

How ASRS employees deliver service with

PRIDE

PROFESSIONALISM

"We promote, strive for and expect individuals, teams, and divisions to possess professional qualities and skills to lead the organization"

- Friendly, respectful and courteous
- Proactive and responsive
- Good communicator / active listener
- Trusted contributor / teammate
- Personally accountable
- Subject matter expert
- Critical thinker
- Honest, fair, non-judgmental
- Adaptable to change
- Adheres to the Code of Conduct

RESULTS

"We treasure the achievements of individuals, teams, divisions and the agency that energize the organization"

- Completes projects
- Attains individual accomplishments
- Meets goals and objectives
- Satisfies customers
- Produces quality work products
- Manages risks successfully

IMPROVEMENT

"We appreciate individuals, teams or divisions who drive the agency forward with new, innovative ideas and solutions"

- Promotes new ideas
- Enhances morale
- Enhances outcomes and performance
- Improves relationships
- Solves problems
- Increases efficiency, effectiveness or reduces costs

DIVERSITY

"We recognize that utilizing different talents, strengths and points of view, strengthens the agency and helps propel outcomes greater than the sum of individual contributor"

- Encourages the free flow of ideas and opinions
- Treats all people with dignity and respect
- Works effectively with dissimilar individuals
- Recognizes and promotes new skills in others

EXCELLENCE

"We celebrate individuals, teams and divisions who exceed expectations and deliver service with a PRIDE that permeates the organization"

- Surpasses expectations
- Engenders a positive public image
- Celebrates /rewards accomplishments and contributions of others
- Embraces change in a manner which inspires others
- Promotes teamwork /collaboration through communication
- Accepts personal responsibility and challenges with enthusiasm



ARIZONA STATE RETIREMENT SYSTEM

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Paul Matson
Director

AGENDA

NOTICE OF COMBINED PUBLIC MEETING AND POSSIBLE EXECUTIVE SESSION OF THE ARIZONA STATE RETIREMENT SYSTEM BOARD

May 29, 2020
8:30 a.m.

Pursuant to A.R.S. § 38-431.02(F), notice is hereby given to the Trustees of the Arizona State Retirement System (ASRS) Board and to the general public that the ASRS Board will hold a **telephonic** meeting open to the public on Friday, May 29, 2020, beginning at 8:30 a.m. In light of the Arizona Department of Health Services' recommendation to cancel or postpone mass gatherings of 10 or more people, and to help prevent community spread of COVID-19, the meeting will be audience free. **Trustees of the Board and the public may attend by telephone conference call at 877-820-7831, using Participant Passcode: 857127#.**

The Chair may take public comment during any agenda item.

Pursuant to A.R.S. § 38-431.03(A)(3), the ASRS Board of Trustees may vote to go into executive session, which will not be open to the public, for the purpose of obtaining legal advice on any item on the Agenda.

The Agenda for the meeting is as follows:

1. Call to Order; Roll Call; Opening Remarks Mr. Jim Hillyard
Chair
2. Approval of the Minutes of the March 27, 2020 Public Meeting and Executive Session of the ASRS Board (*estimated time: 1 minute*) Mr. Jim Hillyard
3. Approval of the Minutes of the April 20, 2020 Ad hoc Public Meeting and Executive Session of the ASRS Board (*estimated time: 1 minute*) Mr. Jim Hillyard
4. Presentation, Discussion, and Appropriate Action Regarding the ASRS 2020 Legislative Initiatives and Legislative Update (*estimated time: 15 minutes*)..... Mr. Paul Matson
Director
..... Ms. Jessica Thomas
Government Relations Officer

5. Presentation, Discussion, and Appropriate Action Regarding the ASRS Investment Program Update
 - a. ASRS Fund Positioning
 - b. IMD Investment House Views
 - c. IMD Projects, and Asset Class Committee (ACC) Activities
(estimated time: 20 minutes) Mr. Paul Matson
..... Mr. Karl Polen
Chief Investment Officer

6. Presentation, Discussion, and Appropriate Action Regarding the Operational, Investment, and Program Statuses of the ASRS as a result of the Current Pandemic Situation
(estimated time: 45 minutes) Mr. Paul Matson

7. Presentation, Discussion, and Appropriate Action Regarding Board Elections of Chair and Vice Chair (estimated time: 5 minutes) Mr. Jim Hillyard

8. Presentation, Discussion, and Appropriate Action Regarding the Director's Report as well as Current Events
 - a. 2020 Operations Report
 - b. 2020 Budget and Staffing Reports
 - c. 2020 Cash Flow Statements
 - d. 2020 Appeals Report
 - e. 2020 Employers Reporting
(estimated time: 5 minutes) Mr. Paul Matson
..... Mr. Anthony Guarino

9. Presentation and Discussion Regarding Informational Updates from Prior and Upcoming Committee Meetings (estimated time: 15 minutes)
 - a. Operations, Audit and Legislative Committee (OALC) Mr. Clark Partridge, Chair
..... Mr. Anthony Guarino
The next OALC Meeting will be held on July 8, 2020.
 - b. Investment Committee (IC) Mr. Michael Lofton, Chair
..... Mr. Karl Polen
The next IC Meeting is scheduled for June 15, 2020.
 - c. Appeals Committee (AC) Mr. Michael Miller, Chair
..... Mr. Anthony Guarino
The next AC Meeting is scheduled for June 9, 2020.

10. Board Requests for Future Agenda Items (estimated time: 1 minute) Mr. Jim Hillyard

11. Call to the Public Mr. Jim Hillyard

Those wishing to address the ASRS Board will be requested to do so telephonically. Trustees of the Board are prohibited by A.R.S. § 38-431.01(H) from discussing or taking legal action on matters raised during an open call to the public unless the matters are properly noticed for

discussion and legal action. As a result of public comment, the Board may direct staff to study and/or reschedule the matter for discussion and decision at a later date.

12. Adjournment of the ASRS Board.

A copy of the agenda background material provided to Board Trustees (with the exception of material relating to possible executive sessions) is available for public inspection at the ASRS offices located at 3300 North Central Avenue, 14th Floor, Phoenix, Arizona and 4400 East Broadway Boulevard, Suite 200, Tucson, Arizona. The agenda is subject to revision up to 24 hours prior to meeting. These materials are also available on the ASRS website (<https://www.azasrs.gov/content/board-and-committee-meetings>) approximately 48 hours prior to the meeting.

Persons with disabilities may request alternate formats of this document by contacting Tracy Darmer, ADA Coordinator at (602) 240-5378 in Phoenix, at (520) 239-3100, ext. 5378 in Tucson, or 1-800-621-3778, ext. 5378 outside metro Phoenix or Tucson. Requests should be made as early as possible to allow time to arrange the accommodations.

Dated May 22, 2020

ARIZONA STATE RETIREMENT SYSTEM

Signed Copy on File

Joyce Williams
Board Administrator

Signed Copy on File

Paul Matson
Director

Agenda Item #2



ARIZONA STATE RETIREMENT SYSTEM

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*Paul Matson
Director*

MINUTES PUBLIC MEETING ARIZONA STATE RETIREMENT SYSTEM BOARD

Friday, March 27, 2020
8:30 a.m.

The Arizona State Retirement System (ASRS) Board of Trustees met telephonically.

Mr. Jim Hillyard, Chair of the ASRS Board, called the meeting to order at 8:32 a.m.

1. Call to Order; Roll Call; Opening Remarks

Present: Mr. Jim Hillyard, Chair
Mr. Clark Partridge, Vice-chair
Mr. Rene Guillen
Mr. Michael Lofton
Mr. Tom Manos
Mr. Kevin McCarthy
Mr. Michael Miller

Two vacant positions.

A quorum was present for the purpose of conducting business.

2. Approval of the Minutes of the January 31, 2020 Public Meeting of the ASRS Board

Motion: Mr. Clark Partridge moved to approve the minutes of the January 31, 2020 Public Meeting of the ASRS Board. Mr. Michael Lofton seconded the motion.

By a roll call vote of 7 in favor, 0 opposed, 0 abstentions, 0 excused, and 0 vacancies, the motion was approved. The Trustee votes were as follows:

Mr. Jim Hillyard – approved
Mr. Clark Partridge – approved
Mr. Rene Guillen – approved
Mr. Michael Lofton – approved
Mr. Tom Manos – approved
Mr. Kevin McCarthy – approved
Mr. Michael Miller – approved

3. Presentation, Discussion, and Appropriate Action Regarding the ASRS 2020 Legislative Initiatives and Legislative Update

Ms. Jessica Thomas, Government Relations Officer and Rules Writer, provided an update regarding the status of the ASRS 2020 legislative initiatives. Ms. Thomas reported that although the bills had been moving smoothly in their opposite chambers, they did not complete the legislative process

before the legislature adjourned with the intent to reconvene on April 13, 2020. When the legislature reconvenes, Ms. Thomas believes the ASRS bills will continue smoothly through the legislative process. Ms. Thomas also provided an update on various other bills that may have some impact on the ASRS and will continue to track those pieces of legislation. Finally, Ms. Thomas notified the Board that the Governor's Office has been considering filling the vacant Board positions and reappointing current Board members, but that initiative is likely on pause until more pressing issues related to the current health crisis are resolved. Board members did request Mr. Matson to continue to follow up with the Governor's Office and update the Board regarding new and continuing Trustees.

Mr. Rene Guillen joined the meeting telephonically at 8:45 am.

4. Presentation, Discussion, and Appropriate Action Regarding the ASRS Investment Program Update

Mr. Karl Polen, Chief Investment Officer, reported that total fund year-to-date returns through March 25, 2020 are approximately -6%, and assets are at approximately \$38 billion. Mr. Polen informed the Board that in keeping with the current COVID-19 agency directives to minimize social contact, the staff of the Investment Management Division are all working from home. Regular testing of teleworking systems meant that staff was able to make the transition smoothly with no loss of functionality.

Final results for periods ended December 31, 2019 are summarized as follows:

- Total fund returns of 15.6%, 10.1%, 7.9% and 9.2% exceeded benchmark returns by .9%, 1.7%, 1.6% and 1.1% for the one-, three-, five- and ten-year periods, respectively.
- For the five-year period, the dollar value added was approximately \$1.8 billion, and for the ten-year period, \$4.0 billion was added.
- Compared to the public fund universe, the ASRS ranked in the top quartile for the three-, five- and ten-year periods.

Mr. Polen answered questions and provided background on this discussion item.

5. Presentation, Discussion, and Appropriate Action Regarding the ASRS Cybersecurity Governance Policy

Mr. Anthony Guarino, Deputy Director and Chief Operations Officer, introduced this agenda item, explaining that this was part of the ongoing development of the ASRS cybersecurity program. This document defines how the ASRS will utilize the NIST (National Institute of Standards and Technology) Cybersecurity Framework to organize policy content and ensure all NIST recommended security controls and practices have defined and documented implementations for our operations. Mr. Guarino introduced Mr. Jeff Hickman, Information Security Officer, to answer any questions.

The Trustees had no questions for Mr. Hickman.

Motion: Mr. Clark Partridge moved to approve the ASRS-SEC-100-Cybersecurity Governance Program policy as presented and accepted by the OALC. Mr. Tom Manos seconded the motion.

By a roll call vote of 7 in favor, 0 opposed, 0 abstentions, 0 excused, and 0 vacancies, the motion was approved. The Trustee votes were as follows:

- Mr. Jim Hillyard – approved
- Mr. Clark Partridge – approved
- Mr. Rene Guillen – approved

Mr. Michael Lofton – approved
Mr. Tom Manos – approved
Mr. Kevin McCarthy – approved
Mr. Michael Miller – approved

6. Notification of Upcoming Board Elections to Occur at the May 29, 2020 Board Meeting

Mr. Jim Hillyard announced the upcoming Board elections for Chair and Vice-chair to occur at the May 29, 2020 Board Meeting.

7. Presentation, Discussion, and Appropriate Action Regarding the Director's Report as well as Current Events

Mr. Matson deferred his comments to Agenda Item 12.

8. Presentation and Discussion Regarding Informational Updates from Prior and Upcoming Committee Meetings

Mr. Matson introduced this Agenda Item to explain the modification of the way committee meeting updates would be addressed in this and future Board meetings. The agendas and draft minutes of the most recent committee meetings will be included in the Board materials. Each Board member will have an opportunity to review those items and gain a better understanding of the most recent events facing each committee.

a. Operations, Audit and Legislative Committee (OALC)

Mr. Clark Partridge announced the next OALC meeting is to be held on April 8, 2020.

b. Investment Committee (IC)

Mr. Mike Lofton acknowledged the Investment Management Division staff and leadership for a remarkable job conducting the business of the ASRS on behalf of all stakeholders of the agency, referring to the most recent Investment Committee meeting held Monday, March 23. Mr. Lofton announced the next IC meeting is to be held on June 15, 2020.

c. Appeals Committee (AC)

Mr. Mike Miller noted the cancellation of the previously scheduled April 14, 2020 AC meeting and announced the next AC meeting is to be held on June 9, 2020.

9. Board Requests for Future Agenda Items

Mr. Mike Lofton requested an update from the Governor's Office on the status of trustee selection for the ASRS Board of Trustees.

10. Call to the Public

No members of the public requested to speak.

11. The next regular ASRS Board meeting is scheduled for Friday, May 29, 2020 at 8:30 a.m.

Mr. Jim Hillyard noted the next Board meeting is scheduled for Friday, May 29, 2020 at 8:30 a.m.

12. Presentation, Discussion, and Appropriate Action Regarding any Possible Impact that COVID-19 may have on the ASRS

Mr. Paul Matson reviewed the actions taken by the ASRS and any impact on service or other levels experienced by the agency.

- There have been no substantial customer service issues with respect to services provided by the ASRS.
- The agency is, effectively, fully operational.
- Modifications have been made to one-on-one and group meetings to conduct them using electronic platforms, with the exception of employer educational meetings, which have been cancelled. Webinars and pre-recorded presentations are being considered for employers in case the stay-at-home mandates continue for an extended timeframe.
- Member services' statistics show that performance targets are being met.
- Telecommuting has increased from an average of 17% to over 70% of staff.
- For those continuing to work onsite, social distancing is being practiced.
- Member services is moving to a telecommuting model, and hoping to be fully implemented by April 6.
- Mr. Matson outlined four focus issues:
 - Teleworking capacity: making sure that the workforce of the ASRS is socially distant and/or teleworking. The ASRS has been successful in this area and continually improving, should this become an ongoing issue.
 - Investment Management:
 - Maintain portfolio liquidity
 - Ability to take advantage of market opportunities as they arise
 - Careful rebalancing in a way to minimize downside risk and maximize upside potential
- Currently operating under a COOP with dynamic policies to maintain flexibility and quickly respond to continually changing situations.

Mr. Hillyard commended Mr. Matson and the ASRS for continued hard work and excellence in serving the members, and employers during these difficult times, and all Arizonans by working to slow the spread.

13. Presentation, Discussion, and Appropriate Action Regarding Possible Litigation Related to Service Purchase

Prior to the call for a motion to move into executive session, Mr. Jim Hillyard read the following statement: Pursuant to A.R.S. 38-431.03(A)(3), minutes of and discussions made in executive session are required by law to be confidential and shall not be communicated to any person outside this meeting room. Additionally, Mr. Hillyard noted that the three members of the Board Appeals Committee (AC) have decided not to attend the executive session since the topic under discussion will involve future appeals.

Motion: Mr. Clark Partridge moved to go into executive session pursuant to A.R.S. § 38-431.03(A)(3) for the purpose of discussion or consultation for legal advice with the attorney of the public body, which will not be open to the public. Mr. Kevin McCarthy seconded the motion.

By a roll call vote of 7 in favor, 0 opposed, 0 abstentions, and 0 excused, the motion was approved. The Trustee votes were as follows:

Mr. Jim Hillyard – approved
Mr. Clark Partridge – approved
Mr. Rene Guillen – approved
Mr. Michael Lofton – approved
Mr. Tom Manos – approved
Mr. Kevin McCarthy – approved
Mr. Michael Miller – approved

The three members of the AC, Mr. Michael Miller, Mr. Rene Guillen, and Mr. Tom Manos, all left the meeting at 9:39 a.m.

The Board convened to Executive Session at 9:40 a.m.

The Committee reconvened to Public Session at 10:23 p.m.

14. Adjournment of the ASRS Board

Mr. Jim Hillyard adjourned the March 27, 2020 public meeting of the Board at 10:24 a.m.

Respectfully Submitted by:

Joyce Williams
Board Administrator
ARIZONA STATE RETIREMENT SYSTEM

Confidential Materials

Note: Executive
Session Minutes
have been provided
to the Board and not
included in this book

Agenda Item #3



ARIZONA STATE RETIREMENT SYSTEM

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Paul Matson
Director

MINUTES PUBLIC MEETING ARIZONA STATE RETIREMENT SYSTEM BOARD

Monday, April 20, 2020
11:00 a.m.

The Arizona State Retirement System (ASRS) Board of Trustees met telephonically.

Mr. Jim Hillyard, Chair of the ASRS Board, called the meeting to order at 11:02 a.m.

1. Call to Order; Roll Call; Opening Remarks

Present: Mr. Jim Hillyard, Chair
Mr. Clark Partridge, Vice-chair
Mr. Tom Manos
Mr. Kevin McCarthy
Mr. Michael Miller

Excused: Mr. Rene Guillen
Mr. Michael Lofton

Two vacant positions.

A quorum was present for the purpose of conducting business.

Ms. Melanie Alexander, ASRS Board Administrator, provided all attendees with telephonic meeting guidelines.

2. Presentation, Discussion, and Appropriate Action Regarding the ASRS Group Dental Services Solicitation and Request for Proposal (RFP)

Mr. Paul Matson, Director, and Mr. Anthony Guarino, Deputy Director and Chief Operations Officer, turned the presentation over to Ms. M. Harrison, Budget Manager, Administrative Services Division, who was presenting on behalf of the Procurement Team and under the direction of Ms. Martha Rozen, Chief of Administrative Services and ASRS Chief Procurement Officer. Upon introduction, Ms. Harrison reminded the Board the materials shared in the Board packet were confidential; therefore, if the Board wished to discuss them further, it would need to be done in executive session.

Motion: Mr. Kevin McCarthy moved to go into executive session for the purpose of discussion or consideration of records exempt by law from public inspection. Mr. Tom Manos seconded the motion.

By a roll call vote of 5 in favor, 0 opposed, 0 abstentions, 2 excused, and 0 vacancies, the motion was approved. The Trustee votes were as follows:

Mr. Jim Hillyard – approved
Mr. Clark Partridge – approved
Mr. Rene Guillen – excused
Mr. Michael Lofton – excused
Mr. Tom Manos – approved
Mr. Kevin McCarthy – approved
Mr. Michael Miller – approved

The Board convened to Executive Session at 11:04 a.m.

The Board reconvened to Public Session at 11:23 a.m.

Motion: Mr. Michael Miller moved to accept the recommendation of the Evaluation Committee and the Operations, Audit, and Legislative Committee on the ASRS Dental Program Administration Contract Award. Mr. Kevin McCarthy seconded the motion.

By a roll call vote of 5 in favor, 0 opposed, 0 abstentions, 2 excused, and 0 vacancies, the motion was approved. The Trustee votes were as follows:

Mr. Jim Hillyard – approved
Mr. Clark Partridge – approved
Mr. Rene Guillen – excused
Mr. Michael Lofton – excused
Mr. Tom Manos – approved
Mr. Kevin McCarthy – approved
Mr. Michael Miller – approved

3. Board Requests for Future Agenda Items

None were requested.

4. Call to the Public

No members of the public requested to speak.

5. Adjournment of the ASRS Board

Mr. Jim Hillyard adjourned the April 20, 2020 public meeting of the Board at 11:26 a.m.

Respectfully Submitted by:

Melanie Alexander
Board Administrator
ARIZONA STATE RETIREMENT SYSTEM

Confidential Materials

Note: Executive
Session Minutes
have been provided
to the Board and not
included in this book

Agenda Item #4



ARIZONA STATE RETIREMENT SYSTEM

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Paul Matson
Director

TO: Mr. Jim Hillyard, Chair, Arizona State Retirement System (ASRS) Board

FROM: Mr. Paul Matson, Director
Ms. Jessica Thomas, Government Relations Officer

DATE: May 1, 2020

RE: **AGENDA ITEM #4:** Presentation, Discussion and Appropriate Action Regarding the ASRS 2020 Legislative Initiatives and Legislative Update

Purpose:

To provide a brief update on the status of each initiative listed on the 2020 Legislative Agenda; and to apprise the Board of any additional legislative items related to the ASRS that may have arisen.

Recommendation:

No action is necessary.

Background:

2020 Legislative Agenda

The 2020 Legislative Session began on January 13, 2020. All the initiatives listed on the ASRS 2020 Legislative Agenda are making their way through the legislative process in the opposite chambers.

The link to the most up-to-date bill tracker can be found any time at <https://www.azasrs.gov/content/legislation>.

Agenda Item #5

CIO Board Report

Arizona State Retirement System

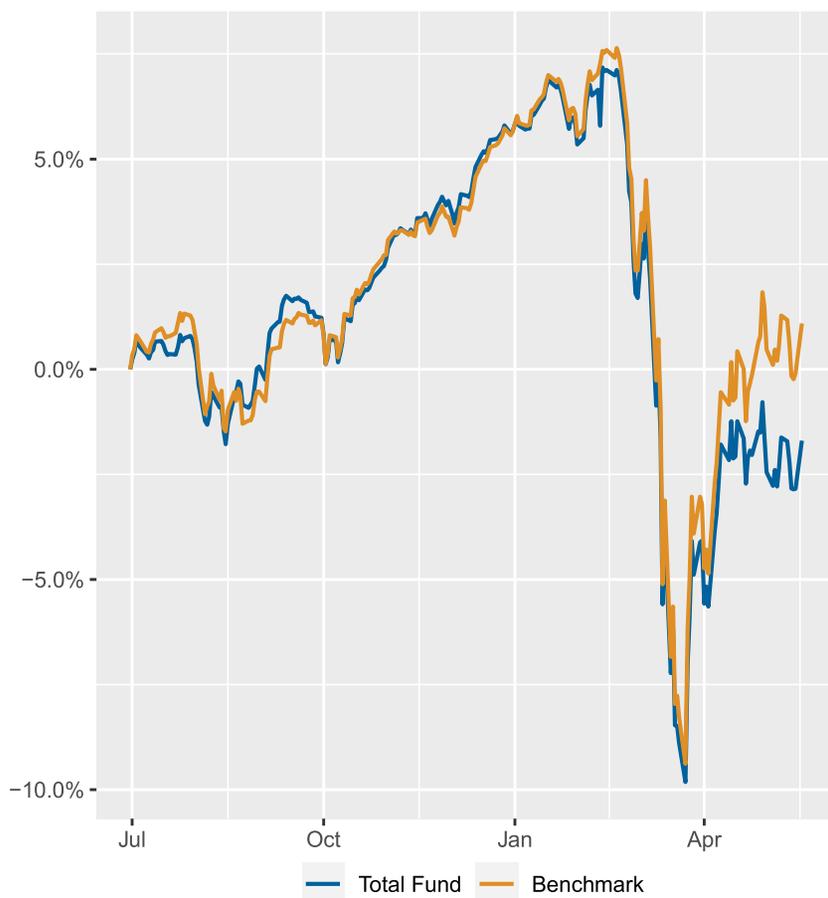
May 29, 2020

Section 1

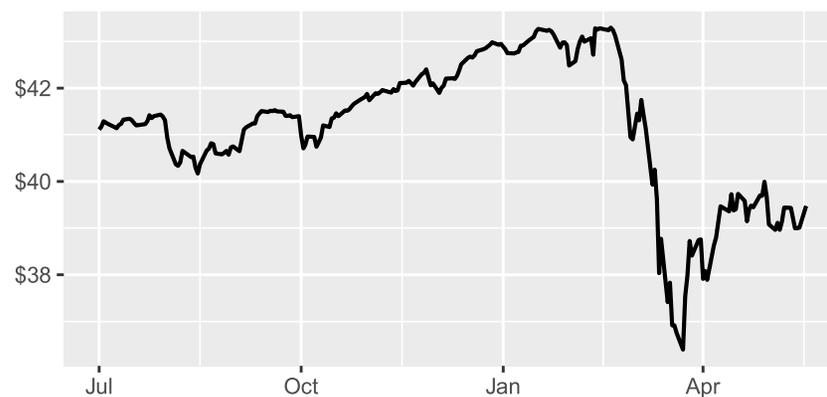
Fiscal Year to Date

Total Fund Fiscal Year to Date through 5/18/2020

Return Fiscal Year to Date

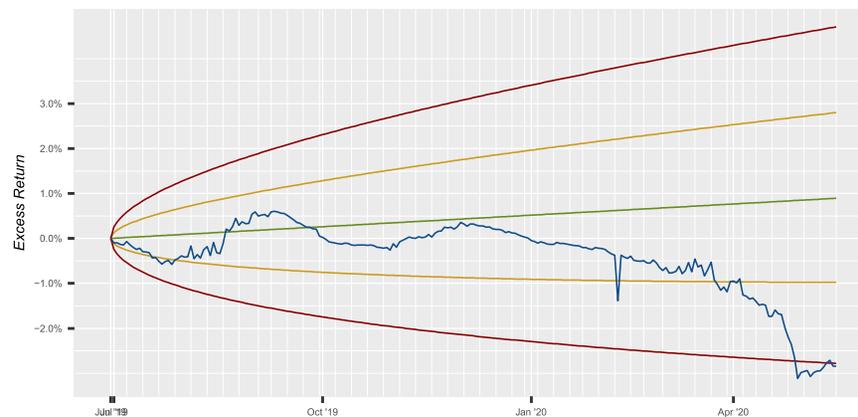


Total Fund Market Value (Billions)



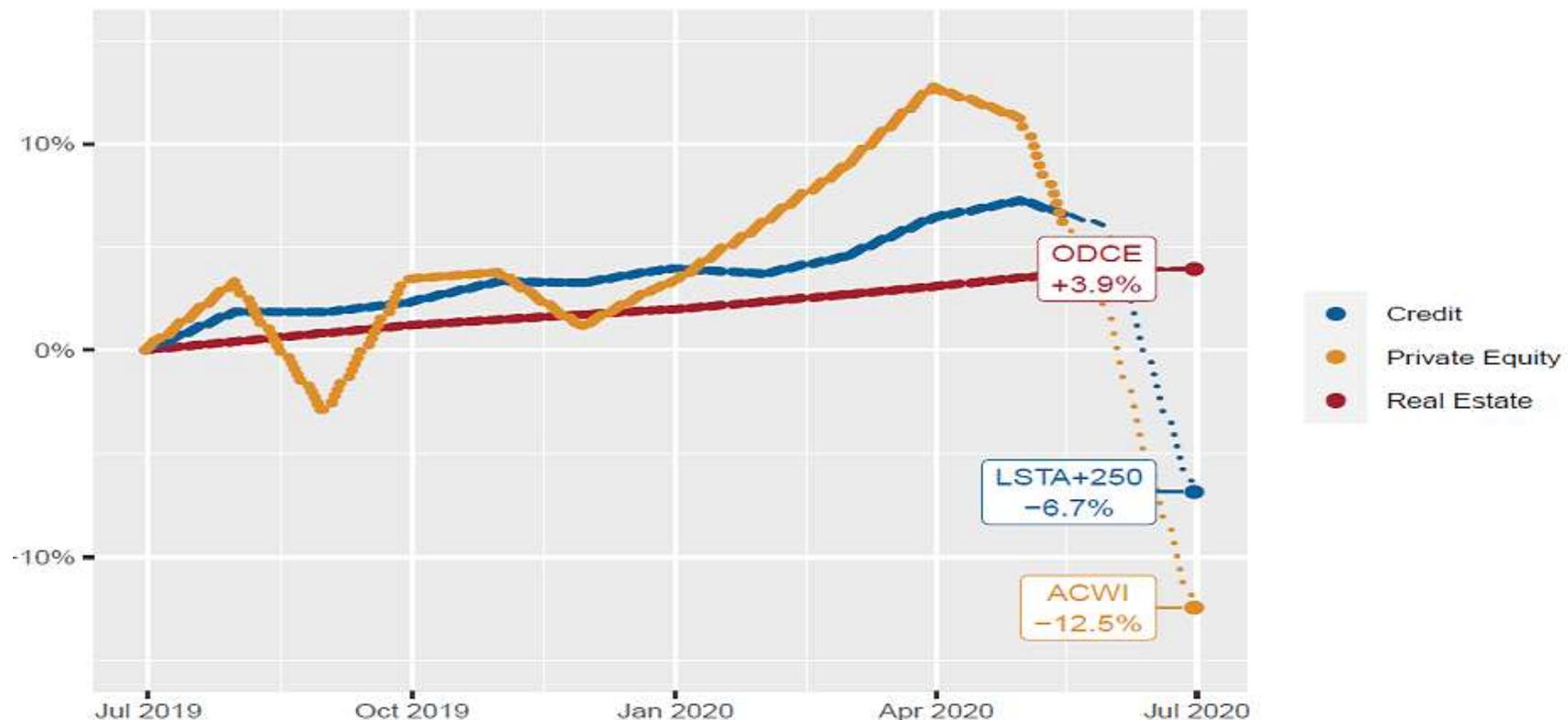
Total Fund Performance versus Expectations

100 Basis Points Expected Excess Return with 200 Basis Points Tracking Error



Private Markets Benchmark Returns

Are lagged 90 days and are already known through the end of the fiscal year. Actual private market returns are booked when received for the whole quarter, while the benchmarks rose in the first half of the quarter but declined precipitously in the third month of the quarter.



Estimating June 30 returns from available information

	Actual	Benchmark	
3/31 FYTD Total Fund Ret	-4.1	-3.2	Values in Black are known Values
add Q4 estimates			
Credit	-2.2	-12.3	Values in blue are estimates
Real estate	-2.9	0.8	
Private Equity	-14.1	-22.4	
Bonds (Q4 actual through May18)	1.5	1.3	
Public Equities (actual through May 18)	11.7	11.8	
Public Equities and Bonds thru June 30	0	0	Values in red are hypothetical assumptions
Est 6/30 performance assuming public markets flat for rest of year	-1.5	-2.9	

Total Fund Current Positioning through 5/18/2020

Total Fund Positioning

	NAV w/ Notional (\$ mm)	NAV Exposure (%)	Target (%)	Active Weight (%)	Active Weight (\$ mm)
Cash	346.0	0.9	0.0	0.9	346.0
Bonds	3718.2	9.4	10.8	-1.4	-544.6
Credit	8502.0	21.5	19.2	2.3	923.6
Equity	20403.8	51.7	54.5	-2.8	-1107.7
Real Estate	6500.3	16.5	15.5	1.0	382.4
Other	0.4	0.0	0.0	0.0	0.4
Total Fund	39470.7	100.0	100.0	0.0	0.0

Stock Market Valuation

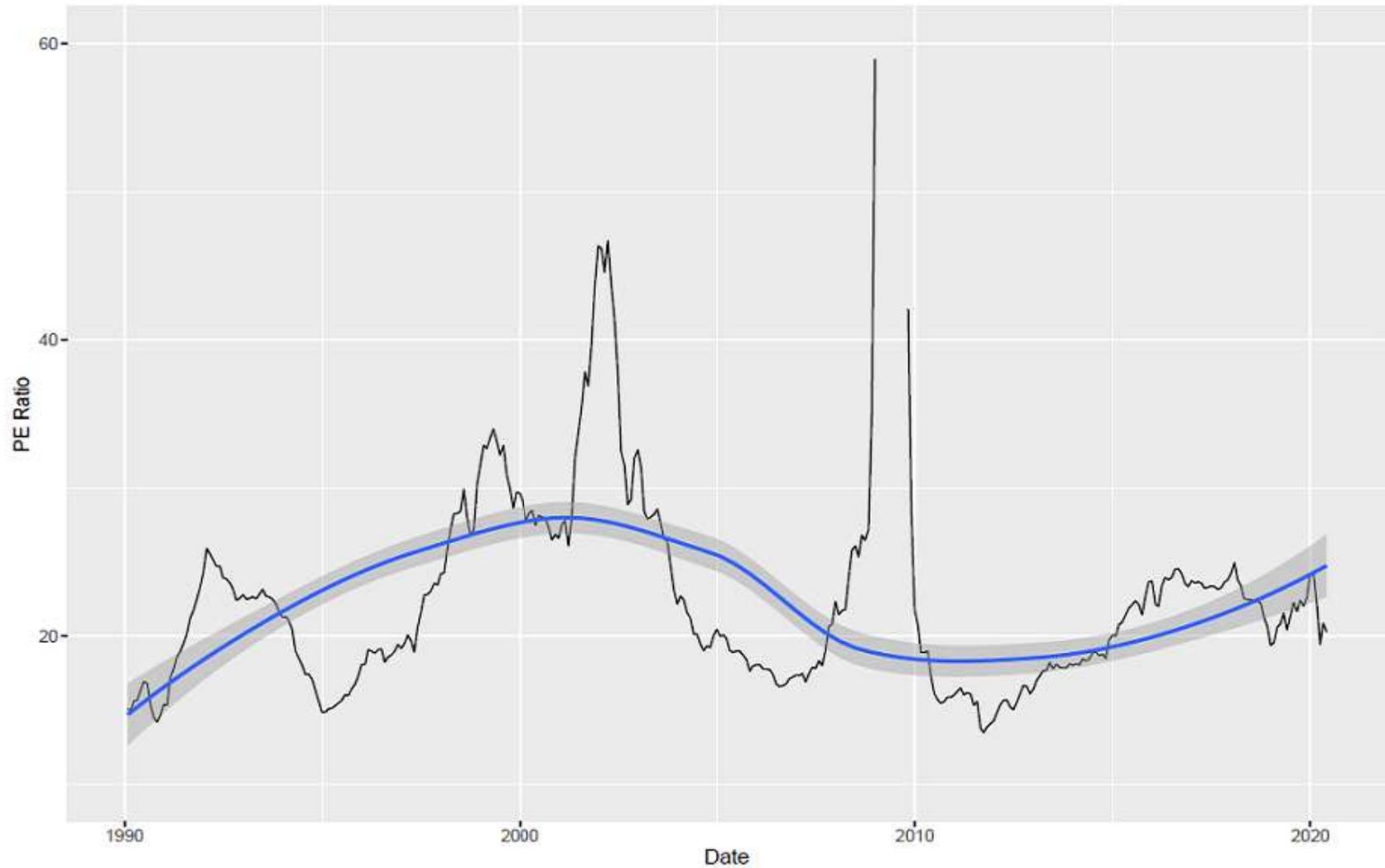
- Stock market prices are determined in a competitive market by self interested traders
- A good way to understand valuation is through the PE ratio which is simply the price divided by earnings
- The stock market can go up because of a higher PE ratio or higher earnings or a mix
- Traders can agree on the price even if they disagree on the reasoning

What Causes PE to go up?

