



Board of Trustees

Quarterly Meeting

December 9-10, 2020

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QUARTERLY MEETING OF THE BOARD OF TRUSTEES

December 9-10, 2020

8:30 a.m. to 5:00 p.m. on Wednesday, December 9, 2020

8:30 a.m. to 5:00 p.m. on Thursday, December 10, 2020

**Due to health and public safety precautions
APFC Board of Trustees will not be meeting in person.
We invite the public to join via Webex or by phone.**

Day 1 Webinar Access (click link to join webinar)

<https://apfc.webex.com/apfc/onstage/g.php?MTID=e0a9ca6e1d058904bcfe38ce089af7448>

Event Password: APFC120920

Day 2 Webinar Access (click link to join webinar)

<https://apfc.webex.com/apfc/onstage/g.php?MTID=efa2038acb38ee7d116d0ba3460d9f2b4>

Event Password: APFC121020

Teleconference Access

**If you are unable to join via webinar, please contact us at
(907) 796-1519 to receive a teleconference number at least two days prior to the meeting**

AGENDA

WEDNESDAY, DECEMBER 9, 2020

- 8:30 a.m.** CALL TO ORDER
- ROLL CALL (Action)
- APPROVAL OF AGENDA (Action)
- APPROVAL OF MINUTES (Action)
- Budget Work Session - September 3, 2020
 - Annual Meeting - September 23-24, 2020
 - Risk Workshop - November 5, 2020
- SCHEDULED APPEARANCES AND PUBLIC PARTICIPATION
- 8:45 a.m.** CHIEF EXECUTIVE OFFICER'S REPORTS (Information/Standard Reports)
Pending Board Matters, Trustee Education Report, Disclosure Report, Staff Summary Report, Human Resources FY20 Summary, Communications Report, Financial Report, History & Projections, Investment Management Fee Report, FY21 Budget Update
- 9:00 a.m.** CHIEF INVESTMENT OFFICER'S REPORT (Information)
Marcus Frampton, Chief Investment Officer
- 9:45 a.m.** ADVISOR COMMENTS (Information)
John Skjervem
George Zinn
Ken Frier
- 10:15 a.m.** BREAK
- 10:30 a.m.** CAPITAL MARKET OVERVIEW (Information)
Steve Center, Callan LLC
- 11:30 a.m.** ASSET CLASS OVERVIEW (Information)
Marcus Frampton, Chief Investment Officer
Steve Center, Callan LLC

- 1:00 p.m. *BREAK / LUNCH*
- 1:30 p.m. RISK OVERVIEW (Action)
Sebastian Vadakumcherry, Chief Risk Officer
- 2:00 p.m. ALTERNATIVES, ASSET CLASS UPDATE (Information)
Steve Moseley, Director of Investments - Alternatives
Ross Alexander, Portfolio Manager – Infrastructure/Real Assets
- 3:30 p.m. *BREAK*
- 3:45 p.m. EXECUTIVE SESSION: CYBERSECURITY AND BUSINESS CONTINUITY
Scott Balovich, Director of IT
- 5:00 p.m. *RECESS FOR THE DAY*

THURSDAY, DECEMBER 10, 2020

- 8:30 a.m. *MEETING RECONVENES*
- 8:35 a.m. SECTOR OUTLOOK – THE FUTURE OF OIL AND GAS (Information)
Riverstone
NGP Energy Capital
- 10:45 a.m. *BREAK*
- 11:00 a.m. SECTOR OUTLOOK – THE FUTURE OF HOSPITALITY AND TOURISM (Information)
L Catterton
- 12:00 p.m. *LUNCH*
- 12:30 p.m. INVESTMENT ADVISOR PRESENTATION (Information)
John Skjervem – Topic: Asset Allocation Study Challenges and Opportunities
- 1:30 p.m. FLEXIBLE WORK POLICY (Action)
Angela Rodell, Chief Executive Officer
Chad Brown, Human Resource Manager
- 2:15 p.m. *BREAK*
- 2:30 p.m. REGULATION PROJECT (Information)
Chris Poag, General Counsel
- 2:45 p.m. FY21 SUPPLEMENTAL BUDGET REQUEST (Action)
Angela Rodell, Chief Executive Officer
Sara Race, Administrative Operations Manager
- 3:15 pm ADVISOR COMMENTS (Information)
George Zinn
Ken Frier
John Skjervem
- 3:45 p.m. OTHER MATTERS (Action)
2021 and 2022 Calendar of Board Meetings
Angela Rodell, Chief Executive Officer
- 4:00 p.m. TRUSTEE COMMENTS
FUTURE AGENDA ITEMS
- 4:15 p.m. EXECUTIVE SESSION – EXECUTIVE DIRECTOR REVIEW
- 5:00 p.m. *ADJOURNMENT*

<i>NOTE: TIMES MAY VARY AND THE CHAIR MAY REORDER AGENDA ITEMS (Please telephone Jennifer Thorsteinson at 907.796.1519 with agenda questions.)</i>

SUBJECT: Approval of Minutes

ACTION: X

DATE: December 9, 2020

INFORMATION:

BACKGROUND:

Staff reviewed the following Board of Trustees meeting summary minutes, draft copies are attached for your approval.

- September 3, 2020 Budget Planning Session
- November 5, 2020 Risk Workshop
- September 23-24, 2020 Annual Meeting

RECOMMENDATION:

Approval of the summary minutes of the Board of Trustees meetings listed above.

ALASKA PERMANENT FUND CORPORATION
SPECIAL MEETING OF THE BOARD OF TRUSTEES

September 3, 2020
1:00 p.m.
Anchorage/Teleconference

SUMMARY MINUTES

Trustees Present:	Craig Richards, Chair William G. Moran, Vice Chair Steve Rieger Corri Feige Lucinda Mahoney Ethan Schutt	
Staff Present in Anchorage:	Angela Rodell, CEO Paulyn Swanson Larissa Murray	
Staff Present Online:	Sara Race Valeria Mertz Steve Moseley Marcus Frampton Jacki Mallinger Katherine Smith Joe Shinn Sebastian Vadakumcherry Logan Rahn Jon Strickler Alex Smith Mason Kullander	Julia Mesdag Norix Mangual Valeria Martinez Scott Balovich Masha Skuratovskaya Ross Alexander Danielle Graham Tom O'Day Rachel Price Jennifer Thorsteinson Chad Brown

PROCEEDINGS

CALL TO ORDER

CHAIR RICHARDS called the meeting to order and asked for a roll call.

ROLL CALL

VICE CHAIR MORAN, TRUSTEE FEIGE, TRUSTEE RIEGER, TRUSTEE MAHONEY, TRUSTEE SCHUTT, CHAIR RICHARDS were present.
MS. THORSTEINSON reported that there was a quorum.

APPROVAL OF AGENDA

Alaska Permanent Fund Corporation Minutes	1	BOT Budget Work Session Meeting

September 3, 2020

CHAIR RICHARDS moved to the agenda. There being no changes or corrections, the agenda was approved.

OPPORTUNITY FOR PUBLIC PARTICIPATION

CHAIR RICHARDS asked if there was anyone on-line that would like to address the board. Hearing none, he moved to the FY22 Budget Overview.

FY22 BUDGET OVERVIEW

SARA RACE, Administrative Operations Manager at APFC walked the Trustees through the FY22 Budget Overview. The APFC budget is divided into two allocations: Corporate Operations and Investment Management, and any Capital Projects, of which there are none this year.

RACE stated that the total Corporate Operations budget is a little over \$17 million, divided into five pieces – Personal Services, Travel, Contractual Services, Commodities, and Equipment.

RACE walked through the FY20 actuals, budget increases, incentive comp, various line items, and answered TRUSTEE questions throughout the presentation with help from CEO RODELL, CHRIS POAG, PAULYN SWANSON, and VAL MERTZ.

INCENTIVE COMPENSATION

Extensive discussion ensued regarding incentive compensation. It was requested to find out if the Governor's Office supported Incentive Compensation in APFC's budget prior to the Annual Meeting.

ANCHORAGE OFFICE PROPOSAL

CEO RODELL led the discussion on the Anchorage Office proposal. Number of staff, office size, IT support, timing for implementation, budget, relocation expenses, initial costs, and location were discussed. SCOTT BALOVICH was on hand to answer questions. CHAD BROWN assisted in the discussion. Discussion turned towards work remote flexibility, hiring and retention based on working remote from alternate locations than Juneau, without a brick and mortar office to work out of. TRUSTEES actively participated in the discussion asking questions and giving their thoughts and opinions on both an Anchorage Office and work remote flexibility.

CHAIR RICHARDS asked for a work remote proposal to be brought to the board at the December meeting.

BREAK

A five-minute break was taken

LEGISLATIVE ISSUES

CHAIR RICHARDS called the meeting back to order and introduced CEO RODELL and PAULYN SWANSON. CEO RODELL gave a summary of past legislative issues and due to questions and lack of support to those none will be presented this upcoming session.

SWANSON took over the discussion and emphasized how education of legislators is a priority

Alaska Permanent Fund Corporation 2 BOT Budget Work Session Meeting

Minutes

September 3, 2020

and has been helpful in the past. CEO RODELL and SWANSON will be meeting with all of the Legislators in preparation for the upcoming Legislative Session most likely through virtual meetings due to the pandemic. TRUSTEE MORAN reminded everyone of the Trustee Paper that was published and how it will be distributed to legislators and used in the education campaign. TRUSTEE RIEGER brought up the Resolution 20-01 and asked Trustees to consider if the Board should have a position on a Constitutional Amendment if it comes up.

No actions were taken

ADJOURNMENT

CHAIR RICHARDS asked for a motion to adjourn. There being no objection, the meeting was adjourned.

ALASKA PERMANENT FUND CORPORATION
ANNUAL MEETING OF THE BOARD OF TRUSTEES

WEBEX/TELECONFERENCE

September 23-24, 2020

Originating at:
Dena'ina Center
Anchorage, Alaska

SUMMARY MINUTES

Trustees Present:	Craig Richards, Chair William Moran, Vice Chair Ethan Schutt Corri Feige Lucinda Mahoney Steve Rieger	
Trust Staff Present:	Angela Rodell, CEO Val Mertz, CFO Valeria Martinez Sara Race Tim Andreyka Chad Brown Jennifer Thorsteinson	Marcus Frampton, CIO Steve Moseley Jim Parise Logan Rahn Tom O'Day Danielle Graham Larissa Goecker
Investment Advisers:	George Zinn Kenneth Frier	John Skjervem
Other Participants:	Greg Allen, Callan Mike Hayhurst, KPMG Peter Taggart Richard Farnell Doug Woodby, 350Juneau Andrew Mikolasy, Bridgewater Bob Schroeder, Public Participation Dick Farnell, Public Participation	Steve Center, Callan Greg Peters, PGIM Steve Aarons Representative Bart LeBon Fred Post, Bridgewater

PROCEEDINGS

CALL TO ORDER

CHAIR RICHARDS called the Alaska APFC annual meeting for 2020 to order, and asked for a roll call.

MS. THORSTEINSON called the roll and stated there was a quorum.

APPROVAL OF AGENDA

CHAIR RICHARDS asked for a motion to approve the agenda.

MOTION: A motion to approve the agenda was made by TRUSTEE FEIGE; seconded by TRUSTEE SCHUTT.

After the roll-call vote, the MOTION was approved. (Trustee Mahoney, yes; Trustee Schutt, yes; Trustee Rieger, yes; Trustee Moran, yes; Trustee Feige, yes; Trustee Richards, yes.)

APPROVAL OF MINUTES

CHAIR RICHARDS asked for a motion to approve the minutes of May 20-21, 2020.

MOTION: A motion to approve the minutes of May 20-21, 2020, was made by TRUSTEE SCHUTT; seconded by TRUSTEE MAHONEY.

After the roll-call vote, the MOTION was approved. (Trustee Mahoney, yes; Trustee Schutt, yes; Trustee Rieger, yes; Trustee Moran, yes; Trustee Feige, yes; Trustee Richards, yes.)

SCHEDULED APPEARANCES AND PUBLIC PARTICIPATION

CHAIR RICHARDS asked if there were any scheduled public participation.

MS. THORSTEINSON stated that Representative LeBon is present.

REPRESENTATIVE LeBON stated that he represents House District 1, Downtown Fairbanks. He explained that, after arriving in Juneau, he was able to tour the Permanent Fund's headquarters facility and was impressed by the quality of the surroundings, the space itself which afforded a very positive working culture, and great interaction among employees. He continued that the Fund's philosophy states that the goal is to assist in developing a culture where people enjoy coming to work, and providing a robust hiring process that allows potential hires to see what makes APFC a remarkable place to work. In that philosophy, there is no mention about seeking Alaska-grown talent. He asked if there is a management training program or an internship program to seek talent from Alaska. He stated concern over the proposed establishment of a satellite office in Anchorage. He suggested focusing on recruiting Alaska talent and not spending money on a move that will not bear the kind of results anticipated. He continued that the need is to keep the talent all in the same location for interaction with decision-makers, and having a working culture with a free flow of information and opinions that are easily and readily accessible.

CHAIR RICHARDS thanked Representative LeBon for his testimony, and asked if there was any other public participation.

MR. WOODYBY stated that he was concerned with the climate crisis that is snowballing; and also, it is not clear whether the Corporation is sufficiently prepared for losses that may occur. He continued that there was a sizeable risk especially with the State's growing dependence on the Fund. He talked about the report by President Trump's Commodity Futures Trading Commission and the recommendations that are based on the finding that, "climate change poses a major risk to the stability of the US financial system." He highlighted the recommendation that financial authorities should consider integrating climate risk into their balance sheet management and asset purchases, particularly relating to corporate and municipal debt. He stated that the major fossil fuel companies get about 90 percent of their new money from bonds and bank loans, which is a lot of debt that is less than secure with all the recent analysis of stranded assets. He asked if the Corporation is taking care to avoid associated losses, and is looking forward at the risks, digging deep, and charting a new course to protect the Fund. He thanked the trustees for everything they do to maintain and grow the nation's only sovereign wealth fund.

CHAIR RICHARDS thanked Mr. Woodyby and asked for any other speakers.

MR. FARNELL stated that he is a Juneau resident and a board member of 350Juneau – Climate Action for Alaska. He noted that one of the primary fiduciary arguments for staying invested in the fossil fuel majors has been that the historical performance of these companies has provided a valuable ballast in a portfolio. Fossil fuel investments are supposed to provide dividends which offset market fluctuations and hold their value over long market cycles because the world has been dependent on carbon for energy. He continued that these assets are no longer performing their traditional statistical role. By continuing to stay invested in fossil fuels, the fiduciary risk from holding these assets have increased substantially. He stated that should the trustees move now to divest from the energy sector, all Alaskans will recognize the leadership and foresight exercised by the trustees in protecting the value of the Permanent Fund.

CHAIR RICHARDS thanked Mr. Farnell and asked for any other public participation.

MR. SCHROEDER stated that he has been a Juneau resident for about 40 years and is a PERS recipient, an Alaska resident and, receives the Permanent Fund Dividend. 350Juneau has asked the board to perform a climate risk assessment for all its investments and to divest from its fossil fuel holdings. He stated concern that the board did not know what its investment holdings were and there was no regular report produced that documented the holdings and how they have changed over time. Without this information available examining known and foreseeable investment risks, the trustees cannot demonstrate that they are doing their job of investing in sound instruments in managing risk appropriately while seven areas of risk that need to be considered are identified. He e stated the need to recognize that times are changing, and it was time to divest from fossil fuel.

CHAIR RICHARDS thanked Mr. Schroeder and asked for any other public testimony.

MS. THORSTEINSON noted that was everyone that signed up for public testimony.

CHAIR RICHARDS moved to the executive director's report.

CHIEF EXECUTIVE OFFICER'S REPORT

CEO RODELL pointed out for Trustee Schutt that pending board matters are included. These are things that have come up over the course of meetings which were identified as future board topics. If there are other topics the trustees would like added to the list, to let her know. She stated that there are opportunities for trustee education. The virtual meetings by Pacific Pension & Investments are good

quality, and Callan also has some opportunities there. If interested in registering for anything, she asked the trustees to let Jennifer know. She stated that Chad Brown, the HR manager, provided a very good summary for FY2020 with all of the past activities and the impact of COVID. Five new employees were added to the APFC during FY2020. She moved to the annual report and stated that she was really proud of the document. She added that anything anyone wants to know about APFC can be found in that annual report. She talked about the wrap-up of fees and expenses and added that the majority of fees were paid directly out of the investments net of the return. There was a total of 58 basis points for the year in fees paid to manage the Fund.

CHIEF INVESTMENT OFFICER'S REPORT

MR. FRAMPTON began with the key topics that were being focused on within the investment department currently. He stated that one actual investment decision related to the investment portfolio is the amendment related to gold, and he noted that the inflationary outlook for markets in general is a key macro thing with a lot of opinions. He continued that there is a deflation camp from folks concerned about economic growth and then an inflation camp with folks more concerned about money supply growth. He added that, from a portfolio standpoint, the growth in the real estate portfolio is more important than gold from protecting the portfolio. He stated that the gold amendment is important to have the flexibility to invest in gold ETFs, but the sale would be best characterized as fairly minor or on the edge. He moved on to COVID-19, which is the biggest issue in the investment markets. There has been a lot of industry discussion about how due diligence was impacted by COVID-19. He moved to personnel and introduced Brian Tyler and James Wilkey, the new members of the investment team, both CFAs, and we are happy about them joining the team. He recognized Rose Duran, who retired after spending close to 30 years with the State. Moctar also left after close to 15 years, and he recognized Sam LaPierre, who was accepted to Yale for an MBA program. Last was Yup Kim, a senior portfolio manager, resigned for a role at CalPERS. He moved on to the investment policy that was adopted in May which directed a creation of an investment committee within the investment departments. That committee meets weekly on Thursdays, and is able to review things from a consistent lens and then make recommendations to the broader APFC investment committee that meets on Fridays. He then talked about liquidity, a bigger topic because of the POMV obligations. He stated that public equities had a difficult year and underperformed by 70 or 80 basis points. Fixed income had a very strong year; private equity was close to its target; real estate had a difficult year; and private income had a terrific year. He explained that the public equity portfolio has about a 2 percent tracking error. That means that the predicted statistical deviation from the benchmark in any given year is about 2 percent. About 100 percent of that tracking error budget is attributed to a value tilt. The positive stories have been the tactical tilt portfolio, how the active managers have performed against the benchmark. The entire negative story is of this value phenomenon. He noted the area where he listed every investment action taken in the quarter ending June 30.

REAL ESTATE UPDATE

CHAIR RICHARDS welcomed Tim Andreyka and congratulated him on the new position.

MR. FRAMPTON began by reiterating the purpose of real estate in the portfolio, and stating that it plays a unique role. It is the only asset class that earns the CPI+5 percent return in normal market conditions. He stated that in the course of the past year there was a strategic dialogue around real estate with the Board of Trustees which led to the articulated priorities and goals. He continued that there was an overall material underweight to real estate, which is difficult. He mentioned that Tim Andreyka joined the Permanent Fund about five or six years ago and brought a depth of experience from MetLife, Citibank and a few private equity real estate firms. He stated that he will be working on building out the portfolio over the next five years, which is an important area for the Fund.

MR. ANDREYKA talked about the actions taken since the last meeting in February. The first step was to get the sector allocation and also the overall real estate allocation. He went through the investments, explaining the program and the purchases. He stated that the preliminary numbers were up close to 4 percent in two months on the first investment, which outperformed the benchmark. He continued that part of this was fixed income, but the multifamily and industrial stocks that were owned were transferred to the Fund, and an additional \$200 million was put in to get up to the \$700 million. He continued with the additional investments and talked about the pacing plan. He then evaluated the concentration level issue to keep growing the portfolio. He noted that the concept of direct strategy versus fund investing will continue to be evaluated. He summarized that in this environment the strength of core real estate with a steady cash flow that gets adjusted to inflation is a fairly sensible way to achieve that CPI+5 percent. The goal is based on the core properties having less volatility, which can be achieved through open-end funds. The closed-end funds rely more on leverage and capital and are not as reliable. He continued that, in going forward, there is focus now and in the future on joint venture platforms and real estate operating companies.

CHAIR RICHARDS stated that, from his perspective, this from a year ago is night and day. He continued that the whole real estate group was floundering and the plan that was put together is well thought out and executed. He moved to the next item on the agenda, investment advisor comments, and recognized George Zinn.

INVESTOR ADVISOR COMMENTS

MR. ZINN introduced himself to the new trustees. He stated that he was available to the extent people want to follow up in other venues, not during full meetings, with questions. He continued that, in looking from the May meeting to now, his main comment was the magnitude and the alacrity with which both the fiscal and monetary sides of the government have moved and are entirely different than the last crisis. He added that, from a global pandemic perspective, the shifts that accelerated were already underway. The crisis was not the same across different industries, but were all impacted differently. He then focused more on the monetary and the fiscal policy. He summarized that the “financial repression” will be important in keeping global debt from spiraling out of control in the years ahead. He added that a long period where yields will be artificially suppressed relative to inflation and nominal growth should be expected.

CHAIR RICHARDS thanked Mr. Zinn and recognized John Skjervem.

MR. SKJERVEM stated that he was delighted to be a part of the group and appreciated the opportunity to participate. He continued that, this being his first meeting, he was primarily in listen-and-learn mode. He stated that he would like to make himself available to individual trustees at whatever comfortable schedule or medium, and he also included the staff. He began with the underperformance in the public equity portfolio attributed to value and stated that we should keep the faith. He encouraged the trustees to provide staff with anything needed to be effective in the recruiting process.

CHAIR RICHARDS thanked Mr. Skjervem and recognized Ken Frier.

MR. FRIER stated that he was happy to be present at his first meeting. He continued that he had tracked the Fund throughout his career and had great respect for the investment track record over the years, and he was delighted to be engaged going forward. He mentioned that in his observation, it is clear that the choices inside of asset classes can be as important as the choices of how much to put into these asset classes.

CHAIR RICHARDS thanked all and called break.

(Break.)

CHAIR RICHARDS stated that next on the agenda is a capital market overview. He welcomed Greg Allen and Steve Center.

CAPITAL MARKET OVERVIEW

MR. ALLEN stated that he is the CEO of Callan and had been working with the Permanent Fund for close to 30 years. He gave a quick update on Callan, stating that they continue to work remotely but are fully functional, turning out performance reports, doing manager updates. He continued that this had been an unprecedented time for growth outperforming value. Anyone with even a remote value tilt to their portfolio is in the same boat as the Permanent Fund. They have underperformed significantly. He asked Steve Center to go through the capital markets.

MR. CENTER stated that he is one of the Callan employees working remotely and would be talking about the capital markets. He briefly talked about broad capital market performance for the last quarter and then the equity markets. The US equity market performed surprisingly well over this time period. He pointed out that the nonUS equity market was still in the red. Overall, the Fed and Federal Government have moved in to do their best to backstop the US economy, and the \$2 trillion from the Cares Act seemed to have helped the economy along during this period of uncertainty and confusion caused by COVID-19. He stated that one of the areas of strength seen was in the housing market; with the low interest rates, the demand for houses seemed to be high. He continued that the current recession is about the same size as the one that impacted the US post World War II, but it is potentially still in its infancy. He moved on to a discussion on individual asset classes and then stated that the Permanent Fund has dedicated emerging market debt investments which all did very well. He talked about the real estate market and stated that this was the first quarter where there was a negative return for the broad benchmarks from NCREIF. The income remains positive across the sector, with the exception of hotels. He added that negative returns are expected within real estate for a third quarter and beyond, much of that driven by dips in income. He moved to the impact of the real estate market and talked about some of the trends being seen. The hedge fund performance did very well, rebounding a bit less than traditional 60/40 investments, but finished about the same in the year-to-date number. He discussed private equity which had a negative return during the quarter and was down about 9 percent. During that same period, the S&P was down substantially. The 2020 year-to-date number is expected to be down quite a bit. New investment activity declined 30 percent in the second quarter, but has started to pick up. He added that investors need to insure that there is adequate liquidity to meet private equity capital calls.

CHAIR RICHARDS thanked Mr. Center and adjourned for lunch.

(Lunch break.)

CHAIR RICHARDS recognized Sebastian Vadakumcherry with a risk overview.

RISK OVERVIEW

MR. VADAKUMCHERRY stated that there were three sections in the risk overview. Section 1 provided a brief explanation of Value at Risk (VaR), the key assumptions, the methodology and parameters, and illustrative examples. This section also included an introduction to risk modeling for private assets, along with a comparative analysis of risk measures for private equity. Section 2 looked at private assets to see how risk is measured, which had been a topic of conversation in past board meetings. He talked about the methodology: Is the measure reasonably accurate or is it exaggerated, and how is this compared with others. He highlighted that only volatility was being looked at, not liquidity. He continued the need to be extremely thorough in terms of total size. He added that besides all the volatility aspects and the risk

numbers from a volatility perspective, there is also the liquidity risk aspect. Volatility is used as a measure as a way of constraining how much of it the optimizer wants. The third section covered the risk appetite definition and provided the board an update of where the current portfolio stands vis-à-vis the risk appetite proposal from last December. In closing, he came back to the point of risk appetite and stated that it is important to do. The discussion is always challenging with it being difficult to anchor a risk appetite number. He added that the discussion is healthy and better if the appetite for losses can be defined. The appetite aspirations for return are always defined, but the risk side is rarely defined.

CHAIR RICHARDS thanked Mr. Vadakumcherry and moved to the market class overview, recognizing Marcus Frampton and Callan.

MARKET CLASS OVERVIEW

MR. CENTER stated that discussed in this presentation is the overall performance for the Permanent Fund, along with the asset class performance. He began with the Permanent Fund's asset allocation and looked at performance and fund structure as of the end of the second quarter. He stated that, moving forward, there would not be any public equity exposure within the fixed-income-plus asset class any longer. He then talked about Total Fund performance and compared performance relative to large endowments and foundations. He added that as long as the spending policy is in place, it is easy to build a model to help determine what an optimal asset allocation does.

MR. ALLEN stated that one big difference between the Permanent Fund and a typical healthy school endowment is that schools can turn to fundraising. Fundraising becomes harder in down markets because people get stingy when their stock prices are lower. He looked at the risk characteristics of the overall Permanent Fund. He first looked at the ten-year annualized risk return, standard deviation relative to returns. The Total Fund versus the Total Fund target has exhibited a higher return level with a lower standard deviation, which is where it needs to be, relative to the Total Fund target, a higher return. He added that over the last ten years the Permanent Fund exhibited a very low standard deviation relative to peers and on an absolute basis. Then, the Sharpe ratio takes the excess return over the risk-free rate, divides it by the standard deviation. A long-term goal for the Fund is to have a Sharpe ratio over 0.5. He continued on to the performance scorecard for the Total Fund over the last one year. He moved on to the asset class performance discussion and began with the public equity portfolio looking at its performance. He also looked at some of the drivers of performance within that public equity portfolio. The US equity portfolio includes large cap and small cap US equity strategies. The Permanent Fund US equity portfolio ended the recent quarter ahead of its benchmark but behind over the last year and compared to the peer group. He continued to the US equity portfolio's risk-adjusted returns. He compared the Permanent Fund portfolio relative to the Russell 3000 benchmark by breaking the holdings into large cap, mid cap, small cap, and value, core, and growth. Most of the fundamental benchmarks are structured in a way where they overweight small cap, they overweight value relative to growth, and overweight momentum. He then explained the large-cap equity portfolio where the majority of the underperformance from the public equity program over the last fiscal year landed. He went through the emerging markets and then to the global equity program. He stated that the global equity program includes managers that invest in the US and nonUS. The global equity portfolio outperformed its benchmark in the second quarter and has outperformed its benchmark over all time periods, showing a very strong performance both relative to peers and the benchmark.

MR. CENTER looked at the fixed-income-plus portfolio and stated that about 75 percent of this portfolio is managed internally, including allocations to cash. He went through the US Aggregate portfolio, Investment Grade Corporate portfolio, nonUS, Structured Products, and TIPS. There was a new structured products portfolio funded during this quarter. He continued that the external mandates focused on specialty areas, including fixed income, global high yield, emerging market debt. He talked about performance for fixed-income-plus and then touched on the individual portfolios within the fixed-income-

plus program. He stated that the nonUS Fixed Income Program included both internally managed assets and the externally managed portfolio and had done well relative to the benchmark.

CHAIR RICHARDS called a break.

(Break.)

CHAIR RICHARDS stated that next was the Asset Class Update, Fixed Income and recognized Jim Parise and Tom O'Day.

ASSET CLASS UPDATE, FIXED INCOME

MR. PARISE stated that he is the director of fixed income and has been with the Permanent Fund a little over 19 years. He introduced James Wilkey, a new credit analyst and an addition to the team. He continued that they are excited to expand their capabilities both in high-yield and investment-grade credit. He added that the listed infrastructure is no longer in the portfolio, but the performance is still in there. Also not in this portfolio is the newly created \$1.6 billion structured products portfolio. These are mortgage-backed securities, asset-backed securities, and commercial mortgage-backed securities. He added that it is against the Bloomberg Barclays structured product index. He mentioned that they use the Aladdin system extensively in fixed income. He stated that the total cumulative excess return was over \$500 million in excess return over the indexes managed. He went through an example of the investment decision-making process. He stated that the main philosophy is emergence of the mean, especially with the spreads. Emergence of the mean is the belief that there is a natural level for spreads for each company and the market. It is one of the overriding philosophies, and it has worked a very long time.

MR. O'DAY stated that he traded out of Masha's portfolio to hedge the FX risk; manages the cash portfolio; and also helps with the structure projects portfolio, among other things. He stated that the primary objective of the cash fund is to provide liquidity to the fund. The secondary objective is to outperform the benchmark and the money market fund which would be the alternative that is managed and the cash internally. He continued that the money market fund has an 18-basis-point expense ratio, which is why this is managed internally.

MR. SKJERVEM gave kudos to the organization for supporting the talent with the proper infrastructure in Aladdin.

TRUSTEE MAHONEY stated that they are doing a really great job.

CHAIR RICHARD moved to risk parity.

RISK PARITY

MS. MARTINEZ stated that she is responsible for the Total Fund cash and risk parity portfolios. She used a summary review of these two separate strategies, explaining that her goal was to describe their objectives, the sizing and how those investments are managed. She also reviewed some of the performance during this time period and how that compared to their benchmarks. She stated that the risk parity strategies have holdings across multiple asset classes and is benchmarked to the risk parity 12 percent volatility index. She explained that the risk parity ended the quarter with \$625 million and is managed externally by Bridgewater, BlackRock, and PanAgora. She moved to the liquidity of the Fund and stated that there are several sources of cash that come into the Fund: mineral revenues, invested income from securities, distributions from private assets, and rebalances from other asset classes. There are also obligations that include paying management fees, administrative expenses, paying accounts payable, payroll, General Fund appropriations, and obligations related to the investments. All those

factors influence where, how much, and for how long this total cash will be invested. There is the option of putting it into an internal account and the operating cash, and she discussed these characteristics. She stated that the benefits of not having this invested in securities is that 100 percent of the portfolio can be used immediately; it is completely liquid and is just cash, with no fees paid in this account. She continued that the money market funds and other options that may be out there are reviewed constantly. She moved to the several outflows and obligations, one being the transfer to the General Fund from the ERA. The schedule of that for fiscal year '21 adds up to just over \$3 billion. Two transfers were made, one at the beginning of the fiscal year and one in September, for a total of \$700 million in transfers. These payments, along with all the other obligations, make it very important for the most up-to-date information regarding available cash, coming inflows and outflows, and any other transactions that will require the use of the Total Fund cash. She moved to risk parity, which is a completely separate portfolio from the cash and is very different. She explained that traditional approaches of portfolio construction diversify capital globally and across asset classes. Risk parity strategies diversify risk globally and across asset classes. The key to risk parity is to diversify across asset classes that behave differently across economic environments.

MR. FRAMPTON stated that the risk parity managers are different from the other asset classes in that they are doing the same thing that is trying to be done on the Total Fund: managing a multi-asset class portfolio to do an expected return around 6 or 7 percent. He continued that one of the things that changed for the risk parity manager -- with rates where they are, in some cases negative yielding sovereign bonds -- is talking to them about how they are adjusting to this new environment.

MS. MARTINEZ stated that the risk parity managers had all asset classes perform positively, with global equities the best for the portfolio, and we have exposures to equities as well.

CHAIR RICHARDS thanked Ms. Martinez and adjourned the meeting.

(Alaska Permanent Fund Corporation Board of Trustees' Annual Meeting recessed at 4:50 p.m.)

September 24, 2020

CHAIR RICHARDS called the Alaska Permanent Fund Corporation Annual Meeting back in session and stated that the first item today is the Global Outlook.

GLOBAL OUTLOOK

MR. FRAMPTON introduced Fred Post and Andrew Mikolasy from Bridgewater.

MR. MIKOLASY thanked all for the invitation and for the continued strategic partnership with Bridgewater. He stated that they have been working with the APFC team for ten years, with the hope to be building on that partnership for many years to come. He continued that he has been with Bridgewater for about 16 years and is responsible for the relationship with APFC. He added that he is joined by Fred Post, a senior portfolio strategist on the research team who has been with the company for about 17 years. We were asked to share some of our views on the current environment and some of the potential implications for economies, markets, and portfolios going forward.

MR. POST stated that in terms of the pandemic, this year rapidly accelerated a transition to a new investment paradigm that is critical for investors to be prepared for. There is a massive income collapse across the world and a lot of ongoing risks as to how fast the recovery from that will emerge. He added that the traditional tools for stimulating economies have largely reached their limits. He stated that interest rates have reached their limits with rates being a zero for the second time in two decades, and priced to be there for a long time. The second form of monetary policy, quantitative easing, has also

reached its limits because of how high asset prices have been pushed up and how low spreads and yields around the world are long across curves. This environment of now near zero bond yields across the entire globe has a lot of implications. He stated that the biggest risk is not doing enough or not having agreement across governments, which is a risk. He added that it is important to be prepared, which is the reason for the diversification talk. There are a lot of unique challenges for an investor in this environment, and there are only three sources of return: One is cash, basically not investing and not taking any risk; beta is holding assets; and alpha is making bets. He moved to strategic portfolio implications. He stated that at Bridgewater the view is that nominal government bonds could provide more diversification for longer than most. Every investor needs to consider if there is any real role at this point for significant government fixed-income allocations. He continued that Bridgewater history is always looked at because there is a lot to learn from the mechanics of how different economic configurations lead to different mechanisms of stimulus or market performance or economic conditions. He added that in this world there are a lot of historic parallels that can be considered in thinking about the range of outcomes.

TRUSTEE RIEGER asked if it is Bridgewater's view that governments can just assure themselves that they can avoid stagflation, they can borrow and then spend enough to prevent that part that showed the stagflation. He continued if governments are conscious of this kind of financial repression mechanics, can inflation consciously be pushed up.

MR. POST replied that it is not assured that stagflation can be avoided. They can generate nominal GDP growth. He continued that CPI inflation is pricing in low almost everywhere in the world. Governments are largely impacted by their politics. If people are unemployed and the economies are there, it will be a great incentive to spend. The mechanism does not come from trying to generate inflation, but from not being able to tolerate weak growth.

CHAIR RICHARDS stated that was an interesting presentation.

CEO RODELL stated that Greg Peters from PGIM will present a macro outlook and add some additional color on the credit side. She asked Masha Skuratovskaya to continue.

MS. SKURATOVSKAYA stated that she is a member of the fixed-income-plus team managing global rates and overseeing the external emerging market mandates. Last year one of those managed for blended emerging market debt strategy was awarded to PGIM. She continued that this was the first engagement with the firm. She added that Gregory Peters is a managing director and head of PGIM's fixed income, multi-sector and strategy. He is a senior portfolio manager for core, long gov/credit, core plus, absolute return, and other multi-sector fixed income strategies, in addition to having oversight of the firm's investment strategy function.

MR. PETERS stated that he coined the Golden Age of Credit and walked through the thesis that belied it. He talked about how the discussion around gold has driven the investment outlook, specifically, the gold and golden age of credit. This is a rare era where corporations are actually managing to bondholders, not equity holders, which is a tremendous benefit to a credit investor. He continued that the shape of recovery depends on three factors: the virus's trajectory; the psychology of consumers, when they will feel safe; and the extent of economic scarring. The U-shape on the slide would be a gradual return to pre-virus conditions; V-shape would be that people are anxious to get back to normal with some precautions and gradual advances in testing or treatment where they feel reasonably safe; the L-shape would be the lockdowns being lifted in some places, but tightened elsewhere; and the W-shape would be the economy improving through the summer, but another wave of the virus hits in the fall with renewed lockdowns and further declines likely in 2021. He summarized that growth and inflation are expected to remain constrained, keeping interest rates low and central banks accommodative. The force of the global central

banks provide a backstop particularly for assets that are targeted by the various programs. He stated that this is a rare era where corporates will look to manage for bondholders, not equity holders.

CHAIR RICHARDS thanked Mr. Peters for a very informative and great presentation, and called for a 15-minute break.

(Break.)

INVESTMENT POLICY

CHAIR RICHARDS stated that next on the agenda is the investment policy, and recognized Marcus Frampton.

MR. FRAMPTON stated that in May a thorough updating of the investment policy was approved. The one item not approved was a concept introduced around gold. He went through some of the discussion items that should take place prior to introducing a new asset class into the mix from what has been used. He noted that a potential issue was that state-fund allocators had a bad history of timing investments into gold. It is not a very common investment for state-fund allocators to make. He added that, as of today, he was only aware of three public plans with investments in gold. He continued that gold prices are at all-time highs on nominal and real-price bases. He pointed out that from a portfolio standpoint for gold that the periods of high inflation and low economic growth that do not fit well with the objectives of the Fund are exactly the same periods that gold tends to outperform.

MR. ZINN clarified that by omission it is saying that leverage is not being done.

MR. FRAMPTON replied that unlevered, gold-backed, exchange-traded funds could be added.

CHAIR RICHARDS asked for a motion.

MOTION: A motion to adopt the policy change as presented was made by TRUSTEE MORAN; seconded by TRUSTEE RIEGER.

CHAIR RICHARDS asked for any further discussion. There being none, he asked for a roll-call vote.

After the roll-call vote, the MOTION was approved. (Trustee Schutt, yes; Trustee Rieger, yes; Trustee Moran, yes; Trustee Feige, yes; Trustee Mahoney, yes; Trustee Richards, yes).

CHAIR RICHARDS moved to the ERA discussion.

CEO RODELL stated that Val Mertz was on line to present the ERA. She continued that this presentation was in response to some questions during the work session about the earnings reserve account.

MS. MERTZ noted that there was some discussion during the Audit Committee meeting around the earnings reserve and, more specifically, what the effect is on market volatility on the balance in the ERA. She continued that the Fund was established through a constitutional amendment in 1976. That constitutional amendment stipulated that a portion of the mineral royalties would be deposited into the Permanent Fund to be used for income-producing investments and that in the absence of any other legislation that would direct the earnings; otherwise, it would go directly to the General Fund. Subsequent to that constitutional amendment, the earnings reserve was established in statute through AS

37.13.145(a). Instead of pointing out those earnings to the General Fund, it created the earnings reserve and stipulated that income be deposited into the earnings reserve. This created the two accounts that the Permanent Fund operates under today, which is unique. She added that the ERA is available for appropriation, unlike the principal, which is protected. This basically makes the ERA available to the Legislature for whatever purpose they see fit. She stated that there were three components to the earnings account: realized earnings; the amount that has been carved out to be transferred in the future; and unrealized gains. She stated that there is a low correlation between total return and the earnings reserve balance. The earnings reserve balance is more impacted by transfers. Those transfers do impact the realized earnings line and the allocation of gains. It is important to realize that market drawdowns do not impact the realized earnings line unless a conscious decision is made to realize them.

CHAIR RICHARDS thanked Ms. Mertz and broke for lunch.

(Lunch break.)

CHAIR RICHARDS called the meeting back to order and continued with the audit report.

REPORT OF ANNUAL AUDIT

MR. HAYHURST stated that he is the engagement partner from KPMG. He previously served as the concurring partner for the last four years, the quality reviewing partner. He continued that the Permanent Fund audit is an unmodified opinion, which means that the financial statements are reported in accordance with GAAP and are materially correct. He noted that provided was an emphasis-of-a-matter paragraph which indicated that the Permanent Fund does not purport to and does not present the financial position of the State of Alaska, but is there to present the financial position and results for the Permanent Fund itself. He added that the other thing in the opinion is a call-out because for government accounting standards it is required to provide a management discussion and analysis. There were no audit procedures over that performed, and we do not provide an opinion on the MD&A that is included. He stated that throughout the course of the audit no illegal acts or frauds or any other matters to bring to the attention of the Audit Committee or this board were identified. In addition, there were no significant deficiencies or material weaknesses in terms of control identified. He continued that the Permanent Fund has pretty stringent and robust processes and controls in place to work with the fund managers and the real estate managers to obtain valuation on the real estate side and fund statements on the private equity side from those funds and for the managers to be able to identify those values.

CEO RODELL stated that an action by the board to accept the audit and the annual report was needed.

MOTION: A motion to accept the audit report and the annual report was made by TRUSTEE MORAN; seconded by TRUSTEE FEIGE.

CHAIR RICHARDS asked if anyone wished to address the motion. Hearing none, he asked for a roll-call vote.

After the roll-call vote, the MOTION was approved. (Trustee Schutt, yes; Trustee Rieger, yes; Trustee Moran, yes; Trustee Feige, yes; Trustee Mahoney, yes; Trustee Richards, yes).

CHAIR RICHARDS stated that the next item on the agenda is the budget approval.

FY22 BUDGET APPROVAL

CEO RODELL stated that Sara Race will walk through the proposed budget.

MS. RACE stated that she is the administrative operations manager. She continued that the FY2022 proposed budget was broken into two allocations: the corporate operations and the investment management fees. Based on the feedback from the budget planning session, she added a scenario that included incentive compensation. She continued that the maximum distribution for incentive compensation was reduced from a little over \$2.5 million to \$890,000, reflected in the personal services portion of the total corporate operating budget.

TRUSTEE MAHONEY stated that she had a discussion with the Governor's office and was encouraged to submit the proposal for incentive compensation.

TRUSTEE SCHUTT stated that it is strategically very important for the trustees to do whatever to bulk up and support the recruitment and retention of investment talent in-house, not simply because it can provide better returns in the cash management position, but it also bulks up the expertise within the state being done by Alaska residents for Alaska residents. He fully supports the effort to make it roll into one line item, and he stated support for the motion.

MOTION: A motion that the fiscal year '22 budget appropriation as an amount not to exceed \$151,840,800 is appropriated from the Alaska Permanent Fund corporate receipts from the investment and operating costs of the Alaska Permanent Fund Corporation was made by TRUSTEE SCHUTT; seconded by TRUSTEE FEIGE.

CHAIR RICHARDS asked for any further comments. There being none, he asked for a roll-call vote.

After the roll-call vote, the MOTION was approved. (Trustee Mahoney, no; Trustee Moran, yes; Trustee Feige, yes; Trustee Schutt, yes; Trustee Rieger, yes; Trustee Richards, yes).

CHAIR RICHARDS stated that the next item is the Legislative Initiative and the Communications Plan.

LEGISLATIVE INITIATIVE, EDUCATION/COMMUNICATIONS PLAN 2020

MS. SWANSON stated that she is the communications manager for the Alaska Permanent Fund Corporation and explained that the communications program is structured to provide reliable and objective information to the Legislature, the executive branch, and the people of Alaska on matters affecting the Alaska Permanent Fund. Of the goals and objectives established in 2016, one of the primary objectives accomplished was establishing a distinctive, uniform brand. She moved to the annual report which highlighted the diversity within the team, and we have been working to be consistent about providing the values dashboard. She explained that every month when the finance team releases financial statements, we put out the principal and earnings reserve graphics on the social media posts to help Alaskans understand those pieces and recognize what values are in those accounts. She noted that the annual report was dedicated to Trustee Carl Brady this year; he is missed, and we all are grateful for his contributions over the years. She continued that time had been taken to make sure to continue educating Alaskans about the Fund structure, which is in the annual report. She added that there is a wealth of information for people to go through, and she thanked the finance team for helping proof the

annual report every year. She moved to the external communications presentation which provided a framework of how the use of the earnings from the Fund supports State services and the dividend program. The APFC is an important participant in the evolving dialogue, and it is important to have a role in that discussion. She stated that the goal is to continue to build on APFC's positive reputation and further educate Alaskans on the workings of the Alaska Permanent Fund, the Corporation, and its resources to support the sustainability and stability of the Fund. She discussed the strategies and shared the first educational video, which is a fundamental about the Permanent Fund.

CHAIR RICHARDS thanked Ms. Swanson. He continued to the charter review and recognized Mr. Poag, general counsel.

GOVERNANCE CHARTER REVIEW

MR. POAG stated that the governance charters and policies are supposed to be reviewed every three years to make sure they are current and to make sure they are applicable to the way the board actually does business. The Governance Committee met on September 2nd and discussed the existing charters and some proposed changes. Today it is recommending for the board's consideration some changes that are in the board's packet in a red-line version.

CHAIR RICHARDS asked for any other comments on the charters. There being none, he asked for a motion to adopt the charters with the changes discussed.

MOTION: A motion to adopt the changes as presented, with the exception of the amendment suggested, was made by TRUSTEE MAHONEY; seconded by TRUSTEE SCHUTT.

CHAIR RICHARDS asked for the roll-call vote.

After the roll-call vote, the MOTION was approved. (Trustee Rieger, yes; Trustee Schutt, yes; Trustee Moran, yes; Trustee Mahoney, yes; Trustee Feige, yes; Trustee Richards, yes).

CHAIR RICHARDS stated that the next item is election of officers, and he recognized Mr. Poag.

ELECTION OF CORPORATE OFFICERS

MR. POAG stated that it is required each year to elect a Chair and a Vice Chair. The Vice Chair is required by the charters to serve as the Chair of the Governance Committee.

CHAIR RICHARD stated that he had planned on running for Chair again and understood that Trustee Moran was going to run for Vice Chair.

TRUSTEE FEIGE asked, respectfully, for some discussion. She realized that Chair Richards is in the last year of his current term and it has been customary in the past that an individual in the last year of their term to not hold the gavel. She stated that Chair Richards held the gavel very

honorably and has done a terrific job over the last two years. Given that, she offered Vice Chair Moran as Chair for the coming year.

TRUSTEE FEIGE nominated the Chair to Vice Chair Moran; seconded by TRUSTEE MAHONEY.

CHAIR RICHARDS asked for any other nominations.

TRUSTEE SCHUTT nominated Trustee Richards as the Chair.

CEO RODELL stated that there are two motions.

CHAIR RICHARDS asked Mr. Moran if he would accept the nomination for Chair.

TRUSTEE MORAN stated that if the board did want to make a change, he would be honored to serve for another year. He accepted the nomination.

CHAIR RICHARDS recommended holding off voting for Vice Chair, given Mr. Moran is nominated for both. He asked that each nominee make a brief statement and then there would be a vote. He thanked Commissioner Feige for all the kind words. He stated that he enjoyed being Chair, and that it was a good couple of years. During his time as Chair he thought that a lot of progress was made on reconstituting the internship programming; the emerging manager program has gotten off the ground with great initial success. The agenda of the board meeting was reconstituted, including invigorating the investment advisory group. He continued that he would like the opportunity to continue as the Chairman, to take the role, particularly, in the lead of communications. The Chairman and the executive director are the appointed communication officers of the Permanent Fund. He stated that he is particularly well suited to fulfill that role both in terms of written advocacy, but also in his knowledge on the subject, and the ability to present to and speak with the Legislature. He also enjoyed the opportunity to put himself out there and present on behalf of the Corporation, and he would like the opportunity to continue providing that. He added that he was not sure or agreed that the Chair stepped down in the final year and is not sure that was an important concept. He understood that if it were time for new leadership he would be happy in his role as trustee.

TRUSTEE MORAN agreed with everything that Chair Richards said and is not an opposition candidate from that standpoint. He stated that he is not as focused on some of the noninvestment issues that the board faces and is more concerned on a day-to-day basis with the actual investment of the funds and the long-term success of the Permanent Fund. Since this is an appointed board, he explained that his inclination is to basically manage the Fund and focus most of the energies on that, and to let the elected officials, the executive and legislative branches, decide how the funds are spent and to make those decisions. He continued that the board of trustees and staff should be available on an information basis and to express opinions from time to time, but perhaps not as active in influencing the outcomes.

CHAIR RICHARDS thanked Trustee Moran and recalled that it is a secret ballot. He asked everyone to take a piece of paper, vote for the Chair and provide it to Jennifer.

(Voting)

MS. THORSTEINSON announced that Trustee Moran was selected as the Chair. She did a roll-call vote to affirm that selection.

MOTION: CHAIR RICHARDS made a motion to make Trustee Moran Chairman; seconded by TRUSTEE SCHUTT.

After the roll-call vote, the MOTION was approved. (Trustee Feige, yes; Trustee Moran, yes; Trustee Schutt, yes; Trustee Rieger, yes; Trustee Mahoney, yes; Trustee Richards, yes).

CHAIR RICHARDS asked for nominations for Vice Chair.

MOTION: TRUSTEE MAHONEY nominated Steve Rieger for Vice Chair; seconded by TRUSTEE FEIGE.

After the roll-call vote, the MOTION was approved. (Trustee Feige, yes; Trustee Moran, yes; Trustee Schutt, yes; Trustee Rieger, yes; Trustee Mahoney, yes; Trustee Richards, yes).

OTHER MATTERS

CHAIR RICHARDS moved to other matters and recognized CEO Rodell.

CEO RODELL stated that at the annual meeting the board will adopt a calendar for the next two years of meetings. The annual board meeting in September 2021 is conflicting and has been scheduled on the same day as the Alaska Retirement Management Board meetings. This only matters for Commissioner Mahoney because she serves on both boards and is unable to delegate her responsibilities. She proposed that the 2021 meeting be held Tuesday, September 28th and Wednesday, September 29th, allowing the board to adopt the annual report prior to the statutory deadline of September 30th. She noted that the May meeting was scheduled for Kodiak, but we had not assigned another Alaska city for '22. If the board would like to meet in another city, to let her know. The December 9th and 10th, 2020, meeting is scheduled to occur in Juneau this year; if the board would like that moved to Anchorage to let her know.

ADVISER COMMENTS

CHAIR RICHARDS recognized Mr. Zinn.

MS. THORSTEINSON stated that Mr. Zinn was afraid of the connection and has e-mailed some final comments.

CHAIR RICHARDS recognized Mr. Skjervem.

MR. SKJERVEM stated that he had been in attentive listen-and-learn mode. He realized how fortuitous that his first meeting was the annual meeting and that the agenda is more extensive than at other times during the year. He had been writing down questions which were all answered today. He appreciated the media presentation and many of the other components of the

agenda. He added that he would be happy to share whatever insights he could in support of the effort.

CHAIR RICHARDS recognized Ken Frier.

MR. FRIER stated that it was a learning experience and he appreciated the quality of the presentations and the presenters. He supported the recommendations that were presented these past few days. He continued that the Bridgewater presentation was very strong. He offered himself as a resource which can be helpful in a couple of areas. He had worked as the CIO in a lot of different environments: two corporate plans, an endowment, and a medical benefit trust. He is familiar with a lot of organizations and compensation structures for investment teams. He would be glad to be of service. He added that risk management, risk assessment has run through the background of his whole career. He is delighted to be working for the Fund and asked for feedback about engagement. He was very interested in the meeting and looked forward to working together in the future.

CHAIR RICHARDS asked if Mr. Zinn had joined online.

CEO RODELL stated that she had his comments: He thanked the staff for pulling together this hybrid meeting that succeeded in both sharing status as well as captivating his attention remotely for two days. Thank you, that took a lot of work. He congratulated Marcus and the team on the progress made in real estate, as well as the outsized fixed-income performance. He also commended staff for looking forward to the future in beginning to both educate the trustees and advisers, as well as considering positioning for what may be in store for the future. He also was excited to see how Val continued to innovate in the cash allocation going forward. He congratulated the team for staying strong in these trying times. Working remotely has its stresses, in addition to market stresses that have never been experienced or seen before.

CHAIR RICHARDS thanked Mr. Zinn for his comments.

TRUSTEE COMMENTS

CHAIR RICHARDS recognized Trustee Feige.

TRUSTEE FEIGE thanked the staff and CEO Rodell for the venue in putting on the meeting and added it worked out very well. She stated to the board members that this meeting gets different parts of her brain working to be here and doing this. She thanked Chair Richards for the last two years of his leadership. She learned a lot serving with him, and looked forward to the next year.

CHAIR RICHARDS thanked Trustee Feige and recognized Trustee Moran.

TRUSTEE MORAN seconded the thanks to the staff and added that these are hard meetings to put together in this environment. Rose Duran had been with the organization for 20 years, one of the longest-term employees, and it would be well received if the board could come up with some kind of a commendation or thank-you for her years of service.

CHAIR RICHARDS stated that it was great serving as Chair for two years, and he looked forward to Trustee Moran's leadership in the coming year. He also thanked staff not only for a good meeting, but particularly for the good comments and good content. The communication plan was extremely well put together, and everyone that did a presentation did a good job. So, good agenda and good job.

TRUSTEE RIEGER thanked staff for a very well organized meeting, and he was impressed how it came together. He commented that throughout a lot of the presentations the topic of rising inflation kept coming up. He would appreciate a lot of thought given between now and the next meeting, and if staff thinks it would be appropriate to have a plan for how the Fund is positioned in case of rising inflation, how the Fund stands and what should be done if that kind of outcome comes to pass.

TRUSTEE MAHONEY thanked staff for putting together such fantastic presentations. One of her takeaways is that we are being asked about our appetite for risk. She stated that she did not really understand a lot of the technical aspects but would like to learn about it and understand in a manner to be able to correlate the risk better to the decision-making to returns, as well as how much money is at risk. She continued that she would be interested in a work session on that topic. She was super impressed with the fixed-income portfolio results, the cash management results and gave kudos to that team for providing good management attribution. She thanked Chair Richards for doing a great job and added that she learned a lot and hoped to continue learning from him.

TRUSTEE SCHUTT stated, as to his first meeting with this board, that he felt privileged to serve and appreciated the opportunity. He echoed the sentiments around the room and looked forward to continuing working with Chair Richards. He stated appreciation for all the preparation and materials that went into the presentations. The staff clearly understands its job and does it very well. He observed that, in preparation for this meeting and through the two days he struggled with the two competing fiduciary responsibilities of protecting the corpus and then investing to produce yield that can fund the State Government as well as Permanent Fund Dividends. In looking at the presentations and the observations of the expert advisory panel, there are warning flags flying across almost every asset class that was invested. The trustees and staff have their work cut out for them with the volatility and the potential political uncertainty regarding the national government. Whatever happens, we will all work diligently toward the best outcome that can be figured out. He thanked all again for the preparation for this meeting.

CHAIR RICHARDS asked for any other comments. There being none, he adjourned the meeting.

(Alaska Permanent Fund Corporation Board of Trustees' annual meeting adjourned at 3:20 p.m.)

ALASKA PERMANENT FUND CORPORATION

BOARD OF TRUSTEES RISK WORKSHOP

**November 5, 2020
8:30 a.m.
Juneau/Teleconference**

SUMMARY MINUTES

Trustees Present:

William G. Moran, Chair
Steve Rieger, Vice Chair
Craig Richards
Corri Feige
Lucinda Mahoney

Investment Advisors Present:

George Zinn
Ken Frier
John Skjervem

Staff Present:

Angela Rodell, CEO	Chris LaVallee
Valeria Mertz	Catherine Hatch
Paulyn Swanson	Ross Alexander
Sebastian Vadakumcherry	Steve Mosely
Jennifer Thorsteinson	Valeria Buschfort
Larissa Murray	Alex Smith
Jon Strickler	Masha Skuratovskaya
Rachel Price	Keira Kelly
Tom O'Day	James Wilkey
Katherine Smith	Mason Kullander
Sarah Clark	Danielle Graham
Chris Poag	Sara Race
Norix Mangual	Scott Balovich
Eric Verrelli	Brian Tyler
Alexa Adelmeyer	Joe Shinn
Julia Mesdag	Logan Rahn
Jacki Mallinger	Valeria Martinez
Chad Brown	

Others Present:

Greg Allen, Callan Associates
Steve Center, Callan Associates
Connor Owen
Blake Phillips
Rachell Mendez

PROCEEDINGS

CALL TO ORDER

CHAIR MORAN called the meeting to order

SCHEDULED APPEARANCES AND PUBLIC PARTICIPATION

CHAIR MORAN asked if there was anyone on-line that would like to address the board. Hearing none, CEO RODELL introduced SEBASTIAN VADAKUMCHERRY, Chief Risk & Compliance Officer.

RISK PRESENTATION

VADAKUMCHERRY presented on 6 key topics of Risk Management

1. Goal of Risk Management
2. APFC: Evolution & Transformation
3. Investment Objectives: Risk & Return
4. Risk Appetite
5. Private Equity Risk Management
6. Non-Investment/Operational Risks

Break from 9:50-10:00 a.m.

Risk presentation resumed.

TRUSTEES, CEO RODELL, INVESTMENT ADVISORS, GREG ALLEN, and MARCUS FRAMPTON asked questions, shared comments, and discussed the topics throughout the presentation. No actions were taken.

The meeting was adjourned at 11:15 am.

SUBJECT: Pending Board Matters

ACTION:

DATE: December 9, 2020

INFORMATION: X

BY	TASK	CAPTURED	TARGET	COMPLETED
Rodell / Brown	Anchorage Office Plan	12/19	09/20	09/20
Swanson	Communications Plan	9/20	12/20	09/20
Rodell / Brown	Flexible Work Remote Policy	9/20	12/20	12/20
Rodell / Brown	Personnel Management Policy Review and Adoption	9/20	12/20	12/20
Rodell / Balovich	Cybersecurity Review	9/20	12/20	12/20

SUBJECT: Trustee Education

ACTION: _____

DATE: December 9, 2020

INFORMATION: _____ X _____

BACKGROUND:

The Board of Trustees of the APFC has established a Trustee Education Policy with the following objectives:

- To ensure that the members of the Board have access to the knowledge and information necessary for them to fulfill their fiduciary duties as trustees of the Alaska Permanent Fund; and
- To assist them in becoming well informed in all matters pertaining generally to the management of a large institutional fund, both public and private, and more specifically to the management and investments of the APFC.

In accordance with the Trustee Education Policy, the following is a list of conferences and seminars that Trustees may wish to attend.

TRAINING OPPORTUNITY	TOPIC	LOCATION	DATES
Callan	Capital Market Assumptions	Webinar	January 14, 2021
	Market Intelligence Special Addition	Webinar	January 22, 2021
	Callan College: Intro to Investments	Virtual San Francisco, CA Chicago, IL	April 13-15, 2021 July 13-15, 2021 Oct. 5-7, 2021
	2021 National Conference	San Francisco	June 21-23, 2021
Pacific Pensions & Investments	Winter Roundtable	Virtual	February 16-18, 2021
	Summer Roundtable	Vancouver, BC	July 14-16, 2021
	Asia Pacific Roundtable	Tokyo, Japan	October 27-29, 2021

Memo

To: Steve Rieger, Chair
Governance Committee

Through: Angela Rodell Executive
Director

From: Chad Brown
HR Manager

Date: December 9, 2020

Re: APFC Financial Disclosures

As required by AS 37.13.110(b) and Alaska Permanent Fund Corporation policy relating to personal investments conduct and reporting, trustees and staff must disclose certain financial interests. Below is a list of disclosures for transactions made by trustees and staff, covering a period of July 1st – September 30th, 2020.

July 2020			
Name	Position Title	Disclosure Type	Received
Christopher LaValle	Senior Portfolio Accountant II	Individual Transaction	9/1/2020
Norix Mangual-Arbelo	Portfolio Accountant	Individual Transaction	8/11/2020
Alexander Smith	Investment Operations Analyst	Individual Transaction	9/8/2020
Jonathan Strickler	Portfolio Accountant	Initial Disclosure	7/21/2020

August 2020			
Name	Position Title	Disclosure Type	Received
Alexa Adelmeyer	Administrative Specialist	Initial Disclosure	8/3/2020
Sarah Clark	Risk Officer	Initial Disclosure	8/31/2020
Keira Kelly	Portfolio Accountant	Initial Disclosure	8/4/2020
Christopher LaValle	Senior Portfolio Accountant II	Individual Transaction	9/14/2020
Norix Mangual-Arbelo	Portfolio Accountant	Individual Transaction	10/1/2020
Angela Rodell	Chief Executive Officer	Individual Transaction	9/5/2020
Alexander Smith	Investment Operations Analyst	Individual Transaction	9/8/2020
Tyler Brian	Real Estate Asset Manager	Initial Disclosure	9/13/2020
Steve Rieger	Board of Trustee	Individual Transaction	9/9/2020

September 2020			
Name	Position Title	Disclosure Type	Received
Rachel Price	Investment Analyst	Individual Transaction	10/5/2020

Logan Rahn	Private Markets Associate	Individual Transaction	10/2/2020
Fawad Razzaque	Director of Public Equities	Individual Transaction	10/9/2020
Angela Rodell	Chief Executive Officer	Individual Transaction	10/5/2020
Lucinda Mahoney	Board of Trustee	Individual Transaction	10/2/2020
Eric Verrelli	Procurement Specialist	Initial Disclosure	10/7/2020
James Wilkey	Credit Analyst	Initial Disclosure	10/7/2020
Steve Rieger	Board of Trustee	Individual Transaction	10/2/2020
Christopher LaValle	Senior Portfolio Accountant II	Individual Transaction	11/12/2020

All disclosures have been reviewed by the Executive Director or me, in our capacity as compliance officers. All disclosures were in compliance with policy requirements. Disclosures will be filed in the appropriate personnel file and copies will be placed behind the corporate minutes of the next meeting.

If you have any questions, please call me at 796-1541.



ALASKA PERMANENT
FUND CORPORATION

	EMPLOYEE	DEPT	TRAINING TYPE*	VENDOR	COURSE TITLE	CLASS HOURS	CITY	ST
1	Chad Brown	HR	Virtual	Predictive Index	Advanced PI Training	1	Juneau	AK
2	Keira Kelly	FIN	Virtual	Dimensional	Summer Learning Series	6	Juneau	AK
3	Rachel Price	INV	Virtual	Dimensional	Summer Learning Series	6	Juneau	AK
4	Catherine Hatch	INV	Virtual	Dimensional	Summer Learning Series	6	Juneau	AK
5	John Strickler	FIN	Virtual	Dimensional	Summer Learning Series	6	Juneau	AK
6	Pauly Swanson	EX	Virtual	PRSA	Leadership Communication Certificate Prgm	9	Juneau	AK
7	Chad Brown	HR	Virtual	World At Work	Recognition & Best Practices	1	Juneau	AK
8	Norix Mangual	FIN	OL	CAIA	Fundamentals of Alternative Investments	5 Hours	Online	AK
9	Catherine Hatch	INV	Virtual	ILPA	Private Equity 101	20.0	Juneau	AK
10	Chad Brown	HR	Virtual	LIL	Unconscious Bias	1.0	Juneau	AK
11	Danielle Graham	HR	Virtual	LIL	Unconscious Bias	1.0	Juneau	AK
12	Chad Brown	HR	Virtual	LIL	Confronting Bias: Thriving Across Our Differences	1.0	Juneau	AK
13	Danielle Graham	HR	Virtual	BambooHR	HR Virtual Summit	8.0	Juneau	AK
14	Valerie Mertz	FIN	OL	Sequoia CPE	Internal Controls	12.0	Juneau	AK
15	Masha Skuratovskaya	INV	CS	Pension Bridge	Annual Conference	8.0	Virtual	AK
16	Masha Skuratovskaya	INV	CS	Citi	Sustainability, ESG and Alpha	6.0	Virtual	AK
17	Masha Skuratovskaya	INV	CS	Credit Suisse	2020 Global Women's Financial Forum	6.0	Virtual	AK

CS - Conferences & Seminars
 LT - Local Training
 OTT - Out of Town Training
 OL - Online

Memo

To: Board of Trustees

From: Angela Rodell
Chief Executive Officer

Date: December 9, 2020

Re: Travel, Training, and Diligence Summary Report

Background:

This report includes APFC staff completed travel for the period July 1 – September 30, 2020. The travel report is presented to the Board of Trustees for review at each board meeting as required by APFC Resolution 04-10.

Due Diligence Summary:

Department	Number of Meetings Held	
	In Person	Telephonically
Executives	0	43
Fixed Income	0	13
Public Equity	0	40
Infrastructure & Private Credit	1	173
Real Estate	1	135
Private Equity	0	357
Asset Allocation	0	18

Travel Summary:

Budget-to-Actual Report: July 1, 2020 through September 30, 2020

*The following can be found in full in the Section 07: FY21 Budget

CORPORATE OPERATIONS	BOARD-AUTHORIZED BUDGET	EXPENDITURES	BUDGET REMAINING
Travel	\$699,999.65	\$11,445.23	688,554.42
Staff	\$482,999.65	-\$456.49	\$483,456.14
Trustees	\$22,000	\$0	\$22,000
Moving/Non-Employee	\$195,000	\$11,901.72	183,098.28

TRAVELER	PURPOSE	DATES OF TRAVEL		LOCATION
Rodell	Training – Trustee Orientation	07/28/20	07/29/20	Anchorage, AK
Hallquist	Candidate Interview	07/30/20	08/02/20	Juneau, AK
Tyler	Candidate Interview	08/01/20	08/04/20	Juneau, AK
Tyler	Employee Relocation	08/26/20		Juneau, AK

Rodell	APFC Board Meeting/Audit Committee	09/01/20	09/03/20	Anchorage, AK
Moran	APFC Board Meeting/Audit Committee	09/01/20	09/03/20	Anchorage, AK
Murray	APFC Board Meeting/Audit Committee	09/01/20	09/03/20	Anchorage, AK
Swanson	APFC Board Meeting/Audit Committee	09/01/20	09/03/20	Anchorage, AK
Wilkey	Employee Relocation	09/12/20		Juneau, AK
Rodell	APFC BOT Annual Meeting	09/12/20	09/25/20	Anchorage, AK
Andreyka	APFC BOT Annual Meeting	09/22/20	09/24/20	Anchorage, AK
Swanson	APFC BOT Annual Meeting	09/22/20	09/25/20	Anchorage, AK
Thorsteinson	APFC BOT Annual Meeting	09/22/20	09/25/20	Anchorage, AK
Murray	APFC BOT Annual Meeting	09/22/20	09/25/20	Anchorage, AK
Moseley	APFC BOT Annual Meeting	09/22/20	09/24/20	Anchorage, AK
Moran	APFC BOT Annual Meeting	09/22/20	09/25/20	Anchorage, AK

Memo

To: Board of Trustees

From: Chad A. Brown
Human Resources Manager

Date: December 9, 2020

Re: Human Resources – Q1 FY 2021 Summary

HR Philosophy

It is the philosophy of the HR Team to closely partner with our managers to assist in developing a culture where people enjoy coming to work, and provide a robust selection hiring process that allows potential hires to see what makes us a remarkable place to work while elegantly acknowledging the challenges we face and to ensure the corporation is protected from potential litigation. The HR team meets regularly with all managers to ensure their needs are being met and we are providing the level of support they expect.

Recognition & Successes

During FY Q1 we had 4 people relocate to Juneau to be part of the APFC team. IN the midst of a worldwide pandemic they uprooted their lives and made a huge leap to come to Juneau. We're incredibly excited they brought their knowledge, experience, Integrity, Stewardship and Passion to our organization.

Chad Brown Human Resources Manager was asked to participate in the BambooHR virtual HR (attended by over 20k people) conference to discuss leveraging technology to enhance processes, and remove barriers that can impede efforts to build culture and enhance diversity.

Chad Brown is currently finalizing his article for Forbes tentatively titled 'Counterfeit Values' and was recently quoted on Forbes as an Expert Panelist.

Challenges

Due to travel restrictions, testing timeframes, quarantine/strict social distancing requirements it has been challenging to keep things moving forward with recruiting. This being said I wanted to be sure to compliment all of our hiring teams who have been flexible and creative to meet with potential hires.

APFC continues to fight an uphill battle regarding compensation particularly for our investment staff. Compensation consistently rates at the top of the employee satisfaction surveys as a reason people would not recommend APFC as a place to work. We are currently working with our compensation consultant to get the most updated 2020 data to update our Pay Band Classifications in our PMP – Employee Handbook.

Impacts of COVID-19

- COVID continues to be front and center at APFC and while we've had tremendous success working virtually we have also seen the importance of coming together in person to maintain our culture, and connectedness. This has been particularly difficult on our amazing new hires who just don't have the level of interaction of the past.

NEW MEMBERS OF THE APFC TEAM IN Q1 FY 2021			
NAME	JOB TITLE	DIVISION	DEPARTMENT
Keira Kelly	Portfolio Accountant	Finance	Accounting
Jon Strickler	Portfolio Accountant	Finance	Accounting
Alexa Adelmeyer	Administrative Specialist	Operations	Administration
Julia Mesdag	Administrative Specialist	Operations	Administration
Eric Verrelli	Procurement Officer	Operations	Administration
James Wilkey	Credit analyst	Investments	Fixed Income
Brian Tyler	Asset Manager	Investments	Real Estate
Sara Clark	Risk Officer	Risk & Compliance	Risk

HEADCOUNT & VACANCIES AS OF 9/30/2020		
CURRENT COUNT BY DIVISION	FILLED FTE	VACANT FTE
Executive	3	0
Investments	20	6
Finance	9	2
Operations**	13	4
Risk & Compliance	3	0
	48	12

*Statistics do not include summer interns

**Includes 2 Part Time FTE

CURRENT VACANT FULL TIME POSITIONS (10) AS OF 11/3/2020		
TITLE	DIVISION	DEPARTMENT
Investment Officer – Senior PM Real Estate	Investments	Real Estate
Investment Officer – Senior PM Alternatives / PE	Investments	Alternatives / Private Equity
Investment Officer – Senior PM Alternatives / PE	Investments	Alternatives / Private Equity
Investment Officer – PM Public Equities	Investments	Public Equities
Investment Associate – Alternatives / PE	Investments	Alternatives / Private Equity
Investment Associate – Public Equities	Investments	Alternatives / Private Equity
Investment Operations – Analyst	Finance	Trade Operations

Accountant	Finance	Accounting (Seagren)
Business/Data Analyst	Operations	IT (New)
COO	Operations	Executive (Mason)

CURRENT VACANT PART TIME POSITIONS (2) AS OF 11/3/2020		
TITLE	DIVISION	DEPARTMENT
Admin Specialist / Receptionist – Part Time	Operations	Operations (Fischer)
Admin Specialist / Receptionist – Part Time	Operations	Operations (Birch)

SUBJECT: Communications

ACTION:

DATE: December 9, 2020

INFORMATION: X

Presentations – Discussions – Speaking Engagements - Interviews

Angela Rodell, Chief Executive Officer (AR)

October 2020

- AR – Presentation: Juneau Chamber of Commerce

November 2020

- Trustee Richards – Presentation: Institute of the North Series
- AR – Presentation: Sitka Rotary Club
- AR – Participant: The Economist, Greenwich Forum Fireside Chat
- AR – Participant: MIT Investment Series Fireside Chat

December 2020

- AR – Presentation: Greater Fairbanks Chamber of Commerce
- AR – Presentation: Anchorage Chamber of Commerce
- AR – Participant: PEI, Women in Infrastructure NY Virtual Forum, Keynote Institutional Investor's Roundtable

Communications

APFC provides reliable and objective information to the Legislature, the Executive Branch, Alaskan stakeholders, and our global audience about the Alaska Permanent Fund. Our goal is to educate Alaskans and other interested parties on the Fund's workings and APFC's stewardship role to prudently invest and manage this financial resource to benefit Alaskans both today and in the future.

Current Projects

APFC's communications projects are developed to meet our communications plan's goals, deliver on comprehensive education objectives, and meet statutory obligations.

- **An Alaskan's Guide to the Permanent Fund**

Complete. The 2020 edition is now available on our website, and print copies are also available. We are pleased to [publish this guide](#) that explains in universal terminology the basics of Alaska's Permanent Fund, its history, how the Alaska Permanent Fund Corporation manages and invests the Fund's assets, and the Fund's essential role in Alaska's future.

- **apfc.org – Education Page**

Complete. To bolster our education efforts, we have redesigned our website's homepage to include an education section and improved the education page with enhanced content and resources: History, Fund Structure, Fund Management, In The Classroom, An Alaskan's Guide to the Fund. This new content structure provides many information levels – for a quick view or more significant analysis – pick the topic and relevant resources are available, including navigation to other website areas.

- **APFC Educational Videos**

Complete and Ongoing. We are pleased to have developed and released digital mini-video assets to boost learning opportunities about the Fund and APFC. These videos are on our website's education page and have also been distributed through social media. Three are complete: *What is the Permanent Fund?* / *How does it make money for AK?* / *How is the Permanent Fund Structured?* / and the final one is in the works: *What is the Alaska Permanent Fund Corporation?*.

- **Fund At A Glance**

On Deck. The newspaper insert is undergoing a renovation – our goals are to reach our Alaskan audience and fulfill our disclosure requirement effectively. Given the evolution in online readership, we are developing an e-asset publication, along with an education campaign that will utilize e-ads and a small print run. During this changeover, Alaskans shouldn't be 'missing' the insert – but instead, be engaged with our education campaign complete with interactive, linked materials. This new approach is designed to provide better information delivery, improved analytics, and resource efficiency. The project is targeted for completion in early January.

- **Enhancing APFC's Digital Communications and Social Media Presence**

Ongoing. Social media allows us to advance APFC's goals and objectives in educating our stakeholders about the Fund and APFC. Facebook and LinkedIn are the two social media platforms that APFC currently utilizes. The highest reach and engagement levels are amongst the posts featuring monthly Fund values, historical notes, new video assets, and team members. APFC's website also provides a wealth of information, resources, and opportunity to share the work we do with fellow Alaskans and our global audience. From January – September 2020, the top five page views are the Home Page, the Board of Trustees Meeting Page, Fund News, Report Archive, and Our Performance.

- **Crisis Communications Planning**

On Deck and Ongoing. A significant amount of work has been done, and some remains to be done to develop a matrix of potential crisis scenarios. This crisis plan will provide our APFC team with an established process/plan in the event of a crisis and be part of APFC's business continuity and disaster recovery plan.

- **5 Year Strategic Communications Plan**

On Deck. Our current plan was established in 2016, and work will commence in the new year to engage in a planning process for the next five years.

Legislative Initiatives – 32nd Alaska State Legislature**■ Education**

As a public corporation, APFC strives to communicate factual information about Fund values, corporate operations, and investments - timely, openly, accurately, and as a respected, non-partisan resource. The Alaska Permanent Fund, specifically the Percent of Market draw from the Earnings Reserve Account to support state services and the dividend program, is a topic of debate. Stakeholder education is essential for informed policy discussions.

APFC's Legislative program will focus on -

- Constitutional and Statutory Mandates
- APFC's Stewardship and Prudent Investment of Financial Assets
- APFC's FY22 Operating Budget Request for Resources
- Fund Structure, Values, and Performance
- Available Education Resources
 - Board Resolutions and Trustee Papers
 - Financial and Performance Reports
 - Website and Publications

Outreach will include -

- Meetings with Legislators and Staff – commencing in December
- Scheduled Presentations to Legislative Committees – January
- E-Letter/Tool Kit with links to available education resources

SUBJECT: FY21 Year-to-Date Financial Update ACTION: _____

DATE: December 9, 2020 INFORMATION: X

KEY TAKEAWAYS:

- Total return for the first quarter of FY21 of 5.26%, another strong quarter mostly fueled by private and public equity returns
- Accounting net income year-to-date of \$2.8 billion, well ahead of the median forecast for the year of \$4.0 billion
- Realized (statutory) net income year-to-date of \$1.0 billion
- Assets under management as of September 30th of \$65.1 billion, basically flat from the \$65.3 billion at the end of the prior year
- \$700 million transferred to the General Fund during the first quarter in accordance with SB26; \$300 million in August and \$400 million in September
- \$50 million of mineral deposits transferred in during the quarter ended September 30th
- Committed Earnings Reserve balance of \$3.1 billion for FY22 General Fund transfers (\$3.069 billion) and the transfer to ACIF (\$6.8 million)

Financial results for the first quarter of FY21 reflect continued strong performance in the public equity markets following the drawdown in the prior fiscal year due to the COVID-19 pandemic. Overall, the fund recorded unrealized gains of \$1.8 billion between the end of June and the end of September. The largest gains by far were experienced in the public equity portfolio which recovered more than \$1.3 billion in value during the quarter. More modest gains were found in the private equity and absolute return portfolios.

Net assets decreased by \$197 million year-to-date through September. This is a result of net income of \$2,845 million and \$50 million received in mineral royalty deposits offset by the FY21 POMV transfer to the State of Alaska General Fund in the amount of \$3,092 million. Corporate operating expenses and other appropriations for the first quarter totaled \$33 million.

Two transfers to the General Fund were made during the first quarter of FY21 totaling \$700 million. Staff is in communication with the cash managers at the Department of Revenue to ensure that amounts designated for the General Fund remain invested in the Fund as long as possible, while being available to meet the liquidity needs of the State.



Financial Report
September 30, 2020

Fiscal Year 2021 Net Assets

Balances through September 30, 2020

(in millions)

Total assets	\$	69,741.4
Less liabilities		(4,635.9)
Net assets		<u>65,105.5</u>
Fund Balances:		
Non-spendable		
Permanent Fund corpus—contributions and appropriations		46,668.8
Not in spendable form—unrealized appreciation on invested assets		<u>7,489.4</u>
Total non-spendable fund balance		54,158.2
Committed		
General Fund Commitment		3,069.3
Current FY AK Capital Income Fund		<u>6.8</u>
Committed fund balance		3,076.1
Assigned for future appropriations		
Realized earnings		6,357.3
Unrealized appreciation on invested assets		<u>1,513.9</u>
Total assigned fund balance		7,871.2
Total fund balances	\$	<u>65,105.5</u>

Fiscal Year 2021 Income

For the three months ending September 30, 2020 (in millions)

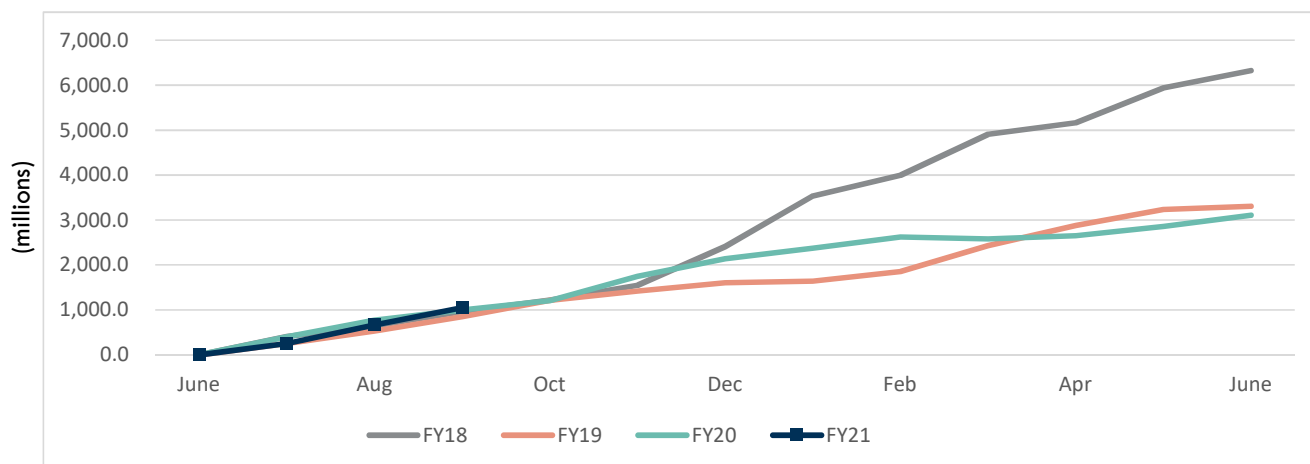
Statutory (Realized) Net Income

Interest, dividends, real estate, and other income	\$	298.4
Realized gains on the sale of invested assets		789.5
Less operating expenses/legislative appropriations		(32.8)
Less Alaska Capital Income Fund committed realized earnings		<u>(6.8)</u>
Statutory net income		<u>1,048.3</u>

GAAP (Accounting) Net Income

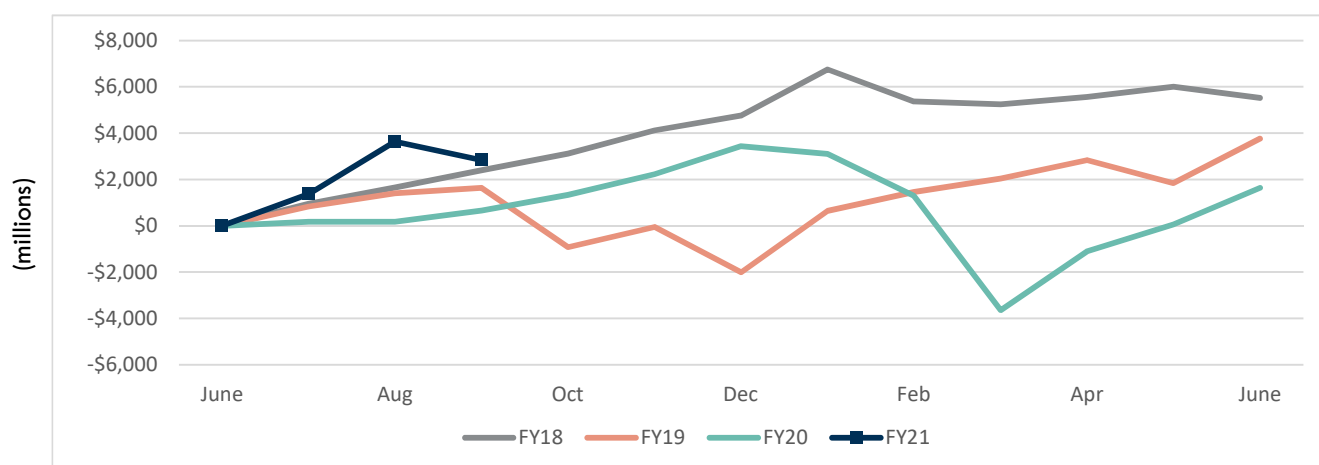
Statutory net income		1,048.3
Unrealized gain on invested assets		1,789.7
Alaska Capital Income Fund committed realized earnings		<u>6.8</u>
Accounting net income	\$	<u>2,844.8</u>

Statutory Net Income, Fiscal Years 2018 - 2021



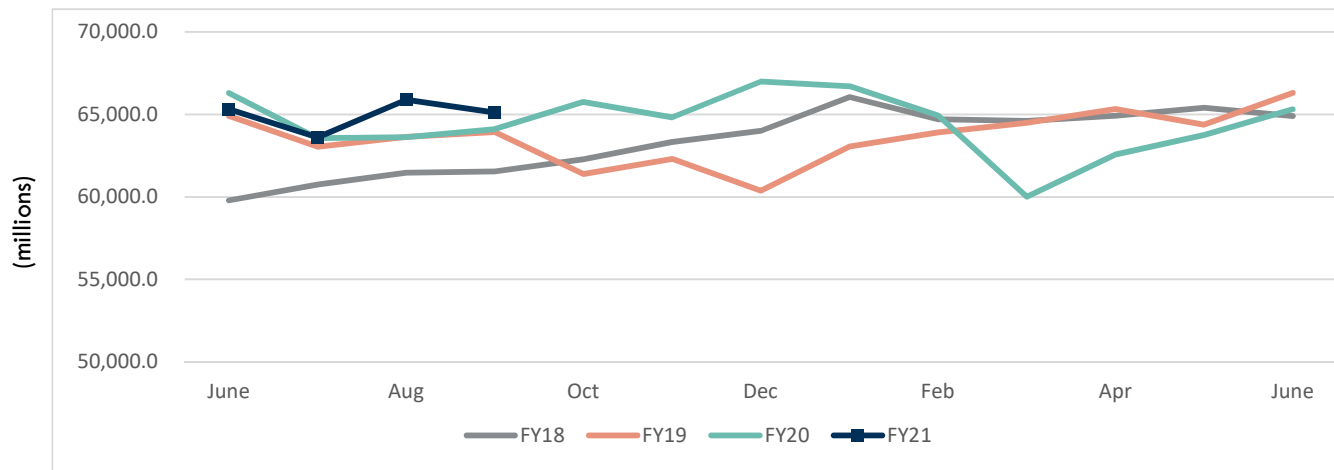
- Comprised of receipts from interest on fixed income, real estate rentals, stock dividends, and all realized gains and losses on the sales of invested assets, less AK Capital Income Fund committed amounts and operating expenses.
- FY18 statutory net income was \$6,324.4 million.
- FY19 statutory net income was \$3,305.1 million.
- FY20 statutory net income was \$3,106.0 million.
- FY21 statutory net income through September 30th was \$1,048.3 million.

GAAP Accounting Net Income (Loss), Fiscal Years 2018 - 2021



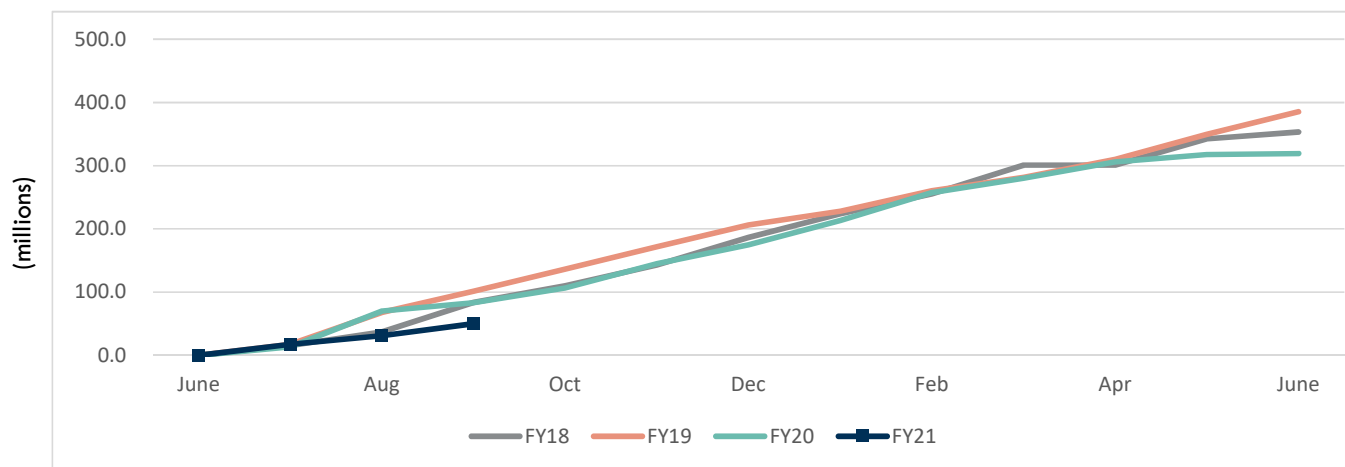
- Accounting net income is the same as statutory net income, except it includes unrealized gains and losses.
- Accounting net income for FY18 was \$5,525.5 million.
- Accounting net income for FY19 was \$3,765.8 million.
- Accounting net income for FY20 was \$1,636.5 million.
- Accounting net income for FY21 through September 30th was \$2,844.8 million.

Market Value of Fund Net Assets, Fiscal Years 2018 - 2021



- FY18 net assets as of June 2018 were \$64.9 billion, an increase of \$5.1 billion over the FY17 ending balance.
- FY19 net assets as of June 2019 were \$66.3 billion, an increase of \$1.4 billion over the FY18 ending balance.
- FY20 net assets as of June 2020 were \$65.3 billion, a decrease of \$1.0 billion from the FY19 ending balance.
- FY21 net assets as of September 30th were \$65.1 billion, a decrease of \$0.2 billion from the FY20 ending balance.

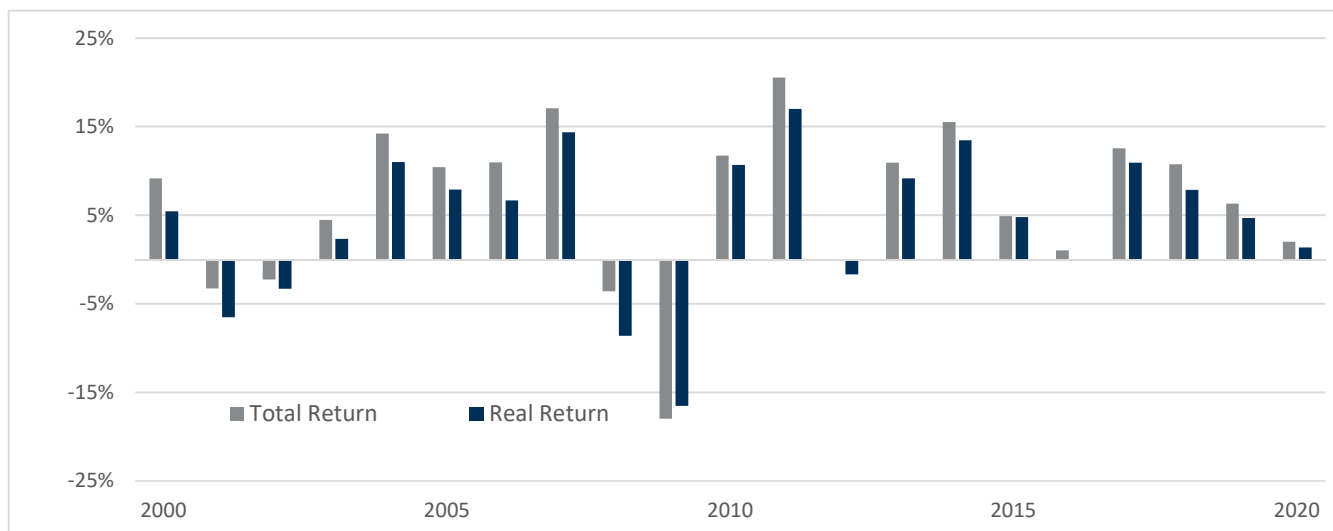
Dedicated Mineral Revenues, Fiscal Years 2018 - 2021



- FY18 mineral revenue was \$353.1 million.
- FY19 mineral revenue was \$385.2 million.
- FY20 mineral revenue was \$319.0 million.
- FY21 mineral revenue as of September 30th was \$50 million.

Alaska Permanent Fund Historical Returns, Fiscal Years 2000 - 2020

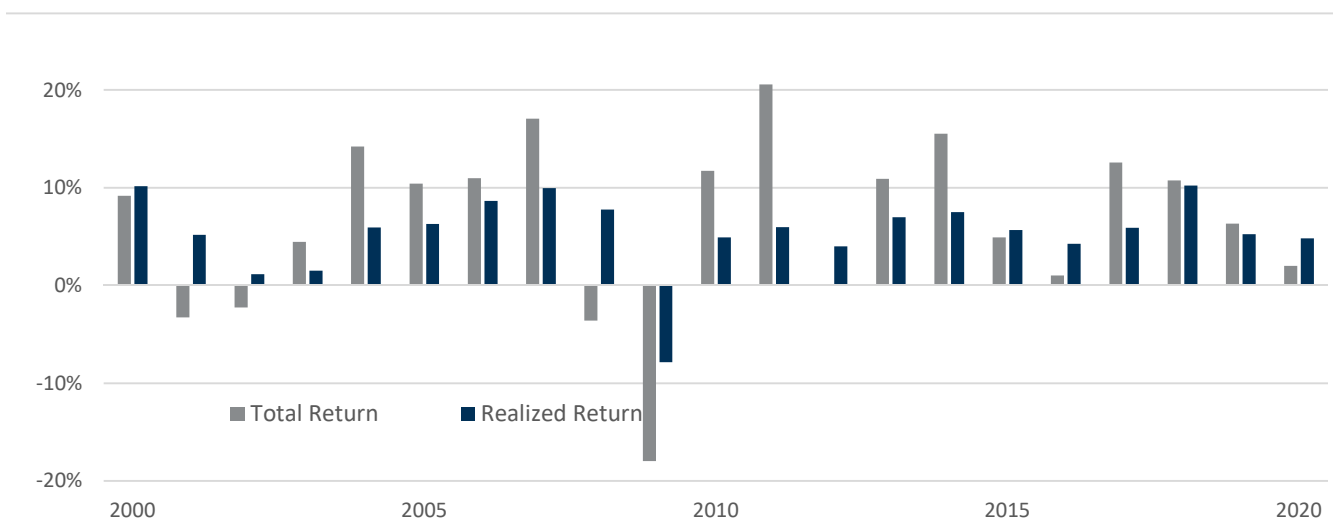
Total return minus inflation equals real return



- Total return annualized over 36 years is 8.68%
- Real return annualized over 36 years is 6.14%

Alaska Permanent Fund Historical Returns, Fiscal Year 2000 - 2020

Total return minus unrealized gains/losses equals realized return



- Total return annualized over 36 years is 8.68%
- Realized return annualized over 36 years is 7.43%



ALASKA PERMANENT
FUND CORPORATION

Board of Trustees - APFC Transfers - July 1 to September 30, 2020

<u>Type of Transfer</u>	<u>July</u>	<u>August</u>	<u>September</u>
Public Equities	443,253	(601,201,152)	(1,208,407)
Fixed Income	(82,334)	299,086,297	(18,905,646)
Private Equity & Special Opportunities	52,190,529	(49,432,354)	(36,681,416)
Real Estate	10,098,712	(1,179,529)	(5,144,789)
Infrastructure & Private Income	(926,146,132)	(33,352,662)	55,895,798
Absolute Return	149,282,975	(945,027)	889,051
Risk Parity	-	-	200,000,000
Total Fund Cash	690,557,491	97,732,268	(601,425,793)
Net Transfers	(23,655,506)	(289,292,160)	(406,581,202)

Board of Trustees - APFC Transfers - July 2020

Description	Total Fund Cash	Public Equities	Fixed Income	Pvt. Equity & Spec. Opps.	Real Estate	Infr. & Pvt. Income	Absolute Return	Risk Parity	Net
State of Alaska & Administrative									
Mineral revenue	11,109,093								11,109,093
AIM STIF interest	27,693								27,693
Commission recapture proceeds	39,690								39,690
Securities Lending income	31,460								31,460
FY20 ACIF Earnings	(20,492,440)								(20,492,440)
Corporate expenses	(14,371,001)								(14,371,001)
Public Equities									
Tactical Tilts	(159,173,105)	159,173,105							-
APF TAC TILTS CASH	157,473,105	(157,473,105)							-
Lee Munder - EM	793	(793)							-
Public EQ Sec Lend	1,255,954	(1,255,954)							-
Fixed Income									
APF - Aggregate	(761)		761						-
APF - Domestic Structured	(12,499,239)		12,499,239						-
APF Global Fixed Income Cash	2,300,000		(2,300,000)						-
APF Global Fixed Income	(2,332,040)		2,332,040						-
APF China Bond Market	32,040		(32,040)						-
APF TBA Collateral	(3)		3						-
Fixed Income Sec Lending	12,582,337		(12,582,337)						-
Private Equity & Special Opportunities									
Private Equity distributions	31,541,529			(31,541,529)					-
Private Equity capital calls	(76,173,937)			76,173,937					-
Special Opportunities distributions	23,745,876			(23,745,876)					-
Special Opportunities capital calls	(31,303,996)			31,303,996					-
Real Estate									
Direct Real Estate distributions	6,131,291				(6,131,291)				-
Direct Real Estate capital calls	(4,457,588)				4,457,588				-
Real Estate Coinvestment capital call	(11,772,415)				11,772,415				-
Infrastructure, Private Credit & Private Income									
Infrastructure distributions	530,604,582					(530,604,582)			-
Infrastructure capital calls	(50,230,252)					50,230,252			-
Private Credit distributions	57,775,785					(57,775,785)			-
Private Income distributions	115,676,697					(115,676,697)			-
Private Income capital calls	(14,212,500)					14,212,500			-
SSGA Listed Infrastructure	8,140,301					(8,140,301)			-
Cohen & Steers Listed Infrastructure	265,835,011					(265,835,011)			-
SSGA REITs	12,308,307					(12,308,307)			-
AEW Global RE securities	248,201					(248,201)			-
Absolute Return									
Absolute Return distributions	717,029						(717,029)		-
Absolute Return capital calls	(150,000,004)						150,000,004		-
Net Transfers	690,557,491	443,253	(82,334)	52,190,529	10,098,712	(926,146,132)	149,282,975	-	(23,655,506)

Board of Trustees - APFC Transfers - August 2020

Description	Total Fund Cash	Public Equities	Fixed Income	Pvt. Equity & Spec. Opps.	Real Estate	Infr. & Pvt. Income	Absolute Return	Risk Parity	Net
State of Alaska & Administrative									
Mineral revenue	19,526,553								19,526,553
AIM STIF interest	30,129								30,129
Commission recapture proceeds	22,653								22,653
Securities Lending income	36,682								36,682
Appropriation to SOA GF from ERA	(300,000,000)								(300,000,000)
Corporate expenses	(8,908,177)								(8,908,177)
Public Equities									
Tactical Tilts	603,190,672	(603,190,672)							-
APF TAC TILTS CASH	(3,190,672)	3,190,672							-
Public EQ Sec Lend	1,201,152	(1,201,152)							-
Fixed Income									
APF - Aggregate	(300,000,000)		300,000,000						-
APF Global Fixed Income Cash	5,000,000		(5,000,000)						-
APF Global Fixed Income	6,747,703		(6,747,703)						-
APF China Bond Market	(11,747,703)		11,747,703						-
APF TBA Collateral	847,288		(847,288)						-
Fixed Income Sec Lending	66,415		(66,415)						-
Private Equity & Special Opportunities									
Private Equity distributions	70,078,187			(70,078,187)					-
Private Equity capital calls	(59,395,275)			59,395,275					-
Special Opportunities distributions	57,622,123			(57,622,123)					-
Special Opportunities capital calls	(18,872,681)			18,872,681					-
Real Estate									
Direct Real Estate distributions	6,094,186				(6,094,186)				-
Direct Real Estate capital calls	(2,210,804)				2,210,804				-
Real Estate Coinvestment distributions	6,819,285				(6,819,285)				-
Real Estate Coinvestment capital calls	(9,523,138)				9,523,138				-
Infrastructure, Private Credit & Private Income									
Infrastructure distributions	346,907					(346,907)			-
Infrastructure capital calls	(5,241,490)					5,241,490			-
Private Credit distributions	43,173,456					(43,173,456)			-
Private Credit capital calls	(7,000,013)					7,000,013			-
Private Income distributions	20,130,030					(20,130,030)			-
Private Income capital calls	(18,056,228)					18,056,228			-
Absolute Return									
Absolute Return distributions	1,498,436						(1,498,436)		-
Absolute Return capital calls	(553,409)						553,409		-
Net Transfers	97,732,268	(601,201,152)	299,086,297	(49,432,354)	(1,179,529)	(33,352,662)	(945,027)	-	(289,292,160)

Board of Trustees - APFC Transfers - September 2020

Description	Total Fund Cash	Public Equities	Fixed Income	Pvt. Equity & Spec. Opps.	Real Estate	Infr. & Pvt. Income	Absolute Return	Risk Parity	Net
State of Alaska & Administrative									
Mineral revenue	6,167,536								6,167,536
AIM STIF interest	27,336								27,336
Commission recapture proceeds	43,411								43,411
Securities Lending income	30,658								30,658
Appropriation to SOA GF from ERA	(400,000,000)								(400,000,000)
FY21 Appropriation to DNR	(6,147,600)								(6,147,600)
FY21 Appropriation to DOL	(2,619,100)								(2,619,100)
FY21 Appropriation to DOR	(98,700)								(98,700)
FY20 Oil and Gas Refund	421,216								421,216
Corporate expenses	(4,405,959)								(4,405,959)
Public Equities									
APF SPDR Momentum	123,500,000	(123,500,000)							-
APF SPDR Low Vol	111,500,000	(111,500,000)							-
APF DOMESTIC EQ	(235,000,000)	235,000,000							-
Tactical Tilts	13,181,274	(13,181,274)							-
APF TAC TILTS CASH	(13,181,274)	13,181,274							-
Lee Munder - EM	58,978	(58,978)							-
Public EQ Sec Lend	1,149,430	(1,149,430)							-
Fixed Income									
US Investment Grade Corporate	15,766,200		(15,766,200)						-
APF - Aggregate	4,978,800		(4,978,800)						-
APF TBA Collateral	(1,877,643)		1,877,643						-
Fixed Income Sec Lending	38,289		(38,289)						-
Private Equity & Special Opportunities									
Private Equity distributions	219,447,022			(219,447,022)					-
Private Equity capital calls	(140,142,927)			140,142,927					-
Special Opportunities distributions	4,456,711			(4,456,711)					-
Special Opportunities capital calls	(47,079,391)			47,079,391					-
Real Estate									
Direct Real Estate distributions	5,509,789				(5,509,789)				-
Direct Real Estate capital calls	(365,000)				365,000				-
Infrastructure, Private Credit & Private Income									
Infrastructure distributions	13,386,082					(13,386,082)			-
Infrastructure capital calls	(30,167,073)					30,167,073			-
Private Credit distributions	42,898,717					(42,898,717)			-
Private Credit capital calls	(26,395,762)					26,395,762			-
Private Income distributions	1,123,322					(1,123,322)			-
Private Income capital calls	(56,741,085)					56,741,085			-
Absolute Return									
Absolute Return distributions	699,251						(699,251)		-
Absolute Return capital calls	(1,588,302)						1,588,302		-
Risk Parity									
Bridgewater All Weather	(100,000,000)							100,000,000	-
PanAgora	(100,000,000)							100,000,000	-
Net Transfers	(601,425,793)	(1,208,407)	(18,905,646)	(36,681,416)	(5,144,789)	55,895,798	889,051	200,000,000	(406,581,202)

ALASKA PERMANENT FUND FUND FINANCIAL HISTORY & PROJECTIONS as of September 30, 2020

Projections extend ten years, and are based on best available information (\$ in millions)

Nonspendable Fund Balance - Principal								Assigned Fund Balance - Earnings Reserve										TOTAL FUND	
		FY-Begin Contrib.	Dedicated ⁽¹⁾ State	Inflation Proofing & Special	FY-End Balance	Unrealized Gain (Loss) FY-End	FY-End Non-spendable	Acct. Net	Statutory Net	Distributions			FY-End Balance	Unrealized Gain (Loss) FY-End	FY-End Assigned			FY-End Balance	
FY		Balance	Revenues	Approp.	Contributions	Balance	Balance	Income ⁽²⁾	Income ⁽³⁾	Div/POMV Transfer ⁽⁹⁾	Inflation Prfg & Spec	ACIF	Realized	Balance	Balance		FY		
77-11		0	12,755	20,289	33,044	4,788	37,832	41,659	38,780	19,186	16,991	434	2,016	292	2,308	77-11		40,140	
12		33,044	915	1,073	35,033	3,220	38,253	(100)	1,568	605	1,073	17	1,905	175	2,081	12		40,333	
13		35,033	840	743	36,615	4,184	40,800	4,314	2,928	604	743	30	3,487	567	4,054	13		44,854	
14		36,615	779	546	37,941	7,062	45,002	6,848	3,531	1,235	546	32	5,237	975	6,212	14		51,214	
15		37,941	600	624	39,165	6,473	45,638	2,384	2,907	1,373	624	24	6,147	1,016	7,163	15		52,801	
16		39,165	284	0 ⁽⁸⁾	39,449	4,750	44,199	398	2,198	696 ⁽⁷⁾	0 ⁽⁸⁾	18	7,649	921	8,571	16		52,770	
17		39,449	365	0 ⁽⁸⁾	39,814	7,155	46,969	6,676	3,214	0	0 ⁽⁸⁾	25	10,863	1,952	12,816	17		59,785	
18		39,814	353	0 ⁽⁸⁾	40,167	5,863	46,030	5,526	6,324	726	0 ⁽⁸⁾	43	16,461	2,403	18,864	18		64,894	
19		40,167	385	989	41,542	6,278	47,821	3,766	3,305	2,723	989	22	16,053	2,426	18,481	19		66,301	
20		41,542	319	4,758 ⁽¹⁰⁾	46,619	5,789	52,408	1,637	3,106	2,933	4,758 ⁽¹⁰⁾	21	11,470	1,424	12,894	20		65,302	
Lo	21	46,619	213	0 ⁽⁸⁾	46,832	3,549	50,381	(240)	2,577	3,092	0 ⁽⁸⁾	18	10,955	830	11,786	21		62,167	
Mid	21	46,619	213	0 ⁽⁸⁾	46,832	6,299	53,131	4,006	3,326	3,092	0 ⁽⁸⁾	23	11,704	1,574	13,278	21		66,409	
Hi	21	46,619	213	0 ⁽⁸⁾	46,832	9,241	56,073	8,739	4,201	3,092	0 ⁽⁸⁾	29	12,579	2,482	15,062	21		71,135	
	22	46,832	226	1,059	48,117	6,530	54,647	4,251	3,996	3,069	1,059	27	11,572	1,570	13,143	22		67,790	
	23	48,117	230	1,088	49,435	6,776	56,211	4,336	4,077	3,206	1,088	27	11,356	1,556	12,912	23		69,123	
	24	49,435	241	1,118	50,794	7,031	57,825	4,420	4,156	3,286	1,118	27	11,108	1,538	12,646	24		70,471	
	25	50,794	264	1,149	52,207	7,292	59,498	4,506	4,238	3,328	1,149	27	10,869	1,518	12,387	25		71,885	
	26	52,207	288	1,181	53,676	7,558	61,234	4,597	4,323	3,370	1,181	27	10,641	1,498	12,140	26		73,374	
	27	53,676	317	1,215	55,207	7,832	63,039	4,692	4,413	3,436	1,215	27	10,404	1,476	11,880	27		74,919	
	28	55,207	347	1,250	56,804	8,114	64,918	4,790	4,506	3,505	1,250	27	10,155	1,451	11,606	28		76,523	
	29	56,804	380	1,287	58,471	8,404	66,875	4,893	4,603	3,577	1,287	27	9,895	1,422	11,318	29		78,192	
	30	58,471	397	1,325	60,192	8,694	68,886	5,122	4,820	3,651	1,325	27	9,740	1,407	11,147	30		80,034	
Cumulative Totals																			
Proj. for FY21-FY30								45,612	42,458	33,518	10,670	268							

Assumptions: Total Return - Inflation = Total Real Return					Statutory Return	
Lo	FY21	-0.17%	2.25%	-2.42%	Lo	4.27%
Mid	FY21 ⁽³⁾	6.48%	2.25%	4.23%	Mid	5.45%
Hi	FY21	13.89%	2.25%	11.64%	Hi	6.83%
FY22-FY30 ⁽⁴⁾						6.40%
		6.75%	2.25%	4.50%		

Notes related to financial history and projections:

- ⁽¹⁾ Dedicated State Revenues in current and future fiscal years are based on the Spring 2020 Department of Revenue forecast.
- ⁽²⁾ Accounting net income is based on United States Generally Accepted Accounting Principles (GAAP).
- ⁽³⁾ Current year returns and inflation are based on 2020 Callan capital market assumptions. Actual results will vary.
- ⁽⁴⁾ Future returns are based on 2020 Callan capital market assumptions and median expected returns (the mid case). Actual results will vary.
- ⁽⁵⁾ During FY 2009, the ACIF realized losses of \$33.3 million, which are excluded from statutory net income, and are included in the ending unreserved balance as a deficit account. During FY 2010 and FY 2011, the ACIF had realized income of \$20.8 and \$25.3 million, which is excluded from statutory net income, and served to reduce the FY 2009 deficit.
- ⁽⁶⁾ The statutory inflation calculation for FY 2010 was -.36%; therefore, there was no inflation proofing transfer during FY 2010.
- ⁽⁷⁾ The dividend transfer reported for FY16 was paid out in dividends during FY17.
- ⁽⁸⁾ There was no appropriation for inflation proofing in FY16, FY17, FY18 and FY21.
- ⁽⁹⁾ Per AS 37.13.140, beginning in FY19, transfers are based on a percent of market value (POMV) calculation and are to the General Fund. In previous years, transfers were based on an earnings calculation and were to the Dividend Fund.
- ⁽¹⁰⁾ In FY20, an additional \$4 billion was appropriated from the ERA to principal. The intent of the legislation was to forward fund inflation proofing.
- ⁽¹¹⁾ All transfers out of the Earnings Reserve are subject to Legislative appropriation

Income Year-to-Date as of September 30, 2020

FY21 YTD Statutory Net Income	
Interest, dividends, real estate & other income	\$ 298.4
Realized gains (losses) on the sale of assets	789.5
Less operating expenses	(32.8)
Less AK Capital Inc. Fund realized earnings	(6.8)
	\$ 1,048.3

FY21 YTD Accounting (GAAP) Net Income	
Statutory net income (loss)	\$ 1,048.3
Unrealized gains (losses) on invested assets	1,789.7
AK Capital Income Fund realized earnings	6.8
Accounting (GAAP) net income (loss)	\$ 2,844.8

FY21 POMV Distribution (actual) ⁽¹¹⁾	FY21 Statutory Dividend Transfer (actual) ⁽¹¹⁾
Ending Fund Value (ex Am Hess)	Statutory Net Income
FY19 \$ 65,876.7	FY20 \$ 3,106.0
FY18 64,469.9	FY19 3,305.0
FY17 59,360.8	FY18 6,324.4
FY16 52,345.1	FY17 3,214.2
FY15 52,376.1	FY16 2,198.0
Average Value \$ 58,885.7	Avail for Dist (21%) \$ 3,811.0
Statutory Distribution \$ 3,091.5	Statutory Trnsfr Amt \$ 1,905.5

FY22 POMV Distribution (actual) ⁽¹¹⁾	FY22 Statutory Dividend Transfer (projected)
Ending Fund Value (ex Am Hess)	Statutory Net Income
FY20 \$ 64,877.4	FY21 \$ 3,325.6
FY19 65,876.7	FY20 3,106.0
FY18 64,469.9	FY19 3,305.0
FY17 59,360.8	FY18 6,324.4
FY16 52,345.1	FY17 3,214.2
Average Value \$ 61,386.0	Avail for Dist (21%) \$ 4,047.8
Statutory Distribution \$ 3,069.3	Statutory Trnsfr Amt \$ 2,023.9

FYTD 2021 Fees & Expenses by Funding Source*

Report Date	September 30, 2020
Total Fund Balance	65,663,697,899
YTD Change in Total Fund Balance (Net of Transfers)	(923,366,000)

Investment Management Fees

	Paid From Investments	Paid from Investment Management Allocation	Paid from Operations Allocation	Total
Public Equity	441,000	12,838,000	278,000	13,557,000
Fixed Income	62,000	2,487,000	719,000	3,268,000
Absolute Return	13,171,000	240,000	127,000	13,538,000
Risk Parity	507,000	225,000	0	732,000
Private Equity & Special Opps	31,461,000	5,201,000	532,000	37,194,000
Infrastructure & Private Income	15,487,000	486,000	247,000	16,220,000
Real Estate	8,679,000	680,000	526,000	9,885,000
Total Mgmt Fees by Source	69,808,000	22,157,000	2,429,000	94,394,000
Basis Points	11	3	0	14

Profit Sharing/Performance

	Paid From Investments	Paid from Investment Management Allocation	Paid from Operations Allocation	Total
Private Equity & Special Opps	26,386,000	0	0	26,386,000
Infrastructure & Private Income	2,565,000	0	0	2,565,000
Real Estate	609,000	0	0	609,000
	29,560,000	0	0	29,560,000

All amounts presented, including fund balance and change net of transfers, consist of both APF and AMHT combined.

