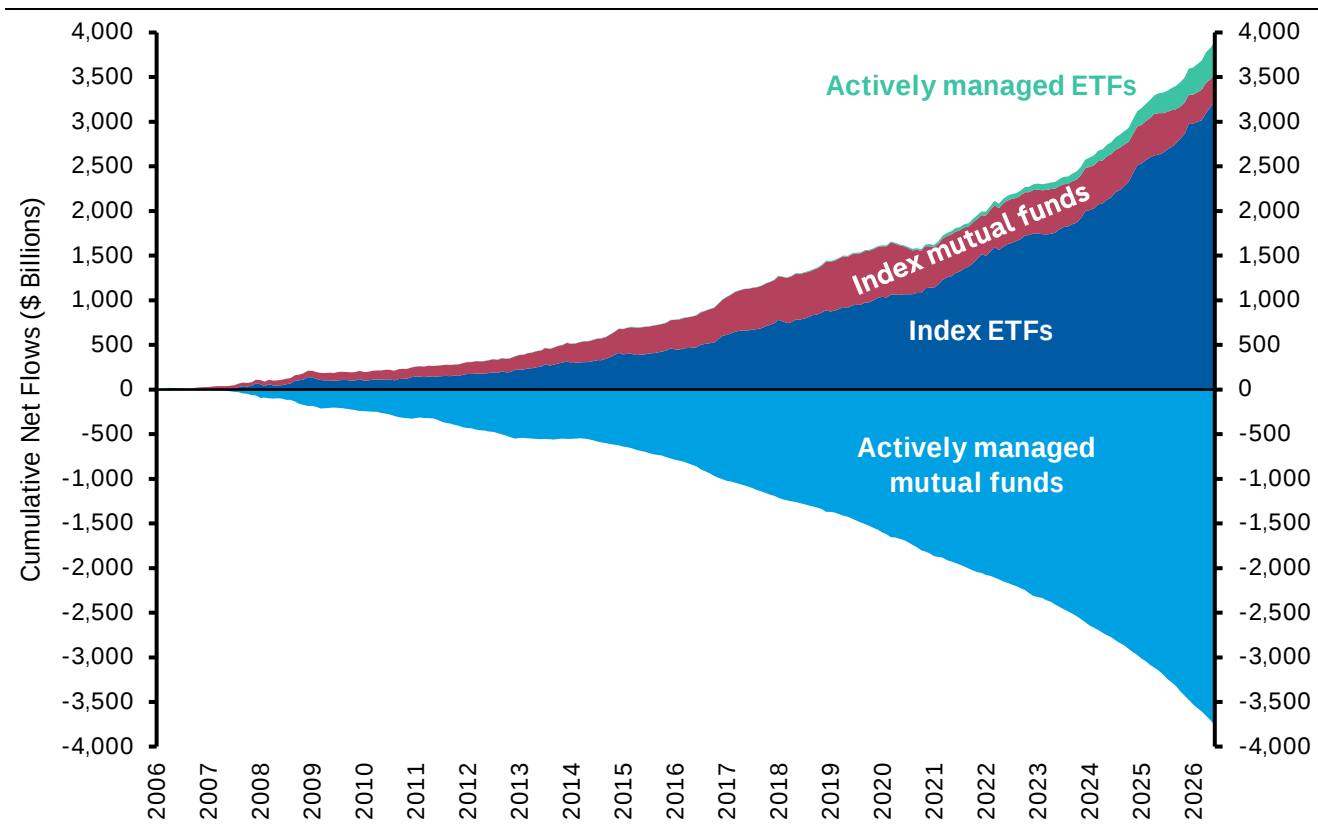
Exhibit 2: Investor Flows into U.S. Equity Mutual Funds and ETFs, 1970-June 2026



Source: Counterpoint Global; Investment Company Institute; and Morningstar Direct.

The big story in the U.S. public equity markets is the shift from active to indexed, or rules-based, funds. Exhibit 3 shows that since 2006, investors have directed \$3.5 trillion into index mutual funds and ETFs. They have withdrawn \$3.4 trillion from active funds, with an outflow of \$3.761 trillion from active mutual funds offset by an inflow of almost \$367 billion into active ETFs.¹⁷ Investors have shifted their equity allocations from actively managed equity funds to index funds and private equity.

Exhibit 3: Cumulative Flows from U.S. Active to Index Funds, 2006-June 2026



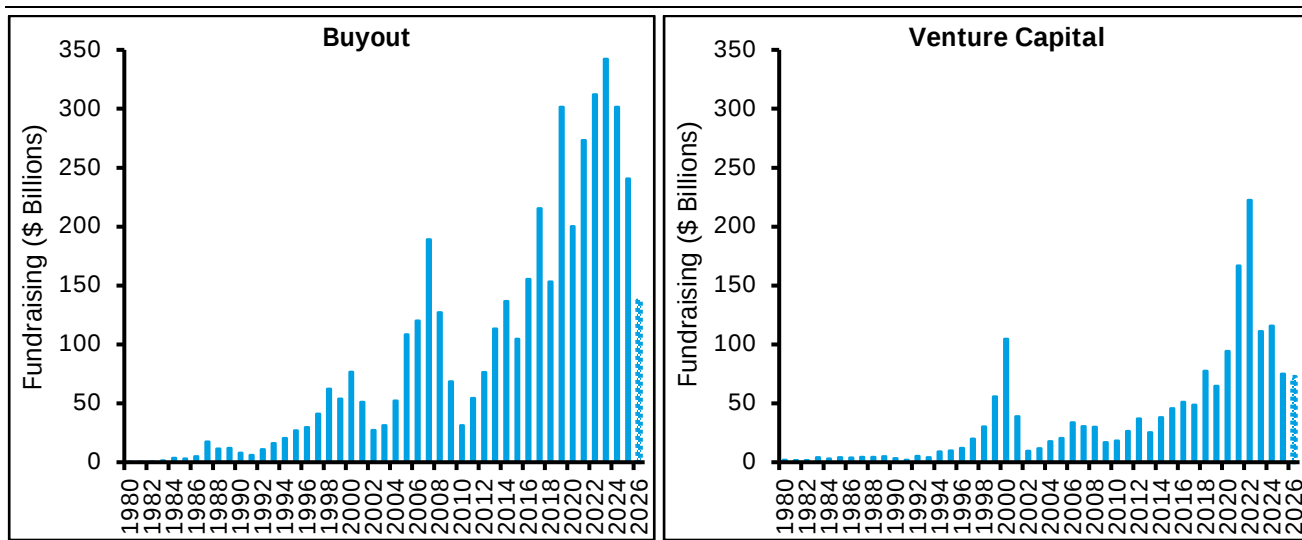
Source: Counterpoint Global and Morningstar Direct.

Note: Monthly, 1/31/2006-6/30/26; U.S.-domiciled funds that invest in U.S. equity.

Similar to those in public equities, investor commitments to buyout funds have been cyclical (left panel of exhibit 4). Fundraising was modest in the 1970s (not shown) and early 1980s but saw a pickup during the first leveraged-buyout (LBO) wave in the late 1980s, which was capped by Kohlberg Kravis Roberts & Co.'s (KKR) acquisition of RJR Nabisco in 1989 for \$31 billion, including the assumption of debt, or about \$80 billion in 2025 dollars.

Buyouts became more popular in the mid-1990s, declined during the three-year bear market at the turn of the century, and grew steadily through the first half of 2008. The financial crisis precipitated another drop, only to be followed by strong increases to a record of \$340 billion in 2023. Commitments declined in 2024 and 2025.

Exhibit 4: Investor Commitments to U.S. Buyout and Venture Funds, 1980-June 2026



Source: Counterpoint Global; NVCA Yearbooks; and PitchBook.

Note: Through June 30, 2026; 1980-2005 buyout data include commitments to mezzanine capital.

Commitments to venture capital have also been up and down (see right panel of exhibit 4). What stands out is the substantial inflow into venture capital in the late 1990s, peaking in 2000 at the apex of the dot-com boom. Flows then dropped precipitously, troughing in 2002, and rose steadily from there. They did not exceed the 2000 level until 2021, and peaked again in 2022. Investor commitments in 2025 were roughly one-third of the 2022 level.

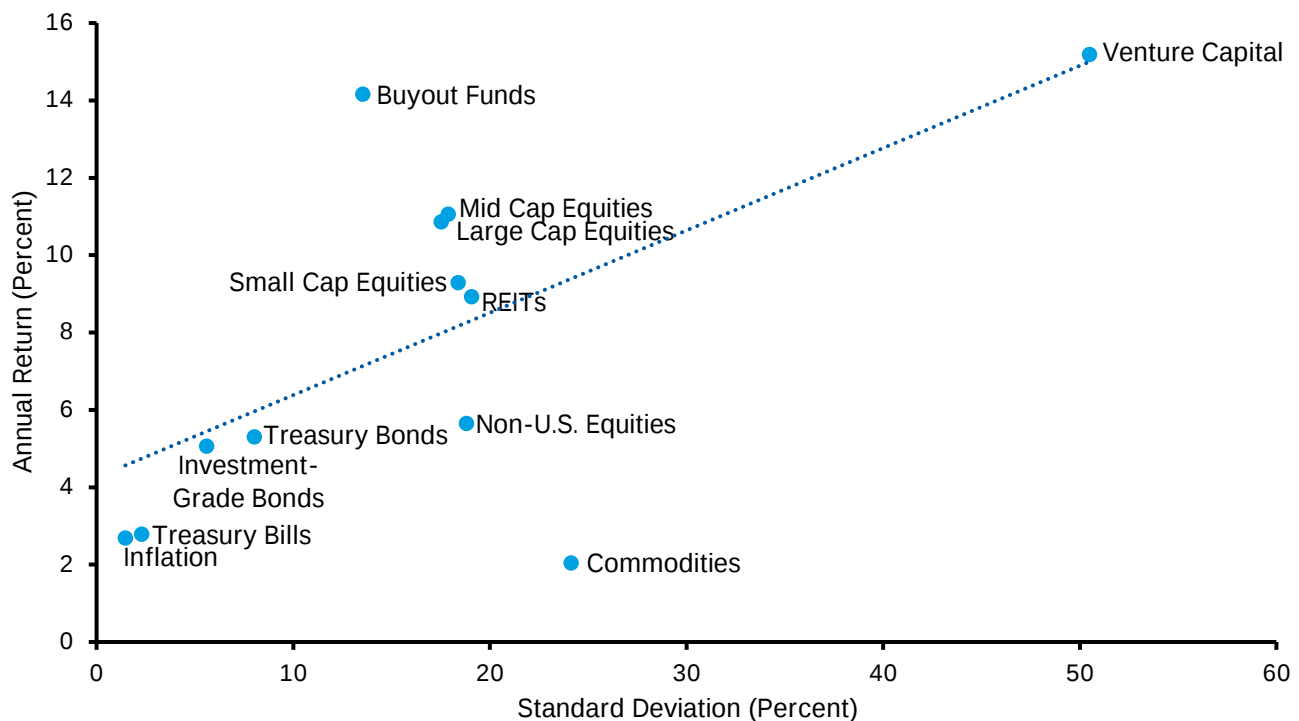
Note that we use the same vertical axis for buyouts and venture capital to show that the venture business is much smaller than the buyout business. The buyout market, in turn, is much smaller than the public equity market. An important stylized fact is that periods of strong investor commitments are generally followed by periods of weak fund returns for both buyouts and venture capital.

We now examine investor returns while considering a number of issues. To start, it is important to recognize that measuring the returns of private equity funds is inherently more difficult than it is for mutual or hedge funds because the funds only report returns periodically, there is no standard for how to set the prices for holdings, and fund results are much more heavily skewed. That said, some general patterns emerge.¹⁸

Risk and Reward. Exhibit 5 plots the risk and return for buyout and venture funds along with a number of other investment categories from 1990 through 2025. We include inflation as a point of reference. Risk is quantified through standard deviation, a measure of how much the annual returns are spread out. Return is the compound annual growth rate.

Venture capital funds had the highest returns and risk. Buyout funds generated the second-highest returns, while their reported risk ranked in the bottom third of the categories. The various classes of equities had lower returns than buyout and venture with risk in the middle of the two. There is a dispute as to how private funds report their risk and returns.¹⁹

Exhibit 5: Risk and Reward for Investment Categories, 1990-2025



Source: Counterpoint Global; FactSet; NAREIT; Cambridge Associates; and Aswath Damodaran.

Note: Past performance is no guarantee of future returns; All categories are for the U.S. except for Non-U.S. Equities and Commodities; Returns for buyout funds include growth equity.

Private funds often report their investor returns using internal rate of return (IRR) or a measure of return on capital, including “multiple on invested capital” (MOIC) and “total value to paid-in” ratio (TVPI). Both have limitations. IRR’s most significant flaw is the unrealistic assumption that investors can reinvest interim cash flows at the IRR. Further, funds perform the calculation inconsistently from one another and IRR does not refer to a benchmark. In many cases, IRR overstates returns.²⁰

MOIC and TVPI are absolute measures of return but can be difficult to assess and compare. For example, getting 1.5 times paid-in capital is great over one year but much less attractive over 5 years. Similar to IRR, there is no reference to a benchmark.

To address some of the shortcomings of IRR and MOIC, academics have developed the concept of public market equivalent (PME), which attempts to make a direct comparison between returns for investors in private equity and public markets. PME is generally reflected as a ratio between private equity and public market returns. A ratio above 1.0 reveals relative outperformance and below 1.0 means underperformance.²¹

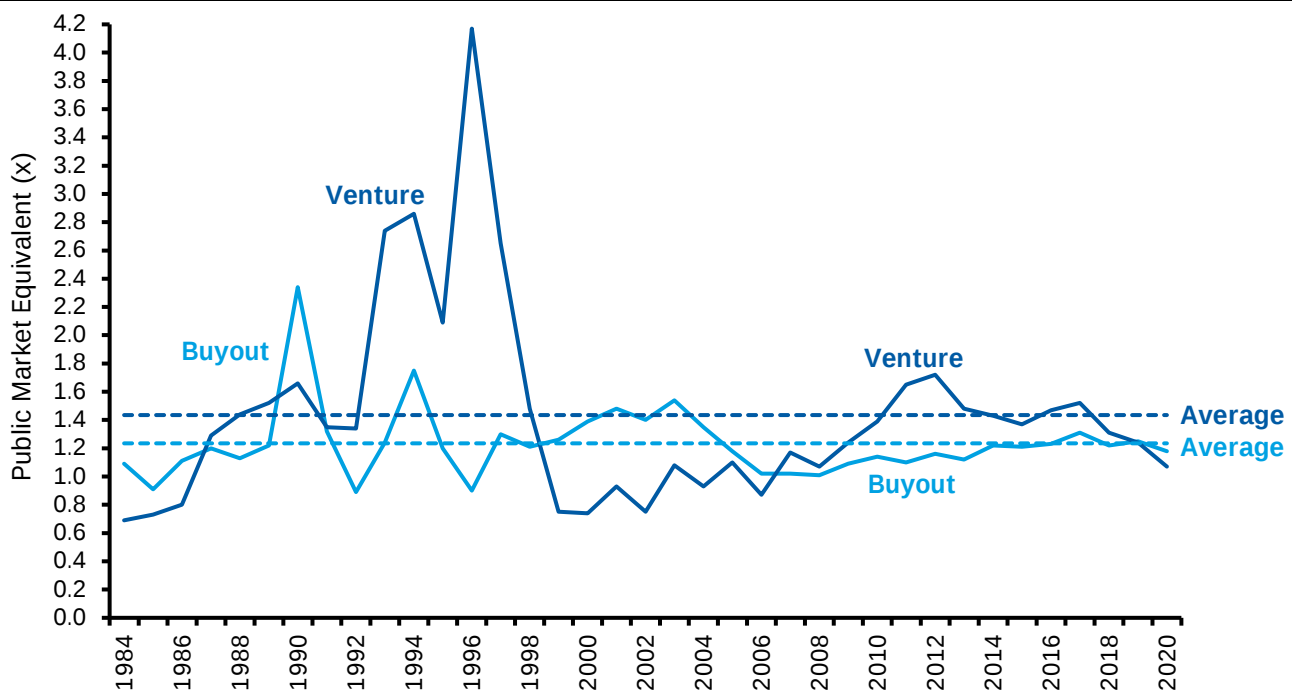
Here’s an example of how PME works. Say a fund drew \$200 million from its investors in January 2021 and paid out \$470 million in December 2025. An investor could have invested the \$200 million in the S&P 500, which returned \$392 million over the same period. The PME would be 1.2 (\$470/\$392). Academics and practitioners often make adjustments for risk to make the returns more comparable.

Exhibit 6 shows the weighted-average PME for buyout and venture capital funds from 1984 to 2020. The most recent figures include funds that have yet to realize their full returns. For buyout funds, the average PME over the full period was about 1.2, with PMEs highest in the early 1990s and early 2000s and lowest in the years surrounding the global financial crisis.

For venture funds, the average over the full period was about 1.4. PMEs hovered around the long-term average in the late 1980s, rose sharply during the 1990s technology boom, then plunged, slowly recovered through 2012, only to drift lower again through 2020.

Measuring the returns for buyout and venture funds is tricky, as researchers use different approaches and data sets. While the balance of academic research suggests that returns are good relative to public markets, there is plenty of work suggesting that results are not as attractive as advertised after considering risk and illiquidity.²²

Exhibit 6: Public Market Equivalent for U.S. Buyout and Venture Capital Funds, 1984-2020

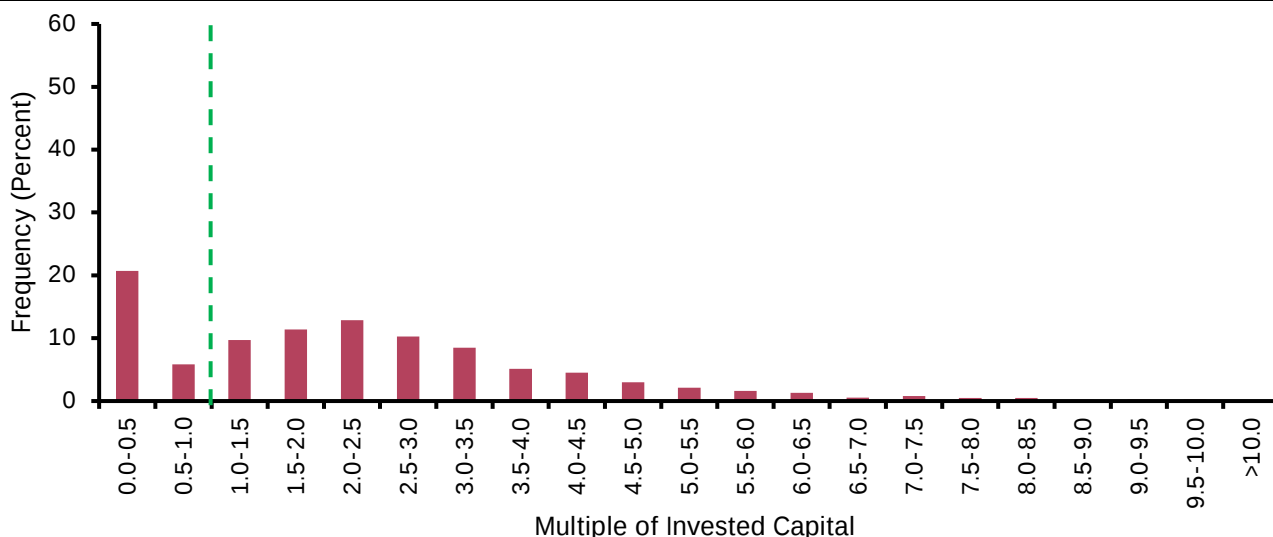


Source: Counterpoint Global; Robert S. Harris, Tim Jenkinson, and Steven N. Kaplan, "Private Equity Performance: What Do We Know?" *Journal of Finance*, Vol. 69, No. 5, October 2014, 1851-1882; and Steve Kaplan, "Private Equity: Past, Present and Future," Prepared as Keynote for NBER LTAM Conference, April 2024.

Note: Past performance is no guarantee of future returns; Relative to S&P 500; Weighted average; As of Q3 2023.

Dispersion of Investment Returns. The distribution of returns for individual investments is quite distinct for buyout funds, venture capital funds, and public equities. This is important for investors to understand because the dispersion of the fund returns in each investment category will mirror the pattern of its investment returns.

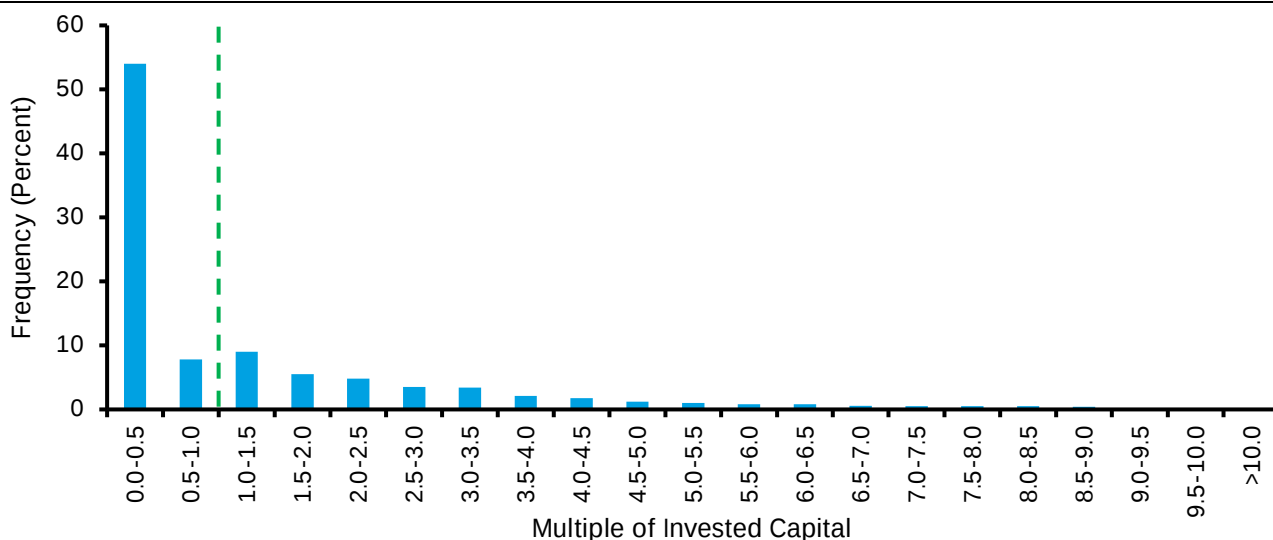
Exhibit 7 shows more than 15,000 observations of returns, measured as multiples of initial invested capital, for global buyout deals. Most of the returns are from transactions done from the mid-1990s to 2018. Twenty-seven percent lose money, and the modal outcome is a loss of 50 to 100 percent of invested capital. The tails are fatter than those for public equities but thinner than those for venture capital.

Exhibit 7: Distribution of Returns for Buyout Deals

Source: Counterpoint Global based on Gregory Brown, Robert S. Harris, Wendy Hu, Tim Jenkinson, Steven N. Kaplan, and David Robinson, "Private Equity Portfolio Companies: A First Look at Burgiss Holdings Data," SSRN Working Paper, January 17, 2020.

Exhibit 8 shows in excess of 31,000 observations of returns, measured as multiples of invested capital at the beginning of the period, for global venture capital deals. These results are also from the mid-1990s to 2018. Sixty-two percent lose money and more than one-half of all deals lost 50 to 100 percent of invested capital. The offset is that the tails are much fatter than those for buyouts or public equities.

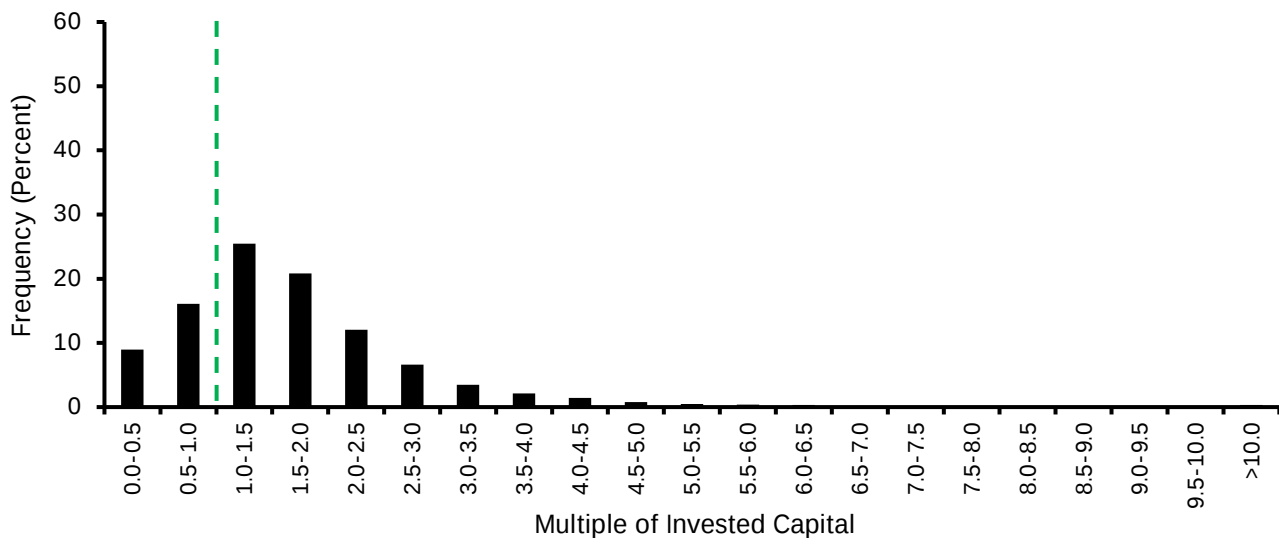
Such imbalanced returns are nothing new. Tom Nicholas, a professor of business administration at Harvard Business School, compares venture capital returns to those of whaling voyages and shows that the payoffs are very similar. The payoff from whaling trips was determined by the amount of oil and whalebone the ship returned to port, which was highly variable.²³

Exhibit 8: Distribution of Returns for Venture Capital Deals

Source: Counterpoint Global based on Gregory Brown, Robert S. Harris, Wendy Hu, Tim Jenkinson, Steven N. Kaplan, and David Robinson, "Private Equity Portfolio Companies: A First Look at Burgiss Holdings Data," SSRN Working Paper, January 17, 2020.

Exhibit 9 shows about 35,000 observations of 5-year returns, measured as multiples of invested capital at the beginning of the period, for stocks in the Russell 1000. We collected 36 increments of 5-year returns from year-end 1985 through year-end 2025. We selected five years because that is similar to the historical average holding period for a company in a private equity portfolio. Note that 25 percent lose money, the modal outcome is a gain of between 1 and 1.5 times, and there are few extreme values.

Exhibit 9: Distribution of Returns for Public Equities



Source: Counterpoint Global and FactSet.

Note: Based on companies in the Russell 1000.

Dispersion of Fund Returns. You can think of the distribution of deal and stock returns as the raw material that funds use to build their portfolios. Buyout funds normally hold between 10-20 companies, venture capital funds commonly make 10-50 investments per fund, and mutual funds generally own 50-100 stocks.

