Private Capital Insights

FORTY-FIRST EDITION | Q3 2025

CURRENT QUARTER PERFORMANCE SUMMARY

The State Street® Private Capital Index (SSPCI) remained resilient in Q3 2025, although the composition of returns shifted across strategies. Venture Capital was the clear standout (6.78%), accelerating from the prior quarter's strong showing and reinforcing its role as the cycle's performance "torque". In contrast, Buyout (2.00%) and Private Debt (2.45%) generated more moderate gains, pulling the All PCI down to 2.91% after Q2's broad-based rebound (see Exhibit 1).

Exhibit 1. Private Equity Performance by Strategy

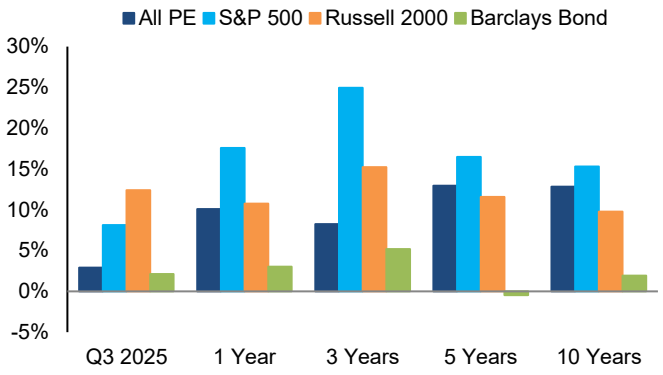
	All PCI	Buyout	VC	Private Debt
2025 Q3	2.91%	2.00%	6.78%	2.45%
2025 Q2	4.16%	4.05%	5.25%	3.03%
2025 Q1	1.60%	1.52%	1.96%	1.53%
2024	7.08%	6.81%	7.05%	9.11%

Source: State Street Data Intelligence, as of Q3 2025.

Public equity markets kept its momentum and posted strong returns in Q3. U.S. large-cap stocks (proxied by S&P 500), posted a total return of 8.12% for the quarter and 17.6% year-over-year, while U.S. small-cap stocks (proxied by the Russell 2000), gained 12.39% over the quarter and 10.76% over the year. Private capital underperformed public equities across multiple investment horizons this quarter but continued to outperform the U.S. bond market (proxied by Bloomberg Barclays US Aggregated Bond Index) across all measured periods (see Exhibit 2).

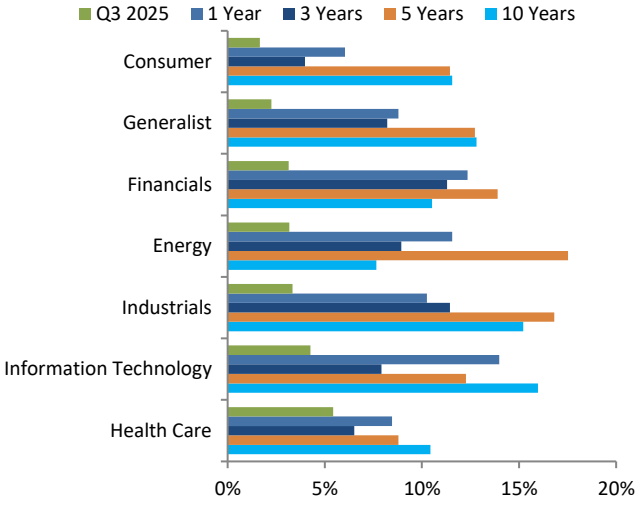
Sector focused funds showed stronger performance and notable leadership shifts across sectors in Q3 2025 compared with Q2. Healthcare funds led performance with a quarterly return of 5.43%. Meanwhile, funds targeting Information Technology, Industrials, Energy and Financials sectors also outperformed the funds with Generalist strategy (2.26%) and Consumer-focused funds (1.66%). Over an one-year horizon, sector-focused strategies continued to outperform generalist peers broadly. Specialists in Information Technology (13.97%), Financials (12.35%), Energy (11.56%) and Industrials (10.26%) all exceeded the 8.79% return generated by generalist funds (see Exhibit 3).

Exhibit 2. Investment Horizon Returns



Source: State State Data Intelligence, as of Q3 2025.

Exhibit 3. Performance of Sector Focused Funds



Source: State Street Data Intelligence, as of Q3 2025.

Continued on page 5.

ENGINEERING EXPOSURE: HOW CFOS REPACKAGE PRIVATE MARKET RISK

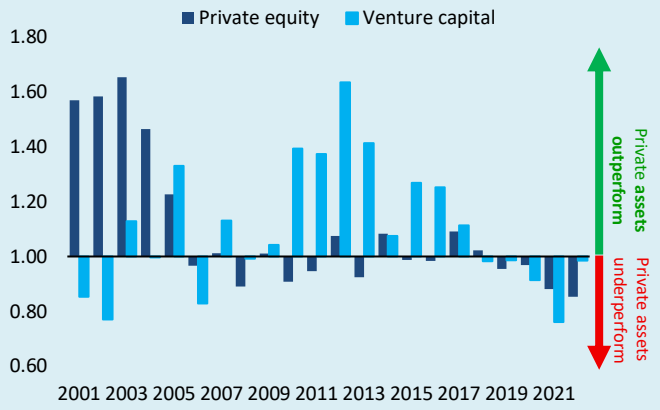
Insights from Harvard University and the Private Capital Research Institute

By Josh Lerner

Introduction

Private markets have grown from a largely inaccessible corner of finance into an increasingly important allocation in the portfolios of today's institutional investors. This growing popularity reflects private assets' ability to deliver compelling long-term returns, portfolio diversification, and access to otherwise untapped sources of value creation (**Figure 1**).

Figure 1: Private equity and venture capital performance relative to the S&P 500 public market index, vintage years 2002-2022 [1]



However, the same defining and sometimes opaque features that make private market returns so attractive also present significant structural challenges for new and existing investors seeking to increase their exposure. Illiquidity, information asymmetry, and performance dispersion all complicate investor portfolio construction and capital planning, particularly during down cycles.[2] While diversification strategies can help to mitigate some of these risks, their benefits are not always guaranteed.[3]

Against this backdrop, innovations like private asset-backed structured products, particularly collateralized fund obligations (CFOs), are offering an alternative solution to how private market risk is held, financed, and distributed. These vehicles apply securitization to diversified portfolios of private fund interests, creating tranches that offer differentiated risk-return profiles. Private equity firms such as Blackstone, KKR, Ares, and Coller Capital have each established variations of these structures, albeit largely under the radar. The Singapore-based asset management firm Azalea has also launched several well-known retail-oriented vehicles.

Why diversification alone is not always enough

Diversification in private capital portfolios aims to reduce idiosyncratic risk by combining funds with different characteristics, ranging from fund manager, investment strategy, geographic focus, target sector, and vintage year. Because performance in private markets can be highly variable, diversifying commitments across multiple dimensions can be an effective strategy for investors seeking to contain their risk.

Diversification, however, can be challenging to implement in practice. Achieving deep, multi-dimensional diversification typically requires substantial capital, due diligence capacity, and access to top-tier managers. The non-insignificant fees and oversight costs associated with establishing new GP relationships can also accumulate and eventually outweigh the marginal benefits of diversifying.[4]

Recently, a structural innovation in private markets has emerged that offers an alternative approach to portfolio diversification.

Private asset-backed structured products as a potential solution

Structured financial products and asset-backed securities are already well-established features of global capital markets.

