

Pursuant to the Governor's Executive Order N-29-20, all members of the City Council, as well as the City Administrator, City Attorney and City Clerk will join the meeting via phone/video conference and no teleconference locations are required

Oakland Police and Fire Retirement Board meetings are being held via Tele-Conference. Please see the agenda to participate in the meeting. For additional information, contact the Retirement Unit by calling (510) 238-6481.



AGENDA

AUDIT COMMITTEE MEMBERS

John C. Speakman
Chairman

Adam Benson
Member

Kevin Traylor
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 Audit Committee does not reach quorum, this meeting is noticed as an informational meeting between staff and the Chair of the Audit Committee."

REGULAR MEETING of the AUDIT / OPERATIONS COMMITTEE of the OAKLAND POLICE AND FIRE RETIREMENT SYSTEM ("PFRS")

Wednesday, July 29, 2020 – 9:00 am
Tele-Conference Board Meeting
via Zoom

OBSERVE:

- To observe the meeting by video conference, please click on this link: <https://us02web.zoom.us/j/83665111281> 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,,83665111281# or +13462487799,,83665111281#
- 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/83665111281>
- Webinar ID: 836 6511 1281.
If asked for a participant ID or code, press #.

PUBLIC COMMENTS There are three ways to submit public comments.

- eComment. To send your comment directly to staff BEFORE the meeting starts, please email to Tjenkins@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 AUDIT COMMITTEE MEETING**

July 29, 2020

- 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 Teir Jenkins, Investment Officer at Tjenkins@oaklandca.gov.

- - - ORDER OF BUSINESS - - -

- | | | |
|-----------|---|---|
| 1. | Subject: | PFRS Audit Committee Meeting Minutes |
| | From: | Staff of the PFRS Board |
| | Recommendation: | APPROVE February 26, 2020 Audit Committee meeting minutes. |
| 2. | Subject: | Administrative Expenses Report |
| | From: | Staff of the PFRS Board |
| | Recommendation: | ACCEPT an informational report regarding PFRS administrative expenses from July 1, 2019 through May 31, 2020. |
| 3. | Subject: | Scope of Services and Initiation of the Financial Audit of the PFRS fund for the Fiscal Year Ending June 30, 2020 |
| | From: | Macias Gini & O’Connell, LLP and Staff of the PFRS Board |
| | Recommendation: | RECOMMEND BOARD APPROVAL of the Scope of Services and Initiation of the Financial Audit of the PFRS fund for the Fiscal Year Ending June 30, 2020. |
| 4. | REVIEW OF PENDING AUDIT COMMITTEE MEETING AGENDA ITEMS | |
| 5. | OPEN FORUM | |
| 6. | FUTURE SCHEDULING | |
| 7. | ADJOURNMENT | |

AN AUDIT/OPERATIONS COMMITTEE MEETING of the Oakland Police and Fire Retirement System ("PFRS") was held on Wednesday, February 26, 2020 in Hearing Room 1, One Frank Ogawa Plaza, Oakland, California.

Committee Members Present: • John C. Speakman, Chairman
• Adam D. Benson, Member

Additional Attendees: • David Jones, Plan Administrator
• Teir Jenkins, Staff Member
• David Low, Staff Member
• Michael L. Smith, Acting PFRS Legal Counsel

The Meeting was called to order at 9:34 am.

1. **PFRS Audit Committee Meeting Minutes** – Member Benson made a motion to approve the January 29, 2020 Audit Committee meeting minutes, second by Chairman Speakman. Motion passed.

[SPEAKMAN – Y/ BENSON – Y]
(AYES: 2 / NOES: 0 / ABSTAIN: 0)

2. **Administrative Expenses Report** – Investment Officer Teir Jenkins presented an informational report of the PFRS administrative expenditures through December 31, 2019.

MOTION: Member Benson made a motion to accept the administrative expenses report, second by Chairman Speakman. Motion passed.

[SPEAKMAN – Y/ BENSON – Y]
(AYES: 2 / NOES: 0 / ABSTAIN: 0)

3. **Mid-Cycle PFRS Administrative Budget for Fiscal Years 2019 through 2021** – Investment Officer Teir Jenkins presented the Mid-Cycle PFRS Administrative Budget report for Fiscal Years (FY) 2019 through 2021. Mr. Jenkins noted the reallocation of budgeted funds on the FY 2019-2020 budget and the proposed reallocation of budgeted funds on the FY 2020-2021.

MOTION: Member Benson made a motion to recommend Board approval of the Mid-Cycle PFRS Administrative Budget for Fiscal Years 2019 through 2021, second by Chairman Speakman. Motion passed.

[SPEAKMAN – Y/ BENSON – Y]
(AYES: 2 / NOES: 0 / ABSTAIN: 0)

4. **Purchase of iPad Tablets for PFRS Staff and Board Members at meetings** – Plan Administrator David Jones presented the staff report detailing the cost to purchase iPad Tablets for Board and Staff members to replace the Board Binders used at the PFRS Committee and Board meetings. The Committee and staff discussed the benefits of the purchase for the Board and Staff and discussed how the iPad Tablets would be purchased. Mr. Jones reported that Staff would work with the City's Information Technology Department regarding deployment and security concerns.

Member Speakman asked staff if the PFRS Board has autonomy from the City to make a Board decision regarding this purchase. Member Benson said staff should confer with the Legal Counsel regarding about the Board's autonomy on this matter. Staff was directed by the Committee to review purchasing and bidding procedures in order to fulfill the purchase of eight new iPad Tablets for the PFRS board and Staff to replace PFRS Board meeting binders.

MOTION: Member Benson made a motion to recommend Board approval of the Staff recommendation to review purchasing procedures and act to purchase eight new iPad Tablets for staff and Board use to replace PFRS Board meeting binders, second by Chairman Speakman. Motion passed.

[SPEAKMAN – Y/ BENSON – Y]
(AYES: 2 / NOES: 0 / ABSTAIN: 0)

5. **Resolution No. 7089 – Jones Travel** – Member Benson made a motion to recommend Board approval of Resolution No. 7089 approving the request of Oakland Police and Fire Retirement System Plan Administrator David Jones to attend the Government Investment Officer's Association 2020 Annual Conference from March 18, 2020 to March 20, 2020 in Las Vegas, Nevada and for reimbursement of registration fees and travel-related expenses in an amount not to exceed Two Thousand Dollars, second by Chairman Speakman. Motion passed.

[SPEAKMAN – Y/ BENSON – Y]
(AYES: 2 / NOES: 0 / ABSTAIN: 0)

6. **Resolution No. 7090 – Benson Travel** – This agenda item was moved to the full board for its consideration.
7. **Resolution No. 7091 – Benson Travel** – This agenda item was moved to the full board for its consideration.
8. **Resolution No. 7092 – Jenkins Travel** – Member Benson made a motion to recommend Board approval of Resolution No. 7092 approving the request of Oakland Police and Fire Retirement System Staff Member Teir Jenkins to attend the 2020 Pension Bridge Conference from April 14, 2020 to April 15, 2020 in San Francisco, California and for reimbursement of registration fees and travel-related expenses in an amount not to exceed Five Hundred Dollars, second by Chairman Speakman. Motion passed.

[SPEAKMAN – Y/ BENSON – Y]
(AYES: 2 / NOES: 0 / ABSTAIN: 0)

9. **Resolution No. 7093 – Wilkinson Travel** – Member Benson made a motion to recommend Board approval of Resolution No. 7093 approving the request of Oakland Police and Fire Retirement System Trustee R. Steven Wilkinson to attend the 2020 Pension Bridge Conference from April 14, 2020 to April 15, 2020 in San Francisco, California and for reimbursement of registration fees and travel-related expenses in an amount not to exceed Five Hundred Dollars, second by Chairman Speakman. Motion passed.

PFRS Audit/Operations Committee Meeting Minutes

February 26, 2020

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[SPEAKMAN – Y/ BENSON – Y]
(AYES: 2 / NOES: 0 / ABSTAIN: 0)

10. **Resolution No. 7094 – Jones Travel** – Member Benson made a motion to recommend Board approval of Resolution No. 7094 approving the request of Oakland Police and Fire Retirement System Plan Administrator David Jones to attend the 2020 Pension Bridge Conference from April 14, 2020 to April 15, 2020 in San Francisco, California and for reimbursement of registration fees and travel-related expenses in an amount not to exceed Five Hundred Dollars, second by Chairman Speakman. Motion passed.

[SPEAKMAN – Y/ BENSON – Y]
(AYES: 2 / NOES: 0 / ABSTAIN: 0)

11. **Audit Committee Pending Agenda Items** – Plan Administrator David Jones reported that the Ad Hoc Committee was canceled for February 2020 but is scheduled to meet in March 2020. Also, Mr. Jones reported that the Management Audit matter would be brought back to the Audit Committee for discussion in March 2020.

12. **Open Forum** – No Report.

13. **Future Scheduling** – The next Audit Committee was scheduled for Wednesday, March 25, 2020.

The Meeting Adjourned at 9:50 am.

JOHN C. SPEAKMAN, COMMITTEE CHAIRMAN

DATE

Table 1

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Administrative Budget Spent to Date (Preliminary)

As of May 31, 2020

	Approved Budget					
		May 2020	FYTD	Remaining	Percent Remaining	
Internal Administrative Costs						
PFRS Staff Salaries	\$ 1,149,000	\$ 84,771	\$ 1,003,100	\$ 145,900	12.7%	
Board Travel Expenditures	52,500	-	9,487	43,013	81.9%	
Staff Training	20,000	-	326	19,674	98.4%	
Staff Training - Tuition Reimbursement	7,500	-	-	7,500	100.0%	
Annual Report & Duplicating Services	4,000	-	-	4,000	100.0%	
Board Hospitality	3,600	-	1,370	2,230	61.9%	
Payroll Processing Fees	40,000	-	-	40,000	100.0%	
Miscellaneous Expenditures	40,000	8,763	29,176	10,824	27.1%	
Internal Service Fees (ISF)	85,000	-	76,926	8,074	9.5%	
Contract Services Contingency	50,000	-	1,200	48,800	97.6%	
Office Construction Costs*	5,128	-	-	5,128	100.0%	
Internal Administrative Costs Subtotal :	\$ 1,456,728	\$ 93,533	\$ 1,121,586	\$ 335,142	23.0%	
Actuary and Accounting Services						
Audit	\$ 45,000	\$ -	\$ 45,000	\$ -	0.0%	
Actuary	46,500	-	41,790	4,710	10.1%	
Actuary and Accounting Subtotal:	\$ 91,500	\$ -	\$ 86,790	\$ 4,710	5.1%	
Legal Services						
City Attorney Salaries	\$ 188,000	\$ 15,177	\$ 145,325	\$ 42,675	22.7%	
Legal Contingency	150,000	-	5,455	144,546	96.4%	
Legal Services Subtotal:	\$ 338,000	\$ 15,177	\$ 150,779	\$ 187,221	55.4%	
Investment Services						
Money Manager Fees	\$ 1,326,000	\$ 105,552	\$ 679,263	\$ 646,737	48.8%	
Custodial Fee	124,000	-	58,250	65,750	53.0%	
Investment Consultant (Meketa)	100,000	-	75,000	25,000	25.0%	
Investment Subtotal:	\$ 1,550,000	\$ 105,552	\$ 812,513	\$ 737,487	47.6%	
Total Operating Budget	\$ 3,436,228	\$ 214,261	\$ 2,171,668	\$ 1,264,560	36.80%	

*Carry Forward from FY 2018-2019

Table 2

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Cash in Treasury (Fund 7100) - Preliminary

As of May 31, 2020

	May 2020
Beginning Cash as of 4/30/2020	\$ 8,329,613
Additions:	
City Pension Contribution - May	\$ 3,617,417
Investment Draw	-
Misc. Receipts	-
Total Additions:	\$ 3,617,417
Deductions:	
Pension Payment (April Pension Paid on 5/1/2020)	(4,392,140)
Expenditures Paid	(268,211)
Total Deductions	\$ (4,660,351)
Ending Cash Balance as of 5/31/2020*	<u><u>\$ 7,286,678</u></u>

** On 6/1/2020, May pension payment of appx \$4,459,000 will be made leaving a cash balance of \$2,828,000*

Table 3
CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Census
As of May 31, 2020

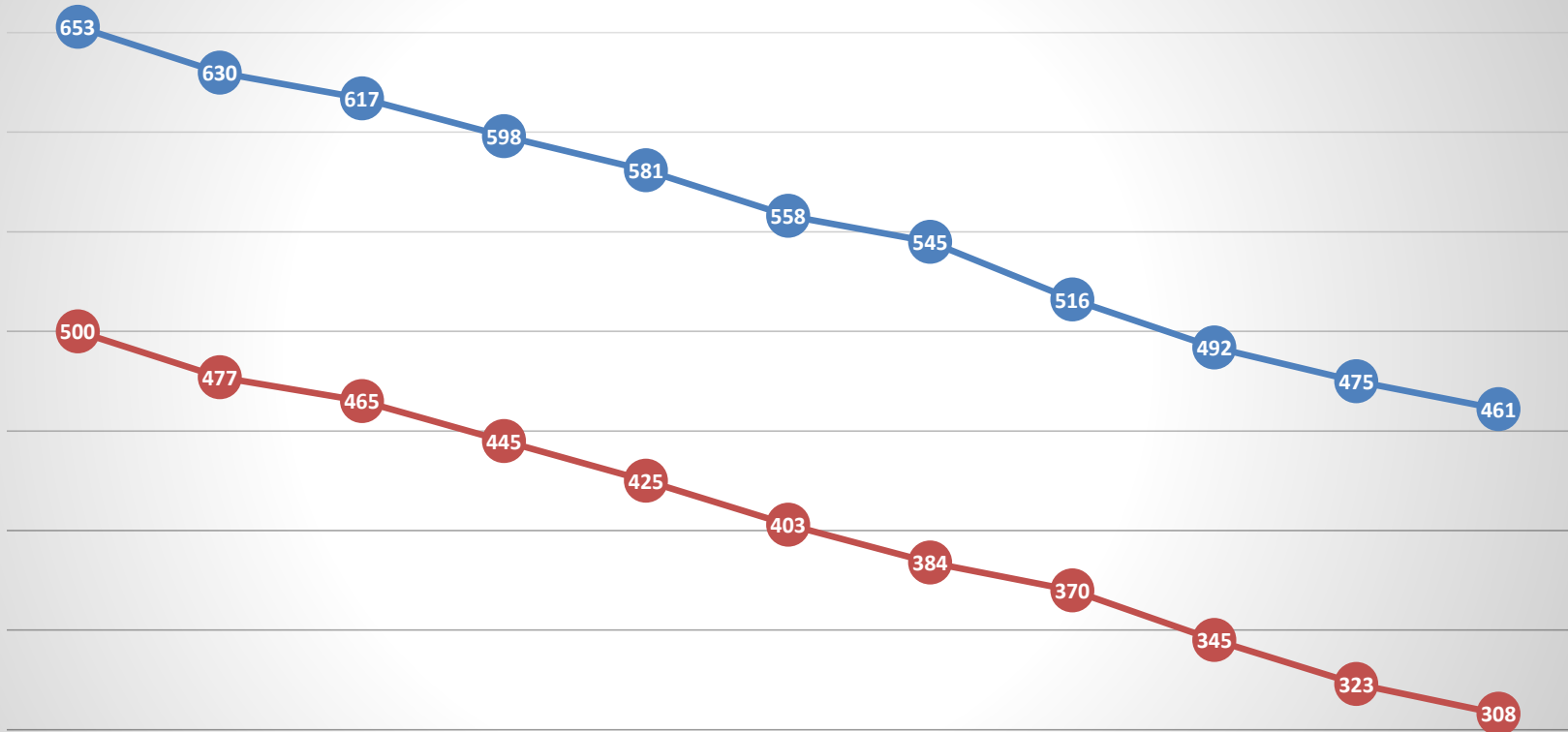
COMPOSITION	POLICE	FIRE	TOTAL
Retired Member:			
Retiree	340	195	535
Beneficiary	121	113	234
<i>Total Retired Members</i>	461	308	769
<i>Total Membership:</i>	461	308	769

COMPOSITION	POLICE	FIRE	TOTAL
Retired Member:			
Service Retirement	307	158	465
Disability Retirement	141	137	278
Death Allowance	13	13	26
<i>Total Retired Members:</i>	461	308	769
<i>Total Membership as of May 31, 2020:</i>	461	308	769
<i>Total Membership as of June 30, 2019:</i>	475	323	798
<i>Annual Difference:</i>	-14	-15	-29

Oakland Police and Fire Retirement System

Pension Plan Membership Count

As of May 31, 2020 (FY 2010 - FY 2020)



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 FYTD
Police	653	630	617	598	581	558	545	516	492	475	461
Fire	500	477	465	445	425	403	384	370	345	323	308
Total	1153	1107	1082	1043	1006	961	929	886	837	798	769



June 15, 2020

To the Board of Administration of the
Oakland Police and Fire Retirement System
Oakland, California

The following represents our understanding of the services we will provide Oakland Police and Fire Retirement System (Retirement System).

You have requested that we audit the financial statements of the Retirement System, a pension trust fund of the City of Oakland, as of June 30, 2020, and for the year then ended and the related notes, which collectively comprise the Retirement System's basic financial statements. We are pleased to confirm our acceptance and our understanding of this audit engagement by means of this letter. Our audit will be conducted with the objective of our expressing an opinion on each opinion unit applicable to those basic financial statements.

Accounting principles generally accepted in the United States of America, (U.S. GAAP,) as promulgated by the Governmental Accounting Standards Board (GASB) require that certain required supplementary information (RSI) to be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the GASB, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. As part of our engagement, we will apply certain limited procedures to the RSI in accordance with auditing standards generally accepted in the United States of America (U.S. GAAS). These limited procedures will consist primarily of inquiries of management regarding their methods of measurement and presentation, and comparing the information for consistency with management's responses to our inquiries. We will not express an opinion or provide any form of assurance on the RSI. The following RSI is required by U.S. GAAP. This RSI will be subjected to certain limited procedures but will not be audited:

- 1) Management's Discussion and Analysis
- 2) Schedule of Changes in the Employer's Net Pension Liability and Related Ratios
- 3) Schedule of Employer Contributions
- 4) Schedule of Investment Returns

The Retirement System's annual report will also include introductory, investment, and actuarial sections prepared by the Retirement System that will not be subjected to the auditing procedures applied in our audit of the financial statements, and our auditor's report will not provide an opinion or any assurance on that other information.

Auditor Responsibilities

We will conduct our audit in accordance with U.S. GAAS. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the basic financial statements are free from material misstatement. An audit involves performing procedures to obtain audit evidence about the amounts and

disclosures in the basic financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the basic financial statements, whether due to fraud or error, misappropriation of assets, or violations of laws, governmental regulations, grant agreements, or contractual agreements.

An audit also includes evaluating the appropriateness of accounting policies used, and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the basic financial statements. If appropriate, our procedures will therefore, include tests of documentary evidence that support the transactions recorded in the accounts, tests of the physical existence of inventories, and direct confirmation of cash, investments, and certain other assets and liabilities by correspondence with creditors and financial institutions. As part of our audit process, we will request written representations from the Retirement System's attorneys, and they may bill the Retirement System for responding. At the conclusion of our audit, we will also request certain written representations from management about the basic financial statements and related matters.

Because of the inherent limitations of an audit, together with the inherent limitations of internal control, an unavoidable risk that some material misstatements (whether caused by errors, fraudulent financial reporting, misappropriation of assets, or violations of laws or governmental regulations) may not be detected exists, even though the audit is properly planned and performed in accordance with U.S. GAAS.

In making our risk assessments, we consider internal control relevant to the Retirement System's preparation and fair presentation of the basic financial statements in order to design audit procedures that are appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of the Retirement System's internal control. However, we will communicate to the Retirement System in writing concerning any significant deficiencies or material weaknesses in internal control relevant to the audit of the basic financial statements that we have identified during the audit. Our responsibility as auditors is limited to the period covered by our audit and does not extend to any other periods.

We cannot provide assurance that unmodified opinions will be expressed. Circumstances may arise in which it is necessary for us to modify our opinions or add emphasis-of-matter or other-matter paragraphs. If our opinions on the basic financial statements are other than unmodified, we will discuss the reasons with management in advance. If for any reason, we are unable to complete the audit or are unable to form or have not formed opinions, we may decline to express opinions or to issue a report as a result of this engagement.

Notwithstanding the unprecedented circumstances resulting from the COVID-19 outbreak, we continue to have a professional obligation to gather sufficient appropriate audit evidence in support of the Retirement System's financial statements. Travel restrictions, actual or suspected infections, work from home requirements, changes – such as work force reductions - made to accommodate the current business environments, or other similar matters may result in delays in the Retirement System employees' ability to provide us the necessary audit evidence on a timely basis or at all. Similarly, such matters may impact our own ability to collect or appropriately assess necessary audit evidence on a timely basis or at all.

Should such events occur, the Retirement System and MGO will make good faith efforts to complete alternative procedures to gather and assess necessary audit evidence. Such procedures might include, but not be limited to, our respective employees working from home, transferring more audit information via electronic modes (preferably through our secure MGO Exchange portal), and meeting virtually rather than in-person. As to audit evidence transferred via electronic modes, the Retirement System is responsible to ensure that such evidence is authentic, complete, and accurate for the purposes it is meant to serve. MGO will perform, as it deems necessary, incremental procedures to validate the authenticity, completeness, and accuracy of such audit evidence.

As necessary, we will notify management if such alternative procedures require additional efforts and, if possible, an estimate of the additional cost.

Compliance with Laws and Regulations

As previously discussed, as part of obtaining reasonable assurance about whether the basic financial statements are free of material misstatement, we will perform tests of the Retirement System's compliance with the provisions of applicable laws, regulations, contracts, and agreements. However, the objective of our audit will not be to provide an opinion on overall compliance, and we will not express such an opinion.

Management Responsibilities

Our audit will be conducted on the basis that management acknowledge and understand that they have responsibility:

- a. For the preparation and fair presentation of the basic financial statements in accordance with accounting principles generally accepted in the United States of America;
- b. For the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of basic financial statements that are free from material misstatement, whether due to error, fraudulent financial reporting, misappropriation of assets, or violations of laws, governmental regulations, grant agreements, or contractual agreements; and
- c. To provide us with:
 - i. Access to all information of which management is aware that is relevant to the preparation and fair presentation of the basic financial statements such as records, documentation, and other matters;
 - ii. Additional information that we may request from management for the purpose of the audit; and
 - iii. Unrestricted access to persons within the entity from whom we determine it necessary to obtain audit evidence.
- d. For including the auditor's report in any document containing basic financial statements that indicates that such basic financial statements have been audited by the Retirement System's auditor;
- e. For identifying and ensuring that the Retirement System complies with the laws and regulations applicable to its activities;
- f. For adjusting the basic financial statements to correct material misstatements and confirming to us in the management representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the current year period under audit are immaterial, both individually and in the aggregate, to the basic financial statements as a whole;
- g. For maintaining adequate records, selecting and applying accounting principles, and safeguarding assets;
- h. For informing us of any known or suspected fraud affecting the Retirement System involving management, employees with significant role in internal control and others where fraud could have a material effect on the financials; and
- i. For the accuracy and completeness of all information provided.

As part of our audit process, we will request from management written confirmation concerning representations made to us in connection with the audit.

Should impacts from the COVID-19 outbreak impede the ability to provide full cooperation and access, management will instead work with us in good faith to make alternative arrangements to accomplish the objectives of our audit.

Reporting

We will issue a written report upon completion of our audit of the Retirement System's basic financial statements. Our report will be addressed to the Board of Administration of the Retirement System. We cannot provide assurance that an unmodified opinion will be expressed. Circumstances may arise in which it is necessary for us to modify our opinions, add an emphasis-of-matter or other-matter paragraph(s), or withdraw from the engagement. In particular, impacts from the COVID-19 outbreak may result in our inability to properly complete the engagement or require us to include such as explanatory or emphasis paragraph in our auditor's report.

We will provide copies of our reports to the Retirement System; however, management is responsible for distribution of the reports and the basic financial statements. Unless restricted by law or regulation, or containing privileged and confidential information, copies of our reports are to be made available for public inspection.

With regards to the electronic dissemination of audited basic financial statements, including financial statements published electronically on the Retirement System's website, management understand that electronic sites are a means to distribute information and, therefore, we are not required to read the information contained in these sites or to consider the consistency of other information in the electronic site with the original document.

Other

We understand that the Retirement System's employees will prepare all confirmations we request and will locate any documents or support for any other transactions we select for testing.

If the Retirement System intends to publish or otherwise reproduce the basic financial statements and make reference to our firm, management agrees to provide us with printers' proofs or masters for our review and approval before printing. Management also agrees to provide us with a copy of the final reproduced material for our approval before it is distributed.

Provisions of Engagement Administration and Timing

Macias Gini & O'Connell LLP (MGO) is the U.S. firm of our network of separate and independent MGO firms. MGO may, in its discretion, draw on resources of its subsidiaries, its affiliates, and/or third-party contractors, in each case within or outside the United States, in connection with the provision of services. The Retirement System agrees that MGO may provide access to information it receives in connection with this agreement to our other resources. We may share confidential information about the Retirement System with these service providers, but remain committed to maintaining the confidentiality and security of the Retirement System's information. Accordingly, we maintain internal policies, procedures, and safeguards to protect the confidentiality of the Retirement System's personal information. In addition, we will secure confidentiality agreements with all service providers to maintain the confidentiality of the Retirement System's information and we will take reasonable precautions to determine that they have appropriate procedures in place to prevent the unauthorized release of the Retirement System's confidential information to others. Furthermore, we will remain responsible for the provision of the services.

In the performance of our professional services, we may communicate with each other and/or with others via email transmission. As emails can be intercepted and read, disclosed, or otherwise used by an unintended third party, we cannot guarantee that such email communication will be properly delivered and read only by the addressee. While we will use our best efforts to keep such communications secure in accordance with our obligations under applicable laws and professional standards, the Retirement System recognizes and accepts that we have no control over the unauthorized interception of these communications

once they have been sent. Therefore, the Retirement System hereby waives any liability whatsoever for any unintended interception or unintentional disclosure of email transmissions in connection with the performance of our professional services. MGO uses cloud-based computing services, including the storage of data and files, at third party, offsite, secure facilities. In that regard, the Retirement System agrees that we shall have no liability for any loss or damage to any person or entity resulting from the use of email transmissions and cloud-based computing, including any direct or indirect damages that may result from any inadvertent or unanticipated disclosure of confidential or proprietary information, or disclosure through third party criminal conduct (e.g., hackers or hacking activities).

We expect to begin our audit on approximately July 13, 2020 and to issue our reports no later than October 31, 2020. Annie Louie is the engagement partner for the audit services specified in this letter. Her responsibilities include supervising our services performed as part of this engagement and signing or authorizing another qualified firm representative to sign the audit report.

Management agree to inform us of facts that may affect the basic financial statements of which management may become aware during the period from the date of the auditor's report to the date the basic financial statements are issued.

At the conclusion of our audit engagement, we will communicate to the Board of Administration the following significant findings from the audit:

- Our view about the qualitative aspects of the entity's significant accounting practices;
- Significant difficulties, if any, encountered during the audit;
- Uncorrected misstatements, other than those we believe are trivial, if any;
- Disagreements with management, if any;
- Other findings or issues, if any, arising from the audit that are, in our professional judgment, significant and relevant to those charged with governance regarding their oversight of the financial reporting process;
- Material, corrected misstatements that were brought to the attention of management as a result of our audit procedures;
- Representations we requested from management;
- Management's consultations with other accountants, if any; and
- Significant issues, if any, arising from the audit that were discussed, or the subject of correspondence, with management.

The audit documentation for this engagement will be retained for a minimum of seven years after the report release date or for any additional period required by the System's cognizant agency. If we are aware that a federal awarding agency, pass-through entity, or auditee is contesting an audit finding, we will contact the party(ies) contesting the audit finding for guidance prior to destroying the audit documentation. Upon expiration of the seven-year period, MGO will be free to destroy our records related to this engagement. However, MGO does not keep any original client records, so we will return those to management at the completion of the services rendered under this engagement. When records are returned to management, it is management's responsibility to retain and protect the records for possible future use, including potential examination by any government or regulatory agencies.

The audit documentation for this engagement is the property of MGO and constitutes confidential information. However, we may be requested to make certain audit documentation available to a regulator or its designees pursuant to authority given to it by law or regulation, or to peer reviewers. If requested, access to such audit documentation will be provided under the supervision of MGO's personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend or decide, to distribute the copies of information contained therein to others, including other governmental agencies.

Professional and certain regulatory standards require us to be independent, in both fact and appearance, with respect to the Retirement System in the performance of our services. Any discussions that the Retirement System has with personnel of our firm regarding employment could pose a threat to our independence. Therefore, the Retirement System agrees to inform us prior to any such discussions that we can implement appropriate safeguards to maintain our independence.

Our 2018 peer review report is provided for your reference.

Engagement with MGO Affiliates

If the Retirement System has or expects to engage an affiliate of MGO (see list of affiliates below) to perform services during the audit and professional engagement period (as defined below), the Retirement System must notify MGO prior to entering into such engagement with the MGO affiliate. In addition, prior to signing this engagement letter, the Retirement System must notify MGO of any service an MGO affiliate has performed prior to the audit and professional engagement period in order for MGO to ensure our independence in relation to this engagement. The Retirement System will also be required to provide such representation within the management representation letter prior to the issuance of our report.

Audit and professional engagement period includes both:

- i. The period covered by any financial statements being audited or reviewed (the “audit period”); and
- ii. The period of the engagement to audit or review the audit client’s financial statements or to prepare a report to be issued (the “professional engagement period”):
 - a. The professional engagement period begins when MGO either signs an initial engagement letter (or other agreement to review or audit a client's financial statements) or begins audit, review, or attest procedures, whichever is first; and
 - b. The professional engagement period ends when the audit client or MGO terminate the engagement and the audit client is no longer a client of MGO.

MGO Affiliates:

- MGO Group LLC
- MGO Realty Advisors, Inc.
- MGO India Private Limited
- MGO Wealth Advisors, LLC
- MGO Technology Group, LLC
- MGO Risk Management Group LLC
- Cresta Management Services, LLC
- ELLO LLC
- ELLO Capital, LLC
- ELLO Advisors, LLC
- Fiorello, LLC
- IntelliBridge Partners LLC
- Sands Lane Capital Fund I, L.P.
- Sands Lane Capital GP I, L.L.C

Non-CPA Owner Notice Requirement

MGO is owned by professionals who hold CPA licenses as well as by professionals who are not licensed CPAs. Therefore, depending on the nature of the services being provided, non-CPA owners may be involved in providing certain services hereunder.

Please sign and return the attached copy of this letter to indicate the Retirement System's acknowledgement of, and agreement with, the arrangements for our audit of the basic financial statements include our respective responsibilities.

We appreciate the opportunity to be Retirement System's financial statement auditors and look forward to working with Retirement System.

Respectfully,

A handwritten signature in black ink that reads "Macias Gini & O'Connell LLP". The signature is written in a cursive, flowing style.

Macias Gini and O'Connell LLP

RESPONSE:

This letter correctly sets forth the understanding of the Oakland Police and Fire Retirement System. Management acknowledge and agree with the arrangements for the audit of the basic financial statements, including our respective responsibilities.

Signed: _____

Name and Title: _____

Date: _____



9250 EAST COSTILLA AVENUE, SUITE 450
GREENWOOD VILLAGE, COLORADO 80112
303-792-3020 (o) | 303-792-5153 (f)
WWW.WCRCPA.COM

Report on the Firm's System of Quality Control

October 25, 2018

To the Partners of
Macias Gini & O'Connell LLP
and the National Peer Review Committee

We have reviewed the system of quality control for the accounting and auditing practice of Macias Gini & O'Connell LLP (the firm) applicable to engagements not subject to PCAOB permanent inspection in effect for the year ended March 31, 2018. Our peer review was conducted in accordance with the Standards for Performing and Reporting on Peer Reviews established by the Peer Review Board of the American Institute of Certified Public Accountants (Standards).

A summary of the nature, objectives, scope, limitations of, and the procedures performed in a System Review as described in the Standards may be found at www.aicpa.org/prsummary. The summary also includes an explanation of how engagements identified as not performed or reported in conformity with applicable professional standards, if any, are evaluated by a peer reviewer to determine a peer review rating.

Firm's Responsibility

The firm is responsible for designing a system of quality control and complying with it to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. The firm is also responsible for evaluating actions to promptly remediate engagements deemed as not performed or reported in conformity with professional standards, when appropriate, and for remediating weaknesses in its system of quality control, if any.

Peer Reviewer's Responsibility

Our responsibility is to express an opinion on the design of the system of quality control and the firm's compliance therewith based on our review.

Required Selections and Considerations

Engagements selected for review included an engagements performed under *Government Auditing Standards*, including compliance audits under the Single Audit Act; an audit of an employee benefit plan and an examination of a service organization, SOC 1 engagement.

As a part of our peer review, we considered reviews by regulatory entities as communicated by the firm, if applicable, in determining the nature and extent of our procedures.

Opinion

In our opinion, the system of quality control for the accounting and auditing practice of Macias Gini & O'Connell LLP engagements not subject to PCAOB permanent inspection in effect for the year ended March 31, 2018, has been suitably designed and complied with to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Firms can receive a rating of *pass*, *pass with deficiency(ies)* or *fail*. Macias Gini & O'Connell LLP has received a peer review rating of *pass*.



Watson Coon Ryan, LLC



A G E N D A R E P O R T

TO: Oakland Police and Fire
Retirement Board

FROM: David Jones
Plan Administrator

SUBJECT: Audit Committee Agenda Pending List

DATE: July 20, 2020

	SUBJECT	TENTATIVE SCHEDULED MTG DATE	STATUS
1	Status Report of the Ad Hoc Committee regarding Actuarial Funding date of July 1, 2026	TBD	ON-GOING
2	Staff review of the 2006 Management Audit.	TBD	ON-GOING

Respectfully submitted,

David Jones, Plan Administrator
Oakland Police and Fire Retirement System

Pursuant to the Governor's Executive Order N-29-20, all members of the City Council, as well as the City Administrator, City Attorney and City Clerk will join the meeting via phone/video conference and no teleconference locations are required

Oakland Police and Fire Retirement Board meetings are being held via Tele-Conference. Please see the agenda to participate in the meeting. For additional information, contact the Retirement Unit by calling (510) 238-6481.



AGENDA

INVESTMENT COMMITTEE MEMBERS

Jaime T. Godfrey
Chairman

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, July 29, 2020 – 10:00 am
Tele-Conference Board Meeting
via Zoom

OBSERVE:

- To observe the meeting by video conference, please click on this link: <https://us02web.zoom.us/j/83665111281> 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,,83665111281# or +13462487799,,83665111281#
- 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/83665111281>
- Webinar ID: 836 6511 1281.
If asked for a participant ID or code, press #.

PUBLIC COMMENTS There are three ways to submit public comments.

- eComment. To send your comment directly to staff BEFORE the meeting starts, please email to Tjenkins@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
JULY 29, 2020**

- 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 Teir Jenkins, Investment Officer at Tjenkins@oaklandca.gov.

- - - ORDER OF BUSINESS - - -

- | | |
|------------------------|--|
| 1. Subject: | PFRS Investment Committee Meeting Minutes |
| From: | Staff of the PFRS Board |
| <hr/> | |
| Recommendation: | APPROVE February 26, 2020 Investment Committee meeting minutes. |
|
 | |
| 2. Subject: | Preliminary June 2020 Investment Fund Performance Update |
| From: | Meketa Investment Group |
| <hr/> | |
| Recommendation: | APPROVE a Preliminary Investment Fund Performance as of June 30, 2020. |
|
 | |
| 3. Subject: | REVIEW of the Finalists for a New Active Small Cap Domestic Equities Asset Class Investment Manager |
| From: | Meketa Investment Group |
| <hr/> | |
| Recommendation: | RECEIVE a review of an informational report summarizing finalists’ presentations from Investment Firms seeking to serve as PFRS’s new Active Small Cap Domestic Equities Asset Class Investment Manager |

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR INVESTMENT COMMITTEE MEETING
JULY 29, 2020

4. Subject: **Selection of a New Active Small Cap Domestic Equities Asset Class Investment Manager**

From: Meketa Investment Group

Recommendation: **DISCUSS** Investment Firm Presentation, **SELECT** Investment Firm to Serve as PFRS's new Active Small Cap Domestic Equities Asset Class Investment Manager and **RECOMMEND BOARD APPROVAL** of Committee's Selection.

5. Subject: **Investment Market Overview**

From: Meketa Investment Group

Recommendation: **ACCEPT** an informational report on the global investment markets through June 2020.

6. Subject: **Prospective Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio Manager Presentations**

From: Meketa Investment Group

Recommendation: **RECEIVE** presentation from the following Investment Firm regarding their qualifications to serve as the new PFRS Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio Manager

- BlackRock Investment Management Company

7. Subject: **Selection of New Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio Manager**

From: Meketa Investment Group

Recommendation: **DISCUSS** Investment Firm Presentation, **SELECT** Investment Firm to Serve as New Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio Manager for PFRS, and **RECOMMEND BOARD APPROVAL** of Committee's Selection.

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR INVESTMENT COMMITTEE MEETING
JULY 29, 2020**

8. Subject: Investment Manager Overview Parametric Portfolio Associates
From: Meketa Investment Group

Recommendation: **RECOMMEND BOARD APPROVAL** of evaluation, review, and possible watch status placement of Parametric Portfolio Associates, a PFRS Crisis Risk Offset Asset Class Investment Manager.

- 9. Schedule of Pending Investment Committee Meeting Agenda Items**
- 10. OPEN FORUM**
- 11. FUTURE SCHEDULING**
- 12. ADJOURNMENT**

AN INVESTMENT AND FINANCIAL MATTERS COMMITTEE MEETING of the Oakland Police and Fire Retirement System ("PFRS") was held February 26, 2020 in Hearing Room 1, One Frank Ogawa Plaza, Oakland, California.

Committee Members Present:

- Jaime T. Godfrey, Chairman
- R. Steven Wilkinson, Member
- Robert W. Nichelini, Member

Additional Attendees:

- David Jones, Plan Administrator
- Michael L. Smith, Acting PFRS Legal Counsel
- Teir Jenkins, Staff Members
- David Low, Staff Members
- David Sancewich, Meketa Investment Group
- Sean Copus, Meketa Investment Group

The meeting was called to order at 10:00 am. Member Wilkinson was absent from the start of the meeting and arrived at 10:08 am. Chairman Godfrey moved the agenda items order.

1. **Approval of Investment Committee meeting minutes** – Chairman Godfrey made a motion approve the January 29, 2020 Investment Committee meeting minutes, second by Member Nichelini. Motion passed.

[GODFREY – Y/ NICHELINI – Y/ WILKINSON – ABSENT]
(AYES: 2/ NOES: 0/ ABSTAIN: 0)

7. **Schedule of Pending Agenda Items** –David Sancewich reported the agenda items scheduled for the upcoming Investment Committee meeting. Chairman Godfrey asked Plan Administrator David Jones to explore how other retirement systems address proxy voting policies and report back in April or May 2020.
6. **Investment Manager Overview – SPI Strategies, LLC** – Mr. Sancewich reported that the employees and investment software of SPI Strategies was being purchased by Carillon Tower Advisors. Mr. Sancewich reported that all public funds have divested their investment asset from SPI Strategies and only PFRS remains as the sole public fund of SPI Strategies.

MOTION: Member Nichelini made a motion recommend Board approval of recommendation #3 from Meketa's memo: Terminate SPI Strategies and reallocate assets into a comparable ETF, second by Chairman Godfrey. Motion passed.

[GODFREY – Y/ NICHELINI – Y/ WILKINSON – ABSENT]
(AYES: 2/ NOES: 0/ ABSTAIN: 0)

5. **Investment Fund Performance for the Quarter Ending December 31, 2019** – The presentation of this matter was advanced to the Full Board meeting by the Committee.
4. **Investment Market Overview** – Mr. Sancewich provided an informational report on the global economic factors affecting the PFRS Fund.

MOTION: Chairman Godfrey made a motion to accept the Investment Market Overview report, second by Member Nichelini. Motion passed.

[GODFREY – Y/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 3/ NOES: 0/ ABSTAIN: 0)

5. **Prospective Active Small Cap Domestic Equities Asset Class Investment Manager Presentations** – The Investment Committee received presentations from prospective Active Small Cap Domestic Equities Asset Class Investment Managers. In order, the manager presentations were made by:

- **Brown Advisory, Inc.** (David Schuster, Greg Caron)
- **Phocas Financial Corp.** (Steve Block, William Forsyth)
- **Systematic Financial Management, LP** (Kenneth Burgess, Steven Shaw)
- **Vaughn Nelson Investment Management** (Chris Wallis, George Holewyne)

6. **Selection of New Active Small Cap Domestic Equities Asset Class Investment Manager** – David Sancewich from Meketa presented its review of the prospective Active Small Cap Domestic Equities Asset Class Investment Manager Presentations. The Committee, Staff and Meketa did not conclude which manager to recommend hiring but did agree to continue discussion of this matter at the March 2020 Investment Committee meeting. The Committee did come to the decision not to include Brown Advisory, Inc. in its future discussion or consideration as the new PFRS Investment Manager.

MOTION: Member Nichelini made a motion to continue discussion and research of the selection of New Active Small Cap Domestic Equities Asset Class Investment Manager at March 2020 Investment Committee meeting with Vaughn Nelson and Phocas Financial Corp, second by Member Wilkinson.

AMENDED MOTION: Chairman Godfrey made an amended motion to continue discussion and research of the selection of New Active Small Cap Domestic Equities Asset Class Investment Manager at March 2020 Investment Committee with meeting Vaughn Nelson, Phocas Financial Corp, and Systematic Financial Management, second by Member Nichelini. Motion passed.

[GODFREY – Y/ NICHELINI – Y/ WILKINSON – Y]
(AYES: 3/ NOES: 0/ ABSTAIN: 0)

7. **Open Forum** – No Report.
8. **Future Scheduling** – The next Investment Committee meeting was scheduled for March 25, 2020.

Adjournment of Meeting – The meeting adjourned at 12:13 pm.

