PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

PERIOD ENDING JUNE 30, 2022

Private Equity Review

San Mateo County Employees’ Retirement Association

Table of contents

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Market Commentary

DEBT RELATED

- **Decrease in both High Yield and Leveraged Loan issuance.** In the first half of 2022, US high yield issuance at $63.6 billion dropped 76.2% compared to 1H 2021[1]. Leverage loan issuance volume was $5612.5 billion in 1H 2022, down 18.9% from the same time last year[1]. In Europe, 1H 2022 LBO Loan volume at $21.6 billion was down 67.5% from 1H 2021 and down 84.3% from $137.7 billion peak in 2007[4].
- **Spreads loosened across the board.** Compared to 1H 2021, HY Credit Index spread increased by 274 bps or 86.2%[2] in 1H 2022. BB and B index loosened by 162 bps and 238 bps, increasing by 52.3%[2] and 53.7%[2]. And CCC index spread increased by 44.8%[2] in the first half of 2022.
- **LBO debt levels increased slightly, while interest coverage improved in US.** US new issue loans total leverage averaged 5.9x (Debt / EBITDA) in 1H 2021, up 1.4% from 2021[3]. Interest coverage averaged 3.8x (EBITDA / Cash Interest), up 7.7% from 2021[3]. In Europe, leverage multiples increased 7.6% to 6.0x in 1H 2022[4], 2.8% below 6.1x peak in 2007[4].

GLOBAL

- **Investment activity and average deal size increased.** During 1H 2022, global PE firms invested in $1.1 trillion worth of deals, up 22.5% from the same time prior year. With 35,277 transactions closed, down 8.8%[5], average deal size increased, up 35.4% [5].
- **PE dry powder deceased globally.** Total global PE dry powder was at $2.2 trillion as of June 30, 2022, down 27.7% from 1H 2021[5]. US total PE was down by 25.5% to $1.6 trillion[5]; Europe total PE decreased by 34.1% to $441.7 brillion[5]; Asia total PE was down by 24.6% to $142.7 billion[5]; and the rest of world total PE was down by 43.8% to $35.0 billion[5].

US BUYOUTS

- **Fundraising activity increased.** In 1H 2022, US firms across all buyout strategies raised $134.4 billion, up by 32.3% from same time prior year[5]. Average fund size was down 7.2%, from $1.0 billion in 1H 2021 to $933.4 million in 1H 2022[5].
- **Investment activity was up.** During 1H 2022, US buyout firms invested in $410.6 million (+18.0% from 1H 2021) into 3,230 deals (+16.2%)[5]. Q1 total deal value represents 2/3 the total values in the first half of 2022 with significant drop in the second quarter.
- **Dry powder decreased.** In 1H 2022, US buyout dry powder was $916.2 billion, down by 23.8% from the same time in 2021[5].
- **LBO price multiples increased significantly.** As of June 30, 2022, US LBO purchase price multiple (Enterprise Value / EBITDA) was at 12.1x , an 8.9% increase from June 30, 2021[3]; a function of deals inked in late 2021 and closed in Q1 2022.
- **Exit activity decreased.** During the first half of 2022, US buyout firms exited 424 companies (51.5% Sponsor Acquisition, 46.1% Corporate Acquisition, and 2.4% Public Listing), representing $140.6 billion in total transaction value[5]. This represented a 51.5% decrease in the number of exits and a 14.5% decrease in total transaction value compared to the same time last year[5].

Market Commentary

US VENTURE CAPITAL

— **Fundraising activity increased.** US VC firms raised $121.5 billion during the first six months of 2022, a 63.9% increase from the same period last year[5]. 415 funds closed in 1H 2022, a 22.8% increase from the same period last year[5]. The average US VC fund size increased to $292.7 million by 33.5% versus the same period last year[5].

— **Investment activity increased with smaller deal size.** US VC firms deployed $144.2 billion in capital in 1H 2021, a 3.9% decrease from 1H 2020. The number of deals closed at 7,841, a 11.1% increase from the same time last year[5]. Average deal size decreased 13.5% from 1H 2020.

— **Dry powder decreased.** In 1H 2022, US VC dry powder was at $113.7 billion, down 57.2% from the first six months in 2021[5].

— **Entry valuation and deals size trends mixed by stage:**

- **Entry valuations.** Compared to June 30, 2021, the average pre-money valuations in 1H 2022 were: down 21% at $4.0 million[5] for Angel stage, up 50% at $12.0 million[5] for Seed stage, up 42.9% at $60.0 million[5] for early-stage VC, and down 23.1% at $105.0 million[5] for late-stage VC.
- **Deal sizes.** Average deal size decreased by $36.3 million or 13.4% in late-stage VC[5]. All other stage deal sizes increased: $1.3 million (62.9%) for Angel stage, $4.0 million (34.1%) for Seed stage, and $17.0 million (18.7%) for early-stage VC. Compared to 3 years ago, the average deal size of Angel-, Seed-, Early- and Late-stage investments were down 15.2%, 85.2%, 98.4%, and 100.5%, respectively[5].

