

COMMITTEE ON RESOURCE MANAGEMENT  
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Robert K. Lindsey, Jr., Vice Chairperson  
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Kalei Akaka, O'ahu  
Keli'i Akina, At-Large  
Brendon Kalei'aina Lee, At-Large  
Carmen Hulu Lindsey, Maui  
Colette Y. Machado, Moloka'i/Lāna'i  
John Waihe'e IV, At-Large



**STATE OF HAWAII**  
**OFFICE OF HAWAIIAN AFFAIRS**

**MEETING OF THE COMMITTEE ON  
RESOURCE MANAGEMENT**

**DATE:** Wednesday, October 2, 2019  
**TIME:** 9:30 am  
**PLACE:** OHA Board Room, Nā Lama Kukui  
560 N. Nimitz Hwy., Suite 200  
Honolulu, HI 96817

**AGENDA**

- I. Call to Order
- II. Public Testimony\*
- III. New Business
  - A. NHTF 2<sup>nd</sup> Quarter Performance Review with Consultant Segal Marco-John Marco
  - B. Discussion of search for future Investment Manager
- IV. Executive Session<sup>‡</sup>
  - A. Approval of Minutes – April 10, 2019
- V. Adjournment

If you require an auxiliary aid or accommodation due to a disability, please contact Raina Gushiken at telephone number 594-1772 or by email at: [rainag@oha.org](mailto:rainag@oha.org) no later than three (3) business days prior to the date of the meeting.

\*Notice: Persons wishing to provide testimony are requested to submit 13 copies of their testimony to the Chief Executive Officer at 560 N. Nimitz. Suite 200, Honolulu, HI, 96817 or fax to 594-1868, or email [BOTmeetings@oha.org](mailto:BOTmeetings@oha.org) 48 hours prior to the scheduled meeting. Persons wishing to testify orally may do so at the meeting, provided that oral testimony shall be limited to five minutes.

<sup>†</sup> Notice: The 72 Hour rule, pursuant to OHA BOT Operations Manual, Section 49, shall be waived for distribution of new committee materials.

<sup>‡</sup> Notice: This portion of the meeting will be closed pursuant to HRS § 92-5.

\_\_\_\_\_  
Trustee Dan Ahuna  
Chairperson, Committee on Resource Management

9-26-19

\_\_\_\_\_  
Date

## Total Trust Fund Fees

	Quarter to Date	Last 4 Quarters	Quarter to Date	Last 4 Quarters
	6/30/2019	6/30/2019	6/30/2016	6/30/2016
Commonfund	335,888	1,325,632	482,141	1,890,923
JP Morgan	185,782	735,363	184,226	898,211
PIMCO	83,475	315,849	NA	NA
Pantheon*	65,026	275,869	83,097	340,564
Goldman Sachs**	40,788	167,026	215,109	1,003,388
SSGA	33,794	134,759	NA	NA
Highbridge***	17,067	83,328	NA	NA
HDI	10,630	44,022	10,396	39,550
ELA	2,500	10,000	5,000	38,380
<b>Total Advisor Fees</b>	<b>774,950</b>	<b>3,091,848</b>	<b>979,969</b>	<b>4,211,016</b>
<b>Custody Fees****</b>	<b>21,000</b>	<b>154,874</b>	<b>56,818</b>	<b>228,196</b>
<b>Total Fees:</b>	<b>795,950</b>	<b>3,246,722</b>	<b>1,036,787</b>	<b>4,439,212</b>

\*Prior to July 2011, Pantheon fees were included with Russell, Fees for Euro denominated funds were converted using the EURO/USD exchange rate

\*\* Goldman Sachs are lagged by a quarter

\*\*\* 2017 and prior Highbridge fees included into JPM

\*\*\*\* Inception Date for Custody Fees is 1/1/2011. Fees include performance reporting Quarter fee is estimated.



**Office of Hawaiian Affairs**

**ANALYSIS OF INVESTMENT PERFORMANCE**

**Native Hawaiian Trust Fund**

June 2019

John Marco  
*Senior Vice President*

Craig Chaikin, CFA  
*Vice President*

# Ranked #1 U.S. Investment Consulting Business



Segal Marco Advisors was named a 2018 Greenwich Quality Leader among Large U.S. Investment Consultants and ranked **#1 overall** in the 2018 Greenwich Quality Index among the top 15 investment consultants,\* placing 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> in 13 out of 14 criteria.



- Understanding Clients' Goals and Objectives
- Advice on Long-Term Asset Allocation
- Provision of Proactive Advice/ Innovative Ideas
- Capability of Consultant Assigned to Fund
- Credibility with Investment Committee
- Knowledge of Investment Managers
- Satisfaction with Manager Recommendations
- Usefulness of Personal Meetings
- Usefulness of Written Investment Reviews



- Timeliness of Providing Written Reports
- Sufficient Professional Resources to Meet Needs



- Advice on DC Plan Structure and Design
- Reasonable Fees (Relative to Value Delivered)

\* Top 15 based on 2018 P&I Investment Consultants Special Report  
Source: Greenwich Associates, USII-SWAP-18

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## ANALYSIS OF INVESTMENT PERFORMANCE

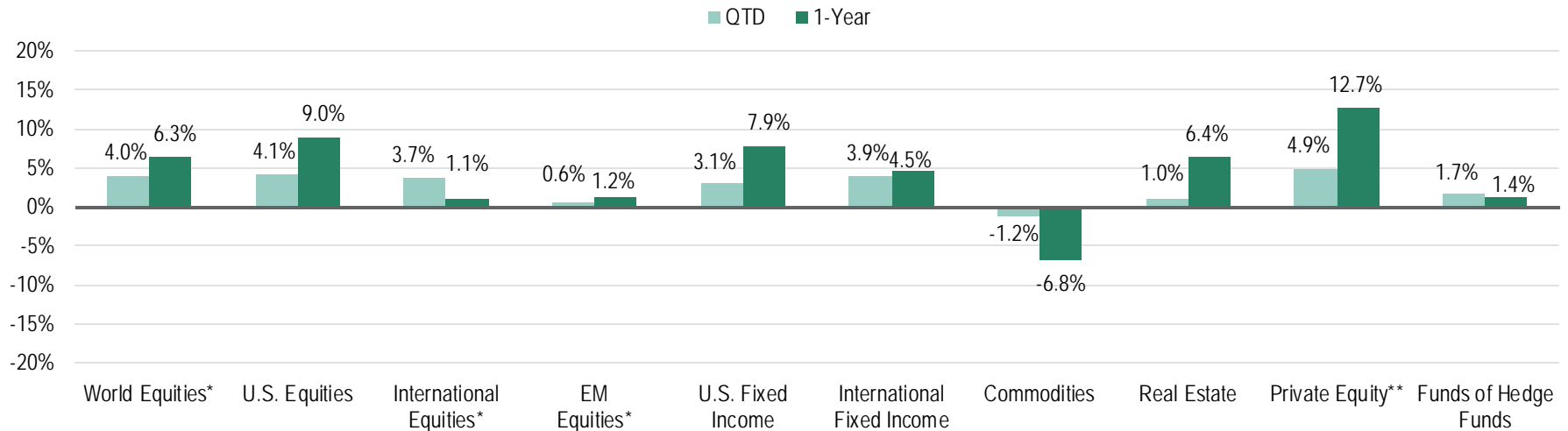
	<b>Section</b>
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This performance report ("Report") is based upon information obtained by Segal Marco Advisors ("SMA") from third parties over which SMA does not exercise any control. Although the information collected by SMA is believed to be reliable, SMA cannot verify or guarantee the accuracy or validity of such information or the uniformity of the manner in which such information was prepared. The rates of return reflected herein are time weighted and geometrically linked on a monthly basis using a modified Dietz method. Monthly valuations and returns are calculated based on the assumptions that all transactions and prices are accurate from the custodian and /or investment manager. The client to whom Segal Marco Advisors delivers this Report ("Client") agrees and acknowledges that this Report has been prepared solely for the benefit of Client. SMA disclaims any and all liability that may arise in connection with Client's conveyance (whether or not consented to by SMA) of the this Report (in whole or in part) to any third party. Client further agrees and acknowledges that SMA shall have no liability, whatsoever, resulting from, or with respect to, errors in, or incompleteness of, the information obtained from third parties. Client understands that the prior performance of an investment and /or investment manager is not indicative of such investment 's and/or investment manager's future performance. This Report does not constitute an offer or a solicitation of an offer for the purchase or sale of any security nor is it an endorsement of any custodian , investment and/or investment manager.

