

Chief Investment Officer Monthly Report

Board of Investments

July 14, 2021



Jonathan Grabel 
Chief Investment Officer

LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION

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Market Environment

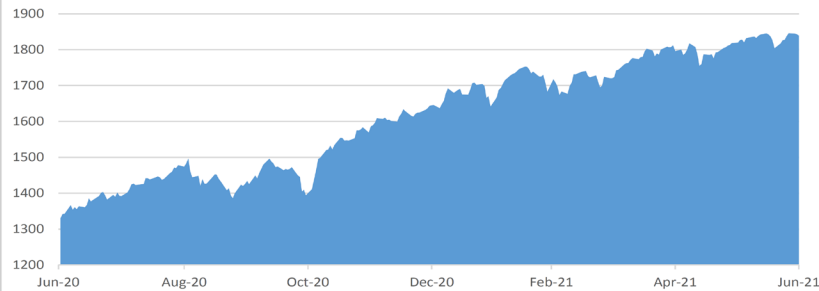


Global Market Performance as of June 30, 2021

MSCI ACWI Index (Global Equity Market)*

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
1.2	7.2	12.7	40.9	14.2	14.5	9.9

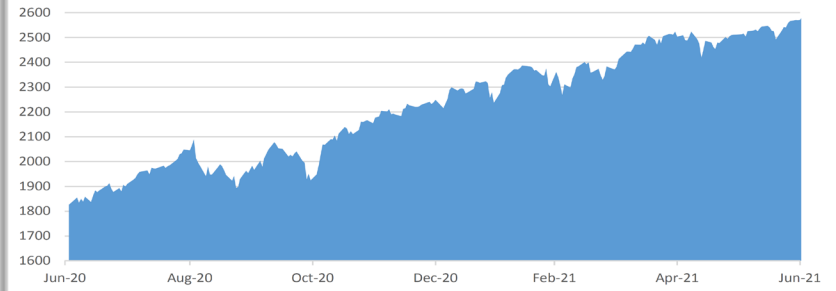
MSCI ACWI IMI Index 1-Year Performance



Russell 3000 Index (U.S. Equity Market)

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
2.5	8.2	15.1	44.2	18.7	17.9	14.7

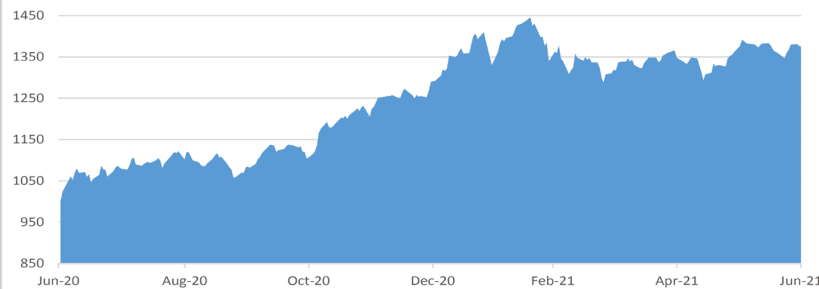
Russell 3000 1-Year Performance



MSCI Emerging Market Index

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
0.2	5.0	7.4	40.9	11.3	13.0	4.3

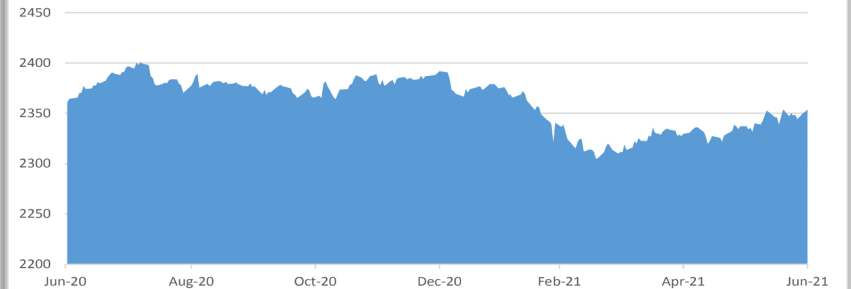
MSCI Emerging Markets 1-Year Performance



Barclays U.S. Aggregate Bond Index**

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
0.7	1.8	-1.6	-0.3	5.3	3.0	3.4

Barclays U.S. Aggregate Bond Index 1-Year Performance



*Global Equity Policy Benchmark - MSCI ACWI IMI Index

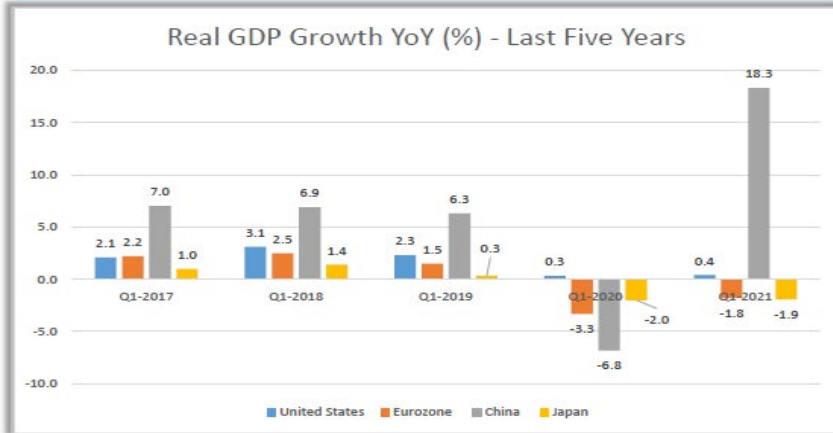
**Investment Grade Bonds Policy Benchmark - Barclays U.S. Aggregate Bond Index

