Verus

PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

OCTOBER 2022

Private Equity Outlook

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Verus

VERUSINVESTMENTS.COM

SEATTLE 206.622.3700
CHICAGO 312.815.5228
PITTSBURGH 412.784.6678
LOS ANGELES 310.297.1777
SAN FRANCISCO 415.362.3484

Observations driving Verus outlook

Executive summary

Outlook

Private equity deal activity remains weak in the face of a complex macroeconomic and geopolitical backdrop. Rising interest rates and falling public market indexes are having a direct impact on the pricing environment: In many cases, with the cost of debt rising, the proportion of equity has also risen. Multiples are coming down, and until a more stable environment has been established, deal activity will likely remain subdued. Overall, deal activity will likely pick up as GPs feel pressure to deploy capital, but this eventuality may be several quarters out.

Exit activity is down a notable margin, year over year. With falling valuations in public and private markets, sponsors are choosing to hold portfolio companies, when possible, rather than sell them for less favorable prices. The dramatic slide in public equities has effectively closed the door to public listings, a major driver of exit value in 2021. Activity in some sectors, such as energy and technology, is still occurring, though. Many of the tailwinds in technology remain in place, despite the poor showing in public markets, and other sponsors or strategics have been willing to purchase PE-backed technology companies.

The second quarter of 2022 brought an expected continuation of market tightening in some parts of the U.S. venture capital (VC) ecosystem. Although corporations have been dealing with their own challenges in a bear market, VC-backed startups still seem to be a priority for their growth strategies. Both corporate M&A and corporate venture capital (CVC) investments have remained relatively strong in 2022. However, participation from nontraditional and crossover investors showed more prominent signs of a pullback in H1 2022. Recent public market performance has shrunk valuations for many of these investors' overall portfolios, likely causing some to reassess their VC investment pace and strategies.

The GP-led market has continued to evolve over the last decade. Contributing to the market's recent growth has been the increasing use of GP-led transactions to extend the holding period of an asset. Even more recently, as the pandemic weakened company valuations in 2020 and beyond, GP-led transactions such as single-asset continuation funds allowed GPs more time to weather volatile markets and ultimately grow asset valuations. Further compounding this growth is the fact that an increasing number of well-known GPs view these types of transactions as a necessary tool to address both portfolio and investor needs.

The slowdown in high-yield bonds and leveraged loan issuance in the first six months of 2022 opened a window of opportunity for direct lenders to fill the gap and gain market share. Pricing and covenant differences between direct lending and broadly syndicated leveraged loans are also narrowing. As the terms between the two converge and if the market remains choppy, direct lenders will be well placed to continue taking market share and provide a compelling alternative to syndicated loans and high-yield bonds.

Investor scrutiny on managers' DEI policies is increasing. Alternative fund managers have recognized that effectively managing talent and incorporating diversity, equity and inclusion (DEI) policies and programs into both corporate governance and investment strategies are a core business imperative. Increased investor scrutiny may be due in part to recognition that effective diversity policies yield better investment outcomes, and that investors are being held accountable for fostering diversity by their own stakeholders.

Executive summary

Summary of findings

Outlook		
Unattractive	Neutral	Attractive
○	◐	●

Strategy		Stage		Commentary
Buyout	*U.S.*	*Small Mkt*	●	Complex and distressed situations are likely to increase as market volatility continues, and frothy valuations reset for growth-oriented investments providing buying opportunities. Companies at this end of the market will have relatively less room for error and their success to navigate a downturn will depend on the conservativism of their leverage, amount of operating cushion (margins, FCF, etc.), and operating acumen of controlling owners and management.
		Mid Mkt	●	Middle-market PE has increasingly looked towards M&A to grow portfolio companies, which may offset depressed organic growth. In addition, large market buyout shops may look towards middle market companies as add-on targets for consolidation. A majority of exits in middle-market companies are to sponsors or strategics, a trend that should persist given the buying opportunity and balance sheet strength of some strategic acquirers.
		Large Mkt	◐	Economic headwinds may present good buying opportunities but increasing interest rates and a surplus of dry powder may mean that GPs will need to be more selective, especially those employing leverage, resulting in a higher concentration of capital bidding on a limited supply of quality companies. As a result, PE investors may seek large targets to put that money to work, likely leading them to the public markets in search of attractive candidates for take-privates, especially as prices have been depressed by the bear market.
	Europe	*Small/ Mid Mkt*	◐	Slowing economic growth across all European regions, the Russian-Ukraine conflict, and rising interest rates and inflation, are significant headwinds causing European investors headaches. The trend of cross-border expansion as means to grow companies will continue to provide investment tailwinds.
		Large Mkt	◐	The tightening policy environment set forth by the European Central Bank will result in downward pressure on investing activity as debt becomes more expensive. The downward pressure is offset by the public market pullback in European Stock exchanges, providing attractive entries in the form of take-privates and private investments in public equities ("PIPEs") for investors.
Venture Capital		*Early Stage*	◐	Valuations and pricing are expected to see downward pressure as investors focus on stronger fundamentals; companies may turn to debt financing as an alternative to traditional equity rounds, as they attempt to avoid down rounds, dilution, and unfavorable terms. Investors may find favorable buying opportunities in areas that have experienced frothy purchase price multiples, such as Information Technology.
		Late Stage	○	The scarcity of downside protective terms at the late stage in recent years has left investors exposed in a declining market. Valuations are under pressure and companies should be prepared to potentially include structure to achieve target valuations as investors have become more selective and are increasingly focused on a company's path to profitability. In addition, investor composition has shifted as several crossover investors have scaled back on private investing in recent months. This has removed a large pool of capital that helped drive private market activity over the past few years.

Summary of findings (continued)

Outlook		
Unattractive	Neutral	Attractive
○	◐	●

Strategy	Stage		Commentary
Private Credit	*Senior Debt*	◐	The relatively new asset class has previously been tested by COVID-19 and as a whole showed resilience. Now, as larger recessionary forces stress the market, we expect track records will begin to diverge. Now is a time to stick with best-in-class managers without stretching for yield or low-quality credits.
	Subordinated Capital	◐	Traditional mezzanine lenders focused on LBO financings continue to experience deployment headwinds from the increasing prevalence of unitranche structures. Upper middle market appears to offer the most fertile ground for opportunistic junior debt providers, especially as the leveraged finance capital markets ebb and flow and borrower performance remains unsteady.
	Credit Opportunities	●	Credit Opportunities deserves increased attention from LPs in the latter half of 2022 as the recovery in the broader credit markets has renewed interest in less correlated and “off-the-run” investments. Pricing and target returns have remained attractive relative to the broader market, especially within market niches that exhibit less correlated return drivers and better risk adjusted returns relative to other Private Credit sub-assets.
	Control Oriented Distressed	◐	Current global events are fueling an uptick in distressed debt investing; however, gone are the days of distressed credit funds simply buying up debt below par, taking over the equity and capturing value through a restructuring as low-interest rates and government interventions the past decade has created few openings for traditional distressed strategies. We are currently seeing a new generation of opportunistic credit managers pursuing both public and private investments across geographies, sectors and asset classes.
Secondaries		◐	Sharp public market declines and increasing economic uncertainty drove pricing declines as buyers showed skepticism of GP valuations. Slowing distribution activity resulting from weaker IPO and M&A environments further contributed to the decrease in pricing. Venture capital assets are considered highly overvalued as buyers are being offered venture and growth funds at substantial discounts. Going forward, we expect pricing declines to moderate in 2H 2022 as GPs adjust private valuations and the economic outlook becomes clearer.

Spotlight

Spotlight: Late-stage VC valuations

Deal values show a modest decrease, pre-money valuations exhibit growth

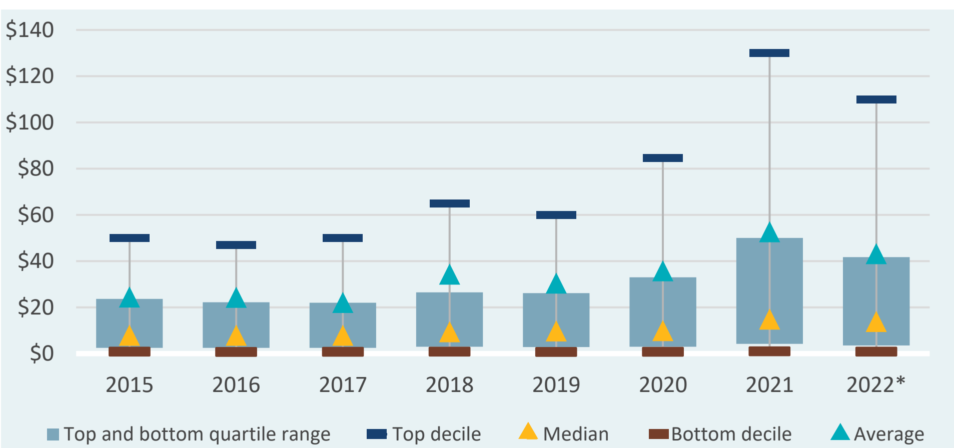
— Given the proximity to exit, late-stage venture companies have been faced with mounting pressure to justify high valuations and deal sizes amid rising inflation rates, geopolitical uncertainty and bearish public market activity.

— Although median deal sizes have decreased roughly 7.0% in the first half of 2022, the median pre-money valuation for late-stage deals has increased 10% above the 2021 full-year median; a surprise given the drop in median deal size and suppressed public market exit conditions.

— However, year-to-date median late-stage annualized percentage increase in valuations between rounds was just under 8.0%; the only VC stage to increase by a single digit percentage, signaling that poor public market exit conditions are a barrier for late-stage start-up valuation growth.

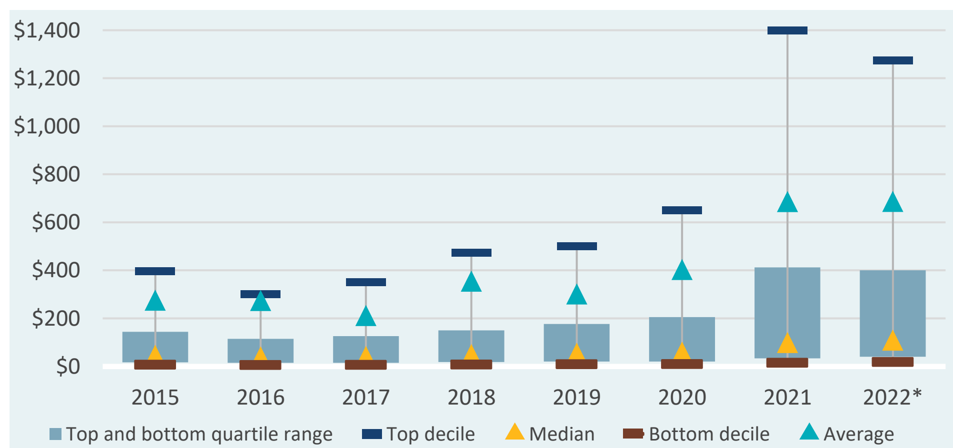
— Technology VC valuations and deal sizes set a strong pace in H1 2022 considering the challenges facing tech stocks. The median late-stage enterprise tech pre-money valuation paced at $130 million is on par with 2021; whereas the median late-stage deal size declined to $16.0 million from $20.0 million in 2021. The broad technology umbrella comprises startups in popular subsectors such as fintech and cybersecurity where high levels of VC activity are concentrated, and any signs of softening multiples will impact broader sentiment surrounding the VC ecosystem.

LATE-STAGE VC DEAL SIZE($M) DISPERSION



*Source: Pitchbook Q2 2022. *As 6/30/22.*

LATE-STAGE VC PRE-MONEY VALUATION ($M)



*Source: Pitchbook Q2 2022. *As 6/30/22.*

Spotlight: Late-stage VC valuations (cont.)

Nontraditional investors continue pushing VC valuations higher

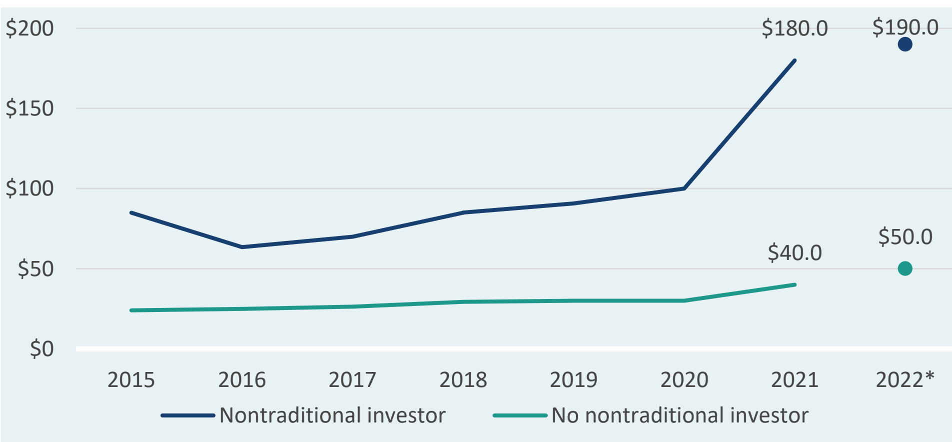
— Nontraditional investors ("NTI") identified as hedge funds, mutual funds, private equity funds, and corporate investors have maintained strong activity within later-stage ventures compared with the narrative around the market.