## **Financial Market Conditions**

# Q2 2019 In Review

## Summary of Investment Returns



## Quarterly Synopsis

- World equity markets rose in Q2. Fears over U.S./China trade relations lessened and central banks were accommodative.
- U.S. equity was positive in the quarter. Economic data was broadly positive and the Federal Reserve suggested it may cut rates.
- International equities were higher with optimism over global trade and with the European Central Bank not raising rates.
- Emerging market equity rose slightly in Q2 with a weaker USD and hopes for a Fed interest rate cut.
- U.S. fixed income rose in the quarter. The prospect of an interest rate cut boosted investment grade credit and Treasuries.
- Non-U.S. fixed income also gained in Q2, with investor expectations that central banks would keep monetary policy loose.
- Hedge funds rose during the quarter. Global macro strategies were the top performers.

\* Net of Dividends

\*\* Performance as of Q1 2019 because Q2 2019 performance data is not yet available.

Sources: Investment Metrics, Thomson One, FactSet

# Q2 2019 Index Returns

Asset Class	Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
World Equity	MSCI World <sup>1</sup>	4.00	16.98	6.33	11.77	6.60	10.72
U.S. Equity	Russell 3000	4.10	18.71	8.98	14.02	10.19	14.67
Non-U.S. Equity	MSCI EAFE <sup>1</sup>	3.68	14.03	1.08	9.11	2.25	6.90
Emerging Market Equity	MSCI EM <sup>1</sup>	0.61	10.58	1.21	10.66	2.49	5.81
U.S. Fixed Income	Bloomberg Barclays U.S. Aggregate	3.08	6.11	7.87	2.31	2.95	3.90
Non-U.S. Fixed Income	FTSE <sup>2</sup> Non-U.S. WGBI (Unhedged)	3.93	5.50	4.54	0.83	0.19	1.88
Commodities	Bloomberg Commodity Index	-1.19	5.06	-6.75	-2.18	-9.15	-3.74
Private Real Estate	NFI-ODCE <sup>3</sup>	0.99	2.42	6.41	7.57	9.76	9.88
Private Equity	Thomson Reuters Private Equity <sup>4</sup>	4.9	4.9	12.7	14.7	12.1	15.2
Hedge Funds	HFRI Fund of Funds Composite	1.69	6.38	1.36	4.32	2.23	3.23

<sup>1</sup> Net of Dividends

<sup>2</sup> Formerly Citigroup Non-U.S. WGBI. Citigroup's fixed income indices were purchased by London Stock Exchange Group (LSEG) and were all rebranded to FTSE by July 31, 2018. FTSE Russell is a unit of LSEG's Information Services Division and a wholly owned subsidiary of LSEG.

<sup>3</sup> NCREIF Fund Index (NFI) – Open End Diversified Core Equity (ODCE)

<sup>4</sup> Performance as of Q1 2019 because Q2 2019 performance data is not yet available.

Sources: Investment Metrics, Thomson One, FactSet



# Q2 2019 Index Returns

Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
S&P 500®	4.30	18.54	10.42	14.19	10.71	14.70
Russell 1000	4.25	18.84	10.02	14.15	10.45	14.77
Russell 1000 Growth	4.64	21.49	11.56	18.07	13.39	16.28
Russell 1000 Value	3.84	16.24	8.46	10.19	7.46	13.19
Russell 2000	2.10	16.98	-3.31	12.30	7.06	13.45
Russell 2000 Growth	2.75	20.36	-0.49	14.69	8.63	14.41
Russell 2000 Value	1.38	13.47	-6.24	9.81	5.39	12.40
Russell 3000	4.10	18.71	8.98	14.02	10.19	14.67
MSCI EAFE*	3.68	14.03	1.08	9.11	2.25	6.90
MSCI World*	4.00	16.98	6.33	11.77	6.60	10.72
MSCI EM*	0.61	10.58	1.21	10.66	2.49	5.81

Fixed-Income Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Blbg Bar U.S. Aggregate	3.08	6.11	7.87	2.31	2.95	3.90
Blbg Bar U.S. Govt/Credit	3.53	6.90	8.52	2.41	3.11	4.09
Blbg Bar U.S. Intermediate Govt/Credit	2.59	4.97	6.93	1.99	2.39	3.24
Blbg Bar U.S. L/T Govt/Credit	6.59	13.46	13.82	3.76	5.68	7.62
Blbg Bar U.S. Government	2.99	5.15	7.21	1.39	2.48	2.97
Blbg Bar U.S. Credit	4.27	9.35	10.34	3.74	3.92	5.77
Blbg Bar U.S. Mortgage-Backed Securities	1.96	4.17	6.22	2.06	2.56	3.23
BofA ML U.S. High Yield Master II	2.50	9.94	7.48	7.52	4.70	9.24
Citigroup Non-U.S. WGBI (Unhedged)	3.93	5.50	4.54	0.83	0.19	1.88
Citigroup 3-Month T-Bill	0.61	1.21	2.30	1.36	0.84	0.46

Other Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Hueller Stable Value	0.63	1.24	2.43	2.12	1.97	2.21
Bloomberg Commodity	-1.19	5.06	-6.75	-2.18	-9.15	-3.74
HFRI Fund of Funds Composite	1.69	6.38	1.36	4.32	2.23	3.23
NCREIF NFI-ODCE	0.99	2.42	6.41	7.57	9.76	9.88
Thomson Reuters Private Equity**	4.9	4.9	12.7	14.7	12.1	15.2

\* Net of Dividends

\*\* Performance reported as of Q1 2019 because Q2 2019 performance data is not yet available.

Sources: eVestment Alliance, Hueller Analytics, Investment Metrics, Thomson One, FactSet