[1] This chart presents the public market equivalent (PME) measured against the S&P 500 Net Total Return (NTR) Index. A PME above 1.0 indicates private asset outperformance relative to the S&P 500 NTR, while a PME below 1.0 indicates public market outperformance. Source: State Street Private Capital Index, accessed February 19, 2026.

[2] Gregory W. Brown, Wendy Y. Hu, and Jian Zhang, "The Evolution of Private Equity Fund Value," Journal of Alternative Investments 23, no. 4 (2021): 11–28, https://doi.org/10.3905/jai.2021.1.121.

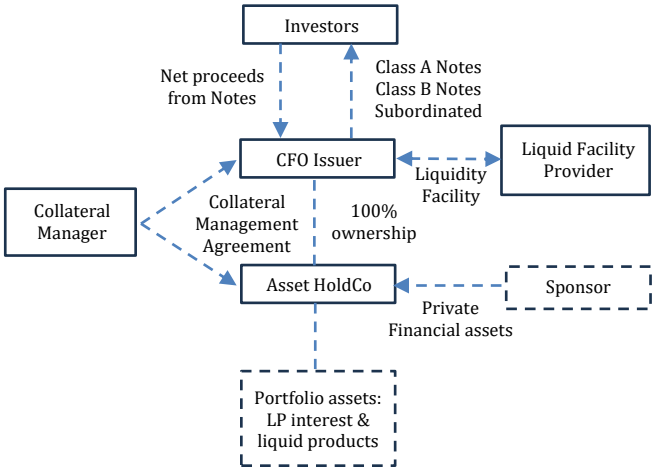
[3] Marc Busse, Michel Dacorogna, and Marie Kratz, "The Impact of Systemic Risk on the Diversification Benefits of a Risk Portfolio," Risks 2, no. 3 (July 2014): 260–276, https://doi.org/10.3390/risks2030260.

[4] Andrew Metrick and Ayako Yasuda, "The Economics of Private Equity Funds," Review of Financial Studies 23, no. 6 (2010): 2303–2341, https://doi.org/10.1093/rfs/hhq020; Institutional Limited Partners Association (ILPA), Private Market Fund Terms Survey (2020).

These financial instruments commonly employ securitization to pool income-producing assets and transform them into tradable securities with differentiated risk and return profiles.

A recent development within the space, however, is the private asset-linked collateralized fund obligation (CFO), a structured product that securitizes LP interests in private market funds (**Figure 2**). CFOs securitize underlying portfolios of private funds, issuing a series of tranches (or classes) of notes with differing levels of expected risk and return. These classes often include senior debt securities, subordinated and mezzanine notes, and equity shares. Their respective levels of risk and return are determined by their seniority in the offering's hierarchical priority of payments, or repayment "waterfall."

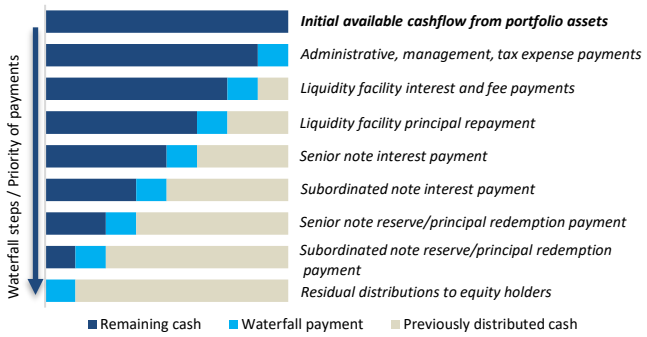
Figure 2. Illustrative CFO transaction[5]



Once established, CFO vehicles transfer cash flows from underlying assets through a priority of payments, typically referred to as a transaction waterfall (**Figure 3**). These typically involve initial payments for operational or regulatory expenses, followed by payments on senior notes, then subordinated and mezzanine notes, with any remaining cash flowing to the equity tranche. Losses, if they occur, are absorbed in the reverse order.

To align with the longer investment horizons associated with private market assets, CFOs are typically structured with extended maturities (usually 15 years or more), allowing the vehicle to accommodate variations in portfolio distribution timing and ultimately ensure full repayment to senior noteholders.

Figure 3. Illustrative CFO transaction waterfall



Benefits of CFOs

While the desire to transfer and repackage risk is hardly new—dating back at least to early corporate finance innovations such as the separation of debt and equity in chartered trading companies like the Dutch East India Company—structured products offer a modern and highly tailored mechanism for doing so. Perhaps the most distinct benefit of these vehicles is their ability to facilitate risk transfer in a tailored way, allowing senior tranches to benefit from stronger debt-like protections while offering junior tranches greater equity-like upside (**Figure 4**).Through this tranche-based structure, a CFO transforms otherwise undifferentiated risk that a single LP would normally bear from a direct fund investment into a range of securities designed to meet different investor mandates.

Figure 4. Risk-return characteristics of distinct tranches in a CFO

	Senior tranche (debt-like)	Mezzanine tranche	Junior tranche (equity-like)
Upside potential	Lowest gain	Moderate gain	Highest gain
Downside potential	Lowest loss	Moderate loss	Highest loss
Repayment priority	High priority	Medium priority	Low priority

[5] Jon Burke, Christopher P. Duerden, John M. Timperio, Lindsay Trapp, Mary Bear, Elliott M. Kieffer, David E. Miller, and Eric Zeng, "Collateralized Fund Obligations (CFOs): The Technicolor Dreamcoat of Fund Finance," Dechert LLP, 2022, https://www.dechert.com/content/dam/dechert-files/knowledge/onpoint/2022/9/Collateralized-Fund-Obligations-The-Technicolor-Dreamcoat-of-Fund-Finance.pdf.

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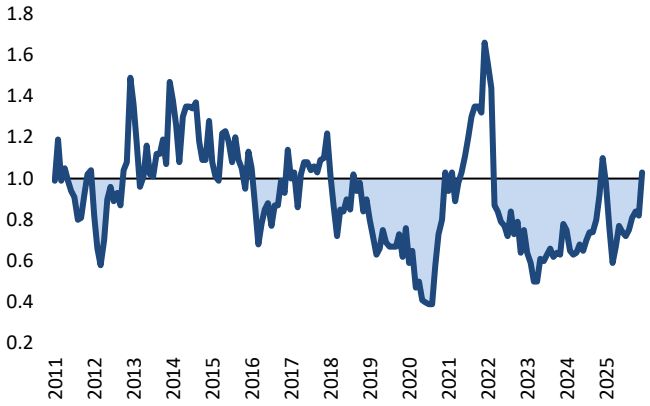
Another benefit is structured products' ability to realize the benefits from diversification. Rating agencies like Fitch Ratings and KBRA require that a CFO's underlying assets be sufficiently diversified as a necessary condition for achieving an investment grade rating for its senior tranches. [6] Prospective noteholders are typically highly sensitive to credit ratings, and certain institutional investors—particularly insurance companies—may be effectively precluded from participating unless a security carries a high rating. Given the stringent regulatory constraints that limit insurance companies' exposure to higher-risk assets, highly rated CFOs often serve as one of the few viable avenues for alternative investment exposure. As a result, CFO issuers will go to great lengths to structure transactions and portfolios in a manner that satisfies rating agency criteria and scores the desired credit profile. Indeed, recent market data from KBRA underscores this point: In 2024, nearly 90% of all rated CFO debt tranches were graded A or BBB, levels that KBRA classifies as investment grade.[7]

Finally, CFOs are increasingly appealing as vehicles capable of delivering more regular cash flows and liquidity. This is especially relevant given the decline in distributions in recent years (**Figure 5**). Because these vehicles diversify their collateral pools across vintage years, they benefit from smoother aggregate cash flows that can more reliably generate liquidity. These structures also tend to incorporate mechanisms like liquidity facilities, revolving credit lines, and loan-to-value (LTV) and coverage triggers to help ensure sufficient liquidity and timely payments even when underlying fund distributions are insufficient or below defined thresholds. This supports continuity of payments for noteholders without forcing premature asset sales.

