

The background of the entire page is an abstract composition. It features a grid of squares, similar to a globe's latitude and longitude lines, which are slightly curved and distorted. Overlaid on this grid is a large, semi-transparent number '1' that spans most of the page's width. The color palette is primarily blue, with a gradient from deep navy to a lighter, almost white blue, and a touch of warm yellow/orange in the upper right corner, suggesting a light source or sunrise/sunset. The overall effect is modern and sophisticated.

# Beyond the Headlines: *The Enduring Value of Private Markets*

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GLOBAL PRIVATE MARKETS QUARTERLY

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# I.

## EXECUTIVE SUMMARY

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- Despite the headlines, current trends reflect *increased discipline* in private market behavior, not underperformance. In public markets, efficient price discovery is now hampered by a dominance of passive fund flows and an influx of retail investors sensitive to short-term news rather than long-term fundamentals. In private markets, transaction prices are largely set on the basis of underwritten return expectations over multiyear holding periods. Higher rates (through higher interest expense) push up the annualized earnings growth required to meet asset-level return expectations. These stricter underwriting criteria in turn have manifested in fewer, more selective transactions and reasonable purchase price multiples, a refreshing contrast to public market froth.
- Against a backdrop of fewer transactions, slower exits, and reduced liquidity to LPs, secondary strategies can play a distinct role within a broader portfolio. The secondaries market is currently undercapitalized at the same time that there is robust deal supply. In our view, investor worries about negative selection effects in secondaries, and GP-led secondaries in particular, are misplaced. Skeptics fear that these transactions skew towards assets that GPs struggle to exit. However, our own experience suggests the opposite is true. Rather, GPs use secondaries to rollover equity in their strongest performing investments so that they can continue to benefit from upside beyond the typical buyout contractual period.
- Investors contemplating their commitments to private equity increasingly face decisions on whether to pursue large- or mid-cap buyout strategies. In the median, net IRRs for large-cap and mid-cap buyout funds across all vintages over the past two decades are roughly comparable<sup>1</sup>. The differences to consider concern underlying return distributions and fee economics. Implied distributions of actual fund outcomes suggest that an investor in a mid-market buyout fund is both 40% more likely to lose money and 60% more likely to generate a net IRR over 30% than an investor in a large-cap buyout fund. In other words, for mid-cap funds, historically, the tails are fatter on both sides of the distribution, while large-cap funds generally experience a narrower range of outcomes. Overall, the data suggest large-cap strategies are more attractive for investors with large amounts of capital to put to work at lower risk tolerances and come with the added benefit of larger co-investment opportunities that blend cost down for the portfolio. But mid-cap strategies offer greater upside potential for those investors with less capital to deploy and greater risk appetite.
- In the aftermath of the Tricolor and First Brands bankruptcies, fears have risen around the quality of underlying assets in the syndicated loan and private credit markets. BDCs have underperformed the broader market since July, and firms and funds with the greatest exposure to First Brands have seen their prices fall substantially in the aftermath. Yet, excess demand for leveraged loans and credit over the available supply has pushed spreads to post-GFC lows and as such risk premia for leveraged finance are exceedingly tight. Risk-adjusted compensation for portfolio finance looks generally better.

1. MSCI-Burgiss, October 2025. Large-cap strategies are defined as funds with a size of \$5 billion or more. Mid-cap strategies are defined as funds sized between \$1 billion and \$5 billion.

# II.

## MARKETS OVERVIEW

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The third quarter of 2025 was one of continued optimism across markets. The S&P 500 and NASDAQ sustained their relentless upward climb, returning 7.8% and 11.2%, respectively, over the third quarter. European stocks also had a better quarter than in Q2, with the Euro Stoxx 50 up over 4%, compared to a 1% return in the second quarter. While the fourth quarter has seen a rockier start for equity markets in the face of renewed US-China tariff drama, broad enthusiasm for AI still drives sharp price action<sup>2</sup>.

Indeed, since the pandemic, stock performance has become divorced from traditional business quality metrics, such as top-line growth, profit margins, and the stability of earnings over the cycle. Over the past five years, investors would have been better off shorting a basket of stocks of the highest quality<sup>3</sup> businesses, a remarkable turnaround from historic relations<sup>4</sup>. This coincides with a decline in institutional active investing as a share of public equity market activity. As of year-end 2024, the passive share of US equity fund assets stood at about 60%. This is significant as passive fund flows do not generate meaningful price discovery. At the same time, active investment is increasingly tilted towards retail investors (“Robinhoods”). In September, retail investors bought over \$100 billion in US stocks, the largest 1-month amount on record (Figure I, page 5). While buying and selling activity from retail investors *does* generate price discovery (in contrast to passive flows), retail investors tend to be more reactive to short-term performance and headlines<sup>5</sup>. Together, this does not suggest a market environment focused on long-term fundamentals or valuation prospects. As of the end of the third quarter, US public equity multiples were nearly 30% above their 10-year average<sup>6</sup>.

At the same time that public markets have dazzled with euphoria, private markets have appeared more subdued. The quarterly time-weighted return for US buyout funds in Q2 2025 (the latest quarter for which data are available) was 2.6%<sup>7</sup>. Over the same quarter, the S&P 500 total return was nearly 11%, and even the more comparably sized Russell 2000 returned about 8.5% (including dividends). This is not a new trend, but rather one that has persisted for much of the past three years. Against this backdrop of measured returns, slower fundraising, and delayed distributions, unsurprisingly headlines and pundits have eagerly speculated around the private equity “downturn,” positing lackluster predictions of the asset class’s future. But reports of the industry’s demise are greatly exaggerated. Recent performance is largely misunderstood. Private equity is not subject to the same flights of

2. Thomas, J. (2025, September 30). *Oracular warning*. The Carlyle Compass. The Carlyle Group.

3. Analysis involves the top 15% of most liquid stocks from the Russell 3000 and is based on standard measures of the quality factor (profit margins, growth, and stability).

4. Thomas, J. (2025, September). *Through the looking glass*: The Carlyle Group.

5. Ilmanen, A. (2025, August). *Equity market focus: Subjective expected returns* (Understanding return expectations, part 7). AQR Capital Management.

6. S&P Capital IQ, October 2025.

7. MSCI-Burgiss, October 2025.

fancy to which public markets are vulnerable. For buyouts, transaction prices are largely set on the basis of underwritten return expectations over multiyear holding periods. Higher rates (through higher interest expense) push up the annualized earnings growth required to meet asset-level return expectations. These stricter underwriting criteria in turn have manifested in fewer transactions. In other words, current trends reflect *increased discipline* in private market behavior, not distress. This is clear when comparing purchase price multiples of buyout transactions to trailing public market multiples (Figure 2, page 6). In contrast to public market valuations, which are near 2021 peaks, US buyout purchase price multiples are roughly in line with their 10-year average. It is oxymoronic to laud public market's recent outperformance (on the back of near record-breaking multiples) while suggesting that future private equity returns will underperform, a common refrain echoed in the media today. On the contrary, in our view a rational investor might seek to fund more private asset allocations given the disciplined valuations and targeted investment approach so diametrically positioned to the current mania-driven public market dynamic.

## ROLLING IM ESTIMATED RETAIL DEMAND

Fig. 1

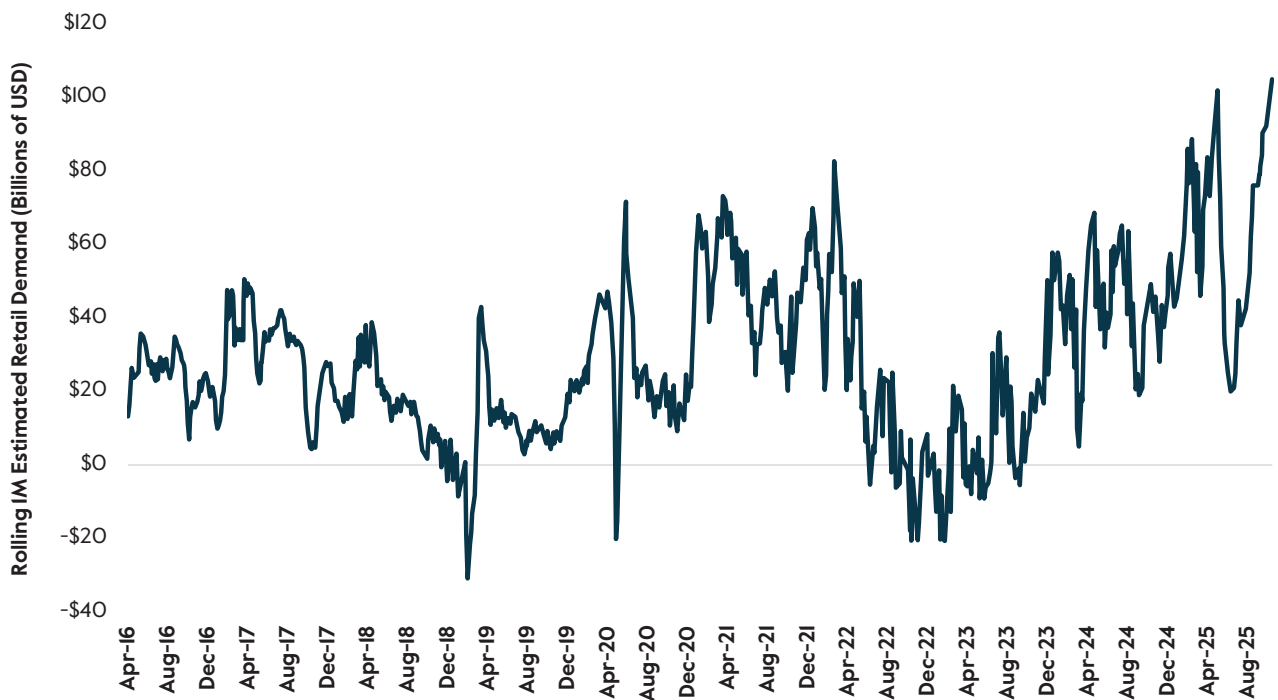
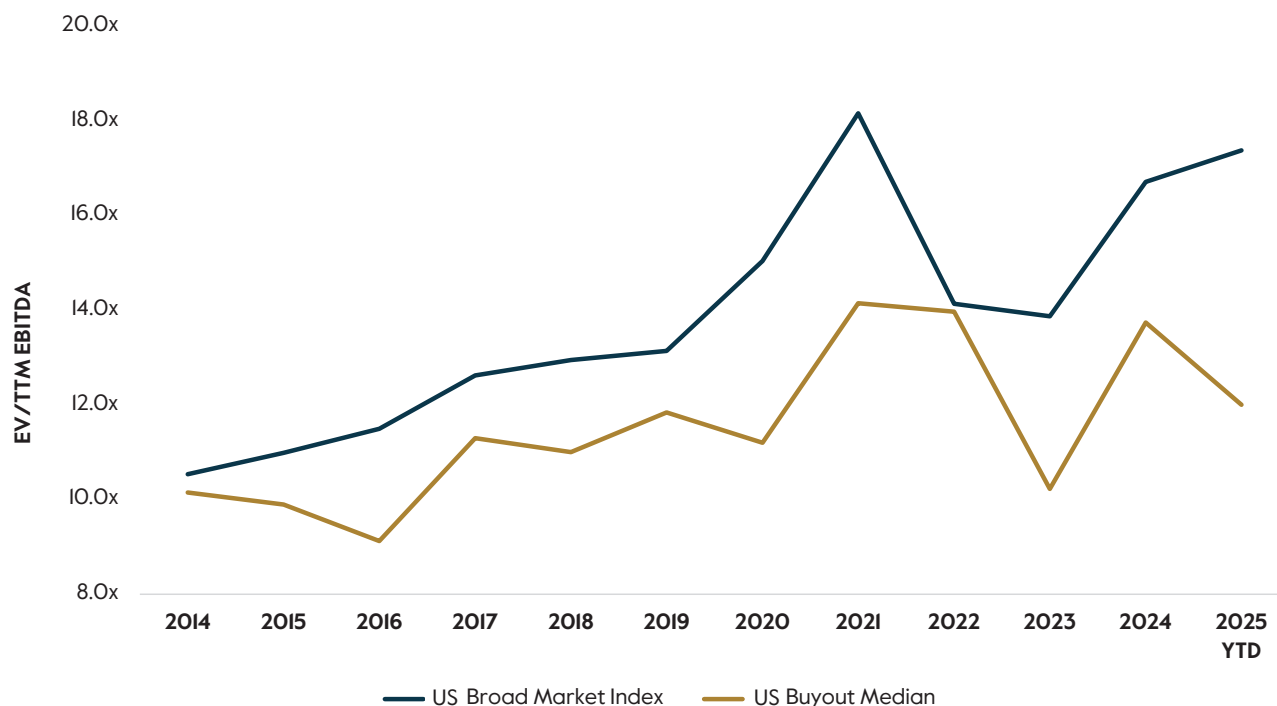


Figure 1 Source: Morgan Stanley QDS, Exchange Data Feeds, accessed October 6, 2025.

