

# CalPERS Trust Level Review

Investment Committee

February 15, 2022

# Performance – Key Figures (as of December 31, 2021)



**9.7%**

PERF 10-yr  
absolute return



**+10 bps**

PERF 5-yr  
excess return



Returns of Affiliate Investment Program funds across all time periods were in-line with their respective asset allocations and reflect varying risk levels

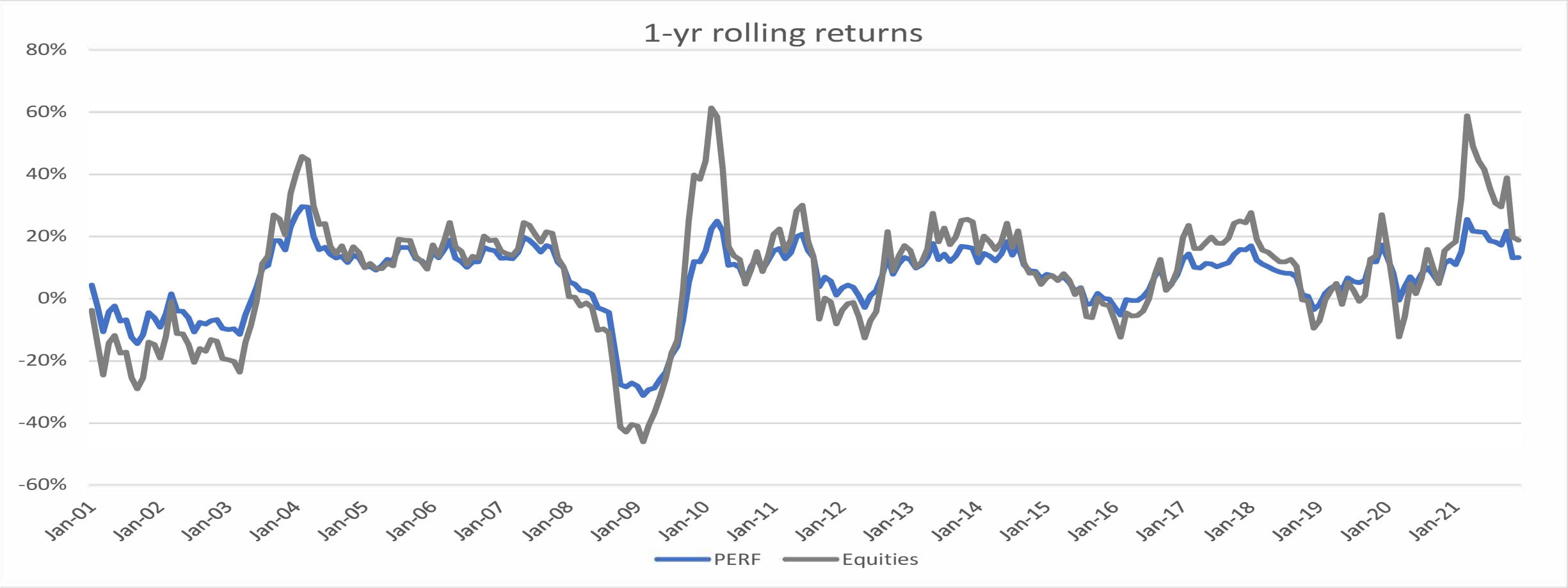
# Performance Summary (as of December 31, 2021)

