

Pursuant to California Government Code section 54953(e), the Oakland Police & Fire Retirement System Board and Committee Members, as well as City staff, will participate via phone/video conference, and no physical teleconference locations are required.

Please see the agenda to participate in the meeting. For additional information, contact the Retirement Unit by calling (510) 238-7295.



Retirement Unit
150 Frank H. Ogawa Plaza
Oakland, California 94612
AGENDA

INVESTMENT COMMITTEE MEMBERS

Jaime T. Godfrey
Chairperson

R. Steve Wilkinson
Member

Robert W. Nichelini
Member

**In the event a quorum of the Board participates in the Committee meeting, the meeting is noticed as a Special Meeting of the Board; however, no final Board action can be taken. In the event that the Investment Committee does not reach quorum, this meeting is noticed as an informational meeting between staff and the Chair of the Investment Committee.*

**REGULAR MEETING of the INVESTMENT AND FINANCIAL MATTERS COMMITTEE
of the OAKLAND POLICE AND FIRE RETIREMENT SYSTEM (“PFRS”)**

WEDNESDAY, MARCH 30, 2022

10:00 AM

**TELE-CONFERENCE BOARD MEETING
VIA ZOOM WEBINAR**

OBSERVE

- To observe the meeting by video conference, please click on this link: <https://us02web.zoom.us/j/82880493983> at the noticed meeting time.
- To listen to the meeting by phone, please call the numbers below at the noticed meeting time: Dial (for higher quality, dial a number based on your current location):
- iPhone one-tap: US: +16699006833, 82880493983# or +13462487799, 82880493983#
- US: +1 669 900 6833 or +1 346 248 7799 or +1 253 215 8782 or +1 301 715 8592 or +1 312 626 6799 or +1 929 205 6099
- International numbers available: <https://us02web.zoom.us/j/82880493983>
- Webinar ID: 828 8049 3983.
If asked for a participant ID or code, press #.

PUBLIC COMMENTS

There are three ways to submit public comments.

- To send your comment directly to staff BEFORE the meeting starts, please email to mvisaya@oaklandca.gov with “PFRS Board Meeting” in the subject line for the corresponding meeting. Please note that eComment submission **closes two (2) hours before posted meeting time.**

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR INVESTMENT COMMITTEE MEETING
MARCH 30, 2022**

- To comment by Zoom video conference, click the “Raise Your Hand” button to request to speak when Public Comment is being taken on an eligible agenda item at the beginning of the meeting. You will be permitted to speak during your turn, allowed to comment, and after the allotted time, re-muted. Instructions on how to “Raise Your Hand” is available at: [https://support.zoom.us/hc/en-us/articles/205566129 - Raise-Hand-In-Webinar](https://support.zoom.us/hc/en-us/articles/205566129-Raise-Hand-In-Webinar).
- To comment by phone, please call on one of the above listed phone numbers. You will be prompted to “Raise Your Hand” by pressing “*9” to speak when Public Comment is taken. You will be permitted to speak during your turn, allowed to comment, and after the allotted time, re-muted. Please unmute yourself by pressing *6.

If you have any questions, please email Maxine Visaya, Administrative Assistant II at mvisaya@oaklandca.gov

ORDER OF BUSINESS

- 1. Subject:** Police and Fire Retirement System (“PFRS”) Investment Committee Meeting Minutes

From: Staff of the PFRS Board

Recommendation: **APPROVE** February 23, 2022 Investment Committee Meeting Minutes

- 2. Subject:** Investment Manager Performance Update – Rice Hall James & Associates, LLC

From: Rice Hall James & Associates, LLC

Recommendation: **ACCEPT** informational report regarding managerial assessment, diversity and inclusion policy and practices, and investment performance of Rice Hall James & Associates, LLC, a PFRS Domestic Equity Small-Cap Growth Investment Manager

- 3. Subject:** Investment Manager Performance Review – Rice Hall James & Associates, LLC

From: Meketa Investment Group

Recommendation: **ACCEPT** Meketa Investment Group’s review and evaluation of Rice Hall James & Associates, LLC, a PFRS Domestic Equity Small-Cap Growth Investment Manager regarding managerial assessment, diversity and inclusion policy and practices, investment performance, and watch status update

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR INVESTMENT COMMITTEE MEETING
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4. **Subject:** Resolution 8044 – Resolution modifying the professional services agreement with Rice Hall James & Associates, LLC in order to (1) provide for unlimited one-year extension options under Section IV(B) and (2) authorize a one-year extension of the professional services agreement for the provision of Domestic Equity Small-Cap Growth Investment Manager Services for the City of Oakland Police and Fire Retirement System
- From:** Staff of the PFRS Board
-
- Recommendation:** **REVIEW** and **RECOMMEND BOARD APPROVAL** of Resolution 8044 – Resolution modifying the professional services agreement with Rice Hall James & Associates, LLC in order to (1) provide for unlimited one-year extension options under Section IV(B) and (2) authorize a one-year extension of the professional services agreement for the provision of Domestic Equity Small-Cap Growth Investment Manager Services for the City of Oakland Police and Fire Retirement System
-
5. **Subject:** Investment Market Overview as of February 28, 2022
- From:** Meketa Investment Group
-
- Recommendation:** **ACCEPT** informational report regarding the Global Investment Markets as of February 28, 2022
-
6. **Subject:** Market Update: Russian Invasion of Ukraine
- From:** Meketa Investment Group
-
- Recommendation:** **ACCEPT** informational report regarding Russia’s invasion of Ukraine and the impact across global financial markets and **RECOMMEND BOARD APPROVAL** of the Committee’s recommended course of action with regard to the portfolio as a result of these recent events
-
7. **Subject:** Preliminary Investment Fund Performance Update as of February 28, 2022
- From:** Meketa Investment Group
-
- Recommendation:** **ACCEPT** informational report regarding the Preliminary Investment Fund Performance Update as of February 28, 2022

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR INVESTMENT COMMITTEE MEETING
MARCH 30, 2022**

8. **Subject:** 2022 10-year Capital Market Assumptions Review
From: Meketa Investment Group
-
- Recommendation:** **RECOMMEND BOARD APPROVAL** of the 2022 10-year Capital Market Assumptions Review
-
9. **Subject:** \$13.9 Million Drawdown for Member Retirement Allowances Fiscal Year 2021/2022 (Quarter Ending June 30, 2022)
From: Meketa Investment Group
-
- Recommendation:** **ACCEPT** an informational report and **RECOMMEND BOARD APPROVAL** of the Meketa Investment Group recommendation of a \$13.9 million drawdown, which includes a \$10.9 Million contribution from the City of Oakland and a \$3.0 Million contribution from the PFRS Investment Fund, to be used to pay for the April 1, 2022 through June 30, 2022 Member Retirement Allowances

10. **Schedule of Pending Investment Committee Meeting Agenda Items**
11. **Open Forum**
12. **Future Scheduling**
13. **Adjournment**

A REGULAR MEETING OF THE INVESTMENT AND FINANCIAL MATTERS COMMITTEE of the Oakland Police and Fire Retirement System (“PFRS”) was held Wednesday, February 23, 2022 via Zoom Webinar.

Committee Members	<ul style="list-style-type: none"> ▪ Jaime T. Godfrey ▪ Robert W. Nichelini ▪ R. Steven Wilkinson 	<ul style="list-style-type: none"> Chairperson (Excused) Member Acting Chairperson
Additional Attendees	<ul style="list-style-type: none"> ▪ David F. Jones ▪ Jennifer Logue ▪ Mitesh Bhakta ▪ Téir Jenkins ▪ Maxine Visaya ▪ David Sancewich ▪ Jason Leong Campbell ▪ Patmon Malcom ▪ Jeff Jackson 	<ul style="list-style-type: none"> PFRS Secretary & Plan Administrator PFRS Legal Counsel PFRS Legal Counsel PFRS Staff Member PFRS Staff Member Meketa Investment Group Meketa Investment Group Earnest Partners Earnest Partners

The meeting was called to order at 10:01 a.m. PST

CHAIRPERSON GODFREY WAS EXCUSED; THE COMMITTEE MEETING WAS CHAIRED BY MEMBER WILKINSON.

1. **Approval of Investment Committee Meeting Minutes** – Acting Chairperson Wilkinson made a motion to approve the January 26, 2022 Investment Committee Meeting Minutes, as written, second by Member Traylor. Motion Passed.

[GODFREY – EXCUSED/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 2 / NOES: 0 / EXCUSED: 1)

2. **Investment Manager Performance Update – Earnest Partners** – Patmon Malcom & Jeff Jackson of Earnest Partners (“Earnest”), a PFRS Domestic Equity Mid-Cap Core Asset Class Investment Manager, presented an informational report regarding a firm overview, a managerial assessment, a broad view of the markets and investment strategies, PFRS’ investment portfolio performance, as well as the firm’s Diversity & Inclusion policy and practices.

Acting Chairperson Wilkinson and Plan Administrator Jones made inquiries to further the discussion regarding investment strategies and market positioning moving forward as well as the firm’s Diversity, Equity, and Inclusion policy and practices. Acting Chairperson Wilkinson acknowledged the great job Earnest has done over the years and looks forward to a continued partnership.

MOTION: Member Nichelini made a motion to accept the informational report presented by Earnest and forward to the Board, second by acting Chairperson Wilkinson. Motion passed.

[GODFREY – EXCUSED/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 2 / NOES: 0 / EXCUSED: 1)

3. **Investment Manager Performance Review – Earnest Partners** – David Sancewich of Meketa Investment Group (“Meketa”) provided an overview memo regarding Earnest, a PFRS Domestic Equity Mid-Cap Core Asset Class Investment Manager. D. Sancewich highlighted Meketa has no concerns from an organizational or investment standpoint and noted they have done a good job and further recommended PFRS extend the current professional services agreement with Earnest.

MOTION: Acting Chairperson Wilkinson made a motion to accept Meketa’s review, evaluation, and recommendation to extend the current professional services agreement with Earnest and forward to the Board, second by Member Nichelini. Motion passed.

[GODFREY – EXCUSED/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 2 / NOES: 0 / EXCUSED: 1)

4. **Resolution 8038** – Resolution authorizing a one-year extension of professional services agreement with Earnest Partners for the provision of Domestic Equity Mid-Cap Core Asset Class Investment Manager Services

MOTION: Acting Chairperson Wilkinson made a motion to recommend Board approval of Resolution 8038, second by Member Nichelini. Motion passed.

[GODFREY – EXCUSED/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 2 / NOES: 0 / EXCUSED: 1)

5. **Investment Market Overview as of January 31, 2022** – David Sancewich of Meketa presented an informational report regarding the Investment Market Overview as of January 31, 2022 and highlighted domestic equity returns and current factors impacting outcomes, such as the impending invasion of Ukraine by Russia, market volatility with regards to the re-opening the economy, concerns about rising interest rates, inflation and stagflation. It was further noted while the portfolio remains diversified the work needs to continue to further de-risk moving forward.

MOTION: Member Nichelini made a motion to accept the informational report presented by Meketa regarding the Investment Market Overview as of January 31, 2022 and forward to the Board, second by acting Chairperson Wilkinson. Motion passed.

[GODFREY – EXCUSED/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 2 / NOES: 0 / EXCUSED: 1)

6. **Preliminary Investment Performance Update as of January 31, 2022** – David Sancewich of Meketa presented an informational report regarding the Preliminary Investment Fund Performance Update as of January 31, 2022 and highlighted the Asset Class Performance Summary.

MOTION: Member Nichelini made a motion to accept the informational report presented by Meketa regarding the Preliminary Investment Fund Performance Update as of January 31, 2022 and forward to the Board, second by acting Chairperson Wilkinson. Motion passed.

[GODFREY – EXCUSED / NICHELINI – Y / WILKINSON – Y]
(AYES: 2 / NOES: 0 / EXCUSED: 1)

7. **Investment Fund Quarterly Performance Update as of December 31, 2021** – David Sancewich of Meketa presented an informational report regarding the Investment Fund Quarterly Performance Update as of December 31, 2021 and noted this report will be provided to City Council. D. Sancewich highlighted strong portfolio performance, market returns, the importance of understanding the steepening of the U.S. yield curve and the impact on the portfolio, the total plan in terms of summary of cash flows and annualized return vs. annualized standard deviation and how PFRS cannot be easily compared to peers because it is a closed fund with no private market investments, positive overall asset class performance and calendar year returns, and finally asset allocation vs. policy targets.

MOTION: Member Nichelini made a motion to accept the informational report presented Meketa regarding the Investment Fund Quarterly Performance Update as of December 31, 2021 and forward to the Board, second by acting Chairperson Wilkinson. Motion passed.

[GODFREY – EXCUSED/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 2 / NOES: 0 / EXCUSED: 1)

8. **Annual Diversity Report of Current PFRS Investment Managers** – David Sancewich provided an informational report regarding the Annual Diversity Report of Current PFRS Investment Managers which included each firm’s representational statistics relative to the board of directors/managing members, the entire staff, and investment professionals. D. Sancewich noted the firms with low-diversity statistics remain low, however Meketa encourages them to discuss with the Board actions they are taking to improve those statistics. Acting Chairperson Wilkinson inquired why there were no statistics available for Parametric’s board of directors/managing partners and D. Sancewich provided as a subsidiary of Morgan Stanley they do not classify their members as a board of directors, but will follow-up with Parametric and provide further information. It was clarified DDJ was statistically represented as an individual firm as of December 31, 2021; as a result of DDJ’s January 2022 acquisition, statistics will be representative of Polen Capital moving forward.

MOTION: Member Nichelini made a motion to accept the informational report regarding the Annual Diversity Report of Current PFRS Investment Managers presented by Meketa and forward to the Board, second by acting Chairperson Wilkinson. Motion passed.

[GODFREY – EXCUSED/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 2 / NOES: 0 / EXCUSED: 1)

9. **Schedule of Pending Investment Committee Meeting Agenda Items** – David Sancewich presented the 2022 Ongoing Strategic Investment Agenda for discussion.

10. **Open Forum** – No Report

11. **Future Scheduling** – The next regular Investment Committee meeting is tentatively scheduled to occur March 30, 2022.

12. **Adjournment** – Member Nichelini made a motion to adjourn, second by acting Chairperson Wilkinson. Motion passed.

[GODFREY – Y / NICHELINI – Y / WILKINSON – Y]
(AYES: 2 / NOES: 0 / EXCUSED: 1)

The meeting adjourned at 11:00 a.m. PST

R. STEVEN WILKINSON
ACTING COMMITTEE CHAIRPERSON

DATE

DRAFT

Oakland Police & Fire Retirement System

RHJ Small Cap
Opportunities Strategy

March 30, 2022



RICE HALL JAMES
& ASSOCIATES, LLC

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San Diego, California 92101

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Website: www.ricehalljames.com

For one-on-one presentation only, not for public distribution.

Firm Profile

December 31, 2021

Investment-led firm, founded in 1974

Firm AUM + AUA: \$3.3 billion¹

Ownership

Independent and 100% employee-owned. RHJ is focused solely on investment management with no other lines of business

Personnel

31 employees, including 12 owners averaging 29 years of industry experience and 20 years with Rice Hall James

Time-Tested Investment Strategies

RHJ's professionals have been managing micro-, small-, and SMID-cap portfolios for more than three decades

Established Client Base

41 institutional clients, representing 84% of assets

¹Assets include assets under management and assets under advisement.



RICE HALL JAMES
& ASSOCIATES, LLC

Partial Client List

City of Erie Officers & Employees Pension Fund

City of Key West Police Officers' and Firefighters' Retirement System

County of Los Angeles Deferred Compensation & Thrift Plan

I.A.M. National Pension Fund

Laborers' District Council and Contractors Pension Fund of Ohio

Minnesota State Board of Investment

North Atlantic States Carpenters Benefit Funds

North Collier Fire Control and Rescue District Firefighter Pension Plan

Portsmouth Fire and Police and Supplemental Retirement System

Producer – Writers Pension Plan

Santa Barbara County Employees' Retirement System

SKF Employees' Pension Plan

The Papal Foundation

The Pennsylvania State University



Value Proposition

Long-Term Oriented

- Portfolio Manager/Analysts have an investment horizon that is longer than other micro and small cap growth managers, typically 3 to 5 years.
- Long-term focus allows us to develop an **informational edge** on companies and their management teams relative to our peer group universe.

Experienced & Stable

- Portfolio Manager/Analysts average 29 years of investment experience and 22 years working together.
- Knowledge base that includes a **deep understanding** of the companies' management teams, competitors, and customers.

Quality-Focused

- Portfolio is comprised of companies that generate high returns on invested capital or have the potential to do so in the near future.
- We invest in those companies that we believe have a **sustainable competitive advantage** compared to rivals.

Risk-Controlled

- Structure portfolio weightings in **most compelling ideas** on a risk-adjusted basis.
- Carefully monitor guideposts which are established at the time of initial investment.



Portfolio Review



RICE HALL JAMES
& ASSOCIATES, LLC

Oakland Police & Fire Retirement System

As of February 28, 2022

Portfolio Details

Inception Date: July 13, 2017

Initial Value: \$10,537,872.22

Market Value as of February 28, 2022: \$15,715,952.43

Net Flows Since Inception: (\$859,999.71)

	YTD	1 Year*	3 Years*	Since Inception* July 31, 2017
RHJ Small Cap Opportunities [Gross]	-9.86%	-4.24%	11.12%	11.56%
RHJ Small Cap Opportunities [Net]	-10.06%	-5.14%	10.06%	10.51%
Russell 2000 Growth Index	-13.03%	-17.40%	9.22%	9.97%
<i>Difference (Net) vs. Russell 2000 Growth</i>	<i>+297 bps</i>	<i>+1,226 bps</i>	<i>+84 bps</i>	<i>+54 bps</i>

*Annualized

Source: FactSet



RICE HALL JAMES
& ASSOCIATES, LLC

Past performance does not guarantee future results. Performance is reported in U.S. Dollars, gross and net of fees and is annualized for periods greater than one year. For performance calculation purposes, the portfolio's inception date is July 31, 2017. Indices are provided for comparative purposes only. An investor cannot invest directly in an index. Comparisons have limitations because indices may have volatility, investment and other characteristics that may differ from an investment account strategy to which it is compared. Indices are unmanaged, include the reinvestment of dividends and do not reflect transaction costs, management or other fees.

RHJ Attribution Report

4Q21 Attribution Analysis

Oakland Police & Fire Retirement System vs. Russell 2000 Growth Index

GICS Sector	City of Oakland			Russell 2000 Growth			Attribution Analysis		
	Avg. Port. Wt.	Port. Return	Port. Contrib.	Avg. Bmrk. Wt.	Bmrk. Return	Bmrk. Contrib.	Alloc. Effect	Select Effect	Total Effect
Total	100.00	4.58	4.58	100.00	0.01	0.01	0.10	4.46	4.56
Health Care	22.30	1.13	0.42	26.89	-11.42	-2.89	0.58	2.95	3.52
Information Technology	26.45	9.42	2.48	22.81	5.09	1.06	0.20	1.23	1.43
Financials	7.41	19.27	1.18	5.50	9.01	0.41	0.15	0.69	0.84
Energy	--	--	--	2.15	-1.27	-0.03	0.03	--	0.03
[Cash]	3.68	0.01	0.00	--	--	--	0.02	--	0.02
Consumer Discretionary	15.95	-2.09	-0.40	14.75	-0.38	-0.18	0.02	-0.28	-0.26
Consumer Staples	3.14	9.43	0.25	3.67	5.90	0.22	-0.01	0.07	0.07
Materials	1.94	0.46	0.01	3.12	2.79	0.06	-0.03	-0.04	-0.07
Utilities	--	--	--	0.33	14.18	0.04	-0.04	--	-0.04
Industrials	12.98	7.98	1.07	14.95	9.61	1.18	-0.08	-0.26	-0.34
Communication Services	6.15	-8.11	-0.44	2.84	-10.07	-0.26	-0.34	0.12	-0.22
Real Estate	--	--	--	2.99	13.80	0.40	-0.40	--	-0.40

Sources: FactSet, GICS Sector Classification, & FTSE Russell

Past performance does not guarantee future results. Attribution results are based on sector returns, which are gross of fees and include reinvestment of all income. Indices are provided for comparative purposes only. An investor cannot invest directly in an index. Comparisons have limitations because indices may have volatility, investment and other characteristics that may differ from an investment account strategy to which it is compared. Indices are unmanaged, include the reinvestment of dividends and do not reflect transaction costs, management or other fees. Please refer to disclosures at the end of this document.

