

Morgan Stanley



# City of Stamford, Connecticut Board of Finance Budget Presentation Meeting Monday, April 8<sup>th</sup>, 2024

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## Agenda: OPEB and CERF Pension Discussion

### Section

Asset Allocation Decisions: **Processes for Determining Asset Allocation & Manager/Strategy Selection**

1

Morgan Stanley Market Perspectives: **Research Insights for April 2024**

2

Fiduciary Responsibility: **Cash Flow Analysis for April 2024**

3

Historical Performance: **Benchmarking Performance and Funding Ratio**

4



# Thought Leadership: Asset Allocation Advice



**Rui de Figueiredo**  
 Head and Chief Investment Officer  
 of the Solutions & Multi-Asset  
 Group  
 Morgan Stanley Investment  
 Management



**Steve Edwards**  
 Head of Portfolio Construction &  
 Cross-Asset Strategy  
 Morgan Stanley Wealth  
 Management



**Lisa Shalett**  
 Chair of the Global Investment  
 Committee  
 Chief Investment Officer  
 Head of the Global Investment Office  
 Morgan Stanley Wealth Management



**Matthew Hornbach**  
 Global Head of Macro Strategy  
 Morgan Stanley & Co. LLC



**Andrew Sheets**  
 Global Head of Corporate Credit  
 Research  
 Morgan Stanley & Co. LLC

## THE GLOBAL INVESTMENT COMMITTEE

The firm's most recognized experts

Establish general allocation  
 guidelines

Provide compelling tactical  
 investment ideas for your portfolio



**Daniel Skelly**  
 Head of Market Research & Strategy  
 Morgan Stanley Wealth  
 Management



**Andrew Slimmon**  
 Head of Applied Equity Advisors  
 Morgan Stanley Investment  
 Management



**Vishwanath Tirupattur**  
 Head of US Fixed Income Research  
 Morgan Stanley & Co. LLC



**Ellen Zentner**  
 Chief US Economist  
 Morgan Stanley & Co. LLC

Source: Morgan Stanley Wealth Management GIO

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# Annual Update of GIC Capital Market Assumptions - March 2024

## Executive Summary:

Every year between December and March, the Global Investment Committee convenes to update our strategic (seven-year) and secular (20-year) capital market return assumptions. That process involves marking every asset class to current market conditions while weighing valuations against our historical frameworks. We strive to balance a consistent process with dynamic enhancements. These efforts incorporate structural policy changes, such as those from the Federal Reserve and the federal government and those

For our exercise, starting points matter. That said, 2023 delivered one of the most extraordinary outcomes in recent capital markets history, defying expectations and breaking traditional forecasting models based on the role of monetary policy tightening. To wit, real growth reaccelerated amid falling inflation as the economy benefited from a virtual perfect storm of surging government spending, still-ample excess liquidity in the wake of COVID stimulus checks, strong labor markets and falling prices for manufactured goods and commodities, especially those linked to energy. Rather than the consensus forecast of an economic and profits recession, the result was material upside surprise. Equities, as measured by the S&P 500 Index, emerged from

the 2022 bear market with a 25% gain, as valuations expanded and the generative AI theme took off.

Interest rate insensitivity—especially among the largest corporations and the richest 40% of households—was unprecedented, as deleveraged balance sheets with termed-out obligations were aided by constructive financial conditions and housing market resilience that padded consumer net worths.

As we approach the end of 2024's first quarter, US equities are up another 10%, embracing the contention that a rare soft landing has arrived and that strong economic growth coupled with benign inflation will deliver a profit rebound of roughly 26% over the next two years, justifying valuation multiples. This comes despite a decline in expectations for Fed rate cuts over the next six to nine months from seven to three.

Such near-term ebullience elicits caution on our part, as we consider US markets fully valued and susceptible to inevitable disappointment.



# Annual Update of GIC Capital Market Assumptions - March 2024

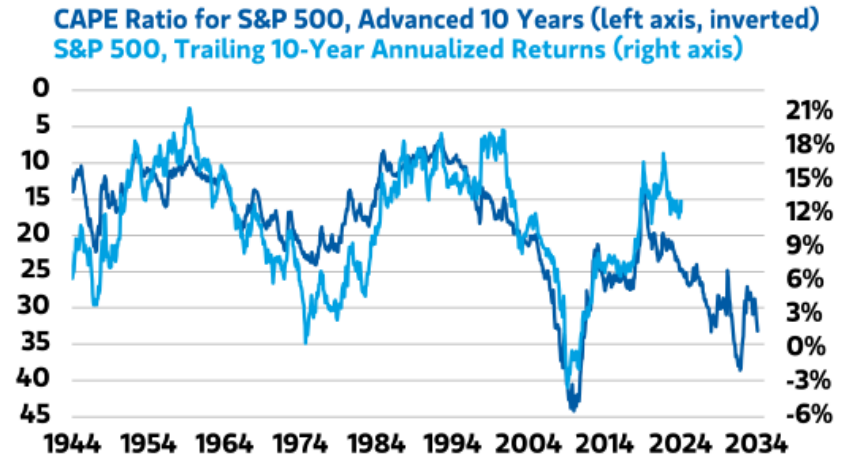
Exhibit 1: Asset Class Return and Volatility Forecasts