*



Budget-to-Actual Report: July 1, 2020 through September 30, 2020

<u>Corporate Operations</u>	Board-authorized Budget	Actuals & Encumbrances	Remaining Budget
Personal Services	\$ 12,839,400	\$ 2,336,470	\$ 10,502,930
Staff	12,811,860	2,336,463	10,475,397
Board: Honoraria	27,540	7	27,533
Travel	700,000	11,446	688,554
Staff	483,000	(456)	483,456
Trustees	22,000	-	22,000
Moving/Non-Employee	195,000	11,902	183,098
Contractual Services	3,404,400	1,203,489	2,200,911
Audit, Legal, Consulting	445,945	450,500	(4,555)
Public Communications	146,500	114,068	32,432
Board Support and Meetings	76,000	9,259	66,741
Information Technology	1,725,500	37,356	1,688,144
HR and Recruitment	77,436	481	76,955
Training/Education	185,925	4,297	181,628
Office Support	747,094	587,526	159,568
Commodities	336,900	49,790	287,110
Equipment	400,000	-	400,000
Corporate Operations Total	\$ 17,680,700	\$ 3,601,195	\$ 14,079,505
<u>Investment Management</u>			
Investment Systems	\$ 6,716,400	\$ 1,663,430	\$ 5,052,970
Investment Due Diligence	6,587,000	1,154,537	5,432,463
Custody Fees	1,800,000	305,299	1,494,701
Investment Manager Fees	114,297,200	20,813,857	93,483,343
Public Equities	77,861,110	12,788,639	65,072,471
Fixed Income	12,986,190	2,017,229	10,968,961
Alternative Assets ¹	23,449,900	6,007,989	17,441,911
Investment Management Total	\$ 129,400,600	\$ 23,937,123	\$ 105,463,477
Legislative Appropriation	\$ 8,865,400	\$ 8,444,184	\$ 421,216
Total Appropriation	\$ 155,946,700	\$ 35,982,502	\$ 119,964,198

¹ includes Real Estate Fees

SUBJECT: Chief Investment Officer's Report

ACTION: _____

DATE: December 9, 2020

INFORMATION: _____ X _____

BACKGROUND:

The Chief Investment Officer's report provides an overview of Fund positioning, performance, investment actions taken during the quarter, and other current topics in the investment department.

STATUS:

Marcus Frampton, CIO, will present Fund positioning, asset class performance and strategies, and investment actions taken during the quarter from July 1 to September 30, 2020. He will also discuss market valuations and other possible indicators of future returns in equities and bond markets.



APFC

ALASKA PERMANENT
FUND CORPORATION

CIO Report
Marcus Frampton, Chief Investment Officer
December 9, 2020



1. Investment Department Current Topics

Investment Department Current Topics

- FY '21 To-date Performance
- Current portfolio positioning and rebalancing approach
- Personnel, open positions, and recruiting
- Gold purchase within Absolute Return portfolio
- Real estate progress with objectives identified by Board:
 - Evolution of investment approach with respect to role of managers vs. staff
 - Pacing / investment schedule to arrive at ultimate 12% target allocation on 5 year timeframe
 - Path towards getting sector allocations closer to benchmark
 - Property-level concentration risk
 - Continued dialogue around direct strategy vs. fund strategy
- Asset allocation and strategies to achieve return objectives

Q1 FY '21 Performance

FY '21 Q1 Total Fund Performance Attribution

	FY 2021	FY '21 Q1	
	Target Allocation	Return	Benchmark
Public Equity	39.0%	7.88%	8.11%
Fixed Income	21.0%	1.60%	1.37%
Private Equity	15.0%	12.42%	9.89%
Real Estate	7.0%	(0.09%)	0.87%
Private Income	9.0%	2.22%	3.84%
Absolute Return	6.0%	2.09%	4.24%
Risk Parity	1.0%	5.05%	4.91%
Total Fund Cash	2.0%	0.03%	0.04%
Total Fund		5.26%	5.67%

Risk Parity & Total Fund Cash

- Performing in-line with expectations; with market volatility and active rebalancing, heavy activity in and out of cash account in the quarter

Public Equities

- Virtually entire tracking error budget remains devoted to value overweight vs. growth stocks, this will be subject of deep dive at February 2021 Board meeting; Q1 attribution below

Public Equities FY '21 Q1 Attribution

Tactical Tilt Portfolio	(0.14%)
Active Managers vs. Assigned Benchmark	0.39%
Factor-based Quasi-Passive	(0.38%)
Over/Underweight (size, style, regions)	(0.10%)
Total Excess Returns	(0.23%)

Fixed Income

- Continued strong, consistent outperformance and strong internal capabilities across functions in spite of small Fixed Income investment team and stretched resources

Real Estate

- Executing on 5 year plan to build back up to 12% of the Fund and right-size sector positioning, modest underperformance in the quarter reflects some of the legacy portfolio positioning issues

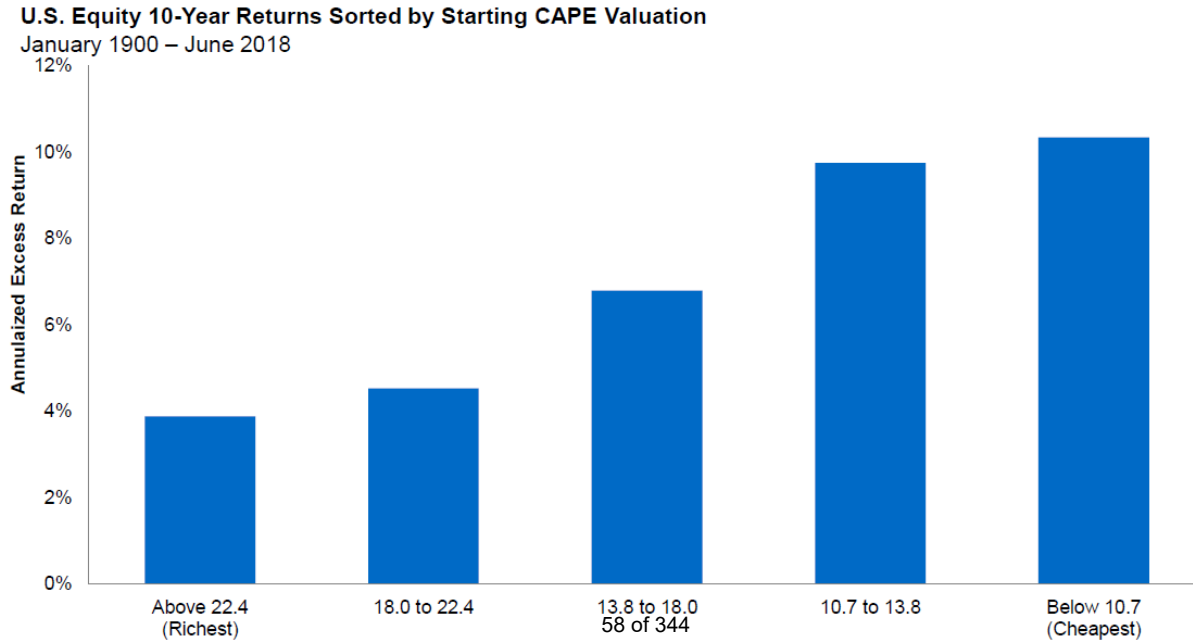
Alternatives (Private Equity, Private Income, Absolute Return)

57 of 344 Subject of detailed discussion at this Board session

Evidence of a Link Between Valuation and Returns...

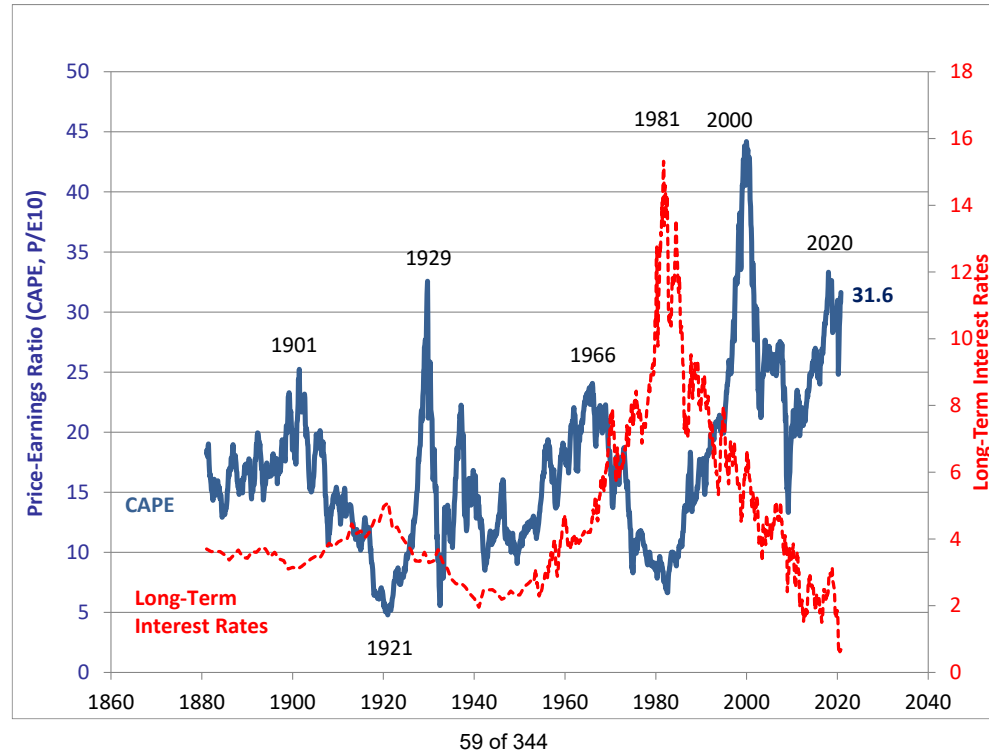
Data and studies suggests that when stocks are cheaper, subsequent 10-year returns are better

Most predictive valuation measures are based on longer-term fundamental data, such as Shiller P/E (or “CAPE”)



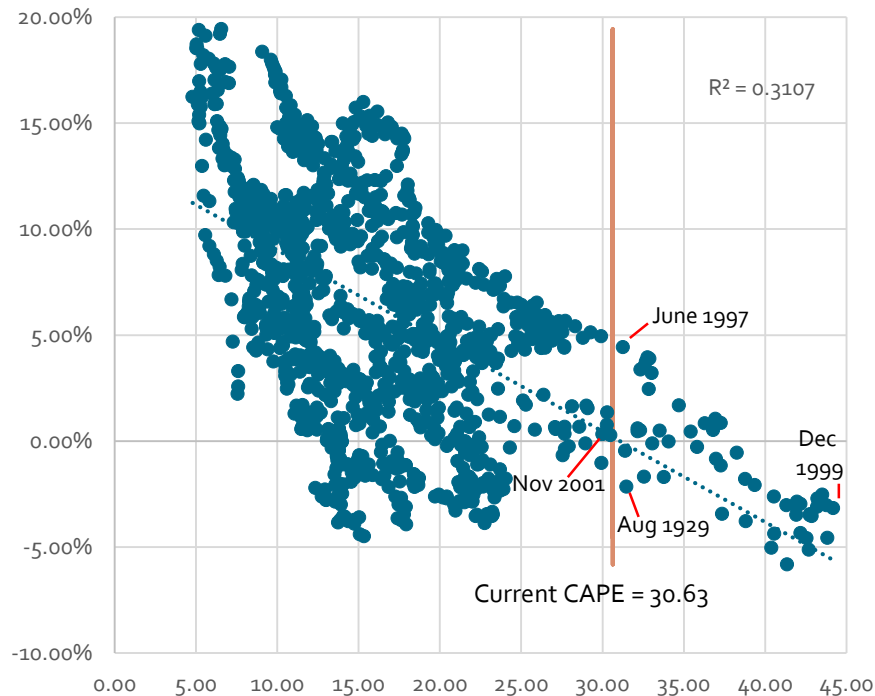
Source: AQR Capital Management.

...and the Market Today is Expensive on CAPE Basis

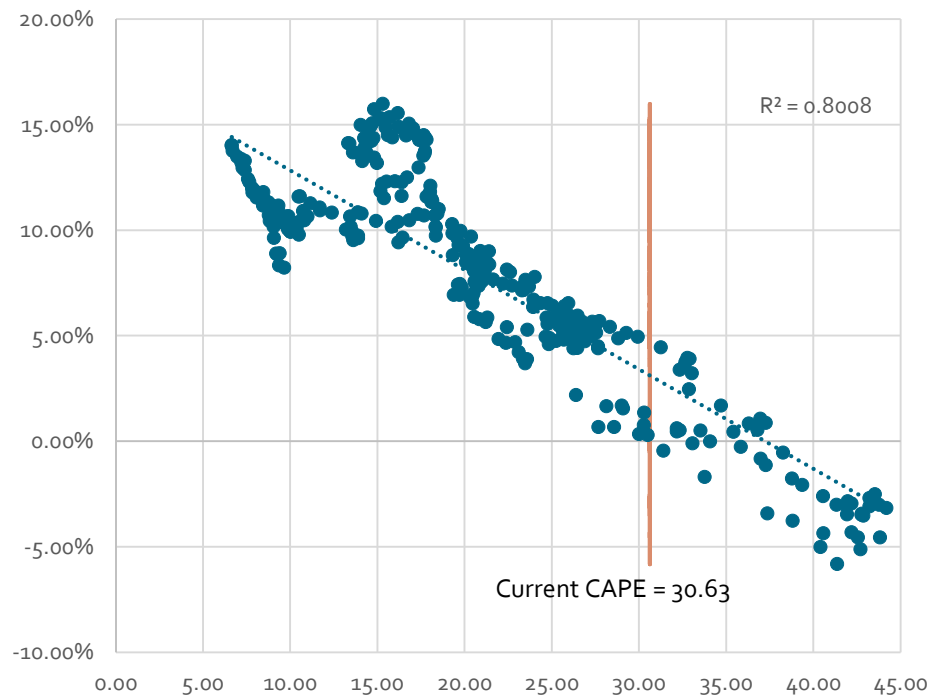


S&P 10-Year Forward Real Return vs. CAPE

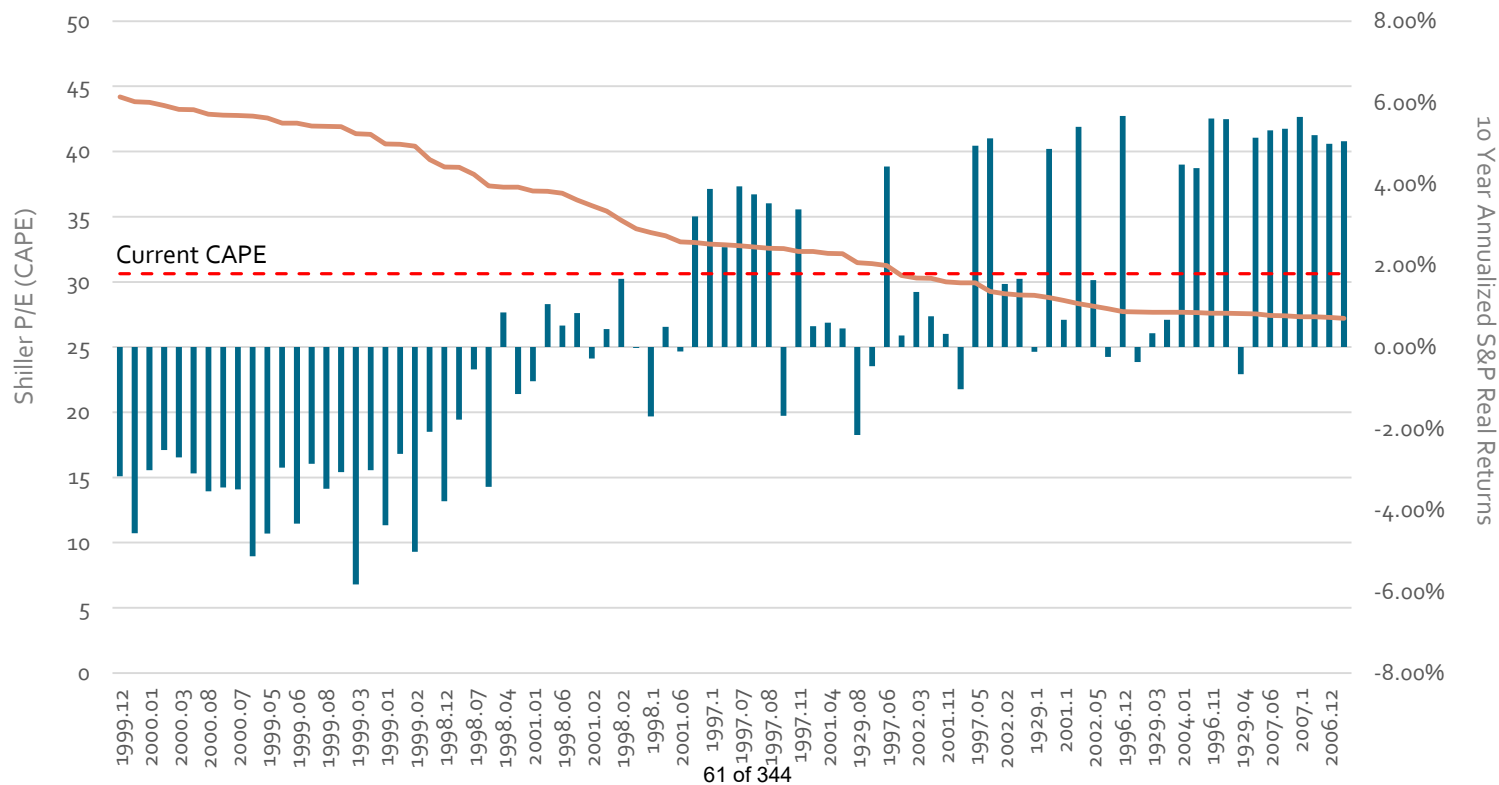
1900 to Present



1980 to Present

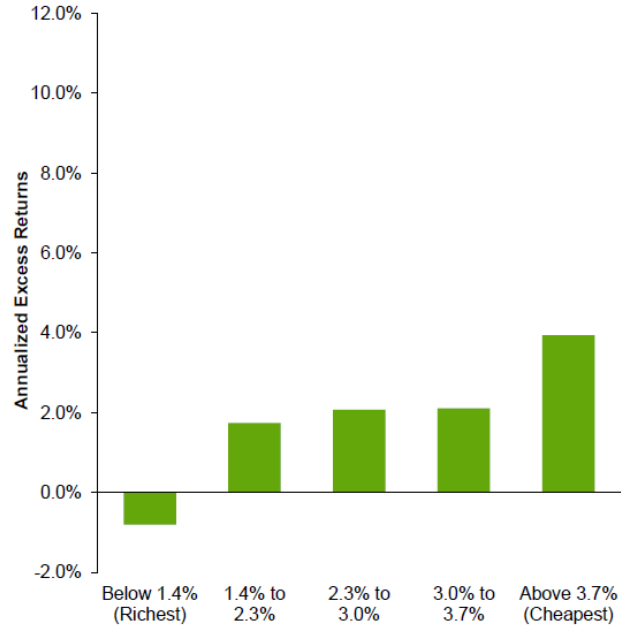


S&P 10-Year Forward Real Return vs. CAPE

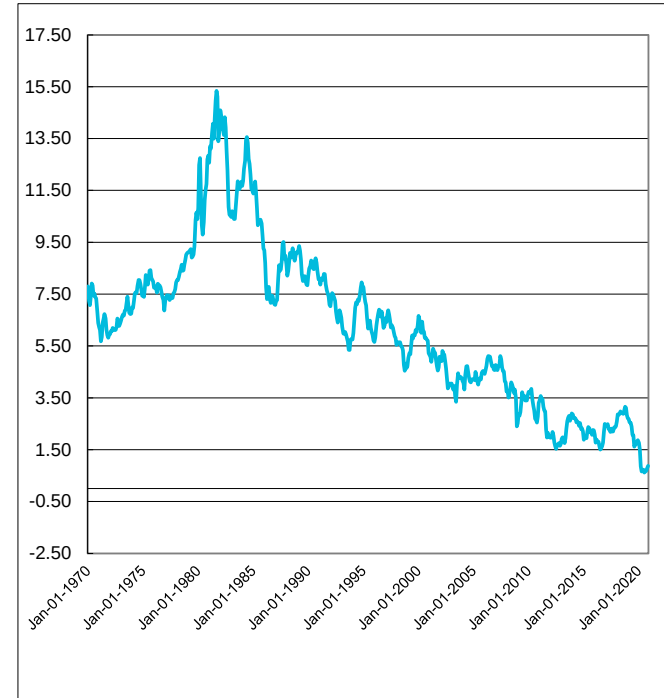


Turning to Fixed Income, Current Yield is Probably the Best Predictor of Future Returns...

10-Year Treasury Returns Sorted by Real Bond Yield
January 1926 – July 2019



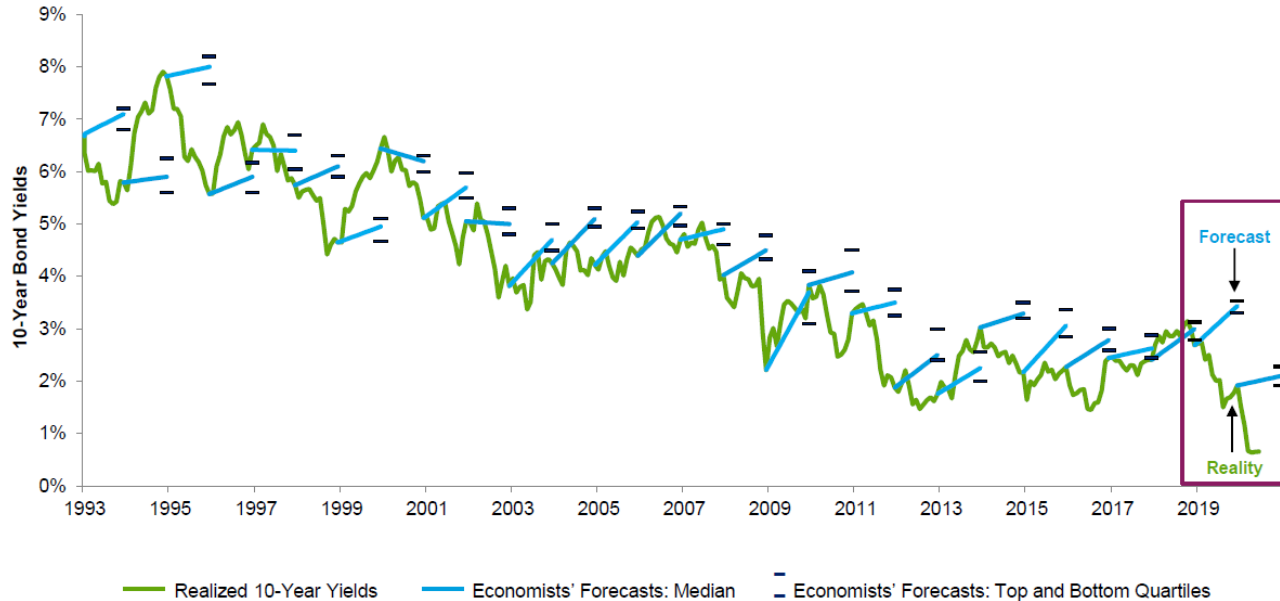
US 10-Year Treasury Yields (1970-Present)



...Certainly More So Than Following “Expert” Forecasts of Where Rates are Going

U.S. Treasury Historical 10-Year Yield versus Economists' Forecasts

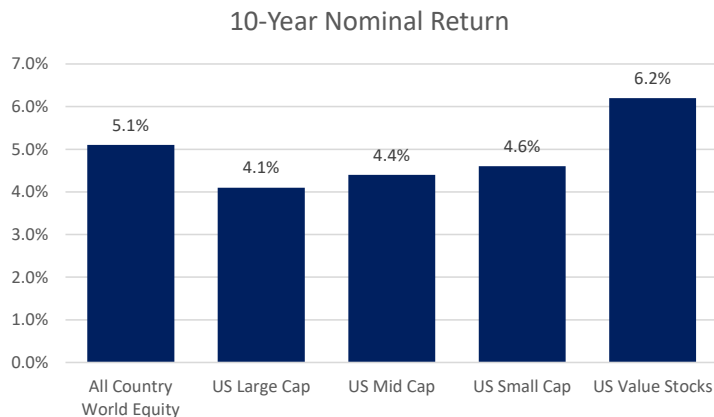
January 1993 – June 2020



Investment Team Strategies for Achieving our Goals

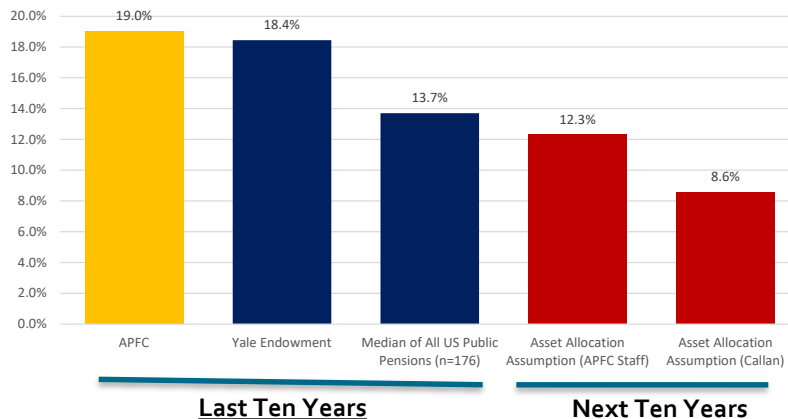
- APFC investment team has a culture of relentless hunting for value and return opportunities for the benefit of the Fund; this has led us to our two most notable portfolio positioning moves over the recent time periods
 - Namely: (a) devoting virtually all our tracking error budget in public equities to value-over-growth and (b) making growth in our private equity area a priority (~3% of portfolio in 2012 is now ~15% in 2020, performance has surpassed virtually all peers)
- Together these areas that are most ripe for “needle moving” excess returns represent over half of the Fund’s portfolio
- The other half of the Fund’s portfolio is critically important from diversification (e.g., Absolute Return, Fixed Income) and portfolio construction (e.g., inflation protection and yield from Real Estate) standpoints and also can be a source of outperformance (e.g., Fixed Income team’s remarkably consistent outperformance of benchmarks)

JP Morgan Ten Year Capital Markets Outlook



Source: JP Morgan “2021 Long-term Capital Market Assumptions” published November 2020.

Ten Year Returns on Institutional Private Equity Portfolios



Source: Pathway Capital, AIC, Yale Endowment 2020 Results Press Release.

Note: Yale 10 year Private Equity returns estimated based off 10-year returns disclosed for Leveraged Buy-out and Venture Capital strategies weighted by the current relative allocations to the two strategies.



2. Report on Investment Actions for Quarter Ending September 30, 2020

Investment Actions

Quarter Ending September 30, 2020

Public Equity

- In order to maintain the Fund's exposure to Public Equities at a target weight of 39%, Staff redeemed \$600 million from APF Tactical Tilt during the quarter:
 - August 13: \$300 mm
 - August 14: \$300 mm
- No external manager moves to report for the quarter

Absolute Return

New investments/commitments in Fiscal Q1:

- \$100 mm to Bridgewater Pure Alpha Fund II from cash
- \$58 mm transferred to Bridgewater Pure Alpha Fund II from closed account with Bridgewater Major Markets
- \$50 mm to Complus Asset Management from cash

Real Estate

- Staff closed on a \$250 mm commitment to Morgan Stanley's separately managed Mesa West credit program on August 12th
- Staff committed \$100 mm to RealTerm Logistics Income Fund with closing expected in December 2020

Investment Actions (continued)

Quarter Ending September 30, 2020

Private Income

Fund commitments closed in Fiscal Q1:

- \$50 m to Audax Mezzanine V
- \$50 m to Atalaya AIF V
- \$75 m to Actis Energy 5

\$175 m total

Co-investments closed in Fiscal Q1:

- \$10.5 m ADAC co-investment with Clearlake

Private Equity & Special Opps

Fund commitments closed in Fiscal Q1:

- \$31 m to CVC VII
- \$30 m to Canaan XII
- \$42 m to Sequoia China Venture VII and Chine Growth VI
- \$25 m to Sequoia US Venture XVII and US Growth IX
- \$75 m to Marlin Heritage Europe II
- \$50 m to Goodwater Infinity I
- \$50 m to Charlesbank Credit Opportunities II
- \$35 m to HIG IV
- \$20 m to Thoma Bravo XIV and Discover III
- \$50 m to Y Combinator Early Stage and Continuation Funds 2020
- \$38 m to Holtzbrinck VII

\$441 m total

Co-investments closed in Fiscal Q1:

- \$42 m to InfoBip Ltd.

Investment Actions (continued)

Quarter Ending September 30, 2020

Total Fund Cash & Risk Parity

- \$700 m transferred to the State General Fund as part of the FY2021 appropriation during the quarter.
- \$56 m received in DNR royalty proceeds during Q3.
- \$21 m in management fees paid during the quarter.
- \$223 m outflow net of distributions across private markets investments.
- In During 3Q2020 cash had a net outflow of over \$600 mm from the Total Fund Cash. These outflows included rebalancing into other asset classes, funding of new private investments, and funding to the State's General Fund.
- In September, Staff redeemed \$200 m from Blackrock risk parity and transferred \$100 m to each Bridgewater and Panagora Risk Parity accounts maintaining the allocation weight to its target.

SUBJECT: Capital Market Overview
Callan, Senior VP – Steve Center

ACTION: _____

DATE: December 9, 2020

INFORMATION: _____X_____

BACKGROUND:

Callan Associates, Inc. is currently under contract to perform APFC's core general consulting services of 1) Investment policies and procedures review; 2) annual preparation of an asset allocation plan; 3) performance reporting and analysis; 4) risk analysis; 5) statistical modeling, manager searches, selection, and oversight; and 6) other special consulting services as needed.

STATUS:

At every quarterly board meeting or as requested, Callan Associates, Inc. provides updates on market conditions. Senior Vice President, Steven Center, will be the presenter at this meeting.

December 9, 2020



Alaska Permanent Fund Corporation

3rd Quarter 2020

Capital Markets Review

Greg Allen

CEO and Chief Research Officer

Steven Center, CFA

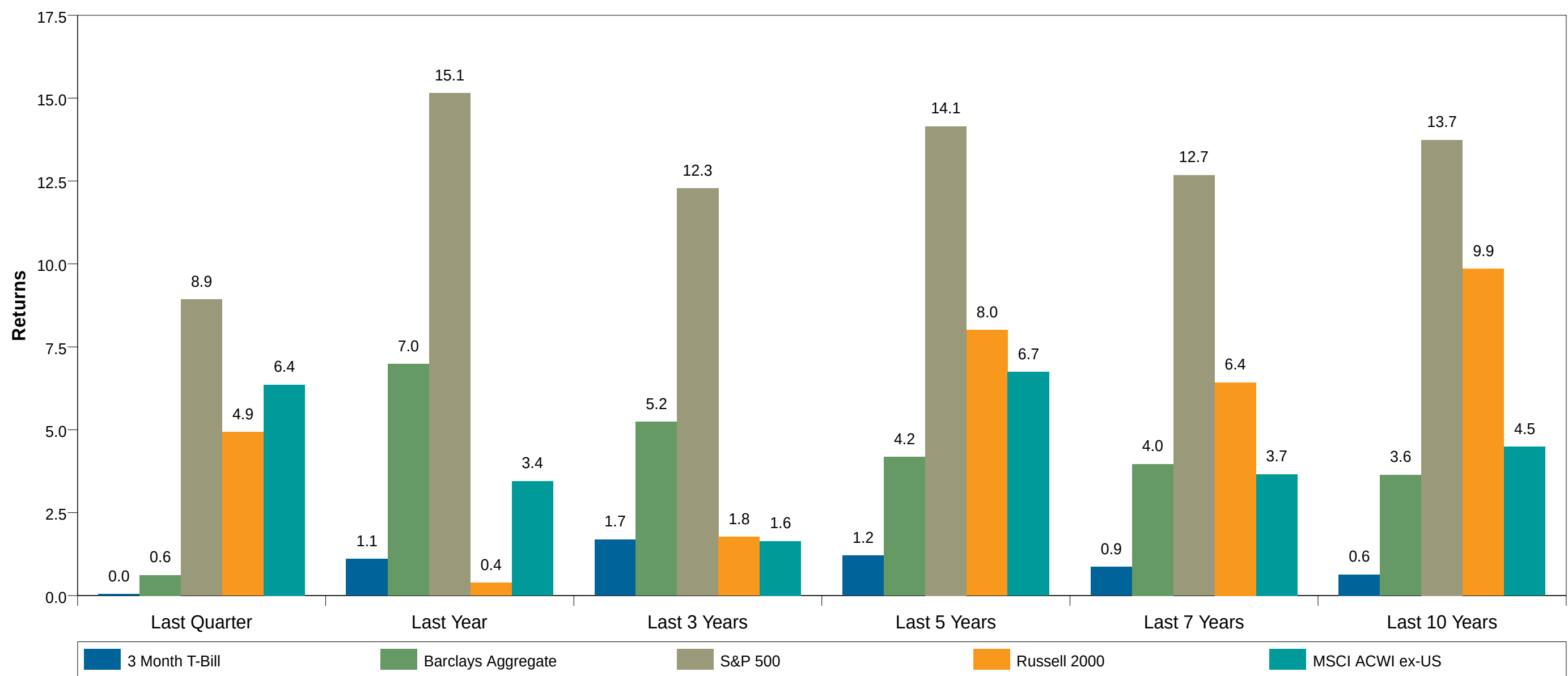
Senior Vice President

Chris Park, CFA

Assistant Vice President

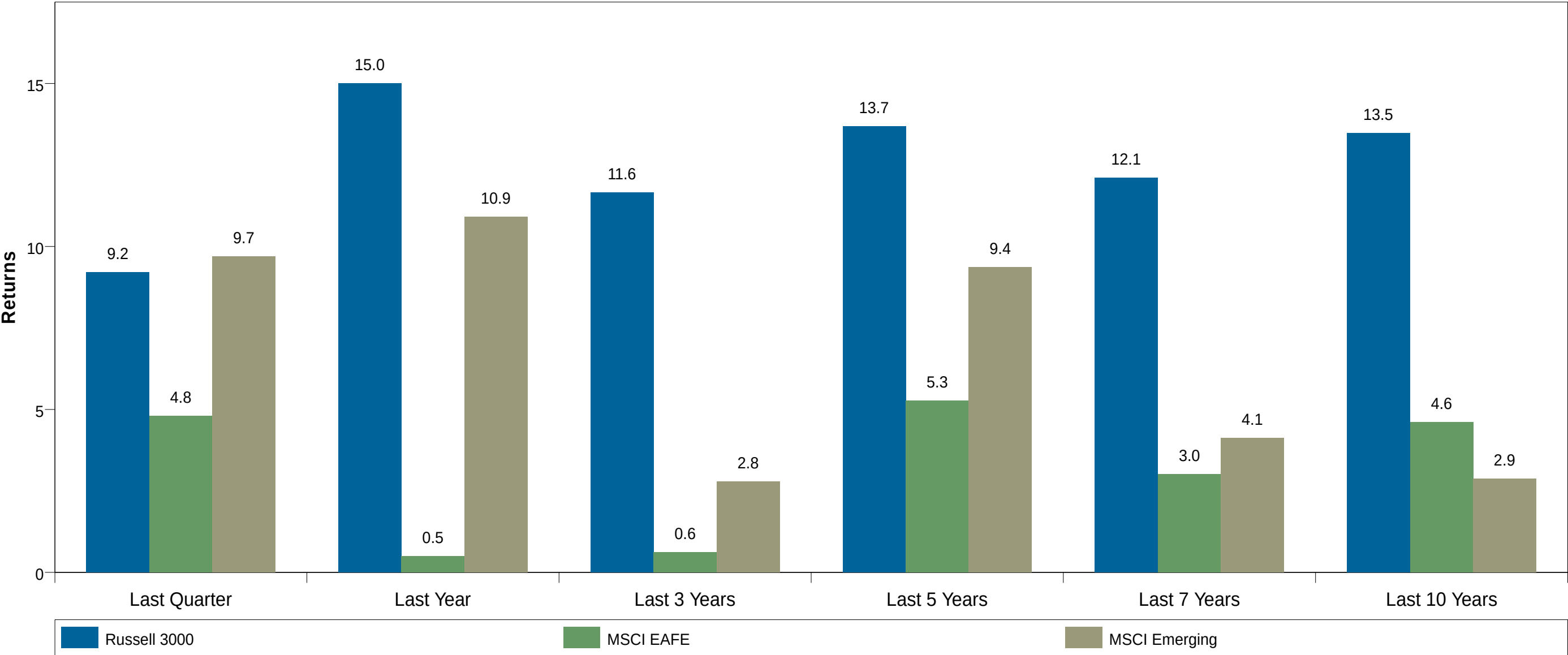
Broad Capital Market Performance

Periods Ended September 30, 2020



Public Equity Capital Market Performance

Periods Ended September 30, 2020



Callan Periodic Table of Investment Returns

Returns for Key Indices

2011	2012	2013	2014	2015	2016	2017	2018	2019	3 Qtrs. 2020
Bloomberg Barclays Aggregate 7.84%	MSCI ACWI ex USA SC 18.52%	Russell 2000 38.82%	S&P 500 13.69%	MSCI ACWI ex USA SC 2.60%	Russell 2000 21.31%	MSCI Emerging Markets 37.28%	Bloomberg Barclays Aggregate 0.01%	S&P 500 31.49%	Bloomberg Barclays Aggregate 6.79%
Bloomberg Barclays Corp High Yield 4.98%	MSCI Emerging Markets 18.23%	S&P 500 32.39%	Bloomberg Barclays Aggregate 5.97%	S&P 500 1.38%	Bloomberg Barclays Corp High Yield 17.13%	MSCI ACWI ex USA SC 31.65%	Bloomberg Barclays Corp High Yield -2.08%	Russell 2000 25.52%	S&P 500 5.57%
Bloomberg Barclays Global Agg ex US 4.36%	MSCI World ex USA 16.41%	MSCI World ex USA 21.02%	Russell 2000 4.89%	Bloomberg Barclays Aggregate 0.55%	S&P 500 11.96%	MSCI World ex USA 24.21%	Bloomberg Barclays Global Agg ex US -2.15%	MSCI World ex USA 22.49%	Bloomberg Barclays Global Agg ex US 4.77%
S&P 500 2.11%	Russell 2000 16.35%	MSCI ACWI ex USA SC 19.73%	Bloomberg Barclays Corp High Yield 2.45%	MSCI World ex USA -3.04%	MSCI Emerging Markets 11.19%	S&P 500 21.83%	S&P 500 -4.38%	MSCI ACWI ex USA SC 22.42%	Bloomberg Barclays Corp High Yield 0.62%
Russell 2000 -4.18%	S&P 500 16.00%	Bloomberg Barclays Corp High Yield 7.44%	MSCI Emerging Markets -2.19%	Russell 2000 -4.41%	MSCI ACWI ex USA SC 3.91%	Russell 2000 14.65%	Russell 2000 -11.01%	MSCI Emerging Markets 18.44%	MSCI Emerging Markets -1.16%
MSCI World ex USA -12.21%	Bloomberg Barclays Corp High Yield 15.81%	Bloomberg Barclays Aggregate -2.02%	Bloomberg Barclays Global Agg ex US -3.09%	Bloomberg Barclays Corp High Yield -4.47%	MSCI World ex USA 2.75%	Bloomberg Barclays Global Agg ex US 10.51%	MSCI World ex USA -14.09%	Bloomberg Barclays Corp High Yield 14.32%	MSCI ACWI ex USA SC -3.64%
MSCI Emerging Markets -18.42%	Bloomberg Barclays Aggregate 4.21%	MSCI Emerging Markets -2.60%	MSCI ACWI ex USA SC -4.03%	Bloomberg Barclays Global Agg ex US -6.02%	Bloomberg Barclays Aggregate 2.65%	Bloomberg Barclays Corp High Yield 7.50%	MSCI Emerging Markets -14.57%	Bloomberg Barclays Aggregate 8.72%	MSCI World ex USA -7.13%
MSCI ACWI ex USA SC -18.50%	Bloomberg Barclays Global Agg ex US 4.09%	Bloomberg Barclays Global Agg ex US -3.08%	MSCI World ex USA -4.32%	MSCI Emerging Markets -14.92%	Bloomberg Barclays Global Agg ex US 1.49%	Bloomberg Barclays Aggregate 3.54%	MSCI ACWI ex USA SC -18.20%	Bloomberg Barclays Global Agg ex US 5.09%	Russell 2000 -8.69%

Source: Bloomberg Barclays, FTSE Russell, MSCI, Standard & Poor's

Callan Periodic Table of Investment Returns

Returns for Key Indices

Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 20 Years
MSCI ACWI ex USA SC 10.50%	S&P 500 15.15%	S&P 500 12.28%	S&P 500 14.15%	S&P 500 12.68%	S&P 500 13.74%	Bloomberg Barclays Corp High Yield 7.21%
MSCI Emerging Markets 9.56%	MSCI Emerging Markets 10.54%	Bloomberg Barclays Aggregate 5.24%	MSCI Emerging Markets 8.97%	Russell 2000 6.42%	Russell 2000 9.85%	MSCI ACWI ex USA SC 7.04%
S&P 500 8.93%	Bloomberg Barclays Aggregate 6.98%	Bloomberg Barclays Corp High Yield 4.21%	Russell 2000 8.00%	Bloomberg Barclays Corp High Yield 5.33%	Bloomberg Barclays Corp High Yield 6.47%	Russell 2000 6.88%
Russell 2000 4.93%	MSCI ACWI ex USA SC 6.97%	Bloomberg Barclays Global Agg ex US 3.07%	MSCI ACWI ex USA SC 6.80%	MSCI ACWI ex USA SC 4.49%	MSCI ACWI ex USA SC 5.31%	S&P 500 6.42%
MSCI World ex USA 4.92%	Bloomberg Barclays Global Agg ex US 5.48%	MSCI Emerging Markets 2.42%	Bloomberg Barclays Corp High Yield 6.79%	Bloomberg Barclays Aggregate 3.97%	MSCI World ex USA 4.37%	Bloomberg Barclays Aggregate 5.01%
Bloomberg Barclays Corp High Yield 4.60%	Bloomberg Barclays Corp High Yield 3.25%	Russell 2000 1.77%	MSCI World ex USA 5.32%	MSCI Emerging Markets 3.75%	Bloomberg Barclays Aggregate 3.64%	Bloomberg Barclays Global Agg ex US 4.58%
Bloomberg Barclays Global Agg ex US 4.14%	Russell 2000 0.39%	MSCI ACWI ex USA SC 0.93%	Bloomberg Barclays Aggregate 4.18%	MSCI World ex USA 2.90%	MSCI Emerging Markets 2.51%	MSCI World ex USA 3.64%
Bloomberg Barclays Aggregate 0.62%	MSCI World ex USA 0.16%	MSCI World ex USA 0.62%	Bloomberg Barclays Global Agg ex US 3.60%	Bloomberg Barclays Global Agg ex US 1.28%	Bloomberg Barclays Global Agg ex US 1.35%	

Source: Bloomberg Barclays, FTSE Russell, MSCI, Standard & Poor's

Market Environment

V-shaped equity rebound, ahead of the global economy

Global equity continued the rally in 3Q after March market bottom

- S&P -33.5% from peak (02/19/20) to low on 3/23/20
- Rebound since March puts S&P 500 even with February peak, suggesting broad-based recovery, but YTD results are concentrated in a few stocks.
- Fed cut rates to zero, commenced QE, instituted multiple facilities to backstop money markets, credit markets, and economy.
- Fed expects to get paid back.
- Further fiscal stimulus expected
- Congress passed fiscal stimulus (CARES) to carry the economy through the crisis.
- Economic recovery will be uncertain as COVID-19 infections surge anew; re-openings may be reversed.

Returns for Periods ended September 30, 2020

	1 Quarter	1 Year	5 Years	10 Years	25 Years
U.S. Equity					
Russell 3000	9.21	15.00	13.69	13.48	9.29
S&P 500	8.93	15.15	14.15	13.74	9.31
Russell 2000	4.93	0.39	8.00	9.85	7.96
Global ex-U.S. Equity					
MSCI World ex USA	4.92	0.16	5.32	4.37	4.71
MSCI Emerging Markets	9.56	10.54	8.97	2.51	--
MSCI ACWI ex USA Small Cap	10.50	6.97	6.80	5.31	5.82
Fixed Income					
Bloomberg Barclays Aggregate	0.62	6.98	4.18	3.64	5.30
90-day T-Bill	0.04	1.10	1.20	0.64	2.32
Bloomberg Barclays Long Gov/Credit	1.22	12.92	8.78	7.36	7.66
Bloomberg Barclays Global Agg ex-US	4.14	5.48	3.60	1.35	3.90
Real Estate					
NCREIF Property	0.74	2.00	6.28	9.37	9.09
FTSE Nareit Equity	1.44	-18.16	3.95	7.90	9.34
Alternatives					
CS Hedge Fund	3.44	2.41	2.76	3.64	7.25
Cambridge Private Equity*	9.89	7.67	11.36	13.38	--
Bloomberg Commodity	9.07	-8.20	-3.09	-6.03	0.91
Gold Spot Price	5.28	28.69	11.19	3.77	6.57
Inflation - CPI-U	0.96	1.37	1.81	1.77	2.14

*Cambridge PE data are available through June 30, 2020.

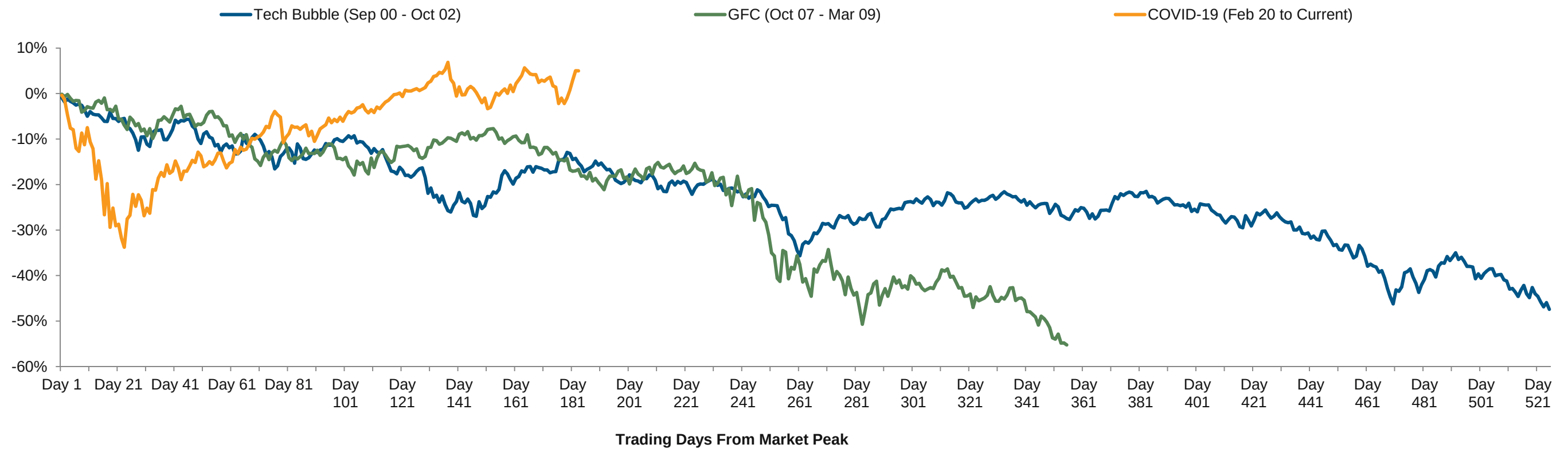
Source: Callan

Unprecedented Shock to Global Capital Markets

V-shaped recovery in equity—back in black by mid-August!

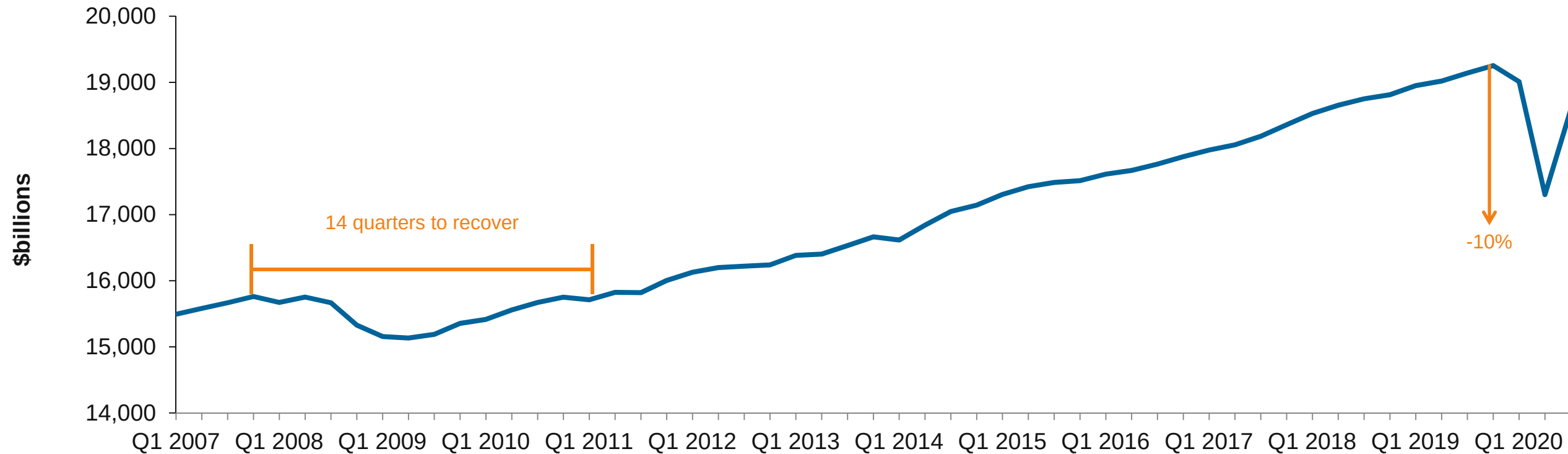
The sharpest and fastest equity market decline ever: 16 trading days to reach bear market; -33% after just 23 days

S&P 500 Index Cumulative Returns
Market Peak-to-Trough for Recent Corrections vs.
Current Path of COVID-19 Correction Through 11/6/20



GDP Rebounds in 3Q After Precipitous First-Half Decline

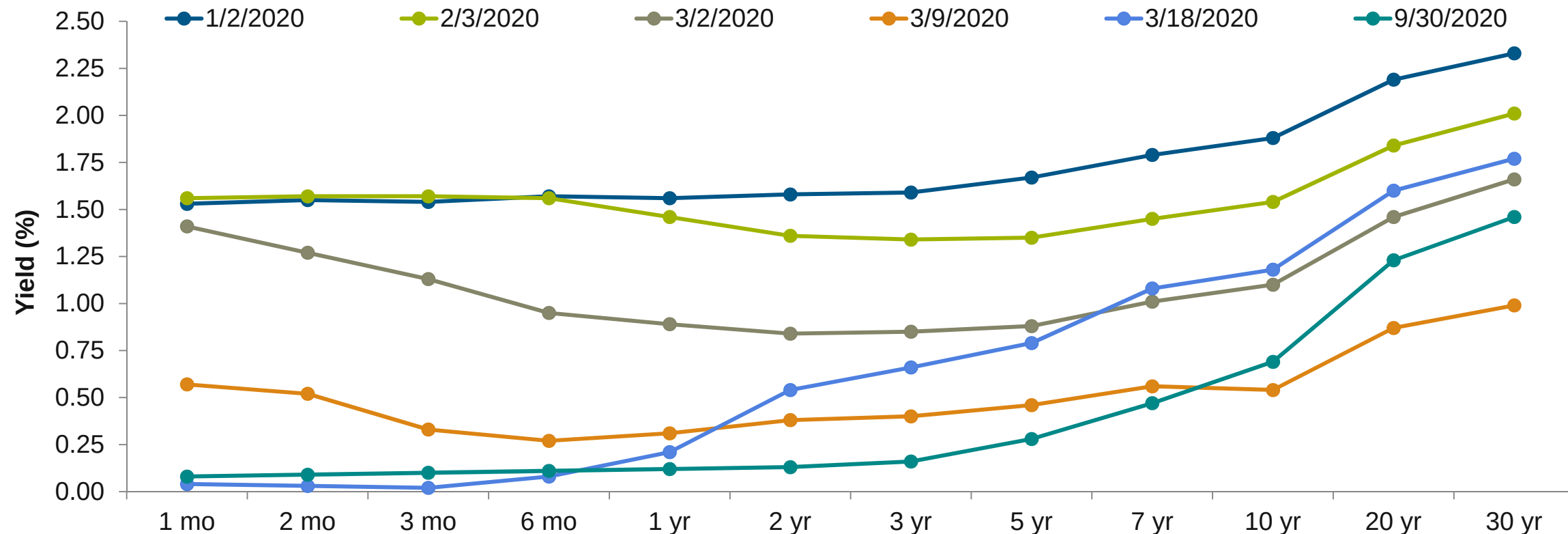
Seasonally Adjusted Real GDP in Billions of Dollars Since 2007



- After the Global Financial Crisis, it took 3.5 years before real GDP reclaimed its pre-recession highs
- GFC peak to trough was down 4%
- 2Q20 real GDP levels were down over 10% from 4Q19
- 3Q20 seasonally adjusted real GDP bounced back over 7% and is now down only 3.5% since 4Q19

Impact on Financial Markets

Treasury yield curve shape shifting: a moving target



The Treasury yield curve contains an implicit broad economic forecast

- Steeper yield curves (long-term rates higher than short-term rates) suggest stronger anticipated growth.

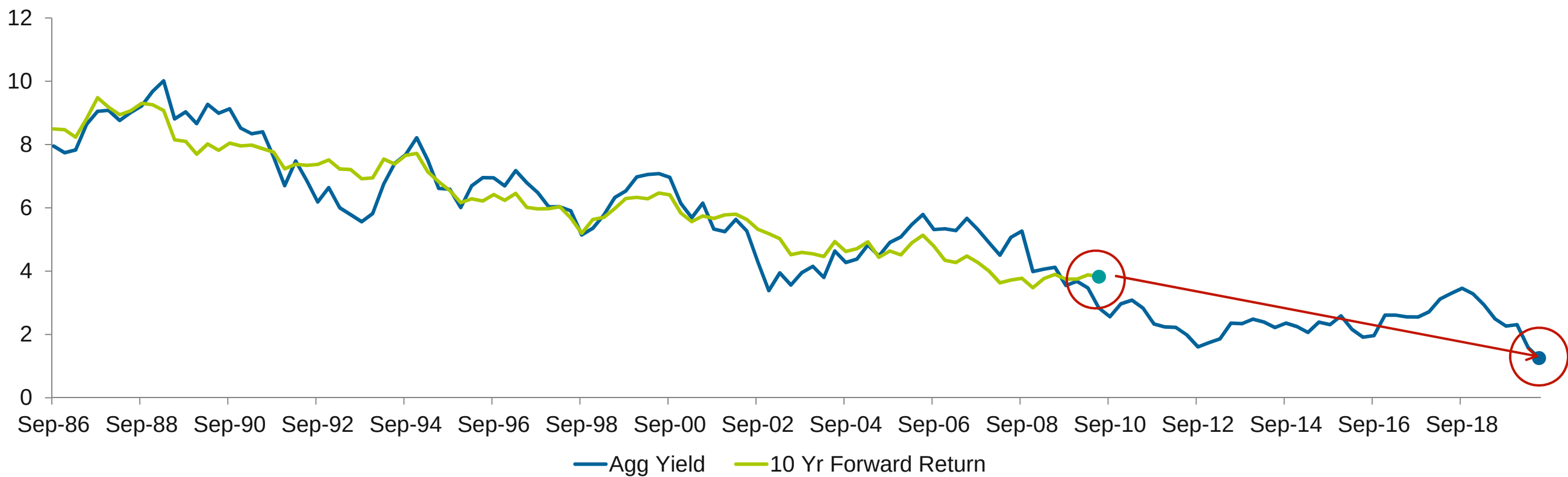
The shape of the Treasury yield curve has varied quickly and substantially since the beginning of 2020.

- Curve shifted down dramatically in February and March, early in crisis.
- Current yield curve still low on the short end and upward sloping, but not steep – 2-year to 10-year differential is only 0.56%

Source: U.S. Department of Treasury

Starting Yield Is a Strong Determinant of Forward Return

Bloomberg Barclays Aggregate Starting Yield vs. 10-Year Forward Return

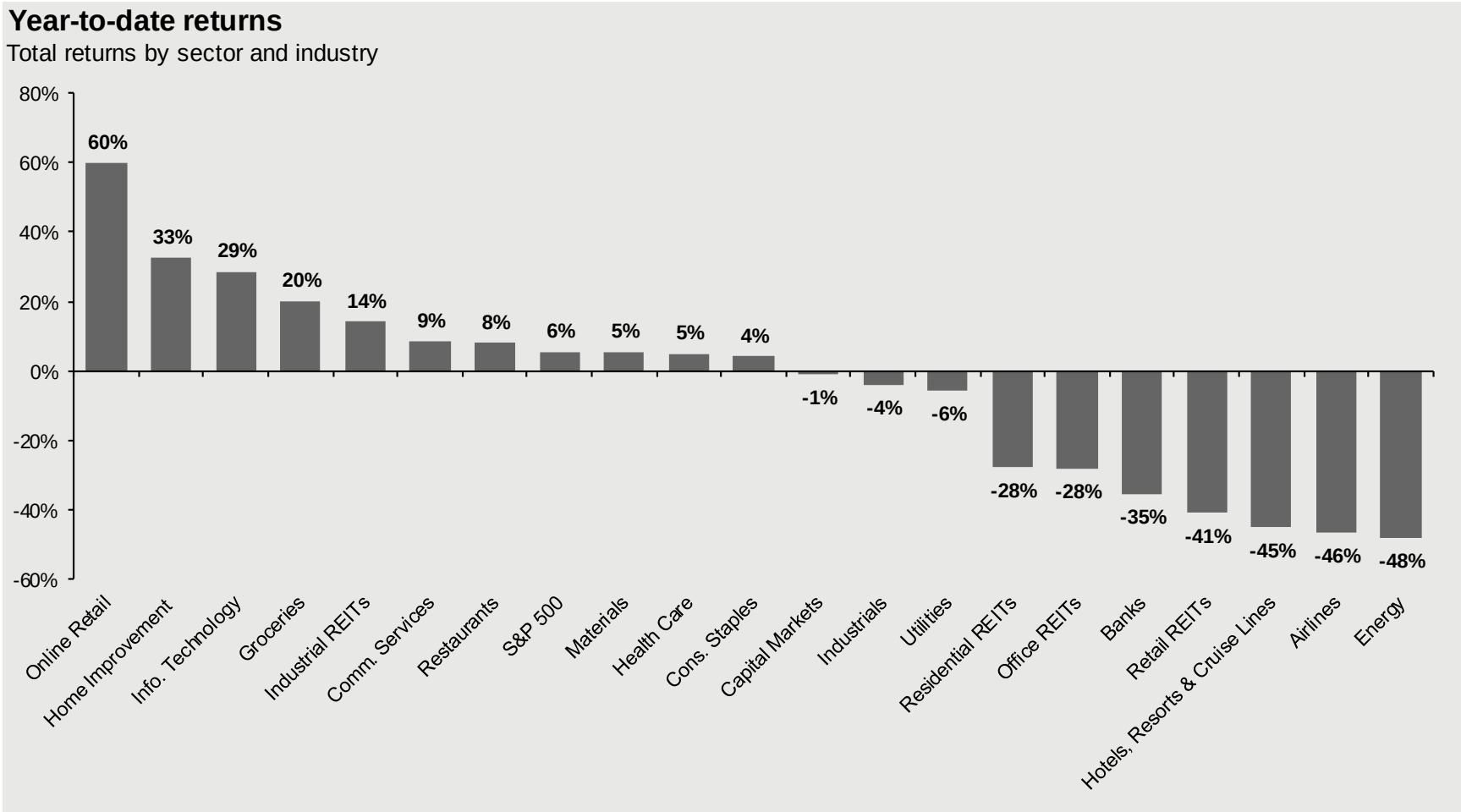


- Somewhat strong relationship between GDP growth and the 10-Year Treasury Yield; the relationship improves even more when you add smoothing and lags.

Source: FRED

U.S. Stock Market Returns YTD Are Widely Dispersed

Concentration of outperformance in technology, online retail, and supporting industries



- Best-performing sectors employ far fewer workers than many of the underperforming sectors (health care, capital markets, banks, hospitality, transportation, energy).

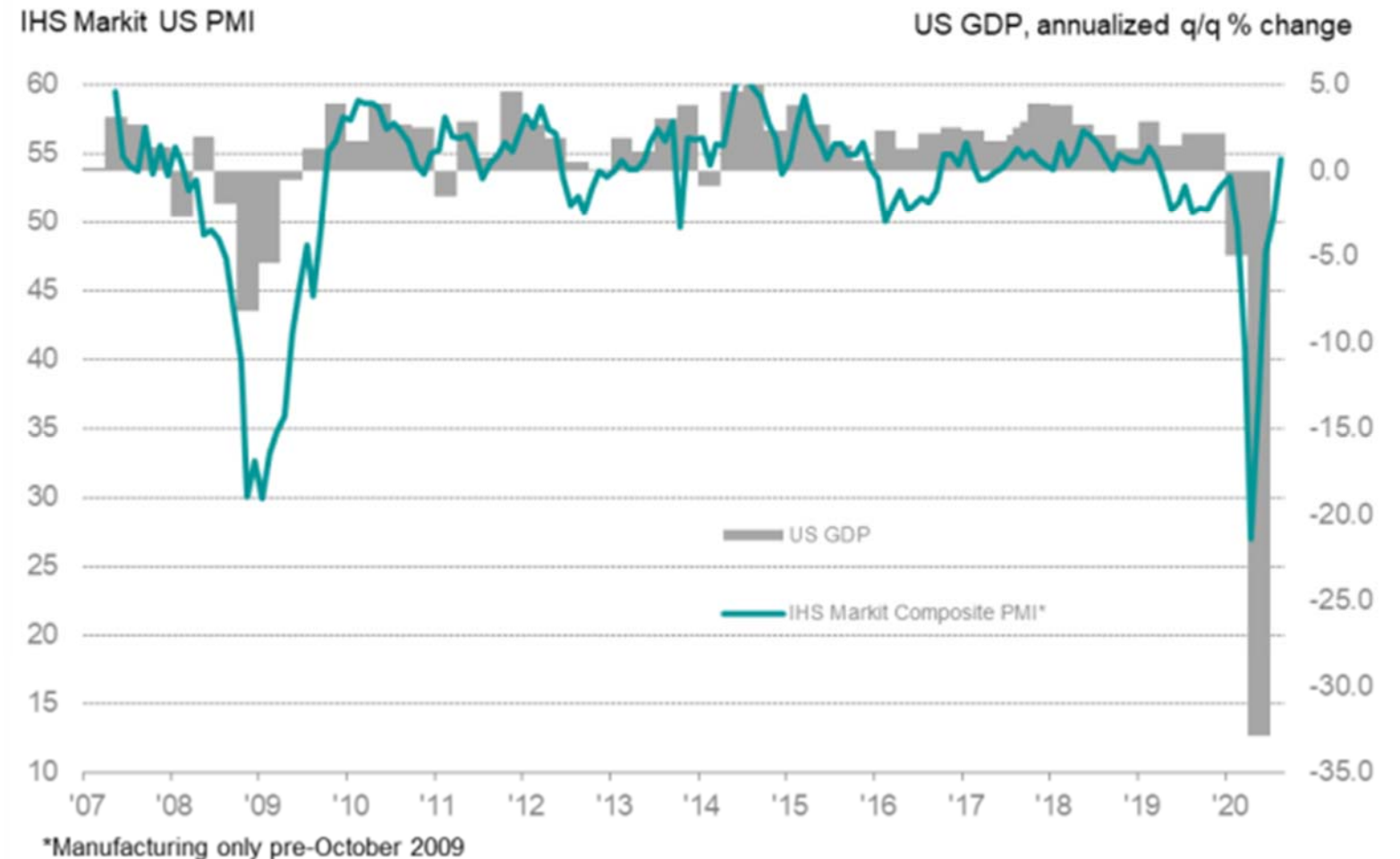
Sources: FactSet, J.P. Morgan Asset Management Guide to the Markets – U.S., Standard & Poor's; Data are as of 9/30/20.

Stock Market Is Not the Economy

Economic growth seriously impaired in 2020; recovery could be several quarters away

- US Purchasing Managers' Index (US PMI) provides a good proxy for future GDP.
- Initial decline in PMI mirrored by sharp decline in 1Q20 and 2Q20 GDP; for 3Q U.S. GDP projected at +33% annualized
- PMI has rebounded sharply.
 - *IHS Markit US Composite PMI Output Index posted 53.2 in September*
 - *Up from 50.3 at the start of 3Q*
 - *Strong increase in output*
- Broad improvement, but signs of slowing and an uneven recovery
- Manufacturing firms' new order inflows slipped in September.
- The level of the PMI in 3Q was lower than during previous periods of expansion, such as the entirety of 2018.

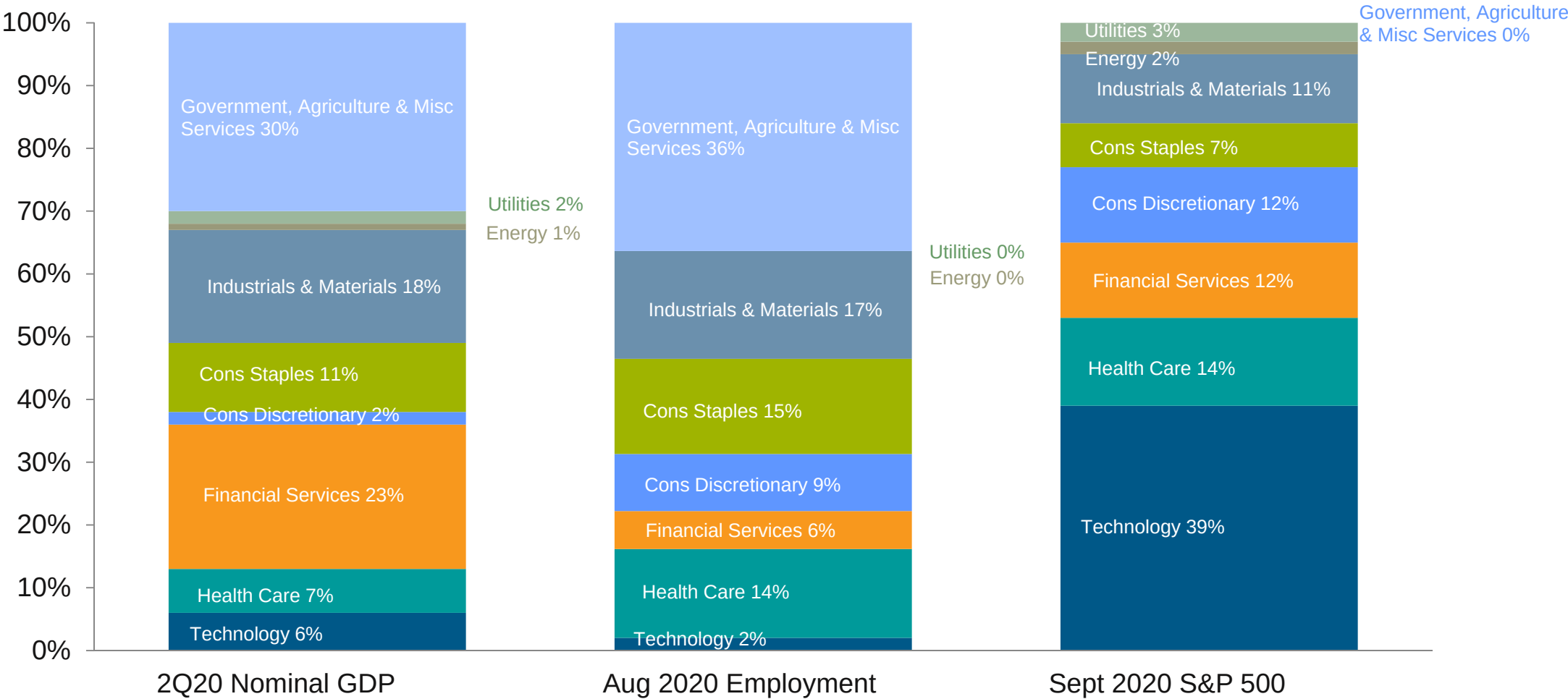
IHS Markit Composite PMI and U.S. GDP



Source: IHS Markit Flash U.S. Composite PMI™

Stock Market Is Not the Economy

Sector share of GDP, employment, and S&P 500



Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Standard & Poor's, J.P. Morgan Asset Management Guide to the Markets – U.S. Data are as of 9/30/20. Technology: information (economy, employment), technology and communication services (S&P 500). Financial services includes real estate (S&P 500). Consumer discretionary: Arts, entertainment, recreation, accommodation, and food services (economy), leisure and hospitality (employment). Consumer staples: wholesale trade and retail trade (economy, employment). Industrials and materials: construction, manufacturing, transportation and warehousing (economy, employment). Energy: mining (economy), mining and logging (employment). Government, agriculture & misc. services: government, other services, professional and business services, education and agriculture, forestry, fishing, and hunting (economy), government, other services, professional and business services, and education (employment)..

Stock Market Is Not the Economy

- U.S. equity market has already recovered from the March 2020 plunge and is up 5.6% year-to-date through September 2020.
- The job market lost over 20 million jobs in March and April, and has recovered only half since May.
- GDP is projected to remain below the February 2020 pre-COVID peak until late 2021 or into 2022.
- Steep structural challenges face many job-laden sectors of the economy that are underrepresented in the current stock market valuation.
- Stimulus benefit to unemployed and to employers carried through 3Q; without extension of benefits, recovery may face a serious slowdown in 4Q and into 2021.



U.S. Equity Performance

Third Quarter 2020

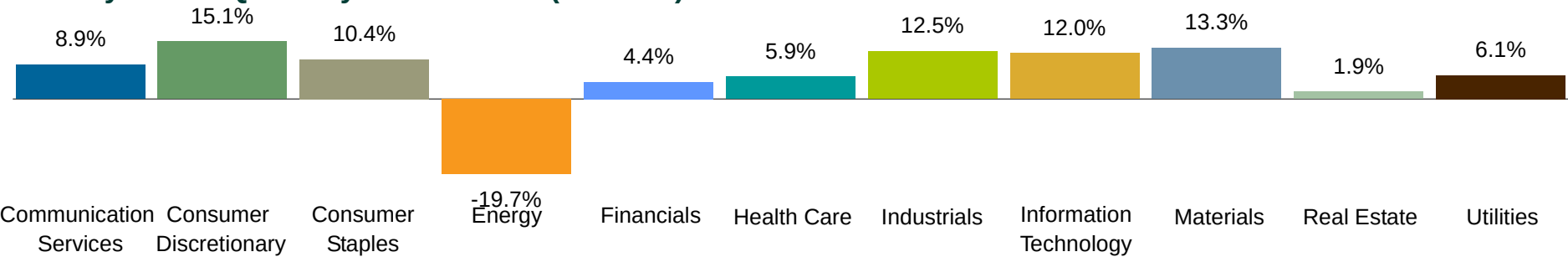
Gains YTD

- S&P +8.9% for the quarter, bringing YTD to +5.6%
 - S&P 500 YTD would be negative if not for Facebook, Microsoft, Amazon, Alphabet, and Apple, representing 33% of the return.
- YTD, pandemic punishing some sectors while rewarding others
 - Tech +29% YTD; Cons. Disc. +23% (online retailers +60%)
 - Energy -48% amid declining crude and natural gas prices
 - Demand from hotels/cruise lines/airlines down as industries have dropped 40%+

Small cap reverses to trail large cap

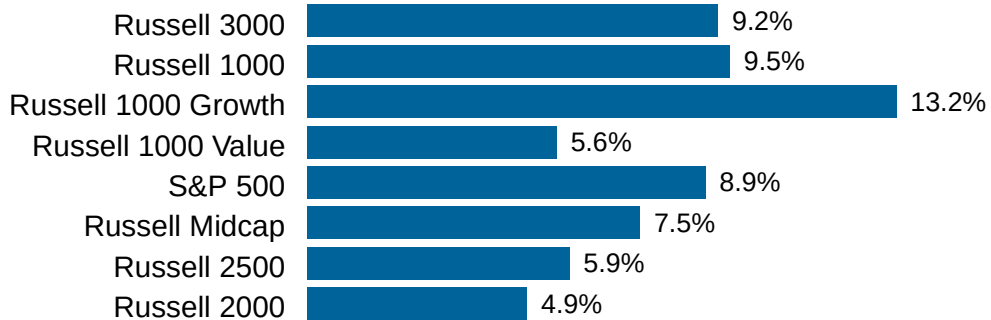
- Following a stellar 2Q20 recovery, small cap trailed large.
- Remains behind large cap by a wide margin over last 12 months
- Growth continues to outpace value across market caps
 - Growth stock P/E near 2x historical average across market caps

Industry Sector Quarterly Performance (S&P 500)

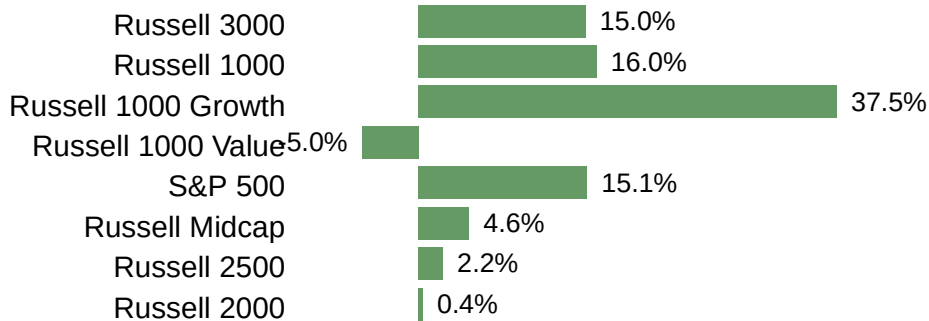


Sources: FTSE Russell, Standard & Poor's

U.S. Equity: Quarterly Returns



U.S. Equity: One-Year Returns



Value vs. Growth

- Large and small value indices continue to underperform large and small growth in 3Q20 and YTD.
- While many market participants feel the large growth market is overvalued, some investors feel it might be undervalued based on current interest rate levels.
- Higher interest rates, a steeper yield curve, economic growth, and improving consumer confidence are among the catalysts that could result in value outperforming.
- S&P 500 Index currently delivers a dividend yield well above the 10-year Treasury, which can help support current valuation levels.

Quarter			Year-to-Date				
	Value	Blend	Growth		Value	Blend	Growth
Large	6.1%	8.5%	12.3%	Large	-11.1%	5.1%	23.3%
Mid	8.3%	8.8%	9.9%	Mid	-11.3%	-1.1%	14.4%
Small	5.9%	7.1%	8.3%	Small	-19.0%	-6.8%	5.0%

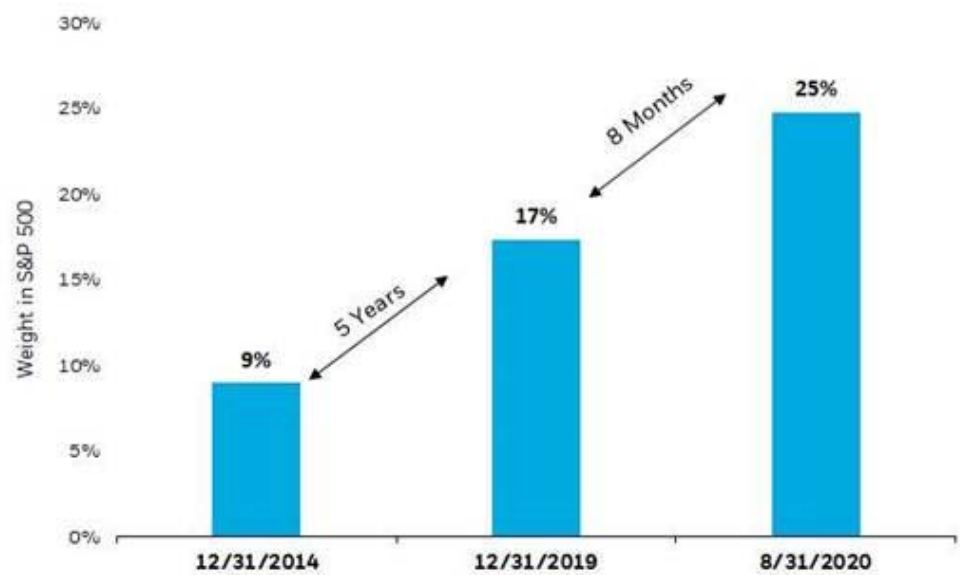
Current P/E vs. 20-year average P/E

	Value	Blend	Growth
Large	17.3 13.7	21.4 15.4	30.2 18.6
Mid	18.2 14.3	22.4 16.2	38.0 20.3
Small	21.0 16.7	36.8 21.1	118.1 50.2

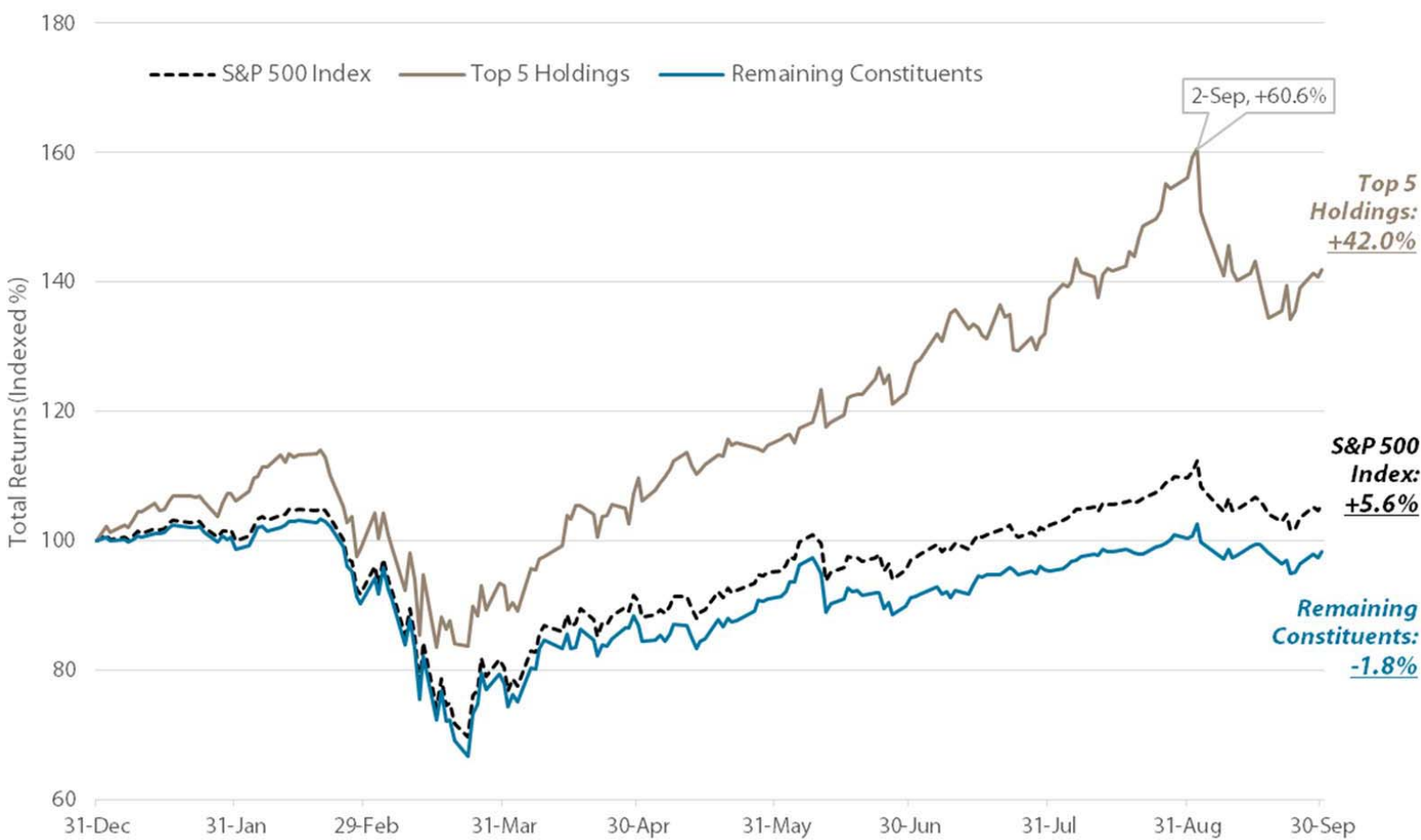
S&P 500 Index Concentration

- A handful of securities continues to drive both large cap core and growth indices higher.
- Today's index concentration surpasses levels seen in the late 90's Dot-Com boom.
- Index concentration of the top five names is at 5 standard deviations above the 30-year average level of approximately 13%.

FAANGM Weight Changes in the S&P 500



Year-to-Date Total Returns as of 9/30/20



Global ex-U.S. Equity Performance

Third Quarter 2020

Continued recovery into 3Q20

- Returns broadly positive across developed and emerging markets but muted YTD
- Recent support from ultra-low interest rates and upward earnings revisions
- EM recovery driven by global risk-on environment; key countries within EM (China and South Korea) have better managed the pandemic
- Small cap continued to outperform large as lockdowns eased and business confidence improved.

Rebound for cyclicals

- Materials, Industrials, and Consumer Discretionary outperformed as consumption and production resumed.
- Factor performance led by momentum (rebound) and volatility (risk-on market mentality)

U.S. dollar vs. other currencies

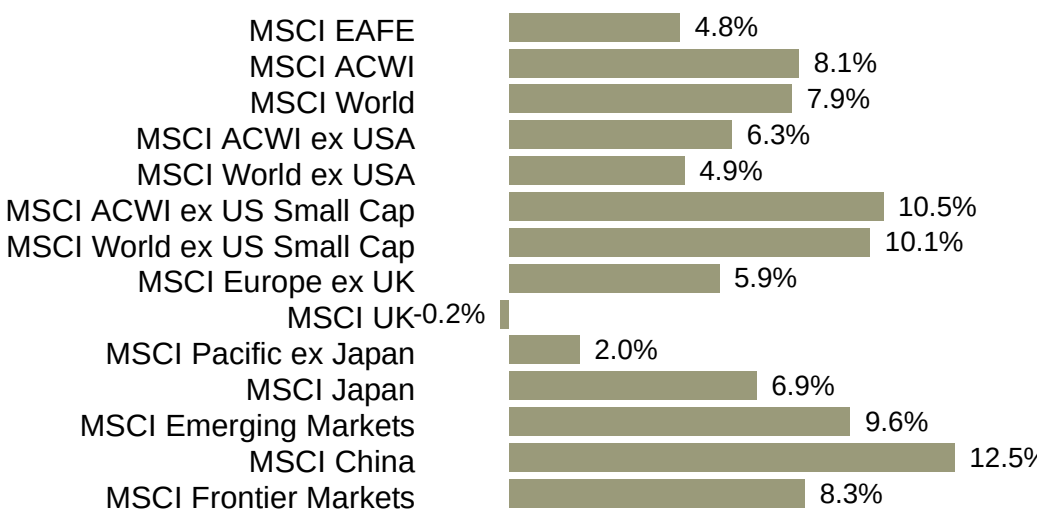
- U.S. dollar lost ground versus every developed market currency on expectation of lower-for-longer U.S. rates due to Fed’s shift in approach toward inflation and employment.

Growth vs. value

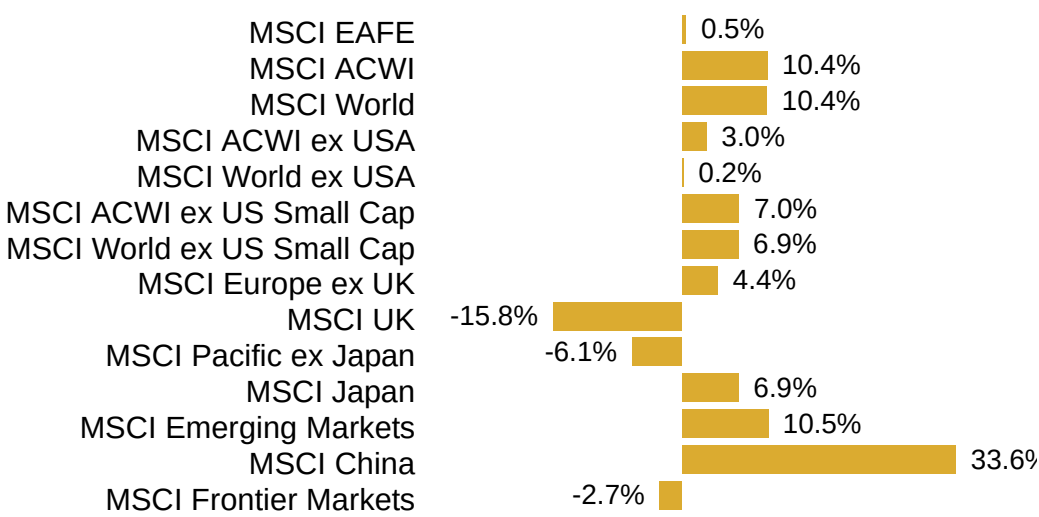
- Growth continued to outperform value.
- Extremely narrow market with performance dominated by Tech

Source: MSCI

Global Equity: Quarterly Returns



Global Equity: Annual Returns

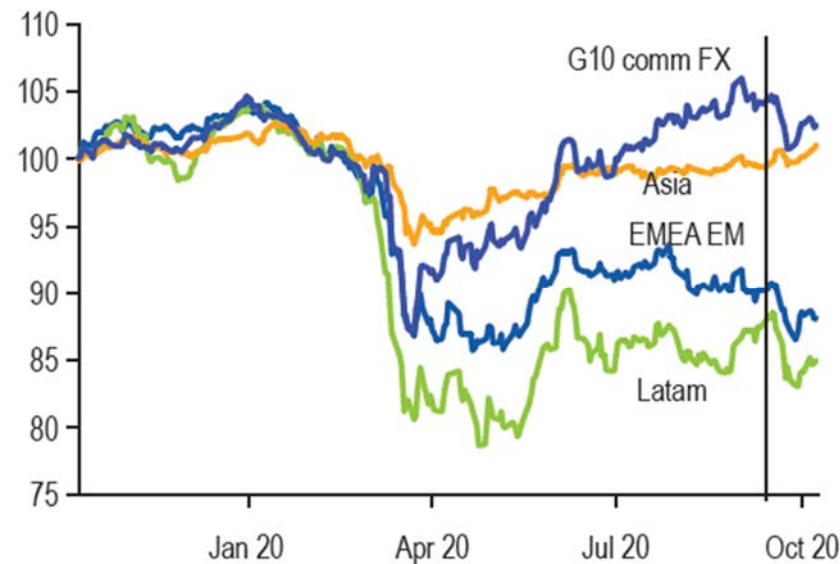


Where's the U.S. Dollar Going?

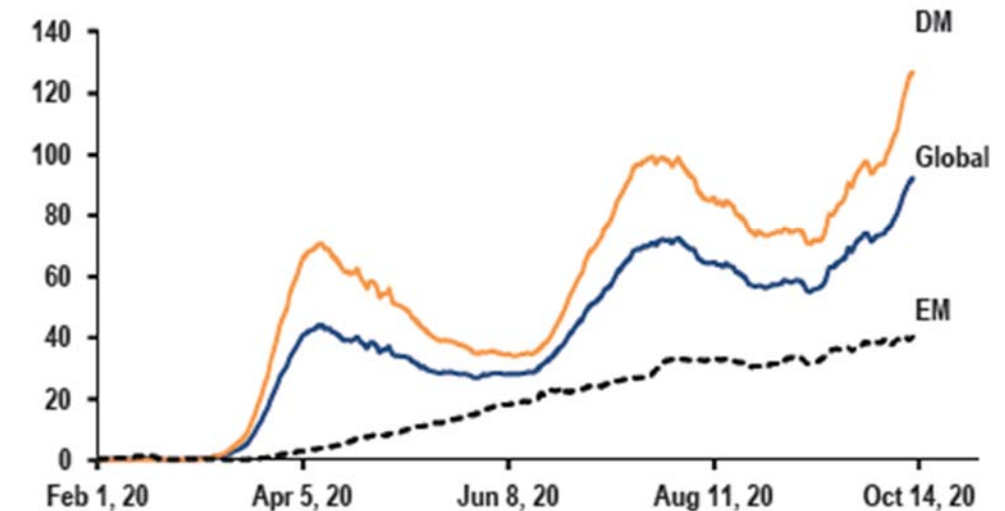
Key drivers: global recovery, U.S. elections

- Management of COVID-19 a key variable to recovery
 - Asian currencies have maintained resiliency relative to the U.S. dollar due to better COVID-19 management and economic outlook.
- Potential for a Democrat-controlled White House may increase USD pressure to the downside on a medium-term basis.
 - Potentially easier fiscal policy and a larger budget deficit in the aftermath of a “Blue Wave” may yield lower dollar.
 - More cohesive foreign policy under Biden presidency may support EM currencies.

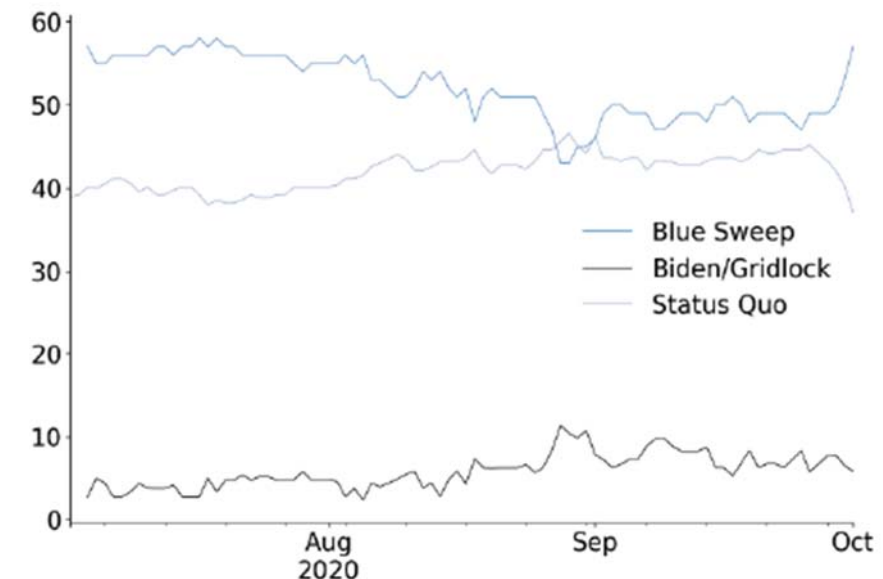
Regional Currency Performance vs. USD



Global New COVID-19 Cases by Region (million)



Election Outcome Probabilities



U.S. Fixed Income Performance

Third Quarter 2020

Treasury yields largely unchanged

- 10-year UST yield at 0.69% in 3Q20, up 3 bps from 2Q20 but off sharply from year-end level of 1.92%
- TIPS did well as inflation expectations rose from 1.34% to 1.63%.
- No rate hikes expected until at least 2023

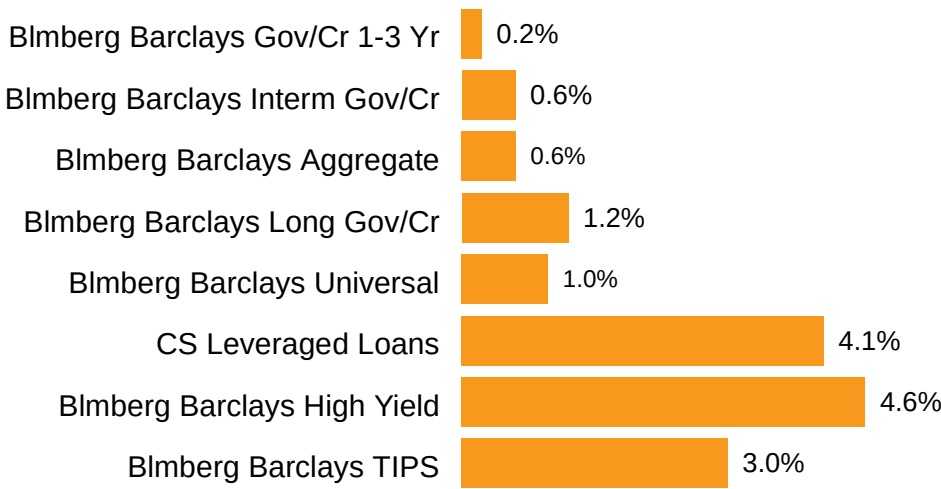
Bloomberg Barclays Aggregate roughly flat

- Corporate and CMBS the strongest investment grade sectors as investors hunted for yield
- Corporate supply (\$1 trillion YTD) at a record as companies rushed to take advantage of ultra-low interest rates

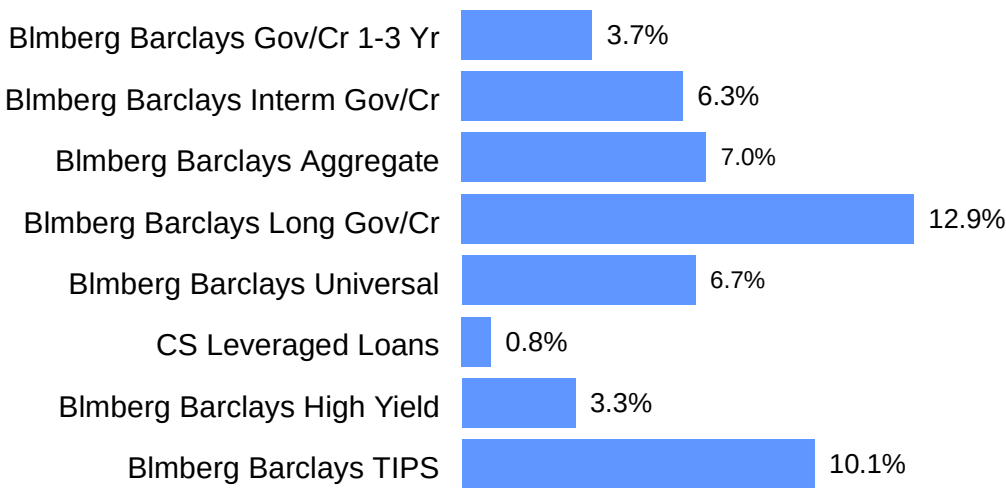
Risk-on sentiment helped high yield and loans

- Non-investment grade sectors rallied, but remain roughly flat YTD.
- The high yield bond market also experienced high levels of net new issuance (over \$120 billion YTD).

U.S. Fixed Income: Quarterly Returns



U.S. Fixed Income: Annual Returns



Sources: Bloomberg Barclays, Credit Suisse

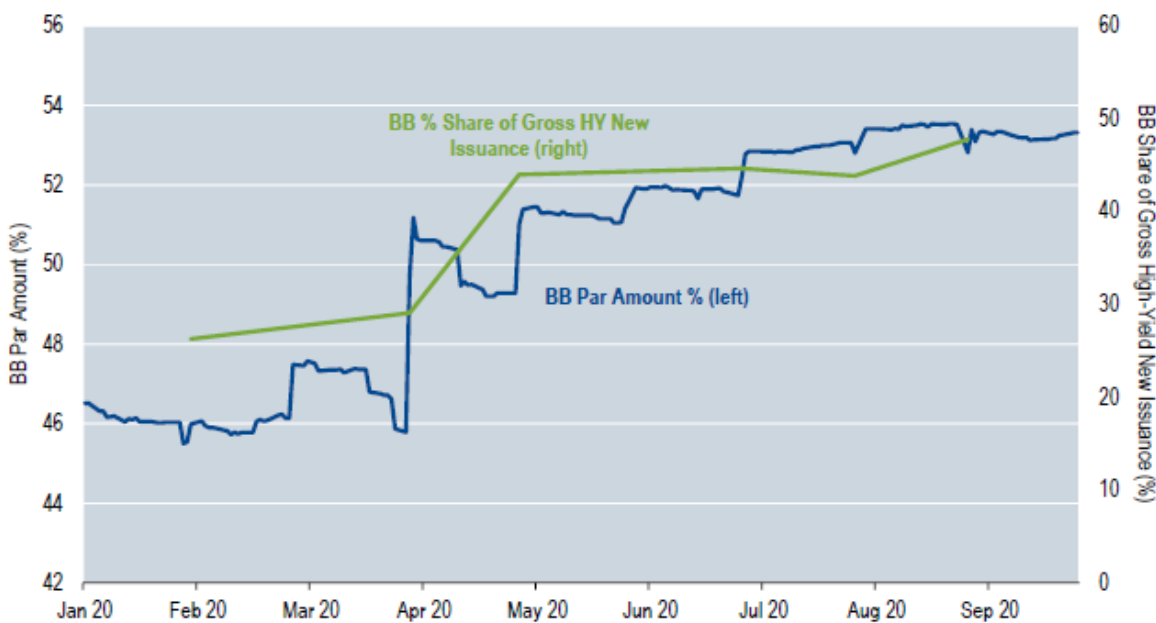
High Yield Market's Change in Composition

Growth in BB-rated bonds

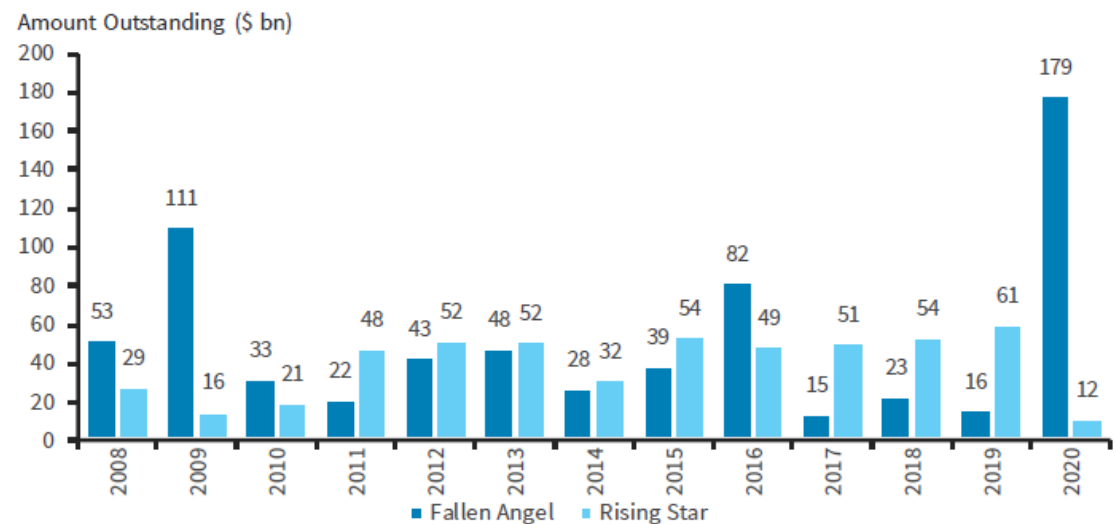
High yield trended higher in quality

- BB/Ba-rated debt, the highest-quality category within high yield, experienced a surge of new issuance as 2020 remains a year of record new issuance across corporate debt.
- Reconstitution of downgraded investment grade debt into high yield has also added to the category.
- BBs now represents over half of the Bloomberg Barclays US High Yield Index.
- Historically, composition changes have generated market inefficiencies that managers can seek to exploit.

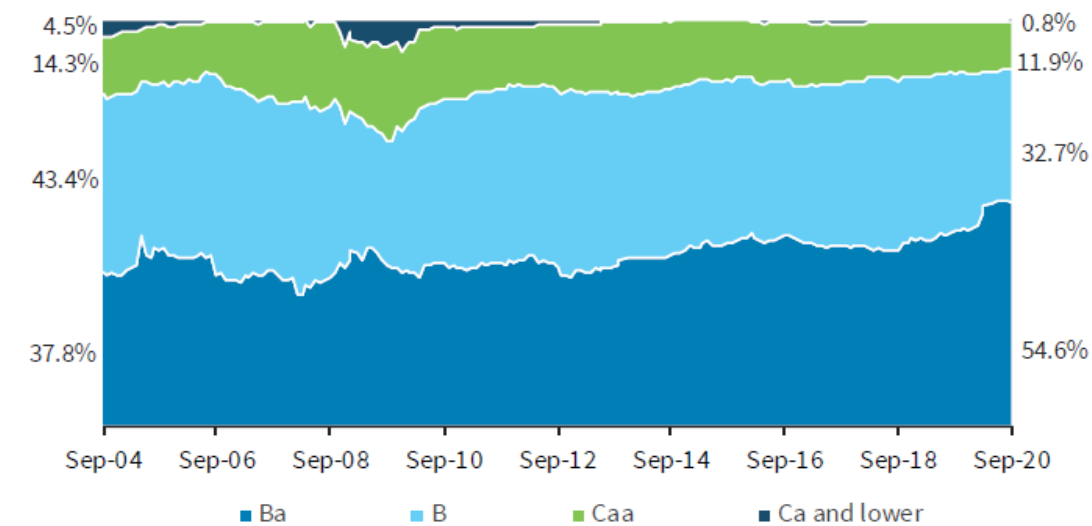
Growth of BBs



U.S. Corporate Fallen Angels and Rising Stars



Quality Breakdown of the High Yield Index (Market Values)



Global Fixed Income Performance

Third Quarter 2020

Global ex-U.S. fixed income rose amid rate cuts

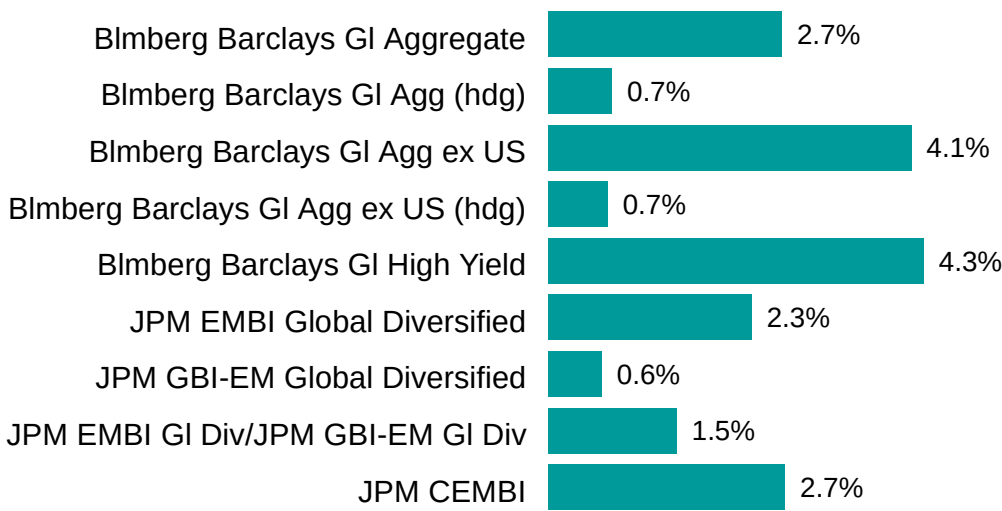
- Central banks continued to act aggressively to provide support via rate cuts, asset purchase programs, and other forms of stimulus.
- Broad-based U.S. dollar weakness dampened hedged returns as the USD lost 4% versus the euro and the British pound, and 2% versus the yen.
- Over 70% of global sovereign debt has negative real yields, a record high, according to JPMorgan.

Emerging market debt made up ground

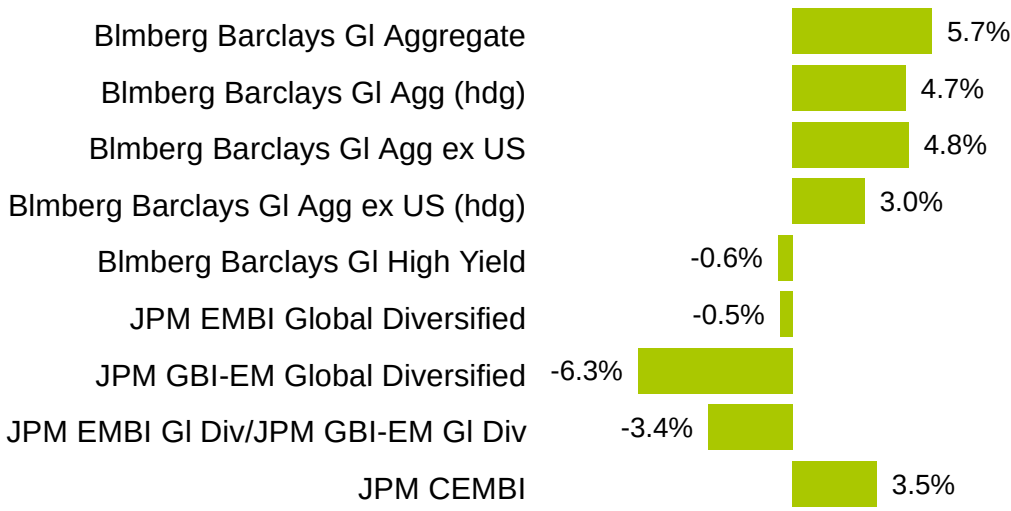
- Emerging market debt indices gained in 3Q20 but remain down from year-end.
- U.S. dollar-denominated index (EMBI Global Diversified) outperformed local currency as U.S. rates fell; returns were mixed across the 70+ constituents, but most were positive.
- Local currency index (GBI-EM Global Diversified) was up slightly but returns varied widely among constituents: Russia: -8%; Brazil: -3%; Mexico and S. Africa: +6%
- Staggered inclusion of China bonds continued with the weight rising to 7% in the JPM GBI-EM Global Diversified Index.

Sources: Bloomberg Barclays, J.P.Morgan

Global Fixed Income: Quarterly Returns



Global Fixed Income: Nine Month Returns



Real Estate Market

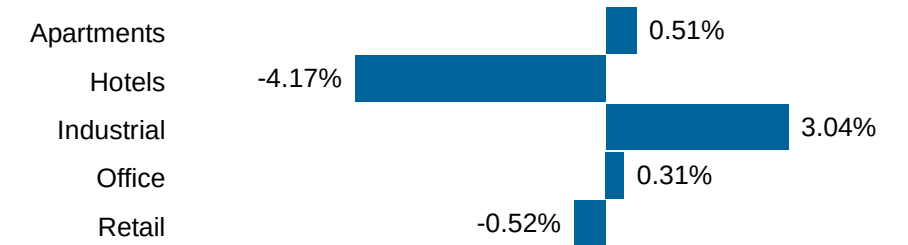
Third Quarter 2020

U.S. Private Real Assets	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
Real Estate ODCE Style	0.31	-0.38	1.24	4.64	6.31	9.36	5.70
NFI-ODCE (value weight net)	0.27	-0.74	0.52	4.25	5.69	9.26	5.71
NCREIF Property	0.74	0.45	2.00	5.11	6.28	9.37	7.43
NCREIF Farmland	0.61	1.11	2.09	4.73	5.77	10.67	12.71
NCREIF Timberland	0.04	0.23	0.19	2.09	2.56	4.40	6.12
Public Real Estate							
Global Real Estate Style	3.06	-13.91	-11.79	2.61	4.37	6.94	5.26
EPRA/NAREIT Developed	2.09	-19.69	-18.29	-1.45	2.03	4.75	--
Global ex-U.S. Real Estate Style	5.49	-12.00	-6.69	3.57	4.84	6.61	5.54
EPRA/NAREIT Developed ex US	4.05	-18.02	-13.36	0.01	3.21	4.24	3.99
U.S. REIT Style	1.80	-12.26	-12.01	3.38	5.80	9.16	6.96
NAREIT Equity REITs	1.44	-17.54	-18.16	0.20	3.95	7.90	5.86

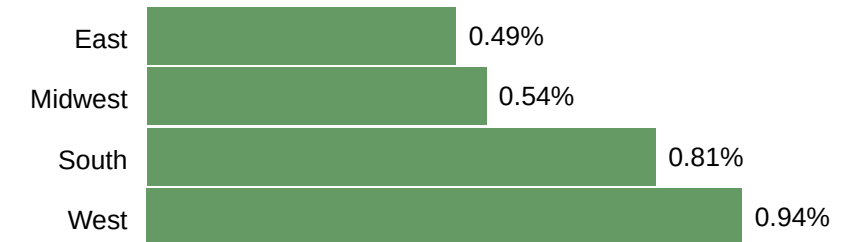
Results

- Pandemic’s impact reflected in 3Q20 results
- Income remains positive except in Hotel sector.
- All sectors experienced negative appreciation; Industrial remains the best performer.
- Dispersion of returns by manager within the ODCE Index due to both composition of underlying portfolios and valuation methodologies/approach
- Negative appreciation returns expected for 4Q and beyond

Sector Quarterly Returns by Property Type



Sector Quarterly Returns by Region



Sources: Callan, FTSE Russell, NAREIT, NCREIF

Real Estate Market

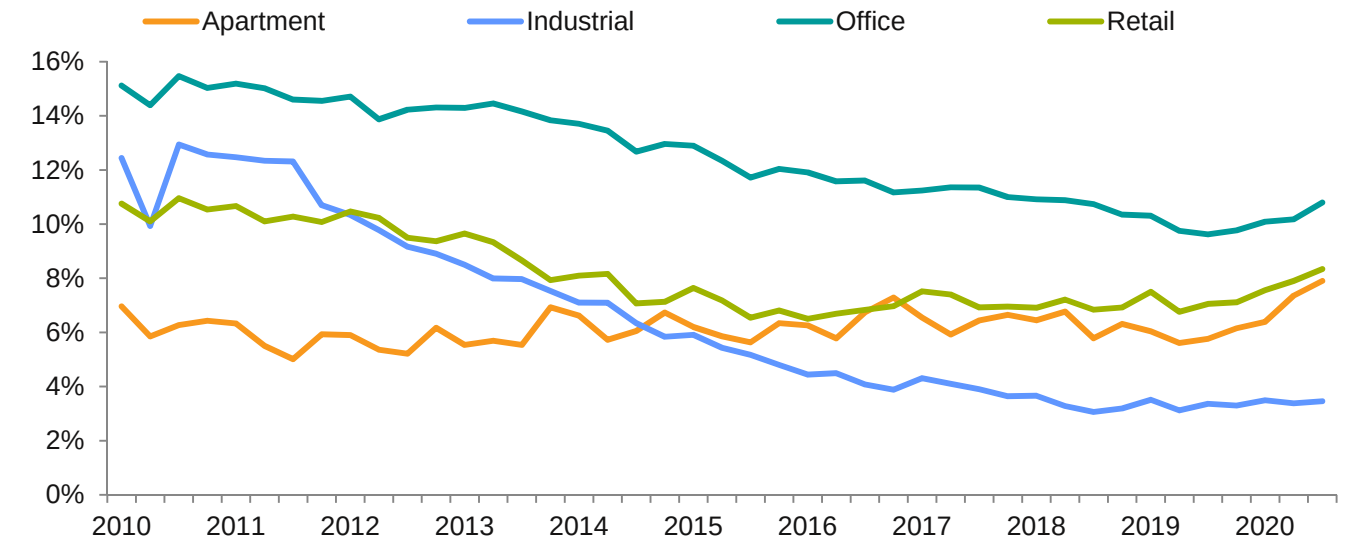
Third Quarter 2020

U.S. real estate fundamentals

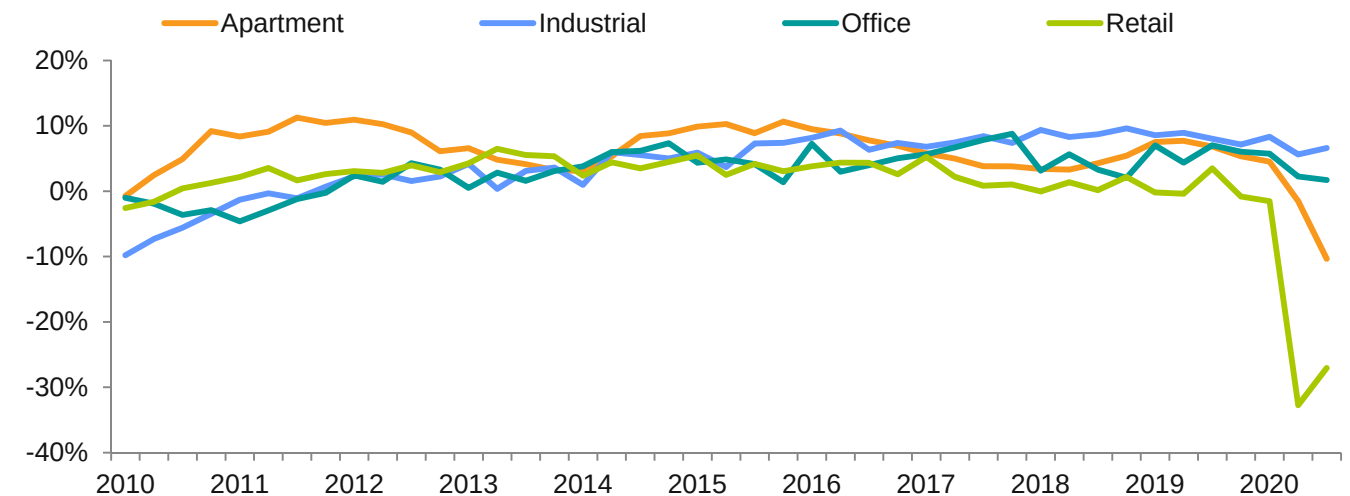
- Vacancy rates for all property types are or will be impacted.
- Net operating income has declined as retail continues to suffer.
- 3Q rent collections show relatively stable income throughout the quarter in the Industrial, Apartment, and Office sectors. The Retail sector remains challenged, with regional malls impacted most heavily.
- Class A/B urban apartments relatively strong, followed by certain types of Industrial and Office
- Supply was in check before the pandemic.
- Construction is limited to finishing up existing projects but has been hampered by shelter in place and material shortages.
- New construction will be basically halted in future quarters except for pre-leased properties.

