

Chief Investment Officer Monthly Report

Board of Investments

June 9, 2021



Jonathan Grabel 
Chief Investment Officer

LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION

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Market Environment



Global Market Performance as of May 31, 2021

MSCI ACWI Index (Global Equity Market)*

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
1.5	8.6	11.3	43.7	13.6	14.1	9.6

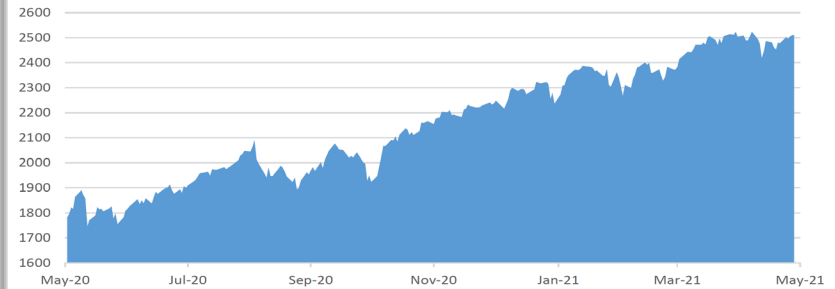
MSCI ACWI IMI Index 1-Year Performance



Russell 3000 Index (U.S. Equity Market)

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
0.5	9.4	12.3	43.9	18.0	17.4	14.2

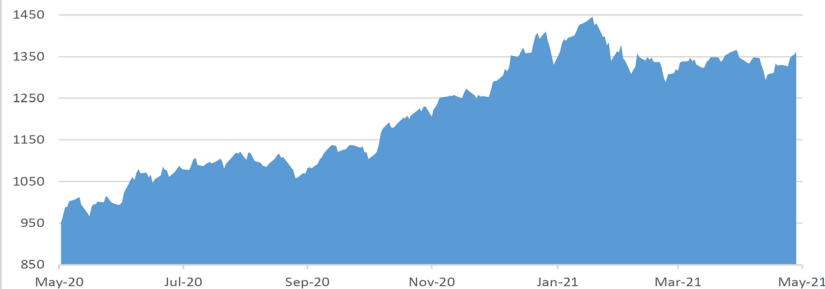
Russell 3000 1-Year Performance



MSCI Emerging Market Index

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
2.3	3.3	7.3	51.0	9.6	13.9	4.1

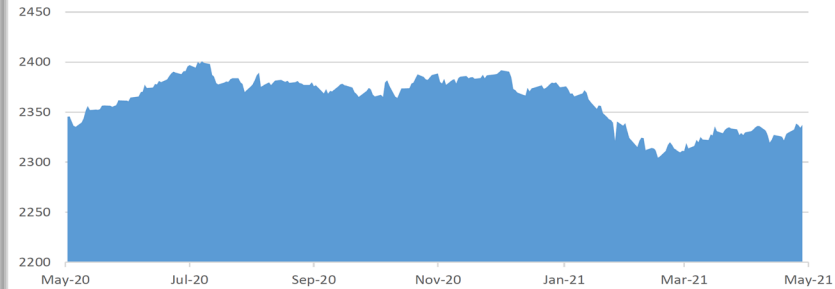
MSCI Emerging Markets 1-Year Performance



Barclays U.S. Aggregate Bond Index**

Trailing Returns (%)			Annualized Returns (%)			
1-month	3-month	YTD	1Y	3Y	5Y	10Y
0.3	-0.1	-2.3	-0.4	5.1	3.2	3.3

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



*Global Equity Policy Benchmark - MSCI ACWI IMI Index

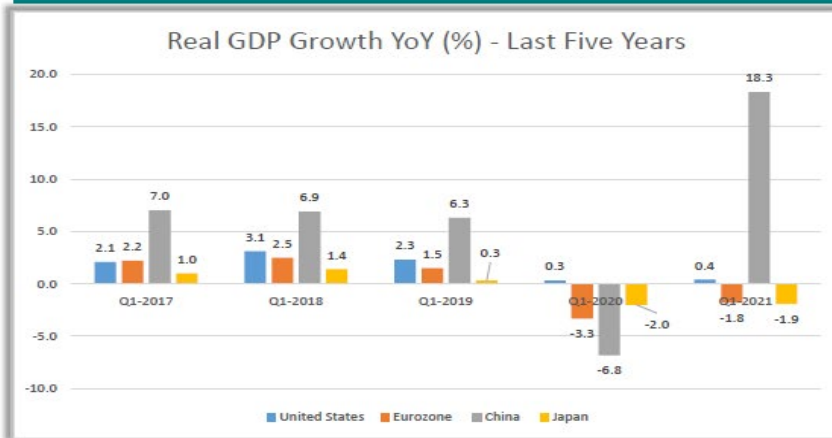
**Investment Grade Bonds Policy Benchmark - Barclays U.S. Aggregate Bond Index

Source: Bloomberg



Key Macro Indicators*

GDP Growth of Major Economies¹



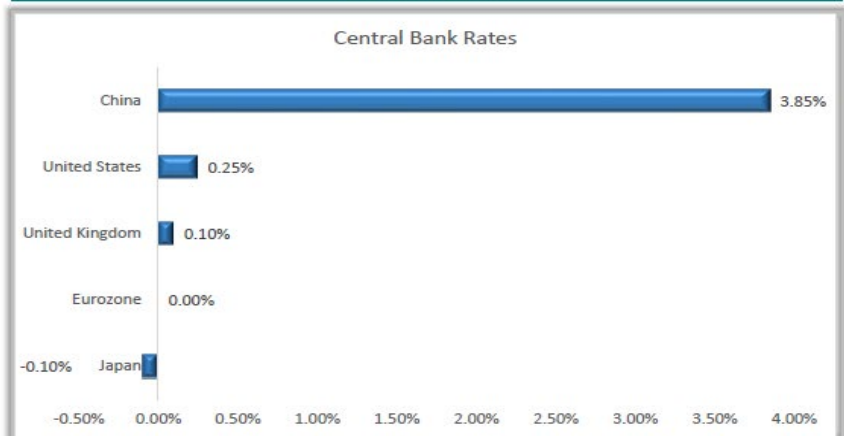
Historical Low for 10-Year Treasury Yield²



