#### **South Central Connecticut Regional Water Authority**

90 Sargent Drive, New Haven, Connecticut

Or

#### \*\*Dial in by phone

+1 469-965-2517,,732808079# United States, Northlake Phone conference ID: 732 808 079#

#### **AGENDA**

#### Regular Meeting of Thursday, January 23, 2025 at 12:30 p.m.

- 1. Call to Order
  - 1.1 Safety Moment
- 2. Public Comment: The time limit granted to each speaker shall be three (3) minutes. Residents and customers may address the Board.
- 3. Meet as Pension & Benefit Committee: C. LaMarr
  - 3.1 Approve Minutes October 24, 2024 regular meeting
  - 3.2 Quarterly Investment Performance Review Pension and VEBA: S. Kelliher, J. McLaughlin and A. Kantapin
- 4. Act on matters arising from Committee meeting
- 5. Consent Agenda
  - 5.1 Approve Minutes:
    - a. December 10, 2024 emergency meeting
    - b. December 15, 2024 emergency meeting
    - c. December 17, 2024 emergency meeting
    - d. December 19, 2024 regular meeting
  - 5.2 Capital Budget Authorization February 2025
  - 5.3 Monthly Financial Report December 2024
  - 5.4 Accounts Receivable Update December 2024
- 6. Reports on RPB Committee meetings
- 7. Business Updates: S. Lakshminarayanan
  - 7.1 RWAY/CIS Update: P. Singh
  - 7.2 Monthly Business Highlights: S. Lakshminarayanan
    - a. Deer Hunt Update: N. Smith
  - 7.3 \*Blue Drop Update: S. Lakshminarayanan and R. Kowalski Upon 2/3 vote, convene in executive session pursuant to C.G.S. Section 1-200(6)(E) to discuss matters covered by Section 1-210(b)(5)(A)(B), pertaining to trade secrets and commercial and financial information.
    - a. Discussion to consider resolution associated with Blue Drop Upon 2/3 vote, convene in executive session pursuant to C.G.S. Section 1-200(6)(E) to discuss matters covered by Section 1-210(b)(5)(B), pertaining to commercial and financial information.
- 8. Lake Whitney Dam Update: S. Lakshminarayanan and L. Marcik *Upon 2/3 vote, convene in executive session pursuant to C.G.S. Section 1-200(6)(E) for matters covered by Section 1-210(b)(19)(i)(ii), pertaining to security risk.* 
  - \*\*Members of the public may attend the meeting in person or by conference call. To view meeting documents please visit <a href="https://tinyurl.com/3uywxm36">https://tinyurl.com/3uywxm36</a>. For questions, contact the board office at 203-401-2515 or by email at <a href="mailto:jslubowski@rwater.com">jslubowski@rwater.com</a>.

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#### South Central Connecticut Regional Water Authority Pension & Benefit Committee

#### Minutes of the October 24, 2024 Meeting

The regular meeting of the South Central Connecticut Regional Water Authority ("RWA") Pension & Benefit Committee took place on Thursday, October 24, 2024 at the South Central Connecticut Regional Water Authority, 90 Sargent Drive, New Haven, Connecticut, and via remote access. Chair LaMarr presided.

Present: Committee – Mss. LaMarr and Sack, and Messrs. Borowy, Curseaden, and Ricozzi Management – Mss. Kowalski and Calo(R), and Messrs. Bingaman(R), Hill(R), Lakshminarayanan, and Singh

RPB - Ms. Young(R)

Morgan Stanley – Messrs. Kelliher(R), McLaughlin(R), and Kantapin(R)

Staff – Mrs. Slubowski

#### C. MEET AS PENSION & BENEFIT COMMITTEE

The Chair called the meeting to order at 12:34 p.m.

#### **C.1 APPROVE MINUTES**

On motion made by Mr. Borowy and seconded by Mr. Ricozzi, the Committee voted unanimously to approve the minutes of its meeting held on July 25, 2024, as amended.

Borowy Aye
Curseaden Absent
LaMarr Aye
Ricozzi Aye
Sack Aye

#### C.2 QUARTERLY INVESTMENT PERFORMANCE REVIEW

At 12:38 p.m., Mr. Curseaden entered the meeting.

Messrs. Kelliher, McLaughlin, and Kantapin of Morgan Stanley, RWA's Plan Advisor, reported on the Authority's investment performance for the pension plans and the Voluntary Employees' Beneficiary Association (VEBA), for the period ended September 30, 2024, which included:

- Market commentary
- Asset allocations
- Investment results
- Liability analysis

Committee members discussed the liability analysis, associated asset allocation, potential reallocations, and future considerations. After discussion, it was determined that the committee would discuss potential reallocations at its next committee meeting.

Mr. Kantapin reviewed the advisory fee, investment costs, and a comparison over time.

South Central Connecticut Regional Water Authority Pension & Benefit Committee October 24, 2024

At 1:50 p.m., Messrs. Kelliher, McLaughlin, and Kantapin withdrew from the meeting and on motion made by Ms. Sack and seconded by Mr. Curseaden, the Committee voted unanimously to adjourn the meeting.

Borowy		Aye
Curseaden	Aye	
LaMarr		Aye
Ricozzi		Aye
Sack	Aye	_

Catherine LaMarr, Chair

(R) = Attended remotely.

# UNAPPROVED

## Morgan Stanley

## THE KELLIHER CORBETT GROUP AT MORGAN STANLEY

141 Longwater Drive, Suite 102 Norwell, MA. 02061 877.535.4437



#### Stephen Kelliher, QPFC®

Managing Director Senior Portfolio Management Director Corporate Client Group Director CA Insurance #: 4284041

781.681.4933 Stephen.Kelliher@ms.com

#### Alan Kantapin, CFA®

Assistant Vice President Portfolio Management Associate Director

781.681.4936 Alan.Kantapin@ms.com

#### Joseph McLaughlin, QPFC®, CRPS®

Senior Vice President Corporate Retirement Director Financial Wellness Director

781.681.4904 Joseph.McLaughlin@ms.com

### **Discussion Outline & Agenda**

	Section
Market Commentary	<b>I.</b>
Asset Allocation & Investment Matrices	II.
Investment Results	III.
Appendix - Investment Holdings Analysis	IV.

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## **Market Commentary**

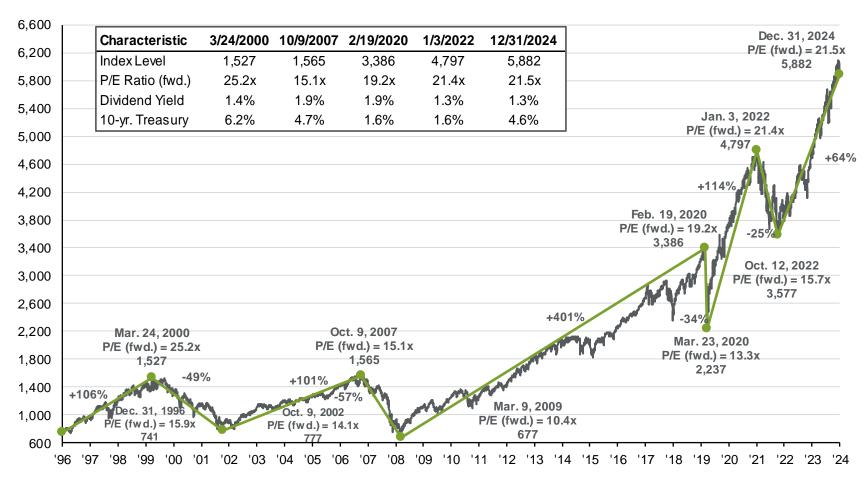




### S&P 500 Index at inflection points

GTM U.S. 4

#### **S&P 500 Price Index**



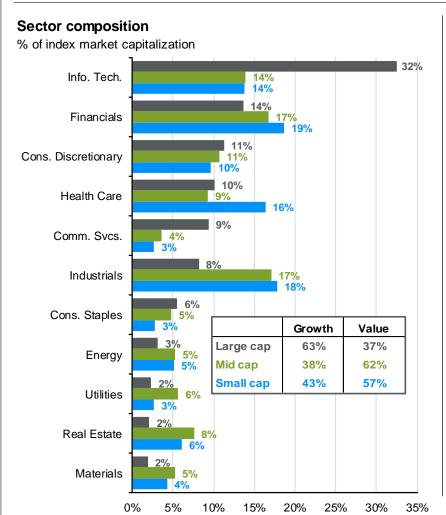
Source: Compustat, FactSet, Federal Reserve, Refinitiv Datastream, Standard & Poor's, J.P. Morgan Asset Management. Dividend yield is calculated as consensus estimates of dividends for the next 12 months, divided by most recent price, as provided by Compustat. Forward price-to-earnings ratio is a bottom-up calculation based on IBES estimates and FactSet estimates since January 2022. Returns are cumulative and based on S&P 500 Index price movement only, and do not include the reinvestment of dividends. Past performance is not indicative of future returns.

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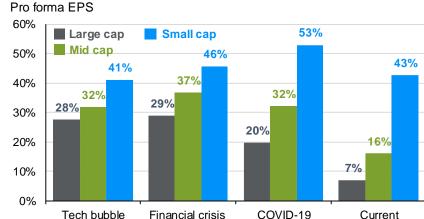


### Small caps, mid caps and large caps

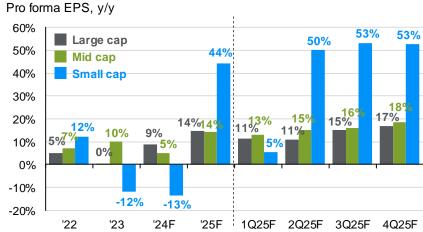
GTM U.S. 13



#### Percent of unprofitable companies



#### Earnings growth



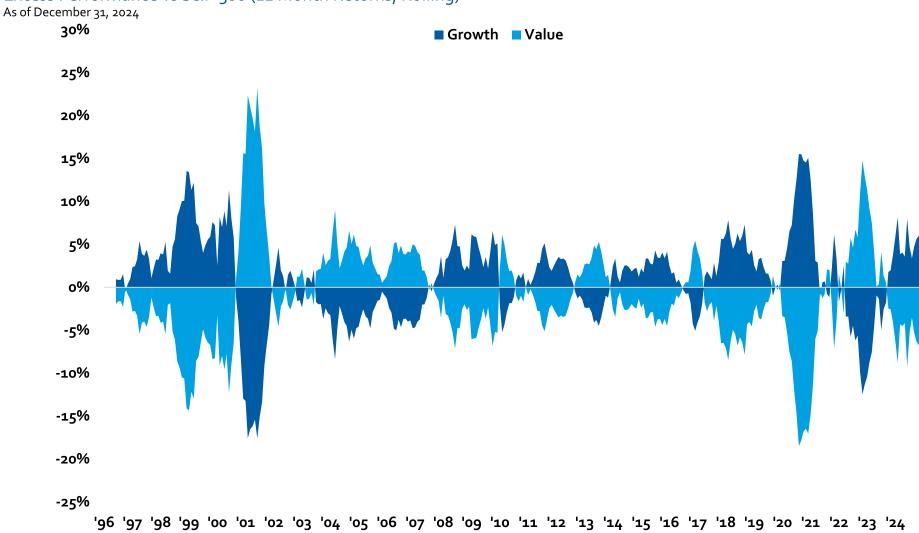
Source: Compustat, FactSet, FTSE Russell, NBER, J.P. Morgan Asset Management.
The S&P 500 is used for large cap. The Russell Mid Cap is used for mid cap. The Russell 2000 is used for small cap. Data for the percent of unprofitable companies in each index are from the following quarters: Tech bubble = 4Q01, Financial crisis = 4Q08, COVID-19 = 1Q20 and Current = 3Q24.

Guide to the Markets - U.S. Data are as of December 31, 2024.



## US Equity Excess Performance by Style Factor (Growth/Value)

Excess Performance vs S&P 500 (12 Month Returns, Rolling)



Source: Bloomberg, Morgan Stanley Wealth Management GIO. Growth is represented by the S&P 500 Growth Index; Value by the S&P 500 Value Index

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

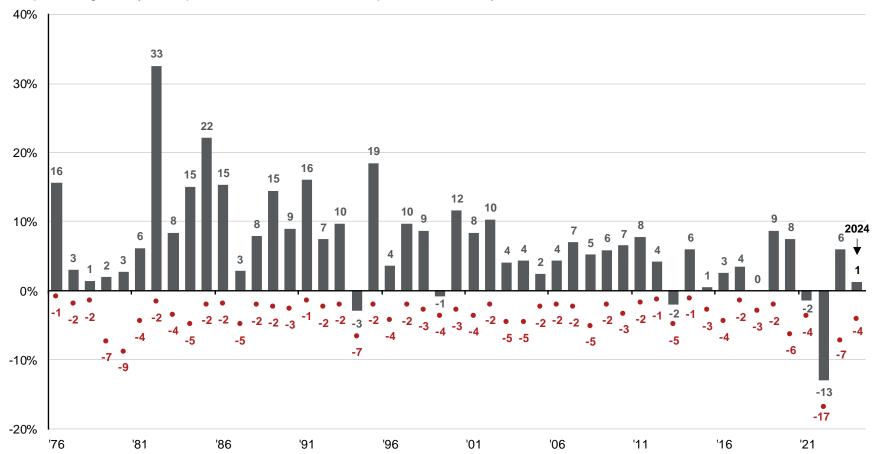


### Bloomberg U.S. Agg. annual returns and intra-year declines

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#### Bloomberg U.S. Aggregate intra-year declines vs. calendar year returns

Despite average intra-year drops of 3.5%, annual returns were positive in 44 of 49 years



Source: Bloomberg, FactSet, J.P. Morgan Asset Management.

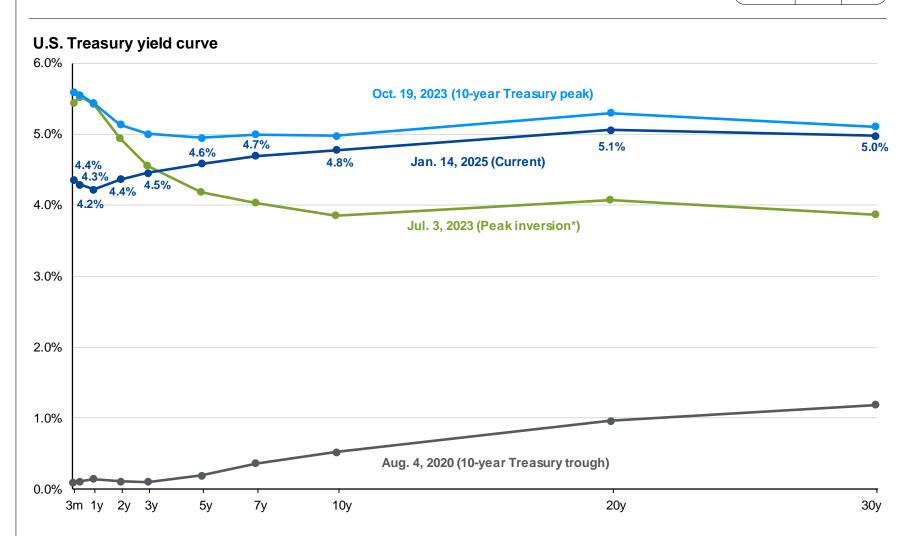
Returns are based on total return. Intra-year drops refers to the largest market drops from a peak to a trough during the year. For illustrative purposes only. Returns shown are calendar year returns from 1976 to 2024, over which time period the average annual return was 6.5%. Returns from 1976 to 1989 are calculated on a monthly basis; daily data are used afterward. *Guide to the Markets – U.S.* Data are as of December 31, 2024.





