

# Core Bond

12 April 2022

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## Agenda

**Section one** ..... Wellington Management Company LLP overview

**Section two** ..... Core Bond overview

**Section three** ..... Appendix



# Wellington Management today

A trusted advisor and strategic partner to clients worldwide

## BY THE NUMBERS

### Business

USD 1,426 billion of client assets under management

2,464 clients

62 countries in which clients are based

### People and portfolios

926 investment professionals

17 years of experience, on average

195 partners all active at the firm

### Heritage: key dates

**1928** Wellington Fund – the first US balanced fund

**1979** Establishment of our private partnership

**1994** Our first long – short strategy

**2014** Our first dedicated private equity strategy

**2015** Global Impact: Our first diversified impact investing strategy in public equities



### OWNERSHIP MODEL

Long-term perspective of a private partnership structure

Attract and retain investment talent

Independent: No public shareholders, no outside capital

Interests aligned with clients



### BUSINESS MODEL

Singular focus on investment management

Diversification by asset class, geography, and client type

Research for client benefit only

Commitment to bringing the right resources to each client



### INVESTMENT MODEL

Comprehensive capabilities

Rigorous proprietary research

Career analysts

Global resources

Empowered portfolio teams



### CULTURE

Open, collaborative

Performance driven

Professional/collegial

High standards, ethics, and integrity

Global diversity and inclusion



### CURRENT LEADERSHIP INITIATIVES

Globalization

Sustainable investing and ESG research

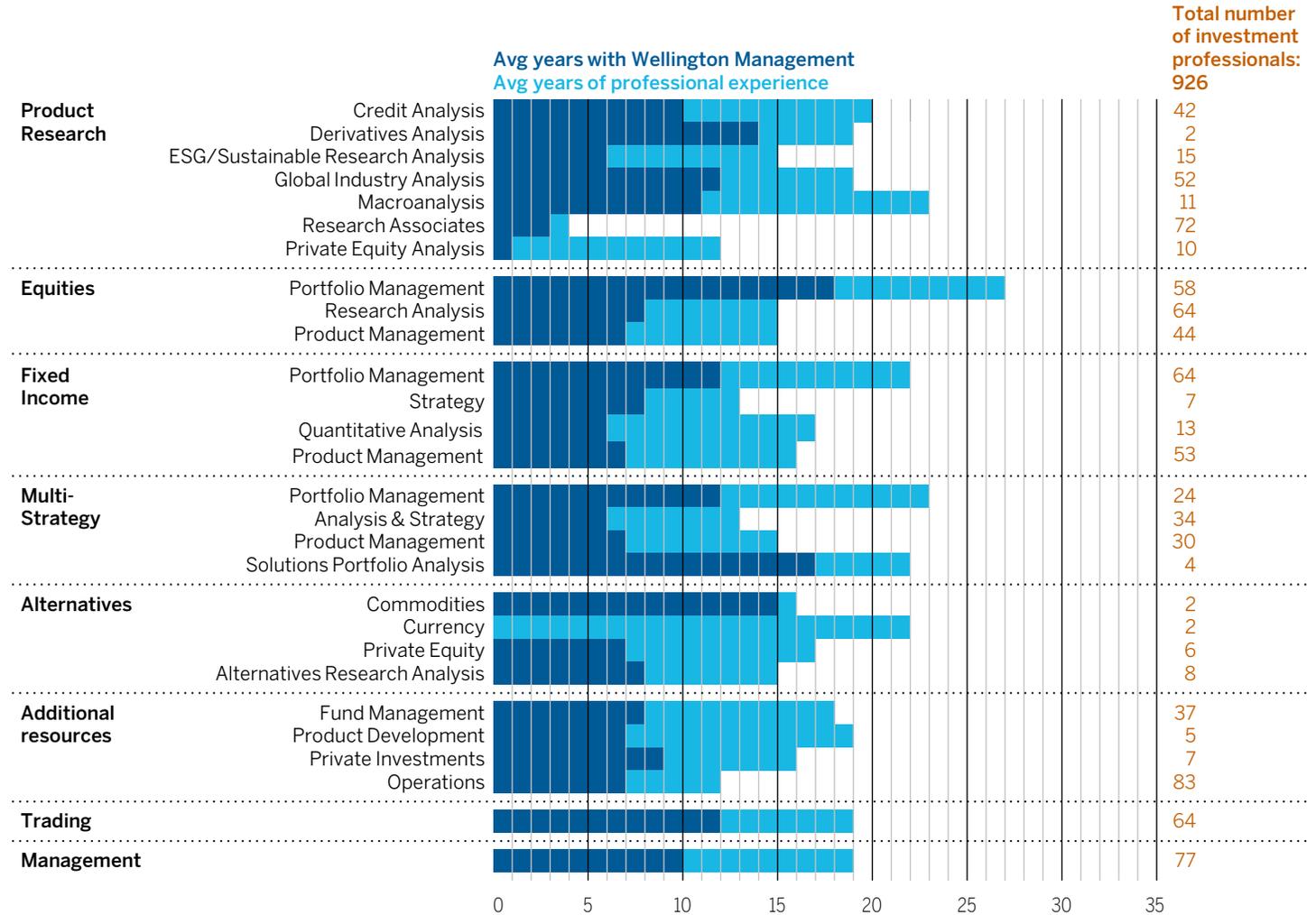
Investment science and research-data analytics

Investment risk management

# Depth, experience, and continuity create interpretation advantage

Investors draw on rigorous, proprietary research

We conduct research through fundamental; environmental, social, and corporate governance (ESG); quantitative; macro; and technical lenses



## Our diversity, equity and inclusion strategy pillars

DEI Steering Committee

Regional DEI Committees – APAC, Americas and EMEA

Upstanders and Becoming Allies

Global Diversity, Equity and Inclusion Team

13 Diversity Business Networks with regional chapters and two Business Network Councils – Americas and EMEA

20+ External Diversity Associations and Industry Coalitions

Partnered with more than 100 US-based diverse suppliers

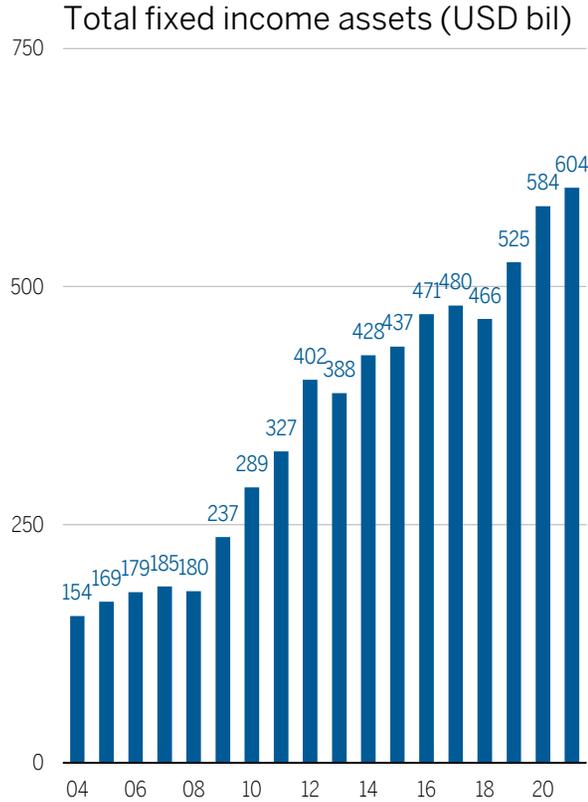
Grants with 193 organizations in 11 geographies since 1992



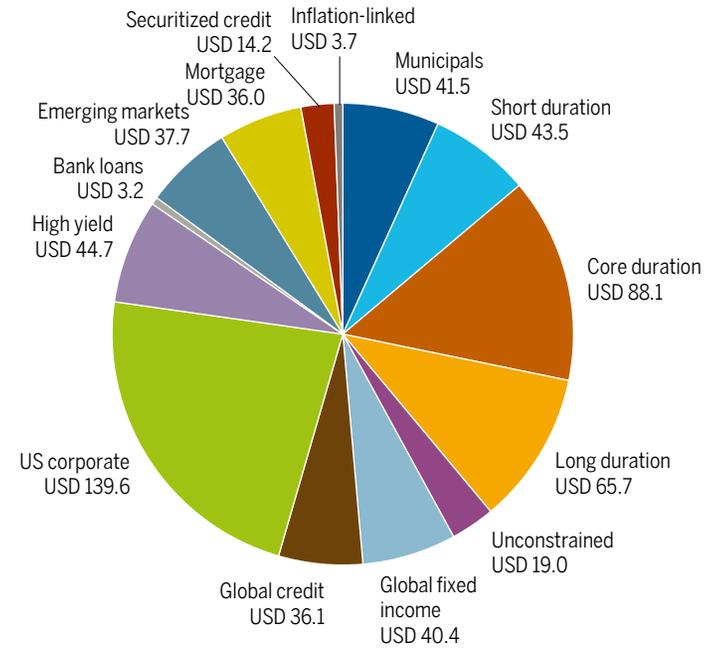
As of 1 March 2021

# Fixed income assets under management

## Expertise across all sectors



By major investment style (USD bil)





# Broad Markets

## Fixed Income platform

Higher quality ← → Lower quality

	<b>Core/Intermediate</b>	<b>Core Bond Plus</b>	<b>Multi Sector Credit</b>	
<b>Description</b>	Seeks long-term total return in excess of the US bond market by investing in a broad range of high-quality US fixed income securities, incorporating interest rate, sector, and security selection strategies.	Seeks long-term total return in excess of the broad US bond market. Active interest rate, sector, and security selection with opportunistic flexibility to invest outside benchmark.	Flexible strategy which seeks to generate income and total return from a broadly diversified portfolio of credit instruments. Value is expected to be added both from top-down sector rotation decisions, as well as bottom-up security selection within sectors. The investment universe consists of a broad range of credit sectors. Complement to core fixed income allocation.	
<b>Inception date</b>	January 1984	January 1990	August 2009	
<b>Benchmark</b>	Bloomberg US Aggregate or Bloomberg Intermediate US Government/Credit Bond	Bloomberg US Aggregate	Total return	
<b>Return objective</b>	Index +0.25% to 0.75%	Index +1.00% to 1.50%	5 – 7%	
<b>Expected volatility</b>	T.E. of 50 to 150 bps	T.E. of 150 to 250 bps	5 – 8%	
<b>Opportunity set</b>	Primary sectors <ul style="list-style-type: none"> <li>• US treasuries</li> <li>• Agency MBS</li> <li>• IG Credit</li> <li>• Structured credit</li> </ul>	Primary sectors <ul style="list-style-type: none"> <li>• US treasuries</li> <li>• Agency MBS</li> <li>• IG Credit</li> <li>• Structured credit</li> </ul>	Opportunistic/ Tactical sectors <ul style="list-style-type: none"> <li>• High yield</li> <li>• Bank loans</li> <li>• Emerging markets</li> <li>• Convertible bonds</li> <li>• Non-dollar</li> </ul>	Primary sectors <ul style="list-style-type: none"> <li>• High yield</li> <li>• Bank loans</li> <li>• Emerging markets</li> </ul> Opportunistic/ Tactical sectors <ul style="list-style-type: none"> <li>• IG Credit</li> <li>• Agency MBS</li> <li>• Structured credit</li> <li>• Convertible bonds</li> <li>• Non-dollar</li> </ul>
<b>Duration range</b>	Index ±1.0 years	Index ±1.5 years	2 to 6 years	
<b>Avg credit quality</b>	AA/A	AA/A	B/BB	

The characteristics presented are sought during the portfolio management process. Actual experience may not reflect all of these characteristics, or may be outside of stated ranges.

## **Core Bond**

### Distinguishing features

#### **Stability**

The investment team is comprised of three Partners of the firm, which helps to reduce key person risk and greater attention to succession planning

#### **Specialist breadth**

The investment process is designed to harness the breadth of specialist resources across fixed income and equities

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Collaboration between fixed income and equity specialists has led to some of the team's most successful outcomes

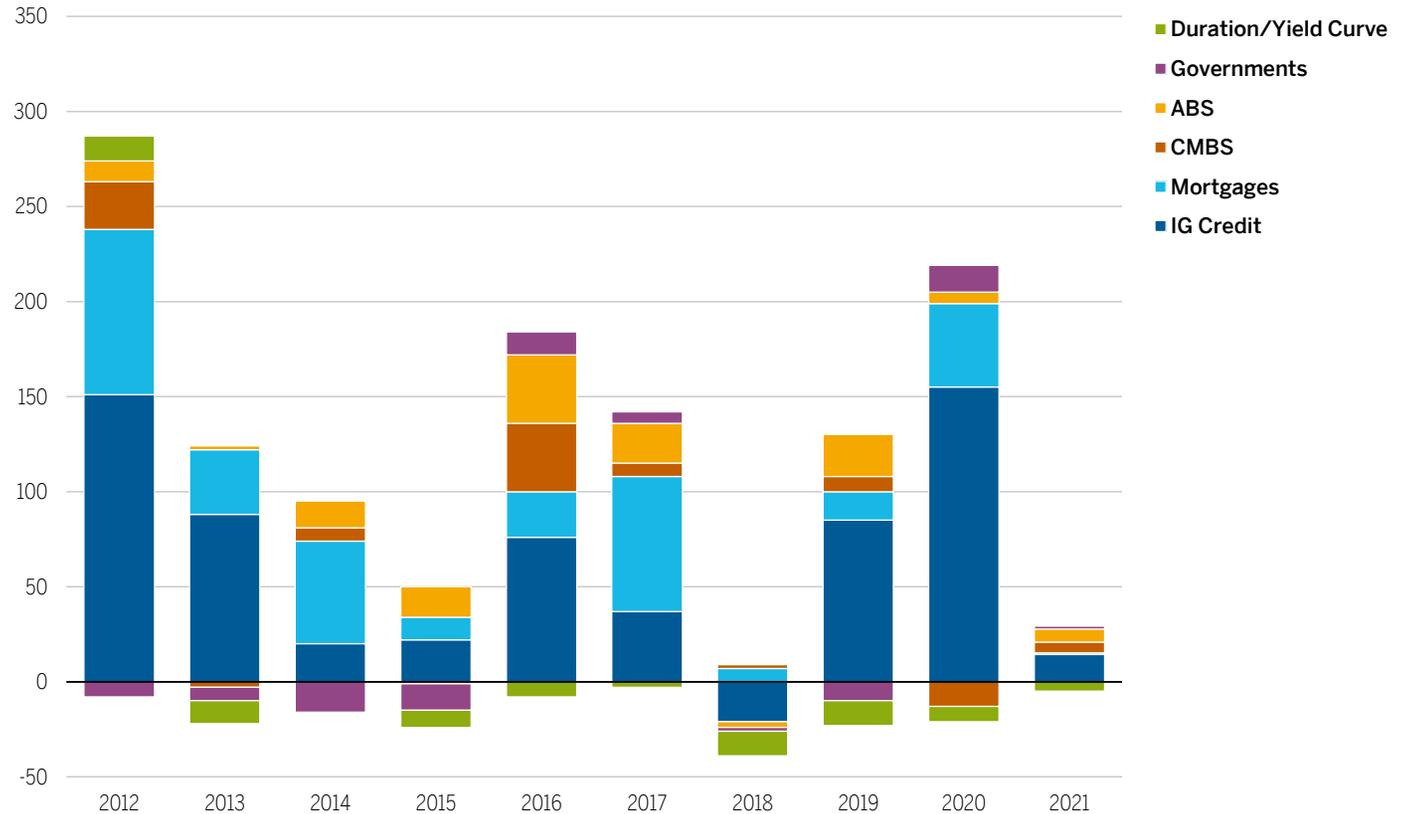
#### **Diverse return sources**

The breadth of sector specialist expertise should reduce reliance on any individual return driver over time and may improve a portfolio's risk-return characteristics

# Core Bond

## Annual contribution to alpha

Performance ended 31 December 2021 (basis points)



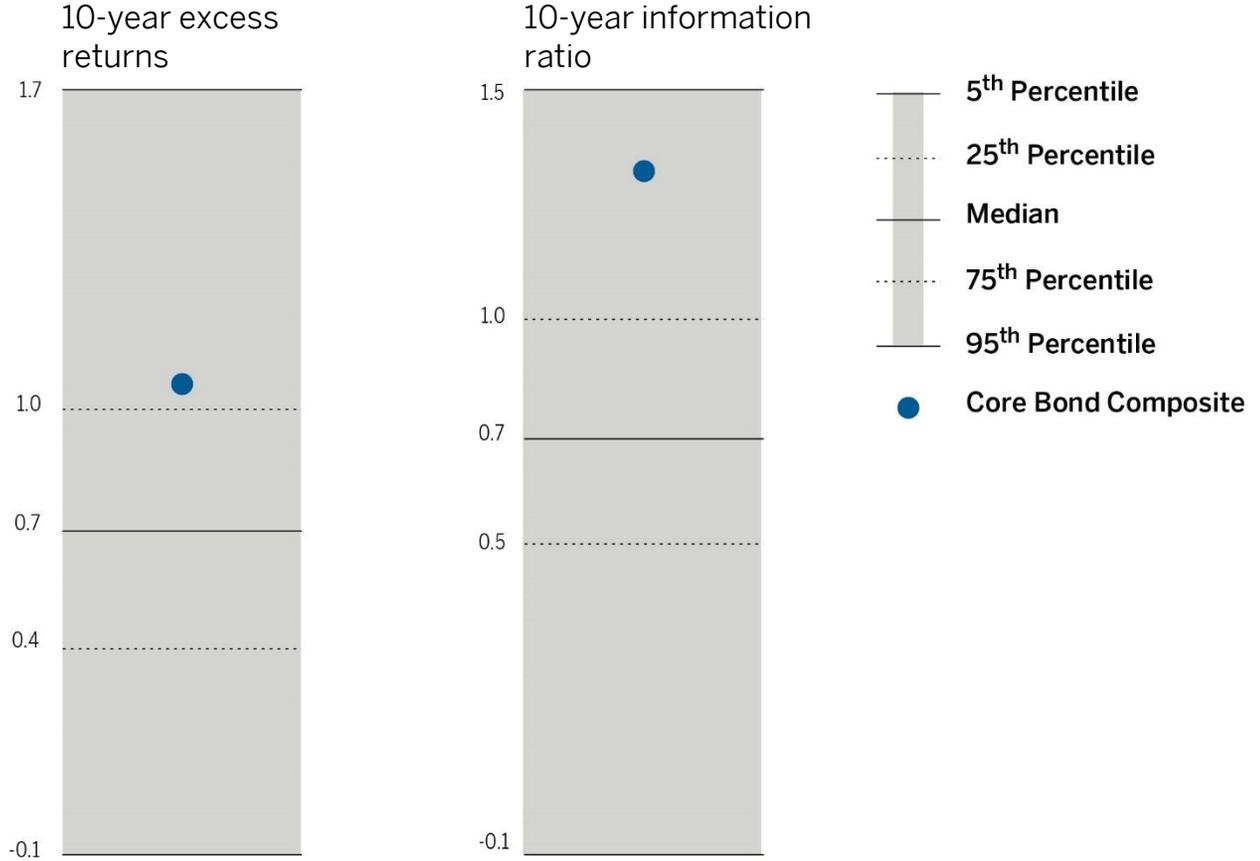
The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. | **PAST RESULTS ARE NOT NECESSARILY INDICATIVE OF FUTURE RESULTS AND AN INVESTMENT CAN LOSE VALUE.** | Gross performance results are net of commissions and other direct expenses, but before (gross of) advisory fees, custody charges, withholding taxes, and other indirect expenses, and include reinvestment of dividends and other earnings. If all expenses were reflected, the performance shown would be lower. Actual fees will vary depending on, among other things, the applicable fee schedule and account size. | For use in one-on-one presentations only. | This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information.

# Core Bond Composite

## Comparative US Core Fixed Income manager returns

Source: eVestment Alliance | The US Core Fixed Income manager returns are presented as of 30 September 2021. The inception of the Core Bond composite was 31 December 1984. The peer group comparison represents percentile rankings, which are based on gross of fee returns and reflect where those returns or given metric fall within the indicated eVestment universe. Peer relative results are shown relative to all gross-of-fees track records within the US Core Fixed Income approaches as defined by eVestment Alliance. Constituent observations are as of 15 December 2021. The Adviser did not pay a fee to be included in the rankings. Data is that of a third party. While data is believed to be reliable, no assurance is being provided as to its accuracy or completeness. |

**PAST RESULTS ARE NOT NECESSARILY INDICATIVE OF FUTURE RESULTS AND AN INVESTMENT CAN LOSE VALUE.** | Gross performance results are net of commissions and other direct expenses, but before (gross of) advisory fees, custody charges, withholding taxes, and other indirect expenses, and include reinvestment of dividends and other earnings. If all expenses were reflected, the performance shown would be lower. Actual fees will vary depending on, among other things, the applicable fee schedule and account size. | For use in one-on-one presentations only. | This information complements the GIPS® Composite Report included at the end of the materials.



Annualized return	21	9
percentile rank (gross)		
# of Observations	227	227

## Core Bond

### Key characteristics

Benchmark	Bloomberg US Aggregate Bond Index
Average duration	Within $\pm 1.0$ years of Index
Diversification	Broad (by coupon, industry, issuer)
Vehicles	Separate account Commingled pools
Investment universe	US dollar denominated investment grade securities

Sector exposure	Historic portfolio ranges (%)	Bloomberg US Aggregate Bond Index (%)
US treasuries and agencies	0 – 50	40
Corporate credit	10 – 50	30
Agency MBS	20 – 70	30
Structured finance (Non-agency RMBS, CMBS, ABS, CLOs)	20 – 40	< 5

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# Broad Markets Investment team

## Broad markets team

 <b>Joe Marvan, CFA</b> Portfolio Manager 34 years of professional experience	 <b>Brij Khurana</b> Portfolio Manager 14 years of professional experience	 <b>Jeremy Forster</b> Portfolio Manager 17 years of professional experience	 <b>Campe Goodman, CFA</b> Portfolio Manager 23 years of professional experience	 <b>Rob Burn, CFA</b> Portfolio Manager 21 years of professional experience
 <b>Lia Kirakossian</b> Solutions Portfolio Manager 17 years of professional experience	 <b>Adam Chrissis, CFA, FRM</b> Senior Portfolio Analyst 9 years of professional experience	 <b>Mihir Shah, CFA</b> Senior Portfolio Analyst 7 years of professional experience	 <b>Aaron Mayo, CFA</b> Portfolio Analyst 6 years of professional experience	 <b>Evelyn Chen</b> Portfolio Analyst 3 years of professional Experience

## Sector specialist portfolio managers

<b>Brian Conroy, CFA</b> Agency Mortgages 15 years of professional experience	<b>Michael Hong, CFA</b> Global High Yield 26 years of professional experience
<b>Samuel Epee-Bounya</b> Emerging Markets 22 years of professional experience	<b>Chris Jones, CFA</b> Global High Yield 31 years of professional experience
<b>Kyra Fecteau, CFA</b> Securitized Credit 13 years of professional experience	<b>Kevin Murphy</b> Emerging Markets 35 years of professional experience
<b>Tim Haney, CFA</b> Municipals 33 years of professional experience	<b>Cory D. Perry, CFA</b> Securitized Credit 24 years of professional experience
<b>Jeff Heuer, CFA</b> Bank Loans 33 years of professional experience	<b>Scott St. John, CFA</b> Investment Grade Credit 29 years of professional experience

## Research/Trading

<b>Global High Yield/Bank Loans</b> 16 Credit analysts	<b>IG Credit/Taxable Municipals</b> 18 Credit analysts
<b>Emerging Markets Debt</b> 4 Credit analysts	<b>Fixed Income Syndicate</b> 4 traders
<b>Securitized</b> 4 Credit analysts	<b>Secondary Trading</b> 39 traders

## Product Management

<b>Anand Dharan, CFA</b> Investment Director
<b>Sean Sullivan</b> Investment Specialist
<b>Sam Rowley</b> Investment Analyst

## Additional resources

11 Macro strategists      51 Global Industry analysts      15 ESG/Sustainability research      24 Risk Professionals      19 Multi-Asset analysts

# Core Bond Investment process



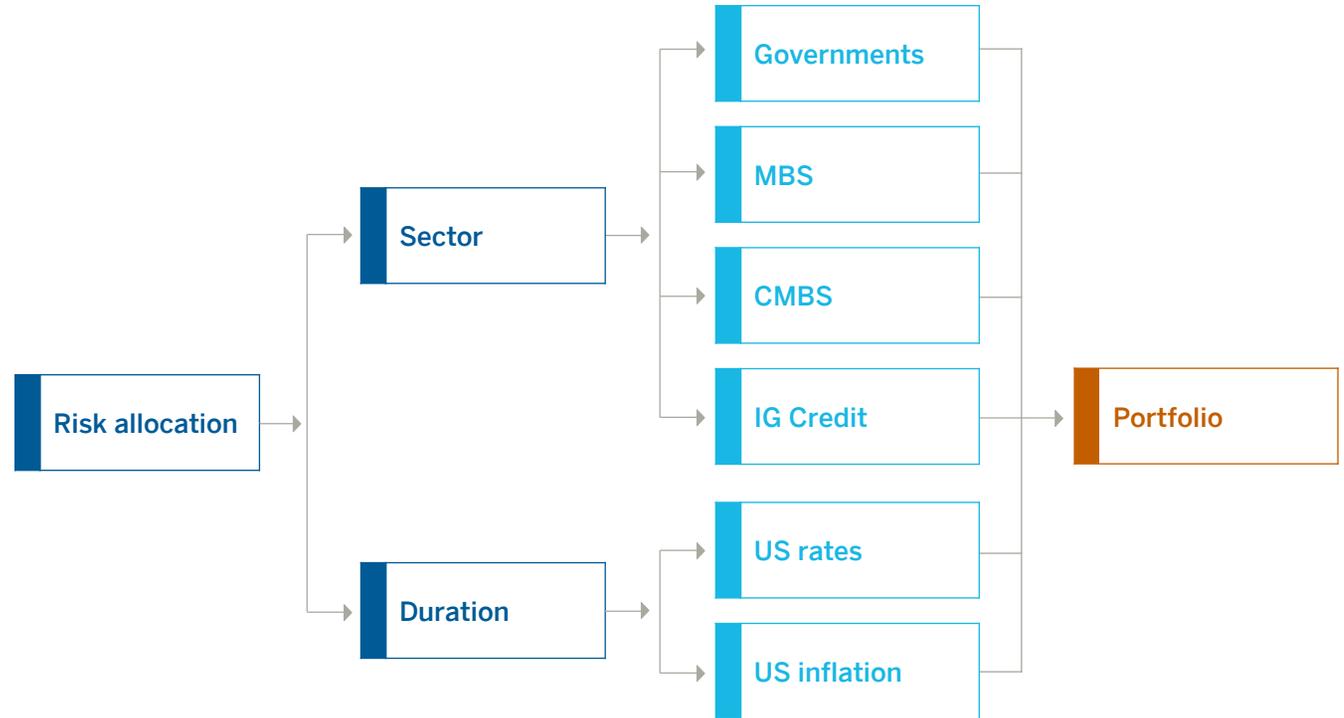
# Core Bond

## Investment process

**Broad strategy**  
Broad markets team

**Sector strategy**  
Sector specialists

**Portfolio construction**  
Portfolio manager



### Risk management



# Development of a trade

## Adding short duration corporates

### Catalyst

#### Market environment

Positive US economic fundamentals and a stable near-term monetary policy outlook led Wellington Management's macroanalysts to be positive on near-term growth prospects

Credit analysts remained constructive on credit fundamentals, particularly in Financials

### Thesis



**Joseph F. Marvan, CFA**  
Fixed Income  
Portfolio Manager

Short duration corporates looked attractive in this environment due to

- **Valuation:** Early-2018 selloff made front-end credit yields look oversold
- **Technicals:** We expected that supply/demand technicals had been temporarily exacerbated by elevated hedge costs and corporate cash repatriation

### Sector specialist discussion



**Scott I. St. John, CFA**  
Fixed Income  
Portfolio Manager

Attractiveness of short credit differed by sector. The IG Credit Team was positive broadly on Financials and on select retail names (e.g., CVS)

### Trade idea



**Terri Cancelarich, CFA**  
Fixed Income  
Credit Analyst

IG Credit Analysts suggested focusing specifically on the Insurance sector, and shared guidance on specific issuers with attractive short-dated debt

The Short Duration Investment Team shared further guidance on Insurance issuers with attractive short-dated debt

### Sizing and implementation



**Adam C. Chrissis, CFA, FRM**  
Fixed Income  
Portfolio Analyst

Portfolio Analysts led coordination between the investment team, Credit Analysts, and Trading, creating transparency on available issues and levels at which the team was willing to buy



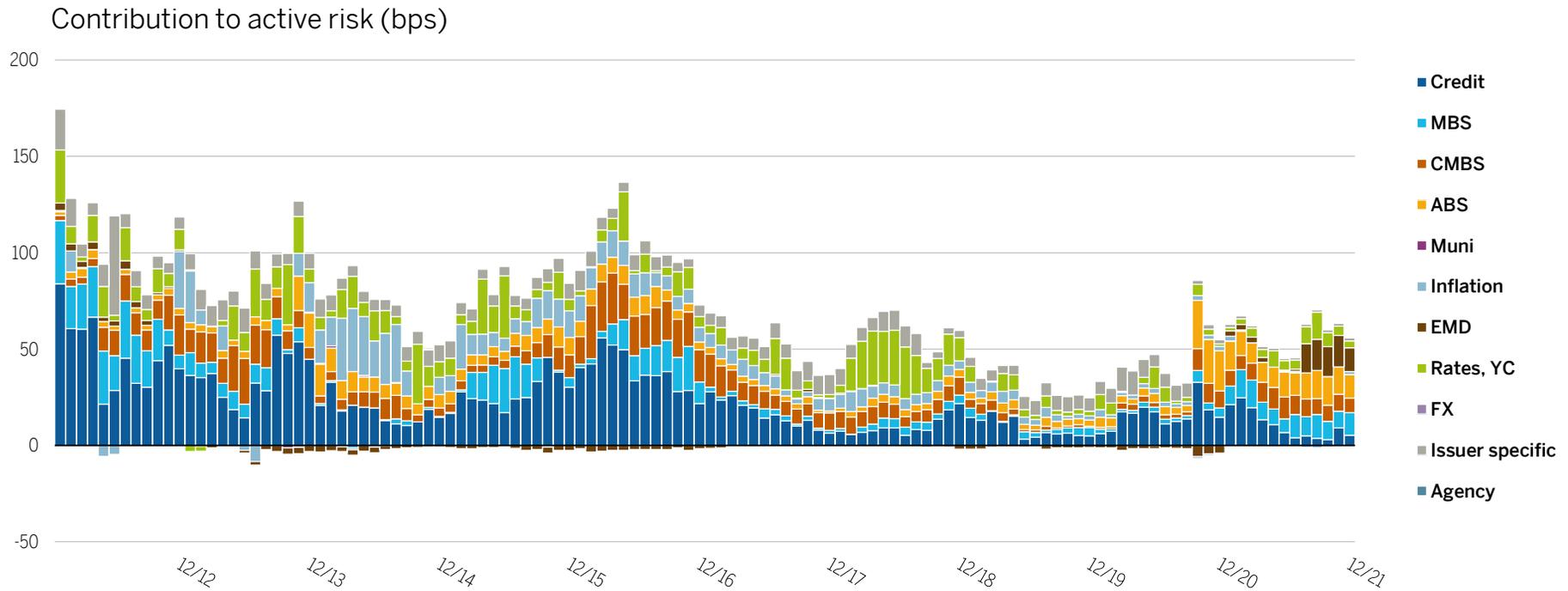
**Masaya Okoshi**  
Director, Credit  
Trading, Americas

The example shown is presented for illustrative purposes only and is not to be viewed as representative of actual holdings. It should not be assumed that any client is invested in the (or similar) example, nor should it be assumed that an investment in the example has been or will be profitable. Actual holdings will vary for each client and there is no guarantee that a particular client's account will hold the example presented.

