Graystone Consulting℠

A business of Morgan Stanley

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Jewish Community Foundation of the West

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Executive Summary

EXECUTIVE SUMMARY 12-31-2022

CHANGE IN MARKET VALUE

Total JCFW assets at the beginning of the Fourth Quarter were $11,361,186. The Foundation finished December 2022 with $13,008,074 in total assets.

MARKET COMMENTARY

US Equity Markets reversed their decline from the Fourth Quarter, driven by optimism that inflation appeared to have peaked. The S&P 500 rose 7.5% in the Quarter and was down -18.1% for the year.

The MSCI EAFE Index (a benchmark for international developed markets) rose 17.4% while the MSCI Emerging Markets Index rose 9.6% for the quarter. This leaves them down -13.9% and -19.9% respectively for the year.

The Bloomberg Barclays US Aggregate Bond Index, a broad measure of the US bond market, rose 1.9% in 4Q22 and was down -13% in 2022.

RECENT ACTIONS

Rebalanced Portfolios A & B at the end of October. Added to duration in Portfolios A, B and C.

GIC Market Summary

Asset Class Returns 2012 to 2022 YTD

YTD return through December 30, 2022 ; Managed Futures as of November 30, 2022

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	(12/12-12/22) Ann. CAGR	10 yrs Ann. Volatility
REITs 30.2%	US Equities 32.4%	REITs 14.5%	US Equities 1.4%	MLPs 18.3%	EM Equities 37.8%	US Debt 0.0%	US Equities 31.5%	EM Equities 18.8%	MLPs 39.9%	MLPs 30.5%	US Equities 12.7%	MLPs 23.1%
High Yield 19.6%	MLPs 27.6%	US Equities 13.7%	EMD 1.2%	High Yield 14.3%	DM Int'l Equities 25.7%	DM Int'l Debt -0.2%	REITs 23.3%	US Equities 18.4%	US Equities 28.7%	Managed Futures 14.6%	DM Int'l Equities 5.3%	EM Equities 16.9%
EM Equities 18.6%	DM Int'l Equities 23.4%	Managed Futures 12.3%	US Debt 0.5%	US Equities 11.9%	US Equities 21.8%	Inflation-Linked -1.3%	DM Int'l Equities 22.8%	Inflation-Linked 11.0%	Commod. 27.1%	Commod. 13.8%	Diversified Portfolio 4.2%	Commod. 14.9%
DM Int'l Equities 18.0%	Hedged Strategies 11.1%	EMD 7.4%	DM Int'l Equities -0.3%	EM Equities 11.8%	REITs 15.1%	High Yield -4.1%	EM Equities 18.8%	Diversified Portfolio 9.8%	REITs 23.2%	Hedged Strategies -3.2%	Managed Futures 3.7%	REITs 13.4%
EMD 17.4%	Diversified Portfolio 9.4%	US Debt 6.0%	REITs -0.4%	Commod. 11.4%	Diversified Portfolio 12.7%	EMD -4.3%	Diversified Portfolio 16.4%	DM Int'l Debt 9.4%	Hedged Strategies 12.1%	Inflation-Linked -11.8%	REITs 3.5%	DM Int'l Equities 13.3%
US Equities 16.0%	High Yield 7.3%	MLPs 4.8%	Managed Futures -0.9%	EMD 10.2%	High Yield 10.4%	US Equities -4.4%	EMD 15.0%	DM Int'l Equities 8.4%	DM Int'l Equities 11.9%	High Yield -12.7%	Hedged Strategies 3.3%	US Equities 12.2%
Diversified Portfolio 9.7%	REITs 2.1%	Diversified Portfolio 4.3%	Inflation-Linked -1.4%	Diversified Portfolio 5.0%	EMD 10.3%	Managed Futures -4.6%	High Yield 12.6%	US Debt 7.5%	Managed Futures 10.0%	Diversified Portfolio -12.9%	High Yield 3.0%	EMD 7.9%
Inflation-Linked 7.0%	Managed Futures 0.7%	Inflation-Linked 3.6%	Diversified Portfolio -1.5%	Inflation-Linked 4.7%	Hedged Strategies 10.0%	Diversified Portfolio -4.9%	Hedged Strategies 10.7%	High Yield 7.0%	Diversified Portfolio 9.6%	US Debt -13.0%	MLPs 2.1%	High Yield 7.8%
Hedged Strategies 4.8%	US Debt -2.0%	Hedged Strategies 1.4%	Hedged Strategies -2.3%	REITs 4.6%	DM Int'l Debt 6.7%	REITs -5.3%	US Debt 8.7%	EMD 5.3%	Inflation-Linked 6.0%	DM Int'l Equities -13.9%	EM Equities 1.8%	Hedged Strategies 7.0%
MLPs 4.8%	EM Equities -2.3%	High Yield 0.0%	High Yield -2.7%	US Debt 2.6%	US Debt 3.5%	Hedged Strategies -9.4%	Inflation-Linked 8.4%	Managed Futures 5.0%	High Yield 1.0%	EMD -17.8%	EMD 1.6%	Diversified Portfolio 6.4%
US Debt 4.2%	DM Int'l Debt -4.7%	DM Int'l Debt -0.7%	DM Int'l Debt -2.9%	DM Int'l Debt 1.8%	Inflation-Linked 3.0%	MLPs -12.4%	Managed Futures 6.7%	Hedged Strategies 4.6%	US Debt -1.5%	US Equities -18.1%	Inflation-Linked 1.1%	Managed Futures 6.0%
DM Int'l Debt 0.9%	EMD -5.3%	EM Equities -2.0%	EM Equities -14.6%	DM Int'l Equities 1.6%	Commod. 0.7%	Commod. -13.0%	MLPs 6.6%	Commod. -3.5%	EMD -1.8%	DM Int'l Debt -18.5%	US Debt 1.0%	Inflation-Linked 5.7%
Commod. -1.1%	Inflation-Linked -8.6%	DM Int'l Equities -4.3%	Commod. -24.7%	Hedged Strategies 0.1%	Managed Futures -0.8%	DM Int'l Equities -13.3%	Commod. 5.4%	REITs -9.3%	EM Equities -2.3%	EM Equities -19.9%	DM Int'l Debt -1.4%	DM Int'l Debt 5.2%
Managed Futures -1.8%	Commod. -9.6%	Commod. -17.0%	MLPs -32.6%	Managed Futures -4.4%	MLPs -6.5%	EM Equities -14.3%	DM Int'l Debt 5.3%	MLPs -28.8%	DM Int'l Debt -7.3%	REITs -23.4%	Commod. -2.1%	US Debt 3.7%

Source: Bloomberg, Morgan Stanley Wealth Management GIC; Indices used: Bloomberg US Aggregate for US Bonds. FTSE 3M Treasury Bill for cash, Bloomberg US Aggregate for US Bonds, Bloomberg Global Majors ex US for DM Int'l Bonds, Bloomberg US TIPS for Inflation-linked securities, Bloomberg Global High Yield for global high yield, JP Morgan GBI-EM Global Diversified for EMD Bonds, S&P 500 for US Stocks, MSCI EAFE for Developed Int'l Stocks, MSCI EM for Emerging Market Stocks, FTSE EPRA NAREIT Global for REITs, Bloomberg Commodity Index for commodities, BarclayHedge US Managed Futures Industry BTop50 for Managed Futures [presented w/ 1-month delay], Alerian MLP Index for MLPs , and HFRI Fund Weighted Composite for hedged strategies. Diversified portfolio is comprised of 40% MSCI ACWI, 40% Bloomberg US Aggregate, 5% 3 mo. T-Bills, 9% HFRXEH Equity Hedge Index, 3% Bloomberg Commodity Index, and 3% FTSE EPRA/NAREIT Global Index.

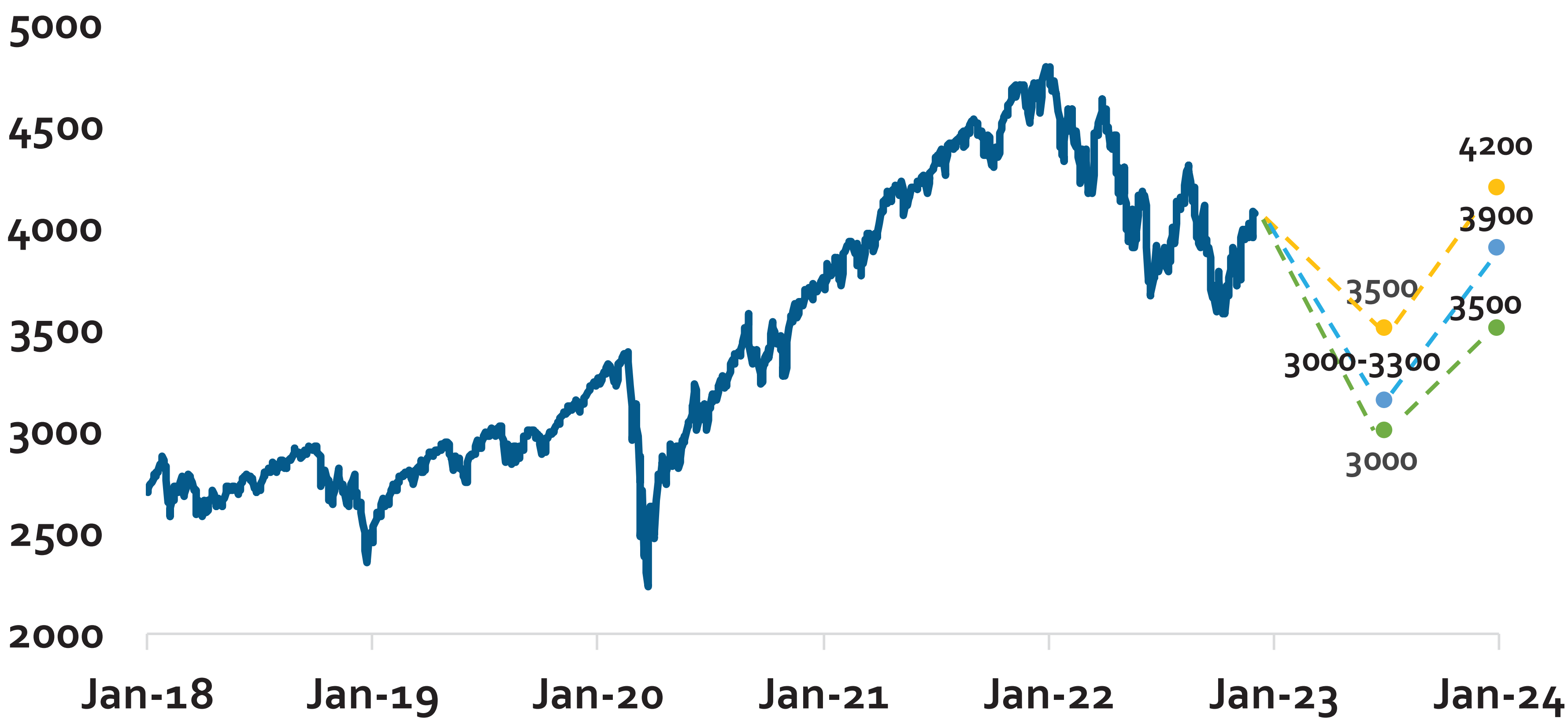
Morgan Stanley & Co. Key Market Forecasts

	Q4 2023 Forecast		
	Bear	Base	Bull
Equities			
S&P 500	3,500	**3,900**	4,200
MSCI Europe	1,485	**1,790**	2,060
Topix	1,500	**2,020**	2,350
MSCI EM	790	**1,100**	1,230
Rates (%)			
US Treasury 10-Year	4.50	**3.50**	2.10
German Bund 10-Year	1.60	**1.50**	1.35
UK Gilt 10-Year	3.40	**3.10**	2.80
Japanese Govt. Bond 10-Year	0.75	**0.45**	0.10
Credit Spreads (bps)			
US Investment Grade	210	**155**	125
US High Yield	700	**575**	400
EUR Investment Grade	300	**190**	150
EUR High Yield	850	**650**	450
EM Sovereign	650	**460**	350
US CMBS	200	**140**	110
Commodities			
Brent Crude Oil (spot)	65	**110.0**	135

Source: Bloomberg, FactSet, Morgan Stanley & Co., Morgan Stanley Wealth Management GIC, The Yield Book® Software and Services.