World Equity Valuation³



Central Bank Rates⁴ (as of 5/31/2021)



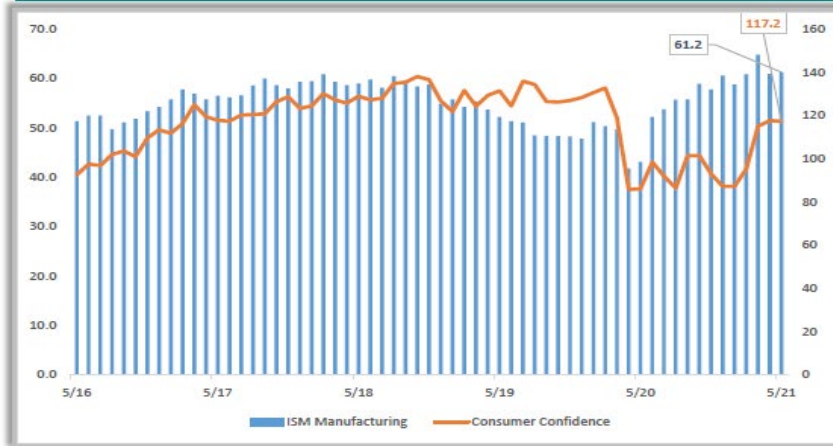
*The information on the "Key Macro Indicators" charts is the best available data as of 5/31/21 and may not reflect the current market and economic environment.

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

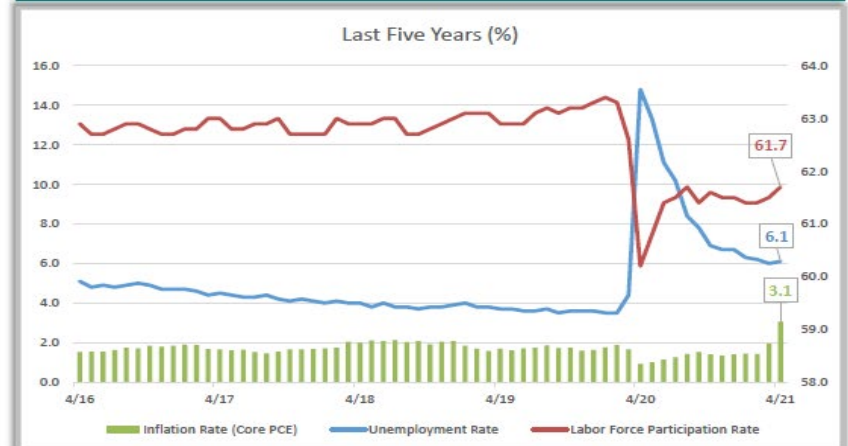


Key Macro Indicators*

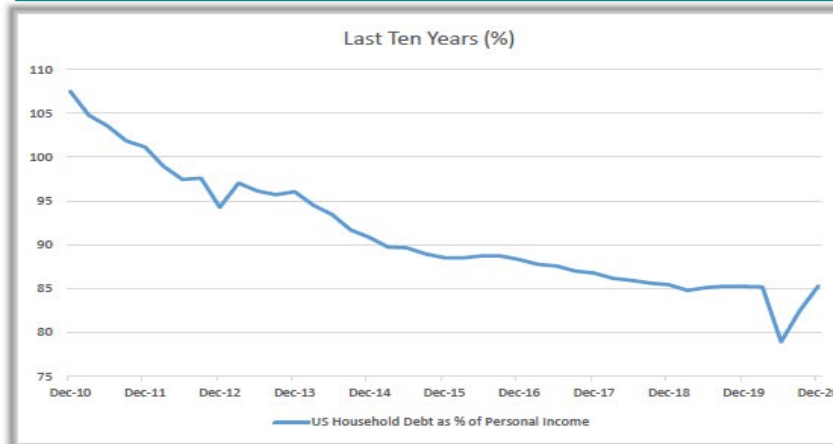
Consumer Confidence & ISM Manufacturing¹



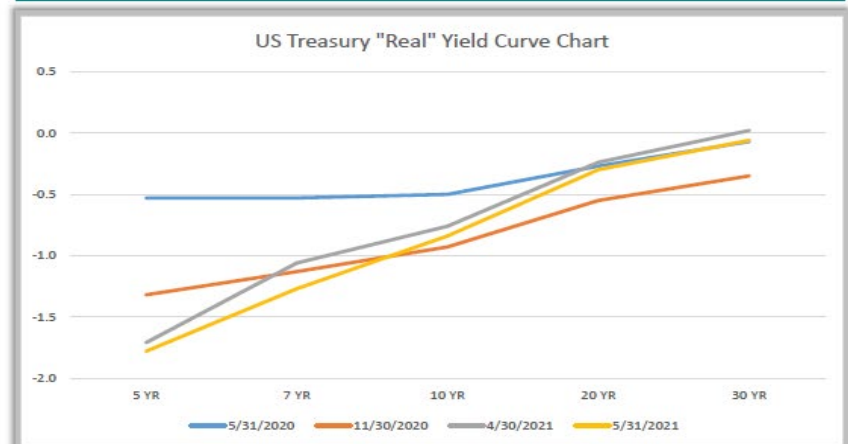
U.S. Inflation, Unemployment, & Labor Force Participation²



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 5/31/21 and may not reflect the current market and economic environment.