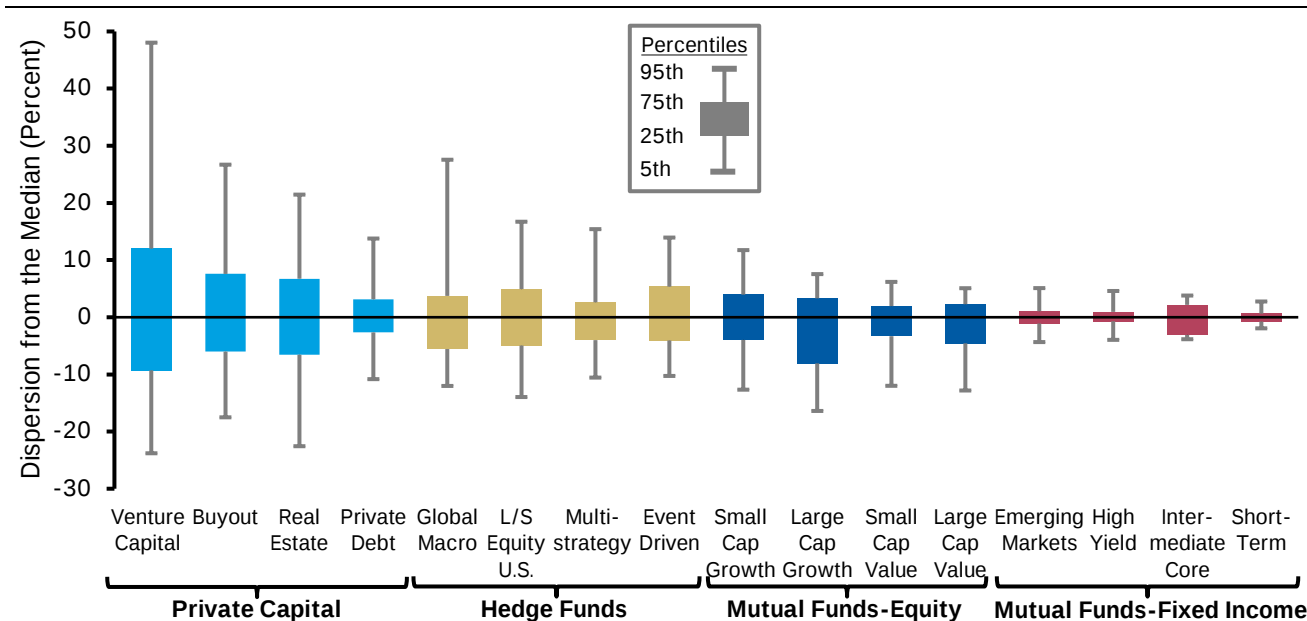
This is important because while the weighted average of buyout and venture capital funds has added value relative to public market investments, the dispersion within the investment categories is high.

Exhibit 10 shows dispersion based on annual returns, net of fees, for 16 investment categories, which we group by vehicle.

Note that the dispersions for venture capital and buyout returns are meaningfully higher than for equity mutual funds. The practical implication is that while these categories have done well over time, the results for investors were largely a function of whether they had access to, and invested in, the funds that were among those with the highest returns. The funds in the bottom quartile provided lower returns than broad equity market indexes and generally charged relatively high fees to do so.

This prompts the question of how to determine whether new funds will provide attractive returns. Persistence is a useful metric in domains where skill is an important determinant of outcomes. Persistence measures correlation between the last result and the next result. For example, if persistence is high, the new fund of a firm that managed a successful fund is expected to do well. Likewise, funds launched by firms with poor returns are anticipated to underperform.

Exhibit 10: Dispersion of Returns for Active Managers in Various Investment Categories



Source: Counterpoint Global and Morningstar Direct.

Notes: Funds domiciled in U.S.; Private equity: internal rate of return since inception as of 1/6/26 for vintage years 1980-2022; Hedge funds and mutual funds: 5-year annualized total returns as of 12/31/25; L/S=long/short.

Research shows that both buyout and venture capital fund returns were persistent prior to 2000. Since 2000, however, venture capital fund returns have remained persistent while there is less evidence that buyout fund returns have.²⁴ Some scholars attribute the persistence of venture capital returns to “preferential access” to subsequent attractive investments as the result of better-than-average results with initial investments.²⁵

This section highlights some important points on U.S. equity markets. First, notwithstanding the substantial growth and popularity of U.S. buyout and venture capital funds, the public market remains vastly larger. Today, the equity capitalization of the U.S. stock market is roughly 25 times the size of the AUM for buyout funds and more than 50 times the size of venture capital funds.

Investors have been taking money out of actively-managed public equity mutual funds in the U.S., with net outflows of about \$1.4 trillion over the past 5 years.²⁶ In contrast, indexed or rules-based funds, including traditional index funds and ETFs, had net inflows of \$1.7 trillion over the same period.

Investor commitments to U.S. buyout funds rose roughly 10-fold from 2010 to a peak of \$340 billion in 2023. Commitments have declined since then, with 2025’s total roughly two-thirds that of 2023.

Commitments to venture capital funds rose about 13-fold from 2009 to 2022, reaching \$222 billion. As they have with buyouts, commitments have dropped in recent years and in 2025 were one-third of the recent top.

Combined commitments to U.S. buyout and venture funds were about \$315 billion in 2025.

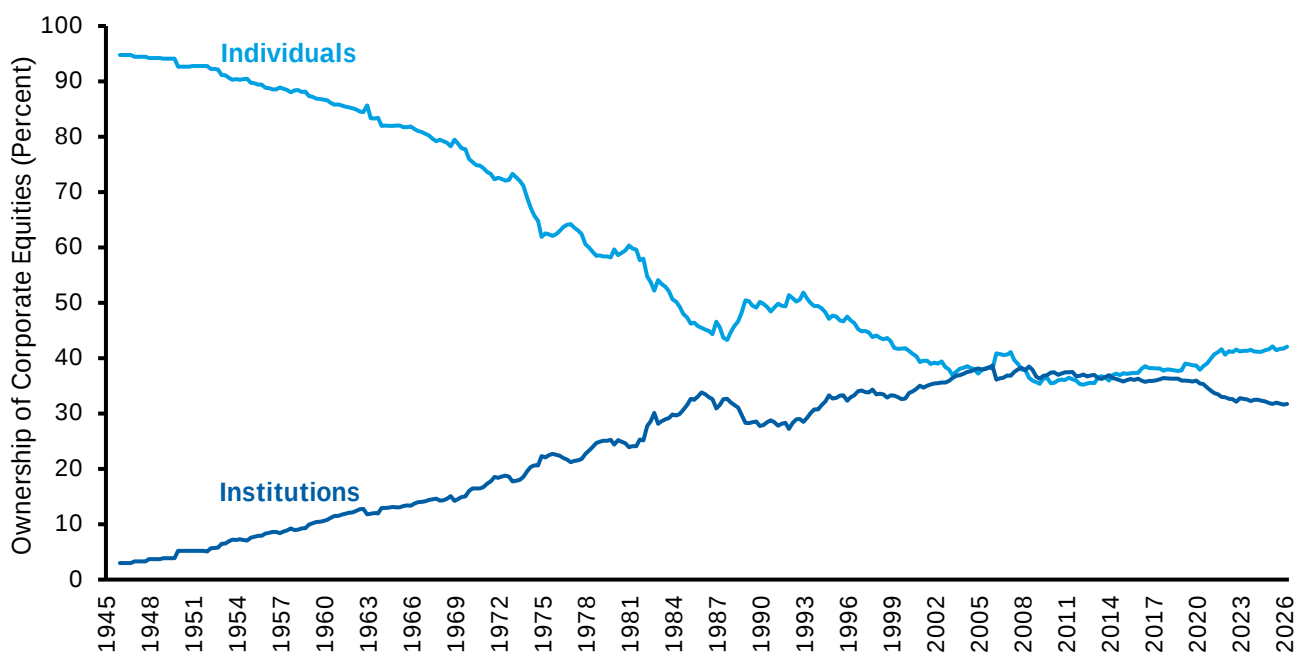
Buyout funds came to prominence in the late 1980s and have generated average public-market equivalent returns of 1.2 since then. The public-market equivalent return of 1.4 for venture capital funds is higher than buyout funds, but has been considerably more cyclical, with peaks in the late 1990s and the years 2011 and 2012 following the Great Recession. The weighted averages belie a large and consistent gap between the return of the best and the worst funds for both categories.

Drivers of Change

We now turn to the drivers of the trend from public to private equity. These include the nature and desires of investors, the impact of technology, and changes in legislation. We examine each in turn.

Investors. Analyzing companies and figuring out their value has never been easy, but institutional investors are better equipped to do it than are individual investors. In 1945, individuals held roughly 95 percent of public equities, and the institutional investment management industry was nascent (see exhibit 11). Over the ensuing 60 years, the ownership share fell for individuals and rose for institutions until they reached parity.

Exhibit 11: Shift in U.S. Equity Investors from Individuals to Institutions, 1945-March 2026



Source: Counterpoint Global and Federal Reserve.

Note: Quarterly, through March 31, 2026; Institutional investors include insurance companies, private pension funds, mutual and closed-end funds, and ETFs; Individual investors include households and nonprofit organizations.

The ownership levels remained roughly equal from 2005 to 2020, only to see the long-term trend reverse with a rise in individual participation during and following COVID-19. As of early 2026, individual ownership is 10 percentage points higher than that of institutions. Retail was about 10 percent of U.S. equity trading volume in 2010 and more than 20 percent in 2025.

The institutionalization of the investment industry over the decades introduced sophistication and complexity. For example, we estimate that the number of chartered financial analyst (CFA) charterholders per U.S. public company increased from roughly 1 in 1976 to 33 in 2025.²⁷ Further, financial innovation, including option pricing models, along with greater and cheaper computing power, ushered in a new era of finance. This led to changes within public markets, including the rise of indexing and the migration from public to private markets.

Perhaps the simplest explanation for the shift from public to private equity is the needs and demands of institutional investors. For most pension funds and endowments, the primary investors in U.S. private equity,

liabilities continue to grow and solid expected asset returns are necessary to keep pace. For example, liabilities exceeded assets by an estimated \$1.3 to \$1.7 trillion for pension funds in the U.S. at the end of 2025.²⁸

There are three levers to reduce this gap: contribute more to the plan, provide less to the beneficiaries, or generate a higher return on the assets under management. Since the first two levers are not popular, most chief investment officers strive for the third.

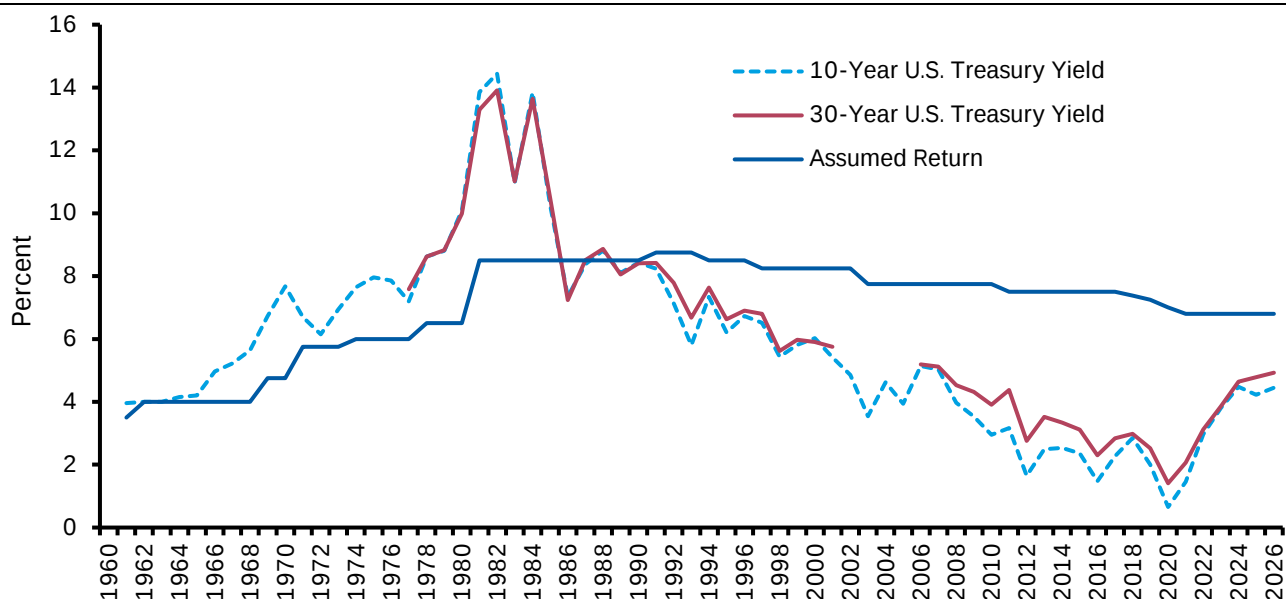
The yield on the 10-year U.S. Treasury note peaked in September 1981 at 15 percent. For the next 40 years, it was a mostly one-way slide to a low of 0.9 percent in March 2020. It has since rebounded to about 4.7 percent as of August 2026. The standard way to estimate expected returns in finance is to start with a risk-free rate (usually the yield of a Treasury bill, note, or bond) and add a risk premium. The principle is that the riskier an asset is the higher its expected return. If you want more return, you have to seek more risk.

Consistent with this, research shows that one of the best predictors of buyout activity is the risk premium: total buyout activity is high when the aggregate risk premium is low.²⁹ This fits with the idea that investors in buyout funds seek higher returns when the risk premium, and hence the expected return on equities, is low.

Exhibit 12 shows the assumed rate of return on pension assets for the California Public Employees' Retirement System (CalPERS) along with the yields on 10- and 30-year U.S. Treasury securities from 1961 through June 2026. CalPERS is the largest defined-benefit pension fund in the U.S., with about \$635 billion in assets as of mid-2026. The assumed return in 1962, at 4 percent, was about equal to the yield on the 10-year Treasury note. Through the early 1980s, the plan's assumed return was mostly below the yield on Treasury securities.

By 1992, the assumed return had drifted up to 8.75 percent and the yield on the 10-year Treasury note was about 7.15 percent, which meant the fund only had to earn a risk premium of 1.6 percentage points to satisfy its return objective.

Exhibit 12: CalPERS's Assumed Rate of Return and Yields on Treasuries, 1961-June 2026



Source: Counterpoint Global; CalPERS; Board of Governors of the Federal Reserve System (U.S.); and FactSet.

Note: Assumed returns and Treasury yields reflect CalPERS's June 30 fiscal year.

The board of CalPERS periodically lowered its return assumptions from 8.75 percent in 1993 to 6.8 percent in 2021 (where it remains today), but the risk-free yield dropped even faster.

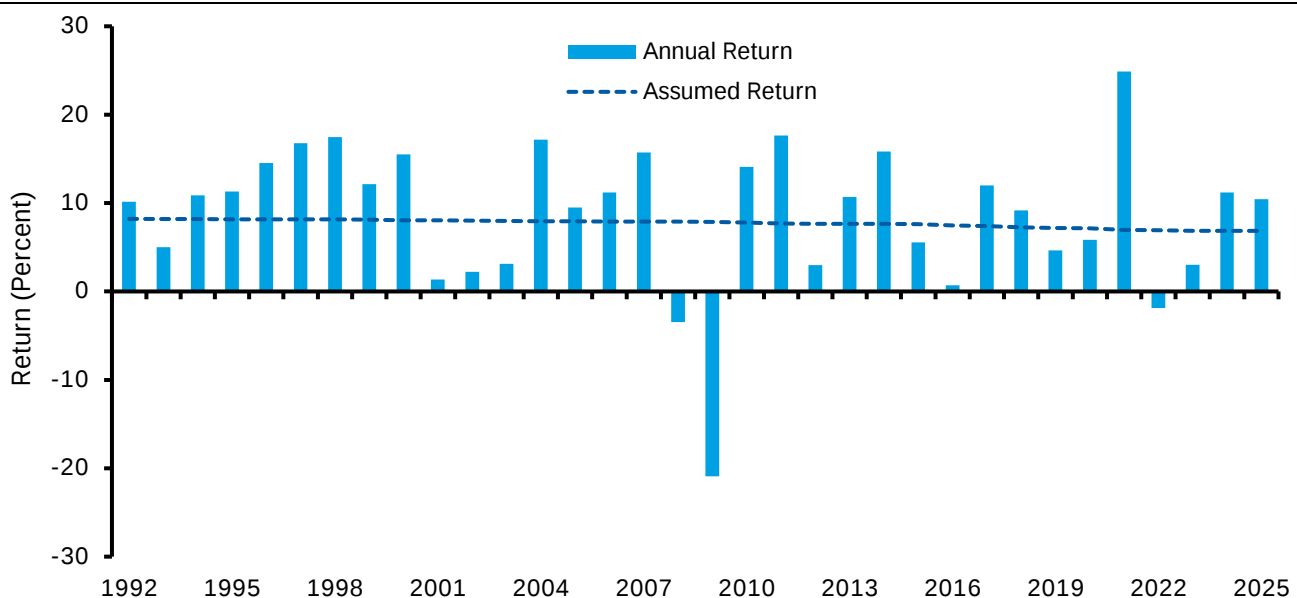
The largest gap between assumed return and the yield on the 10-year Treasury was 6.35 percentage points on June 30, 2020. At that time, the 10-year yielded just 0.65 percent as a result of the Federal Reserve's stimulative actions to combat the negative economic impact of COVID-19. In June 2020, CalPERS announced that it would add leverage of up to 20 percent of fund value, or \$80 billion, to increase the portfolio's expected risk and reward.³⁰

At the beginning of the 2026-2027 fiscal year, the assumed return at CalPERS was still 6.8 percent, but the yield on the 10-year Treasury note was 4.4 percent, implying a risk premium of 2.4 percentage points.

The experience at CalPERS reflects the challenge that many boards and chief investment officers of pensions and endowments faced from 1990 to 2020: a growing gap between what was expected and what could be achieved without risk. The response was to seek risk in order to generate higher returns, and buyout and venture capital funds helped address that challenge.

Exhibit 13 shows assumed and actual annual returns for a large majority of U.S. state and local government pension plans over nearly 35 years. During this period, the average assumed return was 7.7 percent and the average actual return was an 8.4 percent CAGR. The average assumed return was 6.9 percent as of 2026.³¹

Exhibit 13: Assumed and Actual Return for State and Local Government Pensions, 1992-2025



Source: Counterpoint Global and Public Plans Database.

Note: Defined benefit plans; Fiscal years; Asset-weighted.

The largest college endowments in the U.S. face the same challenge of earning sufficient returns. The National Association of College and University Business Officers (NACUBO) calculated that the 650 endowments they studied, which manage more than \$940 billion in assets, provided 15 percent of the operating revenues for their institutions in fiscal 2025.³² That figure is substantially higher for a number of leading universities. For example, Yale's endowment funded 36 percent of the operating budget in 2025, up from 10 percent in 1985.³³

The vast majority of endowments have a spending policy, and most use a moving average rule that sets the payout at a pre-specified percentage of average assets over a number of years.³⁴ Many endowments build a five percent payout figure into their return targets.³⁵

Pension funds and endowments have sought to produce returns sufficient to satisfy the rising needs of their beneficiaries. One way to do this is to assume more risk, and a higher allocation to private equity within a portfolio is one attempt to solve the problem.

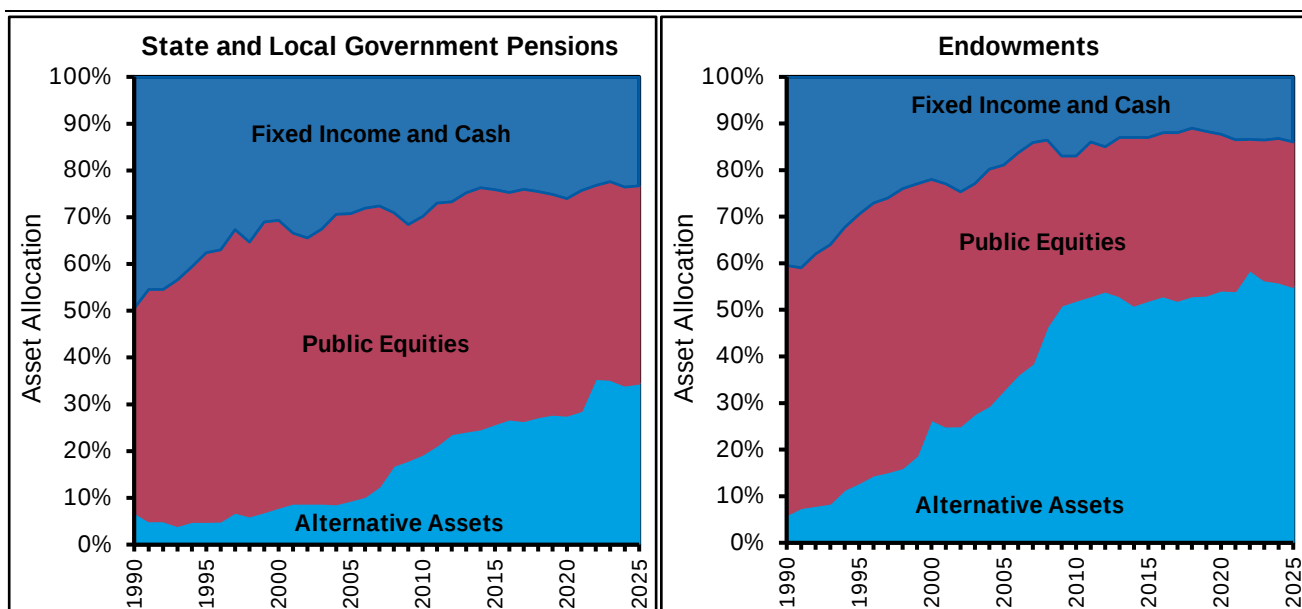
Buyout funds add risk relative to public markets by having more debt in the capital structure than for the average public company. For example, the average level of debt-to-earnings before interest, taxes, depreciation, and amortization (EBITDA), a measure of leverage, is substantially higher in buyout deals than it is for public companies.³⁶

Venture capital funds are riskier than public markets because they buy stakes in young, and in many cases unproven, companies. In recent years, venture funds have allocated a higher percentage of their capital to companies that are more mature, often called “growth equity.” Growth equity is less risky than early-stage investing and accordingly has a lower expected return.

The shift in asset allocation over time is consistent with the search for returns. The left panel of exhibit 14 shows that a large sample of state and local government pension funds in the U.S., with total assets estimated to be \$6 trillion, have increased their allocation to alternative assets from 7 percent in 1990 to 35 percent in 2025.³⁷

The right panel of exhibit 14 shows that university endowments have undergone an even bigger shift. Endowments increased their allocation to alternative assets from 6 percent in 1990 to 55 percent in 2025.³⁸

Exhibit 14: U.S. Pensions and Endowments Move to Alternative Assets, 1990-2025



Source: Counterpoint Global; Public Plans Database; Ronald J. Ryan and Frank J. Fabozzi, "The Pension Crisis Revealed," *Journal of Investing*, Fall 2003, 43-48; National Association of College and University Business Officers (NACUBO); and Stephen G. Dimmock, Neng Wang, and Jinqiang Yang, "The Endowment Model and Modern Portfolio Theory," *Management Science*, Vol. 70, No. 3, March 2024, 1554-1579.

Note: Asset-weighted.

When asked, “What are your main reasons for investing in alternative assets?” two of the top three answers allocators offered for both buyouts and venture capital were “high risk-adjusted returns” and “high absolute returns.” These investors also point to diversification.³⁹

The “high returns” reason requires two premises to be true. One is that limited partners (allocators) can identify skillful general partners (fund managers) who have the ability to deliver attractive results. Second is that there is a return premium for owning illiquid assets.

Because of the dispersion in private equity, the ability to identify and gain access to skillful general partners is crucial. Research shows that skill in fund selection is a significant determinant of returns and that access to the best managers was key to the success of some large endowments. And the leaders have done better than the followers.⁴⁰

Liquidity measures the ability to turn an asset into cash or cash into an asset. High liquidity means the cost is small and low liquidity means the cost is high. As such, investors demand a higher return for owning an asset that is illiquid, or an “illiquidity premium.” Financial economists have documented this premium empirically.⁴¹

An institution that seeks to harvest the illiquidity premium can run into trouble when it must meet a sudden demand for liquidity. We saw this during the Great Recession of 2008-2009 and COVID-19 in 2020. For example, in 2008, Harvard University borrowed \$2.5 billion to shore up its liquidity and in 2020 sold \$500 million of bonds to “fund institutional liquidity.”⁴²

Private equity investments appear to contribute to portfolio diversification. The question is how much of that benefit is the consequence of truly uncorrelated returns rather than the smoothing of returns.

General partners at private equity funds have some discretion in marking the value of the companies in their portfolios, making them seem less volatile than their public-market counterparts. Cliff Asness, a founder, managing principal, and chief investment officer at AQR Capital Management, calls this “volatility laundering.”⁴³

One study of this issue concluded that the economic exposure of private equity funds is similar to that of public markets.⁴⁴ If true, it suggests that returns are consistent with risk and that the diversification benefits are not as great as generally perceived.⁴⁵

This is where psychology comes into play. Private equity funds do two things that may benefit investor returns. First, the capital is locked up for a period of time, which limits the ability to buy high and sell low.

Second, the smoothed returns provide a perception of higher risk-adjusted returns and stability that may offset the tendency to overreact to short-term losses. Bob Maynard, the former chief investment officer of Idaho’s Public Employee Retirement System, said that smoothing may create “phony happiness,” but that it appeased the accountants and legislators.⁴⁶ Indeed, private equity firms may be catering to the desires of their limited partners by smoothing returns.⁴⁷

Ecosystem. Over the last 50 years, changes in attitudes, markets, and regulation have been conducive to the growth in private equity. We examine four developments in particular: changes in corporate governance, the evolution of credit as an asset class, reforms to bankruptcy law, and the engines driving innovation.

In 1989, Michael Jensen, a professor at Harvard Business School, wrote a provocative article in the *Harvard Business Review* called “Eclipse of the Public Corporation.”⁴⁸ Jensen suggested that managers, or agents, were too misaligned with the shareholders, or principals. He argued that corporate structures, such as leveraged buyouts, would effectively deal with the principal-agent problem by aligning managers and shareholders, especially in mature industries where there was a risk of misallocating free cash flow.

Compared to public companies, private companies held by buyout or venture capital firms have boards that are much smaller and have more skin in the game. And the corporate governance of public companies remains a hot topic with open questions, including what the purpose of the corporation is, what role shareholders should play (especially with a few firms holding most of the indexed assets), how to measure performance, and how to pay executives.

Jensen’s case may seem prescient. There were about 5,800 public companies in the U.S. at the time he wrote that paper and roughly 3,500 today.

But the story is more nuanced for a few reasons. One is that the capacity and time horizon of the buyout industry are limited by structure. These funds have to eventually sell businesses to produce a return on investment for their limited partners. Buyout funds are a temporary solution to the challenge of governance.

Another is that many public companies could allocate capital more judiciously and better align the incentives of managers and owners. Public companies may be more hesitant to make decisions that create long-term value at the expense of lower short-term earnings in the glare of the spotlight. But there are plenty of examples of public companies doing so successfully.⁴⁹

Finally, Jensen’s concept works better with businesses that utilize tangible assets than it does with those built on intangible assets. Despite these limitations, Jensen’s argument sets the stage for the buyout industry by identifying the weaknesses of public companies.⁵⁰

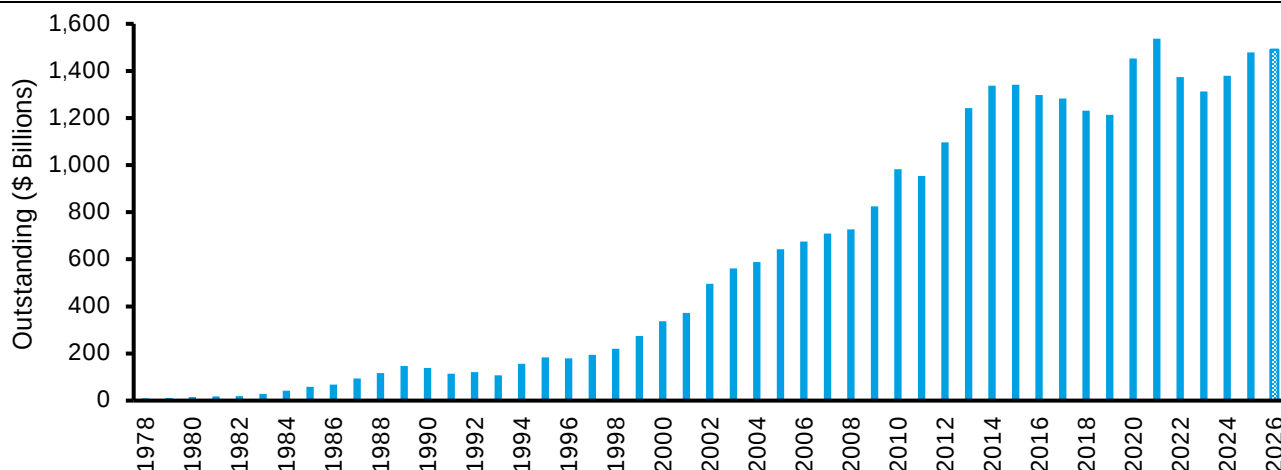
Other drivers of the buyout industry were the developments of the high-yield bond market in the 1980s and 1990s and the leveraged loan market since the turn of the 21st century.