Funds Managed	Ending Asset Value (MM)	20-Yr		10-Yr		5-Yr		3-Yr		1-Yr		FYTD	
		Net Return	Excess bps	Net Return	Excess bps	Net Return	Excess bps	Net Return	Excess bps	Net Return	Excess bps	Net Return	Excess bps
Public Employees' Retirement Fund	500,712	7.3%	(41)	9.7%	1	10.8%	10	14.3%	39	13.3%	120	5.9%	104
CalPERS Health Care Bond Fund	519	3.9%	7	3.2%	35	3.6%	2	4.8%	(1)	-1.6%	(7)	0.0%	(4)
CEPPT Strategy 1	51	-	-	-	-	-	-	-	-	8.6%	(1)	3.0%	(0)
CEPPT Strategy 2	22	-	-	-	-	-	-	-	-	3.6%	5	1.6%	(4)
CERBT Strategy 1	14,784	-	-	9.5%	32	11.2%	29	16.2%	21	13.7%	13	4.4%	5
CERBT Strategy 2	2,010	-	-	8.1%	30	9.6%	25	13.7%	14	10.1%	9	3.7%	2
CERBT Strategy 3	880	-	-	6.6%	27	7.9%	20	11.5%	11	7.7%	3	3.4%	(2)
Judges' Retirement Fund	57	1.4%	11	0.7%	6	1.2%	8	1.0%	2	0.1%	4	0.0%	1
Judges' Retirement System II Fund	2,523	7.1%	7	9.3%	28	10.8%	29	15.4%	27	12.3%	19	4.2%	5
Legislators' Retirement System Fund	123	6.3%	2	6.8%	31	8.0%	20	11.5%	14	7.7%	6	3.4%	(1)
Long-Term Care Fund	5,623	5.5%	11	5.8%	18	7.2%	9	10.7%	5	7.9%	45	3.3%	3
Terminated Agency Pool	229	-	-	-	-	6.7%	-	10.2%	-	3.3%	-	4.8%	-

# PERF Performance Summary (as of December 31, 2021)

Performance Summary	Ending Asset Value (bil)	Current Allocation (%)	Policy Target Weight (%)	20-Yr		10-Yr		5-Yr		3-Yr		1-Yr		FYTD	
				Net Return	Excess bps	Net Return	Excess bps	Net Return	Excess bps	Net Return	Excess bps	Net Return	Excess bps	Net Return	Excess bps
<b>Public Equity</b>	\$ 246.7	49.3%	50.0%	8.0%	(13)	12.1%	12	13.7%	(7)	19.0%	14	17.9%	26	5.7%	3
Cap Wtd.	\$ 171.6	34.3%	35.0%	8.2%	(13)	12.6%	12	14.7%	(7)	21.0%	14	19.1%	32	5.3%	3
Factor Wtd.	\$ 75.1	15.0%	15.0%	-	-	-	-	-	-	13.7%	5	14.7%	12	6.6%	3
<b>Private Equity</b>	\$ 49.0	9.8%	8.0%	11.4%	(14)	13.9%	(220)	16.5%	55	17.3%	267	39.3%	792	16.7%	979
<b>Income</b>	\$ 141.5	28.3%	28.0%	6.2%	60	4.4%	69	5.5%	42	7.5%	37	(1.4%)	15	1.3%	2
Long Spread	\$ 72.6	14.5%	15.0%	-	-	-	-	-	-	7.0%	67	(0.6%)	28	0.4%	8
Long Treasury	\$ 46.4	9.3%	10.0%	-	-	3.6%	(4)	5.2%	(6)	7.2%	(14)	(4.1%)	0	2.5%	(0)
Total Fund Income	\$ 7.5	1.5%	-	-	-	-	-	-	-	-	-	(4.3%)	(19)	2.1%	(38)
High Yield	\$ 15.0	3.0%	3.0%	-	-	-	-	-	-	8.2%	14	4.6%	8	1.7%	(1)
<b>Real Assets</b>	\$ 55.1	11.0%	13.0%	5.8%	(262)	9.0%	53	6.8%	44	7.1%	116	15.8%	242	11.5%	134
<b>Total Fund</b>	\$ 19.6	3.9%	-	-	-	-	-	-	-	-	-	15.2%	820	4.9%	141
Opportunistic	\$ 5.0	1.0%	-	-	-	-	-	-	-	-	-	15.2%	820	4.9%	141
LLER	\$ 7.6	1.5%	-	-	-	-	-	2.8%	192	2.8%	214	1.8%	174	0.7%	68
Other	\$ 7.0	1.4%	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Financing &amp; Liquidity</b>	\$ (11.2)	-2.2%	-	-	-	-	-	-	-	-	-	(0.1%)	-	(0.1%)	-
Trust Level Financing	\$ (22.8)	-4.6%	-	-	-	-	-	-	-	-	-	(0.1%)	-	(0.1%)	-
Liquidity	\$ 11.6	2.3%	1.0%	1.8%	5	0.9%	(1)	1.3%	28	1.0%	21	0.1%	5	0.1%	3
<b>Total PERF</b>	\$ 500.7	100.0%	100.0%	7.3%	(41)	9.7%	1	10.8%	10	14.3%	39	13.3%	120	5.9%	104