## Annual Asset Class Performance

As of June 30, 2019

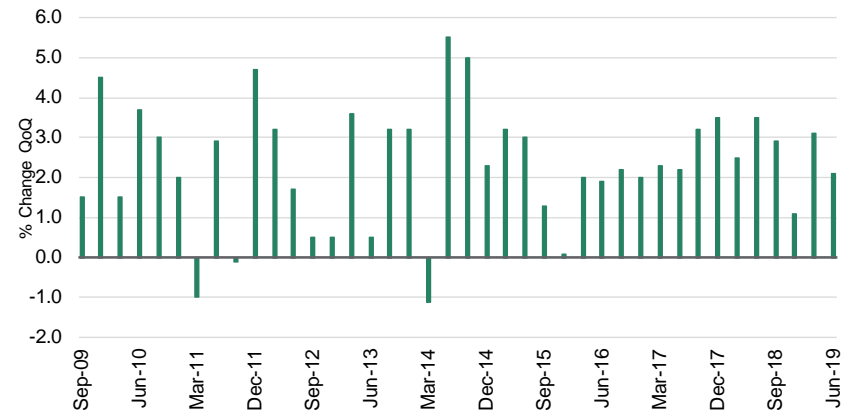
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD
Best	34.54	35.93	39.78	5.24	79.02	29.09	13.56	18.64	43.30	30.38	5.67	31.74	37.75	1.86	21.49
	14.02	32.59	11.81	1.80	58.21	28.47	8.68	18.53	38.82	13.45	2.52	21.31	30.21	0.01	20.36
	12.11	26.86	11.63	-2.35	37.21	26.85	8.46	18.05	34.52	13.24	1.23	17.34	25.62	-0.23	18.84
	10.74	23.48	11.63	-10.91	34.47	24.50	7.84	17.90	33.48	13.05	0.92	17.13	22.17	-1.26	17.77
	7.05	22.25	7.05	-20.30	32.46	19.20	4.98	17.78	33.11	5.97	0.65	12.05	21.69	-1.51	16.98
	6.27	18.37	6.97	-26.16	28.61	16.71	2.64	17.51	32.53	5.60	0.55	11.60	14.65	-2.08	16.24
	5.66	15.46	6.28	-28.92	28.43	16.10	1.50	16.42	23.29	5.53	0.03	11.32	13.66	-4.57	14.49
	5.26	13.35	5.77	-33.79	28.19	15.51	0.39	16.35	7.90	4.89	-0.39	10.19	9.32	-4.61	13.47
	4.71	11.86	4.74	-36.85	27.17	15.12	0.06	15.81	7.44	4.22	-1.38	8.60	7.84	-4.78	10.78
	4.55	9.86	1.87	-37.60	24.67	13.16	-2.44	15.26	2.47	3.64	-1.44	7.08	7.50	-8.27	10.60
	4.15	9.07	1.81	-37.98	20.58	12.06	-2.91	14.59	0.06	3.40	-3.83	6.36	5.07	-9.31	9.94
	3.01	8.99	-0.17	-38.44	19.69	8.21	-4.18	8.18	-2.02	2.45	-4.41	4.68	4.09	-11.01	6.15
	2.84	4.76	-1.57	-38.54	11.41	6.54	-5.50	6.98	-2.27	0.02	-4.47	2.65	3.54	-12.86	6.11
	2.74	4.34	-9.78	-43.06	5.93	6.31	-11.73	4.21	-6.58	-1.82	-7.47	1.51	3.01	-13.36	3.93
Worst	2.43	0.49	-16.81	-53.18	0.16	0.10	-18.17	0.09	-8.61	-4.48	-14.60	0.27	0.84	-14.25	1.21
	Russell 1000 Index	Russell 1000 Value Index	Russell 1000 Growth Index	Russell 2000 Index	Russell 2000 Value Index	Russell 2000 Growth Index	MSCI EAFE Index	MSCI Emerging Markets Index	MSCI U.S. REIT Index	Barclays Agg.	Blmbg. Barc. U.S. TIPS	Blmbg. Barc. U.S. Corp. High Yield	JPM EMBI Global (USD)	HFRI RV: Multi-Strategy Index	FTSE 3 Month T-Bill

# Q2 2019 In Review: U.S. Economy

## GDP Growth

- U.S. GDP growth rose by 2.1% in Q1 2019.
- Consumer spending jumped 4.3% in Q2, the strongest pace of growth since late 2017. Spending was up on everything from big-ticket items like cars to food and clothing.
- However, business investment declined for the first time since early 2016. Nonresidential fixed investment, ie software, R&D and equipment spending, fell 0.6% after rising 4.4% in Q1.

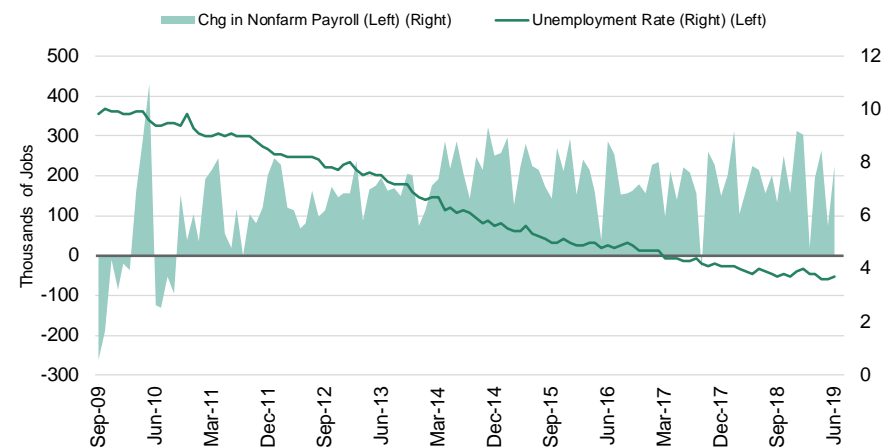
### U.S. Real GDP Growth



## Employment Picture

- The unemployment rate fell to 3.7% in June. Nonfarm payrolls rose by 512,000 over the quarter.
- Employment gains were led by professional and business services, health care, transportation and warehousing, and construction.
- Employment in industries such as mining, wholesale trade, retail trade, information, financial activities, and leisure and hospitality showed little change.

### U.S. Nonfarm Payrolls and Unemployment Rate

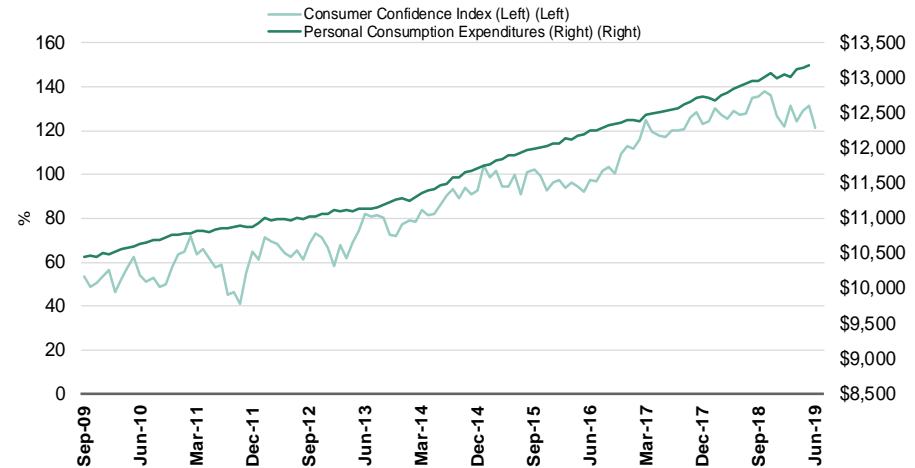


# Q2 2019 In Review: U.S. Economy

## Consumer Confidence and Spending

- Sentiment declined again in Q2, as the Conference Board's Consumer Confidence Index decreased from 124.1 at the end of March to 121.5 at the end of June.
- Personal consumption expenditures rose in May\*.
- Consumer confidence fell as global trade tensions persisted and worries grew about the state of the global economy.

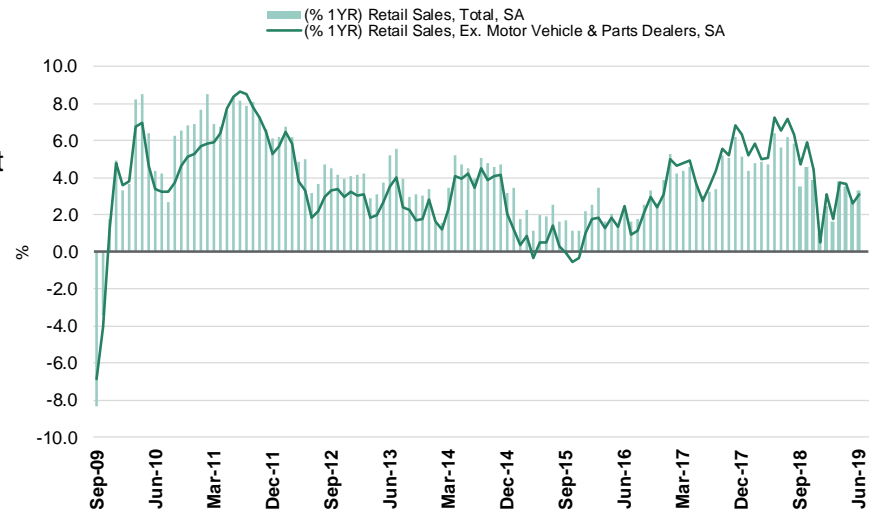
### Consumer Confidence and Spending



## Retail Sales

- Retail sales ended June\* up 3.4% from one year ago.
- Motor vehicle and parts dealers, building materials and clothing sales gained the most in June.
- Even as nervousness about the global economy persists, a tight labor market helped bolster spending and retail sales in Q2.