— **Exit activity decreased significantly with smaller transactions.** US VC firms exited 633 companies in the first six months in 2022, down by 9.4% from the same time last year[5]. This represented $48.8 billion in transaction value, down by 86.9% from the same period last year[5]. Largest sectors exited were Software and Pharma & Biotech. Notwithstanding the Y-Y drop, compared to three years ago, exit volume was up 51.1% with transaction value up 70.3%[5].

EX US

— **Ex-US fundraising was down.** In 1H 2022, ex-US fundraising decreased 13.7% from the same time in 2021 to $162.4 billion[5]. Fundraising in Asia decreased by 7.5% to $52.8 billion[5], while Europe was down by 41.9% to $42.1 billion[5].

— **Capital deployment increased in Europe, but dropped in Asia.**

- **Buyout deal activity and capital deployment rose in Europe, but dropped in Asia.** In Europe, buyout firms transacted $311.6 billion in aggregate value (+31.8% from 1H 2021)[5]. Asia buyout firms invested $16.4 billion in aggregate value (-25.2%)[5].
- **In Europe, VCs invested more capital into more deals while Asia VC invested less .** In the first 6 months in 2022, investment activity increased by 26.2% in Europe with 15.6% increase in capital deployed at $57.0 billion. In Asia, however, Asian VCs invested in 52.6% fewer deals compared to 1H 2021, deploying $23.1 billion, a 62.4% decrease from last year.

Market Commentary

- **Dry powder decreased ex-US.** PE dry powder outside the US decreased 32.8% to $619.4 billion[5] in 1H 2022. Dry powder outside the US was 60.9% less than dry powder in the US ($1.6 trillion)[5].
  - **Europe VC and buyout dry powder both down.** VC at $3.7 billion and buyout at $232.6 billion were down 78.1% and 41.5% from 1H 2021, respectively[5].
  - **In Asia, VC, buyout and growth dry powder decreased in parallel with US and Europe.** VC at $4.4 billion, buyout at $104.0 billion, and growth at $27.9 billion were down 26.9%, 72.0% and 21.3% from 2020, respectively[5].
- **Purchase price multiples decreased in Europe but increased in Asia .** As of June 30, 2022, European buyout median purchase price multiples decreased 18.5% from 9.3x to 7.6x EBITDA from the same time last year[5]. Asia buyout median purchase price multiples increased 48.7% from 8.9x to 13.3x EBITDA from the same time last year[5.]
- **Exit activity weaken in Europe and Asia.** Europe PE aggregate exit value amounted to $131.8 billion, a 34.8% decrease from 1H 2021, while Asia PE exit value dropped by 34.0% to $71.3 billion[5].

Notes

1. *White & Case Debt Explorer (August 11, 2022)*
2. *Guggenheim High-Yield Bank Loan Outlook (August 2022)*
3. *S&P Global US LBO Review (2Q 2022)*
4. *S&P Global LCD European Leveraged Buyout Review (2Q 2022)*
5. *Pitchbook (June 30, 2022)*

Spotlights

Spotlight: Late-stage VC valuations

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.

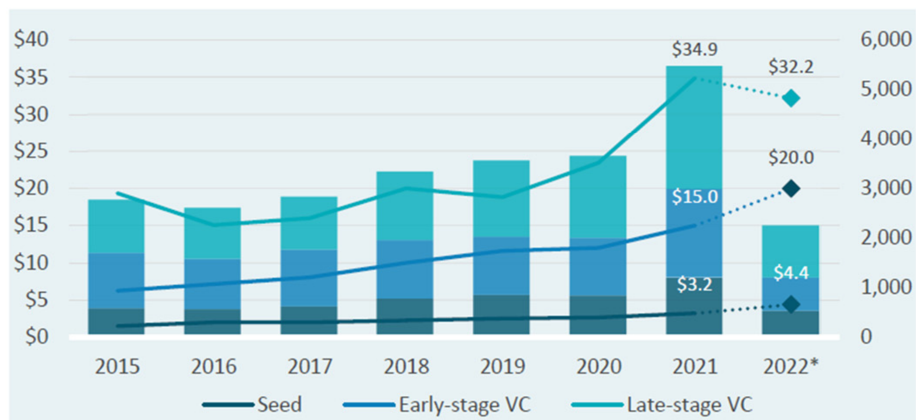
— Mega-rounds, of which nontraditional investors have been a major part, are being completed at a much slower pace as growth investors take a more cautious approach due to the volatility plaguing the public markets.

— 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.