RHJ Attribution Report

2021 Attribution Analysis

Oakland Police & Fire Retirement System vs. Russell 2000 Growth Index

GICS Sector	City of Oakland			Russell Microcap Growth			Attribution Analysis		
	Avg. Port. Wt.	Port. Return	Port. Contrib.	Avg. Bmrk. Wt.	Bmrk. Return	Bmrk. Contrib.	Alloc. Effect	Select Effect	Total Effect
Total	100.00	16.17	16.17	100.00	2.83	2.83	1.40	11.94	13.34
Health Care	23.55	-1.86	0.13	30.36	-21.66	-6.15	1.81	5.54	7.35
Financials	5.80	74.49	2.99	4.64	18.16	0.71	0.29	2.16	2.44
Communication Services	6.68	22.78	1.68	2.72	-10.90	-0.40	-0.50	2.46	1.96
Information Technology	25.54	16.53	4.30	21.38	13.72	2.58	0.47	0.94	1.41
Consumer Discretionary	14.95	25.52	3.44	14.57	16.70	1.72	0.11	1.17	1.28
Industrials	13.26	23.80	3.10	14.83	21.34	2.78	-0.13	0.25	0.12
Utilities	--	--	--	0.90	21.69	0.10	0.04	--	0.04
[Cash]	4.43	0.04	0.00	--	--	--	0.02	--	0.02
Telecommunication Services	--	--	--	0.03	14.22	0.00	-0.00	--	-0.00
Consumer Staples	3.78	9.39	0.62	3.38	19.86	0.55	0.15	-0.25	-0.10
Energy	--	--	--	1.12	69.17	-0.02	-0.10	--	-0.10
Materials	2.01	-5.32	-0.09	2.86	12.97	0.24	-0.08	-0.33	-0.41
Real Estate	--	--	--	3.22	25.16	0.71	-0.67	--	-0.67

Sources: FactSet, GICS Sector Classification, & FTSE Russell

Past performance does not guarantee future results. Attribution results are based on sector returns, which are gross of fees and include reinvestment of all income. Indices are provided for comparative purposes only. An investor cannot invest directly in an index. Comparisons have limitations because indices may have volatility, investment and other characteristics that may differ from an investment account strategy to which it is compared. Indices are unmanaged, include the reinvestment of dividends and do not reflect transaction costs, management or other fees. Please refer to disclosures at the end of this document.



4Q21 Top/Bottom 5 Performers

Oakland Police & Fire Retirement System vs. Russell 2000 Growth Index

Ticker		Average Weight	Total Return	Contribution To Return
5 Highest				
ARNA	Arena Pharmaceuticals, Inc.	0.70	56.07	0.41
ACAD	ACADIA Pharmaceuticals Inc.	0.40	40.52	0.14
SIMO	Silicon Motion Technology Corporation	2.73	38.75	0.97
DFIN	Donnelley Financial Solutions, Inc.	2.91	36.16	0.81
POOL	Pool Corporation	1.60	30.49	0.39
5 Lowest				
AERI	Aerie Pharmaceuticals, Inc.	0.47	-38.42	-0.20
RVNC	Revance Therapeutics, Inc.	0.69	-41.42	-0.36
OPTN	OptiNose, Inc.	0.08	-46.00	-0.05
PBYI	Puma Biotechnology, Inc.	0.07	-56.63	-0.06
RETA	Reata Pharmaceuticals, Inc. Class A	0.38	-71.07	-0.35

Sources: FactSet, GICS Sector Classification, & FTSE Russell



2021 Top/Bottom 5 Performers

Oakland Police & Fire Retirement System vs. Russell 2000 Growth Index

Ticker		Average Weight	Total Return	Contribution To Return
5 Highest				
FC	Franklin Covey Co.	0.41	108.17	0.30
SIMO	Silicon Motion Technology Corporation	2.56	101.75	1.85
CNTY	Century Casinos, Inc.	0.89	90.61	0.46
ECHO	Echo Global Logistics, Inc	1.15	79.87	0.84
PBH	Prestige Consumer Healthcare Inc	2.49	73.93	1.37
5 Lowest				
KPTI	Karyopharm Therapeutics, Inc.	0.52	-58.46	-0.53
IOVA	Iovance Biotherapeutics Inc	0.99	-58.86	-0.85
OPTN	OptiNose, Inc.	0.12	-60.87	-0.09
PBYI	Puma Biotechnology, Inc.	0.13	-70.37	-0.10
RETA	Reata Pharmaceuticals, Inc. Class A	0.58	-76.45	-0.50

Sources: FactSet, GICS Sector Classification, & FTSE Russell



4Q21 Transactions: RHJ Small Cap Opportunities

4Q21 Portfolio Purchases

Cambium Networks Corp.	CMBM
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4Q21 Portfolio Sales

Cornerstone Ondemand, Inc.	CSOD
Echo Global Logistics, Inc.	ECHO
Reata Pharmaceuticals, Inc.	RETA



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Past performance is no guarantee of future results. Securities mentioned do not make up entire portfolio and, in the aggregate, may represent a small percentage of the portfolio. Holdings are subject to change and are based on a representative account. A complete list of portfolio holdings and specific securities transactions for the preceding 12 months is available upon request. It should not be assumed that recommendations made in the future will be profitable or will equal the performance of securities in this presentation. Rice Hall James & Associates, LLC, or one or more of its officers, may have a position in the securities discussed herein and may purchase or sell such securities from time to time.

2021 Transactions: RHJ Small Cap Opportunities

2021 Portfolio Purchases

Biohaven Pharmaceutical Holding Co., Ltd.	BHVN
Donnelley Financial Solutions, Inc.	DFIN
Rackspace Technology, Inc.	RXT
Overstock.com, Inc.	OSTK
Sleep Number Corp.	SNBR
Ascendis Pharma A/S	ASND
GXO Logistics, Inc.	GXO
Cambium Networks Corp.	CMBM

2021 Portfolio Sales

Akebia Therapeutics, Inc.	AKBA
Etsy, Inc.	ETSY
Grand Canyon Education, Inc.	LOPE
Cardtronics Plc.	CATM
Boingo Wireless, Inc.	WIFI
ON Semiconductor Corp.	ON
Nektar Therapeutics	NKTR
N-able, Inc.	NABL
Cornerstone Ondemand, Inc.	CSOD
Echo Global Logistics, Inc.	ECHO
Reata Pharmaceuticals, Inc.	RETA

Appendix



RICE HALL JAMES
& ASSOCIATES, LLC

Investment Philosophy

We believe that superior, long-term, risk-adjusted returns are generated by building a portfolio of companies with three primary characteristics – **high earnings growth, high or improving returns on invested capital and better sustainability characteristics** than that of the index.



Why Earnings Growth & ROIC ?

The probability of alpha generation increases when high earnings growth is coupled with high returns on invested capital.

		EARNINGS GROWTH ¹				
		Less than 0%	0%-10%	10-20%	20%-25%	More than 25%
PERFORMANCE OF RUSSELL 2000 COMPANIES RELATIVE TO OVERALL INDEX						
5-YEAR AVG ROIC ²	More than 15%	(53%)	12%	43%	46%	355%
	10% - 15%	(34%)	(22%)	58%	58%	139%
	5% - 10%	(56%)	(26%)	(11%)	34%	49%
	Less than 5%	(53%)	(46%)	(58%)	(44%)	81%

Historical performance does not guarantee future results

¹ 5-year Earnings Per Share (EPS) growth, compounded annually.

Sources: FactSet & FTSE Russell

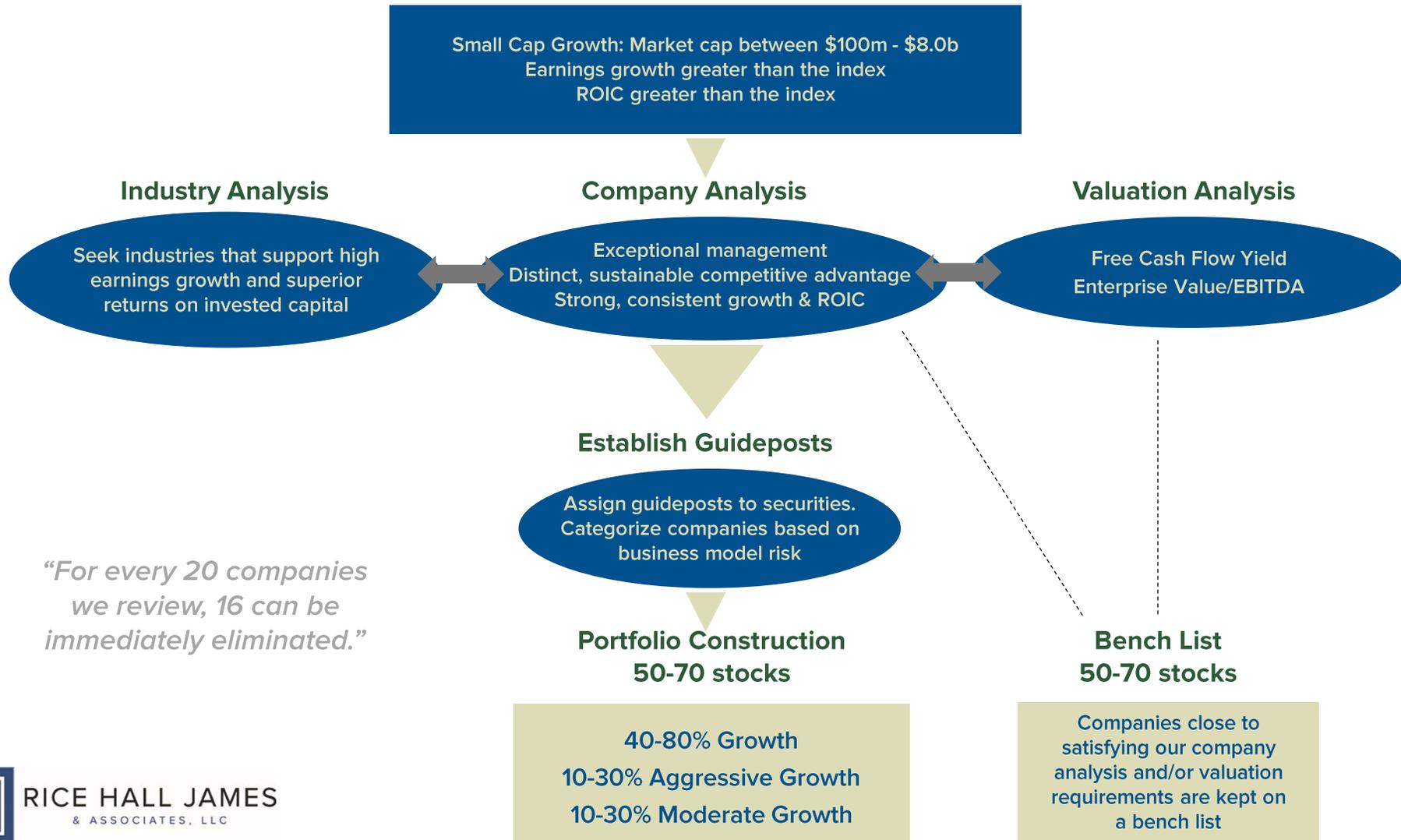
² ROIC = Return on Invested Capital.

Relative performance compares individual Russell[®] 2000 constituent performance vs. an equal-weighted index (Russell 2000) return. Only the Russell 2000 constituents (as of 12/31/2020) with 5 years of measurable history (EPS, ROIC and Performance) were used in the study. The index return is calculated using the combined equal-weighted 5 year return of these Russell 2000 constituents as of 12/31/2020. The Russell[®] 2000 Index measures the performance of the small-cap segment of the U.S. equity universe. The Russell 2000 Index is a subset of the Russell 3000[®] Index representing approximately 10% of the total market capitalization of that index. It includes approximately 2000 of the smallest securities based on a combination of their market cap and current index membership. The Russell 2000 is constructed to provide a comprehensive and unbiased small-cap barometer and is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true small-cap opportunity set. The index is calculated on a total-return basis with dividends reinvested.



Portfolio Construction

Investable universe is significantly reduced by adhering to this discipline.



Industry Analysis

A large initial universe allows us the freedom to identify and implement our investment strategy within traditional, non-traditional, and emerging growth industries.

- ▶ Industries which have been **historically identified** by companies with high earnings growth and superior returns on invested capital:
 - Technology
 - Health Care
 - Consumer Discretionary

- ▶ Industries exhibiting **changing dynamics**, supporting high growth and superior returns on invested capital:
 - Natural Gas

- ▶ New and **emerging industries** that can support companies with high earnings growth and superior returns on invested capital:
 - Internet



Investment Process - Company Analysis

We perform in-depth research to identify:

▶ **Companies that generate strong and consistent ROIC and earnings growth**

- Large or growing addressable markets
- Stability of existing revenue stream
- Ability to maintain or increase pricing
- High probability of retaining or widening margins

▶ **Capable management teams**

- Experience and integrity
- Track record of success
- Clear goals and viable long-term business model

▶ **Unique, sustainable competitive advantages**

- Proprietary products, services, distribution/manufacturing advantages
- Strategy for defending against competition
- High barriers to entry
- High or improving market share
- Brand name recognition

We maintain contact with management teams of companies we own and all those considered for investment (our bench list)



Investment Process - Valuation Analysis

- ▶ Valuation analysis is a key component of our determination in how we assess a company's absolute & relative attractiveness

Valuation Analysis

- Cash flow analysis that incorporates ROIC & the duration of earnings growth
- Analyze companies across industries and sectors, using common valuation techniques
- Analyze companies relative to valuation of securities in existing portfolio

Other valuation methods:

- P/E to Growth Rate (PEG Ratio)
- Free Cash Flow Yield
- Price to earnings (P/E Ratio)
- Enterprise Value/EBITDA



Investment Process – Establishing Guideposts

- ▶ As part of our research process, we create guideposts for each security:
 - Specific factors unique to each company used to monitor company progress
 - Examples: new drug filings in Health Care, or new store sales productivity in Retail
 - Through this ongoing monitoring process, position sizes are increased or decreased
 - Guideposts help to identify deteriorating or improving fundamentals before they are reflected in the stock price



Investment Process – Portfolio Construction

- ▶ Portfolio Construction is a function of our bottom-up selection process – each holding is grouped into one of the three categories below:

Growth

40-80% of portfolio

- Industry leader and/or gaining market share
- ROIC greater than 10%
- Earnings growth higher than the relative index
- Sustainable competitive advantage
- Proven successful operating history
- High confidence in management

Aggressive Growth

10-30% of portfolio

- Emerging high growth companies with improving ROIC
- Companies in a unique/turnaround situation
- Higher volatility, but higher potential return candidates

Moderate Growth

10-30% of portfolio

- Dominant position in their industry
- Moderate, consistent earnings growth and stable ROIC
- Self-funding and generating strong cash flow



Sell Discipline

Sell discipline is a function of a review and violation of one or more of the following:

- ▶ Change in fundamentals or competitive advantages
- ▶ Missing Guideposts
- ▶ Change in management team
- ▶ Relative Valuation



Summary

- ▶ Disciplined research process with focus on high growth, high return on invested capital companies with good sustainability characteristics
- ▶ Experienced Portfolio Manager/Analysts average 29 years of investment experience and 22 years working together.
- ▶ Proven long-term results with success through a variety of economic environments



Small Cap Opportunities Portfolio

As of December 31, 2021

Communication Services	5.6%	Health Care	22.2%	Revance Therapeutics, Inc.	0.7%	Qualys, Inc.	1.1%
World Wrestling Entertainment, Inc. Class A	1.9%	Aerie Pharmaceuticals, Inc.	0.3%	Supernus Pharmaceuticals, Inc.	0.9%	Rackspace Technology, Inc.	1.7%
Ziff Davis, Inc.	3.7%	Albireo Pharma, Inc.	0.4%	Zogenix, Inc.	0.5%	Radware Ltd.	2.2%
		Amicus Therapeutics, Inc.	0.5%			Semtech Corporation	3.5%
Consumer Discretionary	15.4%	Arena Pharmaceuticals, Inc.	0.6%	Industrials	12.0%	Silicon Motion Technology Corporation Sponsored ADR	3.3%
Century Casinos, Inc.	0.9%	Ascendis Pharma A/S Sponsored ADR	0.6%	Armstrong World Industries, Inc.	2.2%	SolarWinds Corp.	0.1%
LCI Industries	2.9%	Biohaven Pharmaceutical Holding Company Ltd.	1.9%	Franklin Covey Co.	0.5%	Wix.com Ltd.	1.0%
Overstock.com, Inc.	1.6%	Collegium Pharmaceutical, Inc.	0.6%	GXO Logistics Inc	0.8%	WNS (Holdings) Limited Sponsored ADR	4.2%
Points.com Inc.	0.3%	Emergent BioSolutions Inc.	0.8%	IAA, Inc.	1.5%		
Pool Corporation	1.7%	Fate Therapeutics, Inc.	0.7%	Masonite International Corp.	3.8%	Materials	1.8%
Shutterstock, Inc.	2.1%	Global Blood Therapeutics Inc	0.5%	MSC Industrial Direct Co., Inc. Class A	0.4%	Ingevity Corporation	1.8%
Sleep Number Corporation	0.9%	Insmed Incorporated	0.4%	PGT Innovations, Inc.	1.1%		
Strategic Education, Inc.	0.8%	Iovance Biotherapeutics Inc	0.6%	Willdan Group, Inc.	0.8%		
Stride, Inc.	2.5%	Karyopharm Therapeutics, Inc.	0.4%	XPO Logistics, Inc.	0.9%		
Vail Resorts, Inc.	1.8%	Kiniksa Pharmaceuticals Ltd. Class A	0.4%				
		Ligand Pharmaceuticals Incorporated	2.3%	Information Technology	28.9%		
Consumer Staples	3.4%	Medpace Holdings, Inc.	2.2%	ACI Worldwide, Inc.	3.5%		
Medifast, Inc.	3.4%	OptiNose, Inc.	0.1%	Cambium Networks Corporation	0.4%		
		Pacira Biosciences, Inc.	1.0%	CEVA, Inc.	1.3%		
Financials	7.7%	Premier Inc. Class A	2.5%	Consensus Cloud Solutions, Inc.	0.6%		
Axos Financial, Inc.	2.5%	Prestige Consumer Healthcare Inc	2.9%	Euronet Worldwide, Inc.	3.0%		
Bank OZK	1.2%	Puma Biotechnology, Inc.	0.1%	Ituran Location and Control Ltd.	0.2%		
Donnelley Financial Solutions, Inc.	3.2%			MAXIMUS, Inc.	1.4%		
Federal Agricultural Mortgage Corporation Class C	0.8%			Mimecast Limited	1.5%		

Total Equity	96.9%
Total Cash	3.1%

Sources: FactSet & S&P Dow Jones Indices LLC



Past performance is no guarantee of future results. Holdings are subject to change and are based on a representative account. Sector weightings may not add up to 100% due to rounding. A complete list of portfolio holdings and specific securities transactions for the preceding 12 months is available upon request. It should not be assumed that recommendations made in the future will be profitable or will equal the performance of securities in this article. Rice Hall James & Associates, LLC, or one or more of its officers, may have a position in the securities discussed herein and may purchase or sell such securities from time to time.

Portfolio Guidelines

Position Limit Parameters

Position size is scaled up or down based on evolving reward to risk profile

Position Limit at Market	6%
Portfolio Holdings	50-70
Cash Weight	Typically less than 5%

Market Cap Range

Between \$100 million and \$8 billion market capitalization at time of purchase

Sector Weight Parameters

Sector weights are +/-1000 basis points of the benchmark weights of the major economic sectors

Sector Allocations as of December 31, 2021

	Small Cap Opportunities	Russell 2000 Growth
Communication Services	5.6%	2.7%
Consumer Discretionary	15.4%	14.7%
Consumer Staples	3.4%	3.9%
Energy	--%	2.3%
Financials	7.7%	5.6%
Health Care	22.2%	25.7%
Industrials	12.0%	15.2%
Information Technology	28.9%	23.3%
Materials	1.8%	3.1%
Real Estate	--%	3.3%
Utilities	--%	0.4%
[Cash]	3.1%	--%

Capitalization	Small Cap Opportunities	Russell 2000 Growth
>\$5 billion	33.27	31.68
\$2 billion - 5 billion	44.86	44.60
\$750 million - 2 billion	16.80	17.85
\$400 million - 750 million	3.42	4.03
<\$400 million	1.65	1.85

Sources: FactSet & GICS Sector Classification

The information above is based on a representative account. Sector and market capitalization weightings may not add up to 100% due to rounding. Please see important disclosure information at the end of this presentation regarding the indices and sector classification shown above.



