El Camino Hospital
THE HOSPITAL OF SILICON VALLEY

AGENDA
INVESTMENT COMMITTEE MEETING
OF THE EL CAMINO HOSPITAL BOARD
Monday, February 25th – 5:30 pm
El Camino Hospital | Conference Room A (ground floor)
2500 Grant Road, Mountain View, CA 94040

PURPOSE: To develop and recommend to the El Camino Hospital Board of Directors the organization's investment policies, maintain current knowledge of the management and investment of the invested funds of the hospital and its pension plan(s), provide guidance to management in its investment management role, and provide oversight of the allocation of the investment assets.

	AGENDA ITEM	PRESENTED BY		ESTIMATED TIMES
1.	**CALL TO ORDER / ROLL CALL**	Jeffrey Davis, MD Chair		**5:30 – 5:32 pm**
2.	**POTENTIAL CONFLICT OF INTEREST DISCLOSURES**	Jeffrey Davis, MD Chair		**5:32 – 5:33**
3.	**PUBLIC COMMUNICATION** a. Oral Comments *This opportunity is provided for persons in the audience to make a brief statement, not to exceed 3 minutes on issues or concerns not covered by the agenda.* b. Written Correspondence	Jeffrey Davis, MD Chair	*public comment*	**information** **5:33 – 5:36**
4.	**CONSENT CALENDAR** *Any Committee Member or member of the public may remove an item for discussion before a motion is made.* ***Approval*** a. Minutes of the Open Session of the Investment Committee Meeting - November 12, 2018 b. Minutes of the Open Session Joint Finance & Investment Committee – January 28, 2019 ***Information*** c. CFO Report Out – Finance Committee Open Session Materials d. Updated FY 19 Pacing Plan e. Article of Interest f. Updated Surplus Cash Investment Policy	Jeffrey Davis, MD Chair Iftikhar Hussain, CFO	*public comment*	**motion required** **5:36 – 5:40**
5.	**REPORT ON BOARD ACTIONS** **ATTACHMENT 5**	Jeffrey Davis, MD Chair		**information** **5:40 – 5:45**
6.	**CAPITAL MARKETS REVIEW & PORTFOLIO PERFORMANCE** **ATTACHMENT 6**	Antonio DiCosola & Chris Kuhlman, Pavilion Advisory Group		**information** **5:45 – 6:15**
7.	**JANUARY PERFORMANCE UPDATE** **ATTACHMENT 7**	Antonio DiCosola & Chris Kuhlman, Pavilion Advisory Group		**information** **6:15 – 6:45**
8.	**PROPOSED FY 2020** a. Goals b. Pacing Plan c. Proposed Meeting Dates	Iftikhar Hussain, CFO		**motion required** **6:45 – 6:55**
9.	**ADJOURN TO CLOSED SESSION**	Jeffrey Davis, MD Chair		**motion required** **6:55 – 6:56**

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	AGENDA ITEM	PRESENTED BY		ESTIMATED TIMES
10.	**POTENTIAL CONFLICT OF INTEREST DISCLOSURES**	Jeffrey Davis, MD Chair		**6:56 – 6:57**
11.	**CONSENT CALENDAR** *Any Committee Member may remove an item for discussion before a motion is made.* ***Approval*** *Gov't Code Section 54957.2.* a. Minutes of the Closed Session of the Investment Committee Meeting November 12, 2018 b. Minutes of the Closed Session of the Joint Finance & Investment Committee – January 28, 2019	Jeffrey Davis, MD Chair		**motion required** **6:57 – 7:00**
12.	**ADJOURN TO OPEN SESSION**	Jeffrey Davis, MD Chair		**motion required** **7:00 – 7:01**
13.	**RECONVENE OPEN SESSION / REPORT OUT**	Jeffrey Davis, MD Chair		**7:01 – 7:02**
	To report any required disclosures regarding permissible actions taken during Closed Session.			
14.	**ADJOURNMENT**	Jeffrey Davis, MD Chair		**motion required** **7:02pm**

Important Dates:
Semi-Annual Board and All Committee Meetings
- April 24, 2019

FY 2019 Investment Committee Meetings
- May 13, 2018

El Camino Hospital
THE HOSPITAL OF SILICON VALLEY

Minutes of the Open Session of the Investment Committee of the Board of Directors
Monday, November 12, 2018
El Camino Hospital, 2500 Grant Road, Mountain View, California
Conference Room A

Members Present	**Members Absent**	**Members Excused**
Nicola Boone Jeffrey Davis, Chair Gary Kalbach Brooks Nelson	John Conover	

A quorum was present at the El Camino Hospital Investment Committee on Monday, November 12, 2018 meeting.

Agenda Item	Comments/Discussion	Approvals/Action
1. CALL TO ORDER/ ROLL CALL	The open session meeting of the Investment Committee of El Camino Hospital (the "Committee") was called to order at 5:30pm by Chair Mr. Jeff Davis. Mr. Conover was absent. All other Committee members were present.	***None***
2. POTENTIAL CONFLICT OF INTEREST DISCLOSURES	Chair Davis asked if any Committee member or anyone in the audience believes that a Committee member may have a conflict of interest on any of the items on the agenda. No conflict of interest was reported.	***None***
3. PUBLIC COMMUNICATION	Chair Davis asked if there was any public communication to present. None were noted.	***None***
4. CONSENT CALENDAR ITEMS	Chair Davis asked if any Committee member wished to remove any items from the consent calendar for discussion. None were noted. **Motion:** To approve the consent calendar Open Minutes of the August 13, 2018 Investment Committee meeting **Movant:** Boone **Second:** Nelson **Ayes:**, Boone, Davis, Kalbach, Nelson **Abstentions:** None **Absent:** Conover **Excused:** None **Recused:** None	*The Open Minutes of the August 13, 2018 Investment Committee Meeting were approved.*
5. REPORT ON BOARD ACTIONS	Chair Davis briefly reviewed the Report on Board Actions as further detailed in the packet.	***information***

Agenda Item	Comments/Discussion	Approvals/Action
6. ROTATING TOPICS: CAPITAL MARKETS REVIEW & PORTFOLIO PERFORMANCE. TACTICAL ASSET ALLOCATION POSITIONING & MARKET OUTLOOK	Antonio DiCosola and Chris Kuhlman, Pavilion Advisory Group, presented a summary to the Investment Committee on Capital Markets, Portfolio Performance, Tactical Asset Allocation Positioning, Market Outlook and lastly Investment Pacing Forecast. Mr. Kuhlman stated that global economic growth, though slowing, continued expanding at an above-trend pace providing support for risk assets. Risks around trade policies served to restrain markets; however. U.S. GDP growth is expected to be close to 3% in the third quarter, supported by robust consumer spending. Strength in corporate earnings is expected to persist with growth of +19% projected in the third quarter. While international economic growth has slowed since the start of the year, recent data are more constructive and suggest a leveling to slight increase in growth. Trade tensions swayed between conflict and resolution during the quarter. The U.S. added tariffs on $200 billion of Chinese goods with discussions expected to resume soon. Negotiations with Canada and Mexico on a trilateral trade deal moved toward conclusion by the end of September. U.S. equities generated strong gains during the quarter, with large cap outperforming small cap and growth outperforming value. Developed international equities were positive, but trailed the U.S., while emerging markets equities were down on the quarter. Fixed income was broadly flat or negative during the quarter as the Fed once again raised rates in September. Despite higher Treasury rates, most spread sectors were able to generate positive returns, driven by demand for risk assets. Pavilion Advisory Group reviewed the Investment Committee Scorecard and Portfolio Performance as further detailed in the submitted materials to include the following: 1. **Scorecard**: Mr. Kuhlman reported investment performance for the third quarter. The Surplus Cash portfolio ended with a market value of $995M and returned 2.3% vs. 2.0% for its benchmark. The Cash Balance Plan ended with a market value of $275M and returned 2.8% vs. 2.5% for the benchmark. 2. **Surplus Cash**: Mr. Kuhlman noted that the Surplus Cash Portfolio returned +2.3% for the quarter, outperforming its benchmark by 30 bps. Over the trailing one year period, the Portfolio returned +6.5%, outpacing the benchmark by approximately 150 bps. Relative outperformance during the quarter was driven by favorable manager results, particularly within the Domestic Equity and Alternatives Composites, which	

Agenda Item	Comments/Discussion	Approvals/Action
	outperformed their benchmarks by 50 and 70 bps, respectively. Notable outperformers included small cap growth manager Conestoga (+10.5%) and international growth manager Walter Scott (+3.0%), which outperformed their benchmarks by 500 and 230 bps, respectively. 3. **Cash Balance Plan**: Mr. Kuhlman further reported that the Cash Balance Plan returned +2.8% for the quarter, outperforming its benchmark by 30 bps. Over the trailing one year period, the Plan returned +8.6%, outpacing the benchmark by approximately 230 bps. Relative outperformance during the quarter was driven by both favorable manager results and asset allocation positioning. Manager results within the domestic small cap equity and international equity composites were the primary contributors to outperformance, as the domestic small cap equity and international equity composites outperformed their benchmarks by 360 and 40 bps, respectively. Notable outperformers included small cap growth manager Conestoga (+10.5%) and international growth manager Walter Scott (+3.0%), which outperformed their benchmarks by 500 and 230 bps, respectively. 4. **Hedge Funds**: The Surplus Cash Hedge Fund Portfolio returned +1.4% during the third quarter, outperforming the HFRI Fund of Funds Composite Index by 1.1%. Each of the portfolio's four strategies delivered positive absolute returns. Equity Long / Short (+2.2%), Macro (+1.3%) and Relative Value (+1.1%) delivered strong gains while Credit (+0.7%) made a slightly smaller contribution. The Equity Long / Short, Macro and Relative Value composites outperformed their reference indices by +1.7%, +1.3% and +0.5%, respectively, while Credit lagged its reference index by 0.7%. In response to Mr. Kalbach's question: Mr. Harris stated we have historical cash outside the portfolio for 95 days since we pay construction contractors first then draw the money from the bond funds. In response to Ms. Boone's question: Mr. DiCosola stated the portfolio is highly liquid and can be accessed quickly if cash is required. In response to Ms. Boone question: Mr. DiCosola stated we have been rebalancing the portfolio in areas where there has been excessive growth.	

Agenda Item	Comments/Discussion	Approvals/Action
7. INVESTMENT POLICY REVIEW	Antonio DiCosola and Chris Kuhlman, Pavilion Advisory Group, reviewed the Investment Policy Statement and highlighted a few clarifying issues they wanted to review with the Committee. Mr. DiCosola recommended two minor changes on page 7; section d(2) - add in the sentence "and diversified pools of direct hedge fund" and also add "No more that 15% of the hedge portfolio can be allocated to a single direct hedge fun at the time of purchase." It was noted that the permissible asset allocation ranges stated within the Policy do not allow much flexibility, particularly if Pavilion, management and the Committee felt it were prudent to move to a more defensive stance in the event of market distress. Following discussion, the Committee agreed to recommend expanding the permissible ranges for broad fixed income and short term fixed income. *The Committee recommends the Board approve the following changes to the Surplus Cash portfolio asset class ranges: change the Broad Fixed Income range to 0% - 35% and Short Term Fixed Income range to 8% - 40%.* *Chair Davis recommends Pavilion Advisory Group work with management to develop a draft of the approved Investment Policy changes to be reviewed by the Committee.*	*The Committee recommend the Board approve, to change the ASSET CLASS - Broad Fix Income to becom 0% - 35% and Short Term Fixed Income to become 8% - 40%.*
8. ADJOURN TO CLOSE SESSION	**Motion:** To adjourn to close session at 6:47 pm. **Movant:** Kalbach **Second:** Nelson **Ayes:**, Boone, Davis, Kalbach, Nelson **Abstentions:** None **Absent:** Conover **Excused:** None **Recused:** None	***A motion to adjourn to the Investment Committee meeting at*** 6:47 pm ***was approved.***
9. AGENDA ITEM 12 RECONVENE OPEN SESSION	*Agenda Item 10 was conducted in closed session.* Chair Davis reported that the Closed Minutes of the August 13, 2018 were approved. Mr. Conover was absent. All other Committee members were present.	
10. AGENDA ITEM 13 ADJOURMENT	**Motion:** To adjourn the Investment Committee meeting at 6:50 pm. **Movant:** Kalbach **Second:** Nelson **Ayes:**, Boone, Davis, Kalbach, Nelson **Abstentions:** None **Absent:** Conover **Excused:** None **Recused:** None	***A motion to adjourn to the Investment Committee meeting at 6:50 pm was approved.***

Attest as to the approval of the Foregoing minutes by the Investment Committee of El Camino Hospital:

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Jeffrey Davis, MD, Chairman
ECH Investment Committee of the Board of Directors

Minutes of the Open Session of the
Joint Investment & Finance Committee of the Board of Directors
Monday, January, 28th 2019
El Camino Hospital, 2500 Grant Road, Mountain View, California
Conference Room A

Members Present
Investment Committee:
Nicola Boone - (By phone)
Jeffrey Davis, MD, Chair
Gary Kalbach
Brooks Nelson

Finance Committee
Boyd Faust - (By phone)
William Hobbs - (By phone)
Richard Juelis - (By phone)
Gary Kalbach
John Zoglin, Chair

Members Absent
Joseph Chow
John Conover

Members Excused

A quorum was present at the El Camino Hospital Investment Committee on Monday, January 28th 2019 meeting.

Agenda Item	Comments/Discussion	Approvals/Action
1. CALL TO ORDER/ ROLL CALL	The open session meeting of the Joint Investment and Finance Committee of El Camino Hospital (the "Committee") was called to order at 5:30 pm by Chair Mr. Jeff Davis. Mr. Hobbs participated by phone, Mr. Faust joined by phone at 5:32 pm during agenda item 3, and Ms. Boone joined by phone during closed session. Mr. Conover and Mr. Chow were absent. All other Committee members were present.	***None***
2. POTENTIAL CONFLICT OF INTEREST DISCLOSURES	Chair Davis asked if any Committee member or anyone in the audience believes that a Committee member may have a conflict of interest on any of the items on the agenda. No conflict of interest was reported.	***None***
3. PUBLIC COMMUNICATION	Chair Davis asked if there was any public communication to present. None were noted.	***None***
4. ADJOURN TO CLOSE SESSION	**Motion:** To adjourn to close session at 5:32pm. **Movant:** Kalbach **Second:** Nelson **Ayes:**, Davis, Kalbach, Nelson, Faust, Hobbs, Juelis, and Zoglin **Abstentions:** None **Absent:** Conover, Chow and Boone **Excused:** None **Recused:** None	***A motion to adjourn to the Joint Investment & Finance Committee meeting at*** 5:32 pm ***was approved.***
5. AGENDA ITEM 7 RECONVENE OPEN SESSION	*Agenda Item 5 was conducted in closed session.* Chair Davis reported that Mr. Hobbs & Mr. Faust participated by phone, Ms. Boone joined by phone at 5:36 pm during agenda item 5, and Mr. Conover and Mr. Chow were absent. All other Committee members were present.	
6. AGENDA ITEM 8 ADJOURMENT	**Motion:** To adjourn the Investment Committee meeting at 6:22 pm. **Movant:** Kalbach **Second:** Nelson **Ayes:**, Boone, Davis, Kalbach, Nelson, Faust, Hobbs, Juelis, and Zoglin **Abstentions:** None **Absent:** Conover and Chow **Excused:** None **Recused:** None	***A motion to adjourn to the Joint Investment and Finance Committee meeting at 6:22 pm was approved.***

Attest as to the approval of the Foregoing minutes by the Investment Committee of El Camino Hospital:

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Jeffrey Davis, MD, Chairman
ECH Investment Committee of the Board of Directors

	Item:	Finance Committee Report El Camino Hospital Investment Committee (IC) February 25, 2019
	Responsible party:	Iftikhar Hussain, CFO
	Action requested:	For Information
	Background: The Finance Committee meets 7 times per year. The Committee last met on January 30, 2019 and meets next on March 25, 2019	
	Summary and session objectives: To update the Investment Committee on the work of the Finance Committee. a. Reviewed FY 19 Period 6 financial report. Operating margin is $9.6 million ahead of budget due to higher revenues and lower expenses. Revenue cycle operations continue outstanding performance with cash collection and days in AR ahead of target.	
	Proposed Board motion, if any: a. Approved capital funding request for Women's Hospital, SVMD clinic site, imaging equipment replacement, emergency water waste storage, and DaVinci surgical robot. b. Recommended Board approval for LG hospitalist panel and newborn panel contracts	
	LIST OF ATTACHMENTS: The Finance Committee Open Session Materials may be accessed by clicking here.	

El Camino Hospital
THE HOSPITAL OF SILICON VALLEY

INVESTMENT COMMITTEE PACING PLAN
Revised 02/05/2019

FY 2019: Q1		
JULY – NO MEETING	**AUGUST 13, 2018 Meeting**	**SEPTEMBER – NO MEETING**
	▪ Capital Markets Review and Portfolio Performance ▪ Tactical Asset Allocation Positioning and Market Outlook ▪ Educational Goal – Investment strategy in volatile markets ▪ CFO Report Out – Open Session Finance Committee Materials	N/A
FY 2019: Q2		
OCTOBER – NO MEETING	**NOVEMBER 12, 2018 Meeting**	**DECEMBER – NO MEETING**
October 24, 2018 – Board and Committee Educational Session	▪ Capital Markets Review and Portfolio Performance ▪ Tactical Asset Allocation Positioning and Market Outlook ▪ Investment Policy Review ▪ CFO Report Out – Open Session Finance Committee Materials	N/A
FY 2019: Q3		
JANUARY 28, 2019	**FEBRUARY - 25, 2019 Meeting**	**MARCH – NO MEETING**
Joint Finance Committee and Investment Committee meeting.	▪ Capital Markets Review and Portfolio Performance ▪ Tactical Asset Allocation Positioning and Market Outlook ~~▪ Asset Allocation Review and ERM Framework~~ ▪ CFO Report Out – Open Session Finance Committee Materials ▪ Proposed FY 2020 Goals/Pacing Plan/Meeting Dates	
FY 2019: Q4		
APRIL – NO MEETING	**MAY 13, 2019 Meeting**	**JUNE – NO MEETING**
April 24, 2019 – Board and Committee Educational Session	▪ Capital Markets Review and Portfolio Performance ▪ Tactical Asset Allocation Positioning and Market Outlook ▪ Asset Allocation Review and ERM Framework ▪ CFO Report Out – Open Session Finance Committee Materials ▪ 403(b) Investment Performance ▪ Committee Goal ▪ Review status of FY19 Goals	N/A

INVESTMENT COMMITTEE PACING PLAN
Revised 02/05/2019

MOODY'S INVESTORS SERVICE

OUTLOOK
15 November 2018

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Emerging Markets — Global

2019 outlook broadly stable; higher rates, politics and trade tensions pose some risks

Summary

» **Slower global growth, rising interest rates, trade protectionism and geopolitical tensions pose challenges for emerging markets in 2019.** Our broadly stable outlook incorporates the likely resilience of most EM issuers to these challenges, thanks to a range of different buffers including strong balance sheets, domestic growth and supportive policy. Nonetheless, credit stress could emerge for issuers operating in countries with macroeconomic imbalances or rising political risk, particularly those highly reliant on international financing.

» **EMEA credit conditions are mixed, driven by variations in growth, policy, politics and external liquidity.** Our outlook for sovereigns and sub-sovereigns is negative for Turkey and parts of Africa, mixed for the Middle East and stable for Central and Eastern Europe. For financial institutions, structured finance and corporates, the outlook is mostly stable, but we see risks for issuers in Turkey and South Africa. Conditions are also stable for infrastructure and project finance issuers, but there are geopolitical and liquidity risks in some markets.

» **Greater policy certainty supports stable credit conditions in most of Latin America, except in Argentina**. With elections now over in many large countries, policy direction is clearer, alleviating the domestic political uncertainty that posed risks in 2018. Except in Argentina, growth is recovering from 2016-17 lows, supporting stable conditions for most sectors. Looking ahead, the biggest risk to Latin American credit conditions is the region's exposure to rising interest rates, trade protectionism and other geopolitical events.

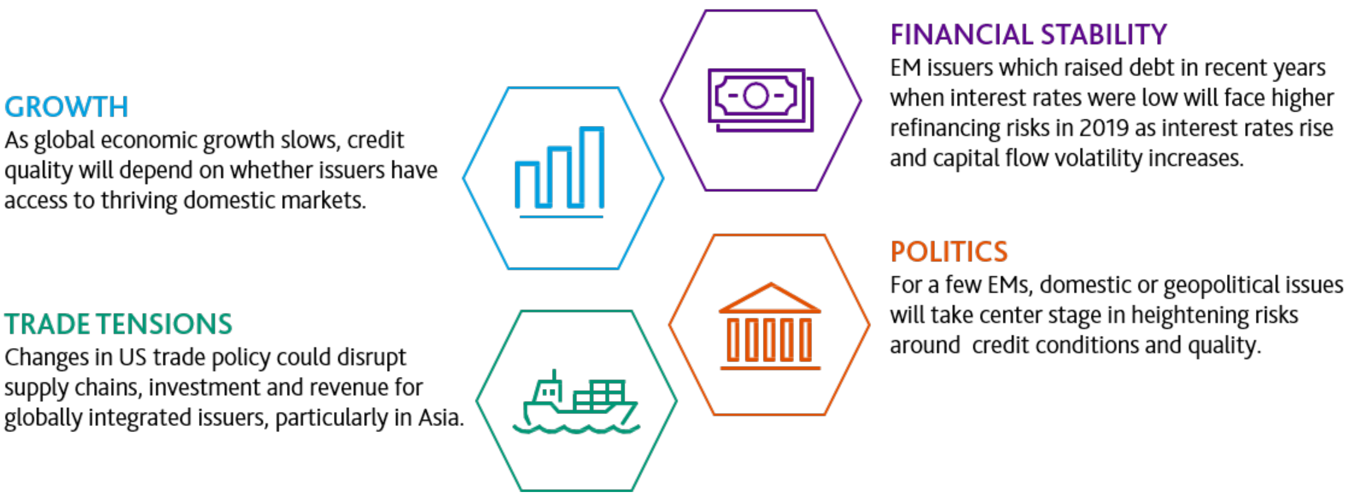
» **Trade tensions are the biggest risk to Asia Pacific's broadly stable outlook, with tightening global liquidity posing another risk.** Most economies will continue to grow at a solid, if slowing pace. However, growing trade tensions between the US and China could hurt growth and sentiment. For financial institutions, tightening dollar liquidity and rising interest rates pose some risks. Structured finance transactions will continue to perform strongly in China, but some delinquency rates may rise in India. For corporates and infrastructure and project finance issuers, our expectations for earnings stability or growth support our stable outlook. But we expect a more challenging year for a number of sectors.

Emerging markets remain vulnerable to tightening global conditions, but most have sufficient buffers

Atsi Sheth, MD-Credit Strategy

We expect credit conditions to be more challenging in 2019 as growth slows, financial market volatility continues, interest rates rise and the effect of trade and investment frictions between the US and China unfolds across the global economy.

Emerging markets will confront an array of risks in 2019



Emerging market issuers which increased their debt in recent years when interest rates were low could find it harder to refinance that debt in 2019. Emerging market eurobond issuance rose by about 40% a year in both 2016 and 2017, but fell 20% in the first 10 months of 2018 compared with the same period in 2017.

On the other hand, even as external conditions turn less favourable, the credit quality of many emerging market issuers benefits from domestic buffers including still solid growth, deepening financial markets and policies to offset external challenges. This is partly reflected in the relatively low emerging market non-financial corporate default rate of 1.0% as of August 2018, compared with 1.3% a year earlier and 2.0% for corporates in advanced markets.

Our broadly stable outlook for emerging markets in 2019 describes overall trends in the emerging markets we rate, which includes 101 sovereigns, including frontier markets, and more than 1500 other entities. [1] But within this broad outlook we expect different outcomes based on the economic, institutional and demographic differences among the group of countries clubbed together as emerging markets.

Countries with domestic macroeconomic or political challenges of their own are more vulnerable to episodes of global investor risk aversion, while those with large, growing domestic markets and multiple instruments in their policy toolboxes are more resilient. In fact, the largest among this latter group shape the external environment as much as their fortunes are shaped by it.

Despite these differences, stress in a few emerging markets can still disrupt international financial flows to others, as we saw in 2018. Moreover, compared with their counterparts in advanced economies, sovereign-related risks play a greater role in determining credit quality for corporates and other non-sovereign entities operating in emerging markets. For instance, the sharp currency depreciation driven by sovereign credit risks in Turkey and Argentina had negative consequences for a range of non-sovereign issuers in those countries.

In the sections that follow, we break down our outlook by sector and region, identifying those areas where we see higher risks and the different channels through which these risks could crystallize.

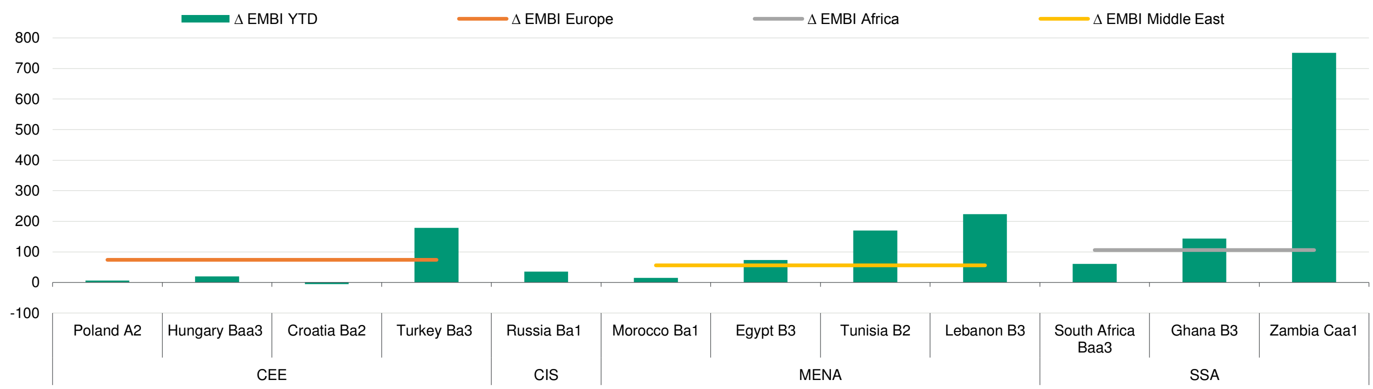
Sovereigns & sub-sovereigns — EMEA: tightening global liquidity, trade frictions, reform prospects and geopolitics drive mixed credit outlook

Elisa Parisi-Capone, VP-Senior Analyst & Gjorgji Josifov, AVP-Analyst

Credit trends for 2019 are mostly negative in **Africa**, mixed in the **Gulf Cooperation Council (GCC)**, and stable for the **Commonwealth of Independent States (CIS)** and **Central and Eastern Europe (CEE)**. In addition to global trends like fading global growth, tightening financing conditions and global trade frictions, idiosyncratic and region-specific factors will drive emerging market credit quality in EMEA. These include: (1) mounting institutional challenges and policy uncertainty in **Turkey (Ba3 negative)**, the **CEE** and ongoing hurdles to reform in parts of the **GCC**; (2) weak fiscal and reserve buffers among **African** commodity exporters, which increase their vulnerability to a sharp tightening in financing conditions and/or another terms-of-trade shock; and (3) geopolitical event risks such as the risk of further sanctions on **Russia (Ba1 positive)** and **Iran**, the latter with implications for oil prices and oil importers in EMEA.

Exhibit 1

Change in sovereign risk premia reflects global, regional and idiosyncratic factors
(YTD change in EMBI spreads, basis points)



Year-to-date spread change from 1 January, 2018 to 5 October, 2018
Sources: JP Morgan Emerging Markets Bond Indexes, Haver Analytics, Moody's Investors Service

Our baseline scenario includes weakening growth prospects in much of EMEA. Where growth is set to rise, it will remain below the average rates achieved earlier this decade. For Turkey we forecast significantly slower economic activity than before, of 1.5% in 2018, followed by a 2.0% contraction in 2019. We expect GDP growth of 0.5% in 2018 and 1.3% in 2019 in **South Africa (Baa3 stable)**. Growth will slow but remain healthy in the **CEE** economies at 3.7% in 2019, down from 4.3% in 2018. The impact on regional and local government finances in the CEE will be rather muted and healthy fiscal and debt positions in the region will be supported by a range of tax changes and tighter cost controls. Economic growth should recover in the **GCC** and in **Africa**, although at rates that remain below the 2014-15 slump in commodity prices. **Russia's** growth performance will remain broadly stable at 1.8% in 2018 and 1.6% in 2019, anchoring regional CIS growth among other member states at almost 3.5% this year and next through its trade and financial ties.

An escalation of global trade frictions would potentially affect the global automotive value chain in which mostly countries in CEE participate. We estimate the potential imposition of 25% tariffs by the **US (Aaa stable)** on vehicles and parts will have very limited credit implications because they shave less than 0.1 percentage point off our current regional growth forecasts, including in **Hungary (Baa3 stable)** which is among the most exposed economies. In a scenario of broader global trade disruptions, lower commodity prices as a result of a sharp slowdown in global trade and growth would compound the credit challenges of commodity-producing African sovereigns.

Liquidity will tighten in the euro-denominated segment as the ECB ends its asset purchase programme by the end of this year and starts its tightening cycle in 2019. Although manageable, **Hungary** and **Croatia (Ba2 stable)** are the most exposed sovereigns in CEE to higher borrowing costs based on the respective amount of public and external debt they have.

Credit risks also relate to a potentially sharper tightening of global financing conditions than we currently assume. Such risks remain high in **Turkey** where vulnerability to external market conditions combines with reduced policy credibility. Further lira depreciation would increase the debt servicing costs of the government and Turkish metropolitan municipalities, which also have high levels of foreign-currency debt. Any improvement in Turkey's credit profile hinges on the government's ability to engineer a soft landing of the economy and improve investor sentiment through credible policy measures.

African sovereigns like **Zambia (Caa1 stable)** and **Ghana (B3 stable)** are also highly exposed to financial market contagion via their fiscal or external accounts. By comparison, **South Africa's** strong core institutions, its long-term government debt structure, access to deep domestic financial markets and limited reliance on foreign currency-denominated debt reduce the likelihood and impact of a potential further sharp depreciation of the rand and capital outflows.

The future pace of fiscal reform implementation will affect our credit assessment of **Bahrain (B2 negative)** and **Oman (Baa3 negative)** where oil price sensitivity remains very high amid persistent fiscal and external imbalances. Conversely, progress with macroeconomic reform implementation underpins **Egypt's (B3 positive)** and **Armenia's (B1 positive)** improving credit trends. Frictions with EU rule of law standards in **Poland (A2 stable)** and **Hungary** could result in penalties through an escalation of infringement proceedings, but are unlikely to drive credit quality in our central scenario.

The credit quality of emerging market EMEA sovereigns remain exposed to medium probability and high impact geopolitical risks, particularly further US sanctions on **Russia** and **Iran**. The Russian economy's ability to weather any further sanctions will be an important credit quality driver. Higher oil prices arising from US restrictions on the purchase of Iranian oil amid tight global spare capacity are credit negative for energy importers with weak fiscal and external buffers, including lowly rated sovereigns in MENA such as **Lebanon (B3 stable)** and **Tunisia (B2 negative)**.

Financial institutions — EMEA: slower but steady economic growth and improving regulations drive stable outlook

Constantinos Kypreos, Senior Vice President

Although tightening global financial conditions pose risks to developing countries, our outlook for most emerging markets in the EMEA region remains stable for financial institutions because of broadly steady — though still below potential — economic growth and improving regulations. The one exception to this is **Turkey**, where a negative operating environment merits a negative outlook. Banks in **Africa** also face higher risks because of their exposure to dollar-denominated lending and funding.

However, in most of EMEA banks will continue to reduce their nonperforming loan ratios, partly because of tighter regulation and better supervision. This will also improve liquidity management and capital buffers. In **CEE** countries, which are well embedded into the EU supply chain, benign macroeconomic conditions will moderately boost business growth.

Steady oil prices would strengthen lenders in the **Gulf**, where funding and liquidity constraints are easing. Oil and commodity prices would also bolster exporters in **Russia**, benefiting its economy and banks. However, Russian banks remain exposed to potential geopolitical risks, including new sanctions. If fresh sanctions weakened confidence and investment they could impede banking system growth.

African banks should benefit from a recovery of regional economic growth, especially in East Africa and the West African Economic and Monetary Union and from greater political stability in South Africa and higher commodity prices, helping banks in oil exporting nations such as **Angola** and **Nigeria (B2 stable)**. Nonetheless, tighter global financial conditions could accelerate capital outflows and weaken exchange rates, straining foreign currency liquidity and loan quality. Many African banking systems remain partly dollarised as dollar-denominated loans make up a significant portion of bank balance sheets. As a result, a rise in portfolio outflows and currency devaluations could hurt asset quality for foreign currency denominated loans that are spread out among unhedged borrowers.

In **Turkey,** our negative outlook is driven by a deteriorating operating environment, higher funding risks and our expectation that the solvency of Turkish banks will remain weaker than reported figures suggest because of regulatory forbearance. Turkish inflation will remain high and we expect economic growth to slow sharply. This, along with a significantly weakened Turkish lira, will worsen loan quality, profitability and capital at Turkish lenders. Turkish banks' heavy reliance on foreign currency funding also increases the risk that they could face a funding squeeze if already weak investor confidence worsened and limited their access to market funding.

Overall, we expect demand for credit to accelerate moderately and for problem loan levels to decline modestly in most EMEA markets. Solid economic growth in the euro area will be particularly helpful to **CEE** banks that are tied into EU trade and supply chains.

Broadly speaking, regulatory improvements will also help banks to strengthen their capital buffers, gradually reduce problem loans and better manage liquidity. Improved supervisory rules include: (1) the gradual implementation of Basel III rules in **Africa** and **Russia**; (2) stricter borrower-based lending criteria and higher capital requirements for specific market segments such as mortgages and consumer lending in **CEE**; (3) limits on related-party exposures and closer regulatory scrutiny of loan collateral management in Russia; and (4) the implementation of IFRS9 in most countries. We also expect growth in mobile banking to improve financial inclusion and efficiency metrics at **African** banks over the medium term.

Better regulation, enhanced supervision and economic growth also support our stable outlook for the **insurance** sector. Risk-based capital and actuarial reserving requirements have been introduced in major markets in the **Gulf.** This should help improve insurers' sophistication, profitability, capitalisation, asset quality and overall credit quality. Low insurance penetration levels present good growth opportunities, but actual growth may remain somewhat subdued because of intense competition between insurers in these markets which limits their ability to increase pricing.

Structured finance — EMEA: mixed deal performance as macroeconomic conditions diverge

Antonio Tena, VP-Senior Analyst & Martin Lenhard, VP-Senior Credit Officer

Within markets like **Russia, Turkey, Hungary** and **Poland**, deal performance will remain stable, but economic challenges will moderately increase arrears in **South African** securitisations.

In **Russia**, we expect stable performance among the residential mortgage-backed securities (RMBS) and small and medium-sized enterprises asset-backed securities (SME ABS) deals that we rate. The low levels of arrears will be backed by: (1) relatively low loan-to-value (LTV) ratios attributable to a legal requirement, because loans with LTV above 80% are not eligible for securitisations; (2) stabilising house prices; and (3) lower interest rates. We expect further expansion in the domestic mortgage market in 2019, with rising origination volumes. Origination of new mortgages in the first eight months of 2018 was up 50% year-on-year.

Stable performance in underlying **Turkish** assets will continue in 2019, although we expect a decline in demand for properties and a real term house price depreciation. Turkish covered bonds backed by residential mortgage loans currently benefit from robust collateral because mortgage loans are denominated in domestic currency, with fixed rate interest and mortgage loan LTVs limited to 80%.

Covered bonds are debt securities that benefit from recourse to the issuer. Therefore the future credit quality and performance of the covered bond programmes we currently rate will depend on the performance of the issuing banks and the government.

In **Hungary** and **Poland**, deal performance will remain stable among residential mortgage covered bond programmes that we rate thanks to: strong GDP growth, low unemployment, growing disposable income, low interest rates and regulatory limits on debt-to-income, LTV and loan maturities. We currently rate covered bonds in both countries, with further activity to follow in 2019. Covered bonds will become a more important funding tool for banks' growing mortgage loan portfolios because they allow banks to gain access to a larger investor base and to cheaper, longer term funding.

Finally, weaker-than-expected economic performance will moderately increase arrears in existing **South African** securitisations that we rate. However, despite the expected increase in arrears for consumer credit, some of the deal characteristics, especially low LTVs in RMBS, will lessen any material increase in losses. RMBS transactions show very low loss levels.

Non-financial corporates — EMEA: credit conditions broadly stable, negative for Turkey and South Africa

Artem Frolov, VP-Senior Credit Officer

Geopolitical risks, policy predictability, commodity prices and currency volatility will be the main drivers of credit quality for corporates in **Russia**, **Turkey**, the **GCC** and **South Africa** — the emerging markets with the largest number of rated non-financial companies in EMEA — in 2019.

Our outlook for credit conditions for corporates in **Russia** is stable, based on broadly steady GDP growth and oil prices and a step up in government spending under state-sponsored development projects, supporting domestic demand. Exporters such as oil and gas, steel, mining and chemical companies will continue to benefit from the weak rouble boosting their earnings in dollar terms. But prospects for earnings growth are limited for corporates focused on the domestic market in the retail, telecoms and transportation sectors because of sluggish domestic demand. Borrowing costs will remain high for Russian corporates both internationally and domestically, driven by the threat of continuing sanctions and potential tightening of domestic monetary policy to curb inflation. However, most companies we rate have enough liquidity to repay debt through 2019 without new external funding. Large and financially healthy private corporates in the steel, mining and chemical sectors may have to help finance state-sponsored projects under the latest state initiative to extract their “windfall” profit, but this should not undermine their creditworthiness.

Our outlook for corporate credit conditions in **Turkey** is negative, driven by policy unpredictability, heightened inflation and ongoing currency volatility. High inflation and the weaker lira will raise corporates' costs. Companies focused on the domestic market, and particularly those in discretionary and premium segments, will find it harder to pass these costs on in a slowing economy where consumers' disposable income is falling. Fiscal tightening will lead to a reduction in infrastructure spending, which will affect the construction and industrial sectors and further reduce growth and consumers' purchasing power. Corporates which have weak liquidity and large short-term debt maturities are particularly exposed to the loss of access to external funding, and will suffer first from sharply higher borrowing costs. However, exporters will continue to benefit from a lower cost base. [2]

We have a stable outlook for credit conditions for **GCC** corporates. The increased oil price is reducing fiscal deficits and governments are slowing the pace of reforms which have raised inflation and constrained companies' profit margins at times in the past two years. Regional ethane-based petrochemical companies in particular will benefit from increased oil prices. Government spending on infrastructure and strategic projects which contribute to economic diversification will support non-oil businesses. The GCC corporate sector is dominated by state-owned enterprises, many of which benefit from strong business positions, good access to funding and supportive shareholders, and this has helped offset recent economic volatility. However, small and medium-sized corporates' credit quality improvement will be curbed by rising interest rates, below average economic growth and the knock-on effects of earlier government reforms. The real estate and construction sectors are most exposed to a softer operating environment. Geopolitical tensions also persist and this is negative for some sectors such as Qatar's hospitality industry, which continues to suffer from the boycott by some of its GCC neighbours.

Low economic growth and policy uncertainty will remain key constraints for non-commodity corporates in **South Africa**, where our outlook for credit conditions is negative. Combined with the rise in oil prices in 2018, the weak rand has pushed up inflation and reduced consumers' disposable income. This has made it harder for companies to pass on price increases and weakened profitability. However, the weak rand will support the credit quality of commodity companies, especially miners and Sasol Limited (Baa3 stable), because costs which are mostly in rand decline relative to revenue in dollars. Companies with hard currency offshore operations which report earnings in rand will also benefit from the rand's weakness. Large diversified corporates also remain somewhat insulated from currency volatility. [3] Greater regulatory certainty in both the telecoms and mining sectors has brought about stability: a revised mining charter has been introduced and steps taken to free up valuable spectrum for the South African telecom operators by April 2019 which will unlock investment in the sector. Government policy predictability has become less certain as elections approach in South Africa, the **Democratic Republic of the Congo** (B3 negative) and **Nigeria**, heightening credit risk for South African corporates operating in these countries.

Infrastructure & project finance — EMEA: credit outlook broadly stable; geopolitical and liquidity risks in some markets

Helen Francis, VP-Senior Credit Officer

The credit outlook for 2019 is stable overall. While environmental policies drive a more difficult operating environment for many companies in this sector, in many instances this is offset by government ownership and their role as essential service providers. Within the region, credit trends in **Turkey** remain negative, reflecting reduced policy credibility. Tightening global financial conditions are also a factor and may present risks for highly leveraged companies elsewhere in the region. Nonetheless, credit enhancements from multilateral development banks will provide support for infrastructure investment.

Decarbonisation policies will continue to shape most national **CEE** power markets, in line with the EU's goal of reducing emissions by 40% by 2030 from 1990 levels, consistent with the Paris Agreement. Balancing the quest for affordable power with clean energy objectives remains difficult. In coal-dependent **Poland,** state-owned utilities PGE Polska Grupa Energetyczna SA (Baa1 stable) and Energa SA (Baa1 stable) continue to invest in new coal-fired plant. Profitability is likely to be underpinned by contracts under recent nationally approved capacity market mechanisms. Nonetheless, coal's importance will probably reduce over the longer term and new renewables legislation should accelerate investments in clean energy, but only from a low base.

In **Bulgaria, Croatia** and **Romania**, the respective state-owned utilities Bulgarian Energy Holding EAD (Ba1 stable), Hrvatska elektroprireda d.d. (Ba2 stable) and Transelectrica S.A. (Ba1 positive) will need to invest in large infrastructure upgrades, in line with the EU's additional aims to develop and connect electricity markets and ensure security of supply.

Our estimate of PPP-weighted average economic growth of 3.7% across CEE and companies' generally robust financial metrics provide credit support, but this could be eroded if the most affected companies cannot adapt to a more difficult operational environment. This is particularly the case in Poland, where generators' free carbon allowances are set to be eliminated by the end of the decade.

Negative credit conditions in **Turkey** act as a constraint on the credit strength of the port, Mersin Uluslararasi Liman Isletmeciligi A.S. (Ba2 negative). The company operates under a concession agreement with the state and all its assets and services are within Turkish jurisdiction. However, its stronger credit quality compared with the sovereign reflects demand from overseas markets, as well as majority ownership by a foreign shareholder. Elsewhere, the rating of Airports Company South Africa SOC Ltd (Baa3 stable) is constrained by **South Africa'**s credit strength, given the company's predominantly domestic base, despite low leverage and a solid revenue stream.

Tightening global liquidity conditions and potentially rising borrowing costs could affect highly indebted issuers, such as **South Africa's** dominant state-owned utility, Eskom Holdings SOC Limited (B2 negative), but support from the government via guarantees is likely to limit potential funding risks. The key challenges are in placing the company on a more stable financial footing, while providing electricity at a price that consumers can afford and gradually shifting the country from a high reliance on coal-based generation towards more renewable sources.

Nonetheless, credit enhancements from multilateral development banks, designed to insulate projects fully or partially from country risk to which investors are sensitive, should support further growth in infrastructure projects. This is reflected in the superior credit strength of projects in relation to the sovereign, such as ELZ Finance S.A. (Baa2 stable) supporting a hospital project in Turkey and Central Storage Safety Project Trust (Aa2 stable) in **Ukraine (Caa2 positive)**.

Sovereigns & sub-sovereigns — Latin America: steady economic growth and lower policy uncertainty support stable outlook in 2019, with some exceptions

Renzo Merino, AVP-Analyst & Maria del Carmen Martinez-Richa, VP-Senior Analyst

Credit conditions for Latin American sovereigns and sub-sovereigns in 2019 will be determined by economic growth performance and by the policy path that the region's new and incumbent administrations adopt. While country-specific trends will diverge, in general Latin American economies will continue to recover from their 2016-17 lows, although GDP growth levels will be lower than historical trends. We expect global liquidity to tighten in 2019, but only some of the region's sovereigns and sub-sovereigns are vulnerable.

While uncertainty related to election outcomes in **Brazil (Ba2 stable)** has dissipated, credit conditions will now depend on policy and fiscal dynamics as the new administration takes office. In 2019, growth is likely to remain at levels similar to 2018 and the incoming administration will probably pursue policies similar to those of its predecessor, including some form of pension reform to place government finances on a more sustainable path, although political fragmentation in congress will prove an obstacle.

For **Mexico (A3 stable),** uncertainty related to NAFTA renegotiations, which had weighed on investor confidence, has decreased, shifting investor focus to policy changes, particularly related to the energy sector. The new President Andrés Manuel López Obrador's political party has a congressional majority, aiding his ability to pursue his policy objectives. Our baseline assumes that growth will remain similar to 2018 levels and, although spending priorities will change, fiscal management will remain prudent and the central bank will remain independent. That said, we anticipate fundamental changes in the oil sector — including limiting crude oil exports and expanding the state's (PEMEX) role in refining activities — as the new administration moves to significantly limit the scope of the previous administration's energy sector reform.

Cyclical recoveries in **Chile (A1 stable)**, **Colombia (Baa2 negative)** and **Peru (A3 stable)** will continue but to differing degrees. Chile's economy will once again grow above its 3.0% potential, at around 3.6% on the back of robust private investment and high copper prices. [4] On the policy front, the focus will be on measures to boost economic growth, which could entail a new tax policy that reverses the previous government's reform.

In Colombia, the government's 4G infrastructure projects have started to bear fruit and, combined with higher oil production, will support growth of around 3.0% next year. The new president has proposed credit-supportive reforms in the form of corporate tax cuts to boost business activity, while lowering tax exemptions and widening the tax base. That said, structural hurdles to raising non-oil fiscal revenue and diversifying growth drivers remain key medium-term credit challenges. [5]

In Peru, growth will remain at its potential of around 4.0%, driven largely by domestic demand. A referendum in December 2018 could bring about credit supportive changes to political institutions, strengthening the judiciary and leading to improvements in the rule of law and control of corruption. [6]

Argentina (B2 stable) is an outlier in terms of growth: we expect real GDP to decline 1.5% in 2019 after contracting 2.5% this year, as the currency crisis filters through the economy and fiscal consolidation efforts ramp up. Further risks could emerge if recent corruption scandals reverberate across the broader economy, affecting private investment. [7] The ongoing corruption investigations have further damaged former President Christina Kirchner's reputation, which could support President Mauricio Macri's reelection bid next year. However, Macri's reelection prospects could be weighed down as the government pursues sharp fiscal and monetary adjustments amid a faltering economy.

Risks to our stable outlook for the region could emerge from a significant escalation in global trade wars or if the region's new administrations introduce radical changes to macroeconomic policies — neither of which is our base case. Such developments would dampen investor sentiment, with adverse consequences for the region's sovereigns and sub-sovereigns in the context of tightening global financial conditions. Heightened vulnerabilities to these credit risks are mostly limited to **Argentina** and its provinces, and to some extent **Ecuador (B3 stable)**. [8]For the most part, even as government debt burdens have grown, we have seen improvements in debt structures, a buildup in financial buffers and a decline in external imbalances since the commodity price shock of 2014-16.

Financial institutions — Latin America: steady economic growth supports stable outlook for banks, mutual funds and insurers

Georges Hatcherian, AVP-Analyst; Juan Bogarin, Analyst & Carlos de Nevares, VP-Senior Analyst

Stable economic growth will help support the operating environment for **banks** throughout Latin America, keeping problem loans at bay in most countries. Public policies in the region largely support healthy bank fundamentals, while generally high interest rates and low-cost deposit funding will fuel ample profitability and adequate capital. On average, the nonperforming loans (NPL) ratio will hover at a moderate 3% and return on assets will remain ample by global standards at around 1.5%.

In **Brazil**, President-elect Jair Bolsonaro appears likely to maintain current policies supporting a gradual economic recovery, which will stabilise asset quality and profit as loan growth, fees and lower provisions balance narrowing net interest margins (NIM). In **Mexico,** banks will also post stable asset quality and profitability metrics and maintain good capital buffers. The president-elect has pledged to respect the independence of the central bank and has not signalled any plans to change policies related to the country´s private banks.

A clear outlier to our otherwise benign outlook is **Argentina**, where double-digit inflation and a shrinking economy will raise asset risks and drive a sharp contraction in lending in real terms. The systemwide NPL ratio will double to 4.5% by the end of 2019, driving a sharp increase in credit costs. Although nominal profitability will remain stable, with net income equal to a seemingly robust 2.2% of tangible assets, the return on equity will be negative after adjusting for inflation. Nevertheless, despite the peso's volatility, deposit funding will remain stable and banks have a very limited reliance on cross-border markets.

Banks in **Peru** will continue to post the highest profit in the region and asset quality will stabilise following some recent deterioration. Earnings will be bolstered by strong cost controls and digitalisation efforts, as well as robust NIMs. In **Chile**, robust economic growth in 2019 will support asset quality and profitability. Earnings will also be fuelled by an increased focus on higher-margin retail lending. Despite **Colombian** banks' good fundamentals and stabilising asset risks, our outlook for the system is negative, which reflects a potential reduction in the government's capacity to support banks if needed.

Despite our stable outlook overall, Latin American banks face risks from rising trade tensions and still difficult global financial conditions. These could curtail economic growth and trigger a deterioration in asset quality, which could potentially erode profitability and capital buffers.

Our outlook for Latin America's **mutual fund** industry in 2019 is also stable. Low interest rates in **Brazil** should keep fees steady over the next year. Investors there may seek higher returns by shifting into portfolios with higher-yielding asset classes. With most asset managers relying on fixed-income securities, those specialized in equity and alternative investments could have an edge in profitability. A potential pension reform law could also increase demand for new pension funds, adding to already existing retirement plans and funds, which would boost assets under management (AUM) volumes.

Argentina's macroeconomic problems have led to volatile market conditions and returns, driving a sharp decline in investment flows into managed funds, and we do not anticipate a significant improvement in 2019. However, a capital markets law passed in mid-2018 will allow foreign asset managers to enter the Argentine market, which should increase competition when conditions do eventually improve. For **Mexico**, we expect stable market conditions for pension and mutual funds, allowing continued AUM growth.

While we expect steady economic growth throughout most of Latin America to boost business for banks and asset managers, we expect growth in the **insurance industry** to be more restrained. Sharp income disparities, a lack of insurance-friendly tax benefits and a limited range of nontraditional sales channels will continue to impede the industry's expansion despite low market penetration.

Structured finance — Latin America: Argentina's recession to spur defaults; Brazil and Mexico's GDP growth to support deals

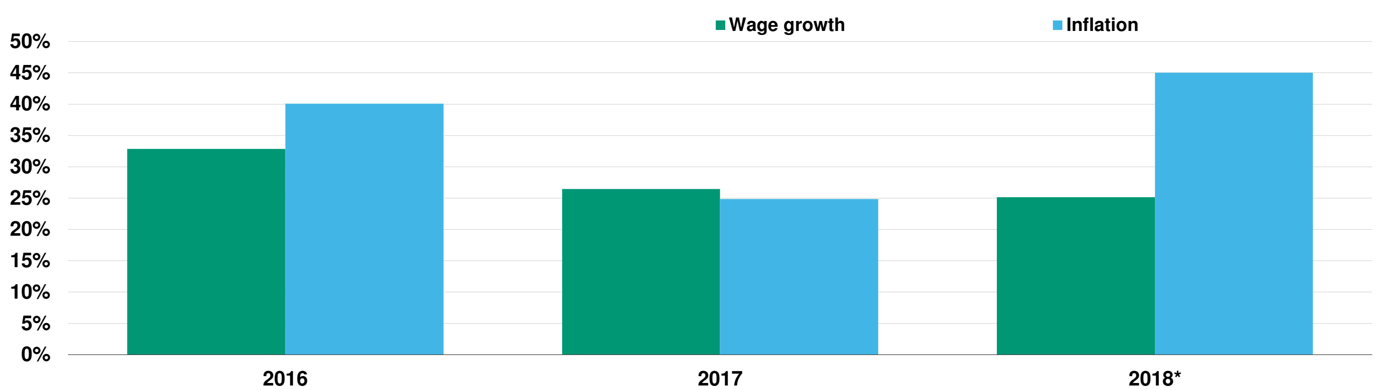
Karen Ramallo, Senior Vice President

Argentina's recession and high inflation will lead to rising loan delinquencies, cutting the credit quality of collateral in new and existing securitisations. This environment contrasts with ongoing moderate economic growth in Brazil and Mexico, which will continue to benefit deals. In Argentina, transactions' strong structural features will offset the risks of rising defaults, even as new deals face an increasingly risky borrower pool. Meanwhile, **Brazil's** regulatory and legal landscape will support the credit quality and viability of new deals, while **Mexico's** incoming administration plans to renew focus on mortgage lending to lower-income individuals, which may reinvigorate securitisation issuance.

In Argentina, the performance of existing deals and the asset quality of new issuances will deteriorate as GDP falls and unemployment rises. Contracting GDP will drive up joblessness and defaults on unsecured consumer loans, with borrowers prioritising essential spending over debt payments. Unsecured consumer loans make up most of Argentina's securitisation sector.

Compounding borrowers' financial burdens, price inflation for food and other necessities has far outpaced wage growth in 2018, as shown in Exhibit 2, sparking higher loan defaults. Although we expect inflation to decelerate in 2019, real wages will probably be held down by weaker nominal wage growth relative to inflation.

Exhibit 2
Consumer price inflation is outpacing wage growth in Argentina



*2018 annual inflation represents Moody's Investors Service projection as of November 2018; 2018 wage growth represents annualised wage growth based on trends between January 1, 2018 and August 31, 2018.
Sources: INDEC, Moody's Investors Service

Consumer price inflation, which far outstrips wage growth, will leave a smaller share of income available for debt payments, even though rising nominal wages mean that peso-denominated loan payments will make up a shrinking share of income. Real wage contraction has derailed the widely anticipated securitisation of inflation-indexed mortgage and consumer loans. If the government controls inflation, the knock-on effects of negative real wage growth will moderate.

For Argentina's new deals, the recession will hit collateral quality, despite lenders' efforts to tighten underwriting criteria. Cash-strapped borrowers who are undeterred by exorbitant interest rates will make up a larger share of loan applicants, and may make their way into securitised pools. However, new deals will benefit from rising credit enhancement and structures that quickly deleverage given their short durations.

In contrast to Argentina, **Brazil's** economy will continue to expand in 2019, though at a below-trend pace, backing the performance of the diverse securitization market that covers trade and agribusiness receivables, corporate bonds and auto loans, among other assets. GDP growth will support obligors' credit profiles, as the economy continues to heal from the record-long recession that ended in 2017. Also, deal sponsors will continue to demonstrate prudent lending practices, having learnt their lesson from a 2011-12 spike in nonperforming loans tied to the consumer credit boom among the growing middle class.

Regulations enacted in 2017-18 will also support new securitisations. New rules will strengthen agricultural securitisations by enhancing transparency and governance and reducing certain operational risks. Covered bond deals will enter the market, supported by a new legal framework and a stable banking sector. Legislators will probably vastly expand the availability of consumer credit information that lenders analyse, which may improve loan credit quality and cut losses. However, if the incoming administration abandons items in the economic reform agenda — an unlikely scenario — this switch could undermine growth and investor confidence.

Mexico's ongoing economic growth will support the securitisation market, which is dominated by RMBS. GDP growth of 2.2% in 2019, supported by recently concluded trade negotiations between the US, Canada and Mexico, and a continuously low unemployment rate will uphold loan performance. RMBS sponsored by government-related issuers (GRIs) comprise the bulk of the market and will continue to perform well because the underlying borrowers in these deals must participate in automatic payroll deduction programmes. If the revised trade agreement is not ratified, trade uncertainty could be a drag on the Mexican economy, a credit negative for securitisations.

Mexico's incoming administration plans to renew focus on mortgage lending to lower-income individuals and promote the use of securitization as a key funding source for government-related mortgage originators. These moves could reinvigorate securitisation after several years of limited issuance. To avoid repeating the housing quality problems and borrower defaults which plagued the non-bank lending sector in the past, the administration will continue to emphasise high quality and sustainable housing that is supported by adequate infrastructure and located near major employment centres.

Non-financial corporates — Latin America: credit conditions will remain stable overall in 2019, but will worsen in Argentina

Sandra Beltran, AVP-Analyst

We expect stable credit conditions for non-financial companies in most of Latin America's biggest economies in 2019 amid modest economic expansion in **Brazil** and **Mexico**, but credit conditions will be negative for business in **Argentina**.

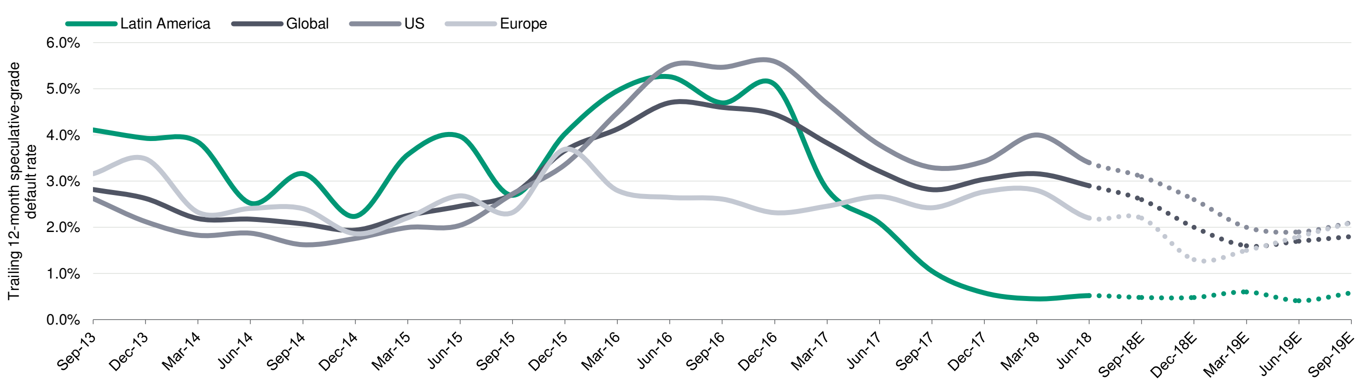
The political environment will remain a source of risk as new governments take office in Brazil and Mexico, while Argentina prepares for its own presidential election amid a challenging economic outlook. Also, companies in Latin America will remain exposed to global risks related to the US rising interest rates, protectionism and other geopolitical events. All those factors may impact demand for Latam's exports and further increase market volatily.

Still, Latin America's corporate default rate will remain lower than in other regions, following concerted efforts to improve costs, corporate governance, leverage and liquidity (see Exhibit 3).

Exhibit 3

Strong credit quality supports Latin America's benign outlook for corporate defaults

Trailing 12-month speculative-grade default rate



Note: Data as of September 30, 2018

Source: Moody's Investors Service

Brazilian corporate credit quality will benefit as the economy continues to emerge from its deepest-ever recession in 2015-16, and the country's new government will probably maintain policy continuity.

If Bolsonaro's government continues structural reforms it would reduce concerns about Brazil's growing fiscal imbalance, thereby containing market volatility and improving consumer sentiment. A more consistent economic recovery, combined with keeping interest rates low and inflation and local currency under control, would support local demand and allow companies to increase investments where needed.