	2024		2023	
	Annualized Return	Annualized Volatility	Annualized Return	Annualized Volatility
Global Equities	6.0	13.5	5.2	13.4
US Equities	5.1	14.9	4.4	14.9
International Equities	6.6	15.4	5.5	15.4
Emerging Market Equities	8.1	19.3	7.8	19.3
Ultrashort Fixed Income	3.9	0.7	3.7	0.8
US Taxable Fixed Income	5.0	5.3	4.8	5.2
High Yield Fixed Income	5.9	8.4	7.1	8.3
Real Assets	6.5	12.3	5.5	12.3
Absolute Return Assets	5.6	5.0	6.0	5.1
Equity Hedge Assets	6.7	9.2	6.6	9.0
Equity Return Assets	6.4	8.8	6.3	8.8

Note: Ultrashort fixed income is represented by 90-day T-bills; US taxable fixed income by the Bloomberg US Aggregate Index; and high yield fixed income by the Bloomberg Global High Yield Corporate Index.

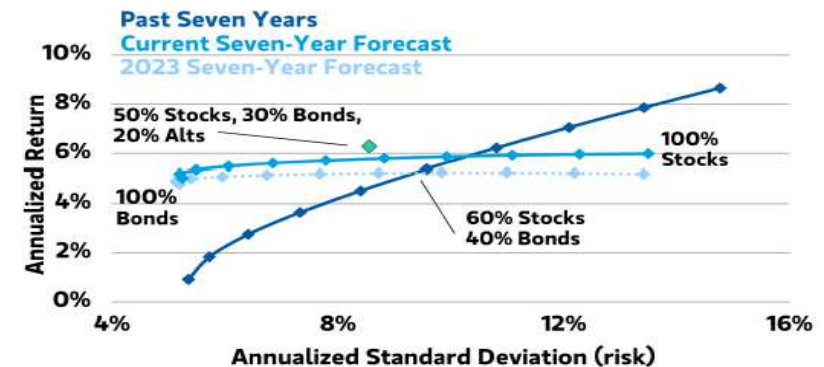
Source: Bloomberg, FactSet, Moody's, Morgan Stanley & Co. Research, Morgan Stanley Wealth Management GIC as of Feb. 29, 2024

Exhibit 5: Cyclically Adjusted P/E Ratios Point to Below-Average Returns for US Stocks Over the Next Decade



Source: FactSet, Morgan Stanley Wealth Management GIC

Exhibit 9: Next-Seven-Year Outlook Steepens Modestly but Remains Historically Flat



Note: Stocks are represented by the MSCI All Country World Index, bonds by the Bloomberg US Aggregate Index and alternatives by the HFRI Fund-Weighted Composite.

Source: Bloomberg, FactSet, Morgan Stanley Wealth Management GIC as of Feb. 29, 2024



# An Industry Leader in Manager Analysis

~75

ANALYSTS DEDICATED TO  
MANAGER ANALYSIS

4,400+

STRATEGIES MONITORED / YEAR

900+

SEPARATELY MANAGED ACCOUNTS

~\$1.9 Trillion

INVESTMENT ADVISORY  
ASSETS UNDER MANAGEMENT <sup>(1)</sup>

140+

NEW PRODUCTS  
LAUNCHED LAST 6 MTHS

2,000+

MUTUAL FUNDS

#1

MANAGED ACCOUNT  
PROGRAM BY ASSETS <sup>(1)</sup>

~400

INVESTMENT MANAGER  
RELATIONSHIPS

1,000+

ETF STRATEGIES

480+

ALTERNATIVE STRATEGIES <sup>(2)</sup>

All information as of June 2023 unless otherwise noted and subject to change.

1. Source: Morgan Stanley Wealth Management. This category includes separate account consultant programs, mutual fund advisory programs, ETF advisory programs, rep as portfolio manager programs, rep as advisor programs and unified managed account programs. Separate account consultant programs are programs in which asset managers manage investors' assets in discretionary separate accounts. Mutual fund advisory programs and ETF advisory programs are discretionary and nondiscretionary programs designed to systematically allocate investors' assets across a wide range of mutual funds or ETFs. Rep as portfolio manager programs are discretionary programs in which advice is an essential element; planning is undertaken or advice is treated as a separate service from brokerage. Rep as advisor programs are nondiscretionary programs where the advisor has not been given discretion by the client and must obtain approval each time a change is made to the account or its investments. Unified managed accounts are vehicle-neutral platforms that simplify the delivery of multiple investment vehicles, such as separate accounts, mutual funds, exchange-traded funds and individual securities through their integration within a single environment. Rankings are subject to change.
2. Includes Private Equity.

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# Identifying High-Quality Managers for Your Portfolio

## RIGOROUS MANAGER ANALYSIS<sup>1</sup>



## PROPRIETARY SCORING TOOLS

- Adverse Active Alpha<sup>SM</sup> 2.0 seeks to identify managers that can potentially help enhance your portfolio's risk-reward profile
- The Value Score seeks to rank managers by their prospective value above current expense ratios
- The Risk Score seeks to evaluate active managers' effectiveness in managing risk, in terms of both total and excess returns
- The Tax Score seeks to assess investment strategies' quality and tax efficiency

## SUCCESSFUL TRACK RECORD<sup>2,3</sup>

GIMA's high conviction strategies have outperformed their respective benchmarks. We see this across the broad array of strategies in our high-conviction lists.