Source: Bloomberg

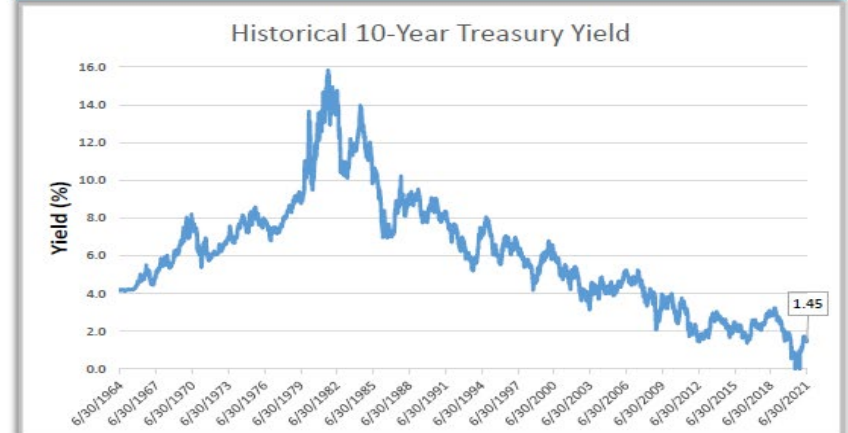


Key Macro Indicators*

GDP Growth of Major Economies¹



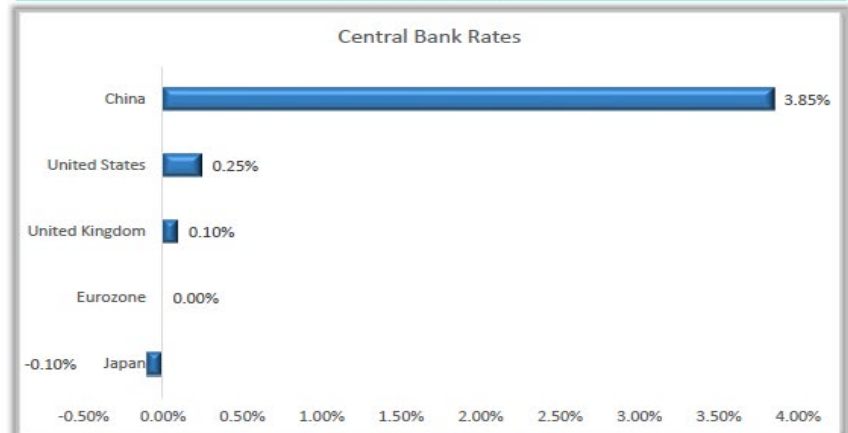
Historical Low for 10-Year Treasury Yield²



World Equity Valuation³



Central Bank Rates⁴ (as of 6/30/2021)



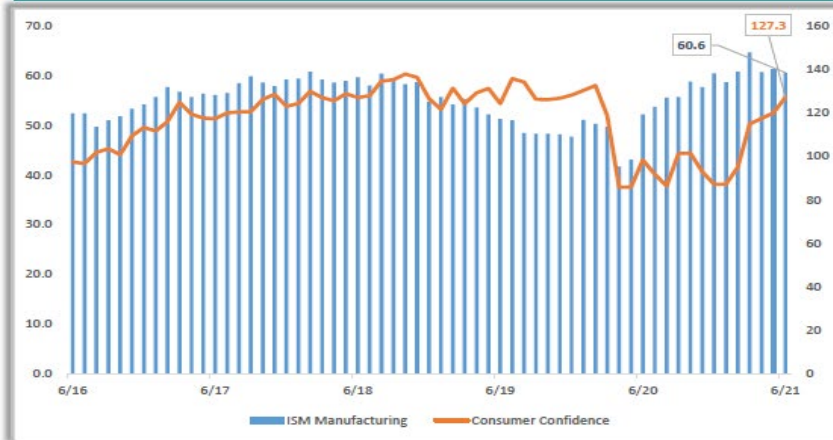
Sources: 1. Bloomberg 3. FactSet
2. St. Louis Federal Reserve 4. FactSet

*The information on the "Key Macro Indicators" charts is the best available data as of 6/30/21 and may not reflect the current market and economic environment.



Key Macro Indicators*

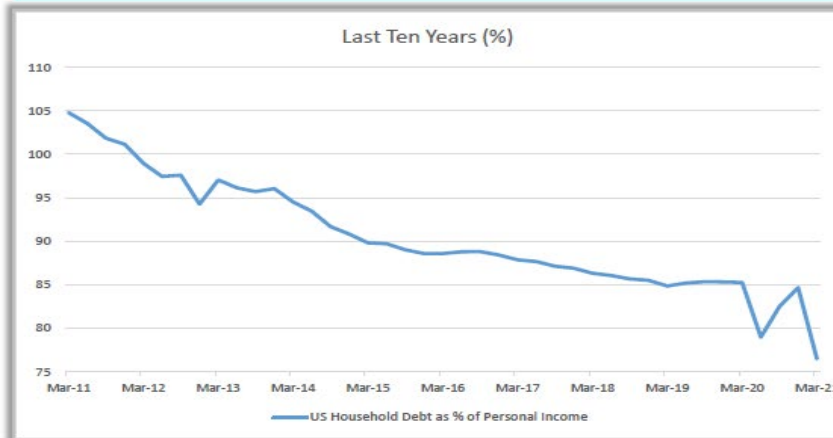
Consumer Confidence & ISM Manufacturing¹



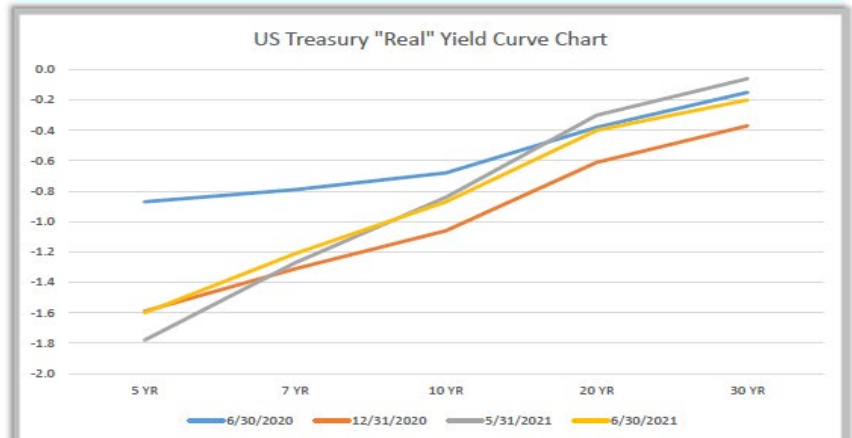
U.S. Inflation, Unemployment, & Labor Force Participation²



U.S. Household Debt as % of Personal Income³



U.S. Treasury "Real" Yield Curve⁴



Sources: 1. Bloomberg 3. Bloomberg
2. Bloomberg 4. U.S. Treasury

*The information on the "Key Macro Indicators" charts is the best available data as of 6/30/21 and may not reflect the current market and economic environment.



Market Themes and Notable Items to Watch

Recent Themes

- COVID-19
 - More than 182 million cases, 3.9 million deaths, and 3 billion vaccines administered worldwide
 - Emergence and spread of coronavirus variants
 - Over 46.9% of U.S. population has been fully vaccinated against the coronavirus
- The U.S. 10-year treasury yield ended June at 1.45%, up from 0.93% at the end of 2020
- Global equities set new highs in June
- The U.S. Federal Reserve (“Fed”) expects strong job creation going into the fall and increased its inflation forecast for 2021 to 3.4% from 2.4%
- The Fed now expects real gross domestic product to grow 7.0% in 2021, compared to a 6.5% forecast from its March meeting

What to Watch

- COVID-19
 - Economic and consumer behavior impacts as vaccination rates increase
- Global GDP growth rate
- Social equity and civil rights initiatives
- Unemployment and consumer spending
- Potential government infrastructure spending
- Inflation pressures and trends
- Geopolitical risks and trade arrangements
- Yield curve and credit spreads
- Central bank activity