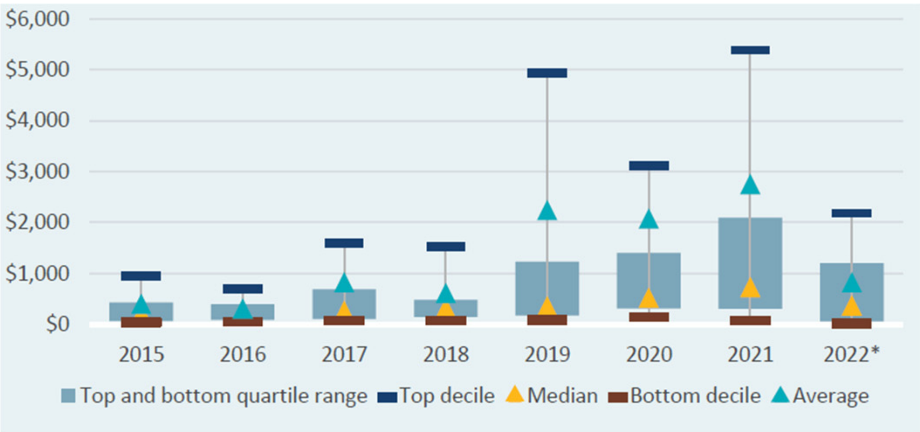
— IPOs continue to be essentially nonexistent for VC-backed businesses in 2022, with only 22 closed during the first half of the year relative to 183 in 2021 and 108 in 2020.

— 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.

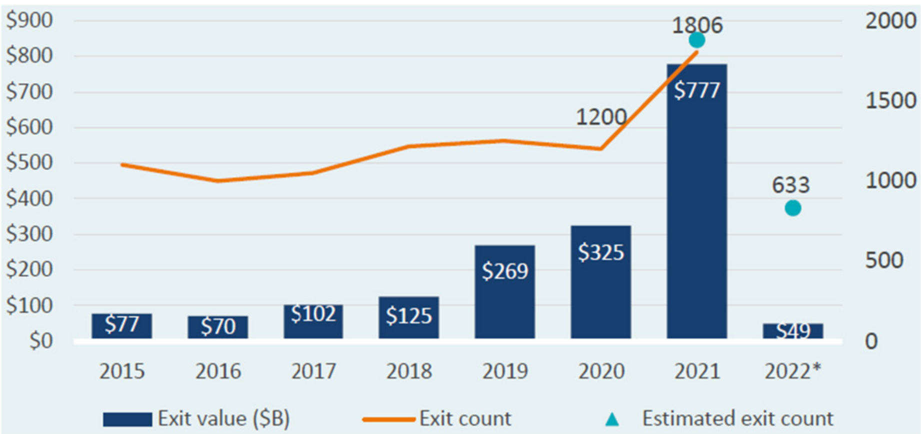
— Valuations for acquisitions have been steady relative to public market exits, with little movement in the median or average valuations over the first two quarters of the year, acquirers are still finding attractive opportunities in the VC universe.

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

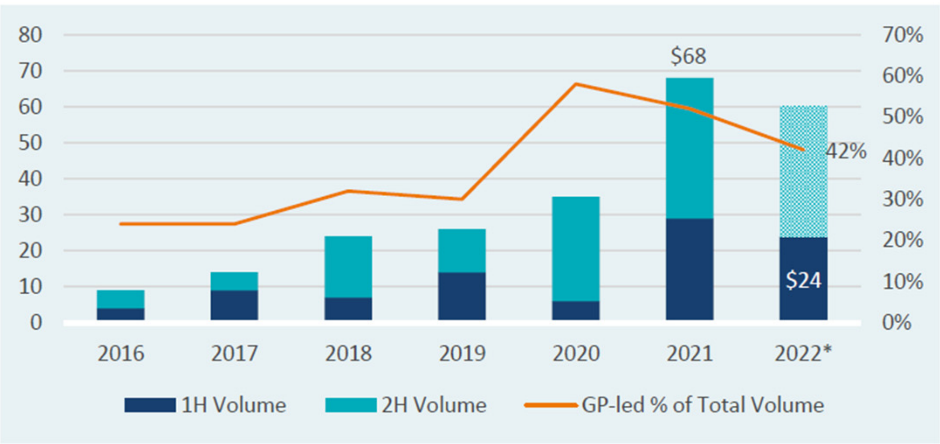
— One of the biggest trends in private equity over the last couple of years has been the rise of funds to extend the economic gains of performing assets. Continuation funds arrived on the private equity scene only recently but have quickly become established as an attractive part of the market, representing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

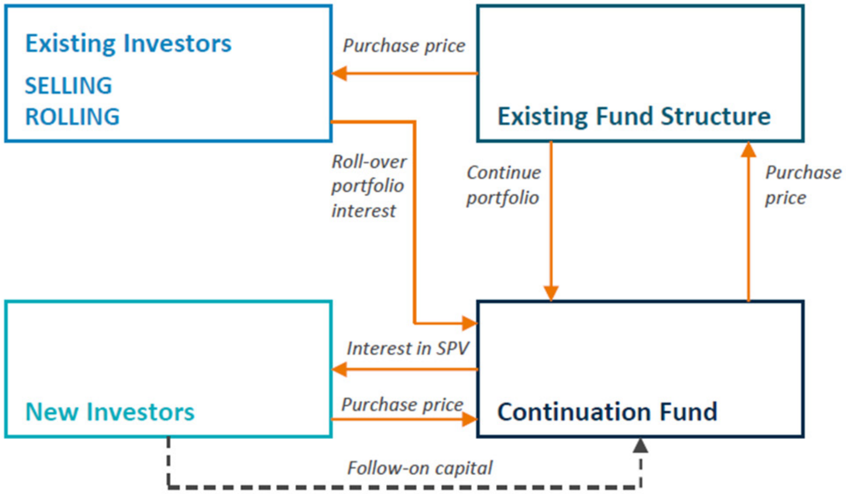
— Single asset continuation funds remain popular, forming the largest part of the Sponsor-led secondary market at ~45% of the volume, but are down vs. 2021 (~52%) with multi-asset transactions being increasingly prioritized by several secondary firms (~31% → ~34%).