— Investment by nontraditional investors in recent years has led to many of the broader trends we've seen across the industry. From growth in deal sizes and valuations to the high numbers of mega-deals and unicorns, these investors have been a driving force for change in the VC market.

— Mega-rounds, of which nontraditional investors have been a major part, are being completed at a much slower pace as growth investors take a more cautious approach due to the volatility plaguing the public markets.

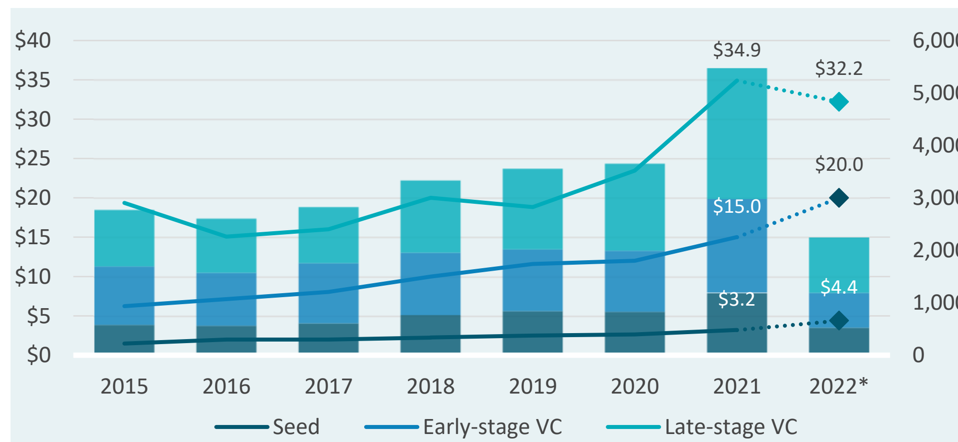
— Valuations of deals receiving nontraditional investor capital have remained high as their mechanics do not change during market shifts, being larger and less price sensitive than a traditional venture fund. However, there is some evidence NTIs are shifting tactics (or at least being more cautious) by moving earlier in the venture lifecycle where companies are further from public market volatility.

MEDIAN LATE-STAGE VC VALUATIONS($M) CLIMB HIGHER



*Source: Pitchbook Q2 2022. *As 6/30/22.*

U.S. VC DEAL ACTIVITY WITH NONTRADITIONAL INVESTOR PARTICIPATION



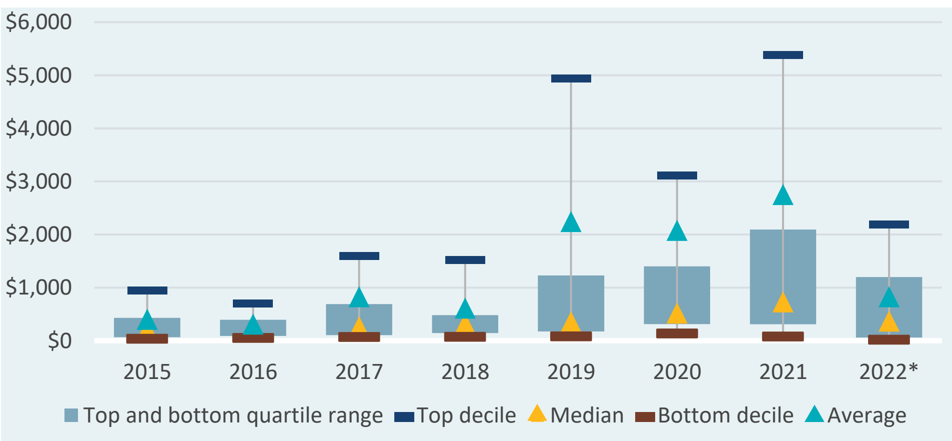
*Source: Pitchbook Q2 2022. *As 6/30/22.*

Spotlight: Late-stage VC valuations (cont.)

Liquidity

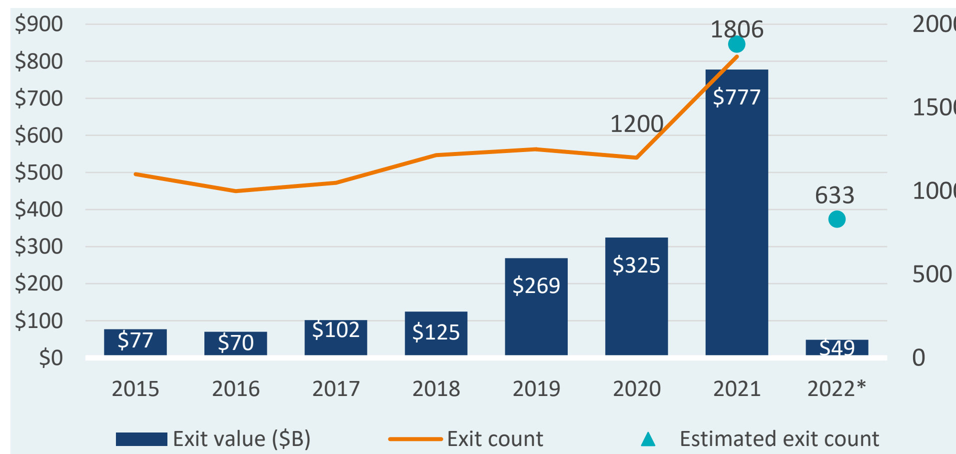
- Exit activity (or lack thereof) continues to be a key narrative in 2022 as the average and top-quartile valuations came down across both public listings and acquisitions.
- IPOs continue to be essentially nonexistent for VC-backed businesses in 2022, with only 22 closed during the first half of the year relative to 183 in 2021 and 108 in 2020.
- Public listings have also slumped, with special purpose acquisition company (SPAC) mergers recording a tough year-to-date in which general sentiment around SPACs continues to deteriorate in light of massive losses in public equities. Many announced SPAC mergers were abandoned or canceled in the wake of the reset in valuation multiples.
- While unicorns seem to have sufficient runway to sustain operations for the first six months of the year, if a public market liquidity gap persists for the rest of this year, we would expect to see more flat and down rounds as startups return to private markets.
- Valuations for acquisitions have been steady relative to public market exits, with little movement in the median or average valuations over the first two quarters of the year, acquirers are still finding attractive opportunities in the VC universe.

VALUATION ($M) AT EXIT VIA PUBLIC LISTING



*Source: Pitchbook Q2 2022. *As 6/30/22.*

U.S. VC EXIT ACTIVITY ($M)



*Source: Pitchbook Q2 2022. *As 6/30/22.*

Spotlight: GP-led continuation funds

Continuation funds

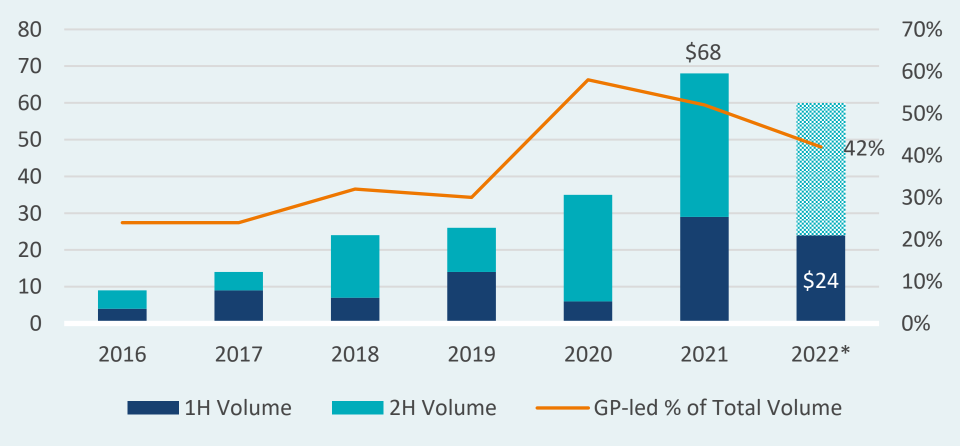
— One of the biggest trends in private equity over the last couple of years has been the rise of funds to extend the economic gains of performing assets. Continuation funds arrived on the private equity scene only recently but have quickly become established as an attractive part of the market, representing 80% of GP-led volume.

— GP-led continuation funds involve GPs moving one or more existing fund assets into a special purpose vehicle to retain exposure to high-performing 'trophy' assets. Continuation funds help create liquidity for LPs and crystallize any GP carried interest earned to date while allowing existing LPs to maintain exposure to the asset and their GP relationship through the new vehicle.

— While a potential "liquidity squeeze" in private equity may not be felt immediately, there has been increased activity from Sponsors utilizing the secondary market for alternative liquidity solutions.

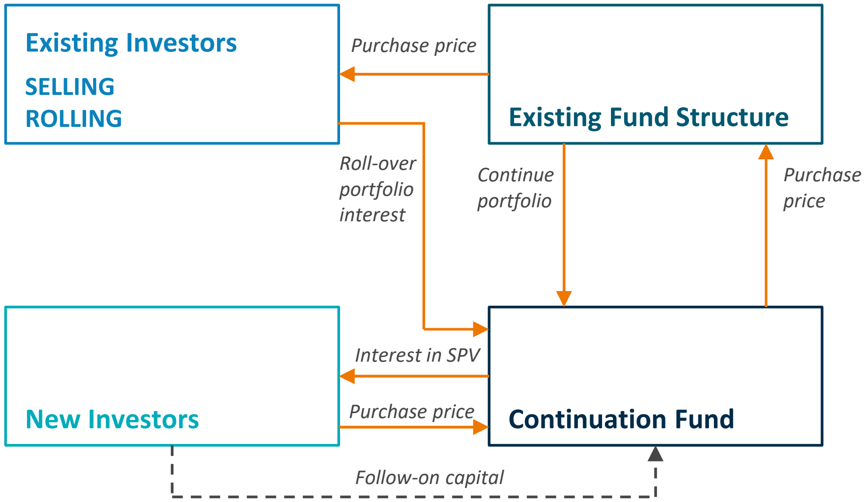
— Single asset continuation funds remain popular, forming the largest part of the Sponsor-led secondary market at ~45% of the volume, but are down vs. 2021 (~52%) with multi-asset transactions being increasingly prioritized by several secondary firms (~31% → ~34%).

GP-LED ANNUAL TRANSACTION VOLUME ($B)



*Source: Source: Jefferies Global Secondary Market Review July 2022. *As 6/30/22.*

GP-LED CONTINUATION FUND STRUCTURE



Spotlight: GP-led continuation funds (cont.)

Risks associated with GP-led secondaries - what should investors consider?

— GP-led secondary transactions can provide a number of benefits: optionality and liquidity for LPs; allowing LPs to restructure their portfolio; adding more time and capital to assets and therefore additional potential value; and incentivizing the GP. However, they are not without risk and given the many potential conflicts of interest, should be approached carefully.

RISKS	CONSIDERATIONS
Asset Concentration	GP-led transactions often concentrated on 3-4 key assets.
Additional costs and Reporting requirements	LPs are required to invest in a newly formed investment vehicle, potentially creating the need for additional due diligence related to legal, tax, accounting, and reporting obligations; such activities may require engaging other third parties or outside legal counsel support, resulting in further costs for LPs.
Legal: Ensuring GP alignment/ commitment	A GP's commitment is a strong indication of their conviction in a deal or asset; a small commitment may suggest little confidence in a deal, while a larger commitment signals significant alignment with the GP.
Price setting mechanisms & conflicts of interest	GP-led secondaries transactions can create several conflicts of interest given the potential benefit to GPs on both sides of the transaction. As fiduciaries, GPs should disclose all conflicts and potential risks of the transaction to the buyer and be aware of potential scrutiny from relevant regulatory bodies (e.g. SEC).
Valuation	Valuation of an asset or a fund's portfolio can be challenging in turbulent markets. Fairness opinions, transparency and third-party valuations can help to address potential issues around a fair purchase price.

Spotlight: GP-led continuation funds (cont.)

Investor evaluation criteria

— With the significant market growth, the SEC has proposed new and amended rules for private fund advisers to address GP-led transactions. The proposal is closely aligned with the Institutional Limited Partners Association (ILPA) guidelines regarding transparency and disclosures to investors but would also require certain types of GP-led transactions to have fairness opinions.

— We believe it is important to focus on four key elements when evaluating GP-led deals: (i) a strategic edge resulting from platform synergies; (ii) sponsor/company quality; (iii) return profile; and (iv) sponsor alignment and conviction.

CRITERIA	EVALUATION
Strategic Edge	Does the Sponsor have a compelling edge over the market by; a) knowing the asset and its sector better than anyone else, thus reducing buy-side risk; b) a well-established and productive relationship with a management team wanting to avoid the business disruption through a sale process; or c) have add-on acquisitions in the pipeline that will generate significant upside but require additional equity financing? These factors should be price accretive – to the benefit of selling investors.
Company Quality	The underlying business is a market leader with compelling financial characteristics (margins, FCF profile, industry tailwinds, etc.), multiple growth levers to drive value potential at the exit, strong performance under the sponsor's ownership to date, and high capital efficiency.
Return Profile	Is the Investment selection based on specific returns generated by the main fund (e.g., generate above a 2.5x return), strategy (e.g., deal must not be turnaround focused or defensive), or sector (e.g., deal must target software investments)?
Sponsor Alignment	Is the Sponsor "cashing out," or will they have material exposure to the continuation vehicle by investing new capital or through the rollover of its commitment and carry in the legacy fund? Is there a go-forward performance incentive allocated to the appropriate members of the deal team? Is the management team of the portfolio company generating liquidity as part of the transaction?