Focus List Average Excess Return Comparison (bps)



1. Source: Morgan Stanley Wealth Management Global Investment Manager Analysis. As of February 2022. A majority of investments reviewed and selected by GIMA pay or cause to be paid an ongoing fee to Morgan Stanley Wealth Management in connection with Morgan Stanley Wealth Management clients that purchase such investments. The functions of manager analysis and review are available only through advisory accounts.

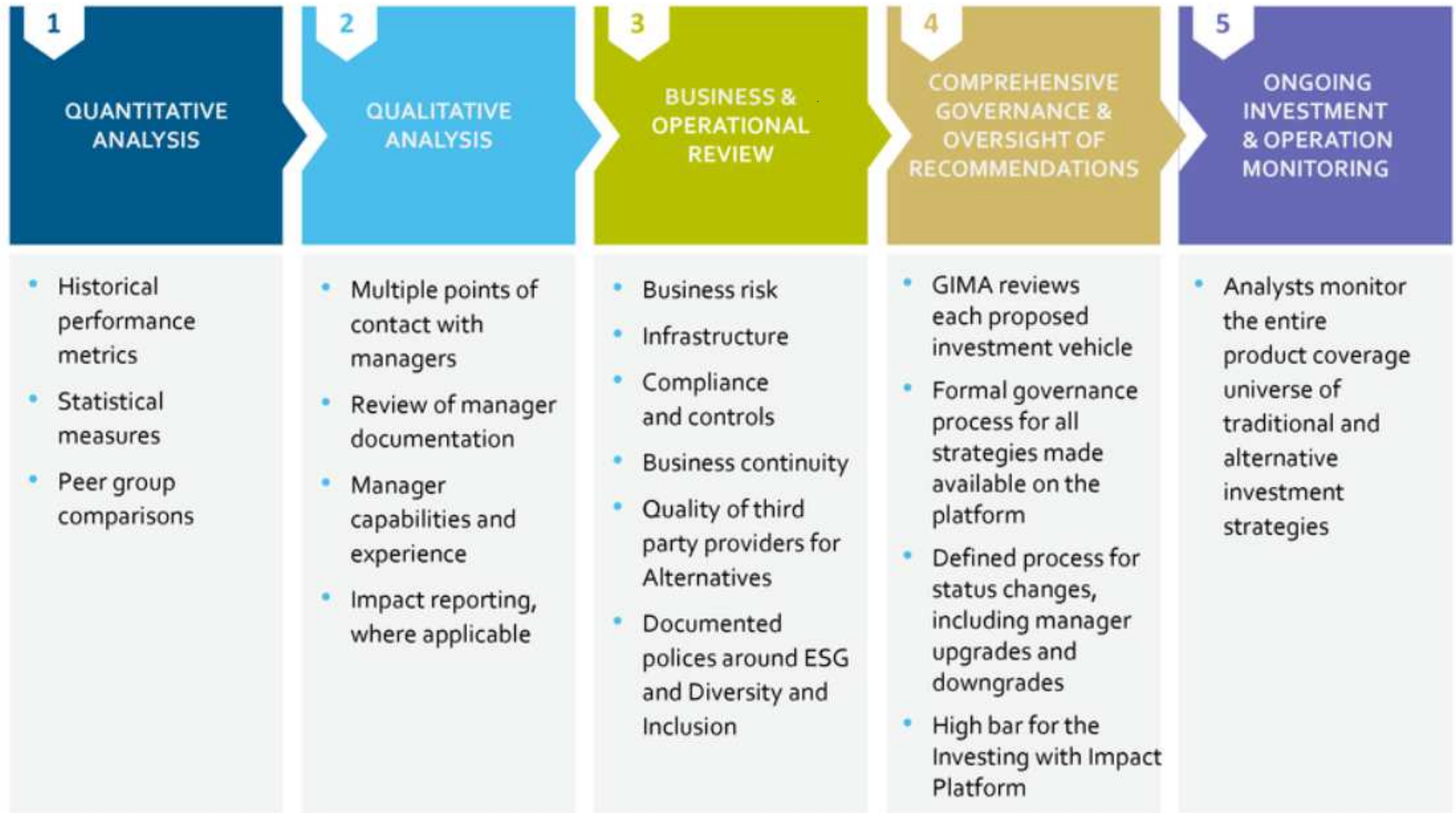
2. The Focus List only includes a limited number of alternative investment products. Excess return represents the total return of the portfolio relative to its benchmark for each trailing return period. A portfolio with a positive excess return has outperformed its benchmark for the stated time period. This statistic is obtained by subtracting the benchmark return from the portfolio's return. The list performance represents an equal weighted average of all the portfolio excess returns.