Sources: NCREIF

Vacancy by Property Type



Rolling 4-Quarter NOI Growth by Property Type

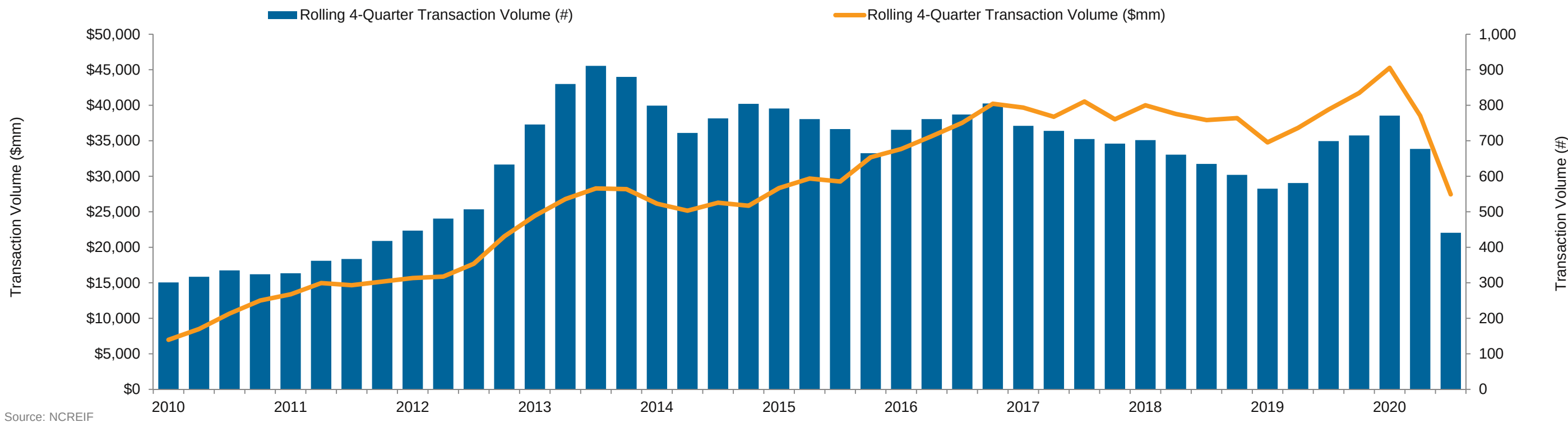


Real Estate Market

Pricing and transaction volumes have essentially halted in 3Q20

- Transaction volume has dropped off during the quarter with the exception of industrial assets with strong-credit tenants trading at pre-COVID-19 levels.
- Cap rates remained steady during the quarter. The spread between cap rates and 10-year Treasuries is relatively high, leading some market participants to speculate that cap rates will not adjust much. Price discovery is happening and there are limited transactions.
- Callan believes the pandemic may cause a permanent re-pricing of risk across property types. Property types with more reliable cash flows will experience less of a change in cap rates; however, those with less reliable cash flows will see greater adjustments.

NCREIF Rolling 4-Quarter Transaction Totals



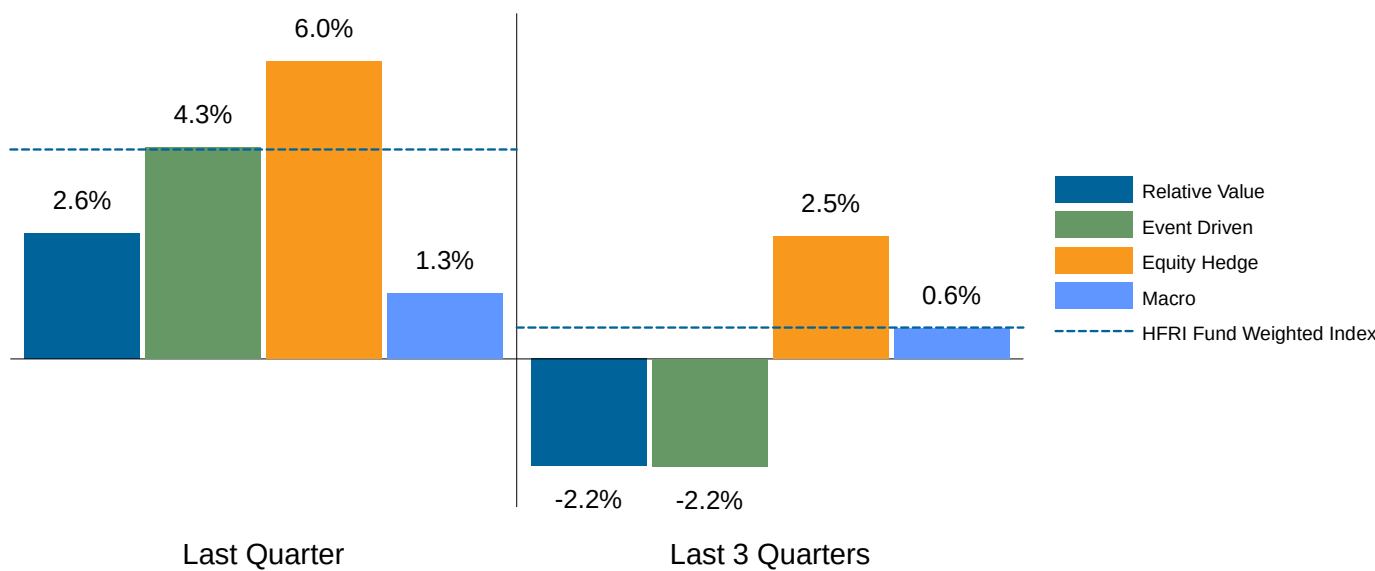
Source: NCREIF

Hedge Fund and MAC Industry Trends

Strong equities reward risk-on hedge funds

- With more beta tailwind, Equity Hedge continued to recover better than other styles.
- With less-liquid exposures, Event Driven and Relative Value still have not fully recovered losses from 1Q20.
- Top-down Macro, which includes trend-following, was modestly positive.

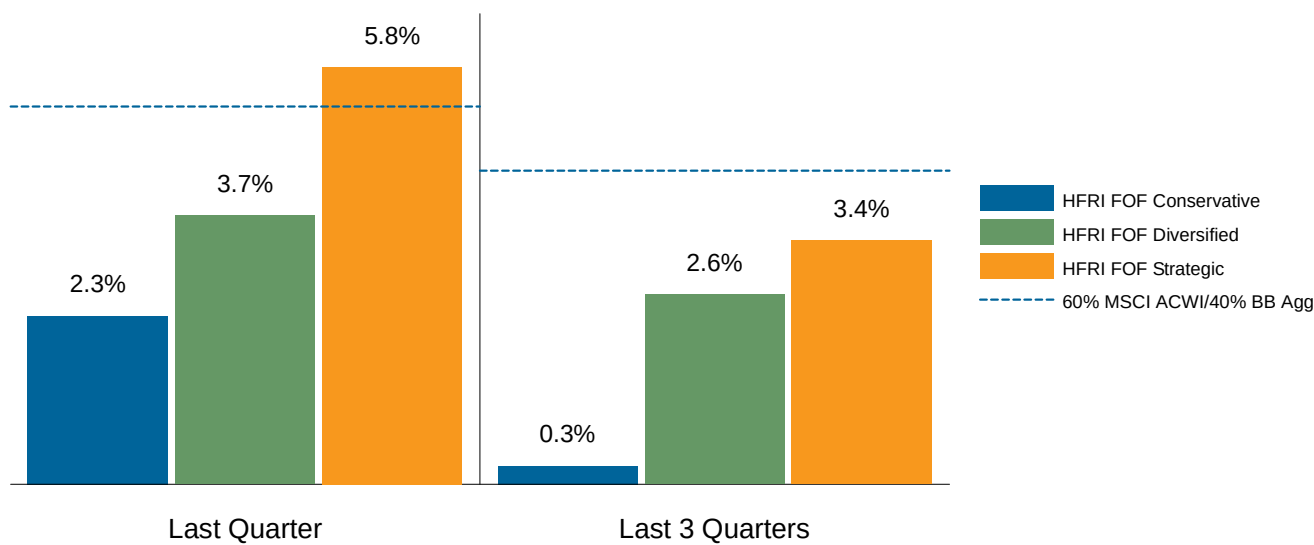
HFRI Strategy Index Returns vs. Broad Hedge Fund Universe



Absolute Return lags long-short equity

- Hedge fund portfolios trailed a traditional 60/40 index YTD after strong 3Q20 equity move.
- Long-short equity FOFs caught more of 3Q's equity upside than they had in 2Q.
- More credit-oriented portfolios, with an embedded value factor exposure, continued to benefit less from economic stimulus than more equity-oriented portfolios.

HFRI Fund-of-Fund Returns vs. 60% Stock/40% Bond Mix



Sources: Callan, Credit Suisse

Hedge Fund and MAC Industry Trends

Long-Biased MACs

- 60% ACWI/40% BB Agg benchmark's 5.2% gain in 3Q20 set a high bar for long-biased MACs.
- Overweight to emerging market equity rewarded

Risk Parity MACs

- Equity and commodity rallies, including gold, lifted risk parity in 3Q while bonds held back
- Steady vol targeting and rebalancing continued to matter

Absolute Return MACs

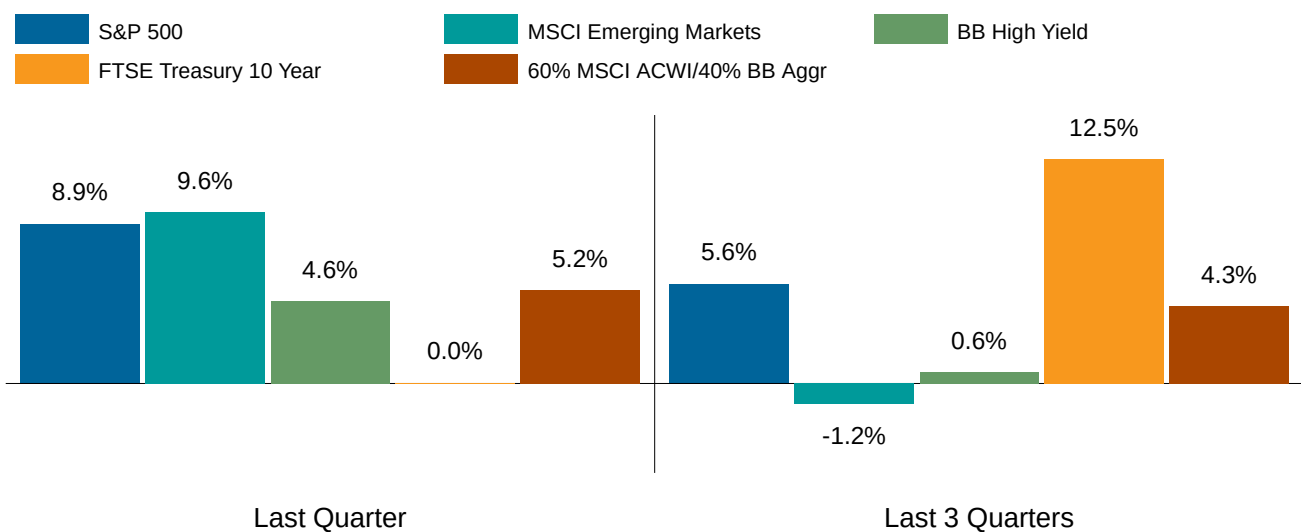
- Risk-on bias in underlying markets helpful to performance edge
- Value and quality tilt hurt net performance.

Risk Premia MACs

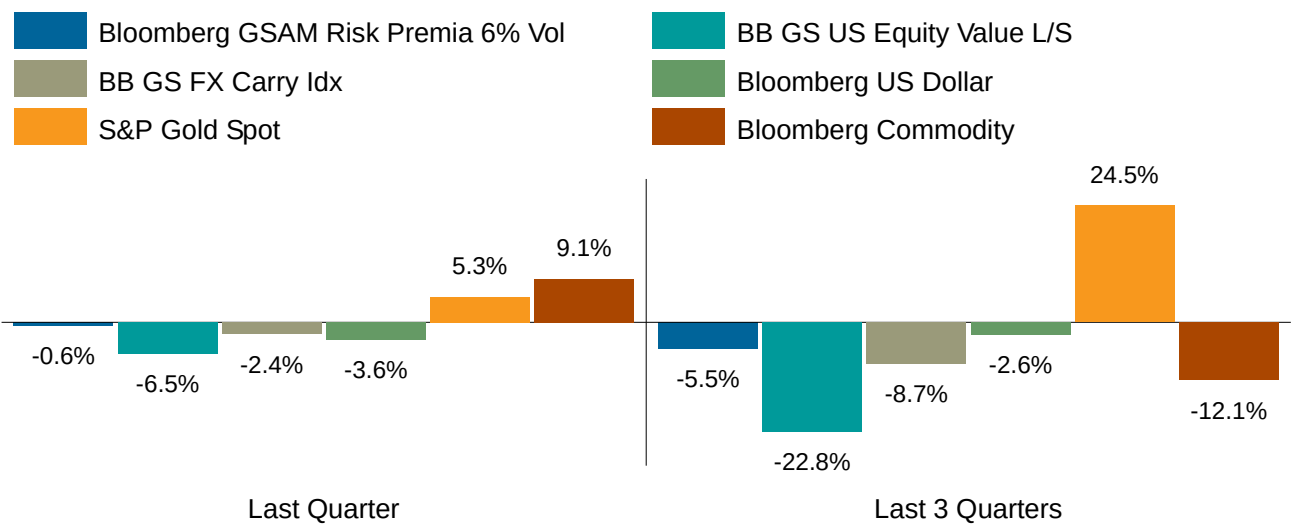
- Bloomberg GSAM Risk Premia 6% Vol fell 0.6%, leading to a 5.5% YTD loss.
- U.S. Equity Value and Currency Carry were the significant detractors across the major markets.

Sources: Callan, HFR, Eurekahedge

Traditional Market Beta Returns



Alternative Betas and Other Market Returns

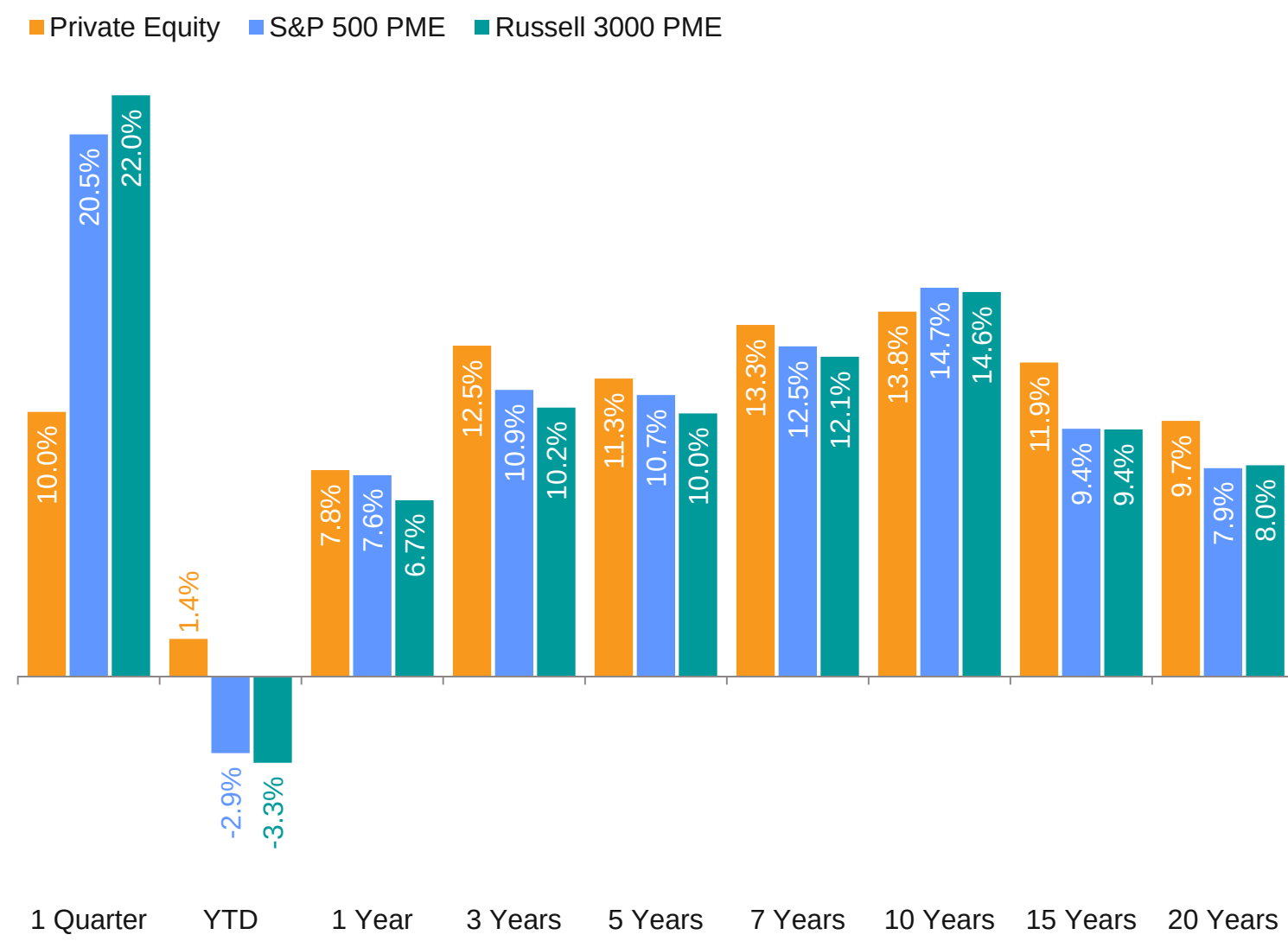


Private Equity

Gains YTD

- 2Q20 rebound in private equity performance similar to public market rebound (private equity did not decline as severely in 1Q)
- Private equity performance positive YTD, significantly outperforming public equity
- Private equity outperforms public equity across all time horizons, except over the last 10 years.

Net IRRs as of 6/30/20



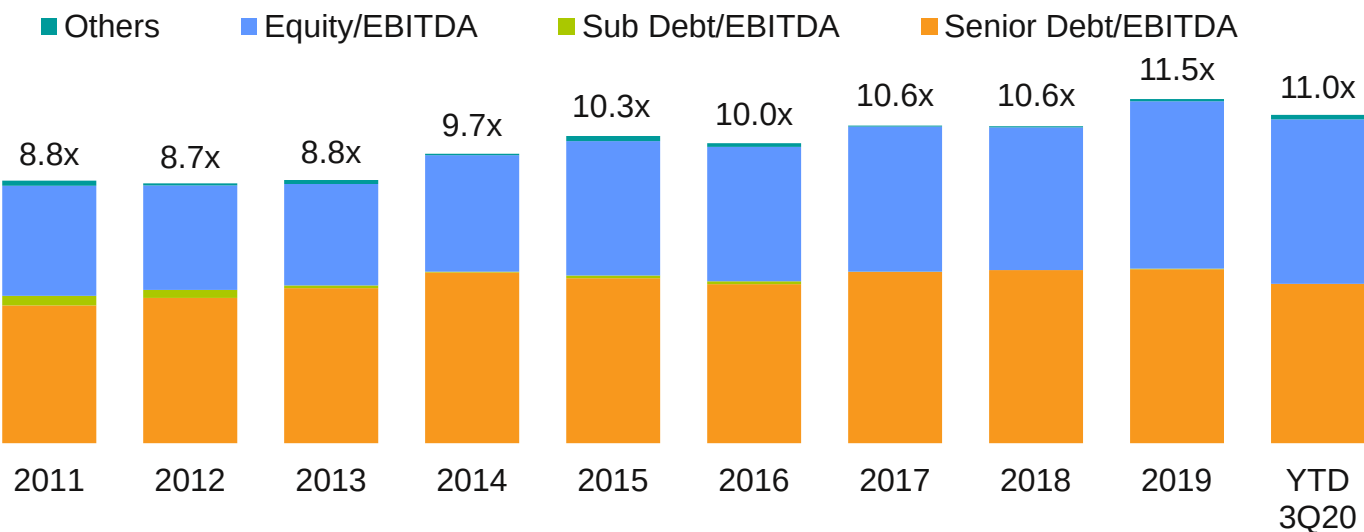
Source: MSCI

Private Equity Company Valuations and Leverage

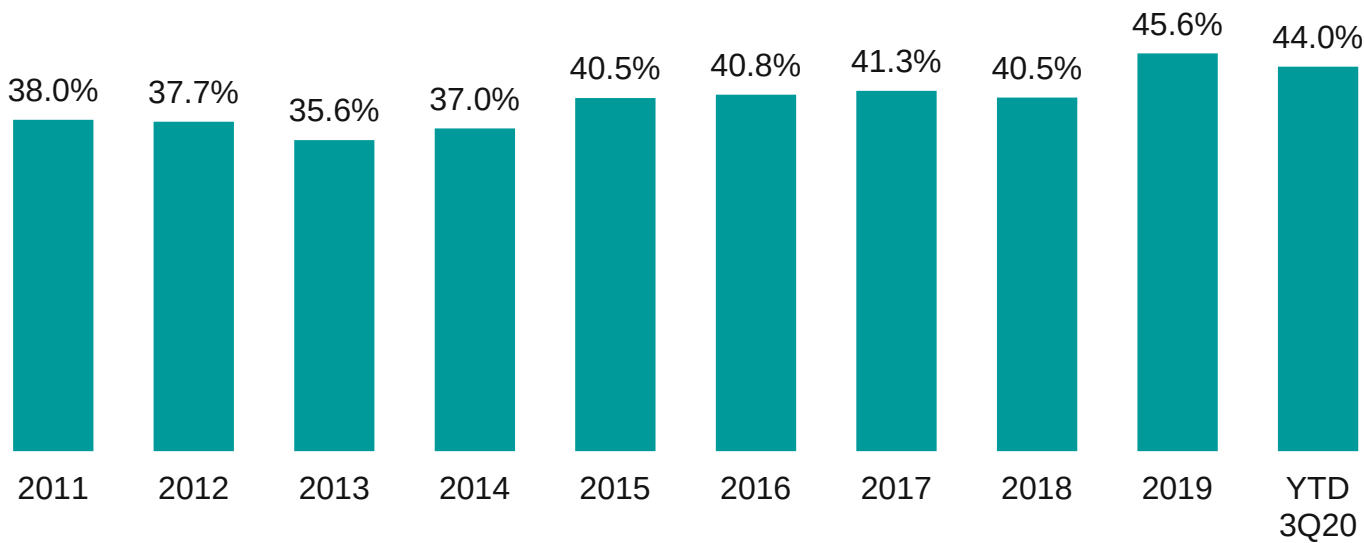
Purchase prices rebound

—Purchase prices rebounded in 3Q20 after plummeting in 2Q, but they are still below 2019 levels for YTD.

U.S. Buyout Purchase Price Multiples



% Equity Contribution in U.S. Buyout Deals



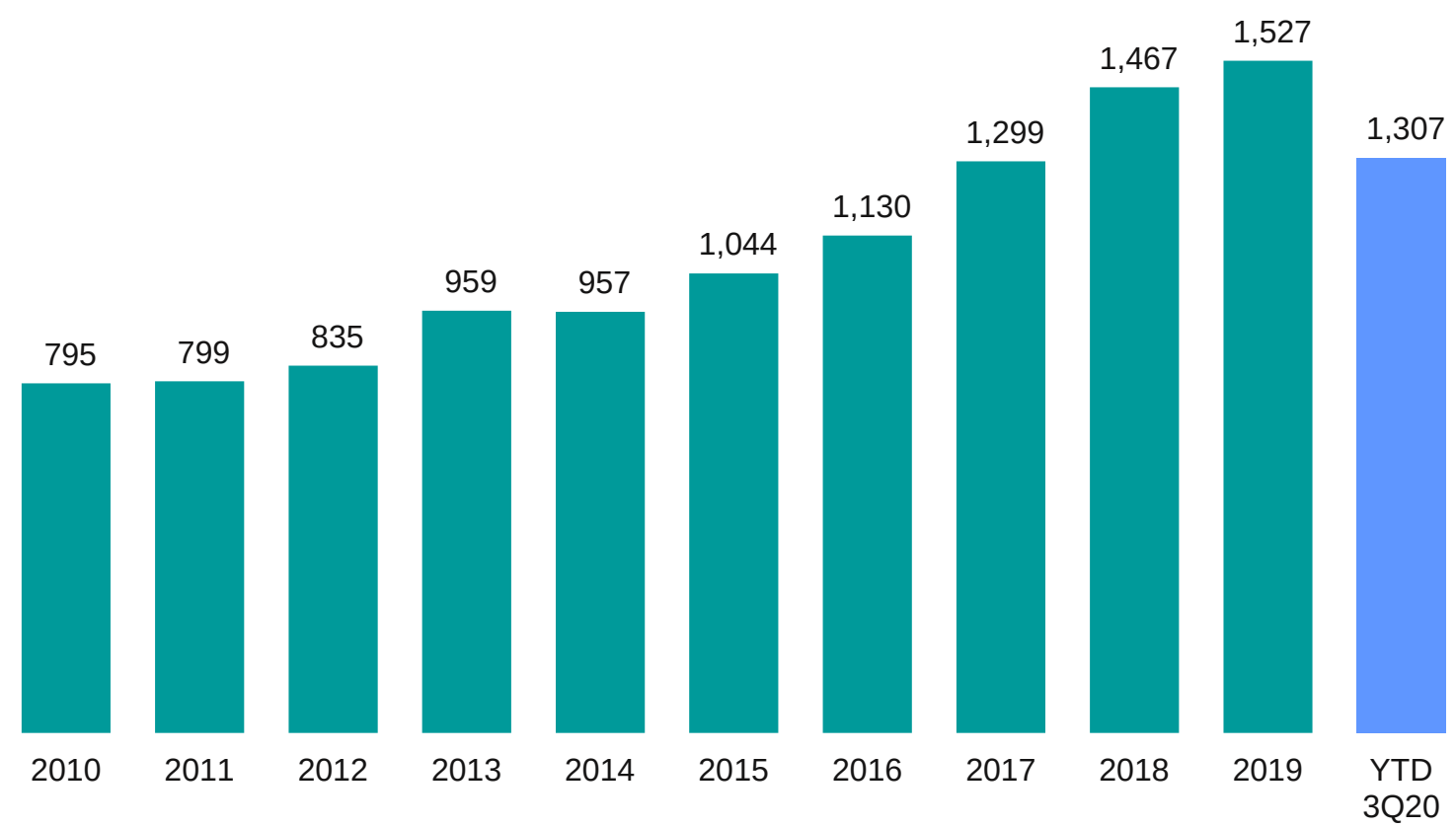
Source: S&P LCD

Private Equity Dry Powder Falls

High levels of capital poised to invest

- Nearly \$1.5 trillion in dry powder at peak in 2019
- New investment activity, which declined by over 30% in 2Q, starting to pick up again
- Investments made during the crisis expected to ultimately outperform, especially once the cycle shifts to the expansion phase
- As general partners deploy this capital, investors need to ensure they have adequate liquidity to meet private equity capital calls.

Dry Powder (\$bn)
Cumulative as of Year-end



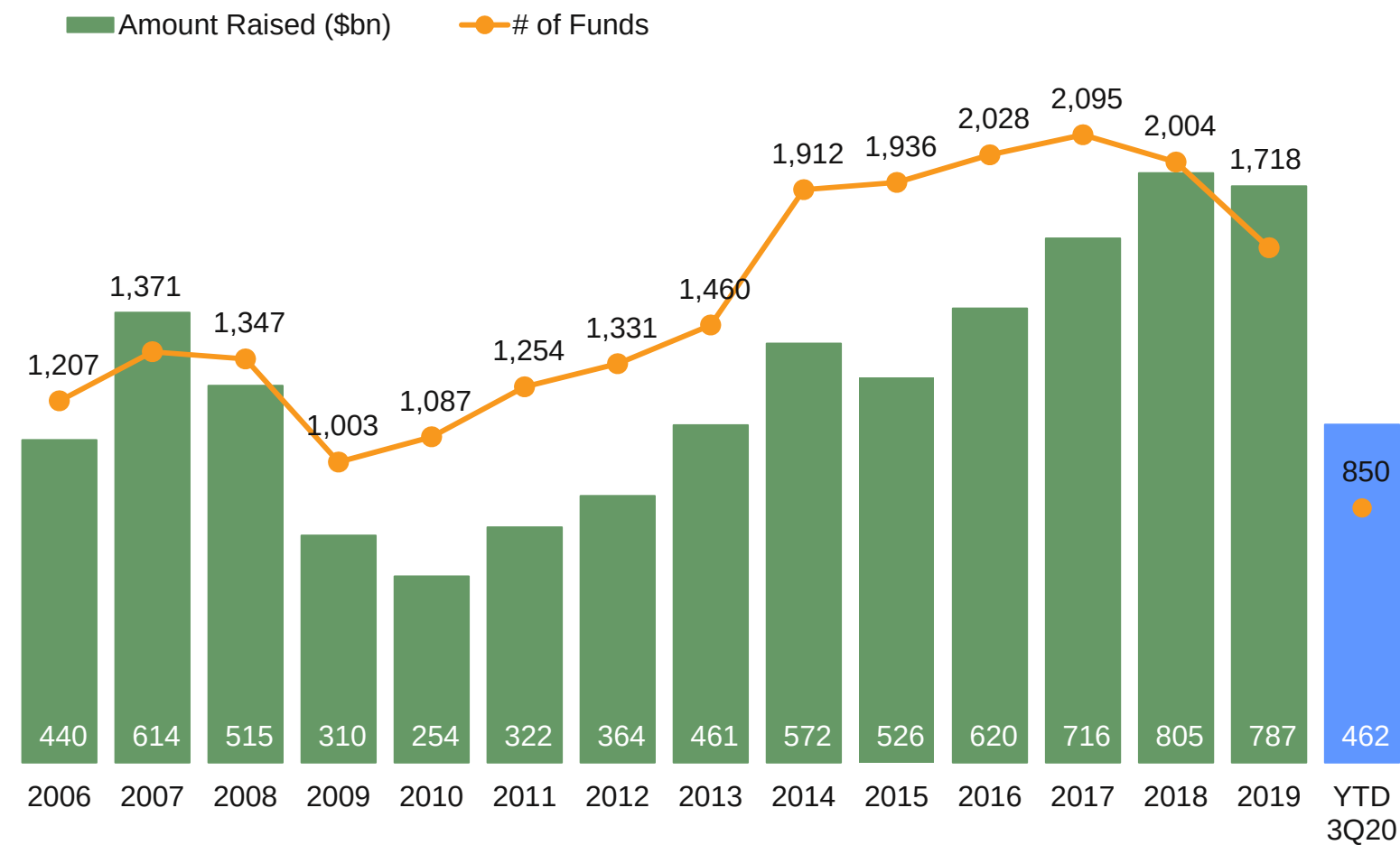
Source: Pitchbook; global, includes private equity and private debt

Global Fundraising

Slowdown during pandemic

- Fundraising to date for 2020 at 85% of YTD 3Q19 levels
- Many upcoming fundraises pushed out to 2021 due to inability of funds to deploy capital during the onset of the pandemic.
- Slow fundraising expected for the rest of the year

Annual Fundraising



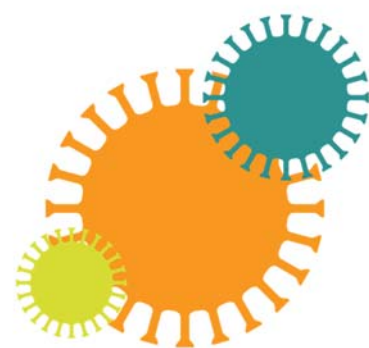
Source: Pitchbook



Callan Update

Published Research Highlights from 3Q20

Coping with COVID-19: Investment Manager Survey, 2nd Edition



Private Equity Fees and Terms Study



2020 ESG Survey



How New Risk-Retention Rules Affect the CMBS Market



Recent Blog Posts

How Investors Can Address Climate Risk in Real Estate

Munir Iman and Aaron Quach

Fine-Tuning Implementation of the CARES Act

Jana Steele

Plus our [blog](#) contains a wide array of posts related to the pandemic

Additional Reading

Private Equity Trends quarterly newsletter

Active vs. Passive quarterly charts

Capital Market Review quarterly newsletter

Monthly Updates to the Periodic Table

Market Pulse Flipbook quarterly markets update

Callan Institute Events

Upcoming Conferences, Workshops, and Webinars

“Callan College”

Introduction to Investments—Virtual

This program familiarizes institutional investor trustees and staff and asset management advisers with basic investment theory, terminology, and practices. It is held over three days with virtual modules of 2.5-3 hours. This course is designed for individuals with less than two years of experience with asset-management oversight and/or support responsibilities. Tuition is \$950 per person and includes instruction and digital materials.

Next Session: April 13-15, 2021

Additional information can be found at:

www.callan.com/cc-introduction-virtual/

“Research, education, and dialogue are more important than ever in these extraordinary times, which is why I’m pleased to announce that we are adding more webinars, and we plan to expand our events to include roundtables and other interactive digital offerings.”

Barb Gerraty
Director, Callan Institute



Save the Date!

2021 National Conference

June 21-23, 2021

We can’t wait to see you!

Upcoming Webinars

Callan’s Capital Markets Assumptions

January 14, 2021

Learn about our 2021-2030 Capital Markets Assumptions and the potential implications for strategic recommendations.

Details at www.callan.com/callan-institute-events

Market Intelligence Special Edition

January 22, 2021

Get insights on the current environment, including trends for equities, fixed income, alternative investments, and defined contribution plans; an overview of the capital markets; and case studies analyzing how institutional investors are addressing the financial stresses from the pandemic.

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SUBJECT: Asset Class Overview
Callan, Senior VP – Steve Center

ACTION: _____

DATE: December 9, 2020

INFORMATION: _____ X _____

BACKGROUND:

Callan Associates, Inc. is currently under contract to perform APFC's core general consulting services of 1) Investment policies and procedures review; 2) annual preparation of an asset allocation plan; 3) performance reporting and analysis; 4) risk analysis; 5) statistical modeling, manager searches, selection, and oversight; and 6) other special consulting services as needed.

STATUS:

At every quarterly board meeting or as requested, Callan Associates, Inc. provides an extensive review of the fund's performance. Senior Vice President, Steven Center, will be the presenter at this meeting.

December 9, 2020



Callan

Alaska Permanent Fund Corporation

3rd Quarter 2020

Performance Review

Marcus Frampton, CFA, CAIA, FRM
Chief Investment Officer

Greg Allen
CEO and Chief Research Officer

Steven Center, CFA
Senior Vice President

Agenda

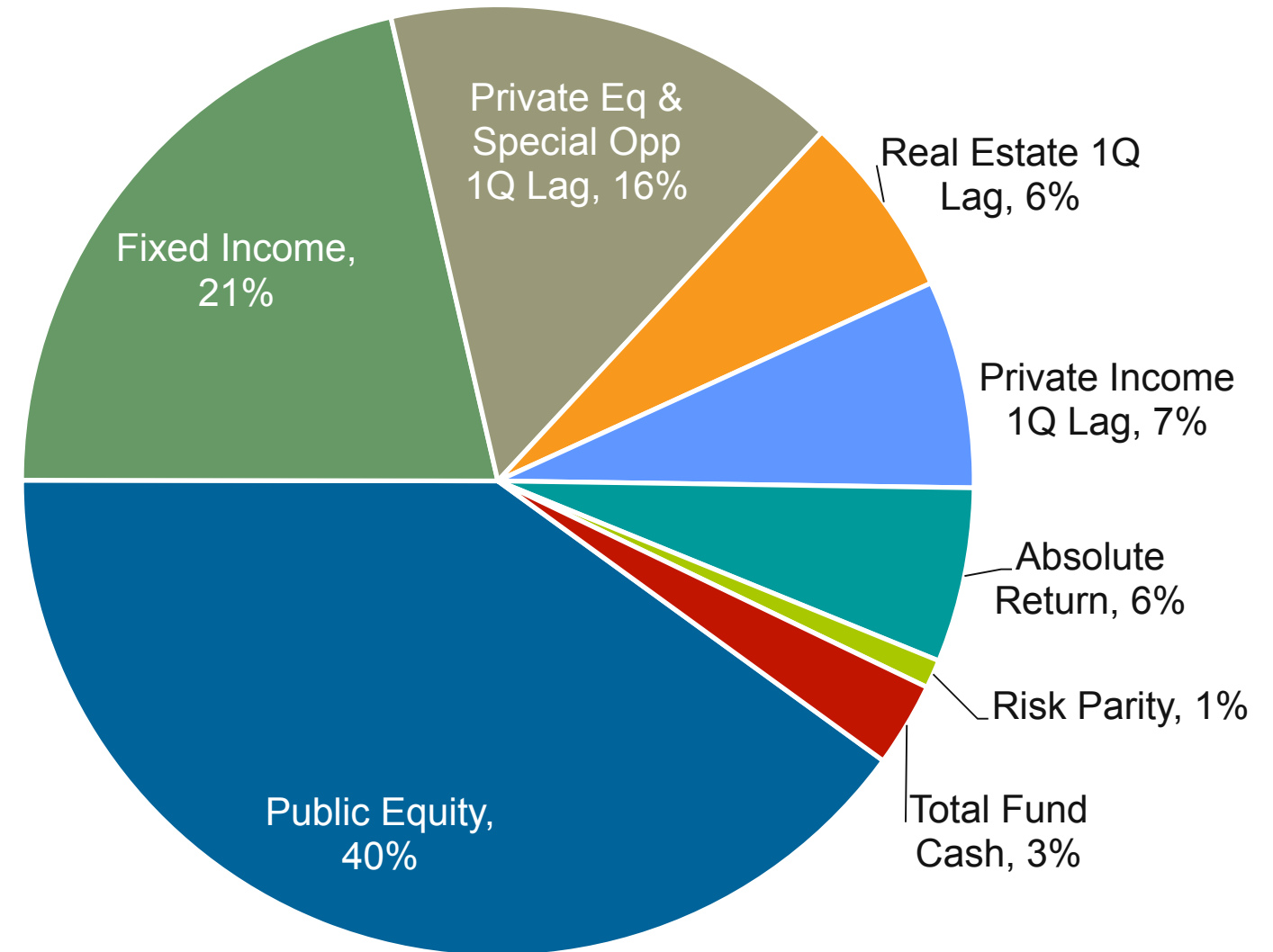
- Total Fund Asset Allocation and Performance
- Asset Class Structure and Performance

Total Fund Asset Allocation and Performance

Total Fund Asset Allocation

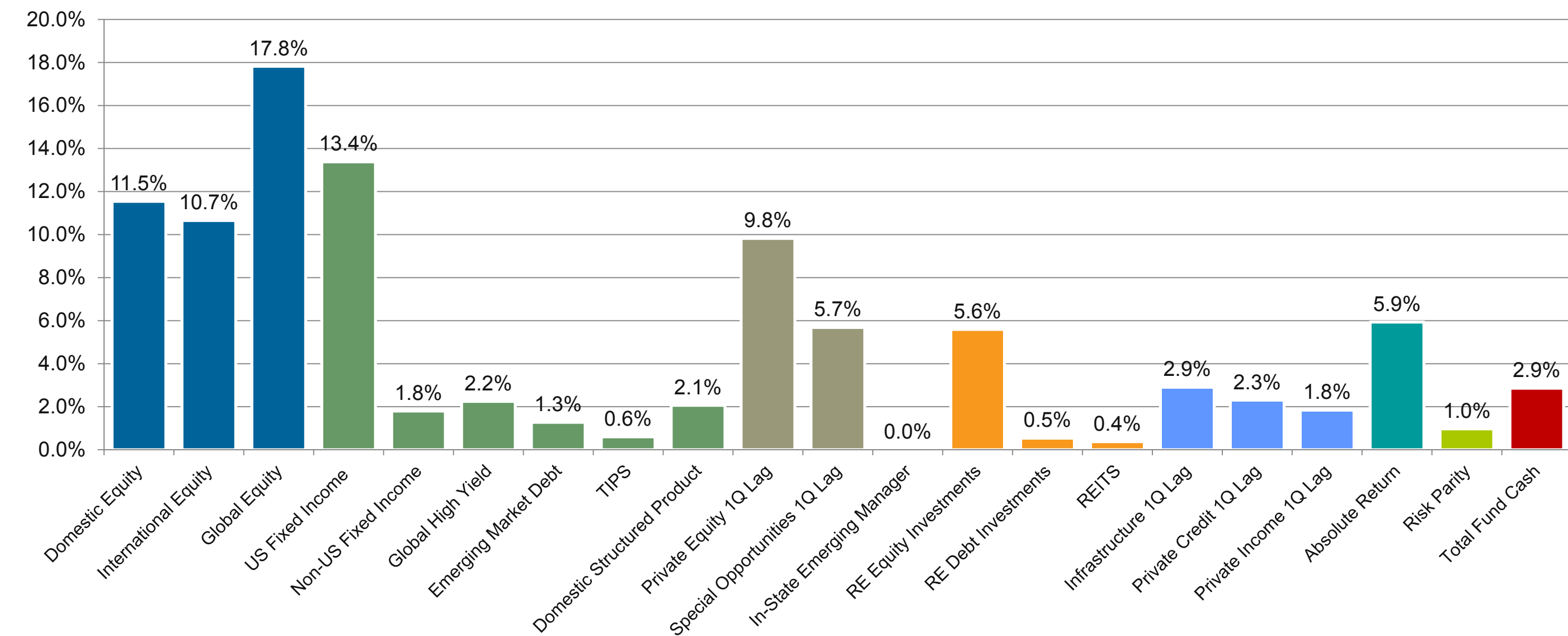
As of September 30, 2020

- APFC portfolio is well diversified across all major asset classes employed by institutional investors.
- Using institutional standard asset class definitions, the portfolio is currently allocated 40% to public equity, 21% to fixed income, and 39% to alternative investments.
- Compared to allocations in the second quarter, this reflects a increase in public equity and decrease in fixed income; alternative investments stayed flat.
- Alternatives include private equity, special opportunities, real estate, private infrastructure, private credit, private income, absolute return, and risk parity.
- Private Equity & Special Opportunities, Real Estate, and Infrastructure & Private Income are reported on a one-quarter lag.
- The FX Overlay program was liquidated in Q2.



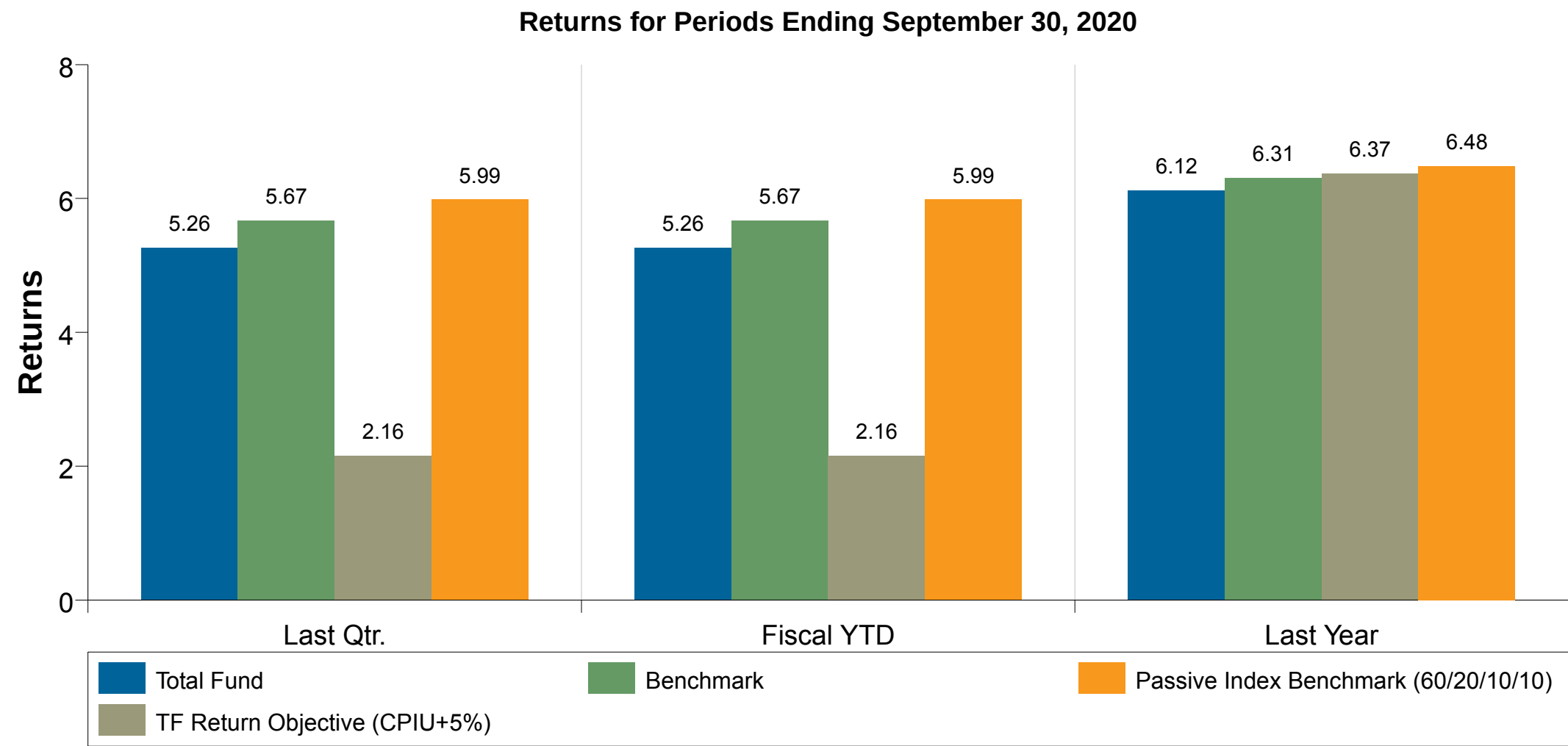
Total Fund Asset Allocation

As of September 30, 2020



APFC Total Fund Cumulative Returns

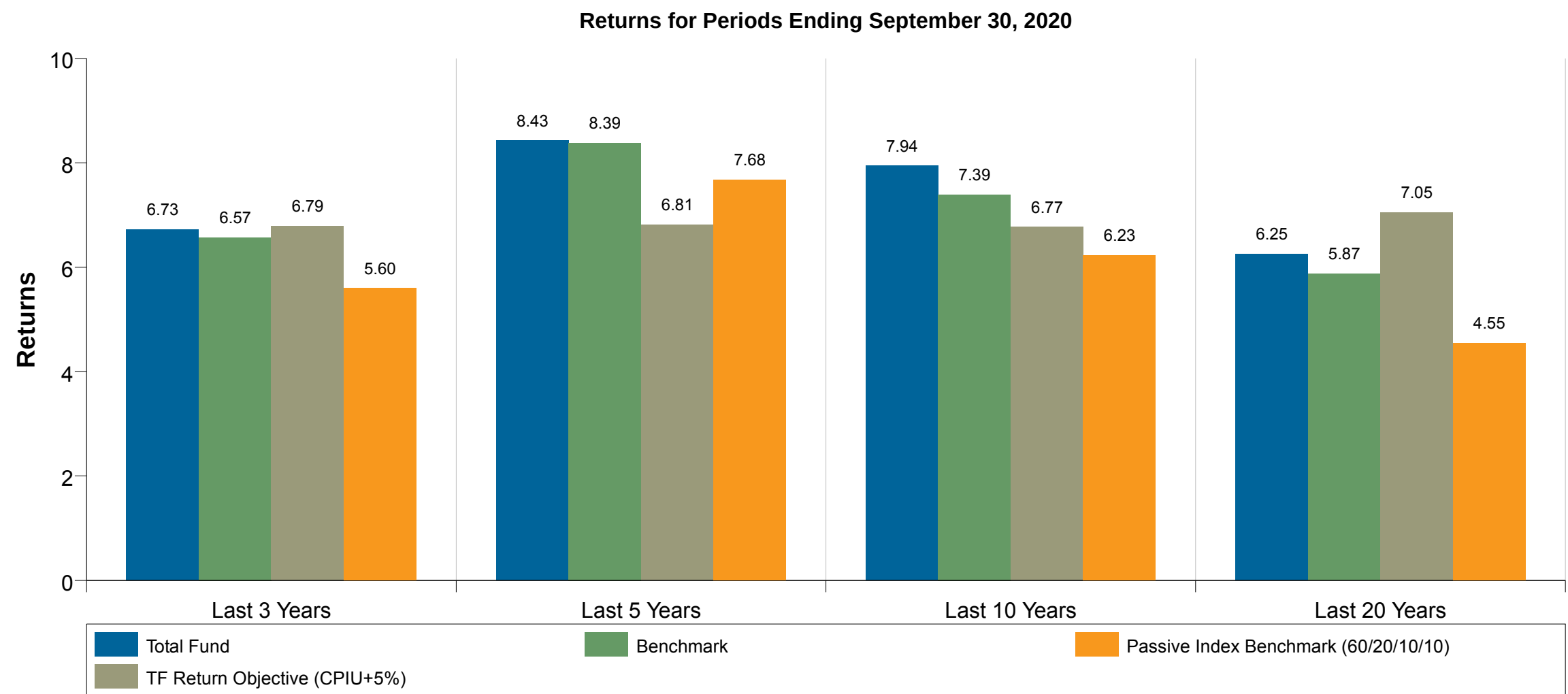
Total Fund versus Total Fund Targets



- Benchmark (FY19-FY20) = 39% MSCI ACWI IMI, 1.1% 90 Day T-Bills, 1.1% BB US TIPS, 5.8% BB Agg, 5.8% BB Corp IG, 2.1% BB Global Treasury ex-US Hedged, 0.5% JPM EMBI Global Diversified, 0.5% JPM GBI-EM Global Diversified TR, 2.1% BB US High Yield 2% Issuer Cap, 2.1% BB US Securitized, 15% Cambridge PE (lagged), 6% NCREIF Total Index (lagged), 1.1% MSCI US REIT (lagged), 5.4% Cambridge Global Pvt. Infrastructure (lagged), 3.6% Cambridge Pvt Credit (lagged), 6% HFRI Total HFOF Universe (weighted), 2% 90 Day T-Bills, 1% HFR Risk Parity Vol 12% Institutional Index.

APFC Total Fund Cumulative Returns

Total Fund versus Total Fund Targets



- Benchmark (FY19-FY20) = 39% MSCI ACWI IMI, 1.1% 90 Day T-Bills, 1.1% BB US TIPS, 5.8% BB Agg, 5.8% BB Corp IG, 2.1% BB Global Treasury ex-US Hedged, 0.5% JPM EMBI Global Diversified, 0.5% JPM GBI-EM Global Diversified TR, 2.1% BB US High Yield 2% Issuer Cap, 2.1% BB US Securitized, 15% Cambridge PE (lagged), 6% NCREIF Total Index (lagged), 1.1% MSCI US REIT (lagged), 5.4% Cambridge Global Pvt. Infrastructure (lagged), 3.6% Cambridge Pvt Credit (lagged), 6% HFRI Total HFOF Universe (weighted), 2% 90 Day T-Bills, 1% HFR Risk Parity Vol 12% Institutional Index.

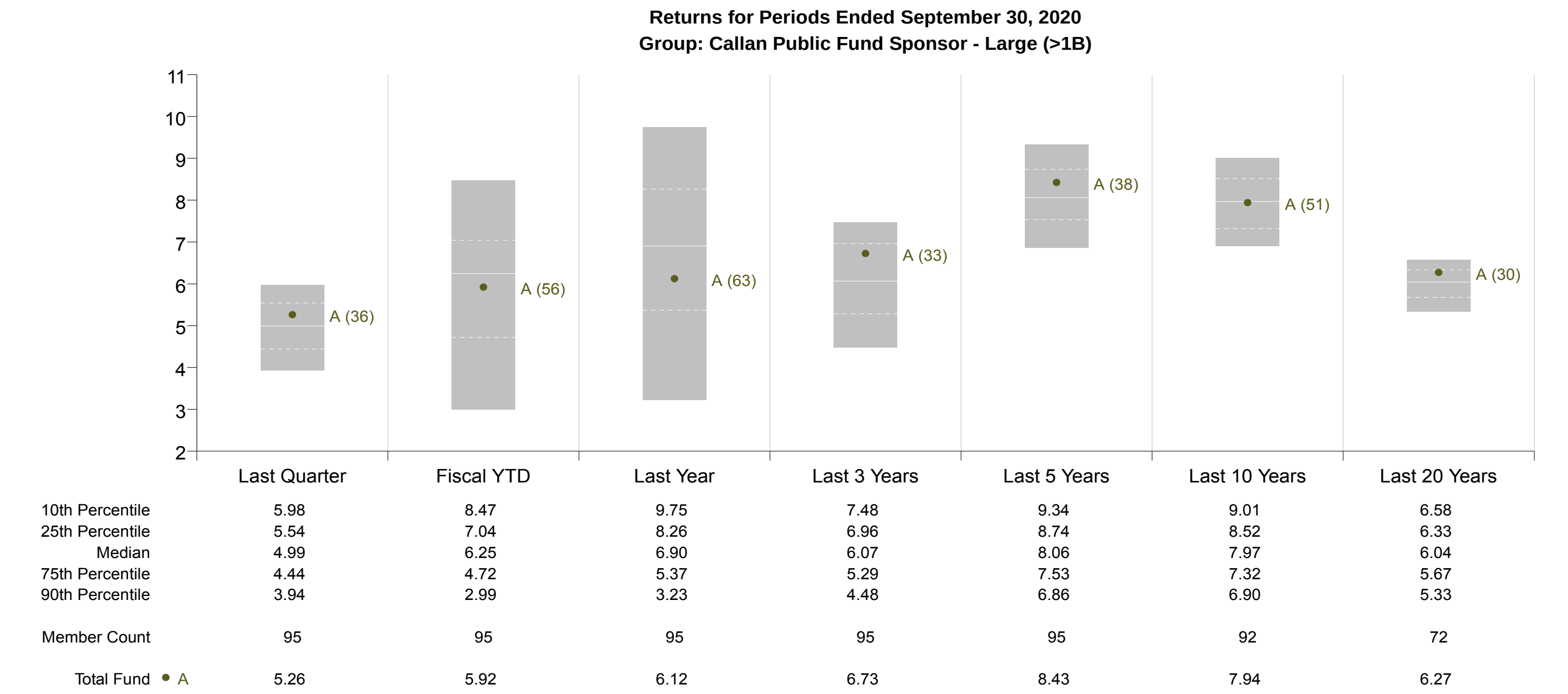
APFC Total Fund Attribution

For One Quarter Ended September 30, 2020

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Public Equity	38%	39%	7.88%	8.11%	(0.09%)	(0.09%)	(0.18%)
Fixed Income	21%	21%	1.60%	1.37%	0.05%	0.02%	0.07%
Private Eq & Special Opp	14%	15%	12.42%	9.89%	0.34%	(0.02%)	0.33%
Real Estate	7%	7%	(0.09%)	0.87%	(0.07%)	(0.03%)	(0.10%)
Private Income	9%	9%	2.22%	3.84%	(0.13%)	(0.11%)	(0.24%)
Absolute Return	6%	6%	2.09%	4.38%	(0.12%)	0.00%	(0.12%)
Asset Allocation	1%	0%	0.00%	0.00%	0.00%	(0.13%)	(0.13%)
Total Fund Cash	3%	2%	0.03%	0.04%	(0.00%)	(0.03%)	(0.03%)
Risk Parity	1%	1%	5.05%	4.96%	(0.00%)	(0.01%)	(0.01%)
Total			5.26% = 5.67% + (0.03%) + (0.38%)				(0.41%)

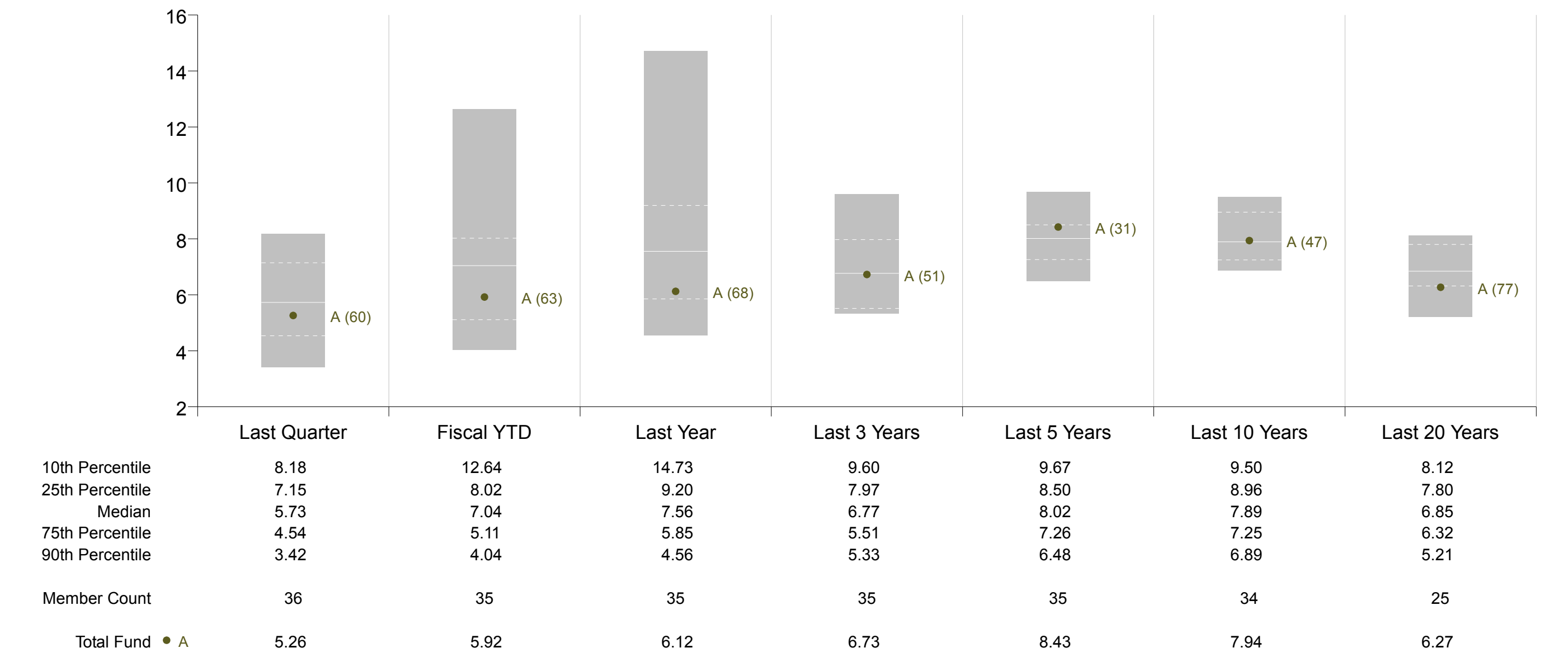
- In the third quarter, the Total Fund underperformed the Performance Benchmark by 41 basis points.
- Allocation effects to Public Equity, Private Income, and Asset Allocation subtracted 38 bps of relative performance. Manager underperformance in Public Equity, Private Income, and Absolute Return also contributed to underperformance.
- In aggregate, active management detracted 3 basis points to relative performance, while deviations from the Policy Target subtracted 38 basis points.

APFC Total Fund Relative to Callan’s Large Public Fund Database



APFC Total Fund Relative to Callan's Large Endowment / Foundation Database

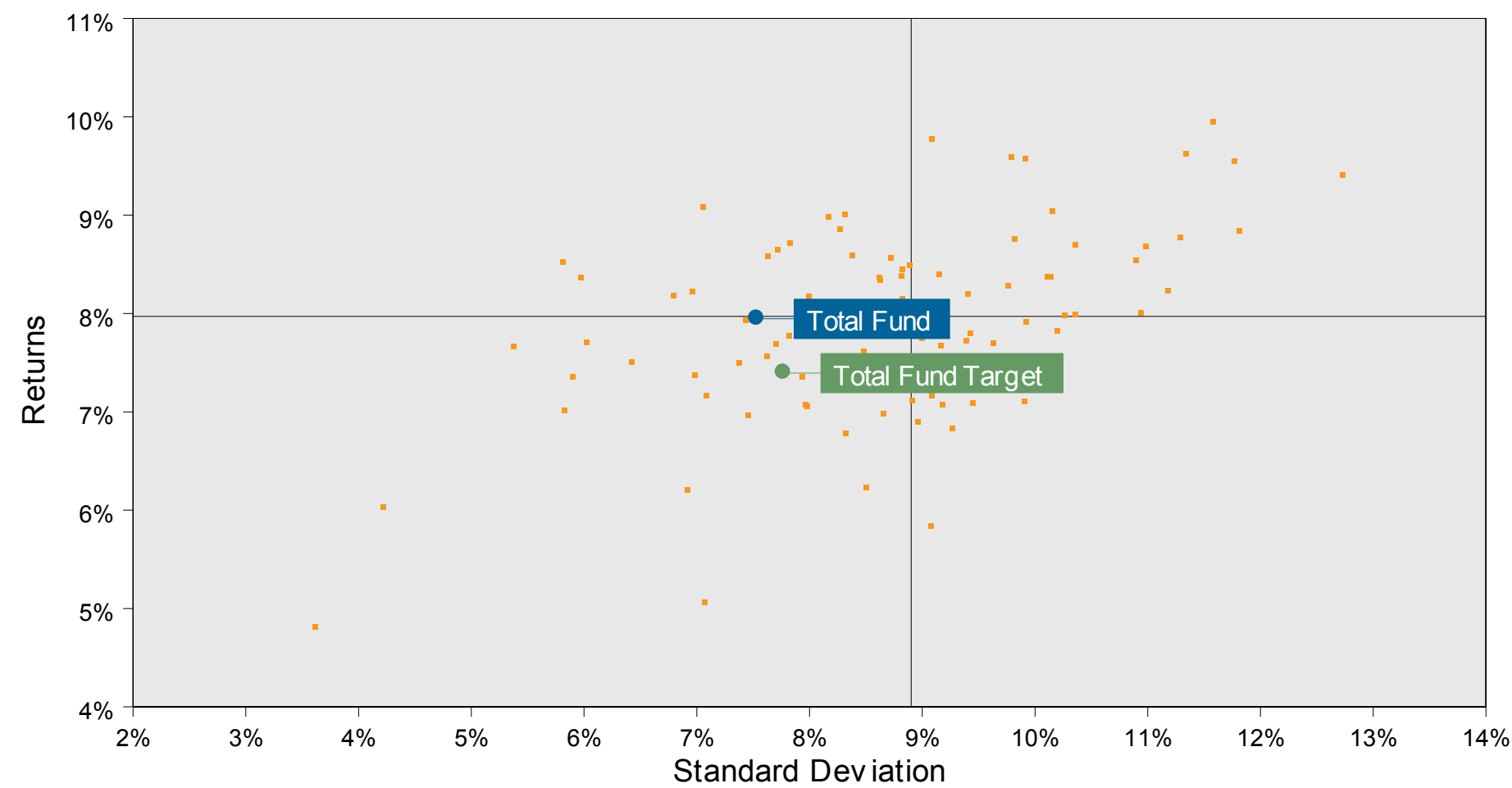
Returns for Periods Ended September 30, 2020
Group: Callan Endow/Foundation - Large (>1B)



APFC Total Fund Return versus Standard Deviations

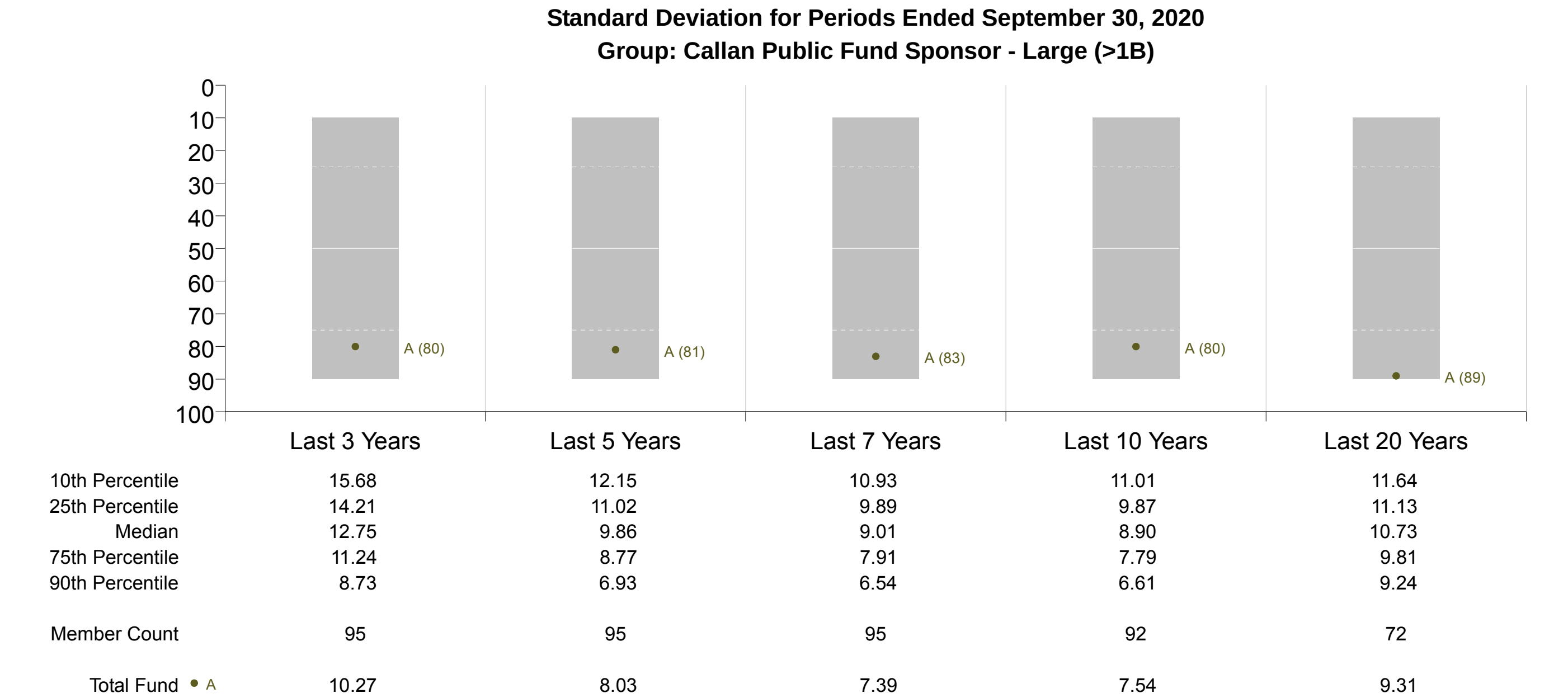
Relative to Callan’s Large Public Fund Database

Ten Year Annualized Risk vs Return

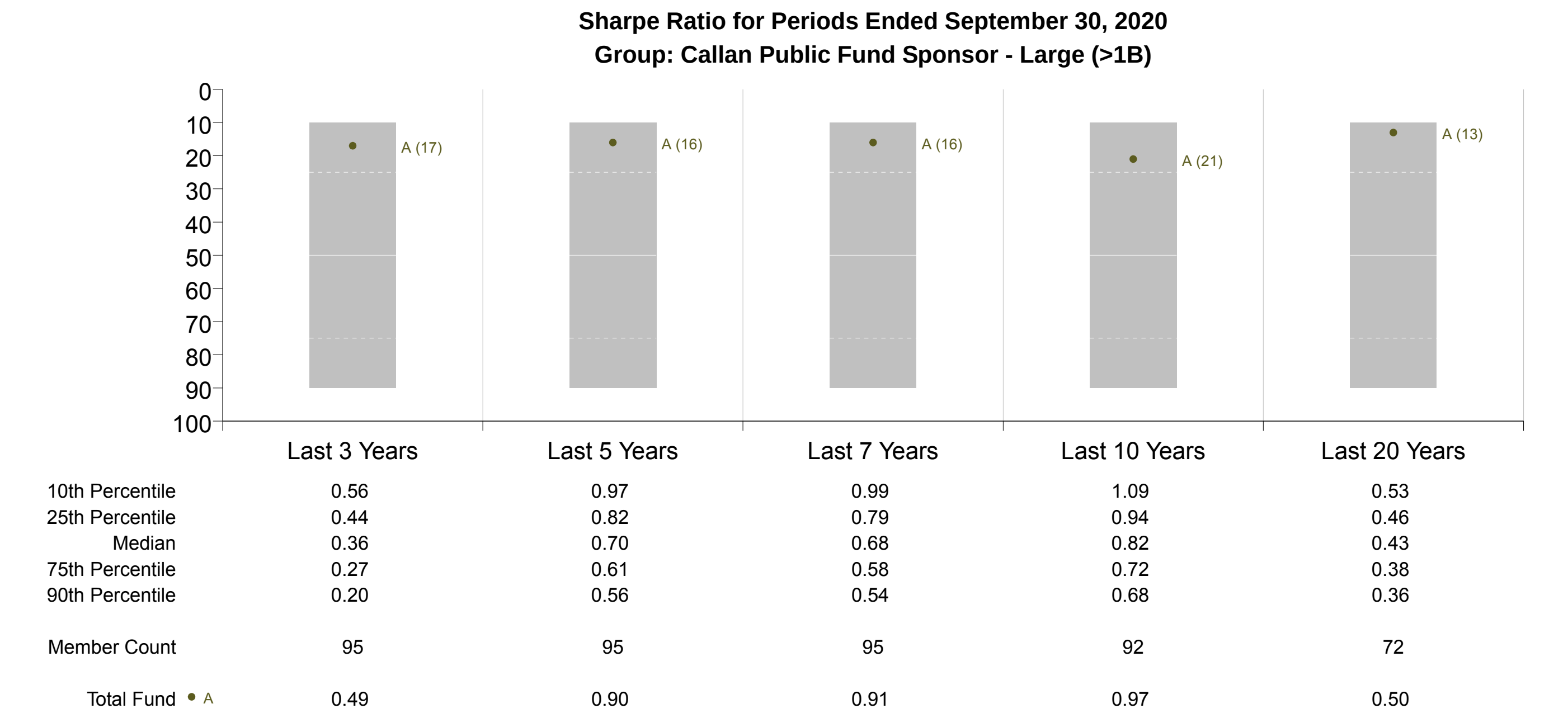


Squares represent membership of the Callan Public Fund Spons - Large (>1B)

APFC Total Fund Standard Deviation Relative to Callan’s Large Public Fund Database



APFC Total Fund Sharpe Ratio Relative to Callan’s Large Public Fund Database

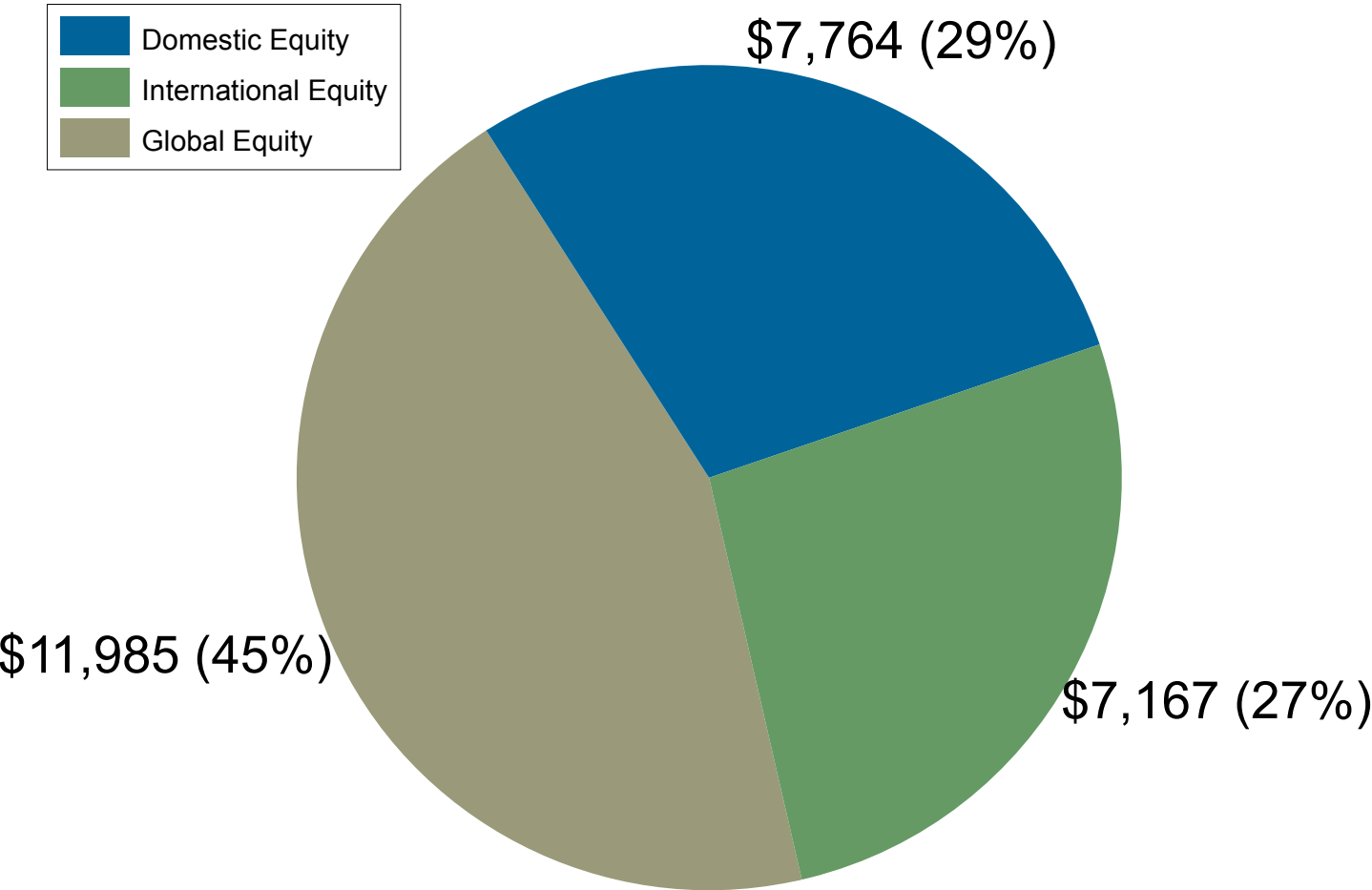


Asset Classes Structure and Performance

APFC Public Equity Structure

As of September 30, 2020

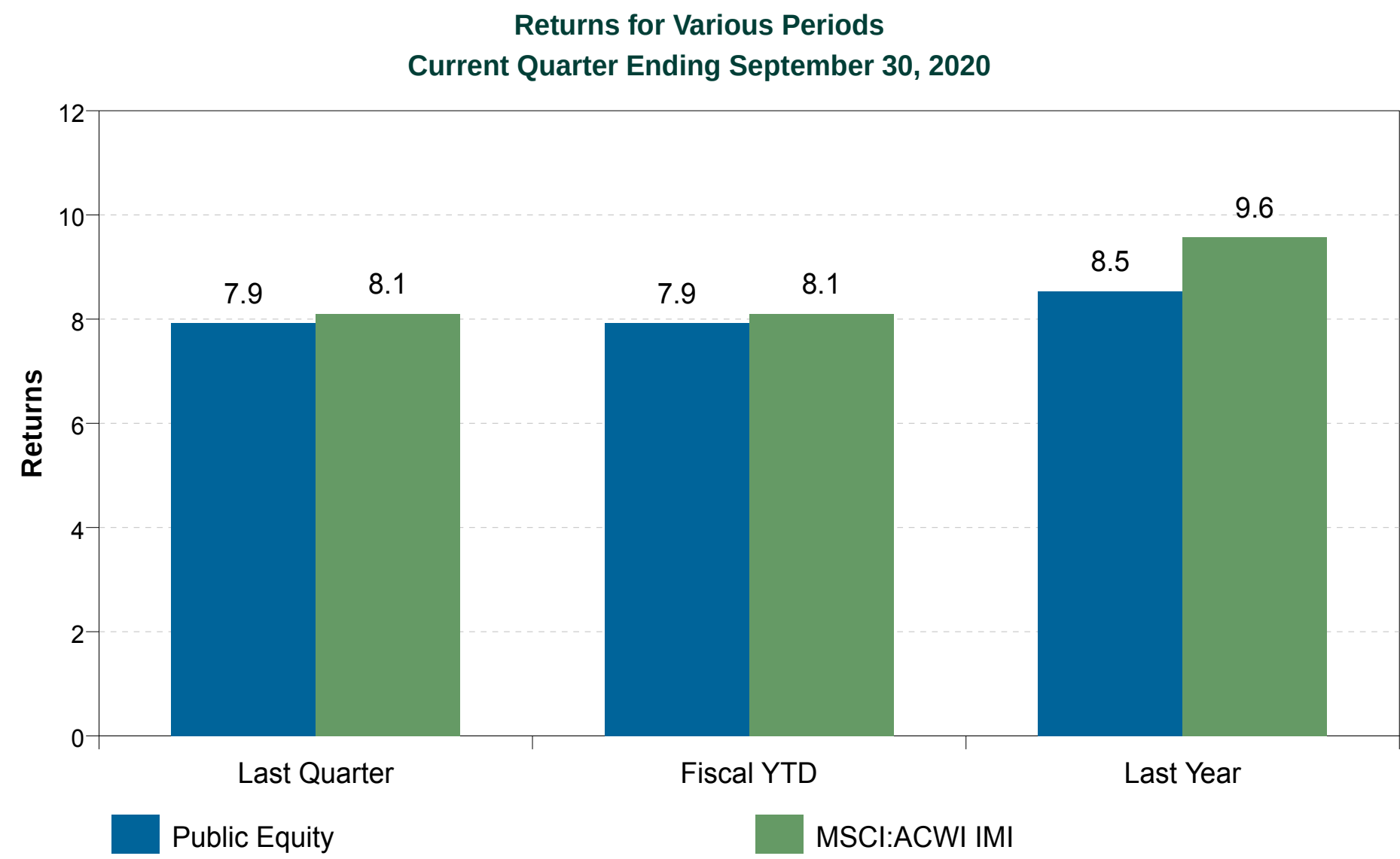
- APFC Public Equity portfolio has a weighting of roughly 57% in US equity, and 43% in non-US equity.
- The MSCI ACWI IMI benchmark has a weighting of roughly 57% in US equity, and 43% in non-US equity.
- The median allocation to US equity across public equity portfolios in Callan’s Large Public Fund Sponsor database is roughly 60%.



APFC Public Equity vs. MSCI ACWI-IMI

Periods Ended September 30, 2020

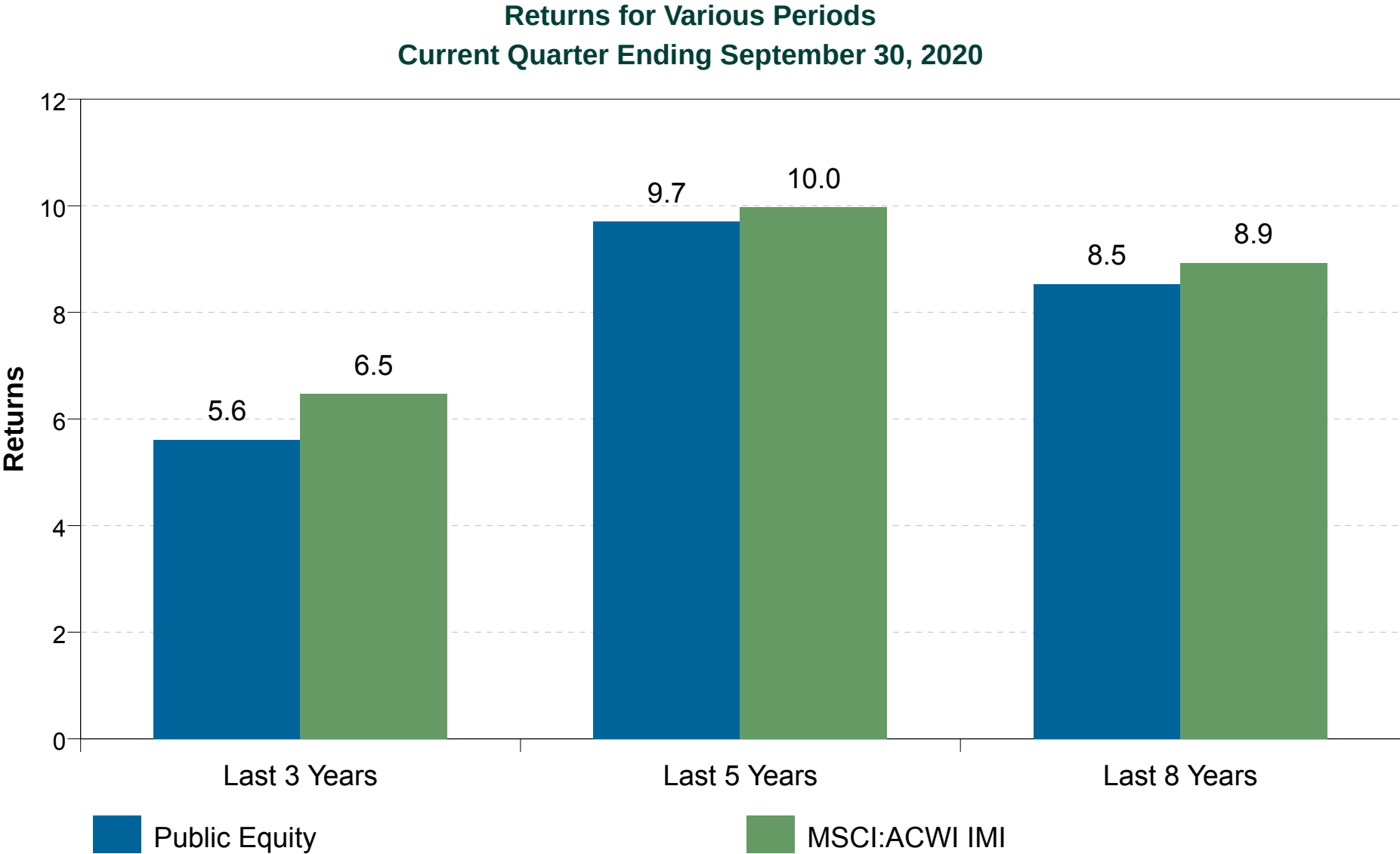
- APFC Public Equity portfolio underperformed the MSCI ACWI IMI index for the recent quarter and for the trailing one-year period.
- Domestic and Global Equity composites ended behind their respective benchmarks in the latest quarter; International ahead. Over the last year, International and Global Equity exceeded their benchmarks while Domestic Equity fell short of its benchmark.



APFC Public Equities Performance vs. MSCI ACWI-IMI

Periods Ended September 30, 2020

- Public Equities continued to lag over the intermediate and long-term. Domestic Equity lagged the most within Public Equities.
- Overall, the portfolio is well diversified across regions, countries, and underlying strategies.

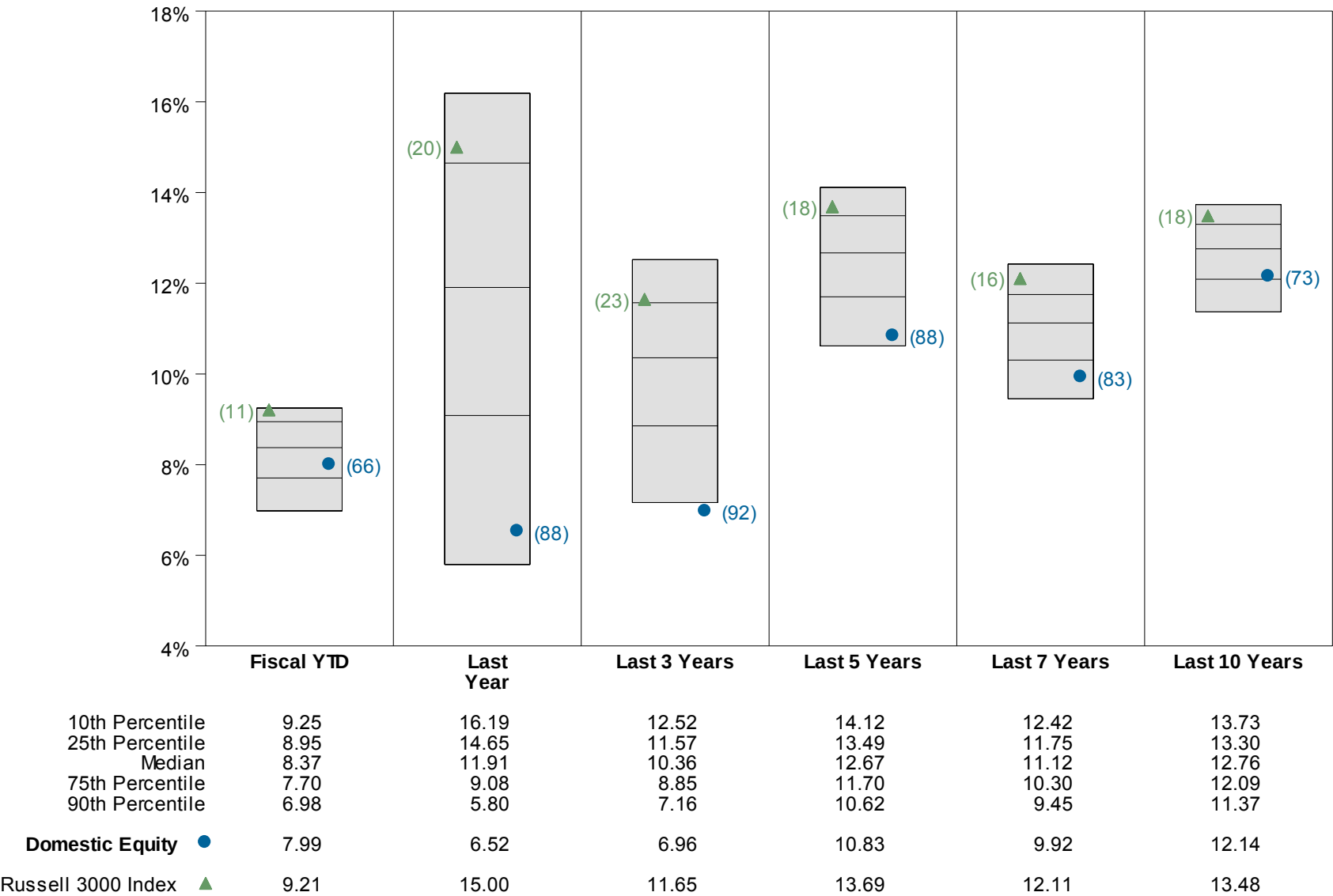


APFC US Equity Performance vs. Fund Sponsor US Equity

Periods Ended September 30, 2020

- The universe is comprised of total domestic equity portfolios of large institutional investors in Callan's Fund Sponsor Database.
- APFC US Equity portfolio ended the recent quarter and year behind its benchmark
- When compared to US Equity portfolios of other large institutional investors, APFC's US Equity composite ranked below median in the short-, intermediate-, and longer-term time periods shown.

Performance vs Fund Spnsor - Domestic Equity (Gross)

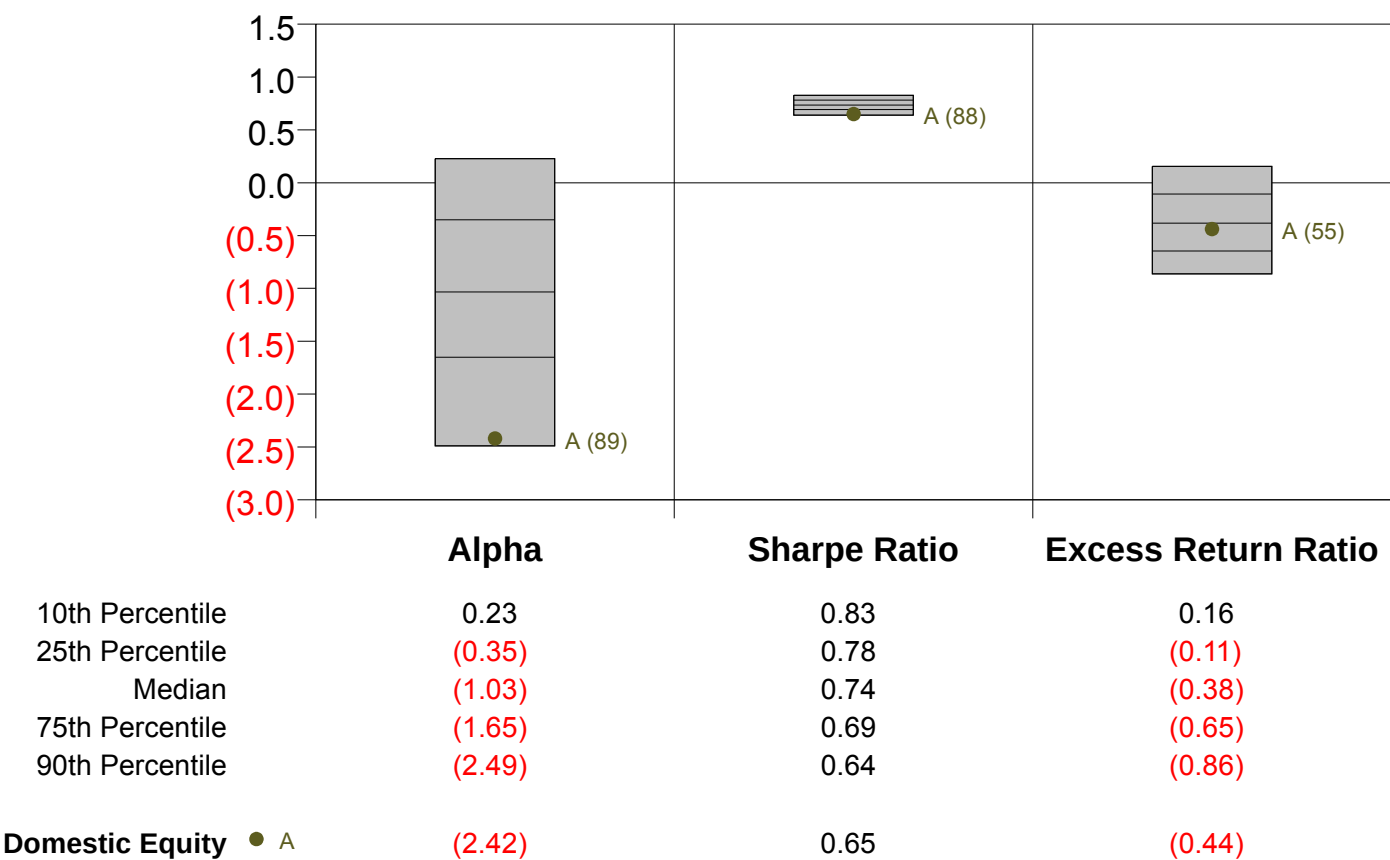


APFC US Equity Portfolio Risk Adjusted Return Rankings

Ten Years Ended September 30, 2020

- The universe is comprised of total domestic equity portfolios of large institutional investors in Callan’s Fund Sponsor Domestic Equity Database.
- For the trailing ten-year period, APFC portfolio ranked below median for all risk adjusted return measures.
 - Alpha measures contribution to performance – portfolio’s return above index adjusted for risk.
 - Sharpe Ratio represents return gained per unit of risk taken (return/risk).
 - Excess Return Ratio measures alpha (return above benchmark) divided by tracking error (risk versus benchmark).

Risk Adjusted Return Measures vs Russell 3000 Index
Rankings Against Fund Sponsor Domestic Equity Database



Capitalization and Style Allocation: US Equity

As of September 30, 2020

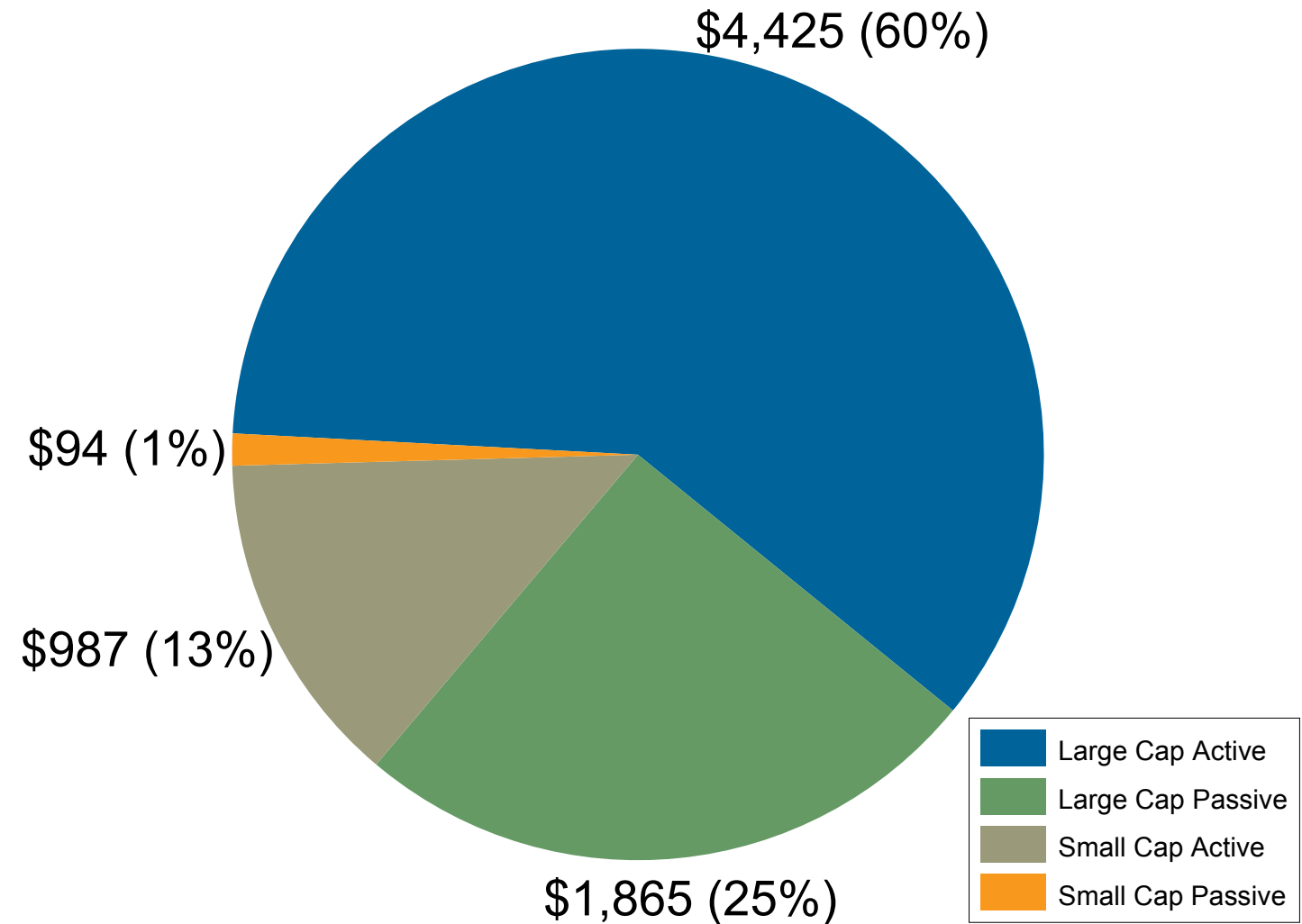
- Highlighted cells indicate largest biases relative to the Russell 3000 index.
- Growth continued to outperform value while large cap stocks outperformed small cap after underperforming in the second quarter.
- APFC’s active U.S. Growth and Value managers had mixed results versus their benchmarks for the quarter.
- Small and mid cap overweights relative to the index are common in actively managed US equity portfolios.



APFC US Equity Structure

As of September 30, 2020

- US equity portfolio is roughly 73% actively managed and 27% passive (or quasi-passive).
- Roughly 70% of the large cap allocation is actively managed while 91% of the small cap allocation is actively managed.

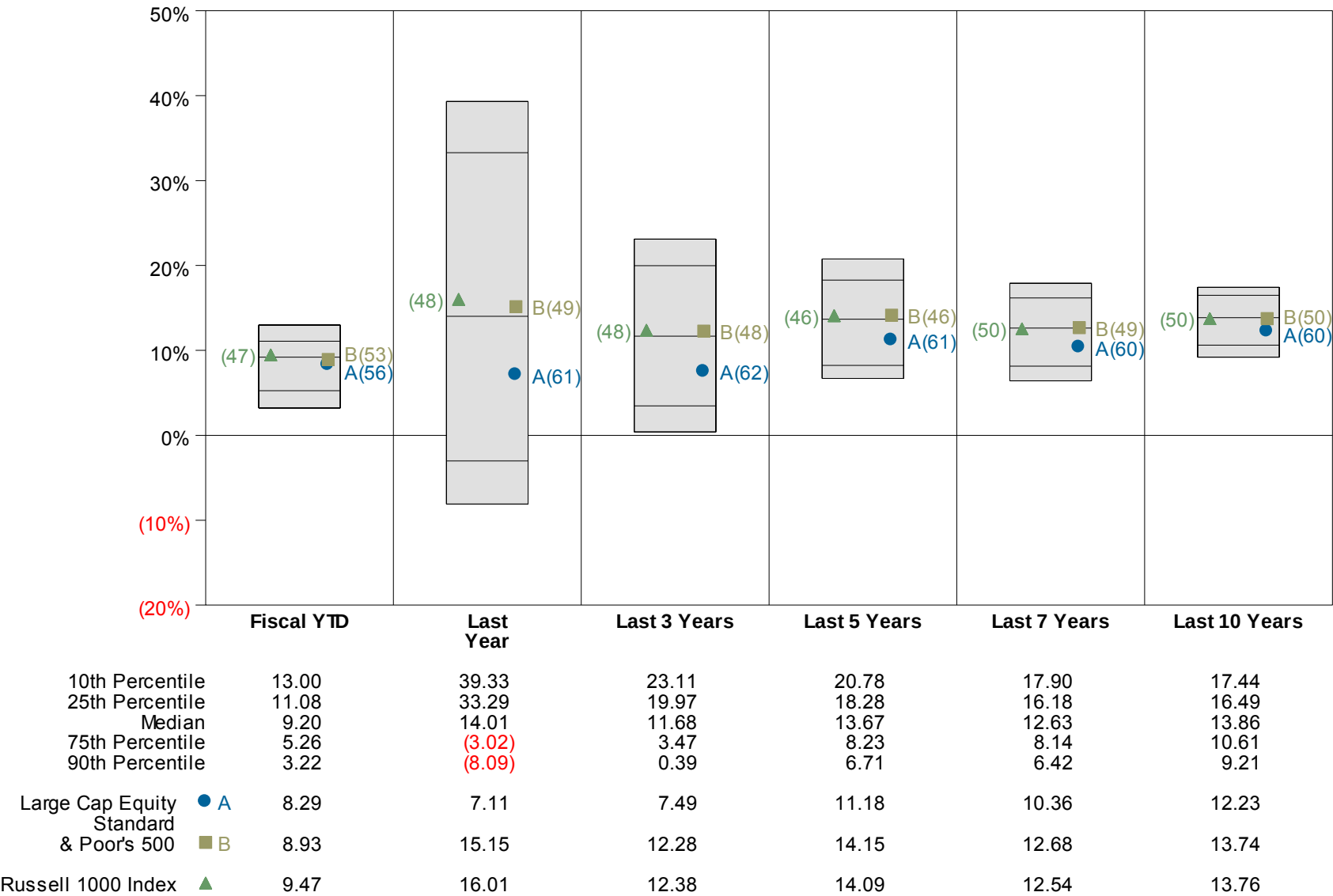


APFC Large Cap Equity Relative to Large Cap Universe

Periods Ended September 30, 2020

- APFC’s Large Cap portfolio underperformed its benchmark in the third quarter and trailed over the one year.
- The portfolio ranked below median within the large cap universe over all standard periods.
- Large cap composite has a small/mid cap size bias relative to the index, which weighed on performance during the quarter.

Performance vs Callan Large Capitalization (Gross)

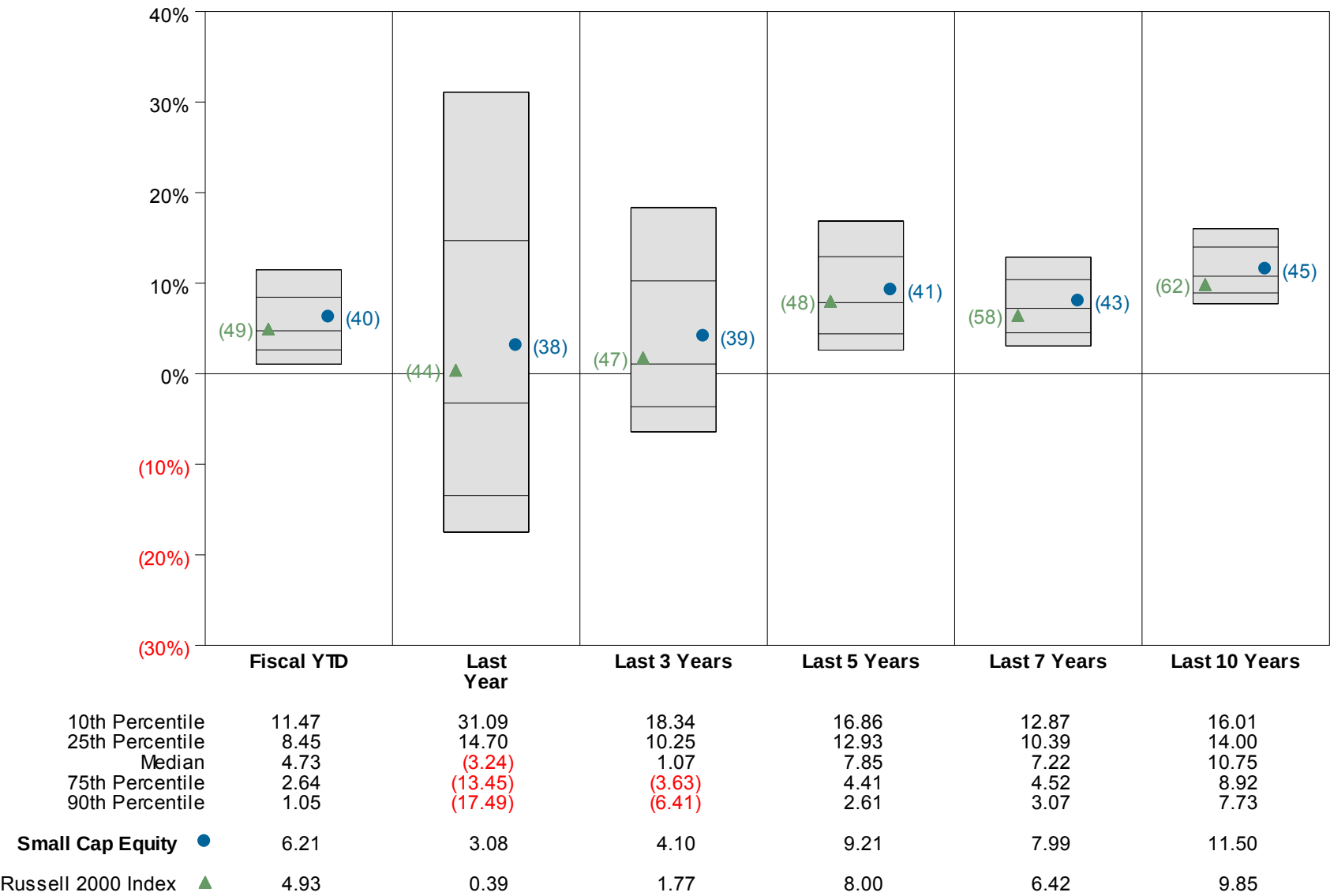


APFC Small Cap Equity Relative to Small Cap Universe

Periods Ended September 30, 2020

- APFC small cap portfolio posted strong absolute returns and ended the quarter ahead of the index.
- The portfolio ranked above median in the small cap universe over all standard periods.

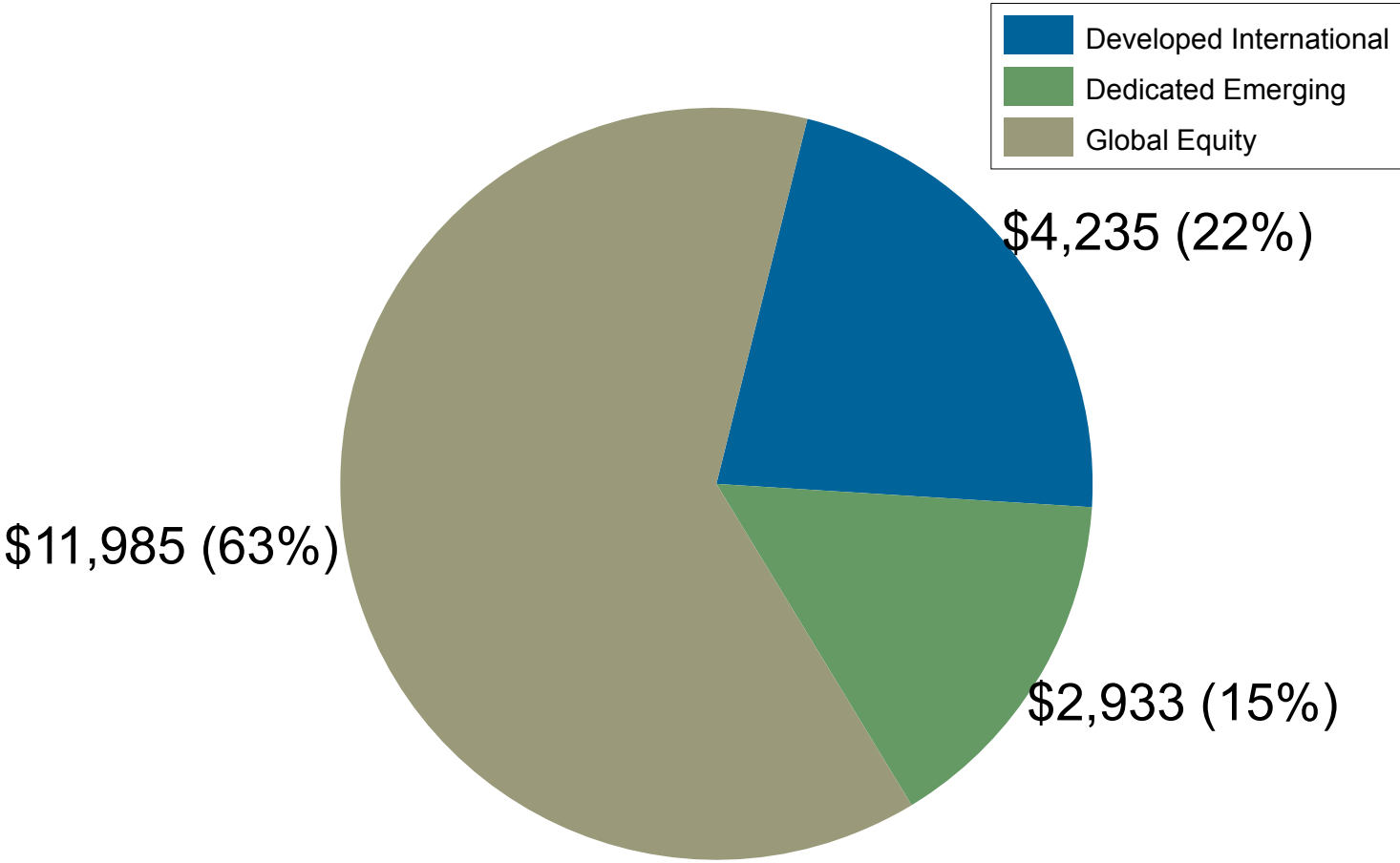
Performance vs Callan Small Capitalization (Gross)



APFC Non-US and Global Equity Structure

As of September 30, 2020

- Portfolio is divided between global, non-US, and emerging markets mandates.
- Both global and non-US equity managers invest in emerging markets.
- Global managers invest in US markets as part of their mandate.