Market Themes and Notable Items to Watch

Recent Themes

- COVID-19
 - More than 170 million cases, 3.5 million deaths, and 1.9 billion vaccines administered worldwide
 - Increase in vaccine options and availability
 - Over 51% of U.S. adult population has been fully vaccinated against the coronavirus
- The U.S. 10-year treasury yield ended May at 1.58%, up from 0.93% at the end of 2020
- Global equities up modestly during May, near all-time highs
- Americans filing first-time claims for unemployment insurance continues to fall
 - 406,000 in the last week of May; the lowest reported number since March 14, 2020
- Investors elect dissident directors at ExxonMobil with climate mitigation focus
 - Amidst heightened climate focus at spring shareholder meetings, with investors approving numerous proposals for emission reductions at energy companies

What to Watch

- COVID-19
- Global GDP growth rate
- Social equity and civil rights initiatives
- Unemployment and consumer spending
- Potential government infrastructure spending
- State of liquidity across financial markets
- Inflation pressures and trends
- Geopolitical risks and trade arrangements
- Potential continued rising interest rates
- Economic and consumer behavior impacts as vaccination rates increase
- Central bank activity



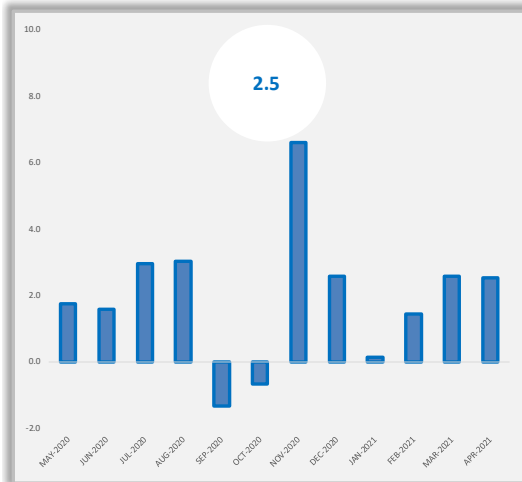
Portfolio Performance & Risk Updates



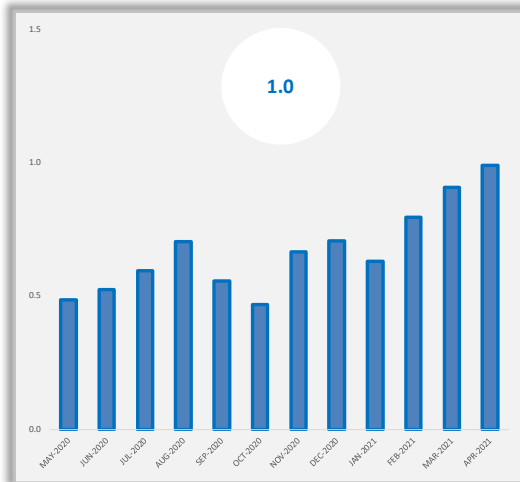
Total Fund Summary

as of April 2021

Monthly Return (% net)



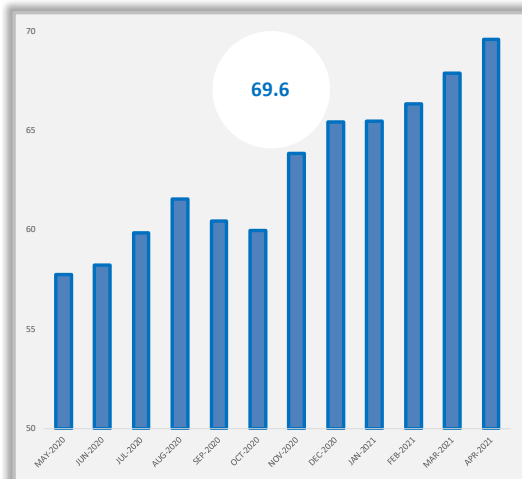
Sharpe Ratio (3-Year Annualized)



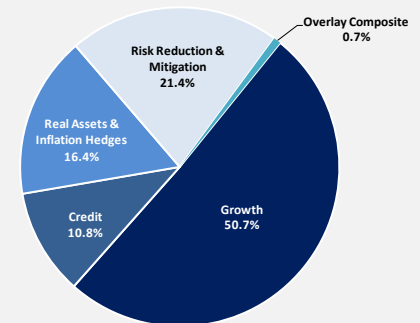
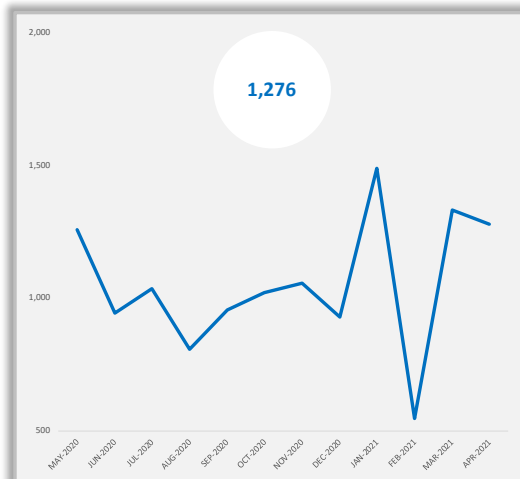
Asset Allocation

	Market Value ¹ (\$ millions)	% of Total	Final Target ²
TOTAL FUND	69,587	100.0%	
Growth	35,288	50.7%	47.0%
Global Equity	25,750	37.0%	35.0%
Private Equity ³	8,922	12.8%	10.0%
Opportunistic Real Estate ⁴	616	0.9%	2.0%
Credit	7,488	10.8%	12.0%
High Yield	2,209	3.2%	3.0%
Bank Loans	2,609	3.7%	4.0%
Emerging Market Debt	875	1.3%	2.0%
Illiquid Credit ^{3,4,5}	1,794	2.6%	3.0%
Real Assets & Inflation Hedges	11,409	16.4%	17.0%
Core & Value Added Real Estate ⁴	4,535	6.5%	7.0%
Natural Resources & Commodities	2,998	4.3%	4.0%
Infrastructure	2,035	2.9%	3.0%
Treasury Inflation-Protected Securities	1,842	2.6%	3.0%
Risk Reduction & Mitigation	14,884	21.4%	24.0%
Investment Grade Bonds	11,196	16.1%	19.0%
Diversified Hedge Fund Portfolio ⁵	2,412	3.5%	4.0%
Cash	1,276	1.8%	1.0%
Overlay Composite ⁶	518	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 a 3-month lag and best available values
 5. Hedge Fund market values reflect a 1-month lag
 6. Reflects net cash position for overlay investing