Debt outstanding in the high-yield bond market grew from \$24 billion in 1977 to more than \$200 billion in 1990, or from 4 to 25 percent of all corporate debt.

In particular, the high-yield market nearly doubled from 1986 to 1989, reflecting the late 1980s buyout wave and the peak prominence of Drexel Burnham Lambert, the largest dealer in the business. No buyout deals were funded with public high-yield debt in 1980, but 60 percent of deals were by 1989.⁵¹

The high-yield market retreated in the early 1990s after the demise of Drexel and the savings and loan crisis, only to resume growth in the mid-1990s.

It grew fairly steadily through 2015, then declined for a few years before surging in 2020 and 2021. It fell again for a couple years before returning to near-peak levels in 2025 and early 2026 (see exhibit 15).

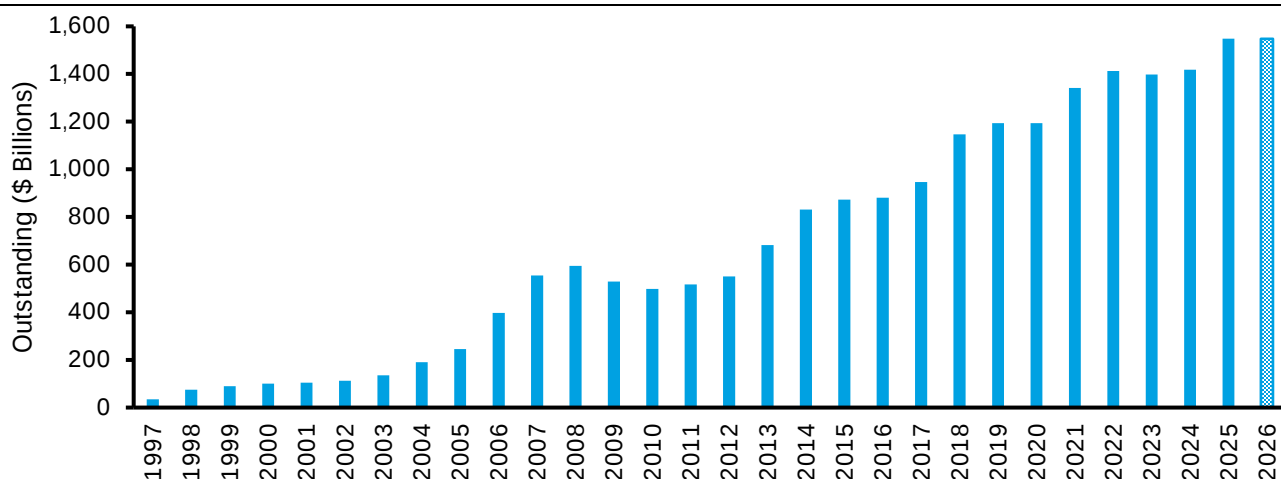
Exhibit 15: U.S. High-Yield Bond Market, 1978-April 2026

Source: Counterpoint Global; Edward I. Altman, "Revisiting the High-Yield Bond Market," Financial Management, Vol. 21, No. 2, Summer 1992, 78-92; and Neha Khoda, "HY Credit Chartbook," BofA Global Research, May 1, 2026.
 Note: Principal amount; through April 30, 2026.

As buyout activity again picked up in the mid-1990s, leveraged loans filled some of the financing void left by high yield bonds (see exhibit 16). Leveraged loans are bank loans that have credit ratings that are below investment grade.

In 2000, the leveraged loan market was about one-third the size of the high yield market. By 2025, the leveraged loan market, at \$1.5 trillion, was slightly larger than the high yield market. Leveraged loans have represented about one-half of the total sources of buyout financing.

Most institutional leveraged loans have an interest rate that floats based on the Secured Overnight Financing Rate (SOFR), a measure of the overnight cost of borrowing cash that is backed by U.S. Treasury securities, plus a spread. The average SOFR was around 4.25 percent in 2025 and was about 3.65 percent on July 31, 2026. Spreads are generally in the range of 300 to 700 basis points based on the stability and visibility of a company's cash flows combined with the capital structure.

Exhibit 16: U.S. Leveraged Loan Market, 1997-April 2026

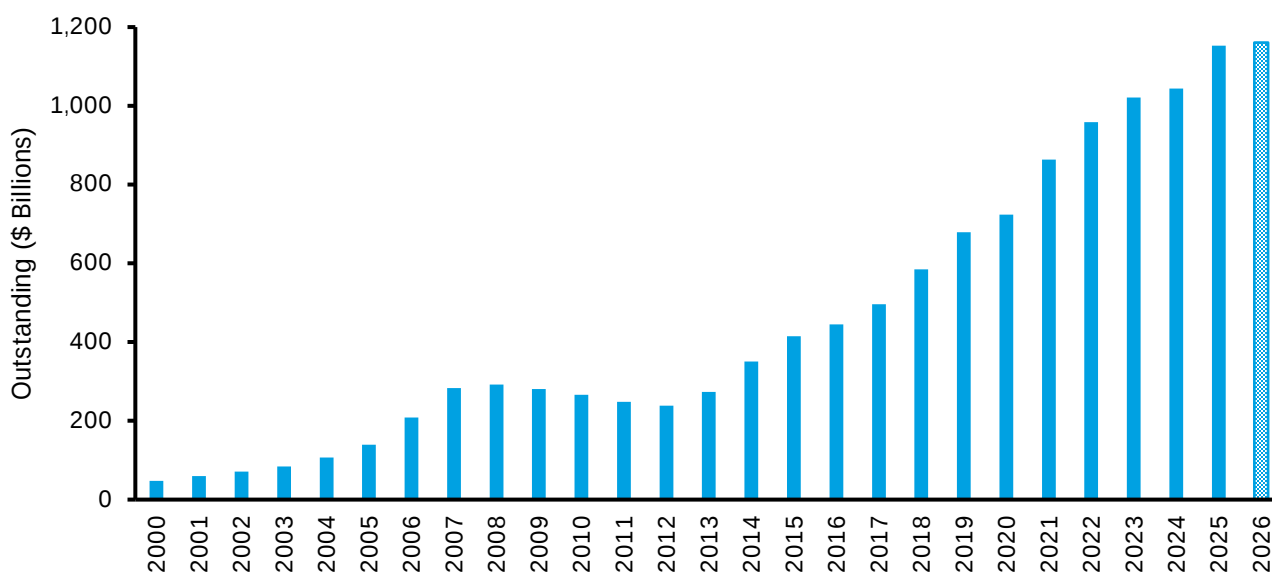
Source: Counterpoint Global and Neha Khoda, "HY Credit Chartbook," BofA Global Research, May 1, 2026.
 Note: Principal amount; through April 30, 2026.

Key to this discussion is the growing complementarity among buyout funds, the leveraged loan market, and collateralized loan obligations (CLOs). Leveraged loans are the main source of financing for leveraged buyouts. CLOs, a type of collateralized debt obligation, are securitization instruments backed primarily by leveraged loans. CLOs have become the largest buyers of the leveraged loans that investment banks originate and syndicate, creating a deep and durable source of demand.⁵²

CLOs package the stream of cash flows from the loans into tranches based on different levels of credit risk. For example, the triple-A tranches are first to receive the cash flows, making the securities relatively safe. The equity tranche receives cash flows only after all of the more senior tranches are paid. The largest buyers of CLOs include banks, insurance companies, and funds.

In the U.S., CLOs have gone from less than \$1 billion, or 0.1 percent of the leveraged loan market, in 1994 to nearly \$1.1 trillion, or 75 percent of the market, in 2025 (see exhibit 17).

Exhibit 17: U.S. Collateralized Loan Obligation Market, 2000-April 2026



Source: Counterpoint Global and Neha Khoda, "HY Credit Chartbook," BofA Global Research, May 1, 2026.

Note: Principal amount; through April 30, 2026.

A few factors may explain the shift from the high-yield bond market to the leveraged loan market. Leveraged loans tend to be more senior in the capital structure than high yield bonds, are often collateralized, and commonly have floating interest rates.

From the point of view of the issuers, an important feature of the leveraged loan market is the opportunity to get terms with fewer restrictive covenants, which are contractual provisions that the borrower must meet to protect investors. For example, a covenant might specify that a borrower has to maintain an EBITDA-to-interest expense ratio above a certain level.

These lenient loans, called "covenant lite," have gone from about 70 percent of the issuance in 2015 to about 90 percent in 2025.⁵³

A burgeoning alternative to high-yield bonds and leveraged loans is private credit, which has grown rapidly in recent years. With private credit, financial institutions that are not banks offer custom loans directly to companies.

Parties can often arrange financing through private credit more quickly and with more certainty than high-yield bonds or leveraged loans because private credit does not require a public offering or broad syndication. Borrowers generally pay a higher spread than they would on a similar syndicated loan to compensate lenders for illiquidity, complexity, and risk.

The assets under management for the private credit industry in the U.S. are estimated to be \$1.5 to \$1.7 trillion, and private credit went from about 20 percent of financing for buyout deals in 2015 to about one-half in 2025.⁵⁴

The bankruptcy code in the U.S. is another feature that has been conducive to the buyout industry. A company that is subject to a buyout is roughly 10 times more likely to file for bankruptcy within a decade than a comparable company.⁵⁵ The ability to reorganize the capital structure of the firm is vital because bankruptcy is often the consequence of high financial leverage rather than a lack of viability as an ongoing concern.⁵⁶

In the U.S., the Bankruptcy Reform Act of 1978 included Chapter 11, a provision that allows for reorganization versus liquidation.⁵⁷ In the early days of buyouts, many other countries did not have similar laws in place that provided efficient ways to reorganize companies, and bankruptcy commonly meant liquidation. This discouraged the levering of corporate balance sheets. In recent decades, most European countries have included provisions for reorganization.⁵⁸

The structure and interplay between finance and business is often the residue of legal tradition. Buyouts first gained traction in countries where common law prevailed, for example the United States and United Kingdom, and were slow to grow in countries guided by civil law, such as France, Germany, and Japan.⁵⁹

Innovation. The final consideration is “national innovative capacity,” essential for a country’s venture capital industry. The developers of the framework define national innovative capacity as “the ability of a country to produce and commercialize a flow of innovative technology over the long term.”⁶⁰ There are three main determinants of this capacity.

The first is the strength of a nation’s “common innovation infrastructure.” This reflects the country’s policies on science and technology, means to support basic research and advancements in academia, and the size of the stock of technological know-how. This idea is closely related to endogenous growth theory.

This has been a strength of the U.S. historically, especially because of its top-flight universities. That there are strong venture capital traditions in Boston and the San Francisco Bay Area, for example, is not a coincidence as these regions are home to elite universities, including Stanford University, Harvard University, Massachusetts Institute of Technology (MIT), and the University of California, Berkeley.⁶¹

The next is the “innovation environments” in a nation’s industrial clusters. Michael Porter, a professor of business economics and one of the authors of the work on national innovative capacity, wrote about the factors that support these environments in his book, *The Competitive Advantage of Nations*.⁶² These include the availability of high-quality scientists and engineers who are specialized, a competitive environment that is intense and

rewards success, strong and exacting domestic demand for the goods and services produced, and the connection between related industries so as to capture knowledge spillovers.

The final determinant of national innovative capacity is the quality of the link between infrastructure and clusters. National innovation is effective when the infrastructure generates conceptual building blocks and ideas and clusters effectively commercialize products and services. Venture capital plays a vital role by financing innovation, with an openness to failure without stigma.⁶³

The U.S. has consistently ranked among the world's top nations in innovation.⁶⁴ The venture capital industry has benefited from, and contributed to, national innovative capacity.

Legislation. There have been a number of key regulations that have had a meaningful impact on the public market for equities in the U.S. These include rules that have protected investors and promoted industry growth. Major legislation that has looked out for investors includes the Securities Exchange Act of 1934, which established the Securities and Exchange Commission (SEC), and the Investment Company Act of 1940. The SEC's goal is to protect investors, and the 1940 Act addressed past abuses and specified rules for the investment industry.

Legislation that has spurred the industry includes the Employee Retirement Income Security Act of 1974 (ERISA), which sharply increased the allowable contributions into retirement plans. It also permitted investments in mutual funds for plans that had been previously prohibited from doing so and established individual retirement accounts (IRAs) for workers not covered by their employer's plan.

ERISA also established what has become known as the "prudent person rule," the principle that a fund's assets should be managed with the care and conservatism of a prudent person. But because the rule did not have a clear definition, many pension fund managers of institutional capital stuck to public and liquid investments.

Legislation has also played a meaningful role in the development of the buyout and venture capital industries. Exhibit 18 features some of the most important changes based on legislation over the past 70 years. Most of these legislative acts reduced the friction for investors to allocate capital to private equity. The most significant of these include the following:

- The Small Business Investment Act of 1958 allowed for the creation of small business investment companies that were licensed and regulated with the explicit intent of funding new and early-stage businesses.
- The guidelines for the prudent person rule were clarified in 1979. These included the idea that a manager could consider diversification as part of an assessment of prudence. As a consequence, private and illiquid investments were suddenly acceptable. That elucidation "flung the door open for corporate pension funds to invest in private capital."⁶⁵
- Cuts in the capital gains tax rate enacted through the 1978 Revenue Act and the Economic Recovery Tax Act of 1981 were associated with an increase in investor commitments to venture capital.

- The relaxation of certain securities laws, most notably through the National Securities Markets Improvement Act of 1996, allowed late-stage private startups to access a greater supply of private capital that enabled them to reach a size that was rare before that capital was available.⁶⁶
- The Pension Protection Act of 2006 relaxed a limit ERISA imposed on private funds that said that benefit plans could not make up more than 25 percent of assets. The new law expanded the types of investors that do not count against the total.
- In a June 2020 information letter, the Department of Labor said defined contribution plans can offer private equity as an investment option while remaining in compliance with ERISA. Defined benefit plans have long invested in private equity, but defined contribution plans have avoided it largely due to fears of litigation.
- Public Law 119-21, also known as the “One Big Beautiful Bill,” was signed into law in 2025. It helped buyouts by restoring the tax treatment of interest to 30 percent of EBITDA instead of EBIT, which had been law since 2022, therefore increasing the amount of deductible interest and allowing businesses to deduct the full cost of eligible equipment and property in the first year rather than over time (permanent 100 percent bonus depreciation). It aided venture capital by expanding the capital gains tax exclusion from the sale of qualified small business stock and reinstating the full deduction for U.S. research and development (R&D) expenses, reversing the 5-year amortization rule from the Tax Cuts and Jobs Act signed into law in 2017.
- Executive Order 14330, also known as “Democratizing Access to Alternative Assets for 401(k) Investors,” was signed in August 2025. A 401(k) is an employer-sponsored retirement account. The order directed the Department of Labor (DOL) to reconsider its guidance about access to alternative investments for individual investors. The DOL proposed a regulation that clarifies a fiduciary’s duty of prudence under ERISA and provides a safe harbor if certain conditions are met. The proposal has not taken effect.
- If finalized and adopted by plan sponsors, the DOL’s regulation would make it possible for participants in retirement plans to access buyout and venture capital funds, likely through diversified funds rather than private funds.⁶⁷

We now turn to the background and major developments in U.S. public equity markets, the buyout industry, and the venture capital industry. We start with public equities.

Exhibit 18: U.S. Legislation and the Impact on Buyouts and Venture Capital

Legislation	Buyout	Venture Capital
Small Business Investment Act of 1958		Increased availability of venture capital for small businesses.
Employee Retirement Income Security Act of 1974 (ERISA)	Discouraged plan fiduciary incentives for high-risk investments.	
Hart-Scott-Rodino Antitrust Improvements Act of 1976	For buyouts meeting certain minimum levels or other conditions, required merging parties to notify the government ahead of time, provide certain disclosures, and then await review.	Same review, disclosure, and waiting period required for venture-backed exits or strategic acquisitions that exceed certain levels.
1978 Revenue Act	Provided capital gains tax incentive for equity investments.	
ERISA's "Prudent Person" Rule changed (1979)	Clarified investment guidelines for pension investors to allow higher risk investments.	
Small Business Investment Incentive Act (1980)		Redefined venture firms as business development companies, eliminating the need to register as an investment adviser.
Bayh-Dole Act, or Patent and Trademark Law Amendments Act (1980)		Enabled universities, small businesses, and nonprofits to commercialize inventions created with funds from the federal government.
ERISA's "Safe Harbor" Regulation (1980)		Stated that venture managers would not be considered fiduciaries of plan assets.
Economic Recovery Tax Act of 1981	Lowered capital gains rate.	
Regulation D (1982)	When raising capital through private placements, it allowed private funds to be exempt from the more onerous requirements of public markets.	
Tax Reform Act of 1986		Cut incentive for long-term capital gains.
Rule 144A (1990)	Allowed the resale of private securities to qualified institutional buyers.	
Omnibus Budget Reconciliation Act of 1993 (IRC Section 1202)		Created a capital gains tax exclusion from the sale of the qualified small business stock to promote investment in small businesses.
National Securities Markets Improvement Act (NSMIA) of 1996		Made it easier for private startups and venture firms to raise capital by: 1) exempting private firms from complying with certain state securities regulations, and 2) allowing venture firms to raise capital from a larger number of investors before having to register under the Investment Company Act.
Sarbanes-Oxley Act (2002)	Expanded compliance rules and costs for public companies, potentially making it more appealing to stay or go private.	
Pension Protection Act of 2006	Expanded the types of pension plans that can invest in a private equity fund without subjecting the fund to the restrictions of ERISA. Many private funds avoid having to comply with ERISA by limiting investments by benefit plans to 25 percent of the fund's equity interests. The law allows investments from governmental, non-U.S., and certain church plans to no longer count toward the 25 percent threshold.	

Legislation	Buyout	Venture Capital
Dodd-Frank Wall Street Reform and Consumer Protection Act (2010)	Narrowed the investor base for private funds by effectively increasing the minimum net worth required for someone to qualify as an accredited investor. It did so by excluding the value of a person's primary residence in the calculation of net worth. Eliminated the private adviser exemption that advisers to buyout funds used to remain unregistered with the SEC or state regulator(s). Advisers to VC funds maintained their exemption from registering with the SEC.	
Small Business Jobs Act of 2010		Provided tax cuts and increased the availability of financing for small businesses; Temporarily increased the capital gains tax exclusion on qualified small business stock to 100 percent.
JOBS Act (2012)	Allowed private funds to solicit and advertise to a more general audience provided they ultimately sell only to accredited investors and qualified institutional buyers.	
Protecting Americans from Tax Hikes Act (PATH Act) (2015)		Made permanent the 100 percent capital gains tax exclusion on qualified small business stock.
Tax Cuts and Jobs Act (2017)	Dropped the corporate tax rate to 21 percent from 35 percent but altered the treatment of carried interest and interest expense deductibility; Increased the tax rate on investments held for less than three years to the short-term capital gains tax rate from the long-term rate; and decreased the amount of deductible interest expense to 30 percent of EBITDA from 100 percent of adjusted taxable income until 2021.	
Amendments to Rule 504 of Regulation D (2017 and 2021)		Amended Rule 504 to allow companies to sell up to \$10 million of securities (up from \$1 million pre-2017 and \$5 million pre-2021) in a 12-month period.
Department of Labor Information Letter under ERISA (2020); Supplemental Statement (2021); 2021 statement rescinded (2025)	(2020) Defined contribution plans allowed to offer private equity as an investment option without violating ERISA provided they follow a proper fiduciary process; (2021) Supplemental statement discouraged fiduciaries from offering alternative assets; (2025) Rescinded 2021 supplemental letter.	
Public Law 119-21 (One Big Beautiful Bill Act) (2025)	Restored tax treatment of interest to 30 percent of EBITDA (as had been the case under TCJA from 2018-2021) instead of EBIT (as had been the case since 2022), thereby increasing the amount of deductible interest; Preserved tax treatment of carried interest.	Expanded capital gains tax exclusion from the sale of qualified small business stock to a tiered system. On top of the existing 100% tax exclusion after 5 years, adds a 50% exclusion after 3 years and a 75% exclusion after 4 years; Restored 100% expensing of domestic R&D expenses, reversing TCJA's 5-year amortization rule; Preserved tax treatment of carried interest.
Executive Order 14330 (2025) and Department of Labor Proposed Rule (2026)	Proposed regulation has potential to expand access to alternative investments in 401(k) plans; Aims to clarify the investments allowed and establish a safe harbor for fiduciaries who follow a set process when offering alternative assets.	

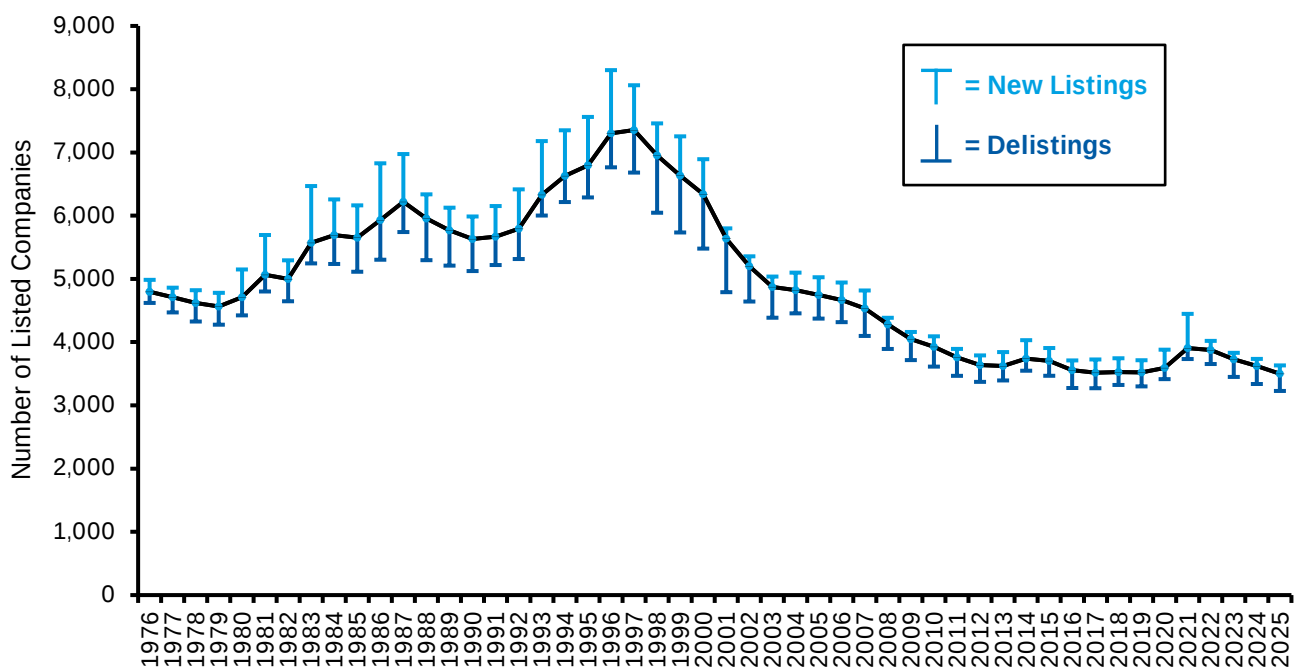
Source: Counterpoint Global; William D. Bygrave and Jeffrey A. Timmons, *Venture Capital at the Crossroads* (Boston, MA: Harvard Business School Press, 1992), 24, based on T.A. Soja and J.E. Reyes, *Investment Benchmarks: Venture Capital* (Needham, MA: Venture Economics, Inc. 1990), 202; *Federal Register*; U.S. Department of Labor; U.S. Securities and Exchange Commission; Federal Trade Commission; Bayh-Dole Coalition; U.S. Small Business Administration; Internal Revenue Service.

Note: Updated through June 30, 2026.

Public Equities

The centerpiece of this discussion is the decline in the number of publicly listed companies in the U.S. since the mid-1990s. Exhibit 19 shows the total number of listed stocks as well as the additions and subtractions each year from 1976 to 2025. There were about 3,500 public companies at the end of 2025, less than half of the total in 1997 and about three-quarters as many as there were in 1976.

Exhibit 19: Additions and Subtractions to U.S. Listed Companies, 1976-2025



Source: Counterpoint Global; Craig Doidge, G. Andrew Karolyi, and René Stulz, "The U.S. Listing Gap," *Journal of Financial Economics*, Vol. 123, No. 3, March 2017, 464-487; and Center for Research in Security Prices.

Note: The total counts may not match across sources due to different criteria for inclusion. We include domestic U.S. companies listed on the New York Stock Exchange, NASDAQ, and NYSE American stock exchanges.

Reflecting this decline, the FT Wilshire 5000 Index, launched in 1974 to represent the entire U.S. equity market, included approximately 4,700 stocks at its inception and 3,414 stocks at the end of 2025.⁶⁸

The change in the number of public companies over a period is the difference between the number of new listings and delistings. New listings are the result of IPOs, direct listings, and spinoffs. Delistings are the consequence of mergers, voluntary delistings, and removals by an exchange for cause. The number of listed companies has dropped since 1996 even though real gross domestic product (GDP) doubled and population grew 27 percent through 2025. Researchers who have built regression models based on GDP, population, and governance suggest that there should be roughly 5,800 to 12,200 more public stocks than there are, a large listing gap.⁶⁹

Some of that gap is explained by the ability of companies to stay private while growing their value. Exhibit 20 compares the number of public companies to the number of private companies in the U.S. for various ranges of valuation. In prior generations, many of the private companies valued at \$1 billion or more, known as "unicorns," would have gone public. We now see a substantial percent of them remaining private.