### Yield curve

GTM U.S. 36



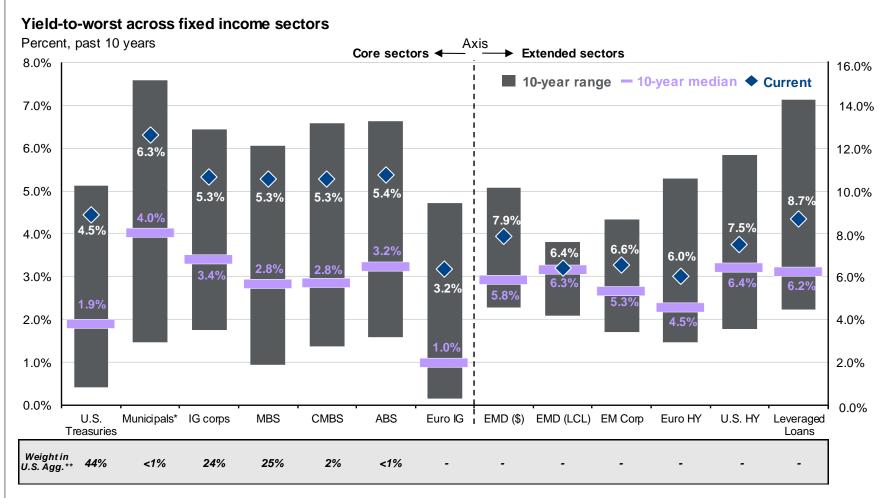
Source: FactSet, Federal Reserve, J.P. Morgan Asset Management. Analysis references data back to 2020. \*Peak inversion is measured by the spread between the yield on a 10-year Treasury and 2-year Treasury. Guide to the Markets – U.S. Data are as of January 14, 2025.





### Fixed income yields

GTM U.S. 38



Source: Bloomberg, FactSet, J.P. Morgan Credit Research, J.P. Morgan Asset Management. Indices used are Bloomberg except for ABS, emerging market debt and leveraged loans: ABS: J.P. Morgan ABS Index; CMBS: Bloomberg Investment Grade CMBS Index; EMD (USD): J.P. Morgan EMIGLOBAL Diversified Index; EMD (LCL): J.P. Morgan GBI-EM Global Diversified Index; EM Corp.: J.P. Morgan CEMBI Broad Diversified; Leveraged Loans: JPM Leveraged Loan Index; Euro IG: Bloomberg Euro Aggregate Corporate Index; Euro HY: Bloomberg Pan-European High Yield Index. Yield-to-worst is the lowest possible yield that can be received on a bond apart from the company defaulting and considers factors like call provisions, prepayments and other features that may affect the bonds' cash flows. \*All sectors shown are yield-to-worst except for Municipals, which is based on the tax-equivalent yield-to-worst assuming a top-income tax bracket rate of 37% plus a Medicare tax rate of 3.8%. \*\*Sectors shown may not exactly match all sectors represented in the Bloomberg U.S. Aggregate Index. Sector level weights are shown, and index constituents may not match. \*Guide to the Markets – U.S. Data are as of December 31.2024.

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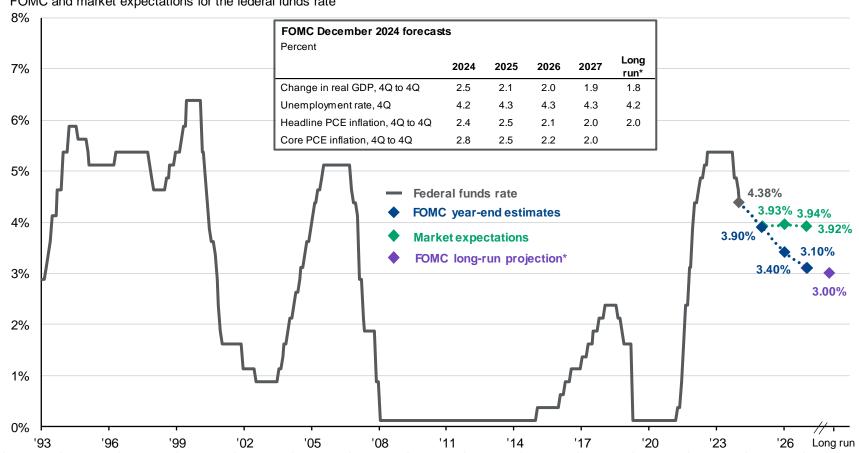


#### The Fed and interest rates

**GTM** U.S. 32

#### Federal funds rate expectations

FOMC and market expectations for the federal funds rate



Source: Bloomberg, FactSet, Federal Reserve, J.P. Morgan Asset Management. Market expectations are based off of USD Overnight index Swaps. \*Long-run projections are the rates of growth, unemployment and inflation to which a policymaker expects the economy to converge over the next five to six years in absence of further shocks and under appropriate monetary policy. Forecasts are not a reliable indicator of future performance. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecasts, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated. Guide to the Markets - U.S. Data are as of December 31, 2024.

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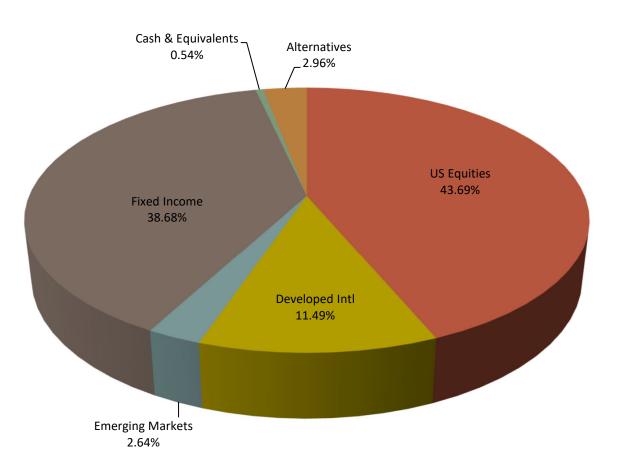
### **Asset Allocation & Investment Matrices**



### SCCT Regional Water Authority - Salary & Union Plans

#### **Current Allocation**

Portfolio Value: \$78,155,262



#### Total Equity 57.82%

#### % of Total Equity

US Equity = 75.57% Intl Equity = 24.43%

#### % of Intl Equity

Developed Intl = 81.32% Emerging Markets = 18.68%

#### Russell 3000 Style Analysis\*

Value = 27.27% Core = 49.32% Growth = 23.41%

#### US Equity Style Analysis\*

Value = 35.82% Core = 47.30% Growth = 16.88%

#### Assets as of 12/31/2024

Asset Allocation does not assure a profit or protect against loss in declining financial markets

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but their accuracy and completeness is not guaranteed. This report has been prepared for illustrative purposes only and is not intended to be used as a substitute for monthly transaction statements you receive on a regular basis from Morgan Stanley & Co. Incorporated Please compare the data on this document carefully with your monthly statements

to verify its accuracy. The Company strongly encourages you to consult with your own accountants or other advisors with respect to any tax questions.

\*Equity Style Analysis provided by Morningstar "Asset Scan"

# SCCT Regional Water Authority - Salary & Union Plans Asset Allocation Matrix Summary As of 12/31/2024

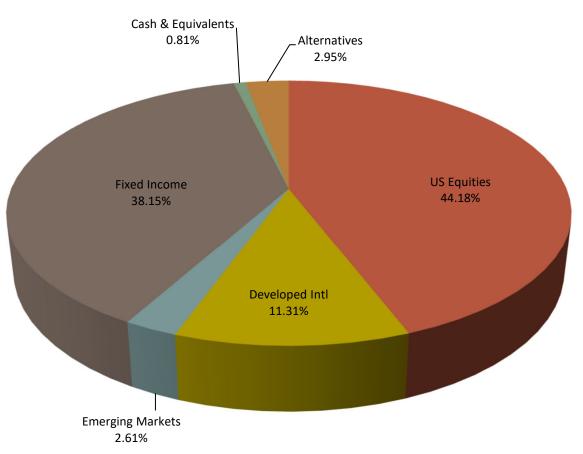
Benchmark vs Actual						
Benchmark Actual +/-						
Russell 3000	42.00%	43.92%	1.92%			
MSCI ACWI ex US	15.00%	13.76%	-1.24%			
Bloomberg US Aggregate	31.00%	38.82%	7.82%			
FTSE WGBI	3.00%	0.00%	-3.00%			
HFRI FOF	5.00%	1.54%	-3.46%			
Global Real Estate	2.00%	1.42%	-0.58%			
Cash & Equivalents/T-Bills	2.00%	0.54%	-1.46%			
Total	100.00%	100.00%	0.00%			

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### SCCT Regional Water Authority - VEBA Plan

#### **Current Allocation**

Portfolio Value: \$10,430,659



### Rus Val Coo Gro US Val

Total Equity 58.09%

#### % of Total Equity

US Equity = 76.05% Intl Equity = 23.95%

#### % of Intl Equity

Developed Intl = 81.27% Emerging Markets = 18.73%

#### Russell 3000 Style Analysis\*

Value = 27.27% Core = 49.32% Growth = 23.41%

#### US Equity Style Analysis\*

Value = 35.65% Core = 47.34% Growth = 17.01%

#### Assets as of 12/31/2024

Asset Allocation does not assure a profit or protect against loss in declining financial markets

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\*Equity Style Analysis provided by Morningstar "Asset Scan"

Data Source: Morgan Stanley & Morningstar

advisors with respect to any tax questions.

### SCCT Regional Water Authority - VEBA Plan Asset Allocation Matrix Summary As of 12/31/2024

Benchmark vs Actual						
Benchmark Actual +/-						
Russell 3000	42.00%	44.40%	2.40%			
MSCI ACWI ex US	15.00%	13.55%	-1.45%			
Bloomberg US Aggregate	31.00%	38.29%	7.29%			
FTSE WGBI	3.00%	0.00%	-3.00%			
HFRI FOF	5.00%	1.57%	-3.43%			
Global Real Estate	2.00%	1.38%	-0.62%			
Cash & Equivalents/T-Bills	2.00%	0.81%	-1.19%			
Total	100.00%	100.00%	0.00%			

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### **Investment Results**



## SCCT Regional Water Authority Fourth Quarter Investment Results September 30, 2024 - December 31, 2024

Account	Account	Beg. Asset Value	Net	Transfers	Net	<b>Ending Asset Value</b>	Net \$	Gain/Loss	Gain/Loss
Number	Туре	30-Sep-2024	Deposits/Withdrawals		Invested	31-Dec-2024	Gain/Loss	(net) %	(gross) %
447-xxx450	Salaried	\$49,906,828	\$0	\$41,123	\$49,947,951	\$49,083,979	(\$863,973)	-1.73%	-1.65%
447-xxx451	Union	\$29,627,347	\$0	(\$49,125)	\$29,578,222	\$29,071,284	(\$506,939)	-1.71%	-1.63%
447-xxx456	VEBA	\$10,633,637	\$0	\$0	\$10,633,637	\$10,430,659	(\$202,978)	-1.91%	-1.83%
axx15	Matrix Trust (Master Trust)**	\$0	(\$15,241)	\$38,066	\$22,825	\$22,825	\$0	-	-
axx15a	Matrix Trust (Salaried)**	\$397,023	(\$286,788)	\$0	\$110,235	\$110,235	\$0	-	-
axx15b	Matrix Trust (Union)**	\$109,081	(\$131,291)	\$38,066	\$15,856	\$15,856	\$0	-	-
axx16	Matrix Trust(VEBA)**	\$97,569	\$445,613	(\$68,130)	\$475,052	\$475,052	\$0	=	-
Consolidated		\$90,771,486	\$12,293	\$0	\$90,783,780	\$89,209,890	(\$1,573,889)	-1.75%	-1.66%

September 30, 2024 - Decemb	per 31, 2024	
Actuarial Assumed Rate of	Return	
Actuarial Assumed Rate of Return (Current): 6.75% x (3/12)		1.69%
Guidelines/Benchmarks - Market	Cap Weighted	
east Equity Risk: 34% R3000, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 29	6 T-Bills	-1.19%
trategic: 42% R3000, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills		-1.18%
Nost Equity Risk: 44% R3000, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2	% T-Bills	-0.72%
Guidelines/Benchmarks - Equa	l Weighted	
east Equity Risk: 34% S&P 500 Equal Weighted, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FO		-2.72%
trategic: 42% S&P 500 Equal Weighted, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% GI		-3.07%
ost Equity Risk: 44% S&P 500 Equal Weighted, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FO	DF, 5% Global RE, 2% T-Bills	-2.70%
	Russell 3000	2.63%
	S&P 500	2.41%
	S&P 500 Equal Weight	-1.87%
	Russell 1000 Value	-1.98%
	Russell 1000	2.75%
	Russell 1000 Growth	7.07%
	Russell 2000	0.33%
	MSCI All Country World ex. US	-7.60%
	MSCI EAFE	-8.11%
	MSCI EM	-8.01%
	Bloomberg Aggregate	-3.06%
	Bloomberg Govt/Credit Intermediate	-1.60%
	HFRI Fund of Funds Index	2.61%
	DJ Global World Real Estate	-9.48%
	FTSE WGBI Index	-5.44%
	30 Day T-Bill	1.20%

Performance for accounts held outside of Morgan Stanley are calculated using simple math

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#### SCCT Regional Water Authority Fiscal Year Investment Results May 31, 2024 - December 31, 2024

Account	Account	Beg. Asset Value	Net	Transfers*	Net	<b>Ending Asset Value</b>	Net \$	Gain/Loss	Gain/Loss
Number	Туре	31-May-2024	Deposits/Withdrawals		Invested	31-Dec-2024	Gain/Loss	(net) %	(gross) %
447-xxx450	Salaried	\$46,574,710	\$0	\$76,811	\$46,651,520	\$49,083,979	\$2,432,458	5.22%	5.43%
447-xxx451	Union	\$27,639,383	\$0	(\$15,243)	\$27,624,140	\$29,071,284	\$1,447,144	5.23%	5.44%
447-xxx456	VEBA	\$9,914,332	\$0	\$0	\$9,914,332	\$10,430,659	\$516,327	5.21%	5.42%
axx15	Matrix Trust (Master Trust)**	\$0.00	(\$15,240.58)	\$38,065.76	\$22,825	\$22,825.18	\$0	-	-
axx15a	Matrix Trust (Salaried)**	\$828,045	(\$717,809)	\$0	\$110,235	\$110,235	\$0	-	-
axx15b	Matrix Trust (Union)**	\$415,577	(\$437,787)	\$38,066	\$15,856	\$15,856	\$0	-	-
axx16	Matrix Trust(VEBA)**	\$178,145	\$411,429	(\$114,523)	\$475,052	\$475,052	\$0	-	
Consolidated		\$85,550,192	(\$759,408)	\$23,177	\$84,813,961	\$89,209,890	\$4,395,929	5.22%	5.43%