# PERF Returns Closely Tied to Equity Markets



# PERF Risk – Key Figures (as of January 4, 2022)



**98%**

Contribution to  
PERF Volatility from  
Assets Sensitive to  
Economic Growth\*



**19 bps**

Total Fund  
Actionable  
Tracking Error



**2.4x**

Liquidity  
Coverage Ratio  
for 30-Day Stress  
Scenario

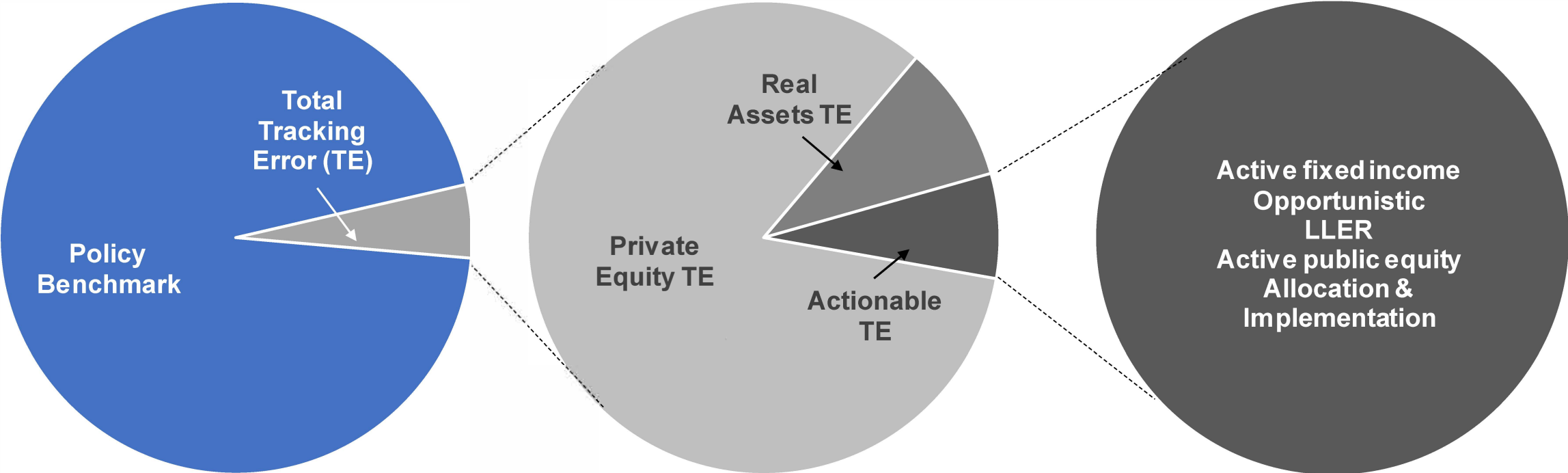
\*Risk model estimated sensitivity of PERF returns to stock market

# PERF Tracking Error in Total Fund Context (as of January 4, 2022)

Total Volatility = 10.6%

Total Tracking Error = 139 bps

Actionable Tracking Error = 19 bps



# Investment Office Operating Model

Total INVO  
Operational  
Risk Score  
**4**

Functions		Sub-Functions					
Industry Aligned	Trust Level Management	Policy & Governance	Strategic & Dynamic Asset Allocations	Liquidity & Leverage	Risk Management	Fund Structure & Business Model	Controls Environment
	Portfolio Construction, Management & Trading	Portfolio Construction - Public Markets	Securities Trading - Public Markets	Private Asset Strategy & Transactions	Manager/ Partner Selection & Oversight		
	Investment Operations & Data	Trade Operations	Private Market Analysis & Operations	Valuation / Pricing	Investment Accounting & Custody	Performance, Attribution & Risk Reporting	Data Management
	Investment Technology & Support Services	Technology Management & Information Security	Vendor Utilization & Management	Business Continuity / Disaster Recovery	Resource Management	Financial Management	
CaIPERS	Engagement	Manager & Industry Peer Engagement	ESG Advocacy & Integration	Stakeholder Engagement			