Historical Net Performance

as of April 2021

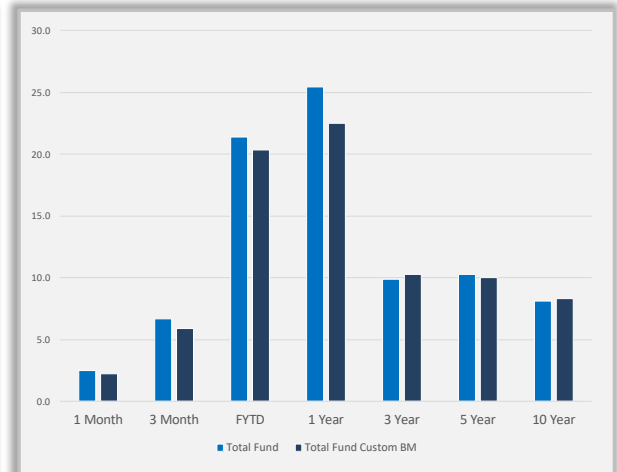
LACERA Pension Fund

(% 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	69,587	100.0%	100.0%	2.5	6.7	21.4	25.5	9.9	10.3	8.1
<i>Total Fund Custom BM</i>				<i>2.2</i>	<i>5.9</i>	<i>20.4</i>	<i>22.5</i>	<i>10.3</i>	<i>10.0</i>	<i>8.3</i>
<i>7% Annual Hurdle Rate</i>				<i>0.57</i>	<i>1.71</i>	<i>5.80</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	35,288	50.7%	47.0%	3.7	11.3	36.2	42.4			
<i>Growth Custom BM</i>				<i>3.3</i>	<i>11.5</i>	<i>39.0</i>	<i>40.5</i>			
CREDIT	7,488	10.8%	12.0%	1.0	3.2	15.8	22.0			
<i>Credit Custom BM</i>				<i>0.5</i>	<i>-0.2</i>	<i>8.0</i>	<i>13.5</i>			
REAL ASSETS & INFLATION HEDGES	11,409	16.4%	17.0%	2.6	6.1	13.2	14.6			
<i>Real Assets & Inflation Hedges Custom BM</i>				<i>2.8</i>	<i>5.8</i>	<i>13.2</i>	<i>16.2</i>			
RISK REDUCTION & MITIGATION	14,884	21.4%	24.0%	0.6	-1.0	1.5	3.3			
<i>Risk Reduction & Mitigation Custom BM</i>				<i>0.7</i>	<i>-1.4</i>	<i>-0.7</i>	<i>0.2</i>			
OVERLAY COMPOSITE	518	0.7%	—							

Historical Returns

(% net)



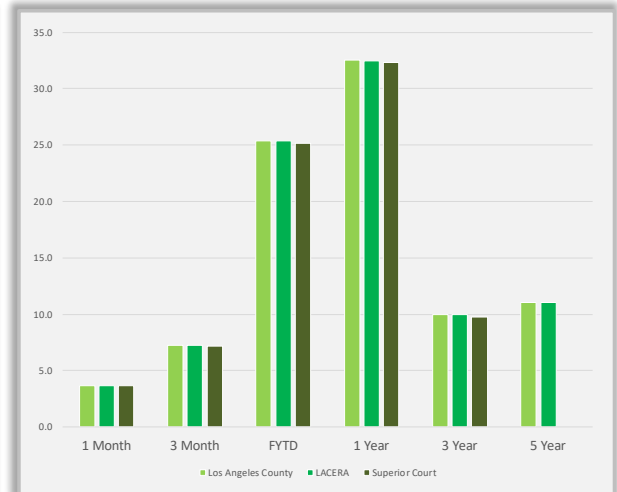
OPEB Master Trust Fund

(% 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	2,127								
Los Angeles County	2,062	97.0%	—	3.7	7.2	25.4	32.5	10.0	11.0
LACERA	8	0.4%	—	3.7	7.2	25.4	32.5	10.0	11.1
Superior Court	57	2.7%	—	3.7	7.2	25.2	32.3	9.8	—
Functional Composites				1 Month	3 Month	FYTD	1 Year	3 Year	
OPEB Growth	1,070	50.3%	50.0%	4.3	9.9	37.4	48.5	13.5	
<i>Custom OPEB MT Growth Pool</i>				<i>4.3</i>	<i>9.9</i>	<i>37.2</i>	<i>48.1</i>	<i>13.1</i>	
OPEB Credit	416	19.6%	20.0%	1.0	0.2	9.4	14.5	—	
<i>Custom OPEB MT Credit Pool</i>				<i>1.0</i>	<i>0.3</i>	<i>10.4</i>	<i>16.2</i>	<i>—</i>	
OPEB Real Assets & Inflation Hedges	433	20.4%	20.0%	6.2	11.9	26.4	29.3	—	
<i>Custom OPEB MT RA & IH Pool</i>				<i>6.2</i>	<i>11.9</i>	<i>26.5</i>	<i>29.5</i>	<i>—</i>	
OPEB Risk Reduction & Mitigation	208	9.8%	10.0%	0.6	-1.5	-1.0	-0.1	4.6	
<i>Custom OPEB MT RR & M Pool</i>				<i>0.6</i>	<i>-1.5</i>	<i>-1.0</i>	<i>-0.1</i>	<i>4.4</i>	
Operating Cash	0.2	0.0%	—						