Small Cap Opportunities

Portfolio Characteristics as of December 31, 2021

	Small Cap Opportunities	Russell 2000 Growth
Number of Holdings	68	1,246
Portfolio Turnover (3Y annual avg)	23%	--
Long-Term Earnings Growth Forecast	14.2%	19.2%
P/E - 1 Year Forecast*	17.9	19.9
Return on Equity (5 Years)	10.0%	-5.18%
Weighted Average Market Cap (millions)	\$4,330M	\$4,015M
Weighted Median Market Cap (millions)	\$3,741M	\$3,831M
Active Share	94.2%	--

Sources: FactSet & eVestment Analytics

*P/E Ratio calculation excludes companies with negative earnings.

The information above is based on a representative account. Please see important disclosure information at the end of this presentation regarding the indices shown above.

Small Cap Opportunities Performance

As of February 28, 2022

	YTD	1 Year*	3 Years*	5 Years*	7 Years*	10 Years*	Since Inception* October 10, 1994
RHJ Small Cap Opportunities [Gross]	-9.91%	-4.28%	11.09%	12.22%	10.55%	13.75%	13.52%
RHJ Small Cap Opportunities [Net]	-10.05%	-4.89%	10.35%	11.48%	9.85%	13.00%	12.60%
Russell 2000 Growth Index	-13.03%	-17.40%	9.22%	10.49%	8.73%	11.38%	8.14%
<i>Difference (Net) vs. Russell 2000 Growth</i>	<i>+298 bps</i>	<i>+1,251 bps</i>	<i>+113 bps</i>	<i>+99 bps</i>	<i>+112 bps</i>	<i>+162 bps</i>	<i>+446 bps</i>

*Annualized

Source: FactSet



RICE HALL JAMES
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Past performance does not guarantee future results. Performance is preliminary and subject to change. Composite returns are shown both gross and net of fees in U.S. dollars. Rice Hall James & Associates, LLC's compliance with the GIPS standards has been verified for the period January 1, 1993 through December 31, 2020.

Small Cap Opportunities

	Small Cap Opportunities [Gross]	Small Cap Opportunities [Net]	Russell 2000 Growth
2021	16.13 %	15.38 %	2.83 %
2020	24.51 %	23.64 %	34.63 %
2019	18.86 %	18.02 %	28.48 %
2018	-6.48 %	-7.10 %	-9.31 %
2017	28.70 %	27.92 %	22.17 %
2016	11.92 %	11.29 %	11.32 %
2015	-0.07 %	-0.60 %	-1.38 %
2014	8.40 %	7.68 %	5.60 %
2013	56.32 %	55.11 %	43.30 %
2012	14.56 %	13.61 %	14.59 %
2011	9.54 %	8.69 %	-2.91 %
2010	38.75 %	37.65 %	29.09 %
2009	48.47 %	47.27 %	34.47 %
2008	-43.34 %	-43.71 %	-38.54 %
2007	10.48 %	9.50 %	7.05 %
2006	7.10 %	6.11 %	13.35 %
2005	11.46 %	10.42 %	4.15 %
2004	10.03 %	9.04 %	14.31 %
2003	50.70 %	49.31 %	48.54 %
2002	-29.41 %	-30.07 %	-30.26 %
2001	-28.87 %	-29.52 %	-9.23 %
2000	-13.23 %	-14.01 %	-22.43 %
1999	87.81 %	86.06 %	43.09 %
1998	16.33 %	15.20 %	1.23 %
1997	28.67 %	27.41 %	12.95 %
1996	53.30 %	51.78 %	11.26 %

*Performance represents a non-annualized partial period return beginning on the composite's inception date October 01, 1994.

Source: FTSE Russell

Past performance does not guarantee future results. Composite returns are shown both gross and net of fees in U.S. dollars. Rice Hall James & Associates, LLC's compliance with the GIPS standards has been verified for the period January 1, 1993 through December 31, 2020. RHJ's GIPS Report is located at the end of this presentation as well as other important disclosure information regarding the returns and indices shown above.



Additional Documentation



RICE HALL JAMES
& ASSOCIATES, LLC

Diversity

Diversity Representation Survey for Oakland Police and Fire

DATA AS OF 02/28/2022

Firm Name	Rice Hall James & Associates, LLC (RHJ)
Product Name	RHJ Small Cap Opportunities
Total Number of Employees	31

	Percentage (%) of Board of Directors / Managing Members	Percentage (%) of Firm (Entire Staff)	Percentage (%) of Firm (Investment Professionals)
Race and Ethnicity*			
African American/Black	0%	0%	0%
Asian/Hawaiian/Pacific Islander	8%	10%	6%
Latino/Hispanic	0%	3%	0%
White	92%	87%	94%
American Indian/Alaska Native	0%	0%	0%
Other	0%	0%	0%
Gender			
Male	83%	68%	78%
Female	17%	32%	22%
Non-Identified/Other	0%	0%	0%

* Racial/ethnic categories appear as defined by EEOC guidance.



Biographies

Portfolio Management & Analysis Team

Lou Holtz, CFA

Chief Investment Officer & Portfolio Manager/Analyst

Lou joined RHJ in October 2008 and has 30 years of investment experience. Prior to joining the firm he was a Managing Director and Portfolio Manager at Engemann Asset Management. Prior to that, Lou was a business valuation analyst at a national independent appraisal firm and an analyst for a regional real estate appraisal firm. Lou holds a Bachelor of Arts degree in business economics with honors from the University of California, Santa Barbara and an M.B.A. with an emphasis in finance from the University of Southern California, where he was on the Dean's List. Lou is a CFA® charterholder. He is a member of CFA Society Los Angeles.

Yossi Lipsker, CFA

Portfolio Manager/Analyst

Yossi joined RHJ in October 2008 and has 27 years of investment experience. Prior to joining the firm he was a Managing Director and Portfolio Manager at Engemann Asset Management. He received an M.B.A. with an emphasis in finance from Columbia Business School. While at Columbia he excelled academically, gaining membership in both the Beta Gamma Sigma Honor Society and the Dean's List. Additionally, Yossi holds a B.R.S. degree in religious studies from the Rabbinical College of America. Yossi is a CFA® charterholder. He is a member of CFA Society Los Angeles.

Anthony S. Yamarone, CFA

Analyst

Tony joined RHJ in September 2016. Prior to joining the firm, he worked at Ameriprise Financial as a member of their financial planning team. He received a B.S. in Business Administration from San Francisco State University and an M.S. in Financial Analysis and Investment Management from Saint Mary's College of California. Tony is a CFA® charterholder. He is a member of CFA Society Los Angeles.

Dakota Safford

Analyst

Dakota joined RHJ in August 2017. Prior to joining the firm, he worked at Advanced Financial Strategies as a financial analyst. He received a B.A. in Business Economics from the University of California, Irvine. While at UCI, he was involved in the Student Managed Investment Fund, where he performed equity research and evaluated portfolio structures. Dakota is a CFA® Level III candidate.

Alec R. Harrell, CFA

Analyst

Alec joined RHJ in December 2017 and has 18 years of investment experience. Prior to joining the firm he was a Senior Portfolio Manager/Analyst at Northern Trust Asset Management. Prior to that, Alec worked as a Portfolio Manager/Analyst for Convergent Fund Management and an Analyst for Needelman Asset Management. His experience includes fundamental research on U.S. and international securities as well as the development of quantitative equity strategies. He received a B.A. in politics, philosophy and economics from Claremont McKenna College and a J.D. and M.B.A. from the University of Southern California [USC]. Alec is a CFA® charterholder. He is a member of CFA Society Los Angeles.



Biographies

Trading

DJ Devin

Head Securities Trader

DJ joined the firm in June 1981 and served in several administrative and trade-related positions. In 1986, she assumed responsibility for the execution of all trades and management of soft dollars and commissions. She received a Certificate in Personal Financial Planning from San Diego State University and is a member of the Security Traders Association of Los Angeles.

Jorji-Ann McAllister

Trader

Jorji-Ann joined RHJ in May 1987 and has served in several administrative and trade related positions. Jorji-Ann completes all trading functions, including placement and execution of orders. She received a B.S. from Kearney State College, Kearney, Nebraska.

Brandon Toney

Trader

Brandon joined RHJ in March 2017. Prior to joining the firm, he worked at Wall Street Associates for two years as a trader. He received a B.S. in Finance from San Diego State University. Brandon is a CFA® charterholder. He is a member of CFA Society San Diego.

Marketing & Client Service

Thao N. Buuhoan

President & Chief Operating Officer

Thao joined the firm in June 2000 and was responsible for Institutional Marketing and Client Service. In June 2009, Thao was promoted to President and Chief Operating Officer and oversees Operations and Trading in addition to her Marketing and Client Service responsibilities. Prior to joining RHJ, she was a Marketing Manager at State Street Global Advisors in Hong Kong, responsible for sales and marketing to Asian institutions. She holds a B.A. from the University of Pennsylvania.

Michael C. Meoli

Director of Client Service & Marketing

Mike joined RHJ in March 2011 and is responsible for Institutional Marketing and Consultant Relations. Prior to joining the firm, he worked at Everest Capital where he focused on consultant relations and business development. Other previous work experience includes business development at Pathway Capital Management and conducting research on investment managers at an institutional investment consulting firm. Mike holds a B.A. from Concordia University and an M.B.A. from the University of California, Irvine.



Biographies

Administration

Carl M. Obeck *Chief Financial Officer*

Carl joined RHJ as Marketing Manager in 2003 and was promoted to Chief Administrative Officer in 2004 and Chief Financial Officer in 2009. Prior to joining the firm, Carl was responsible for Institutional Consulting Relationships and Marketing at Freeman Associates Investment Management. He also served as Director of Marketing at Messner & Smith. Previous experience includes Corporate Vice President at Montgomery Asset Management and Product Manager for Citibank London NA. Carl has a B.A. from the University of Delaware and an M.A. from Webster University in Vienna, Austria.

Janine Marquez, IACCP *Chief Compliance Officer*

Janine joined RHJ in July 2002. Janine was appointed Chief Compliance Officer (CCO) for RHJ in June 2009. As CCO, she is responsible for oversight and implementation of the compliance program and regulatory requirements for the firm. Throughout her tenure with RHJ, Janine has held various roles within Marketing, Trading and Compliance. Previously, she was a Senior Investment Analyst at Callan Associates Inc. She was responsible for researching and analyzing money management firms for pension fund plan sponsors. She holds a B.S. degree from California Polytechnic State University, San Luis Obispo, California. Additionally, Janine holds the designation of Investment Adviser Certified Compliance Professional® (IACCP®).

Shelley Hamilton *Senior Compliance Manager*

Shelley joined RHJ in February 1997, and has 33 years of industry experience. Shelley was promoted to Senior Compliance Manager for RHJ in November 2018. Throughout her tenure with RHJ, Shelley has held various roles within the Operations Department, including Operations Manager, Project Manager and Operations Administrator.

Tony Shaw, CFA *Director of Operations*

Tony joined the firm in August 2010 and has 28 years of experience in the financial services industry. Prior to joining RHJ, he served as Vice President at LPL Financial overseeing areas in operations and client services as well as issue resolution. Tony holds a B.A. degree from San Diego State University. Tony is a CFA® charterholder.

Brett Knight *Director of Information Technology*

Brett joined RHJ in April 2015 as Director of Information Technology and the acting Information Security Officer. He has 22 years of industry experience. Prior to joining the firm, Brett was a founding partner at Bravura Networks Inc., a managed service provider in the IT industry. Brett has a B.S. in Business Administration with an emphasis in Management Information Systems from San Diego State University; additionally, Brett holds a Microsoft Certified Systems Engineer (MCSE) certification.



Investment Statistics: Definitions & Formulas

Active Share - This is a measure of the percentage of stock holdings in the portfolio that differs from the benchmark index. Active Share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the portfolio versus the weight of each holding in the benchmark index and dividing by two.

Long-Term Earnings Growth Forecast - Long-Term Growth [LTG] is the annual EPS growth that the company can sustain over the next 3 or 5 years.

P/E Ratio - 1 Year Forecast - A forward-looking valuation measure of a company's common stock, excluding negative earnings. It encapsulates the amount of earnings estimated for next year per dollar of current share price. For the portfolio, the individual P/E stock ratios are then weighted by their respective portfolio market values in order to calculate a weighted average representative of the portfolio as a whole.

Return on Equity - This statistic reflects the amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. Net income is for the full fiscal year (before dividends paid to common stock holders but after dividends to preferred stock.)

Rf = Risk-free rate

Sources: eVestment Analytics & FactSet



Important Disclosures

Rice Hall James, LLC (“RHJ”) obtained some of the information provided herein from third party sources believed to be reliable but it is not guaranteed. Data contained herein is for informational purposes only and should not be considered a recommendation to buy or sell any securities. Nothing presented herein is or is intended to constitute investment advice, and no investment decision should be made based solely on any information provided herein. RHJ has not taken into account the investment objectives, financial situation or particular needs of any individual investor who may view this report. There is a risk of loss from an investment in securities, including the risk of loss of principal. Different types of investments involve varying degrees of risk, and there can be no assurance that any specific investment will be profitable or suitable for a particular investor’s financial situation or risk tolerance. Asset allocation and portfolio diversification cannot assure or guarantee better performance and cannot eliminate the risk of investment losses.

GICS Sector Classification

The Global Industry Classification Standard (GICS[®]) was developed by and is the exclusive property and a trademark of S&P and MSCI. Neither MSCI, S&P nor any other party involved in making or compiling any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P, any of their affiliates or any third party involved in making or compiling any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

Source: *S&P Dow Jones Indices LLC*

Indices Disclosure

Indices are provided for comparative purposes only. An investor cannot invest directly in an index. Comparisons have limitations because indices may have volatility, investment and other characteristics that may differ from an investment account strategy to which it is compared. Indices are unmanaged, include the reinvestment of dividends and do not reflect transaction costs, management or other fees. See below for a description of each index used in this presentation.

Russell 2000[®] Growth Index

The Russell 2000[®] Growth Index measures the performance of the small-cap growth segment of the U.S. equity universe. It includes those Russell 2000 companies with higher price-to-value ratios and higher forecasted growth values. The Russell 2000 Growth Index is constructed to provide a comprehensive and unbiased barometer for the small-cap growth segment. The Index is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true small-cap opportunity set and that the represented companies continue to reflect growth characteristics.



GIPS Report

RHJ Small Cap Opportunities Composite

Year End	Annual Performance Results				3-Year Annualized Standard Deviation	
	Composite Gross Returns	Composite Net Returns	Russell 2000 Growth	Composite Dispersion Gross Returns	Composite Gross Returns	Russell 2000 Growth
2020	24.50%	23.65%	34.63%	0.43%	26.10%	25.10%
2019	18.85%	18.04%	28.48%	0.11%	15.65%	16.37%
2018	-6.49%	-7.11%	-9.31%	0.28%	16.34%	16.46%
2017	28.71%	27.93%	22.17%	0.14%	14.14%	14.59%
2016	11.93%	11.28%	11.32%	0.13%	15.57%	16.67%
2015	-0.06%	-0.60%	-1.38%	0.41%	14.26%	14.95%
2014	8.41%	7.69%	5.60%	N/A ¹	13.02%	13.82%
2013	56.34%	55.12%	43.30%	N/A ¹	14.91%	17.27%
2012	14.56%	13.62%	14.59%	N/A ¹	18.25%	20.72%
2011	9.55%	8.68%	-2.91%	N/A ¹	22.77%	24.31%
2010	38.73%	37.65%	29.09%	N/A ¹	28.56%	27.70%
2009	48.47%	47.27%	34.47%	N/A ¹	26.27%	24.85%
2008	-43.34%	-43.71%	-38.54%	N/A ¹	21.32%	21.26%
2007	10.48%	9.50%	7.05%	N/A ¹	13.87%	14.23%
2006	7.10%	6.11%	13.35%	N/A ¹	15.82%	15.57%
2005	11.46%	10.42%	4.15%	N/A ¹	17.92%	16.51%
2004	10.03%	9.04%	14.31%	N/A ¹	23.95%	21.40%
2003	50.70%	49.31%	48.54%	N/A ¹	34.03%	27.00%
2002	-29.41%	-30.07%	-30.26%	N/A ¹	43.88%	33.33%
2001	-28.87%	-29.52%	-9.23%	N/A ¹	46.49%	33.58%
2000	-13.23%	-14.01%	-22.43%	N/A ¹	42.60%	33.28%
1999	87.81%	86.06%	43.09%	N/A ¹	32.26%	26.31%
1998	16.33%	15.20%	1.23%	N/A ¹	28.77%	25.03%
1997	28.67%	27.41%	12.95%	N/A ¹	21.20%	18.27%
1996	53.30%	51.78%	11.26%	N/A ¹		
1995	25.69%	24.45%	31.04%	N/A ¹		
1994 ¹	20.70%	20.39%	1.40%	N/A ¹		



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N/A¹ - Information is not statistically meaningful due to an insufficient number of portfolios in the composite for the entire calendar year (five or fewer).

¹Results shown for the year 1994 represent partial period performance from October 10 through December 31, 1994.

GIPS Report

RHJ Small Cap Opportunities Composite

Year End	Composite Assets		Firm Assets (\$ M)			Strategy Assets (\$ M)		
	Number of Accounts	USD (\$ M)	Total Assets Under Management	Total Advisory-Only Assets	Total Assets Under Management + Advisory-Only Assets*	Total Assets Under Management	Total Advisory-Only Assets	Total Assets Under Management + Advisory-Only Assets
2020	19	1,333	3,120	205	3,325	1,634	19	1,653
2019	20	1,110	3,359	207	3,566	1,495	25	1,520
2018	20	991	3,051	199	3,250	1,383	19	1,402
2017	19	1,121	3,607	235	3,842	1,634	14	1,648
2016	20	813	2,843	65	2,907	1,194	-	1,194
2015	17	557	2,258	-	2,258	784	-	784
2014	10	255	1,955	2	1,958	434	-	434
2013	Five or fewer	54	1,514	2	1,516	66	-	66
2012	Five or fewer	30	1,087	8	1,095	31	-	31
2011	Five or fewer	35	1,144	6	1,150	36	-	36
2010	Five or fewer	50	1,312	2	1,314	50	-	50
2009	Five or fewer	40	1,203	1	1,205	41	-	41
2008	Five or fewer	27	1,030	-	1,030	28	-	28
2007	Five or fewer	187	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
2006	Five or fewer	211	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
2005	Five or fewer	254	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
2004	Five or fewer	369	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
2003	Five or fewer	360	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
2002	Five or fewer	259	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
2001	Five or fewer	463	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
2000	Five or fewer	407	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
1999	Five or fewer	244	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
1998	Five or fewer	101	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
1997	Five or fewer	53	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
1996	Five or fewer	9	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
1995	Five or fewer	2	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹
1994	Five or fewer	0	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹



RICE HALL JAMES
& ASSOCIATES, LLC

N/A¹ - Performance presented prior to September 30, 2008, occurred while the portfolio management team was affiliated with another firm. Firm and strategy assets prior to 2008 are not presented because the composite was not part of the firm.

*Assets Under Management + Advisory-Only Assets totals may differ from Total Assets Under Management and Total Advisory-Only Assets due to rounding.

GIPS Report

The RHJ Small Cap Opportunities Composite contains all fully discretionary, tax-exempt, institutional, and high net worth portfolios invested in small cap companies that have three primary characteristics: high earnings growth, high or improving return-on-invested capital, and sustainable competitive advantages. The composite was created on April 1, 1999, and the inception date is October 10, 1994. The performance presented prior to October 1, 2008, represents that of a prior firm and was known as the Small Cap Growth Institutional Composite. The portfolio management team members were the only individuals responsible for selecting securities to buy and sell. The minimum account size for this composite is \$1 million. From January 1, 1996 to March 31, 2004, the minimum account size was \$5 million. Prior to January 1, 1996, there was no minimum. For comparison purposes the composite is measured against the Russell 2000 Growth index.

Results are based on fully discretionary accounts under management, including those accounts no longer with the firm. As of January 1, 2005, composite policy requires the temporary removal of any portfolios incurring a client initiated significant cash inflow or outflow of 50% or greater of portfolio assets. The temporary removal of such an account occurs at the beginning of the month in which the significant cash flow occurs and the account re-enters the composite the month after the cash flow is fully invested. From January 1, 2005 to June 30, 2006, the temporary removal of such an account occurred at the beginning of the month in which the significant cash flow occurred and the account is re-entered into the composite the month after the cash flow. From July 1, 2006 to September 30, 2008, the temporary removal of such an account occurs at the beginning of the quarter in which the significant cash flow occurs and the account re-enters the composite the second calendar quarter after the cash flow. As of September 30, 2008, the temporary removal of such an account occurs at the beginning of the month in which the significant cash flow occurred and the account is re-entered into the composite the month after the cash flow. Additional information regarding the treatment of significant cash flows is available upon request. Past performance is not indicative of future results.

