

# QUARTERLY PRIVATE EQUITY BOARD UPDATE

For the period ended December 31, 2022

Prepared at the Specific Request of:

Client:

Pennsylvania State Employees' Retirement System



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**Disclaimer on this Page - Redacted**

## PERFORMANCE SUMMARY

StepStone Group LP (“StepStone”) was engaged by Pennsylvania State Employees’ Retirement System (“SERS”) to provide Private Equity services for prospective investment opportunities, as well as portfolio management.

StepStone monitors investments under the entity Pennsylvania State Employees’ Retirement System (“the Portfolio”).

The following table illustrates the Portfolio’s since inception investment performance as of December 31, 2022, as well as the quarter-over-quarter and year-over-year change.

The Portfolio is generating a since inception net IRR of 12.5% at December 31, 2022, down (2) basis points quarter-over-quarter.

As of December 31, 2022. In USD millions.

SERS PORTFOLIO PERFORMANCE SUMMARY					
	December 31, 2022	September 30, 2022	December 31, 2021	QUARTERLY Δ	ANNUAL Δ
Number of Active Managers	67	67	66	0	1
Number of Active Investments	196	196	189	0	7
Committed Capital	\$16,318.7	\$16,202.6	\$15,659.6	\$116.1	\$659.2
Unfunded Commitment	2,632.0	2,782.0	2,840.9	(150.0)	(209.0)
Total Exposure	9,152.4	9,103.4	9,958.2	49.0	(805.9)
Total Contributed	19,941.9	19,680.0	19,000.1	261.8	941.8
Total Distributed	26,229.6	26,077.1	25,172.2	152.5	1,057.4
Total Market Value	6,520.4	6,321.4	7,117.3	199.0	(596.9)
Since Inception G/L	12,808.2	12,718.5	13,289.4	89.7	(481.2)
<b>Total Value</b>	<b>\$32,750.1</b>	<b>\$32,398.5</b>	<b>\$32,289.5</b>	<b>\$351.5</b>	<b>\$460.5</b>
Net DPI	1.3x	1.3x	1.3x		
Net TVM	1.6x	1.6x	1.7x		
<b>Net IRR</b>	<b>12.5%</b>	<b>12.5%</b>	<b>12.8%</b>	<b>(2 bps)</b>	<b>(28 bps)</b>

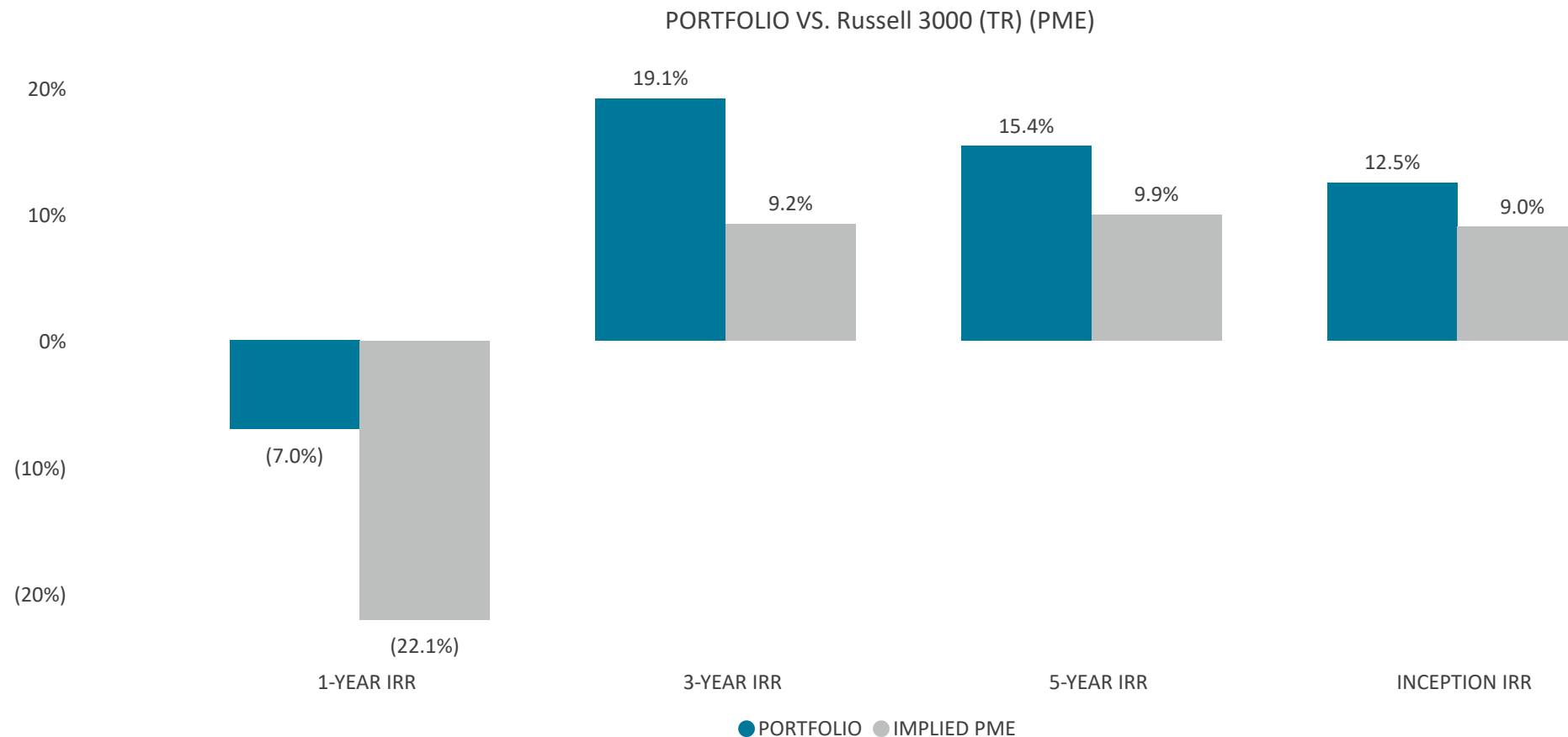
*Past performance is not necessarily indicative of future results and there can be no assurance that the investment will achieve comparable results or avoid substantial losses.*