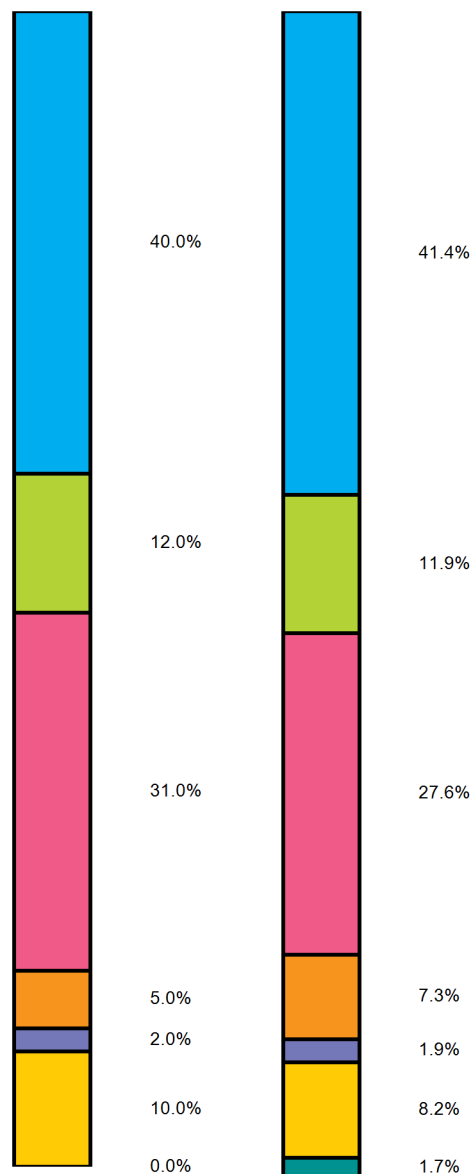
DRAFT

Oakland Police and Fire Retirement System

July 29, 2020

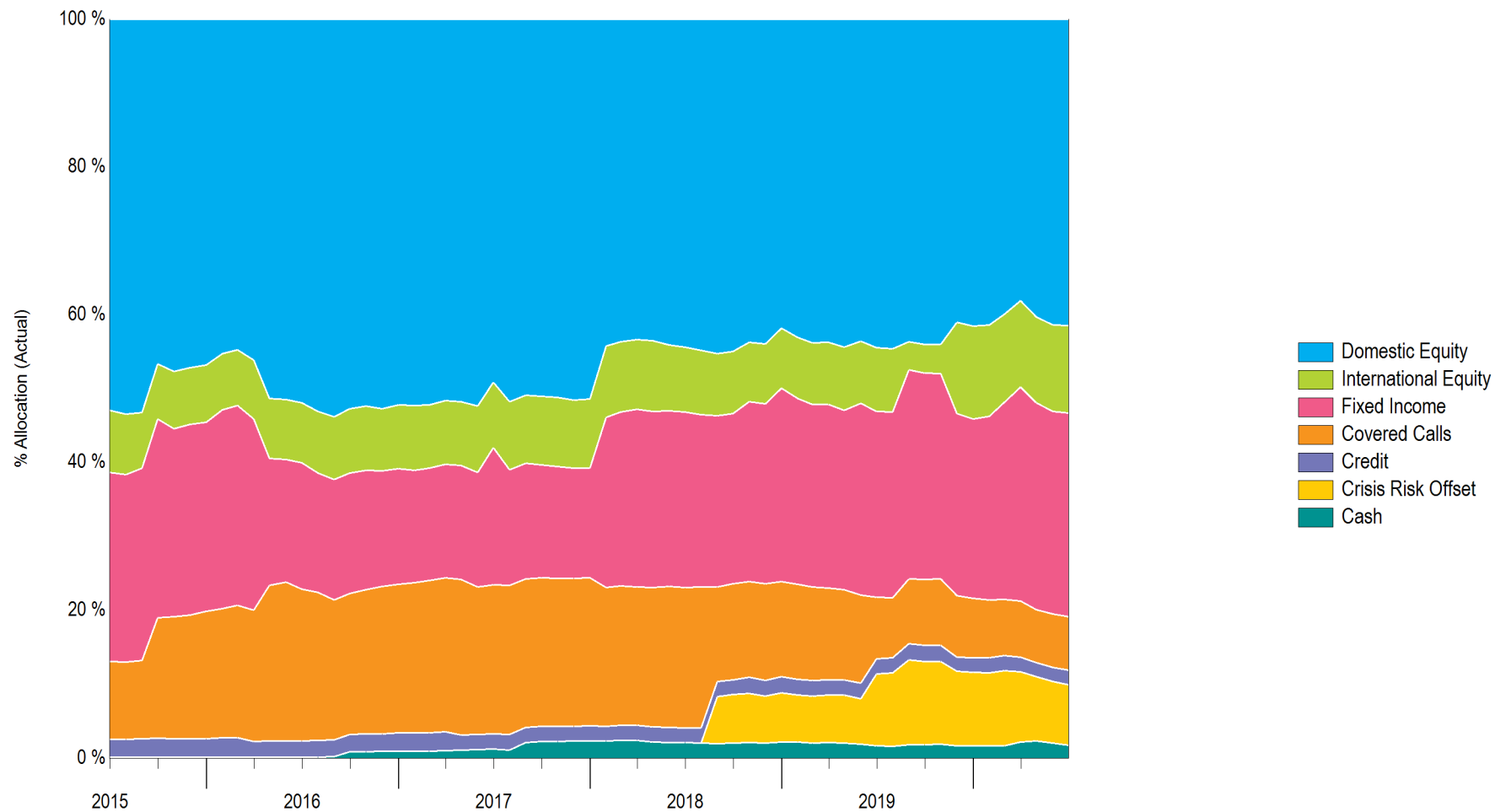
June Flash Report

OPFRS Total Plan As of June 30, 2020



Allocation vs. Targets and Policy						
	Current Balance	Current Allocation	Policy	Difference	Within IPS Range?	
Domestic Equity	\$158,832,765	41.4%	40.0%	1.4%	Yes	
International Equity	\$45,465,830	11.9%	12.0%	-0.1%	Yes	
Fixed Income	\$105,683,312	27.6%	31.0%	-3.4%	Yes	
Covered Calls	\$27,906,651	7.3%	5.0%	2.3%	Yes	
Credit	\$7,466,702	1.9%	2.0%	-0.1%	Yes	
Crisis Risk Offset	\$31,452,681	8.2%	10.0%	-1.8%	Yes	
Cash	\$6,532,794	1.7%	0.0%	1.7%	Yes	
Total	\$383,340,736	100.0%	100.0%			

Asset Allocation History
5 Years Ending June 30, 2020



Asset Class Performance Summary

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
OPFRS Total Plan	383,340,736	100.0	1.9	-4.6	2.1	6.2	6.7	8.7	6.6	Dec-88
<i>OPFRS Policy Benchmark</i>			<i>1.6</i>	<i>-1.7</i>	<i>4.6</i>	<i>6.5</i>	<i>7.0</i>	<i>8.5</i>	<i>8.1</i>	<i>Dec-88</i>
Domestic Equity	158,832,765	41.4	1.7	-5.1	3.8	9.0	9.3	13.6	8.4	Jun-97
<i>Russell 3000 (Blend)</i>			<i>2.3</i>	<i>-3.5</i>	<i>6.5</i>	<i>10.0</i>	<i>10.0</i>	<i>13.7</i>	<i>8.5</i>	<i>Jun-97</i>
International Equity	45,465,830	11.9	3.4	-11.6	-3.9	2.2	3.6	6.3	4.9	Jan-98
<i>MSCI ACWI ex US (Blend)</i>			<i>4.6</i>	<i>-10.8</i>	<i>-4.4</i>	<i>1.6</i>	<i>2.7</i>	<i>5.5</i>	<i>5.0</i>	<i>Jan-98</i>
Fixed Income	113,150,015	29.5	2.2	4.8	7.4	5.5	4.7	4.3	5.6	Dec-93
<i>Blmbg BC Universal (Blend)</i>			<i>0.8</i>	<i>5.2</i>	<i>7.9</i>	<i>5.2</i>	<i>4.4</i>	<i>4.1</i>	<i>5.5</i>	<i>Dec-93</i>
Credit	7,466,702	1.9	3.9	-6.9	-6.2	0.9	3.5	--	3.8	Feb-15
<i>BBgBarc US High Yield TR</i>			<i>1.0</i>	<i>-3.8</i>	<i>0.0</i>	<i>3.3</i>	<i>4.8</i>	<i>6.7</i>	<i>4.8</i>	<i>Feb-15</i>
Covered Calls	27,906,651	7.3	2.3	-5.7	2.0	5.7	7.3	--	7.1	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>			<i>-0.1</i>	<i>-15.1</i>	<i>-10.3</i>	<i>-0.2</i>	<i>3.0</i>	<i>6.4</i>	<i>3.5</i>	<i>Apr-14</i>
Crisis Risk Offset	31,452,681	8.2	-0.2	-20.2	-14.0	--	--	--	-9.0	Aug-18
<i>SG Multi Alternative Risk Premia Index</i>			<i>-1.5</i>	<i>-12.5</i>	<i>-11.6</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>-5.9</i>	<i>Aug-18</i>
Cash	6,532,794	1.7	0.0	1.0	2.3	2.0	1.4	--	0.7	Mar-11
<i>FTSE T-Bill 3 Months TR</i>			<i>0.0</i>	<i>0.5</i>	<i>1.6</i>	<i>1.7</i>	<i>1.2</i>	<i>0.6</i>	<i>0.6</i>	<i>Mar-11</i>

OPFRS Total Plan As of June 30, 2020

Trailing Net Performance												
	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
OPFRS Total Plan	383,340,736	100.0	--	1.9	13.1	-4.6	2.1	6.2	6.7	8.7	6.6	Dec-88
<i>OPFRS Policy Benchmark</i>				<i>1.6</i>	<i>12.0</i>	<i>-1.7</i>	<i>4.6</i>	<i>6.5</i>	<i>7.0</i>	<i>8.5</i>	<i>8.1</i>	<i>Dec-88</i>
Domestic Equity	158,832,765	41.4	41.4	1.7	22.0	-5.1	3.8	9.0	9.3	13.6	8.4	Jun-97
<i>Russell 3000 (Blend)</i>				<i>2.3</i>	<i>22.0</i>	<i>-3.5</i>	<i>6.5</i>	<i>10.0</i>	<i>10.0</i>	<i>13.7</i>	<i>8.5</i>	<i>Jun-97</i>
Northern Trust Russell 1000	91,148,347	23.8	57.4	2.2	21.8	-2.9	7.4	10.6	10.5	13.9	13.2	Jun-10
<i>Russell 1000</i>				<i>2.2</i>	<i>21.8</i>	<i>-2.8</i>	<i>7.5</i>	<i>10.6</i>	<i>10.5</i>	<i>14.0</i>	<i>13.2</i>	<i>Jun-10</i>
EARNEST Partners	31,959,060	8.3	20.1	0.8	23.8	-5.4	3.1	10.0	11.0	14.1	9.4	Apr-06
<i>Russell MidCap</i>				<i>1.8</i>	<i>24.6</i>	<i>-9.1</i>	<i>-2.2</i>	<i>5.8</i>	<i>6.8</i>	<i>12.3</i>	<i>7.8</i>	<i>Apr-06</i>
Vanguard Russell 2000 Value	6,549,328	1.7	4.1	2.7	18.8	-23.2	--	--	--	--	-17.0	Aug-19
<i>Russell 2000 Value</i>				<i>2.9</i>	<i>18.9</i>	<i>-23.5</i>	<i>-17.5</i>	<i>-4.3</i>	<i>1.3</i>	<i>7.8</i>	<i>-17.6</i>	<i>Aug-19</i>
Rice Hall James	11,728,340	3.1	7.4	3.9	37.3	-2.5	2.1	--	--	--	6.9	Jul-17
<i>Russell 2000 Growth</i>				<i>3.8</i>	<i>30.6</i>	<i>-3.1</i>	<i>3.5</i>	<i>7.9</i>	<i>6.9</i>	<i>12.9</i>	<i>7.9</i>	<i>Jul-17</i>
iShares Edge MSCI Min Vol	17,447,691	4.6	11.0	-1.1	12.8	--	--	--	--	--	12.8	Mar-20
<i>S&P 500</i>				<i>2.0</i>	<i>20.5</i>	<i>-3.1</i>	<i>7.5</i>	<i>10.7</i>	<i>10.7</i>	<i>14.0</i>	<i>5.7</i>	<i>Mar-20</i>
International Equity	45,465,830	11.9	11.9	3.4	13.8	-11.6	-3.9	2.2	3.6	6.3	4.9	Jan-98
<i>MSCI ACWI ex US (Blend)</i>				<i>4.6</i>	<i>16.3</i>	<i>-10.8</i>	<i>-4.4</i>	<i>1.6</i>	<i>2.7</i>	<i>5.5</i>	<i>5.0</i>	<i>Jan-98</i>
Vanguard Developed Markets	13,341,703	3.5	29.3	3.4	16.5	-11.0	--	--	--	--	-0.6	Sep-19
<i>MSCI ACWI ex USA Gross</i>				<i>4.6</i>	<i>16.3</i>	<i>-10.8</i>	<i>-4.4</i>	<i>1.6</i>	<i>2.7</i>	<i>5.5</i>	<i>-0.2</i>	<i>Sep-19</i>
iShares MSCI ACWI exUS ETF	31,683,417	8.3	69.7	3.4	13.2	-10.9	--	--	--	--	-10.4	Dec-19
<i>MSCI ACWI ex USA Gross</i>				<i>4.6</i>	<i>16.3</i>	<i>-10.8</i>	<i>-4.4</i>	<i>1.6</i>	<i>2.7</i>	<i>5.5</i>	<i>-6.9</i>	<i>Dec-19</i>

International equity performance inclusive of residual cash in Fisher and Hansberger transition accounts.

OPFRS Total Plan As of June 30, 2020

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Fixed Income	113,150,015	29.5	29.5	2.2	6.2	4.8	7.4	5.5	4.7	4.3	5.6	Dec-93
<i>Blmbg BC Universal (Blend)</i>				<i>0.8</i>	<i>3.8</i>	<i>5.2</i>	<i>7.9</i>	<i>5.2</i>	<i>4.4</i>	<i>4.1</i>	<i>5.5</i>	<i>Dec-93</i>
Ramirez	76,852,455	20.0	67.9	2.1	5.8	3.5	6.2	5.2	--	--	5.2	Jan-17
<i>BBgBarc US Aggregate TR</i>				<i>0.6</i>	<i>2.9</i>	<i>6.1</i>	<i>8.7</i>	<i>5.3</i>	<i>4.3</i>	<i>3.8</i>	<i>5.2</i>	<i>Jan-17</i>
Reams	28,830,813	7.5	25.5	2.1	9.0	15.7	18.3	8.8	6.4	5.4	6.1	Feb-98
<i>Blmbg BC Universal (Blend)</i>				<i>0.8</i>	<i>3.8</i>	<i>5.2</i>	<i>7.9</i>	<i>5.2</i>	<i>4.4</i>	<i>4.1</i>	<i>5.2</i>	<i>Feb-98</i>
Credit	7,466,702	1.9	1.9	3.9	10.7	-6.9	-6.2	0.9	3.5	--	3.8	Feb-15
<i>BBgBarc US High Yield TR</i>				<i>1.0</i>	<i>10.2</i>	<i>-3.8</i>	<i>0.0</i>	<i>3.3</i>	<i>4.8</i>	<i>6.7</i>	<i>4.8</i>	<i>Feb-15</i>
DDJ Capital	7,466,702	1.9	100.0	3.9	10.7	-6.9	-6.2	0.9	3.5	--	3.8	Feb-15
<i>ICE BofA High Yield Master TR</i>				<i>1.0</i>	<i>9.6</i>	<i>-4.8</i>	<i>-1.1</i>	<i>3.0</i>	<i>4.6</i>	<i>6.5</i>	<i>4.6</i>	<i>Feb-15</i>
Covered Calls	27,906,651	7.3	7.3	2.3	15.9	-5.7	2.0	5.7	7.3	--	7.1	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>				<i>-0.1</i>	<i>9.1</i>	<i>-15.1</i>	<i>-10.3</i>	<i>-0.2</i>	<i>3.0</i>	<i>6.4</i>	<i>3.5</i>	<i>Apr-14</i>
Parametric BXM	12,885,520	3.4	46.2	2.7	11.9	-7.7	-1.9	3.2	5.4	--	5.4	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>				<i>-0.1</i>	<i>9.1</i>	<i>-15.1</i>	<i>-10.3</i>	<i>-0.2</i>	<i>3.0</i>	<i>6.4</i>	<i>3.5</i>	<i>Apr-14</i>
Parametric DeltaShift	15,021,131	3.9	53.8	1.9	19.6	-3.8	5.7	8.2	8.8	--	9.3	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>				<i>-0.1</i>	<i>9.1</i>	<i>-15.1</i>	<i>-10.3</i>	<i>-0.2</i>	<i>3.0</i>	<i>6.4</i>	<i>3.5</i>	<i>Apr-14</i>
Crisis Risk Offset	31,452,681	8.2	8.2	-0.2	-2.6	-20.2	-14.0	--	--	--	-9.0	Aug-18
<i>SG Multi Alternative Risk Premia Index</i>				<i>-1.5</i>	<i>-4.3</i>	<i>-12.5</i>	<i>-11.6</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>-5.9</i>	<i>Aug-18</i>
Parametric Systematic Alternative Risk Premia	15,704,669	4.1	49.9	-0.8	-4.7	-41.2	-35.1	--	--	--	-21.1	Aug-18
<i>SG Multi Alternative Risk Premia Index</i>				<i>-1.5</i>	<i>-4.3</i>	<i>-12.5</i>	<i>-11.6</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>-5.9</i>	<i>Aug-18</i>
Vanguard Long-Term Treasury ETF	15,748,012	4.1	50.1	0.3	-0.4	20.8	24.9	--	--	--	24.9	Jul-19
<i>BBgBarc US Govt Long TR</i>				<i>0.1</i>	<i>0.3</i>	<i>21.0</i>	<i>25.1</i>	<i>12.0</i>	<i>9.2</i>	<i>7.7</i>	<i>25.1</i>	<i>Jul-19</i>
Cash	6,532,794	1.7	1.7	0.0	0.0	1.0	2.3	2.0	1.4	--	0.7	Mar-11
<i>FTSE T-Bill 3 Months TR</i>				<i>0.0</i>	<i>0.1</i>	<i>0.5</i>	<i>1.6</i>	<i>1.7</i>	<i>1.2</i>	<i>0.6</i>	<i>0.6</i>	<i>Mar-11</i>
Cash	161,794	0.0	2.5	0.0	0.1	1.2	2.4	2.1	1.5	--	0.8	Mar-11
<i>FTSE T-Bill 3 Months TR</i>				<i>0.0</i>	<i>0.1</i>	<i>0.5</i>	<i>1.6</i>	<i>1.7</i>	<i>1.2</i>	<i>0.6</i>	<i>0.6</i>	<i>Mar-11</i>
Cash - Treasury	6,371,000	1.7	97.5									

OPFRS Total Plan As of June 30, 2020
Cash Flow Summary
Month to Date

	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
Cash	\$143,866	\$17,870	\$58	\$161,794
Cash - Treasury	\$7,372,000	-\$1,001,000	\$0	\$6,371,000
DDJ Capital	\$7,186,994	\$0	\$279,708	\$7,466,702
EARNEST Partners	\$31,693,066	\$0	\$265,994	\$31,959,060
Fisher Transition	\$81,862	-\$3,081	\$788	\$79,570
Hansberger Transition	\$221,077	\$137,572	\$2,491	\$361,141
iShares Edge MSCI Min Vol	\$17,643,555	\$0	-\$195,864	\$17,447,691
iShares MSCI ACWI exUS ETF	\$30,652,349	\$0	\$1,031,068	\$31,683,417
Northern Trust Russell 1000	\$89,189,039	\$0	\$1,959,307	\$91,148,347
Parametric BXM	\$12,544,898	\$0	\$340,622	\$12,885,520
Parametric DeltaShift	\$14,746,498	\$0	\$274,633	\$15,021,131
Parametric Systematic Alternative Risk Premia	\$15,824,939	\$0	-\$120,270	\$15,704,669
Ramirez	\$75,245,568	\$0	\$1,606,888	\$76,852,455
Reams	\$28,247,441	\$0	\$583,372	\$28,830,813
Reams Low Duration	\$44	\$0	\$0	\$44
Rice Hall James	\$11,284,228	\$0	\$444,112	\$11,728,340
Securities Lending Northern Trust	\$0	-\$14,789	\$14,789	\$0
Vanguard Developed Markets	\$12,900,240	\$0	\$441,464	\$13,341,703
Vanguard Long-Term Treasury ETF	\$15,695,107	\$0	\$52,905	\$15,748,012
Vanguard Russell 2000 Value	\$6,377,603	\$0	\$171,724	\$6,549,328
Total	\$377,050,374	-\$863,428	\$7,153,790	\$383,340,736

Benchmark History
As of June 30, 2020
Total Plan x Securities Lending x Reams LD Exception Comp

1/1/2019	Present	40% Russell 3000 / 12% MSCI ACWI ex USA Gross / 33% BBgBarc US Universal TR / 5% CBOE BXM / 6.7% SG Multi Alternative Risk Premia Index / 3.3% BBgBarc US Treasury Long TR
5/1/2016	12/31/2018	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% BBgBarc US Universal TR / 20% CBOE BXM
10/1/2015	4/30/2016	43% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% BBgBarc 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% BBgBarc 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% BBgBarc 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% BBgBarc 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% BBgBarc US Universal TR
4/1/2006	9/30/2007	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% BBgBarc US Universal TR
1/1/2005	3/31/2006	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% BBgBarc US Aggregate TR
4/1/1998	12/31/2004	50% BBgBarc 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% BBgBarc US Aggregate TR / 5% FTSE T-Bill 3 Months TR

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MEMORANDUM

TO: Oakland Police and Fire Retirement System (OPFRS)
FROM: David Sancewich - Meketa Investment Group
DATE: July 29, 2020
RE: US Small Cap Value Search Update

Summary

At the February 26, 2020 OPFRS investment committee meeting, the trustees and those in attendance, interviewed four candidates for a small cap value mandate. This search was being conducted to find a replacement for the portfolio that was previously managed by NWQ. Following the interviews, the PFRS board asked Meketa to compile additional information on diversity at each of the finalist firms so that the board could make a better informed decision. At the June 24, 2020 OPFRS Board meeting, the Board members received a refresher memo on the small cap value search that had been disrupted by the COVID-19 crisis. This memo provides the requested information on diversity at each of the four finalists.

The four firms that were interviewed by OPFRS Investment Committee, were:

Interviewed Finalists¹:

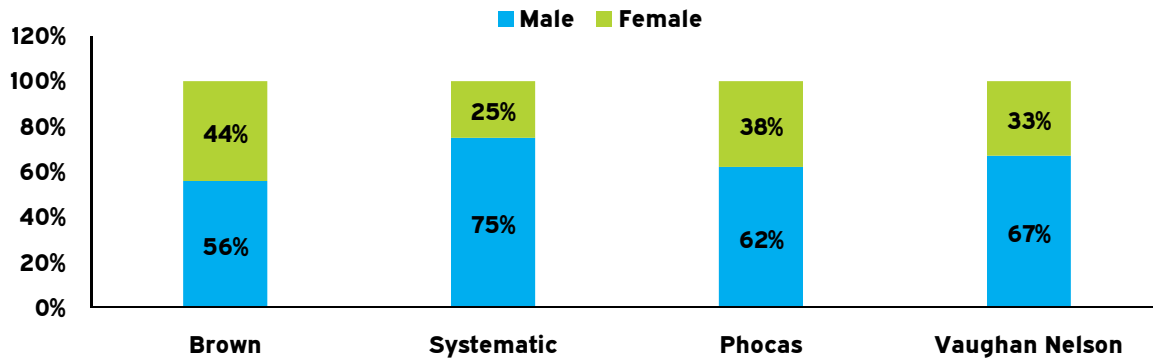
1. Brown Advisory - Small Cap Fundamental Value
2. Phocas - Small Cap Value Equity
3. Systematic - Small Cap Value Free Cash Flow
4. Vaughn Nelson - Small Cap Value

The new Small Cap Value equity manager will be allocated a total of approximately \$10 million.

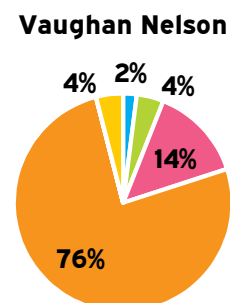
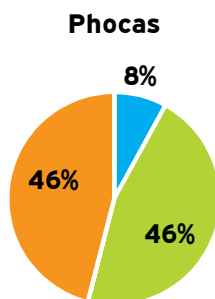
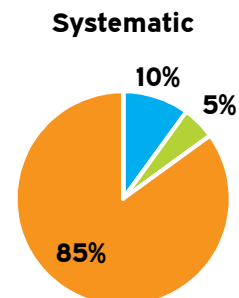
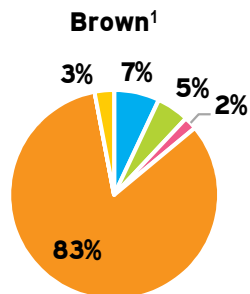
¹ Alphabetical.

Firmwide Diversity¹

Firmwide Gender Diversity



Firmwide Racial/Ethnic Diversity

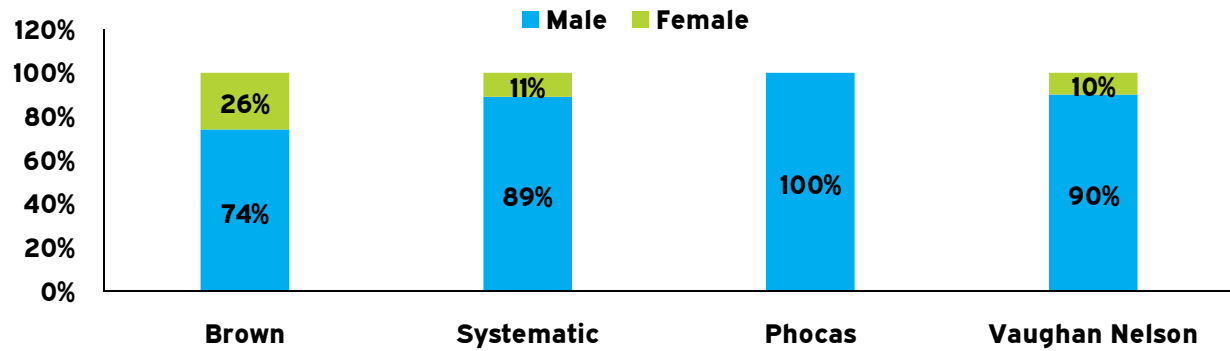


¹ Data as of 6/30/2020, provided by Managers.

² Brown data is as of 3/31/2020.

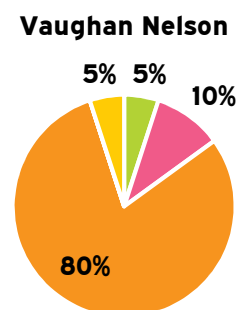
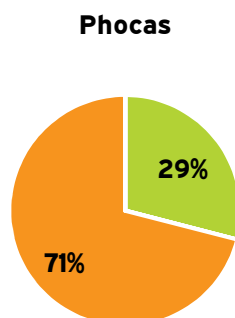
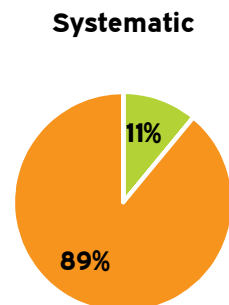
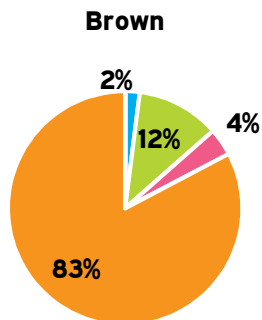
Diversity Among Investment Professionals

Gender Diversity Among Investment Professionals



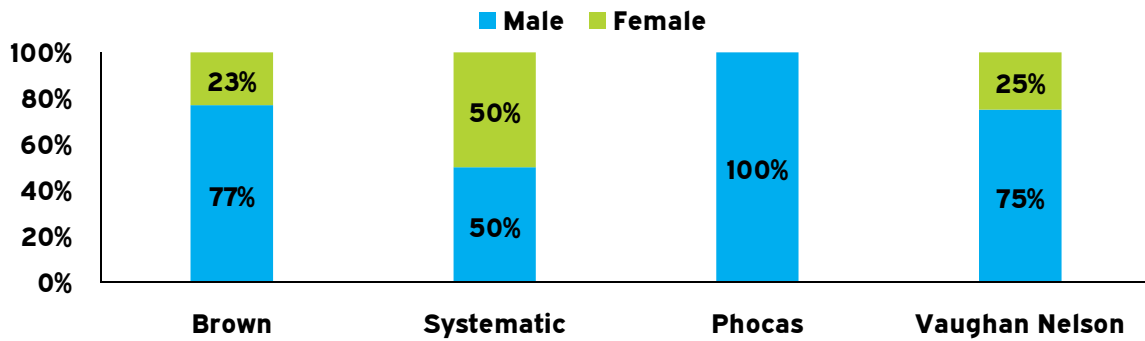
Racial/Ethnic Diversity Among Investment Professionals

- African American/Black
- Asian/Hawaiian/Pacific Islander
- Latino/Hispanic
- White
- American Indian/Alaska Native
- Other/Two or More Races

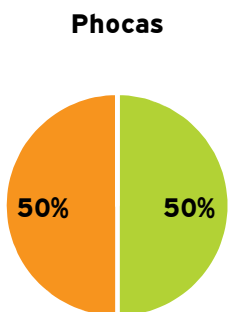
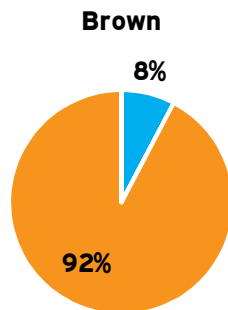


Diversity at Firm Leadership

Gender Diversity in Leadership



Racial/Ethnic Diversity in Leadership



Oakland Police and Fire Retirement System

Small Cap Value
Manager Search

1. Manager Candidates
2. Historical Performance, Portfolio Characteristics, and Management Fees
3. Appendix

Background

- In the third quarter of 2019, an RFP was issued on behalf of OPFRS. As a result of the RFP, Meketa received a total of 56 responses from 55 firms for the Small Cap Value mandate. Meketa evaluated the RFPs and analyzed performance, risk data, and other qualitative factors from each of the responding firms. Based on both qualitative and quantitative analysis, Meketa narrowed the field to a shortlist of eight managers.
- At the January 29, 2019 OPFRS board meeting, Meketa discussed narrowing the field to finalist candidates to present to the OPFRS Investment Committee.
- This document provides a summary of the search process and highlights four strategies for the Board's consideration.
 - Brown: Small Cap Fundamental Value
 - Phocas: Small Cap Value
 - Systematic: Small Cap Value Free Cash Flow
 - Vaughn Nelson: Small Cap Value

Introduction

Selecting strong and appropriate investment managers is a key determinant of the overall success of the Plan. Investment managers are expected to operate within a client's investment guidelines and are given a large degree of latitude to achieve the investment objective.

Manager selection is a nuanced process and requires extensive due diligence. When selecting prospective active managers, Meketa evaluates the following areas:

- Organization
- Investment Team
- Investment Philosophy
- Investment Process
- Investment Performance
- Management Fees

In addition, all managers are evaluated within the context of the Plan's overall investment policy.

Manager Candidates

Investment Manager Overview

	Brown Advisory	Phocas	Systematic	Vaughan Nelson
Firm Location	Baltimore, MD	Alameda, CA	Teaneck, NJ	Houston, TX
Firm Inception	1993	2005	1982	1970
Ownership Structure	70% employee-owned / 30% owned by Brown Advisory board members and a small group of clients and investors	100% employee-owned, including 66% minority-owned	100% owned by Affiliated Managers Group	100% owned by Natixis
Strategy Name	Small Cap Fundamental Value	Small Cap Value Equity	Small Cap Value Free Cash Flow	Small Cap Value
Strategy Inception	January 2009	May 2006	January 1993	April 1997
Assets Under Management (Strategy)	\$1.7 billion	\$742.1 million	\$2.4 billion	\$3.2 billion
Asset Under Management (Firm)	\$81.3 billion	\$905.7 million	\$2.9 billion	\$13.1 billion

Phocas

Organization

- Phocas Financial (“Phocas”) is a boutique value manager based in Alameda, CA. The firm was founded in April 2005 by William Schaff. Phocas is 100% owned by four employees. Phocas is 66% minority-owned by Mr. Schaff and Kevin Granger, both of whom are of Asian descent.
- Phocas has \$905.7 million in assets under management. The Small Cap Value strategy comprises the lion’s share of the firm’s asset base with \$742.1 million in the strategy. Capacity for Small Cap Value is approximately \$1.25 billion.

Phocas

Investment Team

- The investment team consists of three portfolio managers – William Schaff, Steve Block, and James Murray. The three portfolio managers have worked together since 1999. Messrs. Block and Murray joined Mr. Schaff at Phocas in 2005 shortly after Mr. Schaff started the firm. The three previously worked together at Bay Isle Financial, a firm Mr. Schaff founded in 1986 which was subsequently acquired by Janus. They managed a small cap value strategy while at Bay Isle.
- William Schaff is the key decision maker on the team and is in his early 60s. Mr. Schaff started in the investment industry in 1986 when he founded Bay Isle Financial, where he managed institutional equity portfolios and mutual funds, including a small cap value strategy. Mr. Schaff was President and Chief Investment Officer of Bay Isle before it became a fully owned subsidiary of Janus Capital. He subsequently started Phocas in 2005. Mr. Schaff earned his Masters' degree in Engineering from the University of California, Davis, and hold the CFA designation.
- Mr. Block has been a co-portfolio manager of the Phocas Small Cap Value product since its inception. From 1996 to 2005, he worked at Bay Isle. Prior to joining Bay Isle, he served as Senior Financial Analyst for two years in M&T Bank's corporate finance department. He also spent three years as an employee benefit plan actuarial consultant for Howard Johnson & Company. Mr. Block received his M.B.A. from the University of Michigan's Ross School of Business and his B.A. in Quantitative Economic Decision Science from University of CA San Diego.

Phocas**Investment Team (continued)**

- Mr. Murray co-manages the Phocas REIT portfolio. Given the significant weighting of REITs in the Russell 2000 Value Index, he supports the Small Cap Value strategy. From 1999 to 2005, Mr. Murray was the trader and senior REIT analyst for Bay Isle. Mr. Murray earned his B.A. degree in economics from Kenyon College. He holds the CFA designation.
- The three portfolio managers are supported by two research analysts. Justin Wallace started his career in the investment industry in 2006 and joined Phocas in 2013. Terry Cheng started in the investment industry in 2015 and joined Phocas in 2016.
- Mr. Schaff affords the experienced team significant autonomy. Mr. Murray covers the REITs sector, while Mr. Block covers Financials and parts of the Industrials sector. They each have primary say on names that go into the portfolio in these sectors. Mr. Wallace covers the Consumer Discretionary sector and Machine and Defense industries. Mr. Cheng covers Health Care and parts of the semiconductor and capital equipment industries. Mr. Schaff works in concert with other team members on decisions relating to the Technology, Consumer, and Health Care sectors. Mr. Schaff fully controls what Energy names get into the portfolio.

Phocas

Investment Philosophy

- Phocas follows a combination of a traditional value and relative value investment approach. The team will own higher quality stocks that they buy at a discount and then hold as the intrinsic value grows. Although they purchase the cheapest stocks in each industry group, they are not deep value investors. However, they will own some stocks that are mean reversion plays and that lack intrinsic value growth.
- The investment team is index aware. They believe in managing a diversified portfolio (about 100 stocks), staying relatively close to the sector weights in the Russell 2000 Value index (+/-3%) and adding value through stock selection.
- Phocas takes a long-term view and has an average total annual turnover of 40-60%.

Phocas

Investment Process

- The first step is to screen all stocks with market caps between \$250 million and \$5 billion for sufficient liquidity for a \$1.2 billion portfolio. Low profitability companies and highly leveraged companies are also eliminated. The investment team focuses on the cheapest stocks in each industry group, typically the bottom three deciles.
- The team performs due diligence on candidate companies of interest. Research includes a review of relevant filings, including 10-Ks, 10-Qs, annual reports, and earnings releases. The portfolio managers will speak with management, but do not necessarily visit the companies. They attend industry conferences to obtain insights on trends and company specific issues.
- The goal of the due diligence process is to identify companies with attractive valuations, sound or improving profitability, and low or declining debt ratios.
- Apart from price appreciation or faltering fundamentals, price targets, per se, are not used in this process. Valuations revolve around a stock's evolving decile ranking relative to its respective GICS peers.
- Although Mr. Schaff is the lead portfolio manager, he and Mr. Block jointly make investment decisions.
- Phocas targets portfolios to contain 100 holdings, within a range of 90 to 120 holdings, unequally weighted. Individual positions rarely exceed 2% of the portfolio and never exceed 5%. Individual security positions are routinely reduced when they appreciate to over 3% of portfolio value.
- Stocks are sold when, according to the same valuations used to purchase them, their decile ranking climbs three levels above their decile at the time they were purchased.

Brown Advisory

Organization

- Brown Advisory was founded in January 1993 as the investment management arm of Alex, Brown & Sons, a Baltimore-based investment bank. In 1998, Brown Advisory became an independent firm through an employee-led buyout.
- Brown Advisory is majority employee-owned. Current employees hold 70% of the company's equity. The firm's Board of Directors and a small group of clients and investors own the remaining 30%. Brown's management believes that broad equity distribution is critical to maintaining the firm's collegial culture.
- Brown manages \$81.3 billion in assets as of 12/31/2019. It has eight equity products, both value and growth, and one fixed income strategy. The firm's institutional large cap growth strategy is the most meaningful with two-thirds of the assets. The Small Cap Value strategy has \$1.7 billion in AUM.

Brown Advisory**Investment Team**

- David Schuster has been the portfolio manager of the Small Cap Fundamental Value portfolio since the strategy's inception in 1/09. He is a shareholder of the firm. Prior to joining Brown, Mr. Schuster was a managing director for the Financial Institutions Merger & Acquisition/Advisory Group of Citigroup and a managing director in the M&A practice of Lazard Freres. After earning a BSBA from Georgetown University (1992), Mr. Schuster briefly worked as an accountant at Deloitte. He also was an officer and M1A1 tank platoon leader in the United States Army.
- Michael Poggi, CFA, is the strategy's associate portfolio manager and an equity analyst. Mr. Poggi joined Brown Advisory in 2003. He covers the industrials and media sectors. He earned a BSBA from the University of Richmond (2003).
- Brown Advisory has 27 sector-focused analysts organized in a central research structure. The analysts support all the portfolio managers, both value and growth. Each strategy also has an informal "working group" that consists of a sub-set of analysts from the central research team who participate in weekly meetings to discuss new ideas and provide updates on existing holdings for the specific strategy. Each central research team member is part of 2-3 working groups. Small Cap Fundamental Value's working groups consists of five analysts who started in the investment industry between 2001 and 2011 and who joined Brown between 2011 and 2017. These individuals tend to be value-oriented and have corporate finance backgrounds. Messrs. Schuster and Poggi along with the working group cover ~95% of the portfolio. The firm also has an associate analyst program in which individuals are hired after they complete college. This program enables Brown to develop analysts internally.

Brown Advisory

Investment Philosophy

- The basic belief underlying the investment strategy is that attractive risk-adjusted returns are achievable over time by investing in companies with sustainable free cash flow and management teams that effectively allocate capital. Good capital allocators will use cash flow to enhance shareholder value.
- The investment team focuses on the inefficiencies in the small cap market that stem from a lack of analyst coverage and investor interest and result in overlooked, attractively valued investment opportunities. These valuation disconnects provide a margin of safety and potential upside in the stock. Mr. Schuster wants to make money in a stock through the closure of the valuation gap and the growth of cash flows.
- Mr. Schuster views growth in a company's cash flow as an important part of the potential total return. The team looks for companies in which the reported GAAP net income differs materially from free cash flow.
- Brown's investment team evaluates businesses the same way as a potential acquirer. They are long-term oriented with a 3-5 year investment horizon.

Brown Advisory

Investment Process

- Investment ideas come from quantitative screens, investment conferences, company visits, and the industry specific knowledge of the analysts. Ideas emanate from the analysts, and Mr. Schuster will push ideas to the team. The team also monitors corporate actions for potential investment ideas. These often present attractive investment opportunities before they become more familiar to the market.
- The investment team follows up on the best potential ideas. The primary purpose of the team's research is to understand the key attributes of each business. The focal points of their analysis are a company's ability to generate sustainable free cash flow and the effectiveness of management's capital allocation decisions.
- Multiple analysts will often perform due diligence on an idea. Analyzing and modeling financial statements, on-site visits, and reviewing market research are all important components of the research process. The team evaluates business drivers, the competitive landscape, pricing pressures from both suppliers and customers, and historic and projected uses of capital that contribute to a company's fundamental earnings power. The team also leverages the firm's extensive network of venture capital and private equity relationships, clients, directors and outside shareholders.

Brown Advisory**Investment Process (continued)**

- Mr. Schuster is heavily involved with the research process. In addition to a lot of informal interaction, he holds two formal meetings with the investment team each week. The Monday morning meeting is a review of the portfolio with company updates. The second meeting on Friday afternoon is called the After Action Review (AAR). A post-mortem is performed on all the stocks that have been sold, both winners and losers, in order to understand if the investment team was right for the right reasons or right, but for the wrong reasons (i.e. luck vs. skill).
- Mr. Schuster typically looks for an initial reward-to-risk of 2:1 when a stock is purchased. At some point, the levers a company can pull are reduced, and the valuation multiple peaks. These stocks become a source of cash. Mr. Schuster has little tolerance for disappointments. Stocks that do not meet expectations are sold quickly. Name turnover is usually about 25%, while total portfolio turnover is normally 30% to 40%.
- Risk is defined as the permanent loss of capital. When considering the purchase of a stock, Mr. Schuster will wait for a more attractive price if the possibility of capital loss is too great. He also determines common risk exposures across the portfolio.
- The portfolio is moderately concentrated and constructed using a bottom-up stock-by-stock process. The number of holdings has fluctuated between the low 50s and high 60s. The top ten positions usually comprise about 35% of the portfolio with the largest position approaching 5%. Mr. Schuster is benchmark aware, not benchmark driven. Sector weights in the portfolio can be very different from the benchmark, but if there is a large underweight compared to the index, he will re-evaluate the sector and ask the analysts if they are missing ideas in their areas of coverage.

Systematic Financial Management

Organization

- Systematic Financial Management (“Systematic”) was founded in December 1982 in Teaneck, NJ. The firm focuses on value-oriented equity strategies and offers both US and international equity products.
- Systematic is a wholly-owned affiliate of Affiliated Managers Group (“AMG”), a publicly traded global asset management company (NYSE: AMG). AMG owns stakes in 35 affiliate investment boutiques with aggregate assets under management of \$732 billion as of 9/30/2019. The company arranges revenue share agreements with its managers. AMG offers centralized business functions if desired by its affiliates, but allows investment teams autonomy in managing both their portfolios and their businesses.
- Systematic manages \$2.9 billion in assets as of 12/31/2019, including \$2.4 billion in Small Cap Value Free Cash Flow. The firm also manages a SMID Cap Value Free Cash Flow portfolio that follows the same investment approach as its Small Cap Value Free Cash Flow brethren and has \$180 million in AUM.

Systematic Financial Management

Investment Team

- Portfolio manager Kenneth Burgess leads the investment team. Mr. Burgess has spent his entire investment career at Systematic, which he joined in 1993. He has managed the Small Cap Value Free Cash Flow strategy since 1996, and he became a partner of the firm in 1997. Mr. Burgess also manages the SMID Cap Value Free Cash Flow strategy with the same investment team. Mr. Burgess studied as an undergraduate at New Hampshire College (now Southern New Hampshire University). He is a CFA Charterholder.
- Mr. Burgess is supported by a team of five analysts who joined the firm between 2004 and 2008. These individuals each cover multiple sectors. Most sectors are covered by at least one analyst. Ryan Wick joined Systematic in 2005. He began his investment career in 1999 at ABM Amro as an associate equity research analyst. Prior to joining Systematic, Mr. Wick was an equity analyst with Axe-Houghton Associates. Rick Plummer joined Systematic in 2004. He started his investment career in 1994 at Value Line, where he served as a senior industry analyst and lead editor of the firm's daily supplemental stock reports. Christopher Lippincott joined Systematic in 2008. He began his investment career in 1996 at Alexander, Wescott & Co. as an equity analyst. In 2000, he joined Keybank Capital Markets as a senior equity analyst. Prior to joining Systematic, he was a senior industry analyst at Standard & Poor's. Matthew Tangel joined Systematic in 2008. Previously, he worked at FactSet Research Systems for two years. Brian Kostka joined Systematic in 2007. Previously, he was an equity analyst with Estabrook Capital. He started his investment career in 2004 at UBS Investment Research.

Systematic Financial Management

Investment Philosophy

- Mr. Burgess believes that the value of a company is determined by the stream of cash flows that it will generate, and that the company's value will eventually be recognized by the market. He focuses the team on companies with sustainable and predictable cash flows.
- The team emphasizes companies with strong balance sheets, including low leverage, low capital intensity, and strong cash flow debt coverage. The team conducts credit-type analysis of target companies. By focusing on financial strength, Mr. Burgess is trying to avoid large detractors.
- The investment team holds businesses for the long-term to let the cash flows compound. The portfolio has an average holding period of five plus years and average annual turnover of ~20%.