May 31, 2024 - Decembe	r 31, 2024				
Actuarial Assumed Rate of	of Return				
Actuarial Assumed Rate of Return (Current): 6.75% x (7/12)		3.94%			
Guidelines/Benchmarks - Marke	t Cap Weighted				
Least Equity Risk: 34% R3000, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE,	2% T-Bills	5.95%			
Strategic: 42% R3000, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills					
Nost Equity Risk: 44% R3000, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2% T-Bills					
Guidelines/Benchmarks - Equ	ual Weighted				
east Equity Risk: 34% S&P 500 Equal Weighted, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI F.	OF, 1% Global RE, 2% T-Bills	4.13%			
Strategic: 42% S&P 500 Equal Weighted, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% (	Global RE, 2% T-Bills	4.30%			
Most Equity Risk: 44% S&P 500 Equal Weighted, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI	FOF, 5% Global RE, 2% T-Bills	4.66%			
	Russell 3000	12.40%			
	S&P 500	12.33%			
	S&P 500 Equal Weight	7.06%			
	Russell 1000 Value	6.25%			
	Russell 1000	12.60%			
	Russell 1000 Growth	17.94%			
	Russell 2000	8.62%			
	MSCI All Country World ex. US	-0.24%			
	MSCI EAFE	-3.03%			
	MSCI EM	3.96%			
	Bloomberg Aggregate	2.94%			
	Bloomberg Govt/Credit Intermediate	3.32%			
	HFRI Fund of Funds Index	4.96%			
	DJ Global World Real Estate	5.98%			
	FTSE WGBI Index	1.10%			
	30 Day T-Bill	3.03%			

<sup>\*</sup>Fiscal Year Transfers Balance of \$23,177: Matrix Trust transferred money to Morgan Stanley on 5/31/2024 (\$13,636.40 & \$9,540.10)

Performance for accounts held outside of Morgan Stanley are calculated using simple math

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<sup>\*</sup>Morgan Stanley accounts did not receive those proceeds until 6/3/2024

#### SCCT Regional Water Authority 2024/Year to Date Investment Results December 31, 2023 - December 31, 2024

Account	Account	Beg. Asset Value	Net	Transfers	Net	<b>Ending Asset Value</b>	Net \$	Gain/Loss	Gain/Loss
Number	Туре	31-Dec-2023	Deposits/Withdrawals		Invested	31-Dec-2024	Gain/Loss	(net) %	(gross) %
447-xxx450	Salaried	\$45,170,155	\$0	(\$612,184)	\$44,557,971	\$49,083,979	\$4,526,008	10.13%	10.50%
447-xxx451	Union	\$26,796,305	\$0	(\$411,901)	\$26,384,403	\$29,071,284	\$2,686,880	10.12%	10.50%
447-xxx456	VEBA	\$9,470,662	\$0	\$0	\$9,470,662	\$10,430,659	\$959,997	10.11%	10.49%
axx15	Matrix Trust (Master Trust)**	\$0	(\$15,241)	\$38,066	\$22,825	\$22,825	\$0	-	-
axx15a	Matrix Trust (Salaried)**	\$191,440	(\$831,205)	\$750,000	\$110,235	\$110,235	\$0	-	-
axx15b	Matrix Trust (Union)**	\$49,796	(\$502,006)	\$468,066	\$15,856	\$15,856	\$0	-	-
axx16	Matrix Trust(VEBA)**	\$468,937	\$238,161	(\$232,046)	\$475,052	\$475,052	\$0	-	-
Consolidated		\$82,147,295	(\$1,110,290)	\$0	\$81,037,005	\$89,209,890	\$8,172,885	10.12%	10.50%

December 31, 2023 - Decemb	er 31, 2024	
Actuarial Assumed Rate of	Return	
Actuarial Assumed Rate of Return (Current): 6.75% x (12/12)		6.75%
Guidelines/Benchmarks - Market	Cap Weighted	
east Equity Risk: 34% R3000, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 29.	T-Bills	10.08%
Strategic: 42% R3000, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills		11.76%
Most Equity Risk: 44% R3000, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 2	% T-Bills	13.17%
Guidelines/Benchmarks - Equa	Weighted	
east Equity Risk: 34% S&P 500 Equal Weighted, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOI	, 1% Global RE, 2% T-Bills	6.41%
strategic: 42% S&P 500 Equal Weighted, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Glo		7.23%
Most Equity Risk: 44% S&P 500 Equal Weighted, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FC	F, 5% Global RE, 2% T-Bills	8.41%
	Russell 3000	23.81%
	S&P 500	25.02%
	S&P 500 Equal Weight	13.01%
	Russell 1000 Value	14.37%
	Russell 1000	24.51%
	Russell 1000 Growth	33.36%
	Russell 2000	11.54%
	MSCI All Country World ex. US	5.53%
	MSCI EAFE	3.82%
	MSCI EM	7.50%
	Bloomberg Aggregate	1.25%
	Bloomberg Govt/Credit Intermediate	3.00%
	HFRI Fund of Funds Index	9.72%
	DJ Global World Real Estate	1.95%
	FTSE WGBI Index	-2.87%
	30 Day T-Bill	5.38%

Performance for accounts held outside of Morgan Stanley are calculated using simple math

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## SCCT Regional Water Authority Trailing Three Year Investment Results December 31, 2021 - December 31, 2024

Account	Account	Beg. Asset Value	Net	Transfers	Net	<b>Ending Asset Value</b>	Net \$	Gain/Loss	Gain/Loss
Number	Туре	31-Dec-2021	Deposits/Withdrawals		Invested	31-Dec-2024	Gain/Loss	(net) %	(gross) %
447-xxx450	Salaried	\$46,007,698	\$0	(\$469,710)	\$45,537,988	\$49,083,979	\$3,545,991	2.49%	2.85%
447-xxx451	Union	\$28,054,594	\$0	(\$1,041,699)	\$27,012,895	\$29,071,284	\$2,058,389	2.58%	2.94%
447-xxx456	VEBA	\$9,761,507	\$0	\$0	\$9,761,507	\$10,430,659	\$669,152	2.24%	2.60%
447-xxx626	Skybridge (Salaried)	\$34,474	\$0	(\$34,478)	(\$4)	\$0	\$4	0.00%	0.00%
447-xxx627	Skybridge (Union)	\$23,135	\$0	(\$23,137)	(\$2)	\$0	\$2	0.00%	0.00%
axx15	Matrix Trust (Master Trust)**	\$0	(\$15,241)	\$38,066	\$22,825	\$22,825	\$0	-	-
axx15a	Matrix Trust (Salaried)**	\$245	(\$868,289)	\$978,279	\$110,235	\$110,235	\$0	-	-
axx15b	Matrix Trust (Union)**	\$55	(\$1,341,219)	\$1,357,019	\$15,856	\$15,856	\$0	-	-
axx16	Matrix Trust(VEBA)**	\$125,243	\$1,154,148	(\$804,340)	\$475,052	\$475,052	\$0	-	-
Consolidated		\$84,006,953	(\$1,070,600)	\$0	\$82,936,352	\$89,209,890	\$6,273,538	2.49%	2.86%

December 31, 2021 - Dece	mber 31, 2024	
Actuarial Assumed Rate	e of Return	
Actuarial Assumed Rate of Return (Current): 6.75%		6.75%
Actuarial Assumed Rate of Return (Prior to 5/31/2021): 7.00%		7.00%
Guidelines/Benchmarks - Mar	ket Cap Weighted	
east Equity Risk: 34% R3000, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global R	E, 2% T-Bills	1.96%
rategic: 42% R3000, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-	Bills	2.70%
lost Equity Risk: 44% R3000, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global	RE, 2% T-Bills	3.45%
Guidelines/Benchmarks - E	qual Weighted	
east Equity Risk: 34% S&P 500 Equal Weighted, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFF	RI FOF, 1% Global RE, 2% T-Bills	0.75%
rategic: 42% S&P 500 Equal Weighted, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2	% Global RE, 2% T-Bills	1.20%
ost Equity Risk: 44% S&P 500 Equal Weighted, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HF	FRI FOF, 5% Global RE, 2% T-Bills	1.88%
	Russell 3000	8.01%
	S&P 500	8.94%
	S&P 500 Equal Weight	4.45%
	Russell 1000 Value	5.63%
	Russell 1000	8.41%
	Russell 1000 Growth	10.47%
	Russell 2000	1.24%
	MSCI All Country World ex. US	0.82%
	MSCI EAFE	1.65%
	MSCI EM	-1.92%
	Bloomberg Aggregate	-2.41%
	Bloomberg Govt/Credit Intermediate	-0.18%
	HFRI Fund of Funds Index	3.29%
	DJ Global World Real Estate	-5.52%
	FTSE WGBI Index	-5.83%
	30 Day T-Bill	3.98%

Performance for accounts held outside of Morgan Stanley are calculated using simple math

\*447-xxx626 closed May 2022

\*447-xxx627 closed July 2022

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## SCCT Regional Water Authority Trailing Five Year Investment Results December 31, 2019 - December 31, 2024

Account	Account	Beg. Asset Value	Net	Transfers	Net	<b>Ending Asset Value</b>	Net \$	Gain/Loss	Gain/Loss
Number	Туре	31-Dec-2019	Deposits/Withdrawals		Invested	31-Dec-2024	Gain/Loss	(net) %	(gross) %
447-xxx450	Salaried	\$37,352,140	\$0	(\$474,787)	\$36,877,353	\$49,083,979	\$12,206,626	5.87%	6.25%
447-xxx451	Union	\$23,019,531	\$0	(\$1,362,256)	\$21,657,275	\$29,071,284	\$7,414,009	5.93%	6.31%
447-xxx456	VEBA	\$7,563,265	\$0	\$400,000	\$7,963,265	\$10,430,659	\$2,467,395	5.71%	6.09%
447-xxx626	Skybridge (Salaried)	\$665,899	\$0	(\$704,240)	(\$38,341)	\$0	\$37,908	1.13%	1.13%
447-xxx627	Skybridge (Union)	\$447,122	\$0	(\$472,852)	(\$25,730)	\$0	\$25,297	1.09%	1.09%
axx15	Matrix Trust (Master Trust)**	\$0	(\$15,241)	\$38,066	\$22,825	\$22,825	\$0	-	-
axx15a	Matrix Trust (Salaried)**	\$395,091	(\$2,236,530)	\$1,951,675	\$110,235	\$110,235	\$0	-	-
axx15b	Matrix Trust (Union)**	\$295,973	(\$2,641,412)	\$2,361,296	\$15,856	\$15,856	\$0	-	-
axx16	Matrix Trust(VEBA)**	\$148,104	\$2,063,850	(\$1,736,902)	\$475,052	\$475,052	\$0	-	-
Consolidated		\$69,887,123	(\$2,829,333)	\$0	\$67,057,790	\$89,209,890	\$22,151,234	5.82%	6.20%

December 31, 2019 - Decem	nber 31, 2024	
Actuarial Assumed Rate	of Return	
Actuarial Assumed Rate of Return (Current): 6.75%		6.75%
Actuarial Assumed Rate of Return (Prior to 5/31/2021): 7.00%		7.00%
Guidelines/Benchmarks - Mark	et Cap Weighted	
east Equity Risk: 34% R3000, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE	, 2% T-Bills	5.43%
rategic: 42% R3000, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-E	ills	6.54%
lost Equity Risk: 44% R3000, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global R	E, 2% T-Bills	7.45%
Guidelines/Benchmarks - Eq	ual Weighted	
east Equity Risk: 34% S&P 500 Equal Weighted, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI	FOF, 1% Global RE, 2% T-Bills	4.38%
rategic: 42% S&P 500 Equal Weighted, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 29	Global RE, 2% T-Bills	5.24%
ost Equity Risk: 44% S&P 500 Equal Weighted, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFF	II FOF, 5% Global RE, 2% T-Bills	6.09%
	Russell 3000	13.86%
	S&P 500	14.53%
	S&P 500 Equal Weight	10.76%
	Russell 1000 Value	8.68%
	Russell 1000	14.28%
	Russell 1000 Growth	18.96%
	Russell 2000	7.40%
	MSCI All Country World ex. US	4.10%
	MSCI EAFE	4.73%
	MSCI EM	1.70%
	Bloomberg Aggregate	-0.33%
	Bloomberg Govt/Credit Intermediate	0.86%
	HFRI Fund of Funds Index	5.35%
	DJ Global World Real Estate	-0.81%
	FTSE WGBI Index	-3.08%
	30 Day T-Bill	2.47%

Performance for accounts held outside of Morgan Stanley are calculated using simple math

\*447-xxx626 closed May 2022

\*447-xxx627 closed July 2022

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## SCCT Regional Water Authority Trailing Eight Year Investment Results December 31, 2016 - December 31, 2024

Account	Account	Beg. Asset Value	Net	Transfers	Net	<b>Ending Asset Value</b>	Net \$	Gain/Loss	Gain/Loss
Number	Туре	31-Dec-2016	Deposits/Withdrawals		Invested	31-Dec-2024	Gain/Loss	(net) %	(gross) %
447-xxx450	Salaried	\$24,506,600	\$0	\$4,278,942	\$28,785,542	\$49,083,979	\$20,298,437	7.09%	7.49%
447-xxx451	Union	\$17,591,956	\$0	(\$1,286,189)	\$16,305,767	\$29,071,284	\$12,765,516	7.11%	7.51%
447-xxx456	VEBA	\$4,406,663	\$0	\$1,967,279	\$6,373,942	\$10,430,659	\$4,056,717	6.95%	7.35%
447-xxx626	Skybridge (Salaried)	\$472,037	\$0	(\$604,240)	(\$132,203)	\$0	\$132,203	2.88%	2.88%
447-xxx627	Skybridge (Union)	\$340,916	\$0	(\$432,852)	(\$91,936)	\$0	\$91,936	2.89%	2.89%
axx15	Matrix Trust (Master Trust)**	\$0	(\$15,241)	\$38,066	\$22,825	\$22,825	\$0	-	-
axx15a	Matrix Trust (Salaried)**	\$872,362	\$1,710,032	(\$2,472,159)	\$110,235	\$110,235	\$0	-	-
axx15b	Matrix Trust (Union)**	\$323,552	(\$2,920,649)	\$2,612,953	\$15,856	\$15,856	\$0	-	-
axx16	Matrix Trust(VEBA)**	\$239,934	\$4,336,918	(\$4,101,800)	\$475,052	\$475,052	\$0	-	-
Consolidated		\$48,754,021	\$3,111,060	\$0	\$51,865,081	\$89,209,890	\$37,344,809	7.03%	7.42%