*IRR and TVM for certain vehicles may have been impacted by StepStone’s or the underlying GPs’ use of subscription-backed credit facilities by such vehicles.*

*Reinvested/recycled amounts increase contributed capital.*

## PERFORMANCE SUMMARY CONTINUED

The following table illustrates the Portfolio's point-to-point investment performance as of December 31, 2022, as well as the public market equivalent (PME) based on the Russell 3000 (TR) index.

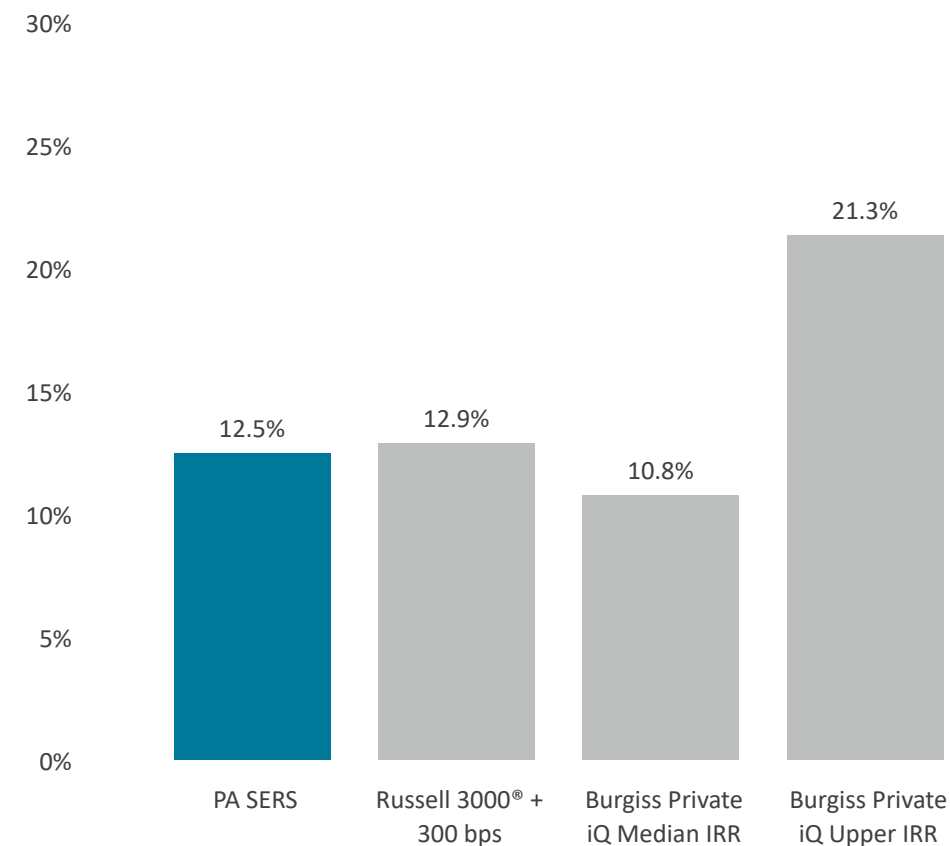


*The referenced indices/benchmarks are shown for general market comparisons and are not meant to represent any particular fund. An investor cannot directly invest in an index. Moreover, indices do not reflect commissions or fees that may be charged to an investment product based on the index, which may materially affect the performance data presented.*

## PORTFOLIO PERFORMANCE VS. BENCHMARKS

The Portfolio's performance is measured against two benchmarks, the Russell 3000® and Burgiss Private iQ. The following graph illustrates Portfolio IRR performance versus benchmarks as of December 31, 2022.