## US BUYOUT PURCHASE PRICE MULTIPLES VS. PUBLIC EQUITY MULTIPLES

Fig. 2



Critics also suggest that recent lagging returns indicate that underlying assets are faulty. But the data do not support that assertion. Per our own internal data of roughly 1,600 companies across the buyout universe, private equity-backed companies globally saw revenue and profit growth of 6.1% and 7.4%, respectively, over year-ago levels in Q2 2025 (the latest quarter for which data are available). For portfolio companies the US, our data indicate revenue and profit growth were 6.2% and 7.7%, respectively<sup>8</sup>. Over the same period, companies in the S&P Small Cap index saw revenue and profit growth of just 4.7% and 0.7%, respectively<sup>9</sup>. To be sure, 2021-2022 deal vintages, which have a high concentration of “growthier” or “tech-focused” assets that transacted at high valuations against a backdrop of 0% overnight interest rates, are likely to be underperformers relative to historical norms for buyout returns. But the underlying assets are healthy, and we do not see significant write-downs or broad-based losses. Instead, we see slower appreciation for these particular assets (Figure 3, page 7); in this changed environment, 2021-2022 deal vintages essentially need to “grow” into the valuations at which they were initially underwritten. Deals purchased at other points in time do not face the same appreciation pressures. Importantly, the current private market discipline enforced by tighter underwriting criteria reduces the risk of asset acquisitions at excessive valuations (the same cannot be said of public equities at this point in time). In our view, this plants the seeds for especially attractive, market-neutral private market returns over the coming years.

8. Alpinvest data, October 2025.

9. FactSet, October 2025.

Figure 2 Source: Pitchbook, S&P Capital IQ, October 2025.

EVOLUTION OF GROSS MOIC BY DEAL VINTAGE

Fig. 3

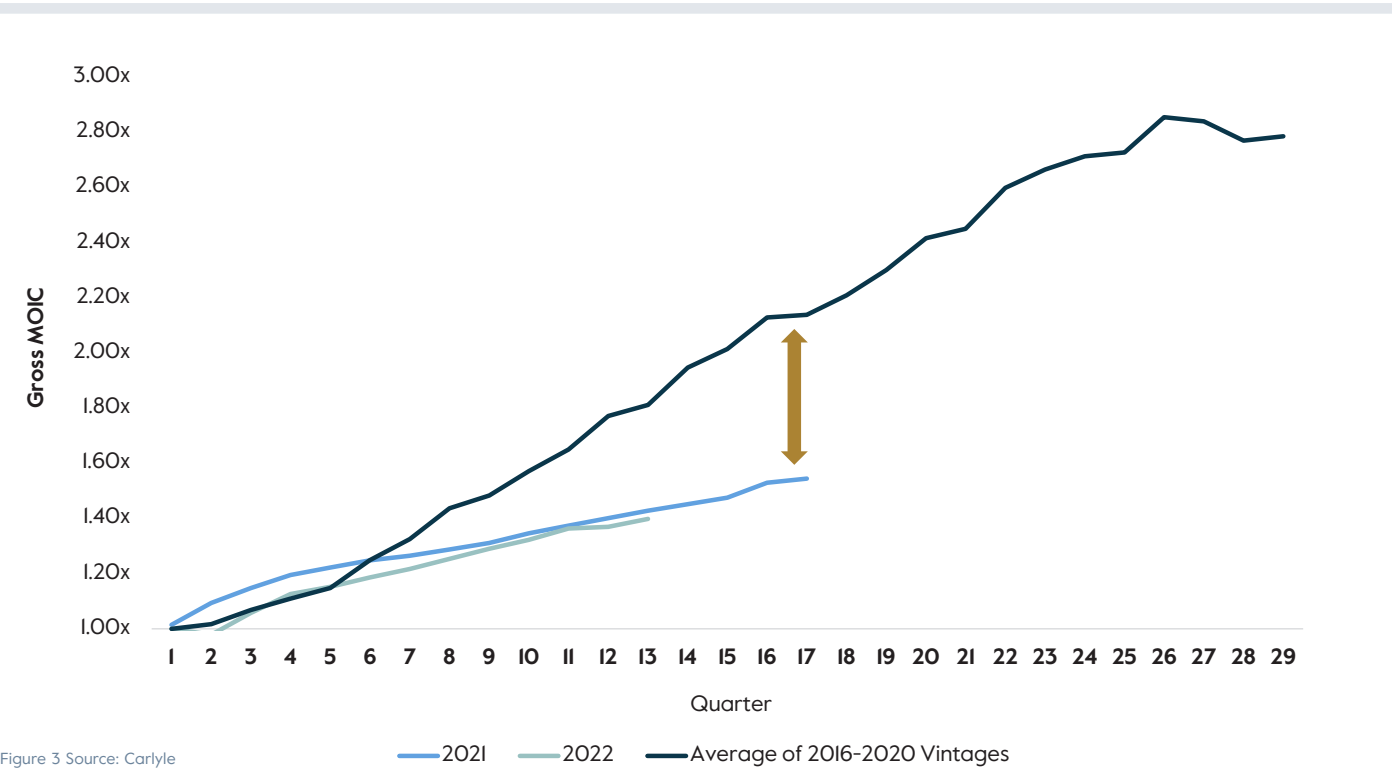


Figure 3 Source: Carlyle Alpinvest, September 2025. Analysis covers 5,000 US buyout deals of all sizes up to a \$7 billion enterprise value.

## KEY FINANCIAL MARKET INDICATORS

Table 1

ASSET CLASS	Q3 2025	ΔQOQ	ΔYOY
<b>Private Markets Activity</b>			
Global M&A Volume	\$1,280.5B	21.3%	42.0%
Global Buyout & Add-On Volume	\$278.0B	98.9%	68.2%
VC & Growth Capital Volume	\$128.8B	1.3%	68.8%
Buyout-Backed Exits	\$101.0B	-1.4%	-7.3%
Number of Buyout-Backed Exits	455	-5.6%	-29.0%
US VC-Backed Exits	\$43.9B	-36.5%	-32.5%
Number of US VC-Backed Exits	195	-1.5%	-27.5%
Buyout Fundraising	\$100.7B	1.3%	8.6%
VC Fundraising	\$17.1B	-29.1%	-43.9%
US CLO Issuance	\$53.1B	3.6%	29.1%
Europe CLO Issuance	€16.6B	30.6%	57.8%
Private Debt Fundraising	\$479B	47.7%	-36.4%
<b>Leveraged Finance Issuance</b>			
US Institutional Loan Issuance ex-Repricings/Extensions	\$143.7B	76.2%	25.8%
Europe Institutional Loan Issuance ex-Repricings/Extensions	€25.1B	9.2%	148.7%
US High-Yield Issuance	\$117.9B	54.2%	59.9%
Europe High-Yield Issuance	\$40.2B	-21.3%	83.0%
<b>Defaults</b>			
US LSTA Loan Default Rate (TTM, eop)	1.47%	+36bps	+67bps
Europe ELLI Loan Default Rate (TTM, eop)	0.91%	+20bps	-12bps
<b>Yield/Spreads/Interest Rates</b>			
US 10-Year Treasury Yield (eop)	4.16%	-8bps	+35bps
US Single-B Bond Yield (eop)	6.56%	-30bps	-6bps
US Single-B Bond Spread (eop)	2.83%	-22bps	-16bps
US Single-B Loan Inst. Rate	6.93%	-64bps	-178bps
US Single-B Loan Inst. Spread	3.02%	-25bps	-60bps
<b>Performance &amp; Volatility</b>			
S&P 500		7.8%	16.1%
NASDAQ		11.2%	24.6%
Euro Stoxx 50		4.3%	10.6%
FTSE 100		6.7%	13.5%
Nikkei 225		11.0%	18.5%
VIX		-2.7%	-2.7%
US AAA Corporate Bond TR		2.6%	1.2%
US Single-B Corporate Bond TR		2.4%	7.1%
US LSTA Leveraged Loan TR		1.8%	7.0%
Europe ELLI Leveraged Loan TR		1.0%	5.3%

As of October 20, 2025 based on data through September 30, 2025. Q3 2025 defined as the period July 1 through September 30. Past performance does not predict future returns. Investors cannot invest directly in an index.  
Table 1 Source: Bloomberg, Dealogic, FRED, Pitchbook, LCD, Preqin.



# III.

## TRENDS IN PRIVATE EQUITY

### Blockbuster M&A Volumes Driven by Extra-Large Deals

#### GLOBAL M&A TRENDS<sup>IO</sup>

Global M&A activity has accelerated sharply in 2025. Year-to-date deal volumes through Q3 are already approaching full-year 2024 levels, fueled by a powerful rebound in the third quarter.

- Q3 2025 total transaction value: nearly \$1.3 trillion
- Quarter-over-quarter growth: +21%
- Year-over-year growth: +42% (Figure 4, Page II)

While total deal values have soared, the number of transactions remains subdued at around 9,200, a roughly 12% decline relative to both the previous quarter and year-ago levels, highlighting larger deals still dominate activity.

- Prominent announcements included:
- Union Pacific's proposed \$88.2B acquisition of Norfolk Southern
  - Palo Alto Networks' pending \$24.5B acquisition of CyberArk

Notably, four of the top ten global M&A deals involved private equity sponsors (three acquisitions and one sponsor-backed exit).

#### LEVERAGED BUYOUTS (LBOs)<sup>II</sup>

Private equity dealmaking surged in value, even as activity levels remained moderate. GPs announced an incredible \$241 billion in global LBOs in Q3 2025 — the highest quarterly total since 2007, surpassing the post-pandemic boom averages of 2021–2022 and marking a 72% year-over-year increase.

However, the number of transactions fell to 438, down 17% from Q3 2024 and 22% below the 2021–H1 2022 average. Indeed, the top ten transactions accounted for 64% of total volume, underscoring the market's increasing concentration.

- Major transactions included:
- PIF and Silver Lake's record-breaking acquisition of Electronic Arts, that alone made up nearly a quarter of total LBO volume
  - Sumitomo, Apollo, and Brookfield's \$27B proposed acquisition of Air Lease Corp
  - KKR and CPPIB's \$19.5B stake in Semptra Infrastructure Partners
  - Thoma Bravo and ADIA's \$12.7B acquisition of Dayforce, Inc.

Six of the ten largest deals were US-based, reaffirming the country's continued dominance in global buyout activity.

## VENTURE CAPITAL TRENDS<sup>12</sup>

Venture capital dealmaking also skewed toward larger transactions. Startups raised \$124 billion globally in Q3 2025, up 5% from Q2 and 75% above Q3 2024.

Although the number of deals (~5,510) remained nearly flat year-over-year, the average deal size surged to the highest level since at least 2014, primarily due to large late-stage funding rounds for Anthropic, OpenAI, and x.AI.

Overall, through the first three quarters of 2025:

- Total venture investment: \$347 billion
- Number of deals: ~16,800
- Change in transactions vs. 2024: -2%

Beyond AI-related investment, global VC activity has continued to decline steadily from 2021 peaks, reflecting muted investor appetite following weak returns in recent years

## Exits Disappoint and Liquidity Remains Constrained

Despite blockbuster deal volumes, buyout exits remain slow. Aggregate exit volumes of \$101 billion were roughly flat to Q2 and were 7% lower than in Q3 2024 (Figure 5, page 11). Notably, one deal, Keurig Dr. Pepper's acquisition of JDE Peet's from JAB Holding Company, made up nearly 20% of total exit volume. Only 455 companies were divested globally, the lowest quarterly exit count since Q4 2022. During the quarter, trade sales accounted for 60% of exits, followed by secondary buyouts (35%). In the venture capital space, global aggregate exit value declined to about \$50 billion, a 28% quarter-over-quarter decline. A total of 253 portfolio companies were exited globally in Q3, the lowest number since at least 2014 and 22% lower than in Q2.

Data revisions suggest that net distributions of global buyout funds have not underperformed as severely as initially thought. Data through Q2 2025 (the latest quarter for which data are available) indicate that there have been five consecutive quarters of non-negative net distributions (Figure 6, page 12)<sup>13</sup>. Cumulative net distributions to LPs since Q1 2022, when they first turned negative, still amount to a roughly \$135 billion drag. Across all private assets, Q2 2025 was the first in 18 quarters to show a positive net distribution to LPs, thanks in large part to a sharp slowdown in contributions. Since 2020, the cumulative shortfall across all private asset classes amounts to roughly \$550 billion, about the same size as the gap that opened up in the aftermath of the global financial crisis (GFC)<sup>14</sup>.