### U.S. Retail Sales

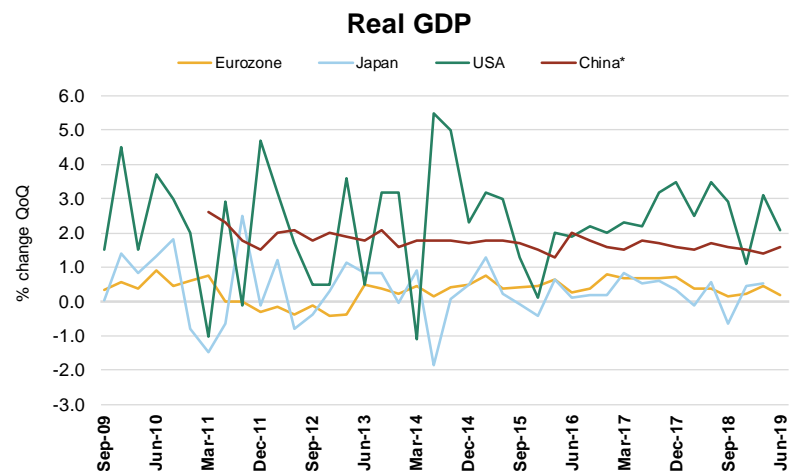


\*The most recent data available.  
Source this page: FactSet

# Q2 2019 In Review: Global Economy

## World GDP Growth

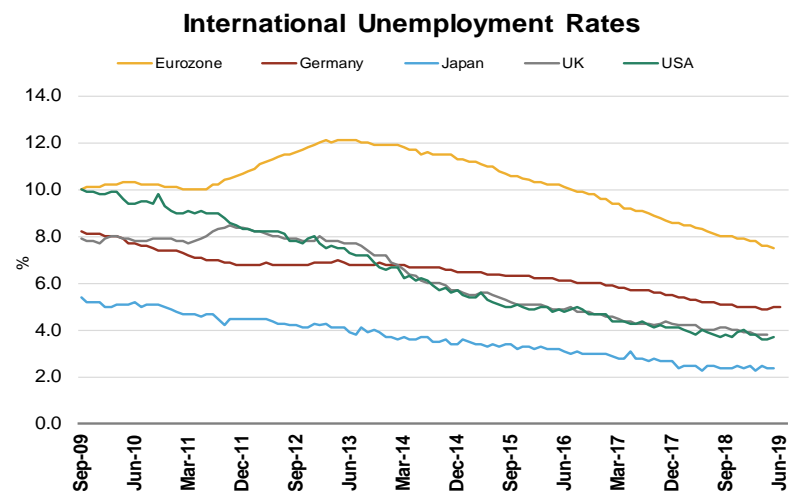
- Eurozone GDP grew 0.2% quarter over quarter (QoQ), matching market expectations. The Eurozone's annual growth rate slowed to 1.06%.
- China's GDP growth grew by 0.2% QoQ to 1.6% in Q2. The country's annual growth rate fell to 6.2%.
- Japan's GDP climbed again QoQ in Q1\*\*, coming in at 0.6%. The Japanese economy's annual growth rate grew to 0.9%.
- U.S. GDP grew 2.1% in Q2.



Note that the figures in the graph above represent the percent change in real GDP from the previous quarter, not the annual growth rate of these economies.

## Global Employment Picture

- Eurozone unemployment fell to 7.5% in May 2019\*\*, the region's lowest-recorded rate since July 2008. The Czech Republic (2.2%), Germany (3.1%) and the Netherlands (3.3%) had the lowest unemployment rates in the EU.
- Japan's unemployment rate ticked up to 2.4% in May. While higher than its earlier historic low of 2.2%, unemployment remained quite modest in Japan.



\*Quarter over quarter data calculations began in 2011.

\*\*Most recent data available.

Source this page: FactSet

# Q2 2019 In Review: Global Equity Overview

Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
S&P 500	4.30	18.54	10.42	14.19	10.71	14.70
MSCI Europe, Australasia and Far East (EAFE)*	3.68	14.03	1.08	9.11	2.25	6.90
MSCI Emerging Markets (EM)*	0.61	10.58	1.21	10.66	2.49	5.81

All data in the table are percentages.  
\* Net of dividends

## Global Equity Performance and Valuations

- Equity markets were broadly higher in Q2 despite ongoing global trade tensions and disappointing economic data. The markets' gains came with the possibility of a rate cut from the Federal Reserve as well as hopes that trade relations between the U.S. and China may be improving.
- While stocks were lower in May when worries around trade tensions escalated, they bounced back in June with prospects of a Fed rate cut.
- Developed market equities were positive in the quarter, though they lagged U.S. stocks. Emerging markets had a much sharper reaction to the renewed tariff threats and the MSCI EM Index made a smaller gain relative to its developed counterparts.
- Global equity valuations were elevated, with P/E's on U.S. and emerging market stocks above historic medians. Only developed market equity valuations were a bit below median at the end of Q2.



# Q2 2019 In Review: U.S. Equity

U.S. Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
S&P 500	4.30	18.54	10.42	14.19	10.71	14.70
Russell 1000	4.25	18.84	10.02	14.15	10.45	14.77
Russell 1000 Growth	4.64	21.49	11.56	18.07	13.39	16.28
Russell 1000 Value	3.84	16.24	8.46	10.19	7.46	13.19
Russell 2000	2.10	16.98	-3.31	12.30	7.06	13.45
Russell 2000 Growth	2.75	20.36	-0.49	14.69	8.63	14.41
Russell 2000 Value	1.38	13.47	-6.24	9.81	5.39	12.40
Russell 3000	4.10	18.71	8.98	14.02	10.19	14.67

All data in the tables are percentages.

## Performance

- Fueled by optimism about future U.S./China trade relations, the S&P 500 hit a record high during 2Q. The top performing sector in 2Q was Financials with a return of +8% in 2Q19. The next two were Materials (+6.3%) and Technology (+6.1%). The Fed's dovish pivot and an ensuing decline in longer rates drove performance in the defensive Real Estate (+2.5%) and Utilities (+3.5%).
- Energy was the worst performing sector in the S&P 500 during 2Q (-2.8%). No other sector posted negative returns. The energy sector has seen two abysmal quarters over the past year with primarily supply driven volatility for oil and gas prices.
- All capitalization sizes were positive in the quarter. Both growth and value stocks gained, though growth outperformed value.

S&P 500 Sector Returns	QTD	1-Year
Cons. Disc.	5.28	10.17
Cons. Staples	3.72	16.39
Energy	-2.83	-13.25
Financials	8.00	6.31
Healthcare	1.38	12.99
Industrials	3.57	10.43
IT	6.06	14.34
Materials	6.31	3.20
Telecom	4.49	13.66
Real Estate	2.46	16.80
Utilities	3.48	19.03

# Q2 2019 In Review: International Equity

MSCI International Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
World ex. U.S.	3.79	14.64	1.29	9.01	2.04	6.75
EAFE	3.68	14.03	1.08	9.11	2.25	6.90
EAFE Local Currency	2.80	13.68	2.17	9.80	5.85	8.35
Europe	4.48	15.80	1.88	9.11	1.27	6.99
Europe ex U.K.	5.82	16.88	3.39	10.00	1.91	6.99
U.K.	0.91	12.91	-2.05	6.90	-0.31	6.82
Japan	1.02	7.75	-4.19	8.06	4.47	5.85
Pacific Asia ex Japan	5.16	18.03	8.06	11.94	4.04	8.92

All data in the tables are percentages and net of dividends.