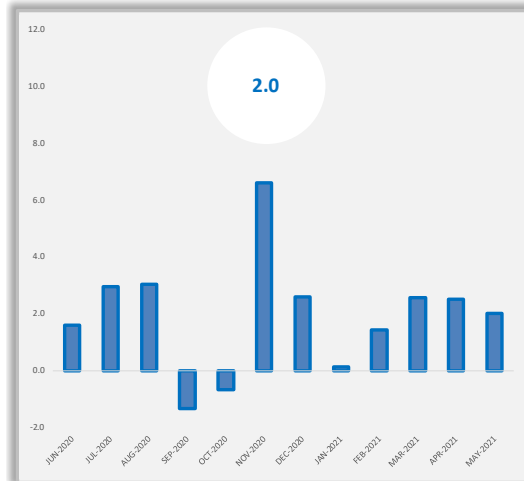
Portfolio Performance & Risk Updates



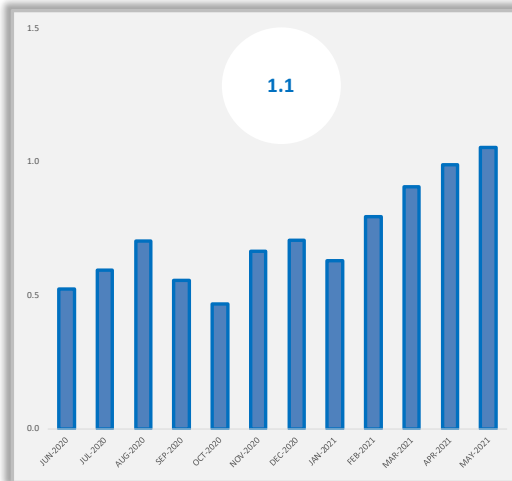
Total Fund Summary

as of May 2021

Monthly Return (% net)



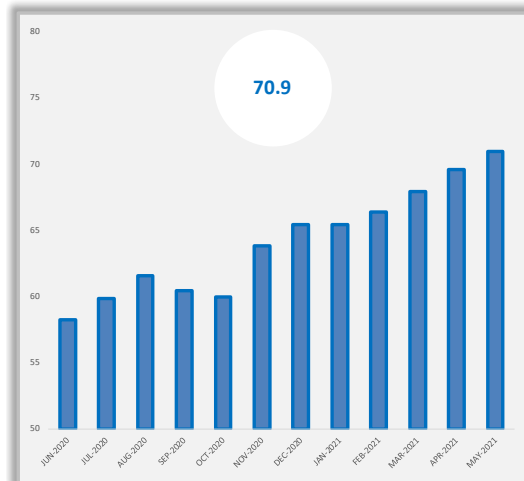
Sharpe Ratio (3-Year Annualized)



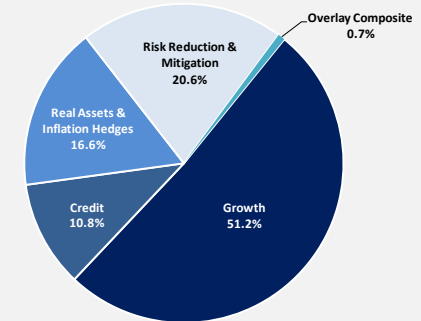
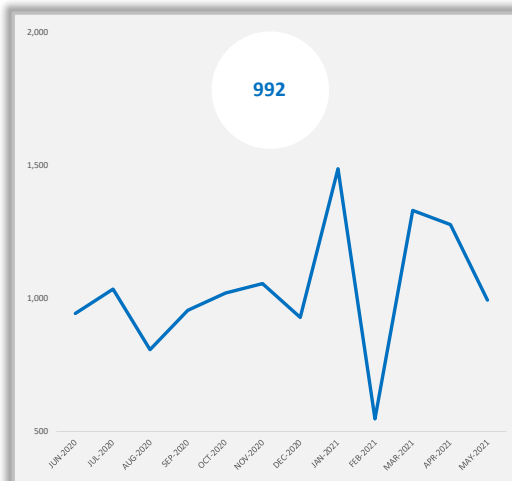
Asset Allocation

	Market Value ¹ (\$ millions)	% of Total	Final Target ²
TOTAL FUND	70,940	100.0%	
Growth	36,328	51.2%	47.0%
Global Equity	26,071	36.8%	35.0%
Private Equity ³	9,632	13.6%	10.0%
Opportunistic Real Estate ⁴	626	0.9%	2.0%
Credit	7,662	10.8%	12.0%
High Yield	2,218	3.1%	3.0%
Bank Loans	2,625	3.7%	4.0%
Emerging Market Debt	889	1.3%	2.0%
Illiquid Credit ^{3,4,5}	1,930	2.7%	3.0%
Real Assets & Inflation Hedges	11,798	16.6%	17.0%
Core & Value Added Real Estate ⁴	4,584	6.5%	7.0%
Natural Resources & Commodities	3,112	4.4%	4.0%
Infrastructure	2,087	2.9%	3.0%
Treasury Inflation-Protected Securities	2,014	2.8%	3.0%
Risk Reduction & Mitigation	14,642	20.6%	24.0%
Investment Grade Bonds	11,231	15.8%	19.0%
Diversified Hedge Fund Portfolio ⁵	2,420	3.4%	4.0%
Cash	992	1.4%	1.0%
Overlay Composite ⁶	511	0.7%	—

Total Market Value (\$ billions)



Cash (\$ millions)



1. Transition balances are included in each subcategory total, if applicable
 2. Final target weights effective as of 10/1/19
 3. Private Equity market values reflect latest available and are adjusted for cash flows

4. Real Estate market values reflect latest available and are adjusted for cash flows
 5. Hedge Fund market values reflect a 1-month lag
 6. Reflects net cash position for overlay investing

Historical Net Performance

as of May 2021

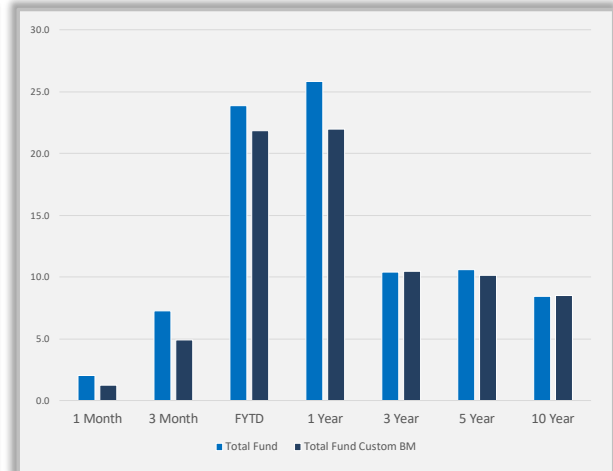
LACERA Pension Fund

(% net)