- Low Interest Rates
- High growth
- Low risk perception
- Capital Flows

PE Ratios will spike during a recession because of a temporary decline in earnings and anticipated recovery

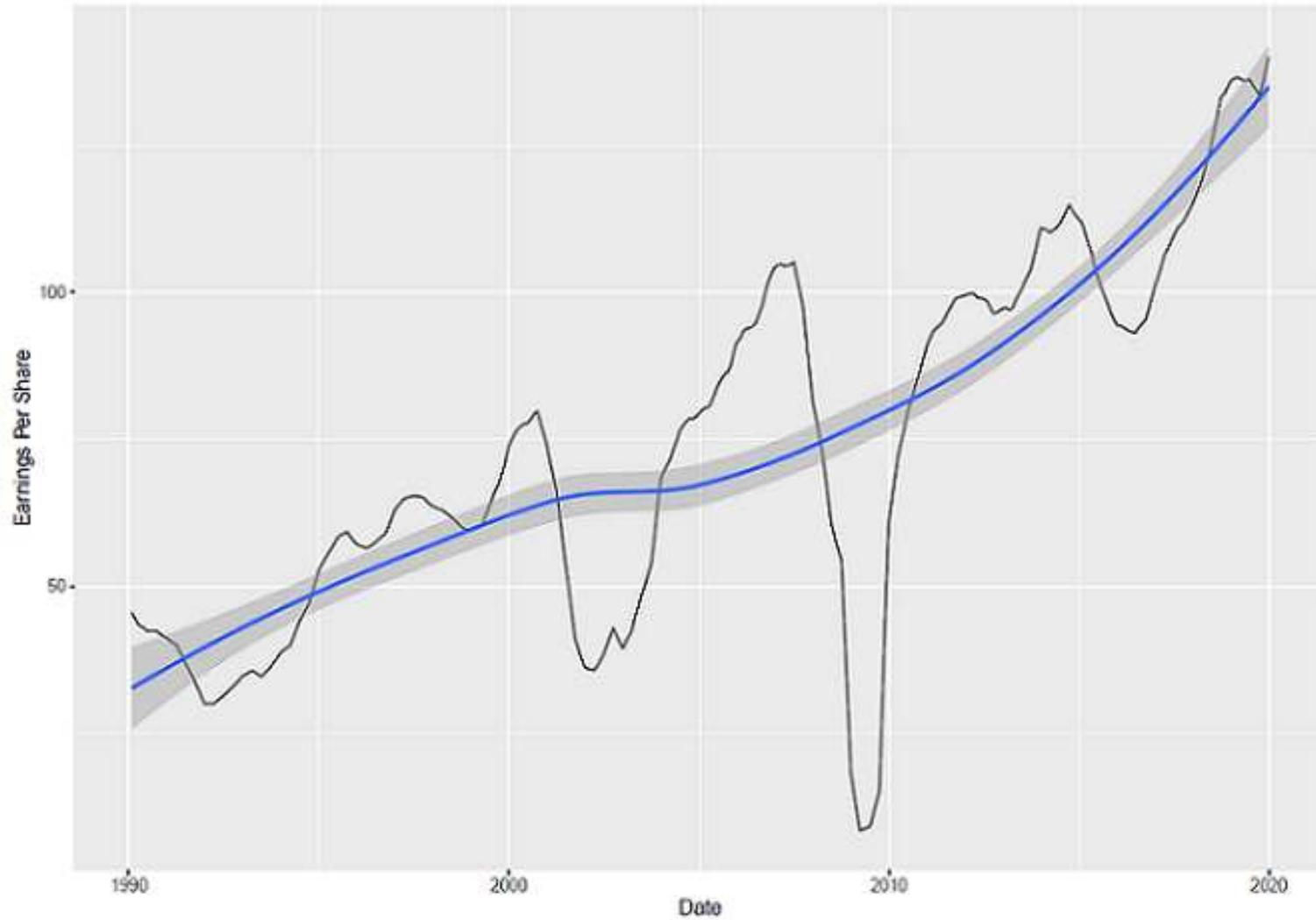
PE History



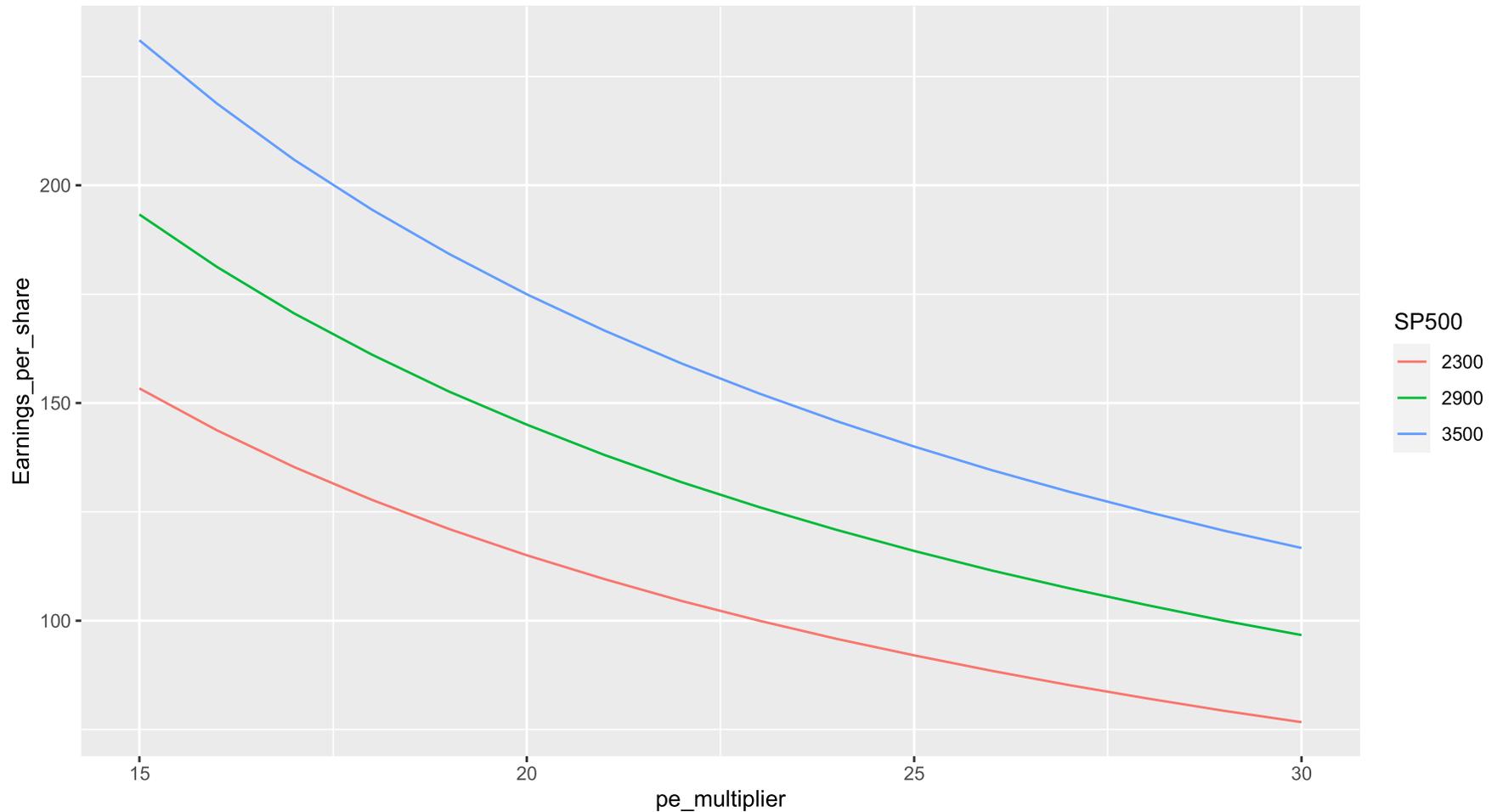
What causes earnings to go up?

- Economic growth
- Low interest rates
- Low taxes
- Strong household finance (economy is 70% consumer)
- Competitive labor and supply chain markets
- Open markets
- Positive business environment (rule of law, property rights, limited regulation)
- Technology and productivity

Earnings per Share History



Stock Market Value as Function of PE and Earnings



Section 2

Quarterly Performance

Subsection 1

External Reports

State Street Performance Summary for the period ended 3/31/2020

ARIZONA STATE RETIREMENT SYSTEM
 Investment Management Division
 Mar-31-2020
 Net Returns
 Final

ASRS Performance Summary

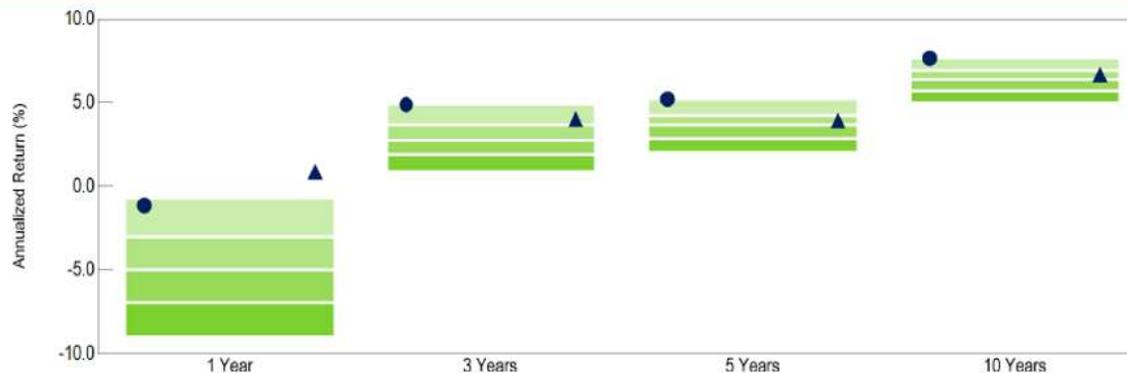


	Benchmark	Market Value (\$mil.)	1 Mth	3 Mth	FYTD	1 Year	3 Year	5 Year	ITD	Inception Date
TOTAL PLAN	INTERIM SAA POLICY	38,757	-5.68	-9.23	-4.08	-1.14	4.89	5.22	9.39	07-01-1975
Excess			-0.24	-0.84	-0.86	-2.03	0.87	1.27	0.39	
TOTAL EQUITY WPE and Opp	LEGACY Total Equity BM	19,227	-11.36	-18.72	-12.21	-9.11	2.45	3.91	6.43	07-01-2013
Excess			-0.44	-1.77	-1.86	-3.19	-0.40	-0.27	-0.37	
US EQUITY	COMBINED DOMESTIC EQUITY INDEX	8,459	-14.58	-22.97	-15.12	-11.74	2.13	4.77	10.61	07-01-1975
Excess			-0.82	-2.03	-2.41	-2.55	-1.87	-1.27	-0.22	
INTERNATIONAL EQUITY	INTERNATIONAL EQUITY INDEX	6,471	-14.88	-23.88	-18.49	-16.39	-2.19	-0.64	5.14	04-01-1987
Excess			0.23	0.23	0.06	-0.07	0.05	-0.02	0.24	
PRIVATE EQUITY	MSCI ACWI IMI w/USA GROSS (NET) LAGGED	4,298	2.82	2.57	7.13	11.92	12.89	12.03	7.74	09-01-2007
Excess			-0.76	-6.56	-5.65	-14.83	3.18	3.14	0.47	
INTEREST RATE SENSITIVE	BBG BARC Agg (Dly)	3,664	-0.46	3.36	5.88	9.10	4.92	3.65	7.87	07-01-1975
Excess			0.13	0.21	0.20	0.17	0.09	0.29		
CREDIT	LEGACY Total Credit BM	8,709	1.34	2.41	6.91	9.34	9.15	8.31	7.68	07-01-2013
Excess			-0.46	0.05	0.49	-2.02	2.40	1.85		
PRIVATE DEBT	S&P LEVERAGED LOAN INDEX LAGGED + 250BPS	6,291	1.37	1.87	7.21	9.12	10.03	10.15	11.63	10-01-2012
Excess			-0.43	-0.49	0.79	-2.23	3.08	3.10	4.49	
DISTRESSED DEBT	S&P LEVERAGED LOAN INDEX LAGGED + 250BPS	1,520	0.36	3.79	6.56	8.68			8.74	07-01-2018
Excess			-1.44	1.43	0.14	-2.67			1.88	
OTHER CREDIT	S&P LEVERAGED LOAN INDEX LAGGED + 250BPS	895	2.85	3.42	4.71	21.06			10.62	07-01-2018
Excess			1.05	1.05	-1.71	9.70			3.75	
REAL ESTATE	Custom ASRS ODCE (Net)	6,726	0.71	1.15	3.22	5.89	6.89	9.49	6.36	12-01-2005
Excess			0.32	0.07	0.15	1.25	0.51	1.35	-0.07	
CASH	CASH CUSTOM INDEX	430	0.16	0.42	2.16	2.80	5.29	2.57	3.99	04-01-1990
Excess			-0.13	-0.15	0.55	0.54	0.21	-0.77	0.66	
OTHER	ICE BoIA US 3-Month Treasury Bill	0	297.21	337.14	1,361.14	1,335.76	147.03	70.66	51.79	07-01-2013
Excess			296.92	336.56	1,359.53	1,333.50	145.20	69.47	50.90	

ASRS Returns Compared to Public Fund Universe for the period ended 3/31/2020

UNIVERSE COMPARISON

InvMetrics Public DB > \$1B Net Return Comparison
 Ending March 31, 2020



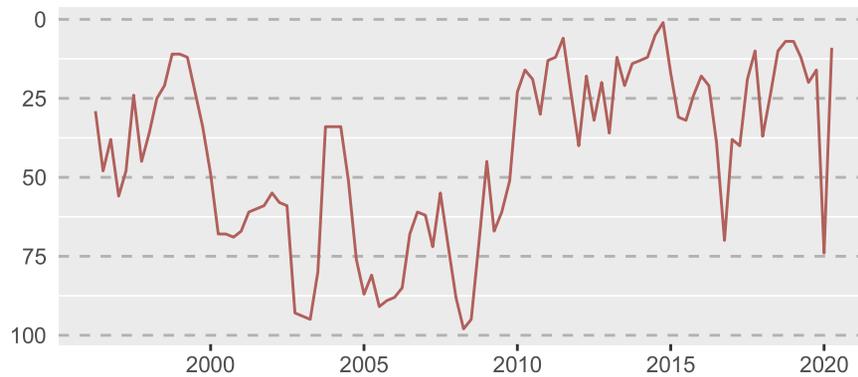
	1 Year	3 Years	5 Years	10 Years
5th Percentile	-0.7	4.9	5.2	7.7
25th Percentile	-3.0	3.7	4.2	6.9
Median	-5.0	2.8	3.7	6.4
75th Percentile	-6.9	1.9	2.9	5.7
95th Percentile	-9.0	0.9	2.0	5.0
# of Portfolios	62	62	59	55

	1 Year	3 Years	5 Years	10 Years
● Total Fund	-1.1	4.9	5.2	7.7
Total Fund Percentile Rank	9	5	6	6
Total Fund Ordinal Rank	6	3	4	3
Number of Funds In Universe	62	62	59	55
▲ Interim SAA Policy	0.9	4	3.9	6.7

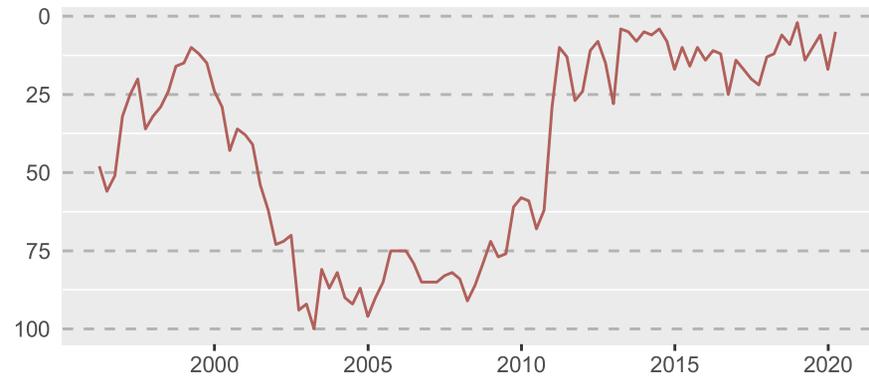


Total Fund Rolling Percentile Rankings for the period ended 3/31/2020

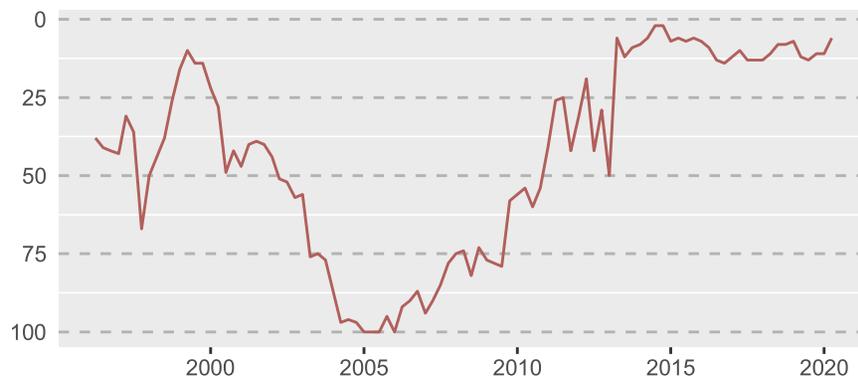
Total Fund One Year Rolling Percentile Rankings



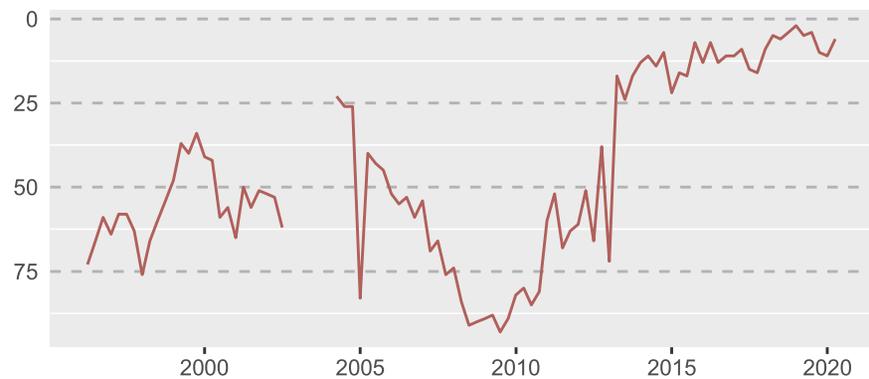
Total Fund Three Year Rolling Percentile Rankings



Total Fund Five Year Rolling Percentile Rankings



Total Fund Ten Year Rolling Percentile Rankings



Section 3

Quarterly Performance

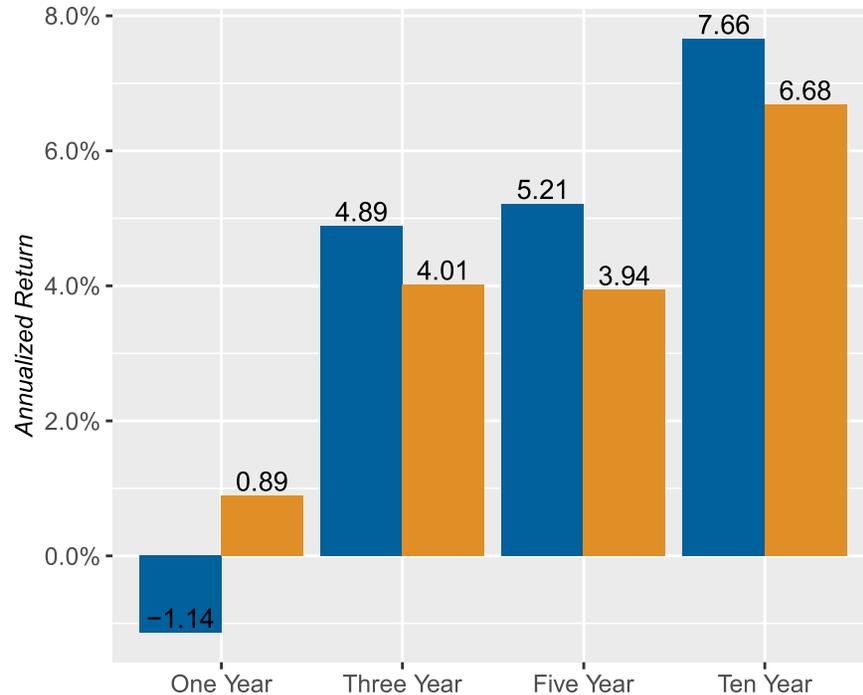
Subsection 1

Total Fund

Trailing Returns & Dollar Value Add for the period ended 3/31/2020

Total Fund and Strategic Asset Allocation Benchmark

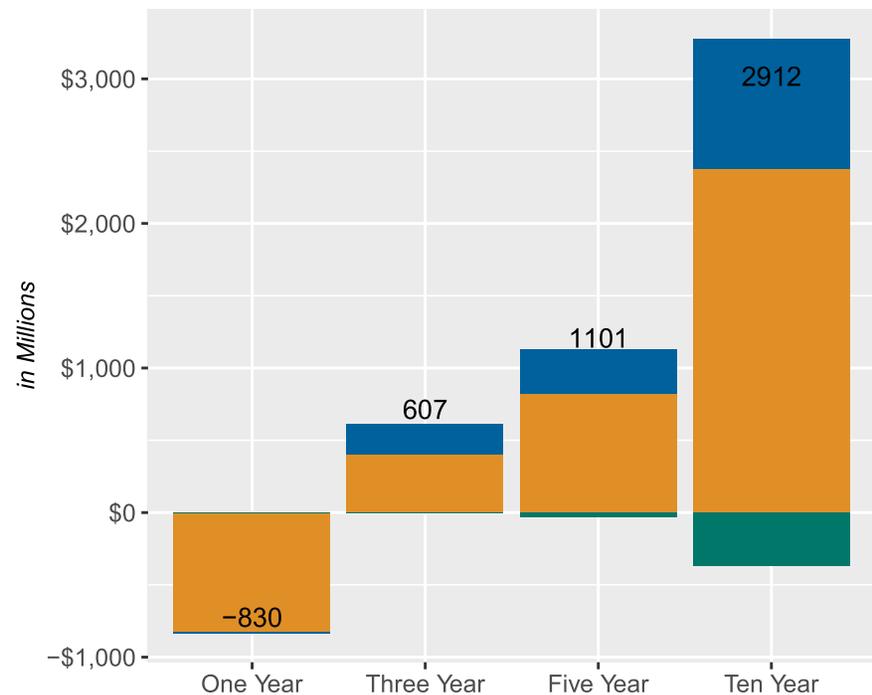
Trailing Period Returns



■ Total Fund ■ Strategic Asset Allocation Benchmark

Total Fund Dollar Value Add

Relative to Strategic Asset Allocation Benchmark

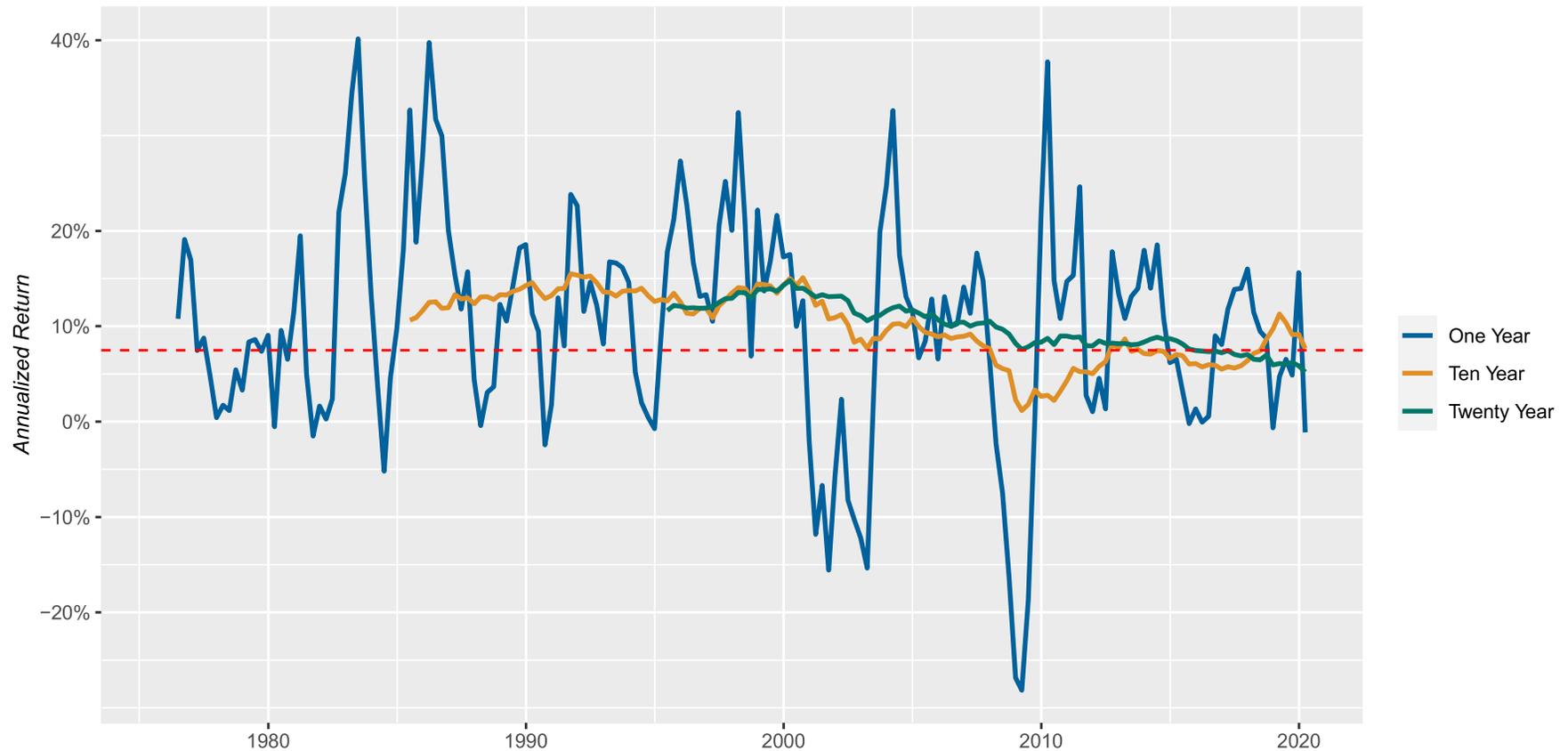


■ Allocation ■ Excess Return ■ Residual

Total Fund Returns for the period ended 3/31/2020

Total Fund Rolling Returns

Trailing Period Returns



Total Fund Rolling 1 Year Excess Return for the period ended 3/31/2020

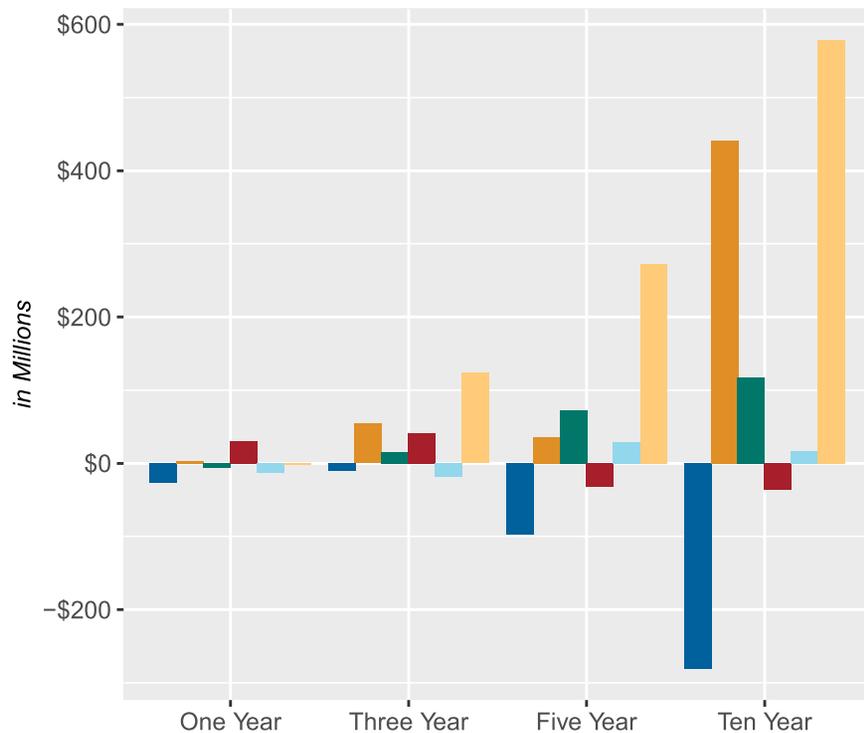
Total Fund Rolling 1 Year Excess



Allocation Effect for the period ended 3/31/2020

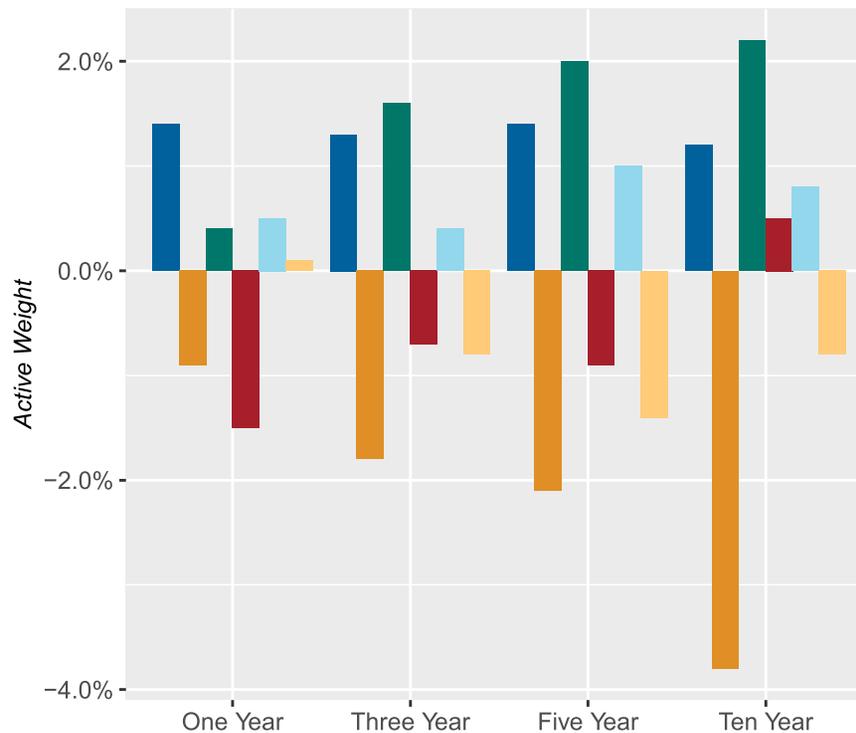
Allocation Effect by Asset Class

Relative to Strategic Asset Allocation Benchmark



Asset Class Average Active Weights

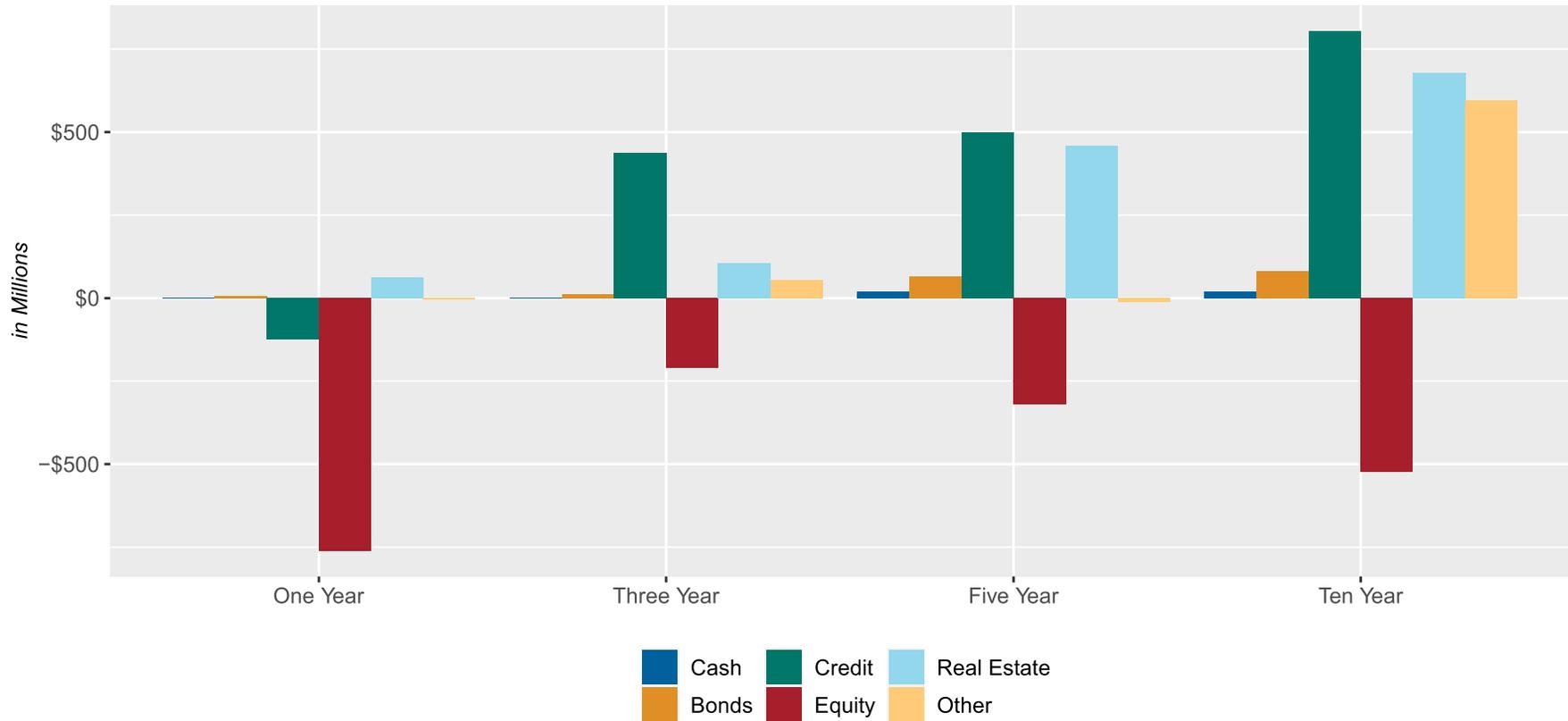
Relative to Strategic Asset Allocation Policy