3. Source: GIMA Alternative Investments Team. Performance as of January 2022 (preliminary). Performance is representative of the current coverage menu as of January 2022, and relative to each product's GIMA analyst designated benchmark (where possible). Performance is unaudited and data is subject to change. Had the results reflected Morgan Stanley Wealth Management brokerage commissions or advisory fees, the performance would have been lower.

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# GIMA Utilizes A Five-Step Due Diligence Process



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## Current Indicators: Equity Valuation

### Morgan Stanley & Co. S&P 500 December 2024 Forecast Table

As of March 22, 2024

EPS Landscape	MS & Co 2025 EPS Est.	Multiple	Price Target	Upside / (Downside)
Bull Case	\$289	17.50	5,050	(3.5%)
Base Case	\$266	17.00	4,500	(14.0%)
Bear Case	\$234	16.50	3,850	(26.4%)
Current S&P 500 Price			5,234	

### Morgan Stanley & Co. and Consensus S&P 500 Earnings Estimates

As of March 22, 2024



### S&P 500 Current and Historical Valuation

As of March 22, 2024

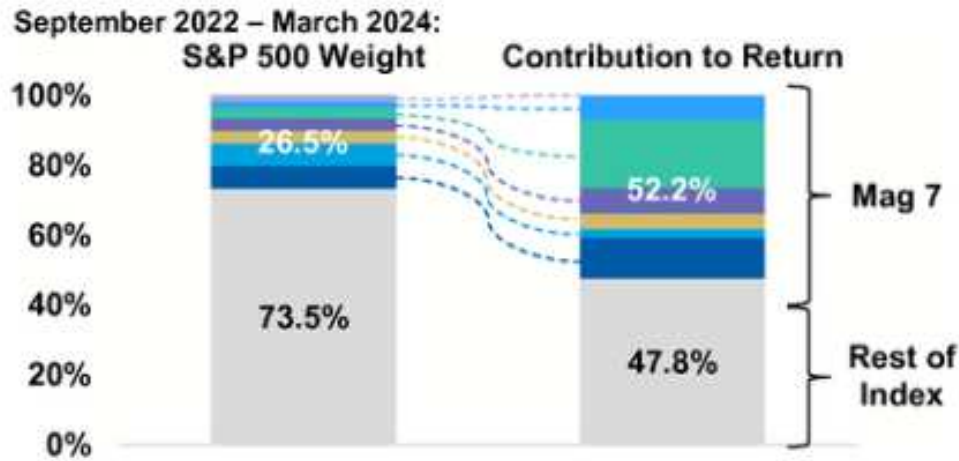
	Mar 22, 2024	Tech Bubble	Financial Crisis	20-Year Average	Current Relative to Average
S&P 500 Trailing P/E	25.1	28.9	12.1	18.4	1.36
S&P 500 Forward P/E	21.7	26.6	11.2	15.5	1.40
Technology	38.6	64.3	12.4	25.0	1.54
Consumer Discretionary	25.1	28.5	29.2	20.8	1.21
Communication Services	19.6	28.6	11.4	16.5	1.19
Industrials	22.1	20.1	8.6	17.6	1.26
Real Estate	35.9	-	-	-	-
Financials	16.2	13.9	7.8	14.5	1.12
Consumer Staples	20.4	19.6	11.5	18.1	1.13
Energy	12.8	25.2	11.6	21.4	0.60
Utilities	15.9	14.8	9.8	14.9	1.07
Materials	22.1	19.2	13.9	18.7	1.18
Health Care	19.4	24.5	9.3	18.1	1.07

Source: FactSet, Bloomberg, Morgan Stanley Wealth Management GIC

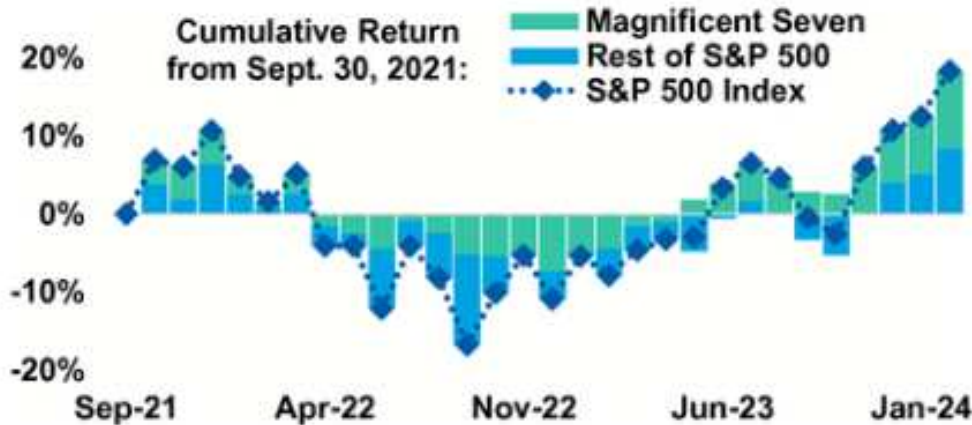
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# ...But Performance Concentration Skews Perceptions



Source: Morgan Stanley Wealth Management GIC, Bloomberg as of March 11, 2024. Weight reflects the average index weight during the period from Sep. 30, 2022-Mar. 11, 2024.