Figure 5. Global buyout monthly distributions to capital committed, rolling 3-month average since 2011[8]



Trade-offs associated with CFOs

Although the opportunity that CFOs represent is compelling for many of the reasons described above, CFOs also introduce structural complexities that are worth noting.

For one, structured products are inherently more complex than traditional fund commitments, and their performance relies not just on the underlying assets but also on the structural design and management capacity of the investment vehicle itself. Sponsors must be highly skilled in cash flow and waterfall modelling, underwriting, and portfolio management, and rating agencies often consider manager quality and governance controls in their assessments.[9]

CFOs are also often deeply leveraged. Because CFO structures issue both debt and equity offerings, equity investors receive residual cash flows only after interest and principal are paid on the notes. In effect, the equity tranche represents a leveraged exposure to a pool of private market assets, while the debt tranches provide the embedded leverage. In addition to this structural leverage, the presence of financial leverage that underlying assets often employ can further amplify vulnerabilities to valuation changes, liquidity pressure, and refinancing risk.

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[6] Fitch Ratings, Private Equity Collateralized Fund Obligations Rating Criteria, January 30, 2025, https://www.fitchratings.com/research/structured-finance/private-equity-collateralized-fund-obligations-rating-criteria-30-01-2025.

[7] KBRA, "Private Credit CFO Growth and Performance," March 13, 2025.

[8] The shaded area highlights periods when monthly distributions were below 1.0x of capital called, indicating that distributions to limited partners were running below contributed capital (i.e., net cash flow was negative). Source: State Street Private Capital Index, accessed February 20, 2026.

[9] Jennifer Banzaca, "How Managers Are Cultivating the 'Evergreen' Skill Set," Private Funds CFO, March 18, 2025, https://www.privatefundscfo.com/how-managers-are-cultivating-the-evergreen-skill-set/; Fitch Ratings, Private Equity Collateralized Fund Obligations Rating Criteria, January 30, 2025, https://www.fitchratings.com/research/structured-finance/private-equity-collateralized-fund-obligations-rating-criteria-30-01-2025.

Also worth noting is that some of the structural mechanisms used to help maintain credit stability, like LTV ratios, coverage tests, and cash flow sufficiency triggers can also prevent equity distributions, force early or partial redemptions, and suspend payments through payment-in-kind features if the underlying assets underperform.[10] In stressed scenarios, liquidity facilities may be drawn on more extensively than modelled, and structural safeguards may redirect cash flows from subordinated investors for prolonged periods of time.

Private asset-backed structured products also represent a relatively new innovation, and relevant regulatory frameworks are still fluid. The regulatory treatment of such products may evolve with time, and matters like bond treatment, investor eligibility, oversight, and ratings agency methodology remain highly variable and impactful.

Finally, skepticism around such financial products persists. Private markets are fundamentally opaque, and structured products still carry residual stigma stemming from the mortgage-backed securities that fueled the Global Financial Crisis.[11] In that episode, risks were often poorly understood or mis-modeled, correlations among underlying assets were underestimated, and complex tranche structures obscured true exposure. Conflicts of interest and overreliance on credit rating agencies further weakened market discipline. Although post-crisis reforms have strengthened underwriting standards, capital requirements, and investor protections,[12] questions remain regarding the modeling, transparency, and governance of private asset–linked securitizations.

Concluding remarks

Fundamental limitations in private markets have created demand for financial innovations such as CFOs. While private asset-backed securitized products can provide differentiated risk-return offerings, enhanced liquidity, and greater access to alternative assets, they can simultaneously introduce risk as a result of structural complexity, deep leverage, and sensitivity to policy and regulatory changes.

The lessons of past securitization cycles underscore the importance of historical research, robust modeling, and high-quality data in evaluating these structures. Transparent reporting, disciplined underwriting, and independent risk assessment are critical to ensure that innovation enhances market resilience rather than undermines it. As these products become more prevalent in capital markets, investors are likely to benefit from the guidance of experienced practitioners and independent advisors who combine deep market knowledge with empirical rigor in assessing both their promise and their risks.

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The Private Capital Research Institute is a not-for-profit 501(c)(3) corporation formed to further the understanding of private capital and its global economic impact through a commitment to the ongoing development of a comprehensive database of private capital fund and transaction-level activity supplied by industry participants. The PCRI, which grew out of a multi-year research initiative with the World Economic Forum, also sponsors policy forums.

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[10] Payment-in-kind (PIK) interest refers to interest that is not paid in cash when due and is instead accrued and added to the principal balance of the note. PIK features are commonly used in structured finance transactions to preserve cash for senior obligations when available cash flows are insufficient. Source: Burke et al., "Collateralized Fund Obligations (CFOs)."

[11] Eric Zwick and Amit Seru, "Mortgage-Backed Securities and the Financial Crisis of 2008: A Post Mortem," Becker Friedman Institute, last modified January 16, 2025, https://bfi.uchicago.edu/insight/research-summary/mortgage-backed-securities-and-the-financial-crisis-of-2008-a-post-mortem.

[12] Claudio Borio, Marc Farag, and Nikola Tarashev, "Post-crisis International Financial Regulatory Reforms: A Primer," Bank for International Settlements, last modified April 23, 2020, https://www.bis.org/publ/work859.htm.

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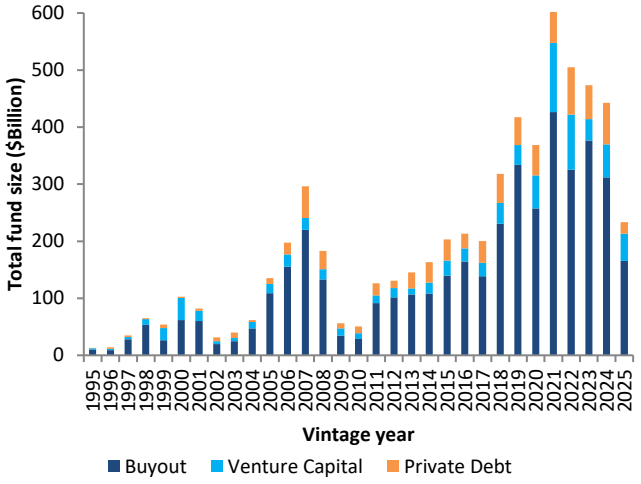
Fundraising

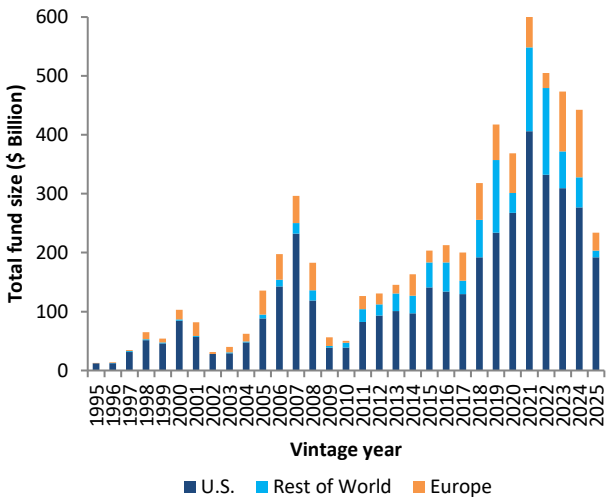
Through the first three quarters of 2025, fundraising activity underscores a selective and liquidity-conscious market. Total commitments raised during this period reached $234 billion, implying full-year fundraising of approximately $312 billion if current pacing continues. This represents a significant decline from the $443 billion raised in 2024 and extends the downward trend from the peak fundraising levels observed in 2021. Among strategies, Venture Capital funds showed relative resilience, raising $47.75 billion in the first three quarters, equivalent to approximately 83% of its total in 2024. Buyout and Private Debt slowed materially, with $165.7 billion and $20.24 billion raised year-to-date, representing only 53% and 28% of their respective 2024 totals (see Exhibit 4A). Regionally, U.S.-focused funds remained stable compared to 2024, raising $192 billion. In contrast, Europe and Rest-of-World focused funds experienced sharp declines, securing only $30.4 billion and $11.3 billion so far, which was equivalent to just 27% and 22% of their 2024 fundraising volumes respectively (see Exhibit 4B).

