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REGULAR MEETING OF THE BOARD OF TRUSTEES
February 23-24, 2016

Alaska Permanent Fund Corporation
Hugh Malone Board Room, 3rd Floor
801 West 10th Street
Juneau, AK 99801

Teleconference Access
Call-in toll-free number: 1-877-668-4493
Access Code (Meeting Number): 800 360 901

For Public Participation:
Dial in five minutes in advance of meeting start time and state your name to the operator.

TUESDAY, FEBRUARY 23, 2016

8:30 a.m. CALL TO ORDER

ROLL CALL (Action)

APPROVAL OF AGENDA (Action)

APPROVAL OF MINUTES (Action)

- **December 8-9, 2015**
- **December 21, 2015**

SCHEDULED APPEARANCES AND PUBLIC PARTICIPATION

EXECUTIVE DIRECTOR'S REPORTS (Standard Reports)

Corporate Operations

**Pending Board Matters, Trustee Education, Disclosure, Travel, Due
Diligence Log, Staff Education & Training**

Communications

Financial Report

Cash Flow

Monthly Performance Report

Investments Report

Net Fees Report

8:45 a.m. CAPITAL MARKETS OUTLOOK (Information)

Greg Allen and Steve Center, Callan Associates Inc.

- 9:45 a.m. BREAK**
- 10:00 a.m. PORTFOLIO OVERVIEW / REVIEW OF RISK DASHBOARD, EVOLUTION AND PROGRESS (Information)**
Jim Parise and Valeria Martinez, APFC
- 10:45 a.m. ASSET CLASS UPDATES (Information)**
- **Fixed Income – Jim Parise**
 - **Private Markets – Marcus Frampton and Steve Moseley**
 - **Public Equity – Fawad Razzaque**
 - **Real Estate – Rose Duran**
- 12:00 p.m. BREAK / LUNCH / WALKTHROUGH OF APFC OFFICE SPACE**
- 1:00 p.m. PERFORMANCE MEASUREMENT (Information)**
Greg Allen and Steve Center, Callan Associates
- 1:45 p.m. UPDATE ON FY17 BUDGET (Information)**
Angela Rodell and Laura Achee, APFC
- 2:15 p.m. BREAK**
- 2:30 p.m. UPDATE ON APFC OFFICE SPACE REDESIGN PROCESS (Information)**
Angela Rodell, APFC
- 3:00 p.m. RECESS FOR THE DAY**

WEDNESDAY, FEBRUARY 24, 2016

BOARD MEETING RECONVENES

- 8:00 a.m. PERSPECTIVES ON GLOBAL EQUITY – J.P. MORGAN and SCHRODERS (Information)**
- **Global Equity Review: ‘Exorbitant Privilege’ and Its Unintended Consequences**
Thomas Leventhorpe, Client Portfolio Manager, JP Morgan
George Iwanicki, Emerging Markets Macro Strategist, JP Morgan
Todd Evans, Executive Director, JP Morgan
 - **A Multi-Asset Perspective on Global Equity Markets**
Richard Coghlan, Multi-Asset Portfolio Manager and Member of Global Asset Allocation Committee, Schroders
Jamie Macmillan, Institutional Business Development Director, Schroders
- 10:00 a.m. BREAK**

- 10:15 a.m. INVESTMENT ADVISOR CANDIDATE INTERVIEW**
*Dr. Sarah W. Peck, Ph.D., Associate Professor of Finance,
Marquette University, Milwaukee, WI*
- 10:45 a.m. BREAK**
- 11:00 a.m. INVESTMENT ADVISOR CANDIDATE INTERVIEW**
*Tim Walsh, MBA, Independent Executive/Professional Fiduciary,
Crown Point, IN*
- 11:30 a.m. TRUSTEE COMMENTS**
- FUTURE AGENDA ITEMS**
- OTHER MATTERS**
- 11:45 a.m. ADJOURNMENT**

NOTE: TIMES MAY VARY AND THE CHAIR MAY REORDER AGENDA ITEMS (Please call Robin Strader at (907) 796-1520 or email rstrader@apfc.org with agenda questions.)

ALASKA PERMANENT FUND CORPORATION

SUBJECT: Board Meeting Minutes ACTION: _____X_____

DATE: February 23, 2016 INFORMATION: _____

BACKGROUND:

Draft copies of the following board meeting summary minutes are attached for review and approval:

- December 8-9, 2015 Quarterly Board of Trustees Meeting
- December 21, 2015 Special Board of Trustees Meeting

RECOMMENDATION:

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

ALASKA PERMANENT FUND CORPORATION
Board of Trustees Meeting
December 8-9, 2015

Location of Meeting:
Anchorage Marriott Downtown Hotel
Juneau/Haines Room
820 West 7th Avenue
Anchorage, AK 99501

SUMMARY MINUTES

Trustees Present: William G. Moran, Chair
Carl Brady, Vice Chair
Larry Cash, Trustee
Gary Dalton, Trustee
Craig Richards, Trustee

Trustees Absent: Randall Hoffbeck, Trustee

Staff Present: Angela Rodell
Valerie Mertz
Chris Poag
Jim Parise
Laura Achée
Robin Strader
Rose Duran
Valeria Martinez
David Fallace
Marcus Frampton
Fawad Razzaque
Steve Moseley
Brian Duncan

Advisor Present: Jerrold Mitchell

Invited Participants and Others Present:
Gregory Allen, Callan Associates Inc.
Steven Center, Callan Associates Inc.
Feng Ge, Trustbridge Capital
Dan Sullivan, Trustbridge Capital
Lydia Zheng, Trustbridge Capital
Ken Ryan, Riverstone Holdings
Pierre Lapeyre, Riverstone Holdings

David Leuschen, Riverstone Holdings
Patricia Pollard, U.S. Treasury Department
Trina Rand, U.S. Treasury Department
Larry Hartig, former APFC Trustee
Ron Crawl, Eagle River
Sterling Gallagher, Anchorage
Charlie Ruch, San Francisco
Philip Todd, Anchorage
Maria Tsu, Anchorage
Jeannette Lee Falsey, *Anchorage Dispatch News*

TUESDAY, DECEMBER 8, 2015

CALL TO ORDER

CHAIR MORAN called the meeting to order at 8:30 a.m.

ROLL CALL

CHAIR MORAN, VICE CHAIR BRADY, and TRUSTEES CASH, DALTON and RICHARDS were present to form a quorum. TRUSTEE HOFFBECK was not available to attend the meeting.

APPROVAL OF AGENDA

TRUSTEE CASH moved approval of the agenda as submitted; there were no objections raised.

APPROVAL OF MINUTES (September 29-30, October 7, and October 9, 2015)

TRUSTEE DALTON moved and TRUSTEE CASH seconded the approval of the minutes of the board meetings on September 29-30, October 7 and October 9, 2015. There were no objections raised by the Trustees.

SCHEDULED APPEARANCES AND PUBLIC PARTICIPATION

There were no scheduled appearances or public participation.

EXECUTIVE DIRECTOR'S REPORTS

CEO ANGELA RODELL reported that she had been invited to speak at the annual Alaska Alliances meeting in January, but would be unable to go due to jury duty commitments. General Counsel CHRIS POAG will speak on her behalf.

She also noted that previous CIO JAY WILLOUGHBY and the investments staff had recently won the aiCIO Innovation Award for Sovereign Wealth Funds. This is the APFC's second win in four years, which is quite an accomplishment. CHAIR MORAN

extended congratulations on behalf of the Board, commenting that it is truly indicative of the great work performed by all of the staff.

RISK DASHBOARD

[A copy of the slides for this presentation is on file at the APFC offices.]

JIM PARISE, Acting CIO for the past two months, offered his observations to the Trustees, stating that he had been focused on learning the overall portfolio and how the various asset classes work together. Regarding the risk dashboard, while the full allotment of slides will remain in the packet for the time being, his goal is to work on editing down the presentation to just the core slides which really tell the story. Trustee feedback is encouraged.

MR. PARISE remarked that he is looking for more clarity on the Special Opportunities bucket, which has a 20% target, and is considering splitting off allocation strategies – such as hedge funds, ECIOs and the Lehman Aggregate – into one bucket, with true special opportunities in another. The structure and benchmarks to be used for these buckets are under consideration.

He will also focus on liquidity; the new push into private markets requires commitments over different time periods, and staff may not know when capital will be called or received. The creation of a liquidity profile would consolidate cash flow and commitment information, and may take a few months to put together.

MR. PARISE also commented on the trend in fees paid by the APFC. In FY14, fees paid out were 52 bps or \$276,200,000. The trend is very favorable for the Corporation, as moving more of the investment management in-house has resulted in maintaining or improving performance, while reducing overall fees paid.

MR. PARISE turned the floor over to VALERIA MARTINEZ, Director of Risk Management, to review the risk dashboard. For the year ended September 2015, the cash and rates bucket was underweight at 6%, versus the benchmark at 10%, with a relative contribution of -19 bps. Company exposure remains overweight at 60% versus the benchmark at 52.5%, with a portfolio return of -2.97%, which beat the benchmark at -4.63%. Real assets performed well, soundly beating the benchmark with a relative contribution of +140 bps. Special opportunities also performed very well, returning 10.87% versus the benchmark of -2.07%, for a relative contribution of +225 bps.

MR. PARISE explained that in the future, the target allocation of 20% for special opportunities would be split into 2 buckets with a 10% target for each – an allocation strategy and true special opportunities. Staff is still determining a separate benchmark for each bucket.

MS. MARTINEZ noted that the overall portfolio is taking slightly less risk than the strategic risk benchmark, with a better total return of 1.85% versus the benchmark at -2.07%.

CHAIR MORAN inquired about the missing tail risk slides, and said it would be helpful to see what the 16.2% in tail risk actually translates to in dollar terms. MR. PARISE replied that staff would add the tail risk slides back into the presentation for the next meeting.

In summary, MS. MARTINEZ observed that in the last quarter, staff reduced the overweight of short duration bonds within company exposure. The portfolio remains overweight equities, underweight real assets and special opportunities. The Fund is slightly underweight risk versus the risk benchmark, and has outperformed both the performance benchmark and the risk benchmark over all time periods, including last quarter, 1-year and 3-year returns.

Board Investment Advisor JERROLD MITCHELL congratulated staff on its excellent performance and a very good year. He suggested that the Corporation should give some thought to focusing on other ways of looking at risk and return, playing to staff's strengths. MR. PARISE agreed, adding that stability in staff was crucial to performance.

MS. RODELL commented that, along those lines, she has convened a group of investment staff to do due diligence on the whole portfolio, and has named it "The Committee". She wants to understand the upsides and downsides to each investment, and where each fits into the underlying portfolio strategy. She appreciated MR. MITCHELL's comments, and noted that as the CIO search gets underway, she will be looking for that quality.

CHAIR MORAN asked for more detail on the budget request for more risk management resources. MS. MARTINEZ responded that staff has issued an RFP for a new risk management system to handle the more complicated asset allocation in use at the Fund. There is also a budget request for an additional staffer to help her in looking at individual investments to measure the risk involved and how each would mesh with other asset classes.

CHAIR MORAN also noted that the evolution of the risk dashboard and development of the green/yellow/red zones has been in place for about 5 years now. He suggested that it would be valuable to review for the Trustees' benefit and assess how well the program is working.

ASSET CLASS UPDATES

[A copy of the slides for these presentations is on file at the APFC offices.]

Fixed Income Update

MR. PARISE observed that it had been a very tough quarter in every sector, but the long term performance track record remains very good.

The Internal FI Aggregate portfolio represents the best ideas of the fixed income team. It remains overweight corporates and underweight MBS versus the index. Last quarter, the team sold Treasuries and bought TIPS for break-even results. The portfolio was down 48

bps for the quarter, down 70 bps for the year. Half of that has been gained back since quarter-end. The portfolio has the same yield as the index, with a slightly higher spread than the index.

Of the \$1.5B Internal Intermediate Corporate Bond portfolio, \$1B is invested in Treasuries and CDX, and used as a liquidity tool. It has proven to be a good tool for staff.

The Internal MBS portfolio is difficult to manage; Senior Portfolio Manager CHRIS CUMMINS stays close to the index, but still outperforms. The Internal CMBS portfolio has had a tough time over the short and long term, primarily since the portfolio owns ultra high quality. Staying out of trouble will help outperformance over the long term.

The \$1B Internal Government Bond portfolio is managed by MASHA SKURATOVSKAYA. Staff sold Treasuries to buy TIPS, which are taking much longer than anticipated to make a comeback. Over the long term, staff believes that inflation will return eventually, break evens will widen, and performance will come back.

For the \$220M Global Government Bonds portfolio, the overweight to China has been difficult and affected performance.

MR. PARISE wrapped up by noting that all of the external managers have had a good year with one exception.

CHAIR MORAN observed that the fixed income portfolio had been beating the benchmark with less risk over the long term.

CHAIR MORAN called a brief break at 9:46 a.m. The meeting resumed at 9:57 a.m.

Private Markets Update

Director of Private Markets MARCUS FRAMPTON stated that the portfolio had achieved good numbers overall and solid performance over the 3-year time period.

The Since Inception-IRR (SI-IRR) is at 6.4% net-of-fees as of 9/30/15. Excluding the underperforming \$500M Citi commitment from 2007, the SI-IRR is 12.6% on the portfolio. The co-investment portfolio and listed infrastructure remain the top performers at 10.7% and 9.4% respectively.

TRUSTEE RICHARDS inquired about the makeup of the infrastructure portfolio. MR. FRAMPTON responded that of the overall portfolio, about half is invested in energy assets (power, midstream oil and gas) and the other half mostly in transportation (ports, toll roads, and airports), along with 10% in waste and water, and the “other” bucket (telecom, oil and gas). On the private side, the investments are more diverse, such as in railroads and cell tower stocks.

MR. FRAMPTON continued that the infrastructure market is a little narrowly defined, with lots of capital going into energy projects.

Moving into private equity, STEVE MOSELEY, Senior Portfolio Manager, commented that two years ago, when he first arrived at the APFC, private equity decisions were made primarily by outsourcing to two gatekeepers, Pathway and HarbourVest. This arrangement came at a considerable opportunity cost due to loss of opportunities for co-investments and secondaries, as well as limiting the Corporation's access to funds.

MR. MOSELEY went on to say that having a direct relationship with the market has led to improved portfolio construction, planning and control at a significant cost savings of \$43.7M over five years. To date in FY 2016, \$382M has been committed to 13 funds, 51% committed by staff. PE co-investment activity so far in FY16 has resulted in \$41M invested in two companies.

TRUSTEE RICHARDS asked whether the APFC had an active currency management program. MR. PARISE said that they do not; the program would be too expensive. MS. RODELL added that staff looks at this on a case-by-case basis at commitment buy-in time. While they might hedge the near-term currency risk to lock in the cost in U.S. dollar terms, they would not hedge the 30-year return.

MR. MOSELEY stated that it had been a challenge this year not to deploy capital too quickly. This has been the hottest ever fundraising market.

The private equity snapshot shows that FY15 was the seventh consecutive year with returns above 10%. Staff is very pleased with the performance, the process in place and prospects moving forward.

The private credit portfolio has a 2% target allocation, the smallest of the three programs in private markets. The current portfolio has three commitments totaling \$750M – two in mezzanine debt and one in distressed debt – all made prior to MR. FRAMPTON's arrival.

MR. MITCHELL asked how many funds they typically see each year. MR. FRAMPTON replied that he sees hundreds of infrastructure funds, and commits to just one or two per year. Conversely, he might see just 4 or 5 actionable co-investment opportunities a year. In private equity, MR. MOSELEY added that there are approximately 2600 funds in the market now. With the aid of BlackRock and Pathway, he is able to investigate hundreds each year.

Public Equities Update

Director of Public Equities FAWAD RAZZAQUE stated that 56% of the public equity allocation is managed by active managers, and the remainder by quasi-passive and passive managers. The geographic distribution for the strategic allocation is 40% U.S., 40% international developed and 20% emerging markets (EM). The current actual allocation is 44.2% U.S., 38.1% international developed and 17.7% EM.

Public equity performance for the first quarter of the fiscal year was -10.26%, versus the MSCI ACWI IMI at -9.59%, a difference of -67bps. For the quarter, performance was driven by the overall market direction (toward U.S. and growth), where large caps outperformed small caps by approximately 500bps in the U.S., and growth outperformed value by 265 bps. In terms of sectors, the market was led by utilities and consumer staples, with energy, materials and financials lagging behind.

TRUSTEE RICHARDS asked how the State economy's massive over-exposure to the energy sector affects the Permanent Fund's strategic allocation. MR. PARISE replied that while staff is certainly conscious of the situation, they continue to manage the portfolio within its risk allocation for permanence, so that outside factors do not influence investment decisions.

TRUSTEE RICHARDS continued that, since Permanent Fund assets are now part of the discussion around managing the State budget, staff will have to consider the commodity price risk and exposure to oil. MR. PARISE stated that until the investment mandate is required to make those changes, staff will continue to manage the portfolio according to its current guidelines.

Board Consultant GREG ALLEN noted that this is ultimately the Board's decision to make. While staff can implement the strategic direction, it is the Board's responsibility to think about diversification. The decision to explicitly hedge against commodity prices has been looked at in the past but never implemented. TRUSTEE RICHARDS concluded that if the state legislature looks to the Permanent Fund for revenues, it will be critical for the Board to look at ways to mitigate the oil price risk.

Real Estate Update

Director of Real Estate Investments ROSE DURAN led off her update with the news that APFC had hired a new Real Estate Portfolio Manager, TIM ANDREYKA, who comes to the Fund with 20 years of commercial RE experience.

As of September 30, the Fund has invested \$6.6B in real estate, with \$5.4B in private real estate and \$1.2B in the public REITs market. The Fund is now at 13% invested, slightly above its 12% target allocation. The portfolio is overweight to public real estate by 7%.

Real estate experienced another very successful quarter with 4.5% returns, as compared to the benchmark of 3.1%, producing 140bps of outperformance for the quarter. These enhanced returns are due to the debt placement that was added in FY2014, resulting in 17.1% returns for the year and 360 bps of outperformance.

The REIT portfolio did not do as well; while it produced returns in line with the benchmark for the quarter, the portfolio drastically underperformed for the year, with 620 bps of underperformance.

Compared to the blended benchmark, the portfolio produced 90 bps of outperformance for the quarter and 100 bps for the year.

TRUSTEE RICHARDS inquired as to how the valuation for the private real estate portfolio is established. MS. DURAN replied that each property is evaluated by outside appraisers every 3 years with a full scope appraisal. In the interim, DCF evaluations (discounted cash flow) are performed quarterly.

Regarding property sector performance, MS. DURAN stated that the portfolio's overweight to the retail and multifamily sectors was a great contributor to performance. The one detractor was the industrial sector.

In the REIT portfolio, AEW produced very strong performance for the quarter and the year, while American Homes 4 Rent detracted from overall performance, underperforming the benchmark by 1000 bps for the year. Most recently, AH4R announced that they are taking over American Residential Properties, acquiring an additional 9,000 units.

MS. DURAN noted that there are four pending acquisitions in the pipeline, including the Texas Medical Center office building in Houston TX, a medical office portfolio in Boston MA, and a regional shopping center in Lisbon, Portugal.

In summary, MS. DURAN stated that \$74M of industrial deals had been completed in the Lincoln JV; 3 medical office transactions of \$106.8M in equity had been completed; and \$242M of remediation was completed on underperforming product. Staff is continuing to look at opportunities in Europe, and a redraft of the strategic plan for real estate was planned for completion in the first half of 2016.

Special Opportunities Update

Director of Special Opportunities DAVID FALLACE noted that the Crestline hedge FOF had outperformed the HFRI, while both Lazard and Mariner underperformed. Total FOF fees paid was \$8.3M; General Counsel CHRIS POAG is negotiating new contracts to manage fees more efficiently. For a mandate the size of the Permanent Fund, the industry standard for fees should be closer to 20bps, no carry. Staff is putting pressure on managers' higher level fees to come down.

MR. FALLACE informed the Board that the former external CIO program had been shut down, and the three remaining managers – AQR, Bridgewater and Goldman Sachs – had been moved into a single hedge fund portfolio. To date, staff has been happy with the direction things are moving.

It is still early in the J-curve for the private CIO (PCIO) program with Apollo and Carlyle. The program could be defined as concentrated private equity bets with strategic partnerships, currently focused on energy and agricultural investments.

Staff is continuing to look for areas of opportunity, particularly through supply and demand imbalances and dislocations in the market. Areas of particular interest include such secular trends as healthcare and breakthrough therapies; technologies such as cybersecurity and immunotherapy; and industries such as shipping, alternative energy and early stage life sciences.

CHAIR MORAN called a lunch break at 12:03 p.m. The meeting resumed at 12:38 p.m.

PUBLIC EQUITY MANAGER SELECTION

[A copy of the slides for this presentation is on file at the APFC offices.]

MR. RAZZAQUE opened his presentation with a few facts, perceptions and biases in approaching the manager selection process, such as:

- Few active managers can outperform the market net-of-fee over the long term;
- All active managers experience peaks and valleys in performance;
- The tendency to be too patient with underperforming managers; and
- Preference for high or low turnover managers; for boutique vs. large asset managers; and for active vs. passive managers.

At APFC, staff focuses on what is likely to drive a manager's performance, selecting those where key drivers of performance appear to be significant and stable (fund with low initial allocation); implementing a process that improves the odds that selected managers will meet or exceed expectations (over time, develop the conviction that drivers of future outperformance do exist and these are stable); and selecting those who possess diverse and complementary sources of risk and active return. Negotiating a fee that brings greater alignment of interest is also a critical factor.

In summary, MR. RAZZAQUE defined the key drivers of future performance as organization, team, process and performance.

Delving further into "organization" as a driver of performance, MR. RAZZAQUE stated that he looks at the manager's investment culture, alignment of interest, the potential for distractions, and openness and transparency.

Another key is "process", and particularly whether the manager's process is repeatable. Staff looks at manager conviction and discipline (investment philosophy, opportunity set, stock selection criteria, research, portfolio construction, sell decisions) and implementation (efforts to keep the portfolio fresh, decision-making efficiency and dynamics, trading efficiency).

With regard to "performance", staff reviews the manager's consistency in meeting expectations, portfolio volatility, upside/downside capture, and scenario dependency.

MR. RAZZAQUE concluded with a summary of how the manager selection process has impacted the current public equity portfolio:

- Greater diversity in sources of alpha and risk, with greater rebalancing opportunities;

- Building a farm team, which builds in time to understand and build conviction;
- A process that aligns manager allocations with staff's degree of conviction in a manager, which mitigates manager-specific risk;
- Potentially seamless manager replacement decisions;
- Broader awareness of active management space; and
- More opportunities to engage and learn from informed investors' allocation decisions.

PRESENTATION TO TRUSTEE LARRY HARTIG

On behalf of the Board of Trustees and the staff of APFC, CHAIR MORAN honored Commissioner LARRY HARTIG for his six years of service on the Board with the presentation of a special plaque. TRUSTEE HARTIG expressed his thanks and appreciation for his tenure on the Board, noting that he had great respect for the staff and their hard work and had learned a great deal through the experience of serving on the Board.

PERFORMANCE MEASUREMENT

[A copy of the slides for this presentation is on file at the APFC offices.]

For the benefit of Trustee Richards, GREG ALLEN opened with some brief background on Callan Associates and their 25-year history with the Fund as the Board's consultant. He then turned the floor over to STEVE CENTER for the quarterly report.

MR. CENTER observed that it had been a very difficult quarter in the capital markets, driven primarily by the global economic slowdown. China's decision to devalue their currency had a huge negative impact on performance.

In the public equity space, U.S. equities were negative for the third quarter. Utilities were the only positive sector. In the non-U.S. equity space, the difficulties in China severely impacted emerging markets, which were down 17.8% for the quarter.

The fixed income markets were the lone bright spot, much of it driven by the flight to quality following China's devaluing. There was a rush into the Treasury market as a result.

The hedge funds database came in at a -3.3% for the quarter, although long-term performance remains quite strong. The biggest loser for the quarter was the event-driven multi-strategy.

MR. CENTER stated that the Federal Reserve would be meeting next week, and the general consensus is a 60-75% probability of a rate hike coming.

Turning to the Permanent Fund, MR. CENTER said that the total fund is well-diversified across all major asset classes, currently allocated 39% to public equity, 21% to fixed income and 40% to alternative investments.

For the third quarter, Fund performance was -4.35%, while over the last year, the Fund achieved a positive 1.85% return. Over the long term, the performance trend is strong, with a 7.3% return for the past 5 years and 7.07% for the last 20 years.

MR. CENTER noted that there is no perfect peer group for the Permanent Fund; it is a unique pool of assets and has a very different investment goal than the typical pension or retirement fund.

TRUSTEE RICHARDS commented that he would be interested in seeing similar comparisons on fees paid to external managers. MR. CENTER replied that it is difficult to get an accurate comparison, since many external managers have a published fee schedule – but offer more advantageous fees to large clients, who then prefer not to disclose them.

In summary, MR. CENTER stated that the total Fund declined to \$51.1B during the third quarter, falling 4.4%. For the year ending September 30, however, the Fund gained 1.9%. While the third quarter was a disappointment in terms of performance, there was marked improvement in October 2015. Questions around eventual Fed action and global uncertainty still remain.

CHAIR MORAN called a break at 2:25 p.m. The meeting resumed at 2:40 p.m.

BUDGET UPDATE AND LEGISLATION

[A copy of the slides for this presentation is on file at the APFC offices.]

Director of Communications and Administration LAURA ACHEE told the Board that there has been stagnation in staff salaries, as the salary schedule has not been updated since 2010. It is very difficult to compete for talent with the private sector, and there have been some struggles over budget approval in the legislature the last few years. That said, the Corporation projects having an excess \$280K in the personal services line due to some staff vacancies. The plan is to use this excess to update salaries that have fallen behind.

MS. RODELL added that there is a \$35K fee for the full salary survey performed by McLagan, and she has hesitated to move forward with that at this time. She is working on a strategy to keep salaries competitive and looking at the overall staff compensation structure before engaging McLagan.

TRUSTEE RICHARDS observed that these are tough budget times, and in the current climate, other state agencies have returned vacancy funds to the State. MS. RODELL responded that while she respects that situation, the vacancy savings at APFC would remain with the Corporation and would not return to the State. The Permanent Fund has faced challenges to personal services funding that other departments have not had for several years.

MS. ACHEE continued that staff is requesting a transfer from the Travel or Contractual Services line to the Equipment line in order to purchase a network switch and 2 new

servers. The servers have exceeded their lifespan and are no longer able to be repaired or supported. The need is urgent enough that the request has been moved out of the capital budget and into the operating budget for this year. The amount requested is about \$80,000, although it is not specific in order to allow for some flexibility in purchasing.

MOTION: TRUSTEE DALTON moved and TRUSTEE CASH seconded the motion to allow staff to transfer the actual cost of a network switch and two servers from either the Travel line or the Contractual Services line.

In response to TRUSTEE RICHARDS' question concerning the ambiguity of the actual amount to be transferred, staff suggested amending the motion to include parameters around the amount to be transferred.

AMENDED MOTION: TRUSTEE DALTON amended his motion to allow staff to transfer, between budget lines, an amount not to exceed \$80,000 to purchase a network switch and two servers. TRUSTEE CASH seconded the amended motion.

Following a roll call vote, the MOTION was UNANIMOUSLY APPROVED by all Trustees in attendance (TRUSTEE HOFFBECK did not attend).

Moving on to a discussion of office space planning, MS. ACHEE commented that the current floor plan of the APFC offices has reached capacity, and if the Corporation's FY17 budget is approved, there will be 6 new positions added, all requiring workstations, furniture and new technology. Initially, staff began to consider the idea of an office space realignment which would include decommissioning the Hugh Malone Board Room for future workspace. Upon further consideration, the idea of taking a more holistic approach to the overall office space was put forth, since the current design has been in place for more than 30 years. Workflow has changed significantly in that time span.

Staff would like to engage the services of a professional office space planner to look at the overall space. Concurrently, staff will monitor closely the progress of its request for 6 new positions, and if it appears likely that these positions will be approved, staff would then amend the FY17 capital budget with a request for \$1.5M in funding for this capital project.

MS. RODELL stated that she planned to keep the request in reserve in order to gauge the tenor of the legislative session before moving forward, although the current office layout is not conducive to the way staff workflow needs to occur.

CHAIR MORAN expressed his concern about doing an RFP for space planning and moving forward with construction all at once. MS. ACHEE responded that staff's concern is with timing; if the requests do not occur in tandem, the Corporation will miss out on the opportunity to move forward in the current legislative session and would lose a year in the process. Another key point to remember is that the funding would all come from Permanent Fund receipts; this would not touch General Fund monies.

TRUSTEE BRADY suggested that the priority should be to estimate staff growth over the next 5, 10, or 20 years before engaging in office redesign. MS. RODELL replied that staff has been taking its lead from the Board; the Trustees have approved the addition of 10 new positions in the last couple of years, and the clear message has been that the Corporation should grow its in-house staff capacity in order to reduce fees with external managers and become a more efficient organization. There are a number of ways to accomplish that. She also noted that, upon her hire, the Trustees had requested that she focus attention on the creation of a new corporate strategic plan, but she would like to have a new CIO in place first. She acknowledged the critical importance of the strategic plan for the Corporation going forward.

TRUSTEE RICHARDS asked whether this discussion could be delayed until the February Board meeting, since the Governor's budget will have been released, and there would still be time to put forth a more concrete office space plan and to seek the needed appropriations. MS. ACHEE acknowledged his concerns but said that it had been her experience that the legislature does not react well when they are asked to approve positions but not informed of all the associated costs.

Prior to the vote, TRUSTEE CASH disclosed to the Board that his wife's firm provides space planning services, and in the event that her firm might respond to the Corporation's RFP, he would recuse himself from voting on this request.

CHAIR MORAN acknowledged and appreciated TRUSTEE CASH's statement.

TRUSTEE RICHARDS voiced his concern that the plan did not seem well-thought out at this stage, although he understood the timing issue. He said that he would support the measure under the condition that before any funds were spent, staff would report back to the Board with more clarity on their plans. In addition, he requested that staff report back at the February board meeting so that if the \$1.5M in funding is not needed, the request to the legislature could be appropriately reduced.

MS. RODELL assured him that the Board would be involved every step of the way. CHAIR MORAN offered that a special meeting could be held telephonically if necessary, and MS. ACHEE stated that she would provide an update on the project status at the February Board meeting.

MOTION: TRUSTEE DALTON moved that the Board authorize staff to move forward with preliminary planning of the office space realignment project and to submit an amendment to the FY17 capital budget request if the requested positions show likelihood of approval. TRUSTEE BRADY seconded the motion.

By a vote of 4-0, the MOTION was UNANIMOUSLY APPROVED. TRUSTEE CASH recused himself from the vote and TRUSTEE HOFFBECK was absent from the meeting.

MS. ACHEE moved to a discussion of the State procurement code, noting that the Corporation is exempt from following the procurement code for fiduciary services, such as the contract with Callan Associates, but is not exempt for any non-fiduciary services or supplies. Staff would like to draft a bill and seek a sponsor in the legislature to introduce the bill amending the state law, adding APFC to the list of state agencies exempted from the State procurement code. Other semi-independent State entities, such as the ARM Board and AHFC, are exempted from the State code, provided they have their own codified procedure in place for procurement.

TRUSTEE RICHARDS stated that he did not feel knowledgeable enough about the procurement process to vote on the request at this time, and wanted more detail about why this was important to the Corporation and what impact it might have. He feels there are underlying problems with the exemptions already in place and did not understand the need for APFC to make this significant change.

As an example, MS. RODELL outlined for him how the State's procurement process and all of its required timelines and procedural steps had impacted the current CIO search.

TRUSTEE RICHARDS asked that staff compile more detail on this request and bring it back to the February Board meeting. TRUSTEE BRADY suggested that a special Board meeting be called for this purpose so that it could occur within the next 2-3 weeks. TRUSTEE RICHARDS was amenable to that suggestion.

At CHAIR MORAN's request, staff agreed to organize a telephonic special board meeting for this purpose, providing the requested detail and the suggested draft legislation for the procurement bill. He asked that the meeting be held within the next 2-3 weeks.

TRUSTEE RICHARDS left the meeting at 3:46 p.m.

BOARD MEETING RECESS FOR THE DAY

CHAIR MORAN recessed the meeting at 3:50 p.m.

WEDNESDAY, DECEMBER 9, 2015

CHAIR MORAN reconvened the meeting at 8:30 a.m. All Trustees were present with the exception of TRUSTEE HOFFBECK.

OPPORTUNITIES IN CHINA'S EQUITY MARKETS

[A copy of the slides for this presentation is on file at the APFC offices.]

MR. PARISE introduced the team from Trustbridge Capital (TBP), the first standalone China equity manager for the Fund: DAN SULLIVAN, the Vice Chairman and head of TBP's Boston office; FENG GE, Managing Partner, and LYDIA ZHENG, Associate.

MR. SULLIVAN said that TBP had steadily expanded since its founding in 2006. The team now has 4 offices and over 50 employees located in Beijing, Shanghai, Hong Kong, and Boston. One of the most significant changes he has seen is that China is transitioning from being an export-driven economy to a consumer-led economy. The overall rate of growth in China going forward will be very considerable. Trustbridge tends to focus on just a few things to identify the opportunities to invest in – social change and trends, and technological changes. The companies involved in these sectors have been and will continue to be some of the most important companies in China, and present some very significant investment opportunities.

Currently, Trustbridge has \$4.4B in private equity assets under management, and \$600M in public equities.

MR. SULLIVAN then introduced FENG GE, Trustbridge Managing Partner, to provide an historical perspective on the Chinese equity markets over time, and their gradual opening to foreign capital. Chinese equities are split among three major global markets: (1) the China A-share market, (2) Chinese companies listed in the U.S. market, and (3) the Hong Kong market. Each one presents different investment opportunities – it is a large, complex market which occurred in a very short historical timeframe. As a result, there is “alpha” available in the Chinese market.

Despite the short-term rally from late 2014 to mid-2015, Chinese markets have continued to underperform since the financial crisis, and valuation is still in a “sweet spot” among its global peers.

MR. GE commented that “new” China has meaningfully outperformed “old” China in the past few years. New China has much higher exposures to the healthcare and technology sectors and lower exposure in financials. Everything is driven by demographic data. The Chinese Communist party is now a huge “special interest” group with 100M members. In terms of demographics, China’s population is about 10 years younger than the U.S. population, and the U.S. is 10 years younger than Japan’s population.

After 30 years of 9% growth, the Chinese economy is slowing as it enters a period of “new normal” growth. TBP believes that market share and a lack of focus on quality in a hyper-growth economy have led to lower equity returns. As growth in China slows, equity value will increasingly be driven by quality and innovation, marking a new era of investing in China.

MR. GE continued that Trustbridge is a “local manager,” which gives them a greater understanding of the culture and values of the Chinese. In summary, while China’s slowdown has created turbulence, Trustbridge also sees tremendous investment opportunities, by identifying trends in the economic transition from quantity to quality, identifying companies that leverage customer relationships and data to make actionable decisions, and by concentrating on the sectors that differentially benefit from demographic and cyclical trends.

The three principles that underpin TBP's investment strategies are (1) the best investment ideas are generated by understanding social trends; (2) the belief in a "critical few" investment themes; and (3) understanding of an investment's "life cycle".

Trustbridge utilizes a unique, flexible investment infrastructure to capitalize on high-quality growth opportunities – a hands-on approach to research, investment and portfolio management.

MR. GE stated that Trustbridge has a distinct focus on catalysts, particularly passive ones (events or movements that create clarity and simplify investment solutions). Sometimes these include "ugly moments" for a company that create price dislocations and attractive entry points, and often they complete an investment thesis. Catalysts often occur in a fast-moving market like China.

CHAIR MORAN called a brief break at 10:22 a.m. The meeting resumed at 10:34 a.m.

ENERGY MARKET OVERVIEW

[A copy of the slides for this presentation is on file at the APFC offices.]

MR. PARISE introduced KEN RYAN, Managing Director of Riverstone Holdings. MR. RYAN introduced his colleagues, PIERRE LAPEYRE and DAVID LEUSCHEN, who founded Riverstone in 2000. Today, Riverstone is the largest energy-only private equity firm in the world. With a team of 100 professionals, Riverstone has four offices, based in Houston, London and Mexico City, and headquartered in New York. The firm has raised \$32B of capital since inception across 9 investment vehicles.

MR. RYAN continued that global power and energy is the bedrock of their business. Riverstone Energy Limited (REL) was started in October 2013, with the APFC as their partner, and has \$1.3B committed to 15 investments.

APFC is the largest investor in REL with \$338M invested. It is a permanent capital fund, meaning there is no sunset; the goal is to continue to grow the fund over time and ultimately to see it become their principal investment vehicle. The APFC's 12-month lock up expired in October 2014, so that the Corporation may now sell its REL shares while still retaining its full 10% stake in the GP.

MR. RYAN said that everything associated with REL is dollar-denominated, with the exception of the share price, which is fairly traditional in the London market for energy companies. Market value today is slightly more than \$1B, trading at about 20% discount. There is no leverage at the REL level, and approximately 47% of the capital raised is dry powder. Their general investment strategy is a build-up strategy, focused on creating companies from scratch.

REL tries to achieve superior risk-adjusted returns by making privately negotiated control investments in E&P, midstream, power and services. Core tenets of their strategy include backing best-in-class management teams and relying on growth – not financial leverage – to generate returns: build-ups, not buyouts.

MR. RYAN turned the floor over to DAVID LEUSCHEN, Riverstone founder and Senior Managing Director, for a discussion on the state of the energy market.

Riverstone's forecast is that U.S. oil production will roll over and be down 700,000 barrels a day in 2016. Historically, the average cycle time, or low point (the trough), is usually only a couple of hundred days long. It is unprecedented that the trough has lasted 400 days so far, which lends credence to the idea that all other factors are constructive and you will see a bounce back in oil prices.

MR. LEUSCHEN continued that there appears to be no risk premium on oil in today's market, although that could change. The Middle East is an unstable region of the world.

He also pointed out that demand is still growing. While gas is an island commodity, oil is a global commodity.

MR. LEUSCHEN noted that Riverstone's price forecast is that 2016 will be a very rough year, which is why they are aggressively hedged – about 60% hedged – in their business, but they are largely unhedged in 2017, because their view is that oil prices will average \$65-70 per barrel.

PIERRE LAPEYRE, Riverstone co-founder and Senior Managing Director, added that in his view, oil prices go where the capital markets do.

MR. LAPEYRE reviewed the top near-term investment themes as Riverstone sees them: increased asset rationalization as a reset of re-pricing; unconventional and "tight" resource development; the increasing role of independent operators; investments in Canada; exposure to the Gulf of Mexico and other offshore basins; and an evolving global opportunity set.

INVESTMENT ADVISOR CONTRACT FOR GEORGE ZINN

MS. RODELL pointed out that the 3-year Investment Advisor Group contract for GEORGE ZINN was due to expire at the end of January, 2016, and staff would like to renew his contract for another 3-year term effective February 1, 2016. JERRY MITCHELL and GEORGE ZINN are the two advisors currently serving the Board; there is yet another opening for a third advisor. Staff hopes to have viable candidates to bring to the Board for interviews at the February board meeting.

TRUSTEE RICHARDS requested that, in the future, any contracts that need board approval should be included in the board packet going forward. MS. ACHEE agreed that this was a reasonable request.

MOTION: TRUSTEE DALTON moved that the Board approve the renewal of a three-year contract extension for GEORGE ZINN as an Investment Advisor to the Board. TRUSTEE CASH seconded the motion.

Following a roll call vote, the MOTION was UNANIMOUSLY APPROVED by TRUSTEES MORAN, BRADY, CASH, DALTON and RICHARDS. TRUSTEE HOFFBECK was absent from the meeting.

CHAIR MORAN called a break for lunch at 11:48 a.m. The meeting resumed at 12:33 p.m.

INVESTMENT ADVISOR COMMENTS

JERRY MITCHELL offered his thoughts and observations on the meeting, commenting that the staff's presentations were thorough and clear, and he found the China and energy presentations worthwhile.

MR. MITCHELL suggested that there are three areas the Trustees should pay attention to that differentiate the APFC portfolio from other large funds. First, the fixed income portfolio is very high quality and very conservative. He believes this is a good idea, but recommends that the Board ask themselves whether this is what they want. Secondly, the Board should note the outsized commitment to Juno Therapeutics and the very heavy commitment to American Homes 4 Rent in the special opportunities bucket. Both are excellent investments, but bear watching. And third, the portfolio is overweight international, and particularly in emerging markets. Although Callan Associates thinks this is a good idea, keep in mind that for the short term, it may not be.

In the tradition of Byron Wien, the Blackstone Group vice chair, MR. MITCHELL offered his own list of the "10 surprises in store for 2016":

- 1) U.S. GDP in 2016 will exceed expectations, north of 3%, and that will lead to a steady decline in unemployment and an increase in wages.
- 2) Perhaps because of #1, inflation will become a concern.
- 3) Interest rates will move up across the board, and by year end, the 10-year Treasury might approach 4%.
- 4) U.S. stocks will start the year on a weak note, but turn bullish, and the Dow will finish at 18600 for the year.
- 5) Chevron will be the best performing stock in the Dow, and oil will go up to \$65 per barrel.
- 6) Warren Buffett will double-down on his bets on Coca-Cola and IBM, and will purchase one or the other completely.
- 7) Cyber attacks and computer hackers will shut down a major stock exchange and a major bank sometime during the year.
- 8) China, and the U.S. and Japan will exchange fire in the South China Sea, but then back away from any further hostilities.
- 9) Jeb Bush will be the Republican candidate for President in 2016.
- 10) The Boston Red Sox will win the 2016 World Series.

OVERVIEW OF U.S. TREASURY and IFSWF

[A copy of the slides for this presentation is on file at the APFC offices.]

MS. ACHEE introduced PATRICIA ("Trish") POLLARD, Director of the Office of International Monetary Policy at the U.S. Treasury Department, and TRINA RAND, an

international economist in the same Office at the U.S. Treasury. The APFC's relationship with their office began in 2008, when they were working with the International Monetary Fund (IMF) and other interested parties to facilitate cross-border investments with large investment funds and other sovereign wealth funds. Former APFC Executive Director MIKE BURNS worked closely with them over the years, leading to the formation of the International Forum of Sovereign Wealth Funds (IFSFW), of which the Permanent Fund is a founding member.

MS. POLLARD provided an overview of the Office of International Affairs in the U.S. Treasury, where she has worked for the past 11 years. The Office employs 180 professional staff, monitors economic conditions abroad, develops U.S. policy priorities on global economic issues, and serves as the U.S. representative at the Group of Twenty (G-20).

She then turned the floor over to MS. RAND, who went into more detail on the origin of the IFSWF and its global reach, with several funds based in the Gulf region, along with funds in Asia, Australia, New Zealand, and Canada, among others. The formation of the International Working Group (which later became known as the IFSWF) occurred in May 2008, at which time the Santiago Principles (SP) were adopted. The SP are 24 generally agreed upon principles and practices (GAPPs) for sovereign wealth funds. The IFSWF (the "Forum") is a voluntary group of sovereign wealth funds that meet to exchange views on issues of common interest, and to promote better understanding globally of the Santiago Principles and SWF activities. The SP are built on three "pillars": a legal framework, an institutional framework, and an investment and risk management framework. While Forum members agree to implement the Santiago Principles, there is minimal oversight, limited to voluntary self-assessments by the members, which they share as part of their application process to join the IFSWF.

The Forum is further subdivided into three subcommittees, on SP implementation, best practices in investment and risk management, and strengthening core relationships with external stakeholders, including recipient countries. There are currently 29 countries with one or more Forum member.

MS. RAND noted that the APFC is a founding member of IFSWF, and completed its self-assessment on the implementation of Santiago Principles in April 2010. The Corporation has become a respected Forum member; the late MIKE BURNS was elected to a seat on the IFSWF Board last year.

She added that the U.S. Treasury's objectives with the IFSWF are to encourage greater transparency and compliance with the Santiago Principles, and to support the continued development of IFSWF into a respected international institution that leads new and existing SWFs toward international best practices in sovereign asset management.

MS. RAND summed up that the best ways for the APFC to be helpful in Forum growth would include continuing to be an engaged and constructive Forum member, attending IFSWF annual meetings and to consider taking on a board position in time, to lead by

example in encouraging greater SWF transparency, and as the Forum develops, to provide peer advice to Forum members and potential member SWFs.

TRUSTEE COMMENTS / FUTURE AGENDA ITEMS / OTHER MATTERS

CHAIR MORAN stated that he would coordinate with staff on a special meeting on building and procurement issues in the near term, and would suggest discussion of the Corporation's strategic plan and updates on the CIO search for future meetings.

TRUSTEE RICHARDS observed that if the legislature looks to the Fund as an ongoing endowment source, it would be critically important for the Board to look at the Fund's internal exposure to short-term risk as well as oil price volatility risk. At the next board meeting, he would like to analyze current exposure, how to measure that, and how to diversify.

CHAIR MORAN added that the Fund now has several investments which include a revenue sharing relationship with the operators. He would ask that staff look at tracking those investments, and provide the Board with periodic reports on the returns achieved.

TRUSTEE BRADY asked that staff focus on the CIO search process. He also reiterated the need for serious thought and deliberation regarding the Corporation's office space issues, and the imperative to focus on current, intermediate and future needs when considering position requests, keeping in mind the State's budget issues.

On behalf of the Board, TRUSTEE BRADY extended his thanks and appreciation to VALERIE MERTZ for stepping up to fill in as Executive Director on very short notice. She did an excellent job keeping the Corporation running under difficult circumstances.

TRUSTEE RICHARDS expressed his thanks for his introduction to the staff and the Board, and looks forward to serving in this new role.

CHAIR MORAN thanked staff for great work in putting the meeting together, and congratulated MS. RODELL on her first successful Board meeting as CEO.

ADJOURNMENT

There being no further business, CHAIR MORAN adjourned the meeting at 1:10 p.m.

**ALASKA PERMANENT FUND CORPORATION
Board of Trustees Special Meeting
Monday, December 21, 2015**

Location of Meeting:
**Alaska Permanent Fund Corporation
801 West 10th Street, Suite 302
Juneau, Alaska 99801**

Meeting held via teleconference

SUMMARY MINUTES

**Trustees Present
via teleconference:**

Trustee Bill Moran, Chair
Trustee Carl Brady, Vice Chair
Trustee Larry Cash
Trustee Gary Dalton
Trustee Randall Hoffbeck
Trustee Craig Richards

Staff Present:

Angela Rodell
Chris Poag
Valerie Mertz
Laura Achée
Kathy Thatcher
Robin Strader (*via teleconference*)

MONDAY, DECEMBER 21, 2015

CALL TO ORDER

CHAIR MORAN called the meeting to order at 3:03 p.m. on Monday, December 21, 2015.

ROLL CALL

TRUSTEES MORAN, BRADY, CASH, DALTON, HOFFBECK AND RICHARDS were present via teleconference to form a quorum.

APPROVAL OF AGENDA

There was no objection to the agenda as submitted.

PUBLIC COMMENTS

There were no public comments offered.

PROPOSED PROCUREMENT LEGISLATION

CEO ANGELA RODELL noted that this was a continuation of an agenda item from the Board's quarterly meeting earlier in December. She offered background on the Corporation's procurement guidelines, such that the APFC is exempt from the State Procurement Code when it acquires income-producing assets or delegates its investment authority. When acquiring all other goods, supplies and services, the Corporation is considered an "agency" and required to comply with the State's Procurement Code. The concept behind this is to provide a framework for fair competition, and includes specific timeframes, noticing requirements, amendment dollar thresholds, and evaluation criteria. While there is a process to obtain approval from the Chief Procurement Officer to deviate from the State process, this can create delays and difficulties which leave decisions that impact Fund investments in the hands of another agency.

MS. RODELL pointed out that staff had included a copy of the procurement regulations adopted by the Alaska Retirement Management Board in the Board packet. These could be used as a starting point for draft regulations for the APFC if the Board were to approve moving forward. She reviewed the process for legislative approval for proposed regulations and the public notice period to follow.

General Counsel CHRIS POAG then offered an overview of proposed legislation, which amends AS 36.30.015 to exempt the APFC from the State Procurement Code, removes the Corporation from the definition of a covered "agency"; requires the Board of Trustees to adopt a procurement process similar to the State's, keeping the 5% preference in place for Alaska bidders and keeping the requirement that legal services contracts must be approved by the Attorney General and requires the APFC to adopt procedures by regulation. If the proposed legislation were to pass, then it would become effective immediately.

CHAIR MORAN asked whether staff anticipated any difficulty in finding a sponsor for the proposed legislation, if the Board were to authorize staff to move forward. MS. RODELL replied that she did not believe it would be a problem; in the past, the chairs of the LB&A Committee have sponsored legislation on the Corporation's behalf.

TRUSTEE HOFFBECK inquired as to why the Corporation did not receive this exemption in the past. MS. RODELL responded that the Corporation's focus previously was on the removal of the investment list from statute. There is no indication that previous attempts at exemption status were made or blocked for any reason.

TRUSTEE RICHARDS commented that he felt the proposed motion was fine, but wanted to reiterate the need to keep in place the language that all legal services contracts will continue to require approval by the Department of Law.

MS. RODELL affirmed that the draft legislation does include this provision, and it is staff's intent to keep it in place throughout the legislative process.

MOTION: *TRUSTEE CASH moved that the staff be authorized to pursue and find support for legislation to authorize the Corporation to adopt its own procurement procedures, so long as such procedures are similar to the State's Procurement Code, but are tailored to enhance the Corporation's ability to achieve its statutory mission.*

TRUSTEE DALTON seconded the motion.

Following a roll call vote, the MOTION was UNANIMOUSLY APPROVED.

TRUSTEE COMMENTS / FUTURE AGENDA ITEMS

TRUSTEE RICHARDS requested the scheduling of a special Board meeting in order to consider the Governor's fiscal package. CHAIR MORAN agreed to work with staff on this request.

ADJOURNMENT:

There being no further business, CHAIR MORAN adjourned the meeting at 3:21 p.m.

ALASKA PERMANENT FUND CORPORATION

SUBJECT: Pending Board Matters

ACTION: _____

DATE: February 23, 2016

INFORMATION: X

BY	TASK	CAPTURED	TARGET	COMPLETED
Rodell / Achée	Update on APFC Disaster Recovery Plan	9/13	9/16	
Asset Class Directors	Quarterly Updates on Asset Classes	9/15	Ongoing	
Duncan/Mertz	IT Security Audit update	9/15	5/16	
Rodell / CIO	Exposure to & Mitigation of Petroleum Risk	12/15	5/16	
Rodell / Achée	Update on Office Space Planning & Redesign	12/15	2/16	

[illegible]

ALASKA PERMANENT FUND CORPORATION

SUBJECT: Disclosure Reports

ACTION: _____

DATE: February 23, 2016

INFORMATION: X

BACKGROUND: As requested by AS 37.13.110 (b) and Alaska Permanent Fund Corporation policy relating to personal investments conduct and reporting, Trustees and staff must disclose financial interests.

STATUS: Reports for December, 2015 and January, 2016, are attached.



Alaska Permanent Fund Corporation
P. O. Box 115500 Juneau, AK 99811-5500
(907) 957-1500 www.apfc.org

M E M O R A N D U M

DATE: January 6, 2016

TO: Carl Brady, Chair
Governance Committee

THROUGH: Angela Rodell, Executive Director

FROM: Laura Achee, Acting HR Officer

SUBJECT: 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 individual transactions made by trustees and staff, and received in December, 2015.

Name	Position Title	Disclosure Type	Received by APFC
William Moran	Trustee	Individual Transaction	12.2.15
Valeria Martinez	Director of Risk Management	Individual Transaction	12.2.15
Patricia Hendry	Portfolio Accountant	Individual Transaction	12.2.15
Jay Klinger	Portfolio Accountant	Individual Transaction	12.3.15
Matt Olmsted	Fixed Income Credit Analyst	Individual Transaction	12.4.15
Fawad Razzaque	Dir of Investments / Public Equities	Individual Transaction	12.14.15
Jay Klinger	Portfolio Accountant	Individual Transaction	12.23.15

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 796-1522.



Alaska Permanent Fund Corporation
P. O. Box 115500 Juneau, AK 99811-5500
(907) 957-1500 www.apfc.org

MEMORANDUM

DATE: February 1, 2016

TO: Carl Brady, Chair
Governance Committee

THROUGH: Angela Rodell, Executive Director

FROM: Chad Brown, HR Officer

SUBJECT: 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 individual transactions made by trustees and staff, and received in January, 2016.

Name	Position Title	Disclosure Type	Received by APFC
William Moran	Trustee	Individual Transaction	1.7.16
Patricia Hendry	Portfolio Accountant	Individual Transaction	1.8.16
Gary Dalton	Trustee	Individual Transaction	1.11.16
Matt Olmsted	Fixed Income Credit Analyst	Individual Transaction	1.15.16

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

SUBJECT: Travel Report

ACTION: _____

DATE: February 3, 2016

INFORMATION: X

BACKGROUND:

This report includes APFC Board/staff completed travel for the period November 19, 2015 through February 3, 2016. The travel report is presented to the Board of Trustees for review at each board meeting as required by APFC Resolution 04-10.

BOARD MEMBERS	TRAVEL PERIOD	DESTINATION
<i>WILLIAM MORAN, Chair</i>		
Board of Trustees meeting	12/7 – 12/10	Anchorage
<i>LARRY CASH, Trustee</i>		
Callan conference	1/24 – 1/27	San Francisco
<i>GARY DALTON, Trustee</i>		
Callan conference	1/24 – 1/27	San Francisco
STAFF		
<i>ANGELA RODELL, Chief Executive Officer</i>		
Board of Trustees meeting	12/7 – 12/10	Anchorage
Macerich quarterly meeting; meet with Congressional delegation	12/15 – 12/18	Washington, D.C.
SHLP quarterly meeting	1/12 – 1/15	Phoenix, AZ
Callan conference	1/24 – 1/27	San Francisco
<i>LAURA ACHEE, Director of Administration & Communications</i>		
Board of Trustees meeting	12/7 – 12/10	Anchorage
<i>TIMOTHY ANDREYKA, Real Estate Portfolio Manager</i>		
Property visits	12/19 – 12/25	Seattle Portland, OR
Property visits; manager meetings	1/18 – 1/23	New York
<i>BRIAN DUNCAN, Director of Information Technology</i>		
Board of Trustees meeting	12/7 – 12/9	Anchorage
<i>ROSEMARIE DURAN, Director of Real Estate Investments</i>		
Board of Trustees meeting	12/7 – 12/8	Anchorage
Macerich quarterly meeting	12/15 – 12/18	Washington, D.C.
SHLP quarterly meeting	1/12 – 1/15	Phoenix, AZ
<i>DAVID FALLACE, Director of Investments – Special Opportunities</i>		
Denali Board meeting and Column Venture group meeting	11/19 – 11/21	San Francisco
Board of Trustees meeting	12/7 – 12/9	Anchorage
<i>MARCUS FRAMPTON, Director of Investments – Private Markets</i>		
1) Manager meetings; 2) Actis Energy Annual meeting	11/29 – 12/6	1) Minneapolis, MN 2) New York
Board of Trustees meeting	12/7 – 12/9	Anchorage
<i>VALERIA MARTINEZ, Director of Risk Management</i>		
Board of Trustees meeting	12/7 – 12/9	Anchorage

VALERIE MERTZ, Chief Financial Officer

Board of Trustees meeting	12/7 – 12/9	Anchorage

STEPHEN MOSELEY, Director of Private Equities & Special Opportunities

Board of Trustees meeting	12/7 – 12/9	Anchorage
Due diligence meetings	1/4-1/8	Boston Seattle
Manager meetings	1/27 – 2/3	New York

JIM PARISE, Acting Chief Investments Officer

Board of Trustees meeting	12/7 – 12/9	Anchorage
Due diligence meetings	1/7 – 1/8	Seattle

CHRIS POAG, General Counsel

Board of Trustees meeting	12/7 – 12/9	Anchorage
Speak at Alaska Alliance meeting	1/8	Anchorage

FAWAD RAZZAQUE, Director of Investments – Public Markets

Board of Trustees meeting	12/7 – 12/9	Anchorage

ROBIN STRADER, Executive Assistant

Board of Trustees meeting	12/7 – 12/9	Anchorage

	A	B	C	D	E	F
1	from 10/1/2015 to 12/31/2015					
2	Manager Due Diligence Log					
3	The due diligence activities undertaken by APFC on-site and off-site from October 1 through December 31, 2015 are listed below. Conference calls were included if a product was substantially reviewed or previewed during the course of the call.					
4	Date of Visit	APFC Staff	Broker, Manager, Consultant	Individuals Visiting/Visited	Topic	Location
5	12/3/2015	Christi Grussendorf & Karen Emberton	CBRE - EUR	CBRE - EUR	Quarterly Portfolio Update	Conf Call APFC Offices
6	10/19/2015	Cummins	Morgan Stanley	Emie Marchosky	Fixed Income Markets	Los Angeles, CA
7	10/19/2015	Cummins	Wells Fargo	Mike Abomonte and Chris Ryan	Fixed Income Markets	Los Angeles, CA
8	10/20/2015	Cummins	Credit Suisse	Bobby Roy	Fixed Income Markets	Los Angeles, CA
9	10/20/2015	Cummins	Merrill Lynch	Joe Moseleyith	Fixed Income Markets	Los Angeles, CA
10	10/21/2015	Cummins	Barclays	Eric Hill	Fixed Income Markets	San Francisco, CA
11	10/21/2015	Cummins	JP Morgan	Mike Fahy	Fixed Income Markets	San Francisco, CA
12	10/22/2015	Cummins	Citi	Lauren Falls	Fixed Income Markets	San Francisco, CA
13	10/22/2015	Cummins	RBC Capital	Kevin Higgins	Fixed Income Markets	San Francisco, CA
14	10/22/2015	Cummins	Goldman Sachs	Peter Silberstein and Eric McGoe	Fixed Income Markets and Treasury Futures	San Francisco, CA
15	10/1/2015	Frampton	Cogent	Andy Nick	Discuss potential infrastructure secondary	Teleconference
16	10/6/2015	Frampton	Torrey Cove	Thomas Martin	Latitude Due Diligence call	Teleconference
17	10/6/2015	Frampton	Crestline	Doug Bratton	CCOP's update call	Teleconference
18	10/8/2015	Frampton	Latitude	Raj Shah	Diligence Call on Infrastructure opportunity	Teleconference
19	10/8/2015	Frampton	Pathway	Vince Dee	Private Credit Pipeline Call	Teleconference
20	10/13/2015	Frampton	Carlyle Group	Lee Carson	Discuss Power Infrastructure Opportunity	Teleconference
21	10/14/2015	Frampton	Ashton Stewart	Scott Richter	Intro Call with PE Placement Agent	Teleconference
22	10/14/2015	Frampton	Pathway	Vince Dee	Private Credit Pipeline Call	Teleconference
23	10/15/2015	Frampton	GIP	Jim Jenkins	GIP III Coinvestment Call	Teleconference
24	10/16/2015	Frampton	Eaton Partners	Chris Maduri	Discuss new fund opportunity	Teleconference
25	10/16/2015	Frampton	First Avenue	Dave Bruener	Review First Avenue funds in the market	Teleconference
26	10/27/2015	Frampton	Fortress	Michael George	Update on Fortress private market activities	Teleconference
27	10/27/2015	Frampton	BlackRock	Russ Steenberg, Doug McNeely	Update of BlackRock private market activities	Teleconference
28	10/27/2015	Frampton	Bastion Infrastructure	Karynna Ma	Update on Bastion Infrastructure activities	Teleconference
29	10/28/2015	Frampton	THL Credit	Brett Hinton	Fund III Direct Lending Call	Teleconference
30	10/28/2015	Frampton	Silver Creek Capital Management	Bob Ratliffe	Review European Credit Strategies	Teleconference
31	10/29/2015	Frampton	Lazard	Tony Dote	Quarterly review on Lazard Listed Infrastructure	Teleconference
32	10/29/2015	Frampton	Wellington	Charles Ruch	Quarterly review on Wellington Listed Infrastructure	Teleconference
33	10/30/2015	Frampton	Actis	Torbjorn Caesar	Update on Actis EM Infrastructure Strategy	Teleconference
34	10/30/2015	Frampton	Latitude	Raj Shah, Rick Klausner	Update on Latitude Infrastructure	Juneau
35	11/2/2015	Frampton	UBS	Allie Chin	Review of UBS Private Markets Opportunities	New York
36	11/3/2015	Frampton	LS Power	Darpan Kapadia	LS Power Annual Meeting	New York
37	11/3/2015	Frampton	Torrey Cove	Nic Dilorretta	Infrastructure Discussion	New York
38	11/4/2015	Frampton	Brookfield	Chris Harris	Update on Brookfield Infrastructure	New York
39	11/4/2015	Frampton	Warburg Pincus	Jim Wilson	Update on Warburg Pincus and Wencor Coinvestment	New York
40	11/5/2015	Frampton	Col-Beck	Jason Beckman	Intro to Col-Beck Direct Lending Fund	New York
41	11/5/2015	Frampton	EQT	Darlene Sammon	Update on EQT Infrastructure	New York
42	11/5/2015	Frampton	HIG Capital	AMoseleyat Doza	Update on HIG Private Markets Activities	New York
43	11/9/2015	Frampton	Brevet Capital	Michael Mahar	Intro to Brevet's private debt strategies	Teleconference
44	11/10/2015	Frampton	Orion Energy Partners	James Lumby	Intro to Orion's private debt strategies	Teleconference
45	11/10/2015	Frampton	Monroe	Sean Duff	Discussion of Monroe's private credit strategies	Juneau
46	11/16/2015	Frampton	TPG	Brian D'Arcy	Discussion of TPG Credit platform	Teleconference
47	11/17/2015	Frampton	LCM Credit	Jake Cabala	Intro to LCM credit platform	Teleconference
48	11/17/2015	Frampton	Penfund	Jake Cabala	Intro to Penfund credit platform	Teleconference
49	11/18/2015	Frampton	Medley Capital	Morgan Fogleman	Intro to Medley credit platform	Teleconference
50	11/23/2015	Frampton	Cox Castle	Amy Wells	GIP III Legal Call	Teleconference
51	12/7/2015	Frampton	LP Capital	Donn Cox	Discuss direct investment opportunities in infrastructure	Teleconference
52	12/7/2015	Frampton	Silver Creek Capital Management	Bob Ratliffe	Update on Twin Creeks Timber	Teleconference
53	12/10/2015	Frampton	Cox Castle	Amy Wells	GIP III Legal Call	Teleconference
54	12/10/2015	Frampton	Oregon State Treasury	Ben Mahon	General catch-up on private markets	Teleconference
55	12/10/2015	Frampton	THL Credit	Brett Hinton	THL Credit due diligence call	Teleconference
56	12/11/2015	Frampton	GIP	Jim Jenkins	Discussion of legal open issues	Teleconference
57	12/14/2015	Frampton	Actis	Michael Till	Discussion of co-investment opportunity	Teleconference
58	12/16/2015	Frampton	Torrey Cove	Tom Martin	Review GIP III due diligence	Teleconference
59	12/16/2015	Frampton	Crestline	Doug Bratton	Update on CCOP's	Teleconference
60	12/16/2015	Frampton	Panda Power	Bill Nordlund	Review Infrastructure Co-investment Opportunity	Teleconference
61	12/16/2015	Frampton	LP Capital	Raelan Lambert	Project Delta Call	Teleconference
62	12/16/2015	Frampton	Cox Castle	Amy Wells	GIP Legal Call	Teleconference
63	12/17/2015	Frampton	BlackRock	Doug McNeely	Discuss BlackRock Infra opportunities	Teleconference
64	12/18/2015	Frampton	Texas TRS	Indu Sanbandam	Discussion of infrastructure market	Teleconference
65	12/22/2015	Frampton	Langschiff Capital	Nolan Olsen	Discuss Private Credit Market	Teleconference
66	12/22/2015	Frampton	InfraVia	Juliet Lazar	Discuss InfraVia fund	Teleconference
67	12/30/2015	Frampton	Albourne	Kelly McHale	Intro to Albourne	Teleconference
68	12/31/2015	Frampton	DE Shaw	Letitia Yang	Update on firm and Valence investment	Teleconference
69	10/12/2015	Frampton, Moseley	BlackRock	Kamal Maruf	BlackRock PE Coinvestment Pipeline Call	Teleconference
70	10/15/2015	Frampton, Moseley	Pathway	Jim Chambliss	Private Equity Pipeline Call	Teleconference
71	10/26/2015	Frampton, Moseley	Pathway	Jim Chambliss	Update on Pathway private equity portfolio	Juneau
72	10/28/2015	Frampton, Moseley	Vista Equity	Robert Moseleyith	Update on Vista activities	Teleconference
73	11/9/2015	Frampton, Moseley	BlackRock	Kamal Maruf	Private Equity Coinvestment Pipeline	Teleconference

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4	Date of Visit	APFC Staff	Broker, Manager, Consultant	Individuals Visiting/Visited	Topic	Location
74	11/10/2015	Frampton, Moseley	Pathway	Jim Chambliss	Private Equity Pipeline Call	Teleconference
75	11/23/2015	Frampton, Moseley	BlackRock	Kamal Maruf	Private Equity Coinvestment Pipeline	Teleconference
76	12/2/2015	Frampton, Moseley	Pathway	Jim Chambliss	Private Equity Pipeline Call	Teleconference
77	12/16/2015	Frampton, Moseley	Pathway	Vince Dee	Private Credit Pipeline Call	Teleconference
78	12/17/2015	Frampton, Moseley	Pathway	Jim Chambliss	Private Equity Pipeline Call	Teleconference
79	12/18/2015	Frampton, Moseley	BlackRock	Kamal Maruf	Private Equity Coinvestment Pipeline	Teleconference
80	10/8/2015	Frampton, Poag	Cox Castle	Amy Wells	GIP III Legal Call	Teleconference
81	10/27/2015	Frampton, Poag	Cox Castle	Amy Wells	GIP III Legal Call	Teleconference
82	10/1/2015	Moseley	Weston Presidio	J. Thompson	fund status and prospects	Teleconference
83	10/2/2015	Moseley	Mvision	Marc Lutgen	Gilde	Teleconference
84	10/6/2015	Moseley	Technology Crossover Ventures	Ted Coons et al.	portfolio strategy and fund prospect	New York, NY
85	10/6/2015	Moseley	Harvest Partners	Tom Arenz, Katie Lyndon	portfolio strategy and fund prospect	New York, NY
86	10/6/2015	Moseley	CD&R	various	annual meeting and review	New York, NY
87	10/7/2015	Moseley	HP Strategic Capital Fund	Joe Hegenbart, Steve Duke et al.	fund status and prospects	New York, NY
88	10/7/2015	Moseley	Kedaara Capital	Manish Kejriwal et al.	Indian PE; fund status and prospects	New York, NY
89	10/8/2015	Moseley	Catalyst Investors	Gene Wolfson et al.	annual meeting, deals, fund plans; LPAC	New York, NY
90	10/8/2015	Moseley	Catterton Partners	Michael Chu, Scott Dahnke	annual meeting, deals, fund plans	New York, NY
91	10/9/2015	Moseley	Kedaara Capital	Sunish Sharma et al.	Indian PE; fund status and prospects	New York, NY
92	10/12/2015	Moseley	Nordic Capital	Marc Bulmer et al.	Healthcare opps; fund review	London
93	10/13/2015	Moseley	Rede Partners	Claudia Levan et al.	Apax, FPE, GHO Capital, Stirling Square, PAI	London
94	10/13/2015	Moseley	Rapid Partners	Dan Carol, Peter McMillan	fund structure	London
95	10/13/2015	Moseley	Centerbridge Partners	Stefan Kowski	Operating review, cash prospects, terms	London
96	10/13/2015	Moseley	Servion	various	Board meeting	London
97	10/14/2015	Moseley	Harvest Partners	Katie Lyndon	allocations	teleconference
98	10/15/2016	Moseley	Pathway Capital	Jim Chambliss, Jason Jenkins, John Ruggieri	fund pipeline	teleconference
99	10/15/2016	Moseley	Battery Ventures	Karen Bommart	fund allocations, timetable, strategy, personnel	teleconference
100	10/16/2015	Moseley	Pathway Capital	Simaon Lau	Bain Asia due diligence	teleconference
101	10/16/2015	Moseley	BlackRock	Craig Payne et al.	co-investments	teleconference
102	10/16/2015	Moseley	BlackRock	Elliott Asanow, Doug McNeely	strategy and various investment opps	teleconference
103	10/19/2015	Moseley	BlackRock	various	PEP investors forum, annual meeting	New York, NY
104	10/20/2015	Moseley	BC Partners	various	annual meeting; one-on-ones/ due diligence	New York, NY
105	10/21/2015	Moseley	Catterton Partners	various	due diligence on two funds	Greenwich, CT
106	10/22/2015	Moseley	Vestar Partners	various	annual meeting; LPAC meeting	New York, NY
107	10/26/2015	Moseley	Pathway Capital	Jim Chambliss, Jason Jenkins, John Ruggieri	pipeline review	teleconference
108	10/27/2015	Moseley	Samsung	Sijin Choi	fund review	teleconference
109	10/28/2015	Moseley	Blackstone	various	portfolio update	teleconference
110	10/28/2015	Moseley	KKR	various	portfolio update	teleconference
111	10/28/2015	Moseley	Vista Equity Partners	Robert Moseleyith, Christine Pastore	new funds: strategy and timing	teleconference
112	10/29/2015	Moseley	Pathway Capital	Jim Chambliss	Altas due diligence	teleconference
113	10/30/2015	Moseley	Battery Ventures	Karen Bommart	terms	teleconference
114	10/30/2015	Moseley	Healthquest	Garheng Kong	new venture fund	teleconference
115	11/2/2015	Moseley	CDH Investments	Stuart Schonberger	flagship fund	New York, NY
116	11/2/2015	Moseley	Cinven	Alex Hess et al.	Annual meeting / fund diligence	New York, NY
117	11/2/2015	Moseley	PAI Partners	various	review hr transition at PAI	New York, NY
118	11/2/2015	Moseley	Stone Point Capital	Chuck Davis et al.	strategy and various investment opps	New York, NY
119	11/3/2015	Moseley	UBS	Allie Chin	misc. fund opportunities	New York, NY
120	11/4/2015	Moseley	Tata	various	fundraising	New York, NY
121	11/4/2015	Moseley	Crestview	Tom Murphy et al.	fundraising	New York, NY
122	11/4/2015	Moseley	Nordic Capital	various	fundraising	New York, NY
123	11/4/2015	Moseley	Providence	Lisa Lee et al.	fundraising	New York, NY
124	11/4/2015	Moseley	Permira	Tom Lister et al.	fundraising	New York, NY
125	11/4/2015	Moseley	Pine Brook Road	various	fundraising	New York, NY
126	11/4/2015	Moseley	Leonard Greene Partners	Jon Sokoloff, Erika Spitzer, et al.	fundraising	New York, NY
127	11/5/2015	Moseley	Avista	Tom Dean et al.	fundraising	New York, NY
128	11/5/2015	Moseley	Scale Ventures	various	fundraising	New York, NY
129	11/5/2015	Moseley	Triton Partners	various	fundraising	New York, NY
130	11/5/2015	Moseley	Cerberus	various	fundraising	New York, NY
131	11/5/2015	Moseley	IK Partners	Mads Larsen	portfolio review and fund update	New York, NY
132	11/5/2015	Moseley	Harvest Partners	Katie Lyndon	fund allocations, timetable	New York, NY
133	11/9/2015	Moseley	BlackRock	Craig Payne et al.	deal pipeline	teleconference
134	11/12/2015	Moseley	Centerbridge Partners	various	LPAC	teleconference
135	11/12/2015	Moseley	Glendon Opps Fund	various	Fund Activity and performance	teleconference
136	11/12/2015	Moseley	Dyal	various	Encap	teleconference
137	11/12/2015	Moseley	BlackRock	Daniel Kong et al.	Project Straightshot	teleconference
138	11/13/2015	Moseley	Hamilton Lane	various	markets, capabilities	teleconference
139	11/13/2015	Moseley	Digital Bridge	Tom Yanagi	Brazilian server farm deal	teleconference
140	11/13/2015	Moseley	Pathway Capital	Vince Dee	fund update	teleconference
141	11/16/2015	Moseley	InCube	Andrew Farquharson	fund opportunity	teleconference
142	11/16/2015	Moseley	Pathway Capital	Matt Lugar	Harvest Partners	teleconference

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143	11/16/2015	Moseley	BlackRock	Craig Payne	Project Straightshot	teleconference
144	11/17/2015	Moseley	Monomoy Capital	Justin Hildebrand	New fund offering	teleconference
145	11/17/2015	Moseley	Advent International	Maggie Sahlman	allocations	teleconference
146	11/18/2015	Moseley	Digital Bridge	Tom Yanagi	due diligence	teleconference
147	11/18/2015	Moseley	Montauk Triquard	Eric Becker	recent and prospective fundraising	teleconference
148	11/18/2015	Moseley	Orbimed	various	recent and prospective fundraising	teleconference
149	11/20/2020	Moseley	Wencor Group	various	operational update and liquidity review	teleconference
150	12/1/2015	Moseley	FF Saphire Select Venture	various	recent and prospective fundraising	teleconference
151	12/1/2015	Moseley	Trusted Insight	Alex Bangash	possible structured VC deal	teleconference
152	12/2/2015	Moseley	Centerbridge Partners	Sam Riter	potential deal	teleconference
153	12/2/2015	Moseley	Pathway Capital	Jim Chambliss	pipeline review	teleconference
154	12/2/2015	Moseley	57 Stars	Steve Cowan	EM FOF or sep acct	teleconference
155	12/3/2015	Moseley	Weathergace Capital	Sandy Wallis	VC FOF	teleconference
156	12/3/2015	Moseley	Kamehameha	Janet Deviney	Trusted Insight	teleconference
157	12/4/2015	Moseley	Third Rock	Kevin Gillis	Intro and funding discussion	teleconference
158	12/10/2015	Moseley	IGP	Eric Heglie	Fund V launch	teleconference
159	12/10/2015	Moseley	Luminate Capital	Katherine Dowling, Hollie Cunningham	fund structure and prospects	teleconference
160	12/10/2015	Moseley	Thoma Bravo	Orlando Bravo	Fund XII plan; co-investments	teleconference
161	12/17/2015	Moseley	Battery Ventures	Scott Tobin, Karen Brommart	new fund launch, relationship w APFC	teleconference
162	12/17/2015	Moseley	Pathway Capital	Jim Chambliss, Jason Jenkins, John Ruggieri	pipeline review	teleconference
163	12/22/2015	Moseley	Moelis & Co.	Chris Kirsten et al.	potential GP stake	New York, NY
164	12/22/2015	Moseley	Orbimed	Cartr Neild, Carl Gordon	Asia investment, strategic relationship	New York, NY
165	12/29/2015	Moseley	L Catterton	Scott Dahnke	pending business combination	teleconference
166	11/13/2015	Olmsted	KommunalBanken	Thomas Moller, John Lee-Tin	Issuer Overview	Juneau office
167	10/26/2015	Parise	Kynikos	Jim Chanos	Strategy Review	conference call
168	11/12/2015	Parise	Dyal/Encap	Sean Ward	Intbrodution and Updates	Juneau, AK
169	12/14/2015	Parise	BlackRock	Doug McNeely, Scott Williamson	Strategy Review	Juneau, AK
170	11/12/2015	Parise, Martinez, Rodell, Fallace, Razzaque, Ninkov	SSGA/FTSE	Lisa Murphy, Arun Singal, Nick Good, Rob Trumbull, Rosalind Jacobsen	SSGA ETFs	conference call
171	10/13/2015	Razzaque; Ninkov	Advisory Research	Investment team	Due diligence	Onsite
172	10/13/2015	Razzaque; Ninkov	CastleArk	Investment team	Due diligence	Onsite
173	10/14/2015	Razzaque; Ninkov	William Blair	Investment team	Due diligence	Onsite
174	10/14/2015	Razzaque; Ninkov	RBC	Investment team	Due diligence	Onsite
175	10/15/2015	Razzaque; Ninkov	LSV	Investment team	Due diligence	Onsite
176	10/15/2015	Razzaque; Ninkov	RMB	Investment team	Due diligence	Onsite
177	10/20/2015	Razzaque; Ninkov	Herndon	Investment team	Quarterly review	Conference call
178	10/20/2015	Razzaque; Ninkov	LSV	Investment team	Quarterly review	Conference call
179	10/21/2015	Razzaque; Ninkov	CastleArk	Investment team	Quarterly review	Conference call
180	10/21/2015	Razzaque; Ninkov	McKinley	Investment team	Quarterly review	Conference call
181	10/22/2015	Razzaque; Ninkov	Eagle	Investment team	Quarterly review	Conference call
182	10/22/2015	Razzaque; Ninkov	Convergex	Investment team	General update	Juneau office
183	10/23/2015	Razzaque; Ninkov	Lee Munder	Investment team	Quarterly review	Conference call
184	10/23/2015	Razzaque; Ninkov	William Blair	Investment team	Quarterly review	Conference call
185	10/26/2015	Razzaque; Ninkov	Lyrical	Investment team	Quarterly review	Conference call
186	10/26/2015	Razzaque; Ninkov	Trustbridge	Investment team	General update	Juneau office
187	10/27/2015	Razzaque; Ninkov	Mondrian	Investment team	Quarterly review	Conference call
188	10/27/2015	Razzaque; Ninkov	RBC	Investment team	Quarterly review	Conference call
189	10/28/2015	Razzaque; Ninkov	GE US	Investment team	Quarterly review	Conference call
190	10/28/2015	Razzaque; Ninkov	Jennison	Investment team	Quarterly review	Conference call
191	10/28/2015	Razzaque; Ninkov	GW & K	Investment team	General update	Juneau office
192	10/29/2015	Razzaque; Ninkov	Acadian	Investment team	General update	Juneau office
193	10/30/2015	Razzaque; Ninkov	DFA	Investment team	Quarterly review	Conference call
194	11/2/2015	Razzaque; Ninkov	DMoseley	Investment team	Quarterly review	Conference call
195	11/2/2015	Razzaque; Ninkov	SKBA	Investment team	Quarterly review	Conference call
196	11/3/2015	Razzaque; Ninkov	Schroders	Investment team	Quarterly review	Conference call
197	11/3/2015	Razzaque; Ninkov	T.Rowe	Investment team	Quarterly review	Conference call
198	11/4/2015	Razzaque; Ninkov	AQR	Investment team	Quarterly review	Conference call
199	11/4/2015	Razzaque; Ninkov	Delaware	Investment team	Quarterly review	Conference call
200	11/5/2015	Razzaque; Ninkov	Lazard	Investment team	Quarterly review	Conference call
201	11/6/2015	Razzaque; Ninkov	Capital Group	Investment team	Quarterly review	Conference call
202	11/9/2015	Razzaque; Ninkov	AGI	Investment team	Quarterly review	Conference call
203	11/10/2015	Razzaque; Ninkov	JP Morgan International	Investment team	Quarterly review	Conference call
204	11/12/2015	Razzaque; Ninkov	GE International	Investment team	Quarterly review	Conference call
205	11/20/2015	Razzaque; Ninkov	JP Morgan EM	Investment team	Quarterly review	Conference call
206	11/23/2015	Razzaque; Ninkov	Pzena	Investment team	Quarterly review	Conference call
207	11/24/2015	Razzaque; Ninkov	Johnston	Investment team	Quarterly review	Conference call
208	12/18-22/2015	Rose Duran	L&B and Macerich	L&B and Macerich	Partnership Meeting	Washington DC
209	10/15/2015	Skuratovskaya	Rogge	John Graham	Performance overview	Juneau office
210	10/20/2015	Skuratovskaya	Bank of Montreal	Bill Pilsbury, Dan Stevens, Dan Krieter	Relationship Visit, US economic outlook	Juneau office

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211	10/22/2015-10/23/2015	Skuratovskaya	CFA Institute	CFA Institute Fixed Income Conference	Global Fixed Income outlook	Boston
212	11/2/2015	Skuratovskaya, Olmsted	Swedish Export Authority	Erik Haden	Issuer Overview	Juneau office
213	12/9/2015	Skuratovskaya, Parise, Olmsted, Cummins	RBS	Michele Girard, John Briggs, Paul Clark	Relationship Visit, US economic outlook	Juneau office

APFC Staff Education and Training Report

December 1, 2015 - January 31, 2016

total count	dept count	EMPLOYEE	DEPT	TRAINING TYPE*	VENDOR	COURSE TITLE	CLASS HOURS	CITY	ST
1	1	ANGELA RODELL	EXEC	C & S	Callan	Callan Annual National Conference	16.0	San Francisco	CA
2	1	JOHN SEAGREN	FIN	LT/Indiv	KPMG	Tax Governance Institute: Global Capital and Tax Reform	1.0	Juneau	AK
3	2	JOHN SEAGREN	FIN	LT/Indiv	KPMG	Forecoming Changes to Impairment of Financial Instruments	1.0	Juneau	AK
4	3	JOHN SEAGREN	FIN	LT/Indiv	Thomson	Ethics For Alaska CPAs	4.0	Juneau	AK
5	4	JOHN SEAGREN	FIN	LT/Indiv	AICPA	Real Estate Accounting: Acquisition & Development of Assets	2.5	Juneau	AK
6	5	JOHN SEAGREN	FIN	LT/Indiv	AICPA	Fair Value Accounting: Working With a Valuation Specialist	1.5	Juneau	AK
7	6	JOHN SEAGREN	FIN	LT/Indiv	AICPA	Fair Value Accounting: Testing For Subsequent Impairment	1.5	Juneau	AK
8	7	JOHN SEAGREN	FIN	LT/Indiv	AICPA	Fair Value Accounting: Disclosures, Measurement in Business Combination	1.5	Juneau	AK
9	8	JOHN SEAGREN	FIN	LT/Indiv	AICPA	Advanced Controller Skills: Improving Organizational Performance	2.0	Juneau	AK
10	9	JOHN SEAGREN	FIN	LT/Indiv	AICPA	Advanced Controller Skills: Improving Your Leadership & Coaching	2.0	Juneau	AK
11	10	JOHN SEAGREN	FIN	LT/Indiv	AICPA	Fair Value Accounting: Overview and Measurement	2.5	Juneau	AK
12	11	JOHN SEAGREN	FIN	LT/Indiv	AICPA	Advanced Controller Skills: Improving Your Leadership Skills	2.0	Juneau	AK
13	12	JOHN SEAGREN	FIN	LT/Indiv	AICPA	Advanced Controller Skills: Improving Your Team's Effectiveness	1.0	Juneau	AK
14	13	JOHN SEAGREN	FIN	LT/Indiv	AICPA	S Corporations: Passive Activity Rules, Benefits, other	1.0	Juneau	AK
15	14	JOHN SEAGREN	FIN	LT/Indiv	AICPA	S Corporations: Distributions, Taxable Year	1.0	Juneau	AK
16	15	JOHN SEAGREN	FIN	LT/Indiv	AICPA	S Corporations: Pass-thru, Basis, Losses	1.5	Juneau	AK
17	16	JOHN SEAGREN	FIN	LT/Indiv	AICPA	S Corporations: Termination, Built-in Gains	1.5	Juneau	AK
18	17	JANE SHERBROOKE	FIN	LT/Indiv	Bloomberg	Manual No More: Bloomberg STP Solutions	1.0	Juneau	AK
19	18	JOSEPH SHINN	FIN	LT/Indiv	Bloomberg	Manual No More: Bloomberg STP Solutions	1.0	Juneau	AK
20	19	JANE SHERBROOKE	FIN	LT/Indiv	Tradeweb	Introduction to Master Blotter Functionality	0.5	Juneau	AK
21	20	JOSEPH SHINN	FIN	LT/Indiv	Tradeweb	Introduction to Master Blotter Functionality	0.5	Juneau	AK

ALASKA PERMANENT FUND CORPORATION

SUBJECT: Communications Report

ACTION: _____

DATE: February 23, 2016

INFORMATION: X

Newspaper Insert

84,250 copies of the annual newspaper insert were placed in papers around the state between January 26 and February 1. We placed dropdown ads on the websites of the Anchorage Dispatch News, the Fairbanks Daily News-Miner and the Juneau Empire for two days to coincide with the day they carried the hard copy inserts that directed readers to www.apfc.org. A review of traffic to the website suggests that the dropdown ads are driving additional traffic to the site, but it is an increase of about 13 percent and may not be enough to warrant the cost of running these ads in the future.

Presentations

January:

Chris Poag presented to The Alliance at a meeting in Anchorage on the Fund's structure, investments and the earnings reserve.

February:

Angela Rodell presented to the State Chamber, the Fairbanks Chamber and the Home Builders Association at meetings in Juneau, and also presented to the Senate Finance Committee with Valerie Mertz. All of the presentations covered the Fund's structure, investments and current issues.

Angela was a guest on Gavel to Gavel with Tim Bradner to discuss the Permanent Fund.

APFC Financial Report

December 31, 2015

Fiscal Year 2016 Net Assets

Balances through December 31, 2015 *(in millions)*

Total assets	\$52,295.0
Less liabilities	(\$502.0)
Net assets	<u>\$51,793.0</u>
Fund Balances:	
Nonspendable	
Permanent Fund corpus—contributions and appropriations	\$39,333.4
Not in spendable form—unrealized appreciation on invested assets	\$4,355.6
Total nonspendable fund balance	<u>\$43,689.0</u>
Committed	
Current FY dividend	\$1,267.8
Current FY inflation proofing	\$55.1
Current FY AK Capital Income Fund	\$9.3
Committed fund balance	<u>\$1,332.2</u>
Assigned for future appropriations	
Realized earnings	\$5,963.9
Unrealized appreciation on invested assets	\$807.9
Total assigned fund balance	<u>\$6,771.8</u>
Total fund balances	<u>\$51,793.0</u>

Fiscal Year 2016 Income

For the six months ending December 31, 2015 *(in millions)*

Statutory (Realized) Net Income

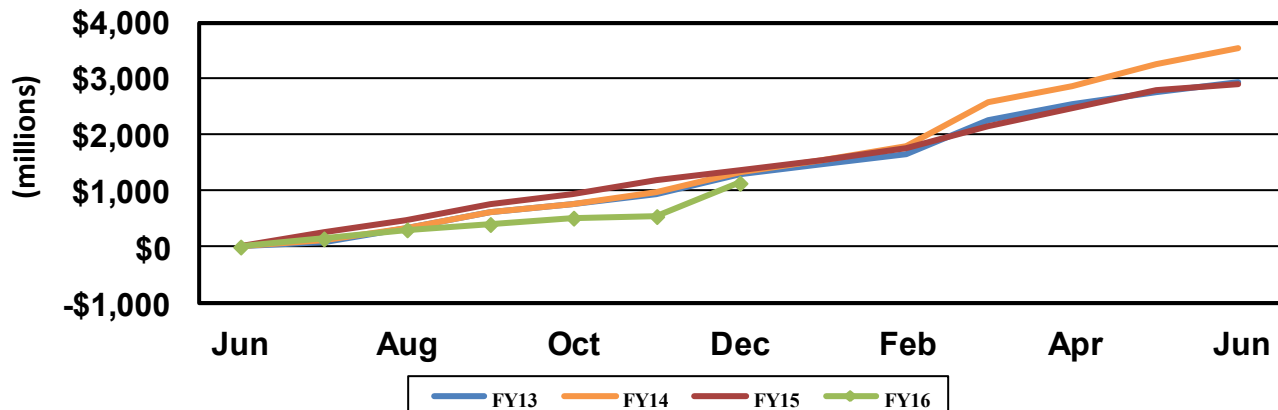
Interest, dividends, real estate, and other income	\$571.9
Realized gains on the sale of invested assets	\$636.4
Less operating expenses/legislative appropriations	(\$58.7)
Alaska Capital Income Fund committed realized earnings	(\$9.3)
Statutory net income	<u>\$1,140.3</u>

GAAP (Accounting) Net Income

Statutory net income	\$1,140.3
Unrealized losses on invested assets	(\$2,325.5)
Alaska Capital Income Fund committed realized earnings	\$9.3
Accounting net loss	<u>(\$1,175.9)</u>

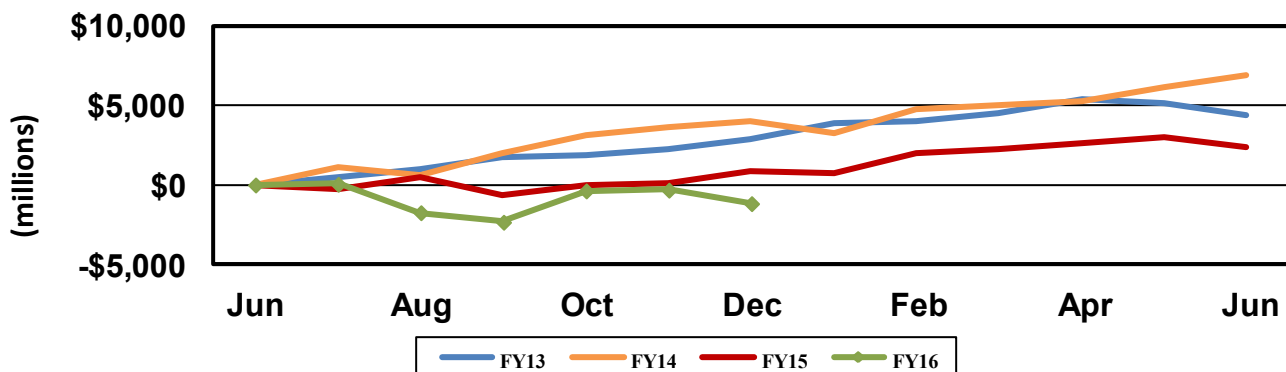


Statutory Net Income, Fiscal Years 2013—2016



- 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.
- FY13 statutory net income was \$2,927.8 million.
- FY14 statutory net income was \$3,530.9 million.
- FY15 statutory net income was \$2,907.3 million.
- FY16 statutory net income ending December 31 was 1,140.3 million.

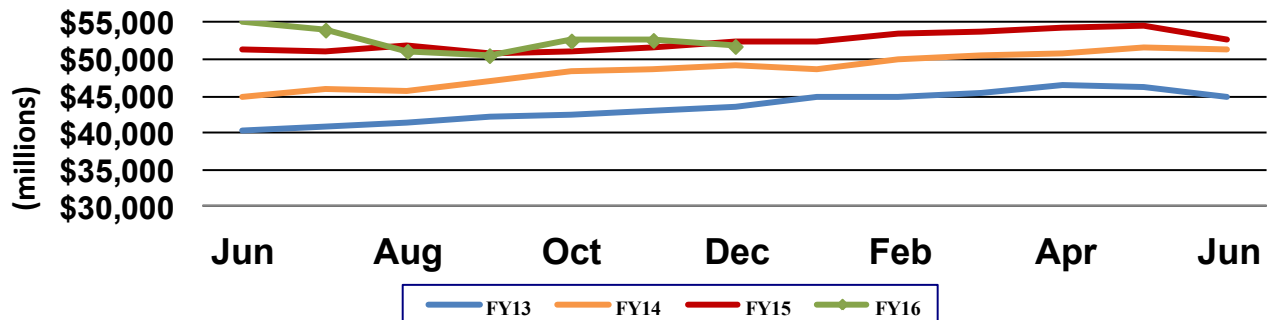
GAAP Accounting Net Income (Loss), Fiscal Years 2013—2016



- Accounting net income is the same as statutory net income, except it includes unrealized gains and losses.
- Accounting net income for FY13 was \$4.3 billion.
- Accounting net income for FY14 was \$6.8 billion.
- Accounting net gain for FY15 was \$2.4 billion.
- Accounting net loss for FY16 first quarter ending December 31 was 1.2 billion.

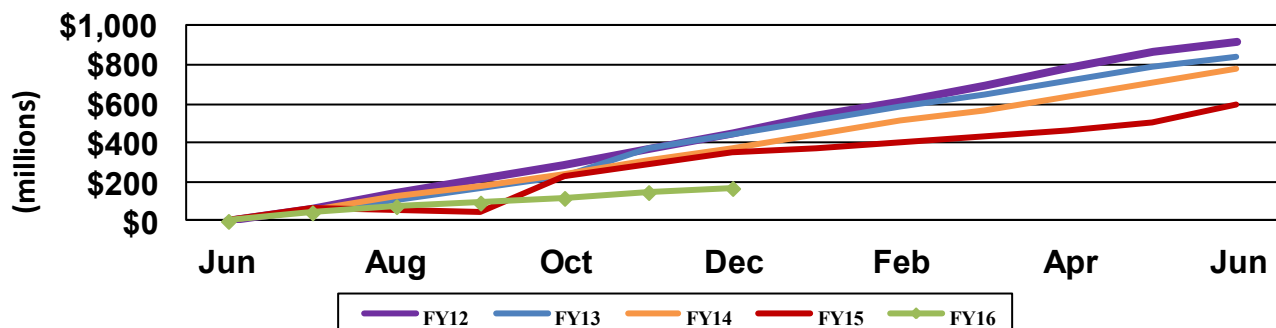


Market Value of Fund Net Assets, Fiscal Years 2013—2016



- This graph depicts market volatility and recording of the annual dividend payment, which occurs in June of each year.
- FY13 Fund net assets as of June 2013 were \$44.9 billion, an increase of \$4.6 billion over the FY12 ending balance.
- FY14 Fund net assets as of June 2014 were \$51.2 billion, an increase of \$6.3 billion over the FY13 ending balance.
- FY15 Fund net assets as of June 2015 were \$52.8 billion, an increase of \$1.6 billion over the FY14 ending balance.
- FY16 Fund net assets as of December 2015 were \$51.8 billion, a decrease of \$1.0 billion from the FY15 ending balance.

Dedicated Mineral Revenues, Fiscal Years 2012—2016



- FY12 mineral revenue was \$915.1 million, the highest in the history of the fund.
- FY13 mineral revenue was \$840.1 million.
- FY14 mineral revenue was \$779.5 million.
- FY15 mineral revenue was \$600 million.
- FY16 mineral revenue through December 2015 was \$168.4 million.

ALASKA PERMANENT FUND

Balance Sheets

Unaudited (millions of dollars)	December 31, 2015	June 30, 2015
Assets		
Cash and temporary investments	\$ 1,922.9	1,889.5
Receivables, prepaid expenses and other assets	169.4	622.8
Investments:		
Marketable debt securities	9,459.7	11,116.4
Preferred and common stock	19,979.9	20,896.0
Real estate	6,877.1	6,480.9
Real return	0.0	2,190.5
Absolute return, mezzanine debt, distressed and credit opps	6,623.1	4,493.2
Private equity	5,606.1	5,239.2
Infrastructure	1,656.8	1,494.5
Emerging markets total opportunities	0.0	580.5
Total investments	50,202.7	52,491.2
TOTAL ASSETS	\$ 52,295.0	55,003.5
Liabilities		
Accounts payable	\$ 502.0	805.9
Income distributable to the State of Alaska	0.0	1,397.1
TOTAL LIABILITIES	502.0	2,203.0
Fund Balances		
Nonspendable:		
Permanent Fund corpus - contributions and appropriations	39,333.4	39,165.0
Not in spendable form - unrealized appreciation on invested assets	4,355.6	6,473.1
Total nonspendable	43,689.0	45,638.1
Committed:		
Current FY dividend	1,267.8	0.0
Current FY inflation proofing	55.1	0.0
Current FY AK Capital Income Fund	9.3	0.0
Total committed	1,332.2	0.0
Assigned for future appropriations:		
Realized earnings	5,963.9	6,146.5
Unrealized appreciation on invested assets	807.9	1,015.9
Total assigned	6,771.8	7,162.4
TOTAL FUND BALANCES	51,793.0	52,800.5
TOTAL LIABILITIES AND FUND BALANCES	\$ 52,295.0	55,003.5



ALASKA PERMANENT FUND

Statements of Revenues, Expenditures and Changes in Fund Balances

Unaudited (millions of dollars)	Month ended December 31, 2015	Six months ended December 31, 2015	Fiscal year-end audited June 30, 2015
Revenues			
Interest	\$ 30.7	157.3	357.1
Dividends	49.0	214.6	550.3
Real estate and other income	7.5	200.0	240.7
Total interest, dividends, real estate and other income	87.2	571.9	1,148.1
Net increase (decrease) in the fair value of investments:			
Marketable debt securities	(82.7)	(164.5)	(259.0)
Preferred and common stock	(491.5)	(1,449.0)	(300.9)
Real estate	(6.9)	209.3	380.4
Real return	0.0	0.0	63.8
Absolute return, credit opps, distressed and mezzanine debt	(28.9)	(63.1)	90.6
Private equity	(317.3)	(137.3)	1,608.8
Infrastructure	20.8	107.2	53.8
Emerging markets total opportunities	0.0	15.0	(98.3)
Forward exchange contracts and equity futures	0.5	15.0	119.0
Currency	(23.2)	(221.7)	(311.9)
Total net increase (decrease) in investments	(929.2)	(1,689.1)	1,346.3
TOTAL REVENUES	(842.0)	(1,117.2)	2,494.4
Expenditures			
Operating expenditures	(8.2)	(50.2)	(101.9)
Other legislative appropriations	0.0	(8.5)	(8.6)
TOTAL EXPENDITURES	(8.2)	(58.7)	(110.5)
Excess (deficiency) of revenue over expenditures	\$ (850.2)	(1,175.9)	2,383.9
Other Financing Sources (Uses)			
Transfers in	20.9	168.4	600.0
Transfers out	0.0	0.0	(1,397.1)
NET CHANGE IN FUND BALANCES	(829.3)	(1,007.5)	1,586.8
Fund Balances			
Beginning of period	52,622.3	52,800.5	51,213.7
End of period	\$ 51,793.0	51,793.0	52,800.5

Statutory Income Calculation

Excess (deficiency) of revenues over (under) expenditures	(850.2)	(1,175.9)	2,383.9
Adjustments to bring net income to statutory net income:			
Unrealized (gains) losses	1,450.4	2,325.5	547.4
Alaska Capital Income Fund realized income	(4.9)	(9.3)	(24.0)
STATUTORY NET INCOME	\$ 595.3	1,140.3	2,907.3



Alaska Permanent Fund Corporation

Assumptions:	Total Return - Inflation = Total Real Return	Statutory Return
10% FY 2016	-8.10%	10%
25% FY 2016	-3.22%	4.28%
10% FY 2016	-3.85%	25%
Mid FY 2016 ⁽⁶⁾	1.00%	4.88%
Mid FY 2016	0.13%	Mid
25% FY 2016	5.70%	25%
10% FY 2016	9.99%	10%
FY 2017-2026 ⁽⁷⁾	6.90%	5.94%
	2.25%	4.88%

FY16 Statutory net income	
Interest, dividends, real estate & other income	\$ 571.9
Realized gains (losses) on the sale of invested assets	636.4
Less operating exp / Legis Appropriations	(58.7)
Less AK Capital Inc. Fund committed realized earnings	(9.3)
Statutory net income (loss)	\$ 1,140.3

FY16 Accounting (GAAP) net income	
Statutory net income (loss)	\$ 1,140.3
Unrealized gains (losses) on invested assets	(2,325.5)
AK Capital Income Fund committed realized earnings	9.3
Accounting (GAAP) net income (loss)	\$ (1,175.9)

(1) Appropriations include special general fund, realized earnings, and other miscellaneous appropriation transfers into principal.

(2) Dedicated State Revenues in current and future fiscal years are based on the Spring 2015 Department of Revenue forecast.

(3) Accounting net income is based on United States Generally Accepted Accounting Principles (GAAP). Statutory net income is

e) Accounting net income is based on United States Generally Accepted Accounting Principles ("GAAP"); statutory net income is based on Alaska law, and excluding earnings of the Alaska Capital Income Fund (AM Hess, et al principal), losses on investments, and excluding earnings of the Alaska Capital Income Fund (AM Hess, et al principal).

(4) Earnings and forward Amerada Hess et al. annual net positive settlement earnings are transferred to Alaska Capital Income Fund (AIM Hess, et al principal), losses on investments, and excluding earnings of the Alaska Capital Income Fund (AIM Hess, et al principal).

(*) Beginning in FY08, based on legal opinion, unrealized gains and losses were allocated between the nonspendable fund balance and the expendable fund balance.

(N) Beginning in FY08, based on legal opinion, unrealized gains and losses were allocated between the nonspendable fund balance (earnings reserve). Prior to FY08, all unrealized gains and losses were included with principal.

(earnings reserve). Prior to FY08, all unrealized gains and losses were included with principal.

(6) Current year returns and inflation are based on 2014 Callan capital market assumptions.

(7) Future returns are based on 2014 Callan capital market assumptions and median expected returns (the mid case). Actual results may differ.

(3) During FY 2009, the ACIF realized losses of \$33.3 million, which are excluded from statutory net income, and are included in

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.

(9) The statutory inflation calculation for FY 2010 was -36%; therefore, there was no inflation proofing transfer during FY 2010.

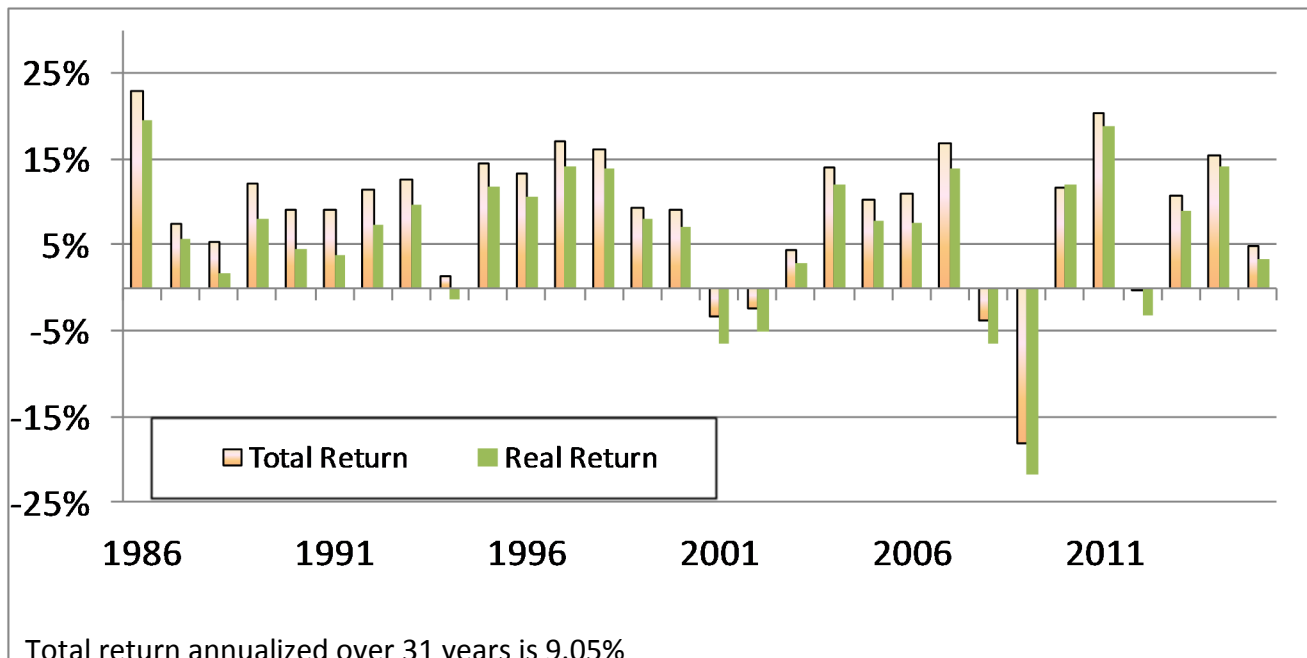
⁽⁴⁰⁾ FY77-06 includes special appropriations to principal of \$3.7 billion.

PERFORMANCE SUMMARY							
	Current	Last 3	Fiscal	Calendar	Last 12	Last 3	Last 5

	Month	Months	Y-T-D	Y-T-D	Months	Years	Years
Preliminary as of January 31, 2016							
Domestic Fixed Income	-0.57%	-0.06%	-0.50%	-0.31%	-0.06%	0.88%	3.36%
Non-Domestic Fixed Income	-1.16%	-2.92%	0.34%	-1.26%	-0.26%	-0.33%	2.65%
Mezzanine Debt	N/A	N/A	3.83%	6.58%	12.09%	12.29%	7.18%
Domestic Equities	-2.64%	0.56%	5.75%	-2.37%	0.56%	14.97%	12.09%
Non-Domestic Equities	-2.00%	-6.74%	2.89%	-10.36%	-6.74%	0.32%	0.26%
Global Equities	-2.07%	-1.24%	-1.24%	-4.52%	-1.24%	9.23%	7.99%
Multi-Asset Emerging Markets	0.69%	-5.52%	4.54%	-5.63%	-5.52%	-3.57%	
Real Estate	1.24%	14.28%	4.47%	8.48%	14.28%	12.08%	12.03%
Private Equity	N/A	N/A	N/A	5.47%	14.05%	18.74%	17.00%
Absolute Return	N/A	N/A	0.63%	-1.05%	1.21%	3.76%	4.70%
Infrastructure	N/A	N/A	0.37%	2.38%	9.26%	9.42%	7.26%
Private CIOs/Real Return Mandate	N/A	N/A	-2.33%	2.84%	16.82%		
True Special Opportunity	N/A	N/A	4.95%	-14.48%	-10.63%		
Total Fund	-1.49%	1.10%	2.38%	-1.99%	1.10%	7.06%	6.76%
Total Fund Return Objective	0.08%	5.73%	0.55%	1.61%	5.73%	5.00%	5.54%

Alaska Permanent Fund Historical Returns, Fiscal Year 1986—2015

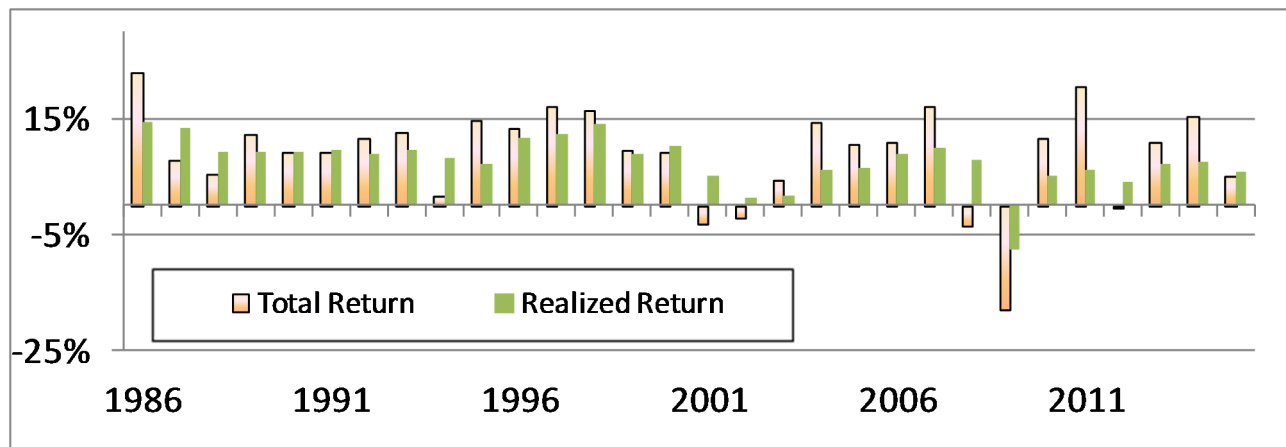
Total return minus inflation equals real return



Real return annualized over 31 years is 6.32%

Alaska Permanent Fund Historical Returns, Fiscal Year 1986—2015

Total return minus unrealized gains/losses equals realized return



Realized return annualized over 31 years is 7.65%



APFC Cash Transfers

October 1 to December 31, 2015

<u>Type of Transfer</u>	<u>Amount</u>
Administrative Total	(2,796,498.98)
Public Equity Total	(1,741,937,450.09)
Fixed Income Total	98,273,492.18
Absolute Return Total	50,000,000.00
Distressed Debt Total	(5,699,059.95)
Public/Private Credit Total	(23,299,013.81)
Infrastructure Total	13,655,003.41
Real Estate Total	109,495,518.26
Private Equity Total	17,553,774.89
Private External CIO/Real Return Mandate Total	30,405,662.48
True Special Opportunities Total	270,631,632.15
Total value of cash/stock transfers	<u><u>(1,183,716,939.46)</u></u>

Footnote:

Totals denote the net value of the cash/stock transfers.

APFC Cash Transfers

October 2015

<u>Date</u>	<u>Type of Transfer</u>	<u>Amount</u>	<u>Source</u>	<u>Destination</u>
Administrative				
Various	Transfer in - Mineral revenue	(21,501,728)	Department of Natural Resources	Internal Cash account
10/15/2015	Transfer in - AIM STIF Interest	12,986	Bank of NY Mellon	Internal Cash account
10/20/2015	Transfer in - Commission Recapture proceeds	36,620	Bank of NY Mellon	Internal Cash account
10/21/2015	Transfer out - FY16 Appropriation - Oil & Gas, Mining, Land & Water	(5,889,900)	Internal Cash account	Department of Revenue
Various	Transfer out - Corporate Expenses	(11,165,276)	Internal Cash account	FNBA, Department of Revenue
	Administrative sub-total	(38,507,299)		
Public Equity				
10/29/2015	Cap Guardian EM account increase - Asset Reallocation	705,799,319	Internal Cash account	Capital Guardian Emerging Markets account
10/29/2015	Mondrian account decrease - Asset Reallocation	(298,565,627)	Mondrian account	Internal Cash account
10/29/2015	Cap Guardian ETOP account liquidation	(407,233,692)	Cap Guardian ETOP account	Internal Cash account
Various	Class action income	189,743	Class action proceeds	Internal Cash account
	Public Equity sub-total	189,743		
Public/Private Credit				
Various	Public/Private Credit distributions	(10,932,271)	Public/Private Credit accounts	Internal Cash account
	Distressed & Mezzanine Debt sub-total	(10,932,271)		
Infrastructure				
10/22/2015	Private Infrastructure distribution	(4,422,207)	Private Infrastructure accounts	Internal Cash account
Various	Private Infrastructure capital call	11,157,350	Internal Cash account	Private Infrastructure accounts
	Cohen & Steers Listed IFR account funding	-	Internal Cash account	Cohen & Steers Listed IFR account
	Infrastructure sub-total	6,735,143		
Real Estate				
10/30/2015	Private Equity RE acquisitions	1,000,000	Internal Cash account	CS Capital account
10/16/2015	Private Equity RE dispositions	(4,980,610)	Sentinel account	Internal Cash account
Various	Real Estate capital contributions	2,080,561	Internal Cash account	Various Real Estate Managers
Various	Real Estate distributions	(11,809,615)	Various Real Estate Managers	Internal Cash account
10/19/2015	American Home 4 Rent II account contribution	40,000,000	Internal Cash account	American Home 4 Rent II account
10/5/2015	American Home 4 Rent account cash flow	(2,258,595)	American Home 4 Rent account	Internal Cash account
	Real Estate sub-total	24,031,742		
Private Equity				
Various	Private Equity capital calls	56,587,998	Internal Cash account	Pathway and HarbourVest directed investments
Various	Private Equity distributions	(40,612,125)	Pathway and HarbourVest directed investments	Internal Cash account
Private External CIO/Real Return Mandate				
10/22/2015	Private External CIO distribution	(8,300)	Private External CIO account	Internal Cash account
Various	Private External CIO capital call	5,407,610	Internal Cash account	Private External CIO account
	Private External CIO/Real Return Mandate sub-total	5,399,310		
True Special Opportunities				
	True Special Opportunities capital call	52,874,350	Internal Cash account	True Special Opportunities account
	Special Opportunities sub-total	52,874,350		
Total value of cash/stock transfers		55,766,592		

Footnote:

Totals denote the net value of the cash/stock transfers.

APFC Cash Transfers

November 2015

<u>Date</u>	<u>Type of Transfer</u>	<u>Amount</u>	<u>Source</u>	<u>Destination</u>
Administrative				
11/6/2015	Transfer in - Mineral revenue	14,899,121	Department of Natural Resources	Internal Cash account
11/18/2015	Transfer out - FY16 Appropriation to Dept. of Law Oil and Gas Litigation	(2,577,600)	Internal Cash account	Department of Law
11/13/2015	Transfer in - Securities Lending Income	1,665,865	Bank of NY Mellon	Internal Cash account
11/3/2015	Transfer in - AIM STIF Interest	14,237	Bank of NY Mellon	Internal Cash account
11/18/2015	Transfer in - Commission Recapture proceeds	49,438	Bank of NY Mellon	Internal Cash account
Various	Transfer out - Corporate Expenses	(11,484,753)	Internal Cash account	FNBA, Department of Revenue
	Administrative sub-total	2,566,308		
Public Equity				
Various	Capital Guardian Emerging Markets account decrease - Asset Reallocation	(803,516,432)	Capital Guardian Emerging Markets account	Various accounts
Various	William Blair Emerging Markets account increase - Asset Reallocation	223,673,593	Capital Guardian Emerging Markets account	William Blair Emerging Markets account
Various	JP Morgan Emerging Markets account increase - Asset Reallocation	131,964,518	Capital Guardian Emerging Markets account	JP Morgan Emerging Markets account
Various	DFA Emerging Markets Value account increase - Asset Reallocation	356,167,636	Capital Guardian Emerging Markets account	DFA Emerging Markets Value account
Various	DFA Emerging Markets Small Cap account increase - Asset Reallocation	46,117,912	Capital Guardian Emerging Markets account	DFA Emerging Markets Small Cap account
Various	Trustbridge Emerging Markets account increase - Asset Reallocation	45,592,773	Capital Guardian Emerging Markets account	Trustbridge Emerging Markets
Various	Cap Guardian ETOP account liquidation	(223,097,374)	Cap Guardian ETOP account liquidation	Internal Cash account
Various	Class action income	165,518	Class action proceeds	Internal Cash account
	Public Equity sub-total	(222,931,856)		
Fixed Income				
11/2/2015	Cap Guardian High Yield Emerging Mrkt Debt account increase	98,273,492	Internal Cash account	Cap Guardian High Yield Emerging Mrkt Debt account
	Fixed Income sub-total	98,273,492		
Distressed Debt				
11/20/2015	Distressed Debt distribution	(5,699,060)	Distressed Debt account	Internal Cash account
	Absolute Return sub-total	(5,699,060)		
Public/Private Credit				
11/17/2015	Public/Private Credit distributions	(8,181,705)	Public/Private Credit accounts	Internal Cash account
11/12/2015	Public/Private Credit capital call	3,741,580	Internal Cash account	Public/Private Credit account
	Distressed & Mezzanine Debt sub-total	(4,440,125)		
Infrastructure				
Various	Private Infrastructure capital call	15,374,309	Internal Cash account	Private Infrastructure accounts
	Infrastructure sub-total	15,374,309		
Real Estate				
Various	Private Equity RE acquisitions	112,702,058	Internal Cash account	Sentinel account
Various	Private Equity RE dispositions	(53,300,065)	Various Real Estate Managers	Internal Cash account
Various	Real Estate capital contributions	1,549,078	Internal Cash account	Various Real Estate Managers
Various	Real Estate distributions	(18,058,203)	Various Real Estate Managers	Internal Cash account
	Real Estate sub-total	42,892,868		
Private Equity				
Various	Private Equity capital calls	42,590,776	Internal Cash account	Pathway and HarbourVest directed investments
Various	Private Equity distributions	(47,548,822)	Pathway and HarbourVest directed investments	Internal Cash account
	Private Equity sub-total	(4,958,046)		
True Special Opportunities				
Various	True Special Opportunities distribution	(1,178,753)	True Special Opportunities account	Internal Cash account
Various	True Special Opportunities capital call	24,040,771	Internal Cash account	True Special Opportunities account
	Special Opportunities sub-total	22,862,019		
	Total value of cash/stock transfers	(56,060,091)		

Footnote:

Totals denote the net value of the cash/stock transfers.

APFC Cash Transfers

December 2015

<u>Date</u>	<u>Type of Transfer</u>	<u>Amount</u>	<u>Source</u>	<u>Destination</u>
Administrative				
Various	Transfer in - Mineral revenue	36,169,186	Department of Natural Resources	Internal Cash account
12/14/2015	Transfer in - Securities Lending Income	1,604,240	Bank of NY Mellon	Internal Cash account
12/2/2015	Transfer in - AIM STIF Interest	12,545	Bank of NY Mellon	Internal Cash account
12/16/2015	Transfer in - Commission Recapture proceeds	34,595	Bank of NY Mellon	Internal Cash account
Various	Transfer out - Corporate Expenses	(4,676,074)	Internal Cash account	FNBA, Department of Revenue
Administrative sub-total		33,144,492		
Public Equity				
12/02/2015	Mellon S&P 400 account decrease - Asset Reallocation	(200,000,000)	Mellon S&P 400 account	Various accounts
12/02/2015	Mellon Capital Mgmt S&P 500 account decrease - Asset Reallocation	(300,000,000)	Mellon Capital Mgmt S&P 500 account	Various accounts
12/14/2015	Lyrical account increase - Asset Reallocation	93,572,771	Various accounts	Lyrical account
12/14/2015	DSM account increase - Asset Reallocation	190,412,744	Various accounts	DSM account
12/2/2015	AGI account decrease - Asset Reallocation	(402,117,233)	AGI account	Various accounts
12/2/2015	Mellon FTSE RAFI Quasi-Passive account decrease - Asset Reallocation	(899,966,657)	Mellon FTSE RAFI Quasi-Passive account	Various accounts
12/10/2015	William Blair Emerging Markets account increase - Asset Reallocation	5,000,000	Various accounts	William Blair Emerging Markets account
12/10/2015	JP Morgan Emerging Markets account increase - Asset Reallocation	2,500,000	Various accounts	JP Morgan Emerging Markets account
Various	Cap Guardian EM account decrease - Asset Reallocation	(15,238,525)	Cap Guardian EM account	Internal Cash account
Various	DFA EM Value account increase - Asset Reallocation	5,577,562	Internal Cash account	DFA EM Value account
12/10/2015	DFA EM Small Cap account increase - Asset Reallocation	1,000,000	Internal Cash account	DFA EM Small Cap account
Various	Class action income	64,001	Class action proceeds	Internal Cash account
Public Equity sub-total		(1,519,195,338)		
Absolute Return				
12/1/2015	Absolute Return funding	50,000,000	Internal Cash account	Absolute Return account
Absolute Return sub-total		50,000,000		
Public/Private Credit				
Various	Public/Private Credit distributions	(16,532,253)	Public/Private Credit accounts	Internal Cash account
12/29/2015	Public/Private Credit capital call	8,605,635	Internal Cash account	Public/Private Credit account
Distressed & Mezzanine Debt sub-total		(7,926,618)		
Infrastructure				
Various	Private Infrastructure distribution	(12,972,027)	Private Infrastructure accounts	Internal Cash account
12/21/2015	Private Infrastructure capital call	4,517,578	Internal Cash account	Private Infrastructure accounts
Infrastructure sub-total		(8,454,448)		
Real Estate				
Various	Private Equity RE acquisitions	57,381,950	Internal Cash account	Various Real Estate Managers
12/31/2015	Private Equity RE dispositions	(3,926,710)	Lincoln Industrial account	Internal Cash account
Various	Real Estate capital contributions	2,694,069	Internal Cash account	Various Real Estate Managers
Various	Real Estate distributions	(11,319,806)	Various Real Estate Managers	Internal Cash account
12/30/2015	American Home 4 Rent account cash flow	(2,258,595)	Internal Cash account	American Home 4 Rent account
Real Estate sub-total		42,570,908		
Private Equity				
Various	Private Equity capital calls	87,443,829	Internal Cash account	Pathway and HarbourVest directed investments
Various	Private Equity distributions	(83,407,881)	Pathway and HarbourVest directed investments	Internal Cash account
12/8/2015	Blackrock Commingled capital calls	2,500,000	Internal Cash account	Blackrock Commingled account
Private Equity sub-total		6,535,948		
Private External CIO/Real Return Mandate				
Various	Private External CIO capital call	25,006,353	Internal Cash account	Private External CIO account
Private External CIO/Real Return Mandate sub-total		25,006,353		
True Special Opportunities				
12/31/2015	True Special Opportunities distribution	(190,083,366)	True Special Opportunities account	Internal Cash account
Various	True Special Opportunities capital call	384,978,629	Internal Cash account	True Special Opportunities account
Special Opportunities sub-total		194,895,264		
Total value of cash/stock transfers		(1,183,423,441)		

Footnote:

Totals denote the net value of the cash/stock transfers.

Board of Trustees

Monthly Performance Report -

Returns are unaudited, preliminary, and include some estimates

Consolidated Assets - APF assets equal 99% of total assets. Slight differences are due to rounding.
Market values shown are unaudited, and returns for periods greater than one year are annualized.
Returns for accounts with delayed reporting are shown quarterly and are calculated based on most recent Callan data.
All returns are provided by Callan Associates, Inc. and are shown gross of fees (before fees) except as noted.



		12/31/2015	Returns as of 12/31/2015						Annual Fees	
		Market Value (\$ in millions)	(A) Latest Month	(B) Last 3 Months	(C) Fiscal Y-T-D	(D) Calendar Y-T-D	(E) Last 12 months	(F) Last 3 Years		(G) Last 5 Years
RETURNS BY ASSET CLASS										
1	Domestic Fixed Income	9,563.2	-0.57%	-0.50%	-0.32%	-0.06%	-0.06%	0.88%	3.36%	
2	Non-Domestic Fixed Income	1,074.0	-1.16%	0.34%	-1.25%	-2.92%	-2.92%	-0.33%	2.65%	
3	Mezzanine Debt	220.7	N/A	0.93%	3.60%	8.96%	8.96%	11.23%	6.58%	
4	Domestic Equities	6,100.1	-2.64%	5.75%	-2.37%	0.56%	0.56%	14.97%	12.09%	
5	Non-Domestic Equities	8,731.8	-2.08%	2.81%	-10.43%	-6.82%	-6.82%	0.29%	0.23%	
6	Global Equities	5,775.8	-2.07%	4.74%	-4.52%	-1.24%	-1.24%	9.23%	7.89%	
7	Multi-Asset Emerging Markets	0.2	0.69%	4.54%	-5.63%	-5.52%	-5.52%	-3.57%		
8	Real Estate	6,945.2	0.56%	2.32%	6.25%	11.93%	11.93%	11.30%	11.57%	
9	Private Equity ⁺	3,397.3	N/A	0.71%	6.22%	14.86%	14.86%	19.02%	17.16%	
10	Absolute Return ⁺	6,460.1	N/A	0.25%	-1.42%	0.82%	0.82%	3.62%	4.62%	
11	Infrastructure and Other Real Assets ⁺	1,681.5	N/A	0.37%	3.92%	10.89%	10.89%	9.97%	7.58%	
12	Private CIOs/Real Return Mandate ⁺	230.8	N/A	-2.72%	2.43%	16.36%	16.36%			
13	True Special Opportunity ⁺	2,034.4	N/A	4.51%	-14.90%	-11.07%	-11.07%			
		\$ 52,215.2								
RETURNS BY RISK CLASS										
14	Company Exposure	30,050.8	-1.56%	2.88%	-3.85%	-0.70%	-0.70%	7.33%	6.64%	
15	Interest Rates and Cash	3,025.3	-0.15%	-0.22%	0.66%	0.48%	0.48%			
16	Real Assets	9,634.7	0.25%	1.62%	4.89%	10.15%	10.15%	9.04%	9.67%	
17	Opportunity Pool	9,504.4	-4.02%	0.83%	-4.57%	-2.60%	-2.60%	6.23%	5.95%	
18	Total Fund	\$ 52,215.2	-1.61%	2.08%	-2.23%	0.85%	0.85%	6.97%	6.70%	
19	Total Fund Return Objective		0.08%	0.65%	1.61%	5.73%	5.73%	6.00%	6.54%	
20	Strategic Risk Benchmark		-1.06%	3.10%	-1.94%	-1.10%	-1.10%	5.93%	5.86%	
21	Performance Benchmark		-0.87%	3.05%	-2.57%	-1.89%	-1.89%	4.89%	4.98%	
22	Board Asset Class Benchmark		-1.17%	2.49%	-2.55%	-1.62%	-1.62%			
COMPANY EXPOSURE										
Passive Large-Cap Domestic Equity Managers										
23	Mellon S&P 500	\$ 240.5	-1.55%	7.08%	0.41%	1.65%	1.65%	15.22%	12.63%	
24	S&P 500 Index		-1.58%	7.04%	0.15%	1.38%	1.38%	15.13%	12.57%	
25	Mellon FTSE RAFI US Large Cap	\$ 341.8	-2.05%	5.71%	-2.65%	-2.51%	-2.51%	14.22%	11.82%	
26	FTSE RAFI US 1000 Index		-2.09%	5.66%	-2.38%	-2.19%	-2.19%	14.33%	11.88%	
Large-Cap Growth Domestic Equity Managers										
27	AGI - Large Cap	\$ 767.3	-1.31%	7.50%	1.48%	7.73%	7.73%	18.34%	12.66%	
28	GE Asset Mgmt	\$ 347.6	-2.46%	10.08%	0.74%	4.06%	4.06%	17.74%	15.11%	
29	DSM - Large Cap	\$ 348.4	0.08%	8.85%	1.45%	8.51%	8.51%			
30	CastleArk - Large Cap	\$ 355.2	-2.31%	5.52%	-2.25%	4.34%	4.34%			
31	In House SPDR Yield	\$ 327.7								
32	In House SPDR Momentum	\$ 331.3								
33	In House SPDR Low Vol	\$ 334.5								
34	Russell 1000 Growth Index		-1.47%	7.32%	1.64%	5.67%	5.67%	16.83%	13.53%	
35	Russell 1000 Index		-1.80%	6.50%	-0.78%	0.92%	0.92%	15.01%	12.44%	

¹ Time-Weighted Returns (TWR) are shown for commitment based assets as they are used to calculate the Total Fund return. Internal Rate of Return (IRR) calculations are more meaningful for such investments.
Shorter time periods (< 3 months) and periods of new investment (first 3 - 5 years) are not meaningful.

12/31/2015			Returns as of 12/31/2015							Annual Fees
	Market Value (\$ in millions)		(A) Latest Month	(B) Last 3 Months	(C) Fiscal Y-T-D	(D) Calendar Y-T-D	(E) Last 12 months	(F) Last 3 Years	(G) Last 5 Years	
COMPANY EXPOSURE (continued)										
<i>Large-Cap Value Domestic Equity Managers</i>										
36	Herndon	\$ 399.6	-4.85%	3.06%	-6.17%	-5.61%	-5.61%			
37	Lyrical	\$ 459.3	-3.85%	3.14%	-7.63%	-5.48%	-5.48%			
38	SKBA	\$ 335.0	-1.29%	6.11%	-2.26%	-3.08%	-3.08%			
39	LSV	\$ 484.2								
40	<i>Russell 1000 Value Index</i>		-2.15%	5.64%	-3.23%	-3.83%	-3.83%			
<i>Passive Small-Cap Domestic Equity Manager</i>										
41	Mellon S&P 400	\$ 124.4	-4.13%	2.64%	-6.06%	-2.11%	-2.11%	12.82%	10.73%	
42	<i>S&P 400 Index</i>		-4.17%	2.60%	-6.11%	-2.18%	-2.18%	12.76%	10.68%	
<i>Small-Cap Core Manager</i>										
43	Jennison Associates LLC	\$ 186.7	-3.30%	2.45%	-8.55%	-1.67%	-1.67%	14.44%	11.27%	
44	<i>Russell 2000 Index</i>		-5.02%	3.59%	-8.75%	-4.41%	-4.41%	11.65%	9.19%	
<i>Small-Cap Growth Managers</i>										
45	RBC Asset Mgmt	\$ 177.7	-4.36%	4.93%	-2.99%	2.09%	2.09%	13.82%	13.53%	
46	Eagle Asset Mgmt	\$ 182.4	-2.14%	5.33%	-5.92%	1.67%	1.67%	14.14%	11.40%	
47	<i>Russell 2000 Growth Index</i>		-4.77%	4.32%	-9.31%	-1.38%	-1.38%	14.28%	10.67%	
48	<i>Russell 2000 Index</i>		-5.02%	3.59%	-8.75%	-4.41%	-4.41%	11.65%	9.19%	
<i>Small-Cap Value Managers</i>										
49	T Rowe Price	\$ 167.9	-6.19%	2.71%	-5.99%	-4.39%	-4.39%	8.62%	9.06%	
50	Pzena Investment Mgmt	\$ 187.8	-6.91%	6.40%	-3.48%	0.19%	0.19%	16.34%	11.73%	
51	<i>Russell 2000 Value Index</i>		-5.27%	2.88%	-8.17%	-7.47%	-7.47%	9.06%	7.67%	
52	<i>Russell 2000 Index</i>		-5.02%	3.59%	-8.75%	-4.41%	-4.41%	11.65%	9.19%	
<i>Emerging Markets Managers</i>										
53	Capital Guardian Emerging Markets	\$ 7.7	-5.35%	-5.87%	-23.26%	-22.07%	-22.07%	-9.43%	-7.82%	
54	Delaware Emerging Markets	\$ 202.5	-3.39%	4.66%	-16.21%	-15.17%	-15.17%			
55	JP Morgan Emerging Markets	\$ 346.9	-3.44%	0.44%	-13.22%	-13.13%	-13.13%			
56	Lee Munder Emerging Markets	\$ 204.0	-2.51%	-0.46%	-17.41%	-17.95%	-17.95%			
57	Mondrian Investment Partners	\$ 360.3	-1.09%	1.39%	-14.04%	-15.02%	-15.02%	-7.38%	-2.74%	
58	SSgA MSCI Emerging Markets	\$ 919.1	-2.06%	0.92%	-16.84%	-14.37%	-14.37%	-6.47%	-4.54%	
59	William Blair Emerging Markets	\$ 449.1	-3.17%	2.21%	-14.41%	-12.72%	-12.72%			
60	DFA Emerging Markets Value	\$ 455.3	-0.57%	3.46%						
61	<i>MSCI Emerging Markets Index</i>		-2.23%	0.66%	-17.35%	-14.92%	-14.92%	-6.76%	-4.80%	
62	DFA Emerging Markets Small Cap	\$ 143.5	0.11%	4.90%						
63	<i>MSCI Emerging Markets Small Cap Index</i>		0.08%	3.27%						
64	Trustbridge Emerging Markets	\$ 97.8	-1.17%	8.98%						
65	<i>MSCI China Index ND</i>		-1.30%	4.03%						
<i>International Passive/Quasi-Passive Managers</i>										
66	Mellon MSCI World ex-USA	\$ 1,462.9	-1.76%	3.94%	-6.99%	-2.76%	-2.76%	4.21%	3.13%	
67	DFA International Large Cap	\$ 1,365.6	-2.06%	4.28%	-8.07%	-3.70%	-3.70%	3.82%	2.49%	
68	<i>Int'l Passive/Quasi-Passive Custom Benchmark¹</i>		-1.79%	3.91%	-7.07%	-3.04%	-3.04%	3.93%	2.79%	
<i>International Small-Cap Managers</i>										
69	DFA International Small Cap Value	\$ 315.1	0.20%	4.89%	-4.56%	5.23%	5.23%	9.80%	5.96%	
70	<i>MSCI World ex-USA Small Cap Value Index</i>		-0.39%	3.78%	-5.37%	1.06%	1.06%	6.71%	3.85%	
71	DFA International Small Company	\$ 313.6	0.54%	6.03%	-2.36%	6.64%	6.64%	8.39%	5.08%	
72	SSgA International Developed Small Cap Index	\$ 310.7	0.12%	5.83%	-2.60%	5.71%	5.71%	8.20%	4.87%	
73	<i>MSCI World ex-USA Small Cap Index</i>		0.11%	5.82%	-2.68%	5.46%	5.46%	7.82%	4.39%	

¹ Int'l Passive/Quasi-Passive Custom Benchmark is MSCI EAFE through 5/26/10, then MSCI World ex US thereafter.