# Core Bond

## Active risk exposure over time

### Representative account



Benchmark: Bloomberg US Aggregate Bond | Please note the benchmark shown is the client-specific benchmark for the representative account. Designated representative accounts may have changed and historical benchmark data represents the benchmark of the representative account over time. Additional benchmark detail is available upon request. | Source: Wellington Management Noether Risk Model. The model was implemented starting on 1 October 2020 and could result in significant one-time value changes as a result of the risk model change. Please refer to the Important Disclosures for more information. | The first data point displayed may not correspond to the inception date of the account and is based upon the account's configuration within the FIRE system. | The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information. | Chart data: 31 January 2012 - 31 December 2021

# Investment risk oversight at Wellington Management

## Line Management

- Team/resource focus
- High frequency interaction
- Assess resource needs
- Investment team reviews

## Product Management

- Independent reporting line
- Trade and client portfolio level focus
- High frequency interaction
- Style consistency/capacity/risks

## Risk Advisory Council

- Informal, tactical
- Small group of specialists
- Focus on investment risk topics



## Investment Review Group

- Formal, strategic
- Senior Portfolio Manager peer oriented review
- Focus on fiduciary topics

## Global Risk and Analytics

- Independent reporting line
- Lead independent oversight
- Strategy level across asset classes
- Match risk with conviction
- Set best practices for analytics/tools

## Core Bond

Investment returns and risk measures

10 year Up/Down market capture ratio: 111%/87%

	As of 31 December 2021 (% , USD)				
	3 mos	1 yr	3 yrs	5 yrs	10 yrs
<b>Core Bond Composite (gross)</b>	<b>0.05</b>	<b>-1.26</b>	<b>5.83</b>	<b>4.34</b>	<b>3.90</b>
<b>Core Bond Composite (net)</b>	<b>-0.02</b>	<b>-1.51</b>	<b>5.56</b>	<b>4.06</b>	<b>3.61</b>
Bloomberg US Aggregate Bond	0.01	-1.54	4.79	3.57	2.90
Active return (gross vs benchmark)	0.03	0.28	1.04	0.77	1.01

	2021	2020	2019	2018	2017	2016
<b>Core Bond Composite (gross)</b>	<b>-1.26</b>	<b>9.38</b>	<b>9.75</b>	<b>-0.31</b>	<b>4.66</b>	<b>4.30</b>
<b>Core Bond Composite (net)</b>	<b>-1.51</b>	<b>9.11</b>	<b>9.47</b>	<b>-0.60</b>	<b>4.35</b>	<b>3.99</b>
Bloomberg US Aggregate Bond	-1.54	7.51	8.72	0.01	3.54	2.65
Active return (gross vs benchmark)	0.28	1.87	1.03	-0.32	1.12	1.65

	2015	2014	2013	2012
<b>Core Bond Composite (gross)</b>	<b>0.71</b>	<b>6.55</b>	<b>-0.99</b>	<b>7.02</b>
<b>Core Bond Composite (net)</b>	<b>0.41</b>	<b>6.23</b>	<b>-1.29</b>	<b>6.70</b>
Bloomberg US Aggregate Bond	0.55	5.97	-2.02	4.21
Active return (gross vs benchmark)	0.16	0.58	1.03	2.81

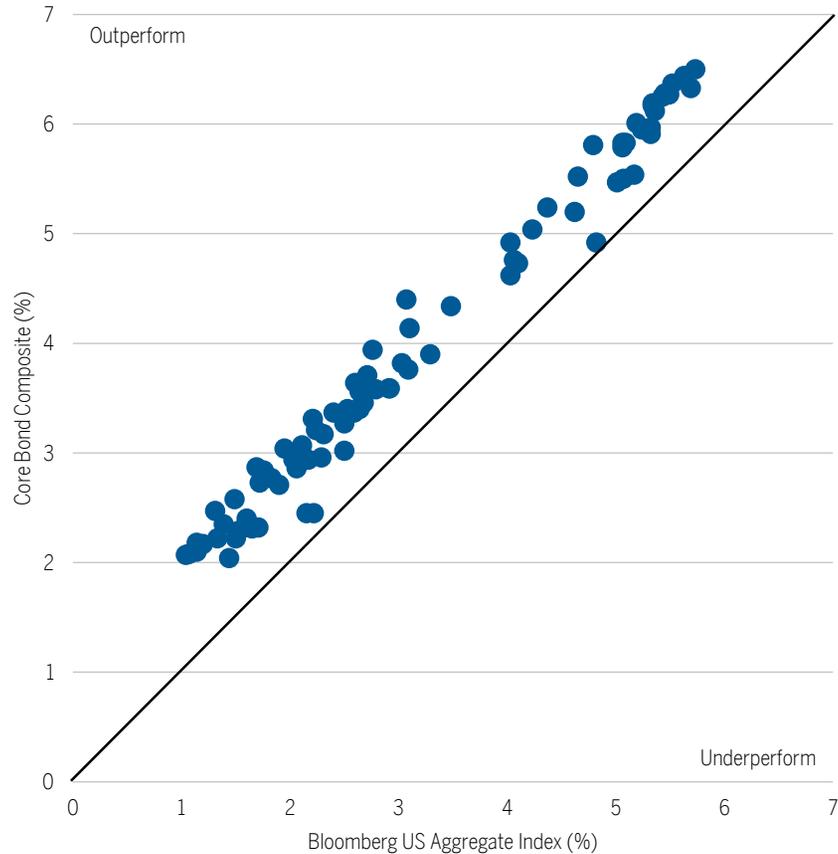
Sums may not total due to rounding. | Performance returns for periods one year or less are not annualized. | **PAST RESULTS ARE NOT NECESSARILY INDICATIVE OF FUTURE RESULTS AND AN INVESTMENT CAN LOSE VALUE.**

Gross performance results are net of commissions and other direct expenses, but before (gross of) advisory fees, custody charges, withholding taxes, and other indirect expenses, and include reinvestment of dividends and other earnings. Net performance results are based on the highest published US advisory fee for this product, include reinvestment of dividends and other earnings, and are net of advisory fees, commissions, and other direct expenses, but before custody charges, withholding taxes, and other indirect expenses. Composite returns have the potential to be adjusted until reviewed and finalized 30 days following each calendar quarter end period. This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information.

## Core Bond

### Consistent historical performance

3-year annualized gross returns, rolling monthly,  
trailing 10-years as of 31 December 2021



Core Bond composite and the Bloomberg US Aggregate Index displayed to illustrate the trailing 10 year period | **PAST RESULTS ARE NOT NECESSARILY INDICATIVE OF FUTURE RESULTS AND AN INVESTMENT CAN LOSE VALUE.**

Gross performance results are net of commissions and other direct expenses, but before (gross of) advisory fees, custody charges, withholding taxes, and other indirect expenses, and include reinvestment of dividends and other earnings. If all expenses were reflected, the performance shown would be lower. Actual fees will vary depending on, among other things, the applicable fee schedule and account size. Composite returns have the potential to be adjusted until reviewed and finalized 30 days following each calendar quarter end period. For use in one-on-one presentations only. This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information.

## Core Bond

### Outlook and strategy – Second quarter 2022

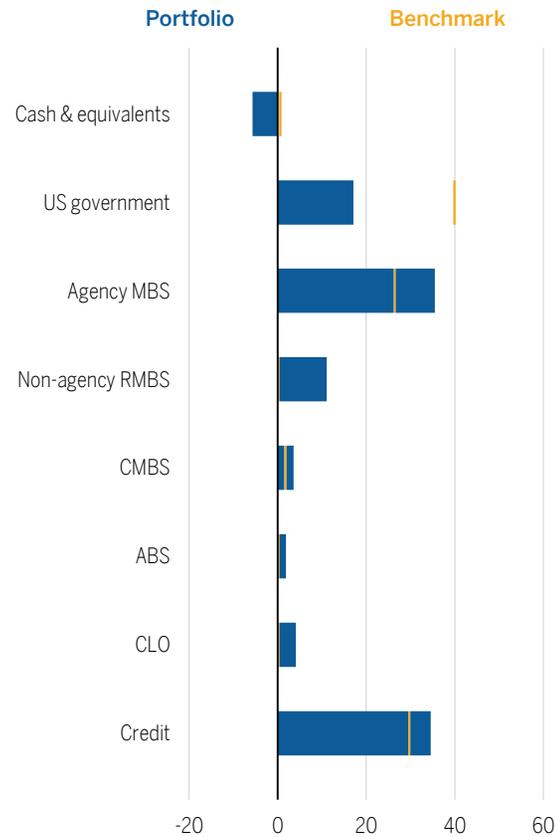
	Outlook	Strategy
Economy/Interest rates	<p>Expect growth to moderate from elevated level as fiscal and monetary support wane; expect series of 50bps hikes by Fed</p> <p>High savings and relatively low interest rates still supportive of consumer spending and help soften the impact of persistent inflation pressures</p>	<p>Close to neutral risk posture; preserving cash/liquidity</p> <p>Remaining tactical in duration</p>
MBS	<p>MBS spreads appear attractive relative to US Treasuries; rising rates to slow prepayment speeds</p> <p>Balance sheet normalization expected in the coming months and could pressure MBS spreads, though we don't expect outright MBS sales this year</p>	<p>Overweight to agency pass-throughs, focusing on relative value opportunities and income</p>
Corporate bonds	<p>Leverage has declined back to the lowest levels since 2015 but credit fundamental improvement has peaked</p> <p>Shareholder-friendly activities remain low for now but we will be closely monitoring whether M&amp;A activity picks up</p>	<p>Neutral IG corporate bonds; added exposure after spreads widened in response to Russia/Ukraine conflict</p> <p>Focus on identifying inefficiencies in the pricing of risk</p>
Structured finance	<p>Significant housing supply shortage and strong demand are driven by structural forces that we expect to remain intact for an extended period</p> <p>CLOs are well-diversified across sectors; benefit from improving bank loan fundamentals and rising rates</p>	<p>Own structured finance tied to residential mortgages, high quality CLOs, DUS, CMOs, and senior CMBS tranches with attractive collateral</p> <p>Focus on income and manager quality</p>

Information contained within Outlook section contains estimates and forecasts. Actual results may differ significantly from information shown. Forecasts rely upon assumptions and other expectations of future outcomes and is therefore subject to numerous limitations and biases. Future occurrences and results, which may also be formulated based on subjective inputs (i.e., strategist/analyst judgment), will differ, perhaps significantly, from those reflected in the charts and/or graphs within.

# Core Bond

## Portfolio positioning as of 31 December 2021

Sector (MV %)



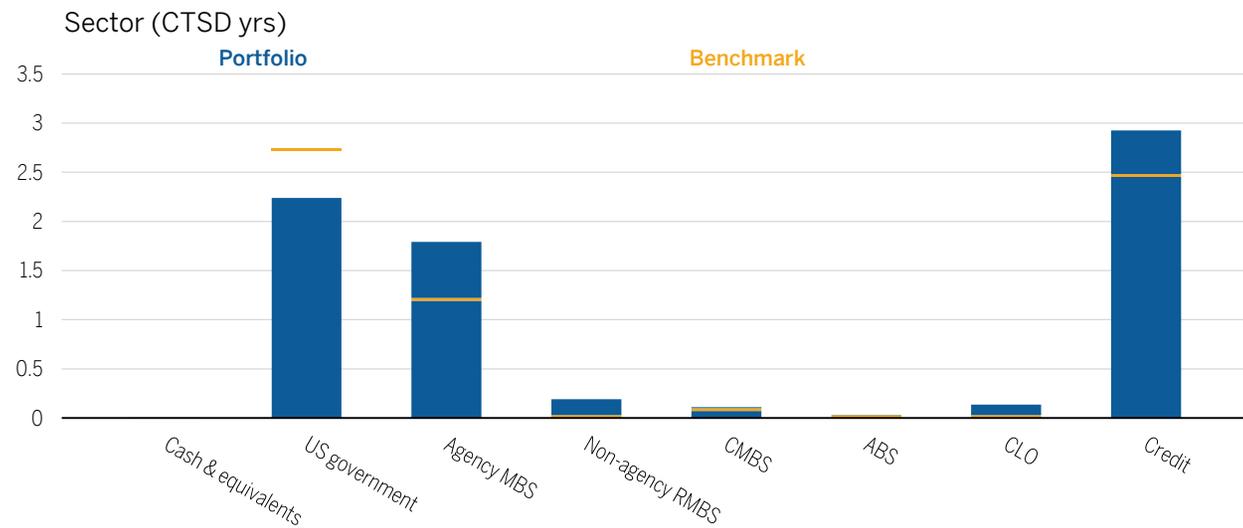
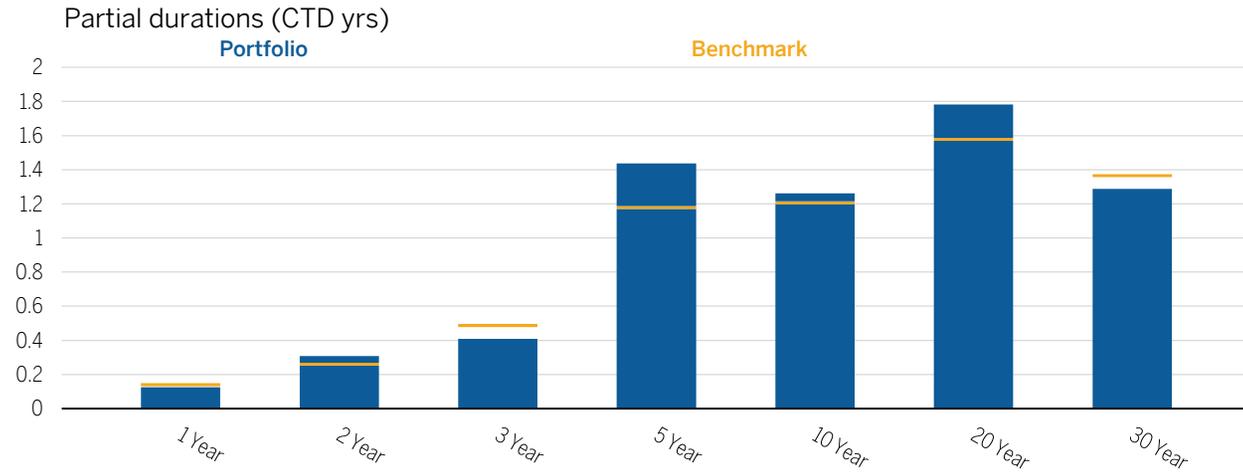
Sector detail (MV %)

	Portfolio	Benchmark
<b>Cash &amp; equivalents</b>	<b>-5.62</b>	<b>0.85</b>
<b>US government</b>	<b>17.09</b>	<b>40.15</b>
Treasuries	16.56	38.80
TIPS	0.53	—
US agencies	—	1.36
<b>Agency MBS</b>	<b>35.54</b>	<b>26.70</b>
Pass-throughs	33.51	26.70
CMO	2.03	—
ARMs	0.00	—
<b>Non-agency RMBS</b>	<b>11.09</b>	<b>—</b>
<b>CMBS</b>	<b>3.62</b>	<b>2.02</b>
Conduit	2.58	1.12
Single borrower	0.70	—
Agency guaranteed	0.02	0.90
Other CMBS	0.33	—
<b>ABS</b>	<b>1.91</b>	<b>0.30</b>
Autos	0.64	0.20
Unsecured	0.58	0.02
Other ABS	0.69	0.08
<b>CLO</b>	<b>4.14</b>	<b>—</b>
<b>Credit</b>	<b>34.57</b>	<b>29.98</b>
Industrials	14.98	15.15
Financials	8.65	8.10
Utilities	3.38	2.12
Non-corporates	3.35	3.51
Credit index derivatives	2.39	—
Taxable municipal	1.76	1.10
Tax exempt municipal	0.05	—

Benchmark: Bloomberg US Aggregate Bond. | "Other" within Sector (when applicable) includes security types that do not fall within the displayed categories. | The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information.

# Core Bond

## Portfolio positioning as of 31 December 2021



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## Core Bond

### Portfolio characteristics

#### Statistics

	As of 31 December 2021		
	Portfolio	Benchmark	Difference
Yield to worst (%)	2.3	1.7	0.6
% TBAs (%)	26.4	0	26.4
Option-adjusted spread (bps)	60	27	33
Average quality	AA	AA	
Duration - effective (yrs)	6.61	6.28	0.33
Duration - inflation-linked (yrs)	0.14	0	0.14
Convexity - effective	-0.01	0.19	-0.20
Duration - spread (yrs)	7.43	6.55	0.87

Benchmark: Bloomberg US Aggregate Bond. | Quality ratings are based on the middle of Moody's, S&P, and Fitch (split low). | The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information.

## **Core Bond**

### Key considerations

The portfolio will generally be diversified by sector, issuer, and investment strategy, but may hold concentrated positions from time to time

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The portfolio adjusts its risk posture at different times in the business cycle, which at times may increase portfolio tracking risk

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The portfolio includes positions based on both long-term and short-term investment ideas. The time horizon for macro thematic ideas often have long-term investment horizons, while tactical ideas often have much shorter-term investment horizons.

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The portfolio may use derivatives, including both liquid government bond futures and less liquid credit default swaps, for the purpose of risk management and alpha generation. Gross exposure, defined as the sum of all long plus sum of the absolute value of all short positions, may exceed 100% of the market value of the portfolio.

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Projected risk statistics are estimated using FIRE, Wellington Management's proprietary risk model. The actual risk profile may differ from projections.



# Core Bond

## Investment risks

### PRINCIPAL RISKS

**Asset/Mortgage-Backed Securities Risk** – Mortgage-related and asset-backed securities are subject to prepayment risk, which is the possibility that the principal of the loans underlying the securities may prepay differently than anticipated at purchase. Because of prepayment risk, the duration of mortgage-related and asset-backed securities may be difficult to predict.

**Commingled Fund Risk** – Investments in funds or other pooled vehicles generally will indirectly incur a portion of that fund's operating expenses and/or fees and will inherit a proportion of the fund's investment risks. Funds may have different liquidity profiles based on their dealing terms, and the types of instruments in the fund. In the event a fund holds illiquid instruments, it is possible that a full redemption from the fund could result in taking custody of illiquid instruments that could not be sold in the market.

**Credit Risk** – The value of a fixed income security may decline due to an increased risk that the issuer or guarantor of that security may fail to pay interest or principal when due, as a result of adverse changes to the issuer's or guarantor's financial status and/or business. In general, lower-rated securities carry a greater degree of credit risk than higher-rated securities.

**Derivatives Risk** – Derivatives can be volatile and involve various degrees of risk. The value of derivative instruments may be affected by changes in overall market movements, the business or financial condition of specific companies, index volatility, changes in interest rates, or factors affecting a particular industry or region. Derivative instruments may provide more market exposure than the money paid or deposited when the transaction is entered into. As a result, a relatively small adverse market movement can not only result in the loss of the entire investment, but may also expose a portfolio to the possibility of a loss exceeding the original amount invested. Derivatives may also be imperfectly correlated with the underlying securities or indices it represents, and may be subject to additional liquidity and counterparty risk. Examples include futures, options and swaps.

**Fixed Income Securities Risk** – Fixed income security market values are subject to many factors, including economic conditions, government regulations, market sentiment, and local and international political events. In addition, the market value of fixed income securities will fluctuate in response to changes in interest rates, and the creditworthiness of the issuer.

**Interest Rate Risk** – Generally, the value of fixed income securities will change inversely with changes in interest rates, all else equal. The risk that changes in active interest rates will adversely affect fixed income investments will be greater for longer-term fixed income securities than for shorter-term fixed income securities.

### ADDITIONAL RISKS

**Credit Derivatives Risk** – Credit derivatives transfer price, spread and/or default risks from one party to another and are subject to additional risks including liquidity, loss of value, and counterparty risk. Payments under credit derivatives are generally triggered by credit events such as bankruptcy, default, restructuring, failure to pay, or acceleration. The market for credit derivatives may be illiquid, and there are considerable risks that it may be difficult to either buy or sell the instruments as needed or at reasonable prices. The value and risks of a credit derivative instrument depends largely the underlying credit asset. These risks may include price, spread, default, and counterparty.

**Emerging Markets Risk** – Investments in emerging and frontier countries may present risks such as changes in currency exchange rates; less liquid markets and less available information; less government supervision of exchanges, brokers, and issuers; increased social, economic, and political uncertainty; and greater price volatility. These risks are likely greater relative to developed markets.

## Core Bond

### Investment risks

**Leverage Risk** – Use of leverage increases portfolio exposure and may result in a higher degree of risk, including (i) greater volatility, (ii) greater losses from investments than would otherwise have been the case had leverage not been used to make the investments, (iii) margin calls that may force premature liquidations of investment positions.

**Liquidity Risk** – Investments with low liquidity may experience market value volatility because they are thinly traded (such as small cap and private equity or private placement bonds). Since there is no guarantee that these securities could be sold at fair value, sales may occur at a discount. In the event of a full liquidation, these securities may need to be held after liquidation date.

**Options Risk** – An option on a security (or index) is a derivative contract that gives the holder of the option, in return for the payment of a “premium,” the right, but not the obligation, to buy from (in the case of a call option) or sell to (in the case of a put option) the writer of the option the security underlying the option (or the cash value of the index) at a specified exercise price prior to the expiration date of the option. Purchasing an option involves the risk that the underlying instrument will not change price in the manner expected, so that the investor loses the premium paid. However, the seller of an option takes on the potentially greater risk of the actual price movement in the underlying instrument, which could result in a potentially unlimited loss rather than only the loss of the premium payment received. Over-the-counter options also involve counterparty risk.

**Repo & Reverse Repo Risk** – Both repurchase and reverse repurchase transactions involve counterparty risk. A reverse repurchase transaction also involves the risk that the market value of the securities the investor is obligated to repurchase may decline below the repurchase price.

## Important disclosures

### Additional performance information

**PAST RESULTS ARE NOT NECESSARILY INDICATIVE OF FUTURE RESULTS.** There can be no assurance nor should it be assumed that future investment performance of any strategy will conform to any performance examples set forth in this material or that the portfolio's underlying investments will be able to avoid losses. The investment results and any portfolio compositions set forth in this material are provided for illustrative purposes only and may not be indicative of the future investment results or future portfolio composition. The composition, size of, and risks associated with an investment in the strategy may differ substantially from the examples set forth in this material. An investment can lose value.

### Impact of fees

Illustration of impact of fees: If USD100,000 was invested and experienced a 10% annual return compounded monthly for ten years, its ending value, without giving effect to the deduction of advisory fees, would be USD270,704 with an annualized compounded return of 10.47%. If an advisory fee of 0.95% of average net assets per year were deducted monthly for the ten-year period, the annualized compounded return would be 9.43% and the ending USD value would be USD246,355. Information regarding the firm's advisory fees is available upon request.

### Selection of representative account

The current representative account became effective on 1 August 1989 because it was the oldest account at the time of selection. For data shown prior to the current representative account effective date, data of the representative account(s) deemed appropriate for the time period was used. Further information regarding former representative accounts can be provided upon request. Each client account is individually managed; individual holdings will vary for each account and there is no guarantee that a particular account will have the same characteristics as described. Actual results may vary for each client due to specific client guidelines, holdings, and other factors. In limited circumstances, the designated representative account may have changed over time, for reasons including, but not limited to, account termination, imposition of significant investment restrictions, or material asset size fluctuations.

### Access products

If access products are held by the portfolio they may not be included in the calculation of characteristic data. Access products are instruments used to gain access to equity markets not otherwise available and may include (but are not limited to) instruments such as warrants, total return swaps, p-notes, or zero strike options.

### Additional disclosures

Securities indices are unmanaged and are not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly into an index.

### Risk model

Noether is an internal proprietary system that comprises a risk model, a stress testing and scenario framework, associated software and infrastructure to calibrate the model, and to perform risk calculations. Noether provides comprehensive and internally calibrated absolute return and benchmark relative ex ante risk measurement across all portfolios managed at Wellington along with an integrated stress testing and scenario analysis capability that leverages Noether's statistical risk model, which is a multi-asset class, globally specified multi factor risk model and covers all asset classes managed at Wellington, including equity, fixed income, multi-asset, and commodities. The model was implemented starting on 1 October 2020 and could result in significant one-time value changes as a result of the risk model change. Prior to this date, the statistical model underlying the risk system is based on Barclays Capital POINT and is fully integrated with Wellington Management's pricing and analytics to provide complete coverage for all securities in Wellington Management's investable universe. The projected tracking risk for portfolios is estimated by calculating the exposures of portfolios to the risk factors in the model, which include factors such as currency, yield curve, and credit spreads, based on the historical volatilities and correlations of these risk factors. For portfolios with a history prior to 1 October 2020, over time risk data presented will have data points from both the Barclays Capital POINT model and the Noether model. Additional information is available upon request.

### Benchmark definition

Bloomberg US Aggregate Bond: The Index measures the performance of the U.S. investment grade bond market.

## LIBOR risk

**The U.K. Financial Conduct Authority has announced cessation and non-representative dates on 35 London Inter-Bank Offered Rate (LIBOR) settings across various tenors and currencies after 2021. Notably, certain widely used US dollar (USD) LIBOR rate settings (overnight, 1-, 3-, 6-, and 12-month) will continue to be published in representative forms until 30 June 2023, enabling a smoother transition to alternative reference rates by allowing more time for “difficult-to-amend” legacy contracts/securities to mature. The elimination of LIBOR may adversely affect the interest rates on, as well as the liquidity and value of, certain portfolio investments.**

Wellington has established a working group of stakeholders from key areas across the firm to manage the transition away from IBORs. Our LIBOR Replacement Working Group oversees work streams covering all aspects of the management of client assets that we anticipate could be impacted by LIBOR transition to help ensure that our client portfolios are well prepared for this upcoming change. Wellington is utilizing a multi-step implementation framework for transitioning from IBORs to alternative rates, including:

- Establishing a transition program
- Implementing a communication strategy with internal and external constituents, including several white papers
- Identifying and validating exposures across instruments, portfolios, and products as well as contractual and derivatives agreement language
- Developing operational and technology readiness plans to address the large-scale operating model, data, and technology implications required for IBOR transition
- Assessing the potential accounting and reporting implications associated with the transition away from IBORs

When IBORs are discontinued, securities that contain fallback language will transition to an alternative reference rate, depending on the deal documents. Fallback language can vary significantly for cash products based on product type, contract originator, and even origination date, as industry practices have evolved over time. For example, fallback language may provide that the replacement rate be determined based on reference bank quotations, remain permanently fixed from the previous interest period, or be determined by reference to another rate. Some securities lack any fallback language, or contain fallback language that differs from current industry standards. As a result, the liquidity and value of these securities may be adversely impacted in advance of the discontinuation of IBORs. In the event that securities lacking adequate fallback language become illiquid, clients may be forced to hold these securities to maturity.

**Wellington Management**  
**Composite: Core Bond**  
**Schedule of Performance Returns from 01 January 2011 to 31 December 2020**

<i>Period</i>	<i>Gross Return (%)</i>	<i>Net Return (%)</i>	<i>Benchmark Return (%)</i>	<i>Number of Portfolios</i>	<i>Internal Dispersion (%)</i>	<i>Composite Mkt. Value (USD Mil)</i>	<i>Total Firm Assets (USD Mil)</i>
2011	8.61	8.28	7.84	< 6	N/M	505	651,496
2012	7.02	6.70	4.21	< 6	N/M	533	757,903
2013	-0.99	-1.29	-2.02	< 6	N/M	529	834,441
2014	6.55	6.23	5.97	< 6	N/M	665	914,109
2015	0.71	0.41	0.55	< 6	N/M	644	926,949
2016	4.30	3.99	2.65	< 6	N/M	777	979,210
2017	4.66	4.35	3.54	< 6	N/M	999	1,080,307
2018	-0.31	-0.60	0.01	< 6	N/M	1,453	1,003,389
2019	9.75	9.47	8.72	6	N/M	2,193	1,154,735
2020	9.38	9.11	7.51	< 6	N/M	2,366	1,291,419

Benchmark: Bloomberg Barclays US Aggregate Bond

*N/M: For years where there are less than six portfolios throughout the performance period, Internal Dispersion is not meaningful.*

**Composite Description:** Portfolios included in the Core Bond Composite seek to achieve returns above the Bloomberg Barclays US Aggregate Bond Index by investing in US Treasuries and Agencies, mortgage-backed securities, investment grade corporate bonds, and certain eligible derivative instruments including futures contracts, and swap agreements. The average duration of portfolios included in this composite generally range within +/-1.5 years of the Bloomberg Barclays US Aggregate Index duration. Portfolios included in this composite are restricted from the use of non-US dollar and below investment grade securities. In times of increased market volatility, the composite characteristics may change significantly due to various risk factors. Key risks of this composite, in no particular order include, but are not limited to, Asset/Mortgage-Backed Securities Risk, Credit Risk, Interest Rate Risk, and Derivatives Risk.

**Composite Inception Date:** The composite inception date is 31 December 1984.

**Composite Creation Date:** The composite creation date is October 2002.

**Composite Membership:** All fully discretionary, fee paying portfolios with at least US\$5.0 million in net assets are eligible for inclusion in the composite.

**Fee Schedule:** Effective 1 March 2019 the institutional separate account fee schedule for this product is:

<u>Market Value</u>	<u>Annual Fee</u>
On the first US\$100 million	0.25%
Over US\$100 million	0.15

**Benchmark Definition:** Bloomberg Barclays US Aggregate Bond measures the performance of the U.S. investment grade bond market.

**Derivatives/Leverage/Shorts:** Derivative instruments are used only when and as client guidelines permit. When permitted by client guidelines, portfolios may use exchange-traded and over-the-counter derivative instruments, including interest rate, credit and index futures; interest rate, total rate of return and credit default swaps; bond and swap options; to-be-announced (TBA) securities, bonds for forward settlement, forward rate agreements and other derivative instruments for risk management purposes and otherwise in pursuit of the investment objective of the portfolios in the composite.

Typically, portfolios in the composite will use derivative instruments for hedging purposes and in the pursuit of approved investment strategies. Derivative instruments are used either as a substitute for underlying cash or bond positions or to hedge the risk of a portfolio in the composite in a way that is consistent with client investment guidelines. In particular, derivative instruments are used as an efficient alternative to cash bonds in the implementation of duration, yield curve, security selection and sector rotation strategies. The net market value of derivative instruments typically does not exceed 25% of the assets of a portfolio in the composite.

**Firm:** For purposes of GIPS® compliance, the Firm is defined as all portfolios managed by Wellington Management Company LLP, an independently owned, SEC-registered investment adviser, as well as its affiliates (collectively, Wellington Management). Wellington Management provides investment advisory services to institutions around the world.

**GIPS®:** Wellington Management claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS® standards. Wellington Management has been independently verified for the periods 1 January 1993 to 31 December 2019. The verification reports are available upon request.

A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report.

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**Performance Calculation:** Gross performance results are net of trading expenses. Returns are gross of withholding taxes on dividends, interest and capital gains and include reinvestment of any earnings. Returns, market values, and assets are reported in USD except when otherwise noted. Returns, market values and assets reported in currencies other than USD are calculated by converting the USD monthly return and assets using the appropriate exchange rate (official 4:00 p.m. London closing spot rates). Policies for valuing portfolios, calculating performance, and preparing GIPS composite reports are available upon request.

Net of fees performance reflects the deduction of the highest tier investment management fee ("model fee") that would be charged based on the fee schedule appropriate to you for this mandate, without the benefit of breakpoints and is calculated by subtracting 1/12th of the model fee from monthly gross composite returns. In certain instances Wellington Management may charge certain clients a fee in excess of the standard model fee, such as to legacy clients or clients receiving additional investment services. Performance net of model fees is intended to provide the most appropriate example of the impact management fees would have for you.

Pool investors will experience costs in excess of investment management fees, such as operating expenses and custodial fees. These indirect costs are not reflected in the model fee, or net of fees performance.

**Wellington Management**  
**Composite: Core Bond**  
**Schedule of Performance Returns from 01 January 2011 to 31 December 2020**

**Internal Dispersion:** The dispersion measure presented is the asset-weighted standard deviation. The asset-weighted standard deviation measures the dispersion of individual portfolio gross returns relative to the asset-weighted composite return. Only portfolios that have been included in the composite for the full period are included in the standard deviation calculation. Limitations imposed by client guidelines or by law on a portfolio's ability to invest in certain securities or instruments, such as IPO securities, and/or implementation of the firm's Trade Allocation Policies and Procedures, may cause the portfolio's performance to differ from that of the composite.

**External Dispersion:** The dispersion measure presented is the three-year annualized ex-post standard deviation. It measures the variability of the composite gross returns and the benchmark(s) over the preceding 36-month period. For periods prior to 1 January 2011, the Firm was not required to present the three-year annualized ex-post standard deviation.

	<i>3-Year Standard Deviation (%)</i>									
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Composite	3.56	2.37	2.79	2.70	2.89	3	2.80	2.78	2.76	3.55
Benchmark	2.78	2.38	2.71	2.63	2.88	2.98	2.78	2.84	2.87	3.36

**Composite Listing:** Wellington Management's list of composite descriptions is available upon request.

**Pooled Fund Listing:** Wellington Management's list of pooled fund descriptions is available upon request.

**Other Matters:** This material contains summary information regarding the investment approach described herein and is not a complete description of the investment objectives, policies, guidelines, or portfolio management and research that supports this investment approach. Any decision to engage Wellington Management should be based upon a review of the terms of the investment management agreement and the specific investment objectives, policies, and guidelines that apply under the terms of such agreement.