This would be positive for domestic sectors such as consumer, airlines, telecom, automotive, homebuilders and steel, which all depend on disposable income, credit availability, unemployment and consumer confidence. However, recovery in the industrial sectors will remain gradual because capacity utilisation would take a long time to achieve the ideal supply/demand balance.

A stronger real would also reduce costs for local companies which depend on raw materials, services and equipment priced in US dollars. Exporters will remain partly insulated from local conditions, because they are more affected by changes in global demand. An aggressive appreciation of the real would reduce revenue for Brazilian exporters, just as trade tensions between the US and China threaten to slow global economic growth.

Credit quality will generally remain stable for **Mexican** companies through 2019 as business and consumer confidence recover from uncertainty over the 2018 presidential election and negotiation of the US-Mexico Canada Agreement (USMCA). Consumer demand will be far stronger, if limited by mild economic growth. Greater certainty over US trade will restart foreign direct investment growth, boosting manufacturing, construction and homebuilding.

The new administration's focus on fuel self-sufficiency heightens risks for the energy sector, however. This threatens to make Mexico a net crude importer and limit cash generation for national oil company PEMEX (Baa3 stable) while increasing its foreign exchange risk. Tourism is at higher risk after the announcement of the cancellation of the Mexico City airport project, an event that will hurt investment, employment and competitiveness.

Other Latin American countries such as **Peru, Chile** and **Colombia** are all set to resume growth in 2019, despite residual political uncertainty. Corporate credit quality has been generally improving in the past few years, and companies have strengthened market positions, brand recognition and geographic diversification, while improving financial policies and reducing foreign exchange and refinancing risk.

Argentina remains an outlier, with presidential elections in October 2019 increasing political and economic policy uncertainty on top of our forecast of an economic contraction in 2018 and 2019. Argentina's weak peso will continue to benefit oil and gas companies and agricultural exporters, even after the introduction of a 12% export tax in September 2018. But persistently high inflation and higher costs of funding aided by the central bank's extraordinary high policy rate through at least December 2018 — currently at 67% — will erode companies' coverage and liquidity. Inflation and a weakening economy both tend to increase working capital requirements, and although near-term corporate refinancing needs will be moderate overall, companies will rely on costly short-term credit facilities from banks.

Better agribusiness prospects in 2019 following a severe drought will more than offset reinstated export taxes, and exporters will benefit from continued currency depreciation, if more modestly than during 2018's steep depreciation. Lower economic activity and higher funding costs will probably slow energy sector investment, even as the ramp-up of key projects in 2019 sustains production growth and reserve replacement. Because of the rapid ramp up of unconventional gas production, companies are shifting towards new oil projects rather than natural gas. This is because, contrary to oil, putting the necessary infrastructure in place to be able to do large scale LNG exports to broaden local producers' demand will require several years and the execution risk is high.

Companies which depend on domestic sales will suffer most from the weak economy and high interest rates — particularly consumer durables producers, which depend heavily on discretionary consumer spending and homebuilders, with soaring inflation and interest rates cooling home purchases. Inflation, the weak peso and higher transport and utility tariffs will all cut purchasing power and record interest rates will make credit card financing unusually expensive. Foreign and domestic investment in Argentine construction will continue to weaken in 2019, as ongoing allegations of widespread bribery during 2003-15 continue to repel investors and bankers. The government's fiscal restraint also implies a significant drop in public works activities.

Infrastructure & project finance — Latin America: credit trends are generally stable, but risks remain elevated

Bernardo Costa, VP-Senior Analyst

Generally more positive short-term macroeconomic trends in most countries in the region will continue to support stable or mildly improving operating performance within the primary infrastructure sectors of transportation and energy. The general exception remains **Argentina**, where weakening macroeconomic conditions have reduced investor appetite for hard currency financing and local market debt is becoming increasingly more expensive, exacerbating refinancing risk.

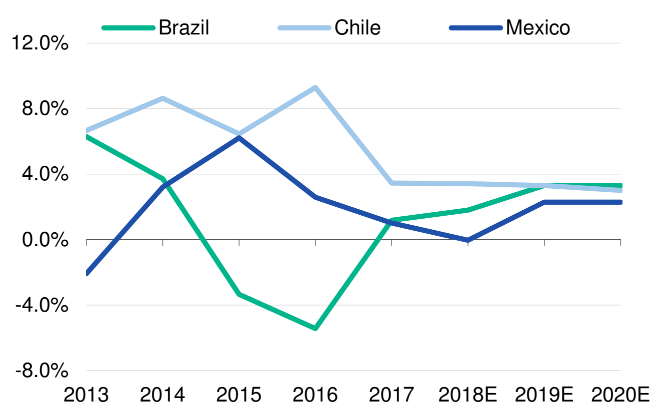
Within the Andean countries, higher GDP growth and better employment trends should lead to a mild improvement in revenue and cash flow within transportation and other demand-driven sectors. A cyclical recovery in mining investment is beginning to take shape, following the slowdown in 2016-17, which will benefit toll roads. As shown in Exhibit 4, we also expect a similar trend in **Brazil** and **Mexico**, although to a much lesser degree because of relatively lower growth expectations following the electoral cycle.

Within the energy sector, the completion and ramp-up of new renewable energy projects, as well as more favourable climate conditions, will probably lead to lower energy generation costs and improved margins for generation companies and energy utilities. Energy generation in Brazil, Chile and Colombia remains largely dependent on hydro resources, where below-average rainfall continues to make spot energy prices volatile (see Exhibit 5).

Exhibit 4

Traffic volumes are expected to grow

Average annual traffic volume performance in privately managed toll roads [1]

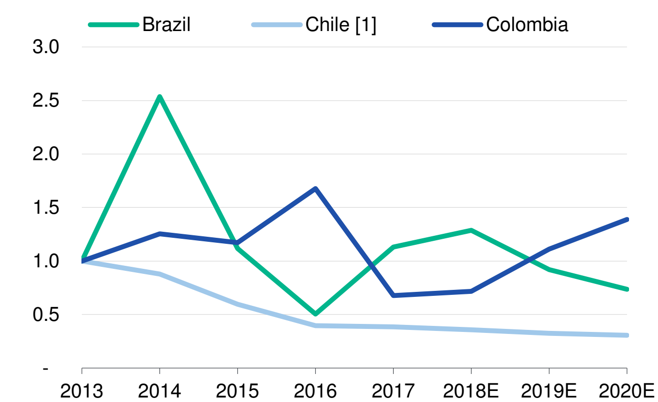


[1] Based on the Moody's rated portfolio
Source: Moody's Investors Service

Exhibit 5

Dependence on hydro power generation leads to high volatility of spot energy prices

Index of average annual local currency spot prices



[1] Historical prices in Chile reflect that of the Sistema Interconectado Central (SIC)
Sources: CCEE, Systep, XM

There are a rising number of wind and solar projects in Latin American energy markets, particularly in **Brazil**, **Chile**, **Argentina** and **Uruguay.** Regulatory frameworks continue to adapt to reflect the intermittent nature of the solar and wind energy resource. We expect further development of renewable power generation within these countries. In **Mexico**, we see a pickup in investment from the renewable auctions held in the past two years, whereas in **Colombia**, changes to the regulatory framework may support growth. As the renewables sector grows within the region, development costs will fall, which should ultimately benefit end consumers through lower power prices.

In most countries, regulatory frameworks within the energy sector will remain credit supportive and insulated from political pressure. A drastic change in policy direction following the presidential election in Mexico is possible and could build negative investor sentiment in the country. In addition to cancelling a project to build a new airport in Mexico City, we expect the next government to review the direction of energy reform and the role of the state-owned electricity utility, Comision Federal de Eletricidad (CFE).

Positive economic trends are counterbalanced by political and refinancing risks in **Argentina** and **Brazil**. Weakening macroeconomic conditions in Argentina may prompt a flight to quality by investors, reducing domestic and cross-border refinancing opportunities for most issuers. Because of the hard currency nature of their energy power purchase agreements with state-owned company CAMMESA, energy companies may find it harder to access cross-border financing. Foreign exchange rate volatility increases the availability and costs of hedging instruments for entities with revenue based in local currency. Domestic issuers are vulnerable to rising interest rates because debt is largely floating rate.

Some Argentina and Brazil domiciled companies also face refinancing difficulties as the result of ongoing corruption investigations. In **Argentina**, executives of several companies are subject to investigation over allegations of the bribery of government officials responsible for awarding government contracts. In **Brazil** CCR S.A. (Ba2 review for downgrade) and Ecorodovias Concessões e Serviços S.A. (Ba2 review for downgrade) are under investigation for allegations of the possible bribery of government employees in return for favourable contractual conditions and amendments related to toll road concessions in the State of Parana (Ba2 stable). These investigations could result in heightened refinancing risks as well as substantial fines.

Sovereigns & sub-sovereigns — Asia Pacific: stable outlook balances solid domestic fundamentals against rising external risks

Christian Fang, AVP-Analyst

In 2019, we expect slower growth in emerging economies in Asia Pacific, with a median growth rate of 4.8%, after 5.8% in 2018, as global trade slows and financing conditions tighten. Rising household incomes and a growing middle class, expanding working-age populations and infrastructure investment will continue to support robust growth rates across the region.

Reforms have increased foreign exchange reserve buffers — supporting policy credibility and effectiveness — and there is a general absence of macroeconomic imbalances for most countries in the region. These solid foundations support our stable outlook for sovereigns in emerging Asia Pacific. However, two main sources of risk: trade tensions and tightening financing conditions, threaten our stable outlook.

Escalating trade tensions between **China (A1 stable)** and the US pose risks to the region's growth. Under our baseline assumptions, incorporating a further escalation of US-China trade tensions, we expect still strong domestic demand and policy buffers to support solid, though slowing, GDP growth. However, any further reevaluation of investment plans would hurt not just China but many other Asia Pacific countries along the supply chain. In this scenario, trade-reliant economies in the region including **Malaysia (A3 stable)**, **Thailand (Baa1 stable)** and **Vietnam (Ba3 stable)** would face materially and durably slower growth. The potential for shifts in export production away from China to some of these economies could mitigate the negative impact, although supply chains do not evolve overnight.

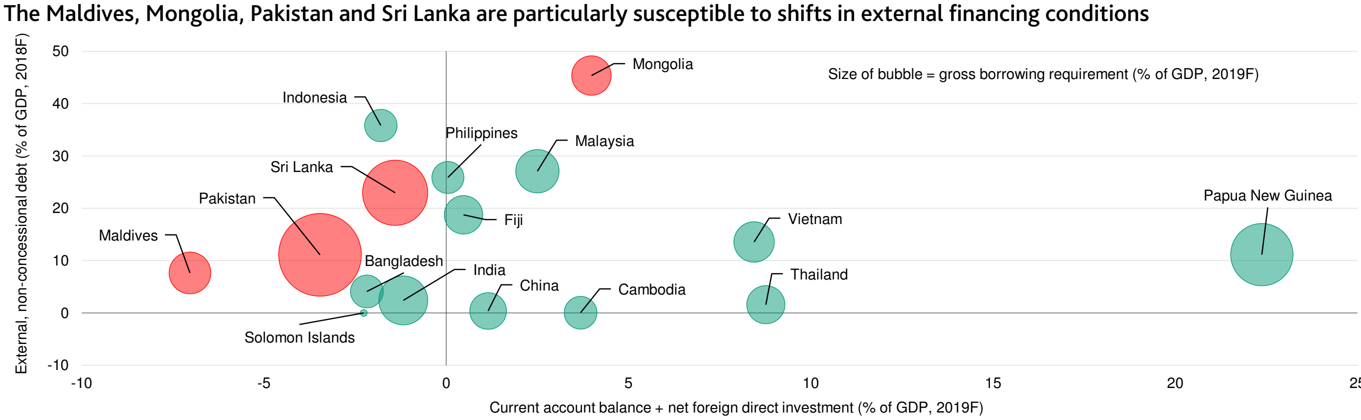
An intensification and broadening of the tensions between China and the US to investment restrictions and political relations more generally would pose an additional challenge to the Chinese authorities as they attempt to maintain an orderly deleveraging and de-risking of the economy and financial system.

Countries with twin current account and fiscal deficits are especially vulnerable to the shift in global funding conditions: in particular, those with current account deficits that are not fully financed by stable, long-term capital inflows, with large gross borrowing requirements and/or with significant reliance on external financing from commercial sources.

Credit negative pressures could materialise via weakening debt affordability as external funding costs mount, and/or through the rising value of foreign currency debt as the local currency depreciates. Currency weakening could also raise inflation and prompt additional domestic rate rises, which would pass through to local currency borrowing costs and further weaken governments' fiscal positions.

The **Maldives (B2 negative)**, **Mongolia (B3 stable)**, **Pakistan (B3 negative)** and **Sri Lanka (B1 negative)** stand out for their exposure to such external risks (see Exhibit 6). **Indonesia (Baa2 stable)** is also vulnerable, but has substantially larger buffers.

Exhibit 6
The Maldives, Mongolia, Pakistan and Sri Lanka are particularly susceptible to shifts in external financing conditions



Source: Moody's Investors Service

The **Maldives**' current account deficit has widened significantly in recent years because of large imports related to infrastructure investment. We estimate the current account deficit to be around 16% of GDP in 2019, half of which will probably be funded by stable foreign direct investment. Foreign exchange reserve adequacy is low at around two months of import cover, as of September 2018 and is vulnerable to reduced capital inflows given the fixed exchange rate. That said, the share of foreign currency debt is not particularly high and is largely owed to multilateral/bilateral lenders on concessional terms.

Mongolia's foreign exchange reserves coverage of upcoming external debt obligations is low, with an external vulnerability indicator (EVI) reading of 147% for 2019.[9] Although repayments of the government's external commercial debt are not due until 2021, the economy's high dependence on foreign currency debt leaves economic and fiscal conditions vulnerable to shifts in external financing conditions. Also, while Mongolia's external payments position is supported by higher commodity prices, stronger foreign direct investment and disbursements from the IMF and other bilateral lenders, this performance may not be entrenched in a less supportive commodity price environment.

Sri Lanka's large external financing needs and substantial foreign currency government debt raise its vulnerability. External payments due over the next year are materially higher than foreign exchange reserves, reflected in our forecast of an EVI of 161% for 2019. The government's gross borrowing requirement of about 16%-20% of GDP and significant foreign currency borrowing on commercial terms also make Sri Lanka sensitive to external financing conditions. Lengthening average government debt maturities mitigate this risk. Uncertainty about the direction of future policy following the recent political crisis could have a large and lasting negative impact on international investors' confidence, undermining Sri Lanka's ability to refinance forthcoming external debt at affordable costs.

Pakistan's reserves adequacy is among the lowest of rated sovereigns, covering less than two months of imports as of September 2018. Although the share of foreign currency debt is relatively low at around 35% of total government debt, declining foreign reserves because of a current account deficit of around 4%-5% of GDP raise repayment risks. We expect the EVI to rise to 153% in 2019. Successful negotiations for a new IMF programme would reduce external financing risks.

Indonesia is also vulnerable to tightening financial conditions, because the share of foreign currency debt owed to lenders on commercial terms is high at around 42% of total government debt and the government continues to run twin deficits, but only at modest levels. However, long average government debt maturities and substantial foreign exchange reserves provide a buffer.

Countries such as **Bangladesh (Ba3 stable)** and **Fiji (Ba3 stable)**, where dependence on short-term capital inflows is low and reforms and increasing economic competitiveness underscore domestic growth, will be relatively resilient to external pressures in 2019.

In **India (Baa2 stable)**, an ample foreign exchange reserves buffer and very low external debt levels help provide greater resilience to economic shocks including from potentially higher oil prices. However, India also faces a potential sharp slowdown in credit availability as non-bank financial institutions face a possible credit squeeze.

Financial institutions — Asia-Pacific: stable outlook for banks and insurance despite more difficult operating environment

Eugene Tarzimanov, VP-Senior Credit Officer & Qian Zhu, VP-Senior Credit Officer

For **banks** in emerging Asian economies, slower economic growth in Asia, tightening dollar liquidity and rising interest rates will result in a more difficult operating environment. Nevertheless, banks in the region have solid buffers which will protect their credit quality. For this reason, our outlook for emerging market banks in Asia is stable.

Our chief concern for 2019 is the escalating US-China trade dispute and the spillover effects that this could have on supply chains and financial markets. Financial conditions in the region have already tightened this year and local currencies have depreciated significantly in **India**, **Indonesia** and the **Philippines (Baa2 stable).** Local central banks have mostly responded by raising interest rates.

Another risk stems from a decline in dollar liquidity in the region. With foreign portfolio flows reversing out of Asian emerging markets, corporate borrowers will face higher funding costs in dollars. This will create credit challenges for some overleveraged companies with unhedged foreign currency debt and firms that do not benefit from export-related foreign currency income.

Problem and restructured loan ratios remain high in **Bangladesh**, **India**, **Mongolia**, **Indonesia** and **Vietnam** and higher domestic interest rates and weaker regional trade might lead some overleveraged corporate borrowers to default on their debt.

Despite these growing challenges, emerging market banks in Asia have good solvency and liquidity buffers, which should balance the stress on their credit quality. Bank profitability is the first line of defense and totaled 1% (return on assets) in 2017. Loan loss reserves typically cover around 100% of problem assets. Lastly, the capital buffers are good at around 11% in terms of tangible common equity-to-risk weighted assets. Funding and liquidity are also good at Asian banks because they rely mostly on domestic deposits, with a low share of market funding.

Our strong government support assumptions for Asia's emerging market banks will remain intact in 2019. With the exception of **Hong Kong**, Asian regulators have not prioritised the introduction of bank resolution regimes, hence bail-in of senior creditors or depositors is not a tool available to the authorities in most of the region.

Banks also face a mix of other idiosyncratic developments, both positive and negative. In **China**, a gradual approach to deleveraging and more accommodative macroeconomic policies indicate that borrowers will benefit from stronger cyclical support for their repayment capacity, which is credit positive for asset quality at banks. However, nascent signs of a decline in economic leverage during the past year may not continue in 2019.

In **India**, the asset quality cycle is stabilising following massive recognition of problem loans and their gradual resolution and provisioning. However, the recent default of IL&FS, a large infrastructure company and the subsequent liquidity stress in the capital market, has created an emerging risk for banks in the country.

In **Vietnam**, banks have significantly cleaned up their books from legacy problem assets and are set to post higher profit in 2019.

Emerging market banks in Asia will continue to invest in digitalisation and IT transformation to enhance customer experience, reduce client acquisition costs and protect their market positions from new financial technology (fintech) entrants, particularly in retail financial services.

For the **insurance industry**, our overall outlook is stable. Steady economic growth and low insurance penetration in Asia will support demand. Ageing populations and a lack of comprehensive social welfare systems in some Asian emerging markets like **China** and **Thailand** will continue to drive strong growth in private sector health insurance in 2019.

The regulatory regimes in many Asian emerging insurance markets are moving toward more risk-based measurements, including risk-based capital and enterprise risk management frameworks. This will help prevent the build-up of systemic risks and improve capital and financial management.

The industry is also gravitating toward selling less interest-sensitive products to lessen the impact of low interest rates, while providing more protection coverage.

Nonetheless, insurers in Asian emerging markets have been adding riskier assets to their investment portfolio such as infrastructure project investments, trust products and equities to enhance yield. Considering the more volatile economic and capital markets development in 2019, the investment performance of these insurers could be under pressure.

Technology adoption is most prominent in the insurance industry where it is improving operation efficiency and client experience, but we have not yet seen any transformational changes in terms of insurers' business models.

Structured finance — Asia-Pacific: performance will remain strong in China despite risks and vary by asset class in India

Gracie Zhou, VP-Senior Analyst & Dipanshu Rustagi, AVP-Analyst

Chinese structured finance transactions will continue to perform strongly in 2019, with delinquency rates remaining low, despite slowing economic growth and downside risks arising from escalating US-China trade tensions and rising household debt.

Our forecast is for China's GDP growth to slow toward 6% in 2019. This level of growth, while down from our forecast of 6.6% for 2018, will continue to provide a supportive environment for borrowers to repay consumer-related loans backing auto loan ABS, RMBS, credit card ABS and consumer loan ABS, as well as corporate loans backing collateralised loan obligations (CLOs). [10]

Loans backing outstanding Chinese structured finance deals typically have good credit characteristics, such as low LTV ratios, while originators are generally of high quality. The quality of assets backing new deals in 2019 will be good, given prudent underwriting standards and the tight regulatory environment. These factors will also support the performance of Chinese structured finance deals in 2019.

Overall, we expect delinquency rates for Chinese auto loan ABS, RMBS, credit card ABS, consumer loan ABS and CLOs to remain low in 2019. However, household debt levels in China are rising, increasing consumers' debt repayment burden. If other unfavourable macroeconomic events were to unfold, such as a larger than forecast economic slowdown or an increase in unemployment, elevated household debt levels would pose a risk to the performance of structured finance deals backed by consumer related loans.

US-China trade tensions would also pose a risk to the performance of structured finance deals if they resulted in a larger than forecast economic slowdown. This could lead to corporate defaults, hurt the job market and slow income growth, which would be negative for structured finance deals backed by either consumer-related or corporate loans. A larger than expected slowdown in China would also weigh on commodity prices, which would be negative for CLOs exposed to industries dependent on commodity prices. Potential auto industry tariffs would be negative for CLOs exposed to this sector.

The Chinese government's deleveraging efforts, in addition to ructions caused by trade tensions, will increase loan refinancing risk for weaker companies. However, the corporate loans backing Chinese CLOs are of good credit quality from stronger corporates and so we do not expect them to be subject to this refinancing risk. We also expect the People's Bank of China will adjust monetary policy to maintain stable liquidity and aim to balance the objective of economic growth while reducing leverage. In this environment, good quality corporations are unlikely to face refinancing risk.

Overall, downside risks will pose a limited threat to the performance of Chinese structured finance deals in 2019, though these risks will be greater for some individual deals with more concentrated exposures to sectors facing deleveraging and trade tensions.

In **India**, robust economic growth will support the performance of structured finance transactions, but other factors will be negative. The performance of structured finance transactions will vary by sector, depending on the balance between positive and negative factors.

We forecast the Indian economy will grow by 7.3% in 2019. This level of growth will support the performance of auto loans backing auto ABS deals. However, for commercial vehicle loans backing auto ABS transactions, the positive influence of robust growth will be counterbalanced by high fuel prices, which will increase costs for commercial vehicle owners and weigh on their ability to repay auto loans. On balance, Indian auto ABS delinquency rates will be stable in 2019 or increase slightly.

Delinquency rates in Indian ABS backed by loans against property to SMEs will increase in 2019, with rising interest rates and ongoing headwinds from the implementation of a goods and services tax (GST) outweighing the positive influence of robust growth. Interest rates on loans against property to SMEs are increasing because of higher lender funding costs, while the GST has increased the tax and compliance burden for SMEs.

The possible credit squeeze in India's capital markets caused by the default of IL&FS is unlikely to hurt the credit quality and performance of Indian structured finance deals, unless it escalates to the point where it results in significant weakness or even solvency concerns among non-bank financial institutions and therefore disrupts the servicing of loans backing Indian structured finance deals.

Non-financial corporates — Asia: credit conditions to remain stable in 2019

Lina Choi, VP-Senior Credit Officer & Jacintha Poh, VP-Senior Credit Officer

We expect credit conditions in 2019 to remain stable in **China**, **India** and **Indonesia** — the Asian countries with the largest number of rated non-financial companies.

The primary driver of the stable outlook is ongoing robust, albeit slowing, economic growth, which will underpin earnings stability. We also expect funding conditions in the region will remain supportive, although financing costs are expected to increase. At the same time, for **China**, risks to growth stem from more intense and broader trade and foreign policy tensions with the US. For **India** and **Indonesia**, risks include the economic impact of potentially tighter domestic and external financing conditions, respectively.

In **China**, economic growth will slow. We expect it to be around 6%, supporting a relatively stable environment. But the slowdown nevertheless will create challenges. One of the primary outcomes is that we believe broad deleveraging in the state-owned sector has stalled and we do not expect further debt reduction next year.

Some large sectors such as oil and gas, chemicals and steel, dominated by state-owned enterprises (SOEs), are unlikely to see revenue or earnings growth due to the growth slowdown. Others such as metal and mining will see small declines as some commodity prices stay flat or decline and costs increase. Likewise, we expect nationwide sales declines for the property sector of up to 5%.

On the other hand, other SOE-dominated sectors such as construction will continue to see solid earnings growth off the back of ongoing infrastructure development. And some other sectors – consisting of more private sector entities - such as food and beverage will grow on average in the mid- to high-single-digit level. The internet sector will continue to grow strongly, albeit down from previous years.

Stable GDP growth will support corporate earnings growth next year in **India** and **Indonesia**. Potential constraints include rising interest rates, local currency depreciation against the US dollar and political risk ahead of 2019 national elections in both countries. Credit quality improvement for rated companies will also probably be constrained by high shareholder returns, debt-funded capital spending and evolving regulation.

In **India**, we expect strong crude oil prices will drive earnings for oil and gas companies. But shouldering a portion of the fuel subsidy will constrain earnings growth. Healthy base metal prices and higher production volumes will also drive earnings growth and subsequently improve financial leverage for miners.

Strong domestic demand will support earnings for automakers, auto-parts suppliers and steel companies. But intense competition will lead to lower earnings and higher capital spending for telecom companies. Increased outsourcing will benefit IT services companies, but rising competition and investment in new technologies will compress margins.

In **Indonesia**, strong crude oil and coal prices will benefit oil and gas and coal mining companies' earnings. But growing investment needs amid evolving regulation for oil and gas companies, and acquisitions of natural resources rights by state-owned entities will weigh on credit quality. Regulatory risk remains elevated for the coal mining sector given uncertainty around the renewal of some companies' mining licenses.

Property developers' earnings and credit quality will be hurt by softer demand ahead of the national election in April 2019, and by higher funding costs and rupiah depreciation, given these companies have a large portion of US dollar borrowings.

Telecom companies continue to face intense competition, but margins should remain relatively stable and earnings will improve from a weak 2018. And lower palm oil prices will limit earnings growth for palm oil companies.

Infrastructure & project finance — Asia-Pacific: credit trends broadly stable, supported by economic growth, but risks ahead

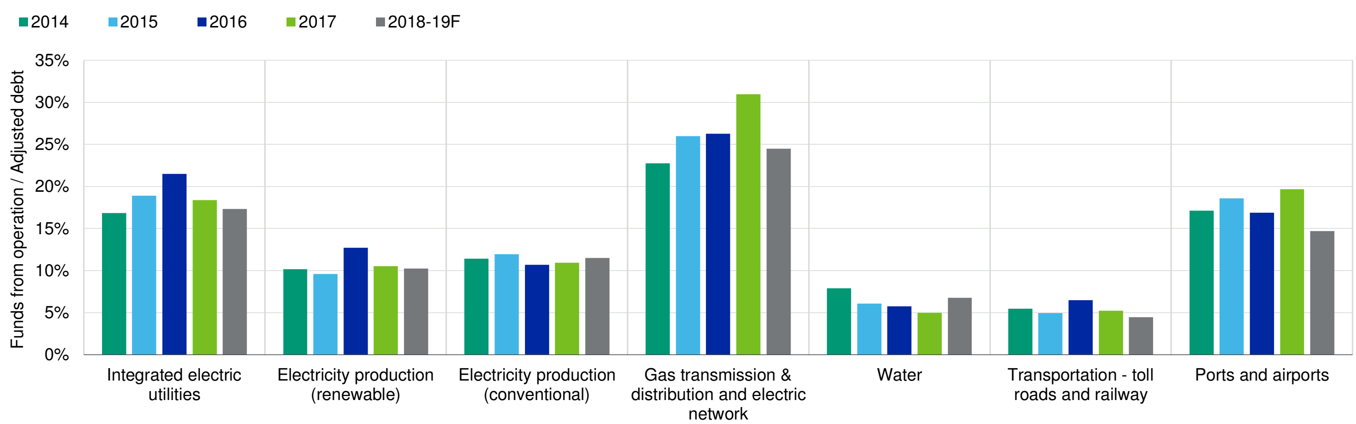
Mic Kang, VP-Senior Credit Officer

Credit trends remain broadly stable for infrastructure sectors in Asia's emerging markets including **China**, **India, Indonesia**, **Malaysia**, the **Philippines** and **Thailand** in 2019. Most rated issuers will continue to generate adequate operating cash flow under steady market structures and economic development (Exhibit 7). We expect that any tightening of global liquidity, pressure on local currencies or trade friction — particularly between the US and China — will be manageable for most companies.

Exhibit 7

Credit metrics likely to be stable for most sectors but weaker for some, driven mainly by debt-funded capital spending

Average figures for rated companies in their respective sectors



Sources: Moody's Financial Metrics™, Moody's Investors Service estimates

Economic growth, rising incomes and ongoing urbanisation will continue to support demand for infrastructure projects in emerging markets, although increased trade protectionism presents a risk in certain parts of the region. Higher costs for some power companies as a result of high commodity prices, will be mitigated by higher revenue, as economic development stimulates power demand growth, or by cost pass-through tariff structures, although such cost pass-through can be delayed in some countries.

Tightening global liquidity and recent pressure on local currencies against the US dollar are credit negative for companies in emerging markets. Nonetheless, these risks are manageable, because most rated issuers generate steady operating cash flow and do not have material near-term debt maturities denominated in foreign currency. Investment-grade companies also have adequate access to debt markets. However, speculative-grade companies will be more vulnerable to the increased volatility in financial markets and higher borrowing costs if they need to access the markets, for example, to fund ongoing capital spending programmes. Active capital spending programmes, driven by the rollout of infrastructure projects in those countries, will challenge the credit quality of some infrastructure companies.

Continued infrastructure development, supported by stable regulatory frameworks, is critical to sustaining economic growth in the region. As such, we do not expect elections in **India, Indonesia** and the **Philippines** in 2019, along with **China's** reforms to focus the economy on higher value-added sectors, to result in significant adverse regulatory changes. Tightening environmental regulations will have a mild negative effect on most infrastructure companies, including conventional thermal power generators. This is because the transition to a low carbon economy in the region will probably be gradual and will not cause material disruption to most infrastructure issuers — coal will remain a key base load power source for emerging markets, at least in 2019. Over time, the growth in renewables will present opportunities for generators and power companies to enhance their operating cash flow and rebalance their energy mix away from an overreliance on coal, while the transition risk will be a key long-term issue for the incumbent power companies.

Risks in infrastructure sectors will be higher if trade protectionism materially reduces economic growth and there is significant pressure on local currencies. We expect most rated infrastructure companies to maintain adequate financial buffers against foreseeable major risks. However, escalated trade protectionism leading to materially slower economic growth than our base case expectation will erode the operating cash flow and financial strength of most rated infrastructure issuers. A sustained, sharp devaluation of local currencies against the US dollar will weaken many infrastructure companies' debt servicing capability or increase refinancing risk, given that they are not fully hedged. Some Chinese coal power generators and port operators are more vulnerable to a potential slowdown in power consumption growth or sluggish export volumes resulting from rising US-China trade tensions.

Moody's related publications

Outlooks:

Cross-Sector - Global: 2019 Outlook - Global credit conditions to weaken amid slowing growth and rising risks, 12 November 2018

Global Macro Outlook: 2019-20: Global growth to decelerate amid tightening global liquidity and elevated trade tensions, 8 November 2018

Sovereigns – Global: 2019 outlook still stable, but slowing growth signals increasingly diverging prospects, 6 November 2018

For more emerging market research and coming events, visit our Emerging Markets Focus page

Global Emerging Markets Chartbook - September 2018,

Endnotes

1 Moody's defines frontier market sovereigns as those which rely on concessional financing for 40% or more of their external funding needs and which are rated at Ba1 or below.

2 See "Non-financial corporates — Turkey: Showing resilience, but rising uncertainty in financial system is the biggest credit risk," 11 September 2018

3 See "Non-financial corporates — South Africa: Direct credit exposure to currency volatility limited despite macroeconomic implications," 13 September 2018

4 See: Chile's upward revision to 2018 growth forecast is credit positive, 13 September 2018.

5 See: "Government of Colombia Lower potential growth highlights importance of structural reforms to meet fiscal targets," 27 September 2018

6 See: "Government of Peru — Proposed judicial reforms would strengthen institutional framework," 23 September 2018

7 On 1 August, Argentine newspaper La Nación published a detailed investigation that alleged business executives from across Argentina's construction sector paid bribes to public works officials in exchange for public contracts during the administrations of Néstor Kirchner (2003-07) and Cristina Fernández de Kirchner (2007-15). While the scandal has thus far only involved a handful of the country's engineering and construction companies, we expect it to eventually encompass additional executives and politicians as the investigation progresses. The case is the first of its kind since Argentina's Congress passed the "Repentance Law" (ley de arrepentido) in 2016, which allows prosecutors to offer plea bargains to corruption suspects, increasing the likelihood that more executives and political officials will be drawn into the scandal's headlights.

8 See "Sovereigns — Latin America: Exposure to credit risks from tightening global funding conditions varies depending on debt structures," 1 October 2018

9 The external vulnerability indicator, or EVI, is the ratio of long-term and short-term external debt repayments over the next year, including nonresident deposits, to foreign exchange reserves.

10 Our views in this report relate to structured finance transactions issued or to be issued under the Credit Asset Securitization scheme.

REPORT NUMBER 1143934

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MOODY'S INVESTORS SERVICE

EL CAMINO HOSPITAL
ADMINISTRATIVE POLICIES AND PROCEDURES

16.00 SURPLUS CASH INVESTMENT POLICY

A. **Coverage**:

El Camino Hospital Surplus Cash

B. **Reviewed/Revised**

6/98, 11/00, 6/01, 9/02, 1/04, 3/05, 5/06, 06/09, 05/12, 06/13, 2/15

C. **Policy Summary**

It is the policy of the El Camino Hospital Board of Directors that cash funds of El Camino Hospital, El Camino Hospital Foundation, CONCERN: EAP, and other affiliates be prudently invested with a focus on preserving the liquidity and principal necessary to meet known and reasonably unforeseen operational and capital needs. Funds will be invested in a diversified portfolio that balances the need for liquidity with a long-term investment focus in order to improve investment returns and the organization's financial strength.

D. **Policy**

1. Objectives and Purpose

   a. The policy will be to invest the Surplus Cash assets in a diversified investment portfolio that targets capital appreciation without assuming undue risk to principal. The primary objectives of the overall Surplus Cash pool shall be (1) preservation of capital, (2) capital growth, (3) maintenance of liquidity, and (4) avoidance of inappropriate concentration of investments.

   b. The assets subject to this Investment Policy include the commingled funds of the Hospital, Foundation, CONCERN, and the El Camino Hospital Foundation Gift Annuity Fund.

   c. The El Camino Hospital Foundation Gift Annuity Fund is also managed according to the following restrictions: investments shall be managed in a diversified and prudent manner and in compliance with and subject to the criteria set forth under California Insurance Code Section (CICS) 1192.9, including Section 11521.2 to 11521.3.

2. Delegation of Responsibility

   a. Within the financial activities of the organization, it is necessary to provide a prudent framework for the regular supervision of the management of invested funds. The Board of Directors ("the Board") has the overall fiduciary responsibility for the Surplus Cash assets. The Board shall appoint an Investment Committee ("the Committee") that bears primary responsibility as detailed in section 2.d. below for oversight of El Camino Hospital management ("Management"), the independent Investment Consultant, and the overall Surplus Cash investment program. The Board shall delegate the specific management of the Surplus Cash pool's investments to Management as detailed in section 2.e. below.

   b. Management shall be defined as the Chief Executive Officer, the Chief Financial Officer, Controller, and Finance Director.

   c. Those authorized to execute transactions include the Chief Executive Officer, Chief Financial Officer, Controller, and investment advisor(s) approved by Management.

   d. **Responsibilities of the Investment Committee**

      (1) Establish and recommend revisions to the investment policy, as appropriate.

      (2) Review compliance with policy.

      (3) Approve allocations across investment styles and investment managers that are consistent with this investment policy.

      (4) Assure that implementation of each investment program is consistent with its overall investment objectives and risk tolerances.

      (5) Monitor performance of investment managers through reports provided by the Investment Consultant.

   e. **Responsibilities of Management**

      (1) Select, contract with, and when appropriate, terminate investment managers who manage the investment programs' assets.

      (2) Evaluate the investment performance objectives of each of the investment programs' investment managers.

      (3) Select, contract with, and when appropriate, terminate custodian banks/brokers that are responsible for the custody of the investment programs' assets.

(4) Select, contract with, and when appropriate, terminate an investment consultant.

(5) Provide each investment manager with specific investment objectives and guidelines consistent with overall objectives.

(6) Determine and implement allocations across investment styles and investment managers that are consistent with this investment policy.

(7) Oversee the operational investment activities of the funds subject to this investment policy and other operating procedures and policies of El Camino Hospital.

(8) Work with the independent, external Investment Consultant in developing and/or reviewing investment recommendations for presentation to the Committee and Board.

f. **Responsibilities of the independent Investment Consultant**

(1) Review the Surplus Cash pool's investment policies and objectives and suggest appropriate changes.

(2) Monitor long-term capital market trends and recommend appropriate asset allocation strategies to Management and the Committee.

(3) Provide Management and the Committee with ongoing asset allocation, investment manager allocation recommendations, and total portfolio context.

(4) Provide assistance concerning the allocation of new contributions as well as periodic asset allocation rebalancing.

(5) On an annual basis, provide to the Surplus Cash pool's Investment Managers a list of securities that are prohibited by the Surplus Cash pool's investment policy under section 10.b.

(6) Recommend which investment management firms should receive increased or decreased allocations and, when warranted, recommend firms that should be dismissed.

(7) Research and recommend investment management firms and custodian(s) appropriate to implement the Surplus Cash pool's investment policies and objectives.

(8) Measure, evaluate, and report each investment manager's performance on a quarterly basis.

(9) Monitor adherence of each investment manager to its stated investment

philosophy and style.

(10) Monitor each investment manager's adherence to the guidelines and investment policies contained in this Investment Policy and specific manager guidelines, if applicable.

(11) Maintain contact with and report to Management and the Committee on changes within each investment manager's organization including but not limited to investment professional turnover and ownership changes.

(12) Communicate promptly with the Management and the Committee regarding significant changes in the Investment Consultant's ownership, organizational structure, and professional staffing.

(13) Communicate promptly to the Committee any financial arrangements between the Investment Consultant and money management firms.

g. **Responsibilities of the Custodian Bank as directed by Management**

(1) Provide complete and accurate accounting records and prompt monthly reports to reflect all transactions, cash flows, and assets held.

(2) Disburse and receive cash flows and investments as directed by investment managers to the extent of their authority or by authorized Management.

(3) Issue monthly reports of holdings and transactions priced in accordance with industry standards.

(4) Provide monthly reports showing individual asset holdings with sufficient descriptive detail to include units, unit price cost, market value, CUSIP number (where available) and any other information requested by the direction of Management. Principal cash transactions, including dividends, interest and principal payments received, deposits and withdrawals, securities purchased, sold, and matured, and fee payments will also be listed.

(5) Expeditiously transfer funds into and out of specified accounts.

(6) Promptly forward all proxy materials received to the appropriate investment manager or Management.

h. **Responsibilities of the Investment Managers**

(1) Manage the portfolio's assets with full discretion, in accordance with the investment objectives and guidelines stated in this Investment Policy and specific investment manager guidelines.

(2) Communicate promptly with Management and the Investment

Consultant regarding all significant matters such as:

-- major changes in the investment manager's investment outlook and strategy,
-- shifts in portfolio construction (asset mix, sector emphasis, etc.),
-- changes in the investment manager's ownership, organizational structure, or professional staffing (additions and departures), and
-- other changes of a substantive nature.

(3) Comply with all laws and regulations that involve the Surplus Cash pool as they pertain to the investment manager's duties, functions, and responsibilities as a fiduciary.

(4) Vote the proxies on the securities held in the investment manager's portfolio in accordance with the manager's fiduciary duties and professional judgment.

(5) Provide Management and the Investment Consultant with monthly performance and organizational updates and other information as requested.

(6) Provide periodic presentations to the Investment Committee as requested.

3. <u>Reporting and Evaluation Process</u>:

a. Management and the Investment Consultant will be responsible for reporting the status of investments to the Committee on a regular basis.

b. Annual reports by Management should include a complete listing of securities held and must be verified (audited) by the District's auditors.

c. On a quarterly basis, the Committee will evaluate investment performance. The following will be reviewed:

(1) The Surplus Cash pool's asset allocation relative to the target asset allocation.

(2) The total fund, segment and investment manager returns relative to the stated investment objectives.

(3) Other items pertaining to Surplus Cash pool.

(4) Management will provide minutes of each meeting to the Committee.

4. <u>Review and/or Modification of Policy</u>:

a The Committee as assisted by Management and the Investment Consultant will be responsible for reviewing and modifying investment guidelines as conditions warrant, subject to approval by the Board of Directors.

b A copy of this policy will be rendered to the Board of Directors annually.

5. Return and Risk Parameters:

The Committee has established the following return and risk parameters that will guide the investment of the Surplus Cash assets.

(1) The Committee will review the risk tolerance of the Surplus Cash pool's assets within the context of El Camino's long-term financial plan.

(2) The Surplus Cash pool will be actively invested to achieve growth of capital through appreciation of securities held and through the accumulation and reinvestment of dividend and interest income.

(3) The Surplus Cash pool will be strategically allocated among asset classes and investment styles in order to enhance investment returns and diversify correlating risk factors. This strategic allocation must at all times be within investment policy allocation ranges.

(4) The Surplus Cash pool is to be sufficiently diversified in order to reduce volatility.

(5) Diversification of assets may be achieved by:

-- allocating assets to multiple asset classes,
-- allocating assets among various investment styles, and
-- retaining multiple investment management firms with complementary investment philosophies, styles, and approaches.

(6) The time horizon for evaluating total fund investment performance shall be long-term. The time frame for evaluating the performance of investment managers generally will be rolling five-year periods.

6. Target Asset Allocation

a. The Target Asset Allocation represents the Surplus Cash pool's normal risk/reward orientation. This orientation has been determined by the Surplus Cash pool's ability to assume risk and the Committee's risk preferences.

b. The Target Asset Allocation and individual asset class allocation ranges are outlined in the following table:

ASSET CLASS	ASSET ALLOCATION Neutral	Range
Domestic Equities	25%	20% to 30%
International Equities	15%	10% to 20%
Alternatives	20%	17% to 23%
Broad Fixed Income	30%	0~~25~~% to 35%
Short Term Fixed Income	10%	8% to 40~~12~~%
Total Fund	100%	---

c. The Plan's allocations may be allowed to be outside of the Rebalancing Ranges specified above until the Plan is rebalanced, which will take place at least quarterly, if necessary, and in the following circumstances on a temporary basis:

(1) The Plan is in the process of implementing new investments within asset classes specified above to which asset classes the Plan does not currently have exposure.

(2) The Plan experiences significant inflows or outflows over a short time frame or is expected to experience significant inflows or outflows over a specified time frame.

d. Investments within "Alternatives" may include the following investments:

(1) Open-ended and closed-ended real estate investment vehicles and core, value-added and opportunistic real estate investments.

(2) Hedge fund of funds and diversified pools of direct hedge fund strategies that are of institutional quality and are managed by highly skilled investment professionals with robust risk management and operational due diligence processes in place. The following contractual terms are required for hedge fund of funds investments:

A. Maximum lockup – 2 years

B. Minimum liquidity/redemption period – annually after initial lock-up

C. Frequency of valuation – monthly

~~C.~~D. No more than 15% of hedge fund pool can be allocated to a single direct hedge fund at time of purchase~~.~~

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7. Rebalancing Procedure

   a. Surplus Cash pool assets will be monitored by Management to keep the asset allocation in line with the target asset allocations outlined in Section 6.

   b. The Investment Consultant will provide rebalancing recommendations to Management and the Committee on a quarterly basis, at minimum.

   c. In circumstances specified under section D.6.c. where Management and the Investment Consultant believe it to be necessary for the Plan's allocations to be temporarily outside of the Rebalancing Ranges, Management will provide a written recommendation to the Investment Sub-Committee detailing the requested deviation from the Rebalancing Ranges and the reasons for the deviation.

8. Investment Manager Selection

   a. As stated under Delegation of Responsibilities, Management appoints investment managers who will manage, acquire or dispose of the Surplus Cash assets. In selecting an investment manager, Management will use appropriate methods to exercise due diligence and to evaluate the appropriateness and merits of the investment manager. Management has delegated to the Investment Consultant the task of researching and recommending investment managers.

   b. In investigating potential managers, the Investment Consultant must, at a minimum, use the following procedures:

      (1) Identify a range of possible investment manager candidates.

      (2) Obtain relevant information about the investment manager’s experience, qualifications and investment approach.

      (3) Evaluate experience, qualifications and investment approach. Included in this evaluation will be an analysis of past performance, risk characteristics, and investment management fees.

      (4) Document the selection process.

9. Investment Objectives

   Investment objectives are necessary to properly measure and evaluate the success of the Surplus Cash pool's investment program.

   Total return for the Surplus Cash pool's assets and the investment managers, is defined as interest and/or dividends plus (or minus) realized and unrealized capital gains (or losses) minus investment management fees.

a. The investment objectives of the Total Surplus Cash Pool are as follows:

(1) Outperform the Composite Benchmark over rolling five-year periods.

A. The Composite Benchmark shall be composed of relevant indices combined in a proportion reflective of the underlying target asset allocation.

(2) Outperform the median of a composite fund manager universe over five-year periods.

b. The investment objectives of the Investment Managers are as follows:

(1) Outperform a passive, style-specific index over rolling five-year periods.

(2) Outperform the median of a style-specific peer group over rolling five-year periods if available.

(3) Assume a level of risk no greater than is appropriate for the investment manager's specific investment mandate.

10. <u>Investment Restrictions</u>

a. This section details the investment restrictions for separate account investment managers. In the case of pooled investment vehicles (mutual funds, commingled funds and limited partnerships), the investment guidelines and restrictions defined and detailed by the vehicle will apply. Management and the Investment Consultant are responsible for the review of such guidelines and restrictions prior to investment.

b. The purchase of the securities of companies described below is prohibited; however, as specified in section 10.a., this prohibition is waived in the case of pooled investment vehicles. For the purposes of this section, Investment Managers are expected to rely upon a list of companies engaged in such activities as provided by the Investment Consultant, who will provide such a list on a best efforts basis. In instances where companies that engage in the activities below are inadvertently purchased or held by an Investment Manager, the Investment Manager will divest of the security within 90 days of being made aware of the violation unless the Investment Manager receives a written exception to this section of the investment policy from the Investment Committee.

(1) Companies whose major product is tobacco (greater than 50% of company revenues).

(2) Companies who engage in the manufacture of firearms that are illegal

for sale to or possession by civilians in the state of California.

c. **Equity Manager Guidelines**

(1) The domestic and international equity segments may be diversified across a spectrum of market capitalizations by allowing investments in small-, medium-, and large-capitalization stocks.

(2) Unless specified otherwise in writing, equity holdings should be readily marketable and diversified by issuer, industry, and sector.

(3) An individual security position may not exceed 10% of an equity manager's portfolio market value.

(4) Investments in money market instruments and bonds, as a surrogate for cash reserves, are allowed subject to a maximum of 10% of total allocation.

(5) Investments in options, futures and other derivatives are allowed only for hedging purposes or as a substitute for actual securities in cases where the derivative instrument is a more efficient means of gaining exposure to the underlying securities. Derivatives may not be used in a speculative manner or to leverage the portfolios.

d. **Fixed Income Manager Guidelines**

(1) Fixed income holdings should be readily marketable and diversified by issuer, sector, coupon and quality.

(2) No more than 5% of the Investment Manager's bond portfolio at the time of purchase shall be invested in the securities of any one issuer. There shall, however, be no such limit on U.S. Government securities, U.S. Agency securities, or government sponsored entities, U.S Agency mortgage backed securities, or other sovereign issues rated “AAA” or “Aaa”.

(3) For managers benchmarked against the Barclays Capital U.S. Aggregate Bond Index, the average credit quality of the fixed income portfolio shall be “A-” or higher. Up to 15% of the portfolio’s market value at the time of purchase may be invested in high yield debt. For split-rated securities, the higher rating will be used in determining compliance with these guidelines.

(4) For managers benchmarked against the Barclays Capital U.S. Aggregate Bond Index, emerging markets debt shall be limited to no more than 15% of the portfolio's market value at the time of purchase.

(5) For managers benchmarked against the Barclays Capital U.S. Aggregate Bond Index, exposure to non-U.S. dollar assets shall be limited to no more than 20% of the portfolio's market value at the time of purchase.

(6) The portfolio's weighted average effective duration determines a bond portfolio's sensitivity to interest rate changes. A manager's market value weighted effective duration, adjusted for expected life and call provision, cannot be more than +/- 30% of the benchmark's effective duration.

(7) Permissible Holdings include the following:

A. Debt securities issued or guaranteed by the United States or U.S. government sponsored entities (including U.S. Government sponsored Agency mortgage backed securities, and inflation linked bonds).

B. Non-agency and commercial mortgage-backed securities, including collateralized mortgage obligations and whole loans.

C. Corporate bonds, debentures and other forms of corporate debt obligations, including equipment trust certificates, Eurobonds, Insurance Surplus Notes, and Capital Securities.

D. Municipal securities (up to 20% of the portfolio).

E. Asset-backed securities.

F. Indexed notes, floaters, and other variable rate obligations.

G. 144A securities without registration rights (up to 20% of the portfolio).

H. Bank collective funds.

I. Certificates of deposit ("CD's") and other money market instruments from banks also issuing bankers acceptances and with current commercial paper ratings of at least A 1 (by Standard & Poor's) or P 1 (by Moody's Investors Service).

J. Mutual funds or commingled pools.

K. U.S. dollar-denominated sovereign, supranational, provincial, and municipal securities issued by foreign entities.

L. Non-U.S. dollar-denominated sovereign securities.

M. Hedging with futures contracts and options on futures contracts are permitted to offset price risks (which include interest rates, currency fluctuations and the general price level of certain financial markets) incidental to the portfolio's principal mandate. Transactions in futures contracts and options on futures contracts are restricted to those contracts that are substitutes for assets that the portfolio could own, and that are economically appropriate to the reduction of risks in the conduct/management of the portfolio. In no way will futures or options on futures be used to leverage the portfolio.

(8) Exceptions to these restrictions may only be made upon prior approval of the Committee.

EL CAMINO HOSPITAL
COMMITTEE MEETING COVER MEMO

To:	Investment Committee
From:	Cindy Murphy, Director of Governance Services
Date:	February 25, 2019
Subject:	Report on Board Actions

Purpose:

To keep the Committee informed with regards to actions taken by the El Camino Hospital and El Camino Healthcare District Boards.

Summary:

1. Situation: It is important to keep the Committees informed about Board activity to provide context for Committee work. The list below is not meant to be exhaustive, but includes agenda items the Board voted on that are most likely to be of interest to or pertinent to the work of El Camino Hospital's Board Advisory Committees.

2. Authority: This is being brought to the Committees at the request of the Board and the Committees.

3. Background: Since the last Investment Committee Meeting the Hospital Board has met four times and the District Board has met three times. In addition, the Board has delegated certain authority to the Finance Committee and the Executive Compensation Committee. Going forward, those approvals will also be noted in this report.

A. ECH Board Actions

- November 14, 2018
    - Approved Resolution 2018-11 honoring Ganesh Krishna, MD for his innovative work in the field of Interventional Pulmonology
    - Delegated Authority to the Finance Committee to approve certain physician contracts and to the Finance Committee and the Compliance and Audit Committee to approve the Annual Summary of Physician Financial Arrangements
    - Approved revisions to the Quality, Patient Care, and Patient Experience Committee Charter including a refined definition of quality care and providing for the Committee to review and approve its annual quality dashboard
    - Approved Revised Board and Committee Education Policy increasing the annual allowance to $5,000 per Board member and per Committee.

- December 5, 2018
    - Approved Period 3 Financial Report
    - Approved Letters of Rebuttable Presumption of Reasonableness
    - Approved Professional Services Agreements for the Perinatal Diagnostic Center, Radiology, and the Hospitalists for the Mountain View Campus
    - Approved Medical Director Agreement for the Aspire Program

  - Approved Orthopedic Co-Management Agreement
  - Approved Gastroenterology and Orthopedic Surgery Call Panel Agreements

- January 16, 2019
  - Approved Period 4 Financial Report
  - Appointed George Ting, MD to the Investment Committee and Quality, Patient Care, and Patient Experience Committee,
  - Appointed Julia Miller as Co-Liaison to the El Camino Hospital Foundation Board
  - Approved funding for the Los Gatos Cancer Center Construction not to exceed $6.4 million.
  - Revised Policies: Signature Authority; Corporate Compliance: Physician Financial Arrangements; Board of Director Approval of Hospital Policies
  - Approved Acquisition of Interests in El Camino Ambulatory and Capital Improvements not to exceed $9.2 million in total.

- February 13, 2019
  - Approved Revised Women's Hospital Expansion Project Plan and additional $10 million in funding
  - Approved a process for the annual review of CEO performance.
  - Approved funding for SVMD Clinic Site Tenant Improvements (not to exceed $8 million).
  - Approved funding for replacement Interventional Services equipment (not to exceed $13 million)
  - Approved funding for replacement imaging equipment (not to exceed $16.9 million).
  - Approved Resolution 2019-03 approving effectuation of the Transaction and funding for SVMD's acquisition and establishment of five multi-specialty clinics.

B. <u>ECHD Board Actions</u>

- December 5, 2018
  - Revised Community Benefits Grants Policy to comply with new statutory requirements
  - Appointed John Zoglin as a member of the District's ECH Board Member Election Ad Hoc Committee
  - Appointed Julia Miller as the District's Liaison to the CBAC
- December 7, 2018
  - Re-Elected Peter C. Fung, MD and elected George O. Ting, MD to four year terms on the ECH
- January 22, 2019
  - Recognized Community Benefit partner Fresh Approach for its mobile farmers' markets and other programs that address nutrition education and food insecurity.

C. <u>Finance Committee Actions</u>

- January 30, 2019
  - Approved funding for Waste Water Storage Project (not to exceed $3.9 million)
  - Approved funding for additional surgical robot (not to exceed $1,550,000 after trade in)
  - Approved PAMF Hospitalist Coverage Agreement for unassigned patients.
  - Approved unassigned newborn coverage agreement.

D. Executive Compensation Committee

- January 23, 2019
  - Approved FY19 COO Individual Incentive Goals

4. Assessment: N/A

5. Other Reviews: N/A

6. Outcomes: N/A

List of Attachments:

None.

Suggested Committee Discussion Questions:

None.

Executive Summary

El Camino Hospital

4th Quarter 2018

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PAVILION

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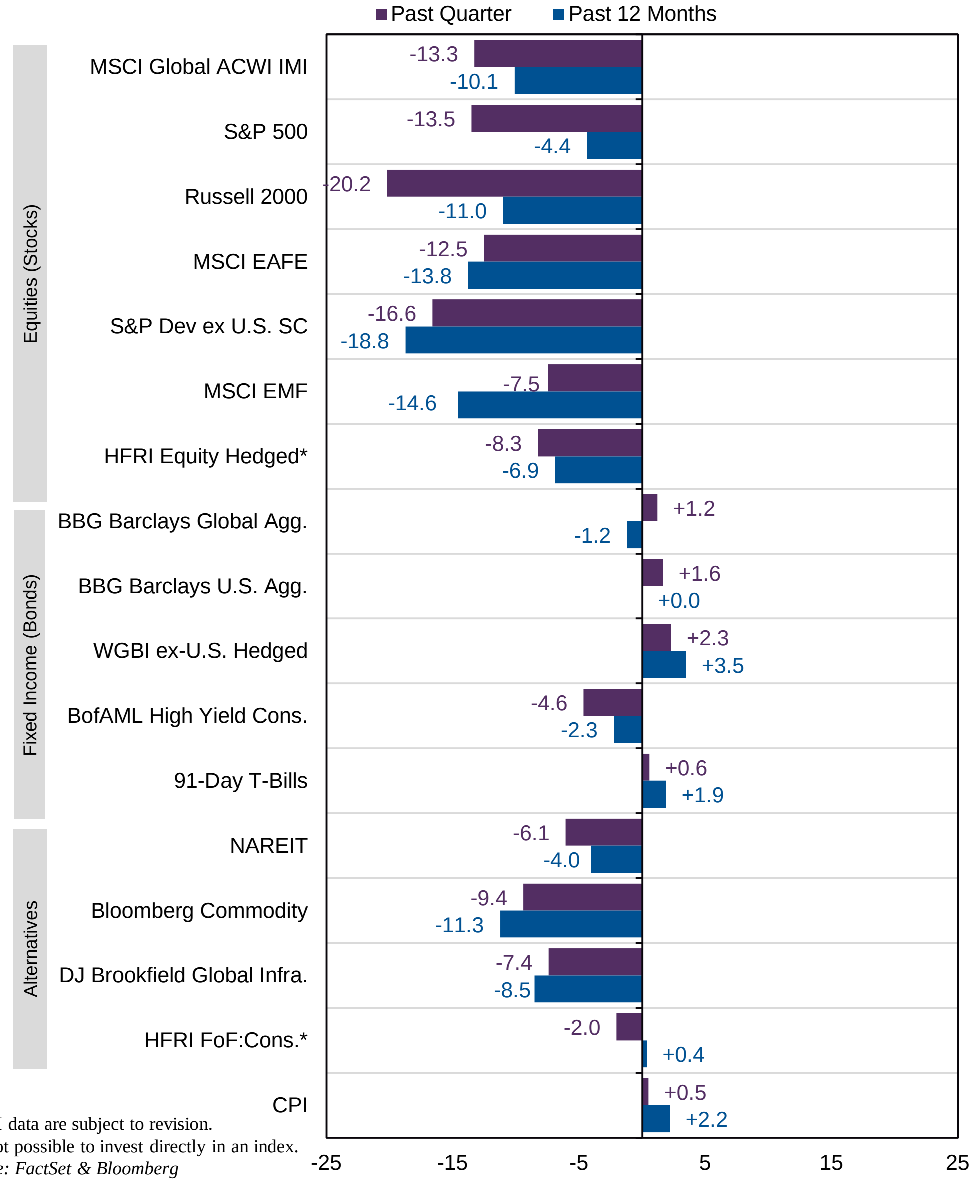
Summary

As of December 31, 2018

Performance: Past Quarter and Year (%)



*HFRI data are subject to revision.
It is not possible to invest directly in an index.
Source: FactSet & Bloomberg

[1] Source: Bloomberg and FactSet

Uncertainty rattles markets

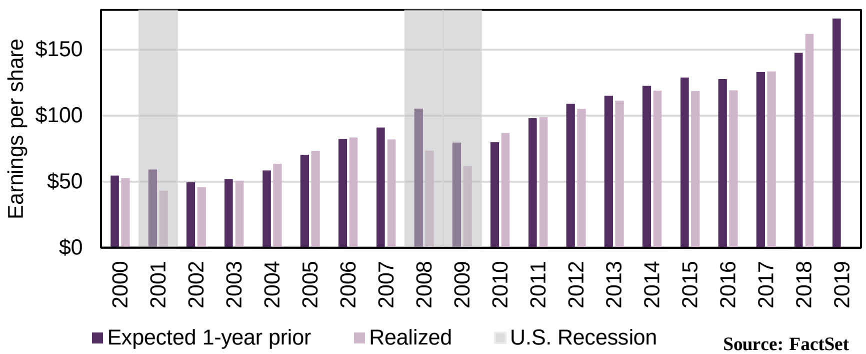
- Against a backdrop of slowing but positive fundamentals, uncertainty rose in the fourth quarter as investors contemplated the likely direction of monetary policy, trade policy, and government spending. At the beginning of the quarter, the potential for a monetary policy misstep ignited October's sharp interest rate moves, as Federal Reserve ("Fed") Chairman Powell suggested rates were "a long way from neutral." While refined forward guidance helped calm markets, domestic and international political tensions helped drive risk aversion higher in December.
- Consumers continue to be the workhorse of economic growth, benefiting from steady employment growth, modest wage gains and low debt service costs. Strong spending helped earnings and sales grow at 20% and 9%, respectively, in 2018.[1] Earnings growth is expected to be moderate in 2019 to 7.4%, implying a slowdown to trend rather than a recessionary environment. Going forward, capital investment will serve as a critical component of the continued expansion, and while investment has proven resistant to the year's headlines, uncertainty can delay capital spending.
- Globally, policy accommodation declined throughout the quarter as expected, but U.S. forward guidance was muddled, as the Fed sent mixed messages. These early communication errors increased the prospect of restrictive monetary policy, which hurt risk assets and growth expectations. A more measured tone, however, was reaffirmed in November when Powell stated that rates were, "just below neutral," and while the Fed raised rates 25 basis points in December, guidance echoed the cautious approach. Outside the U.S., the European Central Bank concluded the expansion of its asset purchase program with most other central banks holding steady.
- Domestic and international political crosscurrents spurred significant market volatility throughout the quarter. Within the U.S., trade tensions and political infighting sowed the seeds of uncertainty. After stalling early in the quarter, a 90-day truce between the U.S. and China brought both nations back to the negotiations table and alleviated some uncertainty, which was replaced by spending disputes and a government shutdown. Internationally, Brexit and Italian budget negotiations undercut markets, but by quarter-end, both the U.K. and Italy reached deals with the European Commission. Italy's government ultimately accepted the proposal while the U.K.'s parliament failed to pass the bill by quarter-end.
- In December, risk aversion spurred a flight-to-quality, flattening the U.S. yield curve for the eighth consecutive quarter. Widening credit spreads hurt across the risk spectrum; however, consumer oriented instruments weathered the volatility better than corporate instruments.
- Global equity markets tumbled during the quarter, catalyzed by the rising uncertainty and increased risk aversion. Domestic equities, which entered the quarter in positive territory for the year bore the brunt of the downturn with the S&P 500 Index declining almost -20% since September. After leading markets downward in the second and third quarter, emerging market equities' though down, performed better than the developed markets.
- Commodities fell during the quarter, led by energy [-25.8%]. Excess supply concerns hurt oil in particular, which declined -37.5%. Alternatively, positive developments between the U.S. and China provided support to agriculture, which eked out positive performance after two negative quarters.