Source: Morgan Stanley Wealth Management GIC, Bloomberg as of February 29, 2024. Magnificent Seven refers to Alphabet, Amazon, Apple, Meta Platforms, Microsoft, NVIDIA, Tesla.

Trailing 12-Month Price/Earnings Ratio  
 Magnificent Seven  
 S&P 500 Index Excluding Magnificent Seven  
 S&P 500 Equal Weight Index



Source: Morgan Stanley Wealth Management GIC, Bloomberg as of March 8, 2024

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# Morgan Stanley & Co. Key Market Forecasts

As of March 22, 2024

	Q4 2024 Forecast		
	Bear	Base	Bull
<b>Equities</b>			
S&P 500	3,850	4,500	5,050
MSCI Europe	1,650	2,115	2,380
Topix	2,020	2,800	3,100
MSCI EM	750	1,000	1,140
<b>Rates (%)</b>			
US Treasury 10-Year	5.05	3.95	2.50
German Bund 10-Year	2.70	1.80	1.50
UK Gilt 10-Year	4.60	3.50	3.00
Japanese Govt. Bond 10-Year	1.80	0.90	0.35
<b>Credit Spreads (bps)</b>			
US Investment Grade	135	95	75
US High Yield	500	350	250
US Leveraged Loans	550	425	350
EUR Investment Grade	175	115	90
EUR High Yield	550	375	275
<b>Commodities</b>			
Brent Crude Oil (spot)	60	75	95

Source: Bloomberg, FactSet, Morgan Stanley & Co., Morgan Stanley Wealth Management GIC, The Yield Book® Software and Services. © 2024 FTSE Index LLC. All rights reserved.

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# Fiduciary Schedule for the City of Stamford

Annual reviews and analysis provided to the City of Stamford CERF & OPEB Plans

Fiscal Quarter End	Morgan Stanley Consulting Group Services
Q2 2024 (January)	Investment Policy Statement (IPS) Review
Q3 2024 (April)	Cash Flow Analysis (using actuarial valuation reports)
Q4 2024 (July)	Total Fee Analysis
Q1 2025 (October)	Portfolio Risk and Asset Allocation Study



# Cash Flow Analysis City of Stamford CERF

Analysis provided to the City of Stamford CERF and OPEB Plans

## City of Stamford CERF Pension

### Cash Flow Analysis

April 11th, 2023 CERF meeting

David R. Javaheri, CIMA®, Managing Director, U.S. Government Entity Specialist

Kevin M. Nichols, CAIA®, CIMA®, CPWA®, Senior Institutional Consultant, Executive Director, U.S. Government Entity Specialist

Joseph J. Matthews, CFA, CFP®, Senior Institutional Consultant, First Vice President, U.S. Government Entity Specialist

CERF Meeting 4/11/2024	Fiscal Years Ending June 30th											
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
<b>Cash Flow Report*</b>												
Benefit Payments (Retiree Pension Payroll)	\$ (19,735,000)	\$ (20,447,000)	\$ (21,067,000)	\$ (21,675,000)	\$ (22,290,000)	\$ (22,837,000)	\$ (23,373,000)	\$ (23,798,000)	\$ (24,216,000)	\$ (24,581,000)	\$ (24,843,000)	
Employee Contributions	\$ 1,986,000	\$ 1,987,000	\$ 1,984,000	\$ 1,969,000	\$ 1,955,000	\$ 1,948,000	\$ 1,933,000	\$ 1,911,000	\$ 1,892,000	\$ 1,879,000	\$ 1,880,000	
Actuarial Determined Employer Contribution (ADEC)	\$ 3,653,000	\$ 3,852,000	\$ 4,059,000	\$ 4,222,000	\$ 4,347,000	\$ 4,462,000	\$ 4,541,000	\$ 4,616,000	\$ 4,685,000	\$ 4,745,000	\$ 4,792,000	
Administrative Expenses	\$ (103,036)	\$ (106,127)	\$ (109,311)	\$ (112,590)	\$ (115,968)	\$ (119,447)	\$ (123,030)	\$ (126,721)	\$ (130,523)	\$ (134,439)	\$ (138,472)	
Dividend & Interest Earned on Pension Portfolio	\$ 6,051,586	\$ 8,729,958	\$ 9,314,865	\$ 9,938,961	\$ 10,604,871	\$ 11,315,397	\$ 12,073,529	\$ 12,882,456	\$ 13,745,580	\$ 14,666,534	\$ 15,649,192	
<b>Net Cash Flow</b>	<b>\$ (5,324,181)</b>	<b>\$ (5,366,042)</b>	<b>\$ (5,293,135)</b>	<b>\$ (5,085,039)</b>	<b>\$ (4,879,129)</b>	<b>\$ (4,672,603)</b>	<b>\$ (4,353,471)</b>	<b>\$ (4,016,544)</b>	<b>\$ (3,525,420)</b>	<b>\$ (2,972,466)</b>	<b>\$ (2,307,808)</b>	
Actuarial Accrued Liability	\$ 287,633,000	\$ 291,542,000	\$ 294,816,000	\$ 297,541,000	\$ 299,768,000	\$ 301,459,000	\$ 302,591,000	\$ 303,190,000	\$ 303,242,000	\$ 302,830,000	\$ 301,938,000	
Market Value of Assets	\$ 272,135,588	\$ 279,806,334	\$ 298,553,358	\$ 318,556,433	\$ 339,899,714	\$ 362,672,995	\$ 386,972,086	\$ 412,899,216	\$ 440,563,463	\$ 470,081,215	\$ 501,576,657	
Employee Payroll	\$ 42,380,809	\$ 43,652,233	\$ 44,961,800	\$ 46,310,654	\$ 47,699,974	\$ 49,130,973	\$ 50,604,902	\$ 52,123,049	\$ 53,686,741	\$ 55,297,343	\$ 56,956,263	
<i>Suggested ADEC presented for informational purposes only. Cash Flow determined by the estimated City and Board of Education contributions</i>												
ASSUMED RATE OF RETURN	<b>6.70%</b>											
ASSUMED CITY CONTRIBUTION RATE (% OF PAYROLL)	<b>8.37%</b>											
ASSUMED PORTFOLIO YIELD**	<b>3.12%</b>											
*FY 2023 Numbers are from the City's Annual Financial Statements, actuarial valuation and Morgan Stanley records												
**CERF Portfolio Current Yield as of 3.31.24 maintained over analysis												