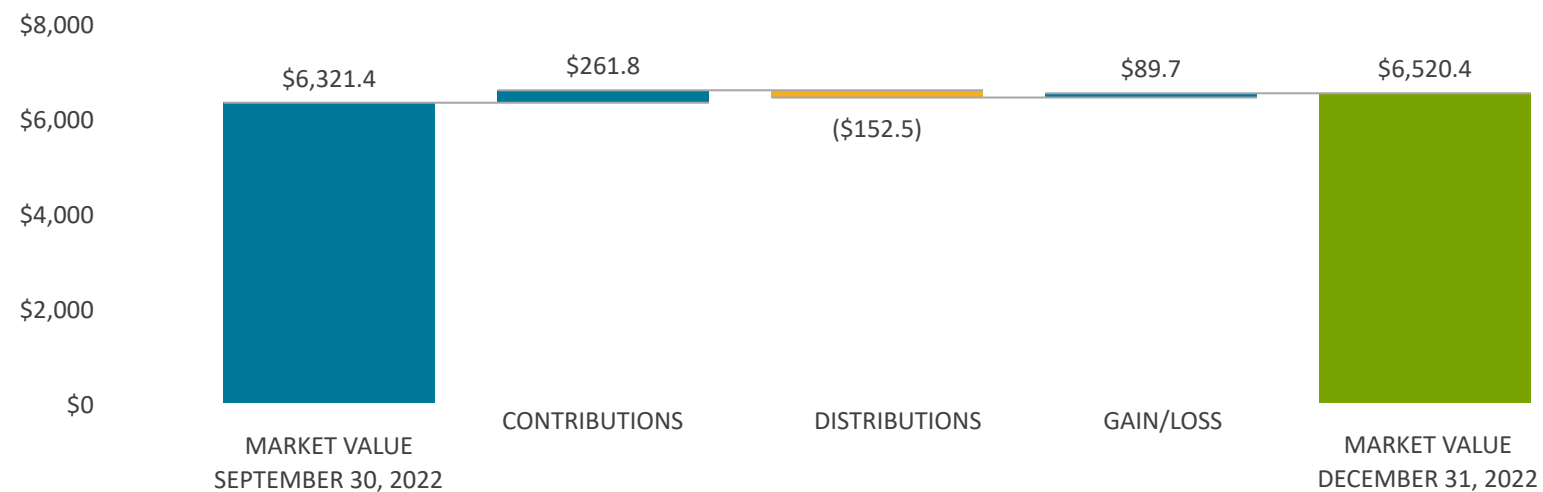
RETURNS	1 YEAR RETURN	3 YEAR RETURN	5 YEAR RETURN	10 YEAR RETURN
SERS Combined Portfolio (IRR)	(7.0%)	19.1%	15.4%	12.8%
Burgiss Private iQ Pooled PE Benchmark	(6.2%)	18.4%	16.4%	15.0%
Burgiss Private iQ All PE Top-Quartile	7.9%	26.2%	23.4%	22.6%
Russell 3000®	(19.2%)	7.1%	8.8%	12.1%
Russell 3000® + 300 bps	(16.2%)	10.1%	11.8%	15.1%
SERS Core Buyout (IRR)	(3.1%)	18.9%	16.1%	15.8%
Burgiss Private iQ Pooled Buyout Benchmark	(1.0%)	18.7%	16.0%	14.9%
Burgiss Private iQ Buyout Top-Quartile	15.7%	28.5%	25.0%	23.9%
SERS Core Growth Equity (IRR)	(22.8%)	30.3%	29.4%	22.3%
Burgiss Private iQ Pooled VC Benchmark	(18.3%)	24.1%	22.4%	19.5%
Burgiss Private iQ VC Top-Quartile	0.3%	28.8%	26.1%	23.8%
SERS Core Special Situations (IRR)	0.9%	17.4%	16.1%	12.7%
Burgiss Private iQ Pooled SS Benchmark	3.0%	8.5%	7.8%	8.5%
Burgiss Private iQ SS Top-Quartile	9.6%	13.3%	12.6%	12.8%
SERS Keystone Legacy Fund (IRR)	(17.0%)	5.7%	0.6%	6.6%
Burgiss Private iQ Pooled PE Benchmark	(6.2%)	18.4%	16.4%	15.0%
Burgiss Private iQ All PE Top-Quartile	7.9%	26.2%	23.4%	22.6%