1.Source: FactSet estimates as of January 4, 2019 with constituents of the S&P 500 Index

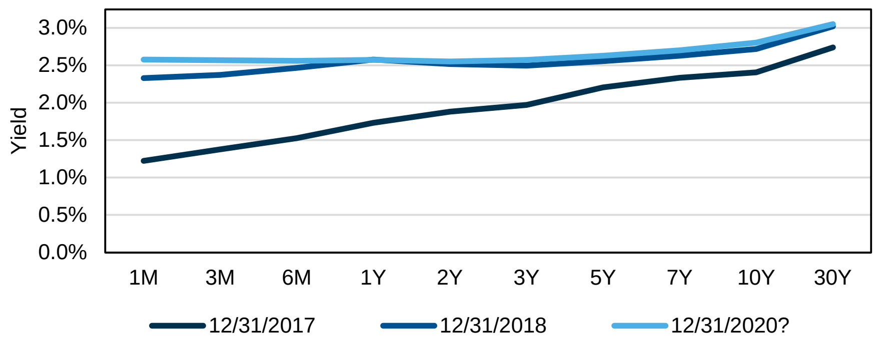
Capital Markets Review

Asset Class Outlook

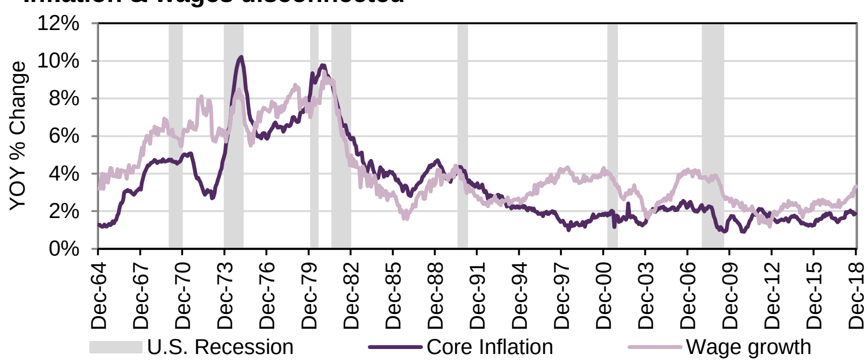
As of December 31, 2018



Source: FactSet



Source: Bloomberg



Source: Federal Reserve FRED data

Equities

- Global growth has been slowing gradually for several quarters, led primarily by a deceleration in China and Europe. This gradual slowing so far represents a transition from above trend growth in 2017 to a pace of growth closer to the estimated long-term trend. It is expected that the U.S. will join this slowdown as the stimulus from tax cuts wanes and the effects of higher interest rates set in. While the this trend has been well known for some time, the fourth quarter saw a raft of uncertainties dramatically elevate concerns over the future trajectory of growth. Uncertainties included the escalation of trade tensions between the U.S. and China, failed Brexit negotiations, Italian budget negotiations, a partial U.S. government shutdown, and fears of a Federal Reserve policy misstep. These uncertainties, coupled with reduced liquidity resulting from seasonal and technical factors catalyzed a significant re-pricing of risk assets, particularly equities. Although analysts have lowered earnings estimates for 2019 in recognition of the changing conditions, taking expected earnings growth down from about 10% to 7.4% as calculated by FactSet, this reduction appears modest relative to the mark-down implied by markets. The question for investors is “who should we believe?” Historically, analysts have proven to be overly optimistic, with the average estimate missing by -4.8% and the median estimate by about -3.0%. If recessions are excluded, analysts do better with an average miss of -0.8% and a median of -2.5%. By our calculations, using long-run averages of equity earnings yield spreads, markets are pricing an earnings miss of 20% to 25% − a recession. While a recession is certainly possible in 2019, current consensus estimates place the probability of recession this year at less than 10%. This suggests that equities have room for price appreciation; reduced uncertainty would almost certainly provide a tailwind.

Fixed Income

- Although the Fed raised rates again in December, as widely anticipated, future rate hikes are being called into question by both the market and official Fed communications. Yields on longer maturities rose only slightly over the course of the year, as the Fed continued its pace of 25 basis point increases each quarter. This resulted in the yield curve flattening – historically a sign that the Fed is near the end of raising policy rates. Forward rates, the market’s estimate of where interest rates will be in one year’s time, remain close to current levels, suggesting little change. Fed officials, most notably Chairman Powell, have emphasized that future policy moves will be “data dependent.” With a slowing economy, stubborn and below target inflation, elevated uncertainty, and the appearance of at least some remaining labor market slack, policymakers can remain patient. Like equity markets, credit markets also reflected the shifting fundamentals and rising uncertainty. The re-pricing in credit markets, however, remained much less severe than in equity markets. For investors seeking returns from corporate cash-flows, equity markets currently appear to offer a better opportunity than credit markets.

Real Assets

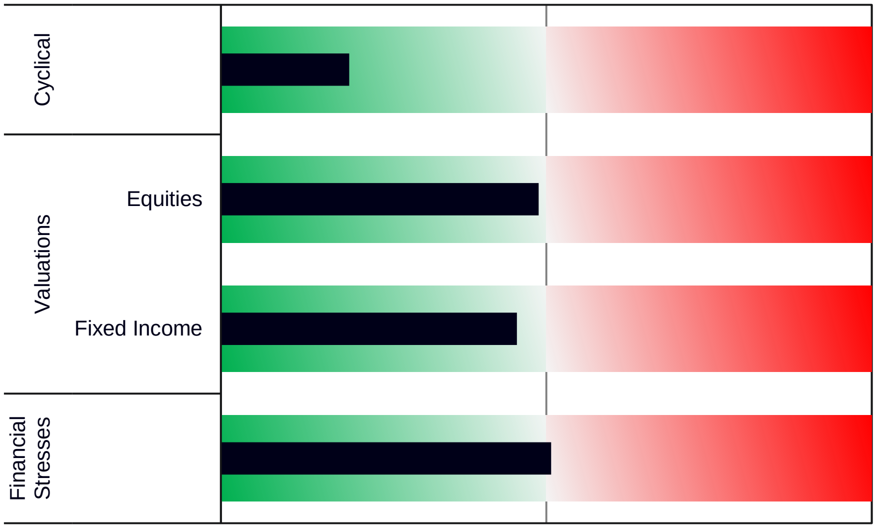
- The structural force that has contributed to the secular decline in inflation remains intact. The Fed’s favored measure of inflation, core PCE, has again retreated to 1.9%, below the 2% target, and despite what some may think, the last 30 years suggests recent wage increases will have little impact on inflation. Under these conditions, the emphasis on real assets should be to generate diversifying income streams. We favor real estate and listed infrastructure for that role.

Capital Markets Review

Key Market Risks

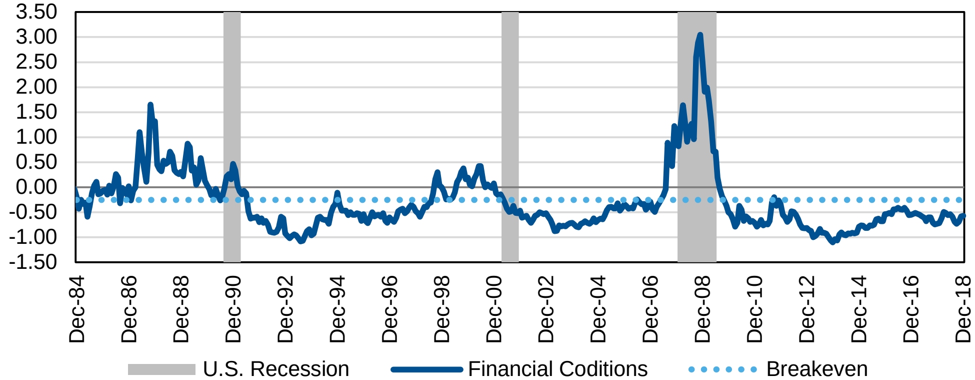
As of December 31, 2018

Current Risk Levels



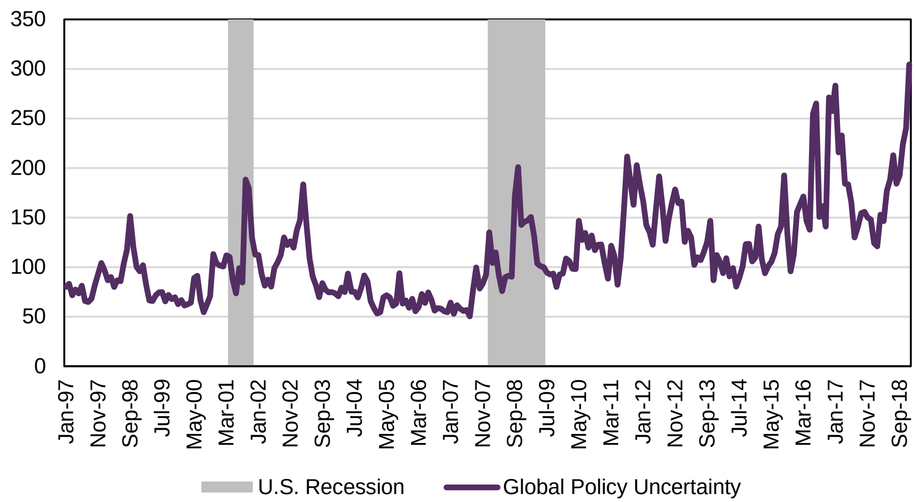
Source: Bloomberg, FactSet, Recession Alert, & Pavilion Analysis

Financial conditions remain in expansion territory



Source: Federal Reserve FRED data

Global economic policy uncertainty at an extreme



Source: Economic Policy Uncertainty

Cyclical risks remain low; however, policy risks remain on center stage

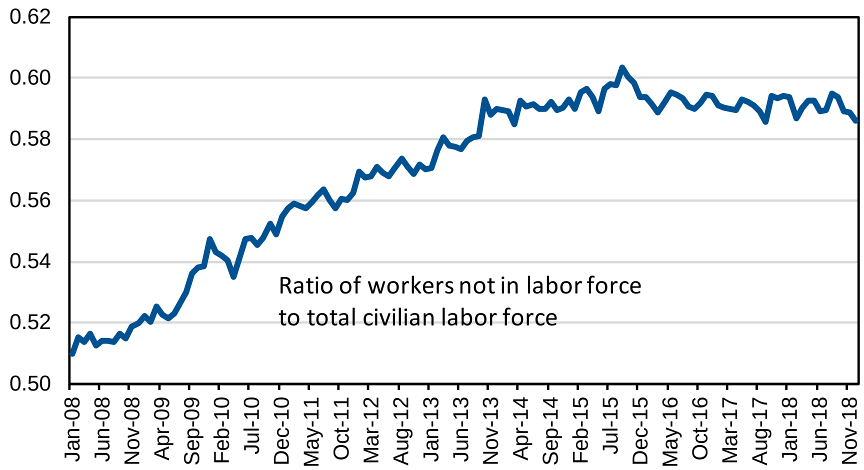
- **Sustained uncertainty may have corrosive effects:** Policy uncertainty has reached extreme levels not just in the U.S., but around the world. Factors contributing to the increased uncertainty have become well known and include U.S. trade tensions with China, the inability of British Prime Minister May to secure a negotiated Brexit agreement, and the partial shut-down of the U.S. Federal government. All of these factors have contributed to forestalling managers' investment decisions, as they await greater clarity concerning the future economic environment. What will optimal supply chains look like? Should operations be expanded in Frankfurt, London or not at all? How will the delay or even absence of government payments impact business near-term? The effects already may be bleeding through to fundamentals. During a recent disappointing earnings call, FedEx Chairman Fred Smith stated, "Most of the issues we're dealing with today are induced by bad political choices." Going forward, investors will need to carefully monitor corporate capital investments to gauge the threat that uncertainty has spill over effects that could become a drag on economic growth.
- **Tightening financial conditions:** Financial conditions in the U.S. and across other developed markets remain accommodative, but to a lesser extent and risks of a policy misstep have increased. Slowing growth, subdued inflation, and some apparent remaining labor market slack should give policy makers room to continue gradually increasing rates, or even pause. While we expect near-term policies in developed markets will remain accommodative, financial conditions warrant careful monitoring. Federal Reserve officials have committed to a "data dependent path." This would argue for a pause, but the data may change.
- **Will sclerotic budget policy cause a U.S. debt downgrade?** U.S. fundamentals remain sound, but the inability of Congress to resolve budget conflicts may prevent the debt ceiling from being raised in a timely fashion in September. This in turn may force rating agencies to review the U.S. debt rating – something they are loathe to do. Any hint of this risk could cause markets to revisit 2011 type volatility.

Capital Markets Review

Economy

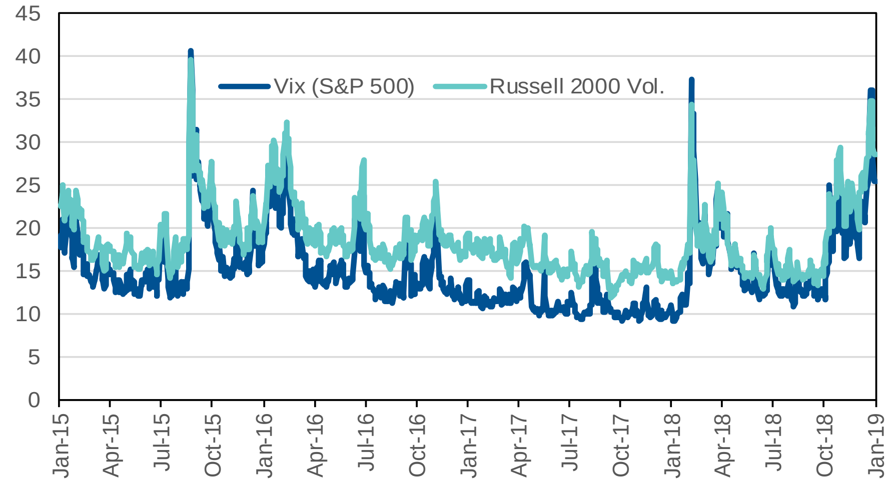
As of December 31, 2018

Workers Drawn Back Into Labor Force



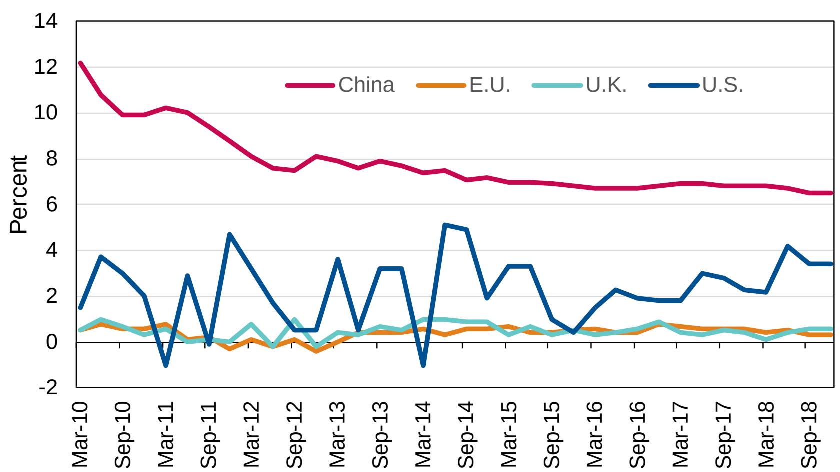
Source: Bureau of Labor Statistics

Equity Volatility Spiked



Source: Bloomberg

GDP Growth



Source: Bloomberg

Economy deals with heightened uncertainty

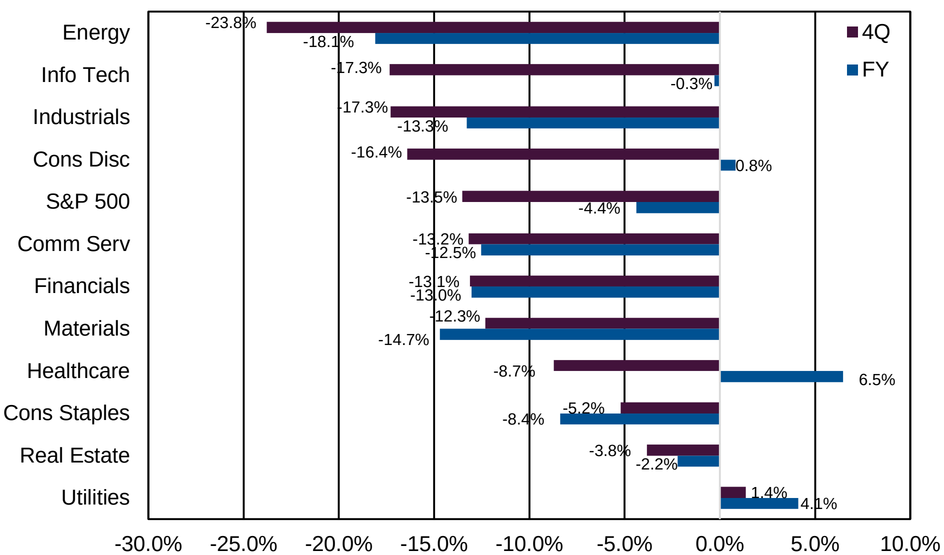
- Market volatility rose substantially during the quarter following comments by Federal Reserve chairman Powell. In October, Powell insisted that the Fed was "a long way" from neutral on interest rates, spooking markets into believing that the Fed would overplay its hand on tightening at a time when inflation was subdued and growth was easing. The Fed raised its target rate 25 basis points in mid-December, but new comments by Powell softened the outlook for rate hikes in 2019 from 0.75% to 1.0% down to maybe 0.50%, with the emphasis that ongoing data will be factored in, as opposed to a rigid timetable of increases.
- The unemployment rate ticked up to 3.9% in December. The uptick represented the strength of the labor market and widespread availability of jobs for those who want work. With older workers retiring in increasing numbers, the steadiness of the percentage of workers not in the labor force highlights the drawing back in to employment previously sidelined workers. This rejoining of the labor force has been a major factor in limiting overall wage increases and inflation, as the labor market is not as tight as in previous recoveries.
- GDP growth rates softened or remained low, depending on the region. China's economic deceleration thwarted plans to increase U.S. exports to the country. The strong U.S. dollar contributed to the increased trade imbalance with China and reflected the relative strength of the U.S. economy to the rest of the world. Brexit turmoil continued to dampen U.K. growth prospects while the E.U.'s structural rigidity has made above-trend growth a far off possibility.

Capital Markets Review

Equities

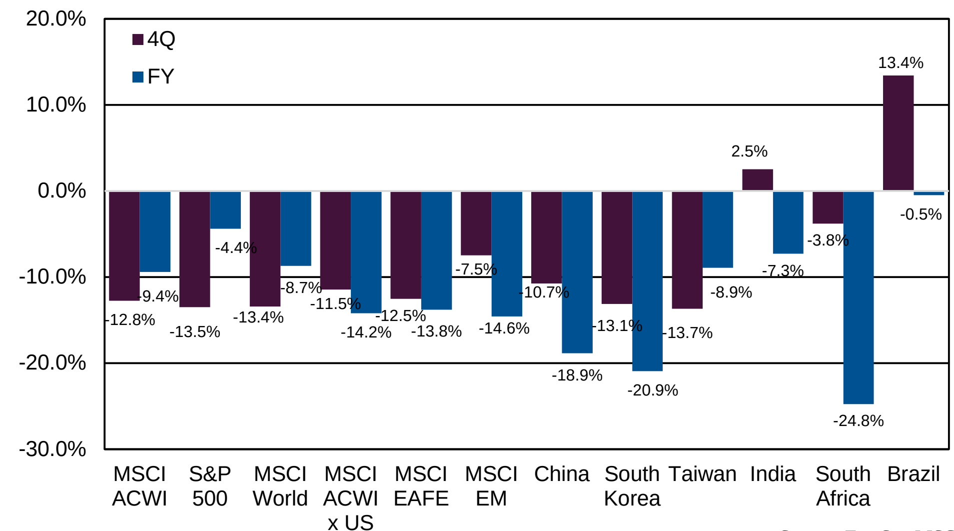
As of December 31, 2018

Fourth Quarter and Full Year S&P 500 Sector Returns



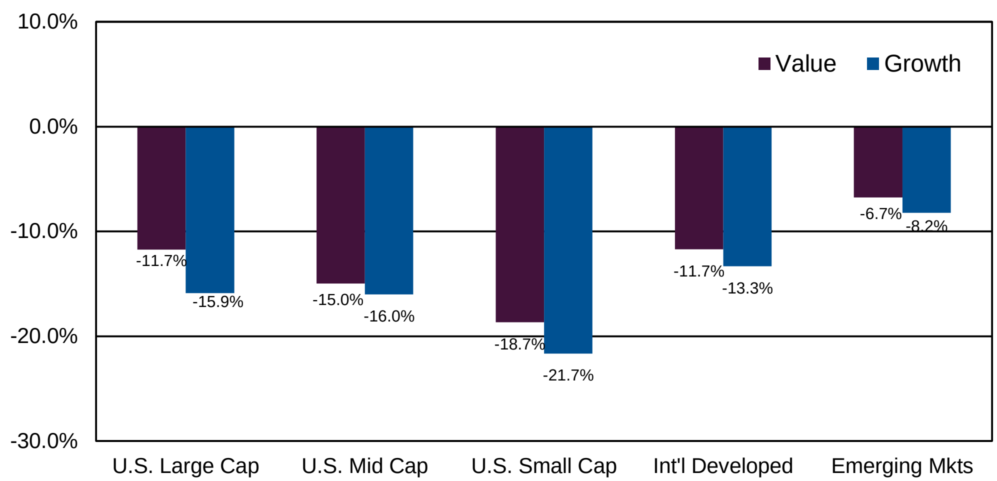
Source: FactSet, S&P

Fourth Quarter and Full Year World Equity Market Returns



Source: FactSet, MSCI

Value Declined Less than Growth During the Fourth Quarter



Source: FactSet

Growth and Small Cap were hit harder by recent volatility

- The S&P 500 Index returned -13.5% during the fourth quarter, closing 2018 with a return of -4.4%. All sectors experienced negative returns during the quarter with the exception of Utilities. Healthcare, Utilities, and Consumer Discretionary were the only sectors to exhibit positive returns for the full year of 2018.
- Concerns around rising rates, trade, and slowing global growth weighed heavily on equity markets during the fourth quarter, particularly in December. The U.S. and international developed market indices experienced similar results during the fourth quarter, declining by approximately 11% to 14%, while emerging market equities declined by 7.5%. Taiwan and South Korea were particularly weak during the quarter while Brazil and India were stronger markets. For the full year, the U.S. was the strongest market, returning -4.4% compared to the -13.8% and -14.6% returns of international developed and emerging market equities, respectively. Currency losses of 4.5% had a significant impact on emerging market returns for the year, as local currency return was -10.1%.
- The Value style outperformed the Growth style across equity markets during the fourth quarter, a reversal from the rest of the year. The largest style differential was within U.S. large-cap stocks. With the exception of emerging markets, Growth still led Value for the full year. Small-cap was the worst-performing size segment within U.S. equities during the quarter and year.

Capital Markets Review

Fixed Income

As of December 31, 2018

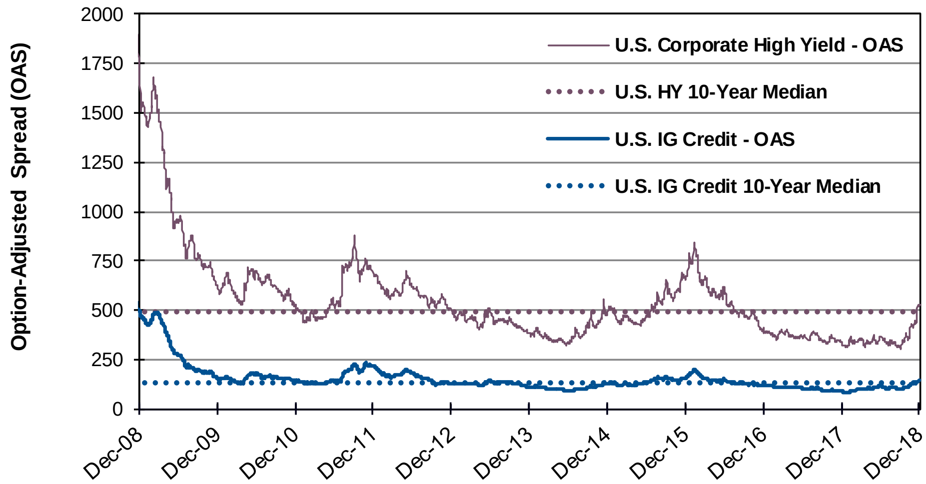
Duration – Adjusted Excess Returns to Treasuries (bps)

	2011	2012	2013	2014	2015	2016	2017	2018	1Q18	2Q18	3Q18	4Q18
Aggregate	-114	226	93	10	-53	138	121	-100	-31	-23	53	-100
Agency	-25	166	1	10	-133	121	148	-78	6	-15	44	-100
MBS	-106	91	98	40	-5	-11	52	-58	-39	15	17	-52
ABS	52	246	24	53	44	95	92	12	-19	17	30	-16
CMBS	47	841	97	108	-28	236	158	-41	-7	0	76	-110
Credit	-322	693	226	-18	-169	442	335	-316	-68	-91	168	-308
High Yield	-240	1394	923	-112	-577	1573	610	-357	-17	96	246	-680
EMD (USD)	-537	1503	-32	-120	3	880	627	-347	-26	-242	211	-288

Best Period Second Best Period Worst Period Second Worst Period

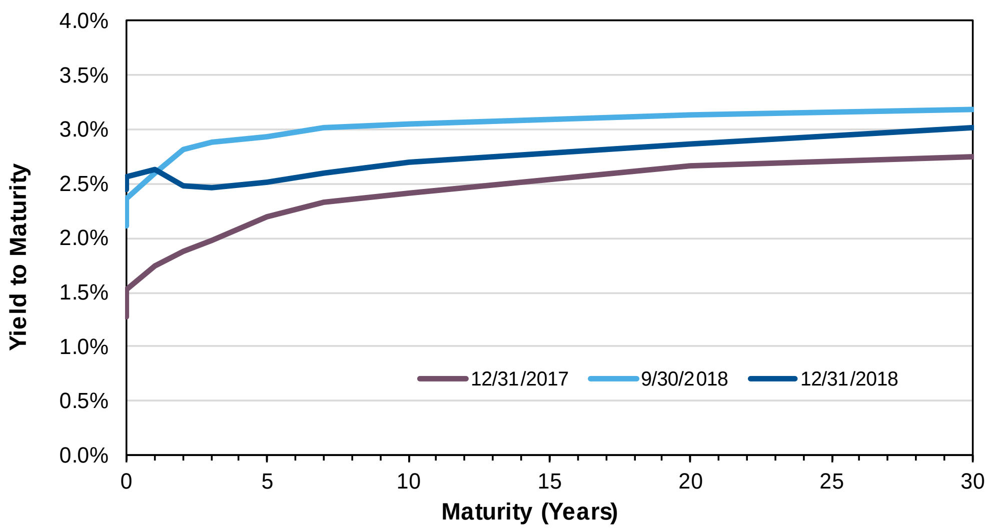
Source: Bloomberg

Trailing Ten-Year Credit Spreads



Source: Bloomberg

U.S. Treasury Yield Curve Change



Source: U.S. Dept. of The Treasury

Growth concerns fuel year-end rate rally

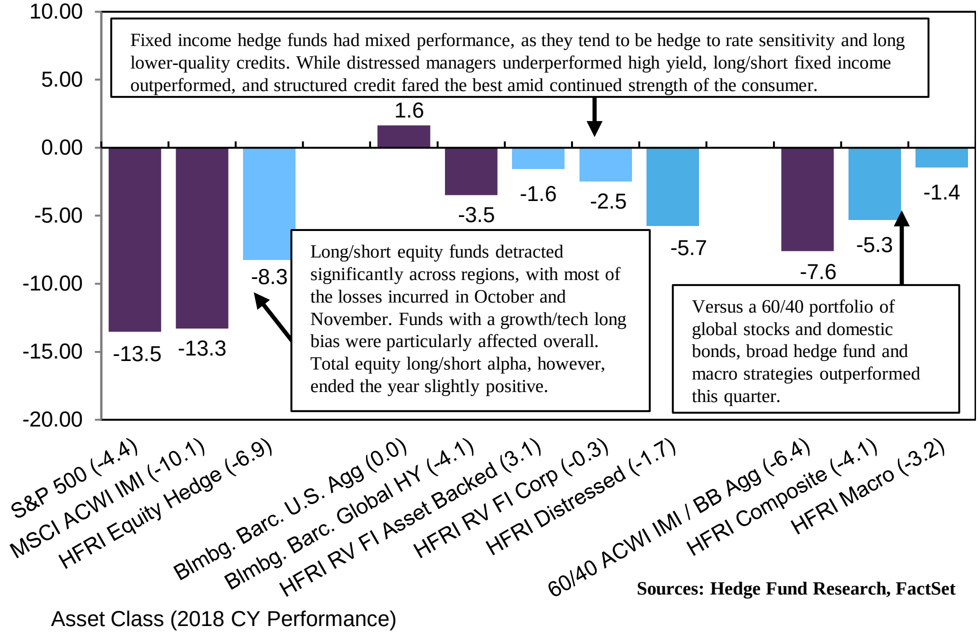
- The Federal Reserve (“ Fed”) raised rates 0.25% at the December FOMC meeting, setting the Federal Funds Rate target at 2.25% to 2.50%. The Fed also moderated its median forecast for additional interest rate hikes going forward, projecting just two for 2019. After a roller coaster ride which saw ten-year yields reach as high as 3.25%, Treasury yields ended the quarter significantly lower across the curve, which continued its flattening trend.
- Total returns across fixed income were generally positive for the quarter; however, all spread sectors produced negative excess returns on a duration-adjusted basis relative to Treasuries. U.S. Treasuries (+2.15 %) also outperformed TIPS (+0.55 %) as inflation expectations remained subdued.
- Investment-grade corporate spreads widened 47 bps on the quarter, to +153 bps, as credit demand softened on heightened fears of recession risk, as global economic data came in weaker than expected. High yield (-4.53 %) was the worst performing fixed income sector during the fourth quarter with spreads widening 210 bps, to +526, as outflows picked up and oil prices fell .
- High quality structured products held in particularly well during the quarter, and ABS (+1.25%) was the top performing sector on a duration-adjusted basis with spreads widening just 15 bps. ABS was also the highest returning fixed income sector of the year as it benefited from its shorter duration profile, which kept prices relatively stable as rate volatility picked up throughout 2018.

Capital Markets Review

Alternative Investments

As of December 31, 2018

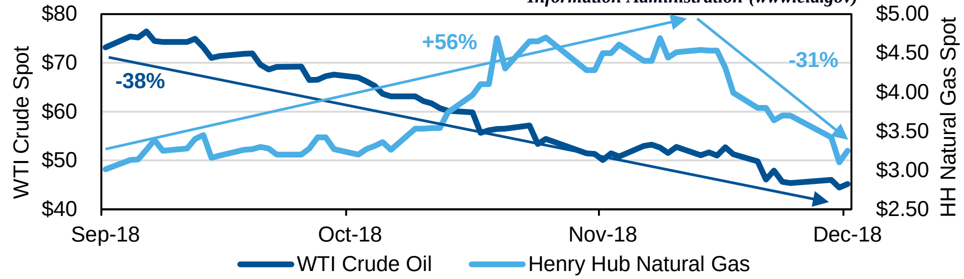
Hedge Funds vs Long-Only: Total Returns 2018 Q4 (%)



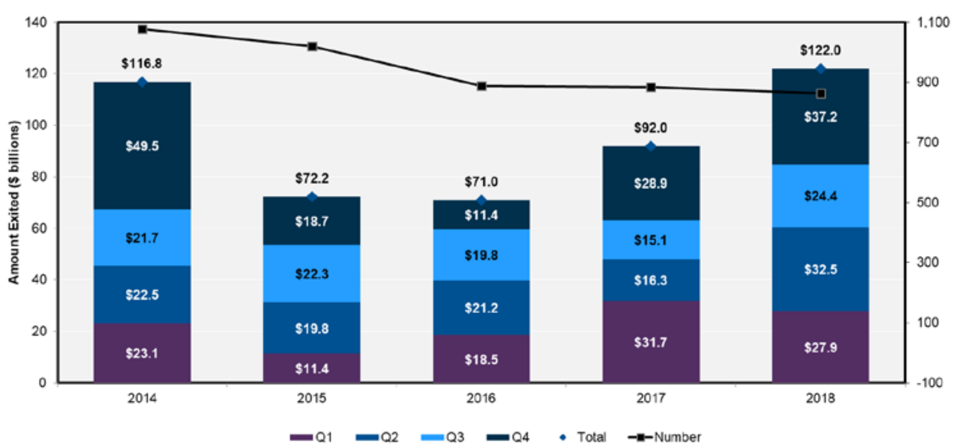
Sources: Hedge Fund Research, FactSet

Crude Oil vs Natural Gas: 2018 Q4

Source: US Energy Information Administration (www.eia.gov)



U.S. Venture Capital Exit Flow[1]



Sources: S&P Capital IQ, PitchBook
[1] Through December 31, 2018

Global alternatives rise with risk assets

- **Hedge Funds:** Hedge fund strategies generally underperformed during the fourth quarter and posted modest losses in 2018. In Q4 and in 2018, equity-focused strategies led the underperformance, especially domestic growth-focused funds, while long European and Asia/EM equity exposures detracted as well. Gross leverage dropped across most funds at the end of the year, while net exposures were kept relatively steady. Global equity alpha dipped into negative territory during the fourth quarter, but ended mostly flat on the year. Fixed income funds with significant short exposure and/or credit hedges were able to mitigate mark-to-market losses incurred from leveraged loans, high yield bonds and CLO equity, and those with structured exposures posted gains YTD. Systematic trend strategies (CTAs) performed negatively largely due to losses in equity and commodity markets, finishing the year in the red, and systematic and discretionary macro funds were mixed to slightly down during the year. Despite a deal spread widening towards year-end, merger arbitrage strategies posted a profit in the quarter and ended the year as one of the most profitable hedge fund sub-strategies.
- **Real Assets:** Going into the quarter real assets were slightly negative YTD, with dispersion amongst asset classes. The fourth quarter selloff in risk assets dragged all real assets into negative territory for the year. Crude oil (WTI) prices fell 38% in the fourth quarter closing at $45/b, down from a quarterly high of $76/b. The selloff was driven by increased production out of Saudi Arabia along with U.S. waivers related to Iran oil sanctions. Natural gas markets also experienced significant price volatility on the back of low inventories and mixed weather, rising over 50% through November, then dropping steeply in December, finishing the quarter close to flat. This dramatic price action led to sizable fourth quarter performance disparities between the two major commodity indices, *Bloomberg Commodity Index* (-9%) and *S&P GSCI Commodity Index* (-23%), as the GSCI has greater exposure to oil and smaller exposure to natural gas, relative to BCI.
- **Private Capital Markets: U.S. Venture Capital Exit Flow:** By exit value, U.S venture capital experienced its strongest year since 2012. During 2018, $122 billion worth of exits occurred across 864 deals representing a 33% year over year increase in exit value. Whilst many factors could be contributing to the increase in venture capital exit flow, one of the most compelling is the highly active IPO market. IPOs accounted for $63 billion of exit value, their highest value since 2012. Despite a strong year of exit flow, a robust IPO pipeline of the most valuable unicorn companies remain. Notable companies rumored to be considering 2019 IPOs include: Uber, Airbnb, Palantir, WeWork and Slack.

Capital Markets Review

Index Returns

As of December 31, 2018

(Percentage Return)

	Quarter	Year To Date	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
Domestic Equity Indices								
Dow Jones Wilshire 5000	-14.3	-5.3	-5.3	7.1	9.1	8.1	12.5	13.2
S&P 500	-13.5	-4.4	-4.4	7.9	9.3	8.5	12.7	13.1
Russell 1000 Index	-13.8	-4.8	-4.8	7.6	9.1	8.2	12.6	13.3
Russell 1000 Growth Index	-15.9	-1.5	-1.5	13.2	11.1	10.4	14.1	15.3
Russell 1000 Value Index	-11.7	-8.3	-8.3	2.1	7.0	5.9	11.0	11.2
Russell Midcap Index	-15.4	-9.1	-9.1	3.8	7.0	6.3	11.5	14.0
Russell Midcap Growth Index	-16.0	-4.8	-4.8	9.2	8.6	7.4	12.3	15.1
Russell Midcap Value Index	-15.0	-12.3	-12.3	-0.3	6.1	5.4	10.9	13.0
Russell 2000 Index	-20.2	-11.0	-11.0	1.0	7.4	4.4	10.4	12.0
Russell 2000 Growth Index	-21.7	-9.3	-9.3	5.3	7.2	5.1	11.3	13.5
Russell 2000 Value Index	-18.7	-12.9	-12.9	-3.1	7.4	3.6	9.6	10.4
International Equity Indices								
MSCI EAFE	-12.5	-13.8	-13.8	3.8	2.9	0.5	5.8	6.3
MSCI EAFE Growth Index	-13.3	-12.8	-12.8	6.0	2.9	1.6	6.5	7.1
MSCI EAFE Value Index	-11.7	-14.8	-14.8	1.7	2.8	-0.6	5.0	5.5
MSCI EAFE Small Cap	-16.0	-17.9	-17.9	4.5	3.7	3.1	8.8	10.5
MSCI AC World Index	-12.8	-9.4	-9.4	6.0	6.6	4.3	8.4	9.5
MSCI AC World ex US	-11.5	-14.2	-14.2	4.5	4.5	0.7	4.8	6.6
MSCI Emerging Markets Index	-7.5	-14.6	-14.6	8.3	9.2	1.6	3.2	8.0
Fixed Income Indices								
Blmbg. Barc. U.S. Aggregate	1.6	0.0	0.0	1.8	2.1	2.5	2.1	3.5
Blmbg. Barc. Intermed. U.S. Government/Credit	1.7	0.9	0.9	1.5	1.7	1.9	1.7	2.9
Blmbg. Barc. U.S. Long Government/Credit	0.8	-4.7	-4.7	2.7	4.0	5.4	3.7	5.9
Blmbg. Barc. U.S. Corp: High Yield	-4.5	-2.1	-2.1	2.6	7.2	3.8	6.0	11.1
ICE BofAML 3 Month U.S. T-Bill	0.6	1.9	1.9	1.4	1.0	0.6	0.5	0.4
Blmbg. Barc. U.S. TIPS	-0.4	-1.3	-1.3	0.9	2.1	1.7	0.9	3.6
FTSE Non-U.S. World Government Bond	1.3	-1.8	-1.8	4.1	3.3	0.3	-0.3	1.3
JPM EMBI Global Diversified (external currency)	-1.3	-4.3	-4.3	2.7	5.2	4.8	5.0	8.2
JPM GBI-EM Global Diversified (local currency)	2.1	-6.2	-6.2	4.0	5.9	-1.0	0.2	3.5
Real Asset Indices								
Bloomberg Commodity Index Total Return	-9.4	-11.2	-11.2	-5.0	0.3	-8.8	-7.8	-3.8
Dow Jones Wilshire REIT	-6.9	-4.8	-4.8	-0.4	2.1	7.9	8.3	12.2

Returns for periods greater than one year are annualized.

Portfolio Review

El Camino Hospital Investment Committee Scorecard

December 31, 2018

Key Performance Indicator	Status	El Camino	Benchmark	El Camino	Benchmark	El Camino	Benchmark	FY19 Year-end Budget	Expectation Per Asset Allocation
Investment Performance		4Q 2018		Fiscal Year-to-date		6y 2m Since Inception (annualized)			2018
Surplus cash balance*		$933.3	--	--	--	--	--	$886.6	--
Surplus cash return		-6.2%	-5.6%	-4.0%	-3.8%	4.5%	4.3%	3.2%	5.3%
Cash balance plan balance (millions)		$249.2	--	--	--	--	--	$276.9	--
Cash balance plan return		-7.9%	-7.0%	-5.3%	-4.6%	6.5%	5.8%	6.0%	5.7%
403(b) plan balance (millions)		$435.2	--	--	--	--	--	--	--
Risk vs. Return		3-year				6y 2m Since Inception (annualized)			2018
Surplus cash Sharpe ratio		0.73	0.70	--	--	0.88	0.86	--	0.43
Net of fee return		4.6%	4.3%	--	--	4.5%	4.3%	--	5.3%
Standard deviation		5.0%	4.7%	--	--	4.5%	4.4%	--	6.7%
Cash balance Sharpe ratio		0.70	0.71	--	--	0.99	0.94	--	0.40
Net of fee return		5.3%	5.0%	--	--	6.5%	5.8%	--	5.7%
Standard deviation		6.2%	5.7%	--	--	6.0%	5.6%	--	8.1%
Asset Allocation		4Q 2018							
Surplus cash absolute variances to target		9.4%	< 10%	--	--	--	--	--	--
Cash balance absolute variances to target		5.4%	< 10%	--	--	--	--	--	--
Manager Compliance		4Q 2018							
Surplus cash manager flags		28	< 24 Green < 30 Yellow	--	--	--	--	--	--
Cash balance plan manager flags		33	< 27 Green < 34 Yellow	--	--	--	--	--	--

*Excludes debt reserve funds (~$129 mm), District assets (~$34 mm), and balance sheet cash not in investable portfolio (~$125 mm). Includes Foundation (~$28 mm) and Concern (~$13 mm) assets. Budget adds back in current Foundation and Concern assets and backs out current debt reserve funds.

Total Surplus Cash Assets
As of December 31, 2018

	Allocation		Performance(%)							
	Market Value ($)	%	Quarter	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Total Surplus Cash (1)	**1,096,234,830**	**100.0**	**-5.2**	**-3.3**	**-2.0**	**4.0**	**3.2**	**5.4**	**4.2**	**6y 2m**
Total Surplus Cash ex District / Debt Reserves (1)	**933,327,329**	**85.1**	**-6.2**	**-4.0**	**-2.7**	**4.6**	**3.6**	**5.6**	**4.5**	**6y 2m**
Surplus Cash Total Benchmark			-5.6	-3.8	-3.6	4.3	3.6	5.2	4.3	
Total Surplus Cash ex District / CONCERN / Debt Reserves (1)	**920,046,400**	**83.9**	**-6.3**	**-4.1**	**-2.7**	**4.7**	**3.6**	**5.5**	**4.6**	**6y 2m**
Surplus Cash Total Benchmark			-5.6	-3.8	-3.6	4.3	3.6	5.2	4.3	
Total CONCERN	**13,280,929**	**1.2**	**1.5**	**1.6**	**0.3**	**1.8**	**-**	**-**	**1.8**	**2y 11m**
CONCERN Total Benchmark			1.6	1.7	0.0	-	-	-	1.6	
Met West Total Return Bond Plan - CONCERN	13,194,023	1.2	1.5	1.6	0.3	2.1	2.5	-	1.8	2y 11m
Blmbg. Barc. U.S. Aggregate			1.6	1.7	0.0	2.1	2.5	3.5	1.6	
Cash Account - CONCERN	86,906	0.0	0.3	0.5	1.0	0.6	-	-	0.6	2y 11m
90 Day U.S. Treasury Bill			0.6	1.1	1.9	1.0	0.6	0.4	1.0	
District - Barrow Hanley	**34,290,929**	**3.1**	**1.0**	**1.2**	**1.2**	**0.9**	**0.7**	**1.3**	**0.6**	**6y 2m**
Blmbg. Barc. 1-3 Govt			1.3	1.5	1.6	1.0	0.8	1.0	0.7	
Total Debt Reserves	**128,616,572**	**11.7**	**0.6**	**1.1**	**2.0**	**1.3**	**-**	**-**	**1.1**	**3y 8m**
90 Day U.S. Treasury Bill			0.6	1.1	1.9	1.0	0.6	0.4	0.8	
Ponder Debt Reserves - 2015	9,017,539	0.8	0.5	1.0	1.9	1.2	-	-	1.0	3y 8m
90 Day U.S. Treasury Bill			0.6	1.1	1.9	1.0	0.6	0.4	0.8	
Ponder Debt Reserves - 2017	116,830,141	10.7	0.6	1.1	2.0	-	-	-	1.6	1y 10m
90 Day U.S. Treasury Bill			0.6	1.1	1.9	1.0	0.6	0.4	1.4	
Capitalized Interest 2017	2,768,891	0.3	0.6	1.0	1.9	-	-	-	1.5	1y 10m
90 Day U.S. Treasury Bill			0.6	1.1	1.9	1.0	0.6	0.4	1.4	

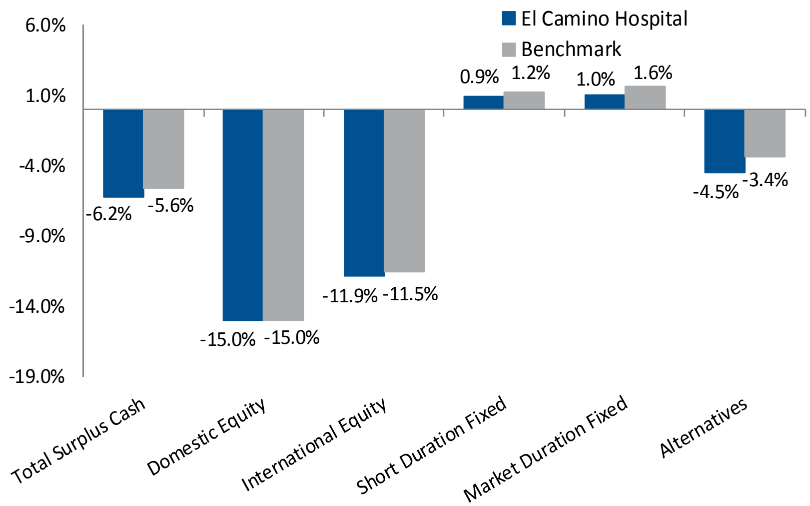
Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized. (1) Includes Foundation assets.

Surplus Cash Executive Summary

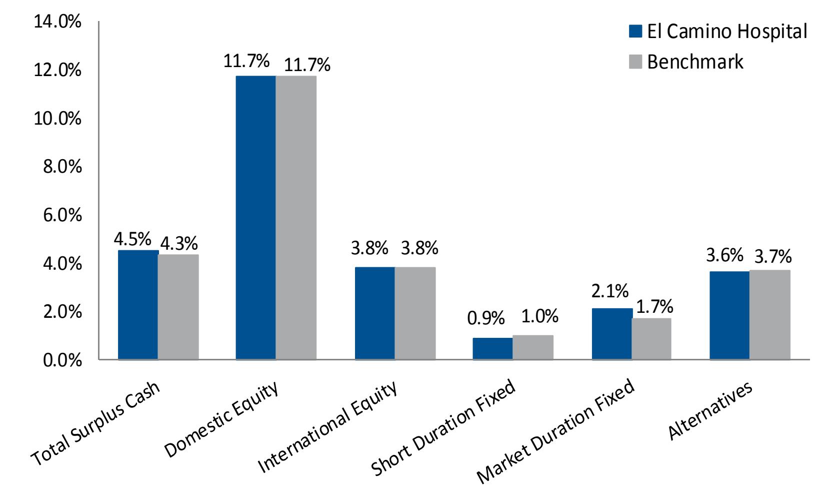
Dashboard

As of December 31, 2018

Performance: Most Recent Quarter



Performance: Since Inception[1]



Asset Allocation

Manager	Total Assets ($, mil.)	Percent of Total	Target Allocation	Variance to Target	Target Range	Within Policy Range
Domestic Equity	$230.6	24.7%	25.0%	- 0.3%	20-30%	Yes
International Equity	$128.0	13.7%	15.0%	- 1.3%	10-20%	Yes
Short-Duration Fixed	$116.3	12.5%	10.0%	+ 2.5%	8-12%	Yes
Market-Duration Fixed	$301.0	32.2%	30.0%	+ 2.2%	25-35%	Yes
Alternatives	$157.5	16.9%	20.0%	- 3.1%	17-23%	No
Total (X District)	**$933.3**	**100.0%**				

Portfolio Updates

Manager News/Issues

- The Surplus Cash Portfolio returned -6.2% for the quarter, underperforming its benchmark by 60 bps. Over the trailing one-year period, the Portfolio returned -2.7%, outpacing the benchmark by approximately 0.9%.
- Relative underperformance during the quarter was driven by unfavorable manager results. However, over the trailing one-year period, manager results were the primary driver of outperformance, particularly within domestic equities. Asset allocation positioning relative to the benchmark marginally detracted from results during the quarter and over the one-year period.
- Notable underperformers during the quarter included international equity managers Causeway and Harding Loevner, along with fixed income manager Dodge & Cox.
- Notable outperformers over the one-year period include large cap growth manager Touchstone Sands (+6.3%) and small cap growth manager Conestoga (+0.8%), which outperformed their benchmarks by 7.8% and 10.1%, respectively.

Fourth Quarter Funding News/Issues

- Walton Street Real Estate VII ($0.4 mm) and Oaktree Real Estate VI ($0.7 mm) made distributions. Walton Street Real Estate VIII called $1.3 mm in capital which was partially offset by a distribution of $0.8 mm.
- $7.2 million was redeemed from long/short equity hedge fund Tiger Eye.
- $0.3 million in residual redemption proceeds were received from hedge fund Pine River.

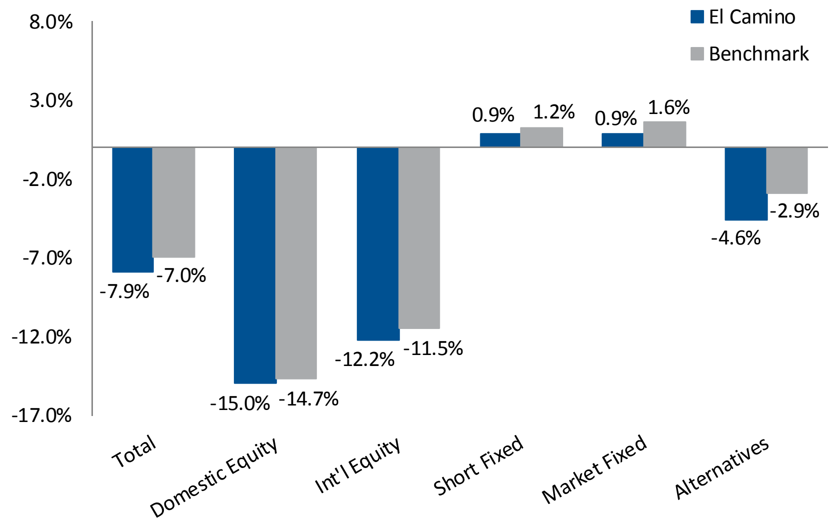
[1] Reflects the date Pavilion's recommended portfolio was implemented (November 1, 2012).

Cash Balance Plan Executive Summary

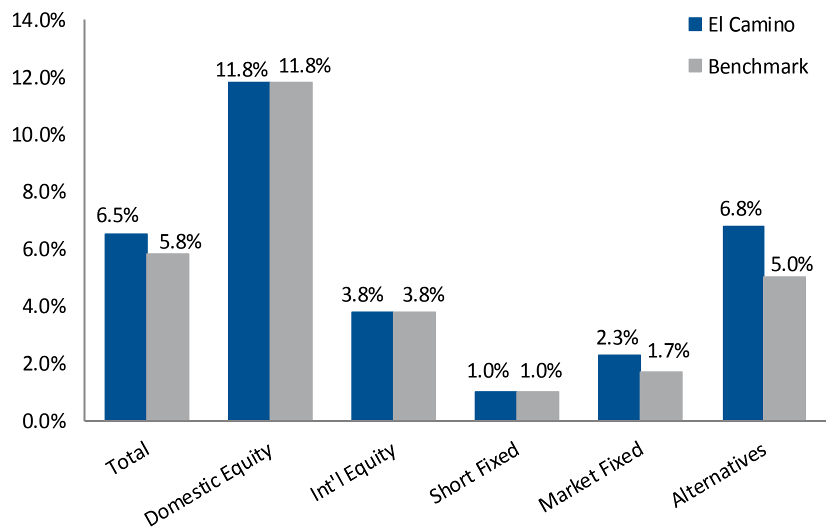
Dashboard

As of December 31, 2018

Performance: Most Recent Quarter



Performance: Since Inception[1]



[1] Reflects the date Pavilion's recommended portfolio was implemented (November 1, 2012).

Asset Allocation

Manager	Total Assets ($, mil.)	Percent of Total	Target Allocation	Variance to Target	Target Range	Within Policy Range
Domestic Equity	$ 78.8	31.6%	32.0%	- 0.4%	27-37%	Yes
International Equity	$ 42.7	17.1%	18.0%	- 0.9%	15-21%	Yes
Short-Duration Fixed	$ 9.9	4.0%	5.0%	- 1.0%	0-8%	Yes
Market-Duration Fixed	$ 69.1	27.7%	25.0%	+ 2.7%	20-30%	Yes
Alternatives	$ 48.8	19.6%	20.0%	- 0.4%	17-23%	Yes
Total	**$249.2**	**100.0%**				

Portfolio Updates

Manager News/Issues

- The Cash Balance Plan returned -7.9% for the quarter, underperforming its benchmark by 90 bps. During 2018, the Plan returned -2.8%, outpacing the benchmark by approximately 1.5%.
- Relative underperformance during the fourth quarter was driven by unfavorable manager results. However, over the trailing one-year period, manager results were the primary driver of outperformance, particularly within domestic equities. Asset allocation positioning relative to the benchmark also added value over the year.
- Notable underperformers during the quarter included international equity managers Causeway and Harding Loevner, along with fixed income manager Dodge & Cox.
- Notable outperformers over the one-year period include large cap growth manager Touchstone Sands (+6.3%) and small cap growth manager Conestoga (+0.8%) which outperformed their benchmarks by 7.8% and 10.1%, respectively.
- Alternatives manager results detracted from relative results the most during the quarter, as Pointer Offshore returned -9.3%, underperforming the HFRI Fund of Funds Composite Index by 430 bps.

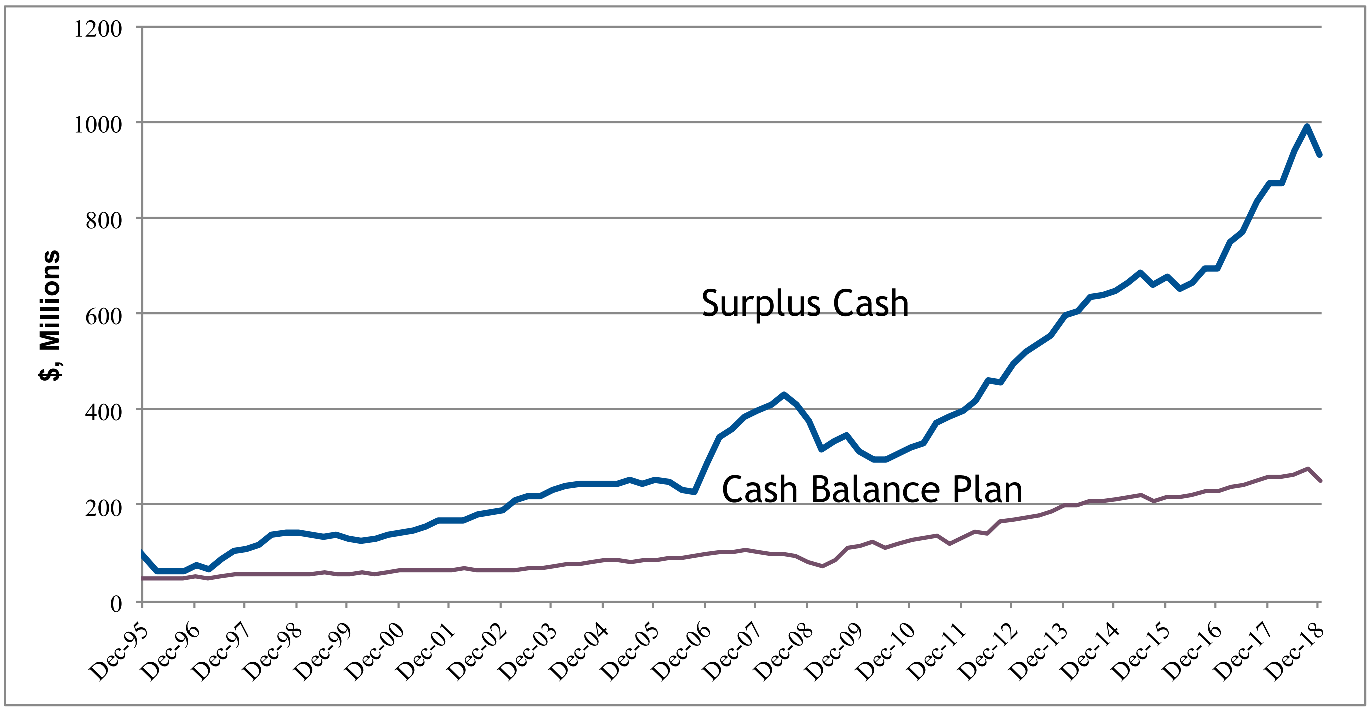
Fourth Quarter Funding News/Issues

- Oaktree Real Estate VI distributed $0.4 million.
- Walton Street Real Estate Fund VII distributed $0.2 million.
- Walton Street Real Estate Fund VIII called $1.0 million in capital, which was offset by a distribution of $0.6 million.
- $2.5 million was invested in Pointer Offshore.
- $2.0 million was invested in Lighthouse Diversified.