Exhibit 4. Total Fund Size (USD Billion)

A. By Strategy



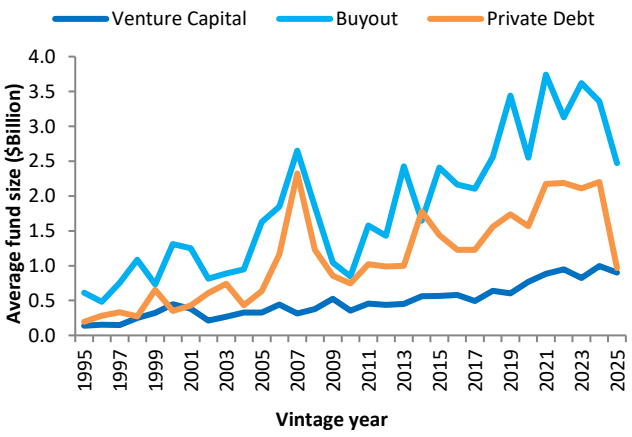
B. By Region



Source: State Street Data Intelligence, as of Q3 2025.

The average fund size declined across all three strategies compared to the previous year, indicating a more constrained environment. Private Debt experiencing the sharpest drop, with average fund size falling 56% from $2.2 billion in 2024 to $0.96 billion in 2025. Buyout funds declined 26%, from $3.4 billion to $2.5 billion, while Venture Capital funds recorded a comparatively smaller decline of 9%, from $1 billion in 2024 to $0.9 billion in 2025 (see Exhibit 5).

Exhibit 5. Average Fund Size (USD Billion)



Source: State Street Data Intelligence, as of Q3 2025.

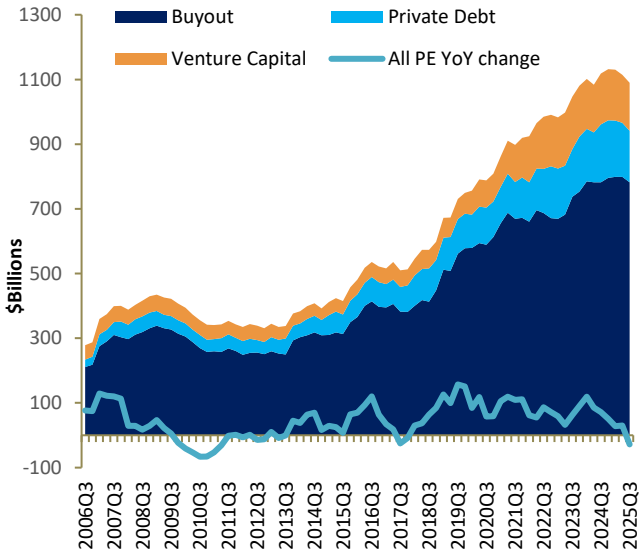
Dry Powder

Dry powder, or unfunded commitment, represents the amount of capital that has not been called, thus remaining available for future investment opportunities. As of Q3 2025, the total dry powder held by SSPCI constituent funds remained elevated at $1.09 trillion with a slight year-over-year reduction of $28 billion in Q3, continuing a gradual decline from the all-time high recorded in Q4 2024. All three strategies experienced year-over-year reductions in dry powder. Buyout and Venture Capital funds declined modestly to $781.6 billion from $782.4 billion, while Venture Capital decreased to $149 billion from $156.7 billion in Q3 2024. In contrast, Private Debt dry powder edged lower to $159.6 billion, down from $179 billion a year ago (see Exhibit 6A).

The quarterly dry powder normalized by the monthly average contribution of the past 12 months measures how long the current dry powder inventory can last at a recent average capital call rate without new fundraising activities. In Q3 2025, the dry powder inventory for overall SSPCI would last around 28.7 months, largely unchanged from the previous quarter. Private Debt funds saw an increase of 1.6 months to 26.8 months. Buyout and Venture Capital funds, however, saw a decrease in Q3 2025, with dry powder inventory falling to 30 months and 25 months, respectively (see Exhibit 6B).

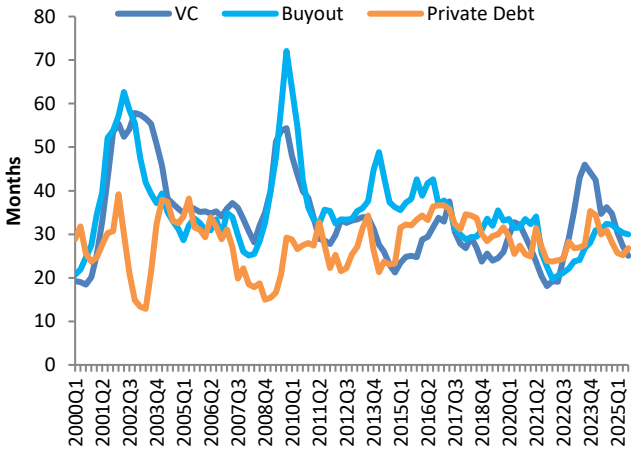
Exhibit 6. Dry Powder

A. Monthly Dry Powder



Source: State Street Data Intelligence, as of Q3 2025.

B. Quarterly Dry Powder Normalized by Average Contribution



Source: State Street Data Intelligence, as of Q3 2025.

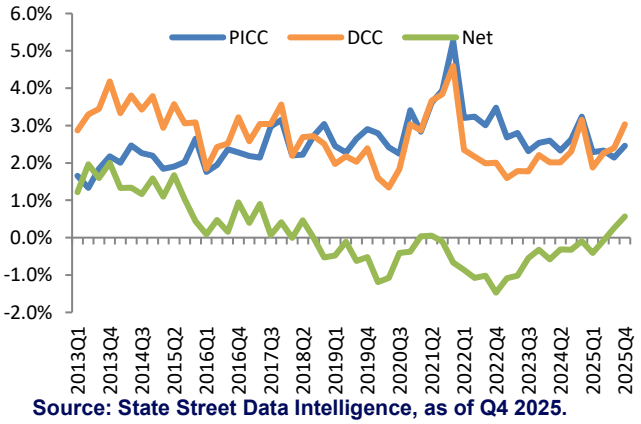
Cash Flow Activity

In Q4 2025, Cash flow dynamics improved slightly. The quarterly distribution-to-committed capital (DCC) ratio rose to 3.03%, while the paid-in-to-committed capital (PICC) ratio went up slightly to 2.46%. This resulted in a positive net cash flow of 0.57% for the quarter, continuing the gradual recovery trend observed in recent quarters (see Exhibit 7A).