12/31/2015			Returns as of 12/31/2015							Annual Fees	
	Market Value (\$ in millions)		(A) Latest Month	(B) Last 3 Months	(C) Fiscal Y-T-D	(D) Calendar Y-T-D	(E) Last 12 months	(F) Last 3 Years	(G) Last 5 Years		
COMPANY EXPOSURE (continued)											
International Large-Cap Value Managers											
74	Acadian Asset Mgmt	\$ 611.3	-1.31%	4.31%	-4.27%	-0.60%	-0.60%	4.39%	4.33%	Net	
75	MSCI World ex-USA/MSCI EAFE ¹		-1.79%	3.91%	-7.07%	-3.04%	-3.04%	3.93%	2.75%		
76	LSV International Large Cap	\$ 170.5	-2.46%	1.80%	-12.15%	-6.68%	-6.68%				
77	Schroders International Large Cap	\$ 176.7	-1.39%	2.72%	-7.99%	-3.49%	-3.49%				
78	MSCI All Country World ex-USA Value Index		-2.45%	1.50%	-12.20%	-9.59%	-9.59%				
International Large-Cap Growth Managers											
79	GE Asset Mgmt	\$ 438.7	-2.77%	4.10%	-8.68%	-2.56%	-2.56%	3.59%	2.27%		
80	MSCI World ex-USA/MSCI EAFE ¹		-1.79%	3.91%	-7.07%	-3.04%	-3.04%	3.93%	2.75%		
81	Johnston International Large Cap	\$ 188.4	-1.40%	6.28%	-4.78%	1.44%	1.44%				
82	JP Morgan International Large Cap	\$ 192.1	-1.67%	6.31%	-4.81%	2.52%	2.52%				
83	MSCI World ex-USA Growth Index		-1.27%	5.04%	-6.23%	-0.91%	-0.91%				
Global Equity Managers											
84	AQR Global Equity	\$ 1,338.6	-0.10%	5.91%	-1.13%	2.35%	2.35%	11.61%	9.49%	Net	
85	MSCI World Index		-1.76%	5.50%	-3.41%	-0.87%	-0.87%	9.63%	7.59%		
86	SSgA Russell Fundamental Developed Lrg Co	\$ 1,204.0	-2.27%	4.55%	-5.22%	-3.53%	-3.53%	9.33%			
87	Russell Fundamental Dvlpd Lrg Co Index		-2.31%	4.56%	-5.33%	-3.61%	-3.61%	9.45%			
88	Lazard Asset Management ²	\$ 1,738.9	-2.13%	4.39%	-4.84%	-0.07%	-0.07%	9.27%	8.08%		
89	McKinley Capital Management	\$ 686.0	-1.92%	5.01%	-2.70%	3.32%	3.32%	11.77%	8.25%		
90	SSgA MSCI World	\$ 312.1	-1.73%	5.60%	-3.19%	-0.42%	-0.42%				
92	MSCI All-Country World Index		-1.80%	5.03%	-4.90%	-2.36%	-2.36%	7.69%	6.09%		
93	In House Tactical Tilts	\$ 496.2	-6.68%	2.53%	-12.68%	-16.16%	-16.16%				
94	MSCI All-Country World IMI		-1.86%	4.91%	-5.16%	-2.19%	-2.19%				
Fixed Income Managers											
95	In House Corporate Bonds	\$ 2,807.4	-0.78%	-0.25%	0.07%	-0.71%	-0.71%	2.11%	4.96%		Net
96	BC U.S. Corporate Index		-0.78%	-0.58%	0.24%	-0.68%	-0.68%	1.67%	4.53%		
97	In House Intermediate Corporate Securities	\$ 1,258.7	-0.15%	-0.30%	0.56%	1.62%	1.62%				
98	BC U.S. Intermediate Corporate Index		-0.58%	-0.42%	0.29%	1.08%	1.08%				
99	In House CMBS	\$ 317.6	-0.59%	-1.13%	0.58%	1.08%	1.08%	1.52%	3.36%		
100	BC U.S. CMBS ERISA Eligible Aaa Index		-0.87%	-1.31%	0.48%	1.22%	1.22%	1.64%	3.43%		
101	Capital Guardian High Yield	\$ 144.6	-2.71%	-2.46%	-6.98%	-4.60%	-4.60%	2.50%	4.92%		
102	Oaktree High Yield	\$ 339.6	-2.38%	-1.71%	-6.03%	-3.74%	-3.74%	1.36%	5.14%		
104	BC Global High Yield Corporate Index		-2.41%	-1.08%	-5.39%	-2.82%	-2.82%	2.46%	5.64%		
105	BC US High Yield 2% Issuer Cap Index		-2.52%	-2.06%	-6.79%	-4.43%	-4.43%	1.70%	5.03%		
Returns as of 12/31/2015											
Private Equity Managers											
107	Blackrock Co-Invest Programs	\$ 156.3			-1.62%		-0.36%			Net Various	
108	Pathway Capital Management Programs	\$ 3,241.1			6.60%		15.48%	19.27%	17.31%		
109	Private Equity Custom Index ³				-3.28%		0.01%	10.82%	8.75%		
Public/Private Credit Managers											
110	LIBOR Index + 6%	\$ 1,177.9			-0.70%		2.43%	6.69%	7.22%	Net	
111	BC Global High Yield Credit Index + 1.50%				3.06%		6.19%	6.18%	6.20%		
112					-4.59%		-1.29%	3.99%	6.67%		

¹ GE and Acadian International Active Managers benchmark is MSCI EAFE through 2/28/11, then MSCI World ex-USA, thereafter.

² Lazard global equity accounts' annual fees do not include fees paid on imbedded mutual fund positions.

³ Private Equity Custom Index is 60% Russell 3000 and 40% MSCI EAFE.

⁴ Time-Weighted Returns (TWR) are shown for commitment based assets as they are used to calculate the Total Fund return. Internal Rate of Return (IRR) calculations are more meaningful for such investments. Shorter time periods (< 6 months) and periods of new investment (first 3 - 5 years) are not meaningful.

			12/31/2015	Returns as of 12/31/2015							Annual Fees
		Market Value (\$ in millions)	(A) Latest Month	(B) Last 3 Months	(C) Fiscal Y-T-D	(D) Calendar Y-T-D	(E) Last 12 months	(F) Last 3 Years	(G) Last 5 Years		
INTEREST RATES AND CASH											
113	In House MBS	\$ 621.5	-0.04%	-0.19%	1.04%	1.50%	1.50%	2.03%	3.01%	Net	
114	BC U.S. MBS Index		-0.03%	-0.10%	1.20%	1.51%	1.51%	2.01%	2.96%		
115	In House Government Bonds	\$ 1,062.9	-0.28%	-0.76%	0.27%	0.33%	0.33%	0.90%	2.17%		
116	BC U.S. Treasury Index		-0.16%	-0.94%	0.81%	0.84%	0.84%	1.00%	2.91%		
117	In House Global Government Bonds	\$ 221.2	-0.27%	0.44%	2.28%	1.13%	1.13%				
118	Rogge Global Partners	\$ 323.8	-0.15%	0.58%	2.34%	1.44%	1.44%	3.32%	4.17%		
119	BC Global Treasury ex-US Index (Hedged)		-0.16%	0.57%	2.47%	1.62%	1.62%	3.92%	4.26%		
120	Internal Cash	\$ 795.9	0.00%	0.00%	0.01%	0.02%	0.02%	0.02%	0.03%		
121	Three-month T-Bill Rate		0.03%	0.03%	0.04%	0.05%	0.05%	0.05%	0.07%		
REAL ASSETS											
122	In House TIPS	\$ 586.1	-0.90%	-0.69%	-1.80%	-1.53%	-1.53%	-2.28%	2.53%		
123	BC U.S. TIPS		-0.79%	-0.64%	-1.78%	-1.44%	-1.44%	-2.27%	2.55%		
124	Alaska Permanent Capital Mgmt	\$ 581.9	-0.70%	-0.82%	-1.66%	-0.39%	-0.39%	-1.91%	2.70%		
125	BC U.S. TIPS 1-10 Year Index		-0.59%	-0.70%	-1.56%	-0.52%	-0.52%	-2.00%	2.72%		
Infrastructure and Other Real Assets Managers											
126	Lazard Listed Infrastructure	\$ 140.2	-1.20%	4.33%	6.49%	11.45%	11.45%				
127	FTSE Core Developed Infrastructure (Hedged)		-2.26%	-0.48%	-3.22%	-5.55%	-5.55%				
128	Cohen & Steers Listed Infrastructure	\$ 106.1	-2.50%	-1.52%	-7.15%	-11.71%	-11.71%				
129	FTSE Core Developed Infrastructure Custom		-2.12%	-0.76%	-5.07%	-10.65%	-10.65%				
130	Wellington Listed Infrastructure	\$ 111.9	0.12%	1.56%	-1.49%	-1.87%	-1.87%				
131	FTSE Core Developed Infrastructure TRI		-2.33%	-1.13%	-4.81%	-10.67%	-10.67%				
Real Estate Investment Trusts (REITs)											
132	AEW Global RE Securities	\$ 455.2	1.28%	5.58%	7.20%	3.82%	3.82%	9.23%	10.52%		
133	American Homes 4 Rent ¹	\$ 752.6	-0.42%	3.91%	4.49%	-0.97%	-0.97%	7.51%			
134	MSCI US REIT Index		1.83%	7.08%	9.28%	2.52%	2.52%	11.06%	11.88%		
135	REIT Benchmark ²		1.07%	5.21%	6.04%	1.96%	1.96%	8.56%	9.83%		
Direct Real Estate Managers ³											
Direct - Domestic											
136	CB Richard Ellis	\$ 642.9			-1.32%		2.51%	8.07%	8.57%	Net	
137	L&B Realty Advisors	\$ 1,871.1			8.75%		19.38%	14.48%	12.68%	Net	
138	LaSalle Investment Mgmt	\$ 1,139.3			5.78%		12.77%	11.59%	12.78%	Net	
139	Sentinel Real Estate	\$ 241.5			4.83%		11.07%	10.08%	11.54%	Net	
140	CS Capital	\$ 164.3									
Direct - Non-Domestic											
141	LaSalle Investment Mgmt-United Kingdom	\$ 117.2			-2.87%		6.91%			Net	
142	CB Richard Ellis - Europe	\$ 105.7			12.23%					Net	
143	Total Direct Real Estate	\$ 4,282.0			5.77%		13.57%	11.81%	11.97%		
Private / Other Managers											
144	Lincoln Industrial REOC	\$ 68.2			7.41%		12.44%			Net	
145	Simpson Housing (SHLP) REOC	\$ 1,227.2			8.30%		18.06%	15.24%	13.36%	Net	
146	NCREIF Property Index				6.09%		13.33%	12.04%	12.18%		
147	Total Real Estate ⁴				6.18%		11.84%	11.29%	11.56%		
Infrastructure and Other Real Assets Managers											
148	Private Infrastructure and Other Real Assets ⁵	\$ 1,323.3			N/A		14.57%	10.43%	7.85%	Net	
149	FTSE Core Developed Infrastructure TRI				-4.81%		-10.67%	8.33%	8.77%		

¹ American Homes 4 Rent became a REIT 7/31/2013 and was moved to Real Assets risk class 2/1/2014. Returns are inception to date.

² REIT Benchmark is UBS Global Real Estate Investors Index through 12/31/2014, then FTSE EPRA/NAREIT Developed Rental Index thereafter.

³ Direct real estate returns are net of fees (after fees) and are subject to change in the future.

⁴ Total real estate returns include REIT returns for the corresponding period.

⁵ Time-Weighted Returns (TWR) are shown for commitment based assets as they are used to calculate the Total Fund return. Internal Rate of Return (IRR) calculations are more meaningful for such investments. Shorter time periods (< 3 months) and periods of new investment (first 3 - 5 years) are not meaningful.

12/31/2015			Returns as of 12/31/2015							Annual Fees
	Market Value (\$ in millions)		(A) Latest Month	(B) Last 3 Months	(C) Fiscal Y-T-D	(D) Calendar Y-T-D	(E) Last 12 months	(F) Last 3 Years	(G) Last 5 Years	
OPPORTUNITY POOL										
150	In-House Fixed Income - Aggregate	\$ 1,047.8	-0.39%	-0.48%	0.26%	0.17%	0.17%			
151	BC U.S. Aggregate Index		-0.32%	-0.57%	0.65%	0.55%	0.55%			
152	Capital Guardian HY Emerging Markets Gov't	\$ 528.2	-2.13%	0.44%	-5.12%	-7.49%	-7.49%	-4.25%	0.78%	
153	HY Emerging Markets Benchmark ¹		-1.87%	0.77%	-5.63%	-7.12%	-7.12%	-5.09%	0.79%	
154	Capital Guardian ETOP	\$ 0.2	0.69%	4.54%	-5.84%	-5.98%	-5.98%	-3.18%		
155	Multi-Asset Custom Benchmark ²		-2.05%	0.74%	-11.58%	-10.95%	-10.95%	-5.84%		
Returns as of 12/31/2015										
156	American Home 4 Rent II	\$ 160.1			0.49%		0.10%			Net
157	True Special Opportunity	\$ 2,034.4			-14.90%		247.82%			Net
158	Private CIO/Real Return Mandate	\$ 230.8			2.43%		16.36%			Net
159 Absolute Return (Fund of Funds)										
160	Crestline Investors	\$ 1,039.3			-1.71%		-0.18%	3.61%	2.98%	Net
161	Lazard Alternatives	\$ 394.4			-3.65%		-3.04%	1.98%	1.83%	Net
162	Mariner Frontier Fund	\$ 1,053.9			-2.83%		-0.43%	2.46%	2.09%	Net
163	Absolute Return Low Risk Custom Benchmark ³				2.57%		4.69%	4.35%	4.30%	
164	Absolute Return High Risk Custom Benchmark ⁴				2.57%		5.69%	5.68%	5.10%	
165	Absolute Return (Internal Direct)	\$ 2,891.2			0.11%		3.47%	4.14%	6.05%	Various
166	CPI + 5%				1.61%		5.73%	6.00%	6.54%	
167	Absolute Return High Risk Custom Benchmark ⁴				2.57%					
Distressed Debt										
168	Oaktree Opportunities Fund VIII ⁵	\$ 124.0			-10.63%		-13.70%	2.10%	4.40%	Net

¹ HY Emerging Markets Benchmark is 50% JP Morgan Emerging Markets Bond Index Global and 50% JP Morgan Government Bond Index-Emerging Markets Global Diversified.

² Multi-Asset Custom Benchmark is 50% MSCI Emerging Markets Investable Market Index Net, 25% JP Morgan GBI-Emerging Markets Global Diversified USD Unhedged Index, and 25% JP Morgan Emerging Market Bond Index Global.

³ Absolute Return Benchmark for lower risk investments is One-month USD LIBOR + 4% through 6/30/2015, then One-month USD LIBOR + 5%, thereafter.

⁴ Absolute Return Benchmark for higher risk investments is One-month USD LIBOR + 4% through 6/30/2013, One-month USD LIBOR + 6% from 7/1/2013 through 6/30/2015, then One-month USD LIBOR + 5%, thereafter.

⁵ CPI means the Consumer Price Index (All Urban Consumers, U.S. City Average, All Items, Unadjusted Index).



Board of Trustees

Values shown are unaudited. \$ in millions.

Unrealized Gain(Loss) Analysis

	Cost	Market	Unrealized Gain(Loss)
COMPANY EXPOSURE			
Corporate Debt			
In House Corporate Bonds	\$ 2,854.7	\$ 2,807.4	\$ (47.4)
In House Intermediate Corporate Securities	1,274.1	1,258.7	(15.4)
Capital Guardian High Yield	165.2	144.6	(20.6)
Oaktree High Yield	403.4	339.6	(63.8)
Structured Credit			
In House CMBS	320.8	317.6	(3.3)
Domestic Equities			
Mellon S&P 500	134.8	240.5	105.7
Lyrical - Large Cap	415.8	459.3	43.6
SKBA - Large Cap	332.5	335.0	2.5
LSV US LC Value	454.5	484.2	29.7
Herndon - Large Cap	397.1	399.6	2.5
DSM - Large Cap	291.0	348.4	57.3
CastleArk - Large Cap	324.1	355.2	31.1
Mellon FTSE RAFI US Large Cap	245.1	341.8	96.7
AGI - Large Cap	586.1	767.3	181.2
In House SPDR Yield	334.4	327.7	(6.7)
Inhouse SPDR Momentum	334.0	331.3	(2.6)
In House SPDR Low Vol	334.1	334.5	0.4
GE Asset Mgmt	230.3	347.6	117.3
Mellon S&P 400 (prev 1000)	99.5	124.4	24.9
T Rowe Price	131.0	167.9	36.9
Jennison Associates LLC	162.5	186.7	24.2
RBC Asset Mgmt	126.9	177.7	50.9
Eagle Asset Mgmt	142.6	182.4	39.8
Pzena Investment Mgmt	176.0	187.8	11.8
Non-domestic Equities			
Mellon MSCI World-ex-USA	1,250.0	1,462.9	212.9
GE Asset Mgmt	427.0	438.7	11.7
Acadian Asset Mgmt	583.4	611.3	27.9
Mondrian Investment Partners	446.4	360.3	(86.1)
Lee Munder Emerging Markets	227.7	204.0	(23.8)
William Blair Emerging Markets	467.6	449.1	(18.5)
JP Morgan Emerging Markets	394.6	346.9	(47.7)
Delaware Emerging Markets	259.1	202.5	(56.6)
DFA Emerging Markets Value	515.7	455.3	(60.4)
DFA Emerging Markets Small Cap	160.6	143.5	(17.1)
Trustbridge Emerging Markets	99.5	97.8	(1.7)
Cap Guardian Emerging Markets	7.0	7.7	0.6
SSgA MSCI Emerging Markets	1,112.0	919.1	(192.8)
Johnston International Large Cap	184.4	188.4	4.0
JP Morgan International Large Cap	165.7	192.1	26.4
LSV International Large Cap	194.8	170.5	(24.3)
Schroders International Large Cap	193.3	176.7	(16.6)
SSgA World ex-USA Small Cap	270.7	310.7	40.0
DFA International Large Cap	1,304.0	1,365.6	61.6
DFA International Small Company	320.9	313.6	(7.3)
DFA International Small Cap Value	321.0	315.1	(5.8)
Global Equities			
Lazard Asset Mgmt	1,609.1	1,738.9	129.8
In House Tactical Tilts	650.9	496.2	(154.7)
SSgA MSCI World	313.8	312.1	(1.8)
McKinley Capital Mgmt	575.2	686.0	110.8
AQR Capital Mgmt	1,223.3	1,338.6	115.3
State Street MSCI World	994.6	1,204.0	209.3
Private Equity			
Blackrock Co-Invest Programs	155.2	156.3	1.1
Pathway	1,847.8	1,961.4	113.7
Pathway - Direct	143.2	172.7	29.5
HarbourVest	913.9	1,107.0	193.1
Public/Private Credit	<u>1,045.2</u>	<u>1,177.9</u>	<u>132.7</u>
Total Company Exposure	\$ 28,648.80	\$ 30,050.81	\$ 1,402.0

	Cost	Market	Unrealized Gain(Loss)
REAL ASSETS			
Real Estate			
RE Direct Equity	\$ 3,559.2	\$ 5,577.4	\$ 2,018.2
AEW Global RE Securities	352.3	455.2	102.9
American Homes 4 Rent	625.0	752.6	127.6
TIPS			
In House TIPS	598.9	586.1	(12.8)
Alaska Permanent Capital Mgmt	595.8	581.9	(13.9)
Infrastructure			
Lazard Listed Infrastructure	139.6	140.2	0.5
Cohen & Steers Infrastructure	109.0	106.1	(2.9)
Wellington Listed Infrastructure	106.4	111.9	5.5
Private Infrastructure	<u>1,159.2</u>	<u>1,323.3</u>	<u>164.1</u>
Total Real Assets	\$ 7,245.5	\$ 9,634.7	\$ 2,389.2
OPPORTUNITY POOL			
Debt			
In House Fixed Income - Aggregate	\$ 1,068.0	\$ 1,047.8	\$ (20.3)
High Yield Debt			
Cap Guardian High Yield Emerging Markets Gov't	617.5	528.2	(89.3)
Emerging Markets Total Opportunities			
PIMCO EMAF	0.0	0.0	-
Capital Guardian ETOP	0.2	0.2	(0.0)
Real Estate Special Opportunites			
American Home 4 Rent II	160.1	160.1	-
True Special Opportunites	1,117.5	2,034.4	916.9
Private CIOs/Real Return Mandate			
APL Apollo COF III	105.9	88.3	(17.6)
CAR Carlyle PCIO	106.0	142.5	36.5
Absolute Return (Fund of Funds)			
Crestline Investors	958.1	1,039.3	81.2
Lazard Alternatives	379.7	394.4	14.6
Mariner Frontier Fund	975.0	1,053.9	78.9
Absolute Return (Internal Direct)			
	2,501.2	2,891.2	390.1
Distressed Debt			
Oaktree Opportunities Fund VIII	<u>130.6</u>	<u>124.0</u>	<u>(6.6)</u>
Total Opportunity Pool	\$ 8,119.9	\$ 9,504.4	\$ 1,384.5
INTEREST RATES AND CASH			
Domestic Government			
In House MBS	\$ 616.8	\$ 621.5	\$ 4.7
In House Government Securities	1,072.5	1,062.9	(9.6)
International Government			
In House Global Government Bonds	231.7	221.2	(10.5)
Rogge Global Partners	352.4	323.8	(28.6)
Cash			
	<u>795.86</u>	<u>795.86</u>	<u>-</u>
Total Interest Rates and Cash	\$ 3,069.2	\$ 3,025.3	\$ (43.9)
TOTAL FUND	\$ 47,083.4	\$ 52,215.2	\$ 5,131.8

Investment Updates as of 12/31/15

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Tactical Moves & Manager Changes a/o 12/31/15

Board Report on Tactical and Strategic Manager Actions ***10/1/2015 through 12/31/2015***

Tactical Changes Implemented:

Private Credit

- Committed \$15 million to Monroe Capital Private Credit Fund II
- Committed \$15 million to Clearlake Special Opportunities Fund

Strategic Changes Implemented:

Public Equity

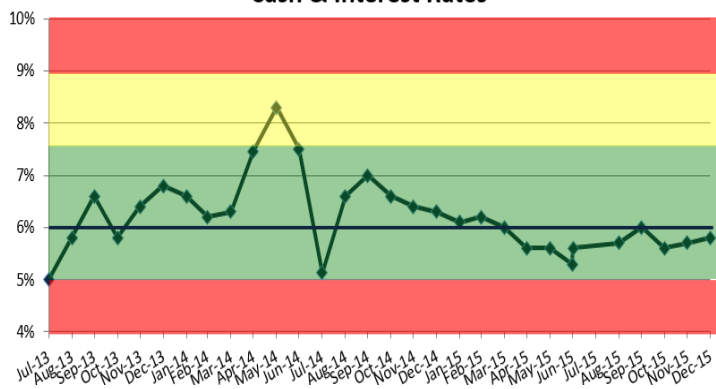
- On October 30th, 2015, the Staff hired a transition manager (BlackRock) to rebalance allocations within APFC Public Equity's Emerging Markets Equity mandate. The rebalancing involved full redemptions from Capital Group Emerging Markets Equity and Capital Group ETOP's Equity sleeve, as well as partial redemption from Mondrian Investment Partners, for a total value of approximately \$900 million. These assets were reallocated across William Blair, JP Morgan, Dimensional Fund Advisors and Trustbridge Partners. The transition was completed on November 19th, 2015.
- On December 3rd 2015, the Staff added \$1 billion across the three newly created S&P SDPR ETFs (approx. \$330 million each to SPDR Low Volatility, SPDR Momentum, and SPDR Yield). The source of funding came from Mellon FTSE RAFI, Mellon S&P 500, and Mellon S&P 400 accounts. The Staff hired Goldman Sachs (broker) to complete the above transition.
- On December 4th, 2015, Staff rebalanced allocations within US Large Cap Mandate. The Staff partially redeemed from AGI US Large Cap Growth and Mellon FTSE RAFI accounts for a total value of approximately \$800 million, these assets were reallocated to LSV US Large Cap Value, Lyrical US Large Value, and DSM US Large Cap Growth accounts. LSV US Large Cap Value was the new strategy added to the mandate. This rebalancing was done to maintain the desired risk characteristics of the mandate. The Staff hired BlackRock (transition manager) for this rebalancing and the transition was completed on December 14th.

Private Credit

- Transferred new \$250 million commitment in Crestline AK Opportunistic Fund from Special Opportunities to Private Credit (Company Exposure)
- Put Crestline Credit Opportunities (CCOP's) private credit fund-of-fund account into run-off (no new commitments, cash returned to APFC as positions are exited)

Historical Green Zones – Asset Allocation as of 12/31/15

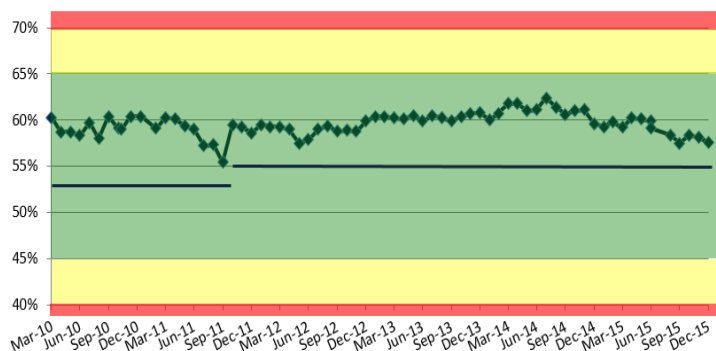
Cash & Interest Rates



Comments:

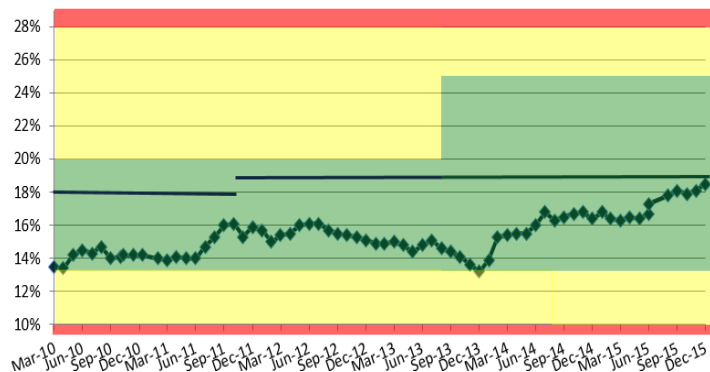
- Given low expected returns on investments in the Cash and Interest Rates bucket, APFC favors other asset classes.
- During this quarter, ~\$837 million was transferred to the Cash and Rates bucket from the proceeds of liquidation and redemption in the equity portfolio.

Company Exposure



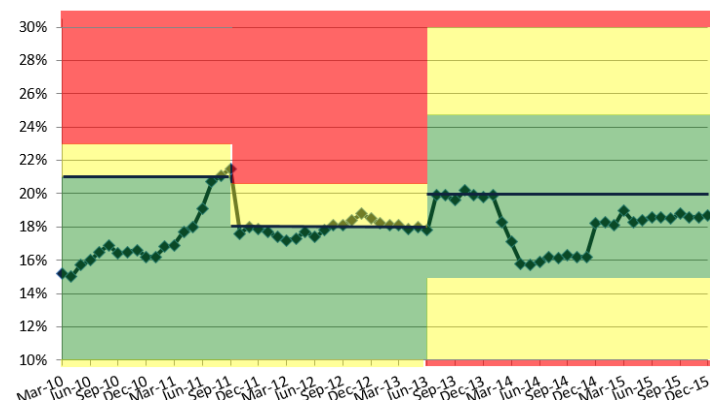
The Fund continues to be overweight the Company Exposure bucket in part to compensate for under-weights in special opportunities and real assets, where staff continues seeking new investments, and in part because investment opportunities in Cash and Interest Rates are less attractive.

Real Assets



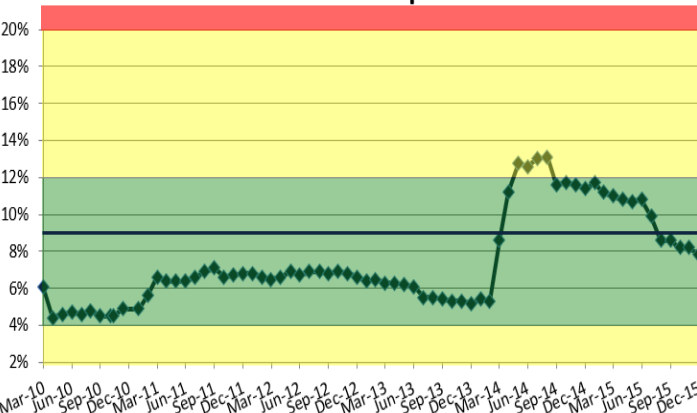
The real assets allocation is in the green zone. Staff continues to work on increasing investment in Real Assets, which is currently slightly underweight its target.

Special Opportunities

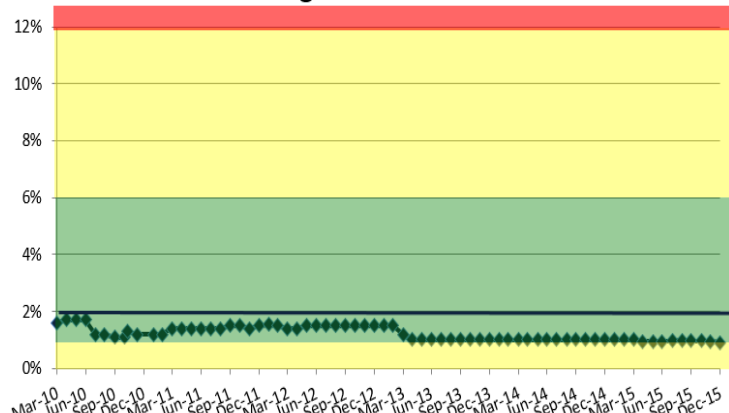


The drop in the Special Opportunities allocation between February and March 2014 is due to AH4R moving out of this bucket into the real estate REITs portfolio in Real Assets. In December 2014, portfolio value significantly increased after the successful initial public offering of Juno Therapeutics. No significant changes this quarter.

Investment Grade Corporate Bonds



High Yield Bonds



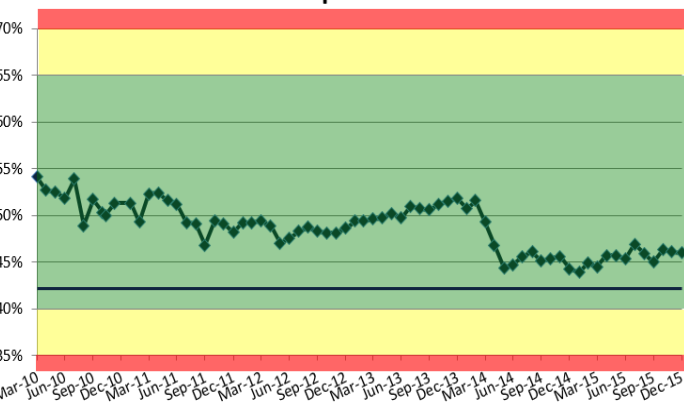
Comments:

An intermediate corporate mandate was funded during the first quarter of 2014, which eventually brought investment grade above its target. This new account allows the Fund to have liquidity without completely compromising returns. In early July 2015, \$500M more in corporate positions were liquidated since the investment grade corporate bonds portfolio continues to be the source for liquidity.

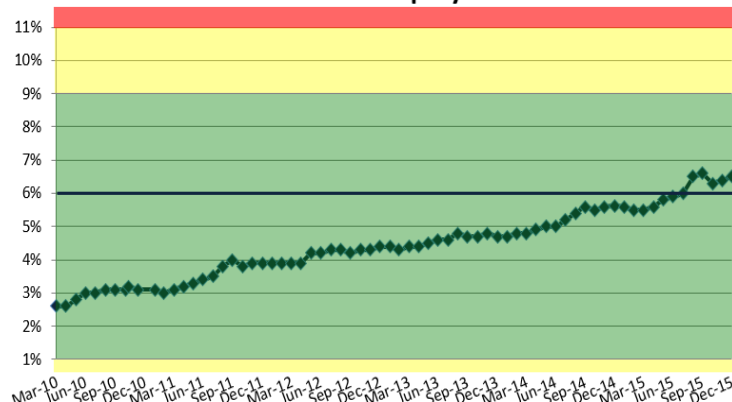
Comments:

Due to spread concerns and high yield bond prices near par, staff favors equities over high yield corporate debt. Additionally, the portfolio has exposure to private corporate debt through mezzanine and distressed debt.

Equities



Private Equity



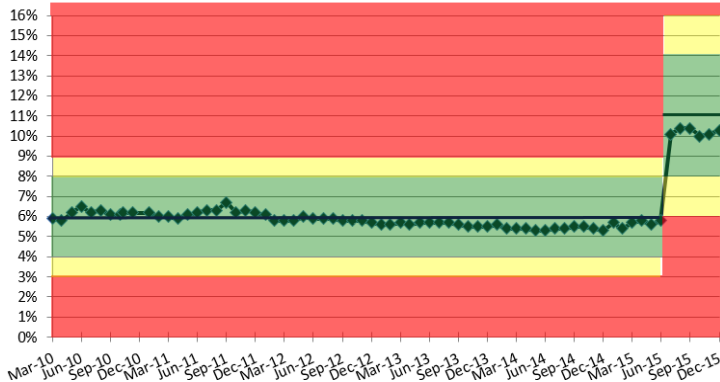
Comments:

For some time, the portfolio has maintained a higher allocation to equities relative to fixed income because of the higher expected returns from equities. Staff was also endeavoring to keep overall portfolio risk return characteristics nearer to the benchmark. However, the overweight to public equities was reduced last year by harvesting gains in equities and re-investing them primarily into intermediate duration corporate bonds. This move reduced the overweight in equities from approximately 11% to 2% above the board target of 36%. This quarter, allocations to both public and private is about 46%.

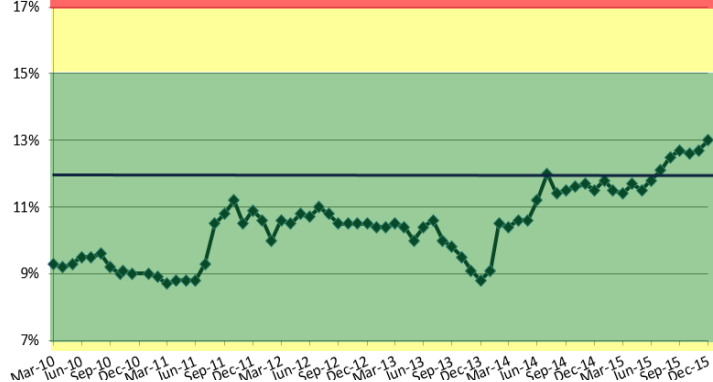
Comments:

Due to the time it takes to fund private equity, the desire to create a balanced vintage year portfolio and the significant return of capital, the portfolio is taking a very gradual approach in allocating assets. Current allocation to private equity is above its 6% target.

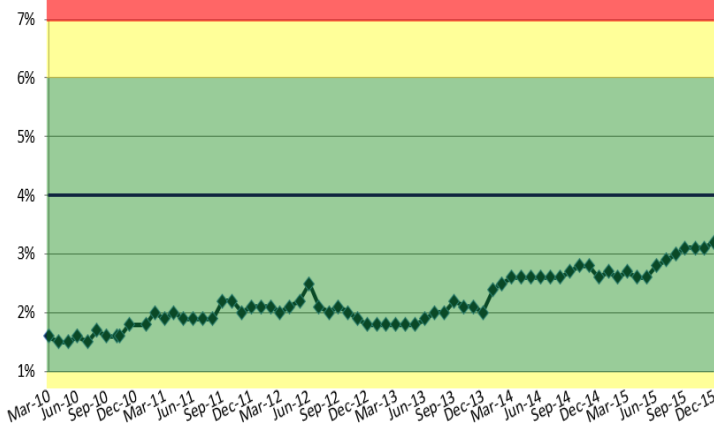
Absolute Return



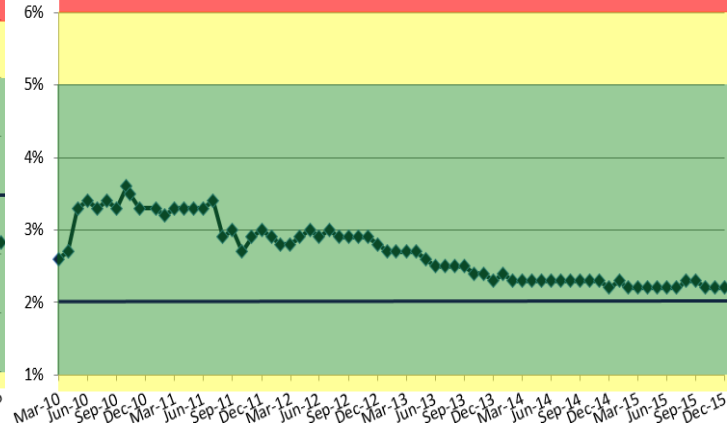
Real Estate



Infrastructure



TIPS



Comments:

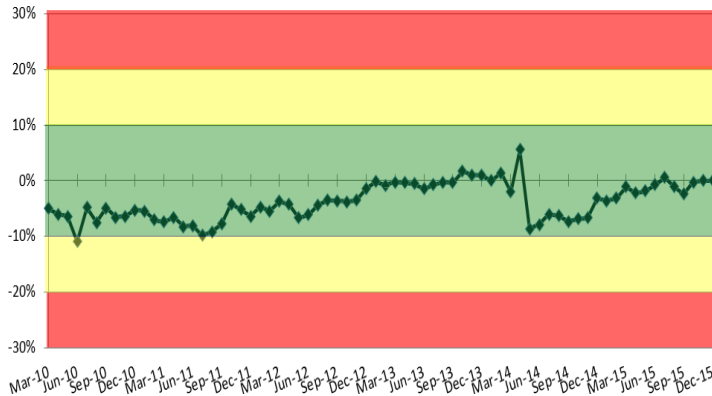
Effective 7/1/2015, the real return mandate was terminated. The remainder investments were folded into the internal absolute return program. Allocation to absolute return managers is below its new 11% target despite a policy change

Comments:

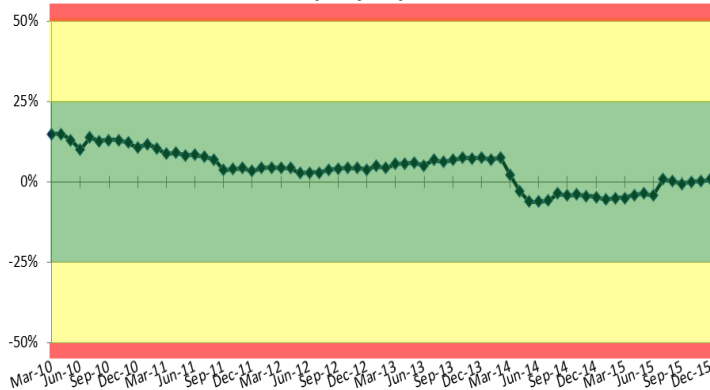
- The real estate allocation increased as a result of transitioning the AH4R portfolio (~\$750 million) from Special Opportunities to Real Assets in February 2014. Additionally, the first international real estate mandate was awarded in the second quarter of 2014 in the amount of ~\$256 million to LaSalle, followed by smaller awards to CBRE and Lincoln REOC totaling ~\$62 million in 3rd quarter of 2014. This quarter, the increase is primarily due to \$257.2mm of acquisitions and \$51.7 in valuation for a total increase in value of the RE portfolio of approximately \$309mm.
- Although the total fund gained back some of the grounds lost in the third quarter due to markets decline, the real estate allocation is still above its 12% target.
- TIPS and infrastructure are in the green zones and no significant allocation changes were made this quarter.
- Infrastructure has slightly increased this last quarter due to market appreciation in the portfolio and capital calls from private funds.

Relative VaR as of 12/31/15

Portfolio



Company Exposure



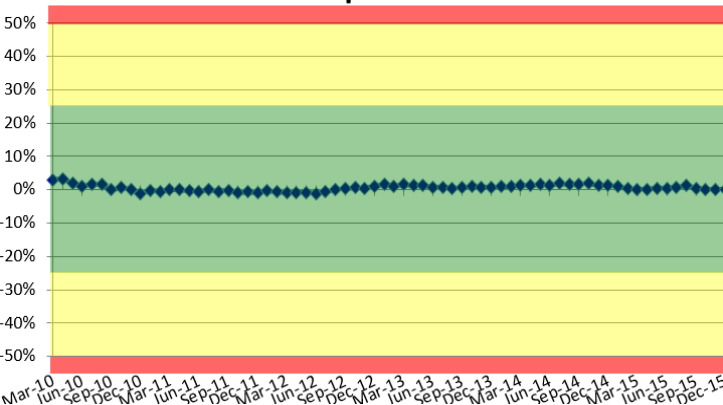
Comments:

• Prior to December 2014, the lower risk vs benchmark measured by VaR taken in the Special Opportunities allocation of 20% resulted in lower risk of the overall portfolio when compared to the risk benchmark. Since then, the risk of all portfolios have been more close to the risk of their benchmarks bringing overall risk more in line with the risk of the strategic risk benchmark.

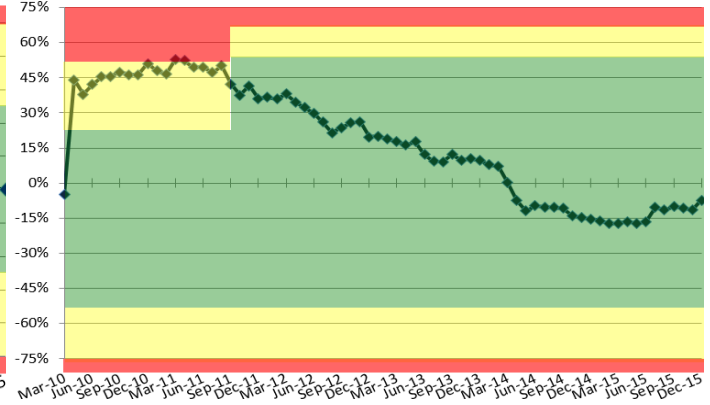
Comments:

Company Exposure risk was in line with its risk benchmark due to small activities in this bucket.

Equities



Credit



Comments:

Staff remains comfortable with the equity portfolio, which has very similar risk characteristics to its risk benchmark. Staff is focused on diversifying the Fund's style concentration and continues to consider additional tactical rebalancing of the portfolio as geographic differences/opportunities arise.

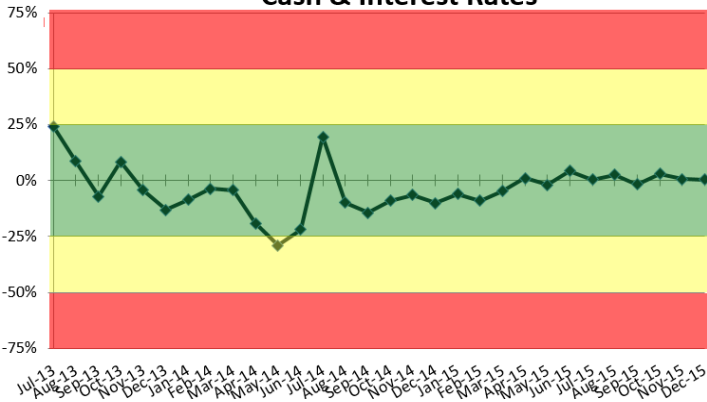
Comments:

Despite fewer dollars allocated to corporate bonds relative to equities within Company Exposure, in general, the relative risk has been higher due to the underweight in European corporate bonds when compared to the credit risk benchmark which includes European corporate bonds. This bucket includes private credit (riskier) not present in the benchmark. What dampens the risk of the credit portfolio is the intermediate duration corporate portfolio.

Value-at-Risk (VaR): The mark to market loss in value of a portfolio over a 1-year period with a 97.5% confidence level. **Relative VaR** is the ratio of the portfolio VaR over the benchmark VaR minus 1.

Relative VaR as of 12/31/15 - Continued

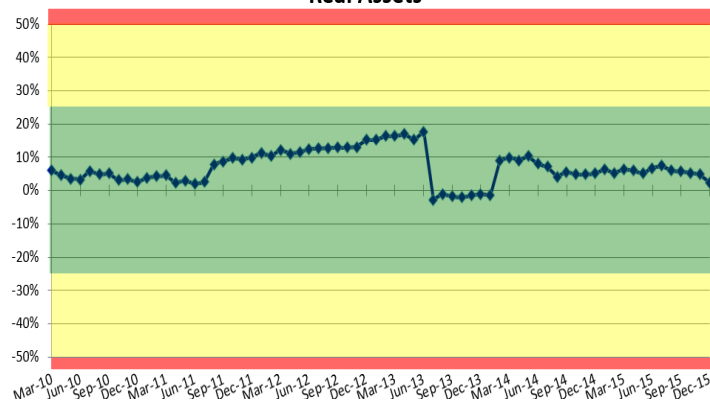
Cash & Interest Rates



Comments:

The Cash and Rates bucket is in line with its benchmark.

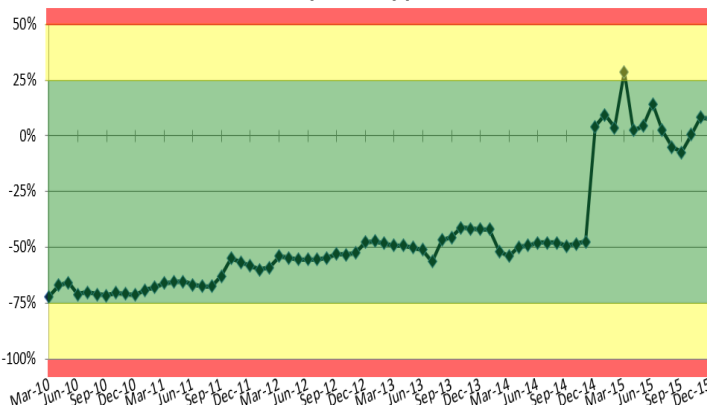
Real Assets



Comments:

In the first quarter 2014, AH4R moved from Special Opportunities to Real Assets. Additional new public infrastructure mandates and some funding in international real estate pushed the Real Assets VaR position slightly above its benchmark. This past quarter Risk is in line with benchmarks.

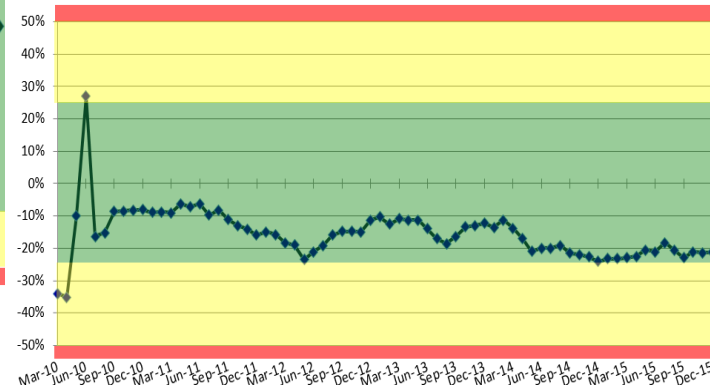
Special Opportunities



Comments:

- The VaR of the Special Opportunities bucket was above the benchmark from December 2014 to July of this year
- The large jump in VaR last year is the result of Juno Therapeutics going public. The increased investment value and the higher volatility of the investment are impacting the bucket.
- In the past year, the Board approved investments in new opportunities arising from dislocations and mispricing that will continue to increase the risk of the bucket as the allocations get invested. As they have private equity/venture capital characteristics, higher risk is expected, offset somewhat by increased diversification and other opportunities designed to dampen volatility. Exposure to emerging markets which reduced the risk of this bucket relative to its Benchmark was reduced in Q3, and new mandates were funded.

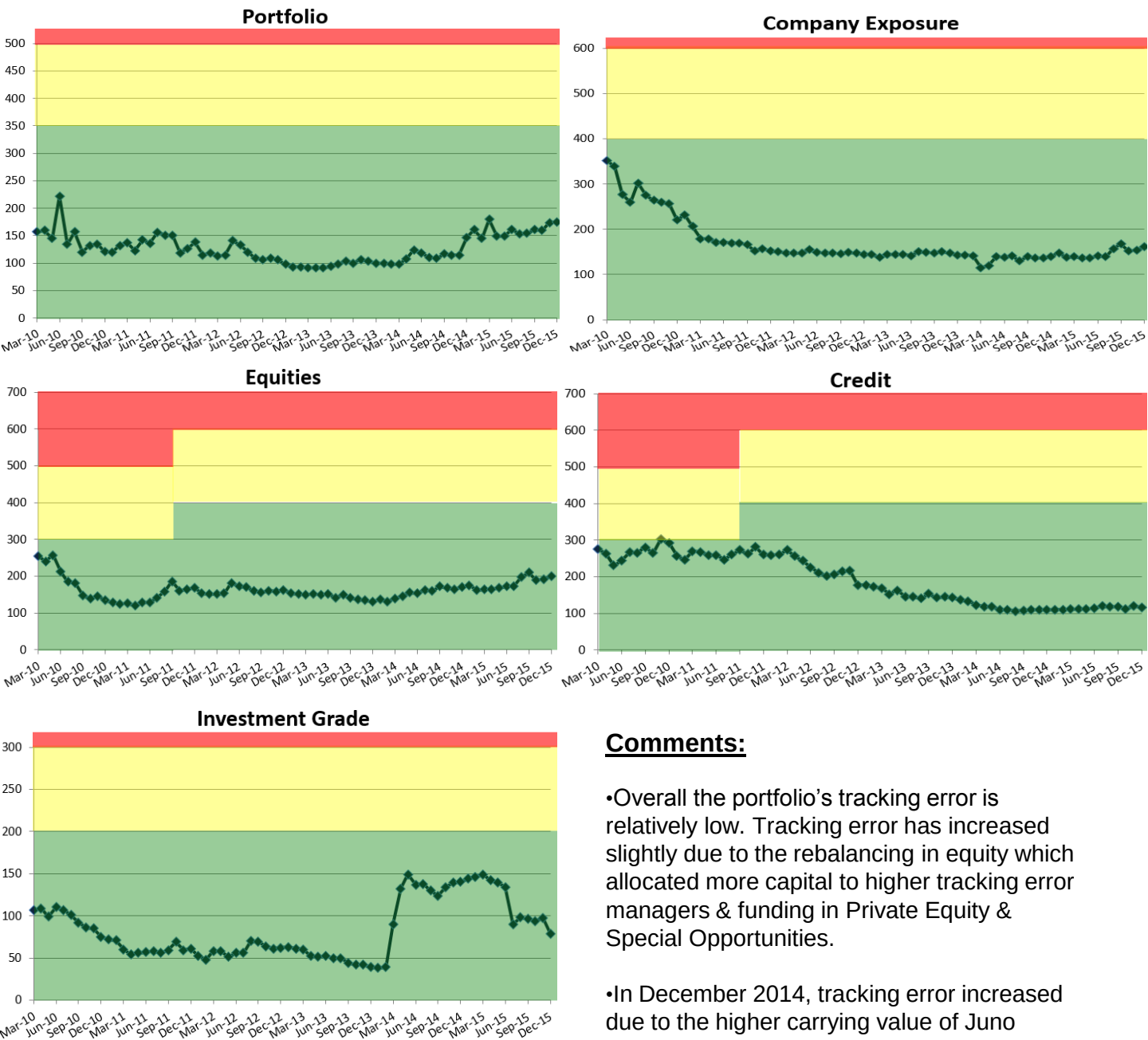
Currencies



Comments:

Currency risk in the portfolio is within the green zone relative to the Fund's benchmark currency risk. Certain assets in the Special Opportunities portfolio, such as absolute return, are modeled as having U.S. dollar exposure even though they may have exposures to other currencies. In general, exposure to other non-US currencies is low relative to the benchmark.

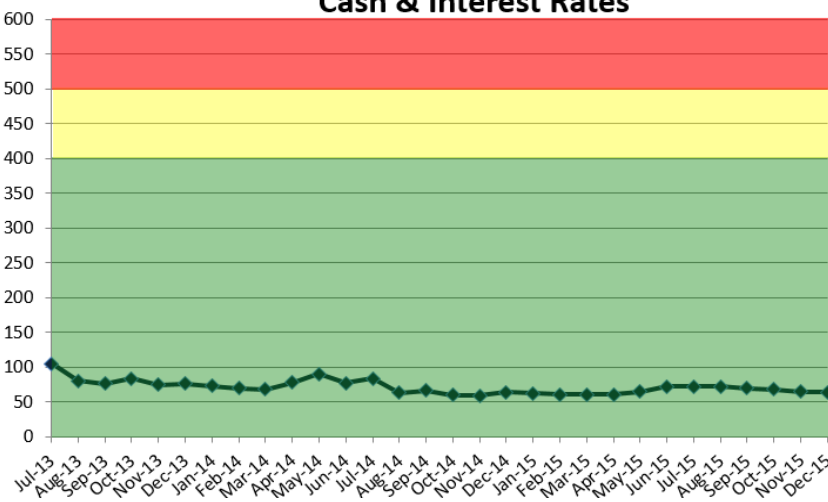
Tracking Error as of 12/31/15



Tracking Error: A measure of how closely a portfolio follows the index to which it is benchmarked. It is the standard deviation of the difference between portfolio returns and benchmark returns.

Tracking Error as of 12/31/15 - Continued

Cash & Interest Rates



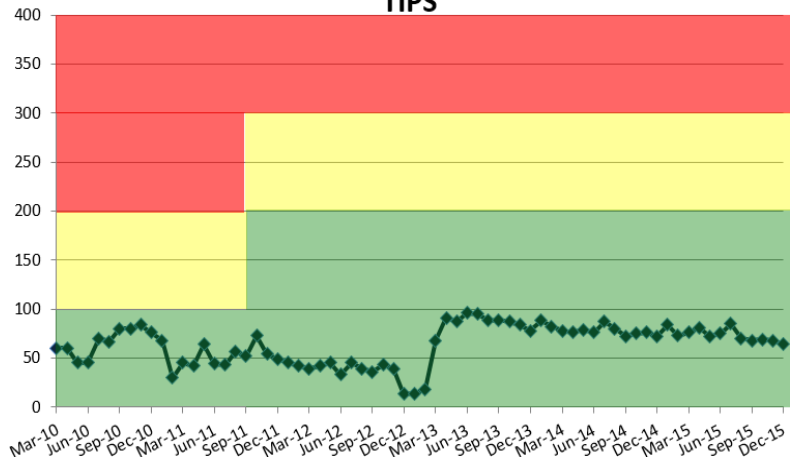
Comments:

•The primary source of tracking error for Cash and Interest Rates is the government bond portfolio, which has a lower weight to international fixed income relative to U.S. Treasuries when compared to the bucket's benchmark. Tracking error has remained stable in this portfolio.

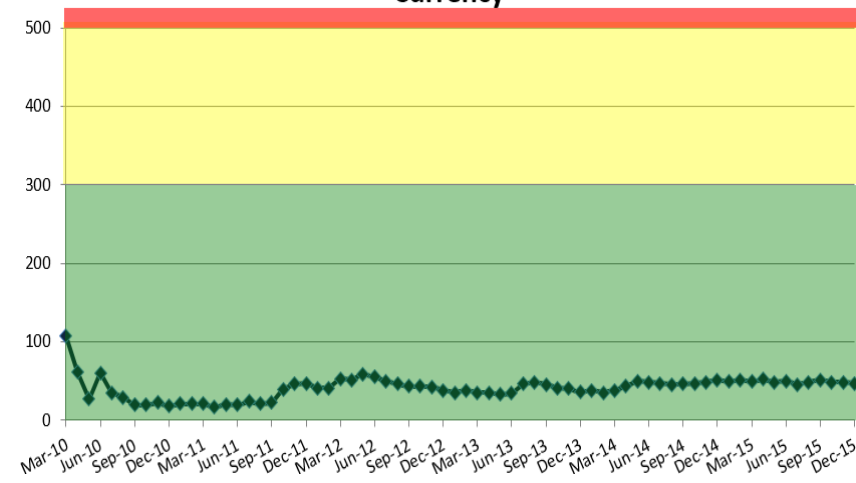
Comments:

Tracking errors for these buckets are all within guidelines. Staff changed one of the TIPS mandates to a shorter duration on April 1, 2013. For this reason, the tracking error of the overall TIPS portfolio has increased slightly relative to its benchmark starting in March 2013. No other major changes were made this quarter.

TIPS

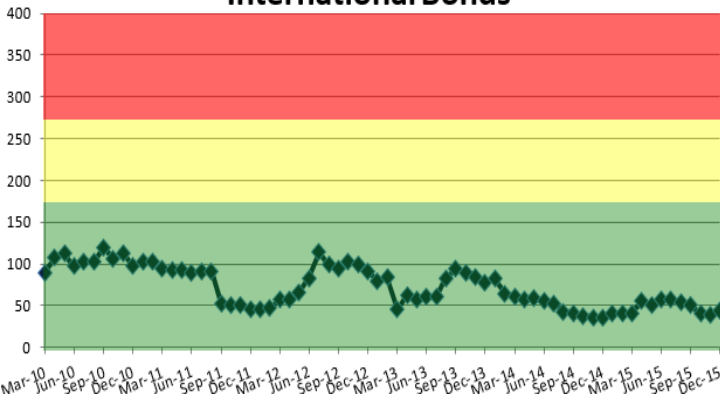


Currency

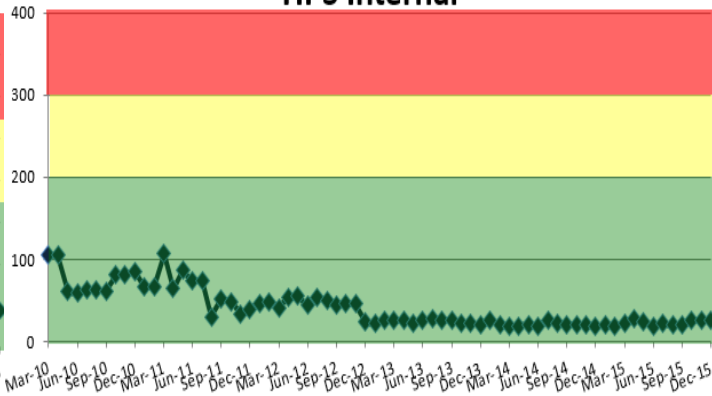


Tracking Error Fixed Income as of 12/31/15

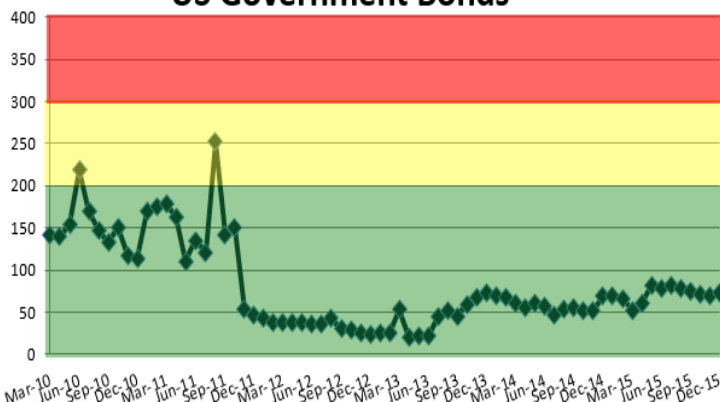
International Bonds



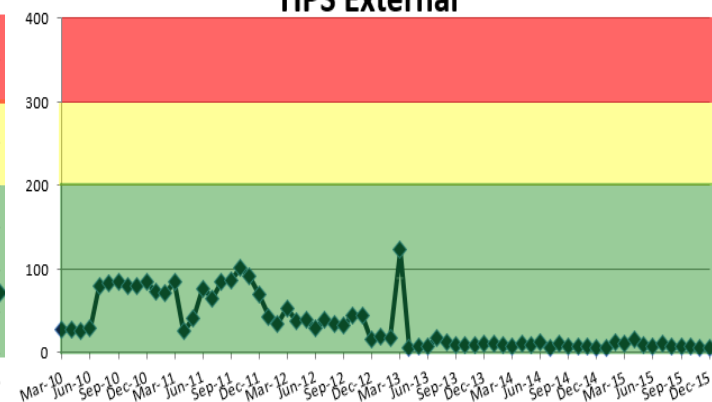
TIPS Internal



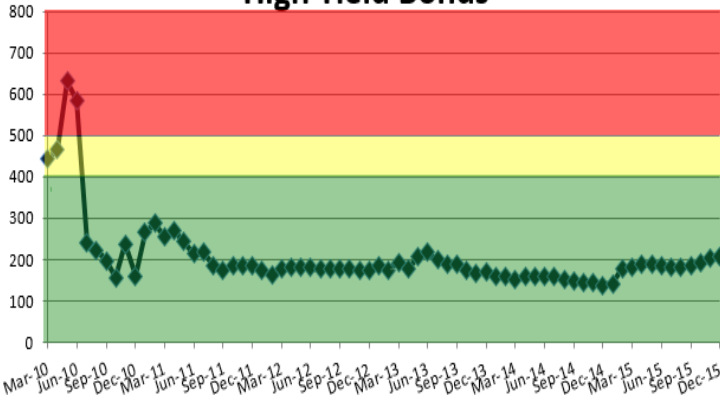
US Government Bonds



TIPS External



High Yield Bonds



Comments:

- Overall, fixed income tracking errors are within their respective green zones.
- The internal portfolios continue to have low tracking error versus its benchmark.

Public Equity Portfolio Review

as of 12/31/2015

Active Risk Exposure by Mandate

APFC	Mkt Value	Weight	MSCI	Tracking Error (%)		
Portfolio	\$mil	%	Index	Dec' 15	June' 15	Change
US Large Cap	5,073	24.6%	US LC	1.83	1.65	0.18
US Small/Mid	1,027	5.0%	US MC/SC	2.36	2.03	0.33
Non-US DV Large	4,606	22.4%	World x US	1.25	1.28	-0.03
Non-US DV Small	939	4.6%	World x US SC	0.98	0.96	0.03
Emerging	3,186	15.5%	EM	1.37	1.61	-0.24
Global	5,776	28.0%	ACWI	1.40	1.29	0.11
Total APFC Equity	20,608	100%	ACWI IMI	1.14	1.08	0.06

Comments:

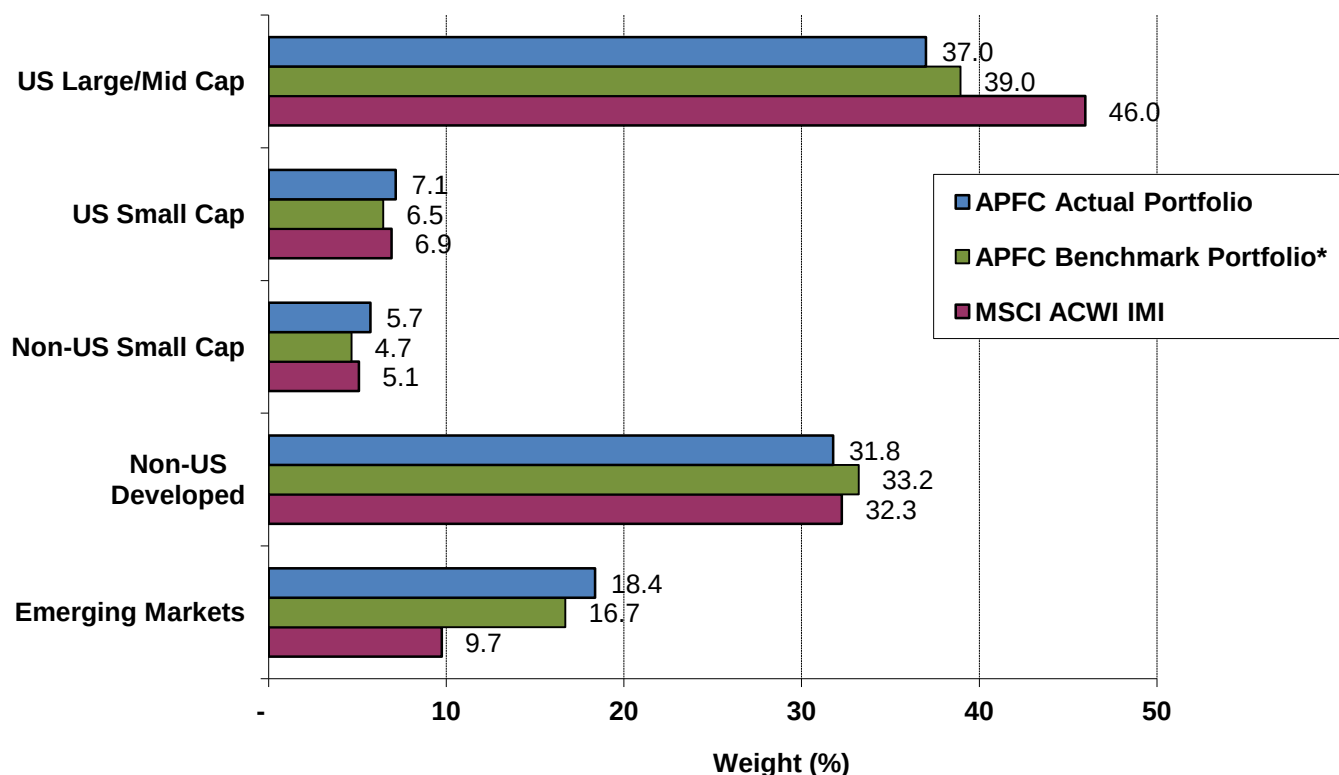
- The above table provides information about the APFC public equity portfolio broken down by mandate category. Each category includes the portfolios of all managers assigned to the corresponding category mandate.

- The mandate weights do not take into account the actual exposures of the underlying managers. For example, the dedicated emerging market managers comprise 15.5% of the portfolio. However, the exposure to emerging markets (shown on a later page) is 18.4% when the actual emerging market exposure of other types of managers is also taken into account. The global managers, the non-U.S. developed market managers, and even the U.S. large-cap managers, all have some exposure to emerging markets.

- The total tracking error of the APFC public equity portfolio modestly increased during the quarter. The increase is due to recent rebalancing within public equities which led to modestly increased allocations to relatively higher tracking error managers.

Public Equity Portfolio Review - Continued

as of 12/31/15



Comments:

•The above chart shows a breakdown of the APFC public equity portfolio (blue) by market segment. The APFC portfolio is compared to the benchmark portfolio (green) and the asset class benchmark or MSCI ACWI IMI Index (mauve). The benchmark portfolio is a portfolio of actual assigned manager benchmarks, weighted by the respective manager portfolio's weight within the total public equity portfolio.

•As shown, the APFC portfolio is underweight U.S. large/midcap stocks and overweight emerging markets (37% for the portfolio vs. 46% for the MSCI ACWI IMI and 18.4% for the portfolio vs. 9.7% for the MSCI ACWI IMI, respectively).

•The benchmark portfolio (green), too, is currently over-weight emerging market stocks. For Non-U.S. developed small-cap, the benchmark portfolio has an under-weight while the actual portfolio has an overweight relative to the relevant MSCI ACWI IMI sub-component. The primary reason for this is active bets being made by the Fund's Non-U.S. developed managers into Non-U.S. small cap and emerging market stocks.

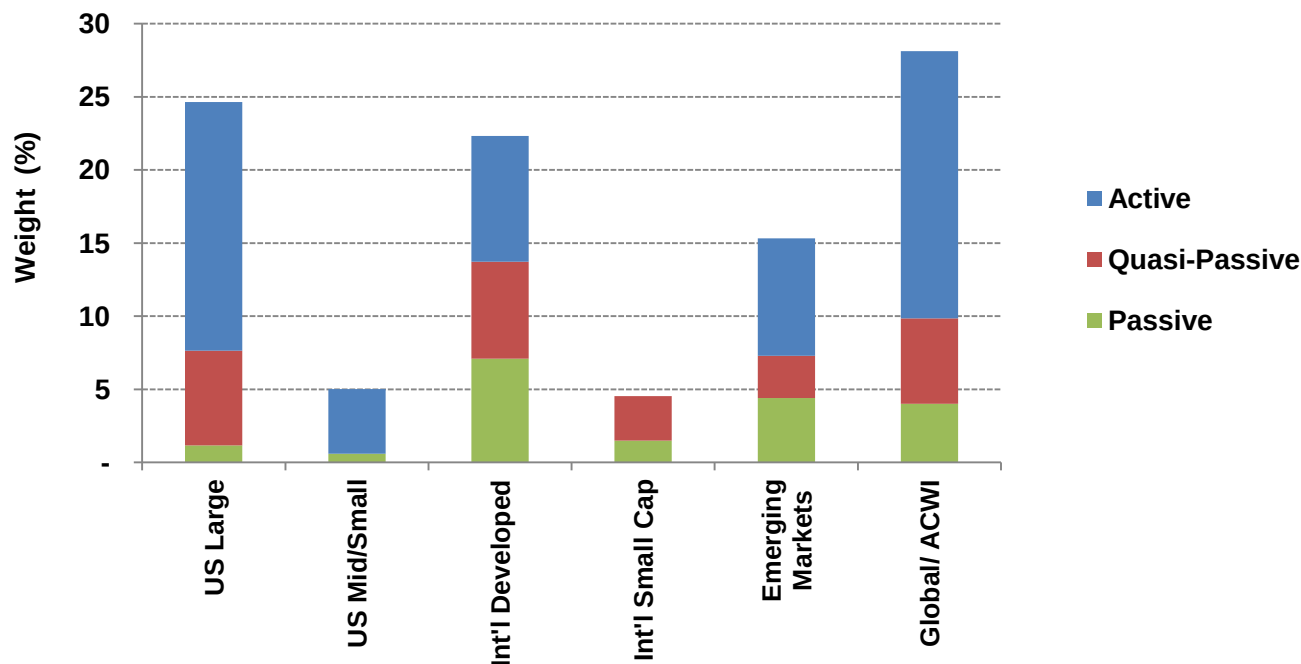
* Benchmark portfolio weights include disaggregated global allocation from previous page.

Public Equity Portfolio Review - Continued

as of 12/31/15

Mix of Active, Passive & Quasi Passive by Mandate

As of 12/31/2015



Comments:

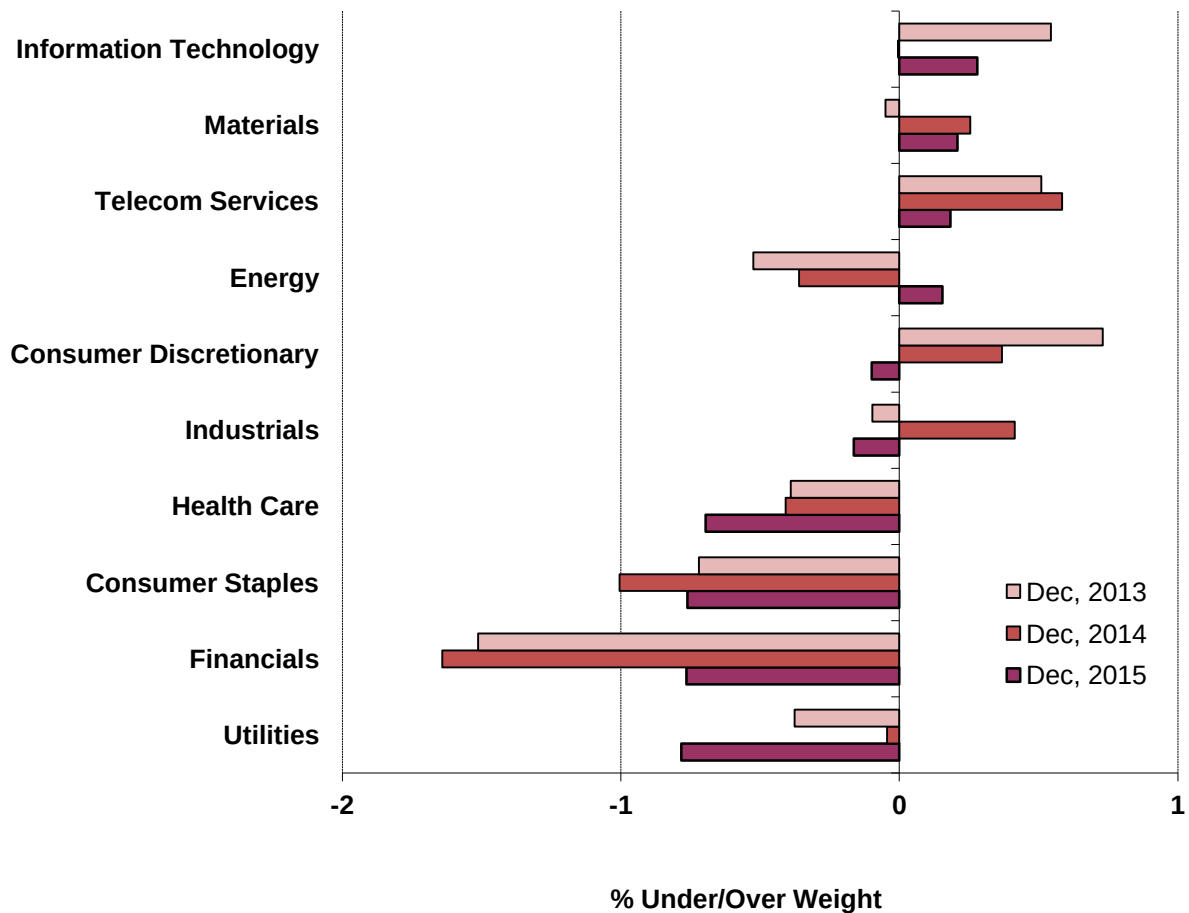
- Overall, the public equity portfolio is split 56% active, 19% passive and 25% quasi-passive as of the end of this last quarter.
- For U.S. small-cap and emerging markets, two segments for which active management has had greater ability to add value, the portfolio is typically invested in active strategies. Each segment has a passive index strategy to allow staff to more easily rebalance exposure.

Public Equity Portfolio Review - Continued

as of 12/31/2015

Global Sector Exposures

APFC Equity Portfolio vs. MSCI ACWI IMI



Comments:

- The above chart looks at underlying holdings in all component manager portfolios to ascertain net sector exposures in the APFC public equity portfolio.
- The over-weight sectors in the APFC public equity portfolio are information technology, materials, telecom, and energy.
- The under-weight sectors are utilities, financials, consumer staples, health care, industrials, and consumer discretionary.

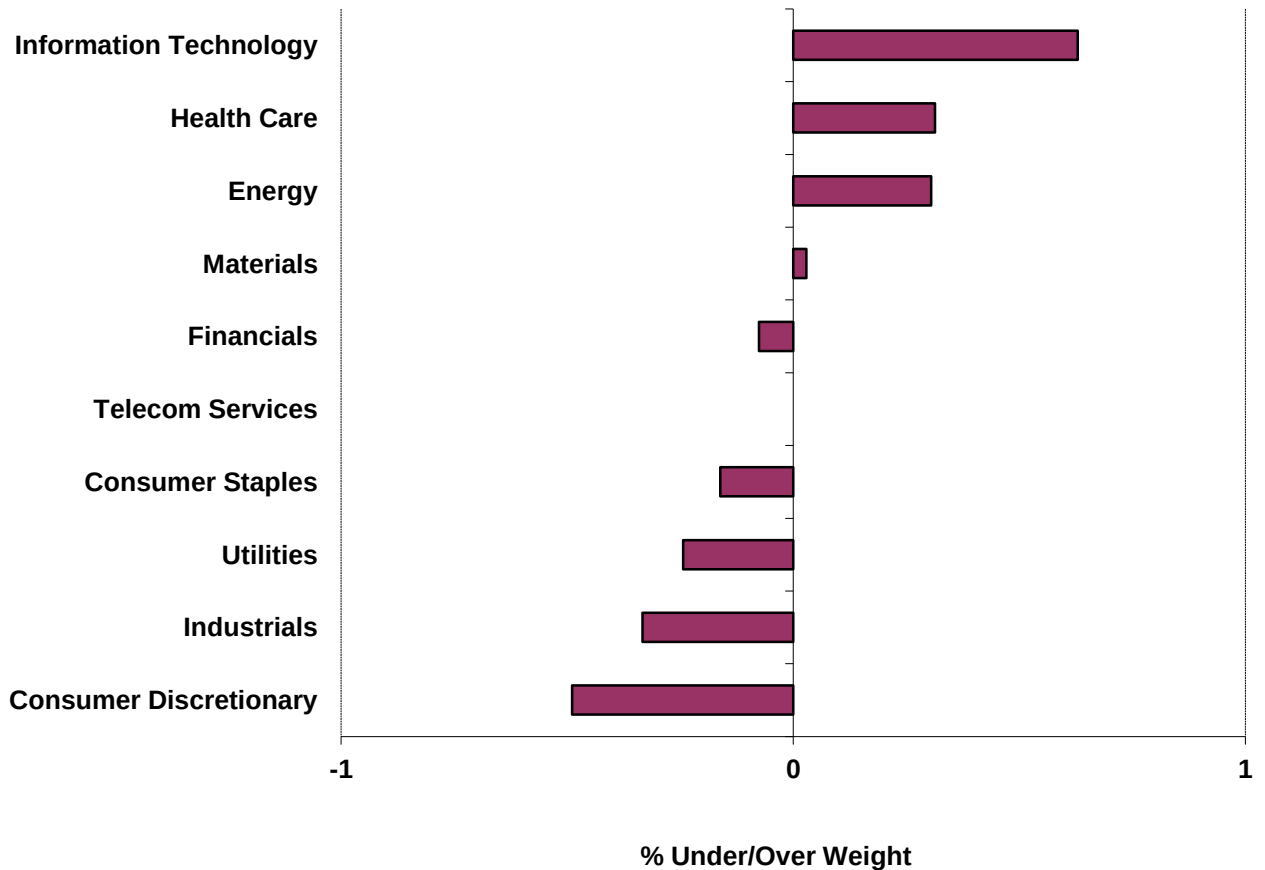
Source: BarraOne, BNYM Holdings Data as of 12/31/15

Public Equity Portfolio Review - Continued

as of 12/31/2015

Quarterly Change in Global Sector Exposures

APFC Equity Portfolio vs. MSCI ACWI IMI



Comments:

- The above chart looks at quarterly change in sector exposures in the APFC public equity portfolio.
- The exposure to information technology, health care, energy, and materials increased, while that to consumer discretionary, industrials, utilities, and consumer staples decreased during the first fiscal quarter.

Source: BarraOne, BNYM Holdings Data as of 12/31/2015

Public Equity Portfolio Review - Continued

QTD as of 12/31/15

Performance by Equity Manager Composite (Gross of Fees)

Manager Composite	Manager Benchmark(s)	3-Month Return (%)		
		Composite*	Benchmark**	Diff
US Large Cap	S&P 500, Russell 1000	6.14	6.56	-0.42
US Small Cap	S&P 400, Russell 2000	3.88	3.33	0.55
Int'l Developed	MSCI Wrld-ex-US (LC/MC, SC)	3.78	4.23	-0.45
Emerging Markets	MSCI EM	1.40	0.66	0.74
Global	MSCI World and MSCI ACWI	4.74	5.26	-0.52
Total Public Equity	Wgt'd Mgr Benchmark	4.40	4.45	-0.05
Wgt'd Mgr BM	MSCI ACWI IMI Index	4.45	4.91	-0.46
Total Public Equity	MSCI ACWI IMI Index	4.40	4.91	-0.51

*Manager composite returns calculated by Callan Associates Inc.;
Total Public Equity and Wgt'd Manager Benchmark returns calculated by APFC Staff.

**Composite benchmarks based on weighted return of manager benchmarks.

Comments:

•For the quarter ended December 31, 2015, the public equity portfolio earned 4.40%, an underperformance of 51 bps versus the 4.91% return of the MSCI ACWI IMI. The net impact of staff allocation decisions detracted 46 bps, while manager relative contribution detracted 5 bps for this quarter.

Public Equity Portfolio Review – Continued

FYTD as of 12/31/15

Performance by Equity Manager Composite (Gross of Fees)

Manager Composite	Manager Benchmark(s)	Fiscal YTD		
		Composite*	Benchmark**	Diff
US Large Cap	S&P 500, Russell 1000	-1.60	-0.68	-0.93
US Small Cap	S&P 400, Russell 2000	-5.63	-8.07	2.44
Int'l Developed	MSCI Wrld-ex-US (LC/MC, SC)	-7.09	-6.35	-0.74
Emerging Markets	MSCI EM	-15.86	-17.35	1.49
Global	MSCI World and MSCI ACWI	-4.52	-4.18	-0.35
Total Public Equity	Wgt'd Mgr Benchmark	-6.31	-6.31	-0.01
Wgt'd Mgr BM	MSCI ACWI IMI Index	-6.31	-5.16	-1.15
Total Public Equity	MSCI ACWI IMI Index	-6.31	-5.16	-1.16

*Manager composite returns calculated by Callan Associates Inc.;
Total Public Equity and Wgt'd Manager Benchmark returns calculated
by APFC Staff.

**Composite benchmarks based on weighted return of manager
benchmarks.

Comments:

•For the Fiscal-Year-to-date period ended December 31, 2015, the public equity portfolio earned -6.31%, an underperformance of 116 bps versus the -5.16 % return of the MSCI ACWI IMI. The net impact of staff allocation decisions detracted 115 bps, while manager relative contribution detracted 1 bps for this period.

Real Estate Portfolio Review as of 12/31/15

Private Real Estate

Manager	Net Market Value			Performance	
	No. of Props	Dec. 2015	% of Total	Q4 2015 3 Mos.	Dec. 2015 12 Mos.
CBRE	10	\$619	11%	-3.1%	2.5%
CBRE Europe	3	\$117	2%	6.5%	14.6%
CSCM	3	\$164	3%	0.9%	N/A
L&B	17	\$1,930	34%	4.0%	19.4%
LaSalle	8	\$1,136	20%	0.0%	12.8%
LaSalle UK	1	\$117	2%	-0.2%	6.9%
Sentinel	8	\$244	5%	2.2%	11.1%
SHLP	1	\$1,257	22%	2.4%	18.1%
Lincoln	11	\$68	1%	1.5%	12.4%
Total:	62	\$5,652	100%	1.8%	14.5%
<i>NCREIF Property Index</i>				2.9%	13.3%

- SHLP included as one property.
- The largest partnered retail assets are included in L&B above.
- Manager concentration limit is 35%.

Risk Controls

Geographic / Economic Groups	Actual Portfolio	Risk Ceiling
Education and Technology	42.5%	48.3%
Gateway	23.1%	35.1%
Strategic Yield	4.4%	12.3%
Sunbelt Growth	16.4%	23.0%
Travel and Retirement	2.3%	12.4%
Unique	11.3%	18.9%
Total:	100%	150%

- Risk controls are measured using gross market values.
- Risk controls do not include Non-U.S. markets.
- Risk controls updated to Guggenheim's latest data.

Private Real Estate by Property Type

Property Type	No. of Props	Dec. 2015 Market Value	% of Portfolio	NCREIF % of Portfolio Dec. 2015	2015 Tactical Plan Target
Multi-Family	9	\$1,761	31%	24%	30%
Industrial	19	\$278	5%	14%	8%
Office	18	\$1,864	33%	37%	26%
Retail	15	\$1,695	30%	24%	35%
Hotel	1	\$54	1%	1%	1%
Total:	62	\$5,652	100%	100%	100%

- SHLP included as one multi-family property.

Private Real Estate by Property Life Cycle Stage Exposure Report Summary as of December 31, 2015

Exposure					Disclosure Report		
(Millions)	Equity Exposure		Tactical Limit	Over/ (Under)	Debt Disclosure	Total Investment Disclosure	
	Actual \$	Actual %	%	%	Outstanding Balance	Actual \$	Actual %
Predevelopment	62	1.0%	Set at Development Sub-total Level		0	62	0.8%
Construction	86	1.3%			35	121	1.6%
Lease-Up	330	5.3%			121	451	5.7%
Development Exposure Sub-total	478	7.6%	10.0%	-2.4%	156	634	8.1%
Stabilized	5,174	82.6%	n/a	n/a	2,050	7,224	91.9%
Redevelopment / Repositioning Exposure	0	0.0%	5.0%	-5.0%	0	0	0.0%
Total	5,652		15.0%	-7.4%	2,206	7,858	100%
Real Estate Allocation	6,266	12%					
% Leverage of Private Real Estate (Loan to Value)						28.1%	
% Leverage of Real Estate Allocation (Loan to Value)						26.0%	

- Total leverage is below the 35% limit approved in May 2014 by the Board of Trustees.

Debt Maturities

	2016 (mm)	2017 (mm)	2018 (mm)	2019 (mm)	2020+ (mm)	Totals (mm)
Multi-Family	\$42.4	\$148.5	\$22.2	\$221.9	\$432.0	\$867.0
Retail	\$137.8	\$0.0	\$0.0	\$20.1	\$630.5	\$788.4
Office	\$0.0	\$0.0	\$0.0	\$0.0	\$479.8	\$479.8
Industrial	\$0.0	\$0.0	\$2.9	\$6.5	\$61.2	\$70.6
Total Debt:	\$180.2	\$148.5	\$25.1	\$248.5	\$1,603.5	\$2,205.8
% of Total Debt	8.2%	6.7%	1.1%	11.3%	72.7%	100%
Weighted Average Interest Rate	5.0%	2.5%	2.4%	3.9%	4.2%	4.1%

- The APFC portion of Macerich Partnership debt is \$503 million.
- The APFC portion of SHLP debt is \$777 million.
- Debt placement of \$348 million in fiscal year 2014 – various assets.
- Centreport 9 LTV is currently 51% following the July 2015 Valwood/Centreport portfolio separation.



Alaska Permanent Fund Corporation

Quarterly Estimated Net Fees *(rolling 2-years)*

	Quarter Ended			Quarter Ended					Quarter Ended		
	<u>12/31/2015</u>	<u>9/30/2015</u>	<u>FY 2016</u>	<u>6/30/2015</u>	<u>3/31/2015</u>	<u>12/31/2014</u>	<u>9/30/2014</u>	<u>FY 2015</u>	<u>6/30/2014</u>	<u>3/31/2014</u>	<u>FY 2014</u>
Transition Management ^(a)	1,062,000	-	1,062,000	582,000	-	-	212,000	794,000	-	-	384,000
Non-Domestic Equity & FI Managers	874,000	903,000	1,777,000	953,000	1,500,000	2,117,000	2,231,000	6,801,000	2,483,000	4,548,000	15,954,000
Real Estate Advisors ^{(b), (f)}	6,396,000	(962,000)	5,434,000	6,039,000	9,825,000	4,447,000	15,079,000	35,390,000	6,536,000	4,048,000	17,650,000
Abs. Return, Mezz. & Distressed Debt ^(c)	7,223,000	5,402,000	12,625,000	8,562,000	6,768,000	6,358,000	5,238,000	26,926,000	7,663,000	6,312,000	25,342,000
ECIO Real Return Mandate ^(d)	332,000	422,000	754,000	517,000	504,000	496,000	493,000	2,010,000	485,000	1,538,000	4,891,000
Infrastructure	4,355,000	4,006,000	8,361,000	4,504,000	5,123,000	5,072,000	3,878,000	18,577,000	5,195,000	4,283,000	18,765,000
Private Equity ^(e)	5,253,000	2,434,000	7,687,000	2,043,000	1,876,000	2,924,000	2,233,000	9,076,000	1,838,000	2,244,000	4,082,000
Totals	<u>25,495,000</u>	<u>12,205,000</u>	<u>37,700,000</u>	<u>23,200,000</u>	<u>25,596,000</u>	<u>21,414,000</u>	<u>29,364,000</u>	<u>99,574,000</u>	<u>24,200,000</u>	<u>22,973,000</u>	<u>87,068,000</u>

Notes:

^(a) Commissions and futures overlay fees only (if applicable, including commissions paid to third party brokers); excludes taxes and other implementation costs.

^(b) Includes accrued but unpaid real estate advisor incentive fees.

^(c) Fund-of-Fund structures include only fund manager fees, not underlying partnership fees.

^(d) Includes only a portion of ECIO fees. A majority of ECIO fees are paid through the operating manager fee budget.

^(e) Direct placement Private Equity began in FY2014

^(f) FY16 Q1 negative fees result from reversal of accrued incentive fees because actual performance did not live up to expectations.

February 23, 2016



Alaska Permanent Fund Corporation

4th Quarter 2015 Capital Market Review

Greg Allen

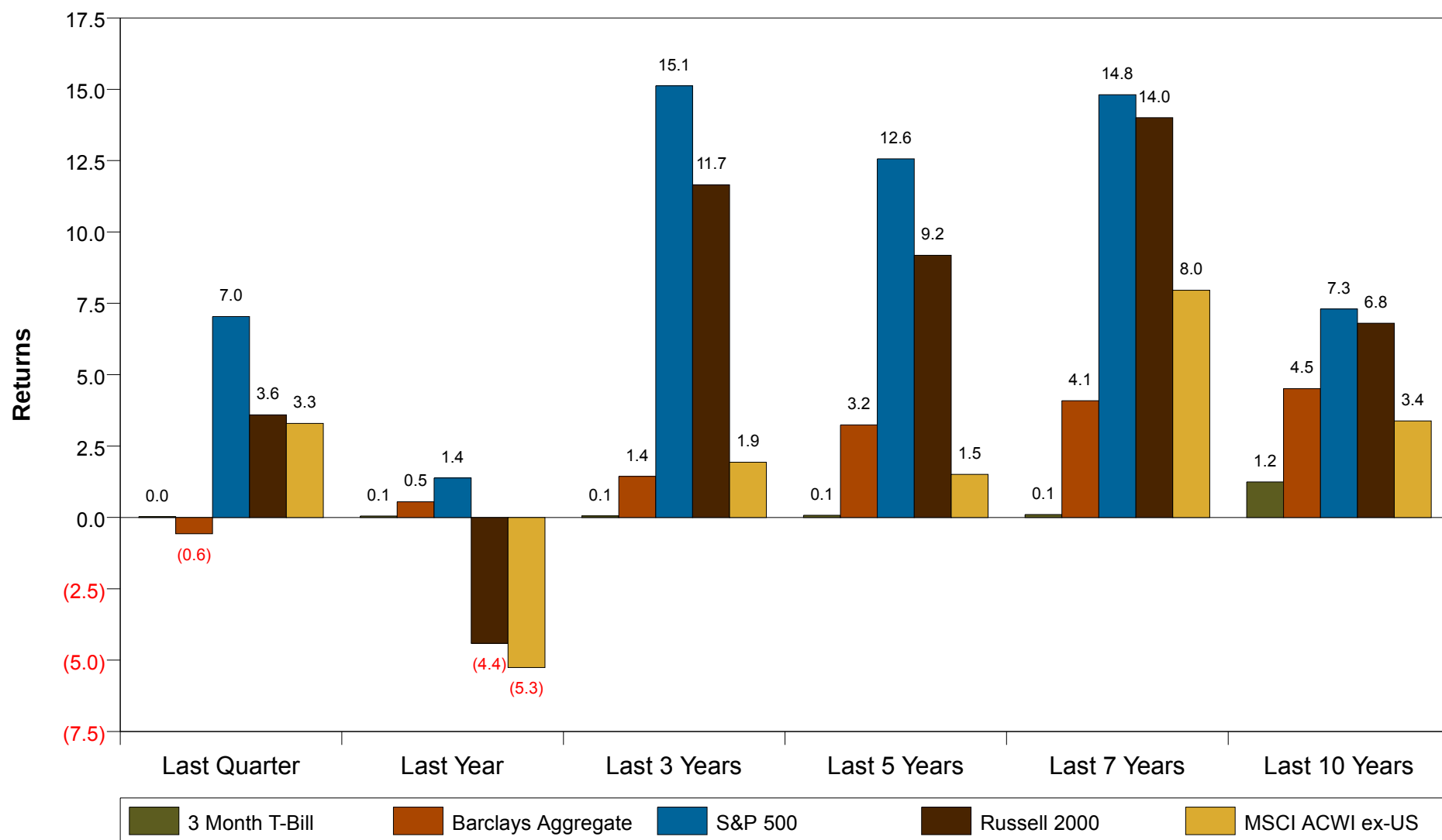
President and Director of
Research

Steven Center, CFA

Senior Vice President

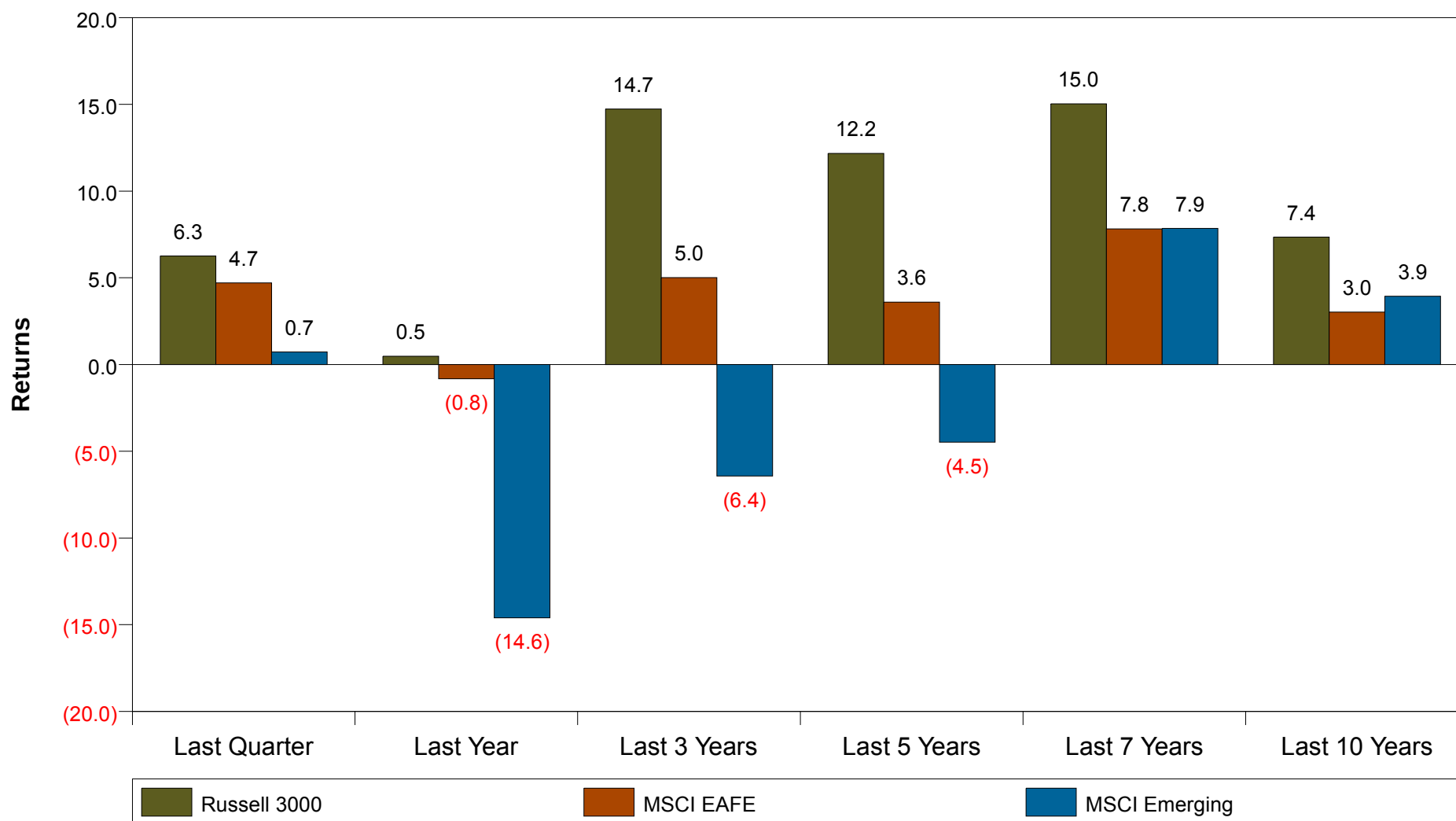
Broad Capital Market Performance

Periods Ended December 31, 2015



Public Equity Capital Market Performance

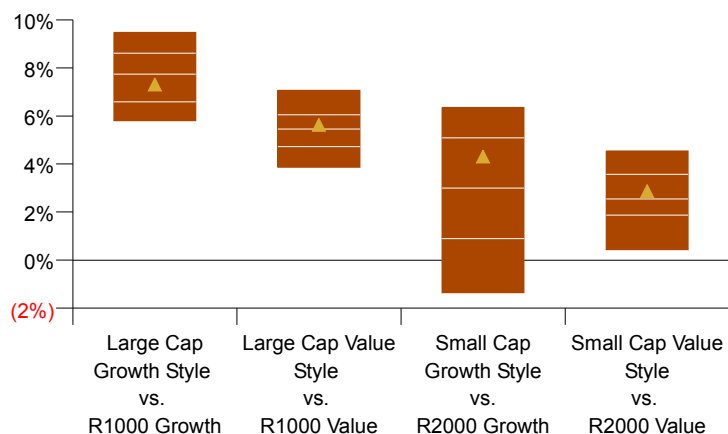
Periods Ended December 31, 2015



U.S. Equity

Fourth Quarter 2015

Callan Style Group Quarterly Returns

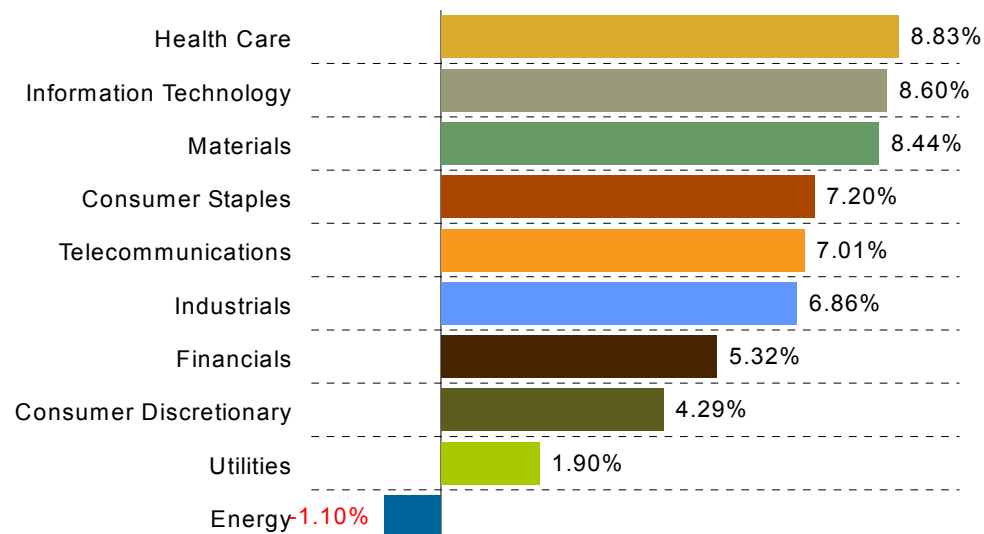


10th Percentile	9.48	7.07	6.36	4.55
25th Percentile	8.62	6.05	5.09	3.57
Median	7.75	5.46	3.00	2.55
75th Percentile	6.59	4.73	0.90	1.87
90th Percentile	5.80	3.87	-1.35	0.44

Benchmark ▲ 7.32 5.64 4.32 2.88

Sources: Callan, Russell Investment Group

Economic Sector Quarterly Returns (Russell 3000)

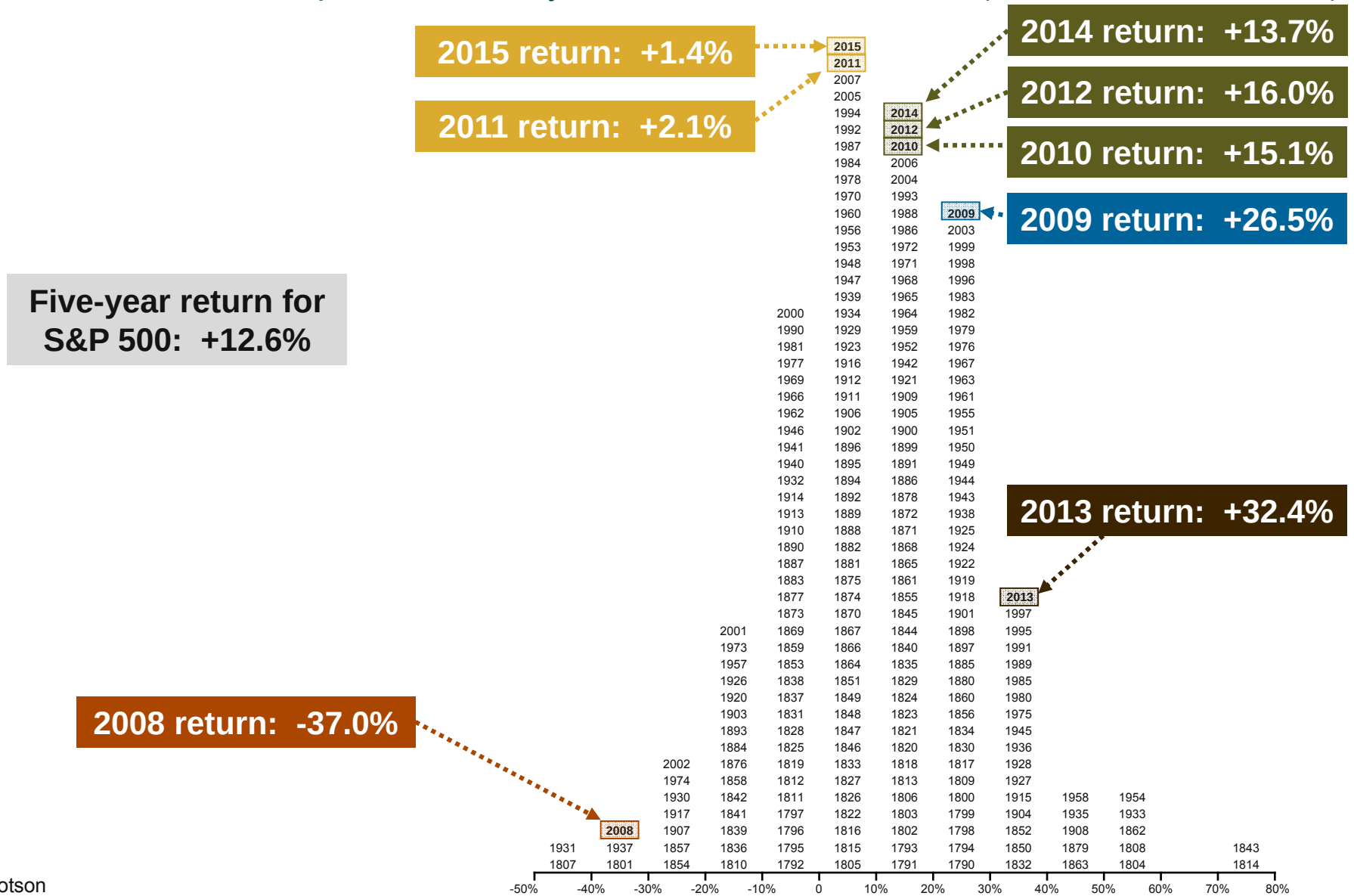


Source: Russell Investment Group

- Against the backdrop of falling corporate profits and negative news out of China, US equities suffered their worst performance since 2008 in 2015 despite strong 4th quarter performance. The Russell 3000 Index was up 6.3% in 4th quarter, but only 0.5% for the year.
- While all capitalizations posted positive results in the quarter, large caps led the way (Russell 1000: +6.5%). For the year, large caps once again performed the best (Russell 1000: +0.9%), and results worsened as one went down the capitalization path (Russell 2000: -4.4%). Growth outperformed value across capitalization for the quarter (R1G: +7.3%; R1V: +5.6%) and for the year (R1G: +5.7%; R1V: -3.8%).
- Sector results were widely divergent for the quarter and the year. For the quarter, Health Care performed best (+8.8%) and Energy the worst (-1.1%). For the year, Health Care (+7.2%) and Consumer Discretionary (+6.0%) performed best while Energy (-23.2%) and Materials (-10.3%) suffered double-digit losses.

Stock Market Returns by Calendar Year

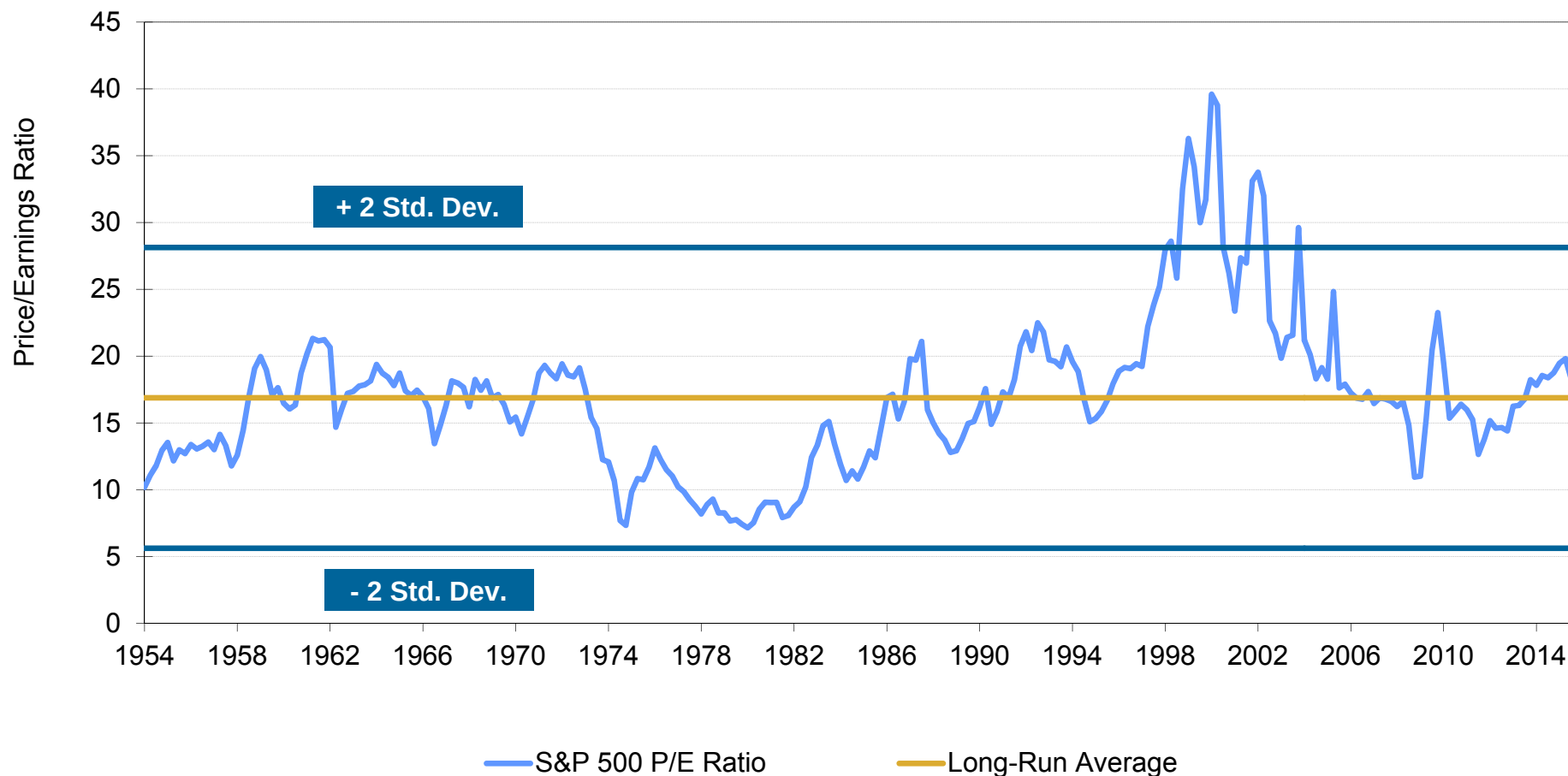
2015 Performance in Perspective: History of the U.S. Stock Market (227 Years of Returns)



Equity Is Not Yet Egregiously Overpriced

Trailing P/E Caught Up to Its Long Run Average, Moved Sideways in 2015

Price to Earnings Ratio for S&P 500 (1954 - 2015)



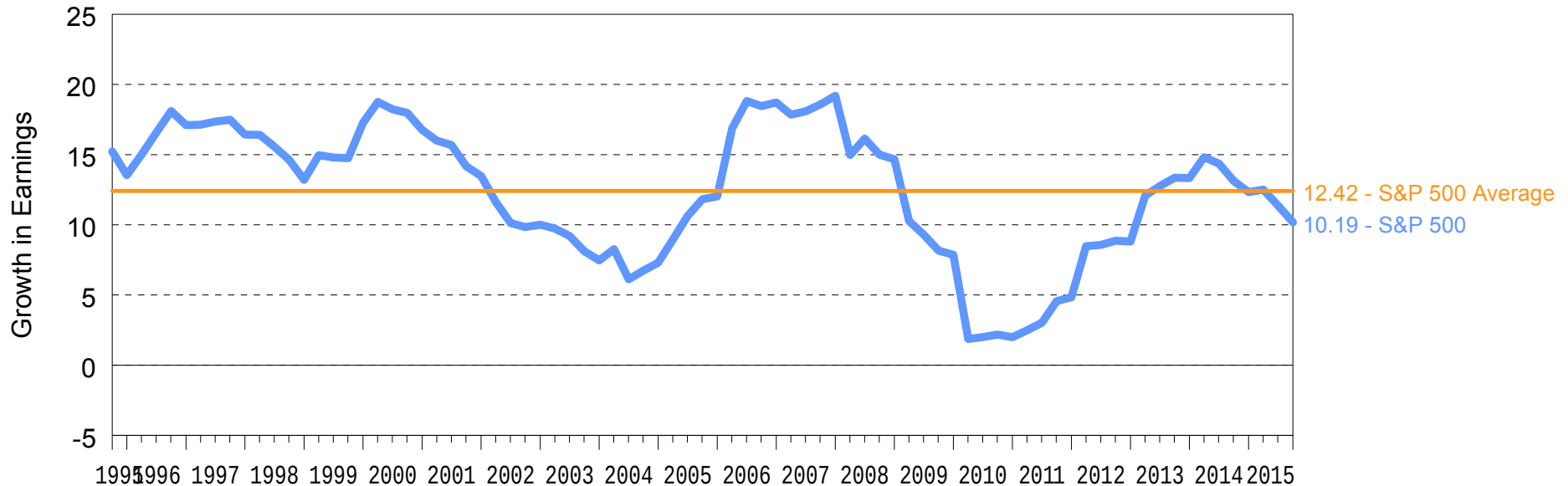
Trailing earnings as reported for the fiscal year; includes negative earnings from 1998 onward.

Source: Standard & Poor's and Callan

Are U.S. Equity Markets Overvalued?

Corporate Profits Are Still Growing Strongly, Although They May Have Peaked

Growth in Earnings for 20 Years ended September 30, 2015



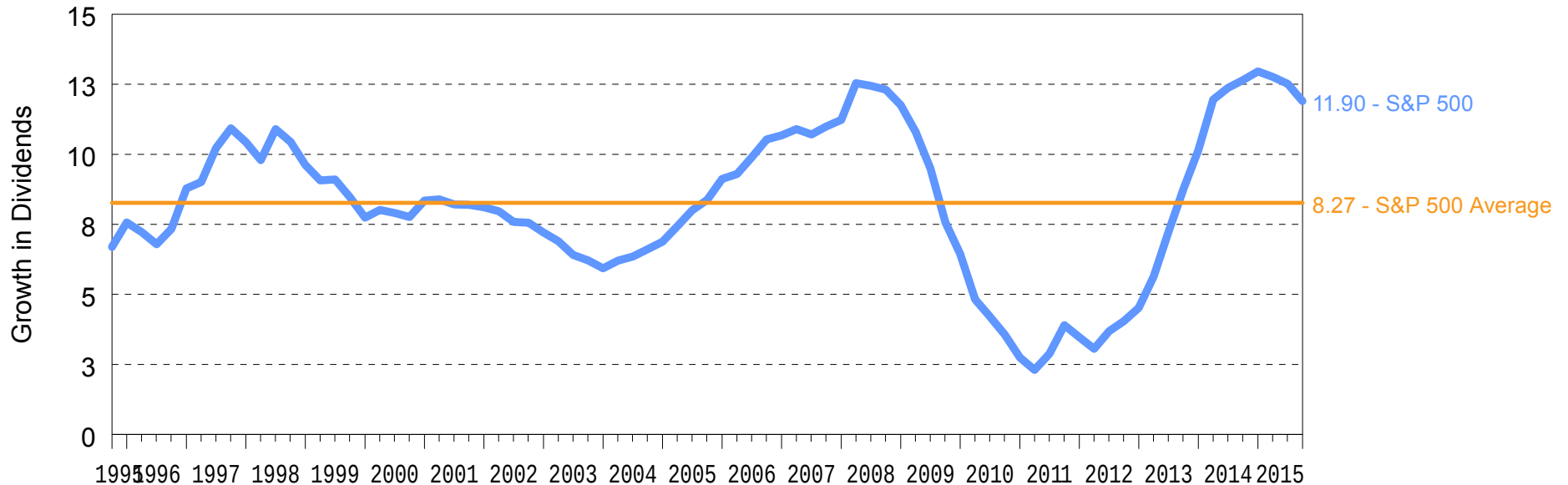
- Corporate profit growth has recovered from the levels experienced soon after the Financial Crisis.
- Current growth is near the long-term average which is at a double digit level.
- Profit growth is forecast to improve with recovering economy.

Source: Standard and Poor's and Callan Associates

Are U.S. Equity Markets Overvalued?

Dividends are Growing at Rates Well Above Average

Growth in Dividends for 20 Years ended September 30, 2015



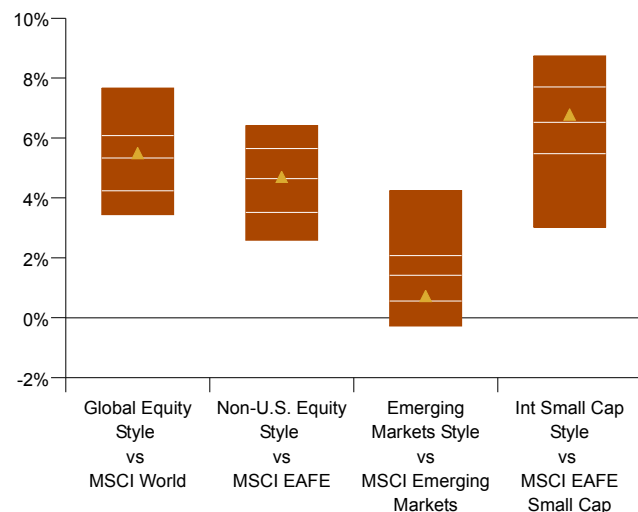
- The amount of capital that firms are returning to shareholders as ordinary dividends has been growing at an above average pace.

Source: Standard and Poor's

Non-U.S. Equity

Fourth Quarter 2015

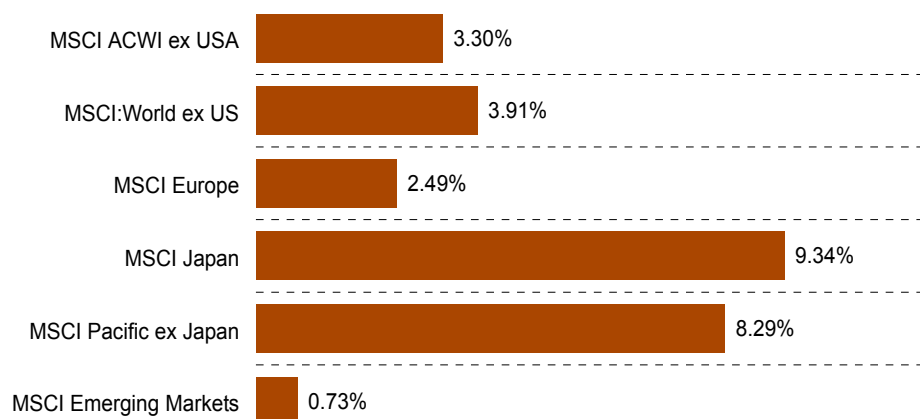
Callan Style Group Quarterly Returns



10th Percentile	7.67	6.42	4.24	8.75
25th Percentile	6.09	5.66	2.08	7.71
Median	5.34	4.65	1.42	6.53
75th Percentile	4.24	3.52	0.56	5.48
90th Percentile	3.44	2.59	-0.27	3.03
Benchmark ▲	5.50	4.71	0.73	6.79

Sources: Callan, MSCI

Regional Quarterly Performance (US\$)



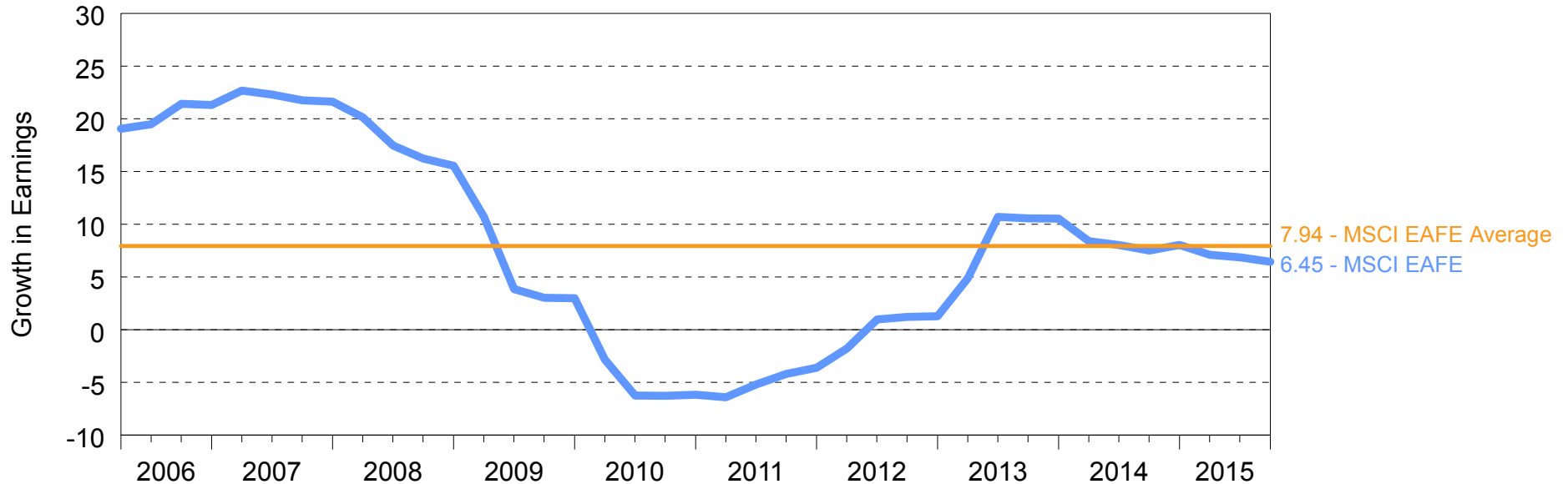
Source: MSCI

- Outside the US, Japan (+9.3%) and the remainder of Southeast Asia and the Pacific (+8.3%) enjoyed solid gains in the quarter, outperforming broad international markets as measured by the MSCI ACWI ex-US (+3.3%).
- For the year, developed markets performed well but US dollar strength eroded returns (MSCI ACWI ex-US Local: +2.3%, MSCI ACWI ex-US\$: -5.3%).
- The MSCI Emerging Markets Index represented the worst performing area of global equities in the fourth quarter (+0.7%) and for the year (MSCI EM US\$: -14.6%).

Can Non-U.S. Equities Overcome Economic Issues?

Developed Markets Corporate Profits are Likely to Grow Faster

Growth in Earnings for 9 1/2 Years ended September 30, 2015



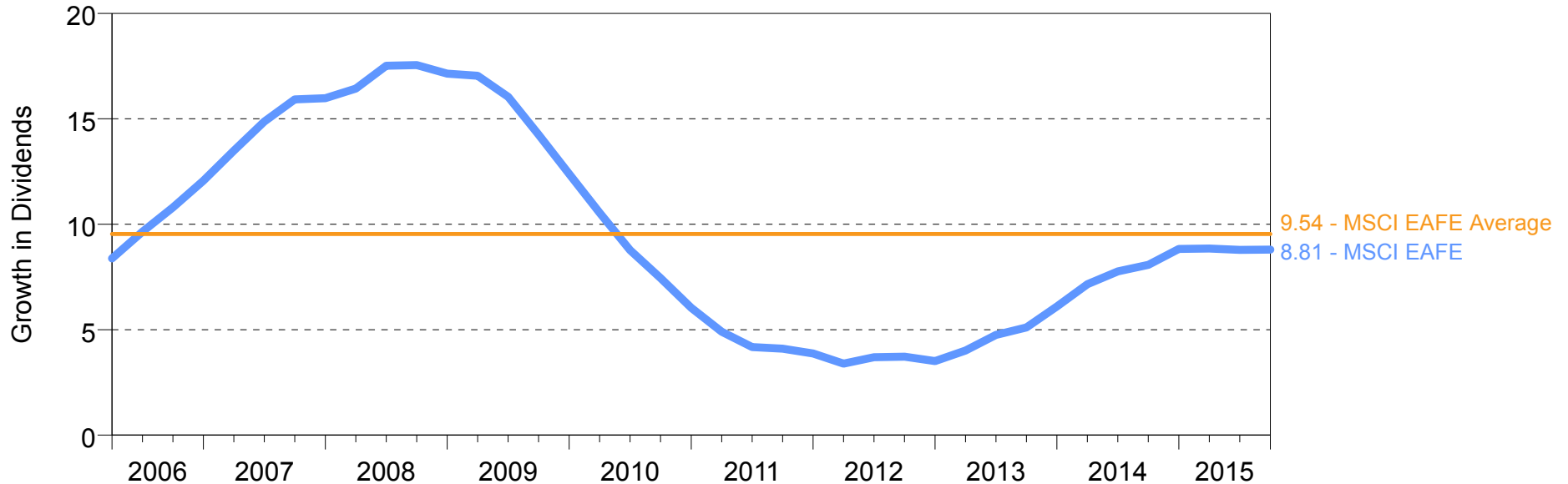
- Corporate profit growth has recovered to the longer-term average.
- Forecast profit growth expected to improve as uncertainties are resolved.
 - Greek bailout
 - European Central Bank Quantitative Easing
 - Japanese stimulus and reforms

Source: MSCI

Can Non-U.S. Equities Overcome Economic Issues?

Developed Markets Dividends are Growing Strongly

Growth in Dividends for 9 1/2 Years ended September 30, 2015



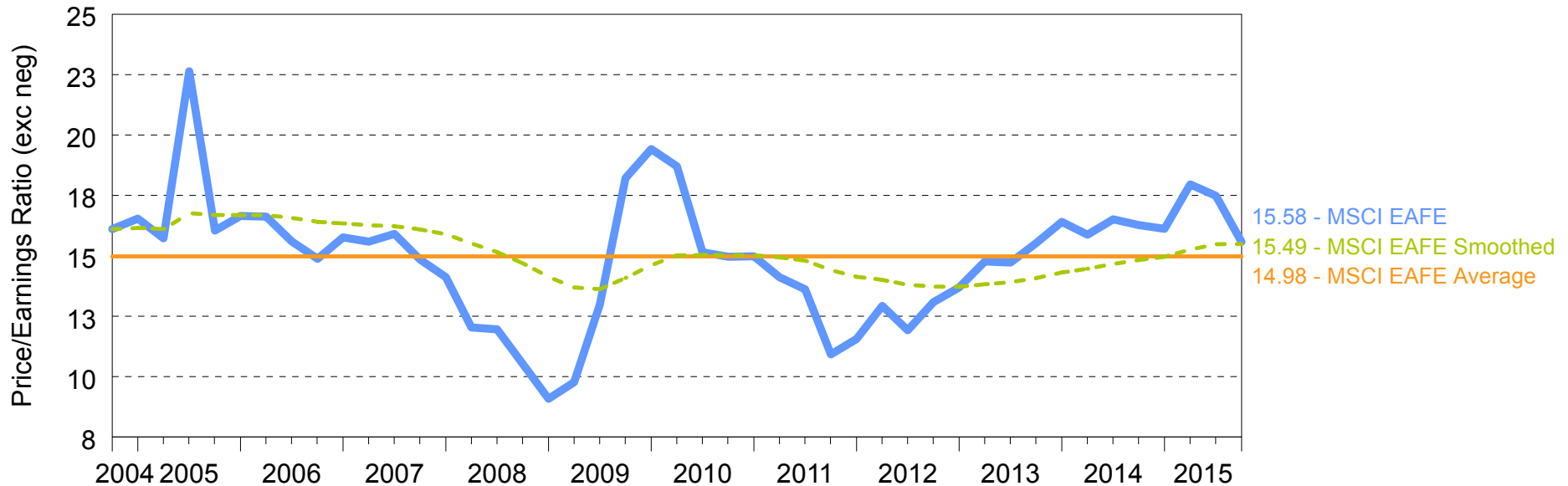
- High dividend growth rate overseas consistent with historical emphasis on the yield component of returns.

Source: MSCI

Can Non-U.S. Equities Overcome Economic Issues?

Developed Markets Valuations are Reasonable

Price/Earnings Ratio (exc neg) for 11 Years ended September 30, 2015



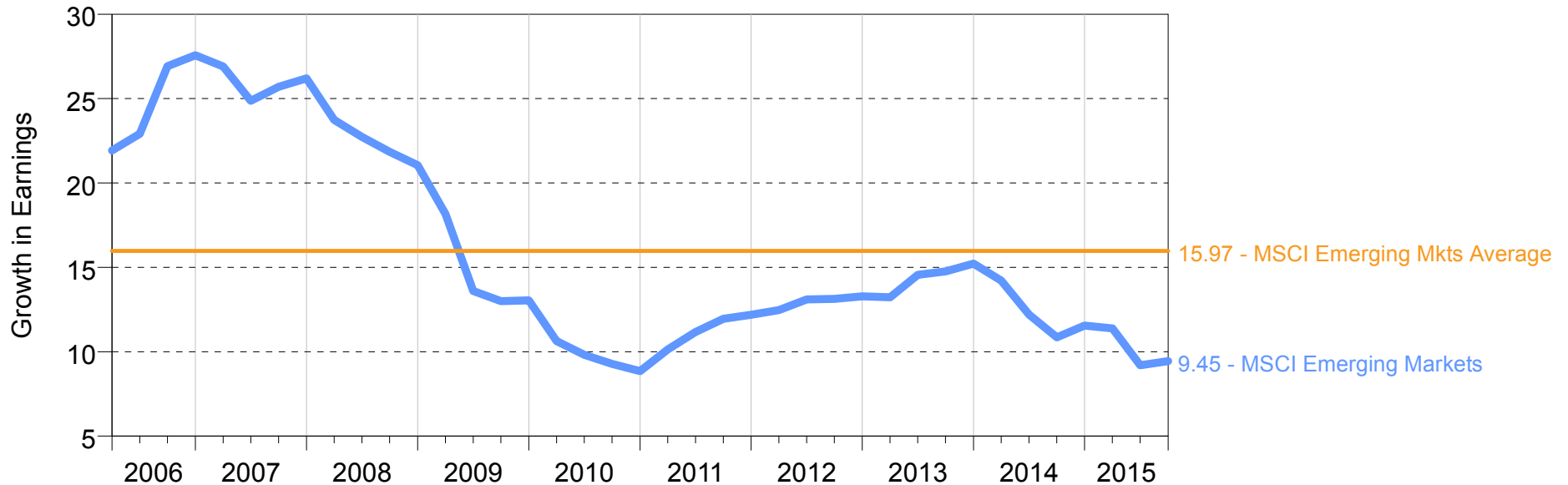
- Valuations are consistent with history.
- Stock prices can increase as earnings increase without creating valuation issues.

Source: MSCI

Can Non-U.S. Equities Overcome Economic Issues?

Emerging Markets Corporate Profits Have Stabilized

Growth in Earnings for 9 1/2 Years ended September 30, 2015



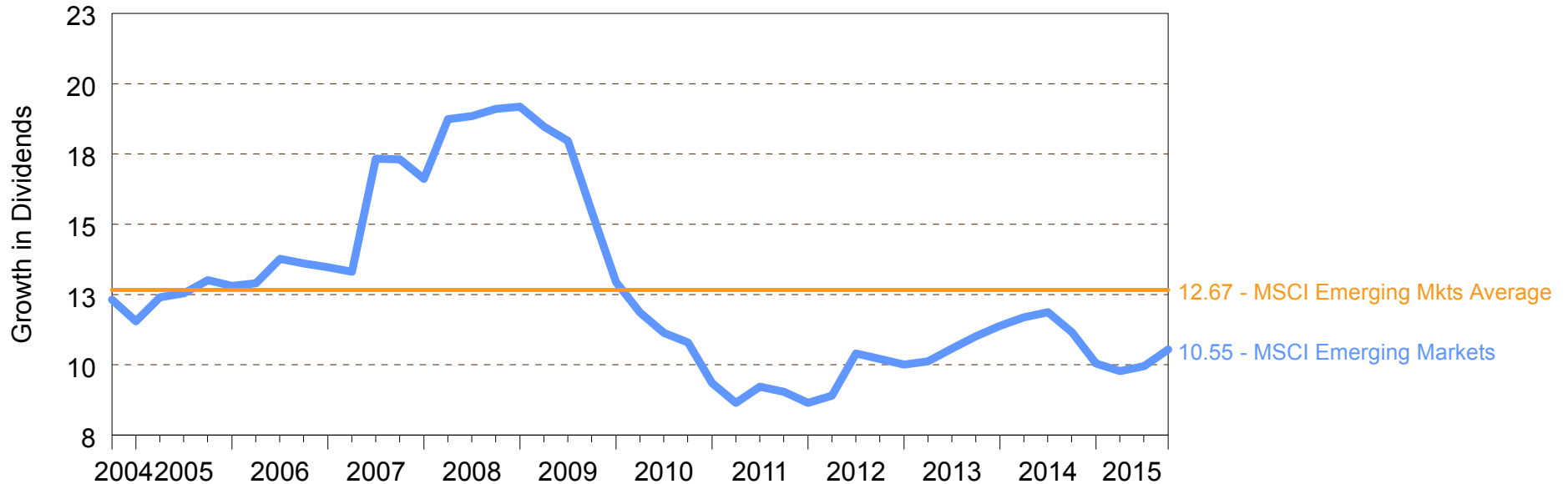
- Corporate profit growth has not yet recovered to levels experienced before the Financial Crisis.
- Profits are likely to grow faster as global demand increases.

Source: MSCI

Can Non-U.S. Equities Overcome Economic Issues?

Emerging Markets Dividends Down but Still Robust

Growth in Dividends for 11 Years ended September 30, 2015



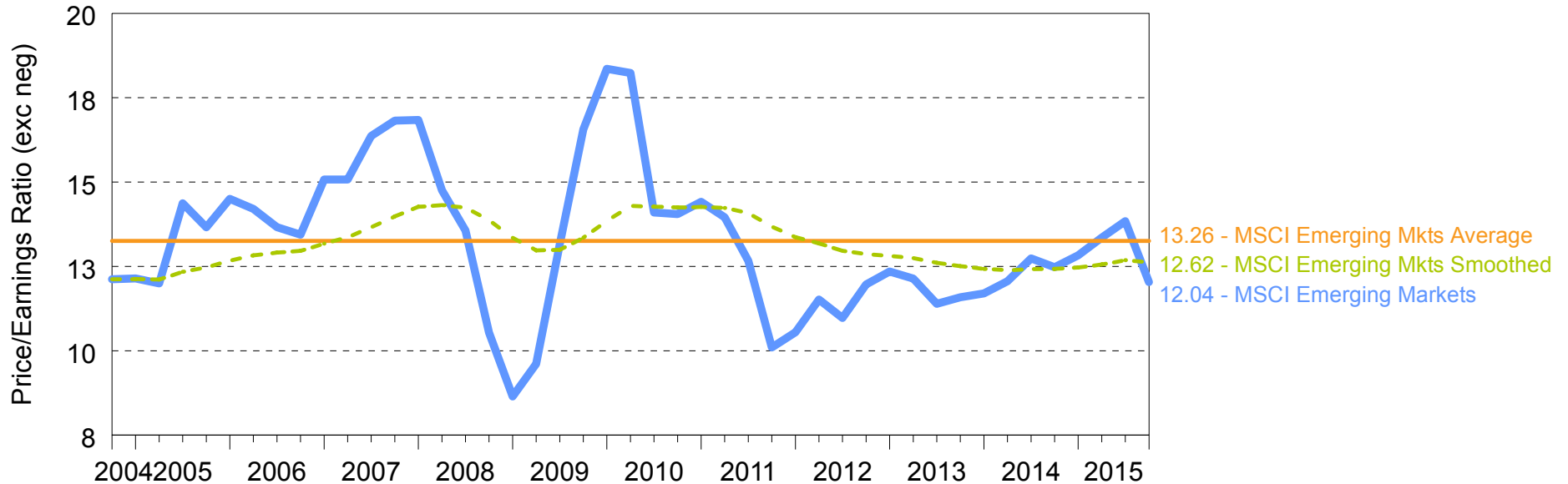
- Dividend growth will follow profit growth higher as internal as well as external demand improves.

Source: MSCI

Can Non-U.S. Equities Overcome Economic Issues?