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

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.

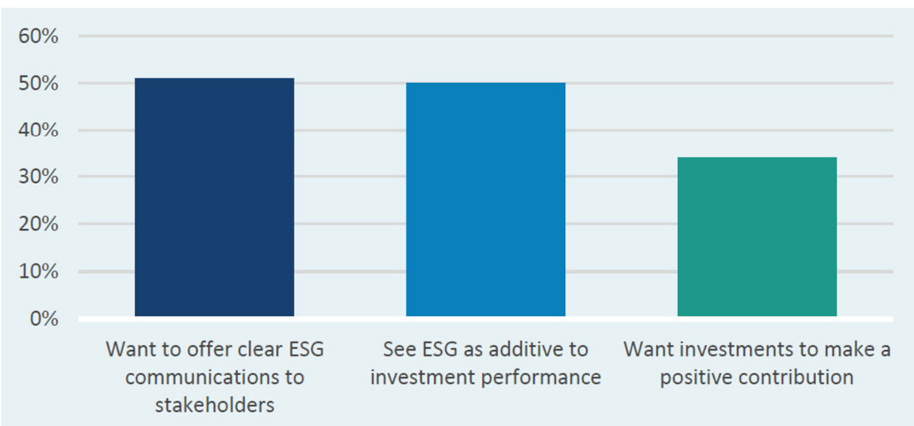
— As more ESG-mandated funds are raised, the SEC has begun to require increased transparency in ESG reporting with an aim to inform and protect investors while facilitating further innovation in this evolving area of the asset management industry.

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.

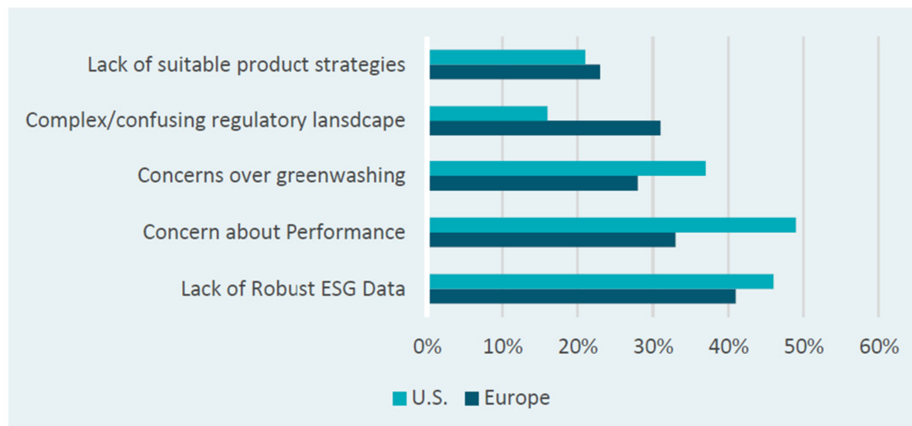
— Recently LPs are facing criticism about fiduciary responsibility from stakeholders over concerns about whether returns are being given second consideration in favor of sustainable investment practices.