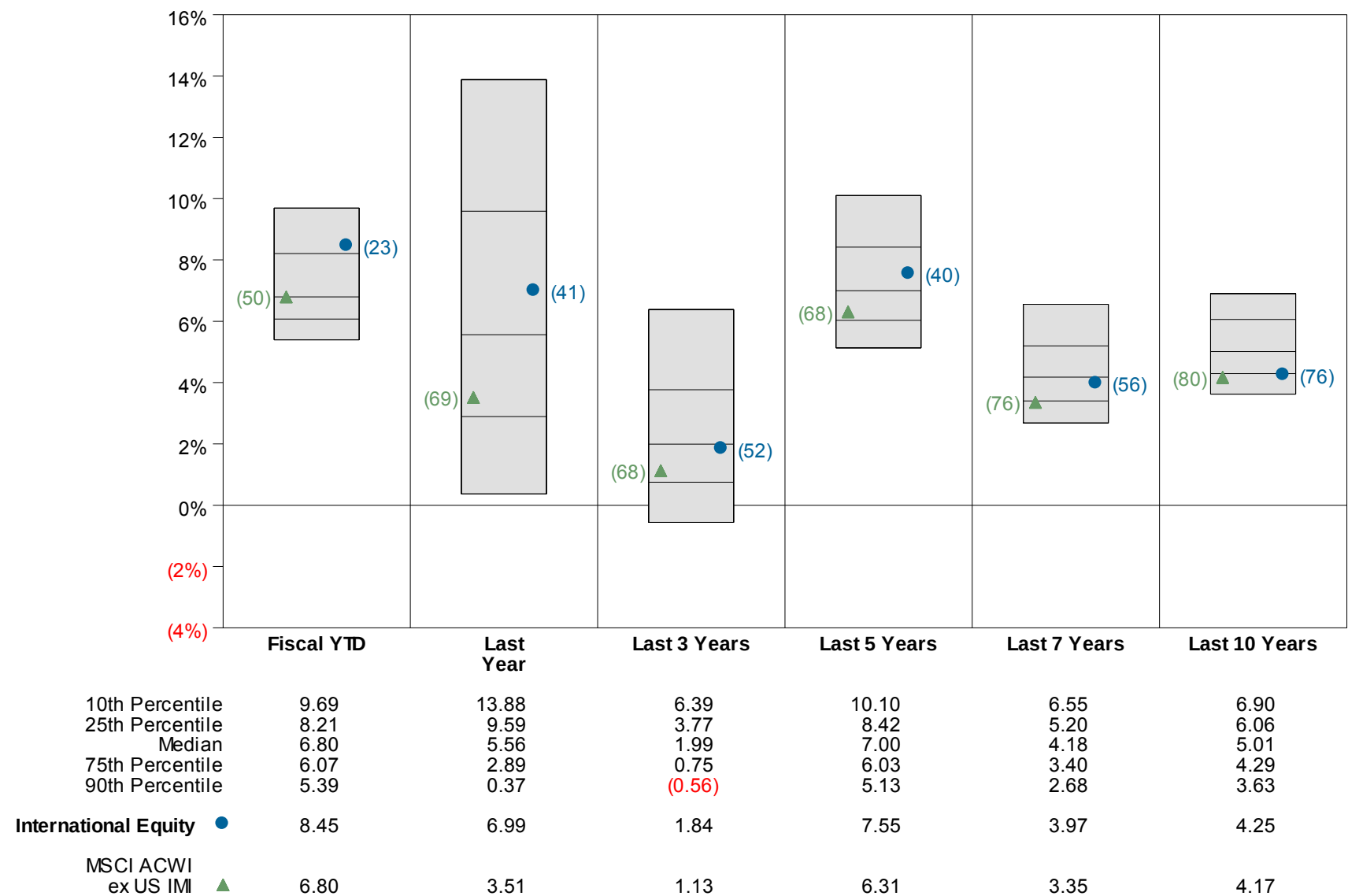


APFC International Equity Relative to Fund Sponsor Universe

Periods Ended September 30, 2020

- International Equity ended the quarter ahead of the benchmark 165 bps.
- The quarter's strong performance showed in longer term numbers, with the portfolio outperforming its benchmark over all periods.
- Relative to other fund sponsor portfolios, International Equity ranked close to median over the short- and medium-term periods and below median over the 10-year period.

Performance vs Fund Sponsor - International Equity (Gross)

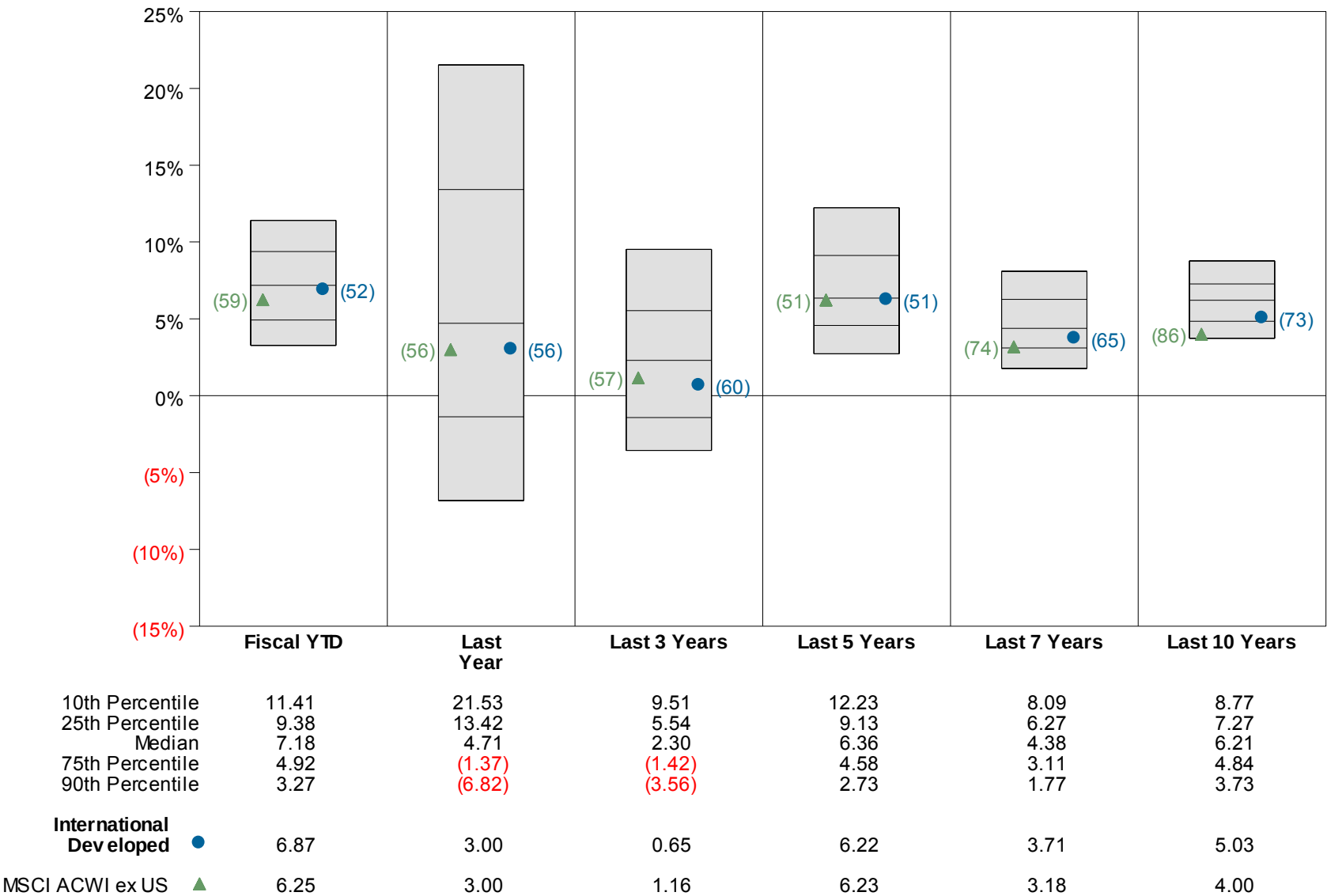


APFC Int’l Developed Equity Relative to Non-US Equity Universe

Periods September 30, 2020

- The International Developed portfolio increased 6.9% versus the benchmark gain of 6.3%. The portfolio continued to show strong longer-term relative performance.
- The portfolio ranked in the third quartile for all standard time periods.

Performance vs Callan Non-US Equity (Gross)

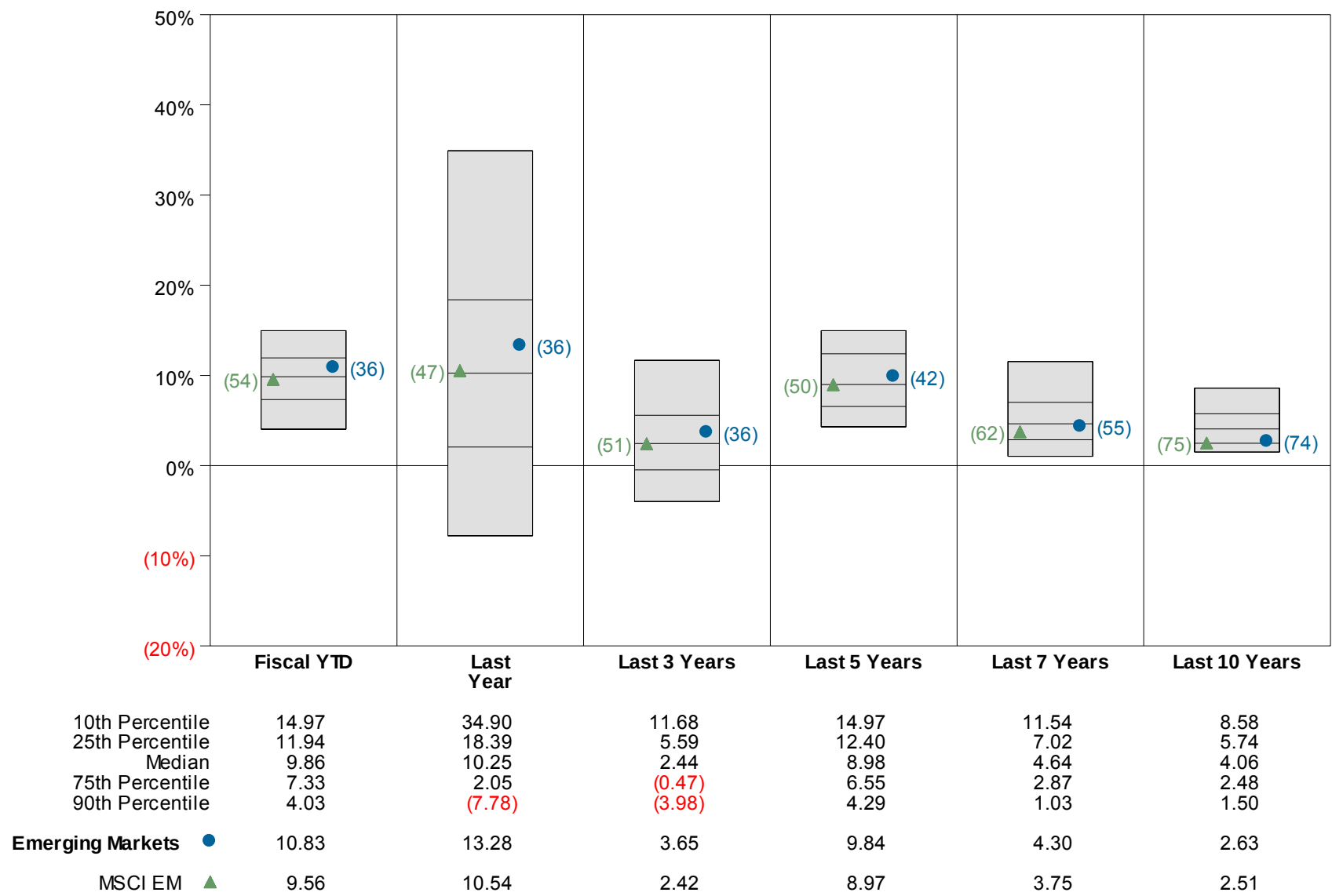


APFC Emerging Markets Equity Relative to EM Universe

Periods September 30, 2020

- APFC Emerging Markets Equity portfolio ended the quarter ahead of its benchmark by 127 bps.
- The portfolio leads its benchmark across all standard periods.
- Over the short- and intermediate-term, the portfolio sits above the median while over longer-term periods ranks below the median.

Performance vs Emerging Markets Equity DB (Gross)

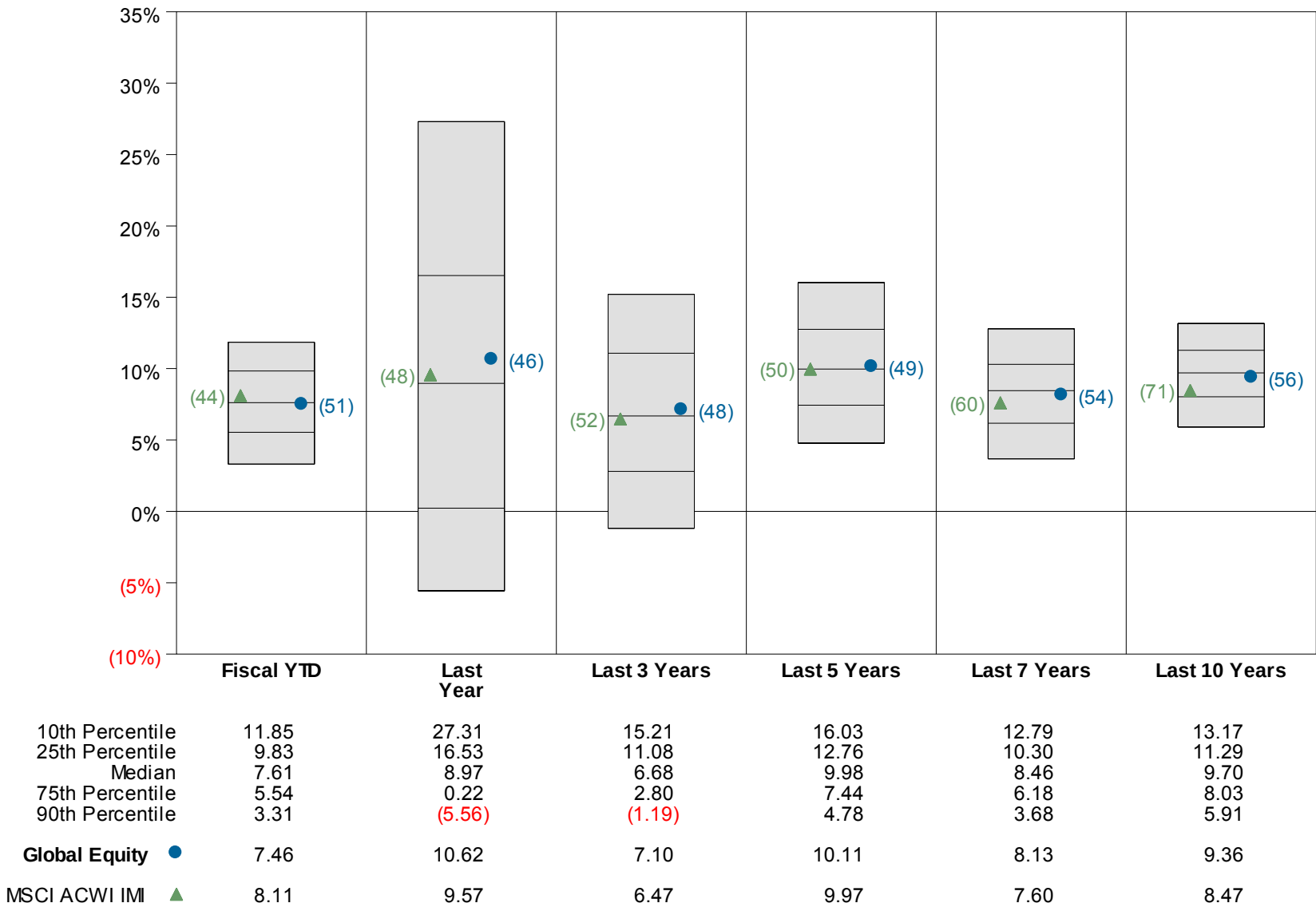


APFC Global Equity Relative to Global Universe

Periods Ended September 30, 2020

Performance vs Global Equity Database (Gross)

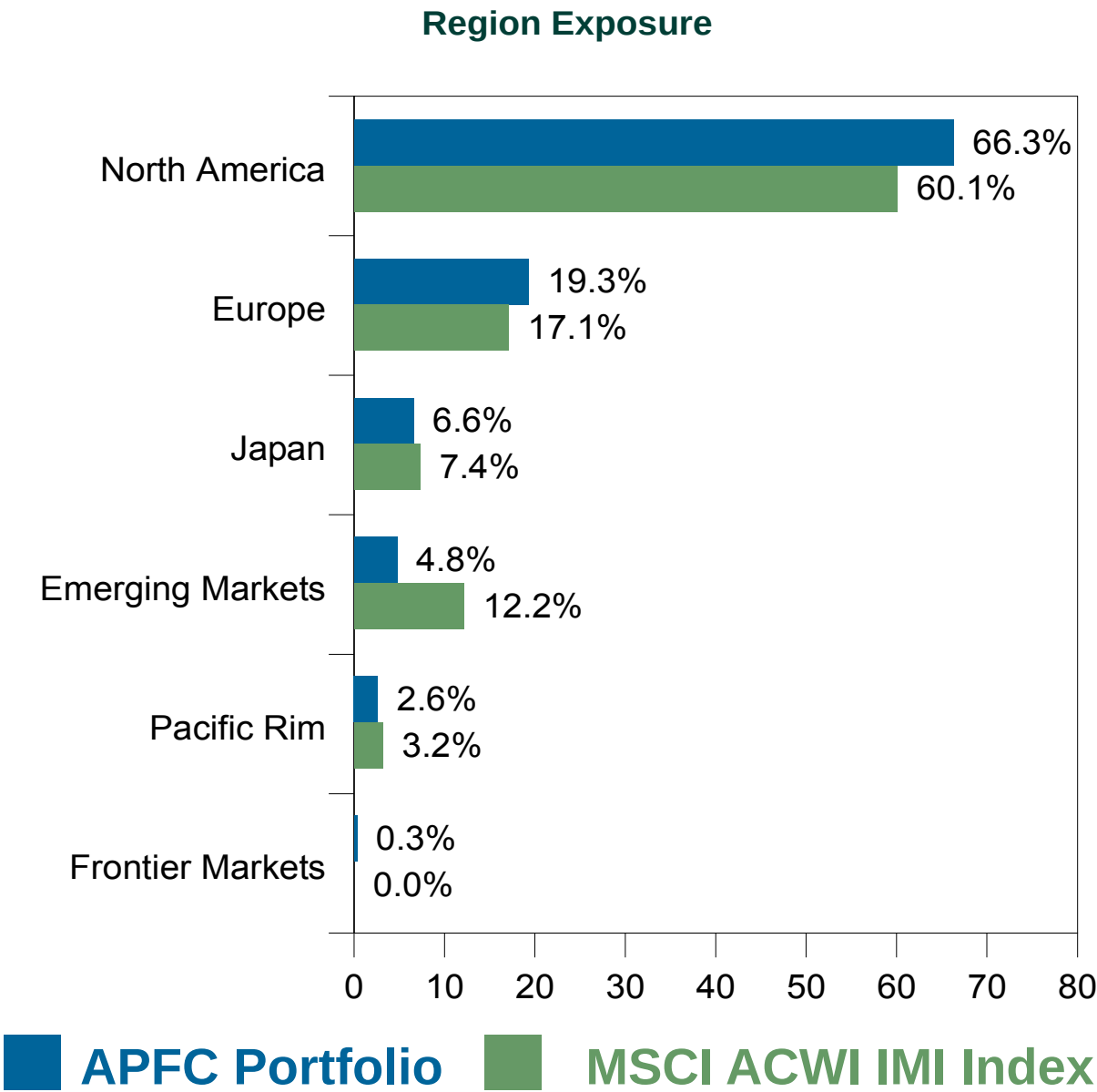
- APFC Global Equity portfolio fell short of its benchmark in the third quarter. Performance exceeded the benchmark over all other standard periods.
- The portfolio ranked above or around median for all time periods.
- Performance from the APFC Tactical Tilts portfolio positively impacted performance over the 1-, 3-, and 5-year.



APFC Global Equity Portfolio Region Exposure

As of September 30, 2020

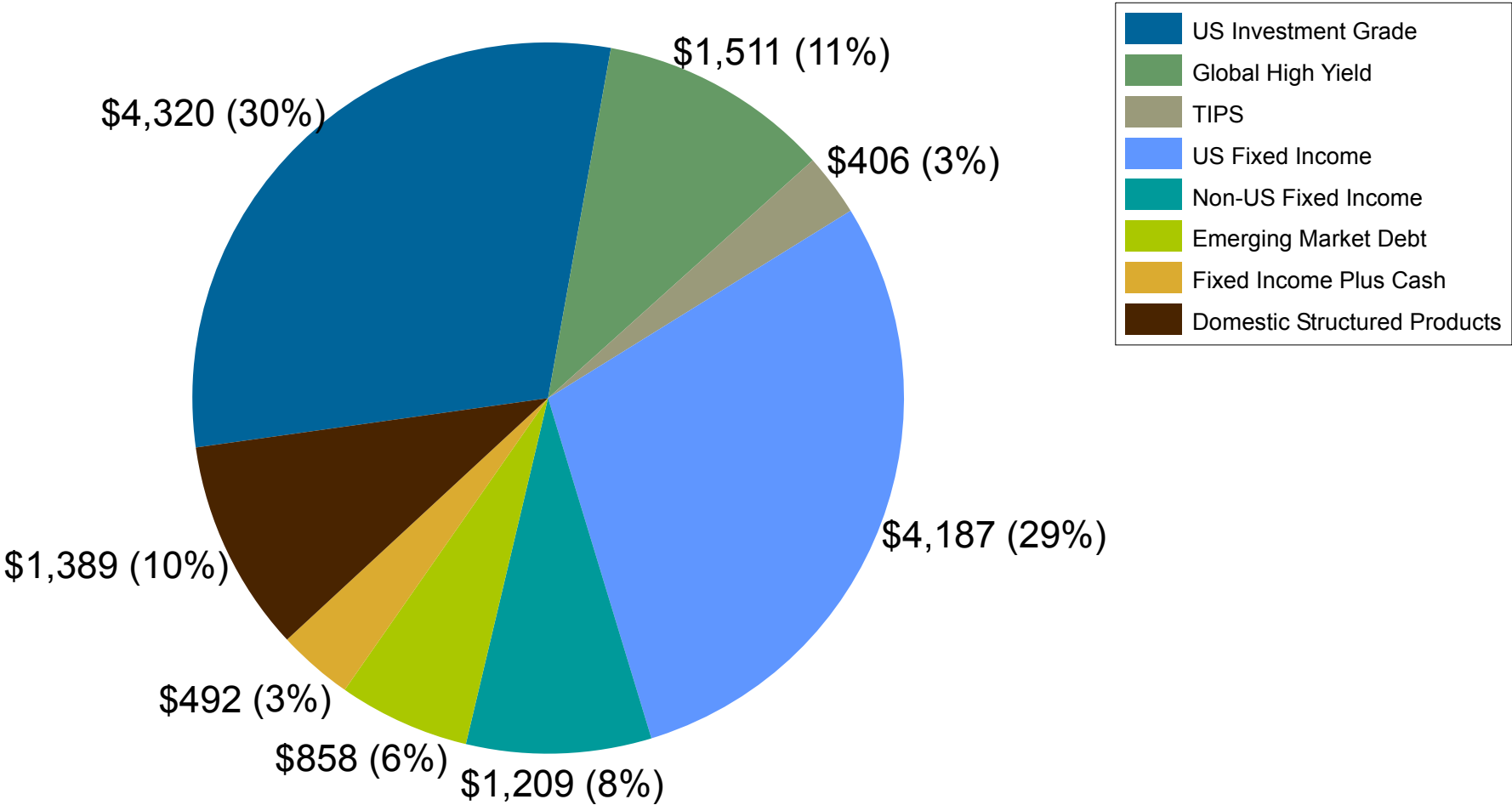
- The APFC global equity portfolio continued to be underweight Emerging Markets, Japan, and the Pacific Rim relative to its benchmark.
- The portfolio had corresponding relative overweights to North America and Europe.
- This positioning and broad based regional gains drove quarterly results.



APFC Fixed Income Structure

As of September 30, 2020

- Approximately 71% of the fixed income plus portfolio is managed internally, including allocations within Fixed Income Plus Cash, US Fixed Income Aggregate, US Investment Grade Corporate, Non-US Fixed Income, Structured Products and TIPS.
- External mandates are focused in specialty areas including Non-US Fixed Income, Global High Yield, and Emerging Market Debt.
- The APF Domestic Structured Products portfolio was funded in the prior quarter.
- REITS and Listed Infrastructure transferred out on 7/1/2020

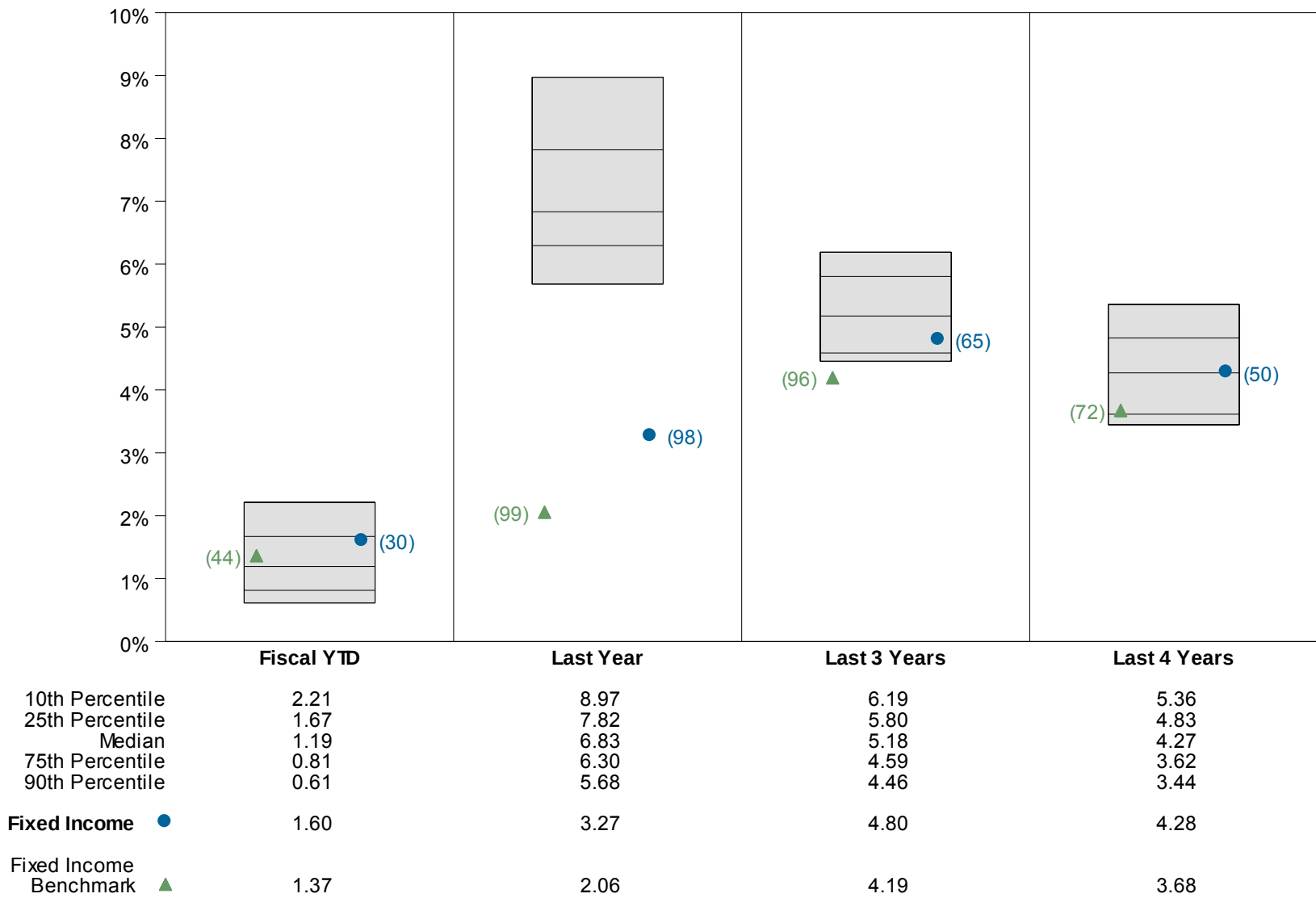


Fixed Income Relative to Public Fixed Income Funds

Periods Ended September 30, 2020

- The APFC Total Fixed Income portfolio led its benchmark over the quarter and all time periods shown.
- The portfolio's ranks were mixed over the short-term but ended at median over the since inception period.
- As a reminder, Total Fixed Income included REITs and Listed Infrastructure prior to this quarter.

Performance vs Public Fund - Domestic Fixed (Gross)

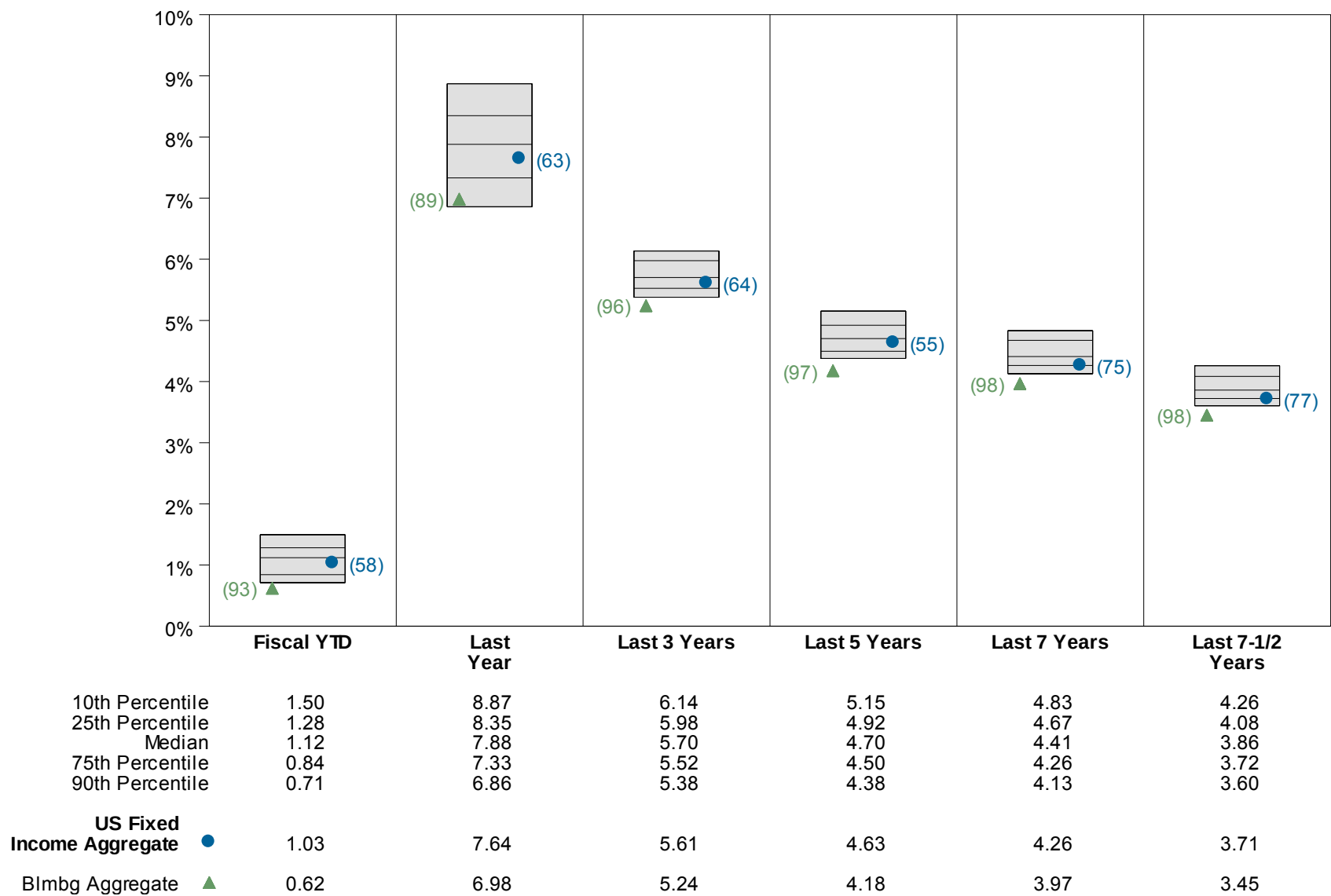


US Fixed Income Aggregate Relative to Core Bond Funds

Periods Ended September 30, 2020

- APFC US Fixed Income Aggregate portfolio outperformed the Bloomberg Aggregate Index for the quarter and one year.
- The US Fixed Income composite ended the quarter ahead of the benchmark over all standard periods.

Performance vs Callan Core Bond Fixed Income (Gross)

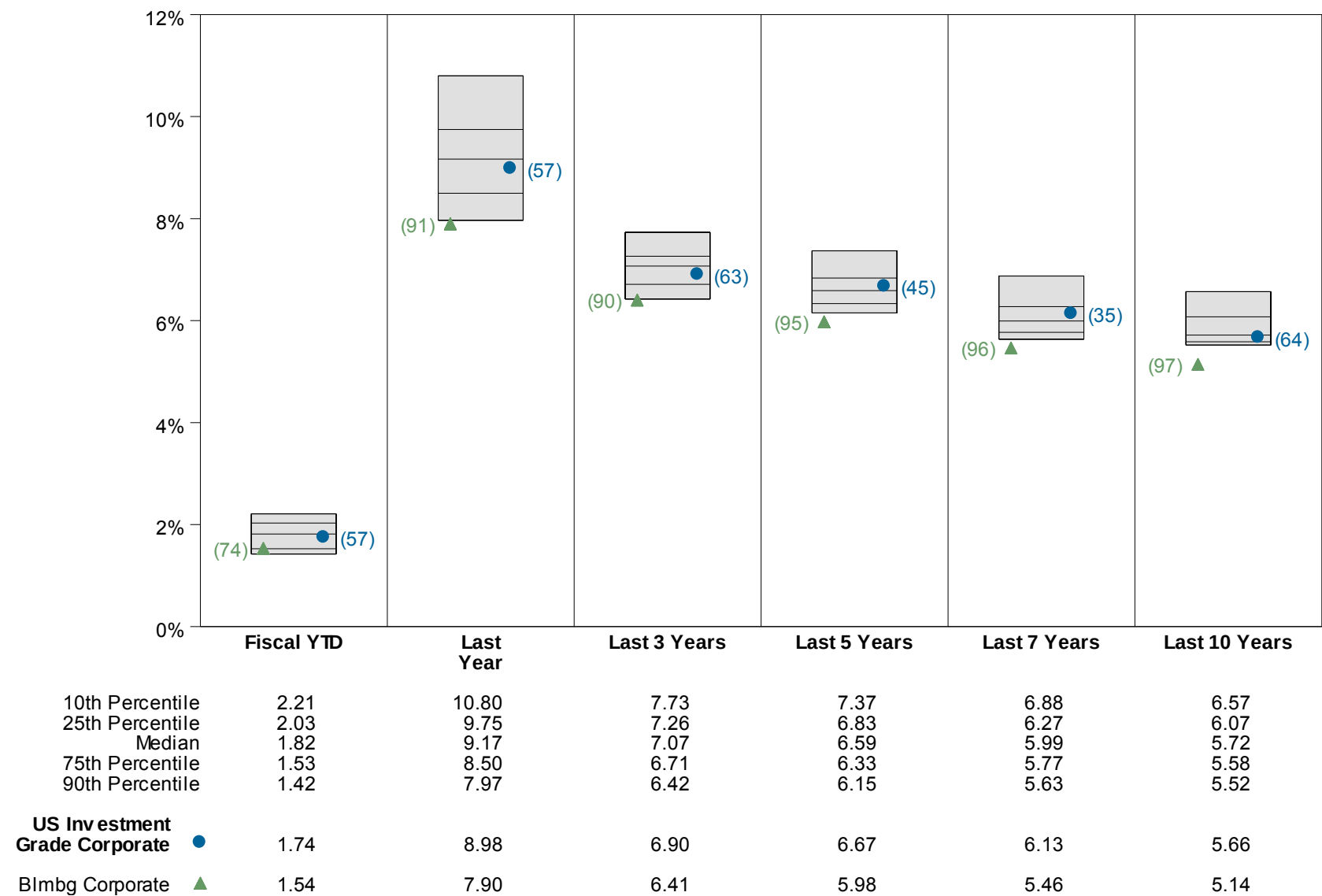


US Investment Grade Corp Relative to Investment Grade Funds

Periods Ended September 30, 2020

- APFC US Investment Grade Corporate beat its benchmark for the quarter and all other standard periods.
- The Investment Grade Corporate composite ranked below median results over the short-term, above median in the intermediate-term, and below median over the long term.

Performance vs Callan Investment Grade Credit Fixed Inc (Gross)

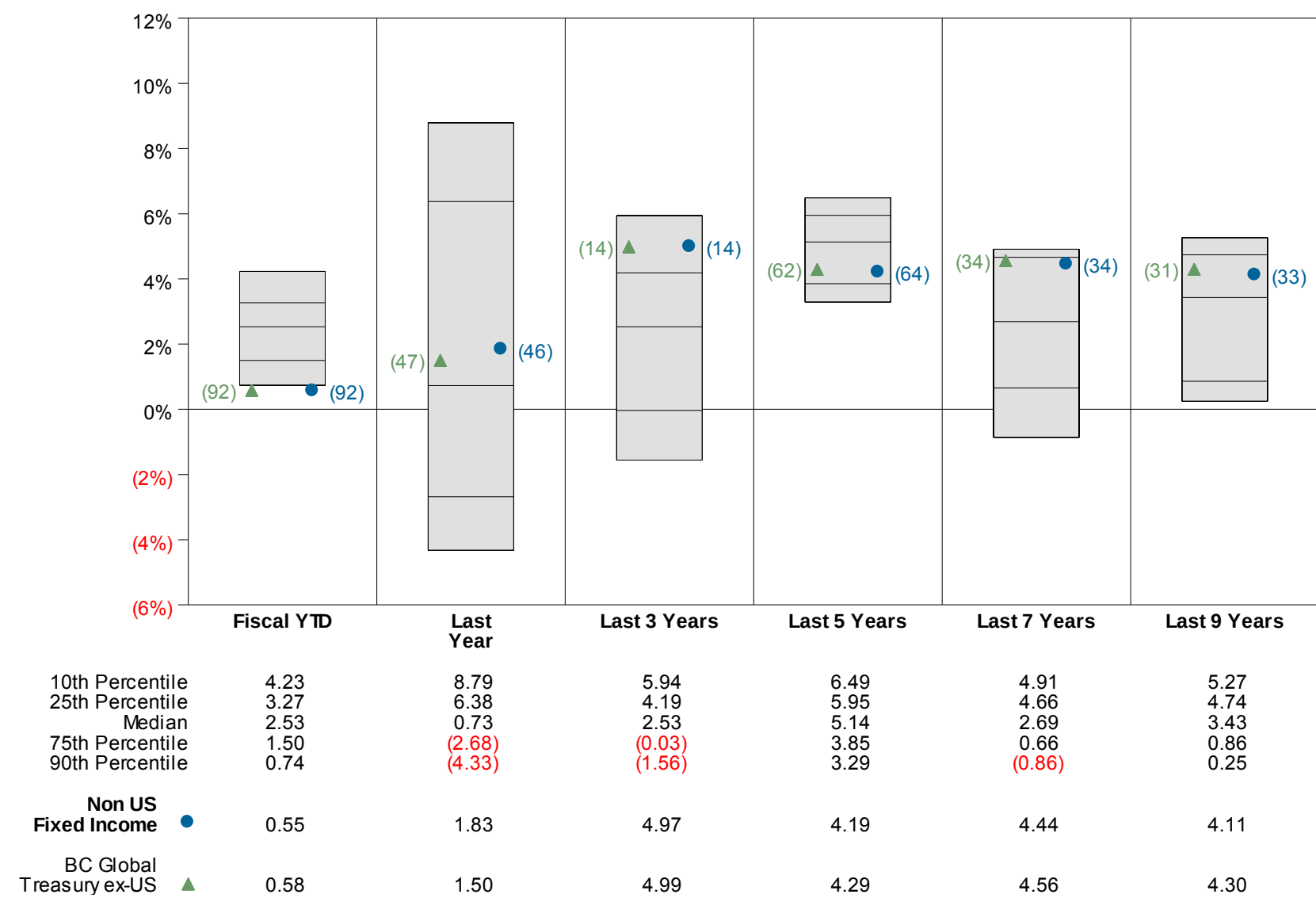


Non-U.S. Fixed Income Relative to International Fixed Income Funds

Periods Ended September 30, 2020

- The APFC Non-U.S. Fixed Income portfolio nearly matched the benchmark over the quarter and exceeded it over one year period.
- Compared to peers, the portfolio ranked above median over most periods.
- The composite included allocations to Rogge Asset and an In House Global Gov't Bonds mandate.

Performance vs Public Fund - International Fixed (Gross)

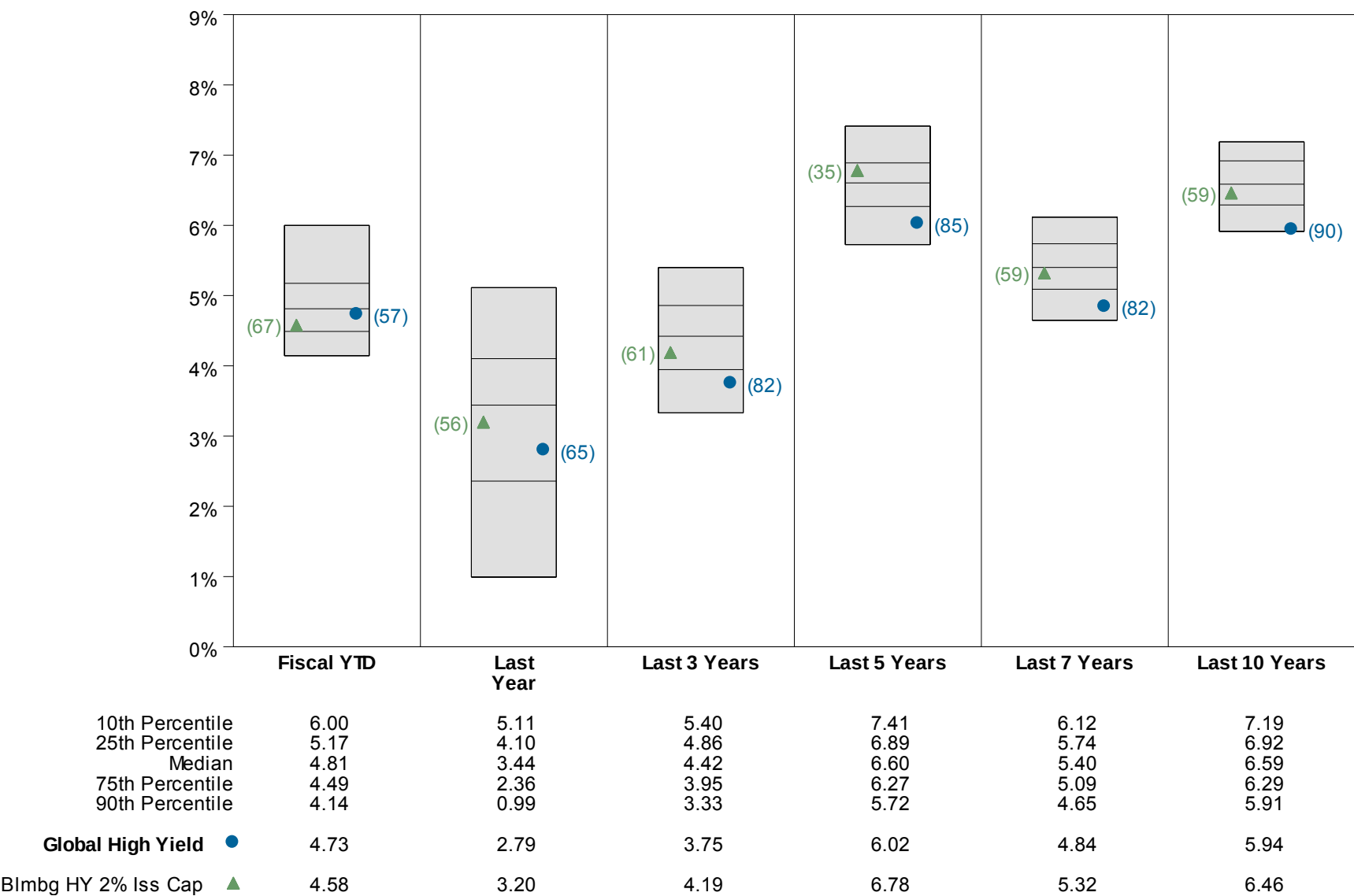


Global High Yield Relative to High Yield Funds

Periods Ended September 30, 2020

- APFC Global High Yield portfolio outperformed its benchmark in the quarter.
- The portfolio ranked below median for all reported periods.
- The composite included allocations to Oaktree, Capital Guardian, and an iShares ETF.

Performance vs Callan High Yield Fixed Income (Gross)

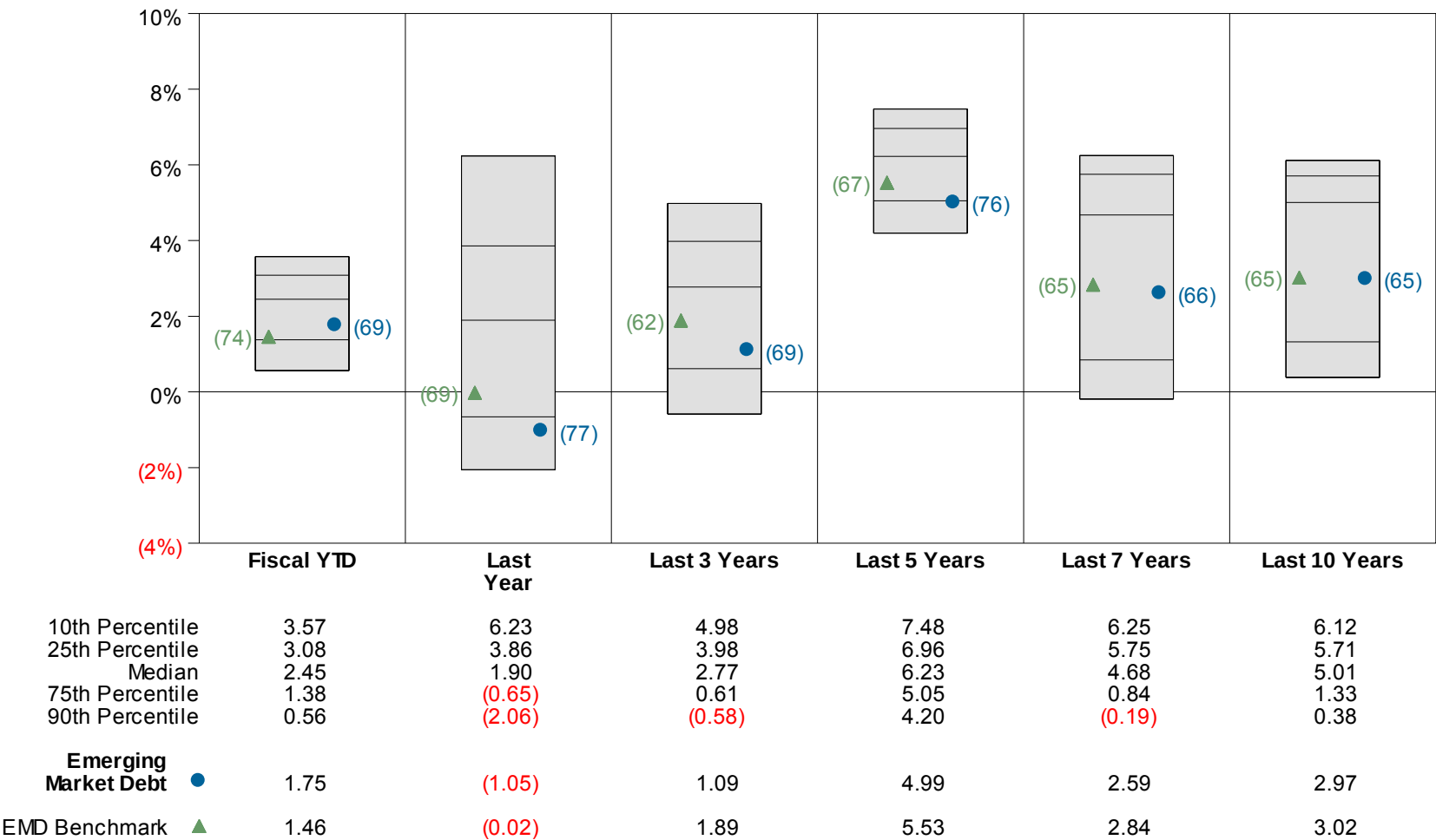


Emerging Market Debt Relative to EMD Funds

Periods Ended September 30, 2020

- APFC Emerging Market Debt portfolio continued its outperformance from the second quarter into the third. The negative returns from the first quarter continued to weigh on longer term results.
- Relative to peers, the portfolio ranked below median over all periods exhibited except the quarter.

Performance vs Emerging Debt Database (Gross)

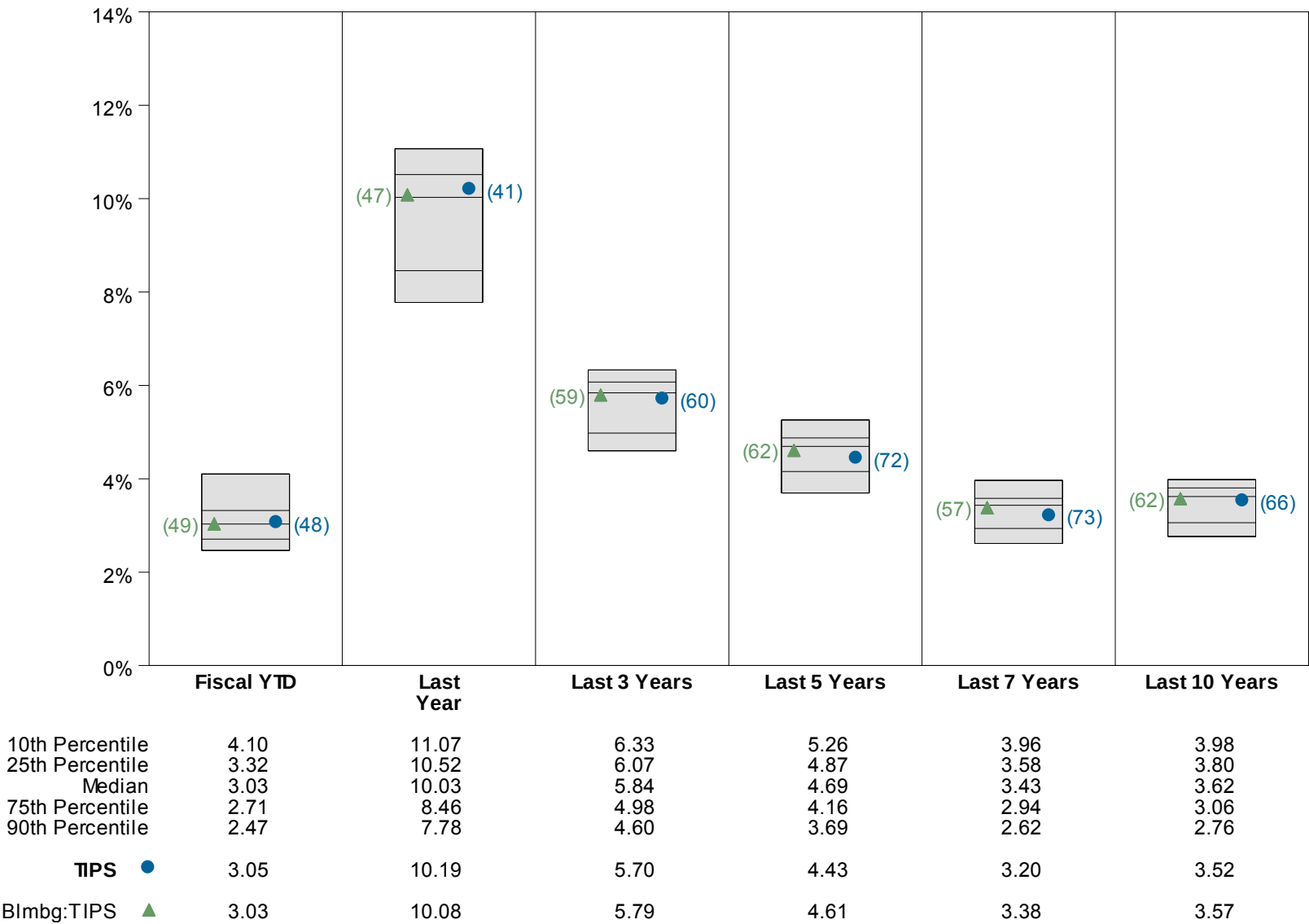


TIPS Relative to Callan’s Inflation Linked Bonds database

Periods Ended September 30, 2020

- APFC TIPS portfolio was nearly inline with the Bloomberg US TIPS Index for the quarter, and modestly ahead of the benchmark over the year.
- The TIPS composite ranked near median in Callan’s Inflation Linked Bonds peer universe over the short-term and below the median over longer-term periods.
- The TIPS allocation includes APCM and an In House TIPS portfolio.

Performance vs Callan Inflation Linked Bonds (Gross)

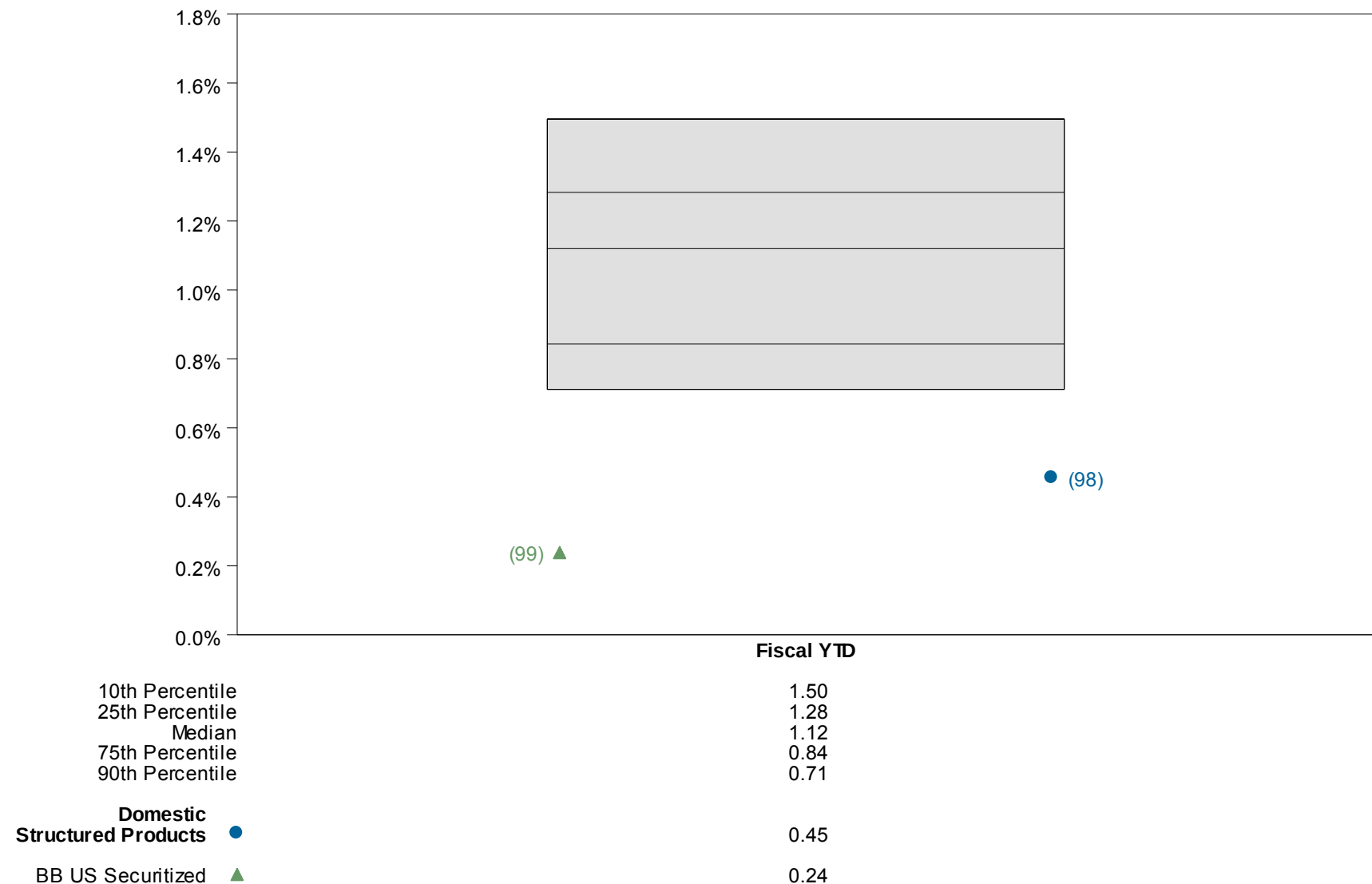


Domestic Structured Product to Callan’s Core Bond database

Periods Ended September 30, 2020

- The Domestic Structured Product portfolio was funded at the end of the second quarter of 2020.
- The inaugural quarterly performance was 45 bps versus the 24 bps return in the benchmark.
- The portfolio ranked in the bottom quartile of the Core Bond Fixed Income peer group, though benchmark-relative performance is far more applicable.

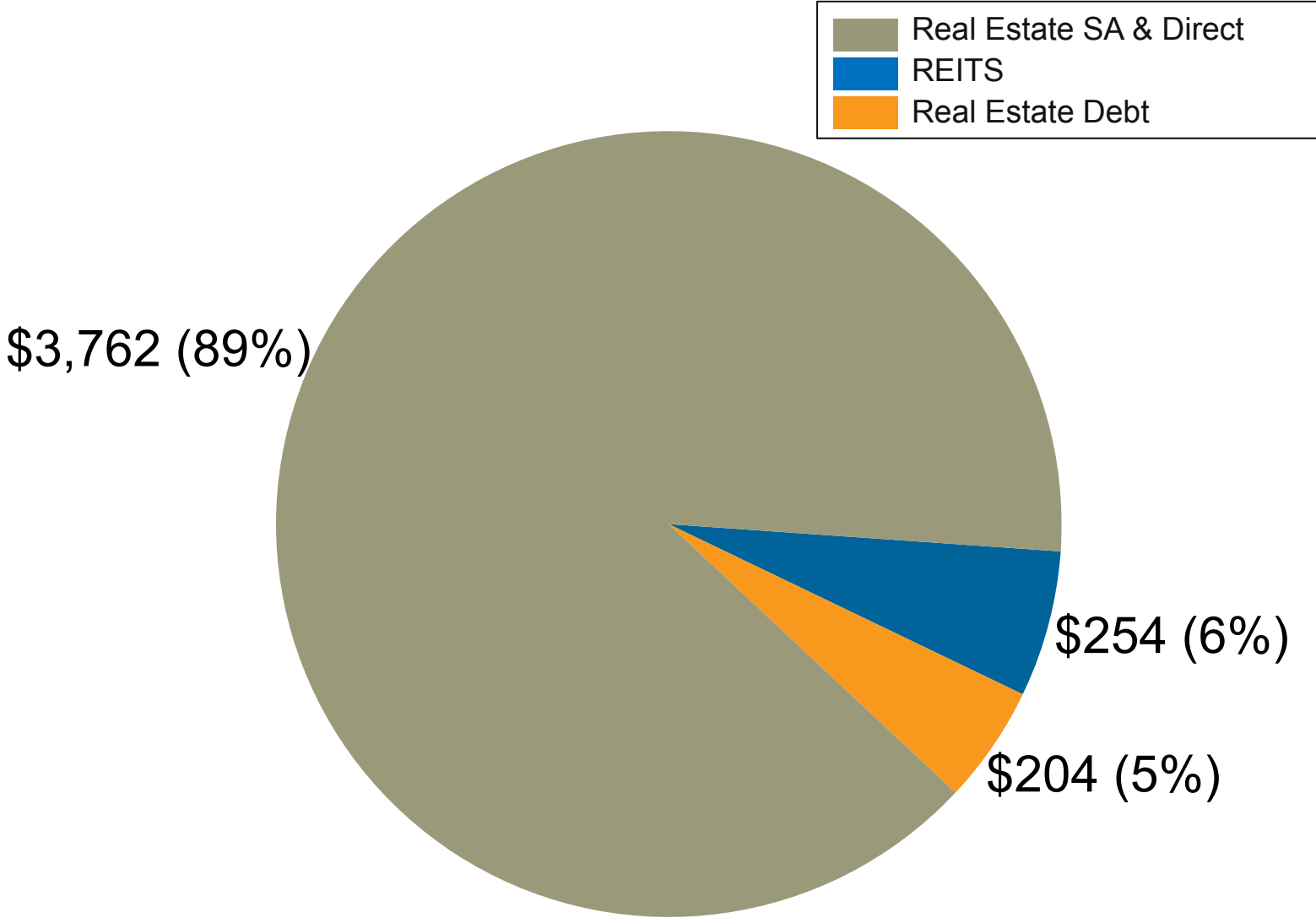
Performance vs Callan Core Bond Fixed Income (Gross)



APFC Real Estate Structure (1Q LAG)

As of September 30, 2020

- The real estate portfolio is comprised of Real Estate Separate Accounts and Direct Investments, REITS, and Real Estate Debt Investments.
- Real Estate Debt Funds moved from Real Estate Separate Accounts and Direct Investments, and REITS from Fixed Income Plus.

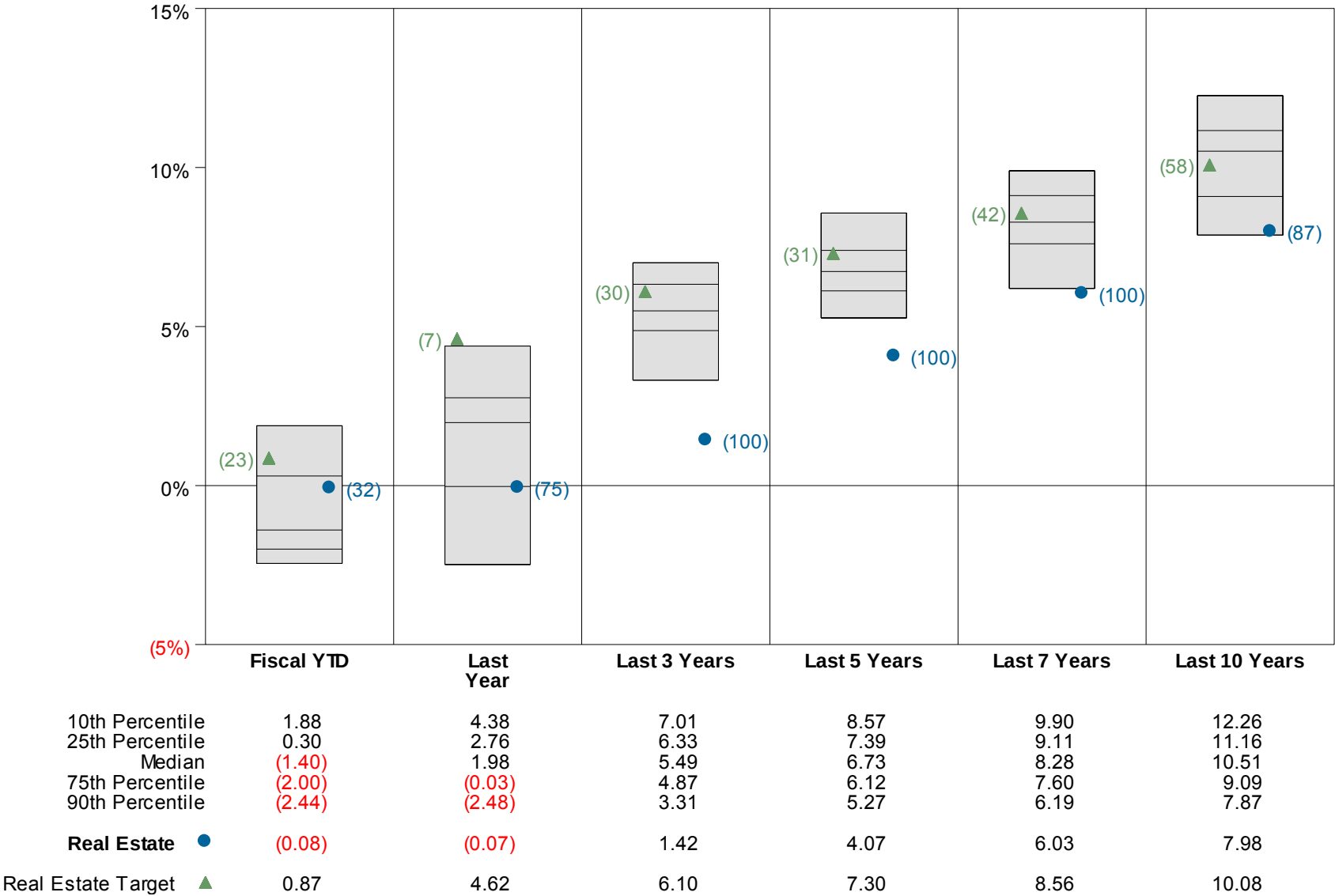


Real Estate Relative to Callan's Total Real Estate Database (1Q LAG)

Periods Ended September 30, 2020

- APFC Real Estate portfolio performance is shown net of fees for all investments.
- The real estate portfolio lagged behind its benchmark and ranked below the peer group median over all standard reporting periods.

Performance vs Public Fund - Real Estate (Gross)



Real Estate Performance (1Q LAG)

Periods Ended September 30, 2020

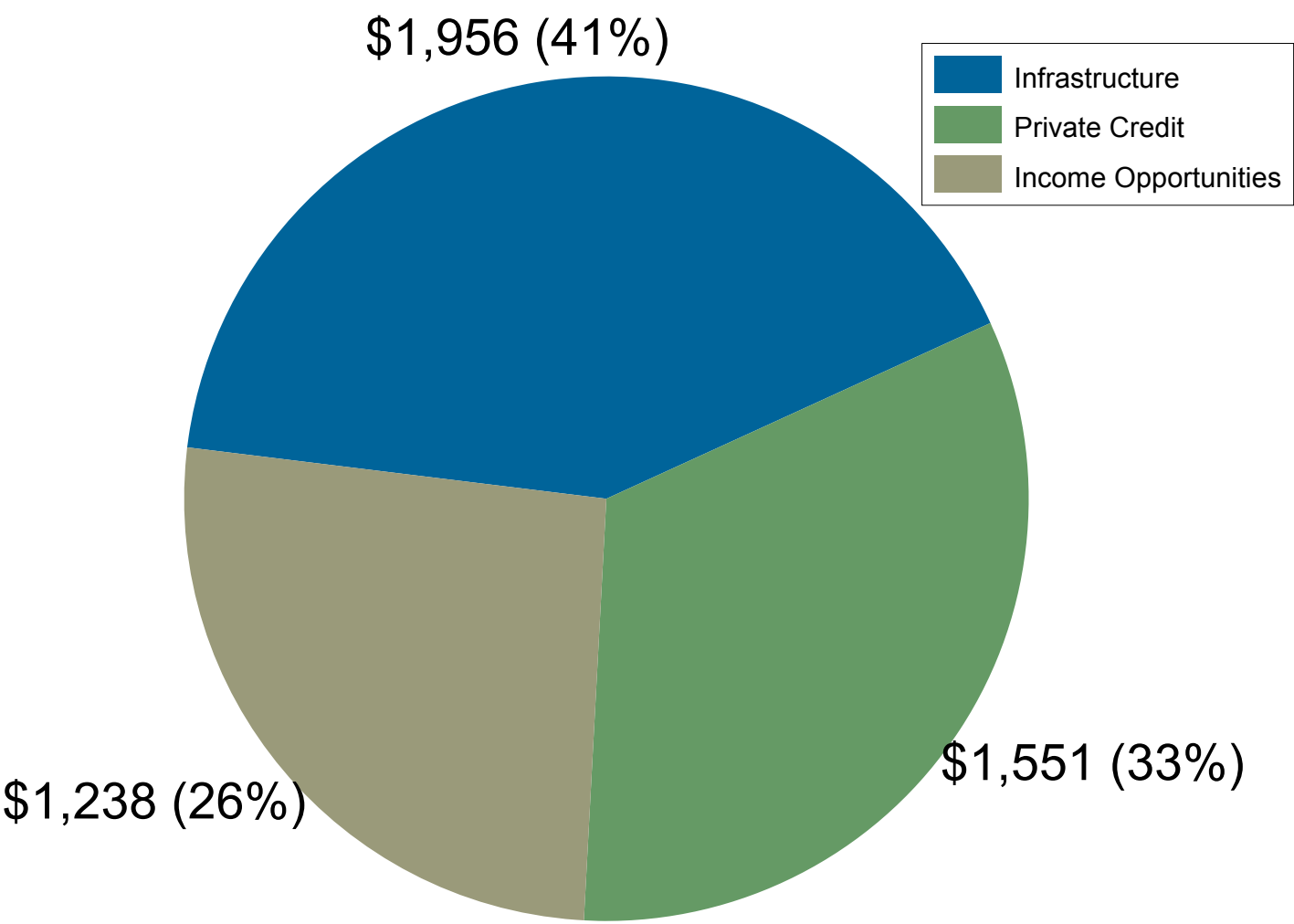
	Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
RE Equity Investments	-4.39%	-	-	-	-
RE Separate Accts & Direct	-4.52%	-4.70%	-0.16%	3.09%	7.47%
RE EQ Funds & Co-Invest	-1.13%	4.68%	-	-	-
RE Debt Investments	8.35%	13.81%	-	-	-
<i>NCREIF Total Index</i>	-0.99%	2.69%	5.44%	6.77%	9.70%
REITS	11.41%	-12.77%	0.43%	5.09%	8.27%
<i>MSCI US REIT Index</i>	11.70%	-12.87%	0.08%	4.08%	9.06%
Real Estate Composite	-0.08%	-0.07%	1.42%	4.07%	7.98%
<i>Real Estate Custom</i>	0.87%	4.62%	6.10%	7.17%	9.91%

- APFC's Real Estate Equity Investments underperformed its benchmark while Debt Investments outperformed. REITS fell short of its benchmark over the quarter and one year.
- Overall, the Real Estate Composite lagged its custom benchmark by 95 bps over the quarter, and 469 bps over the one year period.

APFC Private Income Structure (1Q LAG)

As of September 30, 2020

- 41% of the structure is invested in infrastructure funds, which includes a diversified portfolio of infrastructure, energy, and generation assets. Listed Infrastructure was moved into this category from Fixed Income Plus.
- 33% of the structure was invested in private credit mandates including mezzanine debt, opportunistic credit, and direct lending strategies.
- 26% of the structure was invested in income opportunities including structured credit, alternative credit, AH4R2, and timber.



Private Income Performance (1Q LAG)

As of September 30, 2020

	Quarter	Last Year	Last 3 Years	Last 5 Years
Infrastructure	1.35%	-1.29%	9.71%	13.59%
Cambridge Global Private Infrastructure	3.47%	-8.21%	4.25%	6.26%
Private Credit	1.60%	-0.09%	4.19%	5.06%
Cambridge Private Credit	4.40%	-5.21%	1.49%	3.67%
Income Opportunities	5.23%	5.90%	3.79%	7.14%
Private Income Custom	3.84%	-6.99%	3.18%	5.26%
Private Income Composite	2.22%	1.04%	7.81%	9.94%
Private Income Custom	3.84%	-6.99%	3.18%	5.26%

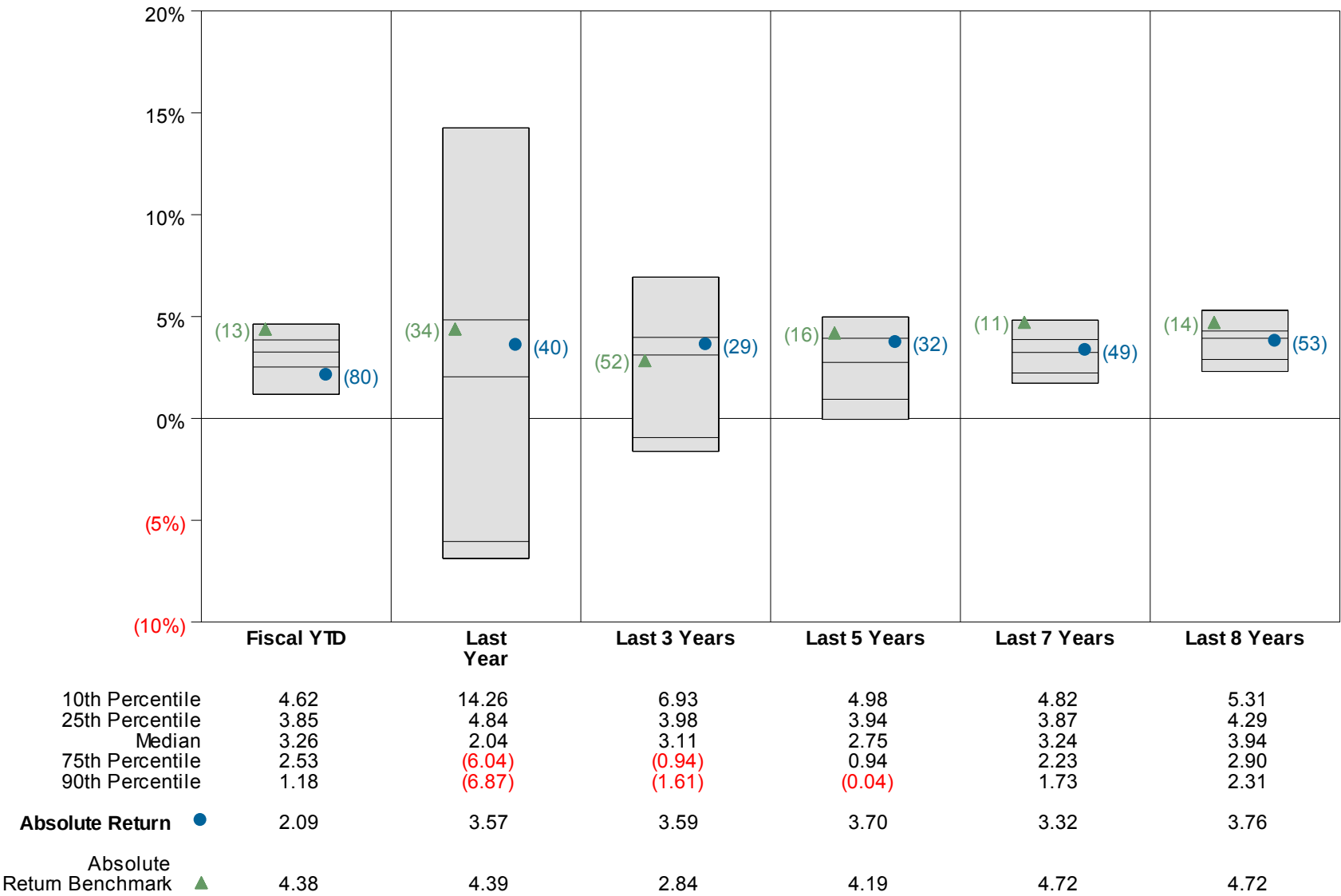
- APFC's Private Income composite underperformed in the quarter, but outperformed the benchmark (60% FTSE Dev Core Infr and 40% BB US Corp HY 2%) in the 1-, 3- and 5-year periods.
- Infrastructure and Private Credit underperformed in the quarter while Income Opportunities outperformed. All sub-strategies outperformed over the trailing 1-, 3-, and 5-year periods.

Absolute Return Portfolio Relative to HFOF Universe

Periods Ended September 30, 2020

- In the third quarter, the Absolute Return portfolio continued to lag the custom benchmark.
- The portfolio ranked above median for most time periods.

Performance vs Callan Absolute Rtn Hedge Fund of Funds (Net)

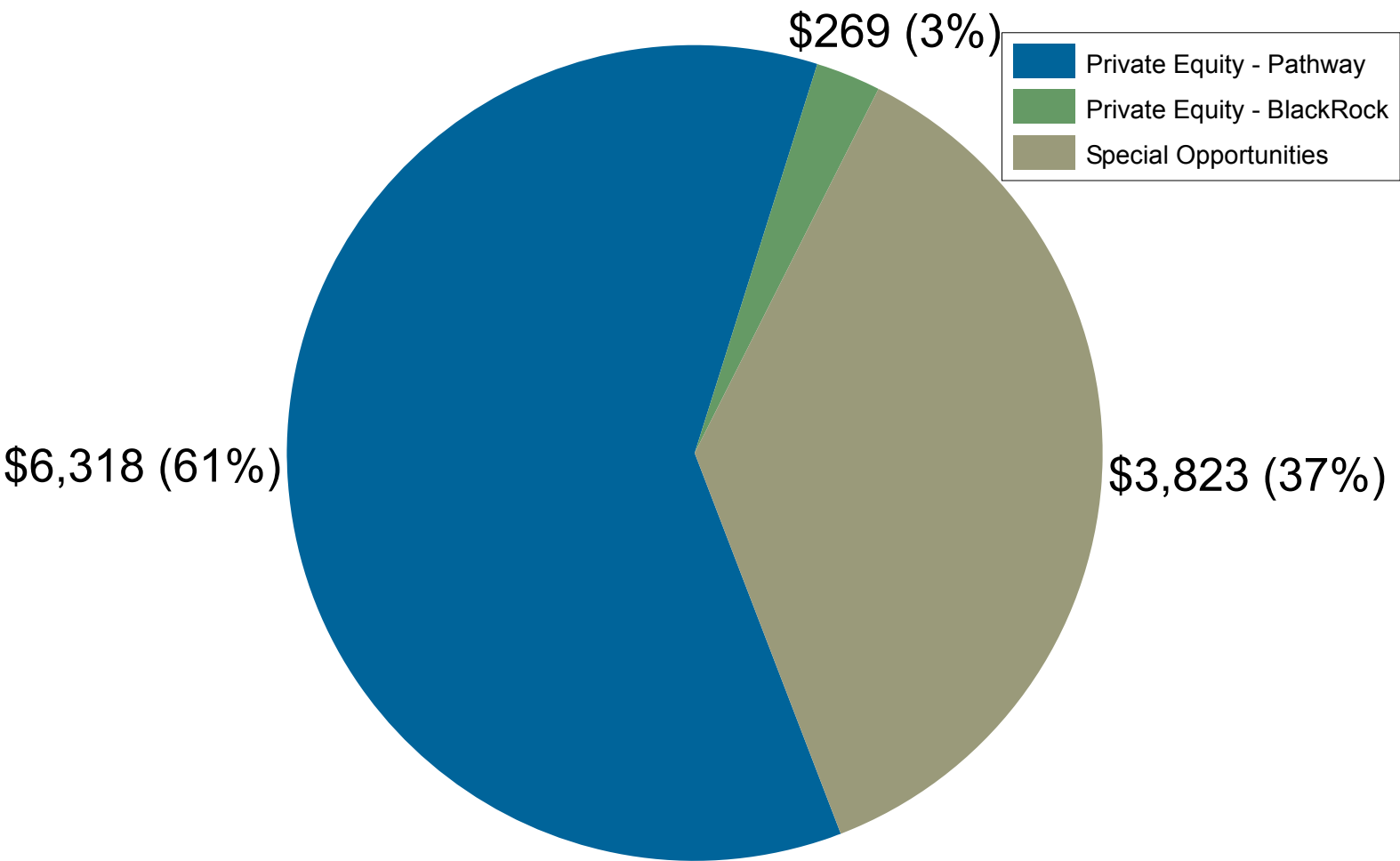


Absolute Return Benchmark is LIBOR + 4% through 6/30/13, LIBOR + 6% through 6/30/15, LIBOR + 5% through 9/30/16, and HFRI Total HFOF Universe thereafter.

APFC Private Equity and Special Opportunities Structure (1Q LAG)

As of September 30, 2020

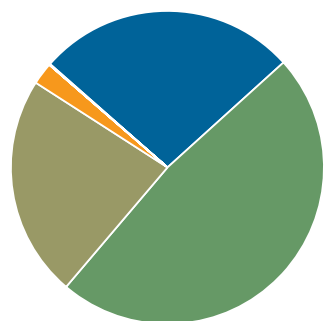
- 64% of the structure was invested in private equity.
- The legacy HarbourVest investments were transferred to Pathway for oversight management.
- The Pathway portfolio also includes direct investments overseen by Pathway.
- 37% of the structure was invested in special opportunities.



Private Equity Portfolio Positioning (1Q LAG)

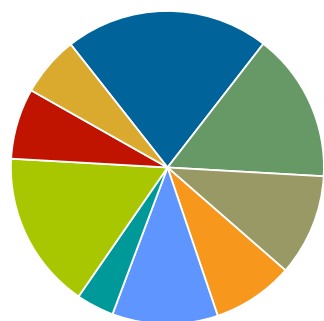
As of September 30, 2020

- APFC’s Total Private Equity Portfolio continued to be well-diversified by strategy, geography, and industry.
- Buyouts, Venture Capital and Special Situations remained the largest strategy allocations.
- The largest non-U.S. geographic exposure was Europe. The largest industry exposure was in Technology.



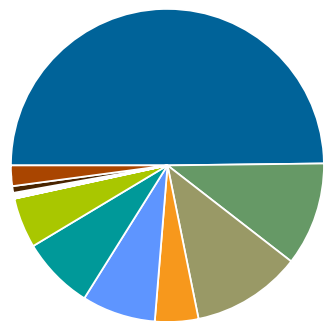
Strategy Mix by Net Asset Value

Venture Capital	26.82%
Buyout	47.87%
Special Situations	22.94%
Distressed for Control	2.25%
Secondary Interest	0.04%
Mezzanine	0.08%



Geographic Mix by Net Asset Value

West/Pacific Northwest	21.06%
North Atlantic	15.43%
Mid-West	10.50%
Southeast	8.38%
Southwest/Rockies	10.94%
Mid-Atlantic	3.85%
Europe	16.27%
Asia/Pacific	7.34%
Other	6.23%



Industry Mix by Net Asset Value

Technology	49.81%
Health Care	10.70%
Consumer Discretionary	11.28%
Energy	4.47%
Financial	7.63%
Industrials	7.46%
Communication Services	5.22%
Utilities	0.27%
Consumer Staples	0.33%
Materials	0.67%
Other/Misc	2.15%

APFC Private Equity and Special Opportunities Performance (1Q LAG)

As of September 30, 2020

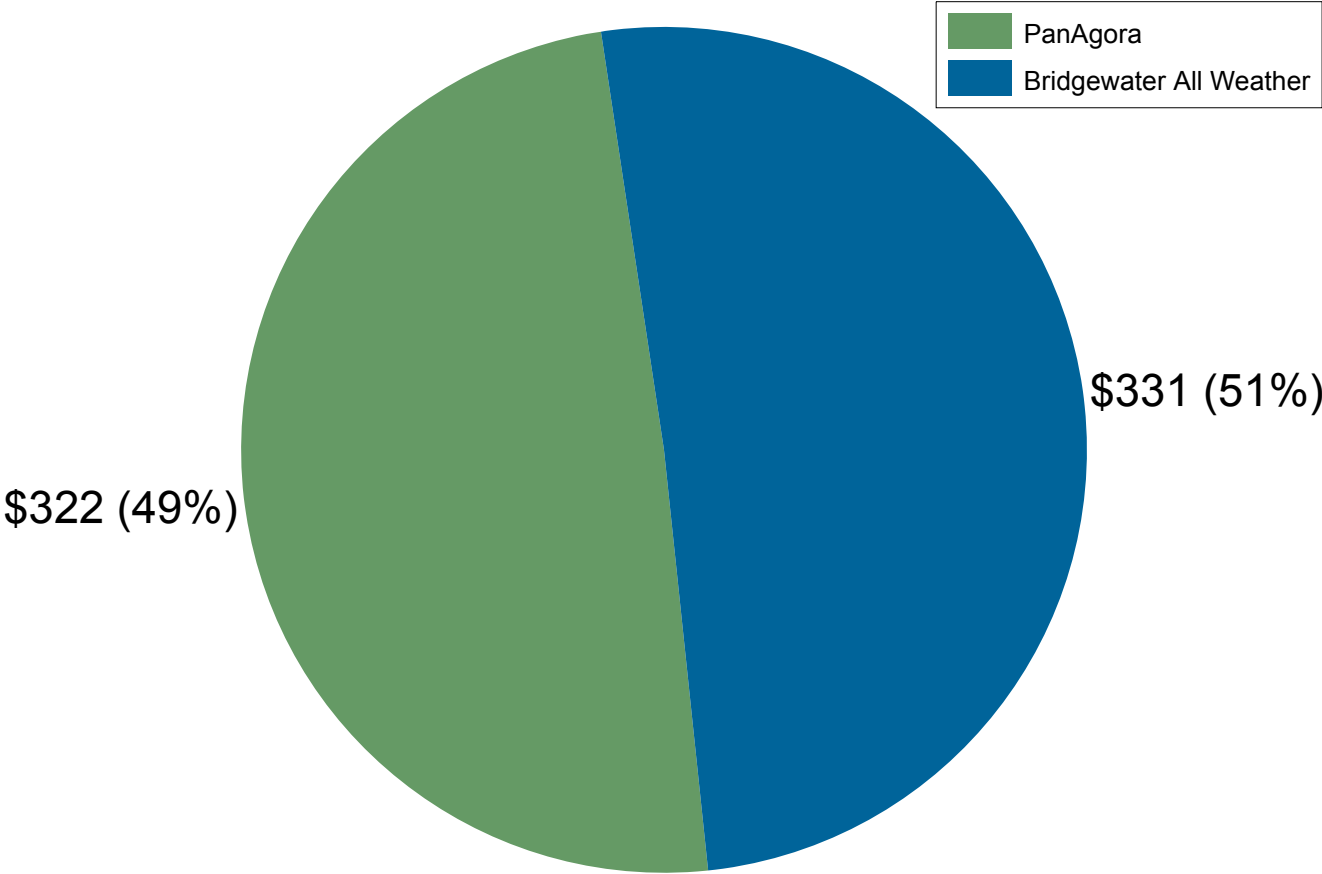
	Last Quarter	FYTD	Last Year	Last 3 Years	Last 5 Years
Private Equity and Special Opportunities	12.42	12.42	9.42	18.19	14.80
Cambridge Private Equity	9.89	9.89	7.67	12.31	11.35

- APFC’s Private Equity and Special Opportunities composite outperformed the Cambridge Private Equity benchmark over all standard time periods.
- In the last reported quarter, Private Equity was up 13.9% and Special Opportunities was up 10.1%.

APFC Risk Parity Structure and Performance

As of September 30, 2020

- Roughly \$653 million distributed across two mandates.
- Multi asset class portfolios, limited use of illiquid assets. Leverage is used to amplify the impact of asset classes and/or strategies in an effort to optimize performance vis-à-vis overall portfolio risk.
- PanAgora and Bridgewater outperformed over the quarter and year.
- BlackRock was liquidated and reallocated to the remaining managers in the prior quarter.



	Last Quarter	Last Year
PanAgora	5.29	3.32
Bridgewater All Weather	5.04	4.19
HFR Risk Parity Vol 12 Inst'l Idx	4.96	3.14

Closing Remarks

- Total Fund ended the third quarter of 2020 with \$67.3 billion in assets, decreasing 6.4% for the quarter. The change was largely due to the reclassification of REITS and Infrastructure and changing non-lagged valuations to lagged valuations. Compared with the prior year ended September 30, the Fund increased by 1.2%. The trailing year performance placed the Total Fund below median relative to other large public funds and large endowments/foundations.
- For the quarter, the Total Fund underperformed the Performance and Passive Benchmarks, but outperformed the CPIU+5% return target; the Total Fund underperformed all three targets over the 1-year. Over the 5- and 10-year periods, the Fund outperformed and was ahead of all three targets.
- The Public Equity portfolio underperformed its index during the quarter. The Domestic and Global Equity composites underperformed their respective benchmarks, while International Equity outperformed.
- The Fixed Income portfolio exceeded its benchmark in the third quarter. Most sub-strategies outperformed their benchmarks.
- In the Alternatives portfolio, Real Estate, Private Income and Absolute return fell behind their benchmarks. Private Equity & Special Opportunities was the one bright spot outperforming its custom benchmark.
- Prudent asset allocation with appropriate levels of diversification and a long-term perspective remain Callan's recommended course.

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SUBJECT: Risk Overview

ACTION: X

DATE: December 9, 2020

INFORMATION: X

BACKGROUND:

The Risk Report provides an overview of historical and forward-looking measures of risk for the Total Fund and its underlying asset classes.

STATUS:

The 'Risk Overview' has the following sections:

- **Section-1: [Action]:** is a waiver request to operate below the Lower bound (as per the Investment Policy Statement) pertaining specifically to Future Commitments relating to Private Assets.
- **Section-2: [Information]:** covers the main measures of risk for the Fund. The APFC's key risk measures include Value at Risk (VaR) on a standalone and relative-to-benchmark basis, tracking error, statistics that measure realized volatility and Sharpe Ratios, asset class and factor contributions to risk and risk scenarios. It also covers Geographic, Currency, and Liquidity risks for the Total Fund.



APFC

ALASKA PERMANENT
FUND CORPORATION

Risk Overview

December 09, 2020

A teal-colored background featuring a close-up, slightly out-of-focus image of a pine branch with needles and a small, textured pine cone or bud in the center. The text is overlaid on this background.

Part 1: [Action]

Private Assets Future Commitments:

- Waiver request to operate below lower limit

Private Assets: Future Commitments - waiver to operate below Lower bound Yellow/Red Zones

Request

- Waiver to operate in Yellow and Red zones below Lower bound for Future Outstanding Commitments relating to Private Assets
- (Upper/High limits will continue to be adhered to)
- Time Period for waiver: 12 months

Ref: Investment Policy statement - Section VII, G. Risk Parameters and Limits, Table 3:

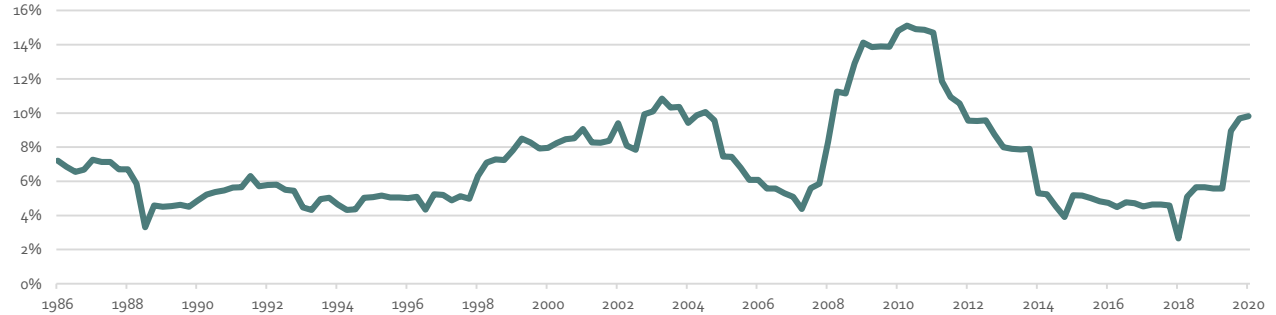
G. Risk Parameters and Limits										
Table 3: Asset Allocation (AA) Target Levels										
	Public Equity	Fixed Income	Private Equity	Real Estate	Private Income	Absolute Return	Risk Parity	Cash	Total Fund	
Future Outstanding Commitments ¹	0.0%	0.0%	10.0%	3.0%	5.0%	2.0%		0.0%	20.0%	85% 115% 75% 125%
Benchmark	M664204USN	LEHCREYBO	CAM_FE	NCREIFMSCI	CAM_PI	HFRIPROXY	HFRISP	900TBILL	LEHFTJPA	
Tracking Error	3.5%	2.5%							4.0%	n/a 115% n/a 125%
Relative VaR ²	100.0%	100.0%							100.0%	0% 125% 0% 140%
% of Asset Allocation										
Single Name / Issuer ³	4%	4%	2%	10%	2%	n/a	n/a	n/a		0% 115% 0% 125%
Single Industry ⁴	20%	20%	30%	n/a	30%	n/a	n/a	n/a		0% 115% 0% 125%
Single Country - EX US	10%	10%	20%	20%	20%	n/a	n/a	n/a		0% 115% 0% 125%
Total EX US	50%	30%	50%	50%	50%	n/a	n/a	n/a		
Single Fund Investment ⁵	5%	10%	10%	10%	10%	10%	50%	n/a		0% 115% 0% 125%
Proportion of Ownership	5%	5%	10%	100%	10%	n/a	n/a	n/a		0% 115% 0% 125%
Rating - Below low Grade	n/a	25%	n/a	n/a	n/a	n/a	n/a	0%		0% 115% 0% 125%

A teal-colored background featuring a close-up, slightly blurred image of a pine branch with a cluster of pine needles and a small, textured pine cone in the center. The text is overlaid on this background.

Part 2: [Information] Key Risk Metrics As of September 30, 2020

Total Fund: Realized Volatility & Sharpe Ratio

Realized Fund Volatility



Realized Fund Sharpe Ratio

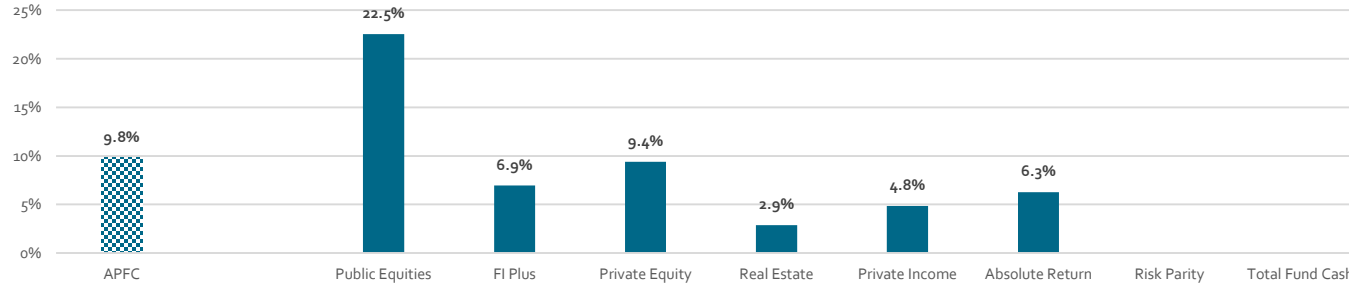


Volatility (standard deviation) and Sharpe ratio have been computed based on rolling 3 year quarterly returns for the Total Fund

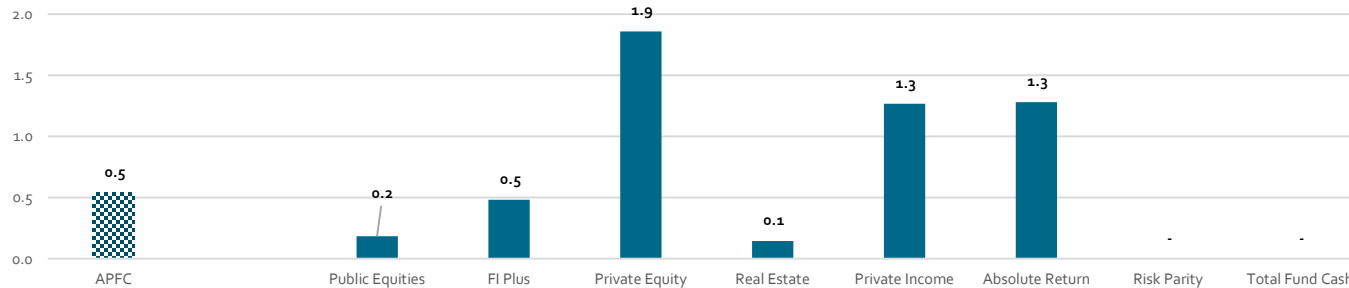
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Fund & Constituents: Volatility and Sharpe Ratio as of Sep. 30, 2020

Volatility



Sharpe Ratio

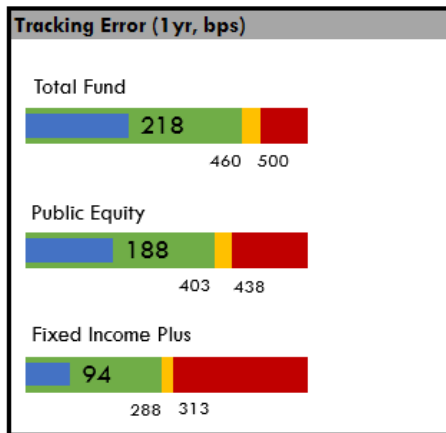


'Risk Parity' and 'Total Fund Cash' were categorized as distinct 'asset classes' effective 7/1/2020. Consequently, historical statistics are not available yet to report

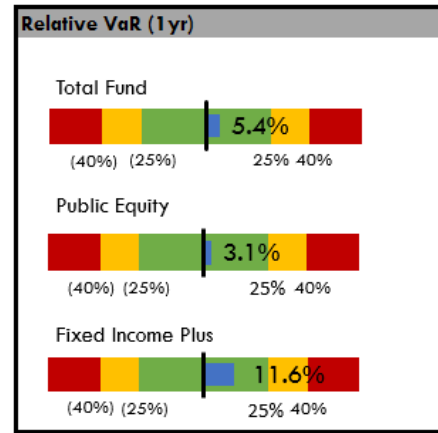
Volatility (standard deviation) and Sharpe ratio have been computed based on historical 3 year quarterly returns, as of September 30, 2020

162 of 344

Tracking Error and VaR: (Vs) Limits



- Tracking error is an indicator of performance relative to benchmark
- It represents the deviation of portfolio returns from benchmark returns
- It is directionally agnostic and does not indicate over or underperformance



- VaR is an estimate of value decline, based on a 97.5% confidence level and 1 year holding period
- The above chart reflects the Relative VaR of the portfolio versus respective benchmark

Private Assets: levels of less liquid exposures

Private Assets: Investments Vs Targets

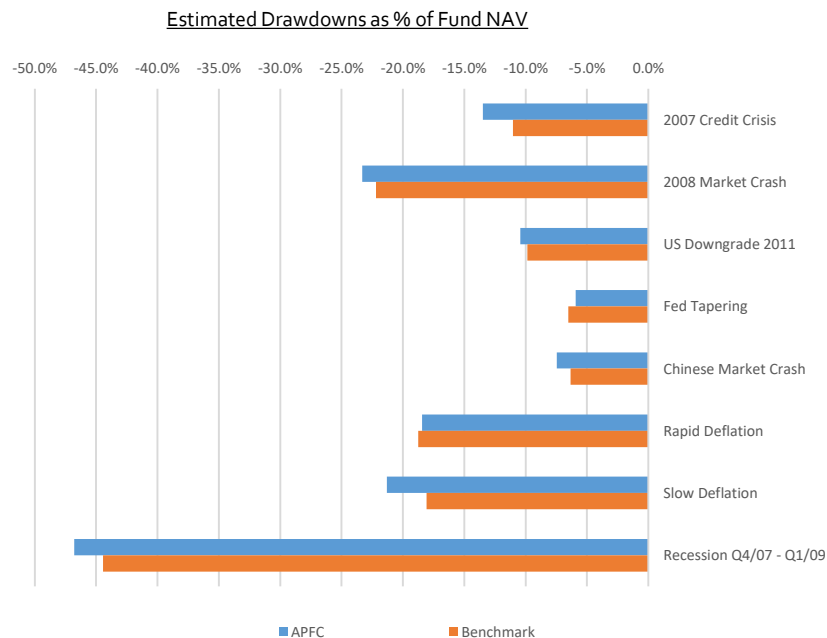
	\$ Billion	% of Total Fund		
		Actual	Target	Actual (Vs) Target
Private Equity	10.4	15.3%	15.0%	0.3%
Private Income	4.8	7.1%	9.0%	(1.9%)
Real Estate	4.7	6.9%	7.0%	(0.1%)
Total	19.9	29.3%	31.0%	

Private Assets: Future Commitments Vs Targets

	\$ Billion	% of Total Fund		
		Actual	Target	Actual (Vs) Target
Private Equity	5.3	7.8%	10.0%	(2.2%)
Private Income	3.3	4.9%	5.0%	(0.1%)
Real Estate	0.7	1.1%	3.0%	(1.9%)
Total	9.3	14.0%	18.0%	

Tail Risk: Current portfolio during extreme events

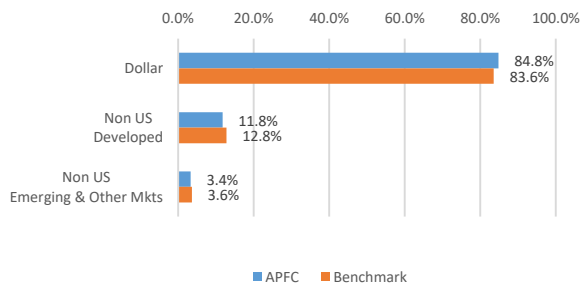
Scenario	Definition
2007 Credit Crisis	Credit & liquidity crisis stemming from a severe slowdown in the housing market causing significant widening of credit spreads, higher implied volatility.
2008 Market Crash	S&P 500 down 20% (2000 bps).
US Downgrade 2011	The period starts with 50% chance US downgrade indication from S&P standards and ends with Operational Twist announcement from the Fed
Fed Tapering Talk 2013	Equity & bond markets sold off. EM suffered badly due to hot money flight back to U.S.
Chinese Market Crash	Chinese stock market crash beginning with the popping of the stock market bubble on June 12, 2015.
Rapid Deflation	Oil down 60% (6000 bps); ST Inflation down 350 bps; Mortgage spreads tighten 25 bps.
Slow Deflation	LT deflation down 200 bps; LT Treasury Rates down 100 bps; Mortgage spreads tighten 25 bps.
Recession Q4/07-Q1/09	Recent recessionary period starting Dec3, 2007 and ending March9, 2009



The estimated drawdowns for the fund exceed that of the benchmark in all but two scenarios

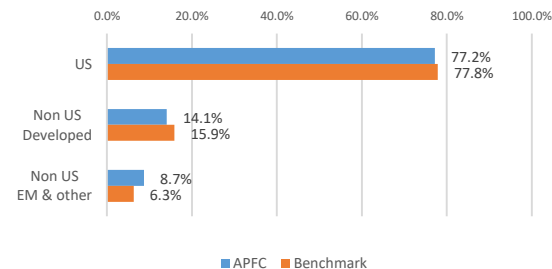
Currency & Geography: breakdowns

Currency breakdown



Currency Name	Exposure (\$, millions)
Euro	2,928
Japanese Yen	1,386
Hong Kong Dollar	1,230
British Pound	822
Canadian Dollar	530
Sub-Total	7,085 (10.43% of NAV)
Total Non-US DM Exposure	8,152 (12.0% of NAV)

Country breakdown



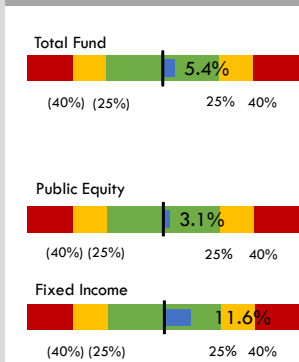
Country Name	Exposure (\$, millions)
China	1,739
South Korea	509
Taiwan	469
India	387
Brazil	211
Sub-Total	3,315 (4.9% of NAV)
Total EM & Other Exposure	5,863 (8.7% of NAV)

Daily Dashboard - September 30, 2020

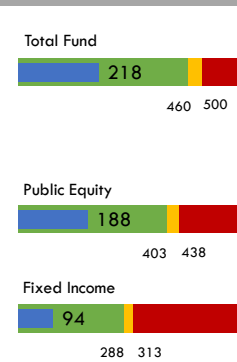
NAV : \$ 67,932,241,378

Risk *	Performance (%) **							Asset Allocation **				
	1 SD	Rel VaR	TE	MTD	FYTD	CYTD	1 Year	NAV (\$M)	NAV	Target	Compliance	Over/Under
Total Fund	23%	5.4%	2.2%	-1.3	5.1	1.6	6.0	67,932,241				
Public Equity	28%	3.1%	1.9%	-2.9	8.0	-0.9	8.7	26,911,583	39.6%	39%		0.6%
Fixed Income	7%	11.6%	0.9%	-0.3	1.6	1.9	3.3	14,374,171	21.2%	21%		0.2%
PE & Special Opps	45%	12.6%	8.1%	-0.2	9.2	11.2	11.3	10,409,970	15.3%	15%		0.3%
Real Estate	28%	1.1%	4.4%	-0.5	0.5	-4.7	-3.5	4,710,570	6.9%	7%		-0.1%
Inf. & Private Income	31%	5.4%	12.6%	-0.3	2.6	-2.0	0.4	4,833,830	7.1%	9%		-1.9%
Absolute Return	5%	-39.7%	5.7%	0.0	1.2	0.9	2.6	3,930,079	5.8%	6%		-0.2%
Risk Parity	15%	8.5%	6.4%	0.0	5.0	-13.6	-13.1	856,121	1.3%	1%		0.3%
Total Fund Cash	0%	-6.0%	0.0%	0.0	0.0	0.5	1.0	1,905,917	2.8%	2%		0.8%

Relative VaR (1yr)



Tracking Error (1yr, bps)



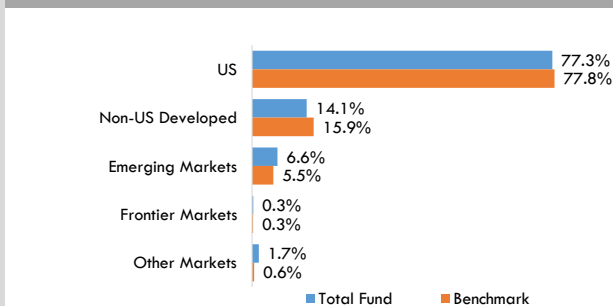
Derivative Exposures (\$M)

	Total Fund	Public Equity	Fixed Income	Other
Total Derivative	5,201	2,819	2,214	168
FX Forwards	3,793	1,925	1,699	168
Index Futures	787	787	-	-
CCY & Bond Futures	613	107	506	-
Other	9	-	9	-

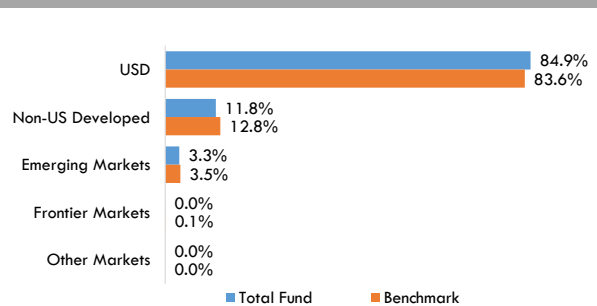
Economic Indicators ***

	9/30/20	9/29/20	% Change
VIX	26.37	26.27	0.4%
U.S. Dollar/Euro	1.17	1.17	-0.2%
Credit Index OAS	1.28	1.29	-0.8%
Crude Oil (WTI) (\$)	40.22	39.29	2.3%
10-Year Treasury Yield	0.68	0.65	5.0%
30-Year Treasury Yield	1.46	1.41	2.8%
S&P 500	3,363.00	3,335.47	0.8%

Country Exposures



Currency Exposures



* Risk is calculated by and obtained from BlackRock Aladdin.

** Performance returns and Asset Allocation valuations are obtained from custodian.

*** Economic indicator data is obtained from Bloomberg.

SUBJECT: APFC Alternative Investments
Asset Class Update

ACTION: _____

DATE: December 9, 2020

INFORMATION: _____ X _____

BACKGROUND:

Alternative Investments includes Private Equity (including venture capital), Special Opportunities, Absolute Return, Private Credit, and Infrastructure. The presentation provides updates on investment performance and competitive landscape.

STATUS:

At this meeting staff will present some of the key characteristics of the Alternative Investment portfolios including, as context, overall market developments and outlook. Staff will highlight key strengths and challenges facing the Alternatives team and will discuss strategic considerations and potential solutions.



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Private Markets and Alternative Investments:

Absolute Return, Private Income, Private Equity

December 9, 2020



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Absolute Return

December 9, 2020

Summary Performance

Time Weighted Returns and Exposures as a % of Total Fund (per Callan)

(\$ in millions)	NAV	Allocation		QTD	CYTD	1 Year	3 Year	5 Year
		Current	Target					
Absolute Return Portfolio	\$3,991	5.9%	6.0%	2.1%	1.5%	3.6%	3.6%	3.7%
<i>HFRI FOF Index</i>				<i>4.2%</i>	<i>0.6%</i>	<i>4.2%</i>	<i>2.8%</i>	<i>4.1%</i>

- The Absolute Return portfolio lagged the HFRI benchmark during FQ1'21 and in the last 12 months. The focus on Beta-neutral strategies and continued disappointing performance of some individual strategies explained the more muted aggregate performance relative to the benchmark
- The combination of persistent outperformance of the Momentum and Growth equity factors and elevated volatility in the factor space proved challenging for several of our managers. On the positive side, as aggregate Market volatility continued to decline, relative value strategies as well as capital markets activity produced positive results. In other parts of the portfolio, Yield Curve steepening bias was a common theme that produced only modest positive results.
- We marginally added exposure to existing managers in the Global Macro strategy space

Source: Callan official performance reports. Absolute Return NAV and performance as of September 30, 2020.