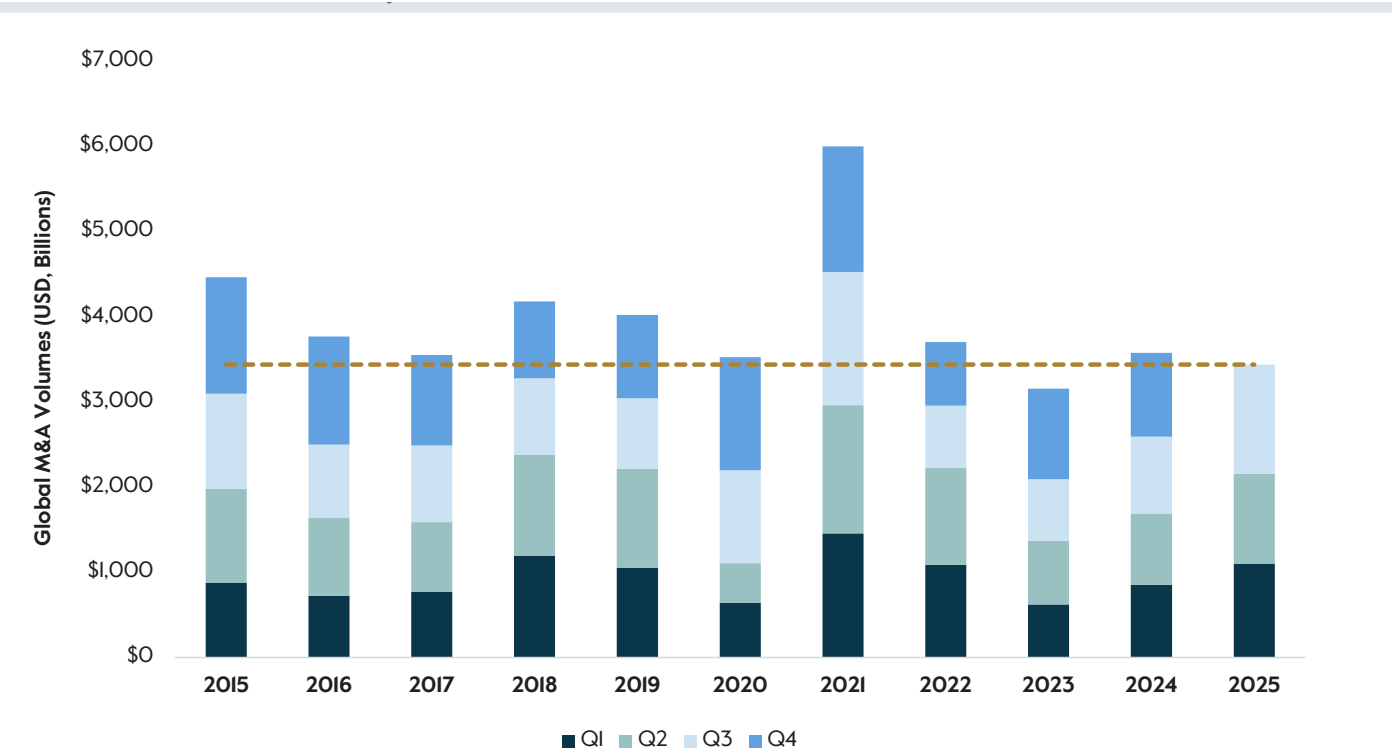
12. Preqin, October 7, 2025.

13. MSCI-Burgiss, October 2025. Universe covers 3,129 global buyout funds of all sizes.

14. MSCI-Burgiss, October 2025.

GLOBAL M&A VOLUME: \$B

Fig. 4



GLOBAL DIVESTMENTS OF PRIVATE EQUITY-BACKED PORTFOLIO COMPANIES, Q1 2015 – Q3 2025

Fig. 5

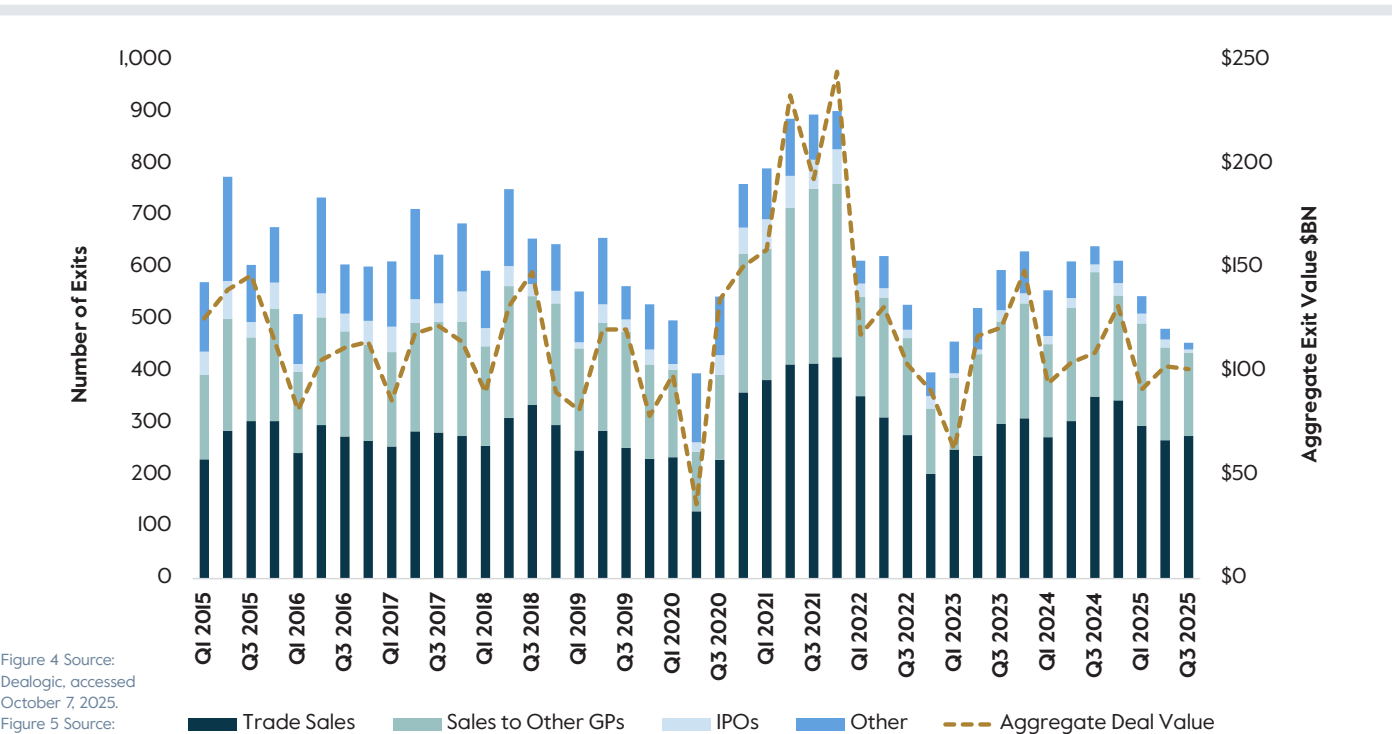
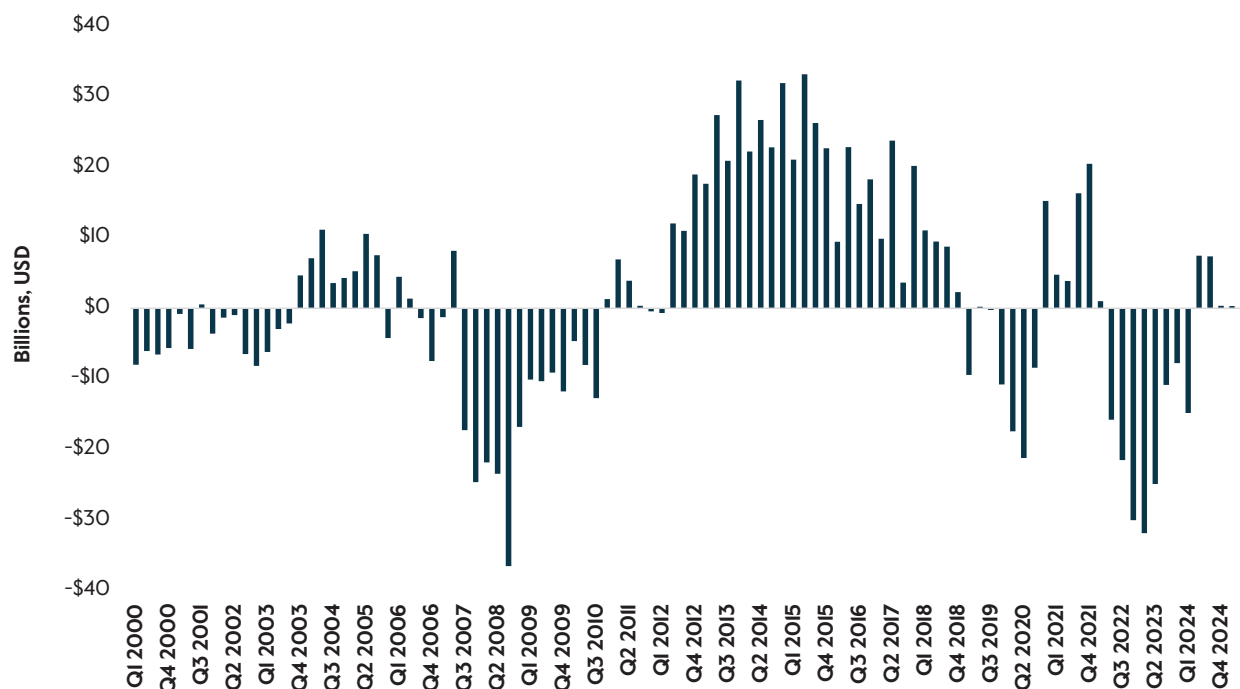


Figure 4 Source: Dealogic, accessed October 7, 2025.  
Figure 5 Source: Preqin, accessed October 6, 2025.

## GLOBAL NET DISTRIBUTIONS OF BUYOUT FUNDS

Fig. 6



## IPO Recovery with Caveats

Although Initial Public Offerings (IPOs) generally play a comparatively less important role for divestments, the IPO market is usually considered a good barometer for the general state of the exit market. Signals from the IPO market were brighter in Q3 2025. Excluding SPACs, BDCs, REITs, closed-end investment funds, dual-listed IPOs/ADRs, and “penny stocks,”<sup>15</sup> proceeds from 28 US exchange listed IPOs totaled \$15.5 billion in the third quarter. This represented the highest level of activity in terms of both transactions and volumes since Q4 2021, with the number of IPOs reaching 88% of the average seen in the 5 years preceding the 2020 pandemic. In total, there were 70 US-exchange listed IPOs over the first three quarters of 2025, with proceeds totaling \$30.3 billion (Figure 7, Page I3), an increase of 21% and 60% in transaction and volume terms, respectively, over the same period in 2024. Sponsor-backed activity also rose: there were 10 sponsor-backed IPOs in the third quarter, double the number in Q2.

A deeper dive into the data, however, suggests a potential lack of depth in the IPO market. Notably, about 70% of the IPOs in the quarter were in software, pharma/health-tech, or AI-adjacent industries. This suggests limited listing activity in sectors outside of these more speculative areas. For sponsor-backed IPOs, while some represented larger listings such as Advent- and KKR-backed NielsenIQ which generated transaction proceeds of just over \$1 billion, most were more modestly sized, a trend consistent with last quarter. Transaction proceeds across sponsor-backed IPOs in Q3 2025 averaged just \$631 million.<sup>16</sup>

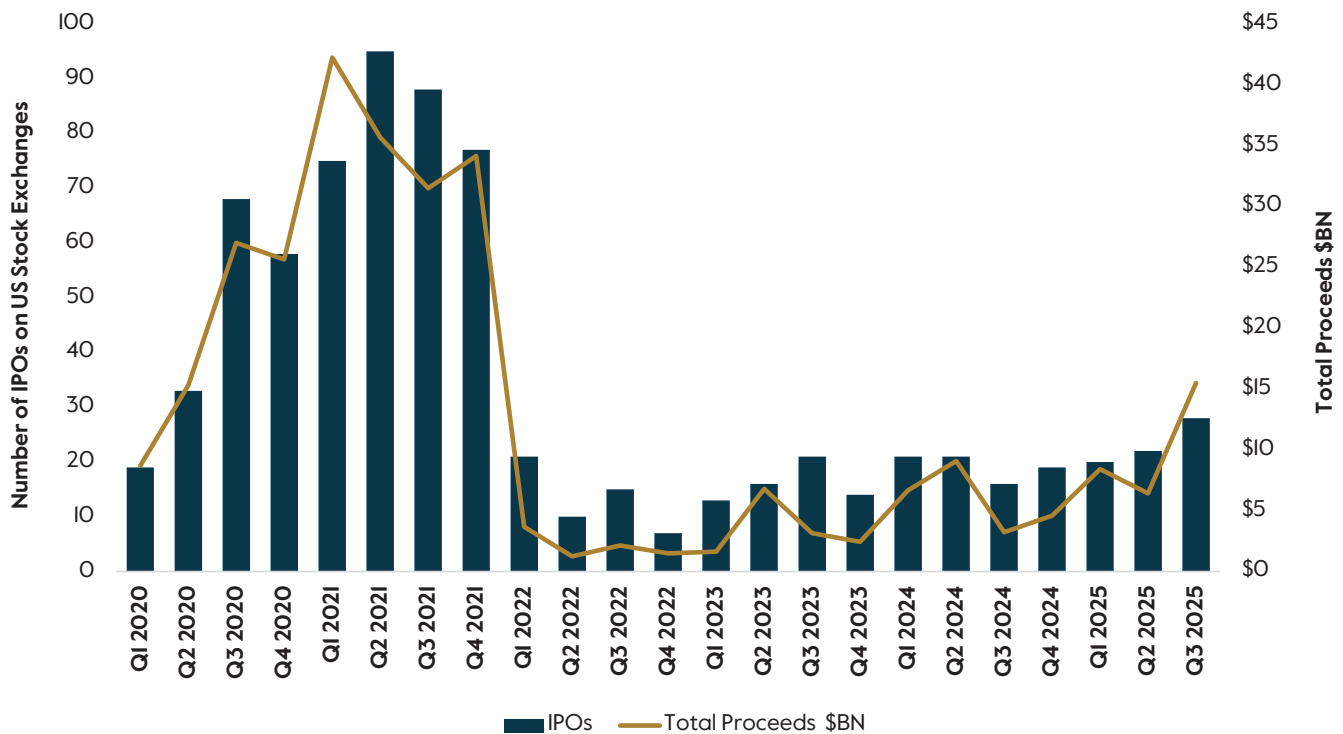
Figure 6 Source: Burgess, accessed October 6, 2025.