**Past Performance:** Past results are not necessarily indicative of future results and an investment can lose value.

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# Employees' Retirement Fund of the City of Dallas

Global Fixed Income

April 12, 2022

Mark S. Lindbloom  
Molly Schwartz, CFA  
Mark J. Friedrich



## **MARK S. LINDBLOOM**

*44 Years' Experience*

- *Western Asset Management Company, LLC, 2005-, Portfolio Manager*
- *Citigroup Asset Management, 1986-2005, Portfolio Manager*
- *Brown Brothers Harriman & Co., 1981-1986, Portfolio Manager*
- *New York Life Ins., 1978-1980, Analyst*
- *Pace University, M.B.A.*
- *Rider University, B.S.*



## **MOLLY SCHWARTZ**

*18 Years' Experience*

- *Western Asset Management Company, LLC, 2004-, Portfolio Manager*
- *University of Southern California, M.B.A.*
- *University of Southern California, B.S. Finance*
- *Chartered Financial Analyst*



## **MARK J. FRIEDRICH**

*26 Years' Experience*

- *Western Asset Management Company, LLC, 2018-, Client Service Executive*
- *Nuveen, 2016-2018, Senior Vice President*
- *WisdomTree Asset Management, 2012-2016, Regional Director*
- *Goldman Sachs, 2010-2012, Vice President, Asset Management Division*
- *Applied Materials, 2004-2010, Treasury Manager*
- *Treasurer's Office County of San Diego, 1999-2004, Investment Officer*
- *San Diego Water Authority, 1996-1999, Senior Financial Analyst*
- *Santa Clara University, Leavey School of Business, M.B.A. Finance*
- *San Diego State University, B.S., Business Administration Finance*

*Western Asset experience reflects current position title and hire date.*

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- I. **About Western Asset**
- II. **Investment Philosophy, Process and People**
- III. **Appendix**

## About Western Asset



*We are deeply grateful to have had the opportunity to serve our clients for 50 years.*

*Thank you for your partnership.*

# About Western Asset

Western Asset is a globally integrated fixed-income manager, sourcing ideas and investment solutions worldwide.

## Western Asset At a Glance

- Founded in 1971. Specialist Investment Manager of Franklin Resources, Inc. since July 31, 2020
- Fixed-income value investors
- \$492.4 billion (USD) AUM
  - \$436.8 billion (USD) long-term assets
  - \$55.6 billion (USD) cash and cash equivalent assets
- 762 employees

## Organizational Pillars

- Clients first
- Globally integrated
- Team-based
- Active fixed-income
- Integrated risk management

## AUM by Sector – Total \$492.4 billion (USD)



## Western Asset's Deep Global Integration Allows Us to Source Investment Ideas and Investment Solutions Across Regions

### Investment Management

- 133 investment professionals on five continents and in seven offices
- 24 years average experience
- 38 portfolio and quantitative analysts in portfolio operations

### Client Service & Marketing

- 166 staff dedicated to client service
- Specialized teams to meet individual client needs

### Risk Management & Operations

- Independent risk management function with 35 professionals including 14 PhDs
- 307 staff dedicated to globally integrated operations

## Global Footprint (AUM in USD billions)



Source: Western Asset. As of 31 Dec 21

\*Splits time between Hong Kong and Singapore offices

# About Western Asset – Clients

Committed to excellence in client service

## Representative Client List

Corporate	Public / Gov. / Sovereign Wealth	Multi-Employer / Unions	Eleemosynary
<p>AT&amp;T Services, Inc.                      Atmos Energy Corporation                      Bayer Corporation                      British Airways (US)                      Campbell Soup Company                      Caterpillar Inc.                      Clark Enterprises, Inc.                      Cleveland-Cliffs Inc                      Consolidated Edison Company Of New York, Inc.                      HanesBrands Inc.                      International Paper Company                      John Lewis Partnership Pensions Trust                      Kvaerner                      Lee Enterprises                      Meijer, Inc.                      Nestle USA, Inc.                      NiSource Inc.                      NXP Semiconductor, Inc.                      Southern California Edison Company                      Springpoint Senior Living                      Stellantis                      Stolt-Nielsen S.A. (Bermuda)                      The Ashforth Company                      Thyssenkrupp North America, Inc.                      Unisys Corporation                      Verizon                      Westlake Chemical Corporation                      XPO Logistics Inc</p>	<p>Anne Arundel (MD) Retirement Systems                      Arkansas Local Police and Fire Retirement System                      Baltimore County (MD) Employees Retirement System                      California State Teachers' Retirement System                      City of Aurora                      City of Grand Rapids Retirement Systems                      City of Phoenix Employees' Retirement System                      compenswiss                      Employees' Retirement System of the City of Baton Rouge and Parish of East Baton Rouge                      Employees' Retirement System of the State of Rhode Island                      Fife Council Pension Fund                      Firemen's Annuity and Benefit Fund of Chicago                      Fresno County Employees' Retirement Association                      Government of Bermuda Public Funds                      Indiana State Treasurer's Office                      Iowa Public Employees' Retirement System                      Kansas Public Employees Retirement System                      Los Angeles County Employees Retirement Association                      Louisiana Sheriff's Pension &amp; Relief Fund                      Marin County Employees' Retirement Association                      Minnesota State Board of Investment                      Ohio Police &amp; Fire Pension Fund                      Oklahoma City Employee Retirement System                      Oregon Public Employees Retirement System (PERS)                      Public Employee Retirement System of Idaho                      Public School Teachers' Pension and Retirement Fund of Chicago                      Salt River Project Agricultural Improvement and Power District                      School Employees Retirement System of Ohio                      State of Ohio Bureau of Workers Compensation                      Tennessee Valley Authority                      Ventura County Employees' Retirement Association                      Washington Metro Area Transit Authority                      Wichita (KS) Retirement Systems                      Wyoming Retirement System</p>	<p>1199SEIU Health Care Employees Pension Fund                      Alaska Electrical Trust Funds                      Automotive Machinists Pension Trust                      Boilermaker Blacksmith National Pension Trust                      Carpenters District Council of Kansas City                      Construction Industry Laborers                      Directors Guild of America-Producer Pension and Health Plans (DGA - PPHP)                      Electrical Workers, IBEW, Local 531                      Heavy &amp; General Laborers' Locals 472/172                      IBEW Local No. 9                      Iron Workers Local #11 Benefit Funds                      IUOEE Construction Ind Ret Plan, Locals 302 and 612                      Line Construction Benefit Fund                      National Education Association of the United States                      New England Healthcare Employees Union, District 1199, AFL-CIO                      New Jersey Transit                      Operating Engineers Local #428 Trust Funds                      Pacific Coast Roofers                      Retail Wholesale &amp; Department Store Union                      SIU Rivers Pension Trust                      Southern Nevada Culinary &amp; Bartenders Pension Trust Fund                      Teamsters Union Local No. 52 Pension Fund                      United Association Union Local No. 290 Plumber, Steamfitter &amp; Shipfitter Industry Pension Trust                      United Food and Commercial Workers Union Local 919                      Western Washington Laborers Employers Pension Trust</p>	<p>Abilene Christian University                      American Academy in Rome                      Baha'i World Centre                      Catholic Relief Services                      Catholic Umbrella Pool                      Commonfund                      Communities Foundation of Texas                      Community Foundation of North Central Wisconsin                      Domestic &amp; Foreign Missionary Society ECUSA                      Glass-Glen Burnie Foundation                      Rockford Woodlawn Fund, Inc                      Saint Louis University                      Sisters of St. Francis of the Neumann Communities                      Strada Education Network, Inc.                      Texas Presbyterian Foundation                      The Catholic Foundation of Central Florida                      The Diocese of Allentown                      The Donald B. and Dorothy L. Stabler Foundation                      University of Southern California                      Wallace H. Coulter Foundation                      Washington State University</p>
			Insurance
			<p>Anthem Companies, Inc.                      AXA XL Ltd.                      Blue Cross and Blue Shield of Massachusetts, Inc.                      Capital BlueCross Inc.                      CONTASSUR s.a./n.v                      Genworth Financial, Inc.                      Great-West Life &amp; Annuity Insurance Company                      Oil Investment Corporation Ltd.                      Pacific Life Insurance Company</p>
		Health Care	
		<p>Ascension Investment Management                      Baylor Scott &amp; White Holdings                      CHRISTUS Health                      Holy Name Medical Center                      Kaiser Permanente                      LCMC Health                      NorthShore University HealthSystem                      Sisters of Charity of St. Augustine Health System, Inc.                      St. George Corporation</p>	
Financial Services			
<p>Asset Management One Co., Ltd.                      GuideStone Capital Management, LLC                      Highbury Pacific Capital Corp.                      Morgan Stanley Custom Solutions                      Morgan Stanley Global Wealth Management                      Omniss Investments Ltd                      Russell Investments                      SEI (OCIO)                      SMBC Nikko Securities Inc.                      Tokio Marine Asset Management Co., Ltd.                      Wells Fargo &amp; Company</p>			

As of 31 Jan 22. Please see the Representative Client List Disclosure in the Appendix for more information. All have authorized the use of their names by Western Asset for marketing purposes. Such authorization does not imply approval, recommendation or otherwise of Western Asset or the advisory services provided.

# Diversity, Equity & Inclusion at Western Asset

## Diversity is a Core Value

*Diversity is fundamental to our culture of mutual respect. Cultivating an inclusive environment fosters innovation, high performance and an outstanding client experience.*

*Western Asset is committed to serving its clients by striving for excellence in our investment management services. To reach our goals and promote our team-based culture, we believe that embedding diversity, equity, and inclusion principles across the entire firm is critical.*

## Key Pillars of Focus



## Investment Philosophy, Process and People

# A Value Based Approach to Fixed-Income Investing

## US Core Strategy

### Investment strategy

- The strategy seeks to maximize total return via a well-diversified, long-term value based core fixed-income portfolio
- The strategy seeks to approximate the risk of the Bloomberg US Aggregate USD Unhedged Index

### Characteristics

- Fundamental value based approach that combines both top down macro decisions with bottom up issuer selection
- Active management of duration, curve, sector, sub-sector and issuer exposures
- Diversified portfolio with multiple investment themes

### Benchmark

- Bloomberg US Aggregate USD Unhedged Index

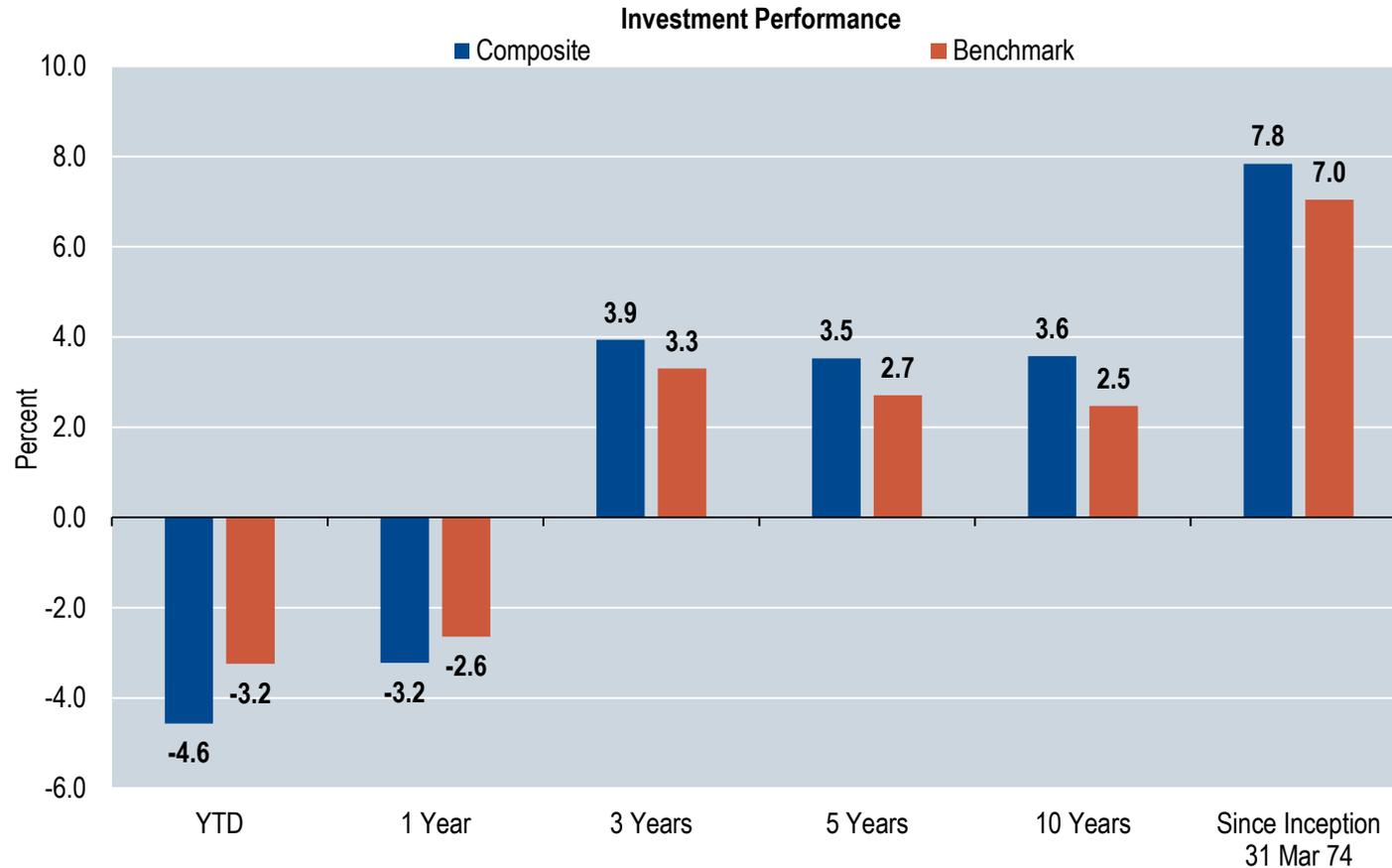
### Strategy AUM

- \$44.6 billion

# Investment Results

## US Core vs. Bloomberg US Aggregate USD Unhedged Index

February 28, 2022



Source: Western Asset. Performance shown is gross of fees. Returns since inception are as of the indicated close of business day. Returns for periods greater than one year are annualized.

From 01 January 1976, the benchmark is comprised of 100% Bloomberg US Aggregate USD Unhedged Index. From 31 March 1974 to 31 December 1975, the benchmark is comprised of 100% Bloomberg US Government/Credit USD Unhedged Index

# Investment Philosophy

These are the core beliefs that drive our investment decision-making.

## Long-term fundamental value

- **Markets often misprice securities.** Prices can deviate from fundamental fair value, but over time, they typically adjust to reflect inflation, credit quality fundamentals and liquidity conditions. Consistently investing in undervalued securities may deliver attractive investment returns.
- **We can systematically identify mispricings.** We believe we can identify and capitalize on markets and securities that are priced below fundamental fair value. We do this through disciplined and rigorous analysis, comparing prices to the fundamental fair values estimated by our macroeconomic and credit research teams around the globe.
- **Our portfolios emphasize our highest convictions.** The greater the difference between our view of fair value and markets' pricing, the bigger the potential value opportunity. The greater the degree of confidence in our view of fundamentals, the greater the emphasis of the strategies in our portfolios.

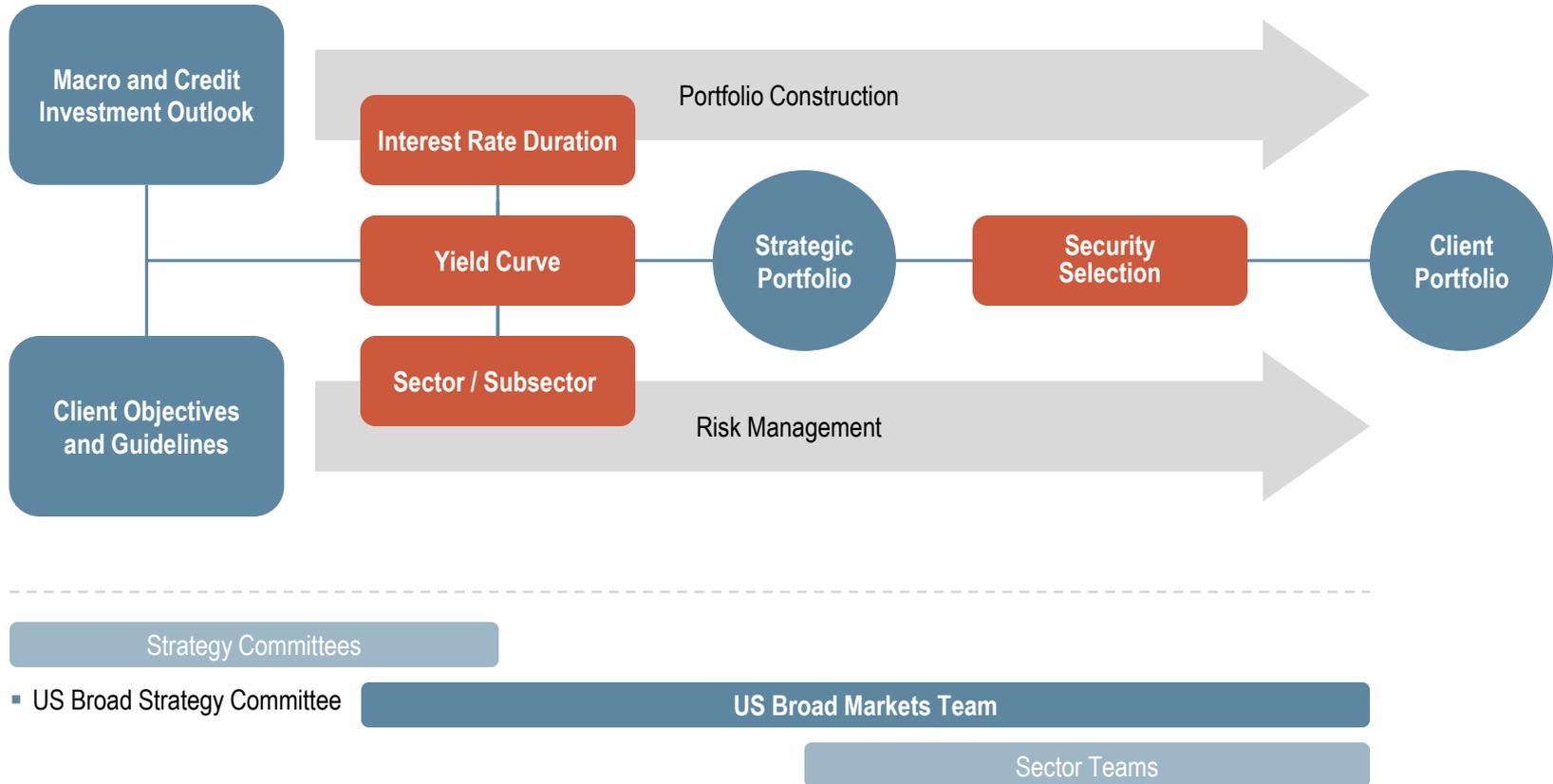
## Multiple diversified strategies

- **We seek diversified sources of returns.** Our objective is to meet or exceed our investors' performance objectives within their tolerances for risk. We seek to diversify investments and add value across interest rate duration, yield curve, sector allocation, security selection, country and currency strategies. We deploy multiple diversified strategies that benefit in different environments so no one strategy dominates performance, helping to dampen volatility.

# Investment Process

Our time-tested investment process is designed around our value philosophy and our team-based approach.

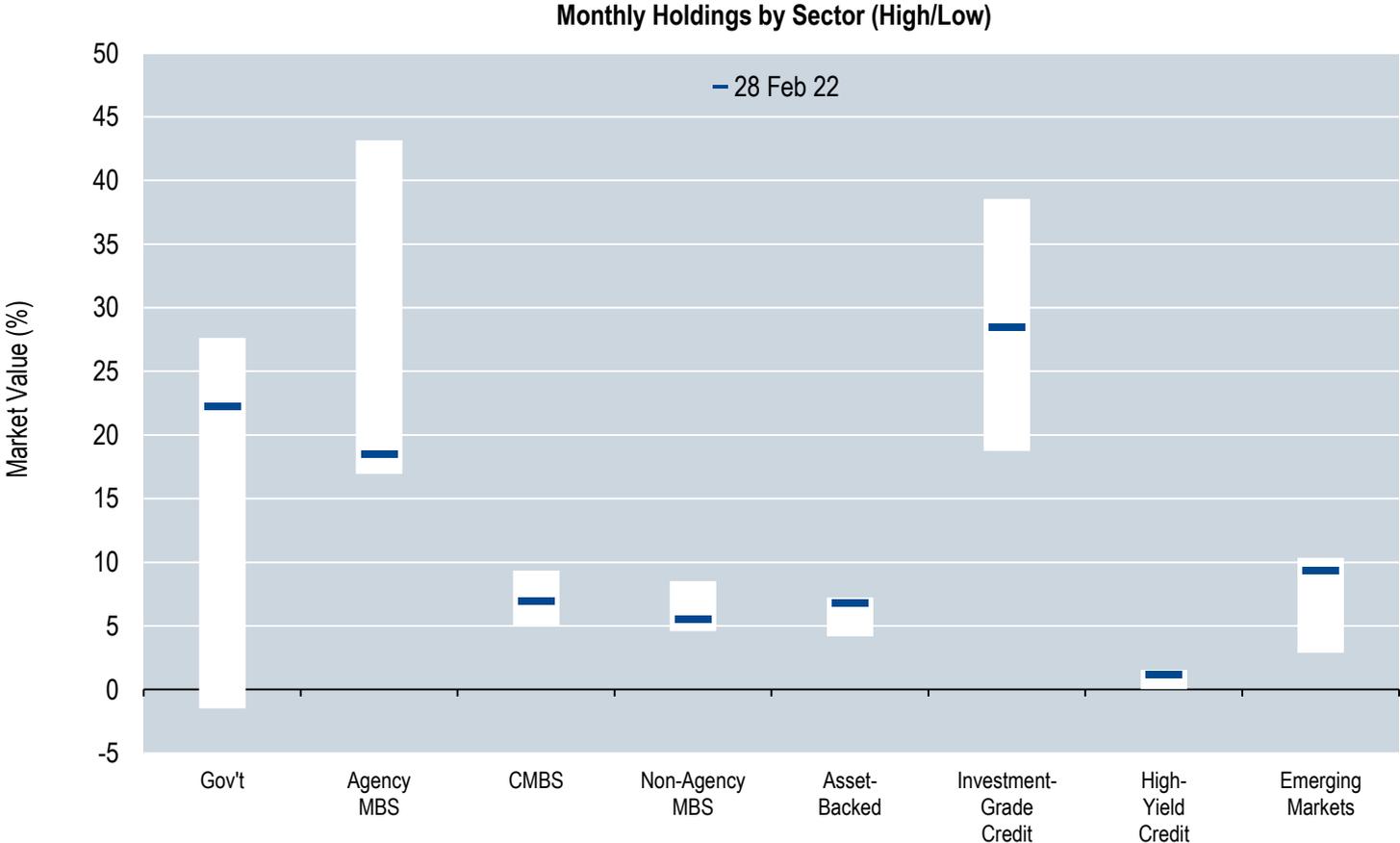
## US Core Investment Process and Team Interaction



# Historical Allocation Range (5-Years)

US Core

February 28, 2022



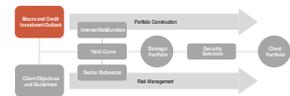
Source: Western Asset

Note: Sector exposure includes look-through to any underlying commingled vehicles if held. Sectors are subject to change. All weightings are a percentage of total market value. Above sector allocation plus cash sum to 100%. Individual sector data may not sum to 100% due to rounding.



# Macro & Credit Investment Outlook

The US Broad Strategy Committee sets the overall themes for the US broad market investment strategies including duration & yield curve positioning and sector/sub-sector preferences



## US Broad Strategy Committee

**S. Kenneth Leech**  
Chief Investment Officer

**John L. Bellows, CFA**  
Fed Policy /  
US Broad Market

**Ryan K. Brist, CFA**  
Investment-Grade  
Credit

**Michael C. Buchanan, CFA**  
Deputy CIO /  
Global Credit

**Amit Chopra, CFA**  
Long Duration /  
US Broad Market

**Greg E. Handler, CFA**  
Mortgage and  
Consumer Credit

**Kevin K. Kennedy**  
Liquidity

**Walter E. Kilcullen**  
High Yield

**Chia-Liang Lian, CFA**  
Emerging Markets

**Mark S. Lindbloom**  
US Broad Market

**Frederick R. Marki, CFA**  
Inflation-Linked

**Dennis J. McNamara, CFA**  
US Broad Market

**Rajiv Sachdeva**  
Portfolio &  
Quantitative Analysis

**Julien A. Scholnick, CFA**  
US Broad Market

**Bonnie M. Wongtrakool, CFA**  
ESG Investments

- Sets macro and sector investment themes
- Meets weekly to evaluate and establish the US investment outlook over a 6-9 month horizon.
  - Within the context of our global investment outlook
  - Based on long-term economic developments and market valuations
  - Leveraging sector input and broad top-down analysis
- Evaluates risk factors and potential scenarios. Sets the risk tone for US investment strategies

# Strategic Portfolio

Based upon the output from the US Broad Strategy Committee the US Broad Market Team develops target allocations specific to their strategies



## US Broad Market Team

### Portfolio Management

**S. Kenneth Leech**  
Portfolio Manager / CIO

**Scott M. Beatty, CFA**  
Portfolio Manager

**John L. Bellows, PhD, CFA**  
Portfolio Manager

**Amit Chopra, CFA**  
Portfolio Manager

**Mark S. Lindbloom**  
Portfolio Manager

**Keith A. Luna, CFA**  
Portfolio Manager

**Frederick R. Marki, CFA**  
Portfolio Manager

**Nicholas Mastroianni, CFA**  
Portfolio Manager

**Julien A. Scholnick, CFA**  
Portfolio Manager

**Molly Schwartz, CFA**  
Portfolio Manager

**Bonnie M. Wongtrakool, CFA**  
Portfolio Manager

**Rafael Zielonka, CFA**  
Portfolio Manager

### Derivatives

**Scott M. Beatty, CFA<sup>1</sup>**  
Portfolio Manager

**Jim K. Huynh**  
Portfolio Manager

**Keith A. Luna, CFA<sup>1</sup>**  
Portfolio Manager

### Risk Management

**Robert Gingrich, PhD**  
Manager of Alternatives & Derivatives Risk

**Pornatawee Nantamanasikarn, PhD**  
Portfolio Risk Manager

### Product

**Travis M. Carr, CFA**  
Product Specialist

**Virgil Esguerra**  
Product Analyst

**Douglas Wade, CFA**  
Product Specialist

### Trading

**Nicholas Mastroianni, CFA<sup>1</sup>**  
Trader

**Ian J. Smith, CFA<sup>2</sup>**  
Trader

**Rafael Zielonka, CFA<sup>1</sup>**  
Trader

### Portfolio Analysis

**Sung Kim**  
Portfolio Analyst

**Zachary Klein, CFA**  
Portfolio Analyst

**John Rodli, CFA**  
Portfolio Analyst

## Western Asset Investment Team

### Investment Management Professionals

- Chief Investment Officer: S. Kenneth Leech
- Deputy CIO: Michael C. Buchanan
- 133 Investment Professionals on five continents and seven offices, as of December 31, 2021
- 24 years of average experience

### Major Investment Committees

- Global Investment Strategy Committee
- Global Credit Committee
- US Broad Strategy Committee
- Global Emerging Markets Strategy Committee
- Unconstrained Asset Allocation Committee

### Sector and Regional Teams

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>Global credit</li> <li>Investment-grade</li> <li>High-yield</li> <li>Emerging markets</li> <li>Mortgage and consumer credit</li> <li>Long duration</li> <li>US municipal</li> <li>Liquidity</li> <li>Insurance</li> </ul> | <ul style="list-style-type: none"> <li>US</li> <li>Europe</li> <li>UK</li> <li>Japan</li> <li>Asia</li> <li>Brazil</li> <li>Australia / New Zealand</li> </ul> |
|--|--|

### Independent Risk Management Function

- Chief Risk Officer: Ahmet E. Kocagil
- Independent evaluation of strategies and risks
- Market and Credit Risk Committee
- 35 investment risk professionals

As of 31 Dec 21

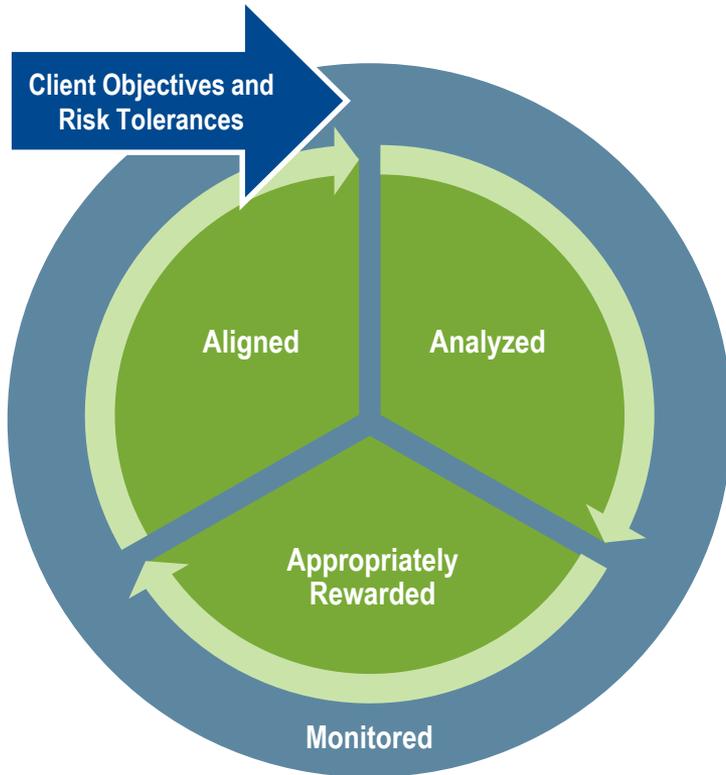
<sup>1</sup>Dual role with Portfolio Management

<sup>2</sup>Dual role with Derivatives

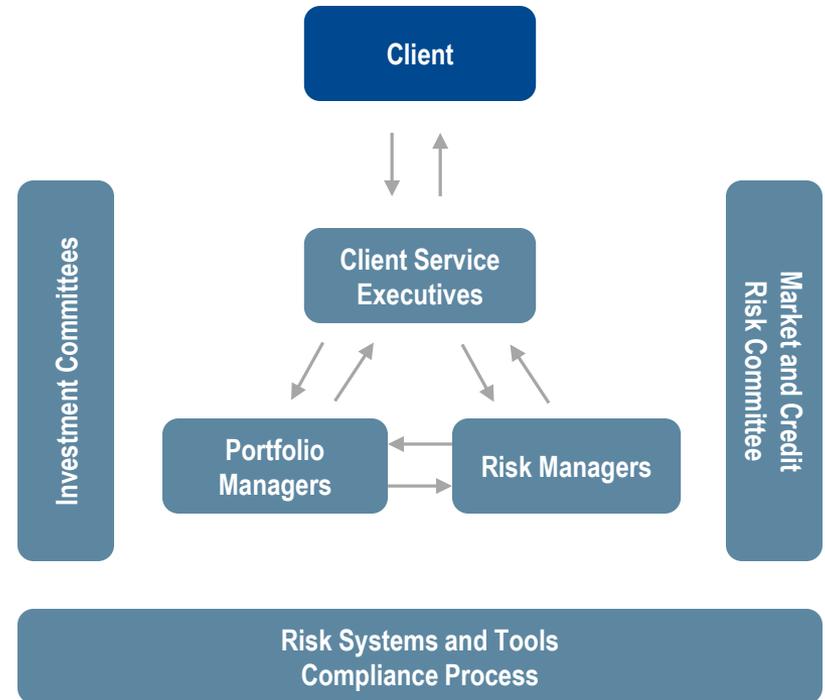
# Risk Management

In our culture, effective risk management is critical to successful portfolio management.

Integrating risk management into portfolio construction and in the independent review of portfolio risks strengthens its effectiveness.



Risk management is a team effort. Robust communication and escalation procedures underpin the independence and transparency of risk management.



# Why Western Asset?

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**Fixed-income only specialist**

**Team-based approach**

**Global presence**

**Experience and capacity**

**Client Service focus – Solution based**

**Strategic importance of institutional client segment**

# Appendix

**US Core Portfolios\***

- .30 of 1% on first USD100 million
- .20 of 1% on amounts over USD100 million

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*\*The minimum separate account size is USD75 million*

# Representative Client List Disclosure

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The clients listed are invested in a wide range of mandates, and are located in a variety of countries or regions of the United States.