Systematic Financial Management

Investment Process

- The investment process begins with a quantitative screen of the Russell 2000 index. The screen's metrics are largely cash flow and balance sheet based including price/operating cash flow, price/free cash flow, enterprise value/free cash flow, total debt to capitalization, and debt coverage.
- This quantitative screen narrows the investable universe to 400 stocks, which the team refers to as the "Research Focus List." Analysts then fundamentally analyze the target companies. They begin by reviewing the business model. They attempt to identify and understand the key business attributes in order to assess the sustainability of the business model. They also review and analyze company management and its strategy for executing the business model. Meeting with company management is a key element of the due diligence process.
- If the business model appears promising, then the analyst constructs a financial model. The model generates forecasts for revenues, expenses, margins, profitability, operating cash flow, free cash flow, and capital spending. The analyst models years 1 through 4. In year 5 and beyond, he/she tries to determine the sustainable growth rate of the cash flow. "Normalized" free cash flow is ultimately what the analyst is trying to derive.

Systematic Financial Management

Investment Process (continued)

- The team then uses this information to value the company. The analyst will value the company both by applying appropriate cash flow multiples, focusing on enterprise value to EBITDA, and using the output of the discounted cash flow (DCF) model. If a stock is trading at least at a 15% discount to the team's intrinsic value estimate, then it is eligible for inclusion in the portfolio. They will typically look for catalysts to close the valuation gap. Mr. Burgess makes final investment decisions.
- The final portfolio will hold 100 to 150 stocks. Position sizes are limited to 5% of the total portfolio.

Vaughan Nelson

Organization

- Founded in 1970, Vaughan Nelson (VN) is a Houston, Texas based asset manager. Vaughan Nelson has been wholly owned by Natixis Global Asset Management, a large French asset management company, since 1996. Natixis owns more than twenty specialized investment managers throughout the world. Natixis allows each manager to operate autonomously and to manage its own strategies while providing operational and marketing support. Each manager controls its income statement.
- The majority of the firm's \$13.1 billion in assets are in three US equity products. The Small Cap Value strategy has \$3.2 billion. The firm also manages two fixed income strategies and recently lifted out an international equity team from Advisory Research.

Vaughan Nelson

Investment Team

- CIO and Lead PM Chris Wallis leads the Small Cap Value investment team. Mr. Wallis performs company level research, provides macroeconomic insights, and is the final decision maker for the Small Cap Value portfolio. He joined Vaughan Nelson in 1999 and started in the investment industry in 1991. Before coming to Vaughan Nelson, Mr. Wallis was an accountant at Coopers & Lybrand and an analyst at Simmons & Company. He has his CFA and is a CPA. BBA – Baylor University; MBA – Harvard Business School.
- Stephen Davis was formally named Mr. Wallis's co-PM on Small Cap Value on January 1, 2019. Prior to his formal appointment, Mr. Davis had been participating in portfolio management discussions with Mr. Wallis on an informal basis. Mr. Davis has been in the investment industry since 2005 and joined VN in 2010. Prior to VN, he was an analyst at Goldman Sachs for 4.5 years. Mr. Wallis continues to have final decision-making authority on the strategy, while Mr. Davis adds his perspective and acts as a sounding board for Mr. Wallis. Mr. Davis also runs the weekly Small Cap Value team meetings and parses out coverage responsibilities to the analysts.
- Messrs. Wallis and Davis are supported by a team of five fundamental equity analysts who joined VN between 2005 and 2018. The analysts are generalists, covering companies across sectors. These individuals support VN's three US equity strategies. The team also has a risk officer, William Wojciechowski, who prepares monthly risk packets that help the portfolio managers better understand their factor bets and measure the consistency of their philosophy and process.

Vaughan Nelson

Investment Philosophy

- Vaughan Nelson believes that stocks can experience short-term declines in price and trade below their long-term intrinsic value due to information and liquidity inefficiencies. Mr. Wallis views the change in Return on Invested Capital (ROIC) as the key driver of stock price appreciation.
- Mr. Wallis is a flexible value manager. He looks for companies with undervalued earnings growth, companies that trade a discount to their asset value, and companies with an attractive dividend yield. Mr. Wallis believes that investing in these three categories enhances performance across different markets.
- Although the portfolio sector weights are driven by bottom-up stock selection, unlike many portfolio managers, Mr. Wallis does think about the macroeconomic environment, and his views play a role in idea generation and portfolio construction.
- The portfolio has an average holding period of approximately three years and average annual name turnover of ~30%.

Vaughan Nelson**Investment Process**

- Vaughan Nelson's investment universe comprises all stocks in the Russell 2000 Value index. Vaughan Nelson screens for companies with attractive ROE, ROA, P/B, P/E, debt-to-cap, and dividend yield. The team looks for inexpensive stocks. They also run qualitative screens that may lead them to mispriced securities, including changes in senior management or insider stock purchases. Mr. Wallis also takes a thematic approach to finding ideas and uses industry specific screens to identify perceived temporary market inefficiencies. The investment team looks for sectors that are out-of-favor and have experienced reductions in capital and capacity. Mr. Wallis also finds opportunities in cyclical industries that are trading at trough valuation levels.
- The team groups companies into one of the three categories. These are: 1) companies with undervalued earnings growth, 2) companies trading at a discount to their asset value, and 3) companies with attractive dividend yields that are inexpensive. Companies in the first category are investing in themselves at higher ROICs, and the asset utilization is improving. Undervalued assets are deeper value ideas. These companies include traditional asset plays, companies with strong franchise value, and cyclical companies. These types of companies much have catalysts in place to close the valuation gap. A small number of stocks in the portfolio fall into the undervalued dividend category. Mr. Wallis believes that the economic and credit cycle influence investment opportunities in each of the three categories. There are no pre-determined exposure ranges for each.

Vaughan Nelson**Investment Process (continued)**

- The screens produce a list of candidate companies and these ideas are prioritized by Messrs. Wallis and Davis. Ideas are assigned to the portfolio managers and analysts based on capacity. Both portfolio managers and analysts perform fundamental due diligence. Vaughan Nelson's due diligence includes financial statement analysis, meeting with management, evaluation of the company's strategy, assessment of cyclical forces and secular trends, and discussions with customers, suppliers, competitors, and other industry participants.
- Once the due diligence is completed, the analyst creates a five-year pro forma balance sheet and income statement and builds a discounted cash flow model to calculate the company's intrinsic value. He/she also formulates an investment thesis.
- Once presented with the research, Messrs. Wallis and Davis decide whether the stock should be included in the portfolio. They are absolute return oriented, and stocks need to have at least 50% appreciation potential over their three-year investment horizon. Vaughan Nelson maintains a database of all the companies they research. Companies with favorable qualities but unattractive valuations are monitored closely. Keeping track of these companies allows Vaughan Nelson to act quickly if a company's valuation becomes appealing.
- The portfolio typically holds 55-85 stocks. Positions begin between 50bps and 300bps depending on the level of conviction and the liquidity of the stock. The largest positions in the portfolio are between 2.5% and 3.0%. Annual portfolio turnover approximates 60-80%, with name turnover of ~30%.
- Positions are trimmed or sold when they are within 10% of intrinsic value, the company is facing increased competitive pressures, management makes poor decisions, or the investment thesis deteriorates.

Historical Performance, Portfolio Characteristics, and Management Fees

Historical Performance (net of fees) As of December 31, 2019

	Brown	Phocas	Systematic	Vaughan Nelson	Russell 2000 Value
Trailing Period Returns (%):					
YTD	24.3	24.3	24.6	24.9	22.4
1 Year	24.3	24.3	24.6	24.9	22.4
3 Year	6.7	3.6	9.6	4.6	4.8
5 Year	7.0	5.6	10.5	6.6	7.0
7 Year	11.2	10.9	13.5	11.1	10.1
10 Year	12.8	10.6	13.1	11.2	10.6
Calendar Year Returns (%):					
2019	24.3	24.3	24.6	24.9	22.4
2018	-13.1	-17.5	-14.8	-14.3	-12.9
2017	12.3	8.4	23.9	6.9	7.8
2016	22.4	23.2	22.9	20.3	31.7
2015	-5.4	-4.2	1.7	0.1	-7.5
2014	6.3	7.3	5.2	9.2	4.2
2013	40.9	46.2	40.4	39.2	34.5
2012	22.0	9.6	15.9	15.3	18.1
2011	2.0	-6.0	-6.5	-3.4	-5.5
2010	27.2	29.7	30.7	24.2	24.5
2009	24.6	24.4	37.7	29.3	20.6

Portfolio Characteristics As of December 31, 2019

	Brown	Phocas	Systematic	Vaughan Nelson	<i>Russell 2000 Value</i>
Price-Earnings Ratio	18.1x	15.9x	18.1x	17.6x	15.1x
Price-Book Value Ratio	1.8x	1.7x	1.8x	2.1x	1.3x
Dividend Yield	2.0%	1.7%	1.8%	1.5%	2.1%
Return On Equity	7.9%	12.3%	12.4%	12.6%	6.4%
Historical Earnings Growth	13.8%	23.4%	22.9%	23.9%	14.5%
Projected Earnings Growth	9.9%	12.6%	9.4%	13.1%	9.3%
Weighted Average Market	\$2.6 billion	\$3.1 billion	\$3.1 billion	\$3.6 billion	\$2.2 billion
Median Market Cap	\$1.4 billion	\$2.7 billion	\$1.9 billion	\$751 million	\$718 million
Market Cap > \$25 billion	---	---	---	---	---
Market Cap \$5bn - \$25bn	10.6%	18.7%	17.5%	21.9%	4.6%
Market Cap \$1bn - \$5bn	66.6%	71.1%	59.6%	74.4%	71.1%
Market Cap < \$1bn	18.7%	10.2%	20.6%	3.6%	24.2%
Cash	4.1%	---	2.3%	---	---
Number of Holdings	71	111	148	66	1,402
Active Share	95.9%	87.8%	89.9%	90.9%	---

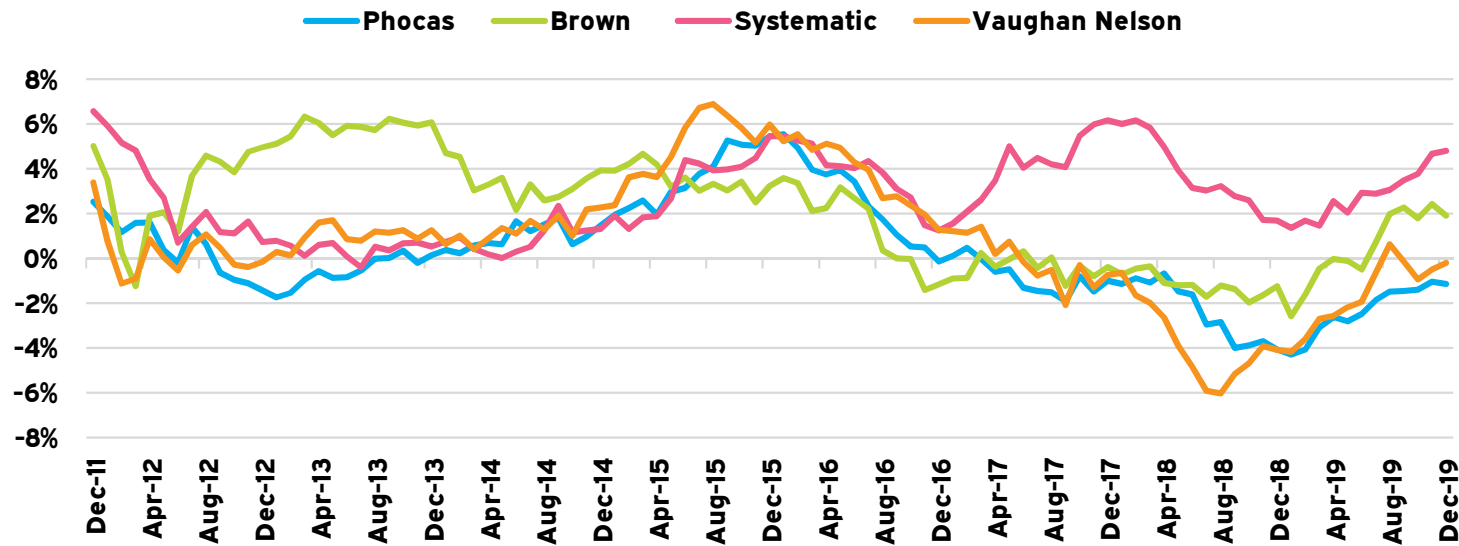
- In general, the managers tend to have slightly higher valuations than the index, but higher quality profiles, as measured by return on equity and earnings growth.
- Brown and Vaughan Nelson run more concentrated portfolios relative to Systematic and Phocas.

Common Period Returns and Risk Statistics As of December 31, 2019

	Brown	Phocas	Systematic	Vaughan Nelson	Russell 2000 Value
Performance					
Common Period Performance (%)	13.8	11.8	15.2	12.8	11.4
Best 3 Months (%)	23.1	26.8	35.3	24.6	28.9
Worst 3 Months (%)	-19.3	-20.5	-22.9	-19.4	-21.5
Risk Measures					
Standard Deviation (%)	15.5	18.2	18.5	15.8	18.6
Tracking Error (%)	6.1	3.5	4.0	5.4	0.0
Beta	0.79	0.96	0.97	0.82	1.00
Correlation to Benchmark	0.95	0.98	0.98	0.96	1.00
Semi Deviation (%)	16.1	19.7	20.3	17.5	20.7
Upside Capture (%)	85.8	96.0	106.0	87.5	100.0
Downside Capture (%)	77.0	94.9	92.9	82.9	100.0
Risk-Adjusted Performance					
Jensen's Alpha (%)	4.2	0.8	3.7	2.9	0.0
Sharpe Ratio	0.86	0.62	0.79	0.77	0.59
Information Ratio	0.39	0.11	0.93	0.24	---

- All managers outperformed the index over the common period 1/1/2009-12/31/2019, with Brown and Systematic outperforming by the widest margin.

Three-Year Rolling Excess Return (net of fees)
As of December 31, 2019



- Over the common period of 1/1/2009-12/31/2019, Systematic and Brown have outperformed the Russell 2000 Value Index in 99% and 67% of rolling three-year periods, respectively. The performances of Vaughan Nelson and Phocas have been slightly less consistent over this period, with Vaughan Nelson outperforming in 63% of the periods and Phocas beating the index in 49% of rolling three-year periods.

Historical Trailing Risk (net of fees) As of December 31, 2019

	Brown				Phocas				Systematic				Vaughan Nelson				Russell 2000 Value			
	3 Yr.	5 Yr.	7 Yr.	10 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.
Information Ratio	0.45	0.01	0.23	0.46	-0.39	-0.44	0.22	0.02	1.14	0.82	0.87	0.69	-0.04	-0.07	0.20	0.14	---	---	---	---
Tracking Error (%)	4.3	4.4	4.6	4.9	2.9	3.2	3.3	3.3	4.2	4.2	3.9	3.8	4.7	5.0	5.0	4.7	---	---	---	---
Sharpe Ratio	0.36	0.43	0.79	0.83	0.12	0.29	0.67	0.60	0.50	0.62	0.87	0.75	0.20	0.38	0.76	0.71	0.20	0.37	0.62	0.60
Standard Deviation (%)	14.0	14.0	13.3	14.8	16.4	15.8	15.1	16.8	15.7	15.2	14.7	16.8	14.4	14.6	13.7	15.0	15.9	15.9	15.2	16.8
S. D. Index (%)	15.9	15.9	15.2	16.8	15.9	15.9	15.2	16.8	15.9	15.9	15.2	16.8	15.9	15.9	15.2	16.8	15.9	15.9	15.2	16.8
Jensen's Alpha	2.2	0.8	2.4	3.4	-1.1	-1.2	1.0	0.3	4.8	3.7	3.7	2.6	0.2	0.4	2.2	1.9	---	---	---	---
Beta	0.85	0.85	0.84	0.85	1.01	0.98	0.97	0.98	0.96	0.92	0.93	0.98	0.86	0.87	0.85	0.86	1.00	1.00	1.00	1.00
Correlation Coefficient	0.97	0.96	0.96	0.96	0.98	0.98	0.98	0.98	0.96	0.96	0.97	0.98	0.96	0.95	0.95	0.96	1.00	1.00	1.00	1.00
Upside Market Capture (%)	92.2	85.4	86.0	89.1	94.5	90.5	96.7	96.1	110.8	104.7	104.9	105.0	81.9	86.0	87.9	88.5	100.0	100.0	100.0	100.0
Downside Market Capture (%)	85.7	86.1	79.5	79.7	100.1	97.1	93.3	95.8	89.9	90.2	90.3	95.0	85.3	88.5	82.1	85.6	100.0	100.0	100.0	100.0

- Brown and Vaughan Nelson have similar, lower risk profiles based on several metrics. Both have low betas that average approximately 0.85. Both protect relatively well on the downside, with Brown providing the most downside protection of all four managers. Both have uniformly lower standard deviations than the Russell 2000 Value Index.
- However, Systematic and Phocas have the lowest tracking errors, which has resulted in strong information ratios for Systematic. Phocas's lower excess returns have dampened its information ratio.
- All of the managers have higher seven and ten-year Sharpe Ratios than the benchmark with the exception of Phocas, whose 10-year information ratio matches the benchmark.

Peer Rankings (net of fees)^{1,2} As of December 31, 2019

	Brown				Phocas				Systematic				Vaughan Nelson				Russell 2000 Value			
	3 Yr.	5 Yr.	7 Yr.	10 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.	3 Yr.	5 Yr.	7 Yr.	10 Yr.
Excess Returns	25	39	28	9	69	70	35	61	9	6	3	6	51	49	30	45	---	---	---	---
Standard Deviation	12	10	8	10	54	48	50	54	40	29	32	54	15	17	13	12	43	49	49	52
Sharpe Ratio	18	23	11	5	69	69	39	61	10	7	6	13	45	35	14	18	61	59	71	81
Beta	85	84	87	85	38	44	41	36	60	70	63	38	83	79	83	82	---	---	---	---
Jensen's Alpha	24	27	14	6	71	71	42	68	10	7	7	14	49	39	15	25	66	65	81	88
Tracking Error	47	49	57	57	10	11	16	12	45	41	37	31	57	59	64	54	---	---	---	---
Information Ratio	24	39	32	13	76	83	33	60	5	2	2	3	51	48	36	48	---	---	---	---

- Brown and Systematic's 10-year excess returns rank in the top decile of the small cap value peer universe. Systematic has produced the highest excess returns compared with the other three managers and peers over all trailing periods.
- Brown and Vaughan Nelson have relatively lower standard deviations, consistently ranking in the bottom quintile of the peer universe.
- Phocas has the lowest tracking error, consistently ranking in the bottom quintile.
- Overall, Systematic has the most consistently strong risk-adjusted returns, as measured by the information and Sharpe ratio and Jensen's Alpha rankings.

¹ All characteristics are ranked high to low. A 1st percentile ranking corresponds to the highest absolute number in the peer group.

² Based on gross of fees returns.

Fees and Terms

	Brown	Phocas	Systematic	Vaughan Nelson
Investment Vehicle Type	Separate account / mutual fund	Separate account / mutual fund	Separate account	Separate account
Liquidity	Daily	Daily	Daily	Daily
All-in-Fee	0.85% (separate account) 1.15% (mutual fund)	0.95% (separate account) 0.95% (mutual fund)	0.85%	0.85%
Peer Group Percentile Rank	25th (separate account) 73rd (mutual fund)	47 th (separate account) 33 rd (mutual fund)	25 th	25 th

- Meketa was able to negotiate a 15 bps reduction in the separate account fees for Brown, Systematic, and Vaughan Nelson, from 100 bps to 85 bps. This fee structure ranks in the lowest quartile (i.e. most competitive) of the small cap value peer universe.
- Based purely on fees, Phocas' mutual fund is more favorably priced than Brown's offering.

Comparative Manager Assessment

	Brown	Phocas	Systematic	Vaughan Nelson
Organization	<ul style="list-style-type: none"> 70% employee-owned / 30% owned by small group of clients and external investors. \$81.3 billion firmwide AUM. \$1.7 billion in Small Cap Value. 	<ul style="list-style-type: none"> 100% employee owned / 66% minority-owned. \$905.7 million firmwide AUM. \$742.1 million in Small Cap Value. 	<ul style="list-style-type: none"> Wholly-owned affiliate of Affiliated Managers Group. Investment team has revenue share in place with AMG. \$2.9 billion firmwide AUM. \$2.4 billion in Small Cap Value Free Cash Flow. 	<ul style="list-style-type: none"> Owned by Natixis Global Asset Management, but operates autonomously. \$13.1 billion firmwide AUM. \$3.2 billion in Small Cap Value.
Investment Team	<ul style="list-style-type: none"> Led by PM David Schuster, who has managed the strategy since its January 2009 inception and has been with Brown since 2008. Associate PM Mike Poggi, who has been with Brown since 2003 and has worked with Mr. Schuster since 2009, supports Mr. Schuster as a sounding board. Mr. Schuster still makes final decisions. Messrs. Schuster and Poggi supported by central research team of 27 sector-focused analysts who support all of the firm's strategies. A sub-set of five analysts forms a "working group" for Small Cap Value. 	<ul style="list-style-type: none"> Led by William Schaff, who started Phocas in 2005. SCV co-managed by William Schaff and Steve Block since its 2006 inception. James Murray covers the REIT part of the portfolio and makes buy/sell decisions in that part of the strategy. PMs supported by two analysts who started in the investment industry in 2006 and 2015 and joined Phocas in 2013 and 2016. 	<ul style="list-style-type: none"> Led by PM Kenneth Burgess, who has spent his entire investment career at Systematic, which he joined in 1993. Supported by a team of five analysts of who joined the firm between 2004 and 2008. Analysts cover multiple sectors. 	<ul style="list-style-type: none"> Led by CIO Chris Wallis, who started in the investment industry in 1991 and has been at Vaughan Nelson since 1999. Co-PM Stephen Davis, who has been with Vaughan Nelson since 2010, assists Mr. Wallis leading the investment team. Supported by a team of five generalist analysts who provide ideas to the firm's three US equity strategies. A risk officer helps the PMs evaluate the portfolio's factor exposures.

Comparative Manager Assessment (Continued)

	Brown	Phocas	Systematic	Vaughan Nelson
Investment Philosophy	<ul style="list-style-type: none"> Focus on companies with sustainable free cash flow and strong management teams skilled at capital allocation. Believes that growth in cash flow is an important component of potential total return. 	<ul style="list-style-type: none"> Combination of traditional and relative value. Index aware approach. Sector weights managed closely to the index. 	<ul style="list-style-type: none"> Focus on companies with sustainable and predictable cash flows and strong balance sheets. 	<ul style="list-style-type: none"> Focus on companies with positive changes in Return on Invested Capital. Flexible value manager. Vaughan Nelson will buy companies with undervalued earnings growth, companies trading at discounts to their asset values, or companies with undervalued dividend yields.
Investment Process	<ul style="list-style-type: none"> Fundamentally driven, bottom up approach. Ideas sourced from quantitative screens, investment conferences, company visits, and industry knowledge. Fundamental analysis consists of analyzing and modeling financial statements, company visits, and reviewing market research. Portfolio will hold 50-70 stocks (69 currently). Annual turnover of ~30-40%. 	<ul style="list-style-type: none"> Fundamentally driven, bottom up approach. Ideas sourced from screens based on valuation versus peers, profitability, and leverage. Fundamental analysis consists of a review of the filings, speaking with management, and attending industry conferences. Valuation is considered relative to GICS peers. Portfolio will hold 90-120 stocks. Annual turnover of 40-60%. 	<ul style="list-style-type: none"> Fundamentally driven, bottom up approach. Ideas sourced from screens based on cash flow and balance sheet metrics. Fundamental analysis focuses on assessing the sustainability of the business model and meeting with management to assess their strategy for executing the model. A detailed financial model helps the team gauge normalized free cash flow. Portfolio will hold 100-150 stocks (147 currently). Annual turnover of ~20%. 	<ul style="list-style-type: none"> Fundamentally driven, bottom-up approach, with a top down overlay. Ideas sourced from both quantitative and qualitative screens. Some thematic hypotheses give rise to new ideas. Due diligence includes financial statement analysis, meeting with management, evaluation of the company's strategy, assessment of cyclical forces and secular trends, discussions with industry participants, and constructing financial statements. Portfolio will hold 55-85 stocks (65 currently). Annual turnover of ~60-80%.

Comparative Manager Assessment (Continued)

	Brown	Phocas	Systematic	Vaughan Nelson
Investment Performance (Common Period 1/1/2009-12/31/2019)	<ul style="list-style-type: none"> 13.8% net of fees annualized return and 2.4% excess return. Lowest beta of 0.79. Lowest downside capture of 77%. Highest risk-adjusted returns, as measured by Sharpe ratio. Highest risk-adjusted returns as measured by Jensen's alpha given low beta. 	<ul style="list-style-type: none"> 11.8% net of fees annualized returns and 0.4% excess return. Lowest tracking error of 3.5%. Lowest risk-adjusted returns as measured by information ratio. 	<ul style="list-style-type: none"> 15.2% net of fees annualized return and 3.8% excess return. Highest risk-adjusted returns, as measured by information ratio. 	<ul style="list-style-type: none"> 12.8% net of fees annualized return and 1.4% excess return. Low beta of 0.82. Relatively low downside capture of 82.9%.
Fees	0.85% (separate account) 1.15% (mutual fund)	0.95% (separate account) 0.95% (mutual fund)	0.85% (separate account)	0.85% (separate account)

Appendix

Appendix

Information Ratio: This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

Standard Deviation: A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

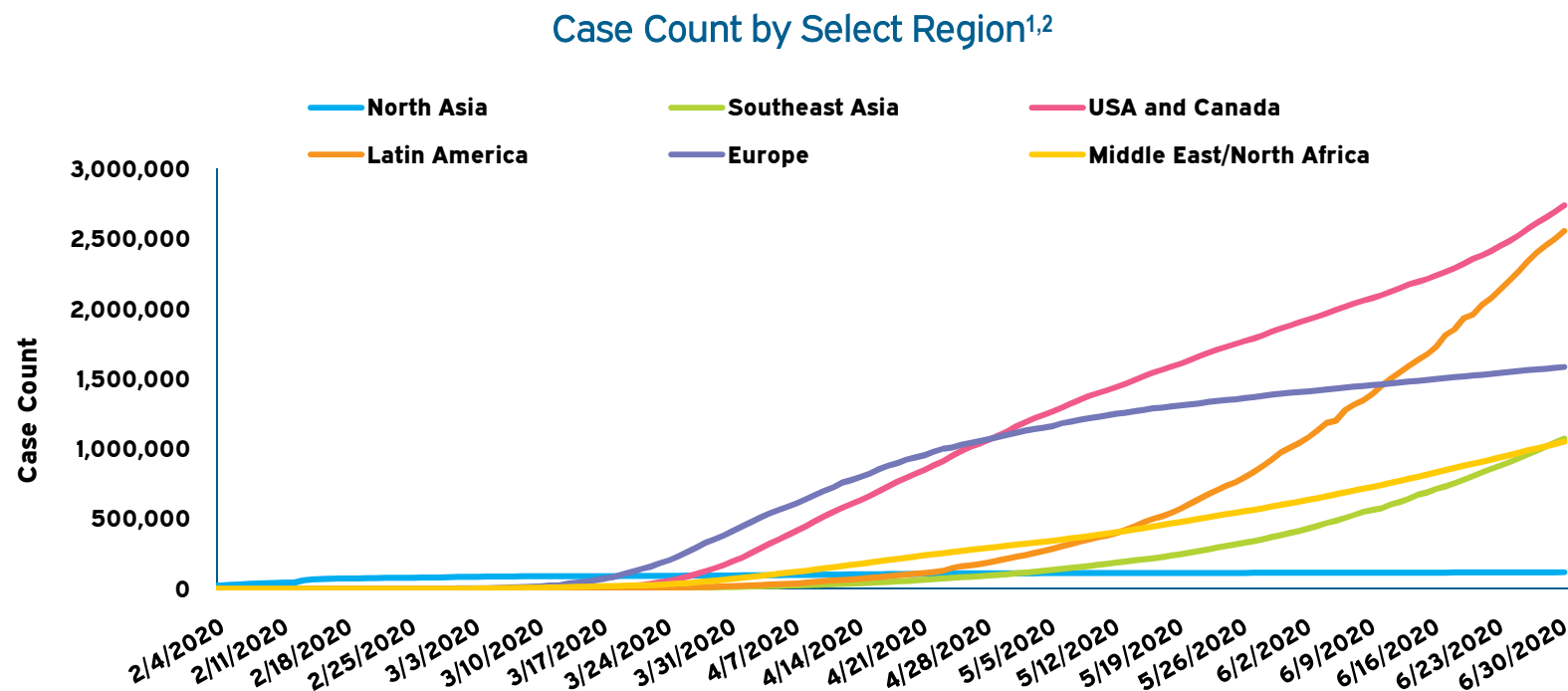
Tracking Error: This statistic measures the standard deviation of excess returns relative to a benchmark. Tracking error is calculated by multiplying the standard deviation of the monthly excess returns of a portfolio relative to a benchmark by the square root of twelve in order to annualize. The higher the tracking error, the greater the volatility of excess returns relative to a benchmark.

Sources: www.businessdictionary.com
http://www.naplia.com/employeeedishonesty/Employee_Dishonesty_FAQ.shtml
[Investment Terminology](#), International Foundation of Employee Benefit Plans, 1999.
[Modern Investment Management](#), Litterman, Bob, 2003.

Economic and Market Update

Data as of June 30, 2020



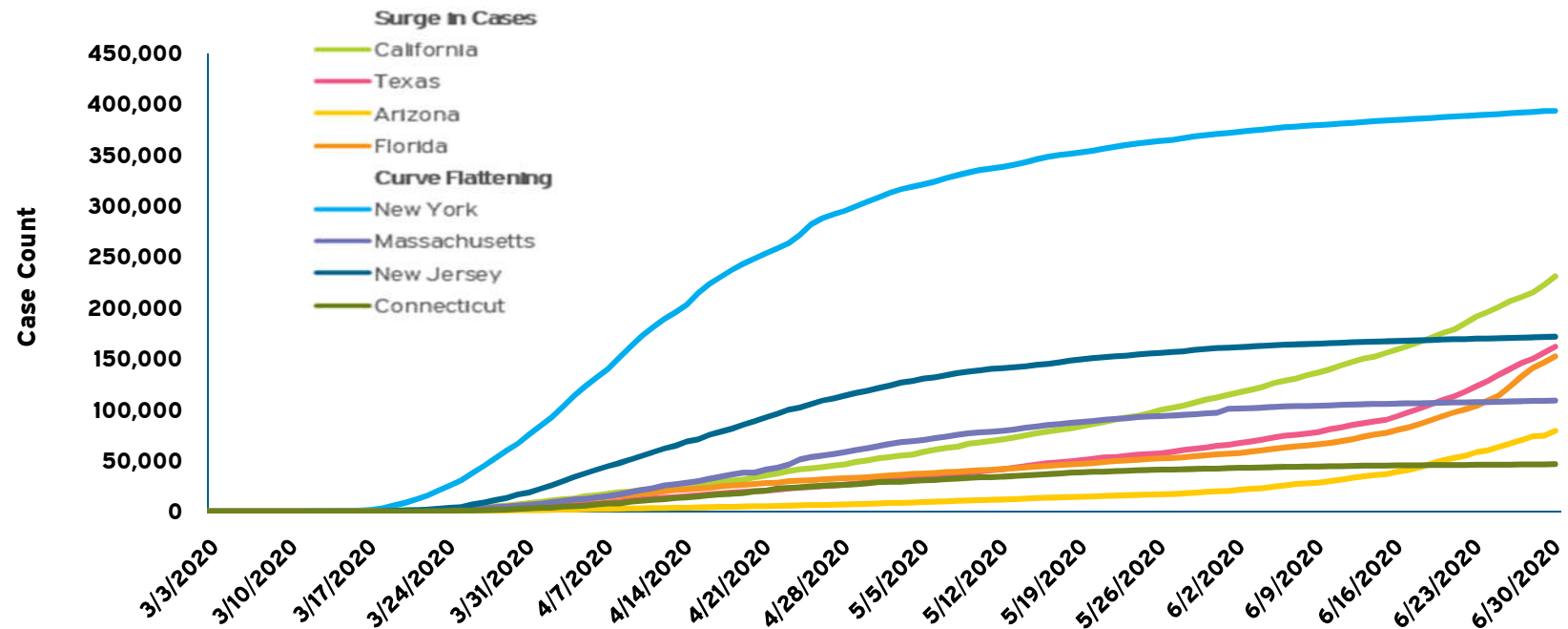


- Cases of COVID-19 continue to grow globally with now over 11.5 million reported cases across 188 countries.
- The US remains the epicenter with numbers in Latin America surging, driven by Brazil, which now has the second highest case count.

¹ Source: Bloomberg. Data is as of June 30, 2020.

² North Asia: China, Hong Kong, Japan, South Korea, and Taiwan. Southeast Asia: Singapore, India, Indonesia, Malaysia, Pakistan, Philippines, Thailand, Bangladesh, Sri Lanka, and Vietnam. Europe: Austria, Belarus, Bulgaria, Croatia, Czech Republic, Denmark, France, Germany, Hungary, Italy, Netherlands, Norway, Poland, Romania, Spain, Sweden, United Kingdom, Switzerland, and Ukraine. Latin America: Chile, Brazil, Mexico, Argentina, Colombia, Peru, Venezuela, Ecuador, Panama, Paraguay, Costa Rica, Bolivia, Uruguay, El Salvador, Honduras, Cuba, Dominican Republic, Haiti, and Nicaragua. Middle East/North Africa: Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Turkey, Tunisia, United Arab Emirates, and Yemen.

COVID-19 Cases by State¹



- As the US economy slowly reopens, there has been a spike in cases in certain states that is creating stress on their healthcare systems, leading to officials slowing, or reversing, reopening plans.
- Some of the states that were hardest hit in the early stages continue to make progress on containing it.
- Looking forward, a continued trend of rising cases could significantly weigh on economic growth.

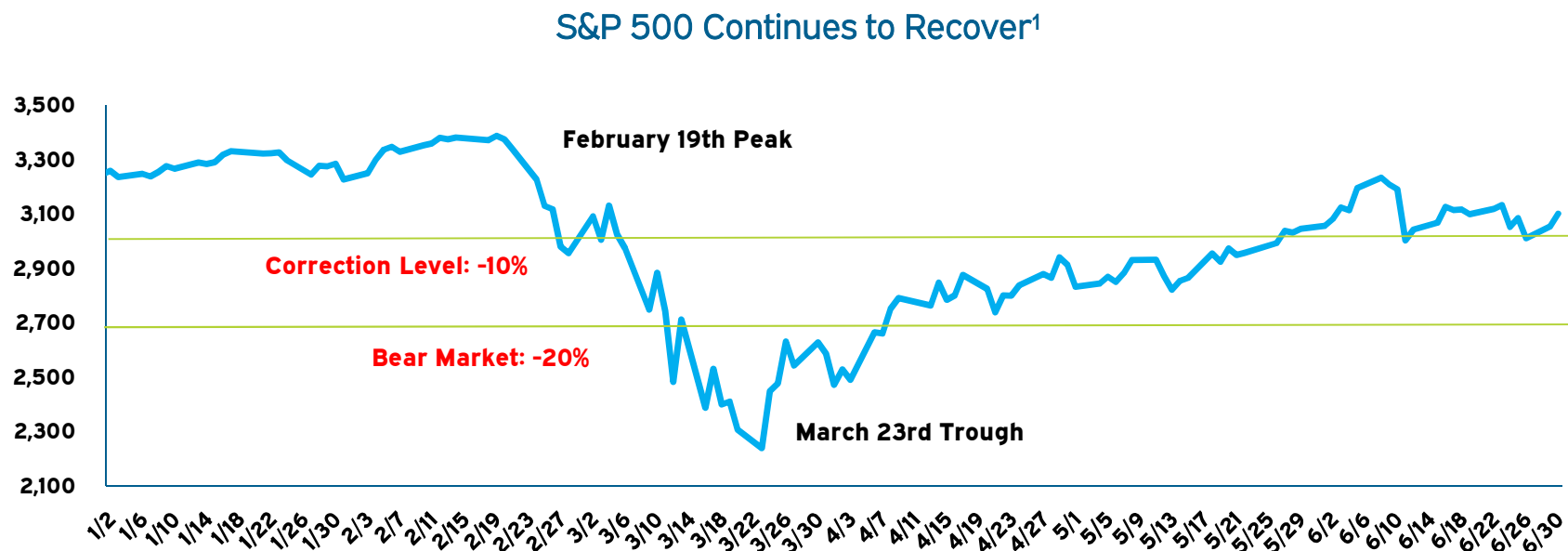
¹ Source: Bloomberg. Data is as of June 30, 2020.

Market Returns¹

Indices	Q2	YTD	1 Year	3 Year	5 Year	10 Year
S&P 500	20.5%	-3.1%	7.5%	10.7%	10.7%	14.0%
MSCI EAFE	14.9%	-11.3%	-5.1%	0.8%	2.1%	5.7%
MSCI Emerging Markets	18.1%	-9.8%	-3.4%	1.9%	2.9%	3.3%
MSCI China	15.3%	3.5%	13.1%	8.6%	5.3%	6.4%
Bloomberg Barclays Aggregate	2.9%	6.1%	8.7%	5.3%	4.3%	3.8%
Bloomberg Barclays TIPS	4.2%	6.0%	8.3%	5.0%	3.7%	3.5%
Bloomberg Barclays High Yield	10.2%	-3.8%	0.0%	3.3%	4.8%	6.7%
10-year US Treasury	0.7%	12.7%	14.2%	6.6%	4.8%	4.7%
30-year US Treasury	-0.7%	24.9%	29.8%	12.4%	9.7%	8.5%

- Global risk assets have recovered meaningfully from their lows, largely driven by record fiscal and monetary policy stimulus; the S&P 500 recovered by over 39% from the mid-March lows.
- Risk assets have reacted positively to the gradual re-opening of the global economy, some economic data beating expectations, and the potential for a vaccine being developed sooner than initially expected.
- Despite the recovery in risk assets, yields on safe-haven assets like US Treasuries remain at record lows due to expectations for extremely accommodative monetary policy for the foreseeable future.

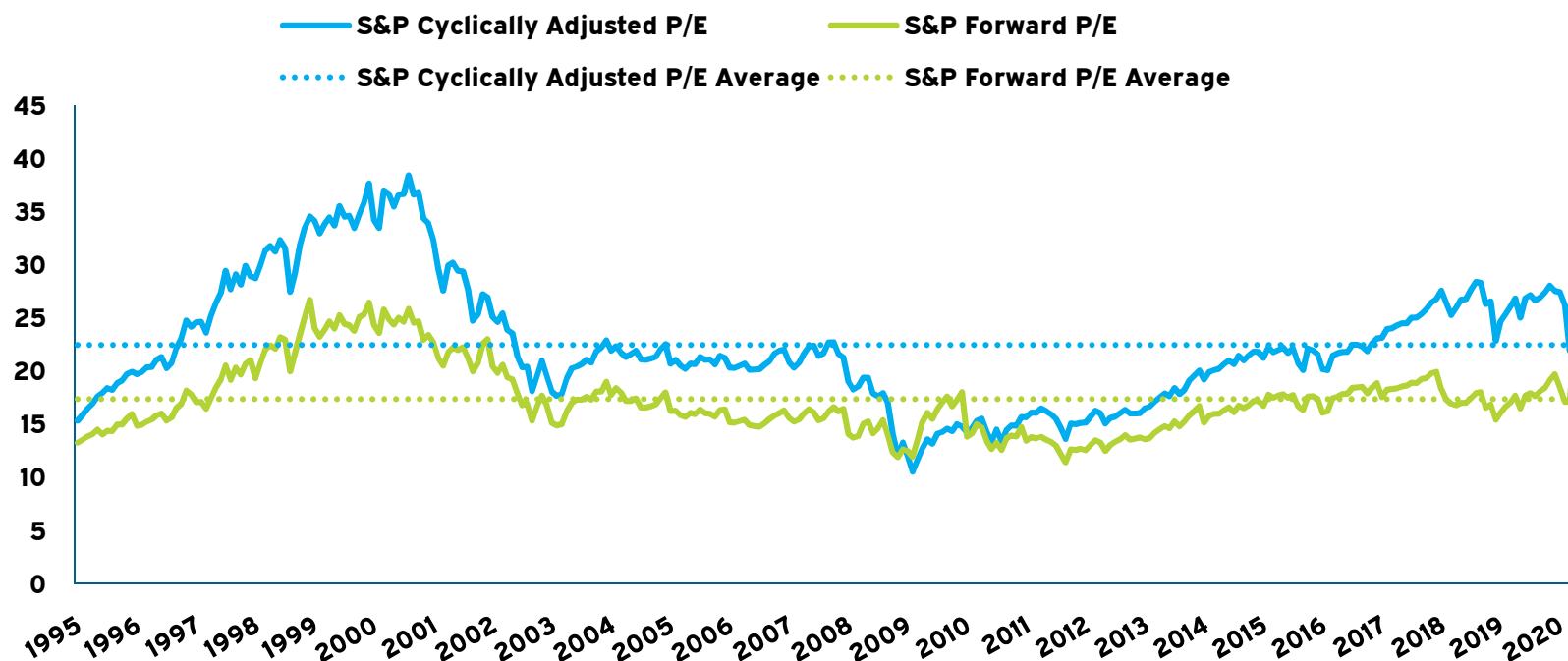
¹ Source: InvestorForce and Bloomberg. Data is as of June 30, 2020.



- Given the anticipated economic carnage surrounding the pandemic, US stocks declined from a February peak into bear market (-20%) territory at the fastest pace in history.
- From the February 19 peak, the S&P 500 plunged 34% in just 24 trading days.
- The index rebounded from its lows, and is only down around 3% year-to-date through the end of June, primarily due to the unprecedented monetary and fiscal stimulus announced in the US, as well as improvements in virus data, and the economy slowly reopening.
- It is unclear whether the US equity market's recovery is temporary, particularly given the recent surge in cases.