15. These entities are not representative of standard operating companies, or, in the case of dual-listed IPOs/ADRs, do not represent private companies going public. We have developed our US exchange IPO tracking criteria in line with those detailed by Jay Ritter from the University of Florida.

16. Pitchbook, Dealogic, October 2025.

## NUMBER AND PROCEEDS OF US OPERATING COMPANY IPOs

Fig. 7



Many have wondered how to rhyme the lagging recovery in the IPO market with roaring equity market performance, wide-open credit markets, and relatively low volatility (or “fear”) across both. But each market has unique dynamics that explain the divergence. US equity markets are outperforming thanks to historic concentration in ten mega-cap stocks, eight of which are clustered around AI or AI-adjacent sectors. In credit markets, high all-in yields have created an environment where there are more lenders than borrowers, keeping spreads narrow and credit free-flowing. But for IPOs, the performance of 2020 and 2021 listings looms large in the mind of investors. For the largest and most well-known companies that went public during the pandemic-era boom, the median price return one-week post-IPO through today is a 60% *decline*<sup>17</sup>. In the most recent quarter, certain trendy, sought-after listings, such as AI-driven design tool Figma, received plenty of interest and, indeed, its stock price is up 106% since its IPO in July<sup>18</sup>. But more broadly, performance across recent IPOs has been mixed. Nearly 60% of the companies that went public on US exchanges in Q3 have seen their stock prices rise less than 5% and within that group, 75% (nearly 45% of the quarter’s listings) have actually experienced *declines* in their prices since IPO (Table 2, page I4).

Figure 7 Source: Dealogic, accessed October 10, 2025.  
 17. Sample includes 59 of the largest 2020/2021 IPOs that are still publicly traded as of October 2025 and had private valuation data available as of the time of IPO.  
 18. As of October 10, 2025.



## IPO DETAILS

Table 2

IPO DATE	COMPANY	COMPANY NATIONALITY	DEAL VALUE (\$M)	FINANCIAL SPONSOR	PRICE CHANGE (As of October 9)
09-Sep-25	Klarna Group plc	United Kingdom	1,578.00		3.3%
31-Jul-25	Figma Inc	United States	1,402.00		105.9%
12-Aug-25	Bullish	Cayman Islands	1,277.00		80.3%
22-Jul-25	NielsenIQ	United States	1,050.00	Advent International LP, KKR	-31.5%
17-Sep-25	Netskope Inc	United States	1,044.00		15.6%
06-Aug-25	Firefly Aerospace Inc	United States	999.00	AE Industrial Partners LP	-33.2%
10-Sep-25	Figure Technology Solutions Inc	United States	906.00		92.1%
23-Jul-25	Accelerant Holdings	United States	832.00	Altamont Capital Partners	-30.3%
11-Sep-25	Legence Corp	United States	826.00	Blackstone	11.0%
16-Sep-25	StubHub Holdings Inc	United States	800.00		-18.9%
16-Sep-25	WaterBridge Infrastructure LLC	United States	729.00	Elda River Capital Management	27.7%
11-Sep-25	Via Transportation Inc	United States	493.00		0.5%
11-Sep-25	Gemini Space Station Inc	United States	446.00		-9.3%
30-Sep-25	Neptune Insurance Holdings Inc	United States	424.00	Bregal Investments LLP, FTV Capital	37.2%
23-Jul-25	McGraw Hill Inc	United States	415.00	Platinum Equity LLC	-26.7%
13-Aug-25	Miami International Holdings Inc	United States	397.00	Warburg Pincus LLC	86.7%
07-Aug-25	Heartflow Inc	United States	364.00		73.1%
11-Sep-25	Black Rock Coffee Bar Inc	United States	338.00	Cynosure Partners	16.0%
10-Sep-25	LB Pharmaceuticals Inc	United States	328.00		4.3%
18-Sep-25	Pattern Group Inc	United States	300.00	Banner Capital	0.1%
06-Aug-25	WhiteFiber Inc	United States	183.00		98.5%
29-Jul-25	Ambiq Micro Inc	United States	110.00		34.5%
22-Jul-25	CARLSMED Inc	United States	101.00		-8.9%
30-Jul-25	Shoulder Innovations Inc	United States	75.00		-12.3%
02-Jul-25	CapsoVision Inc	United States	28.00		-7.1%
17-Jul-25	Majestic Ideal Holdings Ltd	Hong Kong (China)	15.00		-83.3%
05-Aug-25	CTW Cayman	Japan	12.00		-52.4%
13-Aug-25	Nasus Pharma Ltd	Israel	10.00		-3.1%

## Implications for Secondaries

Against this backdrop of fewer transactions, slower exits, and reduced liquidity to LPs, secondaries have played an important role as liquidity provider and offered robust and attractive deal flow for secondary investors. Secondaries have outperformed since the down cycle that started in 2022, per our data, demonstrating a countercyclical performance pattern, benefiting those investors who had an allocation to this segment of the market. Per our data, stellar secondary performance over the period 2022 – H1 2025 offset slower value appreciation in the rest of the portfolio.

19. Cornelius, P. (2019, September). *Investing in the private equity secondary market*. Carlyle Alpinvest Partners.

20. These fund-to-fund transactions offer an effective proxy for GP-led secondaries. Namely, these are also transactions where GPs are selling to themselves, and historically have also faced (unwarranted) skepticism.

21. Loss ratio is based on universe of the Carlyle Alpinvest portfolio data from 2004 to 2025, as of October 10, 2025.

22. Carlyle Alpinvest data, October 2025.

In today's market some investors worry about negative selection effects in secondaries, and GP-led secondaries in particular. Skeptics fear that these transactions skew towards assets that GPs struggle to exit. However, our own experience suggests the opposite is true. Rather, GPs are using secondaries to rollover equity in some of their strongest performing investments so that they can continue to benefit from upside beyond the typical buyout contractual period. In other words, there are actually positive selection effects in GP-led secondaries. From internal data, we analyzed over 140 fund transactions in which a GP sold an asset from one of its older funds to its most recent fund (fund-to-fund transactions)<sup>20</sup>, which we believe serve as an effective proxy for the continuation vehicles which have been on the rise. In those fund-to-fund transactions, investments that outperformed in the first holding period (those investments that generated more than 3.0x gross MOIC) generated significantly lower loss ratios and similar returns compared to traditional buyout investments. Loss ratios for these "star" assets averaged just 2%, compared to an average ratio of 12%<sup>21</sup> for the buyout industry.

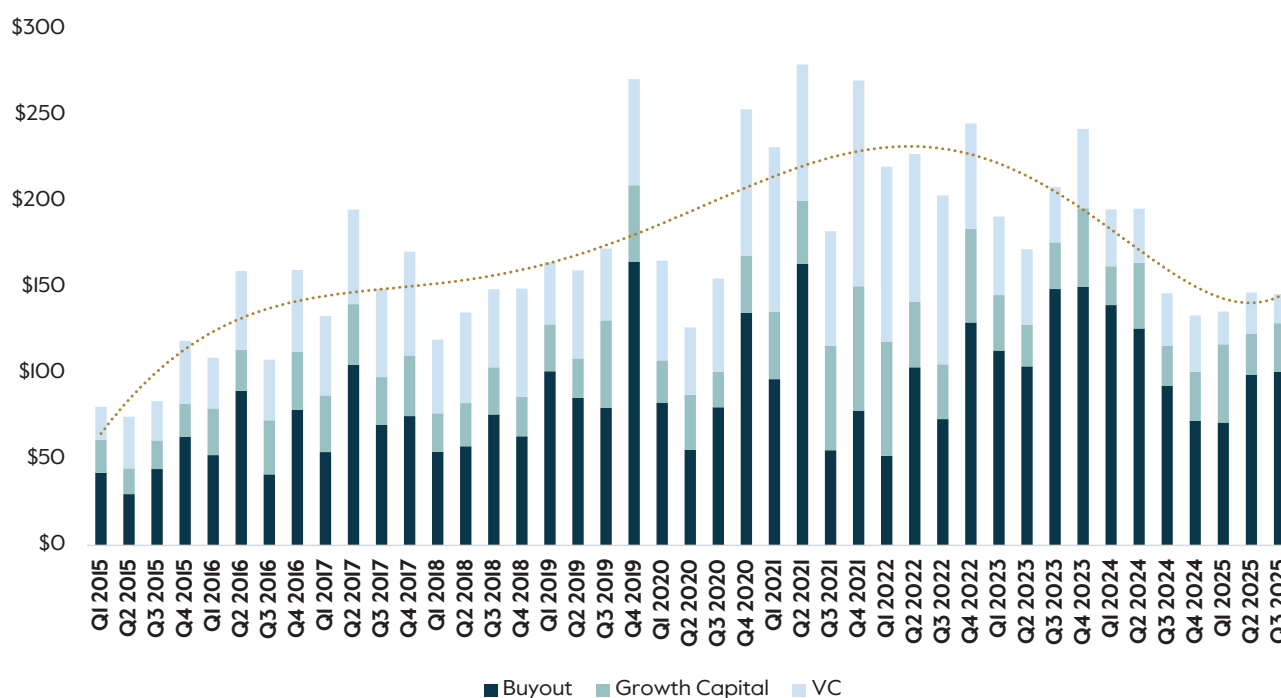
## Fundraising Still Slow<sup>23</sup>

### PRIVATE EQUITY FUNDRAISING

Private equity funds – here defined as partnerships financing LBOs or providing venture capital and growth capital – raised a total of roughly \$146 billion in Q3 2025 and about \$429 billion year-to-date (Figure 8). Commitments were roughly flat quarter-over-quarter and relative to year-ago levels. The quarter's fundraising totals were boosted by the timing of a major fund close for Blackstone, whose flagship fund Capital Partners IX reached a \$28 billion close after three years in the market. Veritas Capital Fund IX also reached a final close in the quarter, with a total fund size of \$14 billion. Without these two funds, capital raised across buyouts, VC, and growth would have totaled just about \$100 billion in the quarter.

