

# Know Your Options: Pension Funding Strategies

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# Presentation Team



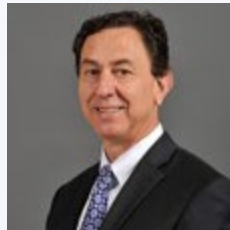
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# Agenda

- ▶ **Where Are We Today?**
- ▶ **Section 115 Trust Solution**
- ▶ **Capital Market Assumptions**
- ▶ **How It Works for SANDAG**
- ▶ **Appendix**

# Where Are We Today?



# Common Everyday People Fears

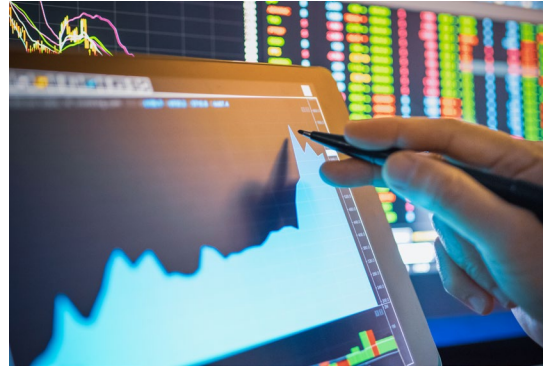


# California Finance Officer Fears

## Stressed Retirement Plan Climate



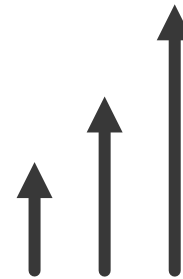
## Volatile Markets



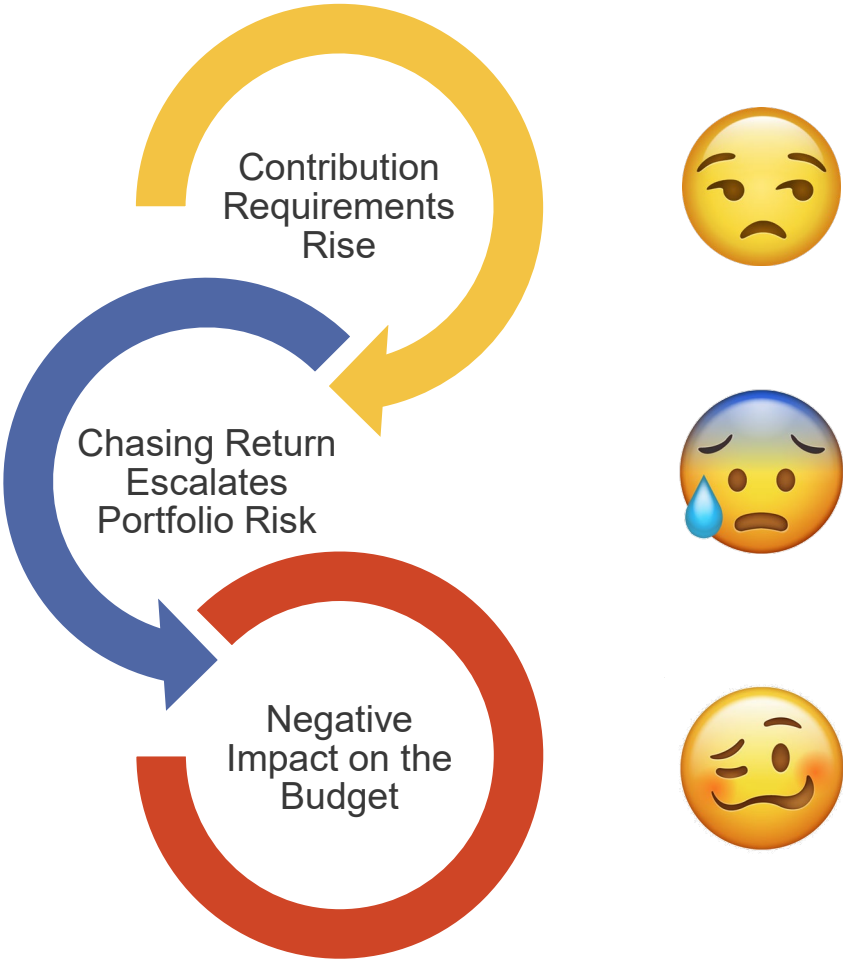
## Managing Portfolio Risk



Despite strong market performance since 2008, governmental entities continue to struggle with rising pension contributions.