Environmental, social, and governance

Increased ESG implementation across the industry

Current Trends

— Over the past decade, ESG investing has gained attention as investors increasingly acknowledge the materiality of risks beyond traditional accounting-based and financial analysis and with a desire to move away from short-term risk-return perspectives has filtered into the private markets. Increasingly, LPs are requiring GPs to incorporate ESG integration in long-term investment decisions.

— According to a joint survey conducted by the ILPA and Bain & Co, LPs are incorporating ESG considerations into their investment policies because they view them as additive to investment performance and want to offer clear ESG communications to stakeholders.

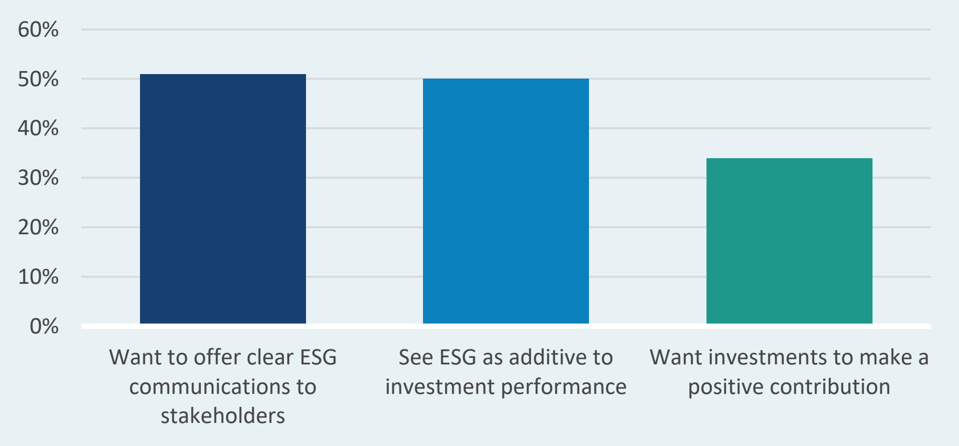
— As more ESG-mandated funds are raised, the SEC has begun to require increased transparency in ESG reporting with an aim to inform and protect investors while facilitating further innovation in this evolving area of the asset management industry.

Challenges

— Accessing ESG data presents specific problems for investors as a lack of robust ESG data along with the uncertainty of how to define and measure outcomes are seen as the largest barriers to ESG adoption.

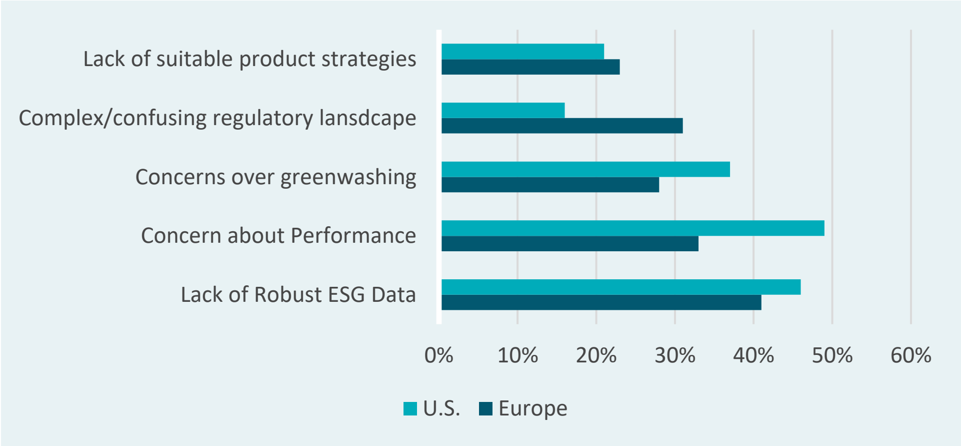
— Recently LPs are facing criticism about fiduciary responsibility from stakeholders over concerns about whether returns are being given second consideration in favor of sustainable investment practices.

REASONS FOR ADOPTING ESG



Source: Bain & Co | ILPA, LPs and Private Equity Firms Embrace ESG

CHALLENGES WITH INCORPORATING ESG DATA



Source: Capital Group ESG Global Study 2022

Diversity, equity, and inclusion

Increased DEI awareness across the industry

Current Environment

— Over the past decade the total amount of assets under management ("AUM") managed by diverse-owned firms has evolved across the private equity landscape. For minority-owned firms AUM has been steadily increasing as a percentage of overall AUM. For women-owned firms, relative AUM has been increasing more slowly but is on an upward trend as a whole. Although both groups still have relatively low industry penetration, their AUM growth rates have outpaced that of non-diverse firms.

— Changes in diversity amongst senior leadership in established PE firms has been challenging, but notably increasing within the junior ranks and recruitment efforts. PE firms have begun internal outreach and internships as well as partnering with organizations, such as Girls Who Invest, Women's Association of Venture & Equity ("WAVE") and Management Leadership for Tomorrow ("MLT").

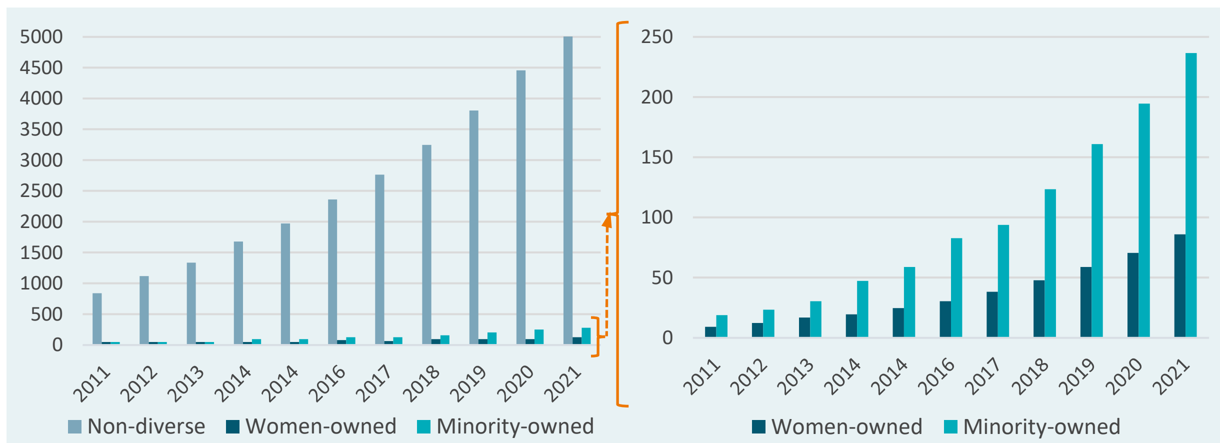
— Private markets stakeholders are increasingly prioritizing diversity, equity, and inclusion, both within their own organizations as well as within their portfolios. The ILPA, understanding that progress in DE&I requires intention and action on both the part of LPs and GPs, has created the Diversity in Action initiative to motivate market participants and build momentum around advancing DE&I over time.

— As part of the initiative the ILPA has released a Diversity Metrics template to aid in standardizing key areas of inquiry and provide a framework for ongoing monitoring of progress related to DE&I (https://ilpa.org/due-diligence-questionnaire/).

(%) OF U.S. BASED AUM MANAGED BY MINORITY & WOMEN-OWNED FIRMS

Source: Knight Foundation Sept 2021

NON-DIVERSE, WOMEN-OWNED & MINORITY-OWNED U.S. BASED PRIVATE EQUITY AUM ($BN)



Source: Knight Foundation Sept 2021

Buyouts

U.S. buyout

2021 a record-breaking year for U.S. buyouts

2021 Environment

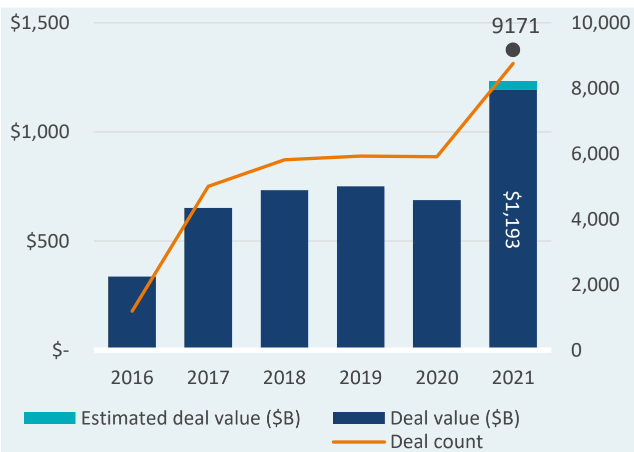
— Boosted by pandemic-related stimulus, inexpensive debt, and unprecedented levels of dry powder, U.S. buyout activity soared to new highs as 9,171 deals valued at $1.2T in 2021; nearly double the $690B in deal value across 5,908 deals in 2020.

— Mega deals benefited the most from the 2021 environment as activity within the larger end of the market expanded to 32% of overall U.S. Buyout activity (up 6% from 26% in 2020). The trend persisted in exits as well, with mega deals accounting for 10% of 2021 buyout exits; nearly double the 6% in 2020.

— Exit activity had a record-breaking year as 1,811 exits totaled $885M in value, a 234% increase from 2020's $378M total value across 1,106 deals. The increase can be attributed to COVID-19 induced postponements, the substantial rise in pricing multiples, increased dividend recap activity in anticipation of higher future rates, increased SPAC IPO activity, and increased exit activity involving $1B+ transactions.

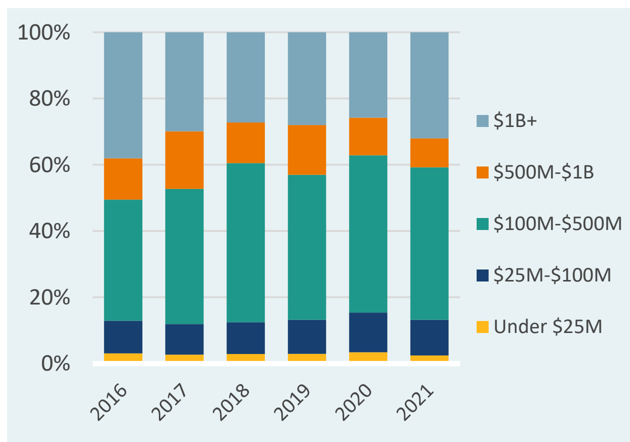
— Albeit at a more modest increase compared to deal activity and exits, total U.S. Buyout capital raised in 2021 increased 119% year over year, with $340B raised over 577 funds.

DEAL SIZE/VALUE ($B)



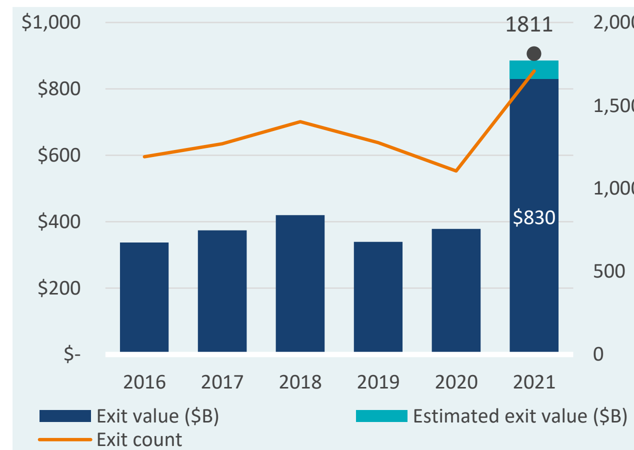
Source: PitchBook

U.S. PE DEAL ACTIVITY (#) BY SIZE



Source: PitchBook

U.S. PE EXITS



Source: PitchBook

U.S. buyout (continued)

Buyout activity has halted

1H 2022 Environment

— Relative to 2021, U.S. Buyout activity had a lukewarm start due to a rise in interest rates, supply chain disruptions, inflationary pressure in commodities, and unavailability of syndicated bank loans closing on $411B in deal value across 4,337 deals.

— Exits had also seen a sluggish start as only 577 companies were exited for $577B in total value. The decrease in exit value was primarily driven by the rapid drop in public listings as only $3.4B in exit value across 9 listings occurred, 80x less than the $272B in 2021.

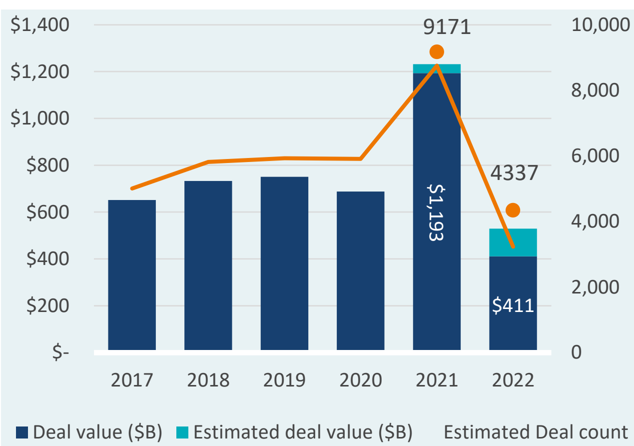
— The fundraising environment has been competitive as the supply of funds in market has exceeded LP demand, which has recently decreased due to preferences for liquid assets and public market contractions. Despite this, fundraising is on pace to meet 2021's activity.