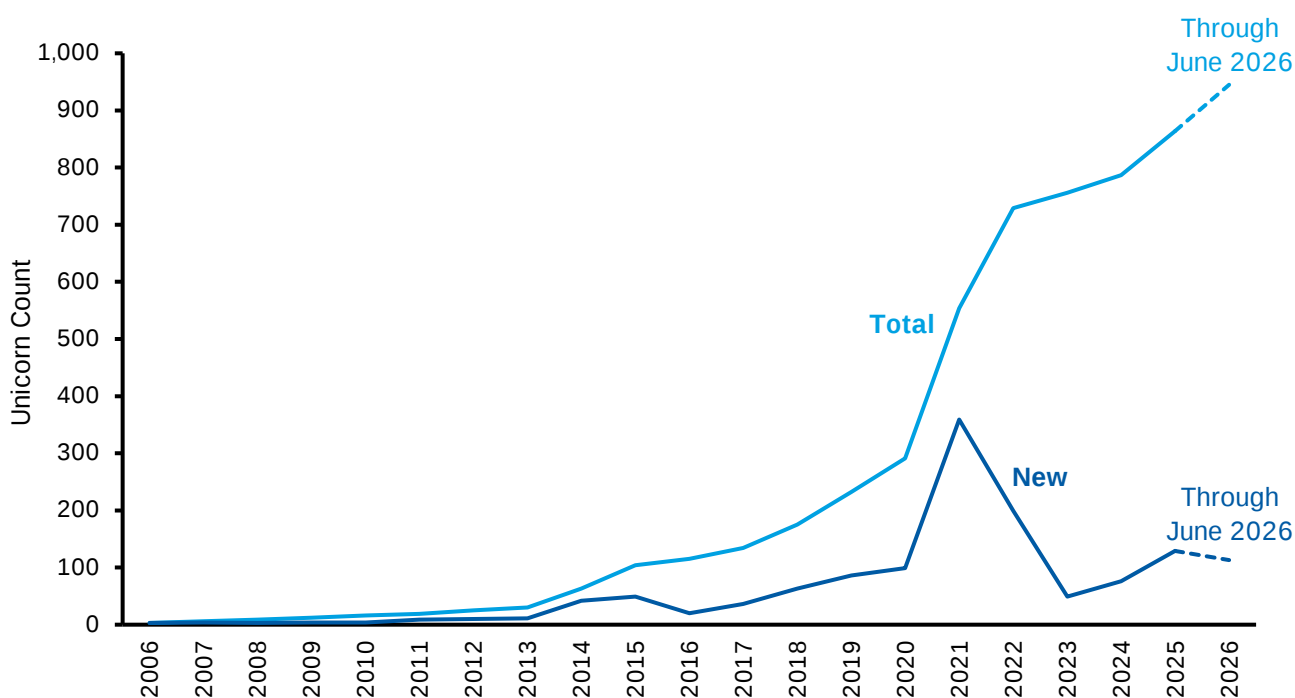
Exhibit 20: Public versus Private Companies, August 2026

	Number of Companies		Percentage of Companies	
Valuation Range	Private	Public	Private	Public
\$1-3B	592	722	45%	55%
\$3-5B	160	342	32%	68%
\$5-10B	97	420	19%	81%
\$10-100B	62	652	9%	91%
\$100B+	5	125	4%	96%

Source: Counterpoint Global; FactSet; and Crunchbase, see <https://news.crunchbase.com/unicorn-company-list/>.
 Note: As of August 9, 2026.

Exhibit 21 shows the total number of unicorns, as well as the number of new ones, from 2006 to June 2026. There were just 3 unicorns in 2006 and 945 through June 2026 (totals from different sources can vary). In 2021 alone, 359 companies achieved unicorn status. These companies have access to more capital than did startups of prior years.

Exhibit 21: Number of Unicorns, New and Total, 2006-June 2026



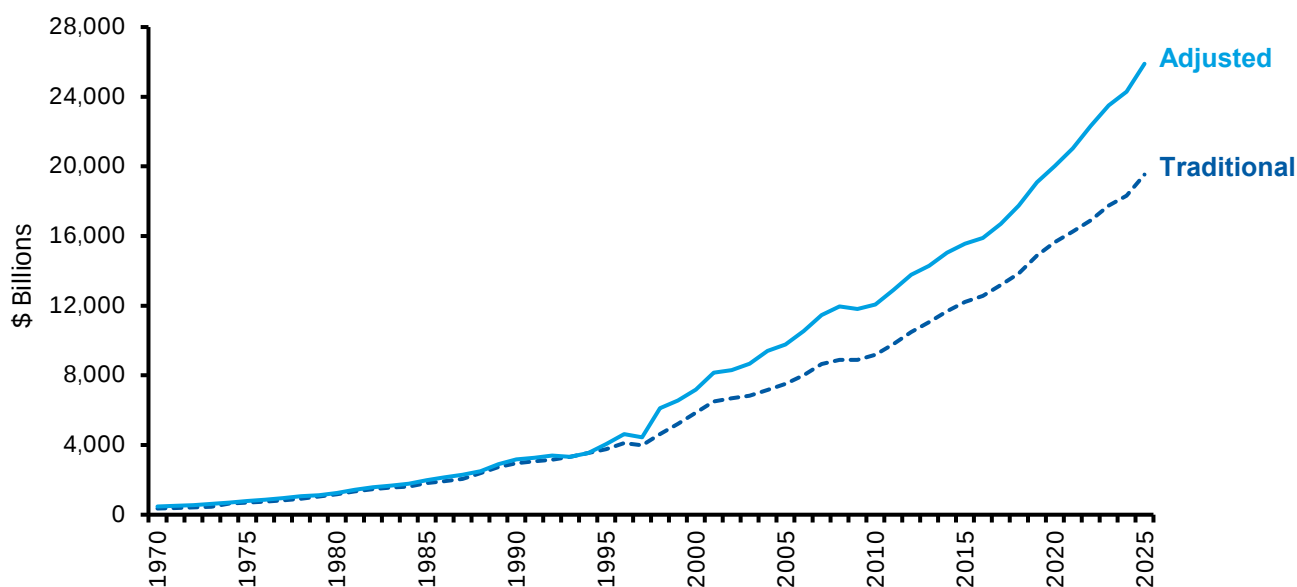
Source: Counterpoint Global; PitchBook 2018 VC Unicorn Report; and NVCA Yearbooks.

Some academics argue that the number of companies is the wrong way to think about the vibrancy of the stock market or the prospects for economic growth. Rather, they suggest the correct metric is the movement of corporate assets. This requires understanding transactions between companies, including public to public, public to private, and private to public.⁷⁰

For example, if one public company acquires another, the nominal listing is cut in half but the assets that trade in the market remain the same. Further, if a public company acquires a private one, assets grow even though the number of listings is unaffected.

Exhibit 22 shows the invested capital for U.S. public companies, calculated traditionally and adjusted for internally-generated intangible investment.⁷¹ Adjusted invested capital was similar to traditional invested capital in 1976. By 2025, the adjusted sum was 33 percent greater. This reflects the shift from tangible to intangible investment in the U.S. (Yes, even considering the rise in capital expenditures from the hyperscalers.)

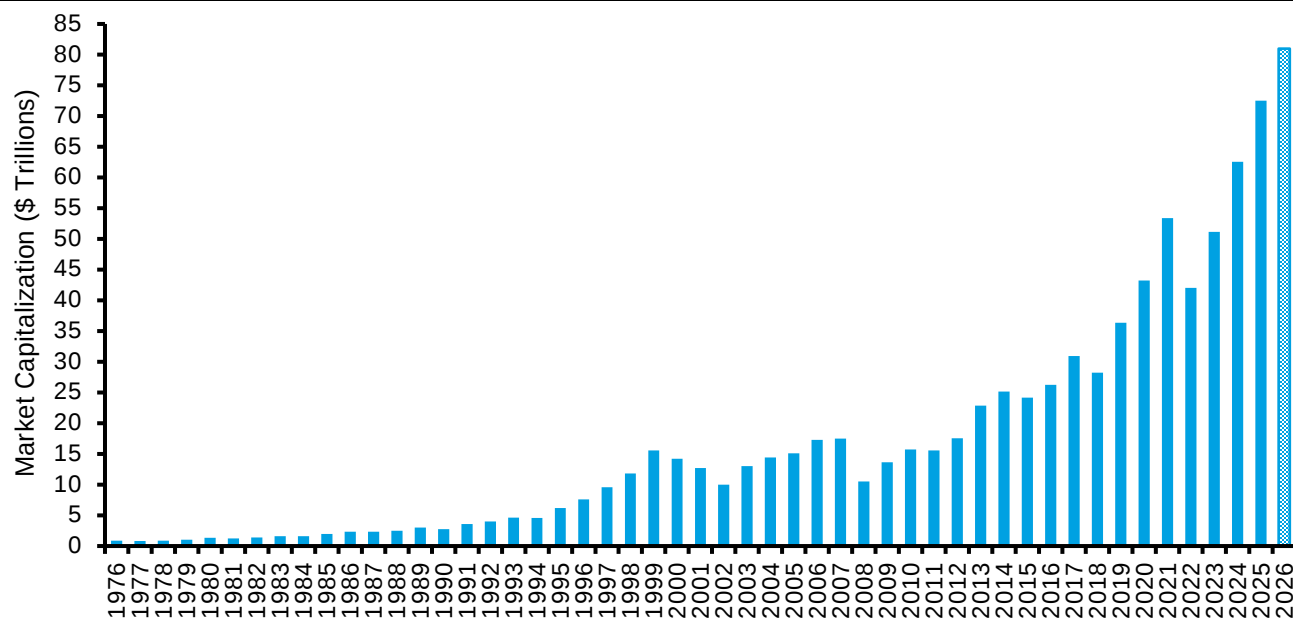
Exhibit 22: Invested Capital of U.S. Public Equities, 1970-2025



Source: Counterpoint Global; FactSet; and Compustat.

The combination of an increase in invested capital and a higher multiple assigned to that capital has led to a significant increase in U.S. stock market capitalization in spite of the decline in the number of listed companies (see exhibit 23). The market value of stocks went from \$0.9 trillion in 1976 to \$72.5 trillion in 2025, a compound annual growth rate of 9.4 percent. This does not include dividends. Over the same span, the number of stocks shrank at an annual rate of 0.6 percent.

Exhibit 23: Market Capitalization of U.S. Public Equities, 1976-July 2026



Source: Counterpoint Global; FactSet; Compustat; and U.S. Securities and Exchange Commission, Annual Reports, see www.sec.gov/reports.

Three financial economists, Craig Doidge, Andrew Karolyi, and René Stulz, have done the most-cited work on the listing gap. They seek to explain the number of listed companies as the product of the propensity to list and the population of firms that are candidates for listing.⁷² Their research suggests that there have been changes with both the propensity and the population.

We can distill the propensity to list into an analysis of cost and benefit. The cost of listing includes fees for listing on an exchange, regulatory requirements, expenses related to mandatory disclosure, the competitive risk of revealing information useful for competitors, and investor relations.

In addition, executives may feel the burden of delivering short-term results, having a higher profile in the media, and subjecting themselves to the scrutiny and potential pressure from activist investors. Many of these costs are fixed.

The benefits of listing are the ability to raise funds for internal uses or acquisitions, liquidity, price discovery, and analyst coverage. Recent work on this issue shows that the propensity to list has recovered in recent years but remains roughly one-half of what it was in the mid-1990s.⁷³

Economists who have studied the decline in the number of listed companies have also converged toward the view that the required size to list has risen in recent decades. Part of the reason is the increase in fixed costs associated with listing. Notably, seemingly obvious culprits, such as the Sarbanes-Oxley Act of 2002, which set or expanded disclosure requirements for the boards, management, and accounting firms of public companies in the U.S., do not appear to have played a central role in these growing costs.

One important driver is the “small size trap,” which states that it is now harder for small companies to become large. For example, in the 1990s somewhere between 15 and 20 percent of small companies became medium or large companies each year. That percentage is now one-half of what it used to be.

This in turn reflects a profitability gap. The difference between the median return on assets for large and small companies was 15 percentage points in the 1990s and is now in the range of 30-35 percentage points.⁷⁴

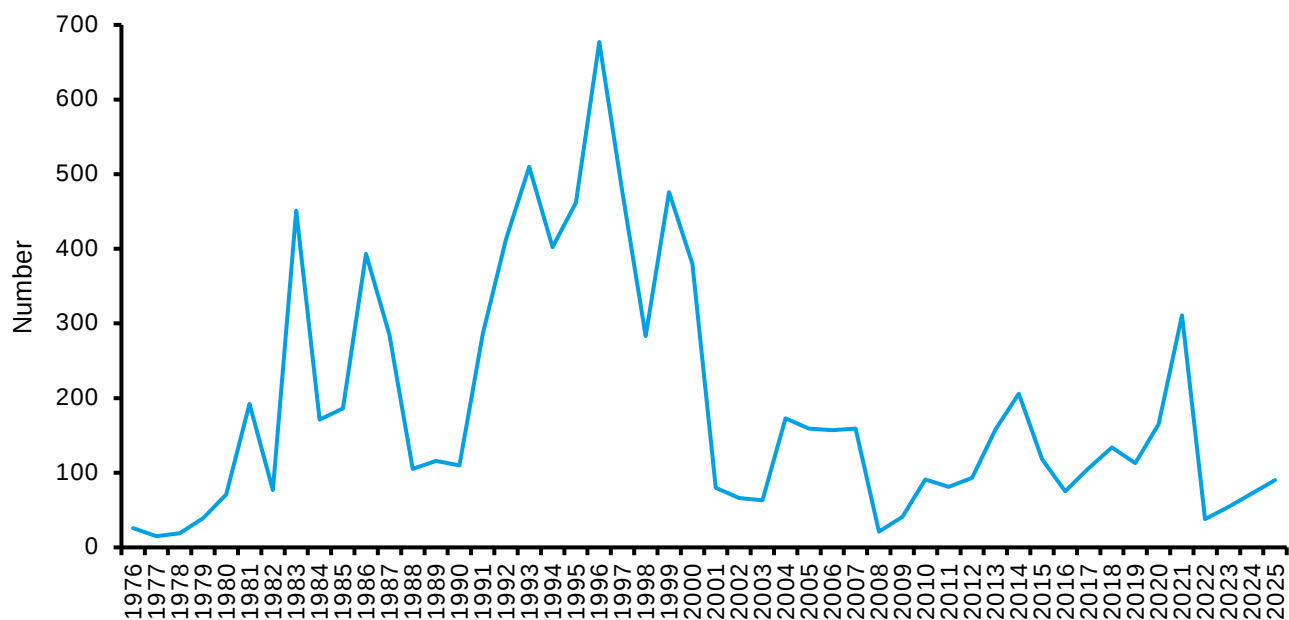
The limited prospects for profitability of small companies create the opportunity for economies of scope.⁷⁵ That is, the assets of a small company may be more valuable as part of a big company. So, a small company captures more value by selling to a big company than by doing an IPO and remaining independent as a public company.

This basic sketch, if correct, predicts a reduction in the number of IPOs, an increase in mergers and acquisitions (M&A), and an increase in the average size of public companies. We have seen all three.

Exhibit 24 shows IPOs from 1976 through 2025. There is a general uptrend from the mid-1970s through the mid-1990s, followed by a decline through the present, notwithstanding a short-lived spike in 2021. There were 265 IPOs per year on average from 1976 through 2000 and 113 from 2001 through 2025. Also consistent with the thesis, companies that listed in recent decades are on average older and larger than those of the prior period.

Our data on IPOs come from Jay Ritter, a professor of finance who is widely recognized as a leading scholar in this field. Ritter’s data exclude special purpose acquisition companies (SPACs), among other offerings. There was a large wave of 861 SPAC IPOs in 2020 and 2021. Nearly one-half of those subsequently liquidated.⁷⁶

Exhibit 24: Initial Public Offerings (IPOs) in the U.S., 1976-2025



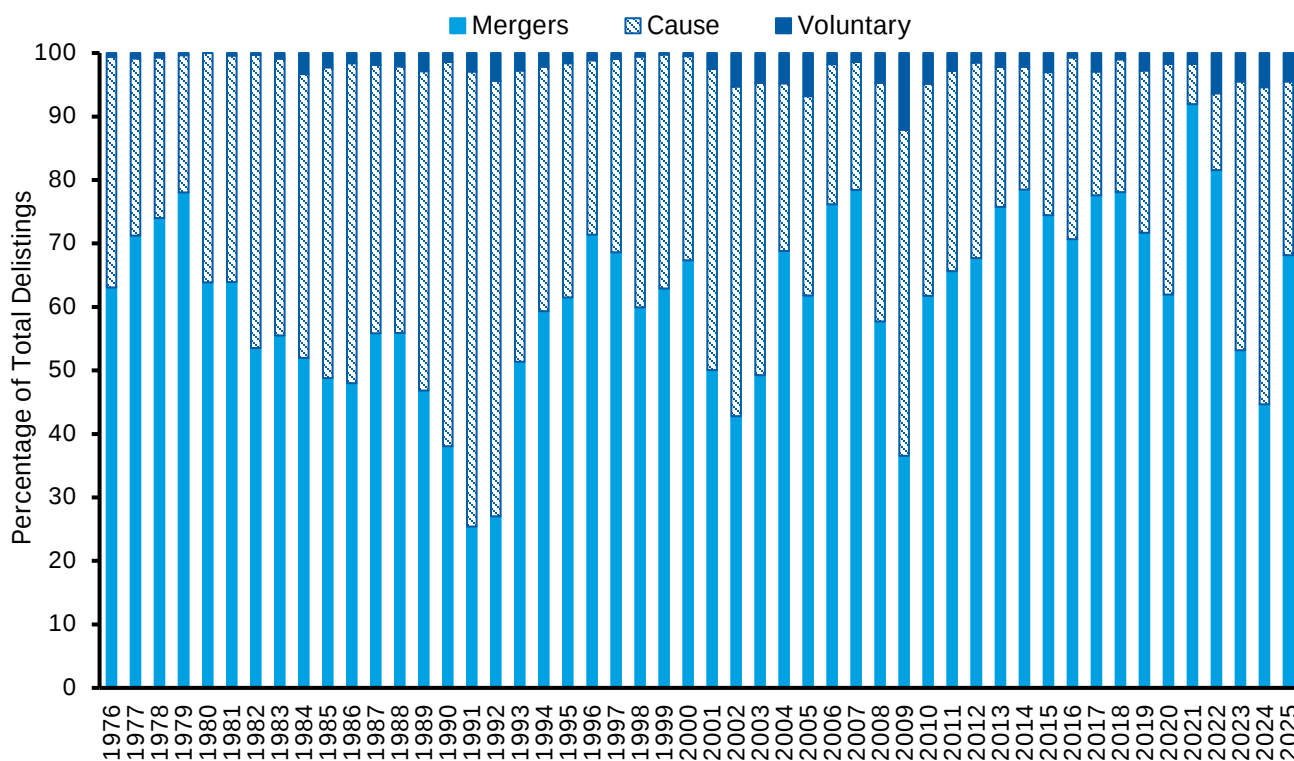
Source: Counterpoint Global and Jay R. Ritter.

Note: Includes IPOs with an offer price of at least \$5.00 and for all years excludes American depositary receipts, unit offers, special purpose acquisition companies, closed-end funds, real estate investment trusts, natural resource limited partnerships, small best-efforts offers, stocks not listed in the Center for Research in Security Prices database, and for 1980-2025 excludes banks and savings and loan associations.

Exhibit 25 shows the reasons why stocks of companies are delisted. A voluntary delisting is the least common explanation. This is the case when a company decides the cost of being public outstrips the benefit. The stocks of some of these companies continue to trade but are not registered with an exchange.

A stock exchange can compel a company to delist for cause. This happens when a company files for bankruptcy or fails to meet certain requirements, such as sustaining a minimum stock price and market capitalization or being current with filings that the Securities and Exchange Commission requires.

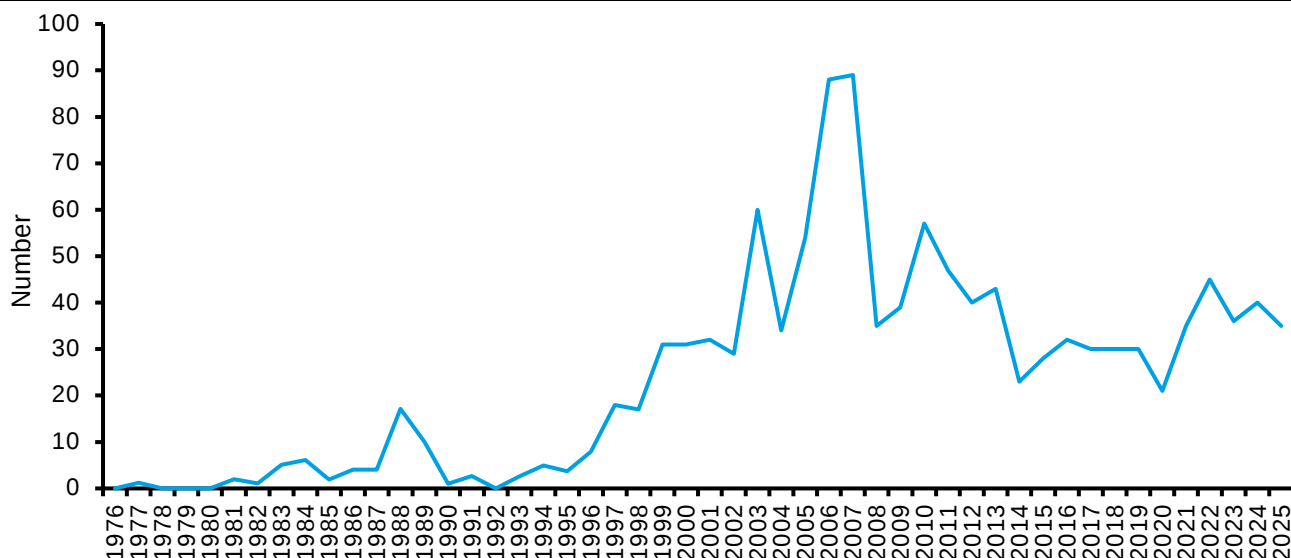
Exhibit 25: Reasons for Delisting, 1976-2025



Source: Counterpoint Global and Doidge, Karolyi, and Stulz, "The U.S. Listing Gap"; Center for Research in Security Prices.

M&A is by far the leading explanation for delisting. For this discussion, the focus is on deals that shrink the number of public companies. These include strategic and financial deals. A strategic deal is when one public company buys another. A financial deal is when a buyout firm acquires a public company. The bulk of delistings are the result of strategic deals.

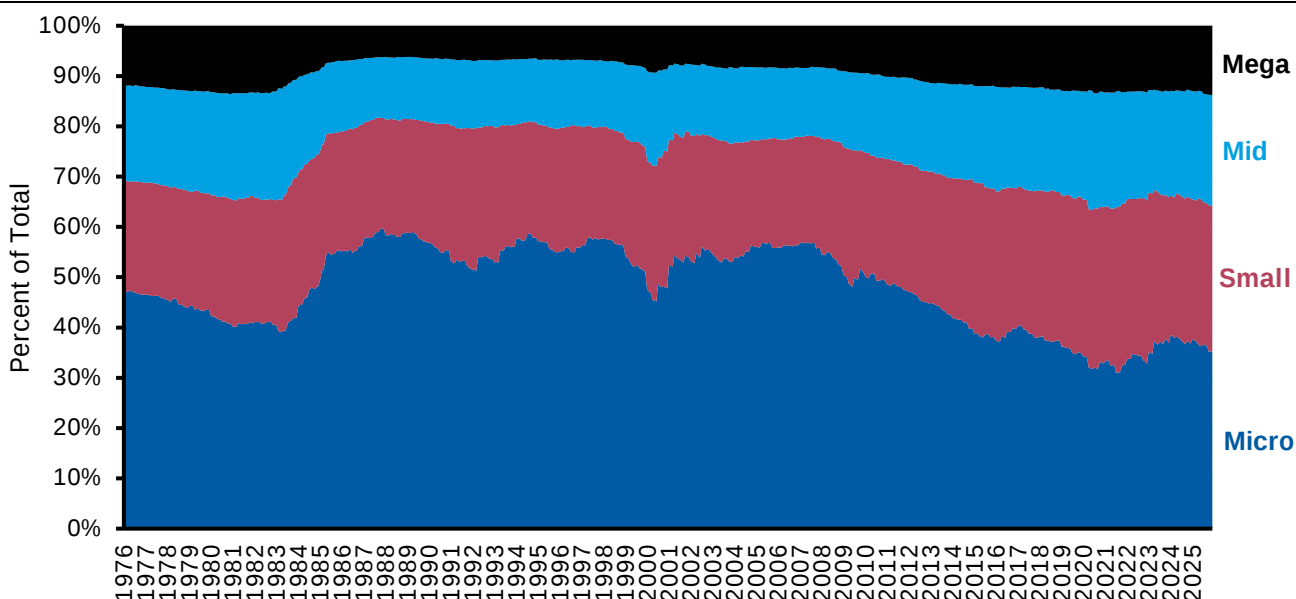
Exhibit 26 shows the deals done by buyout firms. From 1976 to 2000, less than 2 percent of M&A-related delistings were the result of buyouts. From 2001 to 2025, nearly 22 percent were. The rise of buyouts in the 21st century helps explain the large drop in the number of public companies.

Exhibit 26: Delistings as the Result of Buyout Deals, 1976-2025

Source: Counterpoint Global; Alexander Ljungqvist, Lars Persson, and Joacim Tåg, "Private Equity's Unintended Dark Side: On the Economic Consequences of Excessive Delistings," NBER Working Paper 21909, January 2016; and FactSet.

The size threshold thesis also suggests that the companies leaving the public sphere are on average smaller than those that remain. That is true. Exhibit 27 shows the mix of mega-, mid-, small-, and micro-capitalization public companies from 1976 through 2025.

Mega-capitalization companies were 7 percent, and micro-capitalization 58 percent, of the total number of public companies at the end of 1997. In December 2025, mega stocks were 14 percent and micro stocks just 35 percent of the total. More than 2,000 of the vanishing companies had micro capitalizations, defined as companies that make up bottom two percent of the aggregate value of the U.S. stock market.

Exhibit 27: Mix of Mega-, Mid-, Small-, and Micro-Cap U.S. Public Companies, 1976-2025

Source: Counterpoint Global and Center for Research in Security Prices.

As a result of this mix shift, the average market capitalization of a public company is much larger today than in the past. For example, the average market capitalization of a public company in 1976, measured in 2025 dollars, was \$0.8 billion. By 1996, that average grew to \$2.0 billion. At the end of 2025, the average market capitalization was nearly \$20.7 billion. See exhibit 28.

Exhibit 28: Snapshots of the U.S. Equity Investable Universe: 1976, 1996, and 2025

Characteristics of U.S. Stock Market	1976	1996	2025
Number of listed companies	4,796	7,300	3,500
Market capitalization (billions of 2025 \$)	\$3,951	\$14,378	\$72,517
Gross domestic product (billions of 2025 \$)	\$8,239	\$15,276	\$30,762
Market capitalization as a percent of GDP	48%	94%	236%
Individual direct ownership	64%	45%	42%
Number of exchange-traded funds (U.S. domestic equity)	0	2	1,979
NYSE annual share volume (millions)	5,360	104,636	1,279,773
Equity options traded (contracts in millions)	32	199	13,949
Number of CFA charterholders (Americas)	4,500	23,800	114,500
Number of CFA charterholders per listed company	1	3	33
Characteristics of U.S. Companies			
Average market capitalization (billions of 2025 \$)	\$0.8	\$2.0	\$20.7
Corporate profit as a % of GDP	7.3%	6.7%	11.4%
Average age in years of a listed company	11	12	19
Industry concentration (Herfindahl-Hirschman Index)	1,250	960	1,380
AUM of U.S. Investors (in Billions USD)			
Active mutual funds (U.S. domestic equity)	\$39	\$1,356	\$7,228
Index mutual funds (U.S. domestic equity)	<\$1	\$85	\$5,431
Exchange-traded funds (U.S. domestic equity)	\$0	\$2	\$8,611
Hedge funds (long/short equity)	<\$1	\$130	\$1,535
Venture capital	\$4	\$39	\$1,377
Buyout funds	<\$1	\$159	\$2,925

Source: Counterpoint Global; Doidge, Karolyi, and Stulz, "The U.S. Listing Gap"; World Bank; Center for Research in Security Prices; FactSet; Compustat; U.S. Bureau of Economic Analysis; Kenneth R. French; Board of Governors of the Federal Reserve System; Investment Company Institute (ICI); New York Stock Exchange and Yahoo! Finance; Options Clearing Corporation; CFA Institute and Christopher M. Brockman and Robert Brooks, "The CFA Charter: Adding Value to the Market," Financial Analysts Journal, November/December 1998, 81-85; Claudio Loderer, René Stulz, and Urs Waelchli, "Firm Rigidities and the Decline in Growth Opportunities," Management Science, Vol. 63, No. 9, September 2017, 3000-3020; Gustavo Grullon, Yelena Larkin, and Roni Michaely, "Are U.S. Industries Becoming More Concentrated?" Review of Finance, Vol. 23, No. 4, July 2019, 697-743; Falk Bräuning, José L. Fillat, and Gustavo Joaquim, "Cost-Price Relationships in a Concentrated Economy," Federal Reserve Bank of Boston Working Paper 23-9, April 2023; ICI 2026 Fact Book; Hedge Fund Research; Office of Financial Research, "Hedge Fund Monitor"; PitchBook; and NVCA Yearbooks.

