

# PHASES



Louisiana State Employees'  
Retirement System

**2022 INVESTMENT REPORT**

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Life is full of **phases** – we celebrate, we reflect, we grieve, we change. These phases impact us, both as individuals and as a society. Consider human evolution over time – it wasn’t all that long ago that humans were nomads. And look at us now, participating in our complex and interconnected societies. Even just the change that has occurred since the start of the COVID-19 global pandemic is dramatic in many ways. Following a dark time with many unknowns, the outlook for humanity improved relatively quickly. Many people developed new life perspectives, placing importance and value on things perhaps they had not previously. In business, companies began to rethink their globalization and employment efforts, realizing that the need for dependability and security may outweigh costs. As financial markets move through the various cycles, LASERS will continue to be proactive, making adjustments as necessary. We continue to look ahead with optimism for the future.



# BOARD OF TRUSTEES

**Ternisa Hutchinson**  
*State Director  
of Planning and  
Budget, Division of  
Administration*

**Shannon Templet**  
*Board Vice Chair,  
Director of Human  
Resources, House  
of Representatives*

**Thomas Bickham**  
*Undersecretary,  
Department of Public  
Safety and Corrections*

**Judge William  
Kleinpeter**  
*Board Chair, City  
Court of Port Allen*

**Charles Castille**  
*Retired from  
the Department  
of Health and  
Hospitals*

**Amy Mathews**  
*Investment Manager for  
the State General Fund  
& Trust Funds, Louisiana  
Department of the  
Treasury*

**Virginia Burton**  
*Retired from the  
Louisiana Department of  
Revenue*

**Byron Decoteau, Jr.**  
*Director, Louisiana  
Department of State  
Civil Service*

**Barbara McManus**  
*Retired from the  
Department of  
Social Services*



## EX OFFICIO MEMBERS



Commissioner  
Jay Dardenne



Senator  
Edward Price



Senator Barrow  
Peacock, *Designee*



Representative  
Barry Ivey



State Treasurer  
John Schroder

A 13-member Board of Trustees oversees LASERS operations. Six seats are filled by active members, three seats are held by retirees, and four positions are ex officio. Trustees serve four-year terms and are limited to three consecutive terms.

The Board of Trustees is responsible for the total investment program. As such, they approve the investment policy and provide overall direction to the administrative staff in the execution of the investment policy.



# YEAR IN REVIEW



92K Members



\$1.4B Benefits Paid



\$2,263 Average Monthly Benefit



>\$430M Invested in Louisiana



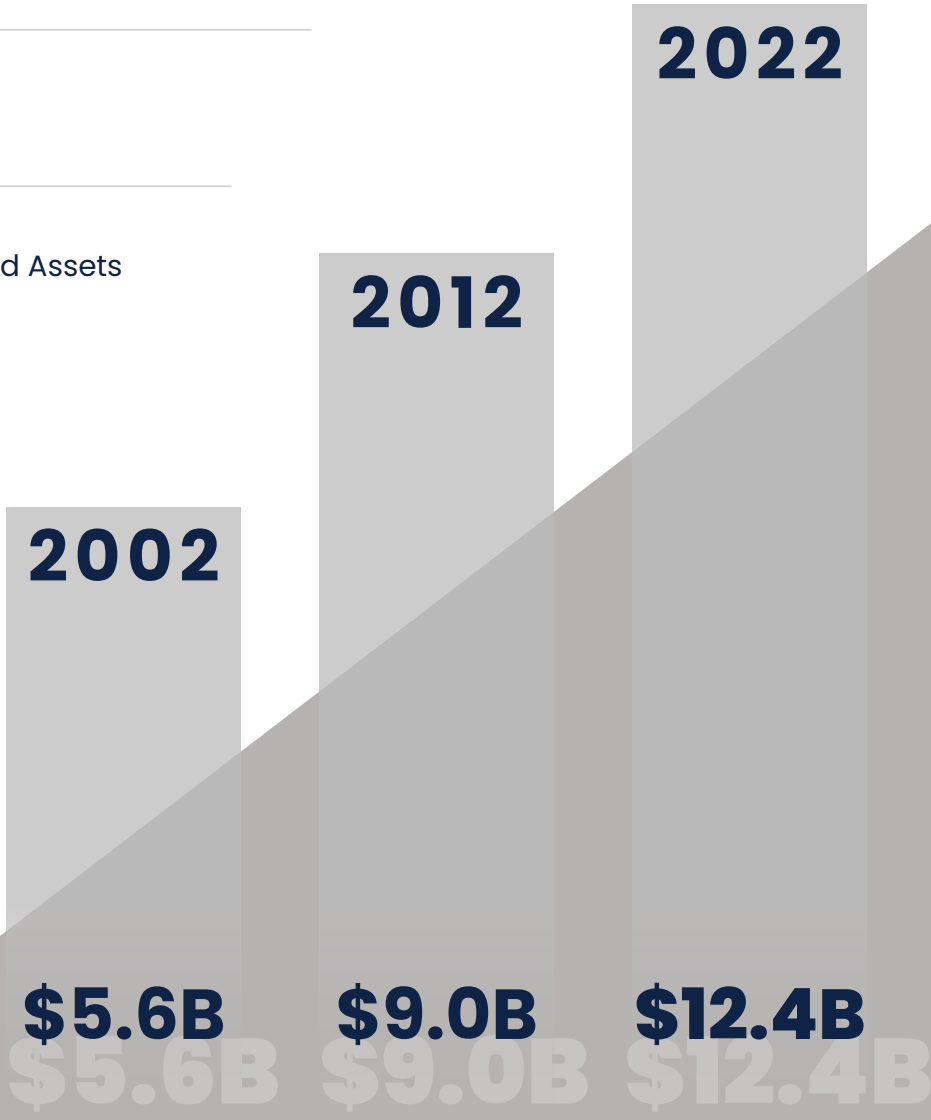
-7.2% FYE Return



\$4.4B Internally Managed Assets

## PORTFOLIO GROWTH

Over Last 20 Years



# TO OUR MEMBERS

Dear Members,

For the fiscal year ended June 30, 2022, the Louisiana State Employees' Retirement System (LASERS) earned a -7.2% gross-of-fees<sup>i</sup>, time-weighted return on investments. As a result, the total gross-of-fee investment value of the fund as of June 30, 2022 was just under \$12.5 billion. This return places LASERS in the top fifty-seventh percentile for the one-year period, as compared to other public pension plans with market values greater than \$1 billion in the Wilshire Trust Universe Comparison Service (TUCS)<sup>ii</sup>. Longer-term annualized rates of return are 12.2% for the two-year period, 8.2% for the six-year period, and 7.8% for the ten-year period.

The fiscal year began on the heels of an impressive post-pandemic recovery in which nearly every asset class posted hefty double-digit returns. Volatility was beginning to make a come back due to concerns about the spread of the Delta variant, although focus was starting to shift toward inflation and the Federal Reserve's tapering expectations. By the fall, the announcement that tapering would begin mid-November was made. Markets initially responded favorably, but then were spooked by the new Omicron variant. In December, the expectation for three rate hikes in 2022 was officially announced. Entering the 2022 calendar year, with inflation at a multi-decade high and Russia-Ukraine concerns mounting, in January, U.S. equity markets posted their worst week since March 2020. The following months saw inflation continue to increase due to Russia's entrance into Ukraine, new COVID fears and associated lockdowns in China, and the start of rate increases by the Federal Reserve. By fiscal year-end, three increases were made placing the Fed Funds target rate between 1.50% and 1.75%, with future increases highly likely. Markets flirted with bear market territory, gas prices reached record highs and June marked the worst first half of a year since the early 1970s.

For the fiscal year, the Plan felt the impact of the on-going economic and market struggles. A new allocation was adopted by the Board of Trustees in February 2022, incorporating minor changes which included reducing the Emerging Market Debt allocation, eliminating the Cash allocation, and adding to Private Markets. A consistent source of positive returns, Private Markets was the sole positive contributor for the fiscal year, earning 13.8%. In comparison, the next highest return was provided by the Fixed Income portfolio which earned -3.6%. This was led by the -1.2% return in the Global Multi-Sector sleeve, which out-performed its benchmark by 12.4%. The Absolute Return Strategies portfolio returned -4.7%, beating its benchmark by 0.7%. U.S. Equity assets earned -13.6% while Non-U.S. Equities posted -15.8%. Within the Non-US Equities space, the Emerging Markets allocation beat its benchmark by 5.2% and the Developed International allocation beat its benchmark by 1.7%.

As always, we continue to work diligently to meet long-term goals and objectives and safeguard your retirement.

Sincerely,

Robert W. Beale, CFA, CAIA  
Chief Investment Officer

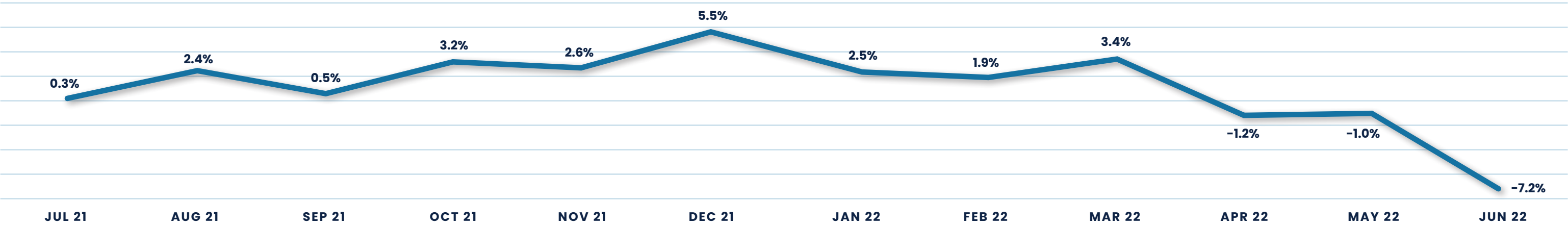
<sup>i</sup>LASERS custodian bank serves as book of record and calculates investment performance on behalf of the Plan.

<sup>ii</sup>Based on Wilshire's TUCS Rankings dated August 26, 2022.