Scale			
Low	Medium	Med-High	High
1-3	4-5	6-7	8-10





# Economic Update | Review

## Excess demand in activity as it normalizes

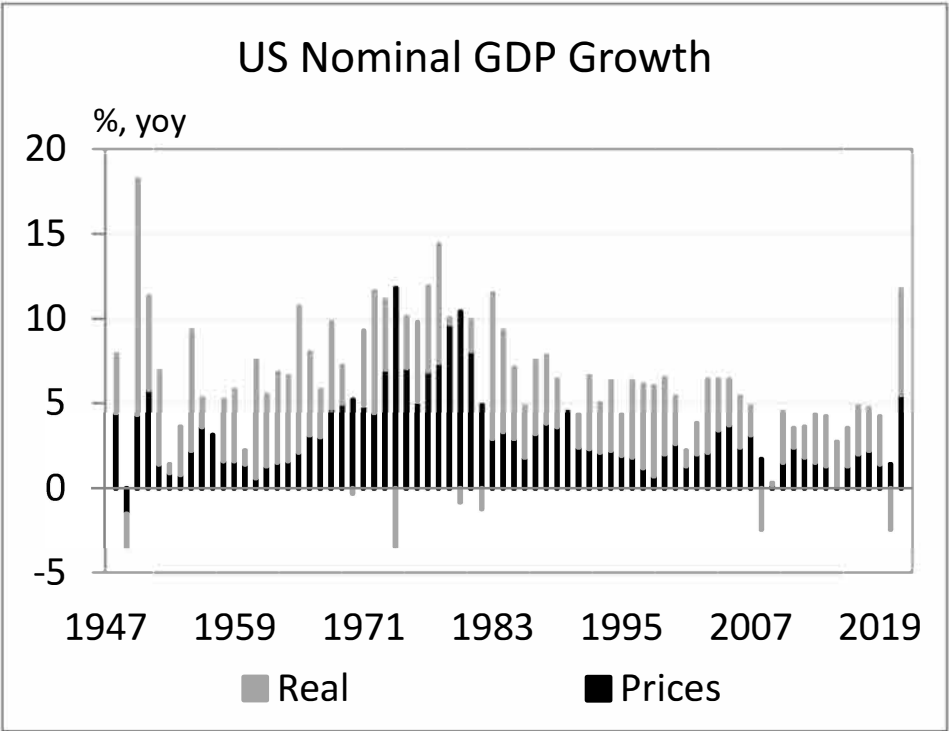
Underlying activity largely robust

Labor supply remains below pre-pandemic levels

Capacity pressures dissipating slowly

Result: excess demand in activity

Analysts' adjusting expectations for wage and price pressure



# Economic Update | Future outlook

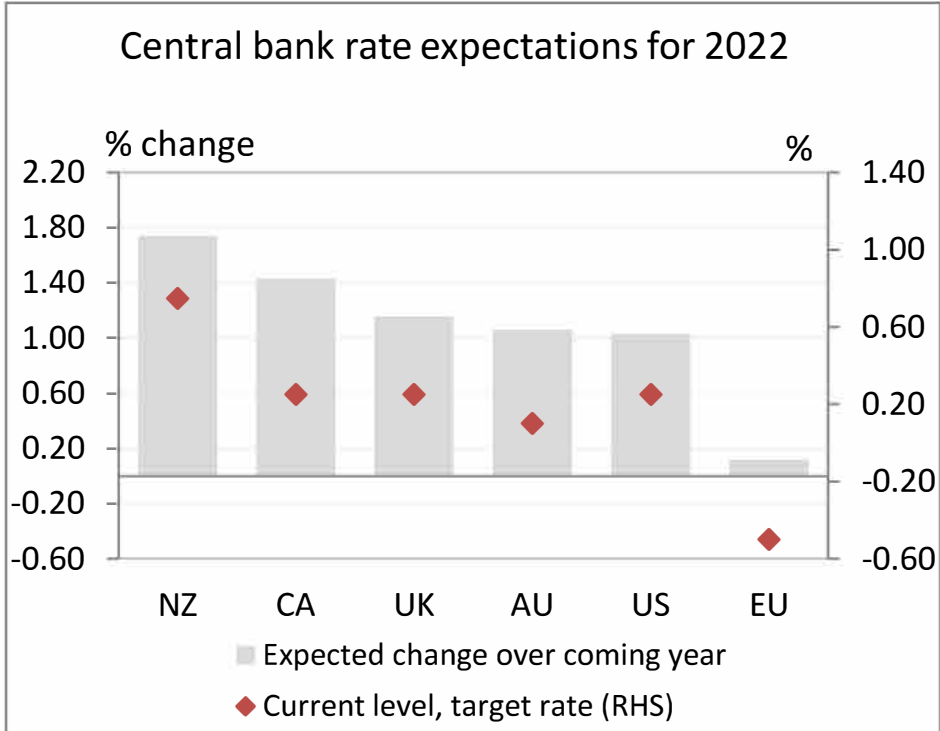
## Policy setting and event risk a focus for 2022