Emerging Markets Valuations Should Improve

Price/Earnings Ratio (exc neg) for 11 Years ended September 30, 2015



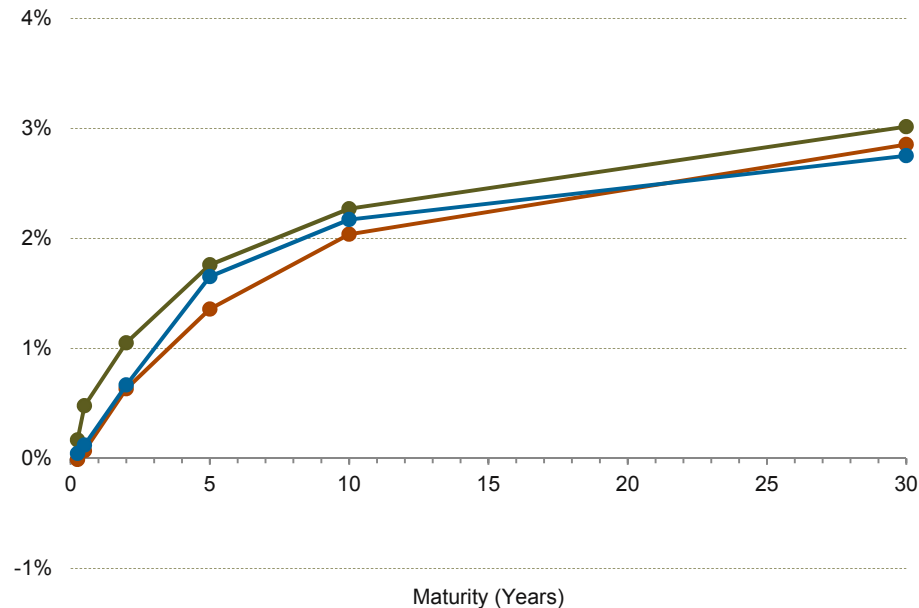
- Valuations are generally lower than developed markets to account for additional risk.
- There is significant room for growth in both earnings and stock prices but a slightly higher growth rate for prices is expected to move valuations closer to historical averages.

Source: MSCI

Fixed Income

Fourth Quarter 2015

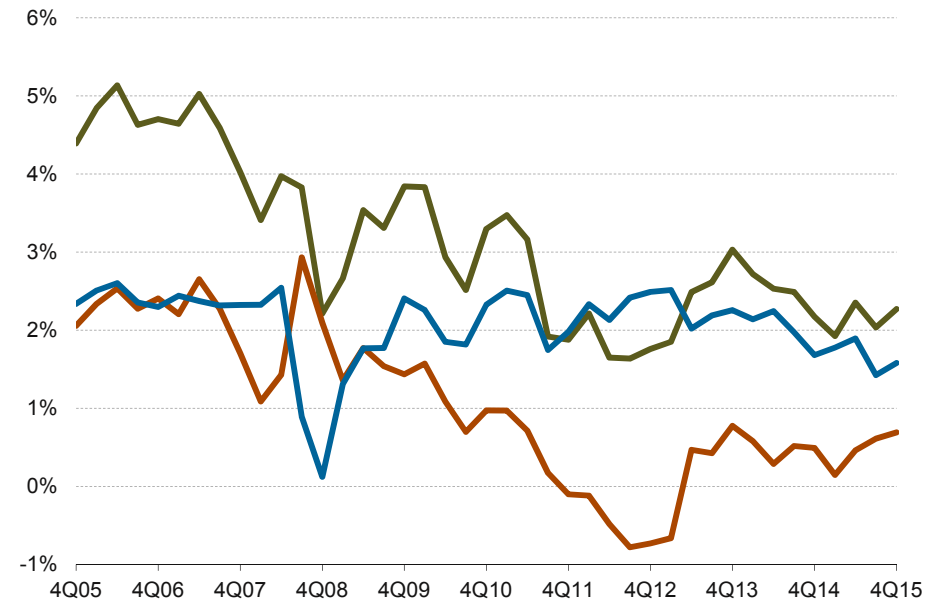
US Treasury Yield Curves



—●— December 31, 2015 —●— September 30, 2015 —●— December 31, 2014

Source: Bloomberg

Historical 10-Year Yields



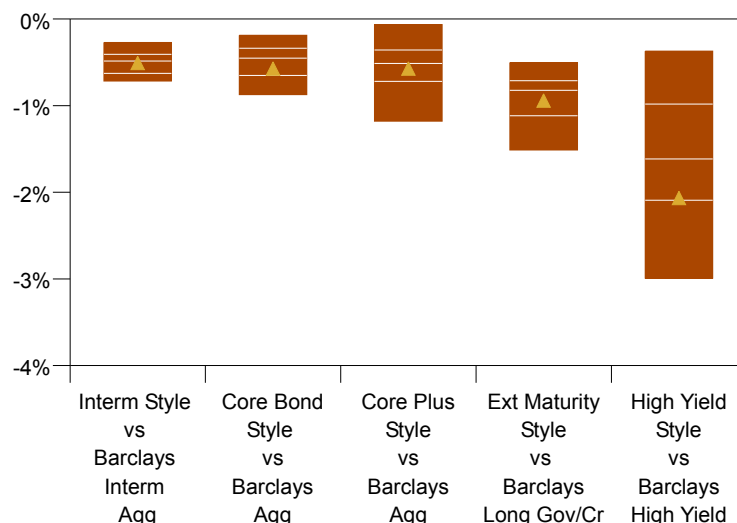
— U.S. 10-Year Treasury Yield — 10-Year TIPS Yield
— Breakeven Inflation Rate
Source: Bloomberg

- Yields rose during the quarter as investors grew increasingly certain that the Federal Reserve would hike interest rates before year-end. Sentiment proved correct as the Fed raised the Fed Funds target from its 7-year "near zero" target to 0.25% - 0.50% at its December meeting.
- The yield on the 10-year Treasury rose 21 bps over the quarter and closed the year at 2.27%, up only 11 bps from December 31, 2014.

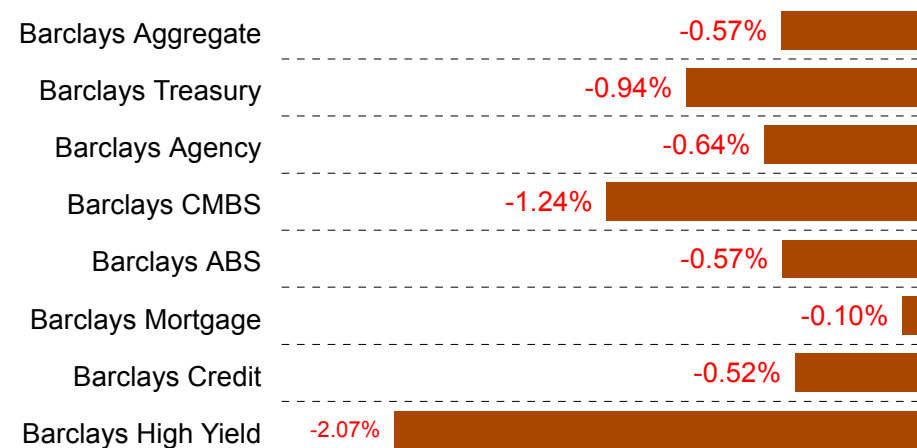
Fixed Income

Fourth Quarter 2015

Callan Style Group Quarterly Returns



Absolute Returns for Quarter ended December 31, 2015



Source: Barclays

10th Percentile	-0.27	-0.19	-0.06	-0.50	-0.37
25th Percentile	-0.41	-0.34	-0.36	-0.71	-0.98
Median	-0.48	-0.45	-0.51	-0.82	-1.62
75th Percentile	-0.63	-0.65	-0.72	-1.12	-2.09
90th Percentile	-0.72	-0.87	-1.18	-1.51	-2.99
Benchmark ▲	-0.51	-0.57	-0.57	-0.94	-2.07

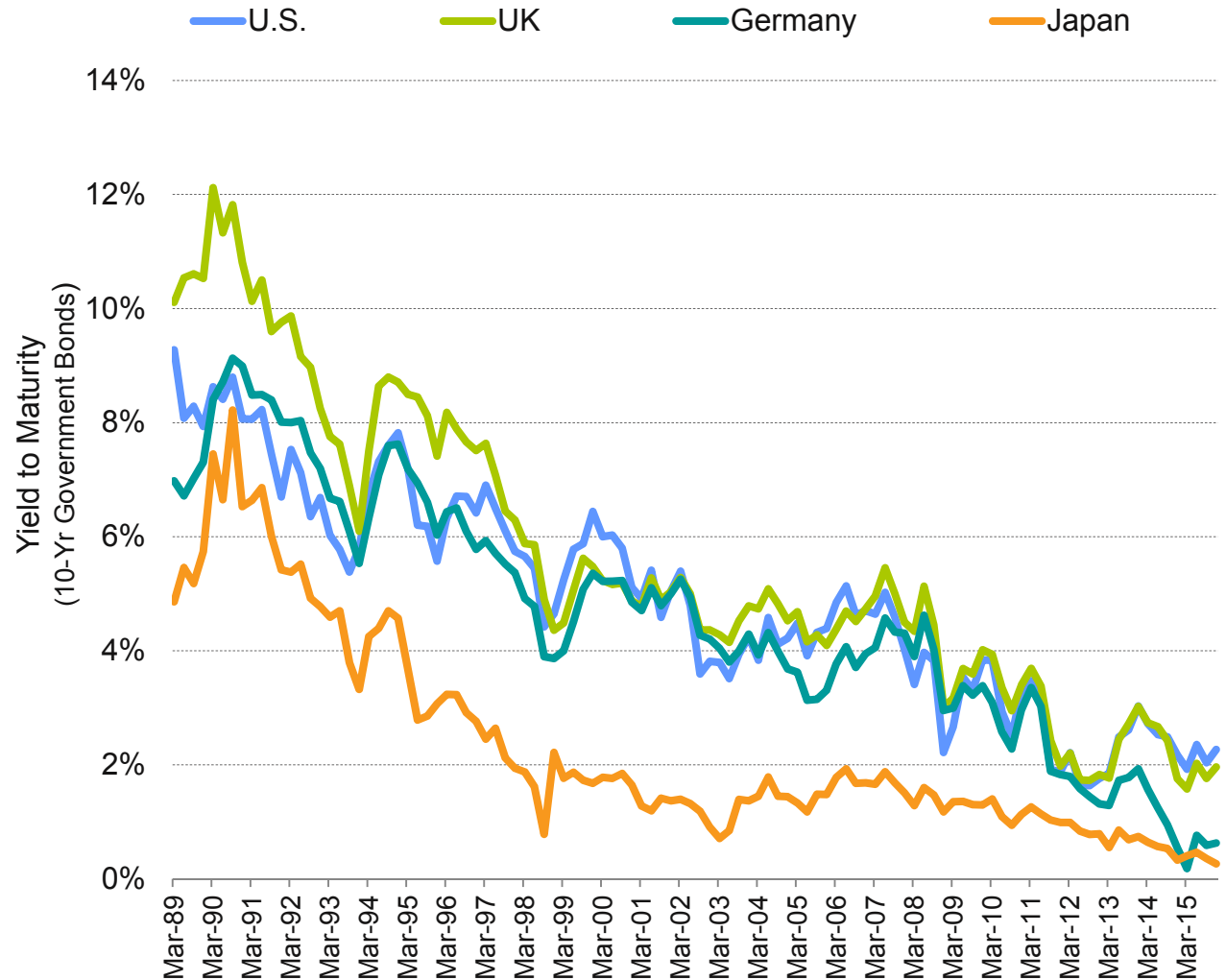
Sources: Barclays, Callan

- The Barclays Aggregate Index was down modestly for the quarter (-0.6%) but up slightly for the year (+0.5%), thanks to coupon payments. Investment grade credit and mortgages outperformed like-duration US Treasuries for the quarter but underperformed for the full year.
- Declining commodity prices and negative sentiment continued to take a toll on high yield corporates. The Barclays High Yield Index was down 2.1% for the quarter bringing its 2015 loss to 4.5%. The Energy component, which comprises 11% of the Index, bore the brunt of the pain with returns of -12.9% for the quarter and -23.6% for the full year.

Have Interest Rates Hit Bottom, At Least in the U.S.?

Government Interest Rates

- Interest rates reached lows not seen in many decades, for a number of reasons including:
 - Central bank intervention including quantitative easing (“QE”)
 - Low inflation
 - Flight to quality investments
 - Expanded or new roles for debt (bank capital, long-term liability hedging)
- Low rates can stimulate growth and inflation if there is sufficient loan volume.
 - Both supply and demand will increase as lenders and borrowers improve their balance sheets.



Monetary Policy and Interest Rates

What Will the Fed Do Next?

- Forward guidance stresses that the timing and pace of rate hikes are data dependent in a symmetric way.
- Policymakers happy with progress in the labor market, but likely see greater downside risks to inflation as inflation and inflation expectations have deteriorated, thanks to plunging energy and commodity prices.
- Oil prices believed to be a net positive for U.S. and global economies, and not a source of deflation – until now. How does sustained distress on the commodity complex weigh into Fed deliberations?
- Labor market and inflation moving in different directions. What matters more for the Fed? Probably the labor market.
- Fed has stated it does not have to achieve its 2% inflation goal to raise interest rates, which is good, given recent oil price plunge.
- Fed rate hike was delayed to December 2015. Market expects the Fed to move slowly than the Fed's expressed timetable.
- Long credit yields blew out in the U.S. during 2015, after denying potential the rate hike in previous years.

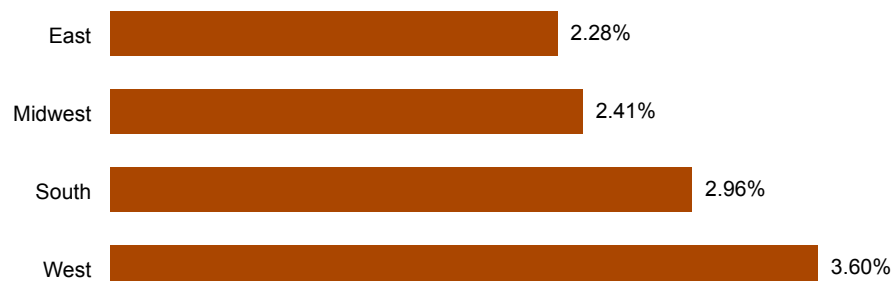
Real Estate

Fourth Quarter 2015

NCREIF All Equity Sector Returns By Property Type

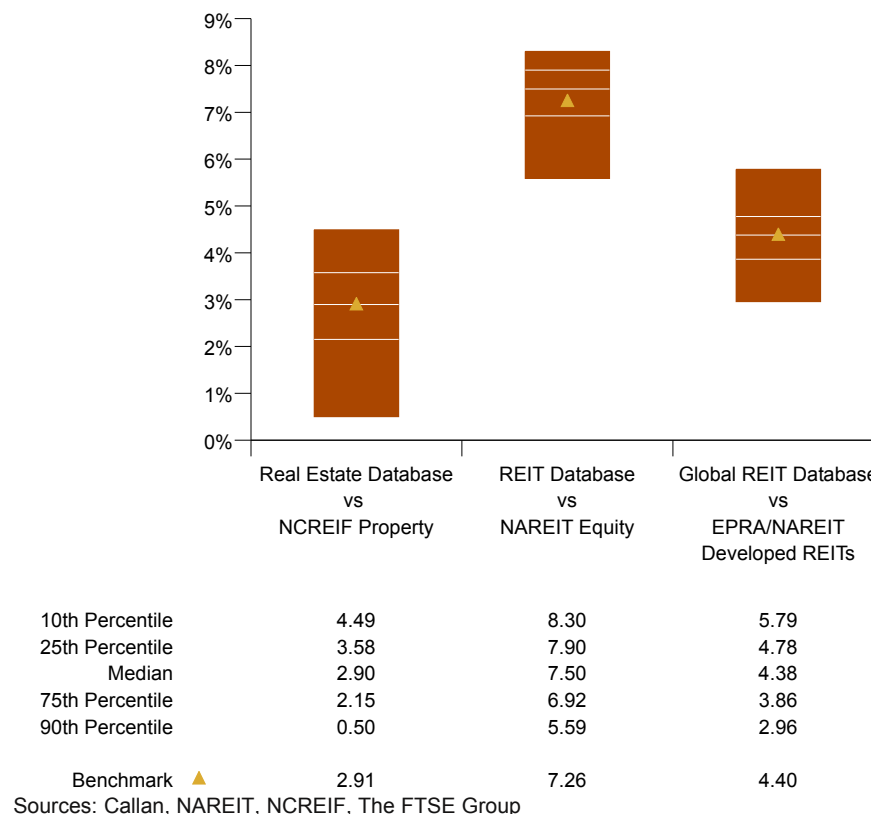


NCREIF All Equity Sector Returns By Region



Source: NCREIF

Callan Style Group Quarterly Returns



- US institutional real estate, as measured by the NCREIF Property Index, advanced 2.91% comprised of a 1.20% income return and 1.72% appreciation return.
- While all sectors posted positive results, retail and industrial were the strongest performers. Once again, the western region contributed the most to returns.
- The FTSE EPRA/NAREIT Developed REIT Index (USD) gained 4.4% and domestic REITs, tracked by the FTSE NAREIT Equity REITs Index, advanced an impressive 7.3%.

Hedge Funds

Fourth Quarter 2015

Style Median and Index Returns* for Periods ended December 31, 2015

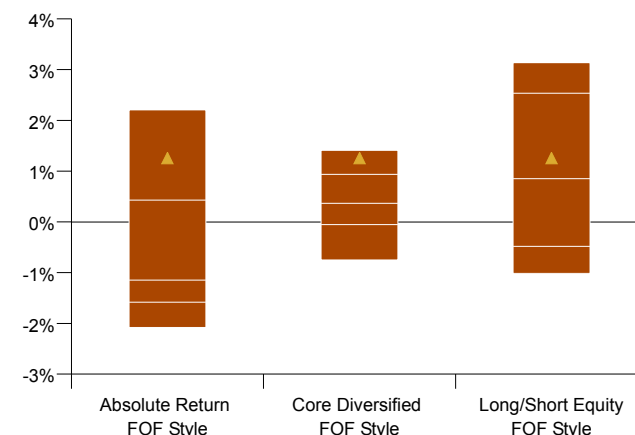
	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
Diversified Hedge Fund Strategy							
Hedge Fund-of-Funds Database	0.40	-0.09	-0.09	4.72	3.54	3.96	5.28
CS Hedge Fund	-0.12	-0.71	-0.71	4.30	3.55	4.97	5.95
Credit Suisse Subindices							
Equity Market Neutral	-0.04	1.69	1.69	3.16	2.96	-1.44	1.39
Convertible Arbitrage	-0.58	0.81	0.81	1.67	2.76	4.42	4.94
Fixed Income Arbitrage	0.03	0.59	0.59	2.90	4.84	3.84	4.50
Multi-Strategy	0.51	3.84	3.84	7.01	6.77	6.17	6.89
Distressed	-1.76	-5.30	-5.30	4.05	3.81	4.82	7.80
Risk Arbitrage	0.81	0.41	0.41	1.30	1.50	3.55	3.65
Event Driven Multi-Strategy	-2.55	-6.67	-6.67	2.86	1.08	5.12	6.45
Long/Short Equity	1.58	3.56	3.56	8.77	5.23	5.80	5.98
Dedicated Short Bias	-4.29	2.38	2.38	-10.15	-9.72	-8.90	-7.19
Global Macro	0.62	0.17	0.17	2.52	3.70	6.79	9.04
Managed Futures	-1.05	-0.93	-0.93	4.54	1.22	4.21	5.40
Emerging Markets	2.79	-0.22	-0.22	3.30	2.55	5.17	8.06

*Returns less than one year are not annualized.

Sources: Callan, Credit Suisse Hedge Index

- The median manager in the Callan Hedge Fund-of-Funds Database edged ahead 0.4%, net of all fees. Within the CS HFI, the major sector winner was *Long/Short Equity* (+1.6%). *Event-Driven Multi-Strategy* (-2.6%), which is typically more focused on soft catalysts, fell particularly hard as investors fled crowded trades in this space. *Distressed* (-1.8%) also lost ground with credit spreads widening, but outpaced the Barclays High Yield Credit Index (-2.1%).
- Within Callan's Hedge FOF Database, market exposures marginally affected performance. Aided by the U.S. equity market rally, the median *Callan Long/Short Equity FOF* (+0.9%) outpaced the *Callan Absolute Return FOF* (-1.2%). With exposures to both non-directional and directional styles, the *Core Diversified FOF* modestly gained 0.4%.

Callan Style Group Quarterly Returns



	Absolute Return FOF Style	Core Diversified FOF Style	Long/Short Equity FOF Style
10th Percentile	2.21	1.41	3.14
25th Percentile	0.43	0.94	2.54
Median	-1.15	0.37	0.85
75th Percentile	-1.58	-0.05	-0.48
90th Percentile	-2.08	-0.75	-1.01
T-Bills + 5%	1.26	1.26	1.26

Sources: Callan, Merrill Lynch

Private Equity

Fourth Quarter 2015

- Broad private equity returns lag those of public equities over the intermediate-term (3- and 5-year periods). However, short- and longer-term returns have added value relative to public markets.
- In fundraising, *Private Equity Analyst* reports that 2015's fundraising total of \$257 billion is a modest decline from 2014 (-3.6% or \$10.5 billion). The number of funds formed declined by 83 (-10.8%) to 682 in 2015 .
- The 4th quarter's new commitments totaled \$59.7 billion with 125 new partnerships formed. Compared to 3rd quarter, this indicated an 11% increase in the dollar volume, but a 20% decrease in number of funds formed. The quarter was surprisingly weak, likely due to the onset of public equity market volatility in mid-August.
- Buyouts (66%) continue to lead the majority of new capital allocation.

Funds Closed January 1, 2015 to December 31, 2015

Strategy	No. of Funds	Amount (\$mm)	Percent
Venture Capital	281	34,274	13%
Buyouts	263	169,694	66%
Subordinated Debt	28	12,535	5%
Distressed Debt	37	22,573	9%
Secondary and Other	15	6,637	3%
Fund-of-Funds	58	10,961	4%
Totals	682	256,673	100%

Private Equity Performance Database (Pooled Horizon IRRs through March 31, 2015*)

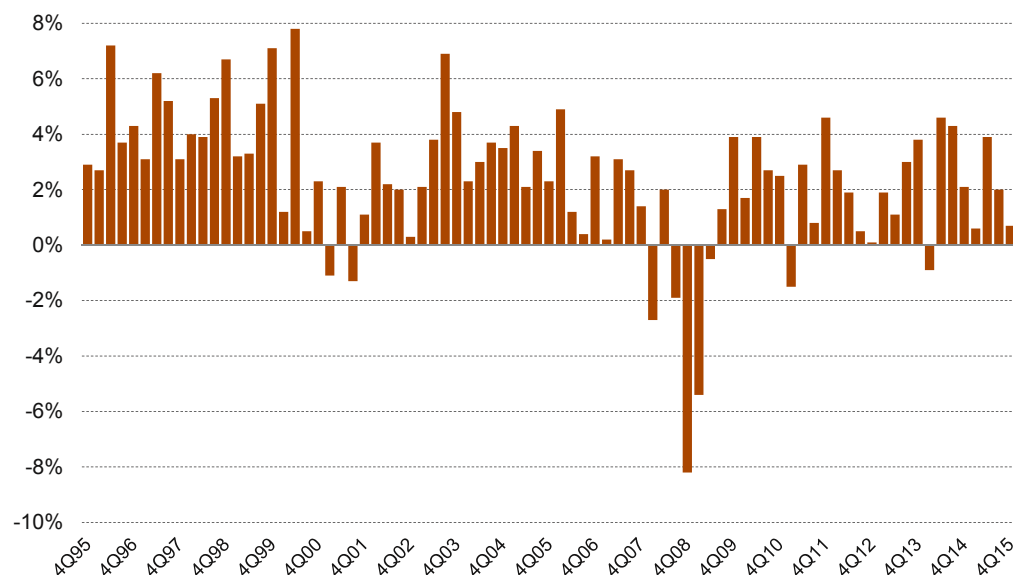
Strategy	3 Months	Year	3 Years	5 Years	10 Years	15 Years	20 Years
All Venture	6.8	26.8	21.0	18.7	11.4	4.0	27.1
Growth Equity	5.0	11.0	15.3	14.6	12.7	9.9	14.9
All Buyouts	5.3	7.7	15.7	15.4	12.5	11.3	13.2
Mezzanine	3.6	8.5	11.3	11.8	10.7	7.8	10.0
Distressed	1.6	4.2	13.3	12.2	10.4	11.1	11.2
All Private Equity	5.1	10.7	16.1	15.4	12.1	9.2	14.4
S&P 500	0.3	7.4	17.3	17.3	7.9	4.4	8.9

* Latest quarterly data available. Private equity returns are net of fees.
Sources: Private Equity Analyst, Standard & Poor's, Thomson/Cambridge

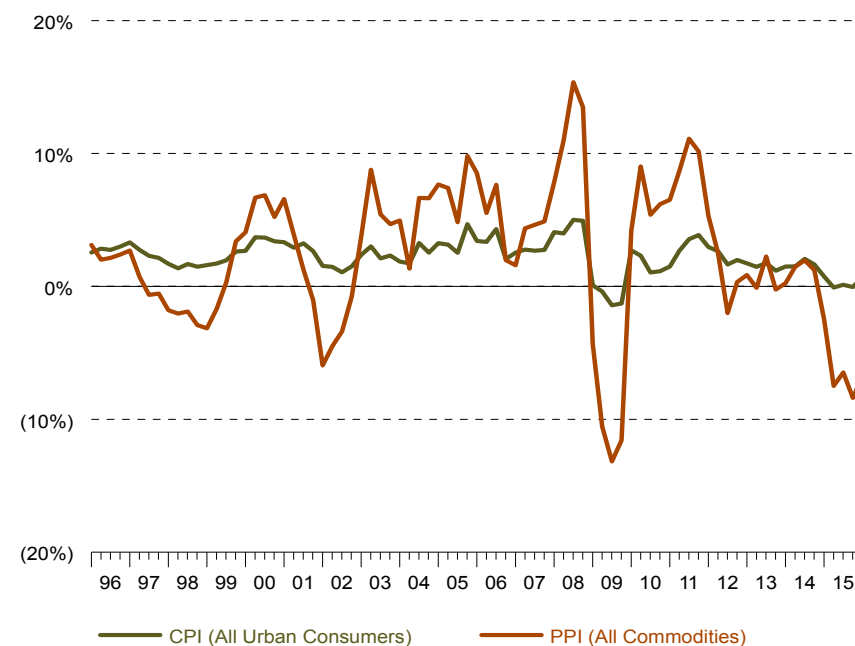
U.S. Economy

Fourth Quarter 2015

Quarterly Real GDP Growth (20 Years)



Inflation Year-Over-Year

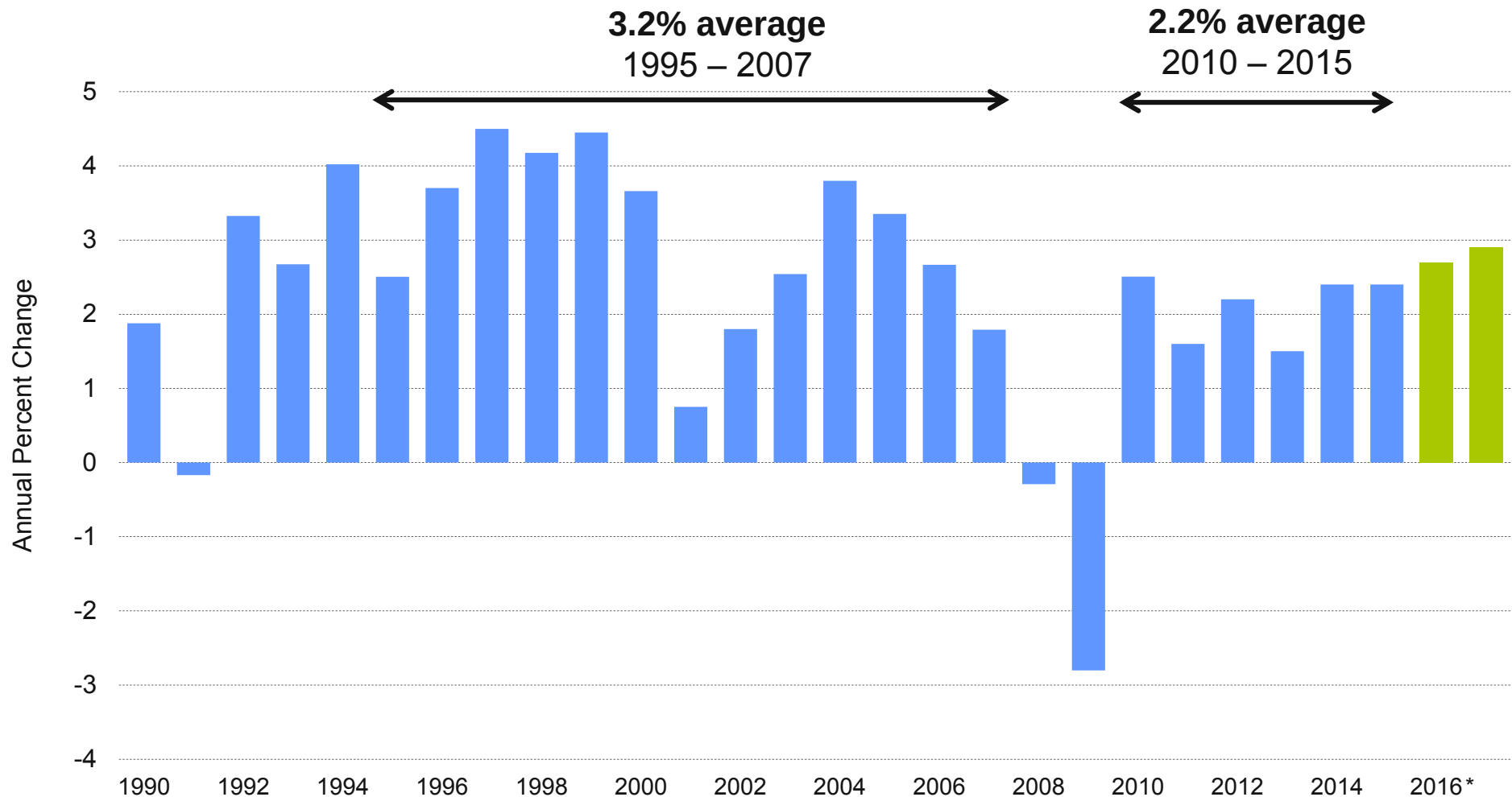


Labor Force Statistics from the Current Population Survey

2015 (Seasonally Adj.)	December	November	October	September
Employment Level (thousands)	149,929	149,444	149,197	148,942
Unemployment Level (thousands)	7,904	7,924	7,899	7,925
Civilian Labor Force Level (thousands)	157,833	157,367	157,096	156,867
Unemployment Rate	5.0%	5.0%	5.0%	5.1%
Labor Force Participation Rate	62.6%	62.5%	62.5%	62.4%

U.S GDP Growth on a Slower Trajectory

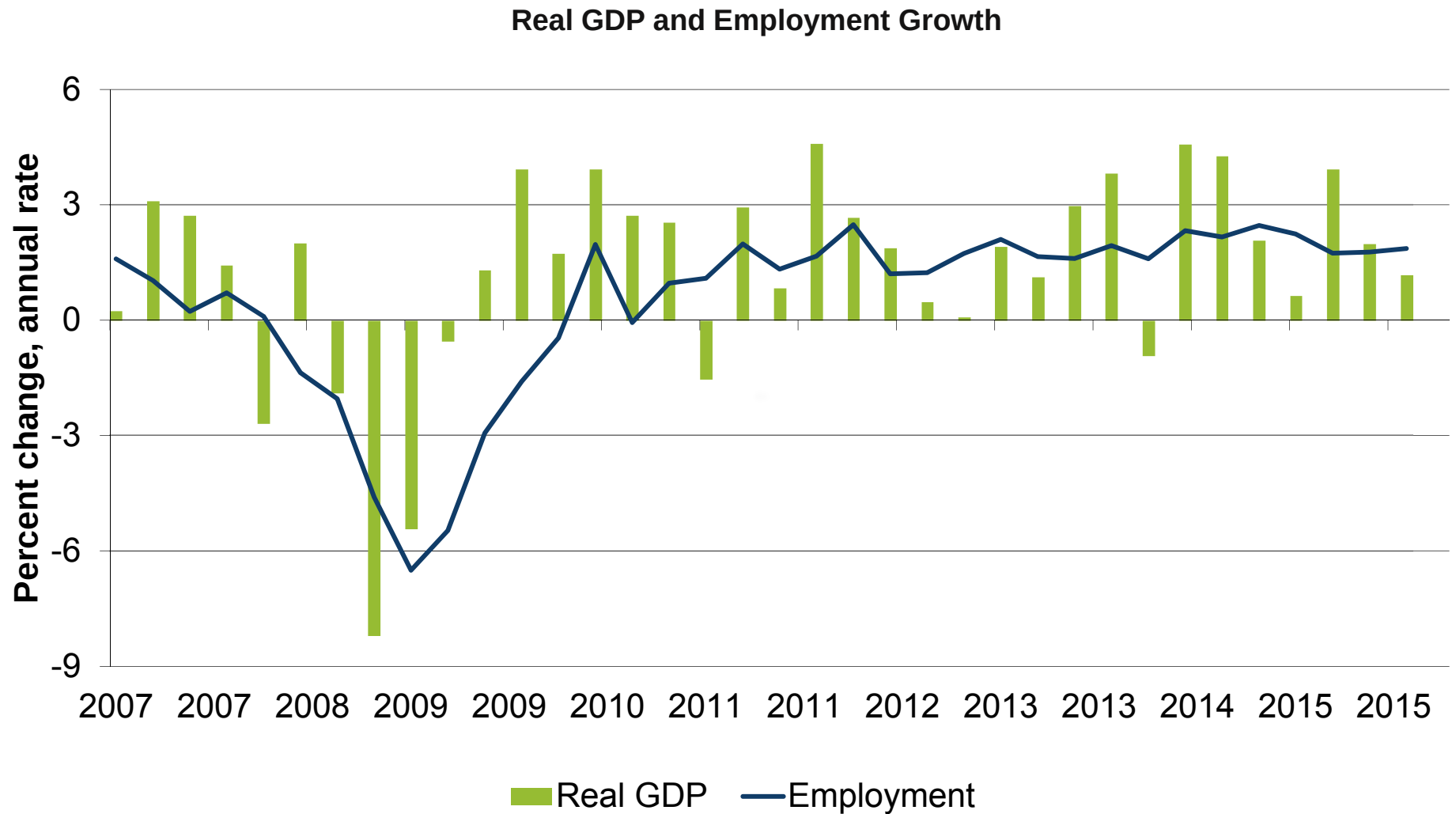
Real GDP Growth



* 2016-17 forecast – IHS Global Insight

Source: IHS

Job Market Gains Have Been Steadier Than Real GDP Growth

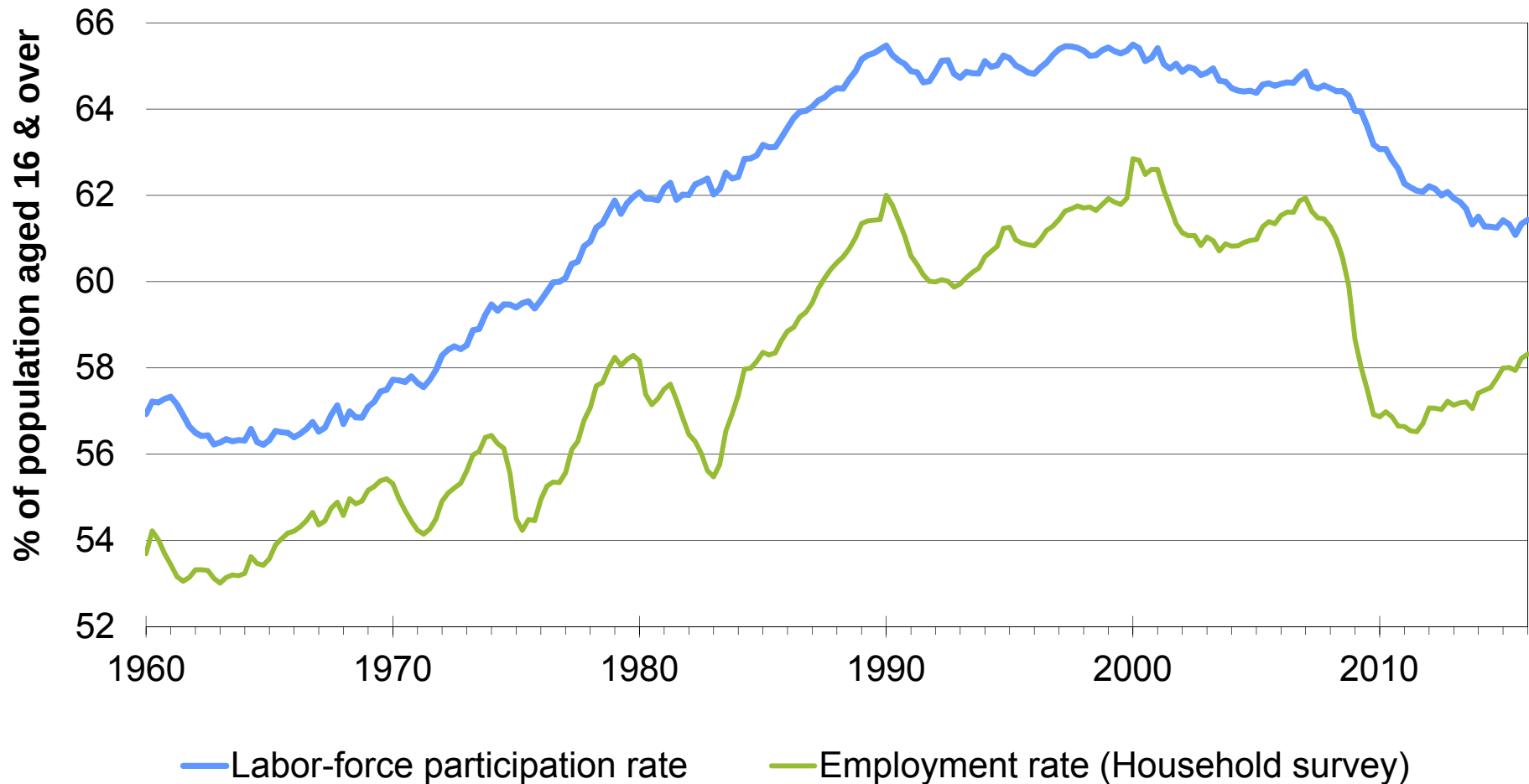


Source: IHS

Labor-Force Participation and Employment Rates Suppressed

Aging of the Baby Boomers Keep Rates Below Pre-Recession Levels

Labor Force Participation and Employment Rates



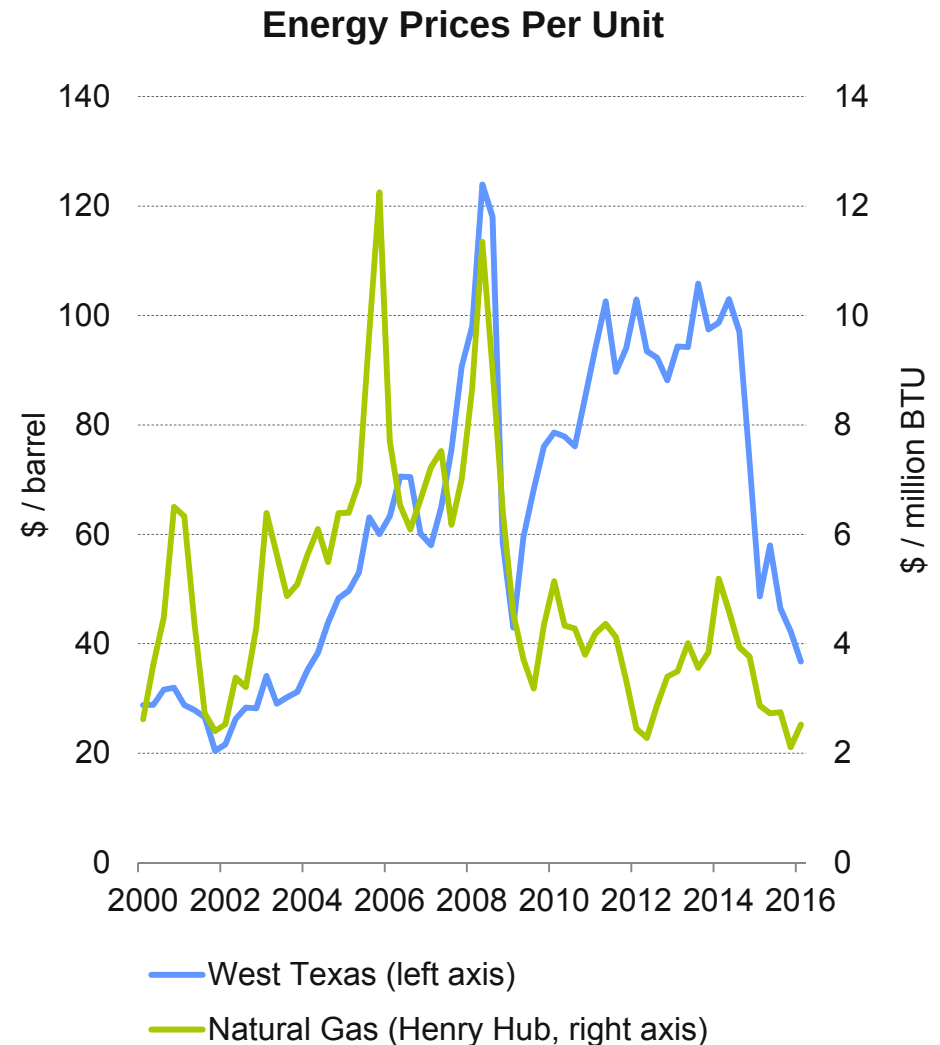
Source: IHS

Oil Price Plunge Continues

End of the Energy Super-Cycle

Impact of a drop in oil prices from \$112 per barrel in June 2014 to below \$40:

- Most from redeployed consumer spending, particularly to lower- and middle-income households
- Additional effects from improved consumer sentiment and reduced business costs
- Includes offsetting impact of reduced drilling investment and increased imports
- Economic benefits not linear as additional declines in prices have triggered disproportionate production impact



Source: Global Insight

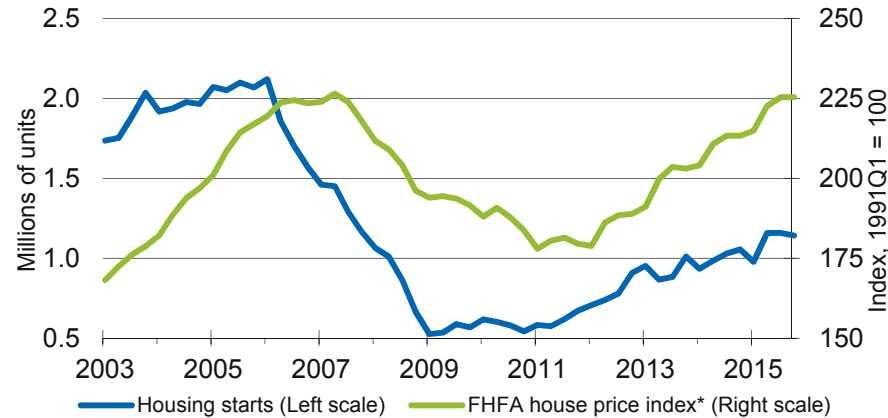
Markets, Not OPEC, Will Determine Energy Prices

- OPEC's December 2015 meeting made it clear there will be no cuts in production and market forces will determine prices.
- Elevated OPEC production will lead to a further buildup of global oil stocks in the first half of 2016, keeping prices weak.
- As sanctions end, Iran's oil exports are assumed to increase 400,000 barrels/day by the end of 2016, but the amount is highly uncertain.
- Global oil demand growth will slow from the strong 2015 increase of 1.7 million barrels/day (MMb/d), but remain above 1.0 MMb/d.
- Low prices will drive down non-OPEC production (primarily US shale oil) through mid-2016, leading to a roughly balanced global market.
- Reduced production costs and increased productivity in oil continue to push break-even prices lower, limiting upside price risks.
- Gas inventories are very high, keeping prices low through 2016.
- The first liquefied natural gas (LNG) exports from the US lower-48 states are set to begin in late January.

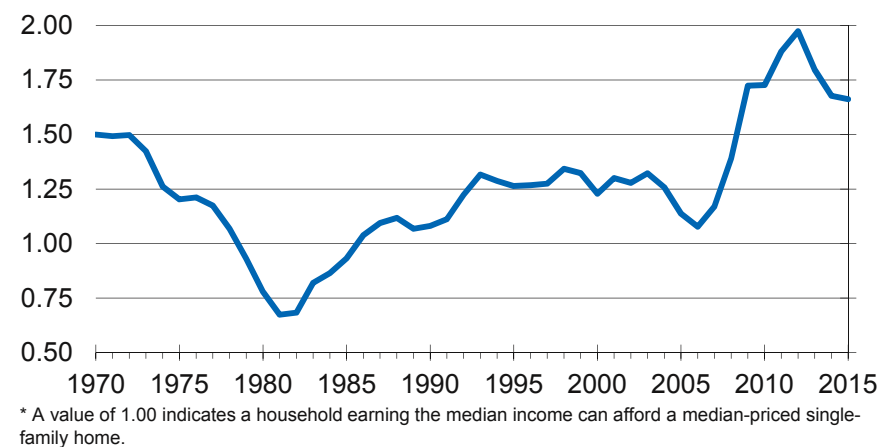
Single-Family Housing Improving, But Slowly

Sales and Starts Well Below Pre-Recession Levels; Affordability Eroding

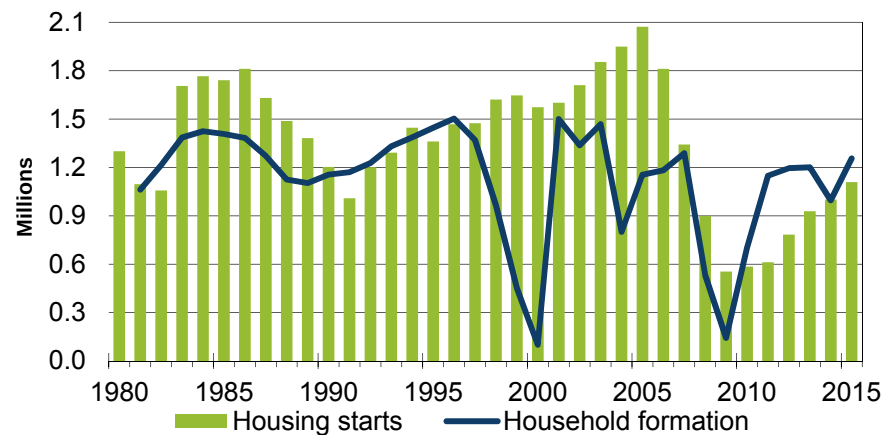
Housing Starts and Home Prices



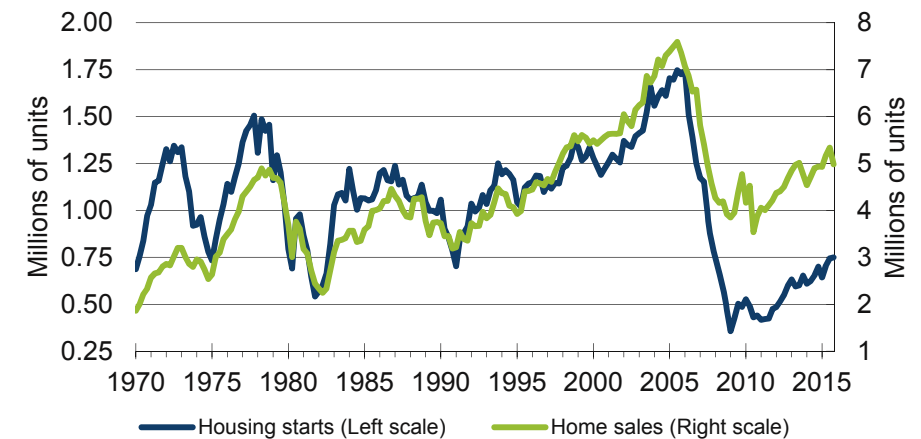
Home Price Affordability Index*



Housing Starts and Household Formation



Single Family Housing Starts and Sales



Source: IHS

U.S. Economic Growth by Sector

Annual Percentage Change

	12/31/2006 Share of GDP	12/31/2014 Share of GDP	2007	2008	2009	2010	2011	2012	2013	2014	2015	Direction of Change
Real GDP	100.0%	100.0%	1.8	-0.3	-2.8	2.5	1.6	2.2	1.5	2.4	2.4	Stable above 2% (reaching for 3%?)
Consumption	67.2%	68.2%	2.2	-0.3	-1.6	1.9	2.3	1.5	1.7	2.7	3.1	Back above GDP growth
Residential Investment	5.5%	3.1%	-18.8	-24.0	-21.2	-2.5	0.5	13.5	9.5	1.8	8.6	Recovered in 2015
Bus Fixed Investment	12.6%	13.1%	5.9	-0.7	-15.6	2.5	7.7	9.0	3.0	6.2	3.4	Healthy growth slowed in 2015
Federal Government	7.3%	7.0%	1.7	6.8	5.7	4.3	-2.7	-1.9	-5.7	-2.4	-0.4	End of stimulus
State & Local Government	12.4%	11.0%	1.5	0.3	1.6	-2.7	-3.3	-1.9	-1.0	0.6	1.5	Modest gains as economy improves
Exports	10.3%	13.0%	9.3	5.7	-8.8	11.9	6.9	3.4	2.8	3.4	1.0	Weakened by strong \$
Imports	15.7%	15.7%	2.5	-2.6	-13.7	12.7	5.5	2.2	1.1	3.8	5.0	Consumption improving plus strong \$

- Recovery has been modest by historical standards. U.S. GDP suffered a hiccup in first quarters of 2014 and 2015, but regained momentum as each year progressed.
- Housing market found a bottom, and new home construction surged following a slump in 2014. Consumer spending moved back into a driving force as the job market solidified and consumer wealth rebounds. Housing remains challenged by demographics.
- Government spending as a percent of GDP peaked in 2011, receded in 2012-14 without further stimulus.
- Note: Imports are a negative number in the calculation of GDP.

Source: IHS Global Insight and Callan

Gradual Acceleration in the Global Economy Still in the Cards

- The world economy remains in low gear; only a modest pickup in growth is expected in 2016.
- Eurozone growth will improve slightly, aided by monetary stimulus, currency depreciation, and pent-up demand.
- China's economic growth will slow further in 2016 because of imbalances in credit, housing, and industrial markets, and the evolution of its economy from building things to buying things, from massive investment to consumption.
- The plunge in materials prices across the commodity complex is restraining growth in the commodity-exporting countries of the Americas, Africa, and Asia-Pacific.
- Prospects for emerging markets will depend in part on structural reforms that raise productivity and allocate capital more efficiently.
- Geopolitical risks abound, threatening both sentiment and actual economics.

Summary of Economic Analysis

Return to More Normal Economic Conditions

- Economic growth has been subdued in the wake of the Global Financial Crisis
- Geographically dispersed signs of solid economic growth
 - Growth rates in the U.S. and the UK have rebounded strongly
 - Emerging markets growth slowing to “less high” rates
 - Monetary stimulus in Europe and Japan has already shown fruit
 - *U.S. policies ultimately seem to have been successful*
 - *Geopolitical uncertainty weighing on Europe (Syrian refugees, Russia and its interaction with neighbors)*
- Inflation will remain muted (but positive) given spare productive capacity, energy & commodities
 - Labor and capital still underutilized
 - Wage expectations anchored at low levels
 - Energy and raw materials prices suppressed and unlikely to accelerate quickly
- U.S. finally embarked on a path to increase interest rates, countercyclical to other developed economies and just as the capital markets grew jittery, ostensibly over China
- U.S. Forecasts: Real GDP Growth = 2.5 - 3%, Inflation = 2.25%
- Non-U.S. Forecasts: Developed Real GDP Growth = 2%, Inflation = 2%
- Emerging Markets Forecasts: Real GDP Growth = 5%, Inflation = 5%



APPENDIX

Callan's 2016 Capital Market
Expectations

Why Make Capital Market Projections?

Guiding Objectives

- Cornerstones of strategic planning—expectations and time horizon.
- Projections represent our best thinking regarding the long-term (5- to 10-year) outlook, recognizing our median projections represent the midpoint of a range, rather than a specific number.
- Develop results that are readily defensible both for individual asset classes and for total portfolios.
- Be conscious of the level of change suggested in strategic allocations for long-term investors: DC participants, wealthy families, DB plan sponsors, foundations, endowments, and trusts.
- Reflect common sense and recent market developments.
- Balance conflicting goals and conflicting opinions.

How are Capital Market Projections Constructed?

- Annual Process to update 10-Year Projections
 - Evaluate current environment and economic outlook
 - Examine relations between economy and historical asset class performance
 - Create 10-year risk, return, and correlation projections
 - Test projections for reasonable results
- Cover Most Broad Asset Classes and Inflation
 - Broad Domestic Equity
 - *Large Cap*
 - *Small Cap*
 - International Equity
 - *Developed Markets*
 - *Emerging Markets*
 - Domestic Fixed Income
 - International Fixed Income
 - Real Estate
 - Alternative Investments
 - Cash
 - Inflation
- Incorporates both advanced quantitative modeling as well as qualitative feedback and expertise of Callan consulting professionals.

Themes Explored in Setting the 2016 Expectations

- Despite sideways capital markets during 2015, most asset classes appear to be at least fairly valued or overpriced.
- Things were looking up for the economy as 2015 progressed, but market sentiment turned back sharply, twice (mid year and as the year ended). Is this pessimism warranted?
 - Current U.S. economic data and the outlook are positive, but long-term growth expectations are lower.
 - Anemic growth and the fear of deflation hang over Europe and Japan, yet both regions show positive response to continuing stimulus.
 - Emerging markets appear to be one of the few areas of the capital markets to show compelling value, both equity and debt. Is it time? Economic growth will be muted relative to past cycles, given weakness in developed ex-U.S. and reliance on commodities.
 - China, now the second largest economy, is adjusting to slower growth, with attendant volatility.
- How far can yields in the U.S. rise?
 - Stimulus in Europe and elsewhere has led to even lower yields overseas; U.S. yields even more attractive.
 - Market is debating how long the Fed will take to raise rates, and how high they can go. Divergent economic progress and rate policies between U.S. and other central banks challenge U.S. policy effectiveness.
 - Do rising rates doom the return expectations for fixed income?
- Are Non-U.S. equity markets poised to rebound, or will they continue to re-price to reflect weakening expectations?
- Are low oil prices good or bad? Is prolonged distress in the commodity complex cause for concern?
- Sharp contrast remains between a long term, strategic vision for an investor (10+ years), the short term (1-3 years) reality, and the path from the current conditions to the long term expectations.

The Capital Markets at January 2016

U.S. and Global Capital Markets Rattled by Investor Uncertainty

- Results for 2015 show impact of increased investor uncertainty, as volatility returned to the equity markets. Underlying economic data remain positive, and tell a story of persistent modest growth in the U.S. and recovery in Europe. Emerging markets continue to suffer.
- Five-year US equity returns through 2015 are very strong, driven by 2012-14. Ten-year returns no longer include the 2000 – 2002 downturn, nor the robust 2003-04 results. Fifteen-year equity returns are still below long-run averages, and are equal to those of fixed income.

	2010	2011	2012	2013	2014	2015	Average Annual Returns for periods ended 12.31.2015		
							5 Years	10 Years	15 Years
Broad U.S. Stock Market									
Russell 3000	16.93	1.03	16.42	33.55	12.56	0.48	12.18	7.35	5.39
Large Cap U.S. Stocks									
S&P 500	15.06	2.11	16.00	32.39	13.69	0.92	12.57	7.31	5.00
Small Cap U.S. Stocks									
Russell 2000	26.85	-4.18	16.35	38.82	4.89	-4.41	9.19	6.80	7.28
Non-U.S. Stock Markets									
MSCI EAFE US\$	7.75	-12.14	17.32	22.78	-4.90	-0.81	3.60	3.03	3.54
MSCI Emerging Markets	19.20	-18.17	18.63	-2.27	-1.82	-14.60	-4.47	3.95	8.87
Fixed Income									
Barclays Aggregate	6.54	7.84	4.21	-2.02	5.97	0.55	3.25	4.51	4.97
Barclays Gbl Agg ex USD	4.95	4.36	4.09	-3.08	-3.09	-6.02	-0.84	3.10	4.59
Barclays Long Gov/Credit	10.16	22.49	8.78	-8.83	19.31	-3.30	6.98	6.45	7.07
Real Estate									
NCREIF	13.11	14.26	10.54	10.98	11.82	13.52	12.22	7.77	8.97
Hedge Funds									
CS Hedge Fund Index	10.95	-2.52	7.67	9.73	4.13	-0.71	3.55	4.97	5.95
Private Equity									
Cambridge Private Equity*	19.46	11.00	13.33	22.13	12.75	7.10*	16.03*	12.65*	7.91*
Commodities									
Bloomberg Commodity	16.67	-13.37	-1.14	-9.58	-17.04	-24.70	-13.52	-7.49	-2.49
Cash Market									
90-Day T-Bill	0.13	0.10	0.11	0.07	0.03	0.05	0.07	1.24	1.61
Inflation									
CPI-U**	1.50	2.96	1.74	1.50	0.76	0.86	1.94	1.91	1.95

* Private equity data is time-weighted return series for periods ended 6.30.2015 rather than 12.31.2015 in select columns due to a reporting lag.

** CPI-U data are measured as year-over-year change through 12.31.2015.

Source: Callan Associates

2016 Capital Market Expectations

- **Broad market bond returns held at 3.0%.**

- We expect interest rates to rise, especially if the economy continues to expand and the Fed executes on its stated monetary policy. Bonds will suffer capital loss before higher yields kick in. We expect cash yields to move toward 2.5% and 10-year Treasury yields to reach 3.3% over the ten-year projection – a reversion to mean, but lower than the long run averages.
- Project an upward sloping yield curve, but a very slim risk premium for bonds over cash (0.75%).
- Cash returns held at 2.25%, reflecting an expected rise in Fed Funds rate.
- Longer duration returns raised, reflecting sharp reduction in yields in 2014.

- **Domestic Equity reduced to 7.35%, Non-U.S. Equity to 7.55%, both 25 bps reductions.**

- U.S. markets went sideways in 2015, but the U.S. economic outlook is more muted; fundamentals remain reasonable.
- Building equity returns from long-term fundamentals, we can build an expectation to just shy of 7.5%:
 - 2.5-3.0% real GDP growth, which means roughly 4.75-5.25% nominal earnings growth,
 - 2.5 % dividend yield,
 - Expect something more from return on free cash flow, besides dividends (The “buyback yield” has been exceptional, one good use of all that cash), perhaps 50-100 bps,
 - Small premium for Non-U.S. over Domestic, largely due to Emerging Markets.

- **Real Estate return held to 6.0%.**

- Reflects downward pressure on income returns at 4-5% with increased competition for investment.
- Asset class eyed by those hungering for yield.

- **Hedge Fund return held at 5.25%**

- Expectations of T-bill plus 3%.

2016 Capital Market Expectations—Return and Risk

Summary of Callan's Long-Term Capital Market Projections (2016 – 2025)

Asset Class	Index	PROJECTED RETURN			PROJECTED RISK			2015 - 2024		Geometric* Delta
		1-Year Arithmetic	10-Year Geometric*	Real	Standard Deviation	Sharpe Ratio	Projected Yield	10-Year Geometric*	Standard Deviation	
Equities										
Broad Domestic Equity	Russell 3000	8.85%	7.35%	5.10%	18.70%	0.353	2.40%	7.60%	19.00%	-0.25%
Large Cap	S&P 500	8.60%	7.25%	5.00%	17.75%	0.354	2.50%	7.50%	18.30%	-0.25%
Small/Mid Cap	Russell 2500	9.85%	7.55%	5.30%	22.75%	0.334	1.90%	7.85%	22.95%	-0.30%
Global ex-U.S. Equity	MSCI ACWI ex USA	9.55%	7.55%	5.30%	21.30%	0.343	2.70%	7.80%	21.45%	-0.25%
International Equity	MSCI World ex USA	9.00%	7.25%	5.00%	20.05%	0.337	3.00%	7.50%	20.20%	-0.25%
Emerging Markets Equity	MSCI Emerging Markets	11.15%	7.60%	5.35%	27.85%	0.320	1.70%	7.90%	27.95%	-0.30%
Fixed Income										
Short Duration	Barclays G/C 1-3	2.60%	2.60%	0.35%	2.25%	0.156	2.80%	2.40%	2.25%	0.20%
Domestic Fixed	Barclays Aggregate	3.05%	3.00%	0.75%	3.75%	0.213	4.60%	3.00%	3.75%	0.00%
Long Duration	Barclays Long G/C	4.30%	3.70%	1.65%	11.40%	0.197	5.30%	3.20%	11.40%	0.50%
TIPS	Barclays TIPS	3.10%	3.00%	0.75%	5.30%	0.160	4.20%	3.00%	5.30%	0.00%
High Yield	Barclays High Yield	5.40%	5.00%	2.75%	10.50%	0.300	8.00%	5.00%	11.10%	0.00%
Non-U.S. Fixed	Barclays Global Aggregate ex US	1.80%	1.40%	-0.85%	9.20%	-0.049	4.00%	2.30%	9.40%	-0.90%
Emerging Market Debt	EMBI Global Diversified	5.00%	4.60%	2.35%	9.90%	0.278	6.50%	4.70%	10.00%	-0.10%
Other										
Real Estate	Callan Real Estate	7.20%	6.00%	3.75%	16.45%	0.301	5.00%	6.15%	16.50%	-0.15%
Private Equity	TR Post Venture Cap	13.15%	8.15%	5.90%	32.80%	0.322	0.00%	8.50%	33.05%	-0.35%
Hedge Funds	Callan Hedge FOF Database	5.55%	5.25%	3.00%	9.30%	0.355	2.25%	5.25%	9.30%	0.00%
Commodities	Bloomberg Commodity	4.40%	2.75%	0.50%	18.50%	0.116	2.25%	2.75%	18.50%	0.00%
Cash Equivalents	90-Day T-Bill	2.25%	2.25%	0.00%	0.90%	0.000	2.25%	2.25%	0.90%	0.00%
Inflation	CPI-U		2.25%		1.50%			2.25%	1.50%	0.00%

* Geometric returns are derived from arithmetic returns and the associated risk (standard deviation).

Source: Callan Associates

2016 Capital Market Expectations—Correlation Coefficient Matrix

Key to Constructing Efficient Portfolios

Broad US Equity	1.000																			
Large Cap	0.997	1.000																		
Small/Mid Cap	0.965	0.940	1.000																	
Global ex-US Equity	0.882	0.879	0.853	1.000																
Non-US Equity	0.852	0.850	0.820	0.986	1.000															
Em Mkts Equity	0.861	0.855	0.840	0.933	0.860	1.000														
Defensive	-0.240	-0.230	-0.260	-0.254	-0.230	-0.280	1.000													
US Fixed	-0.108	-0.100	-0.130	-0.123	-0.105	-0.150	0.870	1.000												
Long Duration	0.136	0.138	0.121	0.106	0.119	0.069	0.681	0.924	1.000											
TIPS	-0.050	-0.045	-0.065	-0.053	-0.045	-0.065	0.530	0.580	0.527	1.000										
High Yield	0.640	0.640	0.610	0.629	0.610	0.610	-0.170	0.020	0.220	0.060	1.000									
Non-US Fixed	0.014	0.050	-0.100	0.013	0.060	-0.090	0.480	0.510	0.542	0.340	0.120	1.000								
Em Mkt Debt	0.579	0.580	0.550	0.550	0.530	0.540	-0.120	0.030	0.159	0.150	0.600	0.010	1.000							
Real Estate	0.735	0.730	0.715	0.669	0.650	0.645	-0.140	-0.020	0.188	0.005	0.560	-0.050	0.450	1.000						
Private Equity	0.948	0.945	0.915	0.934	0.905	0.905	-0.240	-0.190	0.062	-0.100	0.640	-0.060	0.560	0.710	1.000					
Hedge Funds	0.797	0.795	0.765	0.760	0.735	0.740	-0.120	0.080	0.303	0.055	0.570	-0.080	0.540	0.600	0.770	1.000				
Commodities	0.167	0.165	0.165	0.177	0.170	0.175	-0.220	-0.120	-0.045	0.100	0.100	0.050	0.190	0.200	0.180	0.210	1.000			
Cash Equivalents	-0.043	-0.030	-0.080	-0.040	-0.010	-0.100	0.300	0.100	-0.049	0.070	-0.110	-0.090	-0.070	-0.060	0.000	-0.070	0.070	1.000		
Inflation	-0.011	-0.020	0.020	0.010	0.000	0.030	-0.200	-0.280	-0.284	0.180	0.070	-0.150	0.000	0.100	0.000	0.200	0.400	0.000	1.000	
	Broad US Eq	Large Cap	Sm/Mid Cap	Global ex-US	Non-US Equity	Em Mkt Eq	Defens	US Fixed	Long Duration	TIPS	High Yield	Non-US Fixed	Em Mkt Debt	Real Estate	Private Equity	Hedge Funds	Comm	Cash Equiv	Inflation	

- Relationships between asset classes is as important as standard deviation.
- To determine portfolio mixes, Callan employs mean-variance optimization.
- Return, standard deviation and correlation determine the composition of efficient asset mixes.

Source: Callan Associates

Long-Term Vision and Short-Term Reality

- Greatest danger—Investors will take on additional risk to compensate for capital market returns that are likely to be below historical averages. We do not believe investors are likely to be compensated for such risk taking in the shorter term.
- Fixed income is a conundrum for investors. No other investment offers the same anchor to windward and protection in a flight to quality. Yet current yields and the prospect for rising rates spell dismal total returns.
- Stocks appear to be the best spot in the capital markets given the current environment, but are not without substantial risk.
- Other strategies to manage risk:
 - Active management in equity and fixed income to take advantage of opportunities and protect in a volatile environment.
 - Global opportunities in equity and debt; yields, currency.
 - Absolute return strategies to hedge market risk, both long-only and hedged.

ALASKA PERMANENT FUND CORPORATION

SUBJECT: Risk Dashboard

ACTION: _____

DATE: February 23, 2016

INFORMATION: X

BACKGROUND:

The Risk and Performance Dashboard provides a snapshot of the current asset allocation and a framework with statistics for measuring risks according to modern portfolio theory.

STATUS:

At this meeting staff will present some of the key elements of the Risk and Performance Dashboard. The graphical presentation of the Corporation's key risk measures include statistics that measure dollar allocation risk, specific risks, performance reporting, absolute risk, total risk, contribution to risk, tracking error, risk scenarios, stress tests, and value at risk. All these measures are set in the Investment Policy Manual as risk guidelines that staff must monitor.

Staff will also break down the performance of the Fund by showing detailed information on separate mandates.

Portfolio Overview Risk and Asset Allocation

Valeria Martinez and Jim Parise
February 23, 2016



Alaska Permanent Fund Corporation

Overview

- Risk Dashboard Evolution
- Performance
- Risk
- Dollar Allocation
- Liquidity
- Fees



Risk Process

- Prior to 2009, risk was measured and managed by portfolio managers at the individual asset class level
- There was not a risk management process to manage risk at the Fund level
- Segregated reporting for market value exposures, very little risk exposure reporting
- The goal was to establish a total fund wide risk management process to allocate, measure and manage risks.



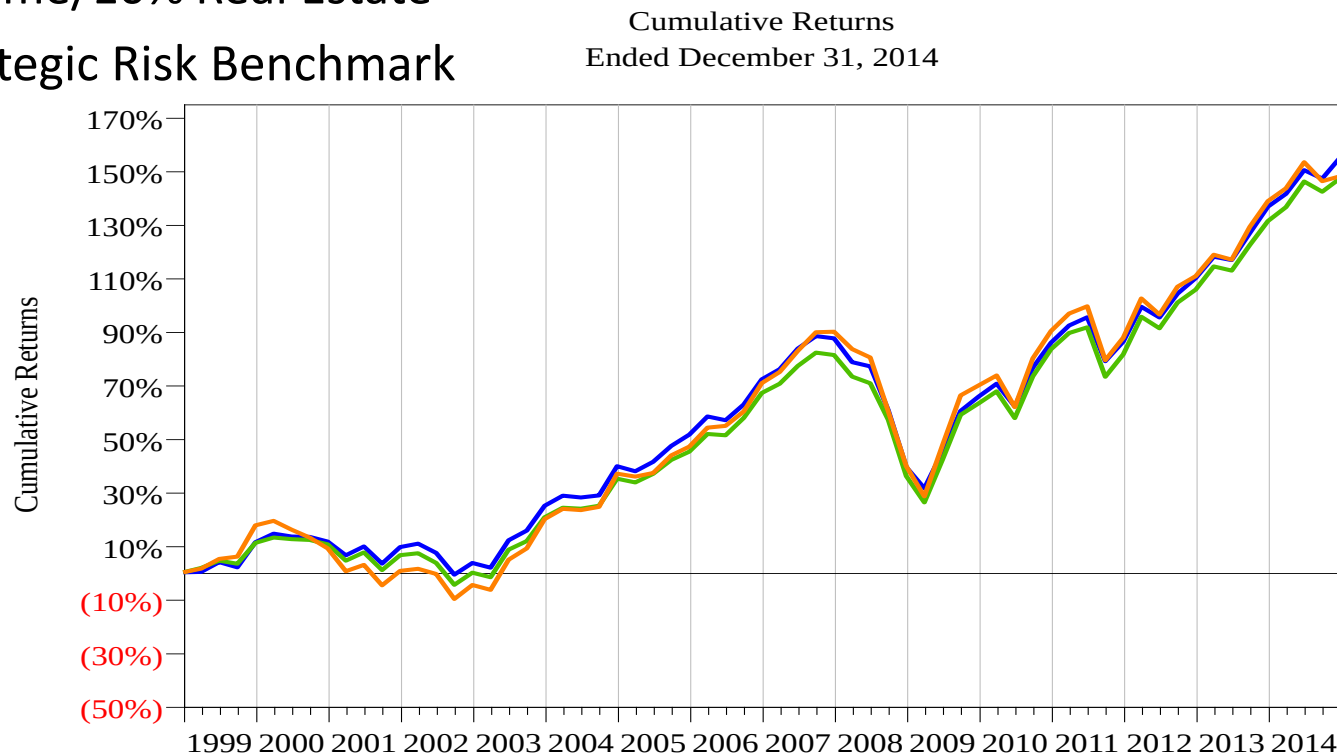
Risk Management Blue Print – Presented in 2009

- Risk Plan
 - Establish risk limits and return objective
 - Define how risk capital will be deployed
 - Identify critical dependencies internal and external
 - It's imperative to monitor risks from several points of view and models, there is no silver bullet!
- Applications for Risk Management
 - Passive: information reporting on aggregate risk
 - Defensive: controlling risk through limits
 - Active: managing risk through capital allocation



Definition of Benchmarks--presented in 2014

- The importance of benchmarks
- The Performance Benchmark: 60% Global Stocks/30% Global Fixed Income/10% Real Estate
- Strategic Risk Benchmark



Risk Dashboard Evolution

Standard Risk Measures

Traditional approach to Asset Allocation risk
Alternative approach by economic environment
Introduction of Risk buckets
Geographic and Currency Exposure
Introduction of Risk Benchmark
Definition of risk guidelines
VaR and Tracking Error
Standard Scenario Analysis and Stress tests
Fund Performance

Extended Measures of Risk

Expanded stress testing
Expanded Scenario analysis
Portfolio risk decomposition
Leverage at the plan level and for each asset class
Performance for each mandate
Adjustment of risk benchmark to include new assets and weights

Fees and Performance

Fees paid for strategies
Performance attribution for quarter, year, 3 years
Private investments transparency
Basic Liquidity needs
[Sector Concentration](#)
[Style Concentration](#)
[Liquidity profile and plan](#)
[Currency Risk/Hedging](#)



Summary

- Risk Management is the cornerstone of the investment process, it answer the basic questions a fiduciary must ask.
- Performance evaluation is critical to understand if your investment process is working.
- Risk management at the Fund level has evolved to include measuring, monitoring and management of risk using several measures of risk
- The dashboard, available to the team and Board, has expanded over the years to provide more transparency about the risks taken within different asset classes, performance of investments, and fees paid.

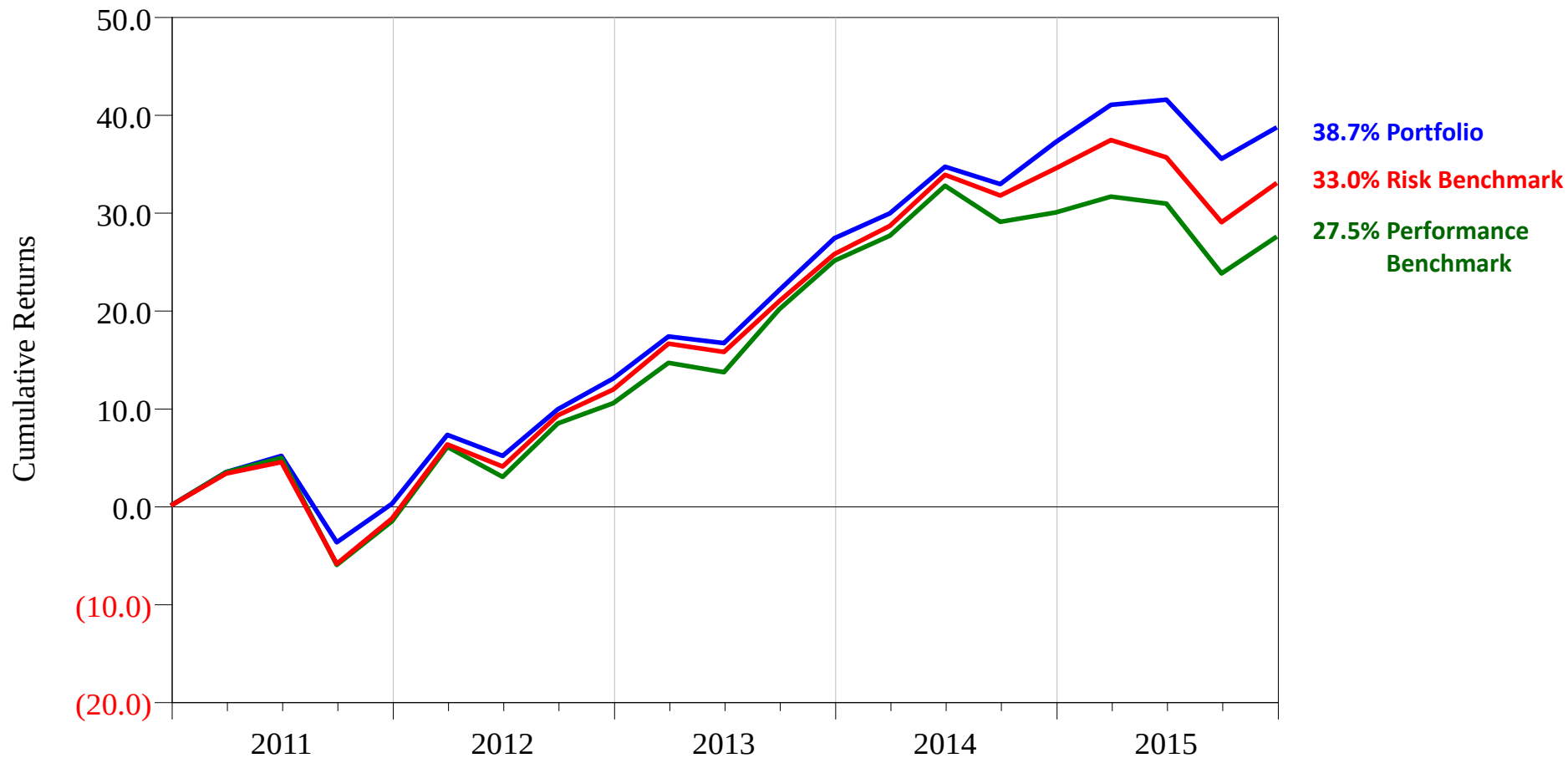


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Cumulative Returns for 5 Years Ended December 31, 2015



Strategic Risk Benchmark: 10% Cash & Interest Rates, 52.5% Company Exposure, 17.5% Real Assets, 20% Special Opportunities

Performance Benchmark: 60% MSCI ACWI IMI, 30% Barclays Global Aggregate, 5% MSCI US REIT, 5% 3-month T-Bills

Source: Callan PEP



Returns in % for selected Periods as of December 31, 2015

Period	Portfolio	Strategic Risk Benchmark	Spread (Portfolio-Benchmark)	Cumulative Spread
1 QTR 2015	2.77	2.16	+ 61 bps	+ 61 bps
2 QTR 2015	0.37	-1.28	+ 165 bps	+ 226 bps
3 QTR 2015	-4.27	-4.89	+ 62 bps	+ 288 bps
4 QTR 2015	2.38	3.10	-72bps	+ 216 bps
1 year	1.10	-1.10	+ 220 bps	~\$1 Billion value add

Period	Portfolio	Performance BM (60/30/10)	Spread (Portfolio-Benchmark)	Cumulative Spread
1 QTR 2015	2.77	1.26	+ 151 bps	+ 151 bps
2 QTR 2015	0.37	-0.56	+ 93 bps	+ 244 bps
3 QTR 2015	-4.27	-5.45	+ 118 bps	+ 362 bps
4 QTR 2015	2.38	3.05	- 67 bps	+ 295 bps
1 year	1.10	-1.89	+ 299 bps	~\$1.4 Billion value add

Strategic Risk Benchmark: 12.5% Cash & Interest Rates, 65.6% Company Exposure, 21.9% Real Assets

Performance Benchmark: 60% MSCI ACWI IMI, 30% Barclays Global Aggregate, 5% MSCI US REITs, 5% 3-month T-Bills

Preliminary Performance as of 12/31/15. Differences due to compounding and rounding

Source: Callan PEP



Fund vs. Risk Benchmark 1 yr

1 year ended 12/15	Portfolio Weight	Portfolio Return	Benchmark Weight	Benchmark Return	Relative Contribution
Cash and Rates	6%	0.48%	10%	1.15%	- 9 bps
Company Exposure	59%	-0.75%	52.5%	-1.67%	+ 43 bps
Real Assets	17%	11.51%	17.5%	-1.22%	+ 217 bps
Special Opportunities	18%	-2.25%	20%	-1.10%	-19 bps
Total	100%	1.10%	100%	-1.10%	+ 220 bps

Preliminary Performance as of 12/31/15. Differences due to compounding and rounding weights

Source: Callan PEP



Longer Periods Returns as of 12/31/2015

	1 Year	3 Years	5 Years	10 Years	15 Years
Fund	1.10%	7.06%	6.76%	5.46%	5.74%
Performance BM	-1.89%	4.89%	5.05%	5.17%	5.50%
Strategic Risk BM	-1.10%	5.93%	5.86%	5.22%	5.28%

Source: Callan PEP

Preliminary Performance as of 12/31/15.



Cash and Rates as of 12/31/2015

Benchmark: 20% U.S. Government 3-month Treasury Bills, 64% Barclays Capital Global Aggregate Treasury (hedged), 16% Barclays Capital U.S. MBS

Current Allocation	5.8%
Target	6.0%
Under/Over	-0.2 pp

	Portfolio	Benchmark	Difference
Last Quarter	-0.22%	0.08%	-0.30%
Last Year	0.48%	1.15%	-0.67%
Three Years	1.03%	2.16%	-1.13%

	Equities	Fixed Income	Real Estate
Cash and Rates		- Cash - Mortgages - Global Treasuries	

Cash & Interest Rates (6%)



Preliminary Performance as of 12/31/15.

Source: Callan PEP



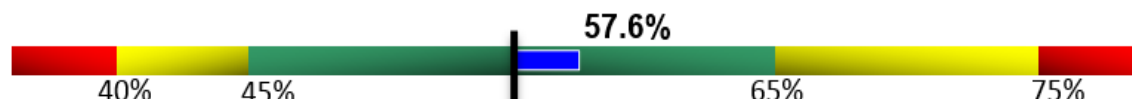
Company Exposure as of 12/31/2015

Benchmark: 20% Barclays Global Corporate Bond (hedged), 80% Morgan Stanley All Country Investable Market Equity

			Portfolio	Benchmark	Difference
Current Allocation	57.6%	Last Quarter	2.83%	3.96%	1.13%
Target	55.0%	Last Year	-0.75%	-1.67%	0.92%
Under/Over	+ 2.6 pp	Three Years	7.31%	6.84%	0.47%

	Equities	Fixed Income	Real Estate
Company Exposure	- Global Equity - Private Equity	- Credit - Mezzanine	

Company Exposure (55%)



Preliminary Performance as of 12/31/15.

Source: Callan PEP



Real Assets as of 12/31/2015

Benchmark: 35% 3-Month U.S. Treasury Bill, 35% MSCI US REIT, 20% FTSE Developed Core Infrastructure, 10% Barclays U.S. Treasury Inflation Protected Securities

			Portfolio	Benchmark	Difference
Current Allocation	18.5%	Last Quarter	3.15%	2.19%	0.96%
Target	19.0%	Last Year	11.51%	-1.22%	10.29%
Under/Over	- 0.5 pp	Three Years	9.49%	4.97%	4.52%

	Equities	Fixed Income	Real Estate
Real Assets		- Infrastructure - TIPS	- Public Real Estate - Private Real Estate

Real Assets (19%)



Preliminary Performance as of 12/31/15.

Source: Callan PEP



Special Opportunities as of 12/31/2015

Benchmark: 12.5% Cash and Interest Rates Benchmark, 65.6% Company Exposure Benchmark, 21.9% Real Assets Risk Benchmark

			Portfolio	Benchmark	Difference
Current Allocation	18.2%	Last Quarter	1.19%	3.10%	-1.91%
Target	20.0%	Last Year	-2.25%	-1.10%	3.35%
Under/Over	- 1.8 pp	Three Years	6.36%	5.78%	0.58%

	Equities	Fixed Income	Real Estate
Special Opportunities	- Real Return - EM Opportunities - True Special Opportunities	- FI Aggregate - EM Debt - Absolute Return	Real Estate Opportunities

Special Opportunities (20%)



Preliminary Performance as of 12/31/15.

Source: Callan PEP

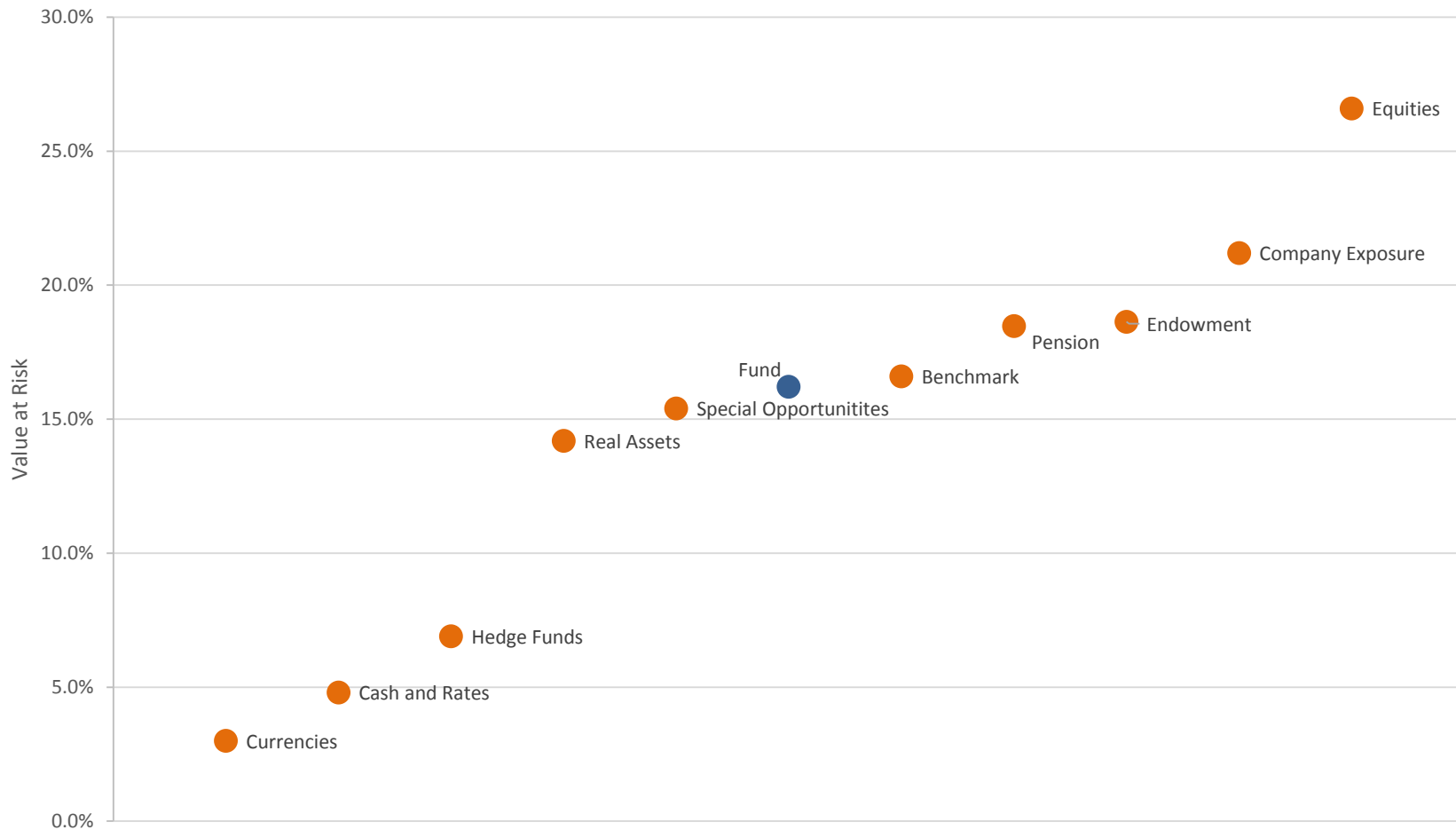


Overview

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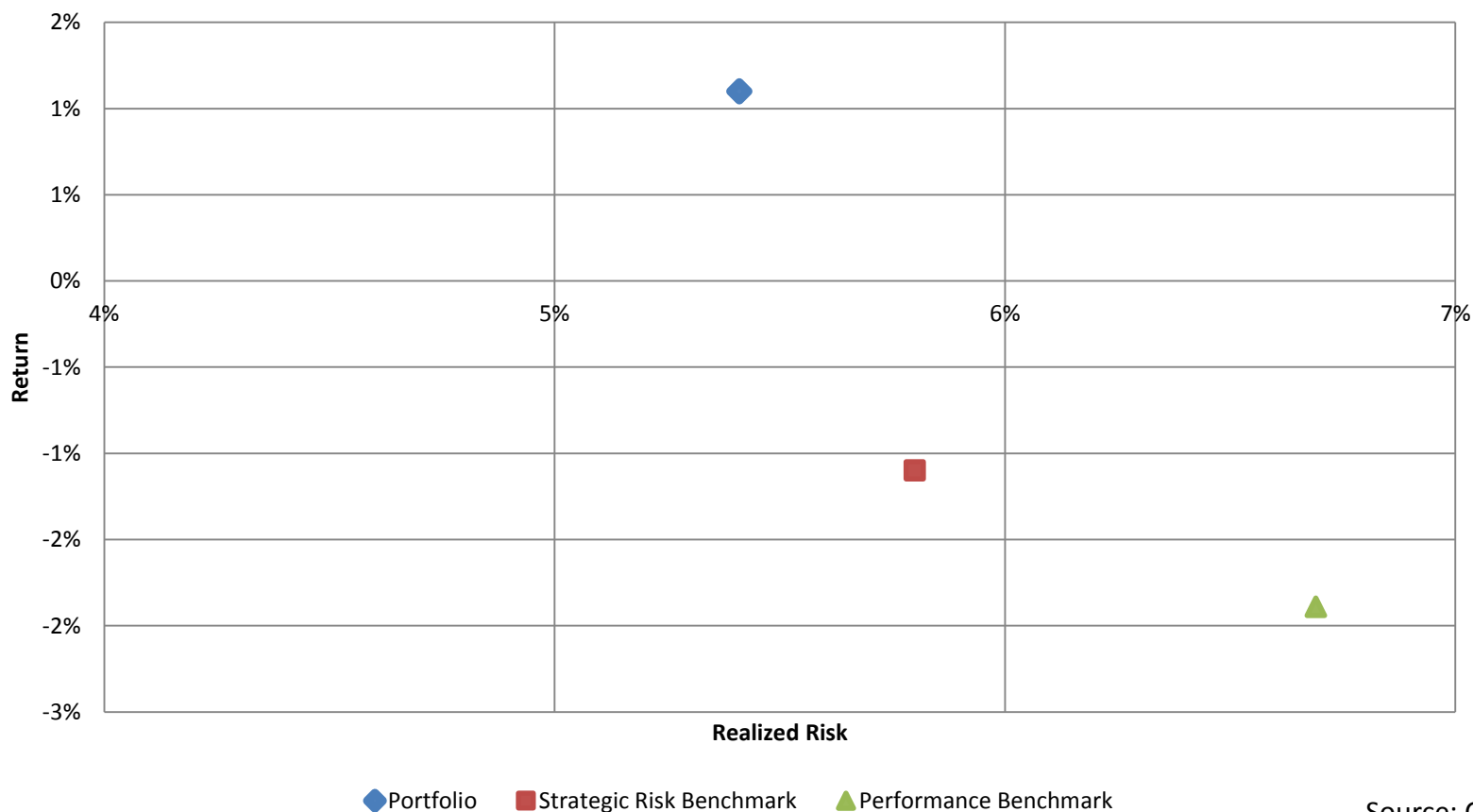


Fund Risk *as of 12/31/2015*



Portfolio Statistics

12-Months Ending December 31, 2015



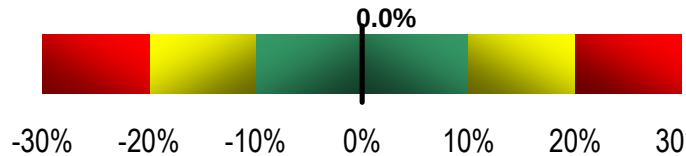
Strategic Risk Benchmark: 10% Cash & Interest Rates, 52.5% Company Exposure, 17.5% Real Assets, 20% Special Opportunities

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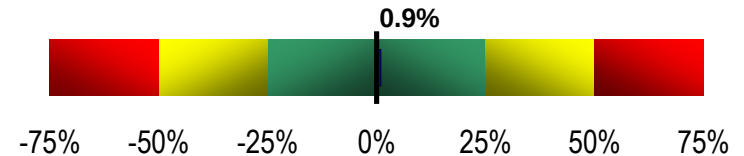


Relative Component to Risk, VaR *as of 12/31/2015*

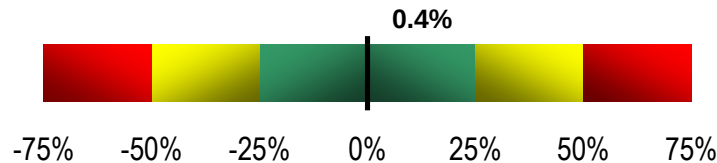
Portfolio



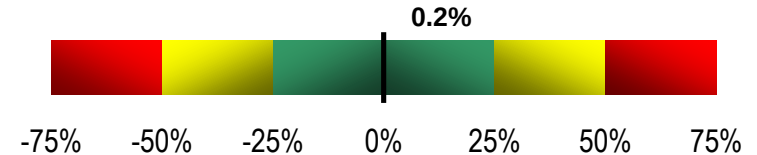
Company Exposure



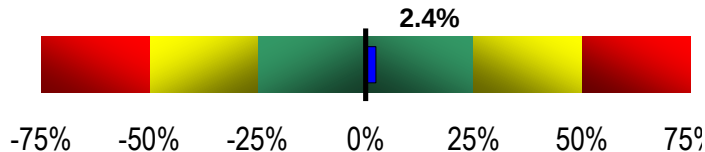
Cash & Interest Rates



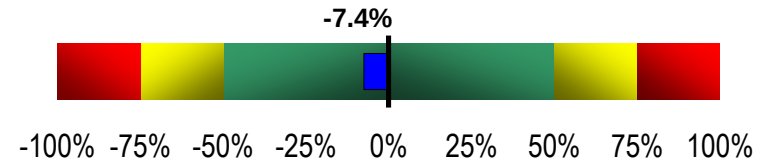
Equities



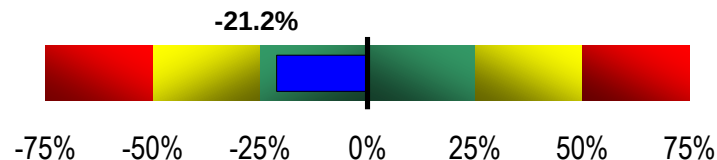
Real Assets



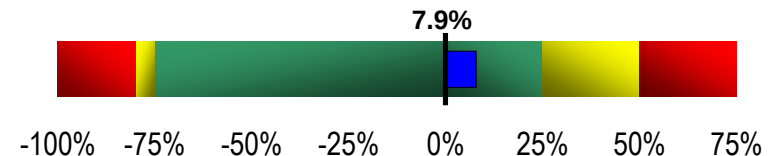
Credit



Currencies



Special Opportunities

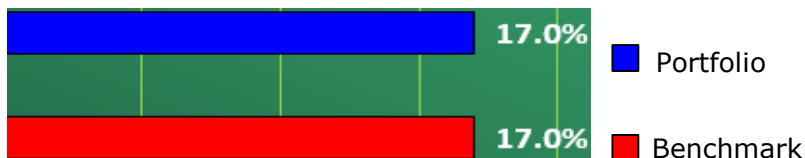


Source: MSCI Barra Analysis

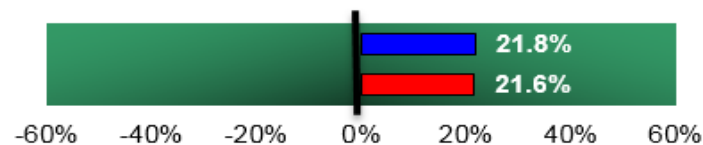


Absolute Risk, VaR at 97.5% *as of 12/31/2015*

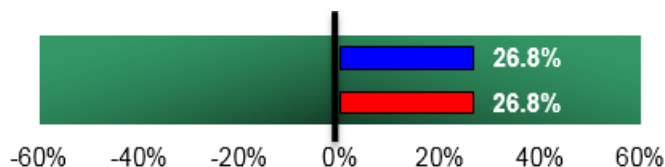
Portfolio



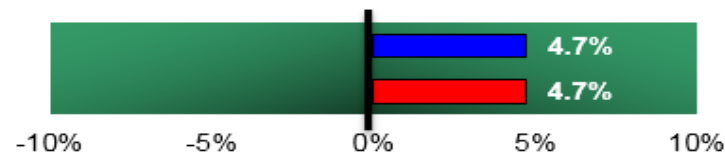
Company Exposure



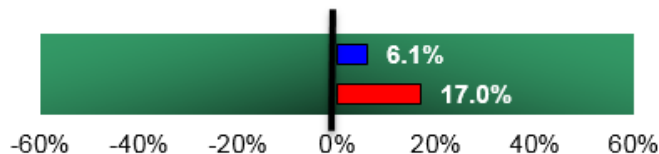
Equities



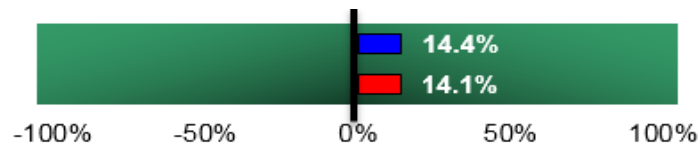
Cash & Interest Rates



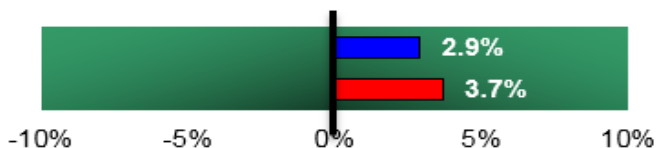
Hedge Funds



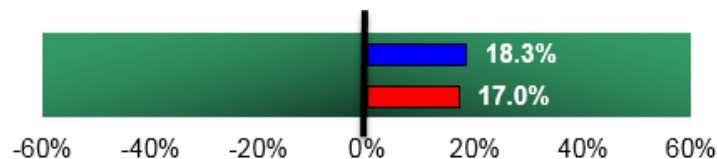
Real Assets



Currencies



Special Opportunities

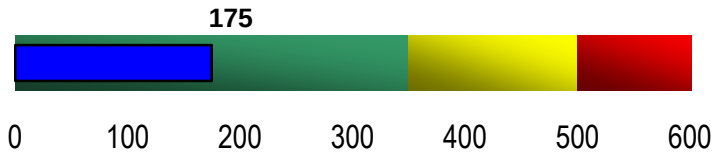


Source: MSCI Barra Analysis

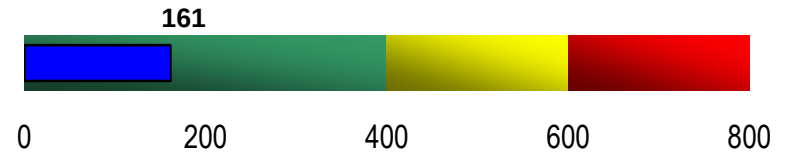


Tracking Error as of 12/31/2015

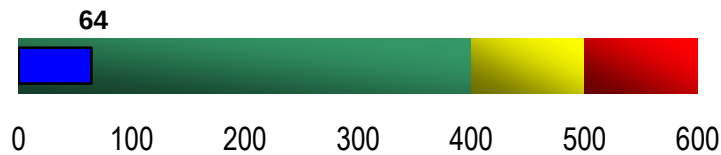
Portfolio



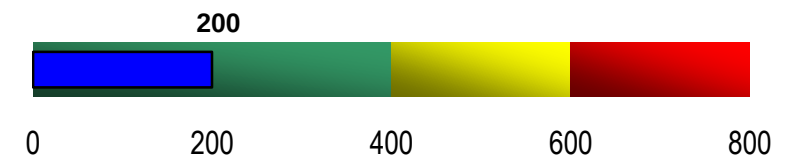
Company Exposure



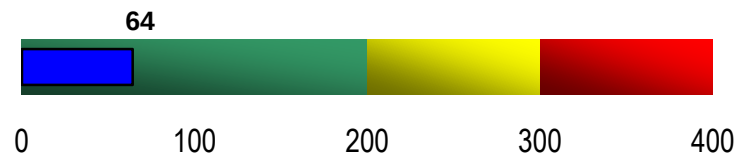
Cash & Interest Rates



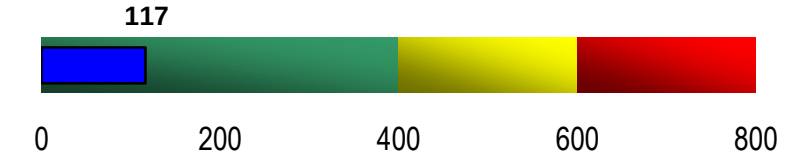
Equities



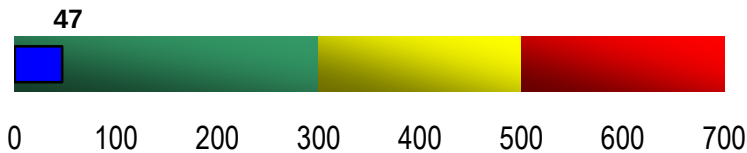
TIPS



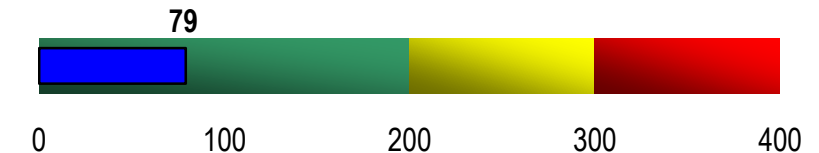
Credit



Currency



Investment Grade

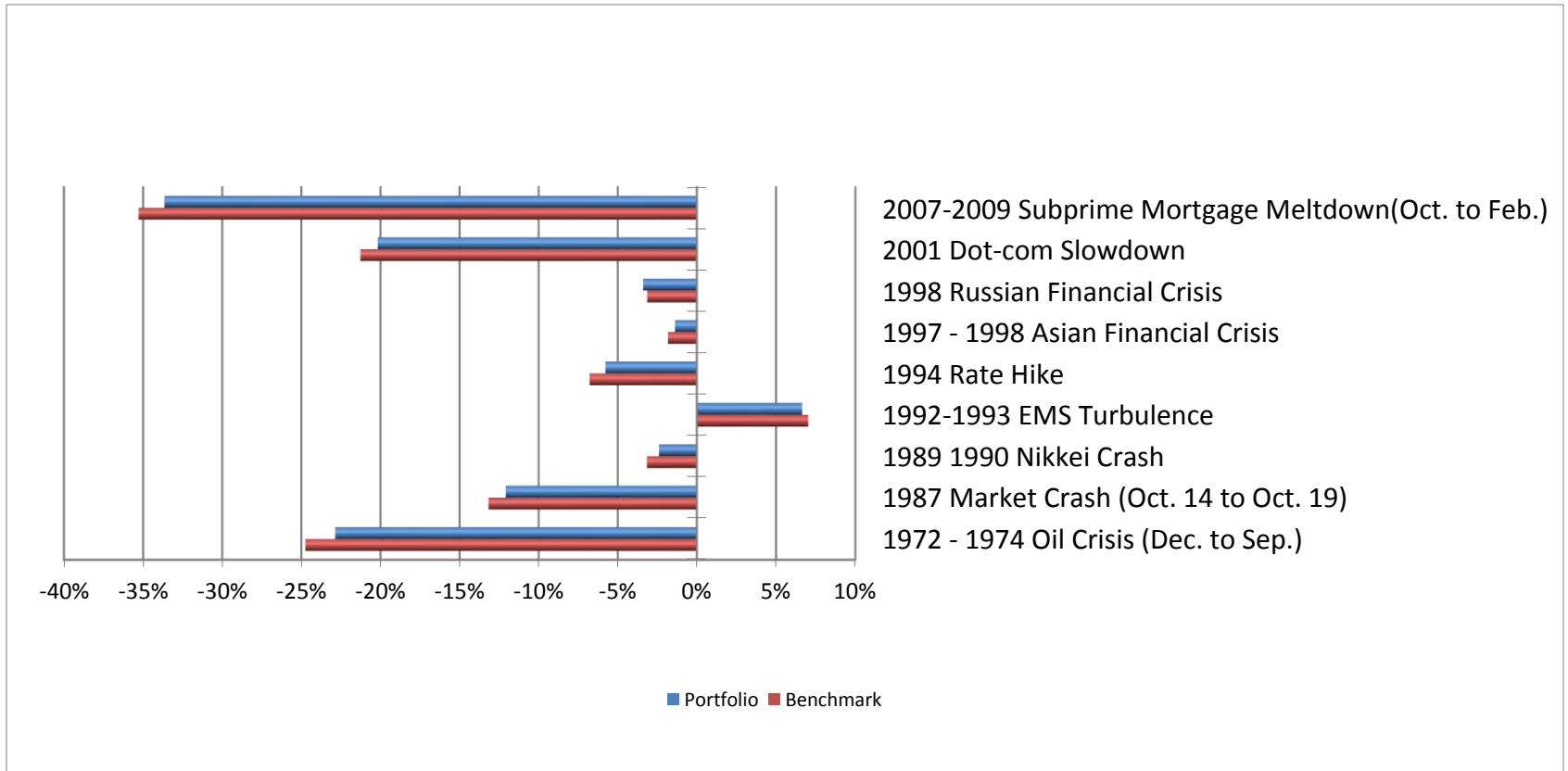


Tracking Error is a measure of how closely a portfolio follows the index to which it is benchmarked. Usually it is the standard deviation of the difference between the portfolio and benchmark returns. Tracking error is annualized.

Source: MSCI Barra Analysis



Tail Risk: Scenarios as of 12/31/2015



Strategic Risk Benchmark: 12.5% Cash & Interest Rates, 65.6% Company Exposure, 21.9% Real Assets
 Real estate and infrastructure are modeled as leverage adjusted real estate investment trusts
 Source: Bank of New York Mellon, MSCI Barra



Overview

- ✓ Risk Dashboard Evolution
- ✓ Performance
- ✓ Risk
 - Dollar Allocation
 - Liquidity
 - Fees

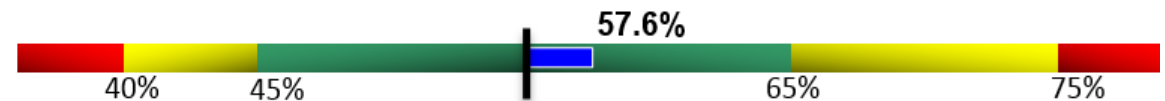


Dollar Allocation Limits by Risk Class as of 12/31/2015

Cash & Interest Rates (6%)



Company Exposure (55%)



Real Assets (19%)



Special Opportunities (20%)



 = Policy allocation Target adopted in May 2013 in the Investment Policy
Source: Bank of New York Mellon

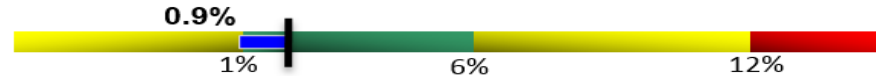


Dollar Allocation Limits by Asset Class as of 12/31/2015

Corporate Bonds (9%)



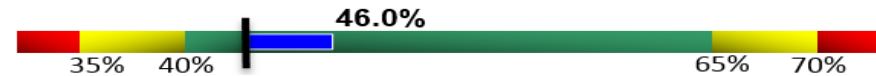
High Yield Bonds (2%)



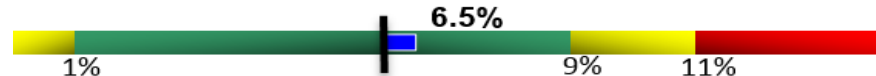
Public/Private Debt (2%)



Total Equities (42%)



Private Equity (6%)



Real Estate (12%)



Infrastructure (4%)



TIPS (3%)



Absolute Return (11%)



Other** (7%)



Fixed Income Domestic Aggregate (2%)



Policy allocation Target adopted in September 2011 in the Investment Policy. Source: Bank of New York Mellon.

*** Other Includes: emerging market debt (2%), debt opportunities (1%) and true special opportunities (2%).*



Summary

- This quarter, we remain overweight equities in the company exposure bucket and underweight real assets and special opportunities
- The Fund is positioned in line with the risk benchmark
- For the past several years we have been showing asset allocation and return of the Fund from 2 dimensions: risk buckets and asset classes
- The fund has outperformed the performance benchmark over all time periods including the last quarter, 1 year and 5 year
- The fund also outperformed the risk benchmark over all time periods, including the last quarter, 1 year and 5 year



Overview

- ✓ Risk Dashboard Evolution
- ✓ Performance
- ✓ Risk
- ✓ Dollar Allocation
 - Liquidity
 - Fees



Focus on Liquidity

- New push to private markets which require commitments over different time periods
- Consolidation of cash flow and commitment information
- Better understanding of immediate and longer term liquidity needs





Investments Liquidity Report

February 1, 2016

Current Cash Balance 630,413,585.96

Expected cash flows

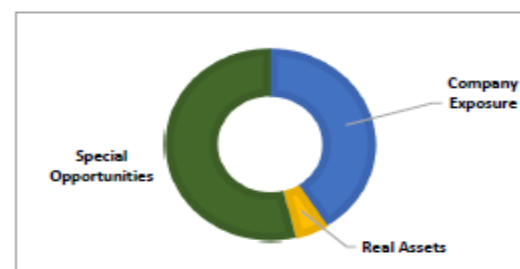
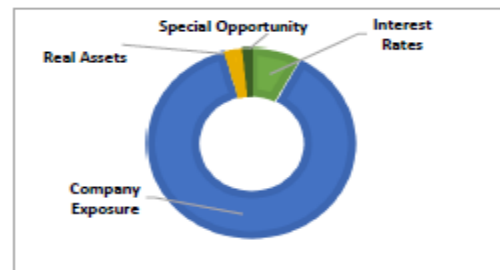
Asset Class	Amount
Private Equity	(30,182,790.39)
Real Estate	-
Special Opportunities	(574,426.00)
Public Equities	-
Fixed Income	3,303,125.00
Infrastructure	(1,221,941.00)
Private Credit	(7,106,162.00)
Total	\$ (35,782,194.39)

Cash after cash flows 594,631,391.57

Projected cash flows

Transaction	Estimated Date	Amount
Acquisition	2/8/2016	(\$500,000)
Acquisition	2/12/2016	(\$24,500,000)
	2/12/2016	(\$200,000,000)
	2/26/2016	(\$53,000,000)
	2/1/2016	(\$10,000,000)
	2/16/2016	\$200,000,000
Total		(\$88,000,000)

Cash after projected flows 506,631,391.57



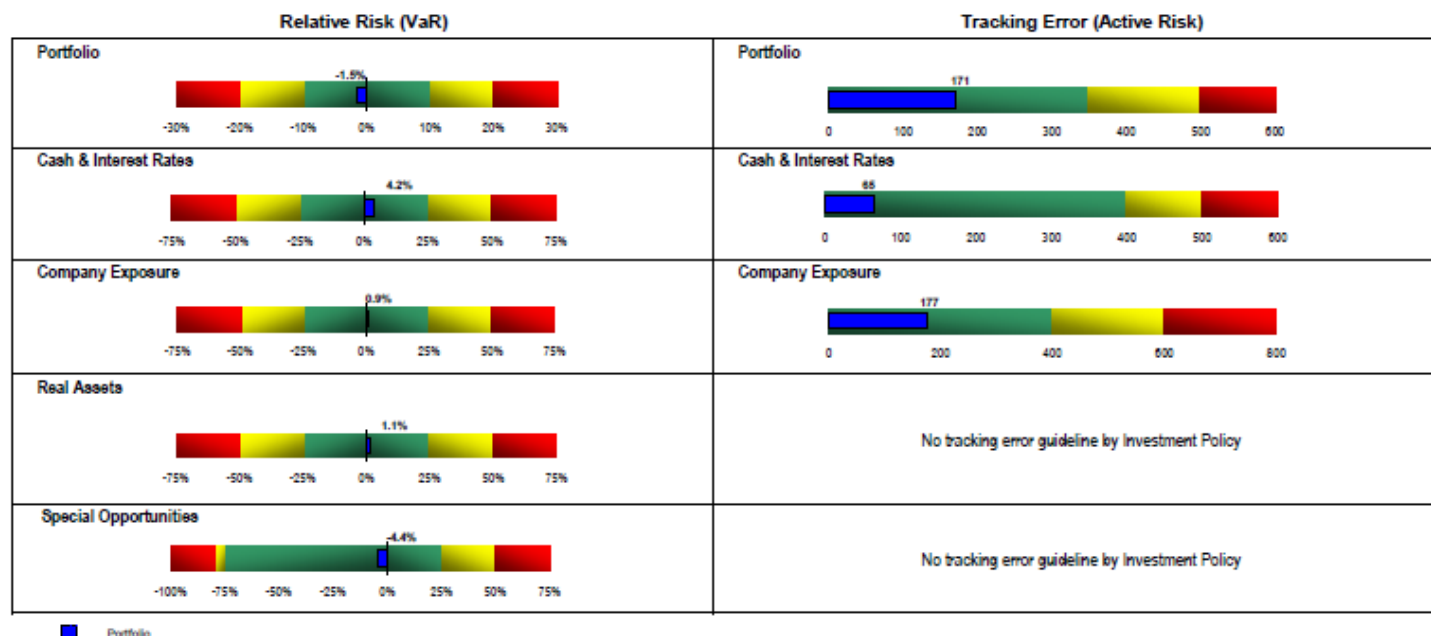
CONFIDENTIAL





Compliance Report after Expected and Projected Cash Flows

Investments Liquidity Report



CONFIDENTIAL



Overview

- ✓ Risk Dashboard Evolution
- ✓ Performance
- ✓ Risk
- ✓ Dollar Allocation
- ✓ Liquidity
- Fees

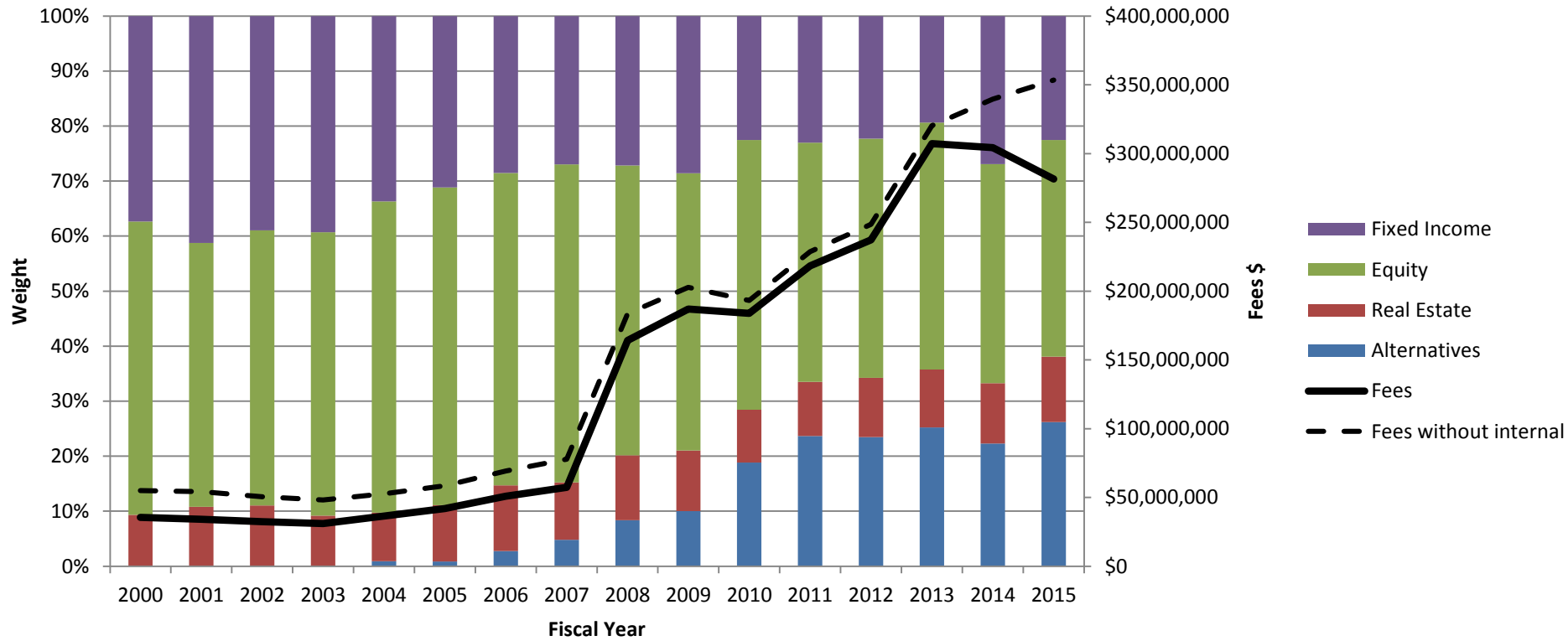


Trend in Fees Paid by APFC

- Over the history of APFC, as allocation to alternative increases so do the fees paid.
- Co-investments in private markets and even the most basic equity strategies have fee savings.
- Real Estate and private equity save fees through JV arrangement and by moving away from paying managers on committed capital to in-house capabilities.
- Investment professionals that manage alternative assets in house increased in 2012 and as we increased the assets managed in house fees began to decrease.
- Staff expects that the fee savings will be beneficial for returns going forward as it has been in the past.



Trend in Fees Paid by APFC



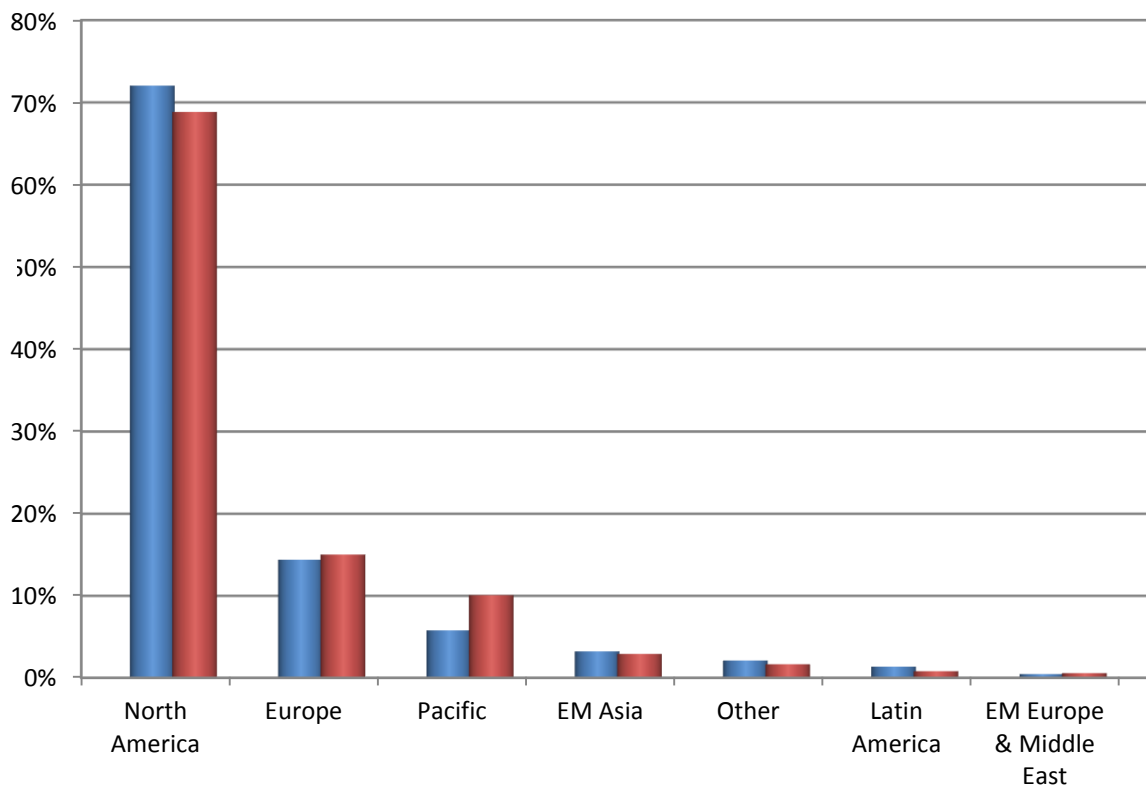
Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Fund Size	\$28,306	\$26,541	\$24,971	\$25,486	\$28,207	\$31,302	\$34,690	\$40,317	\$38,589	\$30,995	\$34,403	\$38,293	\$41,336	\$45,860	\$52,794	\$54,678
Percent Internally Managed	34.7%	37.6%	36.0%	33.8%	28.6%	26.3%	26.5%	25.4%	25.2%	25.7%	21.0%	15.1%	15.3%	16.8%	24.3%	28.1%
Investment Professionals	10	10	9	11	11	11	11	12	12	12	13	13	15	15	15	16
Excess Return over 60/30/10	2.45	1.97	5.49	-1.10	3.71	3.70	6.52	2.65	0.42	-4.46	-0.03	-2.77	1.85	0.47	-1.26	6.48



Appendix



Geographic Risk *as of 12/31/2015*



■ Portfolio
■ Benchmark

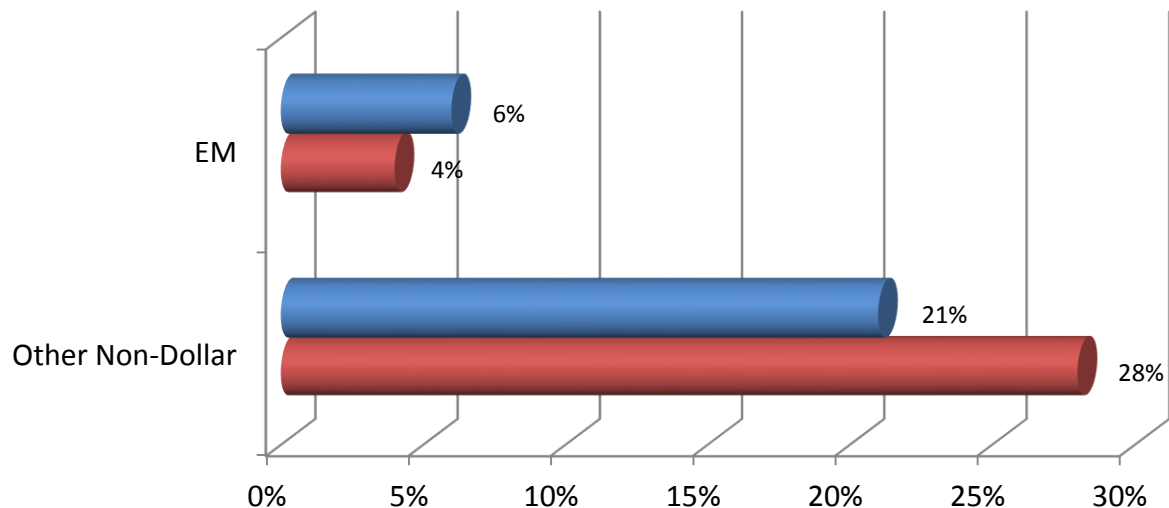
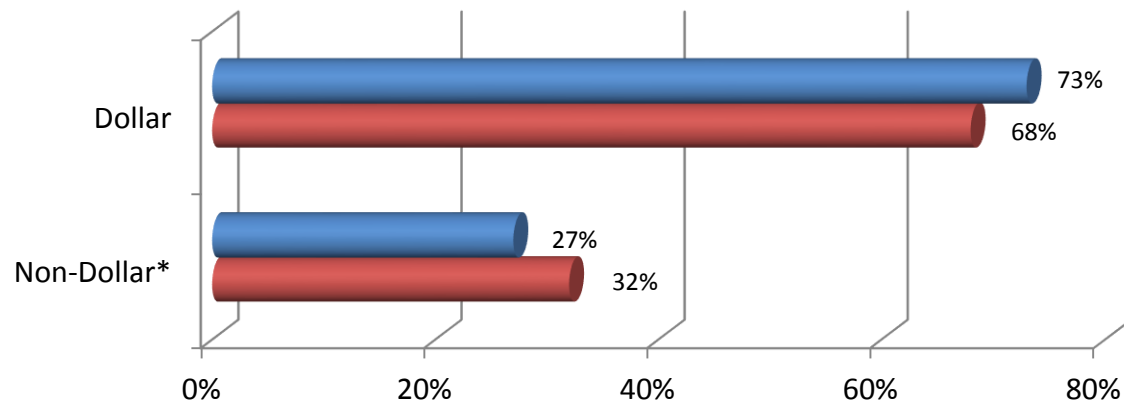
Developing Country	Exposure \$
China	\$ 671
Korea	\$ 500
Taiwan	\$ 430
Mexico	\$ 413
India	\$ 406
Brazil	\$ 262
South Africa	\$ 247
Indonesia	\$ 133
Malaysia	\$ 119
Turkey	\$ 106
Total	\$ 3,287

EM Total Fund Regional Exposure:
10.00%

*Strategic Risk Benchmark: 12.5% Cash & Interest Rates, 65.6% Company Exposure, 21.9% Real Assets
Source: Bank of New York Mellon, MSCI Barra*



Currency Risk *as of 12/31/2015*



Non-Dollar () includes emerging markets*

Strategic Risk Benchmark: 12.5% Cash & Interest Rates, 65.6% Company Exposure, 21.9% Real Assets

Developed Market Currency Risk

Top Five	Exposure \$
US Dollar	\$ 39,798
Euro	\$ 3,303
British Pound Sterling	\$ 2,796
Japanese Yen	\$ 2,067
Hong Kong Dollar	\$ 976
Total	\$ 48,939

Emerging Market Currency Risk

Top Five	Exposure \$
Korean Won	\$ 459
New Taiwan Dollar	\$ 451
Indian Rupee	\$ 434
Mexican Peso	\$ 405
Brazilian Real	\$ 315
Total	\$ 2,064

■ Portfolio

■ Benchmark

Source: Bank of New York Mellon, MSCI Barra



Private Investments

- APFC currently has private investments with and without drawdown structure
- Private investments with drawdown structure require a commitment to a manager that will withdraw capital over a period of time as it finds investment opportunities
- Private investments without a drawdown structure are fully funded to the manager and in many cases fully invested from day one.



Private Investments

Drawdown Structure

- Private Equity
- Private Infrastructure
- Carlyle (Fund & Sidecar)
- Blackstone (fund & sidecar)
- Mezzanine Debt
- Apollo COF III
- Arch Venture
- Oaktree Opportunity Fund
- AH4R II
- Dyal (commingled & Co-invest)
- Altitude (venture & side Funds)
- Denali

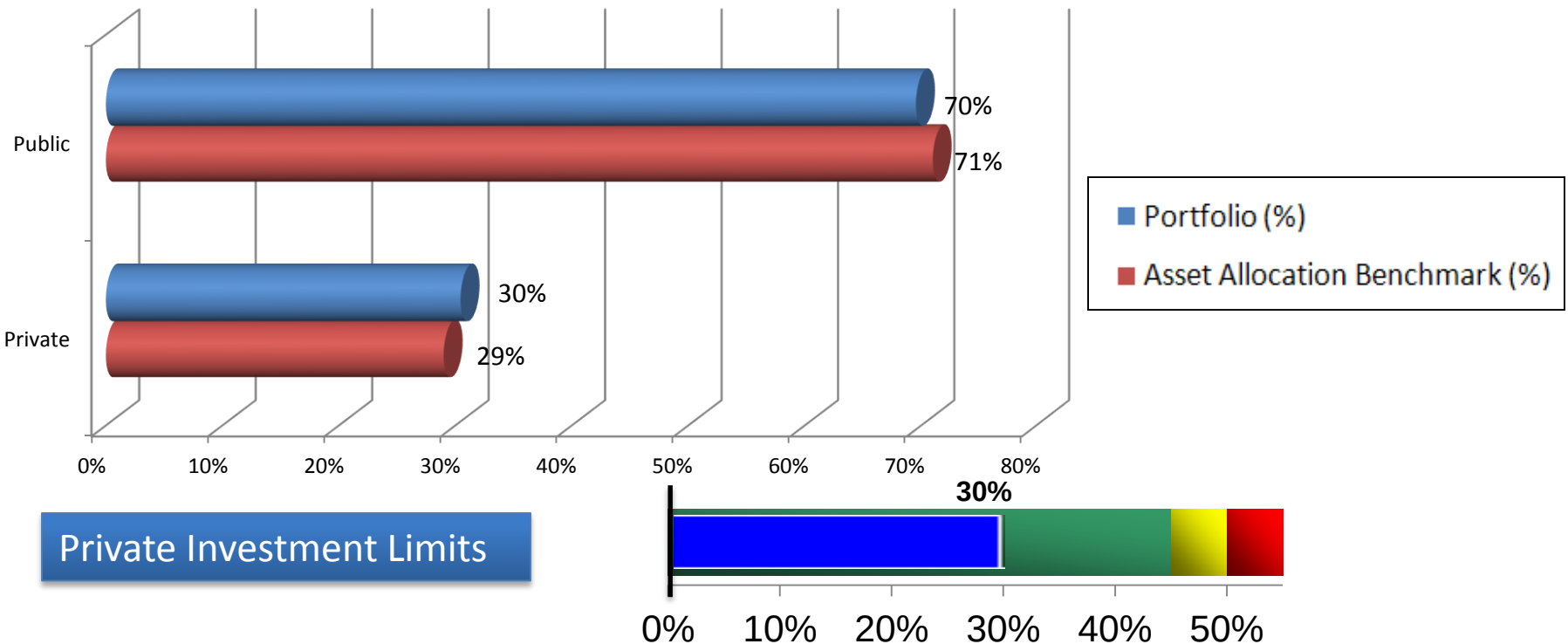
Non-drawdown structure

- Direct Real Estate
- Crestline Private Credit (private drawdown/public)
- AH4R*
- AKRC Investments*
- CL Alaska*

* No longer private investments



Public vs. Private as of 12/31/2015



Public: 144A and securities registered and/or traded on an exchange.

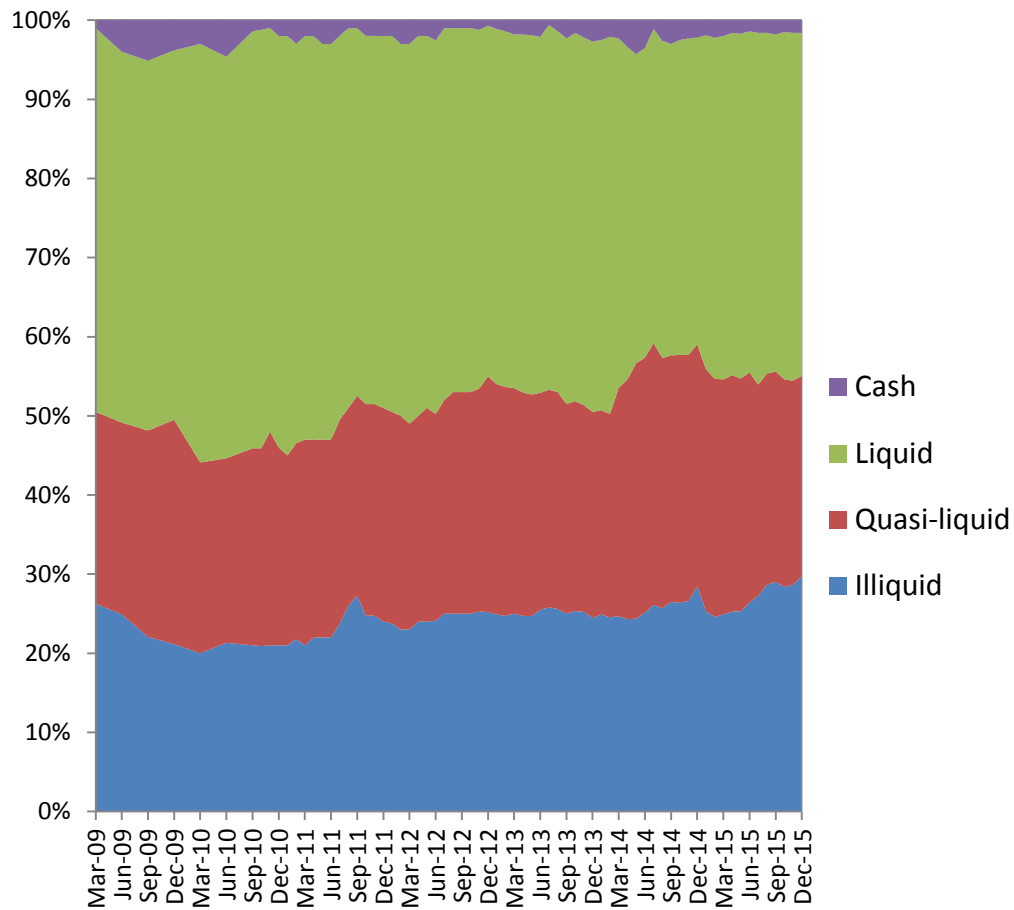
Private: unregistered securities that do not trade on an exchange. The price is set through negotiation between the buyer and the seller/issuer (Private Equity, Real Estate, Infrastructure, Hedge Funds, Private credit).

Allocation Target: 6% Cash & Interest Rates , 55% Company Exposure, 19% Real Assets, 20% Special Opportunities

Source: Bank of New York Mellon, MSCI Barra



Liquidity Risk as of 12/31/2015



What is liquidity risk?