Founded in 1974, Rice Hall James & Associates, LLC is an SEC registered investment adviser. The firm is 100% employee owned.

The U.S. Dollar is the currency used to express performance. Returns are presented gross and net of management fees, and include the reinvestment of all income. Net of fee performance was calculated using actual management fees. The annual composite dispersion presented is an asset-weighted standard deviation calculated for the gross returns of accounts in the composite the entire year. Additional information regarding policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request. The firm maintains a complete list of pooled funds and composite descriptions, which is available upon request.

Indices are provided for comparative purposes only. An investor cannot invest directly in an index. Comparisons have limitations because indices may have volatility, investment and other characteristics that may differ from an investment account strategy to which it is compared. Indices are unmanaged, include the reinvestment of dividends, and do not reflect transaction costs, management, or other fees. The Russell 2000® Growth Index measures the performance of the small-cap growth segment of the U.S. equity universe. It includes those Russell 2000 companies with higher price-to-value ratios and higher forecasted growth values. The Russell 2000 Growth Index is constructed to provide a comprehensive and unbiased barometer for the small-cap growth segment. The Index is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true small-cap opportunity set and that the represented companies continue to reflect growth characteristics.

The management fee schedule is as follows: 1.0% flat rate. Actual investment advisory fees incurred by clients may vary.

Rice Hall James & Associates, LLC claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Rice Hall James & Associates, LLC has been independently verified for the periods January 1, 1993 through 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 RHJ Small Cap Opportunities Composite has had a performance examination for the periods October 1, 2008 through December 31, 2020. The verification and performance examination reports are available upon request at the following address: 600 West Broadway, Suite 1000, San Diego, California 92101.

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MEMORANDUM

TO: Oakland Police and Fire Retirement System (OPFRS)
FROM: Meketa Investment Group
DATE: March 30, 2022
RE: Rice Hall James– Manager Update

Manager: Rice Hall James

Inception Date:	July, 2017	OPFRS AUM (12/31/2021):	\$17.4 million
Strategy:	Small Cap Opportunities	Firm-wide AUM (12/31/2021):	\$2.9 billion
Benchmark:	Russell 2000 Growth	Strategy AUM (12/31/2021):	\$1.5 billion

Summary & Recommendation

Rice Hall James has experienced poor relative performance in 2019 and 2020, which has resulted in negative relative performance over all longer-term periods measured. Meketa has no organizational concerns with Rice Hall James at this time. During the trailing 12-month period ending February 2022, RHJ has consistently achieved positive excess return for the portfolio on monthly basis for eight months and posted 12.2% and 0.8% in excess returns for the trailing 1- and 3-year periods. Therefore, ***Meketa recommends Rich Hall James (RHJ) be removed from "Watch" status. In addition Meketa recommends that OPFRS renew its contract with RHJ.***

Discussion

Rice Hall James began managing OPFRS's small cap growth portfolio at the beginning of July 2017, which is now approximately \$17.4 million or about 3.6% of OPFRS's total allocation. From March 2021 through February 2022, RHJ has produced a net-of-fee excess return of 12.2%. Year-to-date the portfolio has outperformed the Russell 2000 Growth benchmark by 3.0%. It has also outperformed over the trailing 3-year period by 0.8% while keeping pace with the benchmark since inception on net-of-fees basis.

OPFRS Portfolio Annualized Returns (as of 2/28/2022)

Manager	Mkt Value (\$000)	Asset Class	YTD	1 YR	3 YR	5 YR	Since Inception	Inception Date
Rice Hall James (Gross)	15,715	Small Cap Growth	-9.9	-4.2	11.2	---	11.1	7/2017
<i>Russell 2000 Growth</i>	---	---	-13.0	-17.4	9.2	---	10.0	---
Excess Return	---	---	3.1	13.2	2.0	---	1.1	---
Rank	---	---	14	30	85	---	88	---
Rice Hall James (Net)	15,715	Small Cap Growth	-10.0	-5.2	10.0	---	10.0	7/2017
<i>Russell 2000 Growth</i>	---	---	-13.0	-17.4	9.2	---	10.0	---
Excess Return	---	---	3.0	12.2	0.8	---	0.0	---
Rank	---	---	13	22	83	---	89	---



Product and Organization Review Summary

Rice Hall James	Areas of Potential Impact				
	Level of Concern	Investment process (client portfolio)	Investment Team	Performance Track Record	Team/ Firm Culture
Product					
Key people changes	None				
Changes to team structure/individuals' roles	None				
Product client gain/losses	None				
Changes to the investment process	None				
Personnel turnover	None				
Organization					
Ownership changes	None				
Key people changes	None				
Firm wide client gain/losses	None				
Recommended Action	None - X		Watch Status	Termination	

A review of Rice Hall James and the Small Cap Opportunities Strategy revealed no significant organizational issues or changes. Since Rice Hall James last manager update in 2017, there has been no turnover in the portfolio management team and there was no reported turnover among the analyst team.

Investment Philosophy & Process, per manager

Rice Hall James' Small Cap Opportunities strategy employs a fundamental, bottom-up analytical process to identify companies that meet three primary criteria: high earnings growth, high or improving return-on-invested capital (ROIC), and sustainable competitive advantages. RHJ's philosophy is rooted in historical analysis indicating the high relative return potential of these factors in combination. They believe that superior results can be achieved by owning companies that exhibit not only high earnings growth, but also the ability to sustainably generate high ROIC over long periods of time. RHJ's investment universe consists of companies with market capitalizations between \$100 million and \$4 billion at the time of purchase.

The heart of RHJ's process is fundamental, bottom-up analysis at the company level. The portfolio managers conduct all research on every company held in the portfolio. As generalists, each with over twenty years of investment experience, both portfolio managers bring to bear extensive knowledge of the companies they own or follow, understanding of industries, and general expertise on the small cap landscape in various market environments. Cornerstones of the bottom-up fundamental investment process include:

- Clear understanding of a firm's competitive context and advantages
- Assessment of the sustainability characteristics of the underlying business
- Emphasis on high or improving ROIC; a clear sense of the future direction of ROIC
- Estimation of ability to generate and grow free cash flow over life of the investment
- Valuation that affords a reasonable return over investment horizon
- Scrutiny of company management, ability to identify/ execute on the right plan

Idea generation begins with an analysis of companies within the FactSet universe with market caps ranging from \$100 million to \$4 billion, with an emphasis on growth-oriented industries comprised of companies that feature high earnings growth and high ROIC criteria. Health Care, Technology, and Consumer traditionally have been rich with such companies. They also look for new or emerging industries that can support high growth companies going forward. While these types of investments typically carry more risk, certain areas of the internet and biotechnology, for example, management believes they can create space for attractive long-term growth characteristics.

Finally, RHJ looks for catalysts within industries that are not typically associated with growth characteristics, seeking to capitalize on tactical growth opportunities that arise due to demographic, regulatory and supply/demand issues. Cyclical industries can provide the landscape for attractive growth opportunities to crop up due to such changes.

At the company level, RHJ focuses on businesses that can generate above-average earnings and free cash flow relative to the benchmark. Management favors companies that they believe can achieve these results in tandem with sustained high ROIC, or that can increase their returns to above-average levels over the relevant investment horizon. It is essential that a company can protect these attributes through a well-defined, competitive position, which will protect growth, margins and returns.

Since strong relative results tend to manifest over longer holding periods, RHJ focuses on long-term sustainability factors rather than short-term data points and market movements; as such, low turnover is a notable characteristic of the portfolio.



Disclosure

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE "FORWARD - LOOKING STATEMENTS," WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "EXPECT," "AIM," "ANTICIPATE," "TARGET," "PROJECT," "ESTIMATE," "INTEND," "CONTINUE" OR "BELIEVE," OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

DS/PS/ep

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

Approved to Form
and Legality



RESOLUTION NO. 8044

ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

RESOLUTION MODIFYING THE PROFESSIONAL SERVICES AGREEMENT WITH RICE HALL JAMES & ASSOCIATES, LLC IN ORDER TO (1) PROVIDE FOR UNLIMITED ONE-YEAR EXTENSION OPTIONS UNDER SECTION IV(B) AND (2) AUTHORIZE A ONE-YEAR EXTENSION OF THE PROFESSIONAL SERVICES AGREEMENT FOR THE PROVISION OF DOMESTIC EQUITY SMALL-CAP GROWTH INVESTMENT MANAGER SERVICES FOR THE CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

WHEREAS, Oakland City Charter section 2601(e) states that the Board of the Oakland Police and Fire Retirement System (“PFRS Board”) shall possess power to make all necessary rules and regulation for its guidance and shall have exclusive control of the administration and investment of the funds established for the maintenance and operation of the system; and

WHEREAS, Oakland City Charter section 2601(e) also states that the PFRS Board may secure from competent investment counsel such counsel and advice as to investing the funds of the Retirement System as it deems necessary and that discretionary powers granted such investment counsel will be at the option of the PFRS Board; and

WHEREAS, on December 21, 2016, the PFRS Board passed a motion to enter into a professional service agreement (“the Agreement”) with Rice Hall James & Associates, LLC (“Investment Counsel”) to provide advice and counsel regarding investments of the assets of the Police and Fire Retirement Fund (“Fund”) for the provision of Domestic Equity Small-Cap Growth Investment Manager Services; and

WHEREAS, on February 22, 2017 the PFRS Board ratified the December 21, 2016 motion by approving Resolution No. 6942 authorizing the PFRS Board to enter into the Agreement with Investment Counsel for the provision of Domestic Equity Small-Cap Growth Investment Manager Services; and

WHEREAS, the Agreement between the PFRS Board and Investment Counsel commenced March 1, 2017 for a five-year term; and

WHEREAS, Section XX of the Agreement allows for modification of the Agreement by written agreement of all parties; and

WHEREAS, the Agreement was amended by writing dated October 1, 2021 (the First Amendment); and

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLUTION NO. 8044

WHEREAS, Section IV(B) of the Agreement gave the PRFRS Board the option to extend the initial term of the Agreement for three addition one-year terms by giving Investment Counsel written notice of its intent to exercise its option not less than sixty days prior to the expiration of the term or extended term of the agreement; and

WHEREAS, the PFRS Board wishes to have unlimited one-year extension options to extend said Agreement, and Investment Counsel agrees with the PFRS Board; and

WHEREAS, the PFRS Board and Investment Counsel agree and wish the Agreement be amended to modify Section IV(B) to provide for unlimited one-year extension options; and

WHEREAS, the PFRS Board now wishes to exercise its option to renew the Agreement with Investment Counsel for an additional one-year term, commencing March 1, 2022; now, therefore, be it

RESOLVED: That the PFRS Board authorizes an amendment to the Agreement provision in Section IV(B) in order to provide for unlimited one-year extension options; and be it

FURTHER RESOLVED: That all other terms of the Agreement and the First Amendment, which are not modified herein, shall remain in full force and effect; and be it

FURTHER RESOLVED: That the Board hereby authorizes a one-year extension of the professional service agreement between the City of Oakland Police and Fire Retirement System and Rice Hall James & Associates, LLC for the provision of Domestic Equity Small-Cap Growth Investment Manager Services, commencing March 1, 2022 and ending February 28, 2023.

IN BOARD MEETING, VIA ZOOM TELE-CONFERENCE _____ **MARCH 30, 2022**

PASSED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

MEKETA

INVESTMENT GROUP

Economic and Market Update

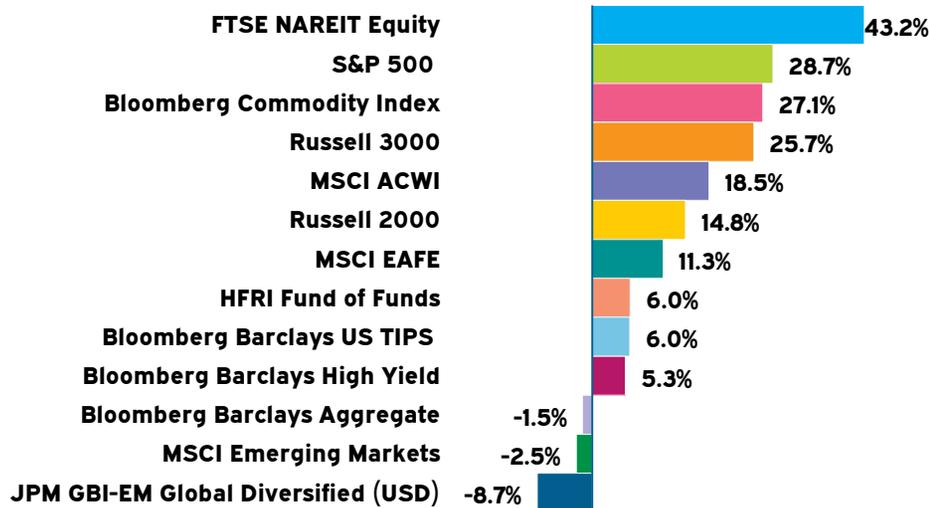
February 2022 Report

February Commentary

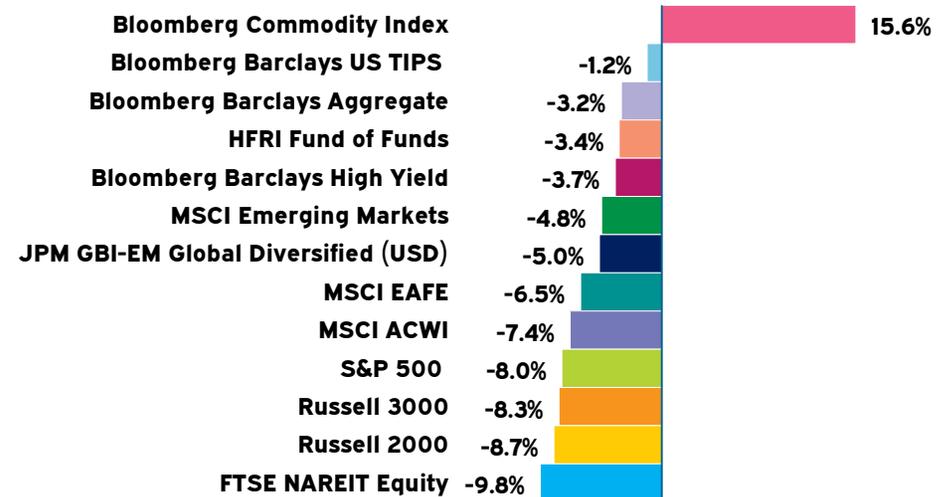
- Russia's invasion of Ukraine created significant uncertainty and further increased volatility.
 - Except for inflation sensitive assets like TIPS and commodities, most asset classes declined in February.
 - Volatility in equities, as represented by the VIX, further increased.
 - Equity markets again led declines with emerging markets falling the most.
 - Russian assets and currency experienced major declines.
 - Rates rose across the US yield curve, with flattening continuing.
 - Value-oriented equities again outpaced growth in the US given higher rates.
 - The dollar strengthened against a broad basket of peers with safe-haven flows after month-end pushing it even higher.
 - Inflation expectations rose with the spike in some key commodities.
- The conflict in eastern Europe will have considerable economic and financial consequences for the global economy including the pacing of policy rate tightening, the risk of policy mistakes, and supply shocks pushing inflation even higher around the world.

Index Returns¹

2021



YTD



- Outside of emerging markets and the broad US investment grade bond market (Barclays Aggregate), most asset classes appreciated in 2021.
- In comparison, 2022 is off to a weak start with all major asset classes except commodities declining given expectations for policy tightening, slower growth, inflation, and economic uncertainty related to Russia's invasion of Ukraine.

¹ Data Source: Bloomberg and FactSet. Data is as of February 28, 2022.

Domestic Equity Returns¹

Domestic Equity	February (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	-3.0	-8.0	16.4	18.2	15.2	14.5
Russell 3000	-2.5	-8.3	12.3	17.6	14.7	14.2
Russell 1000	-2.7	-8.2	13.7	18.1	15.1	14.5
Russell 1000 Growth	-4.3	-12.5	12.6	23.2	20.2	16.9
Russell 1000 Value	-1.2	-3.5	15.0	12.2	9.5	11.7
Russell MidCap	-0.7	-8.0	7.1	14.3	12.0	12.8
Russell MidCap Growth	-1.2	-14.0	-4.3	14.7	14.9	13.5
Russell MidCap Value	-0.5	-4.7	13.8	12.7	9.2	11.9
Russell 2000	1.1	-8.7	-6.0	10.5	9.5	11.0
Russell 2000 Growth	0.4	-13.0	-17.4	9.2	10.5	11.2
Russell 2000 Value	1.7	-4.3	6.6	10.9	8.0	10.5

US Equities: Russell 3000 Index -2.5%, and value indices again outperformed growth in February.

- US large cap and mid cap stock indices declined during February amid persistent inflation and geopolitical turbulence. US small cap stock indices edged up.
- Value stocks continued to outpace growth stocks partly driven by strong returns in the energy sector and weakness in the technology sector.
- Small company stocks (Russell 2000) outperformed large cap company stocks (Russell 1000). The declines of several large technology and communication services stocks (e.g., Meta and Apple) contributed to this dynamic.

¹ Source: Bloomberg. Data is as of February 28, 2022.

Foreign Equity Returns¹

Foreign Equity	February (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI	-2.6	-7.4	7.8	13.4	11.4	9.8
MSCI ACWI ex. US	-2.0	-5.6	-0.4	7.7	7.3	5.4
MSCI EAFE	-1.8	-6.5	2.8	7.8	7.2	6.1
MSCI EAFE (Local Currency)	-2.2	-5.7	9.5	8.0	6.6	8.4
MSCI EAFE Small Cap	-1.3	-8.5	-1.5	8.6	7.9	8.3
MSCI Emerging Markets	-3.0	-4.8	-10.7	6.0	7.0	3.4
MSCI Emerging Markets (Local Currency)	-2.4	-4.1	-8.8	7.5	8.4	6.4

International Developed Market Equities: MSCI EAFE -1.8% and MSCI ACWI ex. US -2.0% for February.

- Returns in international markets were negative for the month as well, with the bulk of the declines seen in the last week of February, in the wake of Russia’s military actions. Developed markets beat emerging markets given direct exposure to Russia in the emerging market index.
- Value also outperformed growth in international equity markets. A strong US dollar weighed on non-US developed and emerging markets equities.

Emerging Markets: MSCI EM -3.0% in February.

- The index was flat for the month before the announcement of the Russian invasion of Ukraine. Russian stocks and the ruble plunged with sanctions and trading halts.
- Major index providers announced the removal of Russia from their indices, essentially marking pre-invasion index exposure down to zero.

¹ Source: Bloomberg. Data is as of February 28, 2022.

Fixed Income Returns¹

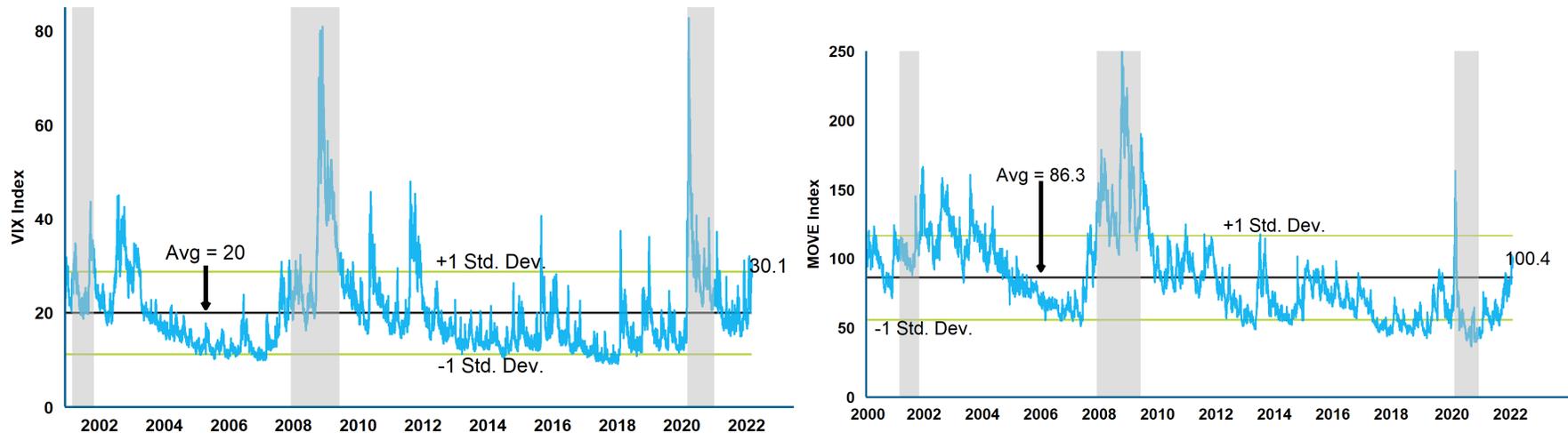
Fixed Income	February (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-1.4	-3.5	-2.7	3.4	2.9	2.8	2.7	6.6
Bloomberg Aggregate	-1.1	-3.2	-2.6	3.3	2.7	2.5	2.3	6.8
Bloomberg US TIPS	0.9	-1.2	6.1	7.5	4.8	2.7	1.9	7.7
Bloomberg High Yield	-1.0	-3.7	0.6	5.3	4.9	5.9	5.6	4.6
JPM GBI-EM Global Diversified (USD)	-5.0	-5.0	-10.0	-1.1	1.0	-0.8%	6.1	5.1

Fixed Income: Barclays Universal -1.4% in February.