## Performance

- Following a strong Q1, international developed markets continued to rise in Q2, though the pace of gains slowed. The MSCI EAFE, a proxy for international developed markets, rose 3.7%, trailing domestic markets. Switzerland, Australia and Germany were the top performers, all returning between 7 and 9%, while Israel (-3.6%), Austria and Finland lagged.
- Brexit continues to loom over UK stocks, with lingering fears of an abrupt “no-deal” exit from the EU. Ex UK, however, European stocks made solid gains, with global trade tensions staying relatively stable in the quarter and with European Central Bank President Mario Draghi hinting at further monetary easing to come.
- While Real Estate was negative in Q2, all other EAFE sectors were positive. Cyclical sectors such as Information Technology, Consumer Discretionary and Industrials led, while defensive sectors, such as Consumer Staples, Utilities and Healthcare, lagged the benchmark.

MSCI EAFE Sector Returns	QTD	1-Year
Consumer Disc.	5.90	-2.57
Cons. Staples	1.91	4.81
Energy	0.37	-5.54
Financials	4.28	-2.89
Healthcare	2.04	7.50
Industrials	5.88	2.40
IT	6.56	2.68
Materials	3.91	0.15
Telecom	4.03	4.34
Utilities	1.49	9.80
Real Estate	-2.17	2.30



# Q2 2019 In Review: Emerging Market Equity

MSCI EM Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Emerging Markets	0.61	10.58	1.21	10.66	2.49	5.81
EM Local Currency	0.20	10.05	1.84	11.06	6.08	7.80
Asia	-1.25	9.72	-2.29	11.21	4.49	7.48
EMEA	7.15	13.06	6.70	8.35	-1.29	3.70
Latin America	4.44	12.64	18.45	10.79	-0.75	2.34

All data in the tables are percentages and net of dividends.

## Performance

- Emerging market equity performance slowed in Q2 with a return of less than 1%, trailing U.S. and international developed equities.
- Emerging market stocks fell sharply in May after trade talks between the U.S. and China broke down. Stocks then recovered in June after the G20 meeting, when hopes for new trade talks emerged.
- China equities struggled in the quarter, posting a -4% loss amid continuing worries surrounding trade as well as slowing economic growth in the country. While Asia stocks were negative, Latin America and EMEA stocks made gains.
- Emerging market sectors were inconsistent for the quarter. Half of the sectors posted negative returns, with Healthcare, Telecom and Materials lagging behind, while Financials and Consumer Staples both posted single digit positive returns.

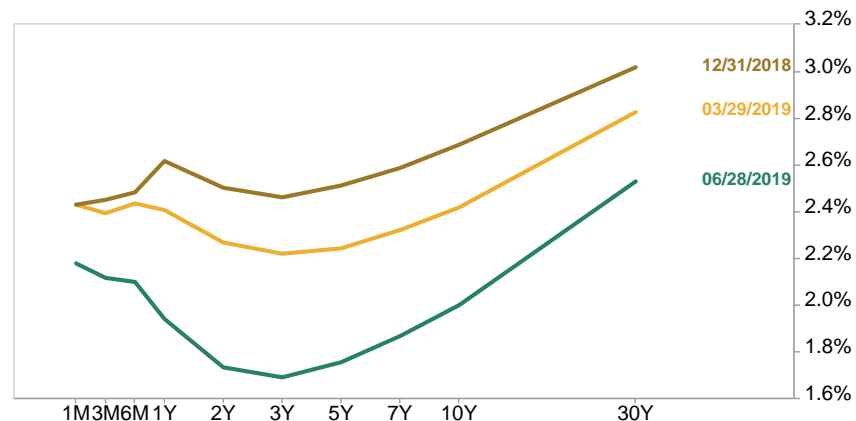
MSCI EM Sector Returns	QTD	1-Year
Cons. Disc.	-1.16	-7.57
Cons. Staples	3.32	0.93
Energy	1.24	16.25
Financials	3.97	11.92
Healthcare	-6.60	-24.66
Industrials	0.02	4.05
IT	-0.06	-6.11
Materials	-1.22	-1.94
Telecom	-2.44	4.53
Utilities	2.91	9.01
Real Estate	-0.16	10.07

# Q2 2019 In Review: Fixed Income Overview

## Yield Curve

- Treasury yields continued to fall across the curve in Q2, with the Fed now ruling out interest rate hikes in 2019, and with global growth slowing.
- Global demand for Treasuries also contributed to lower yields across all tenors. Trends from Q1 among shorter maturities continued, with the 5-yr yield (1.76%) falling below the 3 month yield (2.12%).
- The 30-year Treasury ended the quarter yielding 2.18%, which was 25 basis points (bps) lower than its yield at the end of Q1. The 2-year Treasury ended the quarter at 1.75%, which was 25 bps lower than the prior quarter.

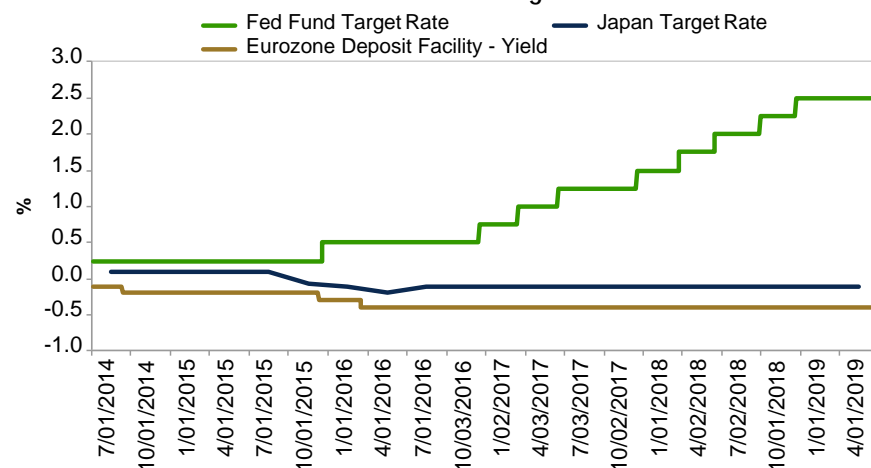
United States Treasury Yield Curve



## Monetary Policies/Global Interest Rates

- Central bank deposit rates remained negative in Japan and Europe. Slow growth and worries surrounding global trade uncertainty kept central banks on hold.
- The U.S. continues to be a global outlier with its policy rate at 2.5%. Policy rates in the Eurozone and Japan remain negative.
- The Fed did not hike in Q2 as its plans for future rate increases have been dashed due to uncertainty surrounding economic growth and the effect of trade tensions.

Central Bank Target Rates



Interest Rates	Fed Funds Rate	EZ Deposit Facility Rate
Average	5.15% (1971-2019)	1.02% (1999-2019)
Max	20.0% (Mar. 1980)	3.75% (Oct. 2000)
Min	0.25% (Dec. 2008)	-0.40% (Mar. 2016)

# Q2 2019 In Review: U.S. Fixed Income

U.S. Fixed Income Indices*	QTD	YTD	1-Year	3-Year	5-Year	10-Year
U.S. Aggregate	3.08	6.11	7.87	2.31	2.95	3.90
Government/Credit	3.53	6.90	8.52	2.41	3.11	4.09
Government	2.99	5.15	7.21	1.39	2.48	2.97
Investment Grade Corporate	4.48	9.85	10.72	3.94	4.08	6.07
Investment Grade CMBS	3.26	6.59	8.95	2.91	3.35	7.16
U.S. Corporate High Yield	2.50	9.94	7.48	7.52	4.70	9.24
FTSE** 3-Month T-Bill	0.61	1.21	2.30	1.36	0.84	0.46
Hueler Stable Value	0.63	1.24	2.43	2.12	1.97	2.21

\* Bloomberg Barclays Indices, unless otherwise noted.