Exhibit 7B provides a detailed breakdown of net cash flow by private market strategy. Both Buyout and Private Debt funds generated positive net cash flow in Q4 2025, at 0.72% and 0.8%, respectively. Venture Capital funds, meanwhile, saw a slight improvement, with net cash flow rising to -0.46%, though remaining in negative territory (see Exhibit 7B).

Exhibit 7. Quarterly Cash Flow Ratios Normalized by Commitment

A. Contribution and Distribution for All PCI



Source: State Street Data Intelligence, as of Q4 2025.

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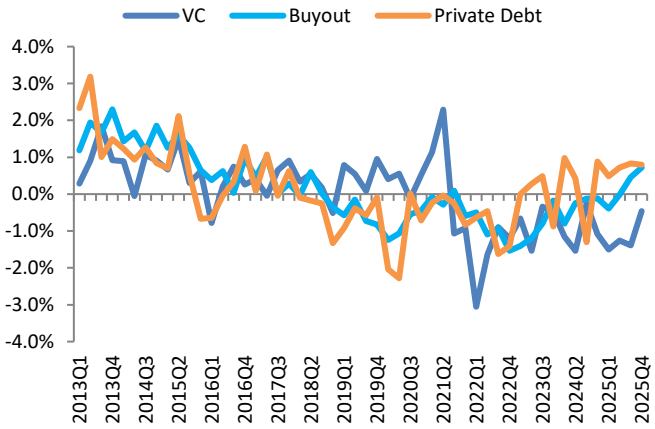
B. Net Cash Flow to Committed Capital By Strategy

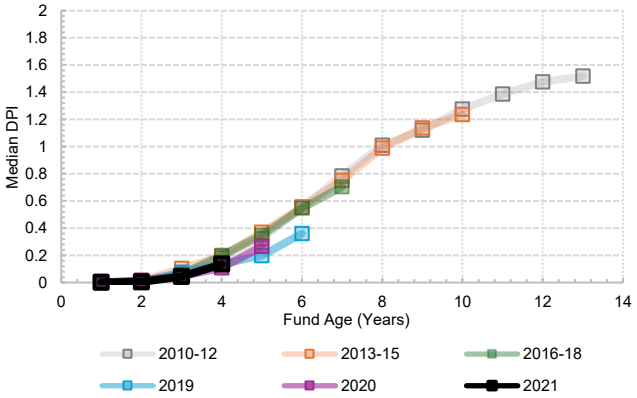


Source: State Street Data Intelligence, as of Q4 2025.

Distribution activity varied meaningfully across vintage cohorts. More recent vintage years of Buyout and Venture Capital exhibited slower distribution pacing relative to historical patterns, reflecting a more constrained exit environment and reduced realization activity amid ongoing market uncertainty. In contrast, Private Debt distributions remained relative stable across vintage cohorts, supported by the contractual income-oriented nature of this strategy. As a result, Private Debt funds continue to provide more consistent cash yield characteristics, while Buyout and Venture Capital remain more sensitive to cyclical exit conditions and capital market recovery dynamics (see Exhibit 8A, 8B, 8C).

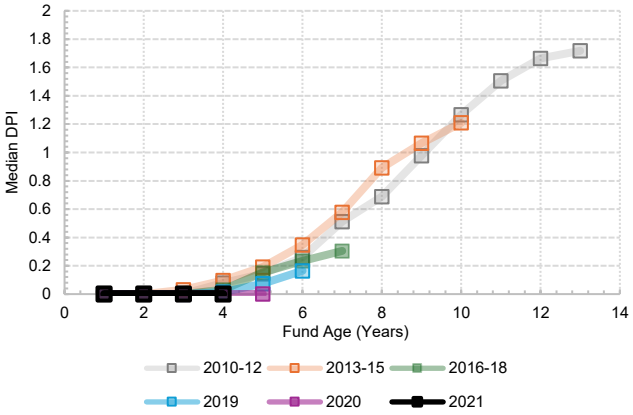
Exhibit 8. Median DPI by Vintage Cohort

A. Buyout

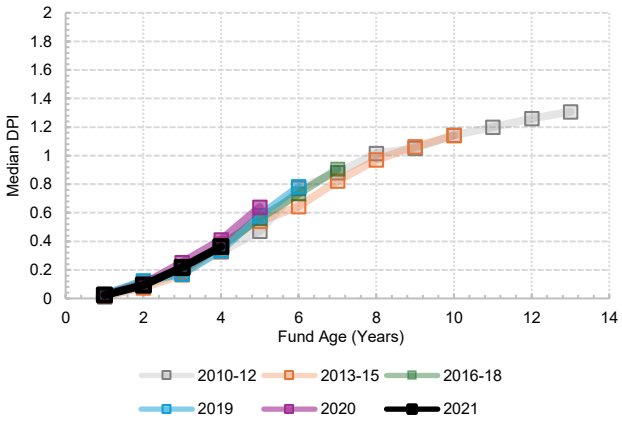


Source: State Street Data Intelligence, as of Q3 2025.

B. Venture Capital



C. Private Debt



Source: State Street Data Intelligence, as of Q3 2025.

Valuations

The Dollar Value Added (DVA) is the sum of NAV changes and net cash flows. It measures the realized and unrealized gains and losses in dollar amounts.

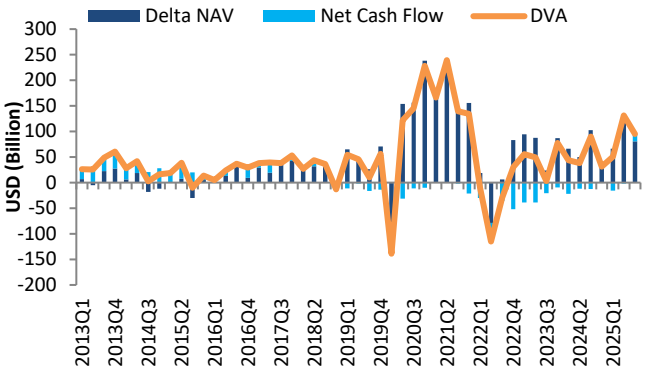
$$DVA = EndingNAV - BeginningNAV + Distribution - Contribution$$

The quarterly DVA for overall private capital decreased significantly in Q3 2025, down from $131.4 billion in Q2 to $95.3 billion. This was primarily driven by a substantial decline in the delta of net asset value (NAV), which dropped from $133.2 billion in Q2 to $80.8 billion in Q3 (see Exhibit 9A).

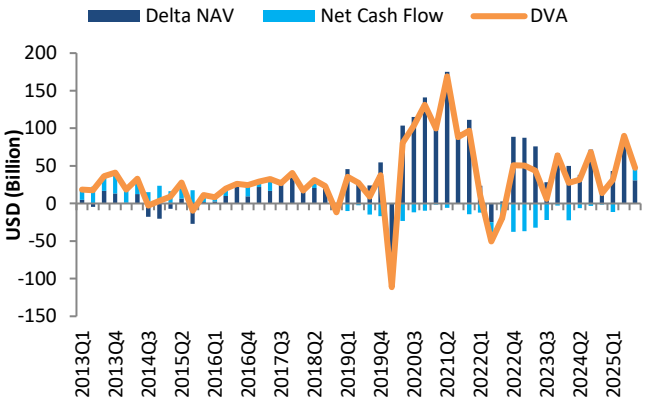
By strategy, Buyout funds contributed the most to the overall decrease in DVA, with DVA falling to 47.28 billion. Private Debt funds saw a modest decrease, with DVA of $7.9 billion in Q3. In contrast, Venture Capital funds demonstrated improving valuation dynamics, with DVA increasing to $40 Billion in Q3 (see Exhibit 9A, 9B, 9C, 9D, and 9E).