Excess Return by Asset Class for the period ended 3/31/2020

Excess Return by Asset Class

Relative to Strategic Asset Allocation Benchmark



Section 4

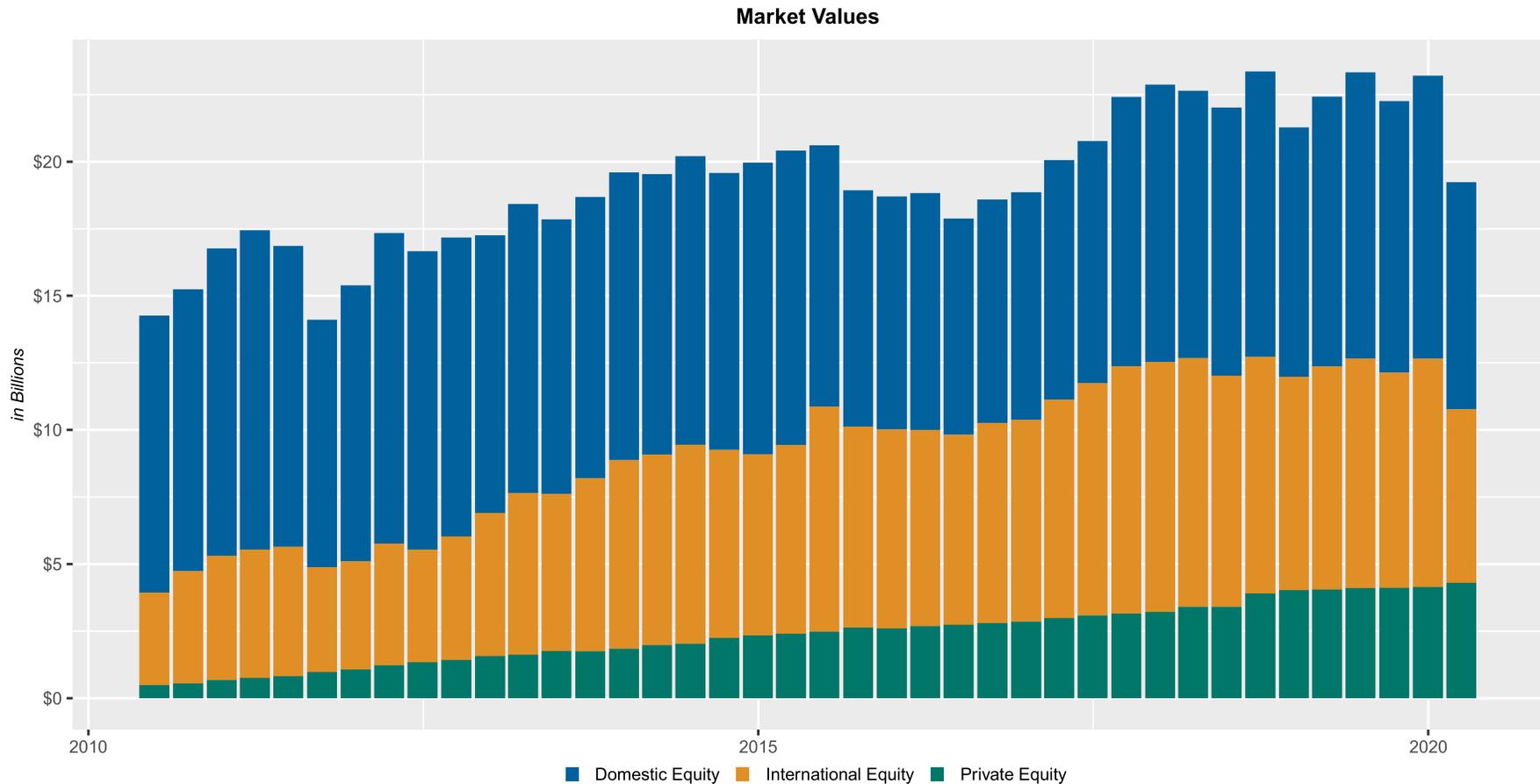
Equity

Total Equities for the period ended 3/31/2020

Returns for the period ended 3/31/2020

Composite	Quarter	One Year	Three Year	Five Year
Equity	-18.72	-9.11	2.44	3.90
Benchmark	-16.95	-5.92	2.84	4.17
Excess	-1.77	-3.19	-0.40	-0.26
Public Equity	-23.37	-13.84	0.10	2.19
Benchmark	-22.37	-12.45	1.13	2.93
Excess	-0.99	-1.39	-1.03	-0.74
US Equity	-22.97	-11.74	2.15	4.79
Benchmark	-20.94	-9.18	4.00	6.04
Excess	-2.03	-2.55	-1.84	-1.25
International Equity	-23.88	-16.39	-2.22	-0.66
Benchmark	-24.11	-16.32	-2.24	-0.62
Excess	0.23	-0.07	0.02	-0.04
Private Equity	1.96	11.91	12.29	11.79
Index IRR	9.12	26.78	9.09	8.65
Excess	-7.16	-14.88	3.19	3.14

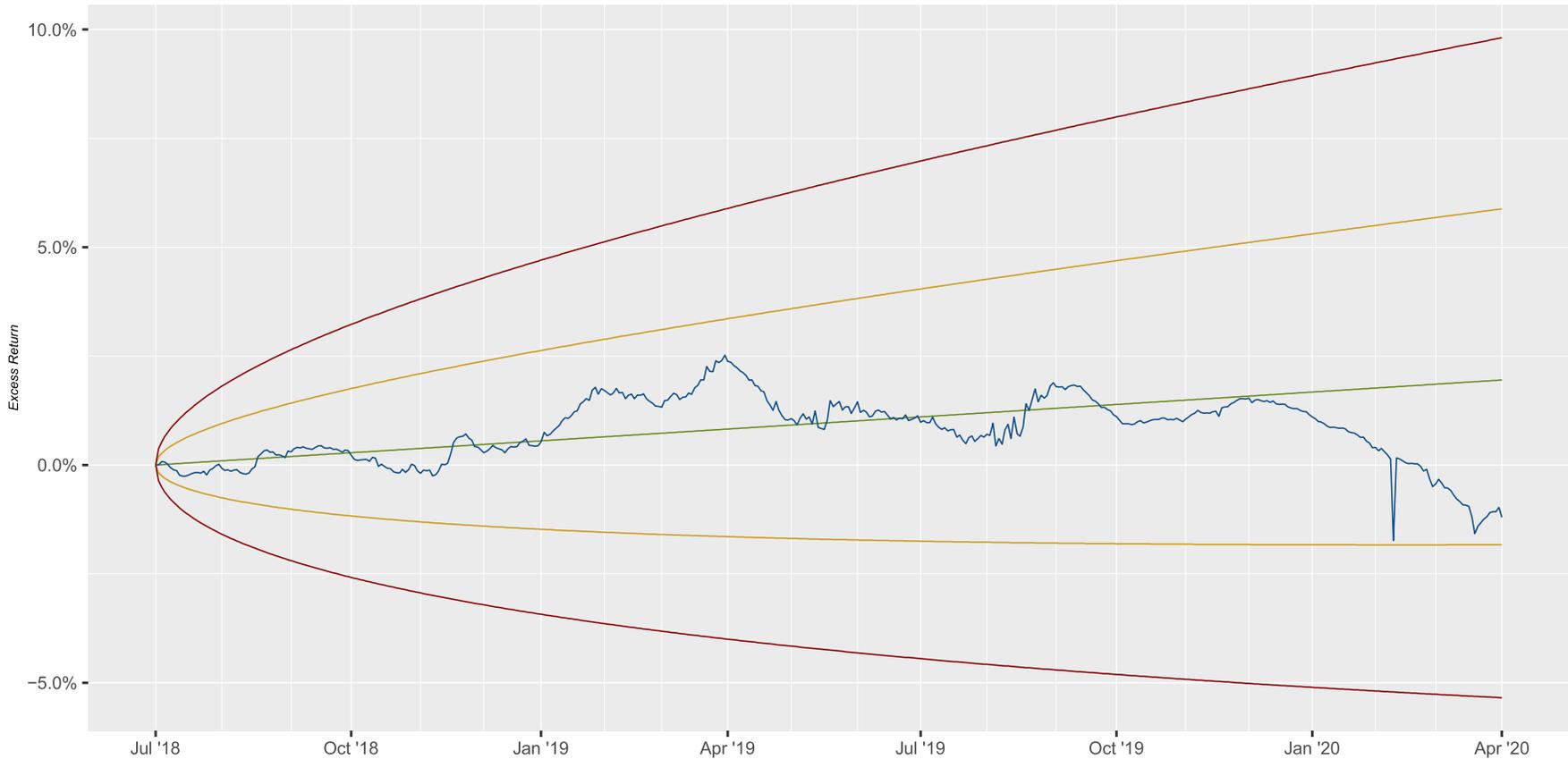
Total Equity Market Values for the period ended 3/31/2020



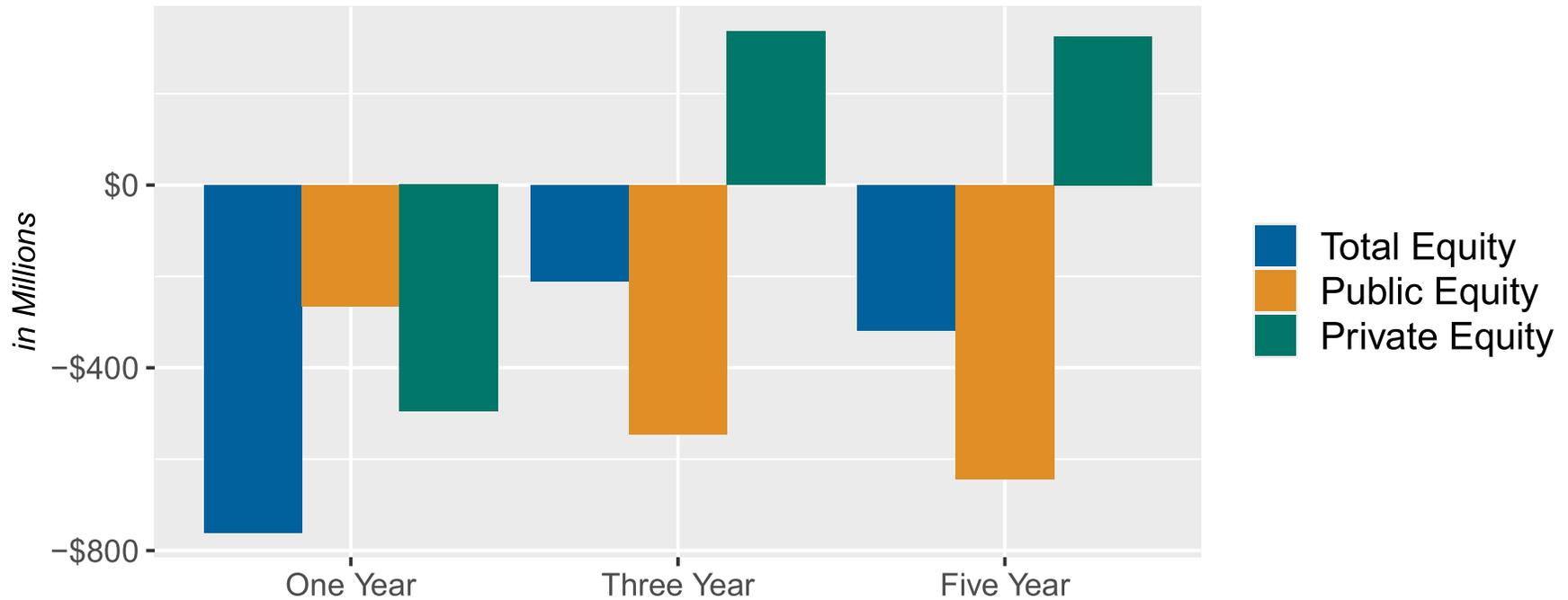
Total Equity Performance for the period ended 3/31/2020

Total Equity Portfolio Performance versus Expectations

110 Basis Points Expected Excess Return with 290 Basis Points Tracking Error



Total Equity Dollar Value Add for the period ended 12/31/2019



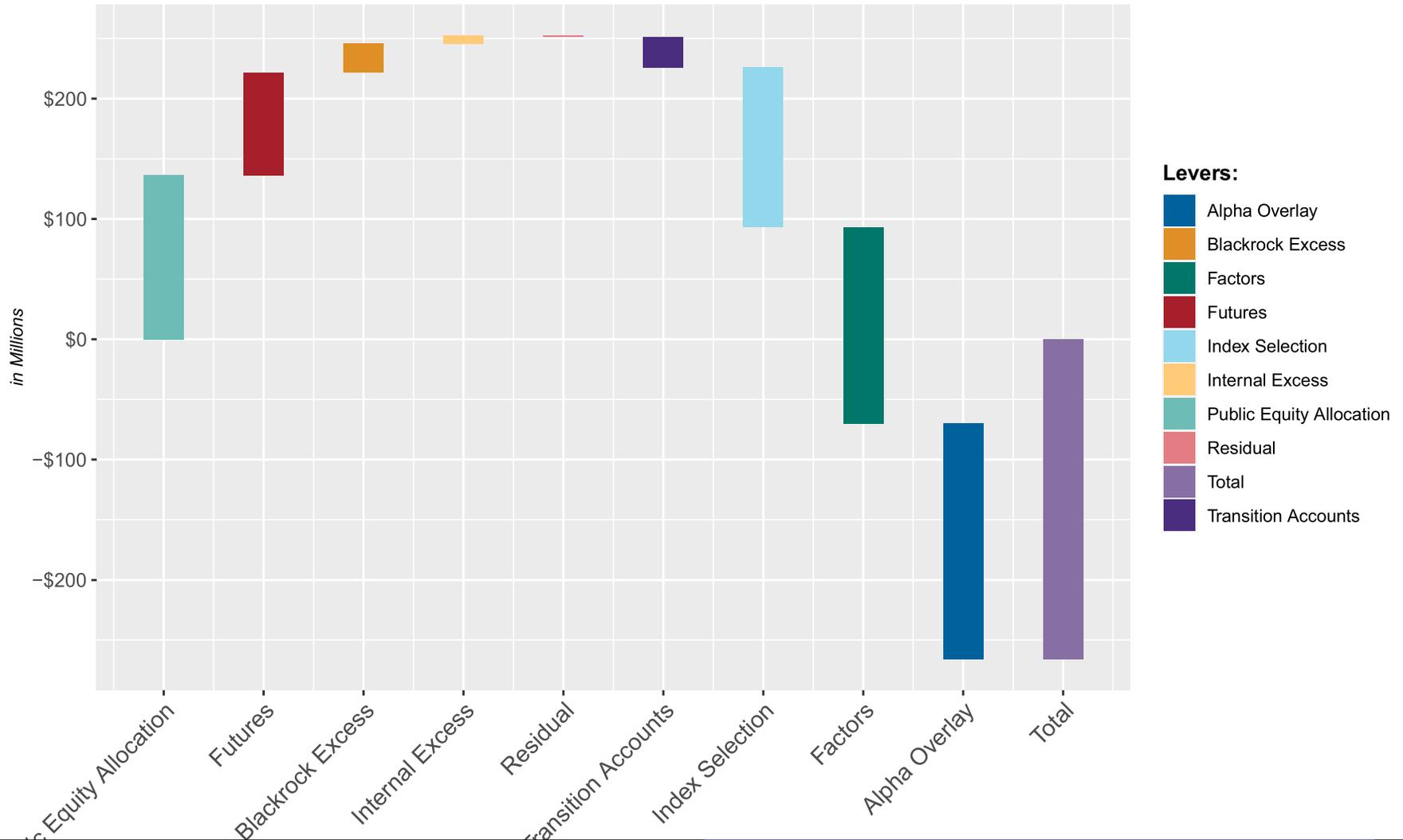
Subsection 1

Public Equity

Public Equity “Levers” for the period ended 3/31/2020

Public Equity Dollar Value Add

One Year



Section 5

Private Equity

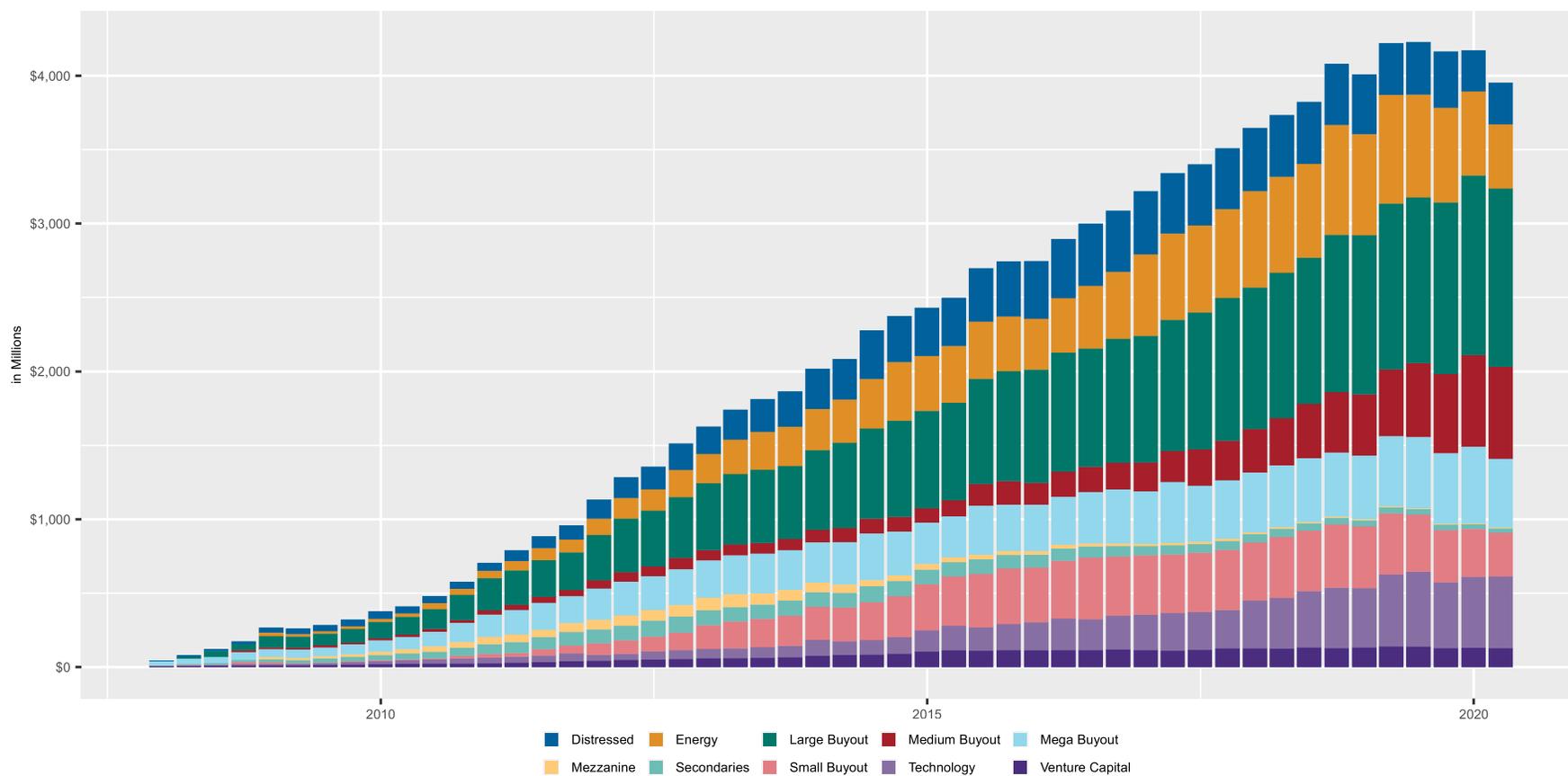
Private Equity Performance Overview & Allocation for the period ended 12/31/2019

Private Equity Internal Rate of Return

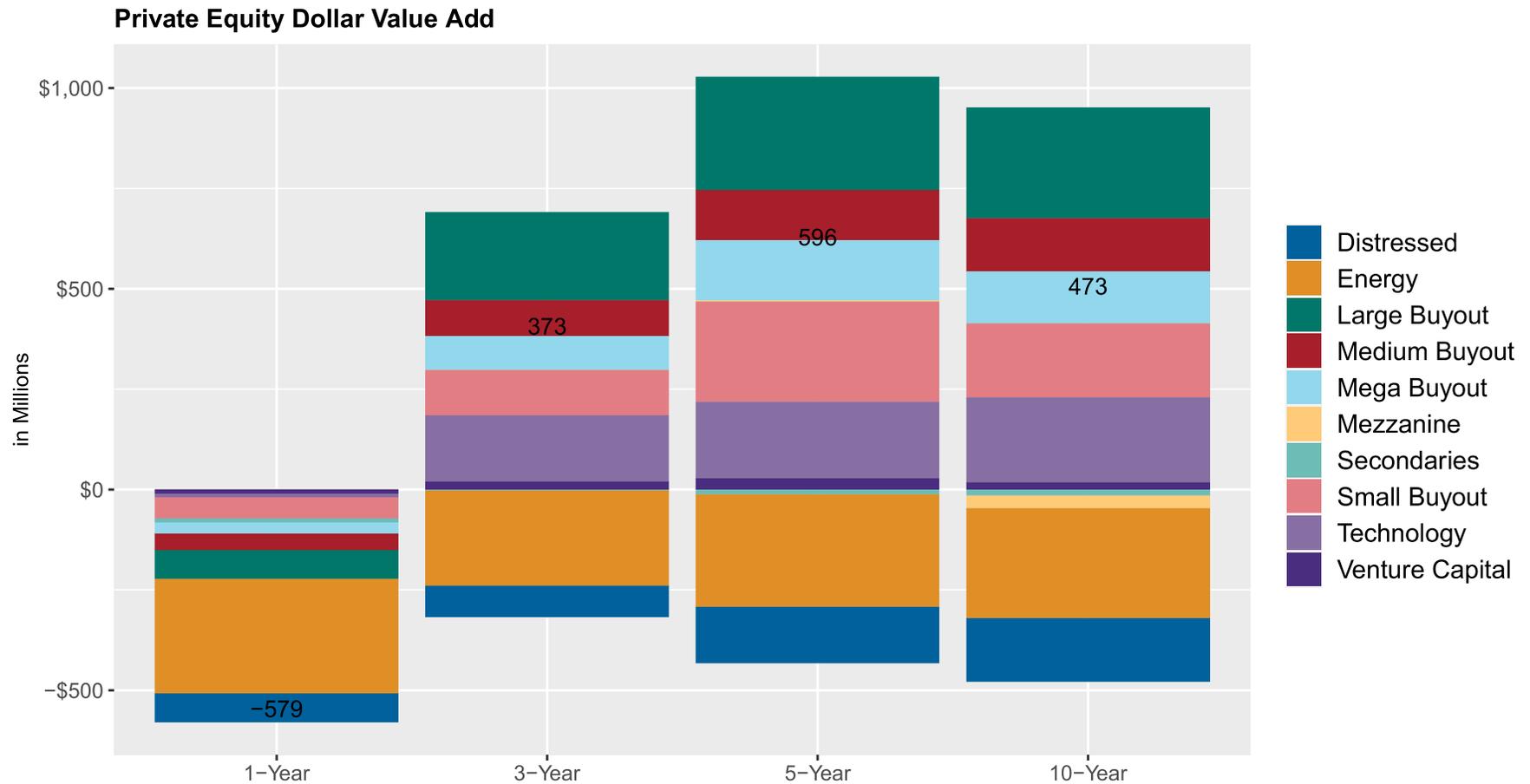
Composite	Quarter	One Year	Three Year	Five Year	Ten Year	Inception to Date
Private Equity	1.96	11.91	12.29	11.79	13.10	12.16
Index IRR	9.12	26.78	9.09	8.65	11.60	11.56
Excess	-7.16	-14.88	3.19	3.14	1.50	0.60
Burgiss	0.04	0.13	0.13	0.11	0.12	0.12
Burgiss Excess	1.92	11.78	12.15	11.67	12.98	12.04
Technology	5.62	24.15	24.42	20.93	20.70	19.45
Medium Buyout	5.63	17.17	17.63	17.98	17.46	15.66
Small Buyout	0.82	13.05	17.57	19.37	16.51	15.34
Energy	-10.17	-14.82	-3.17	-0.36	3.77	3.29
Mega Buyout	4.95	19.96	15.76	15.91	15.31	13.46
Venture Capital	4.12	18.99	14.21	12.49	13.03	11.68
Secondaries	0.76	0.91	8.19	4.02	11.25	8.97
Distressed	-0.98	5.72	2.46	2.71	6.43	6.85
Large Buyout	5.18	20.25	16.52	14.06	14.97	14.01
Mezzanine	36.49	31.12	10.81	8.61	9.87	9.56

Private Equity Decomposition for the period ended 12/31/2019

Net Asset Value by Strategy

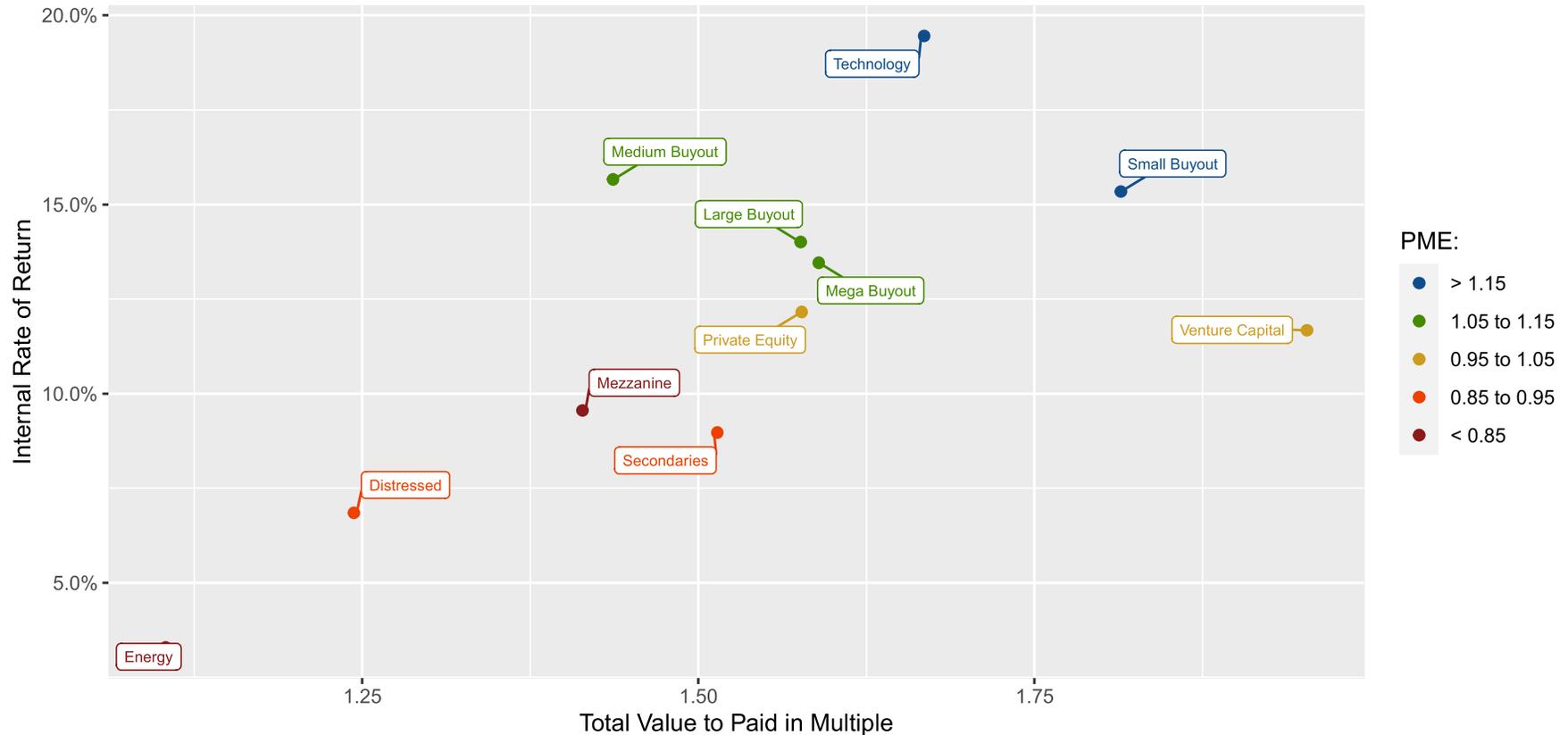


Private Equity Dollar Value Add for the period ended 12/31/2019



Private Equity Performance by Category for the period ended 12/31/2019

Comparison of Private Equity Composites



Section 6

Real Estate

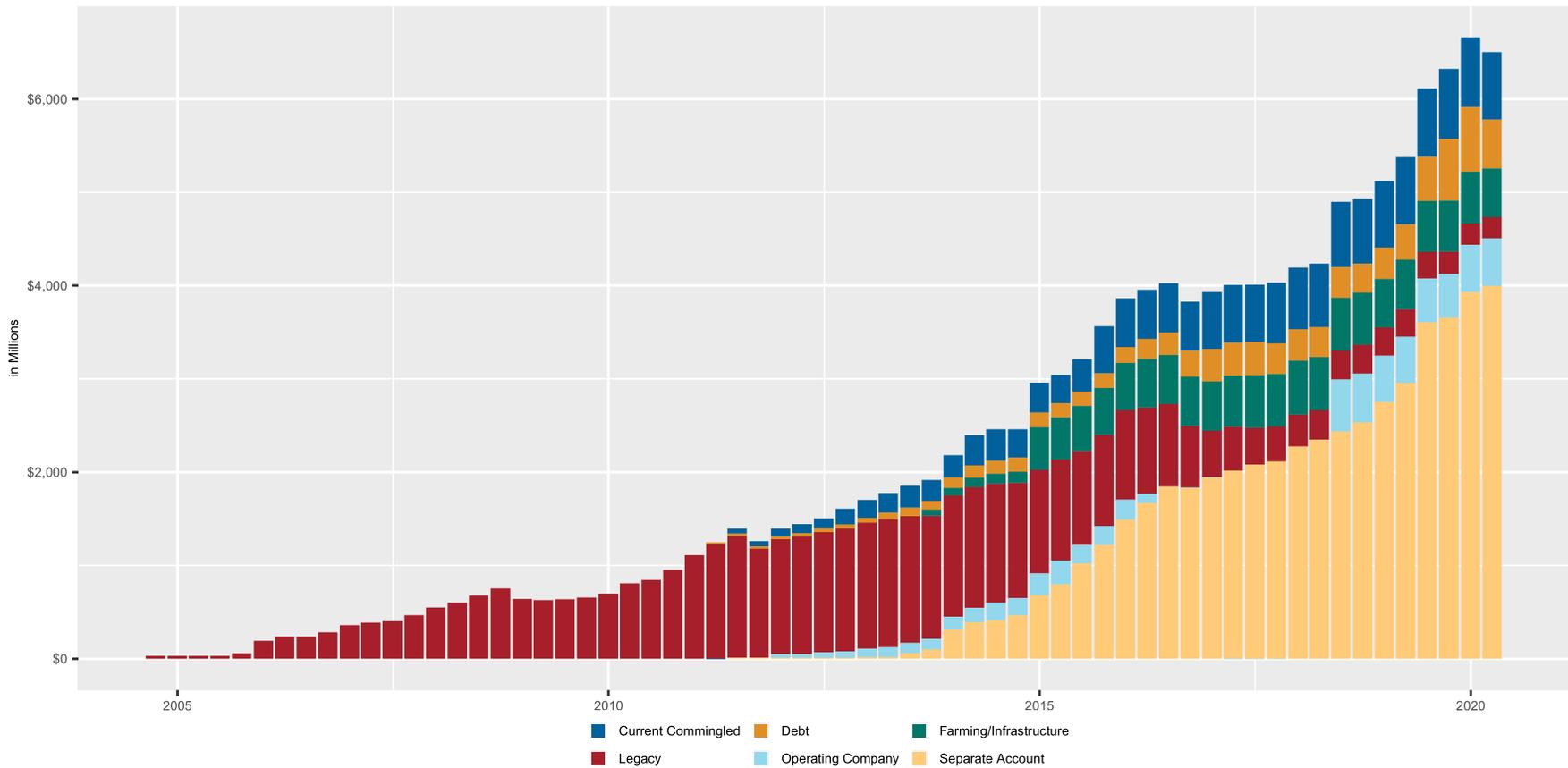
Real Estate Performance Overview & Allocation for the period ended 12/31/2019

Real Estate Internal Rate of Return

Composite	Quarter	One Year	Three Year	Five Year	Ten Year	Inception to Date
Real Estate	0.84	5.24	7.18	8.70	11.12	8.35
Index IRR	1.08	4.58	5.45	7.30	9.28	6.63
Excess	-0.24	0.66	1.74	1.40	1.84	1.72
Legacy	-0.61	10.04	3.69	6.59	11.81	5.89
Separate Account	1.51	4.85	7.69	10.14		11.53
Current Commingled	1.44	6.85	8.18	8.97		10.63
Debt	2.42	8.05	6.65	8.89		10.80
Farming/Infrastructure	4.42	10.43	11.31	8.45		8.13
Operating Company	-8.99	-5.41	-2.49	0.70		10.08