Limited ability to liquidate an asset or asset classes when needed or in a timely manner

Cash: Portfolio Cash, External Managers Cash

Liquid: US Rates, Global Rates, Domestic Large Cap Equity, International Large Cap Equity, REITs, TIPS, Real Return

Quasi-liquid: MBS/ABS, Investment Grade Debt, High Yield, CMBS, Domestic Small Cap Equity, Emerging Markets Equity, Emerging Market Debt, Real Return, Public/Private Credit

Illiquid: Private Equity, Private Real Estate, Private Infrastructure, Absolute Return, Distressed Debt, Mezzanine Debt, Real Return

Assets are subject to reclassification

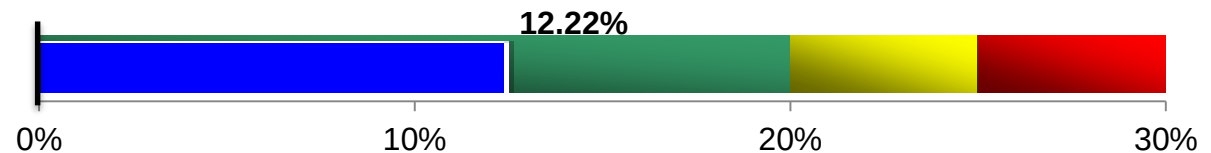
Source: Bank of New York Mellon, MSCI Barra



Capital Committed to Private Investments as of 12/31/2015

Investments	APFC Allocation	Committed to Managers	Total Drawn	Total Undrawn	Forecast 1 Year
Private Equity & Co-Investments	\$3,133	\$6,454	\$4,258	\$2,196	\$900
Infrastructure & Other Real Assets & Internal Co-investments	\$2,089	\$3,215	\$1,486	\$1,357	\$400
Private Credit (including Mezz, Distressed, and others)	\$1,044	\$1,100	\$421	\$129	\$98
Special Opportunities	\$4,565	\$4,565	\$1,867	\$2,698	\$858
Total	\$10,831	\$15,334	\$8,032	\$6,380	\$2,256

Future Commitments
Limits



Source: Managers, data provided does not include the Crestline Public/Private Credit Strategy

*This amount represents APFC's 6% target allocation to private equity, and 4% target allocation to infrastructure. Total Undrawn amount represents unfunded commitment - may include returned capital. Special Opportunities Allocation/Commitment does not include Venture Capital



Business Counterparty Risk as of 12/31/2015

	Firm Name	Fixed Income (mm)	Equity (mm)	Alternative (mm)	Total	% of APFC
1 ↑	Pathway/Legacy HV			\$3,241	\$3,241	6%
1 ↑	State Street			\$2,746	\$2,746	5%
2 ↑	DFA				\$2,593	5%
	Lazard		\$1,739	\$534	\$2,273	4%
4 ↓	Mellon			\$2,170	\$2,170	4%
1 ↑	AQR			\$2,080	\$2,080	4%
1 ↑	Crestline			\$1,997	\$1,997	4%
	L&B			\$1,871	\$1,871	4%
	LaSalle			\$1,257	\$1,257	2%
	SHLP			\$1,227	\$1,227	2%

Source: Bank of New York



Business Counterparty Risk as of 12/31/2015

		APFC Assets (mm)	% of Manager Business	% of APFC Portfolio	% of Top 3 Clients ex. APFC
¹ ↑	SKBA	\$335	25%	1%	21%
¹ ↓	L&B	\$1,871	25%	4%	51%
	Crestline	\$1,997	19%	4%	16%
	Alaska Permanent Cap.	\$582	18%	1%	32%
³ ↑	Lyrical	\$459	11%	1%	11%
¹ ↓	Pathway & Legacy HV	\$3,241	10%	6%	42%
¹ ↓	McKinley	\$686	10%	1%	36%
¹ ↓	CastleArk	\$355	10%	1%	52%
	Mariner	\$1,054	9%	2%	21%
	Herndon	\$400	8%	1%	34%

Source: Bank of New York Mellon, External Managers, Callan



Top 10 Holdings Exposure Risk as of 12/31/2015

	Holding	Market Value (\$ mil)	% of Total Fund
	Juno Therapeutics	\$1,122	2.1%
	American Homes 4 Rent	\$913	1.7%
	AKRC Investments	\$232	0.4%
² ↑	Google	\$181	0.3%
¹ ↓	Apple Inc	\$174	0.3%
² ↑	Microsoft Corp.	\$136	0.3%
	Citigroup	\$114	0.2%
² ↑	Bank of America	\$110	0.2%
	Samsung	\$109	0.2%
¹ ↓	Wells Fargo & Co	\$103	0.2%
	Total	\$3,193	6.1%

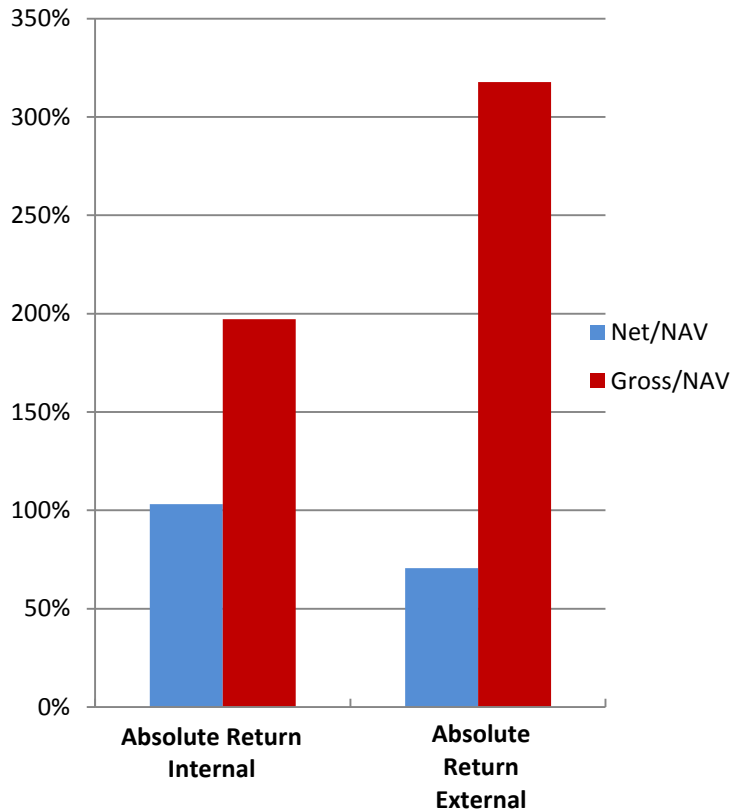
Source: Bank of New York Mellon

Holdings exposure is calculated from all equity and bond portfolios.

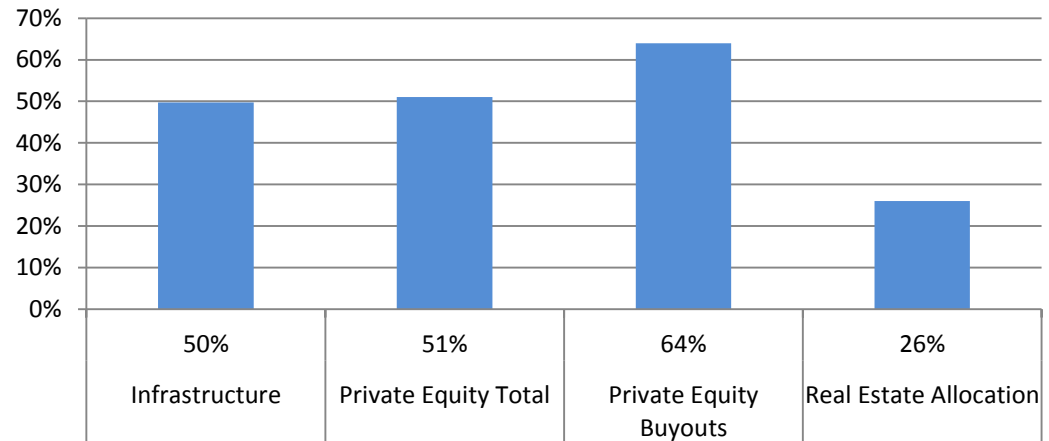


Leverage as of 12/31/2015

ECIO & ABR - Net and Gross Exposures



Net Debt



Asset classes not shown are not levered at the strategy level.

Gross exposure is calculated using the absolute value of the long plus short positions.

Net exposure is represented as the value of long minus short positions.

Real Estate Net Debt is calculated as a % of Real Estate allocation which is consistent with the Investment Policy guidelines.

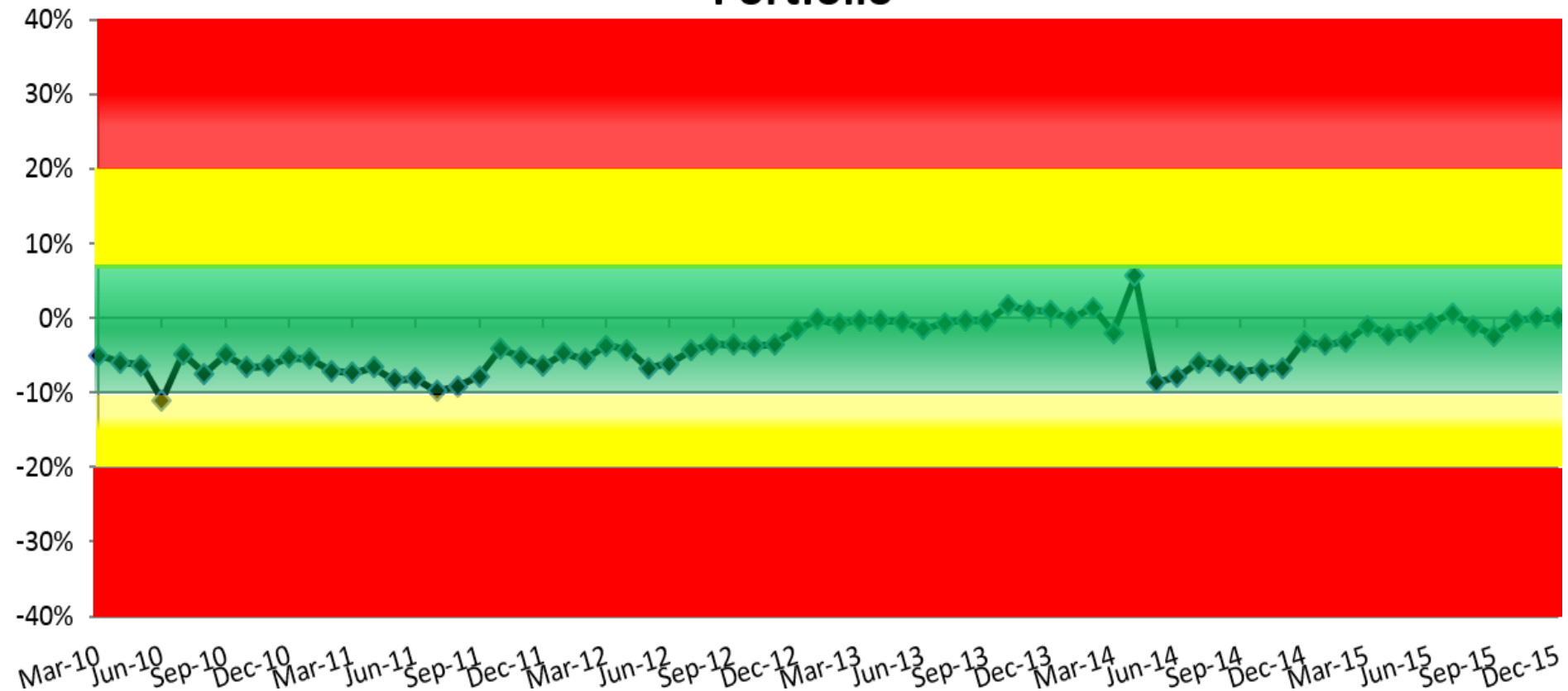
Infrastructure and Private Equity Net Debt is calculated as a % of enterprise value based on valuations.

APFC Staff in all cases does not have complete visibility into leverage levels at portfolio companies of underlying private equity and infrastructure managers (General Partners). As such, these leverage levels are estimates based, in part, on guidance from managers and, in part, on APFC Staff estimates.



Historical Monthly Relative VaR: Portfolio vs. Strategic Risk Benchmark as of 12/31/2015

Portfolio



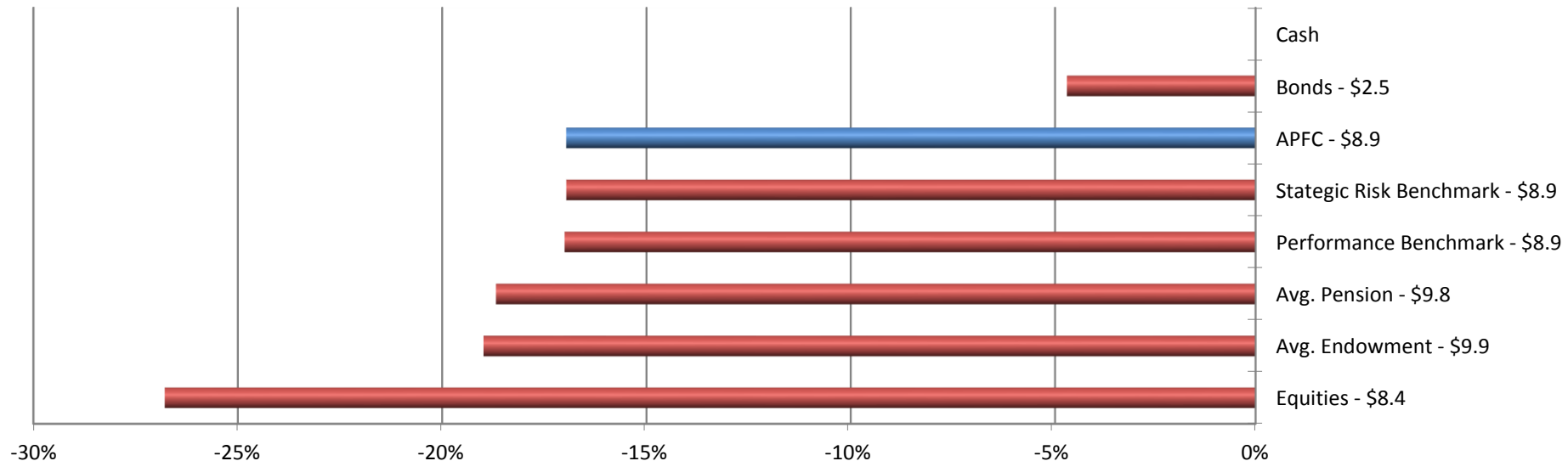
Strategic Risk Benchmark: 12.5% Cash & Interest Rates, 65.6% Company Exposure, 21.9% Real Assets

Source: MSCI Barra Analysis



Absolute Risk: Value-at-Risk *as of 12/31/2015*

97.5 %, 1 year VaR or 1 event every 40 years under normal market conditions.



Bonds: Global Treasury Index, Hedged

Equities: MSCI All Country World Investable Market Index (ACWI IMI)

Strategic Risk Benchmark: 12.5% Cash & Interest Rates, 65.6% Company Exposure, 21.9% Real Assets

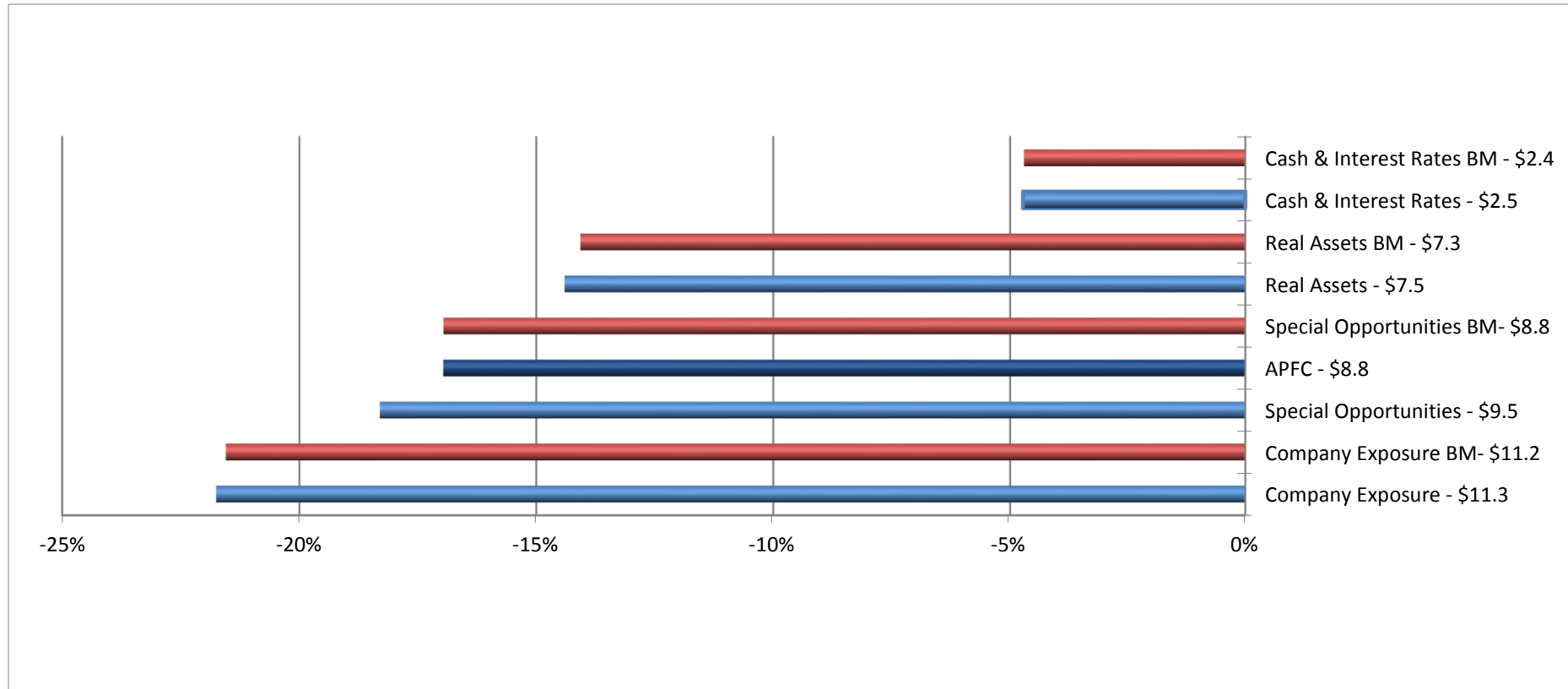
Performance Benchmark: 60% MSCI ACWI IMI, 30% Barclays Global Aggregate, 5% MSCI US REITs, 5% 3-month T-Bills

Source: MSCI Barra



Absolute Risk by Bucket as of 12/31/2015

97.5 %, 1 year VaR or 1 event every 40 years under normal market conditions.



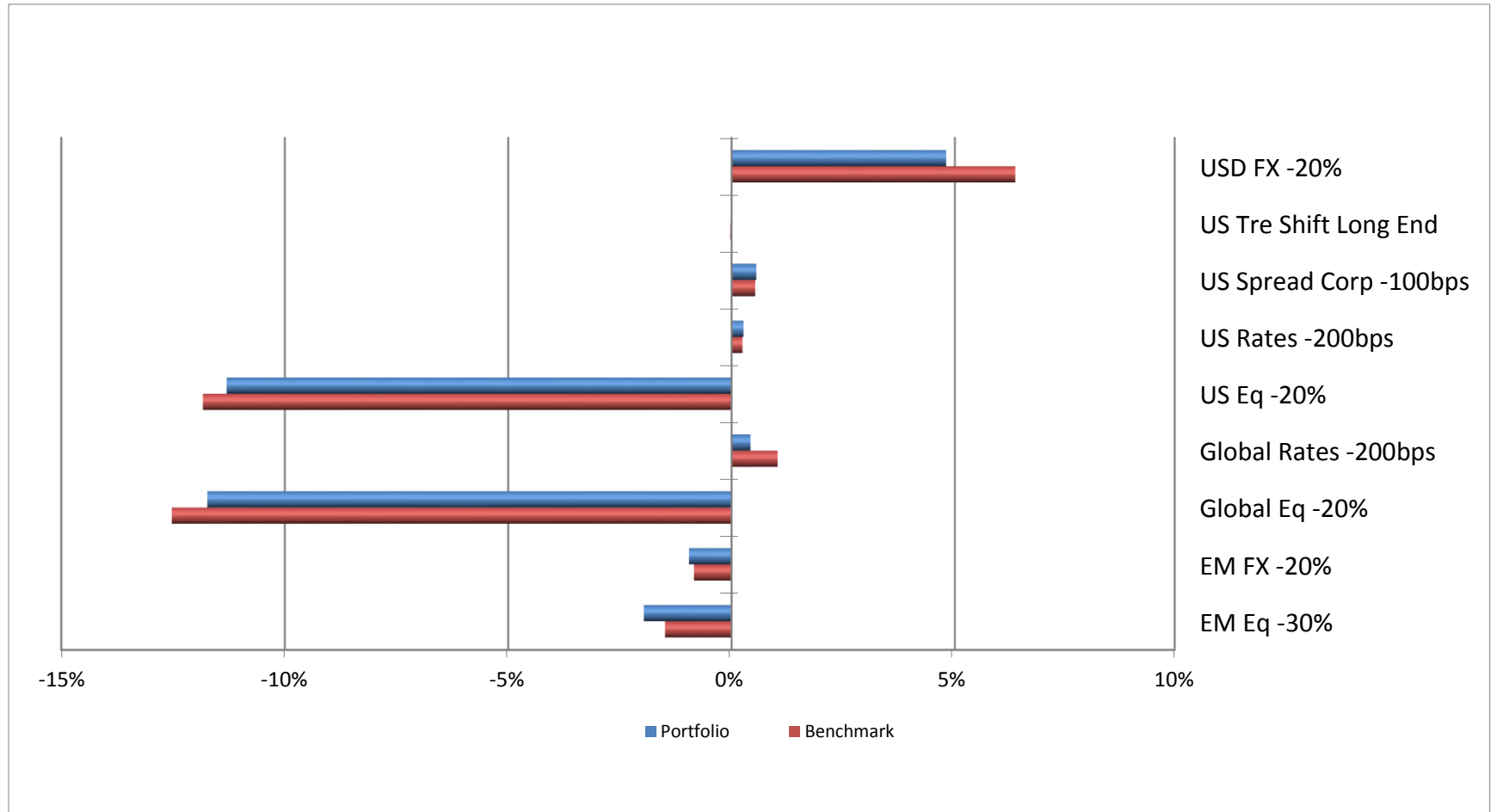
Components do not add to 100% due to diversification

Real estate and infrastructure are modeled as leverage adjusted real estate investment trusts

Source: Bank of New York Mellon, MSCI Barra



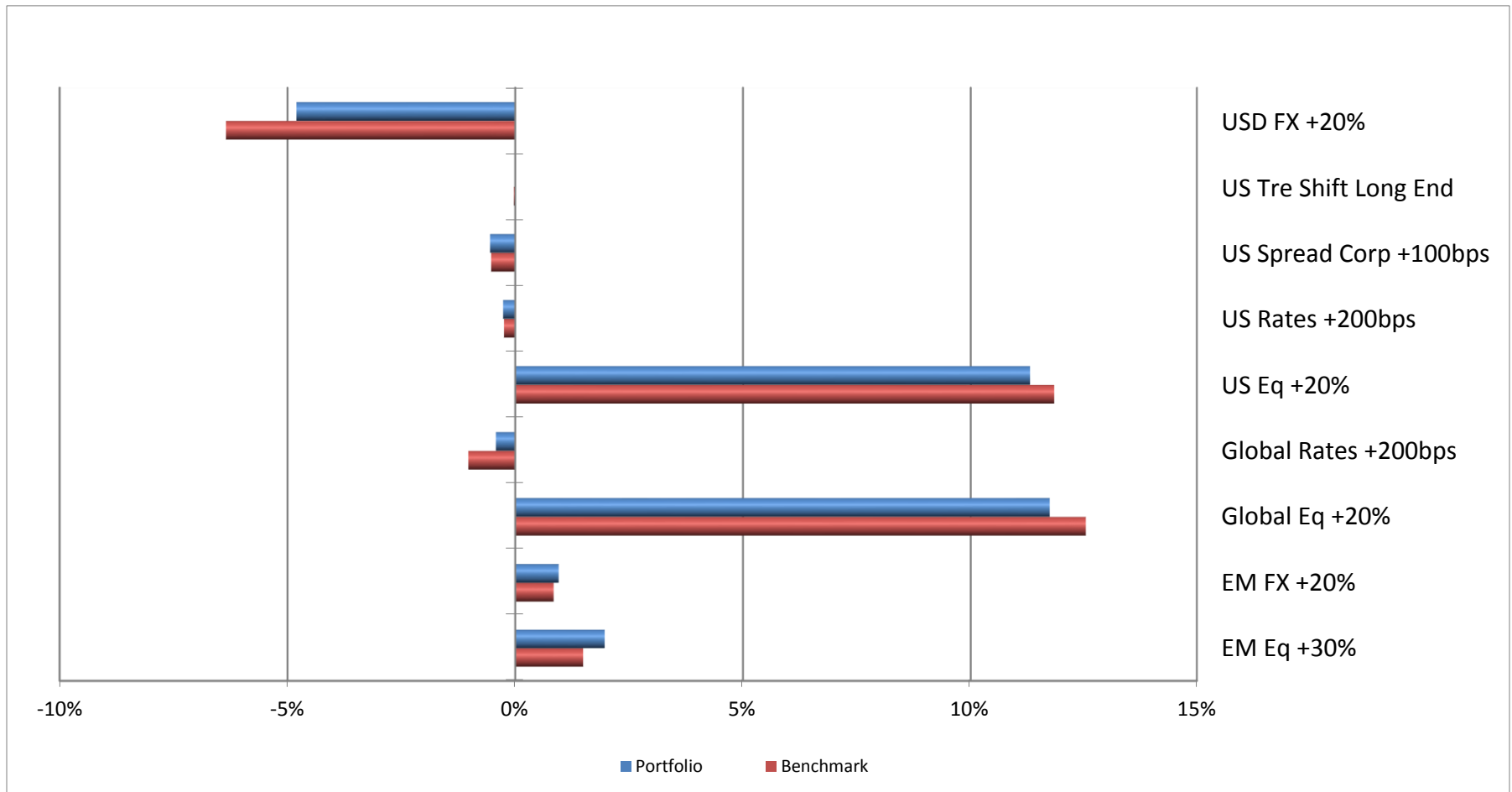
Tail Risk: Stress Tests as of 12/31/2015



Strategic Risk Benchmark: 12.5% Cash & Interest Rates, 65.6% Company Exposure, 21.9% Real Assets
 Real estate and infrastructure are modeled as leverage adjusted real estate investment trusts
 Source: Bank of New York Mellon, MSCI Barra



Tail Risk: Stress Tests as of 12/31/2015

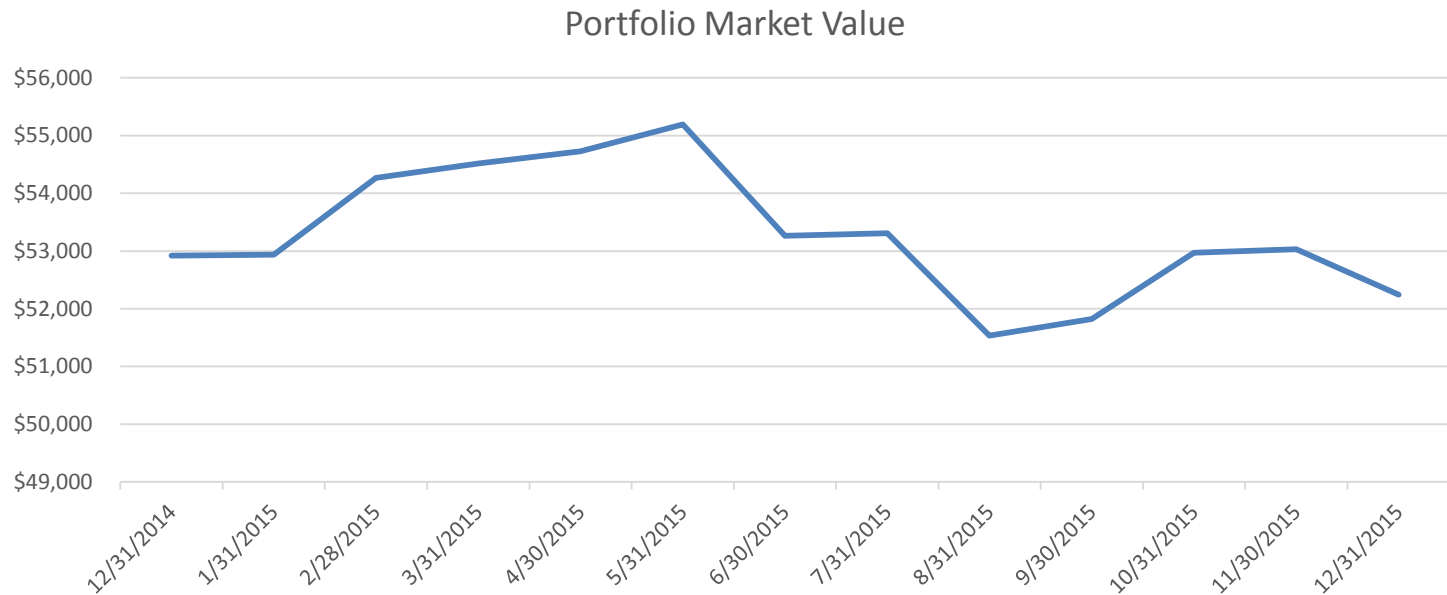


Strategic Risk Benchmark: 12.5% Cash & Interest Rates, 65.6% Company Exposure, 21.9% Real Assets
 Real estate and infrastructure are modeled as leverage adjusted real estate investment trusts
 Source: Bank of New York Mellon, MSCI Barra



Fund at a glance *as of 12/31/2015*

Beginning Value (December 31, 2014)	\$ 52,822.5
Total Contributions	\$ 436.2
Total Distributions	\$ 1,420.4
Ending Value (December 31, 2015)	\$ 52,244.6

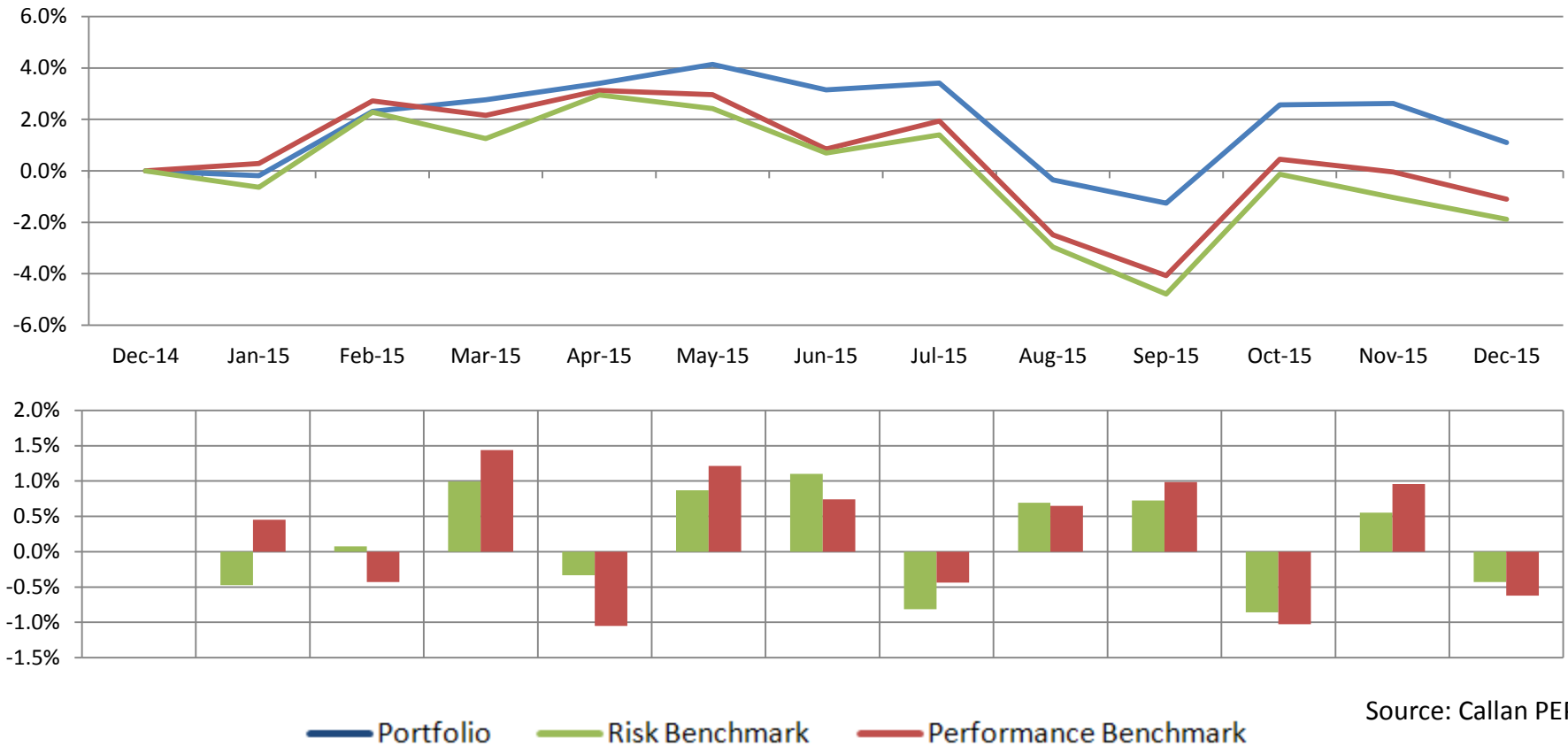


Source: Financials



Fund vs. Benchmarks *as of 12/31/2015*

1 Year Cumulative and Monthly Relative Returns



Source: Callan PEP

Risk Benchmark: 12.5% Cash & Interest Rates, 65.6% Company Exposure, 21.9% Real Assets

Performance Benchmark: 60% MSCI ACWI IMI, 30% Barclays Global Aggregate, 5% MSCI US REIT, 5% 3-month T-Bills



	Equities	Fixed Income	Real Estate
Cash and Rates		- Cash - Mortgages - Global Treasuries	
Company Exposure	- Global Equity - Private Equity	- Credit - Mezzanine	
Real Assets		- Infrastructure - TIPS	- Public Real Estate - Private Real Estate
Special Opportunities	- Real Return - EM Opportunities - True Special Opportunities	- FI Aggregate - EM Debt - Absolute Return	Real Estate Opportunities



	Equities
Cash and Rates	
Company Exposure	- Global Equity - Private Equity
Real Assets	
Special Opportunities	- Real Return - EM Opportunities - True Special Opportunities

Equities *as of 12/31/2015*

Benchmark: MSCI ACWI IMI

Current Allocation	55%
Target	60%
Under/Over	- 5 pp

	Portfolio	Benchmark
Last Quarter	3.39%	4.91%
Last Year	-1.52%	-2.19%
Three Years	8.45%	7.86%

Source: Callan PEP



	Fixed Income
Cash and Rates	- Cash - Mortgages - Global Treasuries
Company Exposure	- Credit - Mezzanine
Real Assets	- Infrastructure - TIPS
Special Opportunities	- FI Aggregate - EM Debt - Absolute Return

Fixed Income as of 12/31/2015

Benchmark: Barclays Global Aggregate

Current Allocation	33%
Target	30%
Under/Over	+ 3 pp

	Portfolio	Benchmark
Last Quarter	-0.04%	-0.92%
Last Year	0.94%	-3.15%
Three Years	2.48%	-1.74%

Source: Callan PEP



	Real Estate
Cash and Rates	
Company Exposure	
Real Assets	- Public Real Estate - Private Real Estate
Special Opportunities	Real Estate Opportunities

Real Estate as of 12/31/2015

Benchmark: 50% MSCI US REIT/50% T-Bills

Current Allocation	12%
Target	10%
Under/Over	2 pp

	Portfolio	Benchmark
Last Quarter	4.47%	3.54%
Last Year	14.28%	1.58%
Three Years	12.48%	6.45%

Source: Callan PEP



Fund vs. Performance Benchmark

1 year ended 12/15	Equities	Fixed Income	Real Estate	Total
Portfolio Weight	55%	33%	12%	100%
Portfolio Return	-1.52%	0.94%	14.28%	1.10%
Benchmark Weight	60%	30%	10%	100%
Benchmark Return	-2.19%	-3.15%	1.58%	-1.89%
Relative Contribution	+ 47 bps	+ 125 bps	+ 155 bps	+ 299 bps

Differences due to compounding and rounding weights

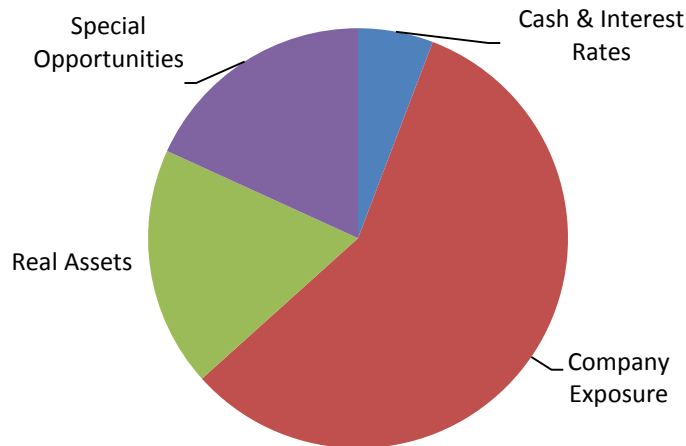
Source: Callan PEP



Active Weights vs. Strategic Risk Benchmark

as of December 31, 2015

	Portfolio	Strategic Risk Benchmark	Difference
Cash and Interest Rates	5.8%	10%	- 4.2 pp
Company Exposure	57.6%	52.5%	+ 5.1 pp
Real Assets	18.5%	17.5%	+ 1.0 pp
Special Opportunities	18.2%	20%	- 1.8 pp



Strategic Risk Benchmark: 10% Cash & Interest Rates, 52.5% Company Exposure, 17.5% Real Assets, 20% Special Opportunities

Source: BNY Mellon



Risk Bucket Returns vs. Strategic Risk Benchmark

Quarter ending December 31, 2015

Risk Bucket	Portfolio	Strategic Risk Benchmark	Difference
Cash and Interest Rates	-0.22%	0.08%	-30 bps
Company Exposure	2.83%	3.96%	-113 bps
Real Assets	3.15%	2.19%	+ 96 bps
Special Opportunities	1.19%	3.10%	- 191 bps

Source: Callan PEP

Cash and Interest Rates Benchmark: 20% 3-month US Treasury Bills, 64% BC Global Aggregate Treasury (Hedged), 16% BC US Aggregate MBS

Company Exposure Benchmark: 80% MSCI ACWI IMI/20% Barclays Global Corporate (hedged)

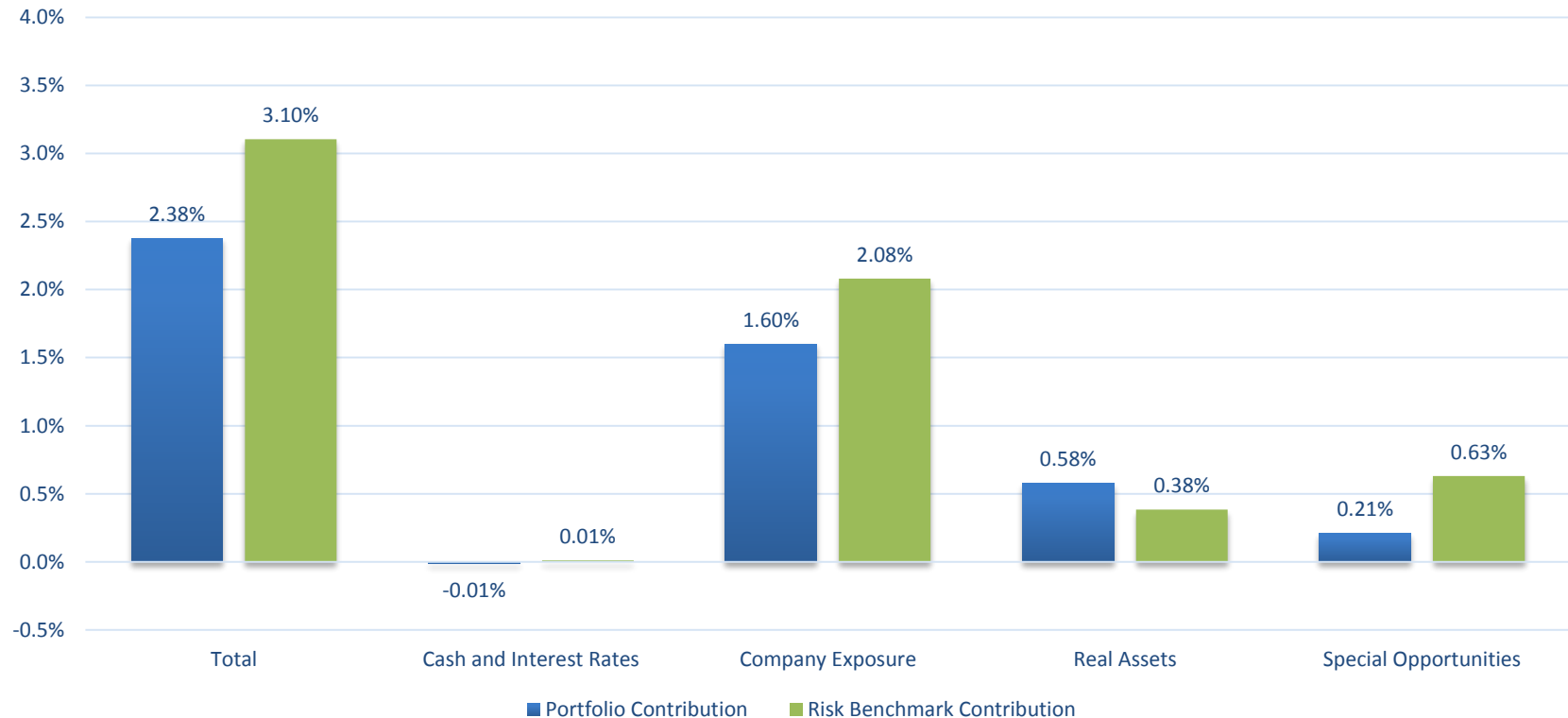
Real Assets Benchmark: 35% MSCI US REIT, 35% 3-month US Treasury Bill, 20% FTSE Developed Core Infrastructure, 10% Barclays U.S. Treasury Inflation-Protected Securities

Special Opportunities Benchmark: 12.5% Cash and Interest Rates Benchmark, 65.6% Company Exposure Risk Benchmark, 21.9% Real Assets Risk Benchmark.



Return Contribution vs. Strategic Risk Benchmark

Quarter ending September 30, 2015



Source: Callan PEP, BNY Mellon

Cash and Interest Rates Benchmark: 20% 3-month US Treasury Bills, 64% BC Global Aggregate Treasury (Hedged), 16% BC US Aggregate MBS

Company Exposure Benchmark: 80% MSCI ACWI IMI/20% Barclays Global Corporate (hedged)

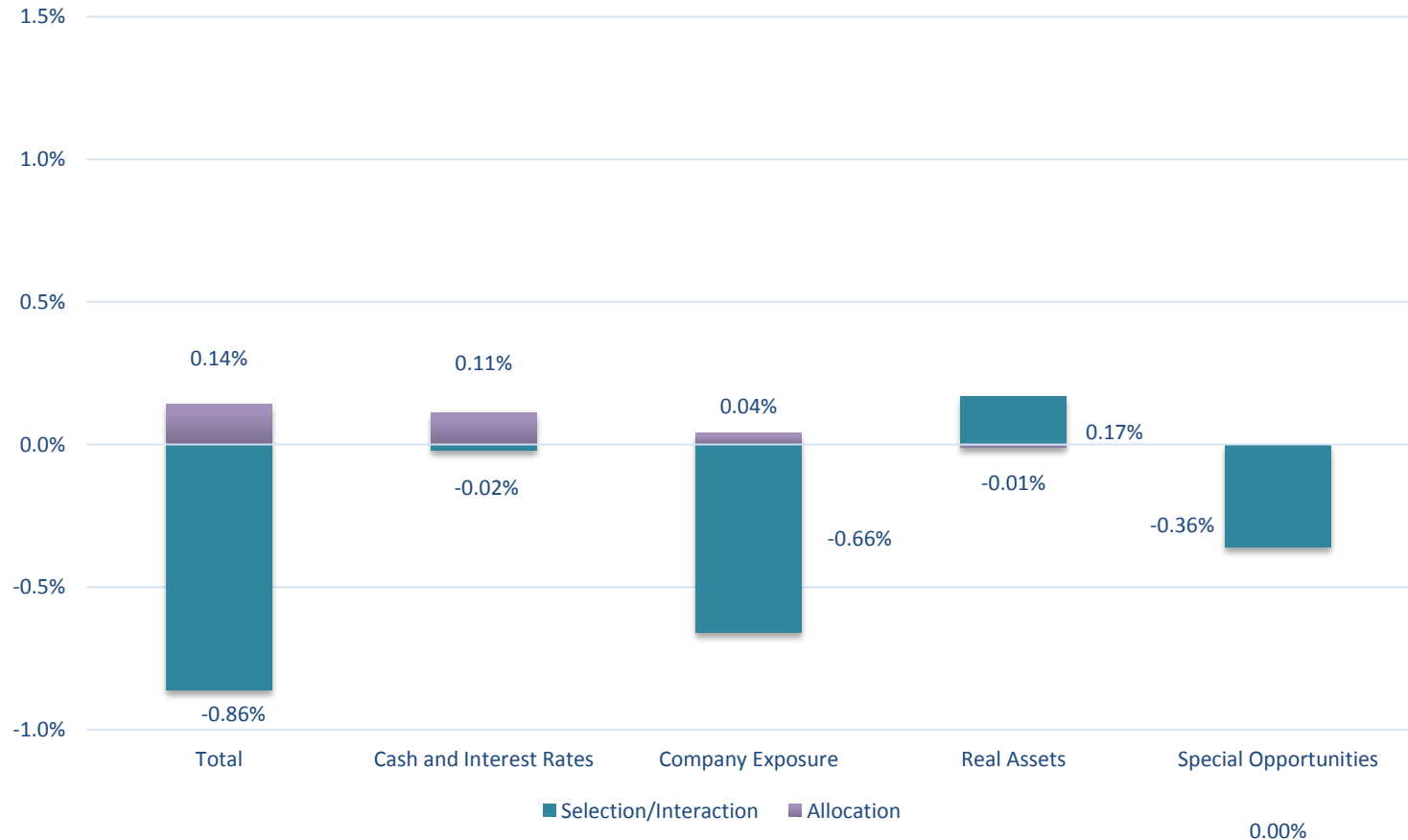
Real Assets Benchmark: 35% 3-month US Treasury Bill, 35% MSCI US REIT, 20% FTSE Developed Core Infrastructure, 10% Barclays U.S. Treasury Inflation-Protected Securities

Special Opportunities Benchmark: 12.5% Cash and Interest Rates Benchmark, 65.6% Company Exposure Risk Benchmark, 21.9% Real Assets Risk Benchmark.



Return Attribution vs. Strategic Risk Benchmark

Quarter ending December 31, 2015



Source: Callan and Staff Calculations



Attribution Calculations

Quarter ending December 31, 2015

Selection/Interaction	Portfolio Bucket Return	BM Risk Bucket Return	BM Bucket Weight	Attribution
Cash and rates	-0.22%	0.08%	10%	-0.02%
Company Exposure	2.83%	3.96%	52%	-0.66%
Real Assets	3.15%	2.19%	18%	0.17%
Special Opportunities	1.19%	3.10%	20%	-0.36%
Total	2.38%	3.10%		-0.86%

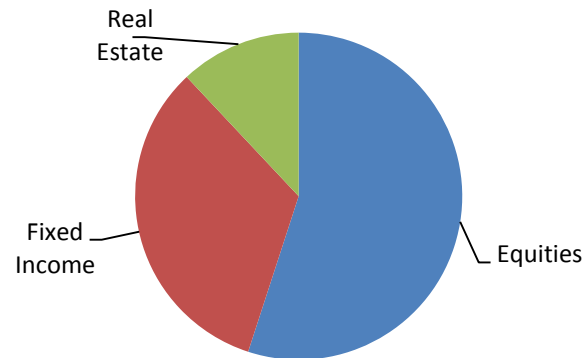
Allocation	Effective Actual Weight	BM Risk Bucket Weight	BM Risk Bucket Return	Attribution
Cash and rates	6%	10%	0.08%	0.11%
Company Exposure	58%	52%	3.96%	0.04%
Real Assets	18%	18%	2.19%	-0.01%
Special Opportunities	18%	20%	3.10%	0.00%
Total			3.10%	0.14%

Source: Callan and Staff Calculations



Active Weights vs. Performance Benchmark as of December 31, 2015

	Portfolio	Performance Benchmark	Difference
Equities	55%	60%	- 5 pp
Fixed Income	33%	30%	+ 3 pp
Real Estate	12%	10%	+ 2 pp



Performance Benchmark: 60% MSCI ACWI IMI, 30% Barclays Global Aggregate, 5% MSCI US REIT, 5% 3-month T-Bills

Source: BNY Mellon



Asset Class Returns vs. Performance Benchmark

Quarter ending December 31, 2015

	Portfolio	Benchmarks	Difference
Equities*	3.39%	4.91%	-1.52 bps
Fixed Income	-0.04%	-0.92%	+ 88 bps
Real Estate	4.47%	3.54%	+ 93 bps

Source: Callan PEP

* Returns include allocations for multi-asset portfolios

Equities Benchmark: MSCI ACWI IMI

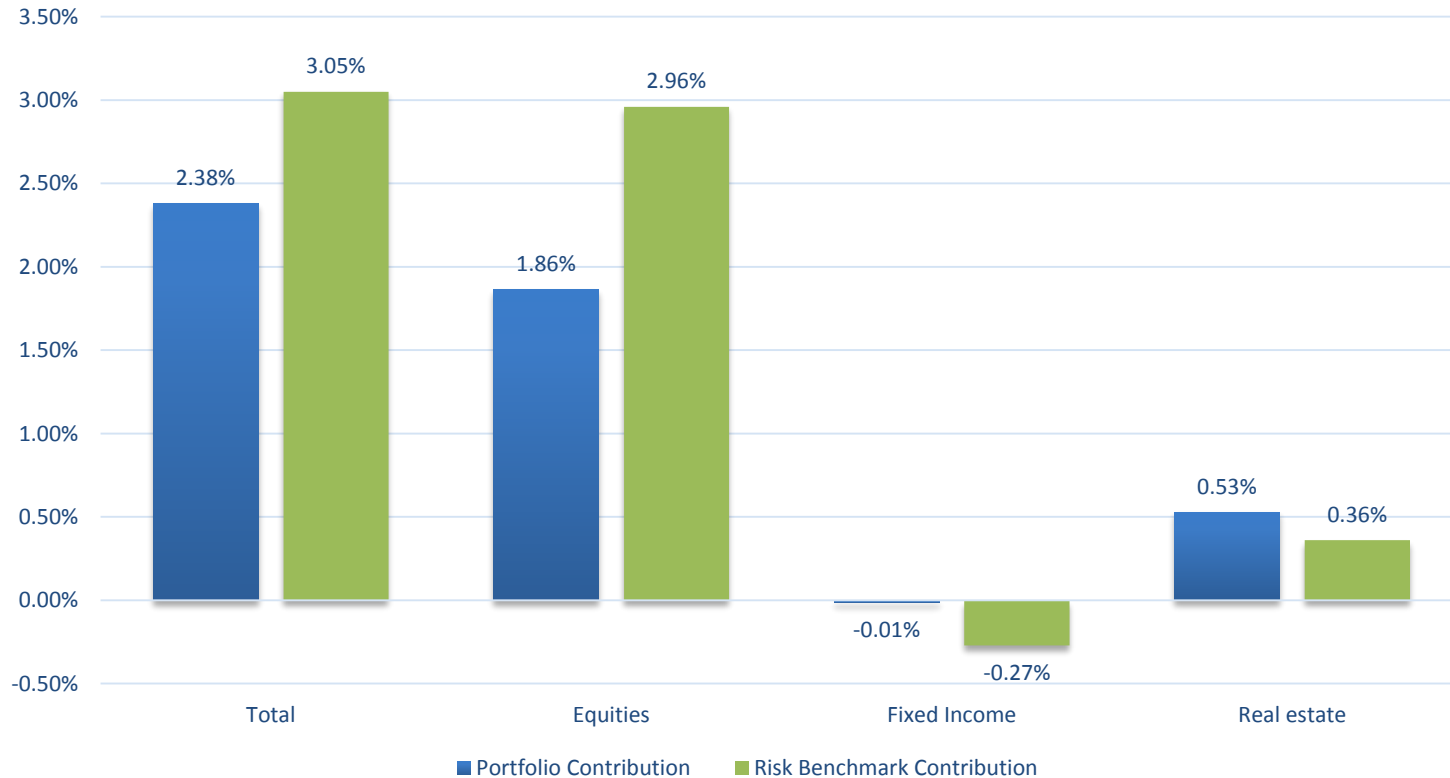
Fixed Income Benchmark: Barclays Global Aggregate Unhedged

Real Estate Benchmark: 50% MSCI US REITs/50% T-bills



Return Contribution vs. Performance Benchmark

Quarter ending December 31, 2015



Equities Benchmark: MSCI ACWI IMI

Fixed Income Benchmark: Barclays Global Aggregate

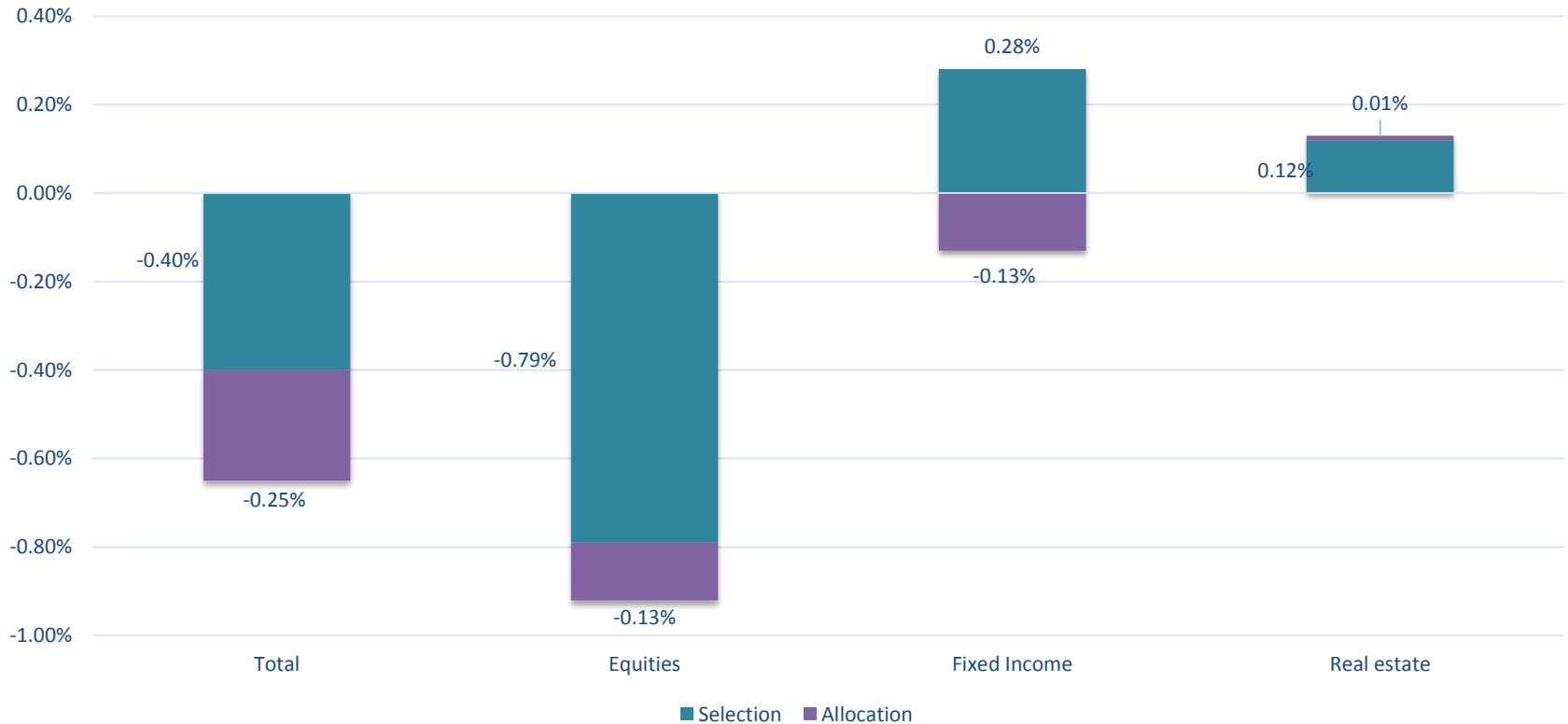
Real Estate Benchmark: 50% T-bills/50% MSCI US REITs

Source: Callan PEP, BNY Mellon



Return Attribution vs. Performance Benchmark

Quarter ending December 31, 2015



Source: Callan and Staff Calculations



Attribution Calculations

Quarter ending December 31, 2015

Selection/Interaction	Asset Class Return	BM Asset Class Return	BM Asset Class Weight	Attribution
Equities	3.39%	4.91%	60%	-0.79%
Fixed Income	-0.04%	-0.92%	30%	0.28%
Real Estate	4.47%	3.54%	10%	0.12%
Total	2.38%	3.05%		-0.40%

Allocation	Effective Actual Weight	BM Asset Class Weight	BM Asset Class Return	Attribution
Equities	55%	60%	4.91%	-0.13%
Fixed Income	33%	30%	-0.92%	-0.13%
Real Estate	12%	10%	3.54%	0.01%
Total			3.05%	-0.25 %

Source: Callan and Staff Calculations



Portfolio Statistics

Year ending December 31, 2015

Portfolio Sharpe	0.16
Strategic Risk Benchmark Sharpe	-0.16
Performance Benchmark Sharpe	-0.27
Tracking Error vs. Risk BM	175 bps

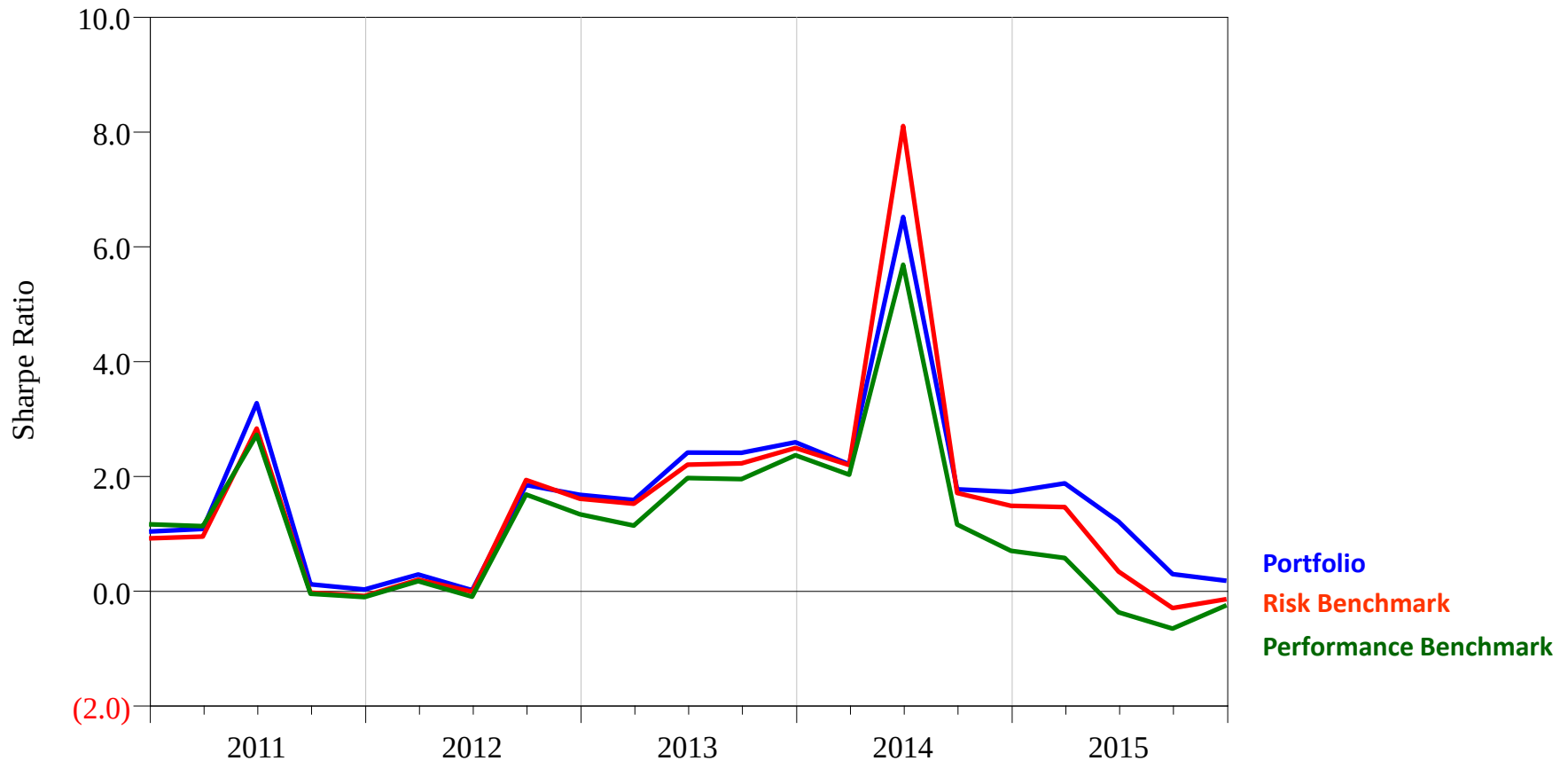
Source: Callan PEP

Strategic Risk Benchmark: 10% Cash & Interest Rates, 52.5% Company Exposure, 17.5% Real Assets, 20% Special Opportunities

Performance Benchmark: 60% MSCI ACWI IMI, 30% Barclays Global Aggregate, 5% MSCI US REIT, 5% 3-month T-Bills



Rolling 4 Quarter Sharpe Ratio
for 5 Years Ended December 31, 2015



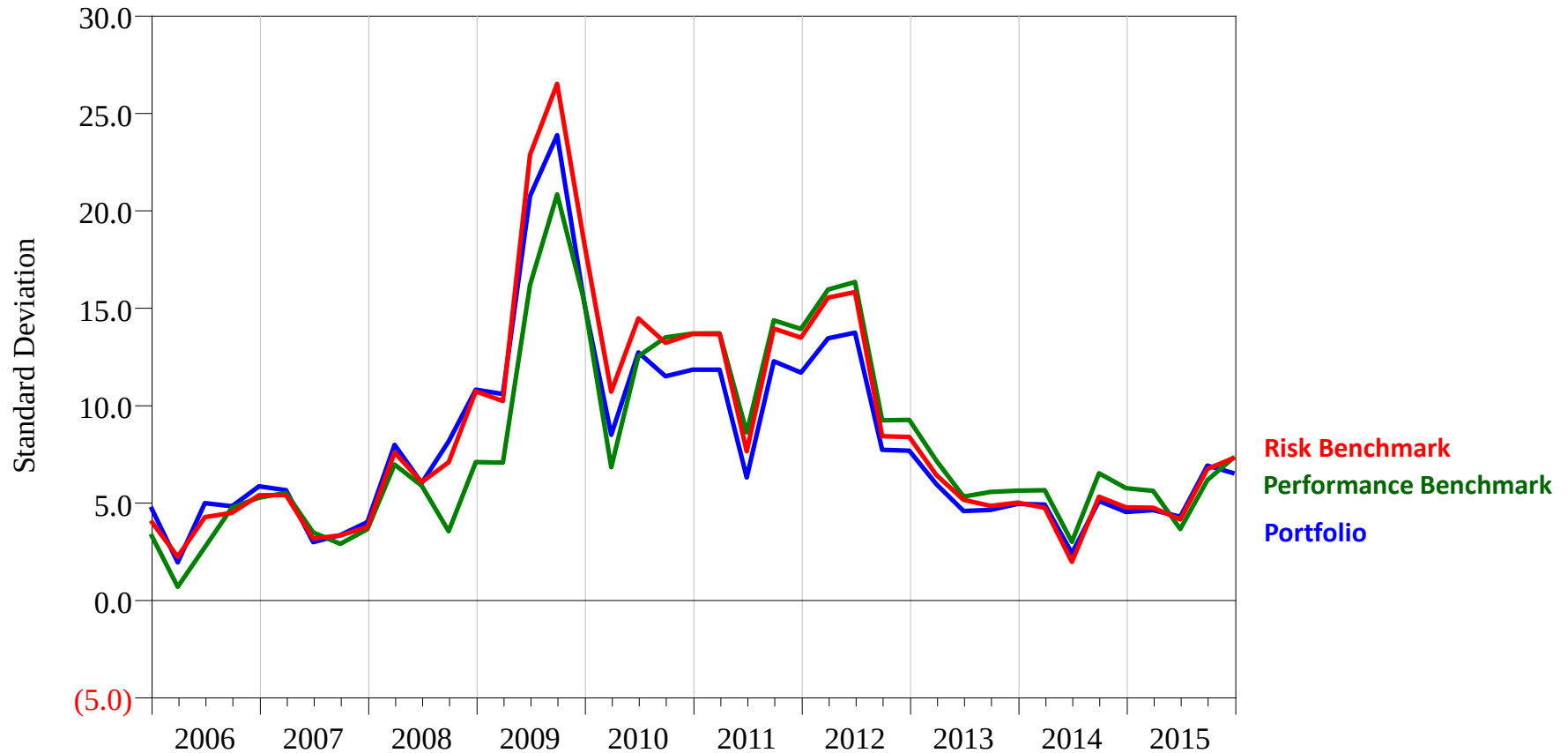
Strategic Risk Benchmark: 10% Cash & Interest Rates, 52.5% Company Exposure, 17.5% Real Assets, 20% Special Opportunities

Performance Benchmark: 60% MSCI ACWI IMI, 30% Barclays Global Aggregate, 5% MSCI US REIT, 5% 3-month T-Bills

Source: Callan PEP



Rolling 4 Quarter Standard Deviation
for 10 Years Ended December 31, 2015



Strategic Risk Benchmark: 10% Cash & Interest Rates, 52.5% Company Exposure, 17.5% Real Assets, 20% Special Opportunities

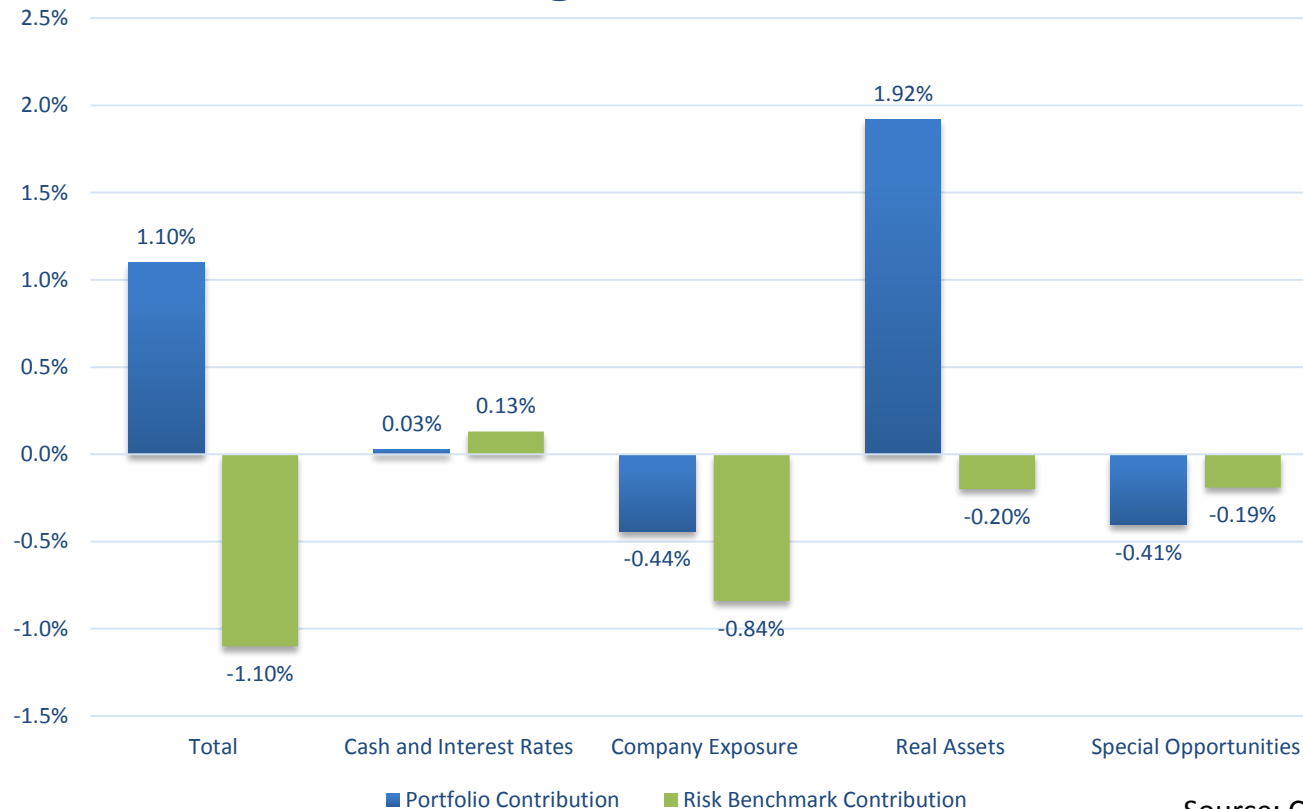
Performance Benchmark: 60% MSCI ACWI IMI, 30% Barclays Global Aggregate, 5% MSCI US REIT, 5% 3-month T-Bills

Source: Callan PEP



Return Contribution vs. Strategic Risk Benchmark

Year ending December 31, 2015



Source: Callan PEP, BNY Mellon

Cash and Interest Rates Benchmark: 20% 3-month US Treasury Bills, 64% BC Global Aggregate Treasury (Hedged), 16% BC US Aggregate MBS

Company Exposure Benchmark: 80% MSCI ACWI IMI/20% Barclays Global Corporate (hedged)

Real Assets Benchmark: 35% 3-month US Treasury Bill, 35% MSCI US REIT, 20% FTSE Developed Core Infrastructure, 10% Barclays U.S. Treasury Inflation-Protected Securities

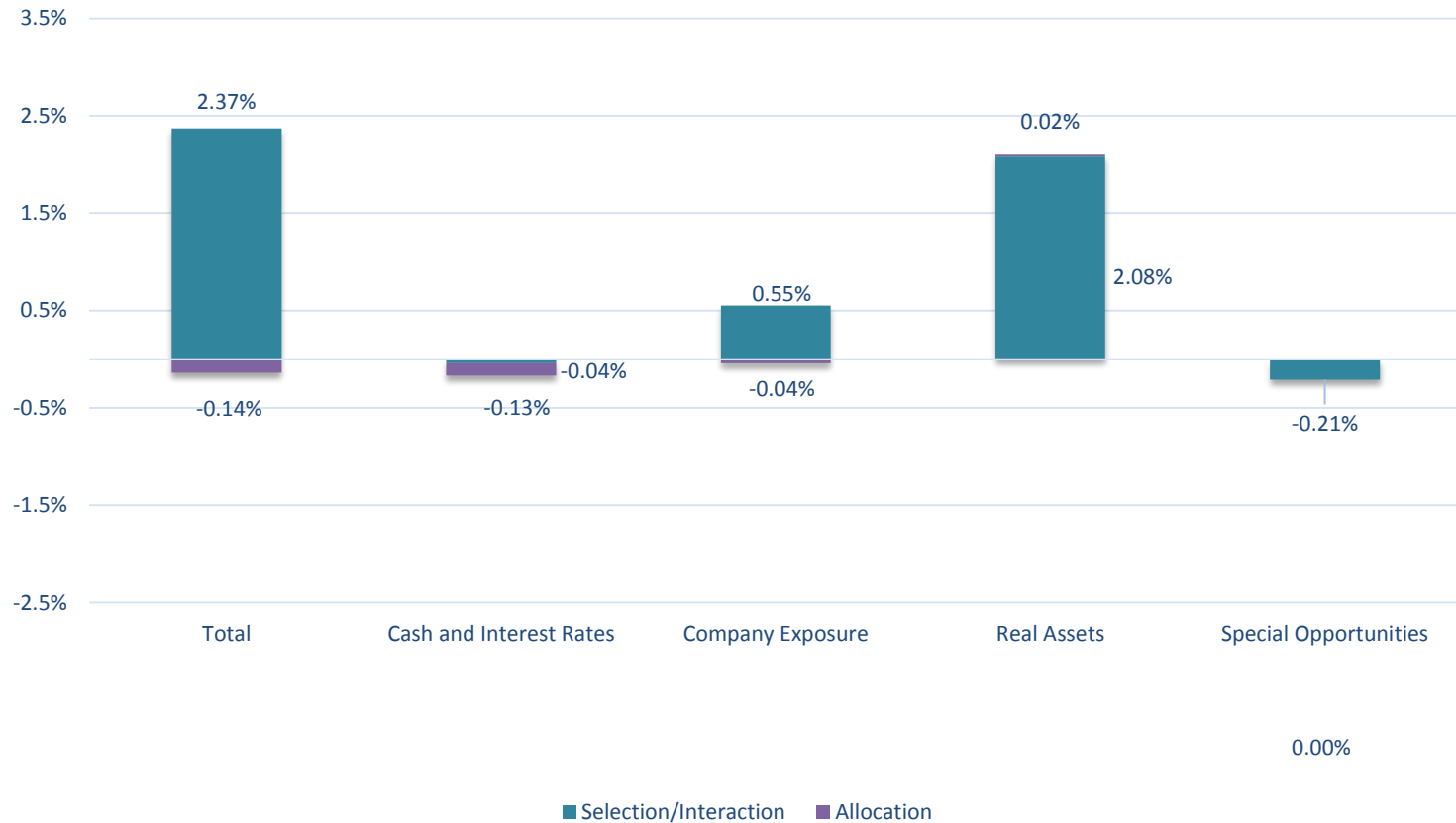
Special Opportunities Benchmark: 12.5% Cash and Interest Rates Benchmark, 65.6% Company Exposure Risk Benchmark, 21.9% Real Assets Risk Benchmark.

Differences due to compounding and rounding



Return Attribution vs. Strategic Risk Benchmark

Year ending December 31, 2015



Differences due to compounding and rounding

Source: Callan and Staff Calculations



Attribution Calculations

Year ending December 31, 2015

Selection/Interaction	Portfolio Bucket Return	BM Risk Bucket Return	BM Bucket Weight	Attribution
Cash and rates	0.48%	1.15%	10%	-0.04%
Company Exposure	-0.75%	-1.67%	52.5%	0.55%
Real Assets	11.51%	-1.22%	17.5%	2.08%
Special Opportunities	-2.25%	-1.10%	20%	0.21%
Total	1.10%	-1.10%		2.37%

Allocation	Effective Actual Weight	BM Risk Bucket Weight	BM Risk Bucket Return	Attribution
Cash and Rates	6%	10%	1.15%	-0.13%
Company Exposure	59%	52.5%	-1.67%	-0.04%
Real Assets	17%	17.5%	-1.22%	0.02%
Special Opportunities	18%	20%	-1.10%	0.00%
Total			-1.10%	-0.14%

Differences due to compounding and rounding

Source: Staff Calculations



Cash and Interest Rates (one year)



Differences due to compounding and rounding

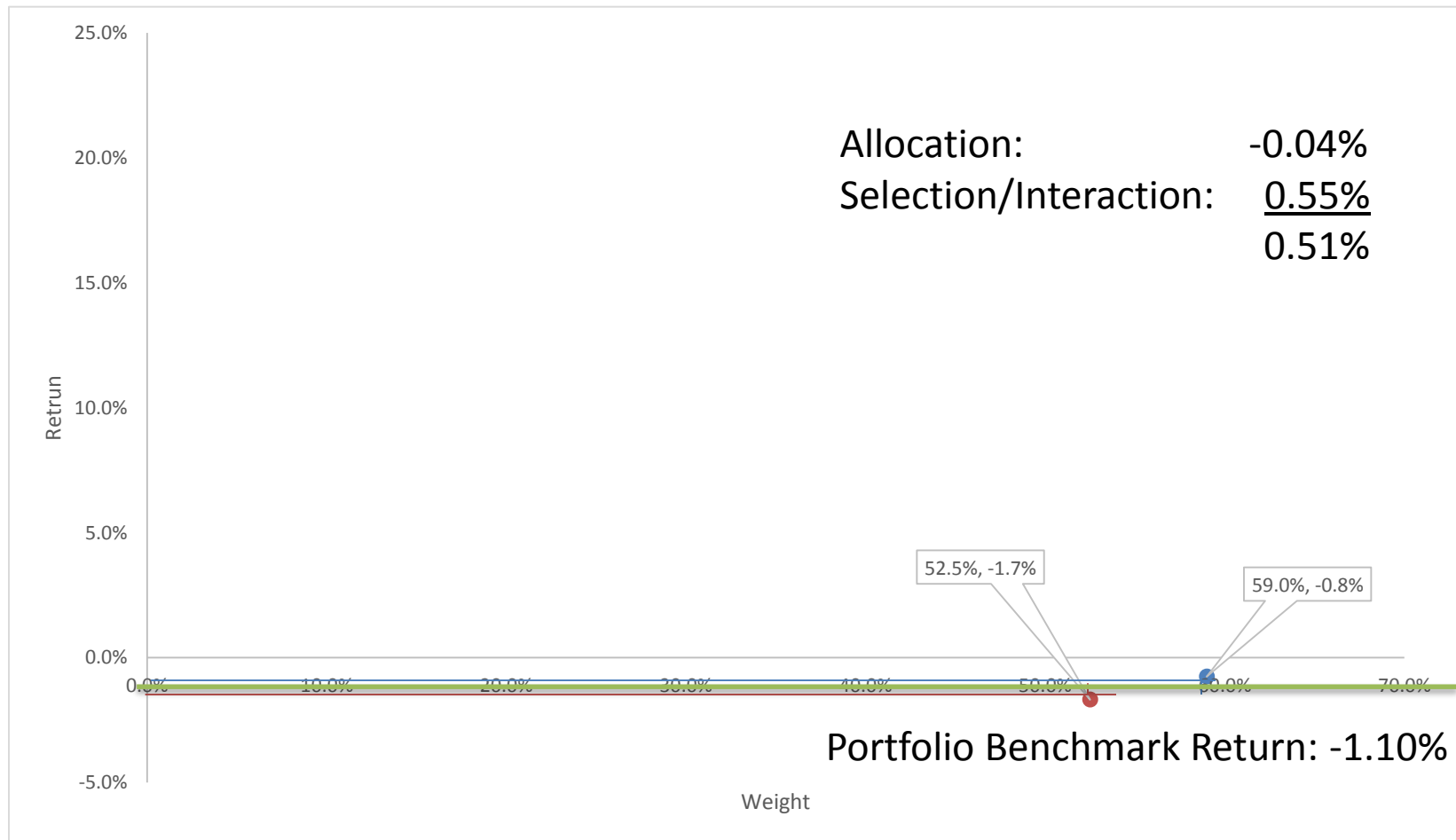
● Portfolio

● Benchmark



Company Exposure

(one year)



Differences due to compounding and rounding

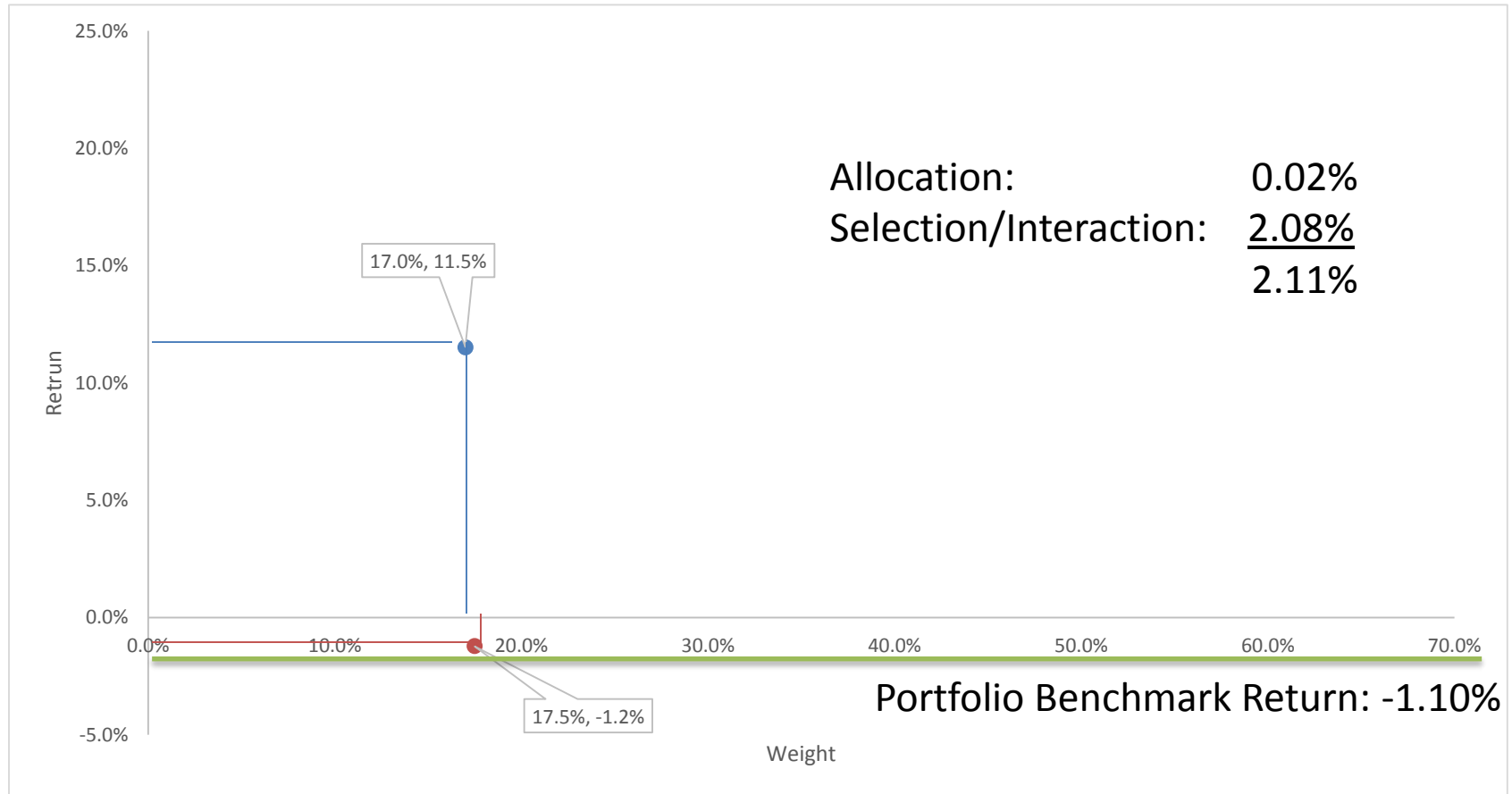
● Portfolio

● Benchmark



Real Assets

(one year)



Differences due to compounding and rounding

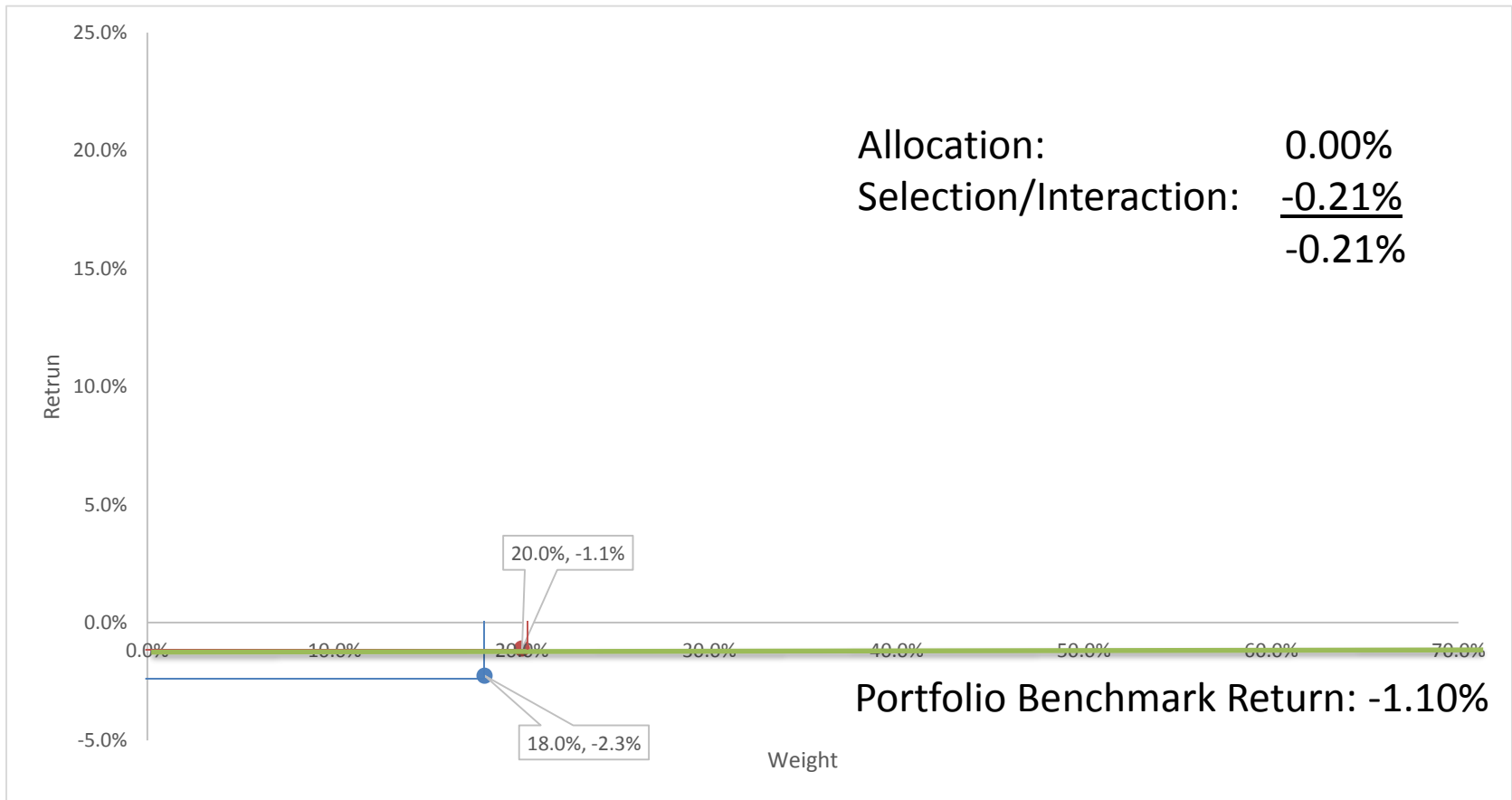
● Portfolio

● Benchmark



Special Opportunities

(one year)



Differences due to compounding and rounding

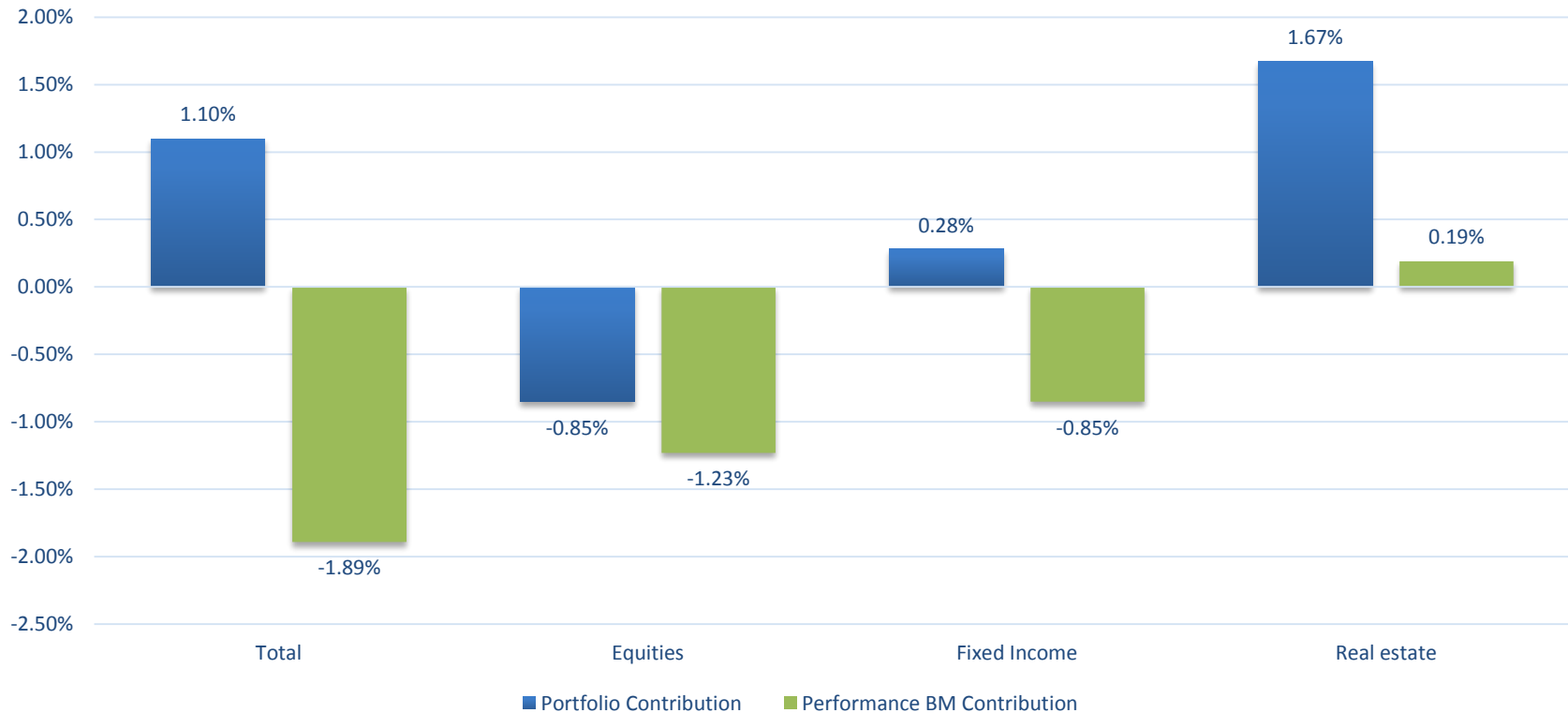
● Portfolio

● Benchmark



Return Contribution vs. Performance Benchmark

Year ending December 31, 2015



Equities Benchmark: MSCI ACWI IMI

Fixed Income Benchmark: Barclays Global Aggregate

Real Estate Benchmark: 50% T-bills/50% MSCI US REITs

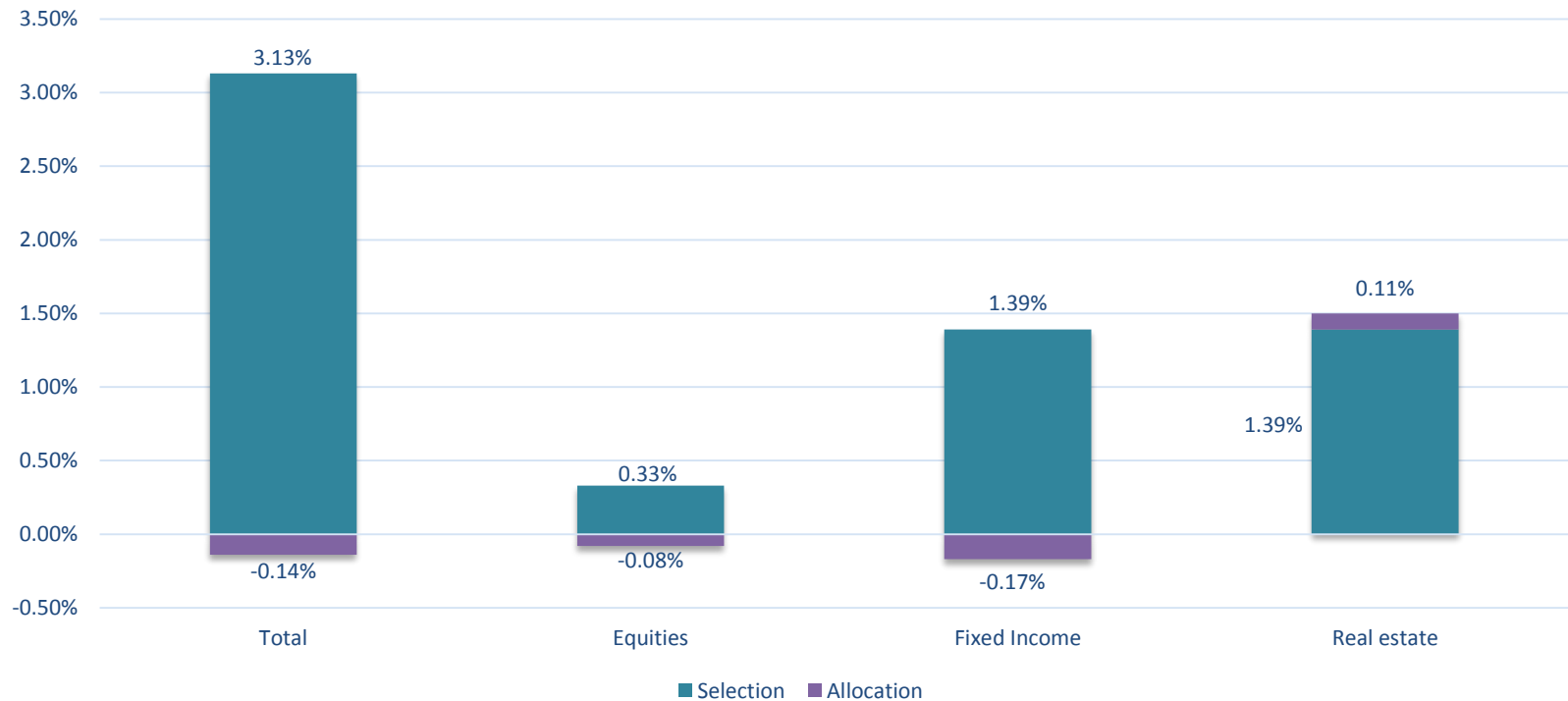
Source: Callan PEP, BNY Mellon

Differences due to compounding and rounding



Return Attribution vs. Performance Benchmark

Year ending December 31, 2015



Differences due to compounding and rounding

Source: Callan and Staff Calculations



Attribution Calculations

Year ending December 31, 2015

Selection/Interaction	Asset Class Return	BM Asset Class Return	BM Asset Class Weight	Attribution
Equities	-1.52%	-2.19%	60%	0.33%
Fixed Income	0.94%	-3.15%	30%	1.39%
Real Estate	14.28%	1.58%	10%	1.39%
Total	1.10%	-1.89%		3.13%

Allocation	Effective Actual Weight	BM Asset Class Weight	BM Asset Class Return	Attribution
Equities	54%	60%	-2.19%	-0.08%
Fixed Income	33%	30%	-3.15%	-0.17%
Real Estate	12%	10%	1.58%	0.11%
Total			-1.89%	-0.14%

Differences due to compounding and rounding

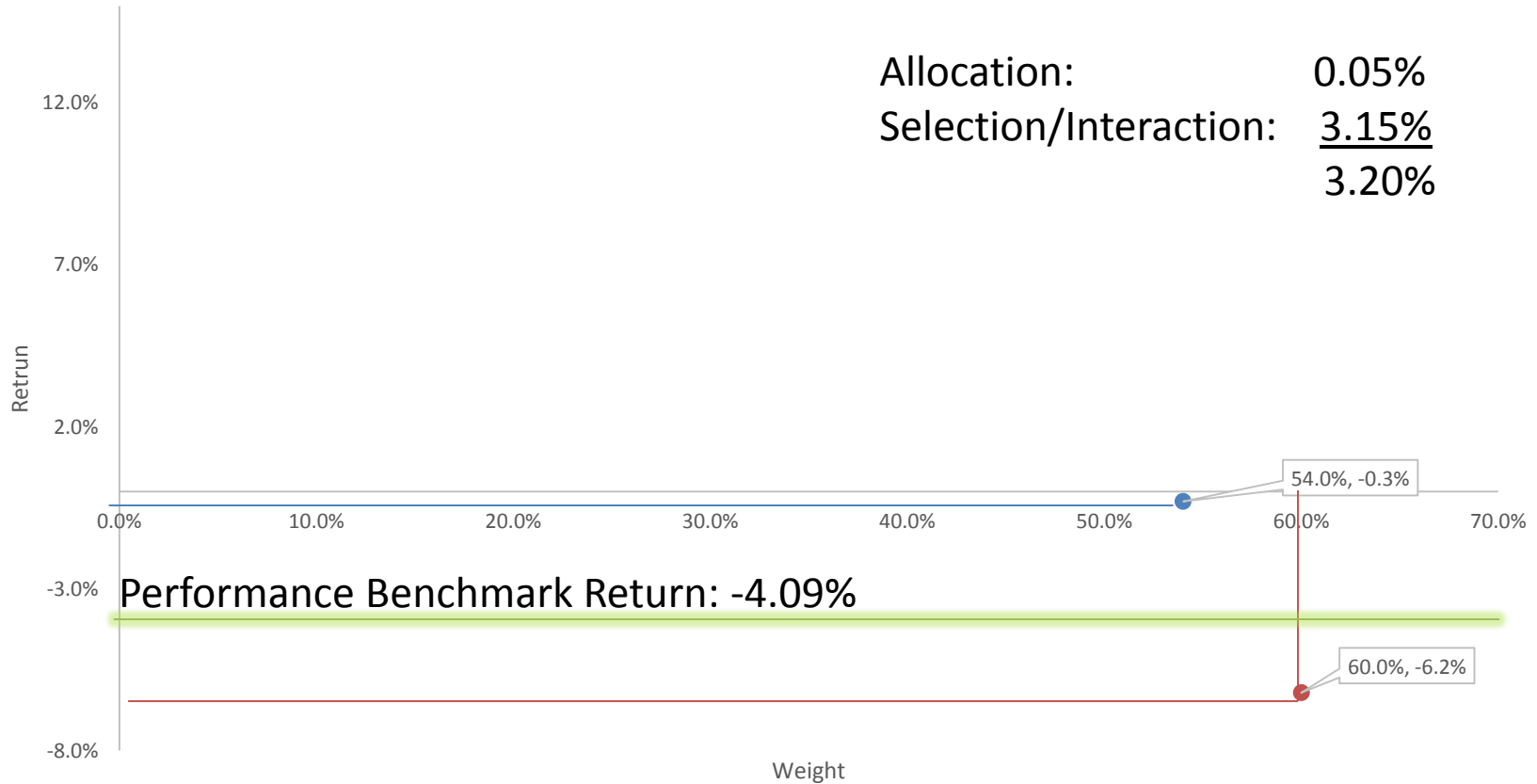
Source: Callan and Staff Calculations



Equities

(one year)

Allocation: 0.05%
Selection/Interaction: 3.15%
3.20%



Differences due to compounding and rounding

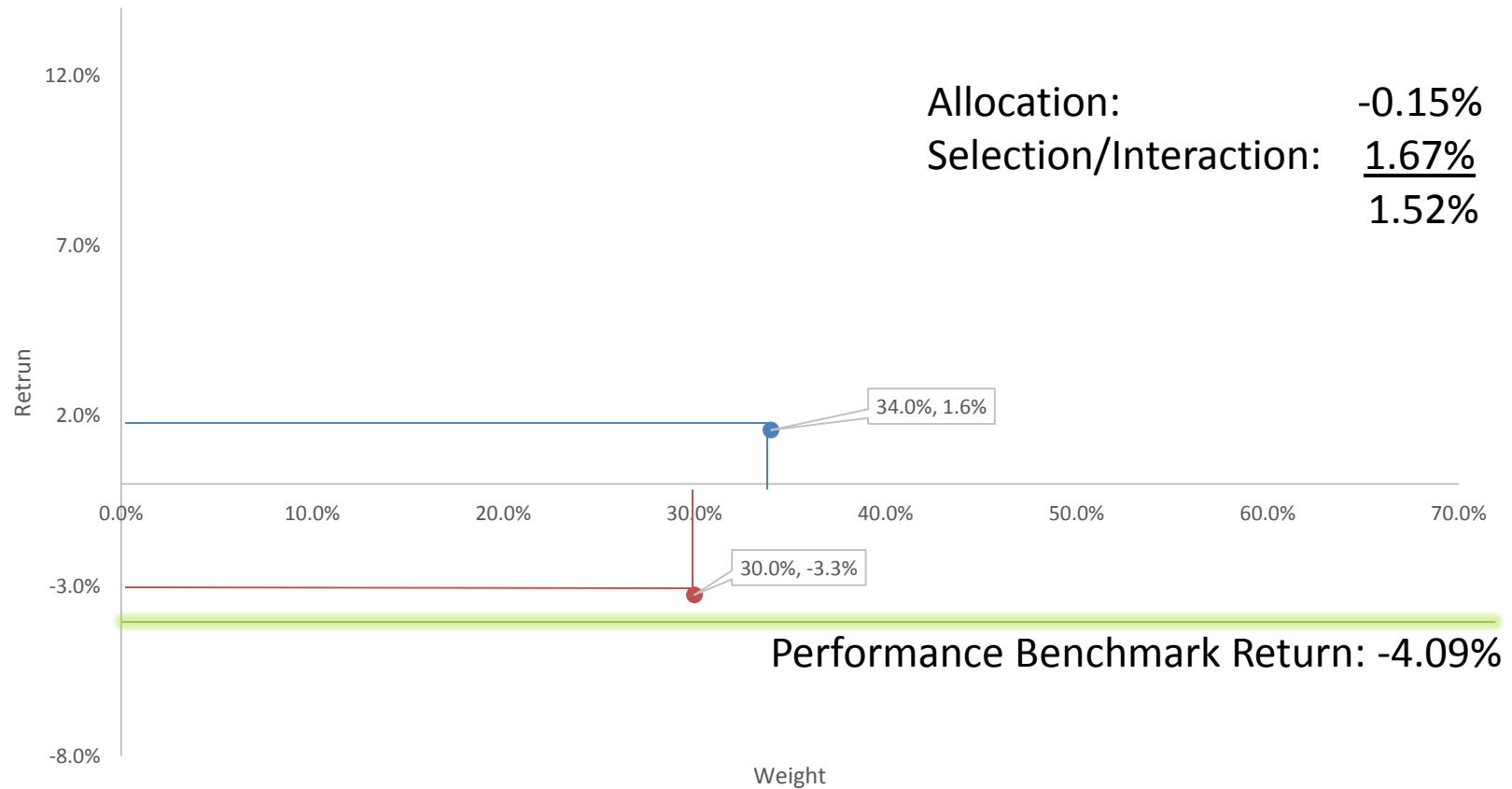
● Portfolio

● Benchmark



Fixed Income

(one year)



Differences due to compounding and rounding

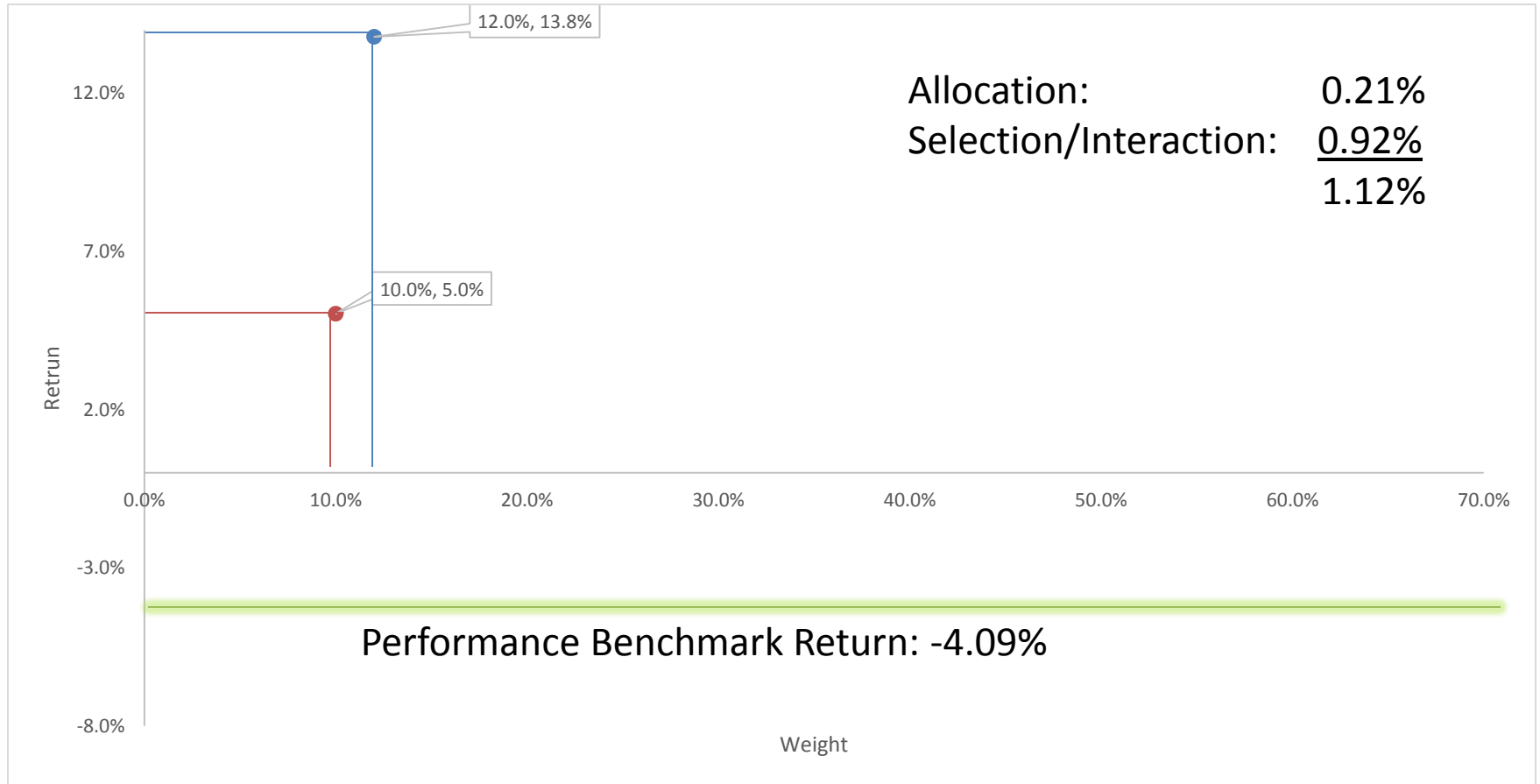
● Portfolio

● Benchmark



Real Estate

(one year)



Differences due to compounding and rounding

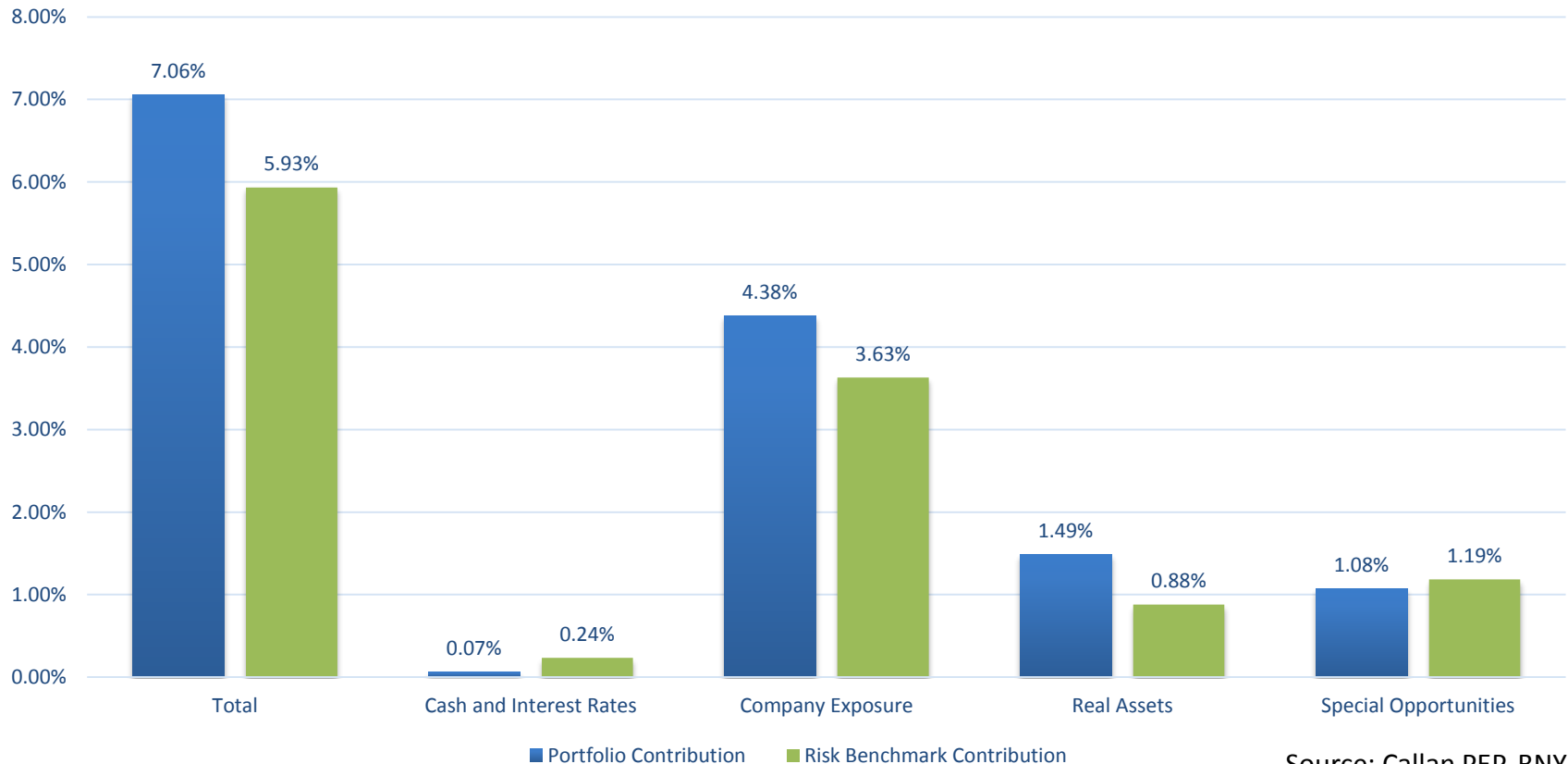
● Portfolio

● Benchmark



Return Contribution vs. Strategic Risk Benchmark

Three years ending December 31, 2015



Source: Callan PEP, BNY Mellon

Cash and Interest Rates Benchmark: 20% 3-month US Treasury Bills, 64% BC Global Aggregate Treasury (Hedged), 16% BC US Aggregate MBS

Company Exposure Benchmark: 80% MSCI ACWI IMI/20% Barclays Global Corporate (hedged)

Real Assets Benchmark: 35% 3-month US Treasury Bill, 35% MSCI US REIT, 20% FTSE Developed Core Infrastructure, 10% Barclays U.S. Treasury Inflation-Protected Securities

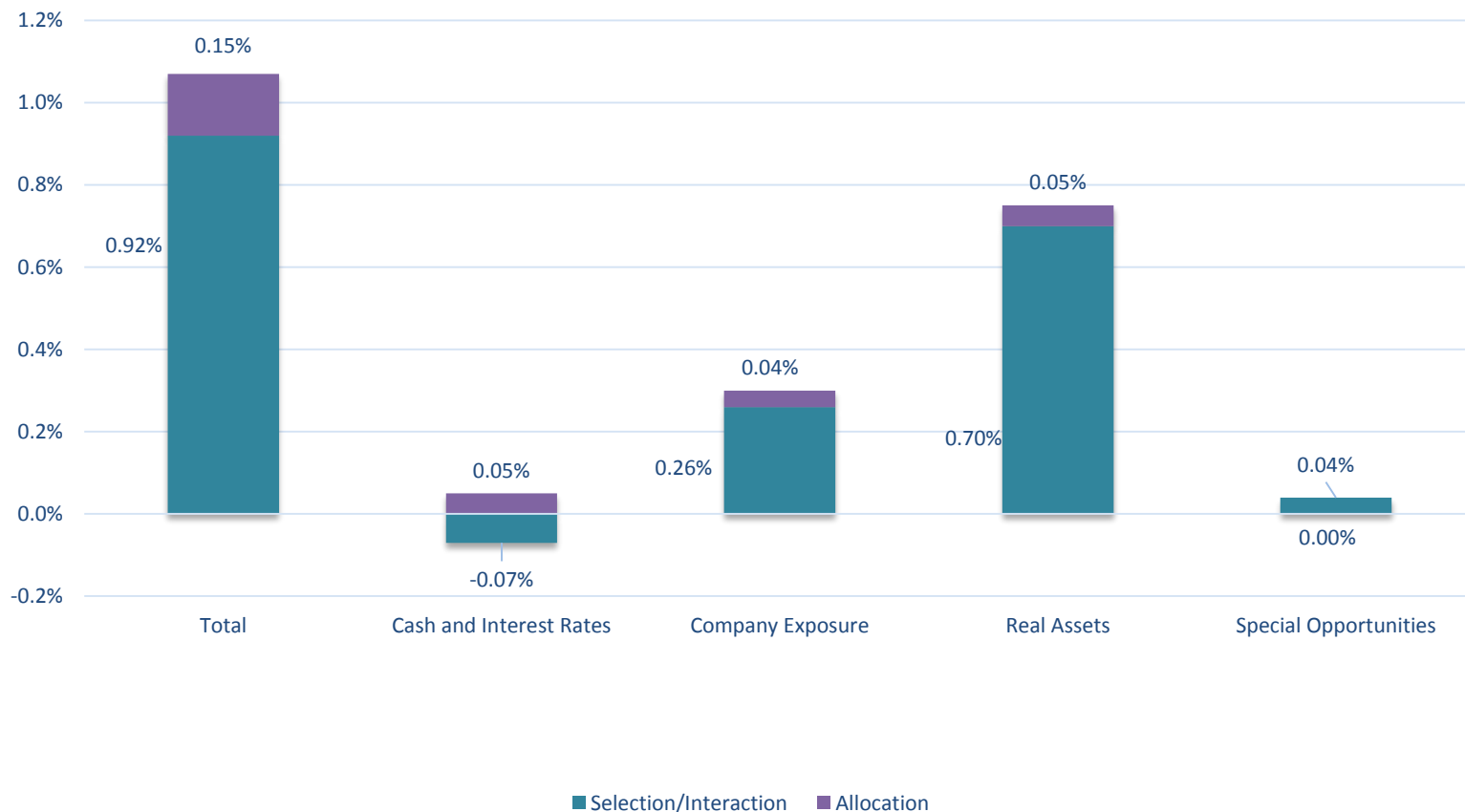
Special Opportunities Benchmark: 12.5% Cash and Interest Rates Benchmark, 65.6% Company Exposure Risk Benchmark, 21.9% Real Assets Risk Benchmark.