Corporate clients listed here have portfolios with an AUM of \$3.60 million or greater.

Financial Services clients listed here have portfolios with an AUM of \$8.83 million or greater.

Health Care clients listed here have portfolios with an AUM of \$5.48 million or greater.

Insurance clients listed here have portfolios with an AUM of \$50.92 million or greater.

Eleemosynary clients listed here have portfolios with an AUM of \$0.57 million or greater.

Public clients listed here have portfolios with an AUM of \$17.14 million or greater.

Multi-Employer/Unions clients listed here have portfolios with an AUM of \$2.02 million or greater.

Clients that have advised Western Asset of account terminations have been excluded from the lists.

# Performance Disclosure

December 31, 2021

## US Core Composite\*

Composite Inception Date: 04/01/1974 | Composite Creation Date: 01/01/2000

	No. of Accts	Gross Total Return	Net Total Return	Benchmark Total Return	Gross Total 3-Yr St Dev	Benchmark Total 3-Yr St Dev	Internal Dispersion	Mkt. Value USD Mil	Percentage of Firm Assets	Firm Assets USD Mil
2012	21	7.26%	6.94%	4.21%	2.42%	2.38%	0.69%	10,586	2.29%	461,891
2013	17	-1.45%	-1.74%	-2.02%	2.72%	2.71%	0.45%	7,138	1.58%	451,632
2014	18	7.39%	7.07%	5.97%	2.81%	2.63%	0.62%	8,346	1.79%	466,036
2015	18	1.21%	0.91%	0.55%	2.97%	2.88%	0.64%	8,719	2.01%	433,747
2016	21	4.46%	4.14%	2.65%	3.11%	2.98%	0.28%	14,119	3.37%	419,207
2017	21	5.51%	5.19%	3.54%	2.89%	2.78%	0.42%	16,954	3.89%	436,309
2018	19	-0.29%	-0.59%	0.01%	3.02%	2.84%	0.19%	16,107	3.80%	424,136
2019	20	11.06%	10.73%	8.72%	2.89%	2.87%	0.30%	22,976	5.05%	455,276
2020	18	9.58%	9.26%	7.51%	4.15%	3.36%	0.25%	28,627	5.97%	479,810
2021	21	-1.35%	-1.65%	-1.54%	4.26%	3.35%	0.12%	31,224	6.39%	488,490

**Description:** The Western Asset US Core strategy is a US broad Market strategy that aims to maximize total return and add value through duration and curve positioning, sector allocation, and security selection, while approximating benchmark risk. The strategy invests in a diversified portfolio using all major investment-grade fixed-income sectors with a bias toward non-Treasuries, especially corporate, mortgage-backed and asset-backed securities. The portfolios may have the ability to use futures and options.

**Benchmark Description:** The current benchmark is the Bloomberg US Aggregate USD Unhedged Index.

**Base Currency:** USD | **Composite Minimum:** No minimum size requirement as of 1/1/2020 (previously \$25 million).

**Current Fee Schedule:** The investment management fee schedule for the separate account is .30 of 1% on the first \$100 million, .20 of 1% on amounts over \$100 million. The investment management fee schedule for the Western Asset US Core Bond L.L.C., which is a member of the composite, is .30 of 1%. The total expense ratio as of December 31, 2020 for the Western Asset Core Bond L.L.C. was .36 of 1%.

*\*Effective 1 January 2020, the US Core Composite has been redefined to exclude accounts with significant restrictions on the major sector of the broad fixed income market, duration flexibility or credit quality.*

**Western Asset claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Western Asset has been independently verified for the periods from January 1, 1993 to December 31, 2020.**

A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The US Core Composite has been examined from January 1, 1993 to December 31, 2014 and January 1, 2019 to December 31, 2020. The verification and performance examination reports are available upon request.

# Performance Disclosure

December 31, 2021

For GIPS® purposes, the Firm is defined as Western Asset, a primarily fixed-income investment manager comprised of Western Asset Management Company, LLC; Western Asset Management Company Distribuidora de Títulos e Valores Mobiliários Limitada is authorized and regulated by Comissão de Valores Mobiliários and Brazilian Central Bank; Western Asset Management Company Pty Ltd ABN 41 117 767 923 is the holder of the Australian Financial Services Licence 303160; Western Asset Management Company Pte. Ltd. Co. Reg. No. 200007692R is a holder of a Capital Markets Services Licence for fund management and regulated by the Monetary Authority of Singapore; Western Asset Management Company Ltd, a registered Financial Instruments Business Operator and regulated by the Financial Services Agency of Japan; and Western Asset Management Company Limited is authorized and regulated by the Financial Conduct Authority ("FCA") (FRN 145930), with offices in Pasadena, New York, London, Singapore, Tokyo, Melbourne, São Paulo, Hong Kong, and Zürich. Each Western Asset company is a wholly owned subsidiary of Franklin Resources, Inc. but operates autonomously, and Western Asset, as a Firm, is held out to the public as a separate entity. Western Asset Management Company was founded in 1971. Specialist Investment Manager of Franklin Resources, Inc. since July 31, 2020. This communication is intended for distribution to Professional Clients only if deemed to be a financial promotion in the UK as defined by the FCA. This communication may also be intended for certain EEA countries where Western Asset has been granted permission to do so. For the current list of the approved EEA countries please contact Western Asset at +44 (0)20 7422 3000.

Gross-of-fees returns are presented before management fees, but after all trading expenses. Net-of-fees results are calculated using a model approach whereby the current highest tier of the appropriate strategy's fee schedule is used. Effective January 1, 2020, for annual periods where the actual account weighted fees are higher than the composite model fee, the actual account weighted fees will be used for the net-of-fee composite return calculations. Net-of-fee composite return calculations using actual account weighted fees may include fund returns that incur higher fees than those applied to separately managed accounts. The portfolios in the Composite are all actual, fee-paying and performance fee-paying, fully discretionary accounts managed by the Firm for at least one full month. Investment results shown are for taxable and tax-exempt accounts and include the reinvestment of all earnings. Any possible tax liabilities incurred by the taxable accounts have not been reflected in the net performance. Policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request.

Composite returns are measured against a benchmark, when applicable. The benchmark is unmanaged and provided to represent the investment environment in existence during the time periods shown. For comparison purposes, its performance has been linked in the same manner as the Composite. The benchmark presented was obtained from third party sources deemed reliable but not guaranteed for accuracy or completeness. Benchmark returns and benchmark three-year annualized ex-post standard deviation are not covered by the report of independent verifiers.

Internal dispersion is calculated using the asset-weighted standard deviation of annual gross returns of those portfolios that were included in the Composite for the entire year. Periods with five or fewer accounts are not statistically representative and are not presented. The three-year annualized ex-post standard deviation measures the variability of the composite and the benchmark returns over the preceding 36-month period.

Past investment results are not indicative of future investment results. Information contained herein is believed to be accurate, but cannot be guaranteed. Employees and/or clients of Western Asset may have a position in the securities mentioned.

Western Asset's list of composite descriptions, limited distribution pooled fund descriptions, and broad distribution pooled funds are available upon request. Please contact Derek Fan at 626-844-9465 or derek.fan@westernasset.com. All returns for strategies with inception prior to January 1, 2012 are available upon request.

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The representative portfolio is an account in the composite we believe most closely reflects current portfolio management style for the strategy. Performance is not a consideration in the selection of the representative portfolio. The characteristics of the representative portfolio shown may differ from those of the composite and of the other accounts in the composite. Information regarding the representative portfolio and the other accounts in the composite is available upon request.

# DISCUSSION SHEET

## Employees' Retirement Fund Board of Trustees Meeting

April 12, 2022

**Issue:** Smith Graham & Co. Investment Advisors, L.P.

**Attachments:** None

**Discussion:** Smith Graham investment returns had underperformed their benchmark (the Russell Midcap Index) for the 3-year period ending December 7, 2020. Our recommendation at that time was to place Smith Graham on watch for six months and then re-evaluate their performance. At the September 2021 Board meeting, staff requested a six-month extension of the watch period to continue to observe performance until year-end.

Given their investment outperformance during 2021, we recommend removing Smith Graham from the watch list. ERF staff has discussed this issue with Wilshire and they agree with Staff recommendation, per Board approval.

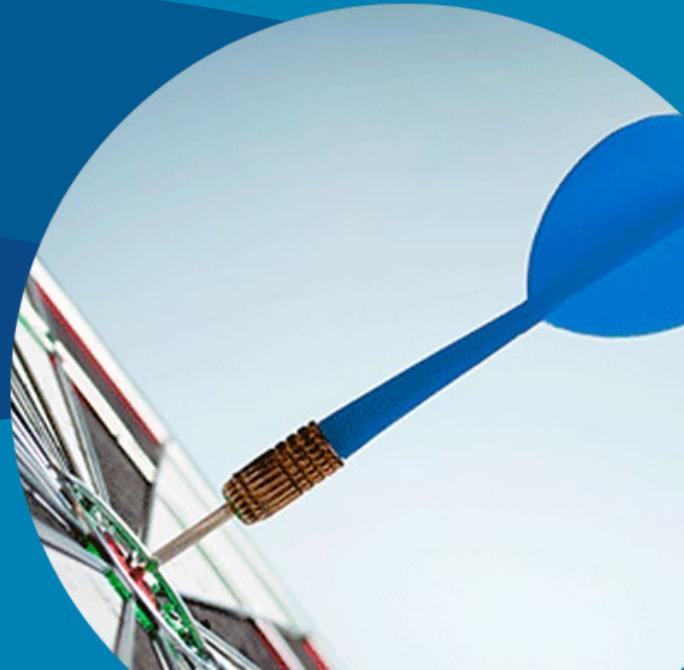
**Recommendation:** Suggested motion for approval is as follows: Move to approve Smith Graham's removal from the ERF Investments watch list.



# City of Dallas Employees' Retirement Fund

December 31, 2021

Preliminary Valuation Results



# Key Issues and Changes

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- ERF's investment return was above its investment target of 7.25% on both a market value and actuarial value basis in 2021
  - Return on market value was 14.46%
    - Dollar-weighted return
    - Versus Wilshire's time-weighted return of 15.44%
  - Deferred investment income gains of \$260 million
    - \$40 million of deferred shortfalls were offset, \$44 million recognized in this valuation, with the remaining \$176 million deferred
- \$29 million liability experience loss in 2021
  - Loss from cost of living adjustment being double the assumption
  - Loss from salary increases being higher than assumed
  - Gain on retiree mortality (more deaths than assumed)

# Key Issues and Changes

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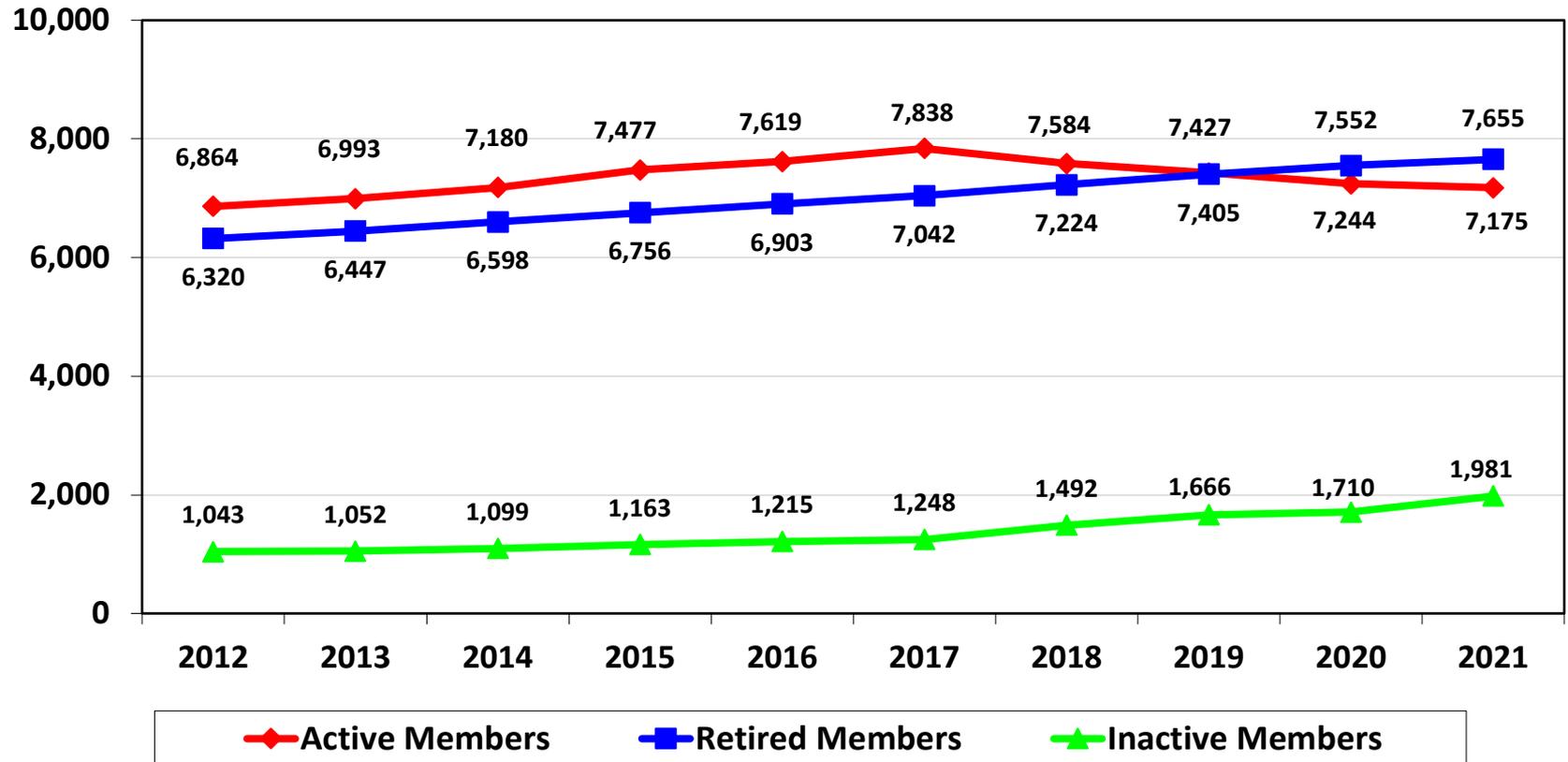
- Payroll increased more than expected, despite slight drop in active membership
  - 3.3% increase versus 2.5% increase assumption
- Current Total Obligation Rate exceeds 36% of pay cap
  - CATOR is 36.00%
  - City contribution rate is 22.68%
  - Member rate is 13.32%
- The new Tier became effective January 1, 2017
  - Over 2,800 employees in new Tier at December 31, 2021
    - New Tier is approximately 39% of the active employees
  - NC% decreased from 20.11% last year to 19.71% this year

# Membership

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- The number of active members decreased from 7,244 to 7,175, a 1.0% decrease
- Payroll for active members increased from \$428.8 million to \$442.9 million, a 3.3% increase
- The number of members in payment status increased by a net 103, from 7,552 to 7,655, a 1.4% increase
- There are 0.9 active members for each retiree, compared to 1.2 in 2010

# Active Members and Retired Members



Note: active membership decreased 1.0% versus last year

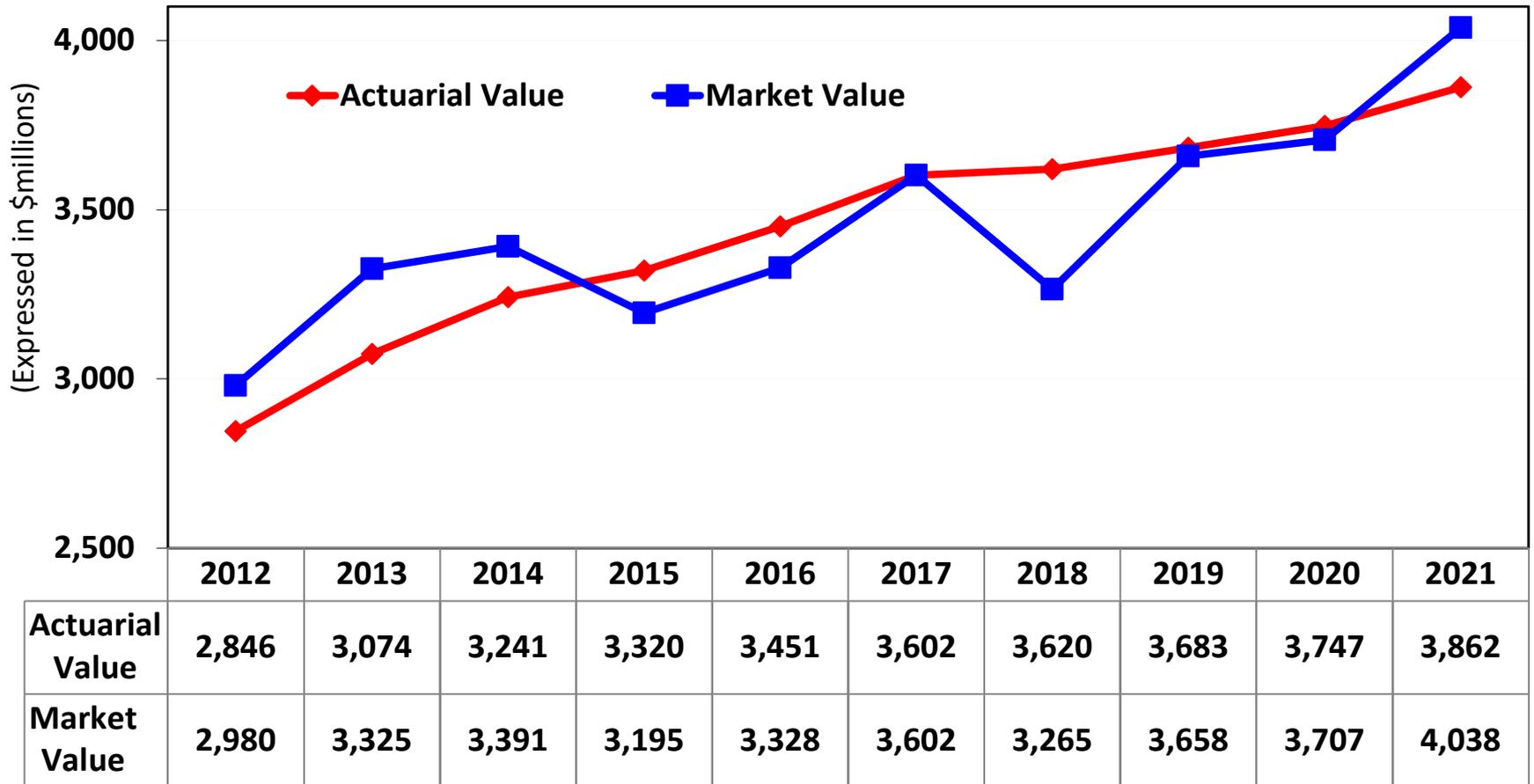


# Assets

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- Fair market value (unaudited) increased from \$3.707 billion to \$4.038 billion
- Return on market value of assets was approximately 14.46% in 2021
- Actuarial value is \$3.862 billion, compared to \$3.747 billion last year
- Actuarial rate of return was 8.38% in 2021
  - Greater than 7.25% assumed rate
- Actuarial value is 95.6% of fair market value
- Net deferred investment gains of \$176 million still to be recognized in actuarial value of assets

# Historical Asset Values



# Actuarial Results

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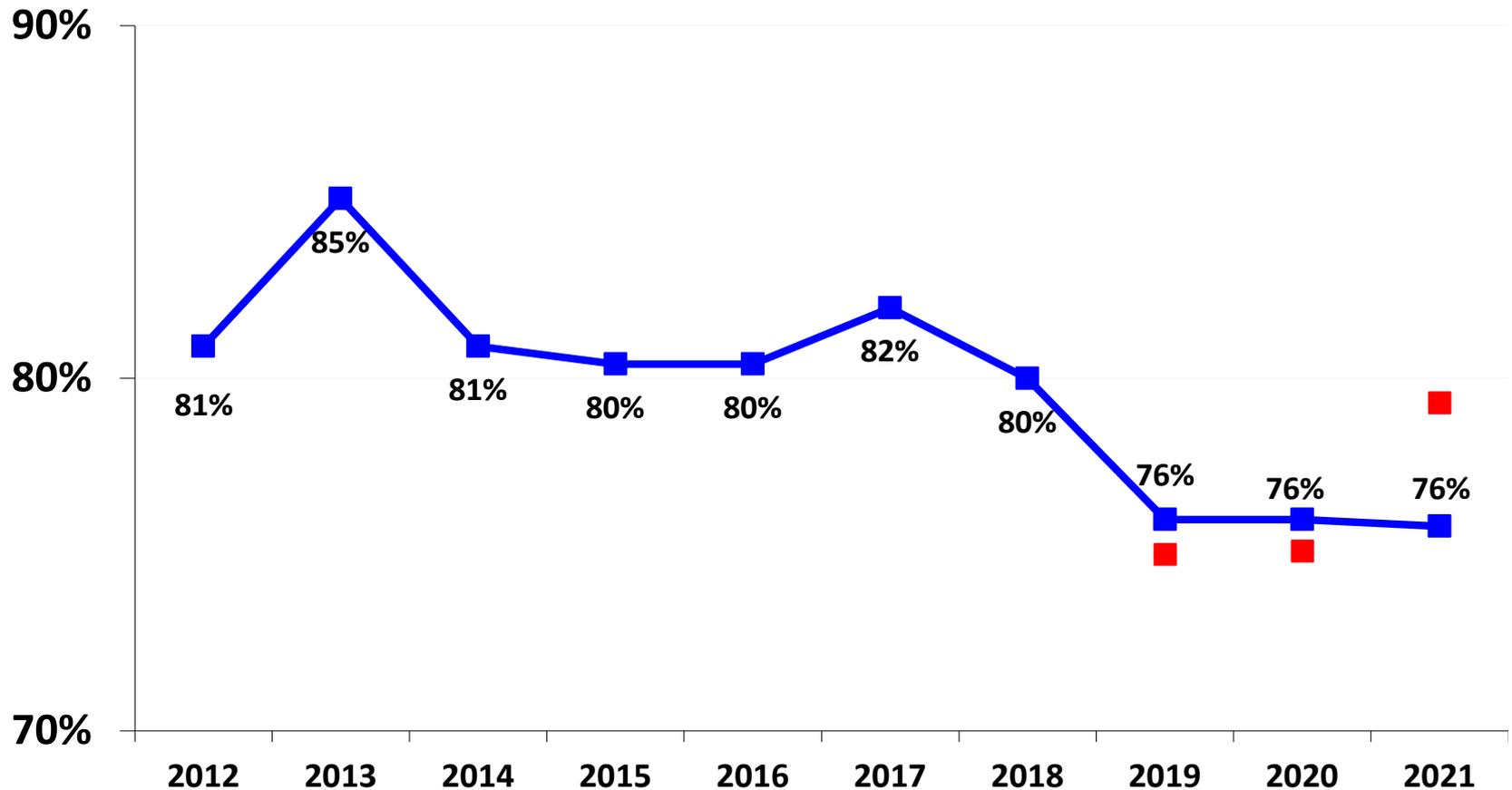
- Actuarial Accrued Liability (AAL) of benefits is now \$5.094 billion
- Unfunded Actuarial Accrued Liability (UAAL) increased from \$1,186 million to \$1,232 million
  - Expected to increase to \$1,211 million
  - Reflects \$41 million gain on actuarial value of assets and \$29 million loss on liabilities
  - UAAL increased \$34 million due to difference between calculated contribution rate and actual contribution rate

# Actuarial Results

---

- Funded ratio (actuarial assets divided by actuarial accrued liability) decreased from 76.0% in 2020 to 75.8% in 2021
- Funded ratio using market value is 79.3%
  - Was 75.1% last year
- Total 30-year contribution rate is 34.78%
  - Does not include POB debt service payments
  - Based on open-group projection
  - 34.85% last year

# Historical Funded Ratios



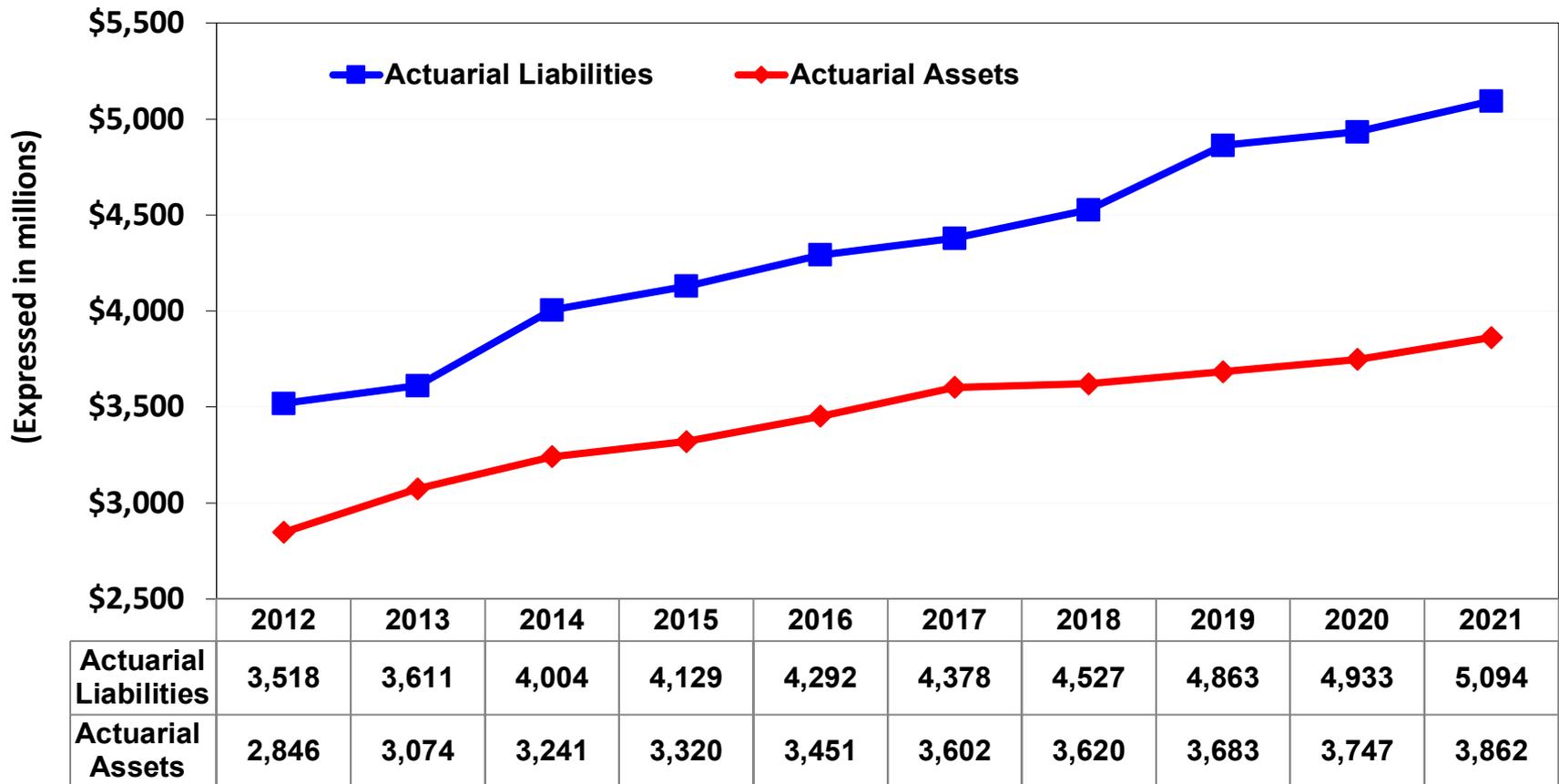
Funded ratio using market value of assets as of December 31, 2019 is 75%.

■ Funded ratio using market value of assets as of December 31, 2020 is 75%.

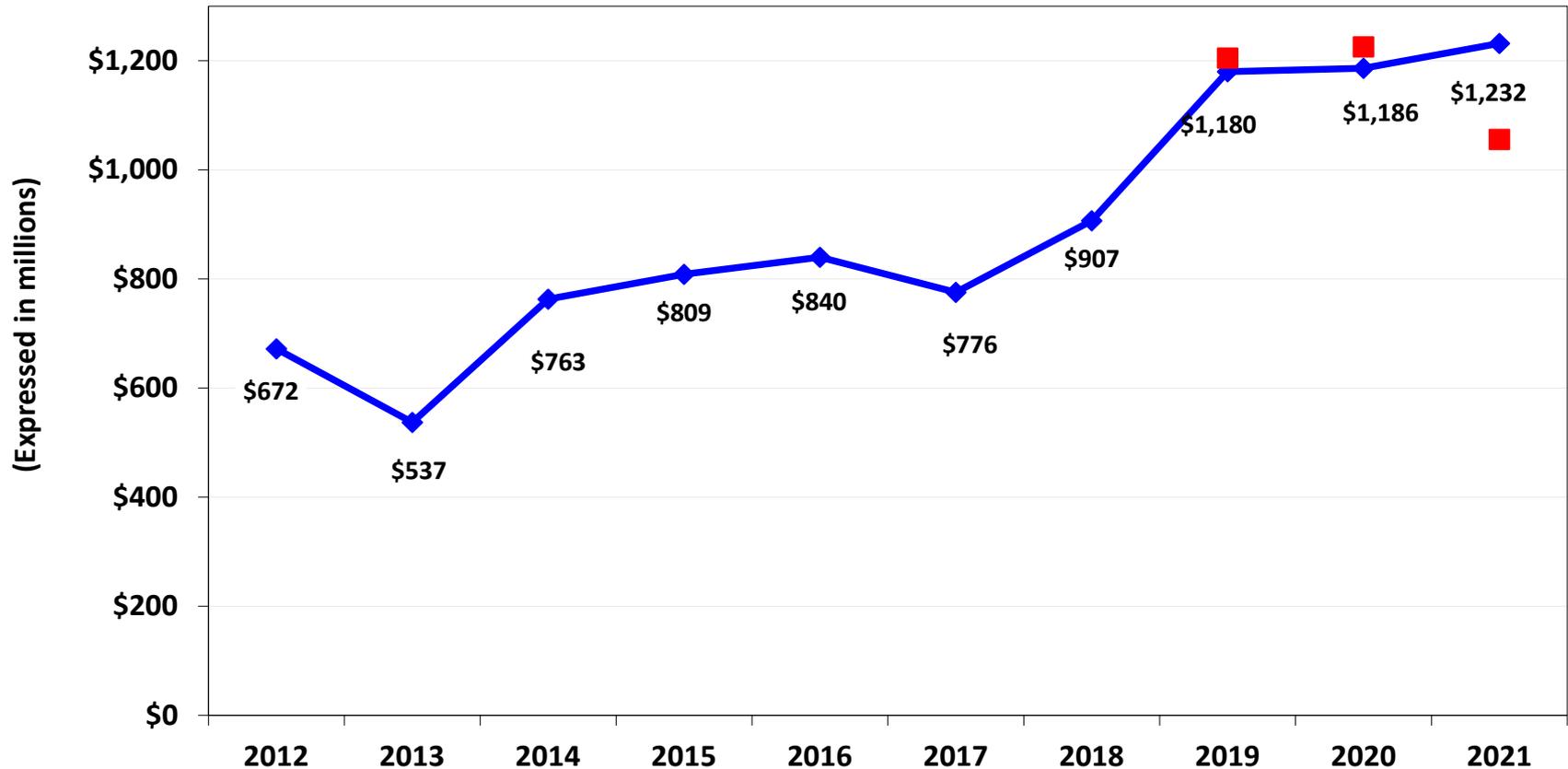
Funded ratio using market value of assets as of December 31, 2021 is 79%.



# Liabilities vs. Assets



# Unfunded Actuarial Accrued Liability (UAAL)



UAAL based on market value of assets as of December 31, 2019 is \$1,205 million.

■ UAAL based on market value of assets as of December 31, 2020 is \$1,226 million.

UAAL based on market value of assets as of December 31, 2021 is \$1,056 million.