	Market Value (\$ millions)	% of Total Fund	Final Target ¹	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	10 Year
TOTAL FUND	70,940	100.0%	100.0%	2.0	7.3	23.9	25.8	10.4	10.6	8.4
<i>Total Fund Custom BM</i>				<i>1.3</i>	<i>4.9</i>	<i>21.9</i>	<i>22.0</i>	<i>10.5</i>	<i>10.2</i>	<i>8.5</i>
<i>7% Annual Hurdle Rate</i>				<i>0.57</i>	<i>1.71</i>	<i>6.40</i>	<i>7.00</i>	<i>7.00</i>	<i>7.00</i>	<i>7.00</i>
Functional Composites²				1 Month	3 Month	FYTD	1 Year			
GROWTH	36,328	51.2%	47.0%	3.0	11.9	40.4	43.7			
<i>Growth Custom BM</i>				<i>1.7</i>	<i>8.3</i>	<i>41.4</i>	<i>40.5</i>			
CREDIT	7,662	10.8%	12.0%	1.0	3.2	16.9	19.5			
<i>Credit Custom BM</i>				<i>0.7</i>	<i>0.7</i>	<i>8.7</i>	<i>10.1</i>			
REAL ASSETS & INFLATION HEDGES	11,798	16.6%	17.0%	2.0	6.2	15.4	15.3			
<i>Real Assets & Inflation Hedges Custom BM</i>				<i>1.7</i>	<i>5.8</i>	<i>15.1</i>	<i>15.9</i>			
RISK REDUCTION & MITIGATION	14,642	20.6%	24.0%	0.3	0.4	1.9	2.8			
<i>Risk Reduction & Mitigation Custom BM</i>				<i>0.3</i>	<i>0.0</i>	<i>-0.4</i>	<i>0.1</i>			
OVERLAY COMPOSITE	511	0.7%	—							

Historical Returns

(% net)



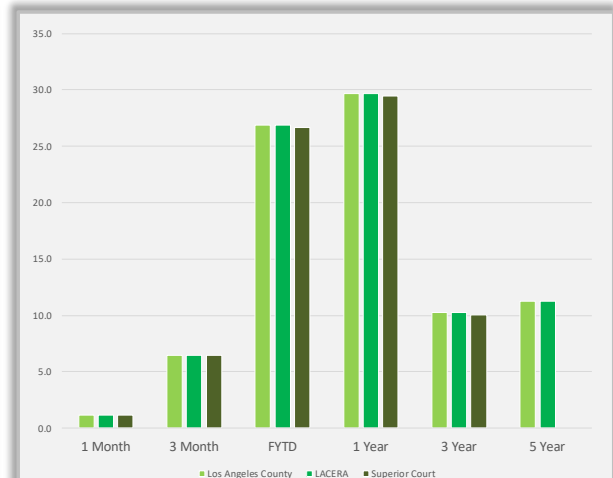
OPEB Master Trust Fund

(% net)

Sub-Trusts	Market Value (\$ millions) ³	Trust Ownership %	Final Target	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year
TOTAL OPEB MASTER TRUST	2,153								
Los Angeles County	2,087	96.9%	—	1.2	6.5	26.9	29.7	10.3	11.2
LACERA	8	0.4%	—	1.2	6.5	26.9	29.7	10.3	11.3
Superior Court	58	2.7%	—	1.2	6.4	26.7	29.5	10.1	—
Functional Composites				1 Month	3 Month	FYTD	1 Year	3 Year	
OPEB Growth	1,085	50.4%	50.0%	1.5	8.6	39.4	43.9	13.8	
<i>Custom OPEB MT Growth Pool</i>				<i>1.5</i>	<i>8.6</i>	<i>39.3</i>	<i>43.7</i>	<i>13.6</i>	
OPEB Credit	419	19.5%	20.0%	0.8	1.2	10.3	11.0	—	
<i>Custom OPEB MT Credit Pool</i>				<i>0.9</i>	<i>1.3</i>	<i>11.4</i>	<i>12.5</i>	<i>—</i>	
OPEB Real Assets & Inflation Hedges	439	20.4%	20.0%	1.4	9.6	28.1	30.3	—	
<i>Custom OPEB MT RA & IH Pool</i>				<i>1.4</i>	<i>9.6</i>	<i>28.2</i>	<i>30.4</i>	<i>—</i>	
OPEB Risk Reduction & Mitigation	208	9.7%	10.0%	0.3	-0.1	-0.8	-0.3	4.6	
<i>Custom OPEB MT RR & M Pool</i>				<i>0.3</i>	<i>-0.1</i>	<i>-0.8</i>	<i>-0.3</i>	<i>4.4</i>	

Historical Returns

(% net)



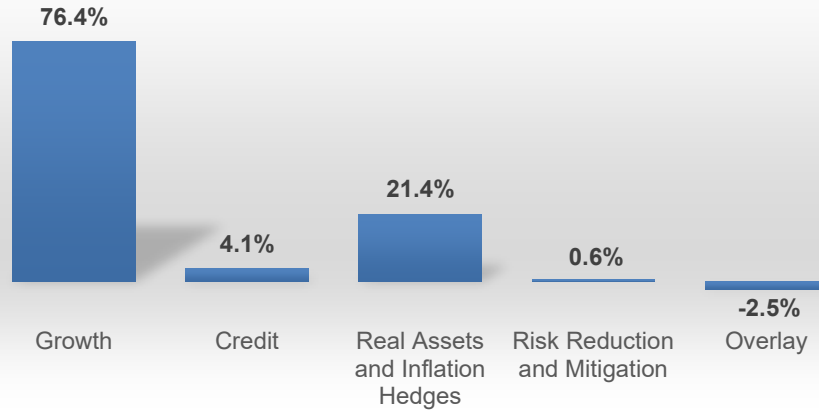
1. Final target weights effective as of 10/1/19
2. Functional composites were adopted on 4/1/19

