





PERIOD ENDING: March 31, 2025

Investment Performance Review for

Illinois Police Officer's Pension Investment Fund

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# Executive Summary



### **Executive Summary**

- Total assets increased by approximately \$53 million to \$12.7 billion over the quarter.
- A change in tariff policy near the end of Q1 shocked markets and led to severe selloffs across global markets, with U.S. equities taking the worst of the losses. Growth stocks, notably the Magnificent 7, have led the market downward.
- The IPOPIF Investment Portfolio returned 0.4% for the quarter, which matched the Policy Index return of 0.4%, and outperformed the Broad-Based Policy Index of -0.3%, which reflects a higher equity allocation.
- Since inception in April 2022, the IPOPIF Investment Portfolio has returned 4.4% on an average annualized basis through the end of the Q1, compared to the Policy Index of 4.5% and the Broad-Based Policy Index of 4.1%.
- The IPOPIF Investment Portfolio has performed better than its median peer since inception in April 2022 and ranked in the 34<sup>th</sup> percentile in a representative universe of Public Pensions with assets greater than \$1 billion.
- The IPOPIF investment team actively monitors current asset allocations vs. policy targets and conducts rebalancing trades as appropriate. As of March 31, 2024, all asset classes were within policy target ranges.

Notes:

The broad-Based Policy Index represents a passively invested 70/30 global stock / U.S. bond portfolio.



# Investment Landscape



## What drove the market in Q1?

A change in tariff policy near the end of Q1 shocked markets and led to severe selloffs across global markets, with U.S. equities taking the worst of the losses. Growth stocks, notably the Magnificent 7, have led the market downward. Small capitalization stocks underperformed large caps. Businesses that have fully embraced globalization and outsourced supply chains may find themselves in a particularly difficult position due to the drastic shift in U.S. trade policy.

Large shifts in trade policy of the U.S. administration contributed to a downgrade of economic growth expectations and higher chance of recession. During the quarter, investors adjusted their rate cut expectations from two rate cuts to nearly four cuts within the next 12 months.

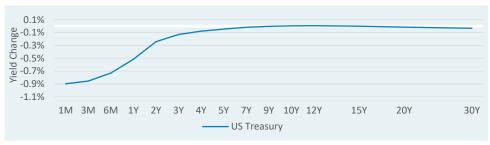
The U.S. dollar fell on tariff and trade fears, and signs of a weakening economy. Dollar movement is particularly difficult to predict—a slowdown in U.S. economic growth should have a dampening effect on value, but a global market selloff should result in a flight to quality (higher U.S. dollar). A hike in tariffs imposed by the U.S. should generally push the dollar up as trading partners work to buy dollars, but if this causes a negative shock to the economy and rate cuts from the Federal Reserve then that would be negative for the dollar. The overall net effect of these opposing forces is very complex.

#### **RELATIVE EQUITY PERFORMANCE**



Source: Bloomberg, as of 3/31/25

#### **EXPECTED YIELD CURVE MOVEMENT OVER NEXT 1 YEAR**



Source: Bloomberg, as of 3/31/25

#### **U.S. DOLLAR VALUE**



Source: Bloomberg, as of 3/31/25

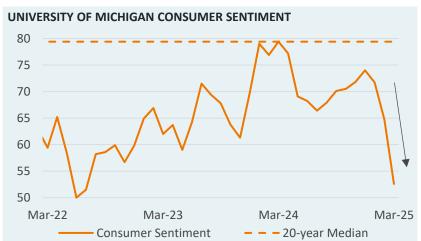


## Signs of economic weakness





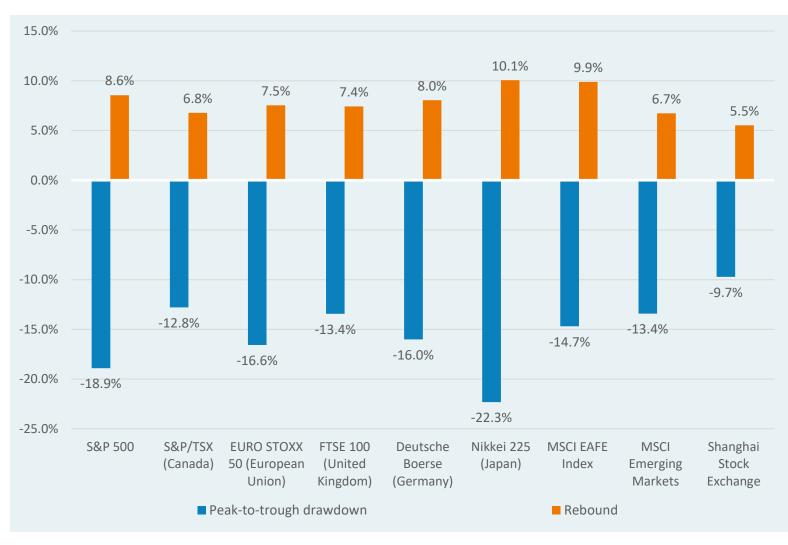




Source: Challenger, ADP, University of Michigan as of 3/31/25, BEA as of 2/28/25



## Tariff-induced selloff



On April 2<sup>nd</sup>,
President Trump
announced widereaching tariffs on
most trading
partners. The level
of tariffs were far
higher than
investors had
expected, resulting
in large risk-off
market moves.

The domestic market has faced the most pain given that it has chosen trade conflict with many trading partners, while other regions face conflict only with the U.S.

Source: Verus, as of 4/14/25



## Less Magnificent 7



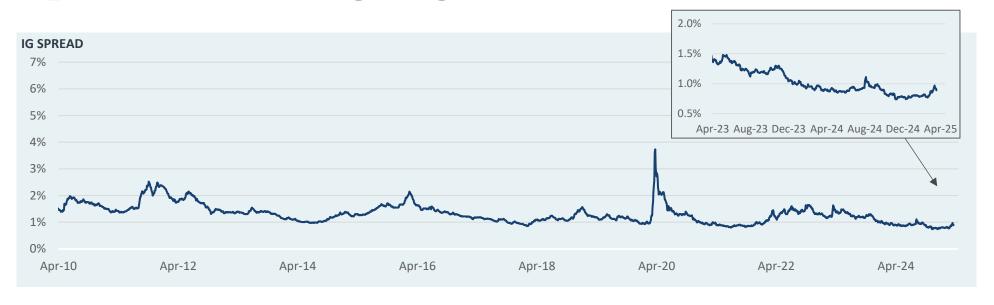
The Magnificent 7 suffered large losses during the market selloff

Nearly all members of this group are lagging the S&P 500 YTD

Source: Verus, Bloomberg, as of 4/14/25



## Spreads moving higher





Source: Bloomberg, as of 4/16/25



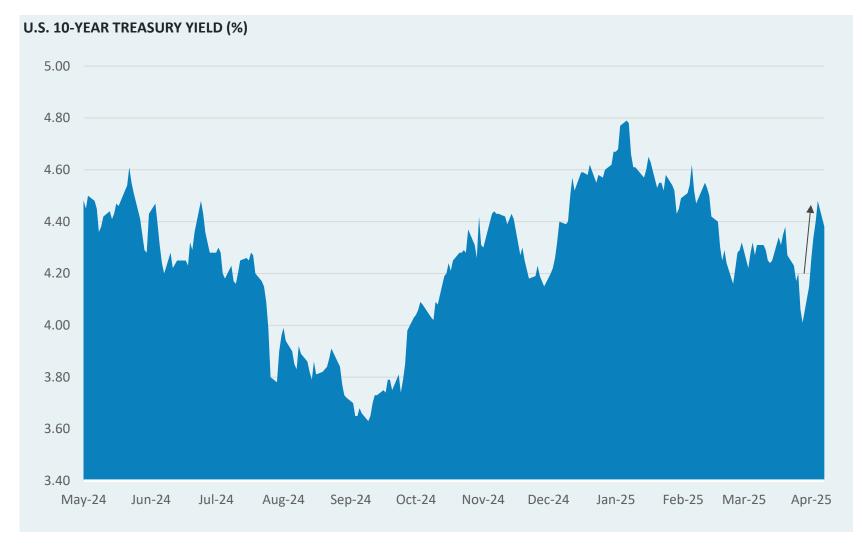
## U.S. Treasury shock



Source: BofA, as of 4/8/25



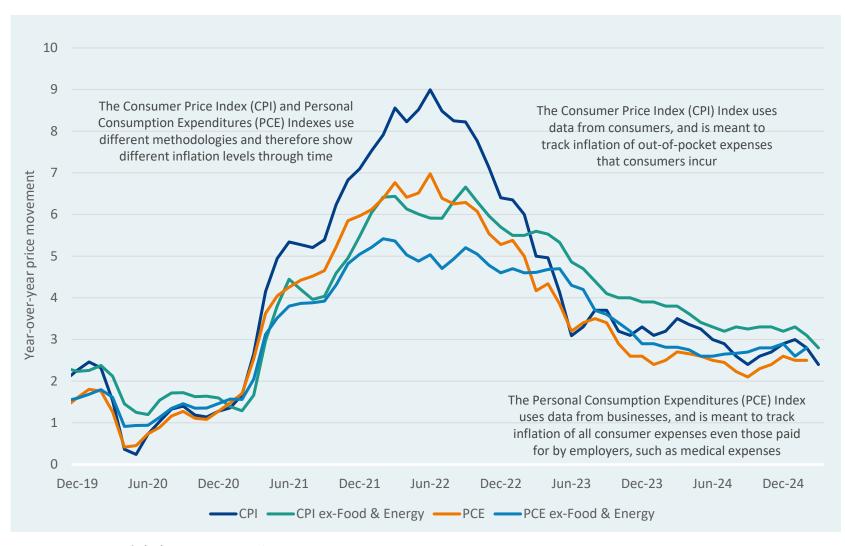
## U.S. Treasury shock



Source: FRED, as of 4/14/25



## An (even more) uncertain inflation path



In early 2025, inflation appeared to have stabilized near 3%. Now, tariffs pose an upside risk to inflation, but lower economic growth and falling commodity prices could provide dampening effects