Outlook

— 2H 2022 activity is expected to be muted as buyers and sellers find price discovery in a volatile market, resulting in longer hold periods and partial realizations, such as dividend recaps and GP-led secondaries as sales are postponed.

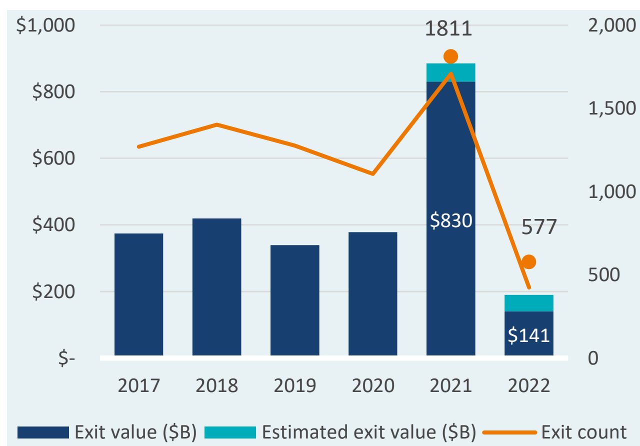
— Buyout managers with an operational focus, value-orientation, and credit underwriting expertise may do well in a downturn should the opportunity in take-privates, private investments in public equity ("PIPEs"), corporate carveouts, and complex/distressed investments expand.

DEAL VALUE AND VOLUME



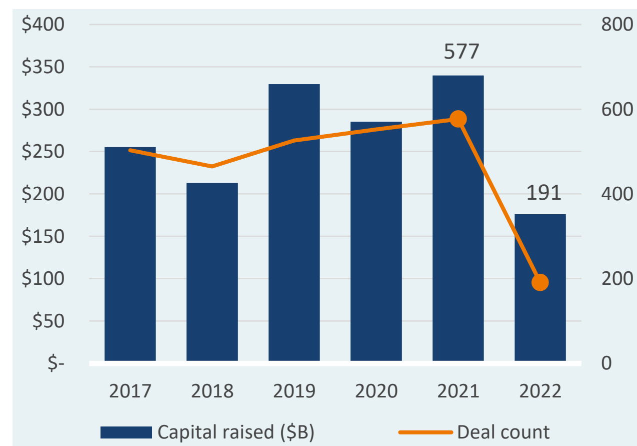
Source: PitchBook

U.S. EXITS



Source: PitchBook

FUNDRAISING



Source: PitchBook

European buyout

Fundraising the only activity that stalled in 2021. Slowdown in 2022.

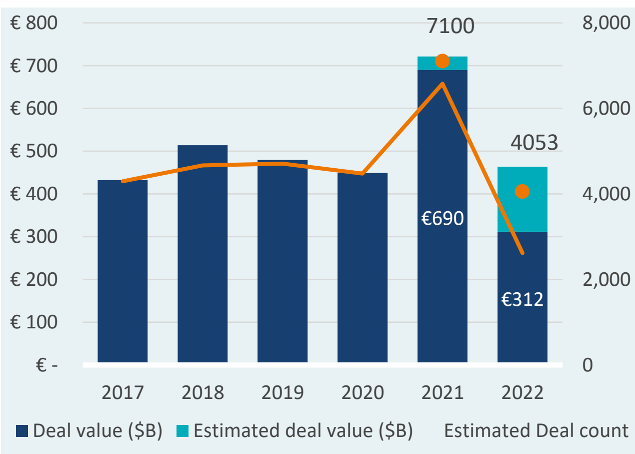
2021 and H1 2022 Environment

— PE deal activity hit new annual records, with €721B in deal value over 7,100 deals closed, a 172% increase over the €449 in deal value across 4,474 deals in 2020. The middle market was the main contributor, increasing by over 66% from 2020. Dealmaking continued to be resilient through H1 2022 with a softer multiple environment assisted by rising rates and increased dry powder levels.

— Exit activity also hit record highs as 2021 saw 1,583 exits, worth €462B, marking year-over-year increases of 50% and 120%, respectively. However, the trend reversed in 1H 2022 as market volatility, valuation adjustments, and the war in Ukraine converged exits slowed to 739 with €158B in value. Of the exits, public listing activity had decreased the most recording €8B in value across 8 public listings (2021 had €102B across 133 deals).

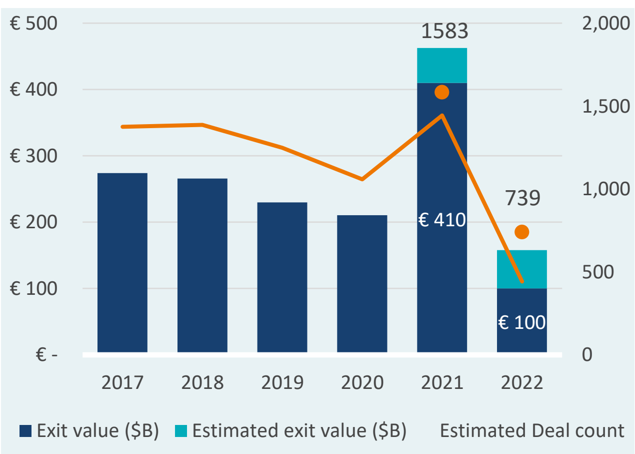
— Fundraising slowed slightly in 2021 as PE firms closed on €87.9B over 161 funds, a slight decrease from 2020's €91.0B over 208 funds; a trend that continued in H1 2022, with 40 vehicles closing on €27.9B.

EUROPEAN DEAL FLOW



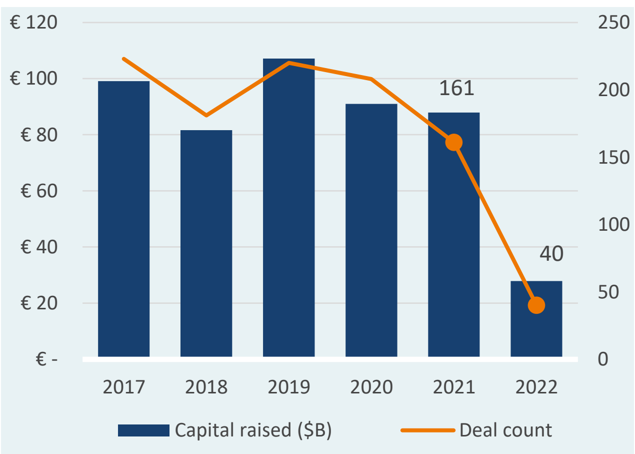
Source: PitchBook

EUROPEAN EXITS



Source: PitchBook

EUROPEAN FUNDRAISING



Source: PitchBook

Venture capital

Venture capital

U.S. VC activity in 2021 nearly doubles previous all-time high

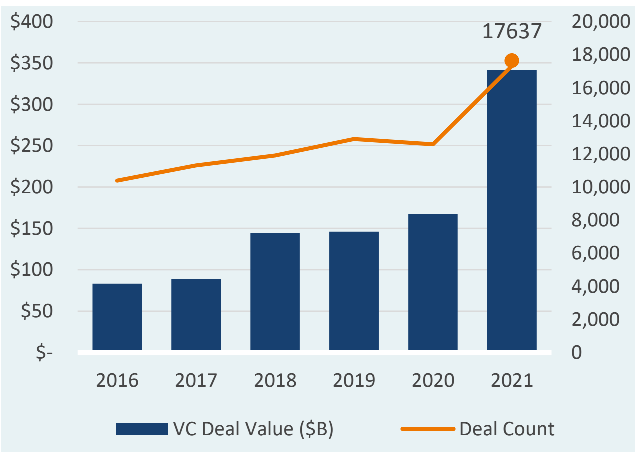
2021 Environment

— U.S. VC total deal value reached $342 billion over 17,637 deals in 2021, a 204% increase from 2020's historical peak. The trend persisted across all financing stages. Early-stage recorded $86.7B in value over 5,255 deals, a 204% increase from 2020's $42.6B in value, and Late-stage recorded $236.2B in deal value over 5,385 deals, a 209% increase from 2020's $113B in deal value.

— Late-stage has made up 30.4% of all VC deal activity, surpassed Early-stage 29.9%. This increase can partly be attributed to an increase in Non-traditional investor activity ("NTI"), a group that has historically allocated most of its capital to Late-stage (75% in 2021). NTIs participated in $273B of deal value across 6,658 deals, a 112% increase from 2020's $129B across 4,131 deals. Their impact has been notable in deals over $50M+, which recorded a 114% increase in deal value from $727B to $1,559B.

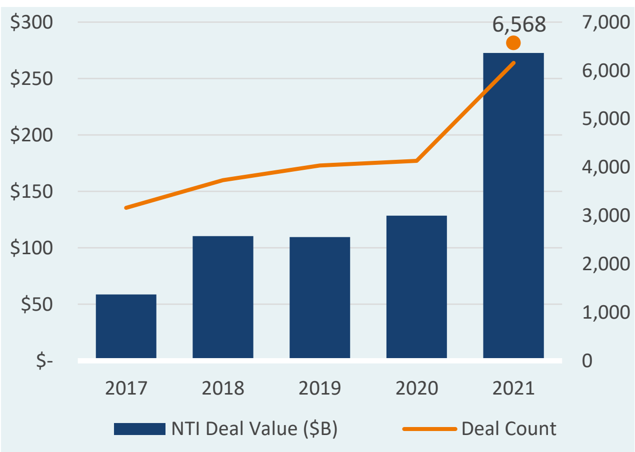
— 2021 saw record exit activity as $777B in value across 1,880 deal represented a 140% increase over 2020's $325B across 1,200 exits. Public listings were the most common exit mechanism, making up 86% of all exit values. The $667B in exit value through public listings represented a 274% increase from 2020's $244B.

VENTURE CAPITAL DEAL VALUE & COUNT



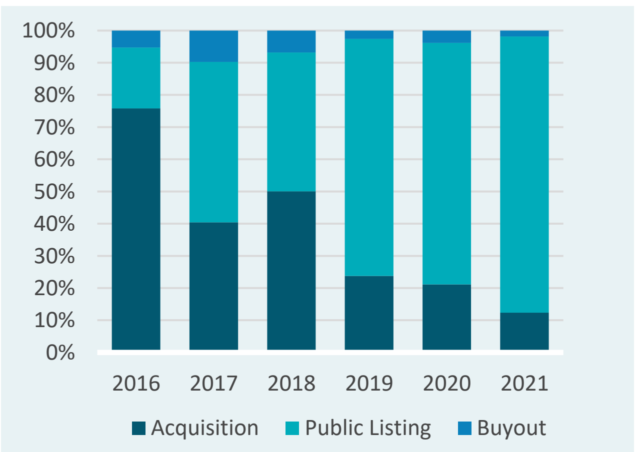
Source: PitchBook

NONTRADITIONAL INVESTOR PARTICIPATION



Source: PitchBook

EXIT CHANNEL



Source: PitchBook

Venture capital (continued)

H1 2022 exits severely impacted

1H 2022 Environment

— Momentum of 2021 deal activity carried through to Q1 2022 but began to slow in Q2 2022, with the quarter recording $62B in deal value across 4,457 deals, a 24% decrease from the $82B in Q1 2022.

— Exit values quickly dropped as public markets became a less viable exit mechanism; Q1 2022 saw $36B in exit value and Q2 2022 saw $13B in exit value, a stark difference relative to $194B in 4Q 2021.

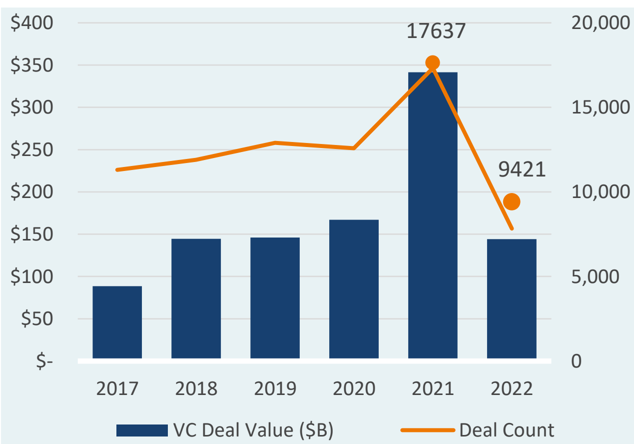
— Contrary to deal and exit activity, fundraising activity continued to be robust in 1H 2022, recording $122B across 415 funds.

Outlook

— Manager dispersion may increase between GPs who have strong deal selection and strategic guidance over those who relied purely on beta returns as companies with poor fundamentals (lack of product-market fit, high capital expenditures, and low cash reserves) begin to falter.