Absolute Return

Performance and portfolio composition

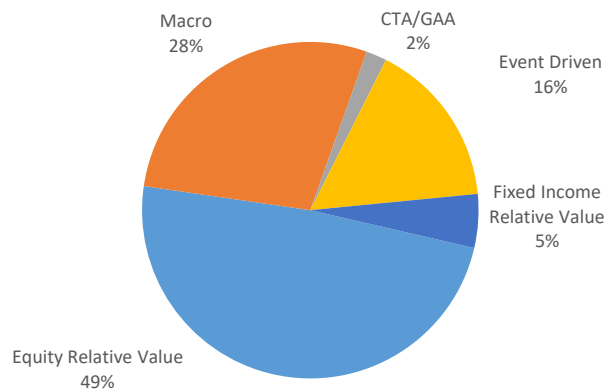
Portfolio Performance

(\$ in millions)	NAV	Return				
	Sep-20	FQ1'21	FYTD	SI*	FY20	FY19
Fund-of-Funds	\$243	-1.2%	-1.2%	-1.4%	-17.1%	-4.4%
Crestline	\$205	-1.8%	-1.8%	-0.8%	-18.0%	-5.2%
Mariner	\$38	2.1%	2.1%	1.0%	-12.1%	0.3%
Direct Portfolio	\$3,757	2.6%	2.6%	4.7%	4.0%	3.0%
Absolute Return	\$4,001	2.4%	2.4%	5.1%	2.3%	2.2%
S&P 500		8.9%	8.9%	14.0%	7.5%	10.4%
Barclay's US Agg		0.6%	0.6%	3.5%	8.7%	7.9%
HFRI Composite		4.3%	4.3%	4.3%	-0.6%	1.3%

Source: APFC manager statements and investment staff calculations.
 Note: September NAV and performance figures may utilize preliminary estimates where finalized numbers not yet available; performance figures calculated as NAV-weighted geometric mean over applicable timeframe

Direct Portfolio Overview

Strategy Mix



Portfolio Statistics

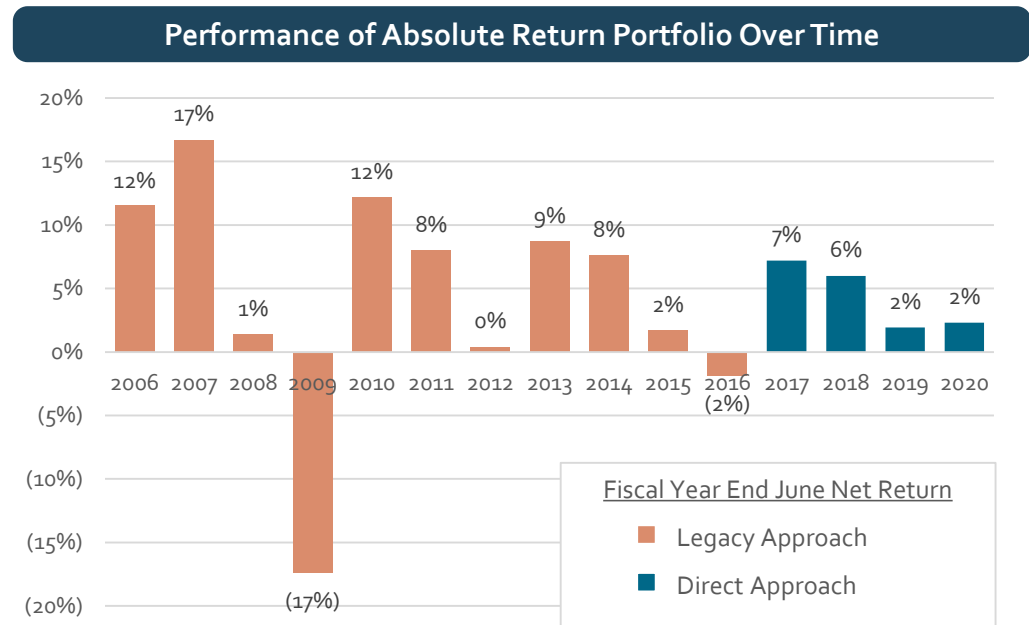
Ann. Return	4.68%
Volatility	3.92%
Sharpe	0.85
Corr to S&P	0.50
Corr to Agg	0.06
Corr to HFRI	0.69

Note: Since inception date of July 1, 2016, to match beginning of FY17 and beginning of in-house strategy

Absolute Return

Target allocation and diversification reached within three years of rebuild

- Since the first direct fund investment in August 2016, APFC currently invests with 18 managers directly; ~\$250 million, or ~6% of the portfolio, remains invested in two legacy fund-of-funds
- In the Last 12 months APFC has added one new manager to the portfolio, and fully redeemed from another. From a strategy allocation perspective, the exposure to Equity Relative Value has grown at the expense of CTA strategies
- The Absolute Return portfolio aims to provide the Fund with a stream of uncorrelated and defensive returns, while offering significantly better liquidity than other alternative investments
- Returns are measured against two benchmarks
 - Absolute: CPI + 5.00%
 - Relative: HFRI Total HFOF Universe



Note: All returns per Callan year-end monthly performance report.

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Absolute Return

Divergence between outlook and objectives

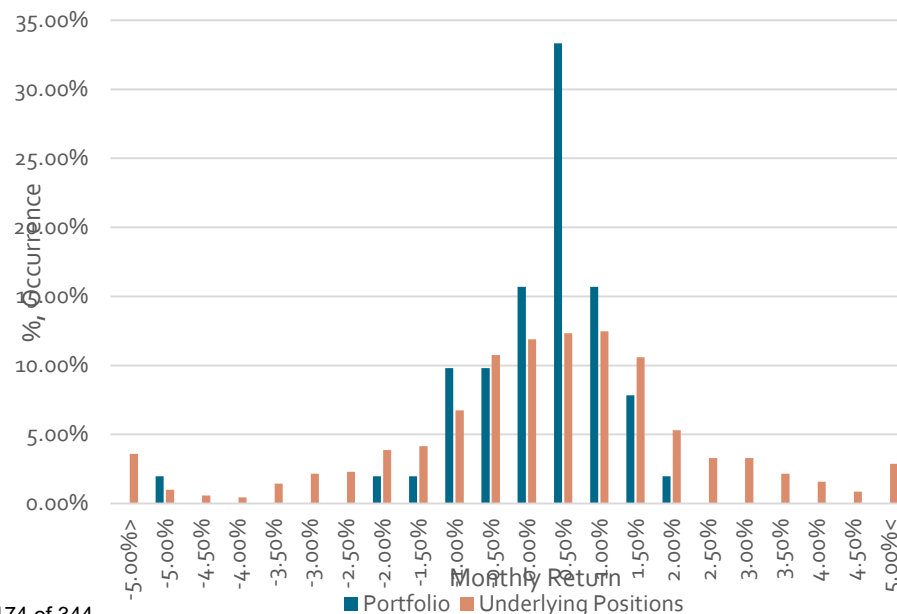
Through-the-Cycle Expectations

10-Year Projections	r	σ
Callan	5.05%	9.15%
CPI	2.25%	1.50%
APFC Objective	7.25%	<12.00%

Risks to Meeting Objectives

- Lower ex-post volatility limiting returns
- Overpaying for non-accretive strategies
- Leverage used by managers can lead to significant losses if not properly managed

Distribution of monthly returns





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Private Income

December 9, 2020

Overview of Private Income

Current income, capital appreciation, and downside protection

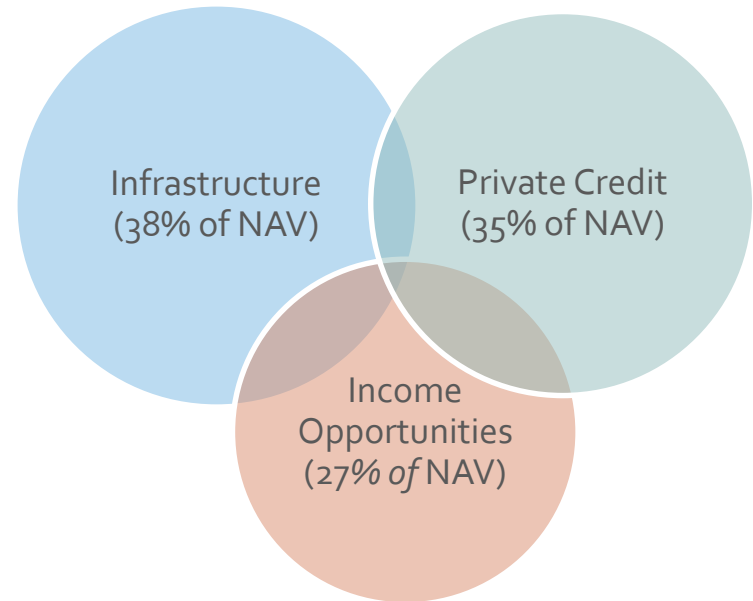
Objective

Generate a return between the expected return for public equity and fixed income that is comprised of an attractive level of current income and capital appreciation

Return Objectives

Returns are measured against the following benchmarks

- Absolute: CPI + 5.00%
- Relative: 60% Cambridge Global Private Infrastructure (Lagged) and 40% Cambridge Private Credit (Lagged)



Private Infrastructure

Portfolio Snapshot

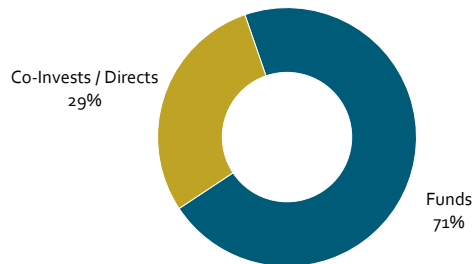
- Portfolio Value (at 6/30/20): \$1.73 billion
- 23 funds, 8 co-investments
- No new commitments made last quarter

Return Objectives

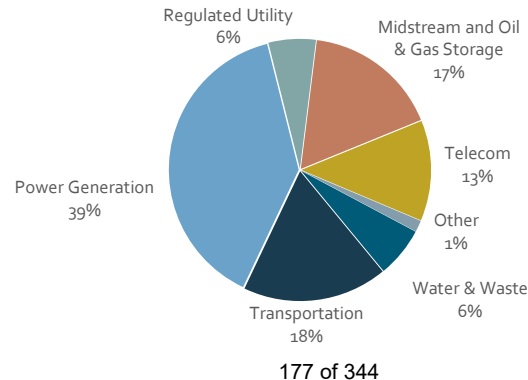
Returns are measured against two benchmarks

- Absolute: CPI + 5.00%
- Relative: Cambridge Gbl. Pvt. Infrastructure Index (Lagged)

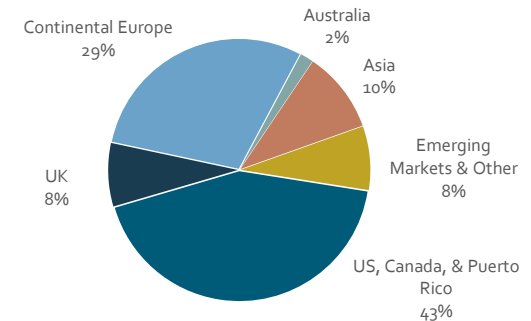
Structure Mix



Sector Mix



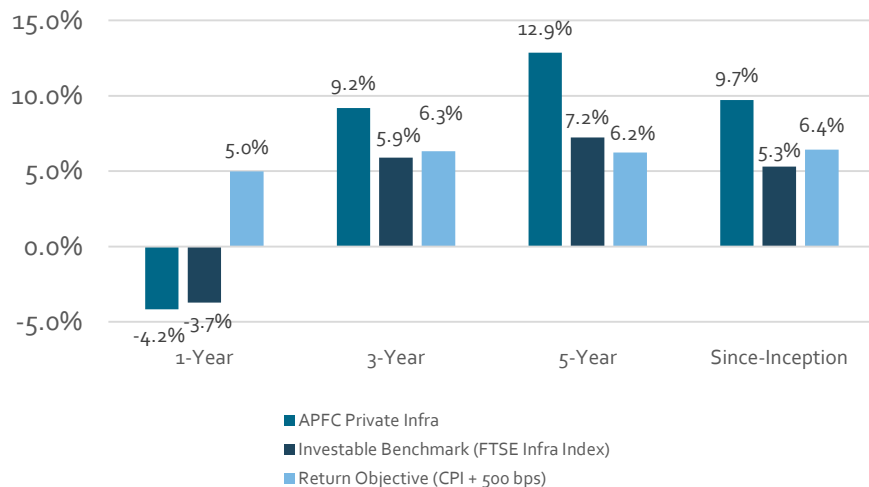
Geographic Mix



Private Infrastructure

Overview of Performance and Benchmark Comparison

Horizon IRR's @ June 30 Marks



Note: Returns are as of June 30, 2020 NAVs as calculated by APFC Staff and Pathway Capital. APFC portfolio returns are calculated on a money-weighted (IRR) basis as opposed to Callan's returns which are reported on a time weighted basis.

Since Inception Portfolio Performance

(\$ in millions)	Capital Committed	Capital Called	Capital Dist.	Current Value	Net IRR	MOIC
Fund Investments	\$4,886	\$3,079	\$3,281	\$1,225	9.9%	1.46x
Co-Investments	\$493	\$481	\$76	\$501	7.4%	1.20x
Listed Infrastructure*	\$300	\$300	\$397	\$0	10.6%	1.32x
Total Infrastructure	\$5,679	\$3,860	\$3,754	\$1,726	9.7%	1.42x

*Note: Listed infrastructure was included in this portfolio from September 2013 to September 2016.

Private Infrastructure Outlook

Through-the-Cycle Expectations

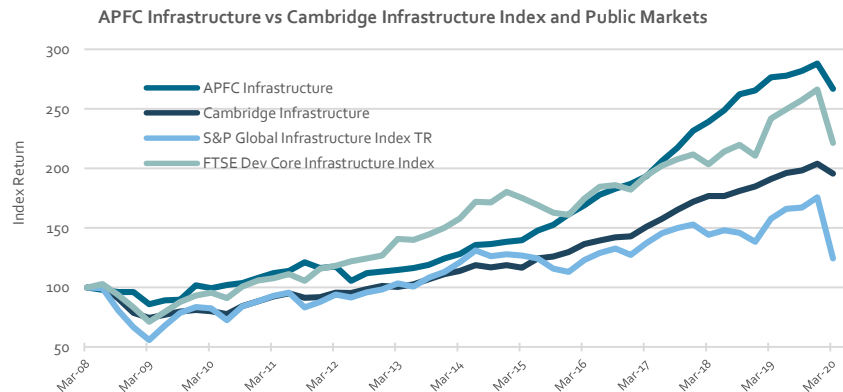
10-Year Projections	r	σ	yield
Callan	5.75%	13.00%	5.00%
CPI	2.25%	1.50%	n/a
APFC Objective	7.25%	n/a	n/a

Risks to Meeting Objectives

- Decreased revenues and uncertain recovery in certain segments assets are clouding near-term outlook
- Liquidity issues at asset level
- Operationally intensive assets are subject to risk of mismanagement

Market Update and Positioning

- Importance of contracted or protected cash-flows has been highlighted by pandemic impacts
- Uncertainty in markets provides potential for interesting opportunities, but also requires caution and thoughtful approach

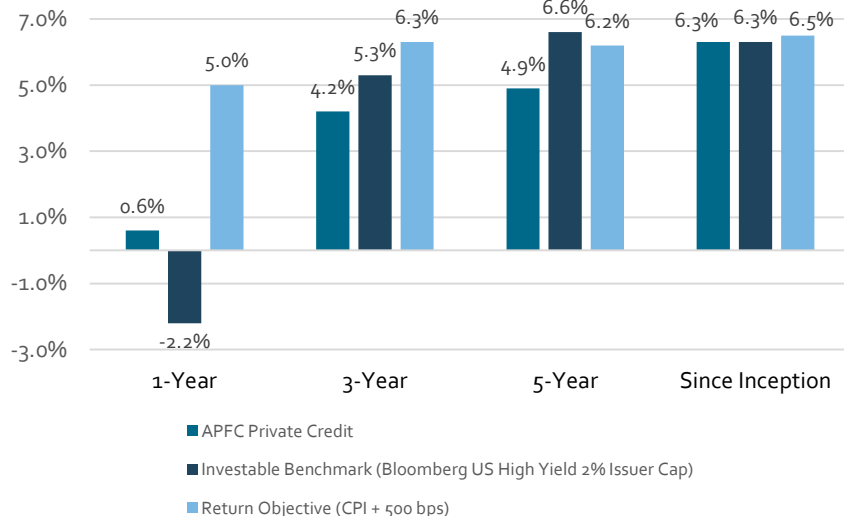


Source: Pathway, Cambridge, Bloomberg

Private Credit

Performance and benchmark comparison

Horizon IRR's @ June 30 Marks



Note: Returns are as of June 30, 2020 NAVs, as calculated by APFC Staff and Pathway Capital. APFC returns are calculated on a money-weighted (IRR) basis as opposed to Callan's returns which are time-weighted.

Since Inception Performance

(\$ in millions)	Capital Called	Capital Dist.	Current Value	Net IRR	MOIC
Legacy Fund-of-Funds	\$1,145	\$1,243	\$270	5.2%	1.3X
Direct Lending	\$402	\$116	\$321	7.6%	1.1X
Distressed	\$654	\$357	\$388	5.5%	1.1X
Opportunistic	\$435	\$133	\$377	9.6%	1.2X
Specialty Finance	\$123	\$72	\$62	7.9%	1.1X
Subordinated	\$596	\$576	\$199	10.2%	1.3X
Total Private Credit	\$3,353	\$2,498	\$1,617	6.3%	1.2X

Private Credit

Striving to achieve private market yield premium

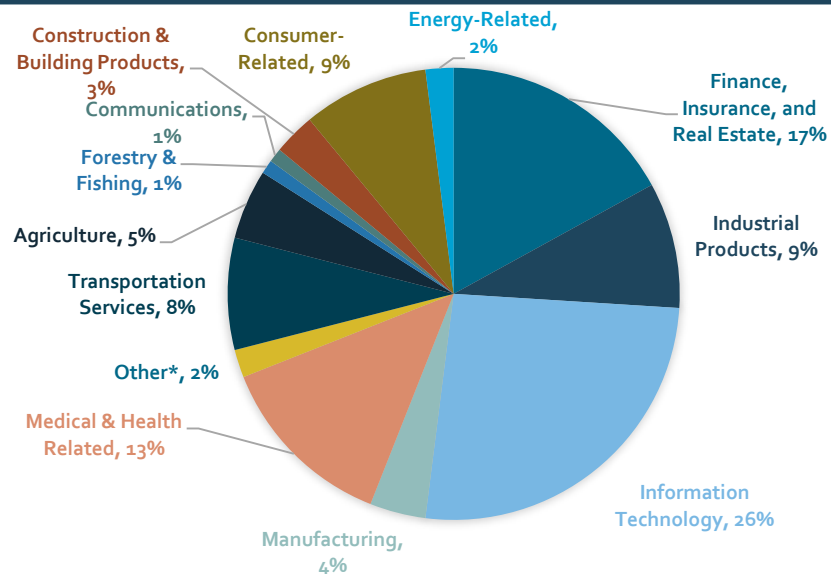
Through-the-Cycle Expectations

10-Year Projections	r	σ	yield
Callan	5.75%	16.50%	6.25%
CPI	2.25%	1.50%	n/a
APFC Objective	7.25%	n/a	n/a

Risks to Meeting Objectives

- Defaults and losses on underlying loans
- Increased competition leading to a compression in spread to public markets
- Inability to refinance/exit loans due to a widespread flight of capital

Private Credit Portfolio Industry Diversification



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represents industries that each represent less than 1% of portfolio market value
Industry exposure as of June 30, 2020.

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Income Opportunities

Concentrated portfolio with defensive positioning

- With the formation of Private Income, the Income Opportunities portfolio was seeded with a joint venture to purchase and lease high-end single family homes
- This portfolio recognizes that the dynamic nature of global markets will create attractive income generating, opportunities outside of the traditional Infrastructure and Private Credit definitions
- Returns are to be accretive to the Private Income portfolio and are therefore measured against the same benchmarks

Through-the- Cycle Expectations

10-Year Projections	r	σ	yield
Callan	5.75%	14.50%	5.50%
CPI	2.25%	1.50%	n/a
APFC Objective	7.25%	n/a	n/a

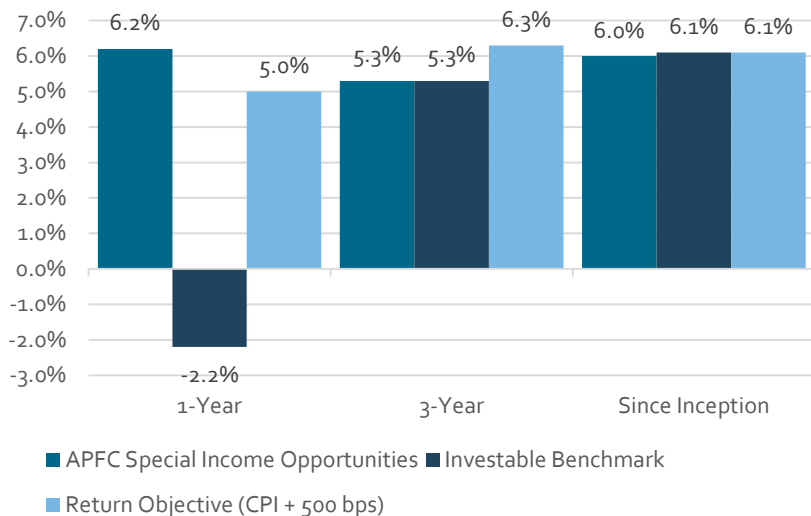
Risks to Meeting Objectives

- Low return potential on unlevered, defensive assets
- Lack of ADAC diversification during build
- Concentrated, existing commitments will drive performance

Income Opportunities

Performance and benchmark comparison

Horizon IRR's @ June 30 Marks



Note: Investable Benchmark is 60% FTSE Developed Core Infrastructure and 40% Bloomberg U.S. High Yield 2% Issuer Cap. Returns are as of June 30, 2020 NAVs as calculated by APFC Staff and Pathway Capital. APFC returns are calculated on a money-weighted (IRR) basis as opposed to Callan's returns which are time-weighted.

Since Inception Performance

(\$ in millions)	Vintage Year	Capital Called	Capital Dist.	Current Value	Net IRR	MOIC
American Homes for Rent II	2013	\$162	\$53	\$150	5.0%	1.3x
Athyrium Opportunities Fund III	2016	\$20	\$6	\$16	5.2%	1.1x
Twin Creeks Timber	2016	\$115	\$34	\$79	(0.4%)	1.0x
Generate Capital	2017	\$110	\$139	\$29	22.0%	1.5x
BroadRiver III	2017	\$29	\$0	\$27	(4.2%)	1.0x
ADAC High Yield	2018	\$618	\$0	\$694	5.8%	1.1x
ADAC Co-Invest	2018	\$165	\$24	\$153	6.2%	1.1x
Activate Capital	2018	\$41	\$0	\$41	0.2%	1.0x
Oaktree Power V	2018	\$22	\$0	\$21	nm	1.0x
Sprott Resource Lending II	2019	\$26	\$0	\$28	nm	nm
TSSP Agriculture Partners	2019	\$3	\$0	\$2	nm	nm
Whitehorse Liquidity IV	2020	\$0	\$0	\$0	nm	nm
Total Income Opportunities		\$1,311	\$256	\$1,242	6.1%	1.1x



APFC

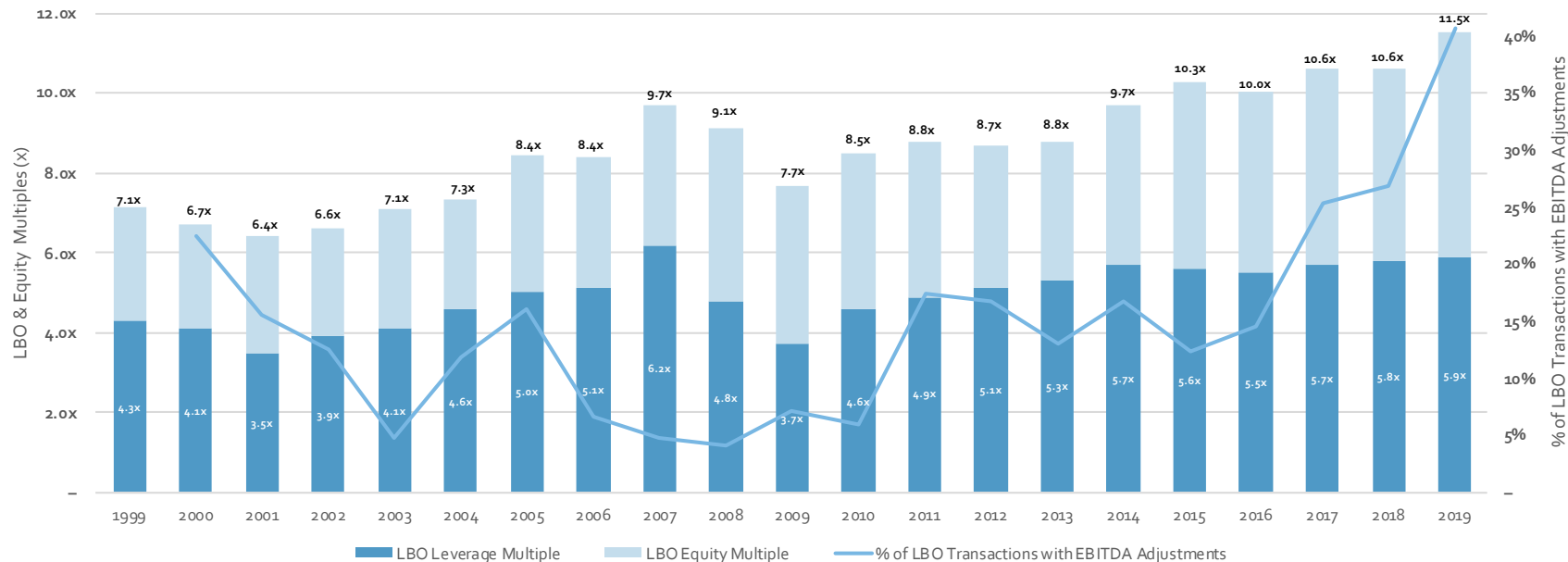
ALASKA PERMANENT
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Private Equity

December 9, 2020

Market Considerations : a Triple Peak

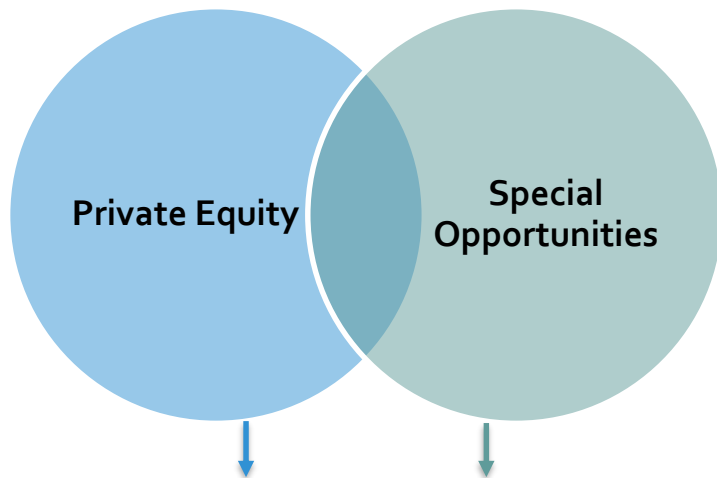
LBO purchase prices, leverage levels, and add-backs



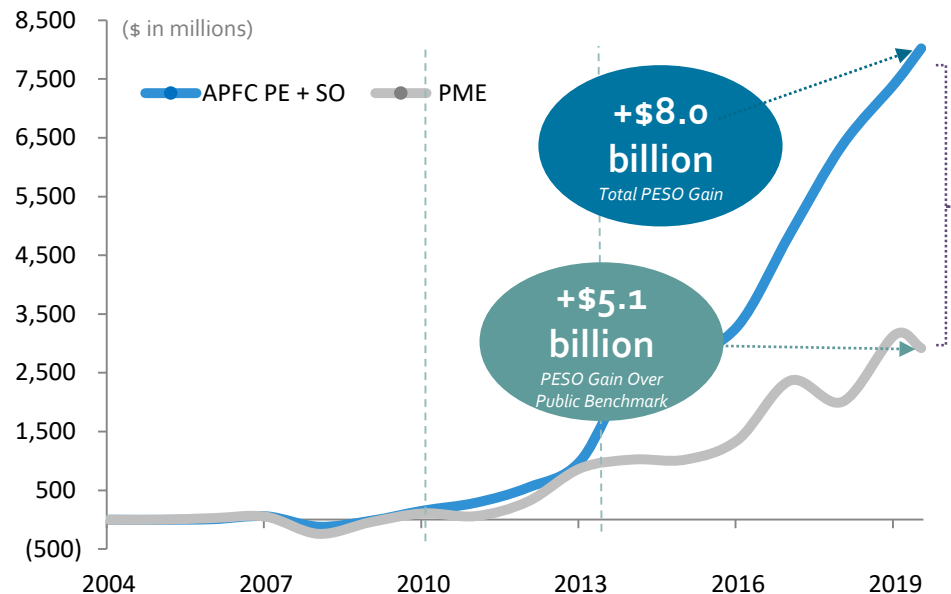
Sources: Centerbridge Partners; Bloomberg, S&P LCD. Information as of 31-December-2019

Note: Percent of LBO transactions with EBITDA adjustments includes adjustments only related to cost savings and synergies. LBO purchase price multiple represents total sources / pro forma trailing adjusted EBITDA including cost savings and synergies and prior to 2003 Media, Telecom, Energy and Utility deals, are excluded. LBO leverage multiple represents total debt / adjusted EBITDA including cost savings and synergies and prior to 2011 Media and Telecom are excluded.

PESO Mandate, Tactics + Performance



Tactics	
• Fund Commitments	• Fund Commitments
• Co-Investments	• Co-Investments
	• Structured Fund Commitments
	• Direct Investments



October 2004 Program Launched December 2010 Cumulative Gains: \$45mm January 2013 Insourcing Today

Sources: Pathway Capital Management and Burgiss as of 30-June-2020

Notes: All returns net of management fees and carry.

PME = Public Market Equivalent; benchmark assumes combined portfolio cash flows are invested in, or distributed from, public index fund (60% Russell 3000/40% MSCI EAFE).

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ALASKA PERMANENT FUND CORPORATION

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PESO Portfolios and Tactics

(\$ in millions)	Commitments ⁽¹⁾		Since Inception Net IRR
Portfolio	FY2021	Cumulative	
Gatekeepers' Private Equity	\$123	\$7,340	13.7%
Staff Private Equity	\$243	\$4,930	16.8%
Staff Special Opportunities	\$142	\$5,567	22.9%
Combined: All PE + SpecOpps	\$508	\$17,837	15.6%

Complementary *Portfolios...*

...and Complementary *Tactics*

(\$ in millions)	Commitments ⁽¹⁾		Since Inception Returns ⁽¹⁾		
Tactic	FY2021	Cumulative	IRR	Multiple	Gain
Fund Commitments	\$466	\$16,124	13.0%	1.5X	\$5,681
Direct/ Co-Investments	\$42	\$1,714	50.5%	2.5X	\$2,341

Sources: Pathway Capital Management, BONY

Notes: (1) Includes commitments through September 30, 2020.

Portfolio Performance (through 06/30/2020)

APFC PESO Fund Investments vs. Direct/Co-investments

(\$ millions, except household data)

IRR ⁽¹⁾

Tactic	Committed	Invested	Realized	FMV 6/30/20	Total Value	Gain/ Loss	TVPI	DPI	3- month	3- year	10- year	Since Inception	Gain/(Loss) Per Alaskan Household ⁽²⁾
Funds	\$15,641	\$11,224	\$ 8,659	\$ 8,246	\$ 16,905	\$ 5,681	1.5x	0.8x	13.3%	15.0%	15.1%	13.0%	\$ 25,636
Direct/Coinvest	\$ 1,672	\$ 1,587	\$ 1,767	\$ 2,161	\$ 3,928	\$ 2,341	2.5x	1.1x	8.4%	27.5%	N/A	50.5%	\$ 10,564
Total PE Portfolio	\$17,313	\$12,811	\$10,426	\$ 10,407	\$ 20,833	\$ 8,022	1.6x	0.8x	12.3%	17.3%	18.1%	15.6%	\$ 36,200
Cambridge Benchmark as of 03-31-2020 ⁽³⁾									8.8%	9.3%			

Sources: Pathway Capital Management & Cambridge Associates LLC

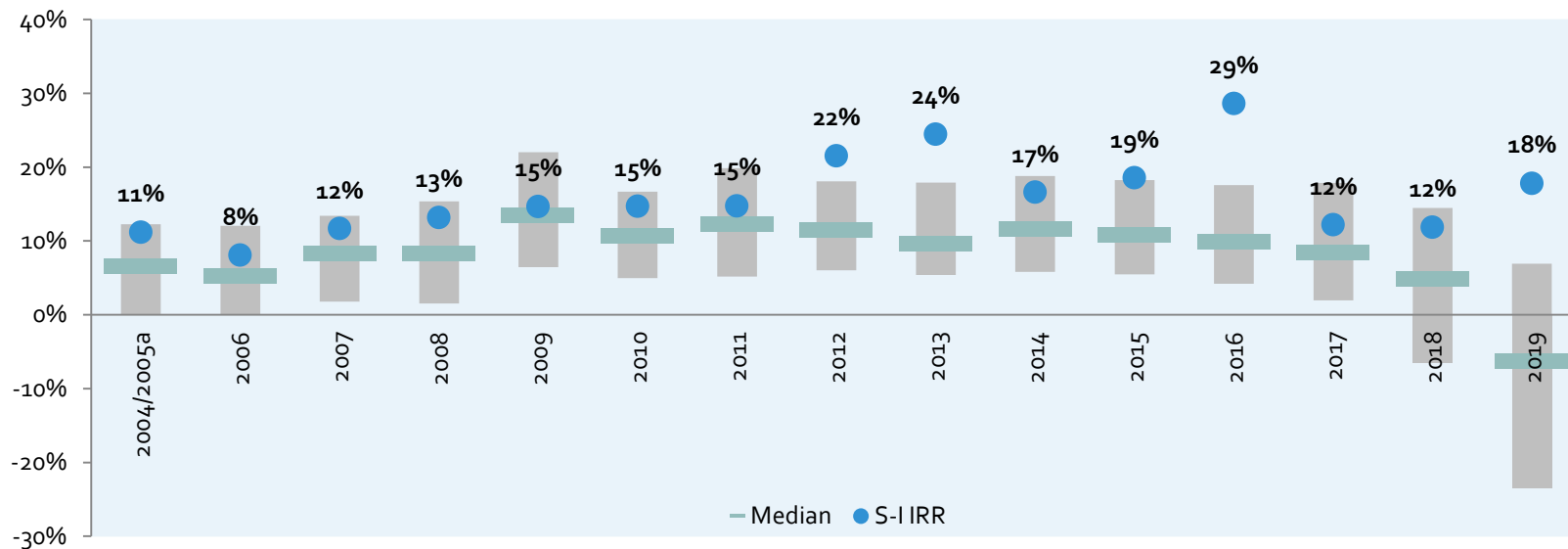
Notes: (1) Internal Rate of Return (annualized); Since Inception returns begin in 2004 for funds and 2013 for directs/co-investments. Excludes gains on AH4R which were transferred to Real Estate.

(2) Alaskan Households as reported by US Census Bureau (n=221.6K)

(3) Cambridge US PE Benchmark lagged one quarter.

Vintage Year Performance

APFC has outperformed median PE benchmark every vintage year since inception

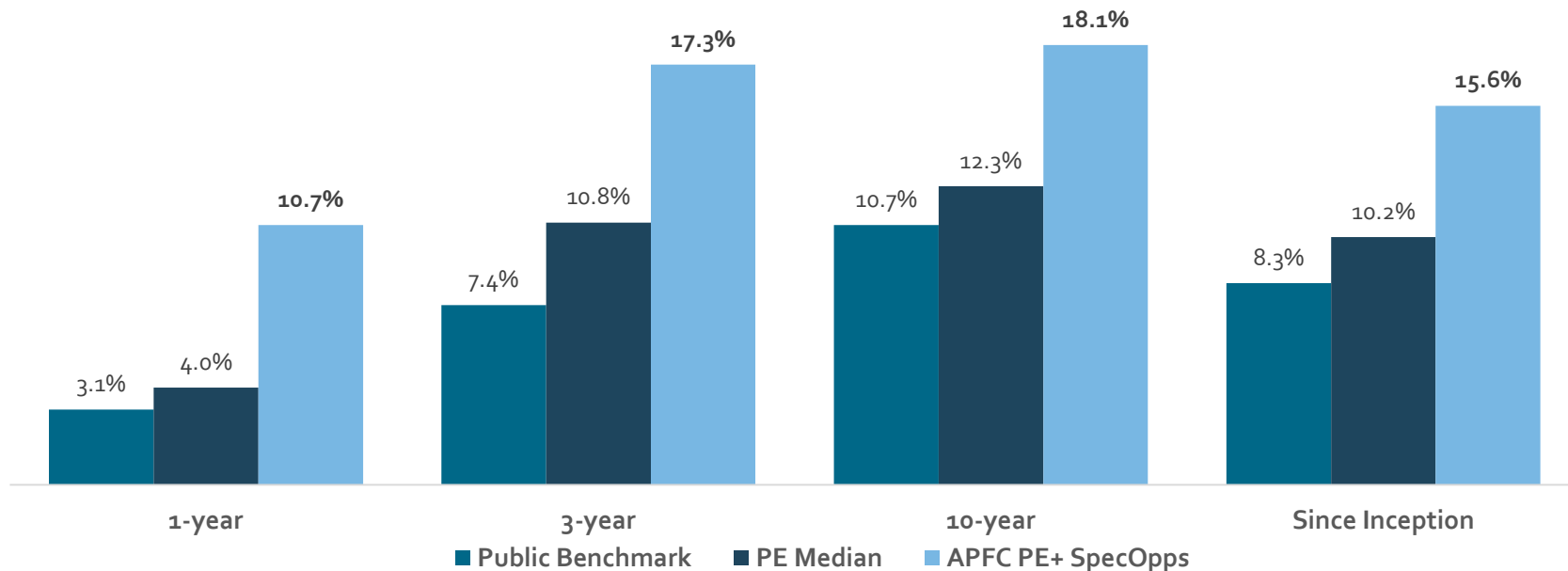


Source: Pathway Capital Management and Burgiss as of 30-June-2020

Note: All returns net of management fees and carry. Returns may differ slightly from Callan's time-weighted returns due to reporting lag and methodology.

Portfolio Performance (at June 30, net of fees and carry)

PE Market Outperforms Public Equity Market and APFC outperforms PE Market



Source: Pathway Capital Management

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Note: Public Benchmark represents 60% Russell 3000 / 40% MSCI EAFE and is dollar-weighted. PE Median represents the Burgiss Private iQ global all private equity return benchmark for 2004- through 2020-vintage funds, as of 30-June-2020 as produced using Burgiss Data.

Public Companies in APFC PE Portfolio

Public listing is typically a path to liquidity...and today offers a “preview” of future performance

- So far in 2020 there have been 21 IPOs in APFC PESO portfolio, a new record
 - 10 of these positions have values >\$20 million

APFC PE: Top 10 IPOs in 2020

Total Cost	Realized Proceeds	Remaining Market Value		Investment Gains	
		6/30	10/31	MOIC	US\$
\$65.0	\$56.9	\$231.3	\$463.6	8.0x	\$455.5

- Existing public positions have also significantly outperformed public and private market indices
 - Two public positions exceed \$100 million in remaining market value

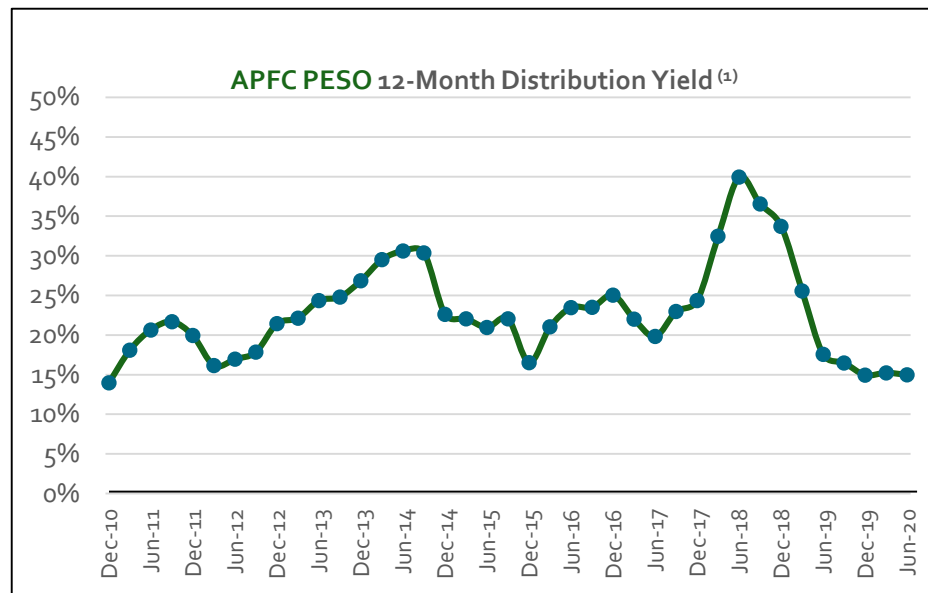
APFC PE: Top 2 Largest Public Positions

Total Cost	Realized Proceeds	Remaining Market Value		Investment Gains	
		6/30	10/31	MOIC	US\$
\$172.3	\$162.0	\$722.1	\$1,096.3	7.3x	\$1,086.0



Private Equity Illiquidity Risk

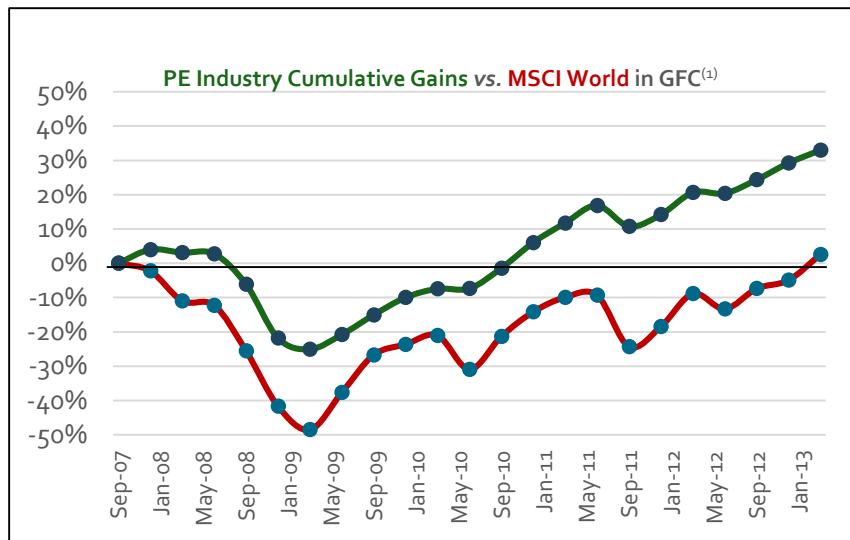
- **Aladdin applies the historical liquidity characteristics of overall industry to APFC**
 - But APFC portfolio is atypical
- **There are accelerated liquidity options**
 - APFC has sold >\$500mm in LP interests three times in structured secondary sales
 - APFC could leverage a defined asset pool
 - APFC could sell a strip of assets or a derivative
- **Portfolio construction and asset selection further mitigate uncertainty**
 - For example, APFC has revenue and profit sharing arrangements with ~17 GPs that provide us contractual, investment grade revenue streams
 - Only three of these appear on balance sheet



(1) Trailing 12-month distributions relative to starting period NAV

Private Equity Volatility and Credit Risk

PE Industry declined less + recovered faster than public equity in GFC...



...and sponsor-backed companies default less often ⁽²⁾

Historical Leveraged Loan Default Rates			
	Sponsored	Non-Sponsored	Total
2007	0.0%	0.5%	0.2%
2008	3.3%	2.4%	2.9%
2009	7.2%	15.1%	10.5%
2010	2.3%	1.3%	1.9%
2011	0.8%	0.3%	0.6%
2012	1.8%	1.9%	1.8%
2013	0.6%	3.2%	1.6%
2014	4.4%	1.7%	3.2%
2015	1.5%	2.2%	1.7%
2016	1.3%	2.6%	1.8%
2017	1.9%	3.3%	2.4%
2018	2.3%	0.9%	1.8%
2019	1.6%	2.0%	1.8%
2020	3.3%	7.1%	4.5%

GFC peak
Default
Rates

- (1) MSCI World cumulative time-weighted returns vs. Burgiss Global All PE cumulative time-weighted returns indexed to September 2007.
 (2) Source: Fitch Ratings

COVID-19 Impact: APFC Direct + Co-Investments

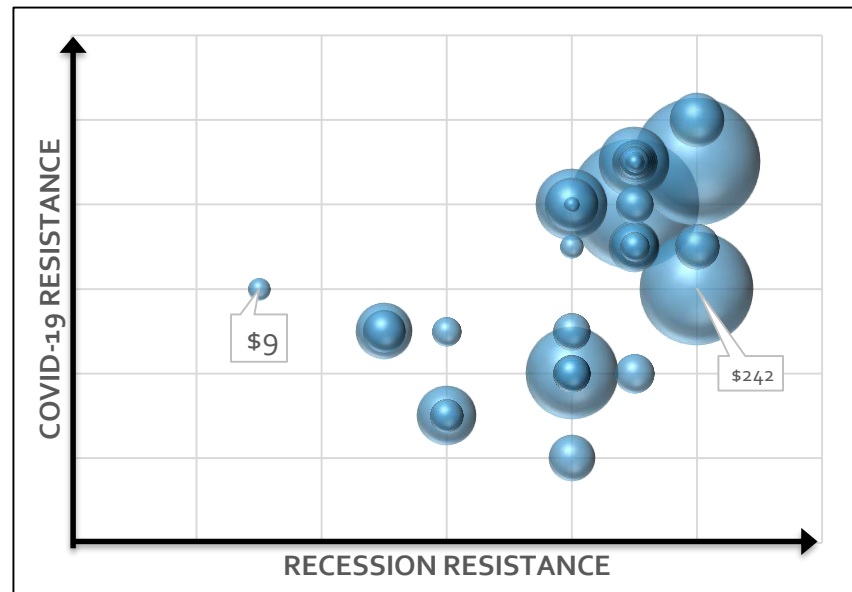
APFC Co-Investments + Direct Investments

(since inception in 2013)

Total Cost	\$1,587	Net IRR	50.5%
Total Realized	\$1,767	Net MOIC	2.5x
Remaining FMV	\$2,161	Loss Ratio	4.2%

Note: Dollars in Millions

Source: Pathway Capital Management

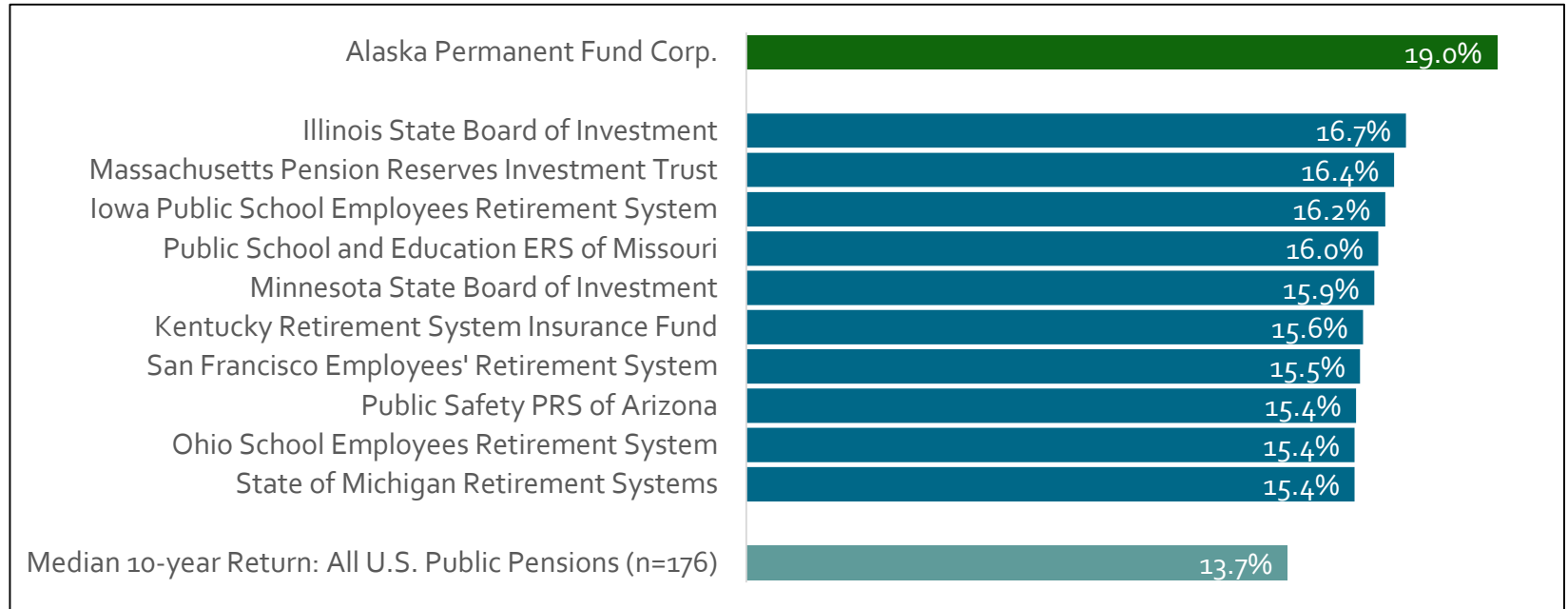


Note: each of 38 current portfolio companies has been ranked 1-10 in terms of:

- **Recession Resistance** (0 = highly cyclical, 10 = highly recession resistant); and
- **Covid-19 Resistance** (0 = struggles in a remote world, 10 = thrives in a remote world)
- **Bubble size** corresponds to investment value at 12/31/2019 in millions of USD.

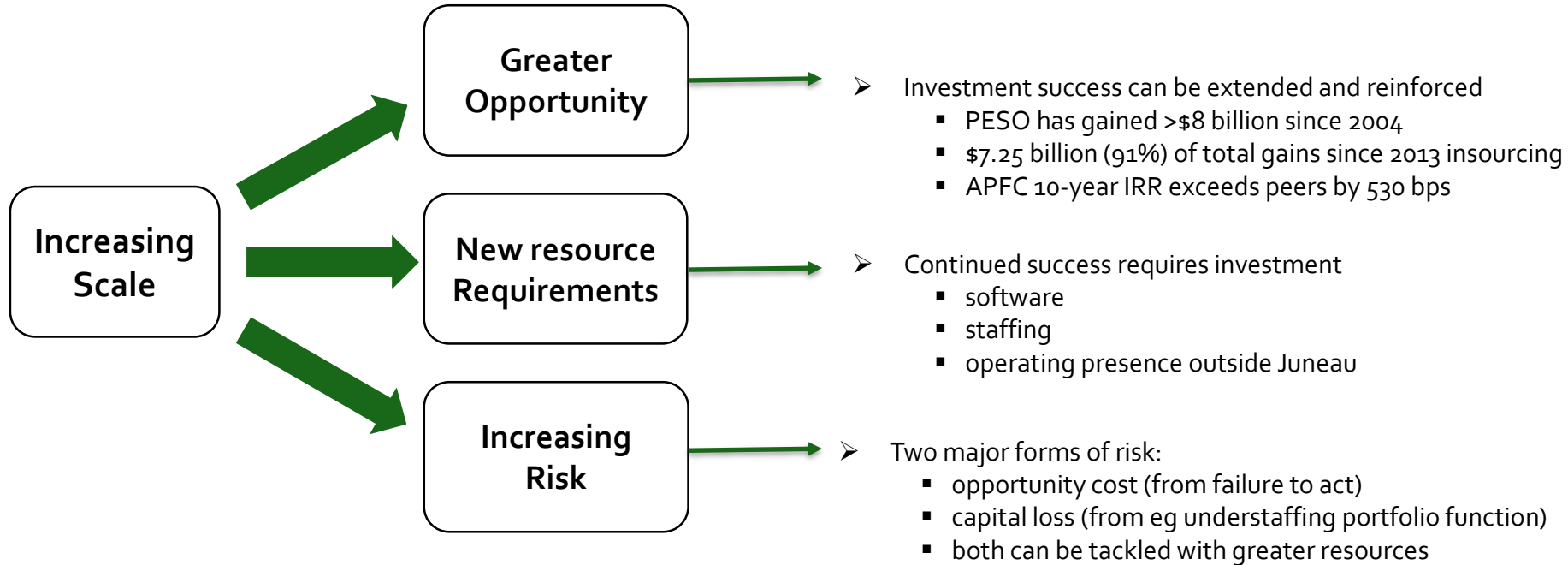
10-Year Private Equity Performance

Top 10 U.S. Public Pensions vs. APFC



Source: American Investment Council, Annual Public Pension Study, July 2020 (reflects 1-yr lag)

Scale in Private Markets Has Had Broad Impact



Looking Ahead

- APFC private markets portfolio was unharmed by COVID-19 but has not yet been tested in an extended recession
- Some operational advantages have become self-reinforcing
 - e.g., reputation for adaptability and performance enhances deal flow and access which enhances returns

However:

- **It should be expected that, if not addressed, resource constraints will undermine long-term investment results**
- **Continued success will require significant resources for:**
 - info systems
 - staffing and compensation
 - global operating presence

SUBJECT: Sector Outlook – The Future of Oil and Gas
Presented by Riverstone Holdings LLC and
NGP Energy Capital

ACTION: _____

DATE: December 10, 2020

INFORMATION: _____ X _____

BACKGROUND

Riverstone Holdings and NGP Energy Capital are among the leading energy-focused private equity firms in the world and currently manage various energy investments on behalf of APFC. The two firms will present separately for one hour each, including questions from and dialogue with Trustees.

Biographies of Attendees:

Pierre F. Lapeyre, Jr. (Co-founder and Senior Managing Director, Riverstone Holdings LLC)

Prior to founding Riverstone, Mr. Lapeyre was a Managing Director of Goldman Sachs in its Global Energy & Power Group. Mr. Lapeyre joined Goldman Sachs in 1986 and spent his 14-year investment banking career exclusively focused on energy and power, particularly the midstream/pipeline and oil service sectors. Mr. Lapeyre's responsibilities included client coverage and leading the execution of a wide variety of M&A, IPO, strategic advisory, and capital markets financings for clients across all sectors of the industry.

Mr. Lapeyre received his BS in Finance/Economics from the University of Kentucky and his MBA from the University of North Carolina at Chapel Hill. In addition to his duties at Riverstone, Mr. Lapeyre serves on the Executive Committee of the Board of Visitors of the MD Anderson Cancer Center and is a Trustee and Treasurer of The Convent of the Sacred Heart.

David M. Leuschen (Co-founder and Senior Managing Director, Riverstone Holdings LLC)

Mr. Leuschen is the Co-Founder and Senior Managing Director of Riverstone. He sits on the Investment Committees of all the various Riverstone investment vehicles.

Prior to founding Riverstone, Mr. Leuschen was a Partner and Managing Director at Goldman Sachs and founder and head of the Goldman Sachs Global Energy and Power Group.

Mr. Leuschen was responsible for building the Goldman Sachs energy and power investment banking practice into one of the leading franchises in the global energy and power industry. Mr. Leuschen additionally served as Chairman of the Goldman Sachs Energy Investment Committee, where he was responsible for screening potential direct investments by Goldman Sachs in the energy and power industry.

Mr. Leuschen has served as a Director of Cambridge Energy Research Associates, Cross Timbers Oil Company (predecessor to XTO Energy) and J. Aron Resources. He currently serves on the Boards of Directors of Riverstone Energy Limited, Centennial Energy Development, and CNOR. He is also president and sole owner of Switchback Ranch LLC and on the Advisory Board of Big Sky Investment Holdings LLC. David serves on a number of nonprofit boards of directors, including as a Trustee of United States Olympic Committee Foundation, a Director of Conservation International, a Director of the Peterson Institute for International Economics, a Founding Member of the Peterson Institute's Economic Leadership Council, a Director of the Wyoming Stock Growers Association, and a Director of the Montana Land Reliance.

Mr. Leuschen received his AB from Dartmouth and his MBA from Dartmouth's Amos Tuck School of Business.

David W. Hayes (Partner, NGP Energy Capital)

Mr. Hayes joined NGP in 1998 and serves as a Partner of the NGP funds. He concentrates on NGP's transaction sourcing and execution as well as the monitoring of active portfolio companies. In addition, Mr. Hayes specializes in transaction support for NGP's family of portfolio companies, assisting them in accessing the capital markets when external financing is required.

Previously, Mr. Hayes was an associate with Charlesbank Capital Partners, LLC in the fall of 2000, where he focused on evaluating private equity investment opportunities in the energy and temporary staffing industries, and analyzing trends in the leveraged buyout sector. From 1996 to 1998, he was an analyst with Merrill Lynch's Energy Investment Banking group in Houston, focusing on merger and acquisition transactions in the exploration and production and pipeline industries.

Mr. Hayes received his BA in Economics, *magna cum laude*, in 1996 from Rice University, where he was elected to the Phi Beta Kappa scholastic honor society, and his MBA in 2002 from the Harvard Business School.



Discussion Materials

November 2020

Important Information and Methodologies



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Who Would Have Thought? – the 2020 (Energy) List

1. Energy -13% S&P 500 (2008), 4% last year, 2% this year
2. Exxon down 60% this year, ~11% yield, kicked out of the DOW
3. Tesla – 3x market cap of Exxon, up 6x in the last year
4. Zoom market cap > Exxon, NextEra > Exxon, age of renewables firmly here
5. COVID demand destruction = 8mmbbls/d at peak
6. Passenger air travel declined 80%, full recovery estimates range 3 - 6 years
7. WTI traded negative in May (from \$18 to -\$38), structural reasons, sign of the turmoil
8. Natural gas 2 year strip at 5-year highs of \$3.00+, flipped from perennial oversupply
9. Environmentalists moved beyond targeting coal to gas and ALL things carbon
10. Entire U.S. energy market cap is smaller than Apple

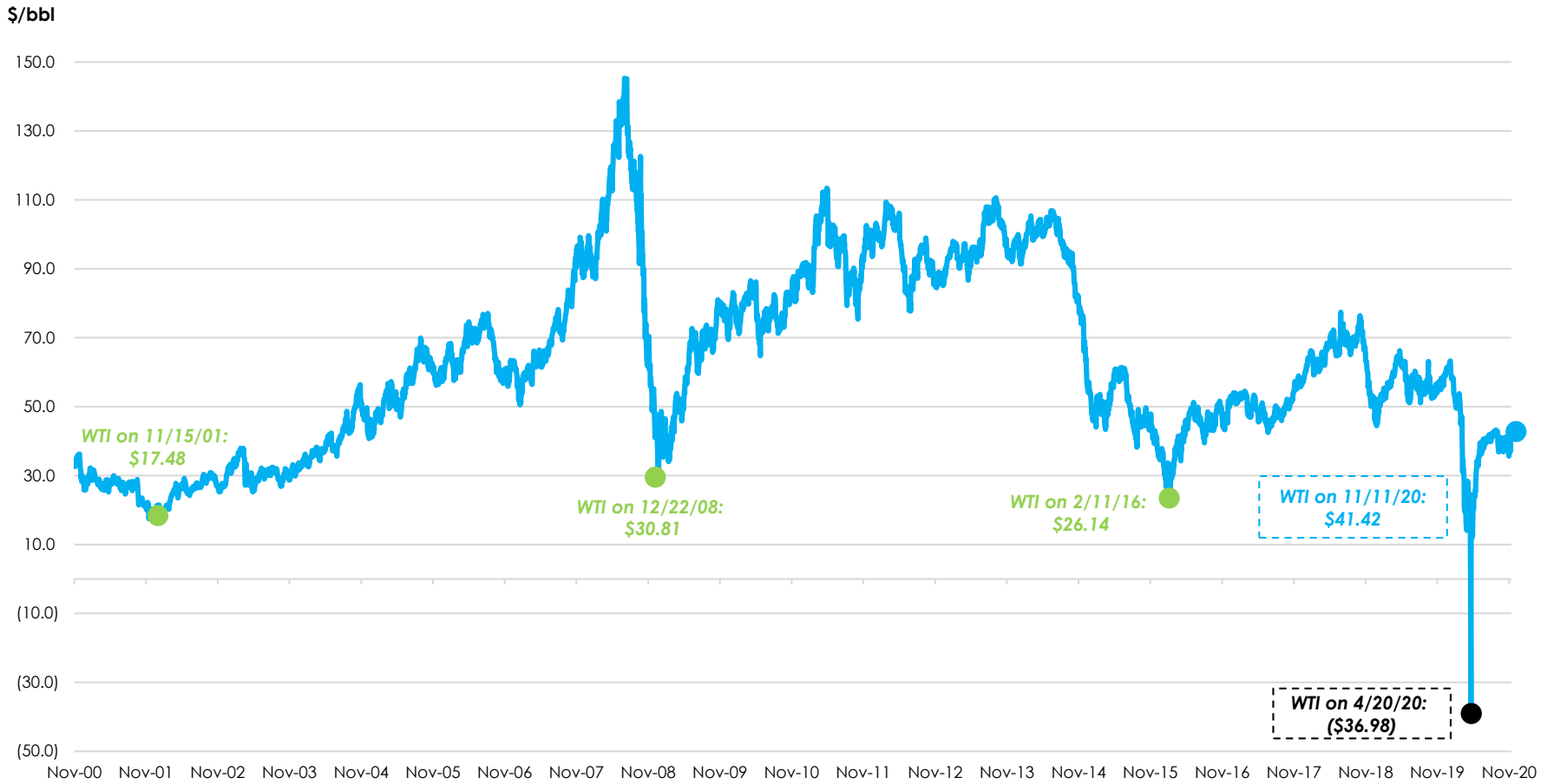
Major Themes Dominating the Energy Market

1. The “Quadruple Threat” happened:
 - Oversupply – Saudi/Russia, shale overhang
 - Demand destruction – COVID, lockdowns, mobility
 - Negative capital flows – tight capital markets
 - ESG pressures – beyond renewables to full scale decarbonization
2. Capital discipline vs. growth, de-leveraging, return capital
3. Poor relative performance further reduces market relevance
4. Scale
5. Impact moving downstream – OFS, Midstream, R&M
6. Recent strong natural gas performance
7. Decarbonization / renewables – bright spot #1
8. Green / impact credit – bright spot #2
9. Anticipating asset sale capitulation
10. If, when, how strong of a recovery?

Crude Oil Prices – 20 Year Lookback

- > Crude oil prices have not dropped below \$20/bbl since early 2002
- > On April 20, 2020, WTI spot prices breached negative territory due to storage concerns, reaching a record low before increasing to \$41.42 as of November 11, 2020

WTI SPOT (2000 to Present)

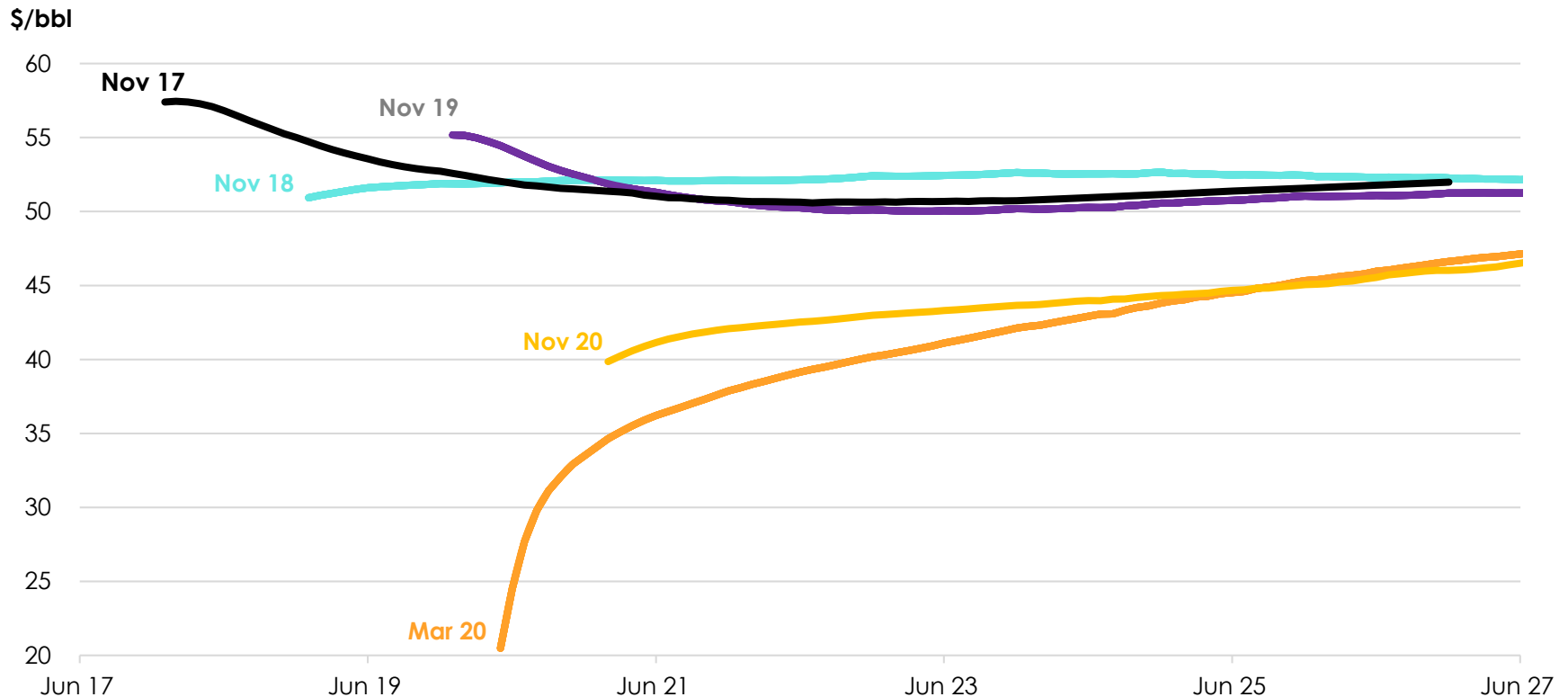


Source: FactSet as of November 11, 2020.

Forward Curve Movements

- > Geopolitical developments and the impact of coronavirus have caused the forward curve to move down in 2020
 - Prices for the remainder of 2020 are in the high-\$30s/bbl, materially below prices at the end of 2019, but modestly rebounding from the historically low levels exhibited at the end of 1Q 2020
- > Sustainability of low prices over the medium-to-long term remain uncertain and will likely cause additional movements in the curve in the coming months

WTI FORWARD CURVES (2017 – 2020)

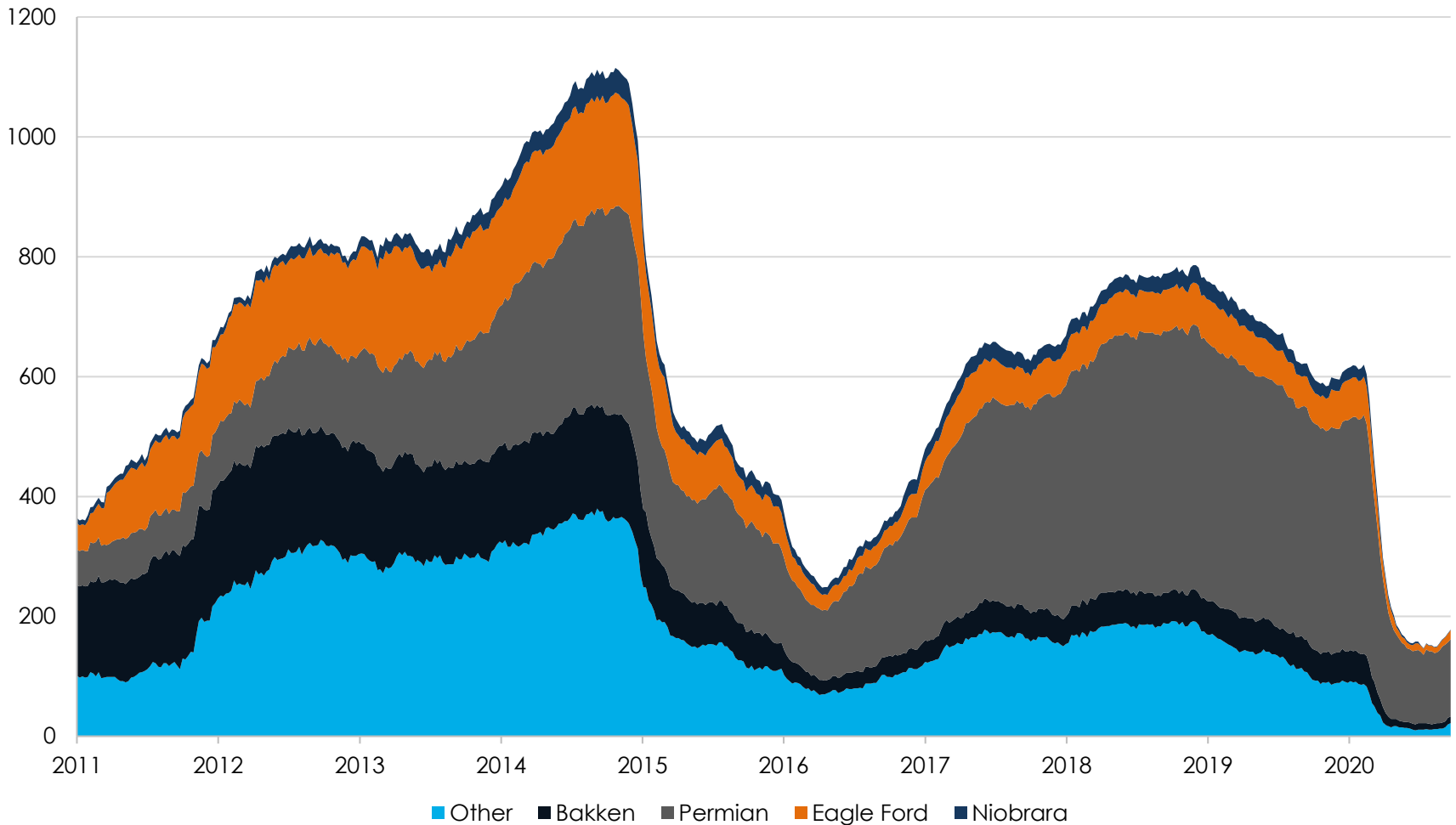


Source: FactSet as of November 11, 2020.

U.S. Oil Rig Count Continues to Lower

> Supply unlikely to respond to better prices

HORIZONTAL U.S. OIL RIG COUNT (2011 TO PRESENT)

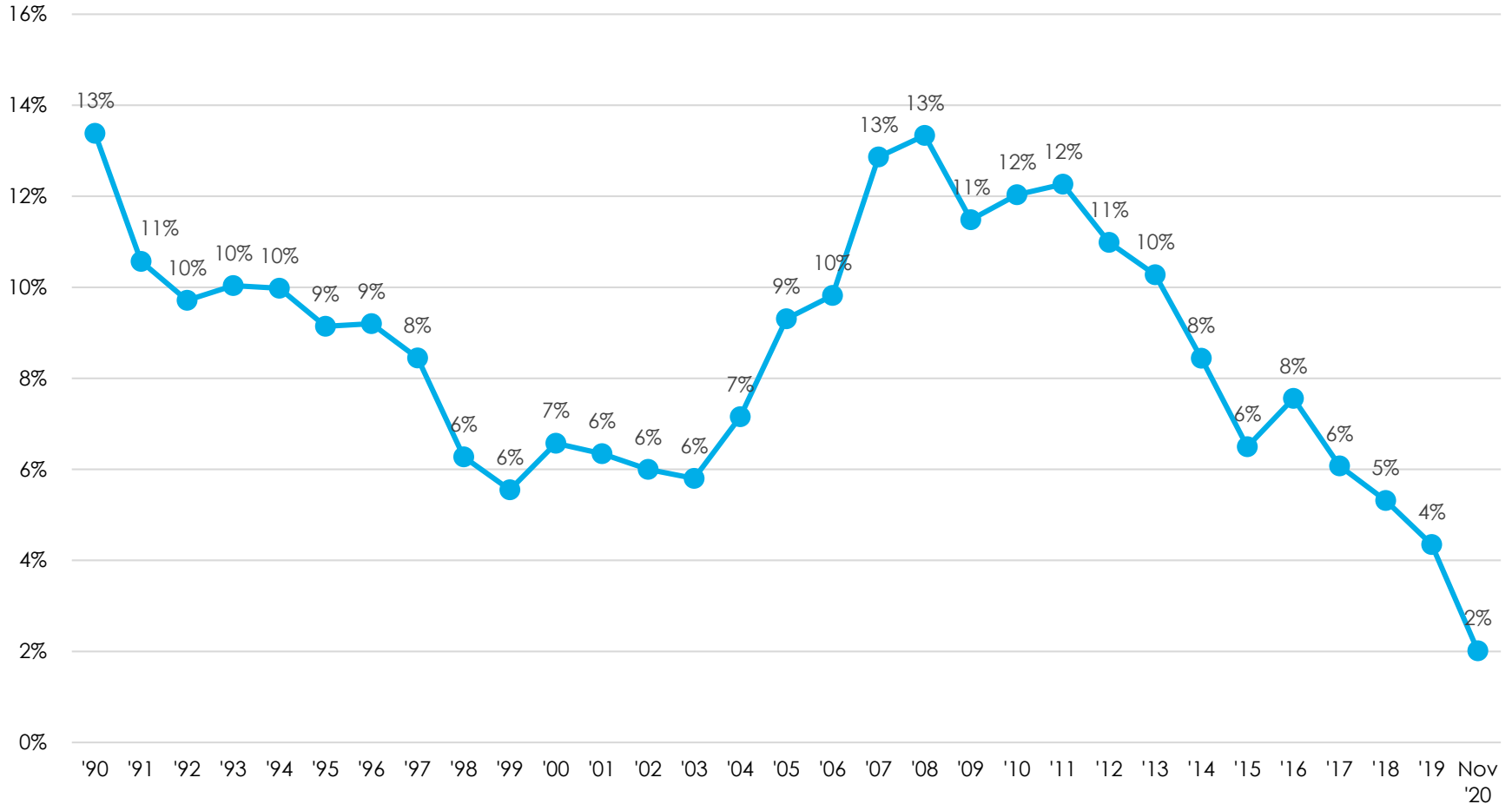


Source: Baker Hughes as of November 6, 2020.

Public Investor Sentiment Remains Weak

- > Current environment continues to exacerbate investor concerns
- > Energy currently comprises ~2% of the S&P 500 Index, the lowest level exhibited over the past 30 years

AVERAGE ANNUAL ENERGY WEIGHTING (%) IN S&P 500 INDEX (1990 to Present)



Source: FactSet based on S&P 500 and S&P 500 Energy market capitalization, as of November 11, 2020.

Energy Equities Face Significant Dislocations

- > S&P 500 Energy Index has declined by approximately 54% over the last 2 years (since October 2018)
- > Compared to the end of 2019, the index has declined by approximately 45% in 2020 YTD

S&P 500 ENERGY INDEX PERFORMANCE (SEPTEMBER 2018 TO PRESENT)



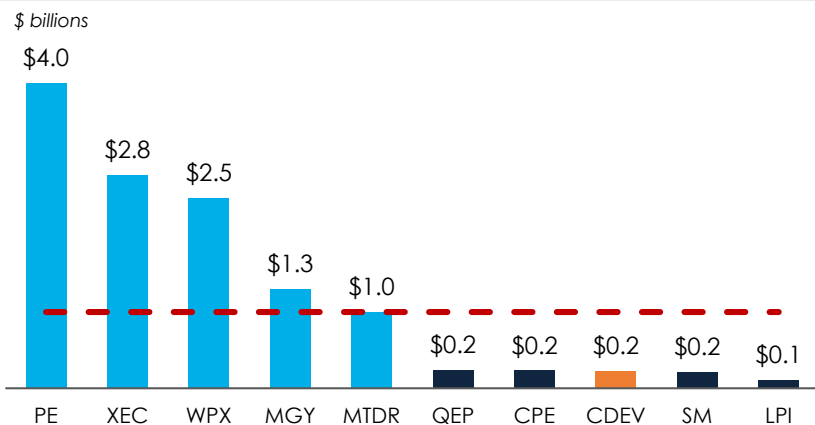
Source: FactSet as of November 11, 2020.

Public Trading Comps

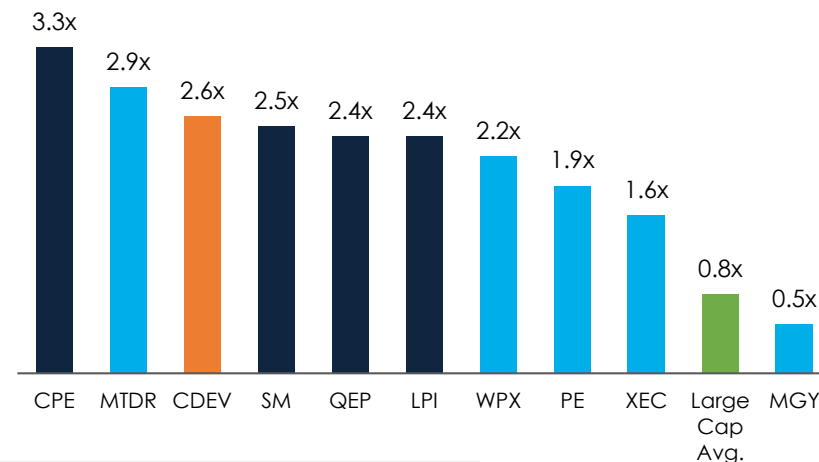
- > Valuations today represent the “worst case” scenarios given dislocation in the public market
- > Larger companies benefitting from scale have been less impacted than their smaller peers

Distressed E&Ps

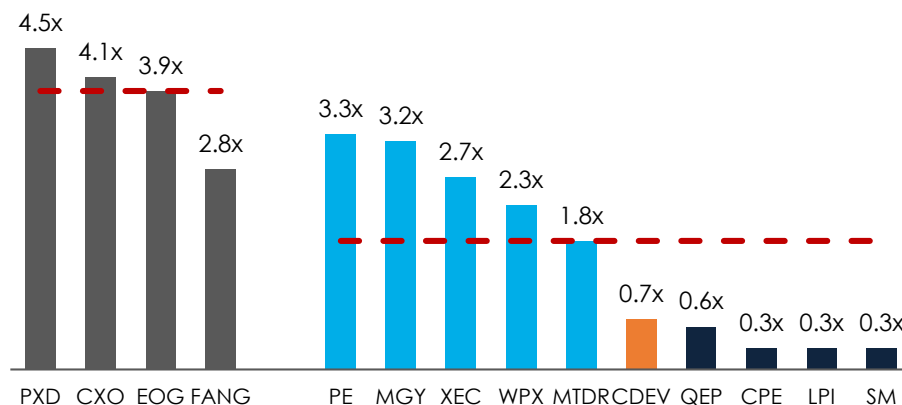
MARKET CAPITALIZATION



NET DEBT (AT PAR) / LTM EBITDAX (AS OF Q2'20)



PRICE / 2021 CASH FLOW PER SHARE



CDEV Relative Share Price Performance

> This was a \$4 stock in November 2019

2020 YTD Price Performance	
Company	%
1. Cimarex Energy	(48%)
2. Parsley Energy	(49%)
3. Concho Resources	(49%)
4. Matador Resources	(53%)
5. Magnolia Oil & Gas	(60%)
6. Peer Average	(67%)
7. WPX Energy	(68%)
8. Diamondback Energy	(70%)
9. QEP Resources	(80%)
10. Laredo Petroleum	(85%)
11. Centennial Resource	(86%)
12. SM Energy	(87%)
13. Callon Petroleum	(90%)
WTI Crude Oil	(35%)
E&P Index (XOP)	(55%)

● Distressed E&Ps

Source: FactSet.

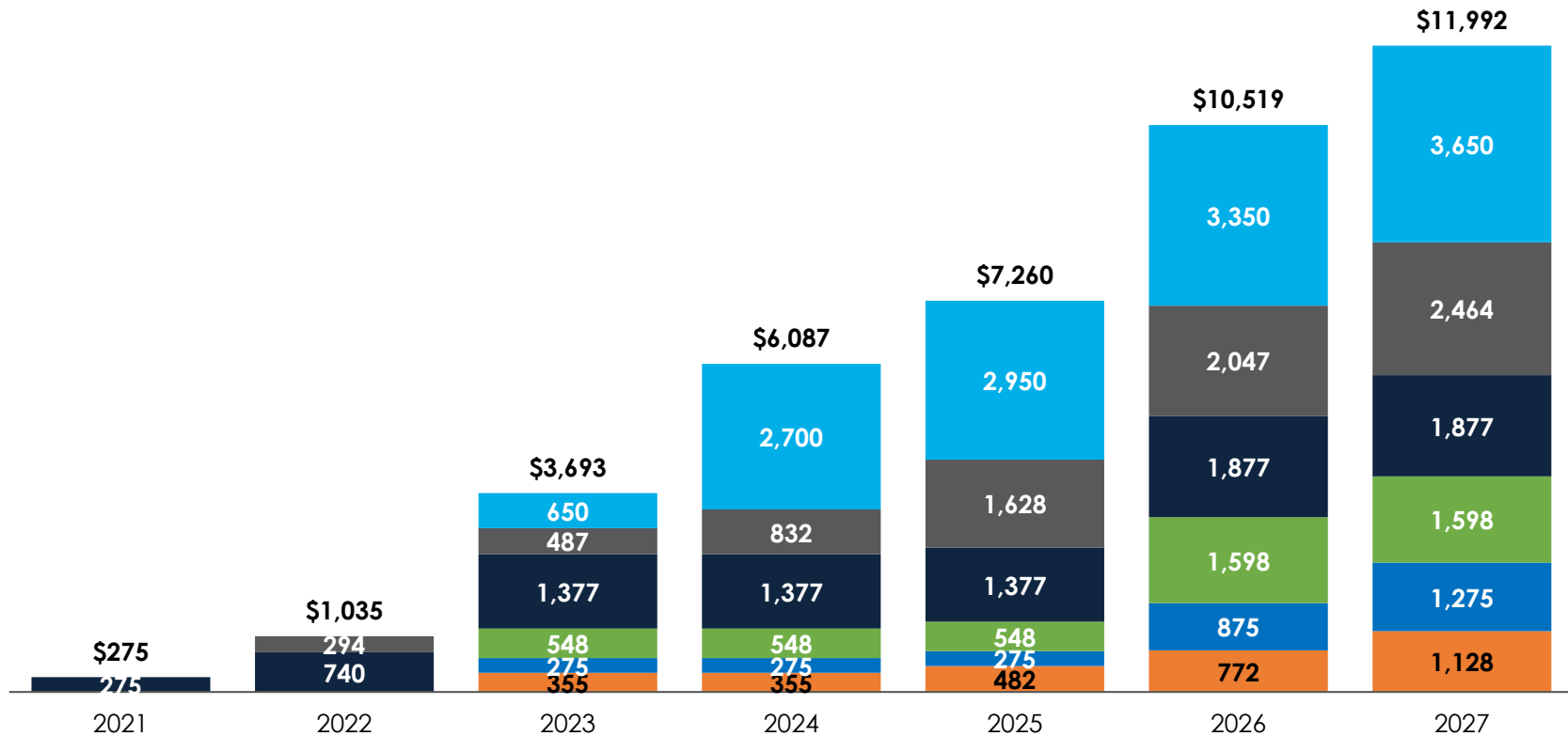
Smid-Cap Permian Peer Debt Maturity Overview

- > There is a wall of debt coming due at Permian companies over the next several years
- > Many players are burdened by debt repayments in an illiquid environment

CUMULATIVE DEBT MATURITIES – SMID-CAP PERMIAN PEER GROUP

\$ millions

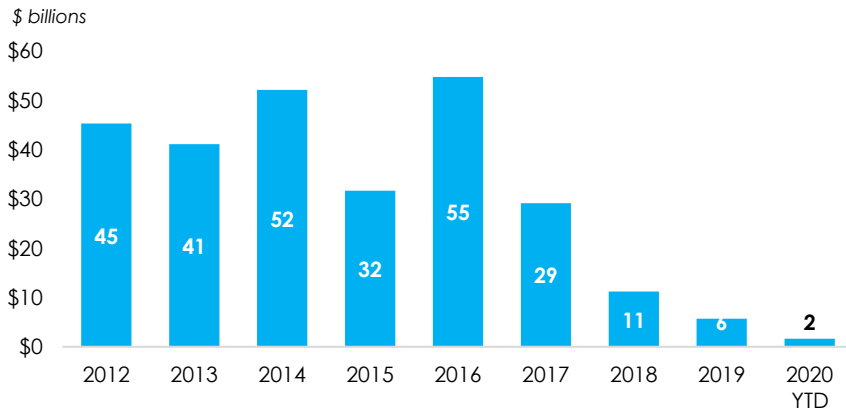
CDEV LPI MTDR QEP SM CPE



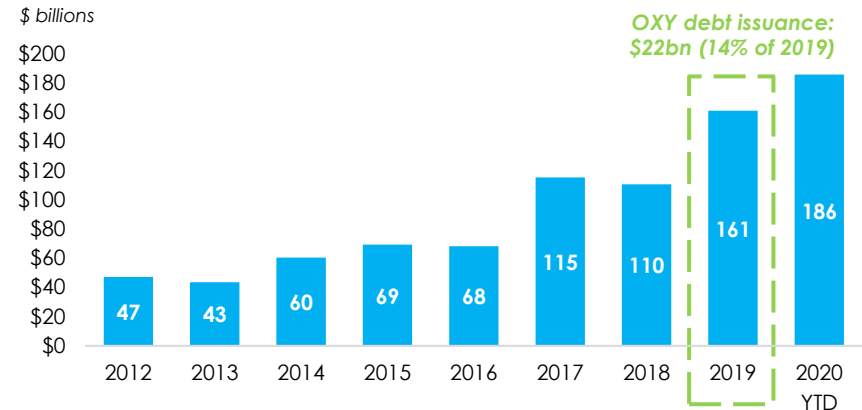
Energy Capital Markets and M&A Activity

- > In 2019 and 2020 YTD, North American public energy equity markets have been virtually inactive
- > M&A activity in 2019 was largely driven by the OXY/APC deal; 2020 YTD has been very limited, though expected to increase as industry consolidation will be necessary given the current macro environment (e.g. Conoco/Concho announcement)

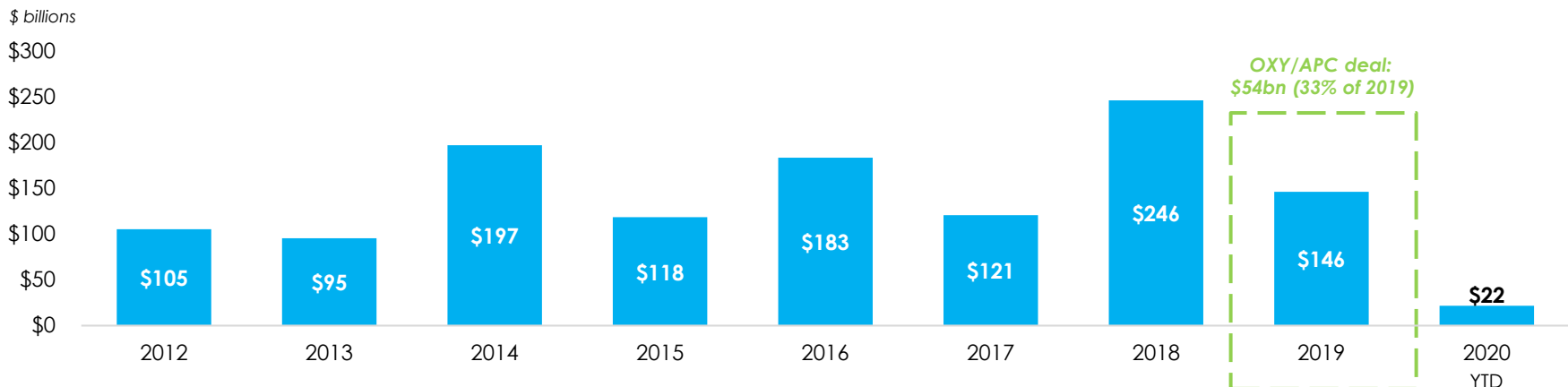
ENERGY EQUITY ISSUANCE



ENERGY DEBT ISSUANCE



ENERGY M&A



Source: FactSet as of November 11, 2020. M&A data represents total value based on completed deals.

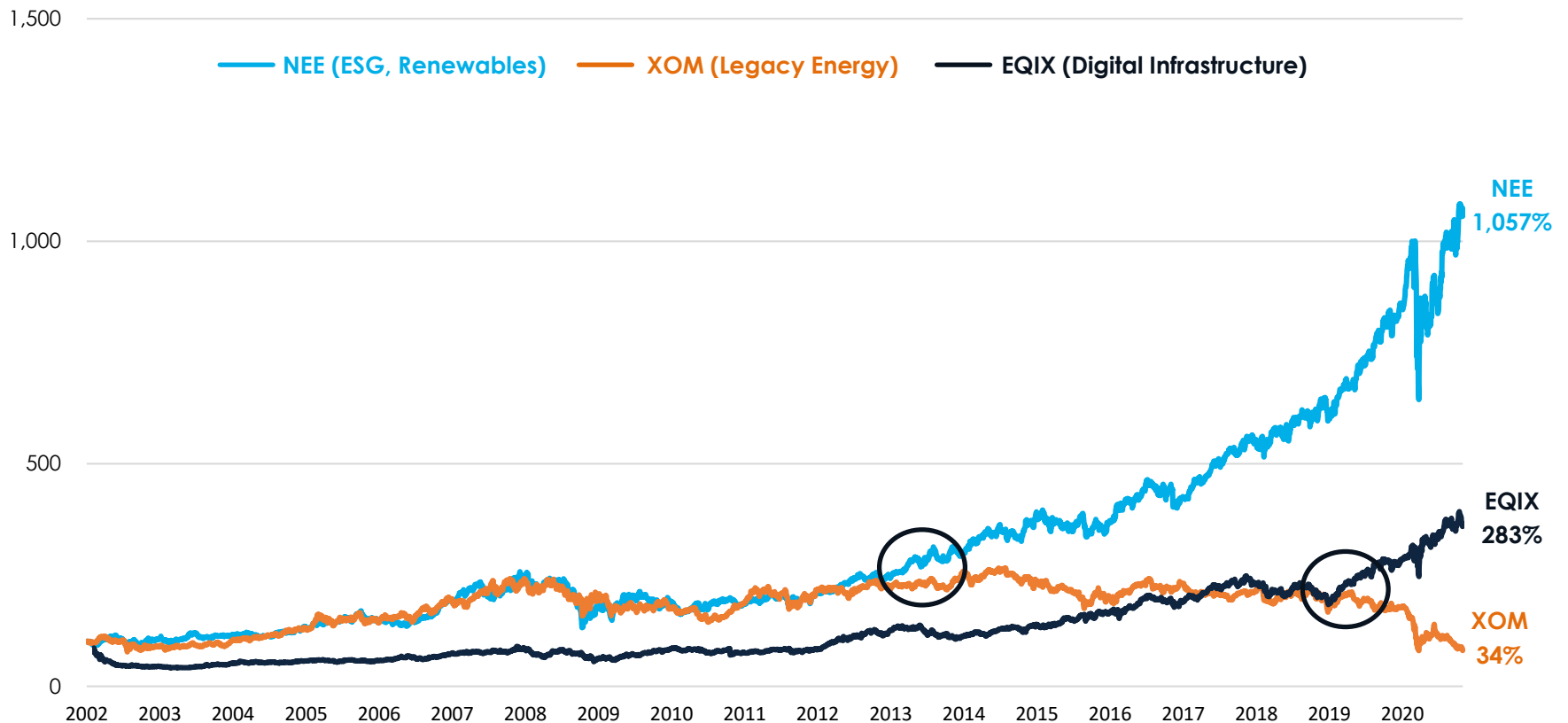
Near Term Energy Outlook

1. COVID “fog” makes demand recovery timing too hard to predict
2. Tough first half 2021 - COVID 2nd wave, vaccine timing
3. Price recovery supported by capital shortage, returns vs. growth, ESG
4. Commodity prices recover, valuation compression likely to continue
5. Industry economics - reasonable returns at \$45-\$50 oil, much harder in the \$30s
6. We hope Industry will be slower to respond to higher prices with more supply
7. Tighter credit markets - Paris Agreement lending restrictions, ESG pressures
8. Positioning for 2022-2023 exits/liquidity, 2021 not realistic
9. Hedging between \$45-\$50 oil price to protect downside

Energy Transition: The World is Changing

- > In the last 20 years there has been a transition to clean energy and digital infrastructure that we cannot and will not ignore
- > As exemplified by Exxon's decline, markets tell us the future is not in conventional energy

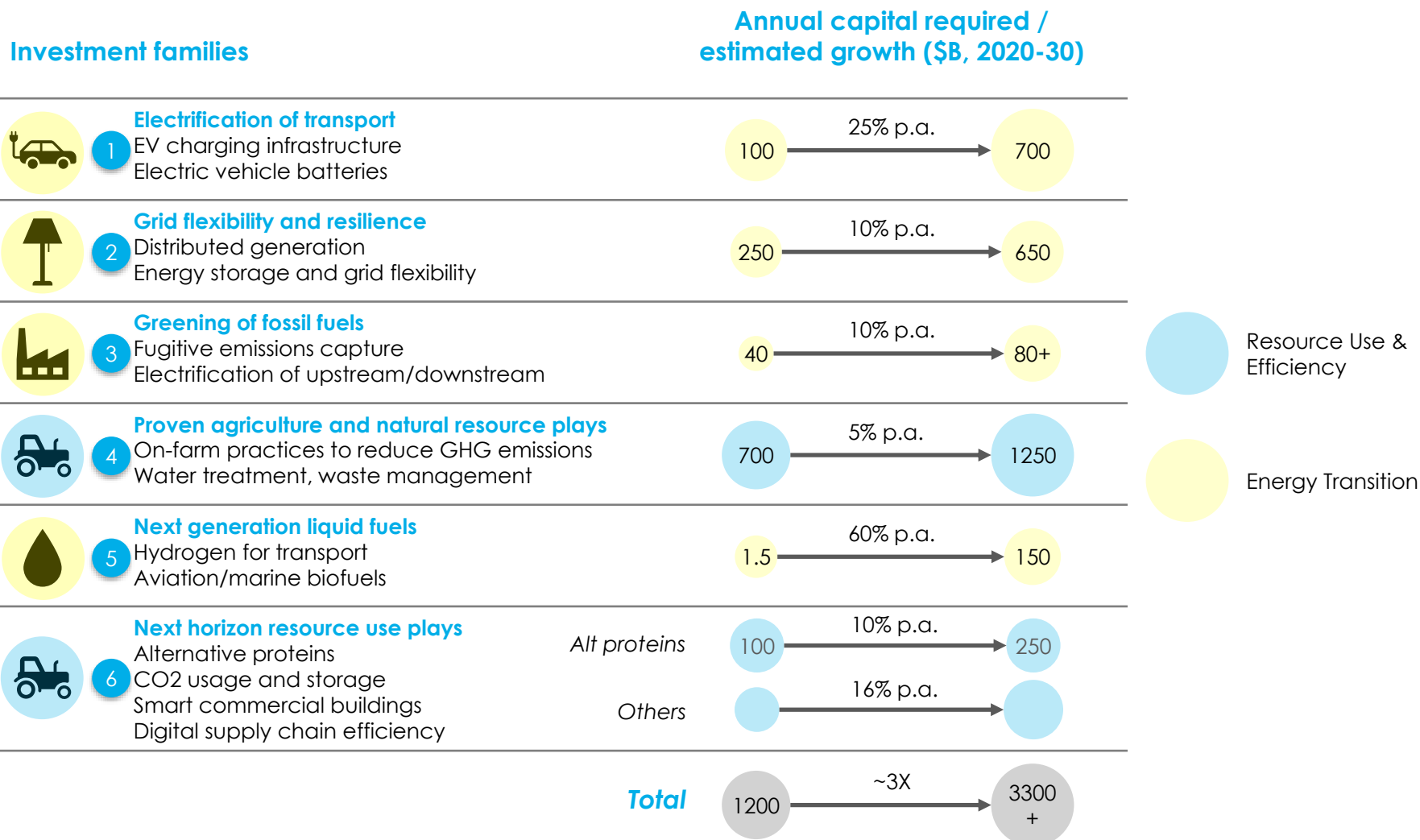
Indexed Total Shareholder Return (Exxon vs. NextEra vs. Equinix)



Source: Capital IQ.

The Riverstone Decarbonization Target List

> These six investment families represent \$1.2T of annual capital requirement today, we believe growing to nearly 3X by 2030





Energy Market Updates and Opportunities

December 2020



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Investment summaries presented in herein are for informational purposes only and are intended to illustrate NGP’s sourcing experience and the profile and types of investments previously pursued by the NGP team. Sample portfolio investments held by prior NGP funds are presented for illustrative purposes only, have been selected in order to provide examples of the types of investments made by NGP and do not purport to be a complete list thereof. It should not be assumed that investments made in the future will be comparable in quality or performance to the investments described in this presentation. Further, references to the investments included in the illustrative investment summaries should not be construed as a recommendation of any particular investment or security.

For certain recipients, this presentation has been distributed by TCG Securities, L.L.C., the limited purpose broker/dealer affiliate of The Carlyle Group registered with the U.S. Securities and Exchange Commission (“SEC”) and member of the Financial Industry Regulatory Authority (“FINRA”). Related financial products and services are only available to investors deemed to be “qualified purchasers” as defined in Section 2(a)(51) of the Investment Company Act of 1940, as amended, and “accredited investors” as defined in Regulation D of the 1933 Securities Act, as amended.

Recipients should make their own investigation and evaluations of the information contained in this presentation. Prior to the closing of a private offering of interests in a fund, NGP will give the prospective investors therein the opportunity to ask questions and receive additional information concerning the terms and conditions of such offering and other relevant matters. Each prospective investor should consult its own attorney, business advisor, and tax advisor as to legal, business, tax and related matters concerning the information contained in this presentation and such offering and in order to make an independent determination of the suitability and consequences of a potential investment in a particular fund.

Since 1988, NGP has sponsored twelve North American energy funds defined as NGP funds I through XII (collectively the “Flagship Funds”). The contents of this presentation refer only to these Flagship Funds and does not include affiliate funds or co-investment funds.

Energy Macro Update

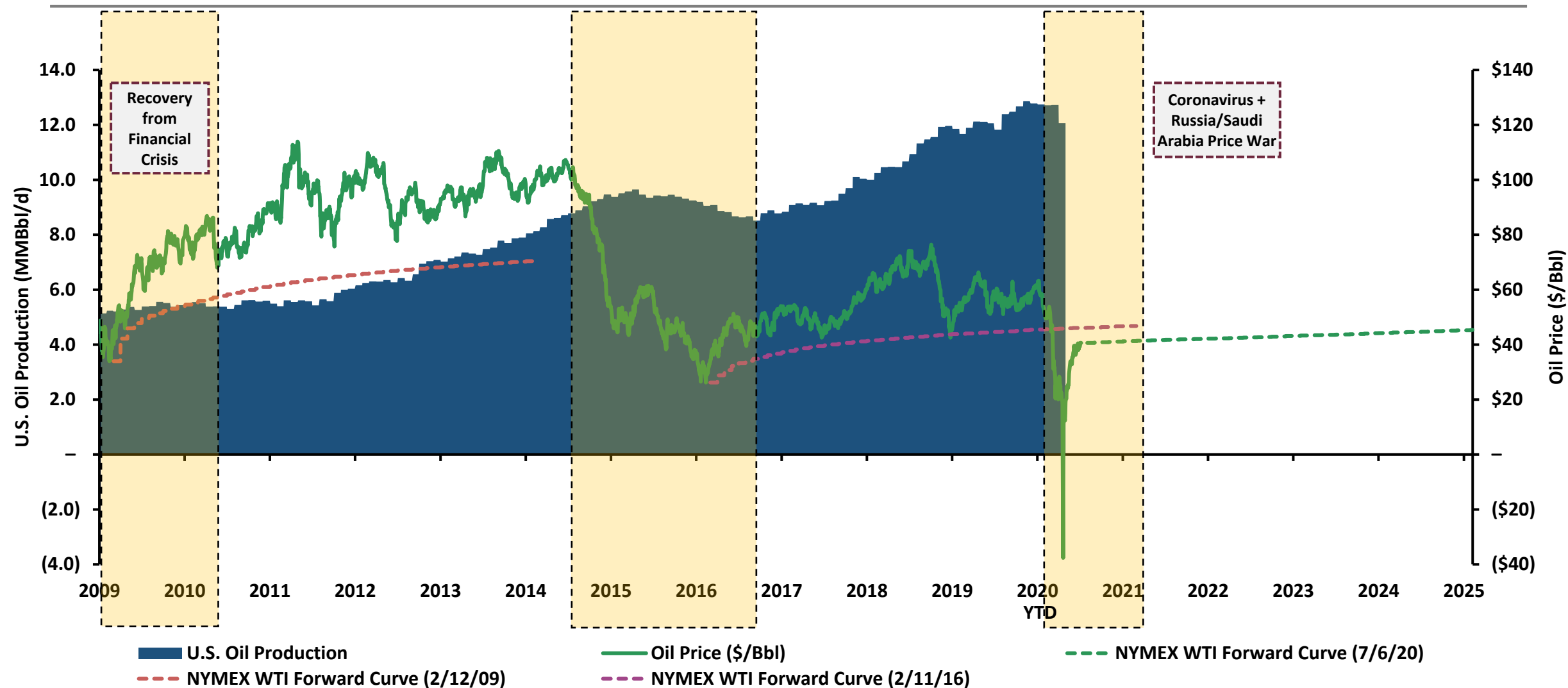


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Is the Current Oil Price Environment a Risk or an Opportunity?

We believe we are investing at a very attractive point in the oil cycle

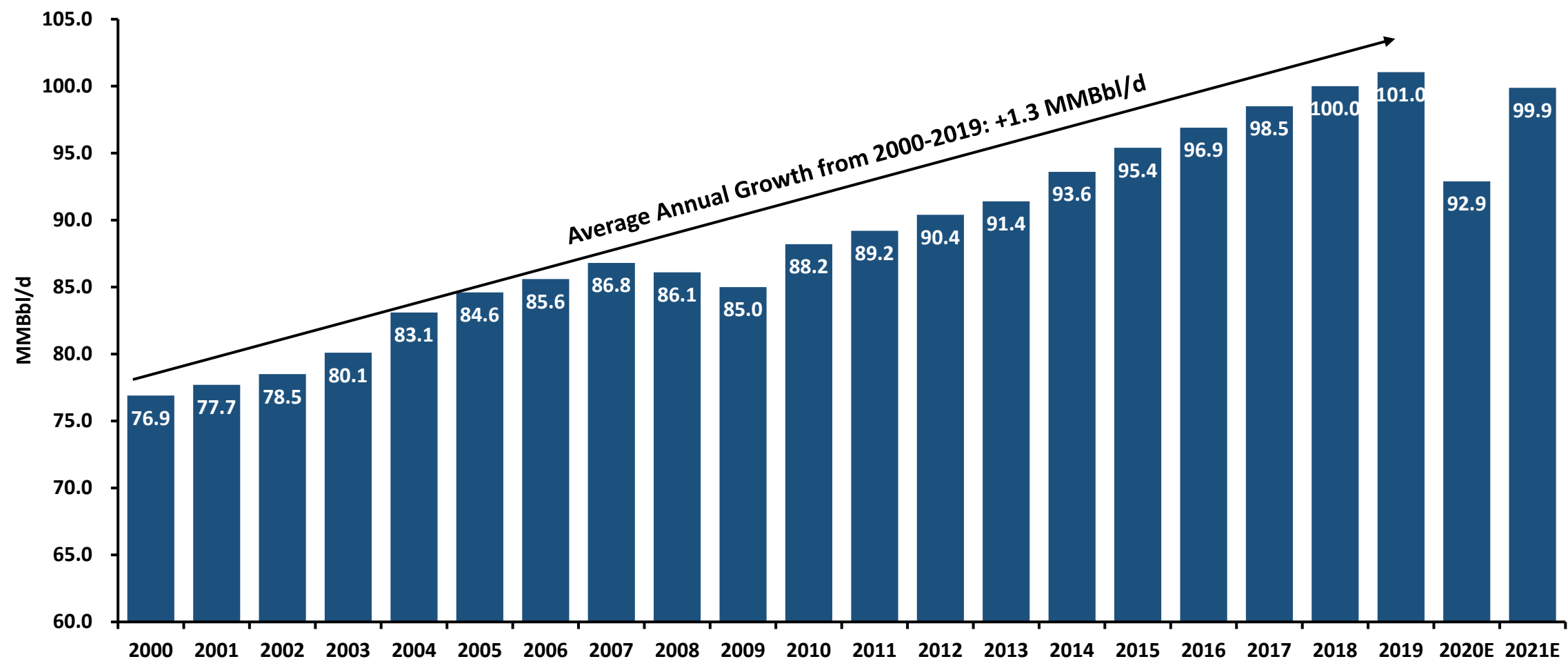
Historical Oil Price and U.S. Oil Production



Source: EIA Monthly U.S. Production of Crude Oil (July 2020). Bloomberg Commodity data as of July 6, 2020. There can be no assurance that historical trends will continue in the future. Forecasts are subjective and inherently uncertain. Actual results may vary substantially.

Annual Oil Demand will Decrease Significantly in 2020

Historical and Forecasted Global Oil Demand (MMBbl/d)

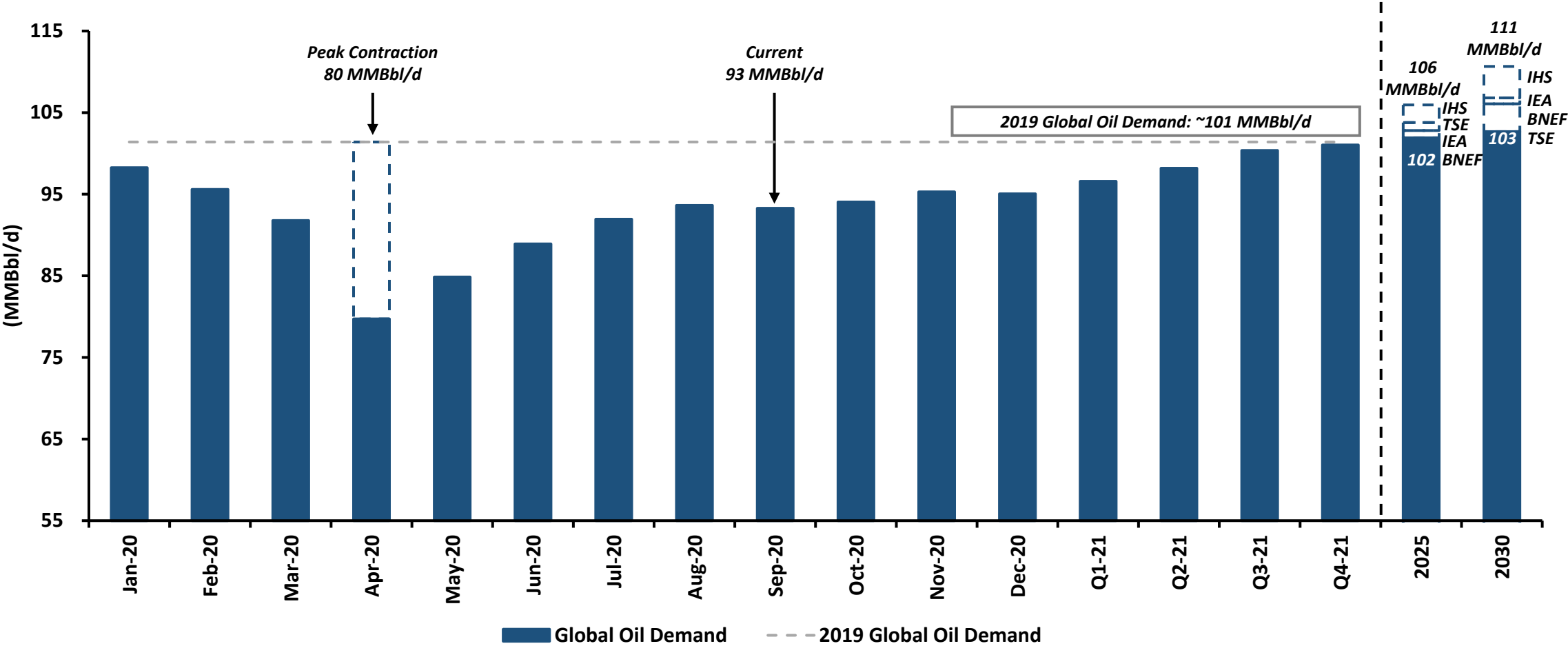


Source: U.S. Energy Information Administration ("EIA") Short Term Energy Outlook, dated July 2020.
Note: There can be no assurance that any projections will ultimately materialize or that historical trends will continue during the life of any NGP fund. Forecasts are subjective and inherently uncertain. Actual results may vary substantially.

Peak Oil Demand Contraction Was Less Than Originally Expected and Is Recovering...Demand for the Next Decade Is Expected to be Persistent

COVID-19 Oil Demand Recovery Forecast and Long-Term Demand Estimates

[Forecast w/2025 and 2030]

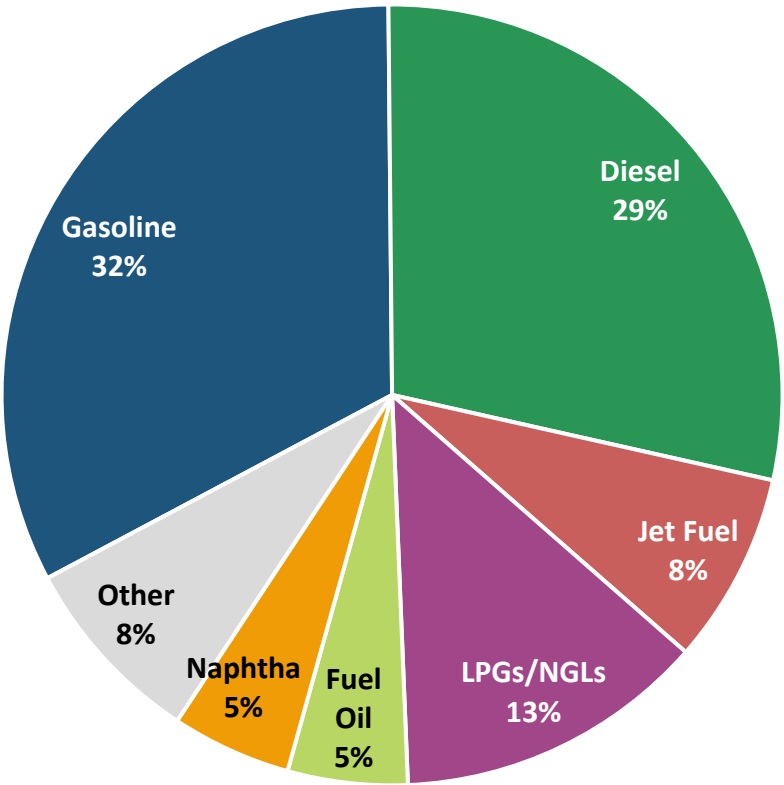


Source: Historical and forecast data through year end 2021 per Goldman Sachs (Oil: Lockdowns, Stocks and Floating Barrels, dated September 17, 2020). 2030 and/or 2050 demand estimates per Bloomberg New Energy Finance ("BNEF"), "New Energy Outlook 2020," dated October 2020, IEA "World Energy Outlook 2020," dated October 2020, Thunder Said Energy ("TSE"), "Long-Run Oil Demand after COVID-19," dated May 2020, and IHS "Exploring the Great Unknown: Oil Market Scenarios to 2030," dated July 2020.