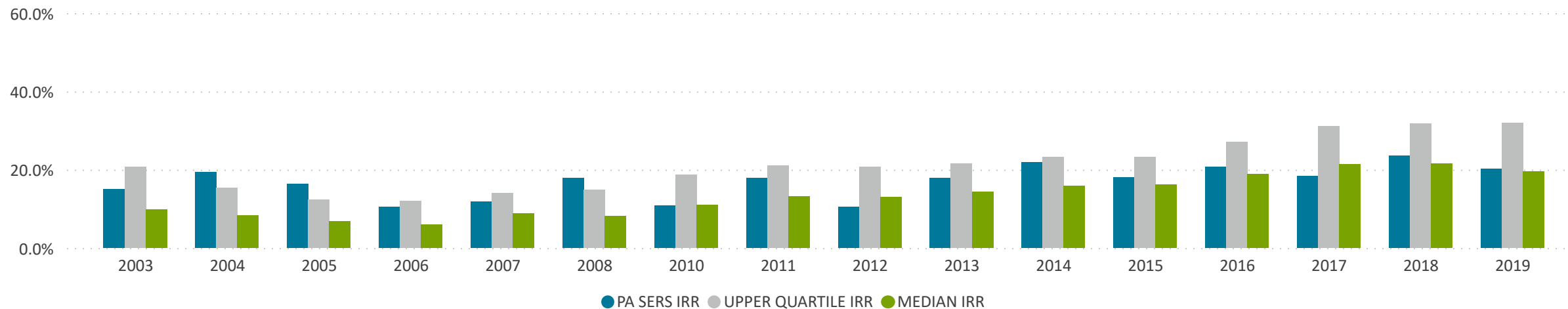
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## QUARTERLY VALUATION MOVEMENT

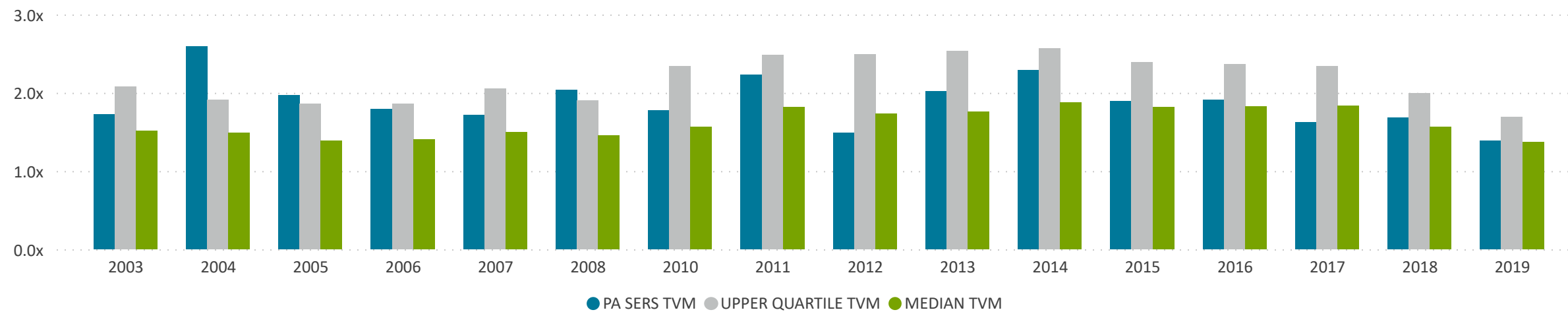
During the fourth quarter of 2022, the value of the Portfolio increased by \$89.7 million, or 1.4%.



## IRR PERFORMANCE BY VINTAGE YEAR



## TVM PERFORMANCE BY VINTAGE YEAR





## FUND GEOGRAPHIC DIVERSIFICATION

As of December 31, 2022. In USD millions.