Central banks are re-assessing the degree of policy accommodation

Fiscal policy less stimulative

Global recovery uneven

Both upside and downside risks to economic outlook



# *Appendix*

**Chief Investment Officer (332)**

**Strategy & Research**

**Implement**

**Monitor, Review, & Assess**

Board Governance & Sustainability (BGS)

Global Equity (GE)

Investment Controls & Operational Risk (ICOR)

Global Fixed Income (GFI)

Investment Servicing Division (ISD)

Opportunistic Strategies (OS)

Investment Risk & Performance (IRP)

Private Equity (PE)

Real Assets (RA)

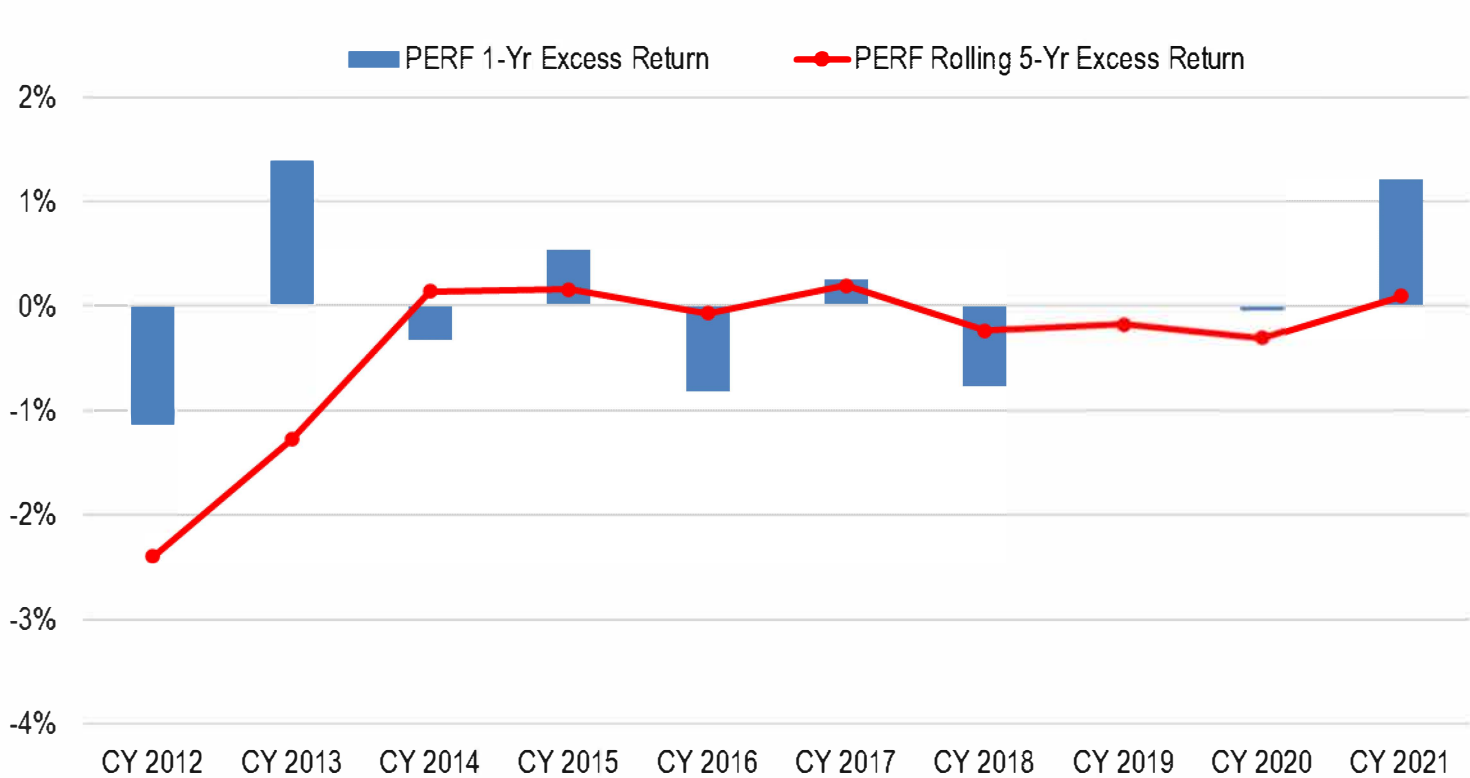
Trust Level Portfolio Management & Implementation (TLPMI)