GLOBAL FUNDRAISING BY STRATEGY, Q1 2015 – Q3 2025 (B)

Fig. 8



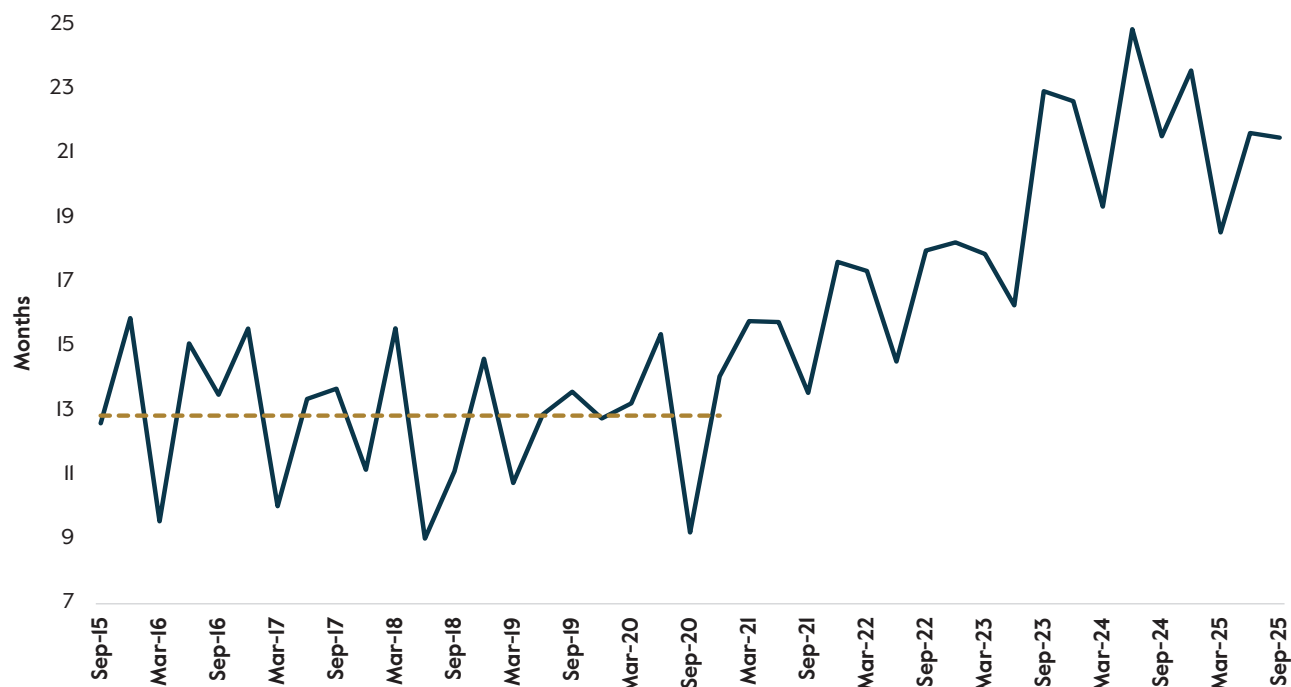
Venture capital continued to underperform, with commitments to VC funds down 44% relative to Q3 2024 and 30% over the quarter. In the growth capital space, commitments rose 20% over the quarter and 22% relative to year-ago levels, thanks to large closes from Blackstone Growth II and TPG Growth VI, which totaled \$7 billion and \$4.8 billion, respectively.

While there is considerable noise in the quarterly fundraising data, as mega fund closes can distort reported commitments in each period, the trend as it stands continues to appear weak. Overall, private equity fundraising in the first three quarters of 2025 was 20% below the levels seen over the same period in 2024. Funds are in the market for longer as well as they struggle to hit their targets. Private equity funds that closed in the third quarter of 2025 were in the market for an average of 21.5 months, down from a peak of nearly 25 months in Q2 2024, but roughly 70% higher than the average amount of time spent in the market pre-2021 (Figure 9, Page 17).

23. Preqin data, accessed October 6, 2025.  
Figure 8 Source: Preqin, accessed October 6, 2025.

## GLOBAL PRIVATE EQUITY FUNDS: AVERAGE TIME IN THE MARKET, Q3 2015 – Q3 2025

Fig. 9



### SECONDARIES FUNDRAISING

Fundraising in secondaries appears stable at a high level. Year-to-date, secondaries funds raised a total of \$73 billion, a 40% increase over the first three quarters of 2024. Fund activity is volatile quarter to quarter: in the third quarter of 2025, seven secondary funds reached a final close, raising approximately \$25 billion—a sharp jump from the \$9 billion raised in Q2 2025<sup>24</sup>. The quarterly total was boosted by the final close of Alpinvest Secondaries Program VIII which reached its \$15 billion hardcap.

### BUYOUT FUND ACTIVITY

Challenging conditions have not yet deterred buyout players, who seem to prefer to endure longer raise times than to forego the market altogether. As of September 2025, there were 1,586 buyout funds in the market collectively aiming to raise about \$504 billion (Table 3, Page 19), roughly unchanged from last quarter.

Among these, however, funds focused on North America now make up less than 50% of the total fundraising target for global buyout funds—a notable shift compared to recent quarters. This is due to:

- Notable US-focused funds recently reaching final closes (such as Blackstone's Capital Partners IX), and
- Several prominent new entrants to the fundraising market over the past several months based in Europe with globally focused funds.

Figure 9 Source: Preqin, accessed October 7, 2025.  
24. Preqin data, accessed October 7, 2025.

Notable examples of these recent entrants include EQT's Fund XI, with a €23 billion target; Permira's Fund IX, with a €17 billion target; and Nordic Capital's Fund XII, with a €10 billion target.

## VENTURE CAPITAL FUNDS IN MARKET

In the venture capital space, LPs have access to an opportunity set of roughly 7,600 VC funds currently in the market, collectively aiming to raise \$416 billion. This suggests the market size has grown slightly since last quarter (Figure 10, Page 19).

## SECONDARY FUNDS IN MARKET

There are currently about 200 secondary funds in the market aiming to raise nearly \$120 billion—an upward trend over the past year<sup>25</sup>. Of these funds, 83 have already reached a first or even more advanced close, with targets totaling roughly \$60 billion.

Overall, there are five partnerships in the market whose fundraising targets are \$5 billion or more, suggesting that investors anticipate attractive opportunities as the secondary market plays a pivotal role in generating liquidity through LP-stake as well as GP-centered transactions.

## Assessing Large- vs. Mid-Cap Buyout

Investors contemplating their commitments to private equity increasingly face decisions on whether to pursue large- or mid-cap buyout strategies. There is a perception among many that mid-cap strategies offer higher net returns than their large-cap counterparts. However, the data do not support this. In the median, net IRRs for large-cap and mid-cap buyout funds across all vintages over the past two decades are roughly comparable: 12.93% for large-cap funds across all vintages, and 12.62% for mid-cap<sup>26</sup>. Large-cap strategies also have a narrower range of outcomes. The interquartile range, a proxy for volatility of outcomes, for large-cap buyout funds is 10 percentage points, vs. 12.3 percentage points for mid-cap strategies. Implied distributions of actual fund outcomes suggest that an investor in a mid-market buyout fund is 40% more likely to lose money (net IRR < 0) than an investor in large-cap funds.

However, in our view, there are key advantages to mid-cap funds. Just as they are more likely to produce the most extreme negative outcomes, they are *also* more likely to produce the most outsized performance. In other words, the tails are fatter on both sides of the distribution. A mid-cap buyout fund is 60% more likely than a large-cap buyout fund to generate a net IRR over 30%<sup>27</sup>.

The implication is that while the very top mid-market performers generate the highest returns across all buyout funds, the range of outcomes is wide and there is greater risk of picking a “loser” fund without sufficient experience or knowledge. Fee economics also play a role. Investors with large check sizes can potentially obtain lower fees on capital deployed. For example, a single \$500 million ticket could receive advantageous pricing (1 to 1.5% management fees vs. twenty smaller-sized \$25 million tickets at management fees totaling 2% or more), and drive other favorably priced deal flow (such as co-investment) at scale. To quantify this difference: a hypothetical \$500 million allocation to a large-cap fund could result in a fee ratio of just 50 basis points (\$75 million fee / (\$500 million allocation + \$1 billion in co-investment)), while that same \$500 million allocation spread across twenty mid-cap funds could result in fees of \$10 million with no co-investment. Overall, investors with large amounts of capital to put to work and lower risk tolerances might be better off allocating to large-cap strategies. However, those investors with less capital to deploy and greater risk appetite could benefit from taking advantage of the potential upside to mid-cap buyout strategies. This requires having a team with primary fund selection skills or teaming up with a knowledgeable partner to do so.

25. Preqin data, accessed October 7, 2025.

Table 3 Source: Preqin, accessed October 6, 2025.

26. MSCI-Burgiss, October 2025. Large-cap strategies are defined as funds with a size of \$5 billion or more. Mid-cap strategies are defined as funds sized between \$1 billion and \$5 billion.

27. Carlyle Alpinvest analysis of MSCI-Burgiss data for all global large-cap and mid-cap funds over the past 20 years.



PRIVATE EQUITY FUNDS IN THE MARKET IN SEPTEMBER 2025,  
FUNDRAISING TARGETS BY REGION (\$B)

Table 3

	NORTH AMERICA	EUROPE	ASIA & ROW	GLOBAL
BUYOUT				
<\$2B	\$72.77	\$45.49	\$29.97	\$148.24
\$2B-\$6B	\$76.50	\$23.85	\$19.50	\$119.85
\$6B-\$10B	\$39.75	\$8.03	\$700	\$54.78
>\$10B	\$46.00	\$58.68	\$76.00	\$180.68
Total	\$235.02	\$136.06	\$132.47	\$503.55
VENTURE CAPITAL				
Total	\$194.96	\$56.45	\$165.01	\$416.42
GROWTH CAPITAL				
Total	\$121.93	\$30.85	\$113.71	\$266.49
PRIVATE EQUITY TOTAL				
Total	\$551.91	\$223.36	\$411.19	\$1,186.46

PRIVATE EQUITY FUNDS IN MARKET IN SEPTEMBER 2025 (\$B)

Fig. 10

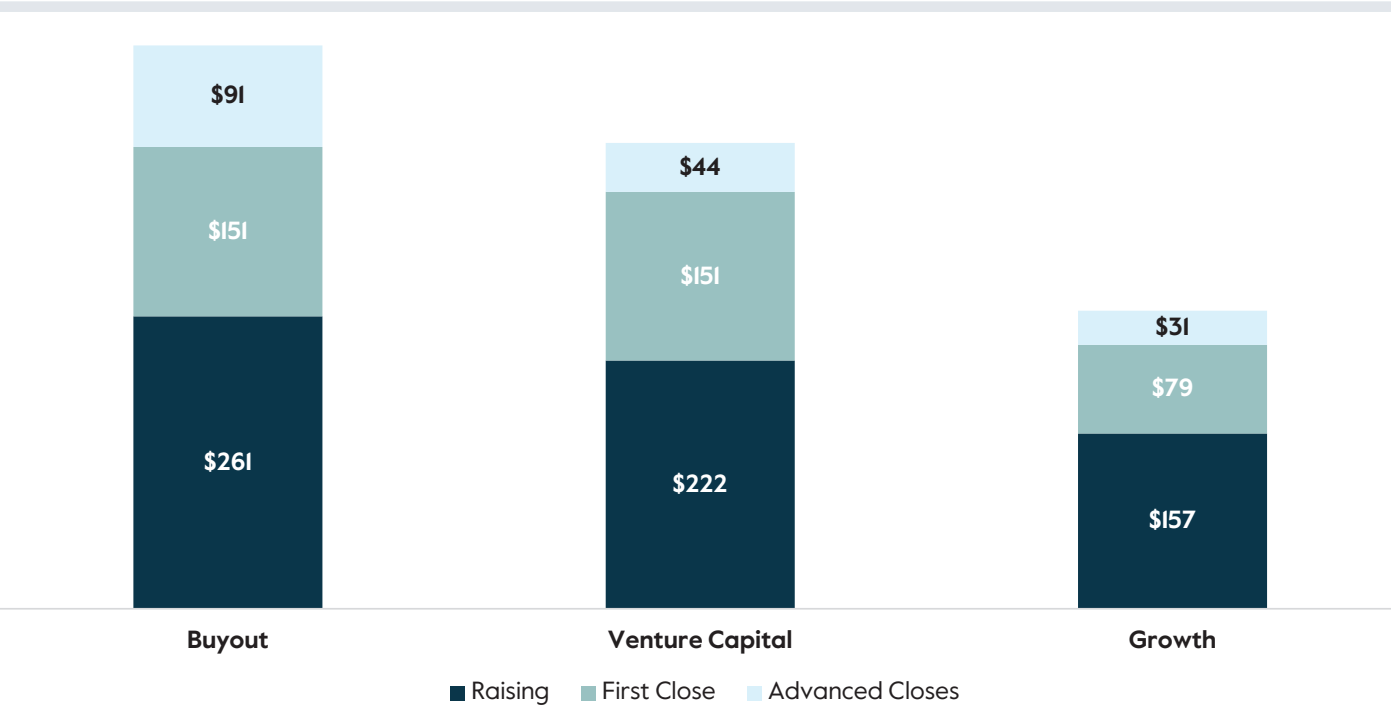


Table 3 Source: Preqin,  
accessed October 6, 2025.  
Figure 10 Source: Preqin,  
accessed October 6, 2025.

*In our view, a rational investor might seek to fund more private asset allocations given the disciplined valuations and targeted investment approach so diametrically positioned to the current mania-driven public market dynamic.*

# IV.

## TRENDS IN LIQUID AND ILLIQUID CREDIT

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### Rebound in Leveraged Finance Issuance Driven by Refinancings and Repricings<sup>28</sup>

#### INSTITUTIONAL LOAN MARKET OVERVIEW

After a slow start to the year, institutional loan activity surged in the third quarter. Total US institutional loan volume in Q3 2025 was \$404 billion (Figure II, Page 22), nearly 80% higher than the same period a year ago and the most active quarter on record since at least 2019. Despite the cratering of activity in Q2 due to tariff-related volatility, year-to-date issuance is tracking only 9% below the first nine months of 2024, thanks in large part to the surge this past quarter.

#### DRIVERS OF THE REBOUND

Just as a pullback in amendment activity drove the biggest declines in the second quarter, extensions and repricings drove much of the rebound in the third quarter. Extensions and repricings totaled nearly \$261 billion in Q3, a 131% increase over year-ago levels.