- Continued concerns about policy tightening and inflation led to the broad US bond market (Barclays Aggregate) declining again in February. The nominal 10-year Treasury yield rose slightly above the 2% yield level at mid-month before finishing the month at 1.8% due to safe-haven flows.
- TIPS were the only positive area in fixed income, benefiting from growing inflation fears.
- In February US credit spreads widened slightly as risk assets fell. They remain at low levels though given relatively strong corporate health and high investor demand in the low-rate environment.
- Emerging market debt declined driven by the Russian invasion of Ukraine.

¹ Source: Bloomberg. JPM GBI-EM is from InvestorForce, data is as of February 28, 2022.

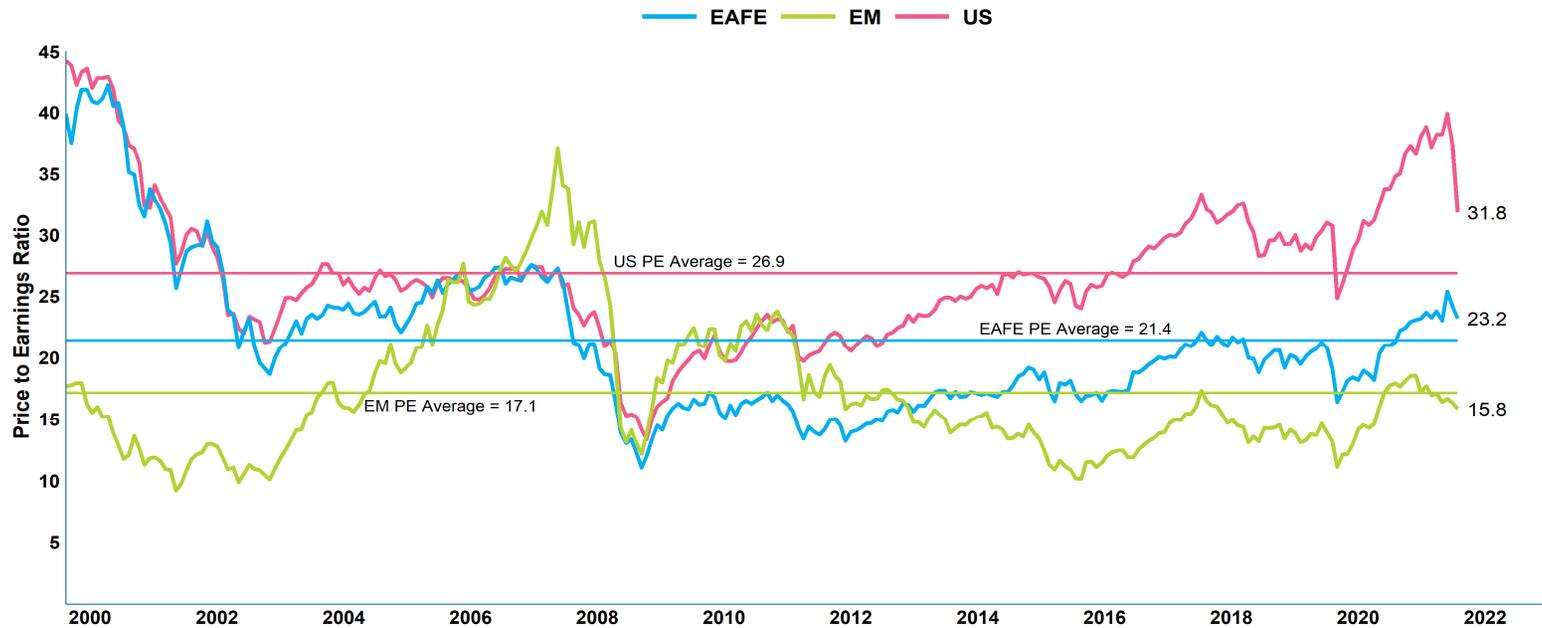
Equity and Fixed Income Volatility¹



- Volatility in equity (VIX) and fixed income (MOVE) increased at the start of the year, driven largely by expectations that the Federal Reserve would tighten monetary policy faster than previously expected.
- In February, Russia's invasion of Ukraine further increased market volatility.

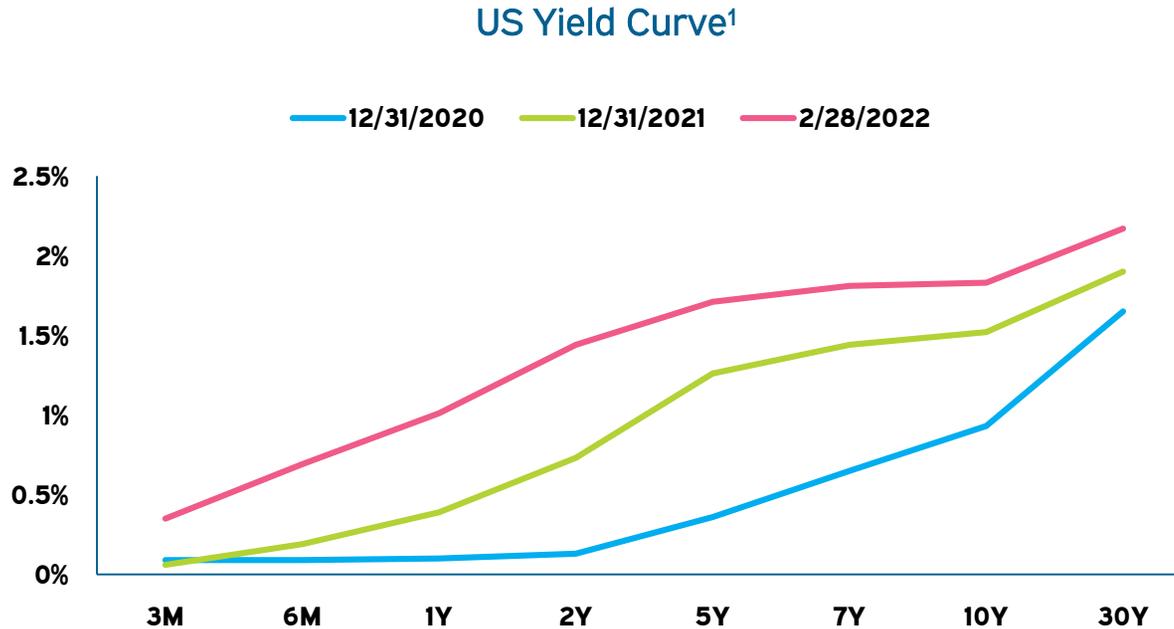
¹ Equity and Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of February 2022. The average line indicated is the average of the VIX and MOVE values between January 2000 and the present month-end respectively.

Equity Cyclically Adjusted P/E Ratios¹



- In February valuations in the US equity market declined further given the 3% fall in the market, but they remain well above long-term averages (near +2 standard deviations).
- International developed market valuations remain below the US with emerging markets under its long-term average.

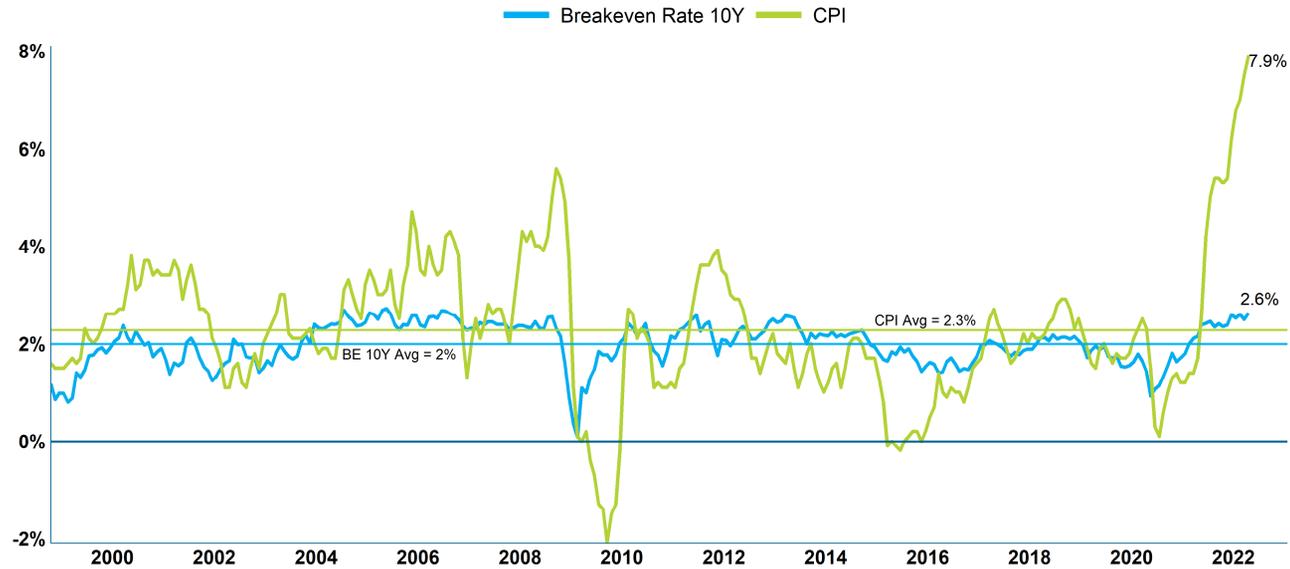
¹ US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E - Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of February 28, 2022. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to month-end respectively.



- The trends of higher rates across maturities and curve flattening continued in February. The spread between a two-year and ten-year Treasury declined by 0.24% for the month, ending at 0.36%.
- Expectations for tighter monetary policy by the Federal Reserve responding to persistently high inflation and improvements in the labor market continue to influence rates.
- The conflict between Russia and Ukraine has increased concerns over inflation and could influence rates moving forward.

¹ Source: Bloomberg. Data is as of February 28, 2022.

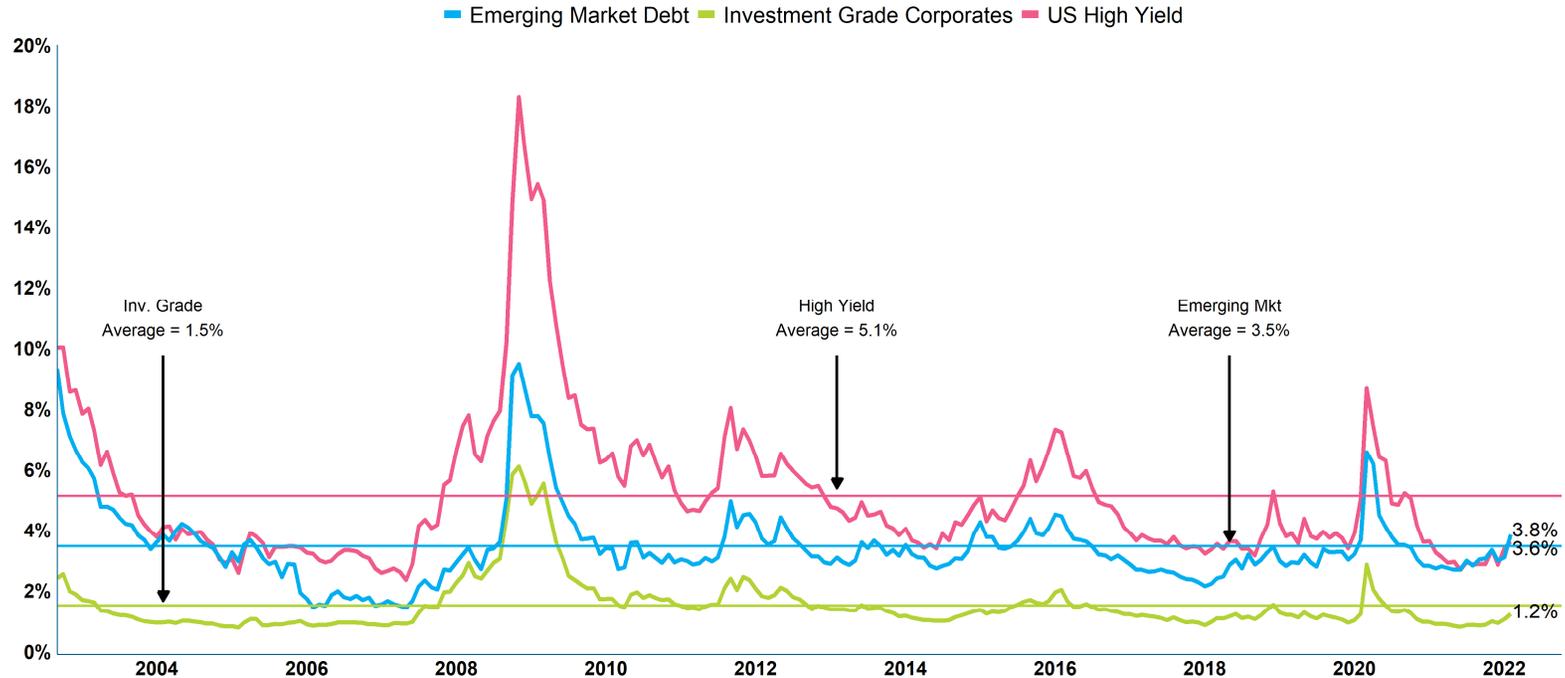
Ten-Year Breakeven Inflation and CPI¹



- Inflation expectations (breakevens) increased in February, remaining well above long-term averages. After month-end, breakevens experienced a significant increase driven by the decline in real rates due to falling growth expectations.
- Trailing twelve-month CPI continued to rise in February, reaching 7.9%, a level not reached since the early 1980s and far above the long-term average of 2.3%.
- Rising prices for energy and food, and for new and used cars, remain key drivers of higher inflation.

¹ Source: Bloomberg. Data is as of February 28, 2022. The CPI and 10 Year Breakeven average lines denote the average values from August 1998 to the present month-end respectively.

Credit Spreads vs. US Treasury Bonds¹



- Credit spreads (the spread above a comparable maturity Treasury) increased in February particularly for riskier bonds given the risk-off environment.
- The search for yield in a low-rate environment and still strong corporate fundamentals with low default risk have been key drivers in the decline in credit spreads to below long-term averages here in the US. Despite the recent increase in spreads, high yield spreads remain well below the long-term average.

¹ Sources: Barclays Live and Bloomberg. Data is as of February 28, 2022. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the present month-end respectively.

Global Economic Outlook

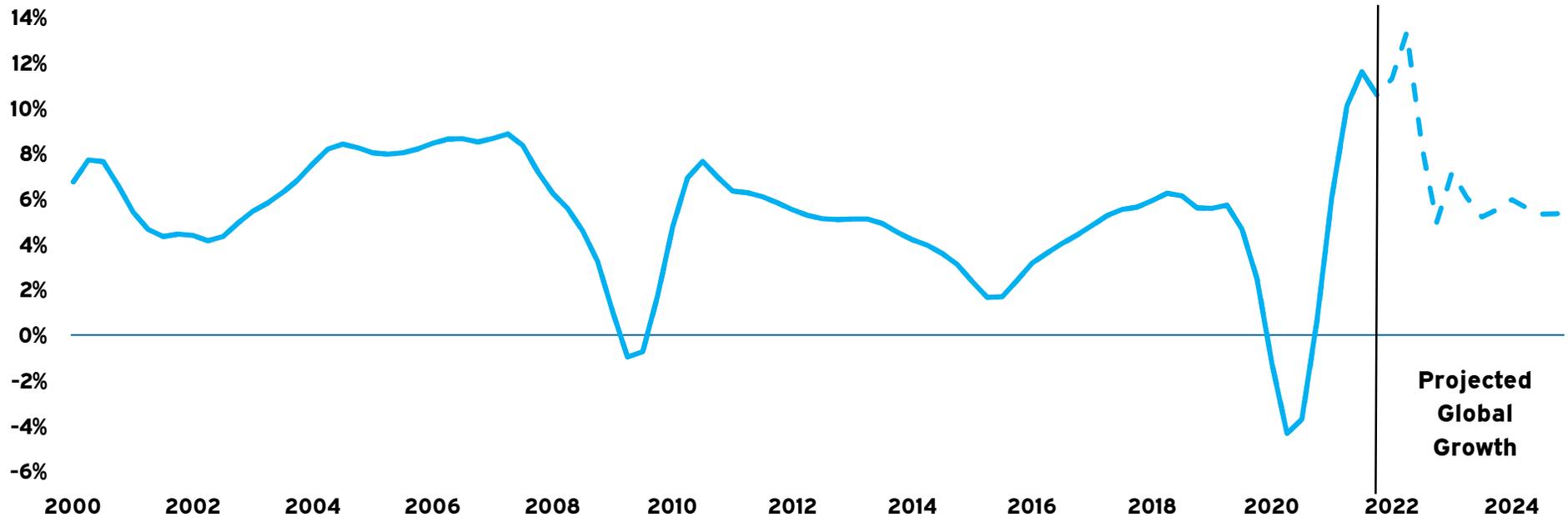
The IMF is forecasting strong growth again this year but continues to downgrade expectations given the lingering pandemic and persistent inflation. The war in Ukraine will likely further depress growth projections going forward.

- The IMF forecasts final global GDP to come in at 5.9% in 2021 and 4.4% in 2022 (0.5% below the prior estimate), still well above the past ten-year average of 3.1%.
- In advanced economies, GDP is projected to increase 3.9% in 2022 and 2.6% in 2023. These levels are still above potential as economies re-open and vaccination progress is made. The US forecast experienced a significant reduction in 2022 (4.0% versus 5.2%) given policy reduction earlier than previously expected, high inflation, and struggles in passing fiscal programs. The euro area economy is expected to grow 3.9% in 2022 and 2.5% in 2023, while the Japanese economy is expected to grow 3.3% in 2022 and 1.8% in 2023.
- Growth projections for emerging markets are higher than developed markets at 4.8% in 2022 and 4.7% in 2023. China’s growth was notably downgraded 0.8% to 4.8% in 2022 given tight COVID-19 restrictions and continued problems in the property sector.
- Globally, inflation is projected to be above long-term averages in 2022 but decline from current levels.

	Real GDP (%) ¹			Inflation (%) ¹		
	IMF 2022 Forecast	IMF 2023 Forecast	Actual 10 Year Average	IMF 2022 Forecast	IMF 2023 Forecast	Actual 10 Year Average
World	4.4	3.8	3.1	3.8	3.3	3.4
Advanced Economies	3.9	2.6	1.6	2.3	1.9	1.4
US	4.0	2.6	2.0	3.5	2.7	1.8
Euro Area	3.9	2.5	1.0	1.7	1.4	1.2
Japan	3.3	1.8	0.5	0.5	0.7	0.5
Emerging Economies	4.8	4.7	4.3	4.9	4.3	5.0
China	4.8	5.2	7.0	1.8	1.9	2.1

¹ Source: IMF World Economic Outlook. Real GDP forecasts from January WEO Update. Inflation as of the October 2021 Update. "Actual 10 Year Average" represents data from 2012 to 2021.