Total Fund Business & Analytical Services (TFBAS)

# Supplemental Income Plan Performance (as of December 31, 2021)

Funds Managed	Ending Asset Value (MM)	20-Yr		10-Yr		5-Yr		3-Yr		1-Yr		FYTD	
		Net Return	Excess bps	Net Return	Excess bps	Net Return	Excess bps	Net Return	Excess bps	Net Return	Excess bps	Net Return	Excess bps
Target Income Fund	122	-	-	5.4%	21	6.7%	14	10.2%	15	5.3%	(2)	1.8%	(2)
Target 2015 Fund	100	-	-	6.1%	13	6.8%	14	10.7%	15	5.5%	(2)	1.8%	(2)
Target 2020 Fund	188	-	-	7.0%	15	7.8%	16	12.7%	19	7.9%	1	2.4%	(1)
Target 2025 Fund	235	-	-	8.1%	14	9.2%	17	14.6%	22	10.3%	3	2.9%	(0)
Target 2030 Fund	226	-	-	9.0%	9	10.3%	10	16.4%	11	12.7%	6	3.5%	1
Target 2035 Fund	144	-	-	9.9%	7	11.5%	12	18.2%	15	15.1%	10	4.1%	2
Target 2040 Fund	135	-	-	10.7%	7	12.6%	11	19.5%	15	17.3%	12	4.7%	3
Target 2045 Fund	77	-	-	11.0%	6	13.1%	11	19.5%	15	17.3%	12	4.7%	3
Target 2050 Fund	44	-	-	11.0%	6	13.1%	11	19.5%	14	17.3%	12	4.7%	3
Target 2055 Fund	16	-	-	-	-	13.1%	11	19.5%	14	17.3%	12	4.7%	3
Target 2060 Fund	9	-	-	-	-	-	-	19.4%	10	17.3%	12	4.7%	3
SSgA STIF	108	-	-	0.7%	9	1.3%	14	1.0%	4	0.1%	4	0.0%	1
SIP US ST Bond Core	38	-	-	-	-	1.8%	(8)	2.2%	(6)	-0.5%	(6)	-0.5%	(3)
SIP US Bond Core	63	-	-	-	-	3.6%	2	4.8%	2	-1.6%	(9)	0.0%	(5)
SIP Real Asset Core	14	-	-	-	-	7.4%	5	12.4%	14	21.0%	(13)	6.8%	(4)
SIP Russell All Cap Core	757	-	-	-	-	18.0%	(2)	25.8%	(1)	25.8%	10	9.2%	4
SIP Glbl All Cap EX-US	78	-	-	-	-	10.1%	22	13.9%	24	8.7%	20	-0.9%	5