December 31, 2016 - Dece	ember 31, 2024	
Actuarial Assumed Rate	e of Return	
ctuarial Assumed Rate of Return (Current): 6.75%		6.75%
ctuarial Assumed Rate of Return (Prior to 5/31/2021): 7.00%		7.009
Guidelines/Benchmarks - Mar	ket Cap Weighted	
ast Equity Risk: 34% R3000, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global F	E, 2% T-Bills	6.459
rategic: 42% R3000, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T	Bills	7.599
ost Equity Risk: 44% R3000, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global	RE, 2% T-Bills	8.309
Guidelines/Benchmarks - E	qual Weighted	
ast Equity Risk: 34% S&P 500 Equal Weighted, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFI	RI FOF, 1% Global RE, 2% T-Bills	5.519
rategic: 42% S&P 500 Equal Weighted, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2	·	6.43
ost Equity Risk: 44% S&P 500 Equal Weighted, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HI	FRI FOF, 5% Global RE, 2% T-Bills	7.08
	Russell 3000	14.13
	S&P 500	14.80
	S&P 500 Equal Weight	11.36
	Russell 1000 Value	9.06
	Russell 1000	14.57
	Russell 1000 Growth	19.53
	Russell 2000	7.85
	MSCI All Country World ex. US	6.23
	MSCI EAFE	6.52
	MSCI EM	5.29
	Bloomberg Aggregate	1.29
	Bloomberg Govt/Credit Intermediate	1.74
	HFRI Fund of Funds Index	4.469
	DJ Global World Real Estate	3.469
	FTSE WGBI Index	-0.44
	30 Day T-Bill	2.15

Performance for accounts held outside of Morgan Stanley are calculated using simple math

\*447-xxx626 closed May 2022

\*447-xxx627 closed July 2022

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## SCCT Regional Water Authority Since Inception (Fully Invested) Investment Results December 31, 2015 - December 31, 2024

Account	Account	Beg. Asset Value	Net	Transfers	Net	<b>Ending Asset Value</b>	Net \$	Gain/Loss	Gain/Loss
Number	Туре	31-Dec-2015	Deposits/Withdrawals		Invested	31-Dec-2024	Gain/Loss	(net) %	(gross) %
447-xxx450	Salaried	\$22,078,953	\$0	\$5,265,370	\$27,344,323	\$49,083,979	\$21,739,655	7.00%	7.40%
447-xxx451	Union	\$16,143,219	\$0	(\$878,331)	\$15,264,888	\$29,071,284	\$13,806,395	7.02%	7.42%
447-xxx456	VEBA	\$2,919,401	\$0	\$3,195,838	\$6,115,239	\$10,430,659	\$4,315,420	6.81%	7.22%
447-xxx626	Skybridge (Salaried)	\$0	\$0	(\$153,806)	(\$153,806)	\$0	\$153,806	3.21%	3.21%
447-xxx627	Skybridge (Union)	\$0	\$0	(\$107,539)	(\$107,539)	\$0	\$107,539	3.22%	3.22%
axx15	Matrix Trust (Master Trust)**	\$0	(\$15,241)	\$38,066	\$22,825	\$22,825	\$0	-	-
axx15a	Matrix Trust (Salaried)**	\$202,978	\$3,683,647	(\$3,776,390)	\$110,235	\$110,235	\$0	-	-
axx15b	Matrix Trust (Union)**	\$147,576	(\$2,105,377)	\$1,973,657	\$15,856	\$15,856	\$0	-	-
axx16	Matrix Trust(VEBA)**	\$269,858	\$5,762,059	(\$5,556,865)	\$475,052	\$475,052	\$0	-	-
Consolidated		\$41,761,987	\$7,325,088	\$0	\$49,087,075	\$89,209,890	\$40,122,815	6.94%	7.34%

December 31, 2015 - Decembe	er 31, 2024	
Actuarial Assumed Rate of R	Return	
Actuarial Assumed Rate of Return (Current): 6.75%		6.75%
ctuarial Assumed Rate of Return (Prior to 5/31/2021): 7.00%		7.00%
Guidelines/Benchmarks - Market C	ap Weighted	
east Equity Risk: 34% R3000, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF, 1% Global RE, 2%	5 T-Bills	6.40%
rategic: 42% R3000, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Global RE, 2% T-Bills		7.52%
lost Equity Risk: 44% R3000, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FOF, 5% Global RE, 29	% T-Bills	8.16%
Guidelines/Benchmarks - Equal	Weighted	
ast Equity Risk: 34% S&P 500 Equal Weighted, 11% MSCI ACWxUS, 39% Bloomberg Agg, 4% FTSE WGBI, 9% HFRI FOF	-	5.64%
rategic: 42% S&P 500 Equal Weighted, 15% MSCI ACWxUS, 31% Bloomberg Agg, 3% FTSE WGBI, 5% HFRI FOF, 2% Glo	•	6.59%
ost Equity Risk: 44% S&P 500 Equal Weighted, 16% MSCI ACWxUS, 16% Bloomberg Agg, 2% FTSE WGBI, 15% HFRI FO		7.18%
	Russell 3000	13.97%
	S&P 500	14.49%
	S&P 500 Equal Weight	11.74%
	Russell 1000 Value	9.95%
	Russell 1000	14.28%
	Russell 1000 Growth	18.08%
	Russell 2000	9.27%
	MSCI All Country World ex. US	6.03%
	MSCI EAFE	5.89%
	MSCI EM	5.93%
	Bloomberg Aggregate	1.44%
	Bloomberg Govt/Credit Intermediate	1.78%
	HFRI Fund of Funds Index	4.01%
	DJ Global World Real Estate	3.61%
	FTSE WGBI Index	-0.21%
	30 Day T-Bill	1.93%

Performance for accounts held outside of Morgan Stanley are calculated using simple math

\*447-xxx626 closed May 2022

\*447-xxx627 closed July 2022

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## Morgan Stanley

THE KELLIHER CORBETT GROUP AT MORGAN STANLEY

## **Appendix**



## Morgan Stanley

THE KELLIHER CORBETT GROUP AT MORGAN STANLEY

## **Investment Holdings Analysis**



Results										
	Morningstar			Marke	et Return	ıs (%)			\$	% of
Data as of 12/31/2024	Category	3 Month	YTD	1-Yr		3-Yr	5-Yr	10-Yr	Assets	Total
Cash & Equivalents										
Cash & Equivalents		-	-	-		-	-	-	\$ 504,362	0.57%
Fixed Income										
Vanguard Short-Term Treasury ETF	Short Government	-0.09	4.02	4.02		1.41	1.34	1.33	\$ 162,904	0.18%
Cat: Short Government	Short Government	-0.13	4.03	4.03		0.99	1.03	1.17		
Guggenheim Limited Duration Instl	Short-Term Bond	0.28	5.98	5.98		2.84	3.08	2.87	\$ 336,177	0.38%
Vanguard Short-Term Bond ETF	Short-Term Bond	-0.71	3.75	3.75		0.93	1.27	1.61	\$ 278,172	0.31%
Cat: Short-Term Bond	Short-Term Bond	-0.09	5.07	5.07		1.81	1.91	1.98		
Vanguard Interm-Term Bond ETF	Intermediate Core Bond	-3.39	1.49	1.49		-2.25	0.03	1.77	\$ 2,458,617	2.78%
Cat: Intermediate Core Bond	Intermediate Core Bond	-2.87	1.68	1.68		-2.29	-0.20	1.30		
Fidelity Total Bond ETF	Intermediate Core-Plus Bond	-2.76	2.36	2.36		-1.54	0.82	2.21	\$ 2,316,296	2.61%
Loomis Sayles Core Plus Bond Y	Intermediate Core-Plus Bond	-3.52	0.75	0.75		-2.29	0.34	1.81	\$ 2,594,126	2.93%
Cat: Intermediate Core-Plus Bond	Intermediate Core-Plus Bond	-2.76	2.37	2.37		-1.92	0.19	1.63		
PIMCO Income 12	Multisector Bond	-1.00	5.31	5.31		1.94	2.79	4.16	\$ 5,832,593	6.58%
Cat: Multisector Bond	Multisector Bond	-0.74	5.96	5.96		1.15	2.24	3.11		
Idx: Bloomberg US Agg Bond TR USD	-	-3.06	1.25	1.25		-2.41	-0.33	1.35		
Idx: Bloomberg US Govt/Credit Interm TR USD	-	-1.60	3.00	3.00		-0.18	0.86	1.71		
Idx: FTSE WGBI USD	-	-5.44	-2.87	-2.87		-5.83	-3.08	-0.55		
Sub-Total Fixed Income									\$ 13,978,884	15.78%

Green = exceeds peer group

Yellow = trails peer group

☐ Red = fails to meet criteria (on watch/remove and/or replacement)

Data Source: Morgan Stanley & Morningstar

Orange = Fund position only held in VEBA

Assets as of 12/31/2024 See last page for important disclosure/disclaimer

Results										
	Morningstar			Marke	t Return	ıs (%)			\$	% of
Data as of 12/31/2024	Category	3 Month	YTD	1-Yr		3-Yr	5-Yr	10-Yr	Assets	Total
US Equity										
Columbia Dividend Income Inst	Large Value	-1.34	15.01	15.01		6.51	10.46	10.75	\$ 4,035,723	4.56%
Vanguard Value ETF	Large Value	-2.51	16.00	16.00		7.48	9.93	10.00	\$ 6,209,078	7.01%
Cat: Large Value	Large Value	-1.54	14.28	14.28		6.10	9.31	8.72		
Invesco S&P 500® Equal Weight ETF	Large Blend	-1.92	12.77	12.77		4.25	10.57	10.00	\$ 4,122,286	4.65%
Vanguard Total Stock Market ETF	Large Blend	2.62	23.75	23.75		7.88	13.80	12.50	\$ 10,230,293	11.55%
Cat: Large Blend	Large Blend	1.42	21.45	21.45		7.24	12.89	11.57		
MFS Massachusetts Inv Gr Stk I	Large Growth	-0.62	16.64	16.64		5.51	12.77	13.52	\$ 3,091,842	3.49%
Vanguard Russell 1000 Growth ETF	Large Growth	7.04	33.24	33.24		10.41	18.88	16.67	\$ 2,899,115	3.27%
Cat: Large Growth	Large Growth	5.39	28.96	28.96		6.74	15.42	14.02		
iShares Core S&P Small-Cap ETF	Small Blend	-0.60	8.61	8.61		1.84	8.28	8.91	\$ 1,209,810	1.37%
Cat: Small Blend	Small Blend	-0.08	11.15	11.15		2.58	8.63	7.95		
Idx: Russell 3000 TR USD	-	2.63	23.81	23.81		8.01	13.86	12.55		
ldx: S&P 500 TR USD	-	2.41	25.02	25.02		8.94	14.53	13.10		
Idx: Russell 1000 Value TR USD	-	-1.98	14.37	14.37		5.63	8.68	8.49		
ldx: Russell 1000 TR USD	-	2.75	24.51	24.51		8.41	14.28	12.87		
ldx: Russell 1000 Growth TR USD	-	7.07	33.36	33.36		10.47	18.96	16.78		
ldx: Morningstar DYF TR USD	-	-3.66	14.21	14.21		7.63	6.87	7.91		
ldx: Russell 2000 TR USD	-	0.33	11.54	11.54		1.24	7.40	7.82		
Sub-Total US Equity									\$ 31,798,146	35.90%

Green = exceeds peer group

Yellow = trails peer group

☐ Red = fails to meet criteria (on watch/remove and/or replacement)

Data Source: Morgan Stanley & Morningstar

Assets as of 12/31/2024 See last page for important disclosure/disclaimer

Results	Manatanatan				N. A. a. all	+ D	- (n/)				ć	0/ - f
Data as of 12/31/2024	Morningstar Category	3 Month	YTD		1-Yr	t Return	3-Yr	5-Yr	10-Yr		\$ Assets	% of Total
Global/International Equity	Category	3 WOILLI	110		± 11		3 11	3 11	10 11		Assets	Total
MFS Intl Diversification I	Foreign Large Bland	-7.57	6.41		6.41		0.20	4.50	6.49	خ .	2 420 620	3.87%
	Foreign Large Blend		6.41				0.29 0.71	4.59	5.09	\$ \$	3,428,639	
Vanguard Total International Stock ETF	Foreign Large Blend	-7.39	5.20		5.20			4.32		\$	3,644,821	4.11%
Cat: Foreign Large Blend	Foreign Large Blend	-7.35	4.85		4.85		0.77	4.45	4.97	<u>,</u>	2 240 240	2.750/
Capital Group International Focus Eq ETF	Foreign Large Growth	-7.78	4.75		4.75		-	-	-	\$	3,319,349	3.75%
Cat: Foreign Large Growth	Foreign Large Growth	-6.94	5.18		5.18		-3.13	4.11	5.80	<u>,</u>	2.540.642	4.040/
First Eagle Global I	Global Allocation	-5.44	12.04		12.04		5.90	7.73	7.24	\$	3,548,642	4.01%
Cat: Global Allocation	Global Allocation	-3.14	7.57		7.57		1.48	4.43	4.55			
Idx: MSCI ACWI Ex USA NR USD	-	-7.60	5.53		5.53		0.82	4.10	4.80			
Idx: MSCI ACWI NR USD	-	-0.99	17.49		17.49		5.44	10.06	9.23			
Idx: MSCI EAFE NR USD	-	-8.11	3.82		3.82		1.65	4.73	5.20			
Idx: MSCI EM NR USD	-	-8.01	7.50		7.50		-1.92	1.70	3.64	_		
Sub-Total Global/International Equity										\$	13,941,450	15.74%
Balanced												
Capital Group Core Balanced ETF	Moderate Allocation	1.30	16.67		16.67		-	-	-	\$	4,140,148	4.67%
Janus Henderson Balanced I	Moderate Allocation	0.07	15.40		15.40		3.59	8.31	8.68	\$	4,139,581	4.67%
Cat: Moderate Allocation	Moderate Allocation	-0.84	11.39		11.39		2.91	6.75	6.54			
ldx: Bloomberg US Agg Bond TR USD	-	-3.06	1.25		1.25		-2.41	-0.33	1.35			
ldx: S&P 500 TR USD	-	2.41	25.02		25.02		8.94	14.53	13.10			
Sub-Total Balanced										\$	8,279,729	9.35%
Alternative												
BlackRock Event Driven Equity Instl	Event Driven	-0.60	2.19		2.19		2.50	3.14	3.81	\$	1,242,298	1.40%
Cat: Event Driven	Event Driven	0.67	4.14		4.14		2.25	3.90	3.38			
JPMorgan Hedged Equity I	Equity Hedged	1.44	18.23		18.23		8.06	10.30	8.38	\$	125,814	0.14%
Cat: Equity Hedged	Equity Hedged	0.68	11.72	_	11.72		3.51	6.18	4.12			
Cohen & Steers Global Realty I	Global Real Estate	-10.60	0.83		0.83		-5.78	0.69	4.08	\$	1,256,539	1.42%
Cat: Global Real Estate	Global Real Estate	-10.11	0.23		0.23		-6.17	-0.68	2.69			
ldx: S&P 500 TR USD	-	2.41	25.02		25.02		8.94	14.53	13.10			
ldx: Bloomberg US Agg Bond TR USD	-	-3.06	1.25		1.25		-2.41	-0.33	1.35			
ldx: Russell 3000 TR USD	-	2.63	23.81		23.81		8.01	13.86	12.55			
ldx: MSCI ACWI NR USD	-	-0.99	17.49		17.49		5.44	10.06	9.23			
ldx: DJ Global World Real Estate TR USD	-	-9.48	1.95		1.95		-5.52	-0.81	3.18			
Sub-Total Alternative										Ś	2,624,651	2.96%
										, v	2,02 1,031	2.5570
											71,127,223	80.29%