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

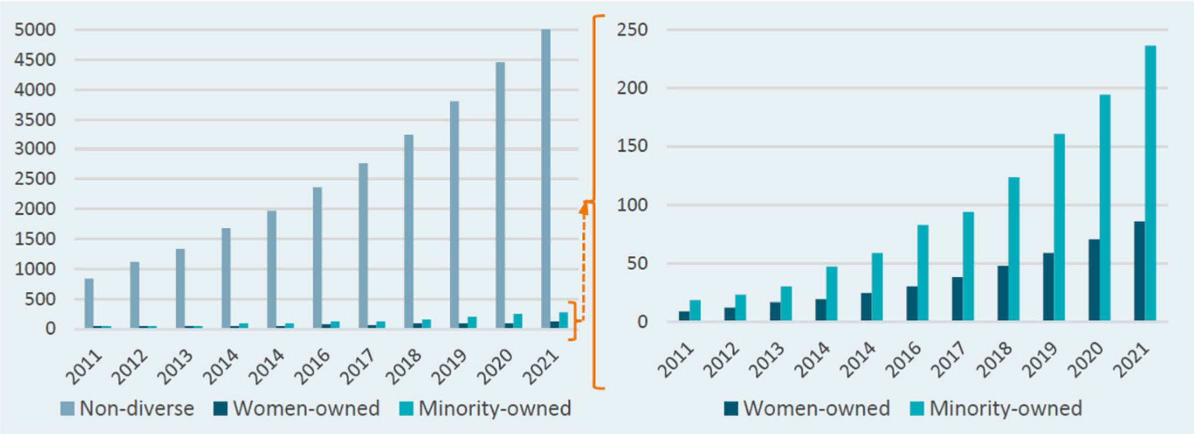
Current Environment

- 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

Private Equity portfolio

Portfolio Overview

Period Ending: June 30, 2022

Investment Type	Policy Target	Policy Range	Market Value %	Market Value $(000)	Unfunded Commitment $(000)	Market Value + Unfunded $(000)
SamCERA - Total Plan			**100.0%**	**5,671,344**		
Buyout (60% +/- 20%)	3.6%	2.4%-4.8%	3.3%	188,670	130,342	319,012
Venture Capital (20%, 0%-30%)	1.2%	1.0%-1.8%	2.1%	121,277	41,774	163,051
Debt-Related/Special Situations (20% +/- 10%)	1.2%	0.6%-1.8%	1.1%	64,635	38,231	102,866
Total Private Equity*	**6.0%**	**4%-8%**	**6.5%**	**374,581**	**210,347**	**584,927**

Portfolio Summary

— As of June 30, 2022, the Private Equity Portfolio had a total market value of $374.6MM, with $188.7M in Buyout, $121.3M in Venture Capital, and $64.6M in Debt-Related/Special Situations. Total market value is the current reported value of investments, excluding the remaining amount of unfunded commitments.

— Since its initial allocation to Private Equity, SamCERA has contributed $466.6M towards its Private Equity commitments, with $285.2M to Buyouts, $68.9M to Venture Capital, and $112.6M in Debt-Related / Special Situations. Unfunded commitments total $210.3M.

— The portfolio exposure at 6.5% is above the 6.0% policy target, but below the 7.0% target, effective July 1st, 2022. Compared to December 31, 2022, portfolio exposure is down 0.5%. Buyout exposure and Debt Related / Special Situations exposure remain below target but within policy range. Venture Capital is 0.9% above its policy target.

Portfolio Activity

— Thus far in 2022, SamCERA committed $25M to Altas Partners III, and $25M to Great Hill Equity Partners VIII, L.P.

— SamCERA completed the sale of its interest in two funds in the secondary market, with 100% of sale proceeds received in Q2'2022: JLL Partners Fund VII, L.P. and Angeles Equity Partners I, L.P.

**The Private equity Policy Target of 6.0% was increased to 7.0% effective 7/1/2022.*

Performance

— The Private Equity portfolio's performance, as measured by net IRR, is 20.4%, 780 bps above the same cash flow invested in Russell 3000 Total Return Index of 12.6%. Capital weighted average investment age of the portfolio is 5.1 years.

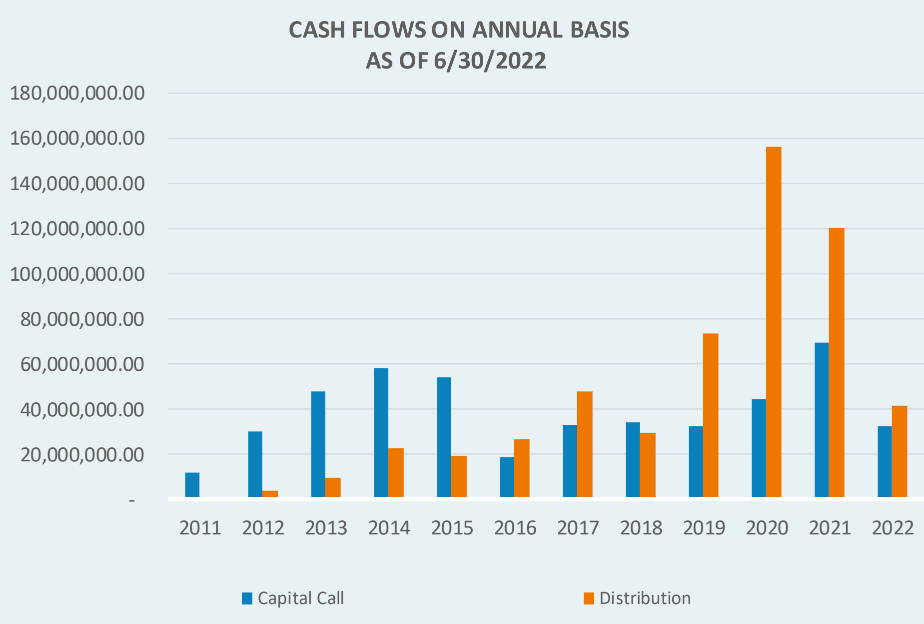
— The portfolio is currently valued at $374.6M. Together with $522.1M in realized distributions, the Total Value at $926.7M is approximately $460.0M above $466.6M in total capital contributions, resulting in a total value multiple of 1.99x and a distribution multiple of 1.18x.