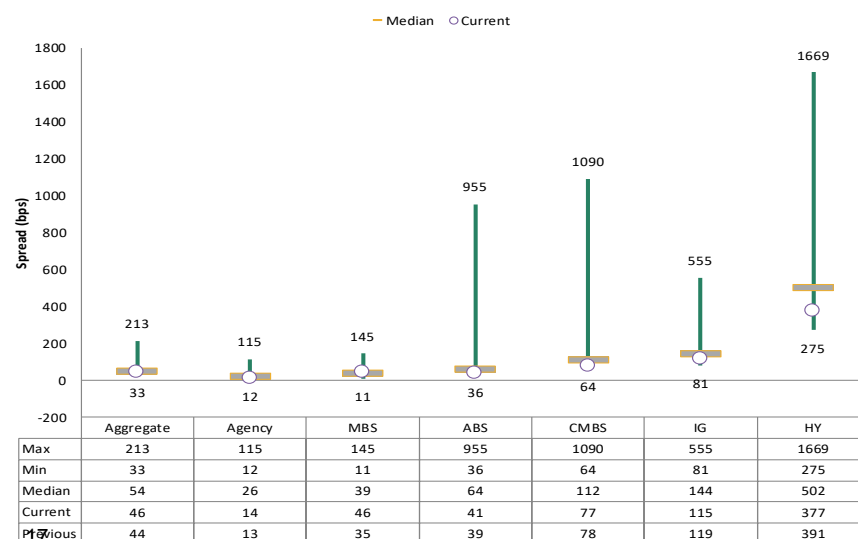
\*\* Formerly Citigroup. Citigroup's fixed income indices were purchased by London Stock Exchange Group (LSEG) and were rebranded to FTSE by July 31, 2018. FTSE Russell is a unit of LSEG's Information Services Division and a wholly owned subsidiary of LSEG.

All data in the table are percentages.

## Performance and Spreads

- The U.S. Aggregate Index was positive in Q2. In absolute terms, the US Investment Grade Corporate sector generated the strongest returns (+4.48%). Given the sizeable Treasury weight in the index, that sector's solid performance was a significant positive contributor (+3.01%).
- After generating a 7.26% return in Q1, high yield continued to rise in Q2, generating 2.50% for the quarter. Higher quality credits outperformed the CCC and below sector.
- With the exception of bank loans, most domestic fixed income spreads were either tighter than or in line with end of Q1 levels, but still wider than the levels seen at the end of the third quarter of 2018.

## Fixed Income Spreads



Data range is from 9/30/00-6/30/19

# Q2 2019 In Review: International Fixed Income

Global Fixed Income Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Bloomberg Barclays Global Aggregate	3.29	5.57	5.85	1.62	1.20	2.89
Bloomberg Barclays Global Aggregate (Hgd)	2.92	6.00	7.80	2.95	3.82	4.23
FTSE Non-U.S. WGBI*	3.93	5.50	4.54	0.83	0.19	1.88
FTSE Non-U.S. WGBI (Hgd)	3.15	6.34	8.18	3.21	4.73	4.38
JPM EMBI Global Diversified**	4.08	11.31	12.45	5.47	5.30	7.79
JPM GBI-EM Global Diversified***	5.64	8.72	8.99	4.24	-0.45	3.41

All data in the table are percentages.

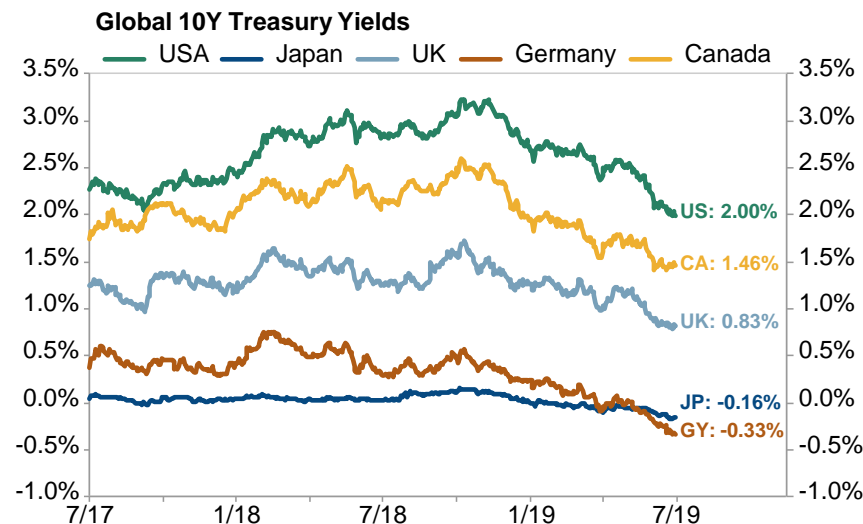
\* Formerly Citigroup. The FTSE Non-U.S. World Government Bond Index (WGBI) measures the performance of fixed-rate, local currency, investment grade sovereign bonds excluding the U.S.

\*\* The JP Morgan Emerging Market Bond Index (EMBI) Global Diversified index measures government bonds in hard currencies.

\*\*\* The JP Morgan Government Bond Index – Emerging Markets (GBI-EM) Global Diversified index measures government bonds in local currencies.

## Global Performance and Yields

- Government yields fell in Q2 across developed markets.
- Rhetoric from central banks was more dovish than the prior quarter due to escalating global trade tensions and underwhelming growth in major international regions like the Eurozone.
- The euro and yen appreciated relative to the U.S. dollar, while the British pound depreciated.
- In emerging markets, mixed results were seen in both Asia ex-Japan and Latin America.



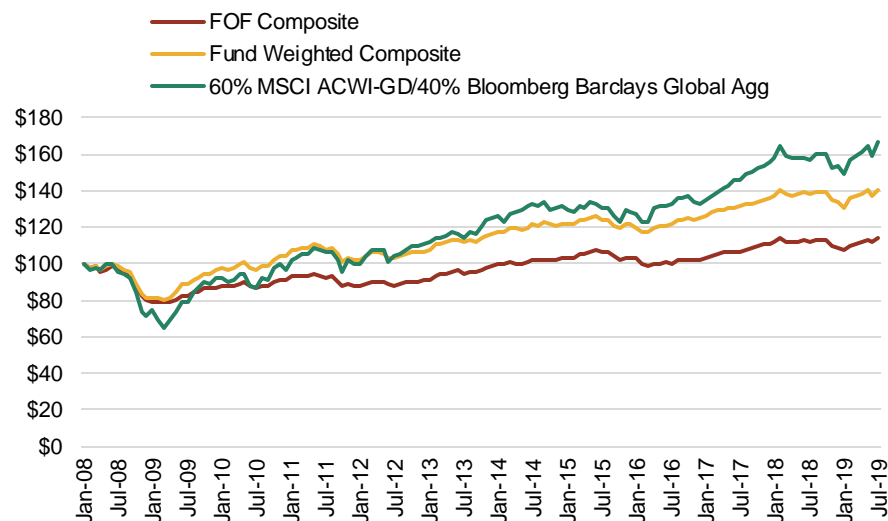
# Q2 2019 In Review: Absolute Return Strategies

HFRI Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Fund of Funds Composite	1.69	6.38	1.36	4.32	2.23	3.23
Fund Weighted Composite	1.89	7.44	1.52	5.01	2.95	4.71
Event Driven	1.40	5.61	1.34	6.36	2.81	6.09
Equity Hedge	1.76	9.47	0.48	6.84	3.47	5.39
Macro	2.69	5.01	2.56	0.40	1.43	1.41
Emerging Markets	1.20	8.71	0.55	6.38	2.57	4.26
Relative Value	1.54	5.38	3.20	4.98	3.29	6.15

## Hedge Fund Performance

- The HFRI Fund Weighted Composite increased 1.9% during Q2, and all of the major hedge fund strategies were positive during the quarter. Hedge fund strategies reported the best first half since 2009.
- Macro was the strongest performing strategy in Q2 amid increased geopolitical and headline risk across the globe, which translated to market inefficiencies in select pockets of the capital markets. Meanwhile, Equity Hedge continued its strong performance on the back of effective stock selection on both the long and short sides.
- The Fund Weighted Composite and Fund of Funds Composite indices were both positive but underperformed the 60/40 Balanced MSCI ACWI/Bloomberg Barclays Global Aggregate index, which gained roughly 3.5% during the quarter.