Historical Returns

(% net)

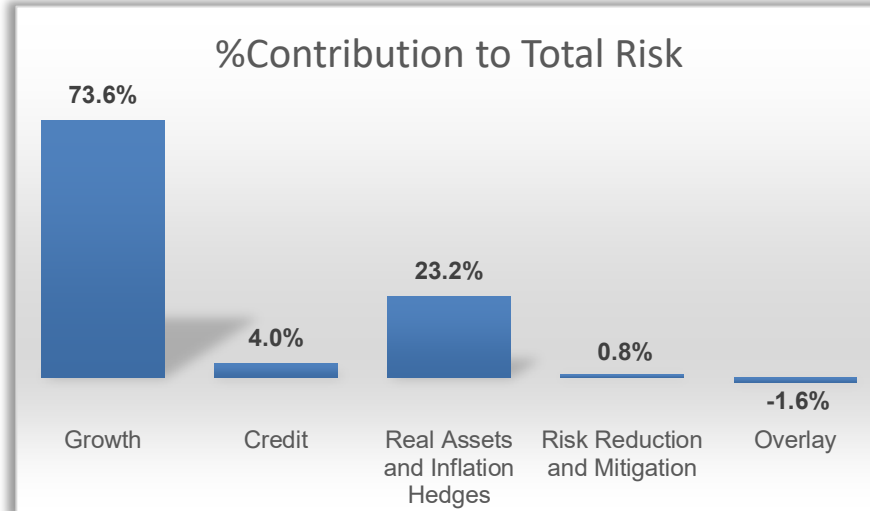


1. Final target weights effective as of 10/1/19
2. Functional composites were adopted on 4/1/19

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

Total Fund Forecast Risk*

as of April 2021



	%Weight	% Cont. to Total Risk	Standalone Total Risk	Standalone BMK Risk**
Total Fund			14.0	12.6
Growth	50.8%	73.6%	20.7	20.8
Global Equity	37.3%	51.8%	20.1	20.6
Private Equity	12.6%	20.8%	27.1	27.8
Opportunistic Real Estate	0.9%	1.1%	23.1	20.8
Credit	10.8%	4.0%	6.0	5.1
High Yield Bonds	3.2%	1.3%	7.1	6.1
Bank Loans	3.7%	0.9%	5.4	6.9
Illiquid Credit	2.6%	1.2%	8.3	3.8
Emerging Market Debt	1.3%	0.6%	10.0	9.0
Real Assets & Inflation Hedges	16.1%	23.2%	22.5	15.3
Core & VA Real Estate	6.6%	13.5%	39.3	20.8
Natural Resources & Commodities	4.0%	5.0%	20.8	21.3
Infrastructure	2.9%	4.3%	22.4	22.4
TIPS	2.7%	0.3%	4.9	4.9
Risk Reduction and Mitigation	21.5%	0.8%	3.2	3.0
Investment Grade Bonds	16.2%	0.6%	3.9	3.8
Diversified Hedge Funds	3.5%	0.3%	4.7	0.2
Cash	1.9%	0.0%	0.0	0.2
Overlay	0.8%	-1.6%	-	-