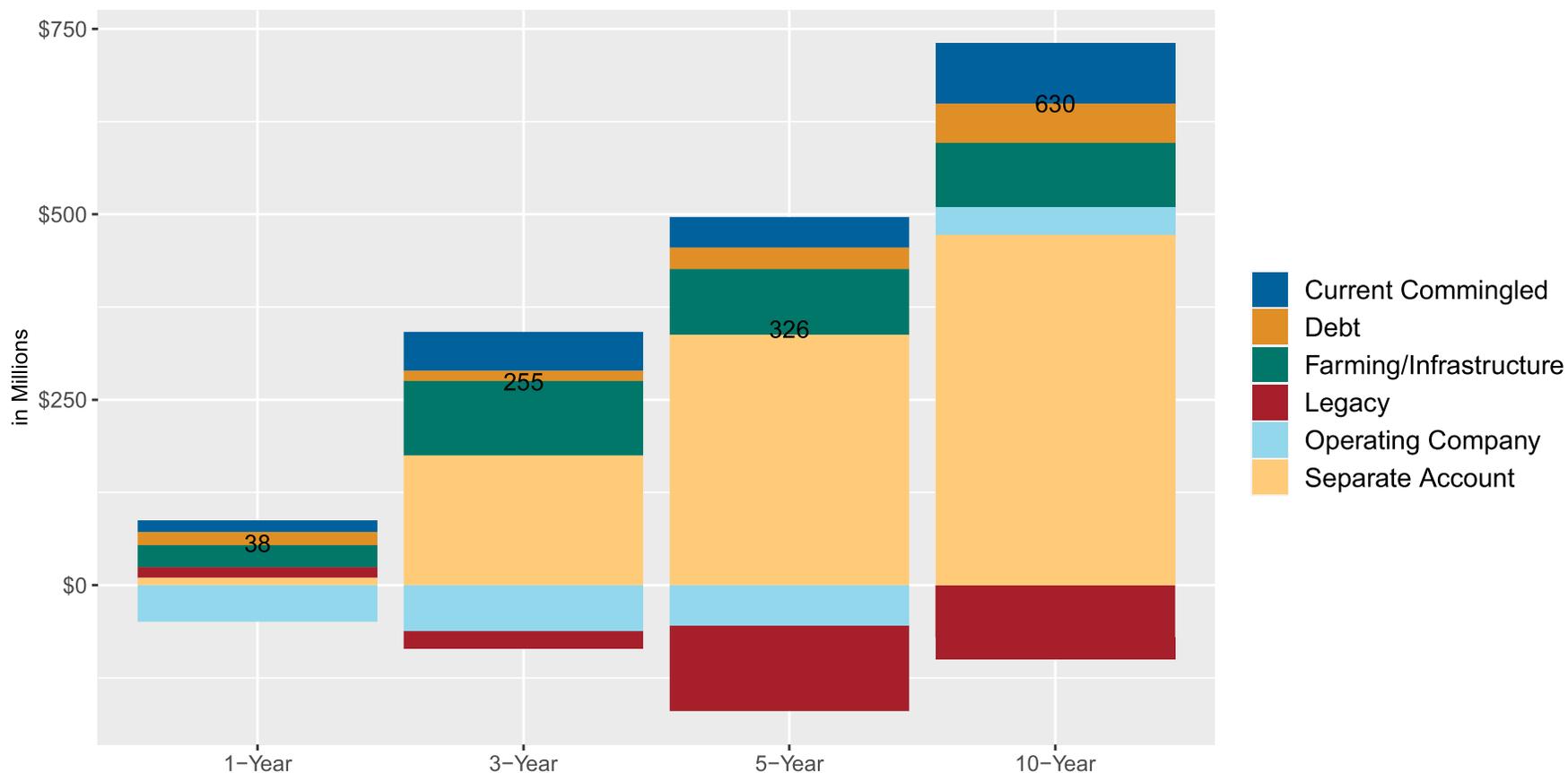
Real Estate Net Asset Value by Strategy for the period ended 12/31/2019

Net Asset Value by Strategy



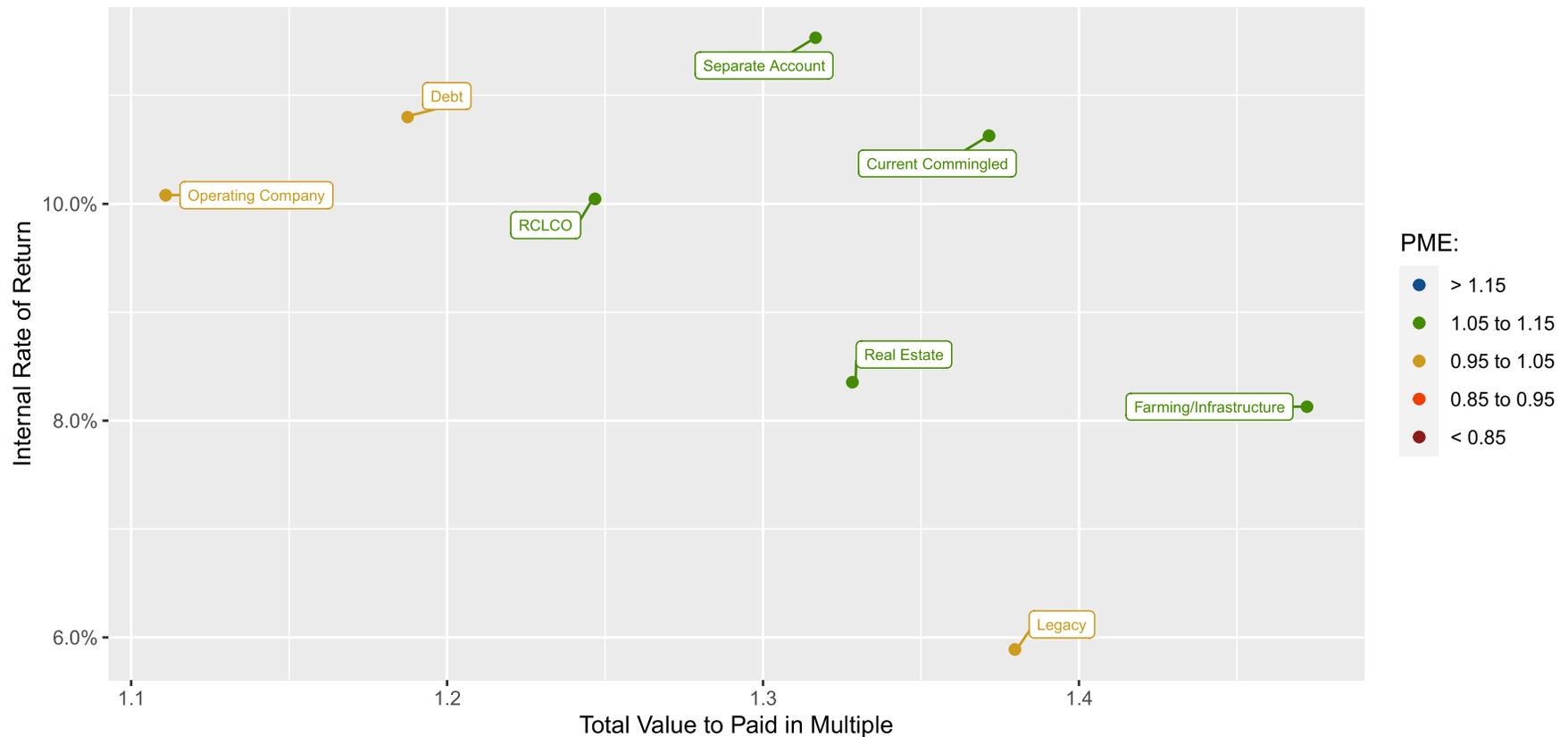
Real Estate Dollar Value Add for the period ended 12/31/2019

Real Estate Dollar Value Add



Real Estate Performance Summary for the period ended 12/31/2019

Comparison of Private Equity Composites



Section 7

Credit

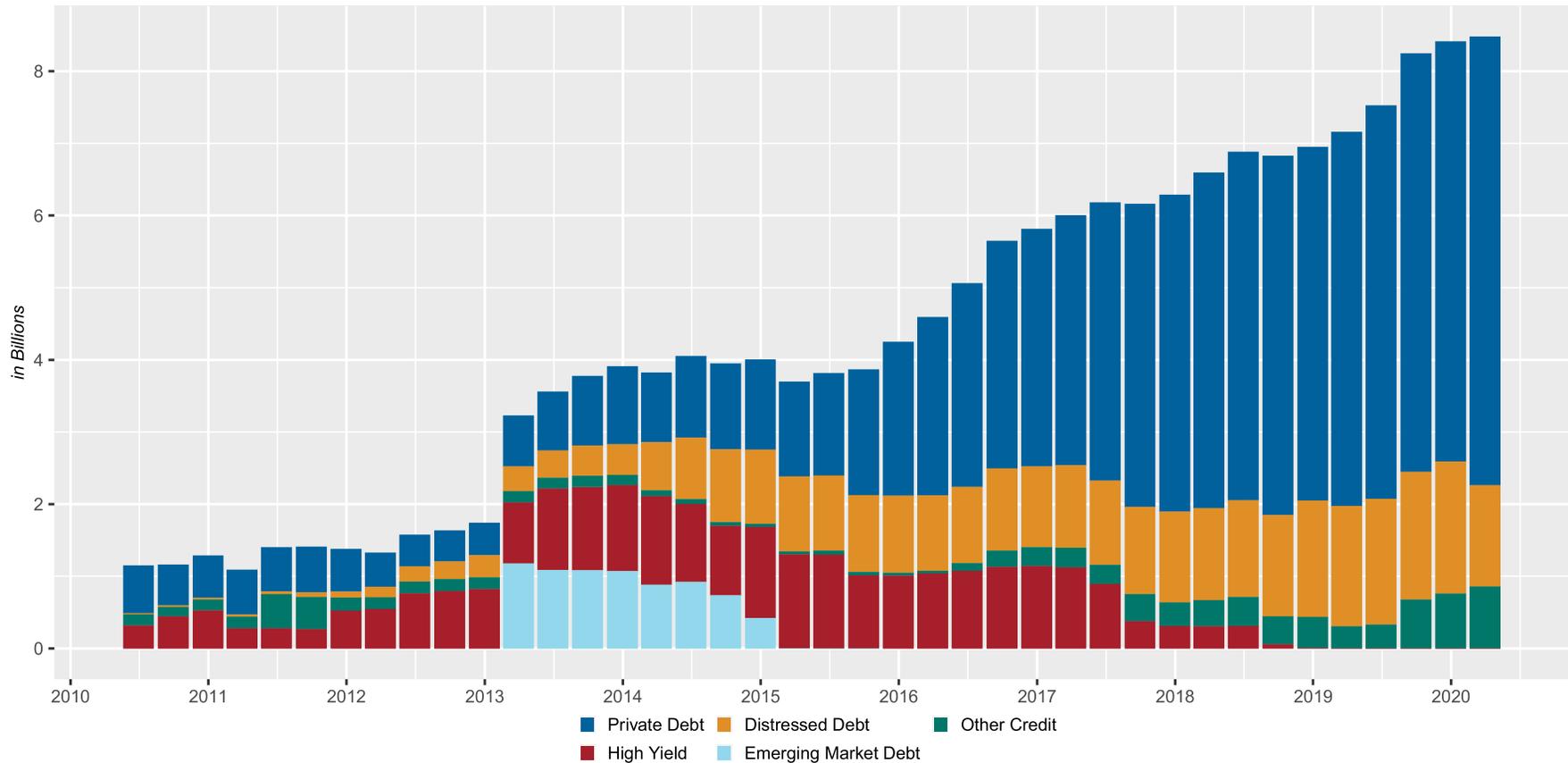
Total Credit for the period ended 12/31/2019

Credit Annualized Returns

Category	Quarter	One Year	Three Year	Five Year	Ten Year	Inception
Total Credit (TWR)	2.41	9.34	9.15	8.31	7.68	7.68
Blended Benchmark	2.36	11.36	6.75	6.46	5.14	5.14
Total Credit Excess	0.05	-2.02	2.40	1.85	2.54	2.54
Private Debt	2.39	9.43	10.16	10.27	10.86	11.09
Index IRR	2.35	11.17	6.97	7.29	7.39	8.08
Excess	0.04	-1.73	3.18	2.98	3.47	3.02
Distressed Debt	2.03	7.96	8.44	6.74		7.21
Index IRR	2.36	11.28	7.29	7.56		7.66
Excess	-0.33	-3.33	1.15	-0.82		-0.44
Other Credit	2.93	14.56	6.59	7.97	7.69	9.22
Index IRR	2.42	11.97	7.54	7.63	7.82	7.85
Excess	0.51	2.59	-0.96	0.35	-0.13	1.38

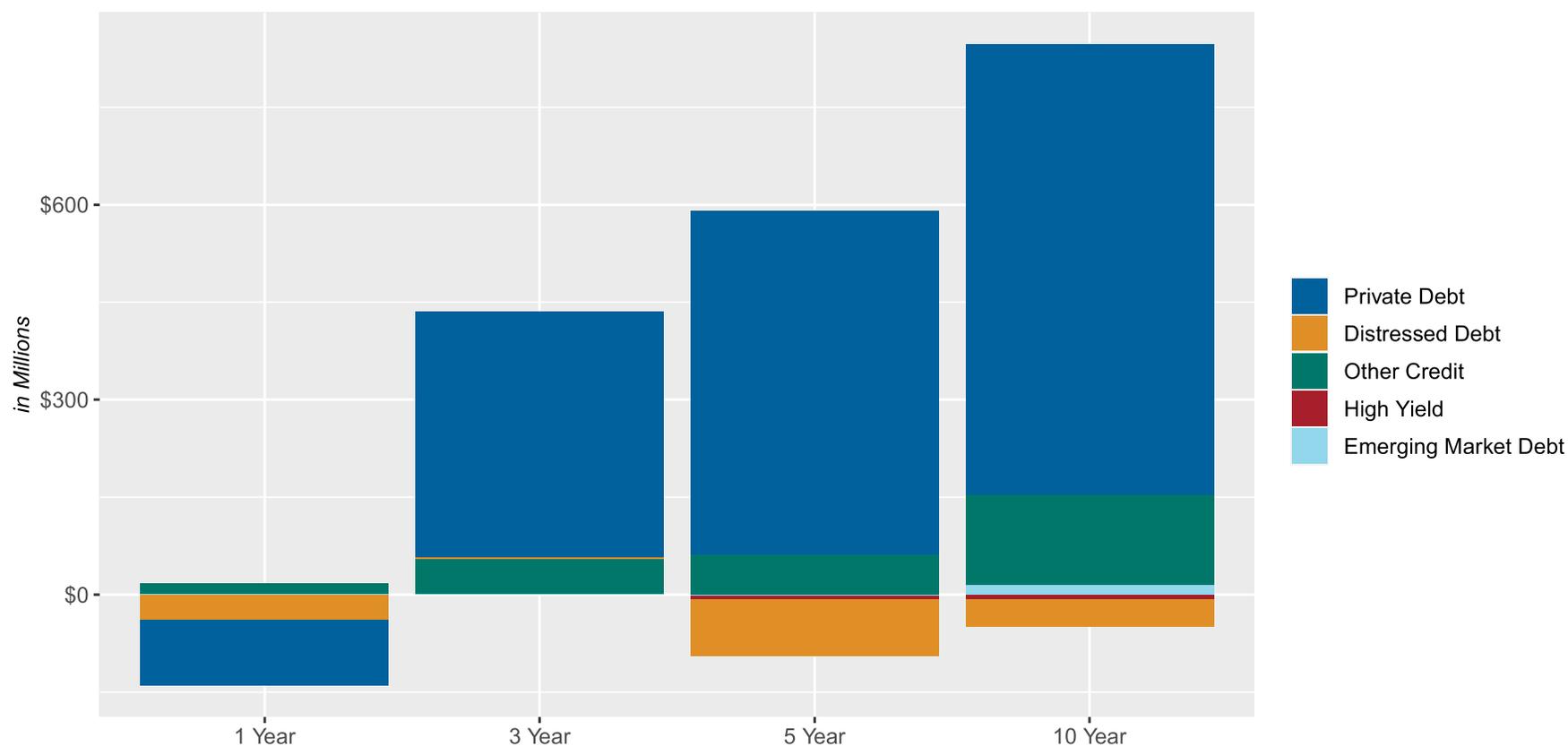
Credit Market Values and Performance for the period ended 12/31/2019

Credit Market Values

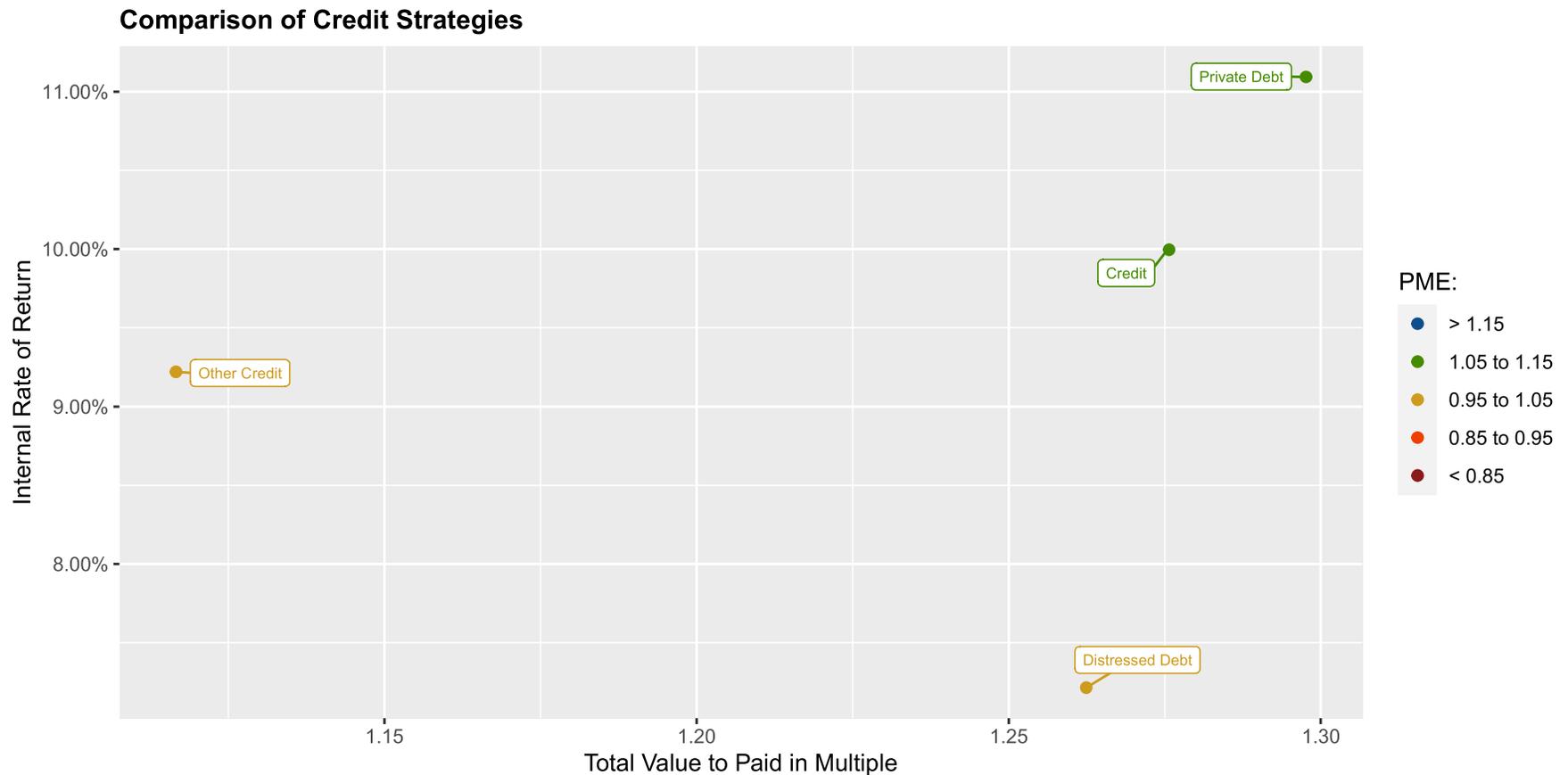


Credit Dollar Value Add for the period ended 12/31/2019

Credit Dollar Value Add versus Benchmark



Credit: Total Value to Paid in Multiple & Public Market Equivalent for the period ended 12/31/2019



Credit Performance for the period ended 12/31/2019

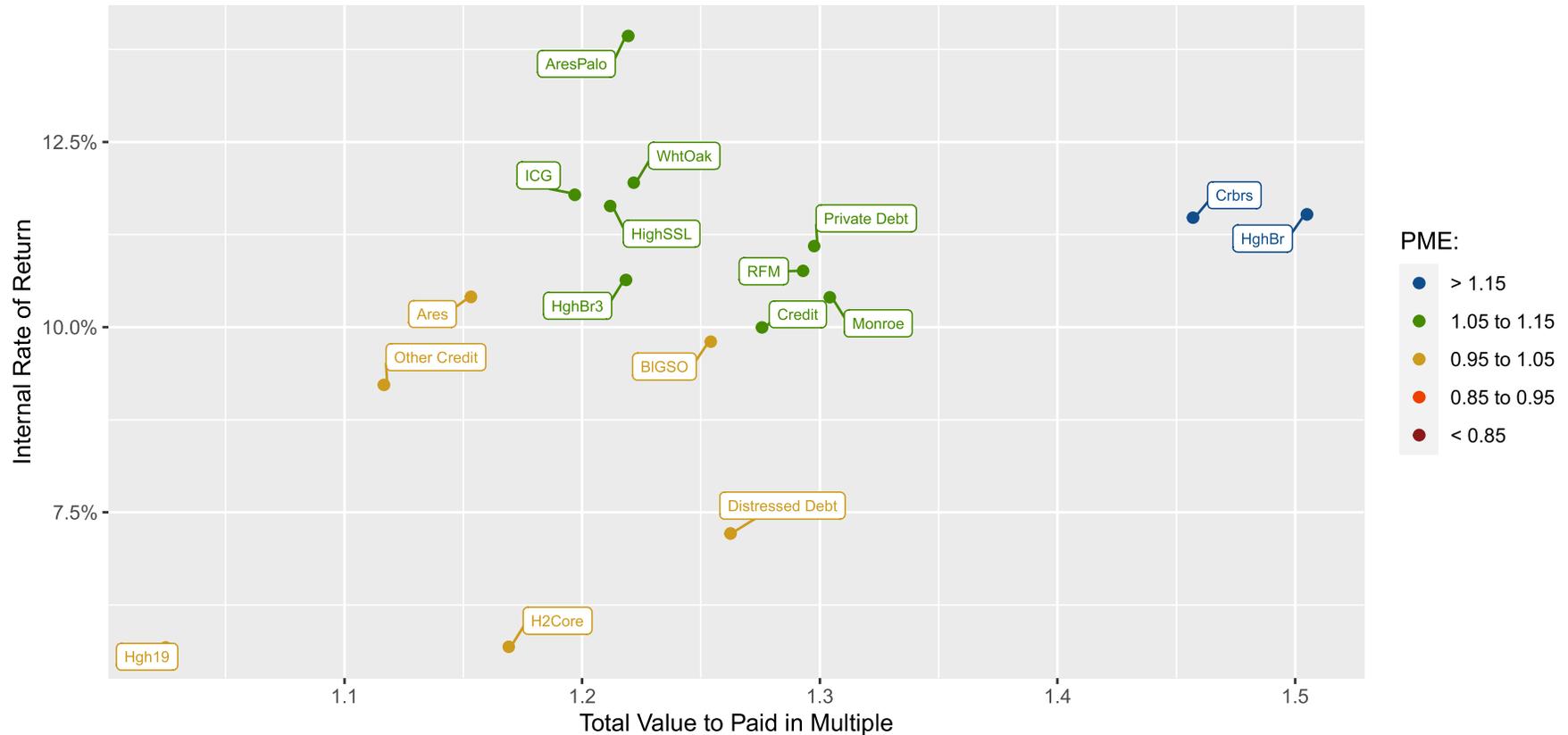
Total Credit Portfolio Performance versus Expectations

150 Basis Points Expected Excess Return with 350 Basis Points Tracking Error



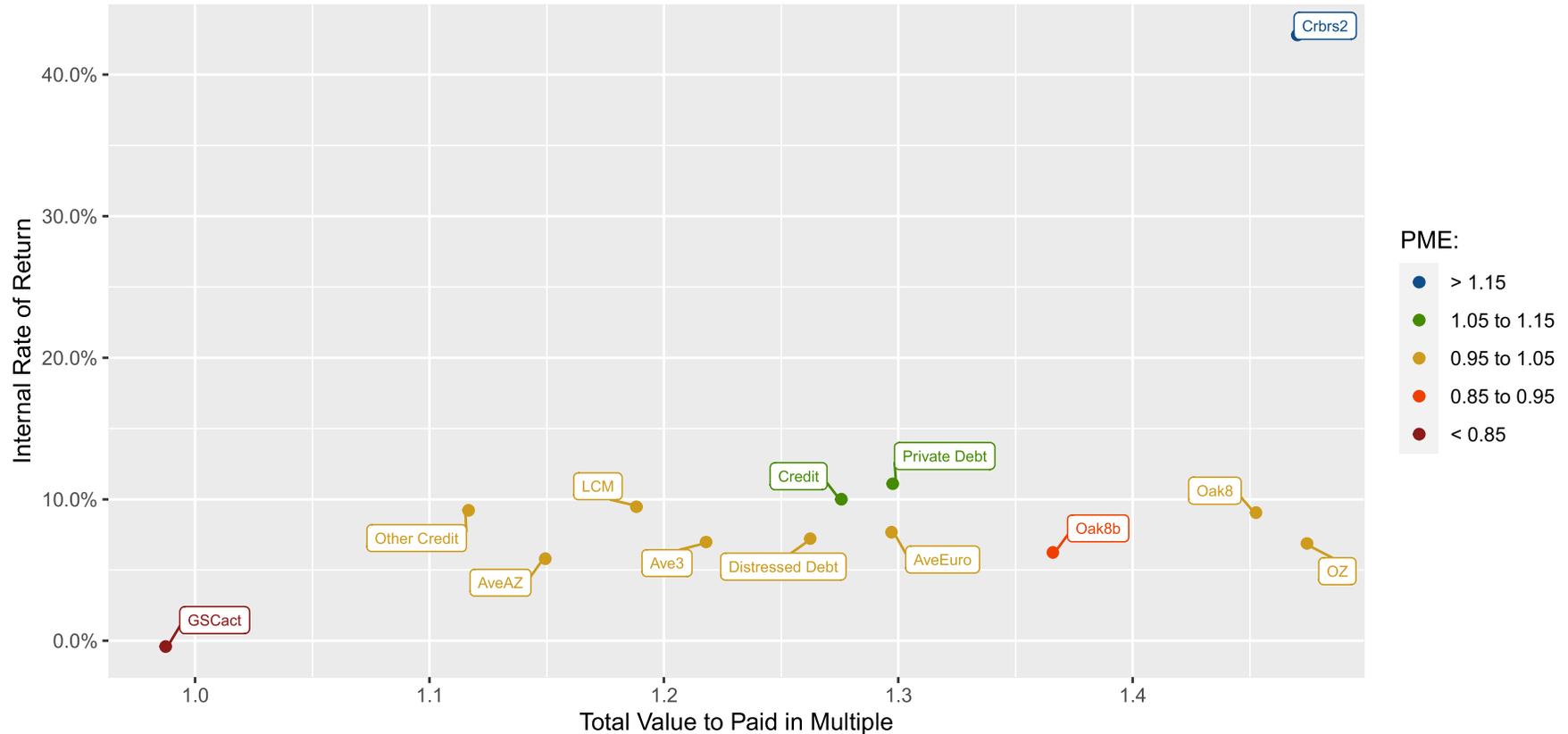
Private Debt: Total Value to Paid in Multiple & Public Market Equivalent for the period ended 12/31/2019

Comparison of Private Debt Funds

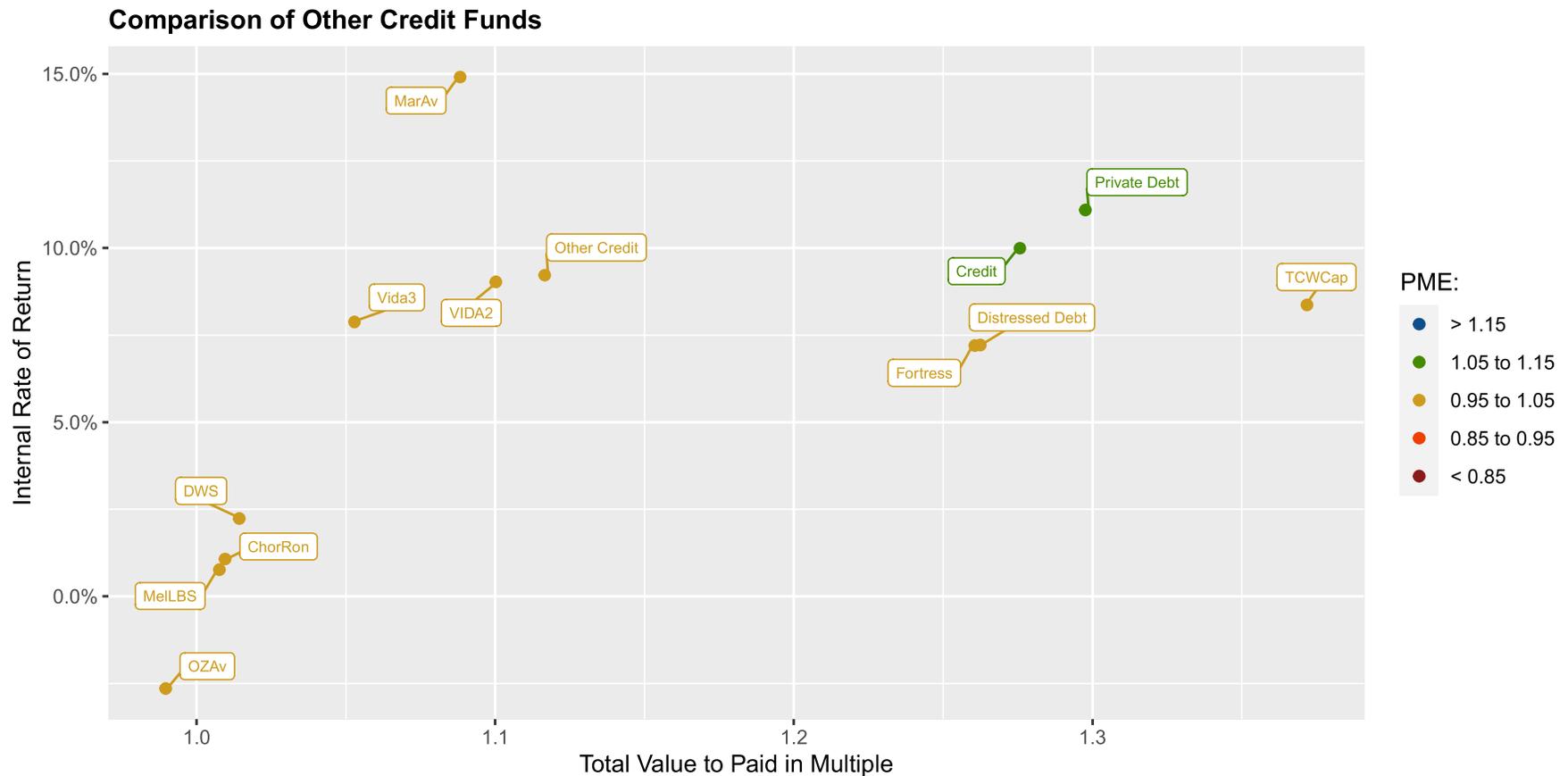


Distressed Debt: Total Value to Paid in Multiple & Public Market Equivalent for the period ended 12/31/2019

Comparison of Distressed Debt Funds



Other Credit: Total Value to Paid in Multiple & Public Market Equivalent for the period ended 12/31/2019



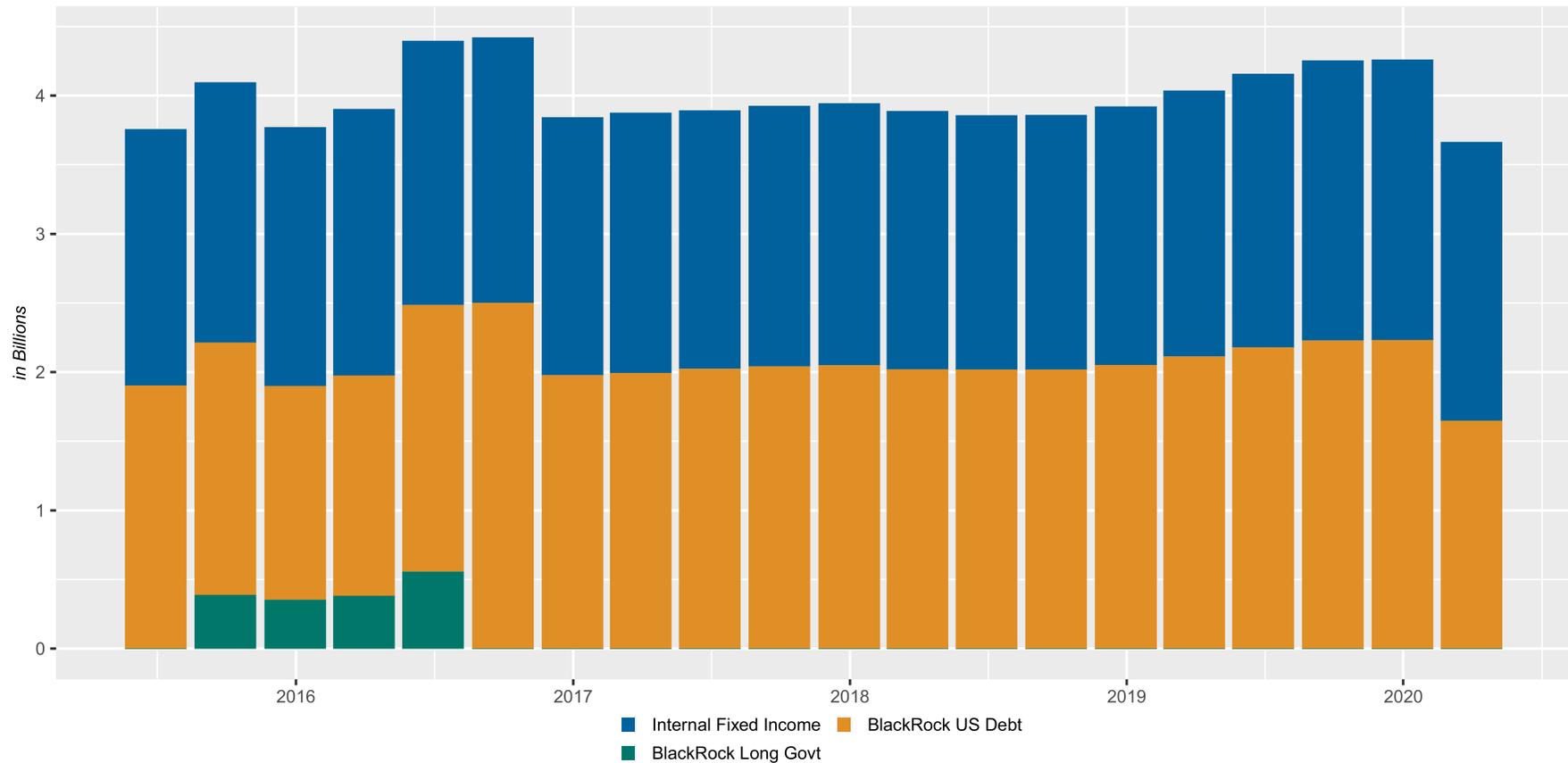
Core Fixed Income for the period ended 12/31/2019