Morgan Stanley & Co. S&P 500 Forward Price Target for 2023

As of the market close on December 01, 2022; Forecasts as of November 14, 2022

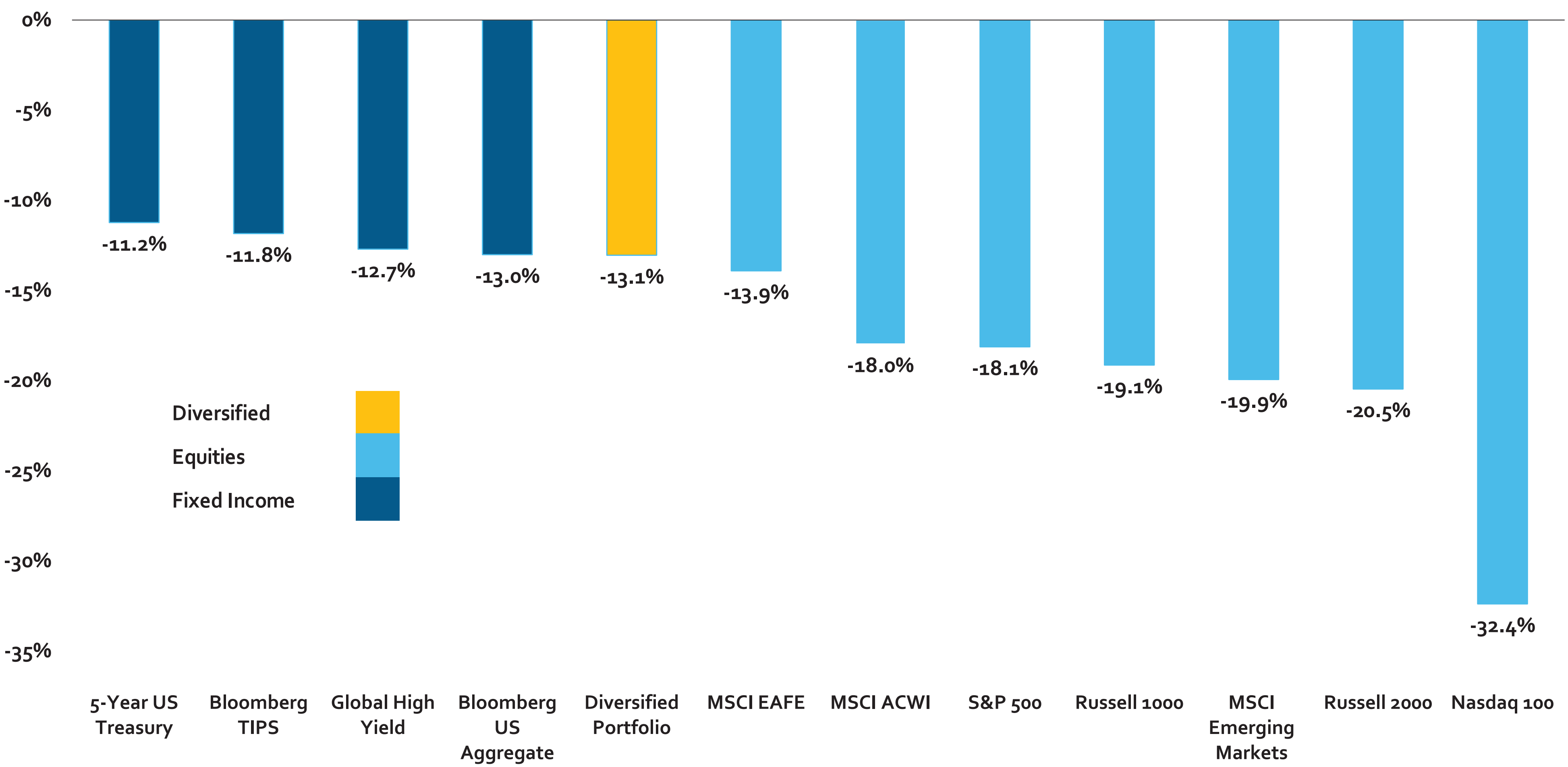


Mid year values represent potential price troughs.

Source: Bloomberg, Morgan Stanley & Co. Research

Performance For Select Asset Classes 2022

Cumulative Return from December 31,2021 - December 30, 2022

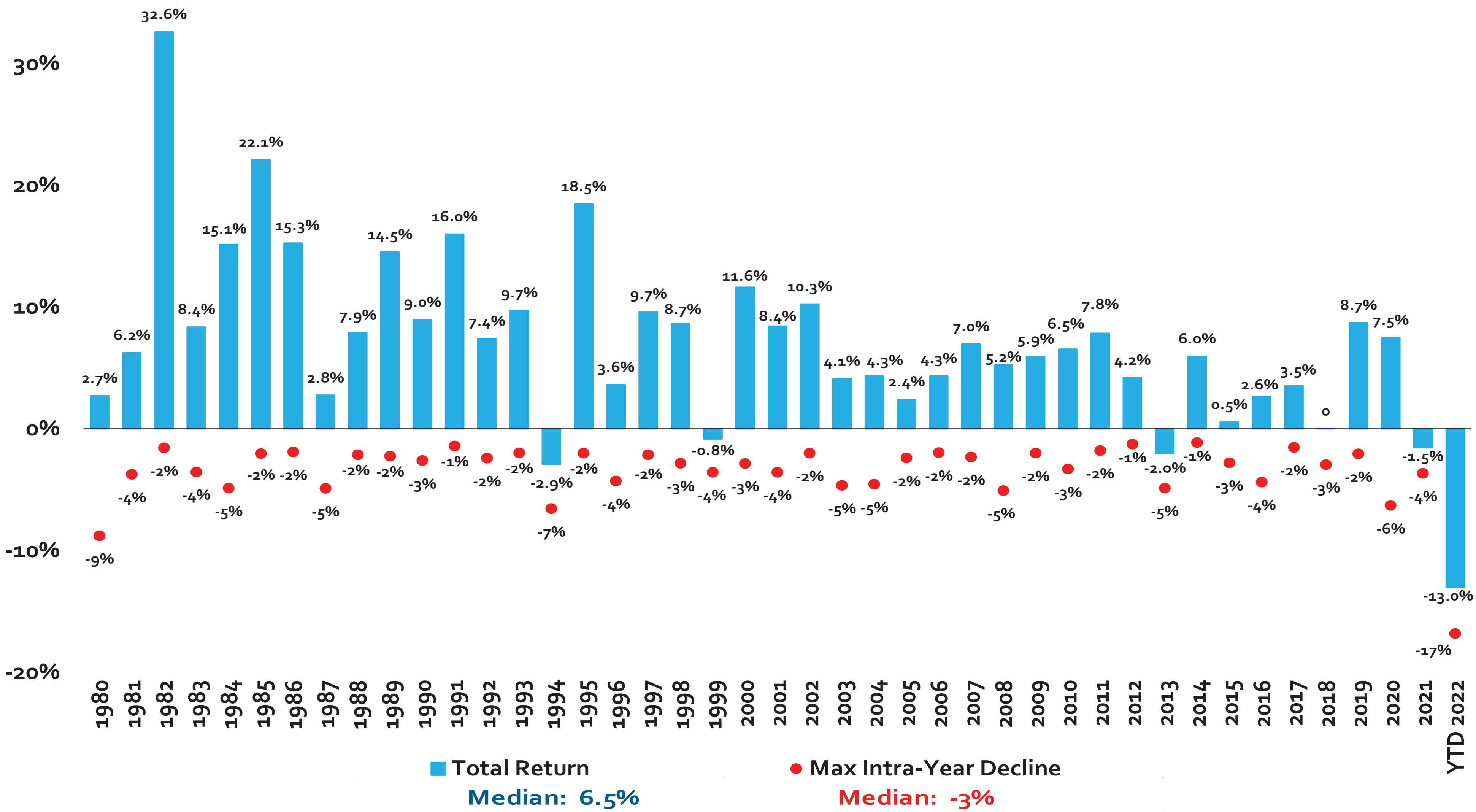


Source: FactSet, Bloomberg, Morgan Stanley Wealth Management Global Investment Office. Diversified portfolio is comprised of 40% MSCI ACWI, 40% Bloomberg US Aggregate, 5% FTSE US 3 mo. T-Bills, 9% HFRX Global Hedge Funds, 3% Bloomberg Commodity Index, and 3% FTSE NAREIT All Equity REITS Total Return Index. .

Bloomberg Agg Sharpest Intra-Year Lows vs. Annual Returns

Bloomberg Agg Annual Total Return and Intra-Year Declines

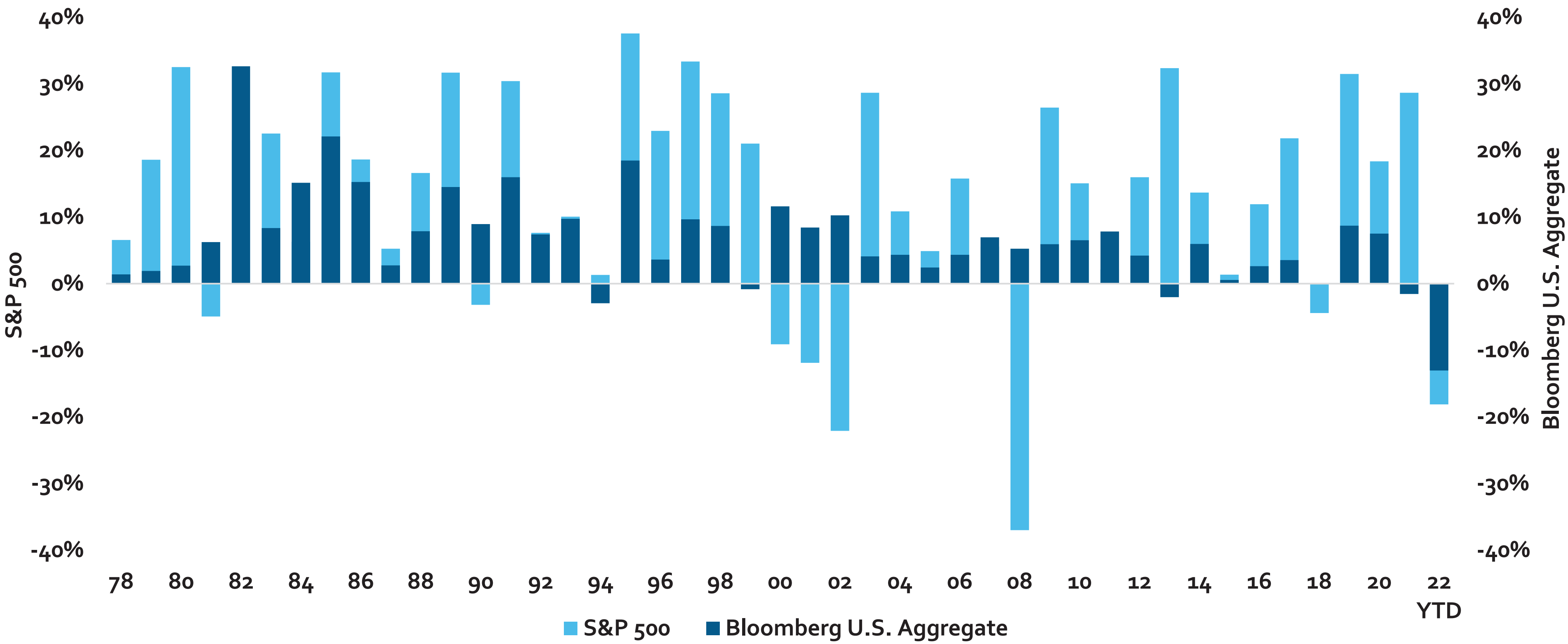
Data through December 30, 2022



Source: FactSet, Bloomberg, Morgan Stanley Wealth Management GIC. Intra-year declines are defined as the peak-to-trough decline during the year based on closing price return.

Bloomberg US Aggregate vs. S&P 500 Total Returns Since 1978

YTD through December 30, 2022



Source: FactSet, Morgan Stanley Wealth Management GIO; Indices used: Bloomberg US Aggregate for US Bonds and S&P 500 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. This slide sourced from Market Performance section.