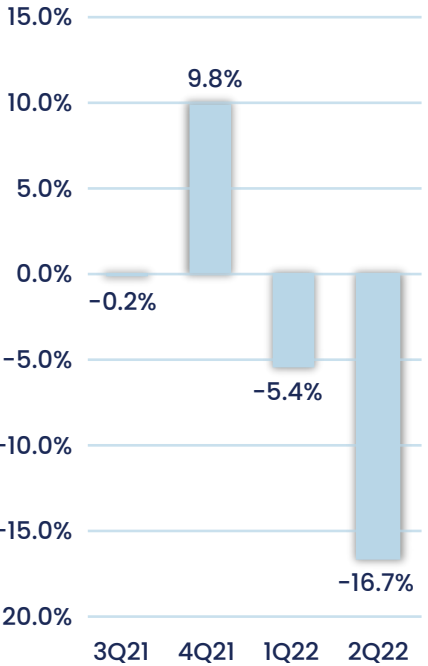


# TOTAL FUND REVIEW

2021 – 2022 FYTD Returns by Month

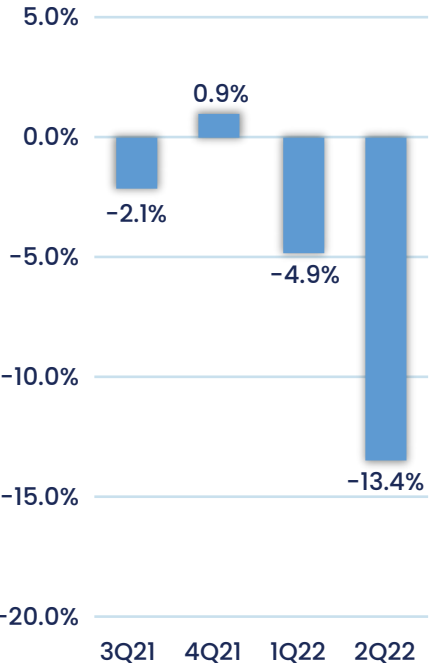


## Domestic Equity



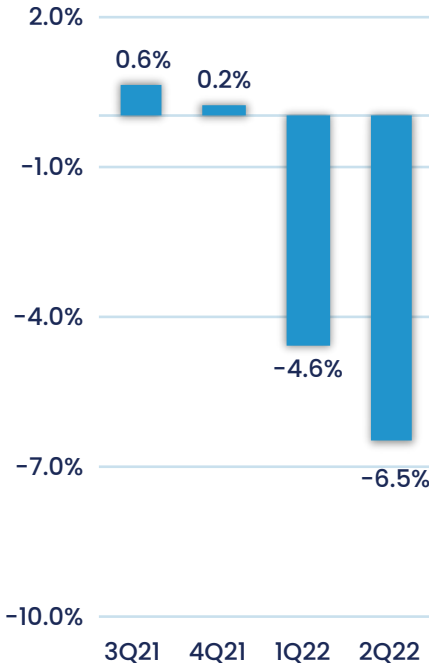
Fiscal Year Return	-13.6%
AUM	\$3,764.6m
Target Allocation	31.0%
Actual Allocation	30.3%
Active Management	4.8%
Passive Management	95.2%

## International Equity



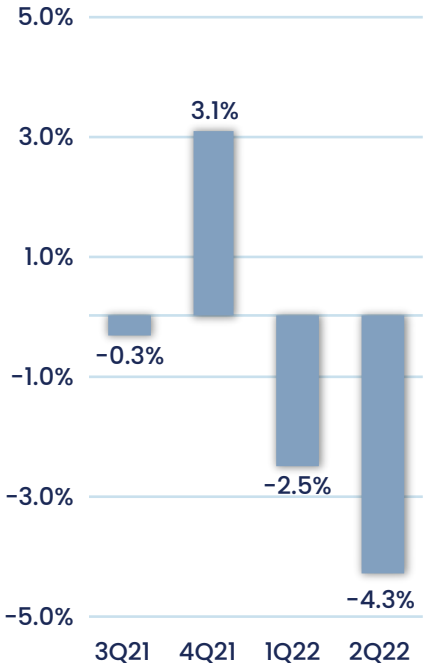
Fiscal Year Return	-18.7%
AUM	\$2,707.1m
Target Allocation	23.0%
Actual Allocation	21.8%
Active Management	65.3%
Passive Management	34.7%

## Domestic Fixed Income



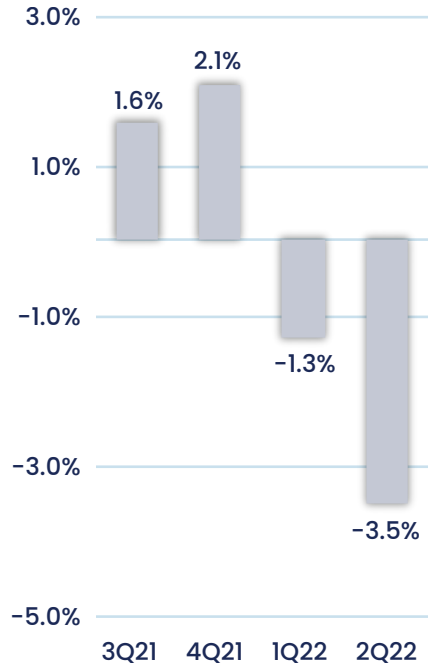
Fiscal Year Return	-10.1%
AUM	\$439.9m
Target Allocation	3.0%
Actual Allocation	3.5%
Active Management	100%
Passive Management	0%

## Emerging Market Debt



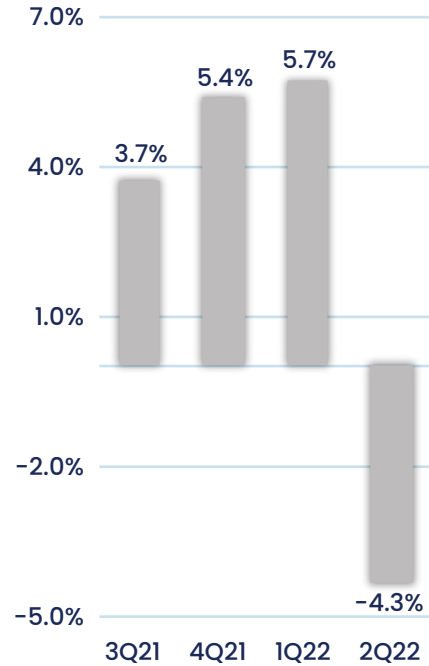
Fiscal Year Return	-4.1%
AUM	\$480.9m
Target Allocation	3.0%
Actual Allocation	3.9%
Traditional	32.0%
Opportunistic	68.0%

## Global Multi-Sector Fixed Income



Fiscal Year Return	-1.2%
AUM	\$1,469.4m
Target Allocation	14.0%
Actual Allocation	11.8%
Traditional	35.0%
Opportunistic	65.0%

## Alternatives



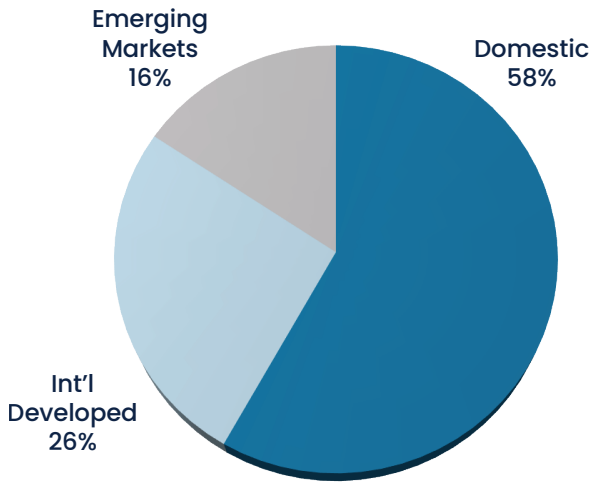
Fiscal Year Return	10.7%
AUM	\$3,467.8m
Target Allocation	26.0%
Actual Allocation	27.9%
Private Markets	84.0%
Other	16.0%

# PUBLIC EQUITY

Public equity is an asset class where individuals and/or organizations can buy ownership in shares or stock of a company through a public market such as the New York Stock Exchange. The benefits of investing in public equity include liquidity, credibility, and financial flexibility. LASERS invests globally in both Domestic and International equity, including Emerging Markets equity.