Source: FRED, Verus, as of 3/31/25 – or most recent release



## Major asset class returns

DOMESTIC EQUITY								FIXED INCOME							
	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year		Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index								Broad Index							
S&P 500	(5.6)	(4.3)	(4.3)	8.3	9.1	18.6	12.5	Bloomberg US TIPS	0.6	4.2	4.2	6.2	0.1	2.4	2.5
S&P 500 Equal Weighted	(3.4)	(0.6)	(0.6)	4.1	5.2	17.7	10.0	Bloomberg US Treasury Bills	0.3	1.0	1.0	5.1	4.3	2.6	1.9
DJ Industrial Average	(4.1)	(0.9)	(0.9)	7.4	8.8	16.2	11.4	Bloomberg US Agg Bond	0.0	2.8	2.8	4.9	0.5	(0.4)	1.5
Russell Top 200	(6.1)	(4.8)	(4.8)	9.5	10.0	19.2	13.4	Bloomberg US Universal	(0.0)	2.7	2.7	5.2	1.0	0.3	1.8
Russell 1000	(5.8)	(4.5)	(4.5)	7.8	8.7	18.5	12.2	Duration							
Russell 2000	(6.8)	(9.5)	(9.5)	(4.0)	0.5	13.3	6.3	Bloomberg US Treasury 1-3 Yr	0.5	1.6	1.6	5.4	2.8	1.1	1.5
Russell 3000	(5.8)	(4.7)	(4.7)	7.2	8.2	18.2	11.8	Bloomberg US Treasury Long	(0.9)	4.7	4.7	1.3	(7.2)	(7.9)	(0.6)
Russell Mid Cap	(4.6)	(3.4)	(3.4)	2.6	4.6	16.3	8.8	Bloomberg US Treasury	0.2	2.9	2.9	4.5	(0.0)	(1.7)	1.0
Style Index								Issuer							
Russell 1000 Growth	(8.4)	(10.0)	(10.0)	7.8	10.1	20.1	15.1	Bloomberg US MBS	(0.0)	3.1	3.1	5.4	0.6	(0.7)	1.1
Russell 1000 Value	(2.8)	2.1	2.1	7.2	6.6	16.1	8.8	Bloomberg US Corp. High Yield	(1.0)	1.0	1.0	7.7	5.0	7.3	5.0
Russell 2000 Growth	(7.6)	(11.1)	(11.1)	(4.9)	0.8	10.8	6.1	Bloomberg US Agency Interm	0.4	2.0	2.0	5.4	2.5	0.7	1.5
Russell 2000 Value	(6.0)	(7.7)	(7.7)	(3.1)	0.0	15.3	6.1	Bloomberg US Credit	(0.2)	2.4	2.4	4.9	1.1	1.3	2.3
INTERNATIONAL EQUITY	,							OTHER							
Broad Index								Index							
MSCI ACWI	(4.0)	(1.3)	(1.3)	7.2	6.9	15.2	8.8	Bloomberg Commodity	3.9	8.9	8.9	12.3	(8.0)	14.5	2.8
MSCI ACWI ex US	(0.2)	5.2	5.2	6.1	4.5	10.9	5.0	Wilshire US REIT	(3.6)	1.0	1.0	10.2	(8.0)	11.2	5.3
MSCI EAFE	(0.4)	6.9	6.9	4.9	6.1	11.8	5.4	S&P UBS Leveraged Loan	(0.3)	0.6	0.6	7.0	7.1	8.9	5.0
MSCI EM	0.6	2.9	2.9	8.1	1.4	7.9	3.7	S&P Global Infrastructure	2.1	4.6	4.6	18.8	6.1	13.8	6.5
MSCI EAFE Small Cap	0.5	3.7	3.7	3.1	0.9	9.9	5.3	Alerian MLP	(0.1)	12.2	12.2	23.9	24.7	39.7	5.0
Style Index								Regional Index							
MSCI EAFE Growth	(3.2)	2.1	2.1	(2.6)	2.4	8.5	5.5	JPM EMBI Global Div	(8.0)	2.2	2.2	6.8	3.4	3.5	3.2
MSCI EAFE Value	2.3	11.6	11.6	12.8	9.7	14.8	5.1	JPM GBI-EM Global Div	1.5	4.3	4.3	4.0	2.7	2.3	1.3
Regional Index								Hedge Funds							
MSCI UK	0.7	9.7	9.7	14.4	7.9	13.8	4.9	HFRI Composite	(1.1)	0.8	0.8	5.1	4.7	9.6	5.0
MSCI Japan	0.1	0.3	0.3	(2.1)	5.3	8.8	5.3	HFRI FOF Composite	(1.0)	0.7	0.7	6.1	4.5	7.5	3.7
MSCI Euro	0.1	11.9	11.9	5.4	10.1	14.7	5.9	Currency (Spot)							
MSCI EM Asia	(0.1)	1.3	1.3	9.8	1.9	7.5	4.4	Euro	3.9	4.3	4.3	1.2	(1.0)	(0.3)	0.1
MSCI EM Latin American	4.8	12.7	12.7	(13.6)	(2.0)	11.8	2.6	Pound Sterling	2.5	3.1	3.1	2.2	(0.7)	0.8	(1.4)

Yen

5.1

5.1

0.0

(6.7)

(6.3)

(2.2)

Source: Morningstar, HFRI, as of 3/31/25



### Notices & disclosures

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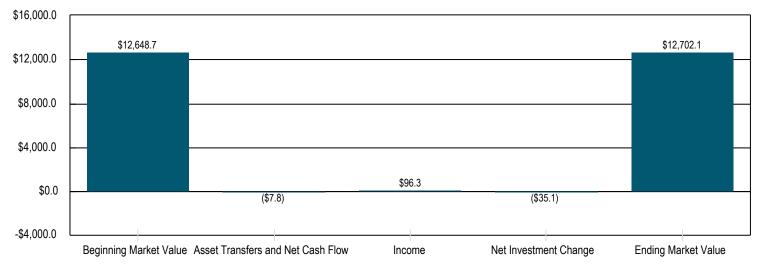
# Performance Review



#### Portfolio Reconciliation

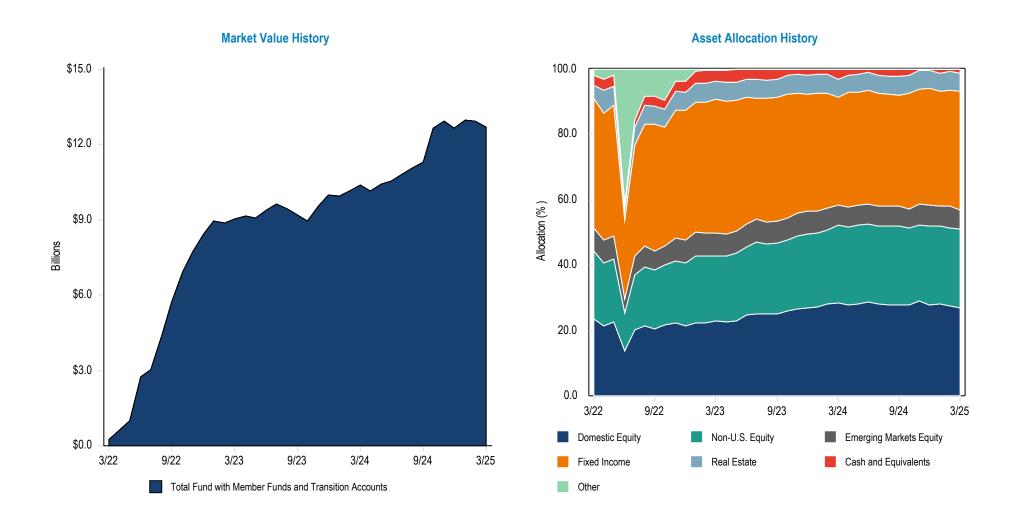
	Quarter-To-Date	Fiscal Year-To-Date
Beginning Market Value	\$12,648,678,759	\$10,539,769,594
Asset Transfers and Net Cash	-\$7,818,557	\$1,693,594,365
Income	\$96,319,095	\$271,032,137
Net Investment Change	-\$35,059,352	\$197,723,848
Ending Market Value	\$12,702,119,945	\$12,702,119,945

### Change in Market Value Last Three Months

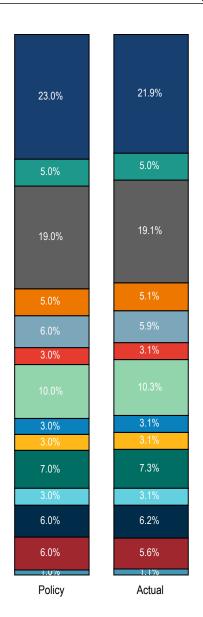




The portfolio reconciliation includes the Member Funds and Transition Account. Income excludes Member Funds and Transition Account. Income is calculated using the actual dividend and income received from separate accounts and estimated income and dividends for commingled funds. The income and dividends for RhumbLine Russell 1000 Index, RhumbLine Russell 2000 Index, SSGA US TIPS Index and Cash are sourced from State Street custodial reports. The income and dividends for the SSGA commingled funds, Acadian and Ares are an estimate based on the current yield for bond funds and the dividend yield for equity funds. SSGA can use dividend and income to cover fund expenses, so the actual income that flows to the IPOPIF may be different than reported. Income for the Principal RE fund is based on a monthly income spreadsheet received from Principal via email. Income for Aristotle, LSV and WCM are sourced monthly from manager statements.