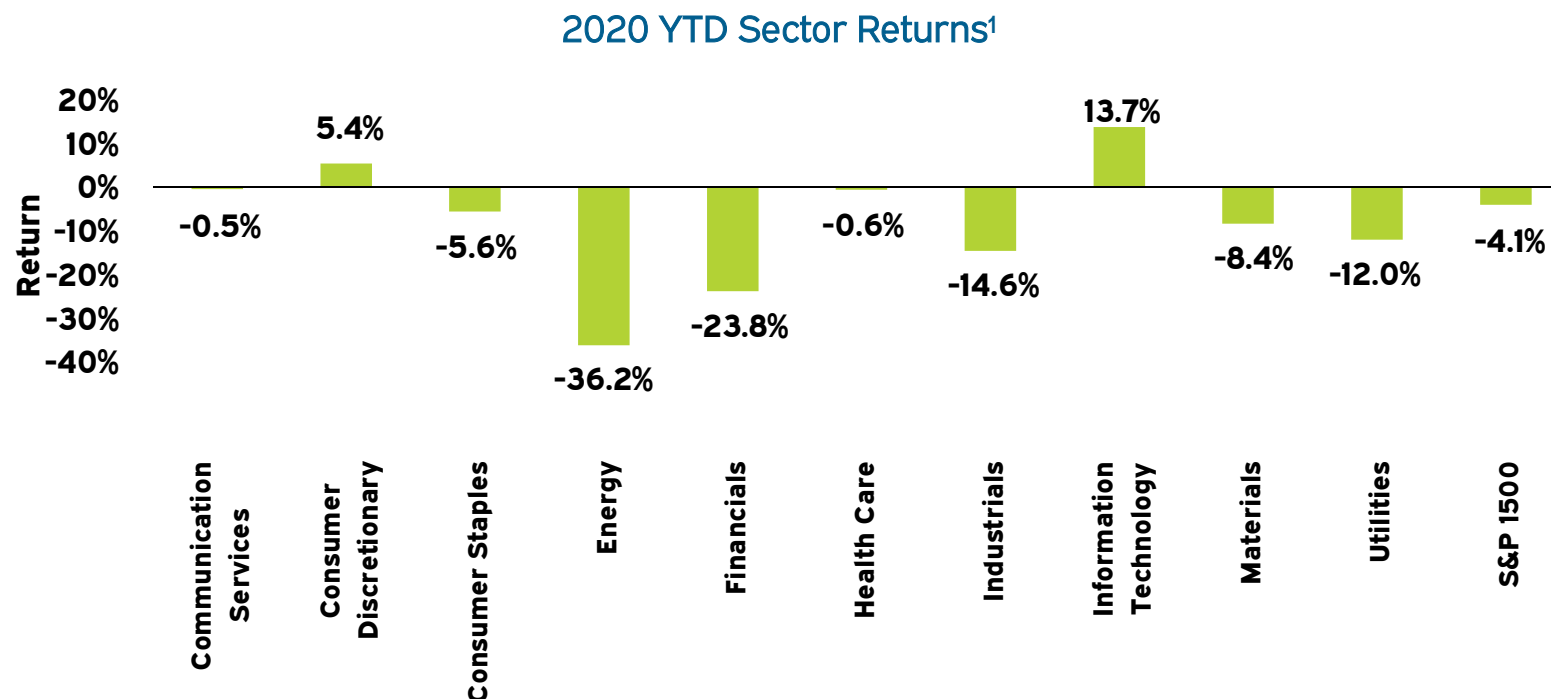
¹ Source: Bloomberg. Data is as of June 30, 2020.

S&P Equity Valuations¹



- Valuations based on both forward and backward looking earnings for the US stock market remain well above long-term averages, driven by the recent run.
- Many are looking to improvements in earnings to support market levels as the US economy continues to reopen.
- The key risk remains that a spike in COVID-19 cases could slow, or reverse, the reopening plans.

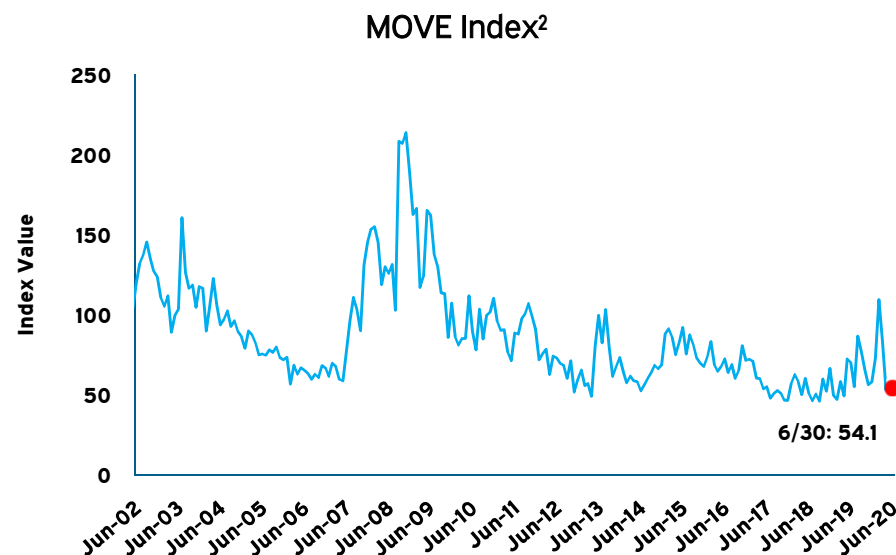
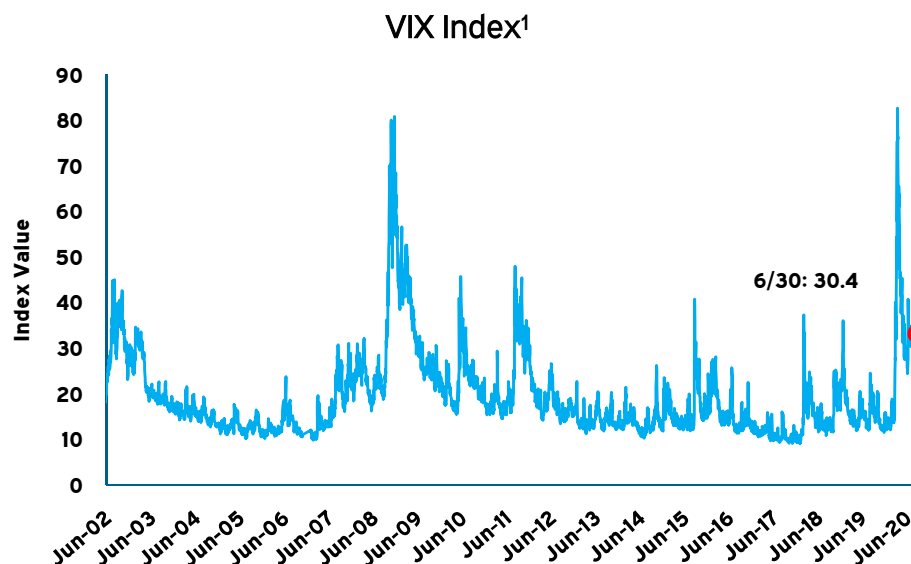
¹ Source: Bloomberg. Data is as of June 30, 2020.



- Information technology is the best performing sector, with a narrow group of companies like Amazon and Netflix largely driving market gains. The outperformance has been due to consumers moving to online purchases and entertainment.
- The consumer discretionary sector also experienced gains as the economy slowly reopens, people return to work, and as stimulus checks are spent.
- The energy sector has seen some improvements given supply cuts and economies starting to reopen, but it remains the sector with the greatest decline, triggered by the fall in oil prices.

¹ Source: Bloomberg. Data is as of June 30, 2020.

Volatility has Declined



- Given the recent fiscal and monetary support and corresponding improvement in investor risk sentiment, expectations of short-term equity volatility, as measured by the VIX index, continues to decline from record levels but remains elevated.
- At the recent height, the VIX reached 82.7, surpassing the pinnacle of volatility during the GFC, showing the magnitude of the crisis, and of investor fear.
- Expectations of volatility within fixed income, represented by the MOVE index, remain near historic lows given the broad monetary support including interest rate cuts, funding programs, quantitative easing, and forward guidance.

¹ Source: Chicago Board of Exchange. Data is as of June 30, 2020.

² Source: Bloomberg. Data is as of June 30, 2020.

Global Financial Crisis Comparison

2007-2009 Global Financial Crisis		COVID-19 Crisis
Primary Causes	<p>Excess Risk Taking Due to:</p> <ul style="list-style-type: none"> Deregulation, un-constrained securitization, shadow banking system, fraud 	<p>Pandemic/Natural Disaster:</p> <ul style="list-style-type: none"> Large scale global restrictions on businesses and individuals leading to immediate and significant deterioration in economic fundamentals
2007-2009 Global Financial Crisis		COVID-19 Crisis
Fiscal Measures	<ul style="list-style-type: none"> American Recovery Reinvestment Act of 2009: \$787 billion Economic Stimulus Act of 2008: \$152 billion 	<ul style="list-style-type: none"> PPP Act: \$659 billion CARES Act of 2020: \$2.3 trillion Families First Coronavirus Response Act: \$150 billion Coronavirus Preparedness & Response Supplemental Appropriations Act 2020: \$8.3 billion National Emergency: \$50 billion
2007-2009 Global Financial Crisis		COVID-19 Crisis
Monetary Measures		
Lowering Fed Funds Rate	X	X
Quantitative Easing	X	X
Primary Dealer Repos	X	X
Central Bank Swap Lines	X	X
Commercial Paper Funding Facility	X	X
Primary Dealers Credit Facility	X	X
Money Market Lending Facility	X	X
Term Auction Facility	X	
TALF	X	X
TSLF	X	
FIMA Repo Facility		X
Primary & Secondary Corp. Debt		X
PPP Term Facility		X
Municipal Liquidity Facility		X
Main Street Loan Facility		X

Global Financial Crisis Comparison (continued)

- The US **fiscal** response to the COVID-19 Crisis has been materially larger than the response to the 2007-2009 Global Financial Crisis (GFC), and stimulus is acutely focused on areas of the economy showing the greatest need, including small and mid-sized companies. For example, the Paycheck Protection Program (PPP) helps small businesses keep employees working by offering forgivable loans to cover salaries.
- On the **monetary** side, markets targeted during both crises represent those most in need, but for the COVID-19 Crisis the policy response was dramatically faster, measured in weeks, not years, as in the GFC.
- Of the monetary stimulus measures, the corporate debt (Primary & Secondary Corporate Debt) programs and Main Street Loan Facility are new and garnered much attention from market participants.
- Through the end of June, Fed programs have experienced various degrees of usage. However, at this point, none has come close to reaching program limits. Still, the psychological value of knowing the programs are available, if necessary, likely supports market sentiment.

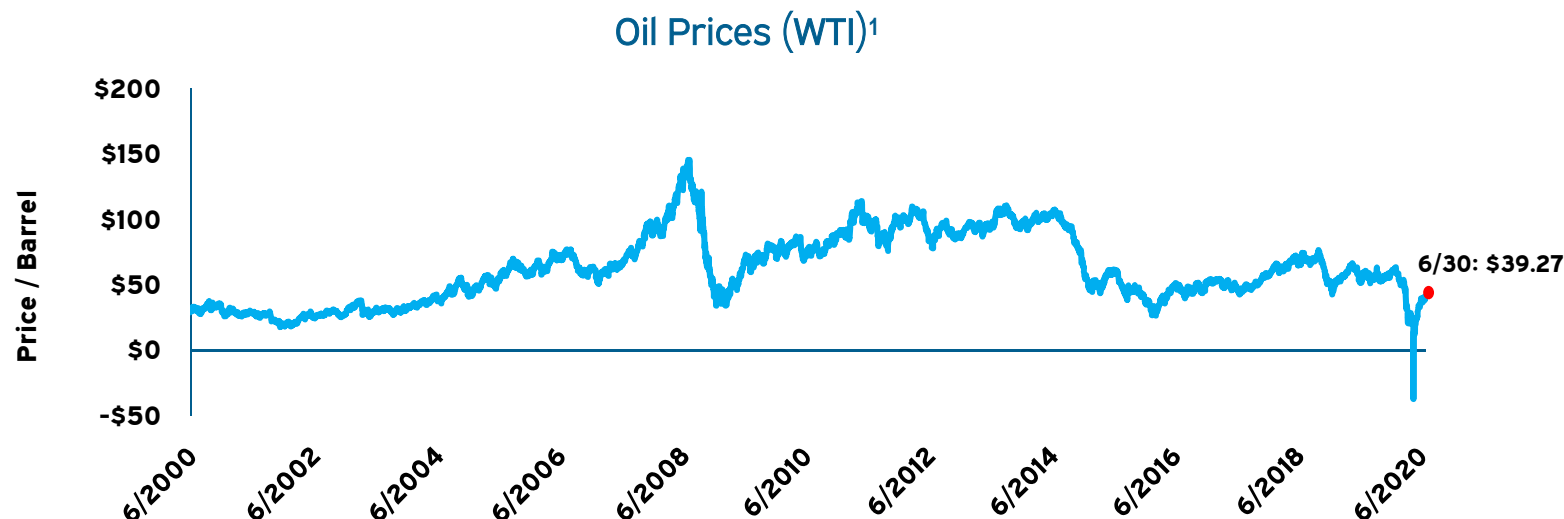
Historic \$2T US Fiscal Stimulus

Destination	Amount (\$ Billion)
Individuals	\$560
Large Corporations	\$500
Small Business	\$377
State & Local Governments	\$340
Public Health	\$154
Student Loans	\$44
Safety Net	\$26

- Late in March, a historic \$2 trillion fiscal package was approved in the US, representing close to 10% of GDP and including support across the economy.
- Individuals received cash payments of up to \$1,200 per adult and \$500 per child, and extended and higher weekly unemployment benefits (+\$600/week).
- The package also includes a \$500 billion lending program for distressed industries like airlines, and \$377 billion in loans to small businesses (this program was recently extended).
- Other parts of the package include allocations to state and local governments, support for public health, student loan relief, and a safety net.
- With certain programs scheduled to expire, active discussions are going on now related to the next round of fiscal stimulus, with various extensions and expansions being considered.

Policy Responses

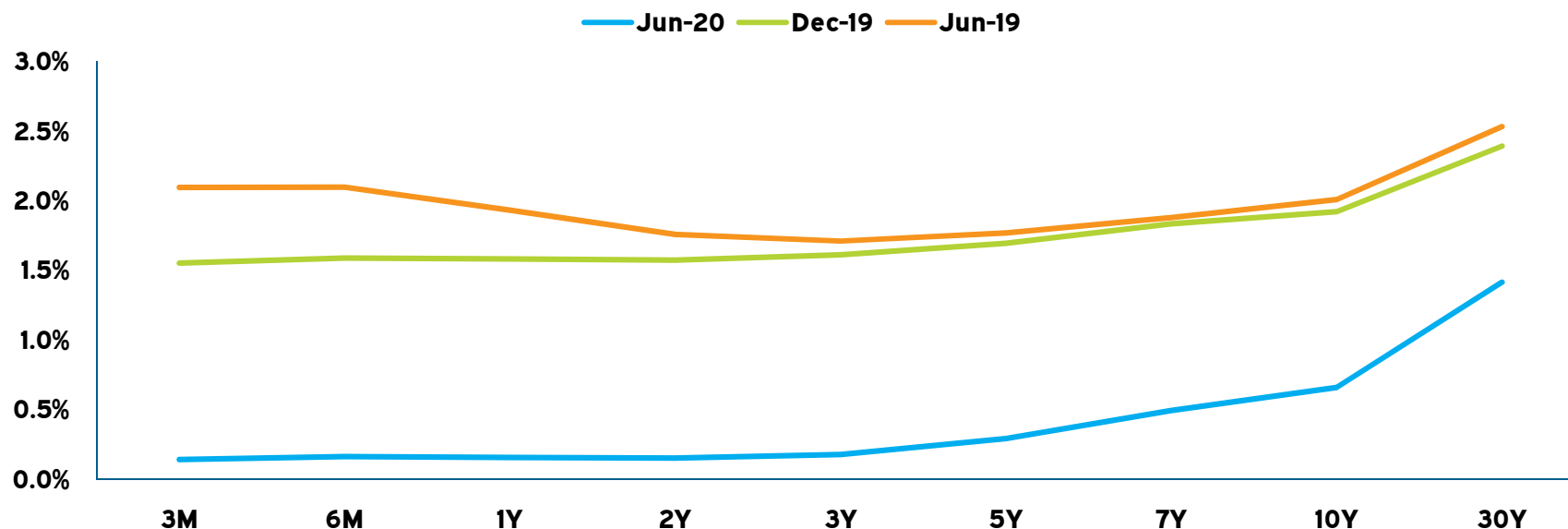
	Fiscal	Monetary
United States	\$50 billion to states for virus related support, interest waived on student loans, flexibility on tax payments and filings, expanded COVID-19 testing, paid sick leave for hourly workers, \$2 trillion package for individuals, businesses, and state/local governments. Additional \$484 billion package to replenish small business loans, provide funding to hospitals, and increase testing.	Cut policy rates to zero, unlimited QE4, offering trillions in repo market funding, restarted CPFF, PDCF, MMMF programs to support lending and financing market, expanded US dollar swap lines with foreign central banks, announced IG corporate debt buying program with subsequent amendment for certain HY securities, Main Street Lending program, Muni liquidity facility, repo facility with foreign central banks, and easing of some financial regulations for lenders.
Euro Area	Germany: Launched 750 billion euro stimulus package. France: 45 billion euro for workers, guaranteed up to 300 billion euro in corporate borrowing. Italy: 25 billion euro emergency decree, suspending mortgage payments for impacted workers. Spain: 200 billion euro and 700 million euro loan and aid package, respectively.	Targeted longer-term refinancing operations aimed at small and medium sized businesses, under more favorable pricing, and announced the 750 billion euro Pandemic Emergency Purchase Program, and then expanded the purchases to 1.53 trillion and including lower-quality corporate debt
Japan	\$1.1 trillion in small business loans, direct funding program to stop virus spread among nursing homes and those affected by school closures, and direct payments to individuals	Initially increased QE purchases (ETFs, corporate bonds, and CP) and then expanded to unlimited purchases and doubling of corporate debt and commercial paper, expanded collateral and liquidity requirements, and 0% interest loans to businesses hurt by virus
China	Tax cuts, low-interest business loans, extra payments to gov't benefit recipients.	Expanded repo facility, policy rate cuts, purchase of small business loans, and lowered reserve requirements.
Canada	\$7.1 billion in loans to businesses to help with virus damage.	Cut policy rates, expanded bond-buying and repos, lowered bank reserve requirements.
UK (BOE)	Tax cut for retailers, small business cash grants, benefits for those infected with virus, expanded access to gov't benefits for self and un-employed.	Lowered policy rates and capital requirements for UK banks, restarts QE program and subsequently increased the purchase amounts.
Australia	\$11.4 billion, subsidies for impacted industries like tourism, one-time payment to gov't benefit recipients.	Policy rate cut, started QE.



- Global oil markets rallied from April lows, including from the technically-induced negative levels that saw the May futures contract trade at nearly -\$40 per barrel.
- In addition to improvements in sentiment as the global economy begins to reopen and some measures of economic fundamentals reporting better than expected numbers, OPEC+ recently agreed to extend supply cuts of 9.7 million barrels/day (~10% of global output) through July.
- Counterbalancing the OPEC+ production cut agreement, US oil producers (particularly shale output) are reportedly turning wells back on as the price of oil rises.

¹ Source: Bloomberg. Represents WTI first available futures contract. Data is as of June 30, 2020.

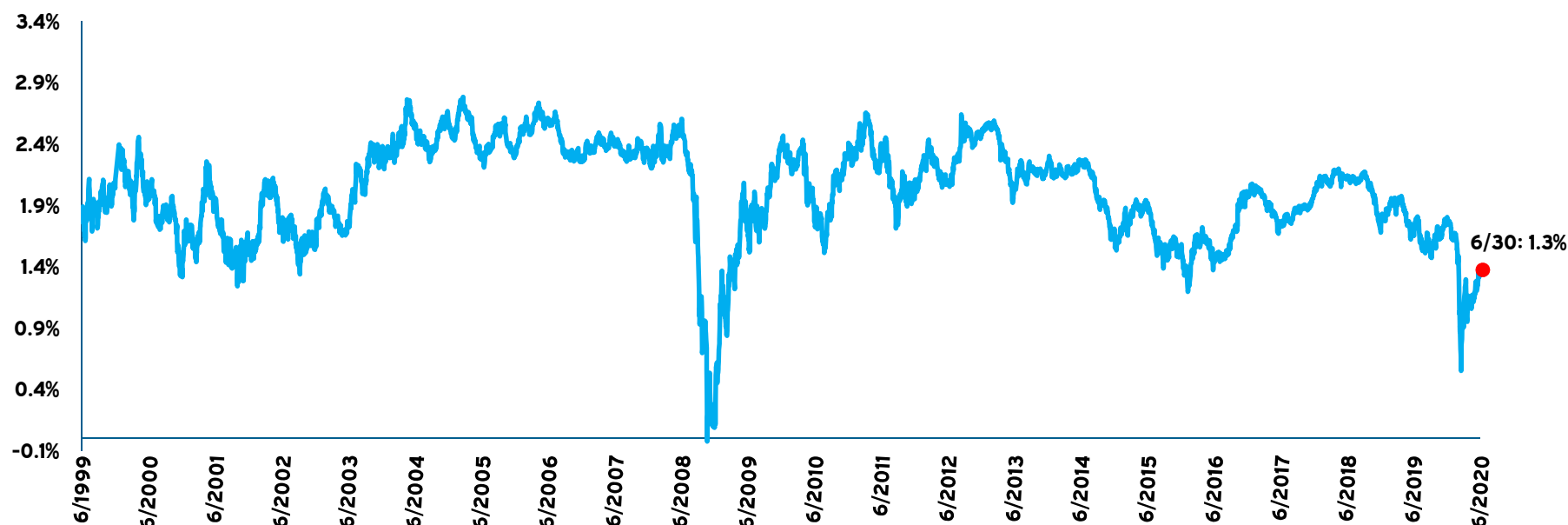
US Yield Curve Declines¹



- The US Treasury yield curve has declined materially since 2019, largely due to central bank policy actions, safe-haven demand, and weak economic expectations.
- Yields out to the 5-year maturity point have been principally driven by cuts to monetary policy rates, the Federal Reserve's ongoing purchase program, and commitments by policy makers to keep policy rates accommodative for the foreseeable future.
- Longer-dated yields have also been heavily influenced by monetary policy actions, but have recently risen on modest increases in longer-term inflation expectations.

¹ Source: Bloomberg. Data is as of June 30, 2020.

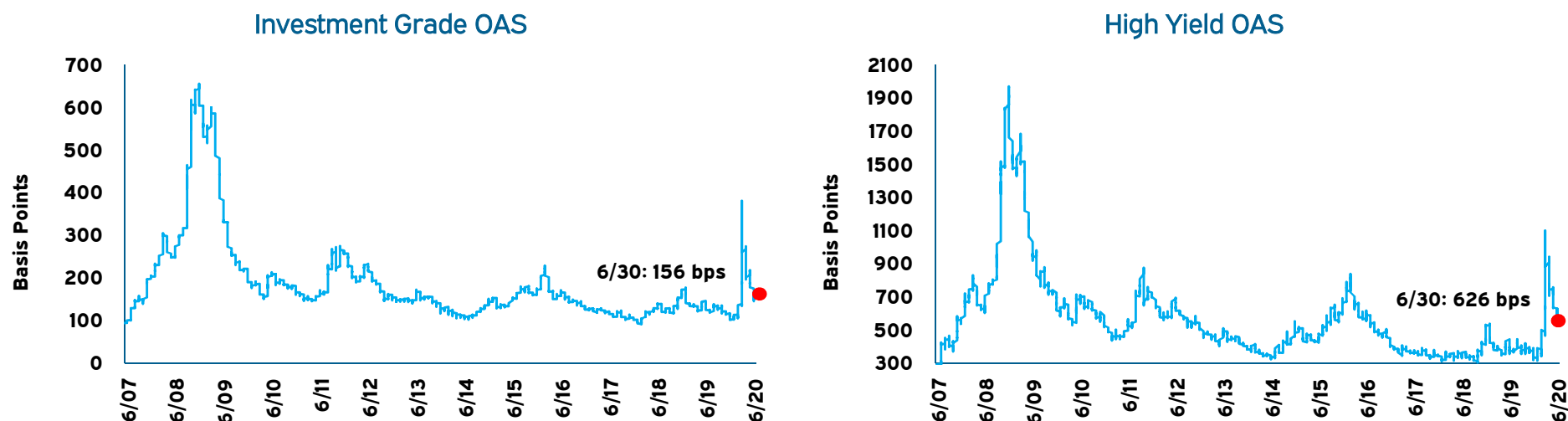
10-Year Breakeven Inflation¹



- Inflation breakeven rates initially declined sharply, due to a combination of lower growth and inflation expectations, as well as liquidity dynamics in TIPS during the height of rate volatility.
- Liquidity eventually improved and breakeven rates increased, but given the uncertainty regarding economic growth and the inflationary effects of the unprecedented US fiscal and monetary responses, inflation expectations remain well below historical averages.

¹ Source: Bloomberg. Data is as of June 30, 2020.

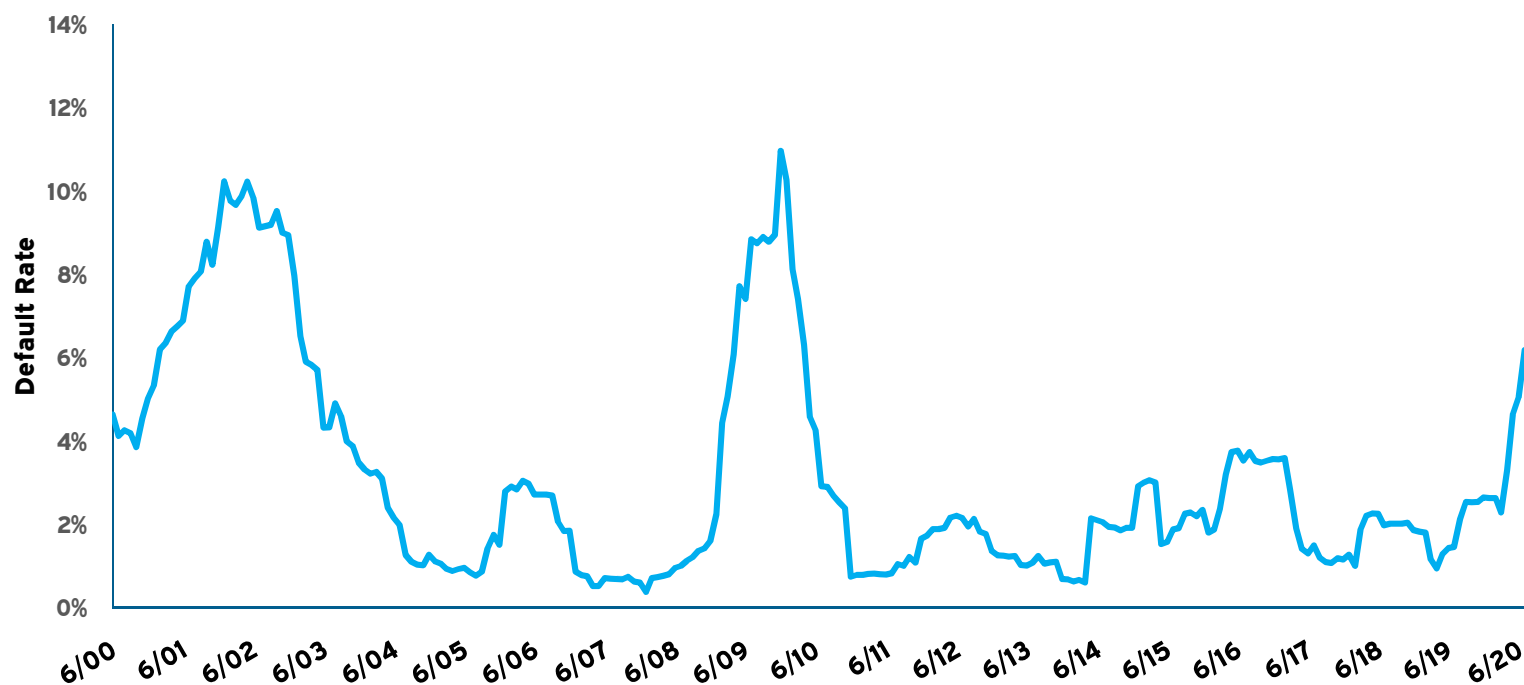
Credit Spreads (High Yield & Investment Grade)¹



- Credit spreads (the spread above a comparable Treasury bond) for investment grade and high yield corporate debt expanded sharply as investors sought safety.
- Investment grade bonds held up better than high yield bonds. The Federal Reserve's corporate debt purchase program for investment grade and certain high yield securities that were recently downgraded from investment grade, was well received by investors, leading to a decline in spreads.
- Overall, corporate debt issuance has more than doubled since 2008, which magnifies the impact of deterioration in the corporate debt market. This is particularly true in the energy sector, which represents over 10% of the high yield bond market.

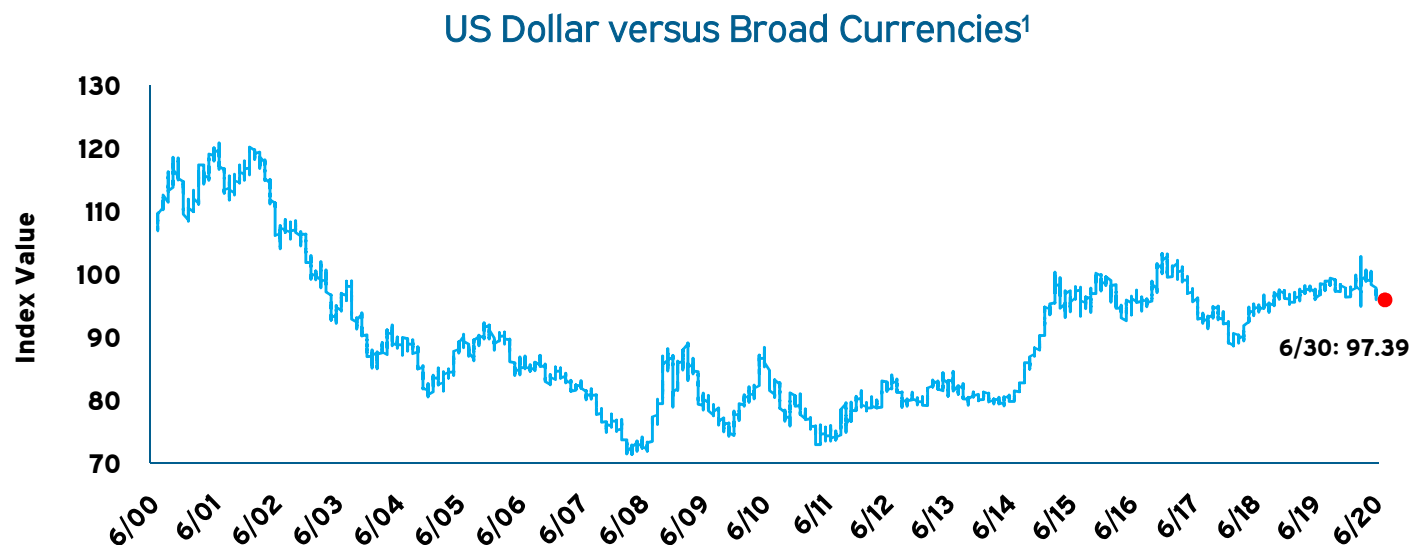
¹ Source: Federal Reserve Bank of St. Louis Economic Research. Data is as of June 30, 2020.

US High Yield Credit Defaults¹



- Even though spreads have declined given the Federal Reserve's support, defaults, particularly in the high yield sector, increased dramatically.
- The energy sector has been hard hit given the decline in oil prices, with defaults reaching double-digit levels and expectations for them to increase.

¹ Source: J.P. Morgan; S&P LCD. Data is as of June 30, 2020.



- When financial markets began aggressively reacting to COVID-19 developments, the US dollar came under selling pressure as investors sought safe-haven exposure in currencies like the Japanese yen given its current account surplus and its status as the largest creditor globally.
- As the crisis grew into a pandemic, investors' preferences shifted to holding US dollars and highly liquid, short-term securities like US Treasury bills. This global demand for US dollars led to appreciation versus most major currencies.
- A relatively strong US dollar makes US goods more expensive for overseas consumers and causes commodity prices outside the US to rise, affecting foreign countries, and particularly emerging markets.
- To help ease global demand for US dollars, the Federal Reserve, working with a number of global central banks, re-established the US dollar swap program, providing some relief to other currencies. Usage of the program continues to decline as dollar funding demands have eased.

¹ Source: Bloomberg. Represents the DXY Index. Data is as of June 30, 2020.

Economic Impact

Supply Chain Disruptions:

- Factories closing, increased cost of stagnant inventory, and disrupted supply agreements.
- Reduced travel, tourism, and separation policies including closed borders: Significant impact on service-based economies.

Labor Force Impacts:

- Huge layoffs across service and manufacturing economies.
- Increased strains as workforce productivity declines from increased societal responsibilities (e.g., home schooling of children) and lower functionality working from home.
- Illnesses from the disease will also depress the labor force.

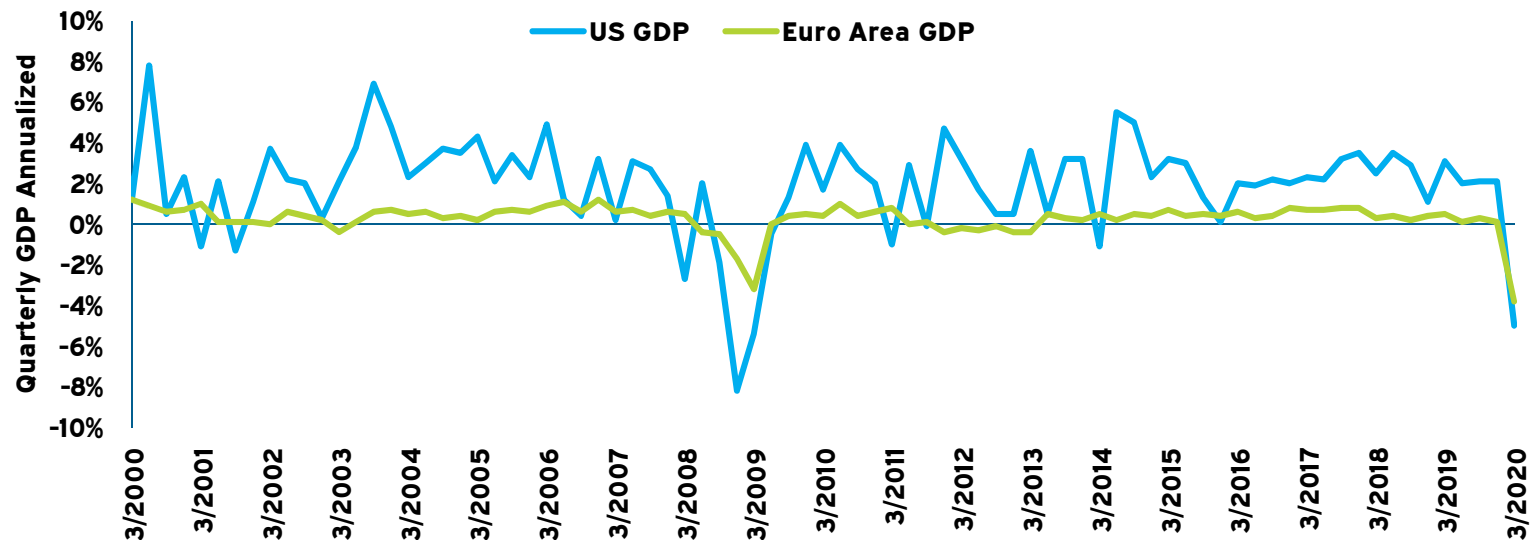
Declines in Business and Consumer Sentiment:

- Sentiment drives investment and consumption, which leads to increased recessionary pressures as sentiment slips.

Wealth Effect:

- As financial markets decline and wealth deteriorates, consumer spending will be impacted.

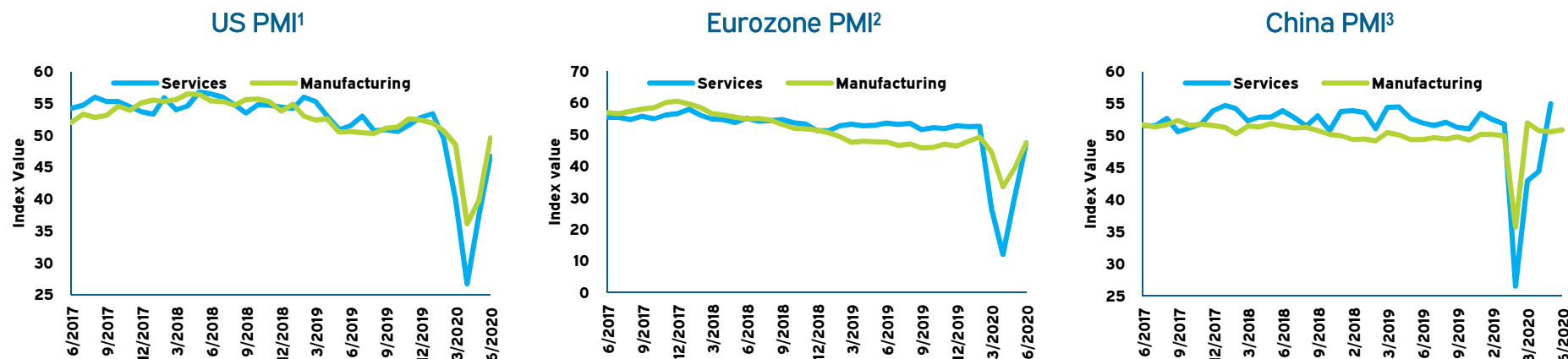
GDP Data Shows First Signs of Crisis¹



- The global economy faces major recessionary pressures this year, but optimism remains for improvements in 2021, as economies are expected to gradually reopen.
- In the US, the third estimate for first quarter GDP came in at -5.0%, with personal consumption declining the most since 1980. Eurozone GDP fell (-3.6%) with the major economies in France, Spain, and Italy experiencing historic declines.
- Bloomberg Economics estimates that second quarter US GDP could be as low as -5.6% (YoY).

¹ Source: Bloomberg. Q1 2020 data represents third estimate of GDP for Euro Area and third estimate of GDP for United States.

Global PMIs



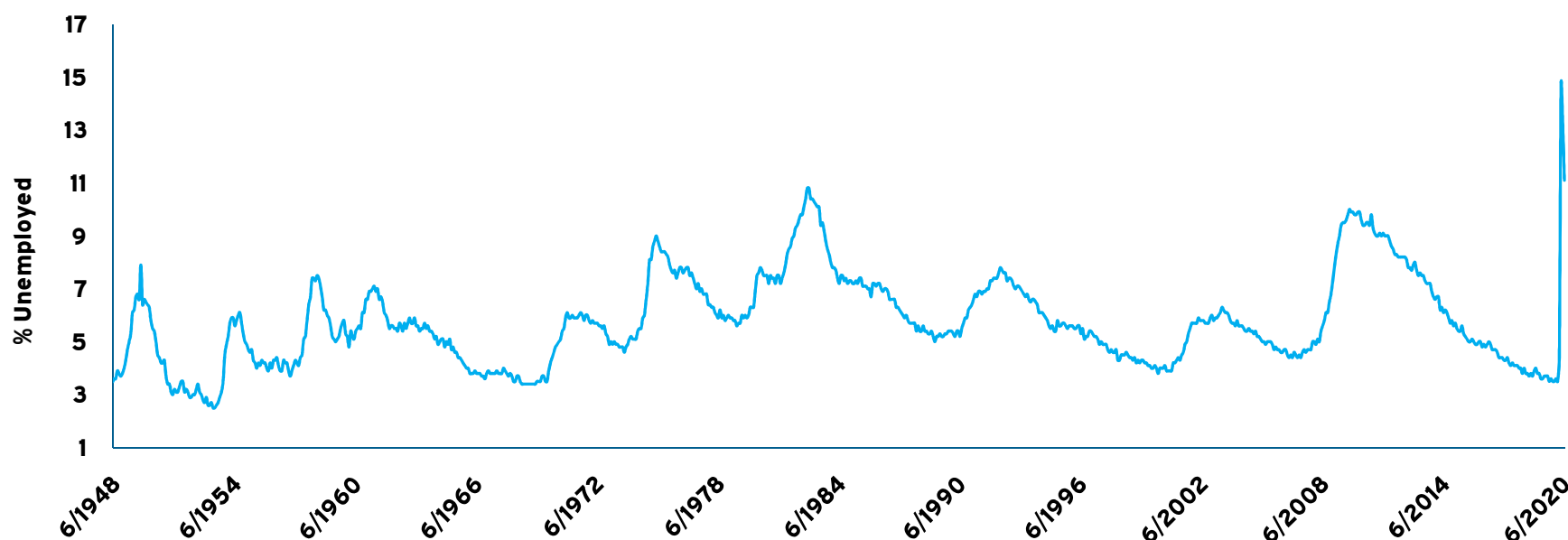
- Purchasing Managers Indices (PMI), based on surveys of private sector companies, collapsed across the world to record lows, as output, new orders, production, and employment have been materially impacted by closed economies. The service sector was particularly hard hit by the stay at home orders.
- Readings below 50 represent contractions across underlying components and act as a leading indicator of economic activity, including the future paths of GDP, employment, and industrial production.
- Recently, there have been improvements in data as economies reopen, contributing to the optimism in equity markets.

¹ Source: Bloomberg. US Markit Services and Manufacturing PMI. Data is as of June 2020.

² Source: Bloomberg. Eurozone Markit Services and Manufacturing PMI. Data is as of June 2020.

³ Source: Bloomberg. Caixin Manufacturing PMI data is as of June 2020. Caixin Services PMI as of May 2020

US Unemployment Rate¹

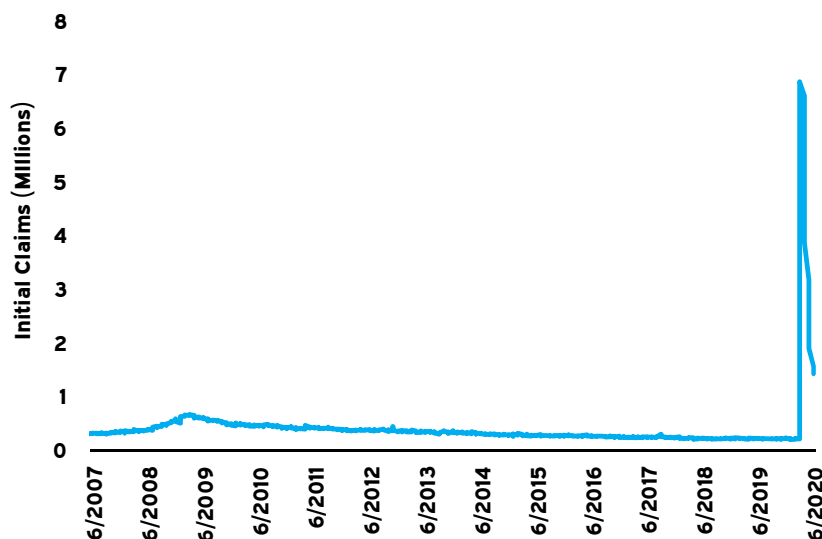


- In May, the unemployment rate continued its decline from the recent April 14.7% peak, falling to 11.1%.
- Despite the improvement, unemployment levels remain well above pre-virus readings and are likely higher than reported due to issues related to some workers being misclassified. According to the Bureau of Labor Statistics, absent the misclassification issue, the June unemployment rate would be higher by 1.0%.
- The recent increase in COVID-19 cases could lead to an increase in the unemployment rate going forward.

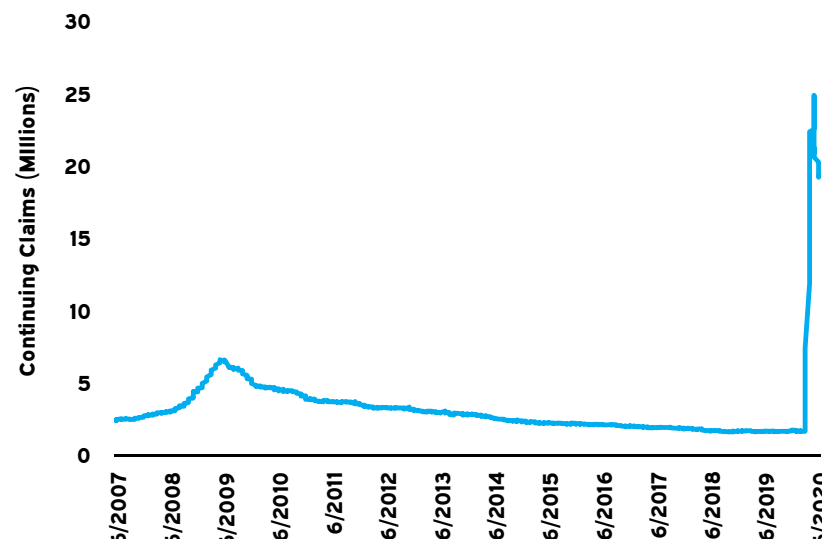
¹ Source: Bloomberg. Data is as of June 30, 2020.