## Public Equity: Fiscal Year Summary

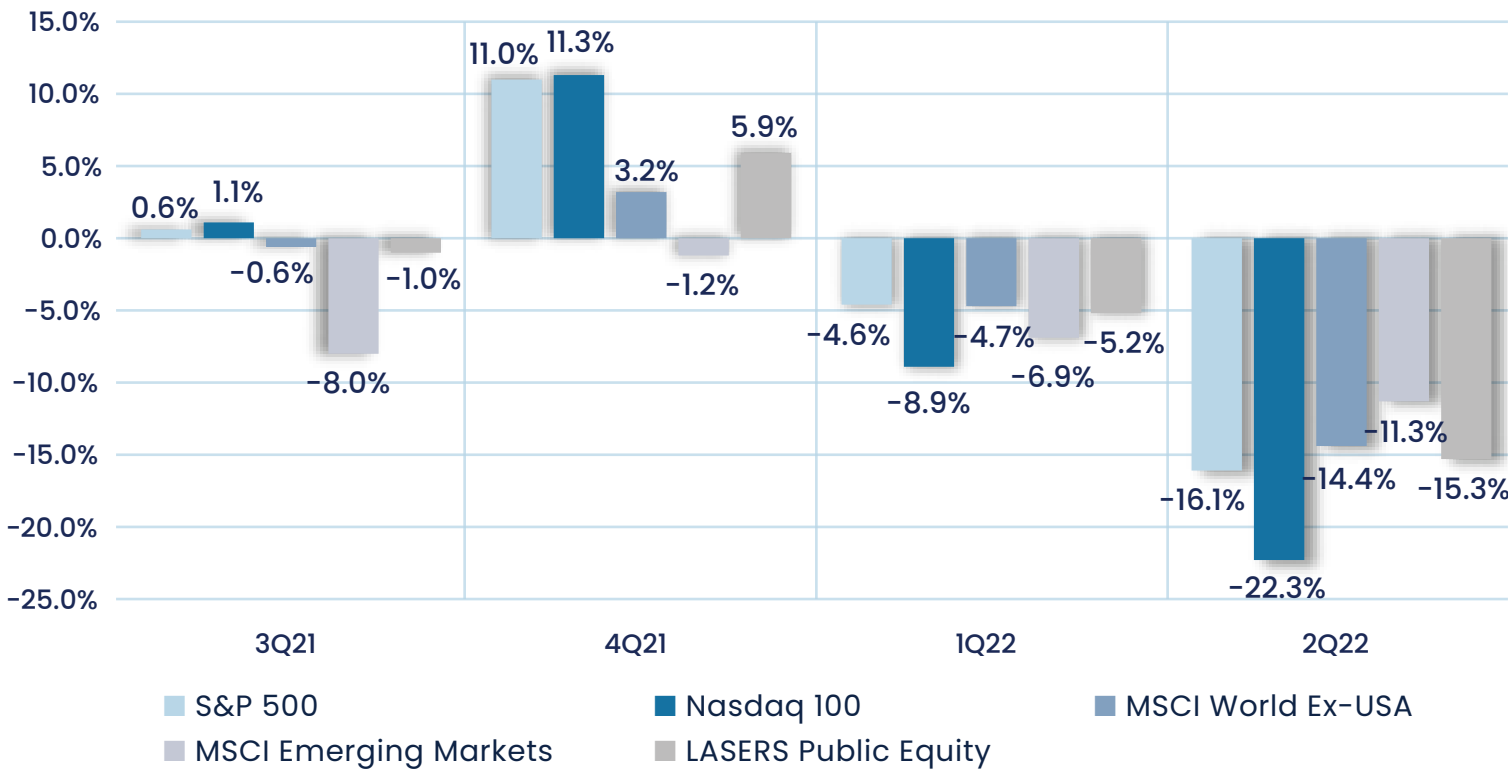
### ALLOCATION



### ASSETS & RETURNS

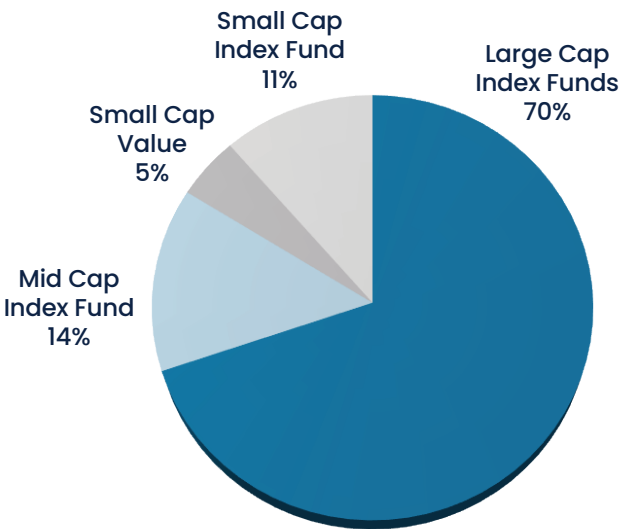
	Market Value (Millions)	Market Return	LASERS Return
Domestic	\$3,764.6	-10.6%	-13.6%
International Developed	\$1,691.6	-16.3%	-18.0%
Emerging Markets	\$1,015.4	-25.0%	-19.8%
Total Public Equity	\$6,471.6		-15.8%

### QUARTERLY RETURNS



## Domestic Equity: Fiscal Year Summary

### ALLOCATION



### ASSETS & RETURNS

	Market Value (Millions)	Market Return	LASERS Return
Large Cap	\$2,628.4	-10.6%	-13.0%
Mid Cap	\$527.1	-14.6%	-14.6%
Small Cap	\$609.2	-16.8%	-15.1%
Domestic Equity	\$3,764.7		-13.6%

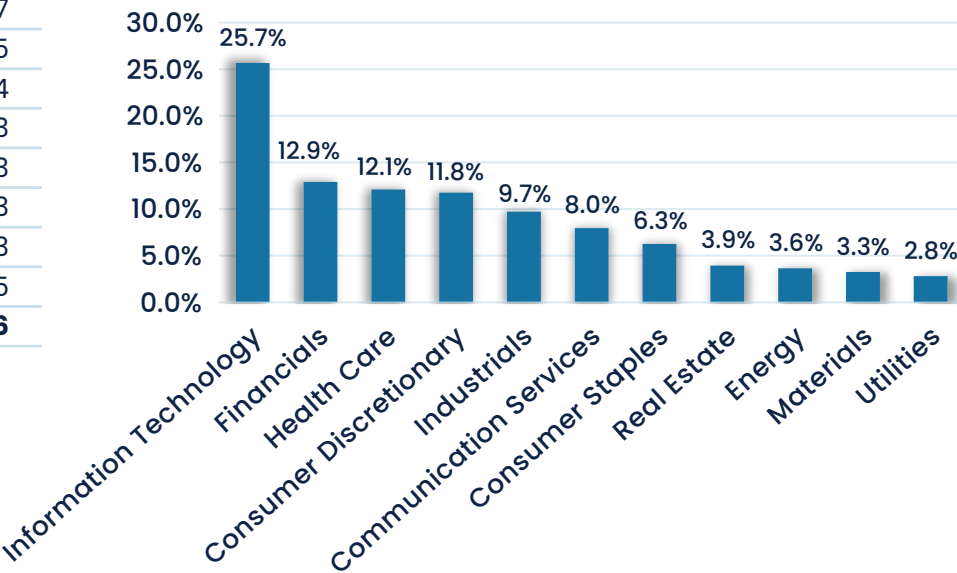
### MANAGER & ASSET SUMMARY

Manager	Market Value (Millions)	Benchmark
LSV Asset Management	\$179.0	S&P 600 Value
Small Cap Value	\$179.0	
LASERS S&P 400 Index	\$527.1	S&P 400
LASERS S&P 500 Index	\$2,049.9	S&P 500
LASERS S&P 600 Index	\$430.2	S&P 600
LASERS Nasdaq 100 Index	\$578.5	Nasdaq 100
Index Funds	\$3,585.7	
Domestic Equity	\$3,764.7	

### TOP HOLDINGS

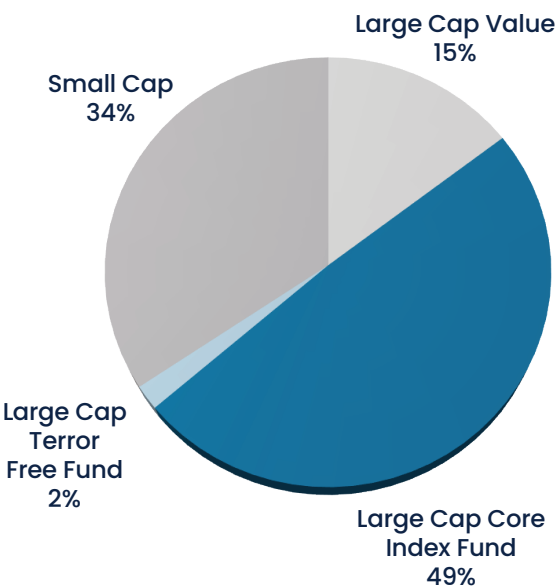
Security Name	Market Value (Millions)
Apple Inc	\$204.6
Microsoft Corp	\$183.7
Amazon.com Inc	\$93.7
Alphabet Inc Class A	\$62.5
Alphabet Inc Class C	\$60.4
Telsa Inc	\$58.3
Meta Platforms Inc	\$41.3
NVIDIA Corp	\$41.3
Berkshire Hathaway Inc	\$31.3
UnitedHealth Group Inc	\$30.5
Top Ten	\$807.6

### SECTOR DIVERSIFICATION



International Developed Equity: Fiscal Year Summary

ALLOCATION



ASSETS & RETURNS

	Market Value (Millions)	Market Return	LASERS Return
Large Cap Value	\$248.3	-9.6%	-9.2%
Large Cap Core	\$861.5	-16.3%	-17.0%
Small Cap	\$581.9	-22.7%	-22.9%
Int’l Developed Equity	\$1,691.7		-18.0%

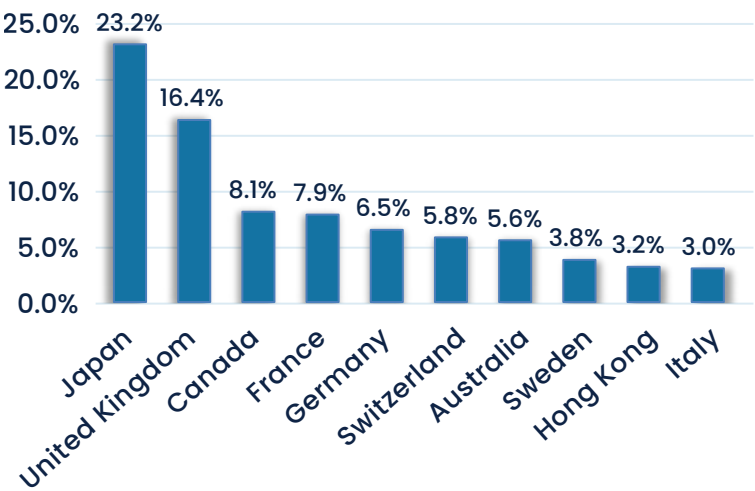
MANAGER & ASSET SUMMARY

Manager	Market Value (Millions)	Benchmark
Mondrian Inv Partners	\$248.3	MSCI World Ex-USA Value
Large Cap Value	\$248.3	
MSCI Index Fund	\$829.9	MSCI World Ex-USA
Terror-Free Fund	\$31.6	
Large Cap Core	\$861.5	
Mondrian Inv Partners	\$212.3	MSCI World Ex-USA Sm Cap
Goldman Sachs	\$369.6	
Small Cap	\$581.9	
Int’l Developed Equity	\$1,691.7	