Global Nominal Gross Domestic Product (GDP) Growth¹

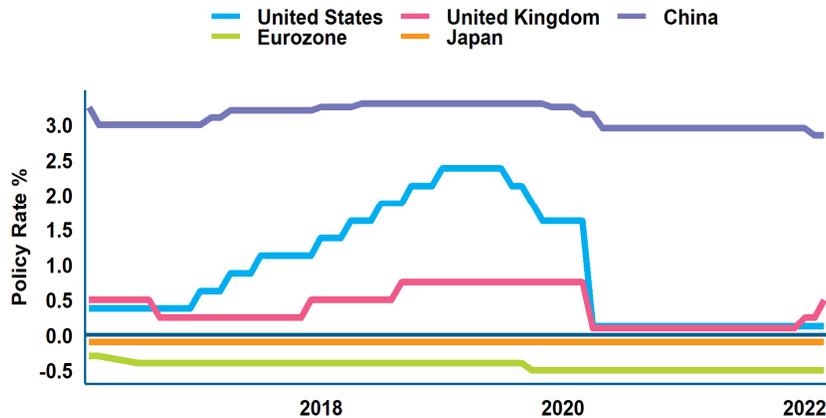


- Global economies are expected to slow in 2022 compared to 2021 but are forecasted to have another year of largely above-trend growth as economies continue to emerge from the pandemic.
- Looking forward, the track of the conflict between Russia and Ukraine, continued supply chain issues, on-going inflationary pressures, tighter monetary policy, and lingering pandemic problems all remain key.

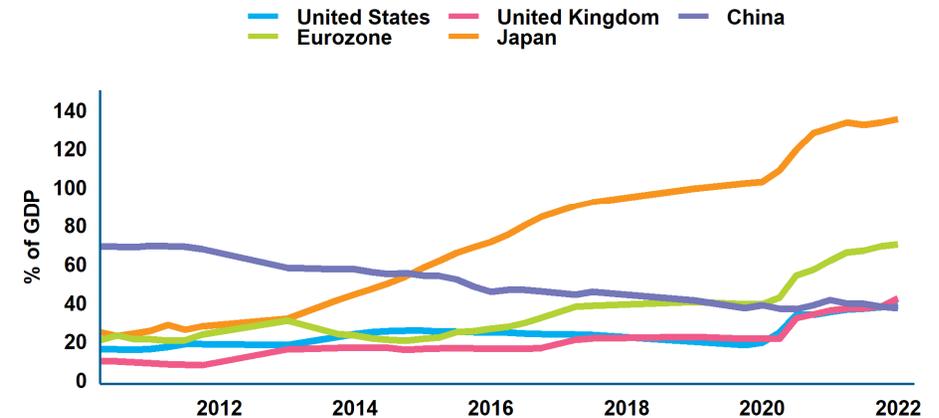
¹ Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, nominal, % change YoY). Updated February 2022.

Central Bank Response¹

Policy Rates



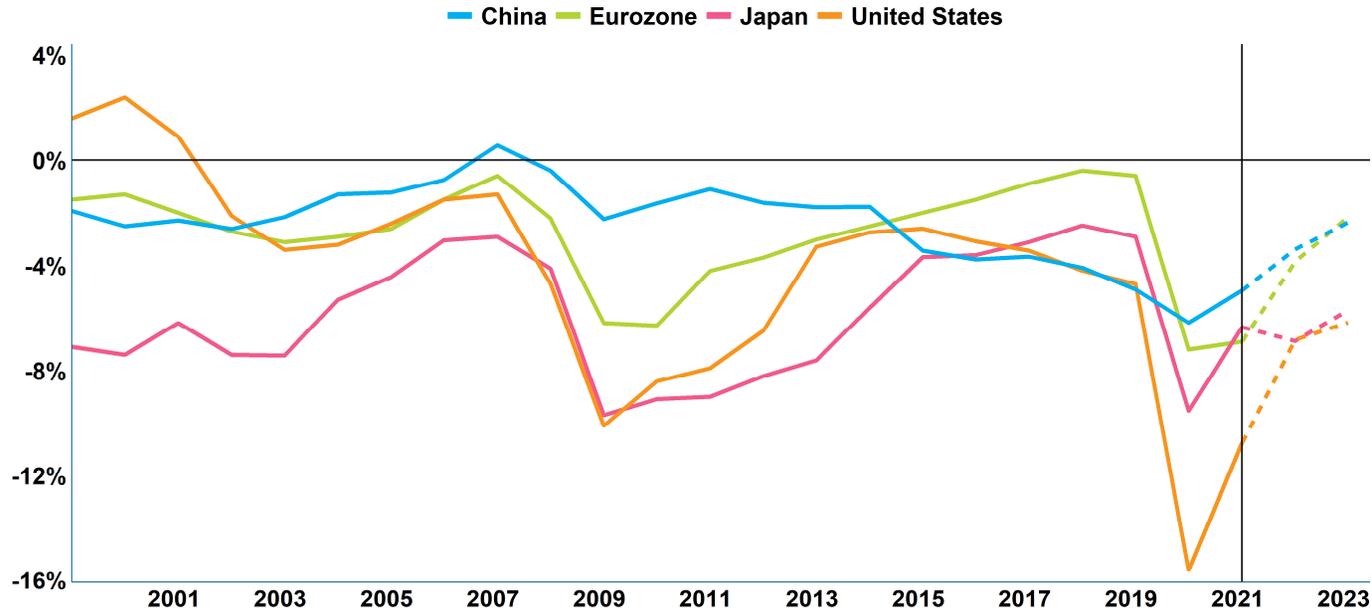
Balance Sheet as % of GDP



- After global central banks took extraordinary action to support the economy during the pandemic including policy rate cuts and emergency stimulus through quantitative easing (QE), many are considering reducing support in the face of high inflation.
- The pace of withdrawing support will likely vary across central banks with the US expected to take a more aggressive approach. The risk remains for a policy error, particularly overtightening, as the war in Ukraine could suppress global growth.
- The one notable exception is China, where the central bank recently lowered rates and reserve requirements in response to slowing growth.

¹ Source: Bloomberg. Policy rate data is as of February 28, 2022. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of December 31, 2021.

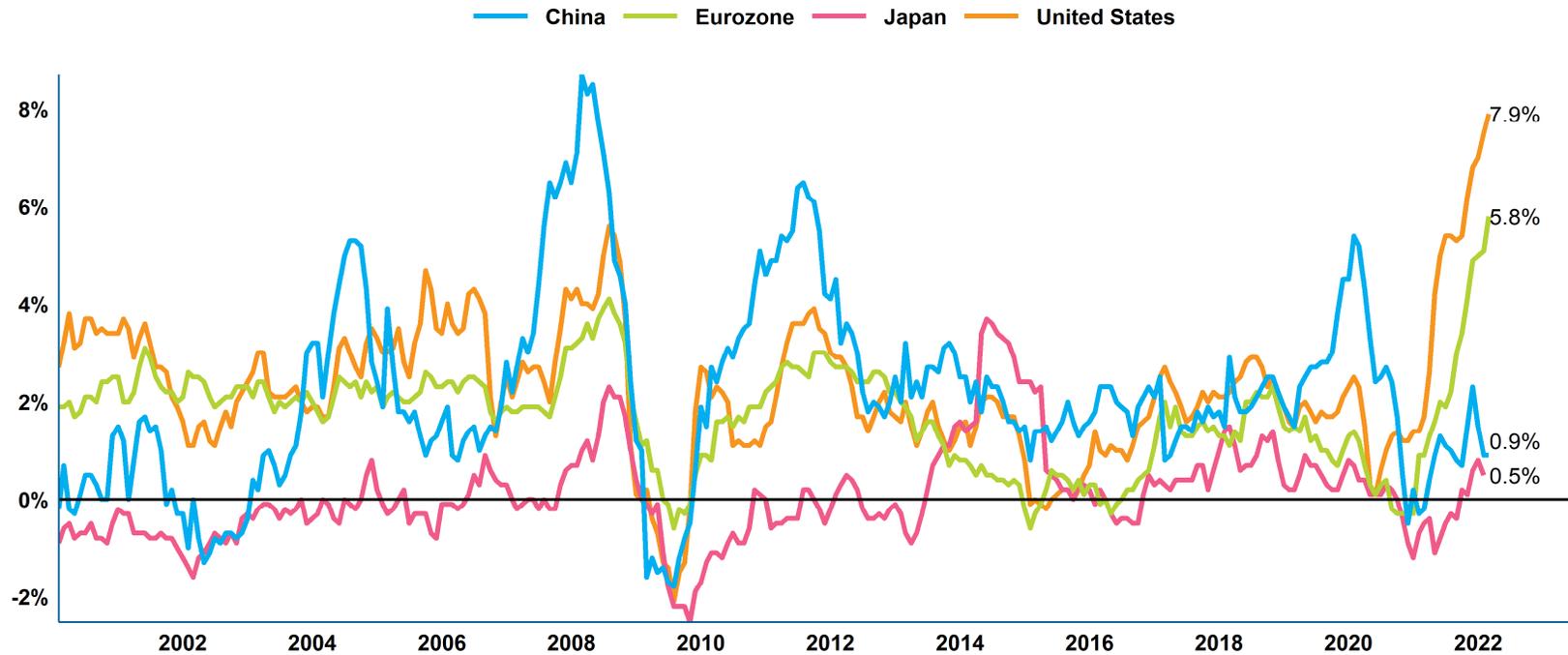
Budget Surplus / Deficit as a Percentage of GDP¹



- Budget deficits as a percentage of GDP drastically increased for major world economies, particularly the US, due to massive fiscal support and the severe economic contraction's effect on tax revenue in 2020 and 2021.
- As fiscal stimulus programs end, and economic recoveries continue, deficits should improve in the coming years.

¹ Source: Bloomberg. Data is as of February 28, 2022. Projections via IMF Forecasts from October 2021 Report. Dotted lines represent 2022 and 2023 forecasts.

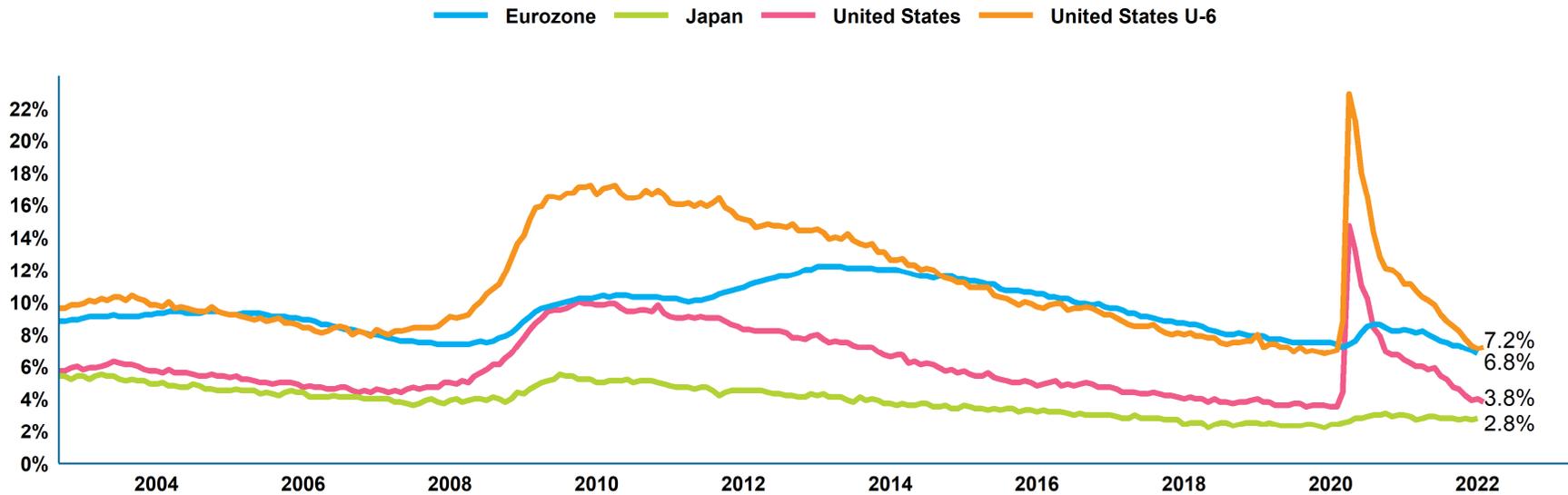
Inflation (CPI Trailing Twelve Months)¹



- Inflation increased dramatically from the lows of the pandemic, particularly in the US and Eurozone.
- Supply concerns related to the conflict between Russia and Ukraine have driven up the prices of key commodities like oil, wheat, and nickel, increasing inflationary concerns.

¹ Source: Bloomberg. Data is as of February, 2022, except for Japan, where the most recent data available is as of January 31, 2022.

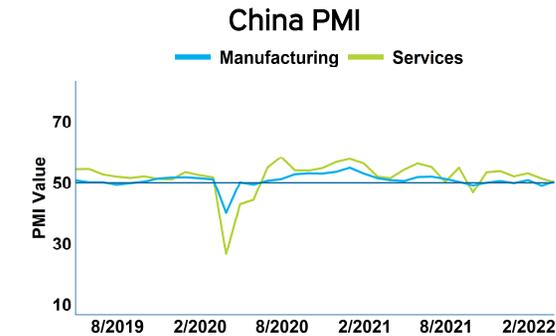
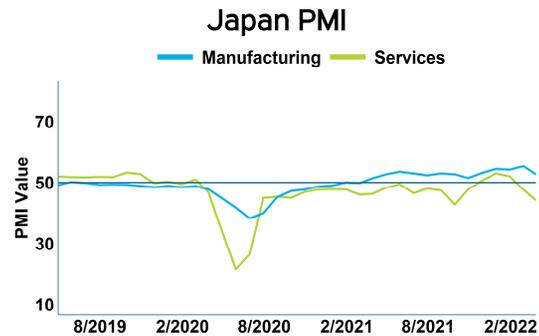
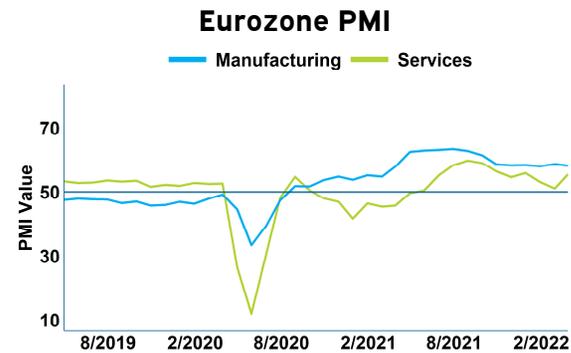
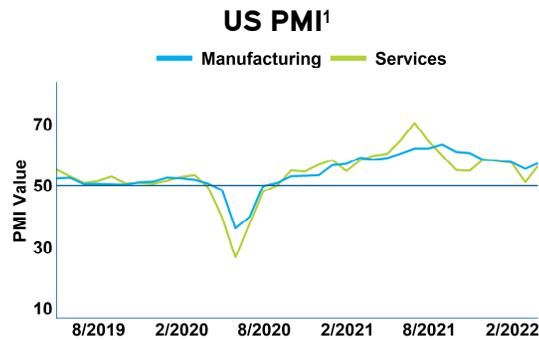
Unemployment¹



- As economies have largely reopened due to vaccines for the virus, improvements have been seen in the labor market.
- US unemployment, which experienced the steepest rise from the pandemic, declined to under 4% as the economy reopens. The broader measure (U-6) that includes discouraged and underemployed workers has declined but is much higher at 7.2%.

¹ Source: Bloomberg. Data is as of February 28, 2022, for the US. The most recent data for Eurozone and Japanese unemployment is as of January 31, 2022.

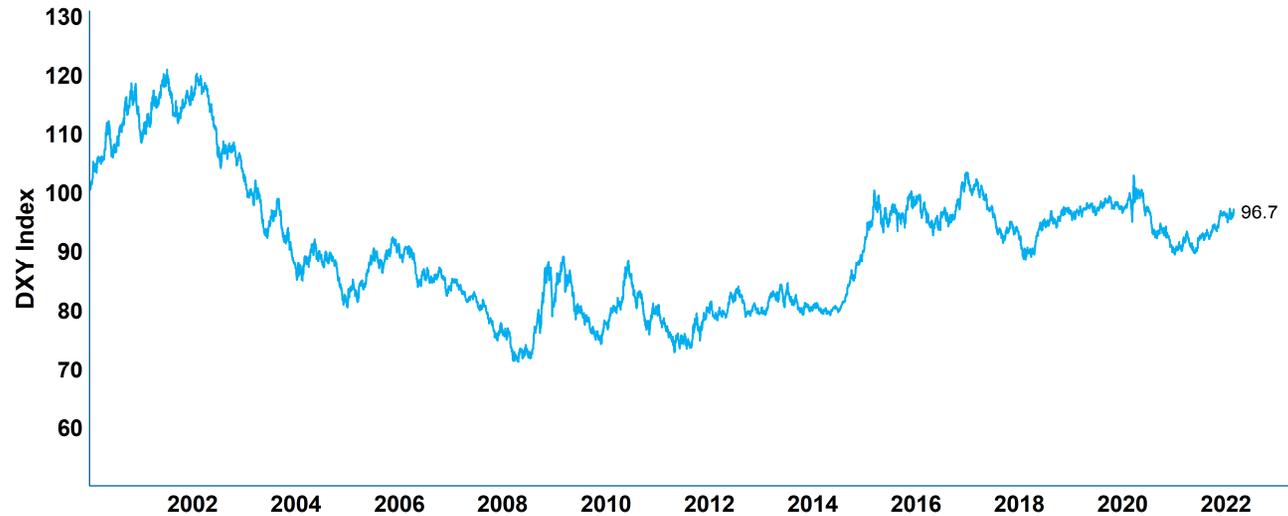
Global PMIs



- After improvements from the lows of the pandemic, Purchasing Managers Indices (PMI), based on surveys of private sector companies, have largely experienced pressures recently.
- PMIs in the services sector have seen some improvements in the US and Europe lately as the effects of the omicron variant wane, while Japan remains in contraction due to a rise in COVID-19 cases.
- Manufacturing PMIs all are in expansion territory across countries as pandemic-related production issues ease.

¹ Source: Bloomberg. US Markit Services and Manufacturing PMI, Caixin Services and Manufacturing PMI, Eurozone Markit Services and Manufacturing PMI, Jibun Bank Services and Manufacturing PMI. Data is as of February 2022. Readings below 50 represent economic contractions.

US Dollar versus Broad Currencies¹



- In February, the US dollar continued its 2021 trend of strengthening against a broad basket of peers with further increases after month-end as investors looked for safe-haven assets.
- A few commodity-sensitive currencies like the Brazilian real and South African rand have recently outpaced the dollar, given persistently high commodity prices.

¹ Source: Bloomberg Data as of February 28, 2022.

Summary

Key Trends in 2022:

- The war in eastern Europe has created significant uncertainty going forward with a wide range of potential outcomes. Volatility will likely remain high.
- Expect growth to slow globally in 2022 but remain above trend. The track of the pandemic and war will be key.
- Inflationary pressures could linger, particularly if the Russian invasion of Ukraine intensifies or expands.
- The end of many fiscal programs will put the burden of continued growth on consumers. Higher energy and food prices will depress their ability to spend in other areas.
- Monetary policy will likely tighten globally but will remain relatively low. The risk of policy error remains.
- Valuations remain high in the US, but low rates and strong margins should be supportive.
- Outside the US, valuations remain lower in both emerging and developed markets, but risks remain.

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MEMORANDUM

TO: Meketa Clients
FROM: Meketa Investment Group
DATE: March 3, 2022
RE: Market Update: Russian Invasion of Ukraine

Given the rapidly evolving situation between Russia and Ukraine and its impact on capital markets, we wanted to follow-up on our memo from last week with an update. In this piece we will discuss the increase in coordinated sanctions against Russia and their response, the current state of the capital markets within Russia and elsewhere, the call for divestment from Russian investments, and potential risks going forward. We recognize that this is a rapidly evolving situation with many potential outcomes, and we will continue to monitor the situation as it unfolds.

Escalating sanctions

In our memo from last week, we noted that the sanctions that had been enacted were similar to past sanctions: in this case, targeting key Russian officials and their families, companies, and banking transactions. Since then, the scope of sanctions and the countries participating has grown dramatically, and Russia has responded with its own set of sanctions and efforts to protect their economy. Given Russia's apparent intent to continue its aggressive path, sanctions against the country will likely continue to evolve.

Foreign exchange reserves locked down, and banks being excluded from SWIFT¹

Few anticipated the sweeping scope of the joint sanction announcement by the Council of Europe states, the United Kingdom, Canada, and the US at the end of February. And while a number of restrictions were announced, the two most likely to upset the functioning of Russian financial markets directly are the seizing of Russia's foreign exchange reserves by several central banks and the exclusion of select Russian banks from the SWIFT network. However, at this time, major oil and energy banks are not under sanction, which allows EU countries to continue to trade respective energy commodities with Russia.

First, with the restriction on Russia's foreign reserves invoked, the Russian central bank has faced significant challenges supporting the currency as investors shed exposure and Russian citizens look to exchange rubles for more stable foreign currencies.