• Green = exceeds peer group

Yellow = trails peer group

☐ Red = fails to meet criteria (on watch/remove and/or replacement)

Data Source: Morgan Stanley & Morningstar

Assets as of 12/31/2024 See last page for important disclosure/disclaimer

Statistics										
	Prospectus Net	Prospectus Adj	Beta 3 Yr vs.	Alpha 3 Yr vs.	Std Dev	R2 3 Yr vs.	P/E	P/B	Geo Avg	Mstar
Data as of 12/31/2024	Expense Ratio	Expense Ratio	S&P or BBg Agg	S&P or BBg Agg	3 Yr	S&P or BBg Agg	Ratio	Ratio	Mkt Cap \$MM	Risk 5 Yr
Fixed Income										
Vanguard Short-Term Treasury ETF	0.04	0.04	0.25	-1.17	2.46	73	-	-	-	Below Avg
Cat: Short Government	0.59	0.59	0.33	-1.10	3.01	77	21.0	2.8	79978	-
Guggenheim Limited Duration Instl	0.50	0.47	0.35	0.86	3.12	85	27.9	4.9	342705	Average
Vanguard Short-Term Bond ETF	0.04	0.04	0.41	-0.61	3.53	89	-	-	-	Average
Cat: Short-Term Bond	0.64	0.64	0.36	-0.07	3.28	82	24.7	3.3	19830	-
Vanguard Interm-Term Bond ETF	0.04	0.04	1.06	0.57	8.31	99	-	-	-	Above Avg
Cat: Intermediate Core Bond	0.56	0.56	0.97	-0.09	7.68	98	-	-	-	-
Fidelity Total Bond ETF	0.36	0.36	0.99	0.78	7.79	98	-	-	-	Below Avg
Loomis Sayles Core Plus Bond Y	0.49	0.49	1.10	0.82	8.66	98	-	-	-	Above Avg
Cat: Intermediate Core-Plus Bond	0.76	0.76	0.98	0.36	7.84	95	-	-	-	-
PIMCO Income I2	0.93	0.60	0.79	2.94	6.72	85	-	-	-	Average
Cat: Multisector Bond	0.99	0.99	0.71	1.63	6.47	73	-	-	-	-

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Orange = Fund position only held in VEBA

The Prospectus Adjusted Operating Expense Ratio is the percentage of fund assets paid for operating expenses and management fees. The expense ratio typically includes the following types of fees: accounting, administrator, advisor, auditor, board of directors, custodial, distribution (12b-1), legal, organizational, professional, registration, shareholder reporting, sub-advisor, and transfer agency. The ratio does reflect fee waivers in effect during the time period, and does not include interest and dividends on borrowed securities. The expense ratio does not reflect the fund's brokerage costs or any investor sales charges.

Statistics										
	Prospectus Net	Prospectus Adj	Beta 3 Yr vs.	Alpha 3 Yr vs.	Std Dev	R2 3 Yr vs.	P/E	P/B	Geo Avg	Mstar
Data as of 12/31/2024	Expense Ratio	Expense Ratio	S&P or BBg Agg	S&P or BBg Agg	3 Yr	S&P or BBg Agg	Ratio	Ratio	Mkt Cap \$MM	Risk 5 Yr
US Equity										
Columbia Dividend Income Inst	0.65	0.65	0.77	-1.37	14.46	85	23.3	3.7	193589	Low
Vanguard Value ETF	0.04	0.04	0.80	-0.47	15.74	78	21.1	3.0	134484	Below Avg
Cat: Large Value	0.88	0.88	0.84	-1.87	16.47	78	18.3	2.4	133342	-
Invesco S&P 500® Equal Weight ETF	0.20	0.20	1.00	-4.23	18.54	87	21.1	2.8	43189	High
Vanguard Total Stock Market ETF	0.03	0.03	1.02	-1.05	17.85	99	27.1	4.4	209053	Above Avg
Cat: Large Blend	0.77	0.77	0.96	-1.40	17.25	94	27.4	5.0	383784	-
MFS Massachusetts Inv Gr Stk I	0.46	0.46	0.98	-3.10	17.37	96	32.9	6.7	252704	Low
Vanguard Russell 1000 Growth ETF	0.08	0.08	1.13	1.18	20.61	91	37.0	12.2	693393	Average
Cat: Large Growth	0.94	0.94	1.15	-2.13	21.66	88	35.6	9.4	586061	-
iShares Core S&P Small-Cap ETF	0.06	0.06	1.11	-6.32	23.22	68	17.6	1.8	2982	Above Avg
Cat: Small Blend	0.99	0.99	1.07	-5.62	22.00	71	18.4	2.1	5770	-

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Statistics										
	Prospectus Net	Prospectus Adj	Beta 3 Yr vs.	Alpha 3 Yr vs.	Std Dev	R2 3 Yr vs.	P/E	P/B	Geo Avg	Mstar
Data as of 12/31/2024	Expense Ratio	Expense Ratio	S&P or BBg Agg	S&P or BBg Agg	3 Yr	S&P or BBg Agg	Ratio	Ratio	Mkt Cap \$MM	Risk 5 Yr
Global/International Equity										
MFS Intl Diversification I	0.83	0.83	1.00	-0.48	16.63	96	16.0	1.9	39480	Below Avg
Vanguard Total International Stock ETF	0.08	0.08	1.03	0.04	16.88	98	15.2	1.7	31203	Average
Cat: Foreign Large Blend	0.88	0.88	1.02	0.13	17.24	92	16.0	1.9	58435	-
Capital Group International Focus Eq ETF	0.54	0.54	-	-	-	-	23.0	2.7	68023	-
Cat: Foreign Large Growth	1.01	1.01	1.15	-3.03	20.25	85	23.6	3.4	69182	-
First Eagle Global I	0.86	0.86	1.00	4.37	13.44	88	18.1	2.0	64987	Above Avg
Cat: Global Allocation	1.15	1.15	0.92	-0.16	12.57	87	19.4	2.3	95879	-
Balanced										
Capital Group Core Balanced ETF	0.33	0.33	-	-	-	-	26.4	4.9	229871	-
Janus Henderson Balanced I	0.66	0.66	0.95	1.97	12.61	92	30.1	7.0	480923	Average
Cat: Moderate Allocation	1.02	1.02	0.92	1.20	12.33	91	23.7	3.5	186451	-
Alternative										
BlackRock Event Driven Equity Instl	1.29	1.29	0.15	-2.01	3.88	42	27.3	3.1	20531	Average
Cat: Event Driven	1.81	1.81	0.14	-2.19	4.51	25	22.0	2.2	7336	-
JPMorgan Hedged Equity I	0.58	0.58	0.52	2.79	9.82	77	28.2	5.0	360071	Below Avg
Cat: Equity Hedged	1.32	1.32	0.51	-1.44	10.53	67	26.2	4.7	448078	-
Cohen & Steers Global Realty I	0.90	0.90	1.10	-10.83	20.15	79	29.2	1.7	21539	Average
Cat: Global Real Estate	1.13	1.13	1.07	-11.22	20.03	77	24.0	1.5	17535	-

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The Prospectus Adjusted Operating Expense Ratio is the percentage of fund assets paid for operating expenses and management fees. The expense ratio typically includes the following types of fees: accounting, administrator, advisor, auditor, board of directors, custodial, distribution (12b-1), legal, organizational, professional, registration, shareholder reporting, sub-advisor, and transfer agency. The ratio does reflect fee waivers in effect during the time period, and does not include interest and dividends on borrowed securities. The expense ratio does not reflect the fund's brokerage costs or any investor sales charges.

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Assets as of 12/31/2024

Data Source: Morningstar; as of 12/31/2024

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Advisory Account: An investment advisory relationship is designed for clients who prefer that their Financial Advisor act as an investment consultant, with their assets invested in a mutual fund asset allocation program or in a Advisory account that is directed by a professional money manager either at Morgan Stanley or at an external money management firm. There are important differences in your relationship with your Financial Advisor and Morgan Stanley in brokerage accounts and in advisory accounts. Additional information about these differences is available at <a href="http://www.morganstanley.com/ourcommitment">http://www.morganstanley.com/ourcommitment</a>

Annualized Standard Deviation: A measure of volatility, it quantifies how much a series of numbers, such as portfolio returns, deviates around its average. Since it measures the portfolio's investment volatility, the account's gross rate of return is used.

Brokerage Account: In a brokerage relationship, your Financial Advisor will work with you to facilitate the execution of securities transactions on your behalf. Your Financial Advisor also provides investor education and professional, personalized information about financial products and services in connection with these brokerage services. You can choose how you want to pay for these services and you will receive the same services regardless of which pricing option you choose. There are important differences in your relationship with your Financial Advisor and Morgan Stanley in brokerage accounts and in advisory accounts. Additional information about these differences is available at http://www.morganstanley.com/ourcommitment

Comparative Indices: A complete description of the comparative indices included in this Performance Report is available upon request.

**Dollar-Weighted Return:** Rate of return calculation methodology that reflects both the timing and magnitude of external contributions and withdrawals and measures the portfolio's performance. The return for each month is calculated as the average return on all dollars invested.

Gross Return: The return of the portfolio before the deduction of fees/commissions and other expenses.

Net Contributions/Withdrawals: The total value of capital contributed to or withdrawn from the account during the reporting period. The dollar amount represented by contribution or withdrawal transactions is excluded from the calculation of Portfolio Appreciation.

Net Invested Capital: The sum of the Total Beginning Value and the net of additional capital Contributions and Withdrawals for each reporting period.

Net Portfolio Appreciation: The total dollar gain/loss of the portfolio for each reporting period. The Net Portfolio Appreciation includes the impact of income received and is calculated as the difference between Net Invested Capital and Total Ending Value.

Net Return: The return of the portfolio for the period reduced by the amount of fees/commissions paid. The net of fees return is calculated gross of certain custody fees.

**Time-Weighted Return:** Rate of return calculation methodology that eliminates the impact of external contributions and withdrawals to the portfolio value and measures the manager's performance. Portfolio returns are calculated at least monthly and individual monthly returns are geometrically linked to calculate total cumulative return.

Total Beginning Value: The total market value of the portfolio, valued on a trade date basis, at the beginning of each reporting period. The Total Beginning Value includes Accrued Income.

Total Ending Value: The total market value of the portfolio, valued on a trade date basis, at the end of each reporting period. The Total Ending Value includes Accrued Income.

Weighted Average: The average in which each yield to be averaged is assigned a weight. These weightings determine the relative importance or frequency of each yield on the average.

This report is not an official account statement. The information in this report is not complete without the required disclaimer and glossary, which you should read carefully



# J.P. Morgan Asset Management - Index definitions

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All indexes are unmanaged and an individual cannot invest directly in an index. Index returns do not include fees or expenses.

### Equities:

The **Dow Jones Industrial Average** is a price-weighted average of 30 actively traded blue-chip U.S. stocks.

The MSCI ACWI (All Country World Index) is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets.

The MSCI EAFE Index(Europe, Australasia, Far East) is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US & Canada.

The MSCI Emerging Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets.

The MSCI Europe Index is a free float-adjusted market capitalization index that is designed to measure developed market equity performance in Europe.

The MSCI Pacific Index is a free float-adjusted market capitalization index that is designed to measure equity market performance in the Pacific region.

The Russell 1000 Index® measures the performance of the 1,000 largest companies in the Russell 3000.

The Russell 1000 Growth Index® measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

The Russell 1000 Value Index® measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

The Russell 2000 Index® measures the performance of the 2,000 smallest companies in the Russell 3000 Index.

The Russell 2000 Growth Index® measures the performance of those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values.

The Russell 2000 Value Index® measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

The Russell 3000 Index® measures the performance of the 3,000 largest U.S. companies based on total market capitalization.

The Russell Midcap Index® measures the performance of the 800 smallest companies in the Russell 1000 Index.

The Russell Midcap Growth Index ® measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth index.

The **Russell Midcap Value Index** ® measures the performance of those Russell Midcap companies with lower price-to-book ratios and lower forecasted growth values. The stocks are also members of the Russell 1000 Value index.

The **S&P 500 Index** is widely regarded as the best single gauge of the U.S. equities market. The index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. The **S&P 500 Index** focuses on the large-cap segment of the market; however, since it includes a significant portion of the total value of the market, it also represents the market.

#### Fixed income:

The **Bloomberg 1-3 Month U.S. Treasury Bill Index** includes all publicly issued zero-coupon US Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have \$250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non convertible.

The **Bloomberg Global High Yield Index** is a multi-currency flagship measure of the global high yield debt market. The index represents the union of the US High Yield, the Pan-European High Yield, and Emerging Markets (EM) Hard Currency High Yield Indices. The high yield and emerging markets sub-components are mutually exclusive. Until January 1, 2011, the index also included CMBS high yield securities.

The **Bloomberg Municipal Index**: consists of a broad selection of investment-grade general obligation and revenue bonds of maturities ranging from one year to 30 years. It is an unmanaged index representative of the tax-exempt bond market.

The **Bloomberg US Dollar Floating Rate Note (FRN) Index** provides a measure of the U.S. dollar denominated floating rate note market.

The **Bloomberg US Corporate Investment Grade Index** is an unmanaged index consisting of publicly issued US Corporate and specified foreign debentures and secured notes that are rated investment grade (Baa3/BBB or higher) by at least two ratings agencies, have at least one year to final maturity and have at least \$250 million par amount outstanding. To qualify, bonds must be SEC-registered.

The Bloomberg US High Yield Index covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.

The **Bloomberg US Mortgage Backed Securities Index** is an unmanaged index that measures the performance of investment grade fixed-rate mortgage backed pass-through securities of GNMA, FNMA and FHLMC.

The Bloomberg US TIPS Index consists of Inflation-Protection securities issued by the U.S. Treasury.

The **J.P. Morgan Emerging Market Bond Global Index(EMBI)** includes U.S. dollar denominated Brady bonds, Eurobonds, traded loans and local market debt instruments issued by sovereign and quasi-sovereign entities.

The **J.P. Morgan Domestic High Yield Index** is designed to mirror the investable universe of the U.S. dollar domestic high yield corporate debt market.

The J.P. Morgan Corporate Emerging Markets Bond Index Broad Diversified (CEMBI Broad Diversified) is an expansion of the J.P. Morgan Corporate Emerging Markets Bond Index (CEMBI). The CEMBI is a market capitalization weighted index consisting of U.S. dollar denominated emerging market corporate bonds.

The **J.P. Morgan Emerging Markets Bond Index Global Diversified (EMBI Global Diversified)** tracks total returns for U.S. dollar-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, Eurobonds. The index limits the exposure of some of the larger countries.