# What Can Happen if Challenges Aren't Addressed?

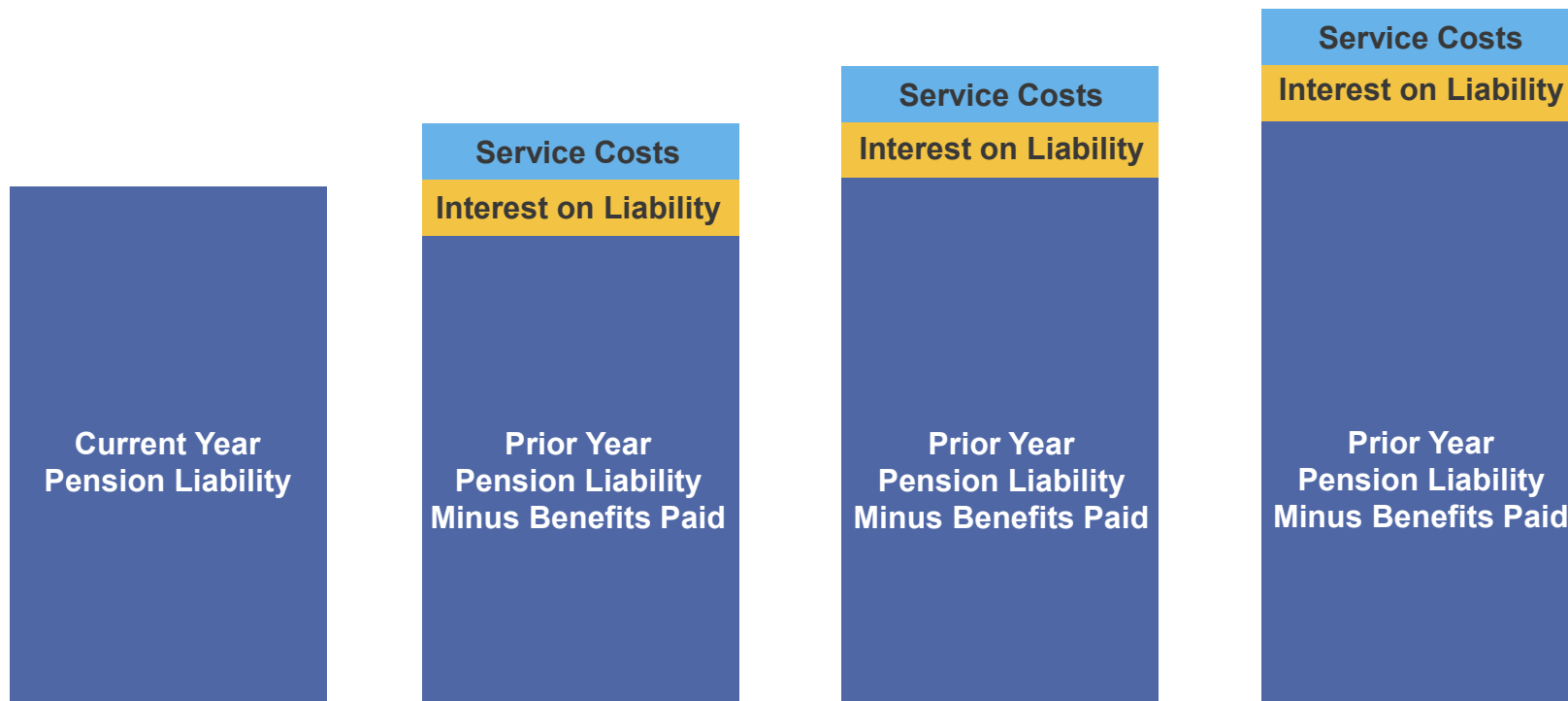


**Here's the good news:  
risks can be managed.**



# How Your Pension Liability Grows

- ▶ For most open plans, pension liabilities will continue to grow each year.
- ▶ Factors include interest (discount rate) and ratio of benefit payments to service costs.
- ▶ Changes in plan demographics or benefit assumptions may also have an impact.



# Sources to Fund Liabilities

Your municipality



Rising pension contributions



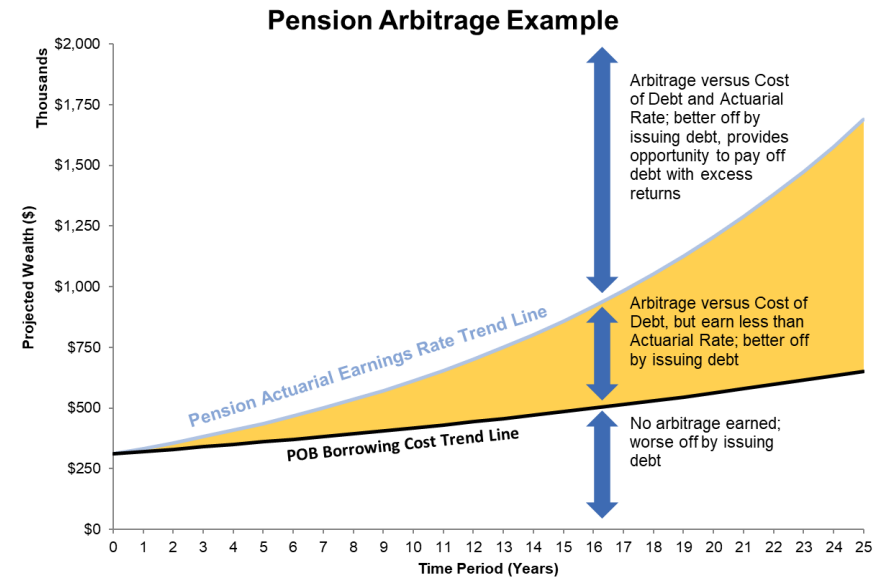
Options for closing the gap:

- ▶ Allocate budget
- ▶ Sell assets
- ▶ Issue pension obligation bonds
- ▶ Investment earnings

# Pension Obligation Bonds

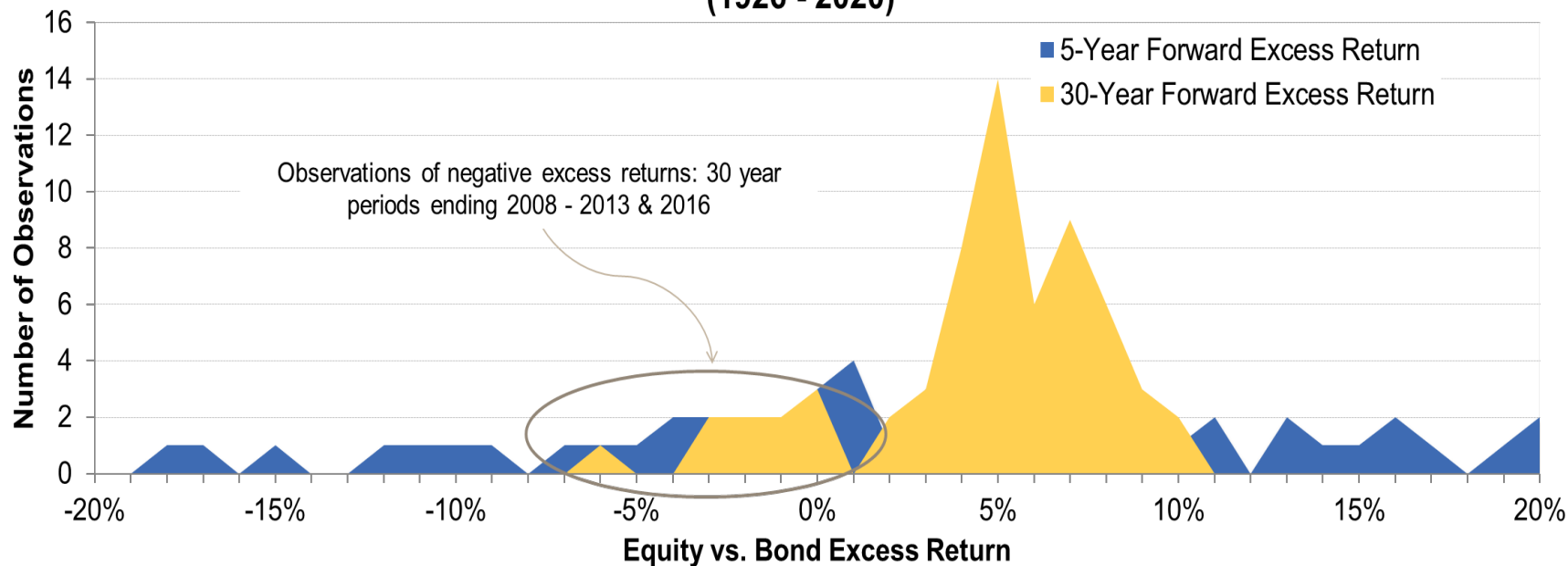
- ▶ Issuers of Pension Obligation Bonds (“POBs”) issue debt in the taxable fixed rate markets and deposit the proceeds into their pension system or fund a Section 115 Trust.
- ▶ Investment rates that are greater than borrowing costs will achieve net savings to the pension obligation.
- ▶ POBs replace a “soft liability” with a “hard liability.”
- ▶ POB proceeds should be invested in asset classes that can provide the optimal risk/return trade-off.