Differences due to compounding and rounding



Return Attribution vs. Strategic Risk Benchmark

Three years ending December 31, 2015



Source: Callan and Staff Calculations



Attribution Calculations

Three years ending December 31, 2015

Selection/Interaction	Portfolio Bucket Return	BM Risk Bucket Return	BM Bucket Weight	Attribution
Cash and Rates	1.03%	2.16%	10%	-0.07%
Company Exposure	7.31%	6.84%	52.5%	0.26%
Real Assets	9.49%	4.97%	17.5%	0.70%
Special Opportunities	6.36%	5.78%	20%	0.04%
Total	7.06%	5.93%		0.92%

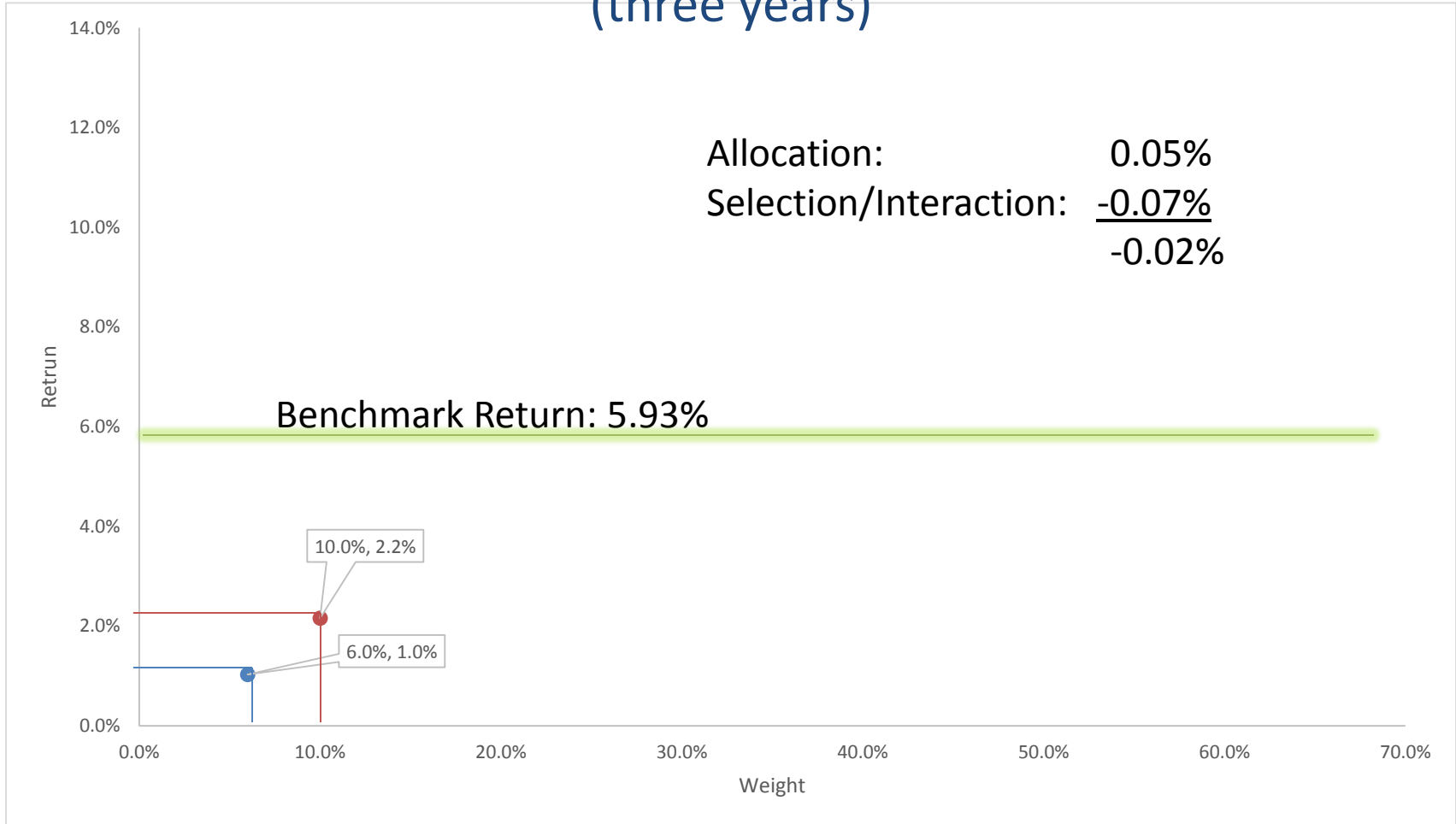
Allocation	Effective Actual Weight	BM Risk Bucket Weight	BM Risk Bucket Return	Attribution
Cash and Rates	6%	10%	2.16%	0.04%
Company Exposure	60%	52.5%	6.84%	0.05%
Real Assets	16%	17.5%	4.97%	0.05%
Special Opportunities	18%	20%	5.78%	0.00%
Total			5.93%	0.15%

Differences due to compounding and rounding

Source: Callan and Staff Calculations



Cash and Interest Rates (three years)



Differences due to compounding and rounding

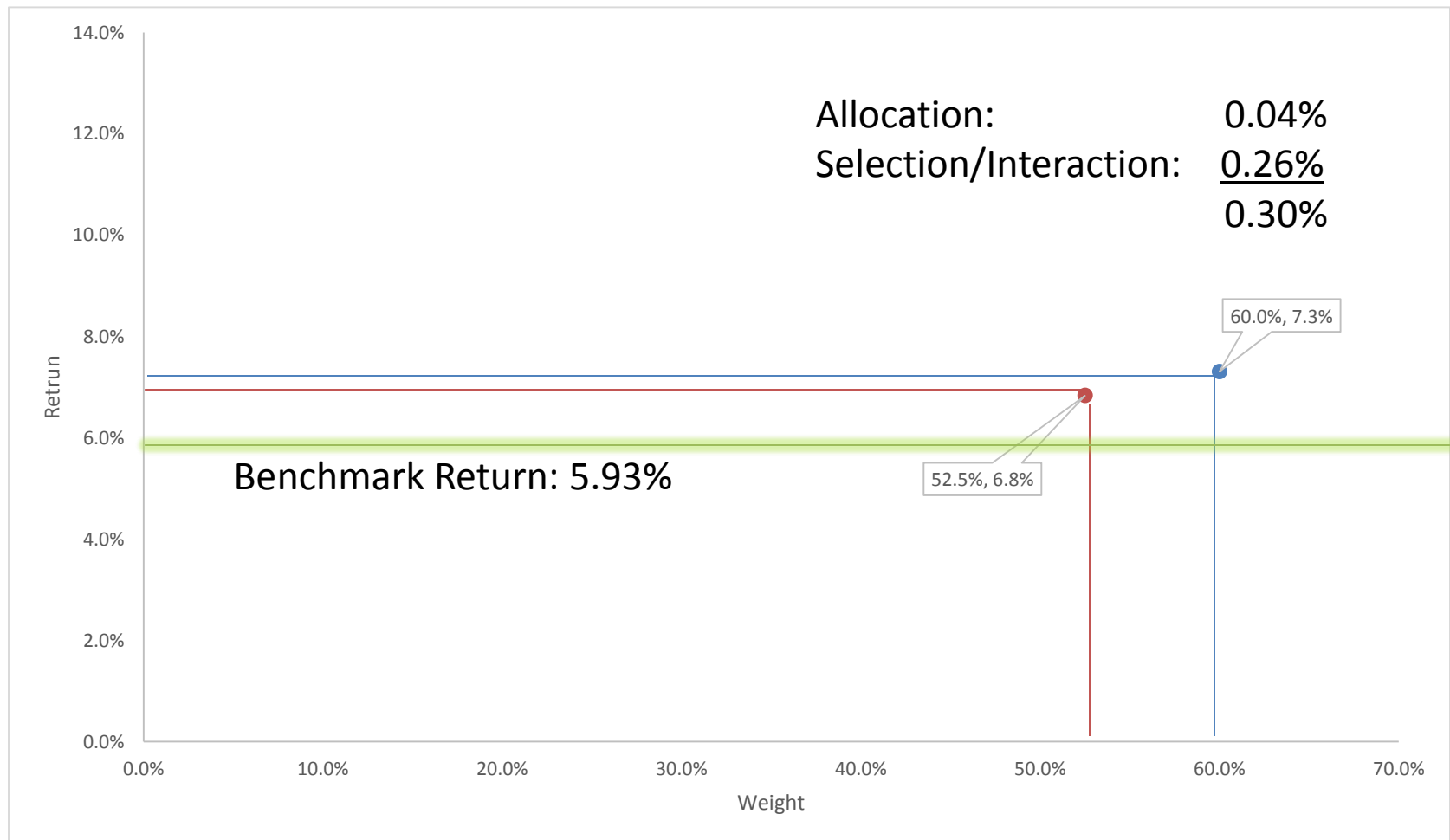
● Portfolio

● Benchmark



Company Exposure

(three years)



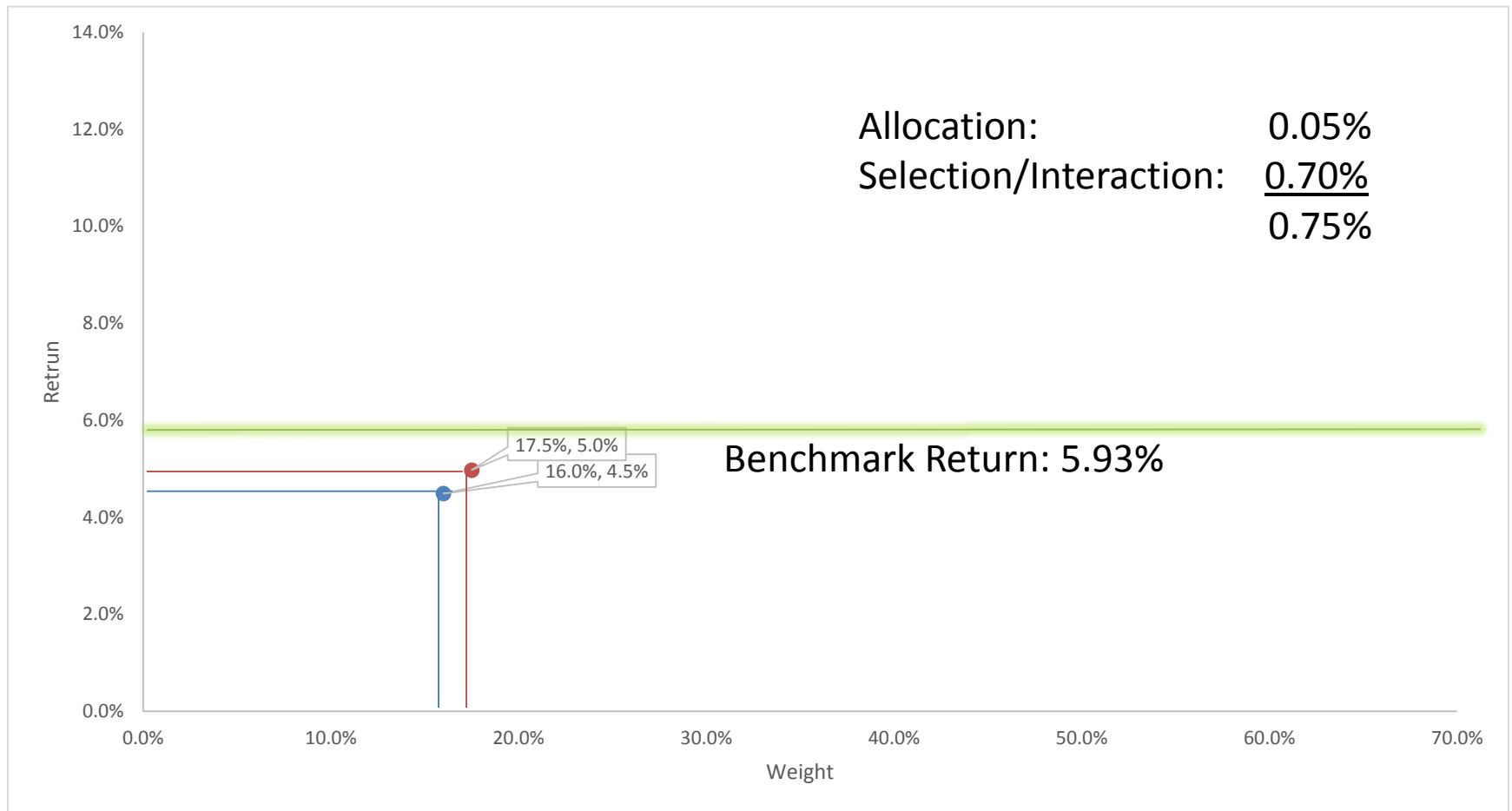
● Portfolio

● Benchmark



Real Assets

(three years)



Differences due to compounding and rounding

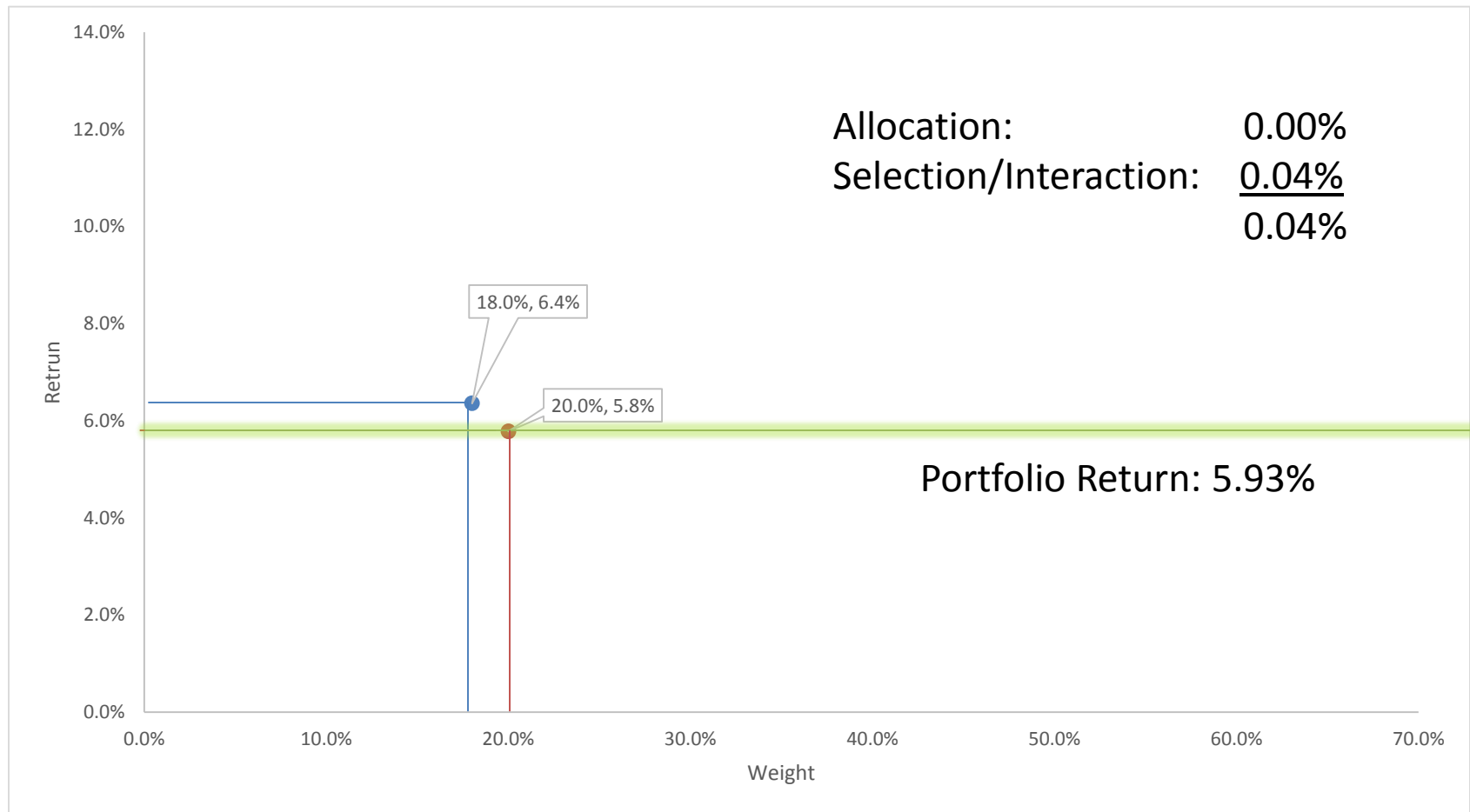
● Portfolio

● Benchmark



Special Opportunities

(three years)



Differences due to compounding and rounding

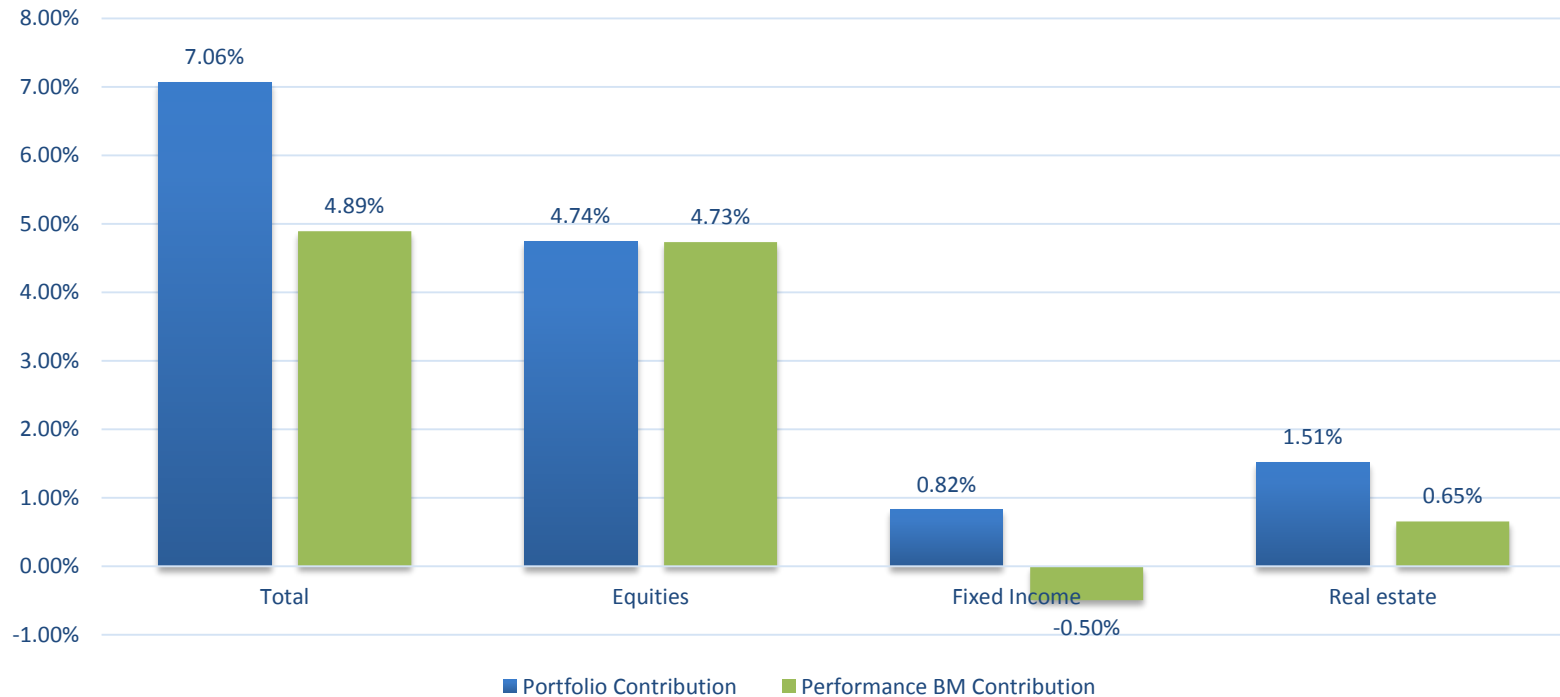
● Portfolio

● Benchmark



Return Contribution vs. Performance Benchmark

Three years ending December 31, 2015



Equities Benchmark: MSCI ACWI IMI

Fixed Income Benchmark: Barclays Global Aggregate

Real Estate Benchmark: 50% T-bills/50% MSCI US REITs

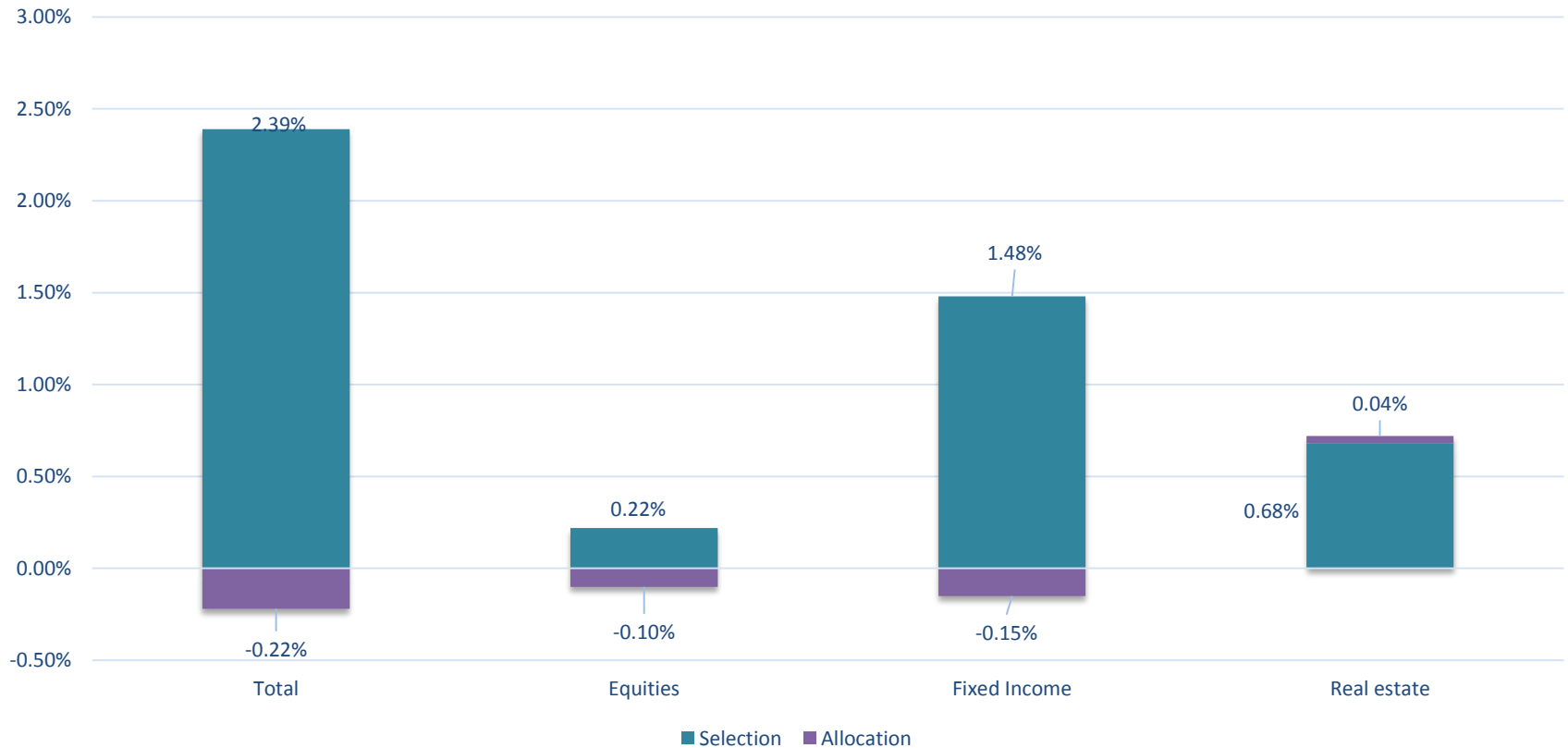
Source: Callan PEP, BNY Mellon

Differences due to compounding and rounding



Return Attribution vs. Performance Benchmark

Three Years ending December 31, 2015



Differences due to compounding and rounding

Source: Callan and Staff Calculations



Attribution Calculations

Three years ending December 31, 2015

Selection/Interaction	Asset Class Return	BM Asset Class Return	BM Asset Class Weight	Attribution
Equities	8.45%	7.86%	60%	0.22%
Fixed Income	2.48%	-1.74%	30%	1.48%
Real Estate	12.48%	6.45%	10%	0.68%
Total	7.06%	4.89%		2.39%

Allocation	Effective Actual Weight	BM Asset Class Weight	BM Asset Class Return	Attribution
Equities	56%	60%	7.86%	-0.10%
Fixed Income	32%	30%	-1.74%	-0.15%
Real Estate	12%	10%	6.45%	0.04%
Total			4.89%	-0.22%

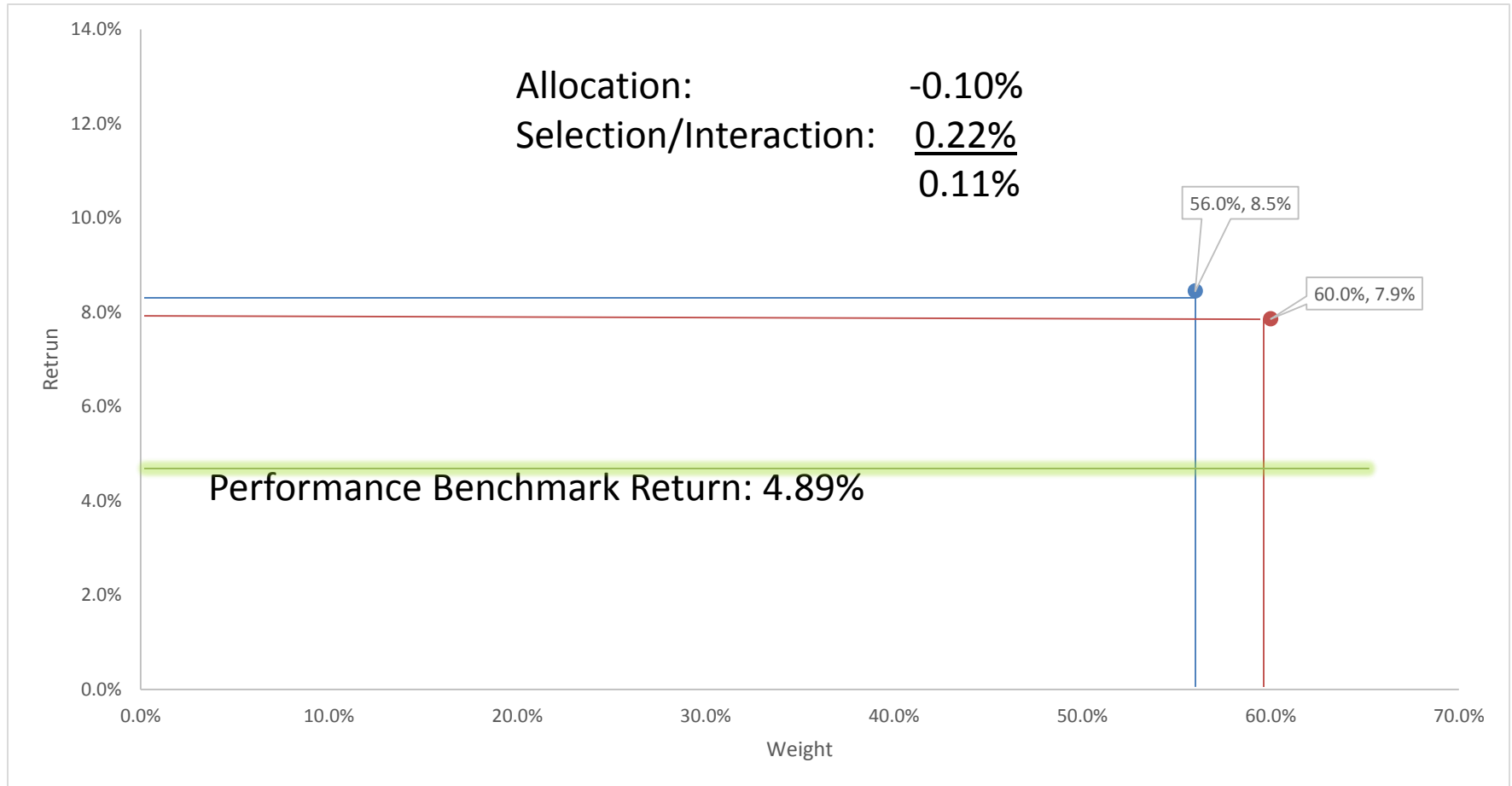
Differences due to compounding and rounding

Source: Callan and Staff Calculations



Equities

(three years)



Differences due to compounding and rounding

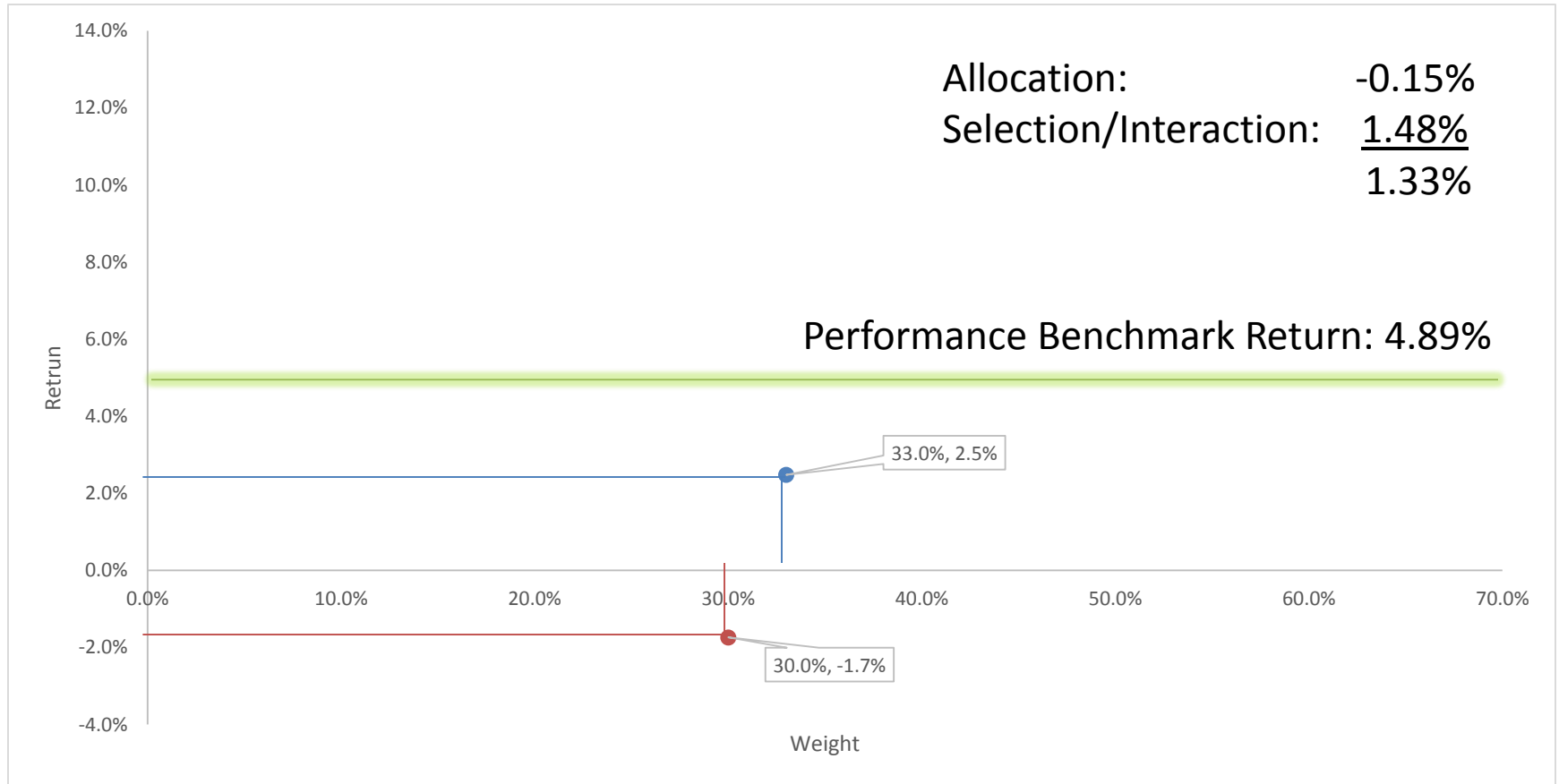
● Portfolio

● Benchmark



Fixed Income

(three years)



Differences due to compounding and rounding

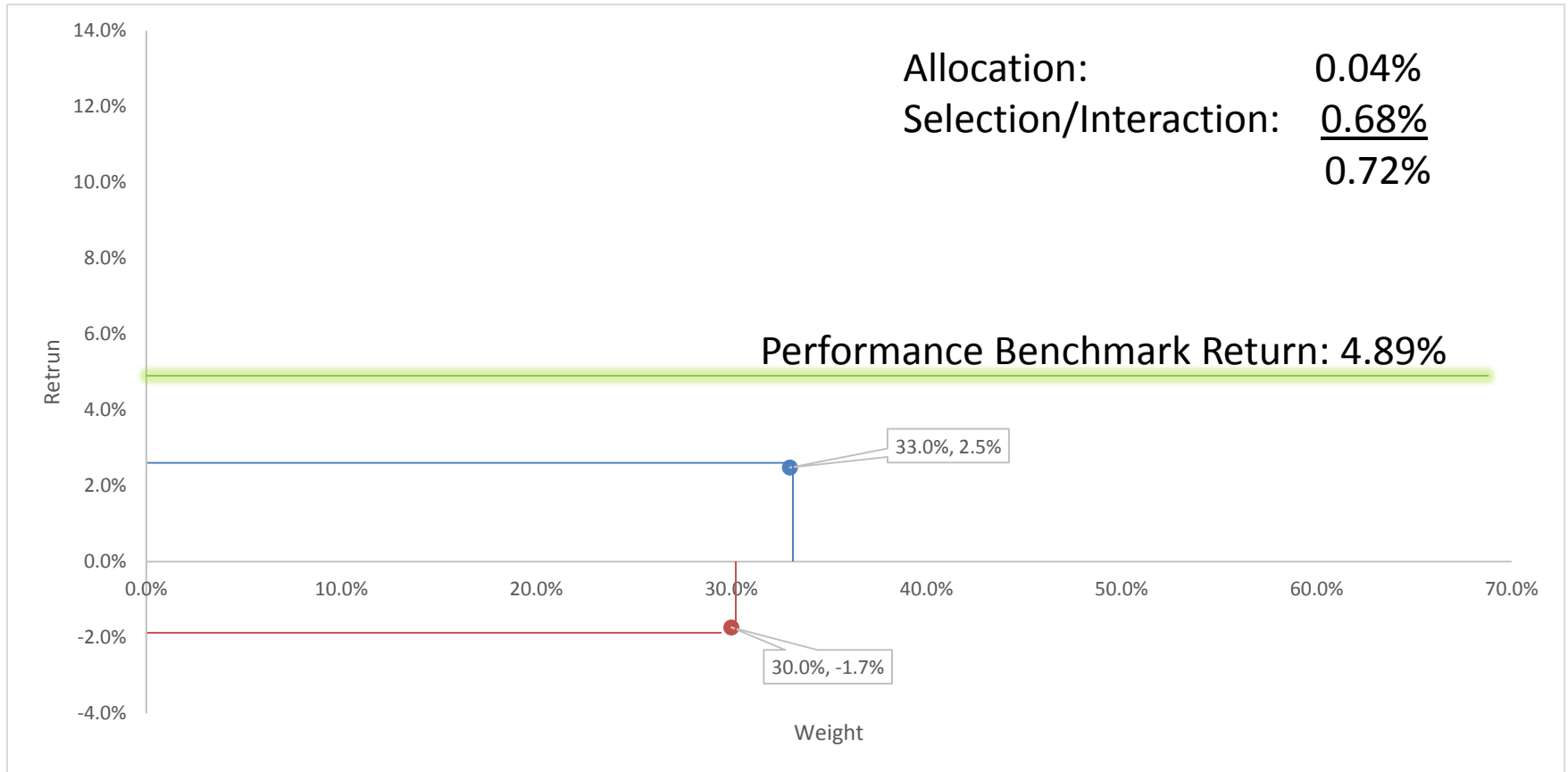
● Portfolio

● Benchmark



Real Estate

(three years)



Differences due to compounding and rounding

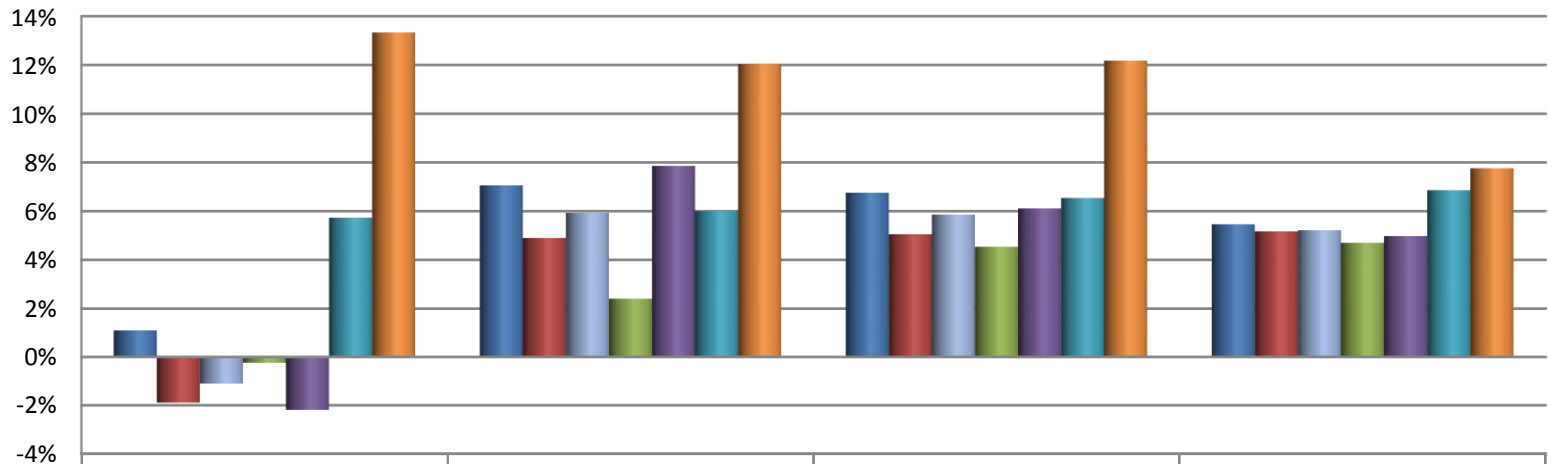
● Portfolio

● Benchmark



Portfolio vs. 60/30/5/5 Bonds, Equities, 5% Real, and Real Estate

as of 12/31/2015



	1 Year	3 Years	5 Years	10 Years
Portfolio	1.10%	7.06%	6.76%	5.46%
Performance*	-1.89%	4.90%	5.05%	5.17%
Strategic Risk Benchmark	-1.10%	5.93%	5.86%	5.22%
BC Global Aggregate Index	-0.24%	2.41%	4.54%	4.70%
MSCI ACWI IMI	-2.19%	7.86%	6.11%	4.98%
5% Real (CPI+5%)	5.73%	6.00%	6.54%	6.86%
NCREIF	13.33%	12.04%	12.18%	7.76%

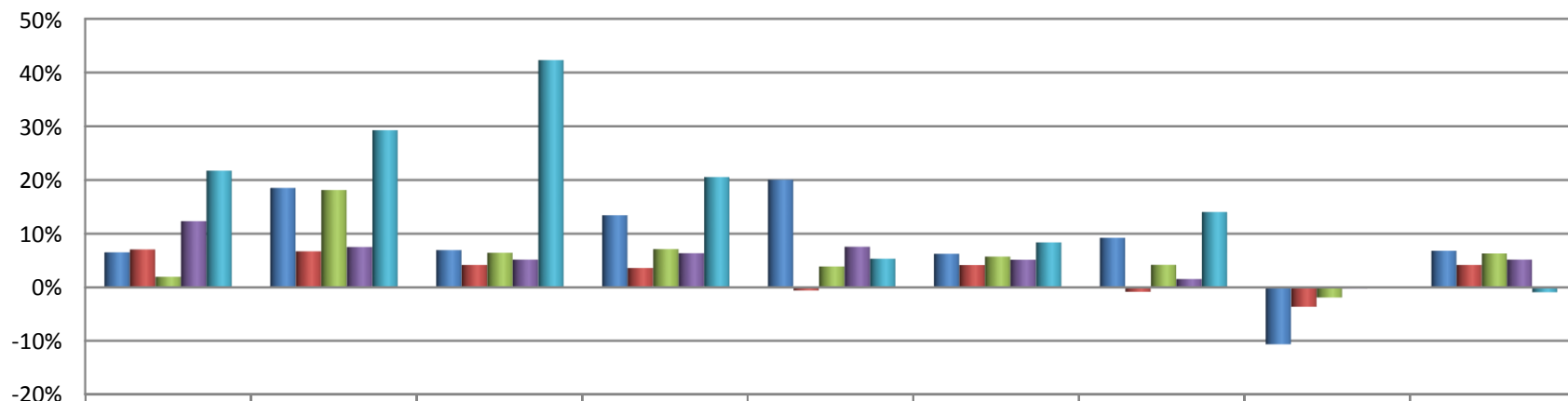
*60/30/5/5: 60% ACWI IMI/30% BC Glb Agg/5% MSCI US REITs/5% 3-month T-Bills

Source: Callan as of 12/31/14

Strategic Risk Benchmark: 12.5% Cash & Interest Rates, 65.6% Company Exposure, 21.9% Real Assets



CY Performance Review by Alternative Asset Classes and Strategies as of 12/31/2015



	APFC Portfolio	Benchmarks	Return Objective	APFC Portfolio	Benchmarks	Return Objective	APFC Portfolio	Benchmarks	Return Objective
	CY 2013			CY 2014			CY 2015		
Infrastructure	6.55%	18.53%	6.95%	13.44%	20.06%	6.26%	9.25%	-10.67%	6.83%
Absolute Return	7.08%	6.72%	4.19%	3.62%	-0.58%	4.16%	-0.83%	-3.64%	4.19%
Real Return	1.98%	18.14%	6.45%	7.15%	3.91%	5.76%	4.22%	-1.89%	6.33%
Distressed Debt	12.35%	7.53%	5.19%	6.38%	7.57%	5.16%	1.56%	-0.24%	5.19%
Private Equity	21.73%	29.26%	42.32%	20.55%	5.36%	8.39%	14.05%	-0.06%	-0.91%

Portfolio

Infrastructure
Absolute Return
Real Return
Distressed Debt
Private Equity

Return Objective

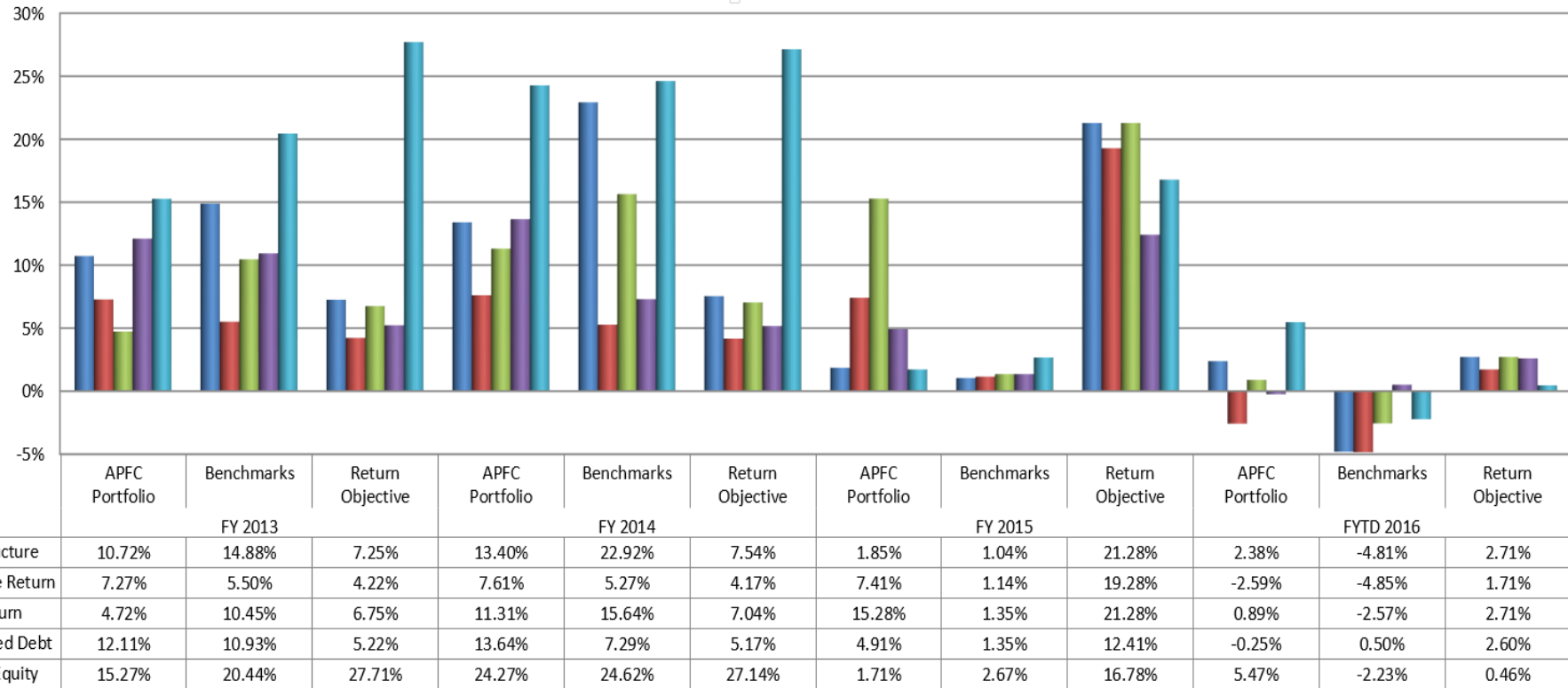
CPI+550bps
Libor+400bps
CPI+500bps
Libor+500bps
Russell 2000+350bps

Benchmarks

FTSE Core Dev Infra Index Total Return
HFRX Global Hedge Fund Index
60% ACWI IMI/30% BC Glob. Agg/5% REITs/5% T-Bills
BC Global Corp Hedged
60% Russell 3000/40% EAFE



FY Performance Review by Alternative Asset Classes and Strategies as of 12/31/2015



Portfolio

Infrastructure
Absolute Return
Real Return
Distressed Debt
Private Equity

Return Objective

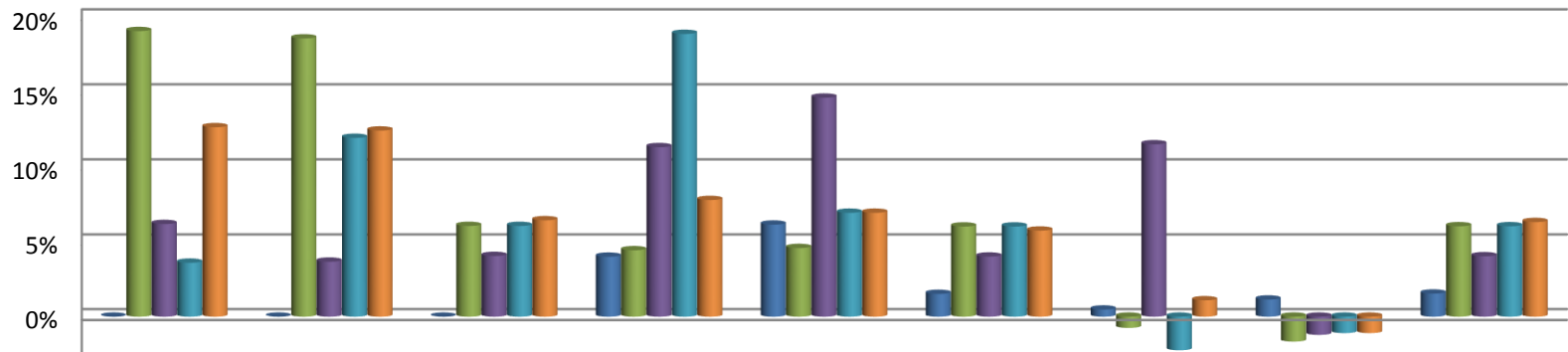
CPI+550bps
Libor+400bps
CPI+500bps
Libor+500bps
Russell 2000+350bps

Benchmarks

FTSE Core Dev Infra Index Total Return
HFRX Global Hedge Fund Index
60% ACWI IMI/30% BC Glob. Agg/5% REITs/5% T-Bills
BC Global Corp Hedged
60% Russell 3000/40% EAFE



CY Performance Review by Risk Buckets as of 12/31/2015



	APFC Portfolio	Benchmarks	Return Objective	APFC Portfolio	Benchmarks	Return Objective	APFC Portfolio	Benchmarks	Return Objective
	CY 2013			CY 2014			CY 2015		
■ Cash & Interest Rates	0.00%	0.00%	0.00%	4.02%	6.16%	1.53%	0.48%	1.15%	1.55%
■ Company Exposure	19.06%	18.57%	6.07%	4.45%	4.60%	6.03%	-0.75%	-1.67%	6.05%
■ Real Assets	6.20%	3.69%	4.07%	11.32%	14.62%	4.03%	11.51%	-1.22%	4.05%
■ Special Opportunities	3.62%	11.94%	6.07%	18.87%	6.95%	6.03%	-2.25%	-1.10%	6.05%
■ Fund *	12.65%	12.43%	6.45%	7.80%	6.95%	5.76%	1.10%	-1.10%	6.33%

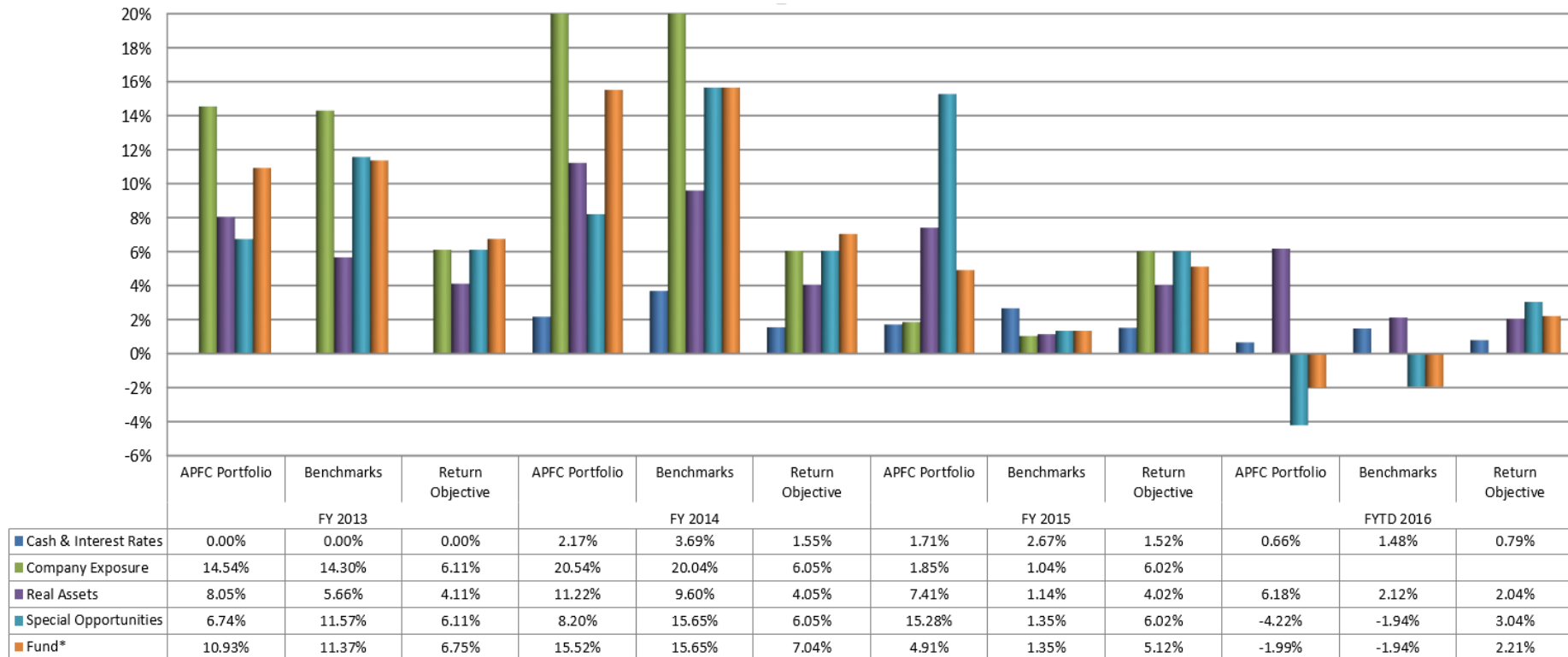
Return Objective

Cash & Interest Rates	T-Bills+150bps
Company Exposure	T-Bills+600bps
Real Assets	T-Bills+400bps
Special Opportunities	T-Bills+600bps
Fund	CPI +500bps

*Benchmark represents the risk benchmark as of 7/1/2013: 12.5% Cash & Interest Rates, 65.6% Company Exposure, 21.9% Real Assets; Old Fund Benchmark was 44.0% ACWI IMI, 14.2% NCREIF, 11.0% BC Global Corp Hdg, 10.8% ACWI IMI, 7.2% BC Global Corp Hdg, 6.0% BC Global Government, 4.8% BC US TIPS Index and 2.0% 3-month T-Bill; Old Special Opps Benchmark was 60% ACWI IMI/40% BC Global Corp Bond Hedged.



FY Performance Review by Risk Buckets as of 12/31/2015



Return Objective

Cash & Interest Rates T-Bills+150bps
 Company Exposure T-Bills+600bps
 Real Assets T-Bills+400bps
 Special Opportunities T-Bills+600bps
 Fund CPI +500bps

*Benchmark represents the risk benchmark as of 7/1/2013: 12.5% Cash & Interest Rates, 65.6% Company Exposure, 21.9% Real Assets; Old Fund Benchmark was 44.0% ACWI IMI, 14.2% NCREIF, 11.0% BC Global Corp Hdg, 10.8% ACWI IMI, 7.2% BC Global Corp Hdg, 6.0% BC Global Government, 4.8% BC US TIPS Index and 2.0% 3-month T-Bill; Old Special Opps Benchmark was 60% ACWI IMI/40% BC Global Corp Bond Hedged.



Equities

Year ending December 31, 2015

Domestic Equities	Weight (%)	Portfolio Return (%)	Contribution to Total (%)	Benchmark Return (%)	Difference (Portfolio - Bmk.)
Mellon Capital Mgmt S&P 500	0.46%	1.65%	0.01%	1.38%	0.27%
AGI (RCM) - Large Cap	1.47%	7.73%	0.11%	4.06%	3.67%
Mellon FTSE RAFI US Large	0.65%	-2.51%	-0.02%	-2.19%	-0.32%
GE Asset Management	0.66%	4.06%	0.03%	0.92%	3.14%
Mellon S&P 400 (prev 1000)	0.24%	-2.11%	-0.01%	-2.18%	0.07%
Eagle Asset Management	0.35%	1.67%	0.01%	-1.38%	3.05%
T. Rowe Price - Value Small Cap	0.32%	-4.39%	-0.01%	-7.47%	3.08%
Jennison Associates LLC	0.36%	-1.67%	-0.01%	-4.41%	2.74%
RBC Asset Mgmt Inc	0.34%	2.09%	0.01%	-1.38%	3.47%
Pzena Investment Management	0.36%	0.19%	0.00%	-7.47%	7.66%
Lyrical - Value LC	0.88%	-5.48%	-0.05%	-3.83%	-1.65%
SKBA - Value LC	0.64%	-3.08%	-0.02%	-3.83%	0.75%
Herndon - Value LC	0.76%	-5.61%	-0.04%	-3.83%	-1.78%
DSM - Growth LC	0.67%	8.51%	0.06%	5.67%	2.84%
CastleArk - Growth LC	0.68%	4.34%	0.03%	5.67%	-1.03%

Source: Callan PEP, BNY Mellon



Equities

Year ending December 31, 2015

International Equities	Weight (%)	Portfolio Return (%)	Contribution to Total (%)	Benchmark Return (%)	Difference (Portfolio - Bmk.)
APF SPDR YIELD*	0.63%	N/A	N/A	N/A	N/A
APF SPDR MOMENTUM*	0.63%	N/A	N/A	N/A	N/A
APF SPDR LOW VOL*	0.64%	N/A	N/A	N/A	N/A
LSV Large Cap Value*	0.93%	N/A	N/A	N/A	N/A

*These accounts were funded in late December

Source: Callan PEP, BNY Mellon



Equities

Year ending December 31, 2015

Non-Domestic Equities	Weight (%)	Portfolio Return (%)	Contribution to Total (%)	Benchmark Return (%)	Difference (Portfolio - Bmk.)
Mellon Capital Mgmt - MSCI World ex-US	2.80%	-2.76%	-0.08%	-3.04%	0.28%
DFA International Large Cap	2.61%	-3.70%	-0.10%	-3.04%	-0.66%
GE Asset Management – EAFE	0.84%	-2.56%	-0.02%	-3.04%	0.48%
Acadian Asset Mgmt Non-US – EAFE	1.17%	-0.60%	-0.01%	-3.04%	2.44%
DFA International Small Company	0.60%	6.64%	0.04%	5.46%	1.18%
SSGA World ex US Small Cap Index	0.59%	5.71%	0.03%	5.46%	0.25%
SSGA World	0.60%	-0.42%	0.00%	-2.36%	1.94%
DFA International Small Cap Value	0.60%	5.23%	0.03%	1.06%	4.17%

Source: Callan PEP, BNY Mellon



Equities

Year ending December 31, 2015

Emerging Market Equities	Weight (%)	Portfolio Return (%)	Contribution to Total (%)	Benchmark Return (%)	Difference (Portfolio - Bmk.)
Cap Guardian Emerging Markets	0.01%	-22.07%	0.00%	-14.92%	-7.15%
Mondrian Investment Partners	0.69%	-15.02%	-0.10%	-14.92%	-0.10%
SSGA Emerging Markets Index	1.76%	-14.37%	-0.25%	-14.92%	0.55%
Lee Munder EM	0.39%	-17.95%	-0.07%	-14.92%	-3.03%
William Blair EM	0.86%	-11.66%	-0.10%	-14.92%	3.26%
Delaware EM	0.39%	-15.17%	-0.06%	-14.92%	-0.25%
JP Morgan EM	0.66%	-12.51%	-0.08%	-14.92%	2.41%

International Equities	Weight (%)	Portfolio Return (%)	Contribution to Total (%)	Benchmark Return (%)	Difference (Portfolio - Bmk.)
Johnston Intl LC Equity	0.36%	1.44%	0.01%	-0.91%	2.35%
Schroders Intl LC Equity	0.34%	-3.49%	-0.01%	-9.59%	6.10%
LSV Intl LC Equity	0.33%	-6.68%	-0.02%	-9.59%	2.91%
JP Morgan Intl LC Equity	0.37%	2.52%	0.01%	-0.91%	3.43%

Source: Callan PEP, BNY Mellon



Equities

Year ending December 31, 2015

Global Equities	Weight (%)	Portfolio Return (%)	Contribution to Total (%)	Benchmark Return (%)	Difference (Portfolio - Bmk.)
Lazard Global Equity	3.33%	-0.07%	0.00%	-2.36%	2.29%
State Street Russell Fundamental LC	2.30%	-3.53%	-0.08%	-3.61%	-3.53%
AQR Capital Mgmt Global	2.56%	2.35%	0.06%	-0.87%	3.22%
McKinley Global	1.31%	3.32%	0.04%	-2.36%	5.68%
Tactical Tilts (1) (2)	0.98%	-16.16%	-0.16%	-2.19%	-13.97%

- (1) Represents quarter return for manager and benchmark
 (2) The benchmark for this mandate is the ACWI IMI

Source: Callan PEP, BNY Mellon



Equities

Year ending December 31, 2015

Private Equities	Weight (%)	Portfolio Return (%)	Contribution to Total (%)	Benchmark Return (%) (1)	Difference (Portfolio - Bmk.)
Total	6.5%	14.05%	0.91%	-0.06%	14.11%

(1) 60% Russell 3000/40% MSCI World



Domestic Fixed Income

Year ending December 31, 2015

Domestic Fixed Income	Weight (%)	Portfolio Return (%)	Contribution to Total (%)	Benchmark Return (%)	Difference (Portfolio - Bmk.)
In House Government Bonds	2.03%	0.33%	0.01%	0.84%	-0.51%
In House MBS	1.19%	1.50%	0.02%	1.52%	-0.02%
In House Corporate Bonds	5.37%	-0.71%	-0.04%	-0.68%	-0.03%
In House CMBS	0.61%	1.08%	0.01%	1.22%	-0.14%
In House TIPS	0.05%	-1.53%	0.00%	-1.44%	-0.09%
AK Permanent Capital Mgmt	0.08%	-0.39%	0.00%	-0.52%	0.13%
Oaktree High Yield Fixed Income	0.65%	-3.74%	-0.02%	-2.82%	-0.92%
Cap Guardian High Yield Fixed Income	0.28%	-4.60%	-0.01%	-4.43%	-0.17%
In House Aggregate	2.00%	0.17%	0.00%	0.55%	-0.38%
In House Intermediate Corporate	2.40%	1.62%	0.04%	1.08%	0.54%

Source: Callan PEP, BNY Mellon



International Fixed Income and Private Credit

Year ending December 31, 2015

Global Fixed Income	Weight (%)	Portfolio Return (%)	Contribution to Total (%)	Benchmark Return (%)	Difference (Portfolio - Bmk.)
Rogge Global Partners	0.62%	1.44%	0.01%	1.62%	-0.18%
In House Global Fixed Income	0.41%	1.13%	0.00%	1.62%	-0.49%

Emerging Market Equities	Weight (%)	Portfolio Return (%)	Contribution to Total (%)	Benchmark Return (%)	Difference (Portfolio - Bmk.)
Crestline Credit Opportunities (1)	1.79%	0.87%	0.02%	3.20%	-2.33%
Oaktree III Mez Debt (2)	0.17%	8.23%	0.01%	26.48%	-18.25%
Audax III Mez Debt (2)	0.24%	15.11%	0.04%	26.48%	-11.37%

(1) Benchmark is High yield +150 bps

(2) Return objective Libor + 600 bps

Source: Callan PEP, BNY Mellon



Real Estate, Infrastructure and TIPs

Year ending December 31, 2015

Infrastructure (1)	Weight (%)	Portfolio Return (%)	Contribution to Total (%)	Benchmark Return (%)	Difference (Portfolio - Bmk.)
Total	3.2%	9.25%	0.30%	-10.67	19.92%

Real Estate	Weight (%)	Portfolio Return (%)	Contribution to Total (%)	Benchmark Return (%)	Difference (Portfolio - Bmk.)
RE LaSalle	2.22%	12.77%	0.28%	13.33%	-0.56%
RE CB Richard Ellis	1.25%	8.07%	0.10%	13.33%	-5.26%
RE L&B Realty Advisors	3.64%	19.38%	0.71%	13.33%	6.05%
RE SHLP Reoc	2.41%	18.06%	0.44%	13.33%	4.73%
RE Sentinel	0.47%	11.07%	0.05%	13.33%	-2.26%
RE Lincoln	0.13%	12.44%	0.02%	13.33%	-0.89%
RE LaSalle International	0.23%	6.91%	0.02%	13.33%	-6.42%
RE CB Richard Ellis International	0.21%	14.60%	0.03%	13.33%	1.27%
AEW Global RE securities (2)	0.87%	3.82%	0.03%	1.96%	1.86%
American Home 4 Rent (2)	1.44%	-0.97%	-0.01%	1.96%	-2.93%

(1) Per manager agreement, infrastructure returns are presented as a composite

(2) Benchmark: UBS Global REIT Index

Source: Callan PEP, BNY Mellon



Real and Absolute Return

Year ending December 31, 2015

Real Return Mandates	Weight (%)	Portfolio Return (%)	Contribution to Total (%)	Benchmark Return (%)	Difference (Portfolio - Bmk.)
Carlyle PCIO	0.28%	16.82%	0.05%	-1.10%	17.92%
Apollo Credit Opportunities Fund III	0.17%	-17.95%	-0.03%	-1.10%	-16.85%
Total					

Absolute Return Mandates	Weight (%)	Portfolio Return (%)	Contribution to Total (%)	Benchmark Return (%)	Difference (Portfolio - Bmk.)
Mariner	1.99%	-0.40%	-0.01%	-3.64%	3.24%
Crestline Investors, Inc.	1.96%	-0.46%	-0.01%	-3.64%	3.18%
Lazard Alternatives, LLC	0.75%	-2.98%	-0.02%	-3.64%	0.66%
APF Fund of Fund	5.42%	4.22%	0.23%	-1.10%	5.32%

(1) Real Return Mandates Benchmark returns represent the Fund's strategic risk benchmark

Source: Callan PEP, BNY Mellon



Other Opportunities

Year ending December 31, 2015

Other Opportunities	Weight (%)	Portfolio Return (%)	Contribution to Total (%)	Benchmark Return (%)	Difference (Portfolio - Bmk.)
AKRC Riverstone *	0.55%	-11.01%	-0.06%	-1.10%	-9.91%
CL Alaska**	2.15%	-15.82%	-0.34%	-1.10%	-14.72%
AH4R II	0.31%	-0.11%	0.00%	-1.10%	0.99%
Arch Venture VIII	0.11%	-15.31%	-0.02%	-1.10%	-14.21%
Blackstone *	0.09%	0.65%	0.00%	-1.10%	1.75%

* Does not include value of GP stake /revenue share

** Juno completed private equity financing B round in August at price of 273% of our cost, and came public on December 19, 2014 at a price of 24x our original cost (476% of our total average cost)



Emerging Market and Debt Opportunities

Year ending December 31, 2015

Emerging Market Opportunities	Weight (%)	Portfolio Return (%)	Contribution to Total (%)	Benchmark Return (%)	Difference (Portfolio - Bmk.)
Cap Guardian ETOP	0.00%	-5.98%	0.00%	-10.95%	4.97%
Oaktree EMOF	0.02%	4.65%	0.00%	-1.10%	5.75%

Other Opportunities	Weight (%)	Portfolio Return (%)	Contribution to Total (%)	Benchmark Return (%)	Difference (Portfolio - Bmk.)
Cap Guardian High Yield Emrg. Mrkt. Debt	1.01%	-7.49%	-0.08%	-7.12%	-0.37%
Oaktree Opportunities Fund VIII	0.23%	-10.70%	-0.02%	26.48%	-37.18%

(1) Return Objective: Libor + 600

Source: Callan PEP, BNY Mellon



APFC Internal Fixed Income Portfolio

James Parise
February 23, 2016



Alaska Permanent Fund Corporation

Internal Fixed Income Performance

- **Barclays Aggregate Portfolio (\$1,048mm)**

- Neutral duration to small underweight
- Overweight spread product and TIPS

- **Corporate Bond Portfolio (\$2,807mm)**

- Decrease in credit quality as spreads widen
- Overweight 10+ year Credit

- **Intermediate Corporate Bond Portfolio (\$1,258mm)**

- Barclays' U.S. Intermediate Corp Bond Index is formal benchmark
- Cash is the Unofficial Internal Benchmark

- **Government Bond Portfolio (\$1,063mm)**

- Duration neutral, slight 5s/30s curve flattening bias
- Overweight to TIPS

- **MBS Portfolio (\$622mm)**

- Neutral across the Coupon Stack
- Underweight to 20yr MBS

- **TIPS Portfolio (\$586mm)**

- Neutral duration
- Concentrated security selection due to Relative Value dislocation

- **CMBS Portfolio (\$318mm)**

- Ultra High Quality
- Increasing allocation to newer vintage

- **Global Government Bond Portfolio (\$221mm)**

- Short duration overall; duration overweight in Eurozone
- Underweight Japan, Korea and the UK vs. Nordics and Asia-Pacific

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Portfolio	-0.48	0.17	n/a	n/a
Index	-0.57	0.55	n/a	n/a
Portfolio	-0.25	-0.71	2.11	4.96
Index	-0.58	-0.68	1.67	4.53
Portfolio	-0.30	1.62	n/a	n/a
Index	0.42	1.08	n/a	n/a
Portfolio	-0.76	0.33	0.90	2.17
Index	-0.94	0.84	1.00	2.91
Portfolio	-0.19	1.50	2.03	3.01
Index	-0.10	1.51	2.01	2.96
Portfolio	-0.69	-1.53	-2.28	2.53
Index	-0.64	-1.44	-2.27	2.55
Portfolio	-1.13	1.08	1.52	3.36
Index	-1.31	1.22	1.64	3.43
Portfolio	0.44	1.13	n/a	n/a
Index	0.57	1.62	n/a	n/a

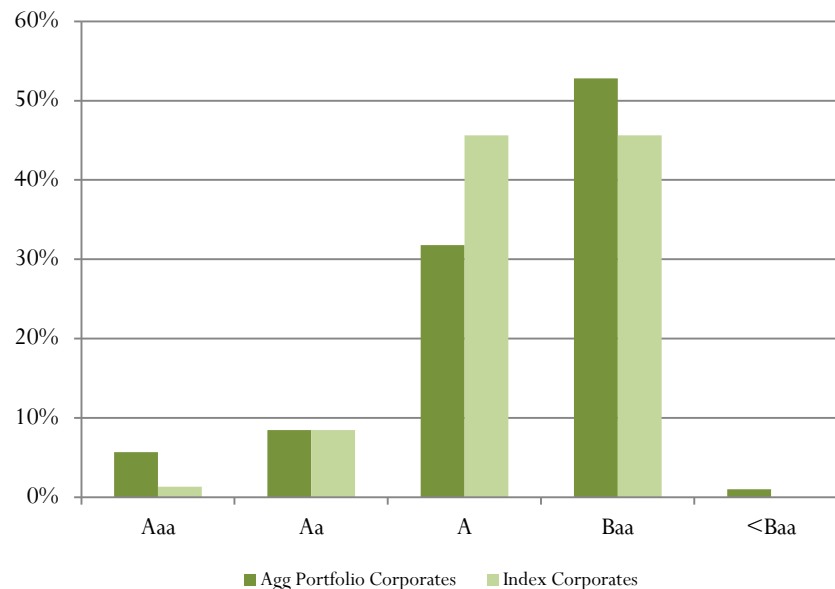
Performance as of 12/31/15



Internal Fixed Income Aggregate Portfolio

Sector	MV (\$mil)	% of Portfolio	% of Index
Total Portfolio	\$ 1,048	100%	100%
Treasury	\$ 284	27.2%	36.4%
Government-Related	\$ 75	7.2%	8.2%
Corporate	\$ 298	28.6%	24.3%
MBS	\$ 256	24.5%	28.7%
ABS	\$ 40	3.8%	0.6%
CMBS	\$ 60	5.7%	1.8%
Others	\$ 18	1.3%	0.0%
Cash	\$ 17	1.7%	0.0%

Portfolio Credit Quality vs. Index



Sector	Portfolio	Index	Over/Under Weight
Duration	5.55	5.68	-.13



Internal Aggregate Portfolio

Performance

	Latest Quarter	YTD	One Year	Three Year
Portfolio	-0.48	0.17	0.17	n/a
Index	-0.57	0.55	0.55	n/a
Performance	9	-38	-38	n/a

Index Comparison

	Portfolio	Index
Duration	5.55	5.68
Yield	2.68%	2.59%
Spread	+75	+56
Rating	Aa1	Aa1

Quarterly Attribution

	Duration/ Curve	Asset Allocation	Security Selection	Other
Portfolio	7.5	-11.2	8.1	-0.7

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Idiosyncratic	Other
56bps	1%	70%	13%	16%

Composition

- \$1.1 Billion
- Investment Grade Bonds
- Barclays' US Aggregate Index
- Duration based on interest rate forecast
- Internal Fixed Income Team's Best Ideas
- Primary PM: Jim Parise, Chris Cummins, Masha Skuratovskaya

Performance as of 12/31/15



Internal Mortgage Backed Securities (MBS)

Performance

	Latest Quarter	YTD	One Year	Three Year	Five Year
Portfolio	-0.19	1.50	1.50	2.03	3.01
Index	-0.10	1.51	1.51	2.01	2.96
Performance	-9	-1	-1	+2	+5

Index Comparison

	Portfolio	Index
Duration	4.44	4.41
Yield	2.70%	2.77%
Spread	+19	+24
Rating	AAA	AAA

Quarterly Attribution

	Yield Curve	Asset Allocation	Security Selection	Other
Portfolio	-27.7	-0.5	+34.7	-19.6

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Idiosyncratic	Vol
19bps	-2%	31%	70%	0%

Composition

- \$622 Million
- Agency Mortgage Backed Securities
- 120+ positions
- Barclays' U.S. MBS Index
- Futures used to control curve and duration exposure
- Primary PM: Chris Cummins

Performance as of 12/31/15



Internal Commercial Mortgage Backed Securities (CMBS)

Performance

	Latest Quarter	YTD	One Year	Three Year	Five Year
Portfolio	-1.13	1.08	1.08	1.52	3.36
Index	1.31	1.22	1.22	1.64	3.43
Performance	+18	-14	-14	-12	-7

Index Comparison

	Portfolio	Index
Duration	5.19	5.28
Yield	2.80%	2.80%
Spread	+108	+97
Rating	AAA	AAA

Quarterly Attribution

	Yield Curve	Asset Allocation	Security Selection	Other
Portfolio	+0.7	+0.7	+5.0	-4.0

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Idiosyncratic	Other
39 bps	0%	51%	49%	0%

Composition

- \$318 Million
- Investment Grade CMBS Bonds
- 48 positions
- Barclays' U.S. CMBS ERISA Aaa Index
- Futures used to control curve and duration exposure
- Primary PM: Chris Cummins

Performance as of 12/31/15



Internal Corporate Bonds

Performance

	Latest Quarter	YTD	One Year	Three Year	Five Year
Portfolio	-0.25	0.07	-0.71	2.11	4.96
Index	-0.58	0.24	-0.68	1.67	4.53
Performance	+33	-17	-3	+44	+43

Index Comparison

	Portfolio	Index
Duration	7.03	7.04
Yield	3.96%	3.67%
Spread	+184	+165
Rating	A3	A3

Quarterly Attribution

	Duration/ Curve	Asset Allocation	Security Selection	Other
Portfolio	+11.9	-1.1	5.6	-1.3

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Idiosyncratic	Other
98bps	4%	41%	52%	1%

Composition

- \$2.8 Billion
- Investment Grade Corporate Bonds
- 200+ positions with 150+ issuers
- Barclays' U.S. Corporate Bond Index
- Futures used to control curve and duration exposure
- Primary PM: Jim Parise

Performance as of 12/31/15



Internal Intermediate Corporate Bonds

Performance

	Latest Quarter	YTD	One Year
Portfolio	-0.3	0.56	1.62
Index	-0.42	0.29	1.08
Performance	+12	+27	+54

Index Comparison

	Portfolio	Index
Duration	3.83	4.33
Yield	2.11%	3.08%
Spread	+52	+139
Rating	Aa	A

Quarterly Attribution

	Duration/ Curve	Asset Allocation	Security Selection	Other
Portfolio	-21.5	-13.9	14.4	-5.1

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Idiosyncratic	Other
107bps	15%	75%	5%	4%

Composition

- \$1.3 Billion
- Investment Grade Corporate Bonds
- Barclays' U.S. Intermediate Corporate Bond Index is the formal benchmark
- CDX is used as liquidity tool
- Cash is the Unofficial Internal Benchmark
- Placeholder for Equity Liquidation
- Primary PM: Jim Parise

Performance as of 12/31/15



Internal Government Bonds

Performance

	Latest Quarter	YTD	One Year	Three Year	Five Year
Portfolio	-0.76	0.33	0.33	0.90	2.17
Index	-0.94	0.84	0.84	1.00	2.91
Difference	+18	-51	-51	-10	-74

Quarterly Attribution

	Duration/ Curve	Asset Allocation	Security Selection	Other
Portfolio	+4.8	-1.5	+9.9	+0

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Idiosyncratic	Other
105 bps	11%	17%	2%	71%

Index Comparison

	Portfolio	Index
Duration	5.71	5.87
Yield	1.75%	1.73%
Spread	+12	+1
Rating	AAA	AAA

Composition

- \$1.1 Billion
- U.S. Treasuries, Agencies, Supras and Sovereigns
- 53+ positions with 20+ issuers
- Duration and curve position reflect interest rate forecast
- Barclays' U.S. Treasury Index
- Primary PM: Masha Skuratovskaya

Performance as of 12/31/15



Internal TIPS Portfolio

Performance

	Latest Quarter	YTD	One Year	Three Year	Five Year
Portfolio	-0.69	-1.53	-1.53	-2.28	2.53
Index	-0.64	-1.44	-1.44	-2.27	2.55
Difference	-5	-9	-9	-1	-2

Quarterly Attribution

	Yield Curve	Asset Allocation	Security Selection	Other
Portfolio	6.3	-0.2	5.1	-1.1

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Idiosyncratic	Other
38bps	10%	1%	76%	13%

Index Comparison

	Portfolio	Index
Duration	7.73	7.75
Yield	2.18%	2.25%

Composition

- \$586 Million
- US Treasury Inflation Protected Securities
- 36+ positions
- Barclays' U.S. TIPS Index
- Portfolio duration and curve position reflects views on rates and inflation valuation
- Primary PM: Masha Skuratovskaya

Performance as of 12/31/15



Internal Global Government Bonds

Performance

	Latest Quarter	YTD	One Year	Three Year
Portfolio	0.44	1.13	1.13	n/a
Index	0.57	1.62	1.62	n/a
Difference	-13	-49	-49	n/a

Quarterly Attribution

FX Hedging	Country Allocation	Duration/ Curve	Asset Allocation	Security Selection	Other
-10.5	-12.9	+4.1	+4.6	-5.2	-2.1

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Idiosyncratic	Other
42 bps	80%	8%	12%	0%

Index Comparison

	Portfolio	Index
Duration	7.74	8.13
Yield	1.31%	0.94%
Rating	AA2	AA3

Composition

- \$221 Million
- Investment Grade Sovereign and Agency bonds
- 60+ positions with 25+ issuers
- Barclays' Global Treasury Ex-U.S. Index Hedged
- Cross country allocation is driven by expectation for relative performance. Local Duration and Curve positions reflect forecast for a given market. Overall portfolio risk reflects a combination of those views, rather than an overriding global rates outlook.
- Primary PM: Masha Skuratovskaya

Performance as of 12/31/15



Sell Discipline—Fixed Income Desk

Corporate Bonds

- Reversion to the mean from dislocation
- Swap between two bonds relationship too tight/wide
- New issue concession harvest
- Fundamental change in credit
- Fallen Angel—forced seller

Global Treasuries and TIPS

- Change in outlook for direction of rates, shape of the curve or inflation
- Spread relationship between two bonds is too tight/wide
- Positioning along the curve to maximize yield roll-down return

Structured Products

- Specified pool prepaying consistently faster than the average for that coupon
- Pay up for specified pool with favorable characteristics becomes very rich
- Fundamental change in credit quality for CMBS and ABS
- Spread relationship between two bonds is too tight/wide

Performance as of 12/31/15



External Fixed Income Manager Review

High Yield

• Oaktree HY (\$340mm)

- Outperformance attributable to credit selection in metals & mining and an underweight to oil & gas. Remain cautious on energy and overweight Europe.

• Capital Guardian HY (\$145mm)

- Overweight to oil & gas as well as metals & mining sectors detracted from performance.

Global

• Capital Guardian HY EM (\$528mm)

- Underweight Russian ruble, South African rand and other EM currencies.
- Issuer selection in India and Indonesia contributed.

• Rogge Global Partners (\$323mm)

- Short Duration bias
- Reduced European periphery and Asian EM, long Mexico and New Zealand

TIPS

• Alaska Permanent Capital Mgmt. (\$582mm)

- Went from short to neutral Duration
- Overweight 7s vs 10s

	QTD (%)	1yr	3yr	5yr
Portfolio	-1.71	-3.74	1.36	5.14
Index	-2.06	-4.43	1.70	5.03
Performance	+35	+69	-34	+11
Portfolio	-2.46	-4.60	2.50	4.92
Index	-2.06	-4.43	1.70	5.03
Performance	-40	-17	+80	-11
Portfolio	0.44	-7.49	-4.25	0.78
Index	0.77	-7.12	-5.09	0.79
Performance	-33	-37	+84	-1
Portfolio	0.58	1.44	3.32	4.17
Index	0.57	1.62	3.92	4.26
Performance	+1	-18	-60	-9
Portfolio	-0.82	-0.39	-1.91	2.70
Index	-0.70	-0.52	-2.00	2.72
Performance	-12	+13	+9	-2

Performance as of 12/31/15



Alternative Assets

Portfolio Update

February 23rd, 2016

Marcus Frampton

Steve Moseley



Alaska Permanent Fund Corporation

Portfolio Update

- Table below provides snapshot of private markets and special opportunities portfolios and recent time-weighted returns at 12/31/15

APFC Alternatives Portfolio @ 12/31/15

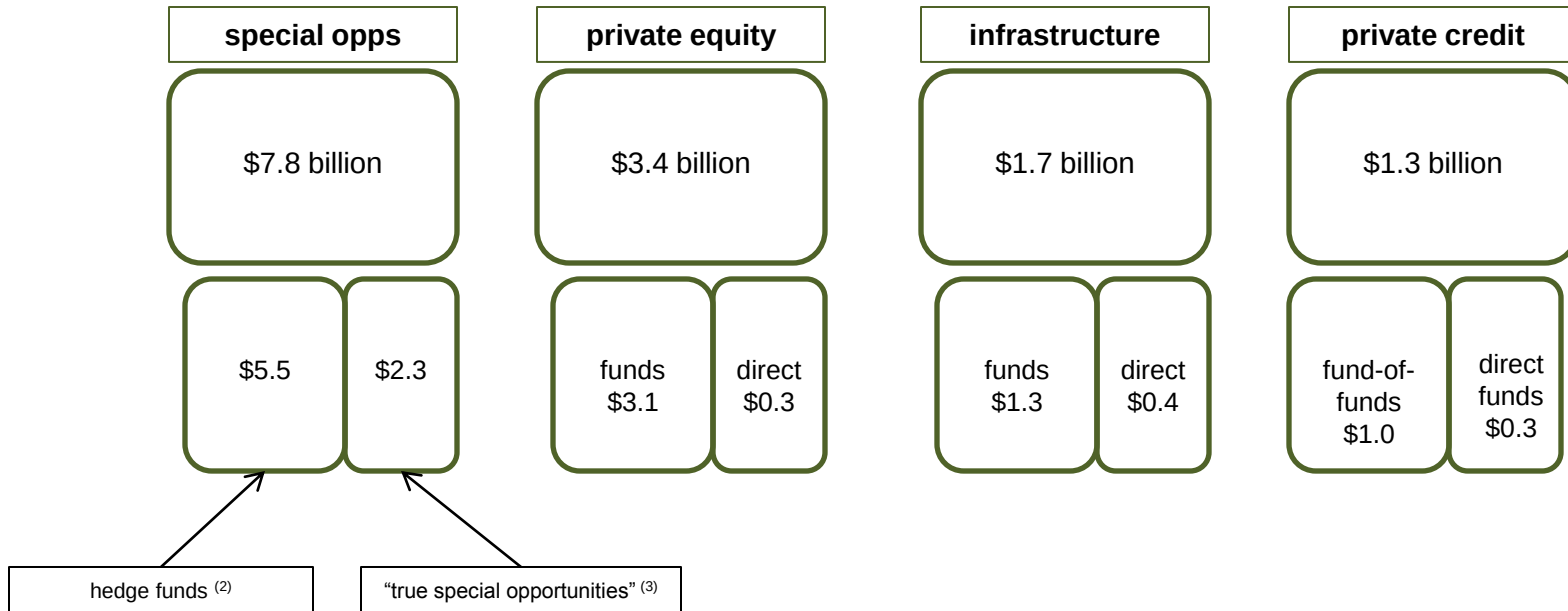
<i>(\$ in millions)</i>	NAV @ 31-Dec-15	% of APFC	Calendar YTD		3 Year Returns	
			APFC	Benchmark	APFC	Benchmark
<i>Private Markets</i>						
Private Equity	\$3,397	6.5%	14.1%	0.2% ⁽¹⁾	18.7%	11.1% ⁽¹⁾
Infra & Other Real Assets	\$1,682	3.2%	9.3%	(10.7%) ⁽²⁾	9.4%	8.3% ⁽²⁾
Private Credit	\$1,302	2.5%	2.1%	0.7% ⁽³⁾	7.6%	5.9% ⁽³⁾
<i>Special Opportunities</i>						
Absolute Return	\$5,503	10.5%	1.2%	5.8% ⁽⁴⁾	3.8%	6.0% ⁽⁴⁾
True Special Opportunity	\$2,034	3.9%	(10.6%)	NA	NA	NA
PCIO	\$231	0.4%	16.8%	NA	NA	NA
Total	\$14,149	27.1%				

- Private equity benchmark = 60% Russell 3000 / 40% MSCI World.
- Infrastructure benchmark = FTSE Core Developed Infrastructure Index (unhedged).
- Benchmark blended HY + 150 BPS and LIBOR + 600 BPS.
- Benchmark reflects CPI + 500 BPS. Benchmarks for underlying accounts varies.



Alternative Assets

Alternative investment assets of \$14.1 billion represent ~27% of APF⁽¹⁾



All figures in US\$ billions; preliminary values at 12/31/2015; box sizes are not proportional to assets.

(1) Based on 12/31/2015 Fund value of \$52.2 billion.

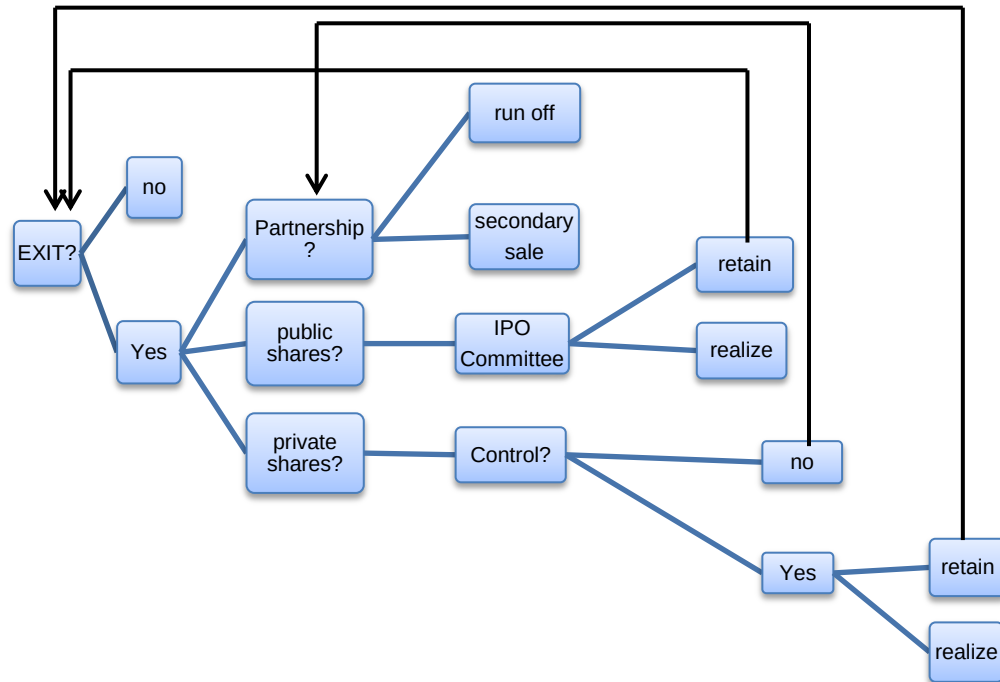
(2) Includes absolute return portfolio but excludes CCOPS (which is included in private credit allocation).

(3) Includes Apollo COF III and Carlyle Natural Resources Partnership.



Exit Considerations

- private markets are long-term and illiquid
- every transaction is unique
- often naturally liquidating over many years
- however, liquidity mechanisms do exist
- investors appear to systematically undervalue liquidity provisions



Private Equity & Special Opportunities



Private Equity “Buckets”

traditional PE portfolio

- **\$6.5** billion committed over 10+ years
- **\$4.3** billion invested since launch
- **\$2.6** billion in cash returned to APFC
- **\$3.4** billion in NAV at 12/31/2015
- **6.6%** exposure (vs. 6.0% target)
- funds, co-investments, special opps

true special opportunities portfolio

- **\$5.4** billion committed over 3+ years
- **\$2.4** billion invested
- **\$0.2** billion in cash returned to APFC
- **\$3.2** billion in NAV at 12/31/2015
- flexible allocation and tactics/structure
- funds, co-investments, special opps

- ❑ Staff seeks to optimize operational synergies and maintain performance accountability
- ❑ Coordination allows:
 - improved planning, pacing, and risk management
 - significant deal flow benefits



Overview: True Special Opportunities

(\$ in millions)	Date	Commitment	Called	Distributions	FMV	M-O-M	Net IRR
Altitude Life Sciences	3/2015	\$100.0	(\$26.4)	\$0.0	\$25.6	0.97x	NM
American Homes 4 Rent	7/2012	\$625.0	(\$626.0)	\$15.8	\$752.6	1.23x	6.7%
American Homes 4 Rent II	6/2014	\$200.0	(\$120.2)	\$0.0	\$119.8	1.00x	NM
Apollo COF III	5/2014	\$150.0	(\$101.8)	\$0.0	\$81.7	0.80x	-22.0%
Arch Venture Fund VIII	7/2014	\$100.0	(\$62.8)	\$0.0	\$75.0	1.19x	NM
Blackstone Strategic	12/2013	\$1,000.0	(\$77.1)	\$35.1	\$47.0	1.06x	6.1%
Carlyle Natural Resources	9/2013	\$950.0	(\$151.2)	\$34.9	\$148.1	1.21x	19.8%
Crestline Advisory A & B	5/2015	\$200.0	(\$1.6)	\$0.0	\$0.8	NM	NM
Crestline AK Opportunistic	11/2015	\$250.0	\$0.0	\$0.0	\$0.0	NM	NM
Denali Therapeutics	5/2015	\$153.0	(\$8.0)	\$0.0	\$8.0	1.00x	NM
Dyal III	4/2015	\$1,100.0	(\$664.7)	\$0.9	\$664.3	1.00x	NM
Juno Therapeutics	10/2013	\$129.0	(\$129.2)	\$0.0	\$1,121.6	8.68x	250.3%
Oaktree Emerging Markets	1/2014	\$25.0	(\$12.5)	\$0.6	\$10.4	0.89x	-8.7%
Riverstone Energy Limited	9/2013	\$446.0	(\$422.7)	\$62.6	\$231.0	0.69x	-20.5%
Estimated Total at 12/31/2015		\$5,428.0	(\$2,404.3)	\$149.8	\$3,285.9	1.43x	24.2%
Estimated Total at 1/31/2016⁽¹⁾		\$5,428.0	(\$2,404.3)	\$149.8	\$2,768.9	1.21x	13.3%

Note: unofficial, since-inception returns; reflects certain estimates of 12/31/2015 NAV.

(1) Adjusted to reflect stock price performance in January of RSE, JUNO, and AMH. Value based on last trade of month, not discounted for illiquidity.

Investment Gains	
Juno	\$992
AH4R	\$142
all others	(\$103)
net gains	\$1,031



Traditional PE Investment Activity

❑ Fund Commitments

- \$792 million to 19 funds across strategies and geographies in FY 2015
 - 50% committed by APFC Gatekeeper / 50% by APFC staff
- \$628 million committed to 19 funds so far in FY2016
 - 45% committed by APFC staff



❑ Co-investments

- \$88 million invested in 4 companies in FY 2015
- \$41 million invested in 2 companies so far in FY 2016
 - >100 co-investment opportunities considered and rejected
 - Deal flow follows directly from visits to NYC, Boston, San Francisco



Private Equity Performance

Public Equity vs. Private Equity vs. APFC*



***Important notes:**

- PME analysis assumes all PE portfolio cash flows are instead invested in, or distributed from, APFC custom benchmark (60% Russel 3000/40% MSCI EAFE).
- PE market data = Burgiss global all private equity pooled benchmark.
- APFC IRR as reported by Pathway (reflects partnership data through September 30, 2015).
- Excludes impact of investments not currently monitored by Pathway (2 co-investments, POF III, and true special opportunities).



Private Equity Performance⁽¹⁾

Private Equity Portfolio Performance

Vintage Year	APFC IRR ⁽²⁾	Median IRR ⁽³⁾
2005	11.3%	7.3%
2006	8.4%	6.2%
2007	12.1%	8.3%
2008	12.2%	10.3%
2009	15.5%	13.0%
2010	17.8%	11.0%
2011	12.8%	11.7%
2012	23.4%	10.6%
2013	11.5%	6.6%
2014	NM	NM
total	11.8%	9.6%

Horizon	APFC	PE Industry ⁽³⁾
1-year	12.7%	7.9%
3-year	17.7%	13.4%
5-year	15.9%	13.1%
Since Inception	11.8%	9.6%

(1) Excludes impact of investments not currently monitored by Pathway (2 co-investments, POF III, and true special opportunities).

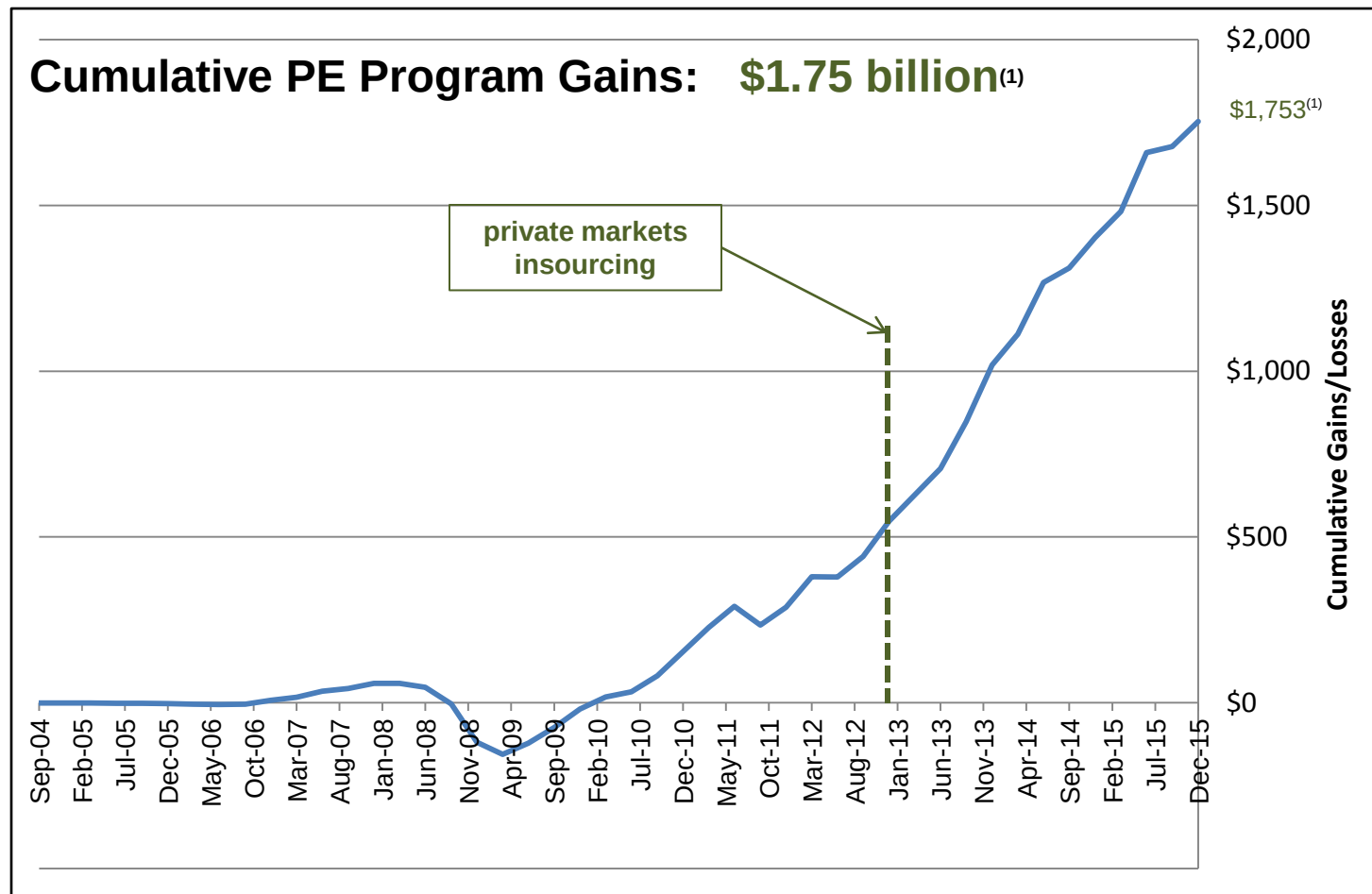
(2) Source: Pathway (returns may differ slightly from returns reported by Callan due to differences in timing and methodology).

(3) Source: Burgiss global all PE median benchmark as of September 30, 2015.



Private Equity Performance⁽¹⁾

(\$ in millions)

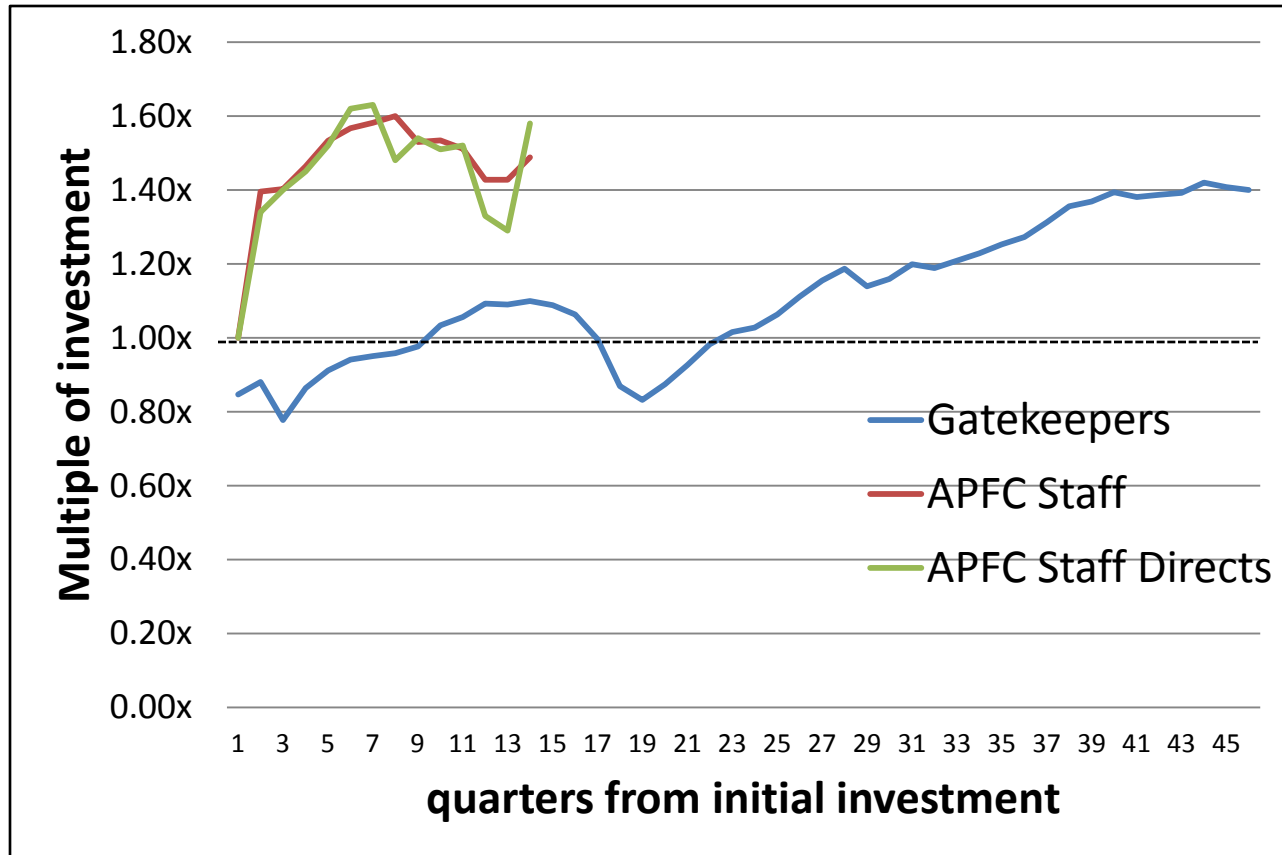


(1) Excludes impact of investments not currently monitored by Pathway (2 co-investments, POF III, and true special opportunities).
12/31/2015 NAV includes preliminary estimates.



Private Equity Performance⁽¹⁾

Multiple of Deployed Capital

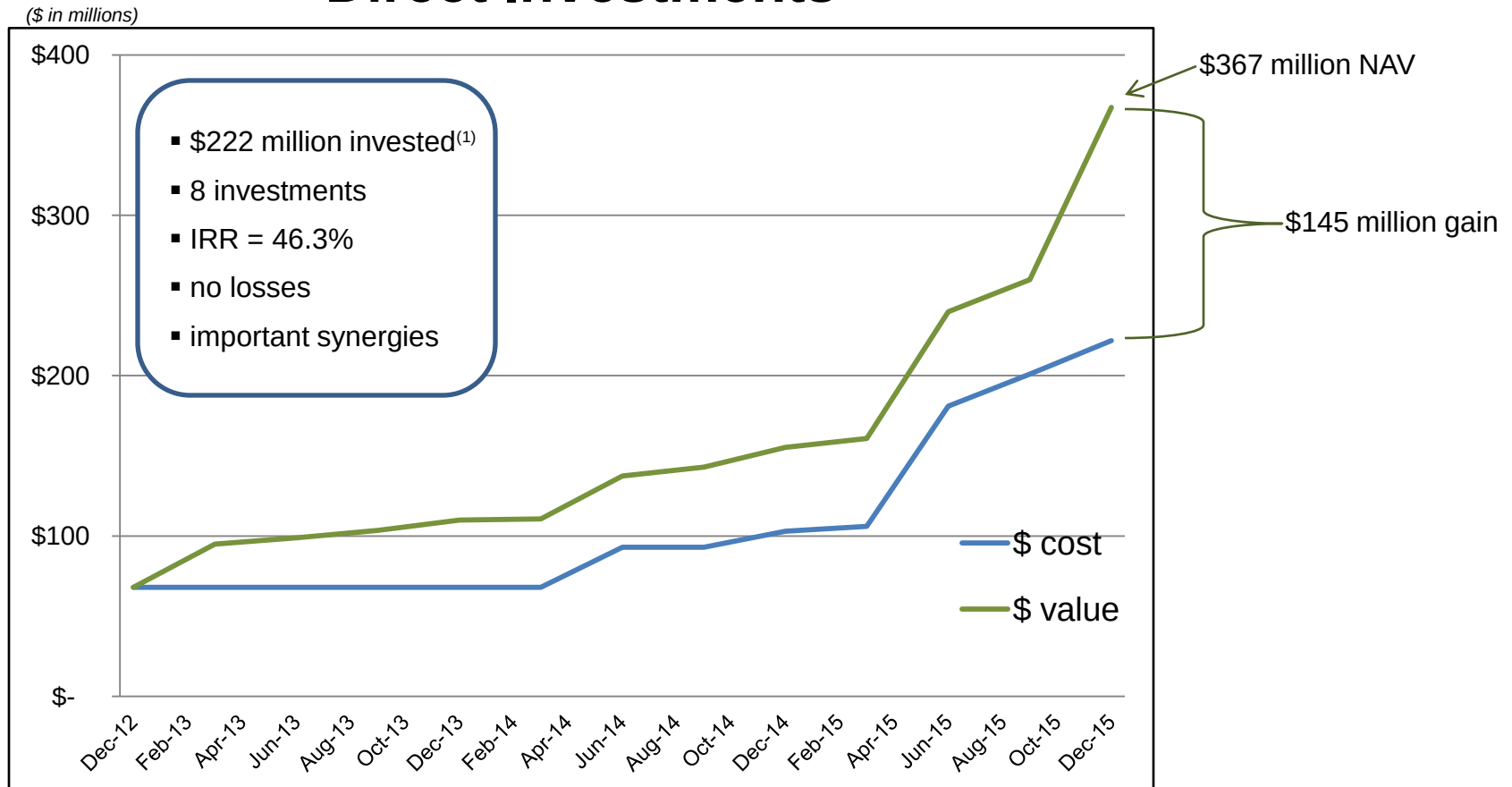


(1) "Traditional" private equity only; excludes true special opportunities. 12/31/2015 NAV includes preliminary estimates.



Private Equity Performance⁽¹⁾

Direct Investments



(1) "Traditional" private equity only; excludes true special opportunities. 12/31/2015 NAV includes unaudited estimates.



Private Equity Snapshot⁽¹⁾⁽²⁾

- **\$6.5** billion committed since launch
- **\$4.3** billion invested since launch
- **\$2.6** billion in cash returned to APFC
- **\$3.4** billion NAV now outstanding
- **6.6%** exposure (vs. 6.0% target)

- FY2016 should be 8th consecutive year with returns >10%
- Expected positive performance this quarter will be 26th over past 28 quarters

4 highest returning investments:

SKY HARBOR
CAPITAL MANAGEMENT

 **LendingClub**

servicenow™

 **snapchat**

average cash-on-cash return: **89.4x**

4 largest current holdings:

zayo

 **snapchat**


UBER


Compuware

average unrealized NAV: **\$69 million**

1. Source: Pathway; GPs

2. Excludes impact of investments not currently monitored by Pathway (2 co-investments, POF III, and all true special opportunities).



Absolute Returns / Hedge Funds



Snapshot of Current Program

Fund-of-Funds (\$2.5 billion)

▪ Crestline FOF - AUM - \$1.0 billion - 2015 Return – (0.18%) - SI Return – 4.02% ▪ ~\$400 million of illiquid “Class B” invested in secondaries and opportunistic private investments, remainder in liquid hedge funds ▪ Seeded in-house equity market neutral Summit product in 2015	▪ Mariner FOF - AUM - \$1.1 billion - 2015 Return – (0.43%) - SI Return – 2.11% ▪ Strategy focuses on manager seeding	▪ Lazard FOF - AUM - \$394 million - 2015 Return – (3.03%) - SI Return – 2.81% ▪ Exclusively invested in emerging market hedge funds

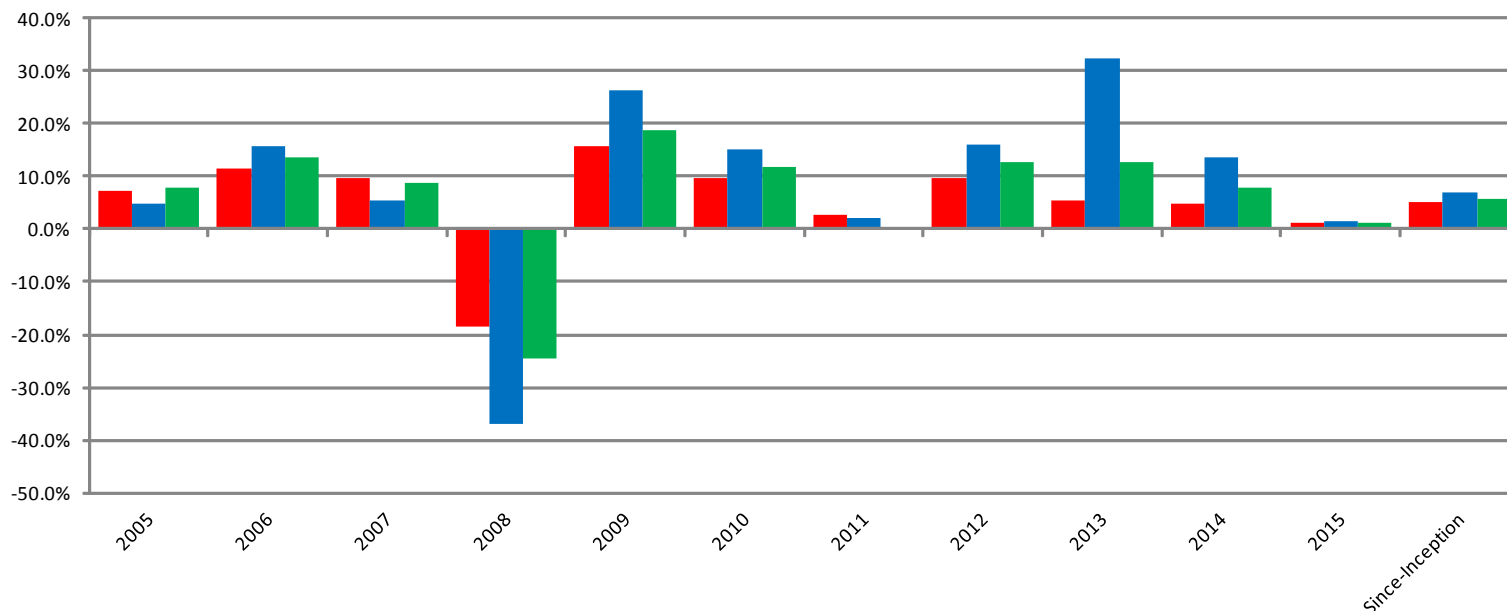
Internal Direct (\$2.9 billion)

▪ AQR (fmr. ECIO) - AUM - \$732 million - 2015 Return – 5.00% - SI Return – 10.00% ▪ Portfolio mix of Absolute Return (~50%), Risk Parity (~30%), and Active / Skill-based Strategies (~20%)	▪ Bridgewater (fmr. ECIO) - AUM - \$743 million - 2015 Return – 1.20% - SI Return – 10.50% ▪ Allocations to All Weather and Pure Alpha strategies (approximately 50/50)	▪ Goldman Sachs (fmr. ECIO) - AUM - \$712 million - 2015 Return – (1.45%) - SI Return – 6.09% ▪ Portfolio mix of Alpha Strategies (~20%), Traditional Beta Strategies (~40%), Alt. Risk Premia (~40%)	▪ Staff Direct - AUM - \$719 million - 2015 Return – 16.19% - SI Return – 16.19% ▪ First investment (other than former ECIO's completed in early 2015) ▪ 3 underlying funds (going to 4 as of 3/1/16)



Absolute Return – Hist. Performance

- Over the past five years as markets have enjoyed broad-based appreciation, the APFC's Absolute Return Program has lagged the broad markets
- Portfolio returns going back to 2005 have been highly correlated with that of the overall fund (0.98) and the broader market (0.87) – (note: quarterly/monthly returns less correlated than annual)



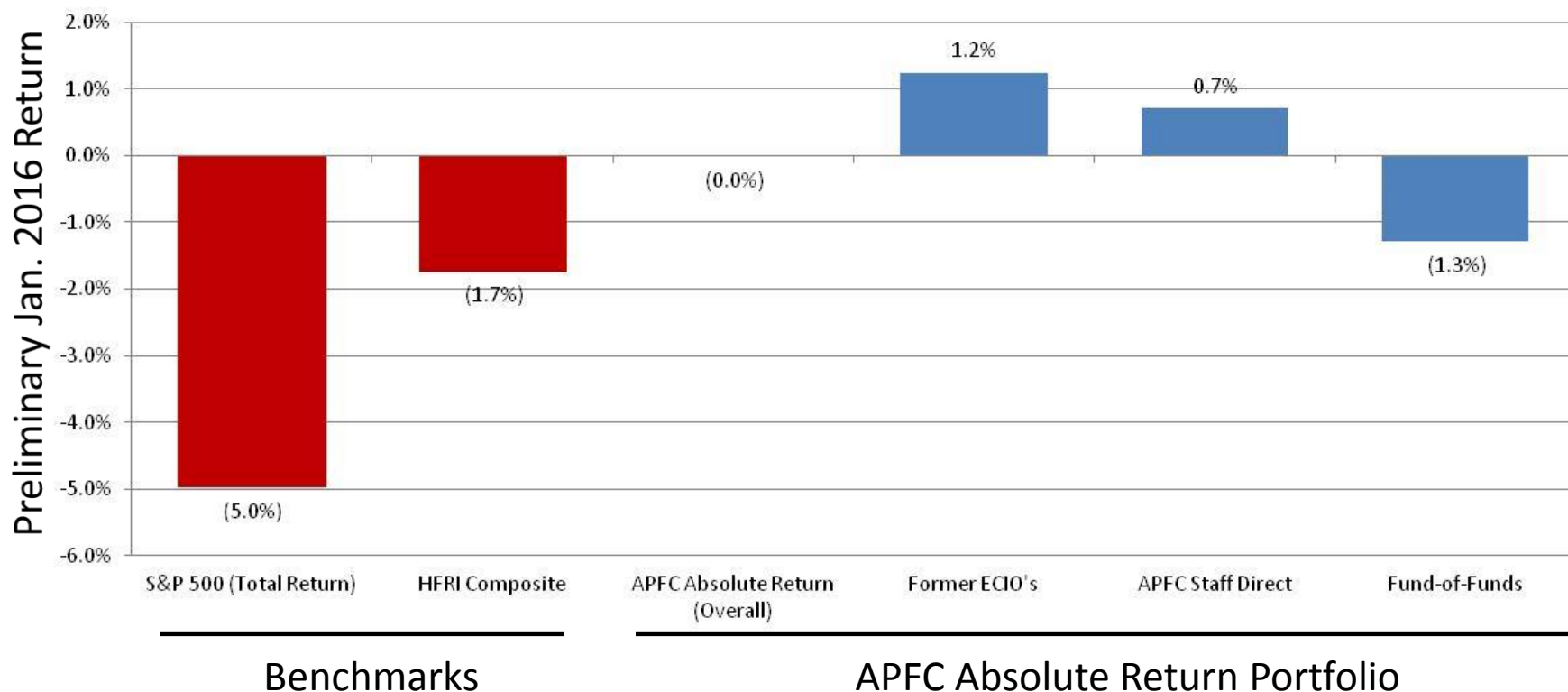
Absolute Return	7.3%	11.5%	9.6%	-18.6%	15.7%	9.8%	2.6%	9.6%	5.5%	4.9%	1.2%	5.0%
S&P 500	4.9%	15.8%	5.5%	-37.0%	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	7.1%
APFC Overall Fund	8.0%	13.5%	8.8%	-24.6%	18.9%	11.9%	0.3%	12.6%	12.7%	7.8%	1.1%	5.8%

Notes: (i) APFC Absolute Return and Overall Fund performance based on internal monthly returns publication available at www.apfc.org/home/Content/publications/reportArchive.cfm, (ii) ECIO Program Returns combined with Absolute Returns for periods prior to their combined reporting, (iii) S&P 500 Total Return data per CapitalIQ., (iii) Since-Inception returns data calculated by chain-linking individual annual return data.



January 2016 Preliminary Performance

- Portfolio performance in January 2016 provides data point on value of absolute return for APFC portfolio
- Strong uncorrelated performance from former ECIO's and APFC Staff Direct Hedge Fund portfolio
- Fund-of-fund's underperformed as a result of EM beta in Lazard portfolio and large healthcare industry exposure in Mariner portfolio
- Nonetheless, for the month the APFC's FOF's still outperformed the HFRI Composite Index, which, in turn, outperformed the S&P 500 by a good margin



Since Inception IRR's

- While not traditionally used for presenting liquid account investment returns (including hedge funds), APFC Staff believes that private equity style money-weighted returns (IRR) analysis can be helpful for high level understanding of return characteristics of individual absolute return accounts since inception
- Because absolute return accounts, by definition, are not judged relative to a benchmark, in some ways this analysis is more relevant for absolute return than for private equity

(\$ in millions)	Inception Year	Capital Funded	Redemptions	Current Value	IRR	Multiple-of-Money
<u>Hedge Fund-of-Funds</u>						
Crestline	2004	(\$814)	\$100	\$1,039	4.2%	1.40x
Lazard	2006	(365)	50	394	2.7%	1.22x
Mariner	2006	(1,026)	227	1,054	3.3%	1.25x
Total Hedge Fund-of-Funds		(\$2,205)	\$377	\$2,486	3.5%	1.30x
<u>Direct Absolute Return</u>						
AQR (former ECIO)	2009	(\$500)	\$100	\$732	9.9%	1.66x
Bridgewater (former ECIO)	2010	(500)	150	743	12.0%	1.79x
Goldman Sachs (former ECIO)	2009	(500)	0	712	6.1%	1.42x
APFC Staff Direct	2015	(650)	0	719	16.2%	1.11x
Total Direct Absolute Return		(\$2,150)	\$250	\$2,906	9.4%	1.47x
Total Absolute Return		(\$4,355)	\$627	\$5,392	5.6%	1.38x



Current Priorities & Initiatives

- Continue to build on progress made by prior Staff Investment Team around Direct Hedge Fund Program
 - Albourne engaged to provide analytical and monitoring support plus fiduciary recommendations on new opportunities (non-discretionary consultant)
 - Pursue direct access to best-in-class fund opportunities and in special circumstances, transactions with revenue shares or ownership interests in management companies
- Monitor existing Fund-of-Fund investments and benchmark performance against Staff direct program
- Evaluate over time whether program is delivering on its goals of net-of-fee alpha generation, uncorrelated returns, and relatively low volatility
- Continue education of APFC Staff and Board of Trustees around asset class
 - Planning Hedge Fund Panel Discussion with outside experts for May 2016 Board meeting
- **Improve on historical performance delivered by APFC's absolute return portfolio – in particular, focus on accessing return streams that are less correlated to the APFC's overall fund performance**



Infrastructure & Other Real Assets



Infra & Other Real Assets Portfolio

- Since Inception-IRR at 12/31/15 of 7.3% (vs. 6.0% as of December 31, 2015)
 - Excluding underperforming \$500 million Citi commitment from 2007, SI-IRR is 13.5% on the portfolio
- Co-investment Portfolio and Listed Infra remain top performers at 10.7% and 9.1% SI-IRR, respectively
 - Last 12 Months New Commitments: \$500 million (GIP re-up closed in January 2016)
 - Last 12 Months Capital Calls: \$190 million / Last 12 Months Distributions: \$75 million

(\$ in millions)	Vintage Year	Capital Committed	Capital Called	Distributions	Current Value	Net IRR	Multiple-of-Money
<u>APFC Infrastructure & Other Real Assets Portfolio as of December 31, 2015</u>							
Pre-2012 Funds ⁽¹⁾	2007-11	\$1,700	\$1,454	\$738	\$1,155	7.2%	1.30x
2012 and Newer Funds ⁽²⁾	2012-14	1,177	160	8	154	0.9%	1.01x
Total Fund Investments		\$2,877	\$1,614	\$746	\$1,309	7.1%	1.27x
12-Months Ago		\$2,277	\$1,424	\$672	\$1,005	5.2%	1.18x
Co-investment Portfolio	2013	\$38	\$29	\$1	\$37	10.7%	1.30x
Listed Infrastructure	2013	\$300	\$300	\$0	\$358	9.1%	1.19x
Total Infra & Other Real Assets		\$3,215	\$1,943	\$747	\$1,704	7.3%	1.26x
12-Months Ago		\$2,615	\$1,753	\$672	\$1,398	6.0%	1.18x
<u>APFC Infrastructure & Other Real Assets Portfolio as of December 31, 2015 Pro Forma for Exclusion of Citi Infrastructure</u>							
Total Infra. & Other Real Assets (ex. Citi)		\$2,715	\$1,505	\$642	\$1,498	13.5%	1.42x

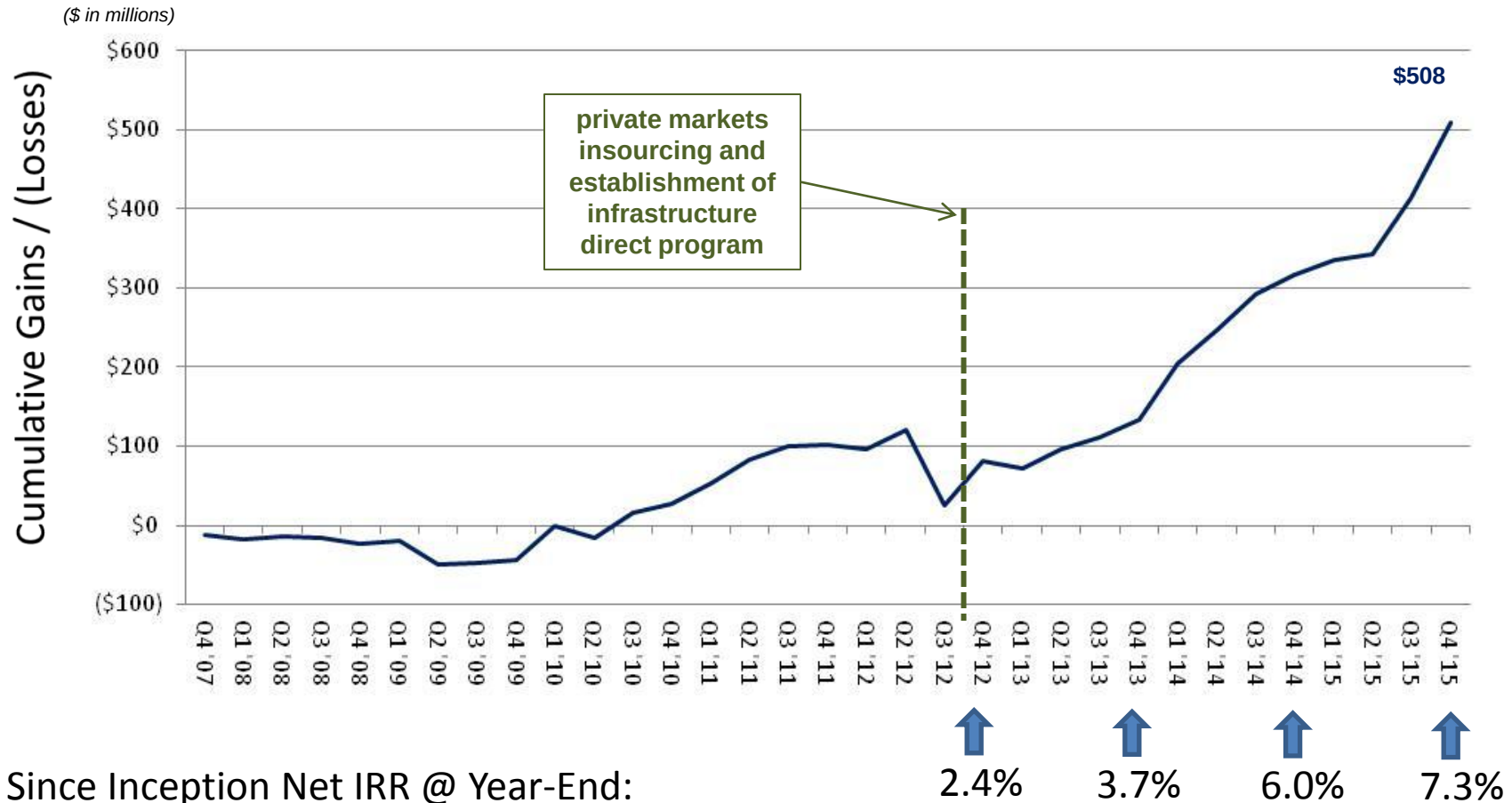
1. Includes commitments to Citi Infrastructure, GIP I, Goldman Sachs Infrastructure II, and GIP II. Funds considered to be out-of-the-initial J-Curve.

2. Includes commitments to EQT Infrastructure II, Actis Energy III, LS Power III, Twin Creeks Timber, GIP III and Morgan Stanley Infrastructure II.



Infra/Other Real Assets Performance

Cumulative Program Gains: **\$508 million**



Infra & Other Real Assets Updates

- **Momentum in Public Markets has Cooled Off, but APFC's Active Managers Outperforming**
 - CYE December 31, 2015 benchmark return of (10.7%) vs. 22.9% in FY 2014 and 8.3% 3-year return
 - Public market issues isolated in midstream energy companies and US freight railroads; rest of the market (e.g., transportation infrastructure, regulated utilities, etc.) is holding up well
 - APFC's three listed infrastructure managers outperformed the broader infrastructure market in CYE December 31 with a 50 bps negative return for the year

- **New Investment Activity**
 - January 2016 \$500 million re-up to Global Infrastructure Partners Fund III
 - With significant fund investment made to GIP III (with no fee / no carry co-investment rights), new investment focus going forward will be on co-investments



Private Credit



Private Credit Portfolio

- The following table summarizes performance to-date for the APFC's private credit portfolio by commitment vehicle as of December 31, 2015
- Last twelve months activity
 - Last 12 Months New Commitments: \$30 million
 - Last 12 Months Capital Calls: \$62 million
 - Last 12 Months Distributions: \$149 million

(\$ in millions)	Vintage Year	Capital Called	Distributions	Current Value	Net IRR	Multiple-of-Money
Crestline AK Distressed Investments Fund	2007	\$429	\$490	\$0	6.5%	1.14x
Oak Tree VIII (Distressed Debt)	2009	250	216	124	8.7%	1.36x
Oak Tree III (Mezzanine Debt)	2010	214	174	90	8.9%	1.23x
Audax III (Mezzanine Debt)	2011	212	115	130	8.3%	1.16x
Crestline Credit Opportunities Fund (CCOPs) ⁽¹⁾	2011	716	0	952	6.5%	1.33x
Audax IV (Mezzanine Debt)	2015	0	0	0	NM	NM
APFC Staff Direct	2015	0	0	0	NM	NM
Crestline AK Opportunistic	2015	0	0	0	NM	NM
Total Private Credit		\$1,821	\$996	\$1,296	7.1%	1.26x
12 Month Ago		\$1,759	\$847	\$1,357	8.1%	1.25x

1. Represents inception of CCOP's program in current structure, which was funded via a \$450 million cash contribution from APFC and rolling over investments from a prior Crestline mandate with NAV of \$266 million.



Private Credit Updates

■ New Commitment Activity

- In May 2015, Board approved \$0-100 million private credit commitment pace for FYE June 30, 2016
- In Q4 2015 completed two new commitments of \$15 million each to Clearlake Special Opportunities Fund and Monroe Capital Private Credit Fund II
- \$250 million new commitment to Crestline AK Opportunistic, LP transferred into Private Credit (Company Exposure) from Special Opportunities in Q4 2015
- As of Q4 2015, evergreen CCOP's vehicle will stop making new commitments and will start returning cash to APFC as its private fund investments make new distributions

New Commitments (Q4 2015)



(\$15 MM Monroe Capital Private Credit Fund II)



(\$15 MM Clearlake Special Opportunities Fund)

Transferred from Special Opps



(\$250 MM Crestline AK Opportunistic)



Public Equities

Portfolio Update

Fawad Razzaque
February 23, 2016



Alaska Permanent Fund Corporation

Public Equities

Allocation: *Active/Passive*

Active/Passive	Allocation (%)	Range (%)
Active	56	50 +/- 20
Quasi Passive	25	25 +/- 20
Passive	19	25 +/- 20
Total	100	



Public Equities

Allocation: *Regions*

Regions	Strategic Allocation	MSCI ACWI IMI
US	40% +/- 10%	52.9%
International Developed	40% +/- 10%	37.4%
Emerging Markets	20% +/- 10%	9.7%

Regions	Current (%)	vs. Strategic (%)	vs. ACWI IMI (%)
US	44.1	4.1	-8.8
International Developed	37.5	-2.5	0.1
Emerging Markets	18.4	-1.6	8.7



Public Equities

APFC Public Equity Performance	APFC Public Equities (%)	MSCI ACWI IMI (%)	Excess Returns (bps)
For the Fiscal Q2 2016 <i>(Quarter ended Dec 31th)</i>	4.40	4.91	-51 bps
For the One-Year Period <i>(Ended Dec 31th)</i>	-2.97	-2.19	-78 bps

FY Q2 2016:

US led Market: MSCI USA IMI (6.22%) > MSCI ACWI ex US IMI (3.52%) by 270 bps

Growth led market: MSCI ACWI IMI Growth (5.83%) > MSCI ACWI IMI Value (3.97%) by 186 bps

What helped

Fund's Active/Quasi Passive Managers

What hurt

Underweight US Equities



Public Equities (FYQ2 2016)

What drove Performance for the quarter?

Overall Market Direction (*US, Growth*)

Strategic Allocation - (*Underweight US*)

Tactical Allocation - (*Approx. 3% allocation to APFC Tactical Tilts*)

Active/QP Managers + (*64%/71%*)



Public Equities (FYQ2 2016)

What drove Performance for the quarter?

Market – Style: Growth Outperformed Value

- United States – Growth outperformed value by 168 bps
- Non-U.S. Developed – Growth outperformed value by 353 bps
- Emerging Markets – Growth outperformed Value by 422 bps

APFC Public Equities

Factors that helped:

- Growth bias in the US allocation
- Growth bias in the EM allocation

Factors that hurt:

- Value bias in the Non US DM allocation

Source: Bloomberg



Public Equities (FYQ2 2016)

What drove Performance for the quarter?

Market - Size :

- United States - Large caps outperformed Small caps by approx. 290 bps
- Non-U.S. Developed - Small caps outperformed Large caps by approx. 225 bps
- Emerging Markets - Small caps outperformed Large caps by approx. 264 bps

APFC Public Equities

Factors that helped:

- Smaller cap bias in the non-U.S. DM allocation

Factors that hurt:

- Small cap bias in the US allocation

Source: Bloomberg



Still Need Factors that helped/hurt

Public Equities (FYQ2 2016)

What drove Performance for the quarter?

Market - Sectors

- Led by IT, Health Care, Industrials, and consumer staples
- Energy, materials, financials lagged

APFC Public Equities

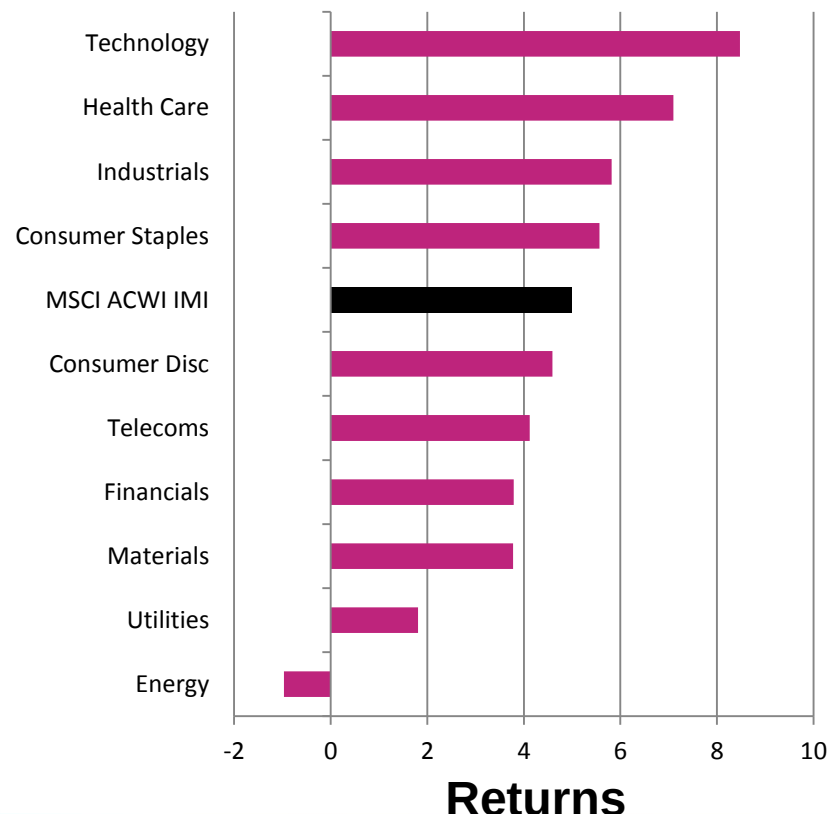
Factors that hurt:

- Not Significant

Factors that helped:

- Not Significant

ACWI IMI Sector Performance



Public Equities

FYQ2 2016

Market - Countries

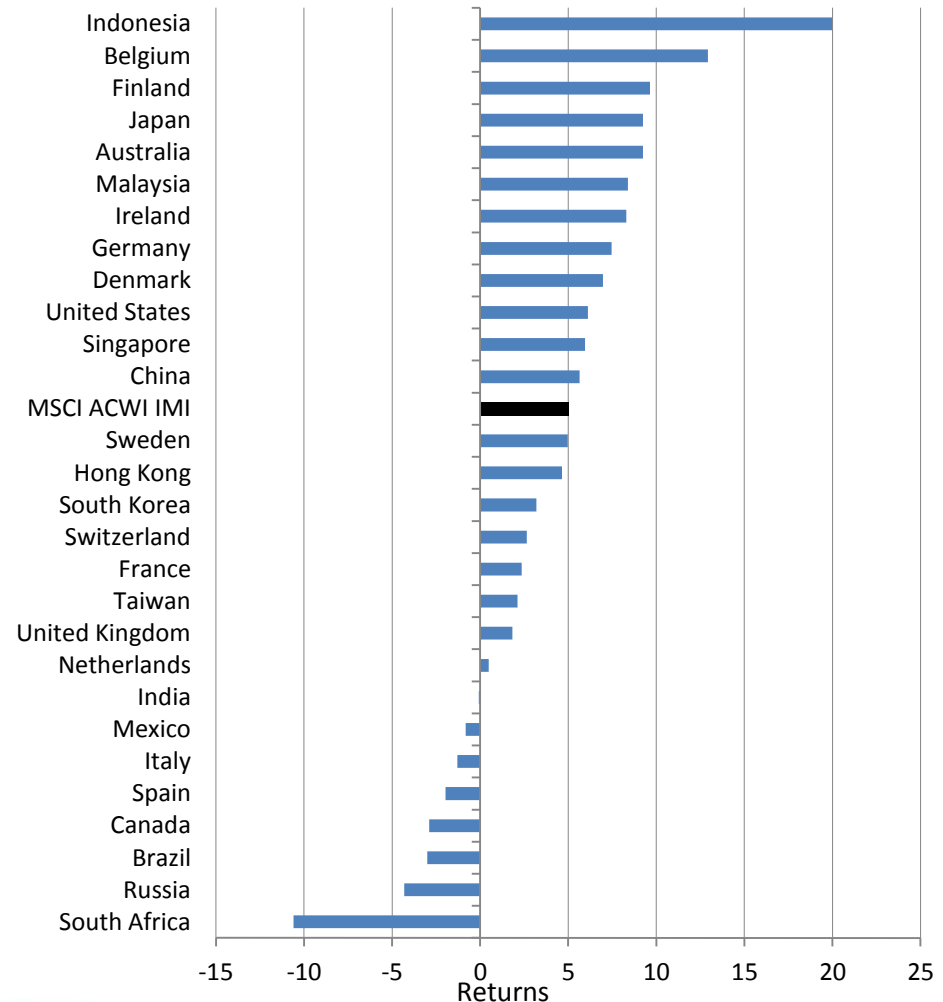
- Led by US and select European
- EM countries Lagged

APFC Public Equities

Factors that hurt:

- Underweight to U.S.

ACWI IMI Country Performance



Public Equities (FYQ2 2016)

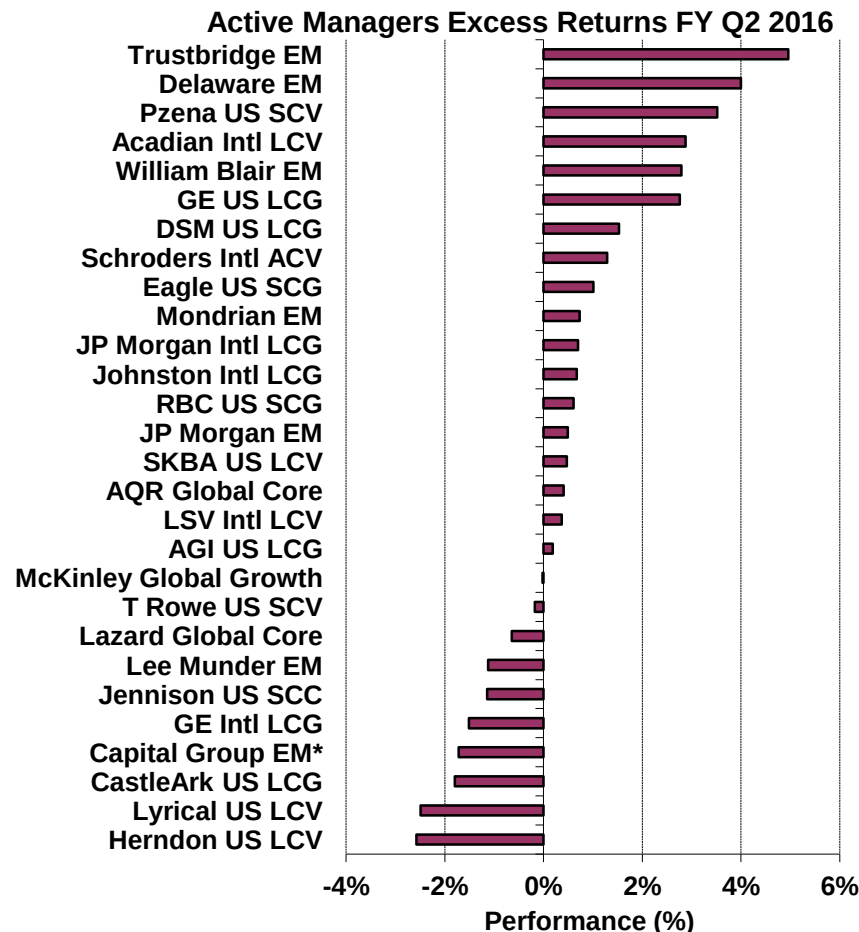
APFC Public Equities

APFC Active Managers (28)

64% of the Active Managers outperformed

- 58% of the U.S. Managers
- 83% of the Non-U.S. Developed Managers
- 71% of the Emerging Markets Managers*
- 33% of the Global Managers

*Capital Group EM was terminated in November 2015



Public Equities (FYQ1 2016)

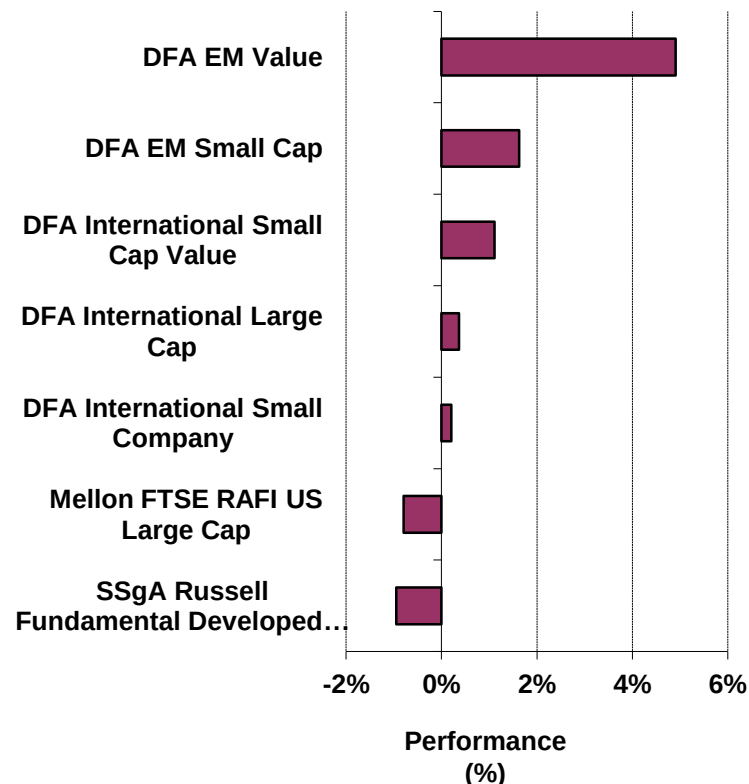
APFC Public Equities (Cont.)

APFC Quasi Passive Managers (7*)

71% of the Quasi Passive Managers outperformed

*DFA EM Value and DFA EM Small Cap were added in July, 2015

Quasi Passive Manager Performance



Public Equities (One Year)

APFC Public Equities

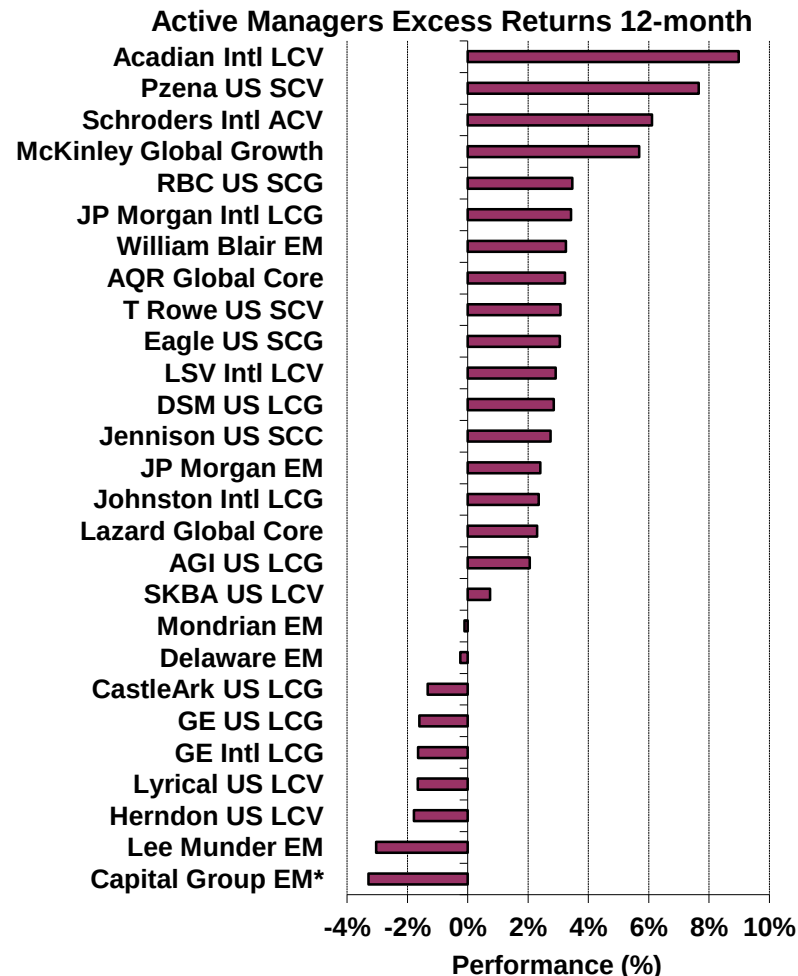
APFC Active Managers (27*)

67% of the APFC Active Managers Outperformed

- 67% of the U.S. Managers
- 83% of the Non-U.S. Developed Managers
- 33% of the Emerging Markets Managers*
- 100% of the Global Managers

*Includes Capital Group EM (terminated in November)

*Excludes Trustbridge China Strategy (hired in September)



Public Equities (One Year)

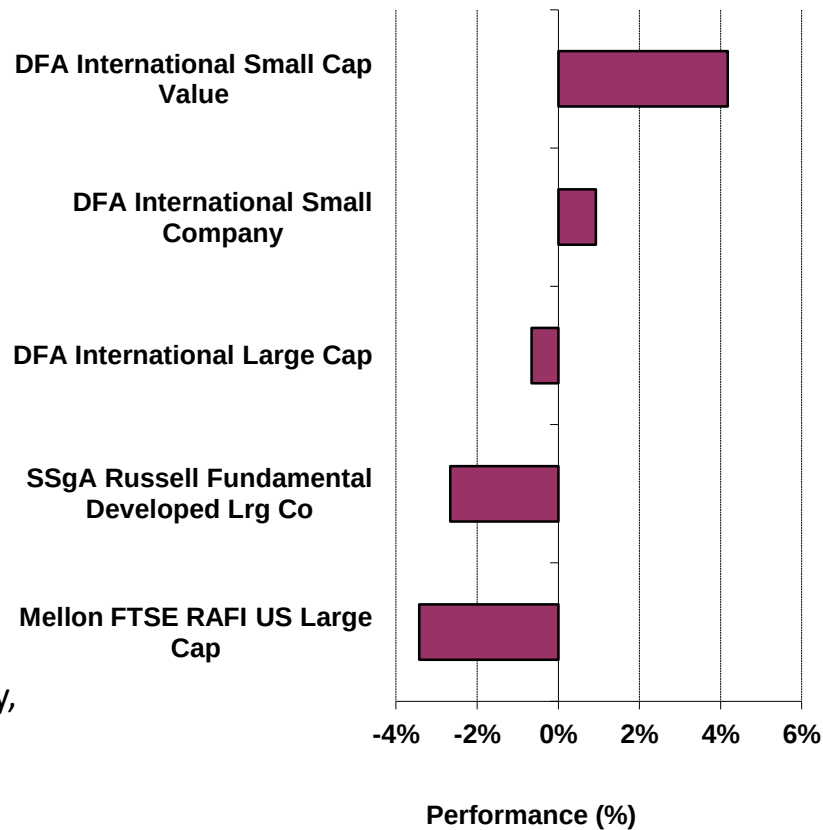
APFC Public Equities (Cont.)