Exhibit 9. Dollar Value Added

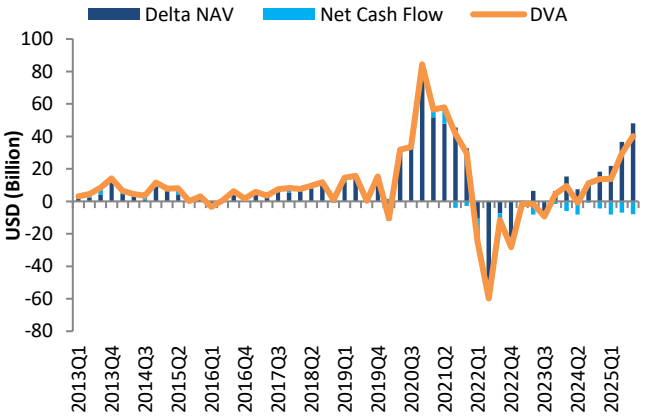
A. All PCI



B. Buyout

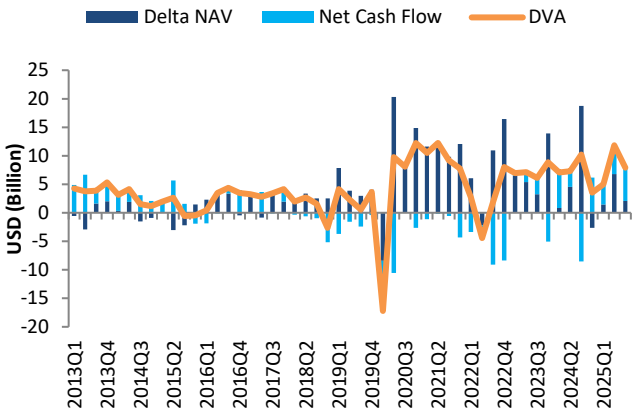


C. Venture Capital

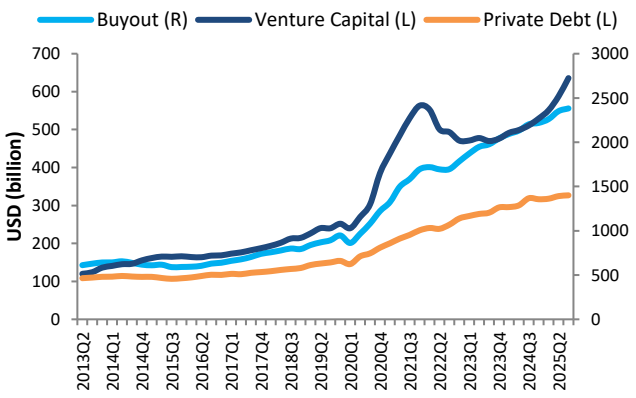


Source: State Street Data Intelligence, as of Q3 2025.

D. Private Debt



E. NAV by VC, Buyout and Private Debt



Source: State Street Data Intelligence, as of Q3 2025.

Holdings Exposure

In SSPCI, sector focus is categorized at the fund level. While this classification offers insights into the overall fund strategy, classifications at the holding company level provide finer granularity, allowing us to identify the exposures more precisely.

Exhibit 10A shows the NAV weights of GICS sector classifications of the portfolio companies in SSPCI constituent funds, based on State Street's proprietary private holdings data, across strategies as of Q3 2025. [13] Information Technology sector had the highest share of holdings across all strategies. For Buyout funds, there was 29% NAV in Information Technology sector, followed by Industrials, Health

[13] As of February 2026, the coverage of Q3 holdings data was 67% of the overall NAV in SSPCI.

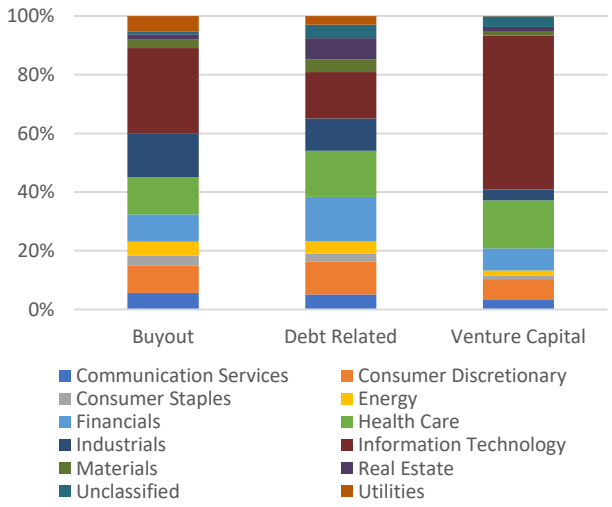
Care and Consumer Discretionary with NAV weights of 15%, 13%, and 9% respectively. 53% of NAV in Venture Capital is concentrated in Information Technology, followed by 16% for Health Care and 8% for Financials and 7% for Consumer Discretionary sectors. Private Debt is still the most diversified among strategies, with 16% for Information Technology and Health Care, and 15% for Financials as the top three sectors having the largest NAV weights.

For funds classified as Generalist in SSPCI, Information Technology consists of 21% of the NAV, which is lower than the 22% from last quarter, followed by Industrials, Health Care, Consumer Discretionary and Financials, accounting for 18%, 16%, 11.7% and 11.6% respectively. These top five sectors collectively represented 78% of the NAV within Generalist funds (see Exhibit 10B).

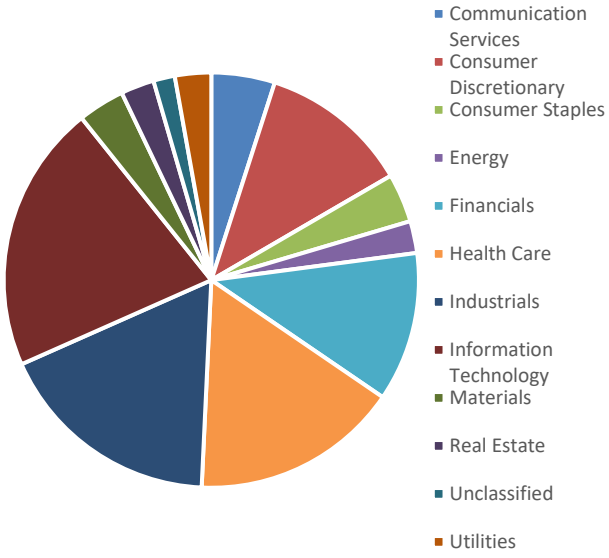
Exhibit 10C illustrates the percentage of holding companies in each sector and their NAV-to-remaining-cost ratio's directional changes from Q2 2025 to Q3 2025, excluding fully exited deals. The change in the NAV-to-cost ratio serves as a key indicator of valuation changes, isolating the investment cost adjustments. Although valuation growth slowed down this quarter, most sectors still saw over 50% of the investments increase in valuation. Top two sectors were Energy and Financials. Most notably, the percentage of Energy companies experiencing ratio increases rose from 50% to 60%, lifting the sector from 10th place last quarter to the top-ranked sector. More companies in the Consumers and Materials sectors continued to experience valuation decreases this quarter.