TOP HOLDINGS

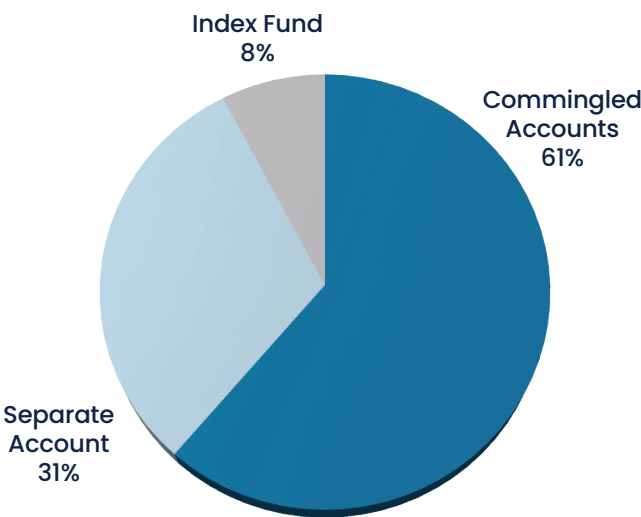
Security Name	Market Value (Millions)
Novartis	\$18.9
DSV A/S	\$18.7
Nestle	\$18.3
Sanofi	\$15.7
GSK Plc	\$15.6
Shell Plc	\$14.8
Sony Group Corp	\$14.7
Roche Holdings	\$14.2
BP Plc	\$12.2
ASML Holdings	\$12.0
Top Ten	\$155.1

TOP COUNTRY EXPOSURE



Emerging Markets Equity: Fiscal Year Summary

ALLOCATION



ASSETS & RETURNS

	Market Value (Millions)	Market Return	LASERS Return
Commingled Accounts	\$622.4		
Separate Account	\$314.7		
Index Fund	\$78.4		
Emerging Markets Equity	\$1,015.5	-25.0%	-19.8%

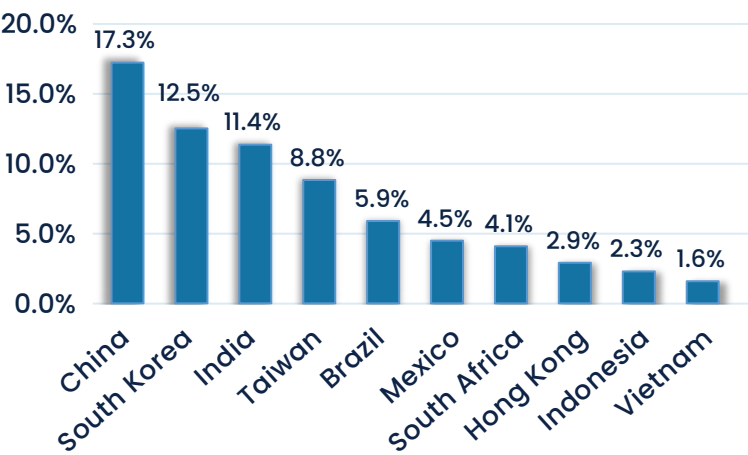
MANAGER & ASSET SUMMARY

Manager	Market Value (Millions)	Benchmark
City of London	\$366.8	MSCI Emerging Markets Index
Westwood Global	\$255.6	
LSV Asset Management	\$314.7	
BlackRock EM IMI Index Fund	\$78.4	MSCI EM IMI Index
Emerging Markets Equity	\$1,015.5	

SAMPLE HOLDINGS

Security Name	Market Value (Millions)
Samsung Electronics Co Ltd	\$12.2
Hon Hai Precision Industry Co	\$4.7
Fubon Financial Holding Co	\$3.3
Riyad Bank	\$3.2
China Petroleum & Chemical Corp	\$3.0
Want Want China Holdings Ltd	\$3.0
Oil & Natural Gas Corp Ltd	\$2.9
Hindalco Industries Ltd	\$2.9
People’s Insurance Co	\$2.9
Baidu Inc	\$2.9

TOP COUNTRY EXPOSURE

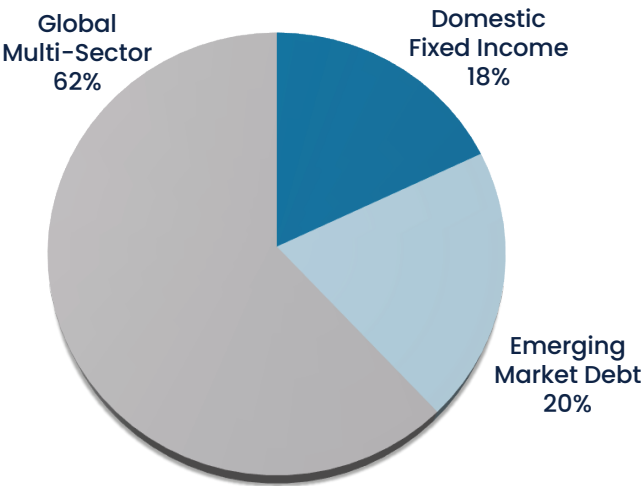


# FIXED INCOME

Fixed income securities are debt instruments issued by a government, corporation, or other entity to finance and expand their operations. The benefits of investing in fixed income include stability of principal, a steady income stream, and a higher claim to assets. LASERS invests globally in both Domestic and International Fixed income, including Emerging Market Debt and Global Multi-Sector assets.

## Fixed Income: Fiscal Year Summary

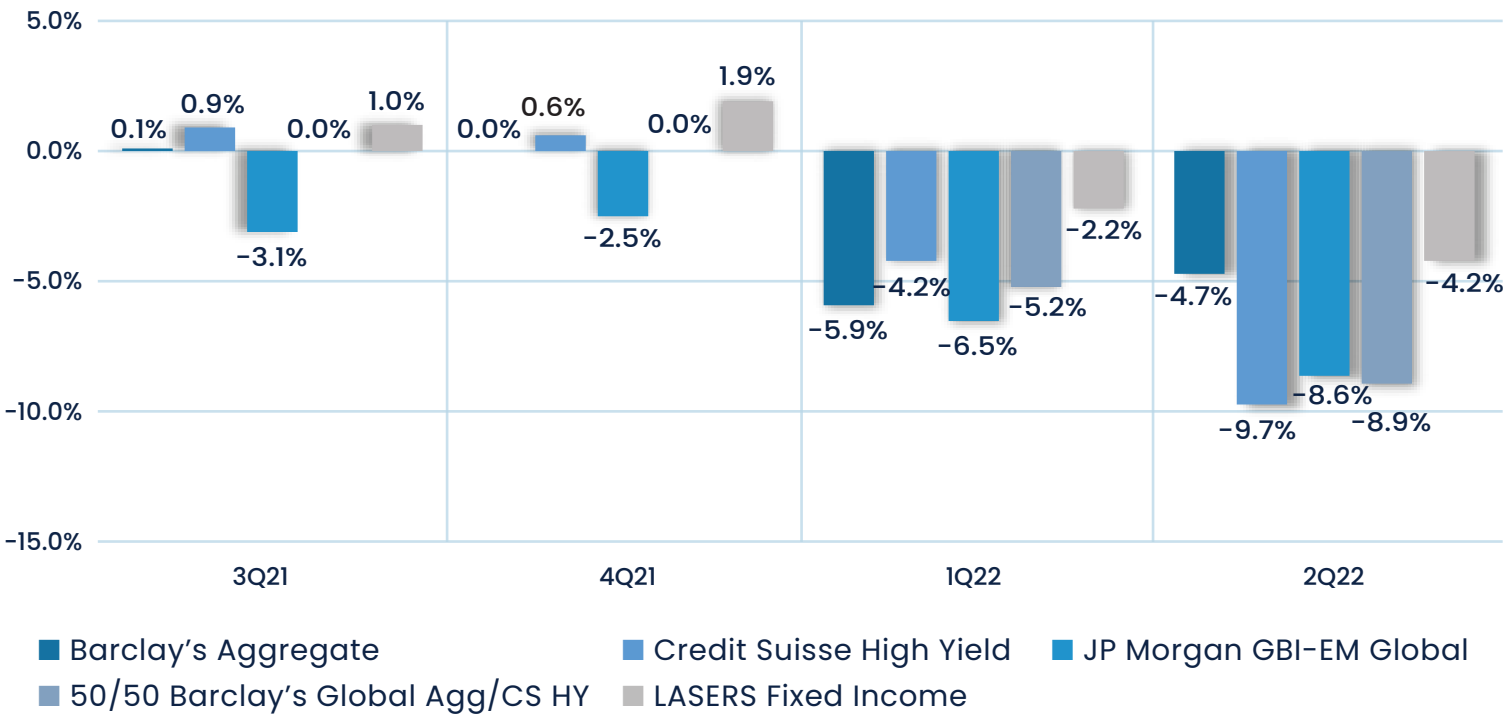
### ALLOCATION



### ASSETS & RETURNS

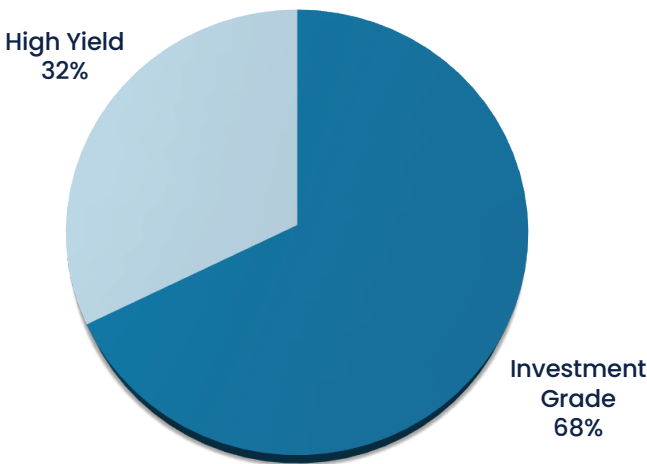
	Market Value (Millions)	Market Return	LASERS Return
Domestic	\$439.9	-10.3%	-10.1%
Emerging Market Debt	\$480.9	-19.3%	-4.1%
Global Multi-Sector	\$1,469.4	-13.6%	-1.2%
Total Fixed Income	\$2,390.2		-3.6%

### QUARTERLY RETURNS



## Domestic Fixed Income: Fiscal Year Summary

### ALLOCATION



### ASSETS & RETURNS

	Market Value (Millions)	Market Return	LASERS Return
Investment Grade	\$298.0	-10.3%	-10.4%
High Yield	\$141.9	-12.1%	-9.9%
Domestic Fixed Income	\$439.9		-10.1%