**POBs are a risk-bearing arbitrage strategy between the cost of financing and the long-term return on investment.**



# Measurement Period Matters When Assessing POB Success

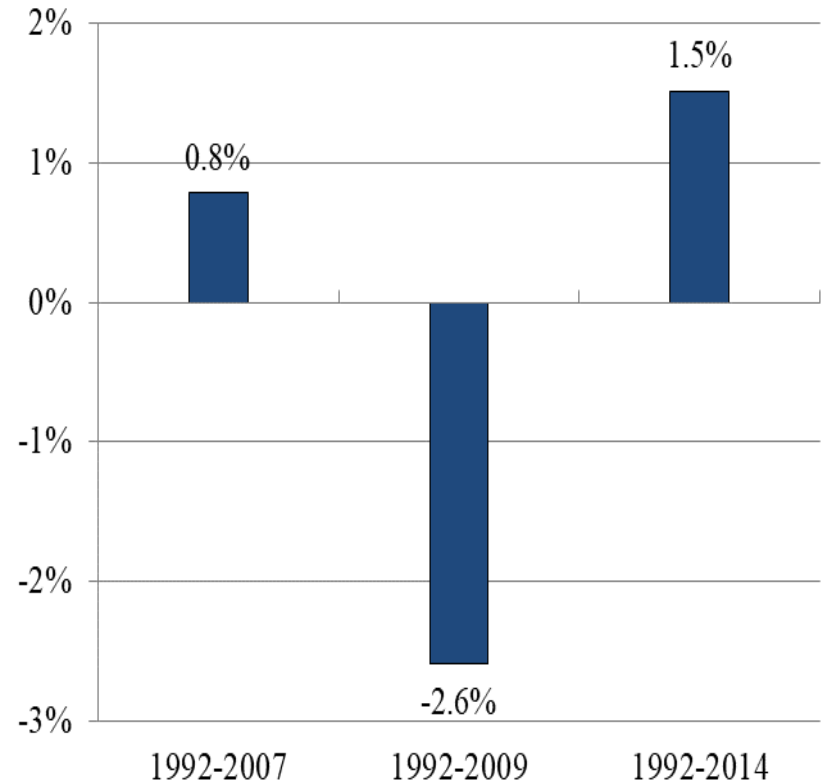
## Distribution of Excess Returns vs Fixed Borrowing Costs (1926 - 2020)



Source: Morningstar, Forward Returns Data: S&P 500 and Bloomberg Barclays Long-term AA Corporate Bond since 1990; prior to that time, Ibbotson 15-Year Bond.

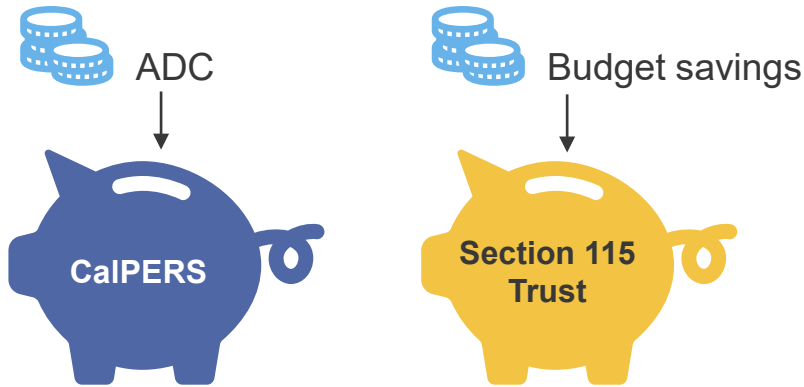
# Example of POB Results

- ▶ The analysis looks at the annualized arbitrage for bonds issued in 1992 at points in time around the Global Financial Crisis
- ▶ By 2007, produced an 80-basis point (0.80%) **positive** arbitrage
- ▶ By 2009, suffered a 260-basis point (2.60%) **negative** arbitrage
- ▶ By 2014, produced a 150-basis point (1.50%) **positive** arbitrage



Lesson: Be prepared for potential losses during some periods over the life of a pension obligation bond

# Consider a Balanced Approach

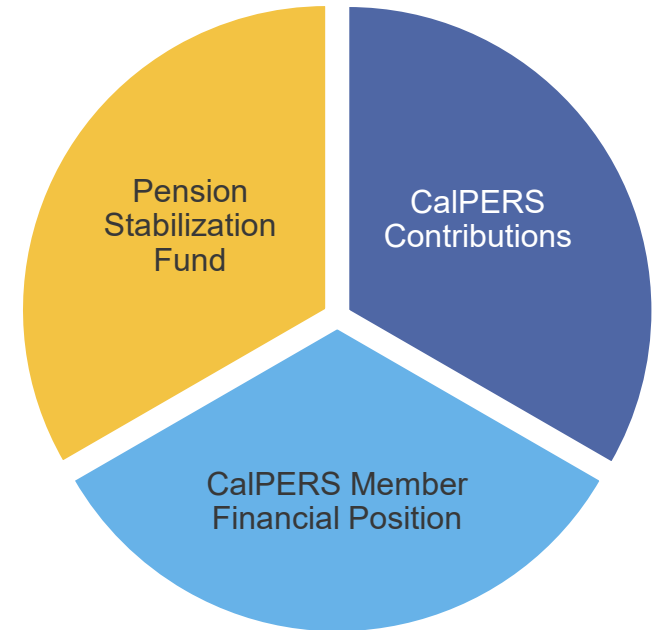


## CalPERS

- ▶ Reduces net pension liability in financial statements immediately
- ▶ Minimal impact on magnitude of future contribution