HFR Hedge Fund and Fund of Fund Weighted Composite Growth of \$100 | January 2008 - June 2019

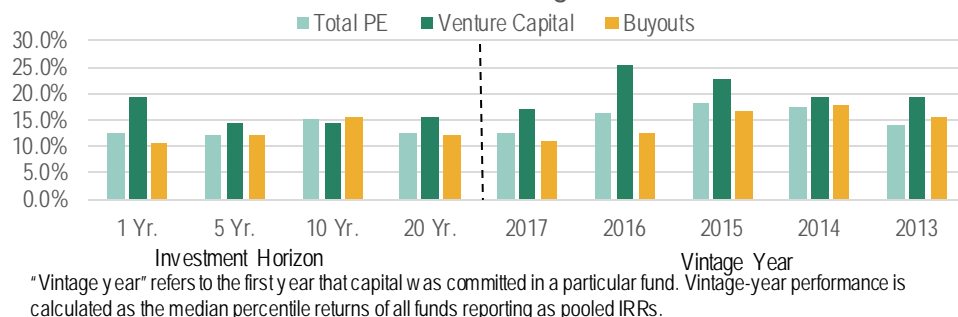


# Q2 2019 In Review: Private Equity

## Performance

- The total return for private equity funds, comprising performance across all regions and strategies, was 4.9% in Q1 2019\* and 12.7% over the 1-year period ending Q1.
- The 5-, 10-, and 20-year returns for private equity funds were 12.1%, 15.2% and 12.6%, respectively, at the end of Q1. Venture funds continued to outperform other strategies over the most recent five years, however, fewer distributions were seen from Venture funds than others.
- The 2017-vintages generated a double-digit return across strategies by Q1 2019.

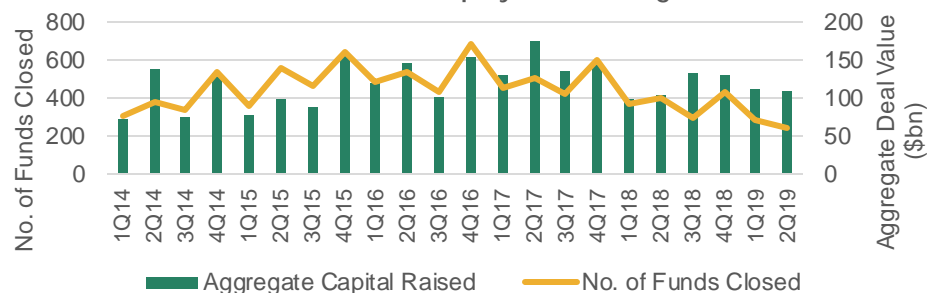
Global Private Equity Performance by Investment Horizon and Vintage Year



## Fundraising

- Globally, private equity funds raised approximately \$220.9 billion across 527 funds through June 2019, which was about the same amount that was raised in 1H 2018.
- In Q2 2019, fundraising activity was still focused on North America, while Europe and Asia closed fewer funds with less capital.
- Dry powder\*\* continues to reach new records, with \$1.54 trillion as of June 2019, increased \$0.28 trillion in a quarter.

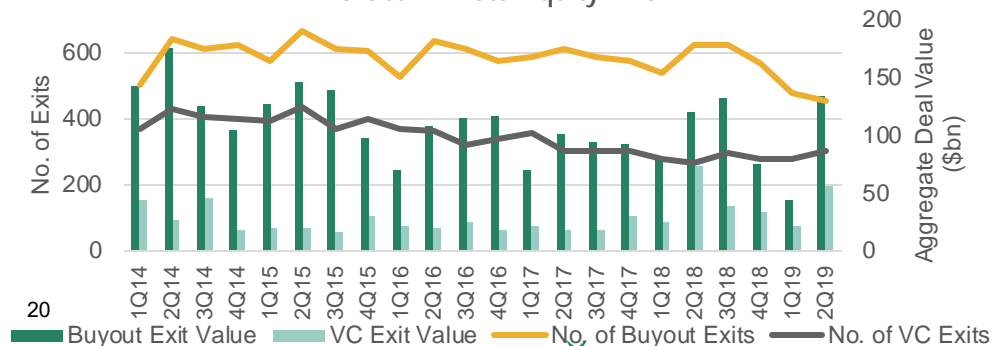
Global Private Equity Fundraising



## Exit Activity

- Buyout-backed exit activities continued to slow down in Q2 2019 as 451 exits were made in the quarter. Aggregate deal value spiked to \$133 billion, however, from \$44 billion in Q1.
- Venture-backed exit activities have been building momentum and Q2 saw the greatest number of exits, excluding write-offs, announced since Q4 2017. The value of those exits reached \$56 billion, the highest quarterly total ever since a year ago. This was driven by a number of high-profile mega exits, including the IPO of Uber.

Global Private Equity Exit



\*Most recent data available.

\*\*Dry powder is capital raised that hasn't yet been invested.

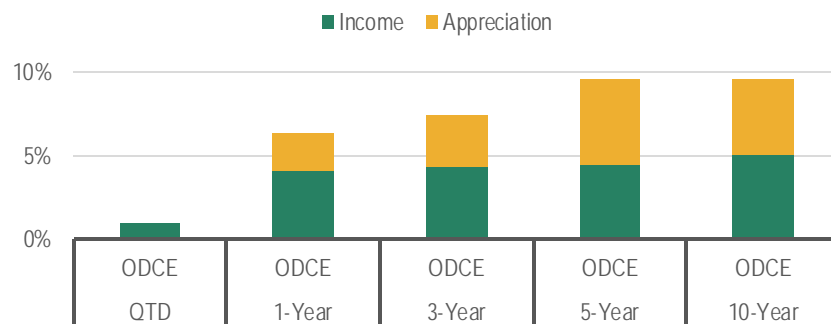
Sources this page: Thomson Reuters, Preqin

# Q2 2019 In Review: Real Estate

## Real Estate Performance

- NFI ODCE was up 99 bps for the quarter, while the NCREIF NPI gained 151 bps and the NAREIT Equity REIT Index gained 179 bps
- Income for the NFI-ODCE was 101 bps for the quarter, and has been consistently between 4.1% - 5.1% over a trailing 1-3-5-10 year basis
- Decreasing deal flow along with an efficiently priced market has made for little appreciation in core real estate in Q2.
- Income has remained steady as many managers have focused on increased occupancy across their portfolios amid late-cycle fears.

NCREIF Fund Index (NFI) Open-End Diversified Core (ODCE)  
Real Estate Performance



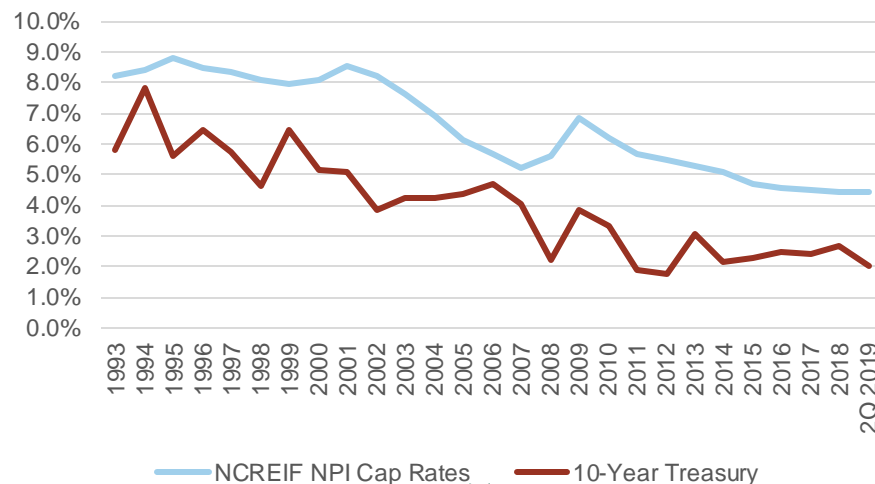
The NFI-ODCE (Open-end Diversified Core Equity) is defined by NCREIF as a fund-level cap-weighted, gross of fee, time-weighted return index with an inception date of December 31, 1977.