### TOP HOLDINGS

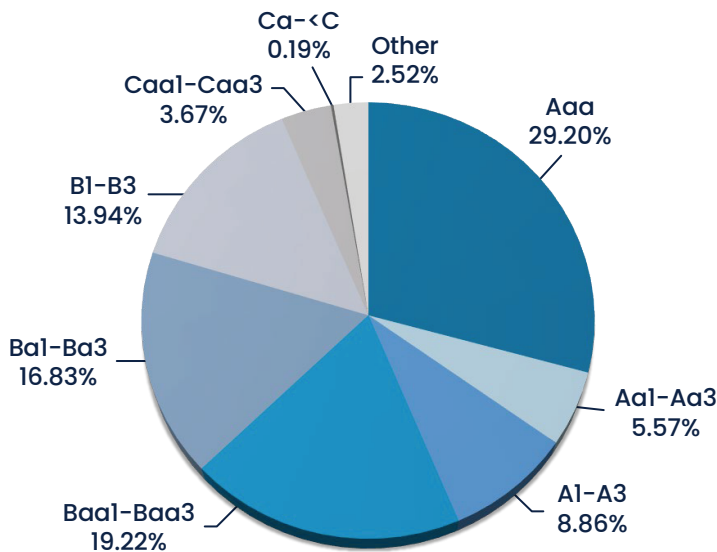
Security Name	Market Value (Millions)
Commit FNMA SFmtg, 4.5% 9/1/52	\$7.9
FNMA Pool #0FM9646, 2% 11/1/51	\$6.5
FNMA Pool #0FM7751, 2% 5/1/51	\$6.0
FNMA Pool #0CB2850, 2% 2/1/52	\$5.9
US Treasury Note, 1.875% 2/28/29	\$4.8
US Treasury Bond, 2% 11/15/41	\$4.6
FNMA Pool #OCB3609, 3.5% 5/1/52	\$4.6
US Treasury Bill, 0% 1/26/23	\$4.3
Amazon.com Inc, 3.8% 12/5/24	\$4.0
Valero Energy Corp, 7.5% 4/15/32	\$4.0
Top Ten	\$52.6

### MANAGER & ASSET SUMMARY

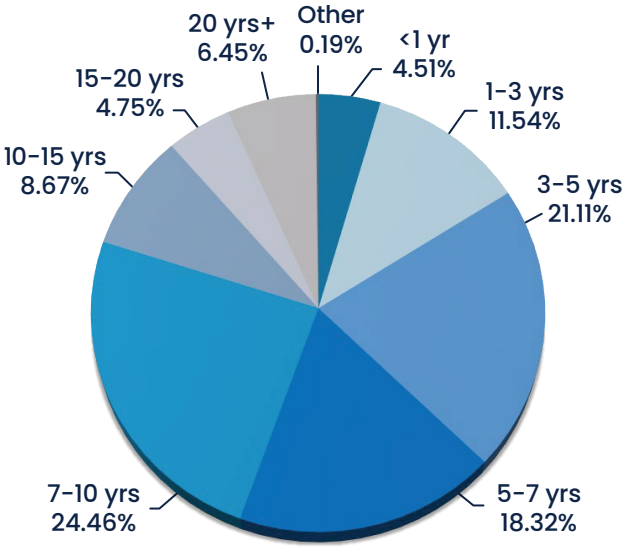
Manager	Market Value (Millions)	Benchmark
Loomis Sayles	\$174.3	BB BC
Orleans Capital	\$123.7	US Aggregate
Investment Grade	\$298.0	
Nomura	\$140.1	Credit Suisse High Yield
High Yield*	\$141.9	
Domestic Fixed Income	\$439.9	

\*Total includes JP Morgan assets being liquidated, \$1.8m

### QUALITY ALLOCATION



### MATURITY ALLOCATION



## Emerging Market Debt: Fiscal Year Summary

### MANAGER & ASSET SUMMARY

Manager	Market Value (Millions)	Benchmark
Stone Harbor	\$105.6	JP Morgan GBI-EM
Gramercy	\$325.3	Global Diversified
<b>Emerging Market Debt \$430.9</b>		

### RETURNS

	Market Return	LASERS Return
Emerging Market Debt	-19.3%	-4.1%

### SAMPLE HOLDINGS

Security Name	Market Value (Millions)
Brazil Notas Do Tesouro Nacion, 10% 1/1/27	\$4.7
JP Morgan Chase Bank NA 144A, 3.13% 11/23/29	\$4.2
Mexican Bonos, 5.5% 3/4/27	\$3.7
Indonesia Treasury Bonds, 8.375% 3/15/24	\$3.3
Republic of South Africa Govt, 10.5% 12/21/26	\$3.3
Republic of South Africa Govt, 6.25% 3/31/36	\$3.1
Indonesia Treasury Bonds, 8.25% 5/15/36	\$2.6
Mexican Bonos, 10% 12/5/24	\$2.6
Republic of South Africa Govt, 8.75% 1/31/44	\$2.5
Brazil Notas Do Tesouro Nacion, 10% 1/1/23	\$2.3

## Global Multi-Sector Fixed Income: Fiscal Year Summary

### MANAGER & ASSET SUMMARY

Manager	Market Value (Millions)	Benchmark
DoubleLine	\$233.9	50/50 Bloomberg Barclay's Capital Global Agg/Credit Suisse High Yield
GoldenTree	\$286.8	
PIMCO	\$389.5	
Blackstone	\$312.7	
Zais Group	\$119.8	
ArrowMark	\$126.7	
<b>Global Multi-Sector</b>	<b>\$1,469.4</b>	

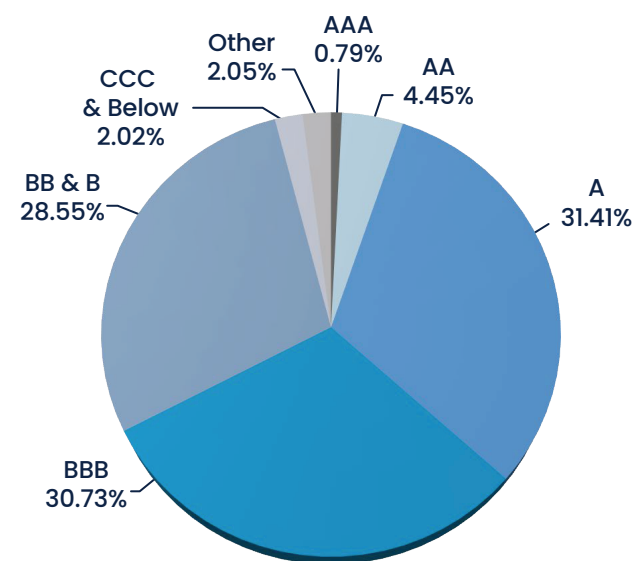
### RETURNS

	Market Value (Millions)	Market Return	LASERS Return
Global Multi-Sector	\$1,469.4	-13.6%	-1.2%

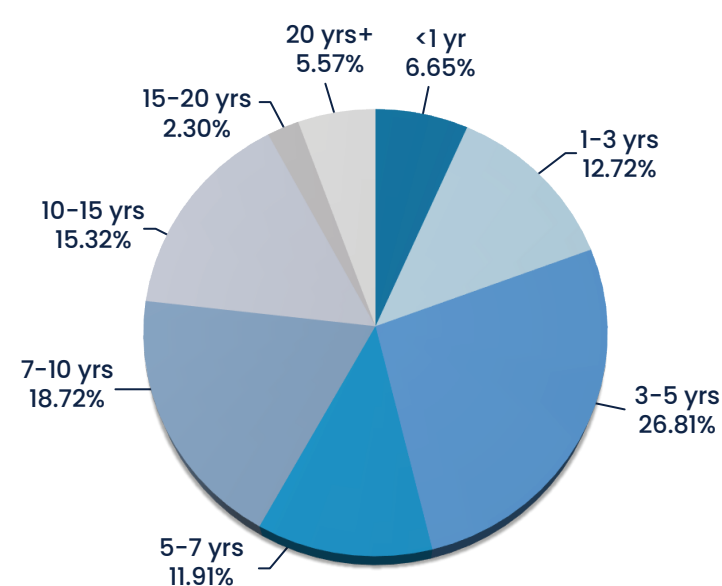
### SAMPLE HOLDINGS

Security Name	Market Value (Millions)
FHLMC Multiclass Mtg 4851 PF, Var Rt 8/15/57	\$3.7
PNMAC FMSR Issuer T FT1 A 144A, Var Rt 4/25/23	\$3.3
Progress Residential SFR3 E 144A, 3.369% 9/17/36	\$3.0
CSMC 2020-RPL6 TR RPL6 A2 144A, Var Rt 3/25/59	\$2.8
GSMC Resecuritization 3R 2B 144A, Var Rt 9/26/36	\$2.7
FMC GMSR Issuer TRU GT1 A 144A, Var Rt 7/25/26	\$2.7
US Treasury Note, 1.875% 2/15/32	\$2.5
Valeant 1/22 TLB, 0% 1/27/27	\$2.5
Carnival Corp 144A, 10.5% 6/1/30	\$2.5
US Treasury Note, 1.375% 11/15/31	\$2.4

### QUALITY ALLOCATION

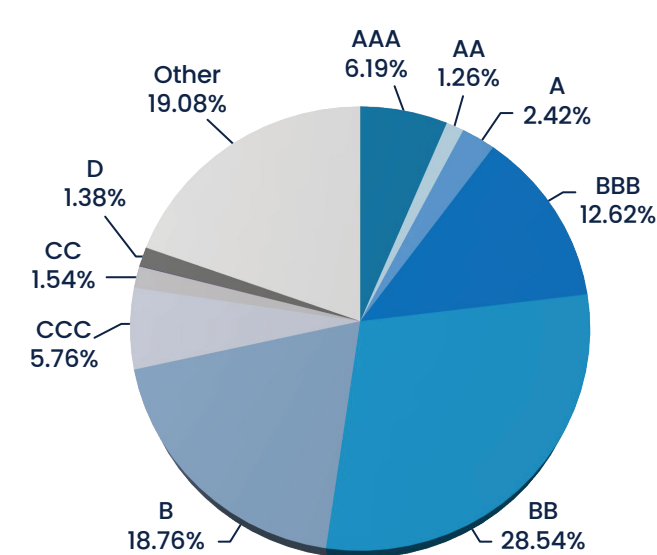


### MATURITY ALLOCATION



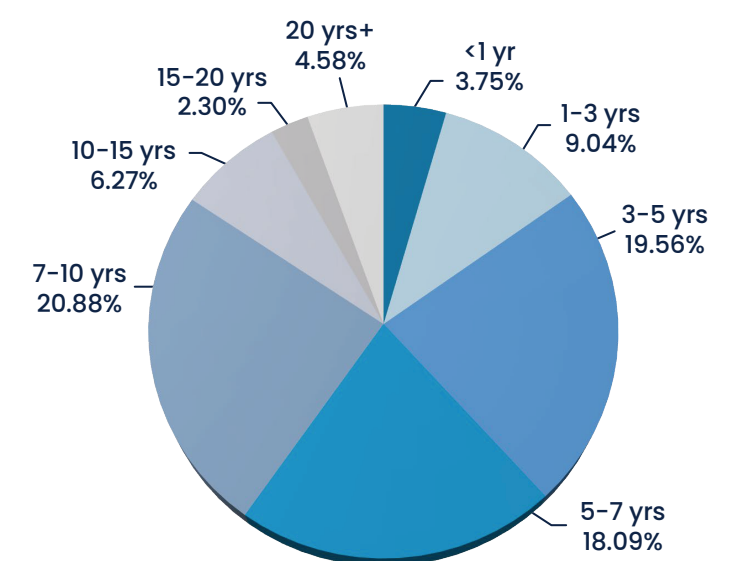
Quality and Maturity Allocation charts reflect only traditional manager(s).