	Current Balance (\$)	Current Allocation (%)	Policy Allocation (%)	Excess Allocation (%)	Excess Allocation (\$)	Policy Range (%)	Within IPS Range?
■ Domestic Equity Large Cap	2,780,691,340	21.9	23.0	-1.1	-140,796,247	21.0 - 25.0	Yes
■ Domestic Equity Small Cap	631,783,626	5.0	5.0	0.0	-3,322,371	4.0 - 6.0	Yes
■ International Equity Large Cap	2,431,106,439	19.1	19.0	0.1	17,703,649	17.0 - 21.0	Yes
■ International Equity Small Cap	645,778,478	5.1	5.0	0.1	10,672,480	4.0 - 6.0	Yes
■ Emerging Markets Equity	754,711,945	5.9	6.0	-0.1	-7,415,251	5.0 - 7.0	Yes
■ Domestic Fixed Income Core	390,397,137	3.1	3.0	0.1	9,333,539	2.0 - 4.0	Yes
■ Domestic Fixed Income Short Term	1,313,123,418	10.3	10.0	0.3	42,911,423	8.0 - 12.0	Yes
■ Domestic Fixed Income TIPS	399,993,244	3.1	3.0	0.1	18,929,645	2.0 - 4.0	Yes
■ Domestic Fixed Income Bank Loans	397,182,858	3.1	3.0	0.1	16,119,260	2.0 - 4.0	Yes
■ Domestic Fixed Income High Yield	925,273,590	7.3	7.0	0.3	36,125,194	6.0 - 8.0	Yes
■ Domestic Fixed Income Government	389,795,154	3.1	3.0	0.1	8,731,556	2.0 - 4.0	Yes
■ Emerging Markets Fixed Income	783,327,833	6.2	6.0	0.2	21,200,636	5.0 - 7.0	Yes
Real Estate	717,230,267	5.6	6.0	-0.4	-44,896,930	5.0 - 7.0	Yes
Cash and Equivalents	141,724,616	1.1	1.0	0.1	14,703,417	0.0 - 2.0	Yes
Total	12,702,119,945	100.0	100.0	0.0			



### Total Fund Executive Summary (Net of Fees)

### Illinois Police Officers' Pension Investment Fund Period Ending: March 31, 2025

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	Since Inception	Inception Date
Total Fund with Member and Transition Accounts	12,702,119,945	100.0	0.5	0.5	4.6	5.9	4.6	4.6	03/01/22
Policy Index			0.4	0.4	4.5	5.7	4.5	4.5	
Policy Index- Broad Based			-0.3	-0.3	4.0	5.4	4.1	4.1	
IPOPIF Investment Portfolio	12,702,119,945	100.0	0.4	0.4	4.4	5.7	4.4	4.4	04/01/22
Policy Index			0.4	0.4	4.5	5.7	4.5	4.5	
Policy Index- Broad Based			-0.3	-0.3	4.0	5.4	4.1	4.1	
Growth	7,244,071,828	57.0	-0.6	-0.6	3.5	5.1	5.3	5.3	04/01/22
Growth Benchmark			-0.5	-0.5	3.6	5.1	5.2	5.2	
Income	2,105,784,280	16.6	1.5	1.5	6.3	7.3	3.9	3.9	04/01/22
Income Benchmark			1.4	1.4	6.2	7.2	4.6	4.6	
Real Assets	717,230,267	5.6	0.8	0.8	7.8	7.4	0.3	0.3	04/01/22
Real Assets Benchmark			1.1	1.1	7.4	7.1	-2.3	-2.3	
Risk Mitigation	2,634,654,596	20.7	2.2	2.2	4.7	5.8	2.8	2.8	04/01/22
Risk Mitigation Benchmark			2.2	2.2	4.7	5.7	2.7	2.7	
IPOPIF Pool Fixed Income Transition	378,973	0.0							
Member Accounts	-	0.0							
Transition Account	-	0.0							

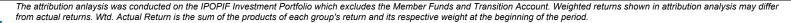
## **Attribution Effects IPOPIF** Investment Portfolio Growth Income Real Assets Risk Mitigation -0.2 % -0.1 % 0.0% 0.1% Selection Effect Allocation Effect

#### **Performance Attribution**

	3 Mo
Wtd. Actual Return	0.4
Wtd. Index Return	0.4
Excess Return	0.0
Selection Effect	0.0
Allocation Effect	0.0
Interaction Effect	0.0

#### **Attribution Summary**

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
Growth	-0.6	-0.5	-0.1	0.0	0.0	0.0	0.0
Income	1.5	1.4	0.1	0.0	0.0	0.0	0.0
Real Assets	0.8	1.1	-0.3	0.0	0.0	0.0	0.0
Risk Mitigation	2.2	2.2	0.0	0.0	0.0	0.0	0.0
IPOPIF Investment Portfolio	0.4	0.4	0.0	0.0	0.0	0.0	0.0



Interaction Effect

Total Effects

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	2024	Since Inception	Inception Date
<b>Total Fund with Member and Transition Accounts</b>	12,702,119,945	100.0	0.5	0.5	4.6	5.9	4.6	9.8	4.6	03/01/22
Policy Index			0.4	0.4	4.5	5.7	4.5	9.7	4.5	
Policy Index- Broad Based			-0.3	-0.3	4.0	5.4	4.1	10.8	4.1	
All Public Plans > \$1B-Total Fund Rank			44	44	28	29	30	30	33	
IPOPIF Investment Portfolio	12,702,119,945	100.0	0.4	0.4	4.4	5.7	4.4	9.6	4.4	04/01/22
Policy Index			0.4	0.4	4.5	5.7	4.5	9.7	4.5	
Policy Index- Broad Based			-0.3	-0.3	4.0	5.4	4.1	10.8	4.1	
All Public Plans > \$1B-Total Fund Rank			46	46	41	36	34	34	34	
Growth	7,244,071,828	57.0	-0.6	-0.6	3.5	5.1	5.3	12.8	5.3	04/01/22
Growth Benchmark			-0.5	-0.5	3.6	5.1	5.2	12.8	5.2	
RhumbLine Russell 1000 Index	2,780,691,340	21.9	-4.5	-4.5	4.1	7.8	8.6	24.5	8.6	04/01/22
Russell 1000 Index			-4.5	-4.5	4.1	7.8	8.7	24.5	8.7	
eV US Large Cap Core Equity Rank			56	56	35	27	40	34	40	
RhumbLine Russell 2000 Index	631,783,626	5.0	-9.4	-9.4	-0.7	-3.9	0.4	11.6	0.4	04/01/22
Russell 2000 Index			-9.5	-9.5	-0.8	-4.0	0.5	11.5	0.5	
eV US Small Cap Core Equity Rank			73	73	55	56	76	51	76	
SSgA Non-US Developed Index	2,431,106,439	19.1	6.3	6.3	6.1	5.6	6.1	5.0	6.1	04/01/22
MSCI World ex U.S. (Net)			6.2	6.2	5.9	5.3	5.7	4.7	5.7	
eV EAFE Core Equity Rank			48	48	54	53	41	43	41	
International Developed Small Cap Equity	645,778,478	5.1	2.1	2.1	5.1	6.2	1.6	6.1	1.6	04/01/22
MSCI World ex U.S. Small Cap Index (Net)			3.4	3.4	5.2	3.6	0.8	2.8	0.8	
Acadian ACWI ex US Small-Cap Fund	322,445,404	2.5	1.7	1.7	5.1	8.2	-	-	12.2	02/01/24
MSCI AC World ex USA Small Cap (Net)			0.6	0.6	1.2	1.9	-	-	5.0	
eV ACWI ex-US Small Cap Equity Rank			54	54	29	17	-	-	16	
WCM International Small Cap Growth Fund	154,309,881	1.2	-3.7	-3.7	0.3	-1.3	-	-	-0.9	03/01/24
MSCI AC World ex USA Small Cap (Net)			0.6	0.6	1.2	1.9	-	-	4.4	
eV ACWI ex-US Small Cap Equity Rank			88	88	66	71	-	-	77	
LSV International Small Cap Value Equity Fund	169,023,193	1.3	8.6	8.6	9.8	9.4	-	-	12.2	03/01/24
S&P Developed Ex-U.S. SmallCap (Net)			3.2	3.2	2.0	1.0	-	-	4.8	
eV EAFE Small Cap Value Rank			5	5	26	35	-	-	36	