Excluding extensions and repricings, new issue loan activity was roughly \$144 billion in Q3 2025, 26% higher than year-ago levels and 76% more than in the second quarter. Over half of that issuance, however, was related to refinancing activity. Indeed, only 18% of third quarter institutional issuance funded new-money deals, and total volumes were 12% lower than in Q3 2024.

Increased issuer-driven appetite for refinancing is almost entirely attributable<sup>29</sup> to continued tightening in credit spreads: the massive supply-demand imbalance in the leveraged loan market pushed new-issue spreads for B- loans to their lowest levels since the Global Financial Crisis (GFC).

#### DIVIDEND RECAPITALIZATIONS AND PE-BACKED BORROWERS

Total dividend recapitalizations, which surged last year in the United States, are somewhat weaker year-to-date with 7% less volume compared to the first nine months of 2024. However, dividend recap issuance has soared specifically among PE-backed borrowers as GPs continue to seek sources of liquidity for their LPs.

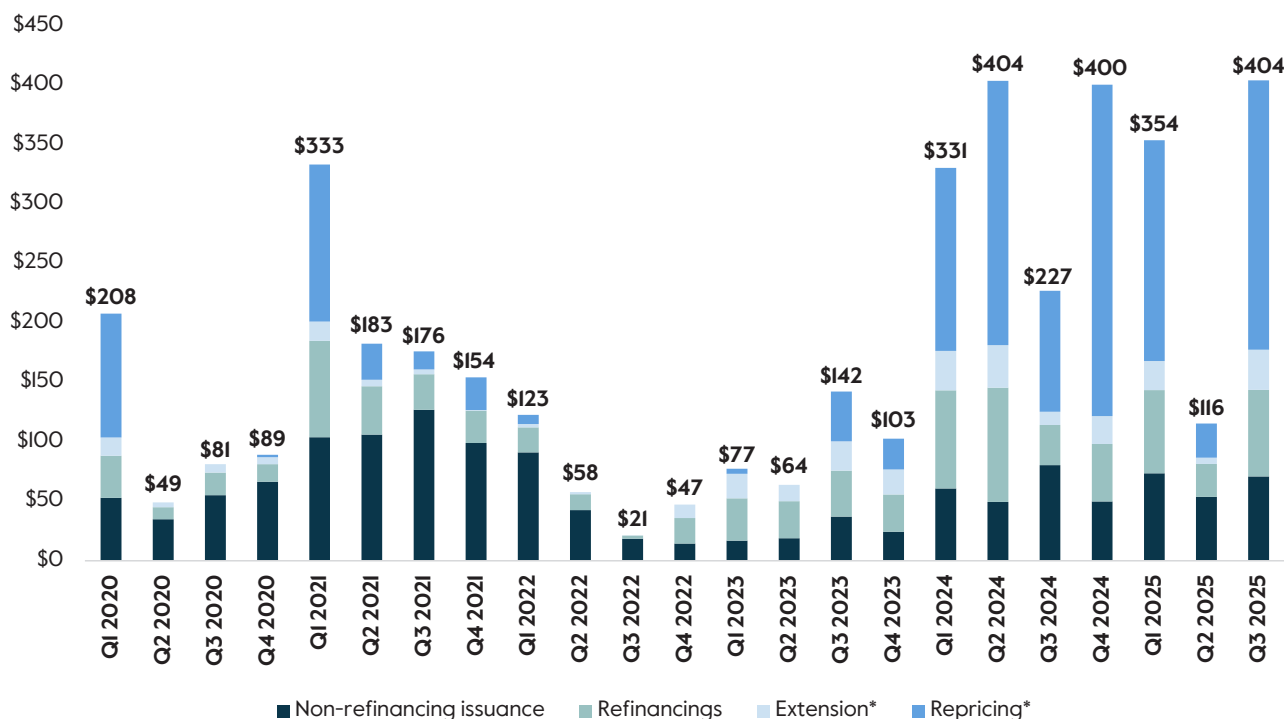
\$35 billion in dividend recaps was tied to sponsor-backed companies through the first three quarters of the year (out of \$62 billion in dividend recaps for the whole institutional market), the fastest pace of issuance over this period since at least 2018. Notably, nearly half of these sponsor-backed dividend recap issuers have been in portfolios for over five years (compared to 33% in 2024 and 20% in 2021), demonstrating that much of recent activity has been driven by a need to find alternative sources of liquidity in a slower exit environment.

28. Pitchbook LCD, October 2025.

29. Pitchbook LCD, Q3 2025 Credit Market Quarterly Wrap, October 2025.

## US INSTITUTIONAL LOAN ACTIVITY (\$B)

Fig. 11



## FINANCING FOR M&amp;A AND LBO TRANSACTIONS

As we saw with deal volumes, financing issuance related to M&A and LBO transactions was skewed towards larger deals. Year-to-date, institutional leveraged loans issued to finance buyouts in the United States totaled \$54 billion. While this was roughly in line with volumes over the same period of 2024, it was spread out over fewer deals.

97% of transactions financed in the first nine months of 2025 were sized \$1 billion or more. For reference, the share of financing related to \$1+ billion deals was 90% in 2024, 74% in 2021, and averaged less than 50% pre-pandemic.

## EUROPEAN LEVERAGED LOAN MARKET

The European leveraged loan market continues to have a bumper year. Institutional loan issuance through the first nine months of the year totaled €211 billion, exceeding 2024's full-year volume.

A record repricing wave—year-to-date activity is already 20% above 2024 full-year totals—can take much of the credit, driven by highly favorable financing conditions amid excess demand from CLO creation. However, activity has been stronger across the board. Issuance excluding repricings, extensions, and refinancing totaled €47 billion through the first three quarters, a 56% increase over the same period a year ago.

Figure 11 Source:  
Pitchbook LCD, accessed  
October 8, 2025.

### HIGH YIELD BOND ISSUANCE

High yield (HY) bond issuance surged in the third quarter in both the US and Europe. In the US, Q3 2025 HY issuance volumes totaled \$118 billion—the busiest quarter since Q2 2021—while European HY issuance increased 83% year-on-year to \$40 billion.

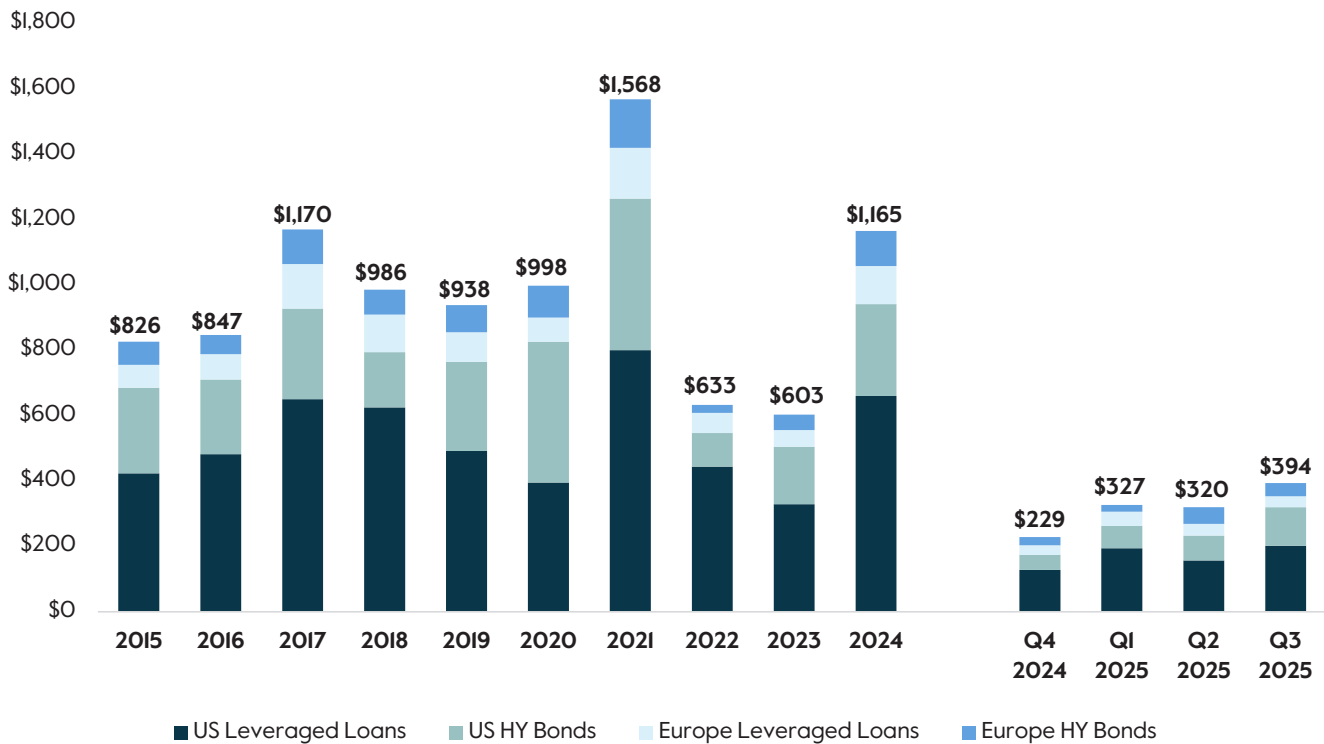
While this level of activity in Europe was just shy of Q2's record-breaking issuance, Q3 2025 was still the second-highest quarter on record, driven by a continued surge in refinancing activity against a backdrop of favorable credit spreads.

Altogether, thanks to a blockbuster third quarter, global leveraged loan and high-yield bond issuance through the first nine months of the year amounted to just over \$1 trillion—an 11% increase relative to 2024 (note that this is excluding loan repricings and extensions, and including pro rata loans) (Figure 12).

Figure 12. Source: Pitchbook, LCD, accessed October 7, 2025.

## UNITED STATES & EUROPE LEVERAGED FINANCE ISSUANCE (\$B)

Fig. 12





## CLO Issuance Powers Higher<sup>30</sup>

The CLO market continued to power higher in Q3 2025. In the US, CLO managers issued \$53 billion in new deals over the quarter, a nearly 4% increase over Q2 and a roughly 30% increase over an admittedly weak third quarter in 2024. Total issuance year-to-date amounted to \$153 billion, now putting 2025 on target to be the busiest year on record (Figure I3, Page 25). In Europe, CLO issuance rose 31% relative to the second quarter and 60% relative to Q3 2024. Year-to-date, European CLO issuance totaled roughly €47 billion in new deals, a 34% increase over the same period in 2024.

In the US, scarce supply from still recovering M&A-related activity in the leveraged loan market coupled with strong demand from robust CLO issuance pushed new-issue institutional spreads back towards post-GFC lows; the average spread on loans backing M&A deals ended the quarter at just 307 basis points, tying the lows hit in February pre-“Liberation Day.” The European market also faces a sizable supply-demand imbalance, with estimates suggesting a supply shortage of over €5 billion<sup>31</sup>.

## Default Rates Steady Year-to-Date

Broadly speaking, default rates ticked up slightly in both the United States and Europe but remain in line with recent averages. On a 12-month lagging basis, the US loan default rate came in at 1.5% in September, nearly 40bp above June levels but still low by historical standards (Figure I4, Page 25). It is important to note, however, that the headline default rate does not account for distressed exchanges, which allow corporate borrowers to avoid bankruptcy but result in reduced payments to debtholders. Including distressed exchanges, default rates have risen to average between 4.3% and 4.7% of total issuers over the past year<sup>32</sup>.

On the private credit side, default rates in Q2 2025 (the latest quarter for which data are available) declined by nearly 70 bps relative to Q1 2025 to 1.76% (Figure I5, Page 27)<sup>33</sup>. Overall, this notable quarter-over-quarter decline brings default rates closer to the quarterly average since 2020. However, this data is lagged, and the downward trend may not sustain into Q3 given recent headlines. Payment-in-kind or “PIK” loans continue to come under scrutiny. Estimates suggest that, out of the total pool of current debt investments with PIK, 56% did not have PIK at close but rather adopted it later on, a sizeable increase from the 35% share of such loans in 2021<sup>34</sup>. Such accommodation has put a lid on default rates thus far and seems likely to reduce them going forward, but overall trends bear watching. Additionally, the strong relationship between direct lenders and financial sponsors further enhances their ability to navigate economic complexities and secure additional capital during periods of stress.