### QUALITY ALLOCATION\*



\*Not visible in chart, C rated 0.03%.

### MATURITY ALLOCATION



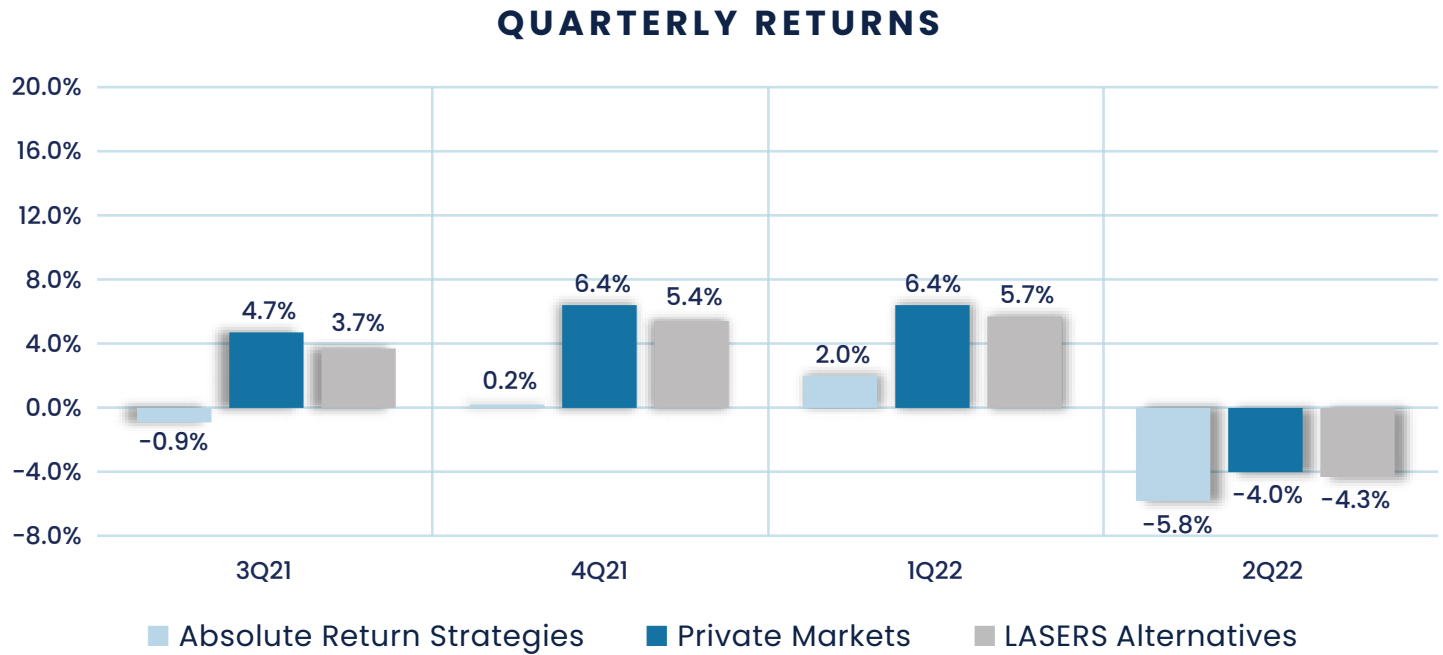
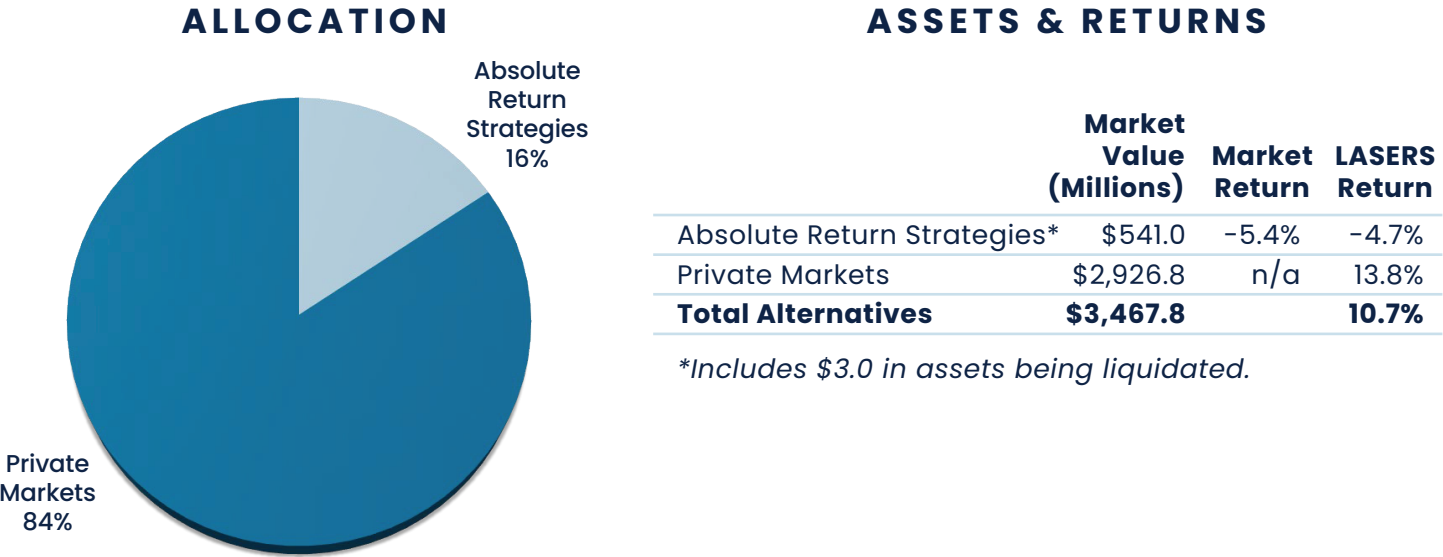
Quality and Maturity Allocation charts reflect only traditional manager(s).