Annualized Time-Weighted Returns

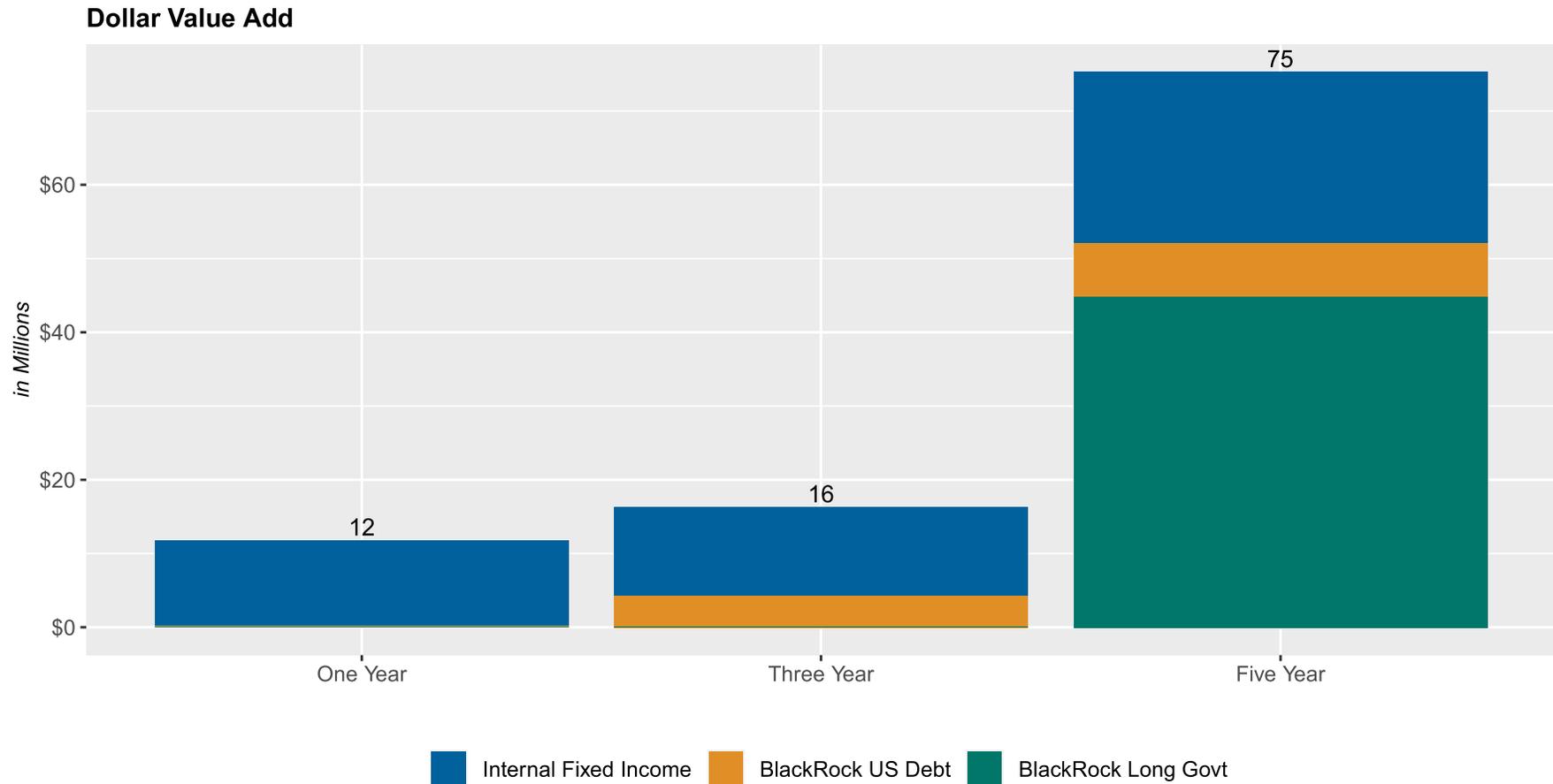
	Quarter	One Year	Three Year	Five Year
Core Bond Composite	3.36	9.10	4.92	3.65
Barclay's Aggregate	3.15	8.93	4.82	3.36
Core Composite Excess	0.21	0.17	0.09	0.29
Internal Fixed Income	3.83	9.53	5.03	3.58
Barclay's Aggregate	3.15	8.93	4.82	3.36
Internal Fixed Income Excess	0.69	0.60	0.20	0.22
BlackRock US Debt Fund	3.14	8.94	4.89	3.44
Barclay's Aggregate	3.15	8.93	4.82	3.36
BlackRock Excess	-0.01	0.01	0.07	0.08

Core Fixed Income Decomposition for the period ended 12/31/2019

Core Bonds Market Values



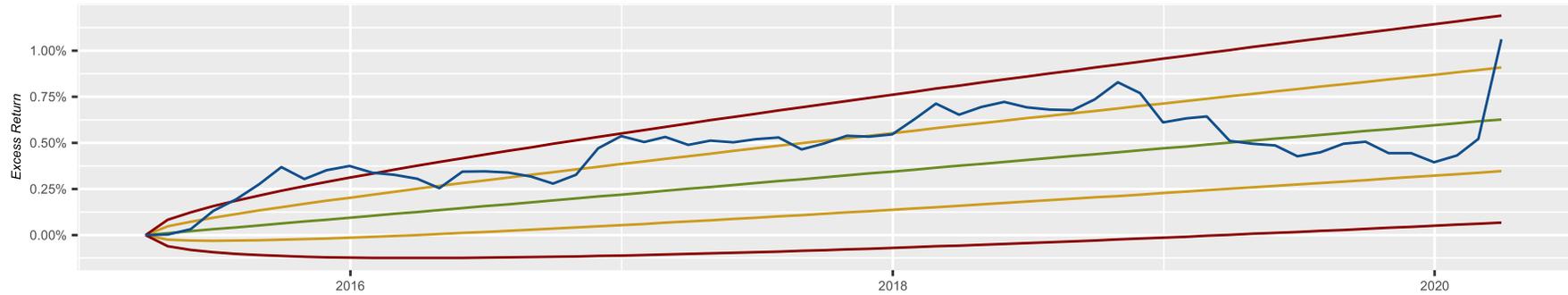
Core Fixed Income Dollar Value Added for the period ended 12/31/2019



Core Fixed Income Performance for the period ended 12/31/2019

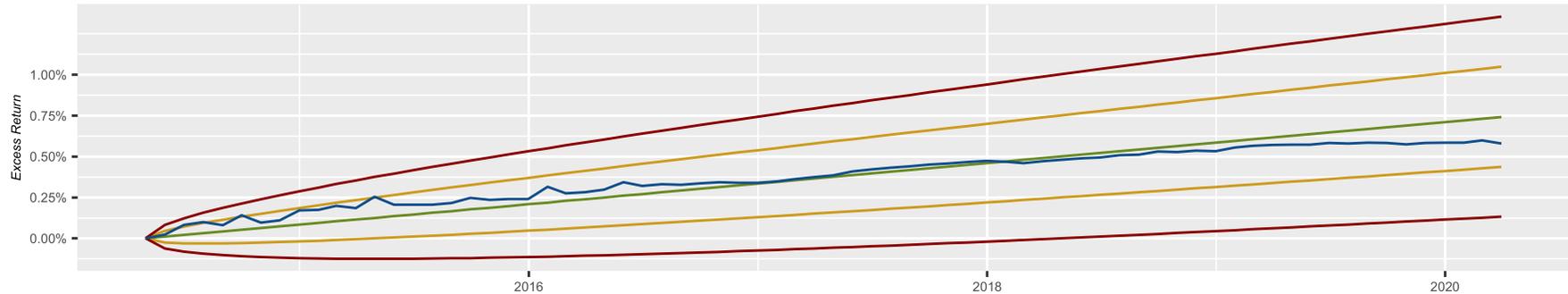
Internal Fixed Income Portfolio Performance versus Expectations

12.5 Basis Points Expected Excess Return with 12.5 Basis Points Expected Tracking Error



Blackrock US Debt Portfolio Performance versus Expectations

12.5 Basis Points Expected Excess Return with 12.5 Basis Points Expected Tracking Error



Agenda Items #6-7

No Materials

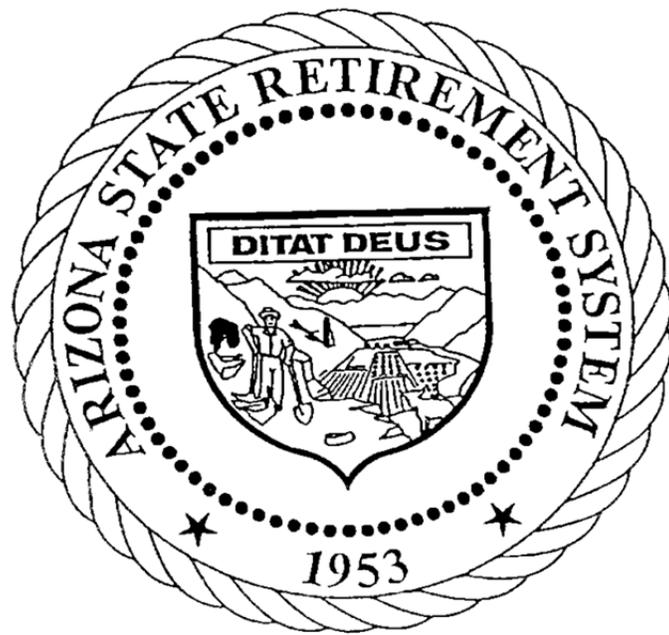
Agenda Item #8

Director's Report:

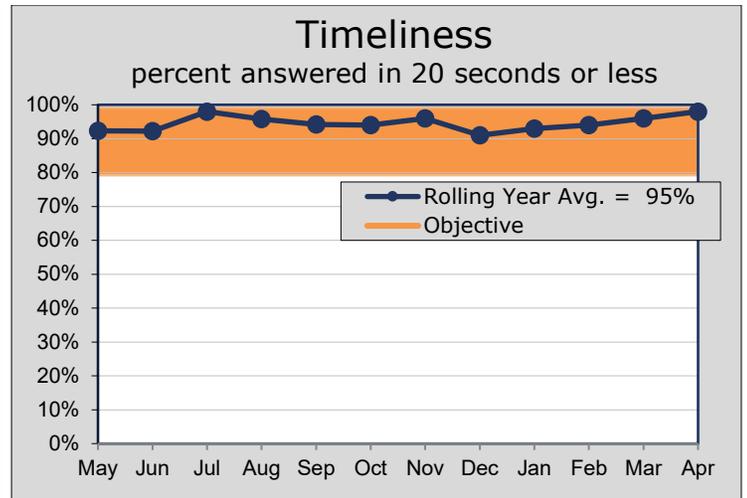
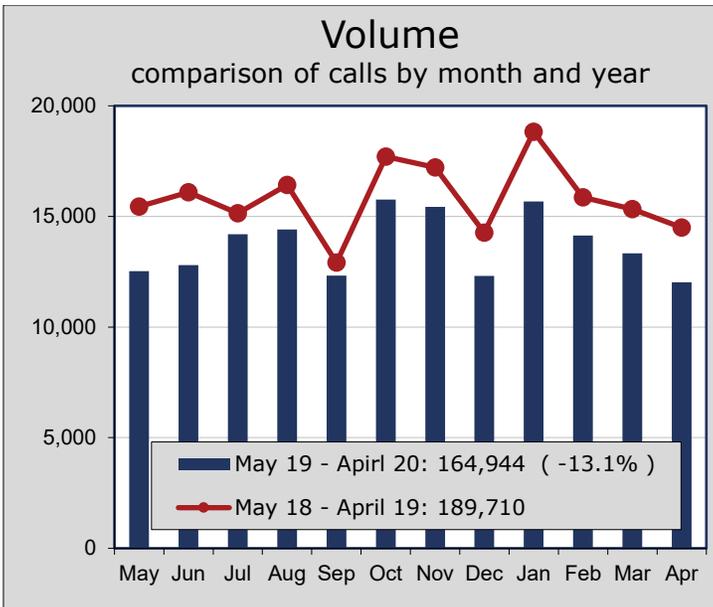
- 8a - Operations Report**
- 8b - Budget & Staffing Reports**
- 8c - Cash Flow Statements**
- 8d - Appeals Report**
- 8e - Employers Reporting**

Agenda Item #8a

Director's Report Operations Report

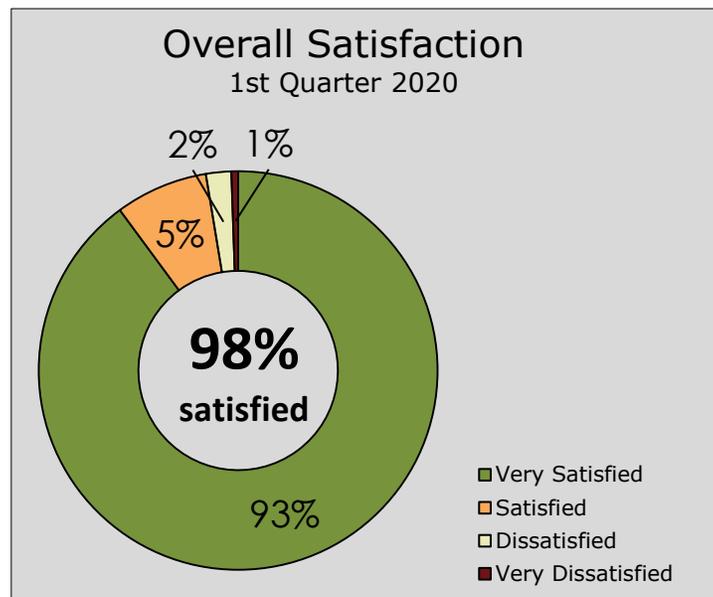
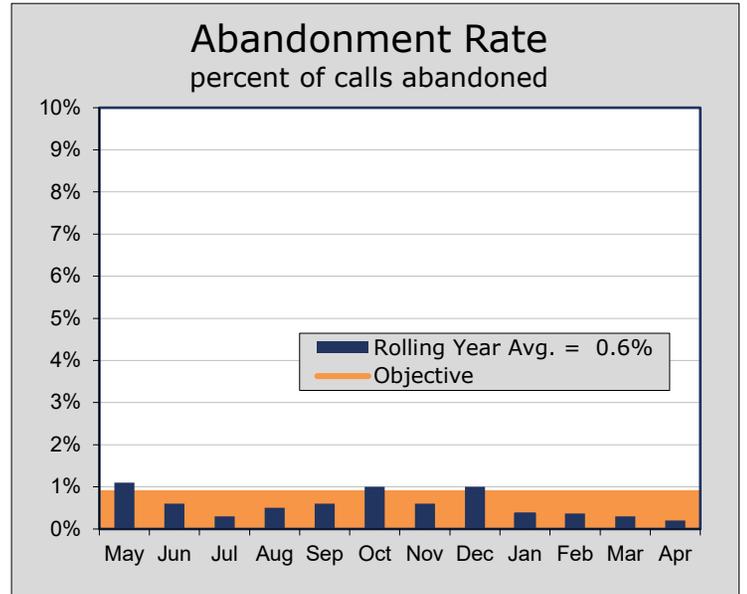
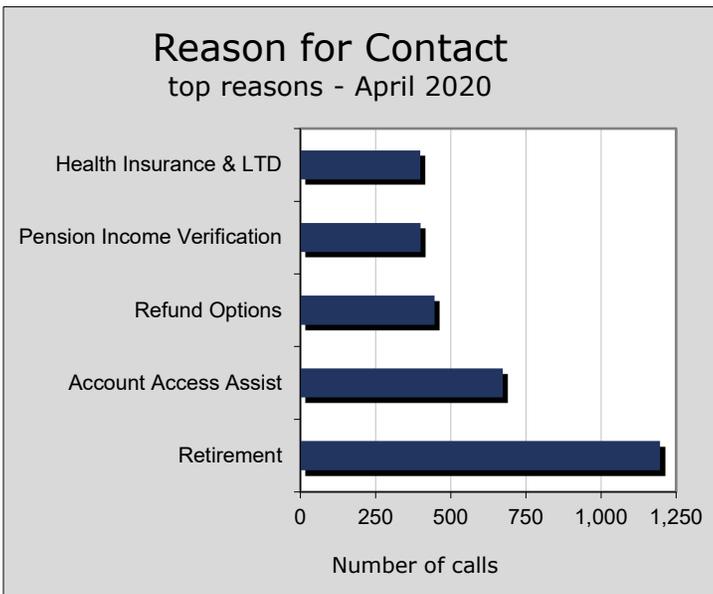


Member Advisory Center: Phone

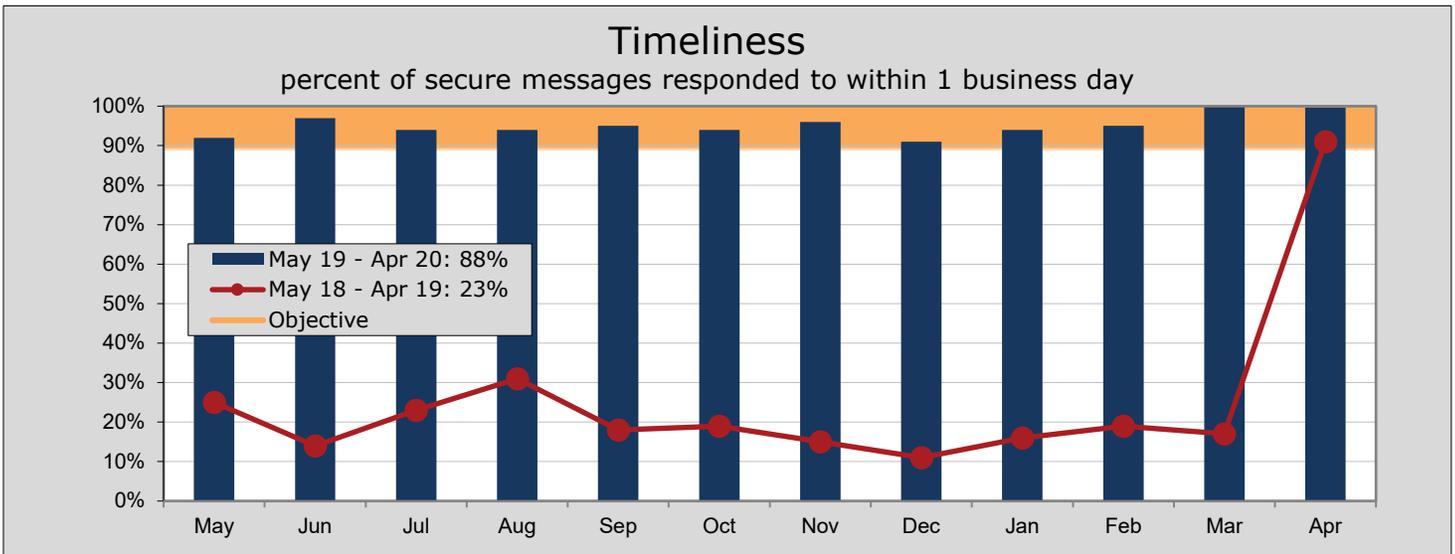
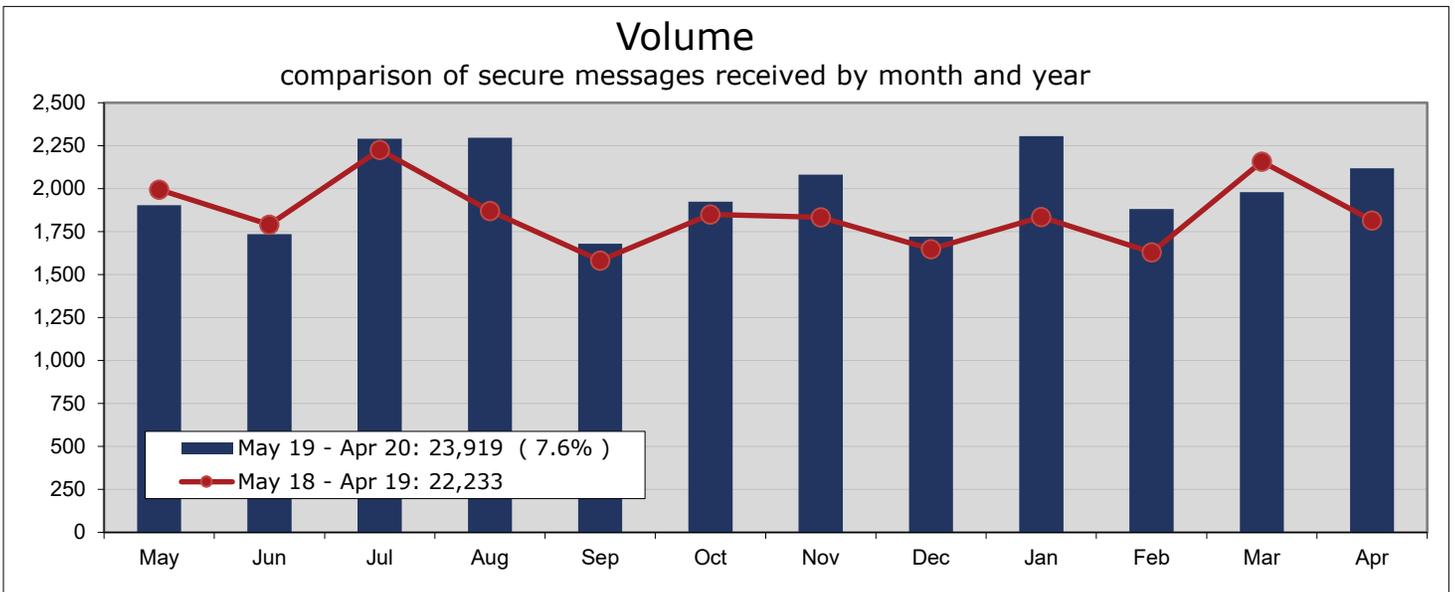


Timeliness (average wait time in seconds)

7	15	2	5	6	15	9	2	5	5	3	3
May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr



Member Secure Messages (MSM)

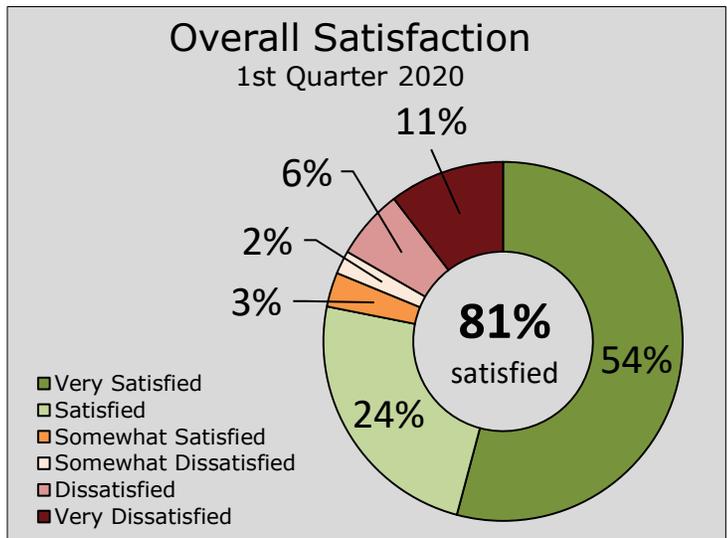
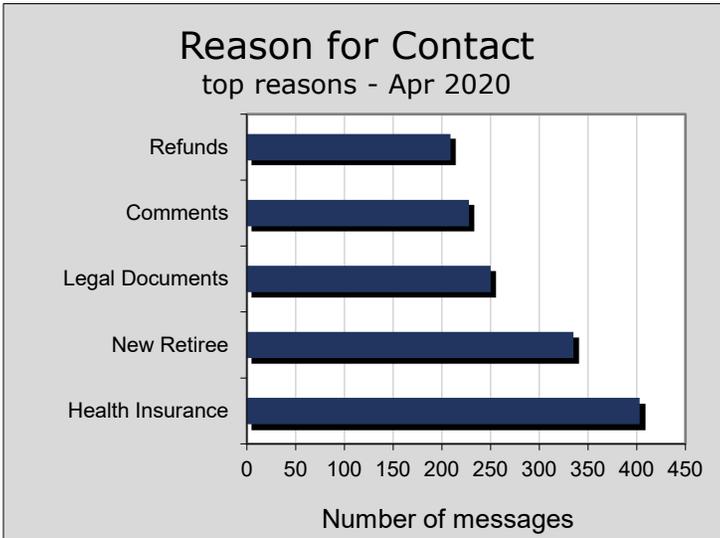


Timeliness (average response in days)

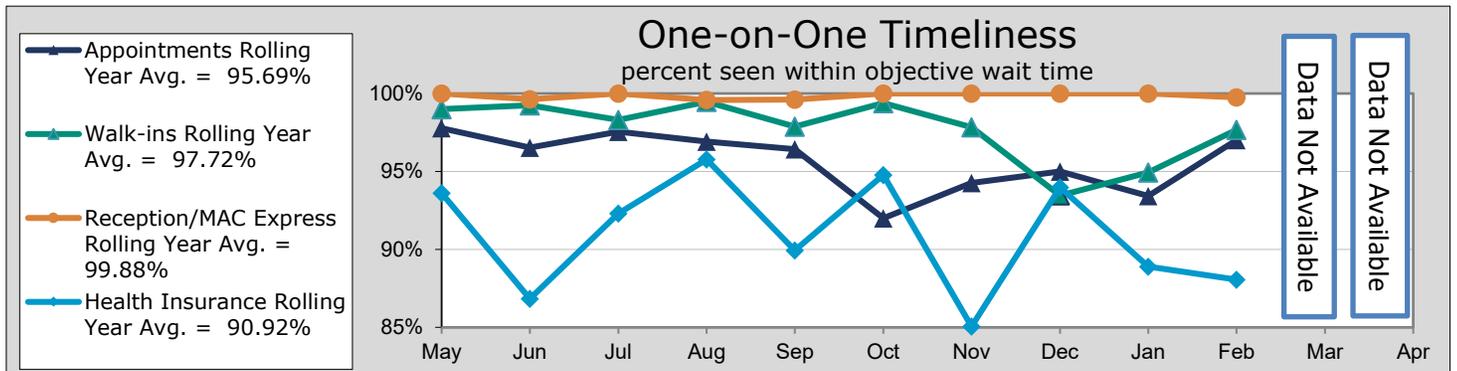
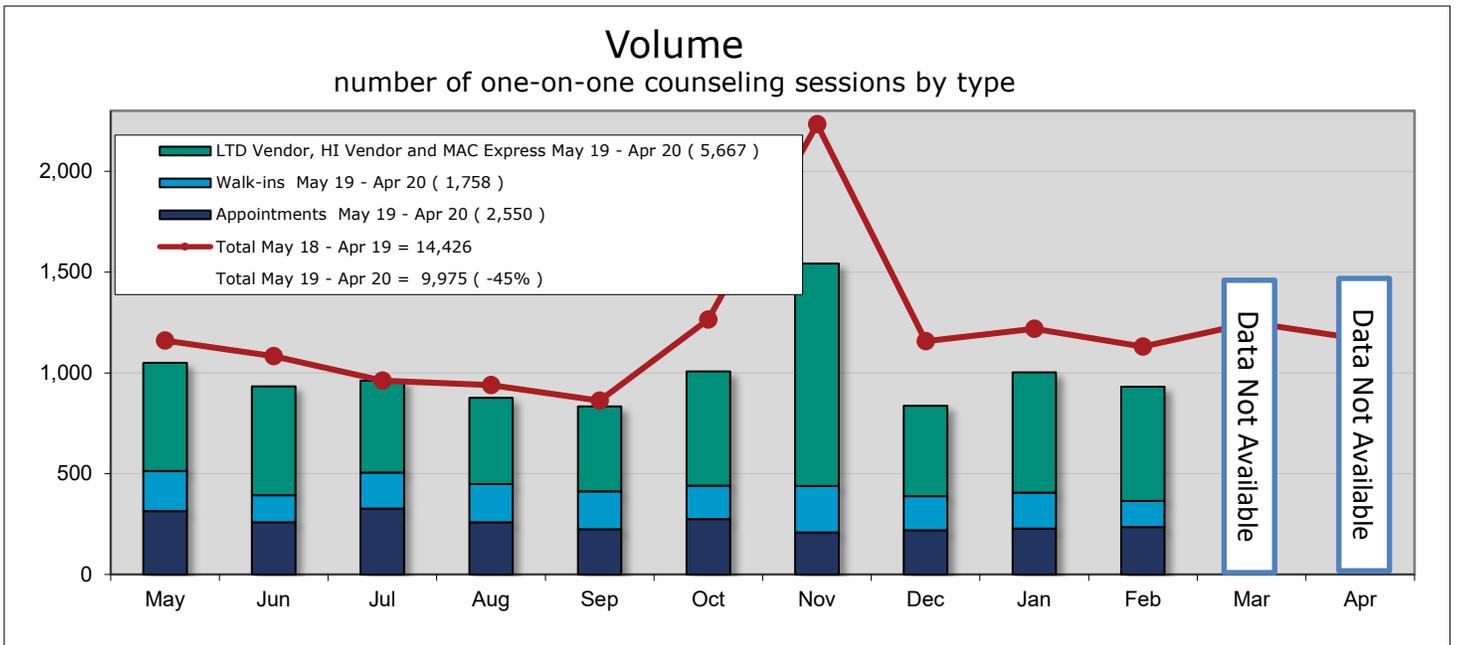
1.1	1.0	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1
May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr

Timeliness (service level)

92%	97%	94%	94%	95%	94%	96%	91%	94%	95%	100%	100%
May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr

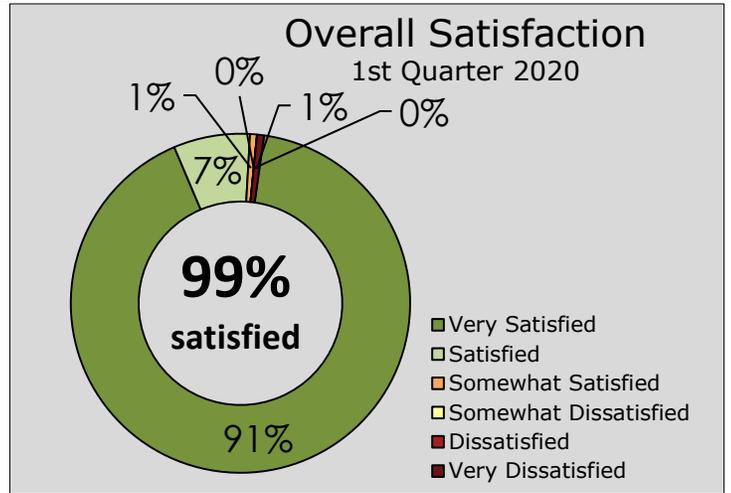
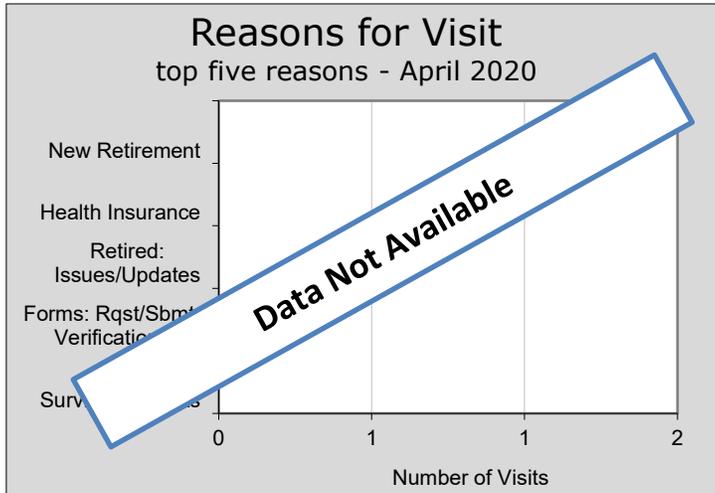


One-on-One Counseling



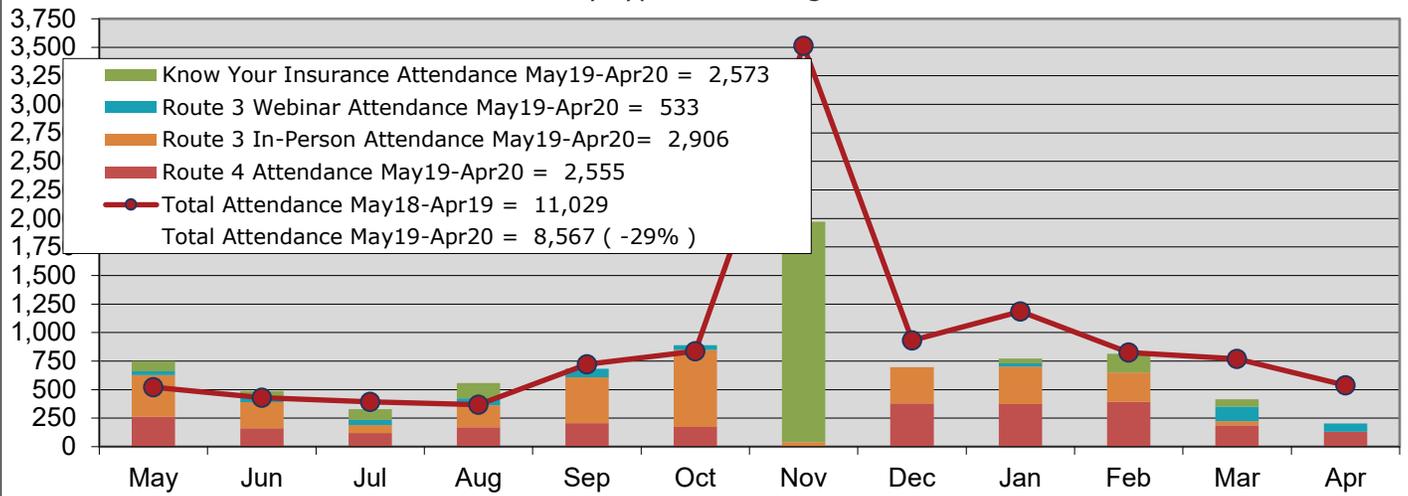
Timeliness (average wait time in minutes)

	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Appointments	2	1	1	1	2	2	2	2	2	2	n/a	n/a
Walk-Ins	4	6	6	4	5	2	5	6	9	7	n/a	n/a
Reception/MAC Express	0	1	0	0	0	0	0	0	0	1	n/a	n/a
Health Insurance	5	7	4	0	5	6	8	7	7	7	n/a	n/a
LTD Vendor	0	0	0	0	0	0	0	0	0	0	n/a	n/a



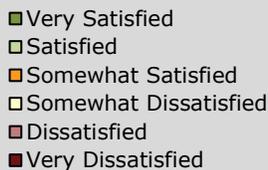
Outreach Education and Benefit Estimates