Market Value Reconciliation

As of December 31, 2018

	Surplus Cash					Cash Balance Plan				
$ in Millions	**2014**	**2015**	**2016**	**2017**	**2018**	**2014**	**2015**	**2016**	**2017**	**2018**
Beginning Market Value	**$596.3**	**$651.6**	**$677.5**	**$694.7**	**$872.3**	**$198.3**	**$213.7**	**$216.8**	**$228.1**	**$259.3**
Net Cash Flow	$27.4	$27.0	($17.5)	$89.0	$83.1	$3.8	$3.8	$0.4	($0.8)	($3.9)
Income	$12.3	$12.6	$12.4	$14.2	$18.1	$3.4	$3.4	$3.4	$3.6	$4.1
Realized Gain/(Loss)	$10.4	$4.4	$7.1	$9.6	$14.1	$4.7	$4.7	$4.5	$2.2	$10.0
Unrealized Gain/(Loss)	$5.3	($18.0)	$15.1	$64.8	($54.3)	$3.4	$2.6	$3.0	$26.2	($20.2)
Capital App/(Dep)	$27.9	($1.0)	$34.6	$88.6	($22.1)	$11.5	$10.7	$10.9	$32.0	($6.2)
End of Period Market Value	**$651.6**	**$677.5**	**$694.7**	**$872.3**	**$933.3**	**$213.7**	**$228.2**	**$228.1**	**$259.3**	**$249.2**
Return Net of Fees	4.4%	-0.2%	5.2%	11.8%	-2.7%	5.6%	1.1%	4.9%	14.5%	-2.8%



[1] Beginning 8/1/2012, Surplus Cash market values represent the Surplus Cash portfolio excluding District assets, with $13.9 million of District assets shown as a cash outflow in the third quarter of 2012.

Performance Summary

Compliance Checklist

As of December 31, 2018

Fund Name	Qualitative Compliance	Performance Compliance	Short-Term: 3 Year Return	Short-Term: 3 Year Rank	Short-Term: 3 Year Sharpe	Longer-Term: 5 Year Return	Longer-Term: 5 Year Rank	Longer-Term: 5 Year Sharpe
Sands Large Cap Growth (Touchstone) - Both Plans	✔	✔	✖	✖	✖	✖	✖	✖
Barrow Hanley Large Cap Value - Surplus Cash	✔	✔	✔	✔	✔	✔	✔	✔
Barrow Hanley Large Cap Value - Pension	✔	✔	✔	✔	✔	✔	✔	✔
Wellington Small Cap Value - Surplus Cash	✔	✔	✖	✖	✖	✖	✔	✖
Wellington Small Cap Value - Pension	✔	✔	✖	✖	✖	✖	✔	✖
Conestoga Small-Cap Fund I - Both Plans	✔	✔	✔	✔	✔	✔	✔	✔
Walter Scott Int'l (Dreyfus) - Both Plans	✔	✔	✔	✔	✔	✔	✔	✔
Causeway International Value - Both Plans	✔	✔	✖	✖	✖	✖	✖	✖
Harding Loevner Inst. Emerging Markets I - Both Plans	✔	✔	✖	✖	✖	✖	✖	✖
Barrow Hanley Short Fixed - Surplus Cash	✔	✔	✔	✖	✔	✔	✖	✔
Barrow Hanley Short Fixed - Pension	✔	✔	✖	✖	✖	✖	✖	✖
Dodge & Cox Fixed - Surplus Cash	✔	✔	✔	✔	✔	✔	✔	✔
Dodge & Cox Fixed - Pension	✔	✔	✔	✔	✔	✔	✔	✔
MetWest Fixed - Surplus Cash	✔	✔	✔	✖	✔	✖	✖	✔
Met West Fixed - Pension	✔	✔	✖	✖	✔	✖	✖	✔
Lighthouse Diversified - Pension[CE]	✖	✔	✔	--	✔	✔	--	✔
Pointer Offshore LTD - Pension	✔	✔	✔	--	✔	✔	--	✔

Legend	
✔	Goals met or no material change
✖	Goals not met or material changes

Portfolio	Score Factor	Comments
Sands Large Cap Growth (Touchstone) - Both Plans	Performance Compliance	Strong outperformance in 2017 and 2018 are starting to offset the effect of strong style headwinds that Sands faced in 2016. This is the type of rebound we would expect from Sands; it is a high tracking error strategy that will have periods of sharp underperformance at times, but over the long-term we expect Sands to outperform.
Wellington Small Cap Value - Surplus Cash	Performance Compliance	While we are disappointed with recent underperformance, Wellington has not performed outside of expectations. This is a quality-oriented value manager which we would expect to lag in a lower quality, growth-oriented market. 2016 was particularly challenging for the strategy to keep up, as the benchmark was up nearly 32%. We expect this manager to add value in down markets, like 2015, and believe that patience will be rewarded over the long-term. Performance for most small cap value managers was challenging in 2018. While Wellington performed inline with the benchmark during the year, it was within the top third of its small cap value peer group's performance.
Walter Scott Int'l (Dreyfus) - Both Plans	Qualitative Compliance	As previously announced, Executive Chairman and Investment Executive team member Rodger Nisbet left the firm in August after twenty-five years at the firm. Managing Director Jane Henderson assumed the role of interim Chair of the Board. Pavilion will continue to monitor the firm for any further notable departures or significant outflows. At this time, we recommend clients retain Walter Scott.
Causeway International Value - Both Plans	Qualitative Compliance	At the beginning of the fourth quarter, Causeway announced that Portfolio Manager Foster Corwith has decided to exit the industry and thus will be resigning from the firm effective June 2019. Separately, Stephen Nguyen has been promoted to portfolio manager. With his promotion, until Corwith's departure later this year, Causeway will have nine fundamental portfolio managers, reverting to eight after Corwith leaves. This news does not impact our existing ratings for Causeway's fundamental strategies, as we continue to view Sarah Ketterer and Harry Hartford as the key drivers of the philosophy, process and portfolios.

Performance compliance represents Pavilion's view on manager performance relative to Pavilion's expectations for performance, based primarily on manager investment philosophy and process. The three and five year return, rank and Sharpe ratio goals are as follows: the annualized return exceeds the benchmark's return, the manager's peer group rank is better than the 50th percentile, and the manager's Sharpe ratio exceeds the benchmark's.

Performance Summary

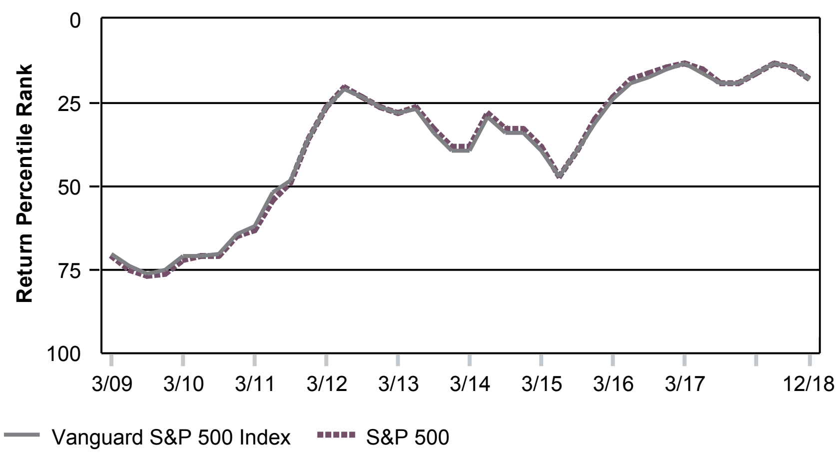
Compliance Checklist

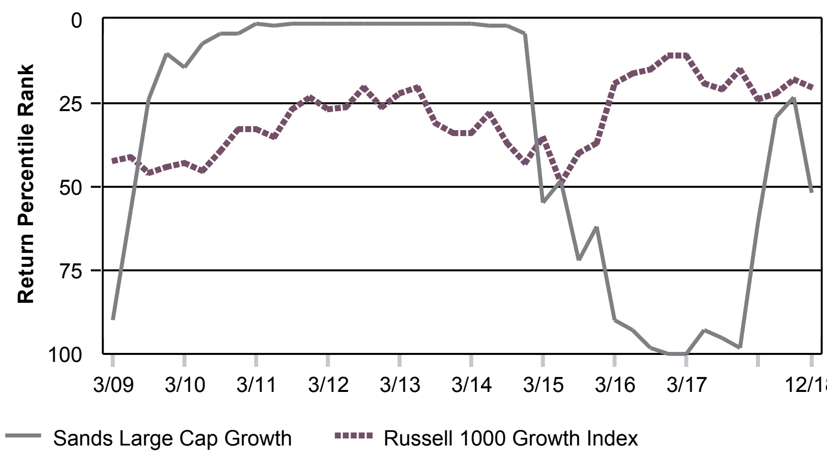
As of December 31, 2018

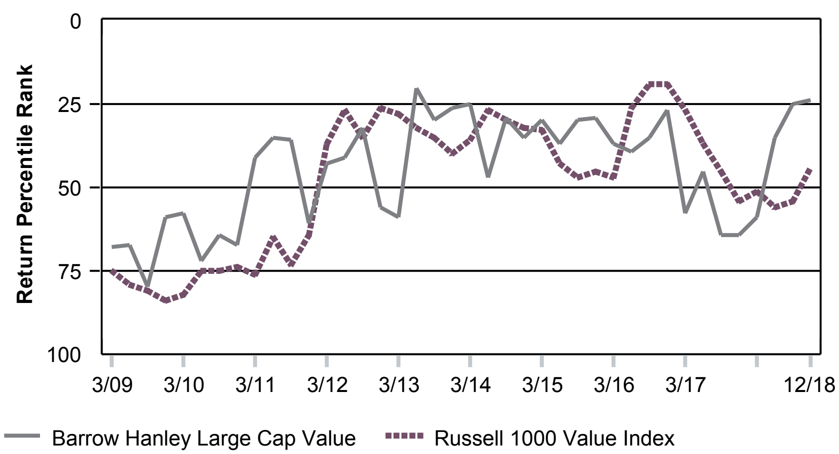
Portfolio	Score Factor	Comments
Harding Loevner Inst. Emerging Markets I - Both Plans	Performance Compliance	A challenging second half of 2018 is weighing on Harding Loevner's long term returns. The firm's growth bias was a headwind in the back half of the year as value dramatically outperformed growth, a sharp reversal from previous years.
Barrow Hanley Short Fixed - Surplus Cash	Qualitative Compliance	In August 2018, BHMS announced David Hardin, Managing Director and Fixed Income Portfolio Manager, plans to retire effective January 31, 2019.
Dodge & Cox Fixed - Surplus Cash	Qualitative Compliance	In January, Thomas Dugan, a Senior Vice President and previously Associate Director of Fixed Income, was named Co-Director of Fixed Income alongside Dana Emery, President and CEO. Additionally, Charles Pohl, Chairman and CIO, stepped down from the U.S. Fixed Income Investment Committee.
MetWest Fixed - Surplus Cash	Qualitative Compliance	In January, TCW announced that Jamie Farnham, Director of Credit Research, has departed the firm, and is planning to step away from the investment management business for now. However, he has agreed to stick around in a consulting capacity with TCW for 6-12 months to facilitate the transition. Steve Purdy will take over as head of credit research, and will co-lead the 20-person credit management team alongside Jerry Cudzil, head of credit trading.
MetWest Fixed - Surplus Cash	Performance Compliance	Over the past few years, TCW has held the view that investors are not being fairly compensated for holding corporate credit given valuations and what they perceive as weakening fundamentals. In addition, the team has been cautious on interest rate risk. The net result has been a defensively positioned portfolio that has trailed more aggressive peers as spreads grind tighter and interest rates remain relatively range bound. Going forward, we expect TCW to be in a positive position to deploy capital when the next bout of volatility arises.
Lighthouse Diversified - Pension	Qualitative Compliance	On July 1st, 2018 Lighthouse officially acquired the assets of Mesirow Advanced Strategies. Pavilion's initial takeaway from early conversations with the managers is that the combination makes sense given the current industry environment. That said, uncertainties remain with the integration process, and we have placed the broader Lighthouse organization on "Watch" as a result. A more detailed memo is available upon request.

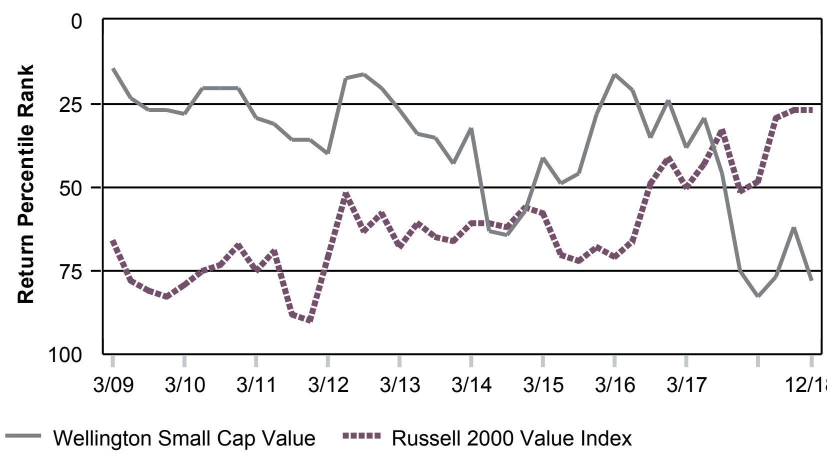
Performance compliance represents Pavilion's view on manager performance relative to Pavilion's expectations for performance, based primarily on manager investment philosophy and process. The three and five year return, rank and Sharpe ratio goals are as follows: the annualized return exceeds the benchmark's return, the manager's peer group rank is better than the 50th percentile, and the manager's Sharpe ratio exceeds the benchmark's.

Manager Performance Evaluation
Rolling 3 Year Rankings vs. Peers
As of December 31, 2018

Vanguard


Sands


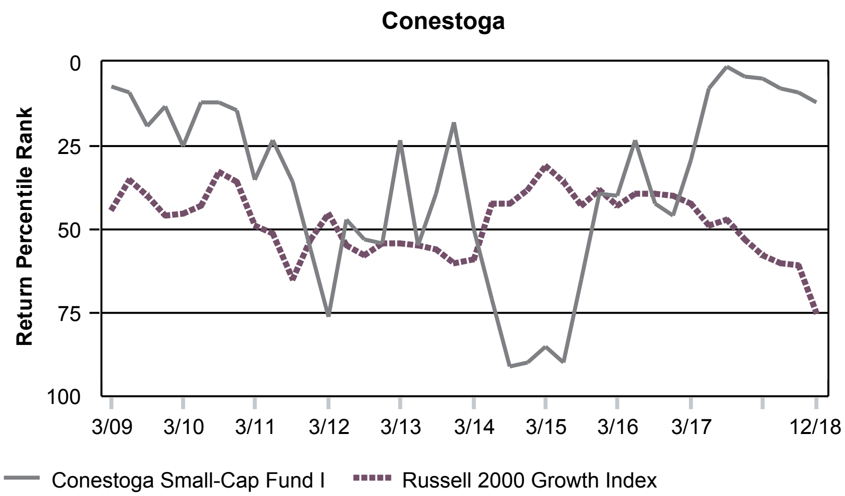
Barrow Hanley


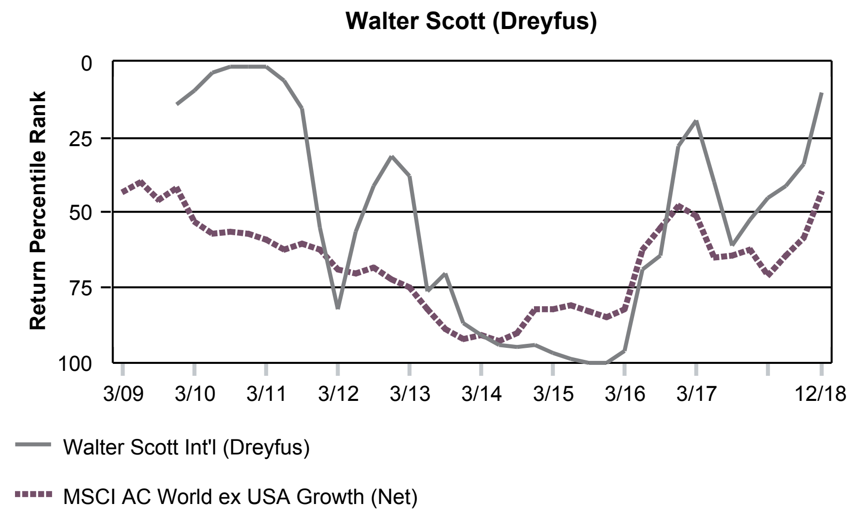
Wellington


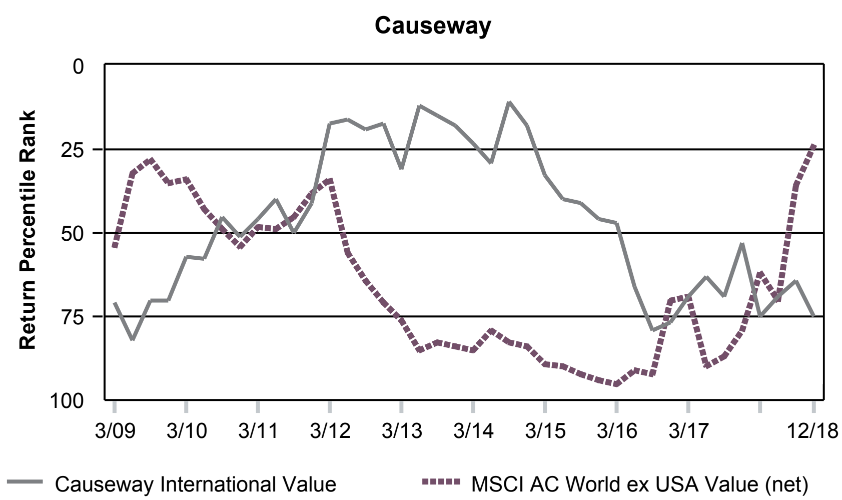
Manager Performance Evaluation

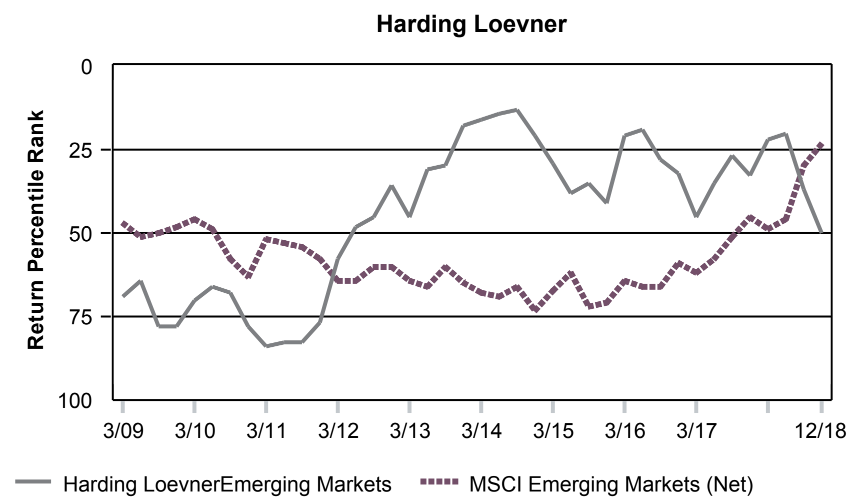
Rolling 3 Year Rankings vs. Peers

As of December 31, 2018





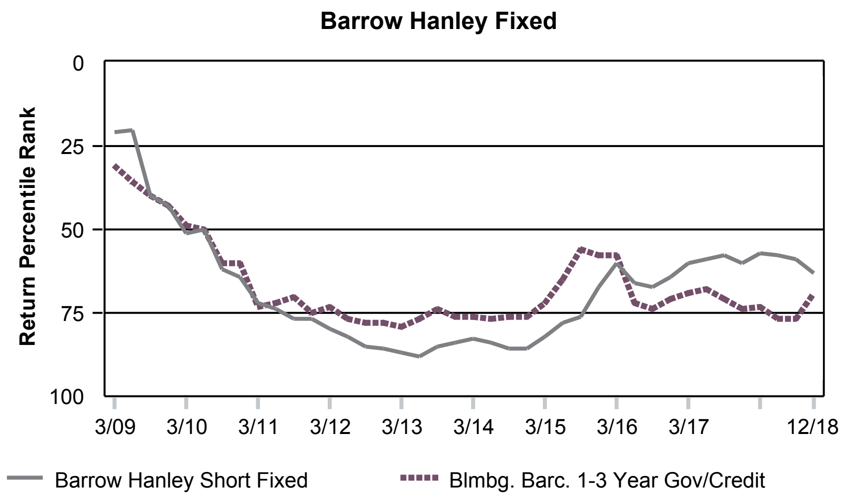


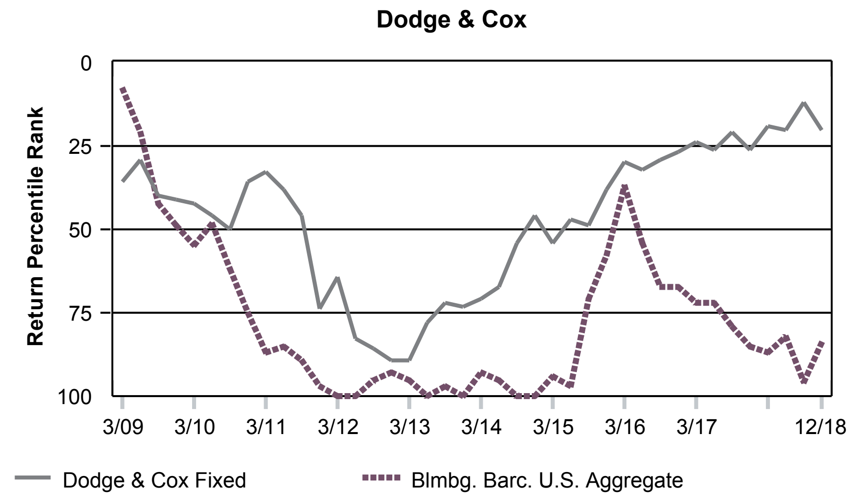


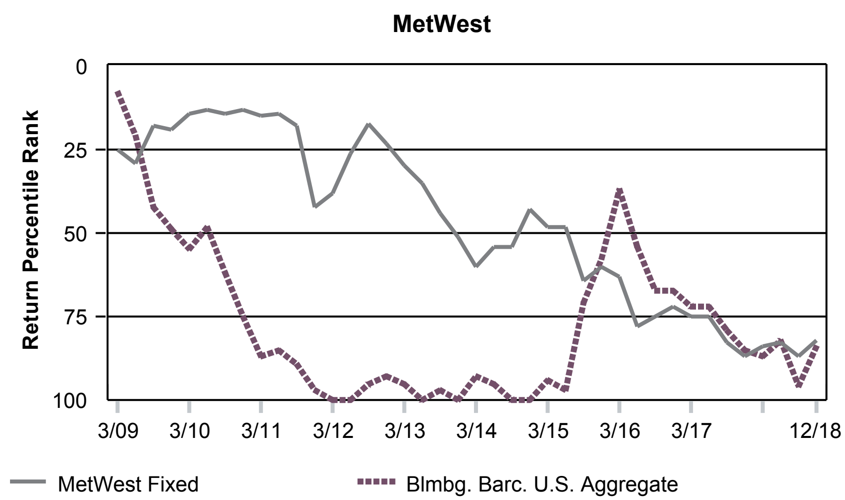
Manager Performance Evaluation

Rolling 3 Year Rankings vs. Peers

As of December 31, 2018





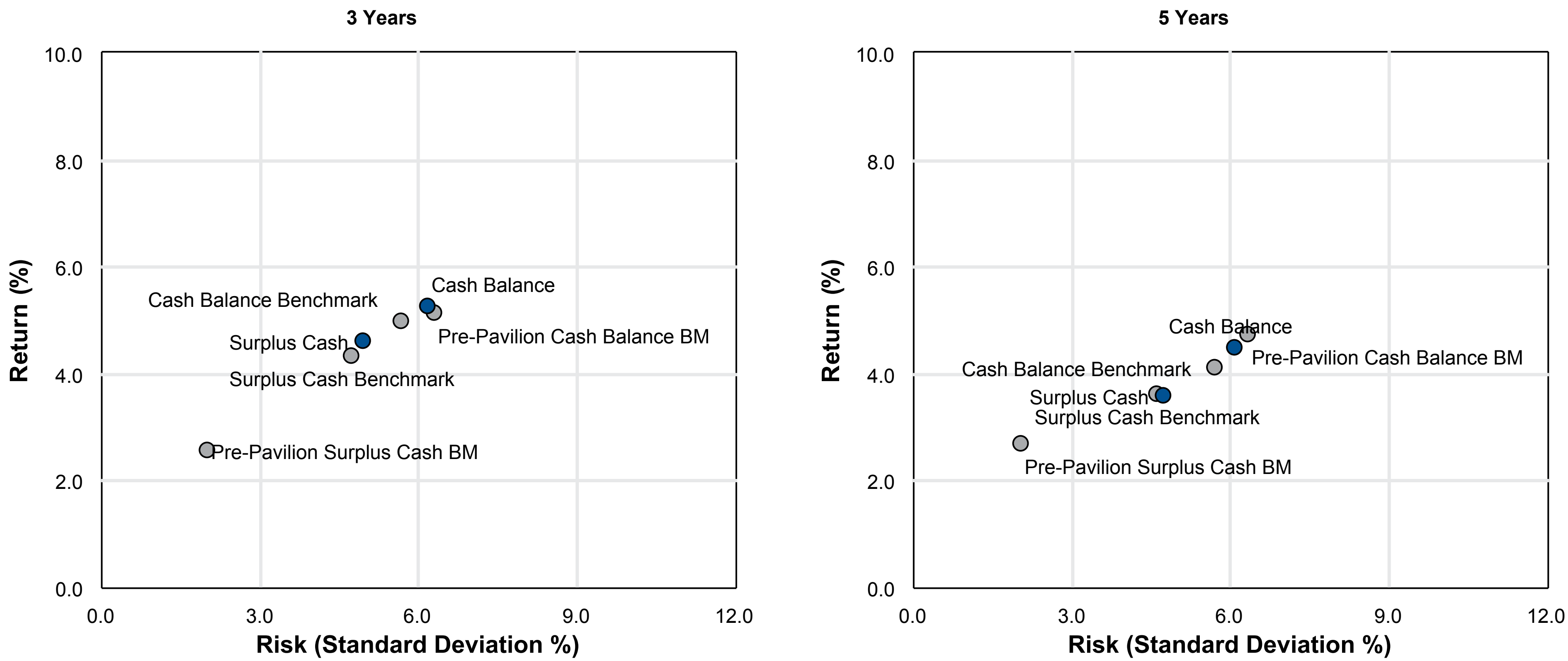


Performance Summary

Surplus Cash and Cash Balance Plan

Risk and Return Summary (Net of Fees)

As of December 31, 2018



Surplus Cash Portfolio ex District

Composite Asset Allocation & Performance

As of December 31, 2018

	Allocation		Performance(%)							
	Market Value ($)	%	Quarter	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Total Surplus Cash X District	**933,327,329**	**100.0**	**-6.2**	**-4.0**	**-2.7**	**4.6**	**3.6**	**5.6**	**4.5**	**6y 2m**
Surplus Cash Total Benchmark			-5.6	-3.8	-3.6	4.3	3.6	5.2	4.3	
Pre-Pavilion Surplus Cash Total Benchmark			-0.4	0.5	-0.6	2.6	2.7	4.2	2.8	
Total Surplus Cash X District X Privates	**911,753,873**	**97.7**	**-6.4**	**-4.2**	**-2.8**	**4.6**	**3.4**	**5.5**	**4.4**	**6y 2m**
Surplus Cash Total Benchmark x Privates			-5.8	-3.9	-3.7	4.4	3.6	5.2	4.3	
Total Equity Composite	**358,633,500**	**38.4**	**-13.9**	**-9.8**	**-6.8**	**7.4**	**5.0**	**10.5**	**9.0**	**6y 2m**
Total Equity Benchmark - Surplus			-13.6	-9.8	-9.0	7.3	5.1	10.5	8.9	
Domestic Equity Composite	**230,587,562**	**24.7**	**-15.0**	**-8.8**	**-3.0**	**9.1**	**7.2**	**12.2**	**11.7**	**6y 2m**
Domestic Equity Benchmark - Surplus			-15.0	-9.2	-5.9	8.9	7.5	12.2	11.7	
Large Cap Equity Composite	189,115,087	20.3	-14.1	-7.8	-2.2	9.0	7.9	12.4	12.1	6y 2m
Large Cap Equity Benchmark			-13.7	-7.1	-4.6	9.2	8.3	12.4	12.0	
Small Cap Equity Composite	41,472,475	4.4	-18.8	-12.9	-6.0	9.6	4.8	-	10.0	6y 2m
Small Cap Equity Benchmark			-20.2	-17.3	-11.1	7.4	4.4	12.0	10.0	
International Equity Composite	**128,045,938**	**13.7**	**-11.9**	**-11.7**	**-13.2**	**4.3**	**1.0**	**-**	**3.8**	**6y 2m**
MSCI AC World ex USA (Net)			-11.5	-10.8	-14.2	4.5	0.7	6.6	3.8	

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.
Peer group percentile ranks are shown in parentheses.

Surplus Cash Portfolio ex District

Composite Asset Allocation & Performance

As of December 31, 2018

	Allocation		Performance(%)							
	Market Value ($)	%	Quarter	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Total Fixed Income Composite	**417,241,652**	**44.7**	**1.0**	**1.3**	**0.3**	**2.4**	**2.3**	**3.4**	**1.8**	**6y 2m**
Total Fixed Income Benchmark - Surplus			1.5	1.6	0.4	1.9	2.2	2.9	1.6	
Short Duration Fixed Income Composite	**116,290,943**	**12.5**	**0.9**	**1.3**	**1.3**	**1.3**	**1.0**	**2.3**	**0.9**	**6y 2m**
Short Duration Fixed Income Benchmark - Surplus			1.2	1.5	1.6	1.2	1.0	2.2	1.0	
Market Duration Fixed Income Composite	**300,950,709**	**32.2**	**1.0**	**1.3**	**-0.1**	**2.8**	**2.7**	**4.9**	**2.1**	**6y 2m**
Blmbg. Barc. U.S. Aggregate			1.6	1.7	0.0	2.1	2.5	3.5	1.7	
Total Alternatives Composite	**157,452,177**	**16.9**	**-4.5**	**-3.2**	**-0.6**	**2.8**	**3.0**	**-**	**3.6**	**5y 8m**
Total Alternatives Benchmark - Surplus			-3.4	-2.9	-1.5	2.7	3.2	-	3.7	
Real Estate Composite	**21,573,456**	**2.3**	**-0.3**	**0.9**	**4.4**	**5.2**	**10.3**	**-**	**9.5**	**5y 4m**
NCREIF Property Index			1.4	3.1	6.7	7.2	9.3	7.5	9.4	
Hedge Fund Composite	**135,878,721**	**14.6**	**-5.1**	**-3.8**	**-1.4**	**2.2**	**1.5**	**-**	**2.3**	**5y 8m**
HFRI Fund of Funds Composite Index			-5.0	-4.8	-4.1	1.3	1.4	3.1	2.0	

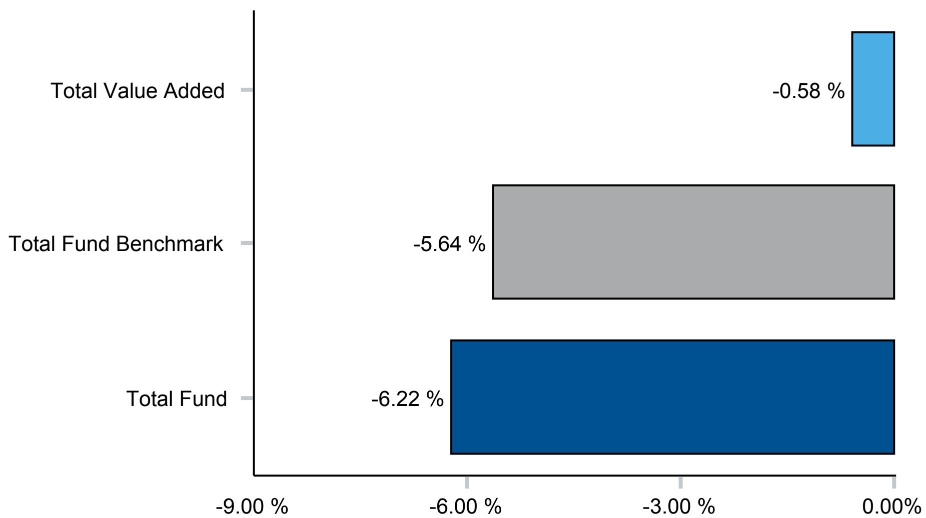
Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.
Peer group percentile ranks are shown in parentheses.

Surplus Cash Portfolio ex District

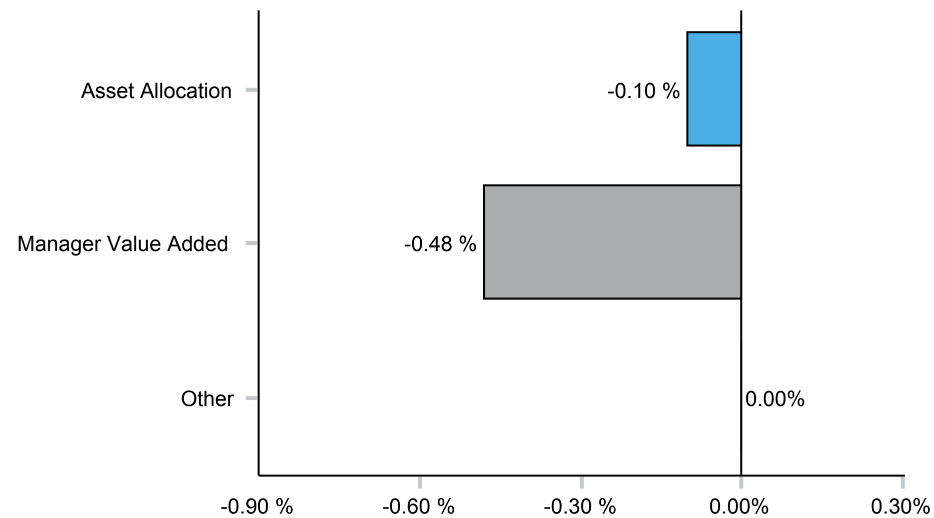
Attribution Analysis

1 Quarter Ending December 31, 2018

Total Fund Performance

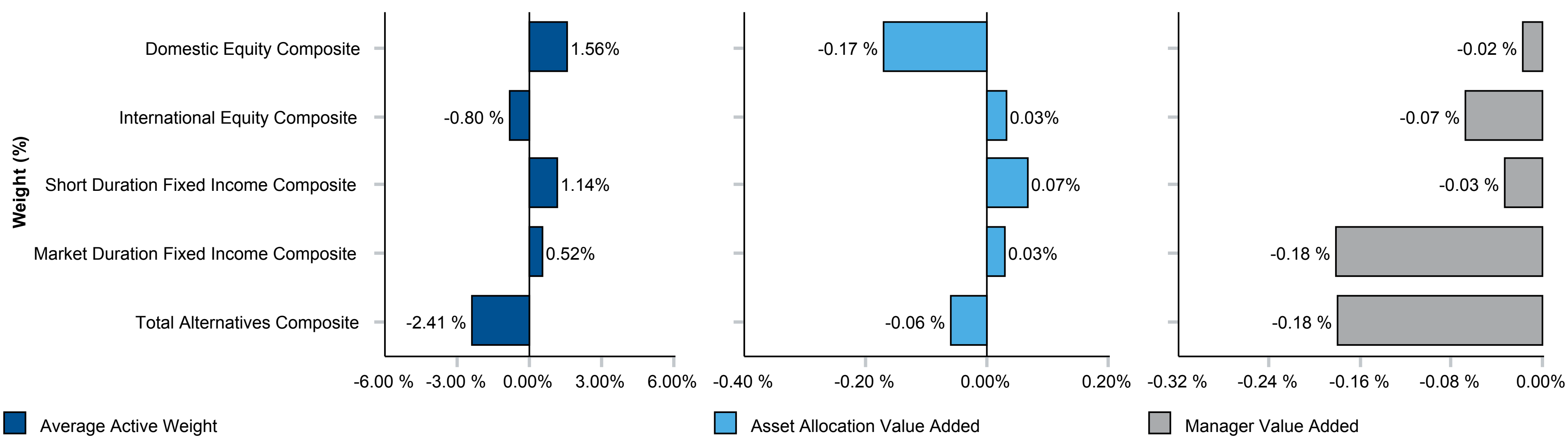


Total Value Added:-0.58 %



Total Asset Allocation:-0.10 %

Total Manager Value Added:-0.48 %



"Other" includes the effects of all other factors on the Fund's relative return, including rebalancing and other trading activity.

Surplus Cash Portfolio ex District

Manager Asset Allocation & Performance

As of December 31, 2018

	Allocation		Performance(%)							
	Market Value ($)	%	Quarter	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Large-Cap Equity										
Vanguard S&P 500 Index	113,545,153	12.2	-13.5 (46)	-6.9 (41)	-4.4 (32)	9.2 (19)	8.5 (17)	13.1 (25)	12.0 (-)	6y 2m
S&P 500			-13.5 (46)	-6.9 (41)	-4.4 (32)	9.3 (19)	8.5 (16)	13.1 (25)	12.1 (-)	
eV Large Cap Core Median			*-13.8*	*-7.7*	*-5.9*	*7.7*	*7.3*	*12.3*	-	
Sands Large Cap Growth (Touchstone)	37,606,851	4.0	-17.7 (84)	-12.3 (89)	6.3 (5)	9.4 (53)	7.3 (80)	18.6 (2)	12.9 (-)	6y 2m
Russell 1000 Growth Index			-15.9 (54)	-8.2 (37)	-1.5 (50)	11.1 (21)	10.4 (16)	15.3 (26)	13.9 (-)	
eV Large Cap Growth Median			*-15.6*	*-8.9*	*-1.5*	*9.5*	*8.8*	*14.3*	-	
Barrow Hanley Large Cap Value	37,963,082	4.1	-12.3 (36)	-6.1 (28)	-3.3 (9)	8.0 (25)	6.8 (24)	11.7 (37)	8.6 (-)	18y 5m
Russell 1000 Value Index			-11.7 (29)	-6.7 (34)	-8.3 (41)	7.0 (45)	5.9 (41)	11.2 (52)	6.5 (-)	
eV Large Cap Value Median			*-13.3*	*-8.3*	*-9.0*	*6.6*	*5.6*	*11.2*	-	
Small-Cap Equity										
Wellington Small Cap Value	20,270,814	2.2	-18.7 (44)	-15.7 (36)	-12.7 (32)	3.7 (79)	3.4 (45)	11.8 (54)	8.5 (-)	6y 2m
Russell 2000 Value Index			-18.7 (44)	-17.4 (47)	-12.9 (33)	7.4 (28)	3.6 (42)	10.4 (80)	8.8 (-)	
eV Small Cap Value Median			*-19.1*	*-17.8*	*-14.7*	*5.6*	*3.2*	*12.0*	-	
Conestoga Small Cap Growth	21,201,661	2.3	-18.8 (18)	-10.3 (11)	0.8 (23)	14.0 (13)	8.1 (19)	15.1 (35)	16.1 (-)	2y 6m
Russell 2000 Growth Index			-21.7 (63)	-17.3 (81)	-9.3 (77)	7.2 (76)	5.1 (60)	13.5 (68)	9.5 (-)	
eV Small Cap Growth Median			*-20.9*	*-15.1*	*-4.5*	*8.9*	*5.8*	*14.3*	-	
International Equity										
Causeway International Value	43,334,349	4.6	-14.7 (82)	-13.7 (73)	-18.6 (88)	1.3 (76)	-1.1 (78)	6.9 (45)	-17.3 (-)	0y 8m
MSCI AC World ex USA (Net)			-11.5 (31)	-10.8 (35)	-14.2 (32)	4.5 (29)	0.7 (34)	6.6 (51)	-14.5 (-)	
MSCI AC World ex USA Value (net)			-10.7 (19)	-9.2 (17)	-14.0 (30)	4.7 (25)	-0.4 (62)	6.0 (61)	-14.8 (-)	
Custom Non US Diversified Value Median			*-13.2*	*-11.8*	*-15.7*	*2.9*	*0.0*	*6.6*	-	
Walter Scott Int'l (Dreyfus)	52,698,882	5.6	-10.6 (6)	-7.9 (1)	-7.6 (1)	7.1 (11)	3.1 (24)	7.9 (69)	4.9 (-)	6y 2m
MSCI AC World ex USA (Net)			-11.5 (9)	-10.8 (15)	-14.2 (57)	4.5 (41)	0.7 (78)	6.6 (88)	3.8 (-)	
MSCI AC World ex USA Growth (Net)			-12.2 (20)	-12.4 (27)	-14.4 (59)	4.2 (44)	1.7 (57)	7.1 (81)	4.6 (-)	
Custom Non US Diversified Growth Median			*-14.8*	*-14.2*	*-13.8*	*3.8*	*1.9*	*8.5*	-	
Harding Loevner Emerging Markets	32,012,707	3.4	-10.1 (88)	-15.0 (89)	-18.6 (76)	7.6 (51)	1.2 (57)	8.3 (55)	6.2 (-)	3y 4m
MSCI Emerging Markets (Net)			-7.5 (49)	-8.5 (36)	-14.6 (31)	9.2 (24)	1.6 (43)	8.0 (60)	7.5 (-)	
eV International Emerging Equity Median			*-7.5*	*-10.1*	*-16.0*	*7.7*	*1.4*	*8.6*	-	

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.
Peer group percentile ranks are shown in parentheses.

Surplus Cash Portfolio ex District

Manager Asset Allocation & Performance

As of December 31, 2018

	Allocation		Performance(%)							
	Market Value ($)	%	Quarter	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Short Duration Fixed Income										
Barrow Hanley Short Fixed	105,834,860	11.3	0.9 (43)	1.3 (50)	1.3 (60)	1.3 (64)	1.1 (71)	1.5 (82)	4.6 (-)	27y 9m
Blmbg. Barc. 1-3 Year Gov/Credit			1.2 (12)	1.5 (11)	1.6 (22)	1.2 (70)	1.0 (74)	1.5 (79)	4.1 (-)	
eV US Short Fixed Income Median			*0.8*	*1.3*	*1.4*	*1.5*	*1.3*	*2.1*	-	
Cash Composite	10,456,083	1.1	0.3	0.5	0.5	0.5	0.4	-	0.1	6y 2m
90 Day U.S. Treasury Bill			0.6	1.1	1.9	1.0	0.6	0.4	0.5	
Market Duration Fixed Income										
Dodge & Cox Fixed	149,271,219	16.0	0.4 (56)	1.0 (43)	-0.3 (35)	3.4 (21)	3.1 (32)	5.1 (60)	2.6 (-)	6y 2m
Blmbg. Barc. U.S. Aggregate			1.6 (9)	1.7 (9)	0.0 (23)	2.1 (85)	2.5 (71)	3.5 (100)	1.7 (-)	
eV Core Plus Fixed Income Median			*0.5*	*0.9*	*-0.6*	*2.8*	*2.8*	*5.4*	-	
MetWest Fixed	138,485,467	14.8	1.7 (9)	1.6 (10)	0.2 (19)	2.2 (83)	2.5 (74)	5.5 (46)	1.8 (-)	6y 2m
Blmbg. Barc. U.S. Aggregate			1.6 (9)	1.7 (9)	0.0 (23)	2.1 (85)	2.5 (71)	3.5 (100)	1.7 (-)	
eV Core Plus Fixed Income Median			*0.5*	*0.9*	*-0.6*	*2.8*	*2.8*	*5.4*	-	
Met West Total Return Bond Plan - CONCERN	13,194,023	1.4	1.5 (11)	1.6 (10)	0.3 (17)	2.1 (85)	2.5 (71)	-	1.8 (-)	2y 11m
Blmbg. Barc. U.S. Aggregate			1.6 (9)	1.7 (9)	0.0 (23)	2.1 (85)	2.5 (71)	3.5 (100)	1.6 (-)	
eV Core Plus Fixed Income Median			*0.5*	*0.9*	*-0.6*	*2.8*	*2.8*	*5.4*	-	
Real Estate										
Oaktree Real Estate Opportunities Fund VI	6,851,789	0.7	-0.6	0.2	4.6	3.8	8.7	-	7.9	5y 4m
NCREIF Property Index			1.4	3.1	6.7	7.2	9.3	7.5	9.4	
Walton Street Real Estate Fund VII, L.P.	7,314,719	0.8	0.0	-0.1	1.7	7.1	13.6	-	13.9	5y 2m
NCREIF Property Index			1.4	3.1	6.7	7.2	9.3	7.5	9.4	
Walton Street Real Estate Fund VIII, L.P.	7,406,948	0.8	-0.3	2.0	6.7	-	-	-	13.4	1y 7m
NCREIF Property Index			1.4	3.1	6.7	7.2	9.3	7.5	6.9	
Hedge Funds										
Hedge Fund Composite	135,878,721	14.6	-5.1	-3.8	-1.4	2.2	1.5	-	2.3	5y 8m
HFRI Fund of Funds Composite Index			-5.0	-4.8	-4.1	1.3	1.4	3.1	2.0	

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.
Peer group percentile ranks are shown in parentheses.

Surplus Cash Portfolio ex District

Manager Asset Allocation & Performance

As of December 31, 2018

	Allocation		Performance(%)							
	Market Value ($)	%	Quarter	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Total Plan										
Total Surplus Cash X District	933,327,329	100.0	-6.2	-4.0	-2.7	4.6	3.6	5.6	4.5	6y 2m
Total Surplus Cash Benchmark			-5.6	-3.8	-3.6	4.3	3.6	5.2	4.3	
Pre-Pavilion Total Surplus Cash Benchmark			-0.4	0.5	-0.6	2.6	2.7	4.2	2.8	

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.
Peer group percentile ranks are shown in parentheses.

Cash Balance Plan

Composite Asset Allocation & Performance

As of December 31, 2018

	Allocation		Performance(%)							
	Market Value ($)	%	Quarter	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Total Cash Balance Plan	**249,214,096**	**100.0**	**-7.9**	**-5.3**	**-2.8**	**5.3**	**4.5**	**9.1**	**6.5**	**6y 2m**
Total Cash Balance Plan Benchmark			-7.0	-4.6	-4.3	5.0	4.1	7.7	5.8	
Pre-Pavilion Total Cash Balance Plan Benchmark			-6.4	-3.2	-4.8	5.2	4.7	8.3	6.8	
Total Cash Balance Plan X Private Structures	**235,078,146**	**94.3**	**-8.3**	**-5.6**	**-3.3**	**5.3**	**4.1**	**9.0**	**6.2**	**6y 2m**
Cash Balance Plan Total X Privates Benchmark			-7.5	-5.2	-5.0	4.8	3.8	7.6	5.6	
Total Equity Composite	**121,469,783**	**48.7**	**-14.1**	**-9.7**	**-5.7**	**7.5**	**5.1**	**11.4**	**9.0**	**6y 2m**
Total Equity Benchmark			-13.5	-9.5	-8.7	7.4	5.2	10.5	8.9	
Domestic Equity Composite	**78,805,265**	**31.6**	**-15.0**	**-8.9**	**-1.9**	**9.2**	**7.5**	**13.2**	**11.8**	**6y 2m**
Domestic Equity Benchmark			-14.7	-8.8	-5.6	8.9	7.8	12.2	11.8	
Large Cap Equity Composite	66,402,879	26.6	-14.3	-8.1	-1.2	9.2	7.9	13.4	12.2	6y 2m
Large Cap Equity Benchmark			-13.7	-7.1	-4.6	9.2	8.3	12.4	12.0	
Small Cap Equity Composite	12,402,386	5.0	-18.8	-12.9	-6.0	9.6	4.7	-	10.0	6y 2m
Small Cap Equity Benchmark			-20.2	-17.3	-11.1	7.4	4.4	12.0	10.0	
International Equity Composite	**42,664,518**	**17.1**	**-12.2**	**-11.2**	**-12.5**	**4.2**	**0.9**	**-**	**3.8**	**6y 2m**
MSCI AC World ex USA (Net)			-11.5	-10.8	-14.2	4.5	0.7	6.6	3.8	

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.
Peer group percentile ranks are shown in parentheses.

Cash Balance Plan

Composite Asset Allocation & Performance

As of December 31, 2018

	Allocation		Performance(%)							
	Market Value ($)	%	Quarter	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Total Fixed Income Composite	**78,974,178**	**31.7**	**0.9**	**1.3**	**0.3**	**2.5**	**2.3**	**5.0**	**2.0**	**6y 2m**
Total Fixed Income Benchmark			1.6	1.6	0.3	1.8	2.1	3.3	1.5	
Short Duration Fixed Income Composite	**9,869,492**	**4.0**	**0.9**	**1.3**	**1.6**	**1.4**	**1.1**	**-**	**1.0**	**6y 2m**
Short Duration Fixed Income Benchmark			1.2	1.5	1.6	1.2	1.0	0.6	1.0	
Market Duration Fixed Income Composite	**69,104,686**	**27.7**	**0.9**	**1.3**	**0.0**	**2.6**	**2.7**	**5.2**	**2.3**	**6y 2m**
Blmbg. Barc. U.S. Aggregate			1.6	1.7	0.0	2.1	2.5	3.5	1.7	
Total Alternatives Composite	**48,770,134**	**19.6**	**-4.6**	**-4.5**	**-1.4**	**2.8**	**5.9**	**-**	**6.8**	**6y 2m**
Total Alternatives Benchmark			-2.9	-2.2	-0.6	3.2	4.0	-	5.0	
Hedge Fund of Fund Composite	**34,634,185**	**13.9**	**-6.3**	**-6.7**	**-3.9**	**1.7**	**3.7**	**-**	**5.3**	**6y 2m**
HFRI Fund of Funds Composite Index			-5.0	-4.8	-4.1	1.3	1.4	3.1	2.8	
Real Estate Composite	**14,135,950**	**5.7**	**-0.3**	**1.0**	**4.6**	**5.2**	**10.5**	**-**	**9.6**	**6y**
NCREIF Property Index			1.4	3.1	6.7	7.2	9.3	7.5	9.6	

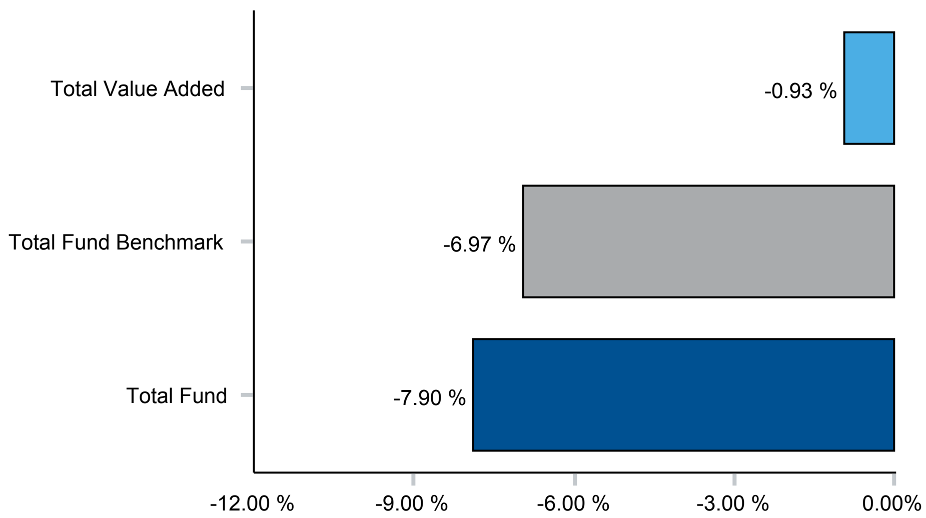
Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.
Peer group percentile ranks are shown in parentheses.

Cash Balance Plan

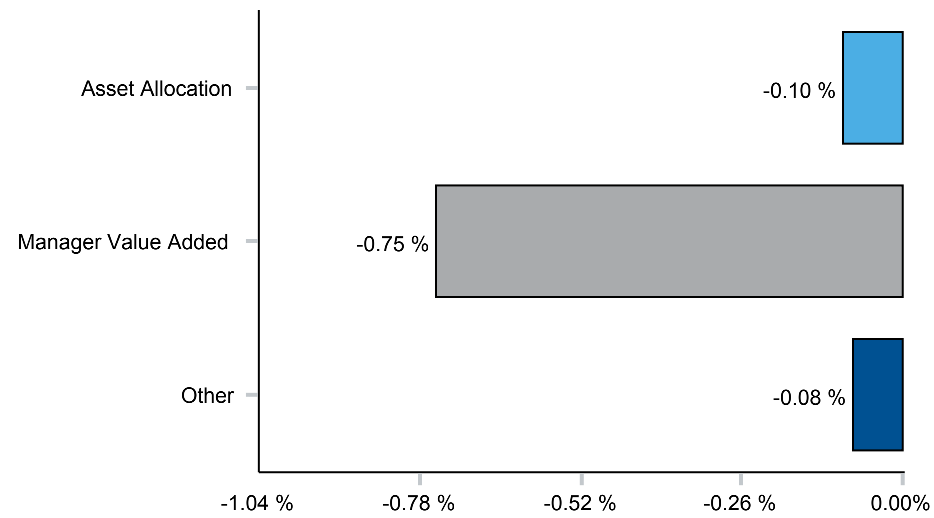
Attribution Analysis

1 Quarter Ending December 31, 2018

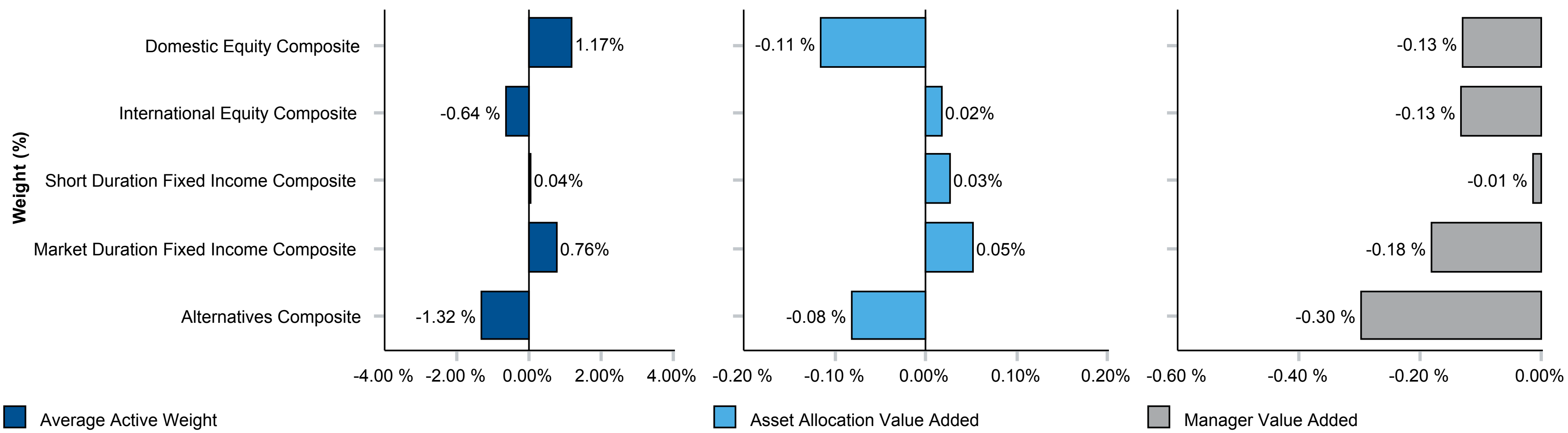
Total Fund Performance



Total Value Added:-0.93 %



Total Asset Allocation:-0.10 % **Total Manager Value Added:-0.75 %**



"Other" includes the effects of all other factors on the Fund's relative return, including rebalancing and other trading activity.

Cash Balance Plan

Manager Asset Allocation & Performance

As of December 31, 2018

	Allocation		Performance(%)							
	Market Value ($)	%	Quarter	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Large-Cap Equity										
Vanguard Institutional Index Fund	32,127,681	12.9	-13.5 (46)	-6.9 (41)	-4.4 (32)	9.2 (19)	8.5 (17)	13.1 (25)	12.0 (-)	6y 2m
S&P 500			-13.5 (46)	-6.9 (41)	-4.4 (32)	9.3 (19)	8.5 (16)	13.1 (25)	12.1 (-)	
eV Large Cap Core Median			*-13.8*	*-7.7*	*-5.9*	*7.7*	*7.3*	*12.3*	-	
Sands Large Cap Growth (Touchstone)	16,511,256	6.6	-17.7 (84)	-12.3 (89)	6.3 (5)	9.4 (53)	7.3 (80)	18.6 (2)	12.9 (-)	6y 2m
Russell 1000 Growth Index			-15.9 (54)	-8.2 (37)	-1.5 (50)	11.1 (21)	10.4 (16)	15.3 (26)	13.9 (-)	
eV Large Cap Growth Median			*-15.6*	*-8.9*	*-1.5*	*9.5*	*8.8*	*14.3*	-	
Barrow Hanley Large Cap Value	17,763,941	7.1	-12.4 (38)	-6.1 (28)	-3.1 (8)	8.2 (22)	7.0 (21)	11.9 (33)	11.2 (-)	6y 2m
Russell 1000 Value Index			-11.7 (29)	-6.7 (34)	-8.3 (41)	7.0 (45)	5.9 (41)	11.2 (52)	10.0 (-)	
eV Large Cap Value Median			*-13.3*	*-8.3*	*-9.0*	*6.6*	*5.6*	*11.2*	-	
Small-Cap Equity										
Wellington Small Cap Value	6,287,101	2.5	-18.8 (46)	-15.8 (36)	-12.8 (33)	3.6 (81)	3.3 (46)	11.8 (55)	8.4 (-)	6y 2m
Russell 2000 Value Index			-18.7 (44)	-17.4 (47)	-12.9 (33)	7.4 (28)	3.6 (42)	10.4 (80)	8.8 (-)	
eV Small Cap Value Median			*-19.1*	*-17.8*	*-14.7*	*5.6*	*3.2*	*12.0*	-	
Conestoga Small Cap Growth	6,115,285	2.5	-18.8 (18)	-10.3 (11)	0.8 (23)	14.0 (13)	8.1 (19)	15.1 (35)	16.1 (-)	2y 6m
Russell 2000 Growth Index			-21.7 (63)	-17.3 (81)	-9.3 (77)	7.2 (76)	5.1 (60)	13.5 (68)	9.5 (-)	
eV Small Cap Growth Median			*-20.9*	*-15.1*	*-4.5*	*8.9*	*5.8*	*14.3*	-	
International Equity										
Causeway International Value	16,689,137	6.7	-14.7 (82)	-13.7 (73)	-18.6 (88)	1.3 (76)	-1.1 (78)	6.9 (45)	-17.3 (-)	0y 8m
MSCI AC World ex USA (Net)			-11.5 (31)	-10.8 (35)	-14.2 (32)	4.5 (29)	0.7 (34)	6.6 (51)	-14.5 (-)	
MSCI AC World ex USA Value (net)			-10.7 (19)	-9.2 (17)	-14.0 (30)	4.7 (25)	-0.4 (62)	6.0 (61)	-14.8 (-)	
Custom Non US Diversified Value Median			*-13.2*	*-11.8*	*-15.7*	*2.9*	*0.0*	*6.6*	-	
Walter Scott Int'l (Dreyfus)	20,160,770	8.1	-10.6 (6)	-7.9 (1)	-7.6 (1)	7.1 (11)	3.1 (24)	7.9 (69)	4.9 (-)	6y 2m
MSCI AC World ex USA (Net)			-11.5 (9)	-10.8 (15)	-14.2 (57)	4.5 (41)	0.7 (78)	6.6 (88)	3.8 (-)	
MSCI AC World ex USA Growth (Net)			-12.2 (20)	-12.4 (27)	-14.4 (59)	4.2 (44)	1.7 (57)	7.1 (81)	4.6 (-)	
Custom Non US Diversified Growth Median			*-14.8*	*-14.2*	*-13.8*	*3.8*	*1.9*	*8.5*	-	
Harding Loevner Inst. Emerging Markets I	5,814,611	2.3	-10.1 (88)	-15.0 (89)	-18.6 (76)	7.6 (51)	1.2 (57)	8.3 (55)	2.6 (-)	2y 2m
MSCI Emerging Markets (Net)			-7.5 (49)	-8.5 (36)	-14.6 (31)	9.2 (24)	1.6 (43)	8.0 (60)	5.4 (-)	
eV International Emerging Equity Median			*-7.5*	*-10.1*	*-16.0*	*7.7*	*1.4*	*8.6*	-	

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.
Peer group percentile ranks are shown in parentheses.