*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

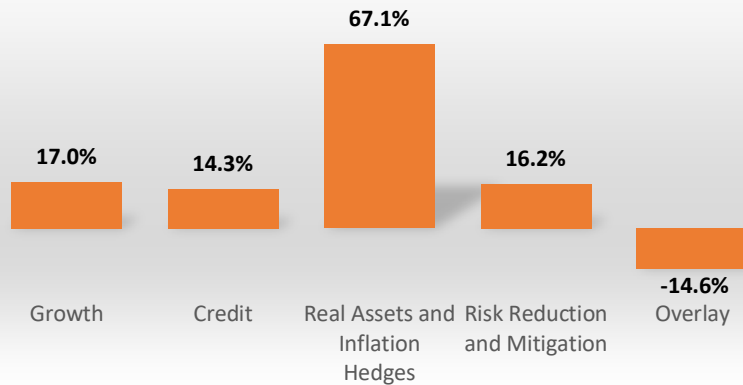
**BMK Risk stands for Benchmark Risk



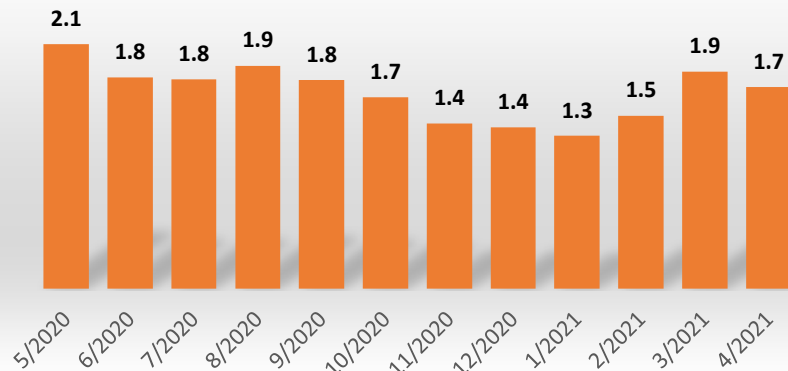
Total Fund Forecast Active Risk*

as of April 2021

%Contribution to Active Risk



Active Risk Trend



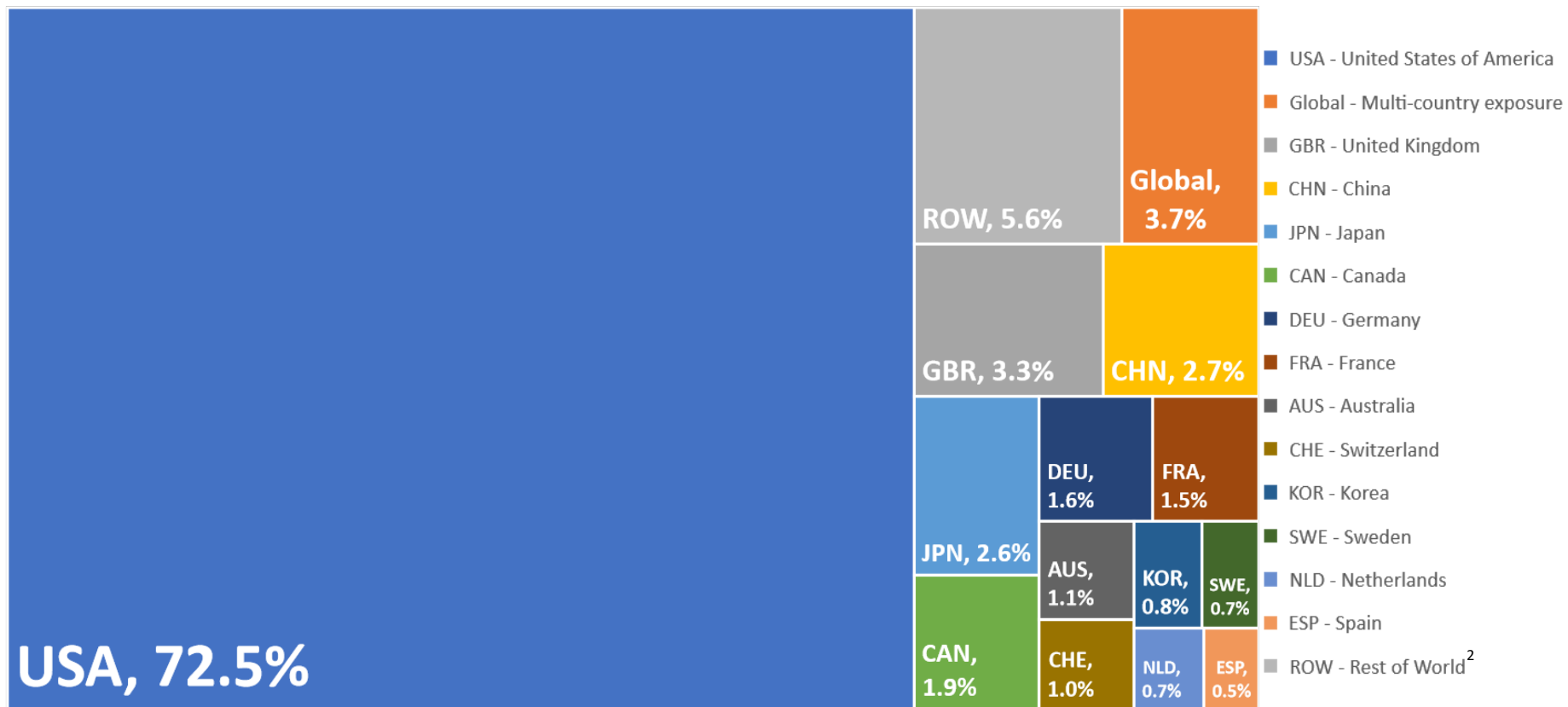
	%Weight	Active Weight%	Active Risk	Active Risk Allocation	Active Risk Selection
Total Fund			1.74	0.30	1.44
Growth	50.8%	3.77%	0.29	0.23	0.06
Global Equity	37.3%				
Private Equity	12.6%				
Opportunistic Real Estate	0.9%				
Credit	10.8%	-1.20%	0.25	0.09	0.16
High Yield Bonds	3.2%				
Bank Loans	3.7%				
Illiquid Credit	2.6%				
Emerging Market Debt	1.3%				
Real Assets & Inflation Hedges	16.1%	-0.86%	1.17	-0.02	1.18
Core & VA Real Estate	6.6%				
Natural Resources & Commodities	4.0%				
Infrastructure	2.9%				
TIPS	2.7%				
Risk Reduction and Mitigation	21.5%	-2.49%	0.28	0.24	0.04
Investment Grade Bonds	16.2%				
Diversified Hedge Funds	3.5%				
Cash	1.9%				
Overlay	0.8%	0.78%	-0.25	-0.25	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 April 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%

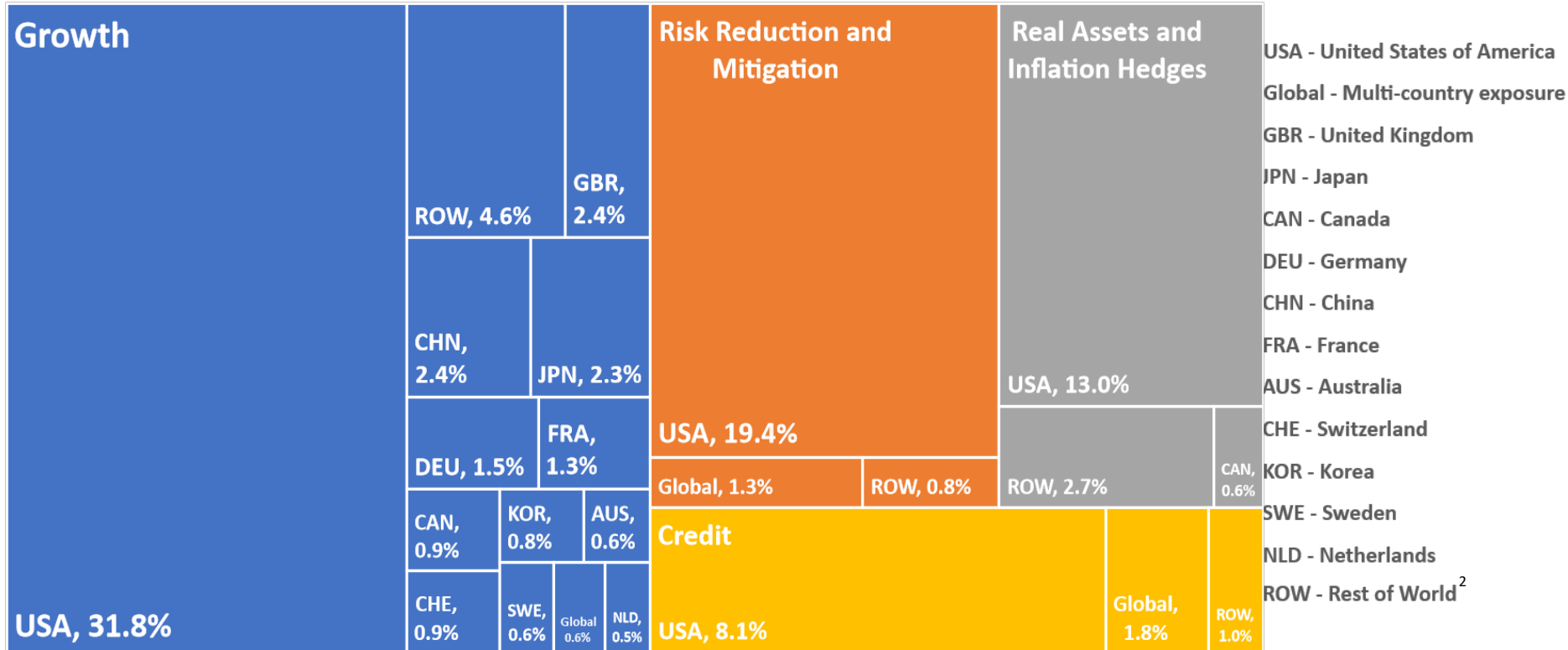
³ Geographic exposure is based on the domicile country of a given security/asset