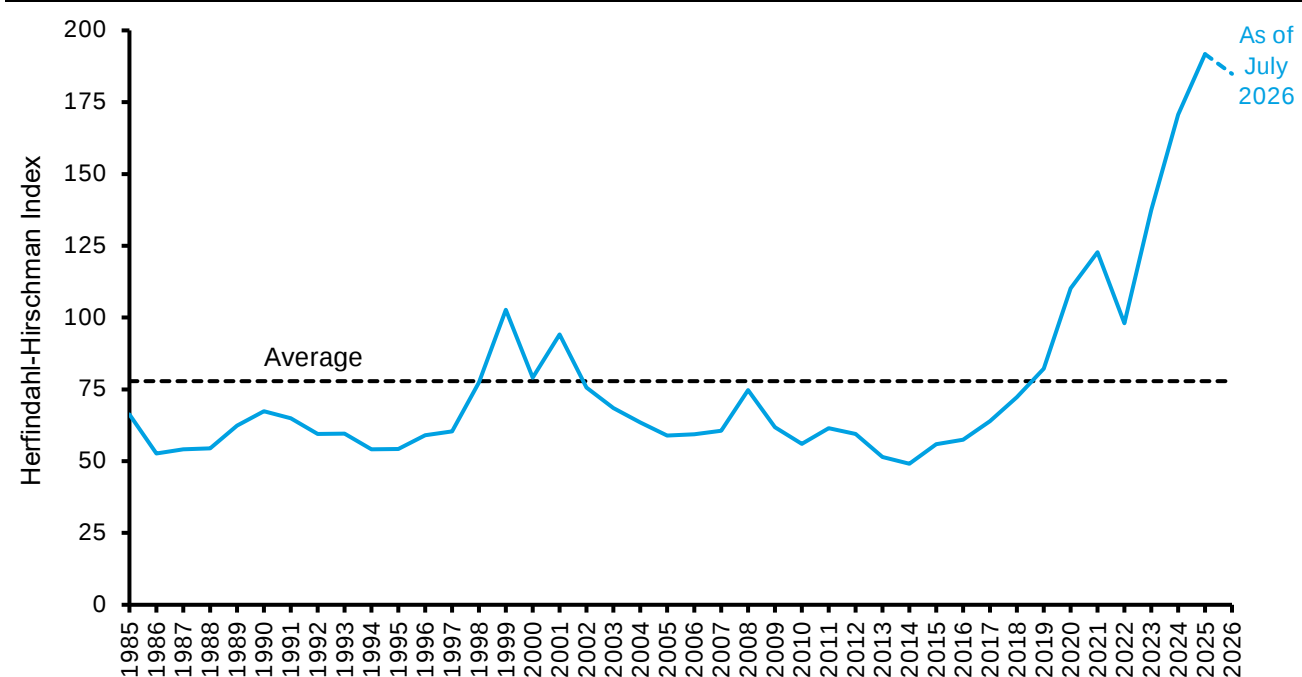
Note: Latest HHI figure is for 2020.

We can measure stock market concentration by using the Herfindahl-Hirschman Index (HHI). You calculate the HHI by squaring each stock's market weighting, or market capitalization divided by the overall market capitalization, adding up the total for all stocks, and multiplying by 10,000. For instance, the HHI is 2,500 for a stock market with 5 stocks and weightings of 0.35, 0.25, 0.20, 0.15, and 0.05 ($[0.35^2 + 0.25^2 + 0.20^2 + 0.15^2 + 0.05^2] \times 10,000$). The higher the HHI, the more concentrated the market.

Exhibit 29 shows the HHI for the Russell 1000 index from 1985 through July 2026. An equal-weighted index would have an HHI of 10. The prior peak in concentration came in 1999 during the dot-com boom, a period when average valuation multiples were vastly higher than median multiples as the result of a huge skew in valuations.

From the mid-to-late 1990s through 2014, the HHI generally trended lower, indicating less concentration. This is surprising considering the number of listed companies declined during that period. Since 2014, concentration has been in a strong upward trend. As of year-end 2025, the HHI was 192, well above the 1999 top of 103 and the average of 78 over the full period. This trend bears on the prospects for the size factor, which reflects the fact that small-capitalization stocks have produced higher returns than the capital asset pricing model indicates historically.⁷⁷

Exhibit 29: Herfindahl-Hirschman Index, Russell 1000 Index, 1985-July 2026



Source: Counterpoint Global and FactSet.

What do these trends mean for public markets today? We will highlight a few considerations, which all relate to flows between investors and companies.

First, the companies that are public now are on average much larger and older than companies in the past. Vibrant M&A has led to higher concentration in many industries, and a handful of very large technology companies have attained durable market positions via strong networks.⁷⁸ In 2025, the top 10 companies

measured by equity capitalization were 35 percent of the stock market and 65 percent of the economic profit, a measure of value creation.

As a result of where they are in the corporate lifecycle and the profitability they enjoy, listed companies have also had a high propensity to return cash to shareholders.⁷⁹ Following the introduction of a safe harbor provision for buying back stock in 1982, the preferred means to return capital to shareholders has shifted from dividends to share buybacks.

In 2025, for example, we estimate that buybacks for all U.S. public companies were roughly \$1.2 trillion and that dividends were about \$900 billion. This \$2.1 trillion led to a total shareholder yield of 3.2 percent based on an average of the beginning and ending market capitalization. (The total shareholder yield was approximately 2.5 percent net of equity issuance).

That point noted, the capital allocation of a number of large companies has shifted from returning capital to shareholders to increasing capital expenditures to support their investments in artificial intelligence.

Alphabet, the parent company of Google, is a good case in point. The company did not repurchase any shares in the first and second quarters of 2026 versus \$28 billion in buybacks over the same periods in the prior year. In fact, the company issued about \$50 billion of common and preferred equity in the first half of 2026 and none for raising capital over the same quarters in 2025. Capital expenditures were \$80.6 billion in 2026's first half as compared to \$39.6 billion in the equivalent horizon in 2025.⁸⁰

Second, as discussed above, assets have shifted substantially from actively managed equity funds to funds that track indexes or are rules-based.

The final consideration is the proposed change in regulation that would allow forms of buyout and venture capital funds to be eligible for certain retirement plans. Because companies are staying private for a longer time than they did in the past, substantial wealth has been created in private markets that most retail investors have not been able to access.

Democratizing access to private investments is attractive in principle. Practical challenges include a potential mismatch between illiquid assets and investor demand for liquidity, the risk of adverse selection, and costs.

There are recent examples of funds with semi-illiquid assets where redemption requests from investors exceeded quarterly redemption limits. This dynamic illustrates the tension between illiquid holdings and investor preferences for liquidity.⁸¹

Economists have developed a model of "cream skating," where informed investors with valuable information keep assets away from public markets in order to generate excess returns.⁸² This may apply to private markets. And funds that have provided retail investors with exposure to buyout funds have underperformed institutional benchmarks, in part because of fees.⁸³

Public equity markets are large and liquid. While there are fewer companies than there were in the mid-1990s, the companies that remain are larger and have a higher proclivity to return capital to shareholders. Further, the cost to access public markets remains substantially lower than that for private markets.

We now turn to the buyout industry.

Buyouts

A leveraged buyout is a transaction where a buyer purchases a company using a high ratio of debt to equity. Buyers typically target companies with ample and stable cash flows, then seek to improve operations, governance, and monitoring to generate cash flow to pay down the debt.⁸⁴ This focus leads to another potential source of excess returns. The goal is to exit at a price that delivers an attractive return on the equity investment.

A typical fund has a 10-year life. During the first five years, the investing period, fund sponsors generally seek to draw on committed capital to buy businesses. In the next five years, the harvesting period, sponsors attempt to sell those investments and return capital to limited partners. Acquisitions and exits often overlap in practice, and fund agreements commonly include an option to extend the life of a fund.

Origins. The roots of the leveraged buyout are difficult to pinpoint, but the acquisition of Waterman Steamship Corporation in 1955 by McLean Industries is a good candidate for the first such deal.

Malcolm McLean was an aggressive businessman who made his fortune in trucking. Because federal regulations restricted common ownership of trucking and shipping assets, he sold his interest in his trucking company to acquire Waterman, which he deemed an attractive target. It had 37 ships, \$20 million in cash, no debt, and a price tag of \$42 million.

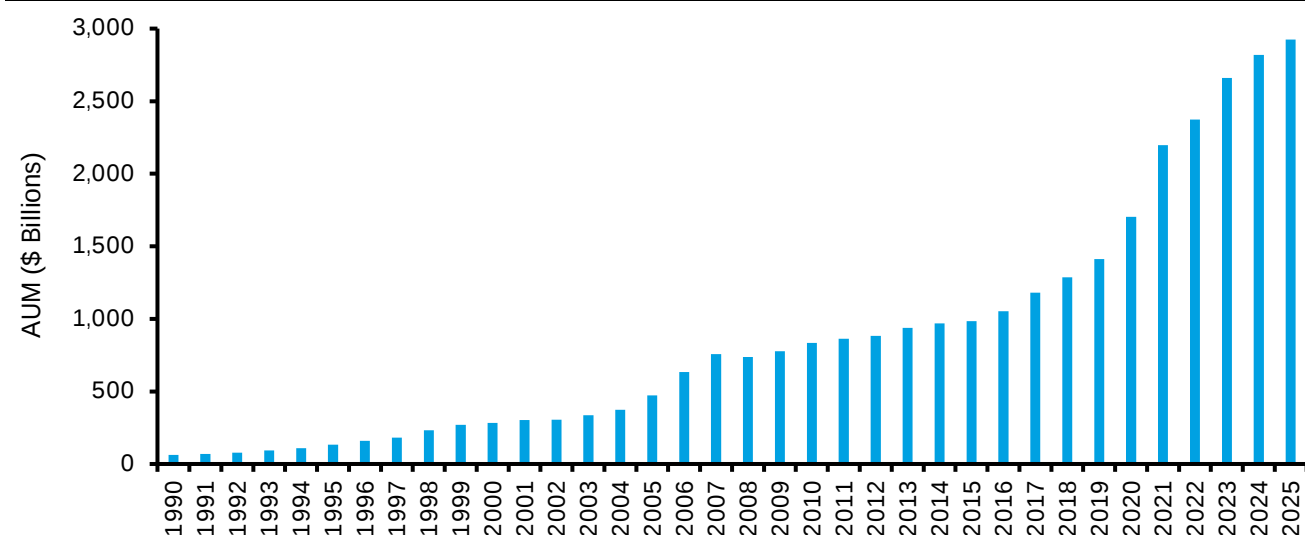
McLean borrowed that sum from First National City Bank of New York (the predecessor to Citicorp), used Waterman's cash to pay off nearly half the loan, and owned the business after having put up only \$10,000 of his own money. Walter Wriston, who would later become chairman and chief executive officer of Citicorp (the predecessor to Citigroup), was the young banker who worked with McLean and said, "In a sense, Waterman was the first LBO."⁸⁵

About a decade later, a group at Bear Stearns, led by Jerome Kohlberg and eventually aided by young colleagues Henry Kravis and George Roberts, started doing "bootstrap deals." These involved buying established companies with predictable cash flows using mostly borrowed money. The first was the acquisition of Stern Metals in 1965 for \$9.5 million, funded with \$8 million in debt. The Stern family put up some equity and continued to run the company.

The success of the LBO business within Bear Stearns led to some internal friction, encouraging the group to leave the firm and start Kohlberg Kravis Roberts & Co. in May 1976.⁸⁶ A slew of other firms opened their doors around the same time, including Thomas H. Lee Partners, Forstmann Little & Company, Clayton & Dubilier, and Welsh, Carson, Anderson & Stowe. We estimate that there are approximately 2,000 to 2,500 buyout firms in the U.S.

Industry Structure. We now review the structure of the industry, what the firms are doing, fund persistence, and the outlook.

Exhibit 30 shows the AUM for the U.S. buyout industry from 1990 to 2025. Today, AUM is about \$2.9 trillion, which includes dry powder of about \$0.8 trillion. That dry powder represents almost \$1.8 trillion in purchasing power assuming a 45 percent equity contribution.

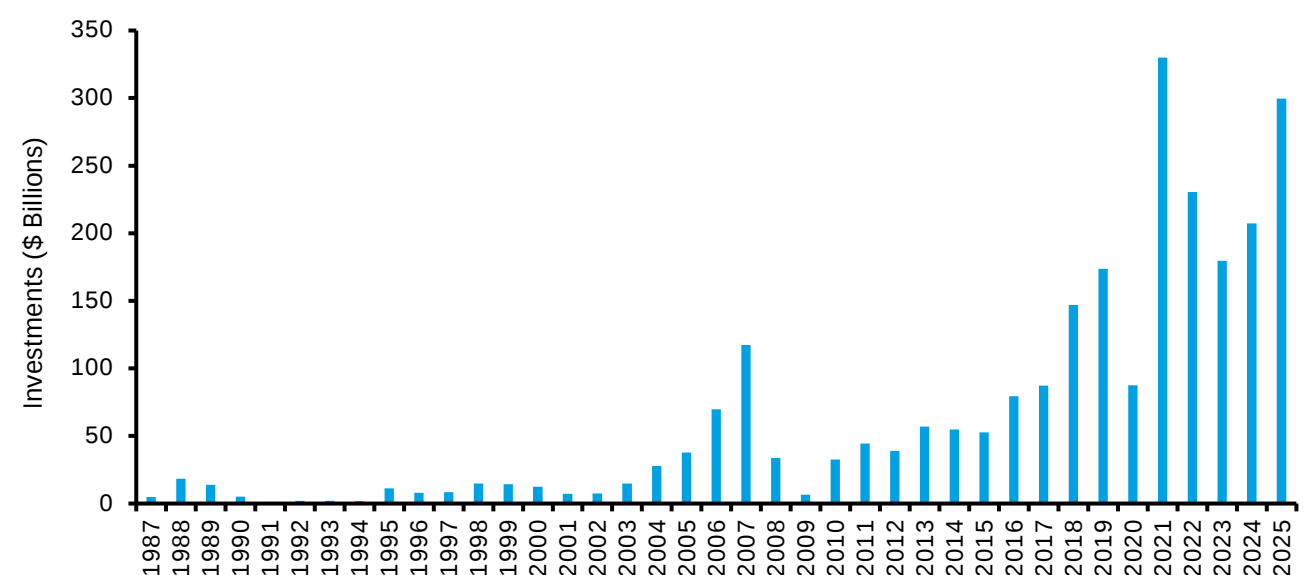
Exhibit 30: Assets Under Management for U.S. Buyout Industry, 1990-2025

Source: Counterpoint Global; PitchBook; and NVCA.

Note: As of September 30, 2025; AUM is dry powder plus remaining value.

Exhibit 31 shows annual investment levels for the buyout funds. Note that the overall deal value is higher because this only reflects the equity contribution. These data are difficult to capture, especially going back in time. But all the results show similar waves.

The first wave was in the late 1980s. The apex of that era was KKR's acquisition of RJR Nabisco in 1989. That deal remains the largest in history after adjusting for inflation. The buyout market declined following that period, reflecting the collapse of the investment bank, Drexel Burnham Lambert, and with it the issuance of high yield bonds, as well as the savings and loan crisis and a recession in the U.S.

Exhibit 31: U.S. Buyout Annual Investment, 1987-2025

Source: Counterpoint Global; S&P Global Market Intelligence; Patrick A. Gaughan, Mergers, Acquisitions, and Corporate Restructurings, Seventh Edition (Hoboken, NJ: John Wiley & Sons, 2018), 313; and PitchBook.

Note: Equity contribution in new deals.

The industry slowly rebuilt in the 1990s with a more modest peak late in that decade coinciding with the dot-com boom. The next big wave was in the 2000s, with deal volume peaking in 2007, preceding the Great Recession. Noteworthy deals at this time included Equity Office Properties Trust (2007), Hilton (2007), First Data (2007), and Harrah's (2008). The size of each of these deals is in the top 10 in U.S. history after adjusting for inflation.

Buyouts again retreated following the Great Recession only to steadily rebound to a recent top in 2021. The era from 2009 to 2021 was one of easy money, with an average yield on the 10-year U.S. Treasury note, calculated monthly, of just 2.3 percent. From 1996 to 2008, the same yield averaged 5.0 percent.

In 2022, credit markets (along with equity markets) dropped and yields rose. Deal volume in the buyout market contracted with the higher rates but has steadily worked its way back to a pace near the prior highs.

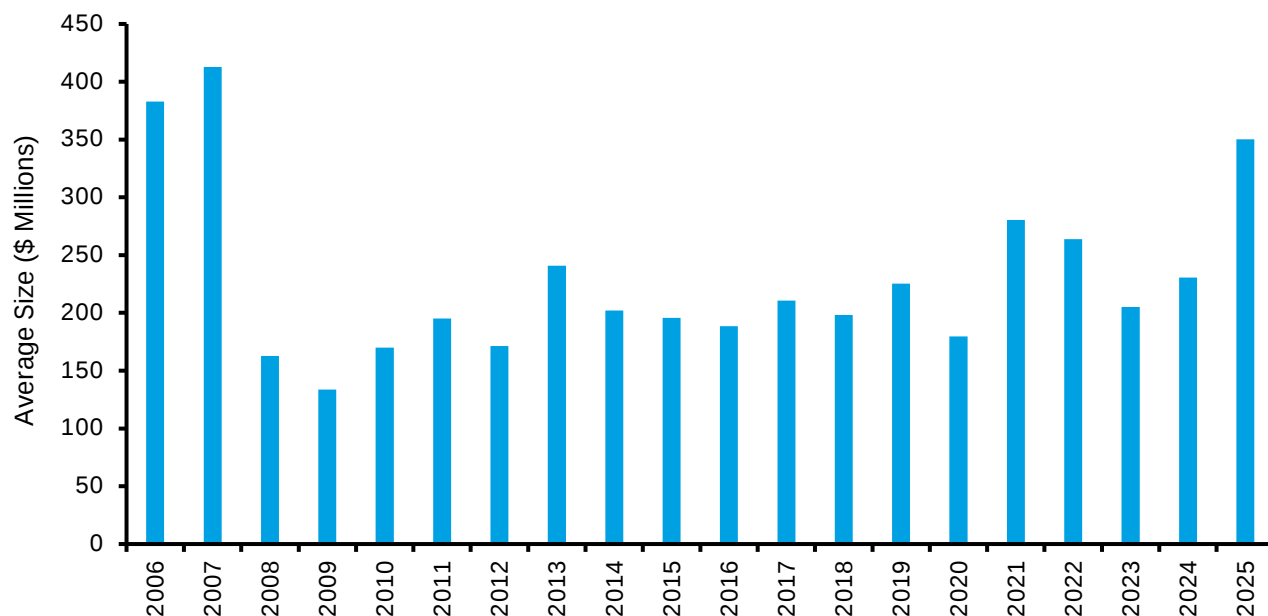
The typical fee structure for a buyout fund includes a management fee, commonly 1.5 to 2.0 percent of a fund's committed capital, and an incentive fee that is most often 20 percent of profits. Only about 10 percent of funds charge less than 20 percent for the profit share, or carried interest, component of fees.

In practice, the effective fees that sophisticated investors pay are lower than the headline figures for a couple of reasons. First, some investors have access to co-investments, in which a limited partner makes an investment alongside a buyout fund or venture capital firm. The fees on these investments are commonly lower or, in some cases, have no fee or carried interest. Second, investors in the same fund may negotiate different economic terms through fee menus, share classes, or side letters.

Those points noted, the sticker price for fees has remained remarkably resilient.⁸⁷ One study of buyout funds found that management fees are more than one-half of total fees.⁸⁸

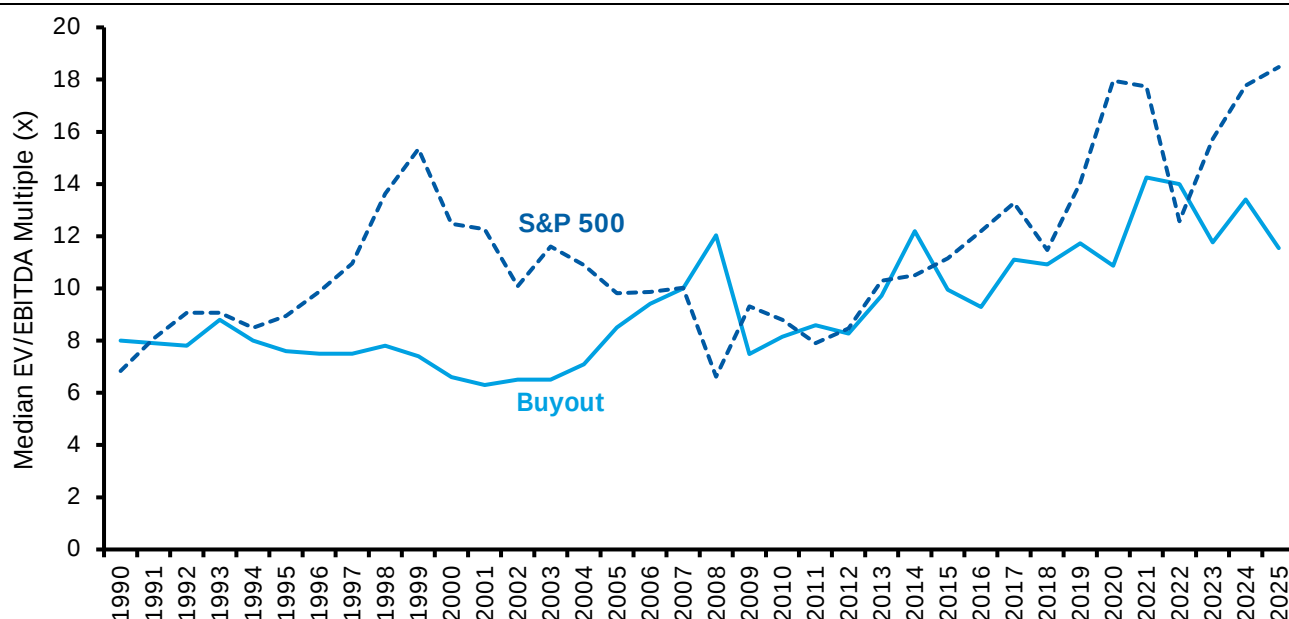
Historically, the size of most buyout deals would be considered small capitalization by the standards of public equity markets.⁸⁹ For example, they fall into Eugene Fama and Kenneth French's categories of small capitalization, as well as value.⁹⁰ For this reason, small cap value indexes have been a reasonable benchmark for calculating the public market equivalent returns of buyout funds in the past.

Average U.S. buyout deal size has been cyclical. Exhibit 32 shows the average size of deals from 2006 to 2025. Megadeals, defined as \$1 billion or larger, went from 63 in 2016 to 154 in 2025.⁹¹ One study of the relationship between transaction size and returns found that large deals in the U.S. did as well, if not better, than mid-market deals.⁹²

Exhibit 32: Average Size of U.S. Buyout Deals, 2006-2025

Source: Counterpoint Global and PitchBook.

The entry multiple, a proxy for valuation, trended higher from 2000 to 2025. For example, the median multiple of enterprise value-to-earnings before interest, taxes, depreciation, and amortization (EV/EBITDA) went from 6.6 in 2000 to 11.5 in 2025. Exhibit 33 shows the median EV/EBITDA multiple for buyout deals and the S&P 500 from 1990 to 2025. Over the full period, the buyout multiple for the private market has been roughly 20 percent below that of the public market. But there are periods when it is equal to or higher than the public multiple.

Exhibit 33: Median EV/EBITDA for U.S. Buyout Deals and S&P 500, 1990-2025

Source: Counterpoint Global; FactSet; PitchBook; and Ulf Axelson, Tim Jenkinson, Per Strömberg, and Michael S. Weisbach, "Borrow Cheap, Buy High? The Determinants of Leverage and Pricing in Buyouts," *Journal of Finance*, Vol. 68, No. 6, December 2013, 2223-2267.

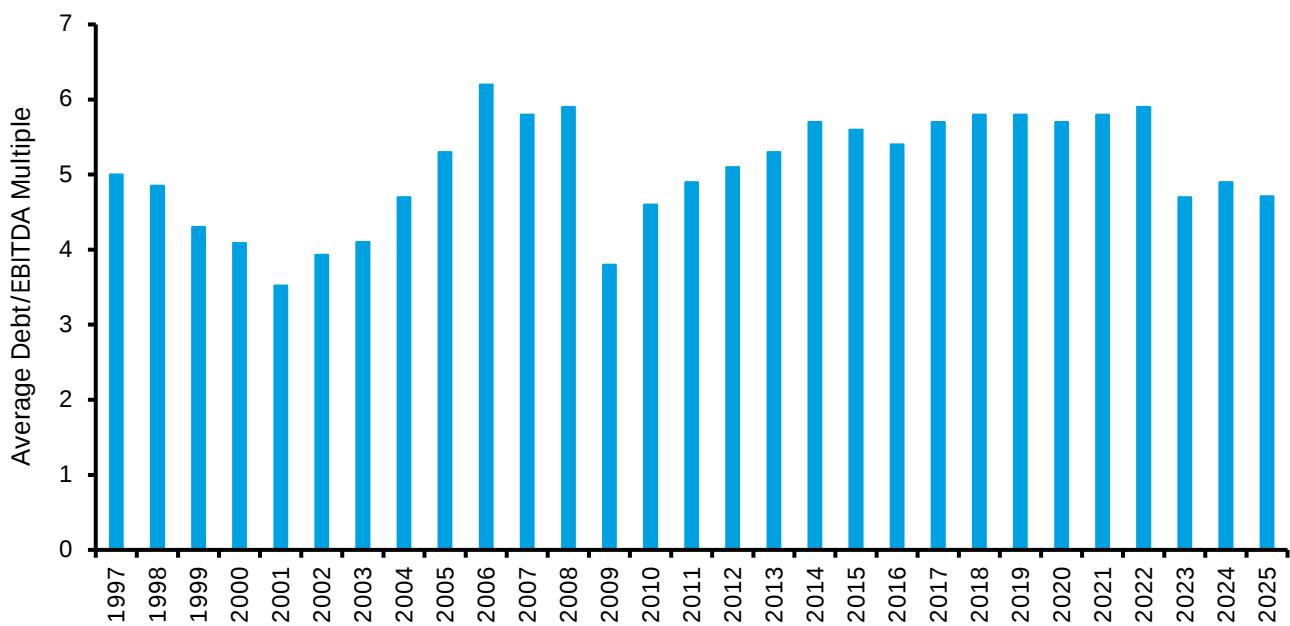
It is common for sponsors and management teams to include “addbacks” to EBITDA when valuing a deal. An addback is an adjustment that increases EBITDA by excluding a historical cost or incorporating an anticipated benefit, such as future cost savings or synergies.

Analysis by S&P Global found that addbacks averaged 29 percent of marketed EBITDA across transactions from 2015 through 2024. The annual average rose from 24 percent in 2015 to a peak of 32 percent in 2021, before declining to 26 percent in 2024.