3. Market value differences between the sub-trusts and functional composites are due to operational cash

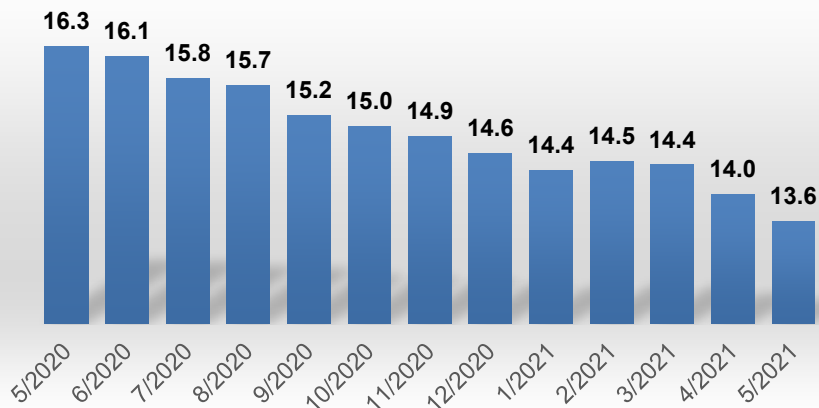
Total Fund Forecast Risk*

as of May 2021

%Contribution to Total Risk



Total Risk Trend



	%Weight	% Cont. to Total Risk	Standalone Total Risk	Standalone BMK Risk**
Total Fund			13.6	14.1
Growth	50.9%	76.4%	20.7	20.4
Global Equity	36.8%	52.8%	20.1	20.2
Private Equity	13.2%	22.3%	27.0	27.4
Opportunistic Real Estate	0.9%	1.3%	27.3	20.6
Credit	10.8%	4.1%	5.9	4.9
High Yield Bonds	3.1%	1.3%	7.0	5.9
Bank Loans	3.7%	1.0%	5.5	6.8
Illiquid Credit	2.8%	1.2%	7.7	3.6
Emerging Market Debt	1.3%	0.6%	9.8	9.0
Real Assets & Inflation Hedges	16.9%	21.4%	19.2	29.7
Core & VA Real Estate	6.5%	11.7%	33.4	20.6
Natural Resources & Commodities	4.6%	5.0%	17.7	97.8
Infrastructure	2.9%	4.3%	21.6	21.5
TIPS	2.8%	0.4%	4.8	4.8
Risk Reduction and Mitigation	20.7%	0.6%	3.1	2.9
Investment Grade Bonds	15.8%	0.3%	3.8	3.6
Diversified Hedge Funds	3.4%	0.3%	4.7	0.2
Cash	1.4%	0.0%	0.0	0.2
Overlay	0.8%	-2.5%	-	-

*Implementation of the MSCI Risk Platform is ongoing; reconciliation and refinement of the data is progressing and subject to change. Real estate and private equity data used is as of 12/31/2020

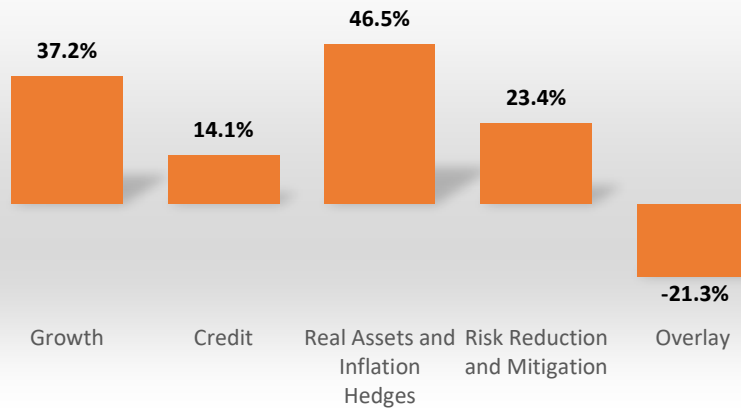
**BMK Risk stands for Benchmark Risk



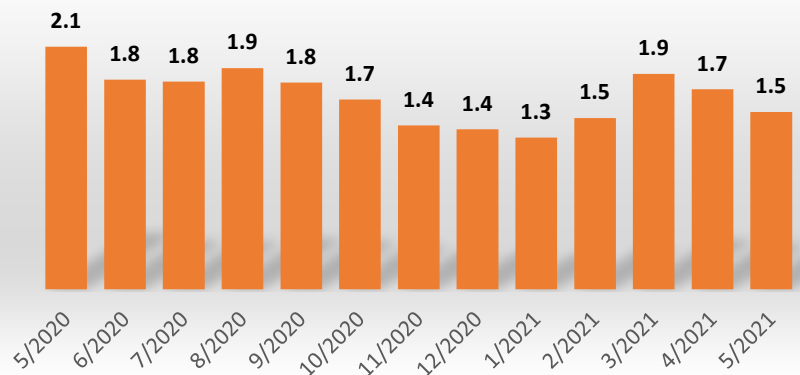
Total Fund Forecast Active Risk*

as of May 2021

%Contribution to Active Risk



Active Risk Trend



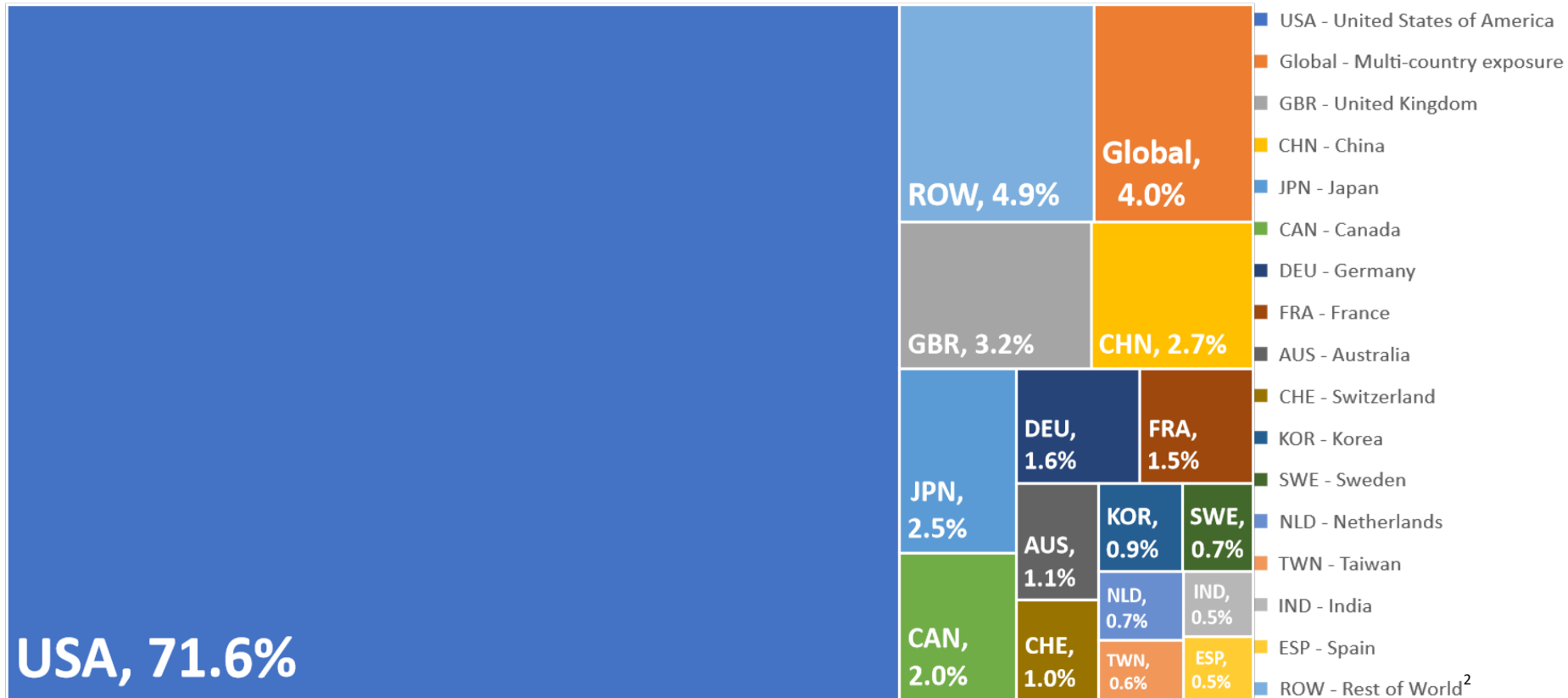
	%Weight	Active Weight%	Active Risk	Active Risk Allocation	Active Risk Selection
Total Fund			1.54	0.33	1.21
Growth	50.9%	3.88%	0.57	0.25	0.32
Global Equity	36.8%				
Private Equity	13.2%				
Opportunistic Real Estate	0.9%				
Credit	10.8%	-1.20%	0.22	0.08	0.13
High Yield Bonds	3.1%				
Bank Loans	3.7%				
Illiquid Credit	2.8%				
Emerging Market Debt	1.3%				
Real Assets & Inflation Hedges	16.9%	-0.12%	0.72	0.00	0.72
Core & VA Real Estate	6.5%				
Natural Resources & Commodities	4.6%				
Infrastructure	2.9%				
TIPS	2.8%				
Risk Reduction and Mitigation	20.7%	-3.34%	0.36	0.32	0.04
Investment Grade Bonds	15.8%				
Diversified Hedge Funds	3.4%				
Cash	1.4%				
Overlay	0.8%	0.78%	-0.33	-0.33	0.00