Geographic Exposures by AUM* - Asset Categories

as of April 2021 ex-overlay

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



*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

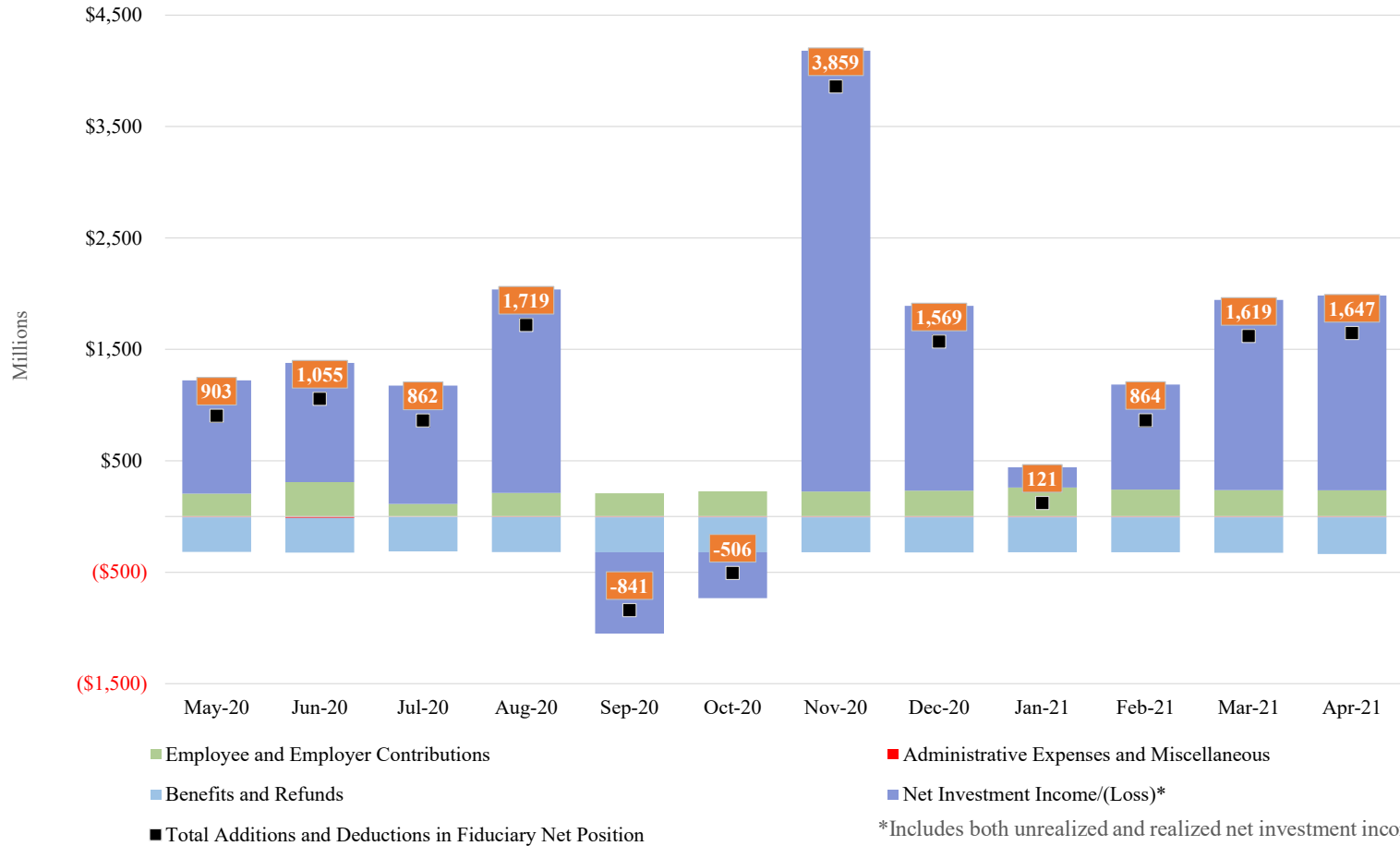
² "ROW - Rest of World" is sum of countries with weight below 0.5%