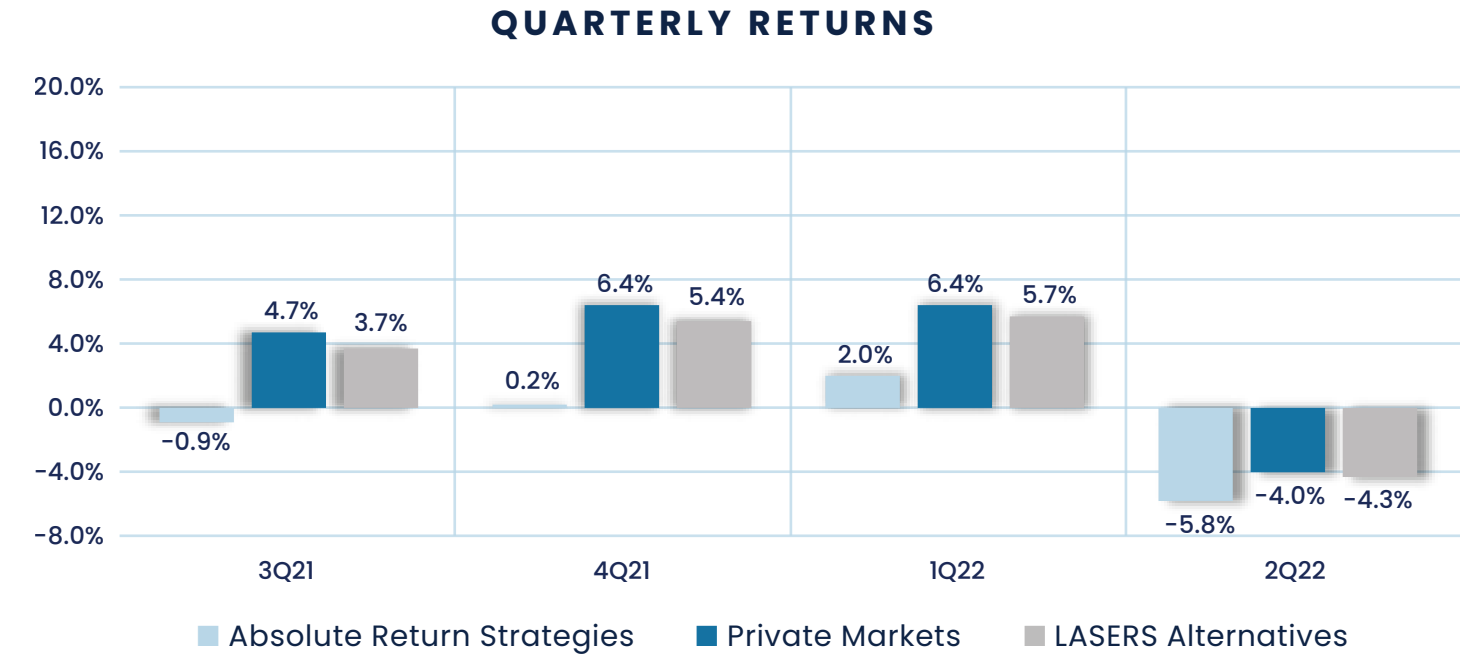
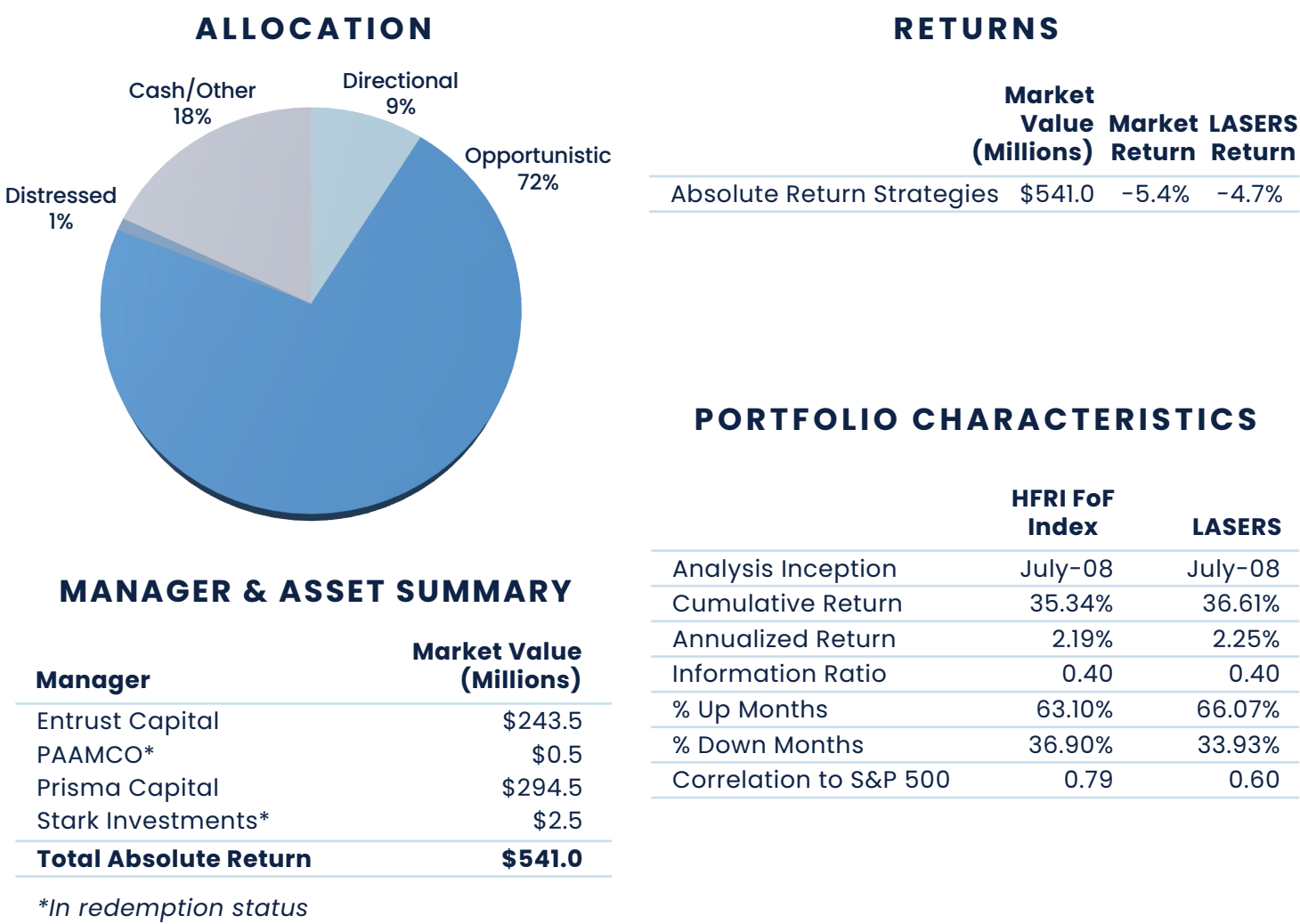
# ALTERNATIVES

Alternative Investments generally refer to institutional blind pool limited partnerships which make private debt and equity investments in privately held companies, as well as hedge funds, and other publicly traded derivatives-based strategies. The benefits of investing in alternatives include increased diversification, inflation hedging, and new exposures/opportunities. LASERS invests in Absolute Return Strategies and Private Markets.

## Alternatives: Fiscal Year Summary

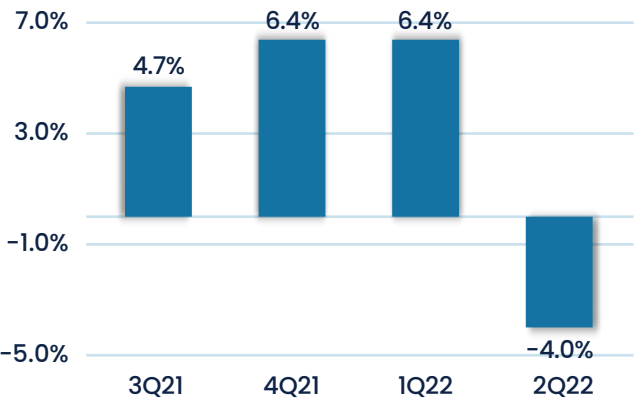


## Absolute Return Strategies: Fiscal Year Summary



Private Markets: Fiscal Year Summary

QUARTERLY RETURNS



PROGRAM SNAPSHOT

FY Return	13.8%
# of managers	43
# of funds	88
Total Commitments	\$6,830,266,344
Total Contributions	\$4,701,198,411
Total Drawdown	69%
Total Distributions	\$5,019,535,943

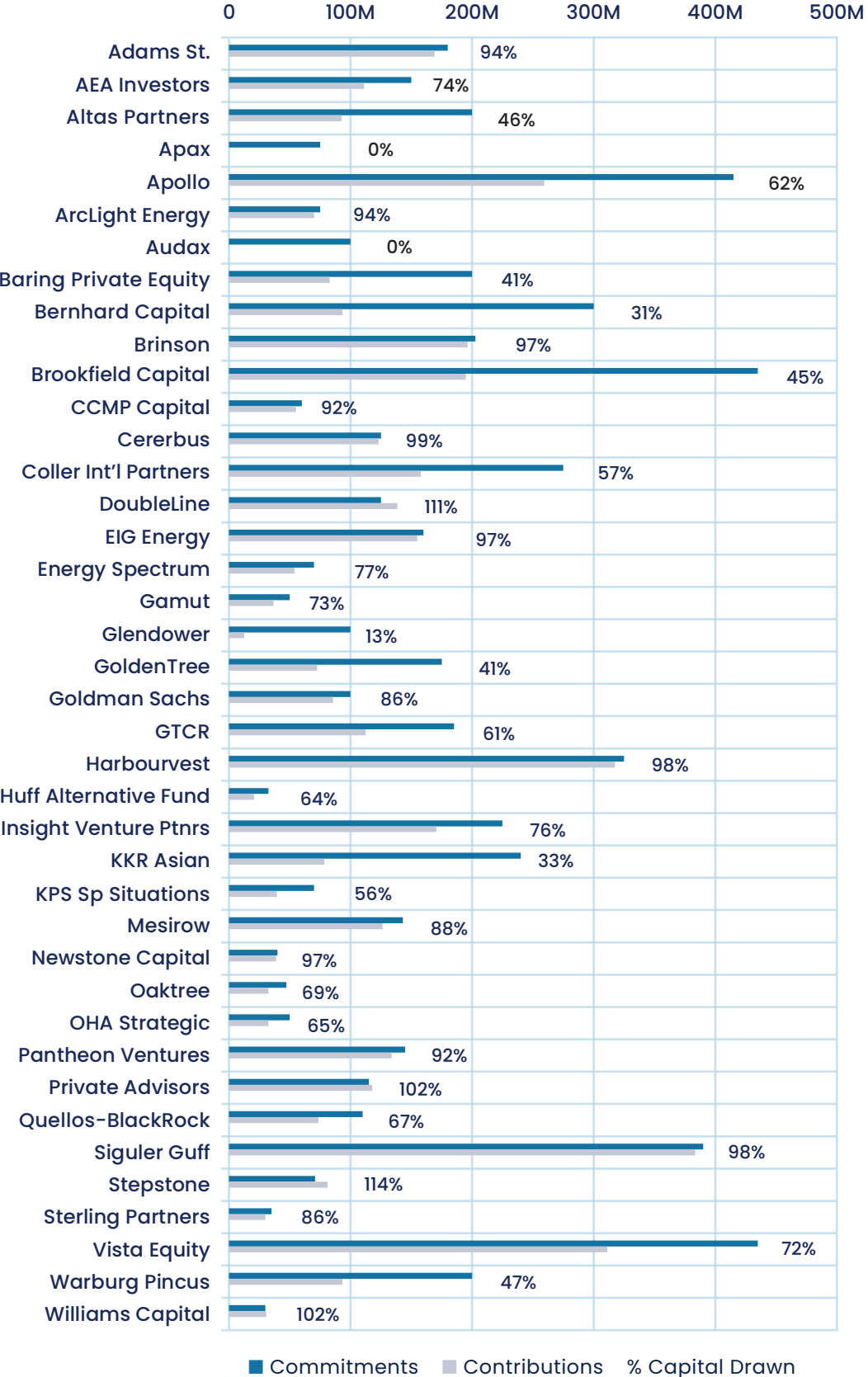
MANAGER & ASSET SUMMARY

Manager	Mkt Value (Millions)
Adams St	\$50.6
AEA Investors	130.0
Altas Partners	84.2
Apollo	107.0
ArcLight Energy	45.3
Baring Private Equity	96.5
Bernhard Capital	79.1
Brinson	1.3
Brookfield Capital	216.9
CCMP Capital	22.8
Cerberus	152.5
Coller International Partners	132.6
DoubleLine	59.0
EIG Energy	53.8
Energy Spectrum	2.1
Gamut	56.6
Glendower	23.0
GoldenTree	57.6
Goldman Sachs	16.3

Manager	Mkt Value (Millions)
GTCR	\$177.9
Harbourvest	0.9
Huff Alternative Fund	3.7
Insight Venture Partners	268.2
KKR	97.2
KPS Special Situations	49.5
Mesirow	62.4
Newstone Capital	4.1
Oaktree	25.5
OHA Strategic	32.8
Pantheon Ventures	20.0
Private Advisors	69.8
Quellos-BlackRock	15.5
Siguler Guff	174.5
Stepstone	9.6
Sterling Partners	11.7
Vista Equity	391.4
Warburg Pincus	124.6
Williams Capital	0.3
Total Private Equity	\$2,926.8

Private Markets: Fiscal Year Summary

COMMITMENTS & CONTRIBUTIONS



# TRADING

Efficient trading, or the purchase or sale of securities by LASERS external managers and internal staff, is a pivotal component of portfolio success.