Cash Balance Plan

Manager Asset Allocation & Performance

As of December 31, 2018

	Allocation		Performance(%)							
	Market Value ($)	%	Quarter	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Short Duration Fixed Income										
Barrow Hanley Short Fixed	8,757,649	3.5	0.9 (36)	1.3 (57)	1.4 (53)	1.2 (76)	0.9 (84)	1.4 (84)	0.9 (-)	6y 2m
Blmbg. Barc. 1-3 Year Gov/Credit			1.2 (12)	1.5 (11)	1.6 (22)	1.2 (70)	1.0 (74)	1.5 (79)	1.0 (-)	
eV US Short Fixed Income Median			*0.8*	*1.3*	*1.4*	*1.5*	*1.3*	*2.1*	-	
Cash Composite	1,111,843	0.4	0.5	0.9	1.7	2.2	2.3	-	2.0	6y 2m
90 Day U.S. Treasury Bill			0.6	1.1	1.9	1.0	0.6	0.4	0.5	
Market Duration Fixed Income										
Dodge & Cox Income Fund	34,361,936	13.8	0.3 (68)	0.9 (47)	-0.3 (33)	3.2 (27)	2.9 (48)	5.0 (63)	6.6 (-)	30y
Blmbg. Barc. U.S. Aggregate			1.6 (9)	1.7 (9)	0.0 (23)	2.1 (85)	2.5 (71)	3.5 (100)	6.1 (-)	
eV Core Plus Fixed Income Median			*0.5*	*0.9*	*-0.6*	*2.8*	*2.8*	*5.4*	-	
Met West Total Return Fund Pl	34,742,751	13.9	1.5 (11)	1.6 (9)	0.3 (17)	2.0 (87)	2.5 (74)	5.8 (35)	2.2 (-)	6y 2m
Blmbg. Barc. U.S. Aggregate			1.6 (9)	1.7 (9)	0.0 (23)	2.1 (85)	2.5 (71)	3.5 (100)	1.7 (-)	
eV Core Plus Fixed Income Median			*0.5*	*0.9*	*-0.6*	*2.8*	*2.8*	*5.4*	-	
Hedge Fund of Funds										
Lighthouse Diversified[CE]	17,927,649	7.2	-3.4	-3.5	-2.1	1.4	3.0	5.4	4.4	6y 2m
HFRI Fund of Funds Composite Index			-5.0	-4.8	-4.1	1.3	1.4	3.1	2.8	
Pointer Offshore LTD	16,706,536	6.7	-9.3	-9.8	-5.7	2.2	4.6	7.5	6.3	6y
HFRI Fund of Funds Composite Index			-5.0	-4.8	-4.1	1.3	1.4	3.1	2.6	
Real Estate										
Oaktree RE Opportunities Fund VI	4,051,290	1.6	-0.6	0.2	6.1	4.0	9.2	-	8.6	5y 11m
NCREIF Property Index			1.4	3.1	6.7	7.2	9.3	7.5	9.6	
Walton Street Real Estate Fund VII, L.P.	4,387,008	1.8	0.0	0.0	1.9	7.2	13.5	-	13.2	5y 6m
NCREIF Property Index			1.4	3.1	6.7	7.2	9.3	7.5	9.4	
Walton Street Real Estate Fund VIII, L.P.	5,697,652	2.3	-0.3	2.0	6.7	-	-	-	13.4	1y 7m
NCREIF Property Index			1.4	3.1	6.7	7.2	9.3	7.5	6.9	
Total Plan										
Total Cash Balance Plan	249,214,096	100.0	-7.9	-5.3	-2.8	5.3	4.5	9.1	6.5	6y 2m
Total Cash Balance Plan Benchmark			-7.0	-4.6	-4.3	5.0	4.1	7.7	5.8	
Pre-Pavilion Total Cash Balance Plan Benchmark			-6.4	-3.2	-4.8	5.2	4.7	8.3	6.8	

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.
Peer group percentile ranks are shown in parentheses.

Private Real Estate Summary

As of December 31, 2018 ($ in Millions)

Partnership	Vintage Year	Committed Capital	Paid-in Capital	Unfunded Commitment	Market Value[1]	Distributions	Total Value	Net IRR[2]	TV / PI	D / PI
Surplus Cash										
Oaktree RE Opportunities VI	2012	$14.0	$14.0	$0.0	$6.9	$12.9	$19.7	8.2%	1.4	0.9
Walton Street RE Fund VII	2012	$14.0	$11.9	$2.1	$7.3	$9.4	$16.7	12.0%	1.4	0.8
Walton Street RE Fund VIII	2017	$13.0	$7.3	$5.7	$7.4	$0.8	$8.2	12.0%	1.1	0.1
Angelo Gordon Realty Value Fund X	2018	$20.0	$0.0	$20.0	$0.0	$0.0	$0.0	n/a	n/a	n/a
Total		$61.0	$33.2	$27.8	$21.6	$23.1	$44.7		1.3	0.7
Cash Balance										
Oaktree RE Opportunities VI	2012	$8.4	$8.4	$0.0	$4.1	$10.0	$14.1	8.2%	1.7	1.2
Walton Street RE Fund VII	2012	$8.4	$7.3	$1.1	$4.4	$6.0	$10.4	12.5%	1.4	0.8
Walton Street RE Fund VIII	2017	$10.0	$5.7	$4.3	$5.7	$0.6	$6.3	12.0%	1.1	0.1
Total		$26.8	$21.3	$5.5	$14.1	$16.7	$30.8		1.4	0.8

[1] If a market value has not yet been released for a particular fund, the previous quarter's value is adjusted according to subsequent contributions and distributions.
[2] Net IRR is through the previous quarter end.

Asset Class Diversification

Summary

- **Fundamentals suggest global growth is slowing, while the markets imply a more rapid slowdown.**
  - Fundamentals point to moderate slowing of the global economy, not a recession. However, policy uncertainties combined with a slight tightening of financial conditions have caused investors to quickly re-rate asset prices. In our view this has built a nice buffer into implied risk premia.

- **Based on economic conditions and current valuations, investors appear to be adequately compensated for increased risks due to policy uncertainty.**
  - Our analysis indicates that equity markets appear to be pricing in a significant deterioration in earnings and a more substantial downturn in the economy.
  - Consumption and government spending are strong, and together represent about 85% of GDP.
  - Trade and investment are question marks due to policy uncertainty– data in these sectors likely will drive performance over the coming months.

- **What does this mean for portfolios?**
  - While risks of a more serious global downturn have risen, compensation for these risks has grown as well. We recommend remaining close to policy targets for broad asset classes.
  - Growth in ex-U.S. developed markets appears most vulnerable, so maintain an underweight to this market segment and emphasize U.S. and emerging market equities.
  - Although central bankers may pause in tightening financials conditions, reducing the risk of future rate increases, the flatness of the yield curve makes cash the most attractive it’s been since the onset of the financial crisis.
  - Inflation remains subdued, so real asset allocations should emphasize diversifying income streams. Equities should provide adequate protection for any near-term increase in inflation.

The tug-of-war between markets and fundamentals

Markets and Fundamentals anticipate a slowdown but differ on the details

Market Indicators

- A flattening yield curve points to monetary policy near neutral levels
- Higher risk premiums
  - Equity prices reflect a significant slowdown in earnings, akin to a recession
  - Bond prices reflect increasing defaults above long-term median levels

Fundamental Indicators

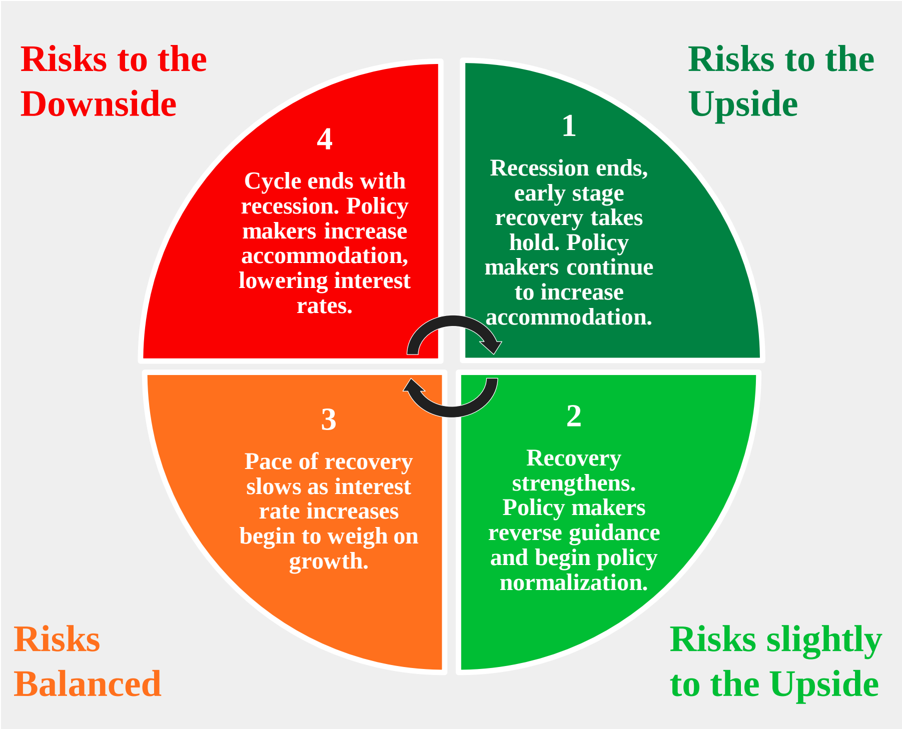
- Earnings have declined, but are close to trend growth
- A robust consumer will continue to support economic growth
- Low and stable inflation reduces the likelihood that the Fed tightens monetary policy
- Capital investment has remained resilient, but continued policy uncertainty could cause an investment downturn

Contradictions Are Inciting Volatility

Portfolio Positioning

Theme	Action
Growth	Maintain equity allocations at policy targets to benefit from re-pricing of risk assets. Evaluate the equity structure to assure appropriate beta exposure, an efficient blend of active/passive, an emphasis on growth markets (U.S. and emerging), and controlled downside exposure.
Liquidity	Assess portfolio liquidity needs for capital outlays, including pacing models for private markets, and possible idiosyncratic opportunities.
Ballast/Defense	Maintain fixed income allocations at policy targets to provide portfolio ballast. Balance yield curve exposures for diversification and protection against unanticipated sell offs. Allocations to select carry positions in securitized assets should benefit from a strong consumer.

What has changed in broad market conditions:



2018

- Global growth: **Positive, above trend**
- Inflation risks: **Low but rising**
- Interest rates: **Rising gradually, curve flattening**
- Volatility: **Low**
- Accommodation: **positive but declining**
- Earnings: **Above long-run average**
- Valuations: **Full but not stretched**

2019

- Global growth: **Slowing, at or near trend**
- Inflation risks: **Subdued, declining**
- Interest rates: **Steady to declining, yield curve flat**
- Volatility: **Above normal**
- Accommodation: **positive but declining**
- Earnings: **Near long-run average**
- Valuations: **Below long-run levels**

Growth Remains Positive

Global growth likely peaked in the first quarter of 2018; the Composite Purchasing Managers indices levels suggest growth remains positive, although growth has become more uneven and momentum has slowed.

	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Global	53.5	53.8	53.5	53.8	53.7	53.7	53.6	53.5	53.9	53.8	54.0	54.0	54.3	54.6	54.8	53.3	53.9	54.0	54.2	53.7	53.4	52.8	53.0	53.2	52.7
Developed	54.1	54.6	54.1	54.3	54.4	54.4	54.5	54.4	54.6	54.6	55.0	54.9	54.8	54.9	55.4	53.6	54.4	54.8	55.0	54.2	54.0	53.2	53.6	53.4	52.7
Emerging	52.0	51.8	52.1	52.5	52.1	52.2	51.5	51.4	52.1	51.9	51.5	51.9	53.0	53.5	53.3	52.3	52.4	52.2	52.4	52.4	51.8	51.6	51.4	52.7	52.5
United States	54.1	55.8	54.1	53.0	53.2	53.6	53.9	54.6	55.3	54.8	55.2	54.5	54.1	53.8	55.8	54.2	54.9	56.6	56.2	55.7	54.7	53.9	54.9	54.7	54.4
Canada*	51.8	53.5	54.7	55.5	55.9	55.1	54.7	55.5	54.6	55.0	54.3	54.4	54.7	55.9	55.6	55.7	55.5	56.2	57.1	56.9	56.8	54.8	53.9	54.9	53.6
U.K	56.5	55.1	53.9	54.7	56.3	54.3	53.9	54.2	54.0	54.0	55.9	54.9	54.8	53.4	54.5	52.4	53.2	54.4	55.1	53.5	54.2	54.1	52.1	50.8	51.4
Euro Zone	54.4	54.4	56.0	56.4	56.8	56.8	56.3	55.7	55.7	56.7	56.0	57.5	58.1	58.8	57.1	55.2	55.1	54.1	54.9	54.3	54.5	54.1	53.1	52.7	51.1
Germany	55.2	54.8	56.1	57.1	56.7	57.4	56.4	54.7	55.8	57.7	56.6	57.3	58.9	59.0	57.6	55.1	54.6	53.4	54.8	55.0	55.6	55.0	53.4	52.3	51.6
France	53.1	54.1	55.9	56.8	56.6	56.9	56.6	55.6	55.2	57.1	57.4	60.3	59.6	59.6	57.3	56.3	56.9	54.2	55.0	54.4	54.9	54.0	54.1	54.2	48.7
Italy	52.9	52.8	54.8	54.2	56.8	55.2	54.5	56.2	55.8	54.3	53.9	56.0	56.5	59.0	56.0	53.5	52.9	52.9	53.9	53.0	51.7	52.4	49.3	49.3	50.0
Spain	55.5	54.7	57.0	56.8	57.3	57.2	57.7	56.7	55.3	56.4	55.1	55.2	55.4	56.7	57.1	55.8	55.4	55.9	54.8	52.7	53.0	52.5	53.7	53.9	53.4
Greece*	49.3	46.6	47.7	46.7	48.2	49.6	50.5	50.5	52.2	52.8	52.1	52.2	53.1	55.2	56.1	55.0	52.9	54.2	53.5	53.5	53.9	53.6	53.1	54.0	53.8
Ireland	58.4	59.3	57.8	56.9	58.7	58.7	58.0	57.0	58.2	57.6	56.0	57.7	60.2	59.0	56.8	53.7	57.6	57.7	58.1	56.8	58.4	58.4	56.1	56.6	55.5
Australia	55.4	51.2	59.3	57.5	59.2	54.8	55.0	56.0	59.8	54.2	51.1	57.3	56.2	58.7	57.5	63.1	58.3	57.5	57.4	52.0	56.7	59.0	58.3	51.3	49.5
Japan	52.8	52.3	52.2	52.9	52.6	53.4	52.9	51.8	51.9	51.7	53.4	52.2	52.2	52.8	52.2	51.3	53.1	51.7	52.1	51.8	52.0	50.7	52.5	52.4	52.0
China	53.5	52.2	52.6	52.1	51.2	51.5	51.1	51.9	52.4	51.4	51.0	51.6	53.0	53.7	53.3	51.8	52.3	52.3	53.0	52.3	52.0	52.1	50.5	51.9	52.2
Indonesia*	49.0	50.4	49.3	50.5	51.2	50.6	49.5	48.6	50.7	50.4	50.1	50.4	49.3	49.9	51.4	50.7	51.6	51.7	50.3	50.5	51.9	50.7	50.5	50.4	51.2
S. Korea*	49.4	49.0	49.2	48.4	49.4	49.2	50.1	49.1	49.9	50.6	50.2	51.2	49.9	50.7	50.3	49.1	48.4	48.9	49.8	48.3	49.9	51.3	51.0	48.6	49.8
Taiwan*	56.2	55.6	54.5	56.2	54.4	53.1	53.3	53.6	54.3	54.2	53.6	56.3	56.6	56.9	56.0	55.3	54.8	53.4	54.5	53.1	53.0	50.8	48.7	48.4	47.7
India	47.6	49.4	50.7	52.3	51.3	52.5	52.7	46.0	49.0	51.1	51.3	50.3	53.0	52.5	49.7	50.8	51.9	50.4	53.3	54.1	51.9	51.6	53.0	54.5	53.6
Brazil	45.2	44.7	46.6	48.7	50.4	50.4	48.5	49.4	49.6	51.1	49.5	48.9	48.8	50.7	53.1	51.5	50.6	49.7	47.0	50.4	47.8	47.3	50.5	51.6	52.4
Mexico*	50.2	50.8	50.6	51.5	50.7	51.2	52.3	51.2	52.2	52.8	49.2	52.4	51.7	52.6	51.6	52.4	51.6	51.0	52.1	52.1	50.7	51.7	50.7	49.7	49.7
Russia	56.6	58.3	55.4	56.3	55.3	56.0	54.8	53.4	54.2	54.8	53.2	56.3	56.0	54.8	55.2	53.2	54.9	53.4	52.0	51.7	52.1	53.5	55.8	55.0	53.9

* indicates manufacturing PMI data

Key	Contraction	Expansion

Source: Bloomberg, JP Morgan

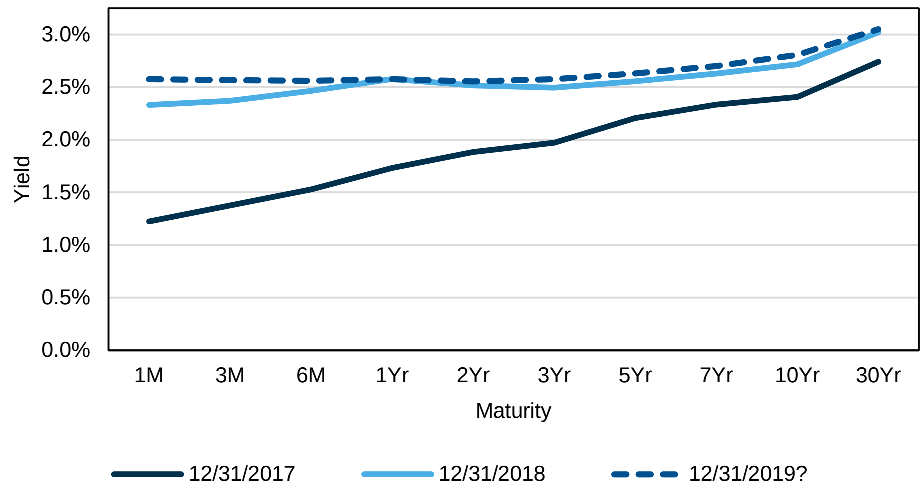
What are markets pricing: Interest rates

- Monetary policy adjustments – an increase in the Fed Funds rate and a reduction in the balance sheet - may be near completion
  - Economic growth is slowing
  - Inflation is near or below target
  - Labor markets have potential slack

↓

- Future moves will be "data dependent"

Yields are expected to stall

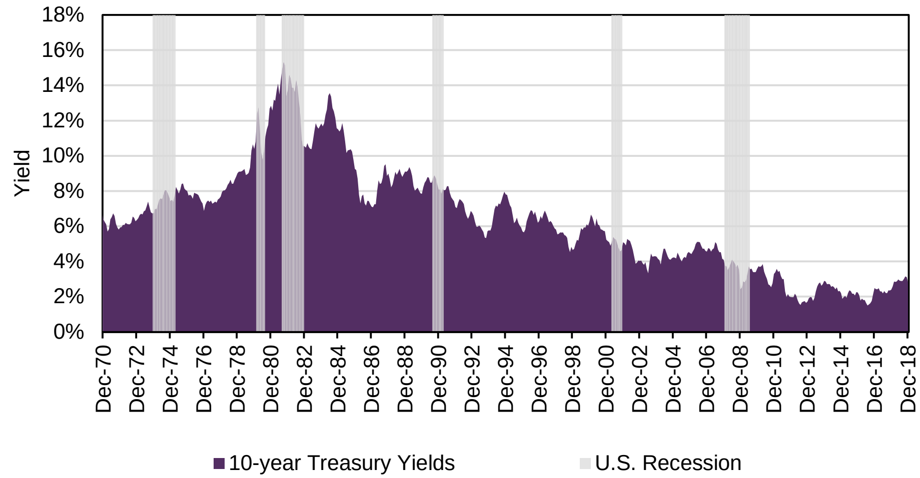


Source: ***Bloomberg***

10-Year Treasury Yields	
Long-term rates have been in a secular decline, reflecting a general slowing of the economy due to multitude of factors including the impact of decreased labor growth and productivity.	
10- years before and after the Great Financial Crisis ("GFC")	
Average Before[1]	5.0%
Average After[2]	2.6%
Current	2.8%

Source: Federal Reserve FRED data
1. 1/1997 – 12/2006
2. 1/2008 – 12/2017

Riskless rate in secular decline

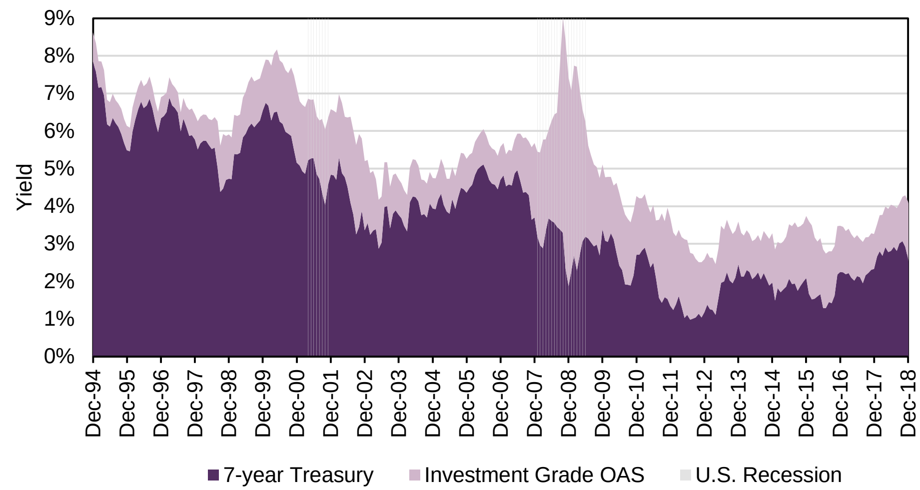


Source: ***Federal Reserve FRED data***

What are markets pricing: Credit

Investment Grade Yield Premium	
In 2018, investment grade spreads widened 60 basis points with 50 basis points occurring in the fourth quarter.	
Historical[1]	
Average	1.4%
Median	1.2%
Current	1.6%
Standard Deviation	0.8%

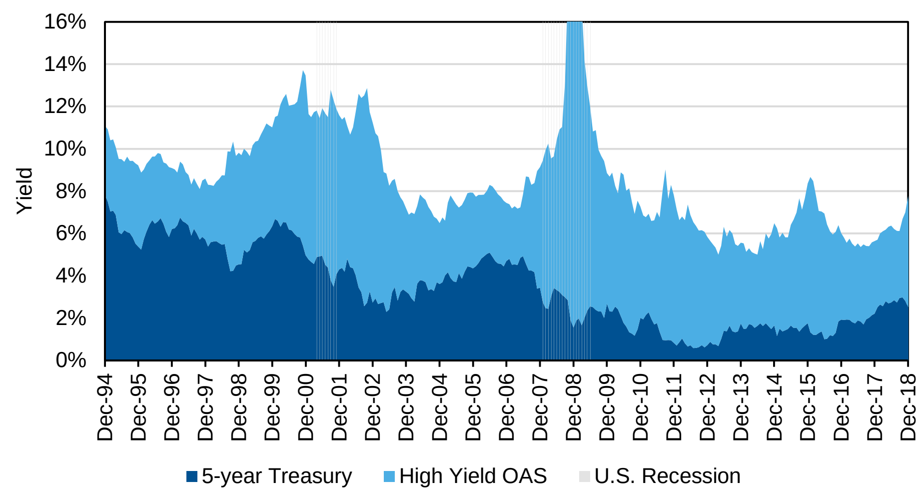
Investment Grade Corporates Yields and Spreads



Source: ***Bloomberg***

High Yield Premium	
High yield spreads increased to levels experienced in 2016's industrial recession, thereby compensating investors for default rates in excess of long-term medians.	
Historical[1]	
Average	5.1%
Median	4.6%
Current	5.0%
Standard Deviation	2.4%

Below Investment Grade Yields and Spreads

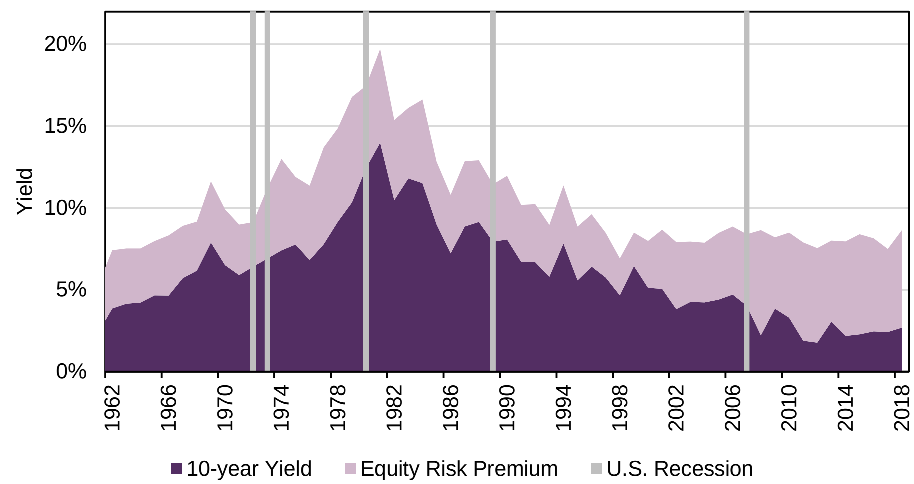


Source: ***Bloomberg***

[1]Historical values calculated based on the presented time period, 1994 through 2018; Source: Bloomberg

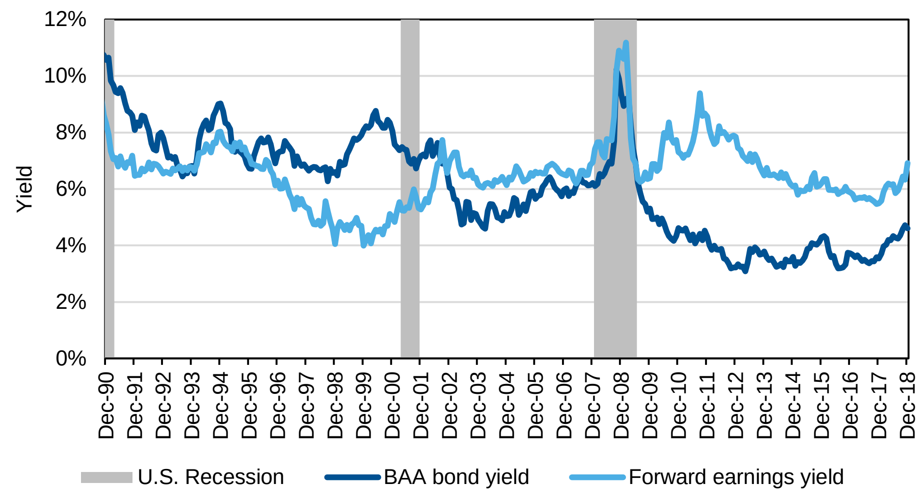
What are markets pricing: Equities

Implied equity risk premium	
The equity risk premium has remained at elevated levels since the GFC.	
Historical[1]	
Average	4.2%
Median	3.9%
Current	6.0%
Standard Deviation	1.1%



Source: Aswath Damodarann and Pavilion calculations

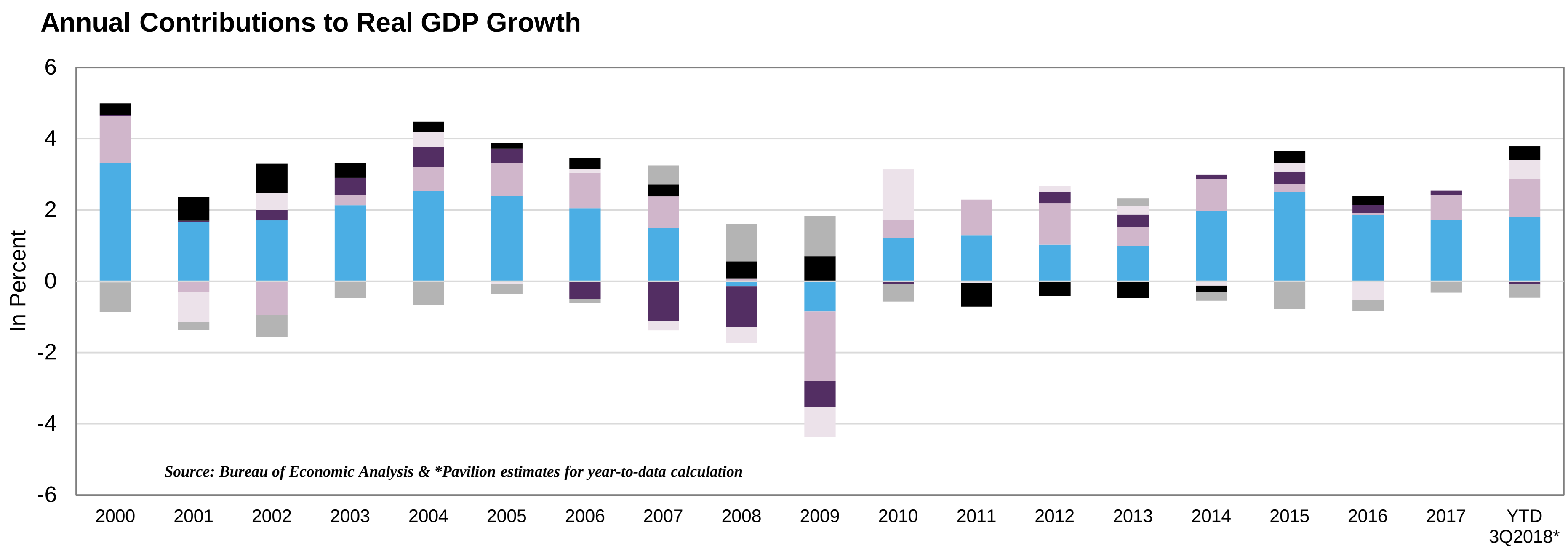
Equity yield versus BAA corporate bond yield	
Relative to bonds, equities still provide excess yield with greater upside growth capture.	
Historical[1]	
Average	0.4%
Median	0.3%
Current	2.3%
Standard Deviation	2.1%



Source: *Bloomberg*

[1]Historical values calculated based on the presented time period, 1962 through 2018 for equity risk premium and 1991 through 2018 for equity/corporate bond yield; Source: Aswath Damodarann, Pavilion calculations, & Bloomberg

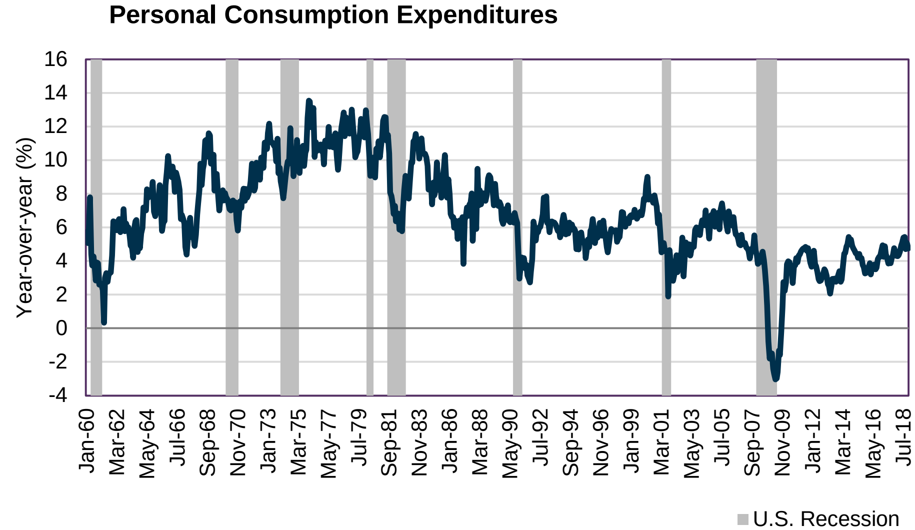
What to expect from growth?



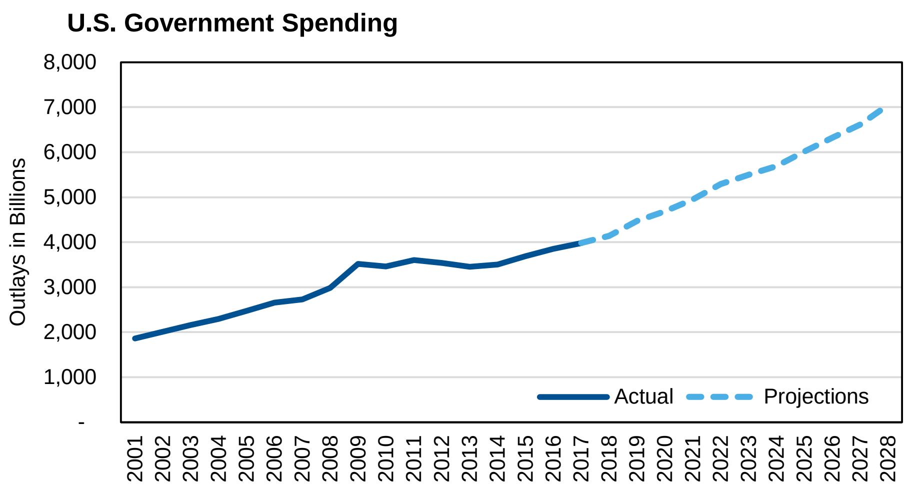
		Description	Expectations
■	Personal Consumption	The largest contributor to GDP, historically accounting for close to 65% to 70%.	Household balance sheets remain strong. Rising employment and wages along with falling gasoline prices should support continued consumption growth.
■	Government	Generally, a small but steady contributor accounting for 15% to 20% of GDP. Net contributions to GDP growth have been close to zero since the Financial Crisis.	State & local government finances have improved. Look for a contribution to growth closer to the long-run average.
■	Net Exports	Historically, a small drag, but has declined due to reduced dependence on oil imports.	Near-term, expected to remain a modest negative consistent with recent history and increased trade tensions.
■	Investment	Though not the largest contributor to growth (approximately 20% of GDP), it is the most interest rate sensitive component.	The wild card: It is unclear whether new home construction will continue or stall, or whether trade uncertainty will delay or reduce planned business investment. Fundamentals argue for improvement in this component, however, uncertainty can weigh on sentiment and delay or reduce planned investment.

Consumption and Government

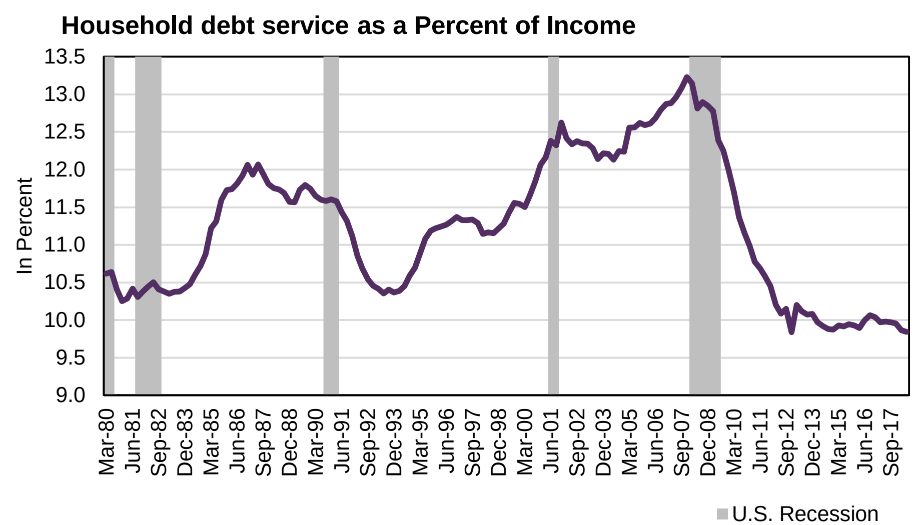
- The consumer is strong:
  - Employment and wage growth are bolstering incomes.
  - Balance sheets are sound, savings are up, and debt service as percent of income is near record lows.
  - Spending is steady with retail sales very strong.
- Government spending is expected to continue to grow modestly, as opposed to the austerity experienced during much of the recovery.
- State and local government balance sheets are in better shape.



Source: St. Louis Federal Reserve FRED



Source: Congressional Budget Office

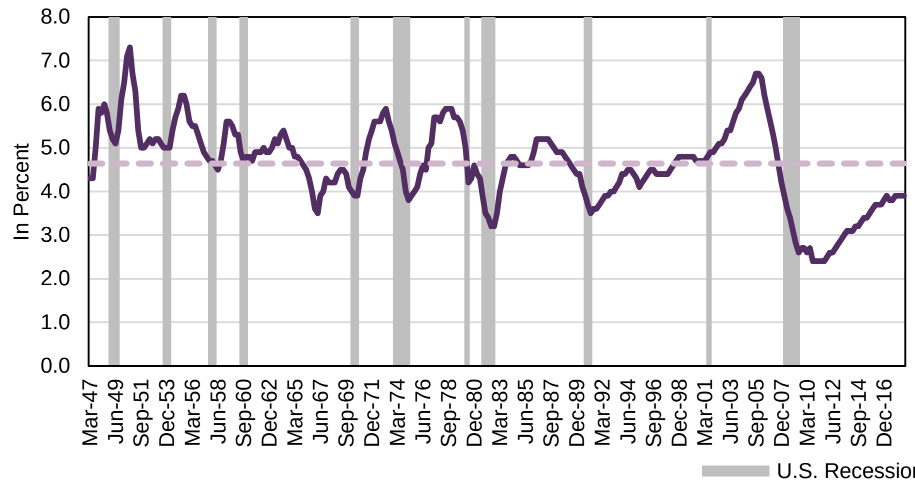


Source: St. Louis Federal Reserve FRED

Trade and Investment

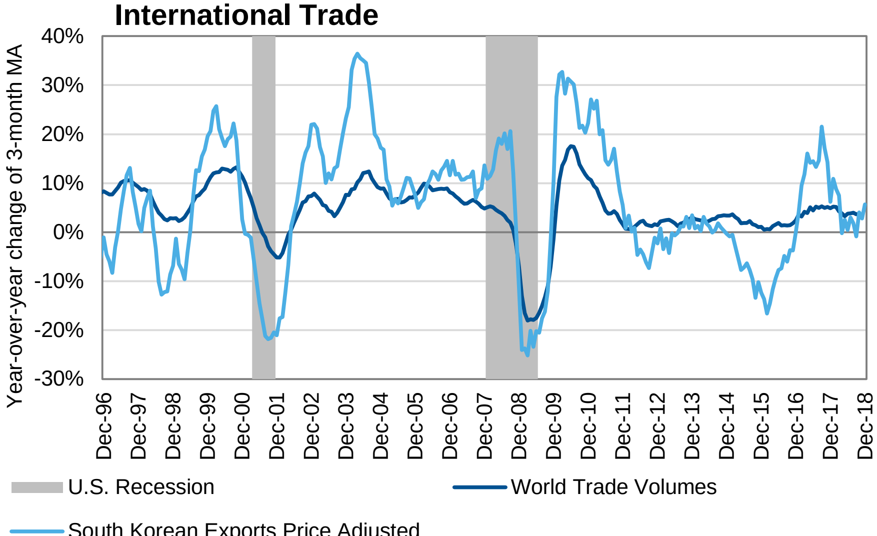
- Residential investment remains below pre-crisis levels.
  - The pace of household formation relative to the growth in the housing stock suggests a transition from a pre-crisis housing surplus to a shortage, which is reflected in home price increases.
  - Price increases, tax law changes, and technical factors have increased the cost of home ownership, so it is unclear whether residential investment will pick up.
- Broadly, international trade has held steady, reflecting strong global growth. A slowdown in global growth and tariffs could push down global trade volumes.
- Demand for consumer goods is driving manufacturing.
- Trade policy uncertainty likely is stifling investment, holding back demand for intermediate and capital goods.

Residential Investment as a Percent of GDP



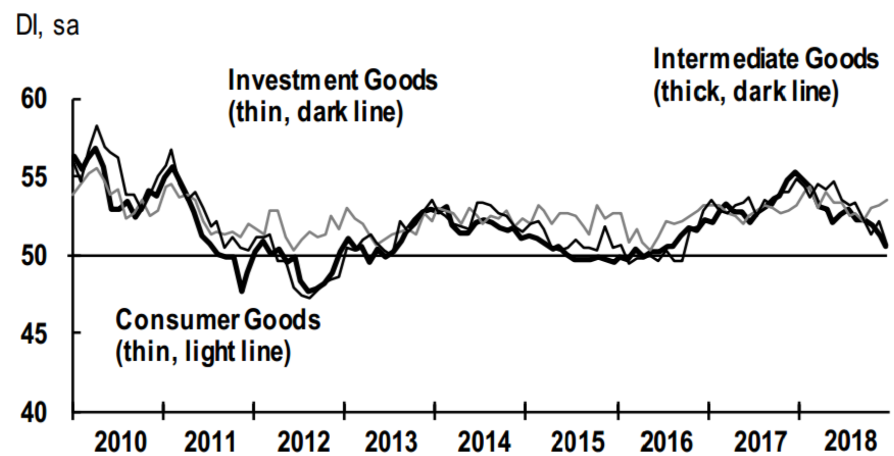
Source: St. Louis Federal Reserve FRED

International Trade



Source: FactSet & Pavilion Analysis

JPMorgan Global PMI Sectors: Manufacturing PMI



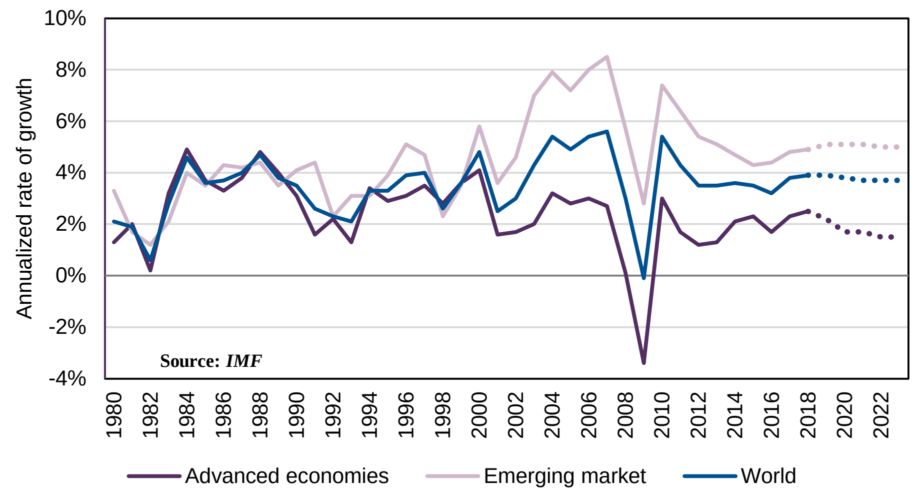
Source: Markit Economics & J.P. Morgan

Gain Exposure to Global Growth via Barbell Positioning

U.S. Valuations Reasonable if Adjusted for Growth and Emerging Markets are Very Inexpensive

- Global growth although slowing remains solid, with the strongest overall growth in emerging markets.
- U.S. companies (S&P 500) derive most of their revenues from the U.S., which is experiencing the strongest economic growth among developed economies. Emerging markets derive most of their revenue (70%+) within emerging economies.
- U.S. and emerging markets have significant exposure to higher growth sectors of the economy such as information technology, while the developed international equity markets are more cyclically exposed to sectors such as materials and industrials as well as financials.
- On a price-to-earnings basis, emerging and ex-U.S. developed markets look less expensive than the U.S. market.
- This does not account for sector weight differentials or country risk differentials. Adjusting for these factors makes the apparent valuation differential smaller.
- On a PEG basis (price-to-earnings growth ratio), emerging markets appear least expensive and the U.S. is less expensive than the developed international equity markets.
- We believe investors may be over reacting to potential global trade policies and contagion fears.

Decomposing global GDP growth



Revenue Exposure by Region

Region	S&P 500	MSCI EAFE	MSCI Emerging Markets
U.S.	62.7%	16.5%	7.1%
Europe	13.6%	33.0%	10.3%
Japan	3.0%	16.5%	--
Emerging & Frontier	15.7%	20.4%	73.9%
Other	5.0%	13.6%	8.7%
Total	**100.0%**	**100.0%**	**100.0%**

Valuation Metrics Favor Emerging Markets

Regional Indices	P/E 2019	2018 EPS Growth	2019 EPS Growth	PEG Ratio
S&P 500	14.4	21.2	7.6	1.1
MSCI EAFE	11.9	3.4	6.3	1.4
MSCI Emerging Markets	10.6	3.6	8.0	0.7

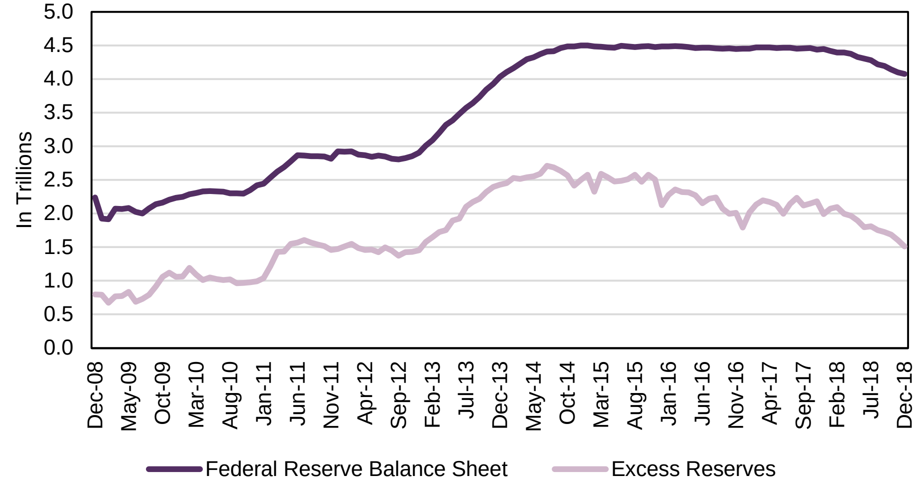
Source: Factset as of 12/31/2018

Fixed income opportunities have shifted

Short duration increasingly attractive, wider spreads support emerging market debt allocations, and a strong consumer benefits securitized debt allocations

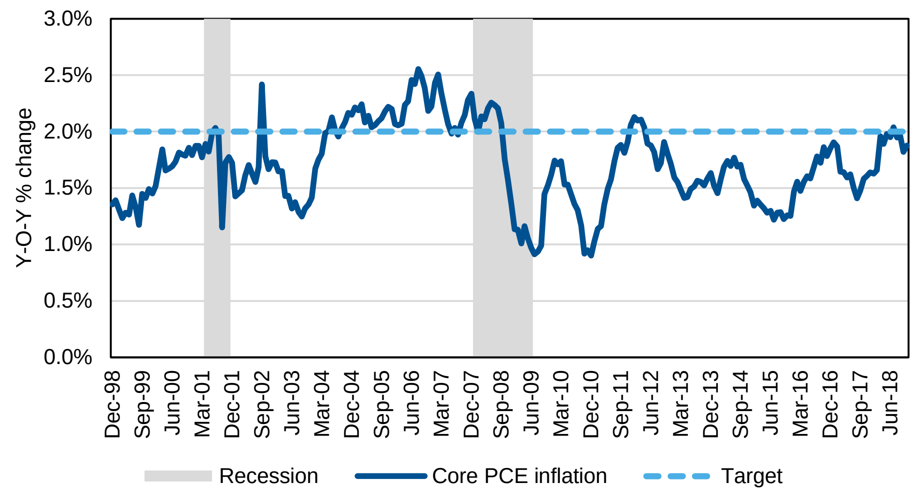
- Slowing growth and below target inflation will allow the Federal Reserve to remain patient with policy adjustments.
- Quantitative tightening through balance sheet reduction likely has a bigger impact on short-term liquidity than long-term asset prices.
- The flat yield curve reflects the market's expectation that policy rates are on hold – an inverted curve represents expectations of a policy reversal, or falling rates.
- With a flat yield curve, cash represents a reasonable alternative to duration, however, investors would give-up the potential benefit from longer duration fixed income in the event conditions deteriorate and rates fall further than anticipated.
- Slowing U.S. economic growth and the likelihood that Fed Funds rate changes are on hold could put downward pressure on the U.S. dollar. Emerging market debt would benefit from a falling or stable dollar value.
- Strong household balance sheets should continue to support the performance of securitized debt, which remains a source of diversifying spread income.
- Widening credit spreads have made credit more attractive, particularly investment grade. Equity beta, however, remains more attractive in equity markets relative to credit markets.

Most of QE funds held for balance sheet repair



Source: *Federal Reserve FRED data*

Core inflation remains below target



Source: *Federal Reserve FRED data*

Conclusion

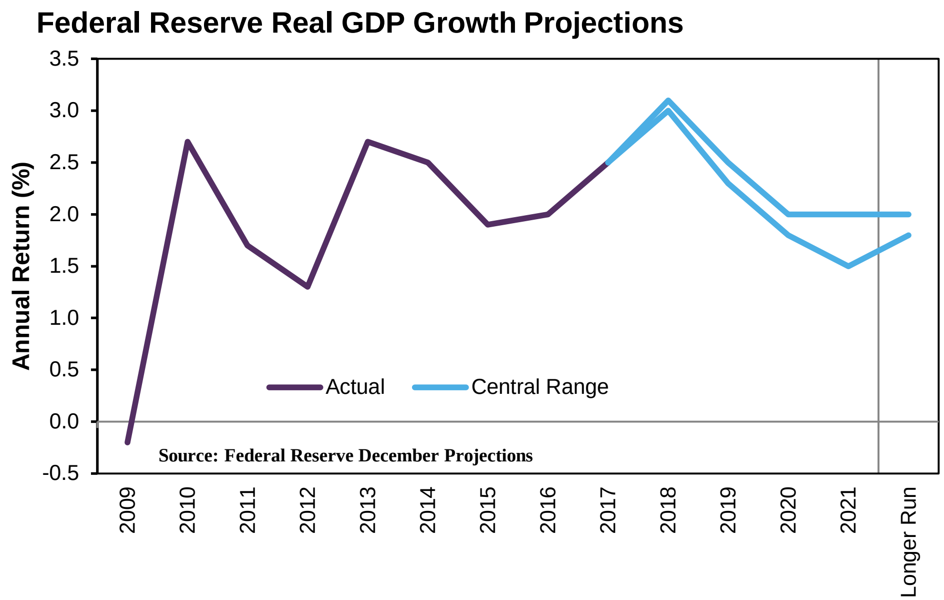
- **Fundamentals suggest global growth is slowing, while the markets imply a more rapid slowdown.**
  - Maintain a diversified exposure to global growth while remaining close to policy targets in the event of a more severe slowdown.

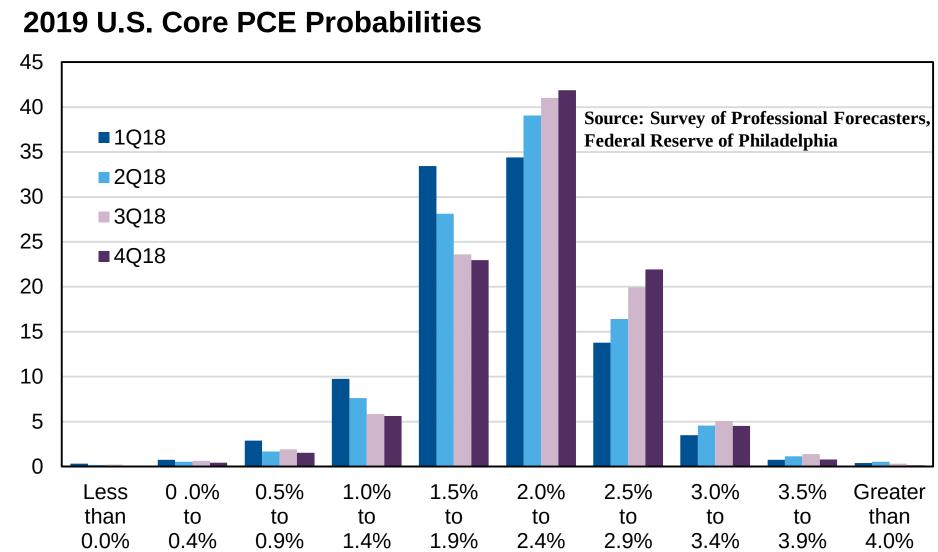
- **Based on economic conditions and current valuations, investors appear to be adequately compensated for increased risks due to policy uncertainty.**
  - Don’t de-risk, valuations have already accomplished some de-risking.
  - Maintain adequate liquidity in order to take advantage of rebalancing opportunities.

- **What does this mean for portfolios?**
  - Growth in ex-U.S. developed markets appears most vulnerable, so maintain an underweight to this market segment and emphasize U.S. and emerging market equities.
  - Although central bankers may pause in tightening financials conditions, reducing the risk of future rate increases, the flatness of the yield curve makes cash the most attractive it’s been since the onset of the financial crisis.
  - Inflation remains subdued, so real asset allocations should emphasize diversifying income streams. Equities should provide adequate protection for any near-term increase in inflation.

Asset Implications

Summary Outlook





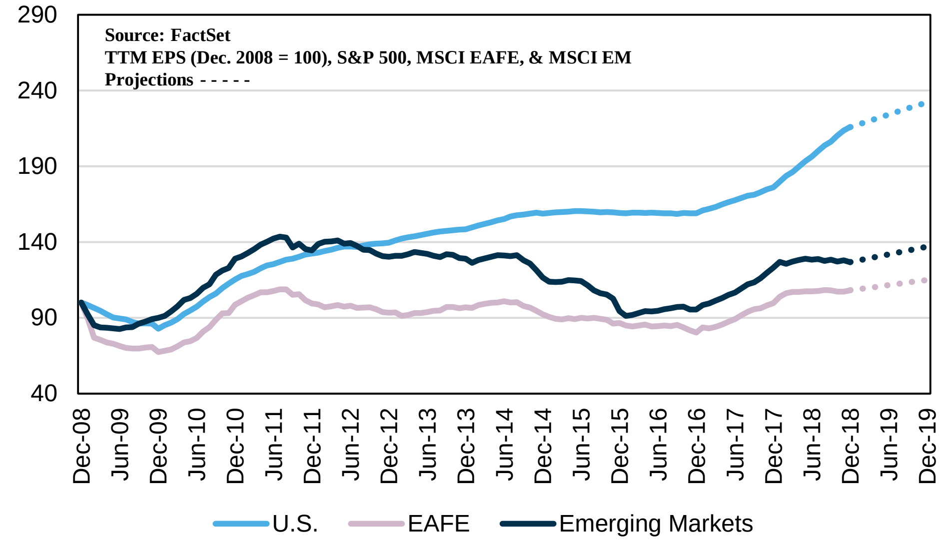
Summary	Themes & Implementation	Key Risks
▪ While fundamentals imply a positive, albeit slowing trend to economic and corporate earnings growth, markets are pricing in a much greater deceleration, on expanded monetary and fiscal policy uncertainty. ▪ Core inflation reached the Fed's 2% target in May 2018 and since has remained stable. Inflation is expected to remain low due to headwinds from demographic trends and technological innovation. Uncertainty due to monetary policy tightening should wane based on a data dependent path. ▪ Fiscal policy uncertainty remains a key risk globally. Rising uncertainty - both related to fiscal and monetary policy - has increased and is reflected in market volatility and pricing.	▪ We anticipate that investors will be rewarded for taking equity risk, but volatility spikes likely will persist, so portfolios should be positioned to weather market moves. ▪ Game plan: - Growth: assess equity beta exposure to insure participation in risk re-pricing - Liquidity: provide sufficient flexibility to manage exposures and cash flows - Diversification: protect capital during future bouts of volatility ▪ Maintain U.S./Emerging Markets equity barbell. ▪ Balance yield curve exposure which provides diversification and protection against unanticipated sell offs with select carry positions in EMD and securitized markets that benefit from a robust consumer.	Catalysts of further volatility spikes ▪ Trade policy disruption ▪ Central bank policy misstep ▪ Governmental policy shock ▪ Policy uncertainty continues and weighs on capital investment

Equity Outlook

Summary	
Global growth has been slowing gradually for several quarters, led primarily by a deceleration in China and Europe. This gradual slowing so far represents a transition from above trend growth in 2017 to a pace of growth closer to the estimated long-term trend. Fourth quarter's price moves increased risk premia, as investors contemplated the likely direction of monetary policy, trade policy, and government spending.	
Themes & Implementation	
Trend Growth	Evaluate overall equity portfolio beta, concentration, and up/down market capture to assure appropriate of upside participation.
Uneven Regional Risks	Developed international markets, in particular Europe, face challenges, as countries within the region continue to experience an uneven recovery.
Emerging Market Opportunities	Turmoil lingers in select emerging economies, but broadly these developing economies continue to benefit from positive secular trends, such as a growing middle class as well as markets that are growth oriented. Clients should consider an overweight to emerging markets equity (higher beta) be balanced with an emphasis on U.S. equities (lower beta) to control risk exposures.
Key Risks	
Policy Expectations	A litany of factors have contributed to the uncertainty of the future business landscape, including trade policy, monetary policy, and government spending. Thus far, these unknowns have targeted select sectors rather than impairing the broad industry. Going forward, investors will need to carefully monitor capital investment to gauge the threat of these uncertainties.