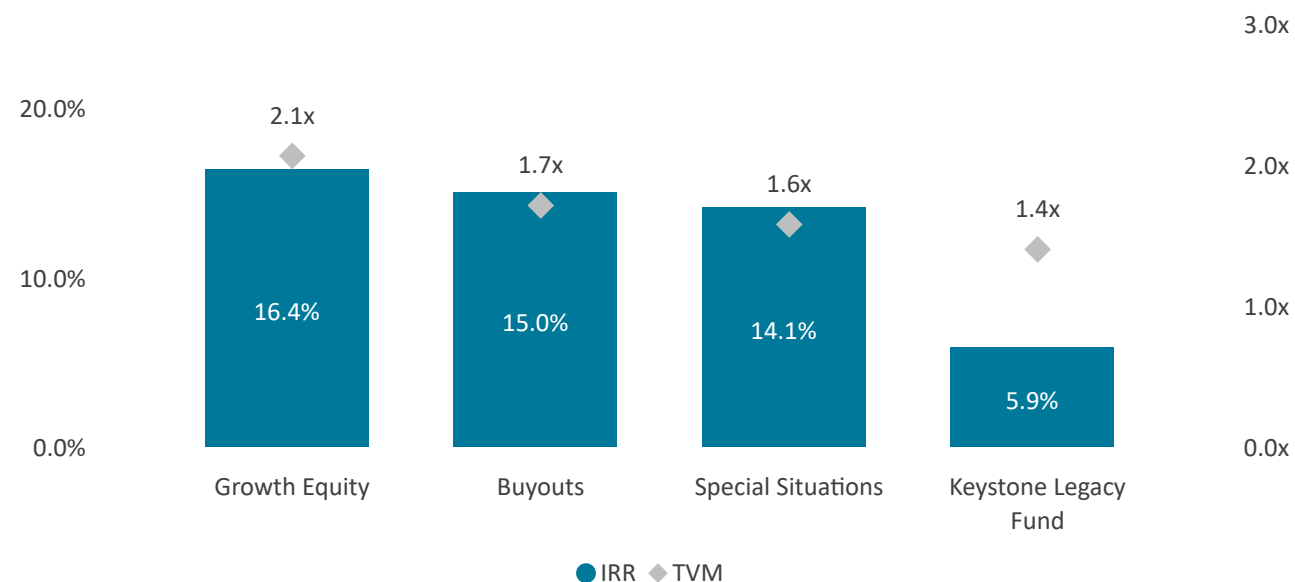
GEOGRAPHY	NAV	% OF TOTAL	UNFUNDED	% OF TOTAL	TOTAL EXPOSURE	% OF TOTAL
North America	\$4,189.5	64.3%	\$1,822.1	69.2%	\$6,011.6	65.7%
Global	\$688.4	10.6%	\$410.9	15.6%	\$1,099.4	12.0%
Europe	\$716.0	11.0%	\$260.6	9.9%	\$976.6	10.7%
Asia	\$559.6	8.6%	\$77.6	2.9%	\$637.2	7.0%
Keystone Legacy Fund	\$217.4	3.3%	\$47.8	1.8%	\$265.2	2.9%
Emerging Markets	\$149.5	2.3%	\$13.0	0.5%	\$162.5	1.8%
<b>Total</b>	<b>\$6,520.4</b>	<b>100.0%</b>	<b>\$2,632.0</b>	<b>100.0%</b>	<b>\$9,152.4</b>	<b>100.0%</b>

## CORE PORTFOLIO PERIODIC RETURNS VS. RUSSELL 3000 INDEX

BENCHMARK	1 YEAR RETURN	3 YEAR RETURN	5 YEAR RETURN	10 YEAR RETURN	SINCE INCEPTION
SERS Core Portfolio (IRR)	(6.6%)	20.7%	18.6%	16.5%	15.3%
Russell 3000®	(19.2%)	7.1%	8.8%	12.1%	9.9%
Russell 3000® + 300 bps	(16.2%)	10.1%	11.8%	15.1%	12.9%
<b>PA SERS Outperformance/(Underperformance)</b>					
Russell 3000® Net	12.7%	13.6%	9.9%	4.4%	5.5%
Russell 3000® + 300 bps Net	9.7%	10.6%	6.9%	1.4%	2.5%

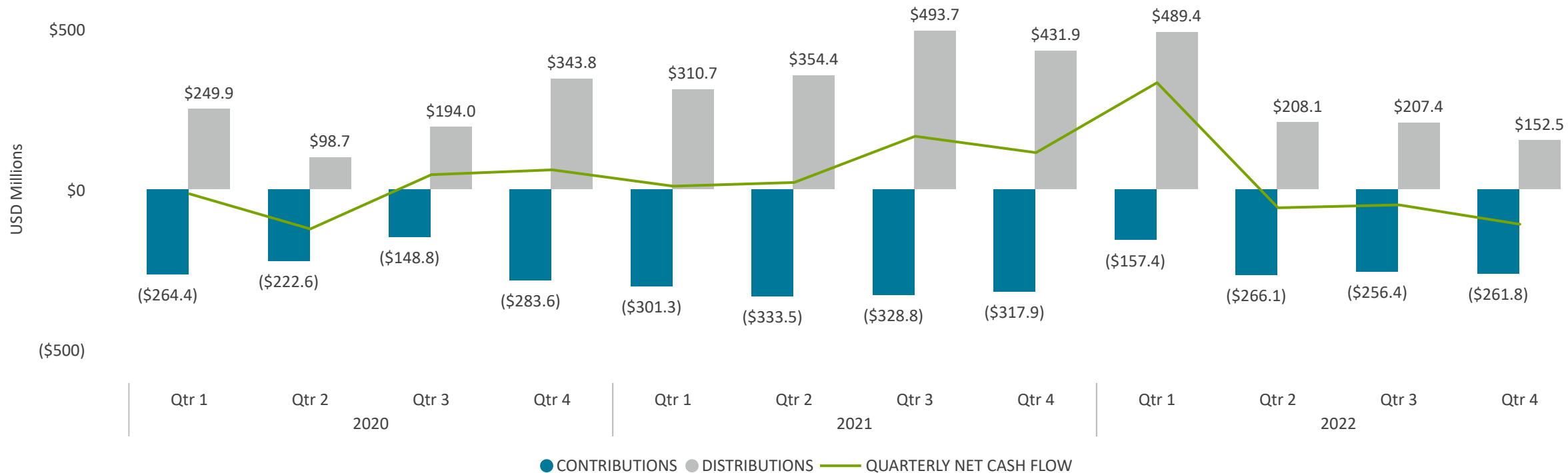
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## PERFORMANCE BY SECTOR