The **J.P. Morgan GBI EM Global Diversified** tracks the performance of local currency debt issued by emerging market governments, whose debt is accessible by most of the international investor base.

The **U.S. Treasury Index** is a component of the U.S. Government index.



# J.P. Morgan Asset Management - Definitions

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Other asset classes:

The Alerian MLP Index is a composite of the 50 most prominent energy Master Limited Partnerships (MLPs) that provides investors with an unbiased, comprehensive benchmark for the asset class.

The **Bloomberg Commodity Index** and related sub-indices are composed of futures contracts on physical commodities and represents twenty two separate commodities traded on U.S. exchanges, with the exception of aluminum, nickel, and zinc

The Cambridge Associates U.S. Global Buyout and Growth Index® is based on data compiled from 1,768 global (U.S. & ex –U.S.) buyout and growth equity funds, including fully liquidated partnerships, formed between 1986 and 2013.

The CS/Tremont Hedge Fund Index is compiled by Credit Suisse Tremont Index, LLC. It is an asset-weighted hedge fund index and includes only funds, as opposed to separate accounts. The Index uses the Credit Suisse/Tremont database, which tracks over 4500 funds, and consists only of funds with a minimum of US\$50 million under management, a 12-month track record, and audited financial statements. It is calculated and rebalanced on a monthly basis, and shown net of all performance fees and expenses. It is the exclusive property of Credit Suisse Tremont Index, LLC.

The HFRI Monthly Indices (HFRI) are equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their own hedge funds. The HFRI are broken down into 4 main strategies, each with multiple sub strategies. All single-manager HFRI Index constituents are included in the HFRI Fund Weighted Composite, which accounts for over 2200 funds listed on the internal HFR Database.

The NAREIT EQUITY REIT Index is designed to provide the most comprehensive assessment of overall industry performance, and includes all tax-qualified real estate investment trusts (REITs) that are listed on the NYSE, the American Stock Exchange or the NASDAQ National Market List.

The NFI-ODCE, short for NCREIF Fund Index -Open End Diversified Core Equity, is an index of investment returns reporting on both a historical and current basis the results of 33 open-end commingled funds pursuing a core investment strategy, some of which have performance histories dating back to the 1970s. The NFI-ODCE Index is capitalization-weighted and is reported gross of fees. Measurement is time-weighted.

#### Definitions:

Investing in alternative assets involves higher risks than traditional investments and is suitable only for sophisticated investors. Alternative investments involve greater risks than traditional investments and should not be deemed a complete investment program. They are not tax efficient and an investor should consult with his/her tax advisor prior to investing. Alternative investments have higher fees than traditional investments and they may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain. The value of the investment may fall as well as rise and investors may get back less than they invested.

Bonds are subject to interest rate risks. Bond prices generally fall when interest rates rise.

Investments in **commodities** may have greater volatility than investments in traditional securities, particularly if the instruments involve leverage. The value of commodity-linked derivative instruments may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity, such as drought, floods, weather, livestock disease, embargoes, tariffs and international economic, political and regulatory developments. Use of leveraged commodity-linked derivatives creates an opportunity for increased return but, at the same time, creates the possibility for greater loss.

**Derivatives** may be riskier than other types of investments because they may be more sensitive to changes in economic or market conditions than other types of investments and could result in losses that significantly exceed the original investment. The use of derivatives may not be successful, resulting in investment losses, and the cost of such strategies may reduce investment returns.

Distressed Restructuring Strategies employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings.

Investments in **emerging markets** can be more volatile. The normal risks of investing in foreign countries are heightened when investing in emerging markets. In addition, the small size of securities markets and the low trading volume may lead to a lack of liquidity, which leads to increased volatility. Also, emerging markets may not provide adequate legal protection for private or foreign investment or private property.

The price of equity securities may rise, or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries, or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk" meaning that stock prices in general may decline over short or extended periods of time.

Equity market neutral strategies employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities, select securities for purchase and sale. Equity Market Neutral Strategies typically maintain characteristic net equity market exposure no greater than 10% long or short.

Global macro strategies trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets.

International investing involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Some overseas markets may not be as politically and economically stable as the United States and other nations.

There is no guarantee that the use of **long and short positions** will succeed in limiting an investor's exposure to domestic stock market movements, capitalization, sector swings or other risk factors. Using long and short selling strategies may have higher portfolio turnover rates. Short selling involves certain risks, including additional costs associated with covering short positions and a possibility of unlimited loss on certain short sale positions.

Merger arbitrage strategies which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are currently engaged in a corporate transaction.

Mid-capitalization investing typically carries more risk than investing in well-established "blue-chip" companies. Historically, mid-cap companies' stock has experienced a greater degree of market volatility than the average stock.

**Price to forward earnings** is a measure of the price-to-earnings ratio (P/E) using forecasted earnings. **Price to book value** compares a stock's market value to its book value. **Price to cash flow** is a measure of the market's expectations of a firm's tuture financial health. **Price to dividends** is the ratio of the price of a share on a stock exchange to the dividends per share paid in the previous year, used as a measure of a company's potential as an investment.

Real estate investments may be subject to a higher degree of market risk because of concentration in a specific industry, sector or geographical sector. Real estate investments may be subject to risks including, but not limited to, declines in the value of real estate, risks related to general and economic conditions, changes in the value of the underlying property owned by the trust and defaults by borrower.

Relative Value Strategies maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities.

Small-capitalization investing typically carries more risk than investing in well-established "blue-chip" companies since smaller companies generally have a higher risk of failure. Historically, smaller companies' stock has experienced a greater degree of market volatility than the average stock.



# J.P. Morgan Asset Management - Risks & disclosures

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Prepared by: David P. Kelly, Jordan K. Jackson, John C. Manley, Meera Pandit, Gabriela D. Santos, Stephanie Aliaga, Sahil Gauba, Mary Park Durham, Brandon Hall and Katie Korngiebel.

Unless otherwise stated, all data are as of December 31, 2024 or most recently available.

Guide to the Markets - U.S.

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Our view is that Adverse Active Alpha is a good starting point and should be used in conjunction with other information. Morgan Stanley Wealth Management's gualitative and guantitative investment

manager due diligence process are equally important factors for investors when considering managers for use through an investment advisory program. Factors including, but not limited to, manager turnover and changes to investment process can partially or fully negate a positive Adverse Active Alpha ranking. Additionally, highly ranked managers can have differing risk profiles that might not be appropriate for all investors.

The proprietary **Value Score** methodology considers an active investment strategies' value proposition relative to its costs. From a historical quantitative study of several quantitative markers, Value Score measures perceived forward-looking benefit and computes (1) "fair value" expense ratios for most traditional investment managers across 40 categories and (2) managers' perceived "excess value" by comparing the fair value expense ratios to actual expense ratios. Managers are then ranked within each category by their excess value to assign a Value Score. Our analysis suggests that greater levels of excess value have historically corresponded to attractive subsequent performance.

For more information on the ranking models, please see Adverse Active AlphaSM 2.0: Scoring Active Managers According to Potential Alpha and Value Score: Scoring Fee Efficiency by Comparing Managers' "Fair Value" and Actual Expense Ratios. The whitepapers are available from your Financial Advisor or Private Wealth Advisor. ADVERSE ACTIVE ALPHA is a registered service mark of Morgan Stanley and/or its affiliates. U.S. Pat. No. 8,756,098 applies to the Adverse Active Alpha system and/or methodology.

Additionally, highly ranked managers can have differing risk profiles that might not be appropriate for all investors. For more information on AAA, please see the Adverse Active Alpha Ranking Model and Selecting Managers with Adverse Active Alpha whitepapers. The whitepaper are available from your Financial Advisor or Private Wealth Advisor. ADVERSE ACTIVE ALPHA is a registered service mark of Morgan Stanley and/or its affiliates. U.S. Pat. No. 8,756,098 applies to the Adverse Active Alpha system and/or methodology.

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Morgan Stanley Wealth Management, managers, MS & Co., and their affiliates receive compensation and fees in connection with these services. Morgan Stanley Wealth Management believes that the nature and range of clients to which such services are rendered is such that it would be inadvisable to exclude categorically all of these companies from an account.

Morgan Stanley charges each fund family we offer a mutual fund support fee, also called a "revenue-sharing payment," on client account holdings in fund families according to a tiered rate that increases along with the management fee of the fund so that lower management fee funds pay lower rates than those with higher management fees.

Consider Your Own Investment Needs: The model portfolios and strategies discussed in the material are formulated based on general client characteristics including risk tolerance. This material is not intended to be an analysis of whether particular investments or strategies are appropriate for you or a recommendation, or an offer to participate in any investment. Therefore, clients should not use this material as the sole basis for investment decisions. They should consider all relevant information, including their existing portfolio, investment objectives, risk tolerance, liquidity needs and investment time horizon. Such a determination may lead to asset allocation results that are materially different from the asset allocation shown in this profile. Talk to your Financial Advisor about what would be an appropriate asset allocation for you, whether Morgan Stanley Pathway Funds is an appropriate program for you.

No obligation to notify - Morgan Stanley Wealth Management has no obligation to notify you when the model portfolios, strategies, or any other information, in this material changes.

For index, indicator and survey definitions referenced in this report please visit the following: https://www.morganstanley.com/wealth-investmentsolutions/wmir-definitions

The Morgan Stanley Pathway Funds, Firm Discretionary UMA Model Portfolios, and other asset allocation or any other model portfolios discussed in this material are available only to investors participating in Morgan Stanley Consulting Group advisory programs. For additional information on the Morgan Stanley Consulting Group advisory programs, see the applicable ADV brochure, available at <a href="https://www.morganstanley.com/ADV">www.morganstanley.com/ADV</a> or from your Morgan Stanley Financial Advisor or Private Wealth Advisor. To learn more about the Morgan Stanley Pathway Funds, visit the Funds' website at <a href="https://www.morganstanley.com/wealth-investmentsolutions/cgcm">https://www.morganstanley.com/wealth-investmentsolutions/cgcm</a>. Consulting Group is a business of Morgan Stanley.

Morgan Stanley Pathway Program Asset Allocation Models There are model portfolios corresponding to five risk-tolerance levels available in the Pathway program. Model 1 is the least aggressive portfolio and consists mostly of bonds. As the model numbers increase, the models have higher allocations to equities and become more aggressive. Pathway is a mutual fund asset allocation program. In constructing the Pathway Program Model Portfolios, Morgan Stanley Wealth Management uses, among other things, model asset allocations produced by Morgan Wealth Management's Global Investment Committee (the "GIC"). The Pathway Program Model Portfolios are specific to the Pathway program (based on program features and parameters, and any other requirements of Morgan Stanley Wealth Management's Consulting Group). The Pathway Program Model Portfolios may therefore differ in some respects from model portfolios available in other Morgan Stanley Wealth Management programs or from asset allocation models published by the Global Investment Committee.

The type of mutual funds and ETFs discussed in this presentation utilizes nontraditional or complex investment strategies and/or derivatives. Examples of these types of funds include those that utilize one or more of the below noted investment strategies or categories or which seek exposure to the following markets: (1) commodities (e.g., agricultural, energy and metals), currency, precious metals; (2) managed futures; (3) leveraged, inverse or inverse leveraged; (4) bear market, hedging, long-short equity, market neutral; (5) real estate; (6) volatility (seeking exposure to the CBOE VIX Index). Investors should keep in mind that while mutual funds and ETFs may, at times, utilize nontraditional investment options and strategies, they should not be equated with unregistered privately offered alternative investments. Because of regulatory limitations, mutual funds and ETFs that seek alternative-like investment exposure must utilize a more limited investment universe. As a result, investment returns and portfolio characteristics of alternative mutual funds and ETFs may vary from traditional hedge funds pursuing similar investment objectives. Moreover, traditional hedge funds have limited liquidity with long "lock-up" periods allowing them to pursue investment strategies without having to factor in the need to meet client redemptions and ETFs trade on an exchange. On the other hand, mutual funds typically must meet daily client redemptions. This differing liquidity profile can have a material impact on the investment returns generated by a mutual fund or ETF pursuing an alternative investing strategy compared with a traditional hedge fund pursuing the same strategy.

Nontraditional investment options and strategies are often employed by a portfolio manager to further a fund's investment objective and to help offset market risks. However, these features may be complex, making it more difficult to understand the fund's essential characteristics and risks, and how it will perform in different market environments and over various periods of time. They may also expose the fund to increased volatility and unanticipated risks particularly when used in complex combinations and/or accompanied by the use of borrowing or "leverage."

Please consider the investment objectives, risks, fees, and charges and expenses of mutual funds, ETFs, closed end funds, unit investment trusts, and variable insurance products carefully before investing. The prospectus contains this and other information about each fund. To obtain a prospectus, contact your Financial Advisor or Private Wealth Advisor or visit the Morgan Stanley website at <a href="https://www.morganstanley.com">www.morganstanley.com</a>. Please read it carefully before investing.

Money Market Funds: You could lose money in money market funds. Although money market funds classified as government funds (i.e., money market funds that invest 99.5% of total assets in cash and/or securities backed by the U.S government) and retail funds (i.e., money market funds open to natural person investors only) seek to preserve value at \$1.00 per share, they cannot guarantee they will do so. The price of other money market funds will fluctuate and when you sell shares they may be worth more or less than originally paid. Money market funds may impose a fee upon sale or temporarily suspend sales if liquidity falls below required minimums. During suspensions, shares would not be available for purchases, withdrawals, check writing or ATM debits. A money market fund investment is not insured or guaranteed by the Federal Deposit Insurance Corporation or other government agency. The Fund's sponsor has no legal obligation to provide financial support to the Fund, and you should not expect that the sponsor will provide financial support to the Fund at any time.

Investors should carefully consider the investment objectives, risks, charges and expenses of a money market fund before investing. The prospectus contains this and other information about the money market fund. To obtain a prospectus, contact your Financial Advisor or visit the money market fund company's website. Please read the prospectus carefully before investing.