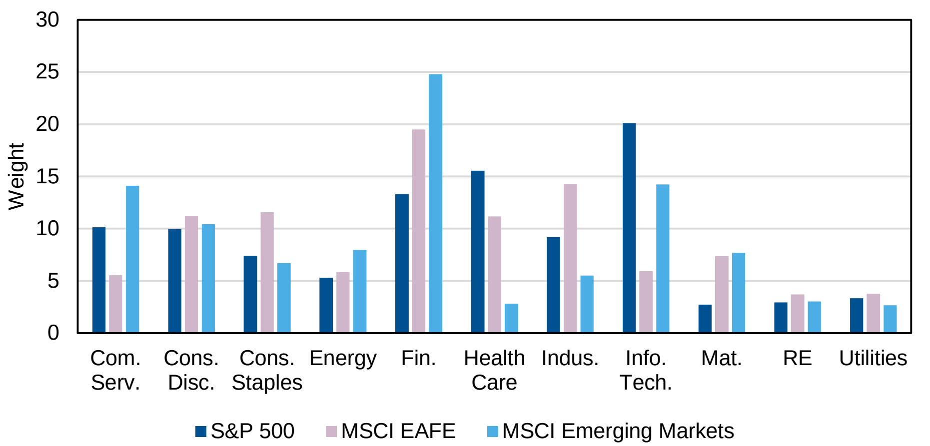
Earnings Growth Accelerating Globally

U.S. Demonstrating Steadiest Growth While Emerging Markets Demonstrating Strongest Acceleration



U.S. & Emerging Markets: Greater Concentration in Growth Sectors

About 30% of U.S. and EM Represented by IT and Communication Services; EAFE is Underweight these Sectors and Heavy Financials and Industrials



Source: FactSet as of 12/31/2018

Fixed Income Outlook

Summary

The yield curve flattened significantly in 2018 with future rate increases being called into question. Investors should review their yield curve exposure. While longer duration positions can provide a ballast in flight-to-quality environments, shorter duration securitized or credit allocations represent competitive yields with muted upside rate risks.

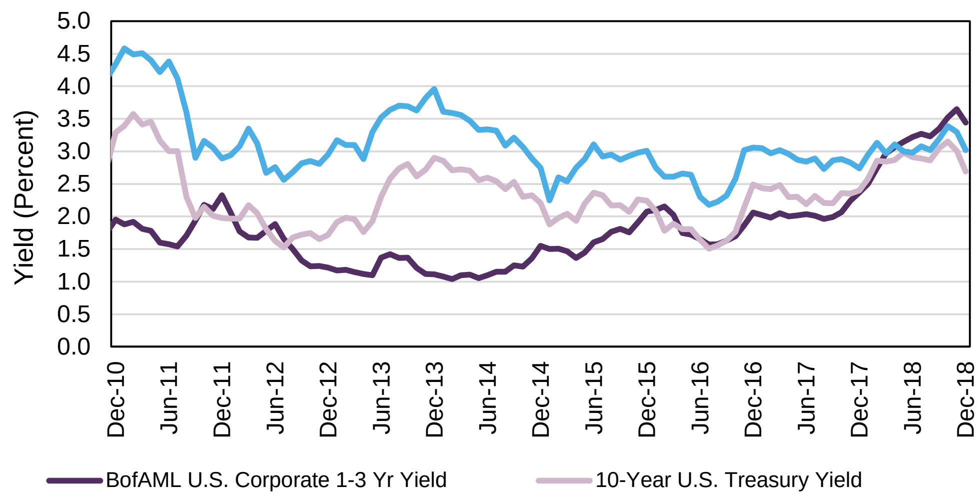
Themes & Implementation

Selective Carry Positions	The securitized markets tied to U.S. housing and the consumer are providing managers with attractive value add opportunities and diversified income streams, while remaining somewhat insulated from global macro risks.
Short Term Yield	Rising interest rates at the front-end of the curve have made money market and short-term funds a more attractive destination for liquidity needs. Short-term credit yields now match long-term Treasuries, providing portfolio ballast with low interest rate risk while investors wait for more attractive entry points.
Emerging Markets	Upside opportunity exists as some markets may have caused yields to overshoot during the recent selloff, but allocation sizes should be considered carefully and in light of overall portfolio exposure to emerging markets. Downside volatility can be painful and the range of potential outcomes is quite wide.

Key Risks

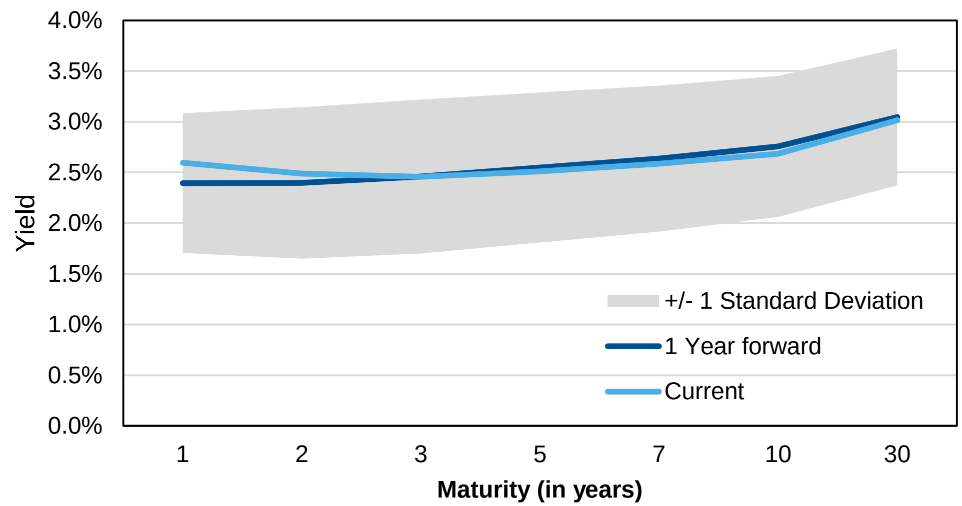
Central Bank Policy	Economic conditions have motivated central bankers in the U.K., Japan, Canada, and the E.U. to begin monetary policy normalization. While the goal is to reduce accommodation without derailing growth, sharp changes in guidance likely would result in spiking correlations between risk (equity) and defensive assets (fixed income).

Rising Short-Term Yields



Source: St. Louis Federal Reserve FRED Database

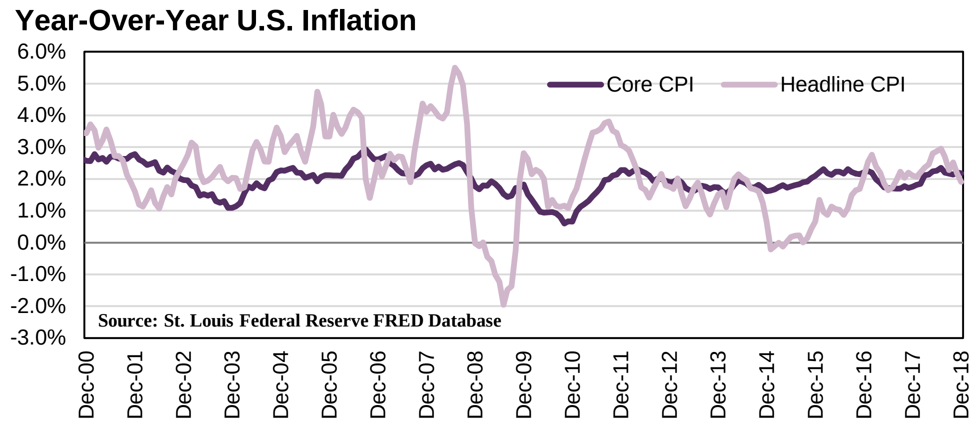
U.S. Rates and Expectations

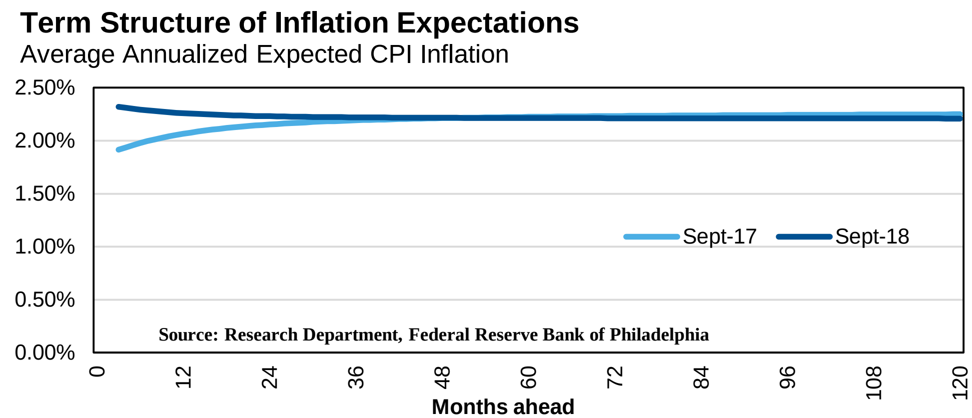


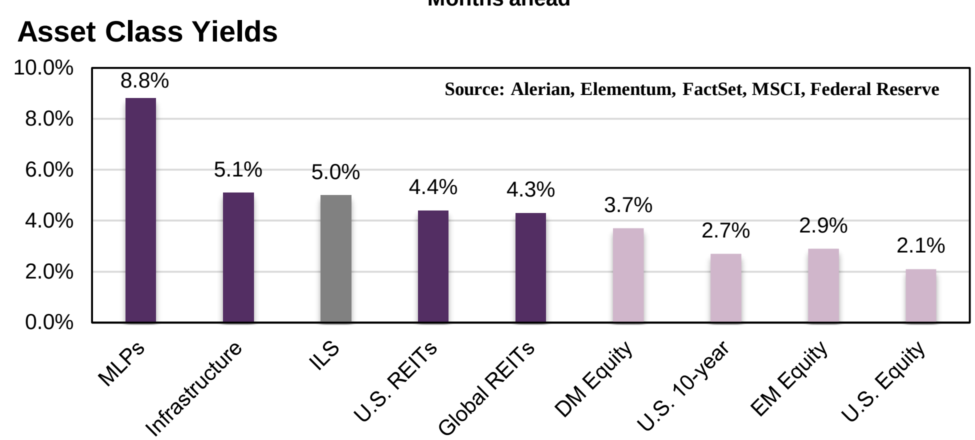
Source: U.S. Treasury & Bloomberg as of December 31, 2018

Real Assets Outlook

Summary	
Inflationary risks remain muted, as a multitude of factors weigh on overall price levels. As a result, risk assets, like equities, should defend portfolios from small increases in inflation.	
Themes & Implementation	
Economic Growth	We expect continued positive economic growth. Real assets are expected to have a modest tailwind from earnings growth, somewhat offset by a modest valuation headwind from rising discount rates.
Diversified Earnings	Inflation-linked allocations with economic growth drivers represent a balance between return diversification and inflation protection.
Stabilizing Inflation	With inflation unlikely to produce abnormal risks, assets that provide protection against unexpected inflation, like commodities and natural resource equities, likely will be constrained.
Key Risks	
Geopolitical Tensions	While the U.S. has increased oil production, tensions in the Middle East and OPEC decisions still significantly influence price moves.
Trade Policy	The introduction of tariffs has reignited trade war concerns. The full impact is not yet known. While discussions have resulted in updated trade agreements with South Korea, Mexico, and Canada, negotiations between the U.S. and China have yet to be resolved; however, fourth quarter's 90-day truce does represent a path to at least a partial resolution.

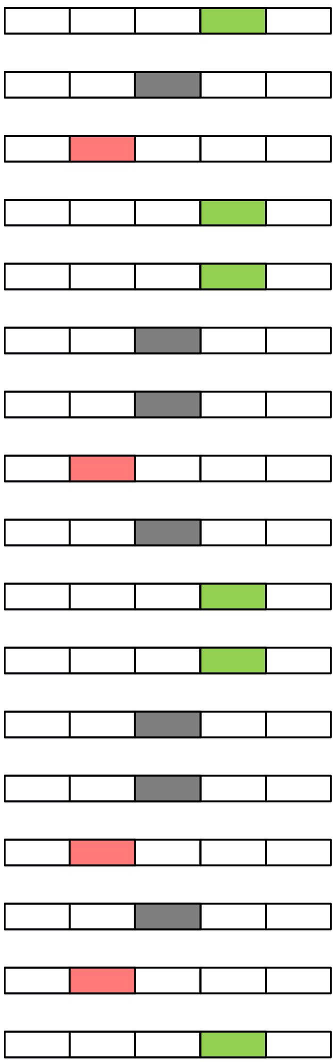






Asset Class Outlooks

Near-Term View



	L-T Return*	Qualitative Assessment
U.S. Large Cap Equity	7.8%	▪ Though slowing, global growth remains positive. The U.S. remains the global leader in growth; however, divergences across regions have increased, impacting asset price performance. Within the U.S., fundamentals should continue to support positive though slower corporate earnings growth. Extreme levels of policy uncertainty have driven valuations down to levels that should be supported even by very modest earnings growth. ▪ Maintain overweight U.S. **and** emerging market equities while underweighting developed ex-U.S. equities. This seeks to provide maximum exposure to global economic growth and earnings growth while managing overall equity portfolio volatility and currency risk.
U.S. Small Cap Equity	9.0%	
Developed Int'l Equity	8.2%	
Emerging Markets	9.8%	
Private Equity	11.1%	
Long/Short Equity	5.9%	
Bonds – Core (US)	3.3%	▪ Rising interest rates at the front-end of the curve have made money market and short-term funds a more attractive destination for liquidity needs, as short-term credit yields now match long-term Treasuries. ▪ Sustained global growth combined with attractive relative yields have made emerging market debt an appealing investment with upside potential from possible dollar depreciation that may accompany a Federal Reserve policy pause. Idiosyncratic risks, however, remain. Active management should help navigate these complex markets. ▪ For long-term investors with an ability to sacrifice liquidity for yield pick-up, private credit provides an attractive opportunity. Select opportunities still exist for top quality managers possessing broad credit platforms that can focus on off-market transactions.
Bonds – Core (Non-Dollar)	3.0%	
Bonds – Spread Sectors	4.2%	
Bonds – Emerging Markets	6.1%	
Long/Short Fixed Income	5.3%	
Distressed	8.5%	
Diversified Hedge Funds	5.4/5.8%	▪ Opportunities exist for nimble, specialized multi-strategy and diversifying strategies.
Real Assets – Commodities	3.8%	▪ Ongoing long-term secular trends continue to mute inflationary risks. As a result, investors are probably best served with equity positions providing near-term inflation protection. ▪ Strategies with income streams and some sensitivity to inflation, such as real estate and listed infrastructure, may offer diversifying income opportunities, especially within private markets.
Real Assets – Real Estate	6.1%	
Real Assets - TIPS	2.8%	
Real Assets – Infrastructure	6.9%	

***Represents 2019 Pavilion Advisory Group Inc. Asset Allocation Assumptions published in January 2019**

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Asset Class Diversification

Surplus Cash Investment Program Structure

As of December 31, 2018

Manager	Asset Class/Type	Total Assets ($, mil.)	Percent of Total	Target Allocation	Weighting Relative to Target	Target Range
Large-Cap Domestic Equity		**$189.1**	**20.3%**	**20.0%**	**+ 0.3%**	**20-30%**
Vanguard S&P 500 Index	Large-Cap Index	$113.5	12.2%	10.0%	+ 2.2%	
Sands	Large-Cap Growth	$ 37.6	4.0%	5.0%	- 1.0%	
Barrow Hanley	Large-Cap Value	$ 38.0	4.1%	5.0%	- 0.9%	
Small-Cap Domestic Equity		**$ 41.5**	**4.4%**	**5.0%**	**- 0.6%**	
Conestoga	Small-Cap Growth	$ 21.2	2.3%	2.5%	- 0.2%	
Wellington	Small-Cap Value	$ 20.3	2.2%	2.5%	- 0.3%	
International Equity		**$128.0**	**13.7%**	**15.0%**	**- 1.3%**	**10-20%**
Causeway	International Value	$ 43.3	4.6%			
Walter Scott	International Growth	$ 52.7	5.6%			
Harding Loevner	Emerging	$ 32.0	3.4%			
Short-Duration Fixed Income		**$116.3**	**12.5%**	**10.0%**	**+ 2.5%**	**8-12%**
Barrow Hanley	Short Duration	$105.8	11.3%			
Cash	Money Market	$ 10.5	1.1%			
Market-Duration Fixed Income		**$301.0**	**32.2%**	**30.0%**	**+ 2.2%**	**25-35%**
Dodge & Cox	Market Duration	$149.3	16.0%	15.0%	+ 1.0%	
MetWest	Market Duration	$151.7	16.3%	15.0%	+ 1.3%	
Alternatives		**$157.5**	**16.9%**	**20.0%**	**- 3.1%**	**17-23%**
Oaktree RE Opps VI	Real Estate	$ 6.9	0.7%			
Walton Street RE VII	Real Estate	$ 7.3	0.8%			
Walton Street RE VIII	Real Estate	$ 7.4	0.8%			
Direct Hedge Fund Composite	Hedge Fund	$135.9	14.6%			
Total (X District)		**$933.3**	**100.0%**			
District Assets - Barrow Hanley	Short Duration	$ 34.3				
Debt Reserves - Ponder	Short Duration	$128.6				
Total Surplus Cash		**$1,096.2**				

*Totals may not add due to rounding.

Liquidity Schedule

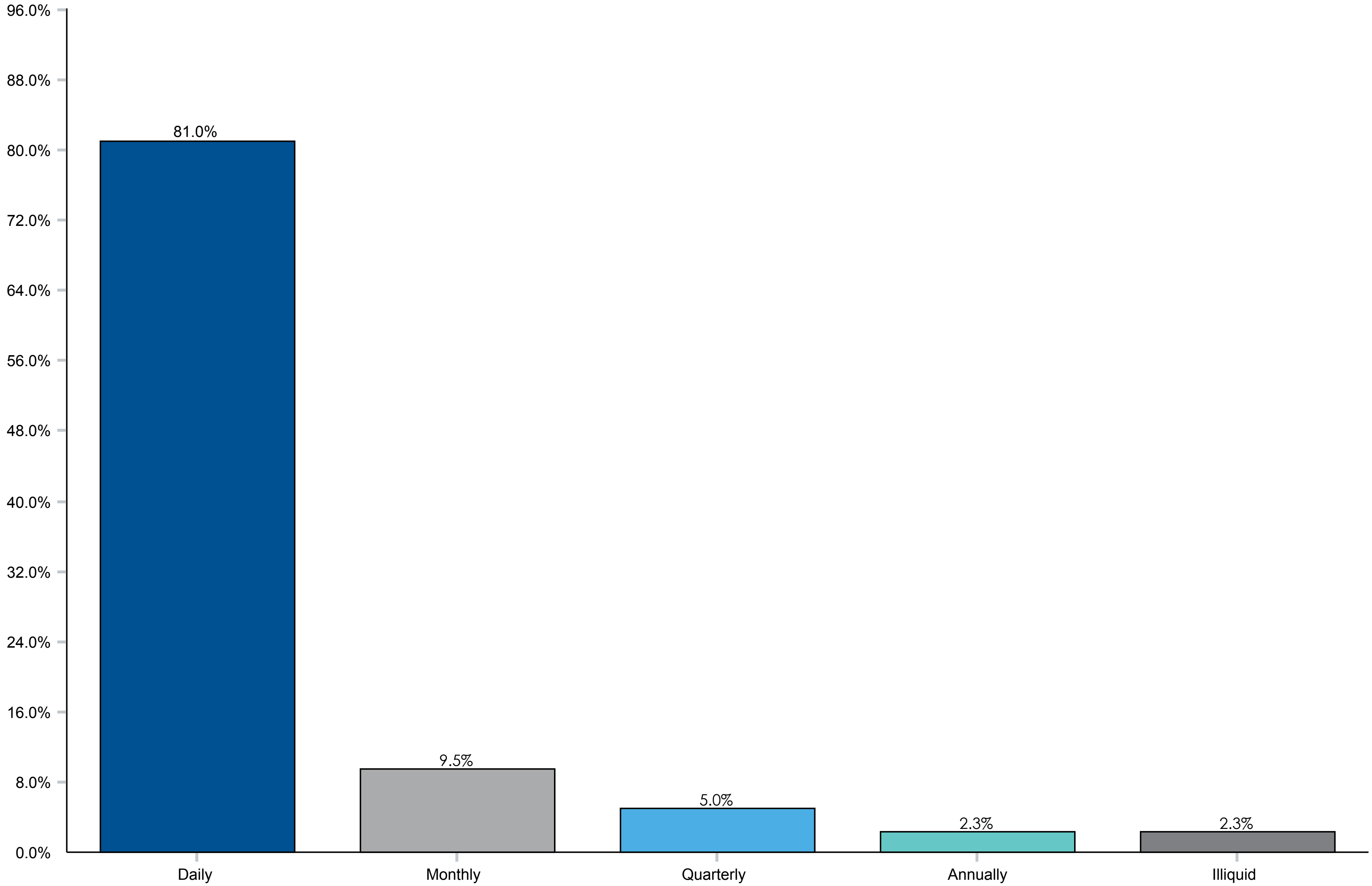
As of December 31, 2018

Investments	Market Value ($)	Daily ($)	Monthly ($)	Quarterly ($)	Annually ($)	Illiquid ($)	Withdrawals	Notes
Vanguard S&P 500 Index	113,545,153	113,545,153	--	--	--	--	Daily	Daily, No Lock-Up
Sands Large Cap Growth (Touchstone)	37,606,851	37,606,851	--	--	--	--	Daily	Daily, No Lock-Up
Barrow Hanley Large Cap Value	37,963,082	37,963,082	--	--	--	--	Daily	Daily, No Lock-Up
Wellington Small Cap Value	20,270,814	--	20,270,814	--	--	--	Monthly	10 Day Notice
Conestoga Small-Cap Fund I	21,201,661	21,201,661	--	--	--	--	Daily	Daily, No Lock-Up
Walter Scott Int'l (Dreyfus)	52,698,882	52,698,882	--	--	--	--	Daily	Daily, No Lock-Up
Causeway International Value	43,334,349	43,334,349	--	--	--	--	Daily	Daily, No Lock-Up
Harding Loevner Inst. Emerging Markets I	32,012,707	32,012,707	--	--	--	--	Daily	Daily, No Lock-Up
Barrow Hanley Short Fixed	105,834,860	105,834,860	--	--	--	--	Daily	Daily, No Lock-Up
Cash Account	9,458,443	9,458,443	--	--	--	--	Daily	Daily, No Lock-Up
Cash Account - CONCERN	86,906	86,906	--	--	--	--	Daily	Daily, No Lock-Up
Hedge Funds Cash	910,735	910,735	--	--	--	--	Daily	Daily, No Lock-Up
Dodge & Cox Fixed	149,271,219	149,271,219	--	--	--	--	Daily	Daily, No Lock-Up
MetWest Fixed	138,485,467	138,485,467	--	--	--	--	Daily	Daily, No Lock-Up
Met West Total Return Bond Plan - CONCERN	13,194,023	13,194,023	--	--	--	--	Daily	Daily, No Lock-Up
Oaktree Capital Management RE Opportunities Fund VI	6,851,789	--	--	--	--	6,851,789	Illiquid	Illiquid
Walton Street Real Estate Fund VII, L.P.	7,314,719	--	--	--	--	7,314,719	Illiquid	Illiquid
Walton Street Real Estate Fund VIII, L.P.	7,406,948	--	--	--	--	7,406,948	Illiquid	Illiquid
Blackrock The 32 Capital Fund, Ltd.	5,480,027	--	5,480,027	--	--	--	Monthly	30 Day Notice, No Lock-Up
Bloom Tree Offshore Fund Ltd.	10,224,885	--	--	10,224,885	--	--	Quarterly	45 Day Notice, No Lock-Up
Capeview Azri 2X Fund USD B - U	3,606,686	--	3,606,686	--	--	--	Monthly	30 Day Notice, No Lock-Up
Capeview Azri Fund USD B – UV	6,170,125	--	--	6,170,125	--	--	Quarterly	30 Day Notice, 2.5% Redemption Penalty
Chatham Asset High Yield Offshore Fund, Ltd	10,236,402	--	--	10,236,402	--	--	Quarterly	45 Day Notice, 20% Fund level gate
DK Distressed Opportunities International, Ltd.	10,559,087	--	--	--	10,559,087	--	Annually	90 Day Notice, No Lock-Up
EMSO Saguaro, Ltd.	9,989,139	--	9,989,139	--	--	--	Monthly	60 Day Notice, 15% Fund level gate
Fir Tree International Value Fund (Non-US), L.P.	381,421	--	--	--	381,421	--	Annually	Redemption in Progress
Indus Japan Fund Ltd.	8,336,176	--	--	8,336,176	--	--	Quarterly	30 Day Notice, No Lock-up
Luxor Capital Partners Offshore, Ltd.	715,637	--	--	715,637	--	--	Quarterly	Redemption in Progress
Marshall Wace Eureka Fund Class B2	9,649,356	--	9,649,356	--	--	--	Monthly	30 Day Notice, No Lock-Up
Moore Macro Managers Fund	10,060,612	--	--	10,060,612	--	--	Quarterly	60 Day Notice, No Lock-Up
Pine River Fund Ltd.	65,374	--	--	65,374	--	--	Quarterly	Redemption in Progress
Renaissance RIDGE	9,823,936	--	9,823,936	--	--	--	Monthly	Monthly with 45 Days Notice
Carlson Black Diamond Arbitrage Ltd.	10,248,565	--	10,248,565	--	--	--	Monthly	45 Day Notice, No Lock-Up
Robeco Transtrend Diversified Fund LLC	9,836,280	--	9,836,280	--	--	--	Monthly	5 Day Notice, No Lock-Up
Stone Milliner Macro Inc Class A NI[CE]	9,987,699	--	9,987,699	--	--	--	Monthly	60 Day Notice, 25% Master Fund level gate
Tiger Eye Fund, Ltd.	377,330	--	--	377,330	--	--	Quarterly	60 Day Notice, 1% Penalty within First Year
York Credit Opportunities Unit Trust[CE]	10,129,985	--	--	--	10,129,985	--	Annually	60 Day Notice, No Lock-Up
Total ($)	**933,327,329**	**755,604,338**	**88,892,502**	**46,186,541**	**21,070,493**	**21,573,456**		
Total (%)	**100.0**	**81.0**	**9.5**	**5.0**	**2.3**	**2.3**		

Liquidity Schedule

As of December 31, 2018

Liquidity of Total Portfolio



Asset Class Diversification

Cash Balance Plan Investment Program Structure

As of December 31, 2018

Manager	Asset Class/Type	Total Assets ($, mil.)	Percent of Total	Target Allocation	Weighting Relative to Target	Target Range
Large-Cap Domestic Equity		**$ 66.4**	**26.6%**	**27.0%**	**- 0.4%**	**27-37%**
Vanguard S&P 500 Index	Large-Cap Index	$ 32.1	12.9%	13.5%	- 0.6%	
Sands	Large-Cap Growth	$ 16.5	6.6%	6.8%	- 0.2%	
Barrow Hanley	Large-Cap Value	$ 17.8	7.1%	6.8%	+ 0.3%	
Small-Cap Domestic Equity		**$ 12.4**	**5.0%**	**5.0%**	**- 0.0%**	
Conestoga	Small-Cap Growth	$ 6.1	2.5%	2.5%	- 0.0%	
Wellington	Small-Cap Value	$ 6.3	2.5%	2.5%	+ 0.0%	
International Equity		**$ 42.7**	**17.1%**	**18.0%**	**- 0.9%**	**15-21%**
Causeway	International Value	$ 16.7	6.7%			
Walter Scott	International Growth	$ 20.2	8.1%			
Harding Loevner	Emerging Markets	$ 5.8	2.3%			
Short-Duration Fixed Income		**$ 9.9**	**4.0%**	**5.0%**	**- 1.0%**	**0-8%**
Barrow Hanley	Short Duration	$ 8.8	3.5%			
Cash	Money Market	$ 1.1	0.4%			
Market-Duration Fixed Income		**$ 69.1**	**27.7%**	**25.0%**	**+ 2.7%**	**20-30%**
Dodge & Cox	Market Duration	$ 34.4	13.8%	12.5%	+ 1.3%	
MetWest	Market Duration	$ 34.7	13.9%	12.5%	+ 1.4%	
Alternatives		**$ 48.8**	**19.6%**	**20.0%**	**- 0.4%**	**17-23%**
Lighthouse	HFOF	$ 17.9	7.2%			
Pointer	HFOF	$ 16.7	6.7%			
Oaktree RE Opps VI	Real Estate	$ 4.1	1.6%			
Walton Street RE VII	Real Estate	$ 4.4	1.8%			
Walton Street RE VIII	Real Estate	$ 5.7	2.3%			
Total		**$249.2**	**100.0%**			

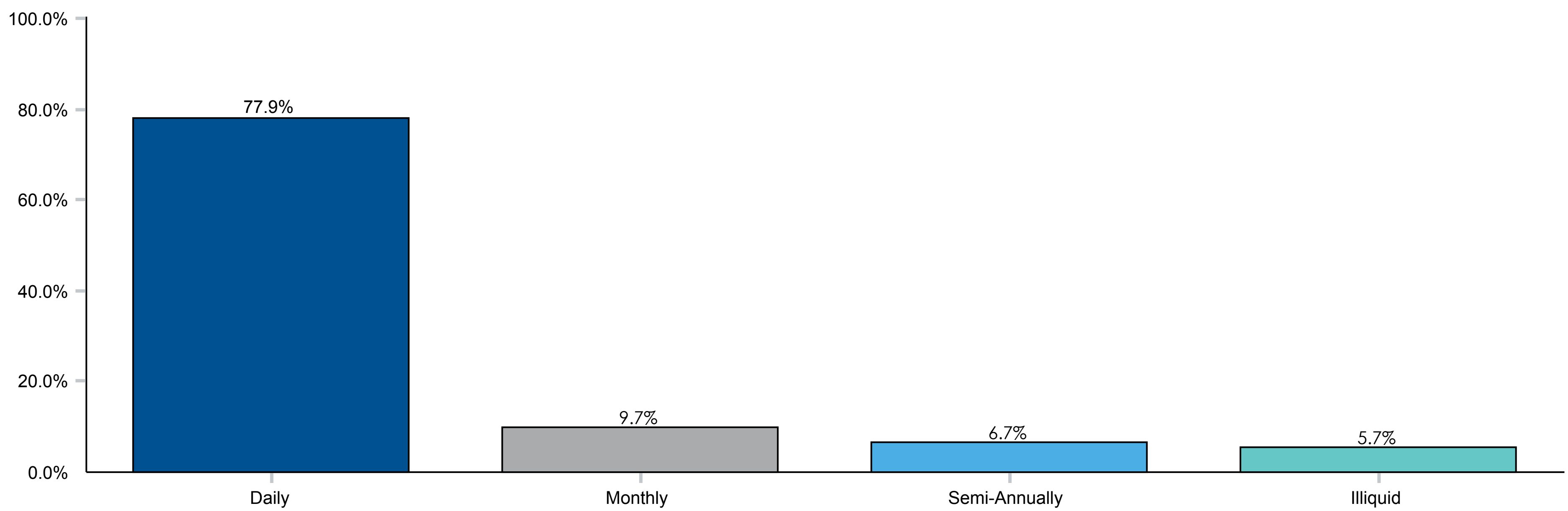
*Totals may not add due to rounding.

Liquidity Schedule - Cash Balance

As of December 31, 2018

Investments	Market Value ($)	Daily ($)	Monthly ($)	Semi-Annually ($)	Illiquid ($)	Contributions	Withdrawals	Notes
Vanguard Institutional Index Fund	32,127,681	32,127,681	--	--	--	Daily	Daily	Daily, No Lock-Up
Sands Large Cap Growth (Touchstone)	16,511,256	16,511,256	--	--	--	Daily	Daily	Daily, No Lock-Up
Barrow Hanley Large Cap Value	17,763,941	17,763,941	--	--	--	Daily	Daily	Daily, No Lock-Up
Conestoga Small-Cap Fund I	6,115,285	6,115,285	--	--	--	Daily	Daily	Daily, No Lock-Up
Wellington Small Cap Value	6,287,101	--	6,287,101	--	--	Monthly	Monthly	Monthly, 10 Day Notice
Causeway International Value	16,689,137	16,689,137	--	--	--	Daily	Daily	Daily, No Lock-Up
Walter Scott Int'l (Dreyfus)	20,160,770	20,160,770	--	--	--	Daily	Daily	Daily, No Lock-Up
Harding Loevner Inst. Emerging Markets I	5,814,611	5,814,611	--	--	--	Daily	Daily	Daily, No Lock-Up
Barrow Hanley Short Fixed	8,757,649	8,757,649	--	--	--	Daily	Daily	Daily, No Lock-Up
Cash Account	1,107,237	1,107,237	--	--	--	Daily	Daily	Daily, No Lock-Up
Dodge & Cox Income Fund	34,361,936	34,361,936	--	--	--	Daily	Daily	Daily, No Lock-Up
Met West Total Return Fund Pl	34,742,751	34,742,751	--	--	--	Daily	Daily	Daily, No Lock-Up
Lighthouse Diversified[CE]	17,927,649	--	17,927,649	--	--	Monthly	Monthly	90 Day Notice
Pointer Offshore LTD	16,706,536	--	--	16,706,536	--	Semi-Annually	Semi-Annually	Notice by Mar 15/Sept 15
Oaktree RE Opportunities Fund V	4,051,290	--	--	--	4,051,290	Illiquid	Illiquid	Illiquid
Walton Street Real Estate Fund VII, L.P.	4,387,008	--	--	--	4,387,008	Illiquid	Illiquid	Illiquid
Walton Street Real Estate Fund VIII, L.P.	5,697,652	--	--	--	5,697,652	Illiquid	Illiquid	Illiquid
Total ($)	**249,209,489**	**194,152,254**	**24,214,750**	**16,706,536**	**14,135,950**			
Total (%)	**100.0**	**77.9**	**9.7**	**6.7**	**5.7**			

Liquidity of Total Portfolio



Surplus Cash Equity Portfolio Characteristics

Surplus Cash Equity Composite vs. MSCI AC World IMI

As of December 31, 2018

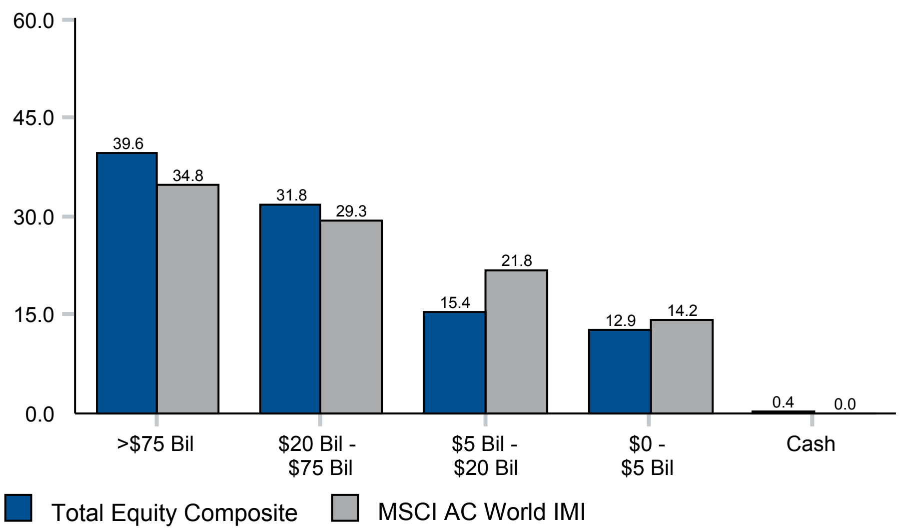
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	120,706	112,749
Median Mkt. Cap ($M)	15,387	1,526
Price/Earnings ratio	17.0	14.4
Price/Book ratio	3.1	2.6
5 Yr. EPS Growth Rate (%)	15.2	13.6
Current Yield (%)	2.1	2.8
Debt to Equity	0.7	0.8
Number of Stocks	818	8,725
Beta (5 Years, Monthly)	0.99	1.00
Consistency (5 Years, Monthly)	48.33	0.00
Sharpe Ratio (5 Years, Monthly)	0.45	0.42
Information Ratio (5 Years, Monthly)	0.16	-
Up Market Capture (5 Years, Monthly)	100.38	100.00
Down Market Capture (5 Years, Monthly)	97.71	100.00

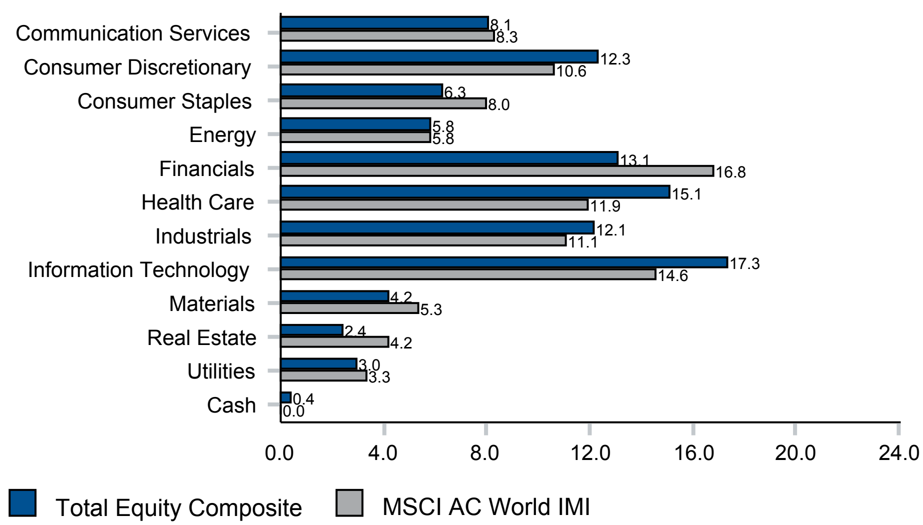
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Amazon.com Inc	1.8	1.3	0.5	-25.0
Microsoft Corp	1.5	1.6	-0.1	-10.8
Visa Inc	1.2	0.5	0.7	-11.9
Alphabet Inc	1.1	0.7	0.4	-13.4
Apple Inc	1.1	1.6	-0.5	-29.9
Alibaba Group Holding Ltd	1.0	0.4	0.6	-16.8
Facebook Inc	0.9	0.7	0.2	-20.3
Salesforce.com Inc.	0.8	0.2	0.6	-13.9
Netflix Inc	0.8	0.3	0.5	-28.5
JPMorgan Chase & Co	0.7	0.7	0.0	-12.9
% of Portfolio	10.9	8.0	2.9	

Distribution of Market Capitalization (%)



Sector Weights (%)



Equity composite holdings are a consolidation of the underlying manager exposures weighted by the ending market value. Cash holdings for certain managers may not be included.

Cash Balance Plan Equity Portfolio Characteristics

Cash Balance Plan Equity Composite vs. MSCI AC World IMI

As of December 31, 2018

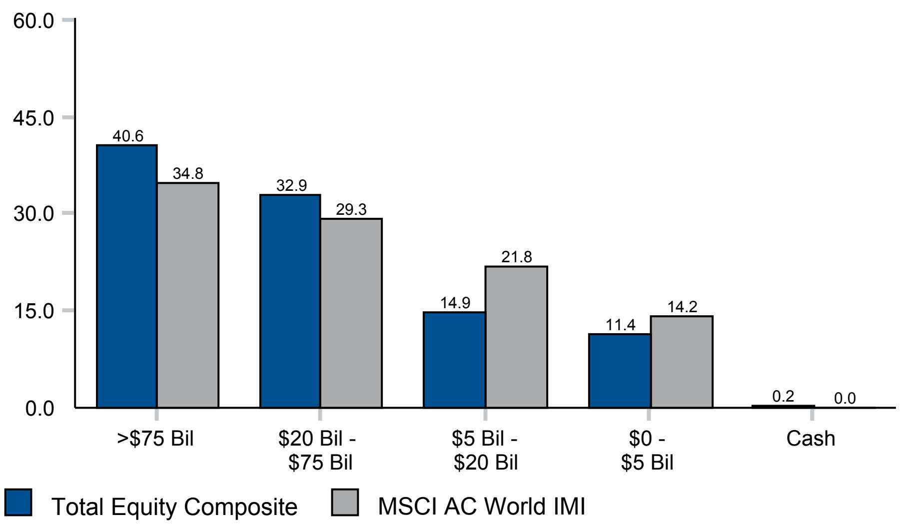
Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($M)	120,733	112,749
Median Mkt. Cap ($M)	15,387	1,526
Price/Earnings ratio	17.1	14.4
Price/Book ratio	3.1	2.6
5 Yr. EPS Growth Rate (%)	15.3	13.6
Current Yield (%)	2.1	2.8
Debt to Equity	0.7	0.8
Number of Stocks	822	8,725
Beta (5 Years, Monthly)	1.00	1.00
Consistency (5 Years, Monthly)	48.33	0.00
Sharpe Ratio (5 Years, Monthly)	0.46	0.42
Information Ratio (5 Years, Monthly)	0.22	-
Up Market Capture (5 Years, Monthly)	101.83	100.00
Down Market Capture (5 Years, Monthly)	98.93	100.00

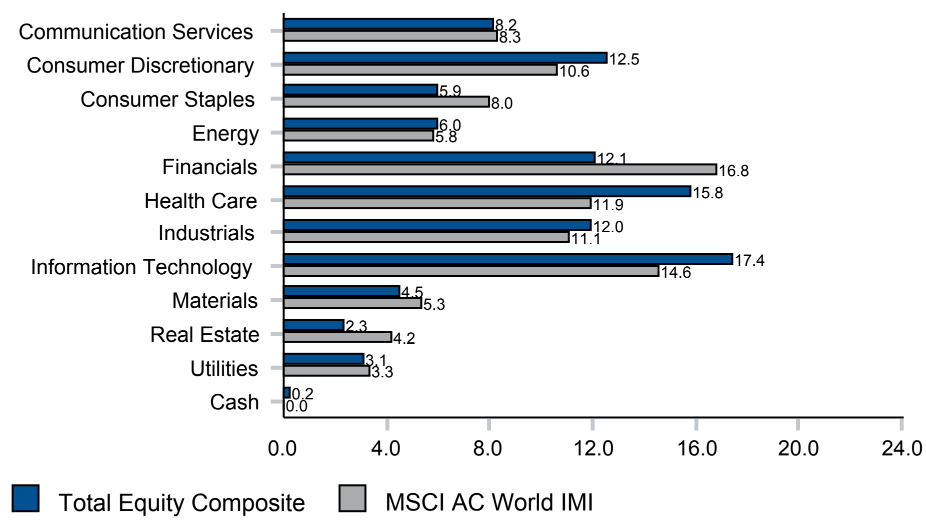
Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Amazon.com Inc	1.9	1.3	0.6	-25.0
Microsoft Corp	1.4	1.6	-0.2	-10.8
Visa Inc	1.4	0.5	0.9	-11.9
Alphabet Inc	1.2	0.7	0.5	-13.4
Alibaba Group Holding Ltd	1.1	0.4	0.7	-16.8
Salesforce.com Inc.	0.9	0.2	0.7	-13.9
Netflix Inc	0.9	0.3	0.6	-28.5
Facebook Inc	0.9	0.7	0.2	-20.3
ServiceNow Inc	0.9	0.1	0.8	-9.0
Apple Inc	0.9	1.6	-0.7	-29.9
% of Portfolio	11.5	7.4	4.1	

Distribution of Market Capitalization (%)



Sector Weights (%)



Equity composite holdings are a consolidation of the underlying manager exposures weighted by the ending market value. Cash holdings for certain managers may not be included.

Surplus Cash Equity Portfolio - Country/Region Allocation

Surplus Cash Equity Composite vs. MSCI AC World IMI

As of December 31, 2018

	Total Equity Composite	MSCI AC World IMI
Canada	1.4	3.0
United States	60.6	52.0
Australia	0.7	2.3
Hong Kong	4.8	2.9
New Zealand	0.0	0.1
Singapore	0.0	0.5
Pacific ex Japan	**5.5**	**5.7**
Japan	4.8	8.0
Austria	0.0	0.1
Belgium	0.0	0.4
Bermuda	0.1	0.3
Denmark	1.0	0.6
Finland	0.3	0.4
France	2.4	2.9
Germany	2.0	2.6
Ireland	1.5	1.1
Italy	0.3	0.7
Netherlands	1.0	1.7
Norway	0.0	0.3
Portugal	0.0	0.1
Spain	0.5	0.9
Sweden	0.0	0.9
Switzerland	3.5	2.9
Europe ex UK	**12.8**	**15.8**
United Kingdom	6.2	5.2
Israel	0.0	0.2
Middle East	**0.0**	**0.2**
Developed Markets	**91.3**	**90.0**

	Total Equity Composite	MSCI AC World IMI
China	1.1	1.5
India	0.6	1.2
Indonesia	0.4	0.3
Korea	1.4	1.7
Malaysia	0.0	0.3
Philippines	0.0	0.1
Taiwan	1.2	1.4
Thailand	0.2	0.3
EM Asia	**4.9**	**6.7**
Czech Republic	0.1	0.0
Greece	0.0	0.0
Hungary	0.0	0.0
Poland	0.0	0.1
Russia	0.7	0.4
Turkey	0.0	0.1
EM Europe	**0.8**	**0.7**
Brazil	0.7	0.9
Cayman Islands	0.0	0.0
Chile	0.1	0.1
Colombia	0.1	0.0
Mexico	0.4	0.3
Peru	0.0	0.0
Virgin Islands	0.0	0.0
EM Latin America	**1.2**	**1.4**
Egypt	0.1	0.0
Qatar	0.0	0.1
South Africa	0.6	0.7
United Arab Emirates	0.2	0.1
EM Mid East+Africa	**0.8**	**0.9**
Emerging Markets	**7.7**	**9.8**
Frontier Markets	**0.2**	**0.0**
Cash	0.4	0.0
Other	0.5	0.2
Total	**100.0**	**100.0**

Cash Balance Plan Equity Portfolio - Country/Region Allocation

Cash Balance Plan Equity Composite vs. MSCI AC World IMI

As of December 31, 2018

	Total Equity Composite	MSCI AC World IMI
Canada	1.5	3.0
United States	60.9	52.0
Australia	0.8	2.3
Hong Kong	4.5	2.9
New Zealand	0.0	0.1
Singapore	0.0	0.5
Pacific ex Japan	**5.3**	**5.7**
Japan	5.5	8.0
Austria	0.0	0.1
Belgium	0.0	0.4
Bermuda	0.1	0.3
Denmark	1.2	0.6
Finland	0.4	0.4
France	2.7	2.9
Germany	2.3	2.6
Ireland	1.7	1.1
Italy	0.4	0.7
Netherlands	1.1	1.7
Norway	0.0	0.3
Portugal	0.0	0.1
Spain	0.5	0.9
Sweden	0.0	0.9
Switzerland	3.9	2.9
Europe ex UK	**14.3**	**15.8**
United Kingdom	7.0	5.2
Israel	0.0	0.2
Middle East	**0.0**	**0.2**
Developed Markets	**94.4**	**90.0**

	Total Equity Composite	MSCI AC World IMI
China	0.7	1.5
India	0.4	1.2
Indonesia	0.2	0.3
Korea	1.1	1.7
Malaysia	0.0	0.3
Philippines	0.0	0.1
Taiwan	0.9	1.4
Thailand	0.1	0.3
EM Asia	**3.4**	**6.7**
Czech Republic	0.1	0.0
Greece	0.0	0.0
Hungary	0.0	0.0
Poland	0.0	0.1
Russia	0.4	0.4
Turkey	0.1	0.1
EM Europe	**0.5**	**0.7**
Brazil	0.3	0.9
Cayman Islands	0.0	0.0
Chile	0.0	0.1
Colombia	0.0	0.0
Mexico	0.2	0.3
Peru	0.0	0.0
Virgin Islands	0.0	0.0
EM Latin America	**0.6**	**1.4**
Egypt	0.0	0.0
Qatar	0.0	0.1
South Africa	0.3	0.7
United Arab Emirates	0.1	0.1
EM Mid East+Africa	**0.4**	**0.9**
Emerging Markets	**5.0**	**9.8**
Frontier Markets	**0.1**	**0.0**
Cash	0.2	0.0
Other	0.3	0.2
Total	**100.0**	**100.0**

Surplus Cash Fixed Income Portfolio Characteristics

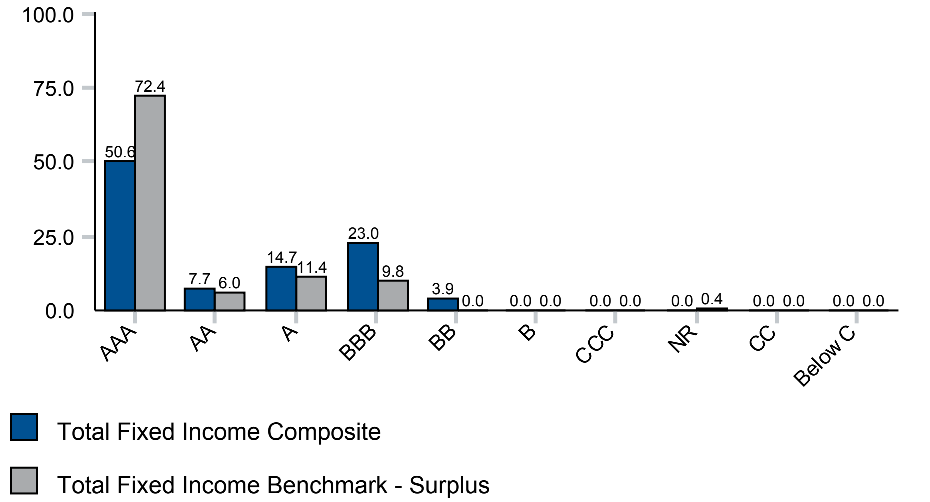
Surplus Cash Fixed Income Composite vs. Total Fixed Income Benchmark - Surplus

As of December 31, 2018

Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	4.3	5.2
Avg. Maturity	6.3	6.6
Avg. Quality	AA	AA
Yield To Maturity (%)	3.6	3.1

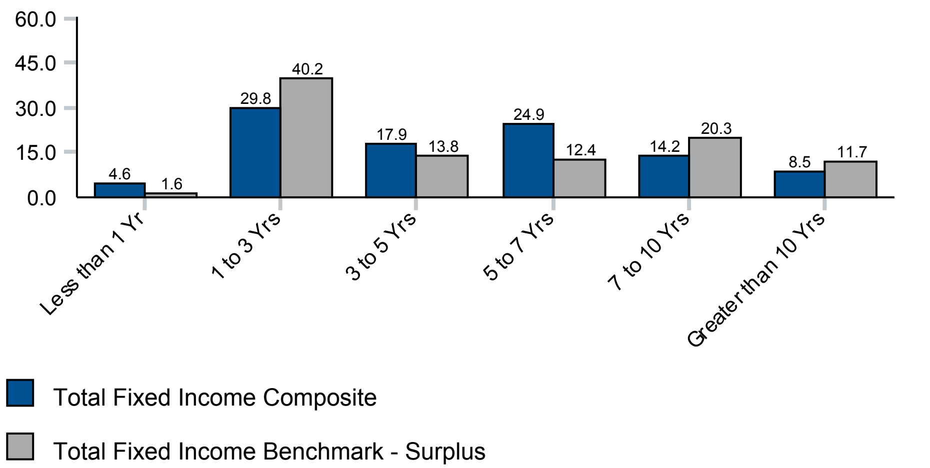
Credit Quality Distribution (%)



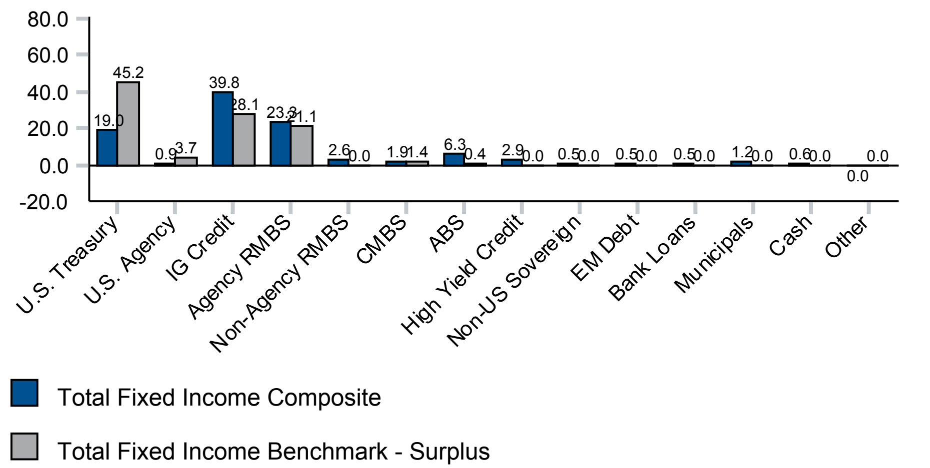
Historical Statistics - 5 Years

	Up Market Capture	Down Market Capture	Maximum Drawdown
Total Fixed Income Composite	89.0	72.9	-1.7
Total Fixed Income Benchmark - Surplus	100.0	100.0	-2.6

Maturity Distribution (%)



Sector Distribution (%)



Cash Balance Fixed Income Portfolio Characteristics

Cash Balance Fixed Income Composite vs. Total Fixed Income Benchmark

As of December 31, 2018

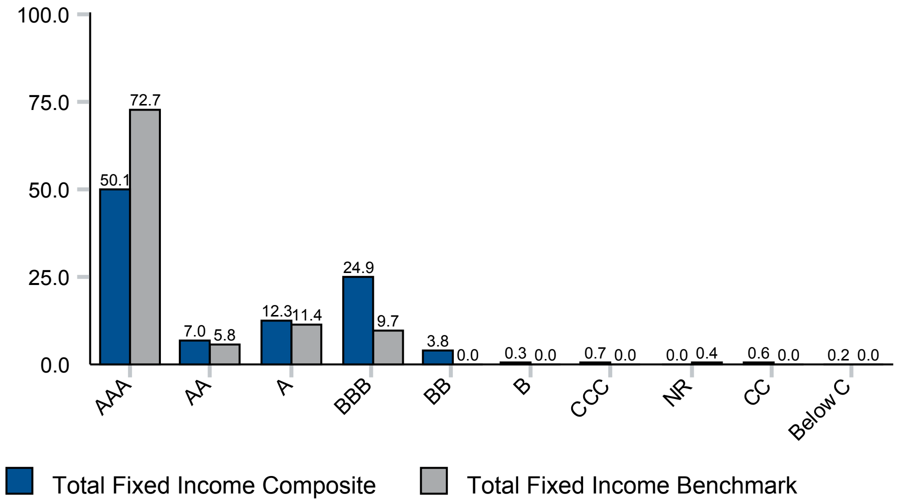
Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	4.8	5.5
Avg. Maturity	7.2	7.1
Avg. Quality	A	AA
Yield To Maturity (%)	3.8	3.2

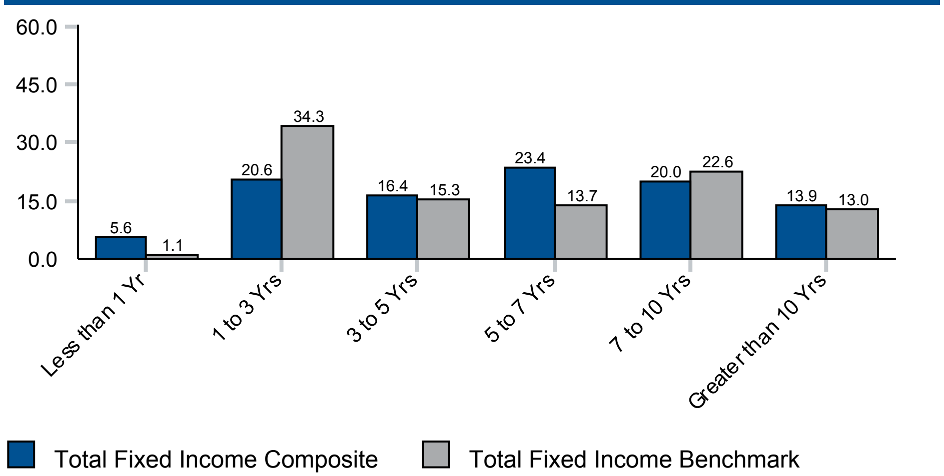
Historical Statistics - 5 Years

	Up Market Capture	Down Market Capture	Maximum Drawdown
Total Fixed Income Composite	94.6	79.0	-2.0
Total Fixed Income Benchmark	100.0	100.0	-2.5

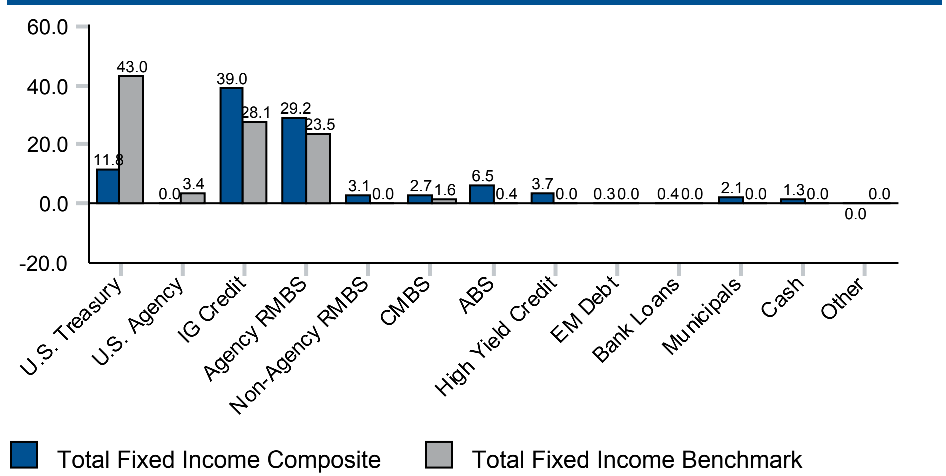
Credit Quality Distribution (%)



Maturity Distribution (%)



Sector Distribution (%)



Direct Hedge Fund Portfolio

Surplus Cash Hedge Fund Portfolio Executive Summary

Portfolio Update - Fourth Quarter 2018

The Surplus Cash Hedge Fund Portfolio (the "Portfolio") returned -5.1% during the fourth quarter of 2018, underperforming the HFRI Fund of Funds Composite Index by 0.1%. Each of the Portfolio's four strategies detracted in what was a difficult quarter for markets. Relative Value (-0.4%) strategies detracted slightly, while the other strategies suffered greater losses: Equity Long / Short (-8.2%), Macro (-5.0%) and Credit (-4.2%). On the positive side, three of the four strategies outperformed their respective reference indices, namely Relative Value (+2.0% outperformance), Credit (+1.6%), and Equity Long / Short (+0.1%).