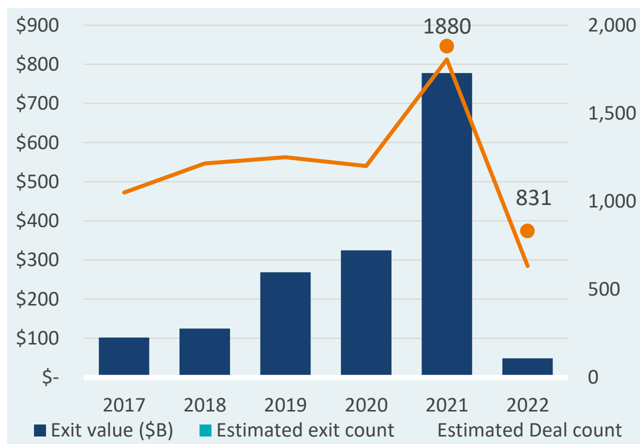
— Activity across new deals, exits, and fundraising may begin or continue to slow should market uncertainty increase in H2 2022.

VENTURE CAPITAL DEAL VALUATION & COUNT



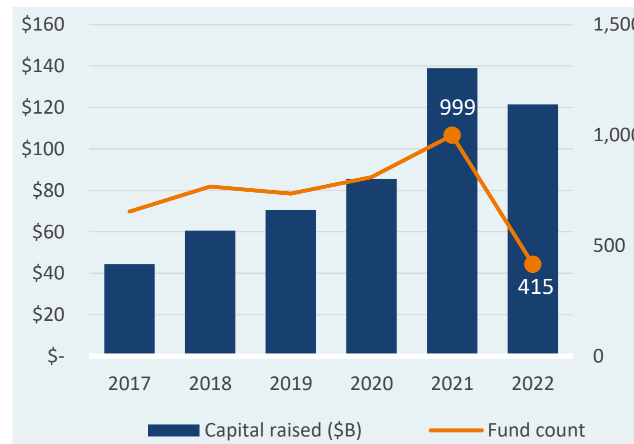
Source: PitchBook

VC EXIT VALUE



Source: PitchBook

VC FUNDRAISING



Source: PitchBook

Private credit

Private credit

Fundraising

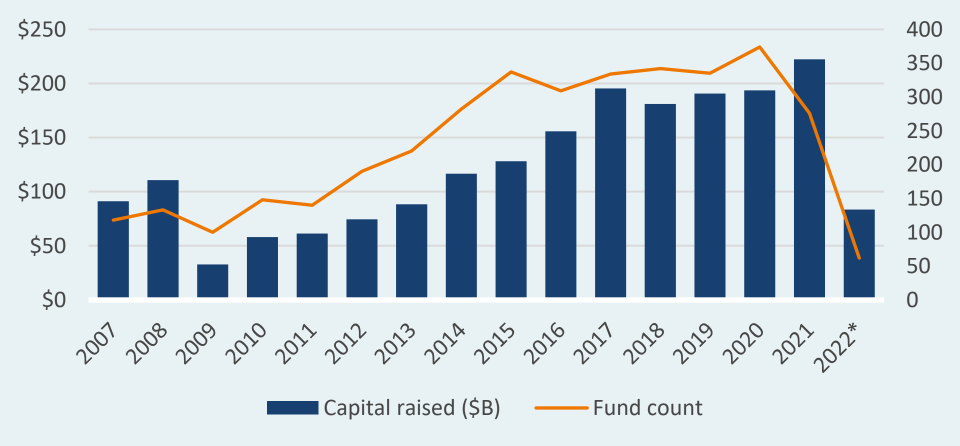
— Higher interest rates due to persistent inflation, subdued default rates and a broader pivot toward alternatives continue driving investors into private credit strategies, where direct lending continues to draw the most capital accounting for $85.9B across 52 vehicles in 2021.

— The trend of larger managers gaining a disproportionate share of new allocations to the asset class is reinforced in 2021 as LPs see little benefit in manager diversification in direct lending where differentiation is marginal.

— In another step towards LP's commoditization of direct lending, managers are offering evergreens structures to allow investors to maintain consistent allocation overtime.

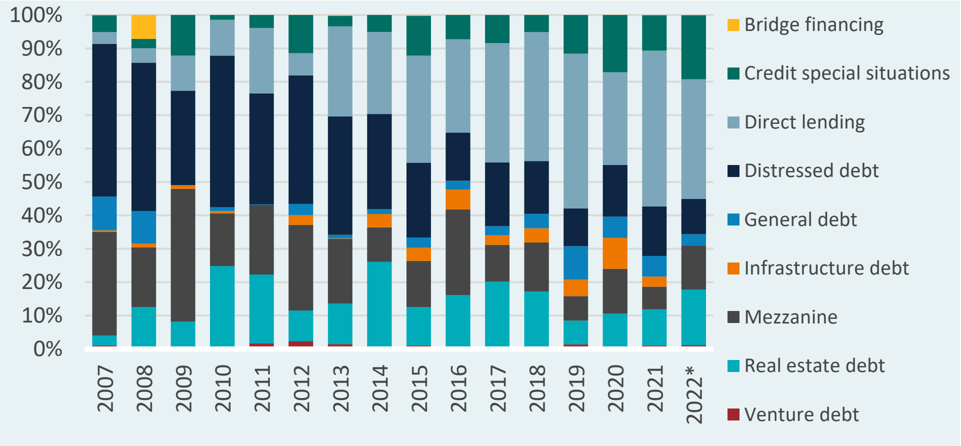
— Fundraising slowed in 2022 as LP's paused allocations under market volatility. In the second half of 2022 we expect fundraising for distressed debt and credit special situations to increase relative to past years as the market environment becomes more conducive to these opportunities.

PRIVATE DEBT FUNDRAISING BY YEAR



*Source: Pitchbook Q2 2022. *As 6/30/22.*

PORTION OF PRIVATE DEBT FUNDRAISING BY YEAR



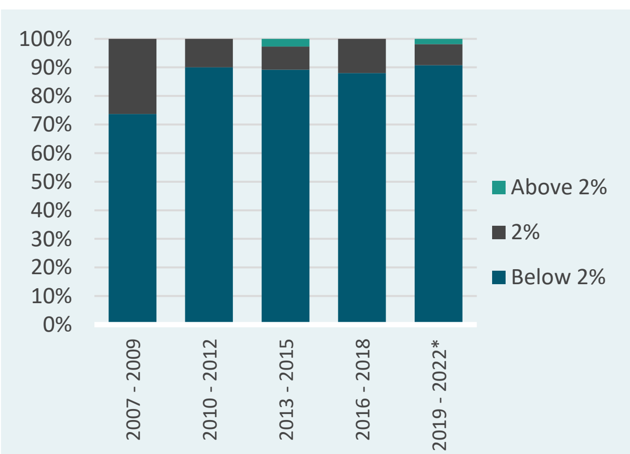
*Source: Pitchbook Q2 2022. *As 6/30/22.*

Private credit (continued)

Trends

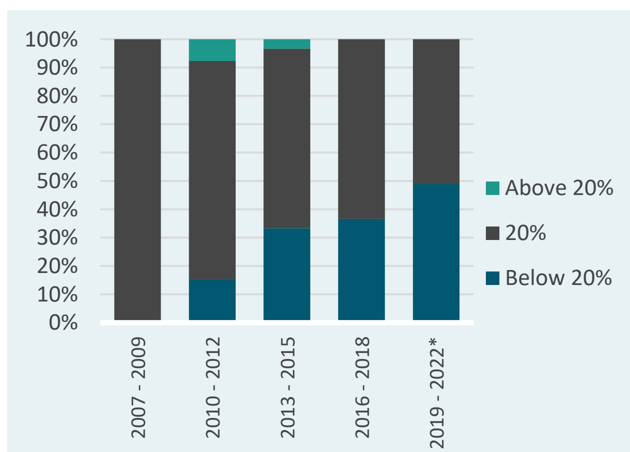
- The maturing of the private credit asset class has led to increased competition and as a result, the decreasing of fees over time, seen in both management fees and carry. While headline fees have decreased, the market which long showed disparity on a management fee basis has coalesced behind charging management fees on invested capital (including leverage).
- In a forward-looking survey by The Lead Left, 81.7% of managers said they would be more likely to give borrower-friendly concessions in 2022 including increasing leverage, reducing rate & fees, increasing hold size, or accepting covenant-lite terms. As transaction volume continues to decrease, only the best assets are trading.
- Specialty Finance enjoyed some of its largest growth in the last two years as middle market companies turned to private credit for several reasons; certainty to close, speed, and pricing, over the broadly syndicated loan market. This once new asset class has now scaled, but deals going forward are expected to trend smaller namely because of peaking deployment in 2022, rising rates killing refinancing, and fundraising difficulties from macro fears.

MANAGEMENT FEE RATES BY FUND COUNT



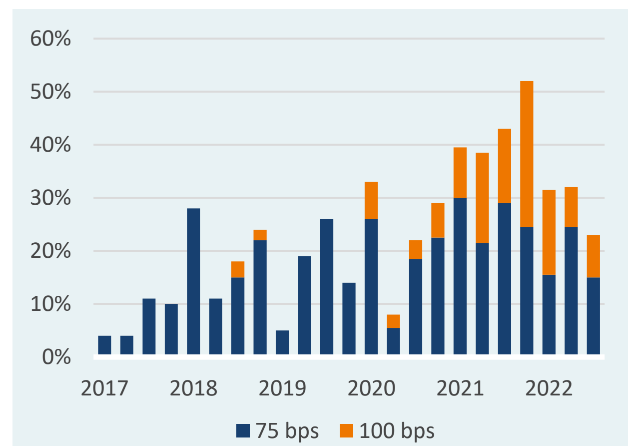
Source: Pitchbook

CARRY RATES BY FUND COUNT



Source: Pitchbook

% OF DEALS WITH 75+ BPS MFN (COVENANT THRESHOLD)



Source: The Lead Left

Private credit (continued)

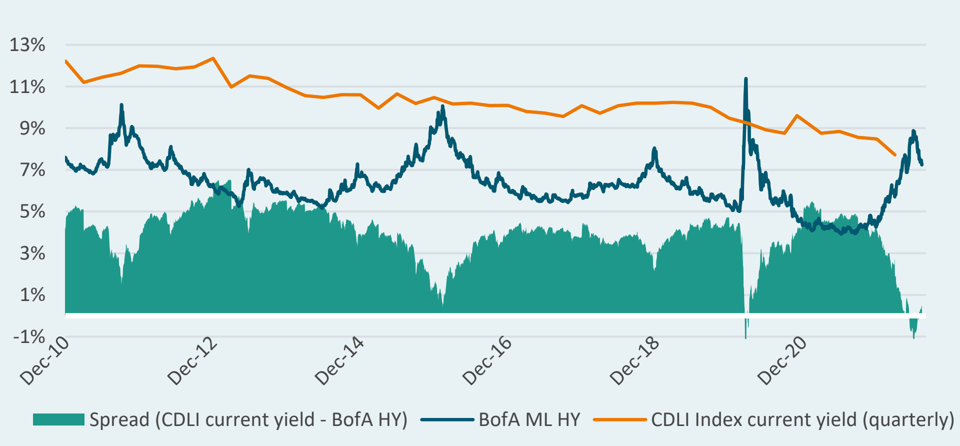
Outlook

— Allocations will continue to increase into the asset class, with surveys indicating allocators believe direct lending offers the best opportunities in 2022. When it comes to strategy, the larger managers will look to continue to build new offerings including unitranche, evergreen structures and more opportunistic mandates to take advantage of market opportunities.

— Inflation has proved to be persistent, at least in the mid-term. As rates are expected to continue to rise through the end of the year into at least the beginning of 2023, we expect higher default rates as the cost of capital rises and possibly one of the first true tests of the private credit environment in the last 10 years.

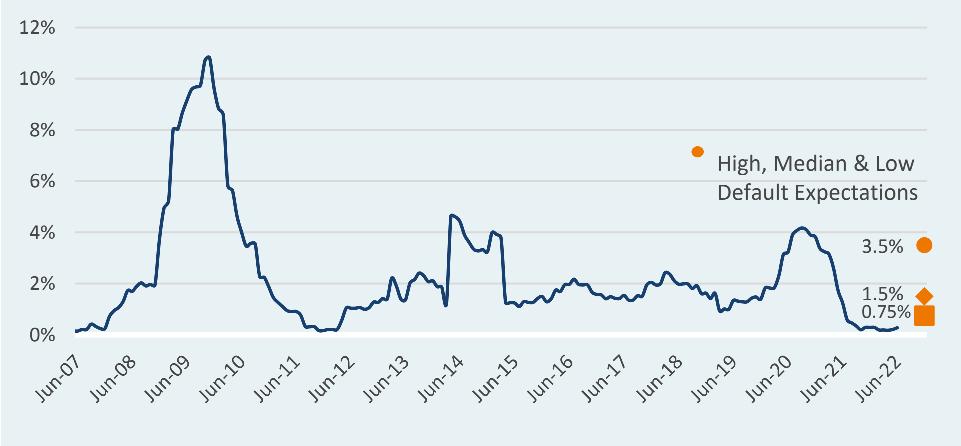
— Performance of most private credit sub-strategies generally has outperformed public market equivalents including the BofA ML HY Index and the S&P LSTA index on a Horizon IRR basis over the last 20 years. Yields, which are more dynamic to react to the market, have also shown private credit's historical overperformance relative to public markets.

HIGH YIELD VS. MIDDLE MARKET DEBT YIELDS



Source: The Lead Left

S&P/LSTA LAGGING 12-MONTH DEFAULT RATE



Source: Leveraged commentary & Data (LCD); S&P/LSTA Leveraged Loan Index

Secondaries & co-investments

Global secondaries

Secondary volume

— Fundraising for Secondary funds was $57B in 1H 2022, an increase of over 7% from the $53B in 2020. A 2021 Evercore study estimated, based on funds in the market, 2022 fundraising is expected to reach $72B.