GIC Recommendations: Tactical Portfolio Construction Advice

As of December 2022

Asset Allocation

Cash	Equities	Fixed Income	Alternatives
Underweight	Equalweight	Equalweight	Overweight

Equities

	++ + o + ++		Themes
US		Global	
Value		Growth	Real rates affect multiples
Small		Large	
Quality		Junk	
Defensives		Cyclicals	Financials, REITs, Energy
Active		Passive	Active management outlook continue to improve
Hedged		Unhedged	Unhedged in both Europe and Japan

Fixed Income

	++ + o + ++		Themes
Rates		Credit	Attractive risk/reward
Short Duration		Long Duration	Ladder 3 months to 3 years
Taxable		Non-Taxable	
IG		HY	Spreads wider versus history
US		Int'l	Non-sovereign
Developed		Emerging Markets	

Alternatives

	++ + o + ++		Themes
Low Inflation Protection		High Inflation Protection	REITs, Commodities
Low Volatility		High Volatility	Global macro, managed futures
Low Leverage/ Alpha		High Leverage/ Alpha	Equity L/S, event driven

Private Alternatives

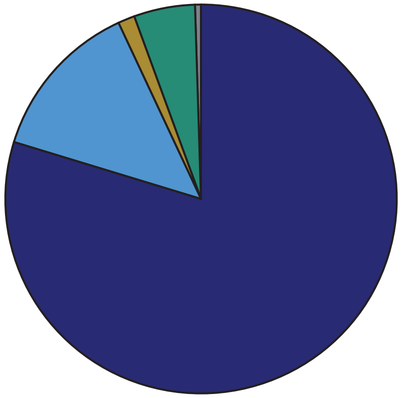
	-- - o + ++	Themes
Private Equity		Small and middle market buyout, secondaries, co-investments, VC/growth equity
Private Credit		Asset backed, structured credit, distressed
Private Real Estate		Secondaries, demographic trends, non-major markets

Source: Morgan Stanley Wealth Management GIC. Note: ++ is most attractive, + is moderately attractive, o is neutral, - is moderately unattractive, -- is most unattractive.

Performance Review

Jewish Community Foundation of the West
As of December 31, 2022

Asset Allocation by Composite



	Market Value ($)	Allocation (%)
Portfolio A Growth Fund	10,028,585	79.7
Portfolio B Balanced Fund	1,678,137	13.3
Portfolio C Short Term Fund	173,457	1.4
Portfolio D Preservation of Principal	636,981	5.1
Portfolio E ESG Fund	61,255	0.5

	Total Fund	Domestic Equity	International Equity	Domestic Fixed Income	Alternative Investment	Cash Equivalent
Portfolio A Growth Fund	10,028,585	4,289,104	2,576,427	1,321,999	1,094,310	746,745
Portfolio B Balanced Fund	1,678,137	486,435	314,465	510,173	330,580	36,483
Portfolio C Short Term Fund	173,457	-	-	76,417	-	97,040
Portfolio D Preservation of Principal	636,981	-	-	-	-	636,981
Portfolio E ESG Fund	61,255	23,391	15,950	15,003	-	6,911

Jewish Community Foundation of the West
Portfolio Overview
As of December 31, 2022

	Allocation		Performance(%)							
	Market Value ($000)	%	Quarter To Date	YTD	1 Year	3 Years	5 Years	7 Years	Since Inception	Inception Date
JCFW - Portfolio A Growth Fund	10,028.58		8.40	-13.63	-13.63	3.72	4.94	7.15	6.44	03/01/2013
JCFW A Index			8.37	-13.29	-13.29	3.03	4.36	6.59	6.21	
JCFW - Portfolio B Balanced Fund	1,678.14		5.97	-11.08	-11.08	2.71	3.74	5.42	4.80	03/01/2013
JCFW B Index			5.82	-11.46	-11.46	1.17	2.77	4.72	4.60	
Portfolio C Short Term Fund	173.46		1.82	-2.56	-2.56	0.28	1.25	0.90	0.80	02/01/2015
Portfolio D Preservation of Principal	636.98		0.86	1.51	1.51	0.66	1.04	0.75	0.66	02/01/2015
Portfolio E ESG Fund	61.26		8.02	-17.10	-17.10	-	-	-	-13.73	02/01/2022
JCFW E Index			8.37	-13.29	-13.29	-	-	-	-9.78	

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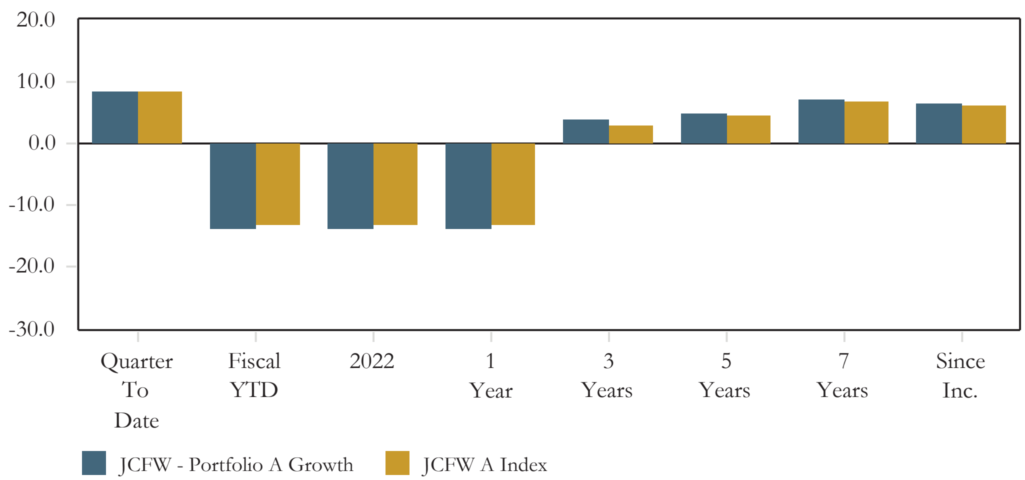
Portfolio A Total Fund Review

JCFW - Portfolio A Growth As of 12/31/22

Manager Performance

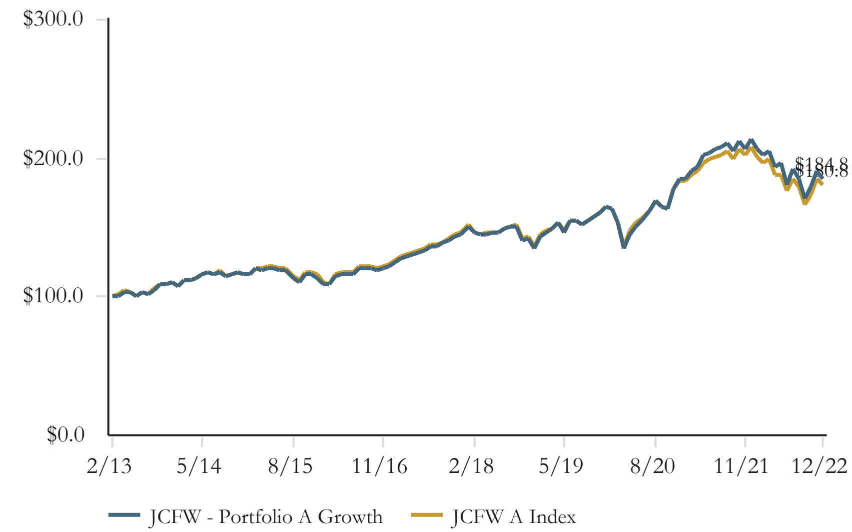


	Quarter To Date	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	Since Inc.	Inception Date
JCFW - Portfolio A Growth	**8.40**	**-13.63**	**-13.63**	**3.72**	**4.94**	**7.15**	**6.44**	**03/01/2013**
JCFW A Index	8.37	-13.29	-13.29	3.03	4.36	6.59	6.25	03/25/2013

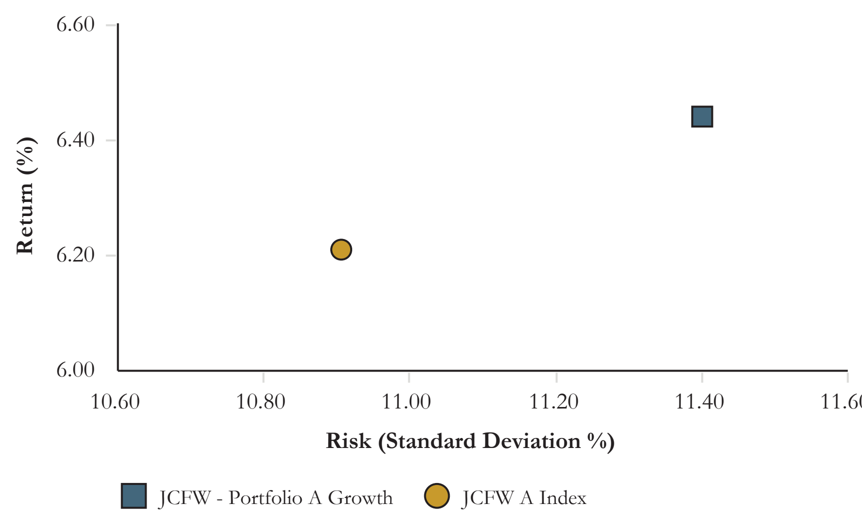
Asset Growth ($000)

	Quarter To Date	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	Since Inc.	Inception Date
JCFW - Portfolio A Growth								**03/01/2013**
Beginning Market Value	8,717	11,006	11,006	8,263	6,434	4,901	4,421	
Net Contributions	581	529	529	838	1,635	1,801	1,668	
Gain/Loss	731	-1,507	-1,507	927	1,960	3,327	3,940	
Ending Market Value	**10,029**	**10,029**	**10,029**	**10,029**	**10,029**	**10,029**	**10,029**	

Growth of $100



Risk/Return Analysis Since Inception



JCFW - Portfolio A Growth Fund

As of 12/31/22

Portfolio Performance (%)

	Current Quarter	YTD	1 Year	3 Years	5 Years	8 Years	Since Inception	2021	2020	2019	2018	2017	Inception Date
JCFW - Portfolio A Growth Fund	8.40	-13.63	-13.63	3.72	4.94	5.98	6.44	15.12	12.22	22.98	-7.24	18.51	03/01/2013
JCFW A Index	8.37	-13.29	-13.29	3.03	4.36	5.64	6.21	13.11	11.52	21.74	-7.02	17.86	
Difference	0.03	-0.34	-0.34	0.69	0.58	0.34	0.23	2.01	0.70	1.24	-0.22	0.65	

Portfolio Characteristics vs. JCFW A Index Since Inception

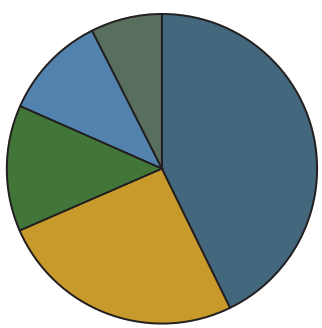
	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
JCFW - Portfolio A Growth Fund	1.04	0.01	0.99	0.54	03/01/2013
JCFW A Index	1.00	0.00	1.00	0.54	03/01/2013

Asset Growth ($000)

	Current Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
JCFW - Portfolio A Growth Fund							03/01/2013
Beginning Market Value	8,717	11,006	11,006	8,263	6,434	4,421	
Net Contributions	591	573	573	963	1,823	1,964	
Fees/Expenses	-11	-44	-44	-124	-188	-297	
Income	123	426	426	881	1,244	1,866	
Gain/Loss	609	-1,933	-1,933	46	716	2,074	
Ending Market Value	10,029	10,029	10,029	10,029	10,029	10,029	

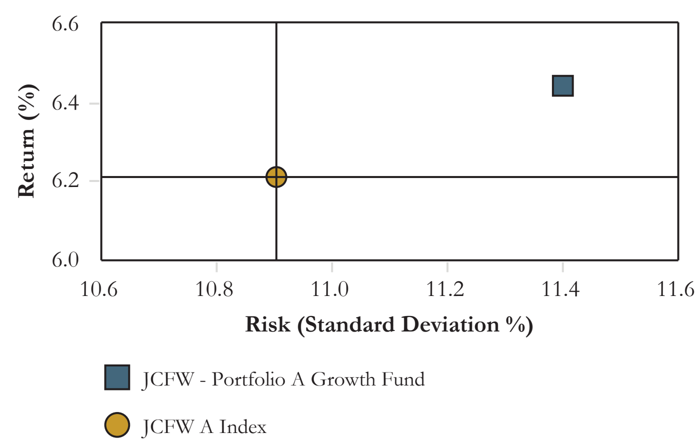
Asset Allocation ($000)