## Section 115 Trust

- ▶ Allows entity to control cash flow to pension by using Section 115 Trust assets to augment contributions
- ▶ Creates the ability to stabilize contributions over the long term




# Section 115 Trust Solution



# Pay More to CalPERS? Fund a Section 115 Trust?

## Pay CalPERS



Reduces the net pension liability in financial statements

Reduces actuarially determined contribution (ADC) to the pension

No direct influence on investment decisions

If CalPERS investments do not meet expected returns, funded ratios decline

## Fund a Section 115 Trust



Customized investment structure providing diversification vs. a strategy completely investing in CalPERS

Carried on financial statements as an asset

Allows entity to control contributions to the pension and to invest the assets in a similar manner to the pension

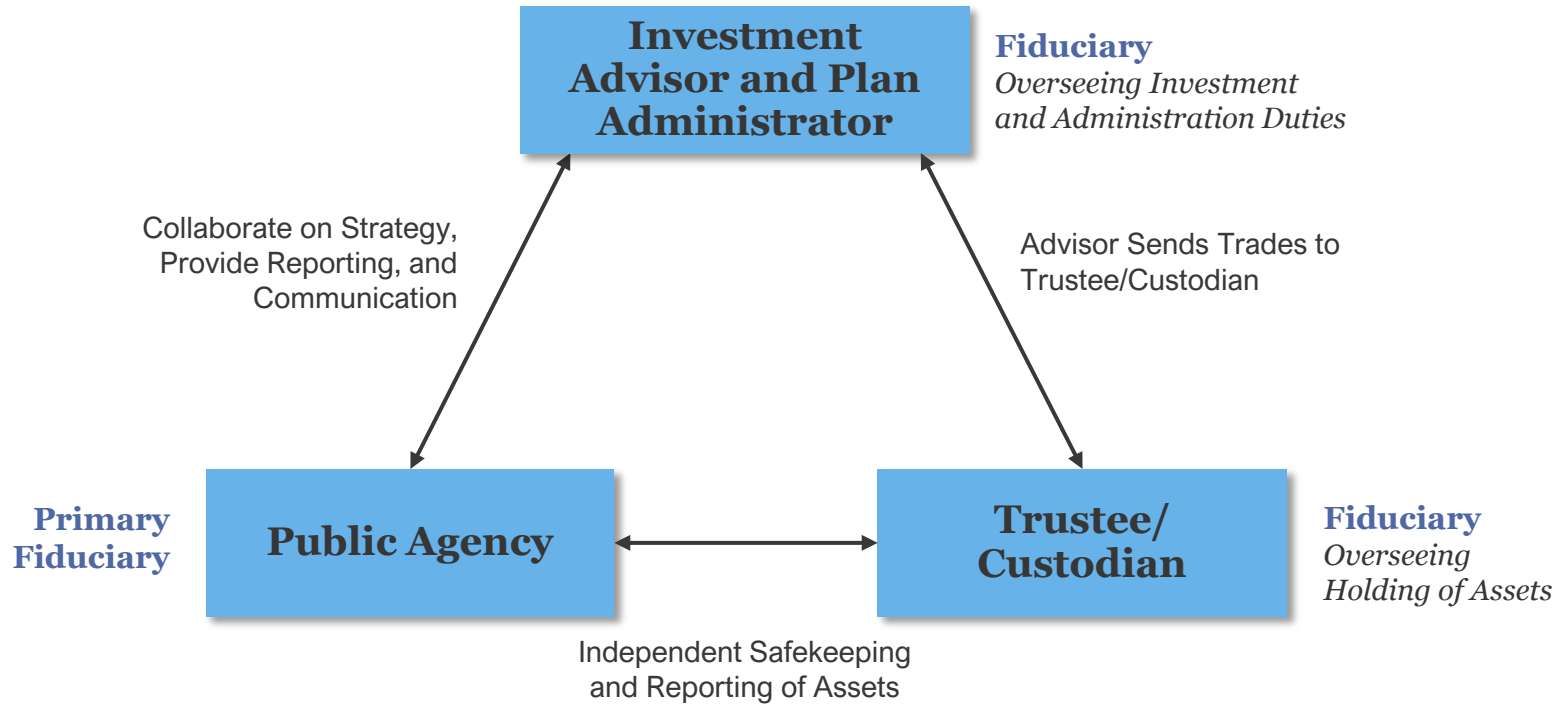
Not a direct offset to the pension liability or to the ADC

# Which Type of Trust?

	<b>Single-Employer</b>	<b>Multiple-Employer</b>
Set-up	Requires creation of new trust	Adopt existing trust
Sponsor	Employer	Plan Administrator and Trustee Bank or 2+ employers
# of Employers	One	Multiple
Contributions Accepted	Retiree Health (OPEB) Pension	Retiree Health (OPEB) Pension
Investments	Customized portfolio	Customized portfolio
Private Letter Ruling	Optional	Preferred
Can be modified?	Yes	No, all employers adopt same Trust
Audit	Reported in Annual Report per GASB guidelines	Reported in Annual Report per GASB guidelines



# Parties to a Trust



# Capital Market Assumptions

(Since we don't have a crystal ball)