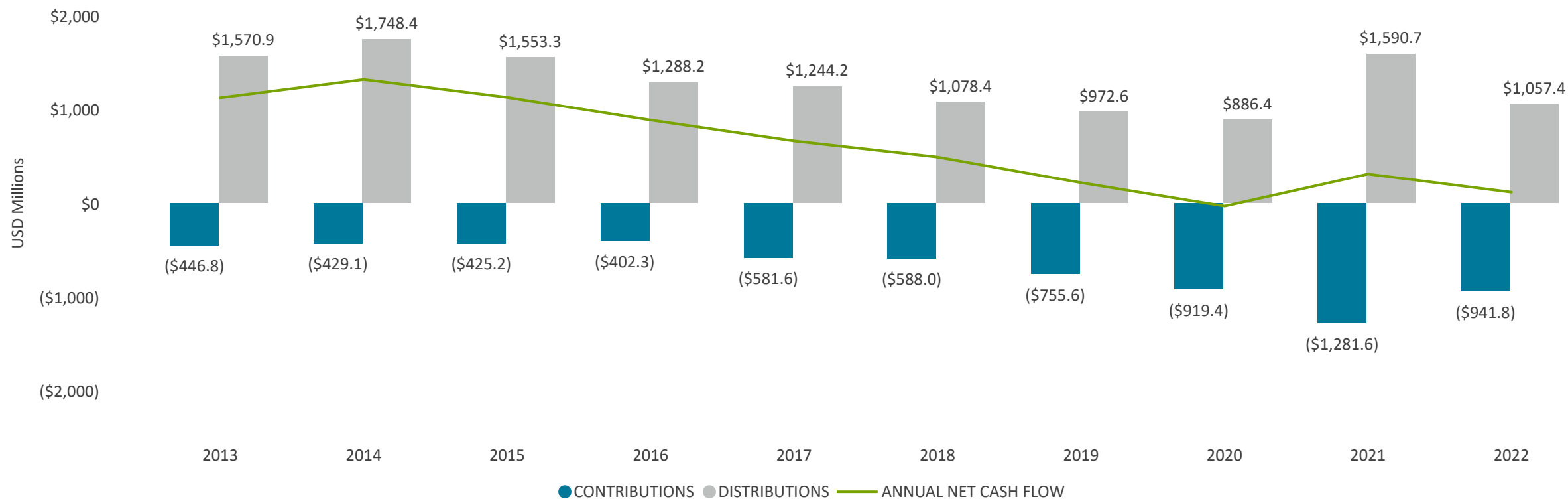
## QUARTERLY CASH FLOW ACTIVITY

During the fourth quarter of 2022, the Portfolio contributed \$261.8 million and received \$152.5 million of distributions, for a net cash outflow of \$109.3 million.