# Actuarial Required Contribution Rate

---

- We now use an Open-Group projection to determine the Actuarially Required Contribution Rate (ARC)
  - Reflects declining average Normal Cost % over time due to new tier of benefits
  - Rate is determined as level percentage of pay so amortization rate is increasing over time
  - 30-year funding period is used
  - Debt service is not included

# Actuarial Required Contribution Rate

---

- ARC as of December 31, 2021 is 34.78%
  - Decrease from 34.85% in prior year
  - Compares to actual rate expected to be contributed in fiscal year 2023 of 27.44%
    - Total rate of 36.00% of pay less POB Credit of 8.56%
  - Slight decrease due to investment gains and greater than expected payroll growth

# Fiscal Year Beginning October 1<sup>st</sup>

	<u>2021</u>	<u>2022</u>
1. Prior Adjusted Total Obligation Rate	36.00%	36.00%
2. Actuarially Required Contribution Rate	34.85%	34.78%
3. Debt Service		
a) Scheduled Debt Service Payment	\$ 39,200,283	\$ 38,843,241
b) Projected Payroll	\$439,544,160	\$453,934,344
c) Pension Obligation Bond Credit (a/b)	8.92%	8.56%
4. Current Total Obligation Rate (2+3c)	43.77%	43.34%
5. Current Adjusted Total Obligation Rate	36.00%	36.00%
6. Allocation of Contribution Rates for Fiscal Year Beginning 1 <sup>st</sup>		
a) Employee (5 x .37)	13.32%	13.32%
b) City (5 x .63)	22.68%	22.68%
7. City Contribution to Fund (6.b. – 3.c)	13.76%	14.12%

*The formula for contributions are based on Dallas City Code 40A originally established with City ordinance 25695*



# Valuation Summary

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- The Actuarially Required Contribution to the Fund decreased from 34.85% to 34.78%
- The total contribution rate including the debt service decreased from 43.77% to 43.34%
- \$176 million in deferred investment gains still to be recognized or offset

# Valuation Summary

---

- Calculated contribution rate is projected to remain relatively level until POBs are paid off
  - Assuming all assumptions are met including 7.25% return on AVA
  - Impact of shortfall in contributions because of 36.00% maximum rate is being somewhat offset by
    - 30-year rolling amortization period
    - Decrease in average normal cost due to new tier of benefits
- Actual contribution rate will remain at 36% cap for foreseeable future

**with.**

Intelligence

# Pension Bridge Annual 2022

April 18th - 20th, San Francisco

[events.withintelligence.com/pensionbridgetheannual](https://events.withintelligence.com/pensionbridgetheannual)



After 2 years running virtual events, we're excited to be returning to San Francisco in the spring of 2022, to bring you, once again, the Pension Bridge Annual!

With our return to physical conferences, comes a new chapter for Pension Bridge. Having united with Pageant Media's other titles – Falk Marques Group, HFM, Fund Intelligence and others – Pension Bridge is now part of one, new, global brand - With Intelligence. But be rest assured, while the Annual might look a little different it's still the same event you have known and loved for the past 17 years! We are very excited to start this new chapter and can't wait for you to be a part of it!

This year's agenda will focus on structural transformations and investment ideas that will be beneficial for long-term fiscal sustainability, as we continue to find ourselves in a low return environment with lofty valuations by all historical metrics. As with previous editions, attendees will benefit from dedicated sessions on each of the traditional and alternative asset classes as well as topical issues such as ESG, Diversity, Equity and Inclusion, cybersecurity and new for 2022 the impacts, risks, and opportunities of climate change.

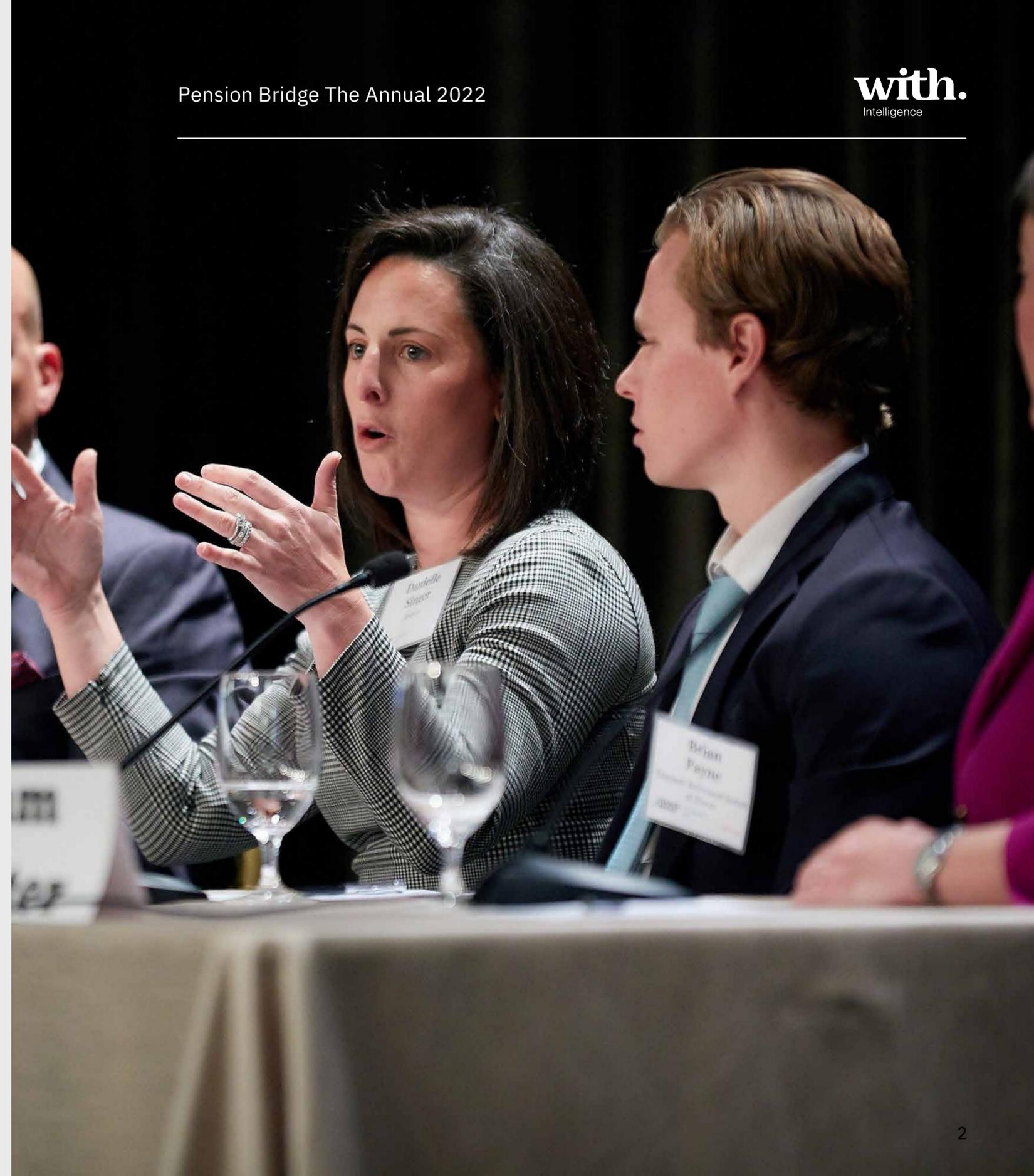
As always, we will maintain our controlled attendance structure, which our conferences are famous for, ensuring a 1:1 ratio of investors/investments consultants to manager attendees. There will be over 250 allocators and non-discretionary consultants in attendance, with a limit of only 130 manager firms. This favorable ratio, combined with participation from the most influential industry figures, creates a vibrant and enjoyable environment for all!

### The Pension Bridge Annual has Two Goals in Mind

First is to provide the highest level of education with the top experts from the industry. Our speakers will inspire with influential insights on how to invest for outperformance while positioning defensively.

The second goal is to help build relationships between the allocators, consultants, and managers. Through relaxed breakout sessions, networking lunches and dinners, as well as 2 evening cocktail receptions, this conference is designed to enable you to forge new and develop existing relationships with your peers, colleagues, and prospective business contacts.

We look forward to bringing you back together again this year for a dynamic and productive conference. We hope that you will join us and be amongst your industry peers to learn about the most up-to-date insights, investment strategies and trends.





## Monday, April 18th Westin St. Francis, San Francisco

5:30 PM – 6:30 PM  
[Early Registration](#)

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6:30 PM – 8:00 PM  
[Cocktail Reception](#)

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## Tuesday, April 19th Westin St. Francis, San Francisco

7:30 AM – 8:30 AM  
[Registration / Breakfast](#)

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8:35 AM – 8:40 AM  
[Opening Remarks](#)

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8:40 AM - 9:05 AM  
[Keynote Speaker:](#)  
Paul Colonna, Lockheed Martin Investment  
Management Company

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**Please join us for an in-depth discussion with a leading corporate pension CIO, who will be covering a wide range of topics including governance, investments, risk management, and asset allocation. Paul oversees all investment activities and operations for the firm's \$85B of retirement assets and oversees a team of more than fifty investment and operations professionals. Having been at Lockheed for just over three years, Paul has been able to accomplish a tremendous amount, but also has a vision for the future.**

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- An overview of the plan's past, present, and future (including lessons learned and pitfalls to avoid)
- Best practices in portfolio construction to reduce risk while achieving the best returns
- The vision for the plan, including what they hope to accomplish from a portfolio and governance perspective



9:05 AM – 9:35 AM

## Keynote Presentation: Innovation in Biotechnology: Blending Public and Private Market Opportunities

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**After a strong 2020 largely fueled by the sector's response to the COVID-19 pandemic, the biotechnology sector has underperformed the broader market in the first half of 2021. Despite this year's slow start, rapid innovation and more reasonable valuation levels should provide a tailwind for the sector. In this session, we review the thematic case for biotech and discuss the sector's accelerating pace of innovation that should offer the opportunity for substantial growth for years to come. In addition, we'll outline the benefits of combining public equities and private placements in a long-biased portfolio to maximize the opportunity set.**

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9:35 AM – 10:15 AM

## Asset Allocation and Risk Management Producing the Optimal Asset Mix

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**Creating a proper asset allocation mix is the backbone of any portfolio. But what due diligence needs to be done – especially as the world has changed over the past two to three years – to ensure there are no unforeseen risks lurking?**

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- What have we Learned to Better Understand the Underlying Risk Factor Exposures in the Portfolio?
- What are you doing Differently in your Portfolio? What is the Reason behind this Change in Orientation?
- Given Low Return Expectations, are you taking More Risk, or Stay Consistent and Re-Assessing Once Markets look more Attractive?
- Are we still too Over-Reliant on Equities? How should Allocators think about the Role of Fixed Income in their Portfolios if Yields Should Rise?
- What are you doing to Mitigate Inflation Risk?
  - How are you expecting Risk Mitigation Strategies to Perform going forward? Are Long Bonds still the Best Bet or are there Good Alternatives out there?
- What do you think of Applying Leverage to a Plan Sponsor Portfolio to Increase its Expected Return? How do you Manage Leverage Risks?

- What Future Risks are you Most Concerned About? Anything that Keeps You Up at Night?

10:15 AM – 10:55 AM

## Networking Break

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10:55 AM – 11:30 AM

## Track A: Black Swan Events

### Planning for Uncertainty and Preparing for Surprises

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**Is it crucial to always assume that another crisis or series of cascading events are around the corner? In this panel discussion, you'll learn how some of the most sophisticated investors navigate severe disruptions and lessons learned about preparing for the unknown.**

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- Will the end of the Fed Put trigger a Black Swan for both Equities and Bonds? How can investors prepare if their hedges are going down while their risk assets go down?
- Weaponization of Technology, Hacking and Ransom – what Protections can be implemented?
- Do you have Plans to Mitigate Risk for the Possibility of Central Bank Digital Currency? What might be the Market Tremors associated with instituting CBDC?
- Cost of Implementation as an Obstacle – how should an Investor Approach this Challenge? Are there Tail Risk Hedging Approaches that provide more Consistent Returns with Less Drag on the Total Fund Return?
- What are the Benefits and Challenges associated with Options as Protection?
- What are the Greatest Cybersecurity Threats and Challenges Organizations are currently facing?
- How do Crashes affect Liability Management? Can proper drawdown management raise the probability of meeting benchmarks and frequency of spend?
- With Liquidity Evaporating during Black Swan Events, how do you see the Growth of Algos, ETFs and Margin Debt playing a Factor to Exacerbate Volatility?
- What are some Lessons learned from past Black Swan events? What warnings were ignored?

10:55 AM – 11:30 AM

## Track B: Real Estate

### Refocusing the Portfolio Post-Pandemic

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**The real estate industry – whether commercial or residential – has undergone a fundamental change in the past two years as the way people view their work environment and home life has been altered. What does the future look like for concerning spaces such as malls and office space and where do the best opportunities lie?**

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- What is your take on the Most Concerning Sectors – Retail, Mall, and Office Space?
- With Industrial in Short Supply with Increased Demand, should Investors be Overweight Industrial? How Long will this Hot Trend Last?
- What Niche Property Types will be Defensive in a Downturn? Thoughts on Lab Space and Data Centers?
- Are Data Center REITS the New Digital Office? How do you Approach these REITS being Pricey and the Growing Competition in this Space?
- What is your Outlook for the U.S. Commercial Mortgage Market?
- Do you see the Growing Multi-Family Sector as a Good Opportunity? If so, why?
- With Pressure on Banks and Lenders, do you see Opportunities in Private Real Estate Debt to Fill the Funding Void?



11:35 AM – 12:10 AM

## Track A – China

### Developing a Risk/Reward Plan

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**The ongoing question of where US and China relations stand will be addressed as investors weigh the risk and rewards between the two countries. From there, which investments in China make the most sense looking out a few years and which do not?**

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#### (A) U.S. / China Relations

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- Have you Seen any Progress for Cooperation when it comes to Geopolitics?
  - Do you see Technology Wars Becoming the New Trade Wars? Are A.I. and Cybersecurity are the most Important Issues to Prevent China's Dominance over the U.S. in Technology?
  - Might you see a Future Climate War Between Washington and Beijing with China far Outspending the U.S. on Energy Transition-Related Investment? How does Biden's Infrastructure Plan Factor In?
  - How do you see it playing out with China possibly Looking to Limit U.S. Access to Rare Earth Minerals which are Critical to Manufacturing many Tech Products? What is the U.S. doing to Reduce Reliance?
  - How do you see the No-Win Clash over Taiwan Playing Out?
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#### (B) Investing in China

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- Do you Perceive any Serious Risks for U.S. Pension Plans being Invested in China?
- Any Implications of Not being Invested in China? Do you Need China in your Portfolio to Meet Return Targets?
- Are you Expecting Additional Regulatory Changes and Tougher Accounting Standards for Listed Companies in the U.S.?
- Will U.S. Regulators Block Investment Organizations from Buying Shares in Chinese Companies that are Blacklisted by the Pentagon or the U.S. Department of Commerce?
- How are Private Equity Firms Revising their China Strategy with the Regulatory Crackdown? Which Sectors are Most Affected by the Regulatory Scrutiny?
- With the Failure to Bail out Evergrande, does this mean China is Tamping Down on Excesses in the Chinese Economy and Markets or just their Property Markets? What does this mean for Investors?

11:35 AM – 12:10 PM

## Track B: Infrastructure

### Measuring the Impact of Biden's Infrastructure Package and Why it Matters

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**The Biden Administration's Infrastructure package has been receiving much of the industry's attention in recent months – and rightfully so. Are there any unforeseen winners and losers as a result of this spending spree? Apart from this, which strategies are set to outperform looking out two to three years?**

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- Will Biden's Infrastructure Plan create an Infrastructure Boom, be Inconsequential or Add to the Tailwinds that were already there?
  - What are the Negatives to Biden's Infrastructure Plan?
  - Is Infrastructure a Good Hedge Against Inflation? What Strategies provide the Best Hedge?
  - What have been the Effects of High Energy Prices and Supply Chain Disruption on Global Infrastructure Markets?
  - What Sectors within Renewables or Alternative Forms of Energy do you find Attractive? Will the Best Opportunities be in the U.S. or Emerging Markets?
  - With the Acceleration of Digital Infrastructure, which Specific Strategy Stands Out?
  - How have GPs Adopted ESG Principals and what are the Remaining Challenges? How do you Approach ESG as an Energy Investor?
  - Listed vs. Unlisted – which do you Favor in a Volatile Market for Downside Protection?
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12:10 PM – 1:20 PM

## Lunch & Networking

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1:20 PM – 2:00 PM

## Risk Mitigation Strategies Managing Risk within the Portfolio

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**Creating a risk mitigation portfolio has been a popular discussion as inflation talks linger and volatility becomes more evident. How can investors best implement these strategies and what are the unforeseen risks investors need to watch out for when creating or amending these portfolios?**

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- Are you Concerned about Inflation or Stagflation? In what Ways are you Mitigating this Risk?
- How do you view Long Duration Treasuries Today as a Mitigation Tool? Might the Protection be Different in the Next Equity Sell-Off?
- Describe your Baseline Risk Mitigation Philosophy and Approach
- How would you Structure a Risk Mitigating Strategies Portfolio? What Strategies should be Emphasized?
- What is the Best Approach to Achieve Diversification and Better Risk Adjusted Performance Across a Wide Range of Markets and Asset Categories?
- Have Trend Following Strategies Evolved to Perform Well Regardless of Market Environment?
- As an LP, what is your Approach to Managing Liquidity Risk should we have a Large Drawdown?
- What is the Appropriate Level of Strategic Exposure to Risk Mitigating Strategies Approaches?

2:00 PM – 2:30 PM

## BlackRock Presentation

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2:30 PM – 3:10 PM

## Fixed Income Positioning your Portfolio in Light of Macro Factors

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**Fixed income assets that had enjoyed a smooth ride in the early stages of the recovery may face more challenges ahead. Valuations are broadly expensive, the Federal Reserve is withdrawing liquidity and economic growth has significantly declined from high levels. We'll hear about how to position your portfolio beyond the recovery while we factor in credit spreads, rate volatility, ESG and more.**

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- Assess the Current Macro Environment – Fed Actions, Tapering, Rates, Inflation Risks, etc.
- Is there Built-In Complacency of the Fed Coming to the Rescue?
- With Bond Markets being Better Forecasters of Recessions and Recoveries than Equities, what is the Steepening Yield Curve Telling you?
- How does an Unconstrained Manager Navigate such an Environment?
- Are you seeing any Major Changes in Allocations, Inflows/Outflows or Investor Interest in Specific Types of Products?
- How are you Managing Fixed Income Liquidity Challenges? What are you doing about your Cash Levels?
- What are your Expectations and Outlook for Corporate Debt? BBB Bonds? How are you Approaching this Space?
- How do you Separate Managing Credit from Managing Duration?
- ESG Integration – what should Allocators be Incorporating to make sure they are not getting a Greenwashed Product?

3:10 PM – 3:40 PM

## Refreshment Break

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3:40 PM – 4:20 PM

## Equities

### Managing Volatility Risk

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**The US Equity markets are experiencing increased volatility within this rising rate and inflationary environment but is it time to alter the asset allocation size as a result?**

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- Have we Reached the Peak – at least for now – in the US Equity Bull Run? Is it Time to Lower the Allocation Size? If so, where would you move those Assets? Or do you Believe the Bull Market will Continue for some time? If so, why?
- Have you Allowed the US Portfolio to Run Over its Asset Allocation Range? What kind of Conversations Take Place when Rebalancing Talks Occur?
- How will the Rising Rate Environment Impact US Equities? How much Wind will come out of the Sails?
- What is the Likelihood that the Equity/Bond Correlation will Shift During a Potential Equity Decline?
- Does it Make Sense for Public Funds to Lessen their Equity Portfolios and Embrace LDI-like Strategies?
- What are your Views on non-US Equity Markets, most notably Europe and the Emerging Markets? Have Overweight Discussions Taken Place? How about the Frontier Markets?
- How are Traditional Equity Hedges – such as Gold and the US Dollar – Viewed now that Crypto has Entered the Picture?

4:20 PM – 5:00 PM

## Hedge Funds

### Weighing the Bounce Back of the Hedge Fund Portfolio

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**Hedge funds have been tested in recent months and years as numerous macro factors have impacted the industry. Has the way hedge funds are used in your portfolio changed as a result and which areas could produce the most returns in this environment?**

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#### **(A) State of the Industry / Portfolio Construction and Implementation**

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- How do you use Hedge Funds in your Asset Allocation and how might that Change in the Current Environment?
  - Taking into account Both Equity and Bond Valuations, how do you think about using Hedge Funds as both a Hedge to Equity and a Crisis Risk Offset?
  - Has the Current Macro Environment Resulted in a Change in your Hedge Fund Portfolio Construction Approach? Any Particular Strategies you're looking to Opportunistically Add or Remove?
  - What ESG Approach should Managers be taking in their Funds? How do ESG Considerations Apply to Different Hedge Fund Strategies?
  - Is Responsible Investment the "Next" Big Opportunity for Active Managers?
  - What is an Appropriate Fee Structure for Hedge Funds? How do you Ensure Payment for Alpha, Alignment of Interest and Not Overpaying for Underperformance?
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#### **(B) Strategies**

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- Which Low Correlated Strategies do you find Most Attractive to Minimize Drawdown?
- Has Recent Poor Performance changed the way you view Quantitative Hedge Funds? Why or why not?
- What is the Future of Long-Short Equity Hedge Funds? What Differentiates Managers that have been able to Outperform?
- Have Trend Following Strategies Evolved to Perform Well Regardless of Market Environment? Do you Favor Global Macro and Managed Futures in this Environment? If so, why?
- What Changes do you believe Fund of Funds need to make in order to Retain or Attract Assets?



5:00 PM – 5:40 PM

## Private Equity

Understanding Impacts to Private Equity  
Post-COVID: Looking Ahead and Mapping The  
Future

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**The mantra for investing has always been to ‘buy low and sell high’ and it is no different in the private equity industry except it’s becoming harder to understand what a good price is. With that in mind, what spaces currently offer the best opportunities and how have they been impacted by inflation and the rising rate environment?**

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- When it comes to the Concerns of Supply Chain Shortages, Possible Higher Rates, Dry Powder, Leverage and High Multiples, what should Investors be Focused On over the next few years to Successfully Navigate the Environment?
- How does Inflation affect your Investment Strategy? What Impact might Sustained Inflation have on Returns?
- How are GPs and their Portfolio Companies Dealing with Rising Costs?
- How Concerned are you about the Debt that’s been Piled on to Portfolio Companies?
- What Fundraising Trends are you seeing in the Market? Might Sustained Inflation Impact Fundraising Plans?
- What is your Outlook for Middle Market Buyouts given the Market Conditions?
- What Trends are you seeing in Co-Investments – Demand, Types of Deals, Return Expectations, Etc.?

5:40 PM

## Cocktail Reception

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7:10 PM

## End of Day One

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## Wednesday, April 20th

Westin St. Francis, San Francisco

7:40 AM – 8:40 AM

## Breakfast & Registration

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7:40 AM – 8:40 AM

## Investor Exchange

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**This session allows investors to get up close and personal with prominent CIOs and senior investment professionals, from public pension plans to endowments and foundations, and from corporate funds to family offices, and healthcare and insurance executives. Deliberately unstructured to allow the conversation to go where the participants take it, this session will cover a wide range of challenges faced by investors today.**

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8:40 AM – 8:45 AM

## Day Two Opening Remarks

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8:45 AM – 9:25 AM

## Diversity, Equity & Inclusion, (DEI) Implementing DE&I Policies

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**DE&I has become a top issue for many asset management boards and investors over the past year but where do we stand currently on this and what actions are being taken to achieve stated goals? How are investors looking at DE&I when it comes to making investments?**

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- With Diversity, Equity & Inclusion coming to the forefront, what is the State of Progress? Where have you seen Changes being Most Successful?
- What is the Statistical Evidence that Diversity leads to Better Performance?
- As an LP, have you chosen to Actively Survey your Managers and Annually Request Data on Firm Ownership and Investment Team Composition? What are some of the Challenges of getting the Data? Do you Express Expectations for Improvement and Progress?
- Where in the Process Between an RFP and a Mandate do Problems Arise in the Push for Diversity?
- What would you say are the Barriers to Greater Diversity and Inclusion? Most Critical Issues is for Improving the Gender Gap? How should we Approach Solving It?
- What do you think Consultants could do more of to Help Bridge the Diversity Gap in Investing?
- What are some Best Practices Investors and Managers need to Embrace in Order to Achieve Diverse Hiring Success? Any Important Considerations for Hiring Junior Talent or ways to Broaden the Recruiting Pipeline?

9:25 AM – 10:05 AM

## Climate Change Understanding And Managing The Impact, Risks and Opportunities

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**Understanding the risks of climate change is an important exercise investors must undertake these days. What are the best ways to conduct this study and what are the opportunities that might arise from this work?**

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### (A) Managing Climate Risk

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- What Steps should be taken to Climate Proof your Portfolio-Wide Exposure?
  - How is your Climate Approach Reflected in your Asset Allocation? How do you Measure and Monitor Climate Risks in your Portfolio?
  - What Resources are Needed to Identify Climate Risks in your Portfolio?
  - How do you Report on the Impacts of your Engagement? Will this become More Demanding Going Forward?
  - What are the Portfolio Implications of the Decision to Reach Net Zero Emissions by 2050?
  - Push for Greater Transparency - what are some Questions you should be asking your Investment Managers about their Climate Risk Assessment during the Investment Process?
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### (B) Strategies

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- Should it be a Fiduciary's Responsibility to Replace Oil and Gas in the Portfolio Despite Strong Profits, Good Recent Performance and Higher Dividends?
- What Investment Initiatives are you Implementing in Public Equities? Any Allocations to Climate Solution-Oriented Public Equity Fundamental Managers? If so, how have they Performed?
- Are Green Bonds Worth the High Fees? Is China, Europe, U.S. or Another Region Most Attractive for this Green Investment?
- How is the Real Estate Industry Managing Risk and Embracing for the Inevitable between Flooding and Climate Hazards?
- With Increasing Water-Related Risks, what will be the Credit Implications and the Impact on Credit Ratings?
- Where do you see the Best Opportunities in Smart Cities, Green Buildings, Decarbonizing Technologies, Electric Vehicles, Water, Renewable Energy, Battery Storage or other Appealing Sectors?

10:05 AM – 10:35 AM

**Keynote Presentation:**  
**Tipping The Scales: Gold’s Weight As A Strategic Asset**

**Volatile markets, inflation, and changes to Fed policy, are driving structural portfolio changes as investors seek new sources of returns and diversification. Against this backdrop, gold is continuing to gain adoption with 4 in 10 investors planning to allocate to gold in the next three years, according to recent Coalition Greenwich research. This session will discuss how gold’s portfolio attributes can serve diverse near and long-term objectives, highlight key differences with other commodities, and provide and outlook for gold performance in 2022**

10:35 AM – 11:15 AM

**Networking Break**

11:15 AM – 11:50 AM

**Track A: Emerging Markets**  
**Executing Post-Covid Strategy in Non-Developed Countries**

**How have emerging market economies fared over the past year as inflation deepens and the talks of raising rates become louder? Do any traditional asset classes or sub asset classes stand out as solid investment opportunities? How about the private markets?**

- Macro Environment and Recent Developments – How might Inflation affect Emerging Markets? Tapering? Rising Interest Rates? Strong Commodity Prices?
- What might be the Long-Term Effects of the Massive Expansion of G10 Central Bank Monetary Policy on Emerging Markets?
- Despite the Macro Overhang, where in EM Equity are you seeing the Best Opportunities for Investors?
- How does the Current Macro Environment affect EM Debt? Where are you seeing the Most Opportunity?

- Where do you Currently see the Biggest Risks when Investing in EM Debt? How do you Approach Mitigating those Risks?
- How Concerned are you about China’s Debt Problem? Does Evergrande lead you to believe they are Shifting Away from Supporting Excess Corporate Debt?
- How do Valuations look Relative to Risk in Different Regions? Which Particular Regions, Sectors or Countries are Attractive?
- Do you believe Emerging Markets will Outperform Developed Markets over the Next Decade?

11:15 AM – 11:50 AM

**Track B: Risk Parity**  
**The Great Debate: To Embrace Risk Parity (Or Not)**

**Risk Parity strategies fell on hard times recently with some investors ridding themselves of the investment altogether. Is it time to begin embracing risk parity again, and if so, why and why now?**

- How does Risk Parity Perform if the Rate Cycle has now Turned and we have a Period of both Increasing Interest Rates (due to Inflation) and Declining Equity Market Multiples?
- What did we Learn from the March 2020 Selloff for Risk Parity Strategies?
- Is Every Fund Equipped to deal with the Leverage Risk of Risk Parity? How fast should Risk Parity Strategies De-Risk in Market Drawdowns?
- Do you believe Risk Parity can Play a Role in and Contribute to Overall Stock Market Volatility due to the Leverage?
- How are Risk Parity Strategies Evolving? Should Tail Risk Hedging and Smart Beta be Added?
- What do you Recommending using for an Appropriate Benchmark? Which Implementable Indexes are being Adopted?
- How should Investors think about the Differences in Strategies including Forecasting Volatility when Selecting a Manager?

11:55 AM – 12:30 PM

## Track A: Energy

### Gauging Whether we are in the Early Stages of a Global Energy Crisis

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**As we enter into a period of higher energy prices, can the blame be put squarely on inflation and supply shortfall? What other factors are making themselves known and when can we expect pricing to normalize?**

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#### (A) Energy Crisis

- Current Global Environment – Supply Shortfall, China Rolling Blackouts, Natural Gas Price Spike in Europe and Asia, Electricity Prices, Liquefied Natural Gas in China, Coal and India's Dependency on it, etc.
- What are the Far-Reaching Effects of China's Coal Crunch causing a 12% Cut of Industrial Power Use? How Long might Power Cuts Persist?
- Is it Possible the Global Climate Change and Clean Energy Push is a Direct Cause of the Higher Prices we're seeing across the board for Electricity, Oil, Natural Gas and Coal?
- Explain the Governmental and Political Efforts Contributing to Higher Prices from Reducing Energy Production via New Mandates, New Taxes, Cancelled Pipelines, Cancelled Permits and Penalties
- With Declining Production and Increasing Demand, do you see Higher Energy Prices Ahead? If so, what are the Effects on Industries and Companies if it becomes Prohibitively High?

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#### (B) Energy Investments and Solutions

- Despite ESG Efforts, do you believe Bigger Returns Ahead are in Alternative Energy or Fossil Fuel Companies?
- Should a Fiduciary be Replacing Oil and Gas in the Portfolio Despite Higher Profits, Higher Dividends and Outperformance?
- Do you believe the Hopes on Hydrogen as both a Way to Store Energy and as a Fuel for Transportation and Industry will Pay Off? How Far off is this Possible Solution?
- What are your Views on Battery Storage Technology as a Solution and Investment?
- What Sectors within Renewables or Alternative Forms of Energy do you find Attractive? What is the Risk/Return Profile?
- What's the Most Important Risk Factor for Investors thinking about Deploying Capital in Renewables?

11:55 AM – 12:30 PM

## Track B – Liability Driven Investment (LDI)

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**Liability Driven Investing, when enacted, has largely achieved its goals as the corporate has moved closer to fully-funded status. The market environment is expected to undergo changes in the near future. How will this impact LDI investing?**

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- Does LDI make sense now considering Current and Future Market Conditions? Impact of Rising Rates and Inflation? What is the Risk/Return?
- Are Plan Liabilities the only Appropriate Benchmark?
- How does a Public Fund Implementation and Liability-Focused Allocation Differ from a Corporate Fund?
- Are some Approaches More Appropriate in a Less Liquid Fixed Income World?
- What Cash Flow Generating Strategies would allow for the Portfolio to Reduce the Funding Ratio Volatility to Meet the Benefit Payment Needs?
- Understanding the Components of Performance Measurement and Evaluation – Risk Budgeting, Scenario Analysis, Liquidity Analysis and Performance Reporting
- Beyond the Ability to Earn Excess Returns, what should Investors look for in Selecting LDI Managers?
- Thinking through instances when LDI strategies may not be appropriate

12:30 PM – 1:40 PM

## Networking Lunch

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1:40 PM – 2:20 PM

## Inflation

### Analyzing the Ramifications on the Portfolio

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**It has become clear that inflation is not transitory but likely here for an extended period of time. What needs to be done in order to bring inflation back to normal measures and how will this impact institutional portfolios?**

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- Has the Fed Backed Themselves into a Corner on Inflation? How likely is Stagflation and how will the Fed React at this Economic Threat?
- How has Inflation Impacted the Overall Portfolio thus far? What are the Unforeseen Risks Looking Ahead?
- What are the Deflationary Factors and when might that Return?
- What are your Views on the Shortages including Power, Food, Housing, Semiconductors and Labor? How Extreme might the Price Surge be for Oil and Energy?
- What are your Views on the Rise in Home and Rental Prices?
- What are your Expectations for Rates and Equities? What will happen to the BBB Rated Bond Bubble? What is the Outlook on Defaults?
- What is the Likelihood that the Equity/Bond Correlation will Shift During an Extended Equity Decline?
- What are the Most Appealing Investments in this Environment? Asset Class where you see the Most Value?