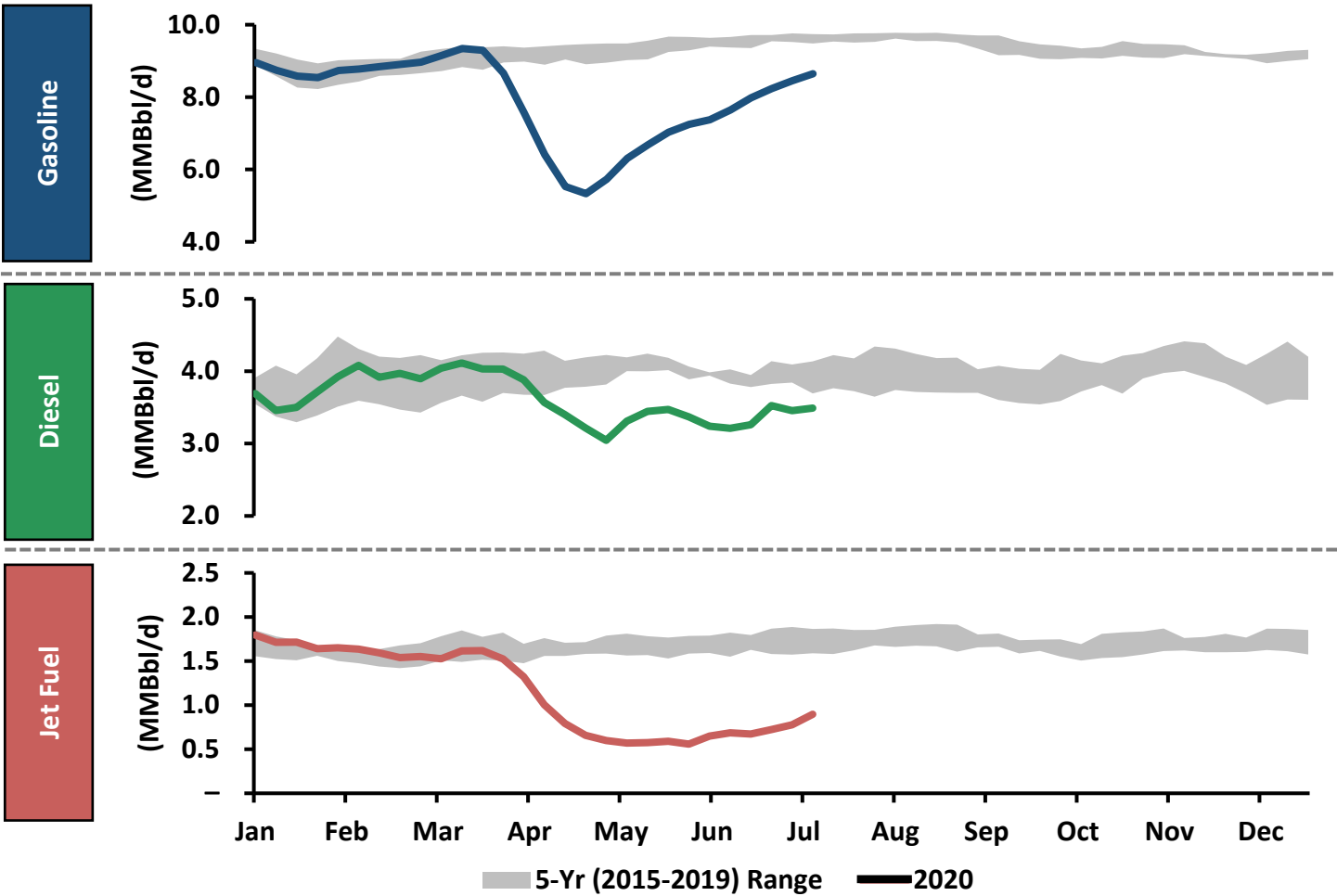
Note: There can be no assurance that any projections will ultimately materialize or that historical trends will continue during the life of any NGP fund.

Over 60% of Global Oil Demand is Attributable to Gasoline and Diesel Usage... And in the United States Both Have Almost Returned to Normalized Levels

2019 Global Oil Demand by End Use



U.S. COVID-19 Impact on/Recovery of Oil End Use Products⁽¹⁾

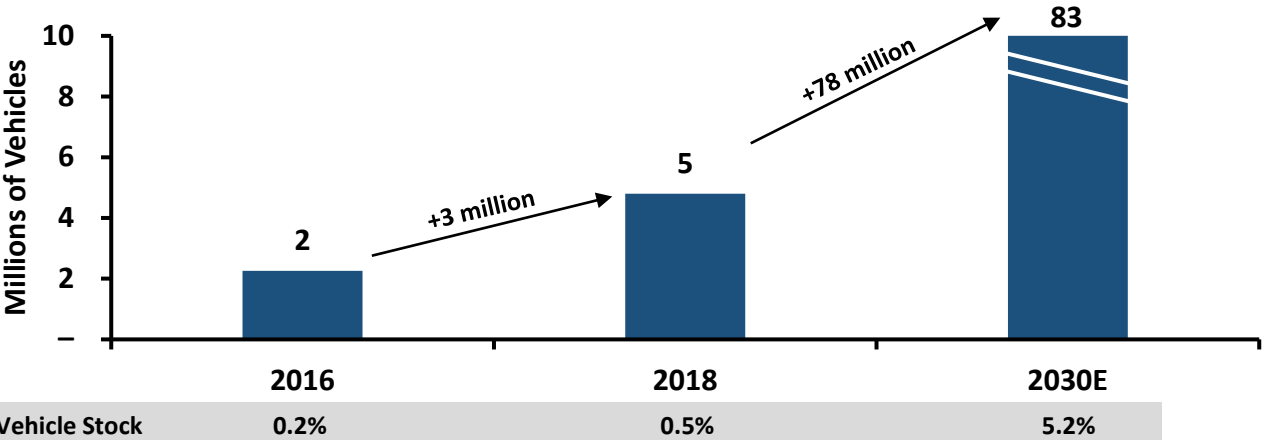


Source: U.S. Energy Information Administration ("EIA") Short Term Energy Outlook, dated April 2020, Raymond James Updated Oil Outlook, dated April 15, 2020. Rystad Energy (COVID-19 Report 11th Edition: Global Outbreak Overview and its Impact on the Energy Sector, dated May 20, 2020).
Note: There can be no assurance that any projections will ultimately materialize or that historical trends will continue during the life of any NGP fund.
1) Based on 4 week moving average of EIA U.S. Weekly Product Supplied data (as a commonly used proxy for demand), dated July 10, 2020.

The Impact of Electric Vehicles on Oil Demand

Electric vehicle demand will have little impact on oil demand over the next decade

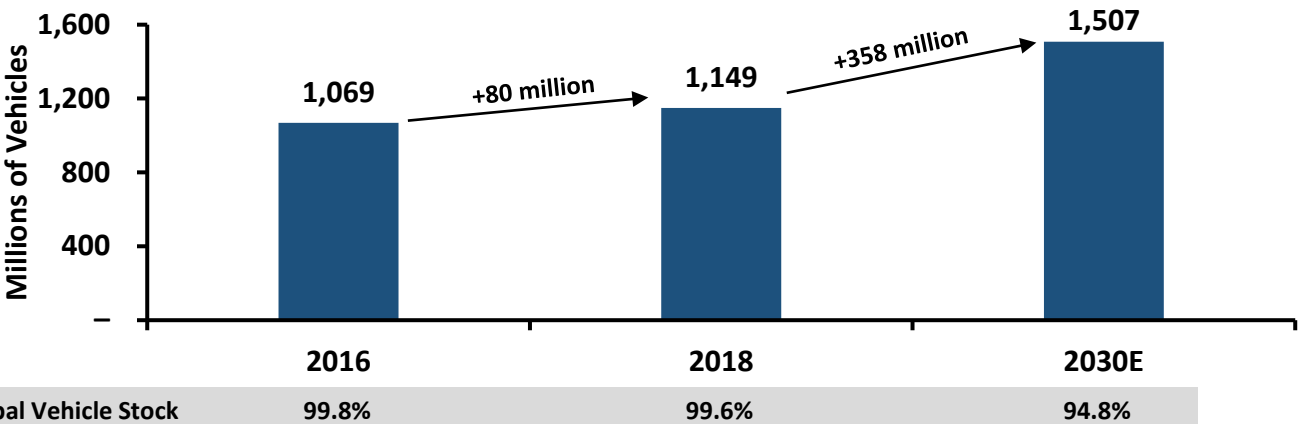
Global Electric and Battery Electric Vehicles on the Road



Impact on Global Oil Demand by 2030

Q1 2019 Demand	100 MMBbl/d
Electric Vehicle Adoption	(2) MMBbl/d
Base Demand Growth	+11 MMBbl/d
2030E Demand	109 MMBbl/d

Global Internal Combustion Engine Vehicles on the Road

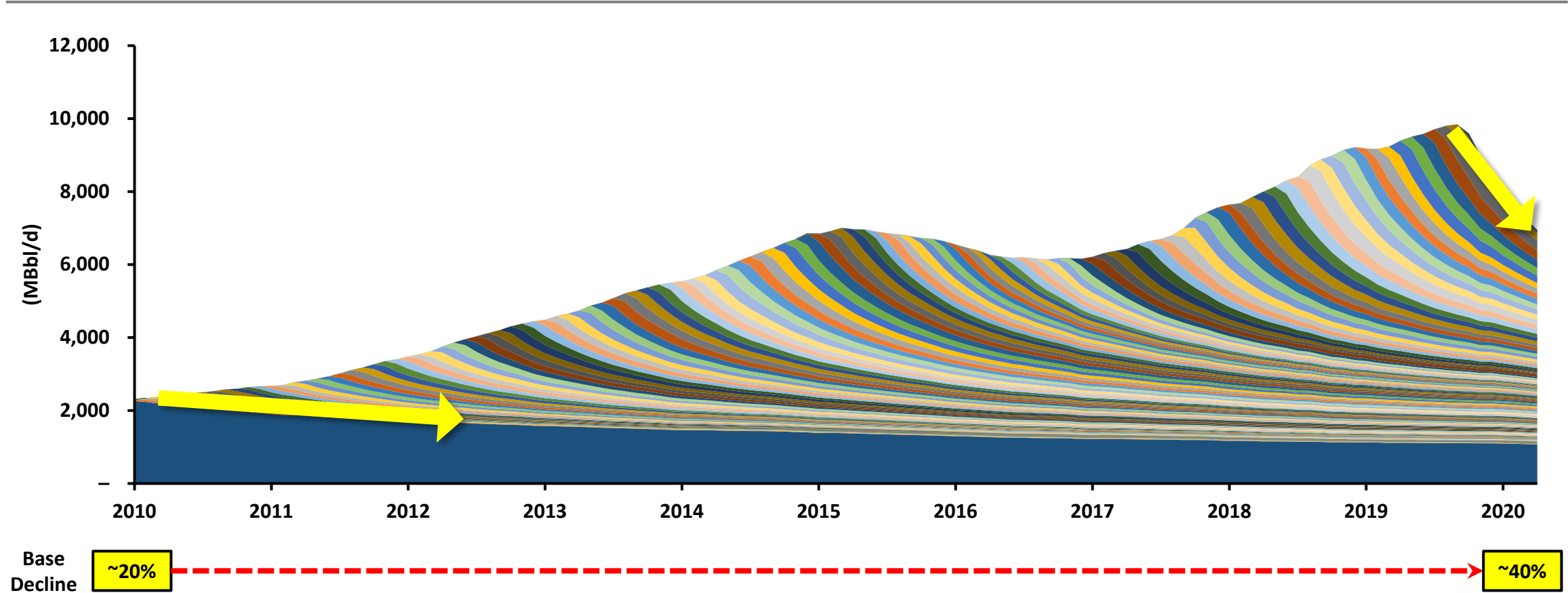


Source: International Energy Agency ("IEA") Oil Market Report (April 2019), Goldman Sachs Equity Research (September 6, 2017), Bloomberg New Energy Finance Electric Vehicle Outlook 2019, NGP analysis.
Note: There can be no assurance that any projections will ultimately materialize or that historical trends will continue during the life of any NGP fund. Numbers may not sum due to rounding.

The Base Decline Rate of U.S. Oil Production Has Roughly Doubled Over the Past Decade – The Treadmill Has Sped Up

Significant future drilling activity and capital expenditure spending is required to maintain supply

U.S. Lower 48 Onshore Oil Production⁽¹⁾

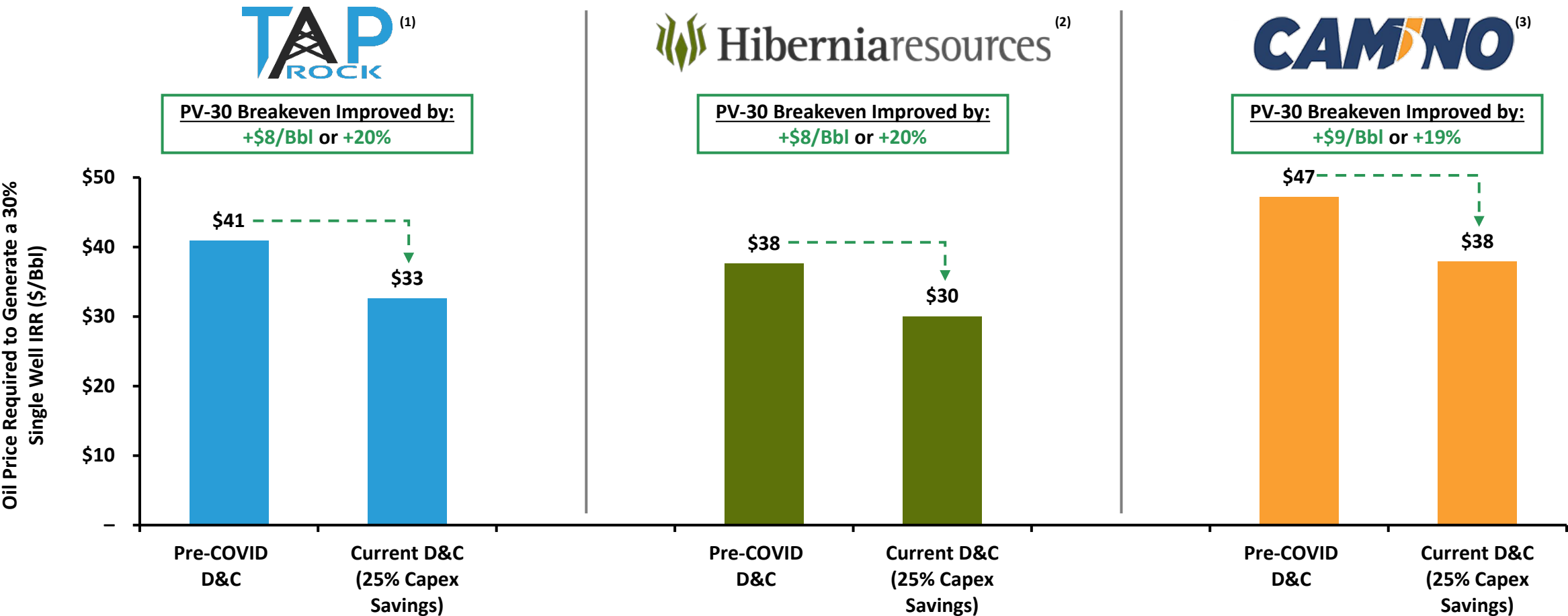


Source: RS Energy Group (L48 Production The Treadmill Is Running Too Fast, dated April 7, 2020).
Note: There can be no assurance that historical trends will continue during the life of any NGP fund.
1) Excludes U.S. Offshore/Gulf of Mexico and Alaska crude oil production.

Oil Price Breakevens for Drilling Are Declining Due to Service Cost Decreases

Companies can drill in a lower price environment and still pursue attractive investment opportunities

Illustrative Oil Price Required to Generate a 30% Single Well IRR



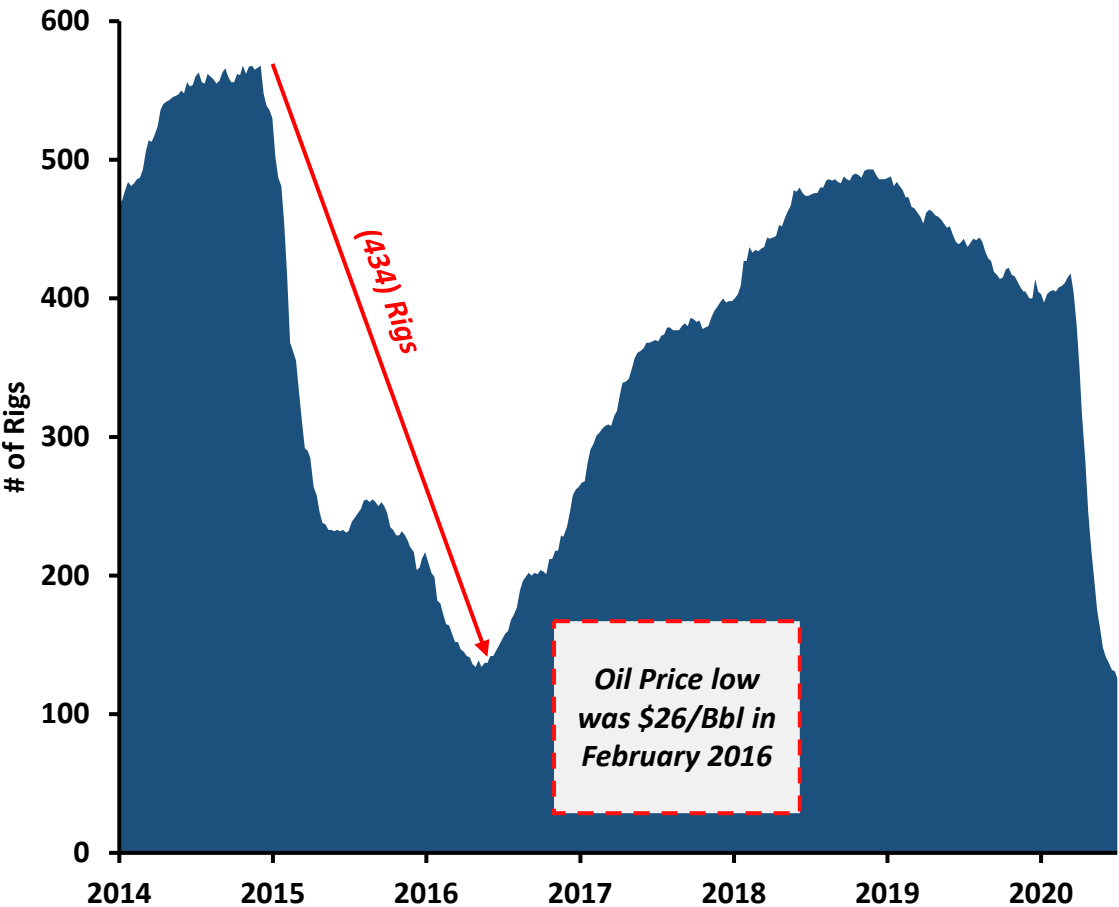
Note: There can be no assurance that historical trends will continue during the life of any NGP fund. Provided for illustrative purposes only. Any changes to the assumptions, however minor, will alter the outcome of the analysis. Analysis assumes \$2.25/mcf flat gas pricing. Single Well IRR underlying breakeven oil price represents the pre-tax gross performance of a representative well of the indicated portfolio company. It does not include costs associated with initiating and maintaining a lease. See Performance Notes in the Appendix.

1) Tap Rock analysis is based on the economics for a 2-mile Wolfcamp A well in Lea County assuming a 77% NRI.
2) Hibernia analysis is based on the economics for a blended 2-mile Wolfcamp A/Wolfcamp B well in Upton County assuming a 75% NRI.
3) Camino analysis is based on the economics for a 2-mile Merge Lower Mississippian Condensate well assuming an 80% NRI.

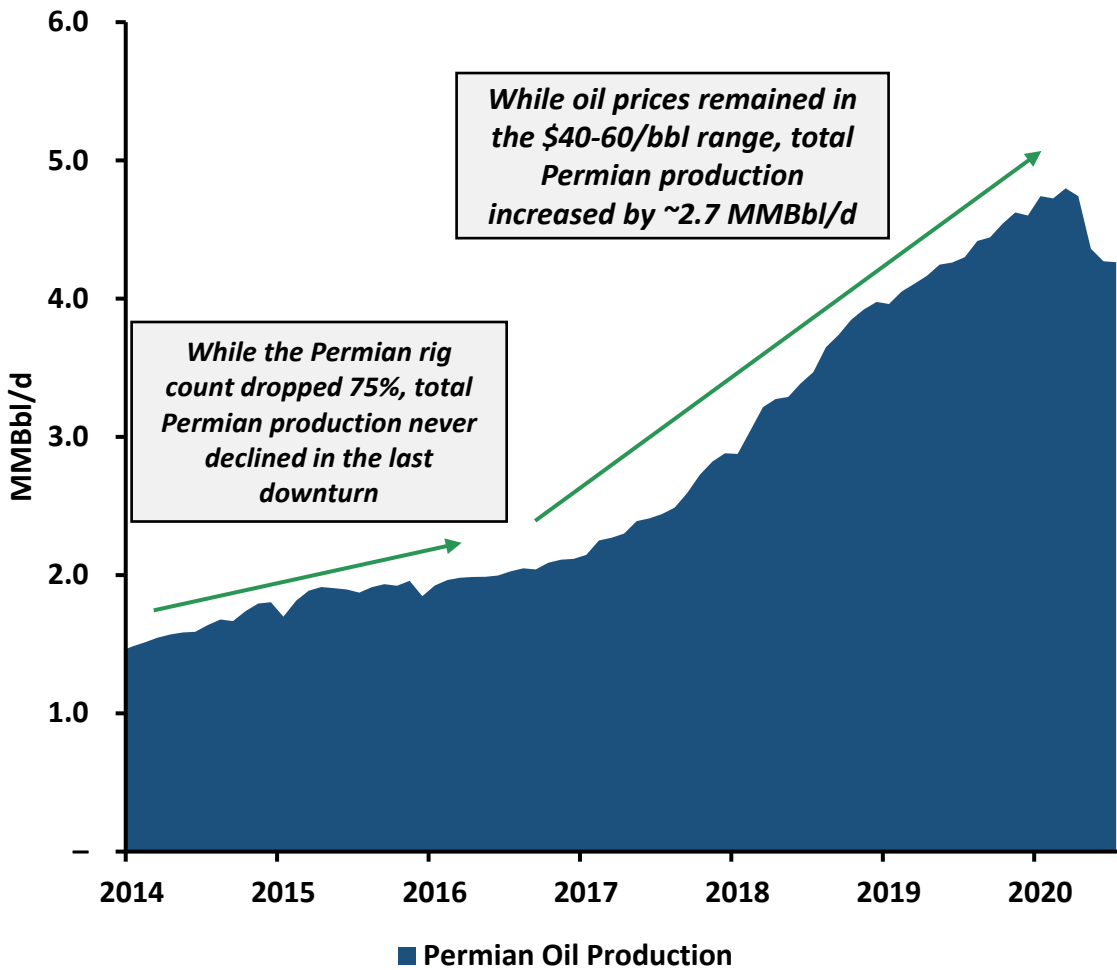
What Can We Learn From the Last Downturn in the Permian Basin?

The current price environment provides the opportunity to buy royalties and minerals at discounted values in the most resilient basin in the United States

Historical Permian Basin Rig Count (Vertical & Horizontal)

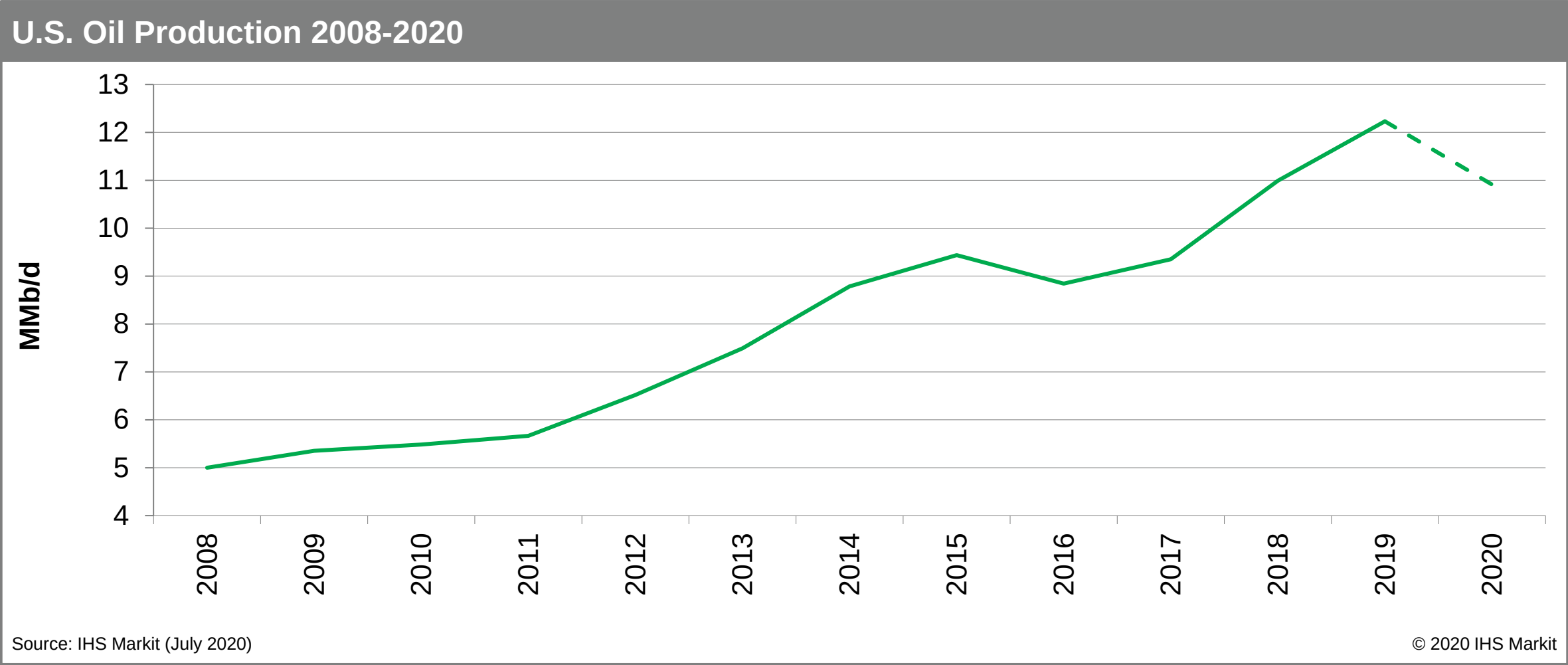


Permian Basin Oil Production Since 2014

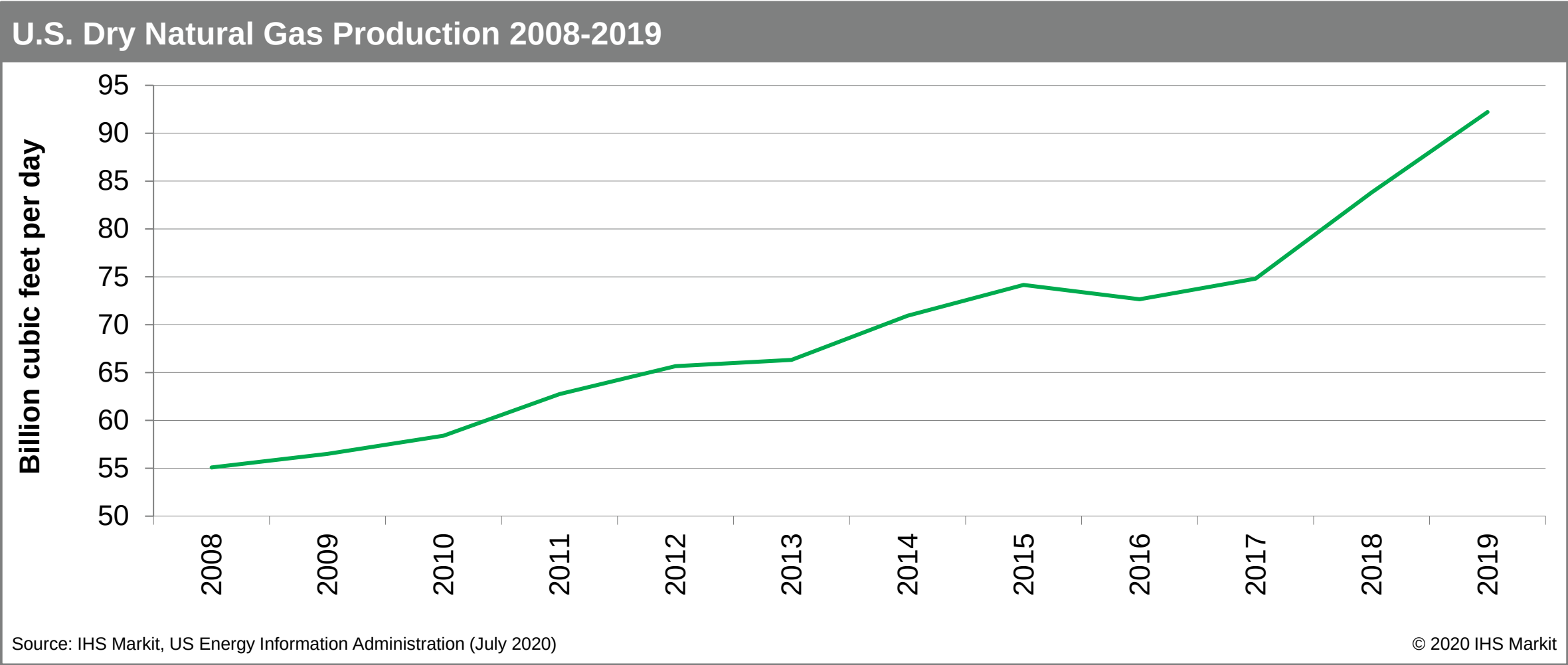


Source: Baker Hughes North American Rig Count Report and EIA Drilling Productivity Report (July 2020).
Note: There can be no assurance that historical trends will continue during the life of any NGP fund.

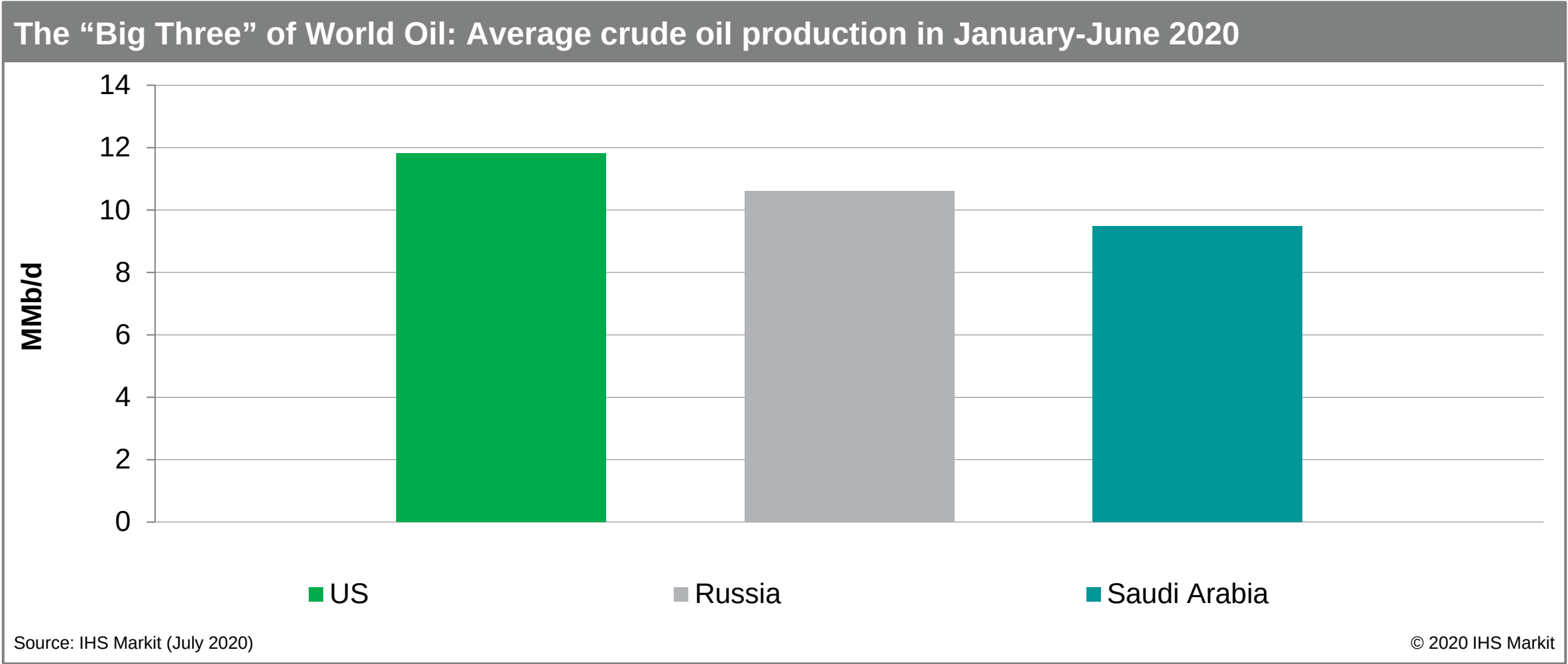
U.S. Oil Production 2008-2020



U.S. Dry Natural Gas Production 2008-2019



The “Big Three” of World Oil



The Current Environment Has Forced Industry Consolidation

Four major consolidation transactions have been announced in the last five months as public E&P's seek scale, efficiency and an enhanced ability to return cash flow to shareholders

Acquiror	Target	Target Main Basins	Transaction Size ⁽¹⁾	Announced Annual Synergies
		Permian, DJ, Eagle Ford, International Offshore	\$13 Billion	\$300 million
		Permian, Bakken	\$6 Billion	\$575 million
		Permian	\$13 Billion	\$500 million
		Permian	\$8 Billion	\$325 million

1) Deal size at announcement including assumption of debt.

Introduction to Royalties and Minerals



Surface Ownership vs. Mineral Ownership vs. Oil & Gas Company

The right of individuals in the United States to own minerals (ownership rights from beneath the surface of land to the core of the Earth) goes back over 150 years



Surface Ownership

- Original surface owners owned both the surface rights and the mineral rights to the core of the Earth, but the surface and mineral estates may be severed or owned separately. This means today's surface owners may or may not own legal rights to the minerals as well
- Surface owners can sell, transfer, or develop the land within the guidelines established by the governing jurisdiction
- Surface rights alone do not entitle an owner the right to lease to an oil & gas company nor the right to receive royalty payments



Mineral Ownership

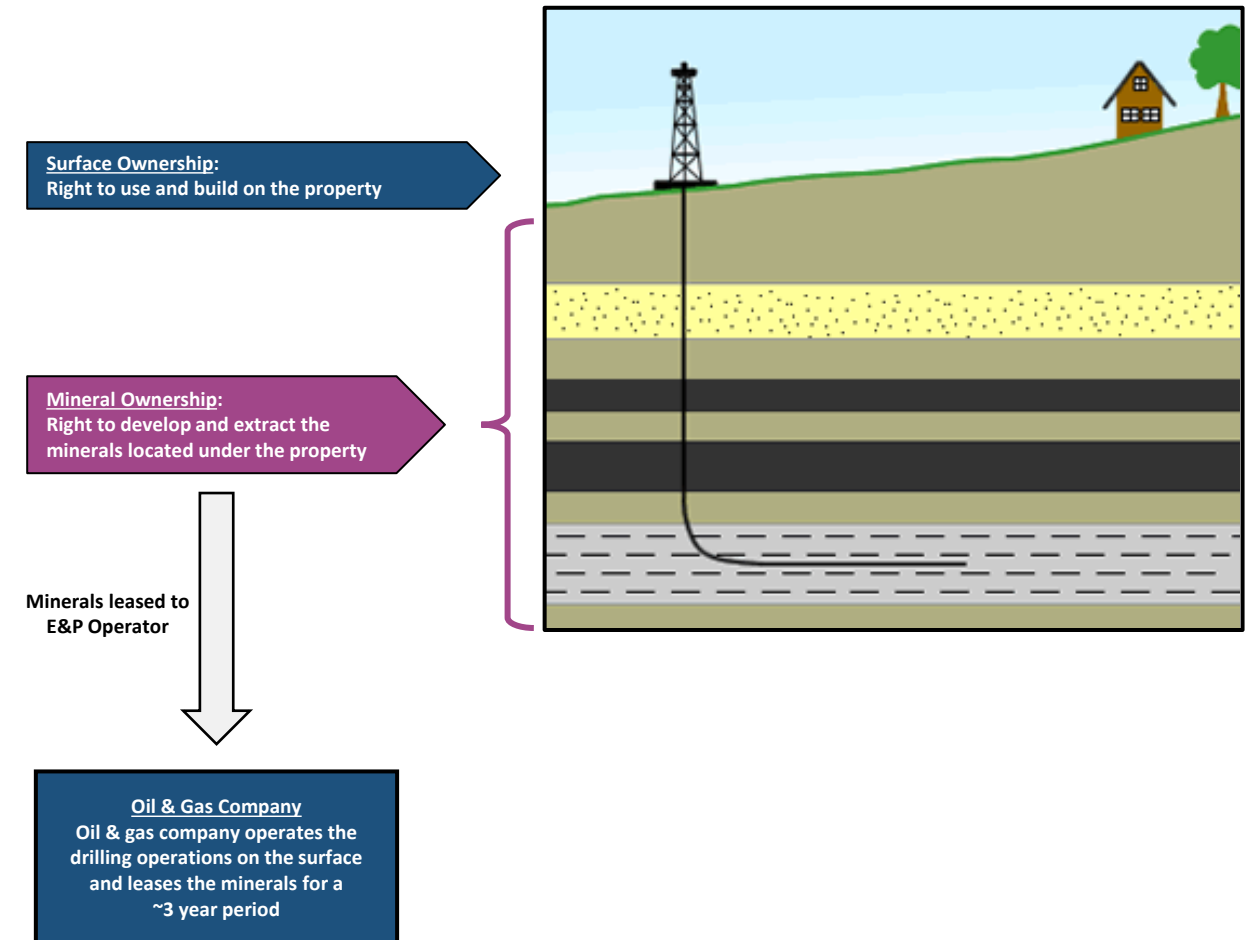
- Mineral rights extend to the center of the earth but may have different ownership by depth
- Minerals owners have the legal ability to explore, extract and develop naturally occurring deposits found beneath the land's surface
- Mineral estate is dominant to the surface estate; mineral owner has implied easement to use the surface in a manner that is reasonably necessary to develop the minerals, subject to certain limitations depending on location
- The ownership of minerals extends into perpetuity
- Like surface rights, mineral rights can be freely acquired and sold



Oil & Gas Company

- Oil & gas company enters into a lease with the mineral owner to develop the mineral resource typically for a 3 year term (oil & gas company does not actually "own" the acreage or the minerals)
- If oil & gas company does not drill an economic well within the 3 year period, the minerals revert back to the mineral owner which can then be re-leased to a different oil & gas company

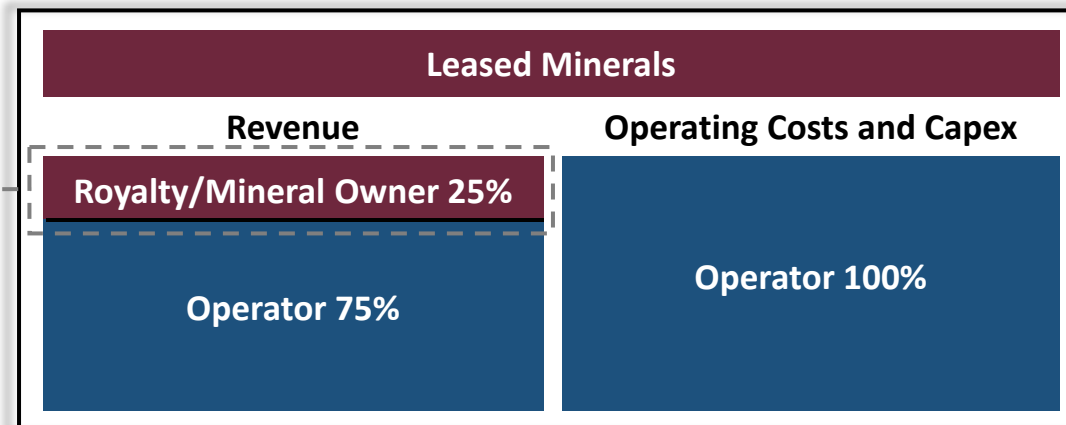
Surface vs. Mineral Ownership Illustration



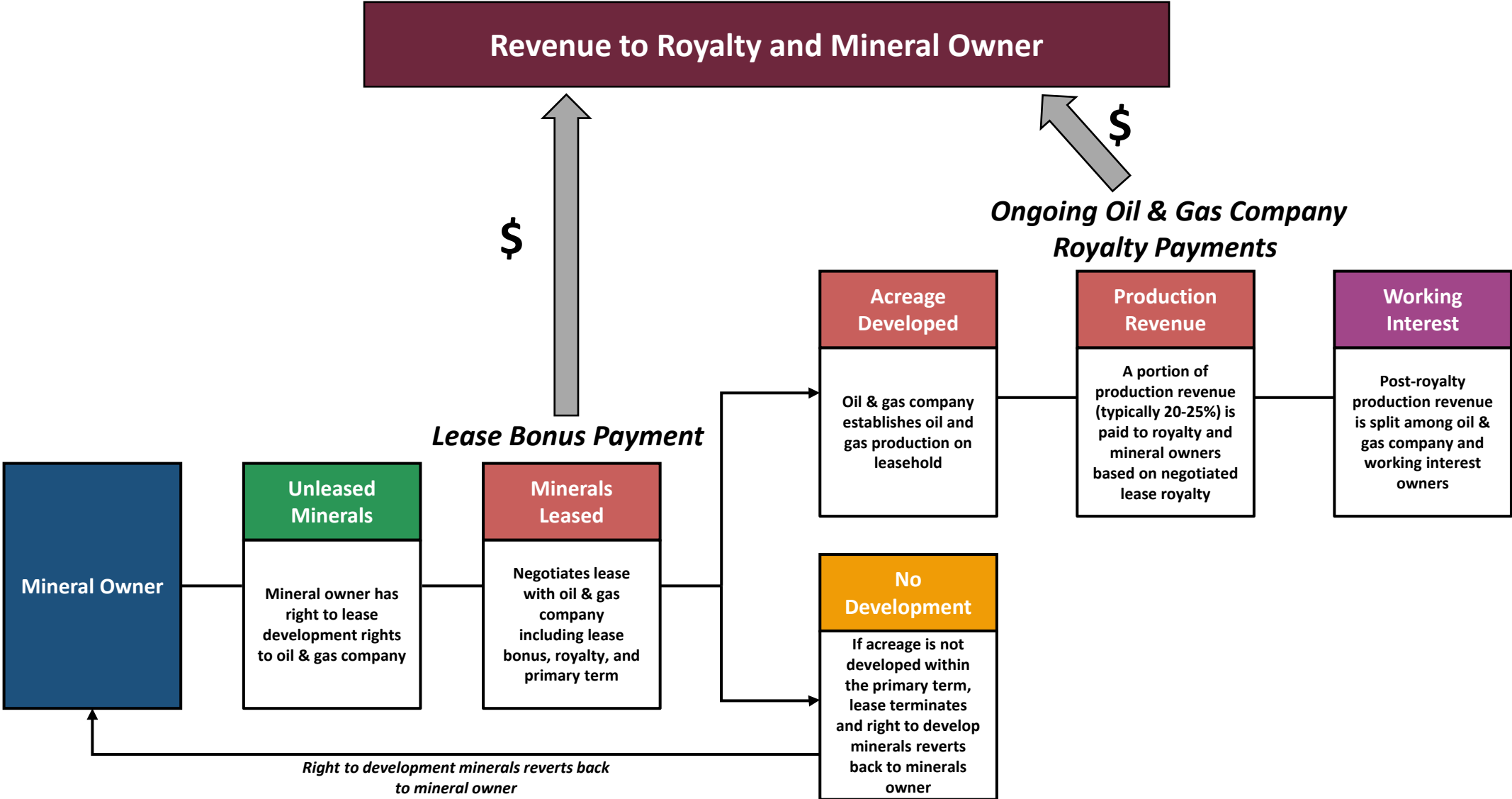
How Royalties and Minerals Work

- Mineral interests are perpetual, real property interests giving owners a right to the oil and gas lying below the surface of a given property
 - Mineral owners grant leases to oil & gas companies for an initial term for an upfront lease bonus payment (e.g. \$5k/acre)
 - Mineral owners retain a royalty interest entitling them to a percentage (usually ranging from 20-25%) of revenue from oil and gas produced on a given property from current and future wells without being burdened by the direct operating and capital expenditures associated with the extraction of oil and gas other than severance and ad valorem taxes
- Oil & gas companies lease minerals for the right to drill wells while bearing 100% of the direct operating and capital expenditures and retaining 75-80% of the revenues (20-25% of revenues go to mineral owner as a royalty interest)
- Upon termination of a lease, all future development rights revert to the mineral owner who can lease the minerals again for an additional lease bonus payment and agreed upon royalty interest

Royalty owner receives the first 25% of revenues without being exposed to operating costs/expenses



Royalty and Mineral Life Cycle



Source: Brigham Mineral Investor Presentation.

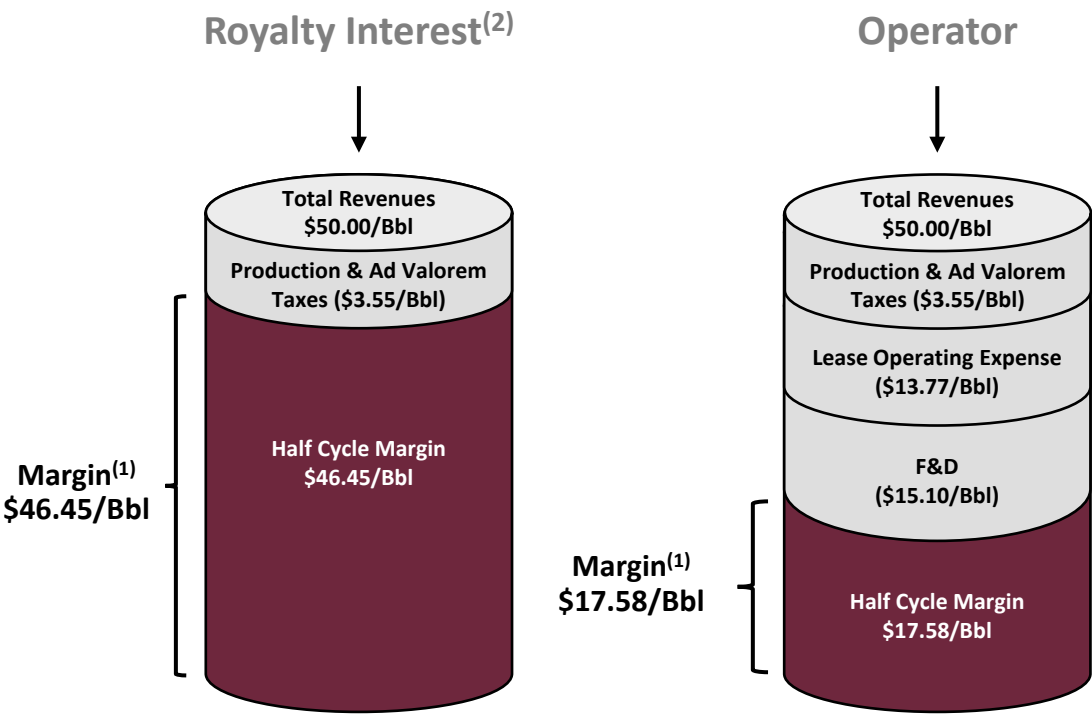
Investment Characteristics of Royalty and Mineral Interests



Royalty and Mineral Interests

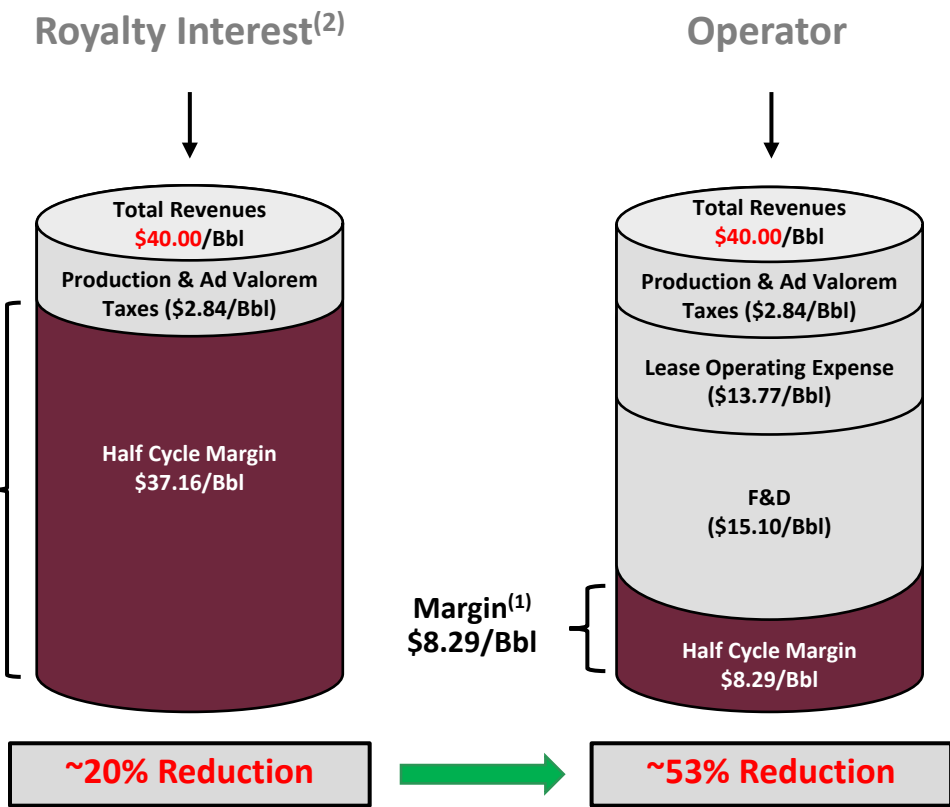
Royalties have no operating leverage and thus have less downside exposure to drops in commodity prices versus the operator

Illustrative Margin Analysis (\$/Bbl)
(\$50.00/Bbl Oil Price)



Margin Impact if Oil Prices Decline 20%

Illustrative Margin Analysis (\$/Bbl)
(\$40.00/Bbl Oil Price | ~20% Reduction)



No operating leverage so less volatile impact on returns

Note: Provided for illustrative purposes only. Any changes to the assumptions, however minor, will alter the outcome of the analysis. The above analysis is not a prediction, projection, or guarantee of any future performance.
1) The analysis does not include acquisition costs associated with acquiring a working interest lease or a royalty interest. Excludes G&A, borrowing costs, the effect of hedges and also excludes fund level fees and expenses and general partner carried interest.
2) Assumes that the operator continues to produce oil and gas from the lease burdened by the royalty in the lower margin case.

Royalties and Minerals are Exposed to Similar Return Drivers as E&P (“Exploration and Production”) Assets but with a Lower Risk Profile

Royalty and Mineral Interests versus E&P Assets: Economic Driver Comparison

Economic Input	Royalty and Mineral Interests	Material Driver of Returns	E&P Assets	Material Driver of Returns
Purchase Price	Material driver to full-cycle returns	✓	Material driver to full-cycle returns	✓
Commodity Prices	- Subject to commodity price volatility; can hedge prices to mitigate risk - Less volatile than E&P given cost free nature of reserves	✓	Subject to commodity price volatility; can hedge prices to mitigate risk	✓
Resource Recovery	Subject to Estimated Ultimate Recovery (“EUR”) and type curve risk	✓	Subject to EUR and type curve risk	✓
Capital Expenditures	Not subject to direct capital expenditures associated with drilling and completing wells		Subject to capital expense overruns and service cost inflation/deflation; can have a material impact to single well economics and returns	✓
Operating Expenses	Not subject to direct operating expenses associated with managing wellbores		Subject to fixed and variable operating expense volatility; can have a material impact to single well economics and returns	✓
Technological Advancements	- Participate in 100% of the upside related to technological advancements that improve single well/section recoveries without paying the direct associated capital expenditures - Royalties and minerals represent an option on technological advancement driving efficiencies in the E&P industry	✓	Can materially improve single well economics and returns, but must pay the “R&D” expense to achieve technological advancements	✓
Well Spacing – Parent/Child Relationship	Royalty and mineral economics and returns are solely dependent upon resource recovery per section of land; tighter spacing, while not always economically efficient for operators, generally increases resource recovery per section	✓	- Operators need to be cognizant of interplay between single well economics, NPV per section and well spacing (wells per section) - Recent industry trend of public companies spacing wells “too tightly”, which has diminished single well economics to operators	✓
Development Pace	Subject to E&P operator’s decision to increase/decrease drilling activity	✓	In control of development pace	✓

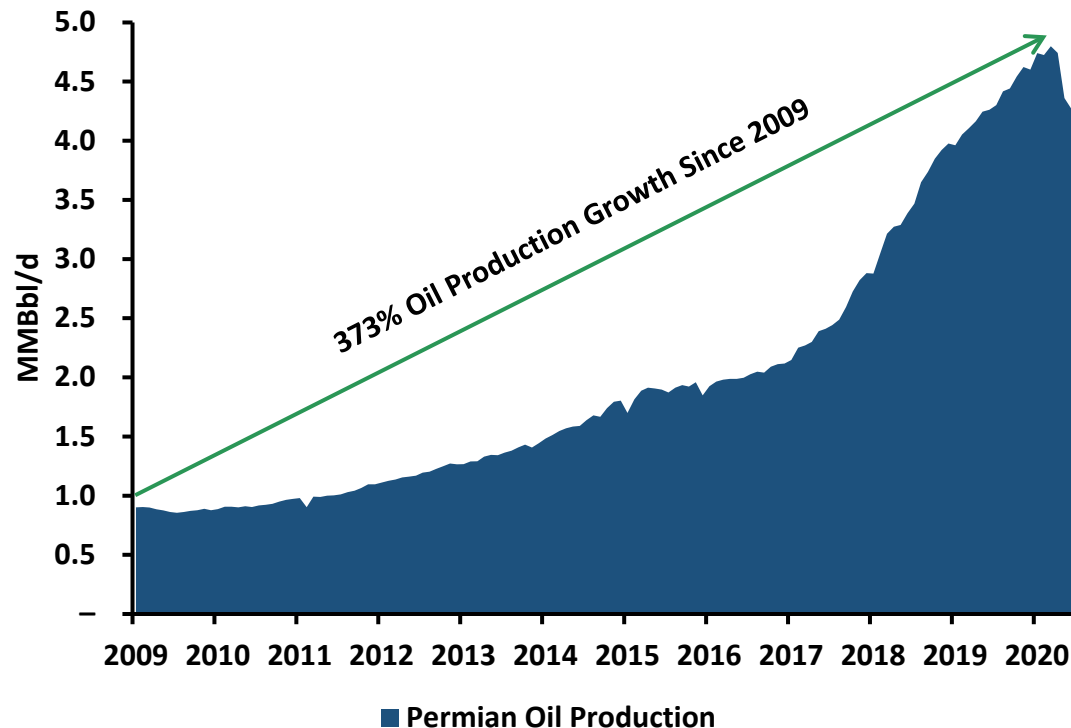
Note: Provided for illustrative purposes only to show NGP’s views on certain asset types. Investments are subject to a variety of risks, uncertainties and assumptions not displayed in this chart.

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The Permian Basin Offers Deep Inventory of Horizontal Locations in Stacked Pay Zones

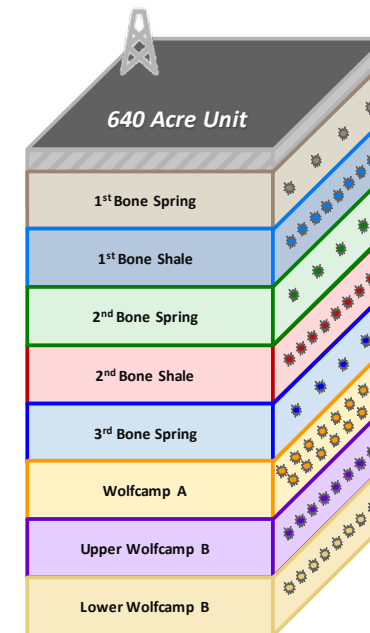
- ~75% of NGP's royalty and mineral acquisition activity has been in the Permian Basin
- The combination of attractive drilling returns and multiple stacked pay zones makes the Permian especially attractive basin for long-term royalty and mineral investments

Permian Basin Oil Production Since 2009



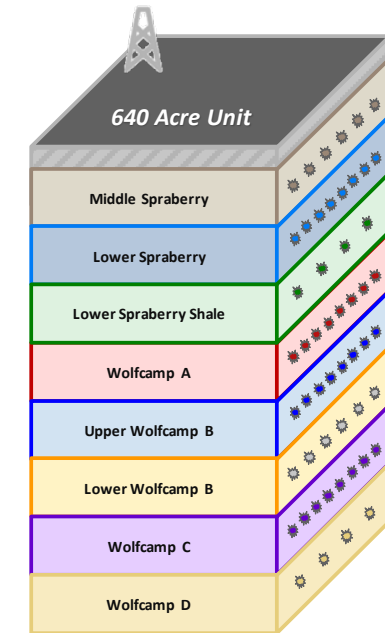
Stacked Pay Potential

Delaware Basin



59 wells per section

Midland Basin



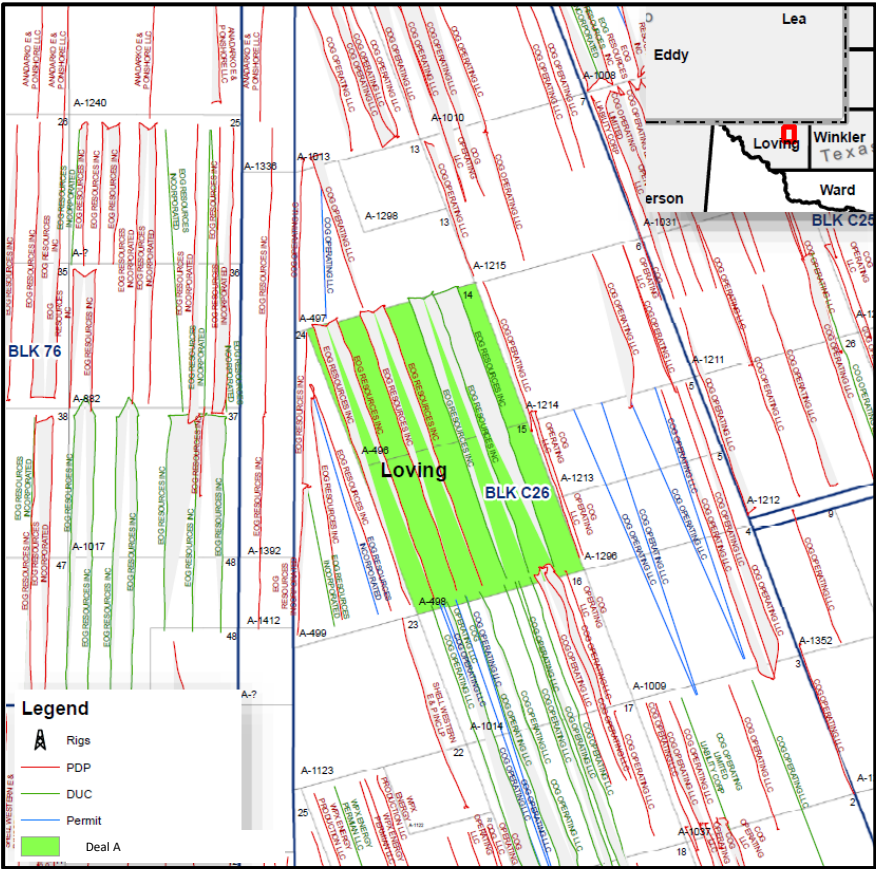
52 wells per section

Royalties Can Provide Steady and Consistent Cash Flow Yields

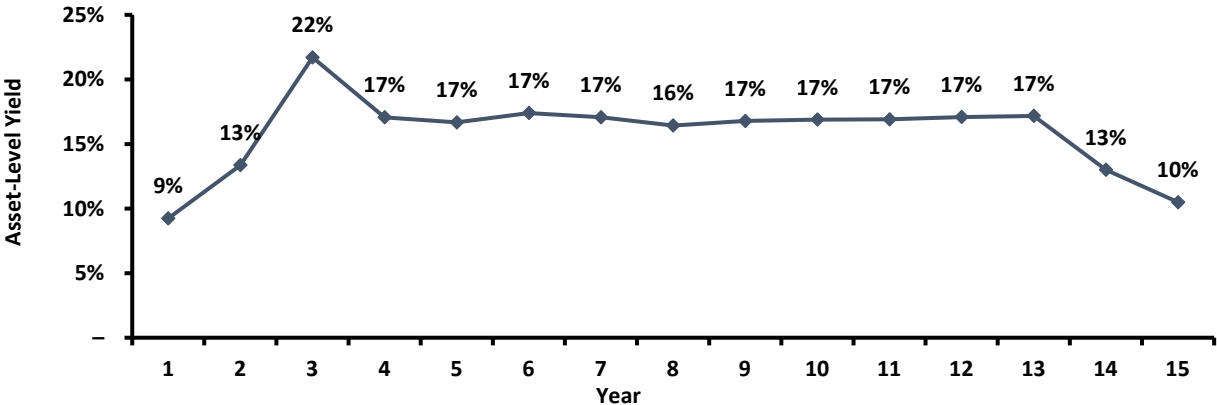
Wing V Acquisition Example: PDP and DUC-heavy acquisition in the core of the Northern Delaware Basin under EOG with remaining undeveloped upside; PDP and DUCs alone generate a 1.5x ROI

Asset Overview

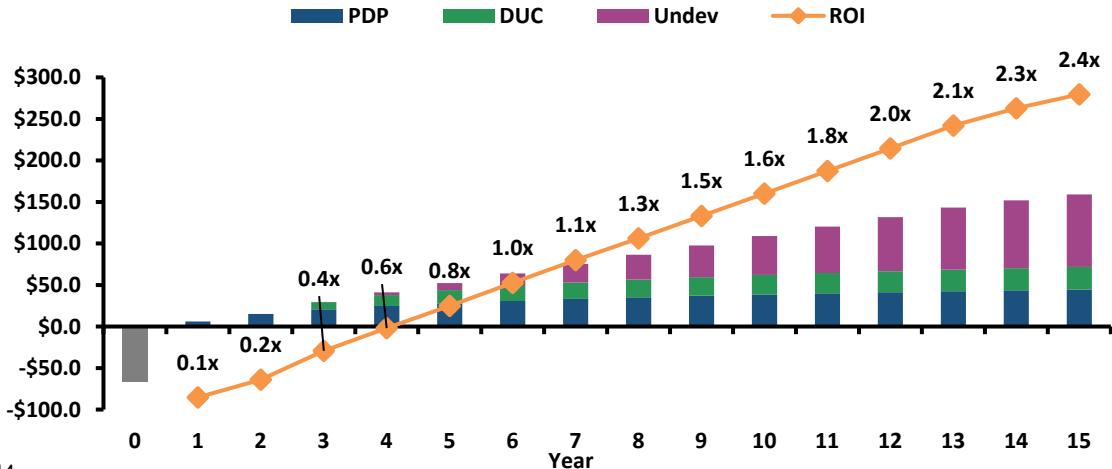
Delaware Basin (5.6 NRA)



Annual Yield



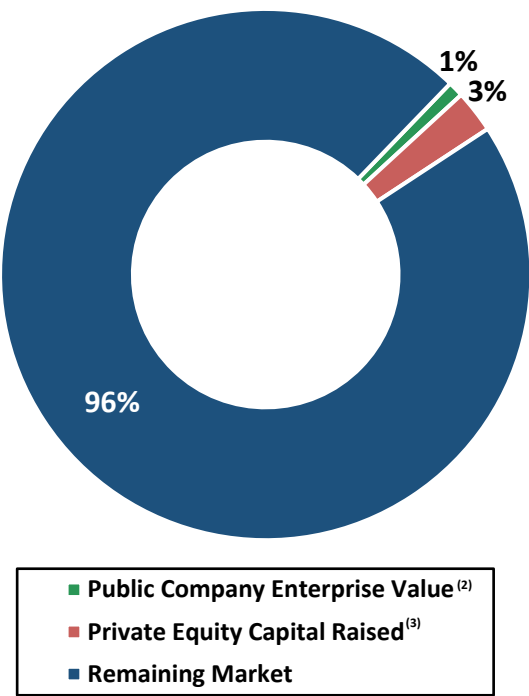
Purchase Price and Cumulative Asset Cash Flow (\$M)



The Royalty and Mineral Market is...

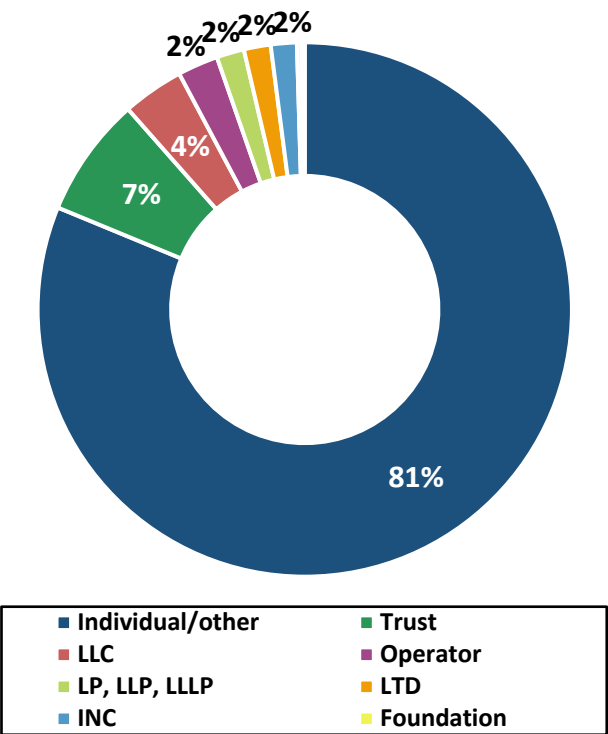
Massive...

Total Market Size⁽¹⁾: ~\$458 billion



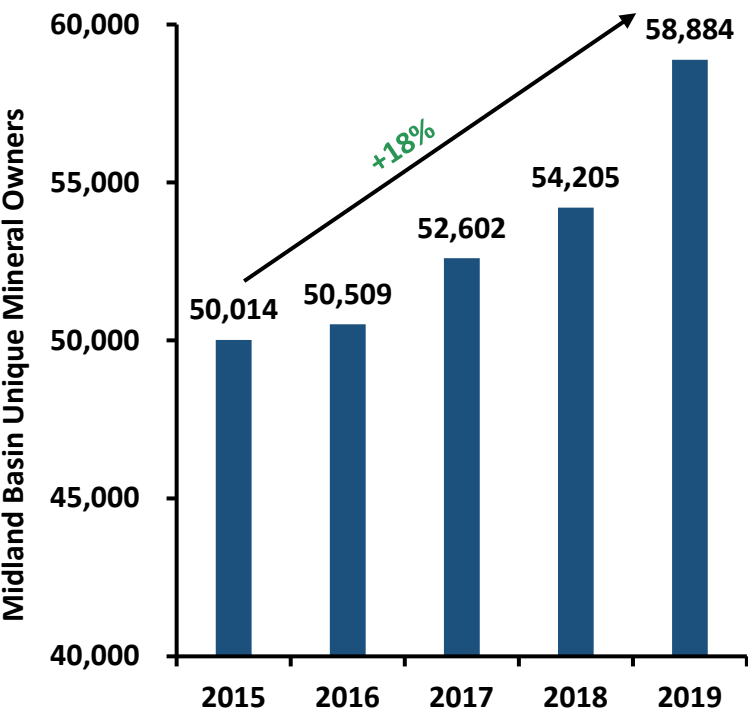
...Mostly Owned by Individuals...

Texas Permian Unique Royalty and Mineral Ownership by Type⁽⁴⁾
~110,000 unique owners in TX side of Permian Basin



...And Growing in Fragmentation

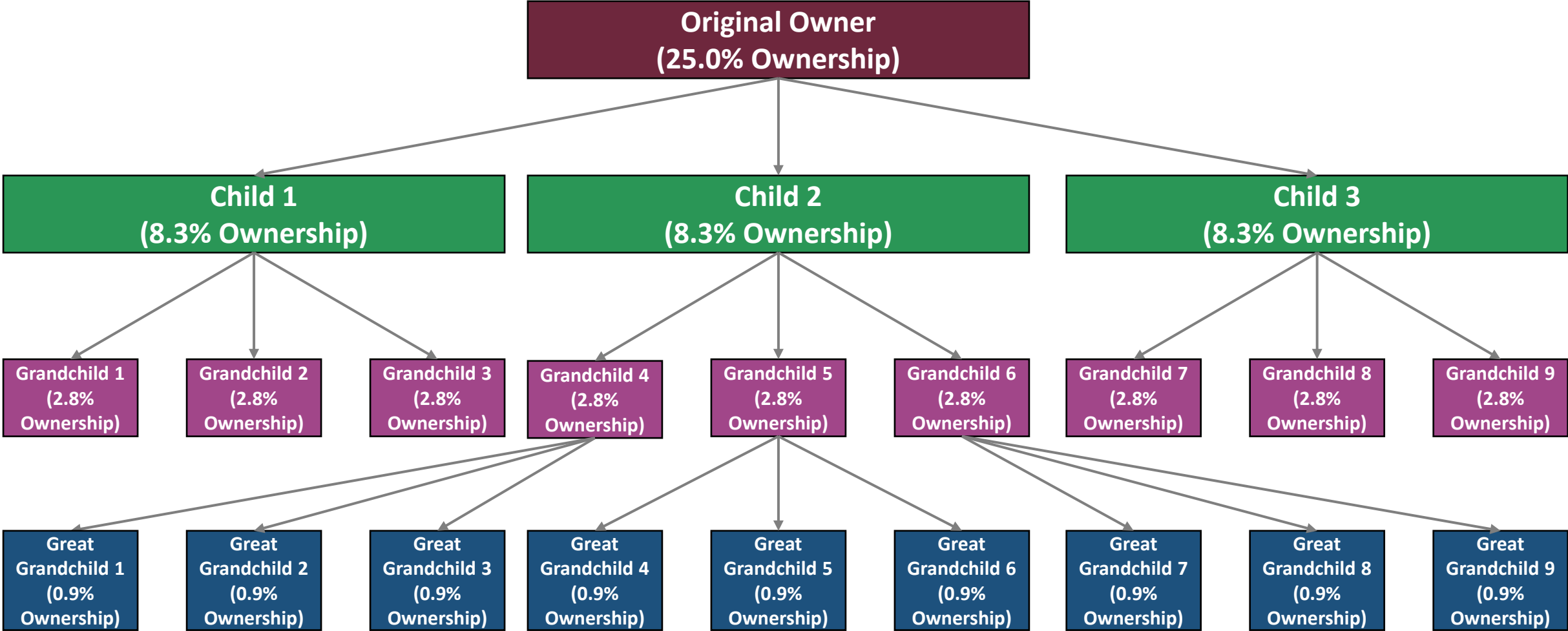
Number of Unique Mineral Owners in Midland Basin⁽⁴⁾



1) Total market size estimated to be \$458 billion based on EIA production data and the average five year strip price as of July 6, 2020. Assumes 20% of royalties are on Federal lands and there is an average royalty burden of 20%. Assumes 10x multiple on cash flows to derive total market size.
2) Enterprise values of BSM, DMLP, FLMN, KRP, MNRL and VNOM as of July 7, 2020 (~\$6 billion).
3) Estimates based on company press releases, filing and investor presentations. Represents announced capital commitments only (~\$12 billion).
4) Data per Wing Resources tax roll database. Data displayed on royalty and mineral ownership is based on count of owners of royalty and mineral interests and is not necessarily indicative of the breakout of the aggregate value of royalties and minerals held by owner type.

How Mineral Ownership Became so Fragmented

Multi-generational family mineral ownership has created highly fragmented market



NGP's Edge in the Minerals Investing Space



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NGP Believes its Platform of Management Teams, Deal Flow, Creativity and Technical Expertise Provides Meaningful Benefits to NGP Royalty Partners

NGP U.S. E&P portfolio companies



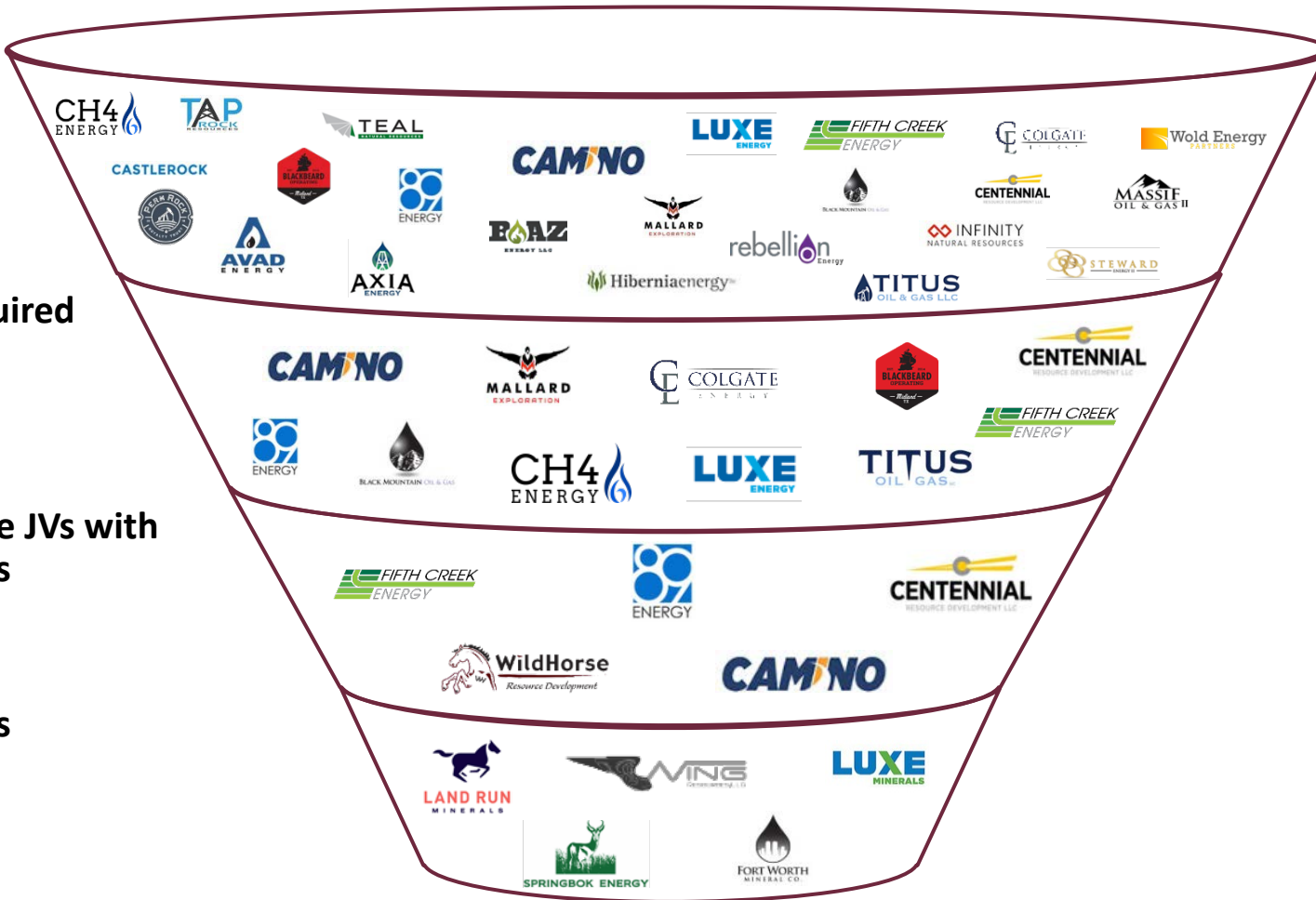
NGP E&P portfolio companies that have acquired royalties and minerals



NGP E&P portfolio companies that have done JVs with NGP royalty and mineral portfolio companies



NGP royalty and mineral portfolio companies



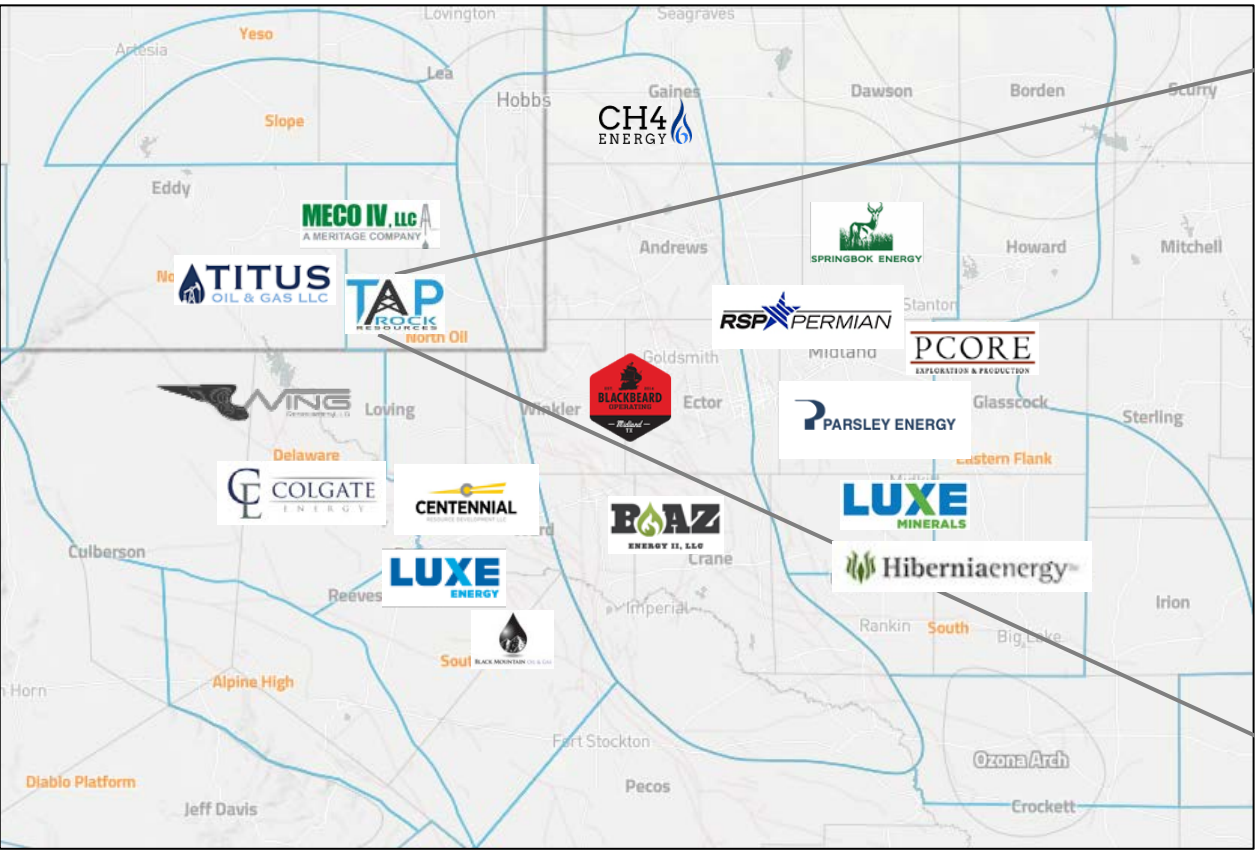
NGP believes its funnel of opportunities, management teams, deal flow, technical data, IPO optionality and market knowledge provides a significant edge to NGP Royalty Partners

Note: For illustrative purposes. See performance notes in the Appendix. There can be no assurance that NGP will be able to implement its investment strategy or achieve its investment objectives. Investments are subject to a variety of risks, uncertainties and assumptions not displayed on this slide.

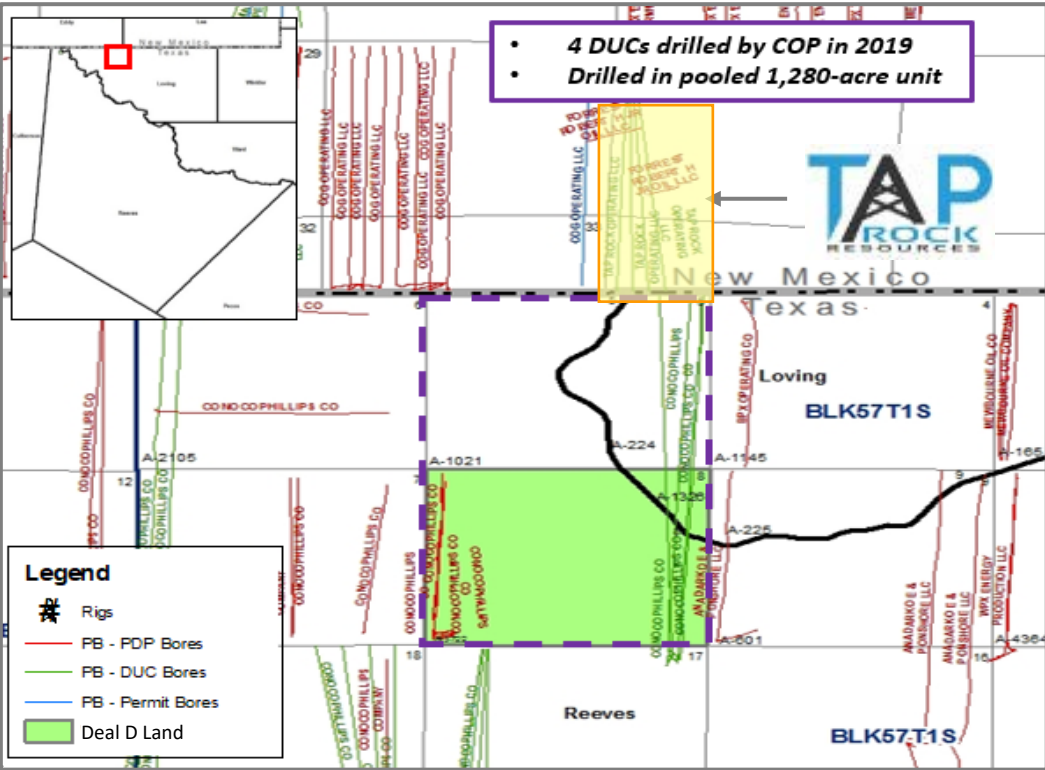
NGP's Informational Edge

NGP Royalty Partners portfolio companies are able to leverage the significant operating experience and technical, subsurface knowledge of NGP's upstream portfolio companies during deal evaluations

NGP Current and Historical Permian Basin Exposure



Wing Deal Evaluated for NGP Royalty Partners



NGP has invested ~\$2Bn in active Permian portfolio companies; those companies collectively operated 12 drilling rigs on average during 2019

NGP Has Established a Successful Track Record Investing in Royalties and Minerals

	Vintage Year	Basin Focus	Capital Invested (\$MM)	Number of Transactions	Realized Value (\$MM)	Unrealized Value (\$MM)	Gross IRR
 (Black Mountain Minerals)	2016	Midland / Delaware	\$41	126	\$65	\$0	29%
	2016	Midland / Delaware	\$200	129	\$211	\$81	27%
	2015	Diversified	\$95	602	\$89	\$29	9%
 (89 Mineral I)	2016	SCOOP / STACK / Merge	\$35	306	\$7	\$40	9%
	2017	Midland / Delaware	\$94	74	\$8	\$109	8%
	2019	Midland / Delaware	\$8	-	\$-	\$8	NM
 (Tap Rock NM10 Minerals)	2020	Midland / Delaware	\$25	1	\$-	\$25	NM
E&P Companies ⁽¹⁾	-	Diversified	\$139	608	NA ⁽²⁾	NA ⁽²⁾	NA ⁽²⁾
			\$638	1,846	\$379	\$292	16%

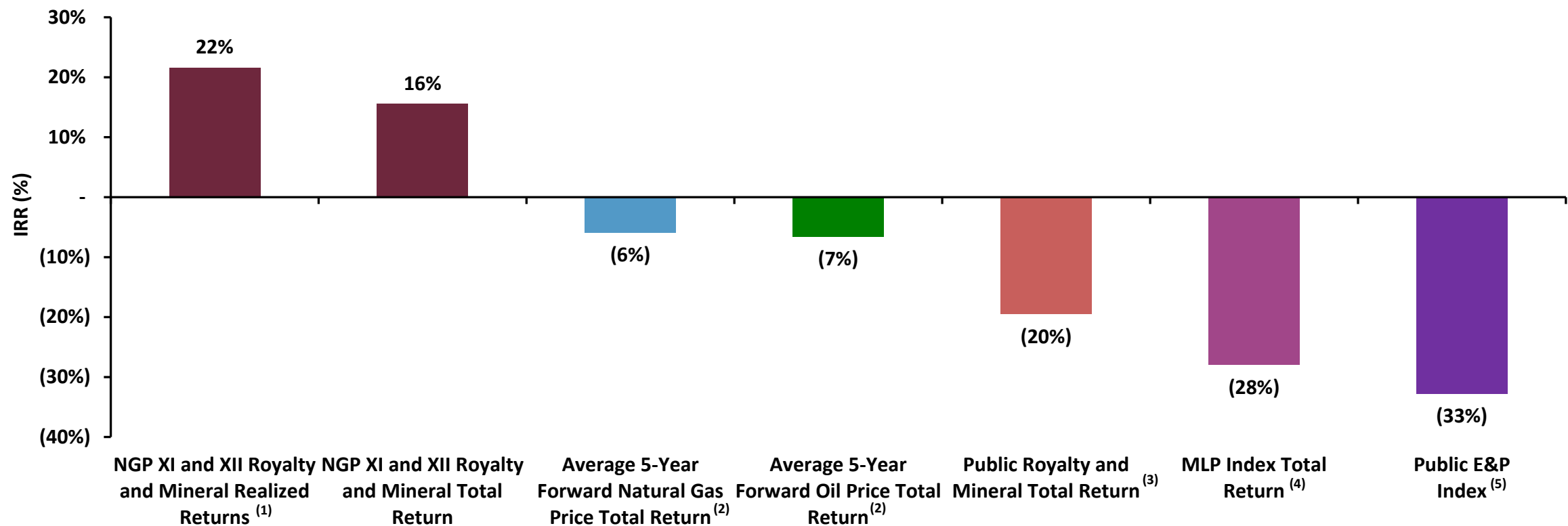
Note: Performance information as of June 30, 2020 based on unaudited financial statements. Past performance is not indicative of future results. Reflects track record of all royalty and mineral investments from all royalty and mineral portfolio companies within NGP Natural Resources XI, L.P. ("NGP XI") and NGP Natural Resources XII, L.P. ("NGP XII") as the investment criteria and general underwriting standards for these investments are most reflective of the types expected to be employed by NGP Royalty Partners, L.P. ("the Fund"). The Fund intends to apply substantially the same investment principles as it relates to royalties and minerals, except that the Fund will target assets that are more developed in nature with a higher initial yield than that of those acquired by prior NGP funds. While NGP believes that the Fund will be able to source attractive investment opportunities and it intends to apply substantially the same investment principles as the prior NGP funds, past performance is not necessarily indicative of future results and there can be no assurance that the Fund will achieve comparable results or that the Fund will be able to implement its investment strategy or achieve its investment objective. IRR is presented on a gross basis because net performance of the royalty and mineral investments cannot be calculated without making arbitrary assumptions regarding allocation of fees, expenses and carried interest to each investment. While there is no mechanism to precisely calculate net returns, a hypothetical illustration of the effect of the Fund's carried interest, fees, expenses and other charges on the aggregate gross returns of the royalty and mineral focused investments is available upon request. References to portfolio companies are not and should not be construed as a recommendation of any particular company or security.

1) Includes royalty and mineral acquisition activity conducted by 89 Energy II / Camino via LRM II, CH4 Six, Mallard Exploration, Tap Rock Resources and Titus Oil & Gas.

2) Statistics do not include realized value, unrealized value or returns for E&P companies' investments into royalties and minerals as such information is unavailable and not broken out separately from each companies' E&P activity in NGP's financial statements.

NGP's Investments in Royalties and Minerals Have Outperformed Selected Public Alternatives

Illustrative NGP Royalty and Mineral Investments vs. Selected Public Market Alternatives



Note: Performance information as of June 30, 2020 based on unaudited financial statements. Past performance is not indicative of future results. A complete list of investments made by the active funds is available in the investor dataroom. The comparisons made in this slide do not necessarily represent an appropriate benchmark to compare NGP's royalty and mineral investment performance, but rather are disclosed to allow for comparison of NGP's hypothetical royalty and mineral returns to certain well-known oil and gas metrics.

1) The NGP XI and XII Royalty and Mineral Investment Net Total Return presented in this slide is purely hypothetical and does not reflect the actual or likely results of any NGP fund. Reflects track record of all royalty and mineral investments from all royalty and mineral portfolio companies within NGP Natural Resources XI, L.P. ("NGP XI") and NGP Natural Resources XII, L.P. ("NGP XII") as the investment criteria and general underwriting standards for these investments are most reflective of the types expected to be employed by NGP Royalty Partners, L.P. ("the Fund"). Includes investments in Black Mountain Minerals, Land Run Minerals I (89 Minerals I), Luxe Minerals, Springbok I, Springbok II, Switchback, Wing I, Wing II, Wing III and Wing IV. The Fund intends to apply substantially the same investment principles as it relates to royalties and minerals, except that the Fund will target assets that are more developed in nature with a higher initial yield than that of those acquired by prior NGP funds. While NGP believes that the Fund will be able to source attractive investment opportunities and it intends to apply substantially the same investment principles as the prior NGP funds, past performance is not necessarily indicative of future results and there can be no assurance that the Fund will achieve comparable results or that the Fund will be able to implement its investment strategy or achieve its investment objective. IRR is presented on a gross basis. Realized returns includes distributions and remaining unrealized value from investments that have achieved a material exit or under PSA as of June 30, 2020. Realized investments includes Black Mountain Minerals, Wing I, Wing II, Springbok I, and Springbok II.

2) Represents hypothetical return of making pro rata investments in the weighted average WTI and Henry Hub 5-year forward curves each time NGP made an investment into Black Mountain Minerals, Land Run Minerals I (89 Minerals I), Luxe Minerals, Springbok I, Springbok II, Switchback, Wing I, Wing II, Wing III or Wing IV in amount equal to NGP's investment in each of these companies. Assumes pro rate distributions each time NGP received a distribution from the same royalty and mineral portfolio companies previously mentioned, and a hypothetical liquidation on June 30, 2020 based on the price of WTI and Henry Hub.

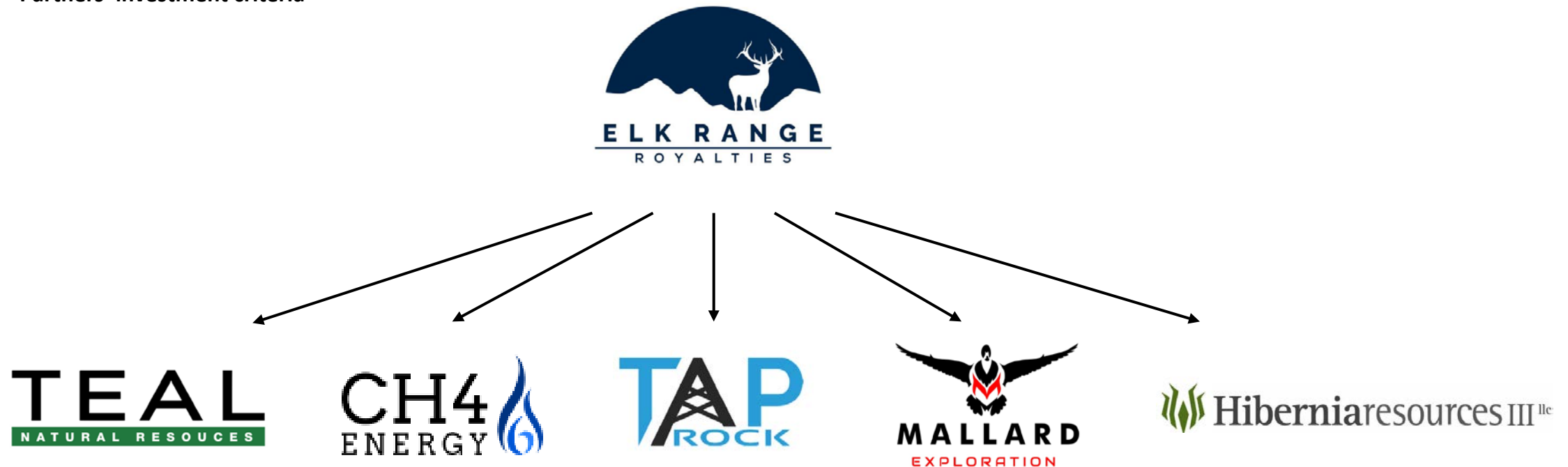
3) Represents hypothetical return of making a market cap weighted pro rata investment in BSM, DMLP, FLMN, KRP, MNRL and VNOM each time NGP made an investment into Black Mountain Minerals, Land Run Minerals I (89 Minerals I), Luxe Minerals, Springbok I, Springbok II, Switchback, Wing I, Wing II, Wing III or Wing IV in amount equal to NGP's investment in each of these companies. Assumes a hypothetical liquidation on June 30, 2020 based on the stock/unit price of each public peer.

4) Represents hypothetical return of making a market cap weighted pro rata investment in the Alerian MLP ETF each time NGP made an investment into Black Mountain Minerals, Land Run Minerals I (89 Minerals I), Luxe Minerals, Springbok I, Springbok II, Switchback, Wing I, Wing II, Wing III or Wing IV in amount equal to NGP's investment in each of these companies. Assumes a hypothetical liquidation on June 30, 2020 based on the share price of the Alerian MLP ETF.

5) Represents hypothetical return of making a market cap weighted pro rata investment in the S&P Oil & Gas Exploration & Production ETF each time NGP made an investment into Black Mountain Minerals, Land Run Minerals I (89 Minerals I), Luxe Minerals, Springbok I, Springbok II, Switchback, Wing I, Wing II, Wing III or Wing IV in amount equal to NGP's investment in each of these companies. Assumes a hypothetical liquidation on June 30, 2020 based on the share price of the S&P Oil & Gas Exploration & Production ETF.

NGP Drillbit Partners / Elk Range Royalties Overview

- NGP Drillbit Partners / Elk Range Royalties has been formed as a portfolio company of NGP Royalty Partners established to directly acquire royalty and mineral interests through joint venture arrangements with NGP's operated E&P portfolio companies and through organic, third-party deal flow
- Elk Range is managed by a management team located in NGP's Dallas office that is integrated with NGP investment professionals
 - NGP provides back office and financial analysis support for Elk Range to further reduce the company's cost structure
- Elk Range has access to the experience and data within NGP and NGP portfolio companies it forms JVs with (development trends, data on geology, production, pricing and title) that it leverages when sourcing and evaluating royalty and mineral acquisition opportunities that meet NGP Royalty Partners' investment criteria

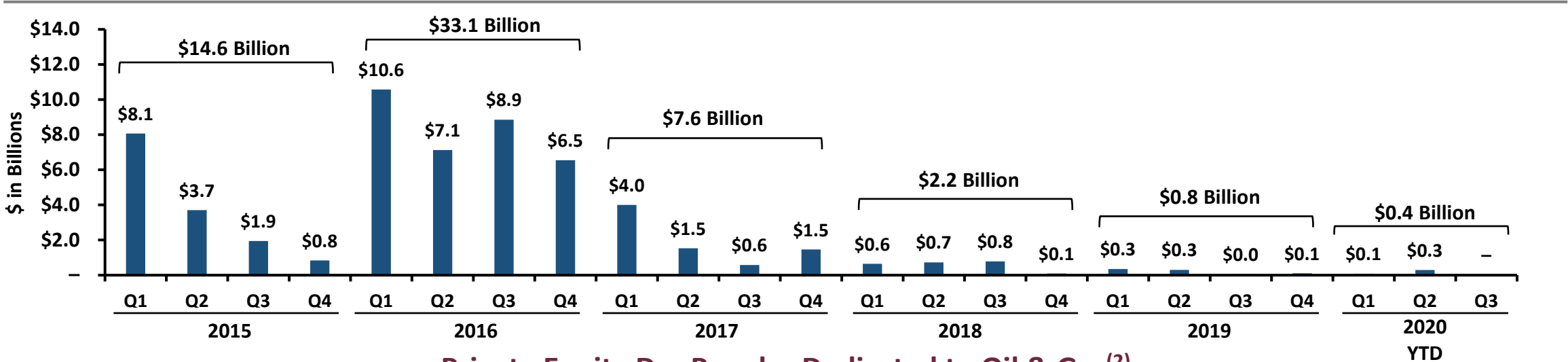


Joint ventures with NGP E&P portfolio companies seek to enhanced deal flow and superior underwriting to other royalty and mineral acquisition platforms

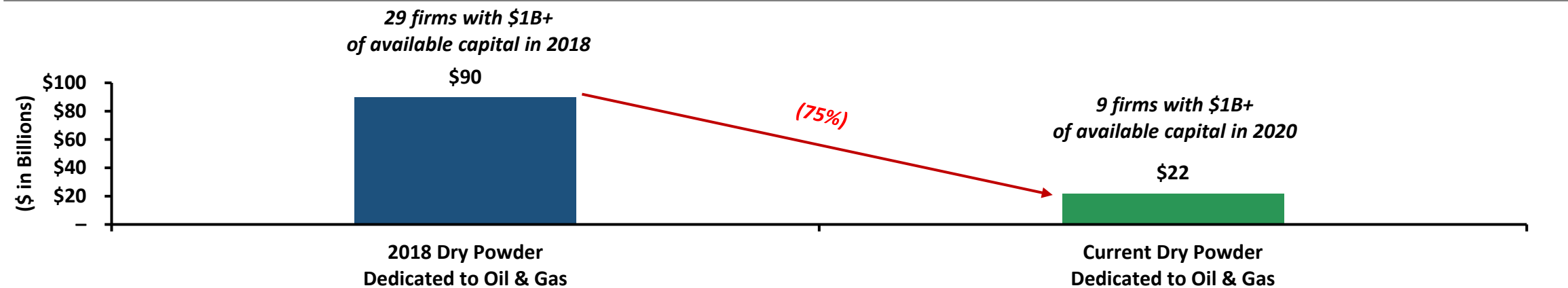
NGP Believes Capital Scarcity has Improved the Investment Opportunity

NGP Royalty Partners will be one of only a few sophisticated, well capitalized buyers of core lower risk, cash yielding royalties and minerals at a time when liquidity options for sellers will be limited

U.S. E&P Equity Issued by Quarter⁽¹⁾



Private Equity Dry Powder Dedicated to Oil & Gas⁽²⁾



Note: There can be no assurance that any projections will ultimately materialize or that historical trends will continue during the life of any NGP fund. Numbers may not sum due to rounding.
(1) Dealogic as of July 2020.
(2) RBC Weekly E&P Monitor (dated April 13, 2020 – April 19, 2020).

NGP Royalty Partners Deals Closed or Under Contract

NGP Royalty Partners has called capital to close on ~\$33 million of acquisition opportunities across seventeen deals and is evaluating a large backlog of attractive acquisition opportunities

Royalty Fund Deals Closed or Under Contract

Deal #	Portfolio Company	Close Date	Counties	NRA (1/8th)	Primary Operator	Acquisition Price	Headline \$/NRA	PDP PV10 + DUC PV12	Current/NTM Yield	Year 2 Yield	Year 3 Yield
1	Wing V	7/31/20	Loving	5.6	EOG	\$60,000	\$10,714	\$46,974	7.5%	8.0%	20.0%
2	Wing V	7/15/20	Eddy	10.9	Exxon (XTO)	\$225,000	\$20,715	\$136,125	0.4%	1.0%	40.5%
3	Wing V	8/7/20	Eddy	25.6	Exxon (XTO)	\$640,000	\$25,000	\$236,663	0.2%	—	23.4%
4	Wing V	7/21/20	Eddy	70.3	Exxon (XTO)	\$1,476,132	\$21,000	\$1,465,587	5.2%	3.0%	41.0%
5	LRM III	8/7/20	Midland	37.7	Pioneer	\$659,294	\$17,505	\$571,611	27.3%	15.0%	11.0%
6	Wing V	8/31/20	Eddy	24.6	Mewbourne	\$332,640	\$13,522	\$208,233	4.0%	4.0%	30.4%
7	Wing V	7/29/20	Lea	30.2	Marathon	\$650,000	\$21,523	\$510,900	—	—	49.9%
8	Elk Range Royalties	8/27/20	Weld	61.2	Crestone Peak	\$674,000	\$11,006	\$683,000	12.2%	24.0%	41.0%
9	Wing V	9/1/20	Lea	17.6	Kaiser-Francis	\$352,160	\$20,009	\$302,021	—	37.0%	28.0%
10	LRM III	9/15/20	Lea	37.0	CXO	\$513,630	\$13,882	\$508,000	21.5%	19.0%	17.0%
11	LRM III	7/29/20	Stephens	86.4	CLR	\$166,339	\$1,925	\$166,744	—	—	16.0%
12	Wing V	10/31/20	Eddy/Lea	2,114.3	Exxon (XTO)	\$26,700,000	\$12,628	\$10,163,265	9.0%	13.0%	21.0%
13	Wing V	10/31/20	Loving	10.7	Shell	\$149,240	\$13,948	\$109,727	12.0%	21.0%	13.0%
14	Elk Range Royalties	10/23/20	Howard	15.4	Birch	\$361,900	\$23,500	\$238,000	—	0.8%	33.0%
15	Elk Range Royalties	11/8/20	Duchesne	21.7	CH4	\$43,333	\$2,000	\$49,833	15.0%	30.1%	42.2%
16	Elk Range Royalties	11/13/20	Howard	7.6	Birch	\$178,910	\$23,501	\$117,658	—	0.8%	33.4%
17	Elk Range Royalties	11/30/20	Martin	8.5	Birch	\$266,200	\$31,318	\$307,000	4.3%	18.6%	48.7%
Total				2,585.2		\$33,448,778	\$12,938	\$15,821,341	8.7%	12.3%	23.3%

Note: Deals are representative of potential Royalty Fund deals currently being evaluated, under contract or soon to be under contract. There can be no assurance that these deals will be included in NGP Royalty Partners. Assumes each deals meets NGP Royalty Partners' investment criteria. Projections and valuation based on management team engineering and forecast. No assurance can be made that the projections will be realized.

NGP's Role in Energy Transition



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Executive Summary

Unmatched Longevity and Track Record Across Energy

- NGP has a 32-year track record of investing exclusively in the energy industry across 12 flagship funds, with consistent performance through multiple industry downturns

One of the Longest Track Records in Renewables and Energy Technology

- NGP ETP is one of the only private investment firms with a 15-year track record of profitably investing in the renewables and energy technology sector

Experience Through Prior Energy Transformations

- The energy industry is constantly evolving – NGP has invested successfully in dramatic industry transformations over the last three decades – from the deregulation of the natural gas industry to the emergence of MLPs to the modern shale revolution

Accelerating Factors of the Energy Transition

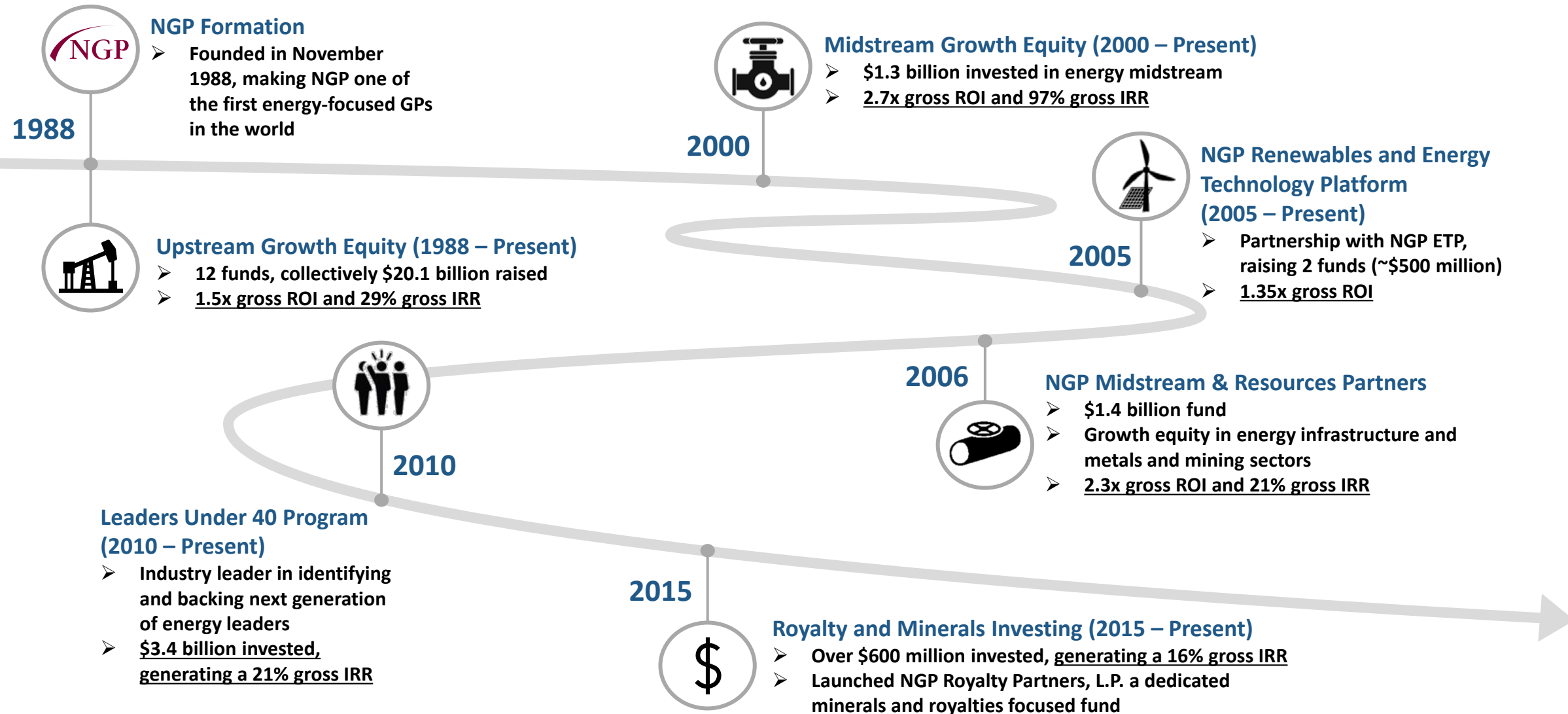
- We observe a convergence of factors that will accelerate and reinforce the current energy transition, including (1) the economic competitiveness of solar and wind relative to fossil fuel generation, (2) the maturity of critical enabling and complimentary technologies including energy storage, EVs and AI/ML/IoT and (3) a global desire and commitment on the part of governments, corporations and consumers to decarbonize the economy

The Dual Challenge

- At the same time, our energy systems will need to expand to (a) keep up with growing global energy demand and (b) increase access to affordable, reliable, sustainable energy in lesser developed parts of the world to improve quality of life

NGP brings a unique perspective informed by 32 years of investing across all areas of the energy business – we believe our experience, relationships and credibility will be differentiated and invaluable as we invest capital in the current energy transition

NGP Has a 32 Year Track Record of Innovation in Energy Markets...

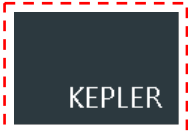


Note: Return information as of June 30, 2020 unaudited financial statements. NGP ETP performance information represents actual capital called and distributed through August 31, 2020, remaining value as of June 30, 2020 (adjusted for subsequent distributions), and illustrative projected value. Past performance is not indicative of future results.

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NGP Has a Proven Track Record in Energy Technology and Renewables

NGP has a long and successful history and deep experience investing in energy technology and renewables, having profitably invested nearly \$500 million in the sector since 2005 via NGP Energy Technology Partners I, II and III



Represents NGP ETP III investment.

NGP Has a Proven Track Record in Energy Technology and Renewables

- **NGP is one of the most experienced investors in renewables, energy technology, and other sectors associated with the current energy transition: 15-year track record, three dedicated investment platforms, nearly \$500 million invested, and an average gross ROI of 1.5x**
 - **NGP Energy Technology Partners III (“NGP ETP III”), NGP’s current investment platform, has already made four investments and has an active backlog in excess of \$1 billion**
 - **NGP ETP III is currently marked at a 3.1x gross ROI compared to a 1.4x⁽¹⁾ for comparable public companies over the same period**
 - **NGP Energy Technology Partners II, L.P. (“NGP ETP II”) and NGP Energy Technology Partners I, L.P. (“NGP ETP I”) stand out as profitable renewables and energy technology funds during a period when investors suffered significant losses in these sectors**
 - **NGP ETP II, raised in 2008, is marked at 1.4x gross ROI and is projected to deliver a 1.8x gross ROI (1.4x net), as compared to a 0.77x⁽¹⁾ for comparable public companies over the same period**
 - **NGP ETP I, raised in 2005, is fully realized with a 1.23x gross ROI (1.02x net) and a 3% gross IRR (0% net), as compared to a 0.32x⁽¹⁾ for comparable public companies over the same period**
- **NGP knows of no other firm that has a 15-year track record of investing profitably in the energy transition. NGP’s energy transition investments have significantly outperformed on a relative basis, and NGP believes that historic headwinds have turned, creating a compelling investment opportunity, which NGP has the experience and track record to take advantage of**

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Note: NGP ETP performance information represents actual capital called and distributed through August 31, 2020, remaining value as of June 30, 2020 (adjusted for subsequent distributions), and illustrative projected value. NGP ETP III assumes closing of business combination transaction. Based on \$13.48 SBE and \$4.19 SBE. WS closing prices as of 9/25/2020. Includes value of 886,248 earnout shares which are contingent on SBE stock achieving a VWAP of \$12.00 or greater for any 10-trading days within a 20-trading day period post-closing. Includes warrants to be received upon conversion of loan from Switchback Sponsor to SBE. Past performance is not indicative of future results.

1) Represents hypothetical return of making a market cap weighted pro rata investment in the WilderHill Clean Energy Index (BWH) each time a capital call was made by NGP ETP I, II, and III in amount equal to the capital call. Assumes a hypothetical liquidation on August 31, 2020 based on the stock price of BWH.