<table>
<tr><th>Strategy</th><th>Q4 Absolute Performance</th><th>12-Month Absolute Performance</th><th>Strategy Commentary</th><th colspan="3">Manager Highlights
Q4 Contributors/Detractors</th></tr>
<tr><td rowspan="6">Equity Long / Short</td><td rowspan="6">-</td><td rowspan="6">-</td><td rowspan="6">The speed and size of the sell-off in Japan was dramatic and several of the Indus' core long positions significantly underperformed the market. Tiger Eye and CapeView struggled with some of their largest long positions which traded lower in the fourth quarter.</td><td rowspan="3">+</td><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td rowspan="3">-</td><td>Indus Japan</td><td>-19.8%</td></tr>
<tr><td>Tiger Eye</td><td>-10.0%</td></tr>
<tr><td>CapeView 2x</td><td>-7.8%</td></tr>
<tr><td rowspan="6">Credit</td><td rowspan="6">-</td><td rowspan="6">+</td><td rowspan="6">York produced negative results due to its idiosyncratic, concentrated positioning in post-reorganization equity names in the energy sector. Davidson Kempner (DK) declined largely on post-reorganization equity positions in technology, healthcare and energy names, while Chatham detracted due to some of its corporate credit and equity positions.</td><td rowspan="3">+</td><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td rowspan="3">-</td><td>York</td><td>-6.7%</td></tr>
<tr><td>DK</td><td>-5.2%</td></tr>
<tr><td>Chatham</td><td>-0.7%</td></tr>
<tr><td rowspan="6">Macro</td><td rowspan="6">-</td><td rowspan="6">-</td><td rowspan="6">Systematic macro manager BP Transtrend performed negatively largely due to losses incurred in equity and commodity markets. Discretionary manager Moore experienced losses mainly in interest rates and FX trading, while Stone Milliner's short U.S. dollar and developed market interest rates exposures detracted.</td><td rowspan="3">+</td><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td rowspan="3">-</td><td>BP Transtrend</td><td>-10.4%</td></tr>
<tr><td>Moore</td><td>-5.6%</td></tr>
<tr><td>Stone Milliner</td><td>-2.0%</td></tr>
<tr><td rowspan="6">Relative Value</td><td rowspan="6">-</td><td rowspan="6">+</td><td rowspan="6">Systematic manager Renaissance added to performance with gains from trading in domestic equity signals and its overall exposure to the low volatility factor. Carlson's merger arbitrage sleeve performed well as several merger deals which closed during the quarter were successful. BlackRock 32 declined on losses in the global small cap and emerging market sleeves.</td><td rowspan="3">+</td><td>Renaissance</td><td>+3.1%</td></tr>
<tr><td>Carlson</td><td>+1.7%</td></tr>
<tr><td></td><td></td></tr>
<tr><td rowspan="3">-</td><td>BlackRock 32</td><td>-7.7%</td></tr>
<tr><td></td><td></td></tr>
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</table>

4th Quarter Investment Activity

Redemptions already in progress and proceeds received are summarized in the table below:

Fund	Strategy	Redemption details	Redemption Status	Status of Proceeds
Luxor Capital Partners Offshore, Ltd.	Equity	Redemption submitted as of June 30, 2017.	In progress	*Remaining amount continues to be held into liquidating special purpose vehicle (no timeline available).*
Tiger Eye Fund, Ltd.	Equity	Redemption submitted as of December 31, 2018.	In progress	*Redemption proceeds received at end of December, with audit holdback to be released in first/second quarter of 2019 following completion of annual audited financial statements.*
Pine River Fund Ltd.	Relative Value	Redemption submitted starting on December 31, 2016. Pine River is currently liquidating the fund.	In progress	*Further distributions are expected over time as the fund's liquidation process continues.*
Fir Tree International Value Fund (USTE), L.P.	Relative Value	Redemption for second investment were requested as of November 30, 2017.	In progress	*Remaining amount relates to non-marketable positions which will be sold over time.*
BlackRock The 32 Capital Fund, Ltd.	Relative Value	Redemption to be submitted as of March 31, 2019.	In progress	*Expected to be received in April less any holdbacks.*

Recommendations or Action Items

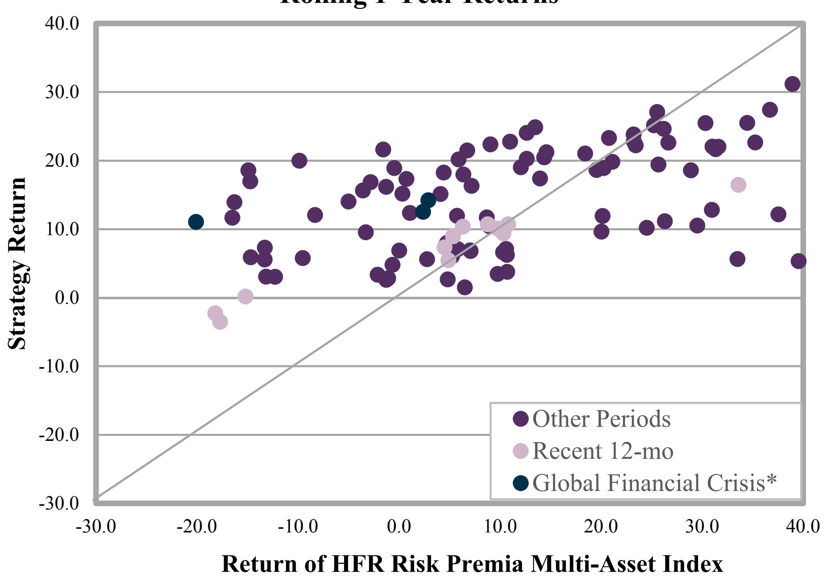
Pavilion recommends initial investments of $10.0 million each to the Palestra Capital Management LLC Master Fund and Man Group PLC Alternative Risk Premia Fund in the Long/Short Equity and Relative Value Hedge Fund composites, respectively. These investments would be funded using proceeds from the redemptions of Tiger Eye and BlackRock 32 Capital, as well as residual cash.

Man Group | Alternative Risk Premia

- **Category:** Relative Value, Alternative Risk Premia
- **Firm/Strategy:** Man Group was incorporated in 1994 and is a global alternatives asset manager headquartered in London with additional offices in the U.S., Europe, Asia and Australia. The Man Alternative Risk Premia Fund was developed to capture market premia that are identified as persistent and non-traditional (where returns are not driven by equity or bond markets – making them "alternative" premia). These "factors" can take various forms; some common categories include Momentum, Value, Carry, and Defensive factors. Man's strategy is to harvest these alternative premia systematically and without taking direct market risk. The strategy is implemented using liquid instruments and is expected to have higher capacity than systematic hedge fund strategies, which often try to invest in factors that are less well known, less liquid, and/or shorter-term in nature.
- **Pavilion Evaluation:** Man's multi-boutique risk premia strategy comprises sub-strategies developed by subsidiaries AHL and Numeric, both very experienced at developing the strategies which are being implemented in this Fund. Additionally, their respective approach is differentiated from peers which should benefit the strategy's Sharpe ratio and make it less sensitive to a pullback in risk premia. Finally, this vehicle is highly liquid and has low, flat management fees with no performance fee.

Returns (Net of Fees) As of 12/31/18	1-yr	3-yr	5-yr	10-yr	10-yr Std. Deviation
Man – ARP*	-3.5%	4.3%	8.8%	12.6%	7.2%
HFR Risk Premia Multi-Asset Index	-17.7%	3.1%	4.5%	12.2%	24.1%

Rolling 1-Year Returns



*Global financial Crisis: Jul 2008 – Jun 2009

As of 12/31/18	Man ARP
Total Firm AUM:	$113 B
Total Strategy/Product AUM:	$6.6 B / $4.4 B (notional)
Liquidity Terms:	Weekly on first business day, with notice due 12PM EST on the third business day prior.
Management Fee:	1.0%
Performance Fee:	None
Typical Exposures:	500-600% gross; +50-150% net
Approved by Pavilion:	Yes
Auditor:	Ernst & Young Ltd.
Administrator:	JPMorgan Hedge Fund Services
Firm / Strategy Inception Date:	1994 / September 2015

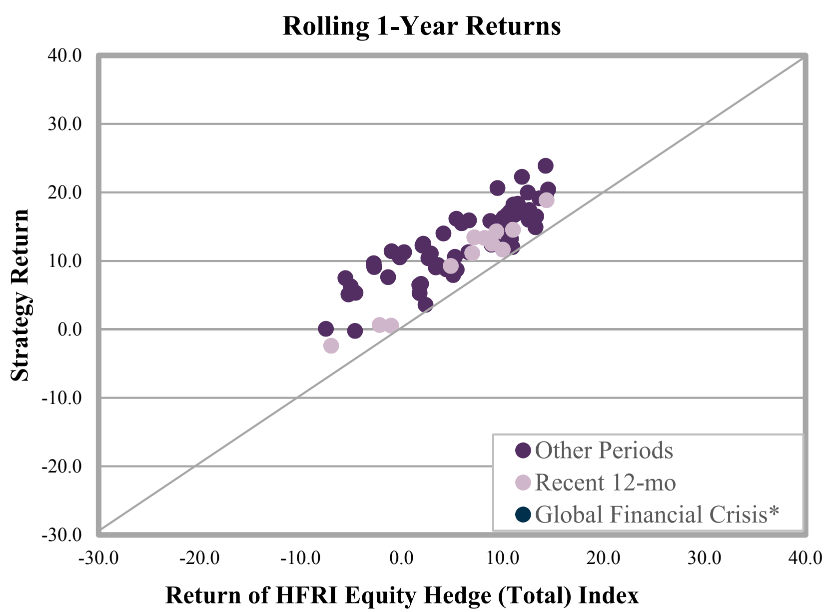
Returns prior to September 2015 are pro-forma results provided by Man Group.

Palestra Capital Fund

- **Category:** Long/Short Equity – Generalist
- **Firm/Strategy:** Palestra Capital Management LLC ("Palestra") was founded in September 2011 by Jeremy Schiffman and Andrew Immerman and manages a single long/short equity strategy. Mr. Schiffman serves as a Managing Partner, Chief Investment Officer, and Portfolio Manager and has prior experience from TPG-Axon and the Investment Banking Division of Goldman Sachs. Mr. Immerman serves as a Managing Partner and Portfolio Manager and has prior experience from SAC Capital, Viking Global Investors, and Clovis Capital. The Palestra Capital Master Fund was launched on March 1, 2012. The firm is owned by the Managing Partners, who may in the future grant ownership or profit participation in the firm to employees.
- **Pavilion Evaluation:** Palestra's AUM base enables the team to dynamically trade around positions and invest in mid-capitalization securities, but it has scaled to a point that allows for an institutionalized approach to both the back office and infrastructure. The strategy is highly process-oriented, and the team runs one concentrated strategy, with the majority of their liquid net worth invested alongside the Fund's investors. Both Mr. Schiffman and Mr. Immerman are relatively young, though they are proven stock-pickers with meaningful portfolio management experience.

Returns (Net of Fees) As of 12/31/18	1-yr	3-yr	5-yr	10-yr	SI Std. Deviation
Palestra Capital Fund	-2.4%	6.8%	7.4%	--	7.6%
HFRI Equity Hedge	-7.0%	3.6%	2.3%	5.7%	5.9%

As of 12/31/18	Palestra
Total Firm AUM:	$2.8 B
Total Strategy/Product AUM:	$2.8 B
Liquidity Terms:	Quarterly, 60 days' notice 12 month soft lock (3% fee for early withdrawals)
Management Fee:	1.5%
Performance Fee:	20.0% of Profits
Typical Exposures:	140-200% gross; +30-60% net
Approved by Pavilion:	Yes
Auditor:	KPMG
Administrator:	Morgan Stanley Fund Services
Firm / Strategy Inception Date:	September 2011 / March 2012



*Global financial Crisis: Jul 2008 – Jun 2009

Direct Hedge Fund Portfolio Asset Allocation & Performance

As of December 31, 2018

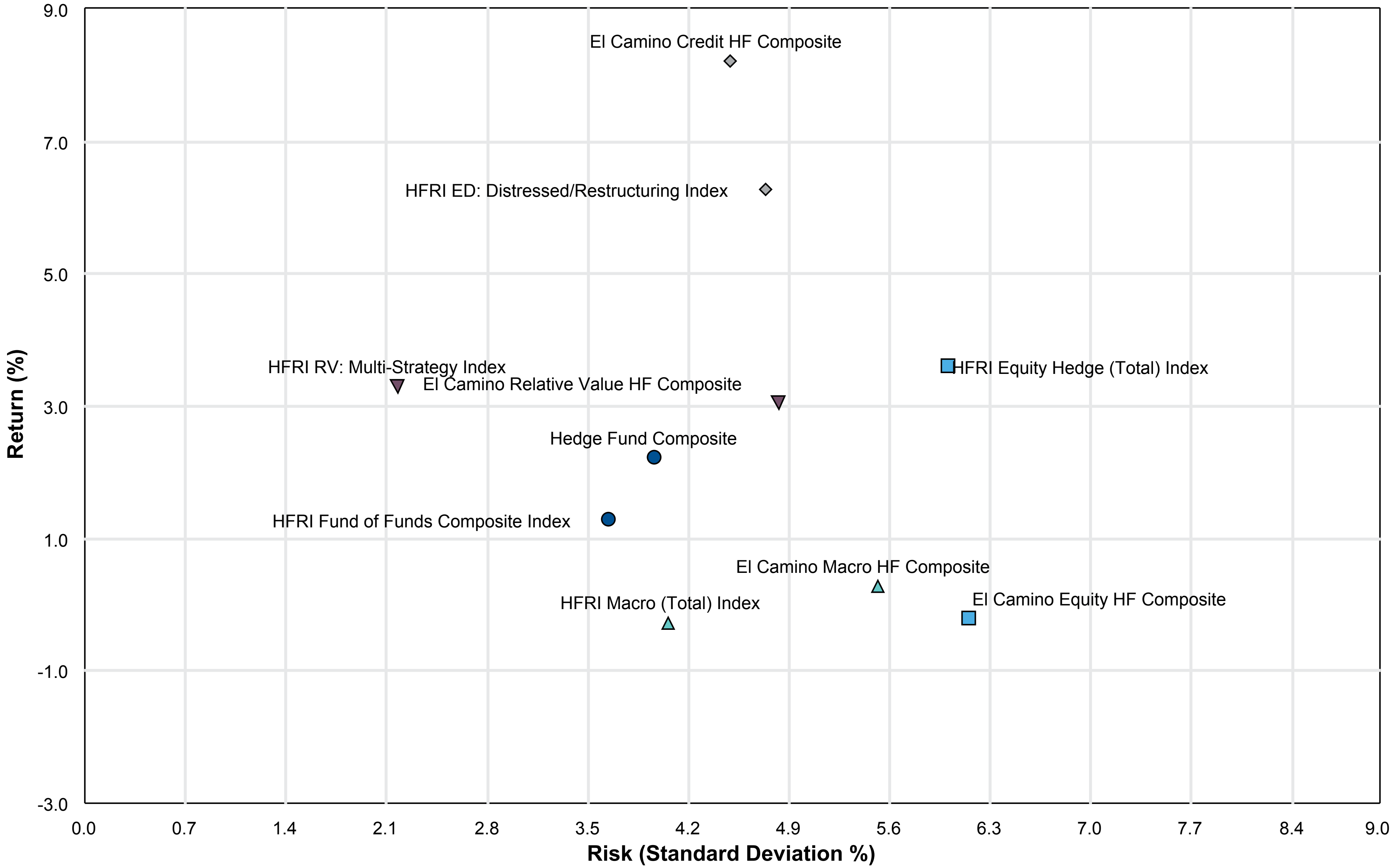
	Allocation		Performance(%)					
	Market Value ($)	%	Quarter	Fiscal YTD	1 Year	3 Years	Since Invested	Inception Period
Hedge Fund Composite	**135,878,721**	**100.0**	**-5.1**	**-3.8**	**-1.4**	**2.2**	**2.3**	**5y 8m**
HFRI Fund of Funds Composite Index			-5.0	-4.8	-4.1	1.3	2.0	
El Camino HF Composite Benchmark			-5.4	-4.9	-4.0	3.3	2.6	
Equity HF Composite	**39,080,194**	**28.8**	**-8.2**	**-6.1**	**-3.7**	**-0.2**	**1.6**	**5y 8m**
HFRI Equity Hedge (Total) Index			-8.3	-8.0	-7.0	3.6	3.5	
Credit HF Composite	**30,925,474**	**22.8**	**-4.2**	**-3.5**	**0.6**	**8.2**	**4.9**	**5y 8m**
HFRI ED: Distressed/Restructuring Index			-5.8	-4.6	-1.9	6.3	2.9	
Macro HF Composite	**39,873,730**	**29.3**	**-5.0**	**-3.8**	**-4.0**	**0.3**	**1.0**	**5y 8m**
HFRI Macro (Total) Index			-2.2	-2.2	-4.0	-0.3	0.2	
Relative Value HF Composite	**25,999,323**	**19.1**	**-0.4**	**0.6**	**5.3**	**3.0**	**2.5**	**5y 8m**
HFRI RV: Multi-Strategy Index			-2.4	-1.8	-0.5	3.3	3.0	

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.
The El Camino HF Composite Benchmark consists of 40% HFRI Equity Hedge (Total) Index, 20% HFRI ED: Distressed/Restructuring Index, 20% HFRI Macro (Total) Index, and 20% HFRI RV: Multi-Strategy Index.

Direct Hedge Fund Portfolio

Risk and Return Summary (Net of Fees)

3 Years Ending December 31, 2018



Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.

Direct Hedge Fund Portfolio Risk Statistics

As of December 31, 2018

	Since Inception Return	Since Inception Standard Deviation	Since Inception Maximum Drawdown	Since Inception Best Quarter	Since Inception Worst Quarter	Since Inception Sharpe Ratio	Since Inception Sortino Ratio	Inception Period
Total Portfolio								
Hedge Fund Composite	2.3	3.9	-9.5	4.9	-5.7	0.5	0.7	5y 8m
HFRI Fund of Funds Composite Index	2.0	3.5	-7.6	3.7	-5.0	0.4	0.6	
Equity Long/Short								
El Camino Equity HF Composite	1.6	5.6	-14.3	5.7	-8.2	0.2	0.3	5y 8m
HFRI Equity Hedge (Total) Index	3.5	5.8	-10.3	6.0	-8.3	0.5	0.8	
Credit								
El Camino Credit HF Composite	4.9	5.2	-18.5	7.0	-6.6	0.9	1.4	5y 8m
HFRI ED: Distressed/Restructuring Index	2.9	5.0	-17.5	7.4	-6.4	0.5	0.7	
Macro								
El Camino Macro HF Composite	1.0	6.1	-7.4	7.9	-5.0	0.1	0.1	5y 8m
HFRI Macro (Total) Index	0.2	4.0	-6.8	5.1	-4.0	-0.1	-0.1	
Relative Value								
El Camino Relative Value HF Composite	2.5	4.7	-13.8	5.3	-8.1	0.4	0.6	5y 8m
HFRI RV: Multi-Strategy Index	3.0	2.2	-4.2	2.9	-2.4	1.1	1.8	

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.

Asset Class Diversification

Hedge Fund Portfolio

As of December 31, 2018

Manager	Asset Class/Type	Total Assets ($, mil.)	Percent of Total	Target Allocation	Weighting Relative to Target
Equity Hedge Funds		**$ 39.1**	**28.8%**	**40.0%**	**- 11.2%**
Luxor	Event Driven Equity	$ 0.7	0.5%		
CapeView 1x	European Equity	$ 6.2	4.5%		
CapeView 2x	European Equity	$ 3.6	2.7%		
Bloom Tree	Global Equity	$ 10.2	7.5%		
Marshall Wace Eureka	Global Equity	$ 9.6	7.1%		
Tiger Eye	US Equity	$ 0.4	0.3%		
Indus Japan	Japanese Equity	$ 8.3	6.1%		
Credit Hedge Funds		**$ 30.9**	**22.8%**	**20.0%**	**+ 2.8%**
Davidson Kempner	Distressed Credit	$ 10.6	7.8%		
York	Multi-Strategy Credit	$ 10.1	7.5%		
Chatham Asset	High Yield	$ 10.2	7.5%		
Macro Hedge Funds		**$ 39.9**	**29.3%**	**20.0%**	**+ 9.3%**
BP Transtrend	Systematic Macro	$ 9.8	7.2%		
Moore	Discretionary Macro	$ 10.1	7.4%		
Stone Milliner	Discretionary Macro	$ 10.0	7.4%		
EMSO Saguaro	Discretionary Macro	$ 10.0	7.4%		
Relative Value Hedge Funds		**$ 26.0**	**19.1%**	**20.0%**	**- 0.9%**
BlackRock 32 Capital	Quantitative Market Neutral	$ 5.5	4.0%		
Renaissance RIDGE	Quantitative Market Neutral	$ 9.8	7.2%		
Fir Tree	Multi-Strategy	$ 0.4	0.3%		
Pine River	Multi-Strategy	$ 0.1	0.0%		
Black Diamond Arbitrage	Event/Merger Arbitrage	$ 10.2	7.5%		
Total Hedge Fund Portfolio		**$135.9**	**100.0%**		

*Totals may not add due to rounding.

Direct Hedge Fund Performance Summary

As of December 31, 2018

	Quarter	Fiscal YTD	1 Year	3 Years	5 Years	Since Invested	2017	2016	2015	2014	2013	2012	Inception Period
Total Portfolio													
Hedge Fund Composite	-5.1	-3.8	-1.4	2.2	1.5	2.3	7.2	1.0	-1.6	2.2	-	-	5y 8m
HFRI Fund of Funds Composite Index	-5.0	-4.8	-4.1	1.3	1.4	2.0	7.8	0.5	-0.3	3.4	9.0	4.8	
El Camino HF Composite Benchmark	-5.4	-4.9	-4.0	3.3	2.0	2.6	7.7	6.7	-2.1	2.2	9.9	6.6	
Equity Long/Short													
Equity HF Composite	-8.2	-6.1	-3.7	-0.2	0.2	1.6	12.1	-8.0	2.0	-0.4	-	-	5y 8m
HFRI Equity Hedge (Total) Index	-8.3	-8.0	-7.0	3.6	2.3	3.5	13.3	5.5	-1.0	1.8	14.3	7.4	
Bloom Tree Offshore Fund, Ltd.	-1.4	5.3	0.5	1.7	2.8	3.4	8.6	-3.8	6.3	3.0	12.8	13.7	4y 9m
HFRI Equity Hedge (Total) Index	-8.3	-8.0	-7.0	3.6	2.3	2.2	13.3	5.5	-1.0	1.8	14.3	7.4	
CapeView Azri Fund Limited	-3.5	-4.3	0.6	-0.2	2.7	3.4	7.6	-8.3	9.8	4.6	11.4	5.8	5y 6m
HFRI Equity Hedge (Total) Index	-8.3	-8.0	-7.0	3.6	2.3	3.7	13.3	5.5	-1.0	1.8	14.3	7.4	
CapeView Azri 2X Fund	-7.8	-9.5	-0.4	-0.9	5.4	6.9	16.2	-15.9	21.6	9.8	24.4	12.7	5y 6m
HFRI Equity Hedge (Total) Index	-8.3	-8.0	-7.0	3.6	2.3	3.7	13.3	5.5	-1.0	1.8	14.3	7.4	
Indus Japan Fund Ltd.	-19.8	-19.6	-20.1	-3.5	-0.5	0.2	21.6	-7.5	1.8	6.3	45.0	8.1	5y 1m
HFRI Equity Hedge (Total) Index	-8.3	-8.0	-7.0	3.6	2.3	2.6	13.3	5.5	-1.0	1.8	14.3	7.4	
Marshall Wace Eureka Fund Class B2	-5.7	-5.4	-0.2	4.2	6.5	3.4	12.0	1.3	11.7	8.1	21.1	7.0	1y 5m
HFRI Equity Hedge (Total) Index	-8.3	-8.0	-7.0	3.6	2.3	-1.3	13.3	5.5	-1.0	1.8	14.3	7.4	

Returns are expressed as percentages. Returns for periods greater than one year are annualized. From May 1, 2013, results shown are El Camino Hedge Fund Portfolio returns. Returns for CapeView Azri 2x Fund prior to October 2010 are those of CapeView Azri Fund Limited; returns for BP Transtrend Diversified Fund, LLC prior to April 2008 are those of the Transtrend Diversified Trend Program Enhanced Risk (USD) Fund.

Direct Hedge Fund Performance Summary

As of December 31, 2018

	Quarter	Fiscal YTD	1 Year	3 Years	5 Years	Since Invested	2017	2016	2015	2014	2013	2012	Inception Period
Credit													
Credit HF Composite	-4.2	-3.5	0.6	8.2	3.6	4.9	9.9	14.7	-8.2	2.8	-	-	5y 8m
HFRI ED: Distressed/Restructuring Index	*-5.8*	*-4.6*	*-1.9*	*6.3*	*1.7*	*2.9*	*6.3*	*15.1*	*-8.1*	*-1.4*	*14.0*	*10.1*	
Chatham Asset High Yield Offshore Fund, Ltd	-0.7	0.7	4.7	13.9	10.5	7.8	13.5	24.3	5.6	5.5	12.5	11.5	1y 5m
HFRI ED: Distressed/Restructuring Index	-5.8	-4.6	-1.9	6.3	1.7	0.2	6.3	15.1	-8.1	-1.4	14.0	10.1	
DK Distressed Opportunities International (Cayman) Ltd.	-5.2	-2.9	2.7	10.9	5.7	7.1	9.5	21.4	-6.2	3.2	21.7	13.5	5y 8m
HFRI ED: Distressed/Restructuring Index	-5.8	-4.6	-1.9	6.3	1.7	2.9	6.3	15.1	-8.1	-1.4	14.0	10.1	
York Credit Opportunities Unit Trust[CE]	-6.7	-7.9	-5.1	3.6	1.1	2.4	12.5	4.1	-7.9	3.4	15.6	18.9	5y 8m
HFRI ED: Distressed/Restructuring Index	-5.8	-4.6	-1.9	6.3	1.7	2.9	6.3	15.1	-8.1	-1.4	14.0	10.1	
Macro													
Macro HF Composite	-5.0	-3.8	-4.0	0.3	1.9	1.0	0.1	5.0	1.0	7.7	-	-	5y 8m
HFRI Macro (Total) Index	-2.2	-2.2	-4.0	-0.3	0.7	0.2	2.2	1.0	-1.3	5.6	-0.4	-0.1	
BP Transtrend Diversified Fund LLC	-10.4	-6.5	-7.2	0.6	3.7	2.4	1.4	8.2	-1.1	18.9	0.6	1.2	5y 8m
HFRI Macro (Total) Index	-2.2	-2.2	-4.0	-0.3	0.7	0.2	2.2	1.0	-1.3	5.6	-0.4	-0.1	
EMSO Saguaro, Ltd.	-1.6	-2.1	-4.6	4.2	4.3	-1.5	7.7	10.2	6.2	2.6	2.7	17.1	1y 5m
HFRI Macro (Total) Index	-2.2	-2.2	-4.0	-0.3	0.7	-1.2	2.2	1.0	-1.3	5.6	-0.4	-0.1	
Moore Macro Managers Fund Ltd.	-5.6	-5.7	-3.3	-0.9	1.1	1.0	0.6	0.0	3.1	5.4	13.4	8.9	4y 9m
HFRI Macro (Total) Index	-2.2	-2.2	-4.0	-0.3	0.7	0.8	2.2	1.0	-1.3	5.6	-0.4	-0.1	
Stone Milliner Macro Fund Inc.[CE]	-2.0	-0.8	1.2	0.1	3.9	0.7	-5.5	4.9	5.7	14.3	11.2	8.1	3y 10m
HFRI Macro (Total) Index	-2.2	-2.2	-4.0	-0.3	0.7	-1.2	2.2	1.0	-1.3	5.6	-0.4	-0.1	

Returns are expressed as percentages. Returns for periods greater than one year are annualized. From May 1, 2013, results shown are El Camino Hedge Fund Portfolio returns. Returns for CapeView Azri 2x Fund prior to October 2010 are those of CapeView Azri Fund Limited; returns for BP Transtrend Diversified Fund, LLC prior to April 2008 are those of the Transtrend Diversified Trend Program Enhanced Risk (USD) Fund.

Direct Hedge Fund Performance Summary

As of December 31, 2018

	Quarter	Fiscal YTD	1 Year	3 Years	5 Years	Since Invested	2017	2016	2015	2014	2013	2012	Inception Period
Relative Value													
Relative Value HF Composite	-0.4	0.6	5.3	3.0	1.3	2.5	4.4	-0.4	-4.0	1.6	-	-	5y 8m
HFRI RV: Multi-Strategy Index	-2.4	-1.8	-0.5	3.3	2.8	3.0	4.1	6.4	0.7	3.4	7.9	8.2	
(BlackRock) The 32 Capital Fund, Ltd.	-7.7	-11.4	-4.5	-3.1	-0.3	-0.2	7.4	-11.4	8.6	-0.3	7.1	8.9	2y 5m
HFRI EH: Equity Market Neutral Index	-1.9	-1.8	-1.0	2.0	2.7	2.1	4.9	2.2	4.3	3.1	6.5	3.0	
HFRI RV: Multi-Strategy Index	-2.4	-1.8	-0.5	3.3	2.8	2.8	4.1	6.4	0.7	3.4	7.9	8.2	
(Carlson) Black Diamond Arbitrage Ltd.	1.7	1.8	6.4	8.0	7.6	2.3	6.8	10.8	10.5	3.9	7.5	2.6	0y 4m
HFRI ED: Merger Arbitrage Index	0.0	0.6	3.3	3.7	3.2	0.4	4.3	3.6	3.3	1.7	4.7	2.8	
HFRI RV: Multi-Strategy Index	-2.4	-1.8	-0.5	3.3	2.8	-2.1	4.1	6.4	0.7	3.4	7.9	8.2	
Renaissance RIDGE	3.1	6.7	10.4	12.0	15.6	7.8	12.4	13.3	25.6	17.0	7.7	5.1	1y 2m
HFRI EH: Equity Market Neutral Index	-1.9	-1.8	-1.0	2.0	2.7	0.0	4.9	2.2	4.3	3.1	6.5	3.0	
HFRI RV: Multi-Strategy Index	-2.4	-1.8	-0.5	3.3	2.8	0.1	4.1	6.4	0.7	3.4	7.9	8.2	

Returns are expressed as percentages. Returns for periods greater than one year are annualized. From May 1, 2013, results shown are El Camino Hedge Fund Portfolio returns. Returns for CapeView Azri 2x Fund prior to October 2010 are those of CapeView Azri Fund Limited; returns for BP Transtrend Diversified Fund, LLC prior to April 2008 are those of the Transtrend Diversified Trend Program Enhanced Risk (USD) Fund.

Appendix

Surplus Cash

Surplus Cash Total Benchmark

Beginning March 2015, the Surplus Cash Total Benchmark consists of 40% Total Equity Benchmark - Surplus, 30% Barclays Capital Aggregate, 10% Short Duration Fixed Income Benchmark - Surplus, and 20% Total Alternatives Benchmark - Surplus. From April 2014 to February 2015, the Surplus Cash Total Benchmark consisted of 30% Total Equity Benchmark - Surplus, 40% Barclays Capital Aggregate, 10% Short Duration Fixed Income Benchmark - Surplus, and 20% Total Alternatives Benchmark - Surplus. From August 2013 to March 2014, the Surplus Cash Total Benchmark consisted of 30% Total Equity Benchmark - Surplus, 40% Barclays Capital Aggregate, 20% Short Duration Fixed Income Benchmark - Surplus, and 10% Total Alternatives Benchmark - Surplus. During July 2013, the Surplus Cash Total Benchmark consisted of 30% Total Equity Benchmark - Surplus, 40% Barclays Capital Aggregate, 21% Short Duration Fixed Income Benchmark - Surplus, and 9% Total Alternatives Benchmark - Surplus. From May 2013 to June 2013, the Surplus Cash Total Benchmark consisted of 30% Total Equity Benchmark - Surplus, 40% Barclays Capital Aggregate, 22% Short Duration Fixed Income Benchmark - Surplus, and 8% HFRI Fund of Funds Composite Index. From November 2012 to April 2013, the Surplus Cash Total Benchmark consists of 30% Total Equity Benchmark - Surplus and 70% Total Fixed Income Benchmark - Surplus. From January 2007 to October 2012, the Surplus Cash Total Benchmark consisted of 15% Total Equity Benchmark - Surplus and 85% Total Fixed Income Benchmark - Surplus. From August 2000 to December 2006, the Surplus Cash Total Benchmark consisted of 2% Total Equity Benchmark - Surplus and 98% Total Fixed Income Benchmark - Surplus. From April 1991 to July 2000, the Surplus Cash Total Benchmark consisted of 100% Total Fixed Income Benchmark - Surplus.

Surplus Cash Total Benchmark X Privates

Beginning March 2015 the Surplus Cash Total Benchmark consists of 42.1% Total Equity Benchmark - Surplus, 31.6% Barclays Capital Aggregate, 10.5% Short Duration Fixed Income Benchmark - Surplus, and 15.8% Total Alternatives Benchmark - Surplus. From April 2014 to February 2015 the Surplus Cash Total Benchmark consisted of 31.6% Total Equity Benchmark - Surplus, 42.1% Barclays Capital Aggregate, 10.5% Short Duration Fixed Income Benchmark - Surplus, and 15.8% Total Alternatives Benchmark - Surplus. From August 2013 to March 2014, the Surplus Cash Total Benchmark consisted of 30% Total Equity Benchmark - Surplus, 40% Barclays Capital Aggregate, 20% Short Duration Fixed Income Benchmark - Surplus, and 10% Total Alternatives Benchmark - Surplus. During July 2013, the Surplus Cash Total Benchmark consisted of 30% Total Equity Benchmark - Surplus, 40% Barclays Capital Aggregate, 21% Short Duration Fixed Income Benchmark - Surplus, and 9% Total Alternatives Benchmark - Surplus. From May 2013 to June 2013, the Surplus Cash Total Benchmark consisted of 30% Total Equity Benchmark - Surplus, 40% Barclays Capital Aggregate, 22% Short Duration Fixed Income Benchmark - Surplus, and 8% HFRI Fund of Funds Composite Index. From November 2012 to April 2013, the Surplus Cash Total Benchmark consists of 30% Total Equity Benchmark - Surplus and 70% Total Fixed Income Benchmark - Surplus. From January 2007 to October 2012, the Surplus Cash Total Benchmark consisted of 15% Total Equity Benchmark - Surplus and 85% Total Fixed Income Benchmark - Surplus. From August 2000 to December 2006, the Surplus Cash Total Benchmark consisted of 2% Total Equity Benchmark - Surplus and 98% Total Fixed Income Benchmark - Surplus. From April 1991 to July 2000, the Surplus Cash Total Benchmark consisted of 100% Total Fixed Income Benchmark - Surplus.

Pre-Pavilion Surplus Cash Total Benchmark

Beginning January 2007, the Pre-Pavilion Surplus Cash Total Benchmark consists of 15% Total Equity Benchmark - Surplus and 85% Total Fixed Income Benchmark - Surplus. From August 2000 to December 2006, the Pre-Pavilion Surplus Cash Total Benchmark consisted of 2% Total Equity Benchmark - Surplus and 98% Total Fixed Income Benchmark - Surplus. From April 1991 to July 2000, the Pre-Pavilion Surplus Cash Total Benchmark consisted of 100% Total Fixed Income Benchmark - Surplus.

Total Equity Benchmark - Surplus

Beginning March 2015, the Total Equity Benchmark - Surplus consists of 50% Large Cap Equity Benchmark, 12.5% Small Cap Equity Benchmark, and 37.5% MSCI AC World ex USA (Net). From November 2012 to February 2015, the Total Equity Benchmark - Surplus consisted of 50% Large Cap Equity Benchmark, 16.67% Small Cap Equity Benchmark, and 33.33% MSCI AC World ex USA (Net). From April 1991 to October 2012, the Total Equity Benchmark - Surplus consisted of 100% Large Cap Equity Benchmark.

Domestic Equity Benchmark - Surplus

Beginning March 2015, the Domestic Equity Benchmark - Surplus consists of 80% Large Cap Equity Benchmark and 20% Small Cap Equity Benchmark. From November 2012 to February 2015, the Domestic Equity Benchmark - Surplus consisted of 75% Large Cap Equity Benchmark and 25% Small Cap Equity Benchmark. From April 1991 to October 2012, the Domestic Equity Benchmark - Surplus consisted of 100% Large Cap Equity Benchmark.

Appendix
Benchmark Descriptions
As of December 31, 2018

Large Cap Equity Benchmark
Beginning November 2012, the Large Cap Equity Benchmark consists of 25% Russell 1000 Value Index, 25% Russell 1000 Growth Index, and 50% S&P 500 Index. From April 1991 to October 2012, the Large Cap Equity Benchmark consisted of 100% Russell 1000 Value Index.

Small Cap Equity Benchmark
Beginning November 2012, the Small Cap Equity Benchmark consists of 50% Russell 2000 Growth Index and 50% Russell 2000 Value Index.

Total Fixed Income Benchmark - Surplus
Beginning March 2015, the Total Fixed Income Benchmark - Surplus consists of 75% Barclays Capital Aggregate and 25% Short Duration Fixed Income Benchmark - Surplus. From April 2014 to February 2015, the Total Fixed Income Benchmark - Surplus consisted of 80% Barclays Capital Aggregate and 20% Short Duration Fixed Income Benchmark - Surplus. From August 2013 to March 2014, the Total Fixed Income Benchmark - Surplus consisted of 66.67% Barclays Capital Aggregate and 33.33% Short Duration Fixed Income Benchmark - Surplus. During July 2013, the Total Fixed Income Benchmark - Surplus consisted of 65.57% Barclays Capital Aggregate and 34.43% Short Duration Fixed Income Benchmark - Surplus. From May 2013 to June 2013, the Total Fixed Income Benchmark - Surplus consisted of 64.52% Barclays Capital Aggregate and 35.48% Short Duration Fixed Income Benchmark - Surplus. From November 2012 to April 2013, the Total Fixed Income Benchmark - Surplus consisted of 57.14% Barclays Capital Aggregate and 42.86% Short Duration Fixed Income Benchmark - Surplus. From January 2007 to October 2012, the Total Fixed Income Benchmark - Surplus consisted of 40% Barclays Capital Aggregate and 60% Short Duration Fixed Income Benchmark - Surplus. From April 1991 to December 2006, the Total Fixed Income Benchmark - Surplus consisted of 100% Short Duration Fixed Income Benchmark - Surplus.

Short Duration Fixed Income Benchmark - Surplus
Beginning in November 2012, the Short Duration Fixed Income Benchmark - Surplus consists of 100% Barclays Capital 1-3 Year Gov't/Credit. From January 2007 to October 2012, the Short Duration Fixed Income Benchmark - Surplus consisted of 66.67% Barclays Capital Intermediate Aggregate and 33.33% Barclays Capital Gov't 1-3 Year. From May 2001 to December 2006, the Short Duration Fixed Income Benchmark - Surplus consisted of 84.69% Barclays Capital Intermediate Aggregate and 15.31% Barclays Capital Gov't 1-3 Year. From April 1991 to April 2001, the Short Duration Fixed Income Benchmark - Surplus consisted of 100% Barclays Capital Gov't 1-3 Year.

Total Alternatives Benchmark - Surplus
Beginning April 2014 the Total Alternatives Benchmark - Surplus consists of 75% HFRI Fund of Funds Composite Index and 25% NCREIF Property Index. From May 2013 to March 2014, the Total Alternatives Benchmark - Surplus consisted of 100% HFRI Fund of Funds Composite Index.

Appendix
Benchmark Descriptions
As of December 31, 2018

Cash Balance Plan

Cash Balance Plan Total Benchmark
Beginning July 2017, the Cash Balance Plan Total Benchmark consists of 50% Total Equity Benchmark, 30% Total Fixed Income Benchmark, and 20% Alternatives Benchmark. From January 2013 to June 2017, the Cash Balance Plan Total Benchmark consisted of 50% Total Equity Benchmark, 35% Total Fixed Income Benchmark, and 15% Alternatives Benchmark. From November 2012 to December 2012, the Cash Balance Plan Total Benchmark consisted of 50% Total Equity Benchmark, 45% Total Fixed Income Benchmark, and 5% Alternatives Benchmark. From October 1990 to October 2012, the Cash Balance Plan Total Benchmark consisted of 60% Russell 1000 Value Index and 40% Barclays Capital Aggregate.

Cash Balance Plan Total X Privates Benchmark
Beginning July 2017, the Cash Balance Plan Total Benchmark X Privates consists of 33.68% Domestic Equity Benchmark, 18.95% MSCI AC World ex USA Net, 26.31% Barclays Capital Aggregate, 5.27% Short Duration Fixed Income Benchmark, and 15.79% HFRI FOF Composite. From January 2013 to June 2017, the Cash Balance Plan Total Benchmark X Privates consisted of 33.68% Domestic Equity Benchmark, 18.95% MSCI AC World ex USA Net, 26.31% Barclays Capital Aggregate, 10.53% Short Duration Fixed Income Benchmark, and 10.53% HFRI FOF Composite. From November 2012 to December 2012, the Cash Balance Plan Total Benchmark X Privates consisted of 50% Total Equity Benchmark, 45% Total Fixed Income Benchmark, and 5% HFRI FOF Composite. From October 1990 to October 2012, the Cash Balance Plan Total Benchmark X Privates consisted of 60% Russell 1000 Value Index and 40% Barclays Capital Aggregate.

Pre-Pavilion Cash Balance Plan Total Benchmark
Beginning October 1990, the Cash Balance Plan Total Benchmark consists of 60% Russell 1000 Value Index and 40% Barclays Capital Aggregate.

Total Equity Benchmark
Beginning November 2012, the Total Equity Benchmark consists of 54% Large Cap Equity Benchmark, 10% Small Cap Equity Benchmark, and 36% MSCI AC World ex USA (Net). From October 1990 to October 2012, the Total Equity Benchmark consisted of 100% Large Cap Equity Benchmark.

Domestic Equity Benchmark
Beginning November 2012, the Domestic Equity Benchmark consists of 84.38% Large Cap Equity Benchmark and 15.62% Small Cap Equity Benchmark. From October 1990 to October 2012, the Domestic Equity Benchmark consisted of 100% Large Cap Equity Benchmark.

Large Cap Equity Benchmark
Beginning November 2012, the Large Cap Equity Benchmark consists of 25% Russell 1000 Value Index, 25% Russell 1000 Growth Index, and 50% S&P 500 Index. From October 1990 to October 2012, the Large Cap Equity Benchmark consisted of 100% Russell 1000 Value Index.

Small Cap Equity Benchmark
Beginning November 2012, the Small Cap Equity Benchmark consists of 50% Russell 2000 Growth Index and 50% Russell 2000 Value Index.

Total Fixed Income Benchmark
Beginning July 2017, the Total Fixed Income Benchmark consists of 83.3333% Barclays Capital Aggregate and 16.6667% Short Duration Fixed Income Benchmark. From January 2013 to June 2017, the Total Fixed Income Benchmark consisted of 71.43% Barclays Capital Aggregate and 28.57% Short Duration Fixed Income Benchmark. From November 2012 to December 2012, the Total Fixed Income Benchmark consists of 55.56% Barclays Capital Aggregate and 44.44% Short Duration Fixed Income Benchmark. From October 1990 to October 2012, the Total Fixed Income Benchmark consisted of 100% Barclays Aggregate.

Short Duration Fixed Income Benchmark
Beginning November 2012, the Short Duration Fixed Income Benchmark consists of 100% Barclays Capital 1-3 Year Gov't/Credit. From October 1990 to October 2012, the Short Duration Fixed Income Benchmark

Appendix
Benchmark Descriptions
As of December 31, 2018

consisted of 100% 90 Day U.S. Treasury Bills.

Total Alternatives Benchmark

Beginning January 2013, the Alternatives Benchmark consists of 66.67% HFRI Fund of Funds Composite Index and 33.33% NCREIF Property Index. From November 2012 to December 2012, the Alternatives Benchmark consisted of 100% HFRI Fund of Funds Composite Index.

Glossary of Terms for Scorecard

Key Performance Indicator	Definition / Explanation
Investment Performance	
Surplus cash balance (millions) Surplus cash return Cash balance plan balance (millions) Cash balance plan return	Investment performance for the Surplus Cash portfolio trailed the benchmark by 60 bps for the quarter with a -6.2% return. The portfolio has outgained its benchmark by 20 bps per annum since inception (Nov. 1, 2012) with a return of +4.5% annualized. The assets within the Surplus Cash account excluding debt reserves, balance sheet cash and District assets, but including Foundation and Concern assets ended the quarter at $933.3 million, significantly lower than the beginning of the quarter due to poor investment performance. The adjusted fiscal year 2019 Surplus Cash projected balance at fiscal year end 2019 was $886.6 million. The Cash Balance Plan's performance lagged its benchmark by 90 bps for the quarter with a return of -7.9%, but has outperformed its benchmark since inception. The since inception annualized return stands at +6.5%, 70 basis points ahead of its benchmark per year. The assets within the Cash Balance Plan ended the quarter at $249.2 million. The estimated expected amount for fiscal year 2019 is $276.9 million.
403(b) plan balance (millions)	The 403(b) balance fell significantly during the quarter and now stands at $435.2 million, a decrease of $46.5 million or 9.7% from the September 30, 2018 value.
Risk vs. Return	
Surplus cash 3-year Sharpe ratio 3-year return 3-year standard deviation Cash balance 3-year Sharpe ratio 3-year return 3-year standard deviation	The Sharpe ratio is the excess return of an investment over the risk free rate (US Treasuries) generated per unit of risk (standard deviation) taken to obtain that return. The higher the value, the better the risk-adjusted return. It is important to view returns in this context because it takes into account the risk associated with a particular return rather than simply focusing on the absolute level of return. Sharpe ratio = (actual return - risk free rate) / standard deviation The Surplus Cash portfolio's 3-year Sharpe ratio was slightly above that of its benchmark, but significantly higher than the expected Sharpe ratio modeled. This was due primarily to muted volatility over the period in comparison to what was modeled. The Cash Balance Plan's 3-year Sharpe ratio significantly exceeded modeling expectations and was in-line with its benchmark. Both accounts have demonstrated strong risk-adjusted returns since inception.
Asset Allocation	
Surplus cash absolute variances to target Cash balance absolute variances to target	This represents the sum of the absolute differences between the portfolio's allocations to various asset classes and the target benchmark's allocations to those asset classes. The higher the number, the greater the portfolio's allocations deviate from the target benchmark's allocations, indicating a higher possibility for the portfolio's risk and return characteristics to differ from the Board's expectations. The threshold for an alert "yellow" status is set at 10% and the threshold for more severe "red" status is set at 20%. Both portfolios are below the 10% threshold. The Surplus Cash portfolio variance to target is elevated due to transitions within the hedge fund portfolio.
Manager Compliance	
Surplus cash manager flags Cash balance plan manager flags	This section represents how individual investment managers have fared and draws attention to elevated concerns regarding performance and risk-adjusted performance all at the individual manager level. The number of flags are aggregated and a percentage of the total is used to highlight an alert "yellow" status (40% of the flags) and a more severe "red" status (50%). In total there are 60 potential flags for the Surplus Cash account and 68 for the Cash Balance Plan. Currently, both accounts are within the threshold for alert "yellow" status as the 3-year and 5-year period has proven particularly challenging for a handful of the portfolio's managers.

Hedge Fund Strategy Definitions

The **Equity Strategy** is comprised of Equity Long/Short strategies. Equity hedge strategies typically have a directional bias (long or short) and trade in equities and equity-related derivatives. Managers seek to buy undervalued equities with improving fundamentals and short overvalued equities with deteriorating fundamentals.

Trade Example: Long a basket of energy stocks and short a basket of consumer electronics stocks.

The **Credit Strategy** is comprised of Distressed Securities, Credit Long/Short, Emerging Market Debt and Credit Event Driven. Credit strategies typically have a directional bias and involve the purchase of various types of debt, equity, trade claims and fixed income securities. Hedging using various instruments such as Credit Default swaps is frequently employed.

Trade Example: Buying the distressed bonds of a company which has defaulted and participating in the corporate restructuring.

The **Macro Strategy** consists of Global Macro, Managed Futures, Commodities and Currencies. Macro strategies usually have a directional bias (which can be either long or short) and involve the purchase of a variety of securities and/or derivatives related to major markets. Managed futures strategies trade similar instruments but are typically implemented by computerized systems.

Trade Example: Long the US Dollar and short the Japanese Yen.

The **Relative Value Strategy** typically does not display a distinct directional bias. Relative Value encompasses a range of strategies covering different asset classes. Arbitrage strategies focus on capturing movements or anomalies in the price spreads between related or similar instruments. The rationale for Arbitrage trades is the ultimate convergence of the market price relationship to a known, theoretical or equilibrium relationship.

Trade Example: Long the stock of a merger bid target and short the stock of the acquirer.

Statistical Definitions

Risk Statistics

As of December 31, 2018

Statistics		Definition
Alpha	-	A measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. It is a measure of the portfolio's historical performance not explained by movements of the market, or a portfolio's non-systematic return.
Best Quarter	-	The best of rolling 3 months(or 1 quarter) cumulative return.
Beta	-	A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of a portfolio's non-diversifiable or systematic risk.
Consistency	-	The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, th more value a manager has contributed to the product's performance.
Downside Risk	-	A measure similar to standard deviation, but focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative set of returns. The higher the factor, the riskier the product.
Excess Return	-	Arithmetic difference between the managers return and the risk-free return over a specified time period.
Information Ratio	-	Measured by dividing the active rate of return by the tracking error. The higher the Information Ratio, the more value-added contribution by the manager.
Maximum Drawdown	-	The drawdown is defined as the percent retrenchment from a fund's peak value to the fund's valley value. It is in effect from the time the fund's retrenchment begins until a new fund high is reached. The maximum drawdown encompasses both the period from the fund's peak to the fund's valley (length), and the time from the fund's valley to a new fund high (recovery). It measures the largest percentage drawdown that has occurred in any fund's data record.
Return	-	Compounded rate of return for the period.
Sharpe Ratio	-	Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance.
Sortino Ratio	-	A ratio developed by Frank A. Sortino to differentiate between good and bad volatility in the Sharpe ratio. This differentiation of upwards and downwards volatility allows the calculation to provide a risk-adjusted measure of a security or fund's performance without penalizing it for upward price changes.
Standard Deviation	-	A statistical measure of the range of a portfolio's performance, the variability of a return around its average return over a specified time period.
Tracking Error	-	A measure of the standard deviation of a portfolio's performance relative to the performance of an appropriate market benchmark.
Worst Quarter	-	The worst of rolling 3 months(or 1 quarter) cumulative return.

Custom Peer Group Universe

Description

As of December 31, 2018

- ***Custom Non US Diversified All:*** The Custom Non US Diversified All universe is a custom universe that includes the eVestment Alliance Non-US Diversified Equity universe excluding all strategies included in the eVestment Alliance Non-US Diversified Small Cap Equity universe. The eVestment Alliance Non-US Diversified Equity universe is made up of all Non-US Diversified (EAFE and ACWI ex-US) Equity products inclusive of all style, capitalization, and strategy approaches. The eVestment Alliance Non-US Diversified Small Cap Equity universe consists of actively-managed Non-US Diversified (EAFE and ACWI ex-US) Equity products that primarily invest in small capitalization stocks regardless of the style (growth, value or core) focus.
- ***Custom Non US Diversified Core:*** The Custom Non US Diversified Core universe is a custom universe that includes the eVestment Alliance Non-US Diversified Core Equity universe excluding all strategies included in the eVestment Alliance Non-US Diversified Small Cap Equity universe. The eVestment Alliance Non-US Diversified Core Equity universe is made up of all actively-managed Non-US Diversified (EAFE and ACWI ex-US) Equity products that primarily invest in a mixture of growth and value stocks. This universe is inclusive of Non-US Diversified Equity strategies regardless of market capitalization. The eVestment Alliance Non-US Diversified Small Cap Equity universe consists of actively-managed Non-US Diversified (EAFE and ACWI ex-US) Equity products that primarily invest in small capitalization stocks regardless of the style (growth, value or core) focus.
- ***Custom Non US Diversified Growth:*** The Custom Non US Diversified Growth universe is a custom universe that includes the eVestment Alliance Non-US Diversified Growth Equity universe excluding all strategies included in the eVestment Alliance Non-US Diversified Small Cap Equity universe. The eVestment Alliance Non-US Diversified Growth Equity universe is made up of all actively-managed Non-US Diversified (EAFE and ACWI ex-US) Equity products that primarily invest in stocks that are expected to have an above-average capital appreciation rate relative to the market. This universe is inclusive of Non-US Diversified Equity strategies regardless of market capitalization. The eVestment Alliance Non-US Diversified Small Cap Equity universe consists of actively-managed Non-US Diversified (EAFE and ACWI ex-US) Equity products that primarily invest in small capitalization stocks regardless of the style (growth, value or core) focus.
- ***Custom Non US Diversified Value:*** The Custom Non US Diversified Value universe is a custom universe that includes the eVestment Alliance Non-US Diversified Value Equity universe excluding all strategies included in the eVestment Alliance Non-US Diversified Small Cap Equity universe. The eVestment Alliance Non-US Diversified Value Equity universe is made up of all actively-managed Non-US Diversified (EAFE and ACWI ex-US) Equity products that primarily invest in stocks that may be trading at lower prices lower than their fundamental or intrinsic value. This universe is inclusive of Non-US Diversified Equity strategies regardless of market capitalization. The eVestment Alliance Non-US Diversified Small Cap Equity universe consists of actively-managed Non-US Diversified (EAFE and ACWI ex-US) Equity products that primarily invest in small capitalization stocks regardless of the style (growth, value or core) focus.

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Performance Update

El Camino Hospital

January 2019

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PAVILION

Surplus Cash Monthly Update

Composite Asset Allocation & Performance

As of January 31, 2019

	Allocation		Performance(%)								
	Market Value ($)	%	Month	Quarter To Date	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Total Surplus Cash X District	**969,917,276**	**100.0**	**3.9**	**3.9**	**-0.3**	**-1.5**	**6.8**	**4.5**	**6.0**	**5.1**	**6y 3m**
Surplus Cash Total Benchmark			4.1	4.1	0.1	-1.7	6.6	4.6	5.8	4.9	
Pre-Pavilion Surplus Cash Total Benchmark			1.9	1.9	2.4	1.5	3.1	3.0	4.6	3.1	
Total Surplus Cash X District X Privates	**948,343,820**	**97.8**	**4.0**	**4.0**	**-0.3**	**-1.6**	**6.9**	**4.3**	**5.9**	**5.0**	**6y 3m**
Surplus Cash Total Benchmark x Privates			4.2	4.2	0.2	-1.7	6.7	4.6	5.8	5.0	
Total Equity Composite	**388,710,899**	**40.1**	**8.4**	**8.4**	**-2.3**	**-4.7**	**12.6**	**7.5**	**12.4**	**10.3**	**6y 3m**
Total Equity Benchmark - Surplus			8.3	8.3	-2.2	-6.3	12.6	7.6	12.7	10.2	
Domestic Equity Composite	**251,392,239**	**25.9**	**9.0**	**9.0**	**-0.6**	**-0.2**	**14.8**	**9.6**	**14.2**	**13.1**	**6y 3m**
Domestic Equity Benchmark - Surplus			8.8	8.8	-1.2	-2.5	14.3	10.1	14.5	13.0	
Large Cap Equity Composite	206,282,942	21.3	9.1	9.1	0.5	-0.2	14.7	10.3	14.5	13.5	6y 3m
Large Cap Equity Benchmark			8.2	8.2	0.5	-2.3	14.1	10.8	14.7	13.3	
Small Cap Equity Composite	45,109,297	4.7	8.7	8.7	-5.3	0.0	15.5	6.9	-	11.3	6y 3m
Small Cap Equity Benchmark			11.2	11.2	-8.0	-3.5	14.7	7.3	14.5	11.7	
International Equity Composite	**137,318,661**	**14.2**	**7.2**	**7.2**	**-5.3**	**-12.1**	**8.6**	**3.7**	**-**	**4.9**	**6y 3m**
MSCI AC World ex USA (Net)			7.6	7.6	-4.1	-12.6	9.6	3.1	8.3	4.9	

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.

Surplus Cash Monthly Update

Composite Asset Allocation & Performance

As of January 31, 2019

	Allocation		Performance(%)								
	Market Value ($)	%	Month	Quarter To Date	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Total Fixed Income Composite	**421,868,258**	**43.5**	**1.1**	**1.1**	**2.4**	**2.1**	**2.6**	**2.3**	**3.4**	**2.0**	**6y 3m**
Total Fixed Income Benchmark - Surplus			0.9	0.9	2.5	2.3	1.8	2.1	3.1	1.7	
Short Duration Fixed Income Composite	**116,925,154**	**12.1**	**0.5**	**0.5**	**1.8**	**2.1**	**1.4**	**1.1**	**2.3**	**1.0**	**6y 3m**
Short Duration Fixed Income Benchmark - Surplus			0.4	0.4	1.9	2.3	1.2	1.1	2.3	1.0	
Market Duration Fixed Income Composite	**304,943,104**	**31.4**	**1.3**	**1.3**	**2.6**	**2.1**	**3.0**	**2.7**	**4.9**	**2.3**	**6y 3m**
Blmbg. Barc. U.S. Aggregate			1.1	1.1	2.7	2.3	2.0	2.4	3.7	1.9	
Total Alternatives Composite	**159,338,118**	**16.4**	**1.2**	**1.2**	**-2.0**	**-1.8**	**3.7**	**3.3**	**-**	**3.7**	**5y 9m**
Total Alternatives Benchmark - Surplus			1.9	1.9	-1.0	-1.4	4.0	3.7	-	3.9	
Real Estate Composite	**21,573,456**	**2.2**	**0.0**	**0.0**	**0.9**	**4.4**	**5.2**	**10.3**	**-**	**9.4**	**5y 5m**
NCREIF Property Index			0.0	0.0	3.1	6.1	7.0	9.1	7.8	9.3	
Hedge Fund Composite	**137,764,663**	**14.2**	**1.4**	**1.4**	**-2.4**	**-2.9**	**3.4**	**1.8**	**-**	**2.5**	**5y 9m**
HFRI Fund of Funds Composite Index			2.6	2.6	-2.4	-3.9	3.1	2.0	3.3	2.4	

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.