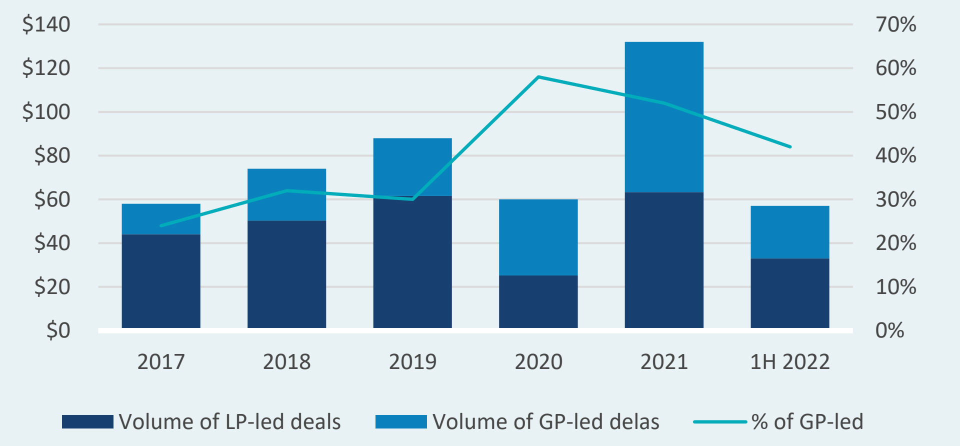
— Transaction volume in the Secondary market reached an all-time high of $134B in 2021, a 223% increase over 2020 ($60B). Of the year's transaction volume, 51% came from GP-led deals. Robust transaction volume persisted with $57B in 1H 2022.

— The weighted average vintage of all funds sold was in 2014. Funds with 2018 or newer vintages are priced at 94% of NAV, while funds with 2011 and older vintages are priced at 75% of NAV. LP portfolios sold in 1H 2022 trended slightly older with 84% of funds being at least eight years old.

— 16% of LP-led transactions were priced at a 5% discount or better to NAV, signaling a motivated seller environment.

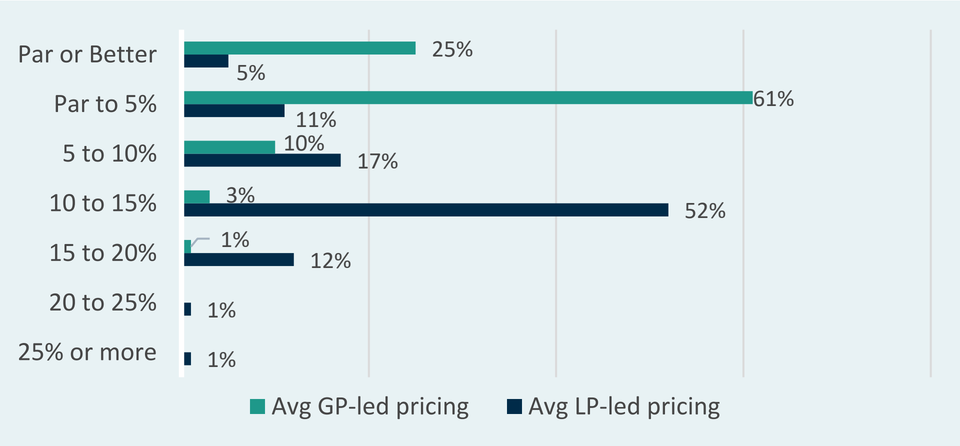
— 25% of GP-led transactions were priced at par or better, with an additional 61% priced at par to 5% discount, highlighting buyers' conviction on assets in the space irrespective of pricing.

VOLUME OF SECONDARY TRANSACTION VOLUME



Source: Jeffries Global Secondary Market Review – July 2022

TRANSACTION PRICING ANALYSIS BROKEN DOWN BY DISCOUNT



Source: Campbell Lutyens H1 2022 Secondary Market Overview

Global secondaries (continued)

Historical secondary pricing (% of NAV)

Secondary Pricing

— According to Jeffries, the average high bid across all strategies in 2022 was 86% of net asset value (NAV) in LP secondary transactions. The 600 basis points decrease from 2021 signals the decline in buyer sentiment. Pricing was influenced by several factors, including contraction in public market comparables and economic uncertainty.

— Buyout pricing decreased 600 basis points to 91% of NAV while Venture pricing decreased 1700 basis points to 71% of NAV.

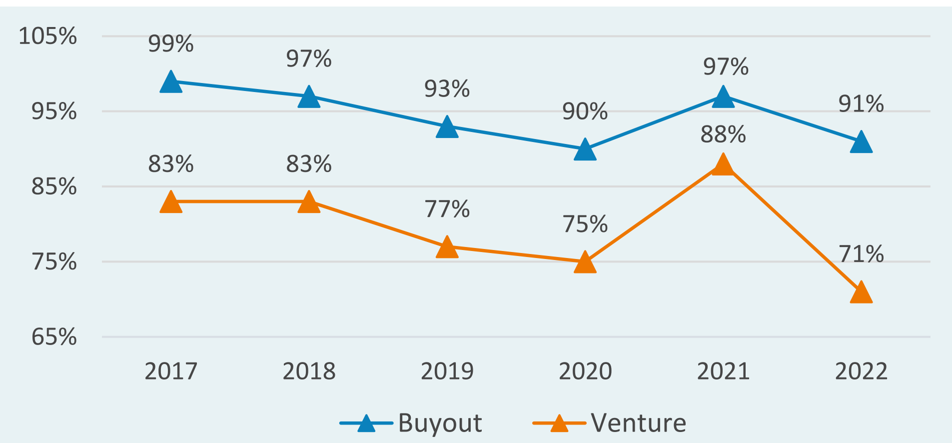
— Credit / Distressed pricing decreased 800 bps to 75% of NAV while Real Estate decreased 200 basis points to 77% of NAV.

Activity

— Capital overhang multiples decreased to 1.6x, a 0.2x decrease from 2021's 1.8x.

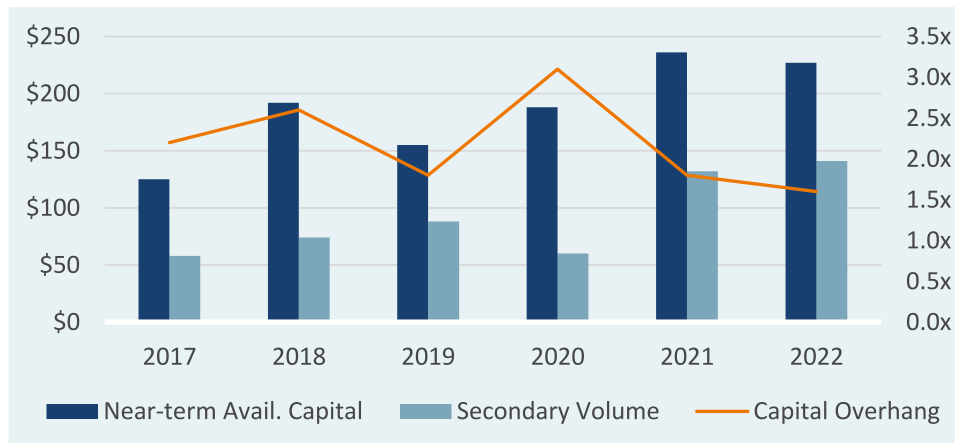
— With the growth of the overall market, dedicated available capital has remained elevated ($227B in 2022 from $188B in 2020). This trend has persisted in five out of the last six years.

SECONDARY PRICING



Source: Jeffries Global Secondary Market Review – July 2022

SECONDARY CAPITAL AND ACTIVITY



Source: Jeffries Global Secondary Market Review – July 2022

Co-investments

Overview

— An equity co-investment is a minority investment in a company made by investors alongside a private equity fund manager or venture capital firm. Equity co-investments enable other investors to participate in individual opportunities at materially lower fees and carried interest than traditional private equity funds while offering more control and visibility into the investment.

— According to Pitchbook data, co-investment popularity has been rising over the last decade with 2021 reaching a record volume of 161 funds closed amid $19.8B in aggregate capital.

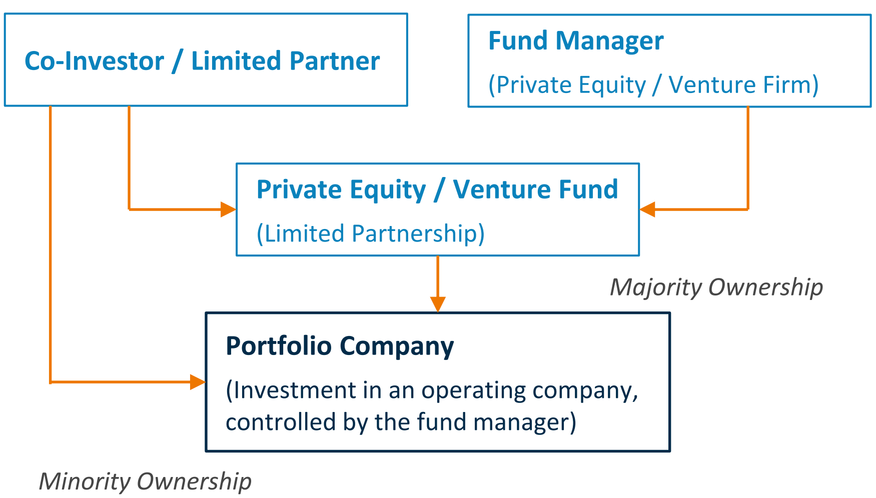
— GPs are offering more co-invest—a preferred approach over investing alongside other GPs as a syndicate—as a way to differentiate themselves with the LP community, deepen relationships with key investors, manage their own risk, and maintain greater investment flexibility.

— However, a comprehensive data set representing direct co-investments does not exist, making it difficult to draw conclusions about how these investments have performed universally.

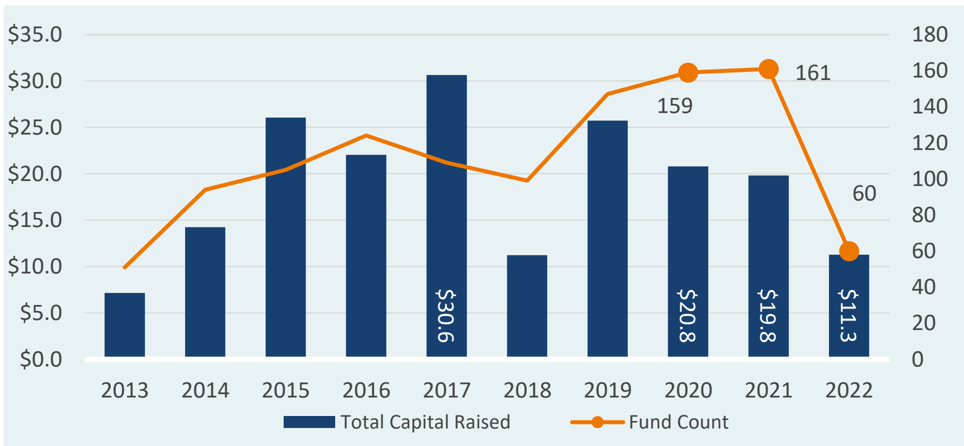
Risks

— Co-investment deals are generally complex, require extensive resources, involve multiple steps—from deal sourcing to post-investment monitoring —and often need to be completed in a short period of time. Due to these constraints coupled with intense competition for allocations most limited partners invest in a commingled structure with a co-investment manager for a fee and a portion of the carried interest.