*Implementation of the MSCI Risk Platform is ongoing; reconciliation and refinement of the data is progressing and subject to change. Real estate and private equity data used is as of 12/31/2020



Geographic Exposures by AUM* - Total Fund

as of May 2021 ex-overlay



*AUM = assets under management

¹ *Implementation of the MSCI Risk Platform is ongoing; reconciliation and refinement of the data is progressing and subject to change. Real estate and private equity data used is as of 12/31/2020

² "ROW - Rest of World" is sum of countries with weight below 0.5%

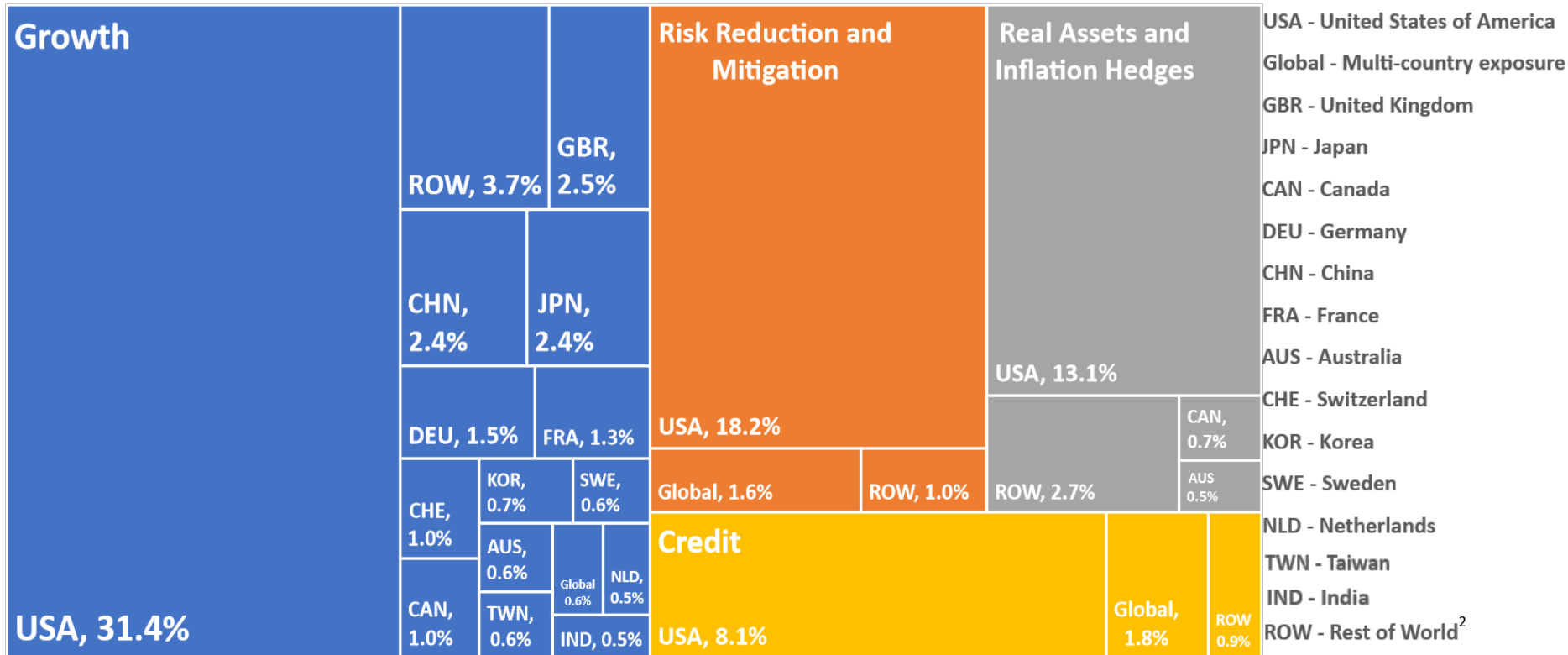
³ Geographic exposure is based on the domicile country of a given security/asset



Geographic Exposures by AUM* - Asset Categories

as of May 2021 ex-overlay

■ Growth ■ Risk Reduction and Mitigation ■ Real Assets and Inflation Hedges ■ Credit



USA - United States of America
 Global - Multi-country exposure
 GBR - United Kingdom
 JPN - Japan
 CAN - Canada
 DEU - Germany
 CHN - China
 FRA - France
 AUS - Australia
 CHE - Switzerland
 KOR - Korea
 SWE - Sweden
 NLD - Netherlands
 TWN - Taiwan
 IND - India
 ROW - Rest of World²

*AUM = assets under management

¹ *Implementation of the MSCI Risk Platform is ongoing; reconciliation and refinement of the data is progressing and subject to change. Real estate and private equity data used is as of 12/31/2020