# We Expect Contribution Pressures to Rise

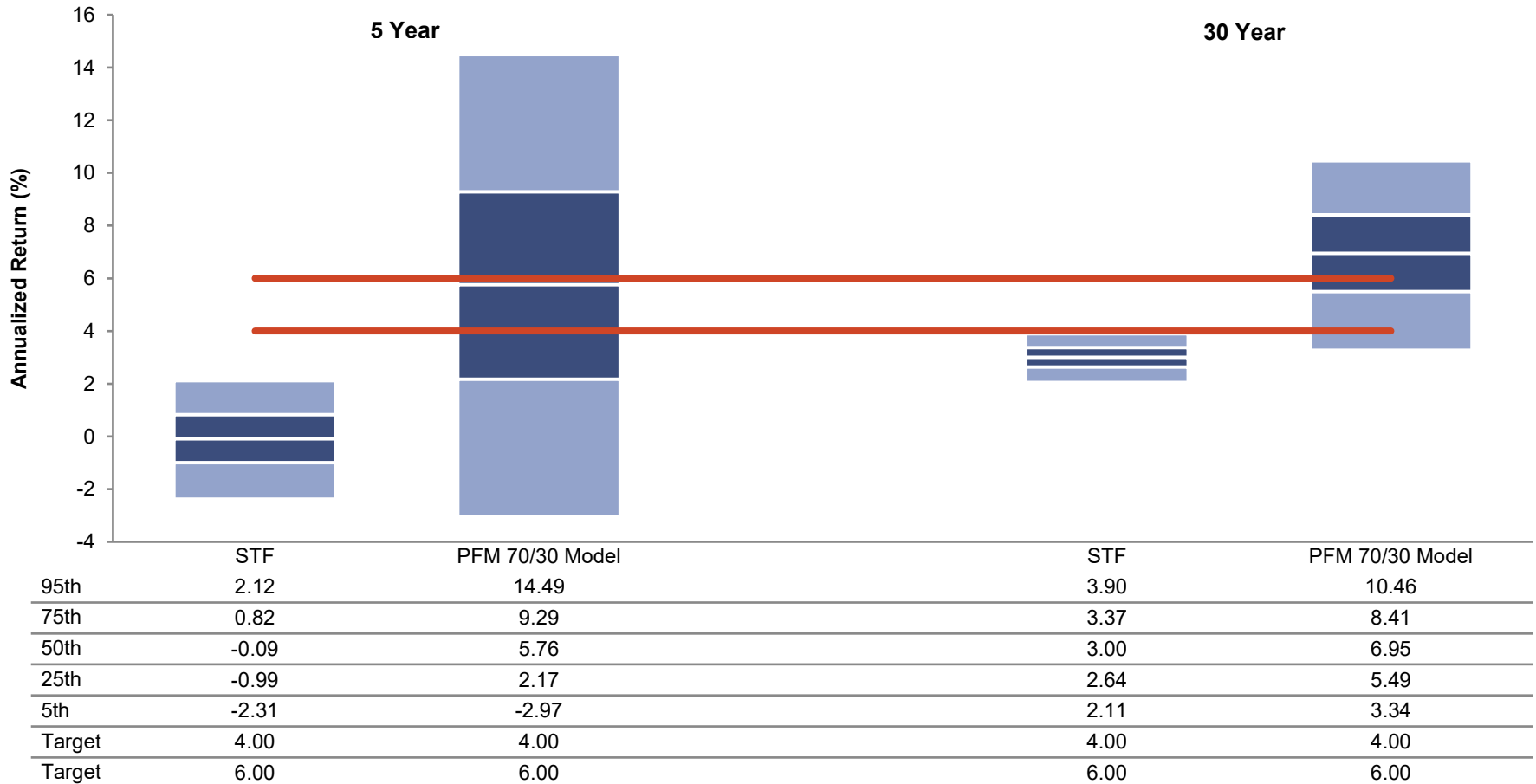
## PFMAM 2022 Capital Market Assumptions

		Expected Return (%)	
		Intermediate Term (5 years)	Long Term (30 years)
<b>Equities</b>	U.S. Equity	7.2	7.6
	U.S. Small-Cap	8.8	8.0
	Developed ex-U.S.	7.5	7.3
	Emerging Markets	7.5	7.7
<b>Fixed Income</b>	Cash	0.8	2.2
	Short Bonds	-0.1	3.0
	Core Bonds	-0.9	3.9
	High Yield Corporates	2.4	5.0
<b>Alternatives</b>	Private Equity	10.1	9.2
	Private Real Estate	7.0	7.9
	Private Debt	6.7	6.8

*For the intermediate term (up to 5 years), our capital market assumptions derive from our assessment of current economic conditions, including corporate profits, balance sheets, etc., and current valuations for various asset classes. Our long-term assumptions are derived using an economic building block approach that projects economic and corporate profit growth and takes into consideration the fundamental factors driving long-term real economic growth, our expectation for inflation, productivity, and labor force growth.*