Surplus Cash Monthly Update

Manager Asset Allocation & Performance

As of January 31, 2019

	Allocation		Performance(%)								
	Market Value ($)	%	Month	Quarter To Date	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Large-Cap Equity											
Vanguard S&P 500 Index	122,640,940	12.6	8.0	8.0	0.6	-2.3	14.0	10.9	15.0	13.3	6y 3m
S&P 500			8.0	8.0	0.6	-2.3	14.0	11.0	15.0	13.3	
Sands Large Cap Growth (Touchstone)	43,143,691	4.4	14.7	14.7	0.6	9.4	19.7	10.4	20.4	15.2	6y 3m
Russell 1000 Growth Index			9.0	9.0	0.1	0.2	16.6	13.0	16.9	15.2	
Barrow Hanley Large Cap Value	40,498,311	4.2	6.6	6.6	0.1	-2.6	12.2	8.8	13.4	8.9	18y 6m
Russell 1000 Value Index			7.8	7.8	0.6	-4.8	11.6	8.3	13.4	6.9	
Small-Cap Equity											
Wellington Small Cap Value	22,287,374	2.3	9.9	9.9	-7.4	-5.0	8.8	6.1	14.7	10.0	6y 3m
Russell 2000 Value Index			10.9	10.9	-8.3	-4.5	13.8	6.6	13.3	10.5	
Conestoga Small Cap Growth	22,821,922	2.4	7.6	7.6	-3.5	4.9	20.6	10.8	17.0	18.9	2y 7m
Russell 2000 Growth Index			11.5	11.5	-7.8	-2.6	15.6	7.8	15.7	13.9	
International Equity											
Causeway International Value	46,454,677	4.8	7.2	7.2	-7.5	-15.8	6.1	1.2	9.1	-11.3	0y 9m
MSCI AC World ex USA (Net)			7.6	7.6	-4.1	-12.6	9.6	3.1	8.3	-8.1	
MSCI AC World ex USA Value (net)			7.5	7.5	-2.4	-12.7	10.1	2.0	7.9	-8.4	
Walter Scott Int'l (Dreyfus)	55,214,268	5.7	4.8	4.8	-3.6	-7.3	10.3	5.5	9.1	5.6	6y 3m
MSCI AC World ex USA (Net)			7.6	7.6	-4.1	-12.6	9.6	3.1	8.3	4.9	
MSCI AC World ex USA Growth (Net)			7.6	7.6	-5.8	-12.5	9.1	4.2	8.8	5.8	
Harding Loevner Emerging Markets	35,649,716	3.7	11.4	11.4	-5.3	-15.5	13.5	4.9	10.5	9.4	3y 5m
MSCI Emerging Markets (Net)			8.8	8.8	-0.5	-14.2	14.9	4.8	9.7	10.0	

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.

Surplus Cash Monthly Update

Manager Asset Allocation & Performance

As of January 31, 2019

	Allocation		Performance(%)								
	Market Value ($)	%	Month	Quarter To Date	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Short Duration Fixed Income											
Barrow Hanley Short Fixed	106,450,014	11.0	0.6	0.6	1.9	2.1	1.4	1.1	1.5	4.6	27y 10m
Blmbg. Barc. 1-3 Year Gov/Credit			0.4	0.4	1.9	2.3	1.2	1.1	1.5	4.1	
Cash Composite	10,475,140	1.1	0.2	0.2	0.7	0.6	0.5	0.4	-	0.2	6y 3m
90 Day U.S. Treasury Bill			0.2	0.2	1.3	2.0	1.1	0.6	0.4	0.5	
Market Duration Fixed Income											
Dodge & Cox Fixed	151,615,798	15.6	1.5	1.5	2.6	1.8	3.9	3.1	5.2	2.8	6y 3m
Blmbg. Barc. U.S. Aggregate			1.1	1.1	2.7	2.3	2.0	2.4	3.7	1.9	
MetWest Fixed	139,976,619	14.4	1.1	1.1	2.7	2.3	2.2	2.4	5.6	2.0	6y 3m
Blmbg. Barc. U.S. Aggregate			1.1	1.1	2.7	2.3	2.0	2.4	3.7	1.9	
Met West Total Return Bond Plan - CONCERN	13,350,687	1.4	1.2	1.2	2.8	2.5	2.1	2.5	-	2.1	3y
Blmbg. Barc. U.S. Aggregate			1.1	1.1	2.7	2.3	2.0	2.4	3.7	2.0	
Real Estate											
Oaktree Real Estate Opportunities Fund VI	6,851,789	0.7	0.0	0.0	0.2	4.6	3.8	8.7	-	7.8	5y 5m
NCREIF Property Index			0.0	0.0	3.1	6.1	7.0	9.1	7.8	9.3	
Walton Street Real Estate Fund VII, L.P.	7,314,719	0.8	0.0	0.0	-0.1	1.7	7.1	13.6	-	13.6	5y 3m
NCREIF Property Index			0.0	0.0	3.1	6.1	7.0	9.1	7.8	9.2	
Walton Street Real Estate Fund VIII, L.P.	7,406,948	0.8	0.0	0.0	2.0	6.7	-	-	-	12.7	1y 8m
NCREIF Property Index			0.0	0.0	3.1	6.1	7.0	9.1	7.8	6.5	
Hedge Funds											
Hedge Fund Composite	137,764,663	14.2	1.4	1.4	-2.4	-2.9	3.4	1.8	-	2.5	5y 9m
HFRI Fund of Funds Composite Index			2.6	2.6	-2.4	-3.9	3.1	2.0	3.3	2.4	
Total Plan											
Total Surplus Cash X District	969,917,276	100.0	3.9	3.9	-0.3	-1.5	6.8	4.5	6.0	5.1	6y 3m
Total Surplus Cash Benchmark			4.1	4.1	0.1	-1.7	6.6	4.6	5.8	4.9	
Pre-Pavilion Total Surplus Cash Benchmark			1.9	1.9	2.4	1.5	3.1	3.0	4.6	3.1	

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.

Surplus Cash Monthly Update

Hedge Fund Manager Asset Allocation & Performance

As of January 31, 2019

	Allocation		Performance(%)								
	Market Value ($)	%	Month	Quarter To Date	Fiscal YTD	Year To Date	1 Year	3 Years	5 Years	Since Inception	Inception Period
Total Portfolio											
Hedge Fund Composite	137,764,663	100.0	1.4	1.4	-2.4	1.4	-2.9	3.4	1.8	2.5	5y 9m
HFRI Fund of Funds Composite Index			2.6	2.6	-2.4	2.6	-3.9	3.1	2.0	2.4	
Equity Long/Short											
Equity HF Composite	40,469,209	29.4	3.6	3.6	-2.8	3.6	-4.3	1.9	0.9	2.2	5y 9m
HFRI Equity Hedge (Total) Index			5.5	5.5	-3.0	5.5	-4.6	7.1	3.6	4.4	
Bloom Tree Offshore Fund Ltd.	10,693,421	7.8	4.6	4.6	10.1	4.6	-0.5	5.2	4.5	4.3	4y 10m
HFRI Equity Hedge (Total) Index			5.5	5.5	-3.0	5.5	-4.6	7.1	3.6	3.3	
CapeView Azri Fund Limited	6,214,098	4.5	0.7	0.7	-3.6	0.7	-2.3	1.2	2.7	3.5	5y 7m
HFRI Equity Hedge (Total) Index			5.5	5.5	-3.0	5.5	-4.6	7.1	3.6	4.6	
CapeView Azri 2X Fund	3,662,787	2.7	1.6	1.6	-8.1	1.6	-6.2	2.1	5.5	7.1	5y 7m
HFRI Equity Hedge (Total) Index			5.5	5.5	-3.0	5.5	-4.6	7.1	3.6	4.6	
Indus Japan Fund Ltd.	9,000,782	6.5	8.0	8.0	-13.2	8.0	-14.6	1.1	1.8	1.6	5y 2m
HFRI Equity Hedge (Total) Index			5.5	5.5	-3.0	5.5	-4.6	7.1	3.6	3.6	
Marshall Wace Eureka Fund Class B2	9,805,154	7.1	1.6	1.6	-3.9	1.6	-2.3	5.1	6.8	4.3	1y 6m
HFRI Equity Hedge (Total) Index			5.5	5.5	-3.0	5.5	-4.6	7.1	3.6	2.3	
Tiger Eye Fund, Ltd.[CE]	377,330	0.3									
Luxor Capital Partners Offshore, Ltd.[CE]	715,637	0.5									

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.

Surplus Cash Monthly Update

Hedge Fund Manager Asset Allocation & Performance

As of January 31, 2019

	Allocation		Performance(%)								
	Market Value ($)	%	Month	Quarter To Date	Fiscal YTD	Year To Date	1 Year	3 Years	5 Years	Since Inception	Inception Period
Credit											
Credit HF Composite	31,096,319	22.6	0.6	0.6	-3.0	0.6	-0.7	9.3	3.4	4.9	5y 9m
HFRI ED: Distressed/Restructuring Index			2.8	2.8	-2.0	2.8	-0.4	8.4	2.2	3.3	
Chatham Asset High Yield Offshore Fund, Ltd	10,364,377	7.5	1.3	1.3	1.9	1.3	5.0	14.4	10.7	8.3	1y 6m
HFRI ED: Distressed/Restructuring Index			2.8	2.8	-2.0	2.8	-0.4	8.4	2.2	2.1	
DK Distressed Opportunities International (Cayman) Ltd.[CE]	10,791,387	7.8	2.2	2.2	-0.8	2.2	3.0	12.2	5.9	7.4	5y 9m
HFRI ED: Distressed/Restructuring Index			2.8	2.8	-2.0	2.8	-0.4	8.4	2.2	3.3	
York Credit Opportunities Unit Trust[CE]	9,940,554	7.2	-1.9	-1.9	-9.6	-1.9	-9.4	4.1	0.3	2.0	5y 9m
HFRI ED: Distressed/Restructuring Index			2.8	2.8	-2.0	2.8	-0.4	8.4	2.2	3.3	
Macro											
Macro HF Composite	39,752,990	28.9	-0.3	-0.3	-4.1	-0.3	-7.2	-0.2	2.3	0.9	5y 9m
HFRI Macro (Total) Index			-0.3	-0.3	-2.6	-0.3	-6.9	-0.7	0.8	0.1	
BP Transtrend Diversified Fund LLC[CE]	9,262,825	6.7	-5.8	-5.8	-12.0	-5.8	-16.7	-3.0	3.3	1.3	5y 9m
HFRI Macro (Total) Index			-0.3	-0.3	-2.6	-0.3	-6.9	-0.7	0.8	0.1	
EMSO Saguaro, Ltd.	10,248,144	7.4	2.6	2.6	0.5	2.6	-3.0	5.3	5.1	0.3	1y 6m
HFRI Macro (Total) Index			-0.3	-0.3	-2.6	-0.3	-6.9	-0.7	0.8	-1.4	
Moore Macro Managers Fund[CE]	10,191,400	7.4	1.3	1.3	-4.5	1.3	-6.0	0.1	1.4	1.2	4y 10m
HFRI Macro (Total) Index			-0.3	-0.3	-2.6	-0.3	-6.9	-0.7	0.8	0.7	
Stone Milliner Macro Fund Inc.[CE]	10,050,621	7.3	0.6	0.6	-0.2	0.6	-1.0	0.2	3.7	0.9	3y 11m
HFRI Macro (Total) Index			-0.3	-0.3	-2.6	-0.3	-6.9	-0.7	0.8	-1.3	

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.

Surplus Cash Monthly Update

Hedge Fund Manager Asset Allocation & Performance

As of January 31, 2019

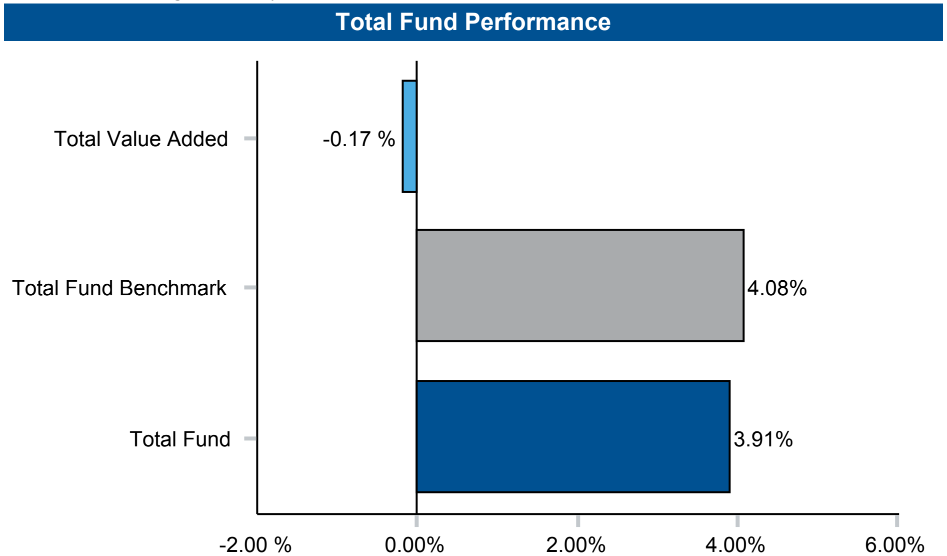
	Allocation		Performance(%)								
	Market Value ($)	%	Month	Quarter To Date	Fiscal YTD	Year To Date	1 Year	3 Years	5 Years	Since Inception	Inception Period
Relative Value											
Relative Value HF Composite	26,446,145	19.2	1.7	1.7	2.4	1.7	6.3	5.0	1.8	2.8	5y 9m
HFRI RV: Multi-Strategy Index			2.4	2.4	0.6	2.4	0.8	4.5	3.2	3.4	
Blackrock The 32 Capital Fund, Ltd.[CE]	5,788,553	4.2	5.6	5.6	-6.4	5.6	-1.7	-0.4	0.8	2.1	2y 6m
HFRI EH: Equity Market Neutral Index			0.7	0.7	-1.1	0.7	-1.6	2.2	2.8	2.3	
HFRI RV: Multi-Strategy Index			2.4	2.4	0.6	2.4	0.8	4.5	3.2	3.7	
Carlson Black Diamond Arbitrage Ltd.[CE]	10,299,808	7.5	0.5	0.5	2.4	0.5	5.7	7.7	7.6	2.8	0y 5m
HFRI ED: Merger Arbitrage Index			1.4	1.4	1.9	1.4	3.6	4.3	3.5	1.7	
HFRI RV: Multi-Strategy Index			2.4	2.4	0.6	2.4	0.8	4.5	3.2	0.2	
Renaissance RIDGE	9,910,990	7.2	0.9	0.9	7.7	0.9	11.8	9.3	16.5	8.0	1y 3m
HFRI EH: Equity Market Neutral Index			0.7	0.7	-1.1	0.7	-1.6	2.2	2.8	0.5	
HFRI RV: Multi-Strategy Index			2.4	2.4	0.6	2.4	0.8	4.5	3.2	2.0	
Fir Tree International Value Fund (Non-US), L.P.[CE]	381,421	0.3									
Pine River Fund Ltd.[CE]	65,374	0.0									

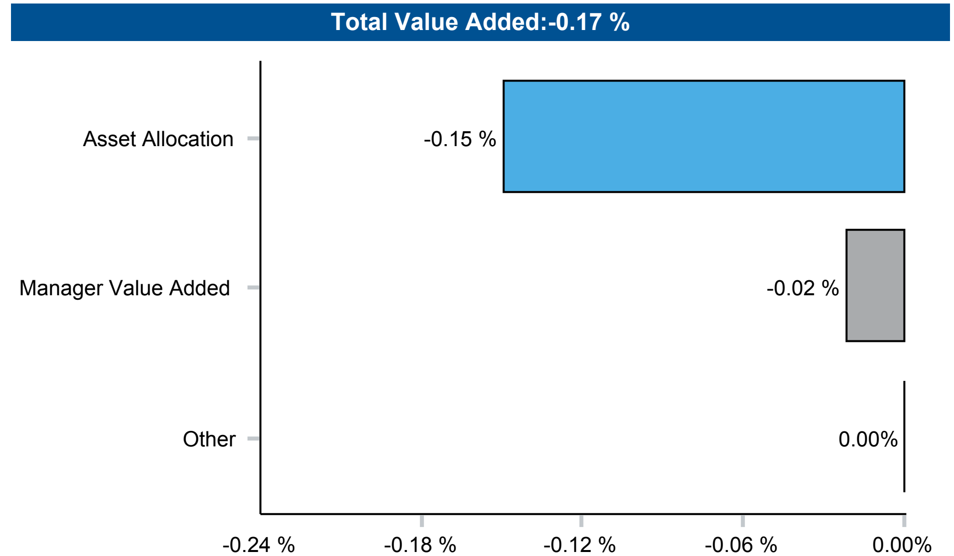
Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.

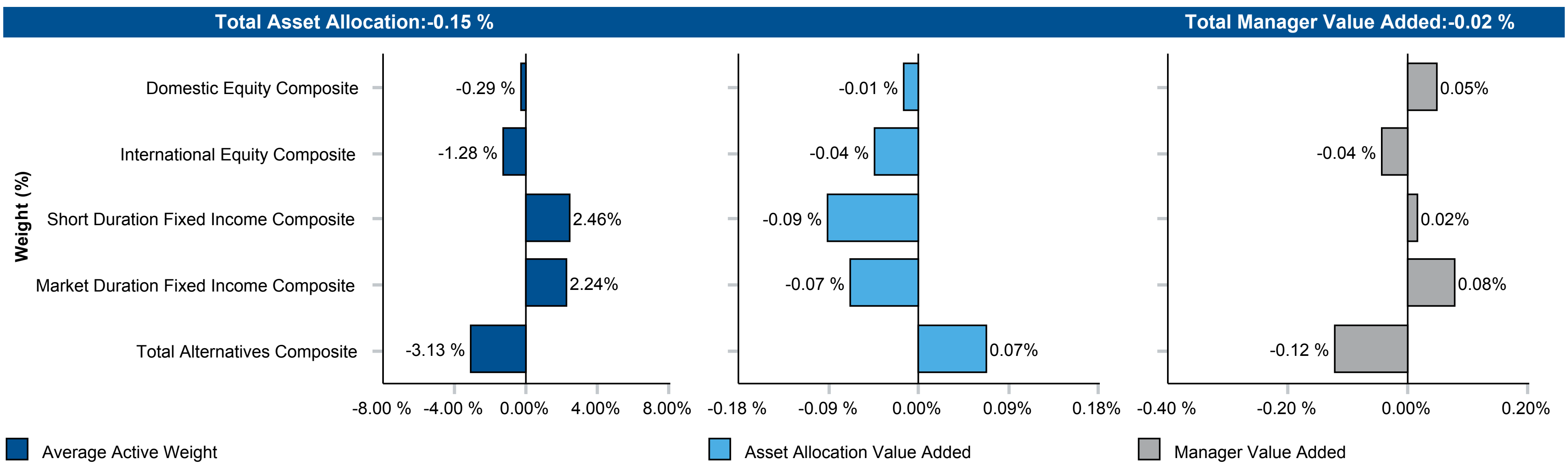
Surplus Cash Monthly Update

Total Surplus Cash ex District Attribution

1 Month Ending January 31, 2019



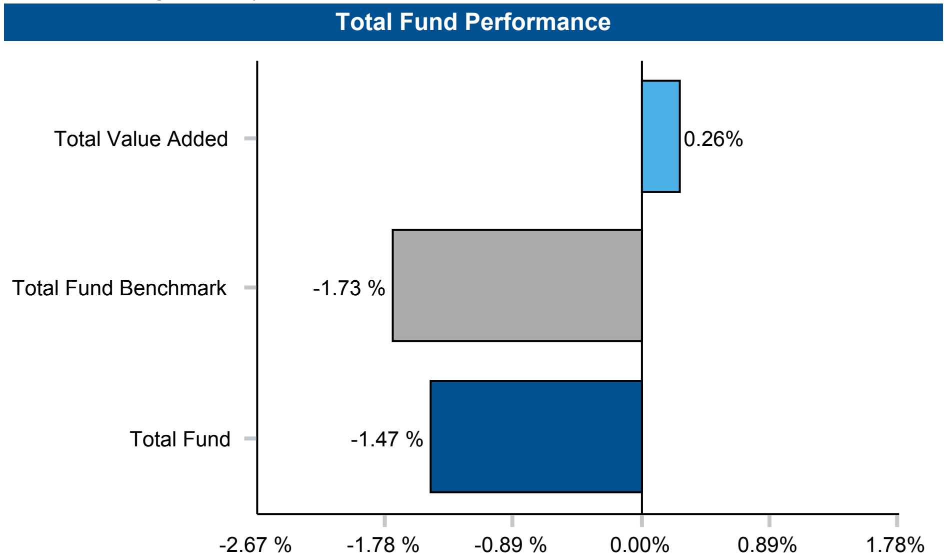


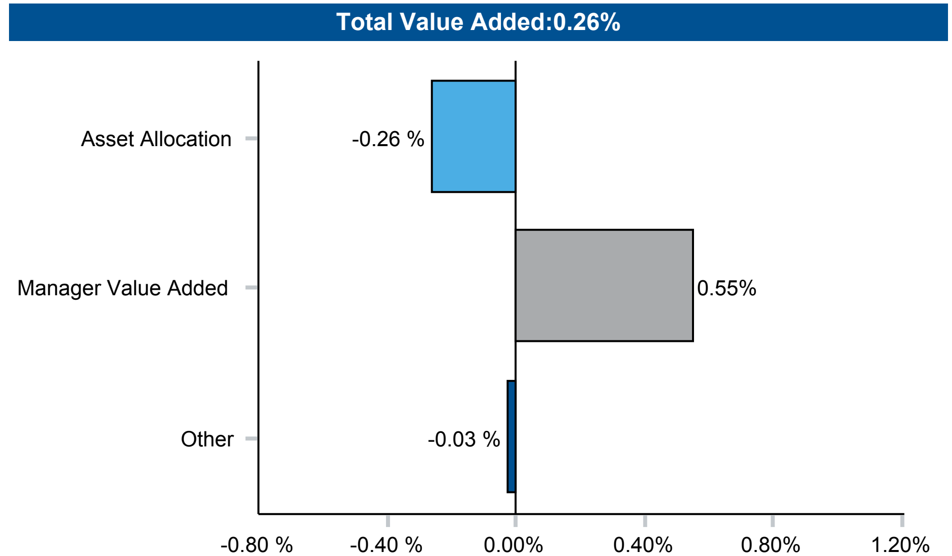


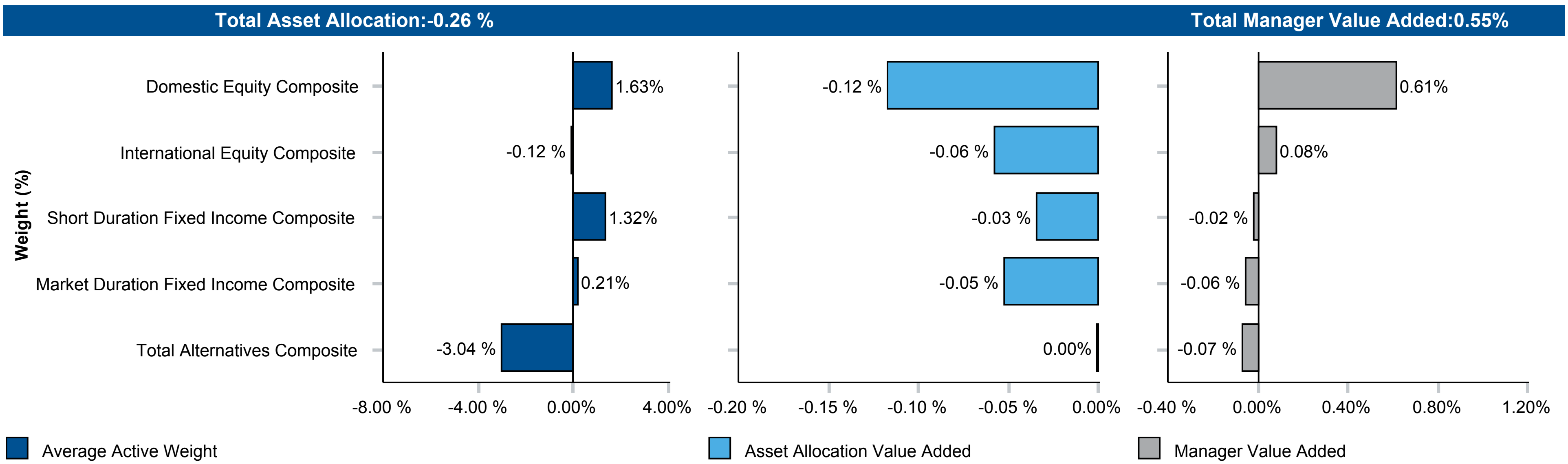
Surplus Cash Monthly Update

Total Surplus Cash ex District Attribution

1 Year Ending January 31, 2019



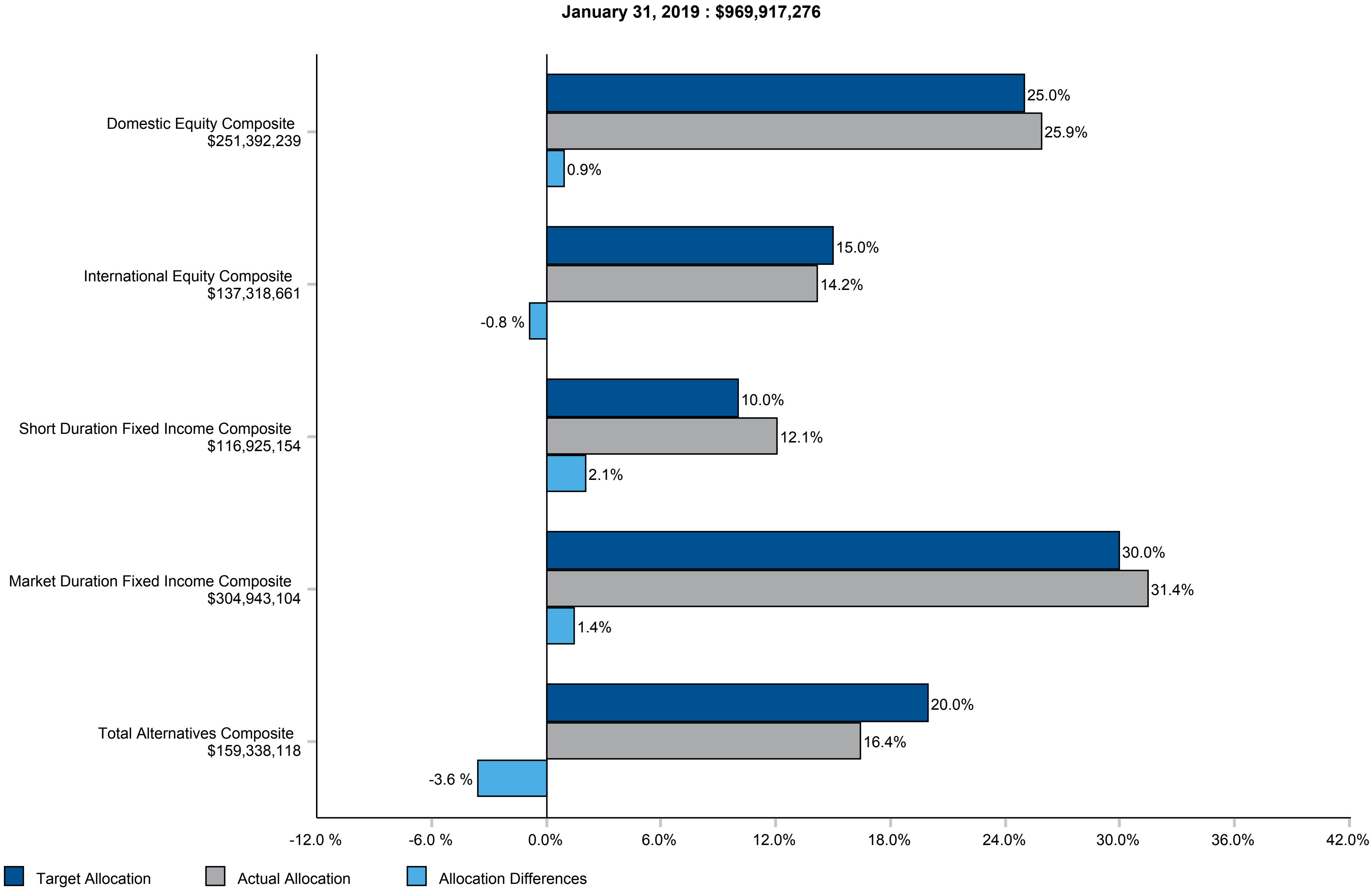




Surplus Cash Monthly Update

Total Surplus Cash ex District vs. Surplus Cash ex District Target Allocation

As of January 31, 2019



Cash Balance Plan Monthly Update

Composite Asset Allocation & Performance

As of January 31, 2019

	Allocation		Performance(%)								
	Market Value ($)	%	Month	Quarter To Date	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Total Cash Balance Plan	**263,782,041**	**100.0**	**4.9**	**4.9**	**-0.7**	**-1.5**	**8.2**	**5.8**	**10.2**	**7.2**	**6y 3m**
Total Cash Balance Plan Benchmark			4.8	4.8	-0.1	-2.3	7.7	5.4	9.0	6.5	
Pre-Pavilion Total Cash Balance Plan Benchmark			5.1	5.1	1.7	-1.8	7.8	6.1	9.7	7.6	
Total Cash Balance Plan X Private Structures	**249,671,122**	**94.7**	**5.2**	**5.2**	**-0.8**	**-1.8**	**8.4**	**5.5**	**10.0**	**7.0**	**6y 3m**
Cash Balance Plan Total X Privates Benchmark			5.1	5.1	-0.4	-2.9	7.6	5.2	8.9	6.3	
Total Equity Composite	**131,594,795**	**49.9**	**8.3**	**8.3**	**-2.1**	**-3.8**	**12.7**	**7.6**	**13.4**	**10.3**	**6y 3m**
Total Equity Benchmark			8.3	8.3	-2.0	-6.1	12.6	7.7	12.7	10.2	
Domestic Equity Composite	**86,105,655**	**32.6**	**9.2**	**9.2**	**-0.5**	**0.7**	**15.2**	**9.9**	**15.3**	**13.3**	**6y 3m**
Domestic Equity Benchmark			8.7	8.7	-0.9	-2.4	14.2	10.3	14.6	13.1	
Large Cap Equity Composite	72,611,243	27.5	9.3	9.3	0.5	0.8	15.1	10.5	15.5	13.6	6y 3m
Large Cap Equity Benchmark			8.2	8.2	0.5	-2.3	14.1	10.8	14.7	13.3	
Small Cap Equity Composite	13,494,412	5.1	8.8	8.8	-5.3	0.1	15.4	6.9	-	11.3	6y 3m
Small Cap Equity Benchmark			11.2	11.2	-8.0	-3.5	14.7	7.3	14.5	11.7	
International Equity Composite	**45,489,140**	**17.2**	**6.6**	**6.6**	**-5.4**	**-11.8**	**8.2**	**3.4**	**-**	**4.8**	**6y 3m**
MSCI AC World ex USA (Net)			7.6	7.6	-4.1	-12.6	9.6	3.1	8.3	4.9	

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.

Cash Balance Plan Monthly Update

Composite Asset Allocation & Performance

As of January 31, 2019

	Allocation		Performance(%)								
	Market Value ($)	%	Month	Quarter To Date	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Total Fixed Income Composite	**82,319,700**	**31.2**	**1.2**	**1.2**	**2.6**	**2.1**	**2.7**	**2.4**	**5.1**	**2.2**	**6y 3m**
Total Fixed Income Benchmark			1.0	1.0	2.6	2.3	1.7	2.1	3.5	1.6	
Short Duration Fixed Income Composite	**12,377,016**	**4.7**	**0.5**	**0.5**	**1.8**	**2.2**	**1.5**	**1.1**	**-**	**1.1**	**6y 3m**
Short Duration Fixed Income Benchmark			0.4	0.4	1.9	2.3	1.2	1.1	0.7	1.0	
Market Duration Fixed Income Composite	**69,942,685**	**26.5**	**1.3**	**1.3**	**2.7**	**2.0**	**2.9**	**2.7**	**5.3**	**2.5**	**6y 3m**
Blmbg. Barc. U.S. Aggregate			1.1	1.1	2.7	2.3	2.0	2.4	3.7	1.9	
Total Alternatives Composite	**49,867,546**	**18.9**	**2.3**	**2.3**	**-2.3**	**-0.9**	**4.4**	**6.3**	**-**	**7.1**	**6y 3m**
Total Alternatives Benchmark			1.7	1.7	-0.6	-0.6	4.4	4.3	-	5.3	
Hedge Fund of Fund Composite	**35,756,627**	**13.6**	**3.2**	**3.2**	**-3.6**	**-3.3**	**4.1**	**4.2**	**-**	**5.8**	**6y 3m**
HFRI Fund of Funds Composite Index			2.6	2.6	-2.4	-3.9	3.1	2.0	3.3	3.2	
Real Estate Composite	**14,110,919**	**5.3**	**0.0**	**0.0**	**1.0**	**4.6**	**5.2**	**10.5**	**-**	**9.4**	**6y 1m**
NCREIF Property Index			0.0	0.0	3.1	6.1	7.0	9.1	7.8	9.5	

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.

Cash Balance Plan Monthly Update

Manager Asset Allocation & Performance

As of January 31, 2019

	Allocation		Performance(%)								
	Market Value ($)	%	Month	Quarter To Date	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Large-Cap Equity											
Vanguard Institutional Index Fund	34,701,340	13.2	8.0	8.0	0.6	-2.3	14.0	10.9	15.0	13.3	6y 3m
S&P 500			8.0	8.0	0.6	-2.3	14.0	11.0	15.0	13.3	
Sands Large Cap Growth (Touchstone)	18,942,201	7.2	14.7	14.7	0.6	9.4	19.7	10.4	20.4	15.2	6y 3m
Russell 1000 Growth Index			9.0	9.0	0.1	0.2	16.6	13.0	16.9	15.2	
Barrow Hanley Large Cap Value	18,967,701	7.2	6.7	6.7	0.2	-2.3	12.5	9.1	13.6	12.2	6y 3m
Russell 1000 Value Index			7.8	7.8	0.6	-4.8	11.6	8.3	13.4	11.2	
Small-Cap Equity											
Wellington Small Cap Value	6,911,788	2.6	9.8	9.8	-7.5	-5.1	8.6	6.1	14.7	10.0	6y 3m
Russell 2000 Value Index			10.9	10.9	-8.3	-4.5	13.8	6.6	13.3	10.5	
Conestoga Small Cap Growth	6,582,624	2.5	7.6	7.6	-3.5	4.9	20.6	10.8	17.0	18.9	2y 7m
Russell 2000 Growth Index			11.5	11.5	-7.8	-2.6	15.6	7.8	15.7	13.9	
International Equity											
Causeway International Value	17,890,853	6.8	7.2	7.2	-7.5	-15.8	6.1	1.2	9.1	-11.3	0y 9m
MSCI AC World ex USA (Net)			7.6	7.6	-4.1	-12.6	9.6	3.1	8.3	-8.1	
MSCI AC World ex USA Value (net)			7.5	7.5	-2.4	-12.7	10.1	2.0	7.9	-8.4	
Walter Scott Int'l (Dreyfus)	21,123,069	8.0	4.8	4.8	-3.6	-7.3	10.3	5.5	9.1	5.6	6y 3m
MSCI AC World ex USA (Net)			7.6	7.6	-4.1	-12.6	9.6	3.1	8.3	4.9	
MSCI AC World ex USA Growth (Net)			7.6	7.6	-5.8	-12.5	9.1	4.2	8.8	5.8	
Harding Loevner Inst. Emerging Markets I	6,475,217	2.5	11.4	11.4	-5.3	-15.5	13.5	4.9	10.5	7.5	2y 3m
MSCI Emerging Markets (Net)			8.8	8.8	-0.5	-14.2	14.9	4.8	9.7	9.2	

Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.

Cash Balance Plan Monthly Update

Manager Asset Allocation & Performance

As of January 31, 2019

	Allocation		Performance(%)								
	Market Value ($)	%	Month	Quarter To Date	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Period
Short Duration Fixed Income											
Barrow Hanley Short Fixed	11,268,557	4.3	0.6	0.6	1.9	2.2	1.2	1.0	1.4	0.9	6y 3m
Blmbg. Barc. 1-3 Year Gov/Credit			0.4	0.4	1.9	2.3	1.2	1.1	1.5	1.0	
Cash Composite	1,108,459	0.4	0.0	0.0	0.9	1.6	2.2	2.4	-	1.9	6y 3m
90 Day U.S. Treasury Bill			0.2	0.2	1.3	2.0	1.1	0.6	0.4	0.5	
Market Duration Fixed Income											
Dodge & Cox Income Fund	34,880,215	13.2	1.5	1.5	2.5	1.6	3.7	2.9	5.1	6.6	30y 1m
Blmbg. Barc. U.S. Aggregate			1.1	1.1	2.7	2.3	2.0	2.4	3.7	6.1	
Met West Total Return Fund Pl	35,062,469	13.3	1.2	1.2	2.8	2.5	2.0	2.4	5.9	2.4	6y 3m
Blmbg. Barc. U.S. Aggregate			1.1	1.1	2.7	2.3	2.0	2.4	3.7	1.9	
Hedge Fund of Funds											
Lighthouse Diversified[CE]	18,223,455	6.9	1.6	1.6	-1.9	-1.9	2.7	3.0	5.4	4.6	6y 3m
HFRI Fund of Funds Composite Index			2.6	2.6	-2.4	-3.9	3.1	2.0	3.3	3.2	
Pointer Offshore LTD	17,533,172	6.6	4.9	4.9	-5.4	-4.7	5.7	5.7	7.7	7.1	6y 1m
HFRI Fund of Funds Composite Index			2.6	2.6	-2.4	-3.9	3.1	2.0	3.3	3.0	
Real Estate											
Oaktree RE Opportunities Fund VI	4,026,259	1.5	0.0	0.0	0.2	6.1	4.0	9.2	-	8.4	6y
NCREIF Property Index			0.0	0.0	3.1	6.1	7.0	9.1	7.8	9.4	
Walton Street Real Estate Fund VII, L.P.	4,387,008	1.7	0.0	0.0	0.0	1.9	7.2	13.5	-	13.0	5y 7m
NCREIF Property Index			0.0	0.0	3.1	6.1	7.0	9.1	7.8	9.3	
Walton Street Real Estate Fund VIII, L.P.	5,697,652	2.2	0.0	0.0	2.0	6.7	-	-	-	12.7	1y 8m
NCREIF Property Index			0.0	0.0	3.1	6.1	7.0	9.1	7.8	6.5	
Total Plan											
Total Cash Balance Plan	263,782,041	100.0	4.9	4.9	-0.7	-1.5	8.2	5.8	10.2	7.2	6y 3m
Total Cash Balance Plan Benchmark			4.8	4.8	-0.1	-2.3	7.7	5.4	9.0	6.5	
Pre-Pavilion Total Cash Balance Plan Benchmark			5.1	5.1	1.7	-1.8	7.8	6.1	9.7	7.6	

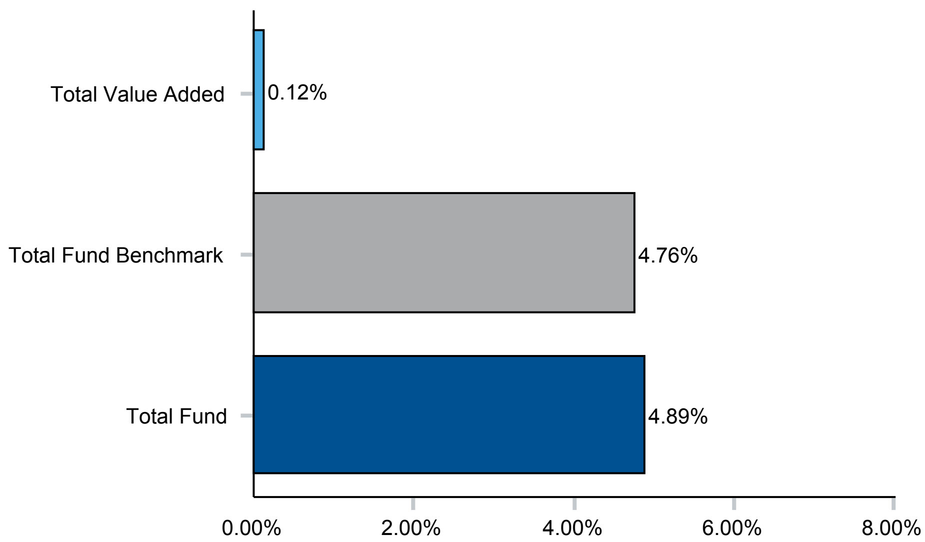
Returns are expressed as percentages and are net of investment management fees. Returns for periods greater than one year are annualized.

Cash Balance Plan Monthly Update

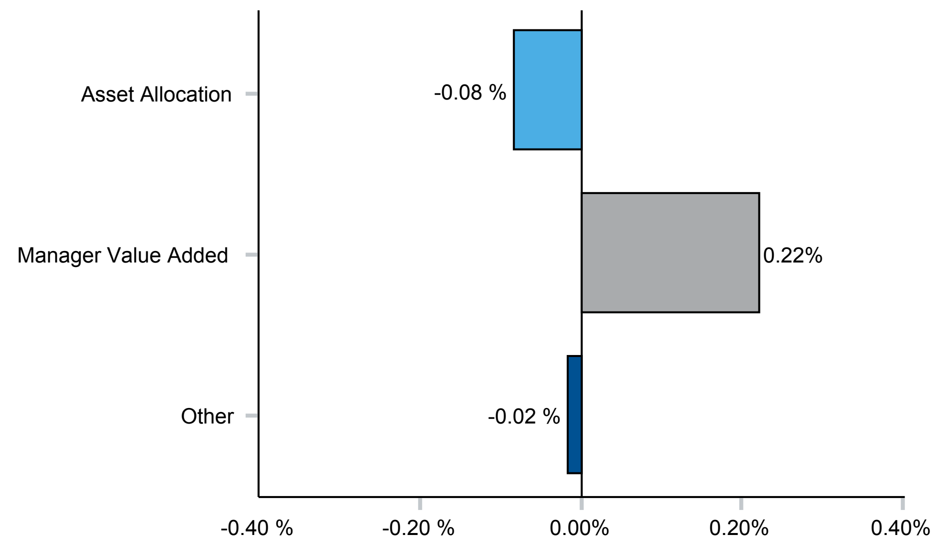
Total Cash Balance Plan Attribution

1 Month Ending January 31, 2019

Total Fund Performance

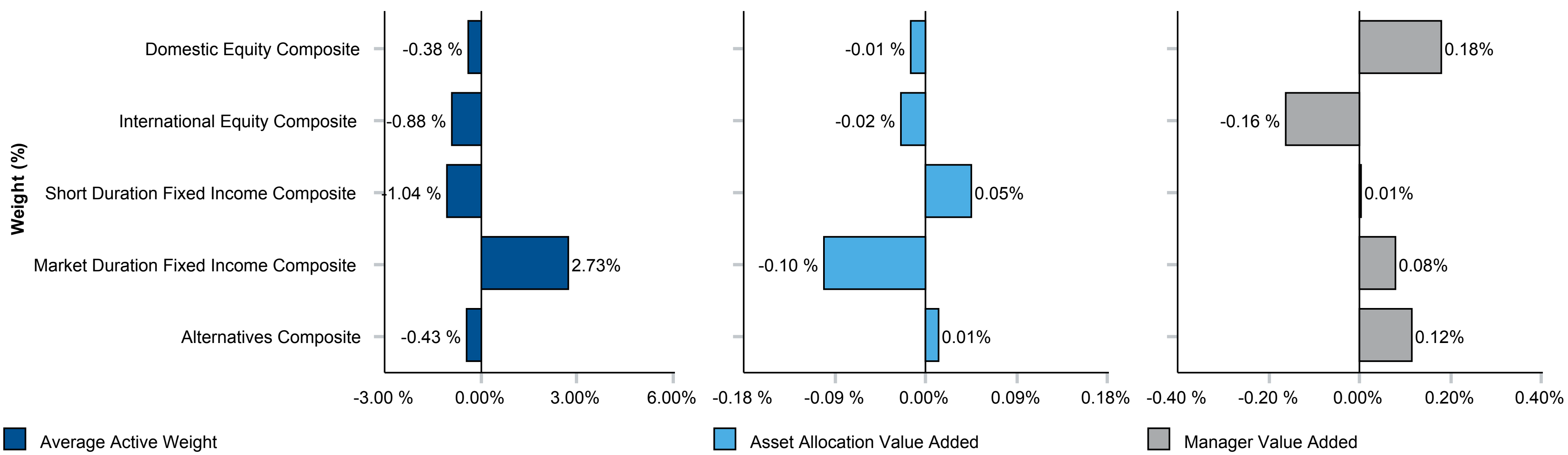


Total Value Added:0.12%



Total Asset Allocation:-0.08 %

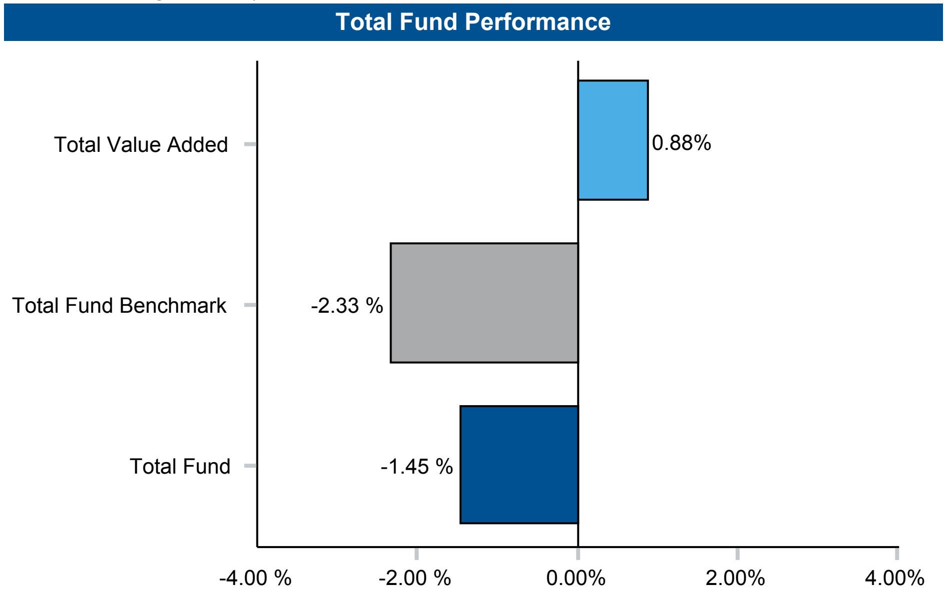
Total Manager Value Added:0.22%

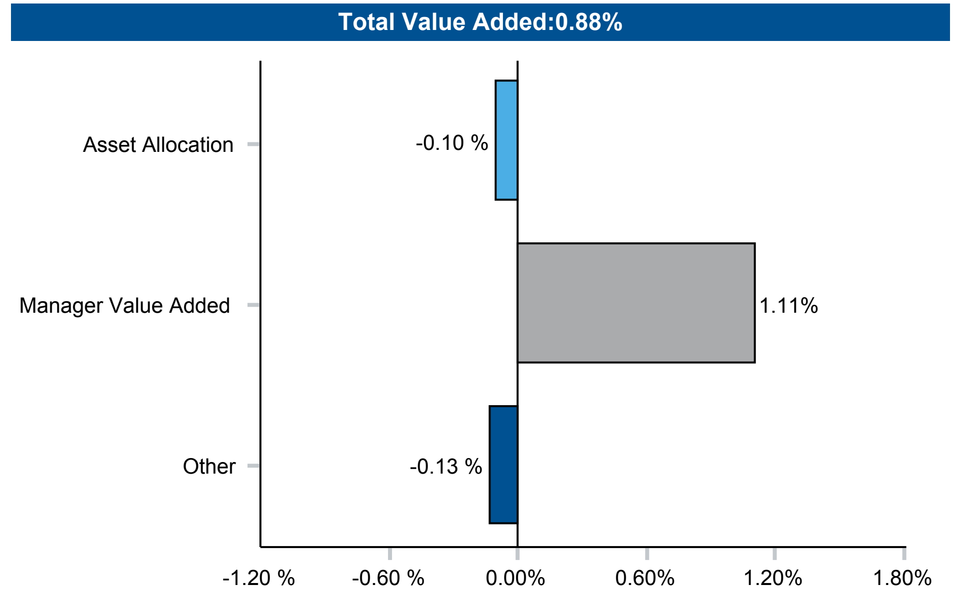


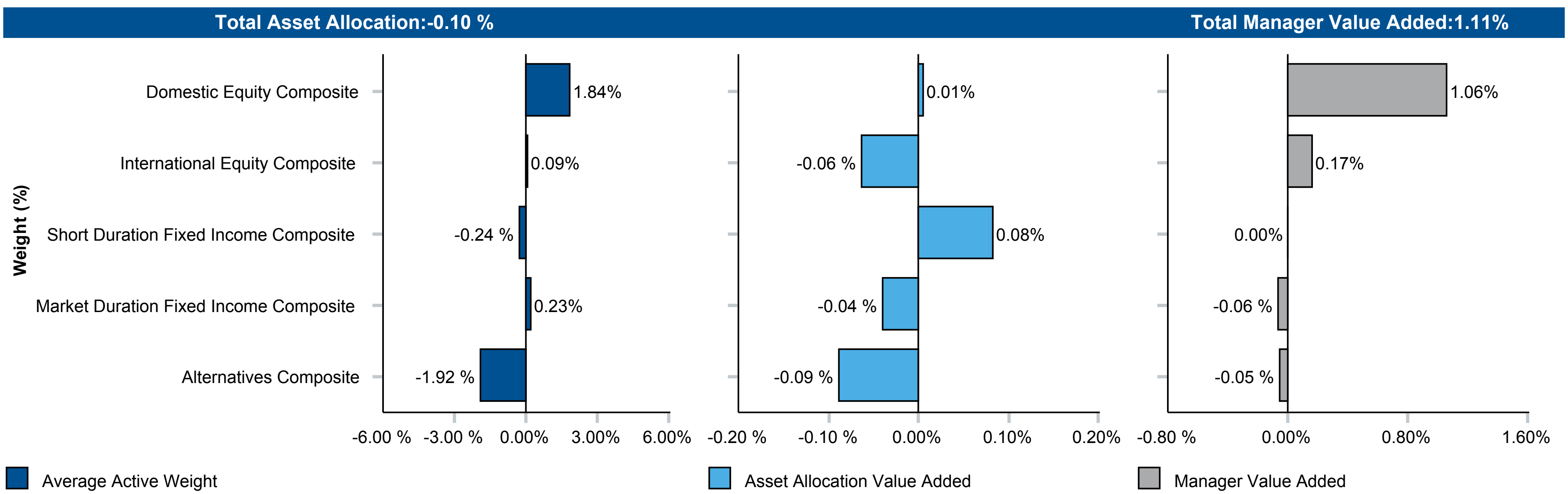
Cash Balance Plan Monthly Update

Total Cash Balance Plan Attribution

1 Year Ending January 31, 2019





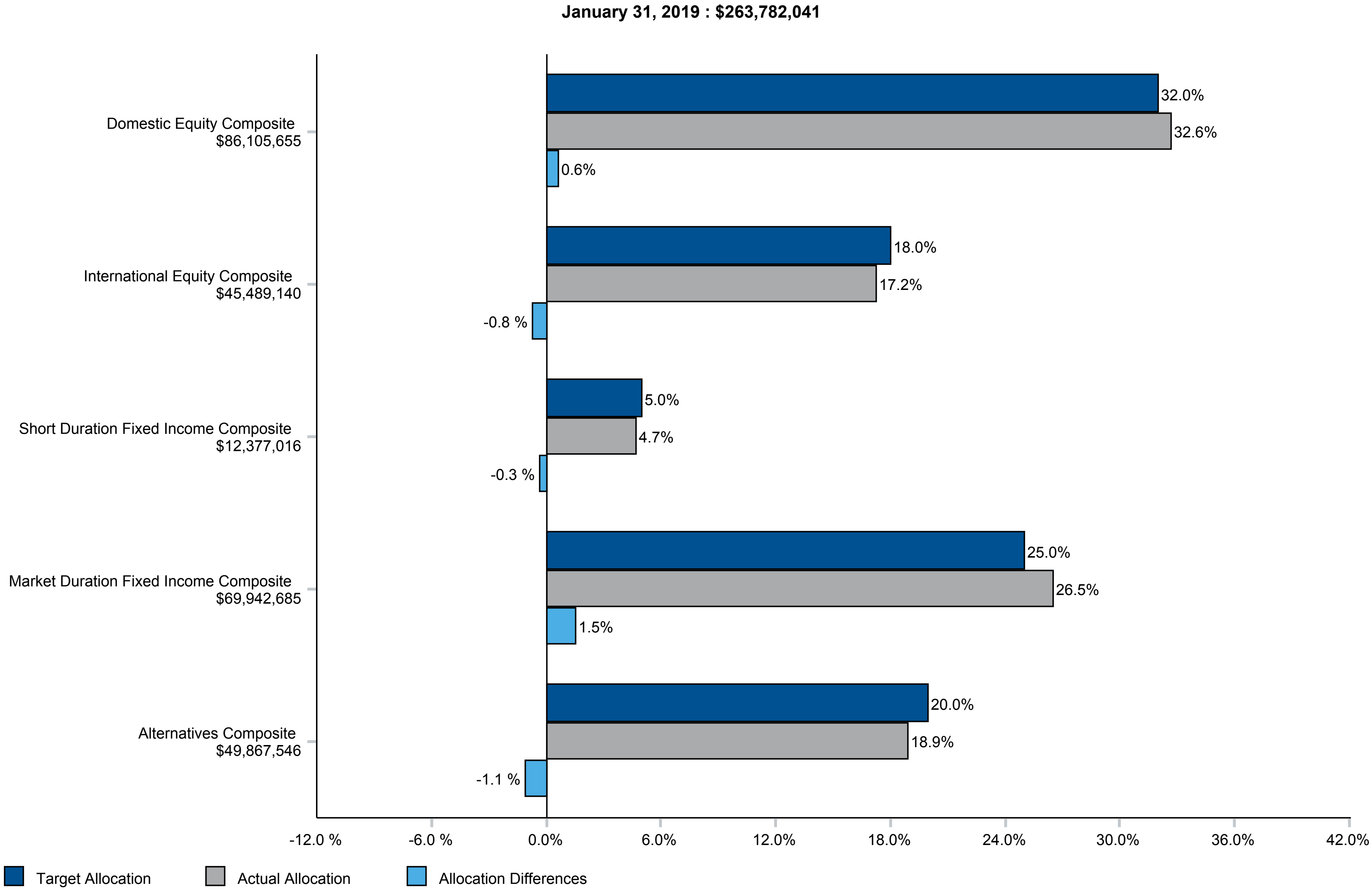


PAVILION

Cash Balance Plan Monthly Update

Total Cash Balance Plan vs. Cash Balance Plan Target Allocation

As of January 31, 2019



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Performance returns for period longer than one year are annualized. Returns are shown net of investment manager fees assessed by third party managers or funds, as applicable, unless otherwise denoted and generally include the effect of all cash flows (e.g., earnings, distributions). In addition, accounts may incur other transactions costs such as brokerage commissions, custodial costs and other expenses which are not denoted in this report and may not be reflected in the performance returns. Mutual fund returns assume reinvestment of all distributions at net asset value (NAV) and deduction of fund expenses. Report totals may not sum due to rounding. It is important to note that performance results do not reflect the deduction of any investment advisory fees you pay to Pavilion, therefore, performance results would be reduced by these investment advisory fees. Note, however, certain client reports may reflect the deduction of Pavilion's investment advisory fee. Information about Pavilion's investment advisory fees is available in the firm's Form ADV Part 2A, available upon request.

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When administrator valuations for the last month of the reported period are not available prior to report production, Pavilion may derive market values and performance based on manager provided estimates for that investment product. Alternatively, Pavilion may use carry forward market values from the prior month. Performance and market values are updated if/when the statement is received from the manager/administrator and may be different than the values in the initial report. Performance and market value estimates are denoted with [CE] (current estimate). Private equity holding results typically lag by 45 to 180 days after the report period end due to statement availability, therefore may not be included in the report.

Disclosures

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El Camino Hospital
THE HOSPITAL OF SILICON VALLEY

FY 2020 COMMITTEE GOALS - Draft

Investment Committee

PURPOSE

The purpose of the Investment Committee is to develop and recommend to the El Camino Hospital (ECH) Board of Directors ("Board") the investment policies governing the Hospital's assets, maintain current knowledge of the management and investment funds of the Hospital, and provide oversight of the allocation of the investment assets.

STAFF: **Iftikhar Hussain**, Chief Financial Officer

The CFO shall serve as the primary staff to support the Committee and is responsible for drafting the Committee meeting agenda for the Committee Chair's consideration. Additional members of the Executive Team or hospital staff may participate in the meetings upon the recommendation of the CFO and at the discretion of the Committee Chair. The CEO is an ex-officio member of this Committee.

GOALS	TIMELINE by Fiscal Year (Timeframe applies to when the Board approves the recommended action from the Committee, if applicable)	METRICS
1. Review performance of consultant recommendations of managers and asset allocations	• Each quarter - ongoing	• Committee to review selection of money managers and make recommendations to the CFO
2. Education Topic: Efficient Frontier Curve	• FY20 Q1	• Complete by the August 2020
3. Asset Allocation, Investment Policy Review and ERM framework	• Q3	• Completed by May 2020

SUBMITTED BY:

Jeffrey Davis, MD — **Chair**, Investment Committee
Iftikhar Hussain — **Executive Sponsor**, Investment Committee

INVESTMENT COMMITTEE PACING PLAN
Revised 02/07/2019

FY 2020: Q1		
JULY – NO MEETING	**AUGUST 12, 2019 Meeting**	**SEPTEMBER – NO MEETING**
	▪ Capital Markets Review and Portfolio Performance ▪ Tactical Asset Allocation Positioning and Market Outlook ▪ Educational Goal – Efficient Frontier Curve ▪ CFO Report Out – Open Session Finance Committee Materials	N/A
FY 2020: Q2		
OCTOBER – NO MEETING	**NOVEMBER 11, 2019 Meeting**	**DECEMBER – NO MEETING**
October 23, 2019 – Board and Committee Educational Session	▪ Capital Markets Review and Portfolio Performance ▪ Tactical Asset Allocation Positioning and Market Outlook ▪ Investment Policy Review ▪ CFO Report Out – Open Session Finance Committee Materials	N/A
FY 2020: Q3		
JANUARY 27, 2020	**FEBRUARY - 10, 2020 Meeting**	**MARCH – NO MEETING**
Joint Finance Committee and Investment Committee meeting.	▪ Capital Markets Review and Portfolio Performance ▪ Tactical Asset Allocation Positioning and Market Outlook ▪ CFO Report Out – Open Session Finance Committee Materials ▪ Proposed FY 2021 Goals/Pacing Plan/Meeting Dates	
FY 2020: Q4		
APRIL – NO MEETING	**MAY 11, 2020 Meeting**	**JUNE – NO MEETING**
April 22, 2020 – Board and Committee Educational Session	▪ Capital Markets Review and Portfolio Performance ▪ Tactical Asset Allocation Positioning and Market Outlook ▪ Asset Allocation Review and ERM Framework ▪ CFO Report Out – Open Session Finance Committee Materials ▪ 403(b) Investment Performance ▪ Approve FY 21 Committee Goal ▪ Review status of FY20 Goals	N/A

INVESTMENT COMMITTEE PACING PLAN
Revised 02/07/2019

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THE HOSPITAL OF SILICON VALLEY

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Investment Committee Meetings
Proposed FY20 Dates

RECOMMENDED IC DATE (2nd Monday)	CORRESPONDING HOSPITAL BOARD DATE
Monday, August 12, 2019	Wednesday, September 11, 2019
Monday, November 11, 2019	Wednesday, January 8, 2020
Joint Meeting with the Finance Committee **Monday, January 27, 2020**	N/A
Monday, February 10, 2020	Wednesday, February 12, 2020
Monday, May 11, 2020	Wednesday, June 10, 2020