Illinois Police Officers' Pension Investment Fund Period Ending: March 31, 2025

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	2024	Since Inception	Inception Date
Emerging Market Equities	754,711,945	5.9	-1.9	-1.9	-6.2	-1.3	-1.3	2.9	-1.3	04/01/22
Emerging Markets Equity Benchmark			-1.7	-1.7	-5.3	0.0	-1.2	4.2	-1.2	
SSgA Emerging Markets ex China Equity	53,264,263	0.4	-1.6	-1.6	-6.3	-	-	-	-1.1	05/01/24
MSCI Emerging Markets ex China (Net)			-1.7	-1.7	-6.1	-	-	-	-0.5	
eV Emg Mkts Equity Rank			85	85	93	-	-	-	91	
William Blair Emerging Markets ex China Growth Fund	317,068,212	2.5	-9.8	-9.8	-	-	-	-	-9.8	01/01/25
MSCI Emerging Markets ex China IMI (Net)			-2.6	-2.6	-	-	-	-	-2.6	
eV Emg Mkts Equity Rank			100	100	-	-	-	-	100	
ARGA Emerging Markets Ex China Equity	384,379,470	3.0	4.6	4.6	-	-	-	-	0.8	12/01/24
MSCI Emerging Markets ex China (Net)			-1.7	-1.7	-	-	-	-	-2.9	
eV Emg Mkts Equity Rank			19	19	-	-	-	-	64	
Income	2,105,784,280	16.6	1.5	1.5	6.3	7.3	3.9	7.6	3.9	04/01/22
Income Benchmark			1.4	1.4	6.2	7.2	4.6	7.5	4.6	
SSgA High Yield Corporate Credit	925,273,590	7.3	1.0	1.0	6.6	7.8	4.8	8.4	4.8	04/01/22
Spliced SSgA U.S. High Yield Index			0.9	0.9	6.4	7.6	4.7	8.2	4.7	
eV US High Yield Fixed Inc Rank			43	43	13	14	42	27	42	
Emerging Market Debt	783,327,833	6.2	2.6	2.6	6.7	7.0	2.8	6.5	2.8	04/01/22
Emerging Markets Debt Benchmark			2.2	2.2	6.4	6.8	4.0	6.5	4.0	
SSgA EMD Hard Index Fund	586,473,890	4.6	2.3	2.3	6.8	7.1	2.8	6.9	2.8	04/01/22
Spliced SSgA EMD Hard Index			2.2	2.2	6.4	6.8	3.2	6.5	3.2	
Emerging Markets Bond Rank			48	48	45	53	90	54	90	
Capital Group Emerging Markets Debt	196,853,943	1.5	3.6	3.6	-	-	-	-	1.7	11/01/24
Capital Group Spliced Benchmark			3.3	3.3	-	-	-	-	1.9	
Emerging Markets Bond Rank			4	4	-	-	-	-	86	
Bank Loans	397,182,858	3.1	0.4	0.4	4.8	6.6			7.1	03/01/24
Credit Suisse Leveraged Loan Index			0.6	0.6	5.1	7.0	-	-	7.3	
Ares Institutional Loan Fund	132,258,267	1.0	0.4	0.4	5.1	7.2	-	-	7.5	03/01/24
Credit Suisse Leveraged Loan Index			0.6	0.6	5.1	7.0	-	-	7.3	
eV US Float-Rate Bank Loan Fixed Inc Rank			45	45	23	19	-	-	21	
Aristotle Institutional Loan Fund	264,924,591	2.1	0.5	0.5	4.6	6.3	-	-	6.8	03/01/24
Credit Suisse Leveraged Loan Index			0.6	0.6	5.1	7.0	-	-	7.3	
eV US Float-Rate Bank Loan Fixed Inc Rank			29	29	57	66	-	-	53	



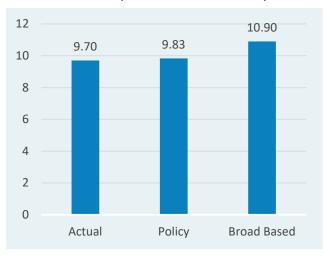
### Total Fund Return Summary (Net of Fees)

### Illinois Police Officers' Pension Investment Fund Period Ending: March 31, 2025

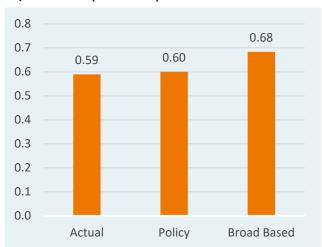
	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	2024	Since Inception	Inception Date
Real Assets	717,230,267	5.6	0.8	0.8	7.8	7.4	0.3	5.7	0.3	04/01/22
Real Assets Benchmark			1.1	1.1	7.4	7.1	-2.3	4.8	-2.3	
SSgA REITs Index	503,483,774	4.0	1.2	1.2	9.9	9.8	-1.4	8.0	-1.4	04/01/22
Dow Jones U.S. Select REIT Total Return Index			1.2	1.2	10.0	9.8	-1.4	8.1	-1.4	
eV US REIT Rank			53	53	52	54	57	34	57	
Principal USPA	213,746,493	1.7	0.0	0.0	0.9	0.0	-	-1.9	-5.8	05/01/22
NFI-ODCE Equal-Weighted Index			0.8	0.8	1.6	0.7	-	-2.4	-5.4	
Risk Mitigation	2,634,654,596	20.7	2.2	2.2	4.7	5.8	2.8	3.8	2.8	04/01/22
Risk Mitigation Benchmark			2.2	2.2	4.7	5.7	2.7	3.9	2.7	
SSgA US Treasury Index	389,795,154	3.1	2.9	2.9	4.4	-	-	-	7.1	05/01/24
Blmbg. U.S. Treasury Index			2.9	2.9	4.4	-	-	-	7.0	
eV US Government Fixed Inc Rank			49	49	77	-	-	-	84	
SSgA Core Fixed Income Index	390,397,137	3.1	2.8	2.8	4.8	5.0	0.5	1.4	0.5	04/01/22
Blmbg. U.S. Aggregate Index			2.8	2.8	4.8	4.9	0.5	1.3	0.5	
eV US Core Fixed Inc Rank			39	39	46	52	76	75	76	
SSgA Short-Term Gov't/Credit Index	1,312,744,445	10.3	1.6	1.6	4.7	5.7	3.1	4.4	3.1	04/01/22
Bloomberg U.S. Gov/Credit 1-3 Year Index			1.6	1.6	4.6	5.6	3.1	4.4	3.1	
eV US Short Duration Fixed Inc Rank			52	52	56	55	68	65	68	
SSgA US TIPS Index	399,993,244	3.1	3.1	3.1	5.6	7.1	3.1	4.8	3.1	04/01/22
Blmbg. U.S. TIPS 0-5 Year			3.0	3.0	5.5	7.0	3.2	4.7	3.2	
eV US TIPS / Inflation Fixed Inc Rank			96	96	29	13	2	6	2	
Cash	141,724,616	1.1	0.9	0.9	3.4	4.7	3.9	5.0	3.9	04/01/22
90 Day U.S. Treasury Bill			1.0	1.0	3.6	5.0	4.2	5.3	4.2	
IPOPIF Pool Fixed Income Transition	378,973	0.0								
Member Accounts	-	0.0								
Transition Account	-	0.0								



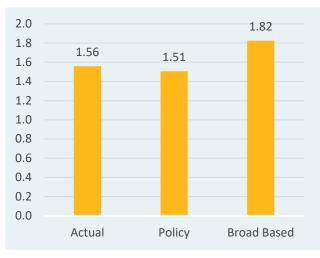
TOTAL PLAN RISK (EXPECTED VOLATILITY)



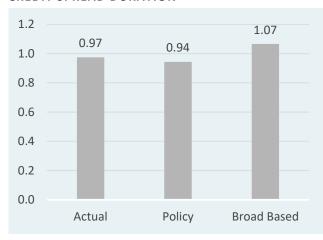
**EQUITY BETA (ACWI IMI)** 



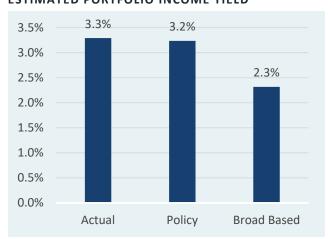
**EFFECTIVE DURATION** 



**CREDIT SPREAD DURATION** 



**ESTIMATED PORTFOLIO INCOME YIELD\*** 



#### **ESTIMATED PORTFOLIO INCOME (\$ MILLIONS)\***



\*Income Yield and Income are estimated based on dividend yields and coupon rates applied to benchmark weights and does not include factors such as dividend re-investment rates. Source: Barra One using index holdings as representative proxies