# PERF Excess Returns | Rolling 5-Year (as of December 31, 2021)



### 1 Year (+120 bps excess return)

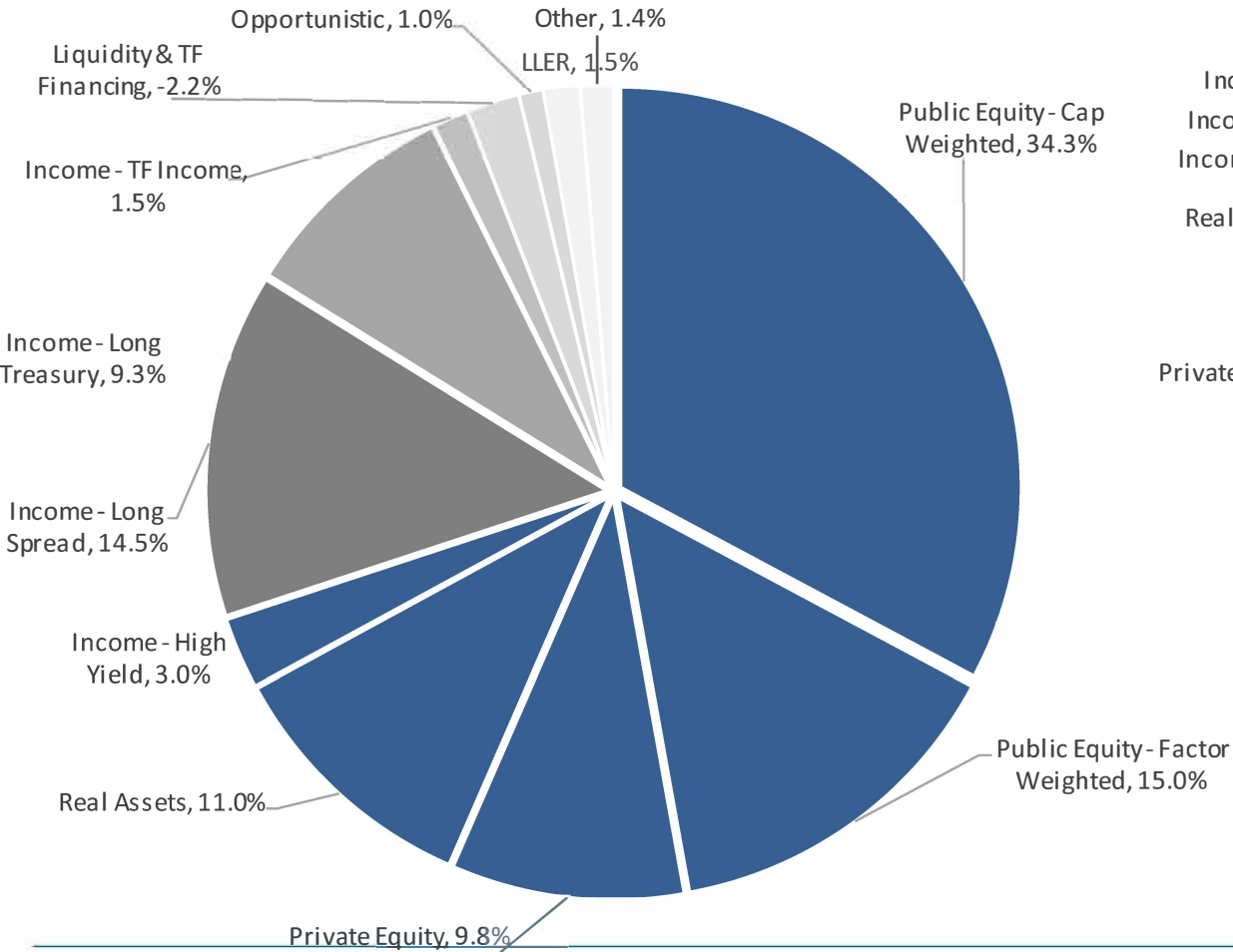
- + Primary Contributors
  - Private Equity (+61 bps)
  - Real Assets (+25 bps)
  - Public Equity – Cap Weighted (+12 bps)
  - Allocation (+7 bps)