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	8	\$10.9 billion



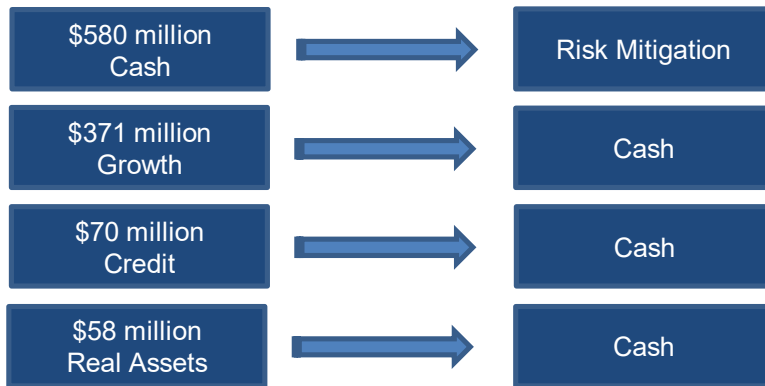
Portfolio Structural Updates



Portfolio Structural Updates

Portfolio Movements

Rebalancing Activity



Hedges and Overlays

Program	April Return	April Gain/Loss	Inception* Gain/Loss
Currency Hedge**	-0.9%	\$25.7 Million	\$819.4 Million
Cash/Rebalance Overlay***	-0.4%	-\$23.0 Million	-\$56.1 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

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

- Onboarding process of new risk system continues
- Ongoing implementation and development of LACERA TIDE initiative
- Strategic Asset Allocation Study is ongoing
 - Total Fund approved May 2021
- New real estate consultant onboarding is in process

Completed Actions

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

Operational Updates

- Completed the Annual Contract Compliance exercise for public markets
- Implementing operational due diligence (“ODD”) improvements
- Financial Analyst III search
 - Credit

Manager/Consultant Updates

- State Street Custody Bank - On May 13, 2021, the Department of Justice announced that State Street had entered into a deferred prosecution agreement to resolve an investigation into client overcharges disclosed in 2015. A memorandum on this matter is included in this month’s Board of Investments package.



Commentary



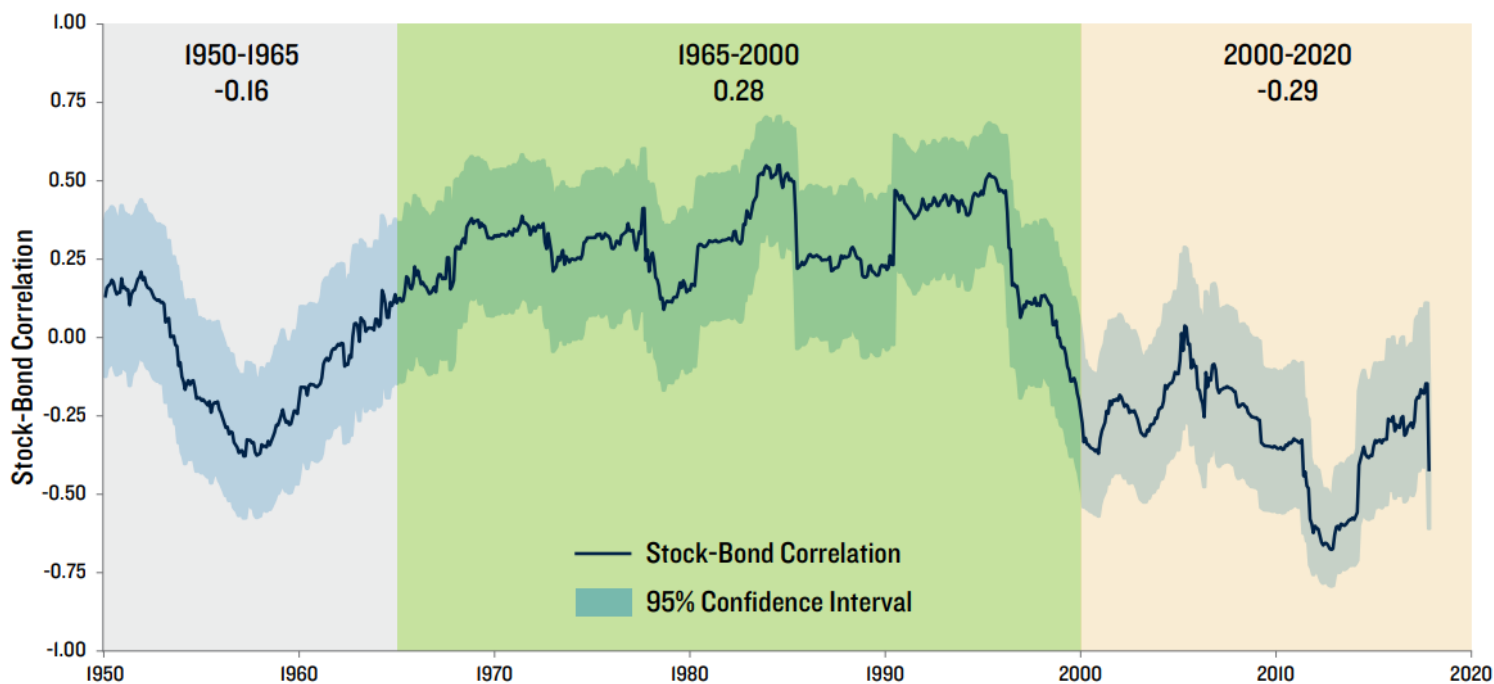
Staff Chart of the Month*

Importance of Strategic Asset Allocation and Diversification

The chart below shows that correlations between U.S. stocks and bonds (asset categories which are commonly referred to as uncorrelated) can change over time

Figure 3: US Stock-Bond Correlation

Correlation of monthly stock and bond returns (5y-centered, rolling window, 1950-2020)



Note: Stock-bond correlation is calculated with 5y rolling window of monthly stock and bond total returns centered at the time of calculation.

Source: DataStream, FRED, NBER, Robert J. Shiller online data and PGIM IAS. For illustrative purposes only.