APFC Quasi Passive Managers (5)

40% of the Quasi Passive Managers outperformed

*Excludes DFA EM Value and DFA EM Small Cap (hired in July, 2015)

Quasi Passive Manager Performance



Public Equities

APFC Public Equity Performance	FY Q2 2016(%)	Benchmark (%)	Excess Returns
Public Equities (MSCI ACWI IMI)	4.40	4.91	-51 bps
U.S. Large Cap (Russell 1000)	6.14	6.50	-36 bps
U.S. Small Cap (Russell 2000)	3.88	3.59	+29 bps
Non-U.S. Developed Large Cap (MSCI World ex US)	4.14	3.91	+23 bps
Non-U.S. Developed Small Cap (MSCI World ex US Small)	5.58	5.82	-24 bps
Emerging Markets (MSCI Emerging Markets)	1.40	0.66	+74 bps
Global Equities ex Tactical Tilts(MSCI World/MSCI ACWI)	4.96	503	-7 bps
Tactical Tilts (MSCI ACWI IMI)	2.53	4.91	-238 bps



Public Equities

APFC Public Equity Performance	FY Q2 2016 (%)	1 Year (%)	3 Years (%)
Public Equities	4.40	-2.97	6.87
MSCI ACWI IMI	4.91	-2.19	7.86
	-51 bps	-78 bps	-99 bps
US Large Cap	6.14	0.85	15.28
Russell 1000 index	6.50	0.92	15.01
	-36 bps	-7 bps	+27 bps
US Small Cap	3.88	-0.90	13.41
Russell 2000 index	3.59	-4.41	11.65
	+29	+351	+176



Public Equities

APFC Public Equity Performance	FY Q1 2016 (%)	1 Year (%)	3 Years (%)
Non US Developed Large Cap	4.14	-2.65	3.97
MSCI World ex-US index	3.91	-3.04	3.93
	+23 bps	+39 bps	+4 bps
Non US Developed Small Cap	5.58	5.86	8.79
World ex-US Small Cap index	5.82	5.46	7.82
	-24 bps	+40 bps	+97 bps
Emerging Markets	1.40	-14.72	-6.65
MSCI Emerging Markets index	0.66	-14.92	-6.76
	+76	+20	+11



Public Equities

APFC Public Equity Performance	FY Q1 2016 (%)	1 Year (%)	3 Years (%)
Global Equities Developed	5.30	-0.43	10.61
MSCI World	5.50	-0.87	9.63
	-20 bps	+44 bps	+97 bps
Global Equities All Country	4.56	0.97	9.76
MSCI ACWI	5.03	-2.36	7.69
	-47 bps	+333 bps	+207 bps



Public Equities

Active Manager Performance		APFC Assets (million)	FY Q2 2016 (%)	Benchmark (%)	Excess Returns
US Large Cap Equity		\$3,497			
AGI	(Russell 1000 Growth)	\$767	7.50	7.32	+18 bps
GE	(Russell 1000 Growth)	\$348	10.08	7.32	+276 bps
DSM*	(Russell 1000 Growth)	\$348	8.85	7.32	+153 bps
CastleArk	(Russell 1000 Growth)	\$355	5.52	7.32	-180 bps
SKBA	(Russell 1000 Value)	\$335	6.11	5.64	+47 bps
Herndon	(Russell 1000 Value)	\$400	3.06	5.64	-258 bps
Lyrical*	(Russell 1000 Value)	\$459	3.14	5.64	-250 bps
LSV*	(Russell 1000 Value)	\$484			

*LSV was hired in Dec 15, 2015

*Lyrical's allocation was increased by \$100 million on Dec 15, 2015

*DSM's allocation was increased by \$200 million on Dec 15, 2015



Public Equities

Active Manager Performance		APFC Assets (million)	FY Q1 2016 (%)	Benchmark (%)	Excess Returns
U.S. Small Cap Equity		\$902			
RBC	(Russell 2000 Growth)	\$178	4.93	4.32	+61 bps
Eagle	(Russell 2000 Growth)	\$182	5.33	4.32	+101 bps
Pzena	(Russell 2000 Value)	\$188	6.40	2.88	+352 bps
T Rowe	(Russell 2000 Value)	\$168	2.71	2.88	-17 bps
Jennison	(Russell 2000)	\$187	2.45	3.59	-114 bps



Public Equities

Active Manager Performance		APFC Assets (million)	FY Q2 2016 (%)	Benchmark (%)	Excess Returns
Non-U.S. Developed Equity		\$1,778			
Acadian	(MSCI ACWI ex US Value)	\$611	4.31	1.43	+288 bps
Schroder	(MSCI ACWI ex US Value)	\$177	2.72	1.43	+129 bps
LSV	(MSCI ACWI ex US Value)	\$171	1.80	1.43	+37 bps
Johnston	(MSCI World ex US Growth)	\$188	6.28	5.61	+67 bps
JP Morgan	(MSCI World ex US Growth)	\$192	6.31	5.61	+70 bps
GE	(MSCI World ex US Growth)	\$439	4.10	5.61	-151 bps



Public Equities

Active Manager Performance	APFC Assets (million)	FY Q2 2016 (%)	Benchmark (%)	Excess Returns
Emerging Markets Equity	\$1,661			
JP Morgan (MSCI EM)	\$347	1.15	0.66	+49 bps
Mondrian* (MSCI EM)	\$360	1.39	0.66	+73 bps
William Blair (MSCI EM)	\$449	3.45	0.66	+279 bps
Lee Munder (MSCI EM)	\$204	-0.46	0.66	-112 bps
Delaware (MSCI EM)	\$203	4.66	0.66	+400 bps
Trustbridge (MSCI China/MSCI EM)	\$98	8.98	4.03/0.66	+495/+704 bps
Capital Group** (MSCI EM)	\$884			

* Partially redeemed in November

** Fully redeemed in November

The assets rebalanced among William Blair, JP Morgan, DFA EM Value, DFA EM Small Cap, and Trustbridge strategies



Public Equities

Active Manager Performance		APFC Assets (million)	FY Q2 2016 (%)	Benchmark (%)	Excess Returns
Global Equity		\$3,763			
McKinley	(MSCI ACWI)	\$686	5.01	5.03	- 2 bps
AQR	(MSCI World)	\$1,339	5.91	5.50	+41 bps
Lazard	(MSCI ACWI)	\$1,739	4.39	4.91	-52bps



Public Equities

Quasi Passive Returns	APFC Assets (million)	FY Q2 2016 (%)	Benchmark (%)	Excess Returns
Quasi Passive	\$5,132			
DFA (MSCI World ex US Small Cap V)	\$315	4.89	3.78	+111 bps
DFA (MSCI World ex US Small Cap)	\$314	6.03	5.82	+21 bps
DFA (MSCI World ex US Large Cap)	\$1,366	4.28	3.91	+37 bps
DFA (MSCI EM Value)	\$455	3.46	-1.45	+491 bps
DFA (MSCI EM Small Cap)	\$144	4.90	3.27	+163 bps
Mellon FTSE RAFI US 1000 (S&P 500)	\$342	5.71	6.50	-79 bps
SSGA Russell Fundamental (MSCI World)	\$1,204	4.55	5.50	-95 bps
APF SPDR Low Volatility (Russell 1000)	\$328			
APF SPDR Momentum (Russell 1000)	\$331			
APF SPDR Yield (Russell 1000)	\$334			



Public Equities

Passive Returns	APFC Assets (million)	FY Q2 2016 (%)	Benchmark (%)
Passive	\$3,370		
Mellon S&P 500	\$241	7.08	7.04
Mellon S&P 400	\$124	2.64	2.60
SSGA World ex US Small Cap	\$311	5.83	5.82
SSGA World	\$312	5.60	5.50
SSGA Emerging Markets	\$919	0.92	0.66
Mellon World ex US	\$1,463	3.94	3.91



Public Equities

Passive Returns	APFC Assets (million)	FY Q2 2016 (%)	MSCI ACWI IMI	FY Q2 Excess Return (%)
APFC Alpha Tilts	\$496			
iShares MSCI Mexico ETF (MSCI ACWI IMI)	\$147	-1.93	4.91	-6.84
WisdomTree Hedged EU ETF (MSCI ACWI IMI)	\$201	5.85	4.91	0.94
WisdomTree Hedged Japan ETF (MSCI ACWI IMI)	\$88	8.29	4.91	3.38
iShares MSCI Brazil ETF (MSCI ACWI IMI)	\$59	-4.73	4.91	-9.64



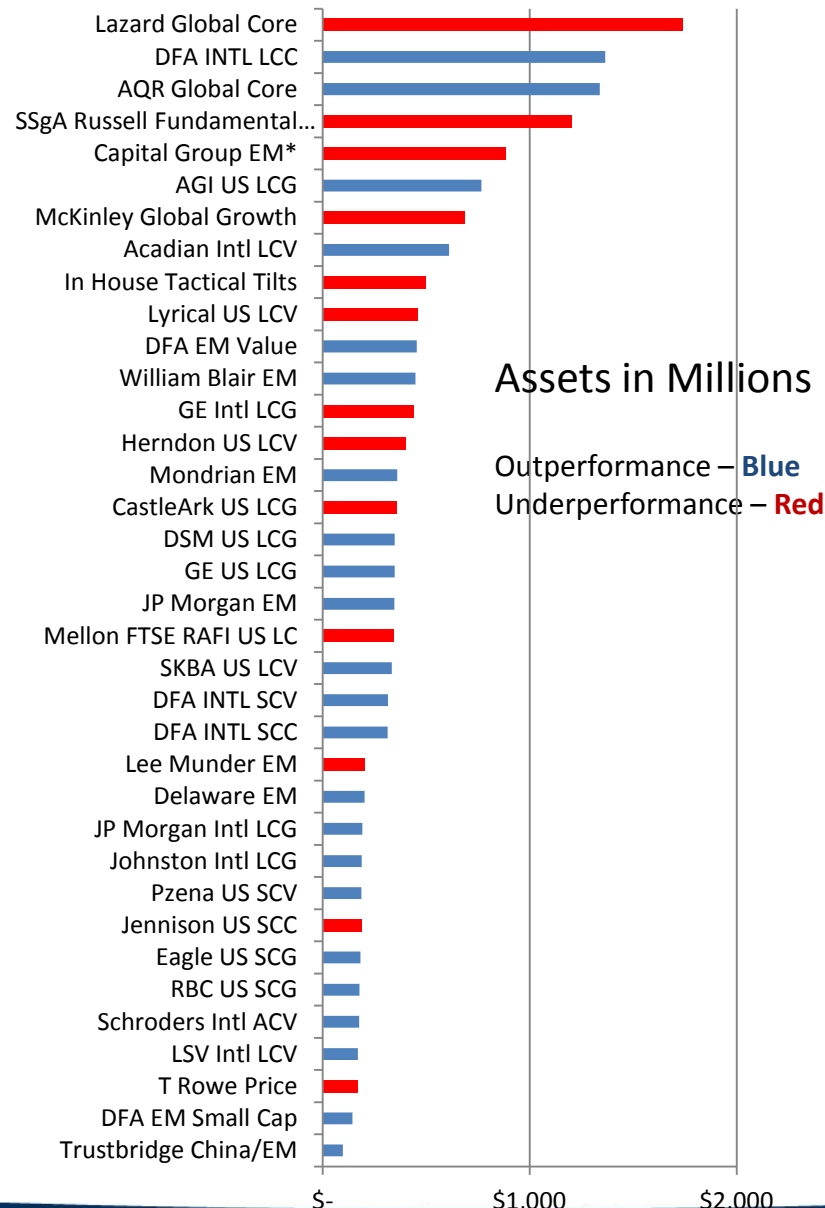
Public Equities

(FY Q2 ended Dec 31, 2015)

APFC Manager Allocation & Performance

•64% of all the APFC Public Equity Active and Quasi Passive strategies (23/36*) outperformed

*Includes Capital Group EM (terminated during the quarter)



Public Equities

(1 Yr. ended Dec 31, 2015)

APFC Manager Allocation & Performance

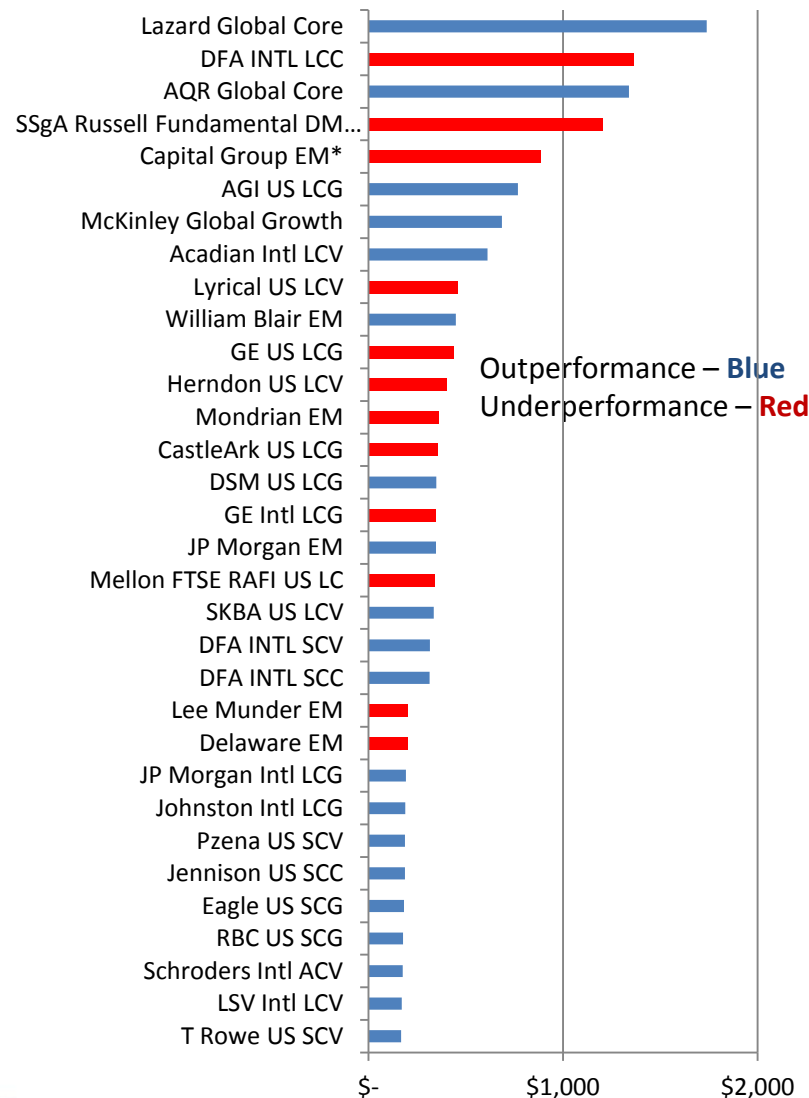
•62% of all the APFC Public Equity Active and Quasi Passive strategies (20/32) outperformed

*Includes Capital Group EM (terminated in November)

*Excludes Trustbridge China Strategy (hired in September)

*Excludes DFA EM Value and DFA EM Small Cap (hired in July)

Assets in Millions



Public Equities

Allocation Framework

- **Strategic** (Long term secular theme, more than five years)
- **Tactical** (Short-Intermediate term, one-two years)
- **Fund Manager** (Conviction level, performance cycle)



Public Equities

Strategic Allocation

- Favorable trends in Demographics & Investment
 - Population, Wealth, Consumerism, infrastructure
- Share of the World Economy
 - Long term GDP growth potential
- Share of the World Capital Markets
- Investability
 - Float, Corporate Governance



Public Equities

Tactical Allocation (Reversion to the Mean)

- Significant Divergence in:
 - Valuation
 - Relative to history, Relative to Peers
 - Performance
 - Regions, Sectors, Style, Size
 - Fundamentals
 - Growth, Profitability
 - Macroeconomics
 - Central Banks



Public Equities

Fund Manager Allocation

1) Initial Allocation

- Conviction Level

2) Conviction Level

- Increase : Normal Allocation
- Decrease: Terminate

3) Normal Allocation Range

- High Conviction Underperformance: Increase above Normal level
- High Conviction Outperformance: Decrease below Normal level
- Low Conviction: Terminate



Public Equities

Manager Selection/Sell Decision

- Potential for excess returns versus passive index
- Likely stability of excess returns

	Manager A	Manager B	Manager C	Manager D
Organization	4	3	2	3
Team	4	3	4	2
Process	4	3	4	3
Performance	4	3	4	3
Conviction	4	3	2	2

Manager A: Insightful investment team and positively differentiating process in a relatively stable organization

Manager C: **Investment Team not stable** and Process are not positively differentiating;

Manager D: **Organization is not stable**, Process is positively differentiating

*Rank managers from 1-5 on a peer relative basis with 5 being the highest rank



Public Equities

Implementation of Sell Decision

Conviction Rank falls below 3: Manager under Review for a Sell

Why we may want to wait...

- Reasonable degree of certainty that the Conviction (stability of excess return drivers) is **not likely** to improve
- Unfavorable market environment
- Replacement managers



Public Equities

Allocation: *Market Capitalization*

Market Cap	Strategic Allocation (%)	MSCI ACWI IMI (%)
Between \$3 and 5 billion	5.0	5.6
Between \$1 and 3 billion	10.0	7.2
Less than \$1 billion	5.0	3.0

Market Cap	Current Allocation (%)	vs. Strategic (%)	vs. ACWI IMI (%)
Between \$3 and 5 billion	6.9	1.9	1.3
Between \$1 and 3 billion	8.4	-1.6	1.2
Less than \$1 billion	3.5	-1.5	0.5



Public Equities

S&P 500	2015	2014	2013	2012	2011	2010	2009
Performance	1.4%	13.7%	32.4%	16.0%	2.1%	15.1%	26.5%
Earnings	\$111	\$113	\$107	\$101	\$97	\$83	\$60
Profit Margins	8.5%	9.2%	9.6%	8.3%	8.9%	8.5%	6.5%
Valuation (P/E)	18.4	18.1	17.2	14.1	12.9	15.1	18.4
Valuation (P/B)	2.6	2.83	2.58	2.14	2.05	2.17	2.15
Wt. in MSCI ACWI IMI	52.9%	53%	49%	46%	47%	43%	43%

S&P 500:

- Delivered positive returns in each of the last seven calendar years
- Fundamentals have significantly improved, but so has the valuation
- Weight in the MSCI ACWI IMI has increased over the past five years



Public Equities

MSCI World ex-US	2015	2014	2013	2012	2011	2010	2009
Performance	-3.04%	-3.6%	21.8%	17.2%	-11.7%	9.7%	34.6%
Earnings	\$89	\$106	\$107	\$93	\$105	\$116	\$62
Profit Margins	6.1%	6.8%	6.1%	5.1%	5.6%	7.2%	4.1%
Valuation (P/E)	19.1	16.9	18.0	17.6	13.8	14.6	25.8
Valuation (P/B)	1.60	1.64	1.71	1.46	1.31	1.55	1.60
Wt. in MSCI ACWI IMI	37.4%	37%	41%	41%	43%	45%	45%

Non US DM Equities:

- Delivered mixed returns and have underperformed US Equities over the past six years
- Profit Margins have been improving since 2012
- Currently trading at a par valuation with the US equities
- Weight in the MSCI ACWI IMI has decreased over the last five years



Public Equities

MSCI Emerging Markets	2015	2014	2013	2012	2011	2010	2009
Performance	-14.9%	-1.9%	-2.3%	18.7%	-18.2%	19.3%	78.9%
Earnings	\$65	\$76	\$84	\$82	\$90	\$85	\$56
Profit Margins	8.2%	7.8%	8.4%	8.5%	9.6%	10.6%	9.4%
Valuation (P/E)	12.2	12.5	11.9	12.9	10.2	13.5	17.8
Valuation (P/B)	1.36	1.47	1.47	1.60	1.51	1.97	2.03
Wt. in MSCI ACWI IMI	9.7%	9.9%	10.1%	12.6%	12.0%	13.3%	12.4%

- EM Equities:
- Delivered negative absolute returns (cumulative)
- Profit Margins have been declining
- Trading at a greater valuation discount relative to DM equities
- Weight in the MSCI ACWI IMI has decreased



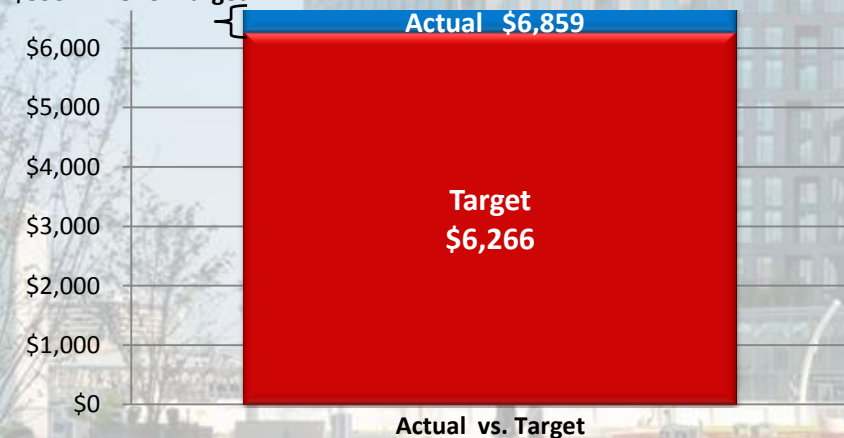
Real Estate Invested vs. Target Allocation

December 31, 2015

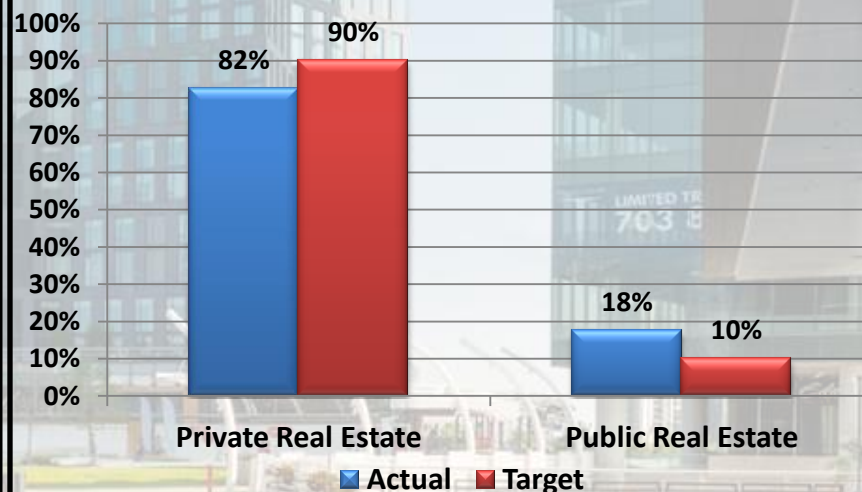
December 31, 2015	% Invested	Market Value (\$mm)	% of Portfolio	2015 Tactical Plan Target
Private Real Estate		\$5,652	82%	90%
Public Real Estate		\$1,208	18%	10%
Total Real Estate Portfolio	13.1%	\$6,859	100%	100%
Real Estate Allocation	12.0%	\$6,266		

Real Estate Allocation

\$593mm Over Target



Real Estate Actual vs. Target



Performance Overview

December 31, 2015

4Q
2015 1 Year

Invested \$5,652 (mm)

Private Real Estate (net of fee)	1.8%	14.5%
NCREIF Property Index	2.9%	13.3%
Out/(Under) Performance	-1.1%	1.2%

Invested \$1,208 (mm)

Public Real Estate ¹	4.5%	0.8%
EPRA/NAREIT Dev Rent Idx ²	5.2%	2.0%
Out/(Under) Performance	-0.7%	-1.2%

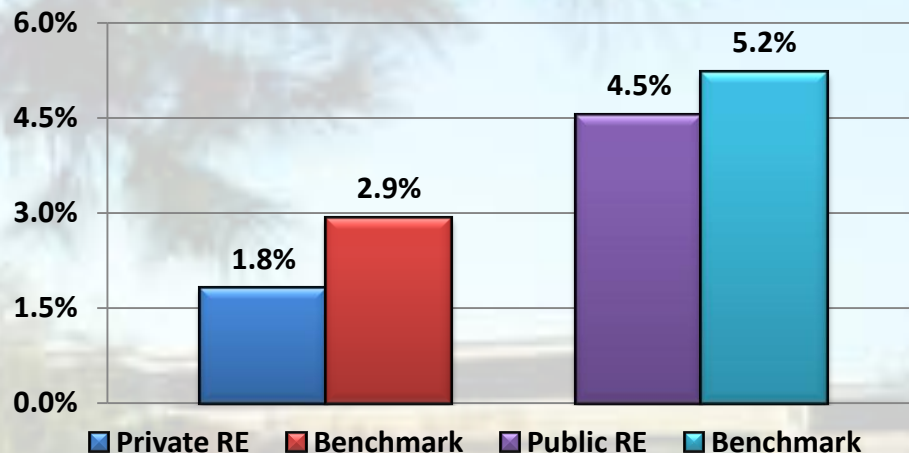
Invested \$6,859 (mm)

APFC Real Estate (net of fee)	2.3%	11.8%
90%/10% Benchmark	3.1%	12.2%
Out/(Under) Performance	-0.8%	-0.4%

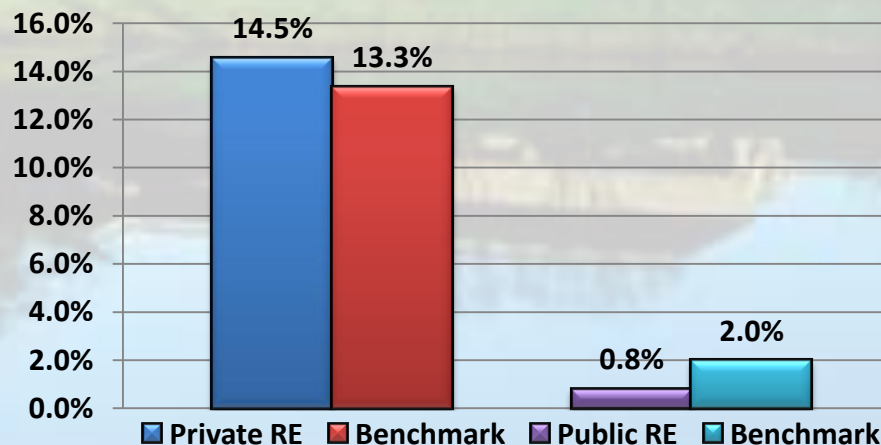
¹ - AEW Gross of Fee, AH4R Net of Fee

² - APFC REIT Target is equal to UBS Global REIT Index through 12/31/2014 and FTSE EPRA/NAREIT Developed Rental Index thereafter.

Investment Performance Total Return
Actual vs. Benchmark
Quarter Ending Dec. 31, 2015



Investment Performance Total Return
Actual vs. Benchmark
Year Ending Dec. 31, 2015

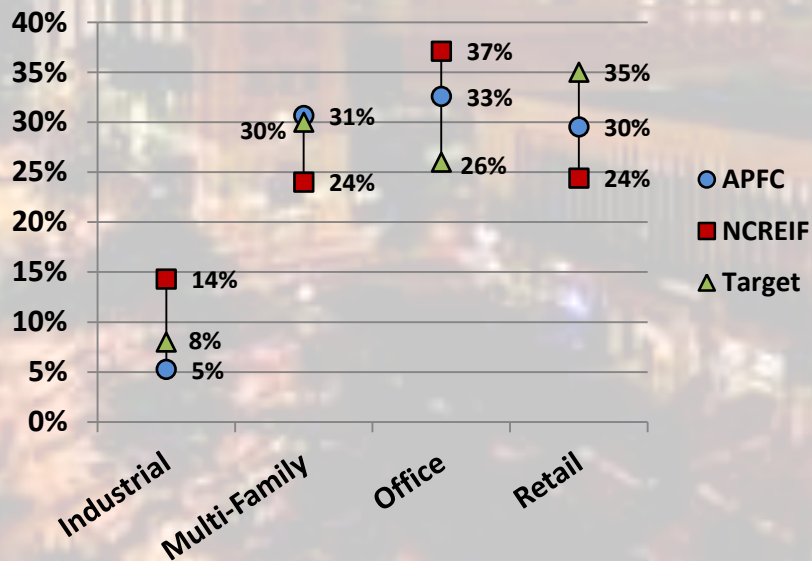


Portfolio Composition by Property Type

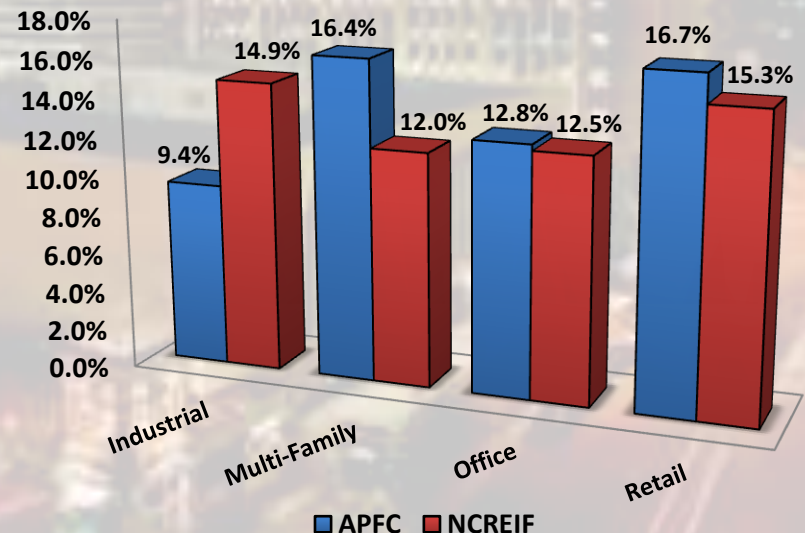
Property Type	No. of Props	Dec. 2015 Market Value (\$mm)	% of Portfolio	NCREIF % of Portfolio Dec. 2015	2015 Tactical Plan Target	1 Year Performance		3 Year Performance	
						APFC	NCREIF	APFC	NCREIF
Hotel	1	\$54	1%	1%	1%	NA	13.2%	NA	10.6%
Industrial	19	\$278	5%	14%	8%	9.4%	14.9%	11.4%	13.5%
Multi-Family	9	\$1,761	31%	24%	30%	16.4%	12.0%	13.7%	10.9%
Office	18	\$1,864	33%	37%	26%	12.8%	12.5%	11.3%	11.3%
Retail	15	\$1,695	30%	24%	35%	16.7%	15.3%	14.0%	13.8%
Total:	62	\$5,652	100%	100%	100%	14.5%	13.3%	12.5%	12.0%

* SHLP included in multi-family as one property (actual # Simpson properties 69)

Property Type Comparison



APFC vs. NCREIF 1 Year Performance Returns

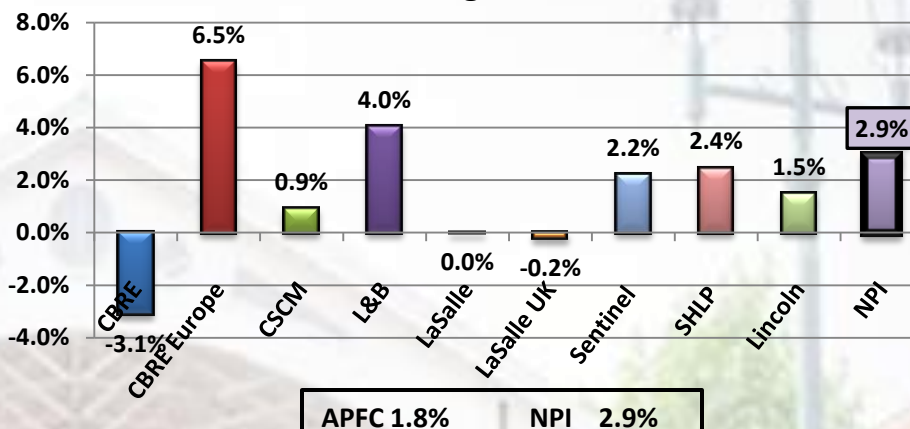


Private Real Estate Portfolio

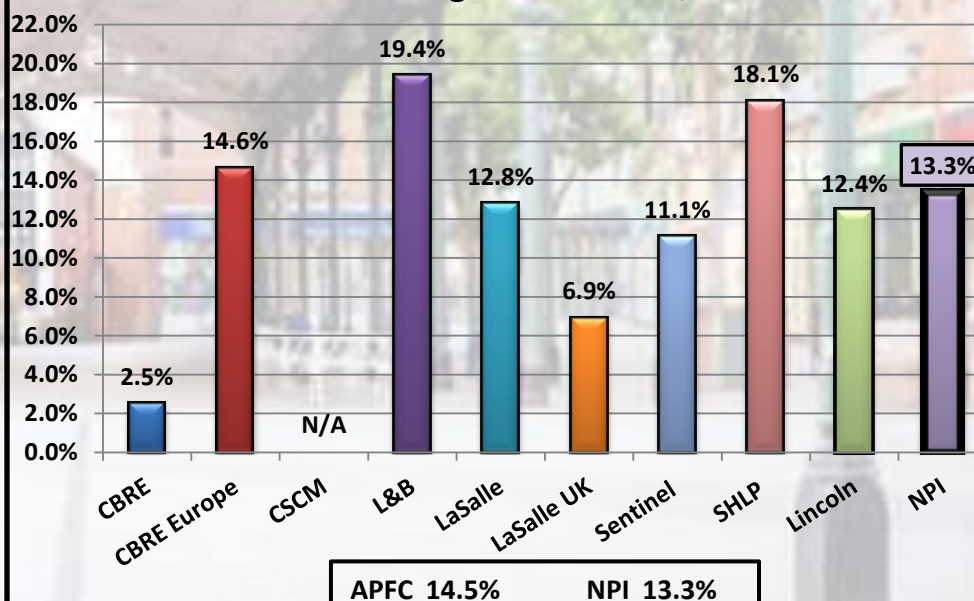
December 31, 2015

Manager	Net Asset Value	% of Total	Performance	
			4Q	1 Year
CBRE	\$619	11%	-3.1%	2.5%
CBRE Europe	\$117	2%	6.5%	14.6%
CSCM	\$164	3%	0.9%	N/A
L&B	\$1,930	34%	4.0%	19.4%
LaSalle	\$1,136	20%	0.0%	12.8%
LaSalle UK	\$117	2%	-0.2%	6.9%
Sentinel	\$244	5%	2.2%	11.1%
SHLP	\$1,257	22%	2.4%	18.1%
Lincoln	\$68	1%	1.5%	12.4%
Total:	\$5,652	100%	1.8%	14.5%
NCREIF Property Index			2.9%	13.3%
Out/(Under) Performance			-1.1%	1.2%

Investment Performance
APFC Private RE vs. Benchmark
Quarter Ending December 31, 2015

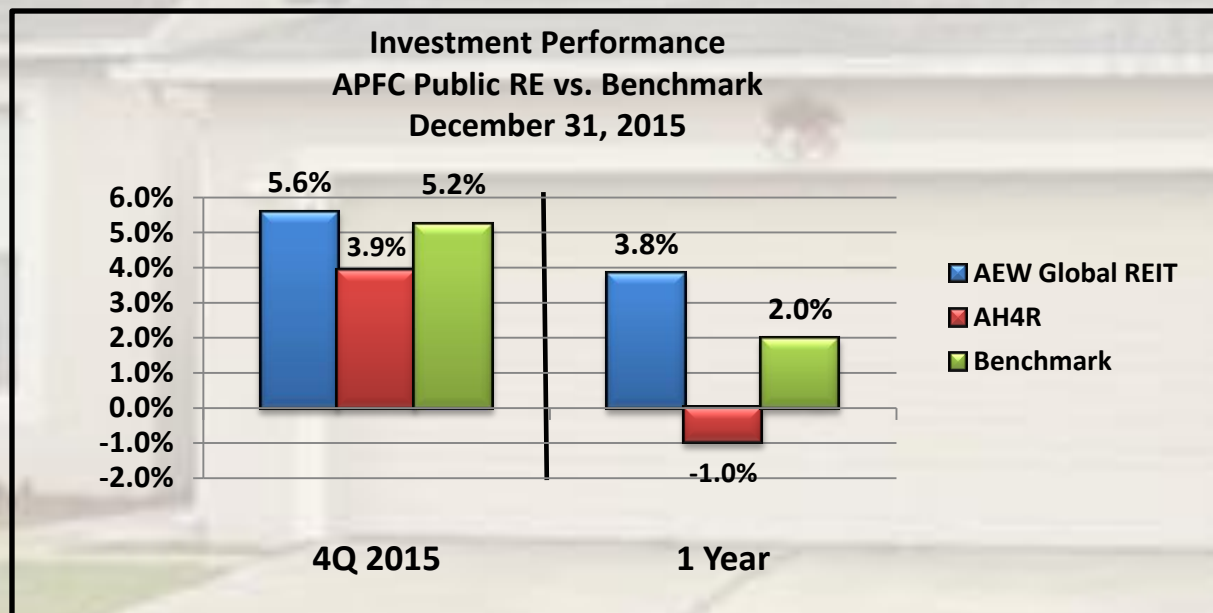


Investment Performance
APFC Private RE vs. Benchmark
Year Ending December 31, 2015



Public Real Estate Portfolio

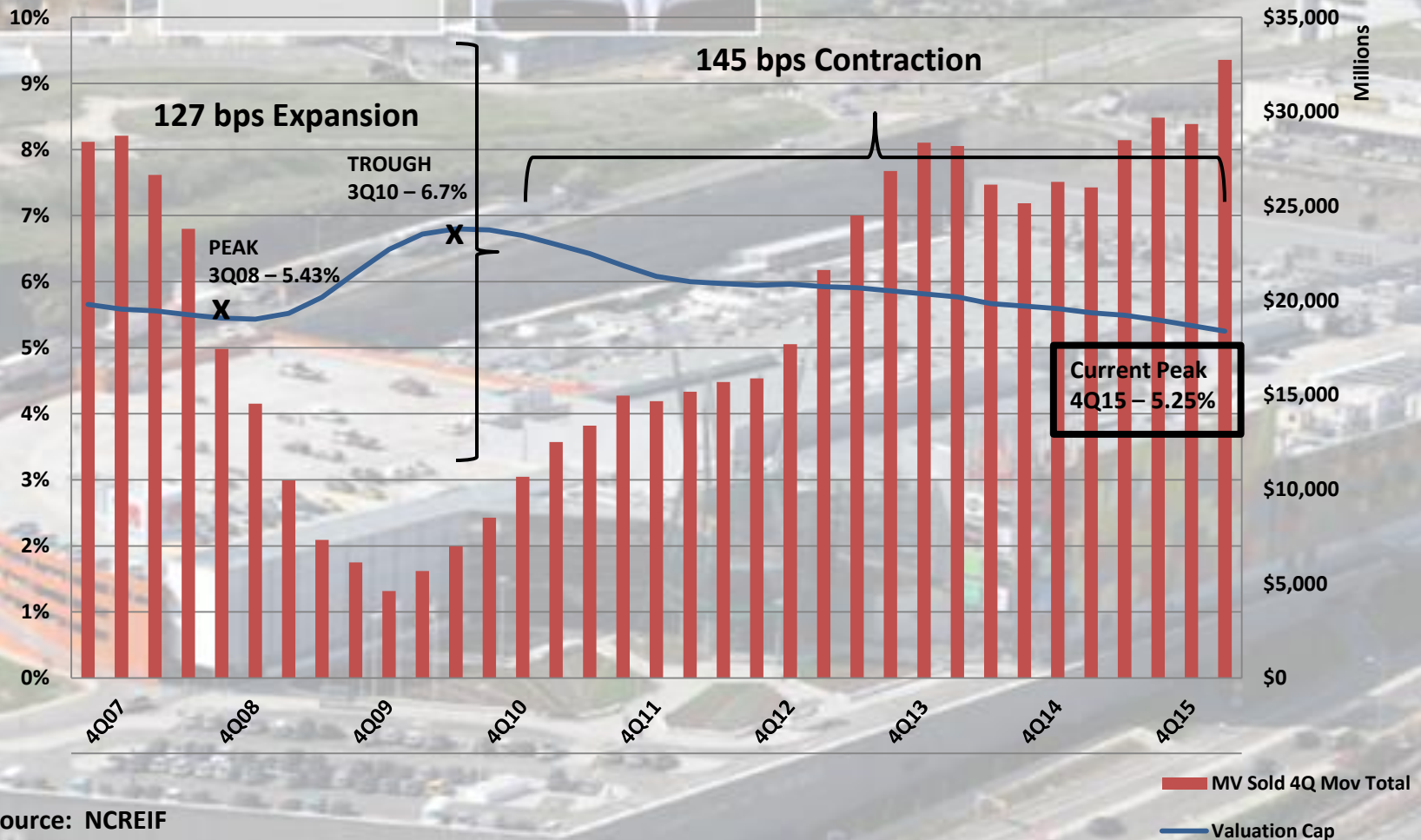
December 31, 2015				
Total Returns	Dec. 2015			
Public Real Estate	Market Value (\$mm)	4Q 2015	1 Year	1 Yr Out/(Under)
AEW Global REIT	\$455	5.6%	3.8%	180 bps
AH4R	\$753	3.9%	-1.0%	-300 bps
EPRA/NAREIT Dev Rent Idx ¹	\$1,208	5.2%	2.0%	-120 bps



1 - APFC REIT Target is equal to UBS Global REIT Index through 12/31/2014 and FTSE EPRA/NAREIT Developed Rental Index thereafter.

NCREIF – NPI

Transaction Volume vs Valuation Cap



NCREIF - NPI

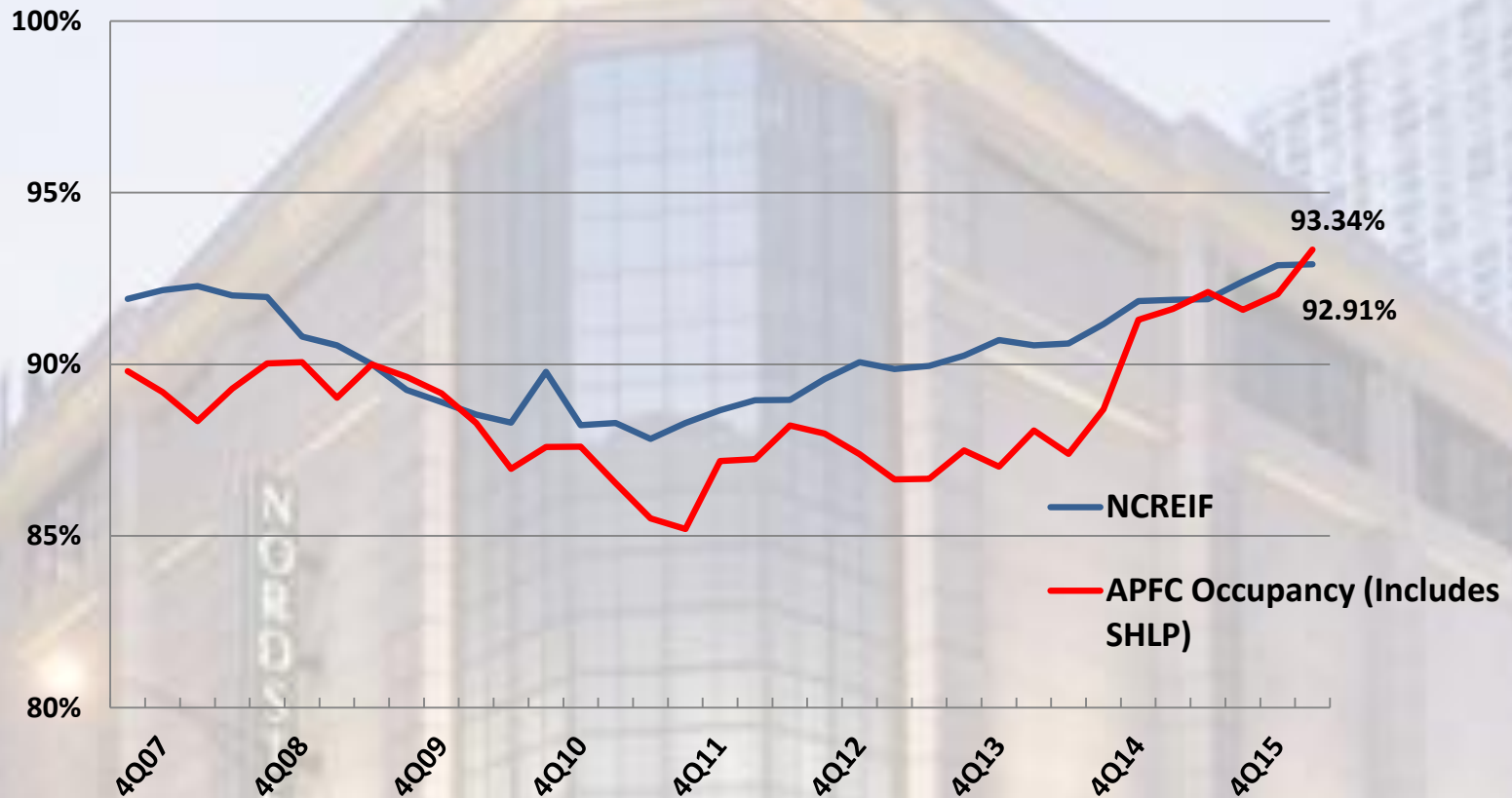
Valuation Cap vs 10-yr Treasury



Source: NCREIF and TIAA-CREF

City Center – Houston, TX

APFC vs NCREIF NPI Occupancy by Quarter



Source: NCREIF

Northbridge Mall – Chicago, IL

Debt Overview

Debt Overview

	Value	Debt	LTV	%TTL Debt
Wholly/Majority Owned	1,553,358,314	616,002,218	39.7%	27.9%
Partnered Assets	4,849,134,357	1,589,827,292	35.5%	72.1%
Free & Clear RE	1,452,556,271	0	0.0%	
Total Private RE	7,855,048,942	2,205,829,510	28.1%	

Debt Maturities

	2016 (mm)	2017 (mm)	2018 (mm)	2019 (mm)	2020+ (mm)	Totals (mm)
Multi-Family	\$42.4	\$148.5	\$22.2	\$221.9	\$432.0	\$867.0
Retail	\$137.8	\$0.0	\$0.0	\$20.1	\$630.5	\$788.4
Office	\$0.0	\$0.0	\$0.0	\$0.0	\$479.8	\$479.8
Industrial	\$0.0	\$0.0	\$2.9	\$6.5	\$61.2	\$70.6
Total Debt:	\$180.2	\$148.5	\$25.1	\$248.5	\$1,603.5	\$2,205.8
% of Total Debt	8.2%	6.7%	1.1%	11.3%	72.7%	100%
Weighted Average Interest Rate	5.0%	2.5%	2.4%	3.9%	4.2%	4.1%

Pipeline

Closings:

Closed on acquisitions for total gross value of \$255m, and \$185m in equity:

- 346,000 sf Medical office building in Texas Medical Center (Houston, TX) closed on 12/22/2015.
- 2-building, 234,000 sf Medical office portfolio located in Boston, MA closed on 11/10/2015. 50% Debt placement pending.
- 300,000 sf regional shopping center located in Lisbon, Portugal closed on 12/22/2015.

Sale of Tower Center: (423,000 sf suburban office) closed on 11/19/2015.

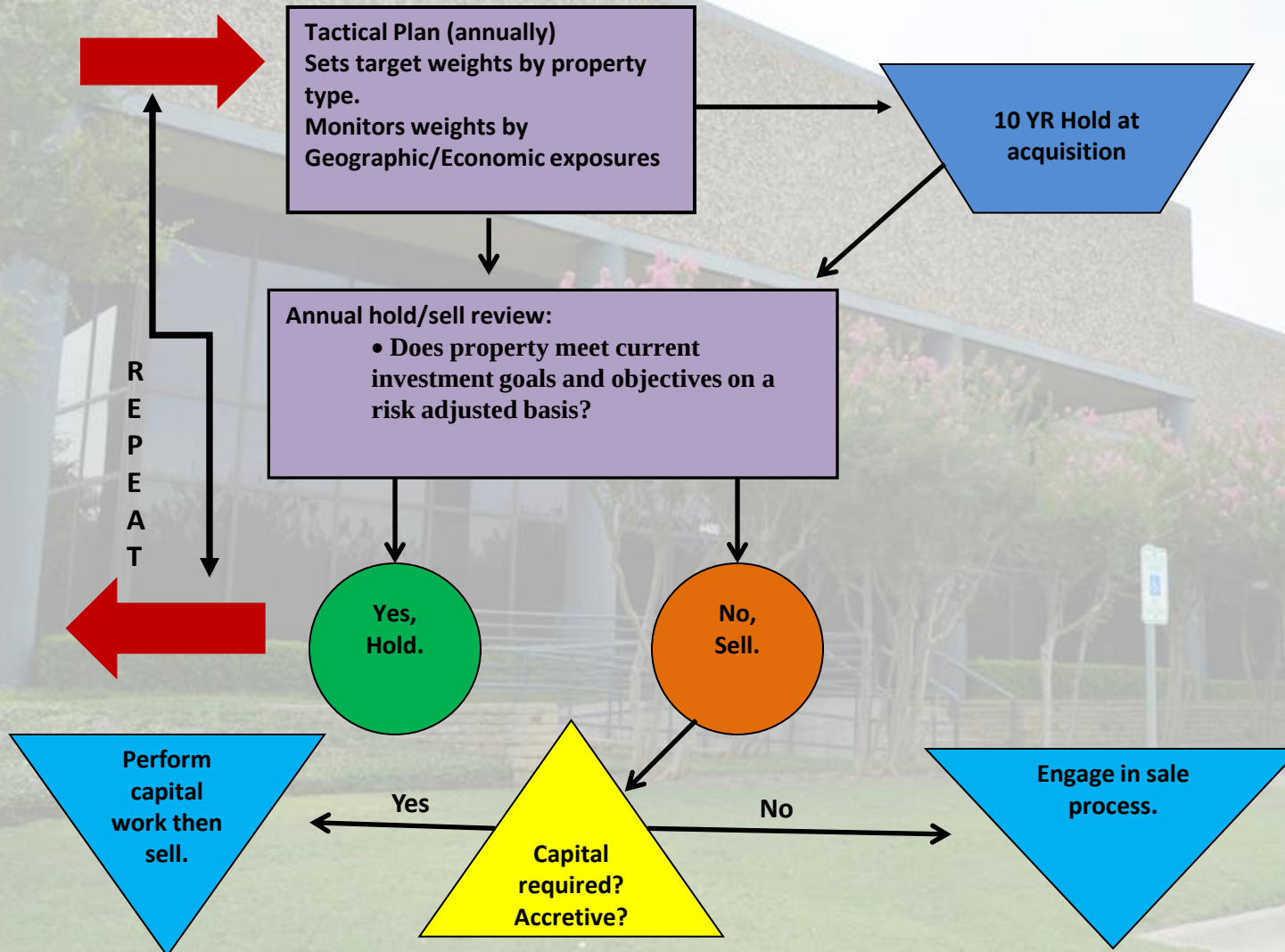
Pending Transactions:

Acquisition of Southpark IV, V, VI: 3-building, 578,066 sf Industrial portfolio located in Columbus, OH scheduled to close on 2/16/2016.

Two dispositions in pipeline:

- Sale of Eastpoint Business Portfolio, Dallas/Fort Worth, TX: (829,386 sf industrial) actively marketing sale with anticipated close 2Q-2016.
- Sale of Richardson Portfolio, Dallas/Fort Worth, TX: (314,536 sf office/flex) actively marketing sale with anticipated close 2Q-2016.

SALES PROCESS



Update

- Continued high liquidity in institutional real estate—new high \$ volume reached last quarter as seen on slide 6 with almost 25 bps of cap rate compression on the year, surpassing prior peak pricing.
- Completed in-person manager meetings for review of annual business plans for every property in portfolio.
- Begin Hold/Sell analysis of full portfolio; incorporate findings into new tactical plans for coming year.
- Redraft of Strategic Plan for Real Estate planned completion 1H2016.



February 23, 2016

Alaska Permanent Fund Corporation

4th Quarter 2015 Performance Review

Greg Allen

President and Director of Research

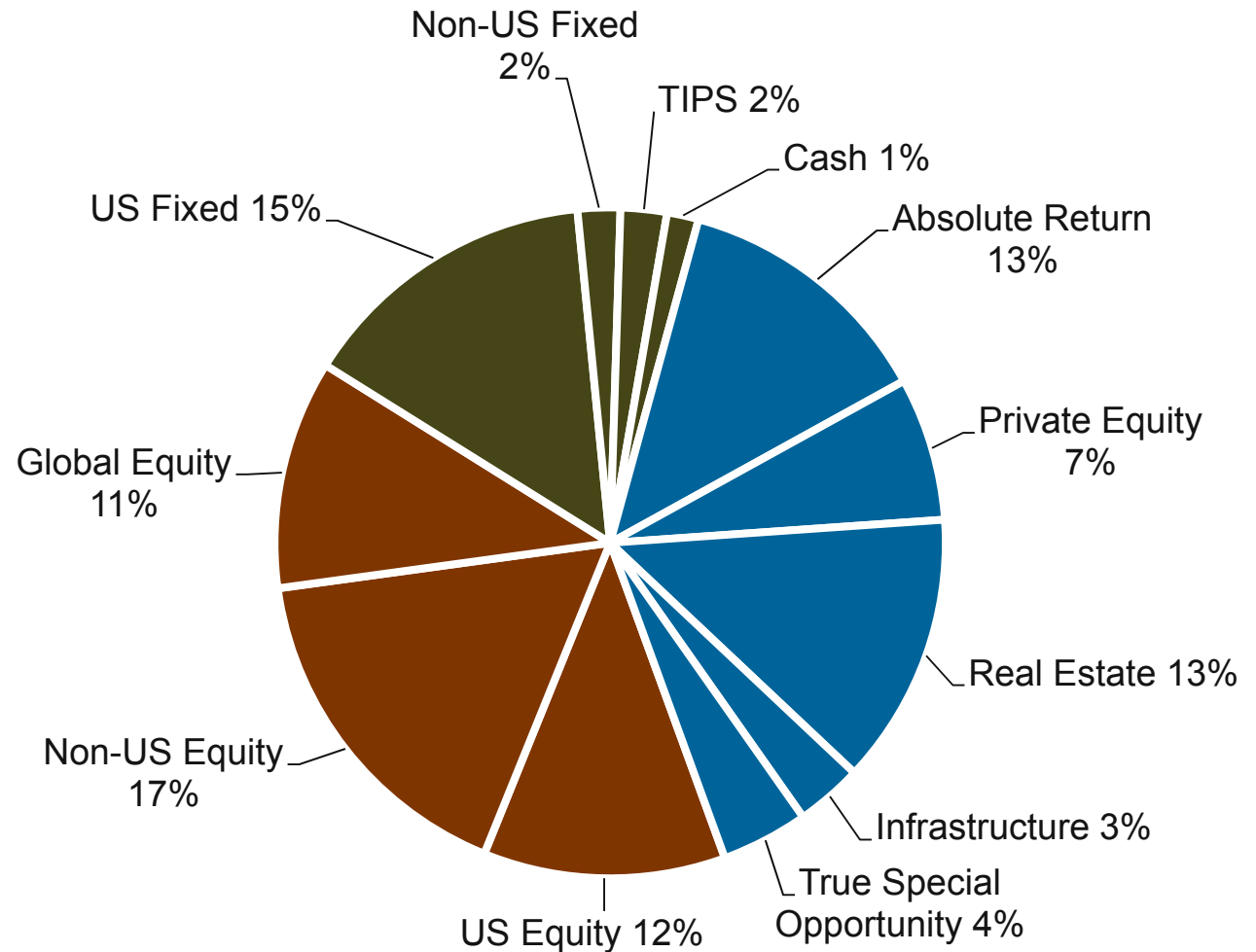
Steven Center, CFA

Senior Vice President

Total Fund Asset Allocation

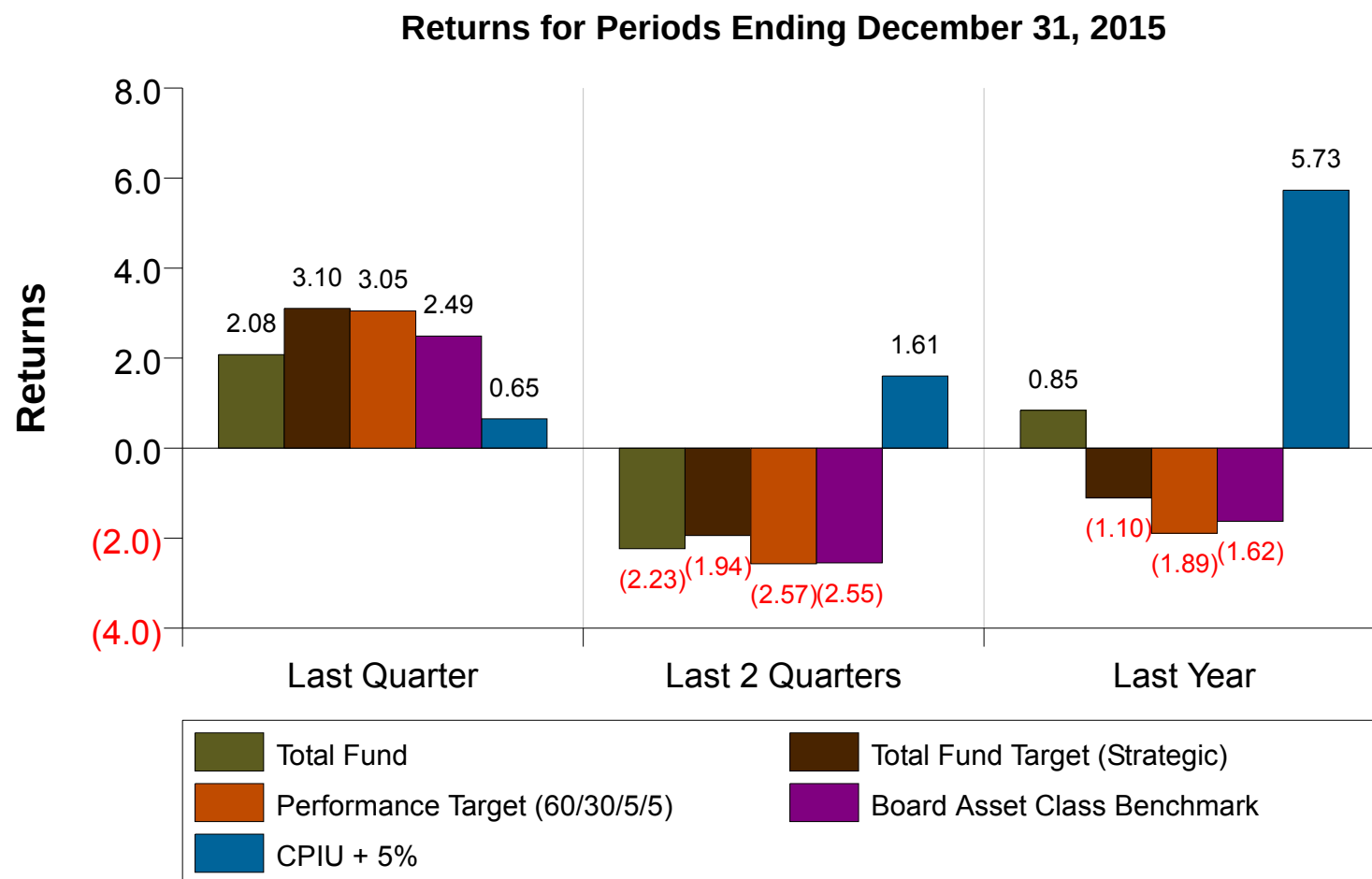
As of December 31, 2015

- 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, 20% to fixed income, and 40% to alternative investments.
- Compared to allocations in the 3rd quarter, this reflects a decrease in public equity, an increase in fixed income, and an unchanged exposure in alternative investments.
- Alternatives includes real estate, private equity, infrastructure, absolute return, true special opportunity, hedge funds, and distressed/mezzanine debt.



APFC Total Fund Cumulative Returns

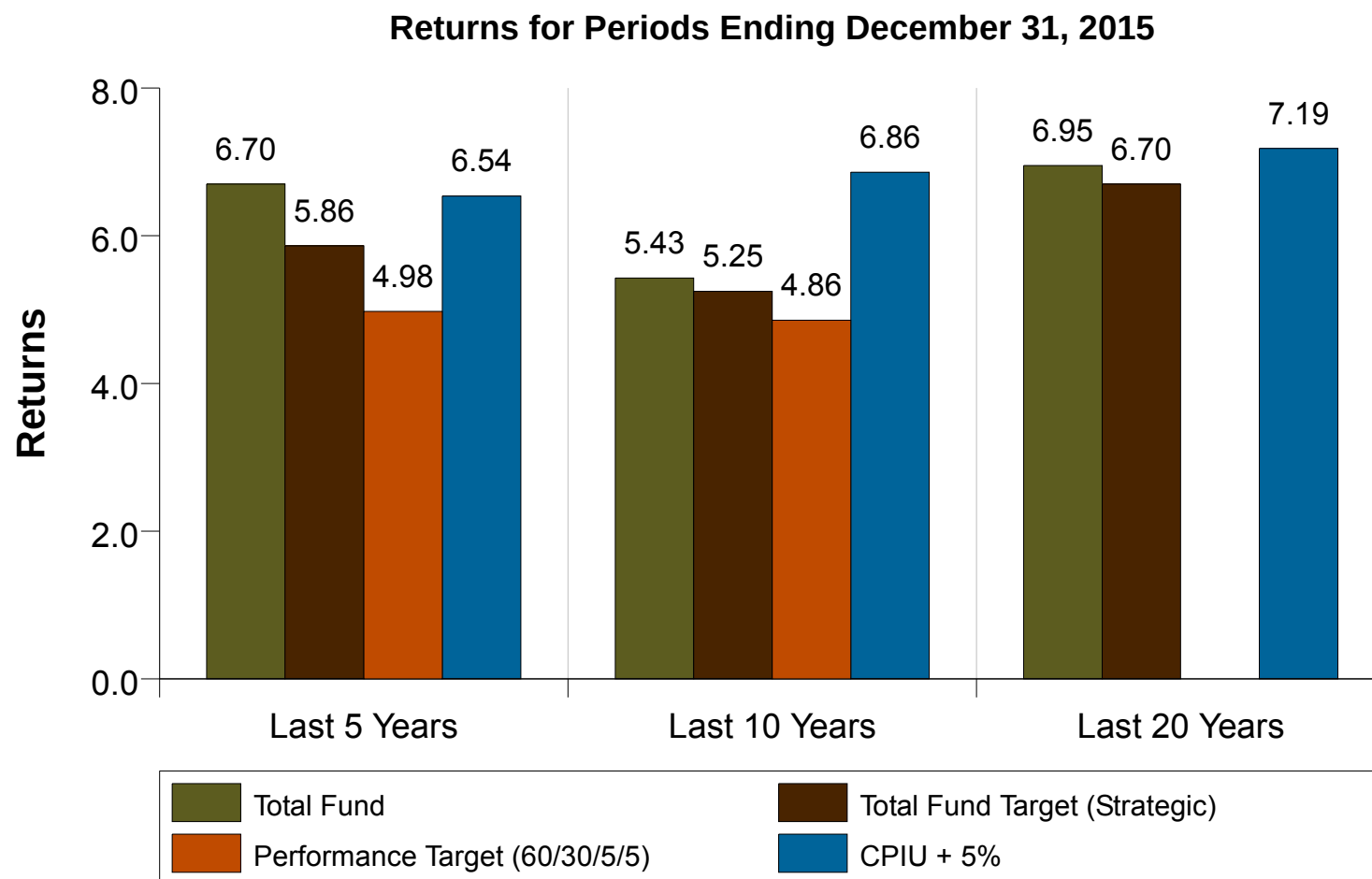
Total Fund versus Total Fund Targets



- Current Total Fund Target = 52.5% MSCI ACW IMI, 13.1% Barclays Global Corporate Hedged, 8.0% Barclays Global Treasury Hedged, 2.2% Barclays TIPS, 2.0% Barclays Mortgage Index, 7.6% MSCI REIT, 4.4% FTSE Developed Core Infrastructure, and 10.1% 3-month Treasury Bills

APFC Total Fund Cumulative Returns

Total Fund versus Total Fund Targets

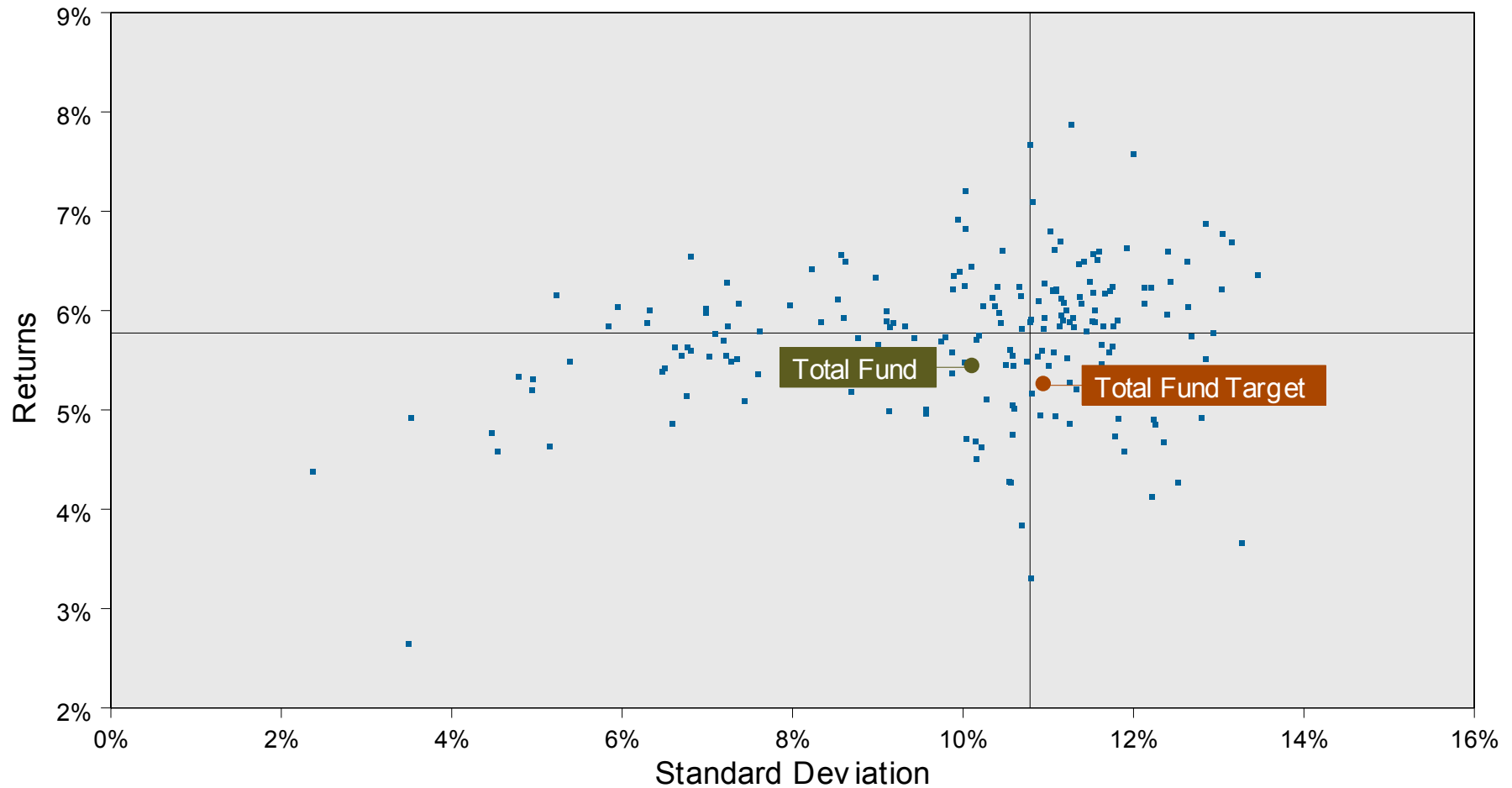


- Current Total Fund Target = 52.5% MSCI ACW IMI, 13.1% Barclays Global Corporate Hedged, 8.0% Barclays Global Treasury Hedged, 2.2% Barclays TIPS, 2.0% Barclays Mortgage Index, 7.6% MSCI REIT, 4.4% FTSE Developed Core Infrastructure, and 10.1% 3-month Treasury Bills

APFC Total Fund Return versus Standard Deviation

Relative to Callan's Public Fund Database

Ten Year Annualized Risk vs Return

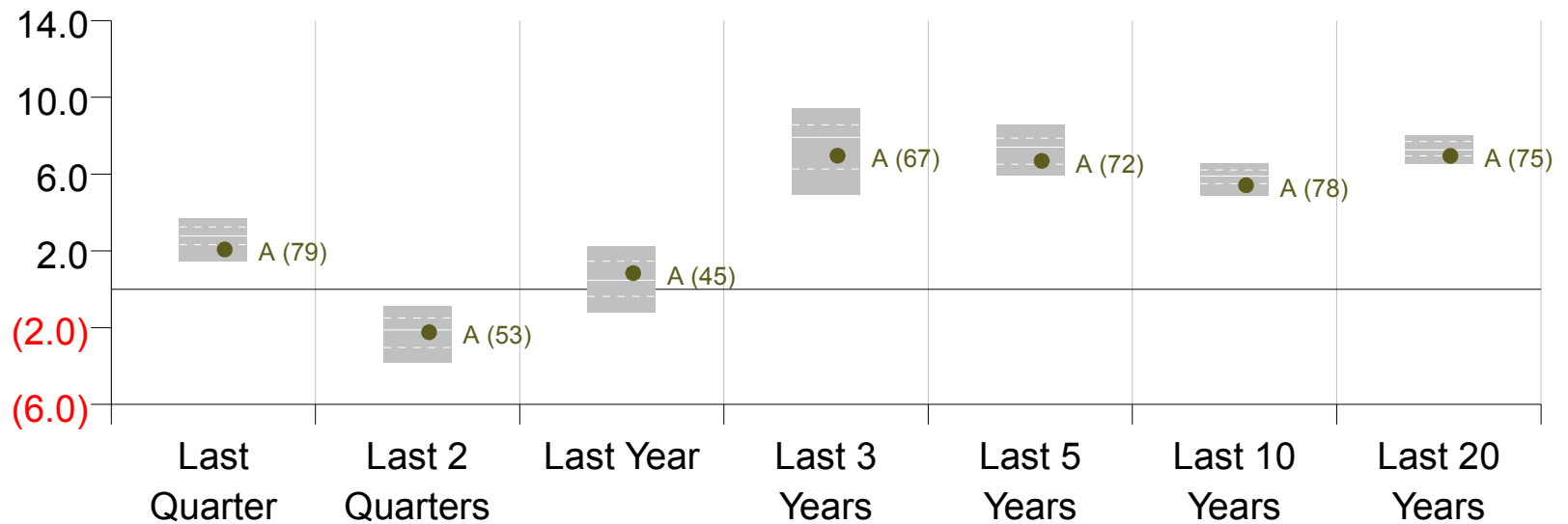


Squares represent membership of the Public Fund Sponsor Database

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

Returns for Periods Ended December 31, 2015

Group: CAI Public Fund - Large (>1B)

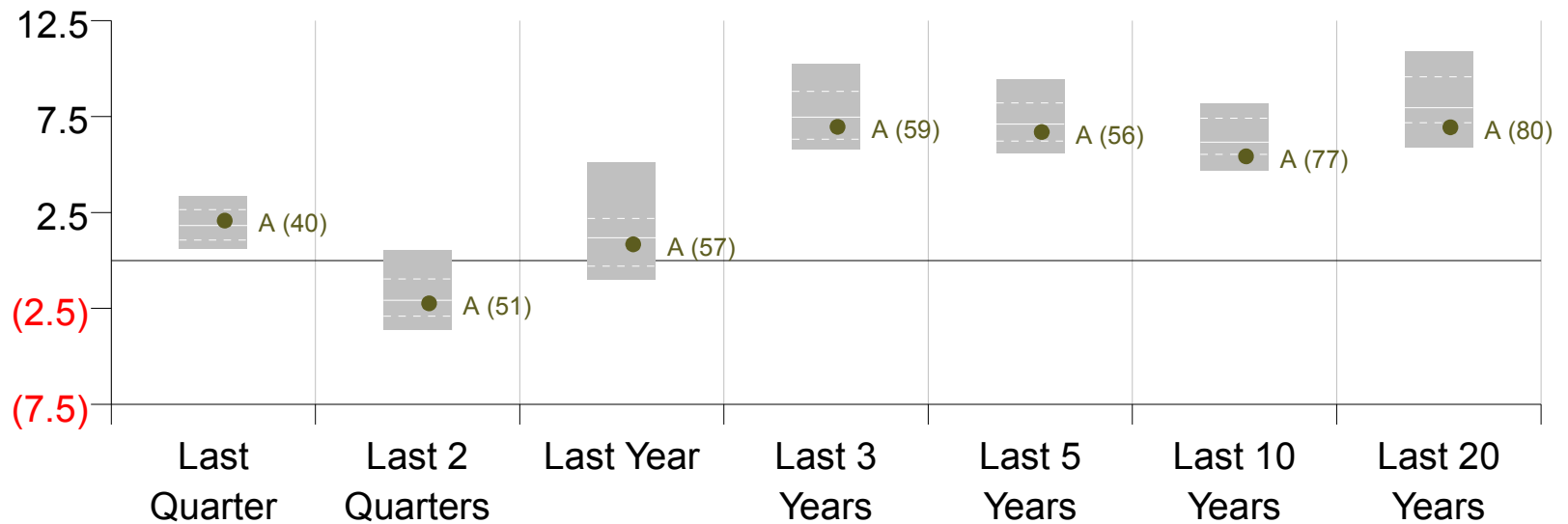


	Last Quarter	Last 2 Quarters	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years
10th Percentile	3.69	(0.84)	2.22	9.45	8.57	6.58	8.05
25th Percentile	3.26	(1.49)	1.47	8.58	7.88	6.22	7.70
Median	2.78	(2.12)	0.48	7.91	7.42	5.91	7.27
75th Percentile	2.32	(3.04)	(0.36)	6.27	6.52	5.51	6.95
90th Percentile	1.43	(3.79)	(1.22)	4.96	5.92	4.90	6.56
Member Count	98	97	97	96	94	89	74
Total Fund ● A	2.08	(2.23)	0.85	6.97	6.70	5.43	6.95

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

Returns for Periods Ended December 31, 2015

Group: CAI Endow-Fdn - Large (>1B)



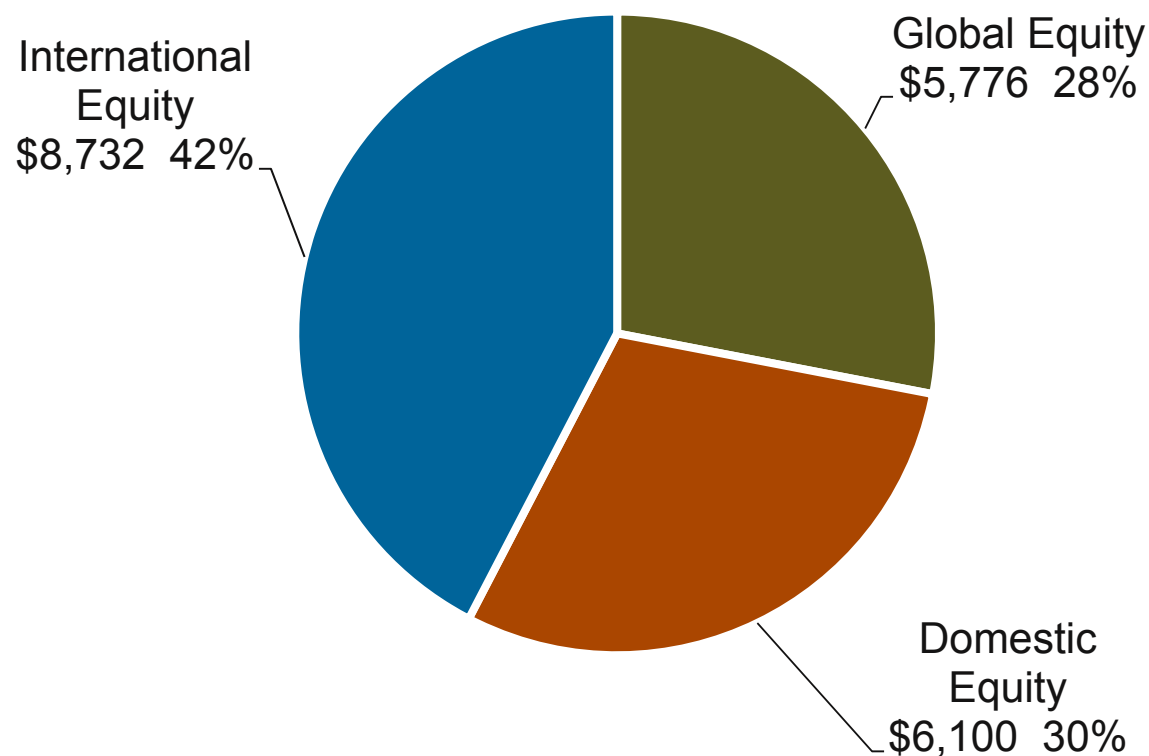
Major Asset Categories

- Public Market Equities
 - US Equities
 - Large Cap Domestic Equities
 - Small Cap Domestic Equities
 - International Equities
 - Emerging Market Equities
 - Global Equities
- Fixed Income
 - Core Fixed Income
 - TIPS
 - Non-U.S. Fixed Income
 - High Yield
- Alternatives
 - Real Estate
 - Absolute Return
 - ECIO
 - Private Equity (in progress)
 - Infrastructure (in progress)

APFC Public Market Equity Structure

As of December 31, 2015

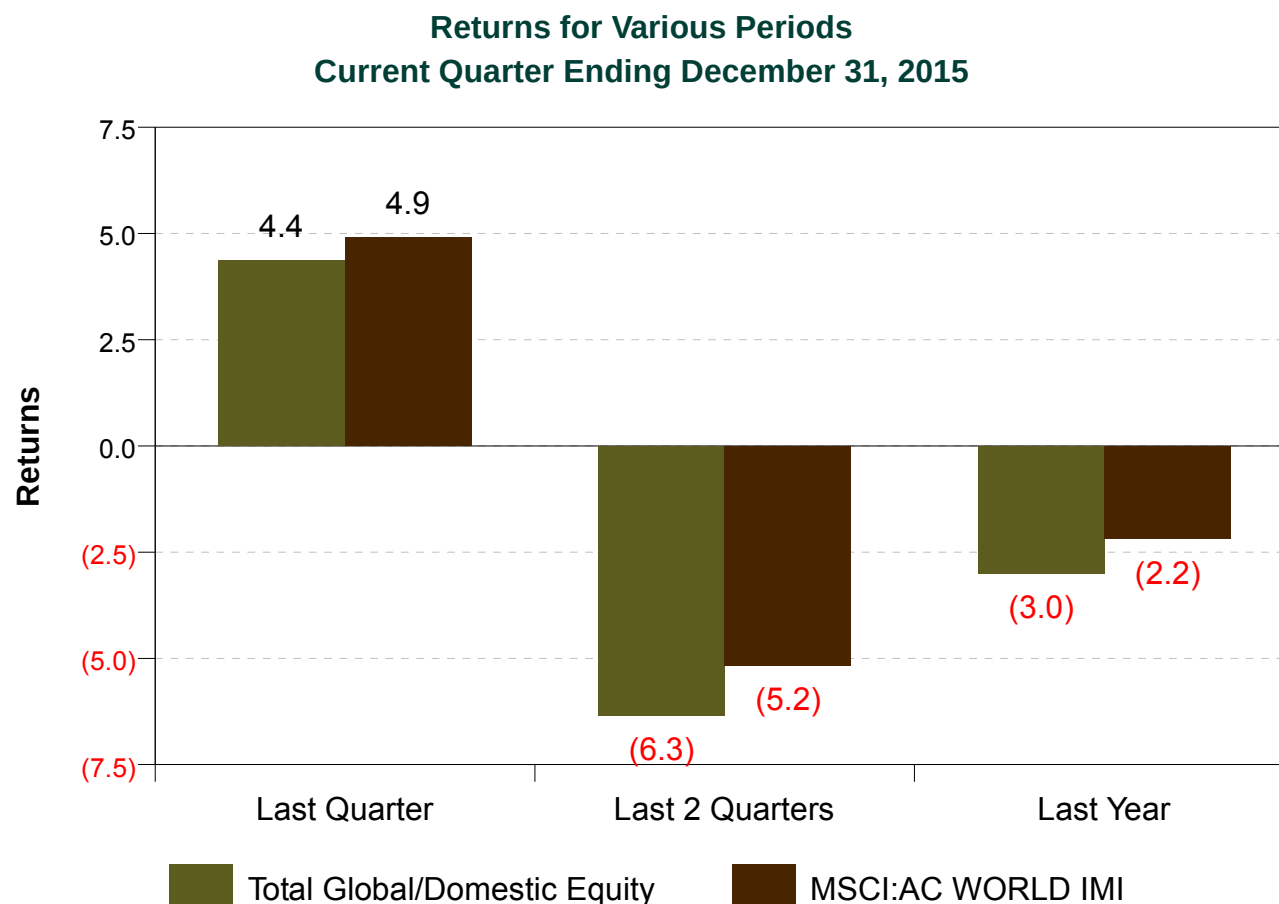
- APFC public equity portfolio has a weighting of roughly 45% in US equity, and 55% in non-US equity.
- The MSCI ACWI IMI benchmark has a weighting of roughly 53% in US equity, and 47% in non-US equity.
- The median allocation to US equity across public equity portfolios in Callan's Large Public Fund Sponsor database is roughly 60%.
- Note that all of the following information does not include the Juno Therapeutics exposure, which remains part of the True Special Opportunities allocation due to liquidity constraints.



APFC Public Equities Performance vs. MSCI ACWI-IMI

Periods Ended December 31, 2015

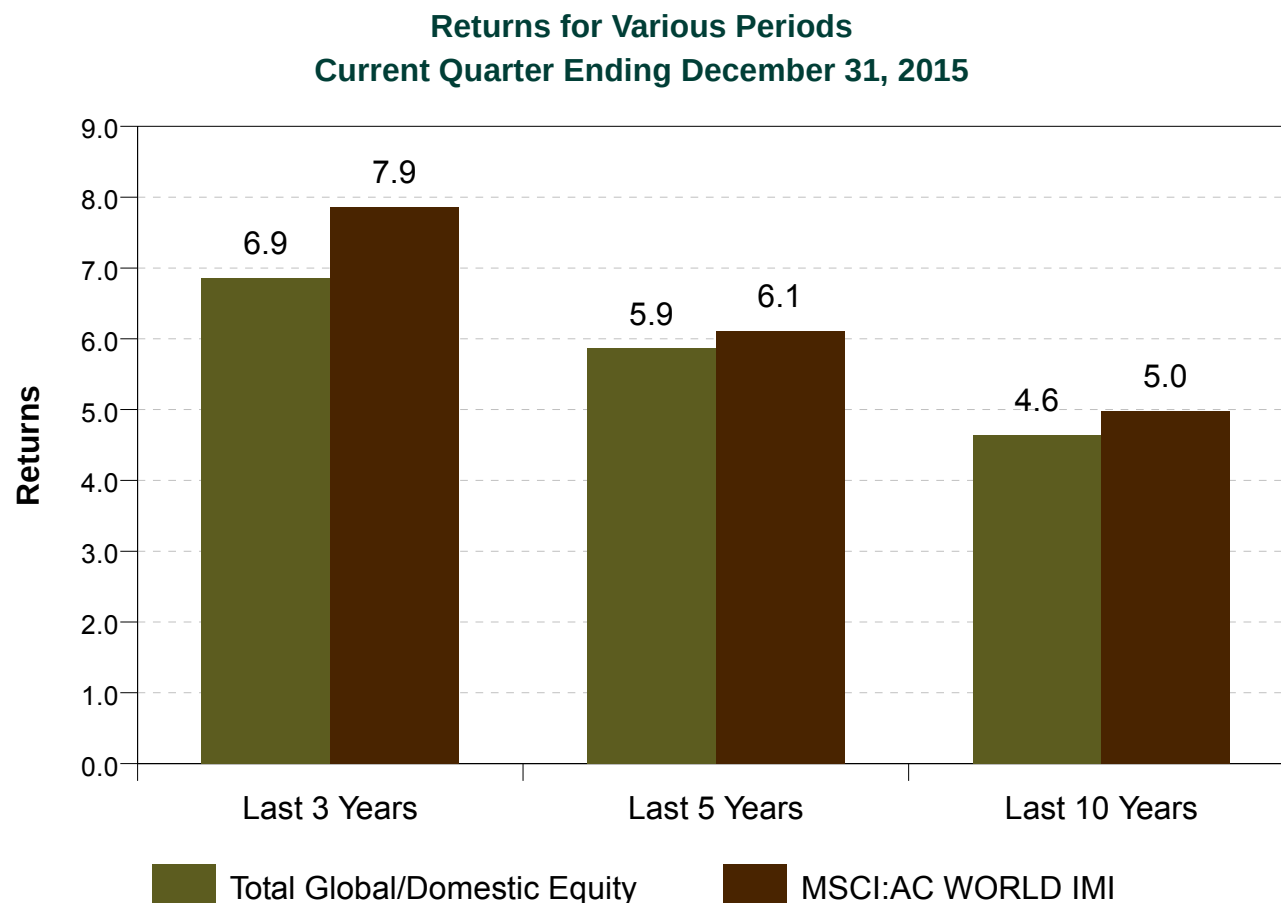
- The total public equity portfolio underperformed the ACWI IMI index in the fourth quarter.
- The portfolio is behind the benchmark for the trailing year.
- Much of this underperformance is primarily attributable to the portfolio's underweight exposure to the US.



APFC Public Equities Performance vs. MSCI ACWI-IMI

Periods Ended December 31, 2015

- The total public equity portfolio lags the benchmark for the trailing 3- years, and is about in line with the index for the last 5- and 10-years.
- Overall, the public equity portfolio is well diversified across regions, countries, and underlying strategies.
- It should be expected to track the index over time.

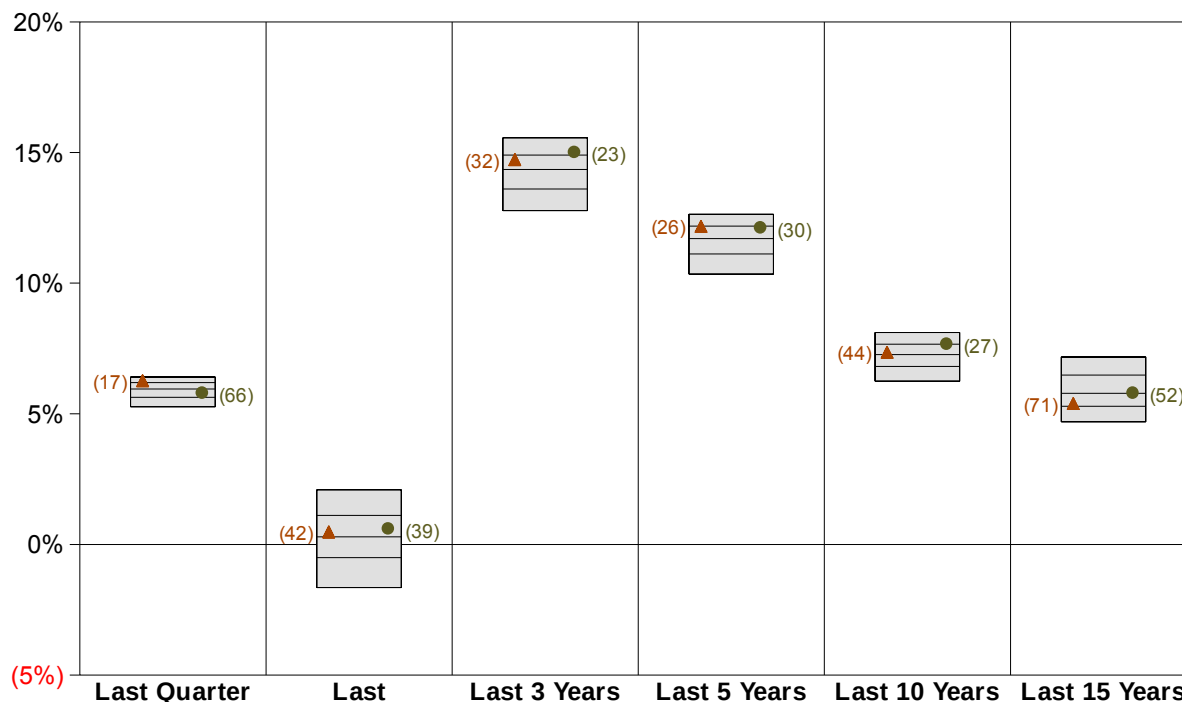


APFC US Equity Performance vs. Fund Sponsor US Equity

Periods Ended December 31, 2015

- Universe is comprised of total equity portfolios of large institutional investors in Callan's Fund Sponsor Database.
- APFC total US equity portfolio ranks favorably against US equity portfolios of other large institutional investors over all periods one year and greater.
- US equity portfolio returned +5.8% in the 4th quarter of 2015.
- Longer-term performance exceeds the benchmark.

Performance vs Fund Spnsr- Domestic Equity (Gross)

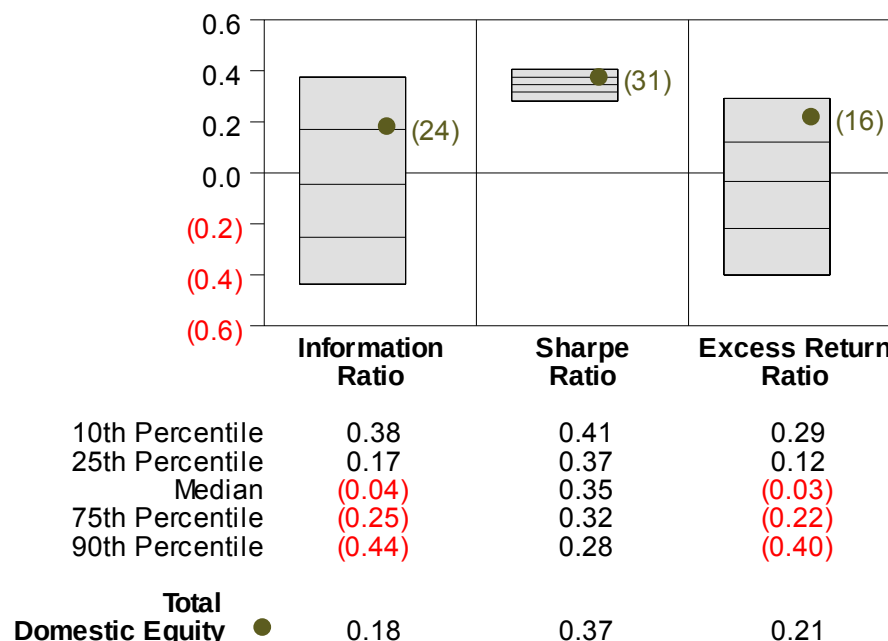


	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
10th Percentile	6.41	2.10	15.57	12.64	8.11	7.17
25th Percentile	6.20	1.11	14.91	12.19	7.66	6.48
Median	5.95	0.29	14.35	11.71	7.26	5.78
75th Percentile	5.63	(0.50)	13.61	11.12	6.81	5.29
90th Percentile	5.27	(1.65)	12.78	10.35	6.25	4.69
Total Domestic Equity ●	5.75	0.56	14.97	12.09	7.63	5.75
Russell 3000 Index ▲	6.27	0.48	14.74	12.18	7.35	5.39

APFC US Equity Portfolio Risk Adjusted Return Rankings

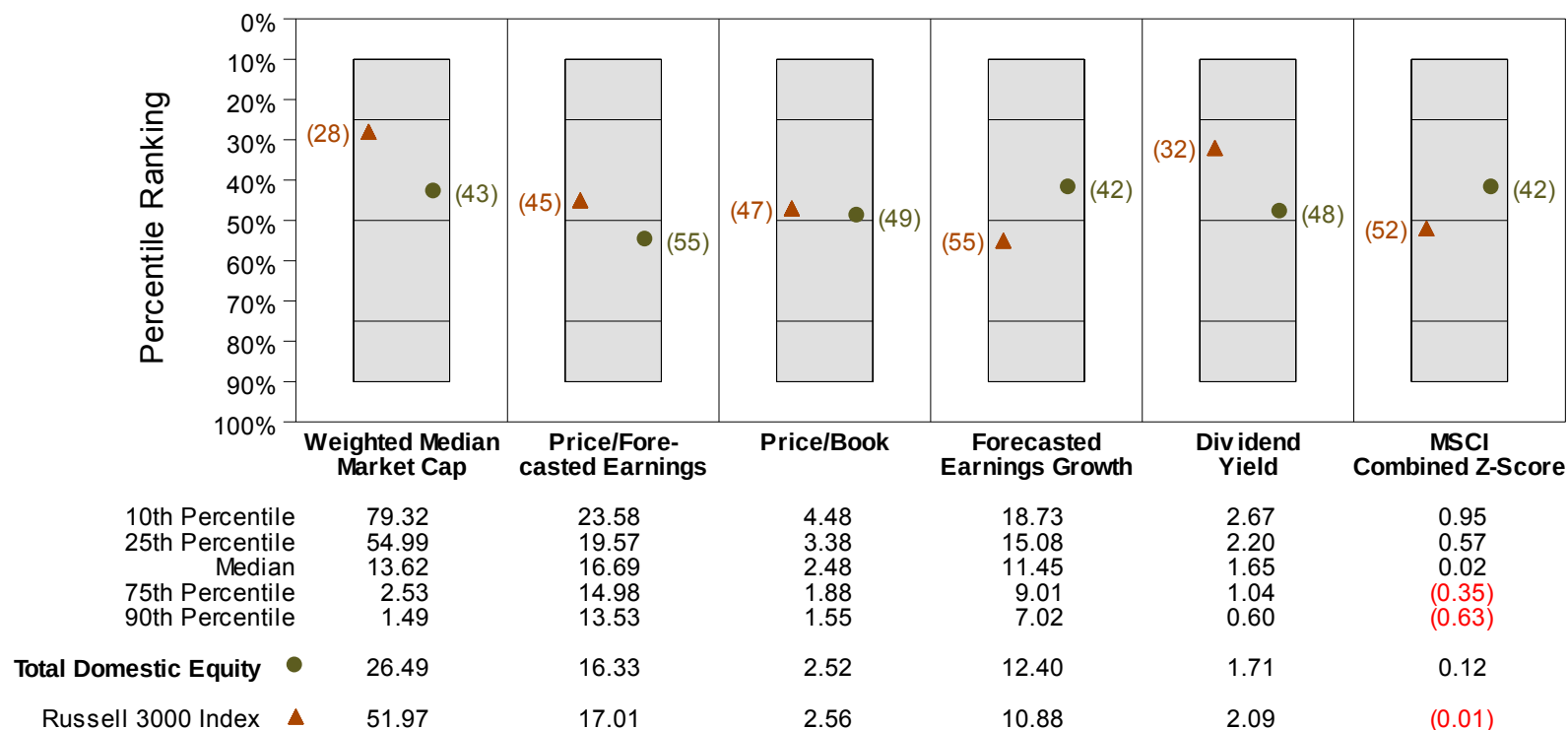
- Universe comprised of total equity portfolios of large institutional investors in Callan's Fund Sponsor Database.
- APFC portfolio ranks in the top quartile for the trailing ten year period in terms of information ratio and excess return ratio.
- Both are measures of alpha (return above benchmark) divided by tracking error (risk versus benchmark).
- Portfolio ranks in the 31st percentile in terms of Sharpe Ratio (return/risk) over this period.

Risk Adjusted Return Measures vs Russell 3000 Index Rankings Against Fund Sponsor Domestic Equity Ten Years Ended December 31, 2015



APFC US Equity Portfolio Characteristics Rankings

Portfolio Characteristics Percentile Rankings
Rankings Against CAI Total Domestic Equity Database
as of December 31, 2015



- US equity portfolio has a slight growth bias relative to both the index and the universe of institutional equity portfolios. The portfolio also has a small capitalization bias relative to the index.
- The equity portfolio's small cap bias hurt performance, and offset the positive impact of the growth bias, during the fourth quarter.

Capitalization and Style Allocation US Equity

As of December 31, 2015

- Highlighted cells indicate largest biases relative to the Russell 3000 index.
- While the overweight to growth has had a favorable impact recently, the small-cap overweight has had a negative effect on performance.
- Small and mid cap over-weights relative to the index are common in actively managed US equity portfolios.
- The overweight to growth is less common. Value exposure increased over the quarter, up from 30.0%

Style Exposure Matrix
Holdings as of December 31, 2015

Large	17.8% (95)	16.3% (101)	26.8% (107)	60.9% (303)
	26.9% (94)	20.6% (95)	26.2% (104)	73.8% (293)
Mid	7.1% (179)	6.8% (188)	7.9% (165)	21.7% (532)
	5.6% (178)	6.1% (209)	6.0% (201)	17.8% (588)
Small	5.2% (201)	6.5% (255)	4.3% (120)	16.1% (576)
	2.2% (326)	3.0% (489)	2.2% (361)	7.5% (1176)
Micro	0.5% (22)	0.6% (42)	0.3% (13)	1.3% (77)
	0.3% (255)	0.5% (442)	0.2% (185)	1.0% (882)
Total	30.6% (497)	30.2% (586)	39.3% (405)	100.0% (1488)
	35.1% (853)	30.2% (1235)	34.7% (851)	100.0% (2939)

Value

Core

Growth

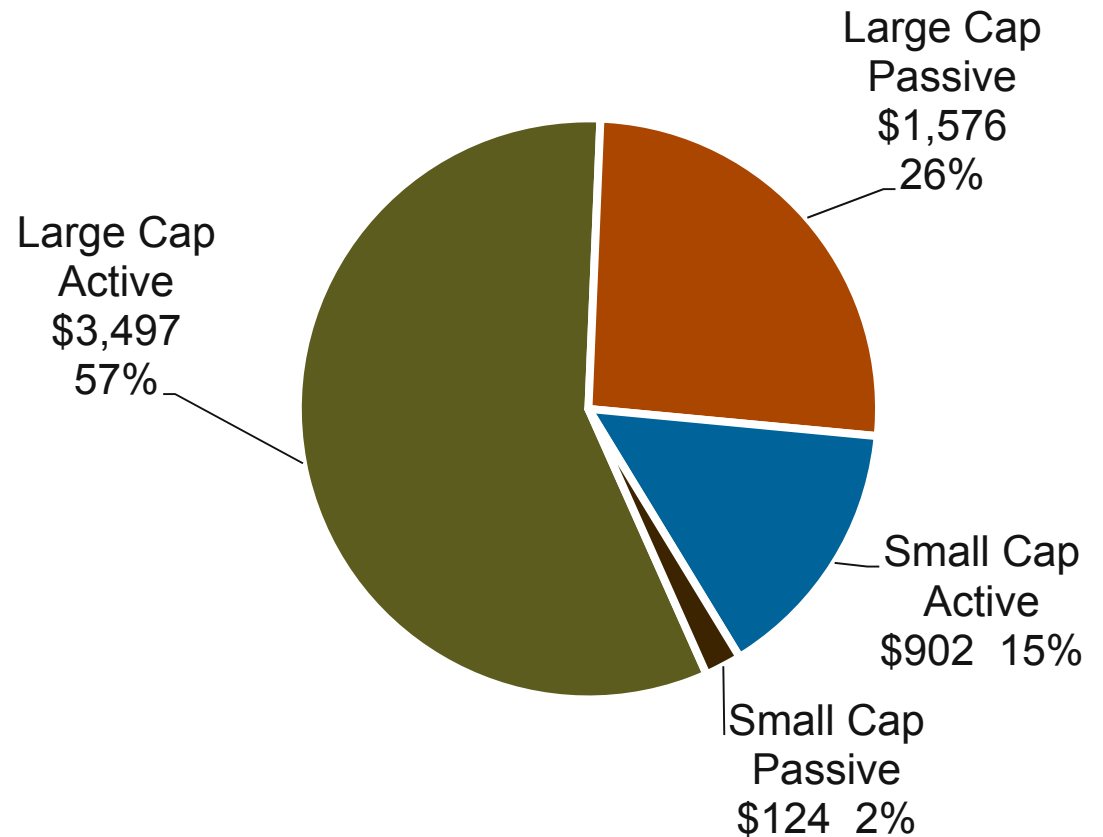
Total

■ APFC Portfolio ■ Russell 3000 Index

APFC US Equity Structure

As of December 31, 2015

- US equity portfolio is roughly 72% actively managed and 28% passive (or quasi-passive).
- Structure has a slight overweight to small cap with 17% of portfolio managed in dedicated small cap strategies.
- Roughly 69% of the large cap allocation is actively managed while 88% of the small cap allocation is actively managed.

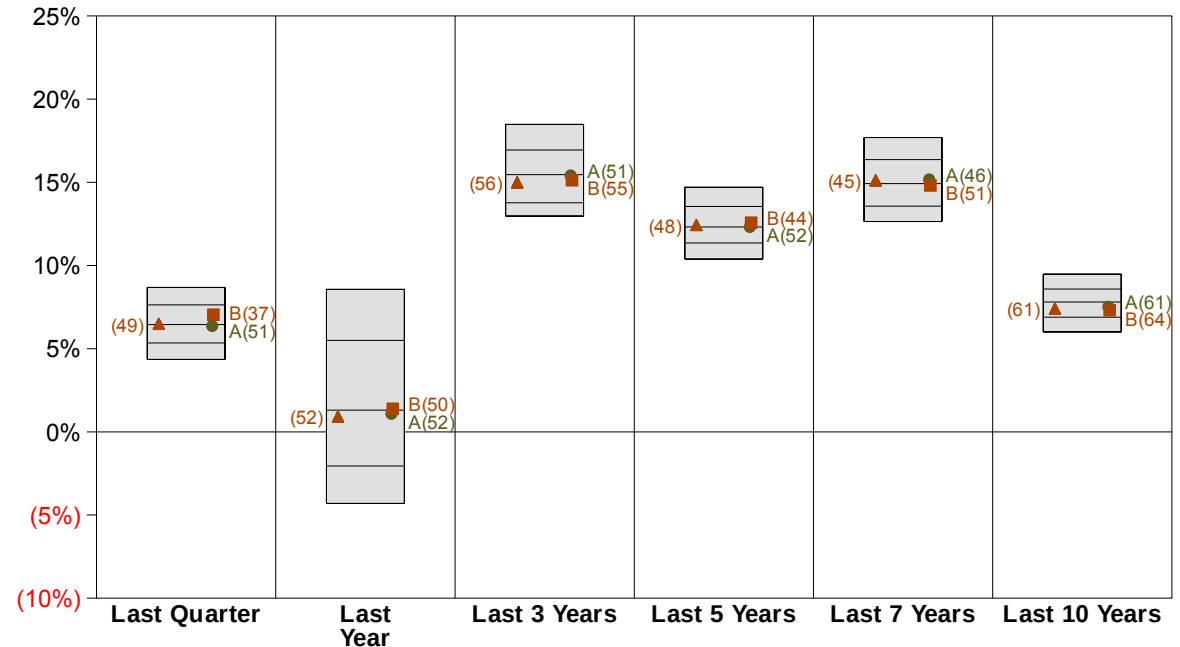


APFC Large Cap Equity Relative to Large Cap Universe

Periods Ended December 31, 2015

- APFC large cap portfolio ranks near the median within the large cap universe over time.
- Large cap portfolio is approximately in-line with the benchmark for longer-term periods shown.
- Large cap portfolio has a marginal small cap size bias and a growth style bias relative to the index.
- LC Equity Composite performed roughly in-line with the Index in the 4th quarter. Although large cap growth stocks outperformed value stocks, this was offset by small cap performance, which trailed large caps

Performance vs CAI Large Capitalization Style (Gross)



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	8.68	8.57	18.48	14.70	17.69	9.48
25th Percentile	7.63	5.50	16.94	13.55	16.36	8.58
Median	6.45	1.31	15.46	12.32	14.93	7.80
75th Percentile	5.35	(2.05)	13.78	11.35	13.57	6.89
90th Percentile	4.35	(4.30)	12.97	10.39	12.64	6.00
Large Cap Equity Composite	● A 6.28	0.99	15.33	12.24	15.09	7.43
Standard & Poor's 500	■ B 7.04	1.38	15.13	12.57	14.82	7.31
Russell 1000 Index	▲ 6.50	0.92	15.01	12.44	15.12	7.40

Capitalization and Style Allocation Large Cap Equity

As of December 31, 2015

- Highlighted cells indicate largest biases relative to the Russell 1000 index.
- The large cap portfolio is relatively neutral to the benchmark in the dimension of capitalization.
- The relatively large allocation to AGI's growth strategy within the overall large cap portfolio is the primary cause of the overweight to growth.
- Staff has worked to lower this growth bias over time. Since last quarter, growth exposure increased from 38.9% and value exposure decreased from 30.8%.

Style Exposure Matrix
Holdings as of December 31, 2015

Large	18.8% (95)	21.6% (101)	37.3% (107)	77.6% (303)
	29.1% (94)	22.2% (94)	28.5% (104)	79.8% (292)
Mid	6.3% (175)	6.7% (174)	6.6% (112)	19.5% (461)
	6.0% (169)	6.4% (194)	6.0% (173)	18.3% (536)
Small	1.5% (144)	1.1% (101)	0.3% (17)	2.8% (262)
	0.9% (81)	0.7% (74)	0.3% (29)	1.9% (184)
Micro	0.0% (6)	0.0% (17)	0.0% (0)	0.0% (23)
	0.0% (1)	0.0% (2)	0.0% (1)	0.0% (4)
Total	26.5% (420)	29.3% (393)	44.2% (236)	100.0% (1049)
	36.0% (345)	29.3% (364)	34.8% (307)	100.0% (1016)

Value

Core

Growth

Total



APFC Portfolio



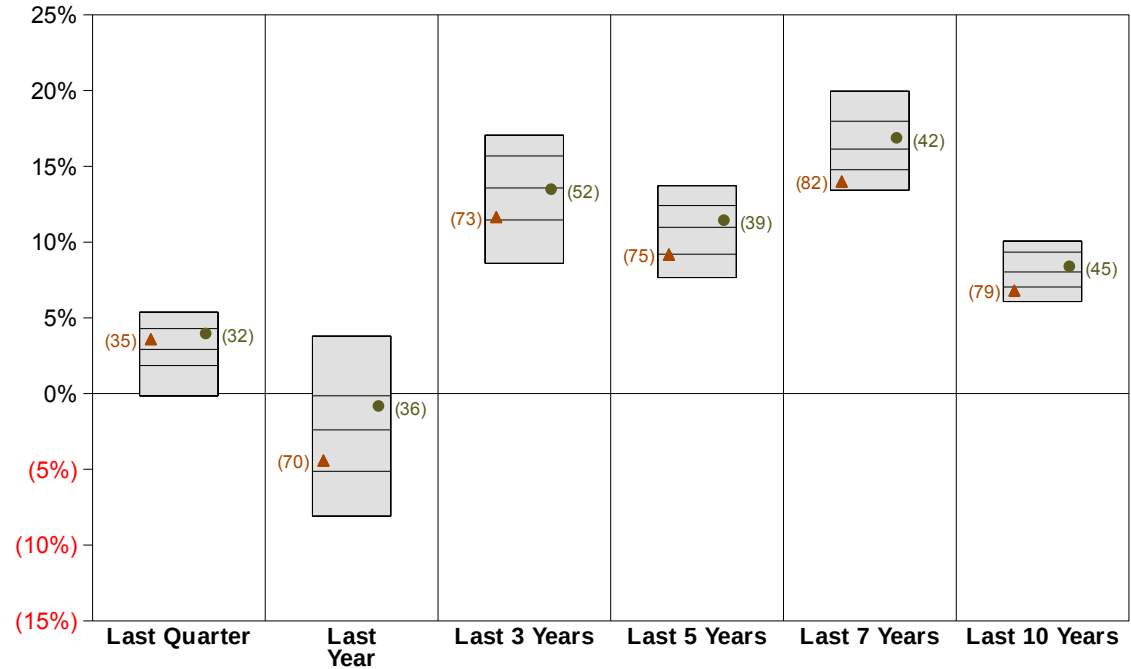
Russell 1000 Index

APFC Small Cap Equity Relative to Small Cap Universe

Periods Ended December 31, 2015

- APFC small cap portfolio is near or ahead of the small cap universe median over all time periods measured.
- Performance over all trailing periods shown is substantially ahead of the benchmark.
- APFC small cap investments are in relatively mature and successful products. Due to higher AUM levels, such products tend to maintain a mid cap bias.
- Mid cap bias had no effect on performance during the quarter as mid caps performed in line with small caps. However a slight growth tilt contributed to the above benchmark returns in the 4th quarter, as well as the trailing year.

Performance vs CAI Small Capitalization Style (Gross)



10th Percentile	5.38	3.79	17.06	13.72	19.96	10.06
25th Percentile	4.28	(0.14)	15.68	12.42	17.98	9.33
Median	2.91	(2.39)	13.58	10.98	16.14	8.02
75th Percentile	1.86	(5.13)	11.47	9.20	14.77	7.03
90th Percentile	(0.16)	(8.09)	8.60	7.66	13.42	6.07
Small Cap Equity Composite ●	3.88	(0.90)	13.41	11.36	16.80	8.32
Russell 2000 Index ▲	3.59	(4.41)	11.65	9.19	14.01	6.80

Capitalization and Style Allocation Small Cap Equity

As of December 31, 2015

- The APFC small cap equity portfolio has a higher market cap than that of the Russell 2000 Index. This is primarily due to greater mid cap exposure and significantly lower micro cap exposure versus the benchmark.
- The portfolio tends to be more growth oriented than the Index, which is relatively in-line with actively managed small cap products.

Style Exposure Matrix
Holdings as of December 31, 2015

Large	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Mid	4.5% (65)	8.4% (67)	15.4% (93)	28.3% (225)
	1.9% (9)	2.7% (14)	6.8% (28)	11.4% (51)
Small	18.3% (139)	26.3% (207)	20.6% (113)	65.3% (459)
	19.1% (245)	30.8% (415)	25.3% (332)	75.2% (992)
Micro	2.4% (16)	2.6% (26)	1.4% (13)	6.4% (55)
	4.2% (254)	6.1% (438)	3.2% (184)	13.4% (876)
Total	25.2% (220)	37.4% (300)	37.4% (219)	100.0% (739)
	25.2% (508)	39.6% (867)	35.2% (544)	100.0% (1919)

Value

Core

Growth

Total



APFC Portfolio

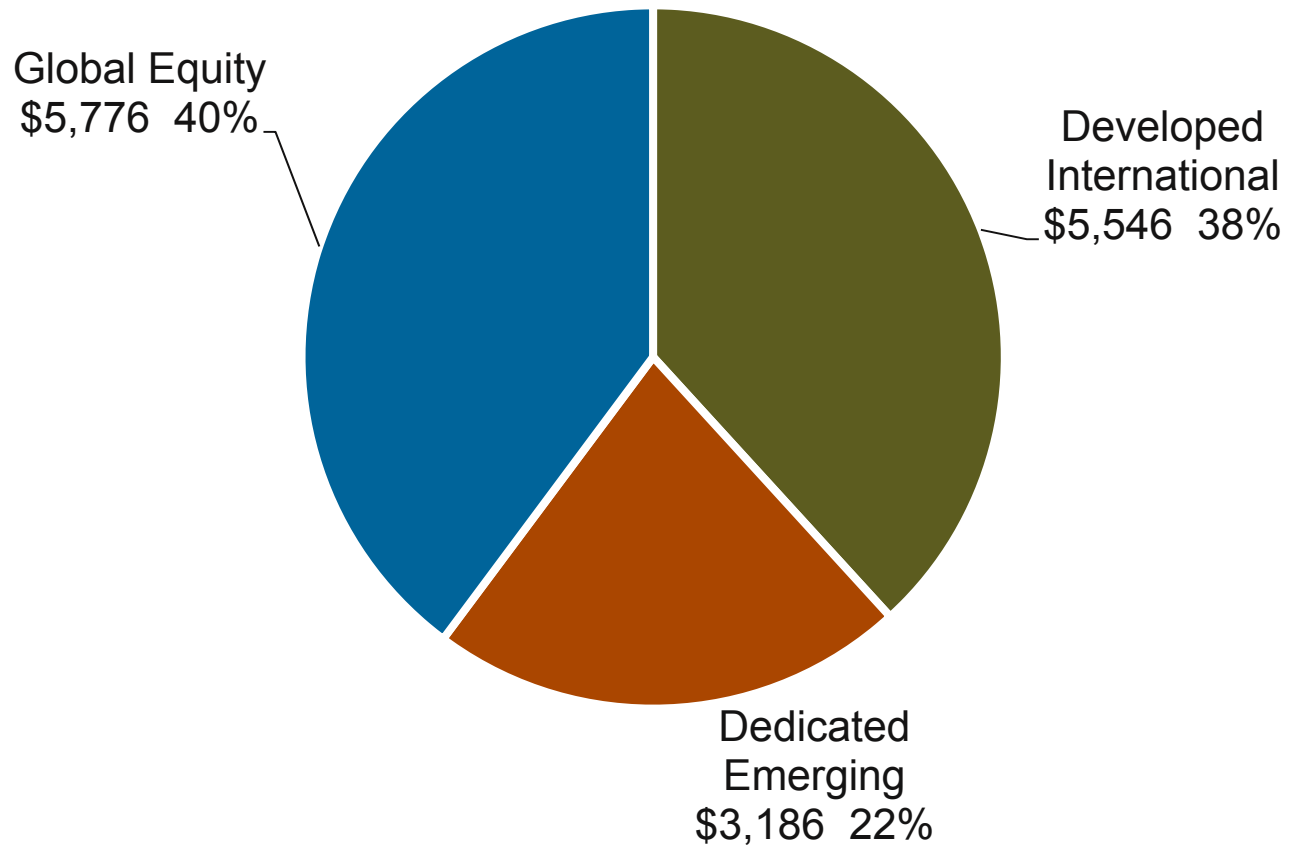


Russell 2000 Index

APFC Non-US Equity Structure

As of December 31, 2015

- 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.

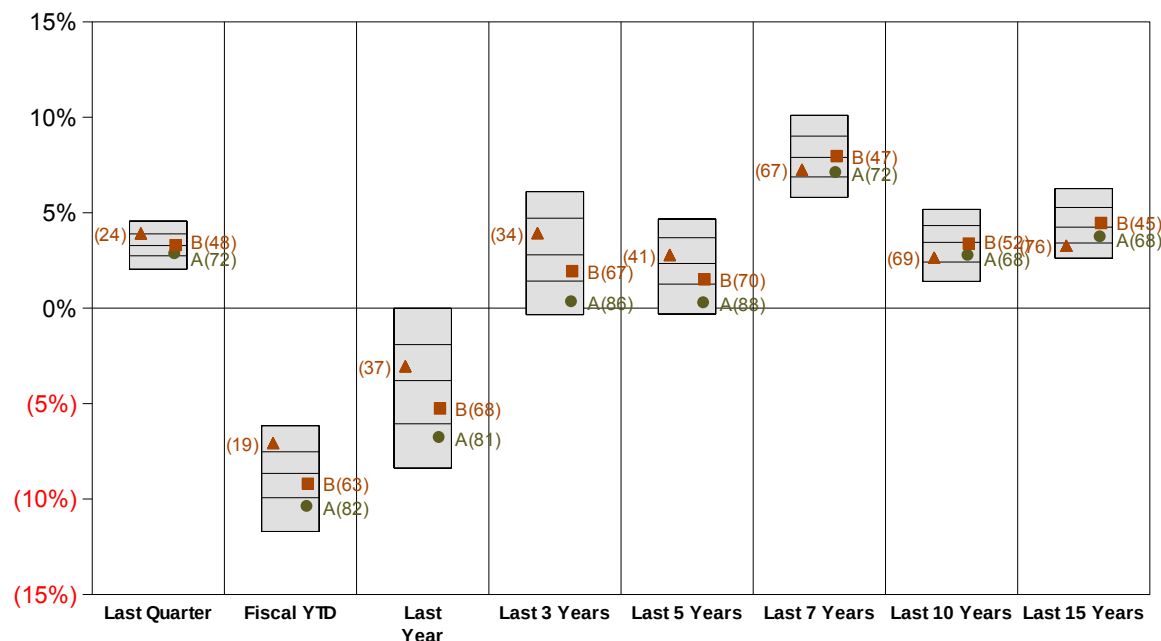


APFC International Equity Relative to Fund Sponsor Universe

Periods Ended December 31, 2015

- APFC international equity portfolio has underperformed for time periods 5 years or less, is roughly in line for the last 7- and 10-years, and leads the target longer-term.
- Relative to other fund sponsor portfolios, performance has been below median over all periods shown.
- In the short- and intermediate-term developed markets have outperformed emerging markets. However, emerging equities have done better over the last 10- and 15-years.
- This has had a negative impact on the short- and intermediate-term relative performance for the APFC international equity portfolio.

Performance vs Fund Spnsr- International Equity (Gross)



	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 15 Years
10th Percentile	4.56	(6.16)	(0.01)	6.10	4.67	10.10	5.17	6.27
25th Percentile	3.89	(7.53)	(1.91)	4.72	3.69	9.01	4.33	5.28
Median	3.28	(8.66)	(3.80)	2.80	2.34	7.89	3.45	4.24
75th Percentile	2.74	(9.93)	(6.05)	1.42	1.26	6.88	2.42	3.42
90th Percentile	2.04	(11.70)	(8.38)	(0.34)	(0.30)	5.80	1.41	2.62
International Equity Composite	2.81	(10.43)	(6.82)	0.29	0.23	7.06	2.72	3.69
MSCI ACWI ex-US	3.30	(9.20)	(5.25)	1.94	1.51	7.96	3.38	4.46
EAFE/World ex-US Target	3.91	(7.07)	(3.04)	3.93	2.79	7.25	2.65	3.28

Region and Style Allocation International Equity

As of December 31, 2015

- The APFC portfolio has a meaningful overweight to Emerging Markets (37% vs 21%).
- The portfolio is underweight Europe (35% vs 47%) and Pacific/Asia (23% vs 26%).
- This positioning has presented a significant performance headwind for the APFC international equity portfolio as emerging markets have underperformed over all short- and intermediate-term periods.

Style Exposure Matrix
Holdings as of December 31, 2015

Europe/ Mid East	10.0% (558)	11.3% (808)	14.1% (535)	35.4% (1901)
	12.9% (122)	14.4% (139)	19.7% (195)	46.9% (456)
N. America	1.1% (135)	2.3% (200)	1.4% (102)	4.8% (437)
	1.4% (29)	3.1% (40)	1.5% (25)	6.1% (94)
Pacific	7.1% (901)	9.4% (1027)	6.5% (647)	23.0% (2575)
	7.0% (131)	9.9% (162)	9.1% (176)	25.9% (469)
Emerging/ FM	12.9% (791)	14.5% (1550)	9.4% (583)	36.7% (2924)
	7.1% (297)	7.6% (251)	6.4% (258)	21.1% (806)
Total	31.1% (2385)	37.5% (3585)	31.4% (1867)	100.0% (7837)
	28.4% (579)	34.9% (592)	36.7% (654)	100.0% (1825)

Value

Core

Growth

Total

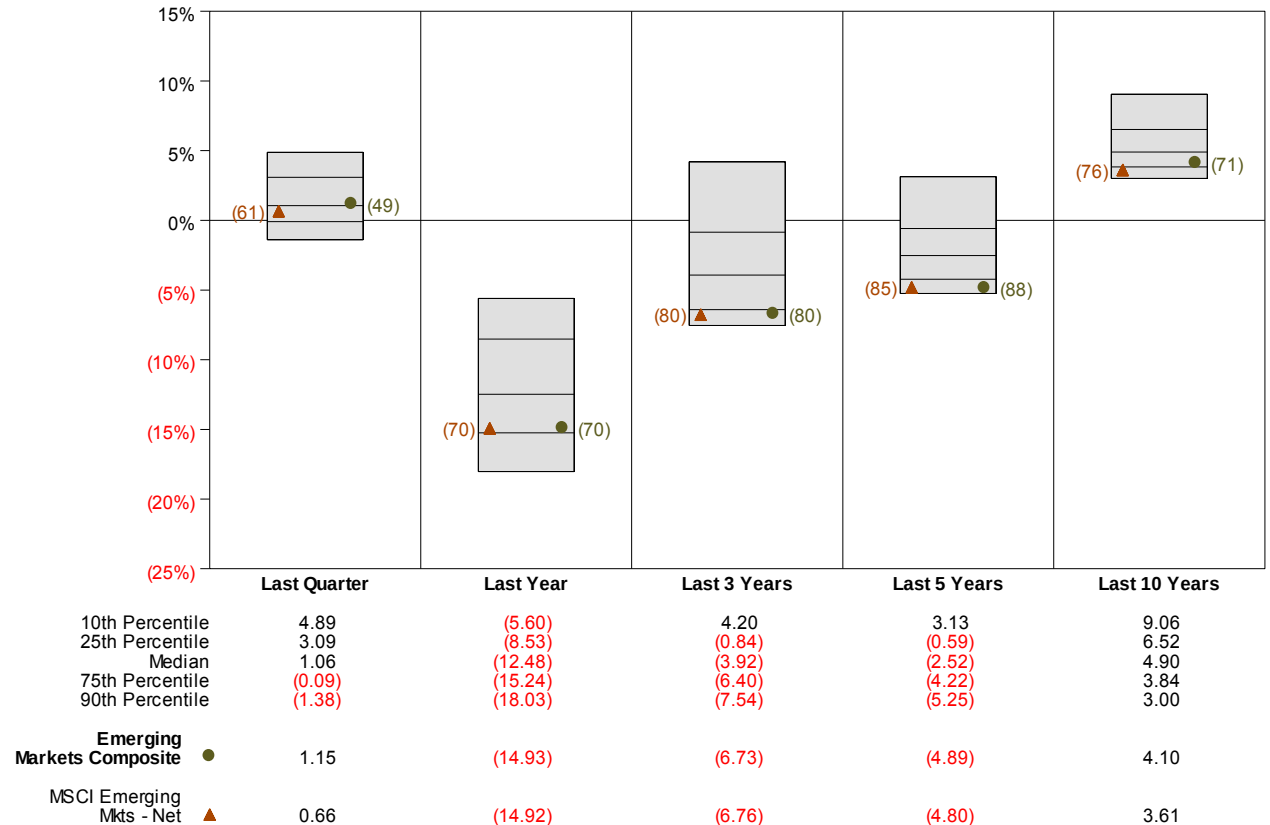
■ APFC Portfolio ■ MSCI ACWI ex-US Index

APFC Emerging Markets Equity Relative to EM Universe

Periods Ended December 31, 2015

- APFC emerging markets equity portfolio outperformed the index in the 4th quarter.
- However, for the trailing year, the EM Composite is down in the double digits. This result is on par with the index.
- With the exception of the current quarter, the portfolio lags other actively managed portfolios, for all other time periods measured.
- Performance of the asset class was a positive contributor to total fund performance over the 10 year period.
- Recent weakness in the asset class has resulted in near-term performance difficulty for APFC's overall global equity exposure.

Performance vs CAI Emerging Markets Equity DB (Gross)

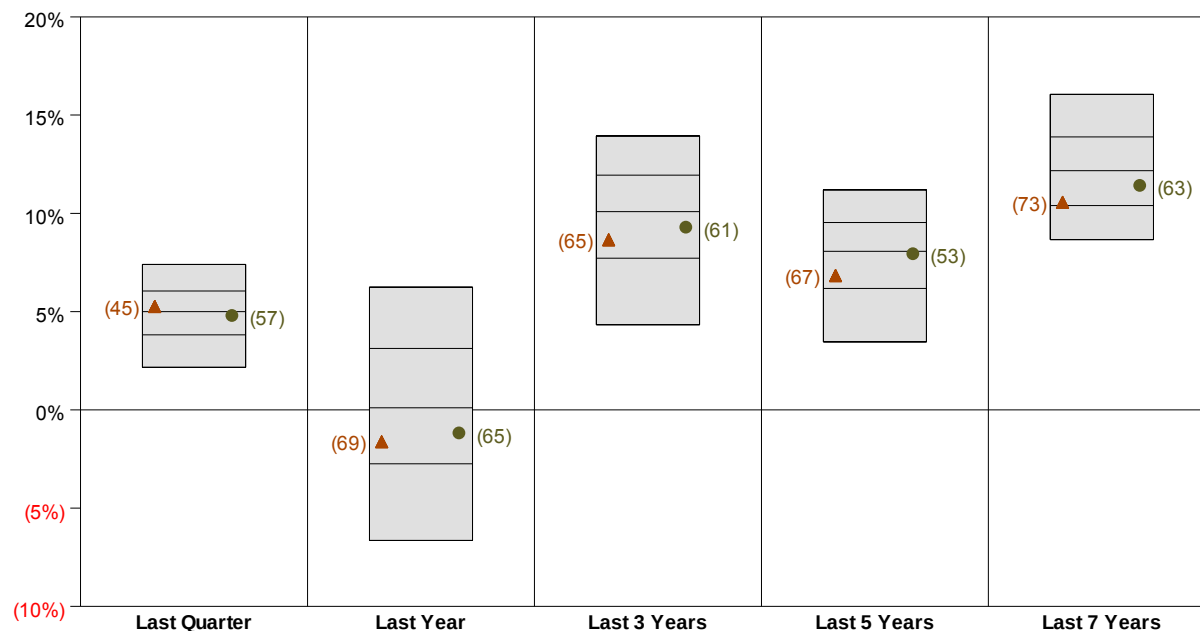


APFC Global Equity Relative to Global Universe

Periods Ended December 31, 2015

- APFC global equity portfolio ranks below median when compared to other global equity managers.
- However, with the exception of the current quarter, the portfolio has outperformed the benchmark over all periods shown on the chart.

Performance vs CAI Global Equity Database (Gross)

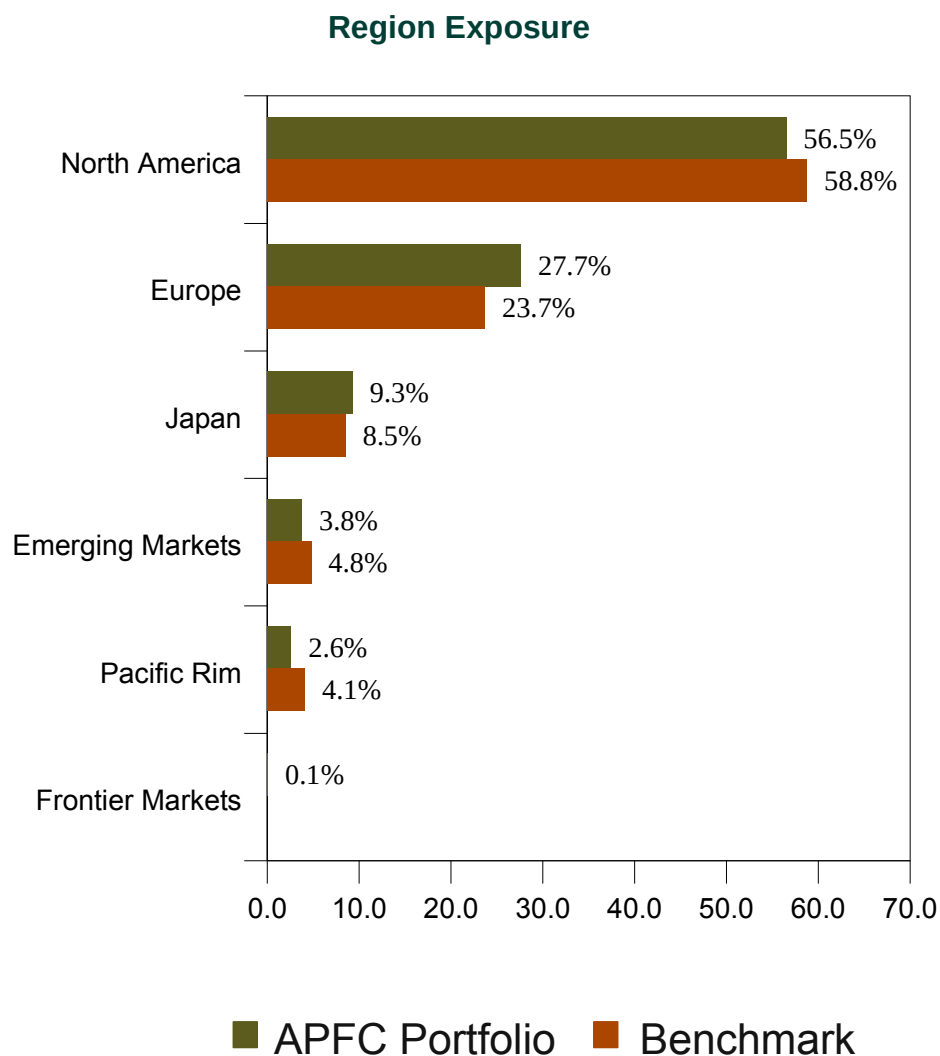


	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
10th Percentile	7.40	6.25	13.94	11.19	16.06
25th Percentile	6.05	3.13	11.94	9.53	13.89
Median	5.00	0.11	10.09	8.07	12.18
75th Percentile	3.82	(2.74)	7.72	6.19	10.40
90th Percentile	2.17	(6.64)	4.33	3.46	8.66
Global Equity	4.74	(1.24)	9.23	7.89	11.36
Global Target	5.26	(1.62)	8.66	6.84	10.57

APFC Global Equity Portfolio Region Exposure

As of December 31, 2015

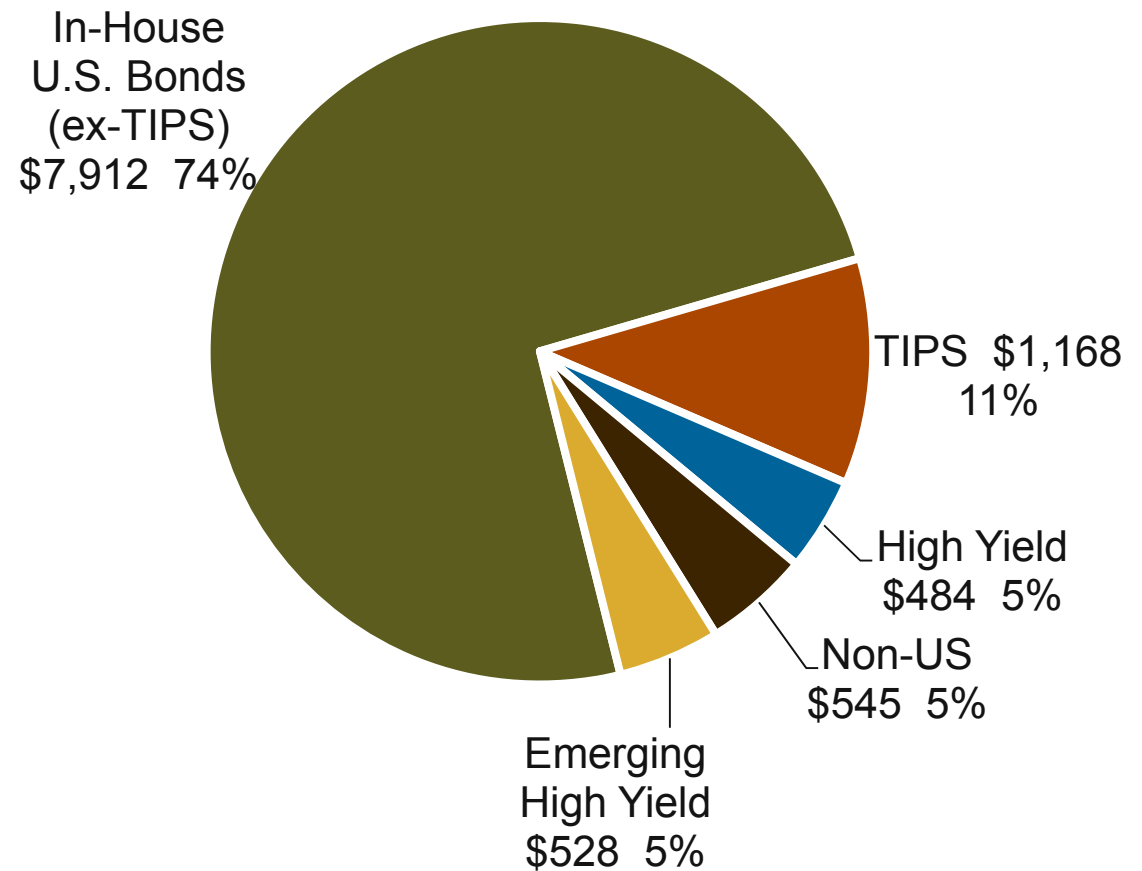
- The APFC global equity portfolio has a modest underweight to the Pacific Rim, Emerging Markets, and North America relative to its benchmark.
- The portfolio has a corresponding relative overweight to Europe and Japan.
- The underweight Pacific Rim detracted from performance, while overweight to Japan added value.



APFC Fixed Income Structure

As of December 31, 2015

- 82% of the fixed income portfolio is managed internally, including allocations within TIPS and Non-US bonds.
- External mandates are focused in specialty areas including high yield, non-US bonds, and emerging markets high yield.
- Distressed debt and mezzanine debt are not included in the fixed income structure.

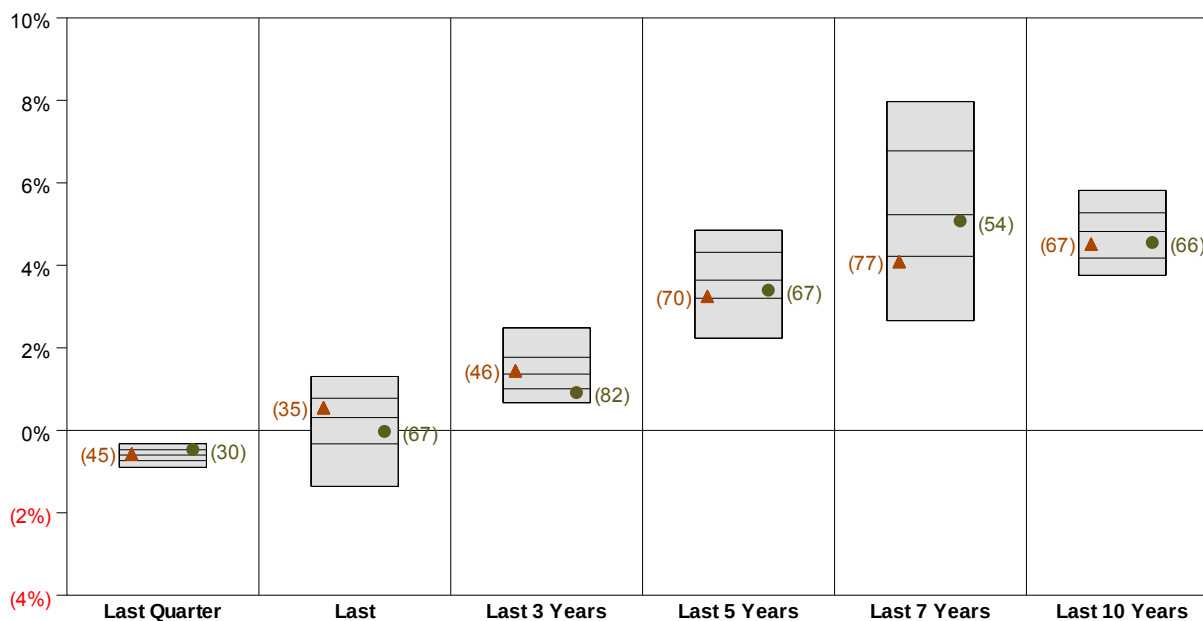


Total Domestic FI Performance Relative to Public Funds

Periods Ended December 31, 2015

Performance vs Pub Pln- Domestic Fixed (Gross)

- APFC fixed income portfolio is comparable to the benchmark in the 4th quarter and long-term.
- The portfolio is behind the benchmark in the short-term.
- Trailing 5- and 7-year performance is ahead of the target benchmark
- This is in spite of the headwind created by a policy change that reduced the exposure to corporate bonds during the recovery in 2009 and 2010.