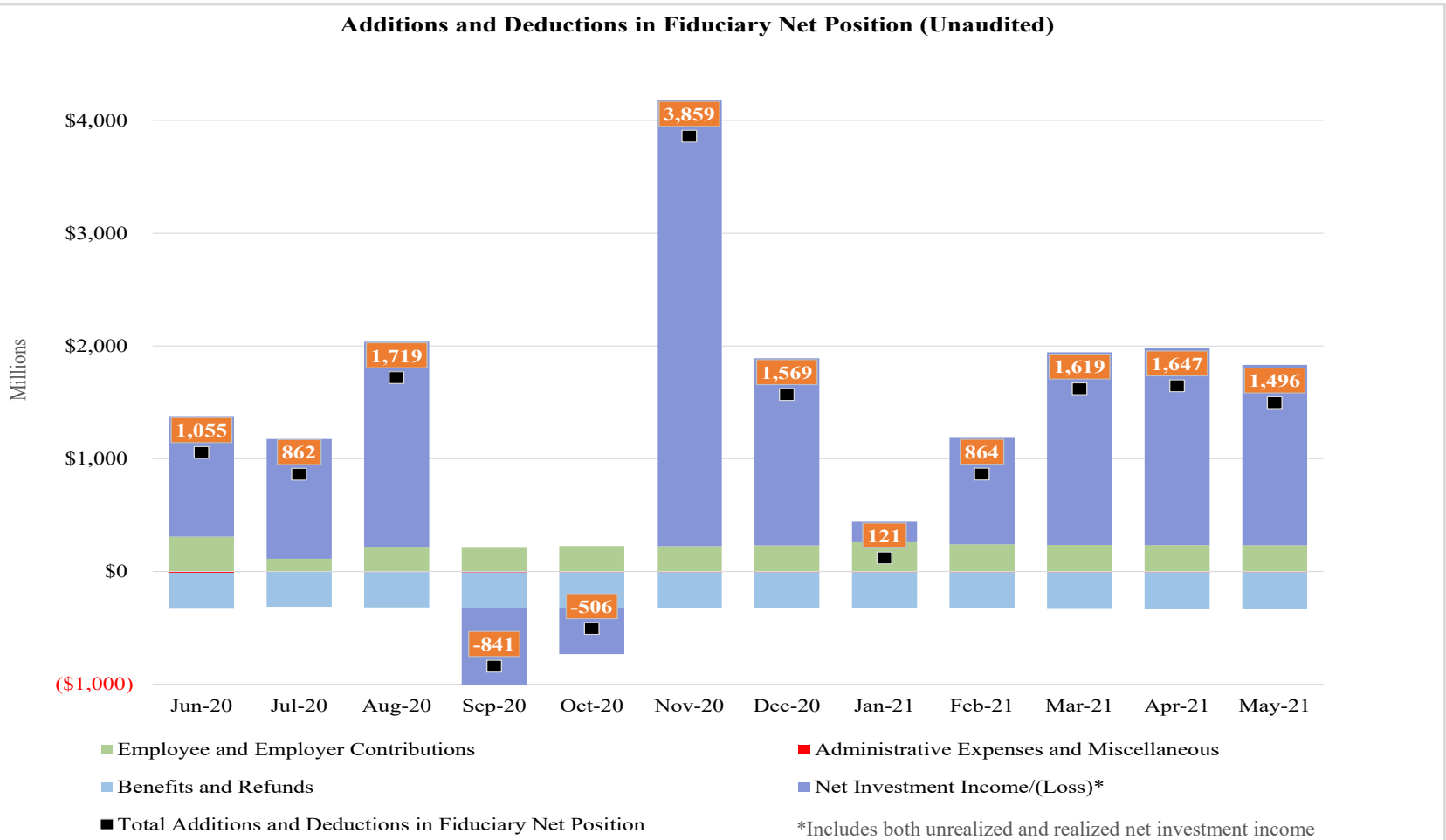
² "ROW - Rest of World" is sum of countries with weight below 0.5%

³ Geographic exposure is based on the domicile country of a given security/asset



Change In Fiduciary Net Position

Additions and Deductions in Fiduciary Net Position (Unaudited)



Fiscal Year	Negative Months	Positive Months	Total Net Position Change \$
FY-19	4	8	\$1.9 billion
FY-20	5	7	-
FY-21	2	9	\$12.4 billion



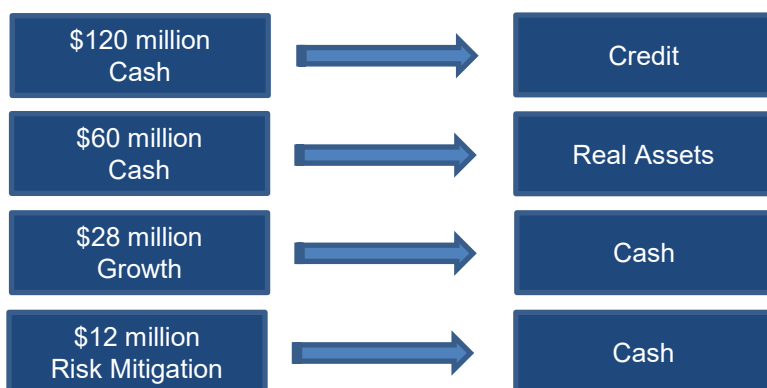
Portfolio Structural Updates



Portfolio Structural Updates

Portfolio Movements

Rebalancing Activity



Hedges and Overlays

Program	May Return	May Gain/Loss	Inception* Gain/Loss
Currency Hedge**	-0.6%	\$16.2 Million	\$835.6 Million
Cash/Rebalance Overlay***	-0.2%	-\$7.8 Million	-\$64.0 Million

Current Search Activity

Status of Active Searches – Subject to Change

Name	RFP Issued	Due Diligence	BOI Review
Private Equity Advisor Services	●	●	Anticipated Summer 2021
Global Equity Emerging Manager Search	●		Anticipated Late 2021
Private Equity Emerging Manager Discretionary Separate Account Search	●		Anticipated Winter 2022

Quiet Period for Search Respondents

Private Equity Advisor Services

- ✓ Albourne America LLC
- ✓ StepStone Global LLC
- ✓ Wilshire Associates Inc

*Currency and overlay program inception dates are 8/2010 & 7/2019, respectively

** LACERA's currency hedge program's 1-month return is calculated monthly whereas the monthly gain/loss amount for the same period is the net realized dollar amount at contract settlement over three monthly tranches

*** LACERA's overlay program's 1-month return includes interest earned on the cash that supports the futures contracts



Key Initiatives and Operational Updates



Notable Initiatives and Operational Updates

Key Initiative Updates

- Ongoing implementation and development of LACERA TIDE initiative
- New Strategic Asset Allocation implantation is ongoing
- Submitted SEC Comment Letter on Climate Risk Disclosures

Completed Actions

- The real estate administrator onboarding process has been completed
- The new performance system onboarding process has been completed
- The new risk system onboarding process has been completed

Operational Updates

- Completed the Annual Contract Compliance exercise for public markets
- Financial Analyst III search
 - Credit

Manager/Consultant Updates

- BlackRock announced that Howard Levkowitz, a co-founder of Tennenbaum, acquired by BlackRock in 2018, will retire later this year
- State Street Global Advisors announced that Lynn Blake, CIO, Global Equity Beta Solutions (GEBS) will be retiring on September 30, 2021 and that John Tucker, COO Investments, will succeed Ms. Blake as CIO
- State Street Global Advisors announced a new Global Head of ESG and Sustainable Investing, Karen Wong, who started on June 14, 2021