US Jobless Claims

US Initial Jobless Claims¹



Continuing Claims²

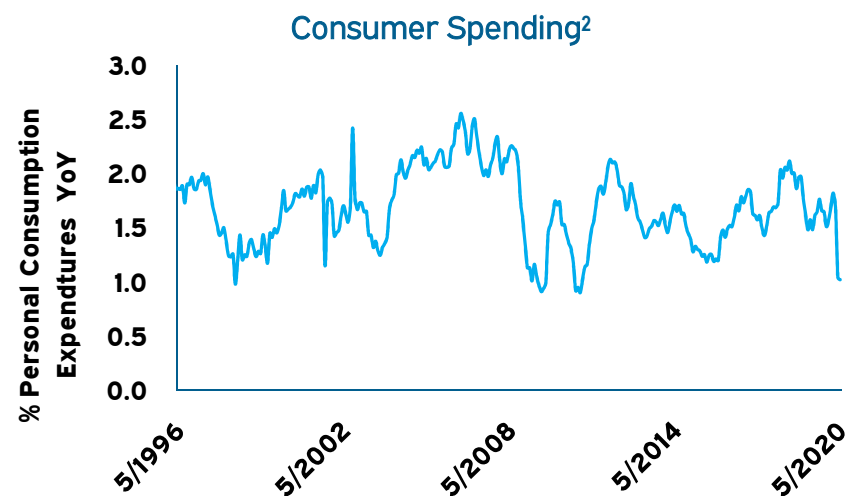
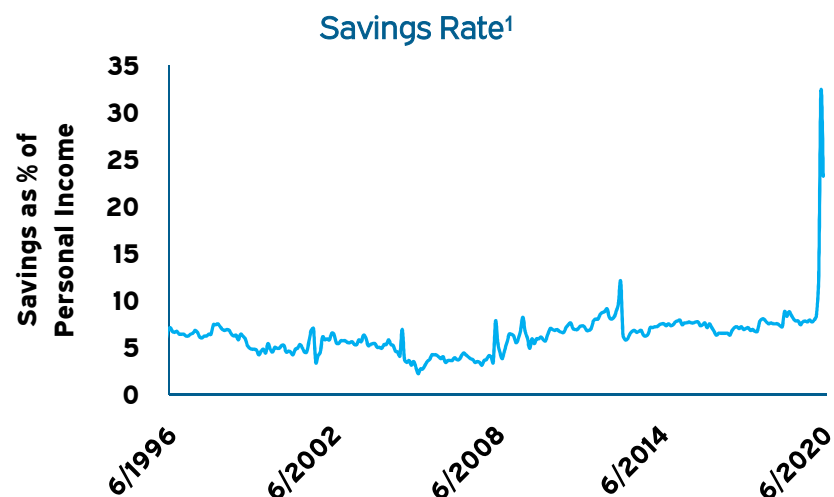


- Over the last 15 weeks, close to 49 million people filed for initial unemployment. This level far exceeds the 22 million jobs added since the GFC, highlighting the unprecedented impact of the virus.
- Despite the continued decline in initial jobless claims, the 1.4 million level of the last reading remains many multiples above the worst reading during the Global Financial Crisis.
- Continuing jobless claims (i.e., those currently receiving benefits) has also declined from record levels, but remains elevated.

¹ Source: Bloomberg. First reading of seasonally adjusted initial jobless claims. Data is as of June 26, 2020.

² Source: Bloomberg. US Continuing Jobless Claims SA. Data is as of June 19, 2020.

Savings and Spending



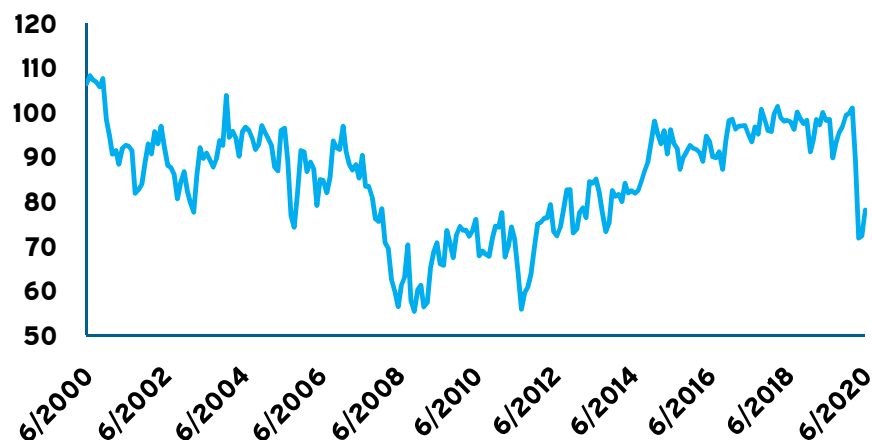
- Fiscal programs including stimulus checks, enhanced unemployment benefits, and loans to small businesses through the Paycheck Protection Program (PPP) have largely supported income levels through the shutdown.
- Despite the income support, the savings rate has increased at the expense of spending, driven by uncertainties related to the future of the job market and stimulus programs.

¹ Source: Bloomberg. Data is as of June 30, 2020.

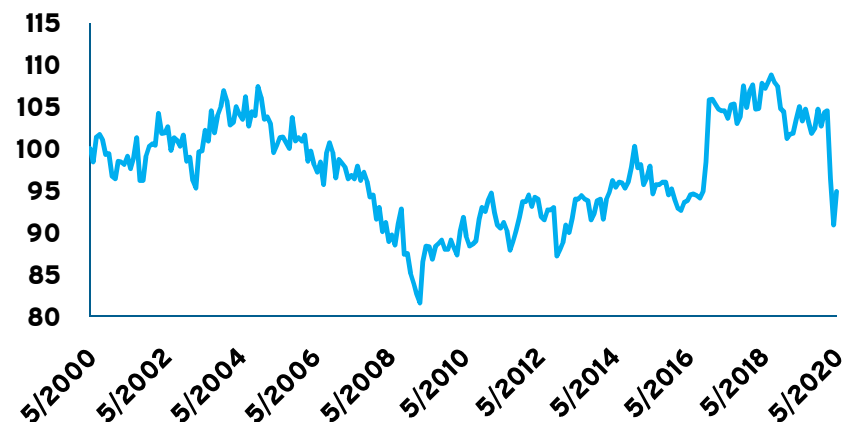
² Source: Bloomberg. Data is as of May 31, 2020.

Sentiment Indicators

University of Michigan Consumer Sentiment¹



Small Business Confidence²



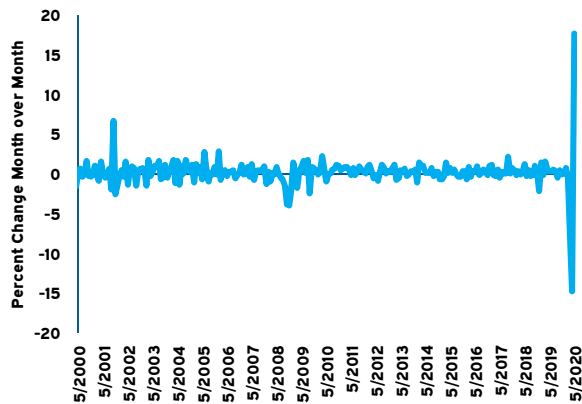
- A strong indicator of future economic activity are the attitudes of businesses and consumers today.
- Consumer spending comprises close to 70% of US GDP, making the attitudes of consumers an important driver of economic growth. Additionally, small businesses comprise a majority of the economy, making sentiment in that segment important too.
- Sentiment indicators have shown some improvements as the economy re-opens, but they remain well below prior levels.

¹ Source: Bloomberg. University of Michigan Consumer Sentiment Index. Data is as of June 30, 2020.

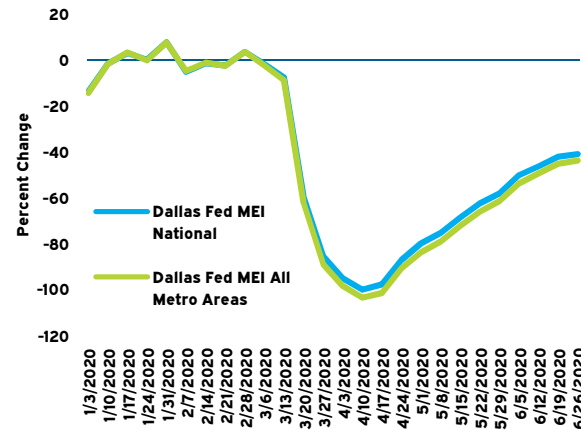
² Source: Bloomberg. NFIB Small Business Optimism Index. Data is as of May 30, 2020.

Some US Data has Improved

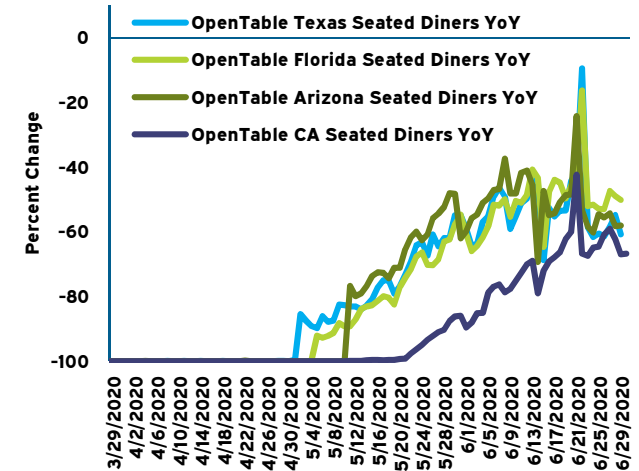
Retail Sales¹



Dallas Fed Mobility and Engagement Index²



OpenTable Seated Diners YoY % Change³



- There have been improvements in high frequency data, but overall levels remain well below prior readings.
- Generally, people have become more active as restrictions eased and stores reopened. Retail sales recovered from a record decline with a record increase, more than double the forecast.
- States that eased restrictions on restaurants saw initial improvements before declining, as in-store dining has been cited as a key contributor to increases in cases.

¹ Source: Bloomberg. Data is as of May 31, 2020 and represents the US Retail Sales SA MoM%

² Source: Bloomberg. Data is as of June 26, 2020 and represents the deviation from normal mobility behaviors induced by COVID-19 (formerly the "Social Distancing Index").

³ Source Bloomberg. Data is as of June 30, 2020 and represents some states that eased restaurant restrictions.

Government Re-Opening Recommendation¹

Phase One	Phase Two	Phase Three
<ul style="list-style-type: none"> • Vulnerable individuals continue to stay at home. • Avoid groups of more than 10 people if social distancing is not possible. • Minimize non-essential travel. • Work remotely if possible with restrictions in the office for those businesses that open. • Schools remain closed, but some larger venues can open with strict protocols. • Outpatient elective surgeries can resume. 	<ul style="list-style-type: none"> • Vulnerable individuals continue to stay at home. • Avoid groups of more than 50 people if social distancing is not possible. • Non-essential travel resumes. • Continue to work remotely if possible with restrictions in the office for those businesses that open. • Schools can reopen. • Inpatient elective surgeries can resume 	<ul style="list-style-type: none"> • Vulnerable individuals can return to public life with social distancing. • Workplaces can reopen without restrictions. • Larger venues can operate under reduced social distancing protocols.

- The Trump administration announced guidelines for re-opening the US economy.
- Guidelines recommend states document a “downward trajectory” in new cases for two weeks before beginning a three-phase process to scale back distancing measures and reopen local economies.
- States should also document an additional two-week period decline in instances between each of the three phases, and be prepared to reinstate social distancing measures should cases rebound.
- The recent spike in cases in certain states, and the potential for similar increases elsewhere, remains a significant headwind to the re-opening plans in the US.

¹ Source: <https://www.whitehouse.gov/openingamerica/>

Looking Forward...

- There will be significant economic impact and a global recession.
 - How deep it will be and how long it will last depend on factors (below) that are unknowable at this time.
- The length of the virus and country responses will be key considerations.
 - As of now, it is not clear the end is in sight, particularly given the recent increases in cases in certain areas; however, individual countries are attempting to lay the groundwork to support a recoveries in their economies.
- Central banks and governments are pledging support, but will it be enough?
 - Market reactions to announced policies have been positive, but additional support will likely be required until the virus gets better contained.
- Expect heightened market volatility given the recent spike in cases and valuation levels.
 - This has been a consistent theme recently; volatility is likely to remain elevated for some time.
- It is important to retain a long-term focus.
 - History supports the argument that maintaining a long-term focus will ultimately prove beneficial for diversified portfolios.

Prior Drawdowns and Recoveries from 1926-2020¹

Period	Peak-to-Trough Decline of the S&P 500	Approximate Time to Recovery
Sept 1929 to June 1932	-85%	266 months
February 1937 to April 1942	-57%	48 months
May 1946 to February 1948	-25%	27 months
August 1956 to October 1957	-22%	11 months
December 1961 to June 1962	-28%	14 months
February 1966 to October 1966	-22%	7 months
November 1968 to May 1970	-36%	21 months
January 1973 to October 1974	-48%	69 months
September 1976 to March 1978	-19%	17 months
November 1980 to August 1982	-27%	3 months
August 1987 to December 1987	-32%	19 months
July 1990 to October 1990	-20%	4 months
July 1998 to August 1998	-19%	3 months
March 2000 to October 2002	-49%	56 months
October 2007 to March 2009	-57%	49 months
February 2020 to May 2020	-34%	TBD
Average	-36%	41 months
Average ex. Great Depression	-33%	25 months

- As markets continue to recover questions remain about whether the ultimate low has been seen.
- Markets are continuing to reprice amid the uncertain impact of the virus on companies and the broader economy, which means this drawdown is still being defined in the context of history.
- That said, financial markets have experienced material declines with some frequency, and while certain declines took a meaningful time to recover, in all cases they eventually did.

¹ Source: Goldman Sachs. Recent peak to trough declines are through June 30, 2020.

Implications for Clients

- Portfolios have generally experienced significant improvements from the March lows.
- Even though equity markets have recovered from their lows, it is important to remain vigilant and be prepared to rebalance if volatility increases again.
 - Before rebalancing, consider changes in liquidity needs given the potential for cash inflows to decline in some cases.
 - Also, consider the cost of rebalancing if investment liquidity declines.
- Diversification works. The latest decline was an example of a flight to quality leading to gains in very high quality bonds.

Performance YTD (through June 30, 2020)

S&P 500	ACWI (ex. US)	Aggregate Bond Index	Balanced Portfolio ¹
-3.1%	-11.2%	6.1%	-2.6%

- Meketa will continue to monitor the situation and communicate frequently.
 - The situation is fluid and the economic impact is uncertain at this stage.
- Please feel free to reach out with any questions.

¹ Source: InvestorForce. Balanced Portfolio represents 60% MSCI ACWI and 40% Bloomberg Barclays Global Aggregate.

July 29, 2020

BlackRock®

Fixed Income Indexing Q1 2020

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2. Global Fixed Income Platform
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Coverage Team

Your BlackRock Coverage Team

Oakland Police and Fire Retirement System Relationship Team



Jonathan Alden, CFA
Vice President



Azim Hilmy, CFA, CAIA
Director



Sean Patterson, CFA
Vice President



Brittany Schulte
Analyst

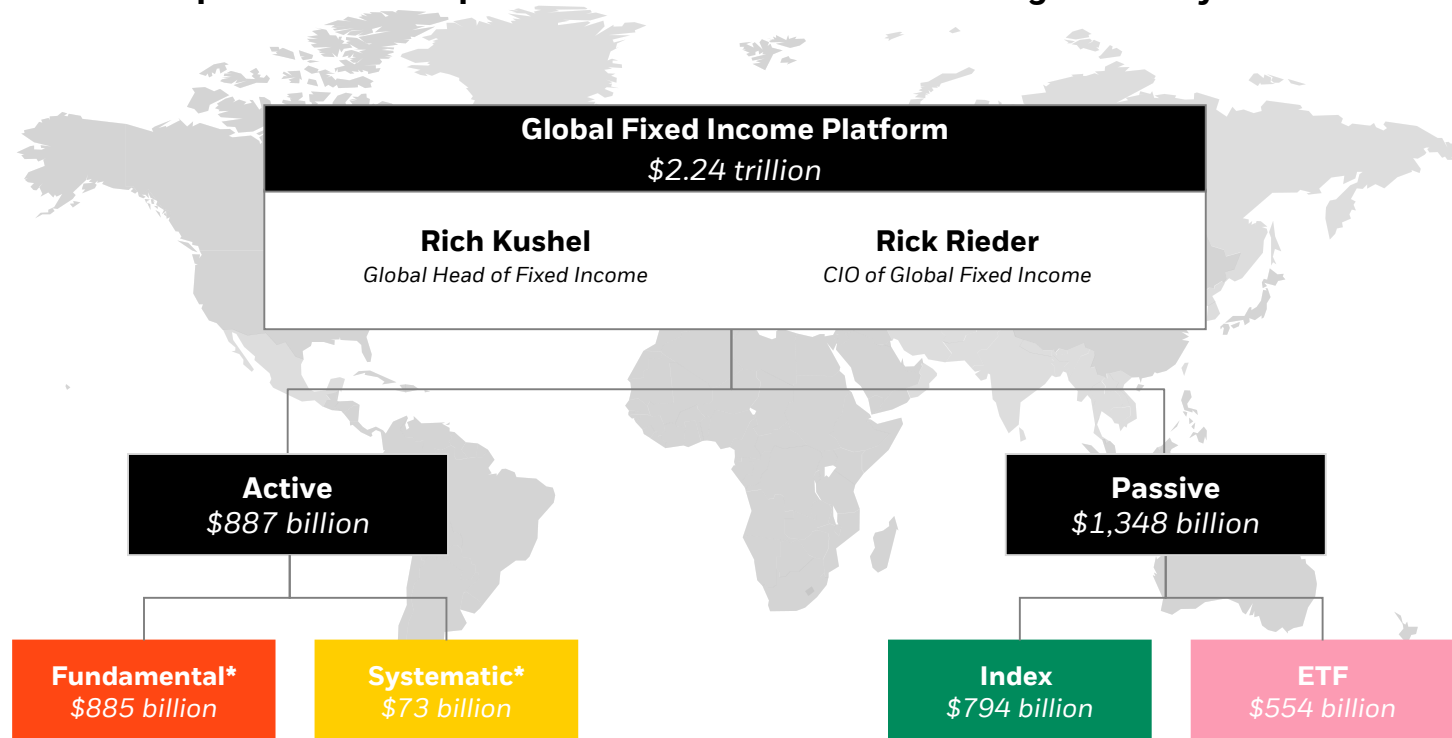
Global Fixed Income Platform

Global fixed income platform provides greater access to investment opportunities

Benefits of BlackRock's breadth and depth

- **Talent:** 400+ fixed income professionals generate ideas and identify insights to create alpha opportunities
- **Trading:** Global execution platform provides deep market access
- **Technology:** *Sophisticated analytics and risk management enables us to better understand and take risk in pursuit of alpha*
- **Culture:** Fiduciary commitment to advising and serving clients drives our investment culture

Experienced leadership team oversees portfolio teams with decision-making autonomy



Source: BlackRock. AUM in USD and data as of 31 March 2020. For illustrative purposes only.

* Fundamental and Systematic AUM as of 12/31/2019. Systematic AUM includes alternatives and fixed income sleeves of multi-asset mandates that are excluded from the "Active" GFI platform AUM to avoid double-counting.

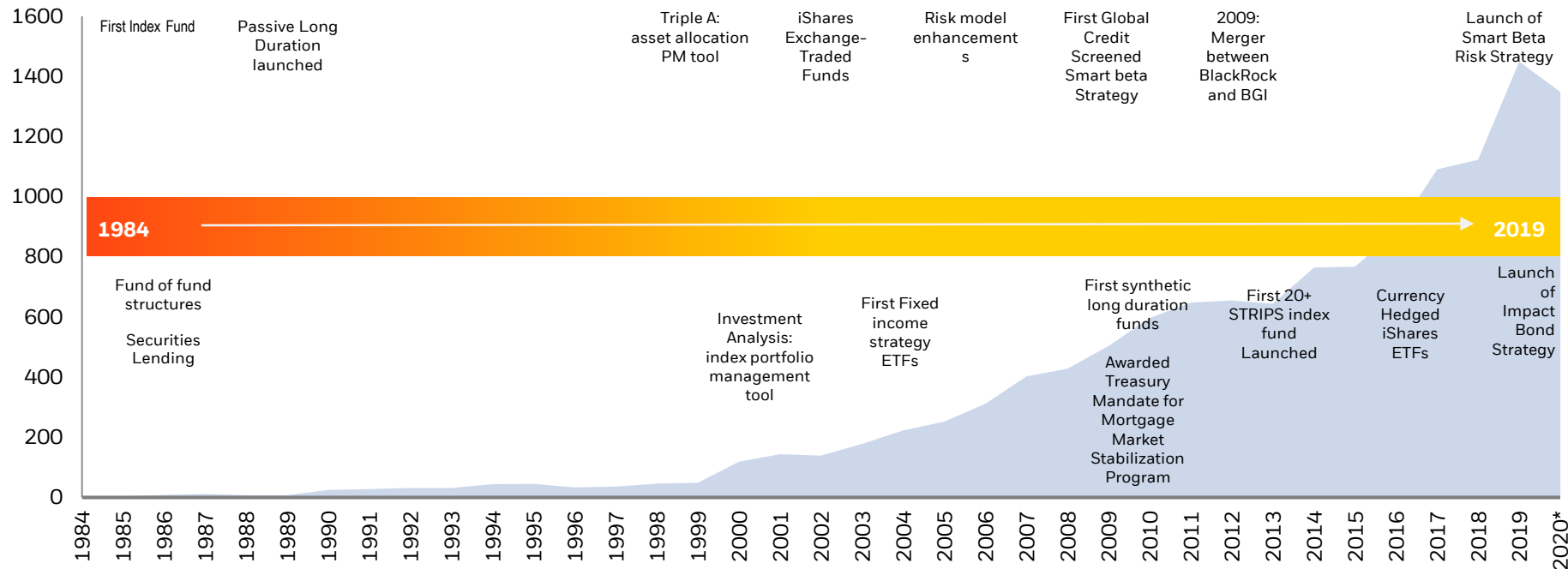
Over 30 years of index innovation

First fixed income index fund

Largest fixed income index and ETF manager globally**

Innovative provider of synthetic, smart beta/factor based and ESG solutions

BlackRock Index & Systematic Global Fixed Income assets under management (\$ billions)



Source: BlackRock,

*As of 31 March 2020




** Source: Pension & Investments as of 30 June 2019

Note: Some Innovations developed by predecessor firms

Clients Seeking Alternatives to Traditional Index Returns

Factor-based strategies and other systematic solutions offer alternatives to traditional index returns

U.S. Aggregate Strategies

Defensive Credit 	▶ Defensive, systematic strategy designed to avoid issuers that are at risk of experiencing credit deterioration
MBS Up In Coupon 	▶ Factor-based strategy designed to outperform traditional MBS indices by capturing attractive risk-adjusted carry
Curve Steepener 	▶ Factor-based strategy designed to outperform traditional government indices by capturing term-premia and roll down
Short Carry 	▶ Systematic strategy designed to generate carry through use of US Treasury Futures and short-dated securitized holdings

Broader Strategy Options

Balanced Risk "FIBR" 	▶ Factor-based strategy designed to balance interest rate and spread risk to improve risk adjusted returns
Systematic CorePlus 	▶ Systematic strategy designed to outperform traditional indices by tilting into sectors traditionally utilized by active managers
Capital Efficiency 	▶ Systematic strategy designed to release capital through synthetic replication of traditional fixed income indices
Impact Investing 	▶ Systematic strategy designed to incorporate ESG factors while minimizing tracking error to traditional indices

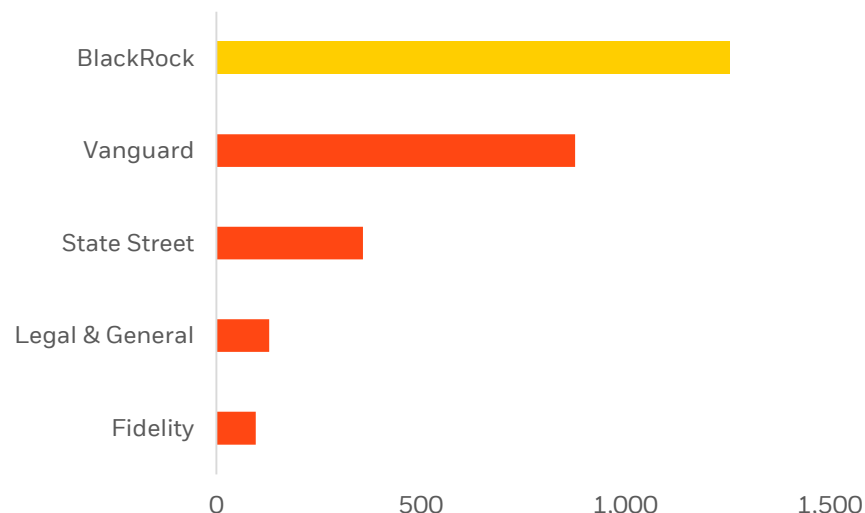
Source: BlackRock. The above information is shown for illustrative purposes only and not meant to be a recommendation to buy or sell any security. Derivatives may involve certain costs and risks such as liquidity, interest rate, market, credit, management and the risk that a position could not be closed when most advantageous. Investing in derivatives could lose more than the amount invested.

BlackRock is a global leader in fixed income indexing

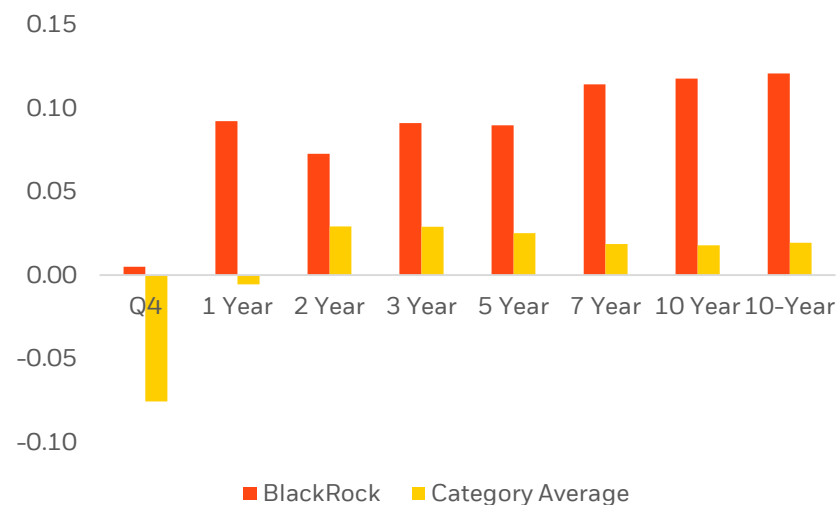
There are four key reasons to pick BlackRock over any other index provider:

- Low historical tracking error¹
- An experienced, stable team
- Potential for Low transaction costs from size and scale
- Transparent pricing and no cross subsidization as BlackRock has no custody business

Global Fixed Income Index Market AUM (\$bn)²



Gross Tracking Difference vs. BBG Barclays US Aggregate Index³



1 Source: BlackRock. Realized 5-year tracking error is 6 bps for the BlackRock U.S. Debt Index Collective Trust Fund. Please see slide 19 for additional information on the Fund's tracking error.

2 Source: Pension & Investments. All dollar values are in \$ billions.; data as of 30 June 2019. Managers included based on largest global fixed income index market AUM per Pension & Investments.

3 Source: eVestment; data as of 31 December 2019. Periods less than a year are not annualized. Indexes are unmanaged and one cannot invest directly in an index. Managers on the right are different from those with the largest Index AUM due to product availability or missing data. The Category Average includes all passive index funds available on eVestment managed against the Bloomberg Barclays US Aggregate Index. Category Average depicts tracking difference, defined as risk in excess of the benchmark, vs. the Bloomberg Barclays US Aggregate Index. The Fund's net asset value does not include an accrual for the investment management fee but does include an accrual for fund level administrative costs and, if applicable, certain third party acquired fund fees and expenses. If the Fund's net asset value did include an accrual for the investment management fee, the Fund's returns would be lower. **Past performance is not necessarily an indicator of future performance.** All periods contain 11 managers in the universe except the 10-Year period, which contains 10. BlackRock is included in the universe. Please see slide 20 for the Fund's full performance track record.

Team, Philosophy & Process

Americas Fixed Income Index Team

Americas Fixed Income						Research	Strategy
Portfolio Management						Global Research	Americas
Core PM						Research Group	Robert Stanley Head of US Product Strategy
Scott Radell Head of San Francisco Core PM						Ignacio Blanch Head of Systematic Fixed Income Research	Matt Tucker Gordon Readey Kathryn Donovan Laura May
Multi-Sector/Other	Credit	Rates / Mortgages / Emerging Markets				Research	
Scott Radell Head of San Francisco Core PM Jasmita Mohan Portfolio Manager Multi-Sector Joel Silva Sr. Portfolio Manager Munis / Canada / ESG Rena Patel Portfolio Manager Municipals Kent Yamane Portfolio Manager Securitized Credit Clay Armistead Portfolio Manager Securitized Credit	Karen Uyehara Sr. Portfolio Manager Multi-Sector Joseph Maciunas Portfolio Manager Multi-Sector / Rates Chandler Grinnell Portfolio Manager Multi-Sector Jermaine Pierre Portfolio Manager Canada Lip Tong Portfolio Manager Canada Tao Chen Portfolio Manager Municipals	Jonathan Graves Sr. Portfolio Manager Corporate Credit Christina Hanlon Portfolio Manager Corporate Credit Cynthia Fan Portfolio Manager Corporate Credit Sam Dreyfuss Portfolio Manager Corporate Credit Cole Bushman Portfolio Manager Corporate Credit	David Dulski Portfolio Manager Corporate Credit Aaron Aguiar Portfolio Manager Corporate Credit Jesse Kang Portfolio Manager Corporate Credit Allen Kwong Portfolio Manager Corporate Credit	Jay Mauro Deputy Head of SF Core PM Marcus Tom Portfolio Manager Agency Mortgages Wes George Portfolio Manager Agency Mortgages Paige Whistler Portfolio Manager Emerging Markets	Mark Buell Portfolio Manager US Government Bonds Yang He Portfolio Manager Agency Mortgages Gabe Shipley Portfolio Manager Emerging Markets Danny Ng Portfolio Manager Emerging Markets	+ 8 Index researchers	

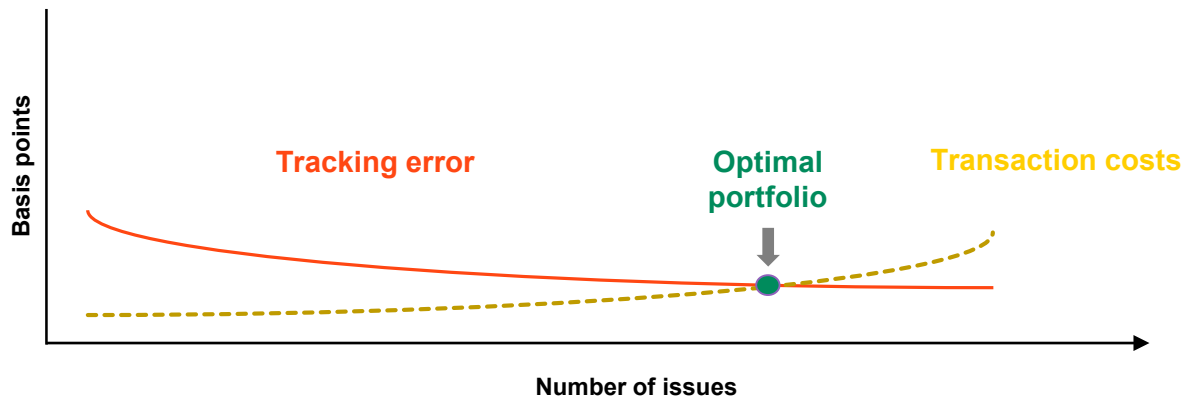
Source: BlackRock. As of March 31, 2020

Passive management

OTC markets require different strategies vs. exchange traded markets

Quantitative process balances tracking error & transaction costs

- Unlike most stocks, bonds trade “Over the Counter”
- Prohibitive costs, uncertain liquidity, and issue scarcity often makes perfect replication infeasible
- Index process optimizes marginal contribution to tracking error with T-Costs



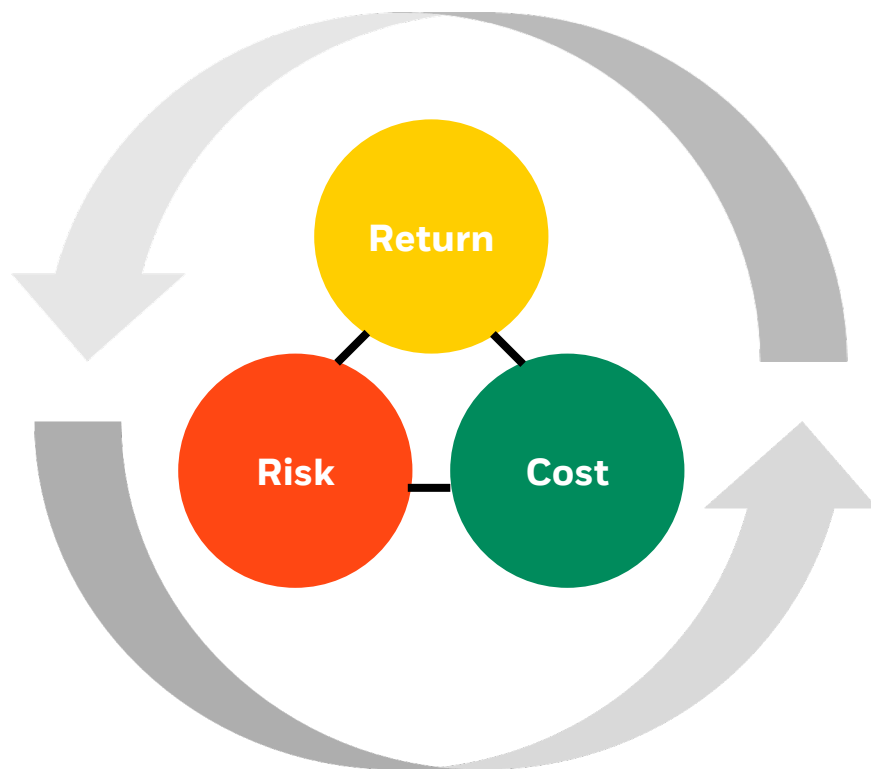
For illustrative purpose only and subject to change.
Source: BlackRock

Philosophy

Total performance management

Superior investment outcomes may be best achieved through a disciplined, objective process for managing return, risk and cost

- **Return** — Performance as planned with value-added portfolio management
- **Risk** — Proprietary portfolio & risk management system helps manage investment and operational risk
- **Cost** — Trading cost integrated into portfolio construction using proprietary transaction cost models

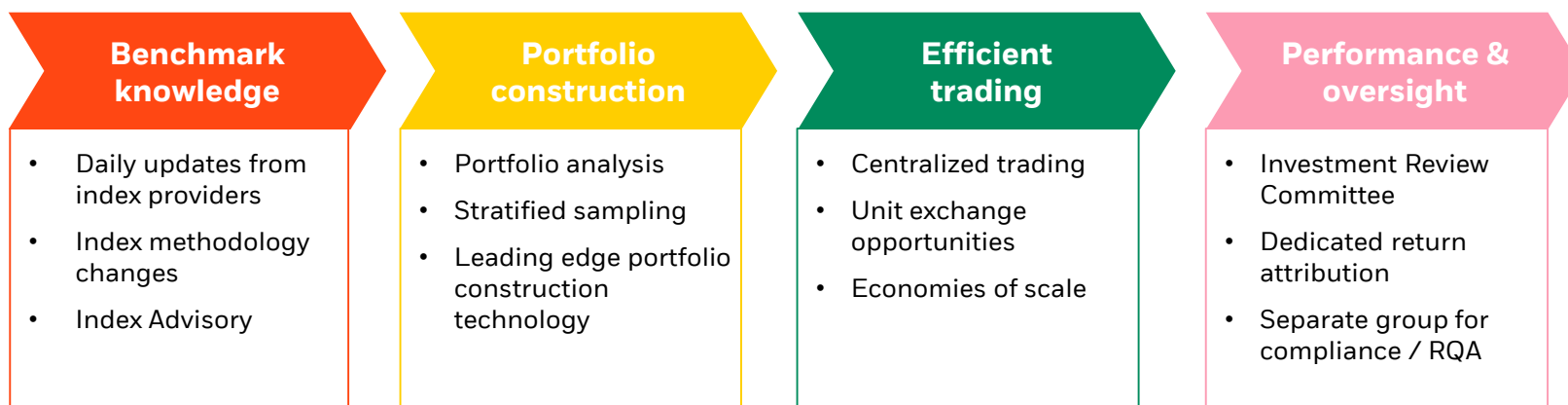


Source: BlackRock. Investment process is shown for illustrative purposes only and is subject to change.

Disciplined process within a scalable, risk-managed framework underpin consistent historical performance

- BlackRock's index portfolios are managed using a team approach for research, portfolio management, trading, and risk oversight

Portfolio Management Process



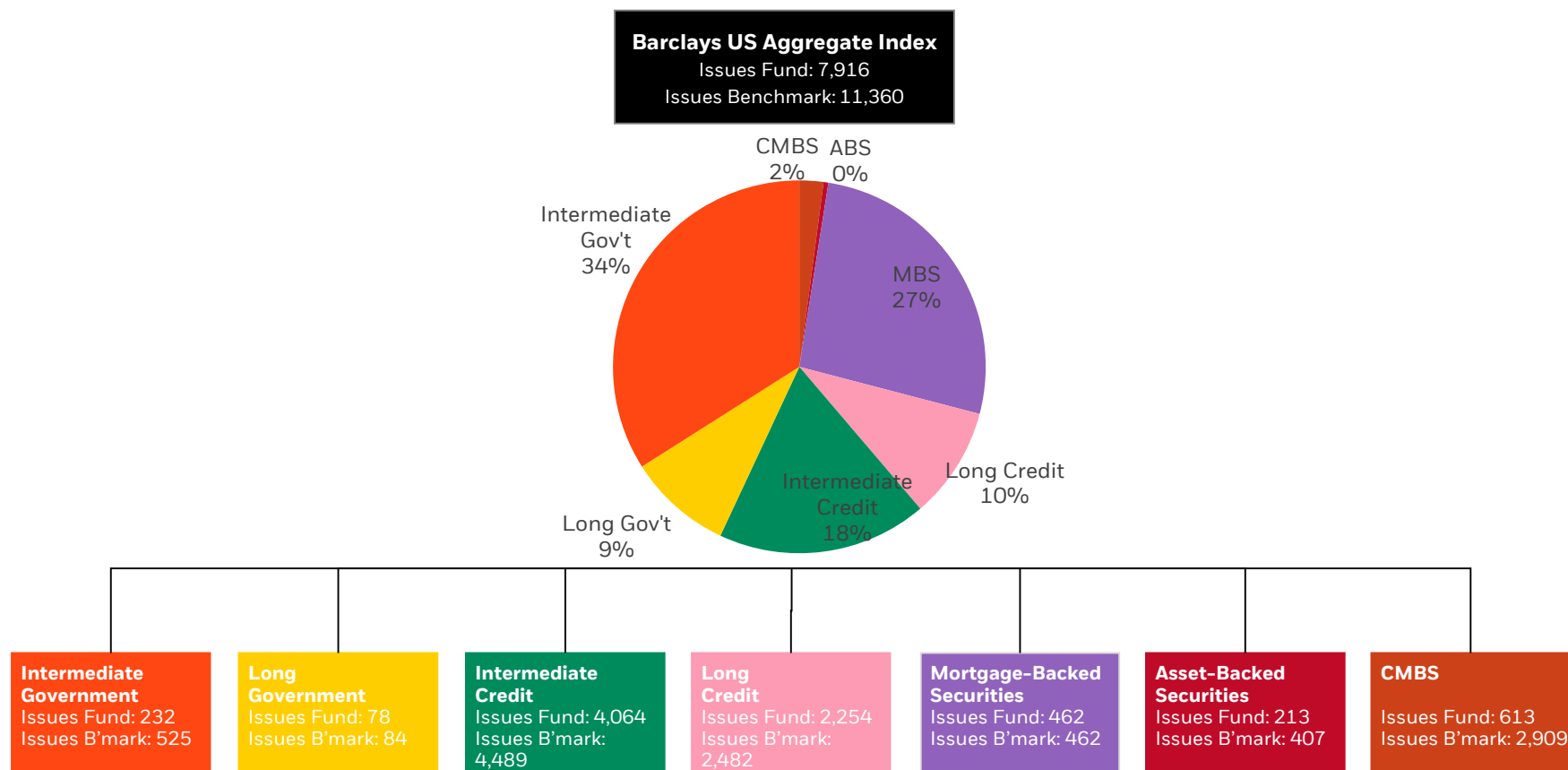
Risk Management

Leverage RQA and BlackRock's proprietary Aladdin® system to help identify, monitor and minimize risk

Source: BlackRock. Investment process is shown for illustrative purposes only and is subject to change.

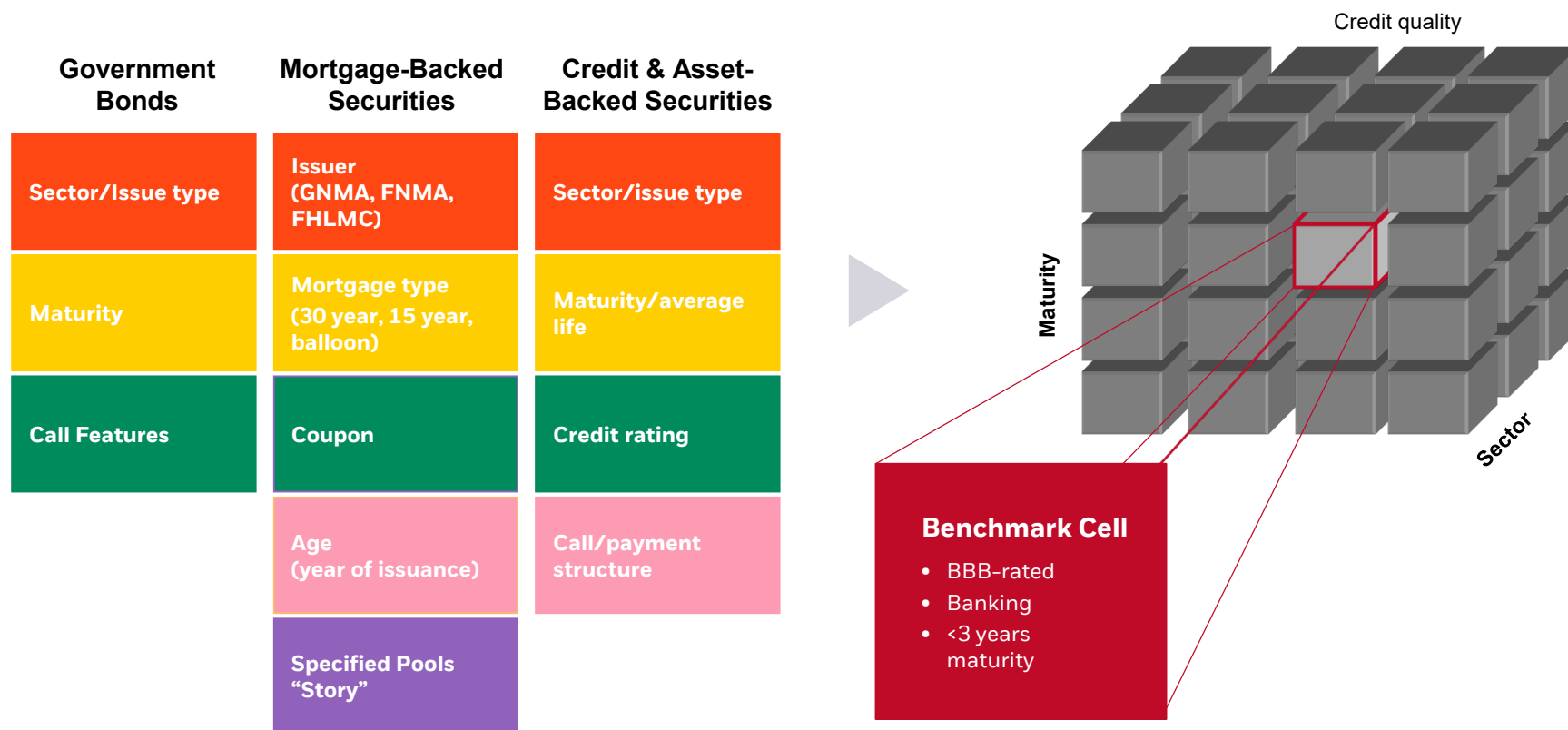
Benchmark knowledge & modular fund design

BlackRock's modular fund design leverages scale and facilitates crossing opportunities



Source: Barclays and BlackRock as of March 31, 2020
Funds are BlackRock CTFs. For illustrative purposes only.