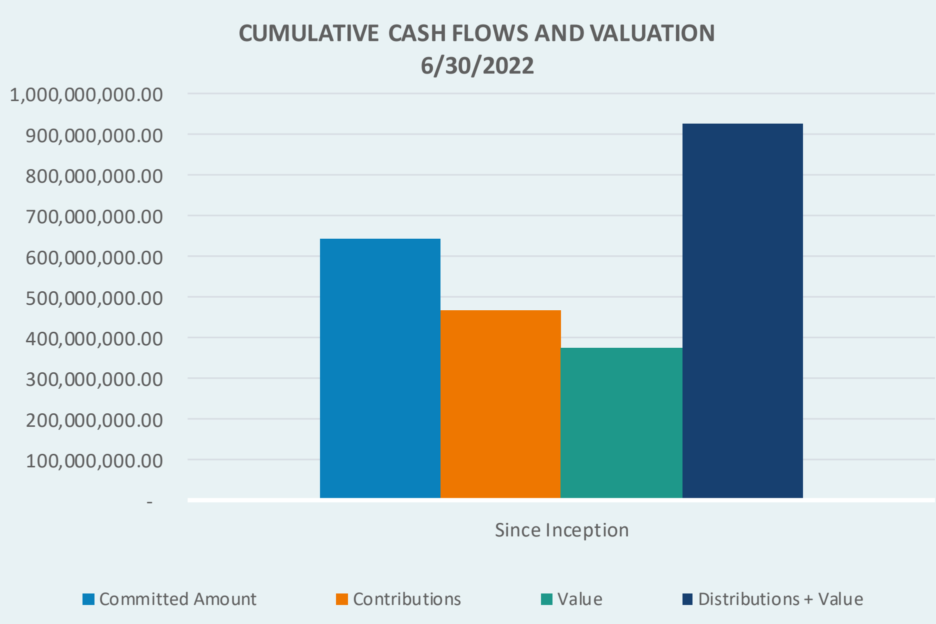
— Distributions ($41.4M) surpassed contributions ($32.6M) with a ratio of 1.3:1 thus far in 2022 compared to 1.7:1 in 2021 and 3.5:1 in 2020.

— Attribution of returns:

- Buyouts up $185.0M / 0.65x cost (Great Hill V & VII, Sycamore and JLL VII leading), with 98.8% of called capital realized and distributed;
- Venture Capital up $257.8M / 3.74x cost (Emergence Capital III, General Catalyst VI, Great Hill VI, and Third Rock III leading), with 298.2% of called capital realized and distributed;
- Debt-related/Special Situations up $16.9M / 0.15x cost (ABRY Advanced Securities II, ABRY Senior Equity V, and OHA Strategic Credit II leading), with 57.6% of called capital realized and distributed.

— Within Private Equity, the current allocation of market value exposure is 50.3% to Buyout, 32.4% to Venture Capital, and 1.3% to Debt-Related/Special Situations.



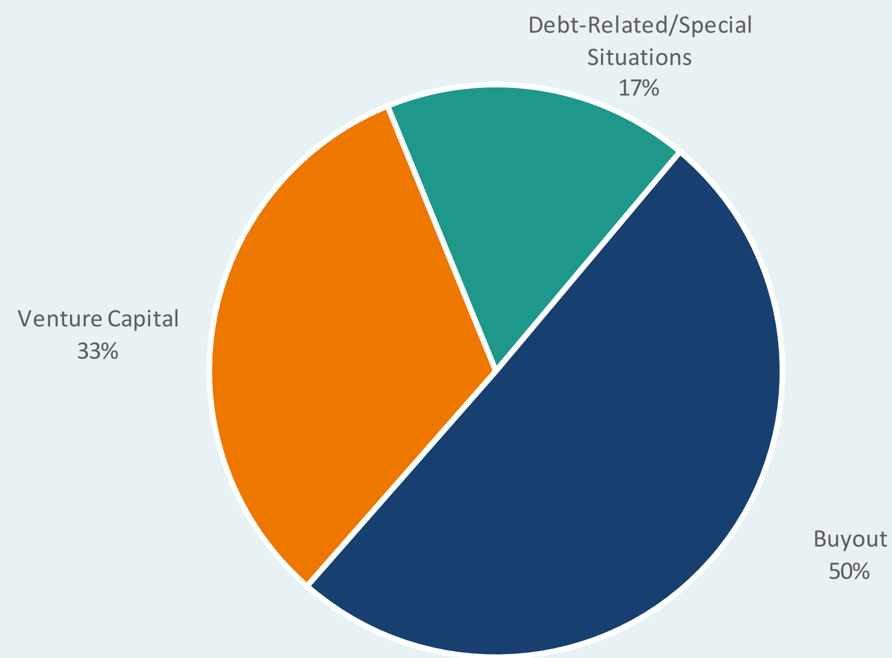


Portfolio Diversification
By Strategy

Period Ending: June 30, 2022

Investment Type	Commitment	Reported Value	Current Exposure as % of Private Equity
Buyout	386,501,040	188,670,306	50.4%
Venture Capital	110,500,000	121,276,780	32.4%
Debt-Related/Special Situations	144,500,000	64,634,626	17.3%
Total Private Equity	**641,501,040**	**374,581,715**	**100.0%**