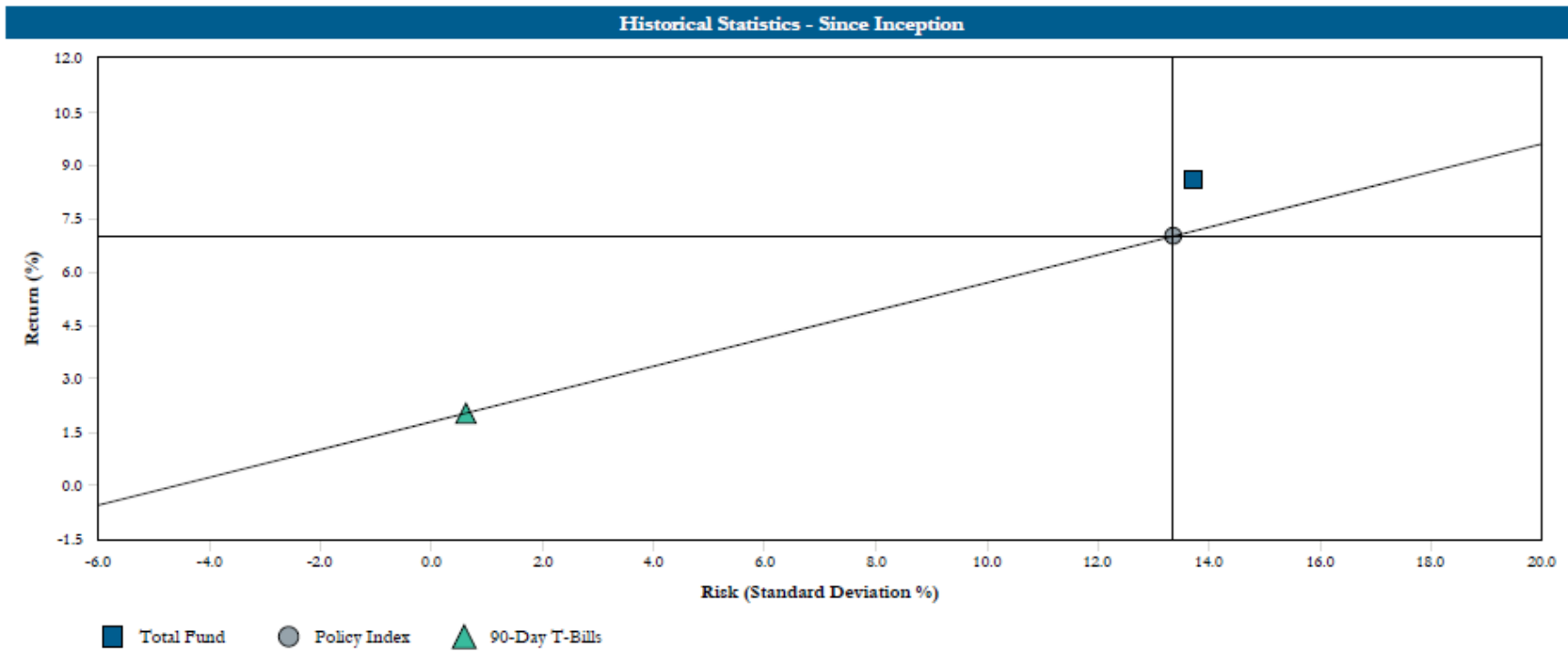
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# CERF Risk and Return Analysis