December 31, 2022 : $10,029



Segments	Market Value ($000)	Allocation (%)
Domestic Equity	4,289.10	42.77
International Equity	2,576.43	25.69
Domestic Fixed Income	1,322.00	13.18
Alternative Investment	1,094.31	10.91
Cash Equivalent	746.75	7.45

Risk/Return Analysis Since 03/01/13



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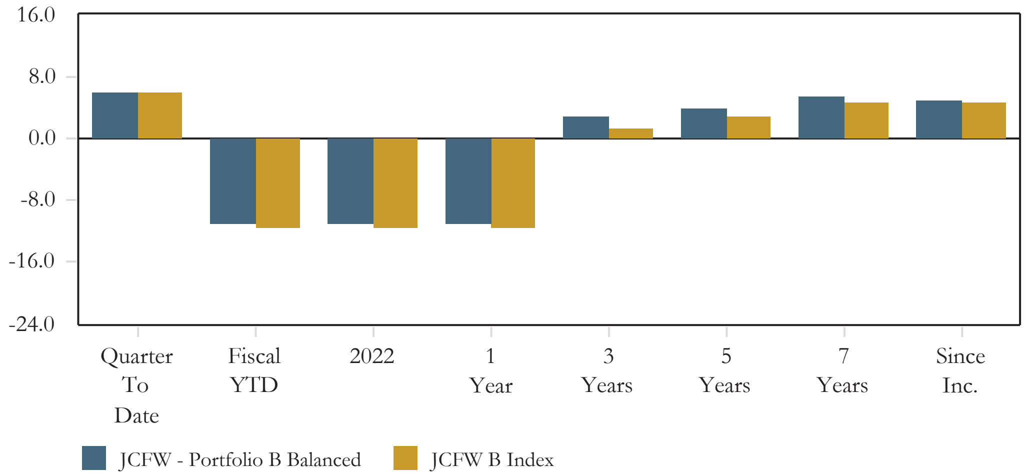
Jewish Community Foundation of the West
Portfolio A Growth Fund
As of December 31, 2022

	Allocation		Performance(%)							
	Market Value ($000)	%	Quarter To Date	YTD	1 Year	3 Years	5 Years	7 Years	Since Inception	Inception Date
JCFW - Portfolio A Growth Fund	10,028.58	100.00	8.40	-13.63	-13.63	3.72	4.94	7.15	6.44	03/01/2013
JCFW A Index			8.37	-13.29	-13.29	3.03	4.36	6.59	6.21	
Portfolio A Growth Fund	7,484.30	74.63	8.11	-12.06	-12.06	2.70	3.89	6.38	5.94	03/25/2013
PM 027792 Index			8.37	-13.29	-13.29	3.03	4.36	6.56	6.09	
Pioneer Fundamental Growth	1,270.59	12.67	8.25	-19.77	-19.77	8.47	-	-	11.35	02/13/2018
Russell 1000 Gr			2.20	-29.14	-29.14	7.79	10.96	12.95	11.01	
Aristotle Value Equity	1,273.70	12.70	10.19	-16.22	-16.22	6.90	-	-	8.52	02/07/2018
Russell 1000 Value			12.42	-7.54	-7.54	5.96	6.67	9.12	7.06	

Portfolio B Total Fund Review

JCFW - Portfolio B Balanced As of 12/31/22

Manager Performance

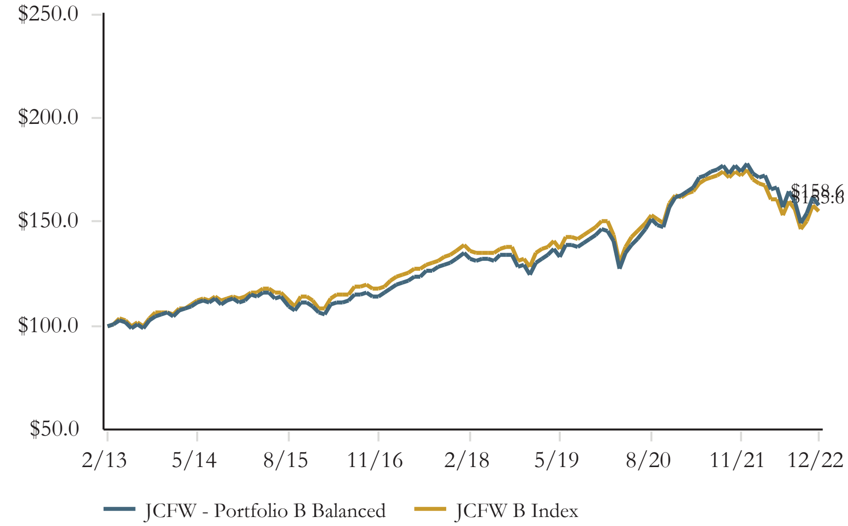


	Quarter To Date	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	Since Inc.	Inception Date
JCFW - Portfolio B Balanced	**5.97**	**-11.08**	**-11.08**	**2.71**	**3.74**	**5.42**	**4.80**	**03/01/2013**
JCFW B Index	5.82	-11.46	-11.46	1.17	2.77	4.72	4.63	03/25/2013

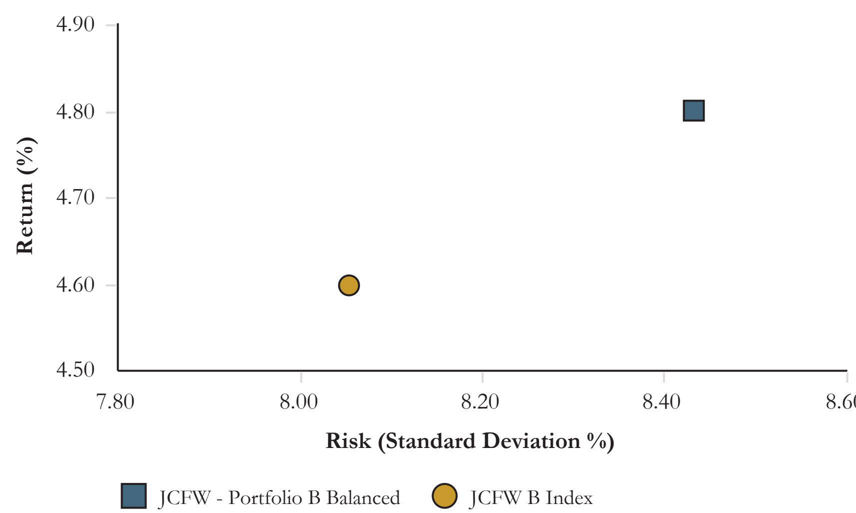
Asset Growth ($000)

	Quarter To Date	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	Since Inc.	Inception Date
JCFW - Portfolio B Balanced								**03/01/2013**
Beginning Market Value	1,581	1,511	1,511	1,411	1,148	1,112	1,014	
Net Contributions	3	353	353	148	283	105	97	
Gain/Loss	94	-186	-186	120	247	461	567	
Ending Market Value	**1,678**	**1,678**	**1,678**	**1,678**	**1,678**	**1,678**	**1,678**	

Growth of $100



Risk/Return Analysis Since Inception



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JCFW - Portfolio B Balanced

As of 12/31/22

Portfolio Performance (%)

	Current Quarter	YTD	1 Year	3 Years	5 Years	8 Years	Since Inception	2021	2020	2019	2018	2017	Inception Date
JCFW - Portfolio B Balanced	5.97	-11.08	-11.08	2.71	3.74	4.48	4.80	9.82	10.95	17.42	-5.55	13.82	03/01/2013
JCFW B Index	5.82	-11.46	-11.46	1.17	2.77	4.07	4.60	8.12	8.17	16.96	-5.35	13.75	
Difference	0.15	0.38	0.38	1.54	0.97	0.41	0.20	1.70	2.78	0.46	-0.20	0.07	

Portfolio Characteristics vs. JCFW B Index Since Inception

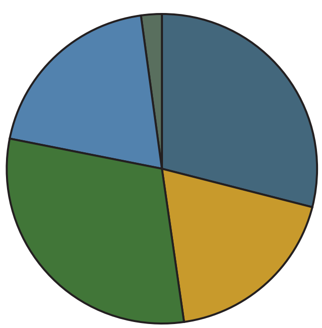
	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
JCFW - Portfolio B Balanced	1.04	0.04	0.98	0.51	03/01/2013
JCFW B Index	1.00	0.00	1.00	0.51	03/01/2013

Asset Growth ($000)

	Current Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
JCFW - Portfolio B Balanced							03/01/2013
Beginning Market Value	1,581	1,511	1,511	1,411	1,148	1,014	
Net Contributions	4	359	359	167	312	153	
Fees/Expenses	-2	-7	-7	-19	-29	-55	
Income	24	72	72	155	228	376	
Gain/Loss	70	-257	-257	-35	20	191	
Ending Market Value	1,678	1,678	1,678	1,678	1,678	1,678	

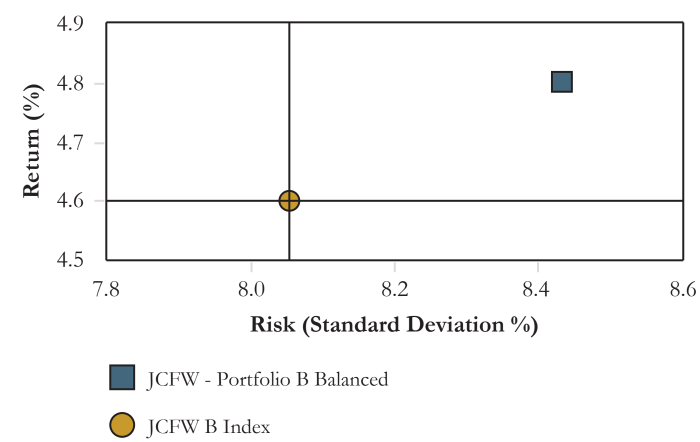
Asset Allocation ($000)

December 31, 2022 : $1,678



Segments	Market Value ($000)	Allocation (%)
Domestic Equity	486.44	28.99
International Equity	314.47	18.74
Domestic Fixed Income	510.17	30.40
Alternative Investment	330.58	19.70
Cash Equivalent	36.48	2.17

Risk/Return Analysis Since 03/01/13



Graystone Consulting from Morgan Stanley

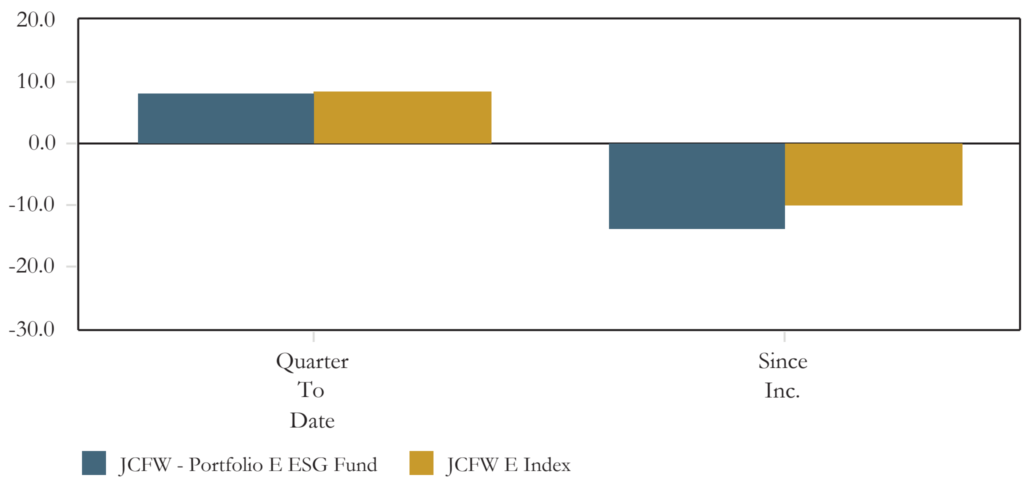
Jewish Community Foundation of the West
Portfolio B Growth Fund
As of December 31, 2022