**Exchange Funds** are private placement vehicles that enable holders of concentrated single-stock positions to exchange those stocks for a diversified portfolio. Investors may benefit from greater diversification by exchanging a concentrated stock position for fund shares without triggering a taxable event. These funds are available only to qualified investors and may only be offered by Financial Advisors who are qualified to sell alternative investments. Before investing, investors should consider the following:

- Dividends are pooled
- Investors may forfeit their stock voting rights
- Investment may be illiquid for several years
- Investments may be leveraged or contain derivatives
- Significant early redemption fees may apply
- Changes to the U.S. tax code, which could be retroactive (potentially disallowing the favorable tax treatment of exchange funds)
- Investment risk and potential loss of principal

### KEY ASSET CLASS CONSIDERATIONS AND OTHER RISKS

Investing in the markets entails the risk of market volatility. The value of all types of investments, including stocks, mutual funds, exchange-traded funds ("ETFs"), closed-end funds, and unit investment trusts, may increase or decrease over varying time periods. To the extent the investments depicted herein represent international securities, you should be aware that there may be additional risks associated with international investing, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in emerging markets and frontier markets. Some funds also invest in foreign securities, which may involve currency risk. There is no assurance that the fund will achieve its investment objective. Small- and mid-capitalization companies may lack the financial resources, product diversification and competitive strengths of larger companies. In addition, the securities of small- and mid-capitalization companies may lack the financial resources, product diversification and competitive strengths of larger companies. The value of fixed income securities will fluctuate and, upon a sale, may be worth more or less than their original cost or maturity value. Bonds are subject to interest rate risk, call risk, reinvestment risk, liquidity risk, and credit risk of the issuer. High yield bonds are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. In the case of municipal bonds, income is generally exempt from federal income taxes. Some income may be subject to state and local taxes and to the federal alternative minimum tax. Capital gains, if any, are subject to tax. Treasury Inflation Protection Securities' (TIPS) coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS ten

Structured Investments are complex and not appropriate for all investors. An investment in Structures Investments involve risks. These risks can include but are not limited to: (1) Fluctuations in the price, level or yield of underlying instruments, interest rates, currency values and credit quality, (2) Substantial or total loss of principal, (3) Limits on participation in appreciation of underlying instrument, (4) Limited liquidity, (5) Issuer credit risk and (6) Conflicts of Interest. There is no assurance that a strategy of using structured product for wealth preservation, yield enhancement, and/or interest rate risk hedging will meet its objectives.

Alternative Investments often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are appropriate only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to: Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; Lack of liquidity in that there may be no secondary market for a fund; Volatility of returns; Restrictions on transferring interests in a fund; Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; Absence of information regarding valuations and pricing; Complex tax structures and delays in tax reporting; Less regulation and higher fees than mutual funds; Risks associated with the operations, personnel, and processes of the manager; and Risks associated with cybersecurity. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice. All expressions of opinion are subject to change without notice and are not intended to be a forecast of future events or results. Further, opinions expressed herein may differ from the opinions expressed by Morgan Stanley Wealth Management and/or other businesses/affiliates of Morgan Stanley Wealth Management. This is not a "research report" as defined by FINRA Rule 2241 or a "debt research report" as defined by FINRA Rule 2242 and was not prepared by the Research Departments of Morgan Stanley Smith Barney LLC or Morgan Stanley & Co. LLC or its affiliates. Certain information contained herein may constitute forward-looking statements. Due to various risks and uncertainties, actual events, results or the performance of a fund may differ materially from those reflected or contemplated in such forward-looking statements. Clients should carefully consider the investment objectives, risks, charges, and expenses of a fund before investing. While the HFRI indices are frequently used, they have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe and may be biased in several ways. Composite index results are shown for illustrative purposes and do not represent the performance of a specific investment. Individual funds have specific tax risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice. Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Wealth Management and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley Wealth Management or any of its affiliates, (3) are not guaranteed by Morgan Stanley Wealth Management and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Wealth Management is a registered broker-dealer, not a bank. This material is not to be reproduced or distributed to any other persons (other than professional advisors of the investors or prospective investors, as applicable, receiving this material) and is intended solely for the use of the persons to whom it has been delivered. This material is not for distribution to the general public. Past performance is no quarantee of future results. Actual results may vary. SIPC insurance does not apply to precious metals, other commodities, or traditional alternative investments. In Consulting Group's advisory programs, alternative investments are limited to US-registered mutual funds, separate account strategies and exchange-traded funds (ETFs) that seek to pursue alternative investment strategies or returns utilizing publicly traded securities. Investment products in this category may employ various investment strategies and techniques for both hedging and more speculative purposes such as short-selling, leverage, derivatives and options, which can increase volatility and the risk of investment loss. Alternative investments are not appropriate for all investors.

A majority of Alternative Investment managers reviewed and selected by GIMA pay or cause to be paid an ongoing fee for distribution from their management fees to Morgan Stanley Wealth Management in connection with Morgan Stanley Wealth Management clients that purchase an interest in an Alternative Investment and in some instances pay these fees on the investments held by advisory clients. Morgan Stanley Wealth Management rebates such fees that are received and attributable to an Investment held by an advisory client and retains the fees paid in connection with investments held by brokerage clients. Morgan Stanley Wealth Management has a conflict of interest in offering alternative investments because Morgan Stanley Wealth Management or our affiliates, in most instances, earn more money in your account from your investments in alternative investments than from other investment options.

It should be noted that the majority of hedge fund indexes are comprised of hedge fund manager returns. This is in contrast to traditional indexes, which are comprised of individual securities in the various market segments they represent and offer complete transparency as to membership and construction methodology. As such, some believe that hedge fund index returns have certain biases that are not present in traditional indexes. Some of these biases inflate index performance, while others may skew performance negatively. However, many studies indicate that overall hedge fund index performance has been biased to the upside. Some studies suggest performance has been inflated by up to 260 basis points or more annually depending on the types of biases included and the time period studied. Although there are numerous potential biases that could affect hedge fund returns, we identify some of the more common ones throughout this paper.

Self-selection bias results when certain manager returns are not included in the index returns and may result in performance being skewed up or down. Because hedge funds are private placements, hedge fund managers are able to decide which fund returns they want to report and are able to opt out of reporting to the various databases. Certain hedge fund managers may choose only to report returns for funds with strong returns and opt out of reporting returns for weak performers. Other hedge funds that close may decide to stop reporting in order to retain secrecy, which may cause a downward bias in returns.

Survivorship bias results when certain constituents are removed from an index. This often results from the closure of funds due to poor performance, "blow ups," or other such events. As such, this bias typically results in performance being skewed higher. As noted, hedge fund index performance biases can result in positive or negative skew. However, it would appear that the skew is more often positive. While it is difficult to quantify the effects precisely, investors should be aware that idiosyncratic factors may be giving hedge fund index returns an artificial "lift" or upwards bias.

Hedge Funds of Funds and many funds of funds are private investment vehicles restricted to certain qualified private and institutional investors. They are often speculative and include a high degree of risk. Investors can lose all or a substantial amount of their investment. They may be highly illiquid, can engage in leverage and other speculative practices that may increase volatility and the risk of loss, and may be subject to large investment minimums and initial lockups. They involve complex tax structures, tax-inefficient investing and delays in distributing important tax information. Categorically, hedge funds and funds of funds have higher fees and expenses than traditional investments, and such fees and expenses can lower the returns achieved by investors. Funds of funds have an additional layer of fees over and above hedge fund fees that will offset returns. An investment in an **exchange-traded fund** involves risks similar to those of investing in a broadly based portfolio of equity securities traded on an exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock and bond prices. An investment in a **target date portfolio** is subject to the risks attendant to the underlying funds in which it invests, in these portfolios the funds are the Consulting Group Capital Market funds. A target date portfolio is geared to investors who will retire and/or require income at an approximate year. The portfolio is managed to meet the investor's goals by the pre-established year or "target date." A target date portfolio will transition its invested assets from a more aggressive portfolio to a more conservative portfolio as the target date draws closer. An investment in the target date portfolio is not guaranteed at any time, including, before or after the target date is reached. **Managed futures** investments are speculative, involve a high degree of risk, use significant leverage, are gen

As a diversified global financial services firm, Morgan Stanley engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley therefore engages in activities where Morgan Stanley interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. All expressions of opinion are subject to change without notice and are not intended to be a forecast of future events or results. **Private Markets:** As part of the Morgan Stanley Private Markets – Access program, Morgan Stanley will be limited solely to a role as an introducer and will <u>not</u> be serving as a placement agent or adviser. Eligible investors must enroll in the program in order to see any investment opportunities. Investments require independent evaluation, due diligence, review & analysis. Neither Morgan Stanley nor any of its affiliates is making any recommendation to purchase or take any action of any sort and is not providing any advice on investments. Investors are asked to work directly with the issuer/sponsor and with your own independent (non-Morgan Stanley) financial, legal, accounting, tax, and other professional advisors to evaluate the investment opportunity.

Investors are responsible for complying with the terms of any applicable exemption from securities law requirements and any potential Private Company issuer restrictions for any sale of Private Company shares, and you must obtain your own legal counsel to advise you in connection with such requirements and Private Company issuer restrictions. You should consult with your third-party advisors regarding the risks of transacting in Private Company shares, including the risk of transacting in a market with little or no price transparency or liquidity. Morgan Stanley provides no opinion or view on the valuation of any Private Company shares, or the sufficiency, fairness or competitiveness of any price obtained. Private Securities do not trade on any national securities exchange and, as such, any potential liquidity (i.e., the potential for any buying interest that might satisfy your sell interest) in such Private Company shares is very limited.

## <u>Virtual Currency Products (Cryptocurrencies)</u>

Buying, selling, and transacting in Bitcoin, Ethereum or other digital assets ("Digital Assets"), and related funds and products, is highly speculative and may result in a loss of the entire investment. Risks and considerations include but are not limited to:

- Digital Assets have only been in existence for a short period of time and historical trading prices for Digital Assets have been highly volatile. The price of Digital Assets could decline rapidly, and investors could lose their entire investment.
- Certain Digital Asset funds and products, allow investors to invest on a more frequent basis than investors may withdraw from the fund or product, and interests in such funds or products are generally not freely transferrable. This means that, particularly given the volatility of Digital Assets, an investor will have to bear any losses with respect to its investment for an extended period of time and will not be able to react to changes in the price of the Digital Asset once invested (for example, by seeking to withdraw) as quickly as when making the decision to invest. Such Digital Asset funds and products, are intended only for persons who are able to bear the economic risk of investment and who do not need liquidity with respect to their investments.
- Given the volatility in the price of Digital Assets, the net asset value of a fund or product that invests in such assets at the time an investor's subscription for interests in the fund or product is accepted may be significantly below or above the net asset value of the product or fund at the time the investor submitted subscription materials.
- Certain Digital Assets are not intended to function as currencies but are intended to have other use cases. These other Digital Assets may be subject to some or all of the risks and considerations set forth herein, as well as additional risks applicable to such Digital Assets. Buyers, sellers and users of such Digital Assets should thoroughly familiarize themselves with such risks and considerations before transacting in such Digital Assets.
- The value of Digital Assets may be negatively impacted by future legal and regulatory developments, including but not limited to increased regulation of such Digital Assets. Any such developments may make such Digital Assets less valuable, impose additional burdens and expenses on a fund or product investing in such assets or impact the ability of such a fund or product to continue to operate, which may materially decrease the value of an investment therein.
- Due to the new and evolving nature of digital currencies and the absence of comprehensive guidance, many significant aspects of the tax treatment of Digital Assets are uncertain. Prospective investors should consult their own tax advisors concerning the tax consequences to them of the purchase, ownership and disposition of Digital Assets, directly or indirectly through a fund or product, under U.S. federal income tax law, as well as the tax law of any relevant state, local or other jurisdiction.
- Over the past several years, certain Digital Asset exchanges have experienced failures or interruptions in service due to fraud, security breaches, operational problems or business failure. Such events in the future could impact any fund's or product's ability to transact in Digital Assets if the fund or product relies on an impacted exchange and may also materially decrease the price of Digital Assets, thereby impacting the value of your investment, regardless of whether the fund or product relies on such an impacted exchange.
- Although any Digital Asset product and its service providers have in place significant safeguards against loss, theft, destruction and inaccessibility, there is nonetheless a risk that some or all of a product's Digital Asset could be permanently lost, stolen, destroyed or inaccessible by virtue of, among other things, the loss or theft of the "private keys" necessary to access a product's Digital Asset.
- Investors in funds or products investing or transacting in Digital Assets may not benefit to the same extent (or at all) from "airdrops" with respect to, or "forks" in, a Digital Asset's blockchain, compared to investors who hold Digital Assets directly instead of through a fund or product. Additionally, a "fork" in the Digital Asset blockchain could materially decrease the price of such Digital Asset.
- Digital Assets are not legal tender, and are not backed by any government, corporation or other identified body, other than with respect to certain digital currencies that certain governments are or may be developing now or in the future. No law requires companies or individuals to accept digital currency as a form of payment (except, potentially, with respect to digital currencies developed by certain governments where such acceptance may be mandated). Instead, other than as described in the preceding sentences, Digital Asset products' use is limited to businesses and individuals that are willing to accept them. If no one were to accept digital currencies, virtual currency products would very likely become worthless.
- Platforms that buy and sell Digital Assets can be hacked, and some have failed. In addition, like the platforms themselves, digital wallets can be hacked, and are subject to theft and fraud. As a result,

like other investors have, you can lose some or all of your holdings of Digital Assets.

- Unlike US banks and credit unions that provide certain guarantees of safety to depositors, there are no such safeguards provided to Digital Assets held in digital wallets by their providers or by regulators.
- Due to the anonymity Digital Assets offer, they have known use in illegal activity, including drug dealing, money laundering, human tracking, sanction evasion and other forms of illegal commerce. Abuses could impact legitimate consumers and speculators; for instance, law enforcement agencies could shut down or restrict the use of platforms and exchanges, limiting or shutting off entirely the ability to use or trade Digital Asset products.
- Digital Assets may not have an established track record of credibility and trust. Further, any performance data relating to Digital Asset products may not be verifiable as pricing models are not uniform.

Investors should be aware of the potentially increased risks of transacting in Digital Assets relating to the risks and considerations, including fraud, theft, and lack of legitimacy, and other aspects and qualities of Digital Assets, before transacting in such assets.

Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets. Past performance is no guarantee of future results. Actual results may vary.

**Rebalancing** does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. Investors should consult with their tax advisor before implementing such a strategy.

Indices are unmanaged and investors cannot directly invest in them. They are not subject to expenses or fees and are often comprised of securities and other investment instruments the liquidity of which is not restricted. A particular investment product may consist of securities significantly different than those in any index referred to herein. Composite index results are shown for illustrative purposes only, generally do not represent the performance of a specific investment, may not, for a variety of reasons, be an appropriate comparison or benchmark for a particular investment and may not necessarily reflect the actual investment strategy or objective of a particular investment. Consequently, comparing an investment to a particular index may be of limited use.

Artificial intelligence (AI) is subject to limitations, and you should be aware that any output from an AI-supported tool or service made available by the Firm for your use is subject to such limitations, including but not limited to inaccuracy, incompleteness, or embedded bias. You should always verify the results of any AI-generated output.

To obtain **Tax-Management Services**, a client must complete the Tax-Management Form, and deliver the signed form to Morgan Stanley. For more information on Tax-Management Services, including its features and limitations, please ask your Financial Advisor for the Tax Management Form. Review the form carefully with your tax advisor. Tax-Management Services: (a) apply only to equity investments in separate account sleeves of client accounts; (b) are not available for all accounts or clients; and (c) may adversely impact account performance. Tax-management services do not constitute tax advice or a complete tax-sensitive investment management program. There is no guarantee that tax-management services will produce the desired tax results.