Total Meeting Attendees by type of meeting

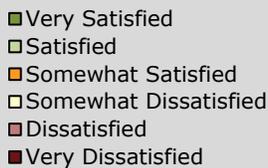


Member Satisfaction

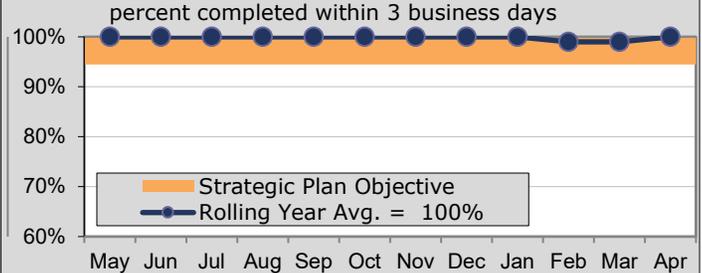
Route 3 1st Quarter 2020



Route 4 1st Quarter 2020



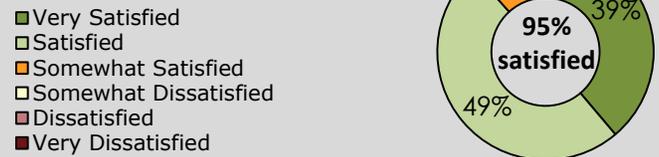
Benefit Estimate Timeliness



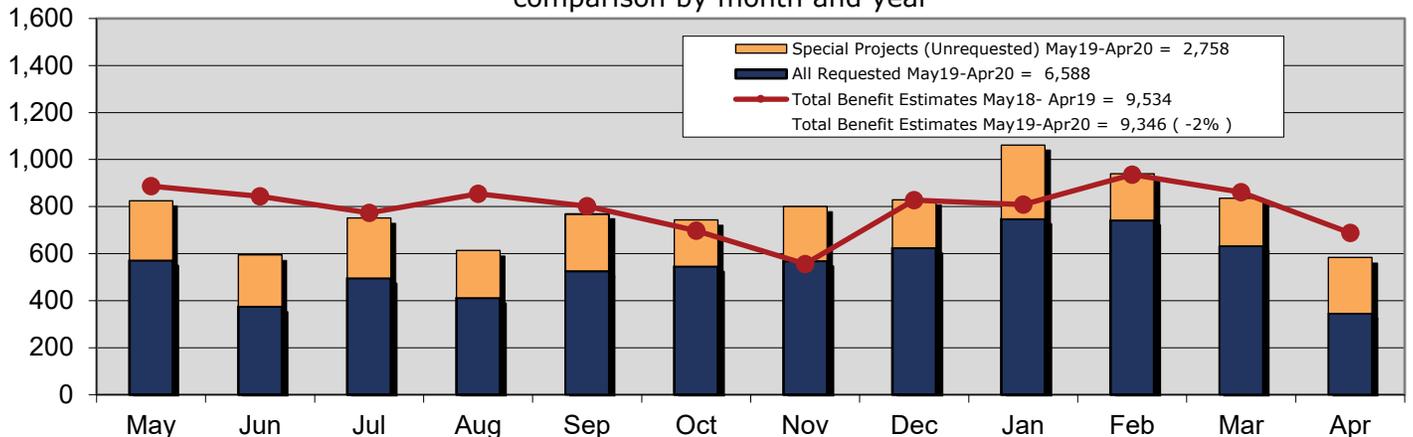
Benefit Estimate Timeliness (average TAT in days)

Month	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Average TAT (days)	0	0	0	0	0	0	0	0	0	0	0	0

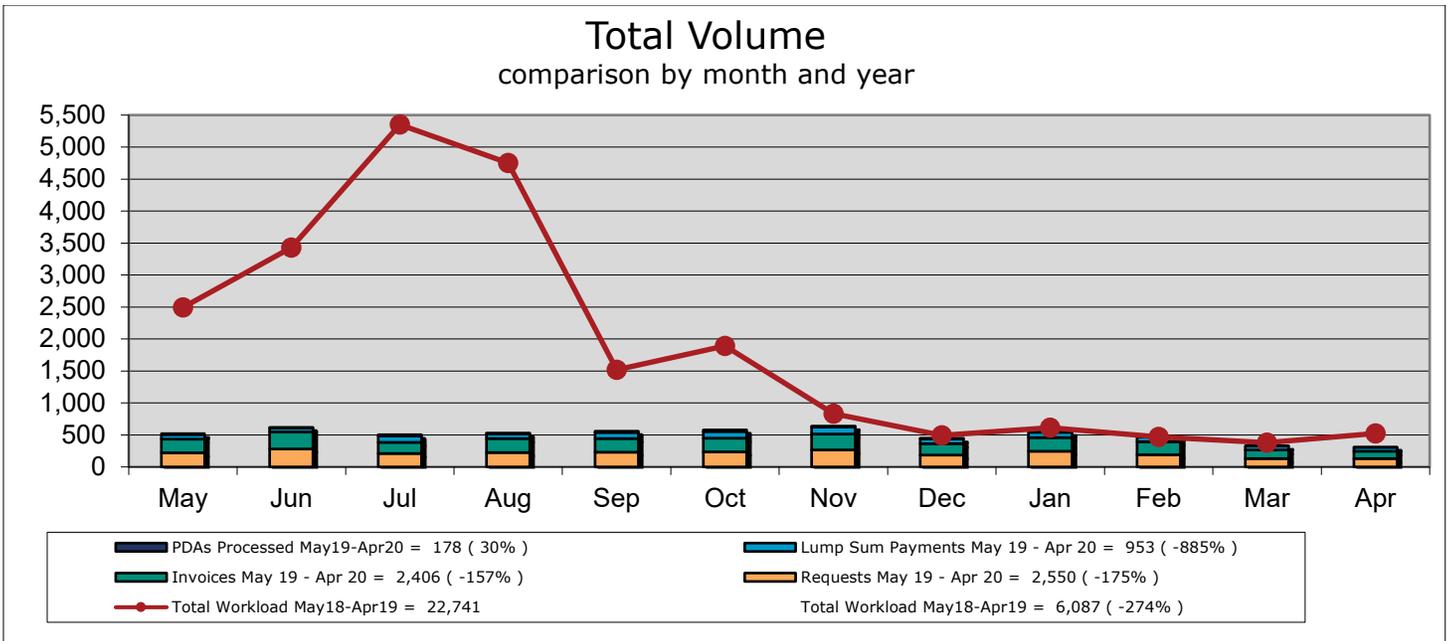
Benefit Estimates 1st Quarter 2020



Benefit Estimate Volume comparison by month and year

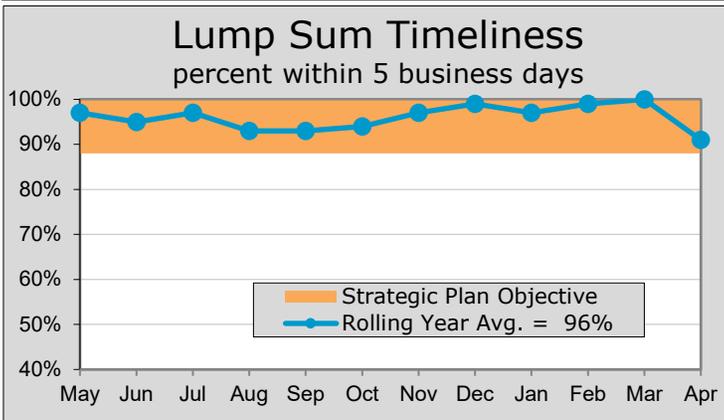


Service Purchase

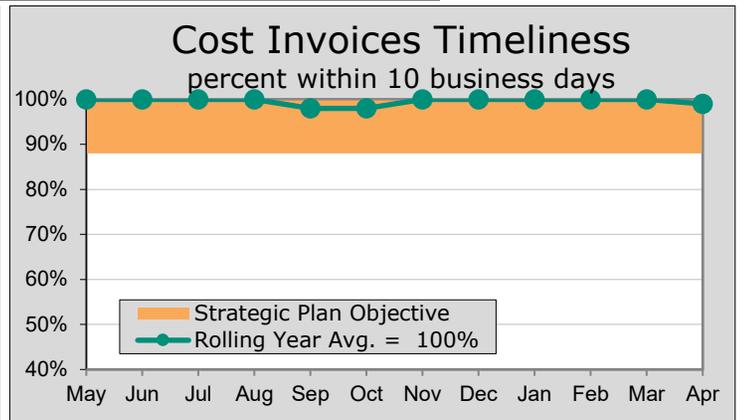


Service Purchase Pending as of April 30, 2020

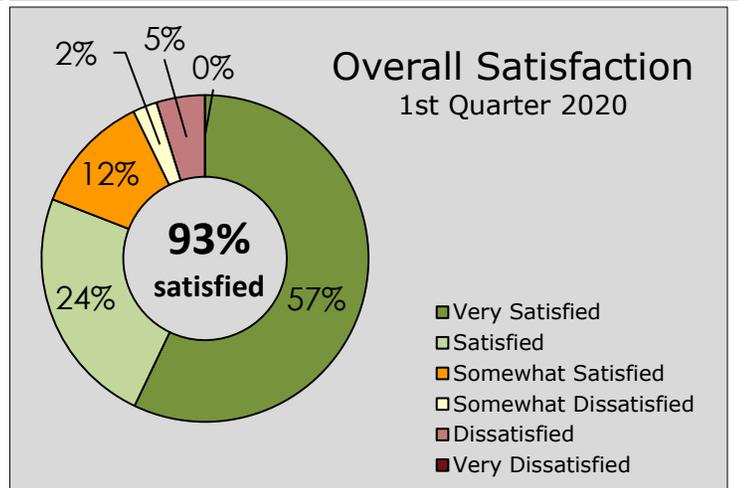
Cost Invoices Pending: 73
Payments Pending: 1



Timeliness (average turnaround time in business days)											
1	0	1	1	2	1	1	1	1	1	2	1
May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr

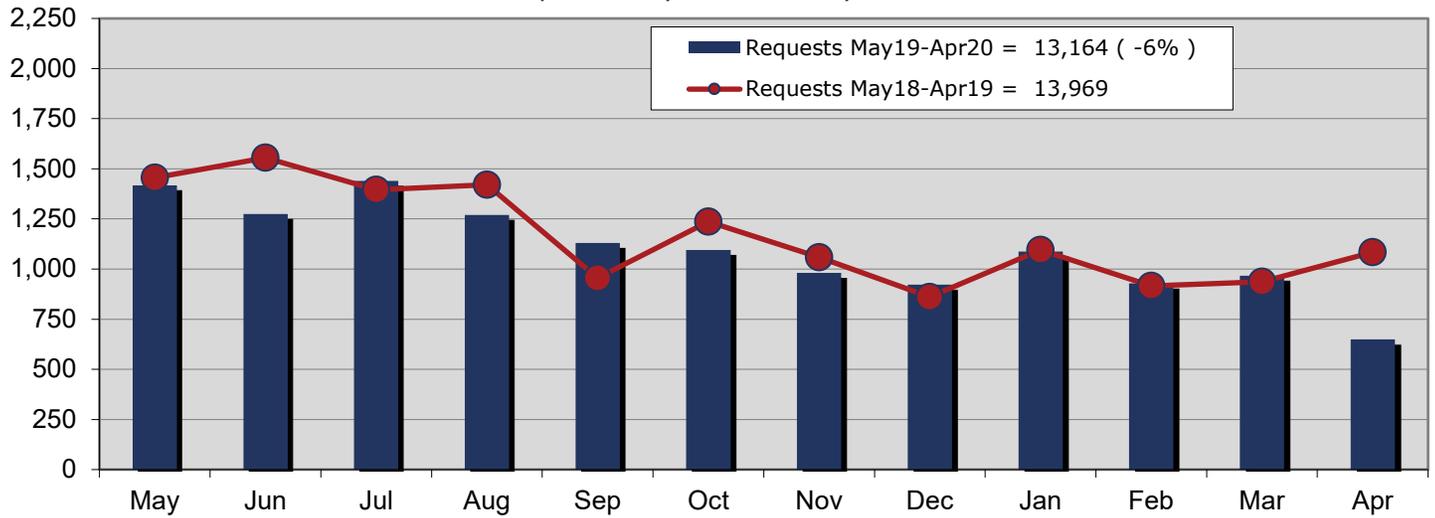


Timeliness (average turnaround time in business days)											
2	3	2	2	3	3	3	3	3	2	2	1
May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr

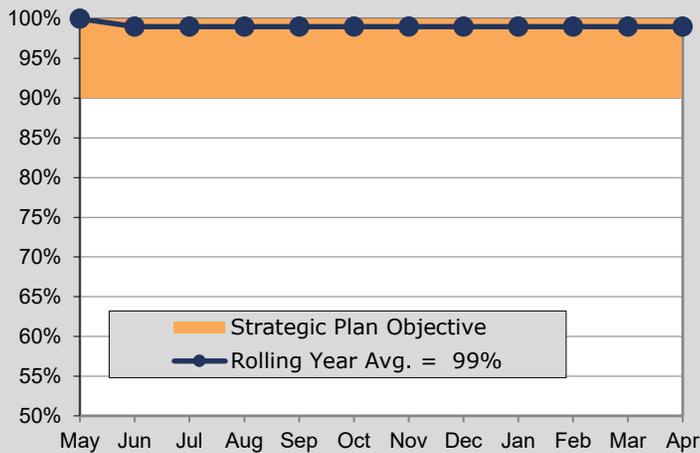


Refunds

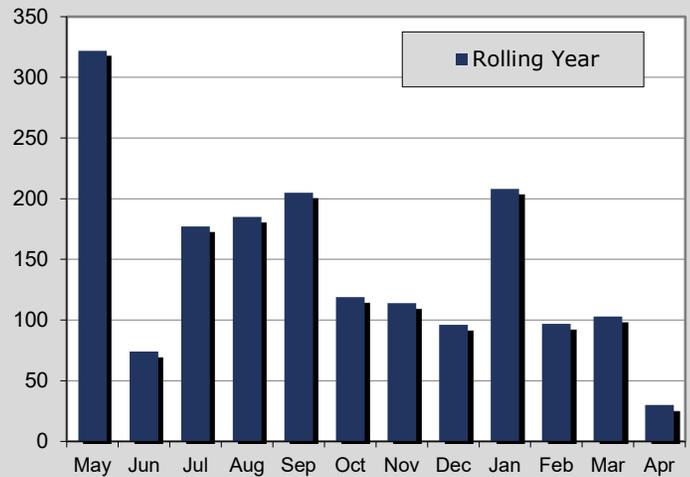
Volume
comparison by month and year



Timeliness
percent disbursed in 5 business days



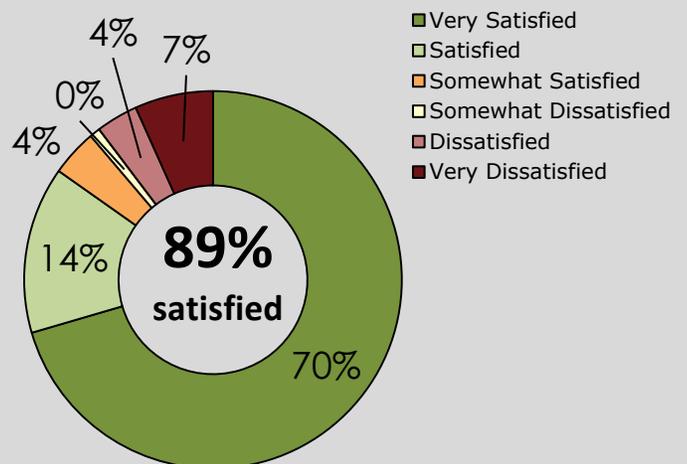
Requests Pending



Timeliness (average turnaround time in business days)

2	2	2	2	2	2	2	2	2	3	2	2
May	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr

Overall Satisfaction
1st Quarter 2020



New Retiree and Pension Payroll

First Payment Volume comparison by month and year



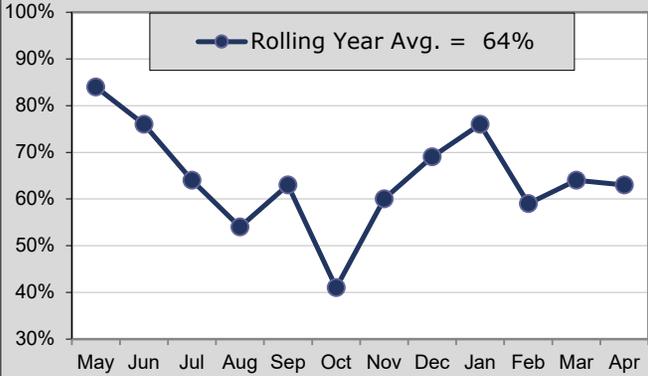
Pension Volume comparison by month and year



Pension Payment (percent disbursed by 1st of the month)

100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr

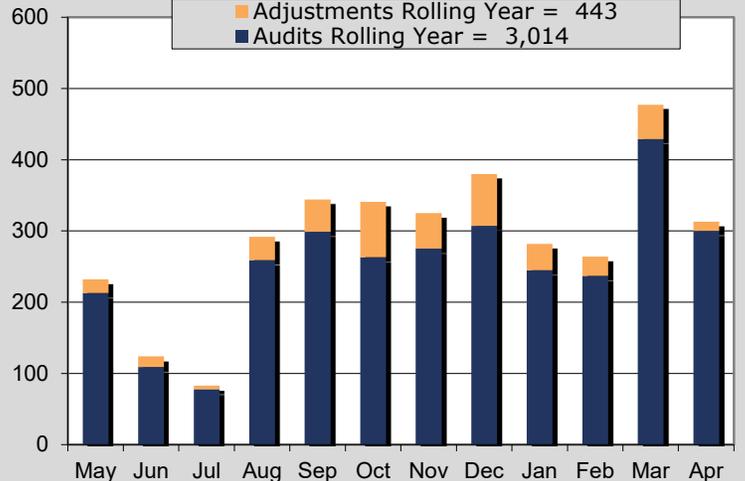
First Payment Timeliness percent disbursed in 10 business days



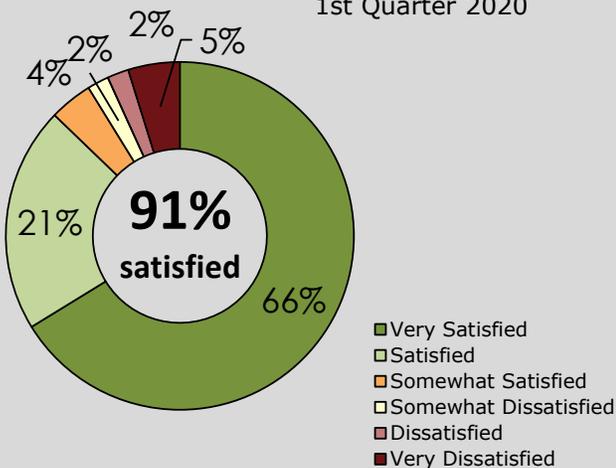
First Payment Timeliness (average turnaround time in days)

9	12	12	15	12	13	11	9	9	11	11	15
May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr

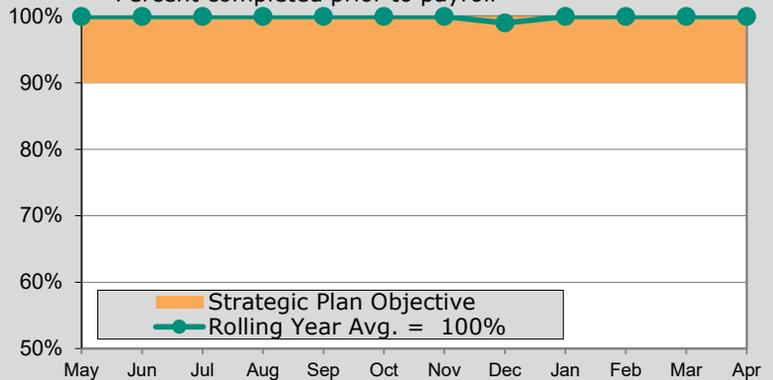
Audits & Adjustments comparison by month and year



Overall Satisfaction 1st Quarter 2020



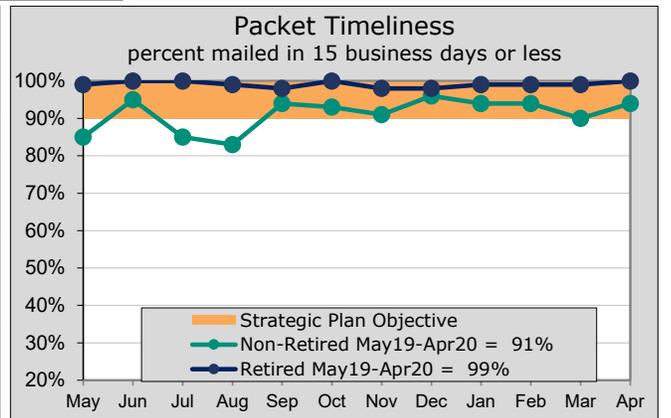
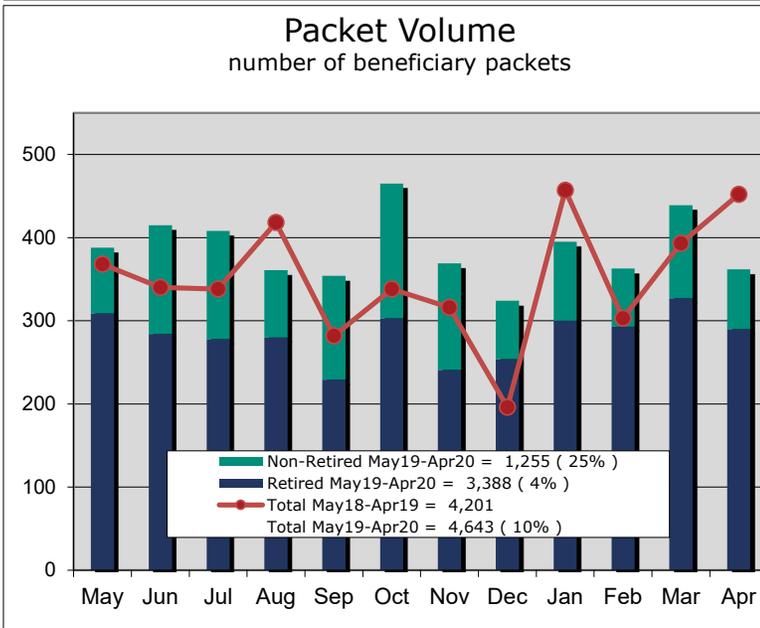
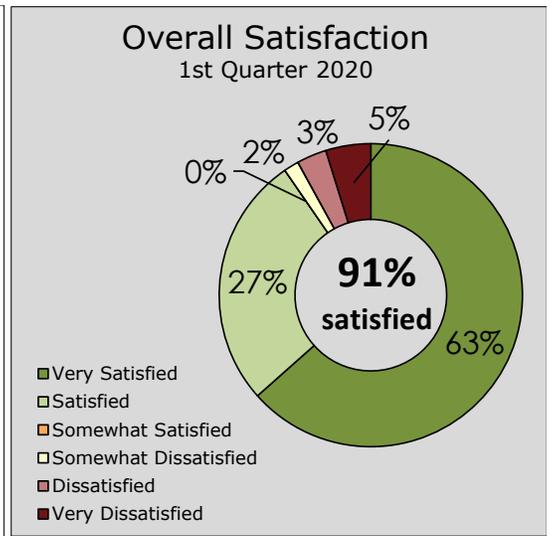
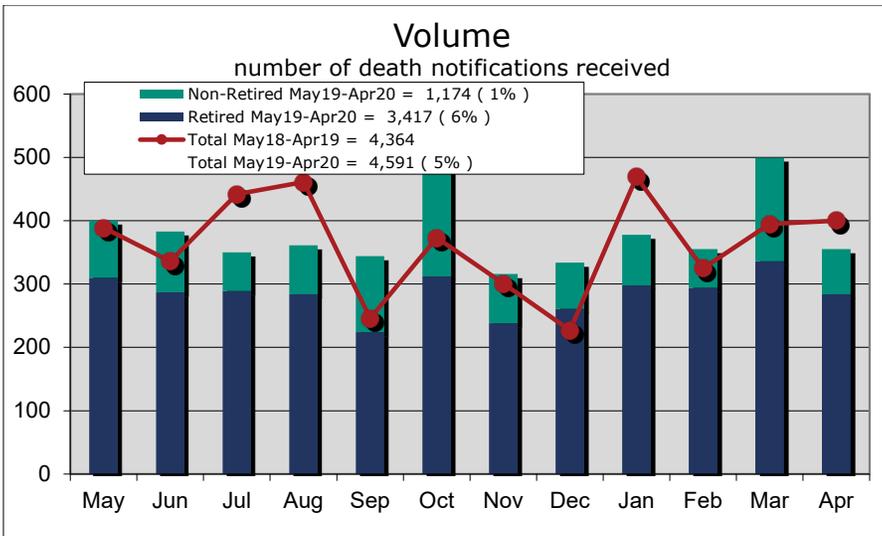
Adjustments Timeliness Percent completed prior to payroll



Adjustments Timeliness (average turnaround time in days)

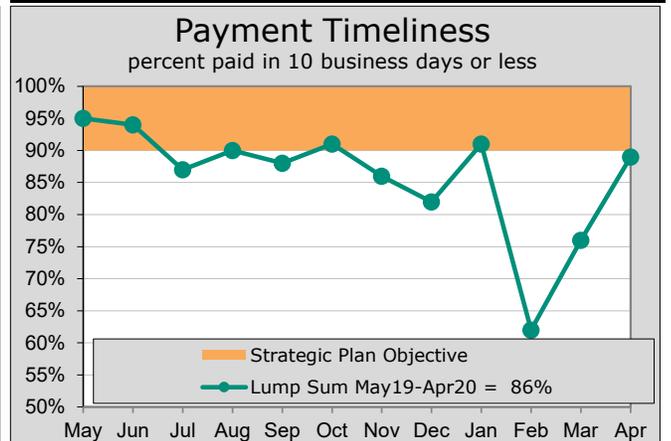
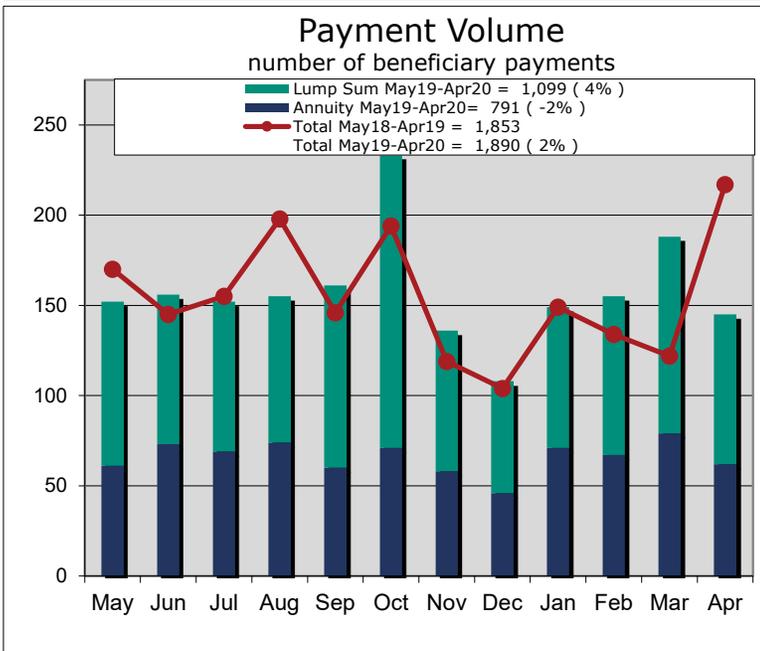
5	4	6	10	9	8	6	12	11	5	6	14
May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr

Survivor Benefits



Packet Timeliness (average TAT in days)

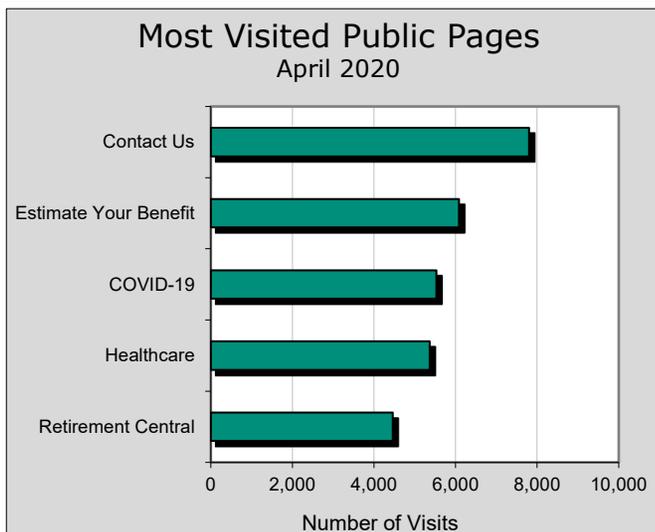
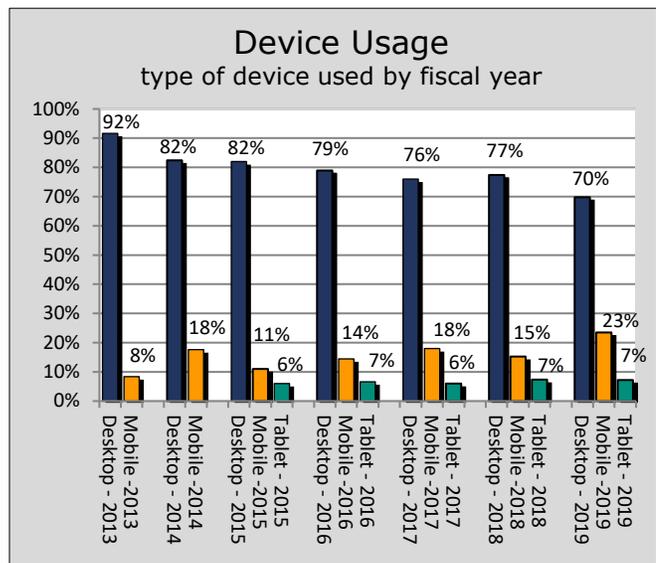
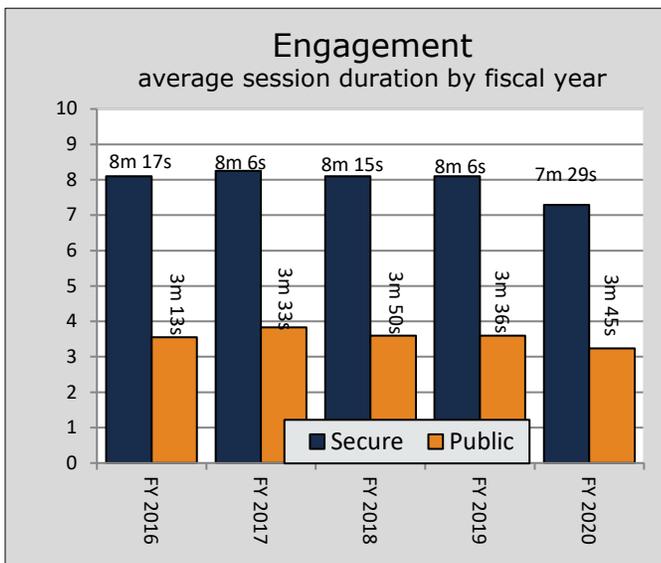
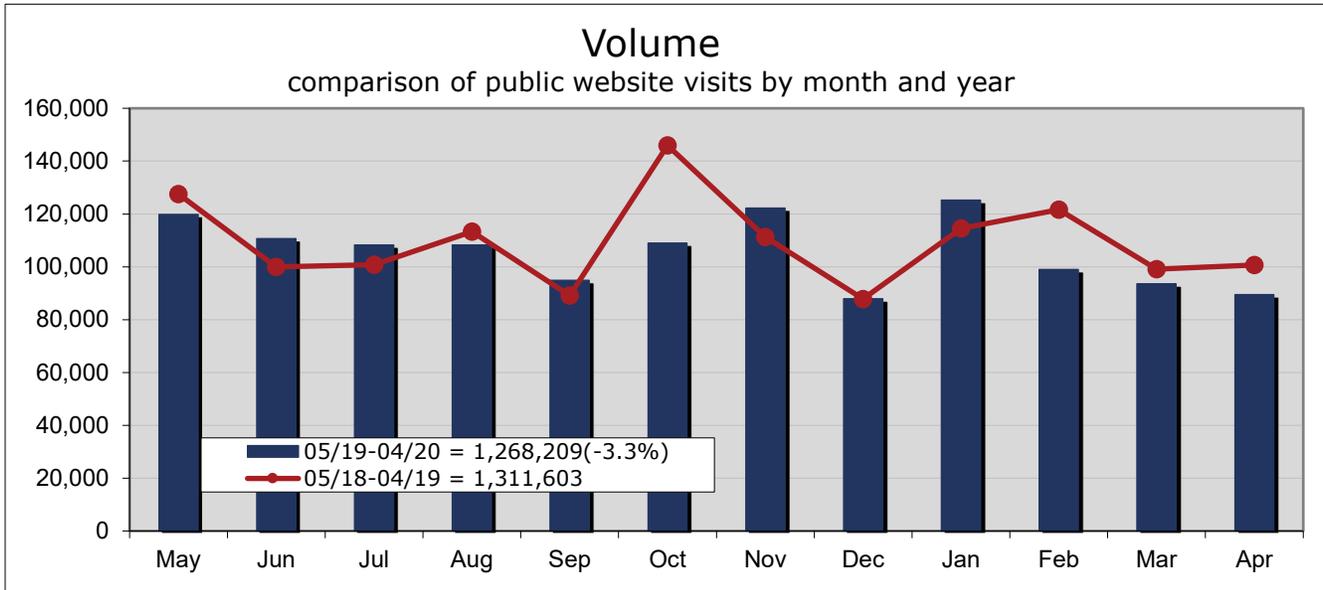
Non Retired											
8	4	6	7	5	7	6	5	6	6	4	3
Retired											
3	1	2	3	2	1	2	2	1	2	1	1
May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr



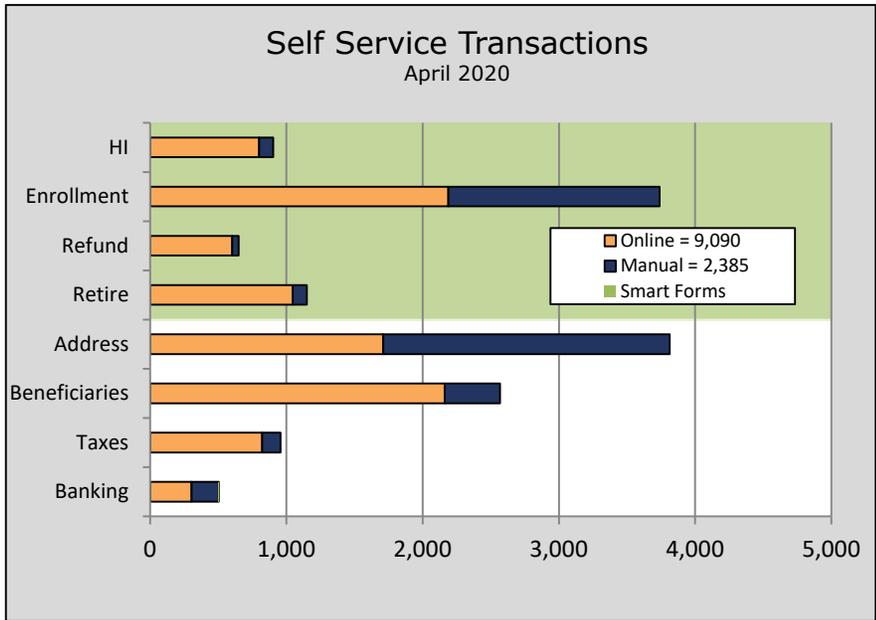
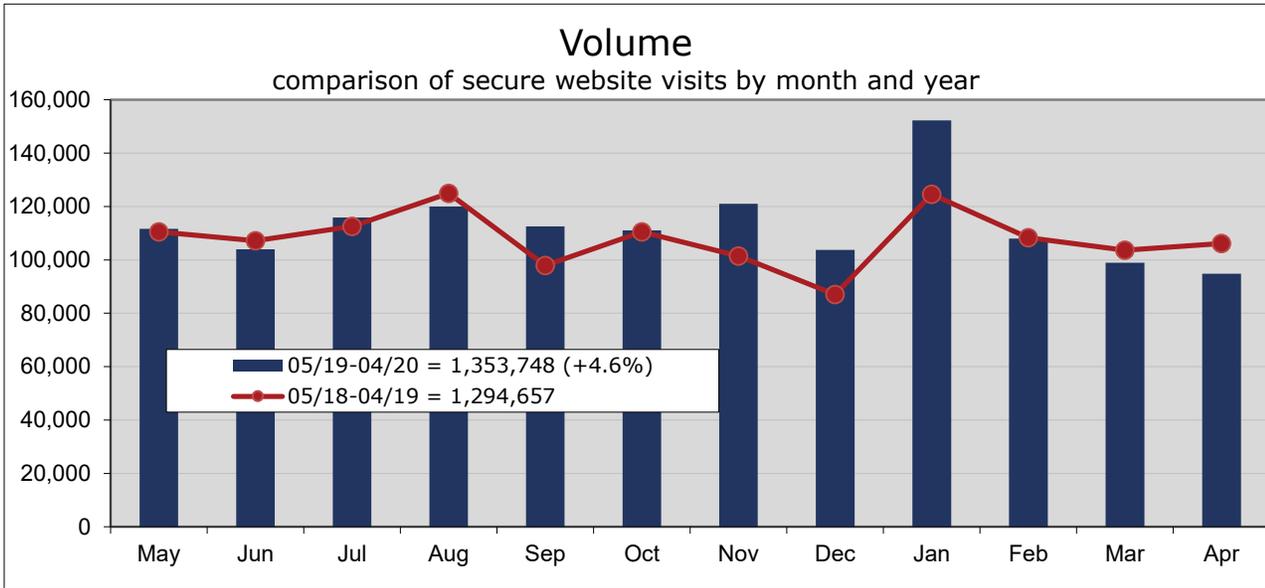
Payment Timeliness (average TAT in days)

Lump Sum (Non-Retired)											
4	4	5	5	5	6	6	8	6	9	7	7
Annuity (Retired and Non-Retired)											
4	2	3	3	2	4	2	2	3	5	2	3
May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr

Public Website: www.azasrs.gov

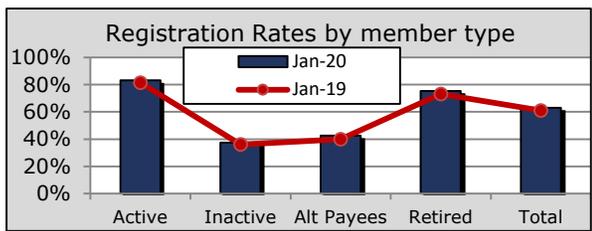
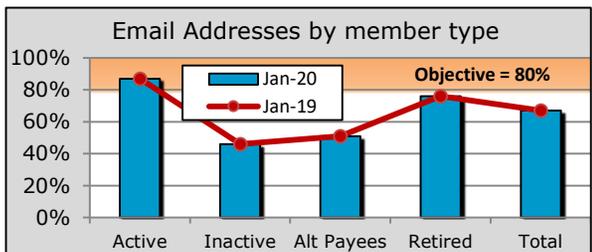
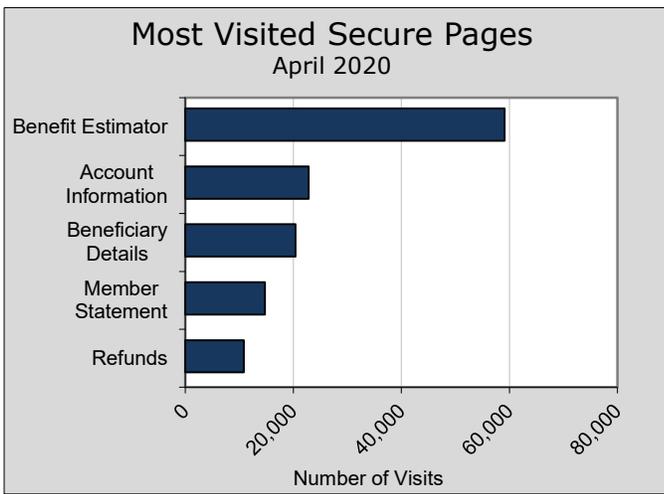


Secure Website: secure.azasrs.gov



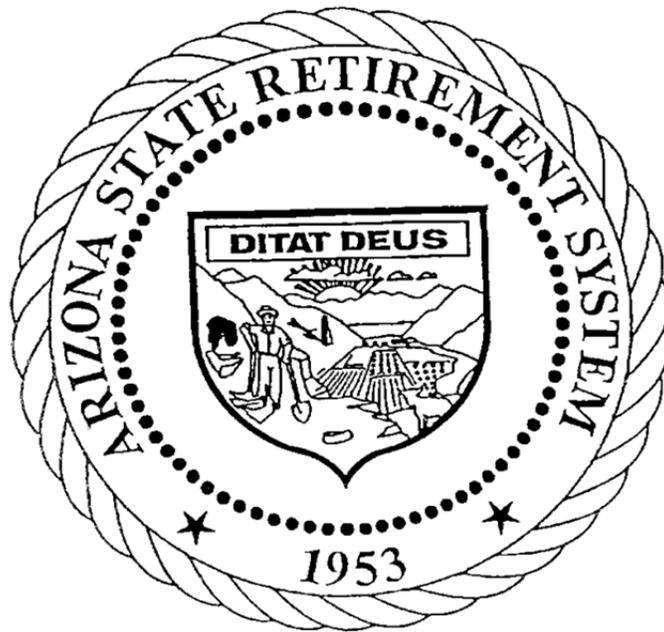
Historical Comparison of Online Usage

	This month	12mo Min	12mo Max	12mo Avg	Objective
HI	89%	65%	81%	68%	75%
Enroll	59%	92%	98%	95%	99%
Ref	93%	80%	90%	85%	90%
Ret	91%	67%	79%	74%	90%
Add	91%	70%	89%	79%	75%
Bene	84%	53%	87%	81%	75%
Tax	86%	55%	93%	80%	75%
DD	60%	42%	66%	57%	75%
Total online					
					67%



Agenda Item #8b

Director's Report Budget & Staffing Reports



FY 2020 ASRS Budget Report Administrative Expenses

(Expenditures at April 30, 2020)

	Base Administrative Budget			Obj by 6/30/2020: -3.00%	Administrative Projects Budget							Obj YOY: -1.50%
	Base Operating Appropriations	Long Term Disability Appropriations	Pension Payroll, Rent, and Actuarial Fees Continuous Appropriations	Current: -4.68%	Technology Services Improvements Projected Unspent Base Appropriations	Technology Technical Debt Sprints Projected Unspent Base Appropriations	Automation Upgrades and Oracle Modernization Special Line Item Appropriations	Benefits Disbursement Continuous Appropriations	Information Protection Security Continuous Appropriations	Manual Disbursements Continuous Appropriations	Benefits Self-Insurance Continuous Appropriations	Administrative Budget Total
Personal Services (PS)												
Salaries and wages	9,747,300		1,019,100	10,766,400			565,800	75,700	45,000	104,100		11,557,000
Variable Compensation Strategies Plan	118,800		-	118,800								118,800
Investment Incentive Compensation Plan	256,900		-	256,900								256,900
Total PS	10,123,000	-	1,019,100	11,142,100	-	-	565,800	75,700	45,000	104,100	-	11,932,700
Employee Related Expenses (ERE)												
Employer costs - benefits, taxes, charges	3,771,700		335,600	4,107,300			174,300	23,800	15,900	31,900		4,353,200
Total ERE	3,771,700	-	335,600	4,107,300	-	-	174,300	23,800	15,900	31,900	-	4,353,200
Professional and Outside Services (P&O)												
LTD Program administration		1,052,200		1,052,200								1,052,200
Pension payroll disbursement processing			90,100	90,100								90,100
IT Software Development	772,900		170,100	943,000	50,300	26,200	358,400	110,600	43,200	108,000		1,639,700
Actuarial services			182,400	182,400								182,400
Benefits consulting services			66,100	66,100							80,000	146,100
IT security professional services			61,000	61,000								61,000
Legal fees	403,900			403,900							68,500	472,400
Other outside services	15,900			15,900								15,900
Total P&O	1,192,700	1,052,200	569,700	2,814,600	50,300	26,200	358,400	110,600	43,200	108,000	148,500	3,659,800
Travel												
In-state	15,700			15,700								15,700
Out-of-state	16,600			16,600								16,600
Total Travel	32,300	-	-	32,300	-	-	-	-	-	-	-	32,300
Other Operating Expenditures												
Office rent			1,248,800	1,248,800								1,248,800
Software licenses and support	1,173,300			1,173,300								1,173,300
Telecommunications	222,900			222,900								222,900
Risk management insurance premiums	149,300			149,300								149,300
Newsletter printing and mailing	141,600			141,600								141,600
Dues, subscriptions, publications	65,600		90,400	156,000	42,700							198,700
Postage and delivery	80,700		71,900	152,600								152,600
Education, training and conferences	33,100			33,100								33,100
Equipment repair and maintenance	35,000			35,000								35,000
Other operating supplies and external printing	80,000		200	80,200								80,200
Total Other Operating Expenditures	1,981,500	-	1,411,300	3,392,800	42,700	-	-	-	-	-	-	3,435,500
Equipment												
Furniture purchases/replacement	22,000			22,000								22,000
Network, server, PC and devices	30,900			30,900								30,900
Total Equipment	52,900	-	-	52,900	-	-	-	-	-	-	-	52,900
TOTAL	\$ 17,154,100	\$ 1,052,200	\$ 3,335,700	\$ 21,542,000	\$ 93,000	\$ 26,200	\$ 1,098,500	\$ 210,100	\$ 104,100	\$ 244,000	\$ 148,500	\$ 23,466,400
APPROPRIATED / BUDGETED AMOUNTS	\$ 22,394,000	\$ 1,800,000	\$ 4,521,500	\$ 28,715,500	\$ -	\$ -	\$ 1,222,400	\$ 210,100	\$ 104,100	\$ 367,100	\$ 446,500	\$ 31,065,700
FY 2020 PROJECTED UNSPENT	\$ 1,149,300	\$ 380,000	\$ -	\$ 1,529,300	\$ (178,400)	\$ (43,300)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,307,600
% EXPENDED YTD	76.6%	58.5%	73.8%	75.0%			89.9%	100.0%	100.0%	66.5%	33.3%	75.5%
% OF FISCAL YEAR ELAPSED	83.3%											

FY 2020 ASRS Budget Report Investment Expenses
(Expenditures as of April 30, 2020)

	EXPENDED YTD	ESTIMATED EXPENSES	ESTIMATED EXPENSES AS % OF TOTAL AUM	ESTIMATED EXPENSES PER MEMBER
Investment Management Expenses				
Internal Investment Management				
Salaries and benefits	\$ 1,286,200	\$ 1,513,600		
Investment Incentive Compensation Plan (ICP) ¹	\$ 256,900	\$ 256,900		
Travel, education and training, rent, and other operational expenses	\$ 109,500	\$ 150,800		
Public Markets				
External investment management fees	\$ 2,185,800	\$ 4,416,200		
Transactional and other fees ²	\$ 1,900,500	\$ 5,000,000		
Private Markets				
Private Equity management fees	\$ 38,750,500	\$ 51,821,000		
Private Equity performance incentive and other fees ³	\$ 44,331,000	\$ 44,331,000		
Real Estate management fees	\$ 7,937,400	\$ 10,561,100		
Real Estate performance incentive and other fees ³	\$ 16,581,700	\$ 16,581,700		
Private Credit management fees	\$ 13,427,500	\$ 24,622,000		
Private Credit performance incentive and other fees ³	\$ 15,430,400	\$ 15,430,400		
Custodial Banking, Security Lending and Master Cash STIF Fees	\$ 1,675,300	\$ 4,030,500		
Investment Management Expenses Subtotal	\$ 143,872,700	\$ 178,715,200	0.46%	\$ 293.84
Investment Related Consulting, Legal and Information Services Expenses				
Investment Consulting Services	\$ 4,431,900	\$ 6,912,300		
Investment Related Legal Services	\$ 2,426,100	\$ 4,440,000		
Investment Electronic Information Services	\$ 2,001,100	\$ 3,287,200		
External Financial Consulting Services	\$ 94,000	\$ 120,000		
Services Expenses Subtotal	\$ 8,953,100	\$ 14,759,500	0.04%	\$ 24.27
Total Investment Expenses	\$ 152,825,800	\$ 193,474,700	0.50%	\$ 318.11

¹ The ICP is paid with base operating budget appropriated dollars.

² Fees for investment managers employing an overlay strategy are not projected and are only reported, on a cash basis, when identified and paid.

³ Due to the nature of the investments and contingent variables, estimated annual performance incentive and other certain fees and expenses that are contractually agreed upon are not projected and are only reported, on a cash flow basis, when identified and paid. Amounts in the Estimated Expenses column are equal to the actual Expended YTD.

FY 2020 ASRS Budget Report Total Administrative and Investment Expenses	EXPENDED YTD	ESTIMATED EXPENSES	ESTIMATED EXPENSES AS % OF TOTAL AUM	ESTIMATED EXPENSES PER MEMBER
Administrative Expenses (from Page 1 - Appropriated/Budgeted Amounts minus Projected Unspent and excluding ICP)	\$ 23,209,500	\$ 29,501,200	0.07%	\$ 48.51
Investment Expenses (including ICP) ¹	\$ 152,825,800	\$ 193,474,700	0.50%	\$ 318.11
Total Expenses	\$ 176,035,300	\$ 222,975,900	0.57%	\$ 366.62
ASRS Estimated Total Market Value of Assets Under Management (AUM) as of March 31, 2020				\$ 38,907,016,000
ASRS Total Membership as of June 30, 2019				608,200

Fiscal Year 2020
Budget Report Summary
(As of April 30, 2020)

The Arizona State Retirement System (ASRS) administrative and investment costs are expended in accordance with Arizona Revised Statutes (A.R.S.). The ASRS utilizes both appropriated and continuously appropriated funds. Column amounts represent the expenditures in each category to date. Information on the total appropriated and estimated planned annual expenses is also included as a guide to the rate of spend during the fiscal year. Reported expenditures include 22 pay periods (85% of the annual payrolls) in FY 2020.

Appropriations

Columns labeled as *appropriations* represent **funds** that have been approved by the Legislature and the ASRS Board for fiscal year July 1, 2019 through June 30, 2020, and include:

1. **Base operating budget** – funds for administrative salaries and employee benefits, supplies, equipment and ongoing costs associated with member information and financial systems for the ASRS.
2. **Long Term Disability (LTD) Program** – funds for the administration costs of the LTD program.
3. **Technology Services Improvements project** – funds to implement a DevOps methodology and setting up the required infrastructure to achieve operational efficiency. ASRS will utilize dollars that are projected to be unspent from the base operating budget.
4. **Technology Technical Debt Sprints** – funds to complete additional solutions for previous software development projects to increase agility. ASRS will utilize dollars that are projected to be unspent from the base operating budget.
5. **Automation upgrades and Oracle Modernization project** – funds for the Oracle Forms and Reports Modernization project. Amounts appropriated in FYs 2015 to 2017 are non-lapsing, and the ASRS has the ability to utilize the unspent portion of the funds to complete the project.

Continuous Appropriations

Columns labeled as *continuous appropriations* represent funds that, in accordance with A.R.S. § 38-721(C), are continuously appropriated in the amount deemed necessary by the Board and include:

1. **Administrative costs**
 - *Pension Payroll* - funds for costs associated with administering retiree pension benefits and disbursements, including the Data, Transactional and Network Security Program, third-party fees, postage, benefit-related consulting fees, and the ASRS Benefits Disbursement, Information Protection Security, and Manual Disbursements projects to support the security program in FY 2020.
 - *Rent* – funds for rent required as tenants for occupancy at 3300 N Central Avenue in Phoenix and in the leased office space in Tucson.
 - *Actuarial fees* – funds for actuarial services related to plan design, benefits, administration and valuations and the one-time expenses related to activities to prepare the transition to self-insured health, pharmacy, and dental benefit plans.
2. **Investment management and related consulting fees necessary to meet the Board's investment objectives**
 - *Internal investment management* – funds for ASRS Investment Management Division (IMD) staff salaries and employee benefits, travel, education and training, rent, and other operational costs. However, the Investment Incentive Compensation Plan (ICP) is paid with base operating budget appropriations.
 - *External investment management* – funds for:
 - Public Markets investment management fees and transactional and other fees, which include foreign taxes and commissions on derivatives and other incidental costs.
 - Private Markets investment management fees and performance incentive and carried interest fees, which are only paid if earned - upon successful performance of the manager after other return criteria are met – or incurred, and other contractually agreed-upon fees and expenses.
 - *Consulting fees* – funds for investment-related consulting and legal fees, electronic information services and subscriptions, custodial administrative and investment services fees, and external auditing service fees. In order to gain insight into portfolios, investment performance, compliance, and investment opportunities, the ASRS utilizes supplemental, coordinated services of external professionals and data platforms.

The investment continuous appropriations budget report includes projected expenditures for the current fiscal year. Actual expenditures are reported monthly and estimated annual expenses are reviewed and adjusted quarterly. The ASRS Estimated Total Market Value of Assets under Management (AUM) and ASRS Total Membership values are updated as period ending amounts are finalized.

**Arizona State Retirement System
Staffing Report
(April 30, 2020)**

ASRS by Division	241 Full Time Equivalents (FTEs)	New Hires	New Exits	Vacancies	Vacancy Rate
Director's Office/ Public Affairs/ Information Security (DIR)/ Leg. Liaison	21	0.0	0.0	1.0	4.76%
Administrative Services Division (ASD)	12	.50	0.0	1.75	14.58%
Financial Services (FSD)	71	0.0	0.0	10.75	15.14%
Technology Services (TSD)	57	0.0	2.0	9.0	15.79%
Internal Audit (IAD)	3	0.0	0.0	0.00	0.00%
Investment Management (IMD)	11	0.0	0.0	2.0	18.18%
Member Services (MSD)	66	6.0	0.0	3.5	5.30%
	241	6.50	2.00	28.00	11.62%

Turnover	Hires	Exits	Total Exits (Last 12 Months)	Annualized Turnover %
	6.50	2.00	30.50	13.72%

Turnover benchmarks:
 AZ State Personnel System 2019: 18.1%
 BLS - State/Local 2019: 19.0%
 Compdata – West/Not-for-profit 2018: 19.2%
 Milliman AZ Comp. Survey 2019 - Gov't: 12.6%

Recruitments

Under recruitment:

- IMD: Senior Equity Analyst, TSD: Agile Software Engineer, and TSD: Technical Lead

Internal hires (transferred/promoted from within the ASRS):

- MSD: Retirement Specialist Leads (x3)(start date: 05/02/2020)

External hires (new to the ASRS):

- IMD: Intern (start date: 05/18/2020)

Impact of Staffing (Vacancies, Recruitments, Internal Transfers) on ASRS Operational Performance

Agency Divisions	Services and Functions	Staffing Impact	Comments
Impact of Staffing on ASRS Operations: Green = Normal risk Yellow = Greater than normal risk Red = Negative impact			
MSD	MAC (Call Center)	● ○ ○	
MSD	Outreach Education	● ○ ○	
MSD	E-mail and Written Correspondence	● ○ ○	
MSD	Phoenix: Appointments/Walk-ins/Outreach	● ○ ○	
MSD	Tucson: Appointments/Walk-ins/Outreach	● ○ ○	
MSD	Benefit Estimates	● ○ ○	
MSD	Employer Relations	● ○ ○	
MSD	Health Insurance/LTD Benefits Administration and Communication	● ○ ○	
FSD	Service Purchase Processing	● ○ ○	
FSD	Monthly Pension Payroll Processing	● ○ ○	
FSD	New Retiree Processing	● ○ ○	

Impact of Staffing (Vacancies, Recruitments, Internal Transfers) on ASRS Operational Performance

Agency Divisions	Services and Functions	Staffing Impact	Comments
Impact of Staffing on ASRS Operations: Green = Normal risk Yellow = Greater than normal risk Red = Negative impact			
FSD	Survivor Benefit Processing	● ○ ○	
FSD	Records Management (data processing/imaging)	● ○ ○	
FSD	Mailroom and Printing	● ○ ○	
FSD	LTD/Health Benefit Supplement Processing	● ○ ○	
FSD	Transfer Processing	● ○ ○	
FSD	General Accounting	● ○ ○	
FSD	Contribution Collections and Posting	● ○ ○	
TSD	Network Support	● ○ ○	
TSD	Application Development Team	● ○ ○	
IMD	Investment Management	● ○ ○	

Impact of Staffing (Vacancies, Recruitments, Internal Transfers) on ASRS Operational Performance

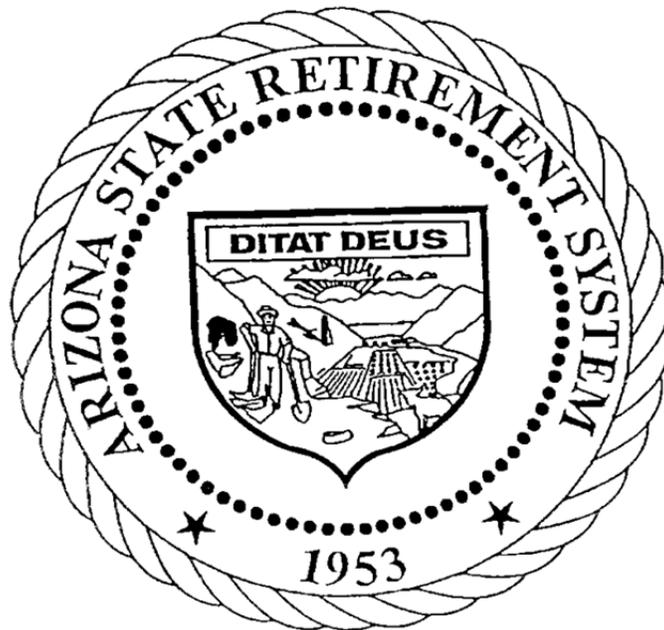
Agency Divisions	Services and Functions	Staffing Impact	Comments
Impact of Staffing on ASRS Operations: Green = Normal risk Yellow = Greater than normal risk Red = Negative impact			
DIR	Board/Executive Staff Support	●○○○	
DIR	Information Security	●○○○	
DIR	Strategic Planning/Analysis	●○○○	
DIR	Strategic Communications	○●○○	Greater than normal risk will remain until one vacant role is filled and trained.
DIR	Public Affairs	●○○○	
DIR	Rule Writing	●○○○	
DIR	Legislative Relations	●○○○	
DIR	Defined Contributions Plans	●○○○	
IA	Internal Audit	●○○○	
ASD	Human Resources	●○○○	
ASD	Training and Development	●○○○	
ASD	Contracts and Procurement	●○○○	

Impact of Staffing (Vacancies, Recruitments, Internal Transfers) on ASRS Operational Performance

Agency Divisions	Services and Functions	Staffing Impact	Comments
Impact of Staffing on ASRS Operations: Green = Normal risk Yellow = Greater than normal risk Red = Negative impact			
ASD	Facilities Management	● ○ ○	
ASD	Budget Administration	● ○ ○	

Agenda Item #8c

Director's Report Cash Flow Statements



**ARIZONA STATE RETIREMENT SYSTEM
COMBINED STATEMENT OF CHANGES IN TOTAL FUND CASH
FOR THE MONTH ENDED MARCH 31, 2020**

	Retirement Plan Fund	Retirement System Fund	Health Benefit Supplement Fund	Long-Term Disability Fund	Current Period March	Fiscal 2020 YTD March	Fiscal 2019 YTD March
ADDITIONS							
Contributions							
Member contributions	\$ 104,207,561	\$ -	\$ -	\$ 1,525,659	\$ 105,733,220	\$ 939,630,943	\$ 870,087,608
Employer contributions	99,068,574	-	4,276,726	1,485,352	104,830,653	940,695,697	871,134,345
Alternative contributions (ACR)	2,971,565	-	14,439	20,215	3,006,219	24,771,144	24,253,773
Transfers from other plans	6,878	-	-	-	6,878	1,093,446	762,375
Purchased service	1,095,913	-	1,370	232	1,097,515	11,819,171	13,412,448
TOTAL CONTRIBUTIONS	207,350,492	-	4,292,536	3,031,458	214,674,485	1,918,010,401	1,779,650,549
DEDUCTIONS							
* Investment management fees	651,092	3,514	28,374	2,609	685,589	5,462,812	18,399,915
** Investment performance fees	-	-	-	-	-	365,905	-
Custody fees	-	-	-	-	-	611,086	733,711
Consultant and legal fees	779,050	-	-	-	779,050	6,480,456	4,130,879
Internal investment activity expense	130,252	-	-	-	130,252	3,158,601	2,365,798
Retirement and disability benefits	267,383,320	2,911,394	5,279,429	4,475,315	280,049,458	2,554,515,795	2,458,389,742
Survivor benefits	6,468,920	6,547	-	-	6,475,467	36,782,822	34,044,693
Refunds to withdrawing members, including interest	20,223,510	-	-	-	20,223,510	190,482,042	193,410,269
Administrative expenses	1,975,983	-	-	114,411	2,090,394	23,751,765	22,053,181
Transfers to other plans	14,938	-	-	-	14,938	672,960	130,030
Other	-	-	-	-	-	82	138
TOTAL DEDUCTIONS	297,627,065	2,921,455	5,307,803	4,592,335	310,448,658	2,822,284,324	2,733,658,356
INCREASE (DECREASE)	(90,276,573)	(2,921,455)	(1,015,267)	(1,560,877)	(95,774,173)	(904,273,924)	(954,007,807)
From securities lending activities:							
Security loan program	291,488	-	-	-	291,488	3,740,721	4,677,008
Security loan interest expense / (Rebate)	(32,393)	-	-	-	(32,393)	65,675	186,807
*** Net income from securities lending activities	323,881	-	-	-	323,881	3,675,046	4,490,201
**** Capital Calls / (Distributions)							
Distressed Debt Total	(1,598,476)	(8,626)	(69,661)	(6,406)	(1,683,169)	(278,327,799)	248,740,778
Private Debt	-	-	-	-	-	-	(61,242,854)
Private Debt - European Credit Total	87,370,803	471,487	3,807,578	350,132	92,000,000	262,265,999	72,874,999
Private Debt - US Corporate Total	215,569,093	1,163,295	9,394,398	863,878	226,990,664	556,272,355	26,078,967
Private Debt - US RE and Asset Backed Total	91,826,091	495,530	4,001,737	367,987	96,691,345	(257,837,470)	22,805,633
Private Equity	29,899,643	161,350	1,303,012	119,821	31,483,826	(68,804,633)	57,961,720
Real Estate	39,683,112	214,146	1,729,371	159,027	41,785,656	512,931,781	142,951,435
Owned Real Estate	-	-	-	-	-	(642,900)	1,920,000
Other Credit Total	51,610,375	278,510	2,249,155	206,825	54,344,865	540,145,654	(118,517,962)
TOTAL Capital Calls	514,360,641	2,775,692	22,415,590	2,061,264	541,613,187	1,266,002,987	393,572,716
NET INCREASE (DECREASE)	\$ (604,313,333)	\$ (5,697,147)	\$ (23,430,857)	\$ (3,622,141)	\$ (637,063,479)	\$ (2,166,601,865)	\$ (1,343,090,321)

* Investment management fees for public investment managers and other managers paid by invoice. Does not include management fees paid through capital calls.

** Investment performance fees paid by invoice. Does not include performance fees paid through capital calls.

*** Securities lending activities reported on a one month lag.

**** Capital calls / (Distributions) include investment management, incentive and other fees that were paid through capital call, rather than payment of an invoice, or through a reduction of a distribution.

Current period private market activity totals represent the best available preliminary information provided by our custodial bank. Changes in preliminary reported information for prior months are reflected in the year-to-date column.

**ARIZONA STATE RETIREMENT SYSTEM
COMBINED STATEMENT OF CHANGES IN TOTAL FUND CASH
FOR THE MONTH ENDED APRIL 30, 2020**

	Retirement Plan Fund	Retirement System Fund	Health Benefit Supplement Fund	Long-Term Disability Fund	Current Period April	Fiscal 2020 YTD April	Fiscal 2019 YTD April
ADDITIONS							
Contributions							
Member contributions	\$ 101,261,574	\$ -	\$ -	\$ 1,445,678	\$ 102,707,253	\$ 1,042,296,217	\$ 967,121,118
Employer contributions	97,065,842	-	4,155,326	1,445,670	102,666,838	1,043,488,644	969,164,039
Alternative contributions (ACR)	2,691,123	-	13,076	18,307	2,722,506	27,493,651	27,277,272
Transfers from other plans	-	-	-	-	-	1,093,446	1,069,964
Purchased service	763,531	-	1,092	689	765,313	12,593,484	14,668,144
TOTAL CONTRIBUTIONS	201,782,070	-	4,169,494	2,910,345	208,861,909	2,126,965,443	1,979,300,536
DEDUCTIONS							
* Investment management fees	1,084,664	5,780	47,264	4,314	1,142,022	6,604,834	18,399,915
** Investment performance fees	-	-	-	-	-	365,905	-
Custody fees	-	-	-	-	-	611,086	733,711
Consultant and legal fees	340,702	-	-	-	340,702	6,887,419	4,754,804
Internal investment activity expense	123,274	-	-	-	123,274	3,281,875	3,332,158
Retirement and disability benefits	265,371,850	2,888,375	11,902,598	4,585,323	284,748,146	2,845,195,589	2,733,864,593
Survivor benefits	5,386,224	-	-	-	5,386,224	42,168,432	40,373,922
Refunds to withdrawing members, including interest	13,793,515	-	-	-	13,793,515	204,275,556	213,094,756
Administrative expenses	2,028,271	-	-	133,244	2,161,515	26,051,556	24,146,195
Transfers to other plans	8,633	-	-	-	8,633	681,593	132,527
Other	-	-	-	-	-	82	219
TOTAL DEDUCTIONS	288,137,132	2,894,155	11,949,862	4,722,882	307,704,030	3,136,123,925	3,038,832,801
INCREASE (DECREASE)	(86,355,061)	(2,894,155)	(7,780,368)	(1,812,537)	(98,842,121)	(1,009,158,483)	(1,059,532,265)
From securities lending activities:							
Security loan program	219,495	-	-	-	219,495	3,960,216	5,242,792
Security loan interest expense / (Rebate)	(41,078)	-	-	-	(41,078)	24,598	177,093
*** Net income from securities lending activities	260,572	-	-	-	260,572	3,935,618	5,065,699
**** Capital Calls / (Distributions)							
Distressed Debt Total	41,494,605	221,127	1,808,134	165,053	43,688,919	(234,638,880)	279,590,653
Private Debt	-	-	-	-	-	-	(61,242,854)
Private Debt - European Credit Total	(85,479,673)	(455,525)	(3,724,790)	(340,012)	(90,000,000)	172,265,999	105,874,999
Private Debt - US Corporate Total	11,533,111	61,460	502,557	45,875	12,143,003	568,415,358	193,161,992
Private Debt - US RE and Asset Backed Total	(32,295,170)	(172,103)	(1,407,267)	(128,460)	(34,003,000)	(291,840,470)	(103,094,270)
Private Equity	58,563,152	312,086	2,551,899	232,946	61,660,083	(7,144,550)	(35,322,347)
Real Estate	47,791,338	254,682	2,082,515	190,100	50,318,635	563,250,416	360,579,290
Owned Real Estate	-	-	-	-	-	(642,900)	1,920,000
Other Credit Total	(1,446,104)	(7,706)	(63,014)	(5,752)	(1,522,576)	538,623,078	(151,968,885)
TOTAL Capital Calls	40,161,259	214,021	1,750,034	159,750	42,285,064	1,308,288,051	589,498,578
NET INCREASE (DECREASE)	\$ (126,255,748)	\$ (3,108,176)	\$ (9,530,402)	\$ (1,972,287)	\$ (140,866,612)	\$ (2,313,510,916)	\$ (1,643,965,144)

* Investment management fees for public investment managers and other managers paid by invoice. Does not include management fees paid through capital calls.

** Investment performance fees paid by invoice. Does not include performance fees paid through capital calls.

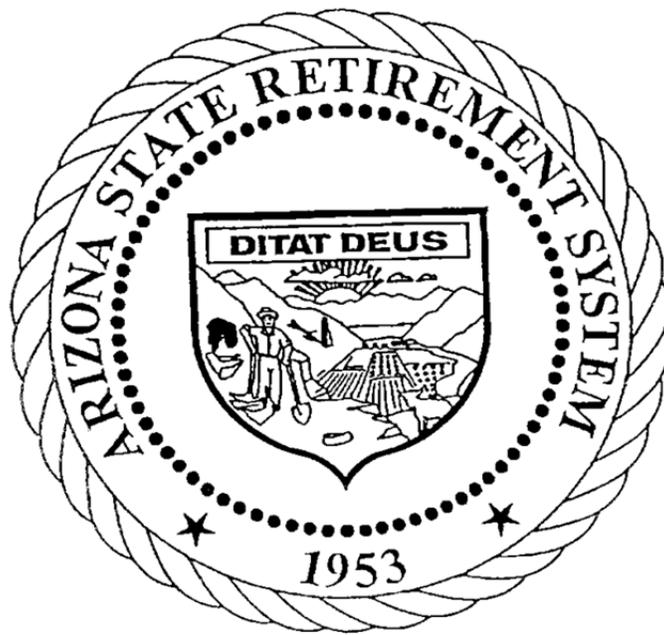
*** Securities lending activities reported on a one month lag.

**** Capital calls / (Distributions) include investment management, incentive and other fees that were paid through capital call, rather than payment of an invoice, or through a reduction of a distribution.

Current period private market activity totals represent the best available preliminary information provided by our custodial bank. Changes in preliminary reported information for prior months are reflected in the year-to-date column.