2:20 PM – 3:00 PM

## Credit Strategies

### Analyzing Macro Factors and how that Impacts Credit Portfolio

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**Interest rate conversations, inflation, and a bevy of other factors have major impacts on the credit markets. Which credit strategies and geographies provide some of the best risk/reward in this environment and which areas do not?**

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- Current State of the Credit Markets
- What will be the Impact of Inflation, Potentially Higher Rates and Supply-Side Constraints on your Strategies?
- What particular Challenges or Concerns are you seeing Today – Valuations, Deployment, Liquidity, Leverage, Higher Taxes, Increased Regulation, etc?
- What are your Expectations for Credit Spreads and Defaults?
- How will the Distressed Opportunity Set Play Out and how are Investors Positioning their Portfolios?
- What Subsectors of Credit are Most Attractive and why? Pockets of Opportunity you're seeing? Any Areas you are Avoiding?
- What are the Top Opportunities and Risks for Europe, Asia and EM?
- Are you having Discussions with your Clients or Boards about how to Implement ESG and SRI into your Mandates?



3:00 PM – 3:40 PM

## Distressed Investing Taking Stock on Opportunistic and Special Situation Strategies

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**Investing in distressed opportunities never fully materialized during Covid as government intervention largely kept companies afloat. However, it is expected opportunities in this space will begin to reveal themselves in the near future. What sectors and geographies are being tipped to show themselves in the next year or so?**

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- Are you Expecting a Large-Scale Distressed Opportunity? Why or why not?
- What are your Expectations for Default Rates going forward? Does it Matter in terms of Current Opportunities?
- What Guidance do you provide Investors on Expected Returns & Risks? How is the Large Supply of Dry Powder and Pent-Up Demand Impacting these Expectations?
- Which Sectors, Strategies and Geographies are providing the Most Attractive Opportunities? Any Areas that should be Avoided or are most Vulnerable?
- Are you Approaching the Market any Differently given the Ongoing Uncertainty for many Smaller Companies? Increased Vulnerability of these Borrowers? Are Bigger Borrowers Better Positioned to Weather Dislocation?
- What are you seeing in Deal Structuring and Covenants Today? What does this mean for Future Distressed Opportunities?
- What are the Opportunities and Risks in Europe? Any Countries, Sectors or Types of Deals that Stand Out? Conditions of the European Banking Sector?

3:40 PM – 4:10 PM

## Refreshment Break

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4:10 PM – 4:50 PM

## Crypto and Digital Currencies Weighing its Potential Role in the Portfolio

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**While crypto currencies have begun to gain some foothold within institutional portfolios it is still being debated what the proper role of these investments should be. Should they be used as a hedge or are they return seeking?**

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- Should Crypto Investing be used as a Hedge? What is its Goal in the Portfolio and what are the Return Expectations?
- Is it Simply Time before Crypto is Fully Embraced by the Institutional Community? What is Holding it back? Does Headline Risk Play a Role?
- What are the Conversations Occurring at the Board Level? What are the Main Fears?
- What would be the Impact on Crypto upon a Digital Dollar Rollout?
- How do Predictions of a Weakening Dollar Play a Role with Crypto?
- How will Inflation Impact Crypto Looking Out One to Two Years?
- What Kind of Benchmark is Appropriate for Crypto Investments?



4:50 PM – 5:30 PM

## CIO Roundtable Inside the Minds of CIOs

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- Have the Risks of Inflation caused your Asset Allocations to Change?  
What are you doing to Hedge Against Inflation? Have you Increased your Allocation to Private Assets? If so, what was the Reasoning Behind It?
- What Process or Policies do you have in place to Address DE&I and Climate Change?
- Have you Increased In-House Investment Management Capabilities?
- What do you think about the Fiscal Health of the Industry going forward?
- Did the COVID Selloff Change your View on Passive as a Result of Market Volatility? Any Allocations in Particular where Active Managers are Better Equipped to be more Agile and Flexible?
- What Changes or Trends have you noticed in Fee Structures/Terms and your Bargaining Power?
- What Advice might you have for Smaller Pensions and Endowments that don't have your Size Leverage in trying to get Better Terms?
- Is there any Part of the Market that is "Unloved" right now and might be Worth some Further Analysis/Portfolio Allocations?
- What Keeps you up at Night?

5:30 PM

## Conference Concludes

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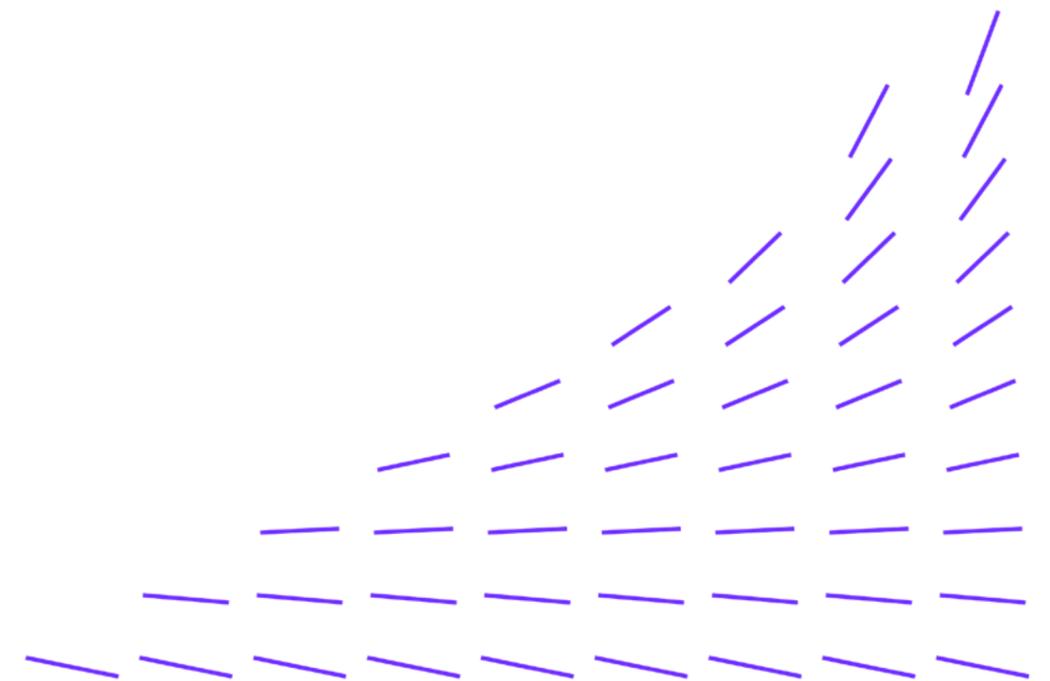
Tickets for the networking wine tasting event will be distributed at the conclusion of the conference.

5:40 PM

## Wine Reception & Networking

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Hosted by Pension Bridge. Join our group an exclusive wine reception at the Press Club, located only a few blocks from the Westin St. Francis. Connect with colleagues, clients and peers while experiencing fine wines and delectable bites.



# To Register Or Receive More Information About With's 2022 Pension Bridge Annual Conference

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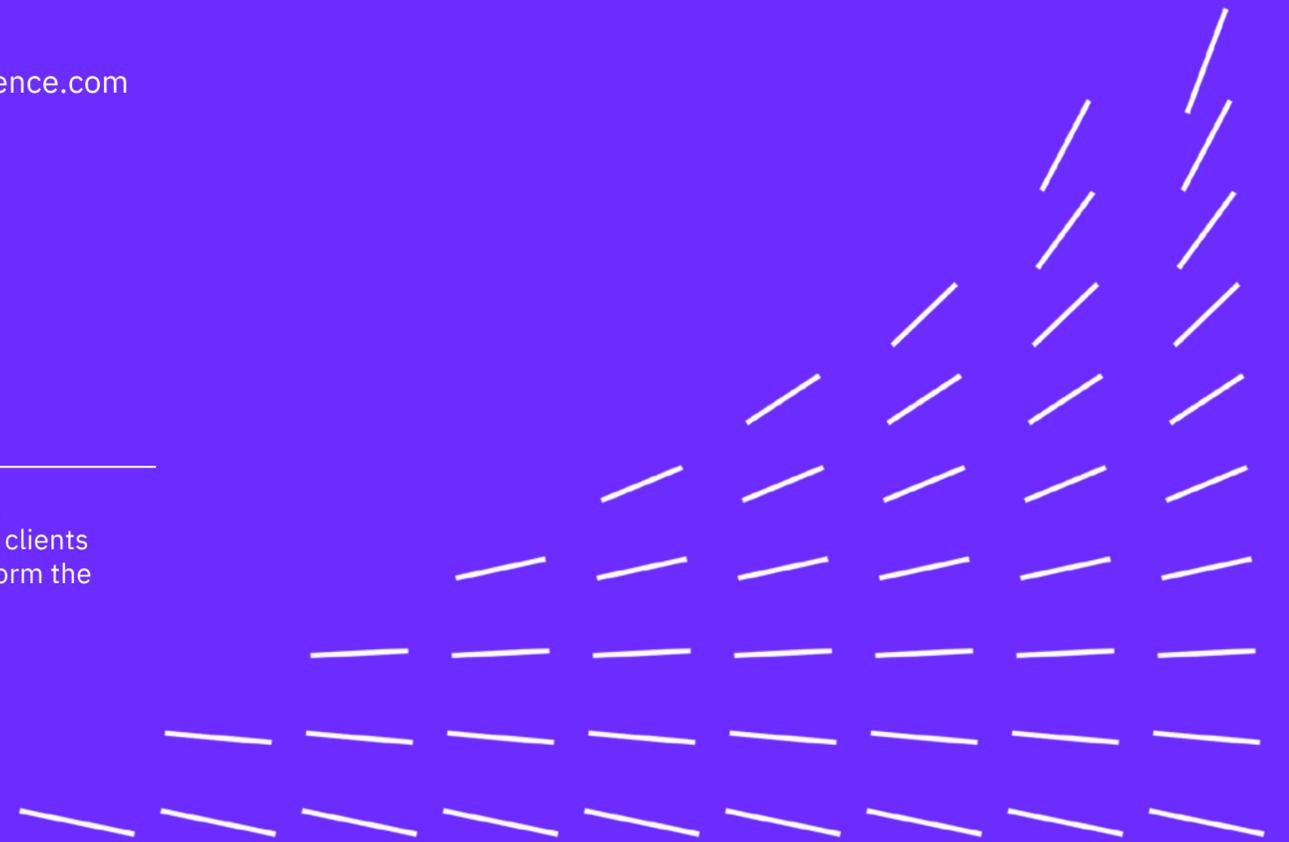


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## About With

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Founded in 1998, With Intelligence is an independent, entrepreneurial and fast-growing company serving more than 2,500 clients across the asset management industry worldwide. Through its highly acclaimed, specialized platforms and world class events offerings, With Intelligence equips its clients with a unique combination of must-have intelligence and proprietary real-time data, while offering them exclusive access to key decision-makers from the world's preeminent investment organizations and their consultants.





## Save the Date 2022 AQR Forum

We are excited to welcome you back to the AQR Forum, a premier annual initiative that brings together institutional asset allocators and AQR leadership to share investment insights, recent research and current topics in investing.

### Featuring:



**Cliff Asness, Ph.D.**  
*Managing and Founding Principal  
Chief Investment Officer  
AQR Capital Management*

*Additional details and invitation to follow.*

CHICAGO | MAY 11

GREENWICH | NOV 8

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# FIDUCIARY INVESTORS SYMPOSIUM

THE CATALYST FOR REFORMED FIDUCIARY THINKING

May 23-25, 2022 | University of Chicago

Hello Cheryl,

Registrations are now open for the **Fiduciary Investors Symposium** to be held at the University of Chicago, Booth School of Business on May 23-25, 2022.

As a collective force, institutional investors have enormous power to shape markets, inform policy and empower beneficiaries to have a better, more financially stable future. The **Fiduciary Investors Symposium** acts as an advocate for fiduciary capitalism and the power of asset owners to change the nature of the investment industry, including addressing principal/agent and fee problems, stabilising financial markets, and directing capital for the betterment of society and the environment.

*This global forum enables asset owners from around the world to explore investment themes, risks and opportunities with their global peers. It's an opportunity to engage with industry thought leaders in academia and practice in a collegiate environment that promotes shared discussion.*

This year's theme is focused on **exploring the applicability of the efficient market hypothesis in the current market environment** – across different asset classes. We will look at the tension between efficient markets and quantitative techniques with behavioural finance and fundamental analysis challenging investors to think differently about asset allocation and investments, governance and decision-making.

With macroeconomic challenges such as the COVID-19 pandemic, climate change, inflation and geopolitical tension disrupting markets the event will explore where and how investors can access alpha including an emphasis on private markets.

Please take a look at some of our confirmed speakers and topics below, and I warmly invite you to register today.

[REGISTER NOW](#)



*Amanda White*

Editor, Top1000funds.com  
Director of institutional content,  
Conexus Financial

## EUGENE F. FAMA

Robert R. McCormick  
Distinguished Service Professor  
of Finance, 2013 Nobel laureate in  
economic sciences

“the father of modern finance”





## STEVE KAPLAN

Neubauer Family Distinguished  
Service Professor of  
Entrepreneurship and Finance,  
Kessenich E.P. Faculty Director at  
the Polsky Center for  
Entrepreneurship and Innovation

"the foremost private  
equity scholar in the galaxy"

## RANDALL KROSZNER

Deputy Dean for Executive  
Programs, Norman R. Bobins  
Professor of Economics and  
former Governor of the  
Federal Reserve



### TOPICS INCLUDE

- Re-shaping globalisation: The role of the east
- Inflation expectations and portfolio protection
- The future of portfolio management
- Energy security, renewables and the energy transition
- Portfolio trade-offs: Balancing performance and liquidity
- The private credit phenomenon: Risks, rewards, performance
- Risk management and the economic outlook
- Net zero asset allocation

### EVENT DETAILS

Monday, May 23 | 14:00 - 17:00  
Tuesday, May 24 | 09:30 - 22:30  
Wednesday, May 25 | 09:00 - 14:30

Location | University of Chicago, Booth School of Business

The event will comply with all covid-safe guidelines and we will do all we can to ensure the health and safety of conference delegates. That will include appropriate social distancing and other measures.

You'll need to provide a negative COVID-19 test one calendar day before you travel to the US. [Click here](#) for details on travelling to the US.

[REGISTER NOW](#)



25TH ANNUAL

# Milken Institute Global Conference

May 1-4, 2022 | Los Angeles, CA

# 25<sup>th</sup>

OVERVIEW

REGISTER

RECENT SPEAKERS

SPONSORS

## Celebrating the Power of Connection



The Milken Institute Global Conference convenes the best minds in the world to tackle its urgent challenges and envision its exciting opportunities.

The event brings together individuals with the capital, power, and influence to change the world with those whose expertise and creativity are rethinking health, finance, technology, philanthropy, industry, and media.

Throughout the past two years, the pandemic has transformed the way we convene, collaborate, and connect—sparking both

innovation for what's next and gratitude for what once was. The 25th annual Global Conference will center on the theme of "Celebrating the Power of Connection."

Join us as we once again engage with our community to share the adversities and achievements of this moment in history—translating lessons learned into building meaningful, healthy, and prosperous lives.

## Registration is now open for the 25th annual Global Conference

REGISTER NOW

## Solving Challenges

For 25 years, Global Conference has showcased panels on finance, capital access and economic opportunity, technology and innovation, health care, sustainability, and comprehensive discussions covering society, culture, and the most important issues of our time.



## Recent Milken Institute Speakers

Our recent guests have included politicians, CEOs, medical experts, and leaders with the power and influence to effect real change.

[EXPLORE RECENT SPEAKERS](#)

## When & Where

Sunday, May 1 - Wednesday, May 4, 2022

The Beverly Hilton 9876 Wilshire Blvd Beverly Hills, CA 90210 United States

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**ASSET ALLOCATION COMPARISON**

February 28, 2022

	Market Value	% of Total Fund	Allocation Policy	% Difference from Allocation	Prior Period Market Value	Prior Period % of Total Fund
<b>EQUITY</b>						
CHANNING CAPITAL	38,822,726.67	1.00			37,318,859.11	0.95
REDWOOD- SL	36,108,141.30	0.93			36,084,796.40	0.92
SYSTEMATIC	78,665,496.61	2.02			77,314,173.19	1.98
<i>Total Small Cap</i>	<b>153,596,364.58</b>	<b>3.95</b>			<b>150,717,828.70</b>	<b>3.85</b>
SMITH GRAHAM	82,804,878.96	2.13			81,682,655.29	2.09
T. ROWE PRICE	165,960,312.27	4.27			170,794,578.00	4.37
<i>Total Domestic/Enhanced equity</i>	<b>248,765,191.23</b>	<b>6.40</b>			<b>252,477,233.29</b>	<b>6.46</b>
NTGI S&P 500 EQUITY INDEX	179,530,367.42	4.62			185,067,566.04	4.73
<i>Total Index</i>	<b>179,530,367.42</b>	<b>4.62</b>			<b>185,067,566.04</b>	<b>4.73</b>
<i>Total Domestic</i>	<b>581,891,923.23</b>	<b>14.98</b>	<b>12.50</b>	<b>2.48</b>	<b>588,262,628.03</b>	<b>15.04</b>
ADELANTE CAPITAL	56,572,990.25	1.46			58,214,835.67	1.49
CENTERSQUARE-SL	55,656,379.91	1.43			57,094,031.84	1.46
<i>Total REITS</i>	<b>112,229,370.16</b>	<b>2.89</b>	<b>2.50</b>	<b>0.39</b>	<b>115,308,867.51</b>	<b>2.95</b>
AEW PARTNERS	21,871,406.00	0.56			15,019,555.00	0.38
HEITMAN	99,056,494.26	2.55			99,056,494.26	2.53
INVESCO	82,033,746.00	2.09			69,912,431.00	1.79
INVESCO - SL	81,303,030.99	2.11			81,303,030.99	2.08
VIRTUS REAL ESTATE CAP	15,516,661.00	0.40			15,516,661.00	0.40
<i>Total Real Estate</i>	<b>299,781,338.25</b>	<b>7.72</b>	<b>7.50</b>	<b>0.22</b>	<b>280,808,172.25</b>	<b>7.18</b>
FAIRVIEW CAPITAL	76,282,854.00	1.96			76,792,864.00	1.96
GROSVENOR GCM - CFGI	148,122,377.00	3.81			150,958,832.00	3.86
HAMILTON LANE	113,932,235.00	2.93			116,795,544.00	2.99
<i>Total Private Equity</i>	<b>338,337,466.00</b>	<b>8.71</b>	<b>7.50</b>	<b>1.21</b>	<b>344,547,240.00</b>	<b>8.81</b>
ACADIAN	134,114,581.81	3.45			132,790,495.39	3.40
AQR CAPITAL	125,023,691.73	3.22			128,382,296.85	3.28
ATIVO	41,192,827.63	1.06			42,410,098.43	1.08
BAILLIE GIFFORD	75,967,409.90	1.96			80,160,955.22	2.05
EARNEST PARTNERS	98,465,292.31	2.53			98,909,172.04	2.53
<i>Total International</i>	<b>474,763,803.38</b>	<b>12.22</b>	<b>12.50</b>	<b>-0.28</b>	<b>482,653,017.93</b>	<b>12.34</b>
ARIEL	118,440,489.09	3.05			121,434,613.04	3.11
NORTHERN TRUST INTL EQ ACWI INDEX	27,106,244.01	0.70			27,830,416.92	0.71
WELLINGTON MGMT	131,384,194.09	3.38			135,409,807.16	3.46
<i>Total Global Equity</i>	<b>276,930,927.19</b>	<b>7.13</b>	<b>7.50</b>	<b>-0.37</b>	<b>284,674,837.12</b>	<b>7.28</b>
ACADIAN-LVG	243,880,263.80	6.28			245,420,717.10	6.28
BLACKROCK	239,142,390.18	6.15			243,166,439.80	6.22
<i>Total Global Low Volatility Equity</i>	<b>483,022,653.98</b>	<b>12.43</b>	<b>12.50</b>	<b>-0.07</b>	<b>488,587,156.90</b>	<b>12.49</b>
ATLANTIC TRUST	90,615,893.20	2.33			86,256,882.95	2.21
HARVEST FUND	92,852,449.21	2.39			86,698,362.12	2.22
COHEN & STEERS	67,844,299.59	1.75			67,951,820.95	1.74
<i>Total Global Listed Infrastructure</i>	<b>251,312,642.00</b>	<b>6.47</b>	<b>5.00</b>	<b>1.47</b>	<b>240,907,066.02</b>	<b>6.16</b>
<i>Total Marketable Alternatives</i>	-	0.00	2.50	-2.50	-	0.00
<b>TOTAL EQUITY</b>	<b>2,818,270,124.19</b>	<b>72.53</b>	<b>70.00</b>	<b>2.53</b>	<b>2,825,748,985.76</b>	<b>72.26</b>
<b>FIXED INCOME</b>						
GARCIA HAMILTON	64,922,112.05	1.67			65,497,513.10	1.67
NT COLLECTIVE AGGREGATE BOND INDEX FUND	214,211,791.45	5.51			216,656,271.51	5.54
SECURIAN ASSET MANAGEMENT	216,149,612.59	5.56			218,920,158.44	5.60
<i>Total Investment Grade</i>	<b>495,283,516.09</b>	<b>12.75</b>	<b>15.00</b>	<b>-2.25</b>	<b>501,073,943.05</b>	<b>12.81</b>
NEUBERGER BERMAN	177,397,306.20	4.57			182,193,134.89	4.66
<i>Total Opportunistic Credit</i>	<b>177,397,306.20</b>	<b>4.57</b>	<b>5.00</b>	<b>-0.43</b>	<b>182,193,134.89</b>	<b>4.66</b>
BLACKROCK-HY	181,611,717.01	4.67			183,103,542.94	4.68
OAKTREE	184,935,073.86	4.76			186,271,314.33	4.76
<i>Total High Yield</i>	<b>366,546,790.87</b>	<b>9.43</b>	<b>10.00</b>	<b>-0.57</b>	<b>369,374,857.27</b>	<b>9.45</b>
CASH ACCOUNT	28,092,415.80	0.72			32,025,165.70	0.82
<i>Total Short Term</i>	<b>28,092,415.80</b>	<b>0.72</b>	<b>0.00</b>	<b>0.72</b>	<b>32,025,165.70</b>	<b>0.82</b>
<b>TOTAL FIXED INCOME</b>	<b>1,067,320,028.96</b>	<b>27.47</b>	<b>30.00</b>	<b>-2.53</b>	<b>1,084,667,100.91</b>	<b>27.74</b>

**TOTAL FUND** \$ 3,885,590,153.15

\$ 3,910,416,086.67

**Market Value YE 2021** \$ 4,026,059,659.28

**Market Value Variance**

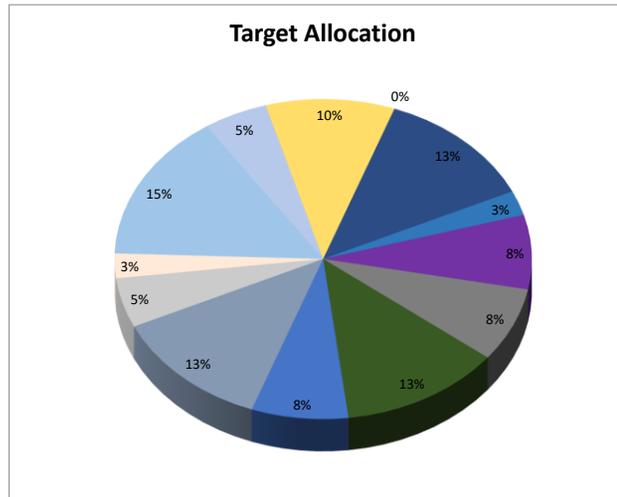
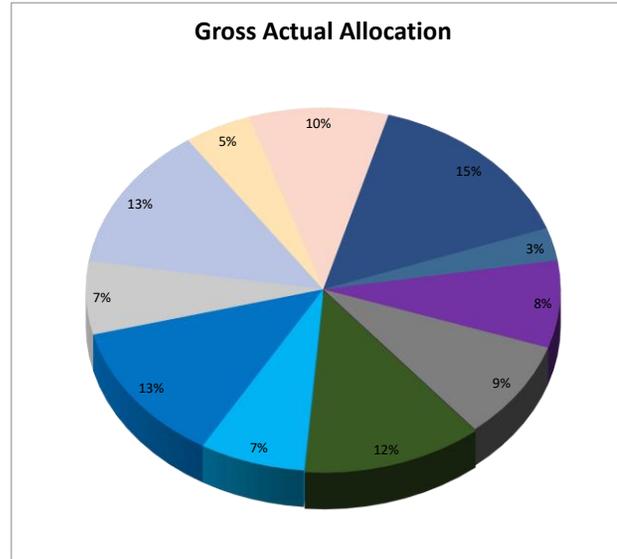
Change from YE 2021: \$ (140,469,506.13)

Change from prior month: \$ (24,825,933.52)

**Asset Allocation: Actual vs. Target**

February 28, 2022

	Market Value	Gross Actual Allocation	Target Allocation	% Difference from Allocation
<b>EQUITY</b>				
CHANNING CAPITAL	38,822,726.67	1.00		
REDWOOD- SL	36,108,141.30	0.93		
SYSTEMATIC	78,665,496.61	2.02		
<i>Total Small Cap</i>	153,596,364.58	3.95		
SMITH GRAHAM	82,804,878.96	2.13		
T. ROWE PRICE	165,960,312.27	4.27		
<i>Total Domestic/Enhanced equity</i>	248,765,191.23	6.40		
NTGI S&P 500 EQUITY INDEX	179,530,367.42	4.62		
<i>Total Index</i>	179,530,367.42	4.62		
<i>Total Domestic</i>	581,891,923.23	14.98	12.50	2.48
ADELANTE CAPITAL	56,572,990.25	1.46		
CENTERSQUARE-SL	55,656,379.91	1.43		
<i>Total REITS</i>	112,229,370.16	2.89	2.50	0.39
AEW PARTNERS	21,871,406.00	0.56		
HEITMAN	99,056,494.26	2.55		
INVESCO	81,303,030.99	2.09		
INVESCO - SL	82,033,746.00	2.11		
VIRTUS REAL ESTATE CAP	15,516,661.00	0.40		
<i>Total Real Estate</i>	299,781,338.25	7.72	7.50	0.22
FAIRVIEW CAPITAL	76,282,854.00	1.96		
GROSVENOR GCM - CFGI	148,122,377.00	3.81		
HAMILTON LANE	113,932,235.00	2.93		
<i>Total Private Equity</i>	338,337,466.00	8.71	7.50	1.21
ACADIAN	134,114,581.81	3.45		
AQR CAPITAL	125,023,691.73	3.22		
ATIVO	41,192,827.63	1.06		
BAILLIE GIFFORD	75,967,409.90	1.96		
EARNEST PARTNERS	98,465,292.31	2.53		
<i>Total International</i>	474,763,803.38	12.22	12.50	-0.28
ARIEL	118,440,489.09	3.05		
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WELLINGTON MGMT	131,384,194.09	3.38		
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BLACKROCK	239,142,390.18	6.15		
<i>Total Global Low Volatility Equity</i>	483,022,653.98	12.43	12.50	-0.07
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COHEN & STEERS	67,844,299.59	1.75		
<i>Total Global Listed Infrastructure</i>	251,312,642.00	6.47	5.00	1.47
<i>Total Marketable Alternatives</i>	-	0.00	2.50	-2.50
<b>TOTAL EQUITY</b>	<b>2,818,270,124.19</b>	<b>72.53</b>	<b>70.00</b>	<b>2.53</b>
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BLACKROCK-HY	181,611,717.01	4.67		
OAKTREE	184,935,073.86	4.76		
<i>Total High Yield</i>	366,546,790.87	9.43	10.00	-0.57
CASH ACCOUNT	28,092,415.80	0.72		
<i>Total Short Term</i>	28,092,415.80	0.72	0.00	0.72
<b>TOTAL FIXED INCOME</b>	<b>1,067,320,028.96</b>	<b>27.47</b>	<b>30.00</b>	<b>-2.53</b>
<b>TOTAL FUND</b>	<b>\$ 3,885,590,153.15</b>			



**ASSET ALLOCATION COMPARISON**

March 31, 2022

	Market Value	% of Total Fund	Allocation Policy	% Difference from Allocation	Prior Period Market Value	Prior Period % of Total Fund
<b>EQUITY</b>						
CHANNING CAPITAL	38,141,605.83	0.98			38,822,726.67	1.00
REDWOOD- SL	35,151,148.42	0.90			36,108,141.30	0.93
SYSTEMATIC	77,249,793.64	1.98			78,665,496.61	2.02
<i>Total Small Cap</i>	<b>150,542,547.89</b>	<b>3.85</b>			<b>153,596,364.58</b>	<b>3.95</b>
SMITH GRAHAM	83,218,778.88	2.13			82,804,878.96	2.13
T. ROWE PRICE	171,360,327.94	4.38			165,960,312.27	4.27
<i>Total Domestic/Enhanced equity</i>	<b>254,579,106.82</b>	<b>6.51</b>			<b>248,765,191.23</b>	<b>6.40</b>
NTGI S&P 500 EQUITY INDEX	180,330,179.76	4.61			179,530,367.42	4.62
<i>Total Index</i>	<b>180,330,179.76</b>	<b>4.61</b>			<b>179,530,367.42</b>	<b>4.62</b>
<i>Total Domestic</i>	<b>585,451,834.47</b>	<b>14.97</b>	<b>12.50</b>	<b>2.47</b>	<b>581,891,923.23</b>	<b>14.98</b>
ADELANTE CAPITAL	60,464,707.62	1.55			56,572,990.25	1.46
CENTERSQUARE-SL	59,286,359.23	1.52			55,656,379.91	1.43
<i>Total REITS</i>	<b>119,751,066.85</b>	<b>3.06</b>	<b>2.50</b>	<b>0.56</b>	<b>112,229,370.16</b>	<b>2.89</b>
AEW PARTNERS	24,599,568.00	0.63			21,871,406.00	0.56
HEITMAN	99,056,494.26	2.53			99,056,494.26	2.55
INVESCO	81,391,852.00	2.08			82,033,746.00	2.09
INVESCO - SL	81,303,030.99	2.08			81,303,030.99	2.11
VIRTUS REAL ESTATE CAP	15,516,661.00	0.40			15,516,661.00	0.40
<i>Total Real Estate</i>	<b>301,867,606.25</b>	<b>7.72</b>	<b>7.50</b>	<b>0.22</b>	<b>299,781,338.25</b>	<b>7.72</b>
FAIRVIEW CAPITAL	77,043,259.00	1.97			76,282,854.00	1.96
GROSVENOR GCM - CFG	149,567,410.00	3.83			148,122,377.00	3.81
HAMILTON LANE	112,034,009.00	2.87			113,932,235.00	2.93
<i>Total Private Equity</i>	<b>338,644,678.00</b>	<b>8.66</b>	<b>7.50</b>	<b>1.16</b>	<b>338,337,466.00</b>	<b>8.71</b>
ACADIAN	138,254,079.71	3.54			134,114,581.81	3.45
AQR CAPITAL	125,963,300.41	3.22			125,023,691.73	3.22
ATIVO	41,636,279.37	1.06			41,192,827.63	1.06
BAILLIE GIFFORD	75,090,086.45	1.92			75,967,409.90	1.96
EARNEST PARTNERS	99,457,621.54	2.54			98,465,292.31	2.53
<i>Total International</i>	<b>480,401,367.48</b>	<b>12.29</b>	<b>12.50</b>	<b>-0.21</b>	<b>474,763,803.38</b>	<b>12.22</b>
ARIEL	121,166,493.77	3.10			118,440,489.09	3.05
NORTHERN TRUST INTL EQ ACWI INDEX	27,589,248.15	0.71			27,106,244.01	0.70
WELLINGTON MGMT	133,405,419.25	3.41			131,384,194.09	3.38
<i>Total Global Equity</i>	<b>282,161,161.17</b>	<b>7.22</b>	<b>7.50</b>	<b>-0.28</b>	<b>276,930,927.19</b>	<b>7.13</b>
ACADIAN-LVG	249,271,844.56	6.38			243,880,263.80	6.28
BLACKROCK	248,091,435.94	6.34			239,142,390.18	6.15
<i>Total Global Low Volatility Equity</i>	<b>497,363,280.50</b>	<b>12.72</b>	<b>12.50</b>	<b>0.22</b>	<b>483,022,653.98</b>	<b>12.43</b>
ATLANTIC TRUST	69,793,539.14	1.78			90,615,893.20	2.33
HARVEST FUND	69,753,944.17	1.78			92,852,449.21	2.39
COHEN & STEERS	72,948,224.29	1.87			67,844,299.59	1.75
<i>Total Global Listed Infrastructure</i>	<b>212,495,707.60</b>	<b>5.43</b>	<b>5.00</b>	<b>0.43</b>	<b>251,312,642.00</b>	<b>6.47</b>
<i>Total Marketable Alternatives</i>	-	0.00	2.50	-2.50	-	0.00
<b>TOTAL EQUITY</b>	<b>2,818,136,702.32</b>	<b>72.07</b>	<b>70.00</b>	<b>2.07</b>	<b>2,818,270,124.19</b>	<b>72.53</b>
<b>FIXED INCOME</b>						
GARCIA HAMILTON	63,553,894.45	1.63			64,922,112.05	1.67
NT COLLECTIVE AGGREGATE BOND INDEX FUND	208,263,459.15	5.33			214,211,791.45	5.51
SECURIAN ASSET MANAGEMENT	210,342,669.30	5.38			216,149,612.59	5.56
<i>Total Investment Grade</i>	<b>482,160,022.90</b>	<b>12.33</b>	<b>15.00</b>	<b>-2.67</b>	<b>495,283,516.09</b>	<b>12.75</b>
NEUBERGER BERMAN	176,957,145.47	4.53			177,397,306.20	4.57
<i>Total Opportunistic Credit</i>	<b>176,957,145.47</b>	<b>4.53</b>	<b>5.00</b>	<b>-0.47</b>	<b>177,397,306.20</b>	<b>4.57</b>
BLACKROCK-HY	180,488,961.76	4.62			181,611,717.01	4.67
OAKTREE	183,720,685.17	4.70			184,935,073.86	4.76
<i>Total High Yield</i>	<b>364,209,646.93</b>	<b>9.31</b>	<b>10.00</b>	<b>-0.69</b>	<b>366,546,790.87</b>	<b>9.43</b>
CASH ACCOUNT	68,629,009.87	1.76			28,092,415.80	0.72
<i>Total Short Term</i>	<b>68,629,009.87</b>	<b>1.76</b>	<b>0.00</b>	<b>1.76</b>	<b>28,092,415.80</b>	<b>0.72</b>
<b>TOTAL FIXED INCOME</b>	<b>1,091,955,825.17</b>	<b>27.93</b>	<b>30.00</b>	<b>-2.07</b>	<b>1,067,320,028.96</b>	<b>27.47</b>