### 5 Year (+10 bps/yr excess return)

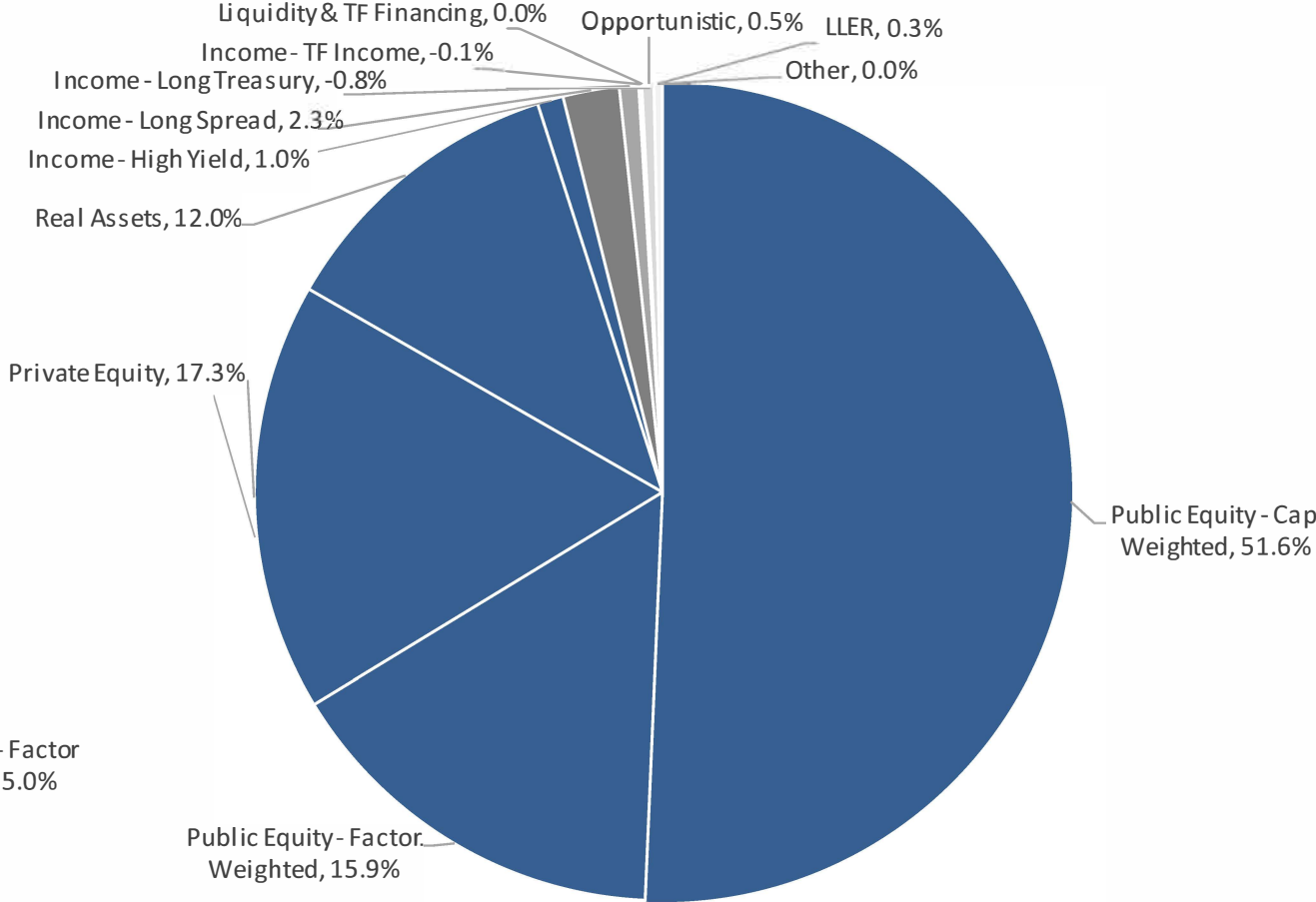
- + Primary Contributor
  - Income – Spread (+9 bps)
- Primary Detractors
  - Public Equity – Cap Weighted (-7 bps)
  - Private Equity (-4 bps)

# Assets Sensitive to Economic Growth Dominate Risk

Asset Allocation (as of 12/31/2021)



Risk Contribution by Asset Class (as of 1/4/2022)



Legend