Portfolio Risk and Return Under Morgan Stanley Institutional Consulting Services

City of Stamford CERF  
 Risk Statistics  
 As of March 31, 2024



	Return	Standard Deviation	Sharpe Ratio	Beta	Jensen Alpha	Excess Return	R-Squared	Down Capture	Up Capture	Down Market Periods	Up Market Periods	Inception Date
Total Fund	8.59	13.69	0.53	1.01	1.44	7.19	0.98	100.36	106.95	22	34	08/01/2019
Policy Index	7.01	13.35	0.43	1.00	0.00	5.67	1.00	100.00	100.00	22	34	08/01/2019
90-Day T-Bills	2.04	0.62		0.00	0.00	0.00	0.00	-5.76	5.11	22	34	08/01/2019



## CERF Historical Funded Ratio

For Fiscal Years ending June 30th

City of Stamford CERF				
Fiscal Years Ending June 30th				
FYE	Assets	Liabilities	Funded Ratio	DWRR
2014	\$ 209,313,155	\$ 244,509,417.00	85.61%	16.65%
2015	\$ 206,622,350	\$ 250,062,776.00	82.63%	1.44%
2016	\$ 190,594,323	\$ 256,606,003.00	74.28%	-4.38%
2017	\$ 210,354,348	\$ 260,932,076.00	80.62%	14.62%
2018	\$ 223,064,471	\$ 280,600,216.00	79.50%	9.77%
2019	\$ 226,353,660	\$ 277,700,136.00	81.51%	4.50%
2020	\$ 232,577,627	\$ 295,622,794.00	78.67%	6.39%
2021	\$ 301,659,968	\$ 299,900,000.00	100.59%	32.89%
2022	\$ 252,969,174	\$ 283,524,868.00	89.22%	-13.07%
2023	\$ 270,856,853	\$ 287,633,000.00	94.17%	9.87%
2024*	\$ 281,562,606	\$ 291,542,000.00	96.58%	9.29%
* = asset value and performance as of March 31, 2024.				
Liability estimate taken from actuarial valuation dated July 1, 2022.				



## OPEB Historical Funded Ratio

For Fiscal Years ending June 30th

City of Stamford OPEB				
Fiscal Years Ending June 30th				
FYE	Assets	Liabilities	Funded Ratio	DWRR
2017	\$ 92,167,012	\$ 354,679,524.00	25.99%	13.43%
2018	\$ 116,316,787	\$ 364,157,076.00	31.94%	8.51%
2019	\$ 139,486,805	\$ 404,502,040.00	32.79%	4.84%
2020	\$ 167,672,853	\$ 426,210,000.00	36.92%	6.55%
2021	\$ 249,366,919	\$ 449,135,000.00	55.70%	31.52%
2022	\$ 234,729,038	\$ 316,424,256.00	74.18%	-15.51%
2023	\$ 272,135,588	\$ 329,780,000.00	82.52%	11.43%
2024*	\$ 307,583,332	\$ 344,566,000.00	89.27%	11.57%
* = asset value and performance as of March 31, 2024.				
Liability estimate taken from actuarial valuation dated July 1, 2022.				





## Important Disclosures

### Global Investment Manager Analysis (GIMA) defines Adverse Active Alpha (AAA) as follows:

**Adverse** refers to the demonstrated ability to outperform in a variety of market environments and when conditions were difficult for active manager relative performance. “Difficult” periods were times when active management did not perform well relative to the index, as opposed to down market periods. At various times, active management has experienced difficult relative performance periods in up, down, and flat markets. We developed a set of factors to help discern which periods were more difficult for active managers that we utilize to identify managers that were able to overcome these headwinds and outperformed in the face of adversity.

**Active** refers to managers with high active share – i.e., managers whose portfolios looked different from the index – and had moderate to low tracking error. In this way, the ranking seeks to find managers that were active, but not taking outsized factor bets, such as large sector or industry bets and that had some degree of style consistency. The combination of high active share and low tracking error is fairly uncommon among active managers, but we believe these traits may point toward managers with strong stock picking skills.

**Alpha** refers to the demonstrated ability to add value relative to an index and/or peers. Back tests indicate that highly ranked managers as a group outperformed the index and style peer group over subsequent periods and relative to active share alone. By combining the “adverse” component with the “active” component, we believe we increase the odds of finding some of the most proficient stock pickers.

### Important Considerations Regarding the Adverse Active Alpha Ranking Process:

Global Investment Manager Analysis, formerly Consulting Group Investment Advisor Research (CG IAR), provides comprehensive manager analysis for Morgan Stanley’s investment advisory platforms on a wide range of investment products, including separately managed accounts, mutual funds and exchange-traded funds in the equity, fixed income and alternative investment categories. In our view, the Adverse Active Alpha manager ranking model is an important part of evaluating managers for consideration.

However, we do recognize that AAA cannot, in and of itself, tell us which managers’ strategies to invest in or when to buy or sell the strategies. While highly ranked managers historically performed well as a group in our analysis, past performance is not a guarantee of future results for any manager or strategy. Index returns assume reinvestment of dividends and, unlike fund or strategy returns, do not reflect any fees or expenses. Indices are unmanaged and not available for direct investment.