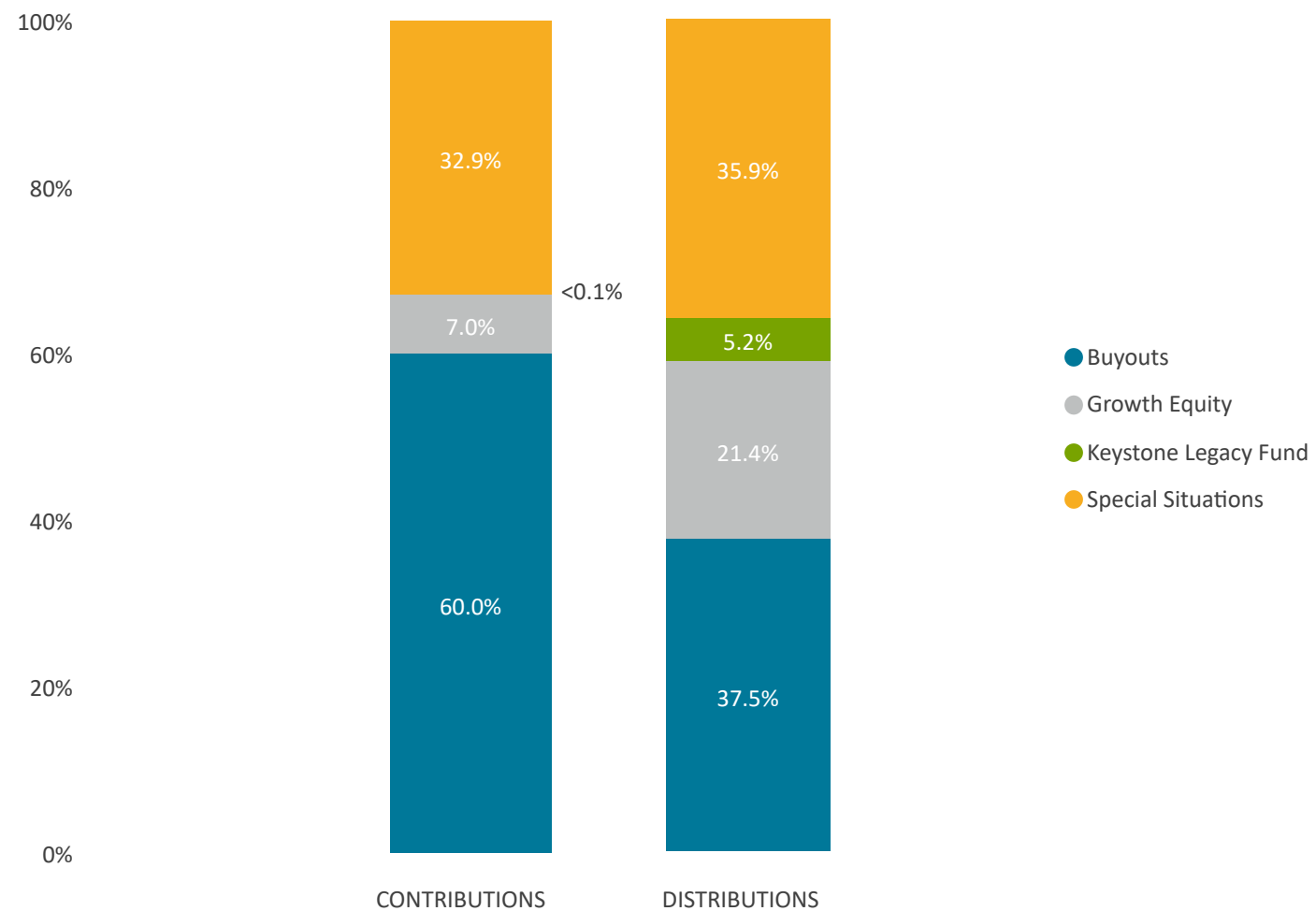


## ANNUAL CASH FLOW ACTIVITY

During the twelve months ended December 31, 2022, the Portfolio contributed \$941.8 million and received \$1,057.4 million of distributions, for a net cash inflow of \$115.7 million.

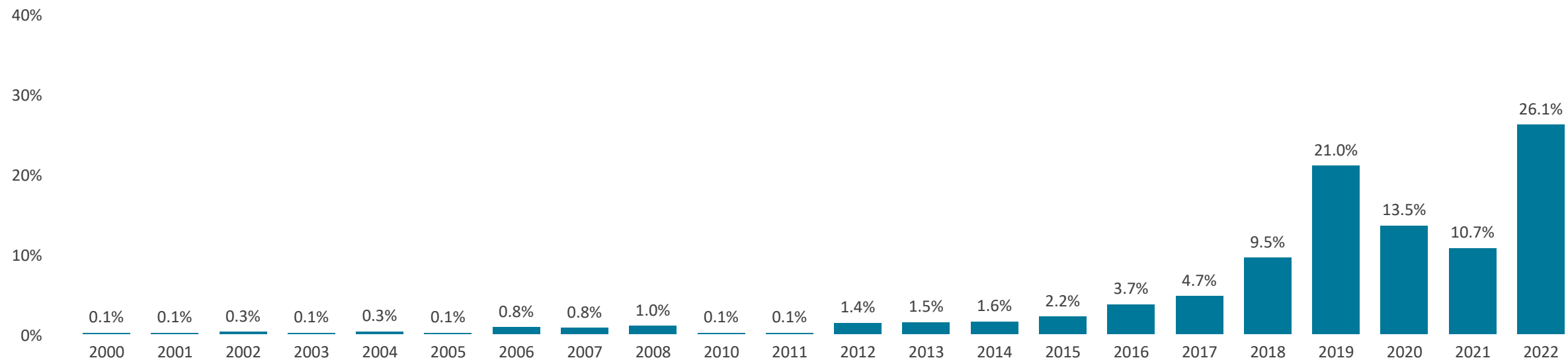


## QUARTERLY CASH FLOW BY SECTOR



## UNFUNDED % by VINTAGE YEAR

The following chart provides unfunded commitments by vintage year as a percentage of the Portfolio's total unfunded commitments.



## END NOTES

### Performance Summary

Commitment reflects current commitment including FX fluctuations for non-USD funds.

Contributed Capital includes contributions for investments, management fees and expenses to underlying partnership investments.