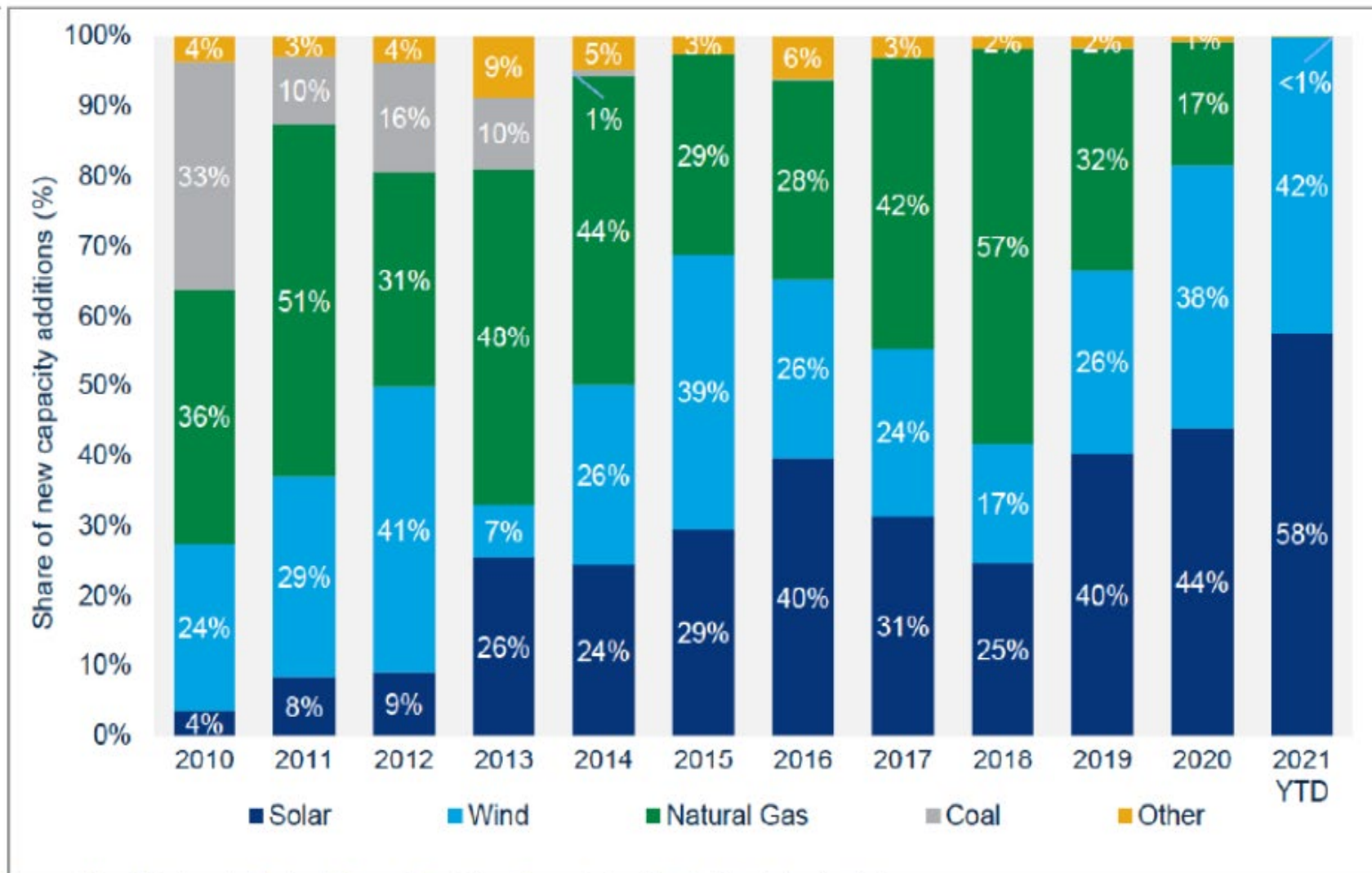


Commentary



Staff Charts of the Month*

New U.S. Electricity-Generating Capacity Additions



Source: Wood Mackenzie, Federal Energy Regulatory Commission (for all other technologies)



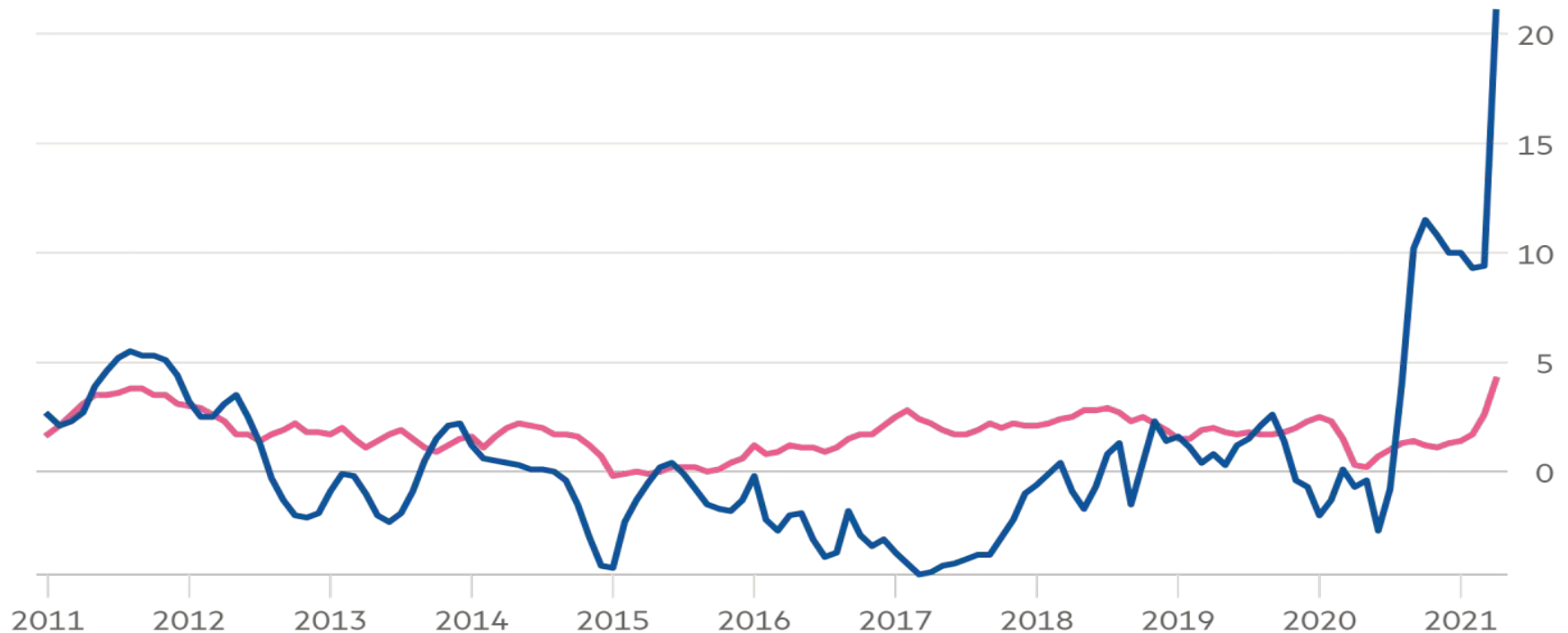
Staff Charts of the Month*

U.S. Car and Truck Prices – Inflationary Pressures

US car and truck prices are adding to inflationary pressures

Consumer price index (annual change, %)

— Used cars and trucks — All items



Seasonally adjusted

Source: US Bureau of Labor Statistics

© FT



Staff Charts of the Month*

U.S. - Federal Reserve Asset Holdings

Shows Fed's asset purchases pre- and post-pandemic