In a related sample, S&P Global found that 92 percent of companies missed projected EBITDA in the first year following a deal and 84 percent missed in the second year. These earnings shortfalls caused 86 percent of companies to miss their projected leverage targets. The median multiple of net debt divided by EBITDA was 2.3 turns higher than the projection in year one and 2.7 higher in year two.⁹³

Following the Great Recession, the rise in acquisition multiples was accompanied by an increase in leverage levels, measured as a multiple of debt/EBITDA (see exhibit 34). The average debt/EBITDA for deals was 3.8 in 2009 and climbed to 5.9 in 2022.

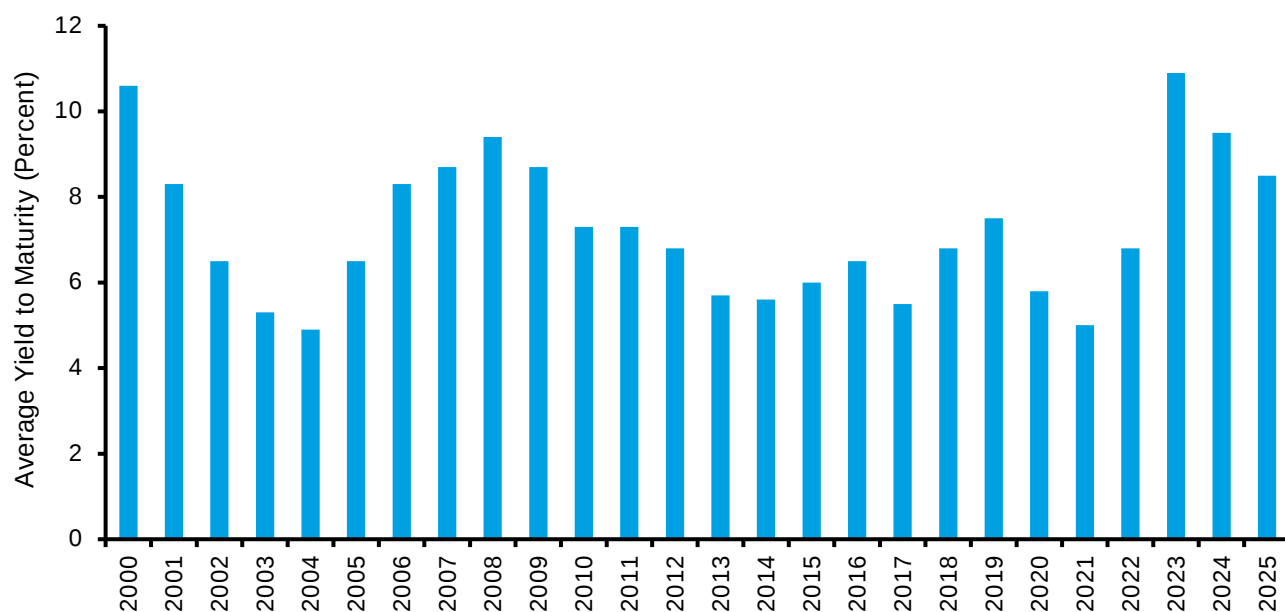
Exhibit 34: U.S. Buyout Leverage Levels, 1997-2025



Source: Counterpoint Global; S&P Global Market Intelligence; and PitchBook.

Companies were able to carry this debt because interest rates were relatively low. Specifically, the average interest rate on new debt for buyouts was 6 to 8 percent from 2010 to 2022.

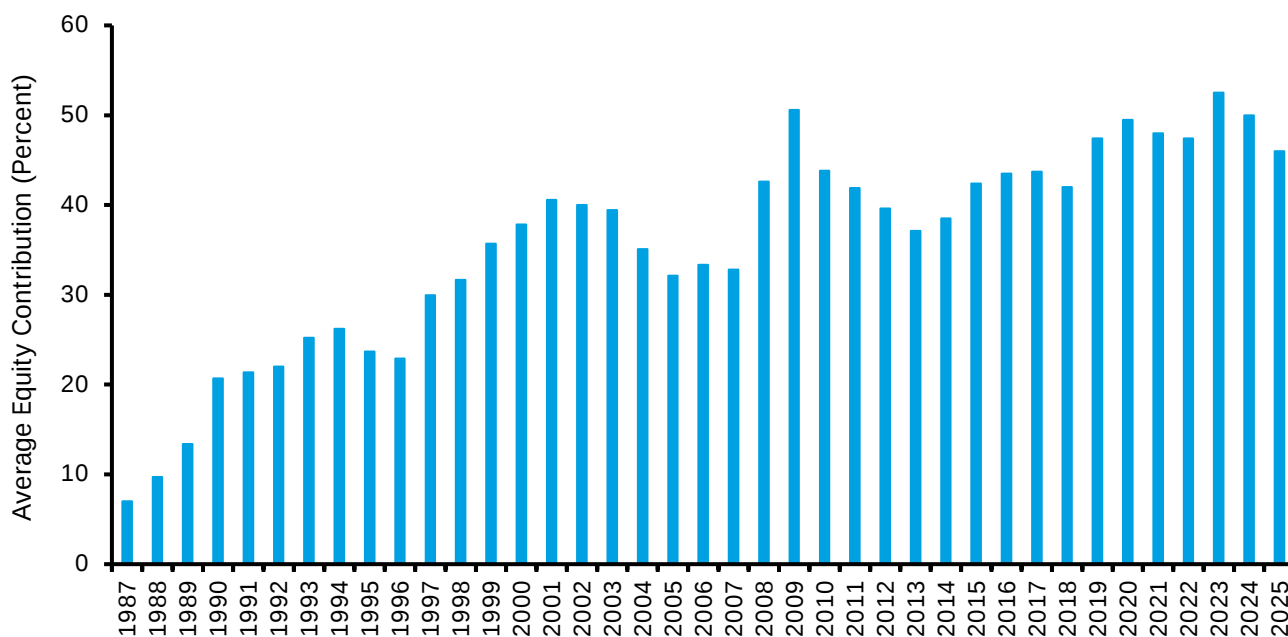
The average debt/EBITDA multiple in 2025 was 4.7, down from 2022 but still above the levels in 2009. Leverage declined as interest rates rose in 2022, with borrowing costs peaking at double-digit rates in 2023. Interest rates have since declined but borrowing costs remain in the range of 8 to 9 percent, above where they were prior to the interest rate reset (see exhibit 35).

Exhibit 35: Yield to Maturity of Institutional Buyout Loans, 2000-2025

Source: Counterpoint Global; Torsten Slok, Rajvi Shah, and Shruti Galwankar, "Outlook for Private Markets," Apollo Global Management, October 2025, slide 27; and PitchBook.

Exhibit 36 shows the average equity contribution to buyout deals from 1987 to 2025. In the early period of buyouts, it was common for equity to represent 20 percent or less of the purchase price. Note that the multiples that buyout firms paid to acquire companies were lower than they are today.

The equity contribution has trended higher over time, with recent tops in 2009 and 2023 when equity was more than one-half of the funding for deals. In 2025, the average equity contribution to new deals was 46 percent.

Exhibit 36: Average Equity Contribution to U.S. Buyout Deals, 1987-2025

Source: Counterpoint Global; S&P Global Market Intelligence; and PitchBook.

Leverage has an effect on risk and expected return. Low leverage is associated with lower risk and return, and high leverage implies higher risk and return.

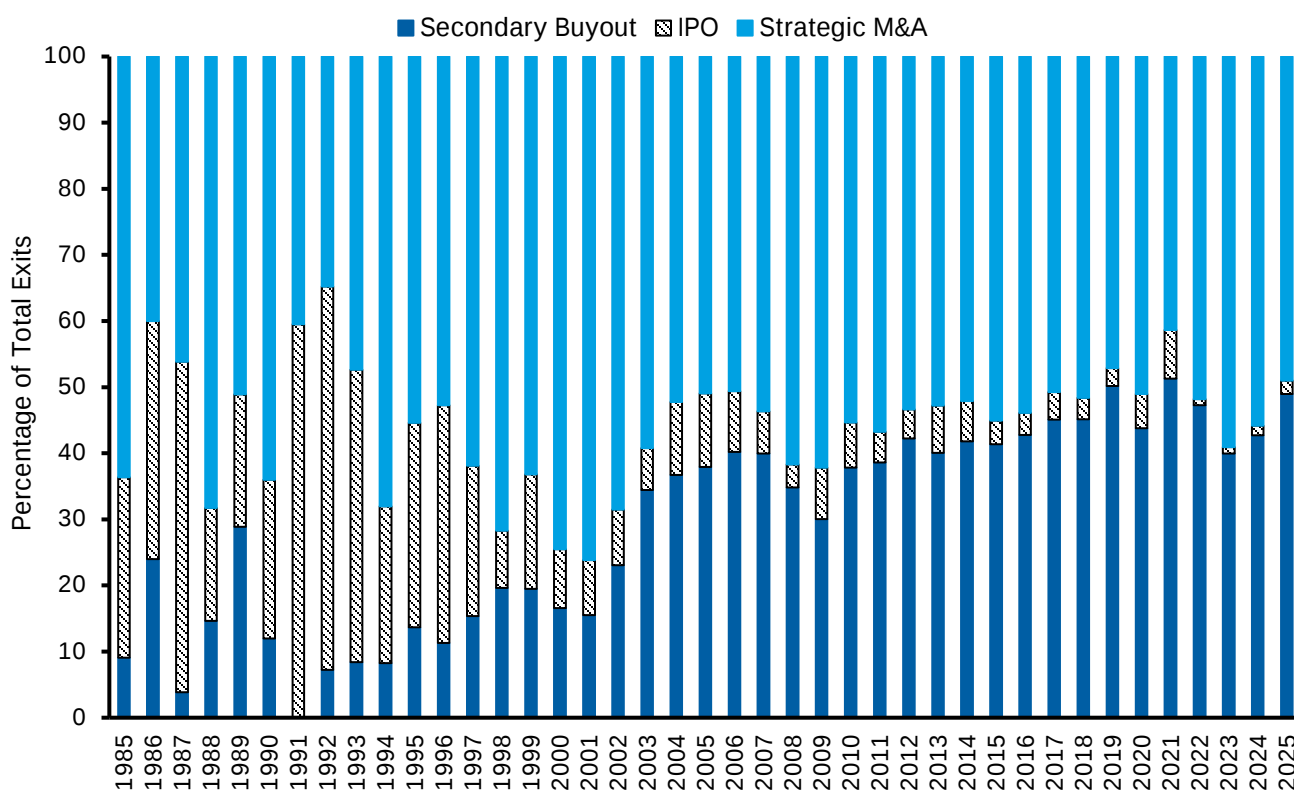
As the equity contribution rises over time, returns become more reliant on operational results and a successful exit, including an attractive exit price. The average holding period was more than 7 years in the 1970s and early 1980s, drifted lower to a trough of 4 years in 2008, and has gradually returned to around 7 years in 2025.⁹⁴

There is also evidence that some buyout firms add value by selling businesses at an EV/EBITDA multiple that is consistently higher than the entry multiple.⁹⁵ That multiple expansion reflects both market conditions and good timing.⁹⁶

The form of exit has also changed substantially over the decades. In the 1970s and 1980s, a sale to another company, called a “strategic” buyer, represented about 33 percent of exits, and IPOs were another 25 percent. Sales to another buyout or financial firm, called a “financial” buyer, were less than 15 percent of exits. These deals are also called secondary buyouts.

In recent decades, sales to strategic buyers have remained fairly steady. But secondary buyouts, as exhibit 37 shows, have grown significantly and were nearly one-half of exits in 2025. Exits via IPOs have dwindled. Since the 1990s, buyout firms have recycled capital by trading companies among themselves more frequently, and the number of IPOs has shriveled.⁹⁷

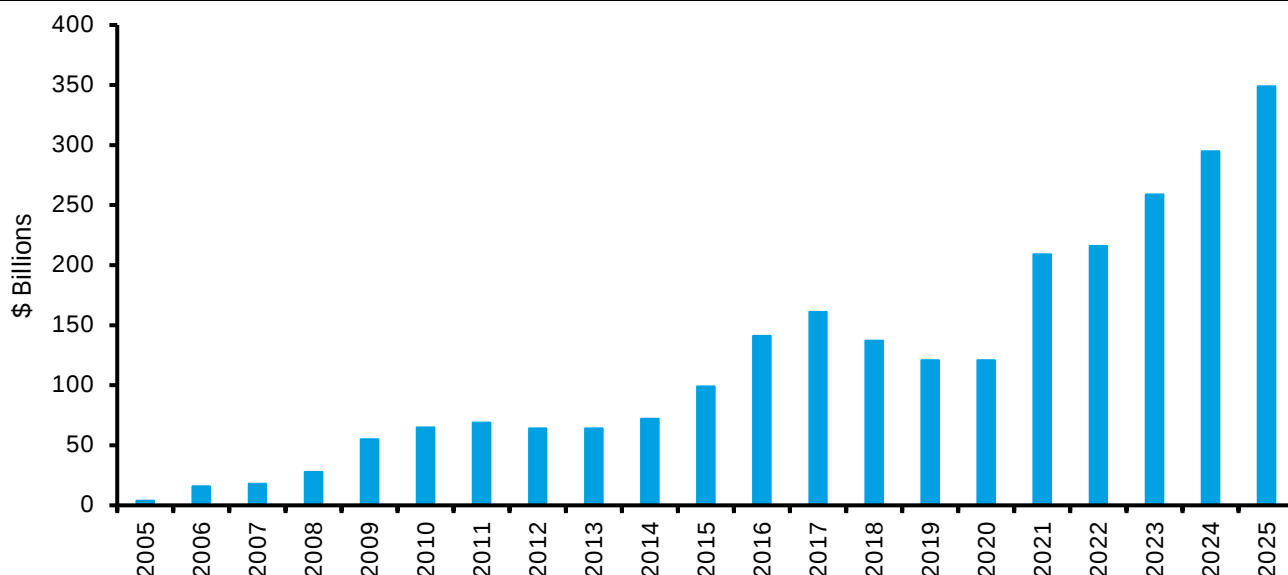
Exhibit 37: Evolution of Exits for U.S. Buyouts, 1985-2025



Source: Counterpoint Global and PitchBook.

Exits for U.S. buyout firms peaked in 2021 at around \$825 billion and declined to \$375 billion in 2025. As a consequence, the value of assets in funds that are 10 years or older has risen sharply, from just \$4 billion in 2005 to \$350 billion in 2025 (see exhibit 38).

Exhibit 38: Assets in U.S. Buyout Funds That Are 10 Years or Older, 2005-2025



Source: Counterpoint Global and PitchBook via Mark Maurer, “Private-Equity Assets Stuck in ‘Zombie Funds’ Are at a Record High,” Wall Street Journal, July 21, 2026.

The bottleneck in exits accelerated the use of continuation funds (or “vehicles”), where a buyout firm creates a new fund to purchase one or more companies from an older fund managed by the same firm. Investors in the older fund usually have the option to cash out at a negotiated price, roll their interest into the new fund, or do some combination of the two. New investors finance the cash payment and have the opportunity to buy into businesses that are more mature with an established track record.⁹⁸

The number of continuation funds in the buyout industry has increased sharply in recent years, from a handful in 2018 to more than 100 in 2025.⁹⁹ We estimate that a majority of the large buyout sponsors in the U.S. have used a continuation fund, and these funds represent a growing share of exits.¹⁰⁰

Persistence measures the relationship between two outcomes of the same activity. For example, a buyout firm’s results are persistent if its first and second funds both generate excess returns.

Persistence is a good measure of skill because it captures repeated success or failure. There is a large literature on persistence in the investment management industry because it is a potential way to identify skillful managers.¹⁰¹

There is a general consensus that buyout funds were persistent prior to 2000 but that persistence has declined since then.¹⁰² This is consistent with an industry that has grown and become more competitive.

Exhibit 39 shows one analysis of persistence. The rows sort one set of funds in quartiles based on returns at the time, and the columns show the returns for subsequent funds, also by quartile. The left panel is funds before 2001, and the right panel captures funds after 2000.

For example, a fund launched before 2001 that was in the top quartile of returns had a 37 percent chance of remaining in that quartile and a 57 percent chance of being above average. By contrast, a fund launched after 2000 that was in the top quartile of returns had only a 24 percent chance of remaining in that quartile and a 50 percent chance of being above average. If results were random, each cell would be 25 percent.

Exhibit 39: Persistence for Buyout Funds

Pre-2001		Subsequent Fund Quartile			
Previous Fund Quartile		1	2	3	4
	1	37%	20%	23%	20%
	2	25%	31%	25%	19%
	3	19%	11%	41%	30%
	4	11%	21%	37%	32%

Post-2000		Subsequent Fund Quartile			
Previous Fund Quartile		1	2	3	4
	1	24%	26%	26%	24%
	2	26%	21%	34%	19%
	3	23%	26%	30%	22%
	4	23%	41%	15%	21%

Source: Counterpoint Global and Robert S. Harris, Tim Jenkinson, Steven N. Kaplan, and Rüdiger Stucke, "Has Persistence Persisted in Private Equity? Evidence from Buyout and Venture Capital Funds," *Journal of Corporate Finance*, Vol. 81, August 2023, 102361, Table 4.

Note: At subsequent fundraise.

Other researchers, using different data and methods, find continued evidence of persistence.¹⁰³ While there remains some debate about the issue, all agree that fund assessment should include consideration of the opportunity set, manager process, and fund size.

The data also reveal that the dispersion of returns, measured as the standard deviation of PME, has shrunk over time. Considering more than 1,000 buyout funds in the U.S., the standard deviation of PME was 0.85 for funds raised before 2000 and 0.43 for those raised after 2000.¹⁰⁴

This is an example of what we call the "paradox of skill," which says that even as absolute skill among competitors increases, relative skill often decreases and the difference between the best and the average shrinks. The paradox of skill is observable in many domains, including sports, business, and investing.¹⁰⁵

Part of the explanation for the paradox of skill is that many more new funds are raised based on the record of top-quartile funds than bottom-quartile funds. So the best increasingly compete against one another and the worst do not participate in subsequent funds. Despite the fact that it has shrunk, the dispersion of returns in buyouts remains higher than it does in most public investment categories (see exhibit 10).

A consistent trend in fundraising is that more of the capital is going to fewer firms. Limited partners are being more selective and are increasingly investing alongside the bigger buyout firms. In 2025, the 20 largest funds raised a total of \$175 billion, more than one-half of the total for all buyout funds.¹⁰⁶

The way large funds scale is mostly by doing larger deals rather than more deals. For instance, doubling the size of a fund is associated with about a 15 percent increase in the number of deals and a 75 percent increase in the average deal size.¹⁰⁷

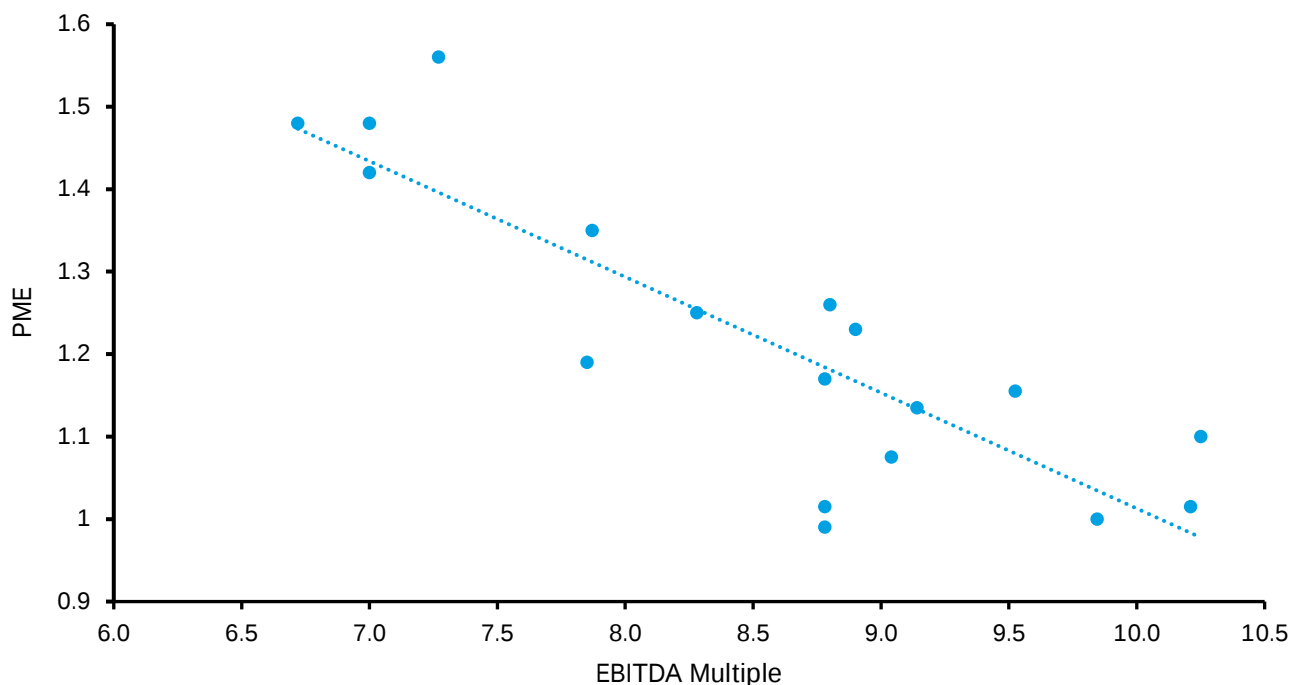
Overall, small funds tend to outperform large funds.¹⁰⁸ A study by Andrea Rossi, a professor of finance, found that the larger the current fund is relative to the previous fund within the same firm, the lower the IRR relative to the first fund.

For instance, a new fund that is double the size of the prior fund is associated with an annualized net IRR that is 3.6 percentage points lower than the prior one. Rossi did not argue that the larger fund size causes lower returns, but rather that the results predominantly reflect regression toward the mean.¹⁰⁹ We would add that the rate at which regression to the mean occurs is a function of how large a role luck plays in shaping outcomes.

Outlook. The outlook for returns from U.S. buyouts relies on assumptions about the multiples paid to buy businesses, interest rates, the amount of leverage used, the potential to improve operations, the multiple received upon exit, and fees. We will review each.

The main argument for muted returns in the future is the recent trend in multiples paid. As Exhibit 40 shows, there has historically been a clear correlation between the entry multiple and PME. Low deal multiples are associated with high PMEs and high multiples with low PMEs.

Exhibit 40: Enterprise Value-to-EBITDA Multiples and PMEs, 1997-2014



Source: Counterpoint Global and Gregory W. Brown and Steven N. Kaplan, "Have Private Equity Returns Really Declined?" *Journal of Private Equity*, Vol. 22, No. 4, Fall 2019, 11-18.

Related work shows that PMEs tend to be higher when buyout multiples are at a discount to the public market and lower when they are at parity with, or above, those in public markets.¹¹⁰

We have already reviewed interest rates and debt levels, which are related to one another. Following a rise in interest rates in 2022 to more normal levels, buyouts have been funded with more equity than they were in the

period of low interest rates following the Great Recession. Leverage levels, measured as average debt/EBITDA, are also lower than they were during the period of low rates.

Given that multiples and interest rates are higher, and leverage levels lower, than those of the past, companies must produce greater increases in EBITDA in current deals to produce the same return on investment.

To make this idea vivid, Bain & Company, the consulting firm, uses the phrase “12 is the new 5.” They suggest that companies purchased at prevailing multiples in 2025 must generate a 12 percent compound annual growth rate (CAGR) in EBITDA over 5 years to match the same return on investment as deals done in 2015 that had a 5 percent CAGR.¹¹¹

Here is how the math works (see the appendix for more detail). For a typical buyout deal in 2015, the Bain analysis assumes one-half of the purchase price is funded with debt at a cost of 6 to 7 percent. They also assume some multiple expansion. Those inputs, combined with 5 percent compound annual EBITDA growth, solve for a 2.5X multiple on invested capital (MOIC) over an assumed holding period of five years.

As of 2025, the multiples and interest rates are higher (8 to 9 percent), and debt as a percentage of the purchase price is lower. Assuming an identical entry and exit multiple, companies need EBITDA to grow at a 12 percent compound annual rate to reach 2.5X MOIC.

While double-digit EBITDA growth is empirically defensible, there are a couple of notes of caution.¹¹² The first is a topic we have discussed: adjusted EBITDA. That research shows a correlation between the magnitude of EBITDA addbacks and how much a company misses its projections.¹¹³

The second is that about 1,200 of the 13,500 companies held by buyout firms are in the software sector. While less than 10 percent of the holdings, software companies represent a higher percentage of invested capital and were purchased at multiples above the overall average.¹¹⁴

The concern is that it may be difficult to exit these positions profitably because of the strategic risk that GenAI poses to the software industry. For example, the iShares Expanded Tech-Software Sector ETF, which tracks an index of American software companies, was down 17.2 percent for the twelve months ended July 30, 2026 while the SPDR S&P 500 ETF Trust, which tracks the S&P 500, gained 18.2 percent over the same period.

We now turn to the venture capital industry.

Venture Capital

Venture capital investors provide equity to young companies they believe have prospects for attractive growth and value creation. Investors include venture capital funds and venture arms of corporations. Investments include startup, early-stage, and emerging companies. Historically, a majority of venture investments have lost money, but large gains by a few successful winners have allowed the industry to generate positive returns.¹¹⁵

Forms of venture capital have been around for centuries. For example, the U.S. whaling industry, which peaked around 1850, had many of the characteristics of modern venture capital. Whaling involved high-risk and high-reward ventures that had a pattern of payoffs that would be familiar to any contemporary venture capitalist.¹¹⁶

Origins. In the early part of the 20th century, startups were funded largely by wealthy families and individuals. We would call them “angel,” or “friends and family,” investors today. Examples include firms such as Pan American World Airways, Eastman Kodak, and Ford Motor Company. Many of the early venture capital firms, then called “investment development companies,” were founded by moneyed and prominent families, including Rockefeller Brothers, Inc. (1946), T. Mellon & Sons (1946), and J. H. Whitney & Company (1946).¹¹⁷ The story is that the term “venture capital” was first used in a conversation between Jock Whitney and Benno C. Schmidt Sr., the co-founders of J. H. Whitney & Company, in 1946.¹¹⁸

The formation of American Research and Development Corporation (ARD) is often associated with the birth of the venture capital industry as we know it today. Founded in Boston, Massachusetts, by prominent bankers, academics, and businessmen, ARD raised \$3.5 million (about \$60 million in 2026 dollars) for a closed-end fund in the fall of 1946, with more than one-half coming from institutional investors. Many early deals were due to affiliations with MIT and Harvard.

One of the founders of ARD was General Georges Doriot, then a professor at Harvard Business School. He taught a course called Manufacturing that was really “all about starting companies and technology.”¹¹⁹ A number of his students and disciples went on to become prominent venture capitalists, including Tom Perkins (Kleiner Perkins), Don Valentine (Sequoia), Bill Elfers (Greylock Partners), Arthur Rock and Dick Kramlich (Arthur Rock & Company), and Bill Draper and Pitch Johnson (Draper & Johnson Investment).

Despite some positive press, ARD bumped along for decades until it made its most famous investment in 1957: a 70 percent stake in Digital Equipment Corporation (DEC) for about \$70,000. ARD’s stake in DEC grew more than 5,000-fold by 1971, and ARD merged with Textron in 1972. ARD’s return from inception to sale was 14.7 percent and would have been half as high without the investment in DEC.¹²⁰

Passage of the Small Business Investment Act of 1958 was another key moment in the history of venture capital. The act enabled the formation of small business investment companies (SBICs) that allowed for licensed and regulated pools of capital for the express intent of investing in new and early-stage businesses. The government provided inexpensive capital that allowed the SBICs to lever debt-to-equity four-to-one.