When Morgan Stanley Smith Barney LLC, its affiliates and Morgan Stanley Financial Advisors and Private Wealth Advisors (collectively, "Morgan Stanley") provide "investment advice" regarding a retirement or welfare benefit plan account, an individual retirement account or a Coverdell education savings account ("Retirement Account"), Morgan Stanley is a "fiduciary" as those terms are defined under the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), and/or the Internal Revenue Code of 1986 (the "Code"), as applicable. When Morgan Stanley provides investment education, takes orders on an unsolicited basis or otherwise does not provide "investment advice", Morgan Stanley will not be considered a "fiduciary" under ERISA and/or the Code. For more information regarding Morgan Stanley's role with respect to a Retirement Account, please visit <a href="https://www.morganstanley.com/disclosures/dol">www.morganstanley.com/disclosures/dol</a>. Tax laws are complex and subject to change. Morgan Stanley does not provide tax or legal advice. Individuals are encouraged to consult their tax and legal advisors (a) before establishing a Retirement Account, and (b) regarding any potential tax, ERISA and related consequences of any investments or other transactions made with respect to a Retirement Account. Individuals should consult their tax advisor for matters involving taxation and tax planning and other legal matters.

**Lifestyle Advisory Services:** Products and services are provided by third party service providers, not Morgan Stanley Smith Barney LLC ("Morgan Stanley"). Morgan Stanley may not receive a referral fee or have any input concerning such products or services. There may be additional service providers for comparative purposes. Please perform a thorough due diligence and make your own

independent decision.

This material is not a financial plan and does not create an investment advisory relationship between you and your Morgan Stanley Financial Advisor. We are not your fiduciary either under the Employee Retirement Income Security Act of 1974 (ERISA) or the Internal Revenue Code of 1986, and any information in this report is not intended to be considered investment advice or a recommendation for either ERISA or Internal Revenue Code purposes and that (unless otherwise provided in a written agreement and/or as described at <a href="https://www.morganstanley.com/disclosures/dol">www.morganstanley.com/disclosures/dol</a>) you remain solely responsible for your assets and all investment decisions with respect to your assets. Nevertheless, if Morgan Stanley or your Financial Advisor provides "investment advice," as that term is defined under Section 3(21) of ERISA, to you with respect to certain retirement, welfare benefit, or education savings account assets for a fee or other compensation, Morgan Stanley and/or your Financial Advisor will be providing such advice in its capacity as a fiduciary under ERISA and/or the Code. Morgan Stanley will only prepare a financial plan at your specific request using Morgan Stanley approved financial planning software.

The Morgan Stanley Goals-Planning System (GPS) includes a brokerage investment analysis tool. While securities held in a client's investment advisory account may be included in the analysis, the reports generated from the GPS Platform are not financial plans nor constitute a financial planning service. A financial plan generally seeks to address a wide spectrum of a client's long-term financial needs, and can include recommendations about insurance, savings, tax and estate planning, and investments, taking into consideration the client's goals and situation, including anticipated retirement or other employee benefits. Morgan Stanley Smith Barney LLC ("Morgan Stanley") will only prepare a financial plan at a client's specific request using Morgan Stanley approved financial planning software. Investing in financial instruments carries with it the possibility of losses and that a focus on above-market returns exposes the portfolio to above-average risk. Performance aspirations are not guaranteed and are subject to market conditions. High volatility investments may be subject to sudden and large falls in value, and there could be a large loss on realization which could be equal to the amount invested. IMPORTANT: The projections or other information provided by the Morgan Stanley Goals Planning System regarding the likelihood of various investment outcomes (including any assumed rates of return and income) are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. Morgan Stanley does not represent or guarantee that the projected returns or income will or can be attained.

A LifeView Financial Goal Analysis ("Financial Goal Analysis") or LifeView Financial Plan ("Financial Plan") is based on the methodology, estimates, and assumptions, as described in your report, as well as personal data provided by you. It should be considered a working document that can assist you with your objectives. Morgan Stanley makes no guarantees as to future results or that an individual's investment objectives will be achieved. The responsibility for implementing, monitoring and adjusting your Financial Goal Analysis or Financial Plan rests with you. After your Financial Advisor delivers your report to you, if you so desire, your Financial Advisor can help you implement any part that you choose; however, you are not obligated to work with your Financial Advisor or Morgan Stanley.

Important information about your relationship with your Financial Advisor and Morgan Stanley Smith Barney LLC when using LifeView Goal Analysis or LifeView Advisor. When your Financial Advisor prepares and delivers a Financial Goal Analysis (i.e., when using LifeView Goal Analysis), they will be acting in a brokerage capacity. When your Financial Advisor prepares a Financial Plan (i.e., when using LifeView Advisor), they will be acting in an investment advisory capacity with respect to the delivery of your Financial Plan. This Investment Advisory relationship will begin with the delivery of the Financial Plan and ends thirty days later, during which time your Financial Advisor can review the Financial Plan with you. To understand the differences between brokerage and advisory relationships, you should consult your Financial Advisor, or review our "Understanding Your Brokerage and Investment Advisory Relationships," brochure available at <a href="https://www.morganstanley.com/wealth-relationshipwithms/pdfs/understandingyourrelationship.pdf">https://www.morganstanley.com/wealth-relationshipwithms/pdfs/understandingyourrelationship.pdf</a>

We may act in the capacity of a broker or that of an advisor. As your broker, we are not your fiduciary and our interests may not always be identical to yours. Please consult with your Financial Advisor or Private Wealth Advisor to discuss our obligations to disclose to you any conflicts we may from time to time have and our duty to act in your best interest. We may be paid both by you and by others who compensate us based on what you buy. Our compensation, including that of your Financial Advisor or Private Wealth Advisor, may vary by product and over time.

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GLOBAL INVESTMENT COMMITTEE (GIC) ASSET ALLOCATION MODELS: The Asset Allocation Models are created by Morgan Stanley Wealth Management's GIC.

HYPOTHETICAL MODEL PERFORMANCE (GROSS): Hypothetical model performance results do not reflect the investment or performance of an actual portfolio following a GIC Strategy, but simply reflect actual historical performance of selected indices on a real-time basis over the specified period of time representing the GIC's strategic and tactical allocations as of the date of this report. The past performance shown here is simulated performance based on benchmark indices, not investment results from an actual portfolio or actual trading. There can be large differences between hypothetical and actual performance results achieved by a particular asset allocation or trading strategy. Hypothetical performance results do not represent actual trading and are generally designed

with the benefit of hindsight. Actual performance results of accounts vary due to, for example, market factors (such as liquidity) and client-specific factors (such as investment vehicle selection, timing of contributions and withdrawals, restrictions and rebalancing schedules). Clients would not necessarily have obtained the performance results shown here if they had invested in accordance with any GIC Asset Allocation Model for the periods indicated. Despite the limitations of hypothetical performance, these hypothetical performance results allow clients and Financial Advisors to obtain a sense of the risk/return trade-off of different asset allocation constructs. The hypothetical performance results in this report are calculated using the returns of benchmark indices for the asset classes, and not the returns of securities, fund or other investment products. Models may contain allocations to Hedge Funds, Private Equity and Private Real Estate. The benchmark indices for these asset classes are not issued on a daily basis. When calculating model performance on a day for which no benchmark index data is issued, we have assumed straight line growth between the index levels issued before and after that date.

FEES REDUCE THE PERFORMANCE OF ACTUAL ACCOUNTS: None of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, fees) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models. The GIC Asset Allocation Models and any model performance included in this presentation are intended as educational materials. Were a client to use these models in connection with investing, any investment decisions made would be subject to transaction and other costs which, when compounded over a period of years, would decrease returns. Information regarding Morgan Stanley's standard advisory fees is available in the Form ADV Part 2, which is available at www.morganstanley.com/adv. The following hypothetical illustrates the compound effect fees have on investment returns: For example, if a portfolio's annual rate of return is 15% for 5 years and the account pays 50 basis points in fees per annum, the gross cumulative five-year return would be 101.1% and the five-year return net of fees would be 96.8%. Fees and/or expenses would apply to clients who invest in investments in an account based on these asset allocations, and would reduce clients' returns. The impact of fees and/or expenses can be material.

Variable annuities are long-term investments designed for retirement purposes and may be subject to market fluctuations, investment risk, and possible loss of principal. All guarantees, including optional benefits, are based on the financial strength and claims-paying ability of the issuing insurance company and do not apply to the underlying investment options. Optional riders may not be able to be purchased in combination and are available at an additional cost. Some optional riders must be elected at time of purchase. Optional riders may be subject to specific limitations, restrictions, holding periods, costs, and expenses as specified by the insurance company in the annuity contract. If you are investing in a variable annuity through a tax-advantaged retirement plan such as an IRA, you will get no additional tax advantage from the variable annuity. Under these circumstances, you should only consider buying a variable annuity because of its other features, such as lifetime income payments and death benefits protection. Taxable distributions (and certain deemed distributions) are subject to ordinary income tax and, if taken prior to age 59½, may be subject to a 10% federal income tax penalty. Early withdrawals will reduce the death benefit and cash surrender value.

Equity securities may fluctuate in response to news on companies, industries, market conditions and general economic environment.

**Ultrashort-term fixed income** asset class is comprised of fixed income securities with high quality, very short maturities. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

Master Limited Partnerships (MLPs) are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources or real estate sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk. Individual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk. The potential tax benefits from investing in MLPs depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value. MLPs carry interest rate risk and may underperform in a rising interest rate environment. MLP funds accrue deferred income taxes for future tax liabilities associated with the portion of MLP distributions considered to be a tax-deferred return of capital and for any net operating gains as well as capital appreciation of its investments; this deferred tax liability is reflected in the daily NAV, and, as a result, the MLP fund's after-tax performance could differ significantly from the underlying assets even if the pre-tax performance is closely tracked.

Investing in commodities entails significant risks. Commodity prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, and (vii) the price volatility of a commodity. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention. Physical precious metals are non-regulated products.

Precious metals are speculative investments, which may experience short-term and long term price volatility. The value of precious metals investments may fluctuate and may appreciate or decline,

depending on market conditions. Unlike bonds and stocks, precious metals do not make interest or dividend payments. Therefore, precious metals may not be appropriate for investors who require current income. Precious metals are commodities that should be safely stored, which may impose additional costs on the investor.

Environmental, Social and Governance ("ESG") investments in a portfolio may experience performance that is lower or higher than a portfolio not employing such practices. Portfolios with ESG restrictions and strategies as well as ESG investments may not be able to take advantage of the same opportunities or market trends as portfolios where ESG criteria is not applied. There are inconsistent ESG definitions and criteria within the industry, as well as multiple ESG ratings providers that provide ESG ratings of the same subject companies and/or securities that vary among the providers. Certain issuers of investments may have differing and inconsistent views concerning ESG criteria where the ESG claims made in offering documents or other literature may overstate ESG impact. ESG designations are as of the date of this material, and no assurance is provided that the underlying assets have maintained or will maintain and such designation or any stated ESG compliance. As a result, it is difficult to compare ESG investment products or to evaluate an ESG investment product in comparison to one that does not focus on ESG. Investors should also independently consider whether the ESG investment product meets their own ESG objectives or criteria. There is no assurance that an ESG investing strategy or techniques employed will be successful. Past performance is not a quarantee or a dependable measure of future results. The companies identified and investment examples are for illustrative purposes only and should not be deemed a recommendation to purchase, hold or sell any securities or investment products. They are intended to demonstrate the approaches taken by managers who focus on ESG criteria in their investment strategy. There can be no guarantee that a client's account will be managed as described herein. Options and margin trading involve substantial risk and are not appropriate for all investors. Besides the general investment risk of holding securities that may decline in value and the possible loss of principal invested, closed-end funds may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance and potential leverage. Closed-end funds, unlike open-end funds, are not continuously offered. There is a one-time public offering and once issued, shares of closed-end funds are sold in the open market through a stock exchange. Shares of closed-end funds frequently trade at a discount from their NAV which may increase investors' risk of loss. The risk of loss due to this discount may be greater for investors expecting to sell their shares in a relatively short period after completion of the public offering. This characteristic is a risk separate and distinct from the risk that a closed-end fund's net asset value may decrease as a result of investment activities. NAV is total assets less total liabilities divided by the number of shares outstanding. At the time an investor purchases or sells shares of a closed-end fund, shares may have a market price that is above or below NAV. Portfolios that invest a large percentage of assets in only one industry **sector** (or in only a few sectors) are more vulnerable to price fluctuation than those that diversify among a broad range of sectors.

**REITs** investing risks are similar to those associated with direct investments in real estate: property value fluctuations, lack of liquidity, limited diversification and sensitivity to economic factors such as interest rate changes and market recessions. Risks of **private real estate** include: illiquidity; a long-term investment horizon with a limited or nonexistent secondary market; lack of transparency; volatility (risk of loss); and leverage. Principal is returned on a monthly basis over the life of a **mortgage-backed security**. Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery Bonds. **Asset-backed securities** generally decrease in value as a result of interest rate increases, but may benefit less than other fixed-income securities from declining interest rates, principally because of prepayments.

Yields are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision.

**Credit ratings** are subject to change.

Duration, the most commonly used measure of bond risk, quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. The majority of \$25 and \$1000 par preferred securities are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. Interest/dividend payments on certain preferred issues may be deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received. Price quoted is per \$25 or \$1,000 share, unless otherwise specified. Current yield is calculated by multiplying the coupon by par value divided by the market price. The initial interest rate on a **floating-rate security** may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating security's underlying reference rate. The reference rate could be an index or an interest rate. However, there can be no assurance that the reference rate will increase. Some floating-rate securities may be subject to call risk. The market value of **convertible bonds** and the underlying common stock(s) will fluctuate and after purchase may be worth more or less than original cost. If sold prior to maturity, investors may receive more or less than their original purchase price or maturity value, depending on market conditions. Callable bonds may be redeemed by the issuer prior to maturity. Additional call features may exist that could affect yield. Some \$25 or \$1000 par preferred securities are QDI (Qualified Dividend Income) eligible. Information on QDI eligiblity is obtained from third party sources. The dividend income on QDI eligible preferreds qualifies for a reduced tax rate. Many traditional 'dividend paying' perpetual preferred securities (traditional preferred

Because of their narrow focus, **sector investments** tend to be more volatile than investments that diversify across many sectors and companies. **Technology stocks** may be especially volatile. Risks applicable to companies in the **energy and natural resources** sectors include commodity pricing risk, supply and demand risk, depletion risk and exploration risk. **Health care sector stocks** are subject to government regulation, as well as government approval of products and services, which can significantly impact price and availability, and which can also be significantly affected by rapid obsolescence and patent expirations. **Nondiversification:** For a portfolio that holds a concentrated or limited number of securities, a decline in the value of these investments would cause the portfolio's overall value to decline to a greater degree than a less concentrated portfolio. Portfolios that invest a large percentage of assets in only one industry sector (or in only a few sectors) are more vulnerable to price fluctuation than those that diversify among a broad range of sectors.

The **indices** are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. The indices are not subject to expenses or fees and are often comprised of securities and other investment instruments the liquidity of which is not restricted. A particular investment product may consist of securities significantly different than those in any index referred to herein. Comparing an investment to a particular index may be of limited use.

**Growth investing** does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations.

Value investing does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected.

Any type of **continuous** or **periodic investment plan** does not assure a profit and does not protect against loss in declining markets. Since such a plan involves continuous investment in securities regardless of fluctuating price levels of such securities, the investor should consider his financial ability to continue his purchases through periods of low price levels.

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