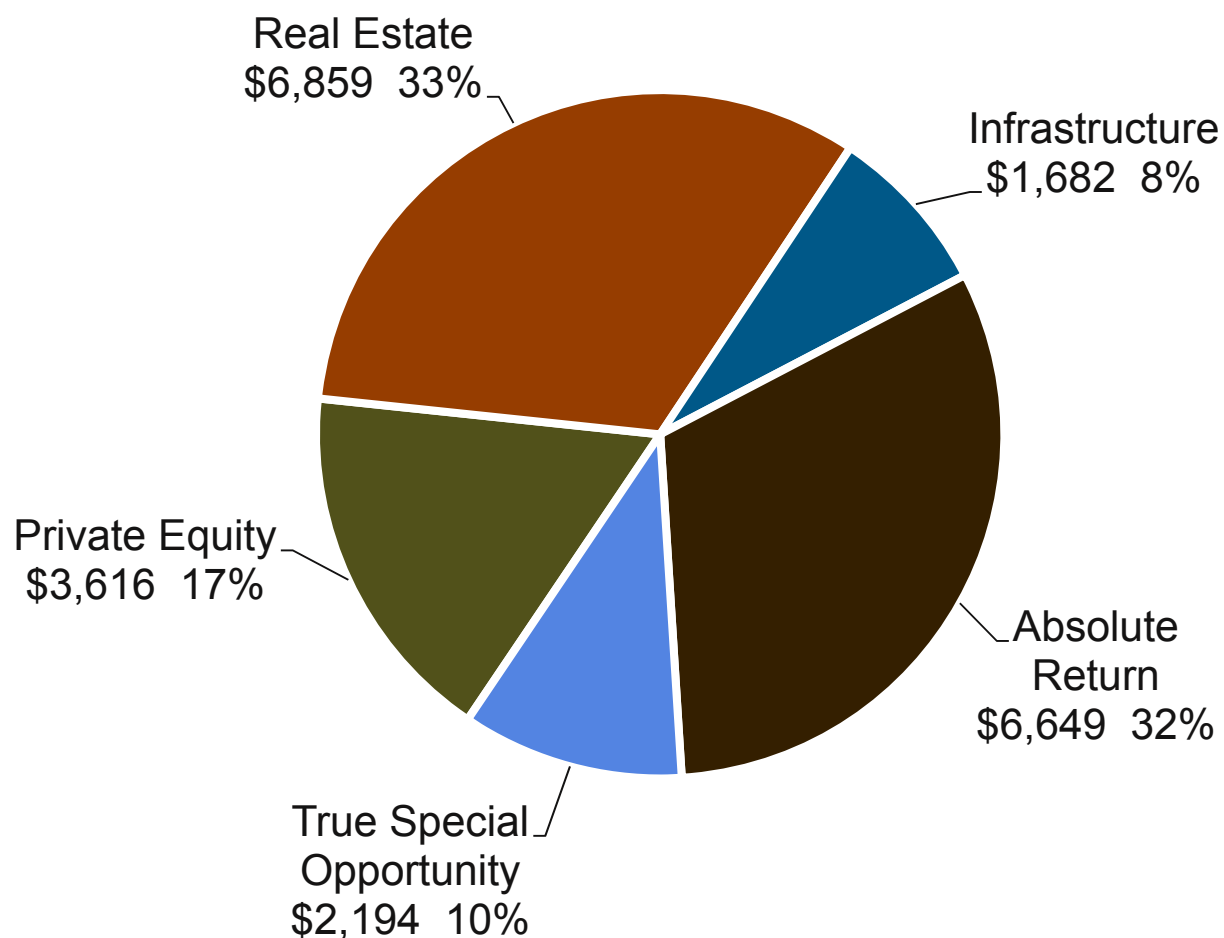


10th Percentile	(0.33)	1.30	2.48	4.85	7.97	5.82
25th Percentile	(0.47)	0.78	1.77	4.31	6.78	5.27
Median	(0.60)	0.31	1.36	3.64	5.23	4.82
75th Percentile	(0.74)	(0.33)	1.01	3.20	4.22	4.17
90th Percentile	(0.90)	(1.36)	0.67	2.23	2.66	3.75
Domestic Fixed-Income	(0.50)	(0.06)	0.88	3.36	5.04	4.52
Target	(0.57)	0.55	1.44	3.25	4.09	4.51

APFC Alternative Investments Portfolio Structure

As of December 31, 2015

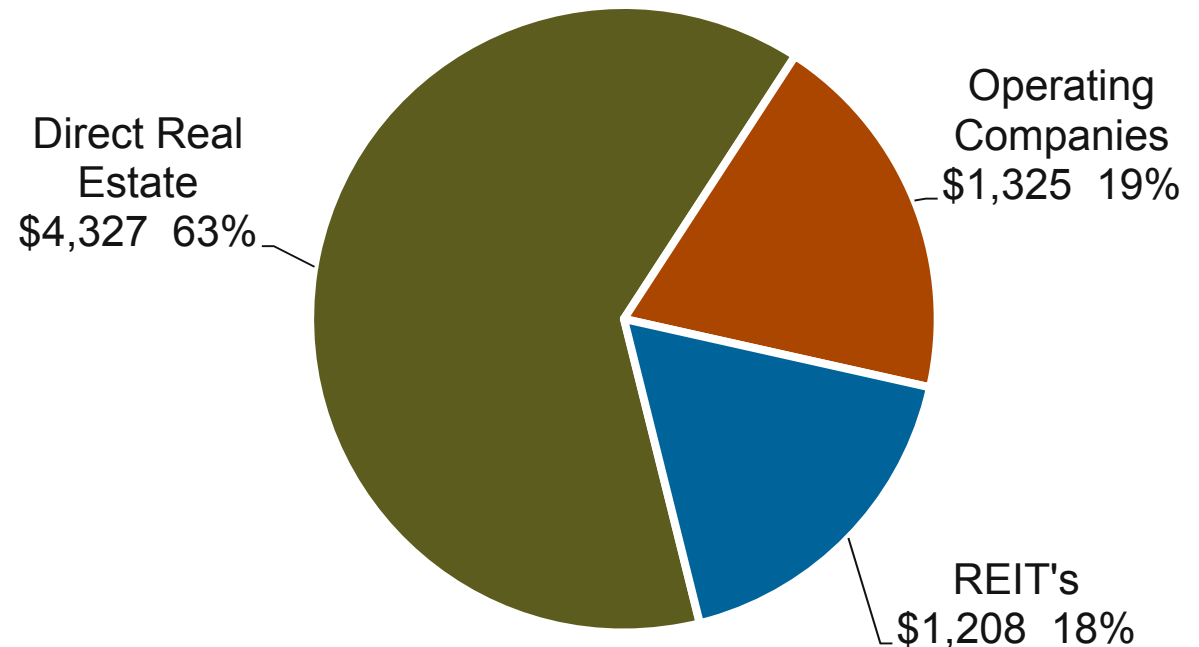
- \$21.0 billion portfolio diversified across five different complementary areas.
- Real estate, infrastructure, and private equity are generally illiquid and should expect a resulting return premium.
- Absolute Return and True Special Opportunities allocations also have some illiquid components.
- The ECIO managers are the most liquid, as the managers are explicitly restricted from employing illiquid investments. These managers are included in the Absolute Return category, and represent 33% of the Absolute Return allocation.



APFC Real Estate Structure

As of December 31, 2015

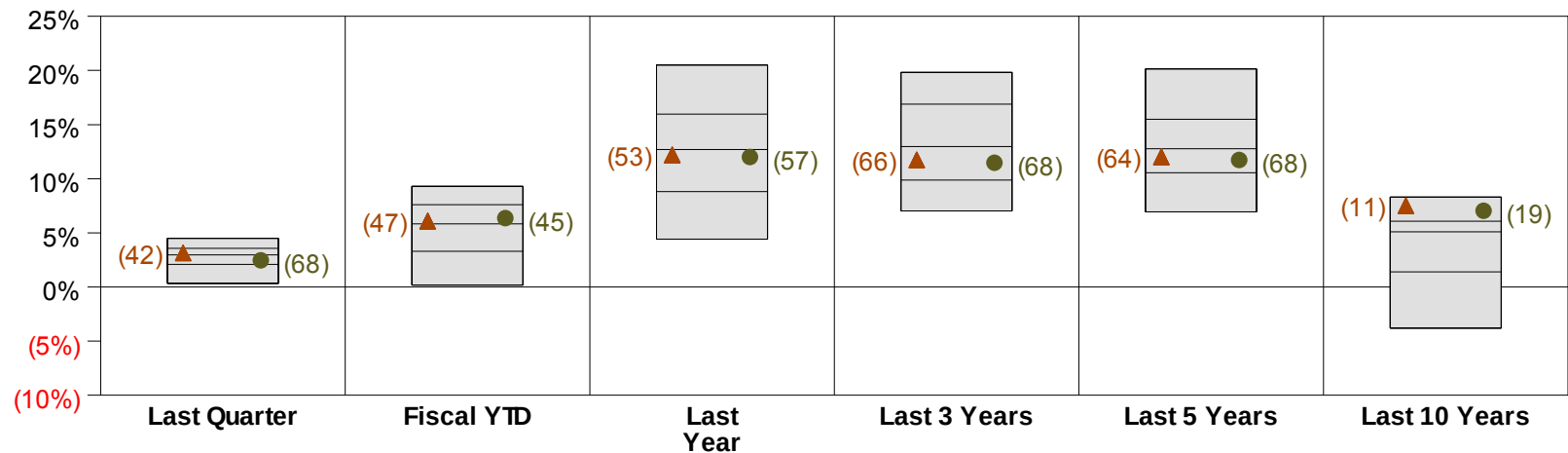
- 63% of structure invested in direct real estate portfolio. 5% of this allocation is invested internationally (CBRE Europe and LaSalle UK).
- 18% of structure invested in REIT's. REIT allocation includes AEW Global and American Homes 4 Rent, which began as a private investment but went public in 2013.
- 19% of structure invested in real estate operating companies (Simpson and Lincoln).
- Note that Real Estate excludes AH4R II, which is included in True Special Opportunities.



APFC Real Estate Performance Relative to Callan Total Real Estate Database

Periods Ended December 31, 2015

Performance vs Total Real Estate DB (Net)



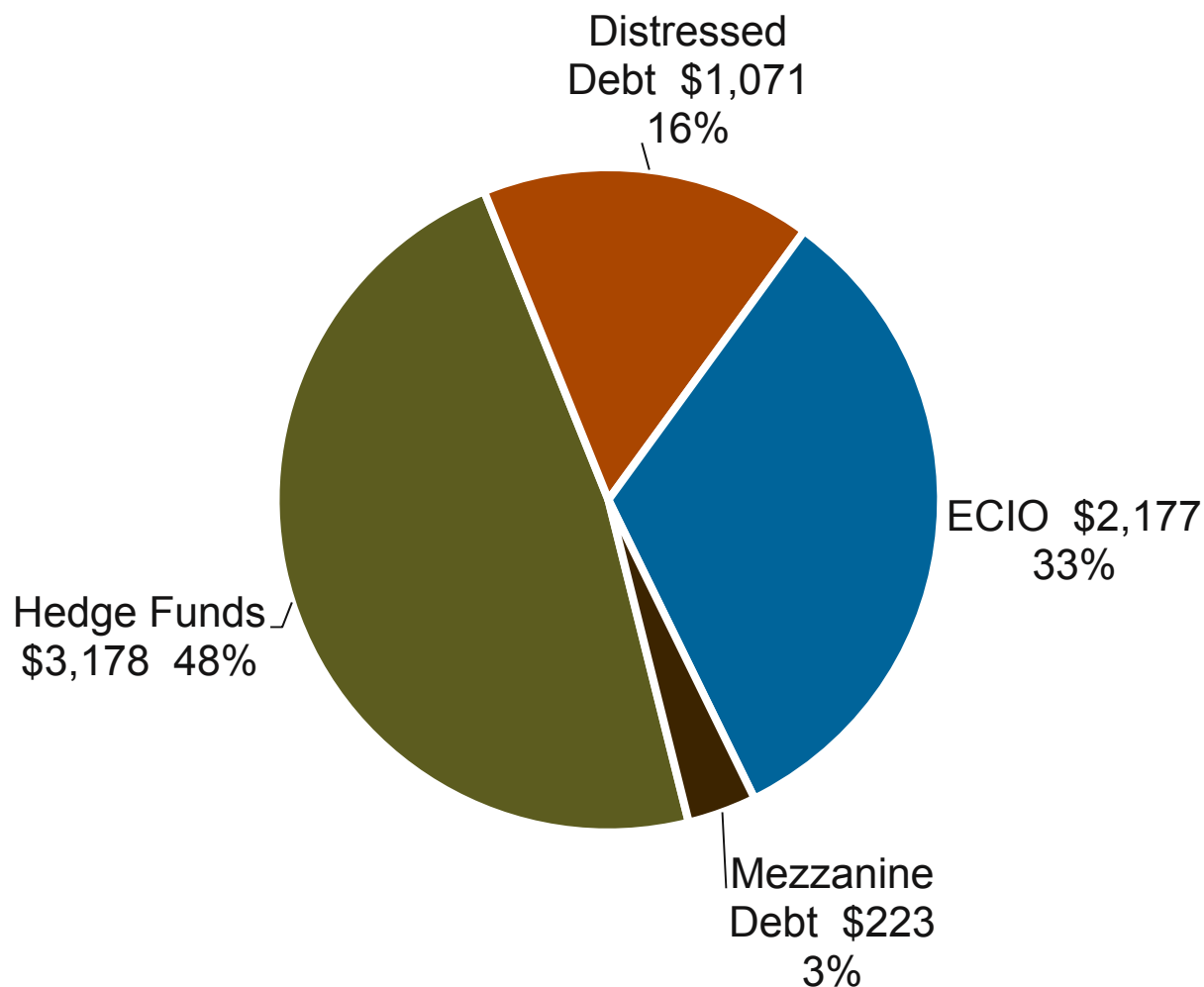
10th Percentile	4.48	9.30	20.50	19.82	20.14	8.32
25th Percentile	3.58	7.61	15.96	16.88	15.49	6.07
Median	2.95	5.82	12.70	12.97	12.77	5.10
75th Percentile	2.09	3.30	8.80	9.88	10.56	1.39
90th Percentile	0.32	0.18	4.41	7.02	6.94	(3.80)
APFC Real Estate	2.27	6.18	11.84	11.29	11.56	6.85
APFC Target	3.14	6.09	12.21	11.74	12.03	7.50

- Real estate portfolio performance is shown net of fees for all investments.
- Portfolio is behind the target for all time periods shown, except Fiscal YTD.
- Relative to the peer group, the portfolio ranks favorably Fiscal YTD and for the last 10-years.

Absolute Return Portfolio Structure

As of December 31, 2015

- 48% of structure is invested in diversified portfolios of hedge funds managed by Crestline, Mariner, and Lazard, and directly with Bridgewater, Blackstone, and DE Shaw (DE Shaw was funded in 4Q15).
- 16% of portfolio is invested in two credit opportunities strategies managed by Crestline and Oaktree.
- 33% of structure is invested in three ECIO strategies managed by AQR, Bridgewater and Goldman Sachs.
- The distressed debt strategies result in a portfolio with a higher expected return (and higher market exposure) than the typical HFOF program.
- The two mezzanine debt strategies managed by Oaktree and Audax are not currently included in the absolute return performance composite.

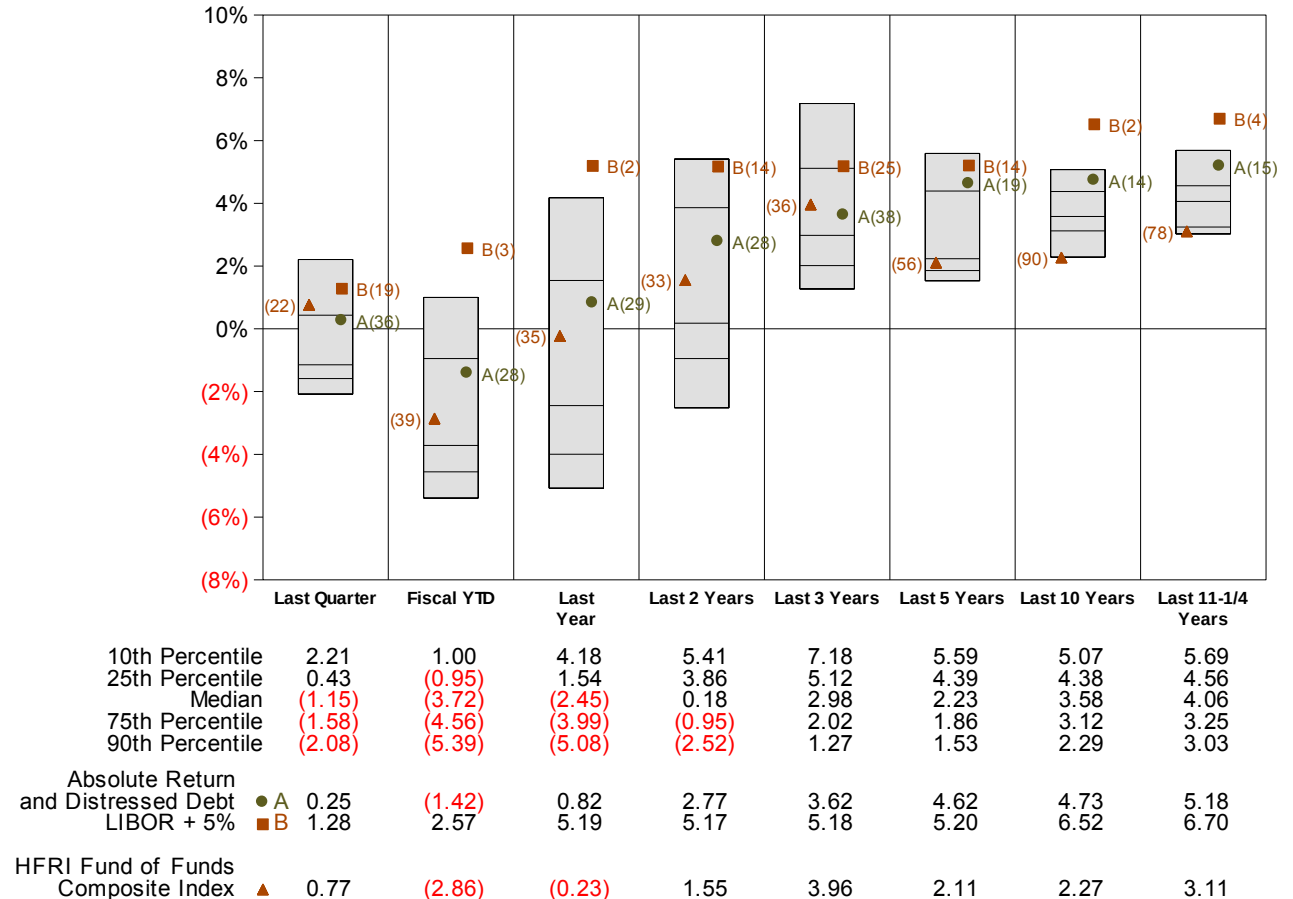


Absolute Return Portfolio Relative to HFOF Universe

Periods Ended December 31, 2015

- Portfolio is behind LIBOR + 5% benchmark for all periods.
- However, the portfolio is solidly above median relative to Callan HFOF universe for all periods shown on chart.
- Distressed debt portfolio has generally contributed positively to overall return, though recent performance difficulty from Oaktree has negatively impacted performance.

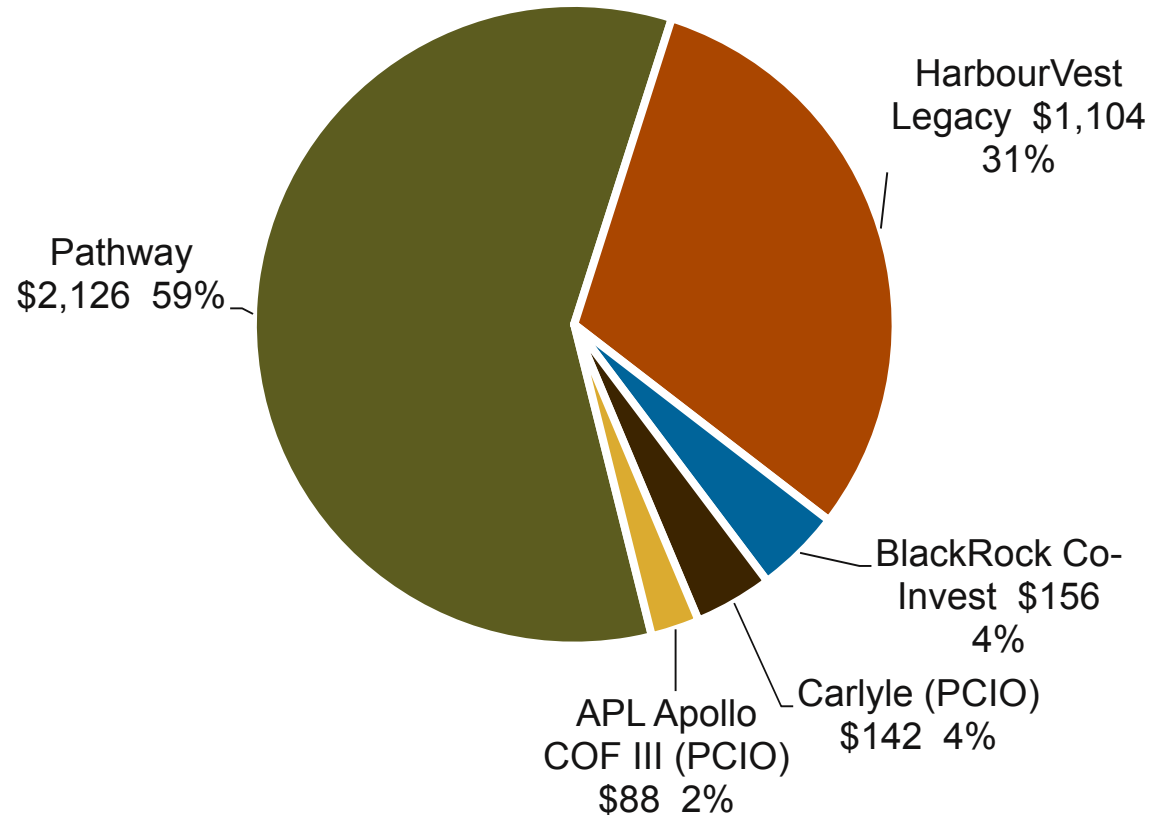
Performance vs Absolute Return Hedge FoFs Style (Net)



APFC Private Equity Structure

As of December 31, 2015

- Portfolio was allocated across two gatekeepers managing dedicated portfolios for APFC.
- HarbourVest's relationships have been transferred to Pathway for oversight management.
- The Pathway portfolio also includes direct investments overseen by Pathway.
- Carlyle and Apollo portfolios represent investments to the PCIO program (Carlyle and Apollo initially committed capital in 2013).

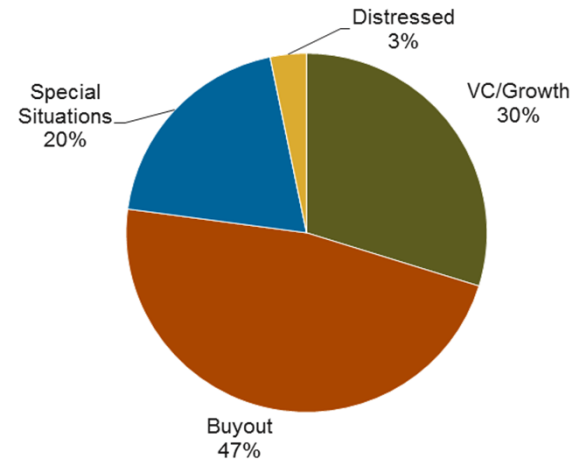


Private Equity Portfolio Positioning

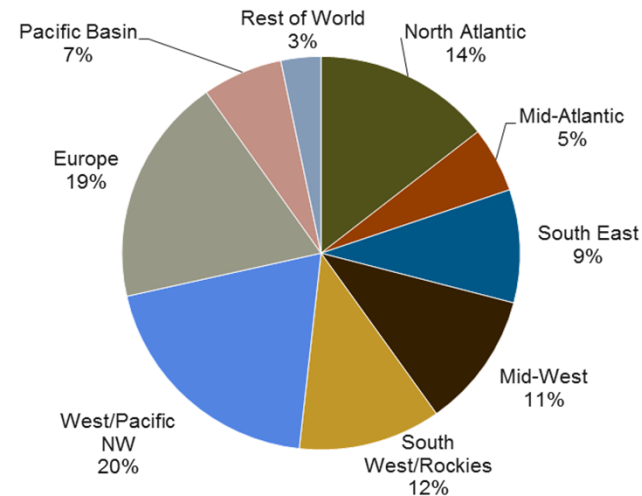
Preliminary: as of June 30, 2015

- APFC's Total Private Equity Portfolio is well-diversified by strategy and geography.
- All key strategy sectors are included: venture capital, buyout, special situations and distressed debt.
- Buyouts remain the largest allocation, but are well diversified across small, middle-market, large, and mega funds.
- The domestic/international allocation is in line with institutional portfolios.
- The largest non-U.S. sector exposure is developed Europe.

Total Portfolio Diversification by NAV



Geographic Diversification by NAV



Closing Remarks

- Total fund climbed to \$52.2 billion during the fourth quarter, gaining 2.1%. Additionally, for the year ending December 31, 2015, the fund was up 0.9%.
- Total fund trails 3 of the 4 targets for the quarter, but leads CPIU+5% hurdle. However, for the year, total fund trails only the CPIU+5% hurdle and is ahead of the other 3 targets. The fund surpasses all benchmarks over the last five years.
- Over longer periods, the total fund is mostly ahead of the targets and is firmly ahead of the 5% real objective.
- Strong recent performance has helped the fund perform well relative to most large public funds and endowments. Longer-term performance has not fared as well versus peers, largely due to a comparatively high allocation to non-US equity, emerging markets, and fixed income.
- The equity portfolio added value in the quarter, but lagged its benchmark. Small capitalization bias within Domestic Equities and an overweight to emerging markets within International Equity held back performance. Medium-term performance has been impacted by an overweight to non-US stocks, but has performed well over the long-term.
- The internally managed fixed income portfolios performed roughly in line with the respective benchmarks. TIPS were in the red, but in-line with the respective indices. High yield continues to suffer.
- The alternatives portfolios (Real Estate, Private Equity, Infrastructure, Absolute Return, and True Special Opportunity) were all in the black.
- Fourth quarter performance ,while not spectacular, was satisfactory. Though there is no longer uncertainty as to the timing of a rate hike in the US, the pace and magnitude of future hikes remains uncertain. Concerns over China's slowing growth are likely to weigh on the markets and the price of oil has not yet convincingly found a bottom.

ALASKA PERMANENT FUND CORPORATION

SUBJECT: Update on FY17 Budget

ACTION: _____

DATE: February 23, 2016

INFORMATION: X

Angela Rodell and Laura Achee have met with both the House and Senate Finance Co-Chairs, as well as the House Revenue Budget Subcommittee Co-Chair to discuss APFC's request for the FY 17 budget. Senator Mackinnon, one of the Senate Finance Co-Chairs, is also the Budget Subcommittee Co-Chair.

The House Revenue Budget Subcommittee has heard an overview of the APFC's budget request, and the Senate Revenue Budget Subcommittee has heard a general overview of the Department of Revenue budget that included a brief description of the APFC's budget request.

Although it is not in the budget at this time, we have shared the need for an office renovation and the estimated \$1.5 million cost to do so in both the House subcommittee presentation and in one-on-one meetings with Legislators. We are still assessing the reception of this request, and will seek to have it placed in the budget when it is appropriate to do so.

In hearings, as well as in one-on-one meetings, legislators have raised questions regarding issues that could have an impact on future budgets:

- Incentive pay and bonuses
- Satellite office

ALASKA PERMANENT FUND CORPORATION

SUBJECT: Update on APFC Space Redesign Process ACTION: _____

DATE: February 11, 2016 INFORMATION: __XX__

Work was undertaken to delineate the scope of services that APFC would require of an architectural firm for the initial design, engineering, and project support to modify the Juneau office space to better support current and future workflows.

State procurement regulations currently do not allow APFC staff to move forward with a RFP for architectural and engineering services if the anticipated contract exceeds \$200,000. The delegation for procuring this level of construction/architectural services resides with the Department of Administration through a delegation by the Department of Transportation.

One course of action would be to obtain the services of a qualified architectural firm to draft up the initial space plan and cost estimates and retain the same firm to provide: 1) conceptual redesign plans; 2) detailed architectural and engineering drawings and specification necessary for execution; 3) construction administration. We anticipate that the architectural contract for the full scope under this course would exceed \$200,000. The State's Department of Administration in coordination with the APFC could use an architect already under contract for the Juneau area, set the design parameters and ensure all work complies with work orders.

An alternative course of action would be to obtain the services of a qualified architectural firm to draft up the preliminary initial space plan and cost estimates. We believe this body of work would be within the parameters of a small procurement, less than the \$200,000 threshold. Once an appropriation was received and direction given by the Board to proceed, a second procurement or use of DOA's existing architectural contract could then be undertaken for the provision of the detailed drawings and specifications necessary for execution and contract administration.

In either instance, if we determined we wanted to go forward with the plan the procurement of services for the construction phase would then be undertaken with the approval and assistance of the Department of Administration.

Both courses will require us to receive an appropriation in our FY17 budget. Given the significant hurdles required by the procurement process, our current strategy is to wait and see if we will be successful in receiving an appropriation. Per the Board's direction at the December board meeting, we have indicated in informal conversations with legislators an initial request of \$1.5 million.

ALASKA PERMANENT FUND CORPORATION

SUBJECT: Perspectives on Global Equity – JP Morgan and Schroders

ACTION: _____

DATE: February 24, 2016

INFORMATION: X

BACKGROUND:

JP Morgan and Schroders have been invited to present to the board on global public equities as well as on the equity risk premium. George Iwanicki, Jr. and Richard Coghlan are the presenters. Please see their biographies below:

George Iwanicki, Jr., JP Morgan's Global Macro Strategist

George Iwanicki, Jr. is a portfolio manager and global macro strategist within the Global Emerging Markets and Asia Pacific Equities Team based in New York.

George is responsible for all top-down EM strategy, including quantitative screening and Asset Allocation. Prior to that, he served several years as an economist, participating in a variety of strategy and asset allocation teams within Developed Market asset classes. Prior to joining the firm in 1992, he spent five years as an economist at Kidder, Peabody & Co., Inc.

George holds a B.A. in mathematics and economics from the State University of New York and an A.B.D. (Master of Philosophy) in Economics specializing in macroeconomics, econometrics, and international trade and finance from Columbia University.

Richard Coghlan, Ph.D, Schroders's Multi-Asset Fund Manager

Richard currently manages assets on behalf of Schroders North American Multi-Asset clients and is based in New York.

Richard joined Schroders Hong Kong as the Head of Multi-Asset (Hong Kong) in 2006 and was then promoted to become the Head of Multi-Asset, Asia in 2014. Prior to this, he was with Schroders Korea as the Head of Investment as well as Korean Investment Specialist from 2004 to 2006, supervising both the investment trust and the corporate restructuring businesses. Richard was managing Multi-Asset portfolios in Schroders Korea in 2003 before he was appointed the Head of Investment in 2004.

Richard first joined Schroders in 2000 to manage the Seoul Debt Restructuring Fund in Korea with the team and became the project leader in 2001. His investment career commenced in 1997 as a Director with the Asian Finance and Investment Corporation, an affiliate of the Asian Development Bank, managing investments in Korea, China and India.

Richard holds a MBA in Finance and Accounting, University of Chicago, MSc and PhD in Geochemistry, Brown University and BSc in Geology, Duke University.

Global Equity Review: 'Exorbitant privilege' and its unintended consequences

February 2016



George Iwanicki
Emerging Markets Macro Strategist



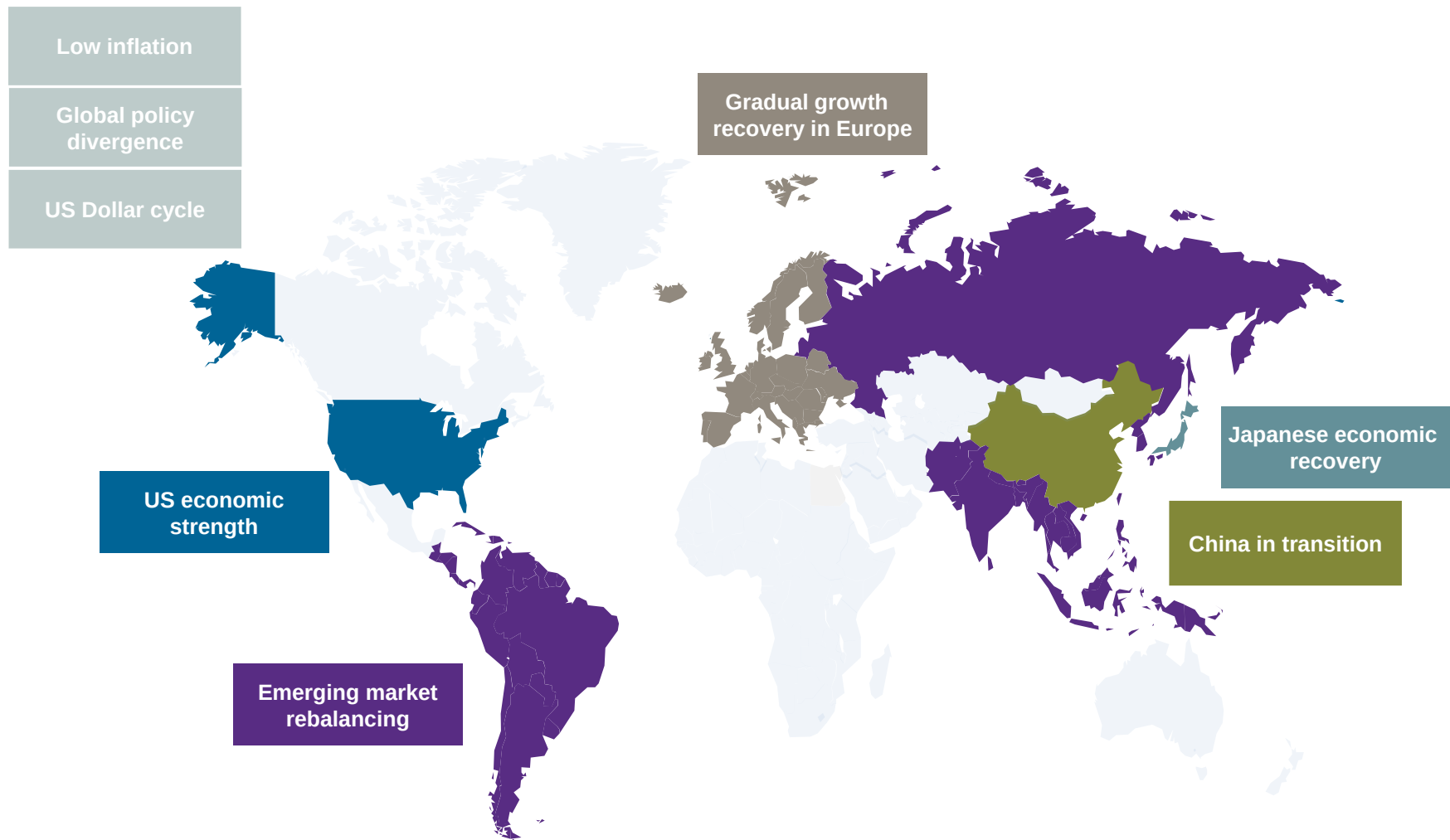
Thomas Leventhorpe
Client Portfolio Manager

Highlights

- The current environment of modest real economic growth, very low inflation, and a rising US Dollar has virtually extinguished *nominal* global GDP growth measured in USD;
- The extended rally in USD has contributed meaningfully to a variety of market ailments: sluggish profit performance, falling commodity prices, underperforming non-US markets, and China FX policy risks;
- News flow is not all negative - amid hints of concern about US recession risk, Europe and Japan are showing signs of economic improvement in context of aggressive monetary stimulus and diminishing fiscal drag;
- US equity valuations appear to be 'Fair' or 'Full', yet still compare favorably with low bond yields using our proprietary Equity Risk Premium history;
- Although tactical positioning is still leaning toward US and European equities, other equity markets are quite cheap on fundamental valuations, signaling better potential returns;
- The coming peak in USD should unleash a series of equity opportunities – non-US equity (particularly Emerging Markets), commodity equities, and possibly selected underlying commodities
- J.P. Morgan Asset Management's strategic Long-Term Capital Market Assumptions call for reasonable favorable returns from public equity overall (and led by EM), but selected asset classes (private equity, high yield debt) appear particularly favorable within conventional bond-stock efficient frontier analysis

Source: J.P. Morgan Asset Management

Longer-run global macro themes

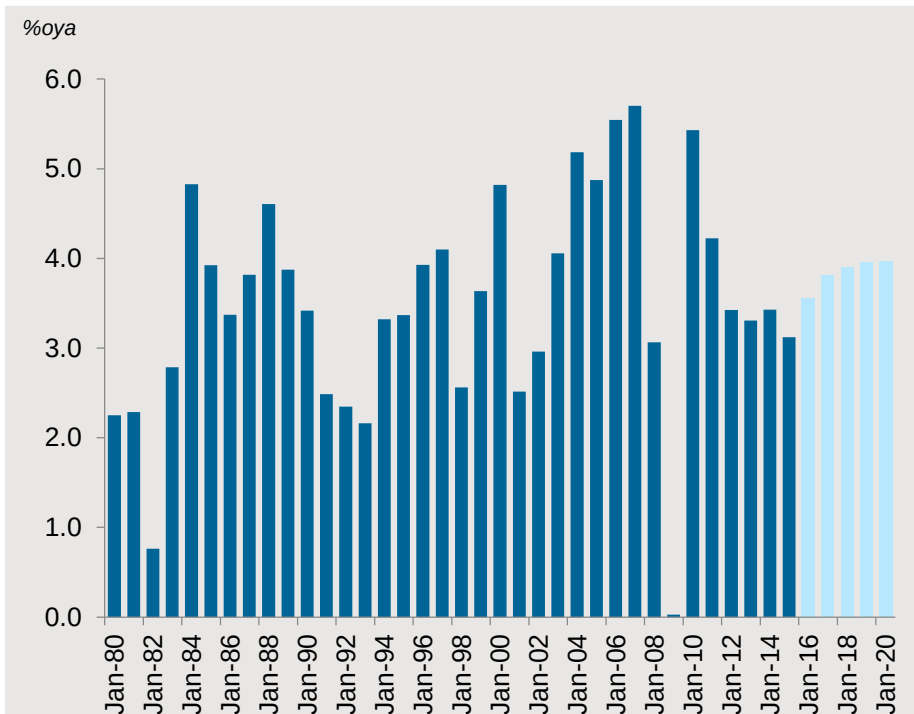


Source: J.P. Morgan Asset Management Multi-Asset Solutions; as of December 2015.

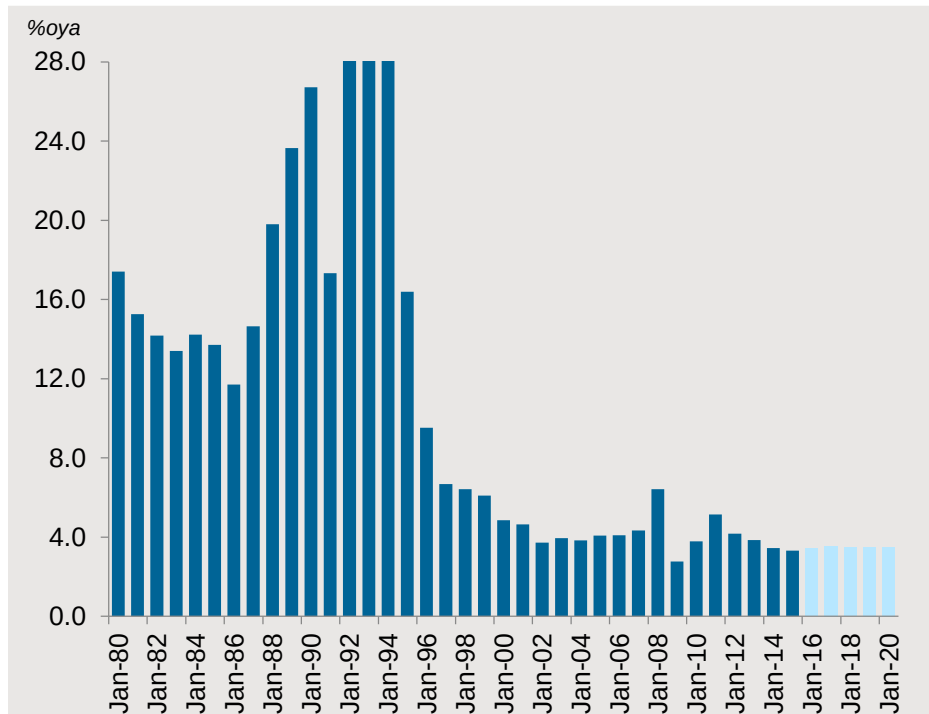
Slow real global economic growth, very moderate inflation...

IMF projects a modest pickup in real growth but continued low inflation

Global Real GDP Growth – USD terms



Global GDP Deflator



Source: UBS, J.P. Morgan Asset Management; as of end 2015. GDP = Gross Domestic Product

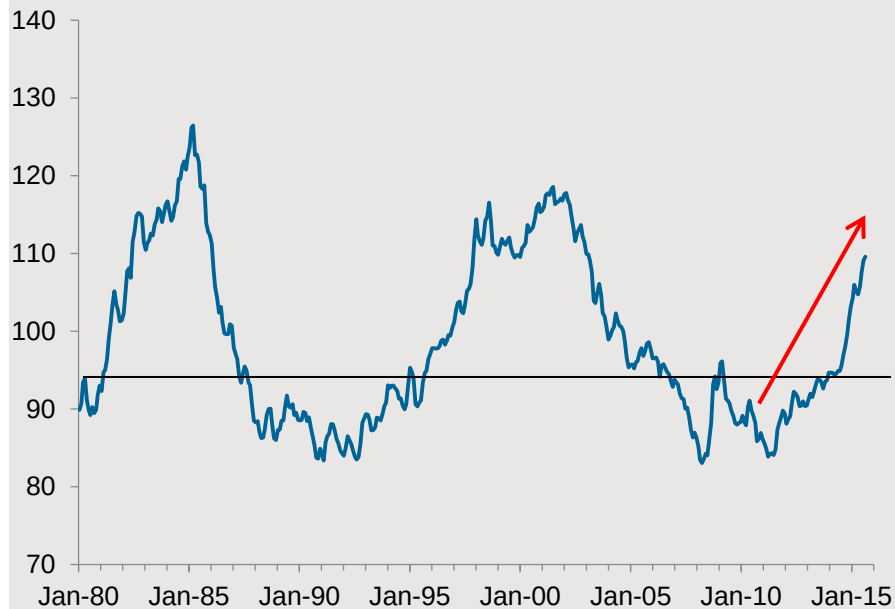
Source: J.P. Morgan Asset Management; as of end 2015

...being driven by US Dollar's rise, causing the disappearance of global USD growth

Global GDP measured in USD has stalled; IMF projections call for a moderate rebound

JPMorgan USD REER Ratio

current vs 10yr MA, CPI-based

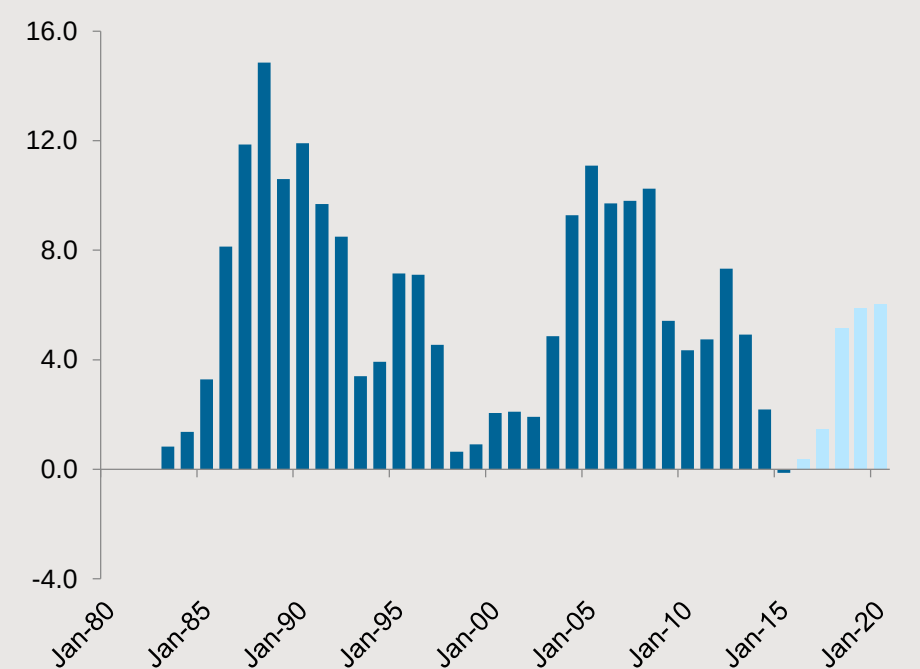


Source: UBS, J.P. Morgan Asset Management; as of end December 2015

GDP = Gross Domestic Product

Global GDP growth, nominal USD terms

%oya

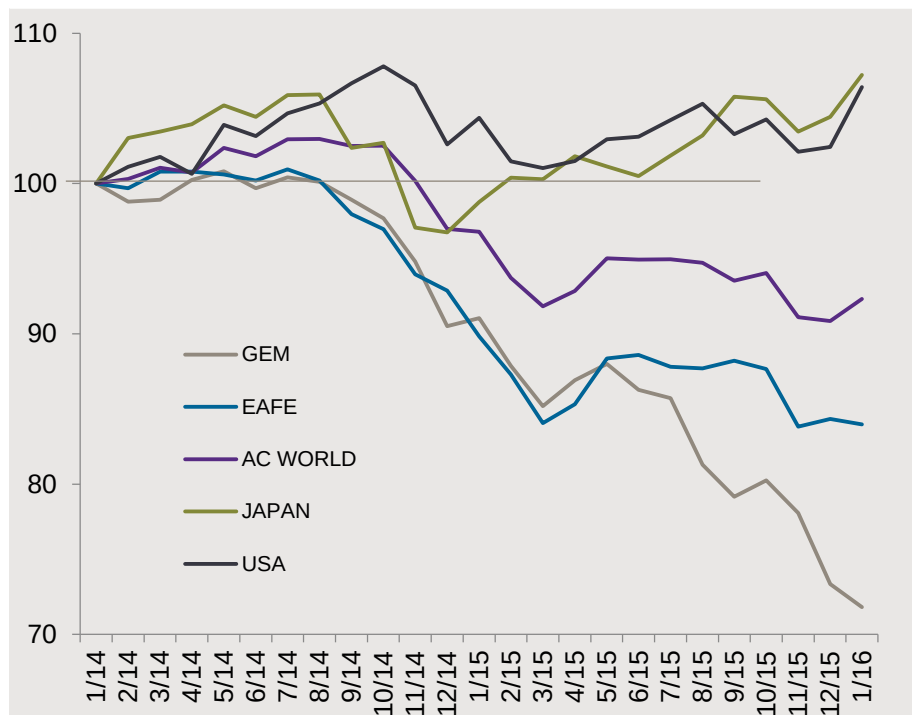


Source: J.P. Morgan Asset Management; as of end December 2015

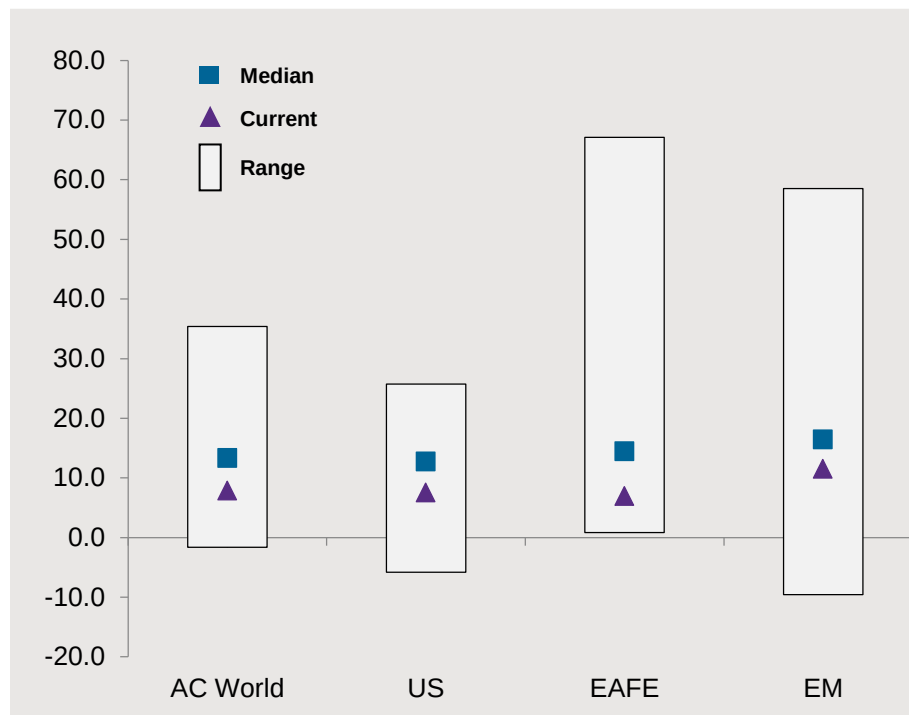
Earnings Realizations and Expectations: accordingly subdued

USD earnings growth scarce, expectations-implied growth appropriately modest

EPS Growth by Region, USD



Implied Growth

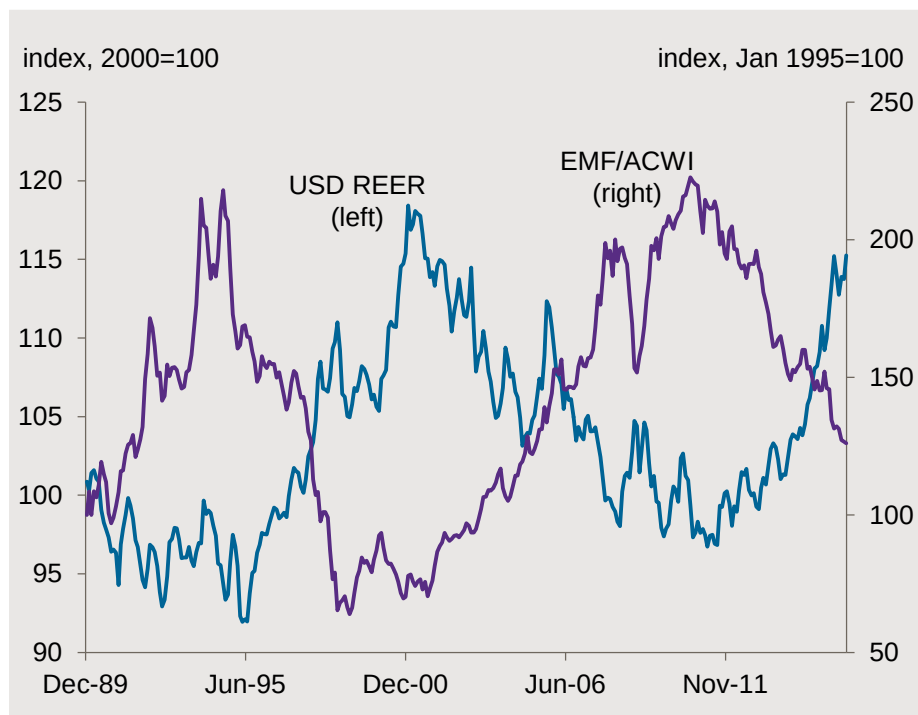


Source: J.P. Morgan Asset Management calculations, as of January 2016

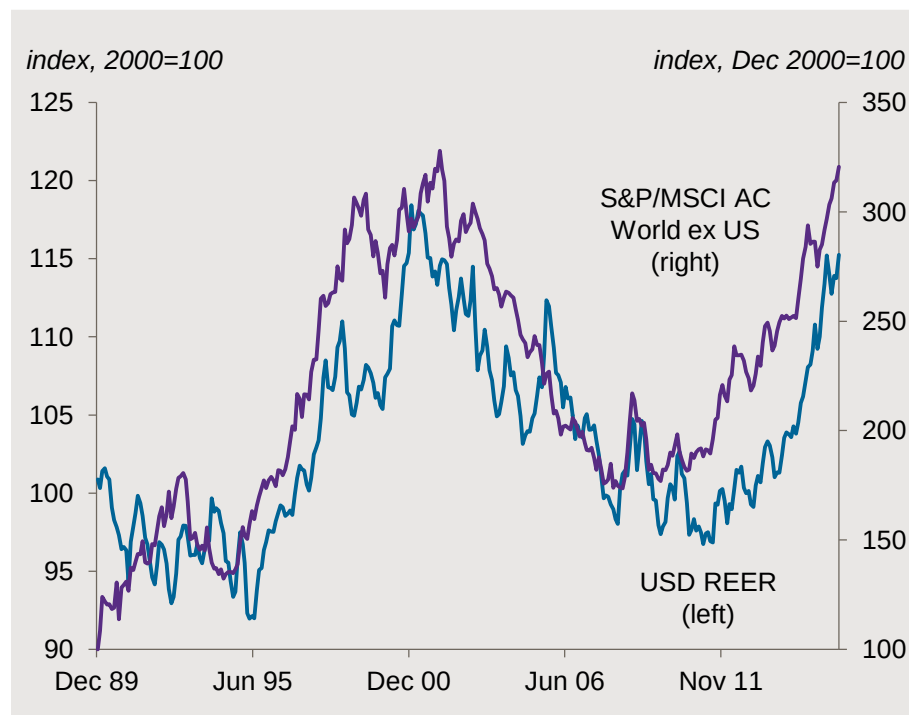
USD impact on relative equity market performance quite clear and ongoing

EM struggling relatively amid USD rally, S&P 500 thriving relatively with USD in contemporaneous fashion

EM Equity Relative Performance vs USD



S&P 500 Relative Performance vs USD

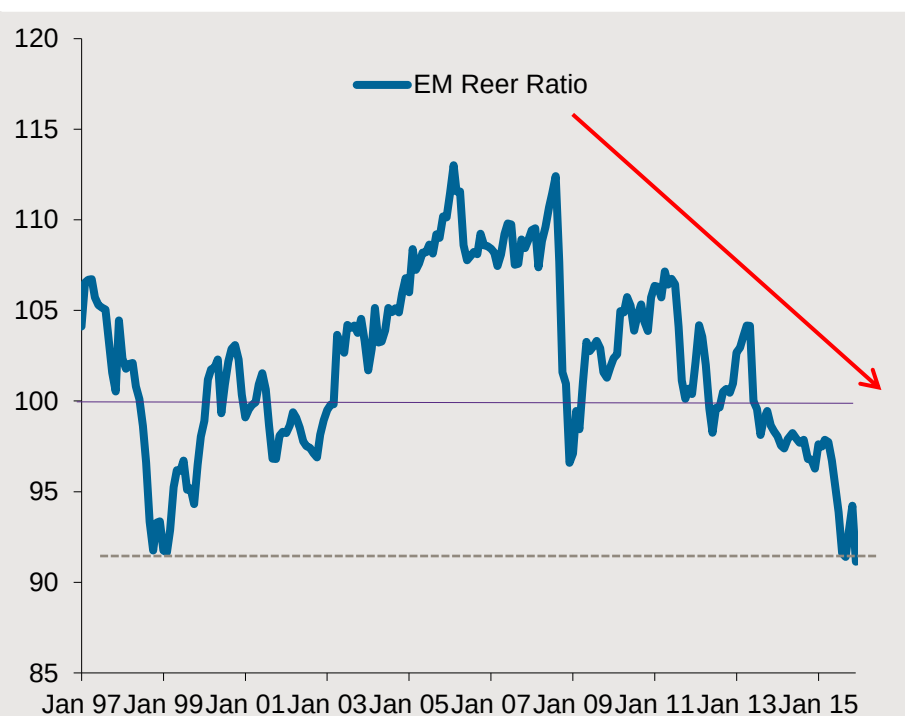


Source: MSCI, S&P, J.P. Morgan Asset Management. Data as at end January 2016

Currency valuation: Mirror images of dollar strength

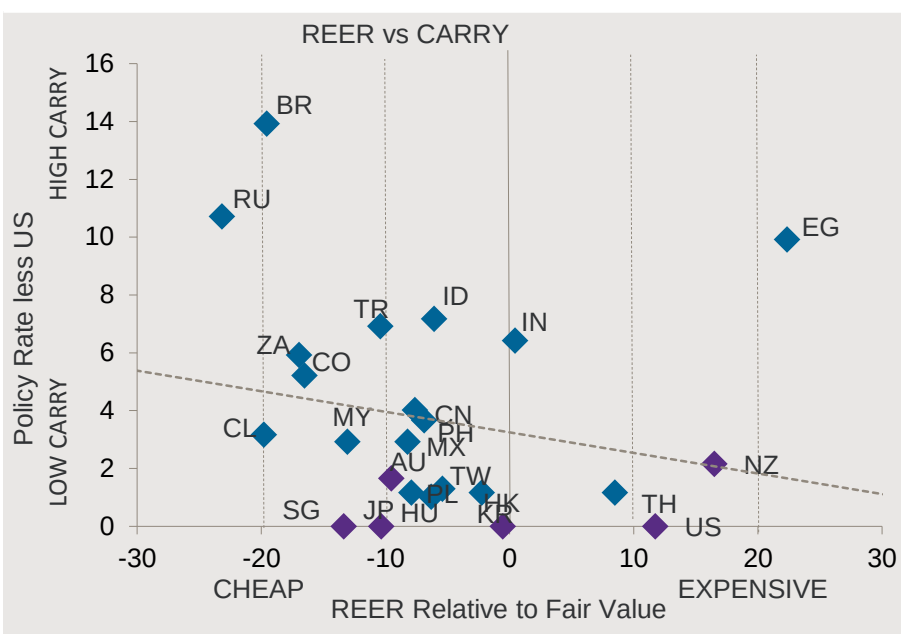
The breadth of the dollar's rise has rendered much of the world export-competitive again in \$ terms

EM Equity Weight REER Ratio – Back to '98 levels



Source: J.P. Morgan Asset Management, data as of end December 2015.

Currency valuation and support: Global currencies leaning cheap



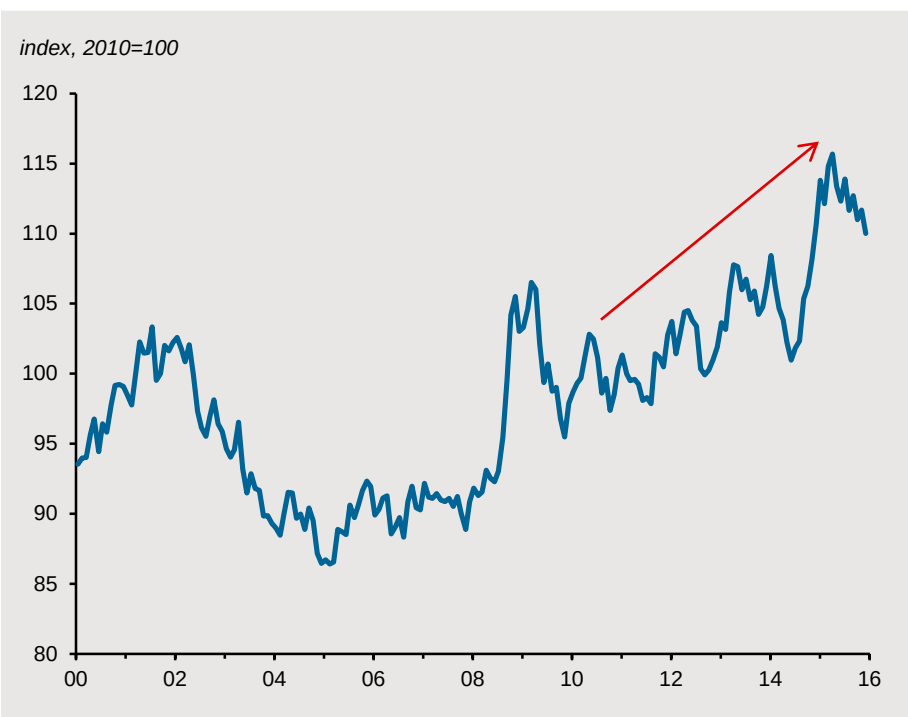
Source: J.P. Morgan Asset Management estimates. Data as of end December 2015

- REER (real effective exchange rate) relative to fair value (export-adjusted 10 year average REER) on the x axis and policy rate on the y axis.
- CARRY (a currency with a high IR)
- Countries over the line of best fit provide good carry for their currency valuation

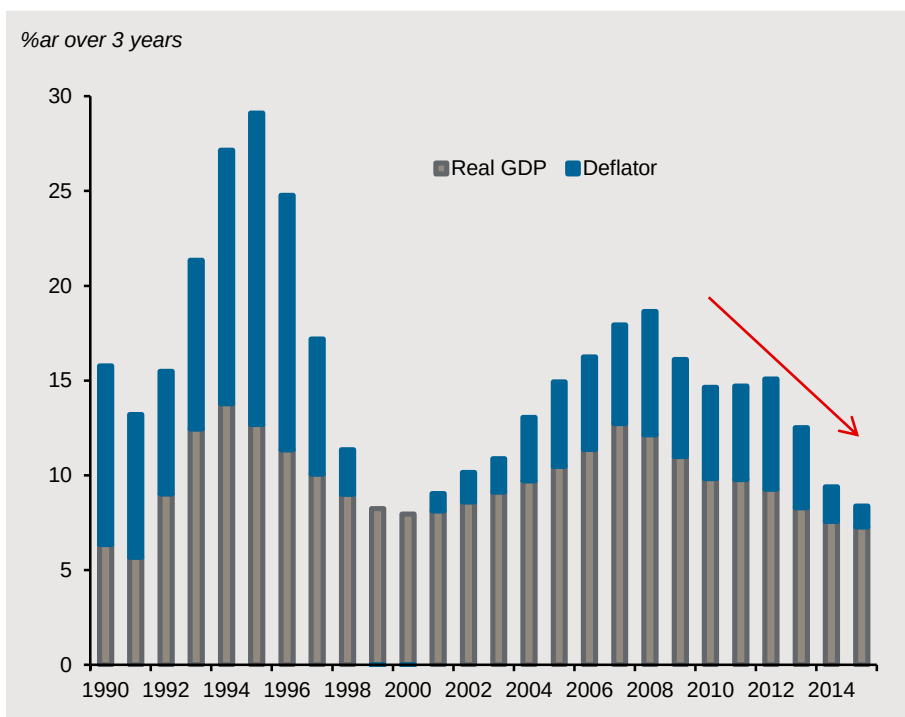
China's FX policy – Is it 'decoupling' or 'devaluation'?

Shadowing a rising USD was unsustainable as it prompted an unwelcome *nominal* deceleration

China Broad Real Effective Exchange Rate



China Nominal GDP growth by component

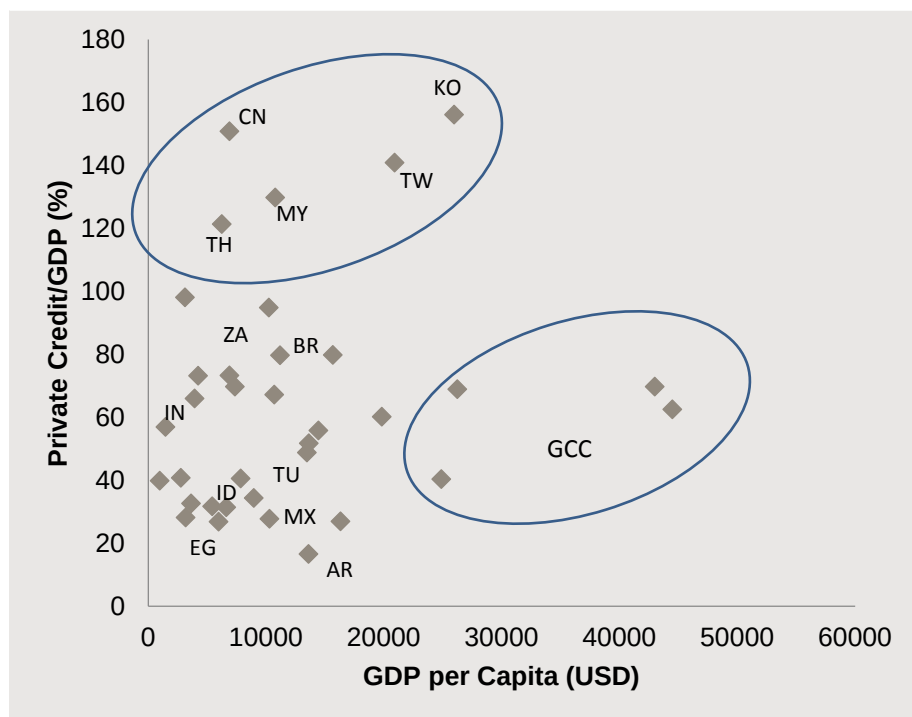


Source: J.P. Morgan, NBS, J.P. Morgan Asset Management calculations, as of December 2015

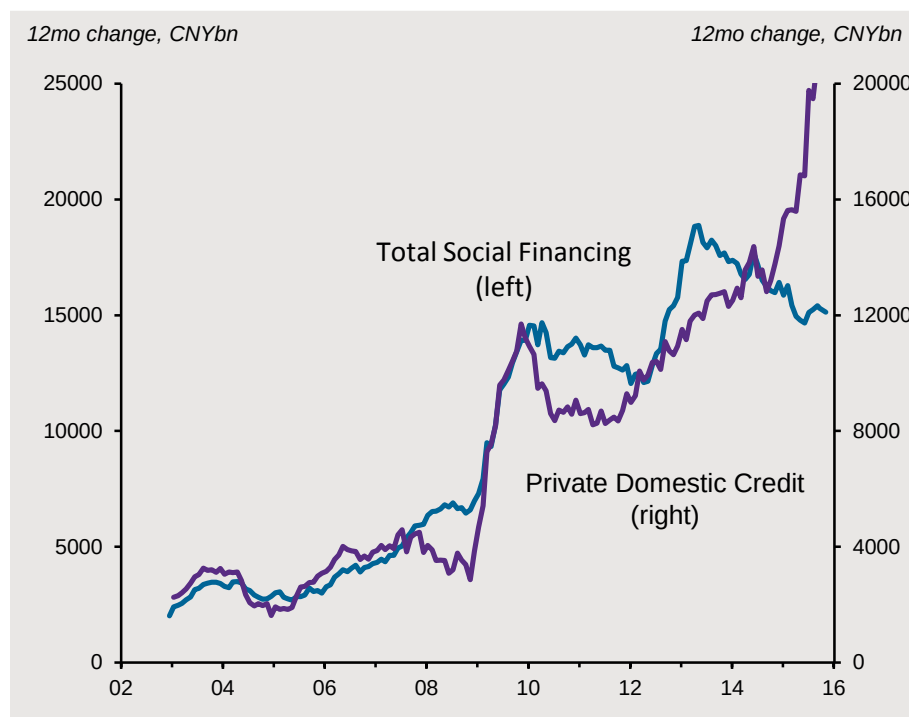
Slowing nominal growth and high/rising debt ratios not a welcome combination

A largely benign debt load is more worrisome when nominal growth begins to disappear

Economic Development and Private Credit Intensity, 2014



China Credit Growth

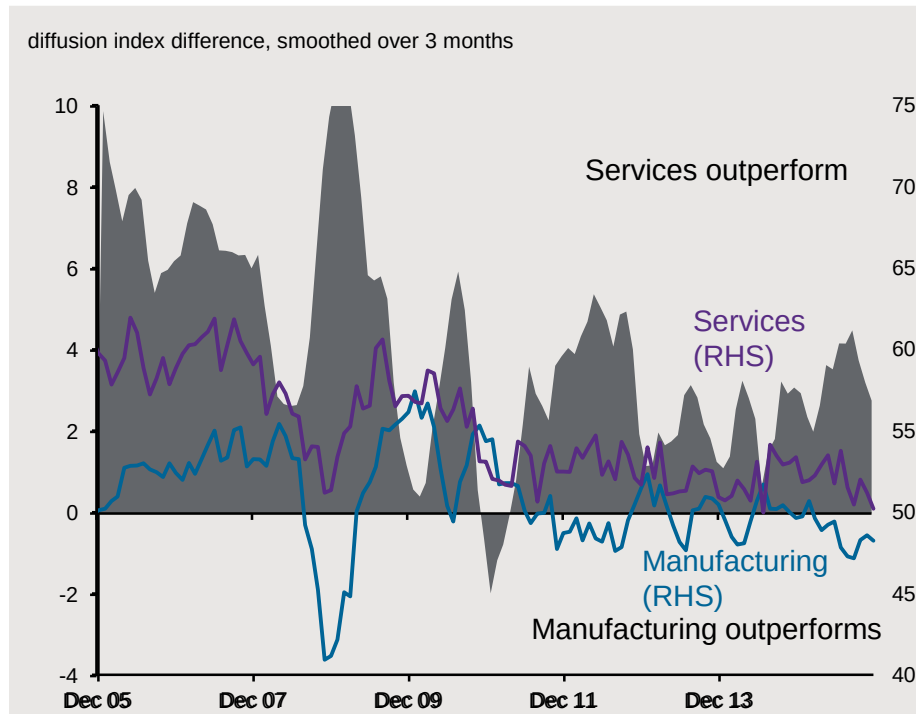


Source: IIF, NBS, People Bank of China, J.P. Morgan Asset Management calculations. LHS as of 2014. RHS as of November 2015

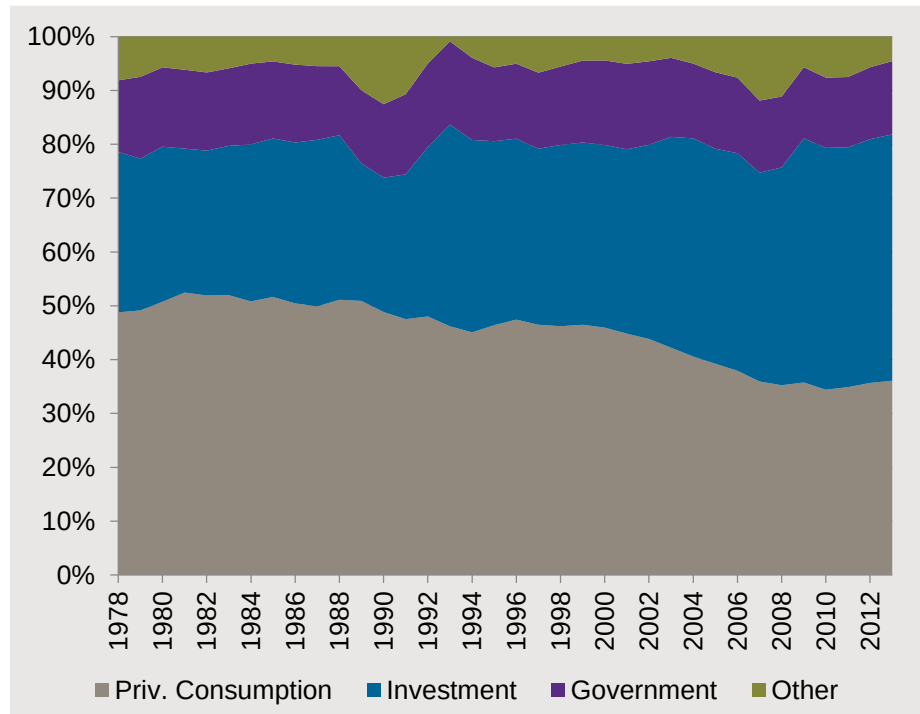
The long-awaited rotation in Chinese growth is proceeding - slowly but surely

Rotation dates back to 2010-11 and is continuing even as growth has slowed

China PMI Output Spread: Services vs Manufacturing



China shares of GDP by spending category



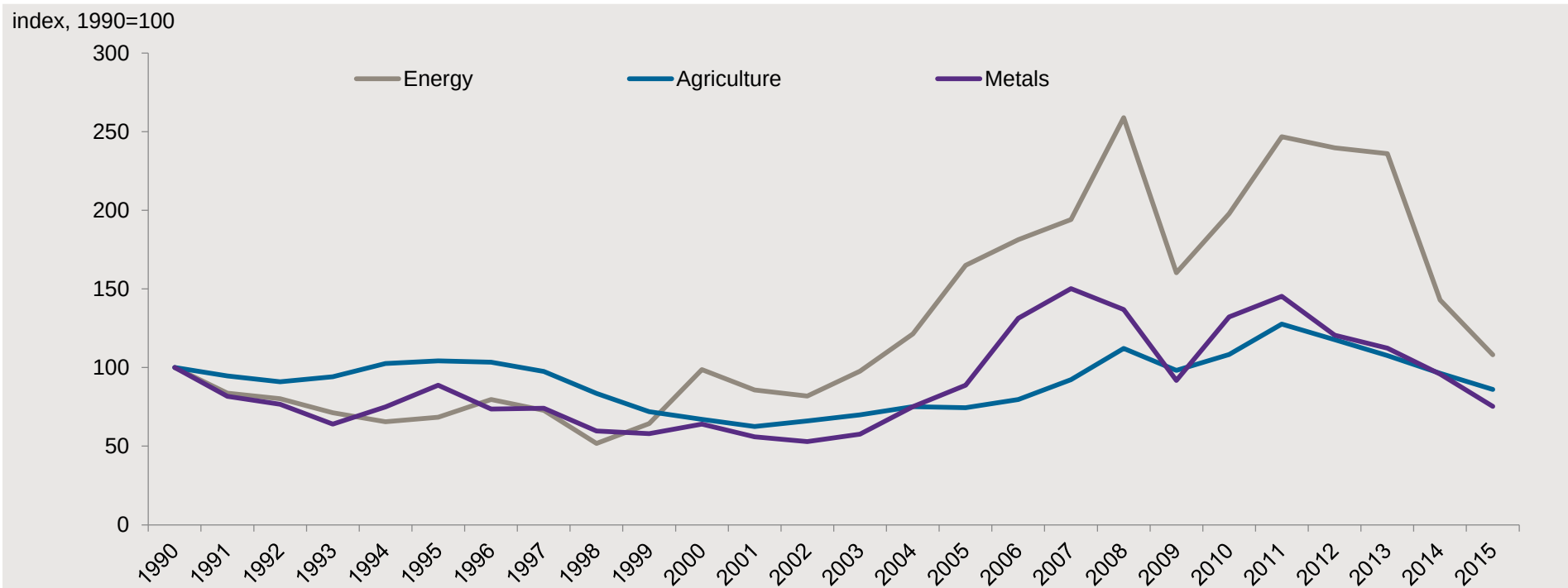
Source: Markit, NBS, J.P. Morgan Asset Management calculations

Data as of December 2015

Commodity prices in extended correction

Slower real global growth, a stronger USD, and a China growth rotation prompting a sharp reversal in the commodity 'supercycle'

Commodity Price Indices

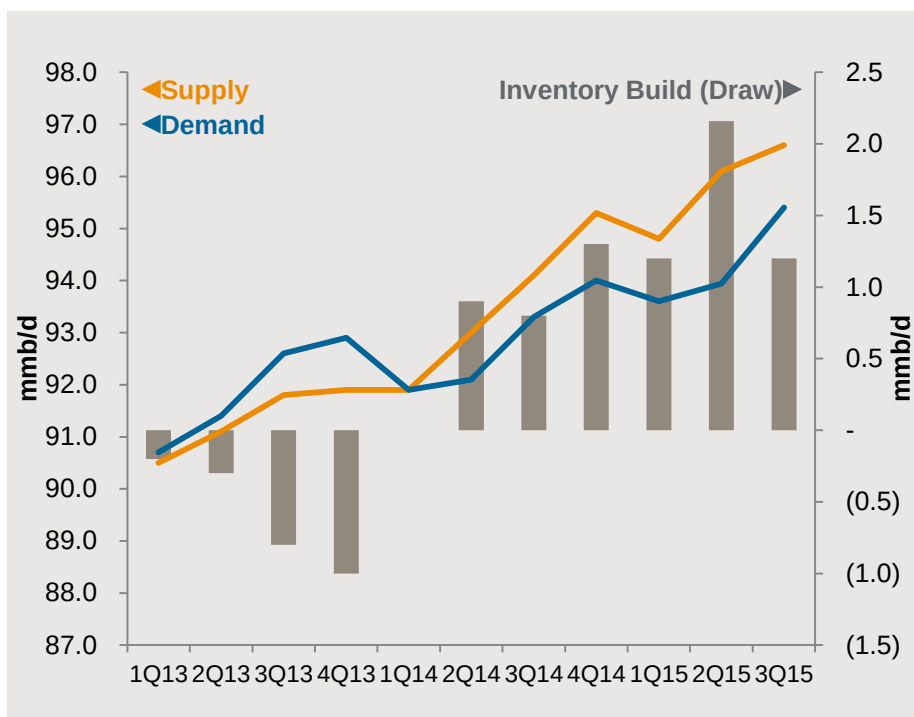


Source: World Bank, J.P. Morgan Asset Management. Data as at end-November 2015

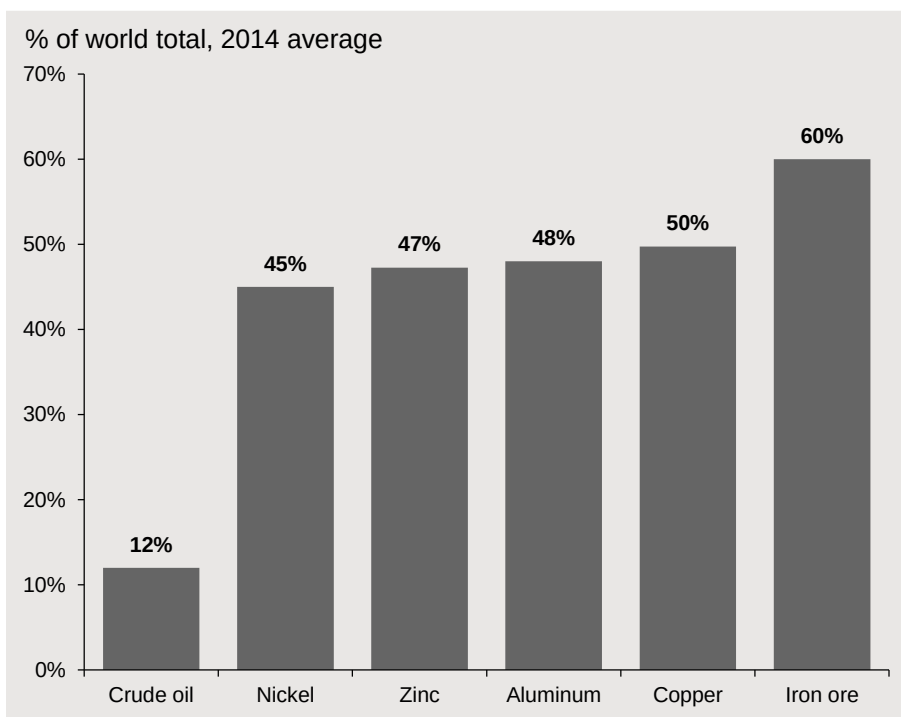
Searching for a bottom on oil prices – demand side considerations

Demand growth still evident and not overly dependent on China

Global Supply/Demand dynamics



China's consumption of commodities

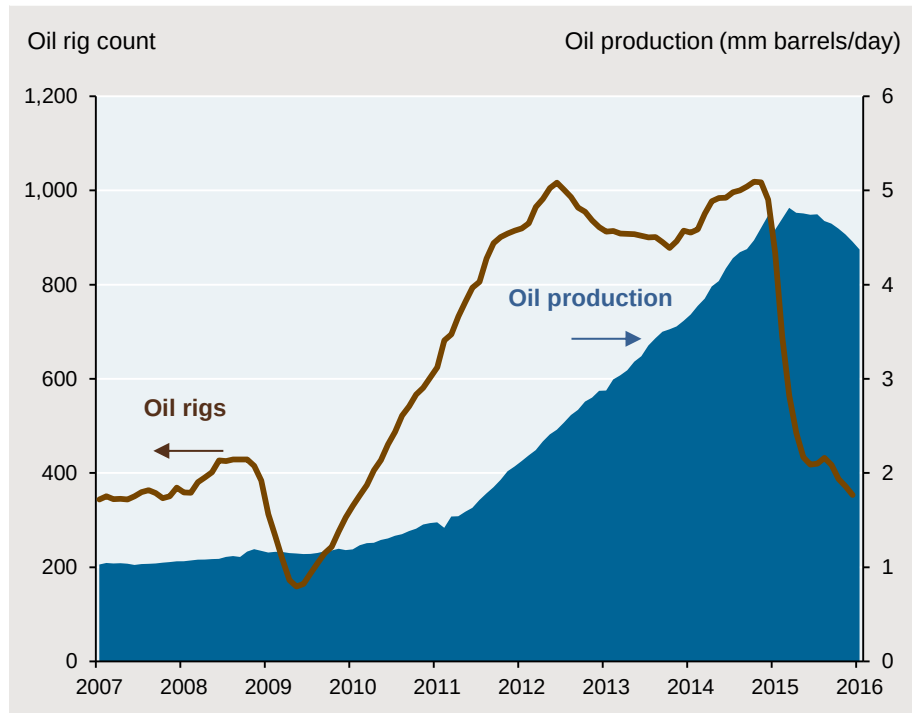


Source: International Energy Administration, J.P. Morgan Asset Management calculations, as of December 2015

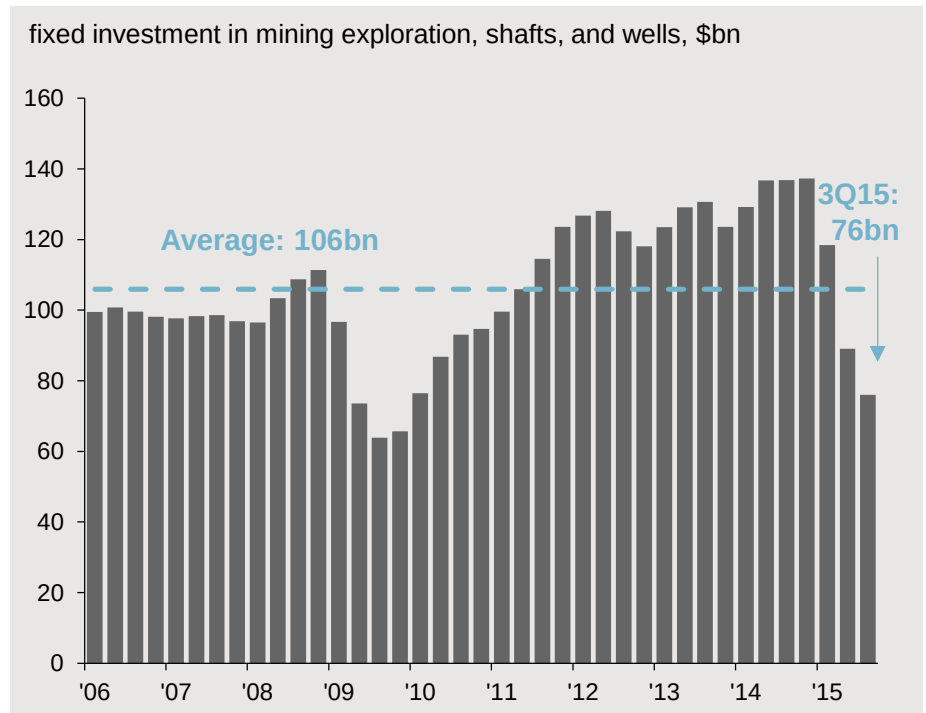
Searching for a bottom on oil prices – supply side developments

Idling rig count and retraction of exploration investment illustrates the beginning of a supply response

China commodity demand



US exploration investment

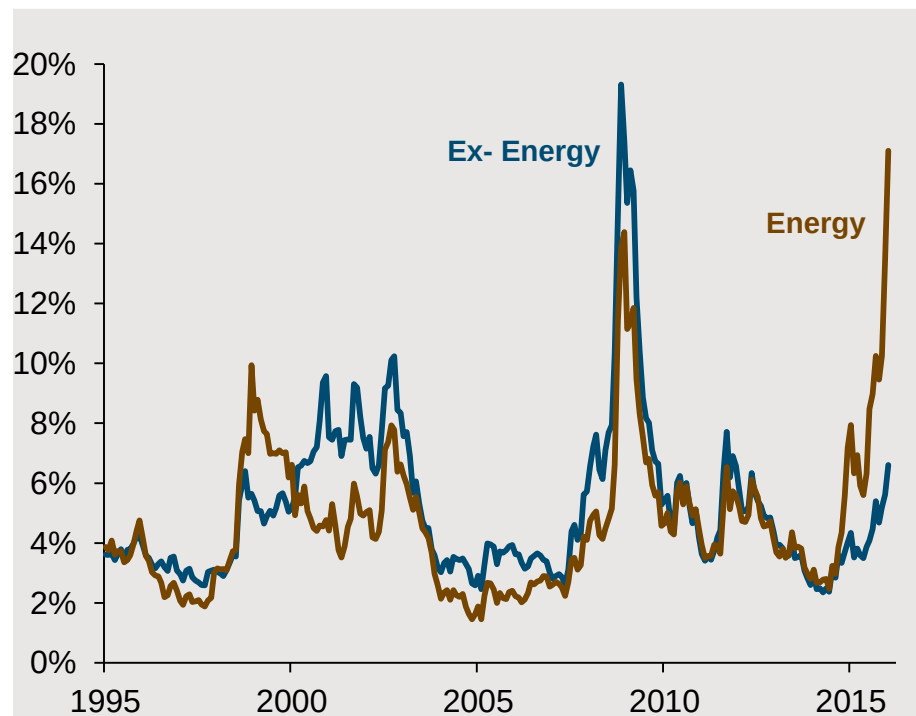


Source: EIA, BEA, J.P. Morgan Asset Management calculations, as of December 2015

US recession worries?

High Yield spreads and Profit Margins flashing – but both include oil impacts

High Yield Spread to US 10yr Treasury



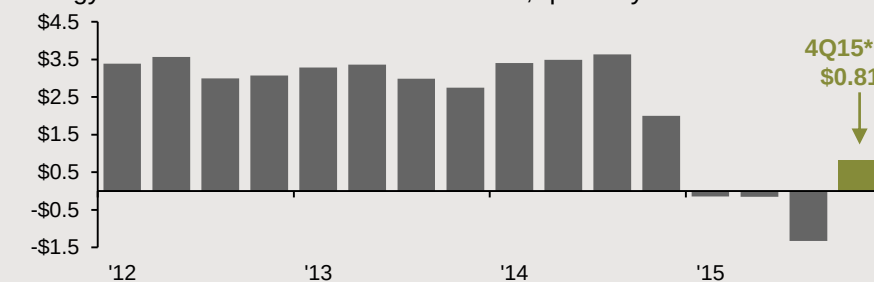
US Profit Performance

Profit margins



Energy sector earnings

Energy sector contribution to S&P 500 EPS, quarterly



Source: International Energy Administration, J.P. Morgan Asset Management, Factset calculations, as of December 2015.

US Recession Check List

Yield Curve Inversion



Change in Employment Trend



Leading Economic Indicator



Corporate Profit Peak



Change in Present Situation Trend¹



Real High Powered Money Growth²



High-Yield Spread Over Treasury

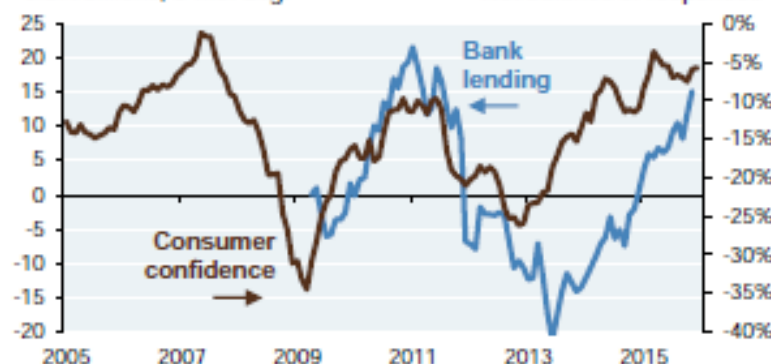


Source: Bloomberg, NBER, FRED, Conference Board, NDR, MKM Partners, Deutsche Bank.

¹Conference Board Present Situation Index measures consumer sentiments toward the current economic situation. ²Real high powered money growth (%) is calculated based on subtracting excess reserves of depository institutions from adjusted monetary base divided by consumer price index for all urban consumers. Opinions, estimates, forecasts, projections and statements of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice. There can be no guarantee they will be met. Shown for illustrative purposes only.

Europe continues to see cyclical improvement

Eurozone bank lending and consumer confidence
EUR billions, 3-mo. avg. Net balance of responses



Note: bank lending to households and non-fin corps; consumer confidence is net balance of positive and negative responses. Source: ECB, Dec. 2015.

Eurozone retail sales and car registrations
Y/Y % change, 3-month average (both axes)



Source: European Central Bank, Eurostat, November 2015.

Spain credit demand
Net % of banks reporting higher demand, 2-quarter avg.



Source: Banco de España, Q4 2015.

Italy credit demand
Net % of banks reporting higher demand, 2-quarter avg.



Source: Banca d'Italia, Q4 2015.

For illustrative purposes only.

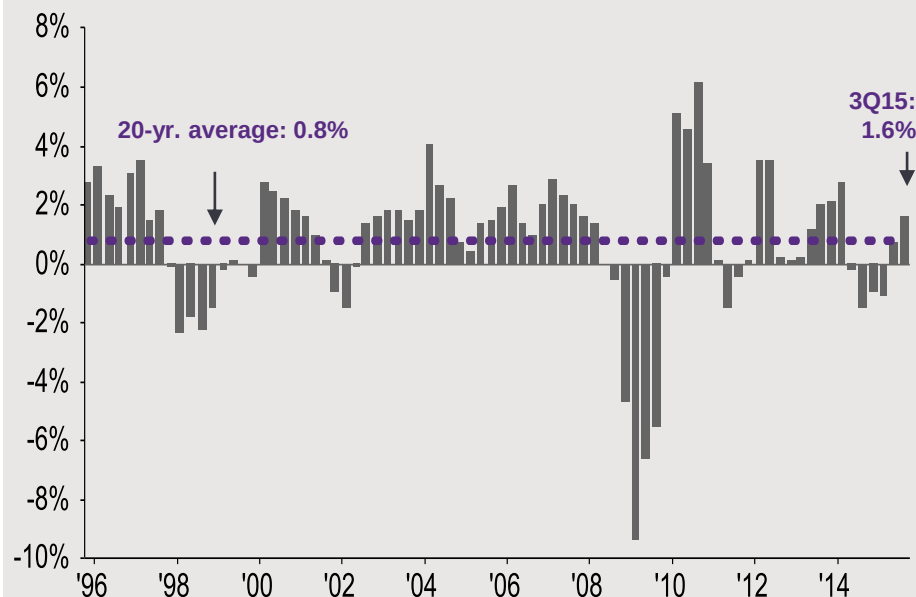
Japan seeing some macroeconomic response from Abenomics

Moderately positive real economic activity, an end to wage deflation

Japanese economic growth

Japanese economic growth

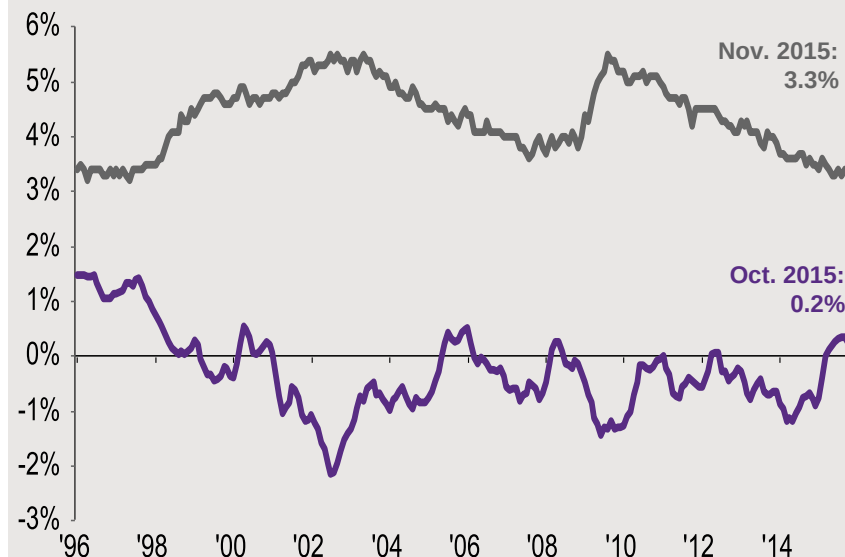
Real GDP, y/y % change



Japanese labor market

Japanese labor market

Unemployment, y/y % change in wages 3-month moving average



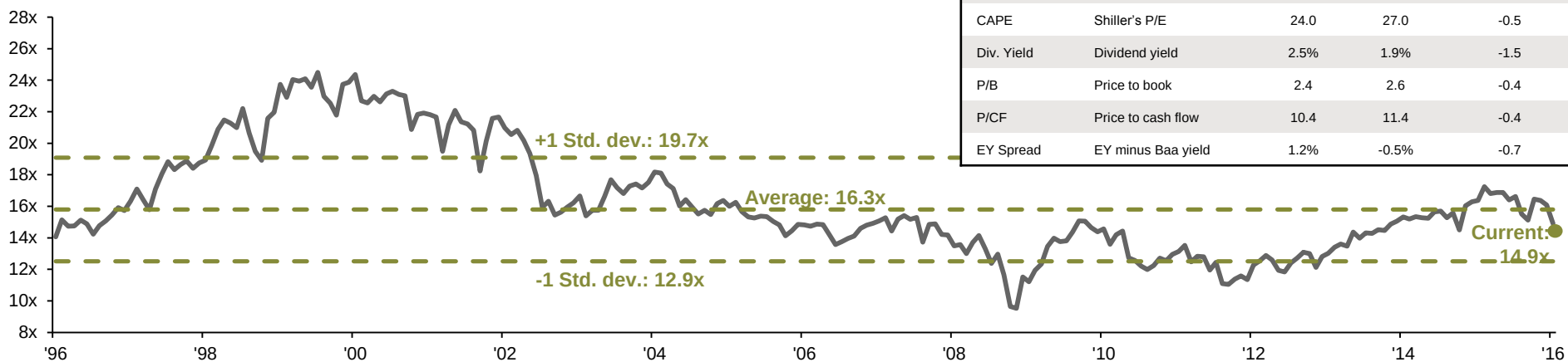
Source: FactSet, J.P. Morgan Asset Management, Japanese Cabinet Office.

Guide to the Markets – U.S. Data are as of December 31, 2015.

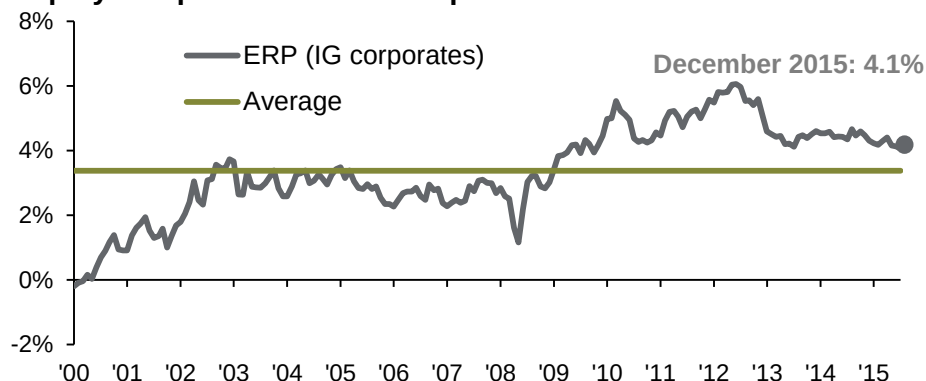
Valuation

US Equity Valuations: Absolute and Relative

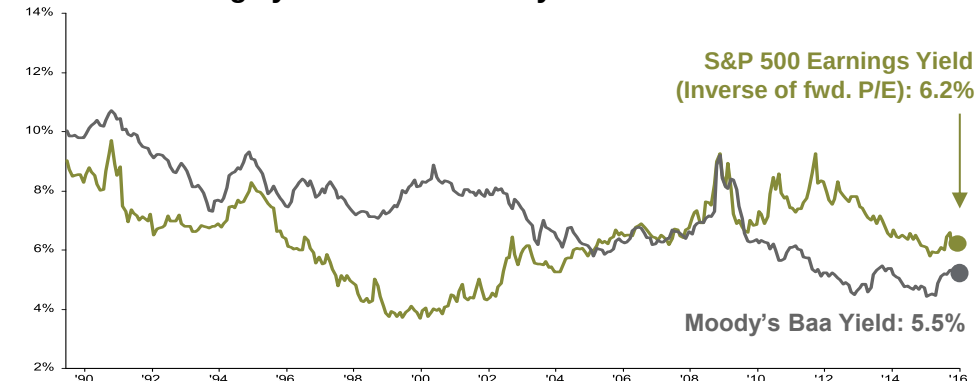
S&P 500 Index: Forward P/E ratio



Equity risk premiums vs IG corporates



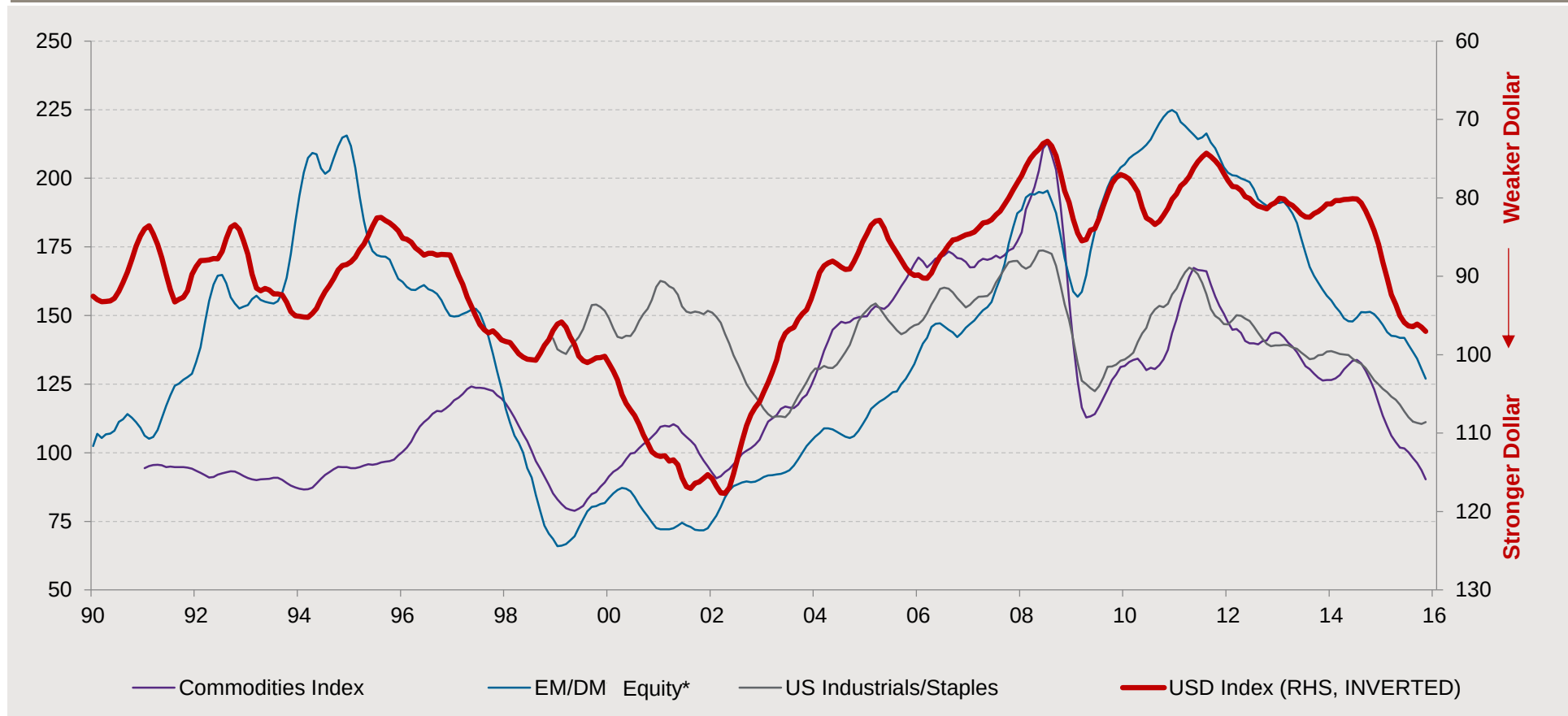
S&P 500 earnings yield vs. Baa bond yield



Source: J.P. Morgan Asset Management (Top) Standard & Poor's, FactSet, Robert Shiller Data, FRB. Guide to the Markets – U.S. Data are as of 1/18/16. (Bottom left) Bloomberg; as of 12/31/15. Equity risk premium is equal to J.P. Morgan Asset Management Dividend Discount Rate on S&P 500 stocks, less current yield to maturity on IG corporate bonds. A DDR is the discount rate that equates the present value of the estimated stream of future dividends to the current market price. The J.P. Morgan S&P 500 DDR is a bottom-up, sector-neutral and capitalization-weighted average of DDRs on large-capitalization stocks as estimated by J.P. Morgan Asset Management equity research analysts. A DDR does not represent a stock's expected actual return in any given time period. Please see the disclosure page for index definitions. (Bottom right) S&P, JPMAM. U.S. Data are as of 12/31/15. Price to Earnings is price divided by consensus analyst estimates of earnings per share for the next 12 months. Real Earnings Yield is defined as (trailing four quarters of reported earnings/price) - year over year core CPI inflation. Shown for illustrative purposes only. Past performance does not guarantee future results.

USD performance has had far reaching consequences

US Dollar and Asset Market performance: particularly notable for commodities, EM and equities

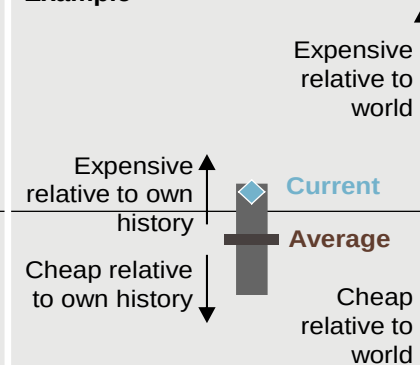


Source: Bloomberg, J.P. Morgan Asset Management Multi-Asset Solutions; data as of December 10, 2015. * Note: Re-indexed with a multiplier of 250.

Developed market countries



Example



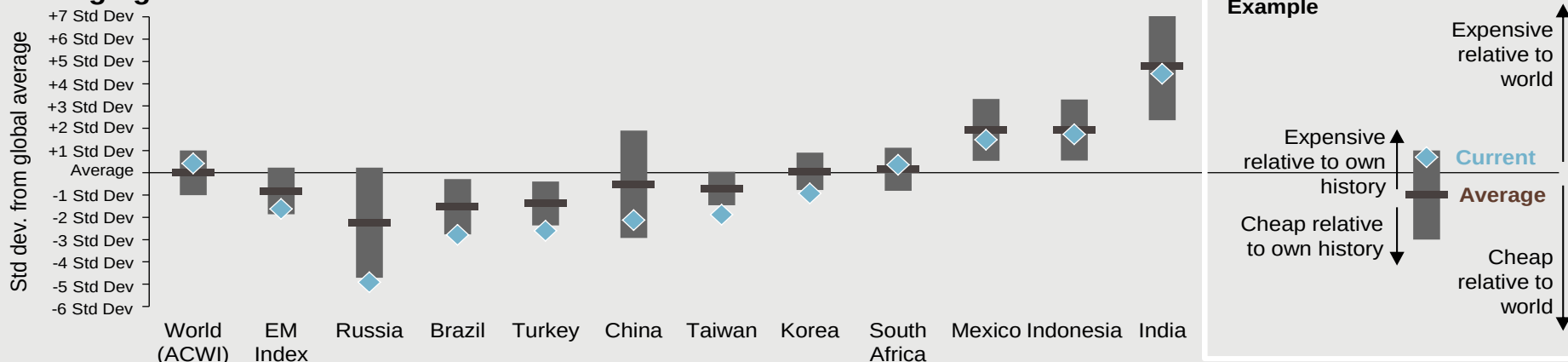
	Current Composite Index	Fwd. P/E		P/B		P/CF		Div. Yld.	
		Current	10-year avg.	Current	10-year avg.	Current	10-year avg.	Current	10-year avg.
World (ACWI)	0.42	15.0	13.2	2.0	2.0	8.1	7.5	2.6%	2.6%
EAFE Index	-0.66	14.7	12.9	1.6	1.7	6.7	6.7	3.3%	3.2%
France	-0.88	14.5	11.8	1.5	1.9	6.9	7.3	3.6%	3.7%
Germany	-0.67	13.3	11.7	1.7	2.0	6.2	8.2	2.8%	2.5%
U.K.	-0.67	15.2	11.7	1.8	1.6	7.5	6.0	4.2%	3.1%
Australia	-0.67	15.8	13.7	1.8	1.5	7.8	6.0	5.0%	3.5%
Canada	-0.28	14.2	13.9	1.6	2.1	8.8	8.8	3.3%	4.4%
Japan	0.42	14.1	15.9	1.3	1.3	7.7	6.5	1.9%	1.8%
Switzerland	1.47	16.7	13.8	2.4	2.4	11.7	10.1	3.2%	2.9%
United States	2.32	16.4	14.1	2.7	2.4	10.6	8.8	2.1%	2.0%

Source: FactSet, MSCI, J.P. Morgan Asset Management.

Note: Each valuation index shows an equally weighted composite of four metrics: price to forward earnings (Fwd. P/E), price to current book (P/B), price to last 12 months' cash flow (P/CF) and price to last 12 months' dividends (Div. Yld.). Results are then normalized using means and average variability over the last 10 years. The grey bars represent one standard deviation in variability relative to that of the MSCI All Country World Index (ACWI).

Guide to the Markets – U.S. Data are as of December 31, 2015.

Emerging market countries



	Current Composite Index	Fwd. P/E		P/B		P/CF		Div. Yld.	
		Current	10-year avg.	Current	10-year avg.	Current	10-year avg.	Current	10-year avg.
World (ACWI)	0.42	15.0	13.2	2.0	2.0	8.1	7.5	2.6%	2.6%
EM Index	-1.77	11.2	11.3	1.3	1.8	4.9	6.3	2.9%	2.7%
Russia	-4.92	5.3	7.2	0.5	1.3	2.3	4.2	5.4%	2.4%
Brazil	-2.79	10.1	10.4	1.0	1.8	4.6	5.8	4.1%	3.3%
Turkey	-2.60	7.9	9.6	1.2	1.7	4.7	6.0	3.1%	2.7%
China	-2.13	10.2	11.7	1.4	2.1	3.6	6.5	2.9%	2.7%
Taiwan	-1.88	11.8	14.2	1.6	1.8	5.3	6.7	4.1%	3.5%
Korea	-0.93	10.2	9.8	1.0	1.4	4.8	5.1	1.7%	1.4%
South Africa	0.35	14.6	12.2	2.2	2.5	9.0	9.0	3.2%	3.2%
Mexico	1.48	17.6	15.3	2.5	2.8	7.2	7.4	2.2%	1.8%
Indonesia	1.72	14.7	13.3	2.8	3.5	10.7	10.7	2.4%	2.6%
India	4.45	17.4	16.0	3.1	3.2	13.3	12.9	1.5%	1.3%

Source: FactSet, MSCI, J.P. Morgan Asset Management.

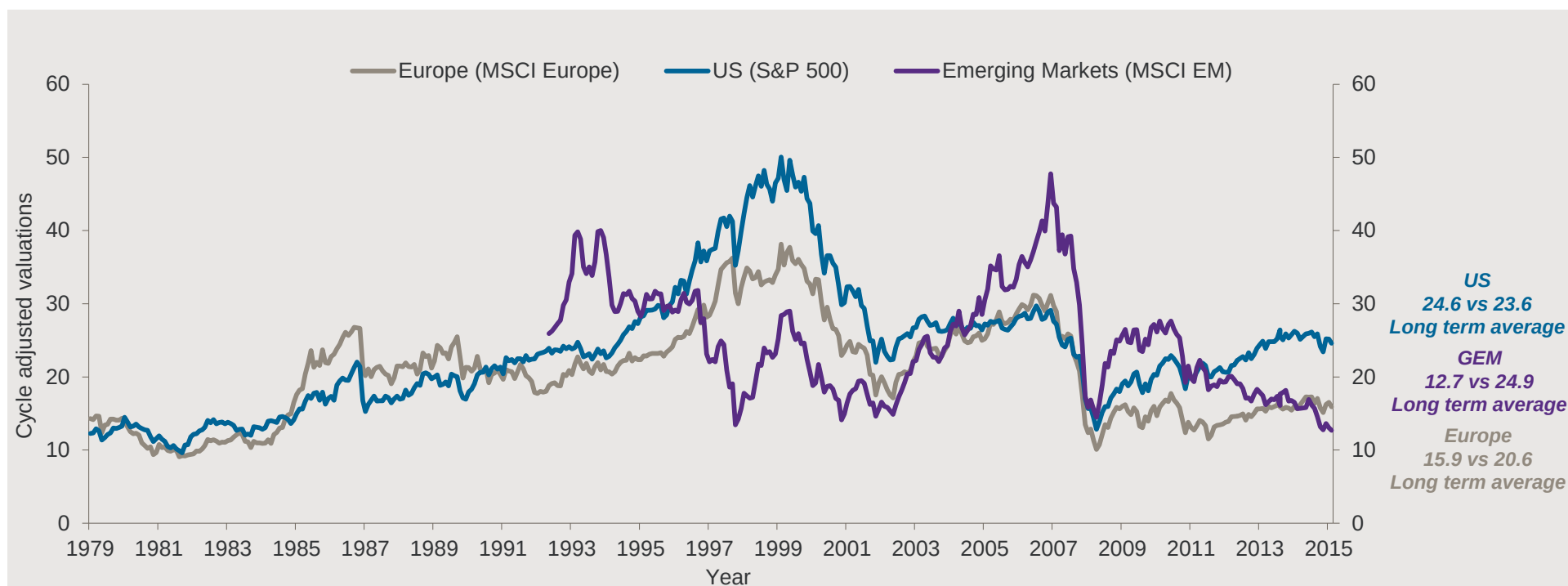
Note: Each valuation index shows an equally weighted composite of four metrics: price to forward earnings (Fwd. P/E), price to current book (P/B), price to last 12 months' cash flow (P/CF) and price to last 12 months' dividends (Div. Yld.). Results are then normalized using means and average variability over the last 10 years. The grey bars represent one standard deviation in variability relative to that of the MSCI All Country World Index (ACWI).

Guide to the Markets – U.S. Data are as of December 31, 2015.

Fundamental Valuations: Cycle-Adjusted Price Earnings (CAPE)

Non-US equity markets at significant discounts

Price to Ten year average earnings (x)

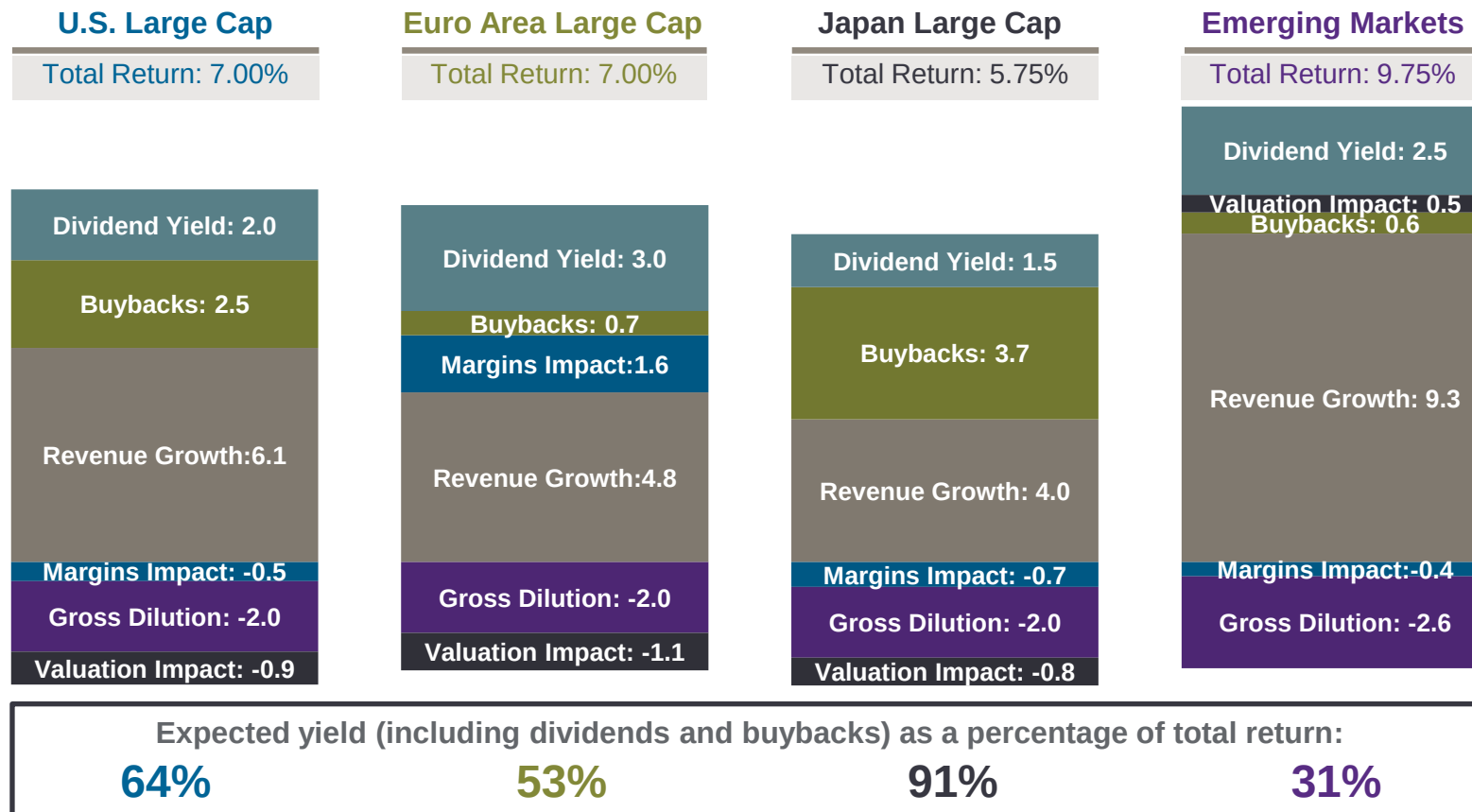


Source: MSCI, IBES. J.P. Morgan Asset Management. Data as at end December 2015. CAPE is the cyclically adjusted price-to-earnings multiple using 10-year average EPS

Long-Term Capital Market Assumptions

Equities: Building blocks

Local currencies; rounded to nearest 25bps *



Source: J.P. Morgan Asset Management as of September 2015. Note that final return assumptions are rounded to nearest 25bps, and sum of building blocks will therefore differ slightly. Opinions, estimates, forecasts, projections and statements of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice. There can be no guarantee they will be met. * Note: totals may not sum due to rounding

Equities: Developed market returns still subdued

COMPOUND (IRR*) 10–15 YEAR RETURNS

Equity returns	Local	U.S.	UK	Euro
U.S. large cap	7.00	7.00	6.50	6.00
U.S. small cap	7.25	7.25		
EAFE		7.50		
Euro Area	7.00	8.50	8.00	7.00
Japan	5.75	6.50	6.00	5.00
U.K.	7.25	7.75	7.25	6.25
Emerging markets	9.75	10.00	9.50	8.50

U.S. EQUITY

- Elevated valuations and margins remain as a drag on returns as they normalize going forward.
- Subdued earnings growth is to a large degree offset by high shareholder pay-outs; dividend yield is maintained while share buybacks decline only modestly.

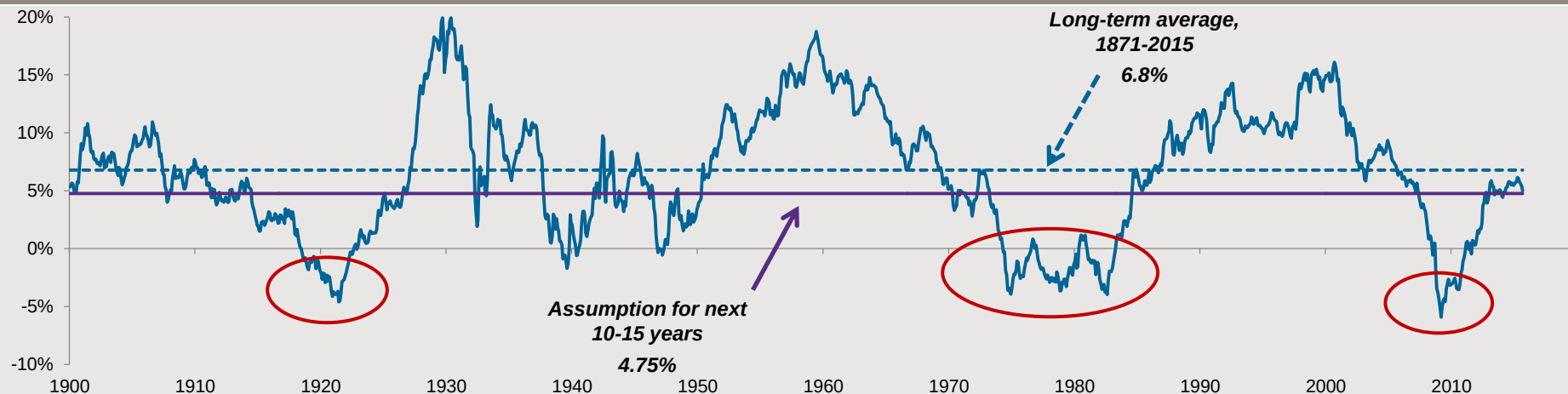
NON-U.S. EQUITY

- Valuations remain a negative driver across almost all developed markets.
- EMU and UK returns benefit from recovering margins. This is a change for the UK vs. last year, following a drop in earnings.
- All DMs continue to benefit from EM-sourced revenue growth in excess of domestic revenue growth.
- Japanese returns are boosted by an assumption that recent rise in margins and profitability can be maintained, but still short of Western level. This shows up as high buybacks.
- Non-US equity market returns boosted in USD terms due to assumption of falling USD going forward.
- Emerging markets revenue growth to decelerate amid weaker economic backdrop – but still well in excess of DM. Low aggregate valuations are now a positive return driver.

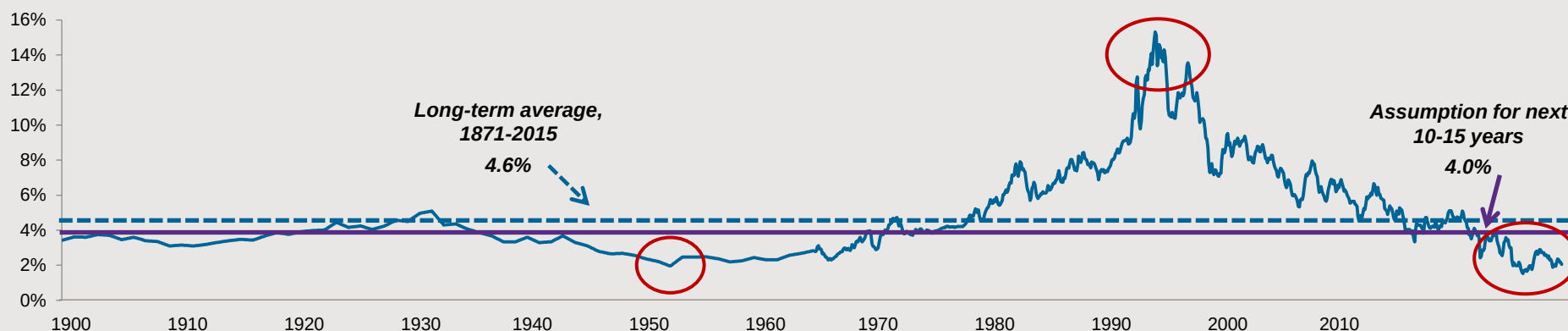
Source: J.P. Morgan Asset Management as of September 30, 2015. Opinions, estimates, forecasts, projections and statements of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice. There can be no guarantee they will be met.

Equity real returns and fixed income yields below long-term averages

U.S. LARGE CAP REAL TOTAL RETURN Trailing 10-year return (annualized)



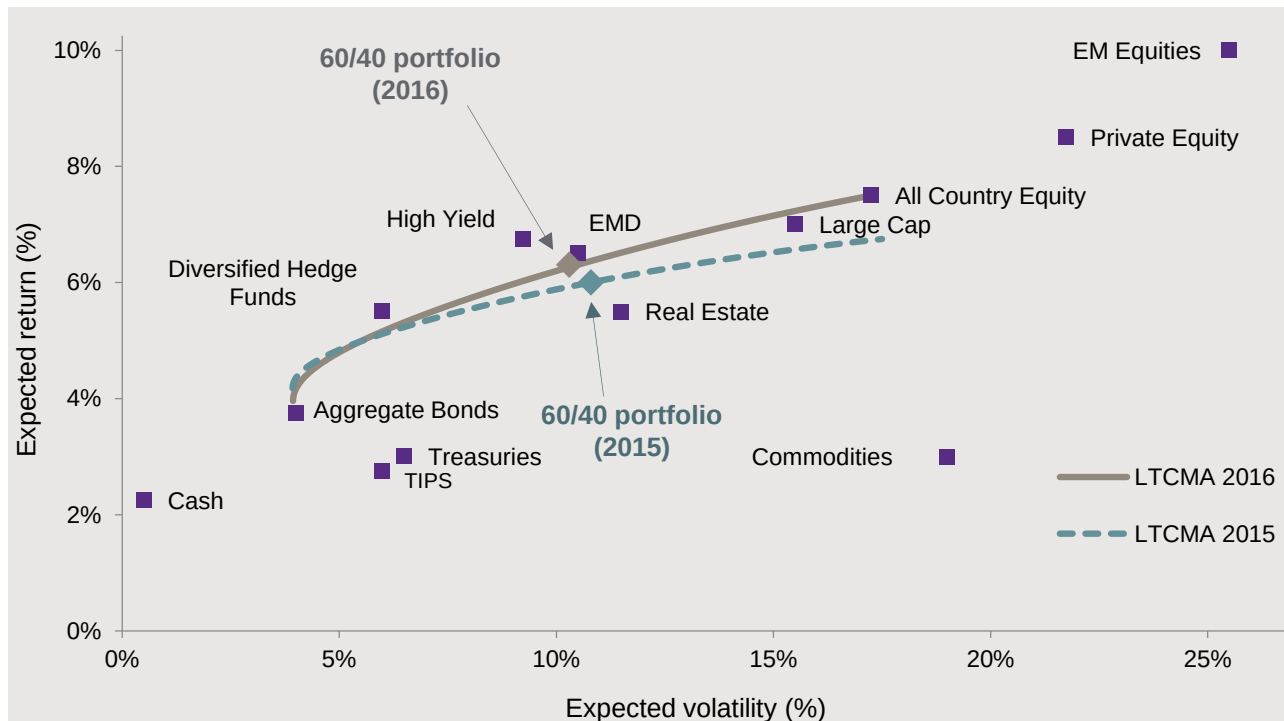
U.S. 10-YEAR INTEREST RATES (annualized)



Source: Professor Robert Shiller, J.P. Morgan Asset Management, monthly data from January 1890 to September 2015.

2016 vs. 2015 LTCMAs projected returns

EFFICIENT FRONTIERS AND 60/40 PORTFOLIOS



KEY FINDINGS

- For a 60/40 portfolio return expectations have improved somewhat compared to 2015
- Expected equity and credit risk premiums have increased from last year
- Investors with low risk appetite will face increasing headwinds as TIPS and Treasury return expectations barely exceed those of cash
- Return expectations for private equity and emerging markets suggest an improving entry point

Note: This is a projection used for illustrative purposes only and does not represent investment in any particular vehicle. References to future returns are not promises or even estimates of actual returns you may experience. Past performance is no guarantee of future results. It is not possible to invest directly in an index. Source: J.P. Morgan Asset Management, as of September 30, 2015.

Summary

- The current environment of modest real economic growth, very low inflation, and a rising US Dollar has virtually extinguished *nominal* global GDP growth measured in USD;
- The extended rally in USD has contributed meaningfully to a variety of market ailments: sluggish profit performance, falling commodity prices, underperforming non-US markets, and China FX policy risks;
- News flow is not all negative - amid hints of concern about US recession risk, Europe and Japan are showing signs of economic improvement in context of aggressive monetary stimulus and diminishing fiscal drag;
- US equity valuations appear to be 'Fair' or 'Full', yet still compare favorably with low bond yields using our proprietary Equity Risk Premium history;
- Although tactical positioning is still leaning toward US and European equities, other equity markets are quite cheap on fundamental valuations, signaling better potential returns;
- The coming peak in USD should unleash a series of equity opportunities – non-US equity (particularly Emerging Markets), commodity equities, and possibly selected underlying commodities
- J.P. Morgan Asset Management's strategic Long-Term Capital Market Assumptions call for reasonable favorable returns from public equity overall (and led by EM), but selected asset classes (private equity, high yield debt) appear particularly favorable within conventional bond-stock efficient frontier analysis

Source: J.P. Morgan Asset Management

Appendix

We remain positive stock-bond but don't expect a sharp rebound in risk appetite

Active view	Core view	Considerations	Conviction
Stock-Bond	Decent DM growth to support equities, put gradual upward pressure on yields	DM growth tracking OK, but renewed collapse in oil creates more winners vs. losers effects and holds down inflation expectations	Medium
DM vs. EM	DM equity outperforms EM equity	EM valuations becoming interesting, but near-term growth outlook still challenged and Fed may be a bigger headwind for EM than for U.S.	Medium
Duration	Neutral, with slight negative bias	Term premium remains very depressed; Fed tightening should put gradual upward pressure on real rates; risk-reward profile for underweight seems unappealing at current levels	Low: continue to explore case for playing duration from short side
Curve	The U.S. curve will flatten over the hiking cycle, but is unlikely to outpace forwards given slow pace of hikes	Upside surprise to inflation could see a temporary steepening, not a base case but may allow a re-entry to a flattener	Medium
Currency	Modest OW to USD; UW to EUR and JPY on policy stance	ECB disappointment has bolstered EUR; JPY may experience a similar phenomenon if BoJ throws in the towel	Medium, but USD valuation looks challenging
Credit	OW HY, Neutral IG, UW EMD	HY remains a "no-recession" story, with ongoing headwinds from energy collapse; EMD faces creditworthiness and Fed-tightening concerns	Medium: HY more about carry than tightening
Regional Equities	Favour U.S., Europe; dislike UK, Canada	Valuations rich in most markets, offering little RV signal; risk of growth bounce in Canadas	Medium
Commodities	UW on bulks and metals; neutral but cautious on energy	Capex cuts among miners likely to provide eventual support; oil rebalancing well under way but high inventories pose risk	Low

Source: J.P. Morgan Asset Management Multi-Asset Solutions; views as of January 2016.

The Multi-Asset Solutions Active Asset Allocation Views*

		Max negative	Neutral			Max positive		
Asset class	Opportunity set	Chg.	Neg.	Neut.	Pos.			
MAIN ASSET CLASSES	Equities/Bonds		○ ○ ○	○	●	○ ○ ○		
	Duration		○ ○ ○	●	○ ○ ○			
	Credit		○ ○ ○	○	●	○ ○ ○		
	Commodities		○ ○ ○	●	○ ○ ○			
	Cash		○ ○ ○	●	○ ○ ○			
REGIONAL PREFERENCE BY ASSET CLASS	EQUITIES	U.S.	○ ○ ○	○	●	○ ○ ○		
		Europe ex-UK	▲	○ ○ ○	○	●	○ ○ ○	
		UK		○ ○ ○	●	○ ○ ○		
		Japan	▼	○ ○ ○	●	○ ○ ○		
		Pacific ex-Japan		○ ○ ○	●	○ ○ ○		
		Emerging markets		○ ● ●	○	○ ○ ○		
		U.S. REITs		○ ○ ○	●	○ ○ ○		
	FIXED INCOME	U.S. bonds-short end		○ ○ ○	●	○ ○ ○		
		U.S. bonds-long end		○ ○ ○	●	○ ○ ○		
		Euro, core		○ ○ ○	●	○ ○ ○		
		Euro, periphery		○ ○ ○	●	○ ○ ○		
		UK bonds		○ ○ ○	●	○ ○ ○		
		Other DM bonds		○ ○ ○	○	● ○ ○		
		Investment grade		○ ○ ○	●	○ ○ ○		
		U.S. high yield	▼	○ ○ ○	○	● ○ ○		
		European high yield	▲	○ ○ ○	○	● ○ ○		
		EM debt	▼	○ ○ ○	●	○ ○ ○		
	FX	USD		○ ○ ○	○	● ○ ○		
		EUR	▼	○ ○ ○	●	○ ○ ○		
		GBP	▼	○ ○ ○	●	○ ○ ○		
		JPY		○ ○ ○	●	○ ○ ○		

Key portfolio themes

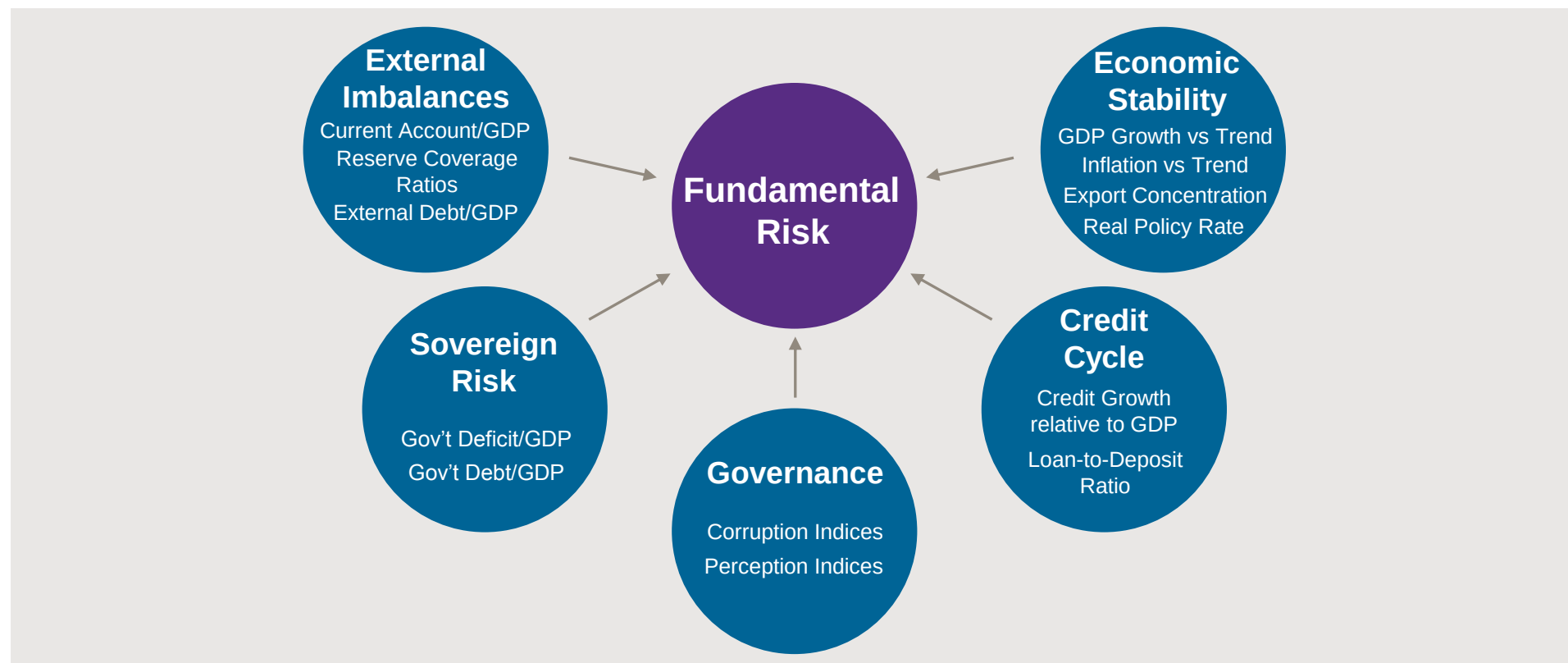
- Cautiously optimistic on stock-bond
- Duration neutral, scope for yields to drift upwards
- EU and U.S. preferred equity markets, EM still weak
- Parts of credit offer attractive carry
- Diversification critical, especially in extended credit
- USD strength eases in 2016, path is key to allocation

Source: JP J.P. Morgan Asset Management Multi-Asset Solutions; assessments are made using data and information up to 2 December 2015. For illustration purposes only.
 * These asset class views apply to an intermediate-term horizon (that is, 12- to 18- months). Up/down arrows indicate a positive (↑) or negative (↓) change in view since the prior thrice-yearly Strategy Summit. This summary of our individual asset class views shows absolute direction and strength of conviction, but is independent of portfolio construction considerations. These views should not be construed as a recommended portfolio.