### IPOPIF Investment Portfolio Investment Fund Fee Analysis

### Illinois Police Officers' Pension Investment Fund Period Ending: March 31, 2025

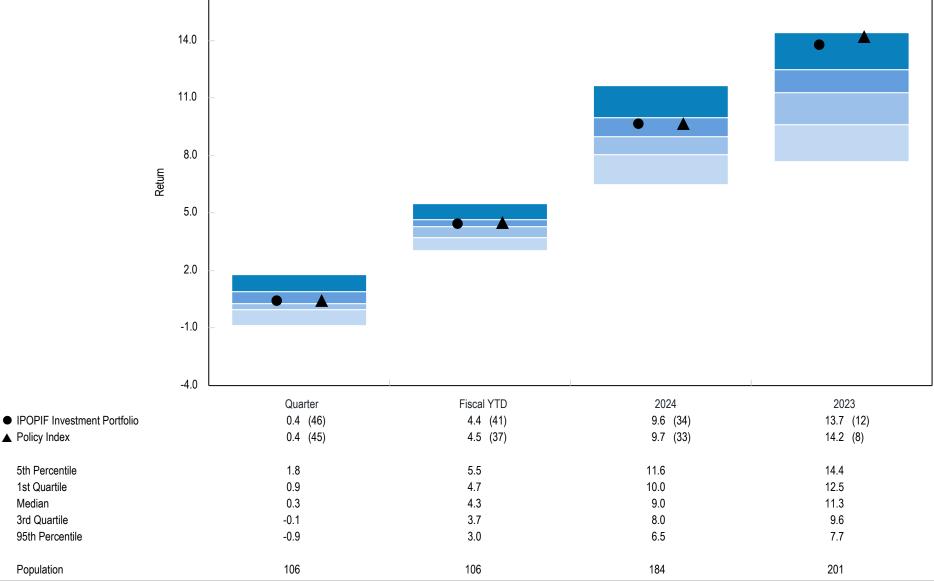
Name	Asset Class	Vehicle Type	Market Value	% of Portfolio	Estimated Fee Value	Expense Fee (%)
RhumbLine Russell 1000 Index	Domestic Equity	Separate Account	\$2,780,691,340	21.8916	\$139,035	0.005
RhumbLine Russell 2000 Index	Domestic Equity	Separate Account	\$631,783,626	4.9738	\$31,589	0.005
SSgA Non-US Developed Index	Non-U.S. Equity	Commingled Fund	\$2,431,106,439	19.1394	\$218,800	0.009
Acadian ACWI ex US Small-Cap Fund	Non-U.S. Equity	Commingled Fund	\$322,445,404	2.5385	\$1,923,450	0.597
WCM International Small Cap Growth Fund	Non-U.S. Equity	Commingled Fund	\$154,309,881	1.2148	\$1,071,549	0.694
LSV International Small Cap Value Equity Fund	Non-U.S. Equity	Commingled Fund	\$169,023,193	1.3307	\$1,427,186	0.844
SSgA Emerging Markets ex China Equity	Emerging Markets Equity	Commingled Fund	\$53,264,263	0.4193	\$14,381	0.027
William Blair Emerging Markets ex China Growth Fund	<b>Emerging Markets Equity</b>	Commingled Fund	\$317,068,212	2.4962	\$1,504,618	0.475
ARGA Emerging Markets Ex China Equity	Emerging Markets Equity	Commingled Fund	\$384,379,470	3.0261	\$2,690,656	0.700
SSgA High Yield Corporate Credit	Fixed Income	Commingled Fund	\$925,273,590	7.2844	\$249,824	0.027
SSgA EMD Hard Index Fund	Fixed Income	Commingled Fund	\$586,473,890	4.6171	\$158,348	0.027
Capital Group Emerging Markets Debt	Fixed Income	Commingled Fund	\$196,853,943	1.5498	\$639,775	0.325
Ares Institutional Loan Fund	Fixed Income	Commingled Fund	\$132,258,267	1.0412	\$330,646	0.250
Aristotle Institutional Loan Fund	Fixed Income	Commingled Fund	\$264,924,591	2.0857	\$818,617	0.309
SSgA REITs Index	Real Estate	Commingled Fund	\$503,483,774	3.9638	\$45,314	0.009
Principal USPA	Real Estate	Commingled Fund	\$213,746,493	1.6828	\$1,709,972	0.800
SSgA US Treasury Index	Fixed Income	Commingled Fund	\$389,795,154	3.0687	\$35,082	0.009
SSgA Core Fixed Income Index	Fixed Income	Commingled Fund	\$390,397,137	3.0735	\$35,136	0.009
SSgA Short-Term Gov't/Credit Index	Fixed Income	Commingled Fund	\$1,312,744,445	10.3348	\$118,147	0.009
SSgA US TIPS Index	Fixed Income	Separate Account	\$399,993,244	3.1490	\$35,999	0.009
Cash	Cash and Equivalents	Commingled Fund	\$141,724,616	1.1158		
IPOPIF Investment Portfolio			\$12,702,119,945	100.0000	\$13,198,123	0.104

Name	Beginning Market Value	Contributions	Distributions	Net Cash Flows	Income	Fees	Net Investment Change	Ending Market Value
RhumbLine Russell 1000 Index	\$2,911,198,847	\$36,505	-	\$36,505	\$9,940,408	-\$36,505	-\$140,447,916	\$2,780,691,340
RhumbLine Russell 2000 Index	\$623,704,043	\$67,007,860	-	\$67,007,860	\$2,399,773	-\$7,860	-\$61,320,190	\$631,783,626
SSgA Non-US Developed Index	\$2,392,649,263	\$46,356	-\$113,000,000	-\$112,953,644	\$17,797,971	-\$46,356	\$133,659,205	\$2,431,106,439
Acadian ACWI ex US Small-Cap Fund	\$316,534,261	\$470,534	-	\$470,534	\$2,547,742	-\$470,534	\$3,363,401	\$322,445,404
WCM International Small Cap Growth Fund	\$160,180,446	-	-	-	\$284,261	-\$280,316	-\$5,874,511	\$154,309,881
LSV International Small Cap Value Equity Fund	\$155,581,410	-	-	-	\$1,484,819	-	\$11,956,964	\$169,023,193
SSgA Emerging Markets Equity Index	-	\$19,085	-	\$19,085	-	-\$19,085	-	-
SSgA Emerging Markets ex China Equity	\$542,611,033	\$32,619	-\$488,000,000	-\$487,967,381	\$1,694,461	-\$32,619	-\$3,041,232	\$53,264,263
William Blair Emerging Markets ex China Growth Fund	\$92,592,700	\$245,036,782	-	\$245,036,782	\$1,179,770	-\$36,782	-\$21,704,257	\$317,068,212
ARGA Emerging Markets Ex China Equity	\$186,538,980	\$190,000,000	-	\$190,000,000	\$3,773,047	-\$506,746	\$4,574,189	\$384,379,470
SSgA High Yield Corporate Credit	\$916,224,944	\$63,734	-	\$63,734	\$15,864,744	-\$63,734	-\$6,816,098	\$925,273,590
SSgA EMD Hard Index Fund	\$573,168,613	\$55,145	-	\$55,145	\$8,691,747	-\$55,145	\$4,613,530	\$586,473,890
Capital Group Emerging Markets Debt	\$189,842,998	\$107,556	-	\$107,556	\$108,483	-\$107,556	\$6,902,461	\$196,853,943
Ares Institutional Loan Fund	\$131,779,698	-	-	-	\$212,017	-\$82,362	\$348,914	\$132,258,267
Aristotle Institutional Loan Fund	\$263,634,472	-	-	-	\$2,458,445	-\$204,319	-\$964,007	\$264,924,591
SSgA REITs Index	\$497,654,729	\$10,362	-	\$10,362	\$4,802,356	-\$10,362	\$1,026,689	\$503,483,774
Principal USPA	\$213,791,783	-	-	-	\$2,627,639	-\$423,228	-\$2,249,700	\$213,746,493
SSgA US Treasury Index	\$378,683,792	\$7,047	-	\$7,047	\$3,202,611	-\$7,047	\$7,908,752	\$389,795,154
SSgA Core Fixed Income Index	\$379,858,261	\$7,732	-	\$7,732	\$3,696,202	-\$7,732	\$6,842,674	\$390,397,137
SSgA Short-Term Gov't/Credit Index	\$1,291,555,845	\$23,425	-	\$23,425	\$10,600,970	-	\$10,564,204	\$1,312,744,445
SSgA US TIPS Index	\$387,934,651	\$6,868	-	\$6,868	\$1,811,952	-\$6,868	\$10,246,640	\$399,993,244
Cash	\$42,588,166	\$781,609,995	-\$683,610,587	\$97,999,408	\$1,133,073	-	\$3,970	\$141,724,616
IPOPIF Pool Fixed Income Transition	\$369,696	-	-	-	\$1,812	-	\$7,465	\$378,973
Member Accounts	\$40	-	-\$40	-\$40	\$4,789	-	-\$4,789	-
Transition Account	\$87	-	-\$5,344,379	-\$5,344,379	\$3	-	\$5,344,289	-
Total Fund with Member Funds and Transition Accounts	\$12,648,678,759	\$1,284,541,606	-\$1,289,955,006	-\$5,413,400	\$96,319,095	-\$2,405,157	-\$35,059,352	\$12,702,119,945



17.0

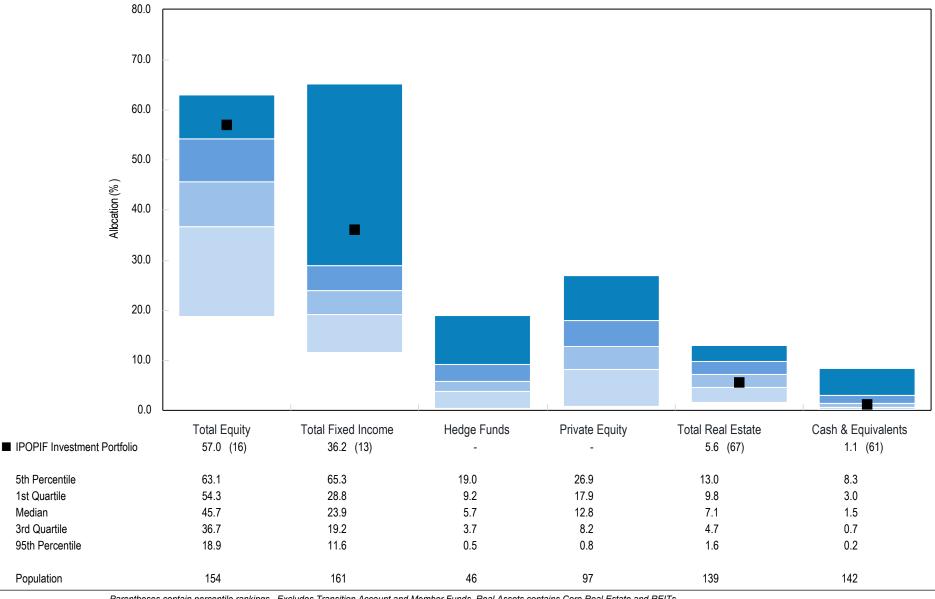
IPOPIF Investment Portfolio vs. All Public Plans > \$1B-Total Fund



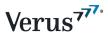
Parentheses contain percentile rankings. Performance shown for IPOPIF Investment Fund which excludes the Transition Account and Member Funds.