¹ The SWIFT messaging system is a global electronic platform that provides for safe and secure transmission of transactions for its members. Most notably, this includes payment messaging and instructions.

Based on recent estimates Russia's foreign exchange reserves are meaningful at roughly \$630 billion. The composition of those reserves is proving problematic as over half of the assets are dominated in major foreign currencies that have largely been seized through the sanction. Faced with this reality, the Russian central bank has been unable to support the currency over the last week as the ruble depreciated by over 25% against the dollar during that period to trade at an all-time low of roughly 1 penny per dollar.

The other major sanction, namely a handful of banks being excluded from SWIFT, is likely the most material sanction that will heavily impact Russia's financial markets and the functioning of the Russian economy. For Russia, the exclusion of some of their largest domestic banks from the platform will greatly curtail the government's ability to execute transactions such as trades related to energy and agricultural commerce. The repercussions of this could be notable spikes in related commodity prices as Russia is effectively removed from markets. Not waiting for the sanction to be finalized,² anecdotal reports suggest some clearing houses and currency desks are actively stepping back from ruble-denominated transactions. Overall, as this continues to develop and potentially expands to include additional banking entities, volatility in assets with notable Russian exposure is likely to continue.

Russia's response

Given the above sanctions, particularly the restricted access to central bank reserves, Russia has tried to support its financial markets and currency through other means.

This includes the Central Bank of Russia (CBR) hiking policy rates from 9.5% to 20% in an effort to defend the value of the ruble. Restrictions were also placed on capital outflows from the country, the servicing of foreign loans, and the paying of corporate debt. Russian export companies have further been ordered to sell 80% of their foreign exchange reserves to repatriate capital to the banking system.

The CBR has also taken the aggressive step of closing the Moscow stock exchange (MICEX) with no short-term prospect of reopening. That said, some equity-related assets are trading, including Russian-focused ETFs, which are largely composed of American Depository Receipts (ADRs) and Global Depository Receipts (GDRs). While ultimate values for underlying holdings may be limited, some of these vehicles are down well over 50% year-to-date.

Russia's Sovereign Wealth Fund has also been used to support domestic markets, including being ordered to purchase \$8.9 billion of locally-listed shares.

Further, to prevent an asset fire-sale, foreign investors have been forbidden from selling their Russian assets. As such, major energy companies like Shell, BP, and TotalEnergies, as well as financial institutions such as France's Society General or manufacturers such as Germany's BASF, could suffer from significant stranded assets and balance sheet write-downs.

² While the details of the SWIFT-related sanctions are yet to be disclosed, it is believed that energy and grain related transactions will be allowed. This would permit Russia to continue to provide the EU with approximately 30% to 40% of its natural gas requirements and may provide Russia with some cashflow through the sale of oil and gas.

Lastly, on March 1, the CBR also confirmed a ban on coupon payments, suggesting Russia may soon default on local currency debt. Hard currency debt is still lightly trading at this time, although with steep markdowns, with questions remaining about the future of coupon payments.

Financial markets

As the table below highlights, global financial markets have seen significant volatility and sharp repricing since the onset of Russian military actions on February 23.

Broadly, risk assets have declined as market participants account for the evolving sanctions and the potential impact on specific sectors and industries as well as the potential impact to global economic fundamentals. Perceived safe-haven assets, however, have generally benefited from the flight-to-quality flows with global sovereign debt yields declining across most major economies.

Market Returns

Market	Change from 2/23/22 – 3/2/22 (%)
S&P 500	3.8
10-year US Treasury Yield	2.0 to 1.9 (yield change)
VIX	-0.9 (31.0 to 30.7)
MSCI EAFE	-3.3
MSCI Emerging Markets	-3.2
iShares MSCI Russia ETF	-63.5
10-year Russian Bond Yield*	9.8 to 12.2 (yield change)
USD/Ruble	27.6
Russian CDS	944.4
WTI Crude Oil	20.1
Gold	0.7

*Trading for 10-year Russian Bonds has been suspended. Change in yield is from 2/18/22 – 2/28/22.

However, as the table also details, Russian markets are feeling the impact most acutely at the moment. The Russian ruble (as previously highlighted) has weakened against the dollar to an all-time low, Russian bond yields spiked for some longer-dated maturities as S&P and Moody's downgraded the country to below investment grade, and the Russian central bank has raised its key policy rate by over 1,000 basis points to 20% in an effort to stem bank-run pressures. As we also noted previously, Russian equity markets remain closed. In fixed income and credit markets, volumes and liquidity are reportedly weak to non-existent, making price discovery exceedingly challenging, if not impossible.

Financial sanctions may become economic risks

Market participants generally agree that the announced sanctions (thus far) are notably impacting the functioning of Russian financial markets and the broader Russian economy and will likely continue to do so for as long as they are in place.

While the US and its allies are using these pressures to try to deter Russia from further aggressions, they could come at the cost of commodity prices potentially remaining elevated and/or spiking higher. This could drive global inflation pressures even further beyond the multi-decade highs currently being experienced.

In response to the additional inflation pressures, global central banks could raise policy rates even more aggressively than anticipated, and potentially adversely impact global economic growth and thereby exacerbate stagflationary risks.

In the US, recent commentary from Federal Open Market Committee (FOMC) members (including Chair Powell himself) imply that the Committee's strategy is to err on the side of potentially slowing the pace of reducing accommodation and hopefully support financial markets through this time of disruption.

Increased discussions of divestment from Russian assets

Given the recent events, many institutional investors are reviewing their direct and indirect exposures to Russian assets with some being directed to divest from these investments. Several prominent pension funds in the US and Europe have announced they will pursue this path of divestment. At the investment manager level, we are seeing that many are taking a wait and see approach given the market conditions and thin trading volumes. Given that Russian markets are not trading, many equity managers and fixed income managers with hard currency Russian bond exposure are resorting to estimating the value of their holdings with a range of write-downs from 40% to 75%. Further, major index providers are reviewing the inclusion of Russian securities in their indices, with MSCI and Russell recently deciding they will be removing locally-listed Russian equities from their respective index families in the near future.

Logistically though, exiting these holdings in the current market environment is virtually impossible. The Russian stock exchange remains closed and selling other assets might require accepting a huge discount if buyers can even be located or their sale is allowed. Once equity markets reopen and reprice the recent events, losses could escalate.

Conclusion

The current situation is rapidly developing. At least for now, US markets are largely functioning without support being needed from the Fed. Russian markets are a dramatically different story though with significant declines and some markets not even operating. Fortunately, many institutional investors have very small direct investments in these markets, but the second order effects are still evolving. Key risks include an escalation of the conflict as well as prolonged above-trend inflation due to sanctions with an increased risk for stagflation if growth slows. We recognize that this is a very rapidly changing situation and that the range of potential outcomes is broad. We will continue to diligently monitor it and provide updates as needed. Please do not hesitate to reach out to your client team with any questions you may have.

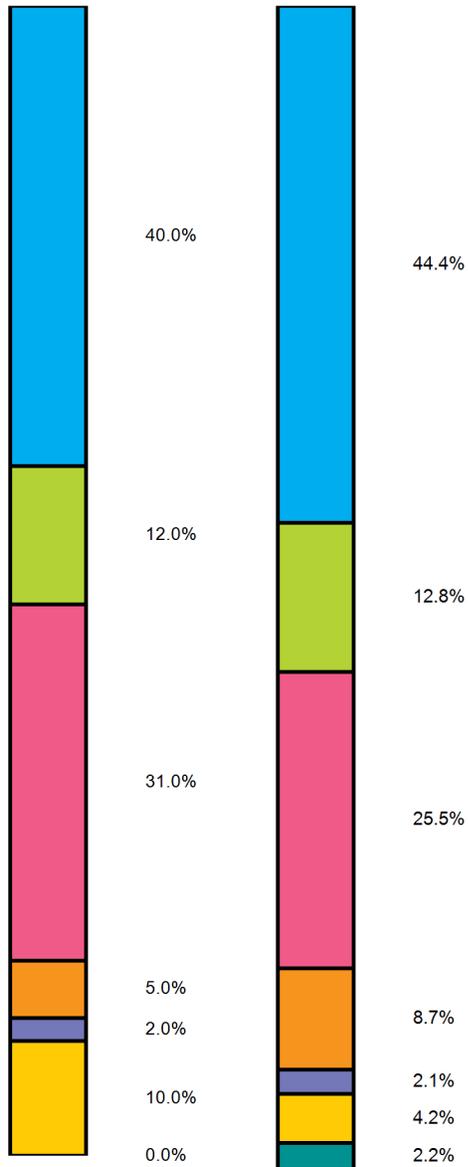
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Oakland Police and Fire Retirement System

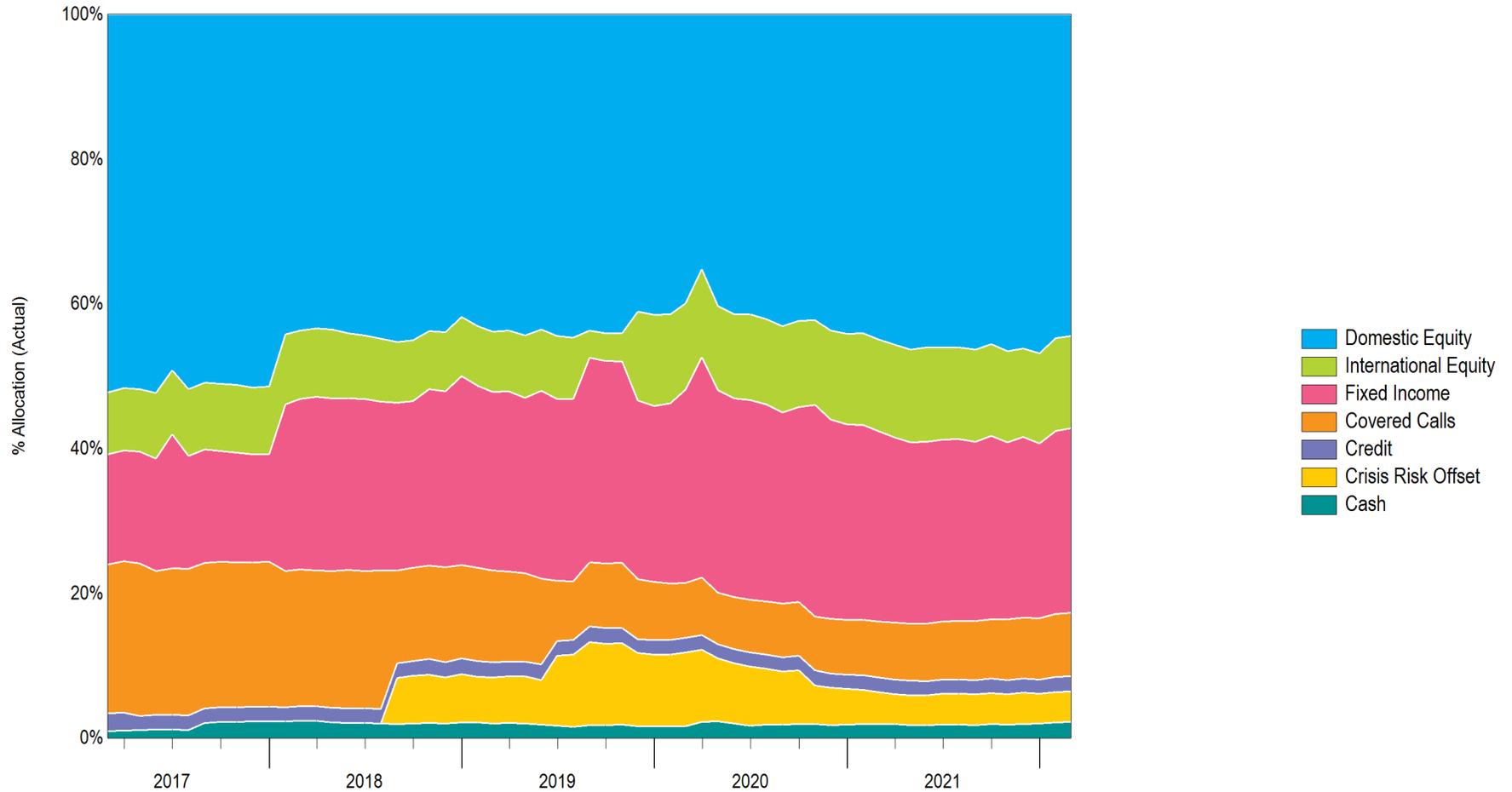
February Flash Report

OPFRS Total Plan As of February 28, 2022



Allocation vs. Targets and Policy						
	Current Balance	Current Allocation	Policy	Difference	Within IPS Range?	
Domestic Equity	\$196,982,474	44.4%	40.0%	4.4%	Yes	
International Equity	\$56,749,816	12.8%	12.0%	0.8%	Yes	
Fixed Income	\$113,102,570	25.5%	31.0%	-5.5%	Yes	
Covered Calls	\$38,750,973	8.7%	5.0%	3.7%	Yes	
Credit	\$9,252,153	2.1%	2.0%	0.1%	Yes	
Crisis Risk Offset	\$18,804,824	4.2%	10.0%	-5.8%	No	
Cash	\$9,877,718	2.2%	0.0%	2.2%	Yes	
Total	\$443,520,528	100.0%	100.0%			

Asset Allocation History
5 Years Ending February 28, 2022



Asset Class Performance Summary											
	Market Value (\$)	% of Portfolio	1 Mo (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
OPFRS Total Plan	443,520,528	100.0	-1.8	-0.6	-5.8	6.4	9.8	9.0	8.3	7.0	Dec-88
<i>OPFRS Policy Benchmark</i>			<i>-1.8</i>	<i>-1.5</i>	<i>-5.5</i>	<i>5.2</i>	<i>9.8</i>	<i>8.5</i>	<i>7.9</i>	<i>8.2</i>	<i>Dec-88</i>
Domestic Equity	196,982,474	44.4	-2.3	0.7	-7.9	11.6	16.2	14.0	13.8	9.4	Jun-97
<i>Russell 3000 (Blend)</i>			<i>-2.5</i>	<i>0.2</i>	<i>-8.3</i>	<i>12.3</i>	<i>17.6</i>	<i>14.7</i>	<i>14.3</i>	<i>9.5</i>	<i>Jun-97</i>
International Equity	56,749,816	12.8	-2.2	-3.8	-5.6	3.2	9.3	8.8	6.7	5.6	Jan-98
<i>MSCI ACWI ex US (Blend)</i>			<i>-2.0</i>	<i>-6.6</i>	<i>-5.6</i>	<i>0.0</i>	<i>8.2</i>	<i>7.8</i>	<i>5.9</i>	<i>5.7</i>	<i>Jan-98</i>
Fixed Income	113,102,570	25.5	-1.0	-2.8	-3.0	-1.5	3.9	3.5	3.2	5.2	Dec-93
<i>Bloomberg Universal (Blend)</i>			<i>-1.4</i>	<i>-3.5</i>	<i>-3.5</i>	<i>-2.7</i>	<i>3.4</i>	<i>2.9</i>	<i>2.8</i>	<i>5.0</i>	<i>Dec-93</i>
Credit	9,252,153	2.1	-0.7	1.3	-1.2	5.6	6.0	5.9	--	6.2	Feb-15
<i>Bloomberg US High Yield TR</i>			<i>-1.0</i>	<i>-2.2</i>	<i>-3.7</i>	<i>0.6</i>	<i>5.3</i>	<i>4.9</i>	<i>5.9</i>	<i>5.4</i>	<i>Feb-15</i>
Covered Calls	38,750,973	8.7	-1.8	3.8	-5.7	15.1	14.2	11.2	--	10.1	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>			<i>-0.7</i>	<i>4.9</i>	<i>-3.2</i>	<i>15.2</i>	<i>8.0</i>	<i>6.5</i>	<i>6.9</i>	<i>6.5</i>	<i>Apr-14</i>
Crisis Risk Offset	18,804,824	4.2	-1.8	-3.6	-5.4	-3.0	-9.4	--	--	-9.1	Aug-18
<i>SG Multi Alternative Risk Premia Index</i>			<i>-0.7</i>	<i>2.1</i>	<i>0.5</i>	<i>8.0</i>	<i>-2.2</i>	<i>--</i>	<i>--</i>	<i>-1.8</i>	<i>Aug-18</i>

Fiscal year begins on July 1.

Cash balances held in ETF accounts at the Custodian are reflected in the Cash account market value.

OPFRS Total Plan As of February 28, 2022

Trailing Net Performance												
	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
OPFRS Total Plan	443,520,528	100.0	--	-1.8	-0.6	-5.8	6.4	9.8	9.0	8.3	7.0	Dec-88
<i>OPFRS Policy Benchmark</i>				<i>-1.8</i>	<i>-1.5</i>	<i>-5.5</i>	<i>5.2</i>	<i>9.8</i>	<i>8.5</i>	<i>7.9</i>	<i>8.2</i>	<i>Dec-88</i>
Domestic Equity	196,982,474	44.4	44.4	-2.3	0.7	-7.9	11.6	16.2	14.0	13.8	9.4	Jun-97
<i>Russell 3000 (Blend)</i>				<i>-2.5</i>	<i>0.2</i>	<i>-8.3</i>	<i>12.3</i>	<i>17.6</i>	<i>14.7</i>	<i>14.3</i>	<i>9.5</i>	<i>Jun-97</i>
Northern Trust Russell 1000	100,789,424	22.7	51.2	-2.7	0.8	-8.4	13.5	18.0	15.0	14.5	14.7	Jun-10
<i>Russell 1000</i>				<i>-2.7</i>	<i>1.0</i>	<i>-8.2</i>	<i>13.7</i>	<i>18.1</i>	<i>15.1</i>	<i>14.5</i>	<i>14.8</i>	<i>Jun-10</i>
EARNEST Partners	48,278,801	10.9	24.5	-1.6	3.3	-6.3	12.8	18.7	16.0	14.8	11.2	Apr-06
<i>Russell MidCap</i>				<i>-0.7</i>	<i>-3.0</i>	<i>-8.0</i>	<i>7.1</i>	<i>14.3</i>	<i>12.0</i>	<i>12.8</i>	<i>9.5</i>	<i>Apr-06</i>
iShares Edge MSCI Min Vol ETF	20,983,484	4.7	10.7	-3.1	0.9	-8.9	13.6	--	--	--	19.4	Apr-20
<i>MSCI USA Minimum Volatility GR USD</i>				<i>-3.1</i>	<i>1.0</i>	<i>-8.8</i>	<i>13.9</i>	<i>10.8</i>	<i>11.3</i>	<i>12.7</i>	<i>19.6</i>	<i>Apr-20</i>
Rice Hall James	15,714,644	3.5	8.0	-2.0	-8.0	-9.9	-4.2	11.2	--	--	11.1	Jul-17
<i>Russell 2000 Growth</i>				<i>0.4</i>	<i>-17.9</i>	<i>-13.0</i>	<i>-17.4</i>	<i>9.2</i>	<i>10.5</i>	<i>11.4</i>	<i>10.0</i>	<i>Jul-17</i>
Brown Fundamental Small Cap Value	11,216,121	2.5	5.7	-0.8	1.8	-5.1	--	--	--	--	5.2	Apr-21
<i>Russell 2000 Value</i>				<i>1.7</i>	<i>-3.1</i>	<i>-4.3</i>	<i>6.6</i>	<i>10.9</i>	<i>8.0</i>	<i>10.7</i>	<i>1.3</i>	<i>Apr-21</i>
International Equity	56,749,816	12.8	12.8	-2.2	-3.8	-5.6	3.2	9.3	8.8	6.7	5.6	Jan-98
<i>MSCI ACWI ex US (Blend)</i>				<i>-2.0</i>	<i>-6.6</i>	<i>-5.6</i>	<i>0.0</i>	<i>8.2</i>	<i>7.8</i>	<i>5.9</i>	<i>5.7</i>	<i>Jan-98</i>
SGA ACWI ex-U.S. Equity	40,471,372	9.1	71.3	-1.7	-2.4	-4.6	3.4	--	--	--	6.2	Dec-19
<i>MSCI ACWI ex USA Gross</i>				<i>-2.0</i>	<i>-6.6</i>	<i>-5.6</i>	<i>0.0</i>	<i>8.2</i>	<i>7.8</i>	<i>5.9</i>	<i>7.9</i>	<i>Dec-19</i>
Vanguard Developed Markets ETF	16,003,198	3.6	28.2	-2.6	-5.4	-6.4	2.8	--	--	--	10.5	Sep-19
<i>FTSE Developed All Cap Ex US TR USD</i>				<i>-1.4</i>	<i>-4.8</i>	<i>-6.3</i>	<i>3.3</i>	<i>8.8</i>	<i>7.8</i>	<i>5.0</i>	<i>10.9</i>	<i>Sep-19</i>

Fiscal year begins July 1.