	Allocation		Performance(%)							
	Market Value ($000)	%	Quarter To Date	YTD	1 Year	3 Years	5 Years	7 Years	Since Inception	Inception Date
JCFW - Portfolio B Balanced	1,678.14	100.00	5.97	-11.08	-11.08	2.71	3.74	5.42	4.80	03/01/2013
JCFW B Index			5.82	-11.46	-11.46	1.17	2.77	4.72	4.60	
Portfolio B Balanced	1,419.39	84.58	5.44	-9.57	-9.57	2.04	3.00	4.89	4.44	03/25/2013
PM 027793 Index			5.82	-11.46	-11.46	1.17	2.77	4.73	4.53	
Pioneer Fundamental Growth	127.85	7.62	8.16	-19.45	-19.45	8.57	-	-	11.47	02/13/2018
Russell 1000 Gr			2.20	-29.14	-29.14	7.79	10.96	12.95	11.01	
Aristotle Value Equity	130.90	7.80	10.34	-16.16	-16.16	6.95	-	-	8.62	02/07/2018
Russell 1000 Value			12.42	-7.54	-7.54	5.96	6.67	9.12	7.06	

Portfolio E Total Fund Review

JCFW - Portfolio E ESG Fund As of 12/31/22

Manager Performance

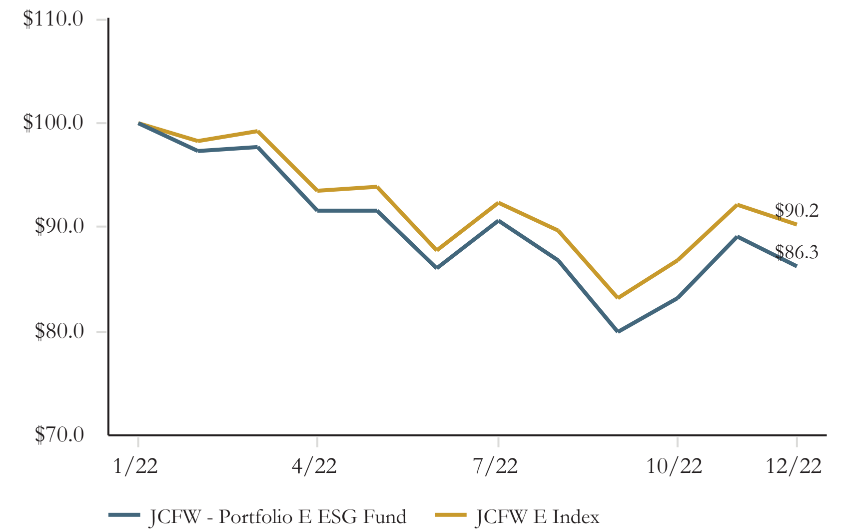


	Quarter To Date	Since Inc.	Inception Date
JCFW - Portfolio E ESG Fund	**8.02**	**-13.73**	**02/01/2022**
JCFW E Index	8.37	-9.78	02/01/2022

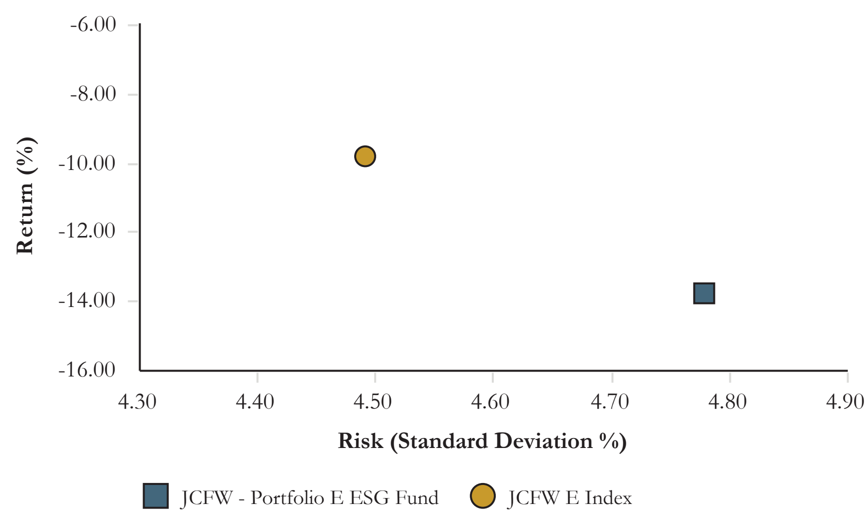
Asset Growth ($000)

	Quarter To Date	Since Inc.	Inception Date
JCFW - Portfolio E ESG Fund			**02/01/2022**
Beginning Market Value	54	68	
Net Contributions	3	2	
Gain/Loss	4	-9	
Ending Market Value	**61**	**61**	

Growth of $100



Risk/Return Analysis Since Inception



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from Morgan Stanley

Portfolio E ESG Fund

As of 12/31/22

Portfolio Performance (%)

	Current Quarter	Since Inception	Inception Date
Portfolio E ESG Fund	8.02	-13.73	02/01/2022
JCFW E Index	8.37	-9.78	
Difference	-0.35	-3.95	

Portfolio Characteristics vs. JCFW E Index Since Inception

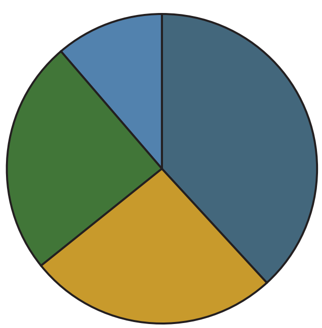
	Beta	Alpha	R-Squared	Sharpe Ratio	Inception Date
Portfolio E ESG Fund	1.06	-0.34	0.99	-0.29	02/01/2022
JCFW E Index	1.00	0.00	1.00	-0.22	02/01/2022

Asset Growth ($000)

	Current Quarter	Since Inception	Inception Date
Portfolio E ESG Fund			02/01/2022
Beginning Market Value	54	68	
Net Contributions	3	2	
Fees/Expenses	-	-	
Income	1	1	
Gain/Loss	4	-10	
Ending Market Value	61	61	

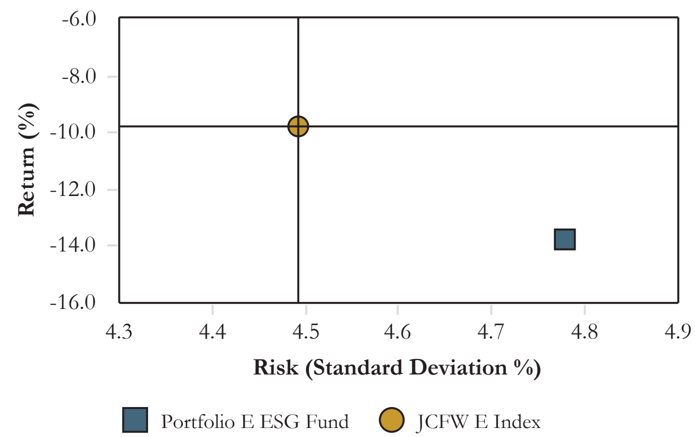
Asset Allocation ($000)

December 31, 2022 : $61



Segments	Market Value ($000)	Allocation (%)
Domestic Equity	23.39	38.19
International Equity	15.95	26.04
Domestic Fixed Income	15.00	24.49
Cash Equivalent	6.91	11.28

Risk/Return Analysis Since 02/01/22



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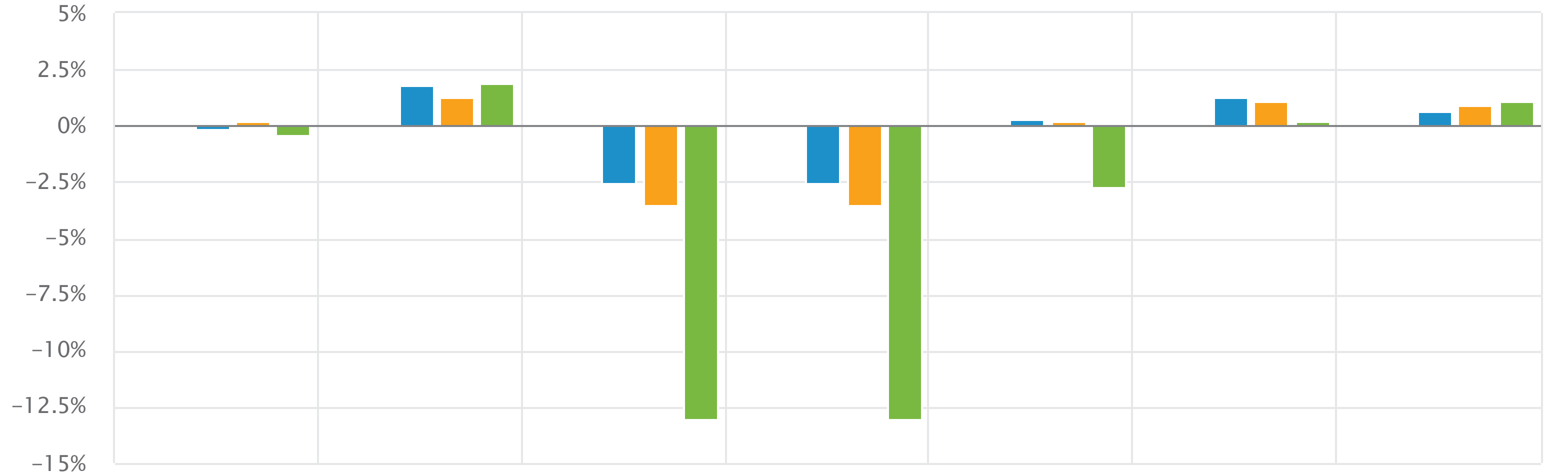
TIME WEIGHTED PERFORMANCE SUMMARY

Portfolio C 178-XXX794 - Non Consulting Services - Monitor Only AAA

As of December 31, 2022 | Reporting Currency: USD

RETURN % (NET OF FEES) VS. BENCHMARKS (ANNUALIZED)



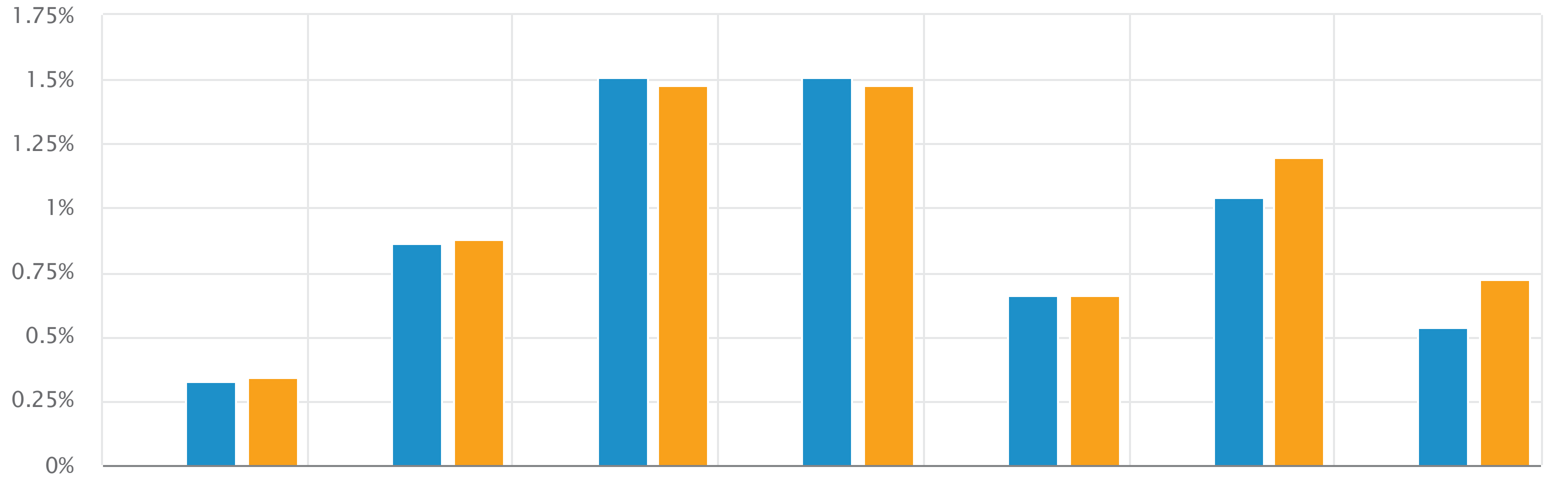
	Month to Date 11/30/22 - 12/31/22	Quarter to Date 09/30/22 - 12/31/22	Year to Date 12/31/21 - 12/31/22	Last 12 Months 12/31/21 - 12/31/22	Last 3 Years 12/31/19 - 12/31/22	Last 5 Years 12/31/17 - 12/31/22	Performance Inception 02/22/13 - 12/31/22
Beginning Total Value ($)	142,714.12	360,522.10	522,074.95	522,074.95	129,813.87	125,504.20	194,047.97
Net Contributions/Withdrawals ($)	31,027.86	-189,982.14	-332,345.05	-332,345.05	51,923.71	47,015.44	-21,660.98
Investment Earnings ($)	-285.04	2,916.99	-16,272.96	-16,272.96	-8,280.64	937.30	1,069.95
Ending Total Value ($)	173,456.94	173,456.94	173,456.94	173,456.94	173,456.94	173,456.94	173,456.94
Return % (Net of Fees)	-0.09	1.82	-2.56	-2.56	0.28	1.25	0.64
JCFW Port C Policy Index (%)	0.05	1.24	-3.49	-3.49	0.02	1.10	0.94
Barclays Aggregate (%)	-0.45	1.87	-13.01	-13.01	-2.72	0.02	1.13

The investment returns shown on this page are time-weighted measurements which exclude the effect of the timing and amount of your contributions and withdrawals.