Total Plan Allocation vs. All Public Plans > \$1B-Total Fund As of March 31, 2025



Parentheses contain percentile rankings. Excludes Transition Account and Member Funds. Real Assets contains Core Real Estate and REITs.



Peer Universe Comparison: Cumulative Performance (Net of Fees)

0.3

-0.6

-1.2

-2.2

605

IPOPIF Investment Portfolio vs. All Public Plans < \$1B-Total Fund 20.0 17.0 14.0 11.0 Retum 8.0 5.0 2.0 -1.0 -4.0 Fiscal YTD 2024 2023 Quarter 0.4 (21) 4.4 (34) 9.6 (77) 13.7 (49) 0.4 (19) 4.5 (30) 14.2 (41) 9.7 (77) 1.4 5.3 14.4 17.7

11.9

10.9

9.7

6.8

936

Parentheses contain percentile rankings.Performance shown for IPOPIF Investment Fund which excludes the Transition Account and Member Funds.

4.6

4.1

3.5

2.5

602



IPOPIF Investment Portfolio

▲ Policy Index

5th Percentile

1st Quartile

3rd Quartile

Population

95th Percentile

Median

14.9

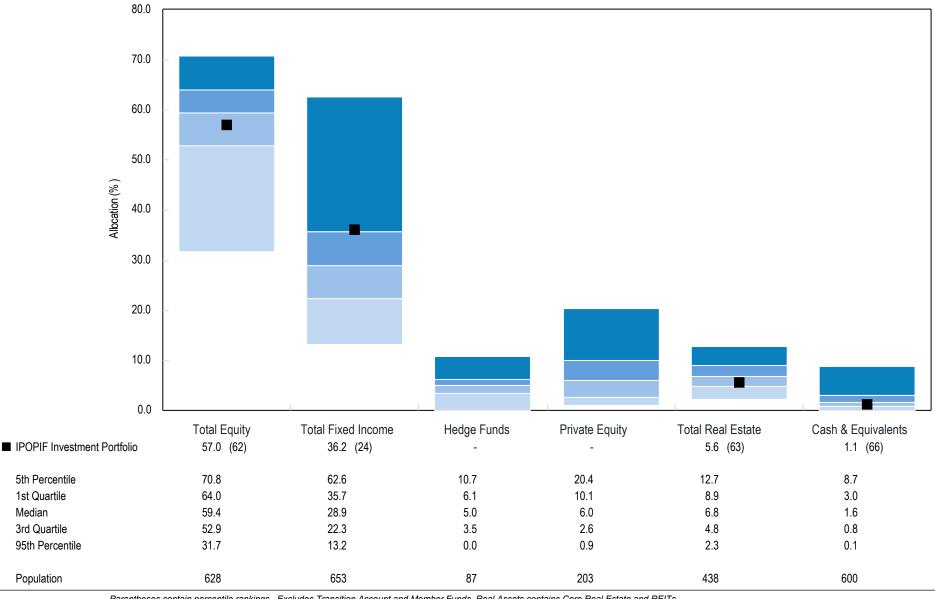
13.6

12.0

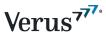
9.2

972

Total Plan Allocation vs. All Public Plans < \$1B-Total Fund As of March 31, 2025



Parentheses contain percentile rankings. Excludes Transition Account and Member Funds. Real Assets contains Core Real Estate and REITs.



#### Performance Return Calculations

Performance is calculated using Time Weighted Rates of Return (TWRR) methodologies. Monthly returns are geometrically linked and annualized for periods longer than one year.

#### Data Source

Verus is an independent third party consulting firm and calculates returns from best source book of record data. Returns calculated by Verus may deviate from those shown by the manager in part, but not limited to, differences in prices and market values reported by the custodian and manager, as well as significant cash flows into or out of an account. It is the responsibility of the manager and custodian to provide insight into the pricing methodologies and any difference in valuation.

Manager Line Up					
<u>Manager</u>	Inception Date	Data Source	<u>Manager</u>	Inception Date	Data Source
RhumbLine Russell 1000 Index Fund	3/15/2022	State Street	SSgA EMD Hard Index Fund	3/14/2022	State Street
RhumbLine Russell 2000 Index Fund	3/15/2022	State Street	Capital Group Emerging Markets Debt Fund	10/21/2024	State Street
SSgA Non-US Developed Index Fund	3/10/2022	State Street	Ares Institutional Loan Fund	3/1/2024	Ares
SSgA Non-US Developed SC Index Fund	3/10/2022	State Street	Aristotle Institutional Loan Fund	3/1/2024	Aristotle
Acadian ACWI ex US Small-Cap Fund	1/30/2024	State Street	Principal USPA	4/6/2022	State Street
WCM International Small Cap Growth Fund	3/1/2024	WCM	SSgA REITs Index Fund	3/10/2022	State Street
LSV International Small Cap Value Equity Fund	3/1/2024	LSV	SSgA US Treasury Index Fund	5/1/2024	State Street
SSgA Emerging Markets Equity Index Fund	3/1/2022	State Street	SSgA Core Fixed Income Index Fund	3/17/2022	State Street
SSgA Emerging Markets ex China Equity Index Fu	ır 5/1/2024	State Street	SSgA Short-Term Gov't/Credit Index Fund	3/17/2022	State Street
William Blair EM ex China Growth Fund	12/9/2024	William Blair	SSgA US TIPS Index Fund	3/17/2022	State Street
ARGA Emerging Markets Ex China Equity	12/1/2024	ARGA	Cash	3/22/2022	State Street
SSgA High Yield Corporate Credit	3/18/2022	State Street			

<b>Custom Benchmark Composition</b>		
Benchmark Barrata Barrata	Time period	Composition
Policy Index -Broad Benchmark	4/1/2022 - Present	70% MSCI ACWI IMI (Net) and 30% Bloomberg Global Multiverse.
Spliced SSgA EMD Hard Benchmark	7/1/2023 - Present	100% JPM EMBI Global Diversified Index
Spliced SSgA EMD Hard Benchmark	3/14/2022 - 6/30/2022	100% JPM EMBI Global Core Index
Spliced SSgA U.S. High Yield Index	12/1/2022 - Present	100% ICE BofA US High yield Master II Constrained
Spliced SSgA U.S. High Yield Index	4/1/2022 - 11/30/2022	100% Bloomberg U.S. High Yield Very Liquid Index
Spliced Capital Group EMD Benchmark	1/1/2025 - Present	50% JPM GBI EM GD/30% JPM EMBI GD/20% JPM CEMBI BD
Spliced Capital Group EMD Benchmark	10/21/2024 - 12/31/2024	50% JPM EMBI GD/50% JPM GBI EM GD