LASERS is committed to monitoring and analyzing execution costs, with the ultimate goal of ensuring best execution. We conduct a thorough annual review of total execution costs that our managers incur, which includes commissions, market impact, and timing costs. Trading activity and costs are also monitored on an ongoing basis; LASERS staff compiles and analyzes trade data internally, in addition to using the services of an outside consultant, Zeno Consulting Group.

## COMMISSION SUMMARY

Brokerage Firm	Commission	Brokerage Firm	Commission
Goldman Sachs	\$164,564	Jefferies	\$21,048
UBS	\$72,983	Barclays	\$18,772
HSBC	\$53,491	Instinet	\$18,356
Sanford Bernstein	\$49,633	Kepler Chevreau	\$16,748
Merrill Lynch	\$47,689	Nomura	\$16,600
JP Morgan	\$36,601	Daiwa	\$16,015
Citigroup	\$35,661	Exane	\$13,427
Morgan Stanley	\$30,175	Société Générale	\$11,908
Credit Suisse	\$22,738	Other Commissions	\$72,737
RBC	\$22,323	<b>Total</b>	<b>\$741,469</b>

# SECURITIES LENDING

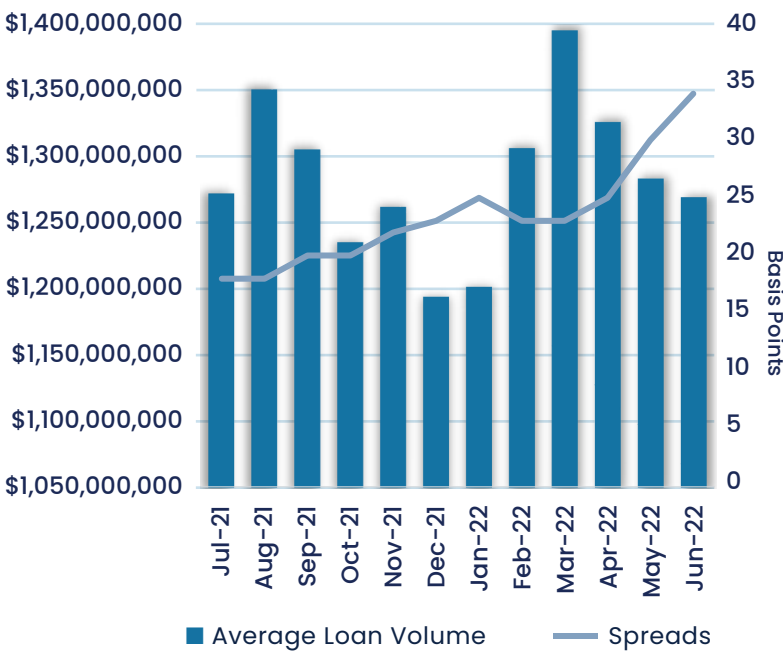
Securities Lending is a practice whereby owners of securities either directly or indirectly lend their securities to primary brokerage firms for a fee, and against which either cash, securities, or a letter of credit is pledged to protect the lender. Securities are borrowed to cover fails of deliveries, cover short sales, provide proper denominations, and enable brokerage firms to engage in arbitrage trading activities.

During the fiscal year, LASERS generated \$2,633,099 in revenue through its securities lending program. The lending agreement between LASERS and custodian bank, BNY Mellon, incorporates an 80/20 split on the first \$2.5 million, which LASERS reached in June; 85/15 revenue split in excess of \$2.5 million up to \$8.0 million; and 90/10 revenue split in excess of \$8.0 million.

## LENDING REVENUE



## VOLUMES/SPREADS



## LENDING STATISTICS

Program	Average Lendable Assets	Return from Lending Income (Basis Points)	Lending Income
Treasuries	\$54,125,972	10	\$45,632
Agencies	\$4,447,136	1	\$462
MBS	\$75,598,344	0	\$0
US Corporates	\$784,466,303	5	\$286,673
US Equities	\$4,422,055,005	3	\$1,193,499
Non-US Equities	\$2,276,674,845	6	\$1,055,027
Non-US Fixed Income	\$116,350,398	6	\$51,806
<b>Total</b>	<b>\$7,733,718,003</b>	<b>4</b>	<b>\$2,633,099</b>

# CORPORATE GOVERNANCE

Corporate governance is the system of rules, practices, and processes by which a company is directed and controlled. Corporate governance essentially involves balancing the interests of a company’s many stakeholders.

LASERS Board of Trustees exercises its right to vote as a shareholder in companies held within investment portfolios as an important method to participate in the corporate governance process. As a fiduciary, LASERS is compelled to exercise this right in the best interest of the System’s participants and beneficiaries. This is accomplished by voting for shareholders’ resolutions that are likely to enhance shareholder value and by opposing resolutions that are likely to dilute or diminish the value.

## PROXY ACTIVITY

Category	Proposals	For	Against	Other
<b>Management Proposals</b>				
Routine/Business	5,936	4,660	1,276	0
Director Related	21,013	16,496	4,517	0
Capitalization	2,219	1,860	359	0
Reorganizations/Mergers	752	675	77	0
Non-Salary Compensation	3,869	2,917	898	54*
Anti-takeover Related	296	278	18	0
Other/Miscellaneous	155	103	52	0
<b>Shareholder Proposals</b>				
Routine/Business	154	54	100	0
Director Related	328	231	97	0
Corporate Governance	60	49	11	0
Compensation	44	34	10	0
Health/Environmental	172	135	37	0
Social/Human Rights	89	71	18	0
Other/Miscellaneous	113	93	20	0
<b>Total</b>	<b>35,200</b>	<b>27,656</b>	<b>7,490</b>	<b>54</b>

\*Frequency of Say on Pay – 54 Votes

# RISK MANAGEMENT

Risk Management is the process of identifying, monitoring, and controlling the level of risk taken by each of LASERS managers.

To assess risk, investment division staff assembles the holdings of all managed portfolios to create an aggregate view of LASERS assets and utilizes multiple software systems. Supported by powerful multi-factor models and extensive databases, these software systems assist in quantifying various metrics at the asset level up to the aggregated portfolio level. These tools allow the investment staff to decompose the risk by source and monitor the overall risk in the portfolio based on the manager or asset class that is contributing that risk. Decomposing risks at an aggregated level and at the individual manager level allows the investment staff to better understand and manage the sources of risk in LASERS portfolio.

## RISK MANAGEMENT ASSESSMENT

	Assets	Market Value	Weight (%)	Total Risk (%)	Modified Duration	S&P Credit Rating
<b>Fixed Income Managers</b>	<b>3,255</b>	<b>\$1,064,442,567</b>	<b>100%</b>			
Loomis Inv. Grade	402	\$ 174,310,284.13	16.38%	4.67%	6.66	A+
Orleans Inv. Grade	134	\$ 123,678,515.83	11.62%	4.88%	6.22	A+
Nomura High Yield	1,082	\$ 140,109,452.32	13.16%	8.33%	4.48	B+
Stone Harbor EMD	95	\$ 105,643,580.57	9.92%	8.96%	5.06	BBB-
DoubleLine GMS	598	\$ 233,875,317.32	21.97%	3.17%	3.22	BB+
GoldenTree GMS	944	\$ 286,825,417.16	26.95%	5.80%	3.13	B+

	Assets	Market Value	Weight (%)	Total Risk (%)	Tracking Error (%)	Value-At-Risk (%)
<b>Equity Managers</b>	<b>7,040</b>	<b>\$6,445,387,172</b>	<b>100%</b>			
LASERS S&P 500	505	\$2,048,308,753	31.78%	21.64%	0.04%	30.94%
LASERS NASDAQ 100	104	\$666,607,205	10.34%	25.06%	0.13%	38.22%
LASERS S&P 400	403	\$526,515,838	8.17%	26.68%	0.06%	35.39%
LASERS S&P 600	604	\$429,433,254	6.66%	28.11%	0.13%	35.18%
LSV Small Cap	221	\$178,940,623	2.78%	28.79%	4.95%	35.97%
Mondrian Large Cap	45	\$247,393,528	3.84%	15.93%	4.89%	24.88%
LASERS MSCI World Ex-US	646	\$799,869,651	12.41%	17.95%	0.79%	28.95%
LASERS MSCI Terror Free	320	\$36,143,253	0.56%	14.41%	1.54%	28.13%
Mondrian Small Cap	98	\$212,311,439	3.29%	17.84%	3.89%	31.65%
Goldman Sachs Small Cap	350	\$311,841,705	4.84%	17.92%	3.37%	29.95%
City of London EM	269	\$342,743,658	5.32%	16.85%	3.83%	30.46%
LSV Custom EM	249	\$317,659,383	4.93%	15.89%	5.61%	28.28%
Westwood Global EM	34	\$249,844,837	3.88%	18.56%	9.35%	29.41%
BlackRock EM	3,192	\$77,774,045	1.21%	17.53%	0.85%	28.04%

**MANAGEMENT TEAM**

**Cynthia Rougeou – Executive Director**

- Bernard “Trey” Boudreaux, III – *Chief of Staff*
- J. Travis McIlwain – *Chief Administrative Officer*
- Robert Beale, CFA, CAIA – *Chief Investment Officer*
- Tina Vicari Grant – *Executive Counsel*

**INVESTMENT TEAM**

**Robert Beale, CFA, CAIA – Chief Investment Officer**

- Darren Fournerat, CFA, CAIA – *Assistant Chief Investment Officer*
- Laney Sanders, CFA, CAIA, CTP – *Assistant Chief Investment Officer*
- Celeste Funderburk, CCM – *Director of Public Markets*
- Jacques Brousseau, CFA, CAIA – *Director of Private Markets*
- Alisa Lacombe – *Manager of Operations*
- Reeves Pearce, CFA, CAIA – *Director of Alternative Assets*
- Jennifer Adams – *Administrative Assistant*

**INVESTMENT CONSULTANT**

**Rhett Humphreys, CFA, NEPC LLC**

- David Barnes, CFA, CAIA, NEPC LLC

**CUSTODIAN BANK**

**BNY Mellon**

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