Distributions include stock distributions.

Net DPI, or Distributed to Paid-In-Multiple, is calculated as Distributed Capital divided by Contributed Capital, inclusive of StepStone fees.

Net TVM, or Total Value Multiple, is calculated as Total Value, which is comprised of Market Value plus Distributed Capital, divided by Contributed Capital, inclusive of StepStone fees.

Net IRR is net of managers' fees, expenses, and carried interest, inclusive of StepStone fees.

### Portfolio Performance vs Benchmarks

Benchmark is a dollar-weighted calculation of quarterly changes in the Russell 3000® Index. Russell Investment Group is the source and owner of the trademark, service marks and copyrights related to the Russell Indexes.

Russell® is a trademark of Russell Investment Group. Returns shown are time-weighted (TWR).

Benchmark is provided by Burgiss Private iQ and reflects Global Private Equity Funds (excluding Real Assets and Real Estate) Median IRR as of December 31, 2022, for funds with vintage years 1980 to 2022.

Returns shown are dollar-weighted (IRR).

Benchmark is provided by Burgiss Private iQ and reflects Global pooled returns for Buyout (including Natural Resources), Venture Capital, Special Situations (including Distressed and Mezzanine), and all Private Equity (excluding Real Assets and Real Estate), respectively, as of December 31, 2022, for funds with vintage years 1980 to 2022. Returns shown are dollar-weighted (IRR).

Benchmark is provided by Burgiss Private iQ and reflects Global Upper Quartile IRR for Buyout (including Natural Resources), Venture Capital, Special Situations (including Distressed and Mezzanine), and all Private Equity (excluding Real Assets and Real Estate), respectively, as of December 31, 2022, for funds with vintage years 1980 to 2022. Returns shown are dollar-weighted (IRR).

Unless otherwise indicated, all underlying investment attribution and performance information presented is net of fees and expenses charged by the underlying investment, but gross of StepStone vehicle/account fees and expenses. Where indicated, net return figures presented for StepStone vehicle/account performance include fees and expenses paid to StepStone.

### Vintage Year Performance

IRR and TVM performance excludes Keystone Legacy Fund.

### Core Portfolio vs Russell 3000 Index

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Russell® is a trademark of Russell Investment Group. Buyout, Growth Equity, and Special Situations sectors represent PASERS core portfolio of investment returns within each sector.

Keystone Legacy Fund contains Buyout, Venture Capital, and Special Situation funds defined as non-core by PASERS.

Unless otherwise indicated, all underlying investment attribution and performance information presented is net of fees and expenses charged by the underlying investment, but gross of StepStone vehicle/account fees and expenses. Where indicated, net return figures presented for StepStone vehicle/account performance include fees and expenses paid to StepStone.

## END NOTES CONTINUED

### **Schedule of Investments by Vintage Year, Sector, Legacy Private Credit, Diverse Funds**

Commitment reflects current commitment including FX fluctuations for non-USD funds.

Contributions include management fees and expenses.

Gain/Loss represents since inception total value change of active investments unless otherwise noted.

NM - Not Meaningful

IRR and TVM for certain vehicles may have been impacted by StepStone's or the underlying GPs' use of subscription-backed credit facilities by such vehicles. Reinvested/recycled amounts increase contributed capital.

Fund quartile rankings provided by Burgiss Private iQ as of December 31, 2022 and represent sector-comparable funds aggregated by vintage year, asset class and geography in which SERS made investments.

Keystone Legacy Fund performance represents since inception returns for all non-core funds.

These figures have been prepared by StepStone on behalf of SERS and have not been provided by any General Partner.

Legacy Private Credit investments are not included in the Private Equity portfolio and are excluded from any performance figures shown throughout this report other than the Legacy Private Credit Schedule of Investments.

StepStone Diverse Manager Definition:

(i) 33%+ of the General Partner/Management company is owned by diverse individuals; and/or

(ii) 33%+ of carried interest for the Fund will be allocated to diverse individuals; and/or

(iii) 33% of key persons are diverse individuals

Diverse individuals include women and racial/ethnic minority employees, specifically in the US: Asian, Black, Hispanic/Latinx, Indigenous People, Middle Eastern/North African, and Two or More Races.

In addition, LGTBQIA+, disability, and US Military Veteran status will be considered.

StepStone has not completed due diligence on all Funds in SERS Private Equity portfolio and therefore the diverse manager list excludes these Funds.

Unless otherwise indicated, all underlying investment attribution and performance information presented is net of fees and expenses charged by the underlying investment, but gross of StepStone vehicle/account fees and expenses. Where indicated, net return figures presented for StepStone vehicle/account performance include fees and expenses paid to StepStone.

**Past performance is not necessarily indicative of future results** and there can be no assurance that the fund will achieve comparable results or avoid substantial losses.



**Definitions on Pages 34-35 - Redacted**