### Illinois Police Officers' Pension Investment Fund Period Ending: March 31, 2025

Policy Index Composition							Policy				Risk
As of 12/1/2024	Policy Index	Growth	Income	Real Assets	Risk Mitigation	As of 11/1/2024	Index	Growth	Income	Real Assets	Mitigation
Russell 1000	23.0%	39.7%				Russell 1000	23%	39.7%			
Russell 2000	5.0%	8.6%			Russell 2000		5%	8.6%			
MSCI World ex U.S.	19.0%	32.8%				MSCI World ex U.S.	19%	32.8%			
MSCI World ex U.S. Small Cap	5.0%	8.6%				MSCI World ex U.S. Small Cap	5%	8.6%			
MSCI Emerging Markets ex China	6.0%	10.3%				MSCI Emerging Markets	0.7%	1.2%			
Bloomberg US Corporate High Yield Index	7.0%	10.570	43.8%			MSCI Emerging Markets ex China	5.3%	9.2%			
JPM EMBI Global Diversified Index	6.0%		37.5%			Bloomberg US Corporate High Yield Index	7%	3.270	43.8%		
S&P UBS Leveraged Loan Index	3.0%		18.8%			JPM EMBI Global Diversified Index	6%		37.5%		
NFI-ODCE Equal-Weighted Index	2.0%		10.070	33.3%		S&P UBS Leveraged Loan Index	3%		18.8%		
Dow Jones US Select REIT Index	4.0%			66.7%		NFI-ODCE Equal-Weighted Index	2%		10.070	33.3%	
	3.0%			00.7 %	15.0%	, ,	4%			66.7%	
Bloomberg US Aggregate Index						Dow Jones US Select REIT Index	3%			00.7 %	45.00/
Bloomberg US Treasury Index	3.0%				15.0%	Bloomberg US Aggregate Index	3%				15.0%
Bloomberg 1-3 Year Gov/Credit Index	10.0%				50.0%	Bloomberg US Treasury Index					15.0%
Bloomberg US TIPS 0-5 Year	3.0%				15.0%	Bloomberg 1-3 Year Gov/Credit Index	10%				50.0%
90 Day US Treasury Bill Index	1.0%				5.0%	Bloomberg US TIPS 0-5 Year	3%				15.0%
						90 Day US Treasury Bill Index	1%				5.0%
							Policy				Risk
As of 10/1/2024	Policy Index	Growth	Income	Real Assets	Risk Mitigation	As of 9/1/2024	Index	Growth	Income	Real Assets	Mitigation
Russell 1000	23%	39.7%				Russell 1000	23%	39.7%			
Russell 2000	5%	8.6%				Russell 2000	5%	8.6%			
MSCI World ex U.S.	19%	32.8%				MSCI World ex U.S.	19%	32.8%			
MSCI World ex U.S. Small Cap	5%	8.6%				MSCI World ex U.S. Small Cap	5%	8.6%			
MSCI Emerging Markets	0.8%	1.4%				MSCI Emerging Markets	1.5%	2.6%			
MSCI Emerging Markets ex China	5.2%	9.0%				MSCI Emerging Markets ex China	4.5%	7.8%			
Bloomberg US Corporate High Yield Index	7%		43.8%			Bloomberg US Corporate High Yield Index	7%		43.8%		
JPM EMBI Global Diversified Index	6%		37.5%			JPM EMBI Global Diversified Index	6%		37.5%		
S&P UBS Leveraged Loan Index	3%		18.8%			S&P UBS Leveraged Loan Index	3%		18.8%		
NFI-ODCE Equal-Weighted Index	2%			33.3%		NFI-ODCE Equal-Weighted Index				33.3%	
Dow Jones US Select REIT Index	4%			66.7%		Dow Jones US Select REIT Index	4%			66.7%	
Bloomberg US Aggregate Index	3%				15.0%	Bloomberg US Aggregate Index	3%				15.0%
Bloomberg US Treasury Index	3%				15.0%	Bloomberg US Treasury Index	3%				15.0%
Bloomberg 1-3 Year Gov/Credit Index	10%				50.0%	Bloomberg 1-3 Year Gov/Credit Index	10%				50.0%
Bloomberg US TIPS 0-5 Year	3%				15.0%	Bloomberg US TIPS 0-5 Year	3%				15.0%
90 Day US Treasury Bill Index	1%				5.0%	90 Day US Treasury Bill Index	1%				5.0%
As of 8/1/2024	Policy Index	Craudh	lucomo	Real Assets	Risk Mitigation	As of 7/1/2024	Policy Index	Crevith	Income	Real Assets	Risk Mitigation
	23%	<u>Growth</u> 39.7%	Income	INCOL MOSCIS	NISK WINGAUON		23%	<u>Growth</u> 39.7%	Income	INCAL ASSELS	wiitigatior
Russell 1000						Russell 1000					
Russell 2000	5%	8.6%				Russell 2000	5% 19%	8.6% 32.8%			
MSCI World ex U.S.	19%	32.8%				MSCI World ex U.S.					
MSCI World ex U.S. Small Cap	5%	8.6%				MSCI World ex U.S. Small Cap	5%	8.6%			
MSCI Emerging Markets	2%	3.4%				MSCI Emerging Markets	3%	5.2%			
MSCI Emerging Markets ex China	4%	6.9%				MSCI Emerging Markets ex China	3%	5.2%	10.00/		
Bloomberg US Corporate High Yield Index	7%		43.8%			Bloomberg US Corporate High Yield Index	7%		43.8%		
JPM EMBI Global Diversified Index	6%		37.5%			JPM EMBI Global Diversified Index	6%		37.5%		
S&P UBS Leveraged Loan Index	3%		18.8%			S&P UBS Leveraged Loan Index	3%		18.8%		
NFI-ODCE Equal-Weighted Index	2%			33.3%		NFI-ODCE Equal-Weighted Index	2%			33.3%	
Dow Jones US Select REIT Index	4%			66.7%		Dow Jones US Select REIT Index	4%			66.7%	
Bloomberg US Aggregate Index	3%				15.0%	Bloomberg US Aggregate Index	3%				15.0%
	3%				15.0%	Bloomberg US Treasury Index	3%				15.0%
Bloomberg US Treasury Index						•					
,	10%				50.0%	Bloomberg 1-3 Year Gov/Credit Index	10%				50.0%
Bloomberg US Treasury Index Bloomberg 1-3 Year Gov/Credit Index Bloomberg US TIPS 0-5 Year	10% 3%				50.0% 15.0%	Bloomberg 1-3 Year Gov/Credit Index Bloomberg US TIPS 0-5 Year	10% 3%				50.0% 15.0%