**TOTAL FUND** \$ 3,910,092,527.49

\$ 3,885,590,153.15

**Market Value YE 2021** \$ 4,026,059,659.28

**Market Value Variance**

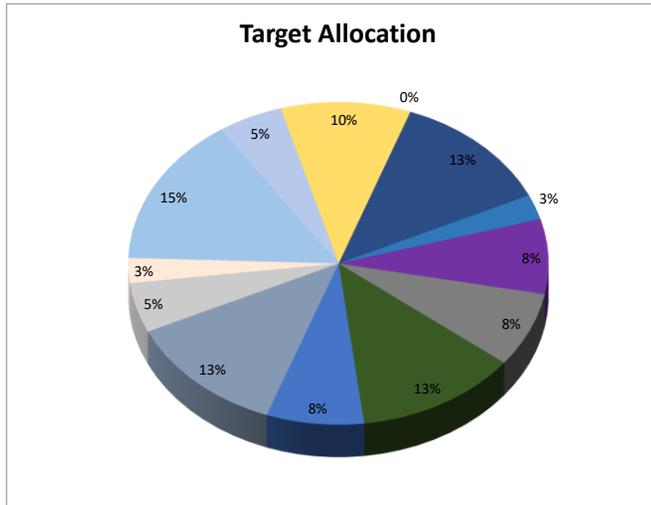
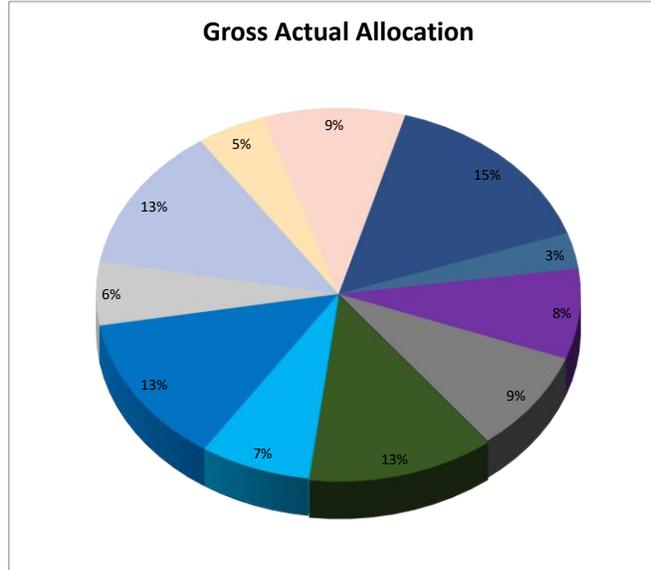
Change from YE 2021: \$ (115,967,131.79)

Change from prior month: \$ 24,502,374.34

Asset Allocation: Actual vs. Target

March 31, 2022

	Market Value	Gross Actual Allocation	Target Allocation	% Difference from Allocation
<b>EQUITY</b>				
CHANNING CAPITAL	38,141,605.83	0.98		
REDWOOD- SL	35,151,148.42	0.90		
SYSTEMATIC	77,249,793.64	1.98		
<i>Total Small Cap</i>	150,542,547.89	3.85		
SMITH GRAHAM	83,218,778.88	2.13		
T. ROWE PRICE	171,360,327.94	4.38		
<i>Total Domestic/Enhanced equity</i>	254,579,106.82	6.51		
NTGI S&P 500 EQUITY INDEX	180,330,179.76	4.61		
<i>Total Index</i>	180,330,179.76	4.61		
<i>Total Domestic</i>	585,451,834.47	14.97	12.50	2.47
ADELANTE CAPITAL	60,464,707.62	1.55		
CENTERSQUARE-SL	59,286,359.23	1.52		
<i>Total REITS</i>	119,751,066.85	3.06	2.50	0.56
AEW PARTNERS	24,599,568.00	0.63		
HEITMAN	99,056,494.26	2.53		
INVESCO	81,303,030.99	2.08		
INVESCO - SL	81,391,852.00	2.08		
VIRTUS REAL ESTATE CAP	15,516,661.00	0.40		
<i>Total Real Estate</i>	301,867,606.25	7.72	7.50	0.22
FAIRVIEW CAPITAL	77,043,259.00	1.97		
GROSVENOR GCM - CFGI	149,567,410.00	3.83		
HAMILTON LANE	112,034,009.00	2.87		
<i>Total Private Equity</i>	338,644,678.00	8.66	7.50	1.16
ACADIAN	138,254,079.71	3.54		
AQR CAPITAL	125,963,300.41	3.22		
ATIVO	41,636,279.37	1.06		
BAILLIE GIFFORD	75,090,086.45	1.92		
EARNEST PARTNERS	99,457,621.54	2.54		
<i>Total International</i>	480,401,367.48	12.29	12.50	-0.21
ARIEL	121,166,493.77	3.10		
NORTHERN TRUST INTL EQ ACWI INDEX	27,589,248.15	0.71		
WELLINGTON MGMT	133,405,419.25	3.41		
<i>Total Global Equity</i>	282,161,161.17	7.22	7.50	-0.28
ACADIAN-LVG	249,271,844.56	6.38		
BLACKROCK	248,091,435.94	6.34		
<i>Total Global Low Volatility Equity</i>	497,363,280.50	12.72	12.50	0.22
ATLANTIC TRUST	69,793,539.14	1.78		
HARVEST FUND	69,753,944.17	1.78		
COHEN & STEERS	72,948,224.29	1.87		
<i>Total Global Listed Infrastructure</i>	212,495,707.60	5.43	5.00	0.43
<i>Total Marketable Alternatives</i>	-	0.00	2.50	-2.50
<b>TOTAL EQUITY</b>	<b>2,818,136,702.32</b>	<b>72.07</b>	<b>70.00</b>	<b>2.07</b>
<b>FIXED INCOME</b>				
GARCIA HAMILTON	63,553,894.45	1.63		
NT COLLECTIVE AGGREGATE BOND INDEX FUND	208,263,459.15	5.33		
SECURIAN ASSET MANAGEMENT	210,342,669.30	5.38		
<i>Total Investment Grade</i>	482,160,022.90	12.33	15.00	-2.67
NEUBERGER BERMAN	176,957,145.47	4.53		
<i>Total Opportunistic Credit</i>	176,957,145.47	4.53	5.00	-0.47
BLACKROCK-HY	180,488,961.76	4.62		
OAKTREE	183,720,685.17	4.70		
<i>Total High Yield</i>	364,209,646.93	9.31	10.00	-0.69
CASH ACCOUNT	68,629,009.87	1.76		
<i>Total Short Term</i>	68,629,009.87	1.76	0.00	1.76
<b>TOTAL FIXED INCOME</b>	<b>1,091,955,825.17</b>	<b>27.93</b>	<b>30.00</b>	<b>-2.07</b>
<b>TOTAL FUND</b>	<b>\$ 3,910,092,527.49</b>			



## DISCUSSION SHEET

Employees' Retirement Fund  
Board of Trustees Meeting

April 12, 2022

**Issue:** Second Quarter of 2022 Cash Rebalance

**Attachment:** None, informational purposes only

**Discussion:** During the month of March, ERF Staff rebalanced fund managers taking \$60 million in cash to pay benefits for the Second Quarter of 2022.

Redemptions were as follows: \$28 million from Harvest Fund Advisors, \$26 million from CIBC, and \$6 million from NTGI S&P 500.

**Wilshire**

# Dallas Employees' Retirement Fund

Monthly Investment Summary

February, 2022

# Monthly Index Performance

Periods Ended February 28, 2022

	Performance (%)					
	1 Month	QTD	YTD	1 Year	3 Years	5 Years
U.S. Equity						
FT Wilshire 5000 Total Market TR Index	-2.44	-8.03	-8.03	13.45	17.94	14.90
S&P 500	-2.99	-8.01	-8.01	16.39	18.24	15.17
FT Wilshire 4500 Completion Index	0.60	-8.64	-8.64	-2.12	15.19	12.89
MSCI USA Minimum Volatility Index	-3.05	-8.77	-8.77	13.86	10.82	11.28
U.S. Equity by Size/Style						
FT Wilshire U.S. Large-Cap Index	-2.75	-8.08	-8.08	15.03	18.60	15.61
FT Wilshire U.S. Large-Cap Growth Index	-3.72	-11.64	-11.64	14.19	22.80	18.56
FT Wilshire U.S. Large-Cap Value Index	-1.56	-3.38	-3.38	15.58	14.15	11.74
FT Wilshire U.S. Small-Cap Index	1.15	-7.34	-7.34	-1.07	11.66	10.05
FT Wilshire U.S. Small-Cap Growth Index	1.07	-10.39	-10.39	-10.10	11.80	11.20
FT Wilshire U.S. Small-Cap Value Index	1.23	-4.24	-4.24	9.00	11.54	8.42
FT Wilshire U.S. Micro-Cap Index	-0.78	-10.17	-10.17	-19.18	6.26	6.89
Non-U.S. Equity (USD)						
MSCI AC World ex USA (Net)	-1.98	-5.59	-5.59	-0.40	7.67	7.26
MSCI ACWI ex USA Minimum Volatility Index (Net)	0.53	-2.93	-2.93	8.08	5.35	6.56
MSCI EAFE Index (Net)	-1.77	-6.52	-6.52	2.83	7.78	7.16
MSCI Emerging Markets (Net)	-2.99	-4.83	-4.83	-10.69	6.04	6.99
MSCI AC World ex USA Small Cap (Net)	-1.29	-7.46	-7.46	1.03	9.90	8.11
U.S. Fixed Income						
Blmbg. U.S. Aggregate	-1.12	-3.25	-3.25	-2.64	3.30	2.71
Blmbg. U.S. Treasury: Long	-1.46	-5.54	-5.54	-1.05	6.98	4.93
Blmbg. U.S. Long Corporate Index	-3.46	-8.88	-8.88	-4.36	7.12	5.30
Blmbg. U.S. TIPS	0.85	-1.19	-1.19	6.06	7.53	4.81
Blmbg. U.S. Credit Index	-1.89	-5.03	-5.03	-3.25	4.52	3.67
Blmbg. U.S. Corp: High Yield	-1.03	-3.73	-3.73	0.64	5.31	4.88
S&P LSTA Leverage Loan Index						

# Asset Allocation & Performance

Dallas Total Fund

Periods Ended February 28, 2022

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Global Equity Composite	-2.72	-2.69	-6.35	4.49	11.28	10.27	9.56	9/1/2012	276,930,927	7.13
Global Low Volatility Composite	-1.14	0.16	-5.63	11.79	7.21	7.76	7.96	7/1/2015	483,022,654	12.43
Domestic Equity Composite	-1.08	-2.14	-6.57	13.74	17.08	13.95	10.65	1/1/1990	581,891,923	14.98
International Equity Composite	-1.45	-1.74	-6.53	-0.57	9.75	8.09	5.78	1/1/1990	474,676,276	12.22
Global Fixed Income Composite	-1.16	-3.40	-3.12	-2.21	3.85	3.15	4.80	10/1/1995	495,283,516	12.75
High Yield Composite	-0.76	-1.22	-3.16	1.18	5.21	4.49	6.30	1/1/1997	366,544,387	9.44
Credit Opportunities Composite	-1.89	-2.42	-3.66	-0.83	3.51	4.00	5.47	2/1/2016	177,757,580	4.58
Total Real Estate Composite	-0.75	6.50	-2.82	24.32	10.49	8.57	6.95	1/1/1990	410,824,361	10.58
Global Listed Infrastructure Composite	4.32	13.33	9.97	36.52	1.45	-0.65	4.36	1/1/2012	251,312,642	6.47
Private Equity Composite	-0.24	10.44	4.42	36.76	18.69	16.79	14.68	6/1/2009	338,337,429	8.71
Managed Short Term Composite	0.01	0.02	0.01	0.04	0.87	1.13	2.76	1/1/1990	28,092,416	0.72
Dallas Total Fund	-0.82	0.91	-3.14	10.38	9.04	7.76	9.03	1/1/1985	3,884,674,110	100.00
Policy Index	-1.50	-1.38	-4.58	8.55	9.17	7.69	9.60			

# Asset Allocation & Performance

## Domestic Equity

Periods Ended February 28, 2022

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Systematic Financial</b> Russell 2000 Index	1.75 1.07	1.64 -6.62	-3.36 -8.66	11.10 -6.01	12.43 10.50	10.78 9.50	11.20 9.60	8/1/2003	78,665,497	13.52
<b>Redwood Investments *</b> Russell 2000 Growth Index	0.06 0.44	-14.66 -12.64	-15.67 -13.03	-5.26 -17.40	14.18 9.22	11.80 10.49	11.56 11.18	10/1/2016	36,108,141	6.21
<b>Channing Capital *</b> Russell 2000 Value Index	4.03 1.65	6.29 -0.37	0.32 -4.27	7.11 6.63	13.70 10.91	8.67 7.97	8.68 8.18	12/1/2013	38,822,727	6.67
<b>Domestic Equity Small Cap Composite</b>	1.91	-1.68	-5.72	5.76	13.43	10.68	10.18	6/1/2003	153,596,365	26.40
<b>Smith Graham *</b> Russell Midcap Index	1.37 -0.72	3.72 -4.28	-2.61 -8.03	19.23 7.07	16.62 14.25		11.08 11.39	1/1/2018	82,804,879	14.23
<b>T. Rowe Price</b> S&P 500	-2.83 -2.99	-3.39 -3.89	-7.67 -8.01	16.88 16.39	18.92 18.24	16.03 15.17	10.74 10.17	4/1/2006	165,960,312	28.52
<b>Northern Trust S&amp;P 500 (Lending)</b> S&P 500	-2.99 -2.99	-3.89 -3.89	-8.01 -8.01	16.38 16.39	18.21 18.24	15.15 15.17	10.77 10.73	1/1/1995	179,530,367	30.85
<b>Domestic Equity Composite</b> Custom Benchmark	-1.08 -2.44	-2.14 -4.45	-6.57 -8.03	13.74 13.45	17.08 17.94	13.95 14.90	10.65 10.73	1/1/1990	581,891,923	100.00

# Asset Allocation & Performance

## Real Estate

Periods Ended February 28, 2022

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Adelante Capital Management</b>	<b>-2.82</b>	<b>-1.95</b>	<b>-9.90</b>	<b>27.80</b>	<b>12.37</b>	<b>9.57</b>	<b>10.29</b>	<b>10/1/2001</b>	<b>56,572,990</b>	<b>13.77</b>
Wilshire U.S. Real Estate Securities Index	-3.31	-2.03	-10.01	26.63	10.64	8.10	10.38			
<b>CenterSquare</b>	<b>-2.52</b>	<b>-0.70</b>	<b>-9.04</b>	<b>25.42</b>	<b>11.83</b>		<b>12.32</b>	<b>6/1/2018</b>	<b>55,656,380</b>	<b>13.55</b>
Wilshire U.S. Real Estate Securities Index	-3.31	-2.03	-10.01	26.63	10.64		11.22			
<b>REIT Composite</b>	<b>-2.67</b>	<b>-1.33</b>	<b>-9.48</b>	<b>26.60</b>	<b>12.10</b>	<b>9.11</b>	<b>10.35</b>	<b>10/1/2001</b>	<b>112,229,370</b>	<b>27.32</b>
Wilshire U.S. Real Estate Securities Index	-3.31	-2.03	-10.01	26.63	10.64	8.10	10.38			
<b>Heitman America Real Estate Trust, LP</b>	<b>0.00</b>	<b>8.88</b>	<b>0.00</b>	<b>23.80</b>	<b>7.16</b>	<b>6.81</b>	<b>10.11</b>	<b>12/1/2010</b>	<b>98,325,046</b>	<b>23.93</b>
NCREIF ODCE NOF	0.00	7.66	0.00	21.02	8.23	7.74	10.14			
<b>Invesco Core Real Estate USA, LLC</b>	<b>0.00</b>	<b>5.88</b>	<b>0.00</b>	<b>21.24</b>	<b>8.36</b>	<b>8.58</b>	<b>10.56</b>	<b>12/1/2010</b>	<b>80,848,131</b>	<b>19.68</b>
NCREIF ODCE NOF	0.00	7.66	0.00	21.02	8.23	7.74	10.14			
<b>Virtus Real Estate Capital III</b>	<b>0.00</b>	<b>7.48</b>	<b>0.00</b>	<b>7.44</b>			<b>6.85</b>	<b>2/1/2021</b>	<b>15,516,661</b>	<b>3.78</b>
NCREIF ODCE NOF	0.00	7.66	0.00	21.02			19.26			
<b>AEW Partners Real Estate Fund IX</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>				<b>-29.22</b>	<b>4/1/2021</b>	<b>21,871,406</b>	<b>5.32</b>
NCREIF ODCE NOF	0.00	7.66	0.00				18.78			

# Asset Allocation & Performance

## Real Estate

Periods Ended February 28, 2022

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Private Core Real Estate Composite</b>	0.00	9.85	0.00	21.10	8.95	7.95	9.72	10/1/2010	298,594,990	72.68
Custom Benchmark	0.00	9.77	0.00	21.21	9.59	8.29	9.36			
<b>Total Real Estate Composite</b>	-0.75	6.50	-2.82	24.32	10.49	8.57	6.95	1/1/1990	410,824,361	100.00
Custom Benchmark	-1.66	3.78	-5.06	24.41	10.69	8.65	8.83			

**Employees' Retirement Fund of the City of Dallas**  
**Private Equity & Direct Private Real Estate Monthly Performance and Market Value Summary**



Periods Ended 02/28/22

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	Multiple <sup>3</sup>
Invesco II	82,033,746	65,188,333	65,188,333	10,250,304	Jan-14	6.5%	1.2
<b>Total Direct Private Real Estate</b>	<b>82,033,746</b>	<b>65,188,333</b>	<b>65,188,333</b>	<b>10,250,304</b>	<b>Jan-14</b>	<b>6.5%</b>	<b>1.2</b>

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	Multiple <sup>3</sup>
Hamilton Lane Secondary Fund II	471,844	25,000,000	22,058,532	31,103,855	Jul-09	13.6%	1.4
Hamilton Lane Secondary Fund III	4,246,468	30,000,000	23,372,292	27,070,060	Nov-12	10.2%	1.3
Hamilton Lane Secondary Fund IV	23,420,308	30,000,000	25,907,343	19,585,431	Mar-17	23.2%	1.7
Hamilton Lane Secondary Fund V	46,375,428	65,000,000	36,826,419	4,110,097	Mar-20	44.4%	1.4
Hamilton Lane Fund VII Composite	19,784,465	50,000,000	45,600,834	52,221,159	Jan-10	7.0%	1.6
Hamilton Lane Fund VIII (Global)	19,633,722	30,000,000	22,270,594	13,656,569	Nov-12	7.9%	1.5
GCM Grosvenor - Partnership, L.P.	29,432,998	75,000,000	86,428,330	117,843,228	Jun-11	14.3%	1.7
GCM Grosvenor - Partnership II, L.P. (2014)	47,578,705	60,000,000	69,943,751	62,292,578	Jul-14	17.7%	1.6
GCM Grosvenor - Partnership II, L.P. (2015)	47,056,250	30,000,000	38,278,456	10,684,122	Dec-15	16.5%	1.5
GCM Grosvenor - Partnership II, L.P. (2017)	21,961,288	30,000,000	21,761,710	5,647,301	Jan-18	17.6%	1.3
GCM Grosvenor - Advance Fund, L.P.	2,093,099	10,000,000	2,203,034	53,279	Jun-21	-	1.0
Fairview Capital - Lone Star Fund I	52,418,006	40,000,000	35,613,040	12,810,873	Aug-15	18.8%	1.8
Fairview Capital - Lone Star Fund II	19,593,067	30,000,000	14,867,991	107,274	Dec-18	12.7%	1.3
Fairview Capital - Lone Star Fund III	4,271,781	25,000,000	4,384,698	-	Apr-21	<b>-7.2%</b>	1.0
<b>Total Private Equity Composite</b>	<b>338,337,429</b>	<b>530,000,000</b>	<b>449,517,024</b>	<b>357,185,828</b>	<b>Jul-09</b>		<b>1.5</b>

\* Next Generation Manager

<sup>1</sup> Total Value to Paid-in Capital ("TVPI") multiple calculation =  $(\text{market value} + \text{distributions}) / \text{capital called}$

<sup>2</sup> The Public Market Equivalent (PME) approach creates a hypothetical investment vehicle that mimics the private equity composite cash flows. The performance difference between the PME vehicle and the private equity portfolio is determined by their net asset value (NAV) at the end of the benchmarking period. The performance of the "public market" is simulated using the monthly S&P 500 index returns, plus a 300 BPs annual hurdle rate.

<sup>3</sup> Private Equity cash account

# Asset Allocation & Performance

## International Equity

Periods Ended February 28, 2022

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Acadian International</b>	<b>1.00</b>	<b>0.86</b>	<b>-5.45</b>	<b>7.11</b>	<b>11.81</b>	<b>9.58</b>	<b>8.61</b>	<b>4/1/1989</b>	<b>134,114,582</b>	<b>28.25</b>
Custom Benchmark	-1.29	-3.54	-7.46	1.03	9.90	8.11	6.16			
<b>Ativo International *</b>	<b>-2.87</b>	<b>-2.69</b>	<b>-8.30</b>	<b>5.61</b>	<b>7.03</b>		<b>3.65</b>	<b>1/1/2018</b>	<b>41,192,828</b>	<b>8.68</b>
MSCI EAFE Index (Net)	-1.77	-1.73	-6.52	2.83	7.78		4.04			
<b>AQR Capital Management</b>	<b>-2.61</b>	<b>-0.60</b>	<b>-5.23</b>	<b>-3.57</b>	<b>5.71</b>	<b>5.24</b>	<b>3.55</b>	<b>4/1/2006</b>	<b>125,025,740</b>	<b>26.34</b>
Custom Benchmark	-1.98	-1.69	-5.59	-0.40	7.67	7.26	3.54			
<b>Baillie Gifford</b>	<b>-5.23</b>	<b>-10.96</b>	<b>-13.95</b>	<b>-16.27</b>			<b>8.66</b>	<b>4/1/2019</b>	<b>75,967,410</b>	<b>16.00</b>
MSCI AC World ex USA (Net)	-1.98	-1.69	-5.59	-0.40			7.68			
<b>Earnest Partners</b>	<b>0.44</b>	<b>1.76</b>	<b>-2.46</b>	<b>6.00</b>			<b>11.43</b>	<b>4/1/2019</b>	<b>98,375,716</b>	<b>20.72</b>
MSCI AC World ex USA (Net)	-1.98	-1.69	-5.59	-0.40			7.68			
<b>International Equity Composite</b>	<b>-1.45</b>	<b>-1.74</b>	<b>-6.53</b>	<b>-0.57</b>	<b>9.75</b>	<b>8.09</b>	<b>5.78</b>	<b>1/1/1990</b>	<b>474,676,276</b>	<b>100.00</b>
Custom Benchmark	-1.88	-1.96	-5.86	-0.20	7.97	7.38	4.77			

# Asset Allocation & Performance

## Global Equity

Periods Ended February 28, 2022

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Ariel Global *</b>	-2.46	3.29	-1.70	7.60	9.28		7.14	1/1/2018	118,440,489	42.77
MSCI AC World Index (Net)	-2.58	-3.66	-7.37	7.81	13.41		9.58			
<b>Wellington</b>	-2.97	-7.33	-10.00	1.31	12.44	10.68	11.72	9/1/2012	131,384,194	47.44
MSCI AC World Index (Net)	-2.58	-3.66	-7.37	7.81	13.41	11.44	10.56			
<b>Northern Trust Global Equity</b>	-2.60	-3.66	-7.30	7.26	13.65	11.65	12.20	10/1/2015	27,106,244	9.79
MSCI AC World IMI (Net)	-2.29	-3.68	-7.36	6.87	13.12	11.18	11.74			
<b>Global Equity Composite</b>	-2.72	-2.69	-6.35	4.49	11.28	10.27	9.56	9/1/2012	276,930,927	100.00
MSCI AC World Index (Net)	-2.58	-3.66	-7.37	7.81	13.41	11.44	10.56			

# Asset Allocation & Performance

## Global Low Volatility

Periods Ended February 28, 2022

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Acadian Global Low Vol.</b>	<b>-0.63</b>	<b>1.44</b>	<b>-4.82</b>	<b>13.70</b>	<b>7.34</b>	<b>7.44</b>	<b>7.72</b>	<b>7/1/2015</b>	<b>243,880,264</b>	<b>50.49</b>
MSCI AC World Index (Net)	-2.58	-3.66	-7.37	7.81	13.41	11.44	9.77			
MSCI ACWI Minimum Volatility Index (Net)	-1.56	-1.06	-6.40	9.70	7.14	7.91	7.92			
<b>BlackRock Global Low Vol.</b>	<b>-1.65</b>	<b>-1.11</b>	<b>-6.43</b>	<b>9.90</b>	<b>7.08</b>	<b>8.07</b>	<b>8.18</b>	<b>7/1/2015</b>	<b>239,142,390</b>	<b>49.51</b>
MSCI ACWI Minimum Volatility Index (Net)	-1.56	-1.06	-6.40	9.70	7.14	7.91	7.92			
<b>Global Low Volatility Composite</b>	<b>-1.14</b>	<b>0.16</b>	<b>-5.63</b>	<b>11.79</b>	<b>7.21</b>	<b>7.76</b>	<b>7.96</b>	<b>7/1/2015</b>	<b>483,022,654</b>	<b>100.00</b>
MSCI ACWI Minimum Volatility Index (Net)	-1.56	-1.06	-6.40	9.70	7.14	7.91	7.92			

# Asset Allocation & Performance

Global Listed Infrastructure  
 Periods Ended February 28, 2022

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Atlantic Trust CIBC</b>	<b>5.05</b>	<b>16.39</b>	<b>14.79</b>	<b>44.21</b>	<b>6.01</b>	<b>1.86</b>	<b>5.91</b>	1/1/2012	90,615,893	36.06
Alerian MLP Index	4.82	20.57	16.42	43.06	3.16	-0.73	1.25			
<b>Harvest Fund Advisors MLP</b>	<b>7.10</b>	<b>19.35</b>	<b>17.64</b>	<b>48.92</b>	<b>8.63</b>	<b>3.59</b>	<b>6.01</b>	1/1/2012	92,852,449	36.95
Alerian MLP Index	4.82	20.57	16.42	43.06	3.16	-0.73	1.25			
<b>C&amp;S Global Listed Infrastructure</b>	<b>-0.16</b>	<b>2.64</b>	<b>-3.98</b>	<b>15.19</b>			<b>15.46</b>	11/1/2020	67,844,300	27.00
FTSE Global Core Infrastructure 50/50 (Net)	-0.43	3.57	-3.45	14.09			15.47			
<b>Global Listed Infrastructure Composite</b>	<b>4.32</b>	<b>13.33</b>	<b>9.97</b>	<b>36.52</b>	<b>1.45</b>	<b>-0.65</b>	<b>4.36</b>	1/1/2012	251,312,642	100.00
Global Listed Infrastructure Benchmark	3.51	16.31	11.32	35.78	-1.11	-3.22	-0.01			

# Asset Allocation & Performance

## Global Fixed Income

Periods Ended February 28, 2022

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Securian Asset Management</b>	<b>-1.27</b>	<b>-3.49</b>	<b>-3.20</b>	<b>-1.86</b>	<b>3.59</b>	<b>3.12</b>	<b>4.26</b>	<b>7/1/2007</b>	<b>216,149,613</b>	<b>43.64</b>
Blmbg. U.S. Aggregate	-1.12	-3.49	-3.25	-2.64	3.30	2.71	3.88			
<b>Garcia Hamilton *</b>	<b>-0.88</b>	<b>-2.66</b>	<b>-2.42</b>	<b>-2.52</b>	<b>2.85</b>	<b>2.55</b>	<b>2.97</b>	<b>11/1/2013</b>	<b>64,922,112</b>	<b>13.11</b>
Blmbg. U.S. Aggregate	-1.12	-3.49	-3.25	-2.64	3.30	2.71	2.71			
<b>NT Collective Aggregate Bond Index</b>	<b>-1.13</b>	<b>-3.53</b>	<b>-3.26</b>				<b>-3.21</b>	<b>7/1/2021</b>	<b>214,211,791</b>	<b>43.25</b>
Blmbg. U.S. Aggregate	-1.12	-3.49	-3.25				-3.18			
<b>Global Fixed Income Composite</b>	<b>-1.16</b>	<b>-3.40</b>	<b>-3.12</b>	<b>-2.21</b>	<b>3.85</b>	<b>3.15</b>	<b>4.80</b>	<b>10/1/1995</b>	<b>495,283,516</b>	<b>100.00</b>
Blmbg. U.S. Aggregate	-1.12	-3.49	-3.25	-2.64	3.30	2.71	4.85			

# Asset Allocation & Performance

Opportunistic Credit

*Periods Ended February 28, 2022*

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Neuberger Berman	-1.89	-2.42	-3.66	-0.83	3.51	4.00	5.47	2/1/2016	177,757,580	
Custom Benchmark	-2.65	-3.10	-4.35	-1.21	3.35	3.59	5.53			

# Asset Allocation & Performance

High Yield

Periods Ended February 28, 2022

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Oaktree Capital Management</b>	-0.71	-1.06	-3.00	1.34	5.08	4.20	6.49	2/1/1997	184,935,074	50.45
FTSE High Yield Cash Pay	-0.97	-1.67	-3.60	0.95	4.98	4.64	6.62			
<b>BlackRock</b>	-0.82	-1.39	-3.31	1.02	5.33	4.78	6.12	10/1/2006	181,609,313	49.55
FTSE High Yield Cash Pay	-0.97	-1.67	-3.60	0.95	4.98	4.64	6.54			
<b>High Yield Composite</b>	-0.76	-1.22	-3.16	1.18	5.21	4.49	6.30	1/1/1997	366,544,387	100.00
FTSE High Yield Cash Pay	-0.97	-1.67	-3.60	0.95	4.98	4.64	6.62			

# Asset Allocation & Performance

Cash

*Periods Ended February 28, 2022*

	Performance (%) net of fees								Allocation	
	1 Month	1 Quarter	YTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Cash Account	0.01	0.02	0.01	0.04	0.87	1.13	3.10	1/1/1988	28,092,416	100.00
Managed Short Term Composite	0.01	0.02	0.01	0.04	0.87	1.13	2.76	1/1/1990	28,092,416	100.00

**Wilshire**

# Dallas Employees' Retirement Fund

Monthly Investment Summary

Mar-2022

# Market Commentary

*Month Ended March 31, 2022*

## U.S. Economy and Markets

- Domestic equity markets were positive in March, as the FT Wilshire 5000 Index<sup>SM</sup> and the S&P 500 Index returned 3.35% and 3.71%, respectively.
- The CBOE Volatility Index (VIX) ended March at 20.56—a decrease from its February close of 30.15, but up since year-end 2021.
- Performance across GICS sectors was positive for the month—save for financials which were down slightly. Energy, Materials, Real Estate, and Utilities had the strongest returns.
- Small cap stocks underperformed their large cap counterparts in March, with the Wilshire U.S. Small Cap Index<sup>SM</sup> and the Wilshire U.S. Large Cap Index<sup>SM</sup> returning 1.32% and 3.53%, respectively.
- For the month of March, value-oriented equities underperformed their growth-oriented counterparts in the large capitalization segment, and outperformed in the small capitalization segment of the market.