30. Pitchbook LCD, October 2025.

31. Pitchbook LCD, Q3 2025 European Credit Markets Quarterly Wrap, October 2025.

32. Pitchbook LCD, October 2025.

33. Proskauer, October 2025.

34. Lincoln International; Pitchbook LCD US Credit Markets Quarterly Wrap, October 2025.

## UNITED STATES &amp; EUROPE CLO ISSUANCE (\$B)

Fig. 13

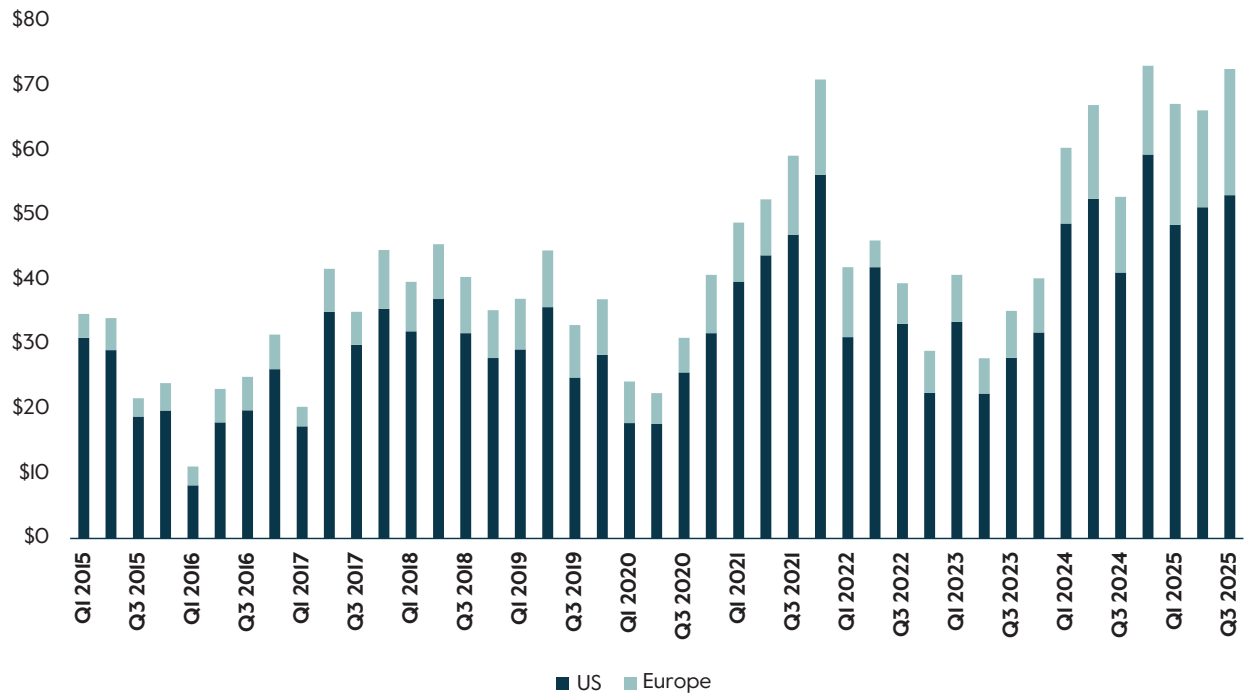
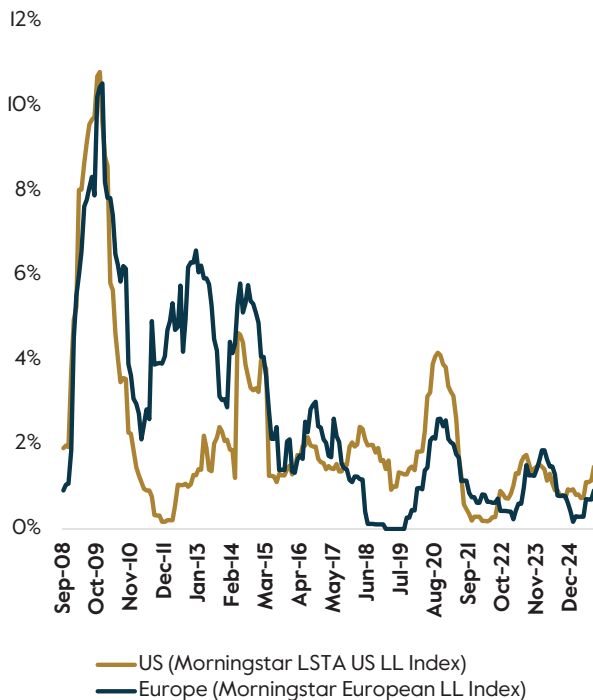
12-MONTH TRAILING LOAN  
DEFAULT RATE IN THE UNITED  
STATES & EUROPECOMBINED VS. LEGACY  
DEFAULT RATE BY ISSUER COUNT  
IN THE UNITED STATES

Fig. 14

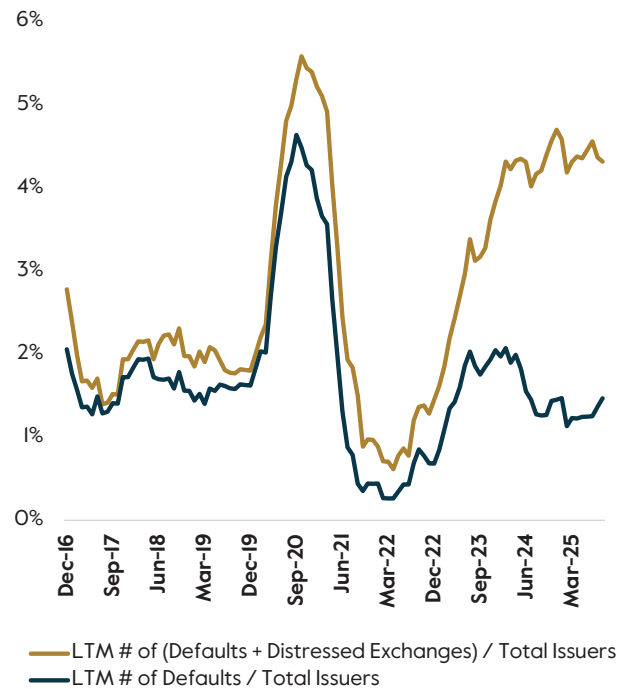
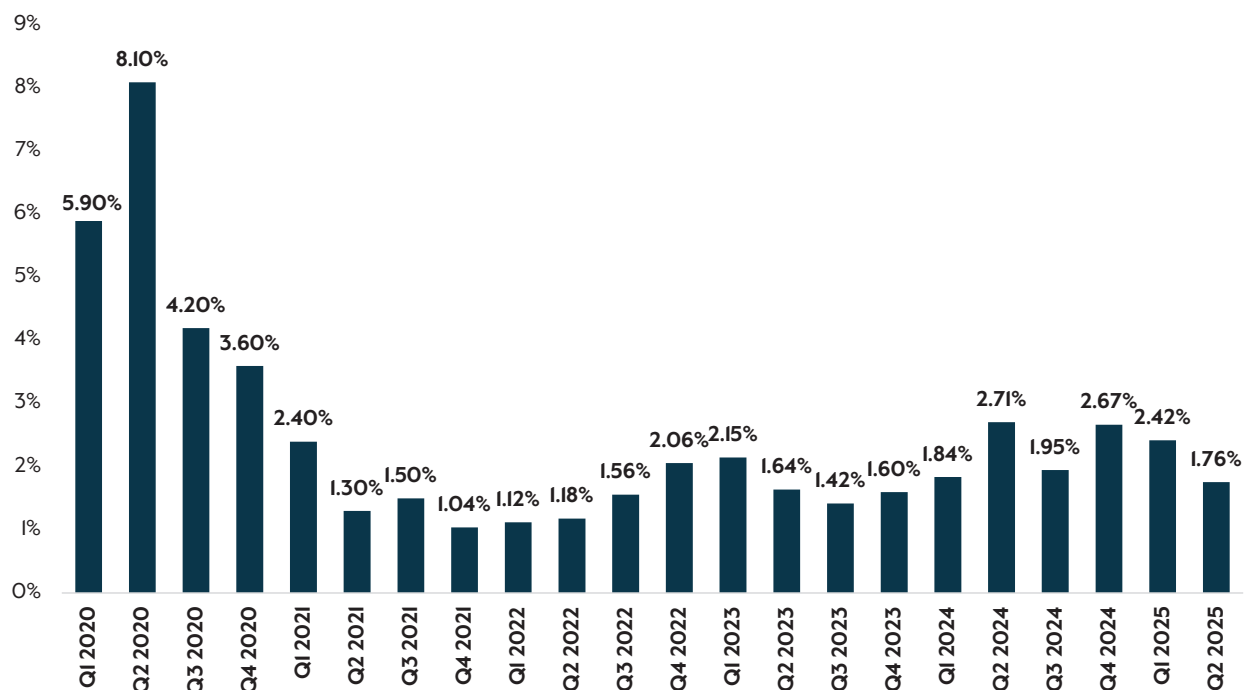


Figure 13 Source: Pitchbook LCD, accessed October 8, 2025.

Figure 14 Source: Pitchbook LCD, accessed October 6, 2025.

## PROSKAUER PRIVATE-CREDIT DEFAULT INDEX

Fig. 15



## Portfolio Finance as an Alternative

In the aftermath of the Tricolor and First Brands bankruptcies, fears have risen around the quality of underlying assets in the syndicated loan and private credit markets. BDCs have underperformed the broader market since July, and firms and funds with the greatest exposure to First Brands have seen their prices fall substantially in the aftermath (Figure I6, Page 27)<sup>35</sup>. Yet, as noted above, excessive demand for leveraged loans and credit over the available supply has pushed spreads to post-GFC lows. In other words, risk premia for leveraged finance are exceedingly tight; it is not clear how well investors are being compensated relative to the underlying risk.

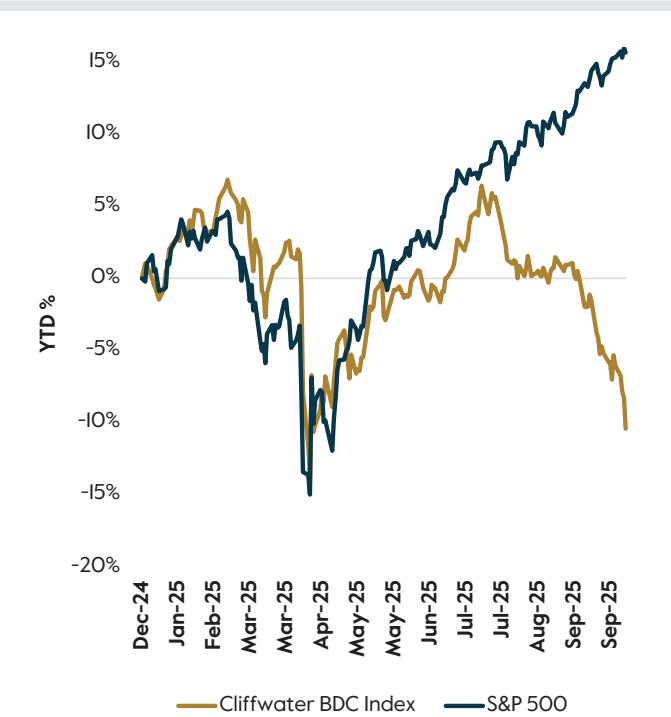
In this vein, risk-adjusted compensation for portfolio finance looks somewhat better. Portfolio finance typically possesses structural attributes of cross-collateralization and portfolio-level diversification. Unlike direct lending, where exposure to a single borrower's default can meaningfully impair returns, portfolio finance loans are typically secured by diversified pools of private equity assets. Depending on the strategy, most direct lending funds will feature 10-20 loans (for junior credit strategies) and potentially several dozen (for some senior direct lending strategies). By contrast a portfolio finance-focused fund with just 10-20 loans could feature exposure to several hundred underlying portfolio companies depending on the mix of transaction types<sup>36</sup>.

Despite the perception that portfolio financings represent "leverage on leverage," with few exceptions the look-through LTV ratios in portfolio finance transactions (including the debt of the underlying companies) do not exceed 40-60%. In many cases this is lower than in direct lending transactions where debt may account for as much as 60-80% of total capitalization.

35. Bloomberg data, October 2025.  
 36. Hacker, M., Cornelius, P., & Burleigh, V. (2024, March). Beyond NAV Lending: Portfolio Finance 2.0 — Accelerating Credit Solutions for Private Capital. Carlyle Alpinvest.  
 Figure I5 Source: Proskauer, accessed October 6, 2025.

Total collateral in a portfolio finance transaction typically exceeds the capital invested in each transaction severalfold, and loss at the portfolio level would require simultaneous, broad-based value declines across numerous companies. This structure can help to provide resilience against idiosyncratic credit events and can reduce volatility of returns<sup>37</sup>.