Stratified sampling: Dividing the various indexes into subsets (cells) based upon relative parameters



Portfolios are constructed by sampling bonds from each index cell

Source: BlackRock. For illustrative purpose only and subject to change.

Portfolio construction

Building a corporate bond index portfolio

Construction process

Part 1

Stratify Universe by Risk Cells

- Sector
- Industry / sub-sector
- Maturity
- Credit
- Structure

Part 2

Optimize by Risk Factors

- Key Rate Duration
- Convexity
- Duration Times Spread
- T-Cost

Example: US Intermediate Investment Grade Corporate Bond Index Fund (illustrative)

Index (*Barclays Intermediate Credit Index*)

Index (4,489 bonds)

BLK (4,064 bonds)

Sector (example: *Industrials*)

Index (2,240 bonds)

BLK (2,080 bonds)

Sub-Sector (example: *Energy*)

Index (305 bonds)

BLK (291 bonds)

Maturity (example: *7-10 years*)

Index (75 bonds)

BLK (73 bonds)

Credit Rating (example: *BBB*)

Index (60 bonds)

BLK (59 bonds)

Structure (example: *Make Whole Call*)

Index (3 bonds)

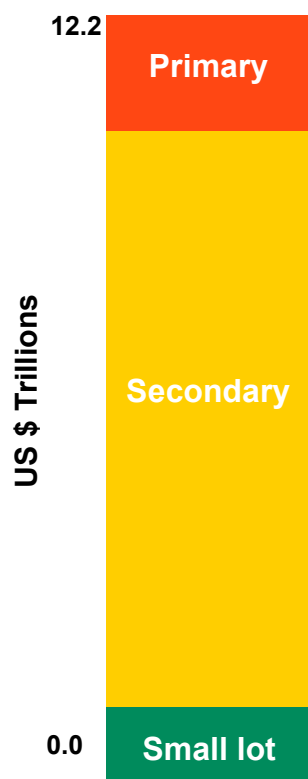
BLK (2 bonds)

Source: BlackRock; data as of 31 March 2020. Example for illustrative purposes only. And does not depict actual Collective Trust Fund data. It is shown to demonstrate the investment process.

BlackRock is the largest counterparty to Wall Street

Size and scale are clear competitive advantages in the fixed income marketplace

- BlackRock traded \$12.2 trillion of fixed income in 2019
- Globally coordinated trading business leveraging scale across all investment activity for pricing power
- The uniqueness of our breadth and depth helps benefit our trading experience at all levels of execution



Primary issuance

- BLK Global Capital Markets/Syndicate manages deal structure as well as optimizes allocations
- BLK drives many “issued to manage” deals which have the potential to result in reduced fees and increased allocations

Secondary trading

- Pricing power of world's largest asset manager*
- Managed trade distribution and optimized execution leverages price discovery, has the potential to reduce bid/offer spread

Small lot trading

- Dedicated unit aggregates firm-wide small lot orders
- Potential execution benefits from round-lot price improvement

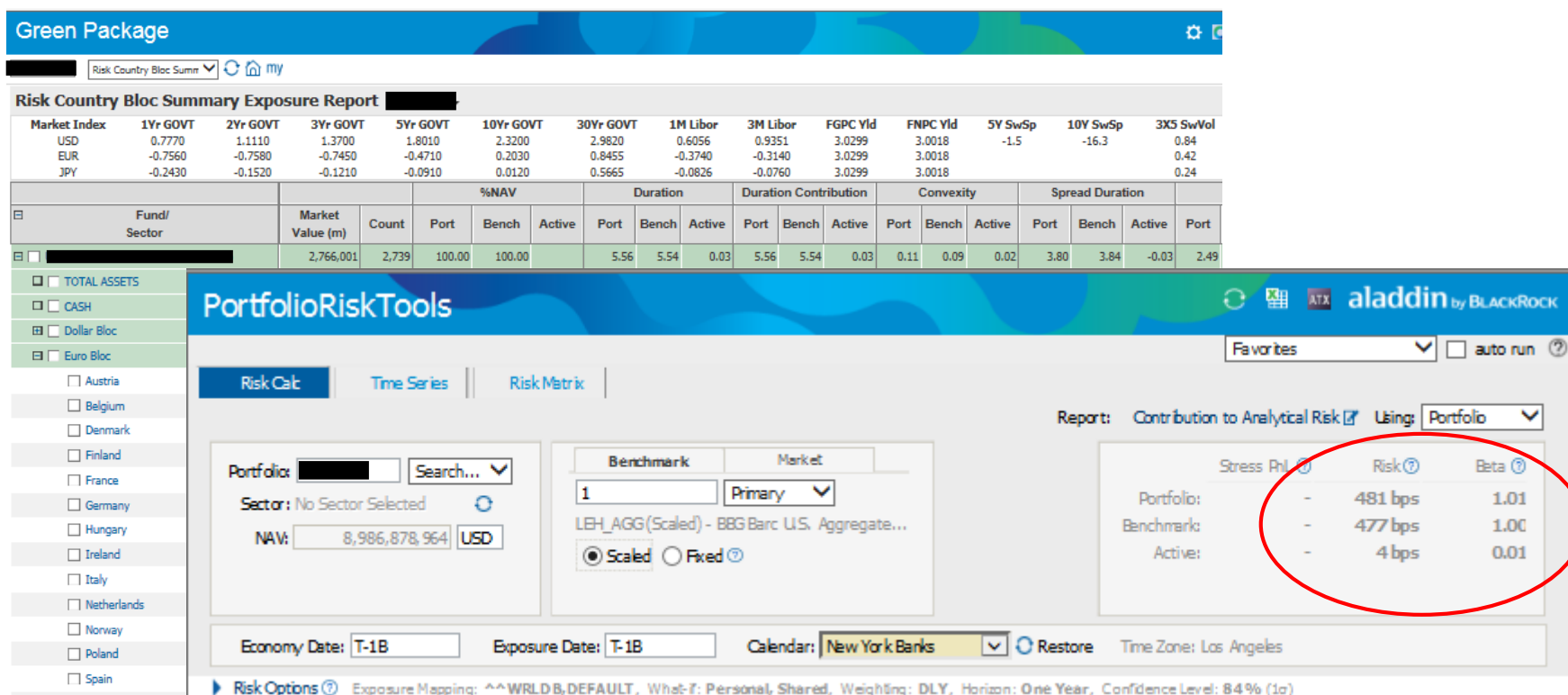
Source: BlackRock; Data as of 31 December 2019

* Per Pensions & Investments rankings as of 12/31/2018. Report published as of 10/28/2019.

Performance analysis and review

Aladdin® Enterprise System: “One Database, One System, One Process”*

- 25,000+ Aladdin users across 45 countries
- 5,000 Stress tests performed each week
- 1000+ developers working to continually evolve the platform



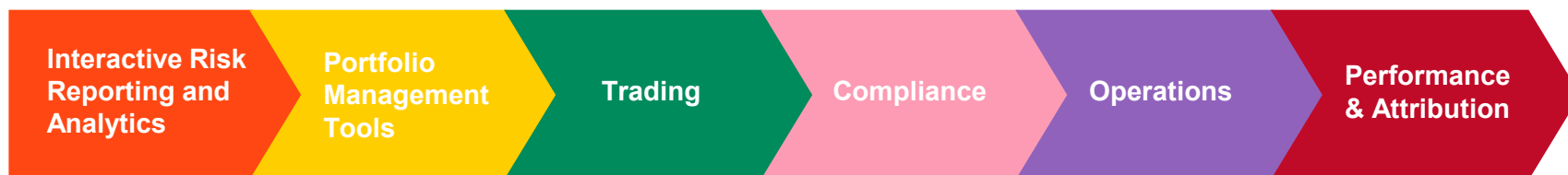
Source: BlackRock. Sample screenshots are for illustrative purpose only and do not depict actual data.

Straight through processing with Aladdin

Aladdin connects the information, people and technology needed to manage money in real time

Aladdin Platform

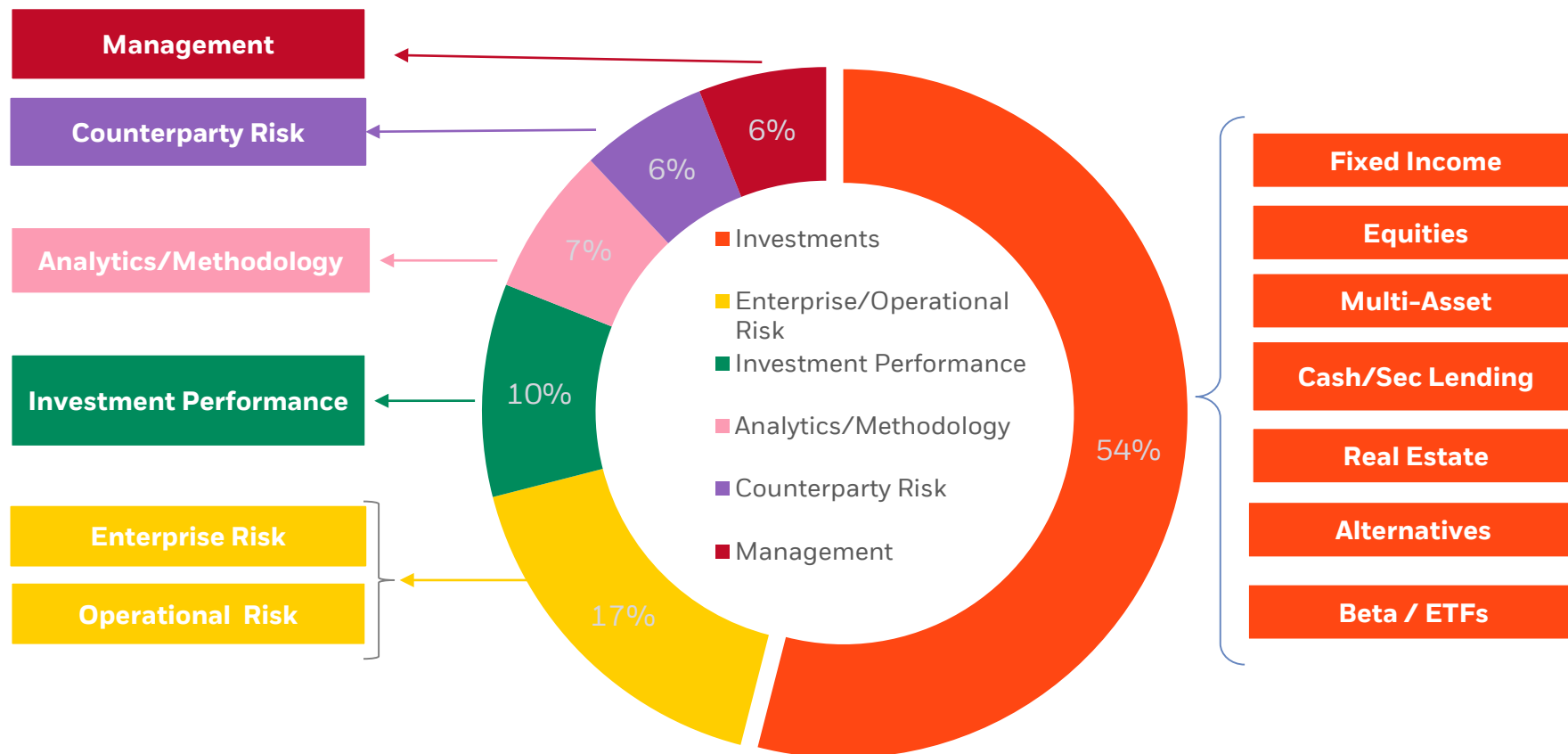
- Combines sophisticated risk, exposure and performance analyses with comprehensive portfolio management, trading, compliance and operations tools on a single platform
- Provides transparency and powers informed decision-making, effective risk management, efficient trading and operational scale



Source: BlackRock. Investment process is shown for illustrative purposes only and is subject to change.

Risk Management Resources and Functions

RQA (Risk & Quantitative Analytics)

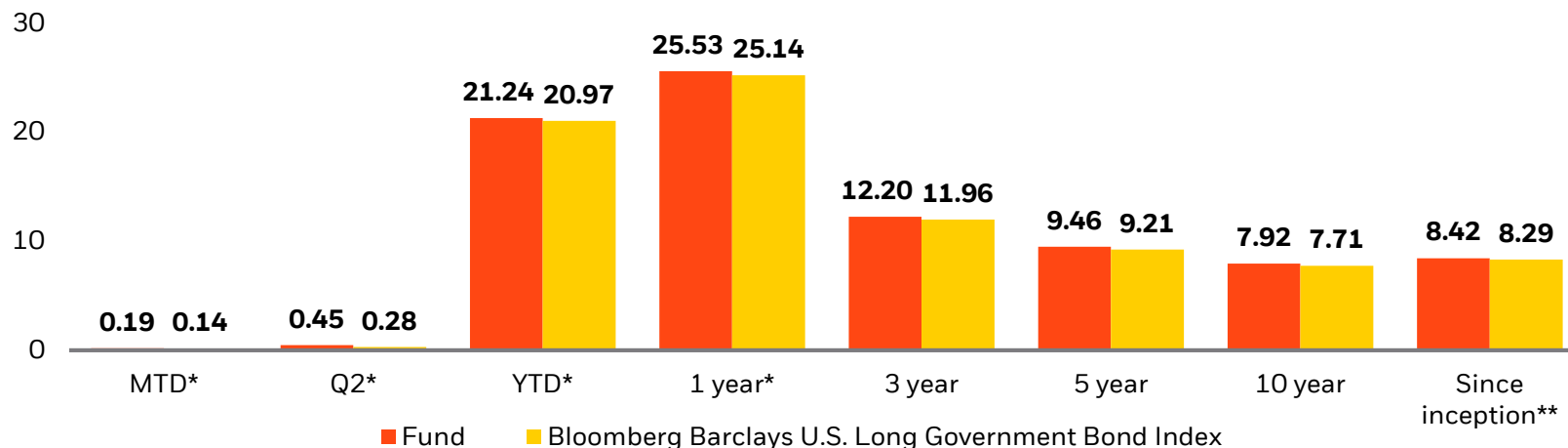


Source: BlackRock. Investment process is shown for illustrative purposes only and is subject to change.

Long Term Government Bond Index Fund

Long Term Government Bond Index Fund Performance

Gross total return in USD (annualized* %)



	MTD %*	Q2 %*	YTD %*	1-yr %*	3-yr %	5-yr %	10-yr %	Since incept %
Tracking difference (Gross vs. Benchmark)	0.05	0.17	0.27	0.39	0.24	0.25	0.21	0.13

* Period returns for less than a year are cumulative

** Fund inception date 31 December 1989

This information is unaudited, subject to change and intended for analytical purposes only. The Fund's net asset value does not include an accrual for the investment management fee but does include an accrual for fund level administrative costs and, if applicable, certain third party acquired fund fees and expenses. If the Fund's net asset value did include an accrual for the investment management fee, the Fund's returns would be lower. **Past performance is not necessarily an indicator of future performance.** Indexes are unmanaged. It is not possible to invest directly in an index.

Sources: BlackRock, Bloomberg Finance L.P.

Long Term Government Bond Index Fund

Portfolio profile

	Long Term Government Bond Index Fund	Bloomberg Barclays U.S. Long Government Bond Index
Market value (\$B)	8.80	1,915.71
# Issues	84	84
Characteristics		
Coupon (%)	3.04	3.02
Yield to maturity (YTM) (%)	1.34	1.32
Weighted avg life (yrs)	24.92	24.80
Effective duration (yrs)	18.29	18.30
Spread duration	0.39	0.26
Option adjusted spread (bps)	3	1
Convexity	4.19	4.19
Quality breakdown (mkt val %)		
AAA or above	99.84	100.00
AA	0.16	0.00

	Long Term Government Bond Index Fund	Bloomberg Barclays U.S. Long Government Bond Index
Sector breakdown (mkt val %)		
Treasury	96.17	96.18
Agencies	3.83	3.82
Weighted avg life breakdown (mkt Val %)		
0-1	-0.03	0.15
1-2	0.00	0.00
2-3	0.02	0.00
3-5	0.00	0.00
5-7	0.00	0.00
7-10	1.50	0.00
10-20	10.34	13.19
20-30	88.16	86.41
30+	0.00	0.25

Fund inception date 31 December 1989

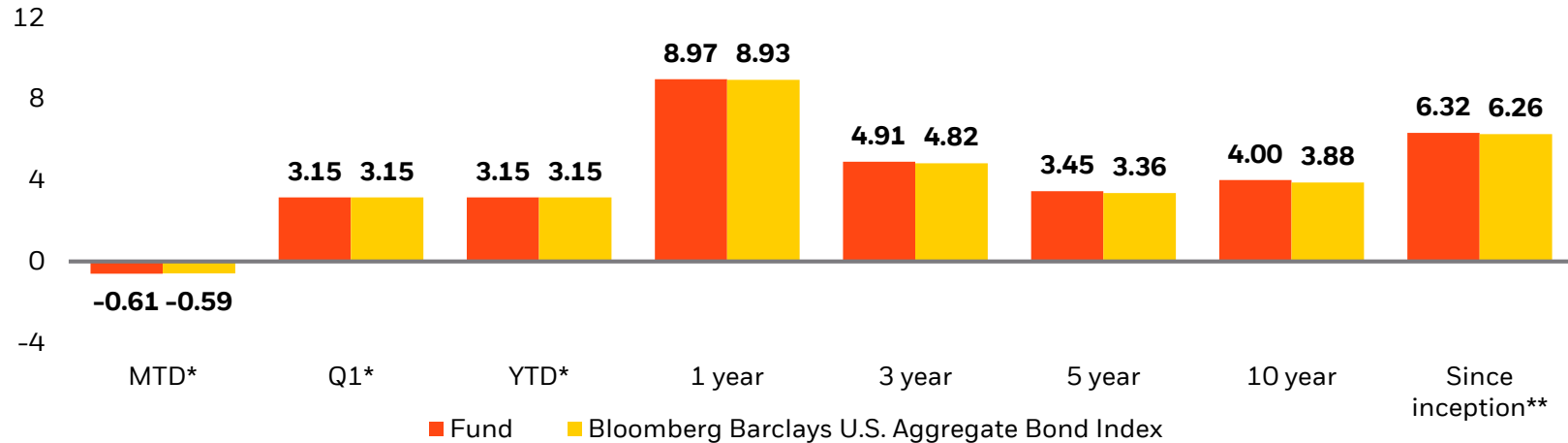
Data is for analytical purposes only. Index data points may differ to those published by the Index due to different calculation criteria. The credit quality of a particular security or group of securities may be based upon a rating from a nationally recognized statistical rating organization or, if unrated by a ratings organization, assigned an internal rating by BlackRock, neither of which ensures the stability or safety of an overall portfolio. Breakdowns may not sum to total due to rounding, exclusion of cash, STIF, and statistically immaterial factors.

Sources: BlackRock, Bloomberg Finance L.P.

Appendix

BlackRock U.S. Debt Index Collective Trust Fund Performance

Gross total return in USD (annualized* %)



	MTD %*	Q1 %*	YTD %*	1-yr %	3-yr %	5-yr %	10-yr %	Since incept %**
Tracking difference (Gross vs. Benchmark)	-0.02	0.00	0.00	0.04	0.09	0.09	0.12	0.06

* Period returns for less than a year are not annualized.

** Fund inception date 30 June 1986

This information is unaudited, subject to change and intended for analytical purposes only. The Fund's net asset value does not include an accrual for the investment management fee but does include an accrual for fund level administrative costs and, if applicable, certain third party acquired fund fees and expenses. If the Fund's net asset value did include an accrual for the investment management fee, the Fund's returns would be lower. **Past performance is not necessarily an indicator of future performance.** Indexes are unmanaged. It is not possible to invest directly in an index. The performance shown above is for the BlackRock U.S. Debt Index Collective Trust Fund.

Sources: BlackRock, Bloomberg Finance L.P.

BlackRock U.S. Debt Index Collective Trust Fund

Fund Characteristics

	U.S. Debt Index Fund	Bloomberg Barclays U.S. Aggregate Bond Index
Market value (\$B)	10.90	23,836.36
# Issues	7,916	11,360
Characteristics		
Coupon (%)	3.31	3.11
Yield to maturity (YTM) (%)	1.65	1.66
Weighted avg life (yrs)	7.84	7.82
Effective duration (yrs)	5.51	5.47
Spread duration	3.21	3.23
Option adjusted spread (bps)	96	98
Convexity	0.35	0.31
Quality breakdown (mkt val %)		
AAA or above	74.56	73.50
AA	2.71	2.90
A	10.65	11.24
BBB	11.98	12.35
Below BBB	0.09	0.00
NR	0.00	0.01

	U.S. Debt Index Fund	Bloomberg Barclays U.S. Aggregate Bond Index
Sector breakdown (mkt val %)		
Treasury	40.81	40.89
Agencies	2.23	1.31
Financials	7.40	7.70
Industrials	13.98	14.54
Utilities	1.76	1.85
Non-US credit	3.63	3.89
Taxable munis	0.65	0.66
ABS	0.36	0.42
Mortgages	26.63	26.61
Hybrid ARM	0.03	0.00
CMBS	2.08	2.11
Foreign Government	0.00	0.02
Cash	0.46	0.00
Weighted avg life breakdown (mkt val %)		
0-1	2.50	0.84
1-2	8.57	10.99
2-3	14.12	14.53
3-5	33.88	34.33
5-7	12.05	11.71
7-10	10.13	8.95
10-20	4.29	4.38
20-30	13.93	13.63
30+	0.53	0.65

Fund inception date 30 June 1986

Data is for analytical purposes only. Index data points may differ to those published by the Index due to different calculation criteria. The credit quality of a particular security or group of securities may be determined either by BlackRock or a nationally recognized statistical rating organization and does not ensure the stability or safety of an overall portfolio. In the event a security is unrated by a ratings organization, BlackRock may assign an internal rating for purposes of determining credit quality. Fund characteristics are subject to change. Breakdowns may not sum to total due to rounding, exclusion of cash, STIF, and statistically immaterial factors. Past performance is not indicative of future results. Sources: BlackRock, Bloomberg Finance L.P.

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The Fund is also subject to other key risks, as described in the Fund's Collective Investment Fund Profile. Some or all of those risks may adversely affect the value of units in the Fund, yield, total return and the Fund's ability to meet its investment objective. See the Collective Investment Fund Profile for additional information.

Past performance does not guarantee future results. Investment return and principal value of an investment will fluctuate so that an investor's units, when redeemed, may be worth more or less than the original cost. Any opinions expressed in this publication reflect our judgment at this date and are subject to change. No part of this publication may be reproduced in any manner without the prior written permission of BTC. Fund performance assumes reinvestment of income and does not reflect management fees and certain transaction costs and expenses charged to the fund. Risk controls, asset allocation models and proprietary technology do not promise any level of performance or guarantee against loss of principal.

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Index

It is not possible to directly invest in an unmanaged index.

Risk

Investing in the bond market is subject to certain risks including market, interest-rate, issuer, credit, and inflation risk; investments may be worth more or less than the original cost when redeemed. The credit quality of a particular security or group of securities does not ensure the stability or safety of the overall portfolio. Mortgage and asset-backed securities may be sensitive to changes in interest rates, subject to early repayment risk, and while generally backed by a government, government-agency or private guarantor there is no assurance that the guarantor will meet its obligations. Investors will, at times, incur a tax liability.

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July 29, 2020



BlackRock ETFs and Index Investments

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Coverage Team

Your BlackRock Coverage Team

Oakland Police and Fire Retirement System Relationship Team



Jonathan Alden, CFA
Vice President



Azim Hilmy, CFA, CAIA
Director



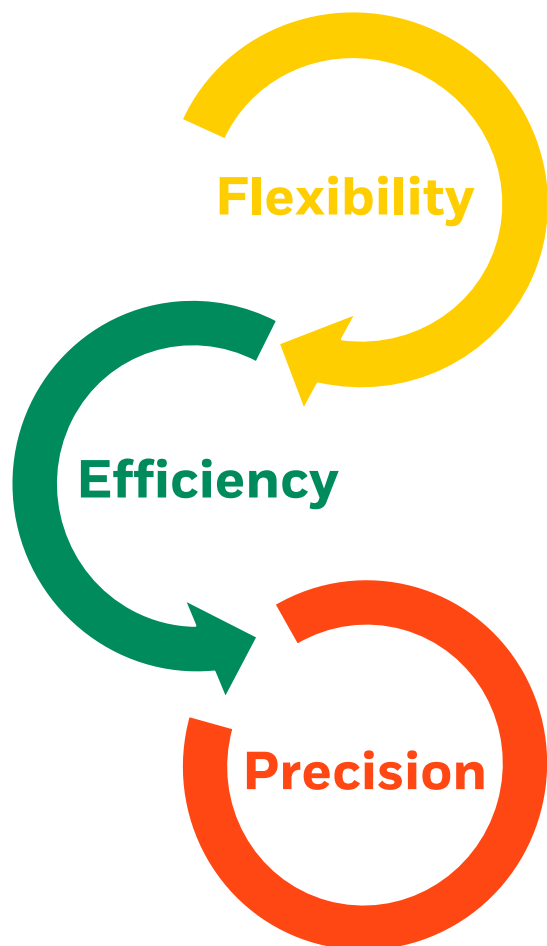
Sean Patterson, CFA
Vice President



Brittany Schulte
Analyst

BlackRock Index Investments Overview

BlackRock's Index proposition



- ▶ Provide you with a broad range of market exposures together with a flexible range of product features
- ▶ An evolving range of products and strategies designed to help meet your needs today and in the future
- ▶ Partner with you to address your unique investment challenges through our customisation and solutions capabilities
- ▶ Disciplined investment approach focused on delivering optimal tracking, consistent returns and lowering the total cost of ownership
- ▶ Scale, breadth and diversity of our clients and strategies helps us to minimize transaction costs and seek to preserve the value of your investments
- ▶ Design products and strategies that consider the factors that impact your investment results from tax-efficiency to access and liquidity
- ▶ Our investment professionals are focused on delivering performance and efficient outcomes
- ▶ Extensive trading, risk and operational platform positioned to seek efficient tracking as well as enhanced returns
- ▶ Investment track record spanning four decades that has seen investors entrust us with \$4.0 trillion of assets under management as of 31 March 2020

Seeking to deliver high quality, cost-effective access to a broad range of market opportunities

BlackRock's global index investment platform

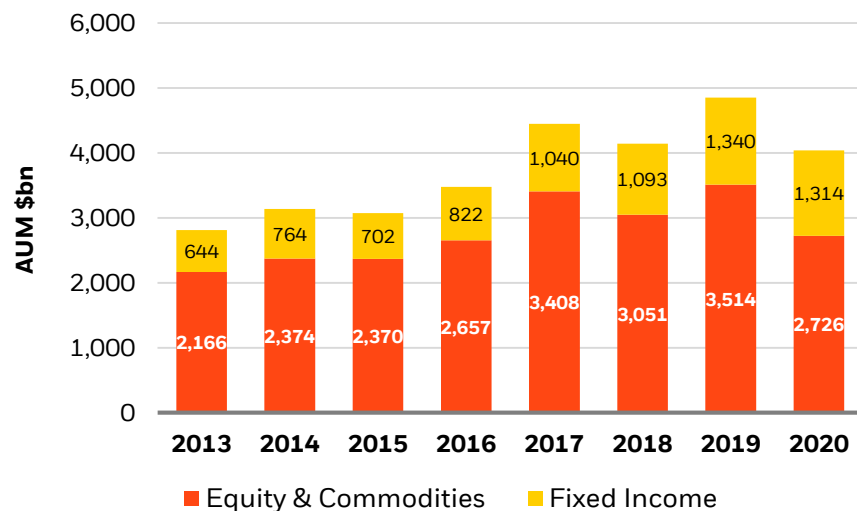
With \$4.0 trillion in indexed assets BlackRock is a global leader in index investing¹

- ▶ Seek to deliver consistent performance with efficient outcomes for our clients
- ▶ Provide clients with access to a broad range of market opportunities

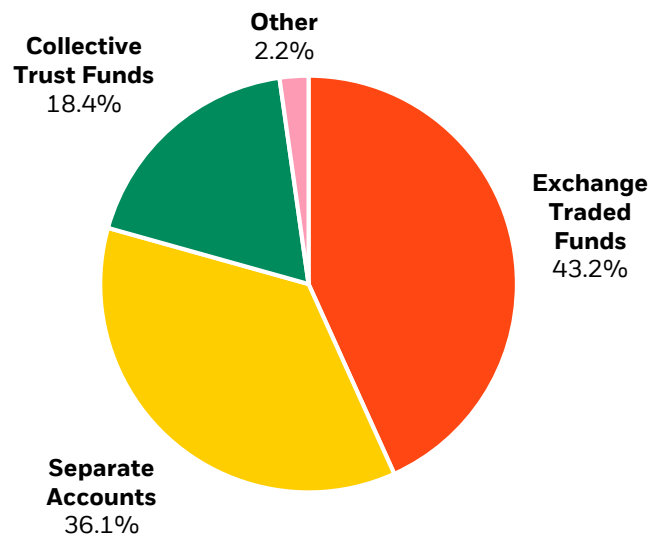
Extensive and flexible platform for index strategies

- ▶ Over 2,500 funds managed against 1,000+ benchmarks
- ▶ Investment teams in San Francisco, Atlanta, London, Hong Kong and Tokyo

Total indexed assets of \$4.0 trillion 2020 YTD



Distribution of assets by vehicle type in 2020 YTD



Source: BlackRock as of 31 March 2020

1. In terms of AUM. Source: Pensions & Investments

What is driving our flows?

Q1 Flow Summary¹

+\$5.6B

+\$15B ETFs, **+\$4.7B**
Target Date Funds,
-\$14.1B Other

Increased Trading Volume of Exchange Traded Funds

37%

In March 2020, ETFs were **37%** of US equity trading volume. (Compared to **27%** in March 2019)

Substantial Flows into ESG²

+\$9.8B

+\$9.8B into ESG²

Source: BlackRock and Markit, as of April 9, 2020.

¹ Flows are from January 1, 2020 – March 31, 2020. Data includes BlackRock institutional index and ETF asset flows.

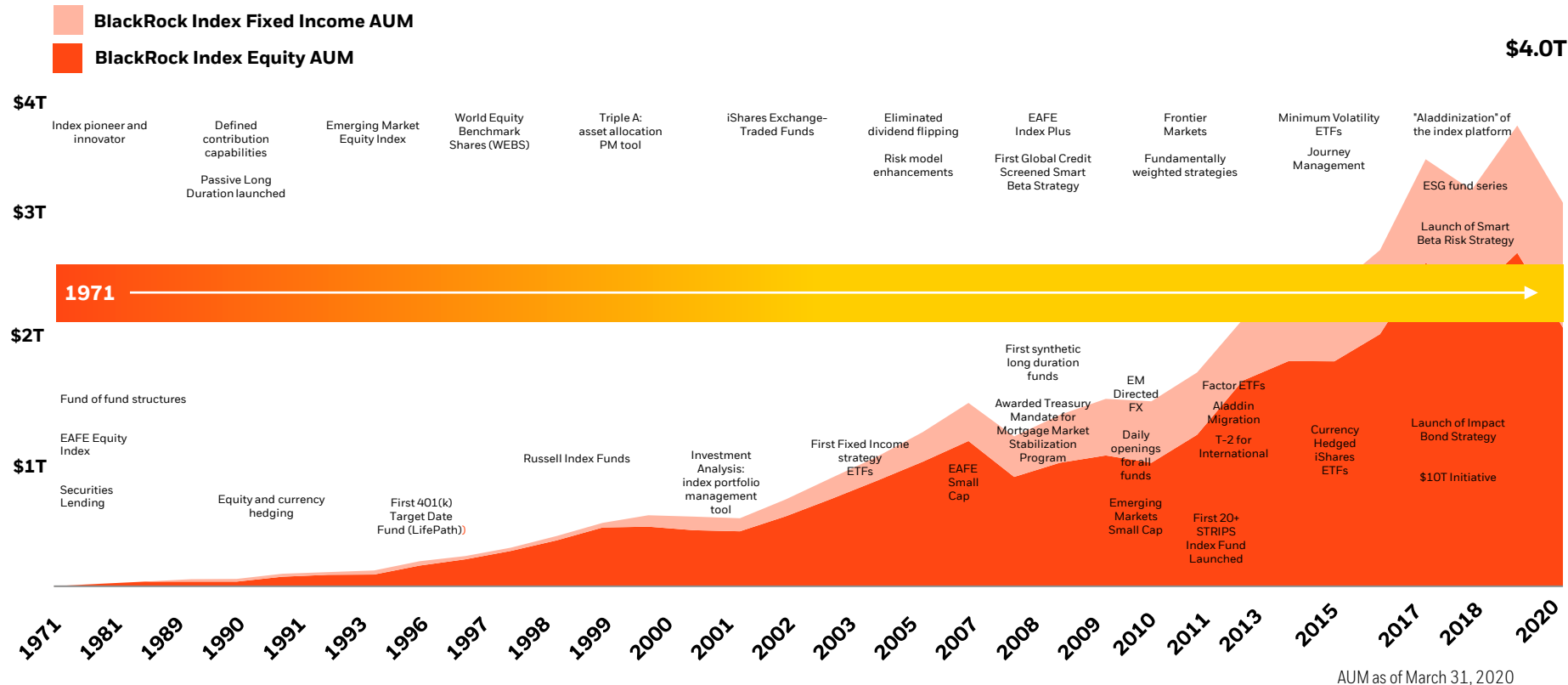
² ESG includes only ETF flows

49 years of experience driving index forward

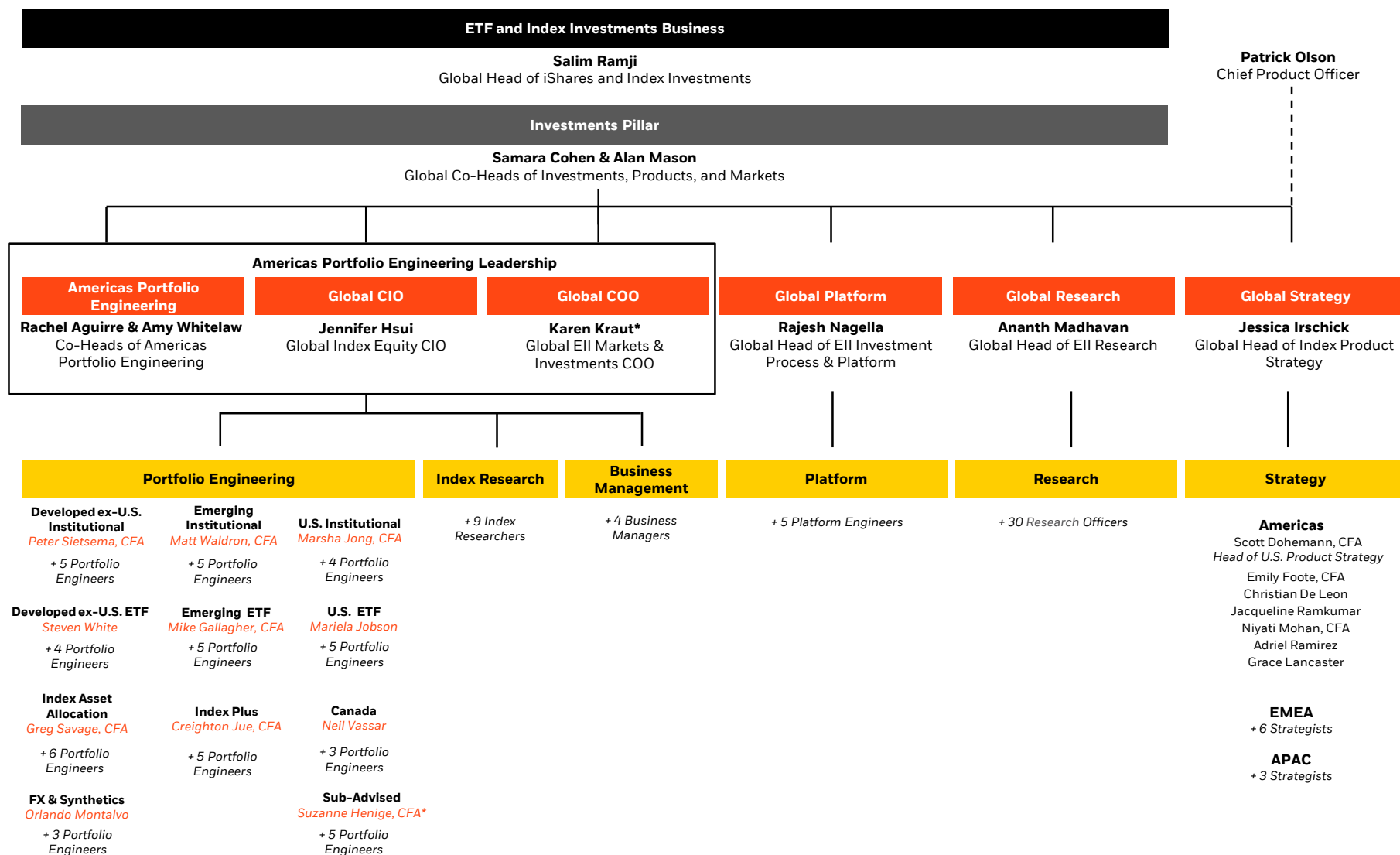
Creating solutions so our clients have access to high quality index exposures

- ▶ Drive the industry forward through our ability to create specialized, innovative investments afforded by our scale and depth of expertise
- ▶ Forge new ground for clients — a history of being first to market with new investment ideas
- ▶ Evolve capabilities to continuously deliver on emerging trends — smart beta, global benchmarking, overlay strategies
- ▶ Serve as an index advocate on behalf of asset owners and act a key partner to index providers seeking our practitioner knowledge

49 years of Index Equity — **Continual evolution of products, technology and capabilities**

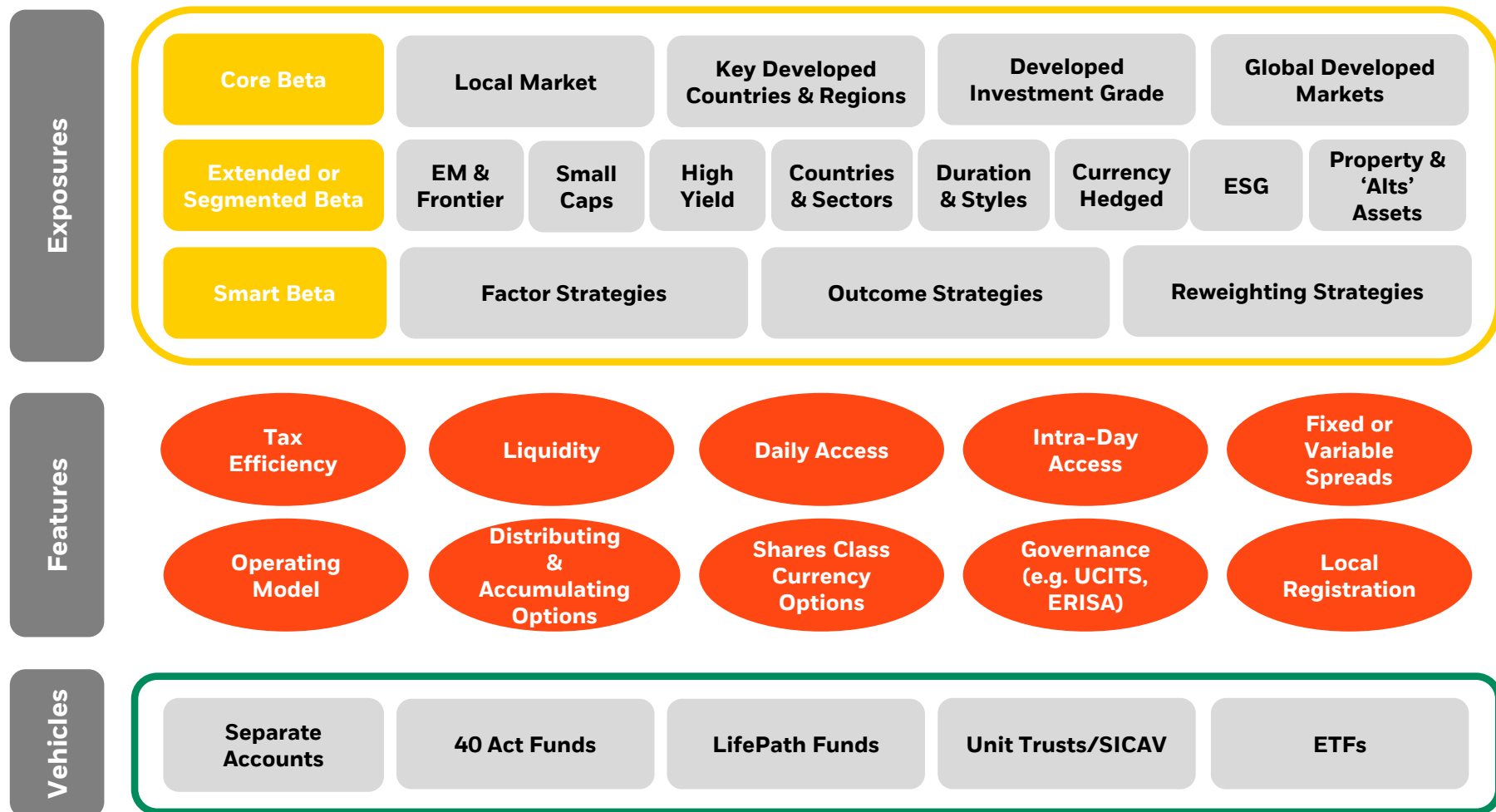


Investments Pillar



As of 30 April 2020. *Asterix indicates location in Atlanta (total EII team of 6 investment professionals stationed in Atlanta)

An extensive and flexible range of index capabilities

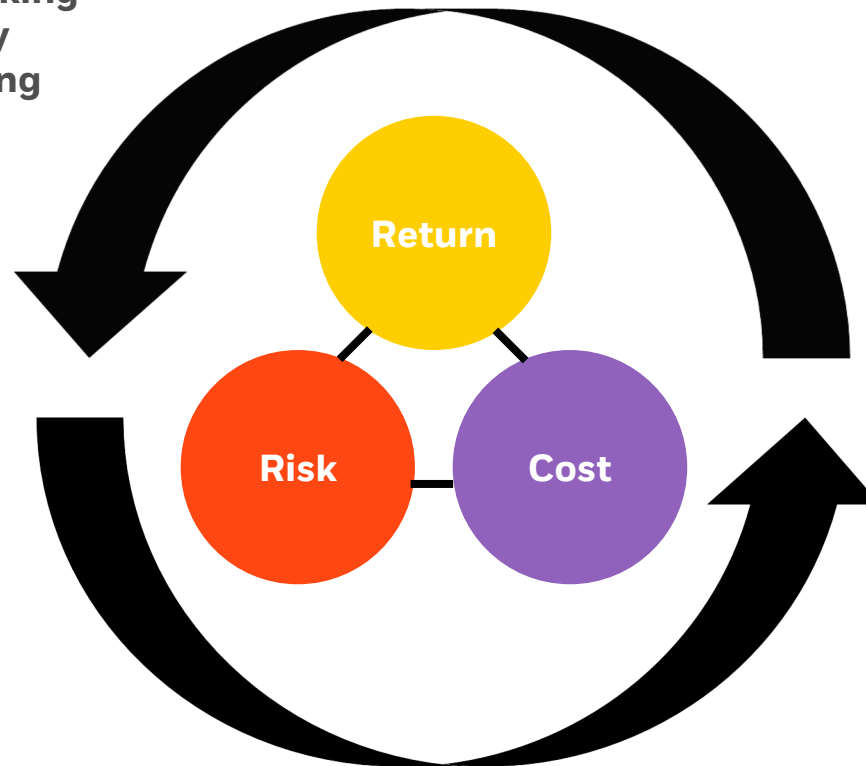


Aligning the exposures you want with the features you need

BlackRock Index Investments Philosophy and Process

An approach that seeks to deliver efficient investment outcomes

BlackRock's disciplined, pragmatic and adaptable approach to index tracking is focused on optimally managing and balancing return, risk and cost



Total Performance Management

Risk Management

- ▶ Risk managed process that seeks to consistently deliver optimal tracking outcomes
- ▶ Market leading risk analytics and investment tools provided by our Aladdin® platform

Consistent Returns

- ▶ Seeks to deliver consistent returns in line with the benchmark
- ▶ Deep knowledge of financial markets and indices
- ▶ Track record of enhanced returns from securities lending

Cost Efficiency

- ▶ Preserve value for clients through our intelligent approach to index events
- ▶ Extensive global trading platform helps ensure cost are low and we have optimal access to liquidity

Index investment management cycle – dedicated expertise and resources

Performance & Oversight

- Review cumulative effect of investment decisions to help identify factors contributing to/subtracting from portfolio performance
- Risk & Quantitative Analysis Team (RQA) monitors dozens of risk factors globally on a continuous basis

Benchmark Knowledge

- Detailed knowledge of index methodologies
- Experience with predicting and projecting index changes
- Focused on optimal treatment of corporate actions
- Continual research into index events



Efficient Trading

- Building smart trading strategies designed to access optimal liquidity
- Industry's largest internal market place for potential netting of client flows
- Focused trading research and systems

Portfolio Construction

- Significant investment in technology
- Market leading portfolio and risk tools provided by our Aladdin® platform
- Integrated cost and liquidity analysis
- Sophisticated optimization tools

Index investment management cycle

Benchmark knowledge

Benchmark knowledge

EII Strategies has a dedicated Index Research team

Index equity benchmark management

The Index Research Group communicates directly with index vendors on various levels

- ▶ Daily index loads to provide a clean fund snapshot
- ▶ Project daily changes and rebalances
- ▶ Field all equity index data requests across the firm

Global coverage model

Based out of London and San Francisco, with daily reconciliations and handovers

- ▶ 9 index analysts (5 US, 4 UK) and 1 global head

Index methodology expertise

Use knowledge of benchmarks to assist with daily portfolio management, predictions, and consultations.