The act opened the floodgates for enterprising financiers. By 1962 there were 590 licensed SBICs, and the number swelled to 722 in 1964. In the early 1960s, SBICs accounted for three-quarters of venture capital investments.¹²¹ But nearly one-third of these ended up as problematic, and regulations were put in place to limit

the number of SBICs. By the late 1970s, just one in every five dollars of venture capital in the U.S. was attributable to an SBIC, and that figure dropped to below one in every ten dollars by the late 1980s.

The IPO market was hot in the late 1960s, allowing for some attractive exits.¹²² In 1967, there were 100 IPOs that enjoyed an average first-day gain of 38 percent. The IPO market gained momentum in 1968, with 368 deals and a one-day pop of 56 percent. The peak was 1969, when there were 780 IPOs. But the first-day returns fell back to earth, albeit at a level that was still attractive at 13 percent. To put this in perspective, the number of IPOs in 1969 alone equals more than 20 percent of the total number of public companies today.¹²³

The popping of the IPO bubble, the reduction in the number of SBICs, and the bear market of 1973 combined to slow the venture capital industry substantially for most of the 1970s. While capital commitments to the industry exceeded \$200 million in 1969, annual flows were \$50 million or less until 1978. Institutional investors were wary of the returns, liquidity, and appropriateness of the asset class.

A slew of legislation, including the 1978 Revenue Act, the 1979 “Prudent Person” rule, the 1980 Small Business Investment Incentive Act, and the 1981 Economic Recovery Tax Act, revitalized the venture capital industry (see exhibit 18). These laws lowered capital gains taxes, reduced regulation, and made venture capital more attractive for institutional investors.

Capital flows roared back into the industry in the 1980s. Within a decade after 1978, the number of venture capital firms more than tripled, capital investment grew eightfold, and the number of funded companies rose more than 4.5 times.¹²⁴ The hub of the industry shifted to the state of California’s San Francisco Bay Area, where it remains today. Nearly one-half of U.S. venture capital AUM is based in the Bay Area, and that figure rises to about three-quarters if you include Boston and New York City.¹²⁵

This success was intimately related to the development of new technologies, including the personal computer and biotechnology, and a cadre of firms known for underwriting technology deals that included Alex Brown & Sons and Hambrecht & Quist. As with the 1960s, however, the flow of capital led to substandard returns and a general retrenchment into the early 1990s. Flows in the early 1990s returned to an anemic state.

The venture capital industry then went through its greatest period ever starting in the mid-1990s. This was in part fueled by the adoption of the Internet, ushered in by the meteoric rise of Netscape, an Internet browser, following its IPO in August 1995. By the end of 2000, one of every five publicly traded companies was venture-backed, and those companies represented about one-third of the equity market’s capitalization.¹²⁶

The dot-com bust, along with a three-year bear market, again tempered enthusiasm for venture capital. Commitments in 2003 were nearly one-tenth of those in 2000. But the industry once again climbed out of the lull. Commitments in 2007 were nearly triple those of the 2003 level, only to again fall as a consequence of the Great Financial Crisis. The trend in commitments has been steadily higher since 2010. There are about 3,000 venture capital firms in the U.S. today.

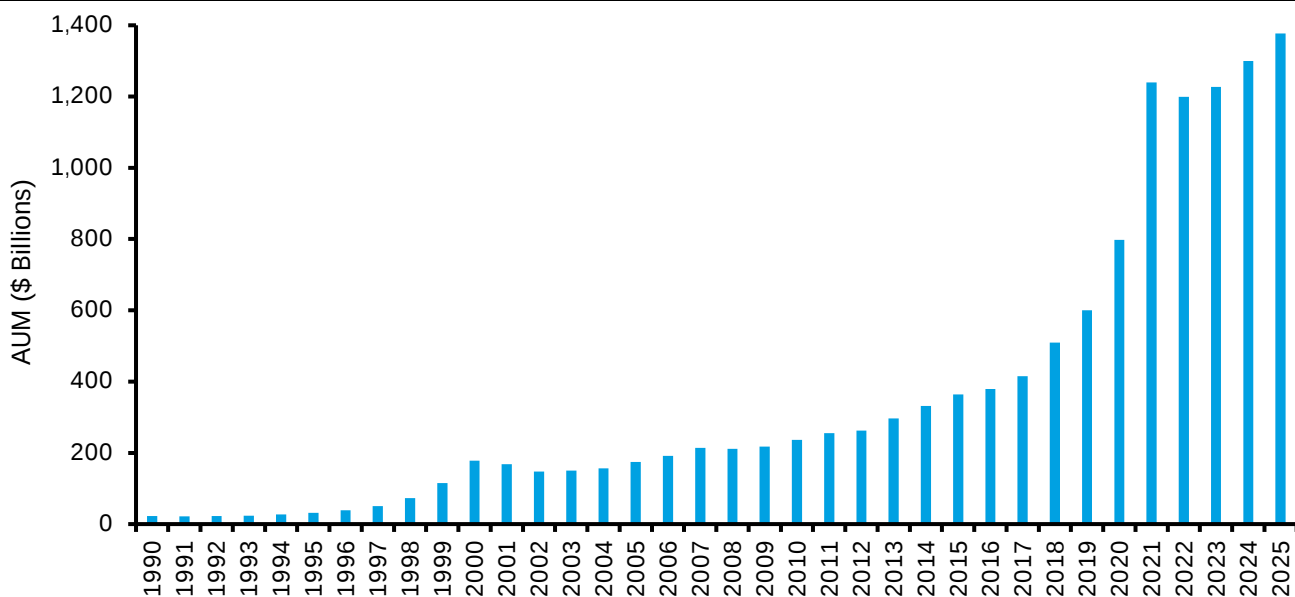
Public markets, buyouts, and venture capital are all cyclical, but venture is the most cyclical of the three.¹²⁷ This in part reflects price discovery, correction mechanisms, and liquidity. Public markets are subject to bouts of excessive optimism and pessimism, but in general price discovery and liquidity function well.

Buyouts are of companies that are generally profitable and somewhat predictable. They also commonly have public market comparables that can guide price discovery. Venture involves young firms with unknown prospects. There are fewer correction mechanisms in venture than in public markets. A limiting factor is the time between capital commitment and return of capital. Investors can time their commitment but have no control over when that capital gets called or when the fund will exit investments.

Industry Structure. We now review the structure of the industry, what the firms are doing, fund performance, and the outlook.

Exhibit 41 shows the AUM for the U.S. venture capital industry from 1990 to 2025. Today, AUM is about \$1.4 trillion, which includes dry powder of about \$300 billion.

Exhibit 41: Assets Under Management for U.S. Venture Capital, 1990-2025

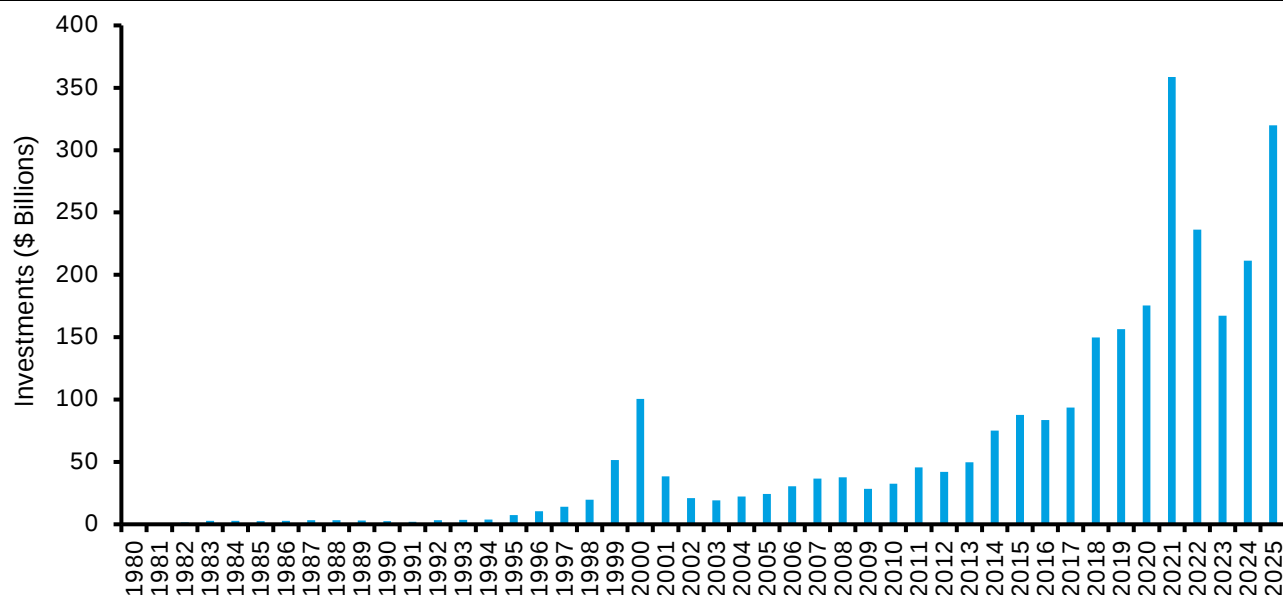


Source: Counterpoint Global; PitchBook; and NVCA Yearbooks.

Note: AUM is dry powder plus remaining value.

Exhibit 42 shows annual investment levels for venture capital funds. Industry investment did not exceed that of 2000 until 2018, and a new record was set in 2021. Fueled by interest in artificial intelligence, 2025 was the second-highest year of investment on record. Over the decades there has been a very high correlation between investor commitments, or flows, and average deal size.¹²⁸ As with most investment categories, strong inflows into venture capital are associated with below-average subsequent returns.¹²⁹

Exhibit 42: U.S. Venture Capital Annual Investment, 1980-2025



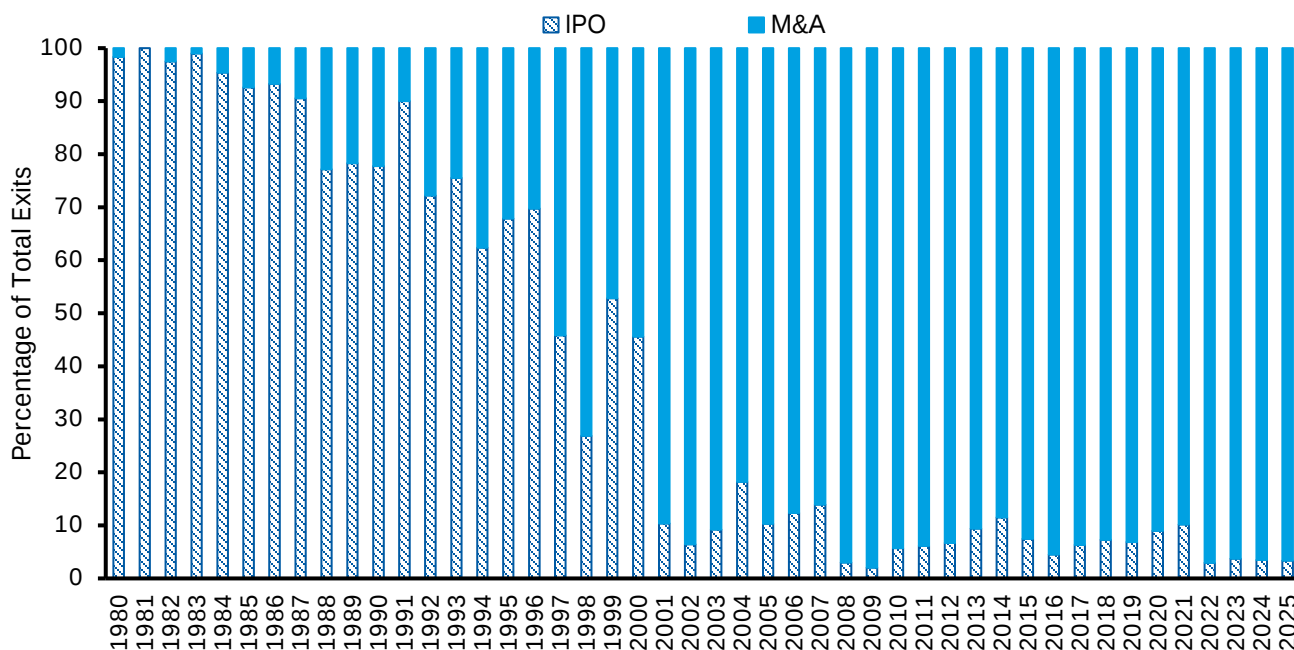
Source: Counterpoint Global and NVCA Yearbooks.

The fee structure for venture capital funds is similar to that of buyouts. The management fee is typically 2 percent of the total amount raised by the fund, and the incentive fee is commonly 20 percent of profits. But venture capital and buyouts differ in their ability to scale. In buyouts, doing large deals is not materially different from small ones. As a result, buyout firms can grow their AUM with less degradation of expected returns than can venture firms.

Venture capital firms focus on relatively young and immature companies, and part of the value proposition is helping entrepreneurs build their businesses. This activity does not scale as well as buyouts do.¹³⁰

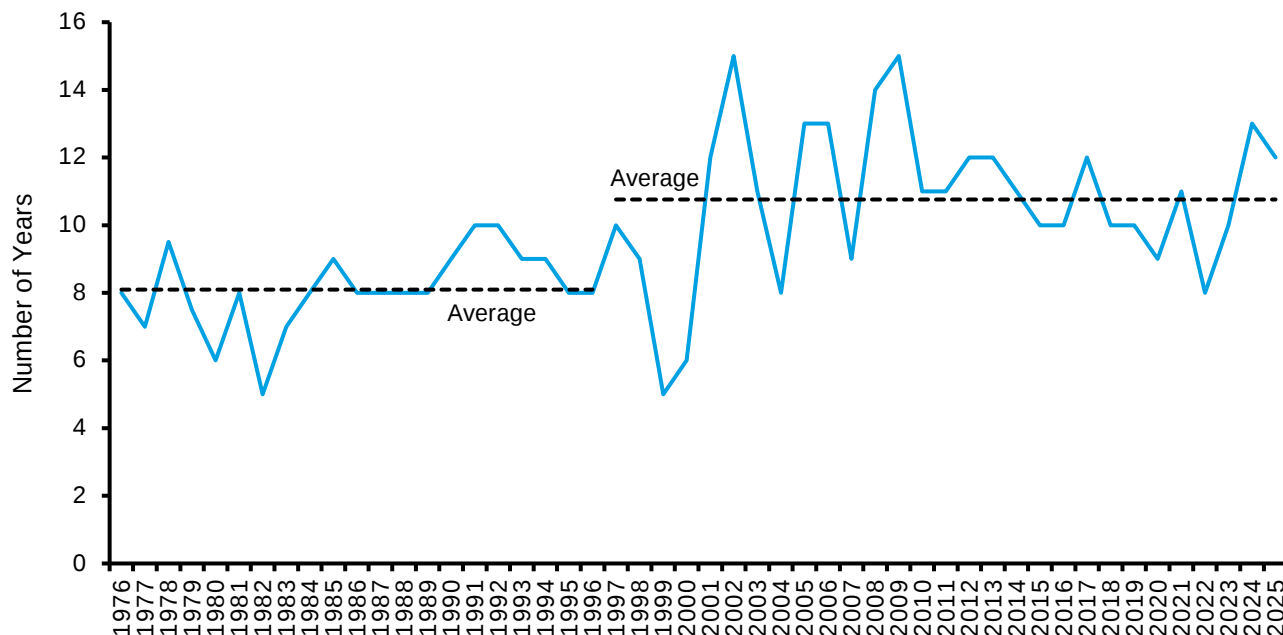
Exits. The return for any fund is a function of the difference between the purchase and subsequent sale of investments. From the beginning of the venture industry through the mid-1990s, IPOs were the most common way to profitably exit an investment.¹³¹ In the late 1990s through 2000, both IPOs and sales of the business were popular. But since 2000, IPOs have declined substantially, and sales, either to strategic buyers or buyout funds, have become the preferred vehicle for exit (see exhibit 43).¹³²

Note that roughly 60–65 percent of venture investments end up with a “multiple of invested capital” of less than 1.0, and 25–35 percent go to zero. Further, the median and mean returns on IPO exits are significantly higher than those for M&A exits, and the median M&A exit is for a loss.¹³³ There are a number of drivers behind the trend toward fewer exits through IPOs.

Exhibit 43: Evolution of Exits for U.S. Venture Capital, 1980-2025

Source: Counterpoint Global and NVCA Yearbooks.

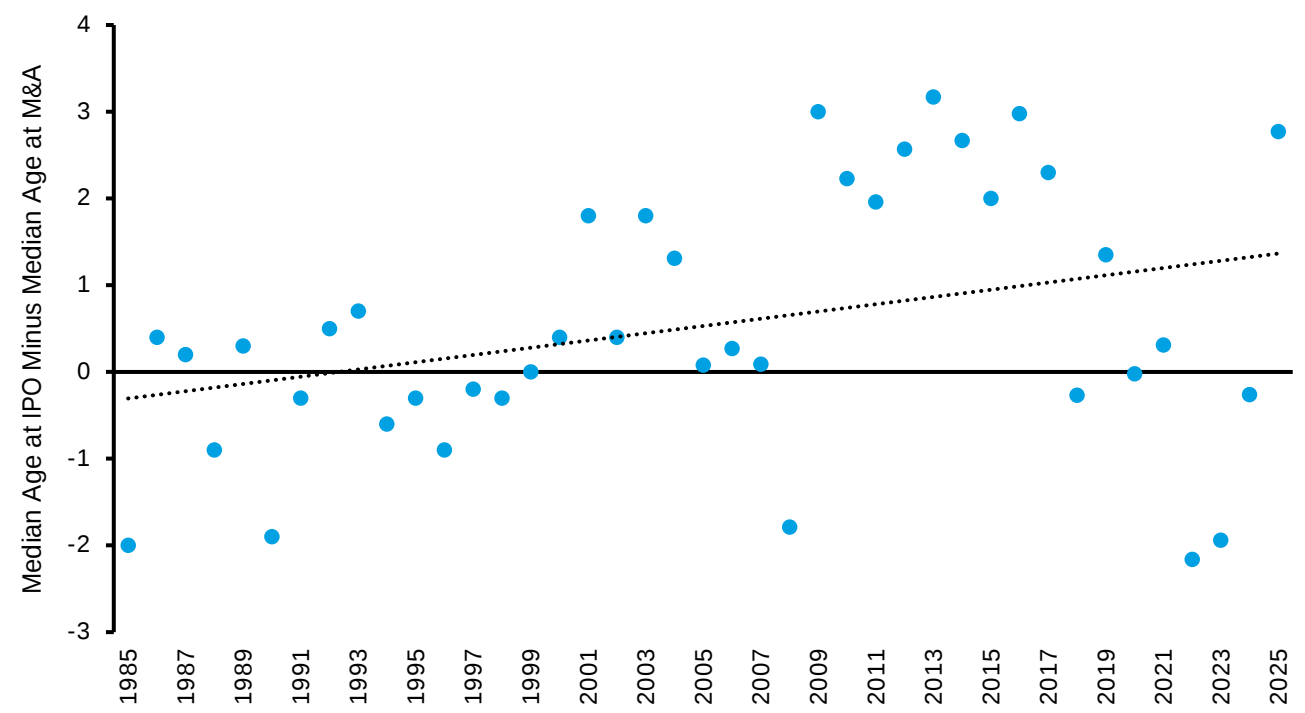
First, because the cost to list has risen in recent decades, only larger and typically older companies are in a position to list. The age of a company doing an IPO has risen as a result. Exhibit 44 shows that the median age of a company doing an IPO averaged 8.1 years old from 1976 to 1996 and 10.8 years old from 1997 to 2025. This is a 33 percent increase. If we extend the first period through 2000, the median age increased by just over 40 percent from 1976–2000 to 2001–2025.

Exhibit 44: Median Age of U.S. Companies Doing an IPO, 1976-2025

Source: Counterpoint Global and Jay R. Ritter.

For venture-backed companies in the late 1990s, the median age at an exit via IPO was lower than the median age by acquisition. Exhibit 45 shows how that trend has shifted over time. Today, VCs are quicker to sell a business, often to an incumbent, than to wait and do an IPO.¹³⁴

Exhibit 45: Median Age at IPO versus Median Age at Acquisition, 1985-2025



Source: Counterpoint Global and NVCA Yearbooks.

Second, the motivation to go public has shifted. Young companies today don't need to raise capital from the public market because they generally require less tangible capital than their predecessors. For example, companies that did an IPO in the 1970s had lower gross margins, selling, general, and administrative (SG&A) costs, and research and development (R&D) expenses than those that went public in the 2000s. They also had higher capital expenditures as a percentage of sales.¹³⁵

Third, even those companies that are in very competitive industries have been able to stay private because there is a huge amount of capital available via late-stage funds. The basic story is that initial funding comes from venture capital firms that invest in companies in the early stages, and companies continue to raise rounds of financing backed by funds that invest in later stages. The key is that the valuations for companies tend to rise with progressive rounds, creating the appearance of wealth creation without a market-based price that a sale or public stock price provides.

Finally, there are now ways for employees who are compensated in equity to sell shares. In some cases, funding rounds give employees a chance to cash out. In other cases, companies do tender offers to provide liquidity for their current and former employees. There were 60 percent more tender offers in 2025 than in 2024.¹³⁶ As an example, OpenAI completed a tender offer in August 2026 allowing its employees to sell \$7 billion of their stock.¹³⁷

These drivers have important consequences for investors.

As we saw, there is now a sizeable population of private companies that are very valuable on paper. Ilya Strebulaev, a professor of finance, estimates that the aggregate value of unicorns in the U.S. is \$5.4 trillion post-money.¹³⁸ The post-money value is what a company is worth immediately after a new investment in the business. It is often the case that a relatively thin slice of investment raises the presumed value of the entire enterprise.

Naturally, entrepreneurs seek to build valuable companies, and venture capitalists want to find companies that will deliver high returns on investment. But there are reasons to be cautious about the headline figures.

To start, there are now numerous examples of companies that have not lived up to their high valuations. These include Theranos (which peaked at \$9 billion in 2014 and later dissolved), WeWork (worth \$47 billion in 2019 and filed for bankruptcy in 2023), and FTX (valued at \$32 billion in early 2022 and filed for bankruptcy later that year). Raising a substantial amount of capital implying a high valuation does not by itself confer success.

Price discovery is stunted in private markets, as only optimists invest and there is no mechanism for pessimists to express their view. The sunlight of an IPO can be the best of disinfectants from overvaluation and can also lead firms to improve productivity.¹³⁹

Secondary market transactions provide a sense of whether valuations in funds are reasonable. In these cases, a fund (general partner) or an investor (limited partner) seeks to sell a position. In the five years ending in 2025, the discount to the marked value has averaged roughly 25 percent in venture capital.¹⁴⁰

Similarly, 6 of the top 10 venture-capital backed IPOs in 2025 had a value implied by the initial price less than the value implied by the last round of private equity financing.¹⁴¹

Valuing young companies is an inherently tricky task. But complicated capital structures are the main reason that many headline valuations are overstated. The method most investors use to value a business is to take the price paid for the last round of shares and multiply it by the total number of shares outstanding.

For example, if a startup with 8,000,000 shares raises \$200 million by selling 2,000,000 shares at \$100 each, the post-money value of the company is now deemed to be \$1,000,000,000 (10,000,000 x \$100), reaching unicorn status.

This math can be misleading because the equity financing rounds commonly have different rights with regard to cash flows and downside protection. This variation is unlike the common stock of most public companies where all shareholders have essentially the same economic rights.

These differences include IPO return guarantees, vetoes over IPOs at a price lower than the current round, or capital structure seniority. Academics who studied unicorn valuations found eight share classes per company on average.¹⁴²

Another consequence of staying private longer is that more wealth is created in the private market and less in the public market. While individuals are ultimately the beneficiary of the private wealth creation through pension funds or endowments that invest in venture capital funds, a normal individual investor is largely shut out from that source of wealth.

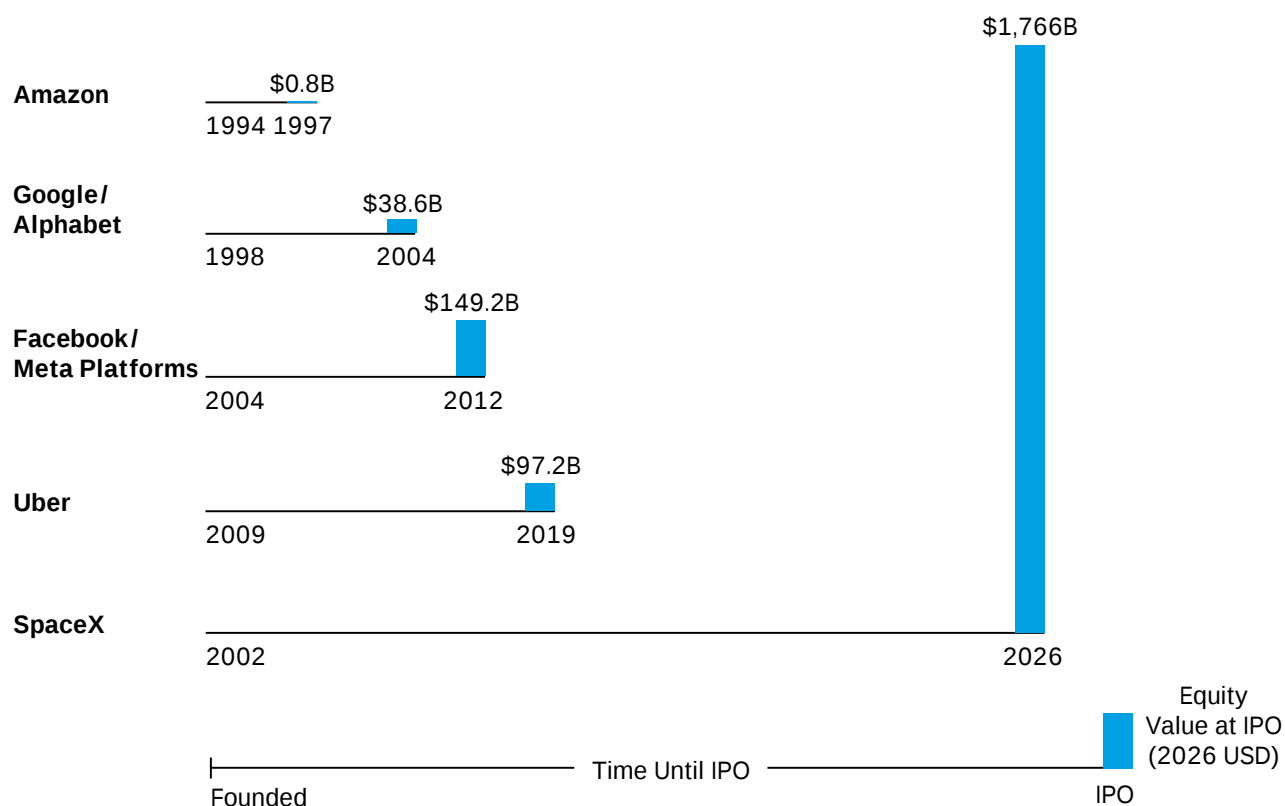
Exhibit 46 shows the time from founding to IPO and the market capitalization at IPO for Amazon, Google (now Alphabet), Facebook (now Meta Platforms), Uber, and SpaceX.

Amazon, which was backed by the venture capital firm Kleiner Perkins, listed 3 years after it was founded with a market capitalization of \$845 million (in today's dollars). Investors who bought at the IPO price and held their shares have made more than 3,600 times their money through July 31, 2026.

Google did an IPO 6 years after its start at a value of \$39 billion, and buyers of the deal have made 168 times their money. Facebook went public 8 years following its founding with a market capitalization of \$149 billion. Buyers of the IPO have made 15 times their money.