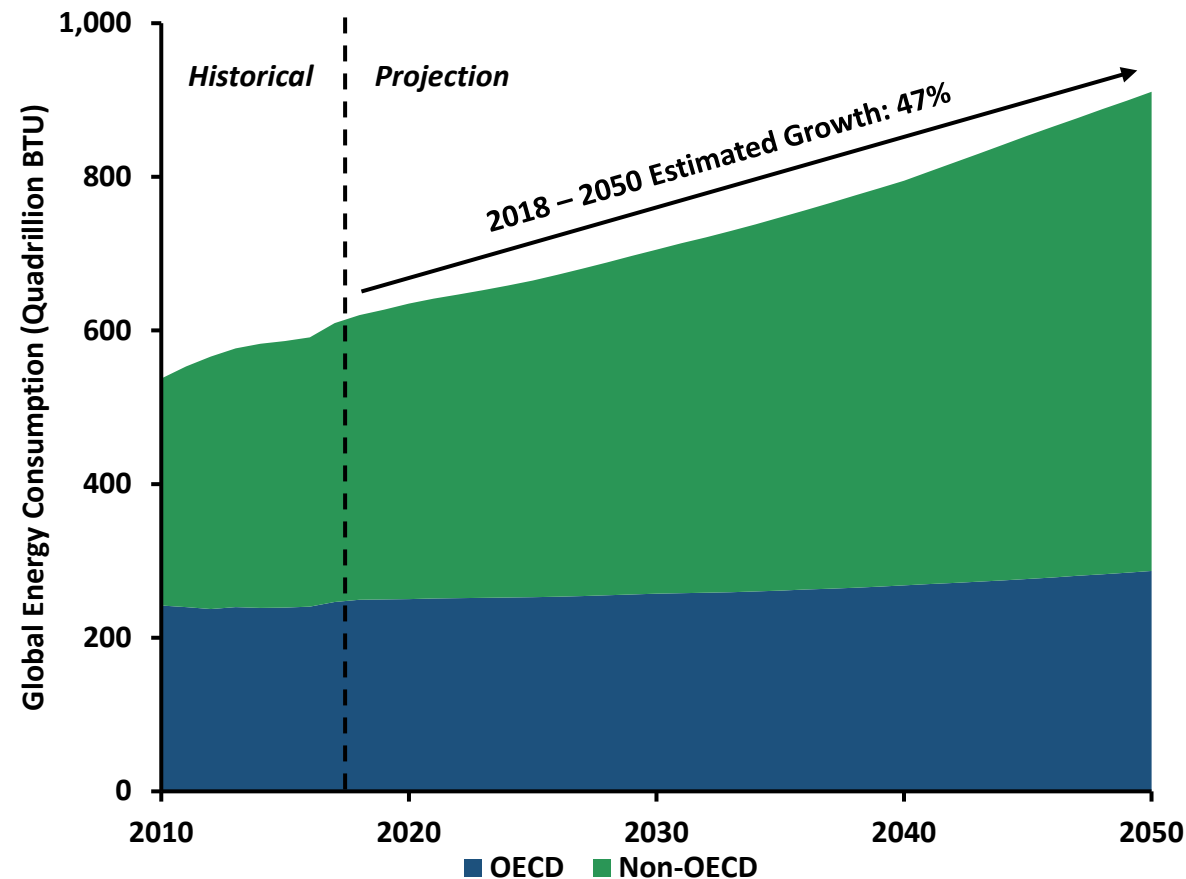
CONFIDENTIAL MATERIALS REMOVED

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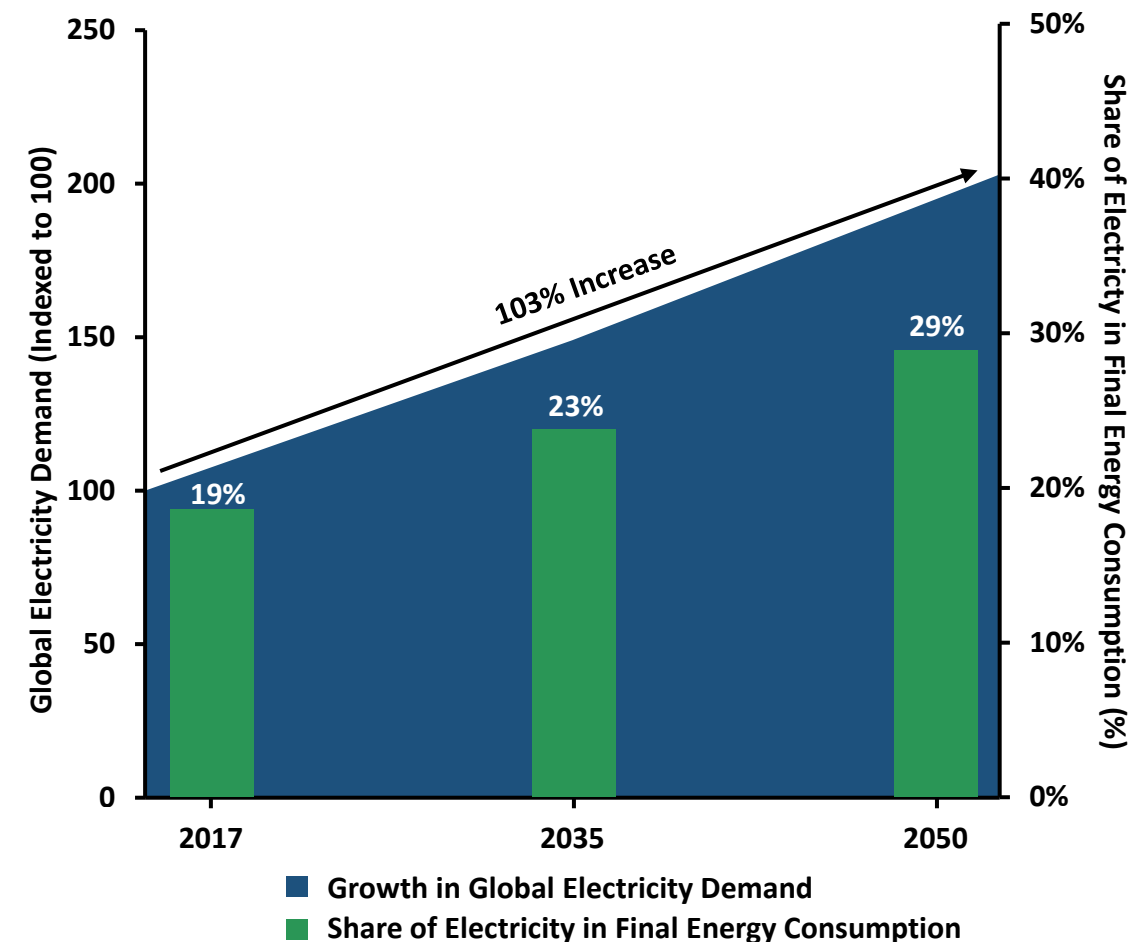
Energy Transition – Global Energy Demand Will Continue to Grow

Population growth and higher living standards in emerging economies will drive substantial energy demand growth in the coming decades and the electrification of the economy will lead to a 2x in global electricity demand over the same period

Global Energy Consumption



Global Electricity Demand

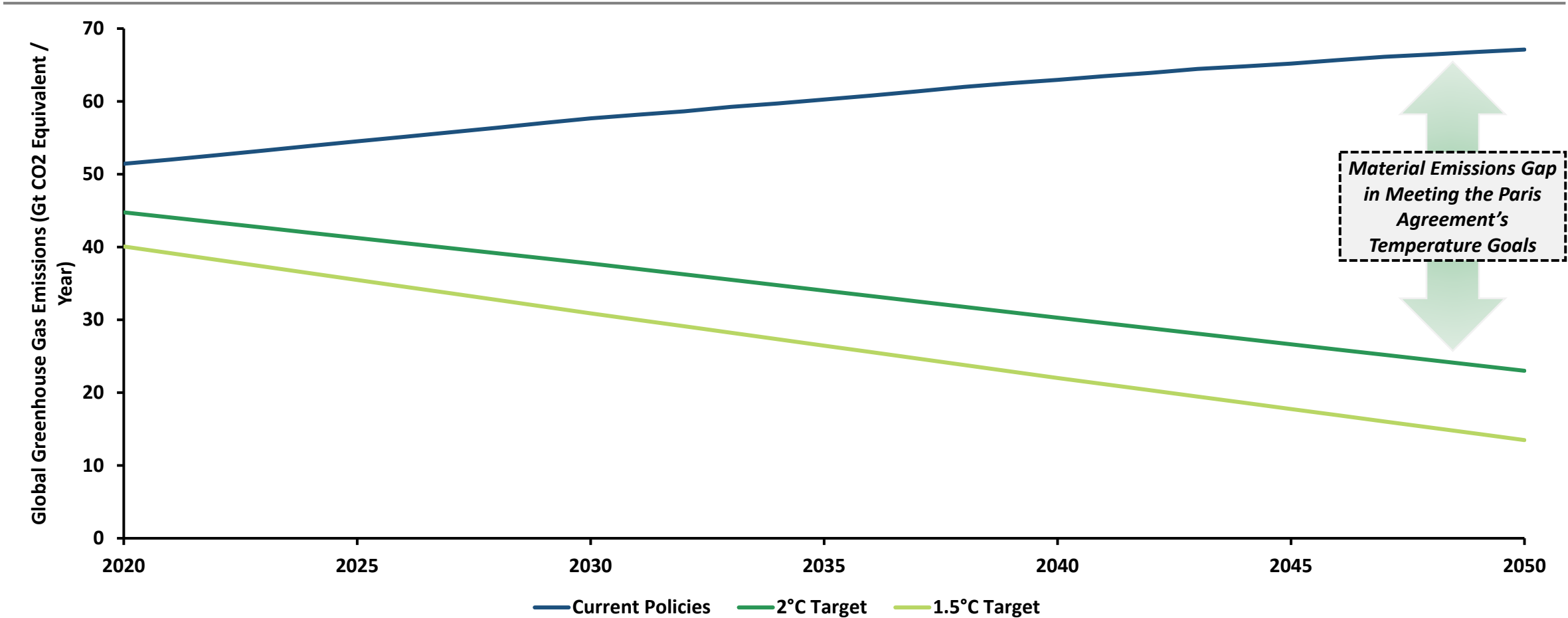


Source: EIA, "International Energy Outlook 2019" (September 2019) EIA, "Monthly Energy Review" (September 2019), McKinsey, "Global Energy Perspective 2019" (2019).

Energy Transition – In Status Quo Scenarios, Global Emissions Will Continue to Rise

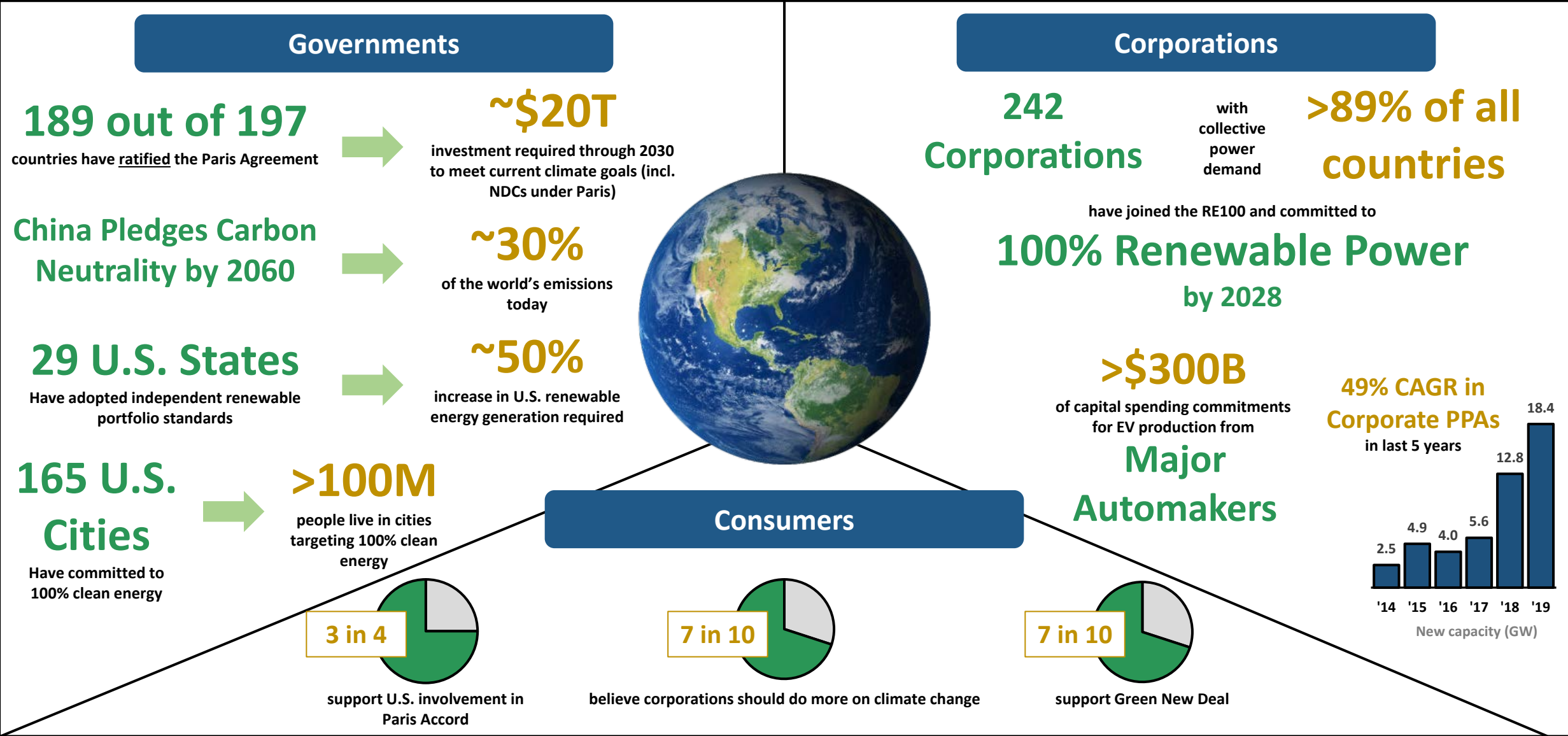
Population growth and higher living standards will also drive increases in greenhouse gas emissions; in the status quo scenario, global greenhouse gas emissions remain materially above Paris Agreement target levels

Global Greenhouse Gas Emissions Scenarios



Source: Climate Action Tracker Project (2017).

Energy Transition - Broad-Based Commitments to Combat Climate Change



Source: United Nations, "Paris Agreement – Status of Ratification" (August 2020); Database of State Incentives for Renewables & Efficiency (June 2019); BNEF, "RE100 Data Viewer" (July 2020); RE100, "Annual Report (December 2019)"; BNEF, "2H 2020 Corporate Energy Market Outlook" (August 2020); Yale Program on Climate Change Communication, "Politics and Global Warming" (April 2020); IRENA, "Global Renewables Outlook – 2020" (2020); Sierra Club, "Ready for 100" (2020); BCG, "Who Will Drive Electric Cars to the Tipping Point (January 2020).

Energy Transition – Climate Headlines and Commitments Are Accelerating

The frequency and materiality of climate-related headlines have noticeably increased in 2020, a trend that we expect to continue



January 2020 – Microsoft pledges *carbon negative* by 2030, \$1 billion Climate Innovation Fund



February 2020 – BP sets goal to become a net zero company by 2050



April 2020 – Shell sets goal to become a net zero company by 2050

chargepoint



Summer 2020 – ChargePoint and several EV OEMs announce plans to go public through initial business combinations with SPACs



June 2020 – Amazon announces \$2 billion Climate Pledge Fund



June 2020 – Lyft pledges to shift to 100% EVs by 2030



July 2020 – Biden campaign announces \$2 trillion proposal to combat climate change



September 2020 – Google announces aim to power data centers and offices using carbon-free electricity by 2030



September 2020 – Facebook announces plan to launch a new information hub to provide users with “science-based information” about climate change



September 2020 – Uber pledges to shift to 100% EVs in U.S., Canada, and Europe by 2030



September 2020 – European Commission proposes to raise the EU’s 2030 GHG emission reduction target from 40% to 55%



September 2020 – Walmart announces plan to reach zero emissions by 2040 without the use of offsets



September 2020 – Morgan Stanley announces commitment to eliminate net emissions generated by its financing activities by 2050



September 2020 – California Gov. Newsom signs executive order banning sale of gasoline-powered passenger vehicles by 2035

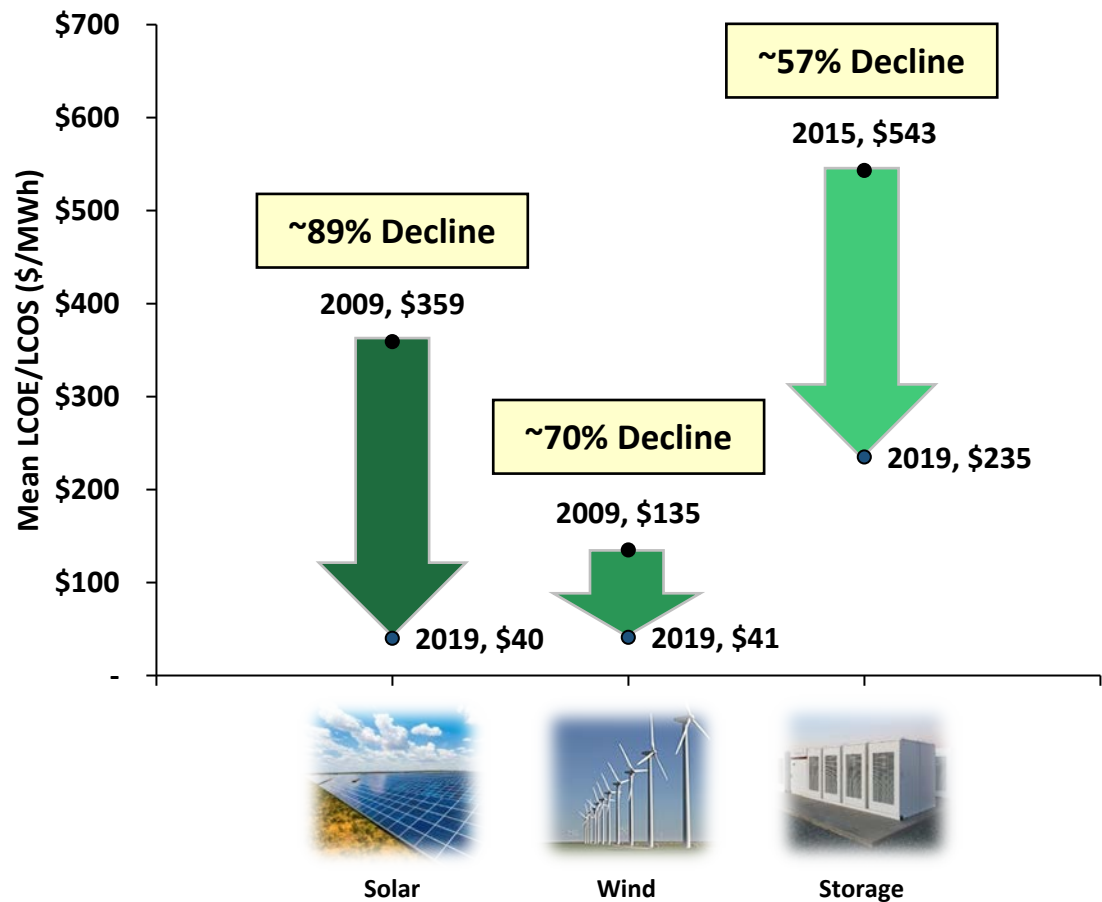


September 2020 – China pledged peak emissions before 2030 and carbon neutrality before 2060

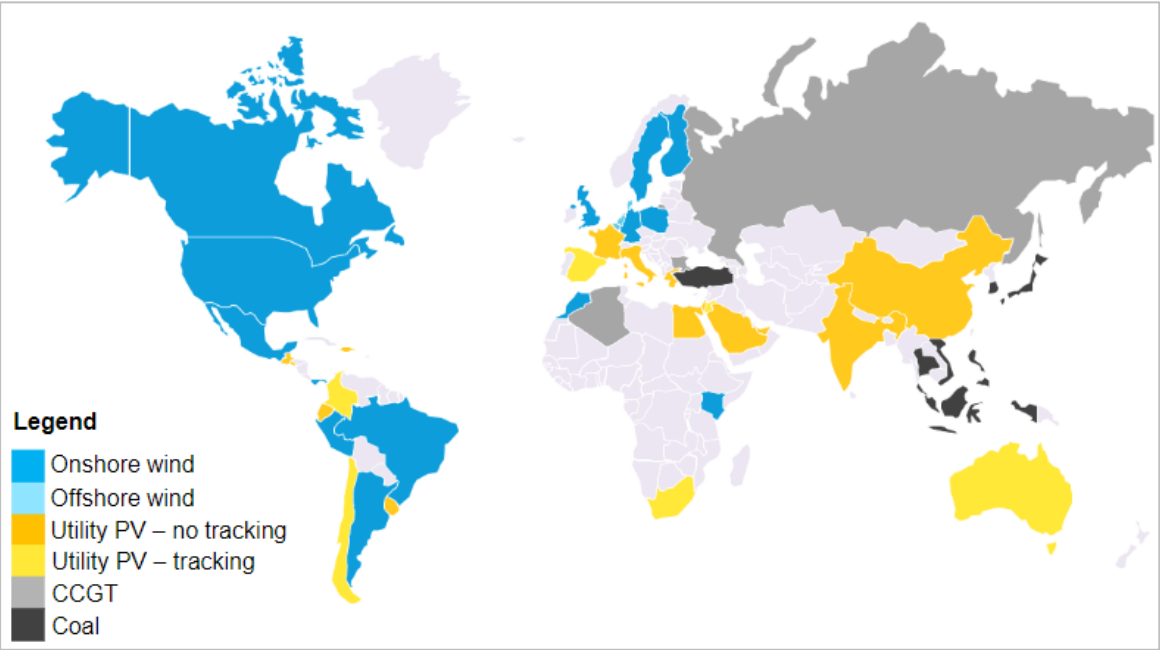
Declining Costs of Clean Energy Technologies

Utility scale solar and wind are now the lowest-cost source of new-build generation for markets serving ~67% of the global population, and lithium-ion storage costs are declining rapidly, furthering the competitiveness of decarbonized renewable generation

Unsubsidized Levelized Cost of Energy



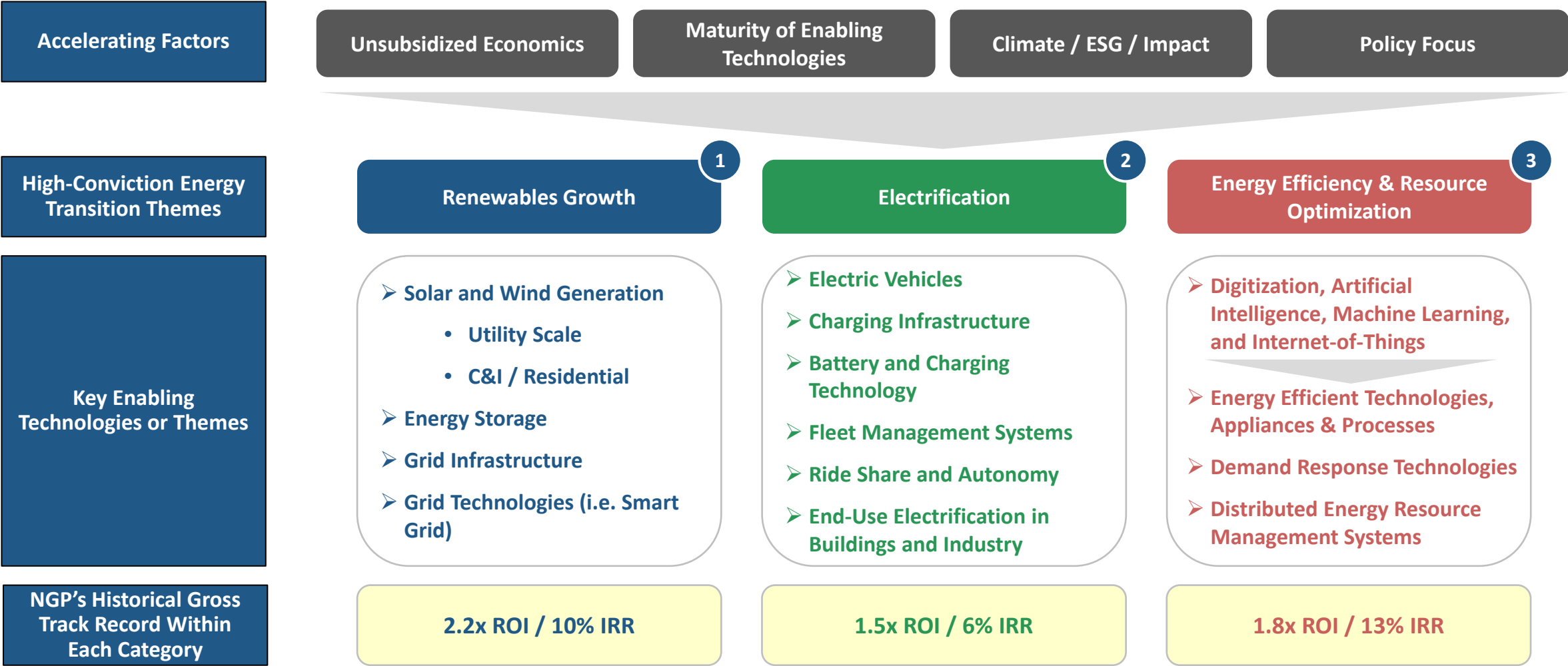
Cheapest Source of New Generation



Source: Lazard, “Lazard’s Levelized Cost of Energy Analysis – Version 13.0” (2019); Lazard, “Lazard’s Levelized Cost of Storage Analysis – Version 5.0” (2019); BNEF, “BNEF Executive Factbook” (April 2020); BNEF, “BNEF 2H 2019 LCOE Update” (October 2019).

The Energy Transition is Underway

The convergence of accelerating factors will disproportionately benefit certain transition themes and technologies, creating unique investment opportunities for experienced investors

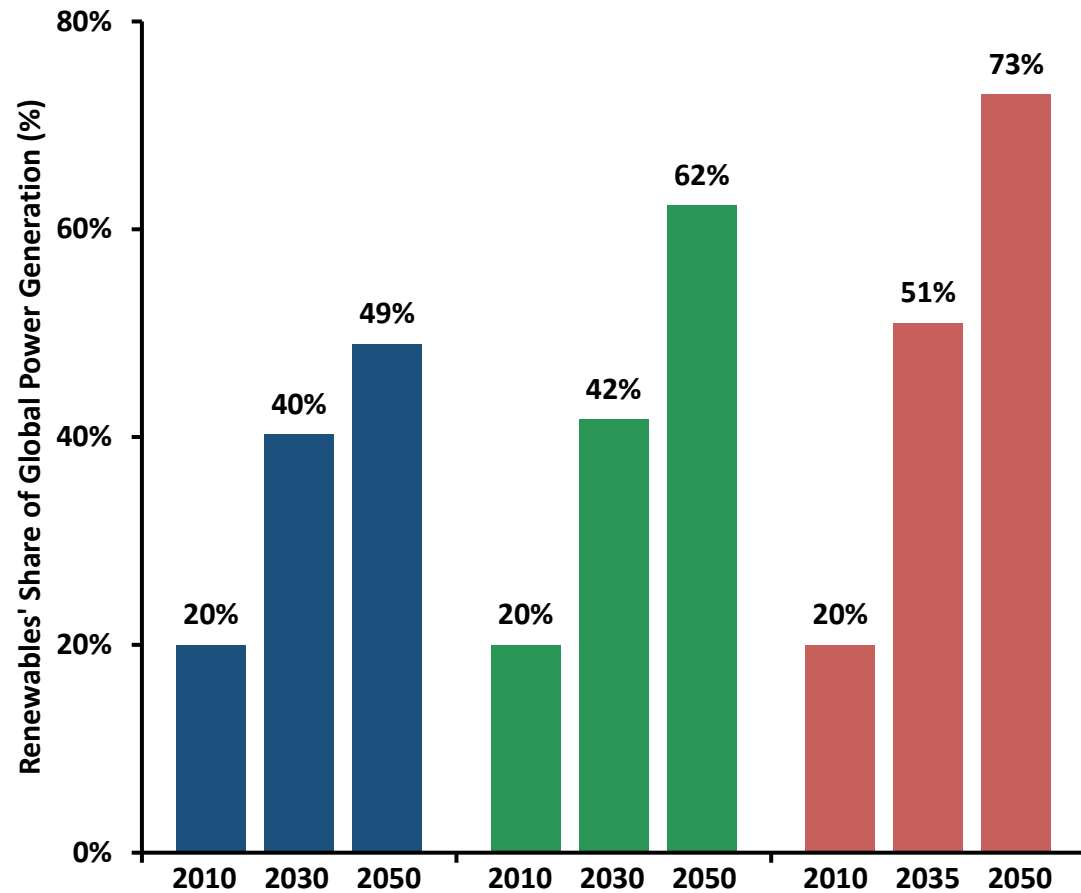


Note: Performance information represents actual capital called and distributed through August 31, 2020 and remaining value as of June 30, 2020 (adjusted for subsequent distributions). Past performance is not indicative of future results.

1 We Believe Renewables Growth Will Continue to Be Extraordinary

Projected Global Renewable Generation Growth⁽¹⁾⁽²⁾

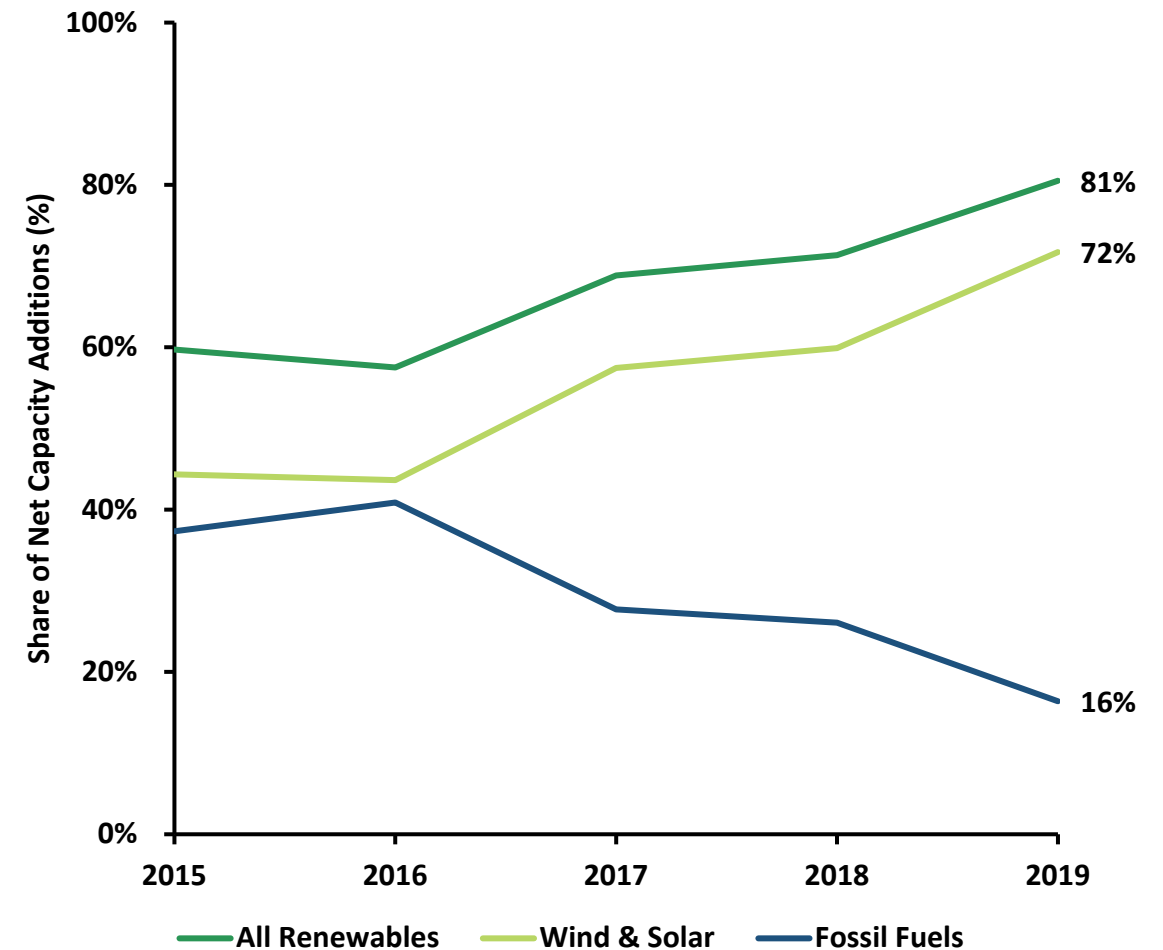
While projections may differ, there's no debating that the next several decades will be characterized by massive growth in renewable generation capacity



Source: ■ EIA ■ Bloomberg New Energy Finance ■ McKinsey

Global Power Generation Capacity Additions

Renewables already represent greater than 70% of global net capacity additions today



— All Renewables — Wind & Solar — Fossil Fuels

Source: EIA, "International Energy Outlook 2019" (September 2019), Bloomberg New Energy Finance ("BNEF"), "New Energy Outlook 2019" (June 2019), McKinsey, "Global Energy Perspective 2019" (2019), BNEF, "BNEF Executive Factbook" (April 2020).

1) Renewables includes wind, solar and hydropower.

2) There can be no assurance that any projections will ultimately materialize or that historical trends will continue during the life of any NGP fund.

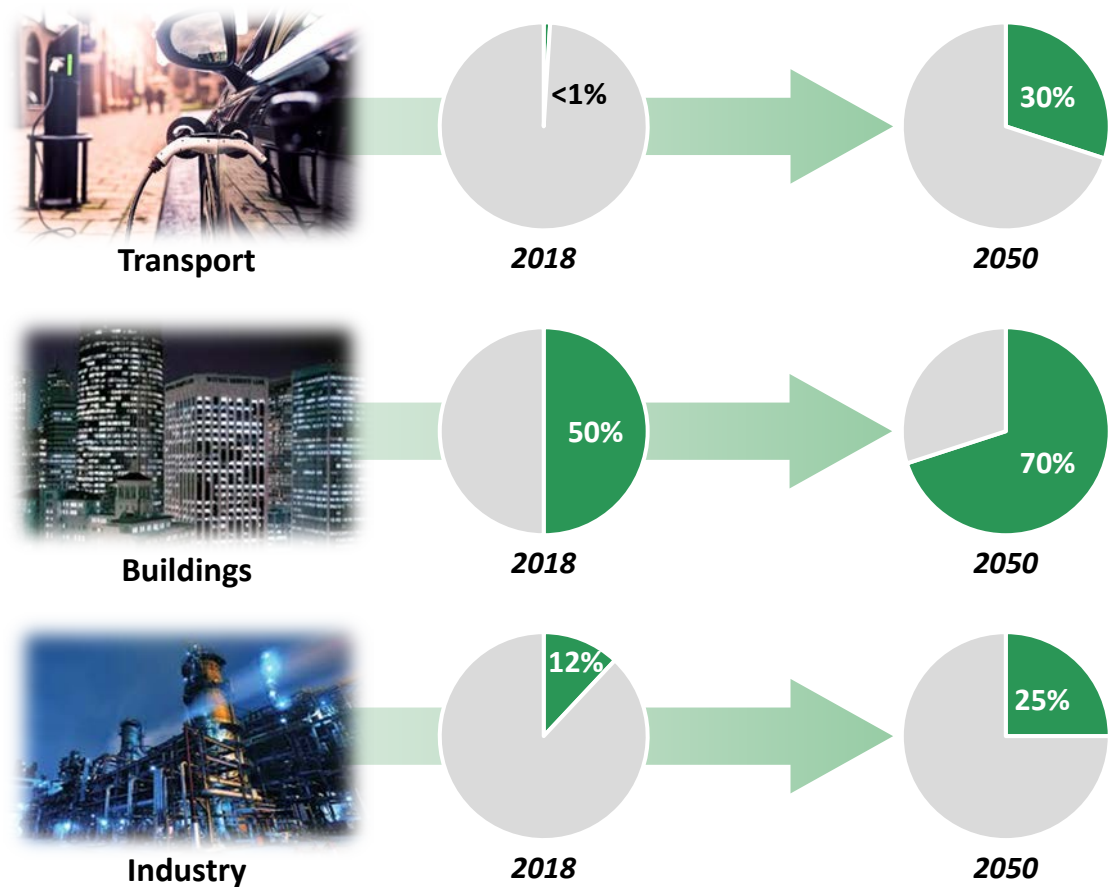
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2 Electrification Will Expand Dramatically

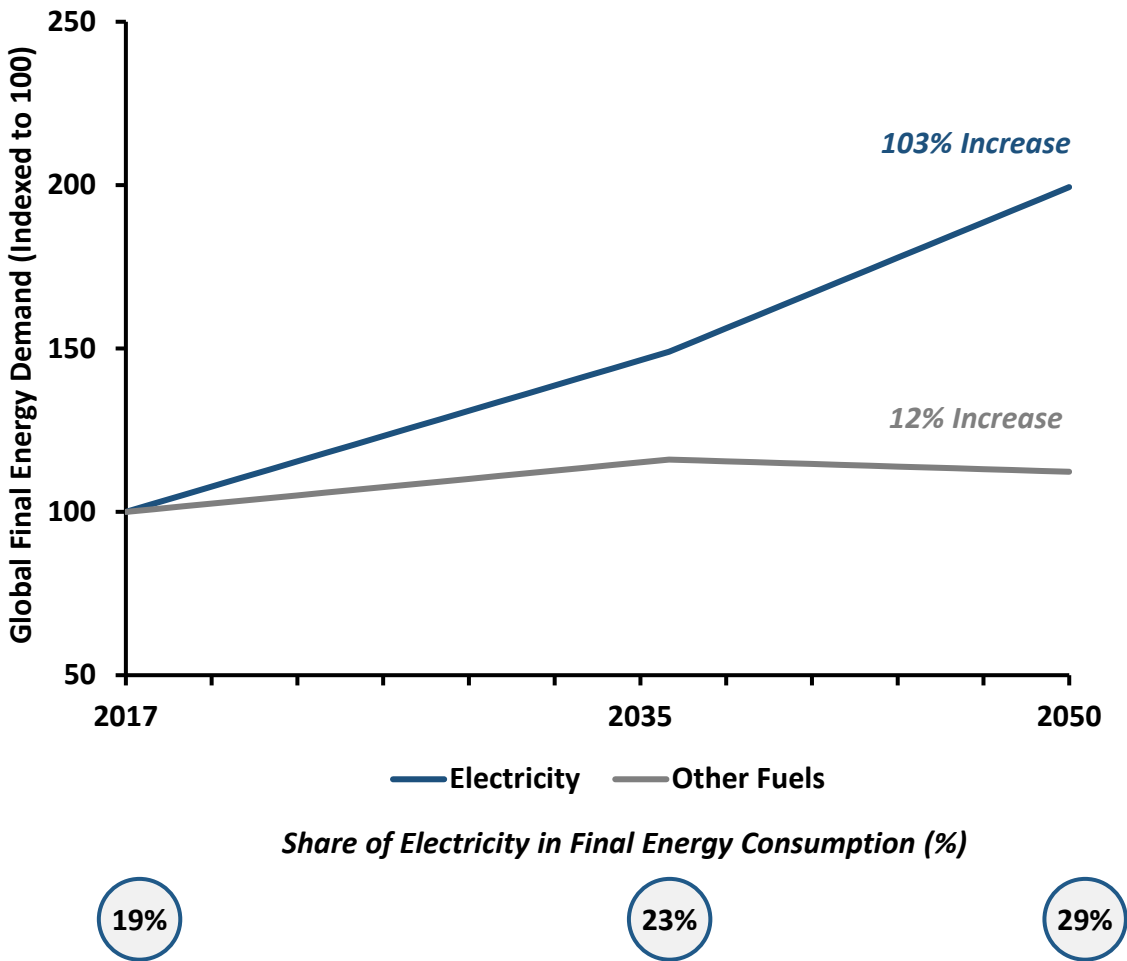
Electricity demand is projected to double by 2050, driven by the electrification of transport, buildings and industry. This growth in electricity demand will expand the reach of clean power generation

Projected Electrification by Sector⁽¹⁾

Share of Electricity in Final Energy Consumption by U.S. Sector



Global Final Energy Demand



Source: EIA, "Monthly Energy Review" (September 2019), McKinsey, "Global Energy Perspective 2019" (2019).

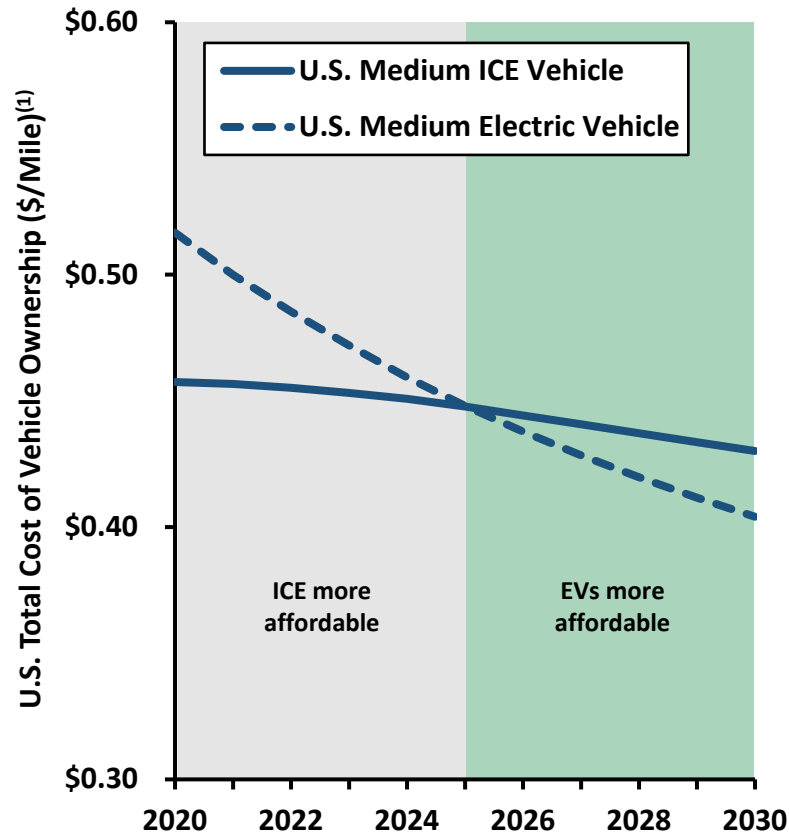
(1) There can be no assurance that any projections will ultimately materialize or that historical trends will continue during the life of any NGP fund.

2 Electrification of Transportation: A Defining Theme of the Energy Transition

Electric vehicles will change the way we travel, use electricity and interact with the grid

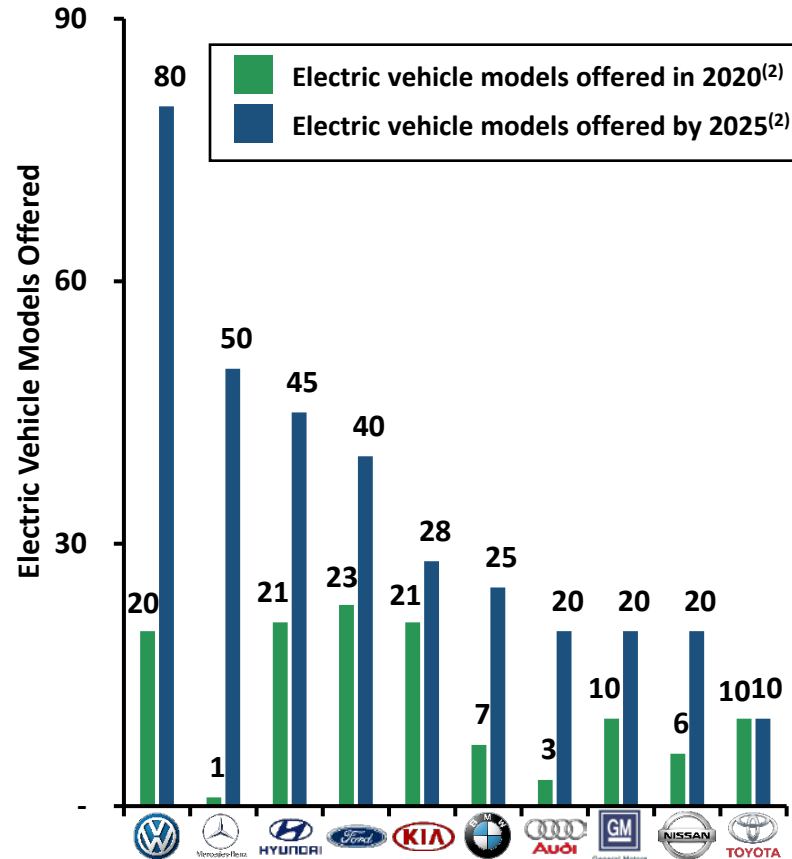
Total Cost of Vehicle Ownership Falling

As battery costs continue to fall, electric vehicles are nearing cost parity with internal combustion engine (ICE) vehicles from an unsubsidized total cost of ownership perspective



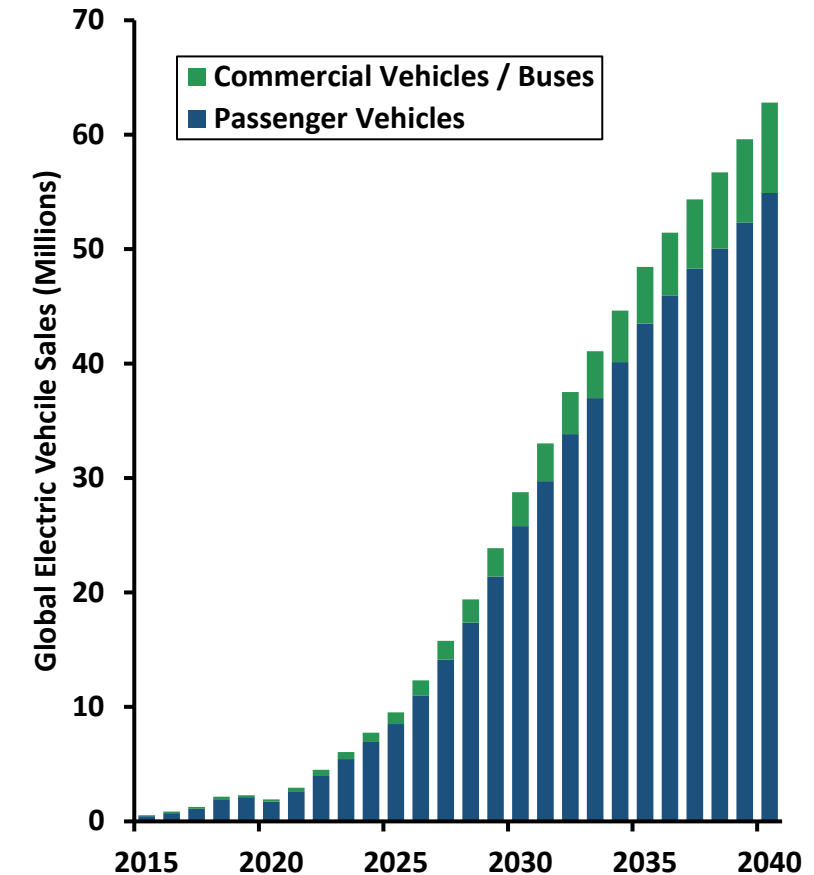
Electric Vehicle Model Options Increasing

Major automakers have committed to more than \$300 billion of capital spending for electric vehicle production, which will result in consumers having hundreds of electric vehicle options shortly



Electric Vehicle Sales Expected to Grow⁽³⁾

Global electric vehicle sales are expected to grow at a 19% CAGR from 2020 to 2040, or by 33x



Source: BNEF, "Long-Term Electric Vehicle Outlook 2020" (May 2020); BCG, "Who Will Drive Electric Cars to the Tipping Point (January 2020).

1) Total cost of ownership on an unsubsidized basis.

2) Includes battery electric, hybrid and plug in hybrid electric vehicle models.

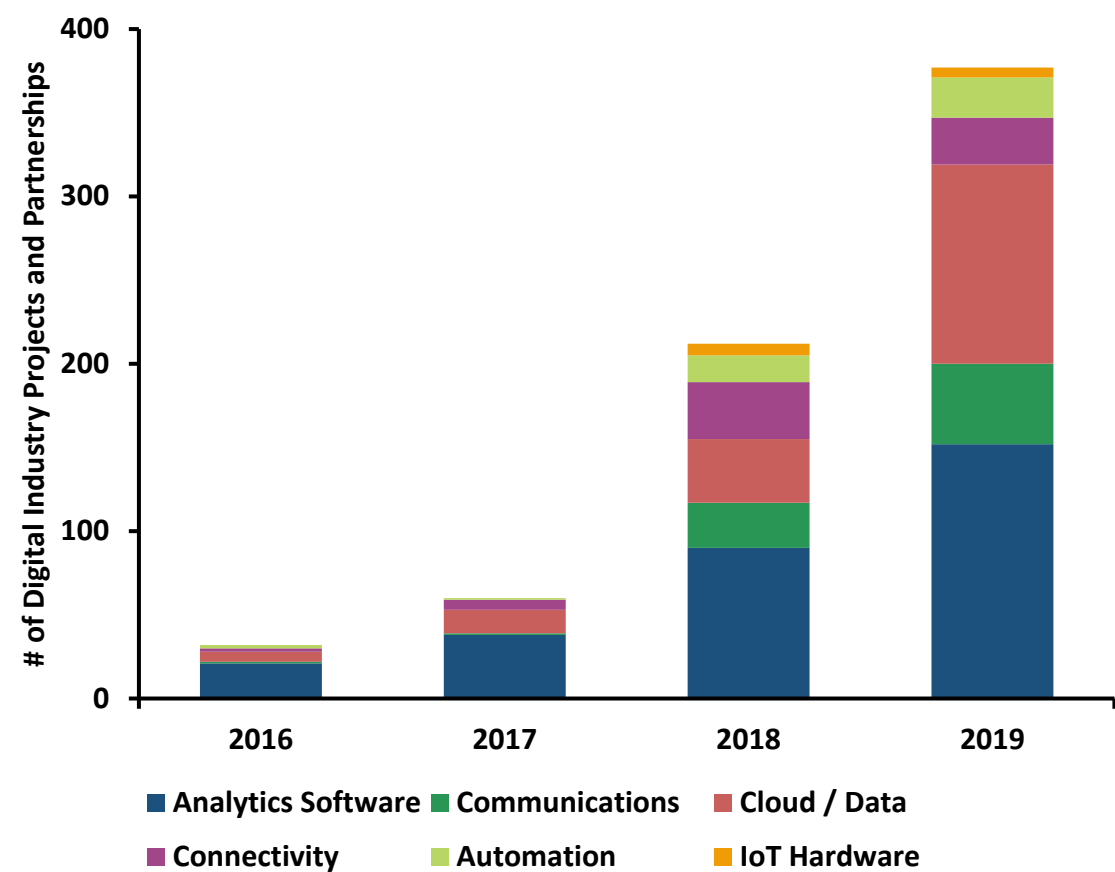
3) There can be no assurance that any projections will ultimately materialize or that historical trends will continue during the life of any NGP fund.

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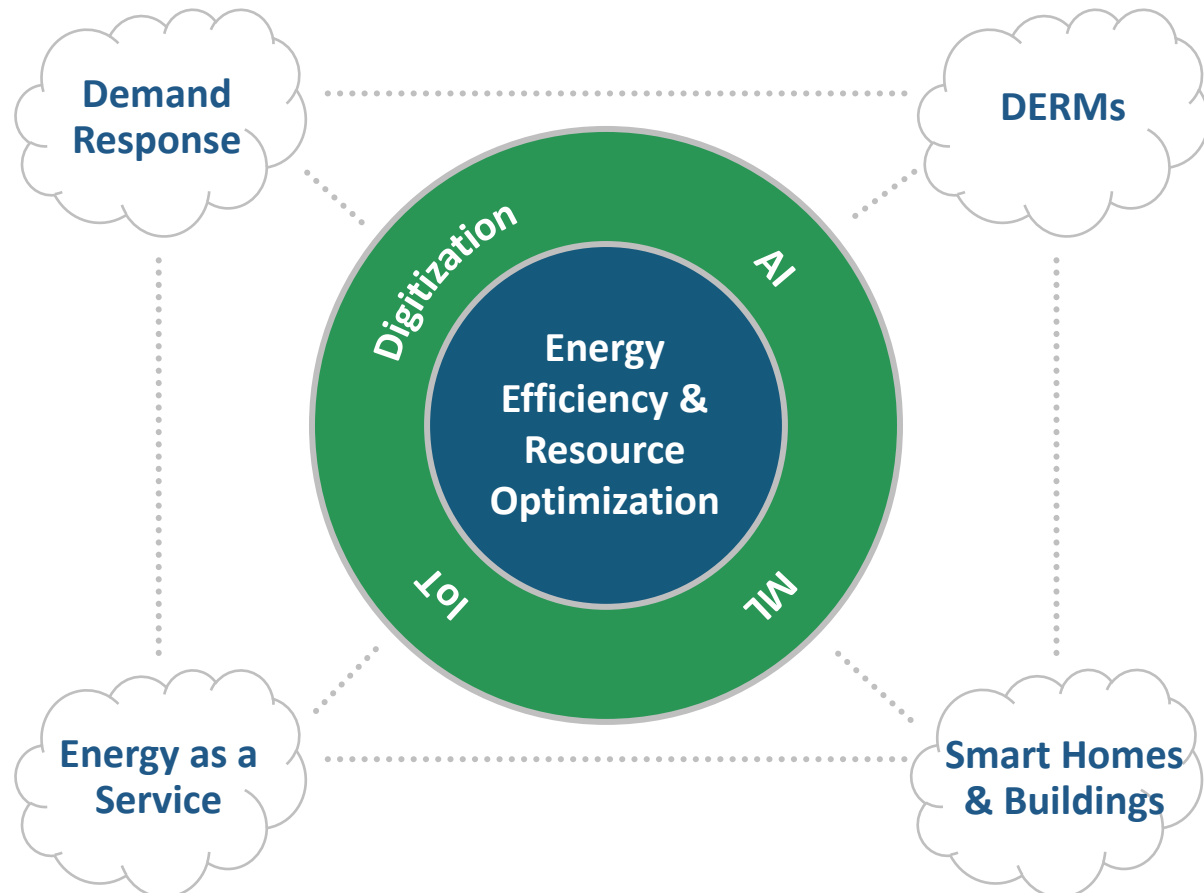
3 Efficiency & Optimization Could Drive Over 25% of Required Emissions Reductions

Digitization is changing the way energy providers and consumers approach energy efficiency and resource optimization, and new business models are being implemented to reduce consumption and increase energy savings

Industries Are Rapidly Digitizing Business Operations...

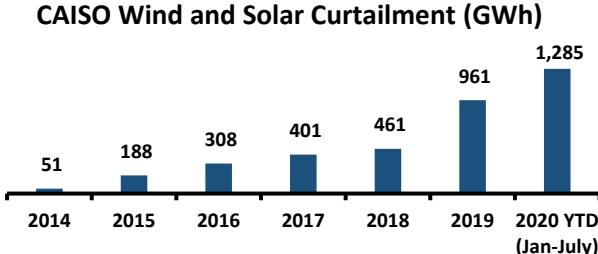
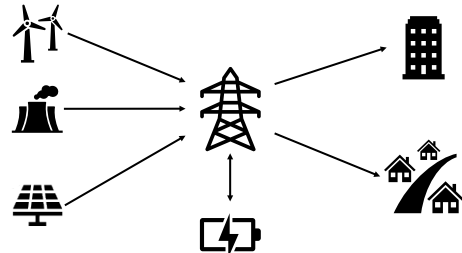


...And Digitization is Enhancing Energy Efficiency & Resource Optimization Through Innovative Technologies and Software ⁽¹⁾



Source: BNEF, "Executive Factbook 2020" (April 2020).
1) There can be no assurance that any projections will ultimately materialize or that historical trends will continue during the life of any NGP fund.

Increasing Renewables Penetration Presents Challenges... Which Create Opportunity

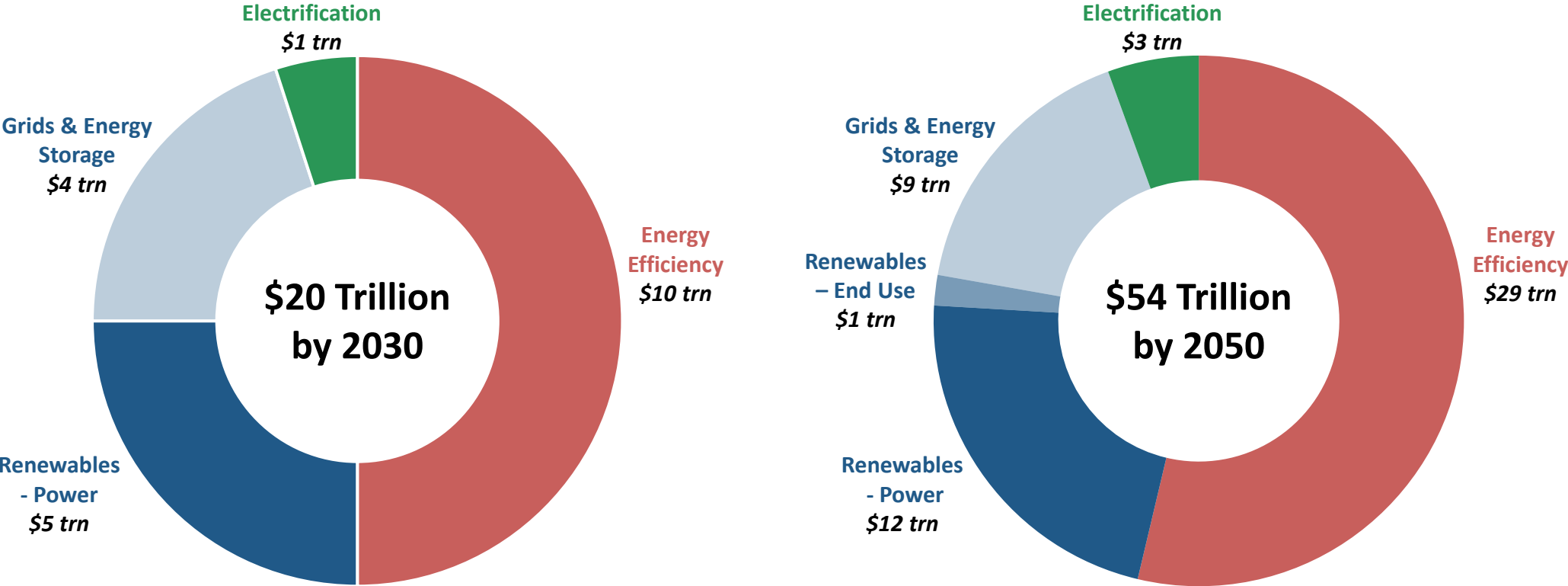
Challenges	Diminishing Marginal Value for Solar and Wind Projects		Renewable Intermittency	Grid Instability																	
	CAISO Wind and Solar Curtailment (GWh)  <table><tr><th>Year</th><th>Curtailment (GWh)</th></tr><tr><td>2014</td><td>51</td></tr><tr><td>2015</td><td>188</td></tr><tr><td>2016</td><td>308</td></tr><tr><td>2017</td><td>401</td></tr><tr><td>2018</td><td>461</td></tr><tr><td>2019</td><td>961</td></tr><tr><td>2020 YTD (Jan-July)</td><td>1,285</td></tr></table>		Year	Curtailment (GWh)	2014	51	2015	188	2016	308	2017	401	2018	461	2019	961	2020 YTD (Jan-July)	1,285			
Year	Curtailment (GWh)																				
2014	51																				
2015	188																				
2016	308																				
2017	401																				
2018	461																				
2019	961																				
2020 YTD (Jan-July)	1,285																				
Description	- Renewable power curtailment - Negative-to-zero value power		- Daily generation variability - Seasonal generation variability		- Grid congestion - Frequency regulation, power quality/reliability																
Solutions	Short Duration Storage	Long Duration Storage	Energy-as-a-Service / ESCO 2.0		Microgrids	T&D Buildout and Upgrades															
	Alternative Clean Power Generation	Alternative Uses for Curtailed Power	Demand Response		Business Model and Market Innovation	Distributed Energy Resource Management Systems															
Companies Evaluated & Investments Made by NGP ETP (1)																					

Source: California ISO.
1) NGP ETP I, NGP ETP II, and NGP ETP III

The Energy Transition Creates a Massive Investment Opportunity...

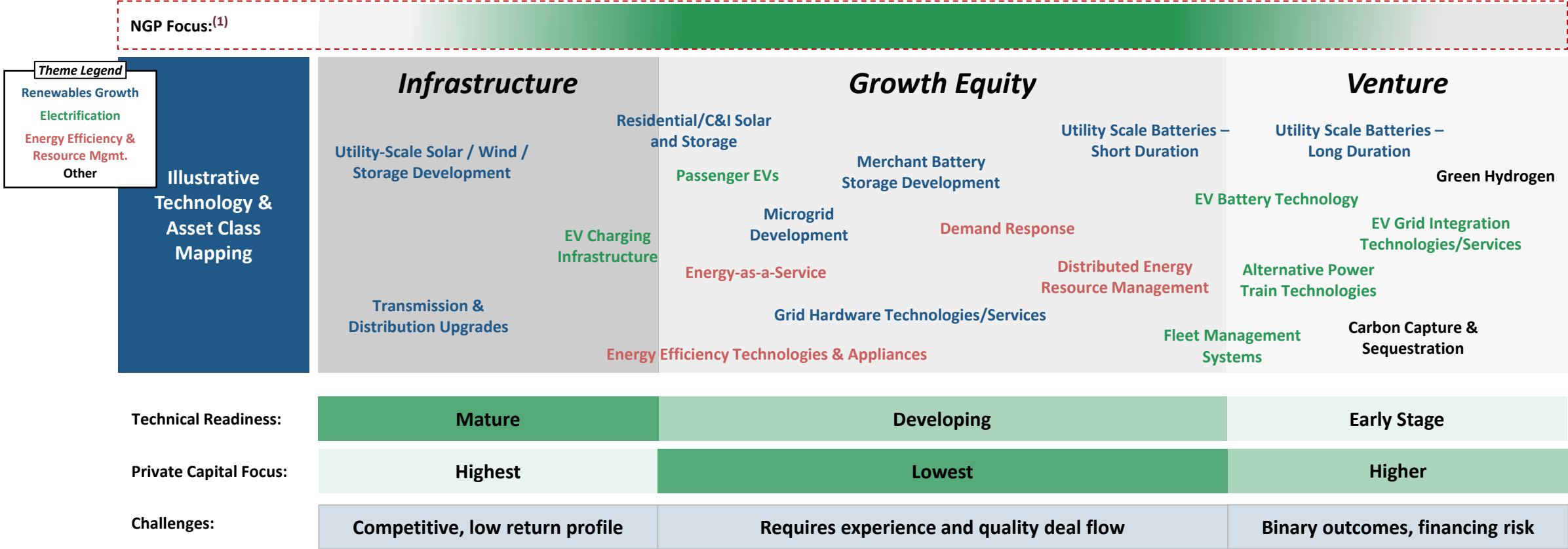
Projected Global Investment in Key Energy Transition Themes⁽¹⁾

These projections are based on current government and corporate climate commitments, which are insufficient to meet global climate objectives. There is considerable upside to these projections if the public and private response to climate change continues to strengthen



Source: IRENA, "Global Renewables Outlook – 2020" (2020).
Note: Projections are based on IRENA's "Planned Energy Scenario."
1) There can be no assurance that any projections will ultimately materialize or that historical trends will continue during the life of any NGP fund.

...With a Variety of Potential Approaches to Portfolio Construction



NGP Investment Criteria

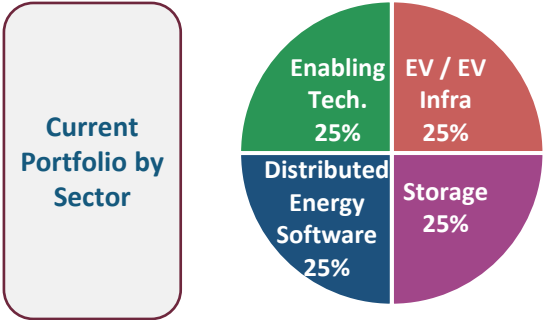
Investment Category ⁽¹⁾	InfrastructureGrowth EquityVenture		
NGP Focus			
Investment Criteria for All Investment Types	➤ World class management team ➤ Alignment with management and other investors ➤ Economically competitive product/service without subsidies and/or regulatory intervention ➤ Large addressable market ➤ Business provides a good or service needed today, not ten years from now ➤ Supportive market dynamics and structures ➤ Well capitalized business with access to capital		
Specific Investment Criteria within Each Investment Type	➤ Renewable generation or battery storage project development utilizing proven technologies ➤ Compelling market dynamics that provide for reasonably attainable upside with sufficient downside protection	➤ Growth or buy-out capital for businesses with commercial technologies ➤ Limited-to-no technology risk ➤ Clear competitive advantage to competing businesses and technologies ➤ Cash generating or near-cash generating	➤ Investments in game changing technologies at a compelling valuation (10x+ potential) ➤ Clear value proposition provided to customers relative to alternatives

1) Investments are subject to a variety of risks, uncertainties and assumptions not displayed on this slide.

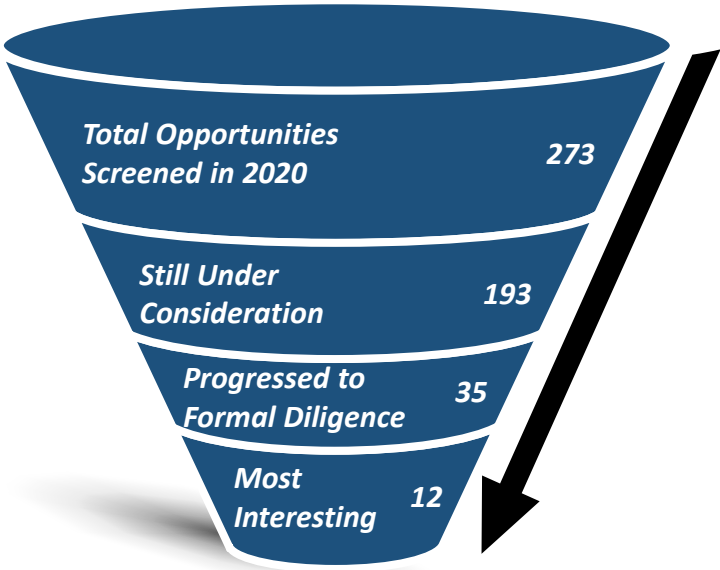
NGP ETP III Overview & Investment Strategy

NGP ETP III is using its unmatched experience in renewables and energy technology growth equity investing to build a diversified portfolio of investments with attractive risk-adjusted return potential

NGP ETP III Overview ⁽¹⁾	➤ NGP ETP III was formed in March 2020 with a \$100 million commitment from NGP XII ➤ NGP ETP III is the third energy technology and renewables investment platform formed by Phil Deutch in affiliation with NGP over the course of a successful 15-year partnership ➤ NGP ETP III is currently marked at a 3.1x gross ROI • To date, NGP ETP III has made four investments: (i) Form Energy, (ii) Kepler Computing, (iii) ChargePoint / Switchback Energy Acquisition Corp., and (iv) Voltus (10/21 close)
Focused Investment Areas	➤ NGP ETP III is targeting growth equity investments in the renewable energy, power, energy storage, energy efficiency, environmental and transportation sectors, with a specific focus on certain areas and technologies that should disproportionately benefit from the energy transition
Investment Strategy	➤ NGP ETP III aims to provide investors with attractive risk-adjusted returns by investing in late stage energy technology and renewables companies ➤ NGP ETP III develops long-lasting relationships with experienced management teams and operating executives who are seeking a financial partner with deep industry expertise ➤ Other governing investment principles include: • Investing based on long-term fundamental analysis, applying prudent capital structures to maintain flexibility for growth and minimize financing risk • Investing in companies with (i) sustainable competitive advantages, (ii) proven business models, (iii) sizeable market opportunities, and (iv) multiple exit strategies • Creating alignment through retained management ownership and shared financial incentives, which lead to productive partnerships that succeed through a common vision • Avoiding undue technology, adoption, and political/regulatory risk



NGP’s “Most Interesting” investment opportunities are expected to require over \$1 billion of equity capital in 2020



1) Investments are subject to a variety of risks, uncertainties and assumptions not displayed on this slide.

NGP Has a Deep Investment Pipeline in Energy Transition

In the last 6 months, NGP has screened over 250 investment opportunities and developed a pipeline of over 190 companies across a wide range of sectors in energy technology. Active diligence is being conducted on the following near-term opportunities

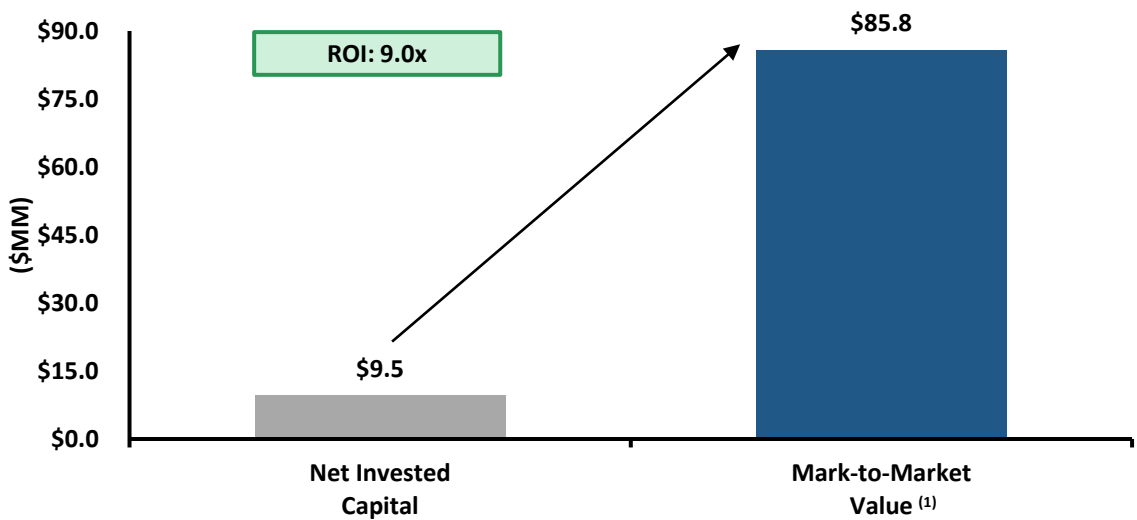
	Company #1	Company #2	Company #3	Company #4	Company #5	Company #6	Company #7
Sector / Focus	Environmental – Carbon Credit Markets	Distributed Generation / Asset Aggregation	Carbon Separation / Capture	Transmission	Procurement & Risk Management	Battery Storage	Energy Transition SPAC
Round Size (\$MM)	\$135	\$100	\$50	\$30	\$25	\$25	\$10
Business Description	- Leading environmental asset manager having completed over \$3 billion in environmental markets transactions - Strong track record of profitability - Change of control transaction - In-depth understanding of renewable and environment markets and mandates	- JV between leading global energy company and experienced management team to provide microgrids to commercial and industrial customers - Energy as a service: providing resilient/renewable resources onsite - Investment opportunity into operating business as well as in Asset Co.	- Technology that provides for electricity production from natural gas with zero emissions - Allows for carbon capture & sequestration based on semi-closed loop generation cycle; technology demonstrated in operating plant - Adjacency: reviewing direct air capture opportunity (\$100MM+)	- Developer of transmission systems designed with modular power flow control, which enables power to be pushed / pulled from overloaded lines onto underutilized lines - Solution avoids costly transmission & distribution upgrades and promotes renewable energy; attractive payback	- Established company with history of profitability; seeking expansion capital - Provides energy procurement and risk management to over 1400 clients - Services include demand side management benchmarking & budgeting and distributed generation	- Battery technology providing high rated power for short durations - Offering high power density; faster recharge; longer cycle life - Initial target markets are EV chargers and data centers, moving to grid edge	Special purpose acquisition company (“SPAC”) targeting acquisitions or mergers with energy technology or renewables companies
Investment Category	Late Stage Growth Equity	Growth Equity	Growth Equity	Late Stage Growth Equity	Late Stage Growth Equity	Early Stage Growth Equity	Late Stage Growth Equity

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Transaction Overview

- ChargePoint, a global leader in electric vehicle charging infrastructure, will merge with NGP XII portfolio company Switchback Energy Acquisition Corp. (NYSE:SBE), a publicly-traded special purpose acquisition company that NGP took public in 2019
- Switchback will raise a total of \$542 million in the transaction, including \$317 million of cash in trust and \$225 million in a fully-committed PIPE
- NGP XII's investment in Switchback is marked at a 9.0x ROI as of 9/25/20

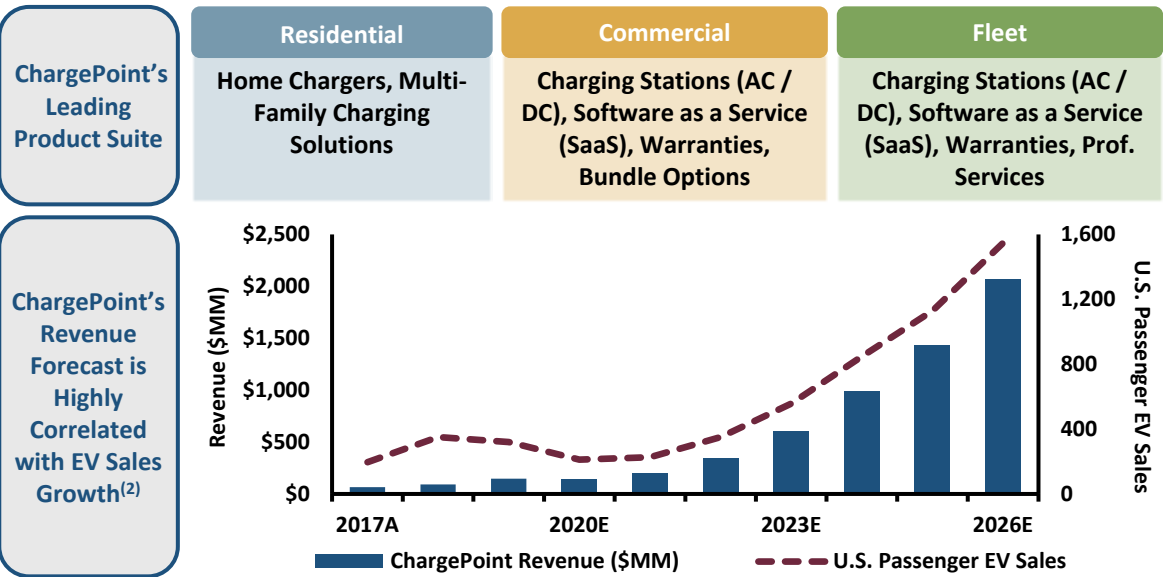
Indicative Investment Performance⁽¹⁾



ChargePoint Overview

- Founded in 2007, ChargePoint has built one of the world's leading EV charging networks and the #1 brand in EV charging
- ChargePoint delivers a fully integrated EV charging solution, with a comprehensive portfolio of software, hardware and services
- Expected to have ~\$1B in revenue at ~3% EV market penetration, anticipated in 2024

ChargePoint is an Index for the Electrification of Mobility: OEM Agnostic with a Complete Product Suite and Growth Directly Proportional to Future EV Sales



(1) Assumes closing of business combination transaction. Based on \$13.48 SBE and \$4.19 SBE.WS closing prices as of 9/25/2020. Includes value of 886,248 earnout shares which are contingent on SBE stock achieving a VWAP of \$12.00 or greater for any 10-trading days within a 20-trading day period post-closing. Includes warrants to be received upon conversion of loan from Switchback Sponsor to SBE.

(2) Source: BloombergNEF Electric Vehicle Outlook 2020.

The Importance of NGP’s Public Markets Expertise

NGP’s leadership in accessing public markets to enhance returns will be valuable in the current energy transition market backdrop

NGP Public Markets Track Record

Since 2012, NGP portfolio companies have raised \$6.2 billion in 12 IPO transactions and an additional \$852 million through two energy SPACs. NGP has achieved a weighted-average 2.3x gross ROI on \$3.3 billion of capital from these investments⁽²⁾

IPOs

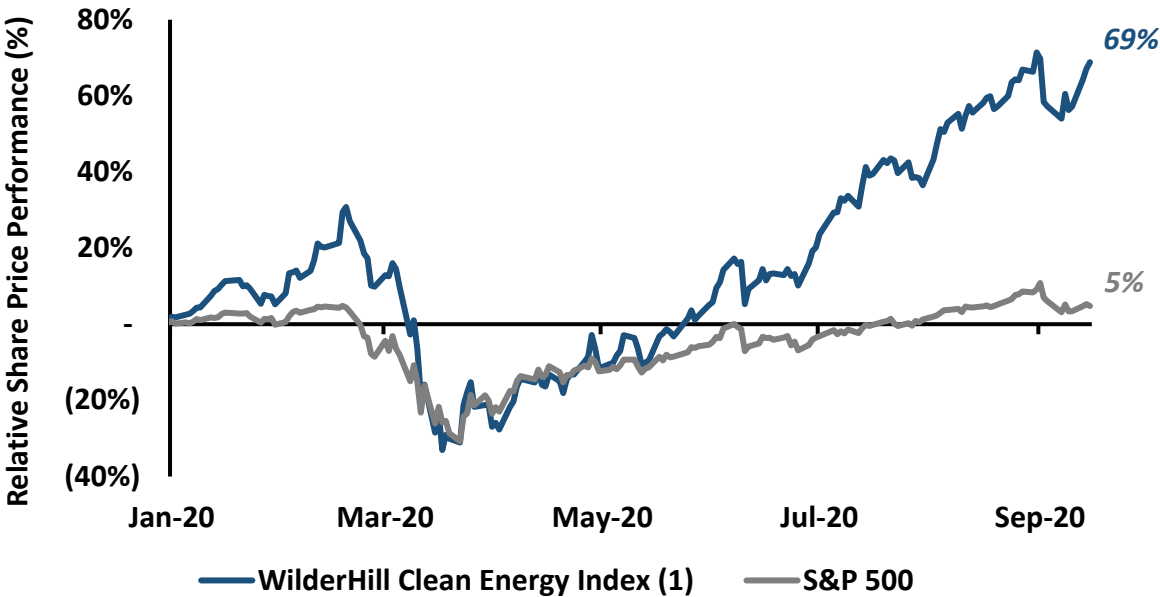


PIPEs

NGP has had consistent success making private investments in the publicly traded equity of energy technology companies (“PIPEs”). NGP has achieved a weighted-average 3.6x gross ROI on these investments⁽²⁾



Public Market Appetite for Clean Energy is Growing



This year to date, ten energy transition related companies have either announced or closed SPAC combinations



Source: Factset.
1) WilderHill Clean Energy Index is composed of stocks that are publicly traded in the U.S. and engaged in the business of advancement of cleaner energy and conservation.
2) Unrealized value and returns estimates as of June 30, 2020 unaudited financial statements. ROI is presented on a gross basis and represents NGP fund-level results before management fees, fund expenses and carried interest. Returns include assets not associated with those offered to the public.

Company Overview

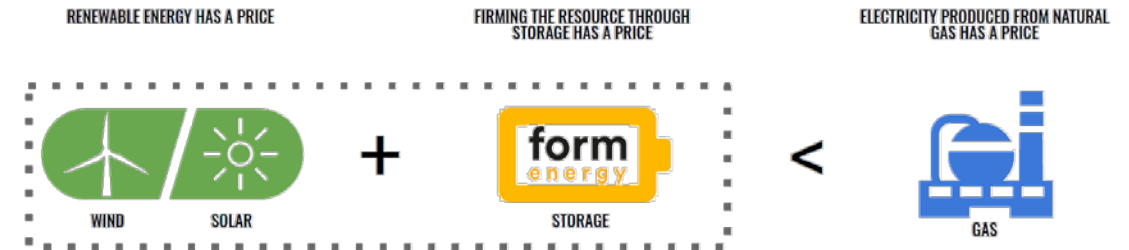
- Form Energy is developing a long-duration grid storage solution utilizing an ultra-low-cost chemistry capable of providing 150 hours of storage at gigawatt scale
- The company is led by a top-tier management team in Mateo Jaramillo (CEO, Former VP Products at Tesla Energy) and Yet-Ming Chiang (Chief Scientist and 35-year MIT Engineering Professor)
- Form has announced a 1MW / 150MWh demonstration project with Great River Energy that is expected to be commissioned by 2023
 - Following a successful pilot, Great River Energy will deploy Form’s storage at utility-scale along with 1,100MW of wind generation and 99MW of natural gas generation to retire a 1,151MW coal plant

NGP Investment

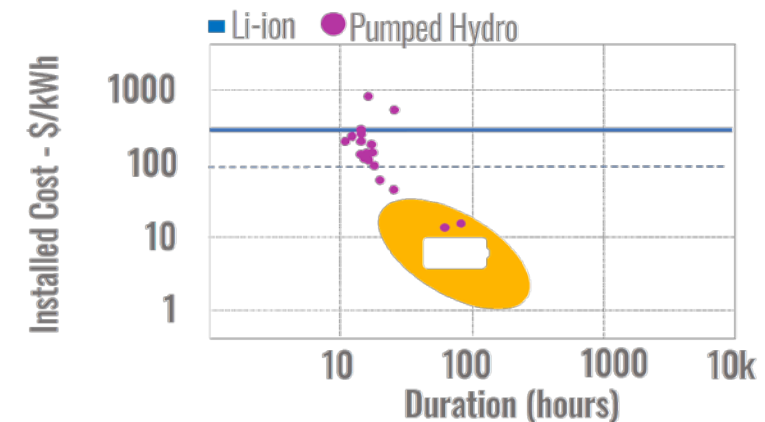
- In August 2020, Form Energy completed a \$70 million Series C financing round with investors including NGP ETP III, Coatue, existing investors and others
 - NGP ETP III contributed \$10 million to the round
 - Philip Deutch will join Form’s Board of Directors
- NGP ETP III expects to utilize its commercial expertise and renewable development experience to help Form establish its path to market, build a backlog of compelling deployments, and execute to scale its revenues and EBITDA

Rationale for Long-Duration Storage

- Long-duration storage and renewable generation can replace high capacity thermal generation economically



- Form’s low-cost chemistry can enable the implementation of long-duration storage at an installed cost of ~\$10/kWh or less at durations >100 hours



Company Overview

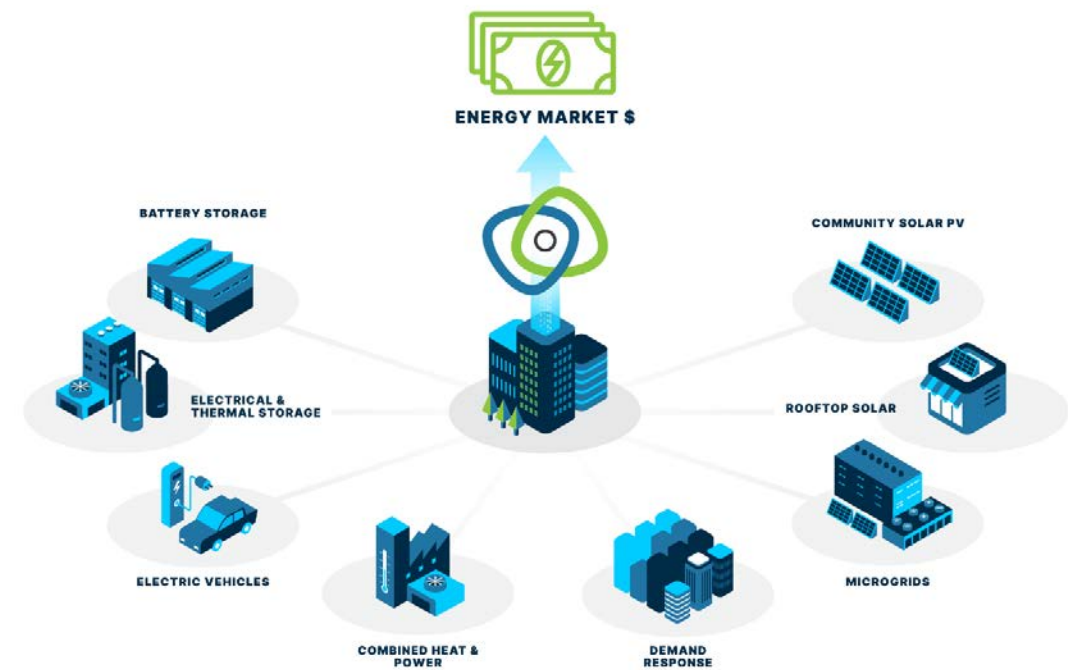
- Voltus aggregates and monetizes demand response (“DR”) capacity from commercial and industrial (“C&I”) customers, optimizing each customer’s participation in various DR programs based on program requirements and customer operational flexibility
- When called upon by utilities or grid operators to deliver contracted capacity, Voltus uses its platform to remotely manage and reduce electricity consumption across its network of enrolled C&I customers, making DR capacity available to utilities and grid operators on demand (i.e. a “virtual power plant”) while helping its customers earn cash and realize energy savings
 - Voltus receives a fixed percentage of the cash payments earned by customers for demand response participation
- While there are a handful of competing DR solutions, Voltus believes it has a significant competitive advantage due to its (1) market expertise, (2) market leading program integration (integrated into 44 North American demand response programs vs. closest competitor at 30) and (3) dynamic, user-friendly platform

NGP Investment

- Voltus is scheduled to close a \$25 million Series B preferred financing round on October 21, 2020
 - NGP ETP III is leading the round with a \$15 million investment
 - Philip Deutch will join Voltus’s Board of Directors

Rationale for Demand Response

- Demand response programs are used by utilities and grid operators to balance electricity markets during periods of peak demand by offering various financial incentives to customers for shifting demand (or “load”) to off-peak times or curtailing non-critical load during peak hours
- Demand response can be a cost-effective alternative to using and/or constructing “peaking” capacity, and as variable generation sources achieve deeper levels of grid penetration, demand response will be an increasingly important tool for maintaining grid stability



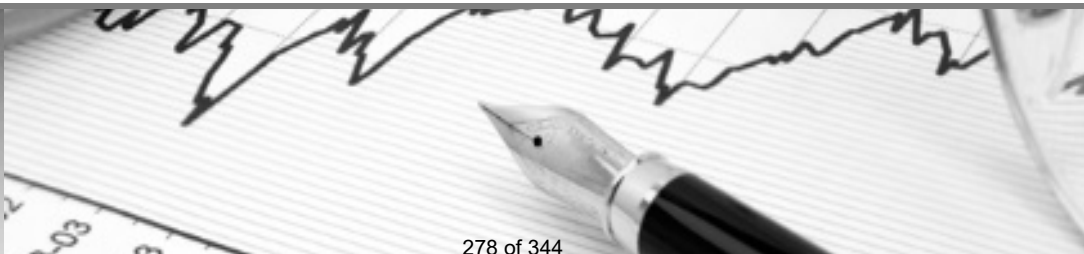
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Concluding Energy Transition Thoughts

- **Global energy production and consumption trends are changing and have reached an inflection point driven by:**
 - 1. Key renewable energy generation sources becoming cost competitive with incumbent technologies**
 - 2. The maturity of critical enabling and enhancing technologies that support renewable generation and the electrification of energy use**
 - 3. A global desire and commitment on the part of governments, companies and consumers to decarbonize the economy**
- **NGP believes it is well-positioned to successfully invest capital within preferred themes of the current energy transition⁽¹⁾**
 - NGP has extensive experience investing in large scale energy transformations in a variety of macroeconomic and commodity price environments throughout its 32-year history**
 - In 32 years of investing across all aspects of the energy value chain, NGP has never had an unprofitable fund**
 - NGP is the leader in energy IPO activity – since 2014, NGP portfolio companies have raised \$6.2 billion in 12 IPOs and an additional \$852 million through two energy SPACs**
 - NGP has 15 years of experience profitably investing in energy technology and renewables through its partnership with NGP Energy Technology Partners**

1) Investments are subject to a variety of risks, uncertainties and assumptions not displayed on this slide.

Conclusions



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Concluding Thoughts

- **Legacy upstream and midstream investment opportunities remain for the foreseeable future**
- **Royalties and minerals offer an attractive balance of investment objectives within North American energy**
- **Energy transition investment opportunities are growing and competing for capital**
- **NGP believes it is well-positioned to thoughtfully allocate capital across the energy spectrum**



Founded in 1988, NGP is a premier investment franchise in the energy sector

www.ngpenergycapital.com



Dallas, TX



Houston, TX

SUBJECT: Sector Outlook – The Future of Hospitality
And Tourism
Presented by L Catterton

ACTION: _____

DATE: December 10, 2020

INFORMATION: _____ X _____

BACKGROUND

L Catterton is the largest consumer-focused private equity firm in the world and has completed more than 200 investments in leading consumer brands. Scott Dahnke, Co-CEO, and Kevin Kingman, Principal, will present for one hour regarding relevant consumer trends, including questions from and dialogue with Trustees.

Biographies of Attendees:

Scott A. Dahnke (Global Co-CEO, L Catterton)

Mr. Dahnke is the Global Co-CEO of L Catterton. Mr. Dahnke has a broad range of business experience in private equity, consulting, management, and finance. Prior to joining L Catterton over 15 years ago, he was a Managing Director at Deutsche Bank Capital Partners and at AEA Investors, where he led AEA's consumer products investing efforts. Previously, Mr. Dahnke was the Chief Executive Officer of infoUSA (now privately-held infogroup), a leading publicly traded provider of business and consumer marketing products and services. Before infoUSA, Mr. Dahnke served clients on an array of strategic and operational issues as a partner at McKinsey & Company. His early career also includes experience in the Merger Department of Goldman, Sachs & Co. and with General Motors.

Mr. Dahnke received a Bachelor of Science, *magna cum laude*, in Mechanical Engineering from the University of Notre Dame. He also received academic honors while earning his MBA from the Harvard Business School.

Kevin Kingman (Principal)

Mr. Kingman is a Principal and the Director of Consumer Insights at L Catterton. Prior to joining the firm, he was most recently the Head of Strategy for Melissa & Doug, a leading specialty toy and educational products brand. Before that, Mr. Kingman was a Senior Principal at the Parthenon Group (now Parthenon-EY), a boutique management consultancy, where he worked closely with L Catterton over an eight-year period. Mr. Kingman was a member of the firm's Private Equity practice, leading strategic due diligence, category assessment, and growth strategy engagements for private equity investors and their portfolio companies in the consumer products, retail, and restaurant investment verticals.

Mr. Kingman holds a Bachelor of Arts degree from Williams College and an MBA from the Harvard Business School.



*Please refer to the updated presentation starting on page 346

L CATTERTON WEBINAR WITH APFC

Where the Consumer Is Today

DECEMBER 2020

L CATTERTON

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Agenda for Today

Where the consumer is today

Where she is going

What that means for travel & tourism

An Introduction to Consumer Insights at L Catterton



**Proprietary Research into
Consumer Attitudes & Behaviors**



**Identification of Advantaged
Sectors & Spaces**



**Catalyzing Proprietary, Investable
Opportunities**



**We identify spaces that will outpace
overall consumer spending growth
through a range of cycles**

**Our approach during COVID is
similar to our historical
approach to past crises & cycles**

**Top-down research to identify
secularly advantaged spaces
within the consumer landscape**



Our overarching perspective



**COVID has not
changed
consumers'
fundamental
wants & needs**

**But it has
changed how
consumers
fulfill those
needs**

**Some of these
changes will be
permanent – but
most will be
temporary**

**Those changes
that do endure
are often
accelerations of
long-term trends**



What that means in the context of travel...



**Travel is among the
most missed activities
among consumers**

**They will return to
classic travel
modalities when safe**

**In the meantime, they
are experimenting with
outdoor living**



What that means in the context of travel...

Travel is among the most missed activities among consumers

They will return to classic travel modalities when safe

In the meantime, they are experimenting with outdoor living

While the future of travel & leisure will be more familiar than not, sectors exposed to adventure & outdoor travel will be permanently advantaged



The rise in cases drove heightened anxiety which affected consumer behavior...



- In February and March, **consumer trends were driven by panic & pantry-loading**. Activities like camping and dining out decreased while hand washing and purchasing toilet paper increased
- In April & May, **consumer spending declined** as activities such as staying in and binge-watching television continued to increase **while consumers waited & worried**. **Consumers were finding new ways to cope with their circumstances and anxieties** (praying more, exercising more, playing more boardgames, etc.) as they were **getting used to being in quarantine and felt the virus had “peaked”**. At this stage, **economic concerns outweighed health concerns**
- In June, **anxiety levels began to fall but they quickly rose again in July and August while cases consumers tried to adapt & adjust** through increased mobility and spending. Activities like outdoor fitness, dining out, and camping were becoming more popular
- In September, **anxieties** related to economic and health concerns **eased to some extent while consumers grew more comfortable partaking in these activities**
- By October, **consumers worried about a third wave of the virus** just when they were learning to cope and finding ways to “get out”



Persistent worry and anxiety has implications for consumer behavior



- **If you're worried, you're not getting back into the world** (i.e. the less comfortable you feel, the less likely you are to partake in activities such as staying at hotels, getting manicures, shopping at malls, dining inside at restaurants, etc.)
- **Our fundamental wants, needs, & desires haven't changed but how we fulfill them has changed**
 - We are using other methods to satisfy our needs such as restaurant delivery, remote education, BOPIS, grocery delivery, group VC, digital streaming, etc.
- **We expect some of these trends to "stick" more than others** (i.e. remote education and digital streaming) but **most of these changes aren't permanent**
 - People are broadly prepared to return to their old habits, once they feel like things get back to normal (i.e. once consumers feel safe, they will begin flying on airplanes, taking Ubers to parties, hugging or shaking hands, staying at hotels, exercising in gyms, etc.)
- There are **three mechanisms to help consumers feel comfortable** getting back to normal, the relative impact of which **varies by underlying activity**:
 - Basic Safety Protocols in Place
 - Broad Testing Capabilities
 - Vaccine is Widely Available



Until things change, we continue to adapt & adjust especially in the context of travel & tourism



- People of **all generations miss traveling more than anything else** and they'll return as soon as they feel safe with a vaccine
- To an extremely high level, **consumers report that they intend to return to traditional patterns of travel once they feel it is “safe” to do so** – with the vaccine as the key “unlock” to driving this perception of safety
- **Cruising is a telling case:**
 - Cruisers of all ages are **eager to return** to cruising once it is safe
 - In fact, public data from cruise lines suggest that forward booking patterns are highly encouraging
- **In the meantime, new ways of travel are being discovered (e.g. expansion in the RV Lifestyle, introduction to hiking, camping, fishing, & hunting, adoption of home sharing & pivot away from hotels**

Our perspective on the travel space

In the near term...



Preference for **home rentals** over hotels



Focus on **outdoor experiences**



Anxiety about long-term plans



Focus on **wellness & relaxation**



Domestic over International travel

During the recovery...



Focus on **flexibility** & adaptability



Reconnection with family & loved ones



Persistent preference for the **outdoors**



Avoidance of crowded places



Gradual recovery of traditional modes of travel

In the long-term...



Return of **cruising**



“Once-in-a-lifetime” **adventures**



Continuation of **activities discovered during COVID**



Bespoke & small-group touring



Return of **international** travel

SUBJECT: Asset Allocation Study
John Skjervem, APFC Investment Advisor

ACTION: _____

DATE: December 10, 2020

INFORMATION: _____ X _____

BACKGROUND:

John Skjervem, Chief Executive Officer of Allan Biller and Associates, is currently under contract with APFC to act as a member of the Investment Advisory Group (IAG) for the Board of Trustees. Mr. Skjervem's presentation at this meeting is in fulfillment of the contractual requirement to annually present a topic for the Board's consideration on best practices in the management of large institutional funds.

STATUS:

At this meeting Mr. Skjervem will present a study of APFC's asset allocation given the long-term return target of CPI +5% while conforming to a risk appetite approved by the Board.



Alaska Permanent Fund Corporation

Risk and Return Over Time

John D. Skjervem, CFA
December 9, 2020

Asset Allocation: Expected Return and Risk Through Time

To meet the Alaska Permanent Fund's return expectations, APFC Trustees have accepted incrementally higher levels of risk, especially in illiquid, private market strategies, as a result of ever lower rates in sovereign bond and credit markets.

This analysis compares the Fund's asset allocation over time with the following two portfolios:

- optimized relative to an *Inflation* + 5% ex ante return target; and
- optimized relative to a 10.5% ex ante volatility target.

Notes:

- Based on consensus Capital Market Assumptions from an annual survey beginning in 2007.
- Equity = Public + Private equity allocations.
- Constraints imposed to track the Fund's historical Strategic Asset Allocation.

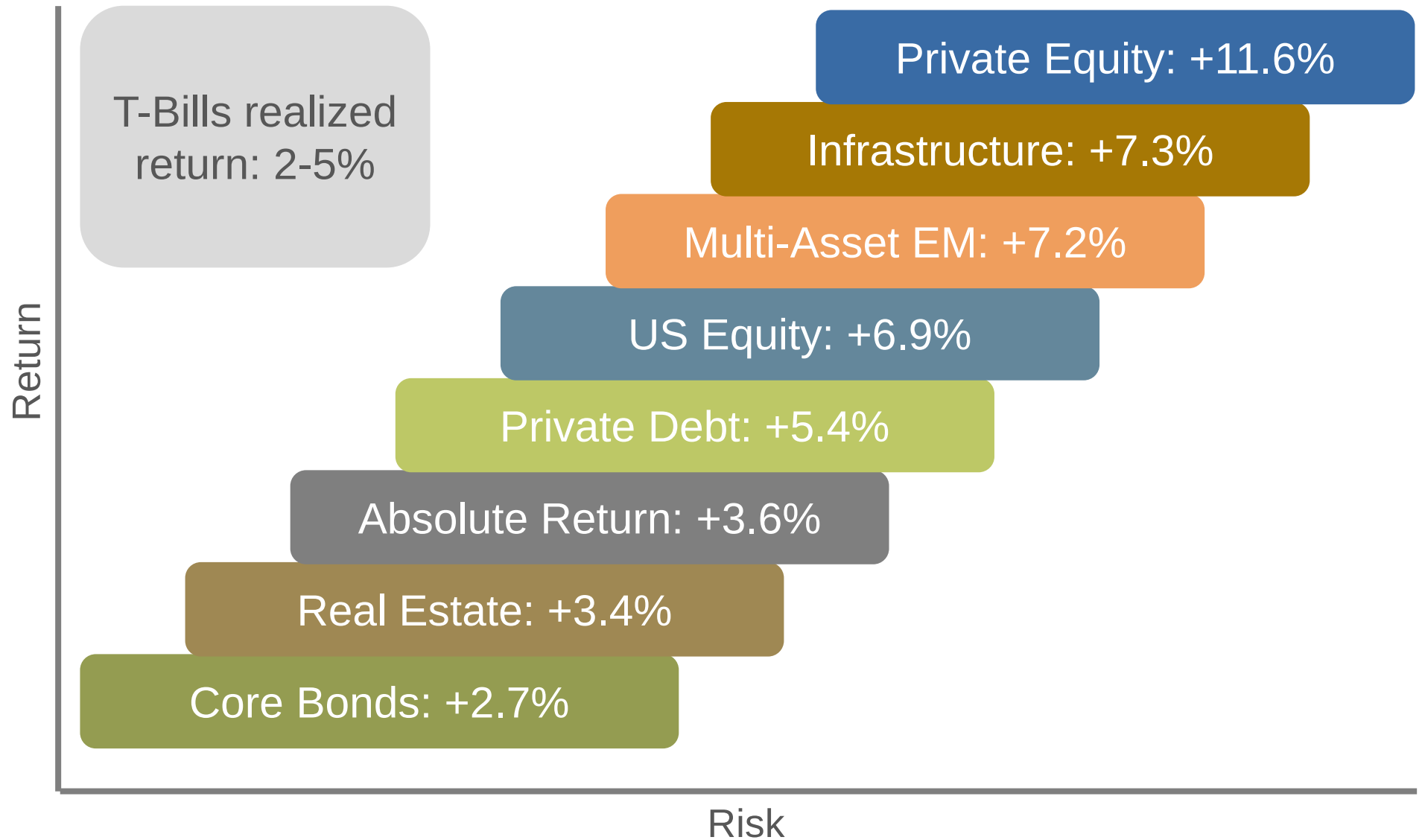
Conclusion: the collapse in base rates makes achieving the Fund's return objective very difficult going forward without adopting an otherwise imprudent asset allocation.

10-Year US Treasury Yields Have Fallen to Record Lows

As yields have fallen, meeting return assumptions has required increased allocations to equity, both public and private. With the 10-year Treasury's Yield to Maturity (YTM) now below 1%, earning Inflation + 5% largely depends on generating excess returns from active management.