- ▶ Benchmark expertise for index portfolio management
- ▶ Seek to predict index changes before announcement
- ▶ Lead consultations with index providers to drive methodology improvements

Index investment management cycle

Portfolio construction

Portfolio construction

Over 160+ Investment professionals dedicated to overseeing 2,000 Funds managed against 850+ benchmarks. Thousands of investment decisions made every year around:

- Optimizing versus full replication
- Equitizing cash
- Trading around periodic index changes
- Corporate action elections
- Investing / divesting based on client and participant instruction

PortfolioConstruction-IE

File Options View Action History Format Help

09-JUN-2016 - 9:45:51AM As Ordered and Traded w/Proposed - 21 pfs 14502 pos, 54 trd, no ord, no cf 8 distinct benches 5093 pos, no trd, no ord, no cf

Port Groups IE_NA_NR1 <Port Filter> RF Bench Primary Date T MOO CCY USD Filter Security (imm... S EQ

Round to Disabled Transaction Direction Min. Trade Impact Exp 0.0 USD Sell for Hedging Off

Main Window Adjustments & Projections Stocks Targets Sectors Order View

642 Items

Portfolio	Name	New %Exp Pf (4dps)	%Exp Bench (4dps)	New %Exp Active (4dps)	New Qty Active	Sector Level 1 (Immed) Bench
R1GROWB	3D SYSTEMS CORP	0.0056%	0.0053%	0.0003%	524	Technology
R1GROWB	3M CO	1.0249%	1.0252%	-0.0002%	-31	Producer Durables
R1GROWB	A.O. SMITH CORP.	0.0589%	0.0596%	-0.0007%	-187	Producer Durables
R1GROWB	AARONS INC.	0.0025%	0.0023%	0.0001%	123	Consumer Discretionary
R1GROWB	ABBVIE INC	0.9637%	0.9633%	0.0004%	152	Health Care
R1GROWB	ACADIA HEALTHCARE CO INC	0.0348%	0.0356%	-0.0008%	-279	Health Care
R1GROWB	ACCENTURE PLC	0.7065%	0.7066%	-0.0001%	-23	Producer Durables
R1GROWB	ACUTY BRANDS INC.	0.1067%	0.1062%	0.0005%	41	Materials & Processing
R1GROWB	ADOBE SYSTEM INC	0.4654%	0.4654%	0.0000%	7	Technology
R1GROWB	ADVANCE AUTO PARTS INC	0.1061%	0.1059%	0.0002%	34	Consumer Discretionary
R1GROWB	AECOM	0.0066%	0.0062%	0.0004%	254	Producer Durables
R1GROWB	AETNA INC	0.0982%	0.0994%	-0.0012%	-217	Health Care

BlackRock's propriety portfolio management applications, Portfolio Construction and Index Pro, provide a seamless platform, where by every step of the investment process is handled electronically from the time a client order is placed to the time any required trades go out to market.

Screenshot for illustrative purposes only. References to specific companies are included solely to help illustrate the portfolio construction process and should not be construed as a recommendation to buy or sell any securities. Actual BlackRock portfolios may or may not currently hold positions in the securities mentioned.

Index investment management cycle

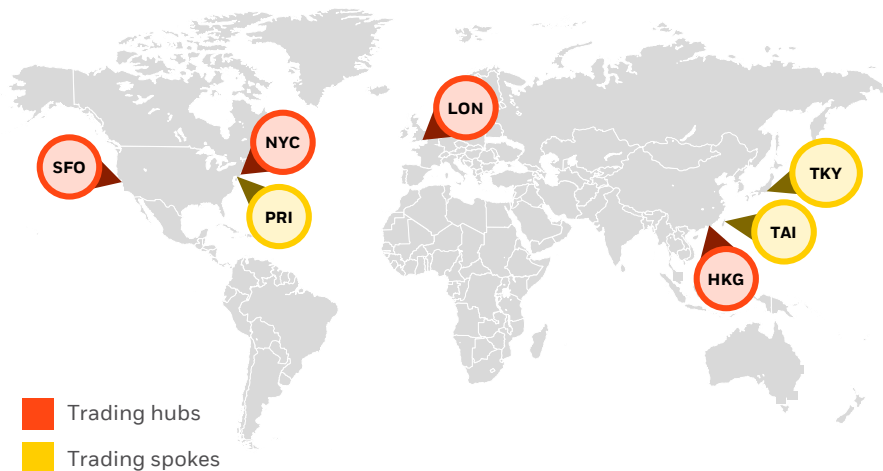
Efficient trading

Efficient trading

Over 60 equity traders across four trading hubs and three spokes

- Leverage traders' local market expertise
- Benefit from execution in appropriate time zone
- Common technology enables us to pass the book with embedded business continuity plan

BlackRock's global coverage



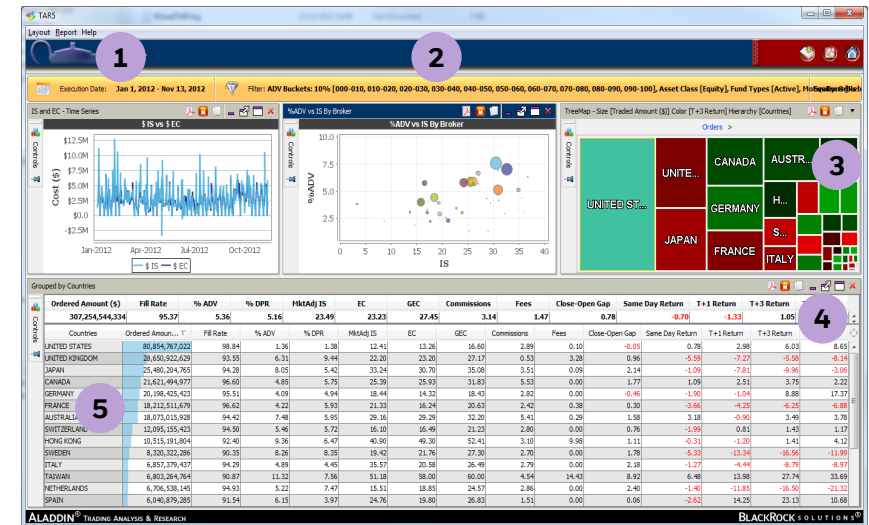
24 hour a day, 5.5 day per week coverage

Data as of 31 March 2020
Screenshots are for illustrative purposes only.

Proprietary applications are used to monitor expected trading costs and actual trading costs

1. Ability to specify date range
2. Custom filters to drill into specific trading activity
3. Data visualization provides intuitive execution insights
4. Extensive library of metrics and analytics for evaluating trading performance
5. Enable breakdown of TCA across order, execution, broker, or asset-level characteristics and dimensions

BlackRock's proprietary applications



Index investment management cycle

Performance & oversight

Performance and oversight of portfolios occurs through the following steps

- Daily Portfolio Management review
- Monthly IRC review with senior management
- Independent review from BlackRock's Risk and Quantitative Analysis Group

The following additional systematic checks occur for all portfolios and accounts

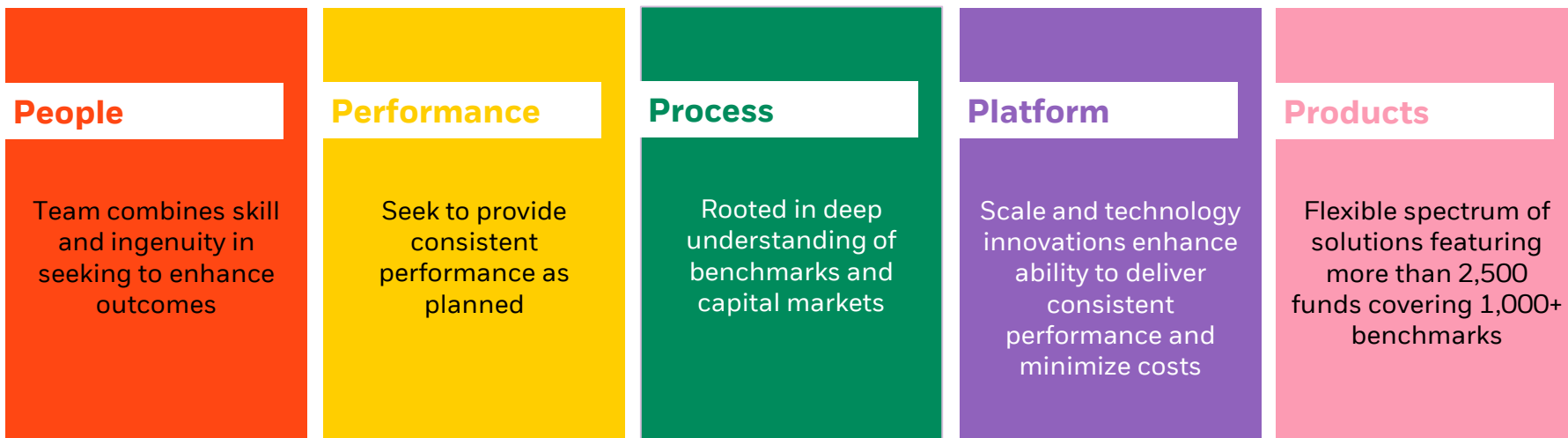


Key takeaway

Our approach to Index: anything but passive

Investors today demand more efficient returns and innovative ways to use index products

BlackRock's Index approach is focused on:



Index events, trends, and themes

Highlights from recent index rebalances

MSCI May 2020 rebalance highlights

Overall the EII Team executed 165k orders worth approximately \$103 billion

- ▶ 832 MSCI funds were traded globally representing total AUM of approximately \$2 trillion.
- ▶ The overall trade resulted in a gain of \$40 million.
- ▶ Trade size was the largest in our history, and approximately 30% larger than last May's rebalance.
- ▶ While the key drivers of last May's trade were the promotion of Saudi Arabia and increase in China A inclusion factor, market volatility and the subsequent recalculation of size cut offs resulted in the increase in trade size this rebalance.
- ▶ China stood out as a large net buy as the country had significantly outperformed other countries leading to an increase in weighting. Alibaba Group (\$879M) and Meituan Dianping (\$1.8B) were the biggest buys.

Russell Reconstitution 2019 highlights

Overall the EII Team executed 179k orders worth approximately \$67 billion

- ▶ Overall performance of the reconstitution in 2019 was slightly negative.
- ▶ Crossed approximately 48% of activity.
- ▶ Turnover across passive managers was approximately \$173 bn.

FTSE/Russell March 2020 rebalance highlights

For the FTSE/Russell, Morningstar, STOXX and DAX indexes, the EII Team executed 62k orders worth approximately \$19.9 billion

- ▶ 392 funds were traded globally representing total AUM of approximately \$900 billion.
- ▶ The Russell 1000 IPO additions were up 3.58%, the share increases were down 1.09%, and the share decreases were down 5.64% since announcement.
- ▶ The Russell 2000 IPO additions were up 14.28%, the share increases were up 7.86%, and the share decreases were down 7.32% since announcement.
- ▶ FTSE split the final inclusion tranches for China A and Saudi Arabia due to market risk. One quarter of the final inclusion tranche was implemented during this rebalance, and the remaining tranche will be implemented at the next rebalance.

Other Index Provider Notes

S&P Dow Jones: Postponed rebalance scheduled for March based on client feedback and extreme volatile market conditions.

MSCI: Postponed Kuwait inclusion originally slated for May 2020 to their November rebalance based on client feedback. Market volatility also triggered an ad hoc rebalance for the USA Momentum index, which was implemented at the end of March.

Source: BlackRock and MSCI, FTSE Russell, Morningstar, and S&P Dow Jones as of May and March 2020. Past performance is not indicative of future results.

MSCI market classification summary

In 2020, MSCI continues to implement several country reclassifications to their Emerging markets universe. 2019 also brought changes to China A Shares and Saudi Arabia.



Saudi Arabia

Saudi Arabia was officially added to the 2018 Annual Market Classification Review in 2017. The country was implemented in a **two-step inclusion process**, which commenced in May 2019 and continued through to August 2019. Saudi Arabia made up **2.6% of the MSCI Emerging Markets** upon completion.

China A-shares

MSCI increased the weight of **China A shares** in the MSCI Indexes by increasing the inclusion factor (IF) from 5% to 20% in **three steps**. The process began in May 2019 and ended in November 2019. MSCI increased the inclusion factor of all China A Large Cap shares in the MSCI Indexes:

1. from 5% to 10% and added ChiNext Large Cap shares with a 10% inclusion factor coinciding with the May 2019 Semi-Annual Index Review (SAIR).
2. from 10% to 15% coinciding with the August 2019 Quarterly Index Review
3. from 15% to 20% and added China A Mid Cap shares, including eligible ChiNext shares, with a 20% inclusion factor to the MSCI Indexes coinciding with the Nov 2019 SAIR.

On completion of this three-step implementation, there were 244 Large and 228 Mid Cap China A shares, including 27 ChiNext shares, in the **MSCI Emerging Markets Index, representing a weight of 3.9%** in the index.

Kuwait

MSCI is reclassifying **Kuwait** from Frontier to Emerging Market status. Kuwait will represent approximately **0.73%** in the EM benchmark (as of Jan 31st), and will be added at 100% inclusion factor. At present, this has been postponed until the November 2020 rebalance .

Source: MSCI and Blackrock as of 3/31/2020

2020 FTSE market classification summary

FTSE continued to review and implement several country reclassifications to their Emerging markets universe in 2019 and into 2020.

FTSE

Argentina

Argentina was removed from the Watch List for possible reclassification from Frontier to Secondary Emerging market status due to the imposition of capital controls in September 2019.

Saudi Arabia

Saudi Arabia has been on the Watch List since 2015 and **made a number of improvements** to the market infrastructure during 2017. The country will be included in **five tranches** to **the FTSE Emerging Index** continuing from the first tranche inclusion in **March 2019** to the final split tranche in **March and June 2020**. FTSE Russell commends the Saudi Arabia Capital Market Authority and the Tadawul on the effectiveness of the market reforms introduced ahead of the decision to include Saudi Arabian securities in the FTSE Global Equity Index Series (GEIS).

China A-shares

China A Shares will undergo Phase 1 reclassification from Unclassified to Secondary Emerging market status, effective in **three tranches** commencing from **June 2019** to completion by **June 2020**. The final tranche was split into two, with one quarter implemented in **March 2020** as originally planned, and the remaining three quarters of the final tranche to be implemented in conjunction with the **June 2020** index reviews (as with Saudi Arabia).

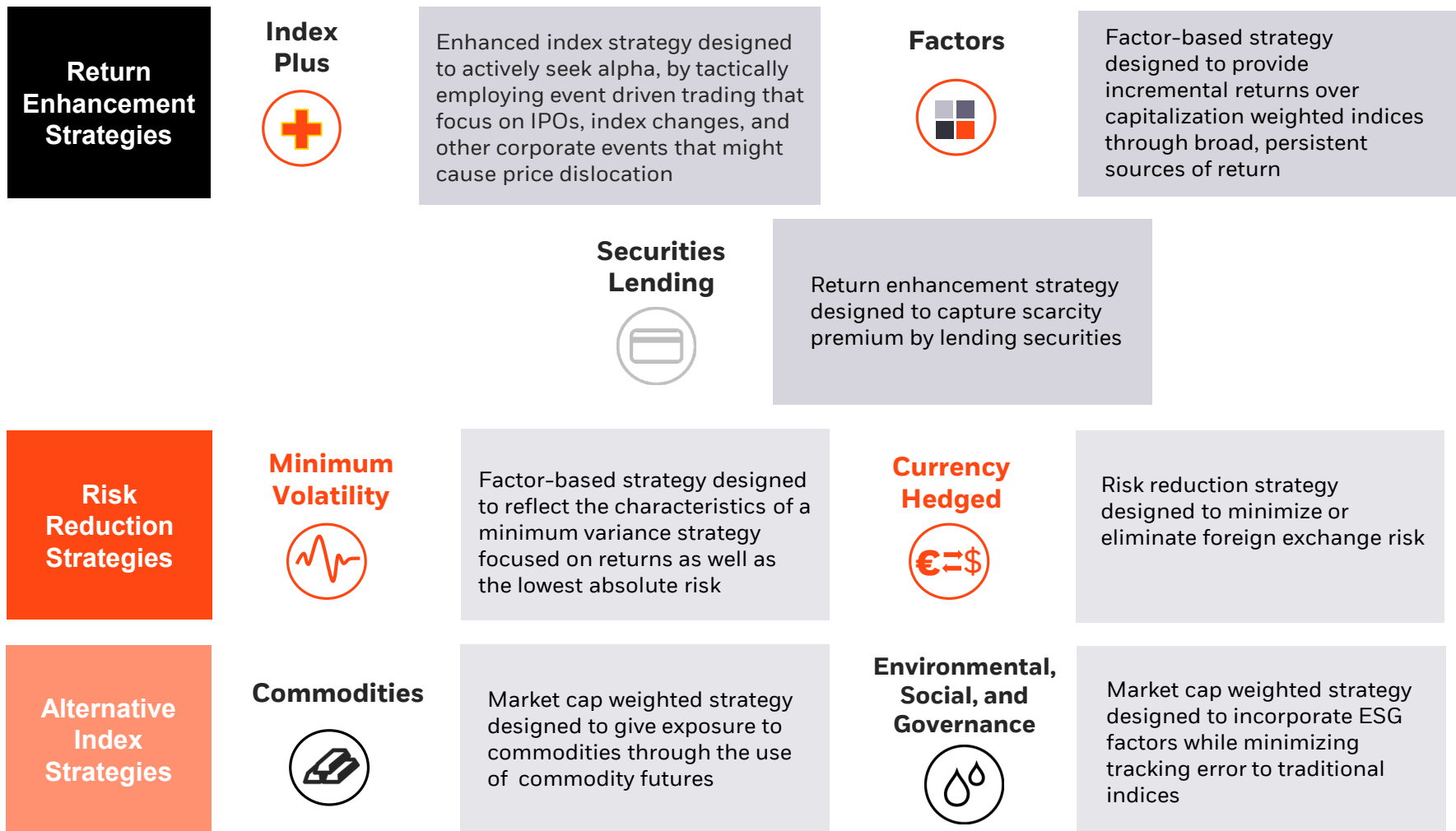
Romania

FTSE is reclassifying **Romania** from Frontier to Secondary Emerging Markets in the September rebalance in one step. The weight is projected to be around **8.5** basis points in Emerging Markets Indices.

Source: FTSE and Blackrock as of 3/31/2020

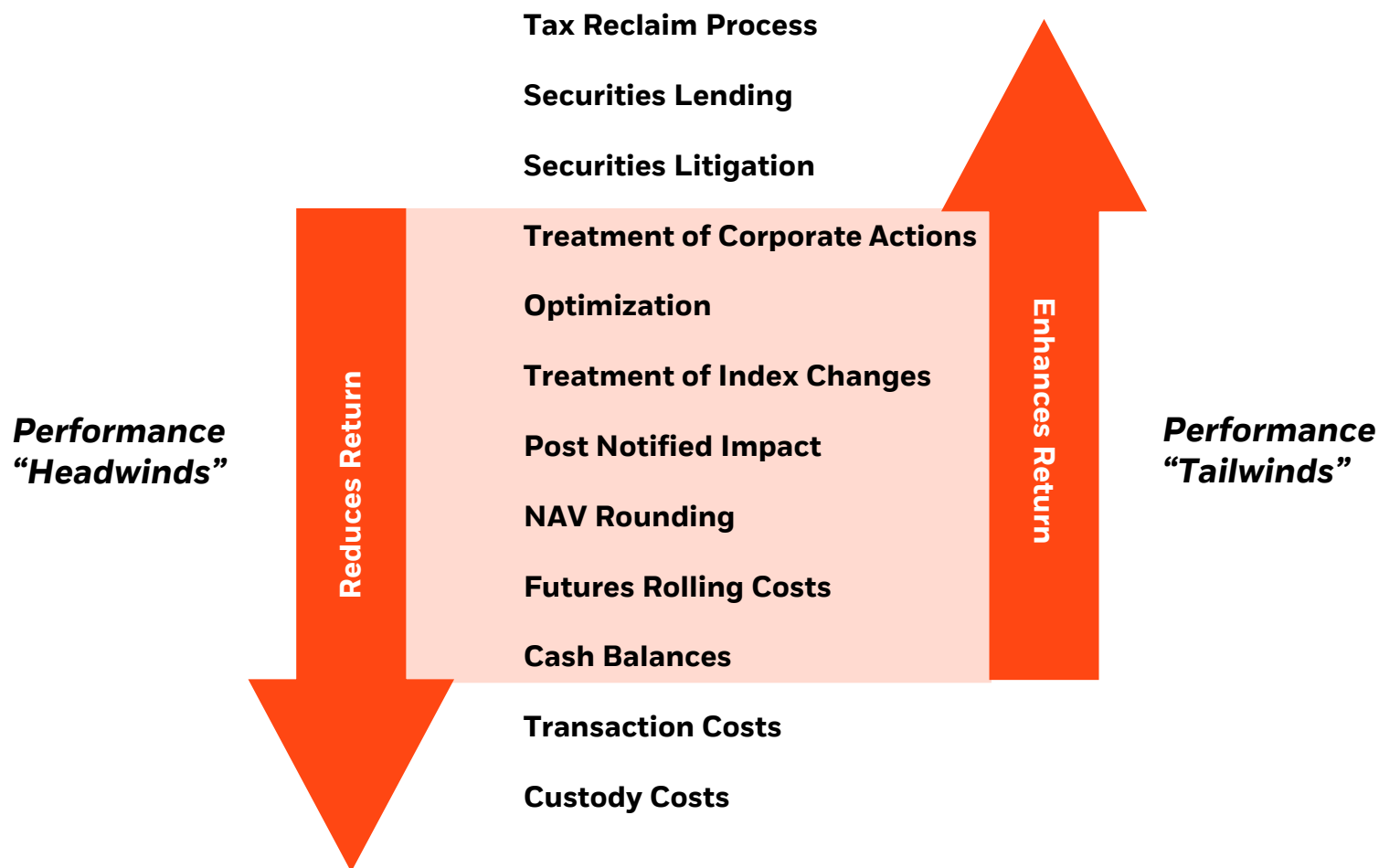
Index strategies continue to be a growing portion of client portfolios

Investors today are enhancing their passive allocations in three strategies:



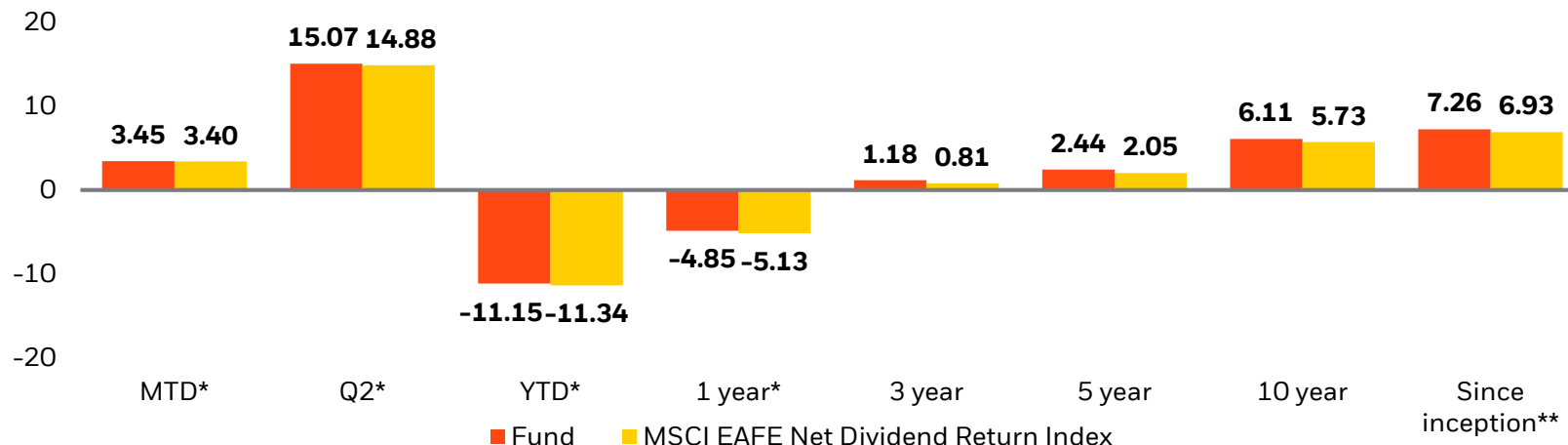
Performance attribution

Major sources of tracking error: Global & domestic index funds



EAFE Equity Index Fund Performance

Gross total return in USD (annualized* %)



	MTD* %	Q2* %	YTD* %	1-yr* %	3-yr %	5-yr %	10-yr %	Since incept %
Tracking difference (Gross vs. Benchmark)	0.05	0.19	0.19	0.28	0.37	0.39	0.38	0.33

* Period returns for less than a year are cumulative

** Fund inception date 31 December 1985

This information is unaudited, subject to change and intended for analytical purposes only. The Fund's net asset value does not include an accrual for the investment management fee but does include an accrual for fund level administrative costs and, if applicable, certain third party acquired fund fees and expenses. If the Fund's net asset value did include an accrual for the investment management fee, the Fund's returns would be lower. **Past performance is not necessarily an indicator of future performance.** Indexes are unmanaged. It is not possible to invest directly in an index.

Sources: BlackRock, MSCI Inc.

EAFE Equity Index Fund

Characteristics

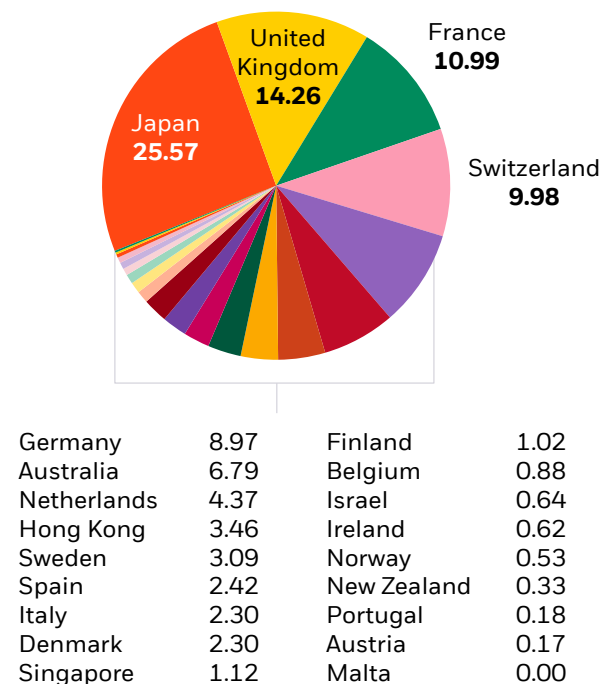
Fund information

Benchmark	MSCI EAFE Net Dividend Return Index
Total fund value	\$41.60B
Number of issues in fund	909
Number of issues in benchmark	904

Top 10 holdings

	Country	Weight (%)
Nestle SA	Switzerland	2.38
Roche Holding Par AG	Switzerland	1.76
Novartis AG	Switzerland	1.35
ASML Holding NV	Netherlands	1.18
SAP	Germany	1.06
AstraZeneca PLC	United Kingdom	1.03
Toyota Motor Corp	Japan	1.00
LVMH	France	0.92
Sanofi SA	France	0.87
AIA Group Ltd	Hong Kong	0.85

Country allocation (%)



Fund inception date 31 December 1985

Data is used for analytical purposes only. Breakdowns may not sum to 100 percent due to rounding, exclusion of cash, STIF and statistically immaterial factors. Portfolio holdings are subject to change and are not intended as a recommendation of individual securities.

Sources: BlackRock, MSCI Inc.

Appendix

A. Supplemental information

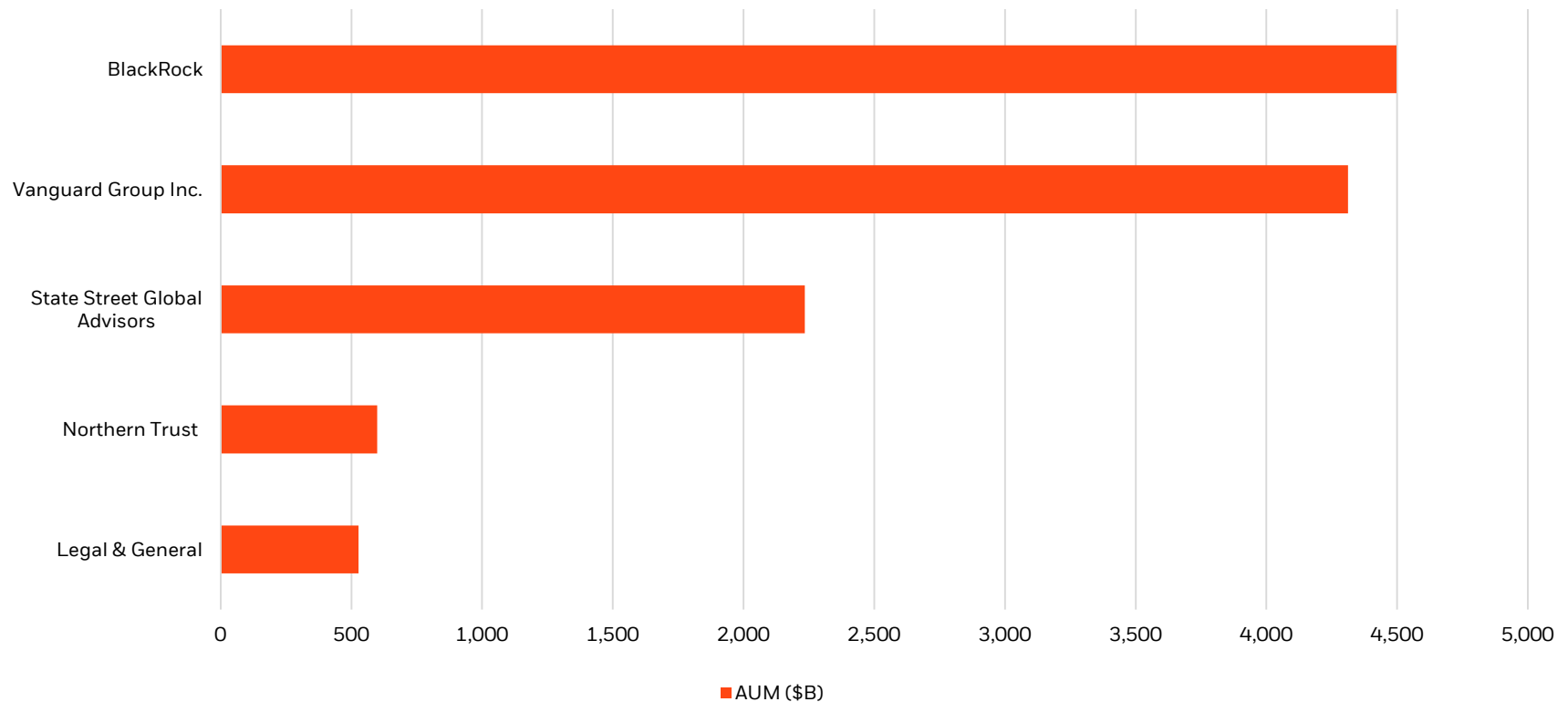
B. Platform offerings

BlackRock is the Market Leader in Equity Indexing

BlackRock is the world's largest manager in indexed assets

- ▶ BlackRock is the global market leader with \$4.50TN in index AUM across equity and fixed income

Top 5 Index Managers



Source: Pensions & Investments (AUM data as of 6/30/2019)

Index Plus Platform

BlackRock's Index Plus strategies seek to exploit opportunities arising from how indexes are implemented and held to help clients derive greater value from long-term index assets



INDEX CONSTRUCTION STRATEGIES



Index
Changes



IPOs /
SPOs



Mergers and
Acquisitions



Corporate
Events

ASSET STABILITY STRATEGIES



Derivatives

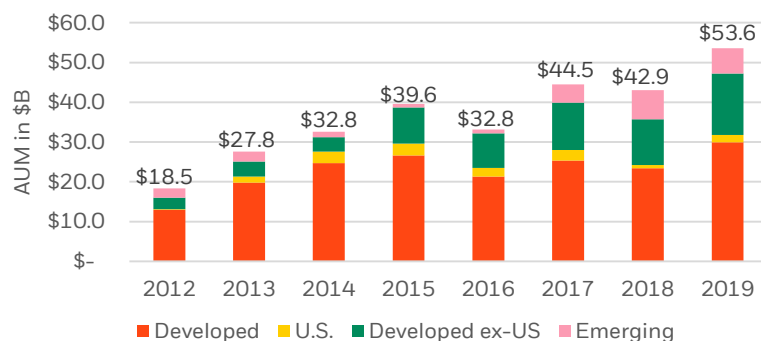


Securities
Lending



Low hedging cost
positions

Index Plus AUM by strategy



5-year risk statistics

5-year risk statistics

As of 12/31/2019

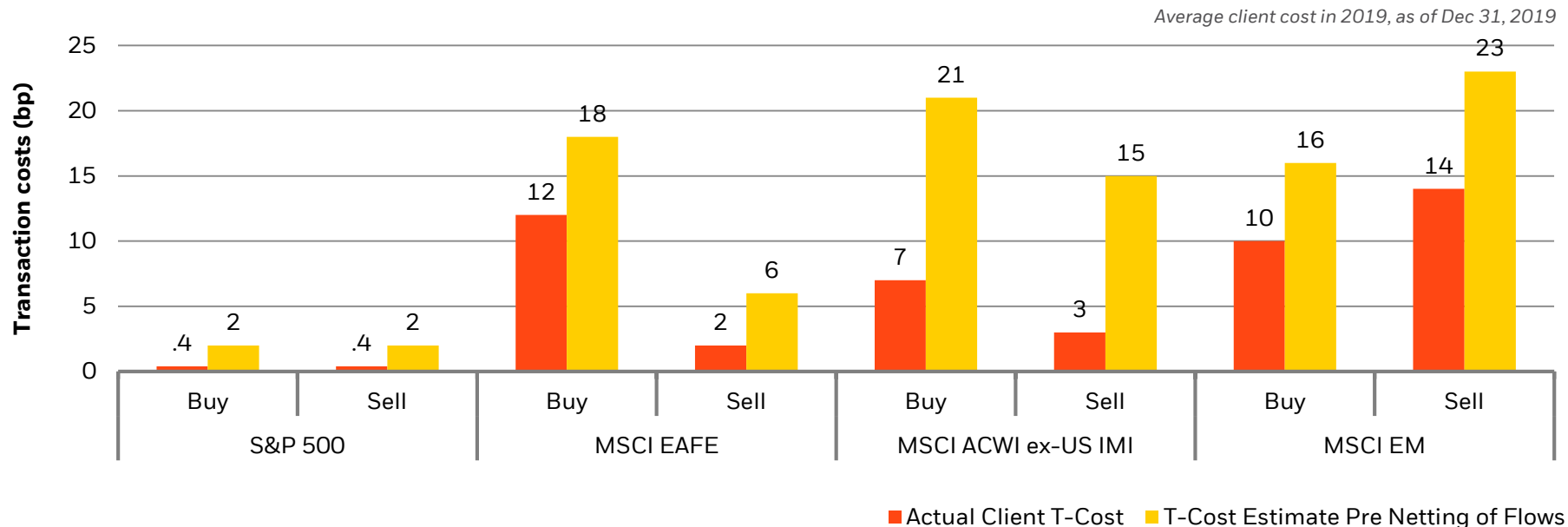
	Excess Return	Ex-Post TE	Info Ratio	Up Capture	Down Capture
Equity Index Plus Fund	0.06%	0.15	0.37	100.5%	100.2%
S&P 500 Index					
World Ex-U.S. Equity Index Plus Fund*	0.08%	0.10	0.83	100.2%	99.7%
MSCI World Ex-U.S. Index Fund*					

Source: BlackRock, as of 31 December 2019

*To appropriately exclude the effects of tax advantage in this market, excess return, TE, and information ratio for this fund is calculated relative to the BlackRock World Ex-U.S. Equity Index Fund, rather than the Index. The Fund's net asset value does not include an accrual for the investment management fee but does include an accrual for fund level administrative costs and, if applicable, certain third party acquired fund fees and expenses. If the Fund's net asset value did include an accrual for the investment management fee, the Fund's returns would be lower. **Past performance is not necessarily an indicator of future performance.** It is not possible to invest directly in an index.

BlackRock's scale can drive lower costs

BlackRock transaction costs vs. ex-ante estimates¹



The scale of BlackRock's index platform can lower transaction costs in the following ways:

- The size of our trading footprint allows us to negotiate low commission rates
- The diversity of our client base, coupled with the range of indices we manage assets against, facilitates the industry's largest internal market place for potential netting of client flows
- Large seasoned funds may require less market trading for flows relative to small asset pools

Source: BlackRock. BlackRock Flagship Index Funds shown.

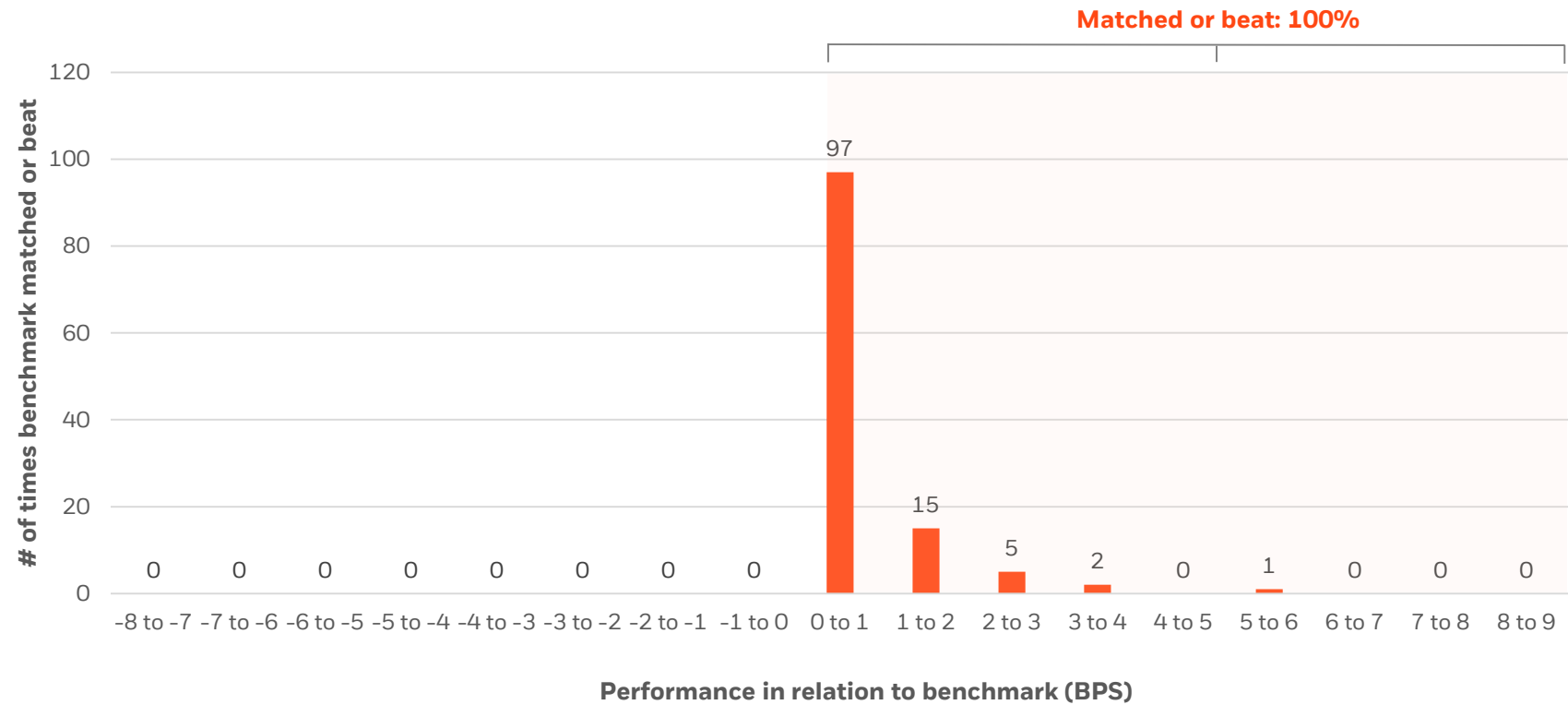
¹ Estimated transaction costs includes commissions and taxes based on BlackRock's current standard negotiated rates

Historical transaction costs are not indicative of future results.