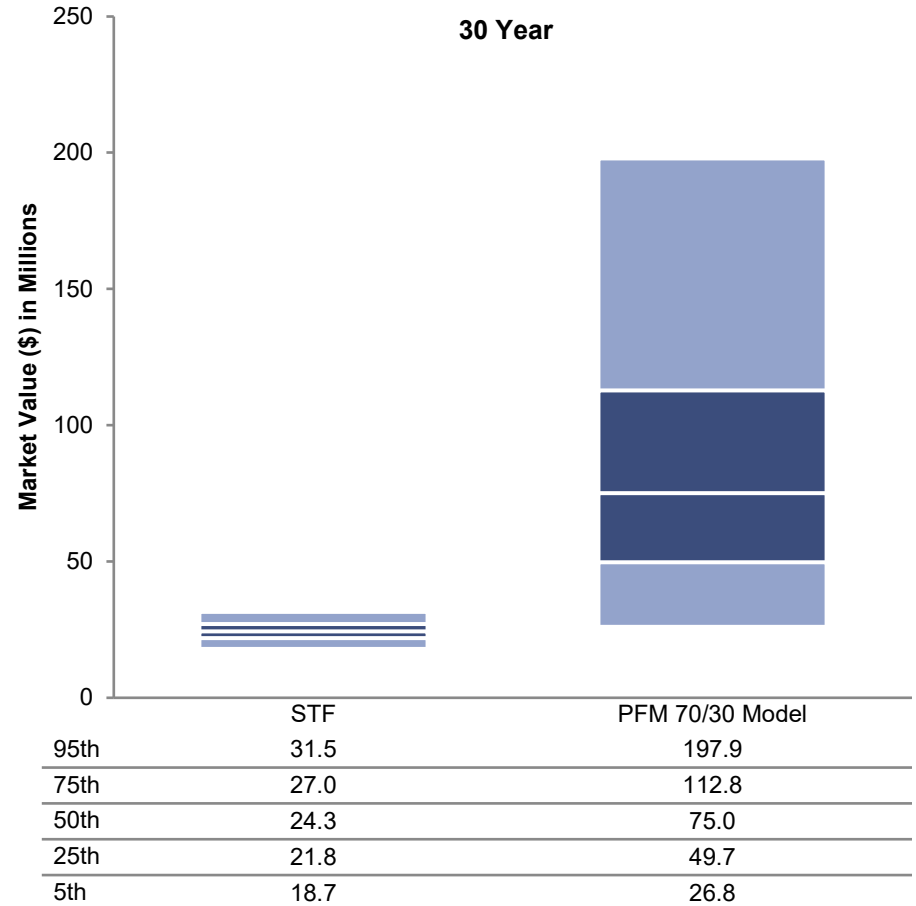
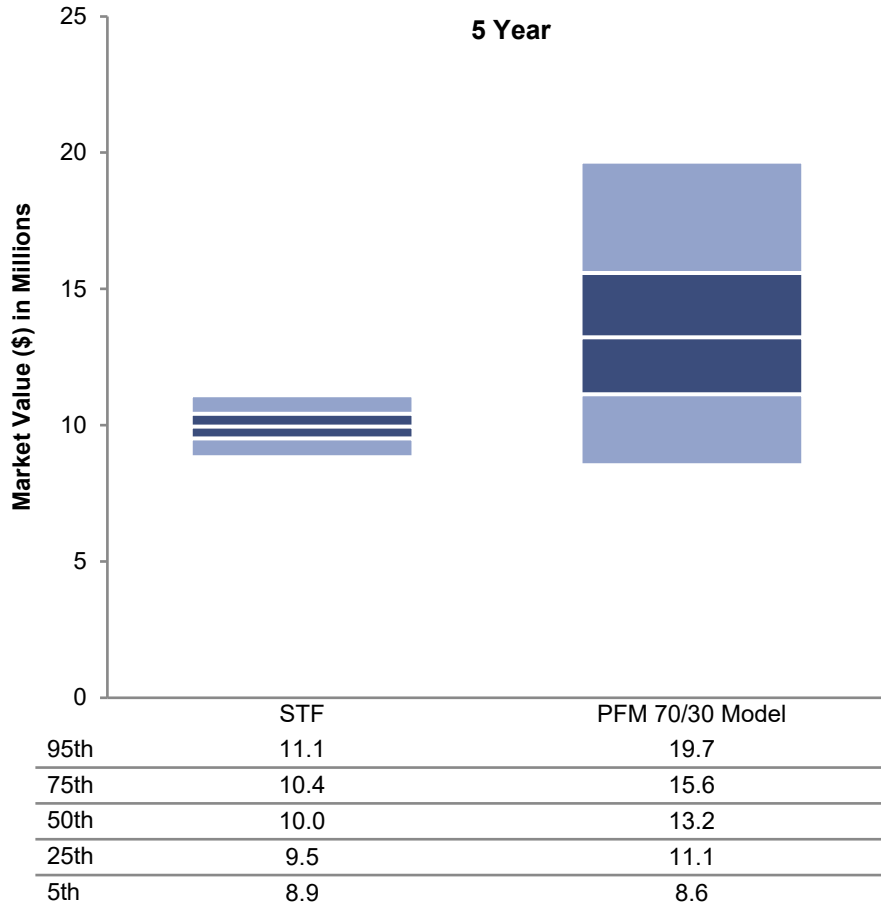
# What to Expect for Returns

Based on PFMAM's Capital Market Assumptions



# Projected Growth of \$10 million

Based on PFMAM's Capital Market Assumptions



Note: Assumes beginning assets of \$10M and no annual cash flows.

# How It Works for SANDAG

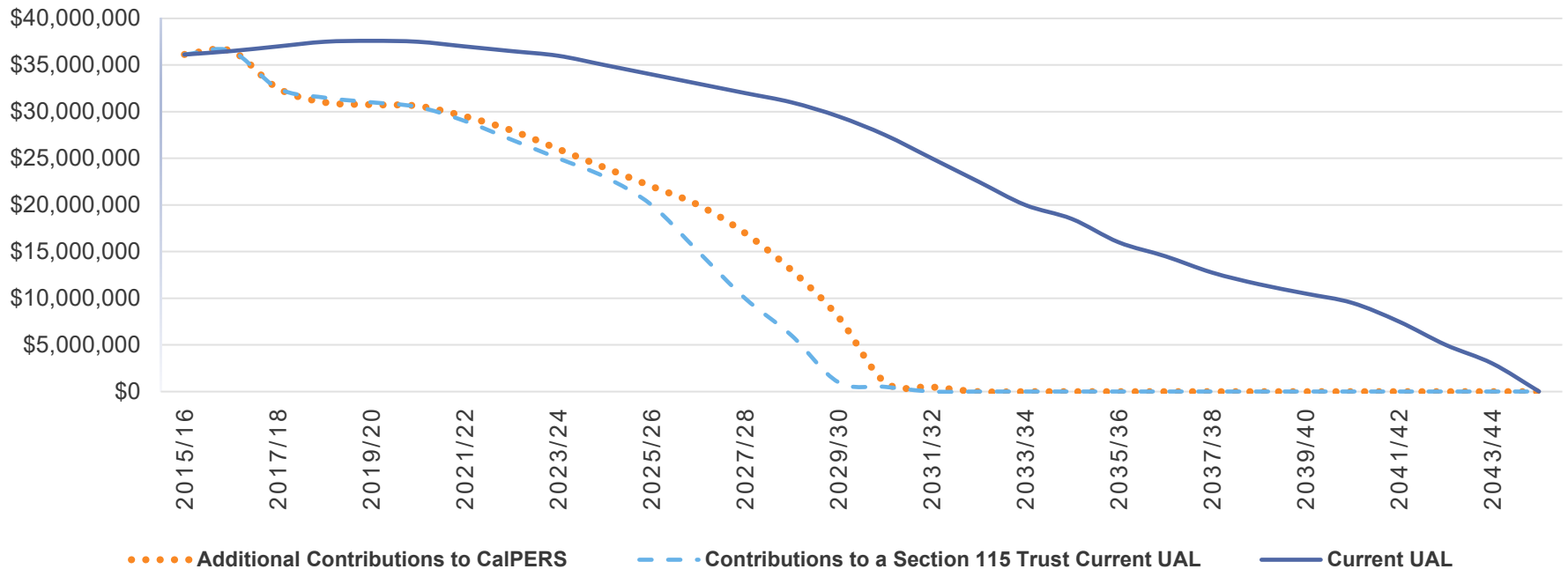


# Pension Pre-Funding Trust Idea Presented to Board of Directors FY 2017

## Options for Reducing the CalPERS Pension Unfunded Accrued Liability

An actuarial analysis of options for reducing the current Unfunded Accrued Liability (UAL) associated with CalPERS pension benefits was conducted. Two alternatives were reviewed: (1) making additional, discretionary contributions to CalPERS; and (2) directing funds to a Section 115 irrevocable trust. The charts below illustrate the impact of the two alternatives on the pay-down of the UAL; the table on the following page presents the total annual contribution needed to fund each alternative. The analysis assumes there are no additional experience gains or losses over the next 30 years.