Realized Premia



Capital Market Assumptions

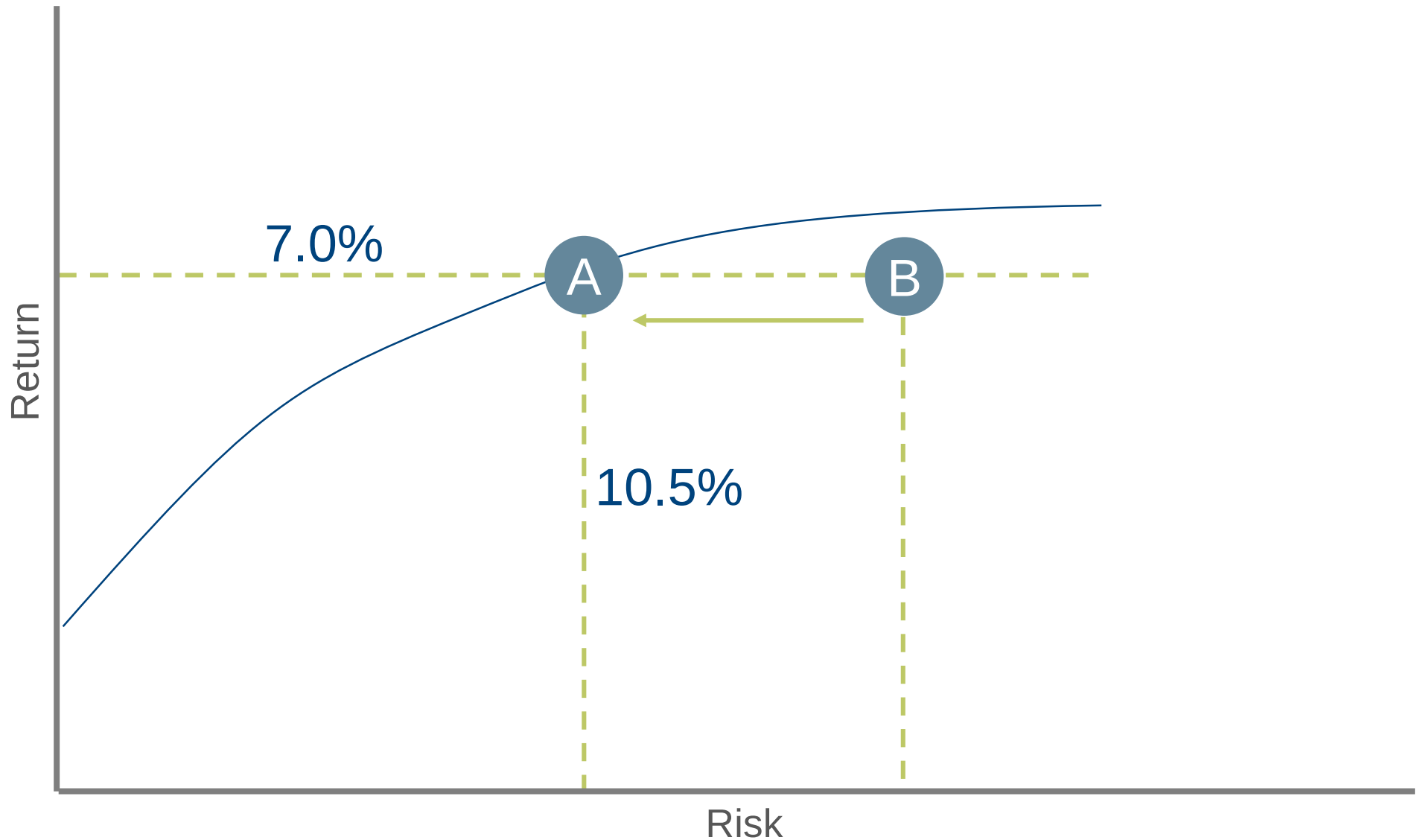
~30 Annual Survey Contributors



2020 Consensus Capital Market Assumptions

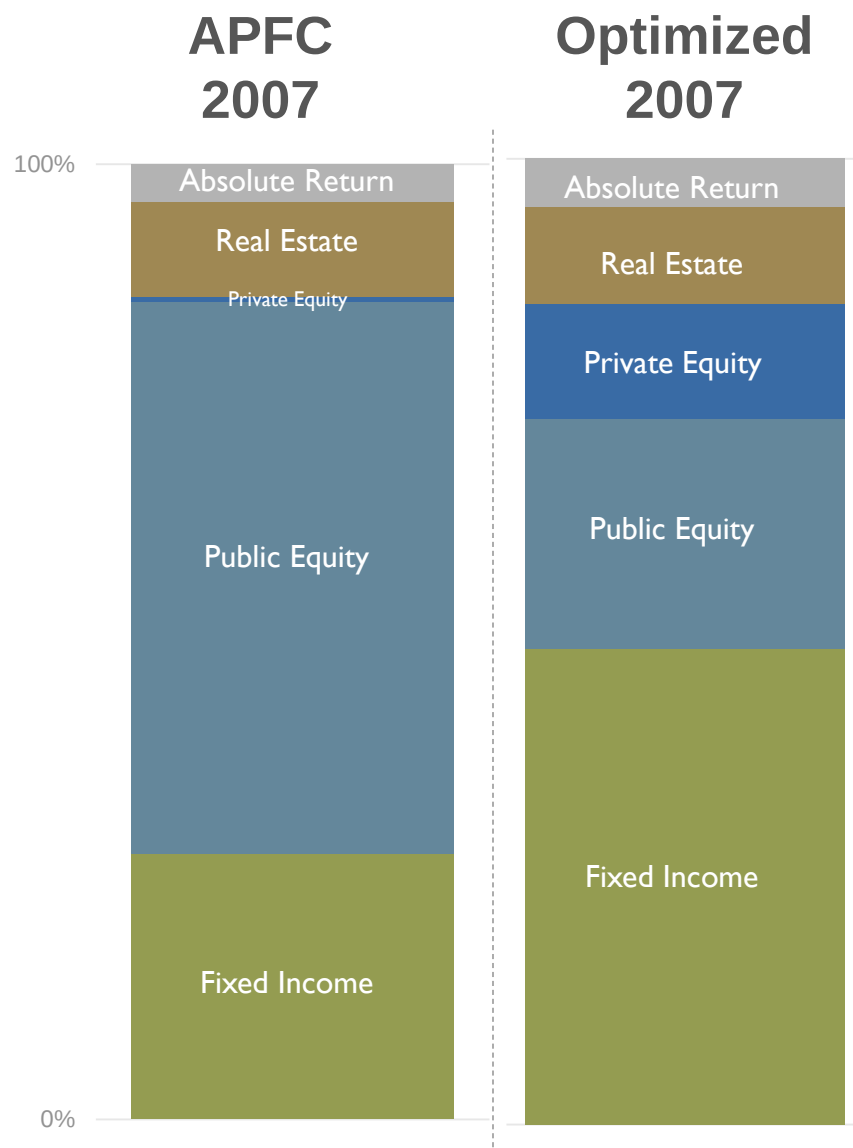
	Fixed Income	Real Estate	Absolute Return	eCIO & Risk Parity	Private Debt	Public Equity	Multi-asset EM	Infra-structure	Private Equity
Return %	3.8	6.3	5.0	5.1	7.1	6.2	6.5	6.6	8.3
Risk %	4.6	20.0	13.4	10.3	7.3	17.1	19.0	16.2	16.8

The Efficient Frontier and “Min Vol” Portfolio



Exercise One: Inflation + 5% Return Target

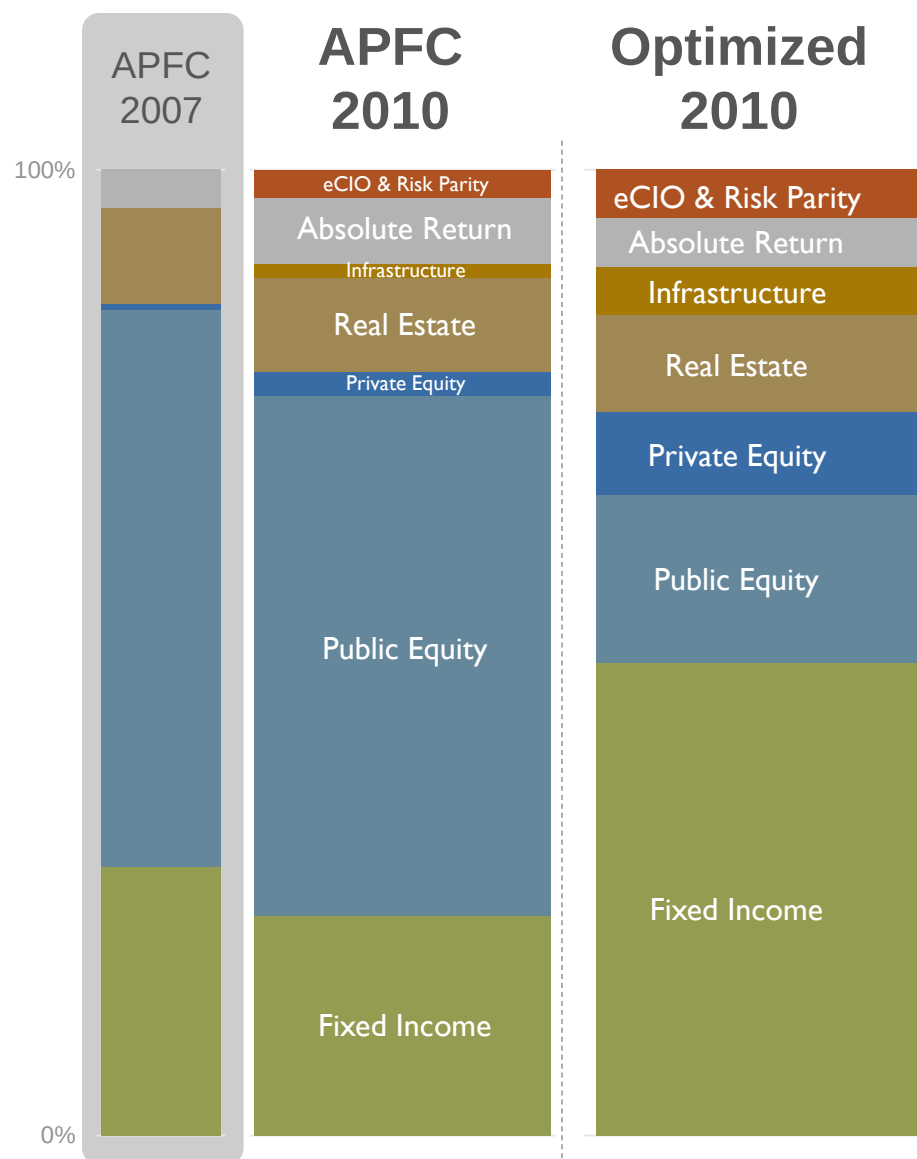
Min Vol Inflation + 5% Portfolio vs. APFC: 2007



In Q1 2007,
the 10-year UST yield = ~5%

	<i>APFC</i>	<i>MV I+5</i>
Expected Return	7.9%	7.5%
Volatility	11.6%	7.9%
% Illiquid	14%	27%
% Equity	58%	36%

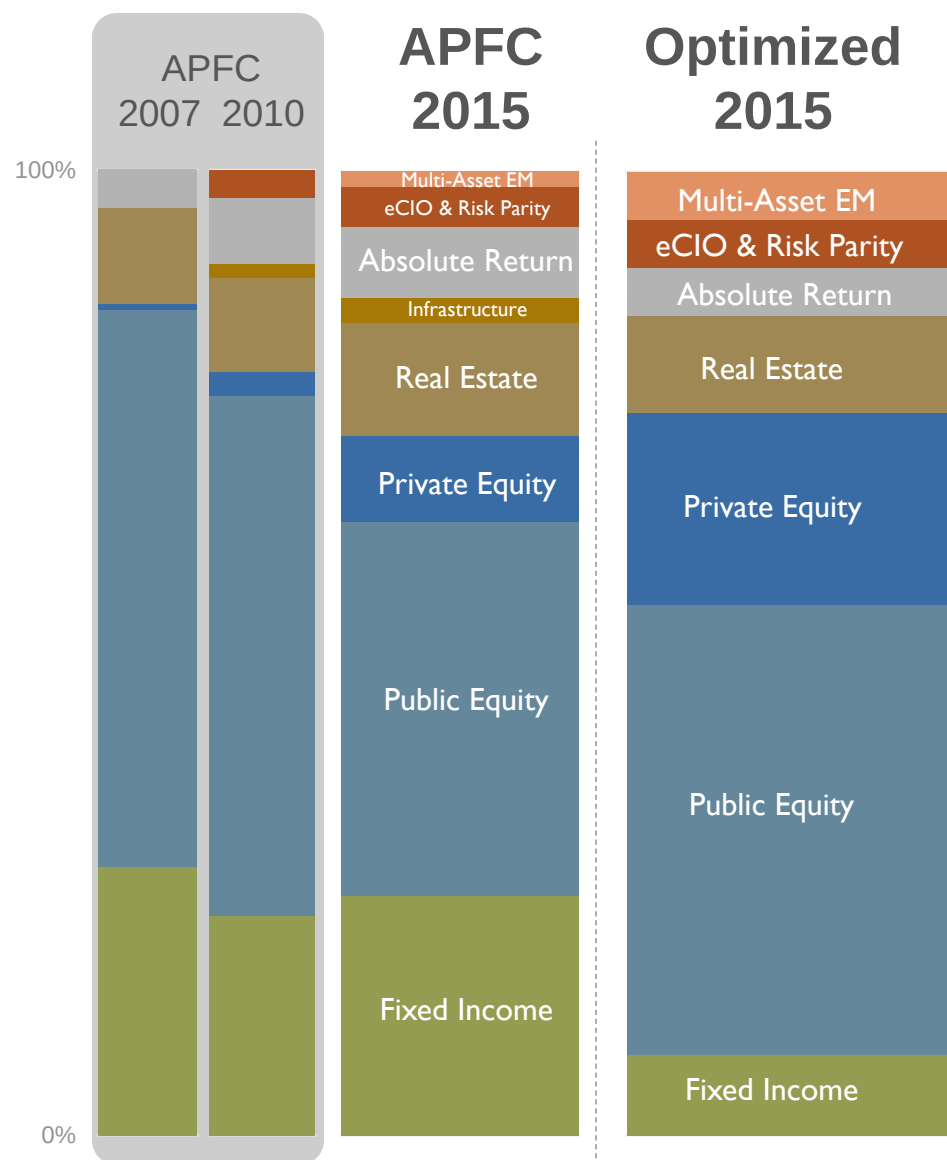
Min Vol Inflation + 5% Portfolio vs. APFC: 2010



In Q1 2010,
the 10-year UST yield = ~3%

	<i>APFC</i>	<i>MV I+5</i>
Expected Return	7.9%	7.3%
Volatility	11.8%	7.5%
% Illiquid	21%	29%
% Equity	56%	26%

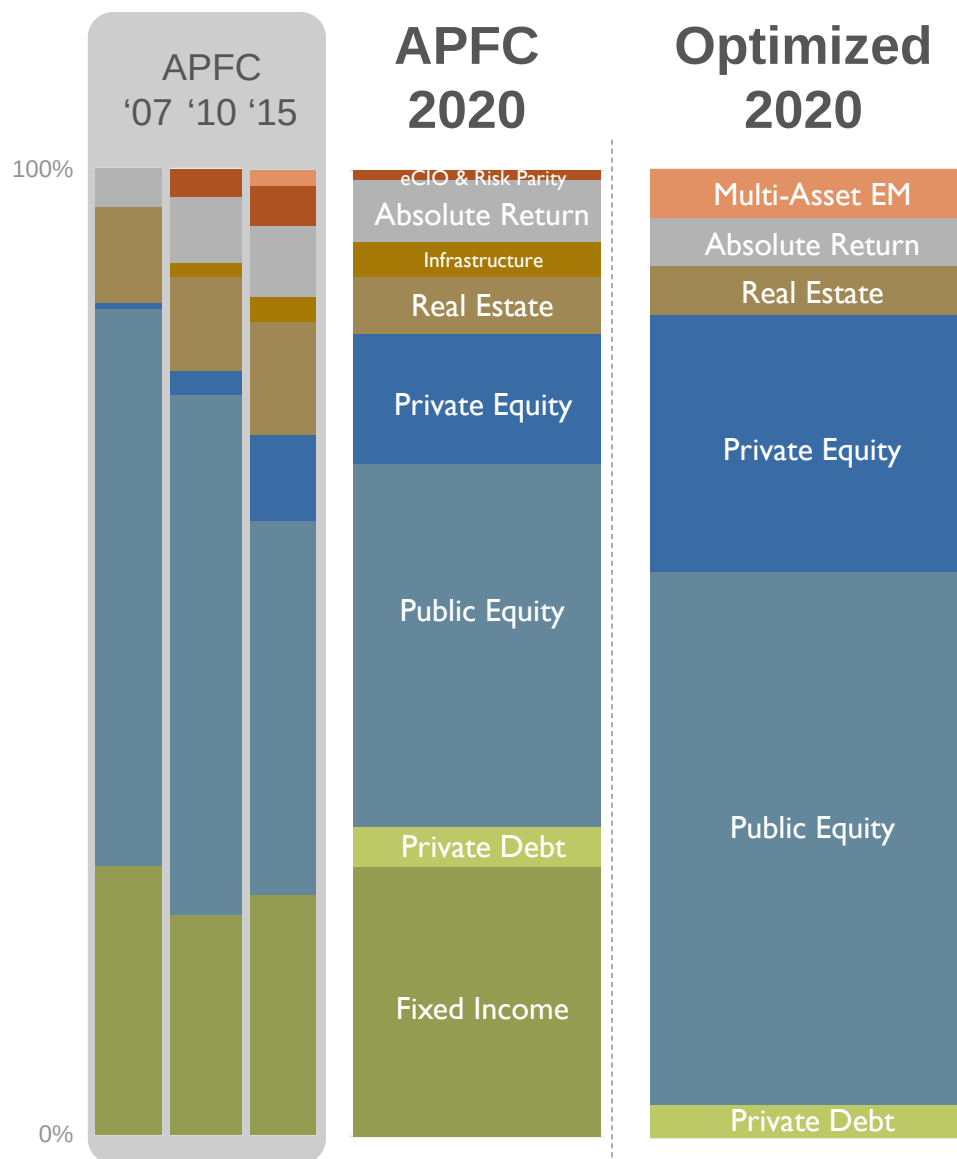
Min Vol Inflation +5% Portfolio vs. APFC: 2015



In Q1 2015,
the 10-year UST yield = ~2%

	<i>APFC</i>	<i>MV I+5</i>
Expected Return	6.1%	6.9%
Volatility	10.9%	13.4%
% Illiquid	31%	35%
% Equity	48%	67%

Min Vol Inflation +5% Portfolio vs. APFC: 2020

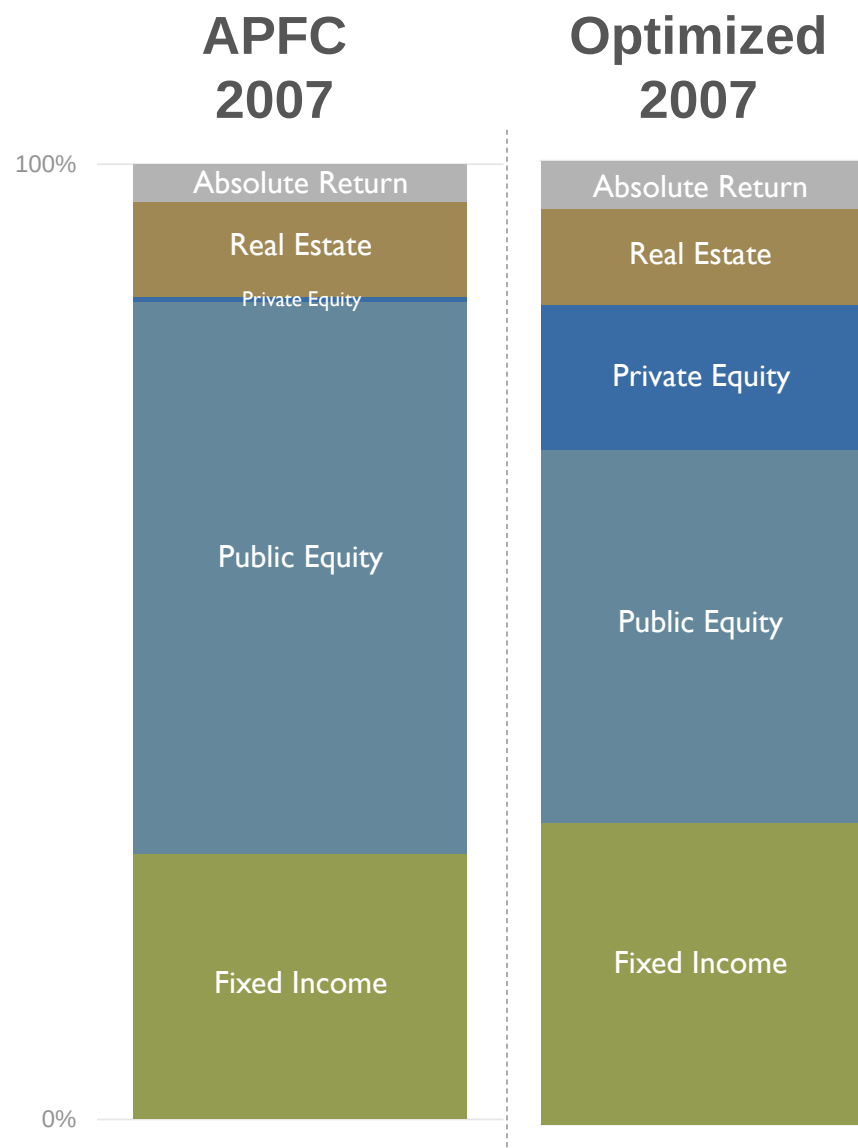


In Q1 2020,
the 10-year UST yield < ~1%

	<i>APFC</i>	<i>MV I+5</i>
Expected Return	6.3%	7.1%
Volatility	10.3%	14.9%
% Illiquid	34%	40%
% Equity	51%	82%

Exercise Two: 10.5% Volatility Target

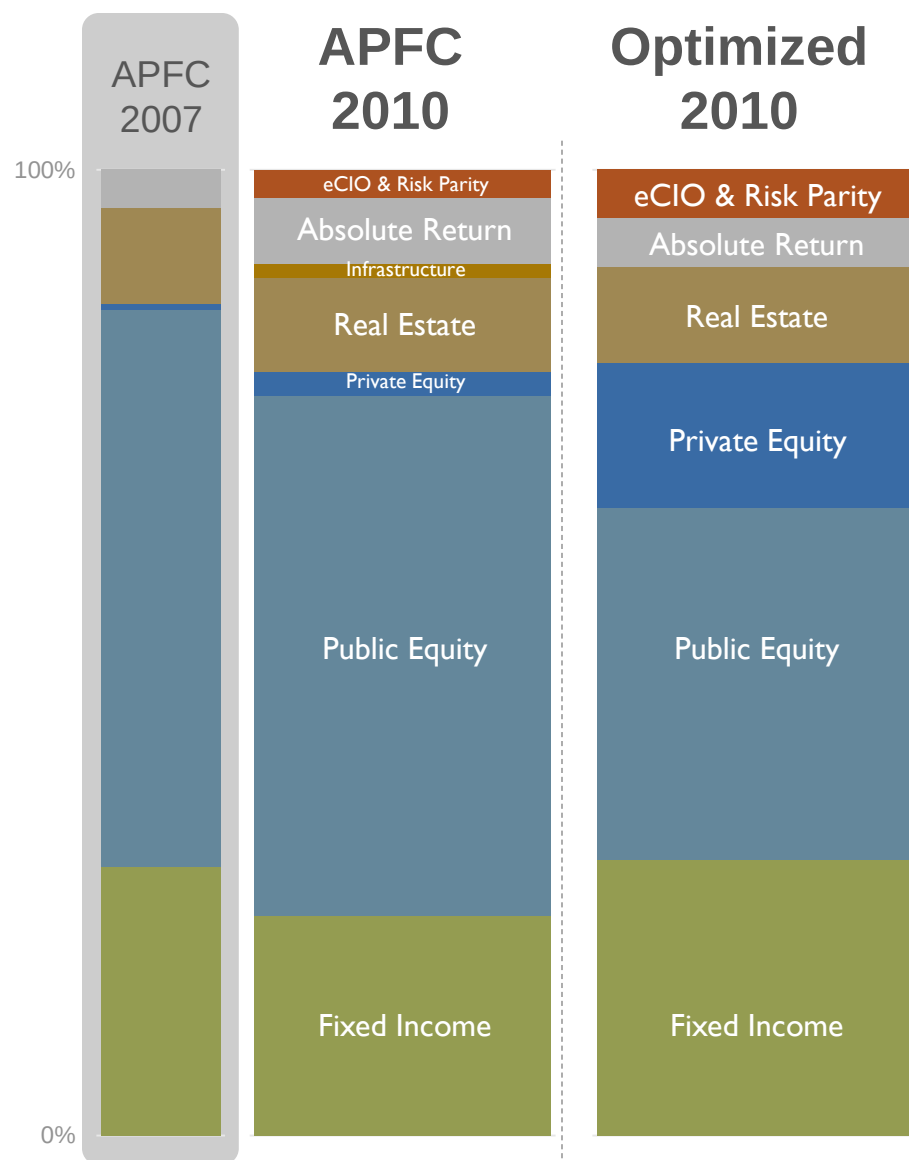
10.5% Vol Portfolio vs. APFC: 2007



In Q1 2007,
the 10-year UST yield = ~5%

	<i>APFC</i>	<i>10.5% Vol</i>
Expected Return	7.9%	8.1%
Volatility	11.6%	10.5%
% Illiquid	14%	30%
% Equity	58%	54%

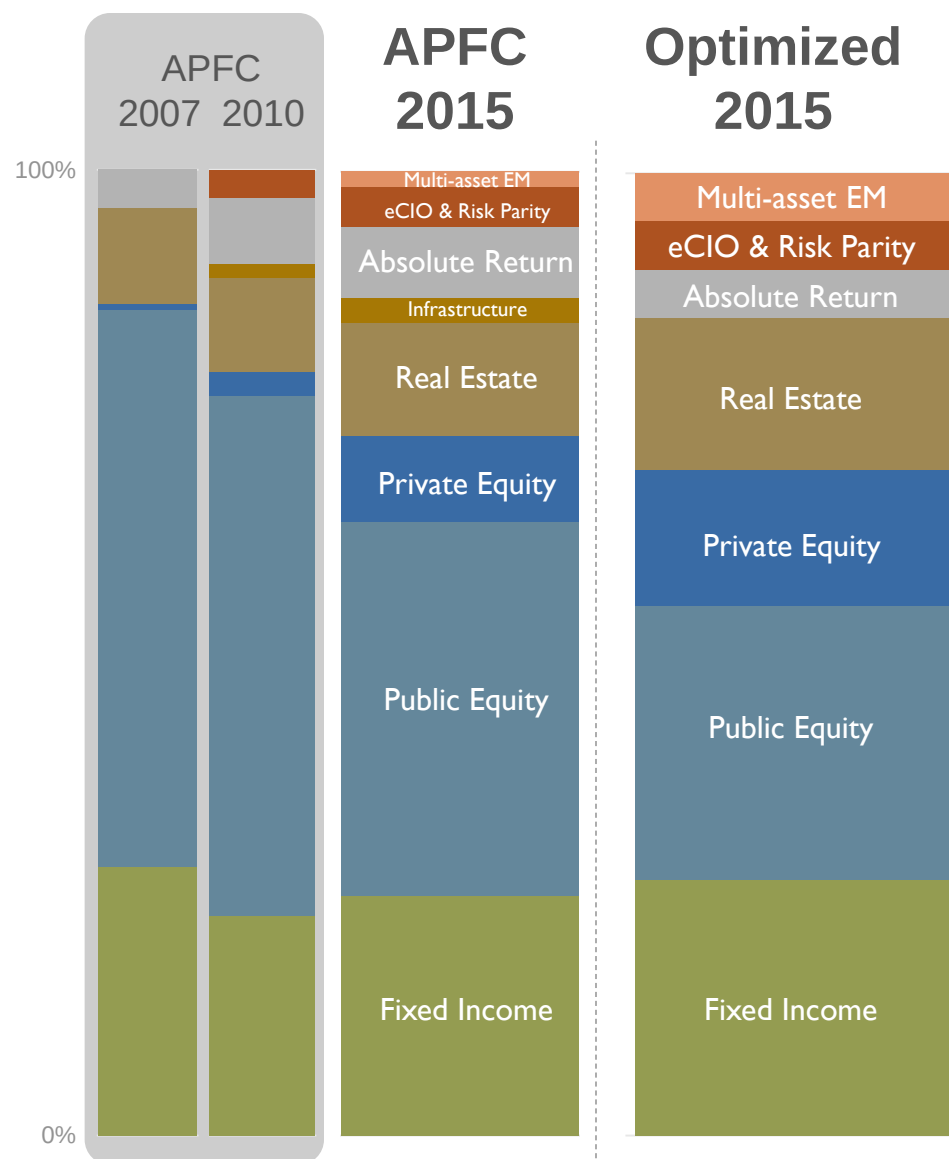
10.5% Vol Portfolio vs. APFC: 2010



In Q1 2010,
the 10-year UST yield = ~3%

	<i>APFC</i>	<i>10.5% Vol</i>
Expected Return	7.9%	8.1%
Volatility	11.8%	10.5%
% Illiquid	21%	30%
% Equity	56%	51%

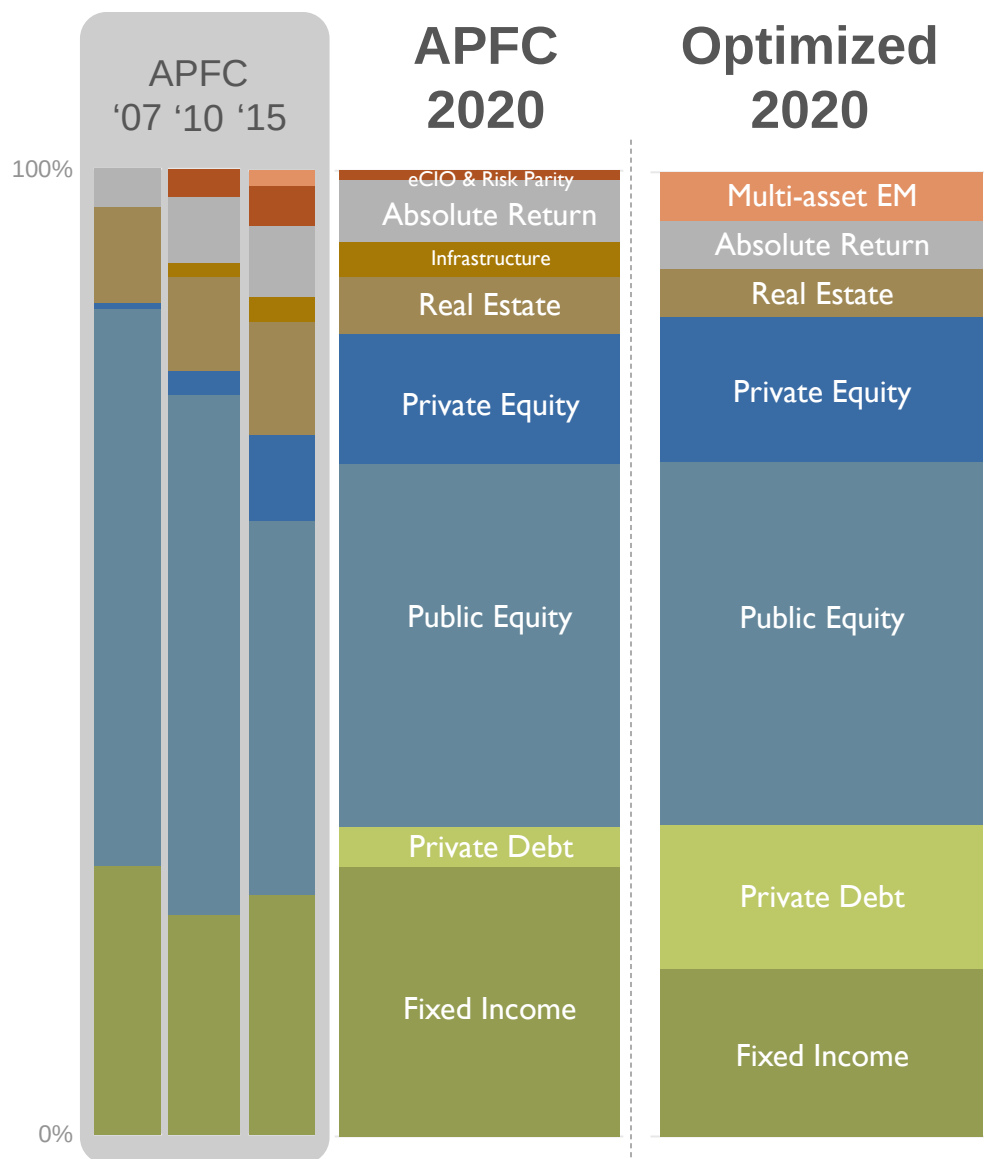
10.5% Vol Portfolio vs. APFC: 2015



In Q1 2015,
the 10-year UST yield = ~2%

	<i>APFC</i>	<i>10.5% Vol</i>
Expected Return	6.1%	6.3%
Volatility	10.9%	10.5%
% Illiquid	31%	35%
% Equity	48%	43%

10.5% Vol Portfolio vs. APFC: 2020



In Q1 2020,
the 10-year UST yield < ~1%

	APFC	10.5% Vol
Expected Return	6.3%	6.7%
Volatility	10.3%	10.5%
% Illiquid	34%	40%
% Equity	51%	53%

Conclusions

- You can't get there from here
- Base rates matter (a lot!)
- Even an aggressive asset allocation will likely come up short
- But unconstrained portfolios are imprudent
- Active management as a panacea?

SUBJECT: Flexible Work Policy

ACTION: X

DATE: December 10, 2020

INFORMATION:

BACKGROUND:

In August of 2019, the Board of Trustees adopted as a strategic goal “enhance staff motivation and talent recruitment/retention across APFC through 2025.” As a means of achieving this goal, two objectives were identified: (1) gain approval for and implement incentive compensation plan by January 1, 2025, and (2) identify potential additional office location(s) for APFC that would add value to APFC mission and operations.

To move objective 2 forward, the Board included its first strategy as opening an Anchorage office by September 2020. In recognition of this strategy, staff began work developing timelines, surveying Juneau staff about their interest in relocating to Anchorage, meeting with supervisors about the feasibility to have teams and individual team members in a remote location, and diving deeper into the costs associated with opening a new office.

With the impact of COVID-19 and the mandate to work remotely, our team had to rapidly transition to a new style of working and meeting all of our responsibilities. Our IT department mobilized with skill and efficiency, ensuring everyone had appropriate resources to fully work from a remote location. Everyone from traders to trade operations to finance staff has ensured that good communication lines are open and remain open to fully execute all of our investment strategies. As of March 31, 2020 (one week following the mandate to work remotely), the Fund Value was \$60.0 billion. On September 30, with six months of working remotely, the Fund Value had risen back to \$65.1 billion.

STATUS:

Staff is proposing that the ability to work remotely become a permanent management tool. The proposed policy recognizes the need to be in the office for a set amount of time to develop relationships across teams and contribute to the APFC culture while also acknowledging that certain job responsibilities do not require one to be in the office. In fact, value is also added to the Fund by providing staff the opportunity to focus directly on certain investment assets and strategies and the flexibility to do so from alternative locations. It is important that this be recognized as a management tool to recruit, retain, and motivate staff. We do not consider this tool to be an employee benefit.

RECOMMENDATION:

The success of working remotely and the significantly lower cost compared to the creation of physical offices leads staff to recommend that the Board of Trustees adopt the Flexible Work Policy as proposed. We believe this policy will meet the Board’s strategic goal to enhance staff motivation and talent recruitment and retention.

Proposed Motion “Approve the adoption of the Flexible Work Policy.”



Physical Office & Remote Work

Objective

Our goal is to provide the Board of Trustees with the information they need to help ensure the longevity of the fund and provide insight to help us achieve our goal of successfully managing the Permanent Fund.

As has been discussed recruiting and retention continues to be a challenge at APFC and having options including additional Physical Office Location(s) and Remote Work Policy have been identified by the Board and staff as possible options to help alleviate these challenges.

According to the Strategic Plan adopted by the Board of Trustees, APFC staff is to present each year at the Annual Meeting of the Board of Trustees on the possibility of new office location options throughout the world and per the Board's request in the September 2020 Board Meeting to present a Remote Work Policy Option.

Intent

AFPC looks to base our decisions through the lens of our core values; Integrity, Stewardship & Passion and our intent is to present clear concise information for the board to provide guidance.

APFC Staff in partnership with our Board of Trustees have identified 2 viable options that align with our values and potentially add value to the fund.

1. Physical Office – Anchorage Alaska
2. Remote Work Policy

The board discussions have provided the opportunity to evaluate how additional physical office space moves the needle on Fund performance.

It is been indicated that the success of an Anchorage office could potentially open the door to additional offices in regions outside the state that would significantly benefit the Fund.

Timing Review



If the Board decides to move forward with an Anchorage office, at that time we can analyze whether there are sufficient funds in the existing budget along with additional funding would need to be included in the next budget. Since additional review was requested during September 23-24th meeting no Budget was included in the FY 22 budget.

*March 23, 2020 the Staff at APFC were asked to work remotely our current technology allowed us to transition to remote work in 1 day. Current technology was used to make that transition and we've since added to our catalog of technology to make working remotely more sustainable for the long term (i.e. additional monitors & docking stations for home use)

Physical Office - Overview

With the goal of enhanced recruitment and retention we have identified a few notable items regarding the components of the office

1. Target office Size approximately 2300 sq ft – 5 staff
 - Including 2-3 Offices, 2-3 workspaces, break/kitchen area, conference area & reception area (if needed)
2. Based on current staff interest and forecasted recruitment a second office will likely be a cross-section of staff from all departments – front, middle and back office. This cross section will require more complex systems and data integration to maintain fluid functionality.
3. IT Support will be required on a regular basis, either current staff onsite regularly or outsourcing of some IT functions
4. It is likely there will be no administrative support in an Anchorage office

Please note the data provided throughout the proposal reflects our attempt to replicate the office configuration, including similar furnishings, technology and security found in our Juneau headquarters.

Procurement & Acquisition

Physical Office Location

- AS 30.360.850 provides that all contracts not deemed an investment contract go through the state procurement process. APFC does not have an exemption to the procurement code and as such all leasing is done on our behalf by the Department of Administration, Shared Services.
- If using available space APFC would likely assume the space size and lease terms previously negotiated.
 - A RFP process allows Shared Services to customize the search

Timing

- Approximately 2 weeks + build out time to 3 months + build out depending on using currently available space or if an RFP is needed*
 - Relocation efforts can coincide with buildout time (approximately 30-60 day)

*Per Department of Administration Shared Services Leasing Team

Overview - Anchorage Office Space

- Based on previous discussions with the board we continue to focus on Class A office space throughout downtown and midtown Anchorage.
- State of Alaska Leasing has also provided us with both Class A and Class B space options for the board to review.



Benefits & Challenges - Physical Office

- Benefits
 - Opportunity to demonstrate success of remote office potentially leading to other remote offices
 - Sharing and exchanging of ideas, increased innovation
 - Ability to build Office Culture
- Challenges
 - Higher cost than working remote
 - Political concerns
 - Significant IT infrastructure needs



Initial Costs – Anchorage Physical Office

Expense	Low	High	Original Estimate	Updated Estimate
Relocation	\$11,000	\$55,000	\$33,000	\$33,000
Buildout	\$100,000	\$300,000	\$225,000*	\$172,000*
IT Expenses	\$100,000	\$200,000	\$150,000	\$130,000
Office Equipment	\$35,000	\$50,000	\$40,000	\$28,640
Furniture	\$100,000	\$150,000	\$125,000	\$80,460
AV	\$40,000	\$50,000	\$50,000	\$50,000
Miscellaneous	\$25,000	\$100,000	\$50,000	\$50,000
Total	\$411,000	\$905,000	\$673,000	\$544,100

Data unchanged from September Board Meeting

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*Difference in estimated sq ft based on availability at the time

Available Space & Pricing*

Building	Class	Price Per Sq Ft	Available Size	Annual Cost
GMC Building	B	\$1.80	4,962	\$107,180
University Center	B	\$2.10	1,800	\$45,360
			4,800	\$120,960
Flashcube	A	\$2.39	5,918+	\$169,729
Frontier	A	\$2.79	3,012	\$100,842
Whale	A	\$2.93	1,991	\$70,004
Atwood	A	No Space Available		

Information provided by SoA Shared Service Leasing Team - Updated 11/10/2020

Ongoing Costs

Expense Type	Low	High	Estimated**
Lease	\$55,000	\$83,000	\$100,000
Internet	\$6,000	\$12,000	\$10,000
Office Technology	\$4,500	\$10,000	\$8,000
Office Supplies*	\$5,000	\$12,000	\$9,000
Miscellaneous	\$3,500	\$10,000	\$5,000
Total	\$74,000	\$127,000	\$132,000

- Includes Services & Commodities
- Estimated assumes we are required to take space as presented on Slide 16 rather than our request of 2300 sq ft.

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Remote Work Policy – Overview

APFC's Core Values are Integrity, Stewardship and Passion and as such each member of our team is expected to act with the highest level of integrity and stewardship for the resources we have been entrusted with. This means we act with care with our budget resources while providing Alaskans and the State of Alaska the results they are expecting from our organization. We extend this trust to our employees and empower them to shape their work so that they can achieve the best possible results.

This paradigm motivates our employees while improving the company's performance capabilities and enhance our market position as a flexible and attractive employer which directly impacts our ability to generate top investment returns.

Remote Work Policy - Highlights

Policy rooted in the State of Alaska Policy – with APFC specific procedures

Approved for up to 1 year & reviewed every 6 months

Approval Based on established criteria

- Position suitability for remote work
- Employees suitability for remote work
- Mutual benefits to the Fund, APFC and the employee

Each member of the staff and their supervisors are required to include

- Detailed outline of KPI requirements & communication expectations
- Explanation of benefit to the fund (not just the corporation)

Multiple standardized options for Managers/Staff to choose from

Initial Costs – Remote Work

Expense	Estimate
Relocation	\$0
Buildout	\$0
IT Expenses	\$5,000
Office Equipment	\$5,000
Furniture	\$5,000
AV	\$0
Miscellaneous	\$10,000
Total	\$25,000

Not currently in 2022 budget, however due to the low cost and surplus in our travel budget we can absorb these costs into our current budget allocation.

Ongoing Costs – Remote Work

Expense Type	Estimated**
Lease	\$0
Internet	\$0
Office Technology	Built in to annual technology replacement schedule
Office Supplies	Built in to annual administrative budget
Miscellaneous	\$10,000
Total	\$10,000

Benefits & Challenges – Remote Work

- Benefits
 - Low Cost
 - Not Locked in to time if not successful
 - Opportunity to increase total headcount with no buildout Juneau Office
 - More time working
- Challenges
 - Onboarding Challenges
 - Understanding Culture
 - Political concerns
 - Distractions



Summary

Both working from home and opening a new office come with unique benefits and challenges. They simply provide different routes to assist with the challenges we face.



APFC Flexible Work Policy

APFC's Core Values are Integrity, Stewardship and Passion and as such each member of our team is expected to act with the highest level of integrity and stewardship with regard to the resources with which we have been entrusted. This means we act with care with our budget resources while providing Alaskans and the State of Alaska the results they are expecting from our organization. We extend this trust to our employees and empower them to shape their work so that they can achieve the best possible results. This paradigm motivates our employees while improving the company's performance capabilities and enhances our market position as a flexible and attractive employer which directly impacts our ability to generate top investment returns.

This policy is provided in accordance with the State of Alaska's Telecommuting Policy and Guidelines. Telecommuting is an arrangement to permit employees to perform their job duties at an alternate work location with a Telecommuting Work Agreement. Telecommuting is not an employee benefit or right. Employee participation in telecommuting is voluntary and is completely subject to management decision.

Telecommuting Guidelines:

- A. Telecommuting is available to employees when approved by supervisors.** These guidelines do not apply to employees who work at home as a temporary or permanent reasonable accommodation approved under the Americans with Disabilities Act.
- B. Telecommuting arrangements may be on a part-time or full-time basis.** Initial telecommuting arrangements may only be approved for a period up to 6 months, and then must be reviewed prior to extending. Once an arrangement has been shown to be successful, it may be approved for up to 12 months at a time.
- C. Employees must have written approval from his/her supervisor prior to beginning a telecommute arrangement.** An employee must have an approved Telework Request Form as well as an approved Telework Agreement between the Executive Director, employee and supervisor before beginning a telecommute arrangement.
- D. Management retains the right to approve or deny requests based on established criteria.** Telecommuting should only be considered if mutually beneficial for the agency and the employee. In deciding whether to approve an employee's request for telecommuting, the supervisor shall consider the following factors:
 - 1. The position's suitability for telecommuting;
 - 2. The employee's suitability for telecommuting; and
 - 3. The mutual benefits to the Fund, APFC and the employee.
- F. Employees must be available during work hours established in their TRF.** Employees must account for all time worked and use leave, as appropriate, with prior management approval only.

- G. Employees are expected to be in the Juneau office 2 consecutive business weeks per quarter**, unless they receive specific exemption. Supervisors, with the approval of the Executive Director may approve shorter, nonconsecutive time in the office.
- H. The telecommute location will require adequate workspace, light, telephone service, power and temperature control.** The employee will provide telecommute worksite furniture and equipment and should maintain a clean and safe workspace. APFC will not pay operating costs, maintenance, system upgrades, or other incidental costs (e.g., utilities, telephone, or Internet access) associated with the use of an employee's telecommuting site.
- I. It is the responsibility of the telecommuter to determine any income tax implications of maintaining a home office area.** APFC will not provide tax guidance nor will APFC assume any additional tax liabilities.

J. Employee Eligibility

Telecommuting shall be considered an option at the exclusive discretion of management, not an employee benefit or right. APFC management has the right to initiate, terminate or suspend a telecommuting arrangement for an individual employee or group of employees at any time. Management may designate any group or unit of employees not eligible for telecommuting at any time. Management shall utilize the following criteria in evaluating if an individual employee or group of employees may be eligible for TWAs:

1. Whether the employee consistently demonstrates work habits that are well-suited to telecommuting, including but not limited to: self-motivation, self-discipline, the ability to work independently, manage distractions, meet deadlines, and a demonstrated record of meeting established performance expectations; and
2. Whether the employee has the technical capacity to work remotely, including consistent internet connection, electricity, phone reception, ability to keep sensitive or confidential materials secure, etc.

An employee may **not** be eligible to participate in Remote work if:

1. The employee has received formal discipline for performance or conduct or a Performance Improvement Plan (PIP), during the previous 12 months; or
2. The employee has not gained permanent status in their current position. This requirement can be waived with approval from the Executive Director, as appropriate.

Alaska Permanent Fund Corporation Procedures

Written requests for telecommuting arrangements shall be submitted to Human Resources and approved by the Executive Director (ED).

A. Approval flow for Telecommuting:

1. Employee submits request to HR for Telework Request Form (TRF)
2. Employee fills out their portion of the TRF which automatically routes to their immediate supervisor up to the Executive Director for approval.

3. If the ED approves the request, HR will send the Supervisor and employee a Telecommuting Work Agreement (TWA). Both the employee and supervisor must sign the TWA prior to the implementation of the telecommuting arrangement.
4. Copies of the approved TRF and signed TWA will be saved to the employee file.
5. The Supervisor and Employee review the TWA at least annually to evaluate the Employee's performance while telecommuting. If the Employee is meeting expectations while telecommuting, the TWA can be extended for an additional year.

C. Contents of the TRF

The TRF sets out the specifics for the individual circumstance of the telecommuting arrangement including state and personal equipment to be used, days/hours of work, location of work, general duties to be performed and method(s) of assessing telecommuting performance. A template for a TRF is attached as Appendix A.

D. Renewing the TWA

1. The TWA must be discussed and renewed at least annually, or whenever there is a major change in job duties.
2. The TWA may be canceled by the employee with 15 calendar days written notice.
3. The supervisor may cancel this agreement and instruct the employee to resume working at the duty location at any time. If the employee is telecommuting from a location outside their normal duty station, the supervisor shall give 15 calendar days' notice when cancelling the agreement.

Flexible Work Request Form

New Agreement
In-State

Renewal
Out- of-State

Note: If the telecommute is out-of-state, employees are responsible for applicable taxes and are required to submit applicable state tax paperwork to the Division of Finance.

Name
Title
Division
Department

Employee ID
PCN

Which of the following approved Flexible Work options are you requesting?

Option A - Weekly
2+ designated days per week in
person at the Corporate Office

Option B - Monthly
1+ designated week(s) per month in
person at the Corporate Office

Option C - Quarterly
2+ designated weeks per quarter
in person at the Corporate Office

Describe why your position is suitable for the Flexible Work Option you selected along with your intended schedule to be physically in the office

Provide a brief overview of why flexible work is mutually beneficial to APFC and yourself

Requested Start Date

Expected Duration

Location(s) from which employee anticipates working:

If selecting Option A - Weekly please list your set schedule and hours below

Monday	Tuesday	Wednesday	Thursday	Friday

Supervisor Approval

Do you have concerns with the employee's current performance?

Yes

No

Is this position suitable for Flexible Work?

Yes

No

If this position is suitable for a Flexible Work arrangement please describe why

Outline the plan to ensure communication and accountability are maintained

Describe benefits to APFC and employee

Request Approved

Yes

No

If not approved, please provide the rejection reason below

Signature

Date

Name

Title

Divisional Director Approval

Request approved

Yes

No

If not approved, please provide the rejection reason below

Signature

Date

Name

Title

Executive Director Approval

Request approved

Yes

No

If not approved, please provide the rejection reason below

Signature

Date

Name

Title

SUBJECT: Phase I of Proposed Changes to APFC Investment
Activities Regulations

ACTION:

DATE: December 10, 2020

INFORMATION: X

The purpose of the APFC regulations is to designate the types investments that permanent fund assets are eligible for investment in. The current regulation regarding the investment of permanent fund assets into real estate (15 AAC 137.450) was adopted during a time period when core real estate investment opportunities were plentiful and affordable. Today, the core real estate market is very competitive, making it difficult to find investments that will generate rates of returns that are appropriate for this asset class. Consequently, the APFC Real Estate Team has had to consider a broader array of real estate investment opportunities including build-to-core, real estate debt, and open-ended real estate funds. However, some of these opportunities are not expressly included in the current real estate regulation. So, we are proposing to amend the current language of this regulation to include all of the foreseeable real estate investment opportunities that the APFC Real Estate Team believes are prudent to achieve the risk and return profile appropriate for this asset class.

Adopting changes to the APFC regulations will take place in two phases. The first phase involves providing the public with notice of the proposed changes and seeking their input on these proposed changes. The second phase involves the Board evaluating those comments and deciding whether to adopt the proposed changes or some variation of those changes as modified by the public comments received.

Today, we are providing you with notice of our intention to commence Phase I. That being to seek public feedback between now and the next Board meeting whether the attached proposed changes to the regulations are prudent for the APFC real estate portfolio. At the February Board Meeting we will walk you through the details of the changes, the public comments received regarding these changes, and we will be asking you to formally adopt the proposed regulatory changes which will then be reviewed by the Attorney General's Office before being filed with the Lieutenant Governor's Office.

15 AAC 137.450. Real estate investments

- (a) The assets of the permanent fund may be invested in the following real estate investments:
 - (1) equity or debt interests in real estate that is
 - (A) improved by income-generating assets; or
 - (B) to be developed for commercial purposes;
 - (2) publicly traded securities in companies that own or manage equity or debt interests in portfolios of real estate assets, including common stocks, depositary receipts, preferred stocks, exchange traded funds, and derivatives based on common stocks or equity indices (including convertibles, warrants, rights, options, and futures); or
 - (3) equity interests in real estate operating companies.
- (b) Real estate investments described in (a) of this section may be:
 - (1) directly held and managed through a limited liability vehicle; or
 - (2) made through a separately managed account, real estate investment trust, joint venture, commingled fund, or any other externally managed limited liability entity.

SUBJECT: Supplemental Appropriation Request

ACTION: X

DATE: December 10, 2020

INFORMATION: _____

BACKGROUND:

The projection of and budget for external manager fees is prepared almost a full year before the commencement of a fiscal year. Actual investment performance for both the prior fiscal year (during which the projection is prepared) and the present fiscal year are unknown at the time of the projection. As a result, what is paid in manager fees usually varies from the budgeted amount.

Staff monitors both the value of underlying investments and the resulting external manager fees paid in the early part of a fiscal year, as well as current market conditions, to determine if it is prudent to request a supplemental appropriation for investment management fees.

A supplemental appropriation will ensure that as fiduciaries of the Fund, we will be able to fulfill our contractual obligations to our managers. Any funds requested and not expended will lapse at the close of the fiscal year and remain in the Earnings Reserve Account.

STATUS:

In preparing the FY2021 budget request, a global pandemic of this magnitude or duration could not have been factored into the projections used for FY2020 and FY2021.

Over the last ten months, market volatility has provided investment opportunities for the Permanent Fund's actively managed portfolios. In some cases, this has led to outperformance of an unprecedented magnitude. As a result, incentive fees are projected to be higher than anticipated. The overall increase in these fees is a positive for the Fund and the State of Alaska because it is directly related to managers outperforming their relative benchmarks.

The FY2021 enacted appropriation for external manager fees is \$114.3 million. Current projections, including external incentive fees for calendar 2020, indicate that the APFC will pay \$129.9 million, with the potential to be much higher depending on market conditions and manager performance. For that reason, the total request will be for \$25 million to accommodate up to \$139.3 million in manager fees in FY2021.

The deadline by which APFC must submit an FY2021 supplemental budget request to the Office of Management and Budget to be forwarded for the Legislature's consideration is in January, prior to the February Board of Trustees meeting.

Current fiscal year performance and other unanticipated market performance or manager changes could cause our investment fee obligations to exceed our current FY2021 operating budget appropriation. As a result, it appears prudent to request a supplemental budget request for investment manager fees at this time.

RECOMMENDATION:

Proposed Board motion:

"The Board of Trustees moves to direct staff to submit a \$25,000,000 supplemental budget request for the FY2021 Investment Management Fee allocation to fund external manager fees. The Board also authorizes staff to adjust the supplemental request as needed as the fiscal year progresses."



ALASKA PERMANENT
FUND CORPORATION

FY2021 Proposed Supplemental Request

How are Fee Projections Created?

- External manager fees are prepared almost a full year before the commencement of a fiscal year. Fee projections include costs paid directly to firms that manage the Fund's external portfolios but do not include fees paid through net-of-fee arrangements.
- Fees are forecasted using Callan's capital market assumptions. The assumption for a specific asset class is applied to the account's net asset value (NAV) and combined with the actual fee schedule to produce these fee projections.
- External incentive fees are based on the calendar year, whereas base fees are paid in alignment with the fiscal year.
- Any funds requested and not expended will lapse at the close of the fiscal year and remain in the Earnings Reserve Account.

Current Status

- The FY2021 appropriation for external manager fees is \$114.3 million.
- Projections as of November 2020 indicate the APFC will pay \$129.9 million, with the potential to be higher depending on market conditions and manager performance.
- Overall, market volatility has provided investment opportunities for the Permanent Fund's actively managed portfolios. In some cases, this has led to outperformance of an unprecedented magnitude.

Why a Supplemental Request?

- A supplemental appropriation will ensure that as fiduciaries of the Fund, we will be able to fulfill our contractual obligations to our managers.
- With the ongoing uncertainty of the market's volatility, it is more complicated than ever to forecast future results. For that reason, the request includes a safeguard in addition to the current projection of \$129.9 million in total fees.
- The proposed request is for \$25 million, for a total manager fee appropriation of \$139.3 million.

Proposed Motion

“The Board of Trustees moves to direct staff to submit a \$25,000,000 supplemental budget request for the FY2021 Investment Management Fee allocation to fund external manager fees. The Board also authorizes staff to adjust the supplemental request as needed as the fiscal year progresses .”



SUBJECT: Board of Trustees Meetings

ACTION: X

DATE: December 10, 2020

INFORMATION:

BACKGROUND:

APFC's Board of Trustees holds quarterly meetings to review and evaluate the investment performance of the portfolio, the asset allocation and investment risk of the Fund, and the compliance program in relation to applicable laws, regulations, and governance policies. Special meetings of the Board of Trustees are scheduled as required.

The 2021 Board of Trustees Meeting schedules have been previously approved. Attached are the calendars for your information, please mark your schedules.

BOARD OF TRUSTEES MEETINGS ARE SCHEDULED:

<u>FEBRUARY 17-18, 2021</u> Regular Quarterly Meeting Wednesday & Thursday Location: Juneau <u>MAY 19-20, 2021</u> Regular Quarterly Meeting/Audit Committee Wednesday & Thursday Location: Kodiak <u>SEPTEMBER 2, 2021</u> Audit Committee/Budget Planning Session Thursday Location: Anchorage <u>SEPTEMBER 28-29, 2021</u> Annual Board Meeting Tuesday & Wednesday Location: Juneau <u>DECEMBER 8-9, 2021</u> Regular Quarterly Meeting Wednesday & Thursday Location: Anchorage	<u>FEBRUARY 16-17, 2022</u> Regular Quarterly Meeting Wednesday & Thursday Location: Juneau <u>MAY 18-19, 2022</u> Regular Quarterly Meeting/Audit Committee Wednesday & Thursday Location: Anchorage <u>SEPTEMBER 1, 2022</u> Audit Committee/Budget Planning Session Thursday Location: Juneau <u>SEPTEMBER 21-22, 2022</u> Annual Board Meeting Wednesday & Thursday Location: Anchorage <u>DECEMBER 7-8, 2022</u> Regular Quarterly Meeting Wednesday & Thursday Location: Juneau

RECOMMENDATION:

- Review of 2021 Board of Trustees Meeting Schedule
- Approve 2022 Board of Trustees Meeting Schedule

2021 BOARD OF TRUSTEES MEETING SCHEDULE

DATE	LOCATION	TYPE OF MEETING
February 17-18, 2021 (Wednesday/Thursday)	Juneau	Regular
May 19-20, 2021* (Wednesday/Thursday)	Kodiak	Regular Audit Committee
September 2, 2021* (Thursday)	Anchorage	Audit Committee Budget Planning Session
September 28-29, 2021 (Tuesday/Wednesday)	Juneau	Annual Meeting
December 8-9, 2021 (Wednesday/Thursday)	Anchorage	Regular

Committee Meetings and Special or additional APFC board meetings will be scheduled as needed.

*The Audit Committee Meeting in September must be scheduled in advance to coordinate with the release date for the Audited Statements and the Annual Report as required in statute.

2022 BOARD OF TRUSTEES MEETING SCHEDULE

DATE	LOCATION	TYPE OF MEETING
February 16-17, 2022 (Wednesday/Thursday)	Juneau	Regular
May 18-19, 2022 (Wednesday/Thursday)	Anchorage	Regular Audit Committee
September 1, 2022* (Thursday)	Juneau	Audit Committee Budget Planning Session
September 21-22, 2022 (Wednesday/Thursday)	Anchorage	Annual Meeting
December 7-8, 2022 (Wednesday/Thursday)	Juneau	Regular

Committee Meetings and Special or additional APFC board meetings will be scheduled as needed.

*The Audit Committee Meeting in September must be scheduled in advance to coordinate with the release date for the Audited Statements and the Annual Report as required in statute.

The following is an updated version of the
L Catterton presentation

Please refer to this updated version
when following along during the meeting.



L CATTERTON WEBINAR WITH APFC

Where the Consumer Is Today

DECEMBER 2020

L CATTERTON

Agenda for Today

Where the consumer is today

Where she is going

What that means for travel & tourism

An Introduction to Consumer Insights at L Catterton



**Proprietary Research into
Consumer Attitudes & Behaviors**



**Identification of Advantaged
Sectors & Spaces**



**Catalyzing Proprietary, Investable
Opportunities**



**We identify spaces that will outpace
overall consumer spending growth
through a range of cycles**

**Our approach during COVID is
similar to our historical
approach to past crises & cycles**

**Top-down research to identify
secularly advantaged spaces
within the consumer landscape**

Our overarching perspective



**COVID has not
changed
consumers'
fundamental
wants & needs**

**But it has
changed how
consumers
fulfill those
needs**

**Some of these
changes will be
permanent – but
most will be
temporary**

**Those changes
that do endure
are often
accelerations of
long-term trends**

What that means in the context of travel...



**Travel is among the
most missed activities
among consumers**

**They will return to
classic travel
modalities when safe**

**In the meantime, they
are experimenting with
outdoor living**

What that means in the context of travel...



Travel is among the
most missed activities
among consumers

They will return to
classic travel
modalities when safe

In the meantime, they
are experimenting with
outdoor living

**While the future of travel & leisure will be more familiar than
not, sectors exposed to adventure & outdoor travel will be
permanently advantaged**

Sources of Insights



Proprietary Survey

Large-scale, web-based survey
(N=4,922) of a representative
sample of U.S. consumers.
Fielded Sept. 2 – Sept. 15



Behavioral Data

Analytics of alternative data
sources, including panel data on
credit card spending, social
media listening data, and
massive mobile data



Partner Firms

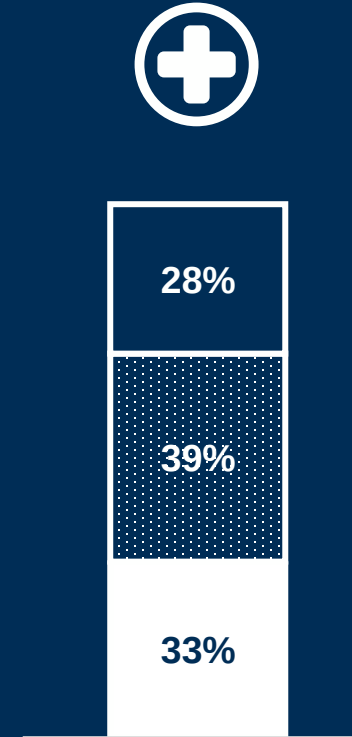
Primary and secondary insights
from leading consultancies and
financial firms with whom we
have relationships

We seek to understand what the consumer is feeling

So we can better understand what she is doing

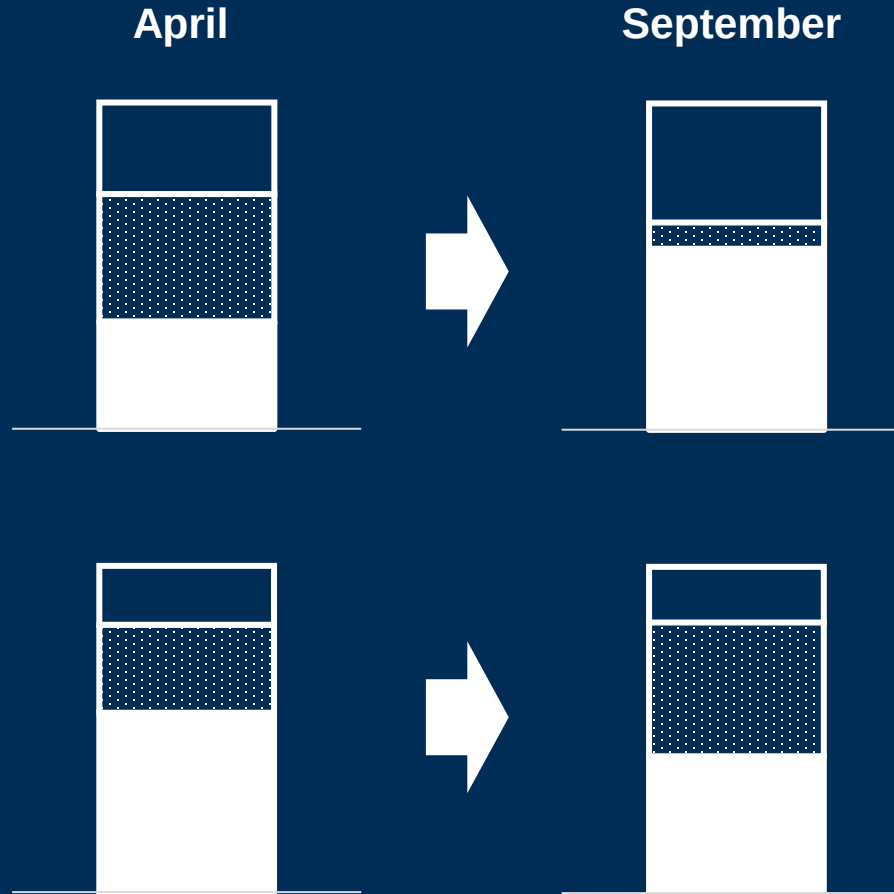
The nature of consumer anxiety has changed

In the spring,
economic
concerns
outweighed
healthcare
concerns



The nature of consumer anxiety has changed

The healthcare effects become concrete. The economic ones more abstract



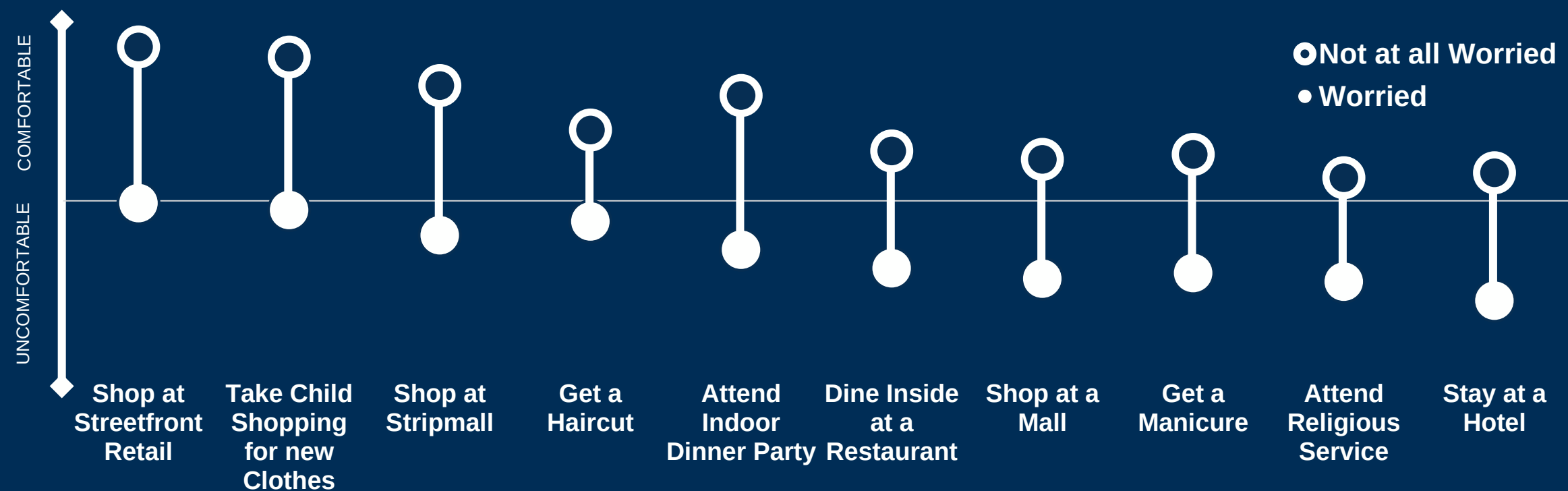
More have been affected, but fewer are worried

Fewer are being affected, but most remain worried

If you're worried, you're not getting back into the world



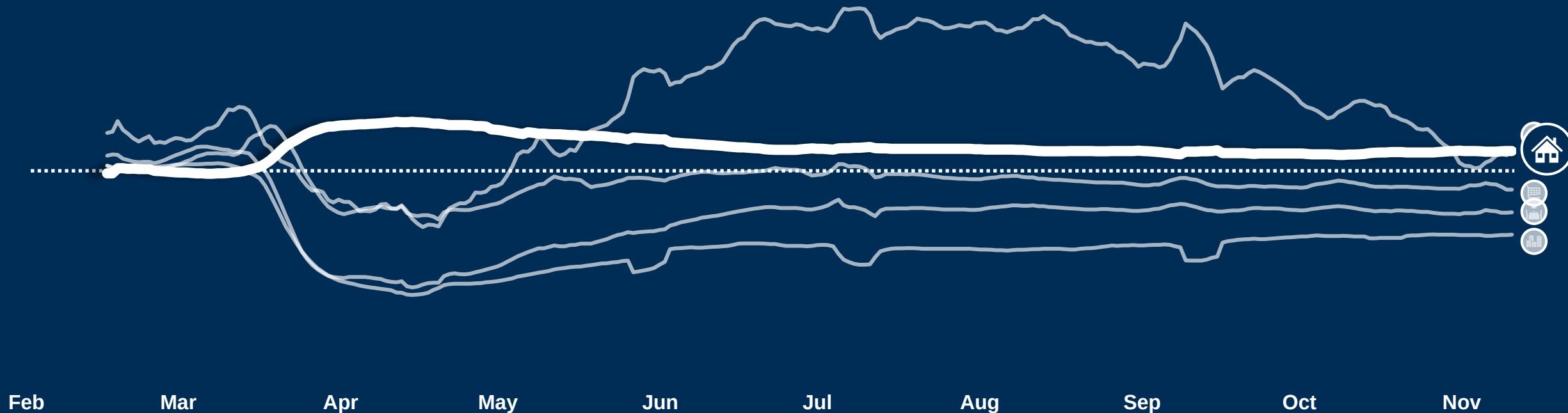
Comfort with Varying Activities: Those who harbor health worries vs. those who do not



This is contributing to important behavioral shifts...



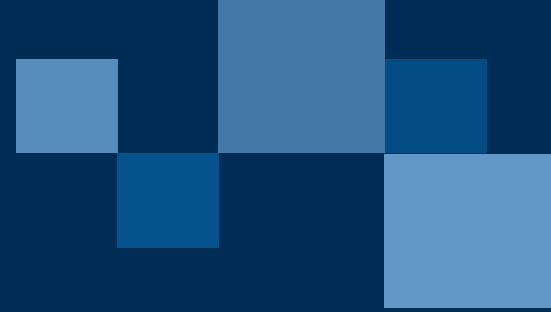
Relative Changes in Where People are Spending Time, February-November 2020



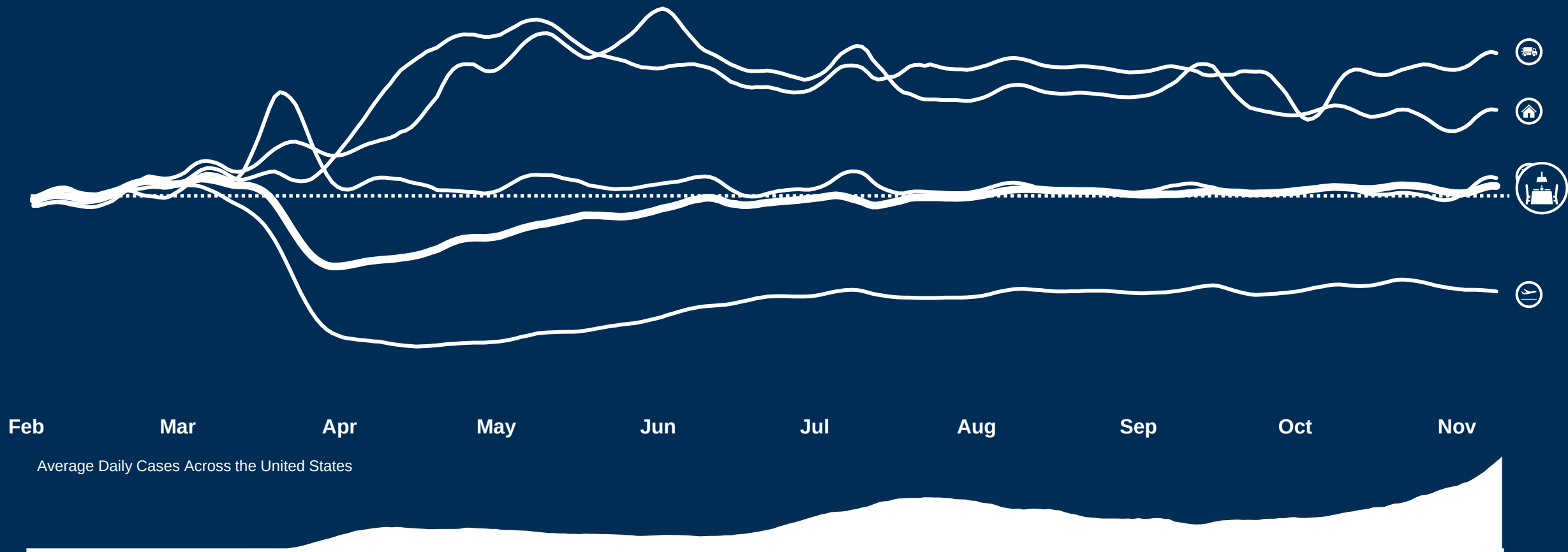
Average Daily Cases Across the United States



And therefore in spending patterns...

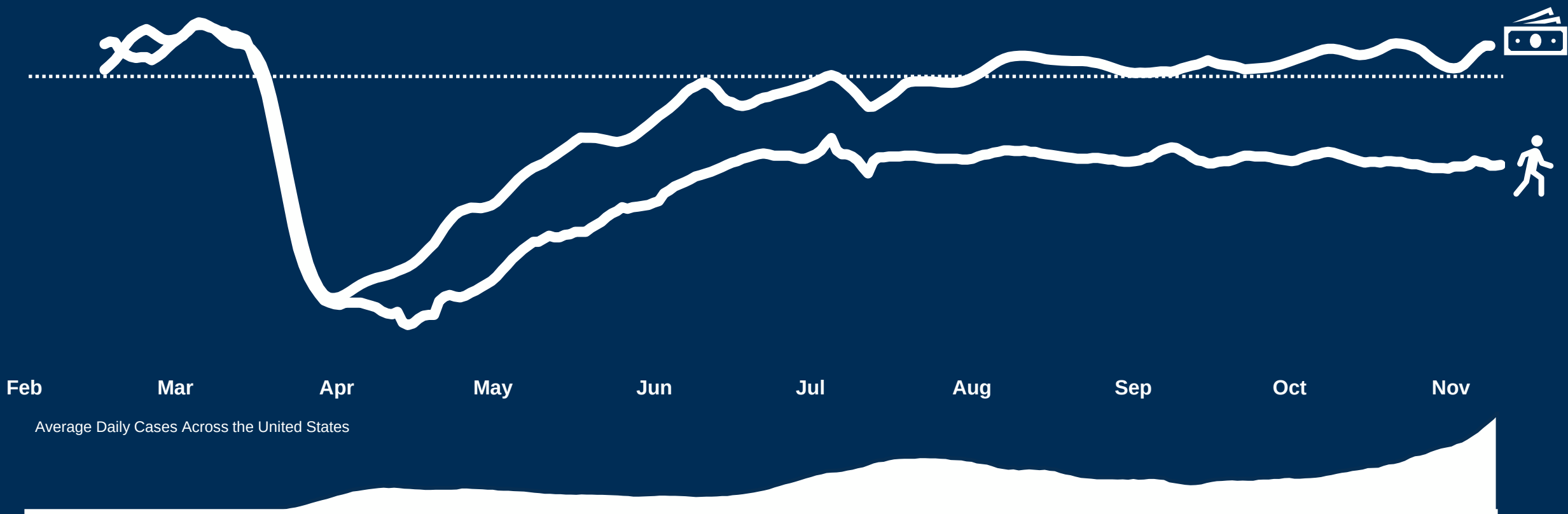


Tracked Credit Card Spending by Category, Relative to Pre-COVID Baseline



But these are not uniform patterns

Mobility vs. Spending Data at Restaurants, February to November

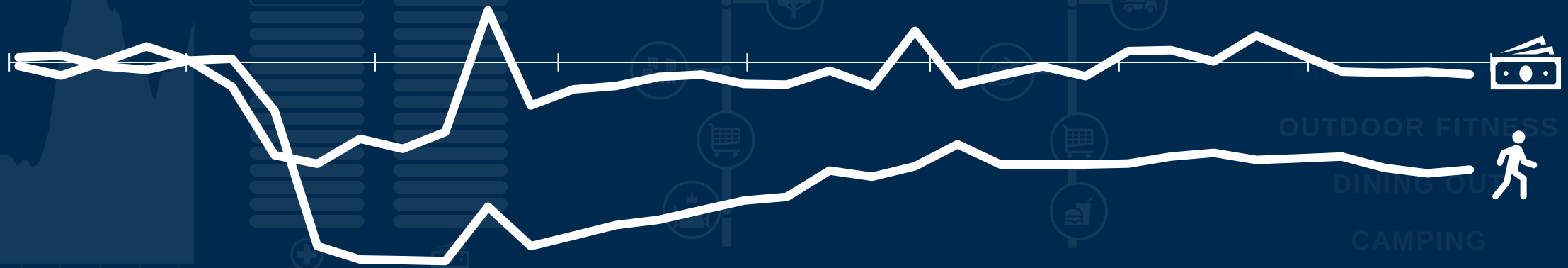


But these are not uniform patterns

An observation...

Chipotle sales have recovered to pre-crisis trend, while traffic remains well below trend

 **CHIPOTLE**



Is a third wave coming?

Mar

Our anxiety hasn't gone away...

Apr

May

While we're still more "at home" than not, we're reengaging in spending

Jun

Jul

Aug

And we're finding ways to get "out"

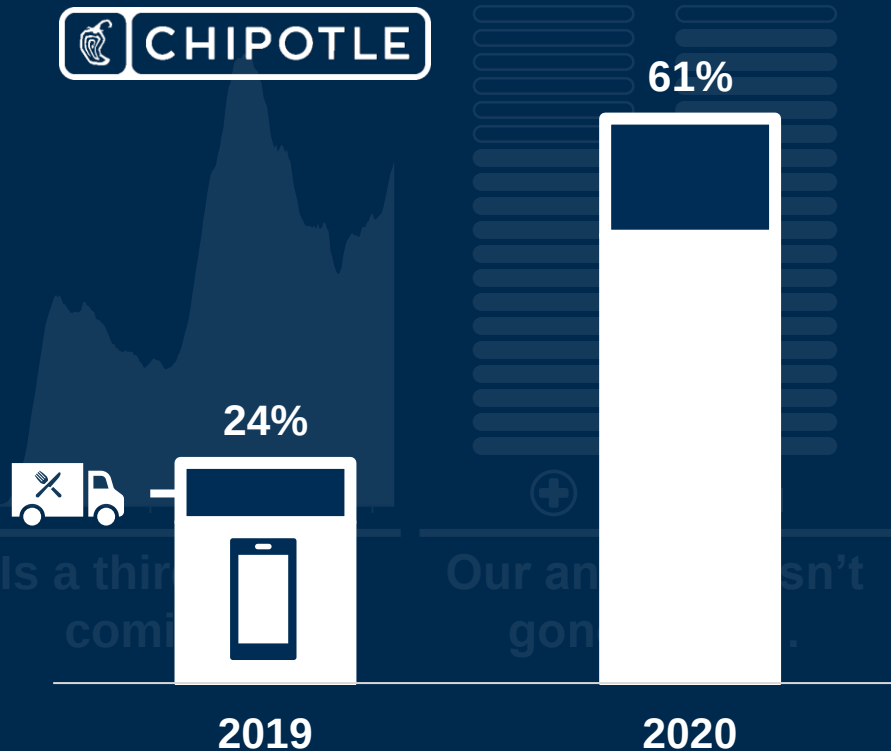
Sep



But these are not uniform patterns

An observation...

Chipotle sales have recovered to pre-crisis trend, while traffic remains well below trend



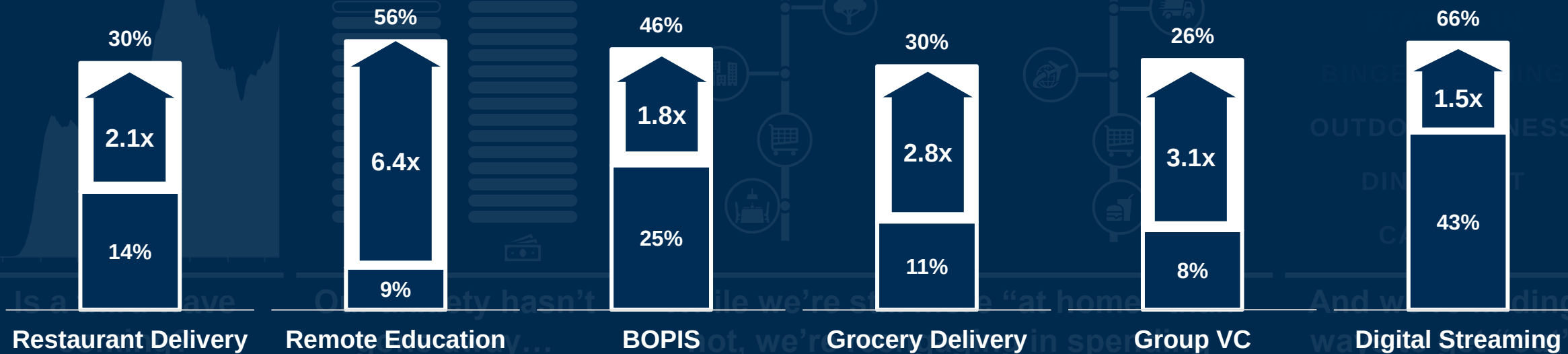
People haven't stopped eating burritos. They're just finding new ways to get them

Our fundamental wants, needs, & desires haven't changed

What has changed is how we fulfill them

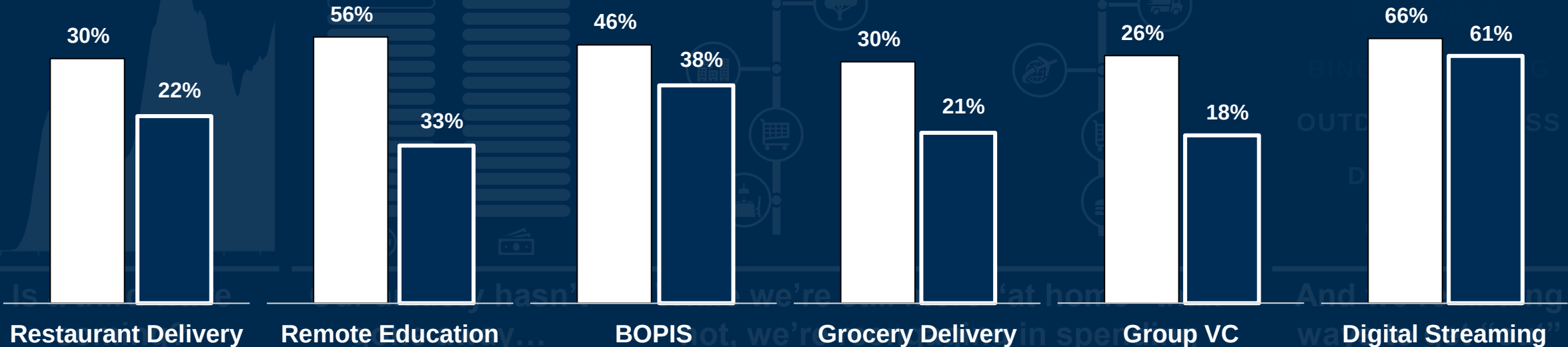
Adapting & Adjusting

We're trying a range of new ways to fulfill our needs...



Adapting & Adjusting

We expect some of these to “stick” more than others

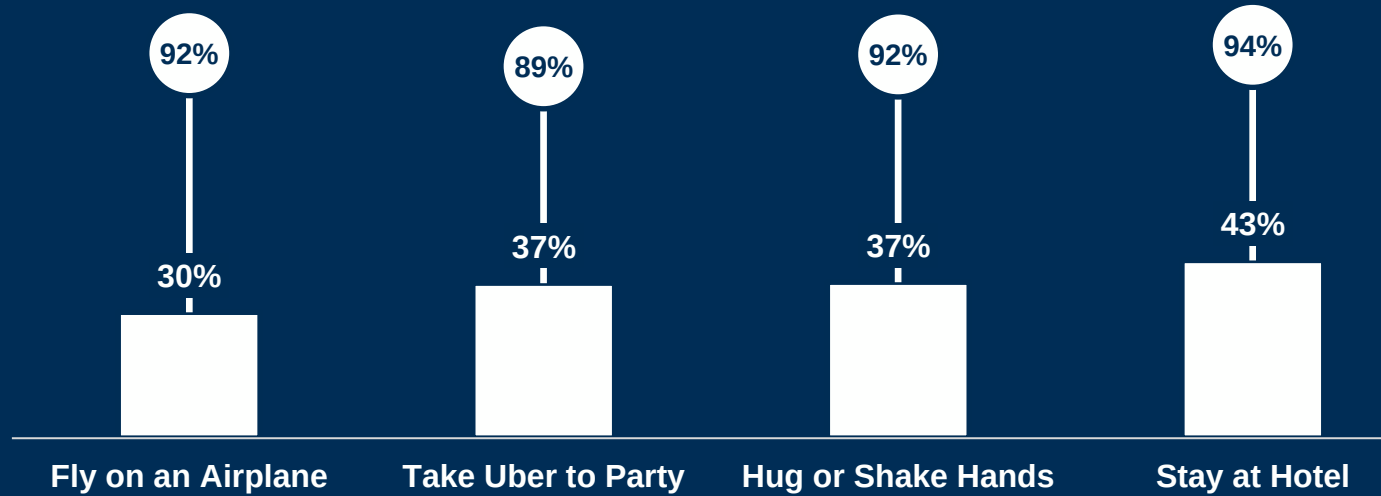


Most of these changes aren't permanent

Adapting & Adjusting

People are broadly prepared to return to their old habits, once they feel like things get back to normal

Comfort Today vs. Comfort When Feel Safe



So what does it take to get back to normal?

Getting back to normal...



Basic Safety Protocols in Place

Masks & social distancing in place to reduce my personal risk of catching the disease



Broad Testing Capabilities

So I can be more confident that those who are sick are self-isolating

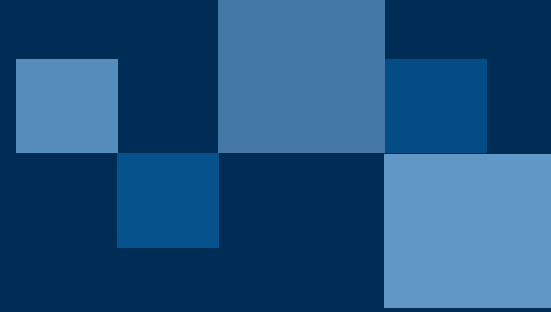


Vaccine is Widely Available

So that there is less virus present in the broad population



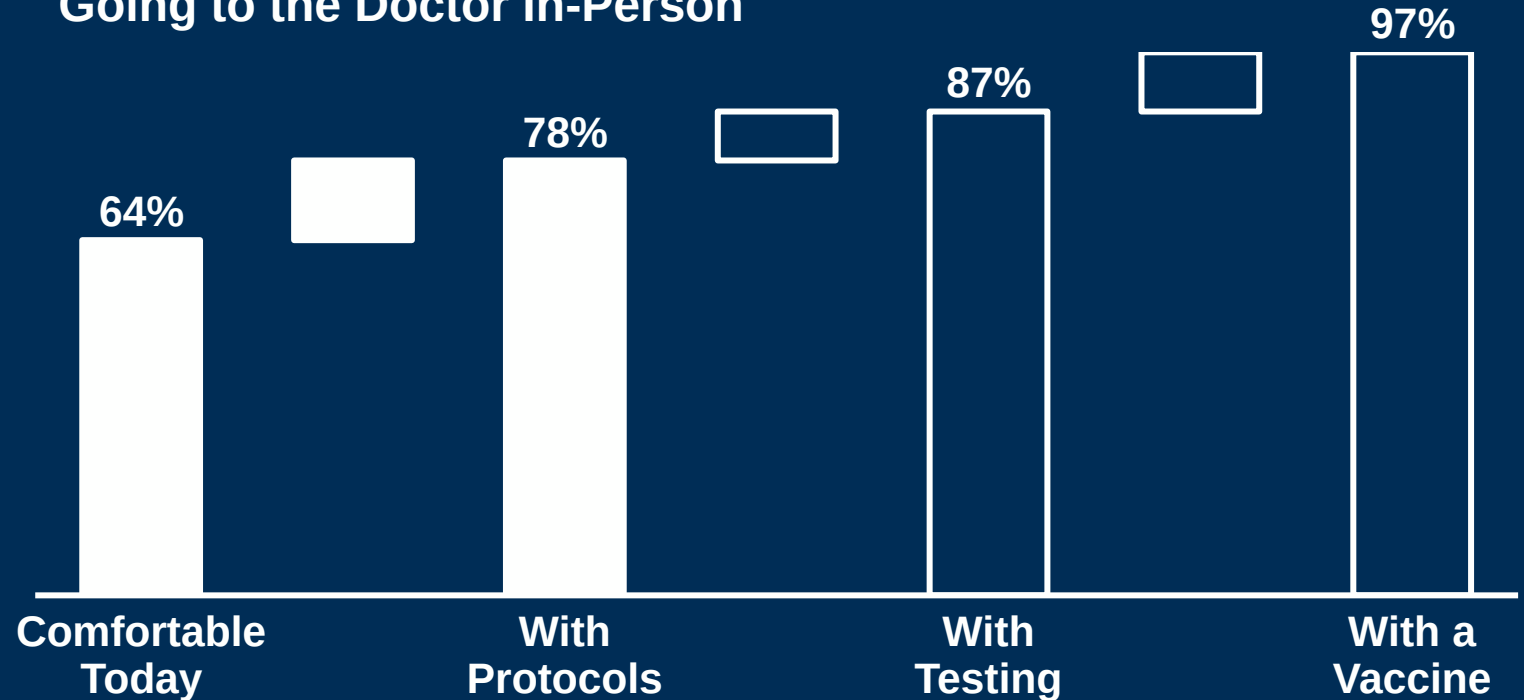
Basic Safety Protocols in Place



Masks, distancing, and other simple measures can help people feel comfortable...

- Grocery Shopping In-Person
- Having a Plumber Come to Home
- Working in an Office
- Going to the Doctor
- Hiking Outdoors with Friends
- Throwing an Informal Dinner Party
- Buying Online and Pick up in Store

What would it take for you to be comfortable...
Going to the Doctor In-Person





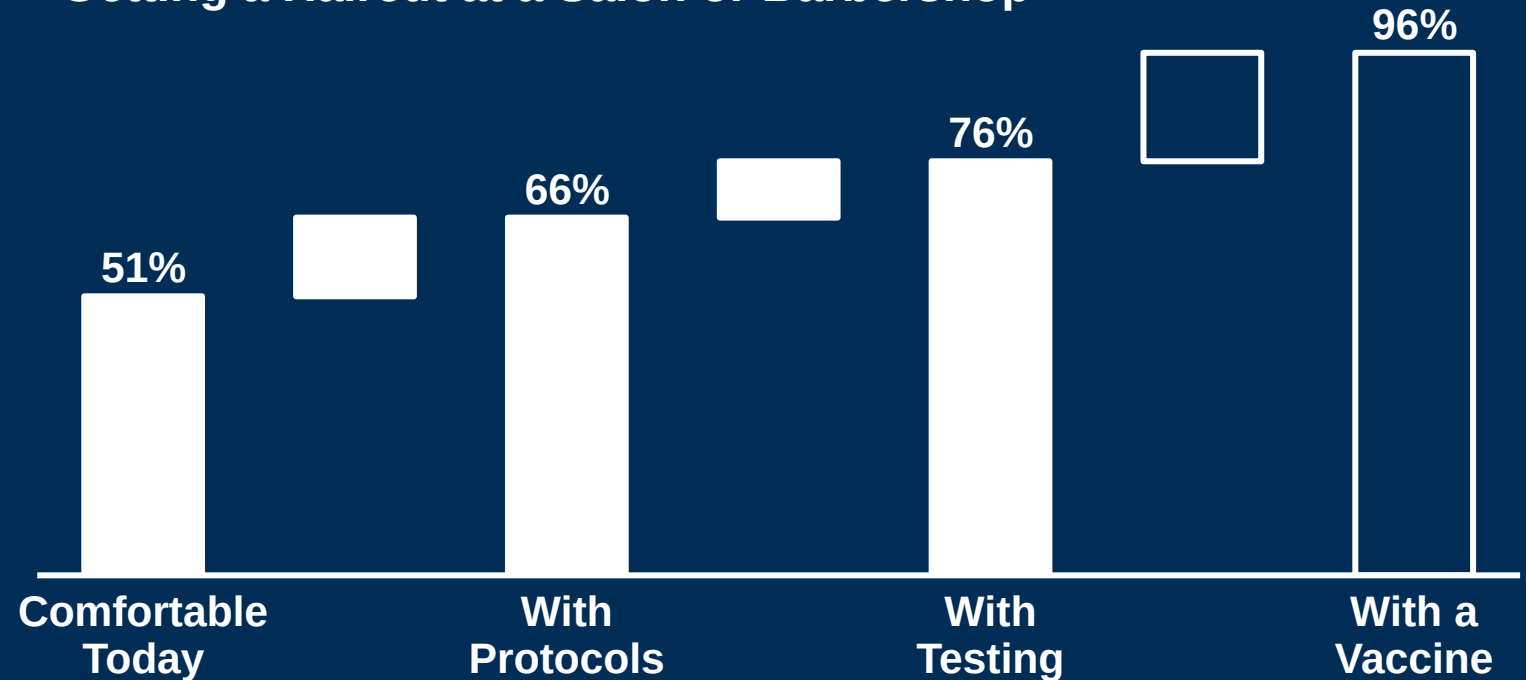
Broad Testing Capabilities

As easy testing becomes more broadly available, people will grow more comfortable...

- Taking a Child Clothes Shopping
- Sending a Child on Playdate
- Shopping at Stripmall
- Dining Inside with Family
- Shopping at a Mall
- Meeting in a Small Group at Work
- Visiting an Elderly Relative at Home

What would it take for you to be comfortable...

Getting a Haircut at a Salon or Barbershop





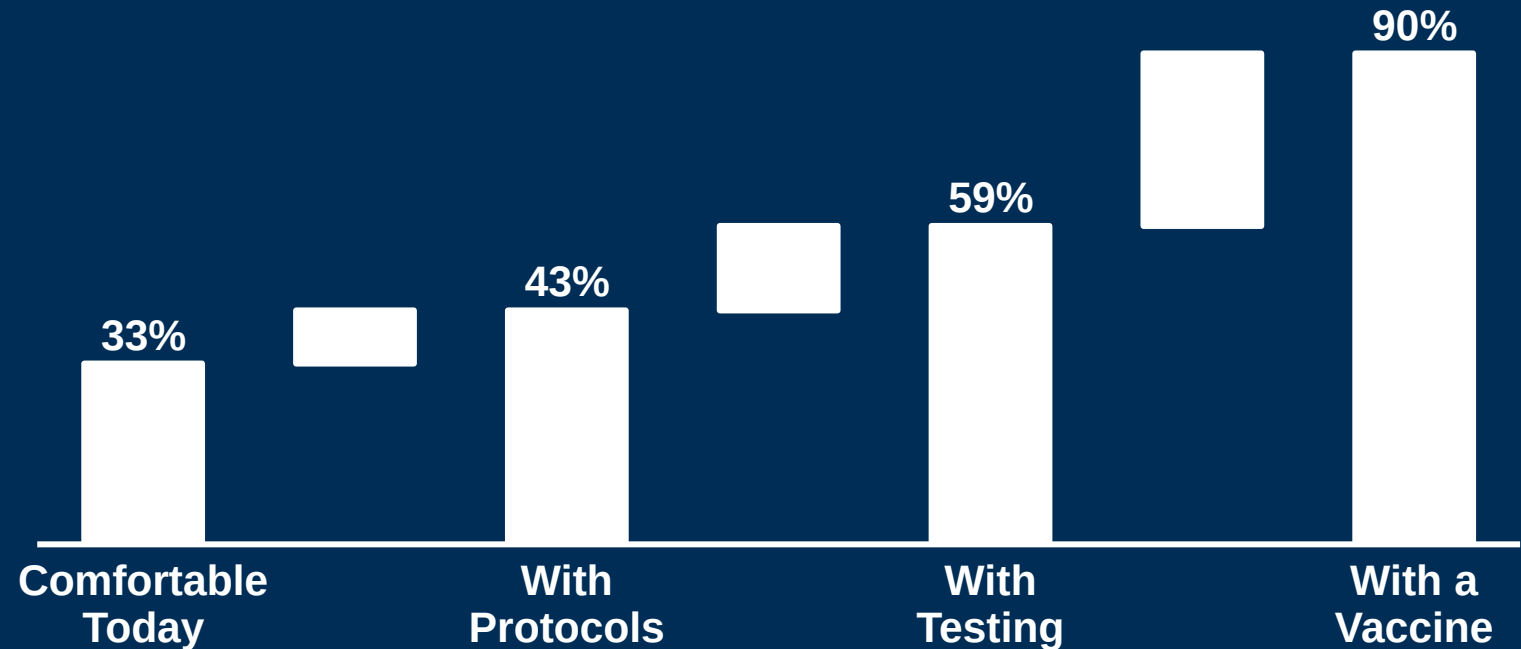
Vaccine is Widely Available



But, we'll need to wait for a vaccine for people to feel comfortable...

- Taking Public Transit for Work
- Flying on an Airplane
- Attending a Trade Show
- Attending a Wedding
- Staying at Hotel
- Going on a Cruise
- Going to an Amusement Park

What would it take for you to be comfortable...
Working out at a Gym

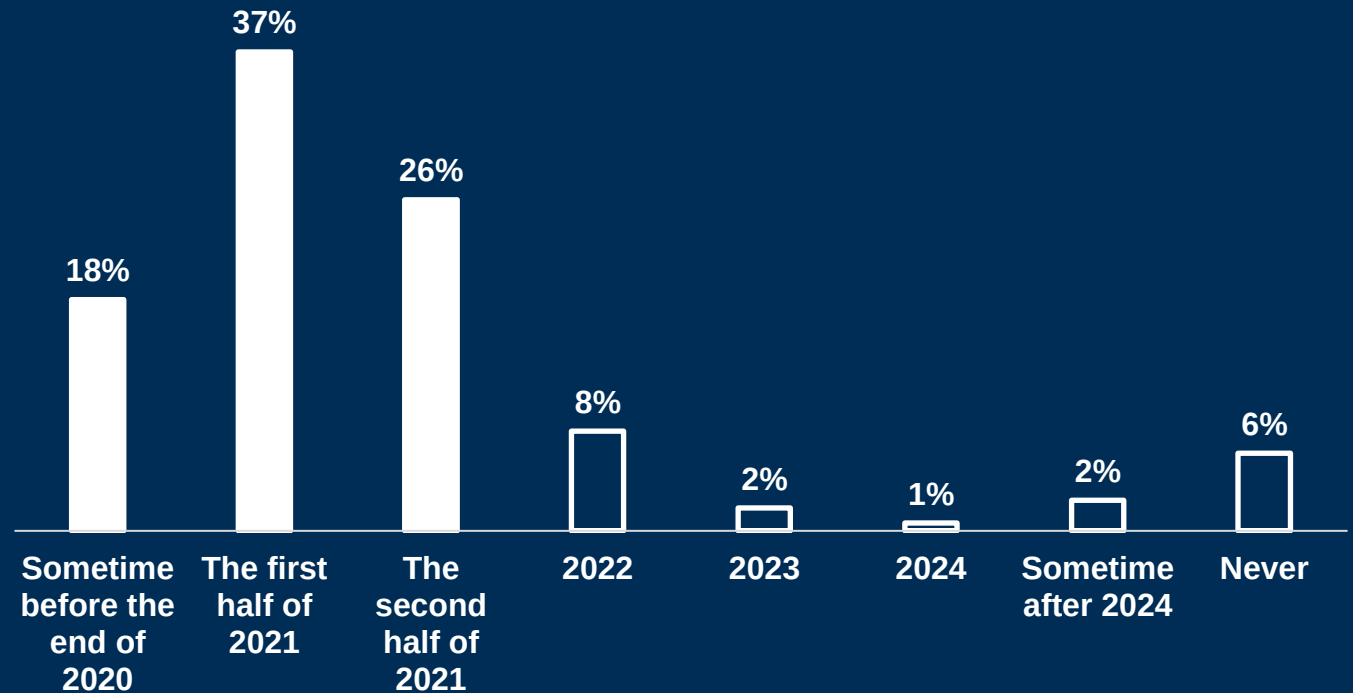


That vaccine is likely to arrive “on schedule”



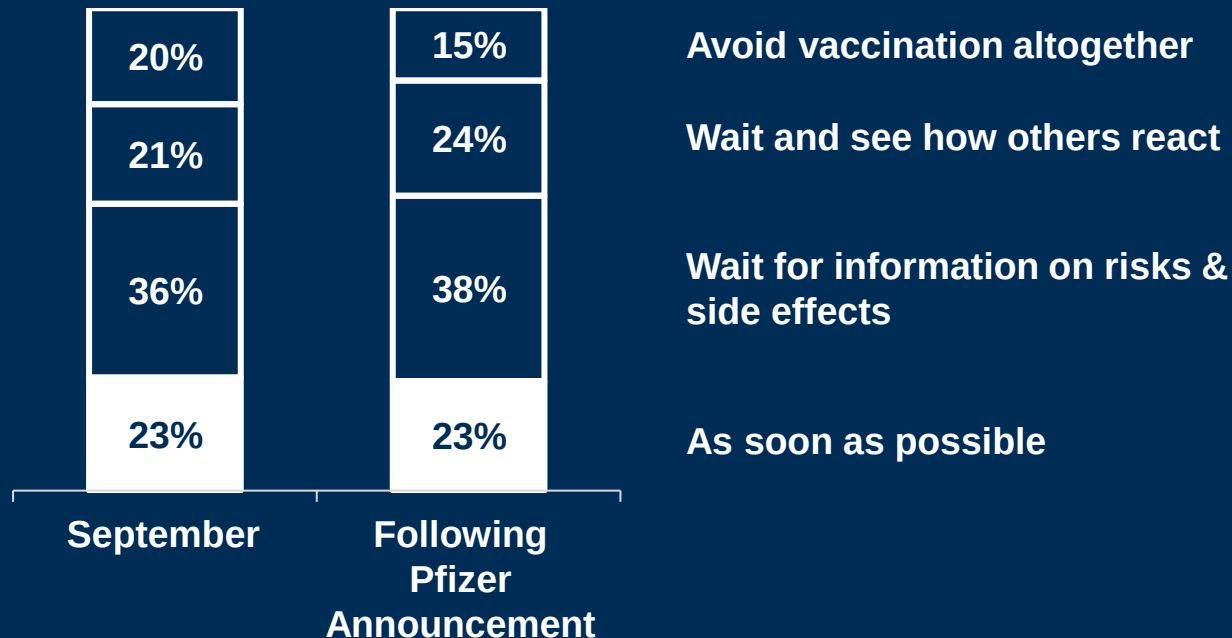
“Based on current projections we expect to produce globally up to 50 million vaccine doses in 2020 and up to 1.3 billion doses in 2021”

When do you expect to expect a vaccine to be available?



But the vaccine is not an economic panacea

When are you most likely to get vaccinated?



Vaccination will be a journey, not an event

Until things change, we continue to adapt & adjust

Especially in the context of travel & tourism

All these patterns inform our perspective on travel & tourism



**People miss
traveling
more than
anything else**



**If anything,
it's more
encouraging
for adventure
travel**

People are eager to get back to travel



What do you miss most?

Gen Z & Millennials	Generation X	Boomers & Older
 Leisure Travel		
 Entertainment	 Dining Out	
 Dining Out	 Entertainment	
 Cosmetics	 Business Travel	
 Accessories & Fashion	 Women's Apparel	 Gambling

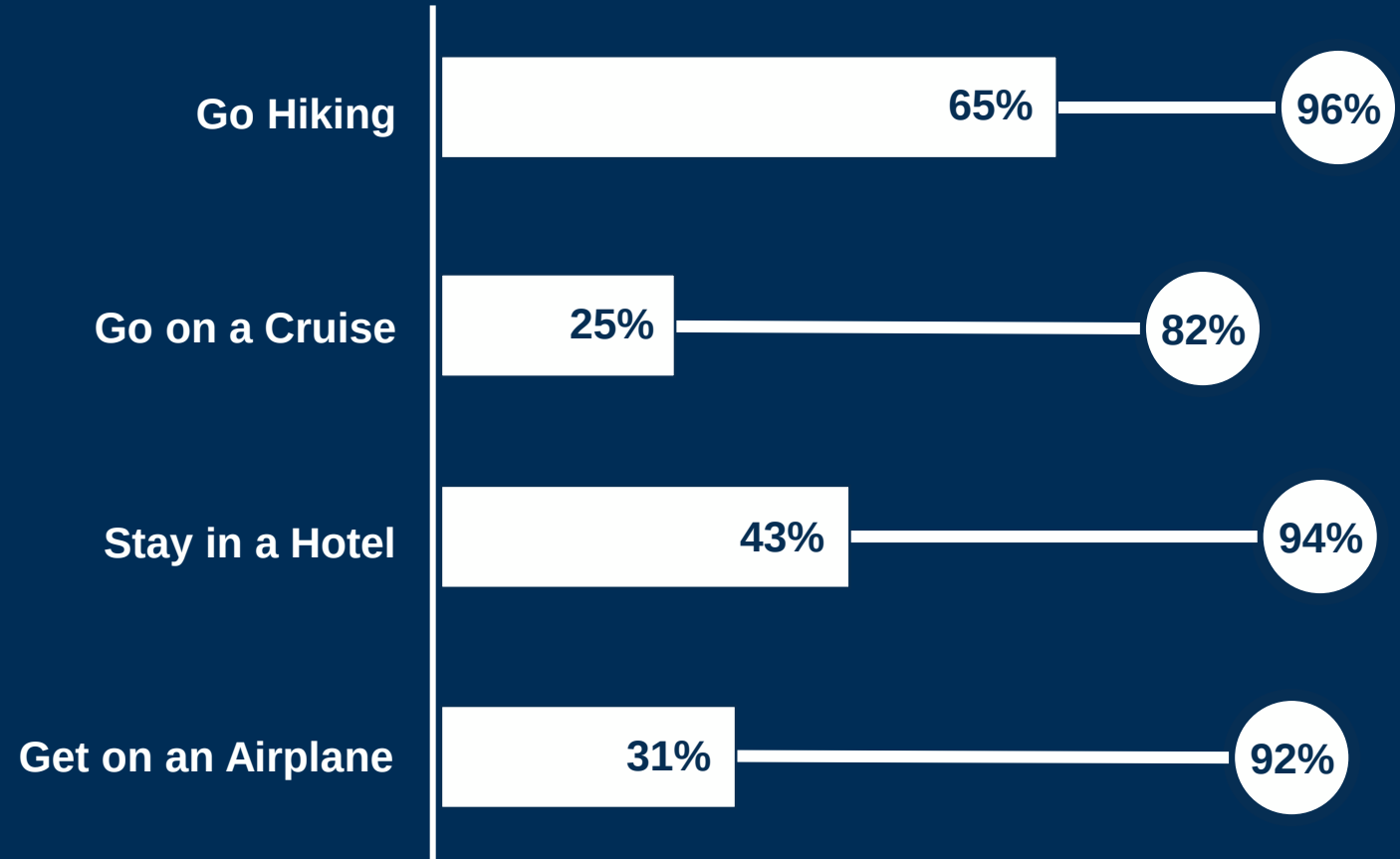
The desire to travel is evergreen

In fact, nothing is missed more

And they'll return as soon as they feel safe

Comfort Today vs. Comfort Post-Vaccine

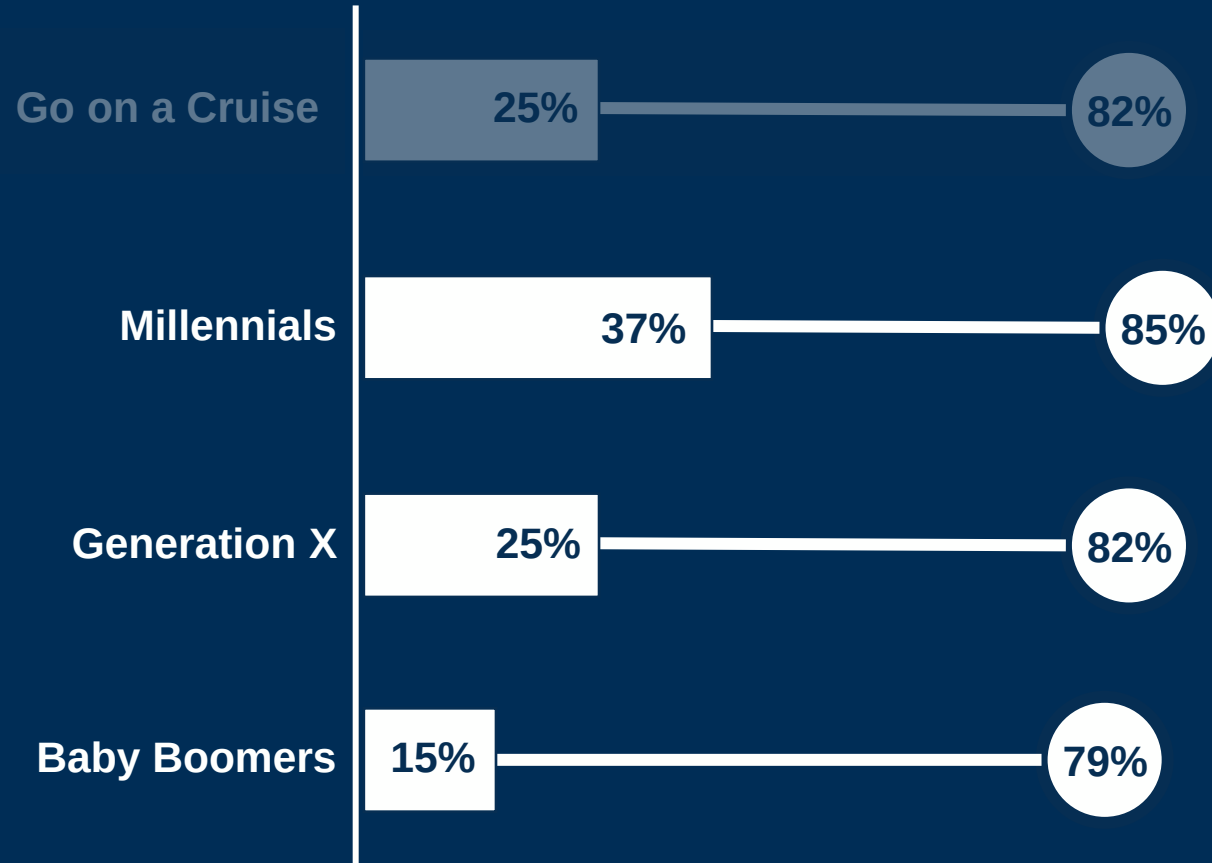
And it will
eventually come
roaring back



Cruising is a telling case

**Cruisers of all
ages are eager
to return to
cruising once it
is safe**

Comfort Today vs. Comfort Post-Vaccine



Cruising is a telling case

**Cruisers of all
ages are eager
to return to
cruising once it
is safe**

For the **second half of 2021 [bookings are] in line with historical ranges**. Pricing for full year 2021 is in line with pre-pandemic levels, even after including the dilutive impact of future cruise credits

Pent up future demand for cruising is further demonstrated by **record booking achievements in September and October** including Oceania Cruises'... most successful holiday promotion in the line's history, a new World Cruise opening day booking record for Regent Seven Seas Cruises... and a new all-time largest single booking day in Regent's history with the launch of its 2022-2023 Voyage Collection

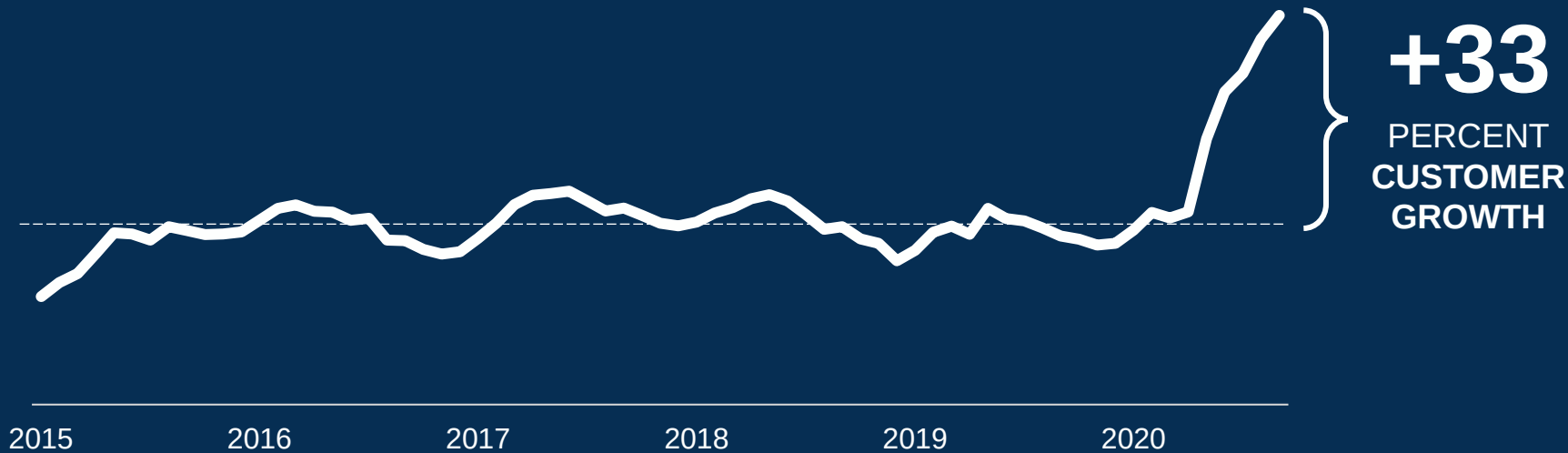


But new ways of travel are being discovered



The Expansion in the RV Lifestyle

CruiseAmerica Customer Count



+33
PERCENT
CUSTOMER
GROWTH

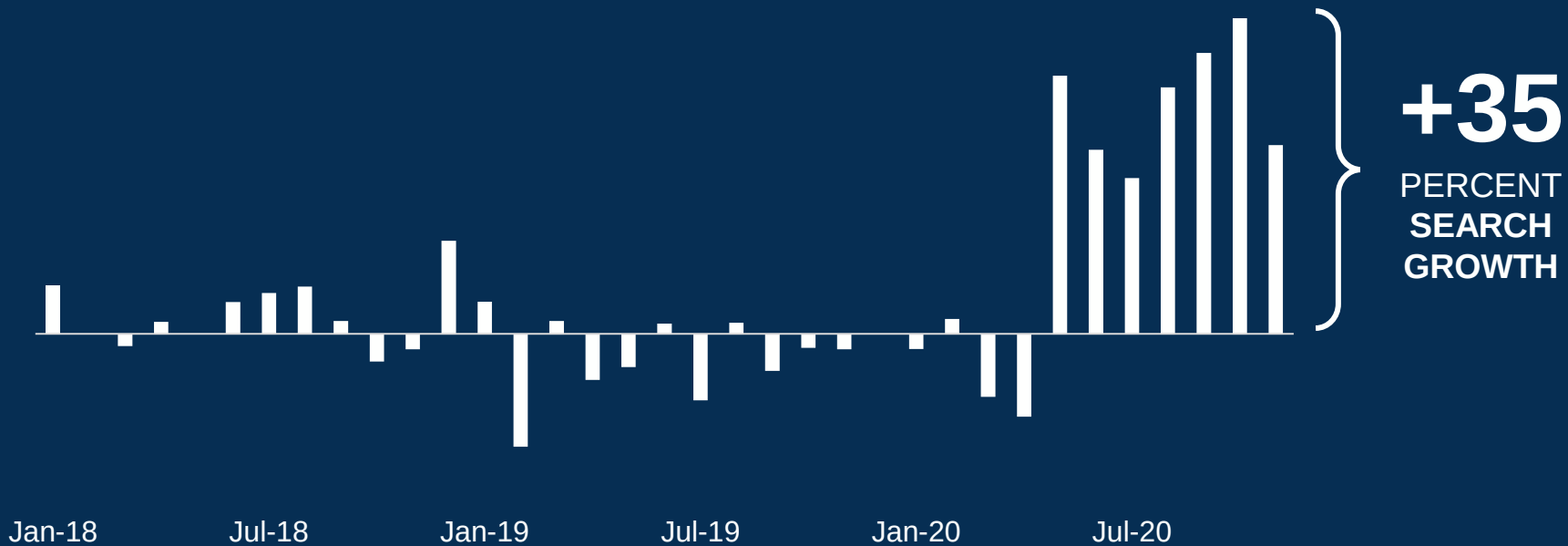
**Thousands of
people tried RVs
for the first time**

But new ways of travel are being discovered



Introduction to Hiking, Camping, Fishing, & Hunting

GoogleTrends for “Hiking”



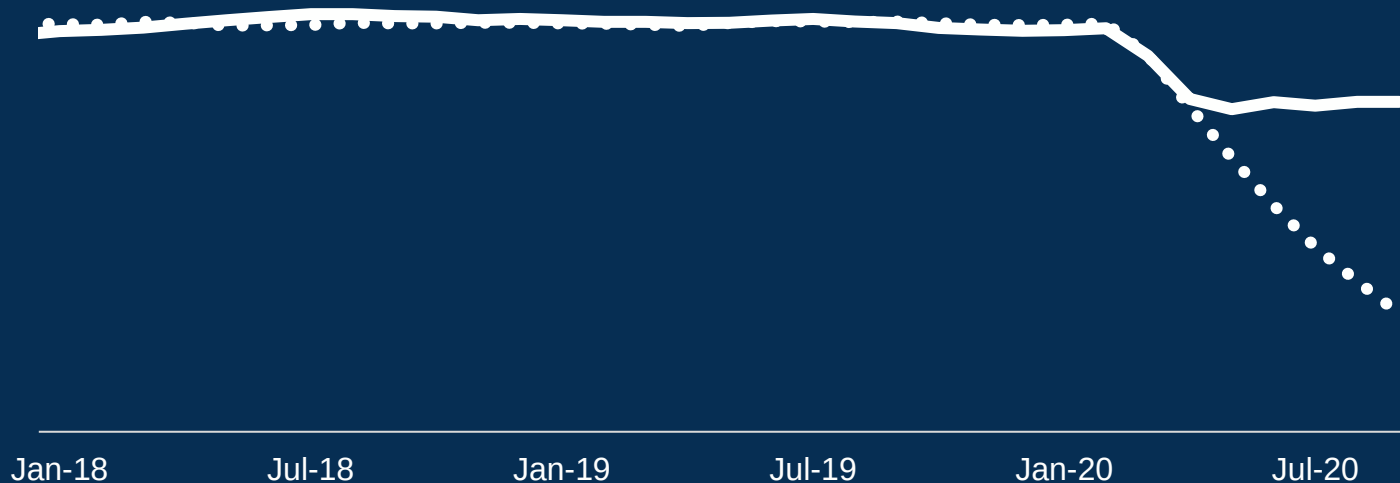
People are learning that they love hiking, camping, & fishing

But new ways of travel are being discovered



Adoption of Home Sharing & Pivot Away from Hotels

Performance Relative to Trend: Home-Sharing vs. Hotel Index



People are trading into home rentals from hotel stays

Our perspective on the travel space

In the near term...



Preference for **home rentals** over hotels



Focus on **outdoor experiences**



Anxiety about long-term plans



Focus on **wellness & relaxation**



Domestic over International travel

During the recovery...



Focus on **flexibility** & adaptability



Reconnection with family & loved ones



Persistent preference for the **outdoors**



Avoidance of crowded places



Gradual recovery of traditional modes of travel

In the long-term...



Return of **cruising**



“Once-in-a-lifetime” **adventures**



Continuation of **activities discovered during COVID**



Bespoke & small-group touring



Return of **international** travel

This creates multiple avenues for investment

Accelerating adoption of “outdoor” modalities with enduring appeal



Camping & Outdoor
Equipment



RV Lifestyle
Ecosystem



Outdoor Adventure
Travel Providers

Capitalizing winning modalities for long-term success



Home Rentals &
Extended Stay



Bespoke & Luxury
Travel Agencies



Digital Travel
Discovery Platforms

Investing into long-term winners that are dislocated in the short-term



Cruises & Cruise
Ecosystem



Leisure-Facing Airline
Platforms

A woman with long brown hair, wearing a red and black plaid shirt, is smiling and laughing while holding a string of warm white Christmas lights. A young child with brown hair, wearing a white long-sleeved shirt, is also smiling and holding the lights. They are in a room decorated for Christmas, with a Christmas tree and other lights visible in the background. The overall mood is warm and festive.

Q&A