CO-INVESTMENT STRUCTURE



CO-INVESTMENT CAPITAL RAISED & FUND COUNT



Source: Pitchbook as of September 14, 2022

Appendix

Verus private equity philosophy

— Private equity is a long-term asset class:

- Funds deploy capital into new investments over a three- to five-year period
- After investment, portfolio companies are held for a period of four to seven years on average prior to exit
- This typical investment course drives discrete fund lives to often last beyond 10 years, during which significant changes can occur

— To address this phenomenon, investors generally “average in” to the market by building portfolios of discrete private equity funds over multiple vintage years

— For these reasons, significant tactical shifts are not easily implemented in private markets portfolios

— Our top-down review of the asset class incorporates current trends, which if sustained, can potentially impact returns over the long term

We believe that careful manager selection is the primary driver of returns

That said, macro and top-down conditions have the potential to impact portfolio returns over the long-term

Detailed returns by geography

Pooled Returns by Geography	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
U.S. All Private Equity *	43.5	30.0	23.6	18.3	13.4	4,085	2,927.0
Europe All Private Equity *	29.5	25.0	22.8	15.5	15.6	819	871.9
Asia All Private Equity *	15.5	17.9	16.1	14.3	13.3	726	406.2
Public Index							
Russell 3000	25.7	25.8	18.0	16.3	9.7		
MSCI Europe	16.3	14.9	10.1	8.2	6.3		
MSCI AC Asia Pacific	(1.5)	12.1	9.9	8.0	7.5		
Outperformance vs. Public Index							
U.S. All Private Equity *	17.8	4.2	5.7	2.0	3.7		
Europe All Private Equity *	13.2	10.1	12.7	7.3	9.4		
Asia All Private Equity *	17.0	5.8	6.2	6.3	5.8		

** All Private Equity excludes Natural Resource, Infrastructure, Real Estate, Fund of Funds and Secondary Funds.*

Source: Thomson Reuters C|A as of December 31, 2021

Pooled returns by implementation approach

Pooled Returns by Implementation Approach	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
U.S. Pooled Returns							
U.S. All Private Equity Direct*	43.5	30.0	23.6	18.3	13.4	4,085	2,927.0
U.S. Fund of Funds	48.0	32.1	22.7	15.7	11.1	493	165.7
U.S. Secondary Funds	40.0	24.7	20.2	14.6	13.7	227	227.7
Europe Pooled Returns							
Europe All Private Equity Direct*	29.5	25.0	22.8	15.5	15.6	819	871.9
Europe Fund of Funds	22.6	17.7	16.2	10.5	9.4	68	31.7
Europe Secondary Funds	20.3	15.1	15.5	13.5	13.4	39	19.7
Asia Pooled Returns							
Asia All Private Equity Direct*	15.5	17.9	16.1	14.3	13.3	726	406.2
Asia Fund of Funds	6.0	16.0	14.6	12.9	10.8	62	23.3
Global Pooled Returns							
Global All Private Equity Direct**	23.9	21.6	16.5	13.3	11.5	215	271.5
Global Fund of Funds **	38.6	27.6	21.6	14.7	12.4	84	34.7
Global Secondary Funds **	38.7	23.1	20.8	17.4	15.8	17	32.0
All Region Pooled Returns							
All Regions Private Equity Direct*	36.2	27.0	21.9	16.9	12.7	6,090	4,546.9
All Regions Fund of Funds	39.0	28.3	21.1	14.7	11.1	718	257.0
All Regions Secondary Funds	49.3	37.8	29.8	21.3	15.6	363	377.4
Public Index							
Russell 3000	25.7	25.8	18.0	16.3	9.7		
MSCI Europe	16.3	14.9	10.1	8.2	6.3		
MSCI AC Asia Pacific	(1.5)	12.1	9.9	8.0	7.5		
MSCI ACWI	18.5	20.4	14.4	11.9	8.0		

** All Private Equity excludes Natural Resource, Infrastructure, Real Estate, Fund of Funds and Secondary Funds.*
*** Global Funds invest across the globe, without any targeted regions for investment.*
Source: Thomson Reuters C|A as of December 31, 2021

Pooled returns outperformance

Outperformance vs. Public Index	1 Year	3 Year	5 Year	10 Year	20 Year
U.S. Outperformance					
U.S. All Private Equity Direct*	17.8	4.2	5.7	2.0	3.7
U.S. Fund of Funds	22.4	6.3	4.8	(0.6)	1.4
U.S. Secondary Funds	14.4	(1.1)	2.2	(1.7)	4.0
Europe Outperformance					
Europe All Private Equity Direct*	13.2	10.1	12.7	7.3	9.4
Europe Fund of Funds	6.3	2.8	6.1	2.3	3.2
Europe Secondary Funds	4.0	0.2	5.3	5.3	7.1
Asia Outperformance					
Asia All Private Equity Direct*	17.0	5.8	6.2	6.3	5.8
Asia Fund of Funds	7.5	4.0	4.7	4.9	3.3
Global Outperformance					
Global All Private Equity Direct**	5.3	1.2	2.1	1.5	3.5
Global Fund of Funds **	20.1	7.3	7.2	2.8	4.4
Global Secondary Funds **	20.2	2.8	6.4	5.6	-
All Region Outperformance					
All Regions Private Equity Direct*	17.7	6.6	7.5	5.0	4.7
All Regions Fund of Funds	20.5	8.0	6.7	2.8	3.1
All Regions Secondary Funds	30.7	17.4	15.4	9.4	7.7

* *All Private Equity excludes Natural Resource, Infrastructure, Real Estate, Fund of Funds and Secondary Funds.*
** *Global Funds invest across the globe, without any targeted regions for investment.*
Source: Thomson Reuters C|A as of December 31, 2021

U.S. returns

U.S. Pooled Returns	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
U.S. Venture Capital	54.6	41.2	29.5	20.8	11.5	2,203	520.3
U.S. Growth Equity	49.3	37.8	29.8	21.3	15.6	363	377.4
U.S. Buyouts	38.5	26.0	21.6	17.8	14.4	1,024	1,556.0
U.S. Debt-Related	32.4	16.8	13.9	12.6	11.6	495	473.2
U.S. All Private Equity *	**43.5**	**30.0**	**23.6**	**18.3**	**13.4**	**4,085**	**2,927.0**
Public Index							
S&P 500	28.7	26.1	18.5	16.6	9.5		
Russell 3000	25.7	25.8	18.0	16.3	9.7		
Barclay's Aggregate	(1.5)	4.8	3.6	2.9	4.3		
Outperformance							
All PE Outperformance*	17.8	4.2	5.7	2.0	3.7		
Debt-Related Outperformance	34.0	12.0	10.3	9.7	7.3		

** All Private Equity excludes Natural Resource, Infrastructure, Real Estate, Fund of Funds and Secondary Funds.*

Source: Thomson Reuters C|A as of December 31, 2021

Europe returns

Europe Pooled Returns	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
Europe Venture	67.3	48.2	38.0	23.2	12.9	183	38.2
Europe Growth Equity	40.4	26.7	26.6	17.1	15.6	56	18.9
Europe Buyouts	29.2	25.4	23.3	15.6	16.4	495	711.6
Europe Debt-Related	6.2	8.8	10.4	8.4	8.8	85	103.2
Europe All Private Equity *	**29.5**	**25.0**	**22.8**	**15.5**	**15.6**	**819**	**871.9**
Public Index							
MSCI Europe	16.3	14.9	10.1	8.2	6.3		
Barclays Pan European Aggregate	(9.0)	4.2	2.6	4.0	4.2		
Outperformance							
All PE Outperformance*	13.2	10.1	12.7	7.3	9.4		
Debt-Related Outperformance	15.2	4.6	7.8	4.5	4.5		

** All Private Equity excludes Natural Resource, Infrastructure, Real Estate, Fund of Funds and Secondary Funds.*

Source: Thomson Reuters C|A as of December 31, 2021

Sub-asset class returns

U.S. Pooled Returns	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
U.S. Venture Capital	54.6	41.2	29.5	20.8	11.5	2,203	520.3
U.S. Growth Equity	49.3	37.8	29.8	21.3	15.6	363	377.4
U.S. Buyouts	38.5	26.0	21.6	17.8	14.4	1,024	1,556.0
U.S. Debt-Related	32.4	16.8	13.9	12.6	11.6	495	473.2
U.S. All Private Equity *	**43.5**	**30.0**	**23.6**	**18.3**	**13.4**	**4,085**	**2,927.0**

Asia	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
Asia All Private Equity *	15.5	17.9	16.1	14.3	13.3	726	406.2

Europe Pooled Returns	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
Europe Venture	67.3	48.2	38.0	23.2	12.9	183	38.2
Europe Growth Equity	40.4	26.7	26.6	17.1	15.6	56	18.9
Europe Buyouts	29.2	25.4	23.3	15.6	16.4	495	711.6
Europe Debt-Related	6.2	8.8	10.4	8.4	8.8	85	103.2
Europe All Private Equity *	**29.5**	**25.0**	**22.8**	**15.5**	**15.6**	**819**	**871.9**

** All Private Equity excludes Natural Resource, Infrastructure, Real Estate, Fund of Funds and Secondary Funds.*

Source: Thomson Reuters C|A as of December 31, 2021

Sub-asset class returns – Debt

Pooled Returns	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
Global Subordinated Capital	19.8	12.8	12.6	11.9	10.8	182	122.7
U.S. Subordinated Capital	21.0	11.7	11.4	11.7	10.5	147	100.7
Europe Subordinated Capital	17.0	17.4	17.7	12.5	12.8	19	18.5
Public Index							
S&P / LSTA Leveraged Loan Index	5.2	5.6	4.3	4.7	--		
Outperformance							
Global Subordinated Capital	14.6	7.2	8.3	7.2	-		
U.S. Subordinated Capital	15.8	6.1	7.1	7.0	-		
Europe Subordinated Capital	11.8	11.8	13.4	7.8	-		

Pooled Returns	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
Global Credit Opportunities	16.2	8.5	8.2	9.6	9.9	281	294.8
U.S. Credit Opportunities	20.1	9.7	9.1	9.4	10.0	169	168.6
Europe Credit Opportunities	1.5	7.0	9.2	8.6	--	25	24.6
Public Index							
S&P / LSTA Leveraged Loan Index	5.2	5.6	4.3	4.7	--		
Outperformance							
Global Credit Opportunities	11.0	2.9	3.9	4.9	-		
U.S. Credit Opportunities	14.9	4.1	4.8	4.7	-		
Europe Credit Opportunities	(3.7)	1.4	4.9	3.9	-		

Pooled Returns	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
Global Senior Debt	6.0	7.0	7.9	7.3	7.4	88	93.5
U.S. Senior Debt	11.7	7.4	7.5	7.7	7.2	54	36.7
Europe Senior Debt	2.1	6.5	8.2	--	--	24	45.5
Public Index							
S&P / LSTA Leveraged Loan Index	5.2	5.6	4.3	4.7	--		
Outperformance							
Global Senior Debt	0.8	1.4	3.6	2.6	-		
U.S. Senior Debt	6.5	1.8	3.2	3.0	-		
Europe Senior Debt	(3.1)	0.9	3.9	-	-		

Pooled Returns	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
Global Control-Oriented Distressed	41.9	21.3	15.8	13.7	12.2	187	241.6
U.S. Control-Oriented Distressed	48.3	25.6	19.5	16.1	14.0	125	167.3
Europe Control-Oriented Distressed	12.7	7.4	9.2	7.0	6.9	17	14.6
Public Index							
S&P / LSTA Leveraged Loan Index	5.2	5.6	4.3	4.7	--		
Outperformance							
Global Control-Oriented Distressed	36.7	15.7	11.5	9.0	-		
U.S. Control-Oriented Distressed	43.1	20.0	15.2	11.4	-		
Europe Control-Oriented Distressed	7.5	1.8	4.9	2.3	-		

Sub-asset class returns – Fund of Funds

Fund of Funds by Geography	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
U.S. Fund of Funds	48.0	32.1	22.7	15.7	11.1	493	165.7
Europe Fund of Funds	22.6	17.7	16.2	10.5	9.4	68	31.7
Asia Fund of Funds	6.0	16.0	14.6	12.9	10.8	62	23.3
Global Fund of Funds **	38.6	27.6	21.6	14.7	12.4	84	34.7
All Fund of Funds	**39.0**	**28.3**	**21.1**	**14.7**	**11.1**	**718**	**257.0**
Public Index							
Russell 3000	25.7	25.8	18.0	16.3	9.7		
MSCI Europe	16.3	14.9	10.1	8.2	6.3		
MSCI AC Asia Pacific	(1.5)	12.1	9.9	8.0	7.5		
MSCI ACWI	18.5	20.4	14.4	11.9	8.0		
Outperformance							
U.S. Fund of Funds	22.4	6.3	4.8	(0.6)	1.4		
Europe Fund of Funds	24.1	5.6	6.3	2.5	1.9		
Asia Fund of Funds	(12.5)	(4.3)	0.2	1.0	2.8		
Global Fund of Funds **	38.6	27.6	21.6	14.7	12.4		

*** Global Funds invest across the globe, without any targeted regions for investment.*

Source: Thomson Reuters C|A as of December 31, 2021

Sub-asset class returns – Fund of Funds

Fund of Funds by Sub Asset Class (1)	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
U.S. Buyout Fund of Funds	29.0	18.3	15.4	12.8	9.8	185	64.3
U.S. Venture Capital Fund of Funds	57.3	39.3	26.8	17.9	11.4	188	56.8
U.S. Venture Capital & Buyout Fund of Funds	46.9	32.8	23.6	16.4	11.0	120	44.6
U.S. Fund of Funds	**48.0**	**32.1**	**22.7**	**15.7**	**11.1**	**493**	**165.7**
Europe Buyout Fund of Funds	19.7	14.1	14.3	9.6	9.0	56	25.6
Europe VC & Buyout Fund of Funds	25.6	23.0	19.9	14.3	11.9	10	5.9
Europe Fund of Funds	**22.6**	**17.7**	**16.2**	**10.5**	**9.4**	**68**	**31.7**
Asia Buyout Fund of Funds	(0.9)	12.8	12.8	12.7	11.3	38	12.6
Asia VC & Buyout Fund of Funds	15.5	22.5	19.4	13.4	9.3	23	10.5
Asia Fund of Funds	**6.0**	**16.0**	**14.6**	**12.9**	**10.8**	**62**	**62.0**
Global Buyout Fund of Funds **	16.6	12.2	12.4	10.1	10.3	50	21.0
Global Venture Capital Fund of Funds **	56.6	43.2	33.7	26.8	20.0	18	9.2
Global VC & Buyout Fund of Funds **	19.2	19.3	16.0	11.9	10.2	16	4.4
**Global Fund of Funds ** **	**38.6**	**27.6**	**21.6**	**14.7**	**12.4**	**84**	**34.7**

Fund of Funds by Sub Asset Class (1)	1 Year	3 Year	5 Year	10 Year	20 Year
Public Index					
Russell 3000	25.7	25.8	18.0	16.3	9.7
MSCI Europe	16.3	14.9	10.1	8.2	6.3
MSCI AC Asia Pacific	(1.5)	12.1	9.9	8.0	7.5
MSCI ACWI	18.5	20.4	14.4	11.9	8.0
Outperformance vs. Public Index					
U.S. Buyout Fund of Funds	3.3	(7.5)	(2.6)	(3.5)	0.1
U.S. Venture Capital Fund of Funds	31.6	13.5	8.9	1.6	1.7
U.S. Venture Capital & Buyout Fund of Funds	21.2	7.0	5.6	0.1	1.3
U.S. Fund of Funds	**22.4**	**6.3**	**4.8**	**(0.6)**	**1.4**
Europe Buyout Fund of Funds	3.4	(0.8)	4.2	1.4	2.8
Europe VC & Buyout Fund of Funds	9.3	8.1	9.8	6.2	5.6
Europe Fund of Funds	**6.3**	**2.8**	**6.1**	**2.3**	**3.2**
Asia Buyout Fund of Funds	0.6	0.8	2.9	4.7	3.8
Asia VC & Buyout Fund of Funds	17.0	10.4	9.5	5.4	-
Asia Fund of Funds	**7.5**	**4.0**	**4.7**	**4.9**	**3.3**
Global Buyout Fund of Funds **	(2.0)	(8.1)	(2.0)	(1.8)	2.3
Global Venture Capital Fund of Funds **	38.1	22.8	19.3	14.9	-
Global VC & Buyout Fund of Funds **	0.6	(1.1)	1.6	0.0	-
**Global Fund of Funds ** **	**20.1**	**7.3**	**7.2**	**2.8**	**4.4**

*** Global Funds invest across the globe, without any targeted regions for investment.*

(1) All Fund of Funds may occasionally co-invest in private companies and/ or invest in secondary transactions.