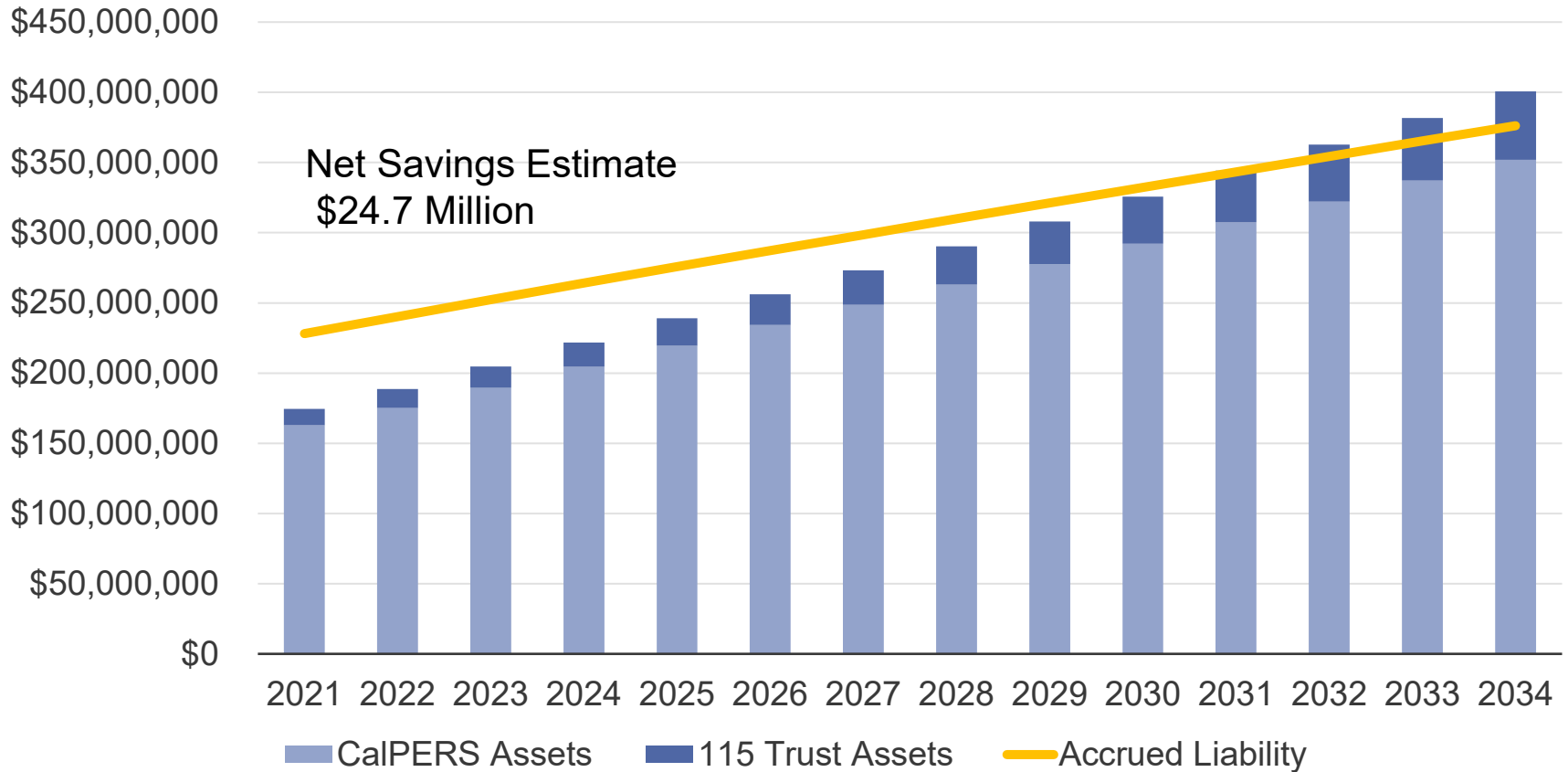
**Projected Pay-Down Period for the Current Unfunded Accrued Liability (UAL)**



A total contribution of \$3.5 million was recommended for FY 2017; future contributions were projected to be \$1 million per year; all contributions are subject to Board approval.

# Pension Pre-Funding Trust Update Presented to Board of Directors FY 2022

## CalPERS Pension Plan: Funded Status

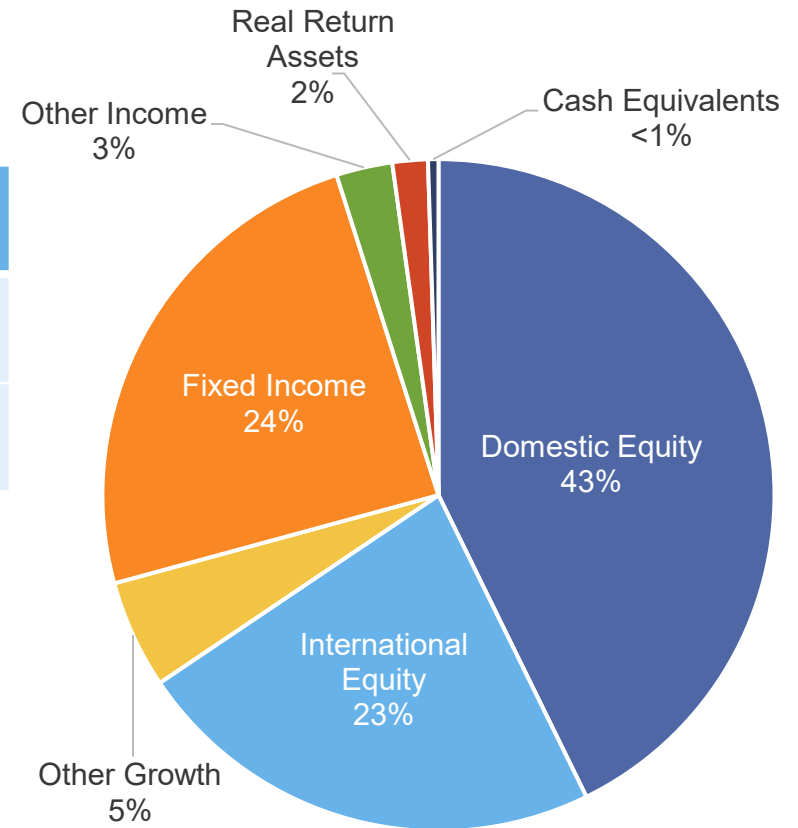


Assumes CalPERS earns its estimated rate of return of 6.8% annually and the Pension Pre-funding Trust earns 7% annually.