YEAR-TO-DATE PERFORMANCE OF BDC INDEX AND S&P 500



PRICE REACTION TO FIRST BRANDS BANKRUPTCY

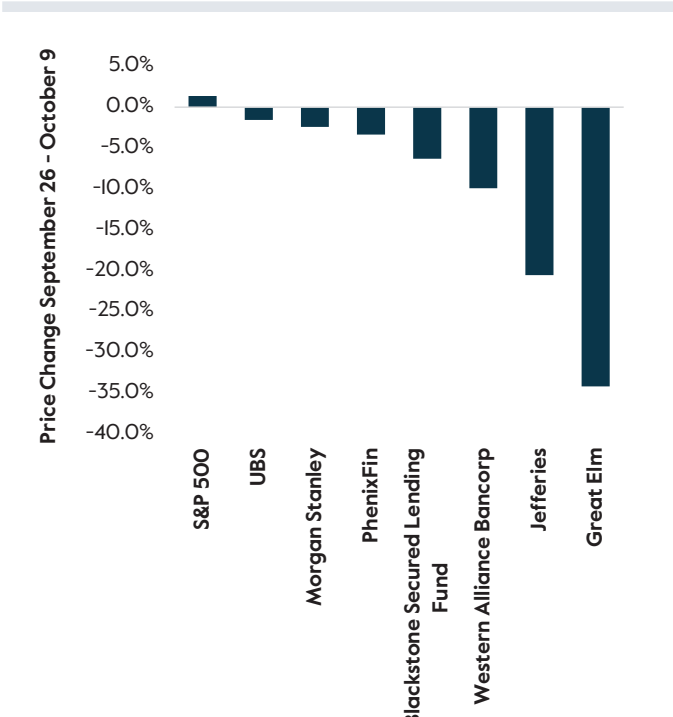


Fig. 16

Figure 16 Source: Bloomberg, accessed October 16, 2025.  
37. Hacker, M., Cornelius, P., & Burleigh, V. (2024, March). *Beyond NAV Lending: Portfolio Finance 2.0 — Accelerating Credit Solutions for Private Capital*. Carlyle Alpinvest.

## Returns in Leveraged Finance

### US LEVERAGED LOAN RETURNS

Leveraged loan pricing experienced significant credit-related volatility over the course of the third quarter. The weighted average bid in the US market ended the quarter at 97.06, roughly unchanged from the end of the second quarter (97.07). However, pricing started the quarter much stronger, surging in July to a peak of nearly 97.6, the highest since January 2025 (Figure 17). Heavy loan issuance in July and the collapse of First Brands Group, widely held by CLOs, in September undid the upward pricing momentum from earlier in the quarter. The Morningstar LSTA index generated a total return of 1.8% in Q3 2025, driven entirely by coupon interest. Over a trailing twelve-month period, leveraged loans returned 7.0%<sup>38</sup>.

### US HIGH-YIELD BOND RETURNS

After poor year-end 2024 performance, bond returns have improved so far in 2025. In the third quarter, the BofA US High-Yield Total Return Index increased by 2.4%, outperforming loans, and gained 7.2% over the trailing twelve-month period. Investment grade bonds performed well, too. Single-A rated bonds rose 2.5% over the quarter but returned only 3.6% over the past year<sup>39</sup>.

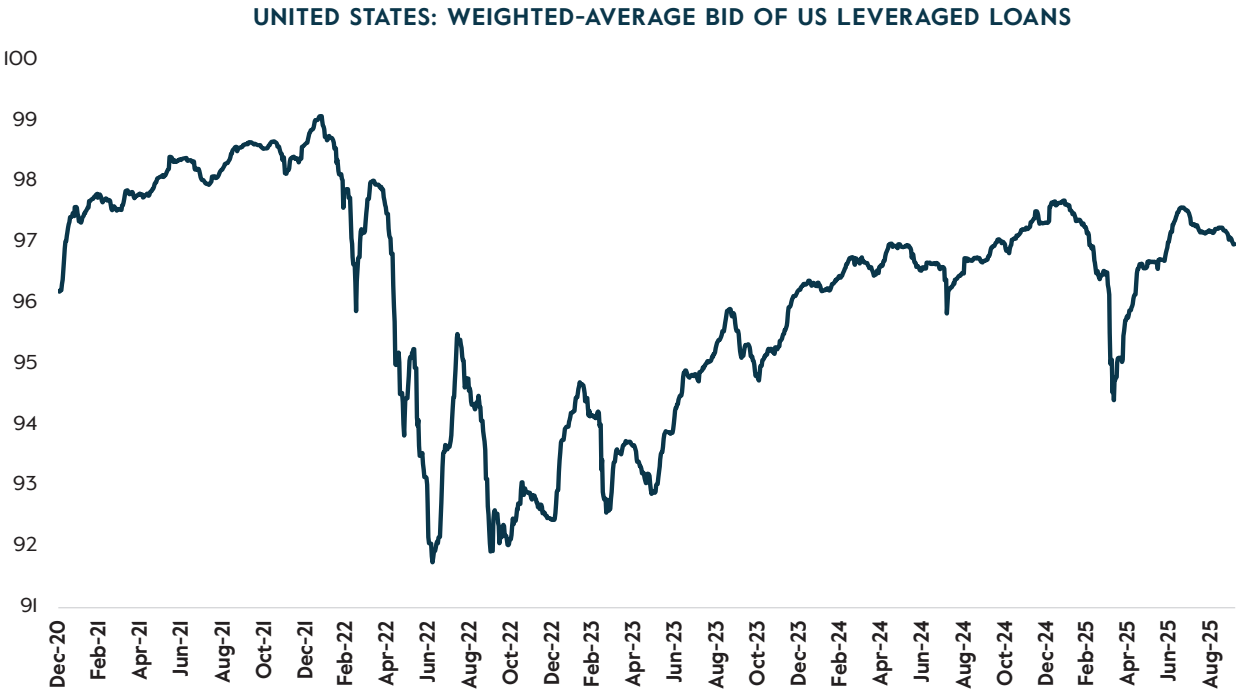
### EUROPEAN LEVERAGED FINANCE RETURNS

The European leveraged loan market, represented by the Morningstar ELLI Index, returned 1.0% over the quarter, bringing the twelve-month return to 5.3%<sup>40</sup>. Returns have been driven entirely by coupon interest. The European High-Yield market performed marginally better, with a quarterly and full year return of 1.8% and 6.4%, respectively<sup>41</sup>.

38. Pitchbook LCD, October 2025.  
39. ICE Data Indices, October 2025.  
40. Pitchbook LCD, October 2025.  
41. ICE Data Indices, October 2025.  
Figure 17 Source: Pitchbook LCD, accessed October 6, 2025.

## TRENDS IN LEVERAGED LOAN PRICING

Fig. 17





## Private Debt Fundraising Improves<sup>42</sup>

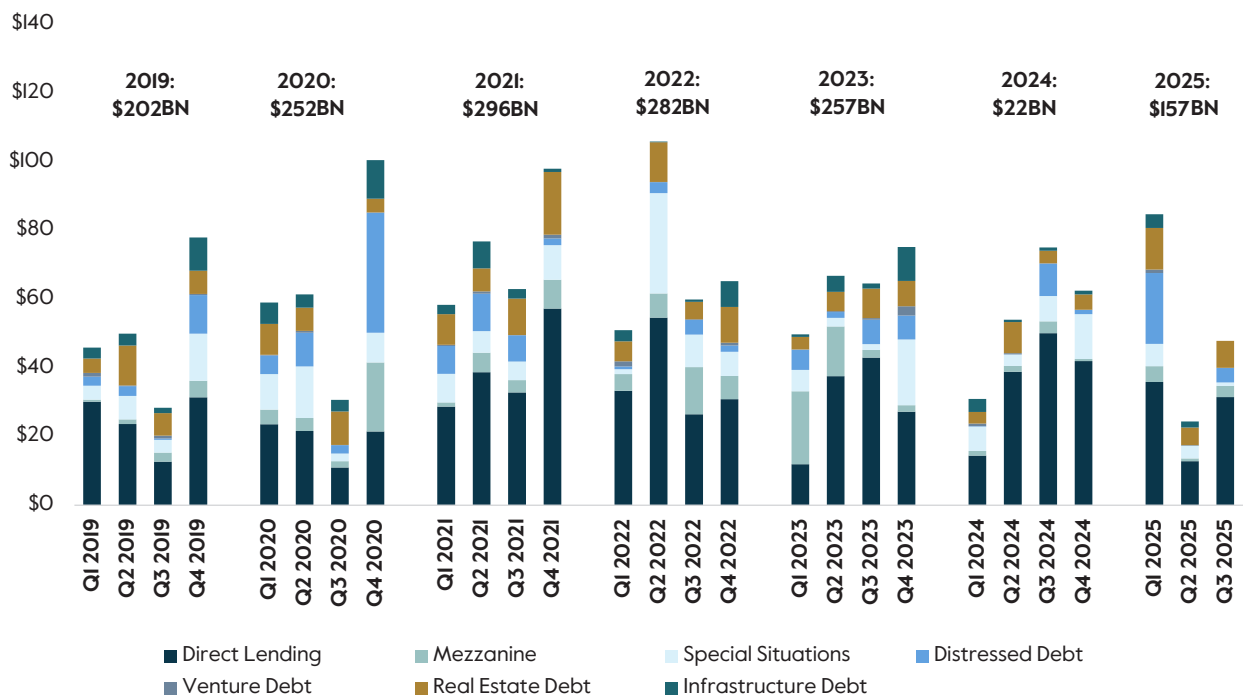
After a weak second quarter of 2025, private debt fundraising rose considerably in Q3. Commitments to funds that reached a final close totaled nearly \$50 billion, a notable increase from \$24 billion in the previous quarter but still 36% lower than Q3 2024 (Figure 18). Direct lending, special situation, and distressed debt strategies continue to lag their year-ago fundraising pace. The inconsistent recovery in M&A activity to date, as well as competitive pricing in the BSL market, have hampered these strategies' ability to deploy capital, and dry powder remains near record levels.

42. Preqin, accessed October 10, 2025.  
Figure 18 Source: Preqin, accessed October 6, 2025.

Year-to-date, commitments to private debt funds totaled \$157 billion, roughly in line with last year's pace thanks to a strong Q1. The largest fund to close in the quarter was Dawson Partners Portfolio Finance Fund VI which raised \$8 billion.

### AGGREGATE CAPITAL RAISED BY PRIVATE DEBT STRATEGIES (\$B)

Fig. 18



# V.

## FINAL THOUGHTS

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In contrast to frothy public markets, private markets appear a bastion of discipline. Despite negative headlines, per our large proprietary data sample, underlying portfolio companies on average are healthy, with strong revenue and earnings growth. Further, completed transactions are executed on the basis of stricter underwriting criteria, keeping valuations reasonable.

Challenges remain: slower exits continue to pressure liquidity, and demand for credit in excess of supply has pushed spreads to new lows, reducing risk premia across a variety of credit products. But there are still plenty of opportunities. Secondaries investors can share in the upside potential of deals that are still attractive to hold, and portfolio finance offers leveraged credit exposure at reasonable LTVs over a broader pool of assets. Headlines may seek drama, but the real story is that private markets still hold meaningful value for those positioned to capture it.

# Ruulke Bagijn

PARTNER, GLOBAL HEAD OF CARLYLE ALPINVEST

As Global Head of Carlyle Alpinvest, Ruulke Bagijn is part of the leadership team of one of the largest global investment firms in the world. She also serves as Chair of the Board of Carlyle Alpinvest, Carlyle's dedicated private equity primary fund, co-investment, and secondary solutions platform with \$80 billion AUM (per Q1 2024) and investment professionals in New York, San Francisco, London, Amsterdam, Hong Kong, and Singapore. In addition, Ms. Bagijn is a member of the Carlyle Alpinvest Global Investment Committee, which makes all investment decisions in Europe, North and Latin America, Asia, and Australia on behalf of its 450+ investors worldwide.

Based in New York, Ms. Ruulke has 20+ years of experience in global investments and a deep knowledge of private capital portfolios. She joined Carlyle Alpinvest from AXA Investment Managers – Real Assets, where she was the Global Head of Real Assets Private Equity and a member of its Management Board. Before that, she was Co-Chief Investment Officer of Investment Management and Chief Investment Officer of Private Markets at PGGM, with direct responsibility for managing investments in infrastructure, hedge funds, structured credit, private equity, insurance-linked securities, and private real estate, and held senior roles at ABN AMRO.

A passionate advocate of the business case for diversity, including involving more women in private equity, Ms. Bagijn has been named a Wall Street Journal Pro PE 'Woman to Watch,' sits on the Carlyle Diversity & Inclusion Council, and is an inaugural member of the Milken Institute's Center for Inclusive Capitalism. Born in the Netherlands, she was also the inaugural chair of the Dutch committee of Level 20, the not-for-profit body established to inspire women to join and succeed in the Private Equity industry in the Netherlands.

Ruulke received an MSc in economics from Erasmus University Rotterdam, is a CFA charterholder, and serves as a Board member of the Netherland-America Foundation (NAF), which supports high-impact exchange between the two countries.

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# Hannah Khizgilov

VICE PRESIDENT, GLOBAL RESEARCH & INVESTMENT STRATEGY

Hannah Khizgilov is a Vice President within Carlyle's Global Research & Investment Strategy team, with a focus on developing macroeconomic outlooks, market views, and insights from the portfolio. She is based in Washington, DC.

Prior to joining Carlyle, Hannah was a quantitative economics specialist at Ernst & Young (EY), where she supported large financial institutions in the development and validation of their internal credit risk models.

Hannah holds a master's degree in Operations Research from Columbia University, and received a B.S. in Mathematics and a B.A. in Russian Language and Literature from the University of Maryland, College Park.

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