## International Economy and Markets

- Developed international equity markets, as measured by the MSCI EAFE Index, returned 0.64% this month.
- The MSCI Emerging Markets Index was down -2.26% in March.

## Fixed Income & Real Assets

- The 10-year U.S. Treasury yield ended the month at 2.34%, up significantly from a 2021 year-end yield of 1.51%.
- The Bloomberg U.S. Aggregate Index dropped -2.78% in March.
- Long duration fixed income was the hardest-hit segment within U.S. fixed income, with the Bloomberg Long-Term Treasury Index dropping -5.34%. Credit indices, such as the Bloomberg U.S. Credit Index and Bloomberg U.S. Corporate High Yield Index, were down -2.51% and -1.15%, respectively.
- Listed U.S. real estate provided strong returns in March, with the Wilshire U.S. Real Estate Securities Index<sup>SM</sup> returning 6.84%. Listed global infrastructure was up as well, with the FTSE Global Core 50/50 Index gaining 7.51%.
- Commodities, as measured by the Bloomberg Commodity Index, gained 8.65% in March.

# Monthly Index Performance

*Periods Ended March 31, 2022*

	Performance (%)				
	1 Month	QTD	1 Year	3 Years	5 Years
U.S. Equity					
FT Wilshire 5000 Total Market TR Index	3.35	-4.95	13.09	18.66	15.65
S&P 500	3.71	-4.60	15.65	18.92	15.99
FT Wilshire 4500 Completion Index	1.26	-7.49	-1.25	16.02	13.18
MSCI USA Minimum Volatility Index	5.49	-3.76	13.82	11.82	12.45
U.S. Equity by Size/Style					
FT Wilshire U.S. Large-Cap Index	3.53	-4.83	14.65	19.25	16.40
FT Wilshire U.S. Large-Cap Growth Index	4.17	-7.96	16.32	23.51	19.39
FT Wilshire U.S. Large-Cap Value Index	2.78	-0.69	12.63	14.68	12.45
FT Wilshire U.S. Small-Cap Index	1.32	-6.11	-1.44	12.81	10.39
FT Wilshire U.S. Small-Cap Growth Index	0.05	-10.35	-9.42	12.52	11.09
FT Wilshire U.S. Small-Cap Value Index	2.51	-1.84	7.32	13.08	9.19
FT Wilshire U.S. Micro-Cap Index	1.23	-9.07	-18.15	7.49	6.64
Non-U.S. Equity (USD)					
MSCI AC World ex USA (Net)	0.16	-5.44	-1.48	7.51	6.76
MSCI ACWI ex USA Minimum Volatility Index (Net)	0.90	-2.05	6.69	5.28	6.40
MSCI EAFE Index (Net)	0.64	-5.91	1.16	7.78	6.72
MSCI Emerging Markets (Net)	-2.26	-6.97	-11.37	4.94	5.98
MSCI AC World ex USA Small Cap (Net)	1.02	-6.52	0.03	10.22	7.89
U.S. Fixed Income					
Blmbg. U.S. Aggregate	-2.78	-5.93	-4.15	1.69	2.14
Blmbg. U.S. Treasury: Long	-5.34	-10.58	-1.42	3.26	3.90
Blmbg. U.S. Long Corporate Index	-2.78	-11.41	-4.27	4.62	4.87
Blmbg. U.S. TIPS	-1.86	-3.02	4.29	6.22	4.43
Blmbg. U.S. Credit Index	-2.51	-7.42	-4.16	2.81	3.18
Blmbg. U.S. Corp: High Yield	-1.15	-4.84	-0.66	4.58	4.69
S&P LSTA Leverage Loan Index					

# Asset Allocation & Performance

Dallas Total Fund

Periods Ended March 31, 2022

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Global Equity Composite	1.89	-4.58	5.24	11.44	10.31	9.69	9/1/2012	282,161,161	7.22
Global Low Volatility Composite	2.97	-2.82	9.59	7.86	8.22	8.32	7/1/2015	497,363,281	12.72
Domestic Equity Composite	1.64	-5.04	10.30	17.67	14.24	10.68	1/1/1990	585,451,834	14.98
International Equity Composite	1.19	-5.40	-1.38	9.78	7.81	5.80	1/1/1990	480,401,367	12.29
Global Fixed Income Composite	-2.65	-5.69	-3.83	2.31	2.60	4.68	10/1/1995	482,160,023	12.33
High Yield Composite	-0.64	-3.78	0.31	4.71	4.42	6.25	1/1/1997	364,209,647	9.32
Credit Opportunities Composite	-0.25	-4.10	-1.22	3.07	3.87	5.32	2/1/2016	176,957,145	4.53
Total Real Estate Composite	1.83	-1.04	23.15	10.41	9.05	6.99	1/1/1990	420,432,325	10.76
Global Listed Infrastructure Composite	6.08	16.66	36.16	2.05	0.51	4.93	1/1/2012	212,495,708	5.44
Private Equity Composite	-0.04	4.38	36.72	18.75	16.83	14.57	6/1/2009	338,644,678	8.66
Managed Short Term Composite	0.03	0.04	0.06	0.81	1.13	2.75	1/1/1990	68,629,010	1.76
Dallas Total Fund	1.07	-2.21	9.09	8.89	7.85	9.04	1/1/1985	3,908,906,180	100.00
Policy Index	1.37	-2.89	8.08	9.36	8.00	9.62			

# Asset Allocation & Performance

## Domestic Equity

Periods Ended March 31, 2022

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Systematic Financial</b>	<b>-1.80</b>	<b>-5.10</b>	<b>2.40</b>	<b>13.00</b>	<b>10.15</b>	<b>11.04</b>	<b>8/1/2003</b>	<b>77,249,794</b>	<b>13.19</b>
Russell 2000 Index	1.24	-7.53	-5.79	11.74	9.74	9.62			
<b>Redwood Investments *</b>	<b>-2.65</b>	<b>-17.90</b>	<b>-7.16</b>	<b>13.40</b>	<b>10.74</b>	<b>10.84</b>	<b>10/1/2016</b>	<b>35,151,148</b>	<b>6.00</b>
Russell 2000 Growth Index	0.46	-12.63	-14.33	9.88	10.33	11.09			
<b>Channing Capital *</b>	<b>-1.75</b>	<b>-1.44</b>	<b>2.63</b>	<b>14.15</b>	<b>8.53</b>	<b>8.36</b>	<b>12/1/2013</b>	<b>38,141,606</b>	<b>6.51</b>
Russell 2000 Value Index	1.96	-2.40	3.32	12.73	8.57	8.34			
<b>Domestic Equity Small Cap Composite</b>	<b>-1.99</b>	<b>-7.59</b>	<b>0.01</b>	<b>13.63</b>	<b>10.07</b>	<b>10.02</b>	<b>6/1/2003</b>	<b>150,542,548</b>	<b>25.71</b>
<b>Smith Graham *</b>	<b>0.50</b>	<b>-2.12</b>	<b>10.06</b>	<b>17.97</b>		<b>10.99</b>	<b>1/1/2018</b>	<b>83,218,779</b>	<b>14.21</b>
Russell Midcap Index	2.56	-5.68	6.92	14.89		11.81			
<b>T. Rowe Price</b>	<b>3.25</b>	<b>-4.66</b>	<b>15.67</b>	<b>19.32</b>	<b>16.69</b>	<b>10.90</b>	<b>4/1/2006</b>	<b>171,360,328</b>	<b>29.27</b>
S&P 500	3.71	-4.60	15.65	18.92	15.99	10.36			
<b>Northern Trust S&amp;P 500 (Lending)</b>	<b>3.79</b>	<b>-4.52</b>	<b>15.73</b>	<b>18.90</b>	<b>15.98</b>	<b>10.89</b>	<b>1/1/1995</b>	<b>180,330,180</b>	<b>30.80</b>
S&P 500	3.71	-4.60	15.65	18.92	15.99	10.85			
<b>Domestic Equity Composite</b>	<b>1.64</b>	<b>-5.04</b>	<b>10.30</b>	<b>17.67</b>	<b>14.24</b>	<b>10.68</b>	<b>1/1/1990</b>	<b>585,451,834</b>	<b>100.00</b>
Custom Benchmark	3.35	-4.95	13.09	18.66	15.65	10.81			

# Asset Allocation & Performance

## Real Estate

Periods Ended March 31, 2022

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Adelante Capital Management</b>	<b>6.88</b>	<b>-3.70</b>	<b>30.08</b>	<b>13.51</b>	<b>11.56</b>	<b>10.61</b>	<b>10/1/2001</b>	<b>60,464,708</b>	<b>14.38</b>
Wilshire U.S. Real Estate Securities Index	6.84	-3.85	29.09	11.93	10.07	10.69			
<b>CenterSquare</b>	<b>6.52</b>	<b>-3.11</b>	<b>27.11</b>	<b>12.89</b>		<b>13.89</b>	<b>6/1/2018</b>	<b>59,286,359</b>	<b>14.10</b>
Wilshire U.S. Real Estate Securities Index	6.84	-3.85	29.09	11.93		12.89			
<b>REIT Composite</b>	<b>6.70</b>	<b>-3.41</b>	<b>28.58</b>	<b>13.20</b>	<b>11.11</b>	<b>10.65</b>	<b>10/1/2001</b>	<b>119,751,067</b>	<b>28.48</b>
Wilshire U.S. Real Estate Securities Index	6.84	-3.85	29.09	11.93	10.07	10.69			
<b>Heitman America Real Estate Trust, LP</b>	<b>0.00</b>	<b>0.00</b>	<b>20.84</b>	<b>6.69</b>	<b>6.57</b>	<b>10.03</b>	<b>12/1/2010</b>	<b>98,325,046</b>	<b>23.39</b>
NCREIF ODCE NOF	0.00	0.00	18.78	7.80	7.41	10.07			
<b>Invesco Core Real Estate USA, LLC</b>	<b>0.00</b>	<b>0.00</b>	<b>19.43</b>	<b>7.96</b>	<b>8.03</b>	<b>10.48</b>	<b>12/1/2010</b>	<b>80,848,131</b>	<b>19.23</b>
NCREIF ODCE NOF	0.00	0.00	18.78	7.80	7.41	10.07			
<b>Virtus Real Estate Capital III</b>	<b>0.00</b>	<b>0.00</b>	<b>7.44</b>			<b>6.34</b>	<b>2/1/2021</b>	<b>15,516,661</b>	<b>3.69</b>
NCREIF ODCE NOF	0.00	0.00	18.78			17.77			
<b>AEW Partners Real Estate Fund IX</b>	<b>0.00</b>	<b>0.00</b>	<b>-29.22</b>			<b>-29.22</b>	<b>4/1/2021</b>	<b>24,599,568</b>	<b>5.85</b>
NCREIF ODCE NOF	0.00	0.00	18.78			18.78			

# Asset Allocation & Performance

## Real Estate

Periods Ended March 31, 2022

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Private Core Real Estate Composite</b>	0.00	0.00	19.25	8.63	7.67	9.65	10/1/2010	300,681,258	71.52
Custom Benchmark	0.00	0.00	19.19	9.25	8.03	9.29			
<b>Total Real Estate Composite</b>	1.83	-1.04	23.15	10.41	9.05	6.99	1/1/1990	420,432,325	100.00
Custom Benchmark	3.42	-1.81	24.61	11.18	9.51	8.92			

**Employees' Retirement Fund of the City of Dallas**  
 Private Equity & Direct Private Real Estate Monthly Performance and Market Value Summary  
 Periods Ended 03/31/22



	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	Multiple <sup>3</sup>
Invesco II	81,391,852	65,188,333	65,188,333	10,892,198	Jan-14	6.5%	1.4
<b>Total Direct Private Real Estate</b>	<b>81,391,852</b>	<b>65,188,333</b>	<b>65,188,333</b>	<b>10,892,198</b>	<b>Jan-14</b>	<b>6.5%</b>	<b>1.4</b>

	Month-End Market Value	Commitment Value	Drawn Down Capital	Cash Distributions	Inception Date	IRR Since Inception	Multiple <sup>3</sup>
Hamilton Lane Secondary Fund II	471,844	25,000,000	22,058,532	31,103,855	Jul-09	13.6%	1.4
Hamilton Lane Secondary Fund III	3,913,599	30,000,000	23,372,292	27,402,929	Nov-12	10.2%	1.3
Hamilton Lane Secondary Fund IV	21,854,951	30,000,000	25,907,343	21,150,788	Mar-17	22.8%	1.7
Hamilton Lane Secondary Fund V	46,375,428	65,000,000	36,826,419	4,110,097	Mar-20	40.2%	1.4
Hamilton Lane Fund VII Composite	19,784,465	50,000,000	45,600,834	52,221,159	Jan-10	7.0%	1.6
Hamilton Lane Fund VIII (Global)	19,633,722	30,000,000	22,270,594	13,656,569	Nov-12	7.8%	1.5
GCM Grosvenor - Partnership, L.P.	29,432,998	75,000,000	86,428,330	117,843,228	Jun-11	14.3%	1.7
GCM Grosvenor - Partnership II, L.P. (2014)	47,578,705	60,000,000	69,943,751	62,292,578	Jul-14	17.7%	1.6
GCM Grosvenor - Partnership II, L.P. (2015)	47,056,287	30,000,000	38,278,456	10,684,122	Dec-15	16.5%	1.5
GCM Grosvenor - Partnership II, L.P. (2017)	23,071,288	30,000,000	22,871,710	5,647,301	Jan-18	17.6%	1.3
GCM Grosvenor - Advance Fund, L.P.	2,428,132	10,000,000	2,538,275	53,279	Jun-21	-	1.0
Fairview Capital - Lone Star Fund I	52,418,006	40,000,000	35,663,040	12,810,873	Aug-15	18.4%	1.8
Fairview Capital - Lone Star Fund II	19,561,393	30,000,000	14,912,991	138,948	Dec-18	11.8%	1.3
Fairview Capital - Lone Star Fund III	5,063,860	25,000,000	5,176,777	-	Apr-21	<b>-8.0%</b>	1.0
<b>Total Private Equity Composite</b>	<b>338,644,678</b>	<b>530,000,000</b>	<b>451,849,343</b>	<b>359,115,728</b>	<b>Jul-09</b>	<b>14.5%</b>	<b>1.5</b>

**Public Market Equivalent (PME) <sup>2</sup>**

**476,692,091**

**18.3%**

\* Next Generation Manager

<sup>1</sup> Total Value to Paid-in Capital ("TVPI") multiple calculation =  $(\text{market value} + \text{distributions}) / \text{capital called}$

<sup>2</sup> The Public Market Equivalent (PME) approach creates a hypothetical investment vehicle that mimics the private equity composite cash flows. The performance difference between the PME vehicle and the private equity portfolio is determined by their net asset value (NAV) at the end of the benchmarking period. The performance of the "public market" is simulated using the monthly S&P 500 index returns, plus a 300 BPs annual hurdle rate.

<sup>3</sup> Private Equity cash account

# Asset Allocation & Performance

## International Equity

Periods Ended March 31, 2022

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Acadian International</b>	<b>3.09</b>	<b>-2.53</b>	<b>6.07</b>	<b>12.65</b>	<b>9.65</b>	<b>8.69</b>	<b>4/1/1989</b>	<b>138,254,080</b>	<b>28.78</b>
Custom Benchmark	1.02	-6.52	0.03	10.22	7.89	6.18			
<b>Ativo International *</b>	<b>1.08</b>	<b>-7.32</b>	<b>2.68</b>	<b>6.89</b>		<b>3.84</b>	<b>1/1/2018</b>	<b>41,636,279</b>	<b>8.67</b>
MSCI EAFE Index (Net)	0.64	-5.91	1.16	7.78		4.12			
<b>AQR Capital Management</b>	<b>0.75</b>	<b>-4.51</b>	<b>-5.45</b>	<b>5.59</b>	<b>4.91</b>	<b>3.58</b>	<b>4/1/2006</b>	<b>125,963,300</b>	<b>26.22</b>
Custom Benchmark	0.16	-5.44	-1.48	7.51	6.76	3.53			
<b>Baillie Gifford</b>	<b>-1.15</b>	<b>-14.94</b>	<b>-16.64</b>	<b>7.99</b>		<b>7.99</b>	<b>4/1/2019</b>	<b>75,090,086</b>	<b>15.63</b>
MSCI AC World ex USA (Net)	0.16	-5.44	-1.48	7.51		7.51			
<b>Earnest Partners</b>	<b>1.01</b>	<b>-1.39</b>	<b>7.04</b>	<b>11.50</b>		<b>11.50</b>	<b>4/1/2019</b>	<b>99,457,622</b>	<b>20.70</b>
MSCI AC World ex USA (Net)	0.16	-5.44	-1.48	7.51		7.51			
<b>International Equity Composite</b>	<b>1.19</b>	<b>-5.40</b>	<b>-1.38</b>	<b>9.78</b>	<b>7.81</b>	<b>5.80</b>	<b>1/1/1990</b>	<b>480,401,367</b>	<b>100.00</b>
Custom Benchmark	0.28	-5.60	-1.27	7.87	6.92	4.77			

# Asset Allocation & Performance

## Global Equity

Periods Ended March 31, 2022

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Ariel Global *</b>	<b>2.30</b>	<b>0.56</b>	<b>9.05</b>	<b>9.65</b>		<b>7.57</b>	<b>1/1/2018</b>	<b>121,166,494</b>	<b>42.94</b>
MSCI AC World Index (Net)	2.17	-5.36	7.28	13.75		9.93			
<b>Wellington</b>	<b>1.54</b>	<b>-8.61</b>	<b>1.79</b>	<b>12.40</b>	<b>10.56</b>	<b>11.79</b>	<b>9/1/2012</b>	<b>133,405,419</b>	<b>47.28</b>
MSCI AC World Index (Net)	2.17	-5.36	7.28	13.75	11.64	10.71			
<b>Northern Trust Global Equity</b>	<b>1.78</b>	<b>-5.65</b>	<b>6.33</b>	<b>13.90</b>	<b>11.77</b>	<b>12.34</b>	<b>10/1/2015</b>	<b>27,589,248</b>	<b>9.78</b>
MSCI AC World IMI (Net)	2.04	-5.47	6.30	13.49	11.37	11.93			
<b>Global Equity Composite</b>	<b>1.89</b>	<b>-4.58</b>	<b>5.24</b>	<b>11.44</b>	<b>10.31</b>	<b>9.69</b>	<b>9/1/2012</b>	<b>282,161,161</b>	<b>100.00</b>
MSCI AC World Index (Net)	2.17	-5.36	7.28	13.75	11.64	10.71			

# Asset Allocation & Performance

## Global Low Volatility

Periods Ended March 31, 2022

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Acadian Global Low Vol.</b>	<b>2.21</b>	<b>-2.72</b>	<b>10.28</b>	<b>8.08</b>	<b>7.72</b>	<b>7.97</b>	<b>7/1/2015</b>	249,271,845	50.12
MSCI AC World Index (Net)	2.17	-5.36	7.28	13.75	11.64	9.99			
MSCI ACWI Minimum Volatility Index (Net)	3.61	-3.02	8.63	7.70	8.55	8.39			
<b>BlackRock Global Low Vol.</b>	<b>3.74</b>	<b>-2.93</b>	<b>8.90</b>	<b>7.65</b>	<b>8.72</b>	<b>8.66</b>	<b>7/1/2015</b>	248,091,436	49.88
MSCI ACWI Minimum Volatility Index (Net)	3.61	-3.02	8.63	7.70	8.55	8.39			
<b>Global Low Volatility Composite</b>	<b>2.97</b>	<b>-2.82</b>	<b>9.59</b>	<b>7.86</b>	<b>8.22</b>	<b>8.32</b>	<b>7/1/2015</b>	497,363,281	100.00
MSCI ACWI Minimum Volatility Index (Net)	3.61	-3.02	8.63	7.70	8.55	8.39			

# Asset Allocation & Performance

## Global Listed Infrastructure

Periods Ended March 31, 2022

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Atlantic Trust CIBC</b>	<b>5.77</b>	<b>21.41</b>	<b>43.81</b>	<b>6.43</b>	<b>2.95</b>	<b>6.44</b>	<b>1/1/2012</b>	<b>69,793,539</b>	<b>32.84</b>
Alerian MLP Index	2.05	18.81	36.56	2.70	-0.07	1.44			
<b>Harvest Fund Advisors MLP</b>	<b>5.33</b>	<b>23.91</b>	<b>46.96</b>	<b>9.09</b>	<b>4.71</b>	<b>6.50</b>	<b>1/1/2012</b>	<b>69,753,944</b>	<b>32.83</b>
Alerian MLP Index	2.05	18.81	36.56	2.70	-0.07	1.44			
<b>C&amp;S Global Listed Infrastructure</b>	<b>7.52</b>	<b>3.24</b>	<b>16.54</b>			<b>20.50</b>	<b>11/1/2020</b>	<b>72,948,224</b>	<b>34.33</b>
FTSE Global Core Infrastructure 50/50 (Net)	7.43	3.72	14.47			20.44			
<b>Global Listed Infrastructure Composite</b>	<b>6.08</b>	<b>16.66</b>	<b>36.16</b>	<b>2.05</b>	<b>0.51</b>	<b>4.93</b>	<b>1/1/2012</b>	<b>212,495,708</b>	<b>100.00</b>
Global Listed Infrastructure Benchmark	3.39	15.09	31.26	-1.12	-2.31	0.32			

# Asset Allocation & Performance

## Global Fixed Income

Periods Ended March 31, 2022

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Securian Asset Management</b>	-2.69	-5.80	-3.67	1.99	2.55	4.04	7/1/2007	210,342,669	43.63
Blmbg. U.S. Aggregate	-2.78	-5.93	-4.15	1.69	2.14	3.66			
<b>Garcia Hamilton *</b>	-2.11	-4.48	-3.55	1.67	2.14	2.68	11/1/2013	63,553,894	13.18
Blmbg. U.S. Aggregate	-2.78	-5.93	-4.15	1.69	2.14	2.34			
<b>NT Collective Aggregate Bond Index</b>	-2.78	-5.95				-5.90	7/1/2021	208,263,459	43.19
Blmbg. U.S. Aggregate	-2.78	-5.93				-5.87			
<b>Global Fixed Income Composite</b>	-2.65	-5.69	-3.83	2.31	2.60	4.68	10/1/1995	482,160,023	100.00
Blmbg. U.S. Aggregate	-2.78	-5.93	-4.15	1.69	2.14	4.72			

# Asset Allocation & Performance

Opportunistic Credit

*Periods Ended March 31, 2022*

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Neuberger Berman	-0.25	-4.10	-1.22	3.07	3.87	5.32	2/1/2016	176,957,145	
Custom Benchmark	-0.59	-4.91	-1.53	2.89	3.45	5.35			

# Asset Allocation & Performance

High Yield

Periods Ended March 31, 2022

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
<b>Oaktree Capital Management</b>	-0.66	-3.64	0.49	4.57	4.14	6.44	2/1/1997	183,720,685	50.44
FTSE High Yield Cash Pay	-0.80	-4.37	-0.15	4.37	4.53	6.56			
<b>BlackRock</b>	-0.62	-3.91	0.12	4.84	4.68	6.05	10/1/2006	180,488,962	49.56
FTSE High Yield Cash Pay	-0.80	-4.37	-0.15	4.37	4.53	6.45			
<b>High Yield Composite</b>	-0.64	-3.78	0.31	4.71	4.42	6.25	1/1/1997	364,209,647	100.00
FTSE High Yield Cash Pay	-0.80	-4.37	-0.15	4.37	4.53	6.57			

# Asset Allocation & Performance

Cash

*Periods Ended March 31, 2022*

	Performance (%) net of fees							Allocation	
	1 Month	1 Quarter	1 Year	3 Years	5 Years	Since Inception	Inception Date	Market Value \$	%
Cash Account	0.03	0.04	0.06	0.81	1.13	3.09	1/1/1988	68,629,010	100.00
Managed Short Term Composite	0.03	0.04	0.06	0.81	1.13	2.75	1/1/1990	68,629,010	100.00

# At A Glance

For period ended February 28, 2022

	2021		2022	
	This Month	YTD	This Month	YTD
<b>Retirements</b>				
Age	29	42	22	39
Service	8	9	3	3
Rule of 78	13	19	11	18
QDRO	0	0	0	0
<i>Total</i>	50	70	36	60
<b>Disability Retirements</b>				
Service	0	0	0	0
Non-service	0	3	0	0
<i>Total</i>	0	3	0	0
<b>Benefits Paid</b>	\$ 24,301,775.74	\$ 48,718,077.28	\$ 26,053,150.56	\$ 52,046,672.91
<b>Refunds</b>	\$ 653,445.60	\$ 1,360,090.36	\$ 869,771.10	\$ 1,730,070.18
<b>Number of refunds</b>	27	75	45	99
<b>*Contributions</b>	\$ 9,200,144.43	\$ 18,300,054.16	\$ 9,652,220.14	\$ 19,171,114.86

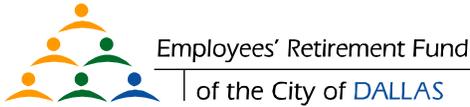
	<b>Members on record at month end</b>				
	Retirees & beneficiaries	Disabilities	Actives	Tier A actives	Tier B Actives
Jan	7,658	139	7,313	4,279	3,034
Feb	7,671	138	7,328	4,232	3,096
Mar					
April					
May					
June					
July					
Aug					
Sep					
Oct					
Nov					
Dec					

# At A Glance

For period ended March 31, 2022

	2021		2022	
	This Month	YTD	This Month	YTD
<b>Retirements</b>				
Age	17	59	14	53
Service	1	10	2	5
Rule of 78	9	28	10	28
QDRO	0	0	1	1
<i>Total</i>	27	97	27	87
<b>Disability Retirements</b>				
Service	0	0	0	0
Non-service	0	3	0	0
<i>Total</i>	0	3	0	0
<b>Benefits Paid</b>	\$ 24,642,551.34	\$ 73,360,628.62	\$ 26,860,254.06	\$ 78,906,926.97
<b>Refunds</b>	\$ 525,167.32	\$ 1,885,257.68	\$ 1,125,798.15	\$ 2,855,868.33
<b>Number of refunds</b>	36	111	49	148
<b>*Contributions</b>	\$ 9,132,679.73	\$ 27,432,733.89	\$ 9,563,356.21	\$ 28,734,471.07

<b>Members on record at month end</b>					
	Retirees & beneficiaries	Disabilities	Actives	Tier A actives	Tier B Actives
<i>Jan</i>	7,658	139	7,313	4,279	3,034
<i>Feb</i>	7,671	138	7,328	4,232	3,096
<i>Mar</i>	7,680	138	7,361	4,192	3,169
<i>April</i>					
<i>May</i>					
<i>June</i>					
<i>July</i>					
<i>Aug</i>					
<i>Sep</i>					
<i>Oct</i>					
<i>Nov</i>					
<i>Dec</i>					



Employees' Retirement Fund  
of the City of DALLAS

"Provide retirement and superior service to advance  
the financial security of our members"

March 17, 2022

M. Elizabeth Reich  
Chief Financial Officer, City of Dallas  
1500 Marilla St., Room 4CN  
Dallas, TX 75201

Dear Elizabeth:

On October 28, 2021, the Employees' Retirement Fund (ERF) was notified by Janette Weedon of a change in the debt service schedule for the Pension Obligation Bonds due to a refunding in 2020. The refunding resulted in a lower actual debt service paid in September 2021 than the amount reflected in the actuarial valuation. The refunding would have resulted in a lower Pension Obligation Bond Credit Rate, and the contribution rate paid to the ERF in fiscal year 2020-21 would have been higher had the actual debt service been used in the actuarial valuation. The actual total contributions to the ERF are \$1,719,553.25 lower than the amount which should have been remitted based on the revised debt service schedule provided by the City Controller's Office.

Additionally, the revised debt service schedule was not provided prior to the December 31, 2020 actuarial valuation report, resulting in a higher Pension Obligation Bond Credit Rate and, conversely, a lower contribution rate to the ERF in fiscal year 2021-22. Had the revised debt service schedule been provided for the actuarial valuation report, the amounts remitted to the ERF would have been \$74,961.62 higher per pay period based on debt service savings due to savings from the refunding of \$1,949,002.00 for September 2022.

Below is a summary of the amount under-paid to the ERF which was provided to the Controller's Office for review:

1. Revised contribution to the ERF as a result of a lower required debt service payment in September 2021	\$1,719,553.25
2. Revised contributions to the ERF for 5.3 pay periods through December 22, 2021 as a result of a lower required debt service payment in September 2022	<u>397,296.56</u>
Total	<u>\$2,116,849.81</u>

Please wire \$2,116,849.81 to the Employees' Retirement Fund to settle the unremitted contributions through December 20, 2021. The balance of the savings in 2022 resulting from the refunding (\$1,551,705.44) will be invoiced on September 30, 2022. Please let me know if you have any questions.

Best regards,

Cheryl D. Alston  
Executive Director

cc: David Etheridge, Deputy Director Employees' Retirement Fund  
Edward Scott, Chief Financial Officer, Employees' Retirement Fund  
Sherri Kowalski, City Controller  
Mark Swann, City Auditor

**RESOLUTION NO. 2022-1**  
**INVESTMENT OF FUND'S ASSETS**  
**BOARD OF TRUSTEES EMPLOYEES' RETIREMENT FUND**  
**OF THE CITY OF DALLAS**

**April 12, 2022**

WHEREAS, on February 24, 2022, the Russian Federation (Russia) launched an attack on Ukraine, invading a sovereign nation and forcing thousands to flee their homes to seek refuge in neighboring countries;

WHEREAS, the United States and nations around the world have united to condemn the invasion and have levied sanctions against Russia and its financial institutions;

WHEREAS, pursuant to Dallas City Code Chapter 40A (Chapter 40A) Section 40A-4, the Board has the power and duty to administer the Employees' Retirement Fund of the City of Dallas (Fund) in accordance with Chapter 40A and adopt rules and regulations not inconsistent with Chapter 40A and the Constitution and laws of the State of Texas; and

WHEREAS, as fiduciaries of the Fund, the Board must be mindful of the impact that the events unfolding in Ukraine and the resulting sanctions on Russia may have on the assets of the Fund;

NOW, THEREFORE, BE IT RESOLVED THAT, the Board hereby directs the Executive Director of the Fund and her staff to review, with the assistance and support of the Fund's investment advisor, to what extent the Fund's assets are invested, either directly or indirectly, in vehicles that include companies with business operations that involve contracts with or providing supplies or services to the government of Russia, companies in which the government of Russia has any direct or indirect equity share, consortiums or projects commissioned by the government of Russia, or companies involved in consortiums or projects commissioned by the government of Russia; and

FURTHER RESOLVED, that the Board hereby authorizes the Executive Director and her staff to divest the Fund of investments that are identified as being connected with the government of Russia, except to the extent such divestment would be inconsistent with the Fund's fiduciary responsibility with respect to the investment of Fund assets or other duties imposed by law relating to the investment of Fund assets, including the duty of care established under Section 67, Article XVI, Texas Constitution; and

FURTHER RESOLVED, that, until such time that the Board states otherwise, this Resolution shall remain in full force and effect and shall be deemed incorporated into the Fund's Investment Policy Statement.

*[Signature Page Follows]*

EMPLOYEES' RETIREMENT FUND OF THE CITY OF DALLAS

\_\_\_\_\_  
Henry Talavera  
Board Chair

\_\_\_\_\_  
Date

Attest:

Approved in Form:

\_\_\_\_\_  
Cheryl D. Alston

Executive Director

\_\_\_\_\_  
Stefan Smith, Esq.

Locke Lord, LLP