TIME WEIGHTED PERFORMANCE SUMMARY

Portfolio D 178-XXX795 - Non Consulting Services - Monitor Only AAA | **As of December 31, 2022 | Reporting Currency: USD**

RETURN % (NET OF FEES) VS. BENCHMARKS (ANNUALIZED)



	Month to Date 11/30/22 - 12/31/22	Quarter to Date 09/30/22 - 12/31/22	Year to Date 12/31/21 - 12/31/22	Last 12 Months 12/31/21 - 12/31/22	Last 3 Years 12/31/19 - 12/31/22	Last 5 Years 12/31/17 - 12/31/22	Performance Inception 03/04/13 - 12/31/22
Beginning Total Value ($)	641,480.08	607,371.28	664,968.52	664,968.52	392,465.65	315,182.02	78,400.30
Net Contributions/Withdrawals ($)	-6,619.94	24,138.27	-37,401.11	-37,401.11	231,956.58	296,348.29	532,937.01
Investment Earnings ($)	2,121.34	5,471.93	9,414.07	9,414.07	12,559.25	25,451.17	25,644.17
Ending Total Value ($)	636,981.48	636,981.48	636,981.48	636,981.48	636,981.48	636,981.48	636,981.48
Return % (Net of Fees)	0.33	0.86	1.51	1.51	0.66	1.04	0.54
FTSE T-Bills 30 Day (%)	0.34	0.88	1.48	1.48	0.66	1.20	0.72

The investment returns shown on this page are time-weighted measurements which exclude the effect of the timing and amount of your contributions and withdrawals.

Jewish Community Foundation of the West (027792)
Asset Allocation: Portfolio A - Growth Fund

Manager		Asset Class	12/31/22 Value	12/31/22 %	Target	Rebalance Action
Vanguard S&P 500	VOO	Large Core	476,417.04	4.8%	5.00%	24,659.93
Aristotle Value Equity (031989)	SMA	Large Relative Value	1,273,695.99	12.7%	13.00%	29,104.14
Pioneer Fundamental Growth (031988)	SMA	Large Growth	1,270,591.72	12.7%	13.00%	32,208.41
Vanguard Mid Cap	VO	Mid Cap	783,853.26	7.8%	8.00%	17,869.90
Vanguard Small Cap	VB	Small Cap	484,545.60	4.8%	5.00%	16,531.37
		EQUITY	**4,289,103.61**	**42.8%**	**44.0%**	**120,373.75**
Vanguard FTSE Developed Mkts ETF	VEA	Global Equity Ex US	1,671,623.13	16.7%	17.00%	32,038.58
Vanguard FTSE Emerging Mkt ETF	VWO	Emerging Mkt Equity	904,803.76	9.0%	9.00%	-2,865.21
		EX US EQUITY	**2,576,426.89**	**25.7%**	**26.0%**	**29,173.37**
Blackrock Strategic Income Opp	BSIIX	US Bonds	652,862.57	6.5%	6.50%	-1,462.51
Prudential Total Return Fd	PDBZX	Core Bond	653,972.84	6.5%	6.50%	-2,572.78
Vanguard S/T Bond	BSV	S/T Bond	665,550.48	6.6%	7.00%	35,957.28
		FIXED INCOME	**1,972,385.89**	**19.7%**	**20.0%**	**58,230.16**
PIMCO Commodity Real Return	PCRPX	Commodity	438,871.76	4.4%	5.00%	62,205.21
		ALTERNATIVE	**438,871.76**	**4.4%**	**5.0%**	**62,205.21**
Morgan Stanley Bank N.A.	BDPS	Cash	744,751.31	7.4%	5.00%	-243,674.34
Total Composite			**10,021,539.46**	**100.0%**	**100.0%**	

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Jewish Community Foundation of the West (027793)
Asset Allocation: Portfolio B - Balanced Fund

Manager		Asset Class	12/31/22 Value	12/31/22 %	Target	Rebalance Action
Vanguard S&P 500	VOO	Large Core	58,322.44	3.6%	4.00%	7,274.37
Aristotle Value Equity (031984)	SMA	Large Relative Value	130,895.01	8.0%	7.00%	-16,100.58
Pioneer Fundamental Growth (031987)	SMA	Large Growth	127,850.28	7.8%	7.00%	-13,055.85
Vanguard Mid Cap	VO	Mid Cap	99,255.48	6.1%	6.00%	-860.26
Vanguard Small Cap	VB	Small Cap	70,112.28	4.3%	4.00%	-4,515.47
		EQUITY	**486,435.49**	**29.7%**	**28.00%**	**-27,257.79**
Vanguard FTSE Developed Mkts ETF	VEA	Global Equity Ex US	215,222.16	13.1%	13.00%	-2,032.51
Vanguard FTSE Emerging Mkt ETF	VWO	Emerging Mkt Equity	99,243.08	6.1%	6.00%	-847.86
		EX US EQUITY	**314,465.24**	**19.2%**	**19.00%**	**-2,880.37**
Vanguard ST Bond	BSV	S/T Bond	320,316.40	19.5%	20.00%	7,667.67
Blackrock Strategic Income Opp	BSIIX	US Bonds	257,868.91	15.7%	16.00%	4,518.35
Prudential Total Return Fd	PDBZX	Core Bond	189,140.09	11.5%	11.00%	-8,748.85
		FIXED INCOME	**767,325.40**	**46.8%**	**47.00%**	**3,437.17**
PIMCO Commodity Real Return	PCRPX	Commodity	71,694.24	4.4%	4.0%	-6,097.43
		ALTERNATIVE	**71,694.24**	**4.4%**	**4.00%**	**-6,097.43**
Morgan Stanley Bank N.A.	BDPS	Cash	36,483.61	2.2%	2.00%	-3,685.20
Total Composite			**1,639,920.37**	**100.0%**	**100.0%**	

Jewish Community Foundation of the West (027794)
Asset Allocation: Portfolio C - Income Fund

Manager		Asset Class	12/31/22 Value	12/31/22 %	Target	Rebalance Action
Vanguard S/T Bond	BSV	S/T Bond	10,491.92	6.0%	8.00%	3,384.65
Vanguard S/T Corporate	VCSH	S/T Corporate	12,745.53	7.3%	8.00%	1,131.04
Ishares Core US Agg	AGG	Core Bond	53,179.91	30.7%	34.00%	5,795.52
Federated Treasury Obligatio	TOIXX	Money Market	72,367.19	41.7%	50.00%	14,361.38
Morgan Stanley Bank N.A.	BDPS	Cash	24,672.59	14.2%	0.00%	-24,672.59
		FIXED INCOME	**173,457.14**	**100.00%**	**100.00%**	**0.00**

Total Composite	**173,457.14**	**100.0%**	**100.0%**	

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Jewish Community Foundation of the West (027795)
Asset Allocation: Portfolio D- Preservation Fund

Manager		Asset Class	12/31/22 Value	12/31/22 %	Target	Rebalance Action
Federated Treasury Obligations	TOIXX	Money Market	636,258.12	99.9%	99.00%	-5,646.44
Morgan Stanley Bank N.A.	BDPS	Cash	723.37	0.1%	1.00%	5,646.44
		FIXED INCOME	**636,981.49**	**100.0%**	**100.00%**	**0.00**
Total Composite			**636,981.49**	**100.0%**	**100.0%**	

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Jewish Community Foundation of the West (035161)

Asset Allocation: Portfolio E - ESG Fund

Manager		Asset Class	12/31/22 Value	12/31/22 %	Target	Rebalance Action
iShares KLD 400	DSI	Large Core	12,204.30	19.9%	24.00%	2,490.18
Blackrock Sust Lg Cap	BIRIX	Large Cap	3,803.76	6.2%	7.00%	482.13
Parnassus Mid Cap	PARMX	Mid Cao	4,604.84	7.5%	8.00%	293.32
Calvert Small Cap	CSVIX	Small Cap	2,778.34	4.5%	5.00%	283.01
		EQUITY	**23,391.24**	**38%**	**44.0%**	
Domini Impact Int'l	DOMYX	International	2,552.80	4.2%	4.00%	-103.72
iShares ESG Aware EAFE	ESGD	International	7,954.54	13.0%	13.00%	4.97
iShares ESG Aware EM	ESGE	Emerging Markets	5,442.67	8.9%	9.00%	67.76
		EX US EQUITY	**15,950.01**	**26.1%**	**26.0%**	
Calvert Ultra Short Duration	CULIX	S/T Bond	3,711.40	6.1%	7.00%	574.49
Community Impact Bond	CRANX	Core Bond	5,609.21	9.2%	10.00%	513.49
TIAA CREF Core Impact	TSBHX	Core Bond	5,655.87	9.2%	10.00%	466.83
		FIXED INCOME	**14,976.48**	**24.5%**	**27.0%**	
Morgan Stanley Bank N.A.	BDPS	Cash	6,909.28	11.3%	3.00%	-6,909.28
Total Composite			**61,227.01**	**100.0%**	**100.0%**	

Disclosures

DISCLOSURES

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The GIC Asset Allocation Models are not available to be directly implemented as part of an investment advisory service and should not be regarded as a recommendation of any Morgan Stanley investment advisory service. The GIC Asset Allocation Models do not represent actual trading or any type of account or any type of investment strategies and none of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, advisory fees, fund expenses) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models which, when compounded over a period of years, would decrease returns.

Adverse Active Alpha℠ 2.0 is a patented screening and scoring process designed to help identify high-quality equity and fixed income managers with characteristics that may lead to future outperformance relative to index and peers. While highly ranked managers performed well as a group in our Adverse Active Alpha model back tests, not all of the managers will outperform. Please note that this data may be derived from back-testing, which has the benefit of hindsight. In addition, highly ranked managers can have differing risk profiles that might not be appropriate for all investors.

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 qualitative and quantitative 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 Alpha*^{SM} *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.

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.

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. Generally, investment advisory accounts are subject to an annual asset-based fee (the "Fee") which is payable monthly in advance (some account types may be billed differently). In general, the Fee covers Morgan Stanley investment advisory services, custody of securities with Morgan Stanley, trade execution with or through Morgan Stanley or its affiliates, as well as compensation to any Morgan Stanley Financial Advisor.

In addition, each account that is invested in a program that is eligible to purchase certain investment products, such as mutual funds, will also pay a Platform Fee (which is subject to a Platform Fee offset) as described in the applicable ADV brochure. Accounts invested in the Select UMA program may also pay a separate Sub-Manager fee, if applicable.