Agenda Item #8d

Director's Report Appeals Report



OUTSTANDING ASRS APPEALS

Date Received	Appeals	Issues/Questions Regarding	Status/Comments
10/26/2016	Susan Lagerman	Appellant is requesting a retroactive retirement date.	OAH hearing held on 1/5/2017. ALJ decision received on 2/13/2017 upholding ASRS decision. ASRS Appeals Committee accepted ALJ Decision on 3/31/2017. Appellant filed appeal with Superior Court 4/3/2017. Superior Court ruled in ASRS' favor on 11/28/2017. Appellant Susan Lagerman filed an appeal to the Arizona Court of Appeals on 12/8/17. Briefing completed on June 29, 2018. Court of Appeals ruled in ASRS' favor on March 7, 2019. Appellant filed Petition for Review with Arizona Supreme Court. Arizona Supreme Court accepted review on 9/24/2019 & oral argument occurred on 12/17/2019. Arizona Supreme Court ruled in ASRS' favor on May 14, 2020, upholding the Court of Appeals decision.
6/13/2018	Elizabeth Mullavey	Member is appealing recalculation of pension benefit due to Mesa Public Schools audit.	Appellant filed this appeal on July 9, 2018. The member has agreed that a hearing will not be scheduled at this time due to a current Notice of Claim by other affected retirees in the Mesa Public Schools audit matter and possible resulting litigation in the superior court.
11/16/2018	Jeffrey Pichotta	Member is appealing Long Term Disability overpayment	OAH hearing conducted on February 21, 2019. ALJ ruled in favor of the ASRS on March 7, 2019. Scheduled for the June 11, 2019 Board Appeals Committee meeting. ASRS Board Appeals Committee accepted the ALJ Decision on 6/11/2019 upholding the agency action. Appellant filed Motion for Reconsideration on 7/12/2019. ASRS Board Appeals Committee rejected the Motion on 8/13/2019. Superior Court accepted misfile of Appellant's appeal and moved case to Maricopa County on 11/14/2019. Maricopa County Superior Court dismissed matter on 3/26/2020.

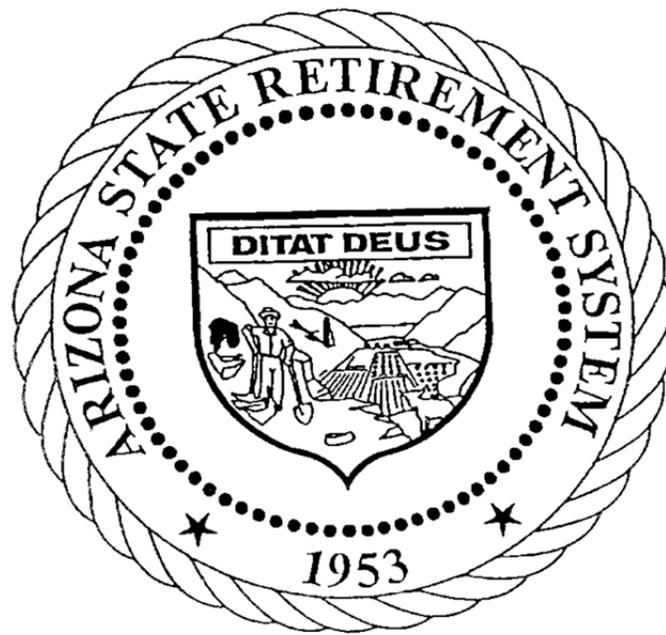
OUTSTANDING ASRS APPEALS

Date Received	Appeals	Issues/Questions Regarding	Status/Comments
10/2/2019	Pepi Sandhaus	Member is appealing for interest to be paid to her on retroactive pension adjustment received.	OAH hearing occurred on 11/26/19. ALJ ruled in favor of the ASRS on 12/10/19. Scheduled for the 2/11/2020 Board Appeals Committee meeting. ASRS Board Appeals Committee accepted the ALJ Decision on 2/11/2020 upholding the agency action. Appellant filed appeal with Superior Court 4/8/2020.
12/23/2019	Scott McCarty	Member is appealing a service purchase cost calculation.	OAH Hearing is scheduled for 7/24/2020.
4/28/2020	Julie Wikman	Member is appealing the termination of her LTD benefits due to failure to submit required documentation.	OAH Hearing is scheduled for 6/24/2020.
5/6/2020	Chad Gosnell	Member is appealing amount of return of contributions.	OAH Hearing is scheduled 7/1/2020.

Information as of May 20, 2020. Updates are noted in bold font.

Agenda Item #8e

Director's Report Employers Reporting





ARIZONA STATE RETIREMENT SYSTEM

3300 NORTH CENTRAL AVENUE • PO BOX 33910 • PHOENIX, AZ 85067-3910 • PHONE (602) 240-2000
4400 EAST BROADWAY BOULEVARD • SUITE 200 • TUCSON, AZ 85711-3554 • PHONE (520) 239-3100
TOLL FREE OUTSIDE METRO PHOENIX AND TUCSON 1 (800) 621-3778

Paul Matson
Director

MEMORANDUM

TO: Arizona State Retirement System (ASRS) Board
FROM: Mr. Paul Matson, Director
DATE: May 15, 2020
RE: Delinquent Employers

As of May 15, 2020, the following employers have failed to remit contributions by a date certain. These employers have received a letter advising them that the ASRS will initiate collection procedures unless they contact us within five days:

EXCALIBUR CHARTER SCHOOL (EXCALIBUR, AVALON)	\$27,400*
PRESCOTT VALLEY CHARTER SCHOOL	6,100*
GILA BEND	<u>28,000*</u>
TOTAL	<u><u>\$61,500*</u></u>

*Estimated amount

Agenda Item #9

Committee
Meeting Updates

Operations, Audit and Legislative Committee



ARIZONA STATE RETIREMENT SYSTEM

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Paul Matson
Director

AGENDA

NOTICE OF COMBINED PUBLIC MEETING AND POSSIBLE EXECUTIVE SESSION OF THE ARIZONA STATE RETIREMENT SYSTEM OPERATIONS, AUDIT, AND LEGISLATIVE COMMITTEE

April 8, 2020
2:30 p.m.

Pursuant to A.R.S. § 38-431.02(F), notice is hereby given to the Trustees of the Arizona State Retirement System (ASRS) Operations, Audit, and Legislative Committee (OALC) and to the general public that the ASRS OALC will hold a **telephonic** meeting open to the public on Wednesday, April 8, 2020, beginning at 2:30 p.m. In light of the Arizona Department of Health Services' recommendation to cancel or postpone mass gatherings of 10 or more people, and to help prevent community spread of COVID-19, the meeting will be audience free. **Trustees of the Board and the public may attend by telephone conference call at 877-820-7831, using Participant Passcode: 857127#.**

This is a regularly scheduled meeting of the OALC; however, due to possible attendance by other ASRS Board Trustees, this meeting may technically become a meeting of the Board or one of its committees. Actions taken will be consistent with OALC governance procedures. Actions requiring Board authority will be presented to the full Board for final decision.

The Chair may take public comment during any agenda item.

The agenda for the meeting is as follows:

1. Call to Order; Roll Call; Opening Remarks..... Mr. Clark Partridge
OALC Chair
2. Approval of the Minutes of the January 8, 2020, Public Meeting and Executive Session of the OALC (*estimated time: 1 minute*) Mr. Clark Partridge
3. Presentation, Discussion, and Appropriate Action Regarding an Update of the ASRS Employer Compliance (*estimated time: 10 minutes*) Mr. Paul Matson
Director
..... Mr. Anthony Guarino
Deputy Director and Chief Operations Officer
..... Mr. Jeremiah Scott
Assistant Director, Member Services Division
..... Mr. Patrick Toto
Employer Relations Supervisor, Member Services Division

4. Presentation, Discussion, and Appropriate Action Regarding the 2019 Rulemaking Initiative Regarding Calculating Benefits (*estimated time: 10 minutes*) Mr. Paul Matson
..... Mr. Anthony Guarino
..... Ms. Jessica Thomas
Government Relations Officer

5. Presentation, Discussion, and Appropriate Action Regarding the 2020 Five-Year Rule Review Report (*estimated time: 10 minutes*) Mr. Paul Matson
..... Mr. Anthony Guarino
..... Ms. Jessica Thomas

6. Presentation, Discussion, and Appropriate Action Regarding the Internal Audit Quarterly Update (*estimated time: 10 minutes*) Mr. Paul Matson
..... Mr. Anthony Guarino
..... Mr. Harold Mackey
Chief Internal Auditor

7. Review of Recently Conducted Audits Mr. Paul Matson
..... Mr. Anthony Guarino
..... Mr. Harold Mackey
 - Health Insurance Premium Benefits-Enrollee Updates for Other Employers – Internal Process
 - Information Risk Management (IRM) Tool – Risk Assessment – Internal Process

8. Call to the Public..... Mr. Clark Partridge

Those wishing to address the ASRS OALC will be requested to do so telephonically. Trustees of the OALC are prohibited by A.R.S. § 38-431.01(H) from discussing or taking legal action on matters raised during an open call to the public unless the matters are properly noticed for discussion and legal action. As a result of public comment, the OALC may direct staff to study and/or reschedule the matter for discussion and decision at a later date.

9. Requests for Future Agenda Items..... Mr. Clark Partridge
..... Mr. Anthony Guarino

10. The next regular public OALC meeting is scheduled for Wednesday, July 8, 2020, at 2:30 p.m.

Regarding the following agenda item, pursuant to A.R.S. § 38-431.03(A)(2), notice is hereby given to Trustees of the ASRS OALC and the general public that the ASRS OALC may vote to go into executive session, which will not be open to the public, for the purpose of discussion or consideration of records exempt by law from public inspection.

11. Presentation, Discussion, and Appropriate Action Regarding the ASRS Group Dental Services Solicitation and Request for Proposal (RFP) (estimated time: 20 minutes)..... Mr. Paul Matson
..... Mr. Anthony Guarino
..... Ms. Martha Rozen
Chief of Administrative Services
..... Ms. M. Harrison
Budget Manager, Administrative Services Division

Regarding the following agenda item, pursuant to A.R.S. § 38-431.03(A)(2), notice is hereby given to Trustees of the ASRS OALC and the general public that the ASRS OALC may vote to go into executive session, which will not be open to the public, for the purpose of discussion or consideration of records exempt by law from public inspection.

12. Presentation, Discussion, and Appropriate Action Regarding the ASRS Information Security Program (estimated time: 20 minutes) Mr. Paul Matson
..... Mr. Anthony Guarino
..... Mr. Jeff Hickman
Information Security Officer

13. Adjournment of the OALC

A copy of the agenda background material provided to the OALC Trustees (with the exception of material relating to possible executive sessions) is available for public inspection at the ASRS offices located at 3300 North Central Avenue, 14th Floor, Phoenix, Arizona and 4400 East Broadway Boulevard, Suite 200, Tucson, Arizona. The agenda is subject to revision up to 24 hours prior to meeting. These materials are also available on the ASRS website (<https://www.azasrs.gov/content/board-and-committee-meetings>) approximately 48 hours prior to the meeting.

Persons with disabilities may request alternate formats of this document by contacting Tracy Darmer, ADA Coordinator at (602) 240-5378 in Phoenix, at (520) 239-3100, ext. 5378 in Tucson, or 1-800-621-3778, ext. 5378 outside metro Phoenix or Tucson. Requests should be made as early as possible to allow time to arrange the accommodations.

Dated April 1, 2020

ARIZONA STATE RETIREMENT SYSTEM

Signature on File

Melanie Alexander
Committee Administrator

Signature on File

Anthony Guarino
Deputy Director and Chief Operations Officer



ARIZONA STATE RETIREMENT SYSTEM

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Paul Matson
Director

MINUTES OF A PUBLIC MEETING OF THE ARIZONA STATE RETIREMENT SYSTEM OPERATIONS, AUDIT & LEGISLATIVE COMMITTEE

Wednesday, April 8, 2020
2:30 p.m., Arizona Time

A quorum of the Operations, Audit & Legislative Committee (OALC) of the Arizona State Retirement System (ASRS) met telephonically in public session.

Mr. Clark Partridge, Chair of the OALC, called the meeting to order at 2:31 p.m.

1. Call to Order; Roll Call; Opening Remarks

Present: Mr. Clark Partridge, Chair
Mr. Tom Manos, Vice-chair
Mr. Rene Guillen

A quorum of the Committee was present for the purpose of conducting business.

Mr. Clark Partridge, Chair, welcomed the attendees and thanked staff for their hard work and preparation for the meeting.

Ms. Melanie Alexander, ASRS Committee Administrator, provided all attendees with telephonic meeting guidelines.

2. Approval of the Minutes of the January 8, 2020 Public Meeting and Executive Session of the OALC

Motion: Mr. Tom Manos moved to approve the Minutes of the January 8, 2020, Public Meeting and Executive Sessions of the OALC. Mr. Rene Guillen seconded the motion.

By a roll call vote of 3 in favor, 0 opposed, 0 abstentions, and 0 excused, the motion was approved. The Trustee votes were as follows:

Mr. Clark Partridge – approved
Mr. Tom Manos – approved
Mr. Rene Guillen – approved

3. Presentation, Discussion, and Appropriate Action Regarding an Update of the ASRS Employer Compliance

Mr. Anthony Guarino, Deputy Director and Chief Operations Officer, provided an introduction, stating that after the ASRS changed employer compliance from an audit to a management function staff made the commitment to report the progress of the program to the OALC periodically, which is the purpose of today's presentation. Mr. Guarino turned the presentation over to Mr. Patrick Toto, Employer Relations Supervisor.

Mr. Toto provided a brief summary of what the presentation will consist of today. Mr. Toto explained the purpose of the compliance program is to take a proactive approach, comparing historical and current data to anticipate and reduce any risks. The goal is to meet with three employers each quarter to determine enhancements that can be made to ASRS communications or service methods and to discuss educational opportunities; however, due to the current national health crisis, this quarter's goal has not been met. The compliance program that is in the process of being completed is the Health Insurance Premium Benefit Program. Of the 286 employers identified and surveyed, 100% responded to the survey, with 61 noted as needing follow-up or further action. Upon reaching out to the 61 Employers noted as needing follow-up, the ASRS is only pending responses from 12 of the employers. Mr. Toto reviewed the timeline his team follows throughout the year to ensure they stay on track and responded to questions from the Committee.

4. Presentation, Discussion, and Appropriate Action Regarding the 2019 Rulemaking Initiative Regarding Calculating Benefits

Ms. Jessica Thomas, Government Relations Officer and Rules Writer, addressed the Committee announcing this rulemaking is finalizing the last of the items on the 2018 and 2019 regulatory agendas, which is codifying what the ASRS is already doing in practice in regard to certain types of applications such as retirement, survivor benefits, etc. Ms. Thomas further stated it also reorganizes some of the requirements that have already been placed in rule to make them more readable and understandable. Ms. Thomas added that while going through this process, the ASRS was able to minimize some of the requirements on the application, which makes the requirements less burdensome to the regulated community.

Ms. Thomas responded to questions from the Committee.

Motion: Mr. Tom Manos moved to approve the draft rulemaking language to be filed with the Secretary of State. Mr. Rene Guillen seconded the motion.

By a roll call vote of 3 in favor, 0 opposed, 0 abstentions, and 0 excused, the motion was approved. The Trustee votes were as follows:

Mr. Clark Partridge – approved
Mr. Tom Manos – approved
Mr. Rene Guillen – approved

5. Presentation, Discussion, and Appropriate Action Regarding the 2020 Five-Year Rule Review Report

Ms. Jessica Thomas announced that by state statute, every agency is required to review their rules every five years to ensure that they meet certain criteria. This is to ensure that rules that are no longer applicable are removed and that the existing rules are continuing to be effective. Ms. Thomas advised this review included four of the ASRS' articles and it was determined that only minor updates were

needed. The updates being recommended reduce the burden on the regulated community by removing some of the requirements that are no longer needed to process some applications.

Ms. Thomas opened it up to questions from the Committee; there were none.

Motion: Mr. Tom Manos moved to approve the draft Five-year Review Report to be filed with the governor's Regulatory Review Council. Mr. Rene Guillen seconded the motion.

By a roll call vote of 3 in favor, 0 opposed, 0 abstentions, and 0 excused, the motion was approved. The Trustee votes were as follows:

Mr. Clark Partridge – approved
Mr. Tom Manos – approved
Mr. Rene Guillen – approved

6. Presentation, Discussion, and Appropriate Action Regarding the Internal Audit Quarterly Update

Mr. Harold Mackey reviewed the quarterly audit report with the Committee and provided the status of projects the Internal Audit Division (IAD) is currently working on. Mr. Mackey reviewed the items in the "Follow-up Monitoring" and noted FSD is completing the second of the three year Cash Controls Audit and most of the findings identified in the CliftonLarsenAllen assessment have either been resolved or are in the process of being resolved. The results are expected in late May or June. Mr. Mackey briefly touched on the additional items on the "Follow-up Monitoring" slides in addition to reviewing the "Legislation Implementation", and "Budget/Hours Allocation" slides. Mr. Mackey advised notifications have been sent out to the foreign annuitants as required every three years but due to the current national health crisis, extensions are being granted for providing the necessary notarized documents.

Mr. Clark Partridge noted some audits had exceeded the budgeted hours and asked Mr. Mackey at what point does he assess the status of an audit to determine what it is going to take to complete. Mr. Mackey indicated in some instances target dates are simply missed and in others, the scope is extended during the course of the audit, thus exceeding the budgeted hours. Some suggestions offered were:

- Revise the Budget/Hours Allocation section of the Quarterly Audit Report to clearly account for audits exceeding the allocated hours - add a column titled, "revised budgeted hours"
- Prioritize audits to assist in plan adjustments going forward

Mr. Mackey will review modifications to the report with staff.

7. Review of Recently Conducted Audits

Mr. Mackey took a moment to provide a summary of the differences between the audit of the Health Insurance Premium Benefits that Mr. Andrew Burch, ASRS Audit Officer, was about to present versus the presentation from Mr. Patrick Toto earlier in the meeting. Mr. Toto's presentation focused on the external data coming from the Employers, whereas, Mr. Burch focused on the internal processes agency staff follows with the data coming into the agency to make sure benefits are paid, adjustments are made, etc. Mr. Mackey turned the presentation over to Mr. Burch who reviewed the following audits conducted by the IAD:

a. Health Insurance Premium Benefits-Enrollee Updates for Other Employers – Internal Process

The IAD had no findings from the ASRS Health Insurance Premium Benefits-Enrollee Updates for Other Employers review of internal processes. The IAD did have observations noted to update SOPs for clarity, which FSD management was in agreement with and has begun.

DRAFT

b. Information Risk Management (IRM) Tool-Risk Assessment – Internal Process

The IAD had no findings from the Information Risk Management (IRM) Tool-Risk Assessment review of internal processes. The IAD did have some observations noted.

8. Call to the Public

No members of the public requested to speak.

9. Requests for Future Agenda Items

None were requested.

10. The next regular public OALC meeting is scheduled for Wednesday, July 8, 2020, at 2:30 p.m.

Mr. Clark Partridge noted the next OALC meeting is scheduled for Wednesday, July 8, 2020 at 2:30 p.m.

11. Presentation, Discussion, and Appropriate Action Regarding the ASRS Group Dental Services Solicitation and Request for Proposal (RFP)

Mr. Guarino and Ms. Martha Rozen, Chief of Administrative Services, introduced the topic and turned the presentation over to Ms. M. Harrison, Budget Manager, Administrative Services Division, who will be presenting on behalf of the Procurement Team. Ms. Harrison took a moment to identify the Procurement team members: Mr. Chris Gustafson, Budget & Procurement Manager; Ms. Athena Elliston, Procurement Analyst; and Ms. Martha Rozen, ASRS Chief Procurement Officer, who has delegated authority by the State of Arizona Procurement Administrator.

Ms. Harrison opened the presentation stating the purpose of today's presentation is to present a recommendation for review and consideration for contract award for the ASRS group dental insurance program. Ms. Harrison provided a brief summary of the OALC oversight responsibilities, which is outlined in the ASRS Board Governance Policy Handbook. The OALC has oversight for general contract management and procurement of specific third-party vendors and forwarding to the full Board for approval of recommended vendor selections; the dental insurance program is one of them.

Ms. Harrison further stated contracts are typically awarded for a maximum of five years and the current contract for dental services is in its fifth year; due to expire at the end of the calendar year, which is why the ASRS solicited for these services with an RFP. Another factor taken into consideration was that the ASRS is considering moving toward a self-insurance model, which may require changes to its approach as the agency moves into a new contract cycle. Ms. Harrison shared the ASRS was fortunate to have received a number of offers during this solicitation which created a truly competitive process.

Ms. Harrison advised that the information she has shared thus far is public information, the recommendation from the evaluation committee that is contained in the confidential materials is confidential and would need to be discussed in executive session if the Committee had further questions regarding those materials. The Committee indicated they had no further questions at this time.

Motion: Mr. Tom Manos moved to accept the Evaluation Committee's recommendation and forward to the full Board for approval. Mr. Rene Guillen seconded the motion.

By a roll call vote of 3 in favor, 0 opposed, 0 abstentions, and 0 excused, the motion was approved. The Trustee votes were as follows:

Mr. Clark Partridge – approved
Mr. Tom Manos – approved
Mr. Rene Guillen – approved

12. Presentation, Discussion, and Appropriate Action Regarding the ASRS Information Security Program

Motion: Mr. Tom Manos moved to go into executive session pursuant to A.R.S. § 38-431.03(A)(2) for the purpose of discussion or consideration of records exempt by law from public inspection. Mr. Rene Guillen seconded the motion.

By a roll call vote of 3 in favor, 0 opposed, 0 abstentions, and 0 excused, the motion was approved. The Trustee votes were as follows:

Mr. Clark Partridge – approved
Mr. Tom Manos – approved
Mr. Rene Guillen – approved

The Committee convened to Executive Session at 3:25 p.m.

The Committee reconvened to Public Session at 3:59 p.m.

13. Adjournment of the OALC

Mr. Clark Partridge adjourned the meeting at 4:00 p.m.

Respectfully Submitted,

Melanie A. Alexander
Committee Administrator
ARIZONA STATE RETIREMENT SYSTEM

Investment Committee



ARIZONA STATE RETIREMENT SYSTEM

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AGENDA

NOTICE OF PUBLIC MEETING OF THE ARIZONA STATE RETIREMENT SYSTEM INVESTMENT COMMITTEE

REVISED

March 23, 2020
1:30 p.m.

Pursuant to A.R.S. § 38-431.02(F), notice is hereby given to the Trustees of the Arizona State Retirement System (ASRS) Investment Committee (IC) and to the general public that the ASRS IC will hold a **telephonic** meeting open to the public on Monday, March 23, 2020, beginning at 1:30 p.m. In light of the Arizona Department of Health Services' recommendation to cancel or postpone mass gatherings of 10 or more people, and to help prevent community spread of COVID-19, the meeting will be audience free. **Trustees of the Committee and the public may attend by telephone conference call at 877-820-7831, using Participant Passcode: 682491#.**

This is a regularly scheduled meeting of the IC; however, due to possible attendance by other ASRS Board Trustees, this meeting may technically become a meeting of the Board or one of its Committees. Actions taken will be consistent with IC governance procedures. Actions requiring Board authority will be presented to the full Board for final decision.

The Chair may take public comment during any agenda item.

The Agenda for the meeting is as follows:

1. Call to Order; Roll Call; Opening Remarks (*Estimated time 4 minutes*) Mr. Michael Lofton
Chair, Investment Committee
2. Approval of the Minutes of the December 16, 2019 Public Meeting of the ASRS IC (*Action item; estimated time 1 minute*) Mr. Michael Lofton
3. Presentation, Discussion, and Appropriate Action Regarding Portfolio Positioning, House Views and General Discussion (*Informational and discussion item; estimated time 30 minutes*)
..... Mr. Karl Polen
Chief Investment Officer (CIO), ASRS
..... Mr. Al Alaimo
Sr. Portfolio Manager of Fixed Income, Cash, and Liquid Alternatives, ASRS
..... Mr. Samer Ghaddar
Sr. Portfolio Manager of Equities, ASRS

Objective:

The CIO and portfolio managers will present their investment views and the committee will discuss the current economic and investment environment. *No action is expected on this item, but the IC may express views or offer guidance on the matters discussed.*

4. Presentation, Discussion, and Appropriate Action Regarding Investment Performance (*Informational and discussion item; estimated time 30 minutes*) Mr. Karl Polen
..... Mr. Al Alaimo
..... Mr. Samer Ghaddar

Objective:

The CIO and portfolio managers will report on investment performance and performance attribution in each of the portfolios. The discussion will include returns and holdings based performance analysis and a review of current strategies for the portfolios. *No action is expected on this item, but the IC may express views or offer guidance on the matters discussed.*

5. Presentation, Discussion, and Appropriate Action Regarding the Real Estate Implementation Plan (*Informational and discussion item; estimated time 20 minutes*) Mr. Taylor Mammen
Sr. Managing Director, Director of Institutional Advisory Services, RCLCO

Objective:

Mr. Taylor Mammen of RCLCO will update the committee on the Real Estate Implementation plan. *No action is expected on this item, but the IC may express views or offer guidance on the matters discussed.*

6. Presentation, Discussion, and Appropriate Action Regarding Independent Reporting, Monitoring and Oversight (*Informational and discussion item; estimated time 20 minutes*) Mr. Allan Martin
Partner, NEPC

Objective:

NEPC to present total fund performance results for the period ending September 30, 2019 and will report on their monitoring of IMD activities. *No action is expected on this item, but the IC may express views or offer guidance on the matters discussed.*

7. Presentation, Discussion, and Appropriate Action Regarding Risk Management (*Informational and discussion item; estimated time 10 minutes*)..... Mr. Karl Polen

Objective:

The CIO will present the MSCI risk management report. *No action is expected on this item, but the IC may express views or offer guidance on the matters discussed.*

8. Presentation, Discussion, and Appropriate Action Regarding Compliance (*Informational and discussion item; estimated time 10 minutes*)..... Ms. Kerry White
Assistant Chief Investment Officer for Reporting, Compliance & Administration

Objective:

The Assistant CIO will report on compliance activities. *No action is expected on this item, but the IC may express views or offer guidance on the matters discussed.*

9. Request for Future Agenda Items (*Discussion item; estimated time 5 minutes*) Mr. Michael Lofton
..... Mr. Karl Polen
10. Call to the Public..... Mr. Michael Lofton

Those wishing to address the ASRS IC will be requested to do so telephonically. Trustees of the Committee are prohibited by A.R.S. § 38-431.01(H) from discussing or taking legal action on matters raised during an open call to the public unless the matters are properly noticed for discussion and legal action. As a result of public comment, the IC may direct staff to study and/or reschedule the matter for discussion and decision at a later date.

11. The next ASRS Investment Committee Meeting is scheduled for Monday, June 15, 2020 at 1:30 p.m.

12. Adjournment of the ASRS IC Meeting.

A copy of the agenda background material provided to IC Trustees (with the exception of material relating to possible executive sessions) is available for public inspection at the ASRS offices located at 3300 North Central Avenue, 14th Floor, Phoenix, Arizona, and 4400 East Broadway Boulevard, Suite 200, Tucson, Arizona. The agenda is subject to revision up to 24 hours prior to meeting. These materials are also available on the ASRS website <https://www.azasrs.gov/content/board-and-committee-meetings> approximately 48 hours prior to the meeting.

Persons with disabilities may request alternate formats of this document by contacting Tracy Darmer, ADA Coordinator at (602) 240-5378 in Phoenix, at (520) 239-3100, ext. 5378 in Tucson or 1-800-621-3778, ext. 5378 outside metro Phoenix or Tucson. Requests should be made as early as possible to allow time to arrange the accommodations.

Dated March 20, 2020

ARIZONA STATE RETIREMENT SYSTEM

Signed Copy on File

Joyce Williams
Committee Administrator

Signed Copy on File

Karl Polen
Chief Investment Officer



ARIZONA STATE RETIREMENT SYSTEM

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Paul Matson
Director

MINUTES

PUBLIC MEETING OF THE ARIZONA STATE RETIREMENT SYSTEM INVESTMENT COMMITTEE

March 23, 2020
1:30 p.m.

The Arizona State Retirement System (ASRS) Investment Committee (IC) met telephonically.

Mr. Michael Lofton, Chair of the IC, called the meeting to order at 1:31 p.m.

1. Call to Order; Roll Call; Opening Remarks

Present: Mr. Michael Lofton, Chair – via teleconference
Mr. Kevin McCarthy, Vice-chair – via teleconference
Mr. Clark Partridge – via teleconference

A quorum of the IC was present for the purpose of conducting business.

2. Approval of the Minutes of the December 16, 2019 Public Meeting of the ASRS IC

Motion: Mr. Kevin McCarthy moved to approve the minutes of the December 16, 2019 public IC meeting. Mr. Clark Partridge seconded the motion.

By a roll call vote of 3 in favor, 0 opposed, 0 abstentions, 0 excused and 0 vacancies, the motion was approved. The trustee votes were as follows:

Mr. Michael Lofton – approved
Mr. Kevin McCarthy – approved
Mr. Clark Partridge – approved

3. Presentation, Discussion, and Appropriate Action Regarding Portfolio Positioning, House Views and General Discussion

Mr. Karl Polen, Chief Investment Officer (CIO), presented the following:

- Coronavirus impacts have created a high likelihood of a recession and markets have responded with unprecedentedly rapid sell off in stocks and increase in volatility.

- Severe pressure on liquidity has emerged with some financial firms in distress from calls on repo lines.
- Economic and market recovery will hinge on progress in dealing with the virus, particularly in testing and data analysis so that a plan for economic remobilization can be developed.
- Portfolio positioning as of March 20 was 6% underweight in equities, balanced by overweights in interest rate sensitive, credit, and real estate. However, Mr. Polen noted that target positions will adjust on April 1 and with that adjustment, the equities underweight would only be about 3%.

Mr. Samer Ghaddar, Sr. Portfolio Manager of Equities, reviewed equity markets, noting the following:

- Equity markets remain under pressure with markets still priced to trailing earnings.
- Markets are not cheap, with values only returning to historic levels on trailing and forward P/E and still slightly expensive on cyclically adjusted P/E.

Mr. Micheal Copeland, Assistant Portfolio Manager of Real Estate, reviewed real estate and private equity markets, noting the following.

- Private equity markets have seen a disruption in deal closings because of a near term withdrawal of credit but expect deals to pick up as distress situations emerge.
- Energy markets are facing substantial distress because of price changes resulting from Saudi production increases.
- Real estate will see near term impacts from reduced rent collections and new leasing.

Mr. Al Alaimo, Sr. Portfolio Manager of Fixed Income, reviewed credit and core bond markets, noting the following:

- There is a robust opportunity to invest in credit in both new loans at new market pricing and in distressed situations.
- Fed action has caused interest rates on the 10-year to hit all-time lows but there has been unusual volatility in certain parts of the credit market in light of liquidity pressures.

4. Presentation, Discussion, and Appropriate Action Regarding Investment Performance

Mr. Polen presented interim fiscal year-to-date noting that fund assets had declined to \$37 billion and estimated fiscal year-to-date returns was approximately -7.4%, both as of March 20.

The portfolio managers presented performance results for periods ending December 31, 2019.

Mr. Ghaddar reported that public equity performance of 25.5%, 11.7% and 8.4% underperformed benchmarks by 1.2%, .7% and .6% for the one-, three-, and five-year periods respectively. The underperformance is driven primarily from index selection and factor levers both of which were adjusted in early 2020 and have improved performance since then.

Mr. Copeland reported private equity performance of 9.1%, 13.8% and 11.6%, which outperformed benchmarks by 8.6%, 4.7%, and 2.9% for the one-, three-, and five-year periods, respectively. He further reported that real estate returns of 6.2%, 8.3%, and 9.8% outperformed benchmarks by 2.1%, 2.6%, and 2.1% for the one-, three-, and five-year periods, respectively.

Mr. Alaimo reported credit returns of 8.4%, 9.6%, and 8.0%, which outperformed benchmark by 2.7%, 2.6%, and 2.1% for the one-, three-, and five-year periods, respectively. Core bonds returns of 8.6%, 4.1%, and 3.3% underperformed benchmark by 8bp for the one-year periods but outperformed by 2bp and 25bp for the three- and five-year periods.

5. Presentation, Discussion, and Appropriate Action Regarding the Real Estate Implementation Plan

Mr. Taylor Mammen, Sr. Managing Director and Director of Institutional Advisory Services, RCLCO, and Mr. Jomar Ereso, Director of Asset Management, RCLCO, presented the real estate implementation plan, noting the following:

- The implementation plan was prepared in late 2019 and initially presented to ASRS in January. The plan was recalibrated in light of recent events by deferring indefinitely approximately \$2 billion in initiatives previously identified.
- Starting in February, RCLCO began implementing stricter guidelines for underwriting individual property acquisitions and as market conditions become more apparent, approximately \$300 million in individual transactions were cancelled or put on hold.
- The implementation plan does, however, contemplate continuing existing relationships, which have adequate unfunded commitments to pursue attractive opportunities as they arise and allows for limited new investments with strategic partners.
- The real estate program is designed to be overweight apartments and other residential strategies compared to the ODCE index and underweight to office and retail strategies.
- The target excess return is 1.5% per year with 2.7% of tracking error.

6. Presentation, Discussion, and Appropriate Action Regarding Independent Reporting, Monitoring and Oversight

Mr. Allan Martin, Partner, NEPC, reported that for periods ending December 31, 2019, total fund returns of 15.6%, 10.1%, 7.9%, and 9.2% exceeded benchmark by .9%, 1.8%, 1.6%, and 1.2% for the one-, three-, five-, and ten- year periods respectively. These returns place ASRS in the 74th, 17th, 11th, and 11th percentile among large public pension plans for the same time periods. He further noted that NEPC monitors ASRS asset class meetings and observed no instances of non-compliance with ASRS procedures or portfolio limitations.

7. Presentation, Discussion, and Appropriate Action Regarding Risk Management

Mr. Polen presented the risk management report prepared by MSCI noting that the measured risk in the actual portfolio is in line with the modeled risk in the SAA portfolio.

8. Presentation, Discussion, and Appropriate Action Regarding Compliance

Ms. Kerry White, Assistant Chief Investment Officer for Reporting, Compliance & Administration presented the compliance report noting that there were no instances of non-compliance for the reported period.

9. Request for Future Agenda Items

No requests for future agenda items were made.

10. Call to the Public

No members of the public requested to speak.

11. The next ASRS Investment Committee Meeting is scheduled for Monday, June 15, 2020 at 1:30 p.m.

Mr. Lofton noted the next IC meeting is scheduled for Monday, June 15, 2020 at 1:30 p.m.

12. Adjournment of the ASRS IC Meeting.

Motion: Mr. Clark Partridge moved to adjourn the meeting at 3:31 p.m. Mr. Kevin McCarthy seconded the motion.

Mr. Michael Lofton adjourned the meeting.

Respectfully submitted by:

Joyce Williams/Karl Polen
Investment Committee Administrator/Chief Investment Officer
ARIZONA STATE RETIREMENT SYSTEM

DRAFT

Appeals Committee

No Recent Meeting

Agenda Items #10-12

No Materials