# SANDAG Pension Trust Performance

	4Q <sup>1</sup>	Year To Date <sup>1</sup>	Since Inception <sup>1</sup>
<b>SANDAG Performance</b>	<b>5.2%</b>	<b>13.5%</b>	<b>11.2%</b>
<i>Benchmark Performance<sup>2</sup></i>	<i>4.3%</i>	<i>11.6%</i>	<i>10.1%</i>

## SANDAG Portfolio Asset Allocation



1. SANDAG Pension Trust 4Q2021, Year to Date, and Since Inception, July 1, 2017, performance is a preliminary calculation as of 12/31/2021.
2. Customized benchmark makeup: 42% Russell 3000 Index, 23% MSCI AC World ex USA (Net), 35% Bloomberg Barclay's Aggregate Index.

# Benefits of Funding Your Pension Liability

**Stabilize  
Budgetary Impact**



**Improve Stewardship  
of Your Public Funds**



**Increase  
Funded Status**



**Key benefit:  
fulfill your fiduciary  
responsibility**





**Thank you!**

# Appendix



# 2022 Capital Market Assumptions

	Intermediate: Next 5 Years		Long-Term Projections	
	Expected Return	Expected Risk	Expected Return	Expected Risk
<b>U.S. Equity</b>	7.2%	16%	7.6%	16%
<b>U.S. Small-Cap</b>	8.8%	19%	8.0%	19%
<b>Int'l Developed Equity</b>	7.5%	17%	7.3%	17%
<b>EM Equity</b>	7.5%	20%	7.7%	20%
<b>Non-U.S. Small-Cap</b>	8.1%	20%	7.6%	20%
<b>Short-Term Bonds</b>	-0.1%	3%	3.0%	3%
<b>Core Bonds</b>	-0.9%	5%	3.9%	5%
<b>Global Core</b>	-1.8%	5%	3.2%	5%
<b>Int. IG Corp</b>	0.1%	7%	3.9%	7%
<b>Long IG Corp</b>	-4.2%	8%	4.4%	8%
<b>EM Debt</b>	2.5%	10%	4.9%	10%
<b>High Yield</b>	2.4%	9%	5.0%	9%
<b>Bank Loans</b>	4.2%	6%	4.7%	6%
<b>Private Debt</b>	6.7%	13%	6.8%	13%
<b>REITs</b>	6.3%	12%	6.6%	12%
<b>Private Real Estate</b>	7.0%	15%	7.9%	15%
<b>Infrastructure</b>	7.1%	18%	8.0%	18%
<b>Commodities</b>	2.8%	16%	4.2%	16%
<b>Hedge Funds</b>	5.8%	15%	6.3%	15%
<b>Private Equity</b>	10.1%	25%	9.2%	25%
<b>Cash</b>	0.8%	1%	2.2%	1%

For the intermediate term (up to 5 years), our capital market assumptions derive from our assessment of current economic conditions, including corporate profits, balance sheets, etc., and current valuations for various asset classes. Our long-term assumptions are derived using an economic building block approach that projects economic and corporate profit growth and takes into consideration the fundamental factors driving long-term real economic growth, our expectation for inflation, productivity and labor force growth.

# 2022 Capital Market Assumptions, Correlations

	U.S. Equity	U.S. Small-Cap	Int'l Developed Equity	EM Equity	Non-US Small-Cap	Short Bonds	Core Bonds	Global Core	Int. IG Corp	Long IG Corp	EM Debt	High Yield	Bank Loans	Private Debt	REITs	Private Real Estate	Infrastructure	Commodities	Hedge Funds	Private Equity	Cash	
U.S. Equity	1																					
U.S. Small-Cap	0.9	1																				
Int'l Developed Equity	0.8	0.8	1																			
EM Equity	0.7	0.7	0.7	1																		
Non-U.S. Small-Cap	0.8	0.8	0.9	0.8	1																	
Short Bonds	0.2	0.2	0.1	0.1	0.1	1																
Core Bonds	0.3	0.3	0.2	0.2	0.2	0.5	1															
Global Core	0.2	0.2	0.2	0.2	0.2	0.4	0.4	1														
Int. IG Corp	0.3	0.3	0.2	0.2	0.2	0.7	0.9	0.9	1													
Long IG Corp	0.3	0.3	0.2	0.2	0.2	0.7	0.9	0.9	0.9	1												
EM Debt	0.5	0.5	0.5	0.5	0.5	0.3	0.4	0.4	0.4	0.4	1											
High Yield	0.7	0.7	0.5	0.5	0.5	0.3	0.4	0.4	0.4	0.4	0.4	1										
Bank Loans	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.7	0.7	1									
REITs	0.6	0.6	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.8	0.7	1								
Private Real Estate	0.5	0.5	0.4	0.4	0.4	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	1							
Infrastructure	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.4	0.2	0.4	0.8	1						
Commodities	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.3	0.4	0.5	1					
Hedge Funds	0.1	0.1	0.1	0.2	0.1	0.4	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	1				
Private Equity	0.6	0.6	0.5	0.5	0.5	0.3	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.2	1			
Private Debt	0.7	0.7	0.6	0.6	0.6	0.2	0.3	0.3	0.3	0.3	0.3	0.5	0.2	0.5	0.4	0.4	0.4	0.1	0.5	1		
Cash	0.1	0.1	0.1	0.1	0.1	0.5	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1

Please refer to PFAM's 2022 Capital Market Assumptions for a complete description of the methodology used to develop these assumptions and important disclosures. Our Capital Market Assumptions are available upon request.

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