Private Equity Portfolio: Current Exposure



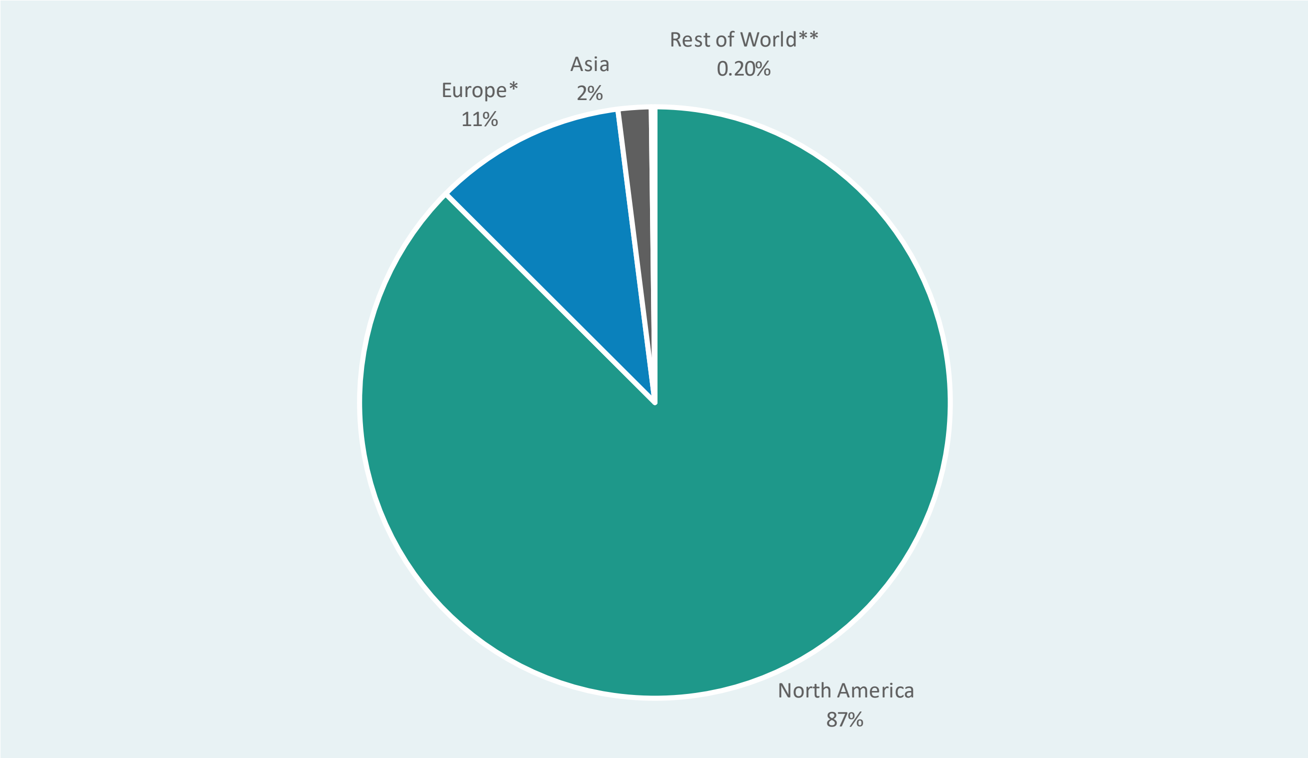
Portfolio Diversification
By Geography

Period Ending: June 30, 2022

Geography	Current Exposure
North America	327,624,785
Europe*	39,415,884
Asia	6,792,122
Rest of World**	748,920
Total Private Equity	**374,581,715**