Uber went public 10 years after founding with an initial market capitalization of \$97 billion, and the shares trade at 1.6 times the offering price. Space Exploration Technologies (SpaceX) went public 24 years after its start with an initial market capitalization of \$1.77 trillion.

Exhibit 46: Time to IPO and Equity Value at IPO: Amazon, Google, Facebook, Uber, and SpaceX



Source: Counterpoint Global and company reports.

Virtually none of the \$2.9 trillion in equity value that Amazon created was in the private market. Less than one percent of the value created by Google was in the private market, and that percentage was about 9 percent for Facebook. And the value creation of Uber in the private market was more than one-half of the total.

Despite the decline and delay of IPOs, many venture capitalists view an exit into the public market as attractive due to the accountability and transparency associated with being a listed company.

In a customary process for an IPO, an issuer selects an underwriter that helps with regulatory issues, marketing, pricing, and post-deal price stabilization. Underwriters also generally have an overallotment option (commonly called a “greenshoe”). In return, the issuer pays an underwriting fee, typically 4-7 percent based on the size of the IPO, and agrees to a lockup that prevents certain shareholders from selling for a specified time, usually 90-180 days.

It is common for venture capital funds to hold their shares well beyond the IPO and lockup, so they have an interest in seeing a company continue to thrive.¹⁴³

Venture firms have also used special purpose acquisition companies (SPACs) and continuation funds to either exit or provide liquidity.

A sponsor creates a SPAC and raises capital via a public offering with the intention of using the proceeds to merge with a company that is not public. A SPAC is typically a unit priced at \$10 that includes a common share and warrants.

When the SPAC sponsor proposes a merger, public shareholders generally have the option to retain or redeem their shares. Redemptions are usually \$10 plus accrued interest. Additional financing, often called a private investment in public equity, or PIPE, may also help fund the deal.

Once a merger is complete, the operating company is a listed public company. Because a deal involves negotiation only between the SPAC and the target, the transaction tends to be straightforward. Further, the disclosure requirements have historically been less strict than those for IPOs.

A SPAC that fails to find a suitable target within a designated time, usually two years, is liquidated and the sponsor returns the pool of capital to the holders.

There was a modest wave of SPACs in 2005-2007, with 132 deals, but the market really took off in 2020 and 2021, when there were 861 offerings. To put that into context, the offerings in those two years were more than one-half of the total number of SPACs issued from 2003 to 2025. About 45 percent of the 2020 and 2021 offerings were eventually liquidated.¹⁴⁴

One study found that SPACs were about 15 percent of venture-capital-backed public exits from 2016 to March 2022.¹⁴⁵ Academic research shows that companies going public through SPAC mergers were, on average, of lower quality than comparable venture-backed IPO issuers.¹⁴⁶ In recent years, the SEC has raised the disclosure standards for SPACs.¹⁴⁷

The market for continuation funds is much smaller for venture capital than buyouts, but is growing.¹⁴⁸ The reason is straightforward: venture capital firms typically own stakes in companies while buyout firms control whole firms.

A final consequence of companies staying private longer is that steady inflows of capital, combined with later exits, have shifted a much larger share of venture investment toward mature companies. Around 10 percent of investments were late stage in 1980 and still just 20 percent by 2006. That figure rose to about 70 percent in 2025.¹⁴⁹ The capacity to deploy capital in early-stage investments remains much smaller than it is in late-stage transactions. This has important implications for risk and returns.

Many investors look to alternative investments, and venture capital in particular, to deliver high returns. But the risk and reward are very different for early- versus late-stage venture. Early-stage venture has a very high failure rate, and a few investments create all of the attractive expected returns. Late-stage venture has a failure rate one-half as high as early-stage, but the expected returns are commensurately lower.¹⁵⁰

This puts fund size into clear focus. Achieving a high return on investment by deploying substantial amounts of capital into relatively immature companies is difficult. We saw that the expected returns were lower for large buyout funds that followed smaller funds. The same is true for venture capital, but the effect is even more pronounced.¹⁵¹

One reason for the difference between results by size for buyout and venture capital funds is how they scale up. Based on stylized facts, a buyout fund will do 30 percent more deals to double a fund's size but will rely on doing bigger deals. A venture capital fund will do nearly 70 percent more deals to double a fund's size, even when the deals are larger.¹⁵²

One important feature of venture capital is the persistence of returns. We saw that the persistence of returns for top-performing buyout funds waned in the 2000s versus prior decades.

This is not true of venture capital, where persistence remains high.¹⁵³ Exhibit 47 shows that for funds raised pre-2001, a top quartile fund had nearly a 40 percent likelihood of being followed by another top quartile fund (left panel). Post-2000, the persistence is lower but remains well above what luck would suggest (right panel). We would expect a 25 percent probability of the returns staying in the same quartile if the outcomes were dictated by chance.

Exhibit 47: Persistence for Venture Capital Funds

Pre-2001		Subsequent Fund Quartile				Post-2000		Subsequent Fund Quartile			
Previous Fund Quartile		1	2	3	4	Previous Fund Quartile		1	2	3	4
	1	39%	25%	20%	16%		1	30%	24%	27%	19%
	2	35%	21%	24%	20%		2	24%	34%	23%	19%
	3	15%	21%	32%	32%		3	23%	26%	30%	22%
	4	24%	19%	32%	24%		4	13%	36%	24%	27%

Source: Counterpoint Global and Robert S. Harris, Tim Jenkinson, Steven N. Kaplan, and Rüdiger Stucke, "Has Persistence Persisted in Private Equity? Evidence from Buyout and Venture Capital Funds," *Journal of Corporate Finance*, Vol. 81, August 2023, 102361, Table 5.

Note: At subsequent fundraise.

Outlook. The outlook for returns from U.S. venture capital in the aggregate, given investor commitments and fund investments, appears to be consistent with the recent past. The dispersion of returns within venture suggests that investors who have access to top-tier funds should continue to earn attractive returns on average. It also stands to reason that the large swell of investment in late-stage venture should earn lower returns than the smaller sum invested in early stage.

Where From Here?

We now turn to some thoughts about where the industry may go from here. Considerations include potential asset growth, industry capacity, valuation, competition, and fees.

Buyout and venture capital funds continue to have good opportunities for asset growth. We can look at this from two points of view.

The first is whether institutional investors, including pension funds, endowments, family offices, and insurance companies will maintain or expand their allocations to private equity. Exhibit 48 shows a rough estimate of about \$200 to \$230 billion in incremental target exposure to the industry. We would consider this to be over a three- to five-year horizon.

Exhibit 48: Change in Private Equity AUM with a 1 Percentage-Point Increase in Allocation

Investor (U.S.)	Segment Assets Under Management	Typical Private Equity Allocation	Increase in Private Equity Exposure from a 1 Percentage Point Allocation Shift
Public pension funds	\$6 - 7 trillion	10-15%	\$60 - 70 billion
Endowments	\$1 trillion	25-30%	\$10 billion
Family offices	\$4 - 5 trillion	20-30%	\$40 - 50 billion
Insurance companies	\$9 - 10 trillion	2-3%	\$90 - 100 billion
Total	\$20 - 23 trillion		\$200 - 230 billion

Source: Counterpoint Global; "Census Bureau Releases 2025 Annual Survey of Public Pensions," United States Census Bureau Press Release Number: CB25-TPS.31, May 14, 2026; "FY25 NACUBO-Commonfund Study Released," CommonFund, February 12, 2026; Rebecca Gooch, "The Family Office Insights Series – Global Edition: Defining the Family Office Landscape, 2024," Deloitte, September 4, 2024; Steve Randall, "Global Multi-family Office Assets Surpass \$5.2 Trillion as Consolidation Accelerates," InvestmentNews, June 5, 2026; and Michele Wong and Jennifer Vento, "U.S. Insurance Industry's Cash and Invested Assets Grow to \$9.6 Trillion as of Year-End 2025," National Association of Insurance Commissioners, May 2026.

Surveys of limited partners suggest that almost 90 percent are at or near their targets for private equity and that less than 40 percent anticipate increasing their allocation to privates in the next few years. This may partly reflect that the vast majority of limited partners have expectations for returns that are unchanged or lower.¹⁵⁴

The second is the potential to expand into the retail channel through retirement plans. The U.S. Department of Labor is considering a more explicit regulatory framework for private equity to be included in retirement plans. Following Executive Order 14330, "Democratizing Access to Alternative Assets for 401(k) Investors," signed in August 2025, the DOL proposed a rule creating safe harbors for plan fiduciaries in March 2026.

Under the proposal, fiduciaries must have a prudent process for evaluating managed funds, including past performance, fees, and liquidity. The DOL's design is for individuals to participate in private equity, and retail access would largely come through target-date or multi-asset funds.¹⁵⁵

The DOL sought public comments about the rule and received 47,000 submissions prior to the deadline on June 1, 2026. As of the time of this writing, the DOL is reviewing the comments and determining whether it needs modification. Most of the short comments were opposed to the proposal but the longer comments were in favor

on balance.¹⁵⁶ At the same time, the SEC made changes to securities regulations and guidance that facilitate broader access to private equity for retail investors.

The main arguments in favor of the proposal are that these funds may offer diversification, attractive returns, and access to private companies as more of the wealth is being created there (exhibit 46).¹⁵⁷ Arguments against the rule focus on the higher fees, risks from illiquidity, and the chance that returns may not be as attractive as anticipated.¹⁵⁸ Existing retail-oriented vehicles that provide liquid or semi-liquid access to private equity have produced returns below those of common industry benchmarks.¹⁵⁹

The possible increase in allocation to private equity is large. Some estimates are as high as \$1 trillion by 2030, but our bottom-up assessment is more modest.¹⁶⁰ Defined contribution plans hold roughly \$14 trillion in assets, including about \$10 trillion in 401(k) plans, while the broader target-date fund market totals roughly \$5 trillion.¹⁶¹ About two-thirds of the annual flows into 401(k) plans go to target-date funds, and the DOL estimates that \$178 billion of assets could move into eligible funds.¹⁶²

Our estimate of feasible incremental demand from retail retirement funds is in the range of \$250 to \$500 billion over the next three to five years. We assume that 75 percent of the \$5 trillion in eligible target-date funds offer some private assets and that buyouts and venture capital receive a 10 percent allocation of that ($\$5 \text{ trillion} \times 0.75 \times 0.10 = \375 billion). The range reflects different assumptions about penetration.

The two sources of asset growth suggest potential for \$450 to \$730 billion of incremental assets in private equity over the next 3 to 5 years. This range is highly sensitive to assumptions.

To put that range in context, the U.S. buyout industry had about \$2.9 trillion in assets under management at year-end 2025 (including \$0.8 trillion of dry powder), and the U.S. venture capital industry had \$1.4 trillion in AUM (including \$0.3 trillion of dry powder).

Investors may want to allocate more of their portfolios to buyout and venture capital funds, but that desire has to be balanced against the industry's capacity. Ultimately, capacity reflects the set of opportunities and the cost to monetize them.

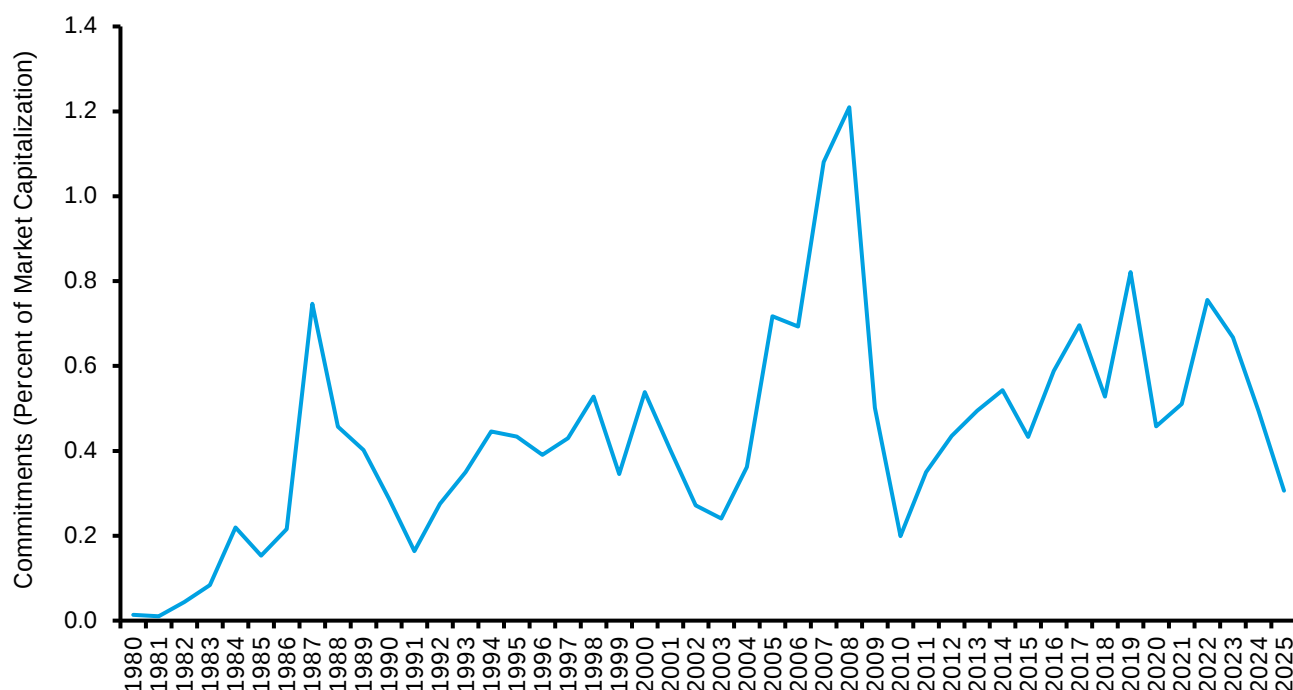
One way to measure effective capacity is through the concept of wealth maximization. This can be quantified as excess return adjusted for risk, or alpha, times AUM. For example, a fund that generates 2 percentage points of alpha on \$1 billion of capital creates \$20 million in wealth ($\$20,000,000 = 0.02 \times \$1,000,000,000$). And a fund that generates 20 basis points of alpha on \$10 billion of capital also creates \$20 million in wealth ($\$20,000,000 = 0.002 \times \$10,000,000,000$).

In most cases, expected alpha declines as AUM grows. This makes sense because the opportunity set shrinks as the AUM grows. In theory, a fund that is managed with skill will expand its AUM to the point that expected alpha approaches zero.¹⁶³

Because investors anticipate that buyout and venture capital funds will earn returns in excess of public markets, it makes sense to enhance the concept of capacity with a threshold of positive alpha.¹⁶⁴ In other words, capacity equals how big a fund can get while still generating expected alpha of one or two percentage points per year.

One way to look at the issue for buyouts is to consider commitments divided by market capitalization. The average commitment level was just under 0.5 percent of the market capitalization from 1980-2025, and experience shows that PME's are poor when the ratio substantially exceeds that amount, as it did in the late 1980s and mid-2000s (see exhibit 49).

Exhibit 49: Commitments to U.S. Buyout Funds as a Percent of Market Cap, 1980-2025



Source: Counterpoint Global; NVCA Yearbooks; PitchBook; FactSet; Compustat; and U.S. Securities and Exchange Commission, Annual Reports.

We have already described the challenges for buyouts. The U.S. industry had \$800 billion in dry powder at year-end 2025, which is capital that is ready to be invested, and interest rates and equity contributions to deals are up versus historical norms. Further, exits have been slow, causing a buildup in older assets, relieved in part by continuation funds. Recall that buyout funds tend to scale up by doing bigger deals.

Both buyouts and venture capital are cyclical, but venture capital is the more cyclical of the two. The mismatch between supply and demand of venture capital explains much of this.¹⁶⁵ Supply is a function of the willingness of investors to commit capital. This inclination to invest can be the result of the relaxation of regulatory barriers and is in theory supposed to reflect expected returns. In reality, flows often mirror past returns. Investors do in the present what they should have done years before.

Demand is a function of how many entrepreneurs have good ideas. Demand shocks often come with changes in important technologies, including semiconductors, personal computer hardware and software, biotechnology, the Internet, mobile, and cloud computing. Today's shock is GenAI. Investing in start-ups is a very labor-intensive business for venture firms. And even with the introduction of new technologies, there are only so many talented entrepreneurs.

The trend toward later-stage investing in the venture industry suggests that the capacity for start-up investing is constrained. This industry had \$300 billion in dry powder at the end of 2025, which is four times the capital raised during the year.

There is likely very limited capacity for investments in the Series A, and other early-stage rounds, of venture capital. Late-stage equity may have more capacity, but investors should have more muted expectations for returns.

Strong flows combined with high levels of dry powder mean that buyout and venture funds have a lot of pressure to put capital to work. This can have an impact on valuation.

In buyouts, the most common measure of valuation is the EV/EBITDA multiple.¹⁶⁶ Multiples in 2025 were down from record levels, when interest rates were lower, and below those of the public market. But they remained well above the long-term average (exhibit 33). Returns for current deals will likely rely more on operational results, as interest rates and leverage are not as favorable as in the recent past, and multiple expansion upon exit is not a given.

In venture capital, valuation is trickier because the capital recipients are often young, unproven companies that are commonly in the stage of the corporate lifecycle where they lose money.¹⁶⁷ A number of leading GenAI companies require unprecedented amounts of capital before they reach the point of being self-sustaining.¹⁶⁸

Competition is also a crucial consideration. This starts with the competition buyout and venture capital funds face in buying businesses. Buyout firms compete with one another as well as with strategic buyers and even public market investors. Venture capitalists compete to find the next big company. Offsetting this to some extent is the fact that buyout and venture capital firms commonly co-invest with their competitors. Still, identifying and acquiring attractive assets is a challenging task, and the recent rise in valuations suggests that it is not becoming easier.

Buyout funds used to primarily acquire stable and cheap small-capitalization companies. Deal sizes today include companies that have better growth prospects but are also larger and more expensive. Buyout firms tend to generate worse returns in funds that drift from their original style.¹⁶⁹ Venture capital firms used to focus mostly on start-ups, but now they invest in more mature growth companies.

In fact, the leading alternative investment companies compete across many of the same businesses, including buyouts, growth equity, private credit, CLOs, real estate equity and credit, and infrastructure. They also own, control, or have significant partnerships with insurance companies. These overlapping roles can create potential conflicts of interest when they blur the responsibilities of sponsor, owner, lender, asset manager, and fiduciary.¹⁷⁰

The popularity of private equity and the potential for retail participation has led to a number of significant partnerships. These include Vanguard (assets under management of \$12 trillion at year-end 2025) and HarbourVest, which has been in the private equity business since the early 1980s; Capital Group (AUM of \$3.3 trillion) and KKR; and T. Rowe Price (AUM of \$1.8 trillion) and Goldman Sachs.

Competitive pressure is not restricted to the general partners of private equity firms but also extends to the investors, or limited partners, in the funds. Gaining access to leading funds is tough as the funds are commonly oversubscribed or completely closed to new investors. Funds of funds, which have performed well in venture capital, are a potential solution to this challenge.¹⁷¹

One study examined 18,000 mostly high-net-worth individual investors who had access to traditional closed-end private equity funds through professional wealth-management channels. The results showed that, on average, the funds they held performed similarly to institutional benchmarks. But there are large disparities among the investors owing to the quality of their financial advisors and differential fees.¹⁷²

As with most corners of the investment world, there will be pressure on fees for many buyout and venture capital firms. Similar to active managers of public equities, firms that demonstrate skill will be able to charge above-average fees. But investors will likely challenge the lower tier of the industry to reduce fees.

Summary

Institutional investors have shifted a meaningful share of their equity exposure from public markets to buyout and venture capital funds since 1990. Over this period, the number of public companies in the U.S. has fallen by roughly half from its peak in the mid-1990s.

The decline in listings does not reflect a waning of the importance of public markets. In fact, total market capitalization, invested capital, and capital returned to shareholders have all risen substantially over the decades.

There has been a massive shift from active to indexed, or rules-based, funds in the U.S. public equity markets. From 2006 to mid-2026, investors have poured \$3.5 trillion into index mutual funds and ETFs and have drained \$3.4 trillion from active funds.

Researchers suggest there is a “listing gap” between the actual and potential number of listings that reflects a diminished propensity to go public. Yet the value of public equities remains vastly larger than the U.S. buyout and venture capital industries combined.

Buyout and venture funds are less liquid, riskier, use more subjective valuations, and charge higher fees than mutual funds that own public equities. Because there is discretion in how private funds report their results, they appear to have less volatility than they should. This appears to be a feature rather than a bug for many institutional investors because it dampens the volatility of their portfolios.

Private equity has delivered attractive average results over long periods, but the averages conceal wide dispersion. The top funds have created substantial value, while bottom-quartile funds have meaningfully lagged the S&P 500.

Several factors are behind the shift from public to private markets. Sophisticated investors including pension funds and endowments pursued higher returns as returns on risk-free bonds fell and obligations rose. Legal and regulatory changes expanded the supply of private capital, while the maturation of the high-yield, leveraged-loan, and private credit markets supplied financing for buyout deals.

In venture capital, the U.S.'s national innovative capacity, based on elite research universities, entrepreneurial clusters, and tolerance for failure, allowed risk capital to back new businesses. Regulatory changes and a swell in late-stage financing have made it easier for companies to remain private longer.

The environment in 2026 appears less forgiving than the period of exceptionally easy money that followed the Great Recession.

Buyout funds face substantial dry powder, elevated entry multiples, higher borrowing costs, lower leverage, and a backlog of aging assets awaiting exit. Future returns are therefore likely to depend more on operating improvement, durable growth, and disciplined capital allocation rather than cheap debt or multiple expansion.

Buyout firms increasingly sell businesses to one another, or to a continuation fund, to exit investments. Further, the results for buyout funds show less persistence in the 21st century than they did in the late 20th century.

Venture capital is increasingly concentrated in late-stage companies and artificial-intelligence-related companies, where capital requirements are large and valuations can be difficult to verify. Results for venture funds show continued, albeit weaker, persistence in the 21st century than they did in the late 20th century.

Proposals to broaden retail access through retirement plans may expand participation in private markets. We estimate that incremental demand from retail retirement funds could be \$250 to \$500 billion over the next three to five years. At the same time, the push into retail raises important questions about liquidity, valuation, adverse selection, fees, and fiduciary oversight. The objective should not be to replace public equity with private equity, but to make sure that investors access each of them effectively.

Public equity markets in the U.S. offer scale, liquidity, transparency, and relatively low costs to participate. Private equity markets in the U.S. can provide sharper governance, patient capital, and exposure to companies before listing. A balanced view treats them as complements. The costs and benefits of each depend on structure, fees, manager skill, and investor time horizon.

Appendix: The Math Behind “12 Is the New 5”

Here we show an illustrative path to replicate Bain’s discussion of “12 Is the New 5” for the buyout industry. This analysis was featured in their Global Private Equity Report for 2026.¹⁷³

First, to be clear, these are highly simplistic assumptions. In reality, there are invariably many more moving parts. The focus is on the underlying determinants of an attractive investment. As they write, “The assumptions behind these numbers will vary, of course, but the direction of travel is clear.”¹⁷⁴

Exhibit 50 shows a representative deal in 2015 (most of the assumptions are on the right side). We start with a base EBITDA of \$100, assume a purchase price at a multiple of 9.9 times EBITDA, one-half of which is financed with debt at an interest rate of 6.5 percent. EBITDA grows 5 percent per year. The model assumes that excess cash will pay down debt and that the exit multiple is 122 percent of the entry multiple (around 12.1). We make the simplifying assumption of debt paydown, but one study finds buyout firms have not significantly deleveraged in the years post-acquisition.¹⁷⁵ This produces an internal rate of return (IRR) of just over 20 percent and a multiple of invested capital (MOIC) of 2.5.

Exhibit 50: Buyout Math in 2015

	Base	1	2	3	4	5		
EBITDA	\$100	\$105	\$110	\$116	\$122	\$128	Base year EBITDA	\$100
Capital expenditures	\$32	\$34	\$35	\$37	\$39	\$41	Multiple	9.9
<u>Working capital change</u>	\$0	\$0	\$0	\$0	\$0	\$0	Purchase price	\$990
Cash from operations	\$68	\$71	\$75	\$79	\$83	\$87	EBITDA growth	5.0%
							Debt/deal value	50.0%
Interest expense	\$32	\$32	\$30	\$28	\$25	\$23	Interest rate	6.5%
Taxes	\$9	\$9	\$10	\$12	\$13	\$15	Tax rate	20.0%
Surplus cash flow	\$27	\$30	\$34	\$39	\$44	\$50	D&A as a % of EBITDA	25.0%
Debt repayment	\$27	\$30	\$34	\$39	\$44	\$50	Exit multiple % of entry	122.0%
							Debt/EBITDA (entry)	5.0x
Debt	\$495	\$465	\$431	\$392	\$348	\$298	Debt/EBITDA (exit)	2.3x
EBITDA/Interest	3.1	3.3	3.6	4.1	4.8	5.6	Multiple of invested capital (MOIC)	2.5
Equity contribution	\$495						Internal rate of return (IRR)	20.2%
Cash flows for internal rate of return (IRR)	-\$495	\$0	\$0	\$0	\$0	\$1,243		

Source: Counterpoint Global based on Hugh MacArthur, Rebecca Burack, Graham Rose, Alexander Schmitz, Kiki Yang, and Sebastien Lamy, “Global Private Equity Report 2026,” Bain & Company, February 22, 2026.

Exhibit 51 shows the assumptions for a representative deal in 2025. We start with the same base EBITDA of \$100, assume a purchase price at a multiple of 12.0 times EBITDA, 35 percent of which is financed with debt at an interest rate of 8.5 percent. EBITDA grows 12 percent per year. The model assumes that excess cash will pay down debt and that the entry and exit multiples are the same. This, too, produces an IRR of just over 20 percent and a MOIC of 2.5.

The key takeaway is that a higher entry multiple, interest rate, and equity contribution, when combined with no assumed multiple expansion at exit, dampen prospective returns. To offset these drags, acquired companies have to grow their cash flows at a much higher rate than with prior assumptions to produce the same return on investment.

Exhibit 51: Buyout Math in 2025

	Base	1	2	3	4	5		
EBITDA	\$100	\$112	\$125	\$140	\$157	\$176	Base year EBITDA	\$100
Capital expenditures	\$32	\$36	\$40	\$45	\$50	\$56	Multiple	12.0
<u>Working capital change</u>	\$0	\$0	\$0	\$0	\$0	\$0	Purchase price	\$1,200
Cash from operations	\$68	\$76	\$85	\$96	\$107	\$120	EBITDA growth	12.0%
Interest expense	\$36	\$36	\$33	\$30	\$25	\$20	Debt/deal value	35.0%
Taxes	\$8	\$10	\$12	\$15	\$19	\$22	Interest rate	8.5%
Surplus cash flow	\$24	\$31	\$40	\$51	\$63	\$77	Tax rate	20.0%
Debt repayment	\$24	\$31	\$40	\$51	\$63	\$77	D&A as a % of EBITDA	25.0%
Debt	\$420	\$389	\$349	\$298	\$235	\$158	Exit multiple % of entry	100.0%
EBITDA/Interest	2.8	3.1	3.8	4.7	6.2	8.8	Debt/EBITDA (entry)	4.2x
Equity contribution	\$780						Debt/EBITDA (exit)	0.9x
Cash flows for internal rate of return (IRR)	-\$780	\$0	\$0	\$0	\$0	\$1,957	Multiple of invested capital (MOIC) 2.5 Internal rate of return (IRR) 20.2%	

Source: Counterpoint Global based on Hugh MacArthur, Rebecca Burack, Graham Rose, Alexander Schmitz, Kiki Yang, and Sebastien Lamy, "Global Private Equity Report 2026," Bain & Company, February 22, 2026.

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