Exhibit 10. Holdings Sector Exposure Measured by NAV

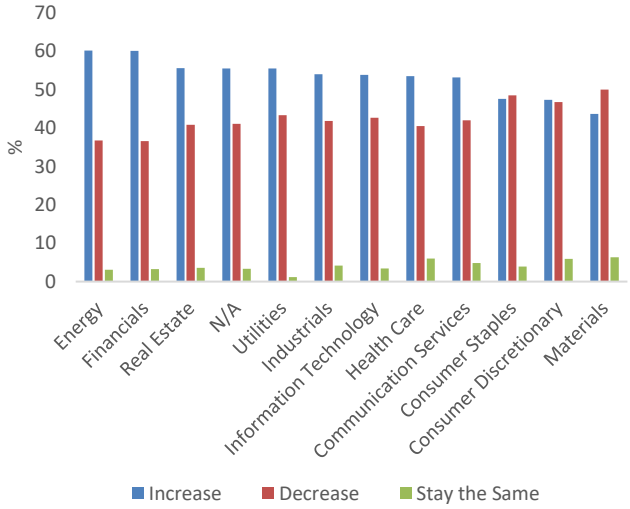
A. Sector Exposure by Strategies



B. Sector NAV weights for Generalist PE Funds



C. NAV/Remaining Cost Ratio from Q2 2025 to Q3 2025



Source: State Street Data Intelligence, as of Q3 2025.

Nowcasting

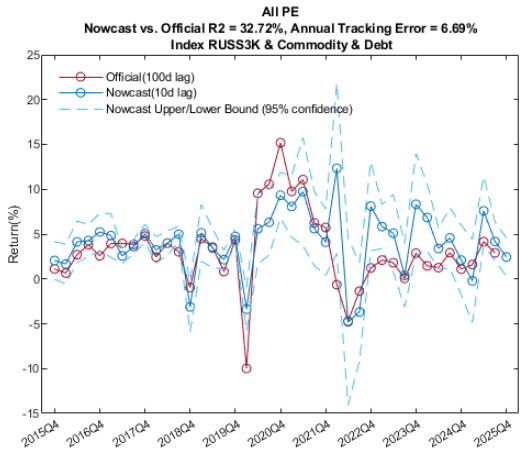
Inspired by the concept of nowcasting, the SSPCI research team developed a model, aspiring to estimate the concurrent performance of private equity market, of which the reporting is otherwise delayed at least by one quarter. We hereby only share the model predictions for Q4 2025 without going into theoretical background. For model details, please refer to

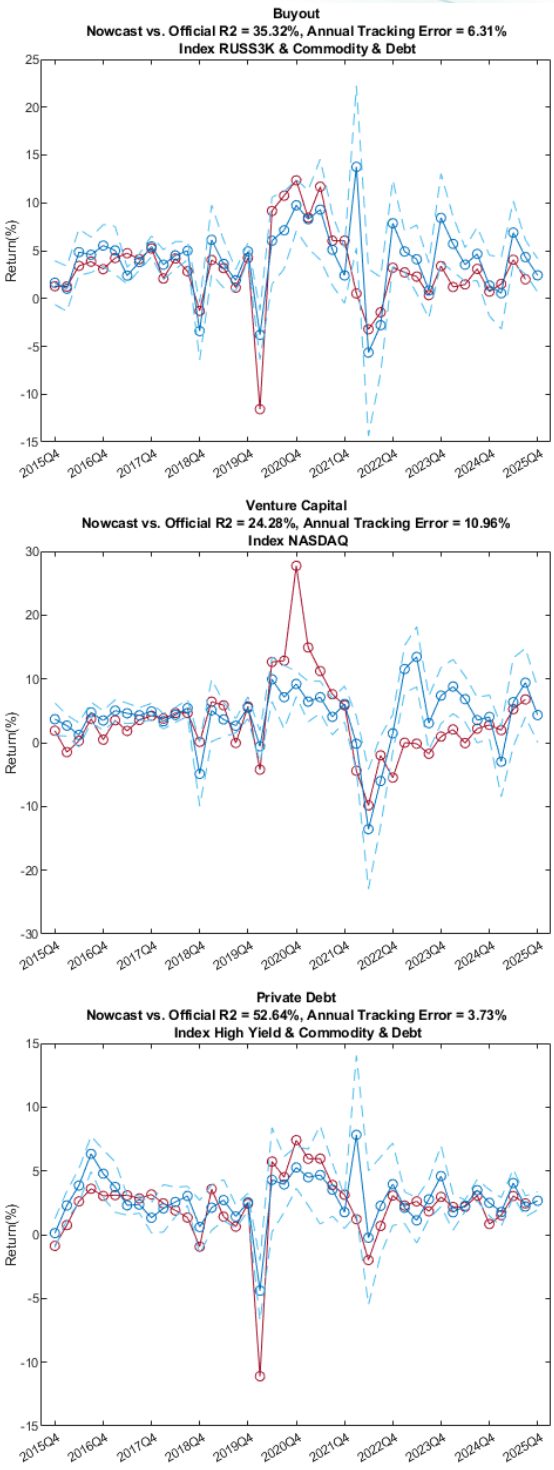
State Street Private Equity Insights Q3 2021 publication[14]. Nowcasting results are out-of-sample predictions based on the regression coefficients from the past 5-year rolling window of observed public market returns and private market cash flows.

Reflecting on Q3 2025, the actual returns for All PE, Buyout, Venture Capital, and Private Debt were 2.91%, 2.00%, 6.78% and 2.45% respectively. Comparatively, last quarter's nowcasting model made the predictions of 4.17%, 4.33%, 9.40% and 2.21%. Exhibit 11 indicates that the nowcasting model's predictions for all strategies were within their 95% confidence intervals. The model made a relatively close prediction for all PE and Private Debt, and higher predicted returns for Buyout and Venture Capital given strong public market performances in Q3. Nasdaq composite and Russell 3000 gave a return of 11.41% and 8.18% respectively. Though positive and fairly strong, private market has a more muted response to news and had a weaker return than the public market.

Looking ahead to Q4 2025, the nowcasting model anticipates a slight drop across strategies, predicting quarterly returns of 2.44%, 2.42%, 4.32% and 2.66% respectively for All PE, Buyout, VC, and Private Debt. We expect to see slight drops in returns for All PE, Buyout and Venture Capital. This forecast is attributed to the relatively weaker equity market than Q3 2025, as Nasdaq and Russell 3000 Index rose 2.72% and 2.40%. Meanwhile, in the debt market, Bloomberg US Aggregated Bond Index rose by 1.15%, and Bloomberg US Corporate High Yield Index returned positively by 1.36%.

Exhibit 11. Actual vs. Out-of-sample Nowcast IRRs





Source: State Street Data Intelligence, as of Q3 2025.

[14] State Street Private Equity Insights Q3 2021
https://globalmarkets.statestreet.com/portal/peindex/ publications

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DISCUSSION – AI Exposure of Venture Capital

Is AI a bubble? If so, what is my exposure? Many investors may be wondering this question, as interest in artificial intelligence (AI) and large language models (LLMs) has accelerated sharply over the past years. It is therefore crucial to understand how deeply AI exposure is embedded in today's VC portfolios. There have been many "turning points" in the AI story, but the release of ChatGPT in November 2022 was one that signifies a transition from the crypto/blockchain enthusiasm of 2021/2022 toward a new technological frontier.

SSPCI has 99 generalist or information technology focused VC funds with vintages from 2023 to 2025 and available investment schedules. Using this subsample, we find that AI exposure is almost unavoidable: 93% of these funds have at least one AI-related investment in their portfolios.