### Illinois Police Officers' Pension Investment Fund Period Ending: March 31, 2025

Mile	Policy Index Composition											
Named 1000						B1 1 1100 C		Policy	<b>-</b>			Risk
Reseal DOOD				Income	Real Assets	Risk Mitigation				Income	Real Assets	Mitigatio
MSCI World ex U.S. Small Cap 5% 8.6% 4% 6.9% 4												
MSCI Mordie at U.S. Small Cap												
MSC   Emerging Markeles   4%   6.9%												
MSC   Emerging Markels ax China   1%   1.7%	·						·					
	0 0						0 0					
PM EMBI Global Diversified Index			3.4%						1.7%			
SBP UBS Leveraged Loan Index												
Second   S												
Down-Jones US Select REIT Index	2			18.8%						18.8%		
Stormberg US Aggregate Index   3%	NFI-ODCE Equal-Weighted Index						NFI-ODCE Equal-Weighted Index					
Stockberry US Treasury Index	Dow Jones US Select REIT Index				66.7%						66.7%	
Stockhorn   1-3 Year Gow/Credit Index   11%   5.0 %   Bloomberg U.S. Tries   1-3 Year Gow/Credit Index   12%   5.0 %   90.0 Day U.S. Treasury Bill Index   1%   5.0 %   90.0 Day U.S. Treasury Bill Index   1%   5.0 %   90.0 Day U.S. Treasury Bill Index   1%   5.0 %   5.0 %   90.0 Day U.S. Treasury Bill Index   1%   5.0 %   5.0 %   90.0 Day U.S. Treasury Bill Index   1%   5.0 %   5.0 %   90.0 Day U.S. Treasury Bill Index   1%   5.0 %   5.0 %   90.0 Day U.S. Treasury Bill Index   1%   5.0 %	Bloomberg US Aggregate Index	3%				15.0%	Bloomberg US Aggregate Index					15.0%
15,00%   1	Bloomberg US Treasury Index	2%				10.0%	Bloomberg US Treasury Index	1%				5.0%
No Day US Treasury Bill Index	Bloomberg 1-3 Year Gov/Credit Index						Bloomberg 1-3 Year Gov/Credit Index					60.0%
Second   Part	Bloomberg US TIPS 0-5 Year	3%				15.0%		3%				15.0%
Name	90 Day US Treasury Bill Index	1%				5.0%	90 Day US Treasury Bill Index	1%				5.0%
Name   1000   23%   39.7%								Policy				Risk
Russell 2000   5%   8.6%   State   S	As of 4/1/2024	Policy Index	Growth	Income	Real Assets	Risk Mitigation	As of 3/1/2024	Index	Growth	Income	Real Assets	Mitigation
MSCI World ex U.S.   19%   32.8%   MSCI World ex U.S.   19%   31.0%	Russell 1000						Russell 1000					
MSCI World ex U.S.   19%   32.8%   MSCI World ex U.S.   18%   31.0%	Russell 2000	5%	8.6%				Russell 2000	5%	8.6%			
MSCI Emerging Markets   6%   10.3%	MSCI World ex U.S.						MSCI World ex U.S.		31.0%			
MSCI Emerging Markets   6%   10.3%	MSCI World ex U.S. Small Cap	5%	8.6%				MSCI World ex U.S. Small Cap	5%	8.6%			
Sloomberg US Corporate High Yield Index												
IPM EMBİ Global Diversified Index   6%   37.5%   37.				43.8%						53.1%		
S&P UBS Leveraged Loan Index   3%   18.8%   S&P UBS Leveraged Loan Index   1.5%   9.4%	0 1											
NFI-ODCE Equal-Weighted Index   2%   33.3%   2%   33.3%   2%   33.3%   2%   2%   33.3%   2%   2%   33.3%   2%   2%   2%   33.3%   2%   2%   2%   2%   2%   2%   2%												
Dow Jones US Select REIT Index				10.070	33.3%					0.170	33.3%	
Stoomberg US Aggregate Index   3%   15.0%   Bloomberg US Aggregate Index   3%   15.0%   Bloomberg US Aggregate Index   3%   15.0%   Bloomberg US Aggregate Index   13%   15.0%   15.0%   Bloomberg US TIPS 0-5 Year   3%   15.0%   15.0%   Bloomberg US TIPS 0-5 Year   3%   15.0%	. 0						, 0					
Stoomberg 1-3 Year Gov/Credit Index   13%   65.0%   Bloomberg 1-3 Year Gov/Credit Index   13%   65.0%   Bloomberg US TIPS 0-5 Year   3%   15.0%   Bloomberg US TIPS 0-5 Year   3%   15.0%   15.0%   Bloomberg US TIPS 0-5 Year   3%   15.0%					00.7 70	15.0%					00.7 70	15.0%
Stomberg US TIPS 0-5 Year   3%   15.0%   Bloomberg US TIPS 0-5 Year   3%   15.0%   Bloomberg US TIPS 0-5 Year   3%   15.0%												
10 Day US Treasury Bill Index   1%   5.0%   90 Day US Treasury Bill Index   1%   5.0%   5.0%   90 Day US Treasury Bill Index   1%   5.0%   5.0%   90 Day US Treasury Bill Index   1%   5.0%	· ·						3					
Name of 5/1/2023   Policy Index   Growth   Income   Real Assets   Risk Mitigation   As of 1/1/2023   Index   Growth   Income   Real Assets   Mitigation   Russell 1000   18%   36.0%	90 Day US Treasury Bill Index											5.0%
Name of 5/1/2023   Policy Index   Growth   Income   Real Assets   Risk Mitigation   As of 1/1/2023   Index   Growth   Income   Real Assets   Mitigation   Russell 1000   18%   36.0%								Policy				Diek
Russell 1000 23% 39.7% Russell 1000 18% 36.0% Russell 2000 5% 10.0% Russell 2000 February Russell 2000 Februar	A	Dollay Index	Craudh	lu a a ma -	Pool Assets	Dick Mitigation	A = = £ 4/4/2022		Cunuth	lunaum-	Dool Assets	
Russell 2000 5% 8.6% 8.6% Russell 2000 5% 10.0% MSCI World ex U.S. 15% 30.0% MSCI World ex U.S. Small Cap 5% 8.6% MSCI World ex U.S. Small Cap 5% 10.0% MSCI Emerging Markets 7% 12.1% MSCI Emerging Markets 7% 14.0% 14.0% 62.5% IBloomberg US Corporate High Yield Index 10% 62.5% IBloomberg US Corporate High Yield Index 6% 37.5% IPM EMBI Global Diversified Index 6% 37.5% IBloomberg US Select REIT Index 4% 66.7% IBloomberg US Select REIT Index 4% 66.7% IBloomberg US Aggregate Index 7% IBloomberg US Aggregate Index 7% IBloomberg US Aggregate Index 7% IBloomberg 1-3 Year Gov/Credit Index 15% IBloomberg 15-3 Year Gov/Credit Index 15% IBloomberg 15-3 Year Gov/Credit Index 15% IBloomberg				income	real Assets	risk willigation				income	Real Assets	wiitigatio
MSCI World ex U.S.       18%       31.0%       MSCI World ex U.S.       15%       30.0%         MSCI World ex U.S. Small Cap       5%       8.6%       MSCI World ex U.S. Small Cap       5%       10.0%         MSCI Emerging Markets       7%       12.1%       MSCI Emerging Markets       7%       14.0%         Bloomberg US Corporate High Yield Index       10%       62.5%       Bloomberg US Corporate High Yield Index       10%       62.5%         IPM EMBI Global Diversified Index       6%       37.5%       JPM EMBI Global Diversified Index       6%       37.5%         NFI-ODCE Equal-Weighted Index       2%       33.3%       NFI-ODCE Equal-Weighted Index       2%       33.3%         Dow Jones US Select REIT Index       4%       66.7%         Bloomberg US Aggregate Index       3%       15.0%       Bloomberg US Aggregate Index       7%       25.0°         Bloomberg US TIPS 0-5 Year       3%       53.6°       53.6°         Bloomberg US TIPS 0-5 Year       3%       53.6°       53.6°         Bloomberg US TIPS 0-5 Year       3%       53.6°       53.6°												
MSCI World ex U.S. Small Cap         5%         8.6%         MSCI World ex U.S. Small Cap         5%         10.0%           MSCI Emerging Markets         7%         12.1%         MSCI Emerging Markets         7%         14.0%           Bloomberg US Corporate High Yield Index         10%         62.5%         Bloomberg US Corporate High Yield Index         10%         62.5%           IPM EMBI Global Diversified Index         6%         37.5%         JPM EMBI Global Diversified Index         6%         37.5%           NFI-ODCE Equal-Weighted Index         2%         33.3%         NFI-ODCE Equal-Weighted Index         2%         33.3%           Jow Jones US Select REIT Index         4%         66.7%         Dow Jones US Select REIT Index         4%         66.7%           Bloomberg US Aggregate Index         3%         15.0%         Bloomberg US Aggregate Index         7%         55.0           Bloomberg US TIPS 0-5 Year         3%         53.6%         Bloomberg US TIPS 0-5 Year         3%         53.6%												
MSCI Emerging Markets 7% 12.1% MSCI Emerging Markets 7% 14.0%  Bloomberg US Corporate High Yield Index 10% 62.5%  Bloomberg US Corporate High Yield Index 10% 62.5%  IPM EMBI Global Diversified Index 6% 37.5%  IPM-CDCE Equal-Weighted Index 2% 33.3%  IPM-CDCE Equal-Weighted Index 2% 30.3%  IPM-CDCE Equal-Weighted Index 2% 30.3												
Sloomberg US Corporate High Yield Index							·					
PM EMBI Global Diversified Index	0 0		12.1%				0 0		14.0%			
NFI-ODCE Equal-Weighted Index 2% 33.3% NFI-ODCE Equal-Weighted Index 2% 33.3% Obw Jones US Select REIT Index 4% 66.7% Dow Jones US Select REIT Index 4% 66.7% Sloomberg US Aggregate Index 7% 25.0% Sloomberg 1-3 Year Gov/Credit Index 15% Sloomberg US TIPS 0-5 Year 3% 15.0% Bloomberg US TIPS 0-5 Year 3% 10.7% Sloomberg												
Dow Jones US Select REIT Index         4%         66.7%         Dow Jones US Select REIT Index         4%         66.7%           Bloomberg US Aggregate Index         3%         15.0%         Bloomberg US Aggregate Index         7%         25.0           Bloomberg 1-3 Year Gov/Credit Index         13%         65.0%         Bloomberg 1-3 Year Gov/Credit Index         15%         53.6           Bloomberg US TIPS 0-5 Year         3%         15.0%         Bloomberg US TIPS 0-5 Year         3%         10.7°				37.5%						37.5%		
Bloomberg US Aggregate Index         3%         15.0%         Bloomberg US Aggregate Index         7%         25.0           Bloomberg 1-3 Year Gov/Credit Index         13%         65.0%         Bloomberg 1-3 Year Gov/Credit Index         15%         53.6           Bloomberg US TIPS 0-5 Year         3%         15.0%         Bloomberg US TIPS 0-5 Year         3%         10.7												
Bloomberg 1-3 Year Gov/Credit Index         13%         65.0%         Bloomberg 1-3 Year Gov/Credit Index         15%         53.6           Bloomberg US TIPS 0-5 Year         3%         15.0%         Bloomberg US TIPS 0-5 Year         3%         10.7°	Dow Jones US Select REIT Index				66.7%						66.7%	
Bloomberg US TIPS 0-5 Year 3% 15.0% Bloomberg US TIPS 0-5 Year 3% 10.7'	Bloomberg US Aggregate Index						0 00 0					25.0%
	Bloomberg 1-3 Year Gov/Credit Index						ů .					53.6%
00 Day US Treasury Bill Index 1% 5.0% 90 Day US Treasury Bill Index 3% 10.7	Bloomberg US TIPS 0-5 Year						Bloomberg US TIPS 0-5 Year					10.7%
	90 Day US Treasury Bill Index	1%				5.0%	90 Day US Treasury Bill Index	3%				10.7%



## Total Fund Data Sources and Methodology Page

Policy Index Composition					
As of 3/31/2022	Policy Index	Growth	Income	Real Assets	Risk Mitigation
Russell 3000	23%	46.0%			
MSCI ACWI ex USA IMI	20%	40.0%			
MSCI Emerging Markets IMI	7%	14.0%			
Bloomberg US Corporate High Yield Index	10%		62.5%		
50% JPM EMBI GD/50% JPM GBI EM GD	6%		37.5%		
NCREIF Property Index	2%			66.7%	
Dow Jones US Select REIT Index	4%			33.3%	
Bloomberg US Aggregate Index	7%				25.0%
Bloomberg 1-3 Year Gov/Credit Index	15%				53.6%
Bloomberg US TIPS 0-5 Year	3%				10.7%
90 Day US Treasury Bill Index	3%				10.7%



### Glossary

Allocation Effect: An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

Alpha: The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as: Portfolio Return [Risk free Rate + Portfolio Beta x (Market Return Risk free Rate)].

Benchmark R squared: Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R squared, the more appropriate the benchmark is for the manager.

Beta: A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

Book to Market: The ratio of book value per share to market price per share. Growth managers typically have low book to market ratios while value managers typically have high book to market ratios.

Capture Ratio: A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

Correlation: A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of two securities move in lock step, a correlation of 1 means the returns of 1 me

Excess Return: A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

Information Ratio: A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: excess return divided by tracking error.

Interaction Effect: An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

Portfolio Turnover: The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

Price to Earnings Ratio (P/E): Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price to earnings ratios whereas value managers hold stocks with low price to earnings ratios.

R Squared: Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

Selection Effect: An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

Sharpe Ratio: A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as: Portfolio Excess Return / Portfolio Standard Deviation.

Sortino Ratio: Measures the risk adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

**Standard Deviation:** A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

Style Analysis: A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

Style Map: A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from 1 to 1 on each axis and are dependent on the Style Indices comprising the Map.



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