It is also important to keep in mind that just because a manager has high active share, a portfolio that looks different than the index (benchmark) doesn’t necessarily mean the portfolio had or will have better performance than the index. Being different than the index does not consider factors such as: the timeliness of data provided by the manager, the appropriateness of the benchmark used for comparison to the portfolio, the relevancy of the period(s) being analyzed between the portfolio and the benchmark, knowing the difference between the securities and their concentration in a manager’s portfolio vs. the benchmark and the potential that the data provided by the manager looked significantly different in periods before and after the performance snapshot(s) used for analysis. While the preceding considerations are not part of the AAA ranking model, GIMA’s strives to evaluate other material and forward looking factors as part of the overall manager evaluation process. Factors such as 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 suitable 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.

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## Important Disclosures (cont'd)

### The Global Investment Manager Analysis (GIMA) Services Only Apply to Certain Investment Advisory Programs

GIMA evaluates certain investment products for the purposes of some – but not all – of Morgan Stanley Smith Barney LLC's investment advisory programs (as described in more detail in the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management). If you do not invest through one of these investment advisory programs, Morgan Stanley Wealth Management is not obligated to provide you notice of any GIMA status changes even though it may give notice to clients in other programs.

### Focus List, Approved List and Tactical Opportunities List; Watch Policy

GIMA uses two methods to evaluate investment products in applicable advisory programs: Focus (and investment products meeting this standard are described as being on the Focus List) and Approved (and investment products meeting this standard are described as being on the Approved List). In general, Focus entails a more thorough evaluation of an investment product than Approved. Sometimes an investment product may be evaluated using the Focus List process but then placed on the Approved List instead of the Focus List.

Investment products may move from the Focus List to the Approved List, or vice versa. GIMA may also determine that an investment product no longer meets the criteria under either process and will no longer be recommended in investment advisory programs (in which case the investment product is given a "Not Approved" status).

GIMA has a "Watch" policy and may describe a Focus List or Approved List investment product as being on "Watch" if GIMA identifies specific areas that (a) merit further evaluation by GIMA and (b) may, but are not certain to, result in the investment product becoming "Not Approved." The Watch period depends on the length of time needed for GIMA to conduct its evaluation and for the investment manager or fund to address any concerns. GIMA may, but is not obligated to, note the Watch status in this report with a "W" or "Watch" next to the "Status" on the cover page.

Certain investment products on either the Focus List or Approved List may also be recommended for the Tactical Opportunities List based in part on tactical opportunities existing at a given time. The investment products on the Tactical Opportunities List change over time.

For more information on the Focus List, Approved List, Tactical Opportunities List and Watch processes, please see the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management. Your Financial Advisor or Private Wealth Advisor can also provide upon request a copy of a publication entitled "Manager Selection Process."

**Strategy May Be Available as a Separately Managed Account or Mutual Fund Strategies** are sometimes available in Morgan Stanley Wealth Management investment advisory programs both in the form of a separately managed account ("SMA") and a mutual fund. These may have different expenses and investment minimums. Your Financial Advisor or Private Wealth Advisor can provide more information on whether any particular strategy is available in more than one form in a particular investment advisory program.

For mutual funds, the investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Investors should carefully consider the investment objectives and risks as well as charges and expenses of a mutual fund before investing. The prospectus contains this and other important information about the mutual fund. To obtain a prospectus, contact your Financial Advisor or visit the mutual fund company's website. Please read the prospectus carefully before investing.



# Asset Class Risk Considerations

*For index definitions to the indices referenced in this report please visit the following: <http://www.morganstanleyfa.com/public/projectfiles/id.pdf>*

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

**Investing in foreign markets** entails risks not typically associated with domestic markets, such as currency fluctuations and controls, restrictions on foreign investments, less governmental supervision and regulation, and the potential for political instability. These risks may be magnified in countries with **emerging markets and frontier markets**, since these countries may have relatively unstable governments and less established markets and economies.

**Investing in small- to medium-sized companies** entails special risks, such as limited product lines, markets and financial resources, and greater volatility than securities of larger, more established 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 (bonds rated below investment grade)** may have speculative characteristics and present significant risks beyond those of other securities, including greater credit risk, price volatility, and limited liquidity in the secondary market. High yield bonds should comprise only a limited portion of a balanced portfolio.

Interest on **municipal bonds** is generally exempt from federal income tax; however, some bonds may be subject to the alternative minimum tax (AMT). Typically, state tax-exemption applies if securities are issued within one's state of residence and, if applicable, local tax-exemption applies if securities are issued within one's city of residence.

**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 tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation.

**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.

## Alternative Investments Risks

Alternative investments, including hedge funds, private equity funds and managed futures, can be highly illiquid, are speculative and not suitable for all investors. Investing in alternative investments is only intended for experienced and sophisticated investors who are willing to bear the high economic risks associated with such an investment. Investors should carefully review and consider potential risks before investing. Certain of these risks may include:

- 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 the fund and none is expected to develop; 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;
- fund of funds often have a higher fee structure than single manager funds as a result of an additional layer of fees; and risks associated with the operations, personnel and processes of the manager.



## Asset Class Risk Considerations (cont'd)

**Asset allocation and diversification** do not assure a profit or protect against loss in declining financial markets.

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 selected by Morgan Stanley Wealth Management** to measure performance are representative of broad asset classes. Morgan Stanley Wealth Management retains the right to change representative indices at any time.

**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.

**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.

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CRC 1880540 (09/17)