Europe and Asia Venture Capital Fund of Funds have less than 3 funds and therefore included in the All Europe and Asia FoF pooled returns.

Source: Thomson Reuters C|A as of December 31, 2021

Sub-asset class returns - Secondaries

Secondary Funds	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
U.S. Secondary Funds	40.0	24.7	20.2	14.6	13.7	227	227.7
Europe Secondary Funds	20.3	15.1	15.5	13.5	13.4	39	19.7
Global Secondary Funds **	38.7	23.1	20.8	17.4	15.8	17	32.0
All Secondary Funds (1)	**49.3**	**37.8**	**29.8**	**21.3**	**15.6**	**363**	**377.4**
Public Index							
Russell 3000	25.7	25.8	18.0	16.3	9.7		
MSCI Europe	16.3	14.9	10.1	8.2	6.3		
MSCI ACWI	18.5	20.4	14.4	11.9	8.0		
Outperformance							
U.S. Secondary Funds	14.4	(1.1)	2.2	(1.7)	4.0		
Europe Secondary Funds	4.0	0.2	5.3	5.3	7.1		
Global Secondary Funds **	20.2	2.8	6.4	5.6	7.8		

*** Global Funds invest across the globe, without any targeted regions for investment.*
(2) Regions that have less than 3 funds are only included in the All Secondary Funds pooled returns.
Source: Thomson Reuters C|A as of December 31, 2021

Geography and approach

Pooled Returns by Geography	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
U.S. All Private Equity *	43.5	30.0	23.6	18.3	13.4	4,085	2,927.0
Europe All Private Equity *	29.5	25.0	22.8	15.5	15.6	819	871.9
Asia All Private Equity *	15.5	17.9	16.1	14.3	13.3	726	406.2
Public Index							
Russell 3000	25.7	25.8	18.0	16.3	9.7		
MSCI Europe	16.3	14.9	10.1	8.2	6.3		
MSCI AC Asia Pacific	(1.5)	12.1	9.9	8.0	7.5		
Outperformance vs. Public Index							
U.S. All Private Equity *	17.8	4.2	5.7	2.0	3.7		
Europe All Private Equity *	13.2	10.1	12.7	7.3	9.4		
Asia All Private Equity *	17.0	5.8	6.2	6.3	5.8		

Pooled Returns by Implementation Approach	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
U.S. Pooled Returns							
U.S. All Private Equity Direct*	43.5	30.0	23.6	18.3	13.4	4,085	2,927.0
U.S. Fund of Funds	48.0	32.1	22.7	15.7	11.1	493	165.7
U.S. Secondary Funds	40.0	24.7	20.2	14.6	13.7	227	227.7
Europe Pooled Returns							
Europe All Private Equity Direct*	29.5	25.0	22.8	15.5	15.6	819	871.9
Europe Fund of Funds	22.6	17.7	16.2	10.5	9.4	68	31.7
Europe Secondary Funds	20.3	15.1	15.5	13.5	13.4	39	19.7
Asia Pooled Returns							
Asia All Private Equity Direct*	15.5	17.9	16.1	14.3	13.3	726	406.2
Asia Fund of Funds	6.0	16.0	14.6	12.9	10.8	62	23.3
Global Pooled Returns							
Global All Private Equity Direct**	23.9	21.6	16.5	13.3	11.5	215	271.5
Global Fund of Funds **	38.6	27.6	21.6	14.7	12.4	84	34.7
Global Secondary Funds **	38.7	23.1	20.8	17.4	15.8	17	32.0
All Region Pooled Returns							
All Regions Private Equity Direct*	36.2	27.0	21.9	16.9	12.7	6,090	4,546.9
All Regions Fund of Funds	39.0	28.3	21.1	14.7	11.1	718	257.0
All Regions Secondary Funds	49.3	37.8	29.8	21.3	15.6	363	377.4
Public Index							
Russell 3000	25.7	25.8	18.0	16.3	9.7		
MSCI Europe	16.3	14.9	10.1	8.2	6.3		
MSCI AC Asia Pacific	(1.5)	12.1	9.9	8.0	7.5		
MSCI ACWI	18.5	20.4	14.4	11.9	8.0		

** All Private Equity excludes Natural Resource, Infrastructure, Real Estate, Fund of Funds and Secondary Funds.*
Source: Thomson Reuters C|A as of December 31, 2021

Geography and approach (cont.)

Pooled Returns by Implementation Approach	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Global Pooled Returns							
Global All Private Equity Direct**	23.9	21.6	16.5	13.3	11.5	215	271.5
Global Fund of Funds **	38.6	27.6	21.6	14.7	12.4	84	34.7
Global Secondary Funds **	38.7	23.1	20.8	17.4	15.8	17	32.0
All Region Pooled Returns							
All Regions Private Equity Direct*	36.2	27.0	21.9	16.9	12.7	6,090	4,546.9
All Regions Fund of Funds	39.0	28.3	21.1	14.7	11.1	718	257.0
All Regions Secondary Funds	49.3	37.8	29.8	21.3	15.6	363	377.4
Public Index							
Russell 3000	25.7	25.8	18.0	16.3	9.7		
MSCI Europe	16.3	14.9	10.1	8.2	6.3		
MSCI AC Asia Pacific	(1.5)	12.1	9.9	8.0	7.5		
MSCI ACWI	18.5	20.4	14.4	11.9	8.0		

Outperformance vs. Public Index	1 Year	3 Year	5 Year	10 Year	20 Year
U.S. Outperformance					
U.S. All Private Equity Direct*	17.8	4.2	5.7	2.0	3.7
U.S. Fund of Funds	22.4	6.3	4.8	(0.6)	1.4
U.S. Secondary Funds	14.4	(1.1)	2.2	(1.7)	4.0
Europe Outperformance					
Europe All Private Equity Direct*	13.2	10.1	12.7	7.3	9.4
Europe Fund of Funds	6.3	2.8	6.1	2.3	3.2
Europe Secondary Funds	4.0	0.2	5.3	5.3	7.1
Asia Outperformance					
Asia All Private Equity Direct*	17.0	5.8	6.2	6.3	5.8
Asia Fund of Funds	7.5	4.0	4.7	4.9	3.3
Global Outperformance					
Global All Private Equity Direct**	5.3	1.2	2.1	1.5	3.5
Global Fund of Funds **	20.1	7.3	7.2	2.8	4.4
Global Secondary Funds **	20.2	2.8	6.4	5.6	-
All Region Outperformance					
All Regions Private Equity Direct*	17.7	6.6	7.5	5.0	4.7
All Regions Fund of Funds	20.5	8.0	6.7	2.8	3.1
All Regions Secondary Funds	30.7	17.4	15.4	9.4	7.7

** All Private Equity excludes Natural Resource, Infrastructure, Real Estate, Fund of Funds and Secondary Funds.*
*** Global Funds invest across the globe, without any targeted regions for investment.*
Source: Thomson Reuters C|A as of December 31, 2021

Geographies with outperformance

U.S. Pooled Returns	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
U.S. Venture Capital	54.6	41.2	29.5	20.8	11.5	2,203	520.3
U.S. Growth Equity	49.3	37.8	29.8	21.3	15.6	363	377.4
U.S. Buyouts	38.5	26.0	21.6	17.8	14.4	1,024	1,556.0
U.S. Debt-Related	32.4	16.8	13.9	12.6	11.6	495	473.2
U.S. All Private Equity *	**43.5**	**30.0**	**23.6**	**18.3**	**13.4**	**4,085**	**2,927.0**
Public Index							
S&P 500	28.7	26.1	18.5	16.6	9.5		
Russell 3000	25.7	25.8	18.0	16.3	9.7		
Barclay's Aggregate	(1.5)	4.8	3.6	2.9	4.3		
Outperformance							
All PE Outperformance*	17.8	4.2	5.7	2.0	3.7		
Debt-Related Outperformance	34.0	12.0	10.3	9.7	7.3		

Europe Pooled Returns	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
Europe Venture	67.3	48.2	38.0	23.2	12.9	183	38.2
Europe Growth Equity	40.4	26.7	26.6	17.1	15.6	56	18.9
Europe Buyouts	29.2	25.4	23.3	15.6	16.4	495	711.6
Europe Debt-Related	6.2	8.8	10.4	8.4	8.8	85	103.2
Europe All Private Equity *	**29.5**	**25.0**	**22.8**	**15.5**	**15.6**	**819**	**871.9**
Public Index							
MSCI Europe	16.3	14.9	10.1	8.2	6.3		
Barclays Pan European Aggregate	(9.0)	4.2	2.6	4.0	4.2		
Outperformance							
All PE Outperformance*	13.2	10.1	12.7	7.3	9.4		
Debt-Related Outperformance	15.2	4.6	7.8	4.5	4.5		

Asia	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
Asia All Private Equity *	15.5	17.9	16.1	14.3	13.3	726	406.2
Public Index							
MSCI Emerging Markets	(2.5)	10.9	9.9	5.5	9.6		
MSCI AC Asia Pacific	(1.5)	12.1	9.9	8.0	7.5		
Outperformance							
Asia All Private Equity *	18.0	6.9	6.3	8.8	3.7		

** All Private Equity excludes Natural Resource, Infrastructure, Real Estate, Fund of Funds and Secondary Funds.*
Source: Thomson Reuters C|A as of December 31, 2021

Geographies with sub-asset classes excluding outperformance

Pooled Returns by Geography	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
U.S. All Private Equity *	43.5	30.0	23.6	18.3	13.4	4,085	2,927.0
Europe All Private Equity *	29.5	25.0	22.8	15.5	15.6	819	871.9
Asia All Private Equity *	15.5	17.9	16.1	14.3	13.3	726	406.2
LatAM All Private Equity *	25.3	11.5	9.1	4.9	6.3	77	30.8
Africa All Private Equity *	6.5	4.2	5.0	4.7	6.4	48	13.6
Middle East All Private Equity *	39.7	28.3	21.1	15.1	8.7	70	12.0

Europe Pooled Returns	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
Europe Venture	67.3	48.2	38.0	23.2	12.9	183	38.2
Europe Growth Equity	40.4	26.7	26.6	17.1	15.6	56	18.9
Europe Buyouts	29.2	25.4	23.3	15.6	16.4	495	711.6
Europe Debt-Related	6.2	8.8	10.4	8.4	8.8	85	103.2
Europe All Private Equity *	**29.5**	**25.0**	**22.8**	**15.5**	**15.6**	**819**	**871.9**

U.S. Pooled Returns	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
U.S. Venture Capital	54.6	41.2	29.5	20.8	11.5	2,203	520.3
U.S. Growth Equity	49.3	37.8	29.8	21.3	15.6	363	377.4
U.S. Buyouts	38.5	26.0	21.6	17.8	14.4	1,024	1,556.0
U.S. Debt-Related	32.4	16.8	13.9	12.6	11.6	495	473.2
U.S. All Private Equity *	**43.5**	**30.0**	**23.6**	**18.3**	**13.4**	**4,085**	**2,927.0**

Asia	1 Year	3 Year	5 Year	10 Year	20 Year	Fund Count	Total Capitalization ($B)
Private Equity Pooled Returns							
Asia All Private Equity *	15.5	17.9	16.1	14.3	13.3	726	406.2

* *All Private Equity excludes Natural Resource, Infrastructure, Real Estate, Fund of Funds and Secondary Funds.*
Source: Thomson Reuters C|A as of December 31, 2021