** Europe includes 100% market value from Cevian II.*

*** Rest of World includes Kenya, United Arab Emirates, Turkey, and Brazil.*

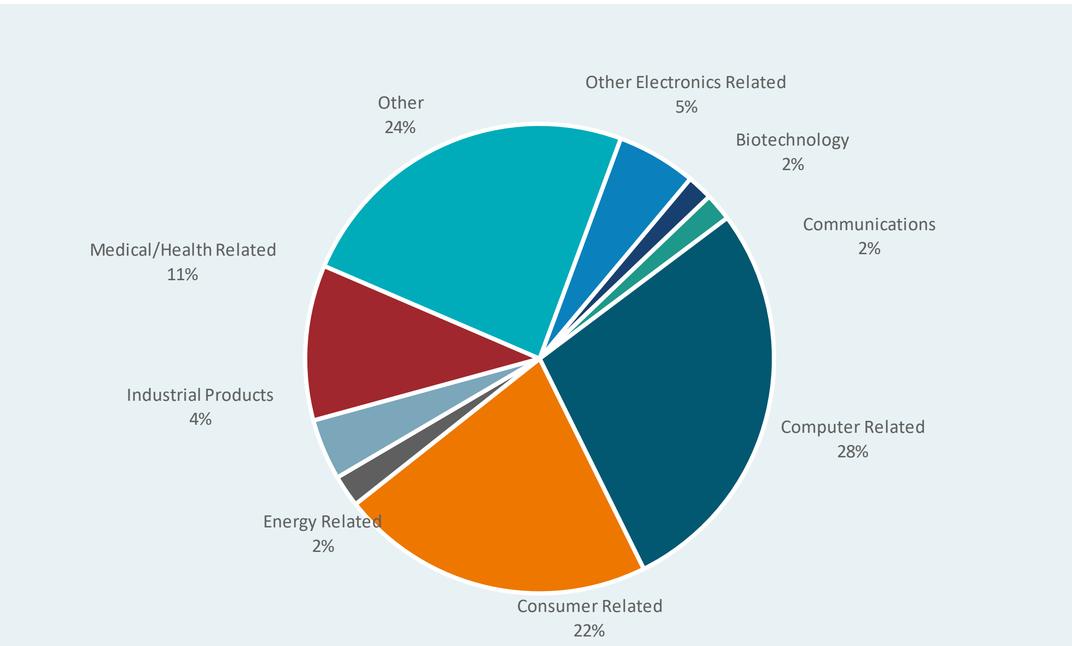


Based on the value of portfolio companies as of June 30, 2022, if provided by the partnerships. Differences between reported value and the total portfolio valuation is due to temporary cash funds, fees, other expenses, and holdings with undisclosed geography breakdown.

Portfolio Diversification
By Industry

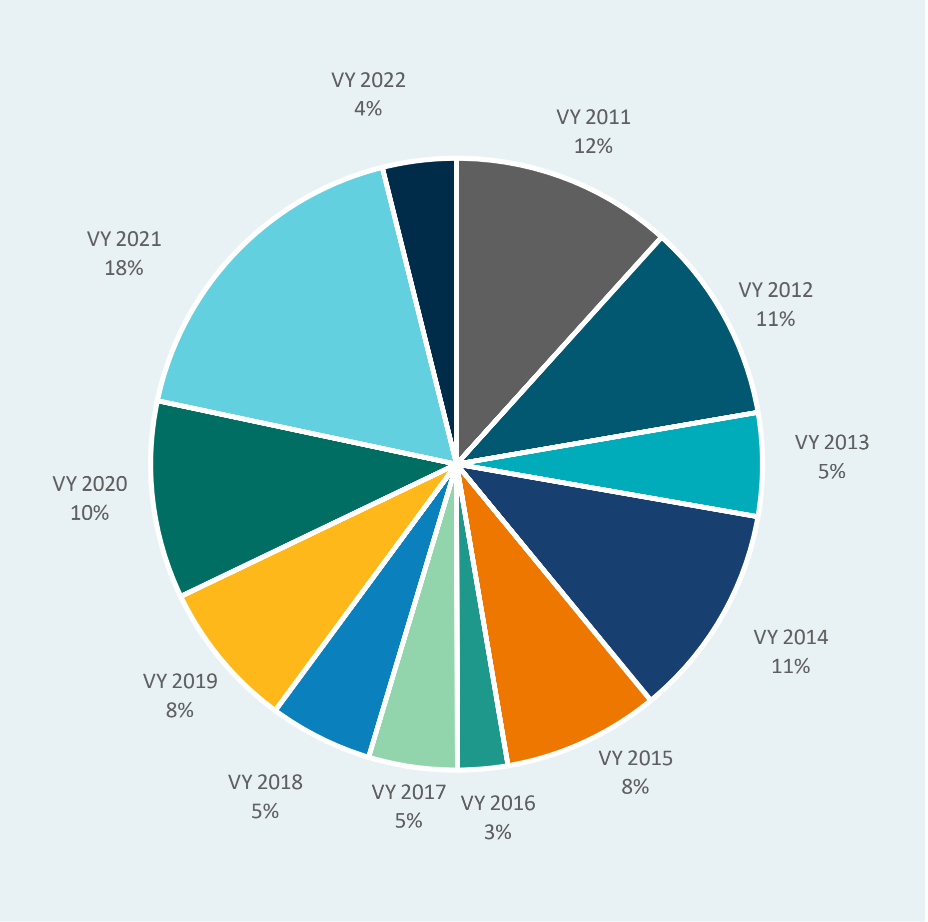
Period Ending: June 30, 2022

Industry	Current Exposure
Biotechnology	6,598,906
Communications	7,096,315
Computer Related	104,526,310
Consumer Related	81,245,981
Energy Related	8,232,452
Industrial Products	15,747,987
Medical/Health Related	40,075,721
Other	90,592,209
Other Electronics Related	20,486,663
Total Private Equity	**374,581,715**



Based on the value of portfolio companies as of June 30, 2022, if provided by the partnerships. Differences between reported value and the total portfolio valuation is due to temporary cash funds, fees, other expenses, and holdings with undisclosed geography breakdown.

Vintage Year	Commitment as of 6/30/2022	% of Portfolio Commitment	Reported Value as of 6/30/2022
2011	75,000,000	11.69%	19,023,999
2012	68,000,000	10.60%	97,829,477
2013	35,000,000	5.46%	25,724,996
2014	72,500,000	11.30%	43,294,868
2015	53,000,000	8.26%	25,935,646
2016	10,000,000	1.56%	0
2017	37,000,000	5.77%	43,623,138
2018	35,000,000	5.46%	25,485,688
2019	50,000,000	7.79%	31,895,981
2020	67,001,040	10.44%	38,924,411
2021	114,000,000	17.77%	22,885,020
2022	25,000,000	3.90%	-41,509
Total Private Equity	**641,501,040**	**100%**	**374,581,715**



Significant Events

- **No material exceptions to Policy.**