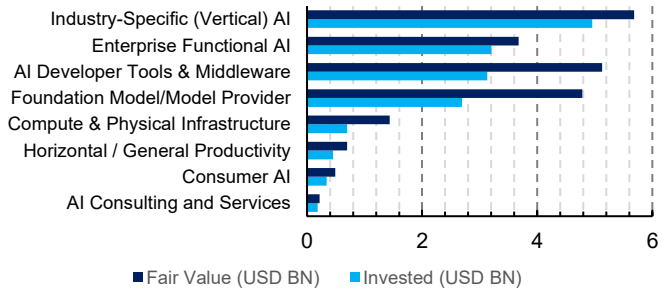
Rather than treating AI as a single category, we further decompose these holdings into eight distinct AI segments, allowing us to assess not just the prevalence of AI exposure, but also its composition and concentration across investments. We specifically analyze AI investments through the lens of generative AI, LLMs, and their associated upstream and downstream product layers, as summarized below.[15]

1. **Compute & Physical Infrastructure:** Hardware, chips, data centers (e.g. Coreweave).
2. **Foundation models (model providers):** Building large-scale base models (e.g. Anthropic, OpenAI).
3. **AI Developer Tools & Middleware:** Vectors databases, orchestration frameworks, and MLOps (e.g. Pinecone).
4. **Horizontal AI & General Productivity:** General purpose AI tools for individuals (e.g. Perplexity).
5. **Enterprise Functional AI**: AI built for a specific department/function across industries (e.g. AI for sales).
6. **Industry-Specific (Vertical) AI:** AI built for a specific industry (e.g. Waymo for transportation).[16]
7. **Consumer AI:** Entertainment, social, or creative tools for personal use (e.g. Character.AI).
8. **AI Consulting & Services:** Firms focused on implementing AI for others rather than selling a core AI product.

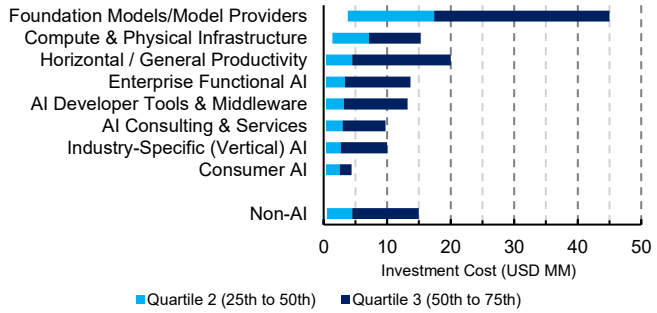
Most AI investments by the VC funds in our sample are concentrated in AI applications, namely industry-specific strategies followed by enterprise functional AI and developer tools, in contrast to the public equity market's stronger tilt toward infrastructure providers and foundation-model companies (see Exhibit 12A). It is important to note, however, that AI model providers receive the largest share on a per investment basis, while consumer AI has the smallest share per investment (see Exhibit 12B). This may suggest that foundation model development is more capital intensive yet concentrated among fewer firms. On the flip side, downstream AI companies attract (or require) less capital per investment, especially in the early stages. In Exhibit 12B, the 25th percentile can be as low as a few hundred thousand dollars for downstream AI applications.

Exhibit 12. Cost and Fair Value of AI Investments[17]

A. Total by Product Layer (VY 2023-2025)



B. Cost Percentiles by Product Layer (VY 2023-2025)



Source: State Street Data Intelligence, as of Q3 2025.

[15] Companies are provided as example only and not meant to be representative of the portfolio companies in our sample. To protect the privacy of the associated GPs, LPs, and portfolio companies, we do not report investment levels of individual companies.

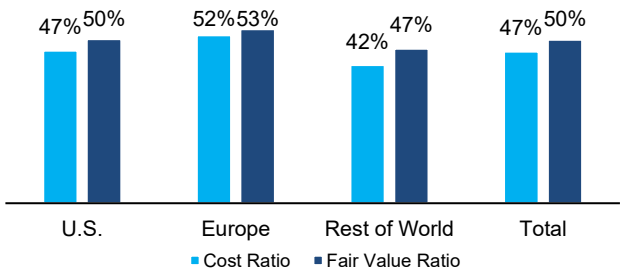
[16] Enterprise functional AI and industry-specific AI can sometimes overlap, but generally their distinctions are clear. Enterprise functional AI encompasses tools and workflows that can enhance processes across broad groups of non-AI companies (for example, AI for accounting, AI for sales). In contrast, industry-specific AI means a vertically integrated AI product that often challenges incumbents and integrates non-AI components (for example, Waymo for transportation).

[17] Fair value is greater than investment cost, in aggregate for each AI product layer. Note that given recency of the investments, most of their value is unrealized. The "non-AI" category includes portfolio company investments only and excludes "fund-of-fund" investments.

The values in Exhibit 12 are not meant to be representative of the entire industry. Instead, they provide an insight into the investment preferences of newly formed VC funds. For example, it is possible that VC investment in computing & physical infrastructure lags that of other categories in Exhibit 12 due to public market investment (e.g., NVIDIA) or private debt & real estate (e.g. the financing of datacenters) taking a large share. Many AI/LLM companies were already formed before 2023; AI investment by funds with pre-2023 vintages is a topic for future study.

Additionally, bottlenecks and opportunities for each layer in the AI value chain are imposed partially by its respective upstream layer. For example, state-of-the-art (SOTA) foundation models today rely on innovations in the infrastructure: GPUs, networking, and data center real estate. Horizontal and vertical AI companies rely heavily on recent advancements from SOTA models. Upstream layers supply innovations that are demanded by the downstream layers. This interdependence, and propagation of value is notable for the speed at which this entirely new industry has formed and grown.

Exhibit 13. Relative Regional AI Investment



Region	AI Investments (USD)*		Total Investments (USD)*	
	Cost	Fair Value	Cost	Fair Value
U.S.	14,030 M	20,020 M	29,950 M	39,810 M
Europe	350 M	430 M	690 M	800 M
Rest of World	1,270 M	1,660 M	3,000 M	3,500 M
Total	15,650 M	22,110 M	33,630 M	44,110 M

*Rounded to the nearest $10M, excluding "fund-of-fund" investments.

Source: State Street Data Intelligence, as of Q3 2025.

Across regions, the 92 funds in our sample with at least one AI investment have, in aggregate, approximately 50% of their invested capital, measured at fair value, allocated to AI-related companies. It is important to note that most AI investments, by far, are from the U.S., with Europe and the Rest of World investing significantly less. This is consistent with the regions' investments in private companies overall (see Exhibit 13).

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Participants in private capital markets need a reliable source of information for performance and analytics. Given the non-public nature of the private equity industry, collecting comprehensive and unbiased data for investment analysis can be difficult. The State Street Private Capital Index ("SSPCI") helps address the critical need for accurate and representative insight into private equity performance.

Derived from actual cash flow data of our Limited Partner clients who make commitments to private equity funds, SSPCI is based on one of the most detailed and accurate private equity data sets in the industry today. These cash flows received as part of our custodial and administrative service offerings are aggregated to produce quarterly Index results. Because the SSPCI does not depend on voluntary reporting of information, it is less exposed to biases common among other industry indexes. The result is an index that reflects reliable and consistent client data, and a product that provides analytical insight into an otherwise opaque asset class.

- Currently comprises more than 4,200 funds representing more than $6.0 trillion in capital commitments as of Q3 2025
- Global daily cash-flow data back to 1980.
- The Index has generated quarterly results since Q3 2004.
- Published approximately 100 days after quarter-end.

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