If your account is invested in mutual funds or exchange traded funds (collectively "funds"), you will pay the fees and expenses of any funds in which your account is invested. Fees and expenses are charged directly to the pool of assets the fund invests in and are reflected in each fund's share price. These fees and expenses are an additional cost to you and would not be included in the Fee amount in your account statements. The advisory program you choose is described in the applicable Morgan Stanley Smith Barney LLC ADV Brochure, available at www.morganstanley.com/ADV.

Morgan Stanley or Executing Sub-Managers, as applicable, in some of Morgan Stanley's Separately Managed Account ("SMA") programs may effect transactions through broker-dealers other than Morgan Stanley or our affiliates. In such instances, you may be assessed additional costs by the other firm in addition to the Morgan Stanley and Sub-Manager fees. Those costs will be included in the net price of the security, not separately reported on trade confirmations or account statements. Certain Sub-Managers have historically directed most, if not all, of their trades to outside firms. Information provided by Sub-Managers concerning trade execution away from Morgan Stanley is summarized at: www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/sotresponse.pdf. For more information on trading and costs, please refer to the ADV Brochure for your program(s), available at www.morganstanley.com/ADV, or contact your Financial Advisor / Private Wealth Advisor.

Conflicts of Interest: GIMA's goal is to provide professional, objective evaluations in support of the Morgan Stanley Wealth Management investment advisory programs. We have policies and procedures to help us meet this goal. However, our business is subject to various conflicts of interest. For example, ideas and suggestions for which investment products should be evaluated by GIMA come from a variety of sources, including our Morgan Stanley Wealth Management Financial Advisors and their direct or indirect managers, and other business persons within Morgan Stanley Wealth Management or its affiliates. Such persons may have an ongoing business relationship with certain investment managers or mutual fund companies whereby they, Morgan Stanley Wealth Management or its affiliates receive compensation from, or otherwise related to, those investment managers or mutual funds. For example, a Financial Advisor may suggest that GIMA evaluates an investment manager or fund in which a portion of his or her clients' assets are already invested. While such a recommendation is permissible, GIMA is responsible for the opinions expressed by GIMA. Separately, certain strategies managed or sub-advised by us or our affiliates, including but not limited to MSIM and Eaton Vance Management ("EVM") and its investment affiliates, may be included in your account. See the conflicts of interest section in the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management for a discussion of other types of conflicts that may be relevant to GIMA's evaluation of managers and funds. In addition, Morgan Stanley Wealth Management, MS&Co., managers and their affiliates provide a variety of services (including research, brokerage, asset management, trading, lending and investment banking services) for each other and for various clients, including issuers of securities that may be recommended for purchase or sale by clients or are otherwise held in client accounts, and managers in various advisory programs. 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.

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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 www.morganstanley.com/ADV 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 https://www.morganstanley.com/wealth-investmentsolutions/cgcm. 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 www.morganstanley.com. 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 not trade as readily as, and be subject to higher volatility than, those 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** 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 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. There is no guarantee that investors will receive par if TIPS are sold prior to maturity. The returns on a portfolio consisting primarily of **environmental, social, and governance-aware investments ("ESG")** may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. 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.

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 may be either traditional alternative investment vehicles, such as hedge funds, fund of hedge funds, private equity, private real estate and managed futures or, non-traditional products such as mutual funds and exchange-traded funds that also seek alternative-like exposure but have significant differences from traditional alternative investments. 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; and Risks associated with the operations, personnel, and processes of the manager. Further, opinions regarding Alternative Investments expressed herein may differ from the opinions expressed by Morgan Stanley Wealth Management and/or other businesses/affiliates of Morgan Stanley Wealth Management.

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.

Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific 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 Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank.

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 generally illiquid, have substantial charges, subject investors to conflicts of interest, and are appropriate only for the risk capital portion of an investor’s portfolio. Managed futures investments do not replace equities or bonds but rather may act as a complement in a well diversified portfolio. Managed Futures are complex and not appropriate for all investors.

<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 of 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.

- The exchange rate of virtual currency products versus the USD historically has been very volatile and the exchange rate could drastically decline. For example, the exchange rate of certain Digital Assets versus the USD has in the past dropped more than 50% in a single day. Other Digital Assets may be affected by such volatility as well.

- Digital Asset exchanges have limited operating and performance histories and are not regulated with the same controls or customer protections available to more traditional exchanges transacting equity, debt, and other assets and securities. There is no assurance that a person/exchange who currently accepts a Digital Asset as payment will continue to do so in the future.

- The regulatory framework of Digital Assets is evolving, and in some cases is uncertain, and Digital Assets themselves may not be governed and protected by applicable securities regulators and securities laws, including, but not limited to, Securities Investor Protection Corporation coverage, or other regulatory regimes.

- Morgan Stanley Smith Barney LLC or its affiliates (collectively, “Morgan Stanley”) may currently, or in the future, offer or invest in Digital Asset products, services or platforms. The proprietary interests of Morgan Stanley may conflict with your interests.

- The foregoing list of considerations and risks are not and do not purport to be a complete enumeration or explanation of the risks involved in an investment in any product or fund investing or trading in Digital 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.

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.

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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.

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 eligibility 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 preferreds with no maturity date) are QDI eligible. In order to qualify for the preferential tax treatment all qualifying preferred securities must be held by investors for a minimum period – 91 days during a 180 day window period, beginning 90 days before the ex-dividend date.
Companies paying **dividends** can reduce or cut payouts at any time.

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. 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. Because of their narrow focus, **sector investments** tend to be more volatile than investments that diversify across many sectors and companies.

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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If your account is invested in mutual funds or exchange traded funds (collectively "funds"), you will pay the fees and expenses of any funds in which your account is invested. Fees and expenses are charged directly to the pool of assets the fund invests in and are reflected in each fund's share price. These fees and expenses are an additional cost to you and would not be included in the Fee amount in your account statements. The advisory program you choose is described in the applicable Morgan Stanley Smith Barney LLC ADV Brochure, available at www.morganstanley.com/ADV.
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Performance Appendix

Performance Data below is net of fees. Please see the Morgan Stanley Smith Barney LLC Form ADV Part 2 Brochure for advisory accounts and/or any applicable brokerage account trade confirmation statements for a full disclosure of the applicable charges, fees and expenses. Your Financial Advisor will provide those documents to you upon request.

Account Name	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Aristotle Value Equity	10.14	-16.77	-16.77	6.20	--	--	7.82	02/07/2018
Aristotle Value Equity	9.99	-16.82	-16.82	6.14	--	--	7.71	02/07/2018
Pioneer Fundamental Growth	7.98	-19.99	-19.99	7.83	--	--	10.61	02/13/2018
Pioneer Fundamental Growth	8.06	-20.31	-20.31	7.73	--	--	10.49	02/13/2018
Portfolio A Growth Fund	8.02	-12.38	-12.38	2.34	3.51	--	5.47	03/25/2013
Portfolio B Balanced	5.34	-9.88	-9.88	1.68	2.62	--	3.98	03/25/2013
Portfolio C Short Term Fund	1.82	-2.56	-2.56	0.28	1.25	--	0.80	02/01/2015
Portfolio D Preservation of Principal	0.86	1.51	1.51	0.66	1.04	--	0.66	02/01/2015
Portfolio E ESG Fund	7.92	--	--	--	--	--	-14.01	02/01/2022

All performance above are Time Weighted(TWR) performance

Glossary of Terms

Active Contribution Return: The gain or loss percentage of an investment relative to the performance of the investment benchmark.

Active Exposure: The percentage difference in weight of the portfolio compared to its policy benchmark.

Active Return: Arithmetic difference between the manager's return and the benchmark's return over a specified time period.

Actual Correlation: A measure of the correlation (linear dependence) between two variables X and Y, with a value between +1 and -1 inclusive. This is also referred to as coefficient of correlation.

Alpha: A measure of a portfolio's time weighted return in excess of the market's return, both adjusted for risk. A positive alpha indicates that the portfolio outperformed the market on a risk-adjusted basis, and a negative alpha indicates the portfolio did worse than the market.

Best Quarter: The highest quarterly return for a certain time period.

Beta: A measure of the sensitivity of a portfolio's time weighted return (net of fees) against that of the market. A beta greater than 1.00 indicates volatility greater than the market.

Consistency: The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.

Core: Refers to an investment strategy mandate that is blend of growth and value styles without a pronounced tilt toward either style.

Cumulative Selection Return (*Cumulative Return*): Cumulative investment performance over a specified period of time.

Distribution Rate: The most recent distribution paid, annualized, and then divided by the current market price. Distribution rate may consist of investment income, short-term capital gains, long-term capital gains, and/or return of capital.

Down Market Capture: The ratio of average portfolio returns over the benchmark during periods of negative benchmark return. Lower values indicate better product performance.

Downside Risk: A measure similar to standard deviation, but focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. The higher the value, the more risk the product has.

Downside Semi Deviation: A statistical calculation that measures the volatility of returns below a minimum acceptable return. This return measure isolates the negative portion of volatility: the larger the number, the greater the volatility.

Drawdown: A drawdown is the peak-to-trough decline during a specific period of an investment, fund or commodity.

Excess over Benchmark: The percentage gain or loss of an investment relative to the investment's benchmark.

Excess Return: Arithmetic difference between the manager's return and the risk-free return over a specified time period.

Growth: A diversified investment strategy which includes investment selections that have capital appreciation as the primary goal, with little or no dividend payouts. These strategies can include reinvestment in expansion, acquisitions, and/or research and development opportunities.

Growth of Dollar: The aggregate amount an investment has gained or lost over a certain time period, also referred to as Cumulative Return, stated in terms of the amount to which an initial dollar investment would have grown over the given time period.

Investment Decision Process (IDP): A model for structuring the investment process and implementing the correct attribution methodologies. The IDP includes every decision made concerning the division of the assets under management over the various asset categories. To analyze each decision's contribution to the total return, a modeling approach must measure the marginal value of every individual decision. In this respect, the hierarchy of the decisions becomes very important. We therefore use the IDP model, which serves as a proper foundation for registering the decisions and relating them to each other.

Information Ratio: Measured by dividing the active rate of return by the tracking error. The higher the Information Ratio, the more value-added contribution by the manager.

Jensen's Alpha: The Jensen's alpha measure is a risk-adjusted performance measure that represents the average return on a portfolio or investment above or below that predicted by the capital asset pricing model (CAPM) given the portfolio's or investment's beta and the average market return. This metric is also commonly referred to as alpha..

Kurtosis: A statistical measure that is used to describe the distribution, or skewness, of observed data around the mean, sometimes referred to as the volatility of volatility.

Maximum Drawdown: The drawdown is defined as the percent retrenchment from a fund's peak to the fund's trough value. It is in effect from the time the fund's retrenchment begins until a new fund high is reached. The maximum drawdown encompasses both the period from the fund's peak to the fund's valley (length), and the time from the fund's valley to a new fund high (recovery). It measures the largest percentage drawdown that has occurred in any fund's data record.

Modern Portfolio Theory (MPT): An investment analysis theory on how risk-averse investors can construct portfolios to optimize or maximize expected return based on a given level of market risk, emphasizing that risk is an inherent part of higher reward.

Mutual Fund (MF): An investment program funded by shareholders that trade in diversified holdings and is professionally managed.

Peer Group: A combination of funds that share the same investment style combined as a group for comparison purposes.

Peer/ Plan Sponsor Universe: A combination of asset pools of total plan investments by specific sponsor and plan types for comparison purposes.

Performance Ineligible Assets: Performance returns are not calculated for certain assets because accurate valuations and transaction data for these assets are not processed or maintained by us. Common examples of these include life insurance, some annuities and some assets held externally.

Performance Statistics: A generic term for various measures of investment performance measurement terms.

Portfolio Characteristics: A generic term for various measures of investment portfolio characteristics.

Preferred Return: A term used in the private equity (PE) world, and also referred to as a "Hurdle Rate." It refers to the threshold return that the limited partners of a private equity fund must receive, prior to the PE firm receiving its carried interest or "carry."

Ratio of Cumulative Wealth: A defined ratio of the Cumulative Return of the portfolio divided by the Cumulative Return of the benchmark for a certain time period.

Regression Based Analysis: A statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables

Residual Correlation: Within returns-based style analysis, residual correlation refers to the portion of a strategy's return pattern that cannot be explained by its correlation to the asset-class benchmarks to which it is being compared.