Consistent performance, as planned

Over the past 10 years, BlackRock's S&P 500® Index Equity Collective Fund **matched or beat the benchmark 100%** of the time

S&P 500 Index Fund A annualized performance – Excess gross returns

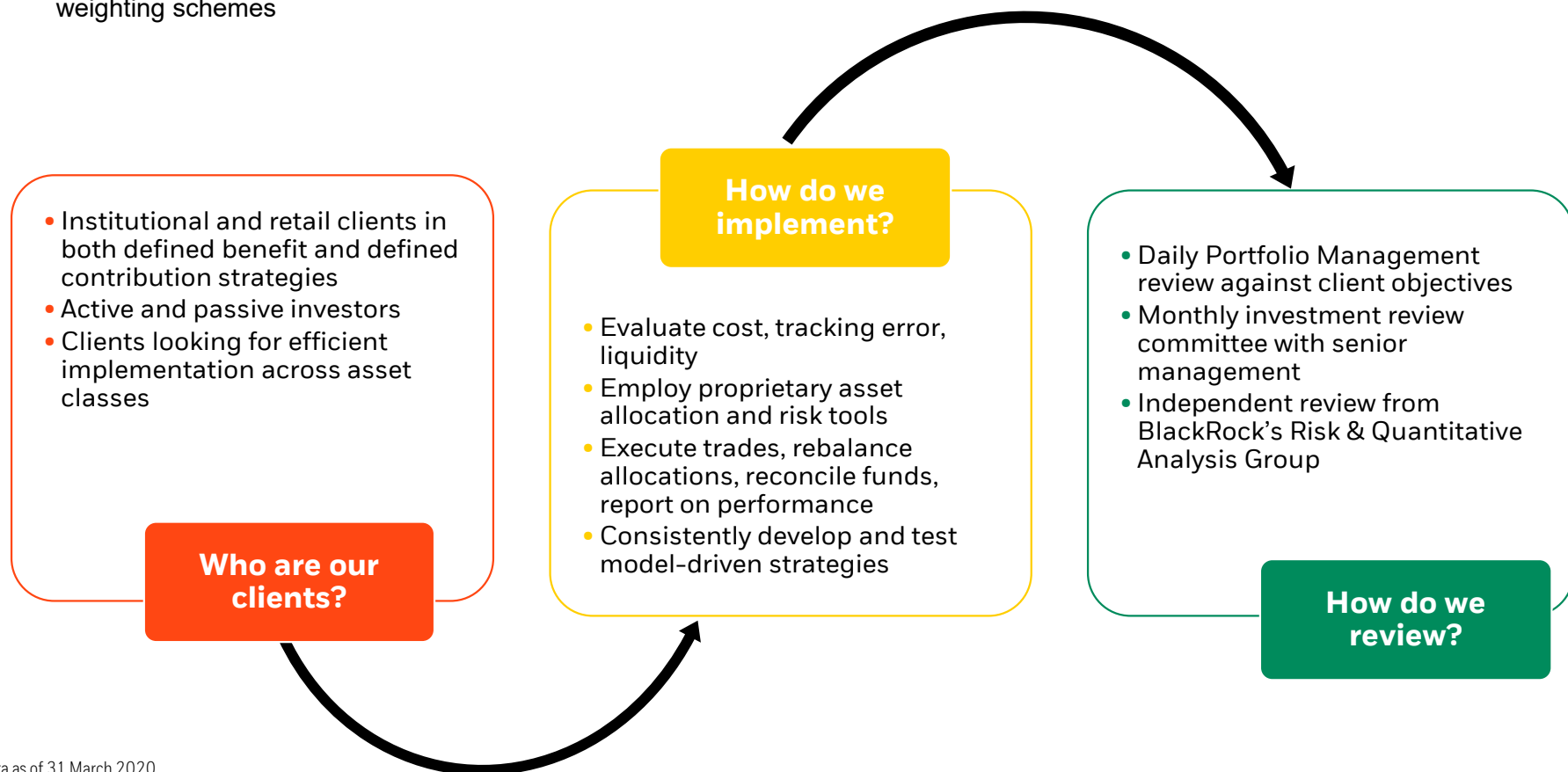


Source: BlackRock, Inc. and S&P, as of 31 March 2020. Reported on an annual basis and gross of fees.
The Fund's net asset value does not include an accrual for the investment management fee but does include an accrual for fund level administrative costs and, if applicable, certain third party acquired fund fees and expenses. If the Fund's net asset value did include an accrual for the investment management fee, the Fund's returns would be lower. Past performance is not necessarily an indicator of future performance.

Index Asset Allocation Overview

The Index Asset Allocation Team (IAA) manages custom fund-of-fund strategies across multiple asset classes

- Team skilfully manages to third party benchmarks, client-specified policy weights or BlackRock-derived model portfolios
- Team can implement across various vehicle types, including: mutual funds, exchange traded funds and collective trust funds
- 1,000+ institutional client portfolios with total assets over \$650bn
- Example implementations include: target date funds, liquidity strategies, smart beta factor strategies, custom country/regional weighting schemes



Data as of 31 March 2020

IAA Implementation

IAA leverages proprietary technology to help reduce risk to custom benchmarks

- IAA uses A4, a tool within Aladdin, specifically built for managing allocated portfolios
- A4 system can be used to implement model portfolios, manage custom funds and to account for client-driven specifications
- A4 enables portfolio managers to create rules-based rebalancing schedules and systematically manage portfolio risk to models and benchmarks

Simple way to manage allocation between underlying funds

Tolerances for each underlying fund, included in client guidelines

Custom account information

Portfolio Load Complete														
Portfolio Group: 9301			Base Currency: USD			Next Dealing Date: 26-SEP-2018			Rebalance Frequency: US Priority			Settlement Horizon: T+4		
Date: 25-Sep-2018			Price Date:			Portfolio ID: 135,085,392.22						Basket ID:		
Allocation Target	Currency Target													
Name	MV	%MV	%Lower Constraint	%Upper Constraint	%MV Active	MV Active	Order Value	New %MV Active	New %MV	New MV	MV Residual	Floating Index	Index Cusp	
LIQ-FE Target	135,085,392.22	100.00%			100.00%					135,085,392.22				
IVV-ISHARES CORE S&P 500 ETF	47,847,252.42	35.42%	33.50%	35.50%	37.50%	-108,061.82	75,384.32	-0.02%	35.48%	47,922,636.74				
DIH-ISHARES CORE S&P MID-CAP E	5,347,961.28	3.96%	2.00%	4.00%	6.00%	-55,454.41		-0.04%	3.96%	5,347,961.28				
IRI-ISHARES CORE S&P SMALL-CAP	8,830,945.55	6.54%	4.50%	6.50%	8.50%	50,395.06		0.04%	6.54%	8,830,945.55				
ACWI EX US IMI	36,511,581.79	27.03%	25.00%	27.00%	29.00%	38,525.89		0.03%	27.03%	36,511,581.79				
IEFA-ISHARES CORE MSCI EAFE E	25,447,776.64	18.84%	16.80%	18.80%	20.80%	56,974.02		0.04%	18.84%	25,447,776.64				
IEHG-ISHARES CORE MSCI EMERG	8,604,118.69	6.37%	4.39%	6.39%	8.39%	-21,927.05		-0.02%	6.37%	8,604,118.69		MSCI EAFE IMI NR	BRSC03361	
EVC-ISHARES MSCI CANADA ETF	2,459,686.46	1.82%	0.00%	1.82%	3.82%	3,478.92		0.00%	1.82%	2,459,686.46		MSCI Emerging Markets IMI Net Index	BRSMYH46	
AGG-ISHARES CORE TOTAL U.S. AG	22,376,883.60	16.56%	15.00%	17.00%	19.00%	-587,633.08	580,638.96	-0.01%	16.99%	22,957,522.56		MSCI Canada IMI Index in USD	BRSC9P26	
IYR-ISHARES US REAL ESTATE ETF	0.00	0.00%	0.00%	0.00%	2.00%	0.00%		0.00%	0.00%	0.00				
SHY-ISHARES 1-3 YEAR TREASURY	12,404,931.09	9.18%	7.50%	9.50%	11.50%	-428,181.17	424,283.30	-0.00%	9.50%	12,829,214.39				
HYG-ISHARES IBOXX USD HIGH YIE	644,603.60	0.48%	0.00%	0.50%	2.50%	-30,823.36		-0.02%	0.48%	644,603.60				
Cash	1,121,232.89	0.83%	0.00%	0.00%	0.10%	1,121,232.89	-1,080,306.58	0.03%	0.03%	40,926.31	40,525.62			

Resulting orders sent electronically for execution

Aladdin Automated Asset Allocation														
File Options Admin Reports Help														
Portfolio Groups 830T-2W 62 Portfolios FoF Auto-Select View Portfolio on Date 09-Oct-2018 830T-2W: Processed by dpinson on 09-OCT-2018 1:28:12PM - Ready for in														
Portfolio Summary Processing Options Net Activity Risk														
Query Risk Completed 62 Items														
Portfolio	Status	Risk Benchmark	Portfolio Risk	New Portfolio Risk	Benchmark Risk	Active Risk	New Active Risk	Portfolio Risk Change	Active Risk Change	Message				
MSUERO	Success	MS_EU	1,362.05	1,818.47	1,362.25	2.98	517.68	456.42	514.70					
EAFE	Success	MS_EAFE	1,236.97	1,243.00	1,237.80	4.22	9.30	6.02	5.08					
CANIMI	Success	MS_CA_IMI	1,143.29	1,143.29	1,143.41	1.10	1.10	0.00	0.00					
CANIMB	Success	MSCAIMINUS	1,143.15	1,143.15	1,143.41	0.99	0.99	0.00	0.00					
VRDLNLB	Success	MSCIWLNET	937.52	937.52	938.36	1.86	1.86	0.00	0.00					
ENSR	Success	MS_BR_USD	2,954.28	2,954.28	2,959.51	7.28	7.28	0.00	0.00					
EAPB	Success	MS_EAFE	1,237.06	1,237.06	1,237.80	4.16	4.16	0.00	0.00					
ASAXJPB	Success	MSACASJP	1,725.44	1,725.44	1,729.65	5.58	5.58	0.00	0.00					
PRXCWB	Success	MS_PAC_NET	1,240.37	1,240.37	1,244.10	31.14	31.14	0.00	0.00					
EMSCH	Success	MS_CNUSD	2,443.10	2,443.10	2,445.27	3.47	3.47	0.00	0.00					

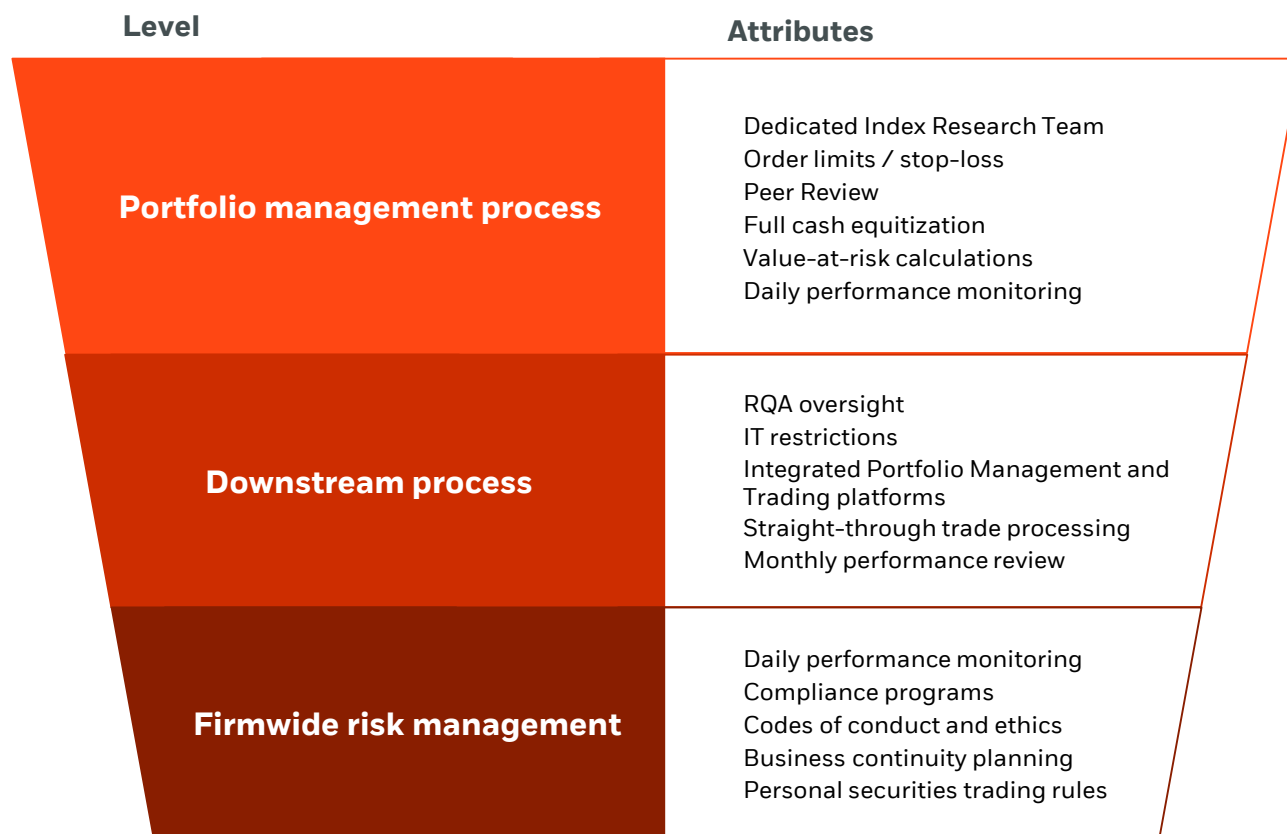
Risk tool enables scaled risk monitoring across multiple portfolios simultaneously

Screenshots are for illustrative purposes only. References to specific securities or positions are included solely to help illustrate the implementation process and should not be construed as a recommendation to buy or sell any securities. Actual BlackRock portfolios may or may not currently hold positions in the securities mentioned.

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- ▶ *The Final Frontier: Complete International Equity Exposure and Improve Portfolio Diversification With Frontier Markets*
- ▶ *Changes Afoot in Equity Index ETFs and Mutual Funds*

Platform offerings: Index strategies

Equity

US Equity Index Funds

S&P Indexes

S&P 500

S&P/Citigroup Value

S&P/Citigroup Growth

S&P 400 Mid Cap

S&P 500 Equal Weighted

Dow Jones Indexes

US Equity Market (DJ Total

Stock Market)

Extended Market (DJ

Completion Total Sk Mkt)

Russell Indexes

Russell 3000

Russell 2500

Russell 1000

Russell 1000 Value

Russell 1000 Growth

Russell 2000

Russell 2000 Value

Russell 2000 Growth

MSCI Indexes

MSCI US

MSCI US IMI

MSCI US Small Cap

Developed International Index Funds

MSCI Canada Index

MSCI EAFE ex-Japan

MSCI EMU and EMU IMI

MSCI EAFE Hedged

MSCI Europe

MSCI Pac Rim

MSCI World

MSCI World ex-US

Russell Developed ex-US Large Cap

Developed International Index Funds (cont.)

MSCI EAFE Index

Australia Hong Kong Norway

Austria Ireland Portugal

Belgium Italy Singapore

Denmark Israel Spain

Finland Japan Sweden

France Netherlands Switzerland

Germany New Zealand UK

Integrated International Broad and Small Cap Index Strategies

MSCI ACWI and ACWI IMI

MSCI ACWI ex-US & ACWI ex US IMI

MSCI Global Investable Market Indices

MSCI EAFE Small Cap

MSCI Canada Small Cap

MSCI World Small Cap

World ex-US Small Cap

MSCI Emerging Markets Small Cap

MSCI ACWI ex US Small Cap

Emerging Markets Index Funds

MSCI EM Index

Brazil Hungary Russia

Chile India South Africa

China Indonesia South Korea

Colombia Malaysia Taiwan

Czech Rep. Pakistan Thailand

Egypt Peru Turkey

Greece Philippines Qatar

UAE Poland

MSCI Frontier Markets Index

Frontier Markets ex-GCC Index

Sustainable Investing

Developed ex-Fossil Fuel

ACWI ex Fossil Fuels ESG Focus Index

ACWI ESG Focus Index

Index Plus Strategies

S&P 500

EM

Russell 1000 World ex-US Small Cap

EAFE ACWI ex-US

World ex-US World ex-US IMI

Non-Lending Funds

S&P 100

S&P 500

S&P 400

Russell 1000, V, G EM

Russell 2000 EM IMI

Russell 2500 EM Small Cap

Russell 3000 ACWI

Russell Midcap ACWI ex-US

EAFE ACWI ex-US IMI

EAFE Small Cap World

Canada World ex-US

Canada Small Cap World ex-US Small

Russell Developed Cap

ex-US Lg Cap

Alternatives

US Commodity Funds

S&P GSCI Total Return Indexes

Bloomberg Commodity Index

Commodity Smart Beta

Real Estate Investment Trust (REITs) and Infrastructure Indices

DJ US Real Estate Securities Index (RESI)

MSCI US REIT Index

FTSE EPRA/NAREIT Developed ex-US Index

FTSE EPRA/NAREIT Developed Index

DJ Brookfield Global Infrastructure

Developed REIT – Non-lending

Global Real Estate – Non-lending

Smart Beta

Russell Defensive Indices

FTSE RAFI Indices

FTSE EDHEC Efficient US

MSCI Minimum Volatility Indices

MSCI Diversified Multi-Factor Indices

Equal and GDP-Weighted Indices

MSCI USA Risk-Weighted Index

MSCI USA Value Index

MSCI USA Momentum Index

Custom Strategies available

As of 31 March 2020

Platform offerings: Defined Contribution Strategies

BlackRock collective trust funds with daily trading capabilities

Lending Funds

Equity Index Strategies

S&P Indices

S&P 500*
S&P Value
S&P Growth
S&P Equal Weighted
S&P 400 MidCap*

Dow Jones Indices

US Equity Market (DJ U.S. Total Stock Market Index™)
Extended Market (DJ U.S. Completion Total Stock Market Index™)

Russell Indices

Russell 3000*	
Russell 2500*	
Russell 2000*	Russell 1000*
Russell 2000 Value*	Russell 1000 Value*
Russell 2000 Growth*	Russell 1000 Growth*

MSCI Indices

ACWI ex-U.S.	
ACWI ex-U.S. IMI	Emerging Markets
EAFE*	World ex-U.S.
EAFE* Small Cap	World ex-U.S. Small Cap Plus

REIT Index Strategies

U.S. Real Estate Index (MSCI REIT)
Developed Real Estate Index (FTSE/EPRA NAREIT Developed)

Sustainable Investing

ACWI ESG Focus Index

Non-Lending Funds

Equity Index Strategies

S&P Indices

S&P 500*
S&P 400 MidCap*

Russell Indices

Russell 3000*
Russell 2500*
Russell 2000*
Russell 1000*
Russell 1000* Value
Russell 1000* Growth

MSCI Indices

ACWI IMI
ACWI ex-U.S.
ACWI ex-U.S. IMI
EAFE
Emerging Markets

FTSE Indices

FTSE RAFI Emerging Index

Short Term Investment Fund

Government Short-Term Investment Fund

Other Strategies

Developed Real Estate Index
Bloomberg Commodity Index Total Return
Bloomberg Roll Select Commodity Index Total Return

Asset Allocation Strategies

LifePath® Index Non-Lendable
Strategic Completion Non-Lendable

As of 31 March 2020

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Important Notes cont'd

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Important Notes cont'd

Forecast

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Index

It is not possible to directly invest in an unmanaged index.

Risk

Investing in the bond market is subject to certain risks including market, interest-rate, issuer, credit, and inflation risk. Equities may decline in value due to both real and perceived general market, economic, and industry conditions. Mortgage and asset-backed securities may be sensitive to changes in interest rates, subject to early repayment risk, and while generally backed by a government, government-agency or private guarantor there is no assurance that the guarantor will meet its obligations. High-yield, lower-rated, securities involve greater risk than higher-rated securities; portfolios that invest in them may be subject to greater levels of credit and liquidity risk than portfolios that do not. Investors will, at times, incur a tax liability. Income from municipal bonds may be subject to state and local taxes and at times the alternative minimum tax. Derivatives may involve certain costs and risks such as liquidity, interest rate, market, credit, management and the risk that a position could not be closed when most advantageous. Investing in derivatives could lose more than the amount invested.

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MEMORANDUM

TO: Oakland Police and Fire Retirement System (OPFRS)
FROM: Meketa Investment Group
DATE: July 16, 2020
RE: Parametric Systematic Alternative Risk Premia - Manager Update

Summary and Recommendation

The Parametric Systematic Alternative Risk Premia Fund ("Parametric SARP") produced an outsized negative and absolute return in the first quarter of 2020. Parametric has underperformed its benchmark and peers over all trailing time periods driven by the first quarter of 2020. Meketa therefore recommends placing Parametric SARP on "Watch" status.

Background

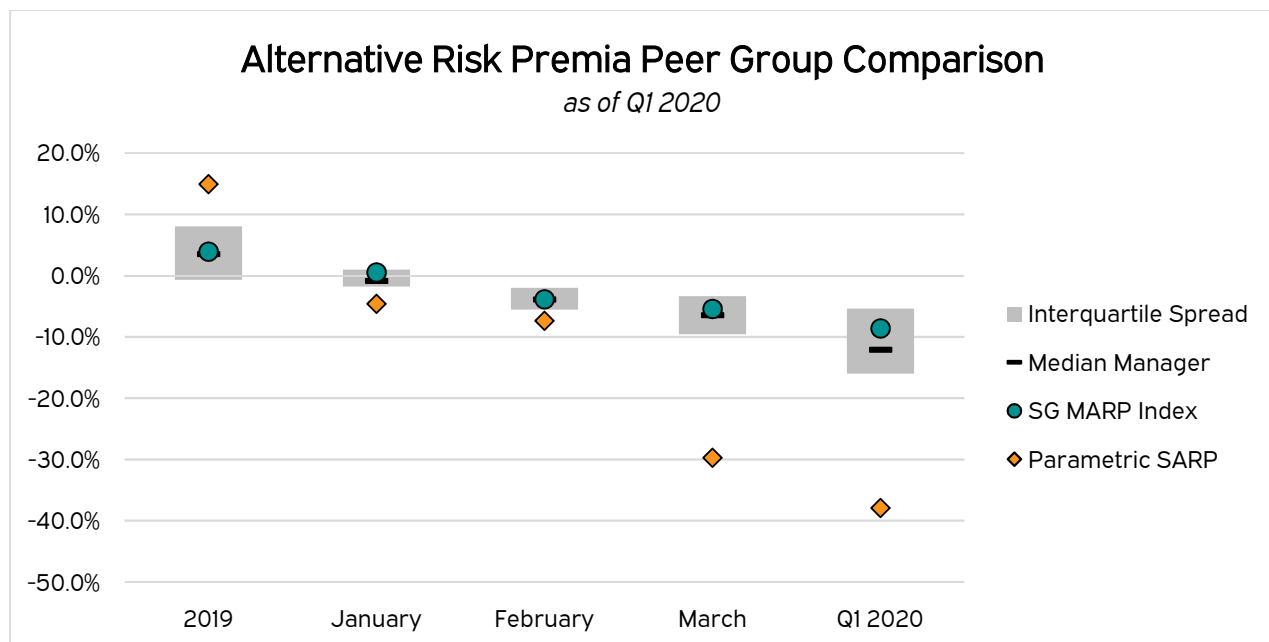
Parametric SARP was selected to manage a portion of the OPFRS CRO portfolio. More specifically, the combined Alternative Risk Premia and Trend Following Allocations. The selection was made in 2018 following a search process resulting in Parametric SARP and two finalists being selected for consideration.

Parametric SARP is based on investment research developed by Research Affiliates. Parametric reviews and validates the research and is responsible for managing the strategy. Research Affiliates acts as a non-discretionary sub-advisor and, on a regular basis, provides Parametric with a model portfolio with constituents and target weights based upon the SARP strategy. Parametric independently verifies the model before making any adjustments. Research Affiliates and Parametric collaborate on ongoing research to support the strategy, but the Parametric Investment Committee has ultimate responsibility for the oversight of the strategy, and all potential modifications must be approved by the Investment Committee. Parametric and Research Affiliates have been partners since 2009 in liquid equity products and share similar investment philosophies. Parametric's main offices are located in Seattle, WA and Minneapolis, MN. The firm focuses on custom beta, systematic strategies and overlays. Research Affiliates is based in Newport Beach, CA. The firm has a systematic focus and the majority of their day-to-day operations revolve around developing research for a variety of asset classes and partnering with asset managers to offer them to clients.

The underlying portfolio allocates to 12 proven style indices across value, carry, momentum, and volatility. Both value and carry are implemented by going long and short ranked securities in an equal size so that the total exposure nets to zero. Momentum style indices are implemented in a time series format that is long all securities with positive momentum and short those with negative momentum (e.g. trailing 12-month return) and thus does not net to zero. Implementation of the volatility premium is conditional based on a variety of factors including the VIX level resulting in an allocation approximately 50% of the time. The strategy is expected to have a long-term volatility of 10-12% with a target Sharpe ratio of 0.8, net of fees.

Performance Update and Discussion

Parametric produced a particularly disappointing return for Q1 2020 with the majority of losses occurring in March, specifically within the first few weeks. This negative performance more than reversed their strong relative performance in 2019 and trailed their industry peers. During the quarter, almost all (9 of 12) factor sleeves were negative with 5 producing returns of less than -5%. The equity and commodity market shocks were the main drivers of poor performance which resulted in a breakdown of the expected correlation benefit between the factors combined with an outsized spike in realized volatility (32% for the quarter vs. a long-term expectation of 10-12%). As shown in the chart below, Parametric SARP was a top quartile manager in 2019 but lagged their peers and benchmark through the first quarter of 2020.



Source: Meketa, Parametric, SG Indices

Negative contribution from carry and value were in-line directionally with the industry. In addition, asset class performance in currencies, equities, volatility, and bonds (the sole positive asset class contributor) were in-line with peers. The two largest detractors from performance that varied from peers were equity momentum and commodity carry. Poor performance in equity momentum (-13.44% contribution) was driven by their signal formation and trading processes which are largely impacted by month end values / trading and did not adjust to the equity downtrend quick enough. Commodity carry performance (-8.42% contribution) was almost entirely driven by oil/gas exposures.

During the quarter, Parametric transitioned to a new version of several of their factor models. The goal and motivation in transitioning to the new factor models is twofold. First, to reduce the residual beta exposure of the portfolio, specifically to equities and commodities. For example, the old factor model resulted in an equity beta of ~1.0 during Q1 2020 whereas the new factor model would have resulted in

an equity beta of closer to 0.0 during the quarter. Parametric expects this to result in higher quality factor exposure. The second goal of the new factor models was to reduce the vulnerability of the portfolio to severe crisis periods or exogenous shocks (similar to what occurred in Q1 2020). To accomplish this, the new factor models incorporate an element of economic regime identification and forecasting the probabilities of moving between their four identified regimes. The new factor models also allow for a more rapid handoff from Research Affiliates to Parametric with increased periods of mid-month signal reconstitution and trading which should be a net positive to the strategy overtime and reduce any unintended timing risks.

The Research Affiliates investment team had identified the high asset class beta exposure as a potential risk and completed research during 2019 to construct new factor models which were expected to mitigate that risk. After completion of the research process near the end of 2019, the team needed to finalize the code for the new factor model and have it approved before it could be implemented. Unfortunately, that process was not completed until mid-March when the new factor models were put into place between March 17th and 18th. Further unlucky timing on model implementation played out through the rest of March as equity markets have rallied significantly and the new factor model lagged the performance that would have been provided by the old factor model given its higher equity beta exposure. The timing of transitioning from the old to the new factor model does not seem to be driven by the current environment as it has been in motion since 2019 to support natural evolvement of the strategy. That said, the timing of the transition was extremely unfortunate in both pre- and post-March 18th periods in 2020.

While the new factor models do appear to be objectively better and more robust than the old factor models, some concerns about the strategy remain. In particular, with such an outsized negative return both relative to absolute return expectations and relative to other industry providers is likely to be a significant headwind to raising new assets. It is possible that because of that, the firm is unable to raise new assets and could invest less in the strategy and research over time. The portfolio changes are isolated to the way the factors are constructed and are expected to in turn improve risk management by reducing average correlations across the factors, in turn reducing potential total portfolio volatility spikes. Furthermore, due to outflows and forward-looking challenges for raising new assets, Parametric closed their mutual fund, (ESATX), as of May 31, 2020, when the assets were approximately \$15 million. Post-first quarter of 2020, the strategy has performed more in-line with peers and the median manager as shown in the subsequent table with performance being within 40 basis points of the benchmark.

Trailing Performance as of June 30, 2020

	1 Mo	QTD	YTD	1 Yr	Since Inception (8/2018)
Parametric SARP	-0.8	-4.7	-41.2	-35.1	-21.1
SG Multi-Alternative Risk Premia Index	-1.5	-4.3	-12.5	-11.6	-5.9
<i>Difference</i>	<i>0.7</i>	<i>-0.4</i>	<i>-28.7</i>	<i>-23.5</i>	<i>-15.2</i>



Summary & Recommendation

Parametric SARP had a very difficult first quarter of 2020, with underperformance driven by strategy positioning in their Momentum and Carry models. During the first quarter, the Parametric and Research Affiliates team put into place new factor models and processes that are expected to improve the strategy performance relative to the old models on a go forward basis. While the strategy is viewed as improved post the most recent model updates, the risk remains that the Firm(s) will have difficulty marketing the strategy given the significant absolute and relative negative performance in Q1 of 2020. This could potentially result in less ongoing resources devoted to strategy development and marginally higher ongoing operating fund expenses. As such we recommend the Plan place Parametric SARP on the watch list, and revisited in 6 to 9-months.

If you have any further questions please feel free to call us at (971) 202-5082.

MEMORANDUM

TO: Oakland Police and Fire Retirement System (OPFRS)
FROM: David Sancewich, Sean Copus, CFA – Meketa Inv. Group
DATE: June 29, 2020
RE: 2020 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.

2020 Preliminary Investment Project Agenda

Expected Completion Date	Task
July 2020	<ul style="list-style-type: none">Flash Performance (2Q2020)Small Cap Value Mgr. RecommendationMarket Update – COVID- 19BlackRock Interview: Int'l and LDWatch Memo: Parametric
August 2020	<ul style="list-style-type: none">Quarterly Performance Report (2Q 2020)Fixed Income Manager Interviews
September 2020	<ul style="list-style-type: none">Cash Flow Report (4Q 2020)Manager Update: RamirezWatch Update Memo: Rice Hall & JamesManager Update: Rice Hall & JamesEducational Item: TBDThermal Coal List Update: 2020
October 2020	<ul style="list-style-type: none">Flash Performance (3Q2020)
November 2020	<ul style="list-style-type: none">Quarterly Performance Report (3Q 2020)

Expected Completion Date	Task
December 2020	<ul style="list-style-type: none">• Cash Flow Report (1Q 2021)

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.

DS/SC/hs

Pursuant to the Governor's Executive Order N-29-20, all members of the City Council, as well as the City Administrator, City Attorney and City Clerk will join the meeting via phone/video conference and no teleconference locations are required

Oakland Police and Fire Retirement Board meetings are being held via Tele-Conference. Please see the agenda to participate in the meeting. For additional information, contact the Retirement Unit by calling (510) 238-6481.



AGENDA

RETIREMENT BOARD MEMBERS

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President

Jaime T. Godfrey
Vice President

Adam Benson
Member

Robert W. Nichelini
Member

Kevin R. Traylor
Member

John C. Speakman
Member

R. Steven Wilkinson
Member

REGULAR MEETING of the BOARD OF ADMINISTRATION of the OAKLAND POLICE AND FIRE RETIREMENT SYSTEM ("PFRS")

Wednesday, July 29, 2020 – 12:00 pm
Tele-Conference Board Meeting
via Zoom

OBSERVE:

- To observe the meeting by video conference, please click on this link: <https://us02web.zoom.us/j/83665111281> 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,,83665111281# or +13462487799,,83665111281#
- 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/83665111281>
- Webinar ID: 836 6511 1281.
If asked for a participant ID or code, press #.

PUBLIC COMMENTS There are three ways to submit public comments.

- eComment. To send your comment directly to staff BEFORE the meeting starts, please email to Tjenkins@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 BOARD MEETING
JULY 29, 2020**

- 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.
- 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 Teir Jenkins, Investment Officer at Tjenkins@oaklandca.gov.

- - - ORDER OF BUSINESS - - -

- A. Subject: PFRS Board Meeting Minutes**
From: Staff of the PFRS Board
Recommendation: **APPROVE** June 24, 2020 PFRS Board meeting minutes.
- B. AUDIT AND OPERATIONS COMMITTEE AGENDA – JULY 29, 2020**
- B1. Subject: Administrative Expenses Report**
From: Staff of the PFRS Board
Recommendation: **ACCEPT** an informational report regarding PFRS administrative expenses from July 1, 2019 through May 31, 2020.
- B2. Subject: Scope of Services and Initiation of the Financial Audit of the PFRS Fund for the Fiscal Year Ending June 30, 2020**
From: Macias Gini & O’Connell, LLP and Staff of the PFRS Board
Recommendation: **APPROVE** the Scope of Services and Initiation of the Financial Audit of the PFRS Fund for the Fiscal Year Ending June 30, 2020.

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C. **INVESTMENT & FINANCIAL MATTERS COMMITTEE AGENDA –
JULY 29, 2020**

- C1. **Subject:** Preliminary June 2020 Investment Fund Performance Update
From: Meketa Investment Group
-
- Recommendation:** **APPROVE** a Preliminary Investment Fund Performance as of June 30, 2020.
- C2. **Subject:** REVIEW of the Finalists for a New Active Small Cap Domestic Equities Asset Class Investment Manager
From: Meketa Investment Group
-
- Recommendation:** **RECEIVE** a review of an informational report summarizing finalists' presentations from Investment Firms seeking to serve as PFRS's new Small Cap Domestic Equities Asset Class Manager
- C3. **Subject:** Selection of a New Active Small Cap Domestic Equities Asset Class Investment Manager
From: Meketa Investment Group
-
- Recommendation:** **DISCUSS** Investment Firm Presentation, **SELECT** Investment Firm to Serve as PFRS's new Active Small Cap Domestic Equities Asset Class Investment Manager and **RECOMMEND BOARD APPROVAL** of Committee's Selection
- C4. **Subject:** Investment Market Overview
From: Meketa Investment Group
-
- Recommendation:** **ACCEPT** an informational report on the global investment markets through June 2020.
- C5. **Subject:** Prospective Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio Manager Presentations
From: Meketa Investment Group
-
- Recommendation:** **RECEIVE** presentation from the following Investment Firm regarding their qualifications to serve as the new PFRS Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio Manager
- BlackRock Investment Management Company

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C6. **Subject:** Selection of New Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio Manager
From: Meketa Investment Group

Recommendation: **DISCUSS** Investment Firm Presentation, **SELECT** Investment Firm to Serve as New Passive International Equity Asset Class Investments and PFRS Crisis Risk Offset (Long Duration Treasury) Investments Portfolio Manager for PFRS, and **RECOMMEND BOARD APPROVAL** of Committee's Selection.

C7. **Subject:** Investment Manager Overview Parametric Portfolio Associates

From: Meketa Investment Group

Recommendation: **RECOMMEND BOARD APPROVAL** of evaluation, review, and possible watch status placement of Parametric Portfolio Associates, a PFRS Crisis Risk Offset Asset Class Investment Manager.

D. **Subject:** Resolution No. 7097
From: Staff of the PFRS Board

Recommendation: **APPROVE** Resolution No. 7097 – Resolution Expressing Appreciation for David Low's Dedication and Loyal and Valuable Service as Administrative Assistant II to The Oakland Police and Fire Retirement System Board.

E. NEW BUSINESS

F. OPEN FORUM

G. FUTURE SCHEDULING

H. ADJOURNMENT

A BOARD MEETING of the Oakland Police and Fire Retirement System ("PFRS") was held on June 24, 2020 via Zoom Tele-Conference.

Board Members Present:

- Walter L. Johnson, President
- Jaime T. Godfrey, Vice President *(Initially absent at start of meeting)
- Adam D. Benson, Member
- Robert W. Nichelini, Member
- John C. Speakman, Member
- Kevin R. Traylor, Member
- R. Steven Wilkinson, Member

Additional Attendees:

- David Jones, PFRS Plan Administrator
- Jennifer Logue, PFRS Legal Counsel
- Teir Jenkins, Staff Members
- David Sancewich, Meketa Investment Group
- Paola Nealon, Meketa Investment Group

The meeting was called to order at 1:30 pm.

A. PFRS Board Meeting Minutes – Member Speakman made a motion to approve the February 26, 2020 PFRS Board meeting minutes, second by Member Traylor. Motion Passed.

[JOHNSON – Y/ GODFREY – ABSENT/ BENSON – Y/ NICHELINI – Y/ SPEAKMAN – Y/ TRAYLOR – Y/ WILKINSON – Y]
(AYES: 6/ NOES: 0/ ABSTAIN: 0)

B. Administrative Expenses Report – Teir Jenkins presented an informational report on the administrative expenditures of the PFRS plan through April 30, 2020.

MOTION: Member Speakman made a motion to accept the administrative expenses report, second by Member Nichelini. Motion passed

[JOHNSON – Y/ GODFREY – ABSENT/ BENSON – Y/ NICHELINI – Y/ SPEAKMAN – Y/ TRAYLOR – Y/ WILKINSON – Y]
(AYES: 6/ NOES: 0/ ABSTAIN: 0)

C. Preliminary Investment Fund Performance as of May 31, 2020 – Mr. Sancewich presented the preliminary investment performance report of the PFRS investments fund for as of May 31, 2020.

MOTION: Member Benson made a motion to approve the Preliminary PFRS Investment Fund Performance as of May 31, 2020 second by Member Taylor. Motion passed.

[JOHNSON – Y/ GODFREY – ABSENT/ BENSON – Y/ NICHELINI – Y/ SPEAKMAN – Y/ TRAYLOR – Y/ WILKINSON – Y]
(AYES: 6/ NOES: 0/ ABSTAIN: 0)

- D. Investment Market Overview** – Mrs. Nealon provided an informational report on the global economic factors affecting the PFRS Fund.

MOTION: Member Speakman made a motion to accept the Investment Market Overview report, second by Member Nichelini. Motion passed.

[JOHNSON – Y/ GODFREY – ABSENT/ BENSON – Y/ NICHELINI – Y/ SPEAKMAN – Y/ TRAYLOR – Y/ WILKINSON – Y]
(AYES: 6/ NOES: 0/ ABSTAIN: 0)

BOARD MEMBER JAIME GODFREY JOINED THE MEETING

- E. Investment Fund Performance for the Quarter Ending March 31, 2020** – David Sancewich presented the Investment performance report of PFRS investments fund for the quarter ending March 31, 2020, the PFRS Investment Portfolio generated a quarterly return of -15.6 percent, gross of fees, underperforming its policy benchmark by -3.4 percent. The portfolio also underperformed its benchmark by -3.5 percent over the one-year period, -0.5 percent over the three-year period, and -0.5 percent over the five-year period.

MOTION: Chairman Godfrey made a motion to approve the PFRS Investment Fund Performance Report for the Quarter Ending March 31, 2020, second by Member Nichelini. Motion passed.

[JOHNSON – Y/ GODFREY – Y/ BENSON – Y/ NICHELINI – Y/ SPEAKMAN – Y/ TRAYLOR – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

- F. \$13.85 million Drawdown for 4th Quarter 2020 Member Allowances (Retroactive)**– David Sancewich presented the details of the Meketa report describing the drawdown of funds to pay for the PFRS member retirement allowances to its members for the period of April 2020 through June 2020. (Retroactive).

MOTION: Chairman Godfrey made a motion to recommend Board Approval of the member allowances drawdown of funds to pay the PRS member retirement allowances for the period of April 2020 through June 2020, second by Member Traylor. Motion passed.

[JOHNSON – Y/ GODFREY – Y/ BENSON – Y/ NICHELINI – Y/ SPEAKMAN – Y/ TRAYLOR – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

- G. New PFRS Fixed Income Asset Class Portfolio Manager** – Mr. Sancewich reported that the Meketa completed the finalist interviews for the Request for Proposal for a new PFRS Fixed Income Asset Class Portfolio Manager – David Sancewich presented the finalists for interviews for the Request for Proposal for a new PFRS Fixed Income Asset Class Portfolio Manager

1. Income Research & Management
 - IR+M Aggregate
2. Longfellow Investment Management Co.
 - Core
3. Wellington Management Company LLP
 - Core Bond.

MOTION: Member Godfrey made a motion approving the finalists for interview for the Request for Proposal for a new PFRS Fixed Income Investment Asset Manager at a future meeting, second by Member Traylor. Motion passed.

[JOHNSON – Y/ GODFREY – Y/ BENSON – Y/ NICHELINI – Y/ SPEAKMAN – Y/ TRAYLOR – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

- H. Review of the Finalists for a New Active Small Cap Domestic Equities Asset Class Investment** – David Sancewich presented an informational report regarding a summary of the finalists' presentations from Investment Firms seeking to serve as PFRS's new Small Cap Domestic Equities Asset Class Manager He reported that the Investment Committee would continue discussion of this matter at the July 2020 investment committee meeting.

MOTION: Member Godfrey made a motion to accept the informational report from Meketa, second by Member Traylor.

[JOHNSON – Y/ GODFREY – Y/ BENSON – Y/ NICHELINI – Y/ SPEAKMAN – Y/ TRAYLOR – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

- I. \$13.91 million Drawdown for New Fiscal Year 2020/2021 (Quarter ending September 2020) Member Allowances** – David Sancewich presented the details of the Meketa report describing the drawdown of funds to pay for the PFRS member retirement allowances to its members for the period of April 2020 through September 2020.

MOTION: Chairman Godfrey made a motion to recommend Board Approval of the member allowances drawdown of funds to pay the PRS member retirement allowances for the period of April 2020 through September 2020, second by Member Speakman. Motion passed.

[JOHNSON – Y/ GODFREY – Y/ BENSON – Y/ NICHELINI – Y/ SPEAKMAN – Y/ TRAYLOR – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

J. Member Resolution (s) No. 7095 – 96 – Member Nichelini made a motion to approve Resolutions No. 7095 and 7096, second by member Traylor. Motion passed.

[JOHNSON – Y/ GODFREY – Y/ BENSON – Y/ NICHELINI – Y/ SPEAKMAN – Y/ TRAYLOR – Y/ WILKINSON – Y]
(AYES: 7/ NOES: 0/ ABSTAIN: 0)

J1. Resolution No. 7095 – Resolution approving death benefit payments and directing warrants thereunder in the total sum of \$1,000.00 payable to the beneficiaries of deceased member(s) as follows: Robert A. Sebastiani; Harlan Goodson.

J2. Resolution No. 7096 – Resolution fixing the monthly allowance of Renate C. Owen, Surviving Spouse of John A. Owen; Elaine D. Vaughn, Surviving Spouse of Harry L. Vaughn; Beverly A. Burnett, Surviving Spouse of Donald B. Burnett; Phyllis Whitfield, Surviving Spouse of George E. Whitfield; Surviving Spouse of Jody Buna; June T. Aboussleman Surviving Spouse of Donald A. Aboussleman, retired members of the Police and Fire Retirement System.

K. New Business – No Report

L. Open Forum – No Report

M. Future Scheduling – The next PFRS Board meeting was scheduled for Wednesday, July 29, 2020.

The meeting adjourned at 2:50 pm.

DAVID JONES, BOARD SECRETARY

DATE