Throughout the report performance for new funds will be shown after one full month of investment.

International equity performance inclusive of residual cash in Hansberger transition.

OPFRS Total Plan As of February 28, 2022

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Fixed Income	113,102,570	25.5	25.5	-1.0	-2.8	-3.0	-1.5	3.9	3.5	3.2	5.2	Dec-93
<i>Bloomberg Universal (Blend)</i>				<i>-1.4</i>	<i>-3.5</i>	<i>-3.5</i>	<i>-2.7</i>	<i>3.4</i>	<i>2.9</i>	<i>2.8</i>	<i>5.0</i>	<i>Dec-93</i>
Ramirez	76,989,359	17.4	68.1	-1.0	-2.8	-3.0	-1.4	3.9	3.4	--	3.5	Jan-17
<i>Bloomberg US Aggregate TR</i>				<i>-1.1</i>	<i>-3.2</i>	<i>-3.2</i>	<i>-2.6</i>	<i>3.3</i>	<i>2.7</i>	<i>2.5</i>	<i>2.8</i>	<i>Jan-17</i>
Reams	28,744,718	6.5	25.4	-0.9	-2.4	-2.8	-1.5	7.4	5.4	4.2	5.7	Feb-98
<i>Bloomberg Universal (Blend)</i>				<i>-1.4</i>	<i>-3.5</i>	<i>-3.5</i>	<i>-2.7</i>	<i>3.4</i>	<i>2.9</i>	<i>2.8</i>	<i>4.7</i>	<i>Feb-98</i>
Wellington Core Bond	7,368,449	1.7	6.5	-1.3	-3.5	-3.5	--	--	--	--	-1.6	Apr-21
<i>Bloomberg US Aggregate TR</i>				<i>-1.1</i>	<i>-3.2</i>	<i>-3.2</i>	<i>-2.6</i>	<i>3.3</i>	<i>2.7</i>	<i>2.5</i>	<i>-1.4</i>	<i>Apr-21</i>
Credit	9,252,153	2.1	2.1	-0.7	1.3	-1.2	5.6	6.0	5.9	--	6.2	Feb-15
<i>Bloomberg US High Yield TR</i>				<i>-1.0</i>	<i>-2.2</i>	<i>-3.7</i>	<i>0.6</i>	<i>5.3</i>	<i>4.9</i>	<i>5.9</i>	<i>5.4</i>	<i>Feb-15</i>
DDJ Capital	9,252,153	2.1	100.0	-0.7	1.3	-1.2	5.6	6.0	5.9	--	6.2	Feb-15
<i>ICE BofA High Yield Master TR</i>				<i>-0.9</i>	<i>-2.1</i>	<i>-3.6</i>	<i>0.9</i>	<i>5.1</i>	<i>4.7</i>	<i>5.8</i>	<i>5.3</i>	<i>Feb-15</i>
Covered Calls	38,750,973	8.7	8.7	-1.8	3.8	-5.7	15.1	14.2	11.2	--	10.1	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>				<i>-0.7</i>	<i>4.9</i>	<i>-3.2</i>	<i>15.2</i>	<i>8.0</i>	<i>6.5</i>	<i>6.9</i>	<i>6.5</i>	<i>Apr-14</i>
Parametric DeltaShift	21,764,108	4.9	56.2	-2.7	4.0	-7.2	17.1	17.6	13.7	--	12.4	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>				<i>-0.7</i>	<i>4.9</i>	<i>-3.2</i>	<i>15.2</i>	<i>8.0</i>	<i>6.5</i>	<i>6.9</i>	<i>6.5</i>	<i>Apr-14</i>
Parametric BXM	16,986,866	3.8	43.8	-0.8	3.6	-3.7	12.7	10.4	8.5	--	8.0	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>				<i>-0.7</i>	<i>4.9</i>	<i>-3.2</i>	<i>15.2</i>	<i>8.0</i>	<i>6.5</i>	<i>6.9</i>	<i>6.5</i>	<i>Apr-14</i>
Crisis Risk Offset	18,804,824	4.2	4.2	-1.8	-3.6	-5.4	-3.0	-9.4	--	--	-9.1	Aug-18
<i>SG Multi Alternative Risk Premia Index</i>				<i>-0.7</i>	<i>2.1</i>	<i>0.5</i>	<i>8.0</i>	<i>-2.2</i>	<i>--</i>	<i>--</i>	<i>-1.8</i>	<i>Aug-18</i>
Vanguard Long-Term Treasury ETF	18,804,824	4.2	100.0	-1.8	-3.6	-5.4	-3.0	--	--	--	2.7	Jul-19
<i>Bloomberg US Govt Long TR</i>				<i>-1.5</i>	<i>-2.2</i>	<i>-5.5</i>	<i>-1.1</i>	<i>6.9</i>	<i>4.9</i>	<i>4.1</i>	<i>3.5</i>	<i>Jul-19</i>

Cash balances held in ETF accounts at the Custodian are reflected in the Cash account market value.

OPFRS Total Plan As of February 28, 2022

Cash Flow Summary

Month to Date

	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
Brown Fundamental Small Cap Value	\$11,316,255	\$0	-\$100,134	\$11,216,121
Cash	\$3,043,682	\$40,036	\$0	\$3,083,718
Cash - Treasury	\$6,788,100	\$5,900	\$0	\$6,794,000
DDJ Capital	\$9,317,744	\$0	-\$65,592	\$9,252,153
EARNEST Partners	\$49,054,976	\$0	-\$776,175	\$48,278,801
Hansberger Transition	\$416,185	\$0	-\$140,940	\$275,245
iShares Edge MSCI Min Vol ETF	\$21,646,600	\$0	-\$663,116	\$20,983,484
Northern Trust Russell 1000	\$104,626,124	-\$1,000,000	-\$2,836,700	\$100,789,424
Parametric BXM	\$17,115,536	\$0	-\$128,670	\$16,986,866
Parametric DeltaShift	\$22,358,240	\$0	-\$594,132	\$21,764,108
Ramirez	\$77,805,831	\$0	-\$816,472	\$76,989,359
Reams	\$29,004,549	\$0	-\$259,831	\$28,744,718
Reams Low Duration	\$44	\$0	\$0	\$44
Rice Hall James	\$16,028,150	\$0	-\$313,506	\$15,714,644
Securities Lending Northern Trust	\$0	-\$11,366	\$11,366	\$0
SGA ACWI ex-U.S. Equity	\$41,171,910	\$0	-\$700,538	\$40,471,372
Vanguard Developed Markets ETF	\$16,438,523	\$0	-\$435,325	\$16,003,198
Vanguard Long-Term Treasury ETF	\$19,154,050	\$0	-\$349,226	\$18,804,824
Wellington Core Bond	\$7,464,835	\$0	-\$96,386	\$7,368,449
Total	\$452,751,334	-\$965,430	-\$8,265,376	\$443,520,528

Benchmark History
As of February 28, 2022

Total Plan x Securities Lending x Reams LD Exception Comp

1/1/2019	Present	40% Russell 3000 / 12% MSCI ACWI ex USA Gross / 33% Bloomberg US Universal TR / 5% CBOE BXM / 6.7% SG Multi Alternative Risk Premia Index / 3.3% Bloomberg US Treasury Long TR
5/1/2016	12/31/2018	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 20% CBOE BXM
10/1/2015	4/30/2016	43% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 15% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
1/1/2014	9/30/2015	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 10% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
3/1/2013	12/31/2013	40% Russell 3000 / 10% MSCI ACWI ex USA Gross / 17% Bloomberg US Universal TR / 33% ICE BofA 3M US Treasury TR USD
8/1/2012	2/28/2013	20% Russell 3000 / 7% MSCI ACWI ex USA Gross / 18% Bloomberg US Universal TR / 55% ICE BofA 3M US Treasury TR USD
10/1/2007	7/31/2012	53% Russell 3000 / 17% MSCI ACWI ex USA Gross / 30% Bloomberg US Universal TR
4/1/2006	9/30/2007	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Universal TR
1/1/2005	3/31/2006	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Aggregate TR
4/1/1998	12/31/2004	50% Bloomberg US Aggregate TR / 10% Russell 1000 / 20% Russell 1000 Value / 5% Russell MidCap / 15% MSCI EAFE
9/1/1988	3/31/1998	40% S&P 500 / 55% Bloomberg US Aggregate TR / 5% FTSE T-Bill 3 Months TR

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE "FORWARD - LOOKING STATEMENTS," WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "EXPECT," "AIM," "ANTICIPATE," "TARGET," "PROJECT," "ESTIMATE," "INTEND," "CONTINUE" OR "BELIEVE," OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

MEMORANDUM

TO: Oakland Police and Fire Retirement System (PFRS)
FROM: Meketa Investment Group ("Meketa")
CC: David Sancewich; Paola Nealon - Meketa
Teir Jenkins - PFRS
DATE: March 30, 2022
RE: 2022 Expected Return Memo

The general theme of the 2022 Meketa Capital Market Assumptions are slightly higher future expected returns. This is a theme which is consistent across the board in the industry and largely driven by the near zero interest rates in 2021. Higher expected interest rates result in higher expected returns for most yield oriented asset classes as starting yield is often a fairly reasonable predictor of future returns for many fixed income related classes.

Expected returns are flat or slightly higher for anyone relying solely on a valuation approach. It's important to remember that our capital market assumptions and those of other practitioners and peers have a significant range of error in terms of potential future outcomes. For example, the higher the expected standard deviation, the higher the range of possible outcomes is expected to be for any asset class or portfolio. It is also important to note that the long-term expected portfolio compound return assumes net-of-fee returns, with no attempt to seek added value via active management.

It is important to note that our capital market assumptions are over a 20-year time horizon which is different from the time horizon used by PFRS's actuary, Chieron which projects out over 30-years. Further summary comments of our 2022 capital market assumptions and the detailed projections by asset class are shown on the following page.

- In 2022 our cash return expectations increased from 2021 from 1.1% to 1.7%.
- Fixed income yields across the maturity and quality spectrum increased during 2021 increasing return expectations for Fixed Income, High Yield, and Long Duration (a part of Crisis Risk Offset).
- With the exception of Public Equities, no class in the PFRS portfolio is forecasted to achieve a compound return above 6.50% over the next 20 years.
 - Public Equity contains U.S. Equity and International Equity. The next highest returning sub-asset class is Covered Calls at ~5.8%.
- Over the next 20-years the PFRS Long-term policy portfolio is projected to produce a return of 5.79%

Long-Term Policy

Investment Class	Target * (%)	2022 20-Year Assumptions	
		Exp. Comp. Return**	Expected Std. Dev.
US Equity	40	6.80	18.00
International Equity	12	7.50	19.00
Covered Calls	5	5.78	12.00
Fixed Income	21	2.40	4.00
Credit	2	4.40	11.00
Crisis Risk Offset	20	4.03	12.2
Cash	---	1.70	1.00
Total	100	5.79	10.23

DS/PS/ep

Oakland Police and Fire Retirement System

2Q 2022 Cash Flow Report

Asset Class / Manager Liquidity

April – June 2022 Report		
Domestic Equity	Northern Trust Russell 1000	1
Domestic Equity	EARNEST Partners	3
Domestic Equity	iShares MSCI Min Vol ETF	3
Domestic Equity	Rice Hall James	3
Domestic Equity	Brown Small Cap Value	3
International Equity	SGA MSCI ACWI ex-US	3
International Equity	Vanguard Developed ETF	3
Domestic Fixed Income	Ramirez	2
Domestic Fixed Income	Reams	2
Domestic Fixed Income	Wellington Core Bond	3
Credit	DDJ	2
Covered Calls	Parametric	2
Crisis Risk Offset	Vanguard Long Duration ETF	3
Crisis Risk Offset	Versor	3
Cash	Cash	1

Description of Liquidity Tiers

Tier	Description	Amount (\$)	in Months
1	Public, Scheduled Withdrawal Allowances	100.7	16.8
2	Public, Accommodating of Withdrawals	148.7	24.8
3	Public, Must Plan Withdrawals	194.1	32.4
4	Closely Held	0.0	-
Total		443.5	

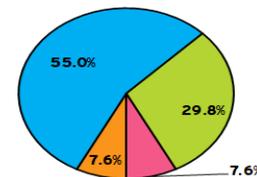
Projected OPFRS Asset Allocation¹

PFRS Asset Allocation February 28 Market Values*	Market		Target (%)	\$ Variance (from basic target)	Actual Cash flows For Jan - Mar Benefits Payable the 1st of each month		Suggested Cash flows For Apr - Jun Benefits Payable the 1st of each month	
	Value (\$M)	Value (%)			Inflow (\$M)	Outflow (\$M)	Inflow (\$M)	Outflow (\$M)
Northern Trust Russell 1000	90.8	20.5%	20.0%	2,085,327				
EARNEST Partners	48.3	10.9%	8.0%	12,797,162				
iShares MSCI Min Vol ETF (Wellington) ***	21.0	4.7%	6.0%	(5,627,745)				
Rice Hall James	15.7	3.5%	3.0%	2,409,029				
Brown Small Cap Value	11.2	2.5%	3.0%	(2,089,494)				
Total Domestic Equity	187.0	42.2%	40.0%	9,574,280				
SGA MSCI ACWI ex-US	40.5	9.1%	8.4%	3,215,651				
Vanguard Developed ETF (BlackRock) ***	16.0	3.6%	3.6%	36,461				
Total International Equity	56.7	12.7%	12.0%	3,252,112				
Total Public Equity	243.7	54.9%	52.0%	12,826,392				
Parametric	33.8	7.6%	5.0%	11,574,949				
Total Covered Calls	33.8	7.6%	5.0%	11,574,949				
Long Duration ETF (BlackRock ETF) ***	18.8	4.2%	3.3%	4,020,823				
Versor	15.0	3.4%	3.3%	363,824				
Alternative Risk Premia Manager (Kepos) ***	0.0	0.0%	3.3%	(14,636,176)				
Total Crisis Risk Offset	33.8	7.6%	9.9%	(10,251,529)				
Ramirez	77.0	17.4%	17.0%	1,590,877				
Reams	28.7	6.5%	12.0%	(24,477,740)				
Wellington Core Bond	7.4	1.7%	2.0%	(150,961)				
DDJ	9.3	2.1%	2.0%	381,743				
Total Public Fixed	122.4	27.6%	33.0%	(24,007,081)				
Cash	9.9	2.2%	0.0%	9,877,718	10.90	(10.90)	10.90	(10.90)
Total Stable	132.2	29.8%	33.0%	(14,129,363)				
Total Portfolio	443.5	100.0%	100.0%	---	10.90	(13.90)	10.90	(13.90)

February 28 Market Values by Portfolio Segment	
Portfolio Segment	MV (\$M)
Total Domestic Equity	187.0
Total International Equity	56.7
Total Public Equity	243.7
Total Covered Calls	33.8
Total Crisis Risk Offset	33.8
Total Public Fixed	122.4
Total Stable	132.2
Total Portfolio	443.5

Suggested Cash Withdrawals	
Manager	Amount
Cash in Treasury	\$10.9 million
NT R1000	\$3.00 million

Projected Equity to Fixed Allocation (MV)



■ Total Covered Calls
■ Total Public Equity
■ Total Stable
■ Total CRO
\$ difference in MV of Public Equity from 52% allocation: \$12.8 million

* Estimated based on PFRS February 28 Northern Trust statement, adjusted for \$15M funding of Versor in March 2022.

** Preliminary value as of February 28 per OPFRS staff.

*** Manager names in parentheses indicates selected, yet unfunded managers for replacement.

¹ Report reflects change in asset allocation from February 28, 2022 values listed by Northern Trust, with adjustments made to reflect the pending transactions in March 2022 to fund Versor. Beneficiary payments estimated at \$13.9 million on a quarterly basis per OPFRS. Report reflects quarterly City contributions of \$10.9 million. Current City of Oakland quarterly contribution amount is based on FY 2021/2022 actuarial annual required contribution of \$43.65 million.

Cash Flow Recommendation Summary

	Est Mkt Value (\$M)	Est Mkt Value (%)	Target (%)	Projected % Variance (from target)	Projected \$ Variance (from target)
Northern Trust Russell 1000	84.8	19.4%	20.0%	-0.6%	(2,714,673)
EARNEST Partners	48.3	11.0%	6.0%	5.0%	22,027,572
iShares MSCI Min Vol ETF	21.0	4.8%	8.0%	-3.2%	(14,018,155)
Rice Hall James	15.7	3.6%	3.0%	0.6%	2,589,029
Brown Small Cap Value	11.2	2.6%	3.0%	-0.4%	(1,909,494)
Total Domestic Equity	181.0	41.4%	40.0%	1.4%	5,974,280
SGA MSCI ACWI ex-US	40.5	9.3%	3.6%	5.7%	24,720,635
Vanguard Developed ETF	16.0	3.7%	8.4%	-4.7%	(20,748,523)
Total International Equity	56.7	13.0%	12.0%	1.0%	4,247,358
Total Public Equity	237.7	54.3%	52.0%	2.3%	10,221,638
Parametric	33.8	7.7%	5.0%	2.7%	11,874,949
Total Covered Calls	33.8	7.7%	5.0%	2.7%	11,874,949
Long Duration ETF	18.8	4.3%	3.3%	1.0%	4,220,822
Versor	15.0	3.4%	3.3%	0.1%	430,568
Alternative Risk Premia Manager	0.0	0.0%	3.3%	-3.3%	(14,569,432)
Total Crisis Risk Offset	33.8	7.7%	10.0%	-2.3%	(9,946,918)
Ramirez	77.0	17.6%	12.0%	5.6%	24,486,901
Reams	28.7	6.6%	2.0%	4.6%	19,994,308
Wellington Core Bond	7.4	1.7%	19.0%	-17.3%	(75,760,443)
DDJ	9.3	2.1%	2.0%	0.1%	501,743
Total Public Fixed	122.4	28.0%	33.0%	-5.0%	(22,027,081)
Cash	9.9	2.3%	0.0%	2.3%	9,877,718
Total Stable	132.2	30.2%	33.0%	-2.8%	(12,149,363)
Total Portfolio	437.5	100.0%	100.0%		

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

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PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

MEMORANDUM

TO: Oakland Police and Fire Retirement System (OPFRS)
FROM: David Sancewich, Paola Nealon – Meketa Inv. Group
DATE: March 30, 2022
RE: 2022 Ongoing Strategic Investment Agenda

On an ongoing (monthly) basis, Meketa develops a list of projects that we expect to work closely with OPFRS to complete over throughout the calendar year (see table below). In an attempt to coordinate the scheduling of these tasks, this memo details a Preliminary Investment Project Agenda by calendaring and prioritizing the expected tasks and deliverables that would be required to fulfill the Agenda. Meketa welcomes any suggestions and/or modifications to the proposed timeline.

2022 Preliminary Investment Project Agenda

Expected Completion Date	Task
April 2022	<ul style="list-style-type: none"> Flash Performance Report (Mar 2022) Manager Update: Brown Educational: TBD
May 2022	<ul style="list-style-type: none"> Quarterly Performance Report (1Q 2022) Flash Performance Report (Apr 2022) Manager Update: Northern Trust
June 2022	<ul style="list-style-type: none"> Flash Performance Report (May 2022) Cash Flow Report (3Q 2022) Watch Update Memo: Rice Hall & James Manager Update: Wellington Fixed Income
July 2022	<ul style="list-style-type: none"> Flash Performance Report (Jun 2022) Manager Update: Reams Educational Item: TBD
August 2022	<ul style="list-style-type: none"> Quarterly Performance Report (2Q 2022) Flash Performance Report (Jul 2022) Manager Update: Strategic Global Advisors
September 2022	<ul style="list-style-type: none"> Flash Performance Report (Aug 2022) Cash Flow Report (4Q 2022) Manager Update: Ramirez Thermal Coal List Update: 2022



Expected Completion Date	Task
October 2022	<ul style="list-style-type: none">Flash Performance Report (Sep 2022)Manager Update: ParametricEducational Item: TBD
November 2022	<ul style="list-style-type: none">Quarterly Performance Report (3Q 2022)Flash Performance Report (Oct 2022)
December 2022	<ul style="list-style-type: none">Flash Performance Report (Nov 2022)Cash Flow Report (1Q 2023)

Bold are priority strategic items.

This agenda includes only major strategic items. Meketa also expects to work with the Staff and Board to complete more routine tasks and projects, as expected.