Return: A rate of investment performance for the specified period.

Rolling Percentile Ranking: A measure of an investment portfolio's ranking versus a peer group for a specific rolling time period (i.e. Last 3 Years, Last 5 years, etc.).

R-Squared: The percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio's performance to the appropriate benchmark.

SA/CF (Separate Account/Comingled Fund): Represents an acronym for Separate Account and Commingled Fund investment vehicles.

Sector Benchmark: A market index that serves as a proxy for a sector within an asset class.

Sharpe Ratio: Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance results in.

Standard Deviation: A statistical measure of the range of a portfolio's performance; the variability of a return around its average return over a specified time period.

Total Fund Benchmark: The policy benchmark for a complete asset pool that could consist of multiple investment mandates.

Total Fund Composite: The aggregate of multiple portfolios within an asset pool or household.

Tracking Error: A measure of standard deviation for a portfolio's investment performance, relative to the performance of an appropriate market benchmark.

Treynor Ratio: A ratio that divides the excess return (above the risk free rate) by the portfolio's beta to arrive at a unified measure of risk adjusted return. It is generally used to rank portfolios, funds and benchmarks. A higher ratio is indicative of higher returns per unit of market risk. This measurement can help determine if the portfolio is reaching its goal of increasing returns while managing market risk.

Up Market Capture: The ratio of average portfolio returns over the benchmark during periods of positive benchmark return. Higher values indicate better product performance.

Upside Semi Deviation: A statistical calculation that measures the volatility of returns above an acceptable return. This return measure isolates the positive portion of volatility: the larger the number, the greater the volatility.

Value: A diversified investment strategy that includes investment selections which tend to trade at a lower price relative to its dividends, earnings, and sales. Common attributes are stocks that include high dividend, low price-to-book ratio, and/or low price-to-earnings ratio.

Worst Quarter: The lowest rolling quarterly return for a certain time period.

Information Disclosures

Performance results are annualized for time periods greater than one year and include all cash and cash equivalents, realized and unrealized capital gains and losses, and dividends, interest and income. The investment results depicted herein represent historical performance. As a result of recent market activity, current performance may vary from the figures shown. Past performance is not a guarantee of future results.

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Benchmark indices and blends included in this material are for informational purposes only, are provided solely as a comparison tool and may not reflect the underlying composition and/or investment objective(s) associated with the account(s). Indices are unmanaged and not available for direct investment. Index returns do not take into account fees or other charges. Such fees and charges would reduce performance.

The performance data shown reflects past performance, which does not guarantee future results. Investment return and principal will fluctuate so that an investor's shares when redeemed may be worth more or less than original cost. Please note, current performance may be higher or lower than the performance data shown. For up to date month-end performance information, please contact your Financial Advisor or visit the funds' company website.

Investors should carefully consider the fund's investment objectives, risks, charges and expenses before investing. The prospectus and, if available the summary prospectus, contains this and other information that should be read carefully before investing. Investors should review the information in the prospectus carefully. To obtain a prospectus, please contact your Financial Advisor or visit the funds' company website.

Past performance is no guarantee of future results.

Investing involves market risk, including possible loss of principal. **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** involves the risk that the market may not recognize that securities are undervalued and they may not appreciate as anticipated. **Small and mid-capitalization companies** may lack the financial resources, product diversification and competitive strengths of larger companies. The securities of small capitalization companies may not trade as readily as, and be subject to higher volatility than those of larger, more established companies. **Bond funds** and bond holdings have the same interest rate, inflation and credit risks that are associated with the underlying bonds owned by the funds. The return of principal in bond funds, and in funds with significant bond holdings, is not guaranteed. **International securities'** prices may carry additional risks, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes and differences in financial and accounting standards. International investing may not be for everyone. These risks may be magnified in emerging markets. **Alternative investments**, including private equity funds, real estate funds, hedge funds, managed futures funds, and funds of hedge funds, private equity, and managed futures funds, are speculative and entail significant risks that can include losses due to leveraging or\other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification, absence and/or delay of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds and risks associated with the operations, personnel and processes of the advisor. **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; and MLP interests in the real estate sector are subject to special risks, including interest rate and property value fluctuations, as well as risks related to general and economic conditions. Because of their narrow focus, MLPs maintain exposure to price volatility of commodities and/or underlying assets and tend to be more volatile than investments that diversify across many sectors and companies. MLPs are also subject to additional risks including: investors having limited control and rights to vote on matters affecting the MLP, limited access to capital, cash flow risk, lack of liquidity, dilution risk, conflict of interests, and limited call rights related to acquisitions.

Mortgage backed securities also involve prepayment risk, in that faster or slower prepayments than expected on underlying mortgage loans can dramatically alter the yield-to-maturity of a mortgage-backed security and prepayment risk includes the possibility that a fund may invest the proceeds at generally lower interest rates.

Tax managed funds may not meet their objective of being tax-efficient.

Real estate investments are subject to special risks, including interest rate and property value fluctuations, as well as risks related to general and economic conditions. **High yield** fixed income securities, also known as "junk bonds", are considered speculative, involve greater risk of default and tend to be more volatile than investment grade fixed income securities.

Credit quality is a measure of a bond issuer's creditworthiness, or ability to repay interest and principal to bondholders in a timely manner. The credit ratings shown are based on security rating as provided by Standard & Poor's, Moody's and/or Fitch, as applicable. Credit ratings are issued by the rating agencies for the underlying securities in the fund and not the fund itself, and the credit quality of the securities in the fund does not represent the stability or safety of the fund. Credit ratings shown range from AAA, being the highest, to D, being the lowest based on S&P and Fitch's classification (the equivalent of Aaa and C, respectively, by Moody(s). Ratings of BBB or higher by S&P and Fitch (Baa or higher by Moody's) are considered to be investment grade-quality securities. If two or more of the agencies have assigned different ratings to a security, the highest rating is applied. Securities that are not rated by all three agencies are listed as "NR".

"**Alpha tilt strategies** comprise a core holding of stocks that mimic a benchmark type index such as the S&P 500 to which additional securities are added to help tilt the fund toward potentially outperforming the market in an effort to enhance overall investment returns. Tilt strategies are subject to significant timing risk and could potentially expose investors to extended periods of underperformance."

Custom Account Index: The Custom Account Index is an investment benchmark based on your historical target allocations and/or manager selection that you may use to evaluate the performance of your account. The Custom Account index does take into consideration certain changes that may have occurred in your portfolio since the inception of your account, i.e., asset class and/or manager changes. However, in some circumstances, it may not be an appropriate benchmark for use with your specific account composition. For detailed report of the historical composition of this blend please contact your Financial Advisor.

Peer Groups

Peer Groups are a collection of similar investment strategies that essentially group investment products that share the same investment approach. Peer Groups are used for comparison purposes to compare and illustrate a clients investment portfolio versus its peer across various quantitative metrics like performance and risk. Peer Group comparison is conceptually another form of benchmark comparison whereby the actual investment can be ranked versus its peer across various quantitative metrics.

All Peer Group data are provided by Investment Metrics, LLC.

The URL below provides all the definitions and methodology about the various Peer Groups

https://www.invmetrics.com/style-peer-groups

Peer Group Ranking Methodology

A percentile rank denotes the value of a product in which a certain percent of observations fall within a peer group. The range of percentile rankings is between 1 and 100, where 1 represents a high statistical value and 100 represents a low statistical value.

The 30th percentile, for example, is the value in which 30% of the highest observations may be found, the 65th percentile is the value in which 65% of the highest observations may be found, and so on.

Percentile rankings are calculated based on a normalized distribution ranging from 1 to 100 for all products in each peer group, where a ranking of 1 denotes a high statistical value and a ranking of 100 denotes a low statistical value. It is important to note that the same ranking methodology applies to all statistics, implying that a ranking of 1 will always mean highest value across all statistics.

For example, consider a risk/return assessment using standard deviation as a measure of risk. A percentile ranking equal to 1 for return denotes highest return, whereas a percentile ranking of 1 for standard deviation denotes highest risk among peers.

In addition, values may be used to demonstrate quartile rankings. For example, the third quartile is also known as the 75th percentile, and the median is the 50th percentile.

Alternatives

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Alternatives may be either traditional alternative investment vehicles or non-traditional alternative strategy vehicles. Traditional alternative investment vehicles may include, but are not limited to, Hedge Funds, Fund of Funds (both registered and unregistered), Exchange Funds, Private Equity Funds, Private Credit Funds, Real Estate Funds, and Managed Futures Funds. Non-traditional alternative strategy vehicles may include, but are not limited to, Open or Closed End Mutual Funds, Exchange-Traded and Closed-End Funds, Unit Investment Trusts, exchange listed Real Estate Investment Trusts (REITs), and Master Limited Partnerships (MLPs). These non-traditional alternative strategy vehicles also seek alternative-like exposure but have significant differences from traditional alternative investment vehicles. Non-traditional alternative strategy vehicles may behave like, have characteristics of, or 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. Characteristics such as correlation to traditional markets, investment strategy, and market sector exposure can play a role in the classification of a traditional security being classified as alternative.

Traditional alternative investment vehicles are illiquid and usually are not valued daily. The estimated valuation provided will be as of the most recent date available and will be included in summaries of your assets. Such valuation may not be the most recent provided by the fund in which you are invested. No representation is made that the valuation is a market value or that the interest could be liquidated at this value. We are not required to take any action with respect to your investment unless valid instructions are received from you in a timely manner. Some positions reflected herein may not represent interests in the fund, but rather redemption proceeds withheld by the issuer pending final valuations which are not subject to the investment performance of the fund and may or may not accrue interest for the length of the withholding. Morgan Stanley does not engage in an independent valuation of your alternative investment assets. Morgan Stanley provides periodic information to you including the market value of an alternative investment vehicle based on information received from the management entity of the alternative investment vehicle or another service provider.

Traditional alternative investment vehicles often are speculative and include a high degree of risk. . 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; and• Risks associated with the operations, personnel, and processes of the manager. 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.

Indices are unmanaged and investors cannot directly invest in them. Composite index results are shown for illustrative purposes and do not represent the performance of a specific investment. Past performance is no guarantee of future results. Actual results may vary. Diversification does not assure a profit or protect against loss in a declining market. Any performance or related information presented has not been adjusted to reflect the impact of the additional fees paid to a placement agent by an investor (for Morgan Stanley placement clients, a one-time upfront Placement Fee of up to 3%, and for Morgan Stanley investment advisory clients, an annual advisory fee of up to 2.5%), which would result in a substantial reduction in the returns if such fees were incorporated.

For most investment advisory clients, the program account will be charged an asset-based wrap fee every quarter ("the Fee"). In general, the Fee covers investment advisory services and reporting. In addition to the Fee, clients will pay the fees and expenses of any funds in which their account is invested. Fund fees and expenses are charged directly to the pool of assets the fund invests in and impact the valuations. Clients must understand that these fees and expenses are an additional cost and will not be included in the Fee amount in the account statements.

As fees are deducted quarterly, the compounding effect will be to increase the impact of the fees by an amount directly related to the gross account performance. For example, for an account with an initial value of $100,000 and a 2.5% annual fee, if the gross performance is 5% per year over a three year period, the compounding effect of the fees will result in a net annual compound rate of return of approximately 2.40% per year over a three year period, and the total value of the client's portfolio at the end of the three year period would be approximately $115,762.50 without the fees and $107,372.63 with the fees. Please see the applicable Morgan Stanley Smith Barney LLC Form ADV Part 2A for more information including a description of the fee schedule. It is available at www.morganstanley.com/ADV <http://www.morganstanley.com/ADV> <http://www.morganstanley.com/ADV> or from your Financial Advisor/Private Wealth Advisor.

Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific 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 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 Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank.

SIPC insurance does not apply to precious metals, other commodities, or traditional alternative investments.

Money Market Funds

You could lose money in Money Market Funds. Although MMFs classified as government funds (i.e., MMFs that invest 99.5% of total assets in cash and/or securities backed by the U.S government) and retail funds (i.e., MMFs 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 MMFs will fluctuate and when you sell shares they may be worth more or less than originally paid. MMFs 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 MMF investment is not insured or guaranteed by the Federal Deposit Insurance Corporation or other government agency.