China Risk details

Encapsulating fundamental macro risk: the EM Risk Scorecard

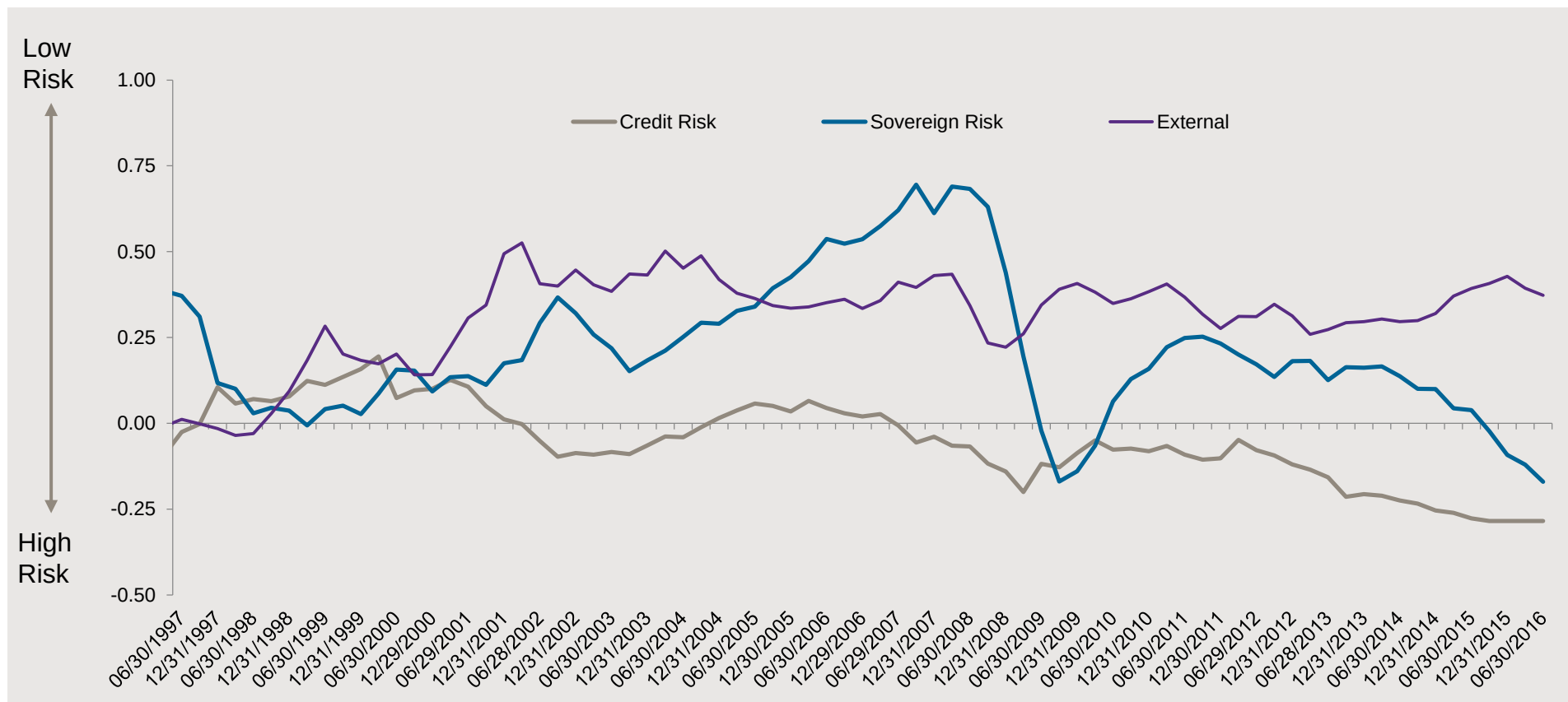
Quantifying fundamental EM risk by category



Source: J.P. Morgan Asset Management

China Macro risk by category

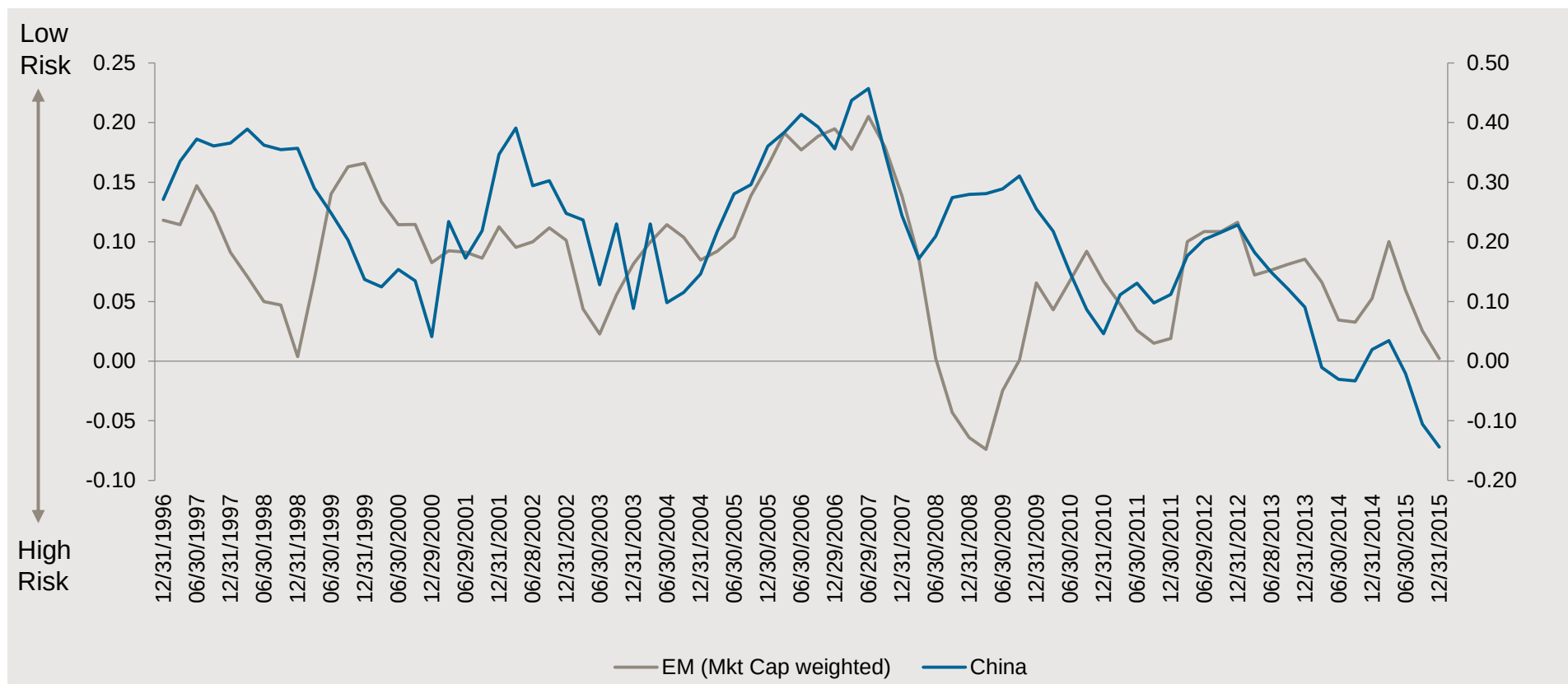
Driven by credit growth and impact on private sector balance sheets



Source: J.P. Morgan Asset Management. Oxford Economics, BIS, IMF, World Bank. Data as of December 2015

EM vs. China: Gauging fundamental Macro risk

China's macro risk score has deteriorated during the past three years



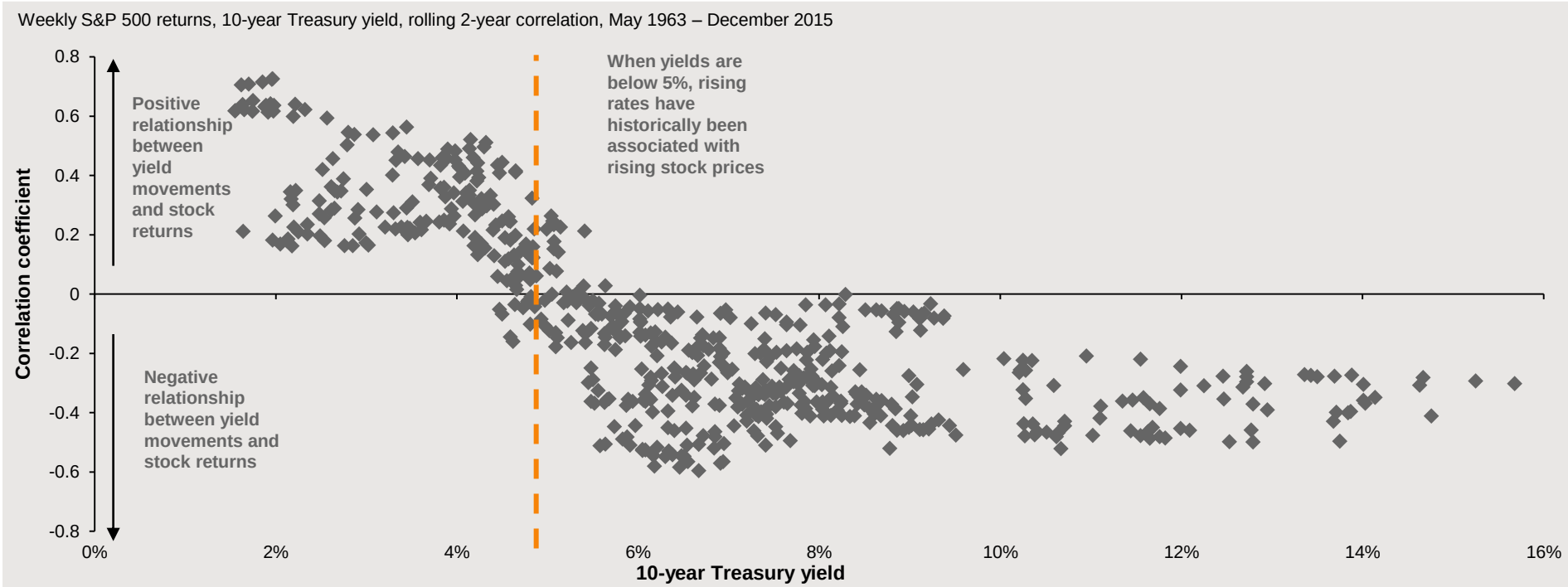
Source: J.P. Morgan Asset Management. Oxford Economics, BIS, IMF, World Bank. Data as of 31st December 2015

Appendix

Interest rates and equities

Interest rates and equities

Correlations between weekly stock returns and interest rate movements



Source: FactSet, S&P, FRB, J.P. Morgan Asset Management. Returns are based on price index only and do not include dividends. Markers represent monthly 2-year correlations only.

Guide to the Markets – U.S. Data are as of December 31, 2015

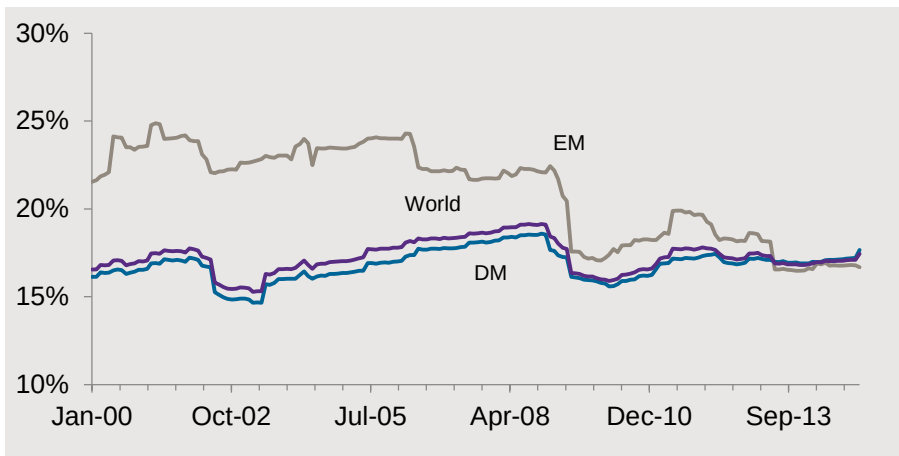
Corporate Profitability Fundamentals: DuPont Analysis

Return on Equity = (Profits/Sales) x (Sales/Assets) x (Assets/Equity)

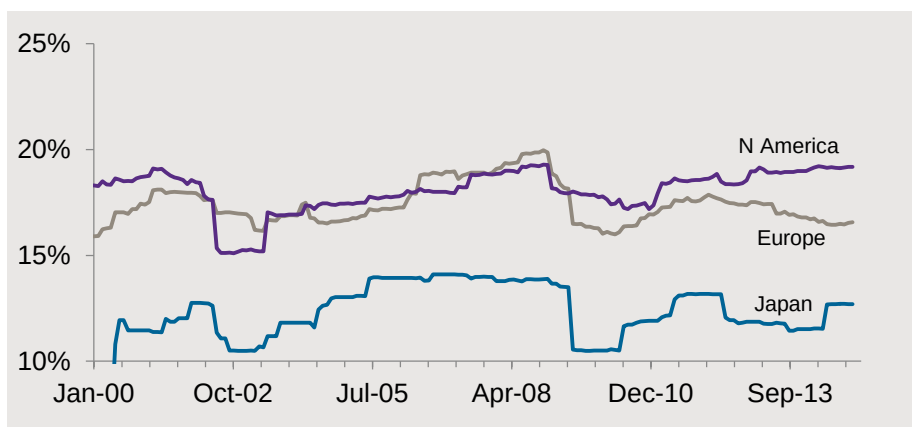
ROE = Margins x Turnover x Leverage

DuPont analysis: EBITDA Margins

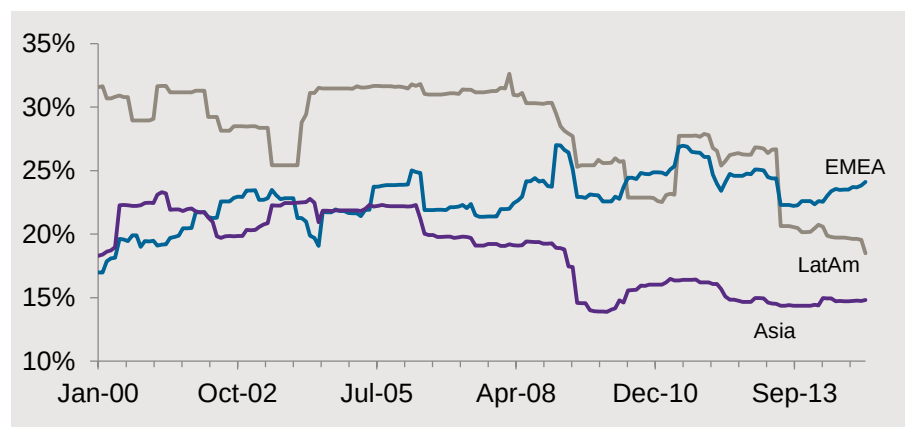
EBITDA Margins - World



EBITDA Margins - DM



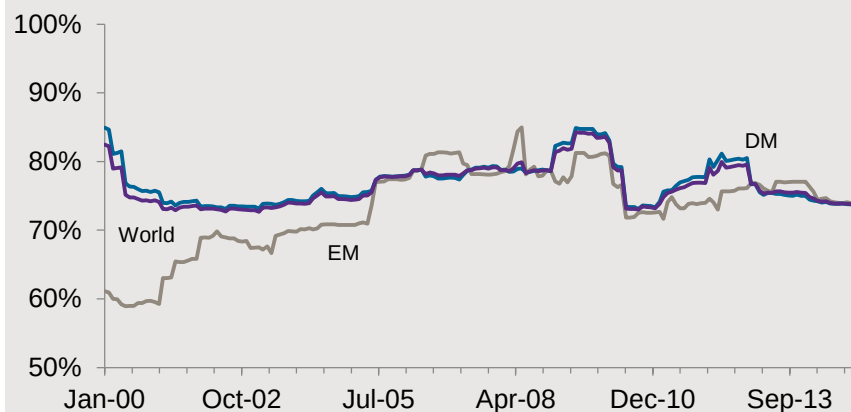
EBITDA Margins - EM



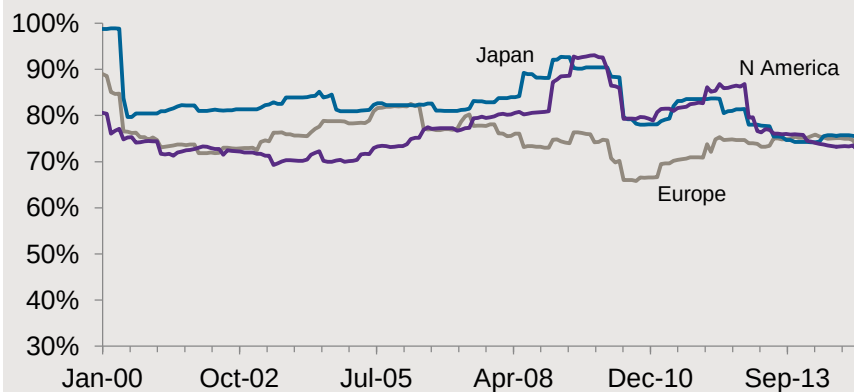
Source: MSCI, J.P. Morgan Asset Management. Data as of February 2015

DuPont analysis: Asset Turnover

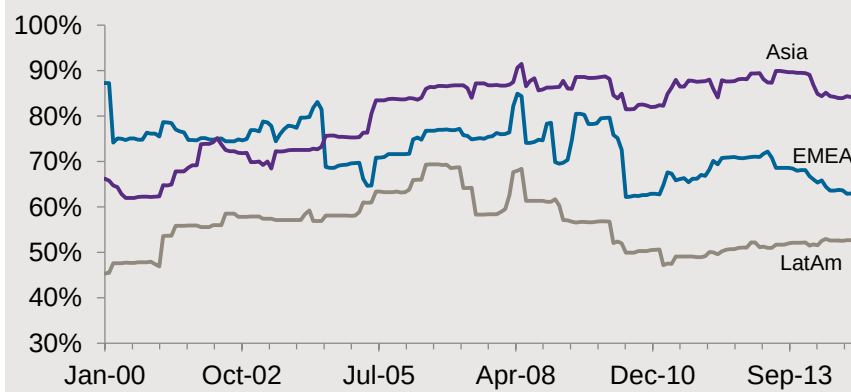
Asset Turnover - World



Asset Turnover - DM



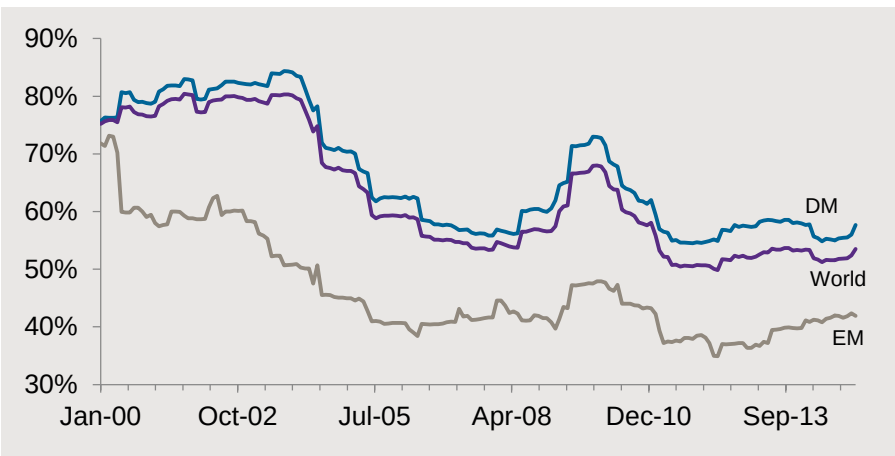
Asset Turnover - EM



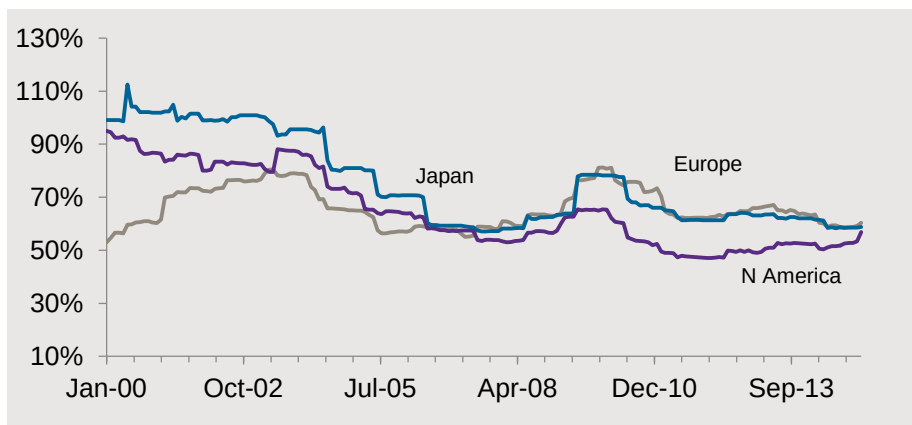
Source: MSCI, J.P. Morgan Asset Management. Data as of February 2015

DuPont analysis: Financial Leverage

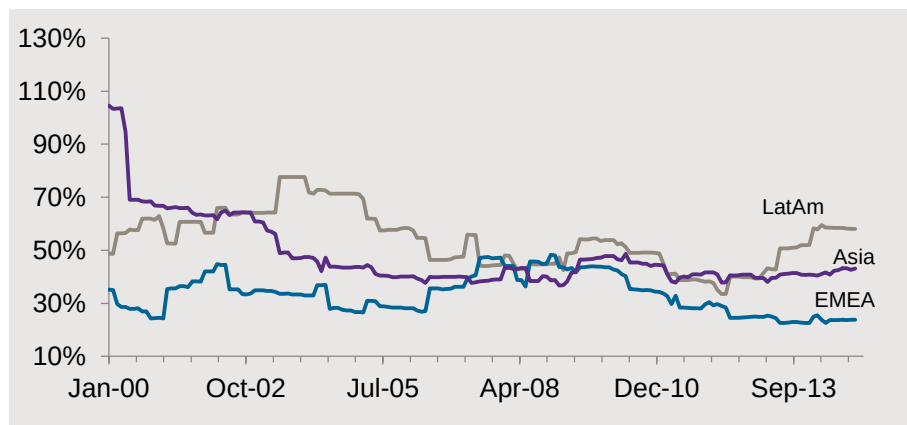
Financial Leverage - World



Financial Leverage - DM



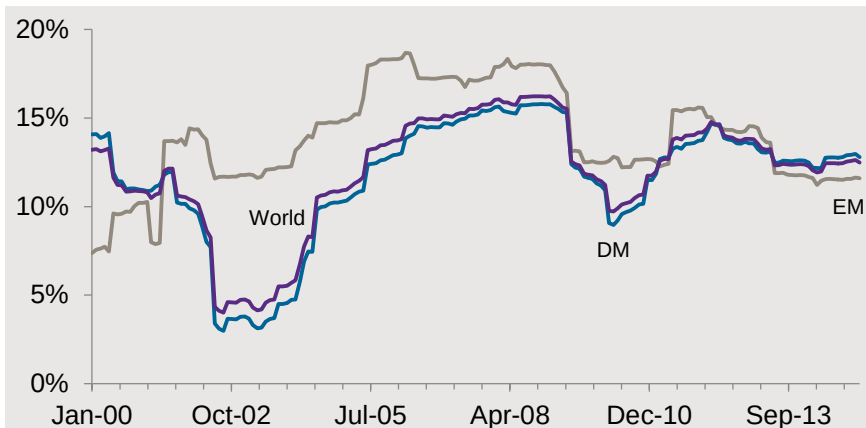
Financial Leverage - EM



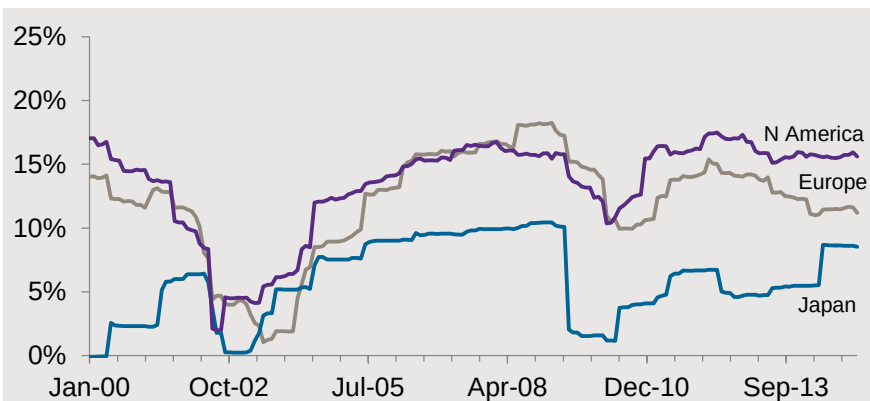
Source: MSCI, J.P. Morgan Asset Management. Data as of February 2015

DuPont analysis: Return on Equity

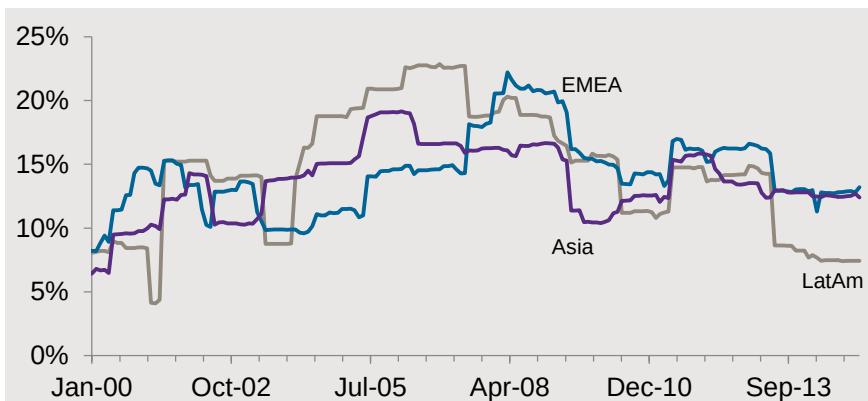
ROE - World



ROE - DM



ROE - EM

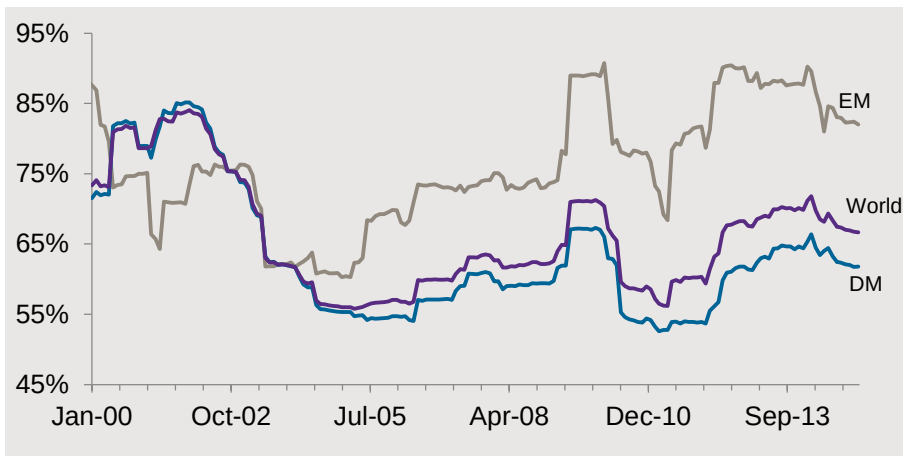


Source: MSCI, J.P. Morgan Asset Management. Data as of February 2015

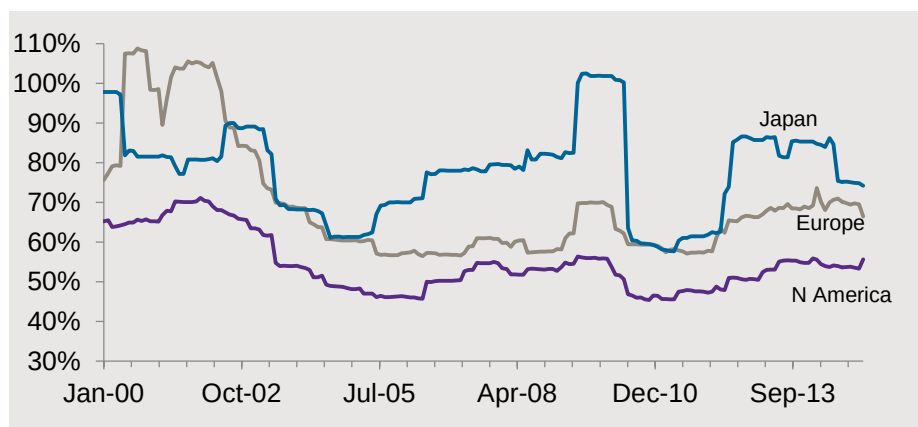
Corporate Income Statement Fundamentals

Sources and Uses of Cash: Cash Flow Reinvestment (Capex/Cash Flow)

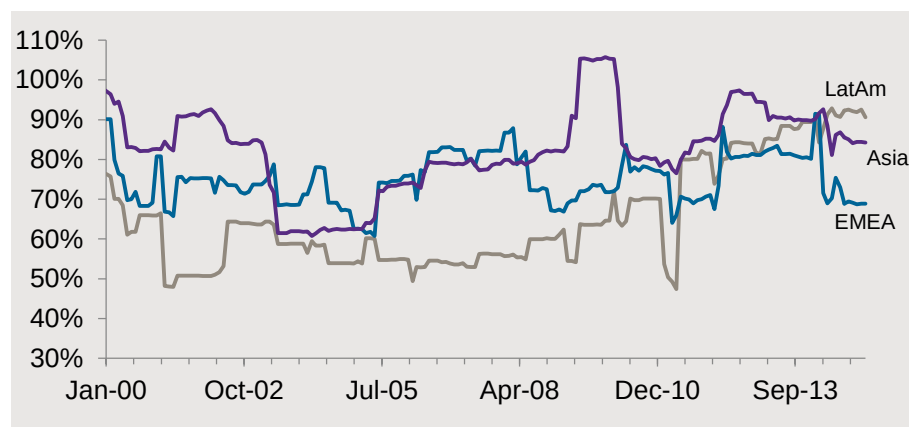
Cash Flow Reinvestment - World



Cash Flow Reinvestment - DM



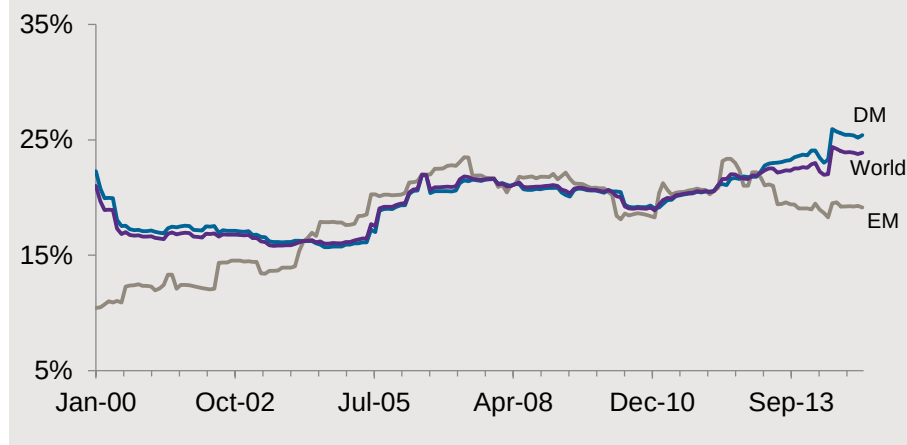
Cash Flow Reinvestment - EM



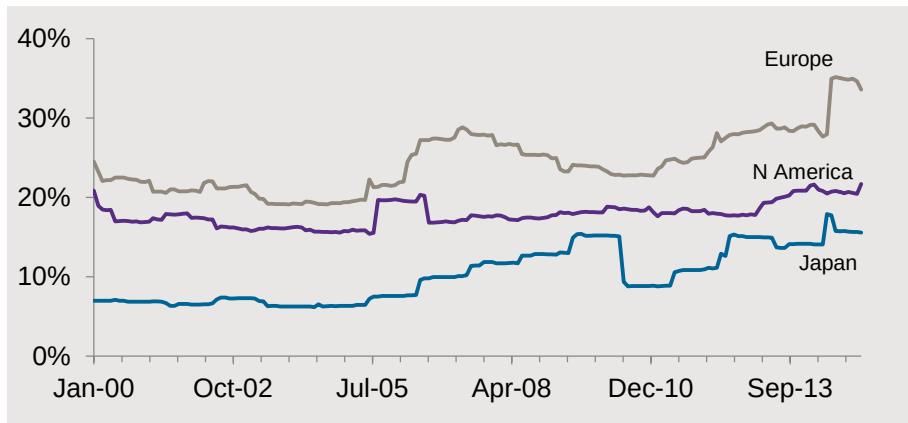
Source: MSCI, J.P. Morgan Asset Management. Data as of February 2015

Sources and Uses of Cash: Cash Flow Payout (Dividends/Cash Flow)

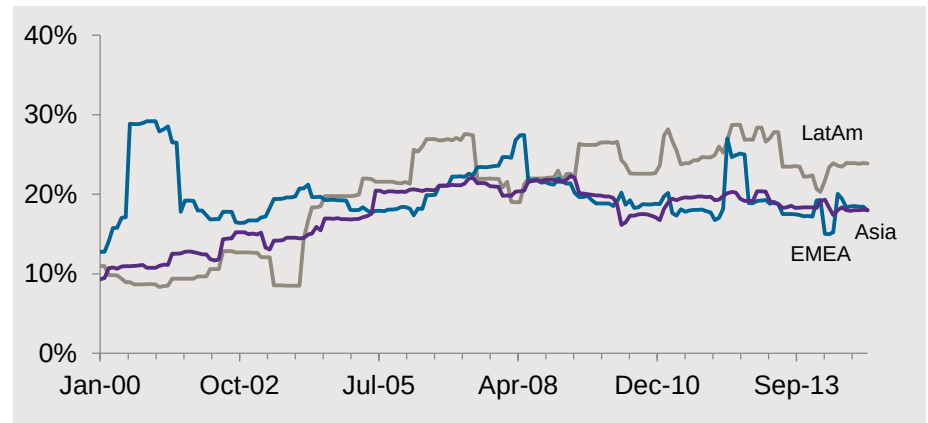
Cash Flow Payout - World



Cash Flow Payout - DM



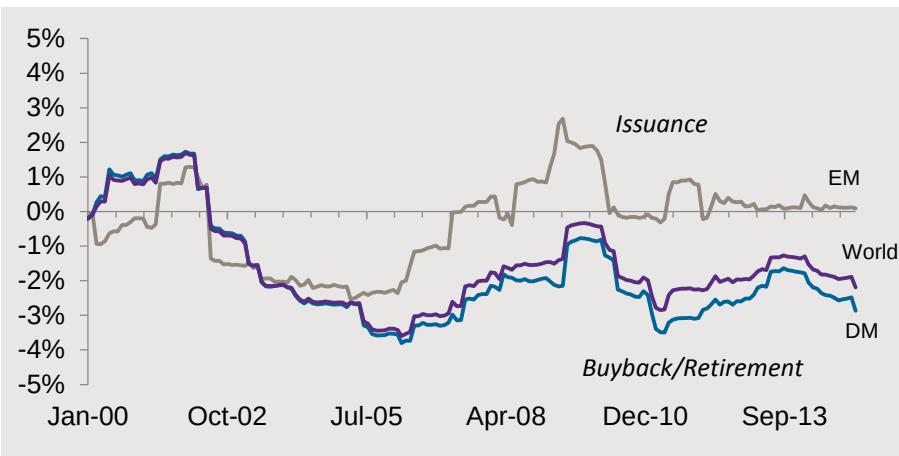
Cash Flow Payout - EM



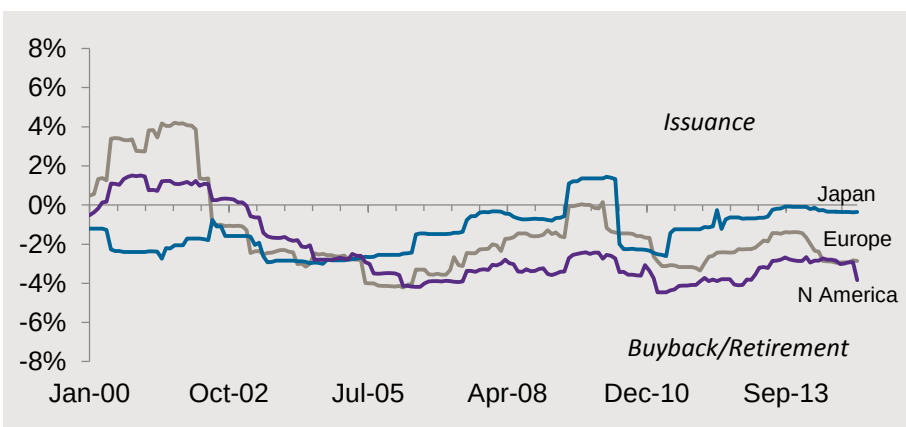
Source: MSCI, J.P. Morgan Asset Management. Data as of February 2015

Sources and Uses of Cash: 'Paper Issuance' (Equity+Debt issuance/Total Assets)

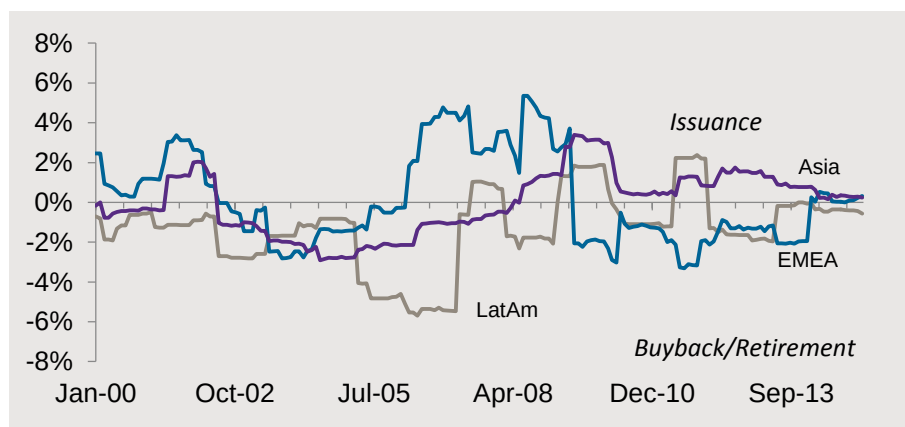
'Paper Issuance' - World



'Paper Issuance' - DM



'Paper Issuance' - EM



Source: MSCI, J.P. Morgan Asset Management. Data as of February 2015

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Schroders: A Multi-Asset Perspective On Global Equity Markets

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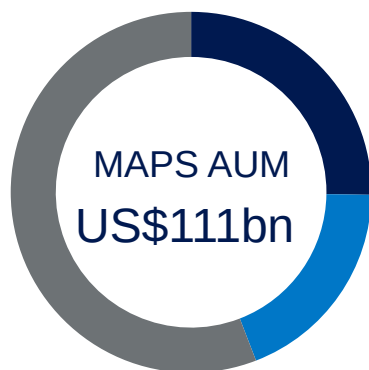


Schroders

Multi-Asset Investments and Portfolio Solutions (MAPS)

Global team managing \$111 billion

- Managing multi-asset mandates since 1947
- Diversified business managing US\$111 billion which represents over 25% of group AUM
- Over 110 investment professionals globally in London, New York, Zurich, Hong Kong, Singapore and Sydney



Risk-Controlled Growth Investment team
London and New York (\$49 billion)

- Risk-Controlled Growth (\$21 billion)
- Balanced (\$28 billion)

First mandate by country*:

1947	UK
1978	Hong Kong
1980	Switzerland
1990	Australia
2007	USA
2011	Canada
2012	Brazil
2012	China

Source: Schroders as of September 30, 2015.

*Abridged list.

Multi-Asset Investments and Portfolio Solutions

Well resourced global team of over 100 professionals

Nicolaas Marais, PhD CFA
Head of Multi-Asset Investments and Portfolio Solutions

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		Risk L. Sigalos PhD G. Chouette** L. Edwards V. Orti K. Sydor		

Source: Schroders, December 2015. Team members in bold are part of the management committee. *Global Alternative Investment Access. ** Consultant

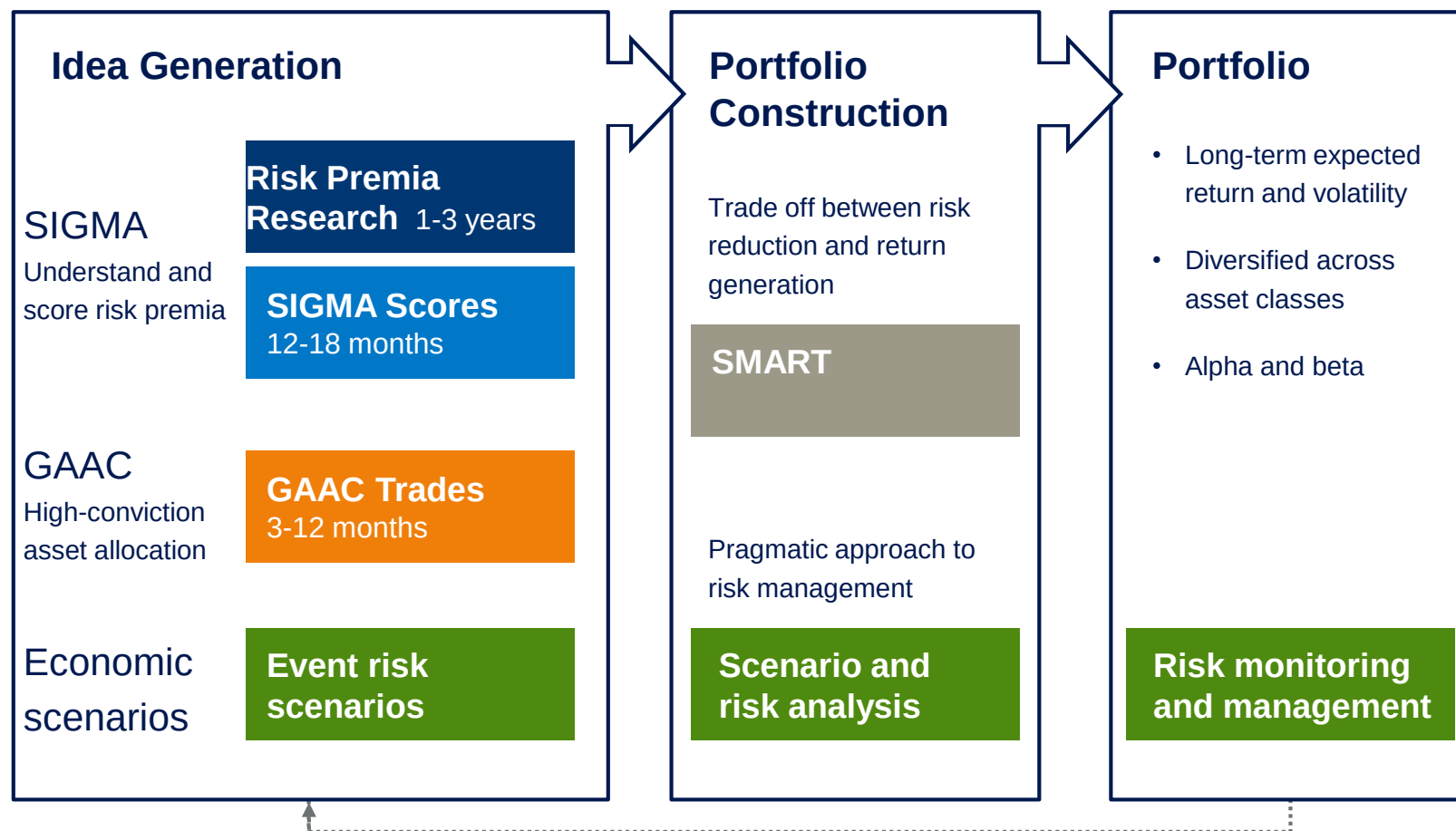
Accessing Risk Premia



Schroders

A focused investment process

Drawing on the full resources of Schroders



Source: Schroders, as of 31 December 2015. Strategic Investment Group Multi-Asset ("SIGMA"). Global Asset Allocation Committee ("GAAC"). Schroder Multi-Asset Risk Technology ("SMART")

Strategic Investment Group Multi-Asset (“SIGMA”)

Understand and score risk premia

Risk Premia Research Groups

Quantitative and qualitative research by over 45 investors globally

Credit	Commodity	Currency	Equity	Inflation	Strategies	Term	Volatility
Team of 8	Team of 7	Team of 12	Team of 13	Team of 4	Team of 11	Team of 13	Team of 12

Risk Premia Research

- In-depth research to better understand the risk premia that drive markets
- Identify and improve access to different risk premia
- 1 to 3 years time horizon

SIGMA Scores

- Each team scores its own risk premia
- 12-18 month time horizon

Source: Schroders, as of 31 December 2015. Some professionals are members of more than one risk premia group.

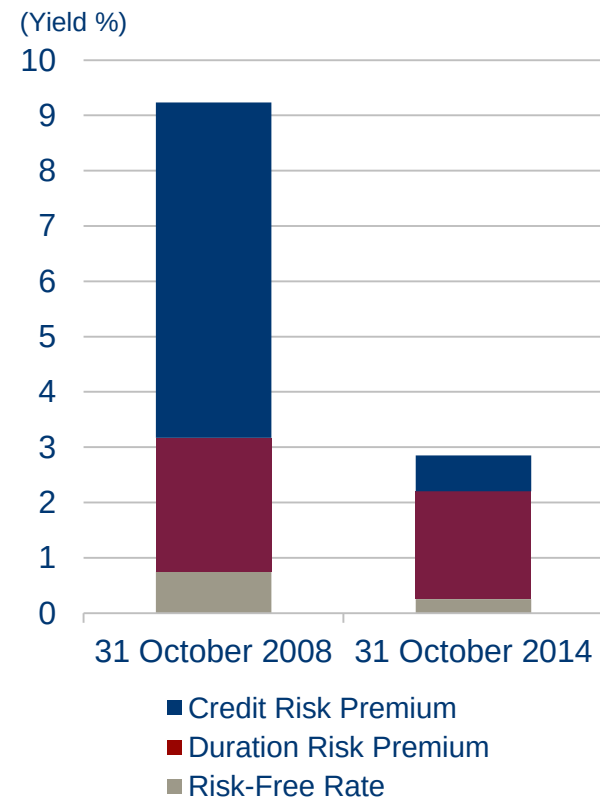
From asset classes to risk premia

Understanding real drivers of risk and return

Breaking an asset class down into risk premia

- **Risk premium**
Expected return for assuming a source of risk
- **Risk premia**
Building blocks of asset classes
- **Asset classes**
Composed of one or more risk premia

Example: US investment grade credit



Source: BAML, as of October 31, 2014. US Investment Grade Credit is represented by BAML US Corporate Master Index, Term Premium is calculated using BAML US 7-10 year Treasury Index. Shown for illustrative purposes only and should not be viewed as a recommendation to buy/sell.

Equity Risk Premia: A Multi-Asset View

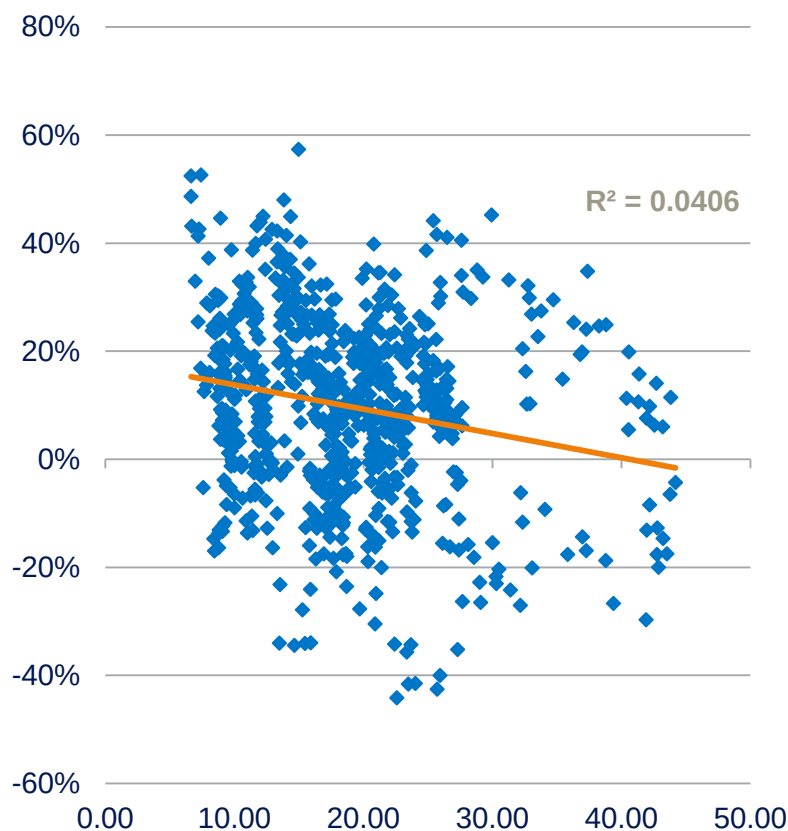


Schroders

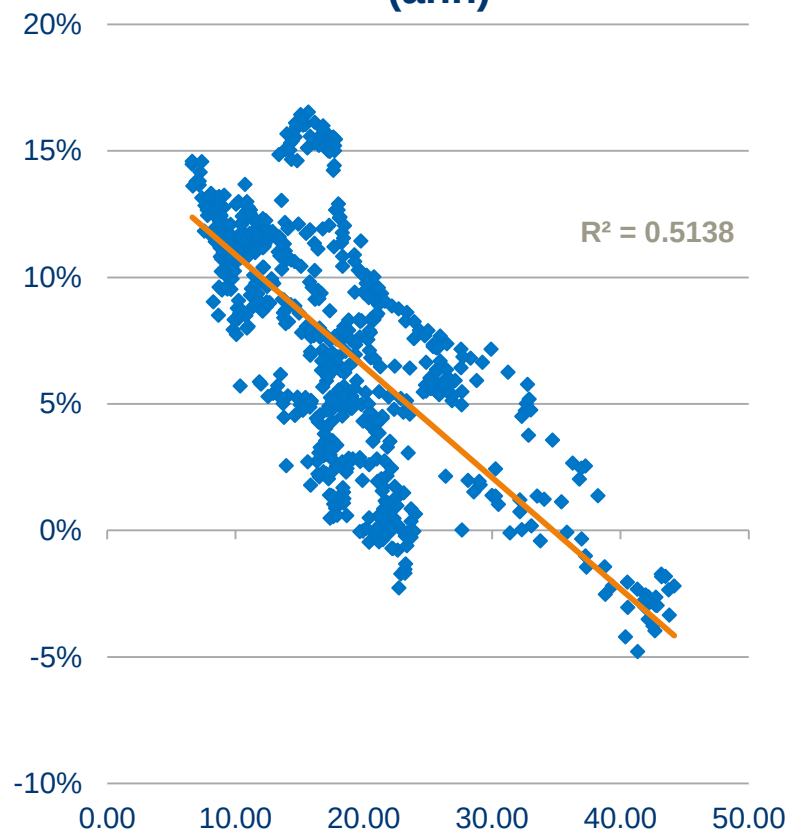
Forecasting returns is an art not a science

Consistent forecasting is inherently difficult

Shiller PE vs. subsequent 1yr returns



Shiller PE vs. subsequent 10yr returns
(ann)



Source: Professor Shiller's personal website <http://www.econ.yale.edu/~shiller/>. Monthly data from Jan 1950 to Dec 2014 for 1Y returns chart and to Dec 2004 for 10Y returns chart. The views and opinions are those of the Multi-Asset team and may change. This should not be viewed as a recommendation to buy/sell. Actual results would vary.

Equity risk premium (ERP)

Our scores

	Valuation	Momentum	Cyclical/Qualitative	Overall
Equity	0	0	0	0
US	0	0	+	+(0)
UK	0	-	0	0
Europe x UK	0	-	0(+)	0(+)
Japan	0	+	0	0
Emerging Markets (EM)	0	-	-	-
Strategies				
US Small cap premium	0	0	0	0
UK Small cap premium	0	+	+	+
EU Small cap premium	-	+	0	0
Minimum volatility	-	+	+	+
Value	0	0	-	0
Quality	-	+	+	+

Source: Schroders, as of 2016-1-31. The views and opinions are those of the Multi-Asset team and may change. This should not be viewed as a recommendation to buy/sell. Actual results would vary.

Equity risk premium

Developed Market (DM) ERP fair compared to EM and history

	Current ERP	ERP zscore	
Global Equities	6.1%	0.62	
United States	6.1%	0.40	
Canada	6.5%	0.88	
Europe x UK	6.5%	0.62	
France	6.1%	-0.28	
Germany	6.8%	0.90	
Italy	6.4%	0.01	
Spain	7.9%	0.50	
Switzerland	6.1%	1.20	
United Kingdom	6.8%	0.15	

	Current ERP	ERP zscore	
Asia Pac x Japan	8.2%	1.08	
Australia	6.9%	0.90	
Hong Kong	9.8%	0.88	
Singapore	4.0%	-0.49	
Japan	4.9%	1.12	
Emerging Mkts	3.2%	-0.71	
Brazil	-1.9%	-1.04	
China	8.2%	-1.09	
India	4.9%	-0.63	
Mexico	3.0%	-0.65	
Russia	-0.7%	-1.19	
South Africa	2.0%	-1.81	
South Korea	5.8%	0.23	
Taiwan	8.5%	1.37	
Turkey	-2.2%	-0.68	

Source: Bloomberg, Datastream, Schroders; Data as of 2016-1-31. The views and opinions are those of the Multi-Asset team and may change. This should not be viewed as a recommendation to buy/sell. Actual results would vary.

Equity risk premium

Earnings momentum is weak but improving

Equity Momentum Scoreboard

29/01/2016

	PRICE MOMENTUM			EARNING Revision			MOMENTUM	
	3m overview	12m -1m	1m Chg	3m overview	(U-D)/(U+D)	1m Chg	Overall Rank	
WORLD AC		-4%			-28%		9	↑
USA		1%			-29%		8	↑
CANADA		-13%			-34%		17	↓
EUROPE EX UK		1%			-21%		5	↓
FRANCE		1%			-33%		10	↑
GERMANY		-3%			-34%		12	→
ITALY		4%			-25%		5	↑
SPAIN		-7%			-34%		15	→
SWITZERLAND		6%			-19%		2	↑
UK		-9%			-36%		16	↑
PAC EX JP		-13%			-39%		23	→
AUSTRALIA		-7%			-29%		12	↓
HONG KONG		-9%			-43%		19	→
JAPAN		8%			-8%		1	→
EM		-18%			-32%		17	↑
BRAZIL		-12%			-38%		19	↑
CHINA		-12%			-40%		22	→
INDIA		-8%			-44%		19	↑
MEXICO		3%			-7%		3	→
RUSSIA		4%			-21%		4	↓
SOUTH AFRICA		-8%			-28%		11	↑
KOREA		-4%			-23%		7	↓
TAIWAN		-12%			-24%		14	→

Source: Bloomberg, Datastream, Schroders; Data as of 2016-1-31. The views and opinions are those of the Multi-Asset team and may change. This should not be viewed as a recommendation to buy/sell. Actual results would vary.

Equity risk premium

Absolute valuations are between fair and cheap

Composite valuation dashboard

ERP Value Scoreboard

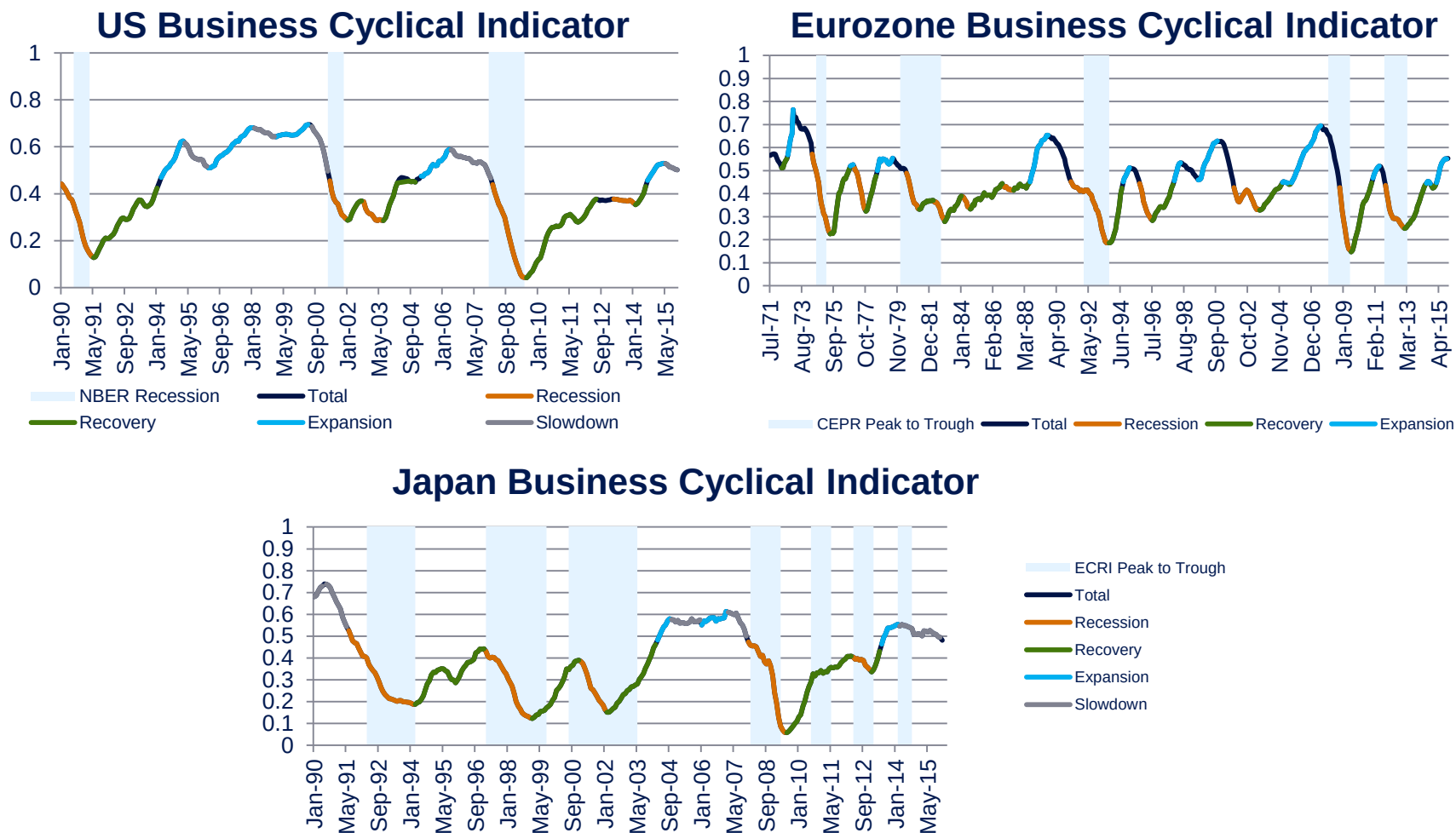
31/01/2016

	CAPE			P/E			P/B			12M Fwd PE			DY			VALUE OVERALL
	Level	1M Change	Range	Level	1M Change	Range	Level	1M Change	Range	Level	1M Change	Range	Level	1M Change	Range	Percentile
WORLD AC	21.6	0.0	■	17.3	-1.0	■	1.9	-0.1	■	14.0	-1.4	■	2.7	0.1	■	73% ↑
USA	23.2	-1.4	■	19.5	-1.1	■	2.6	-0.2	■	15.2	-1.6	■	2.3	0.1	■	67% ↑
CANADA	17.7	-0.3	■	20.0	-0.3	■	1.6	0.0	■	13.0	-1.4	■	3.3	0.1	■	83% ↑
EUROPE EX UK	17.6	0.0	■	17.9	-1.3	■	1.7	-0.1	■	13.8	-1.4	■	3.3	0.2	■	65% ↑
FRANCE	15.8	-0.7	■	20.1	-1.1	■	1.4	-0.1	■	13.4	-1.2	■	3.3	0.2	■	63% ↑
GERMANY	16.5	-1.6	■	15.7	-1.7	■	1.6	-0.2	■	11.8	-1.2	■	3.0	0.3	■	71% ↑
ITALY	10.5	-1.5	■	25.9	-3.9	■	0.9	-0.1	■	12.6	-1.8	■	3.5	0.5	■	61% ↑
SPAIN	10.7	-0.9	■	14.7	-1.2	■	1.2	-0.1	■	11.8	-1.2	■	5.2	0.0	■	77% ↑
SWITZERLAND	20.7	-1.2	■	17.2	-1.1	■	2.4	-0.2	■	15.9	-1.4	■	3.3	0.2	■	74% ↑
UK	12.8	-0.3	■	15.4	-0.7	■	1.7	-0.1	■	14.4	-0.9	■	4.4	0.2	■	72% →
PAC EX JP	17.3	0.0	■	12.8	-1.0	■	1.4	-0.1	■	13.6	-1.1	■	4.7	0.3	■	90% ↑
AUSTRALIA	15.8	-1.0	■	14.5	-1.0	■	1.6	-0.1	■	14.5	-1.0	■	5.4	0.3	■	86% ↑
HONG KONG	16.5	-1.8	■	10.5	-1.0	■	1.1	-0.1	■	12.9	-1.2	■	3.3	0.3	■	84% ↑
SINGAPORE	11.6	-1.2	■	11.2	-1.1	■	1.0	-0.1	■	10.9	-1.0	■	4.6	0.3	■	97% →
JAPAN	23.6	-2.0	■	14.8	-1.2	■	1.3	-0.1	■	12.7	-1.4	■	2.1	0.2	■	83% ↑
EM	13.1	-0.8	■	12.7	-0.7	■	1.3	-0.1	■	10.4	-0.9	■	3.0	0.1	■	85% ↑
BRAZIL	9.5	-0.6	■	16.0	-1.0	■	1.1	-0.1	■	8.7	-1.2	■	4.5	-0.1	■	63% ↑
CHINA	11.4	-1.7	■	9.7	-1.2	■	1.2	-0.2	■	9.4	-1.2	■	3.1	0.4	■	85% ↑
INDIA	24.8	-1.3	■	21.6	-1.1	■	3.1	-0.1	■	16.0	-1.1	■	1.5	0.1	■	46% ↑
MEXICO	25.2	0.4	■	28.1	0.5	■	2.7	0.1	■	16.0	-1.5	■	1.5	0.0	■	35% →
RUSSIA	7.1	0.1	■	7.9	0.1	■	0.6	0.0	■	4.2	-0.6	■	4.8	-0.1	■	86% →
SOUTH AFRICA	23.5	-0.5	■	17.6	-0.2	■	2.3	0.0	■	13.3	-1.6	■	3.1	0.0	■	44% ↑
KOREA	11.9	-0.5	■	10.5	-0.4	■	0.9	0.0	■	9.8	-0.3	■	1.6	0.1	■	71% ↑
TAIWAN	17.2	-0.7	■	11.5	-0.4	■	1.6	-0.1	■	11.1	-0.6	■	4.4	0.1	■	94% →

Source: Bloomberg, Datastream, Schroders; Data as of 2016-1-31. The views and opinions are those of the Multi-Asset team and may change. This should not be viewed as a recommendation to buy/sell. Actual results would vary.

Equity risk premium

Revised Cycle Indicators shows manufacturing-led deterioration

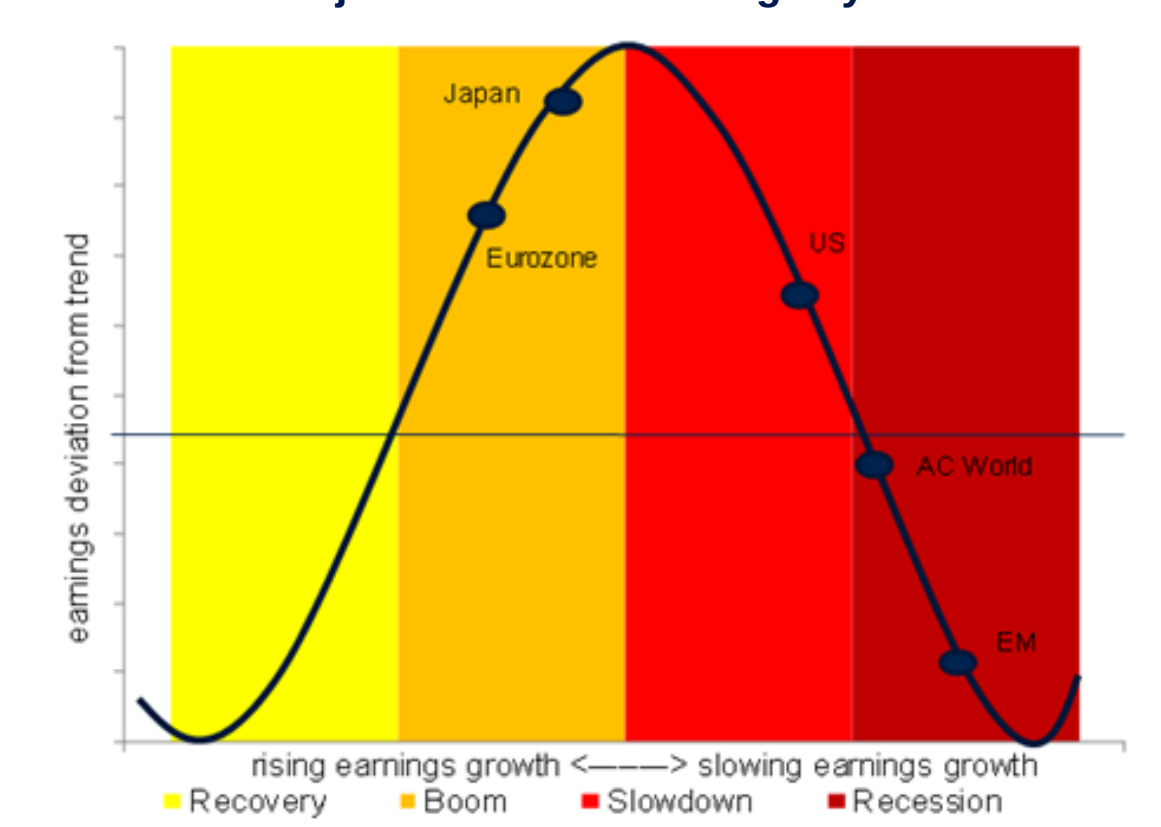


Source: Bloomberg. All charts from Jan 1990 to Jan 2016. Original chart data starts from June 1951 (US), Jan 1970 (EU) and Jan 1955 (JP).

Equity risk premium

Where are we in the earnings cycle?

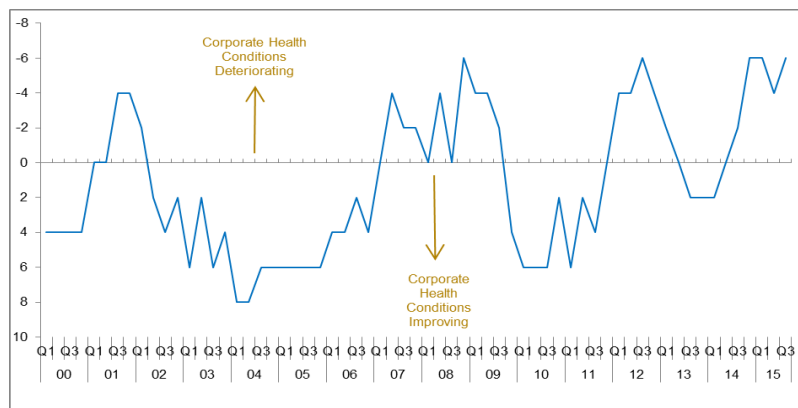
Major markets in earnings cycle



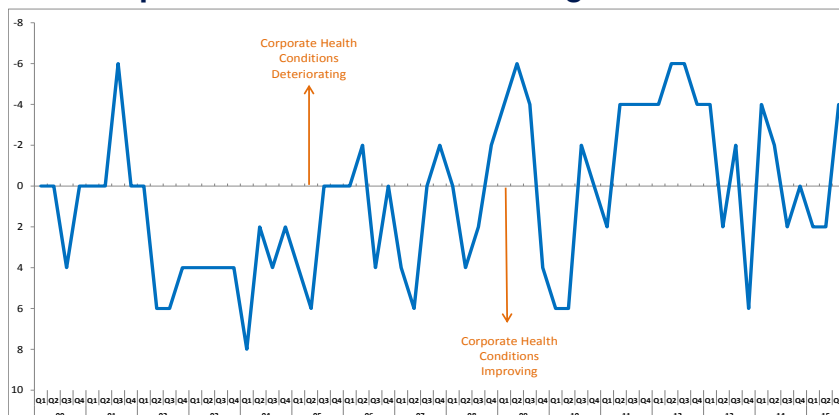
Source: Schroders, Thomson Datastream, I/B/E/S, 2/3/2016. All earnings are looked at in local currency terms, monthly data. Performance shown is past performance. Past performance is not a guide to future performance. The value of investments can go down as well as up and is not guaranteed. Actual results would vary

Corporate Health

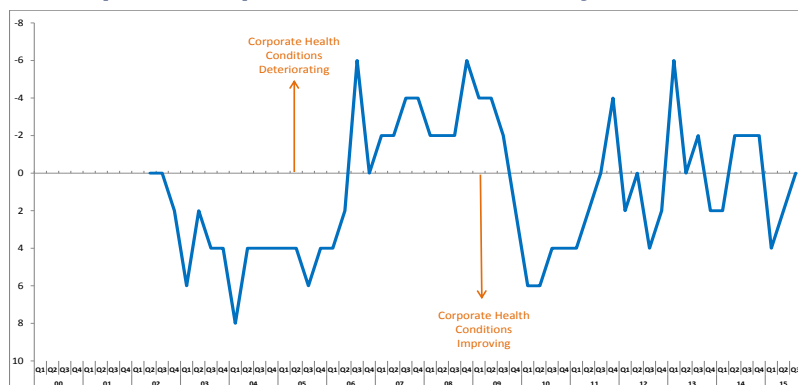
US Corporate Health is deteriorating



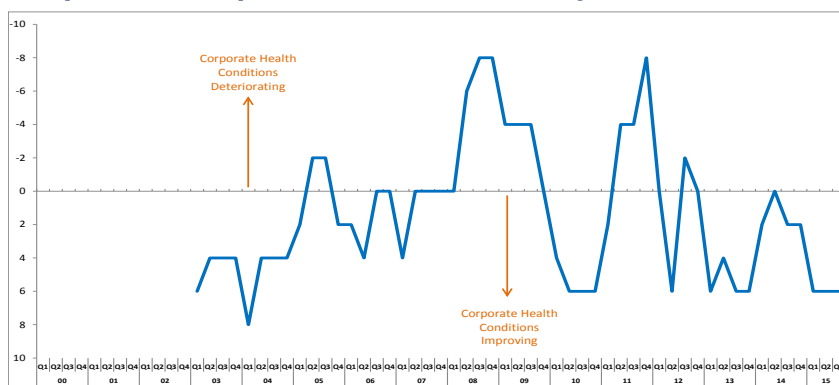
EM Corporate Health is deteriorating



European Corporates are still healthy



Japanese Corporates are still healthy

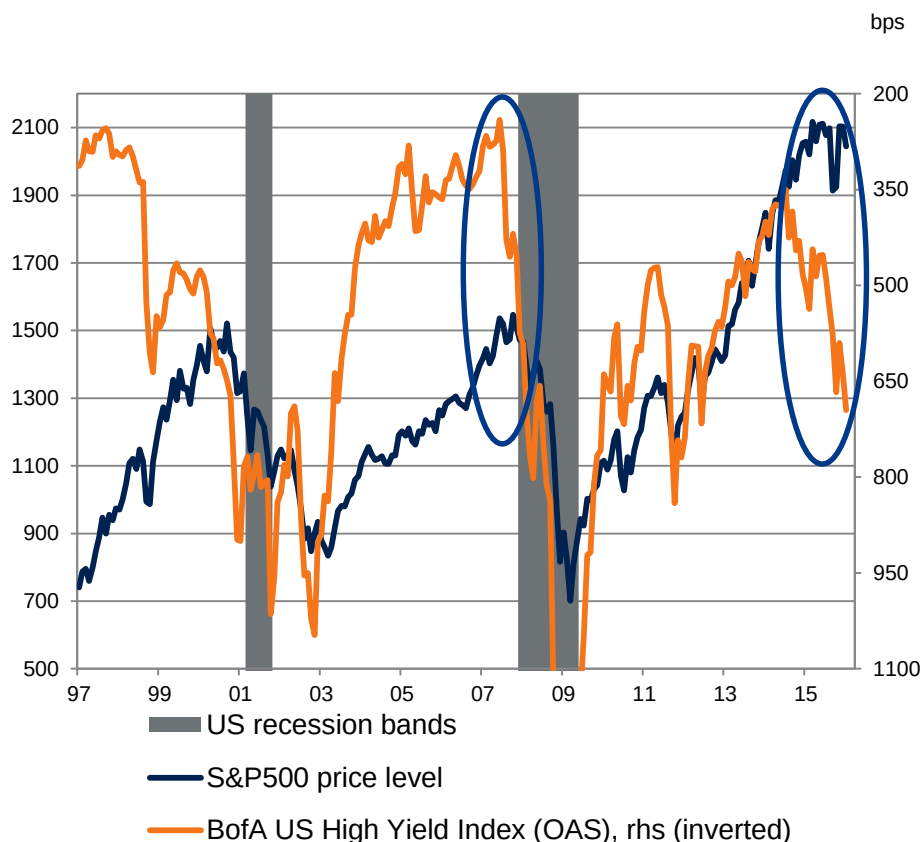


Source: Bloomberg, Datastream, Schroders; Data as of 2016-1-31. The views and opinions are those of the Multi-Asset team and may change. This should not be viewed as a recommendation to buy/sell. Actual results would vary.

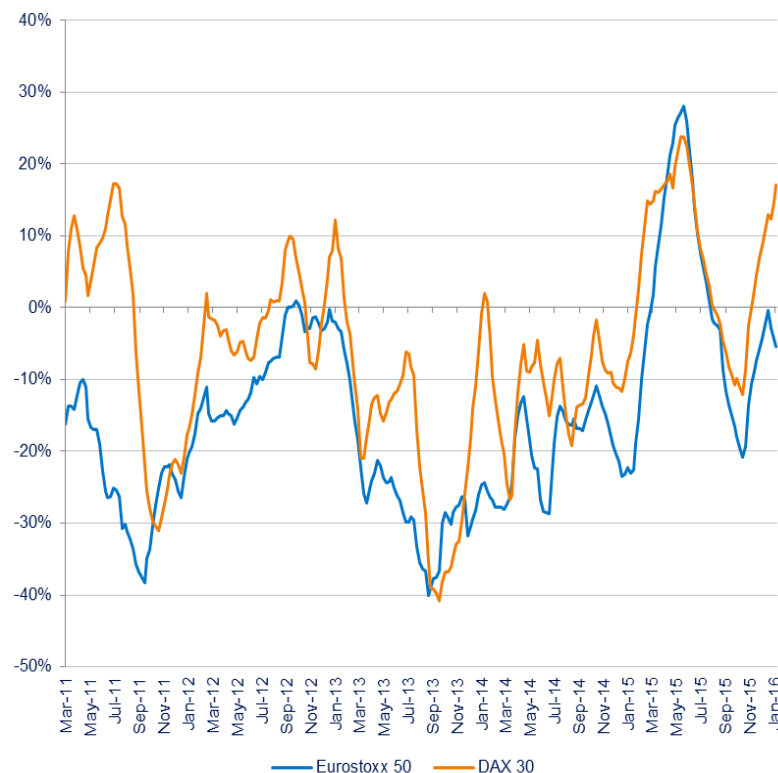
Equity risk premium

Positive on US but neutral on Eurozone

US HY Spread vs. US Equities



Eurozone Earnings Revisions Ratio rel. to MSCI World

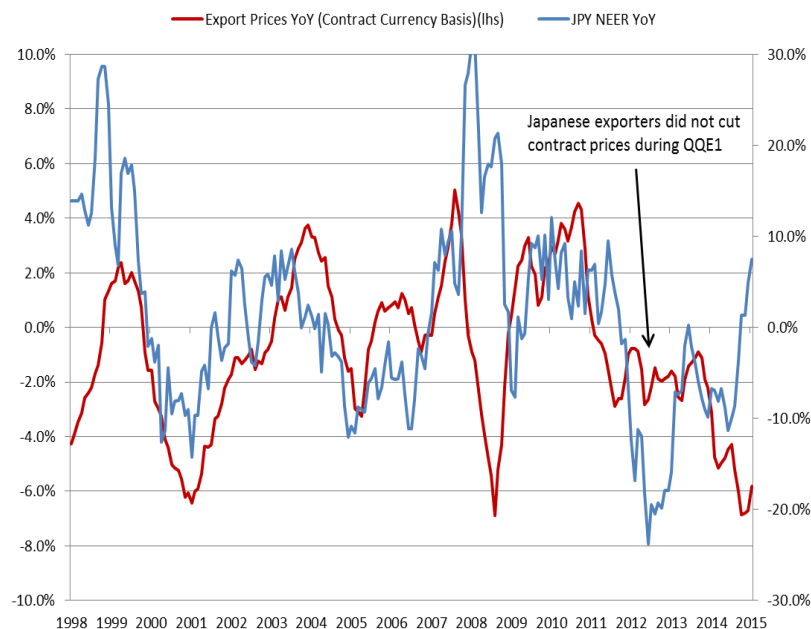


Source: LHS Charts Thomson DataStream, Schroders, BofA Merrill Lynch. Goldman Sachs Strategy baskets. Monthly data to the period ending 06/01/2016. RHS Chart DataStream weekly data from March 2011 to Jan 2016. ERR > 0 denotes more earnings upgrades than downgrades. The views and opinions are those of the Multi-Asset team and may change. This should not be viewed as a recommendation to buy/sell.

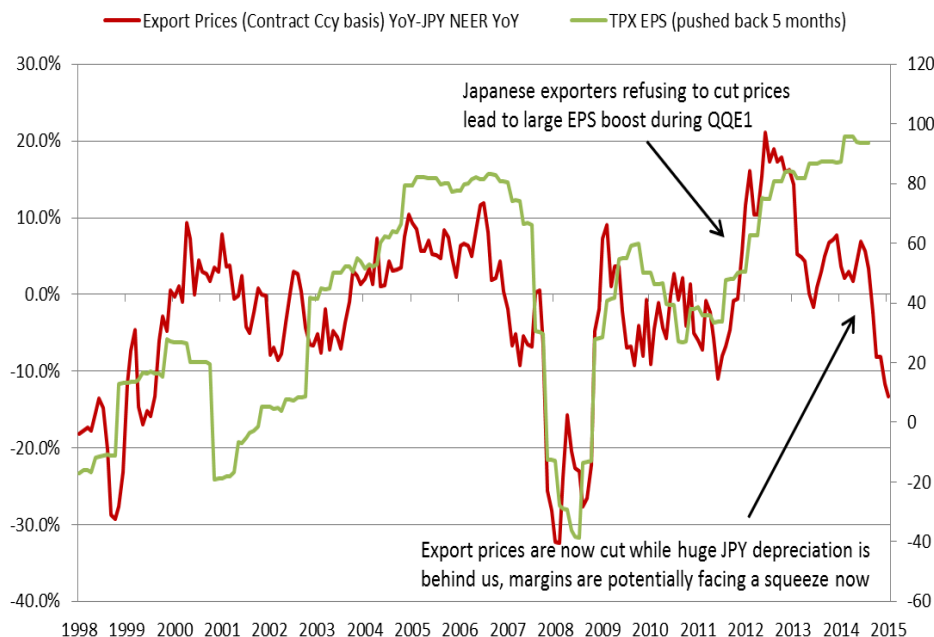
Equity risk premium

Margins under pressure as weak yen fades

Japanese export prices cut while JPY NEER rises



Earnings boost from weak JPY behind us, all else equal



Source: Bloomberg, Schroders, January 2016. NEER is the Nominal Effective Exchange Rate. The views and opinions are those of the Multi-Asset team and may change. This should not be viewed as a recommendation to buy/sell. Actual results would vary.

Equity risk premium

EM view: Negative for now

Current EM slowdown framed against past EM corrections

	Duration	EM Index			EM Asia			EMEA			LatAM		
Negative Events	in mths	USD %	Local Ccy %	P/E	USD %	Local Ccy %	P/E	USD %	Local Ccy %	P/E	USD %	Local Ccy %	P/E
1994 Surprise Rate hike	3	-12%	2%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1995 growth slows	5	-25%	-20%	20.9	-14%	n.a.	21.4	n.a.	n.a.	n.a.	-40%	n.a.	23.0
1997/98 EM Crisis	13	-56%	-45%	4.0	-67%	n.a.	5.9	n.a.	n.a.	1.4	-51%	n.a.	5.7
2001-03 Multiple Crises	30	-43%	-31%	13.1	-46%	-42%	14.3	-39%	-18%	142.0	-49%	-20%	11.0
2007/08 GFC	16	-61%	-52%	8.4	-63%	-54%	11.1	-63%	-53%	5.7	-56%	-41%	7.3
European Debt Crisis	5	-26%	-18%	9.5	-24%	-20%	10.7	-29%	-16%	6.8	-27%	-14%	9.9
current level from 2014 peak	15	-23%	-8%	12.2	-14%	-7%	11.5	-27%	-2%	11.8	-46%	-19%	19.3

Past EM rallies from trough of EM corrections

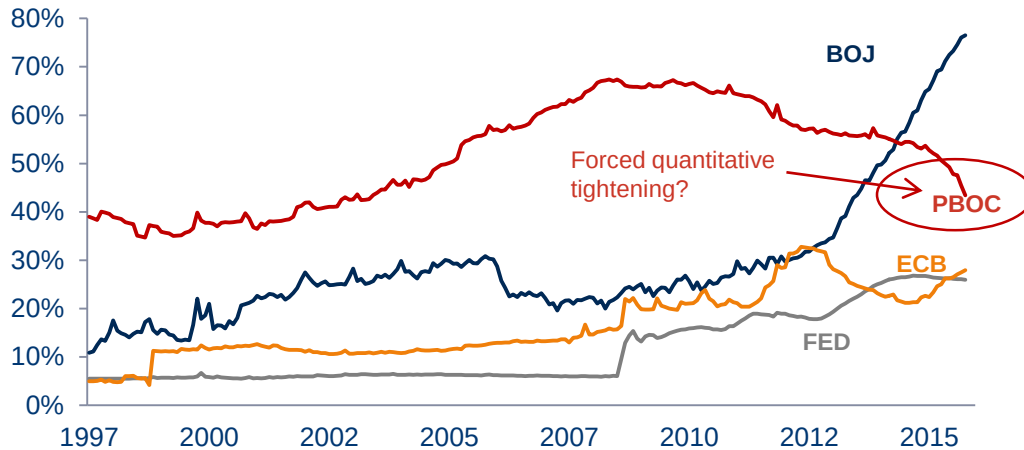
	Duration	EM Index			EM Asia			EMEA			LatAM		
Growth Phases	in mths	USD %	Local Ccy %	P/E	USD %	Local Ccy %	P/E	USD %	Local Ccy %	P/E	USD %	Local Ccy %	P/E
after 1994 surprise rate hike	5	21%	29%	n.a.	14%	n.a.	n.a.	n.a.	n.a.	n.a.	32%	n.a.	n.a.
after 1995 slow down	29	38%	62%	11.6	3%	n.a.	17.7	n.a.	n.a.	n.a.	108%	n.a.	20.3
after 1997/98 EM crisis	19	114%	123%	25.2	148%	n.a.	64.3	n.a.	n.a.	10.8	95%	n.a.	16.8
after 2001-03 Multiple crises	61	479%	345%	18.1	387%	315%	20.5	463%	299%	14.5	894%	554%	18.0
after GFC	26	154%	100%	13.5	150%	111%	14.5	171%	103%	11.4	152%	76%	13.3
after European Debt Crisis	35	34%	41%	13.3	43%	42%	13.0	22%	44%	10.9	21%	35%	19.9

Source: Bloomberg. Note: The corresponding rallies after the 1995 and 2011 corrections are highlighted in dark green. The current EM correction most closely resembles 1995 and 2011 corrections (highlighted in pink). The opinions stated in this document are those of the Multi-Asset team and are subject to change. Performance shown is past performance. Past performance is not a guide to future performance. The value of investments can go down as well as up and is not guaranteed. Actual results would vary.

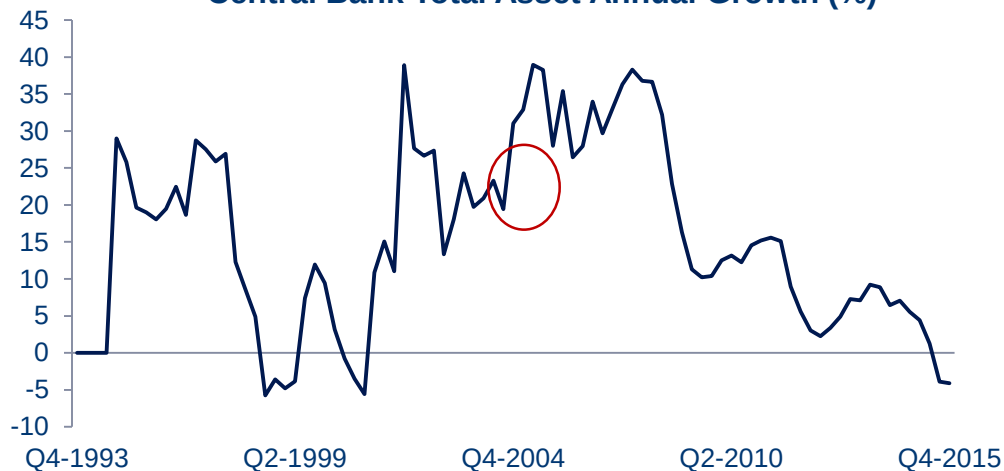
Investment outlook

China: Forced Monetary Tightening?

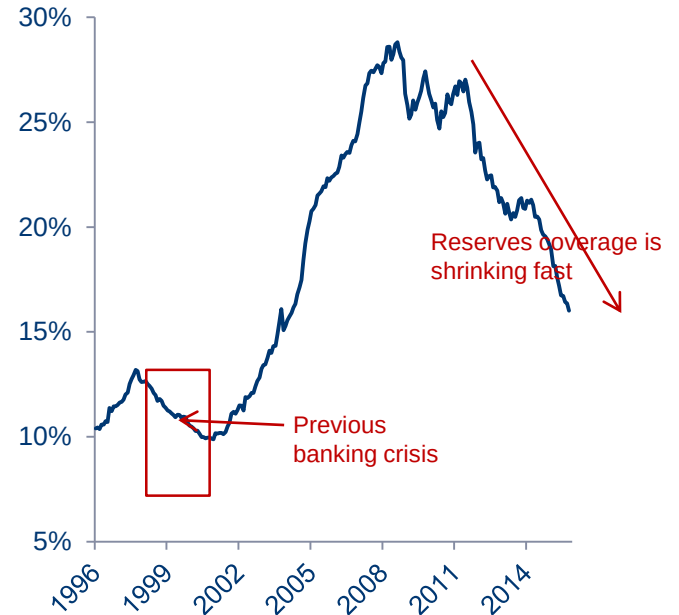
Key Central Banks Assets % GDP



Central Bank Total Asset Annual Growth (%)



FX Reserves % M2



Source: Bloomberg; DataStream; Schroders – December 2015. M2 is a measure of money supply that includes cash, checking deposits and near money. The views and opinions are those of the Multi-Asset team and may change. This should not be viewed as a recommendation to buy/sell. Actual results would vary.

Equity risk premium

Strategies: Positive on Quality and MinVol for cyclical reasons

Valuation

	Valuation - PE			
	Level	1m Chg	Range	Historical Percentile
Value	0.87	0.01		27%
Quality	1.01	-0.01		16%
Minimum Volatility	1.25	0.02		4%
Small CAP	1.43	0.04		79%
UK Small Cap	1.06	0.07		35%
US Small Cap	1.30	0.00		37%
Germany Small Cap	1.12	-0.12		23%

Momentum

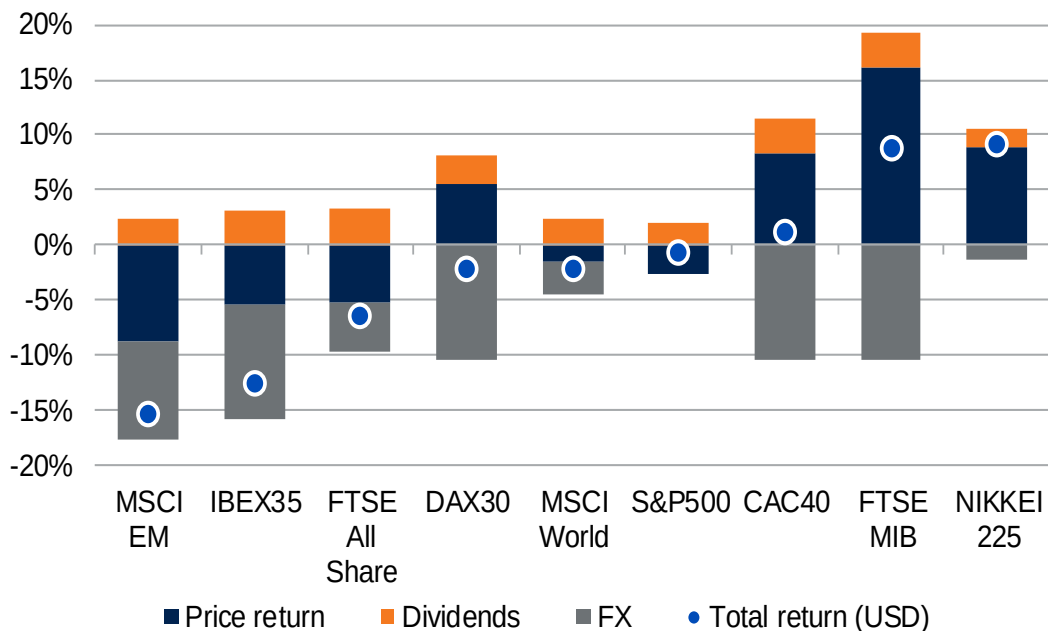
	PRICE MOMENTUM	
	12m-1m	1m Chg
Value	-4%	
Quality	3%	
Minimum Volatility	2%	
Small Cap	2%	
UK Small Cap	12%	
US Small Cap	1%	
Germany Small Cap	10%	

Source: Datastream; Schroders; data as of 2015-12-31. Performance shown is past performance. Past performance is not a guide to future performance. The value of investments can go down as well as up and is not guaranteed. The value of investments can go down as well as up and is not guaranteed. The views and opinions are those of the Multi-Asset team and may change. This should not be viewed as a recommendation to buy/sell. Actual results would vary.

Global adjustments occurring in FX market

Equity performance still dominated by currency

Returns since December 31, 2014



- Japanese equities provided among the best returns as EM equities performed terribly
- Spain was the worst performing major developed market index, led by Spanish banks

Source: Thomson Datastream, Eurostat, Schroders Economics Group. December 21, 2015. Performance shown is past performance. Past performance is not a guide to future performance. The value of investments can go down as well as up and is not guaranteed. Actual results would vary.

Equity risk premium (ERP)

Our scores

	Valuation	Momentum	Cyclical/Qualitative	Overall
Equity	0	0	0	0
US	0	0	+	+(0)
UK	0	-	0	0
Europe x UK	0	-	0(+)	0(+)
Japan	0	+	0	0
Emerging Markets (EM)	0	-	-	-
Strategies				
US Small cap premium	0	0	0	0
UK Small cap premium	0	+	+	+
EU Small cap premium	-	+	0	0
Minimum volatility	-	+	+	+
Value	0	0	-	0
Quality	-	+	+	+

Source: Schroders, as of 2016-1-31. The views and opinions are those of the Multi-Asset team and may change. This should not be viewed as a recommendation to buy/sell. Actual results would vary.

Market outlook

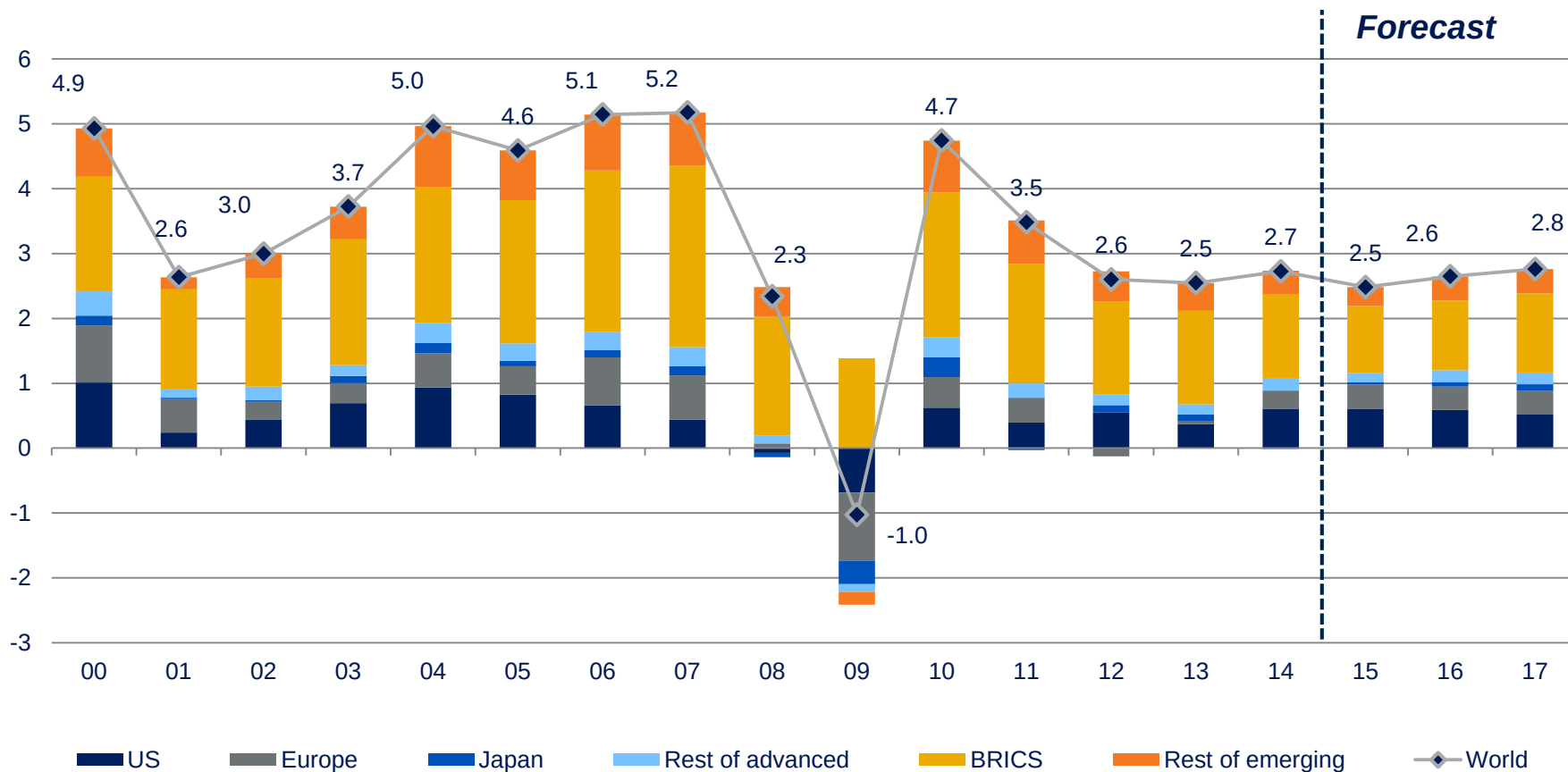


Schroders

More of the same?

Muted global growth outlook

Contributions to World GDP growth (y/y), %

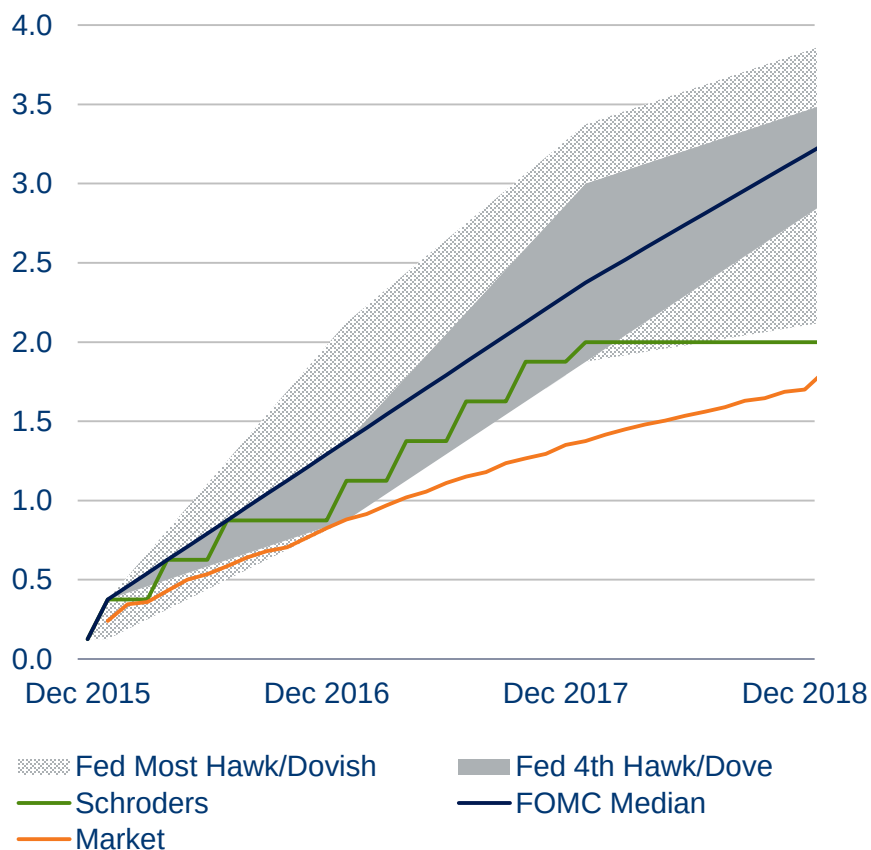


Source: Thomson Datastream, Schroders Economics Group, November 20, 2015. The opinions stated in this document include some forecasted views. We believe that we are basing our expectations and beliefs on reasonable assumptions within the bounds of what we currently know. However, there is no guarantee that any forecasts or opinions will be realized.

More of the same?

Fed forecast supports US dollar but also points to a slow rate cycle

Fed forecasts



Implied “fair value” for US Treasuries

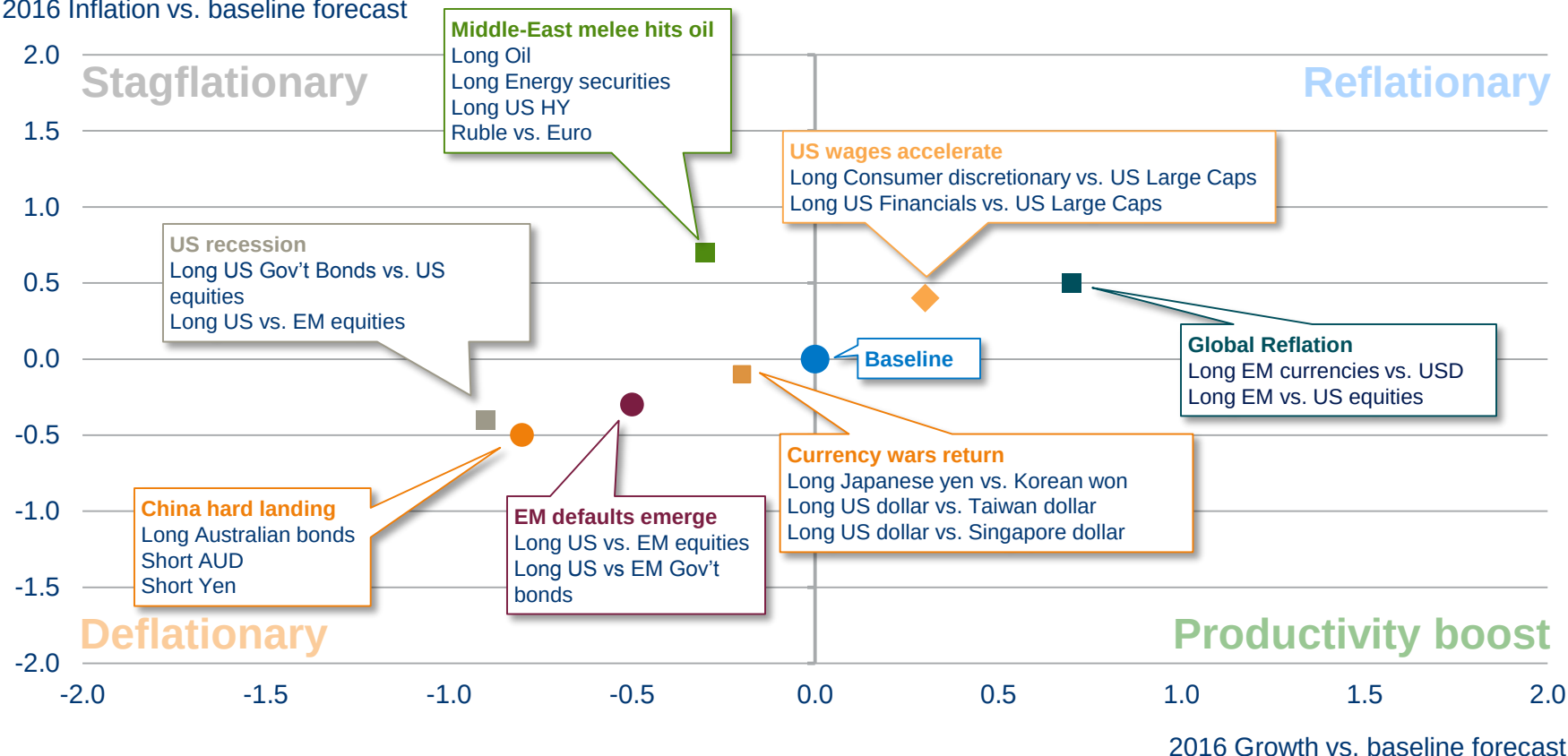
		FV	Market	Difference	Perf (%)
Schrodgers	2 year	1.1	1.1	0.0	-0.1
	5 year	1.7	1.7	-0.1	0.2
	10 year	2.1	2.2	-0.2	1.6
	30 year	2.7	3.0	-0.3	5.4
Fed 4th Dove	2 year	1.0	1.1	-0.1	0.2
	5 year	2.1	1.7	0.3	-1.5
	10 year	2.7	2.2	0.4	-3.6
	30 year	3.1	3.0	0.1	-2.1
Fed Median	2 year	1.3	1.1	0.3	-0.5
	5 year	2.5	1.7	0.7	-3.5
	10 year	3.0	2.2	0.8	-6.6
	30 year	3.4	3.0	0.4	-7.6
Fed 4th Hawk	2 year	1.5	1.1	0.4	-0.8
	5 year	2.7	1.7	0.9	-4.3
	10 year	3.1	2.2	0.8	-7.4
	30 year	3.4	3.0	0.4	-8.2

Source: Federal Reserve, Schrodgers, as of December 28, 2015.

Dynamic scenario analysis

Possible hedging strategies for non-baseline risks

2016 Inflation vs. baseline forecast



Source: Schroders. December 31, 2015 forecast. Base line 2016 forecast 2.6% growth and 3.7% inflation. The opinions stated in this document include some forecasted views. We believe that we are basing our expectations and beliefs on reasonable assumptions within the bounds of what we currently know. However, there is no guarantee that any forecasts or opinions will be realized.

Appendix

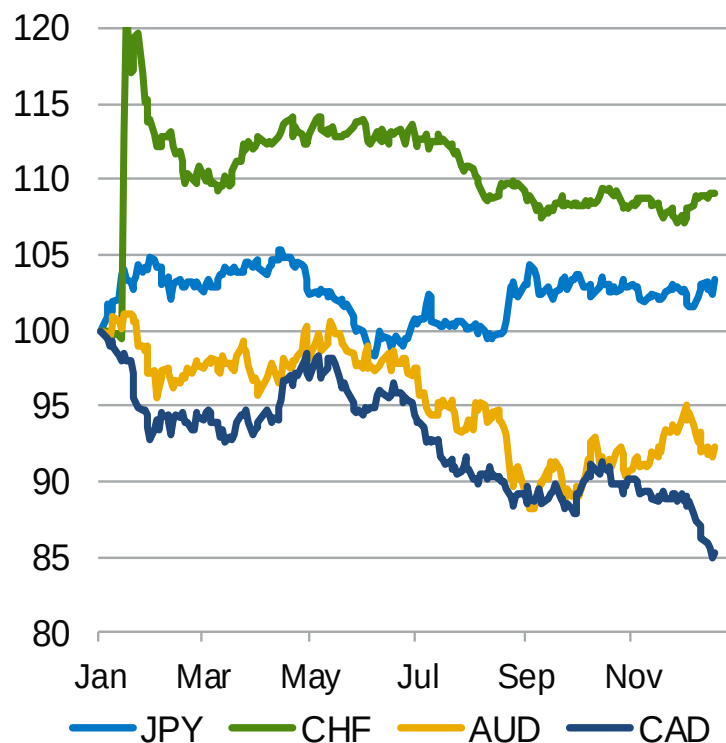
Currency wars

Europe wins in 2015

Effective exchange rates, 100=02/01/2015



Effective exchange rates, 100=02/01/2015

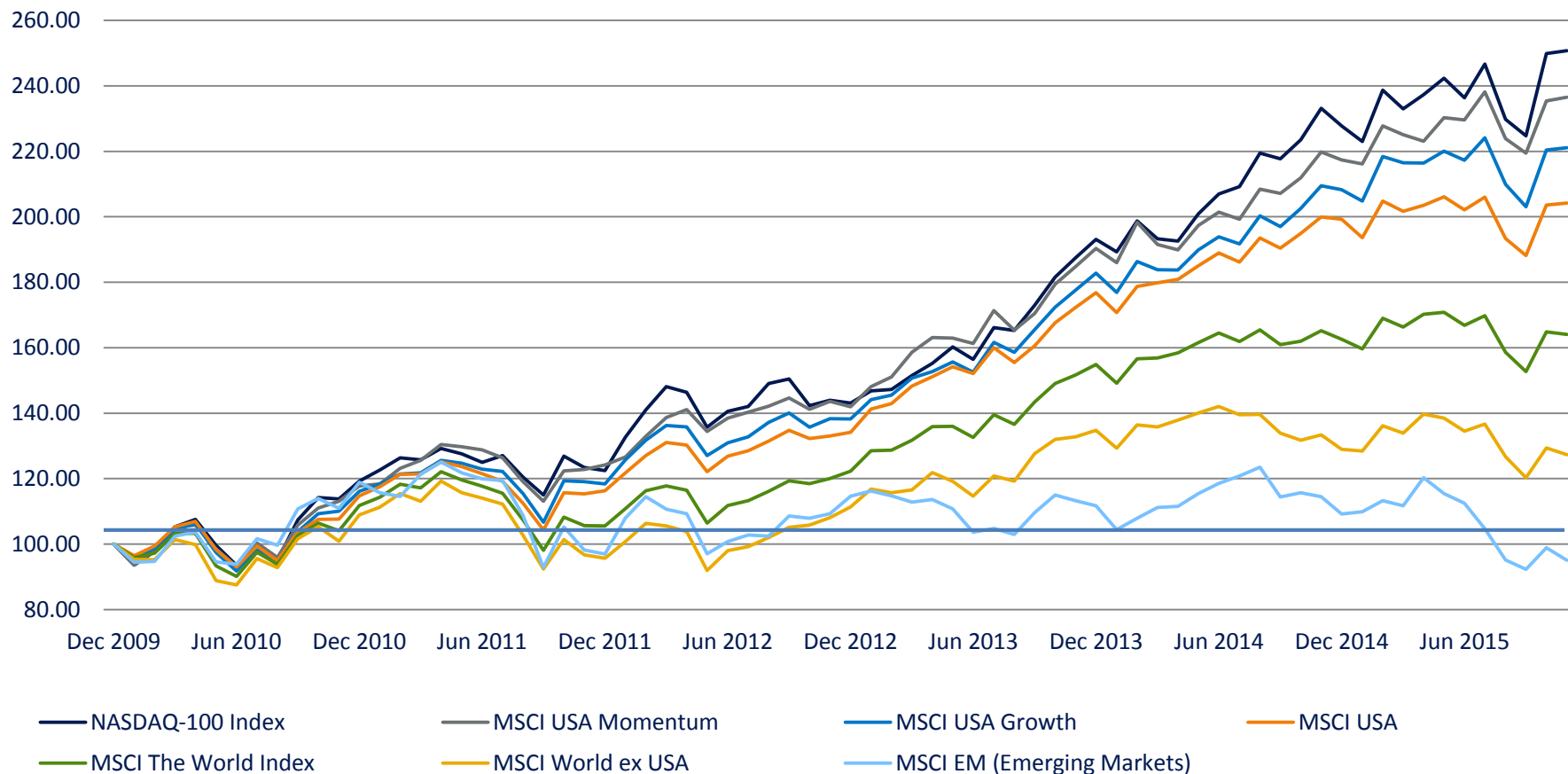


Source: Bank of England, Schroders Economics Group. December 21, 2015. Performance shown is past performance. Past performance is not a guide to future performance. The value of investments can go down as well as up and is not guaranteed.

QE beneficiaries

US Growth and Momentum have been the clear winners

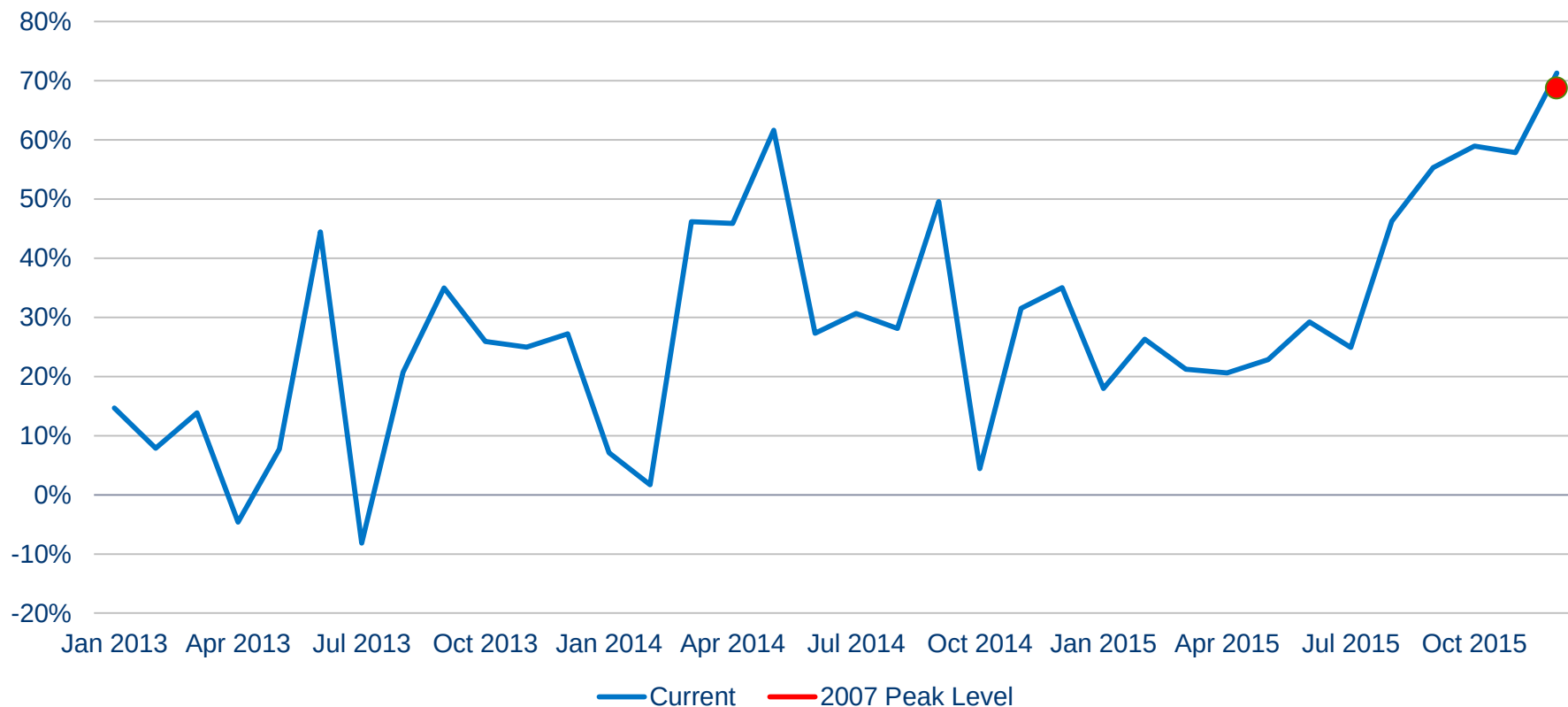
US Growth and Momentum have been the clear winners



Source: Schroders, FactSet in USD as of November 30, 2015. Performance shown is past performance. Past performance is not a guide to future performance. The value of investments can go down as well as up and is not guaranteed.

Some trends are starting to look speculative

Correlation of Horsemen (compared with Peak level in 2007)

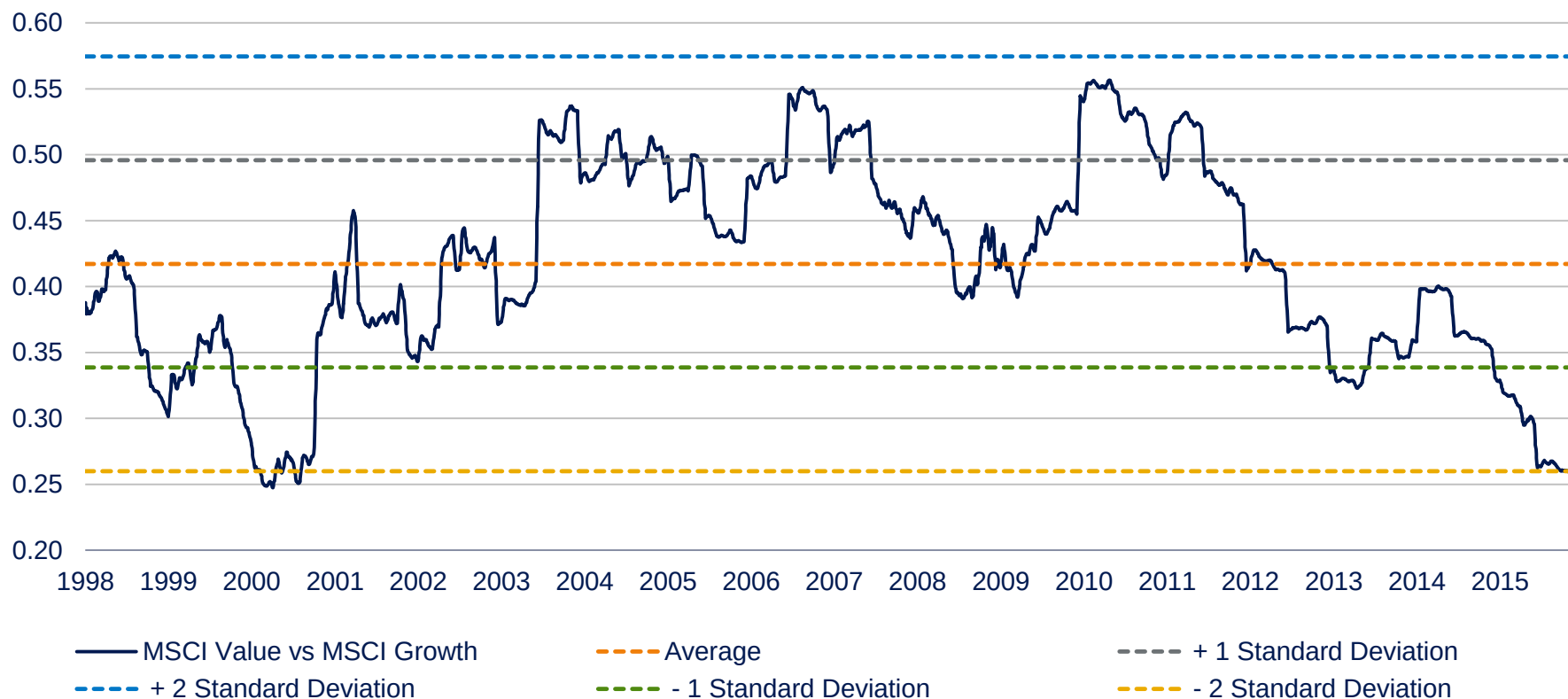


Source: Schroders, Bloomberg. Data from January 31, 2013 to December 31, 2015. Market cap weighted correlation of the relative returns to S&P 500 between Google, Facebook, Amazon, Netflix and Salesforce. The views and opinions are those of the Multi-Asset team and may change. Companies are mentioned for illustrative purposes only and should not be viewed as a recommendation to buy/sell. Actual results would vary.

Some trends are starting to look speculative

MSCI Value is trading at a similar discount to that of the Tech bubble

Price to Tangible Book Value – MSCI World Value versus MSCI World Growth

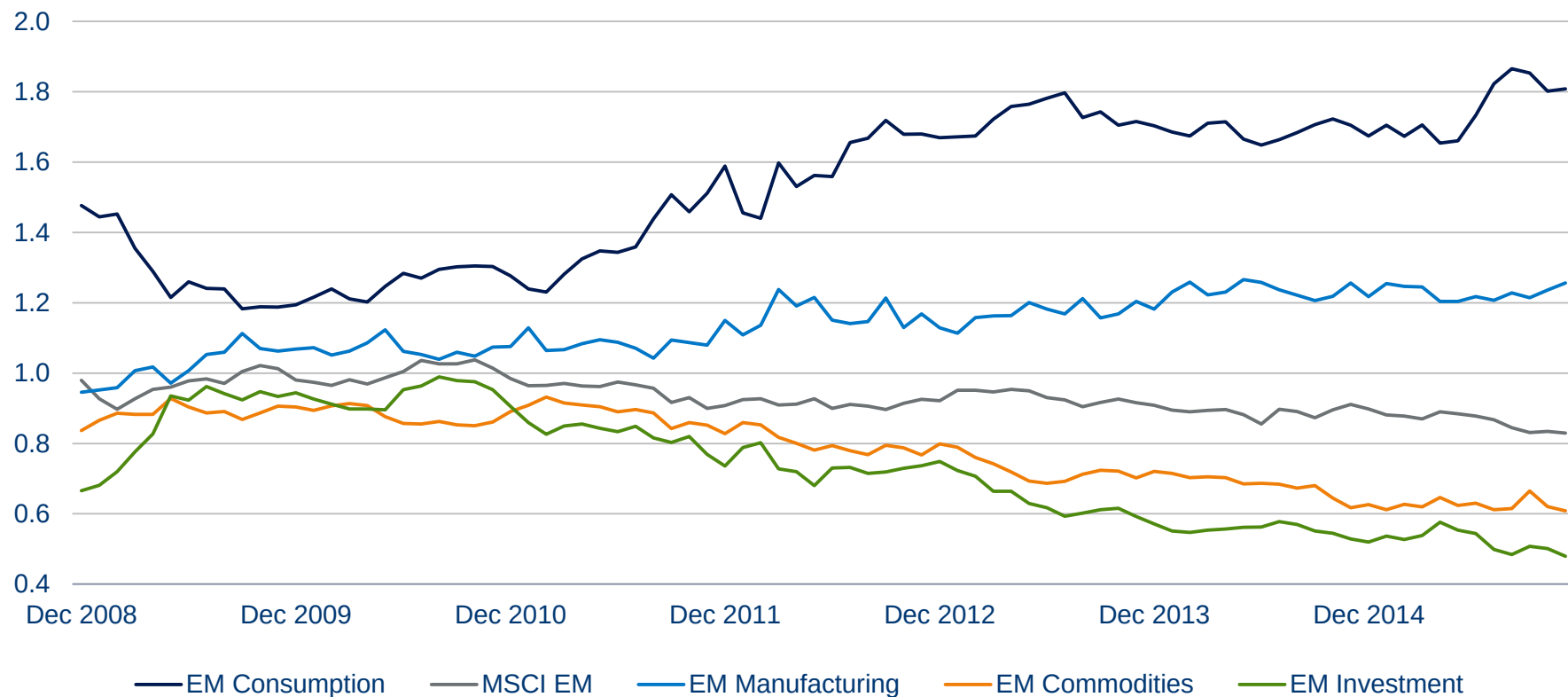


Source: Schroders, MSCI, Bloomberg. Price to tangible book has been smoothed by a two week rolling average.

Emerging market equities look tempting...

...but the undervaluation is still concentrated in the most cyclical areas

Price to book relative to S&P 500



Source: Schroders, Datastream. Monthly data from December 31, 2008 to November 30, 2015. Emerging market themes are constructed from market cap weighted MSCI EM Sector indices. EM Consumption = Cons Disc, Cons Stap, Healthcare, Utilities and Telcos; EM Investment = Financials; EM Manufacturing = Industrials and IT; EM Commodities = Energy and Materials

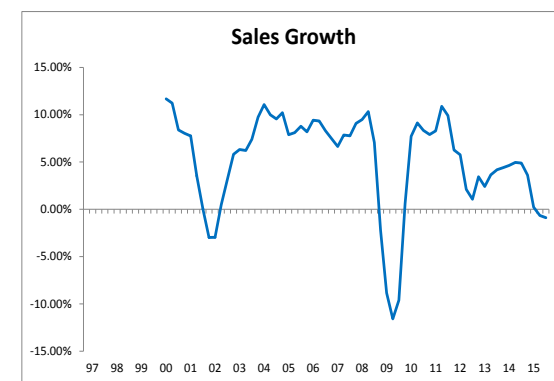
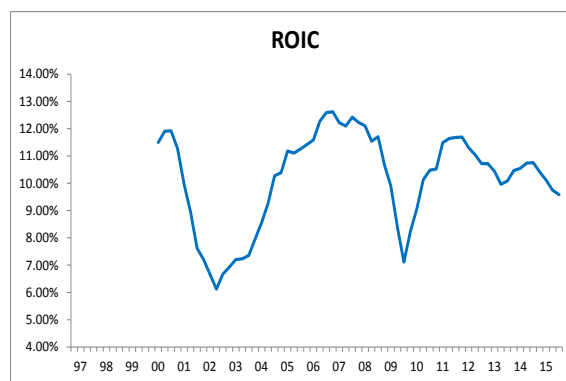
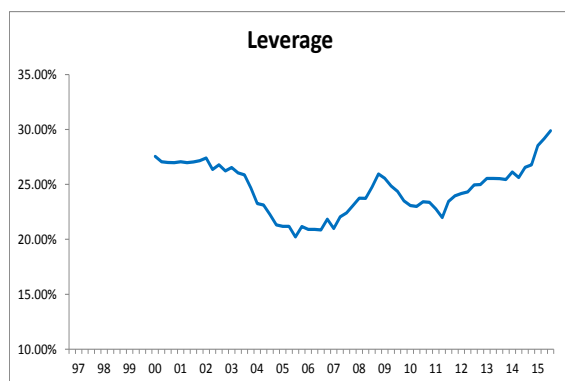
Corporate Health

Key Inputs of Health Indicators

Components view of US Corporates Health Indicators

		10	11				12				13				14				15		
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Profit Margins	Score	1	1	1	1	1	-1	-1	-1	-1	1	1	1	1	1	1	-1	-1	-1	-1	-1
Cash Conversion	Score	-1	-1	-1	1	-1	-1	1	1	1	1	-1	1	1	1	-1	-1	-1	-1	1	1
Short Term Liquidity	Score	-1	1	-1	-1	-1	-1	-1	-1	-1	-1	1	1	1	-1	-1	-1	-1	1	1	-1
Leverage	Score	1	1	1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
ROIC	Score	1	1	1	1	1	-1	-1	-1	-1	-1	-1	-1	-1	1	1	1	-1	-1	-1	-1
Interest Coverage	Score	1	1	1	1	1	1	-1	-1	-1	-1	1	1	1	1	1	1	-1	-1	-1	-1
Debt Coverage	Score	-1	1	-1	1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Sales Growth	Score (below +2%)	1	1	1	1	1	1	1	-1	1	1	1	1	1	1	1	1	1	-1	-1	-1
Corporate Health Score		2	6	2	4	0	-4	-4	-6	-4	-2	0	2	2	2	0	-2	-6	-6	-4	-6

Key Concerns: Increasing leverage, declining ROIC and Sales Growth



Source: Schroders, Datastream as of December 31, 2015

Biography



Schroders

Biography

Richard Coghlan, Ph.D

Multi-Asset Portfolio Manager

Joined Schroders in 2000 and is based in New York

Member of Global Asset Allocation Committee and manages assets on behalf of North American Multi-Asset Clients. Member of the Commodities Risk Premia team

Previously, Richard joined Schroders Hong Kong as the Head of Multi-Asset (Hong Kong) in 2006 and was then promoted to become the Head of Multi-Asset, Asia in 2014. Prior to this, he was with Schroders Korea as the Head of Investment as well as Korean Investment Specialist from 2004 to 2006, supervising both the investment trust and the corporate restructuring businesses. Richard was managing Multi-Asset portfolios in Schroders Korea in 2003 before he was appointed the Head of Investment in 2004.

Richard first joined Schroders in 2000 to manage the Seoul Debt Restructuring Fund in Korea with the team and became the project leader in 2001. His investment career commenced in 1997 as a Director with the Asian Finance and Investment Corporation, an affiliate of the Asian Development Bank, managing investments in Korea, China and India.

MBA in Finance and Accounting, University of Chicago; MSc and PhD in Geochemistry, Brown University ; BSc in Geology, Duke University.



Biography

Jamie Macmillan

Institutional Director

Jamie Macmillan is the Institutional Business Development Director covering the Midwest.

Prior to joining Schroders, from 2008 to 2011 Jamie was the Head of North American Distribution at Gartmore Global Partners. In addition to promoting Gartmore's global and international equity strategies, he was also responsible for overseeing sales and client service efforts with institutional investors and consultants throughout North America. Jaime also served as the Head of Gartmore Distribution Services, the firm's US broker dealer subsidiary.

From 1995 to 2008, Jamie was a Partner at Oechsle International Advisors. While at Oechsle, Jamie was in Institutional Sales and Client Service, covering the Midwest Region. He promoted Oechsle's international equity and global fixed income strategies to institutional investors and consultants.

From 1988 to 1995, Jamie was Senior Vice President at Baring Asset Management, America responsible for sales and client service in the Midwest Region. Prior to that, he was an Institutional Fixed Income Broker for EF Hutton and Chemical Bank.

Jamie earned a Masters of Management from the J.L. Kellogg School of Management at Northwestern University, and a Bachelor of Arts from Bowdoin College. Additionally, Jamie holds Series 7 and Series 63 FINRA Licenses.



Important information

The value of investments can fall as well as rise as a result of market movements. Investments in smaller companies may be less liquid than in larger companies and price swings may therefore be greater than in larger company funds. Exchange rate changes may cause the value of overseas investments to rise or fall. Less developed markets are generally less well regulated than the US, they may be less liquid and may have less reliable custody arrangements. Investors should be aware that investments in emerging markets involve a high degree of risk and should be seen as long term in nature. The Strategy will invest in some higher-yielding bonds (non-investment grade). The risk of default is higher with non-investment grade bonds than with investment grade bonds. Higher yielding bonds may also have an increased potential to erode your capital sum than lower yielding bonds. The Strategy will invest in Property Funds and Property Investment Companies. It may be difficult to deal in these investments because the underlying properties may not be readily saleable which may affect liquidity. The use of derivatives involves risks different from, or possibly greater than, the risks associated with investing directly in the underlying assets. No investment strategy or risk management technique can guarantee returns or eliminate risk in any market environment.

The views and forecasts contained herein are those of the Multi-Asset team and are subject to change. The information and opinions contained in this document have been obtained from sources we consider to be reliable. No responsibility can be accepted for errors of facts obtained from third parties. Reliance should not be placed on the views and information in the document when taking individual investment and/or strategic decisions. The opinions stated in this presentation include some forecasted views. We believe that we are basing our expectations and beliefs on reasonable assumptions within the bounds of what we currently know. However, there is no guarantee that any forecasts or opinions will be realized.

The hypothetical results shown must be considered as no more than an approximate representation of the portfolio's performance, not as indicative of how it would have performed in the past. It is the result of statistical modeling, with the benefit of hindsight, based on a number of assumptions and there are a number of material limitations on the retrospective reconstruction of any performance results from performance records. For example, it may not take into account any dealing costs or liquidity issues which would have affected the strategy's performance. This data is provided to you for information purposes only as at today's date and should not be relied on to predict possible future performance.

Past performance is no guarantee of future results. Performance shown is gross of fees. The value of an investment can go down as well as up and is not guaranteed.

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ALASKA PERMANENT FUND CORPORATION

SUBJECT: Investment Advisor Candidates ACTION: XX

DATE: February 24, 2016 INFORMATION: _____

BACKGROUND: The Alaska Permanent Fund Corporation (APFC) Investment Advisory Board (IAB) was formed in February of 2001, with the purpose of providing the Board of Trustees with further insights into the increasingly complex and changing world of institutional investing. The advisors impart special perspectives drawn from their professional knowledge in the areas of portfolio management, overall management of a large fund and experience with an endowment or trust fund.

The Investment Advisory Board has three members. Each seat has a term of three years, and the terms are staggered to ensure that only one seat expires annually.

STATUS: The APFC currently has two Investment Advisors serving on the IAB: **George Zinn**, Corporate Vice President and Treasurer of Microsoft, and **Jerrold Mitchell**, formerly a partner at Wellington Management Company and former CIO of the Massachusetts state pension fund.

There is currently one vacant seat on the IAB. Following an RFP process, two candidates have been chosen by staff as potential Investment Advisors to fill this vacancy and have come to this Board meeting to be interviewed by the Trustees.

They are:

- Dr. Sarah W. Peck, Ph.D., Associate Professor of Finance at Marquette University, Milwaukee, WI
- Timothy M. Walsh, MBA, Independent Executive/Professional Fiduciary, Crown Point, IN

Résumés for both candidates are in Trustees' board meeting materials.

RECOMMENDATION: Staff recommends that the Board, by motion, select and approve the candidate of their choice to serve as the third member of the APFC Investment Advisory Group.

Sarah W. Peck, Ph.D.

Dr. Peck is an Associate Professor of Finance at Marquette University, Milwaukee, Wisconsin. She has been at Marquette since 1996 and served as Department Chair from 2004 to 2014.

She has a B.A. in Psychology from Yale University, M.A. in Economics, and a Ph.D. in Finance and Accounting from University of Rochester.

Dr. Peck's research interests are in the area of ownership structure, leveraged buyouts, board of directors, and other topics in corporate governance. She has published in the *Journal of Financial Economics*, *Journal of Corporate Finance*, *The Journal of Forensic Accounting*, among other journals in finance and accounting. Currently she is investigating the causes of director changes around management buyout announcements as well as exploring ways to measure fiduciary effectiveness for public pension plans. She regularly serves as a referee for the *Journal of Corporate Finance*, *Journal of Banking & Finance*, and *Journal of Managerial Finance*.

Dr. Peck has almost twenty years of teaching experience. She has developed and currently teaches "Investment Management, Ethics, and Society," believed to be the first course of its kind and offered in Marquette's Applied Investment Management (AIM) Program, the first undergraduate business program selected as a Program Partner by the CFA® Institute. She has written a textbook, *Investment Ethics*, Wiley 2010, and ethics cases for the CFA® Institute.

She serves regularly as a speaker and panel participant in the areas of ethics, divestment, and socially responsible investing. Most recently, she advised Denominational Pension Funds with assets ranging from \$2-\$14 billion discussing strategies about how to align mission, socially responsible investing and calls for divestment with their fiduciary duty to generate returns. She has also consulted with the Chicago Pension Study group about strategies to solve their pension crisis.

From 2007 to 2014, she was a trustee for the Milwaukee County Pension Board with over \$1.8 billion in assets, and Chair of its Investment Committee. During this time, the Pension Fund received \$450 million of new funds to invest. The board oversaw an asset allocation study and recommended changes in the fund's investments. This led to several RFP (request for proposal) manager searches. Additionally, the Investment Committee and Board reviewed on an on-going basis several other aspects of running the fund, such as manager fees, securities lending, custodial services, etc.

She is a member of the American Finance Association, The Financial Management Association, Financial Executives International, and CFA Society of Milwaukee.

Timothy M. Walsh

Timothy Walsh is a senior executive with demonstrated leadership in both the private and public sectors. He is a seasoned investment fiduciary with in-depth experience in public pension plans having served as both Trustee and CIO.

Mr. Walsh currently holds a portfolio of executive roles including independent trustee of a private residential mortgage REIT, a senior advisor to BluePrint Capital Advisors, a minority owned start up firm focusing on institutional alternative investment programs, and senior advisor to Gaw Capital USA focusing on a large commercial real estate project in the Midwest.

Timothy gained more than 30 years of direct investment experience through various positions of increasing responsibility including roles with two public pension plans, a private equity real estate firm, and a global macro fund. He served as Chief Investment Officer for the State of New Jersey pension fund from 2010 through 2013. At New Jersey, he was the chief fiduciary for the \$75 billion pension fund, one of the largest internally managed public pension funds in the United States. Prior to joining the State of New Jersey, he was the Chief Investment Officer managing the \$8 billion Indiana State Teachers' Retirement Fund.

Throughout his career Mr. Walsh has served as fiduciary on several boards of both private and public companies. He has served as Trustee of the Indiana State Teachers' Retirement Fund as well as a Commissioner of the Indiana Gaming Commission. Most recently, he served two terms as a Board Member of the United States Securities and Exchange Commission Advisory Committee on Small and Emerging Companies.

Timothy holds a Bachelor of Science from Merrimack College and an MBA from the Kellogg School of Management at Northwestern University.