The NFI-CEVA Index, which is a quarter lagged in performance reporting, is defined by NCREIF as a capitalization-weighted, gross of fees, time-weighted return index. Funds included in the index must be closed-end with a value-add strategy operated for U.S. institutional investors and must comply with NCREIF's data collection and reporting standards.

## Real Estate Capitalization Rates\* vs. Treasuries

- Asset values remain steady for the most part; however, lower quality properties possess the most risk potential
- Prevailing cap rates have been buoyed by historically wide spreads versus financing costs and persistent demand for real estate.
- Treasury rate decreases in 2019 relative to more consistent cap-rates have resulted in a 241 bps spread as of 2Q 2019, the widest spread since 2015

Capitalization Rates & 10-Year U.S. Treasury Rates



\*A cap rate is the potential rate of return on a real estate investment. Assuming no change in net operating income, real estate valuations rise when cap rates fall. Comparing cap rates to the 10-year U.S. Treasury provides investors with an estimated spread for expected returns from real estate (higher risk) vs. fixed rate bond (lower risk) investments. 21

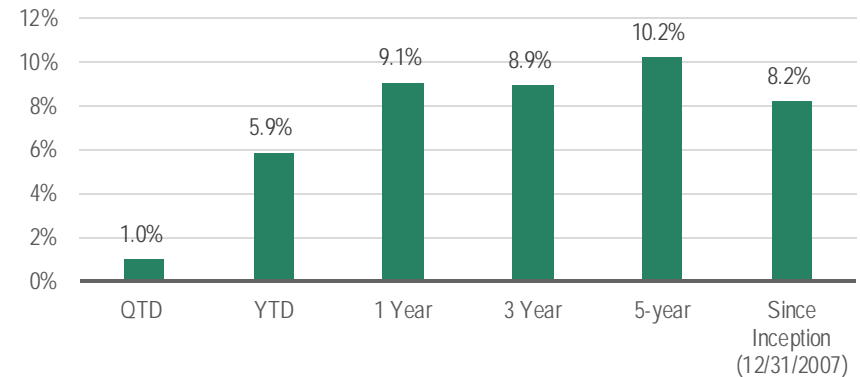
Sources this page: NCREIF, Bloomberg

# Q2 2019 In Review: Infrastructure

## Infrastructure Performance

- Private infrastructure gained 1.0% in Q3 2018\* and 9.1% over the 1-year period ending September 30, 2018
- The 1-, 3-, and 5-year results exceeded the since-inception return, indicating the asset class has recovered well from the global financial crisis. Unless there is a strong 4<sup>th</sup> Quarter return, 2018 will be a modest year for private infrastructure returns.
- The number of deals completed in Q2 2019 rose to 602 but is still well below the quarterly average number of deals. At \$422.2 million, the average deal size year to date is on pace to be a record high, continuing the trend toward larger deals.
- Public infrastructure registered a 4.6% return in Q2 2019, as per the FTSE Global Infrastructure 50/50 Index. The index protected on the downside in May and participated in June's equity rally.

Preqin Infrastructure Annualized Return as of 9/30/2018\*

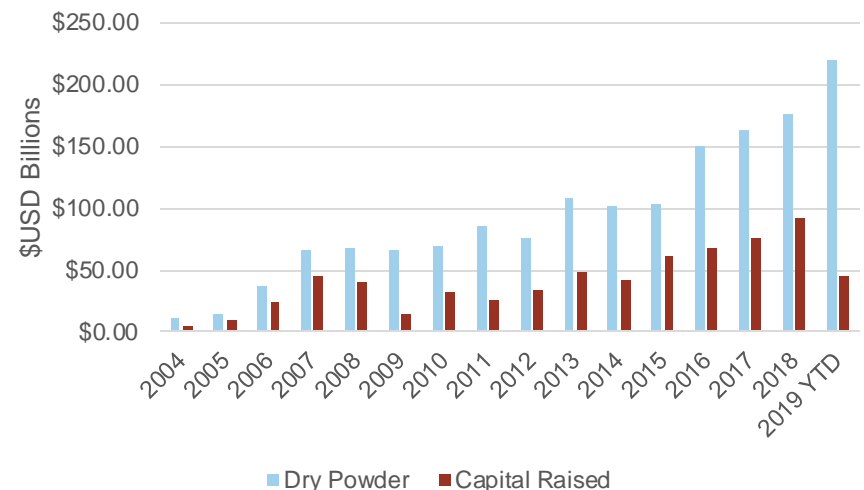


According to Preqin, the Preqin Infrastructure Index captures the average returns earned by investors in their infrastructure portfolios, based on the actual amount of money invested. The Preqin Infrastructure index is calculated on a quarterly basis using data from Preqin's Infrastructure Online services.

## Dry Powder and Fundraising

- Infrastructure fundraising remains strong with large funds successfully driving capital inflows into the asset class. \$16.8 billion in funds were raised in Q2 2019 with an average fund size of \$841 billion. Q2 2019 was much more in line with historical averages relative to Q1 2019, which set the record for average quarterly fund size.
- Dry powder\*\* has increased to \$219 billion, as the asset class continues to gain traction with investors with a growing universe of fund managers.
- North American funds drove the growth in dry powder in Q2 2019, rising by \$16 billion. The \$20 billion Blackstone Infrastructure Fund that closed at the end of June contributed considerably to this total.

Dry Powder and Fundraising



\*The most recent data available. Preqin did not report Q4 2018 numbers by the time of this publication.

\*\*Dry powder is capital raised that hasn't yet been invested.

Sources this page: Preqin

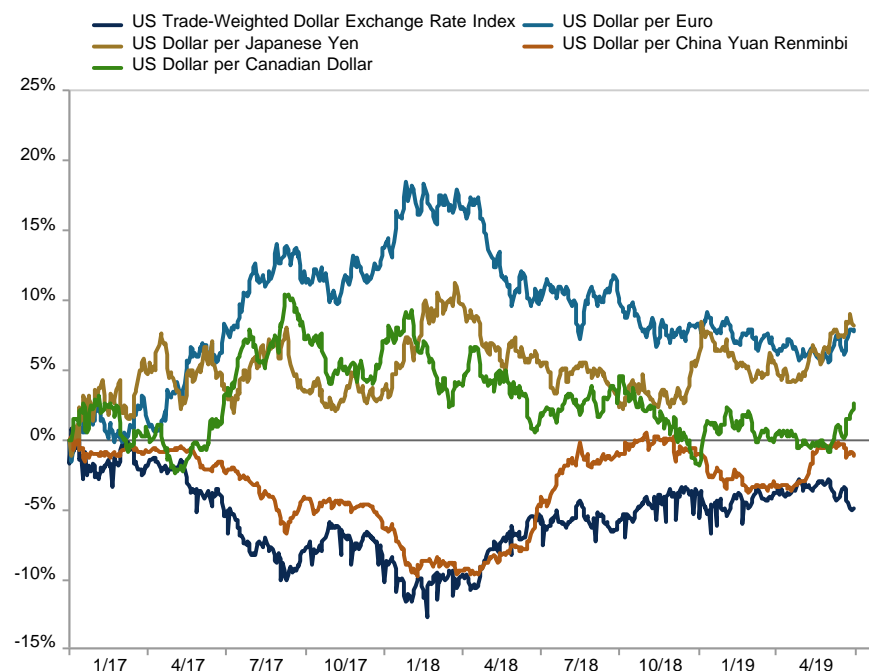


# Q2 2019 In Review: Commodities and Currencies

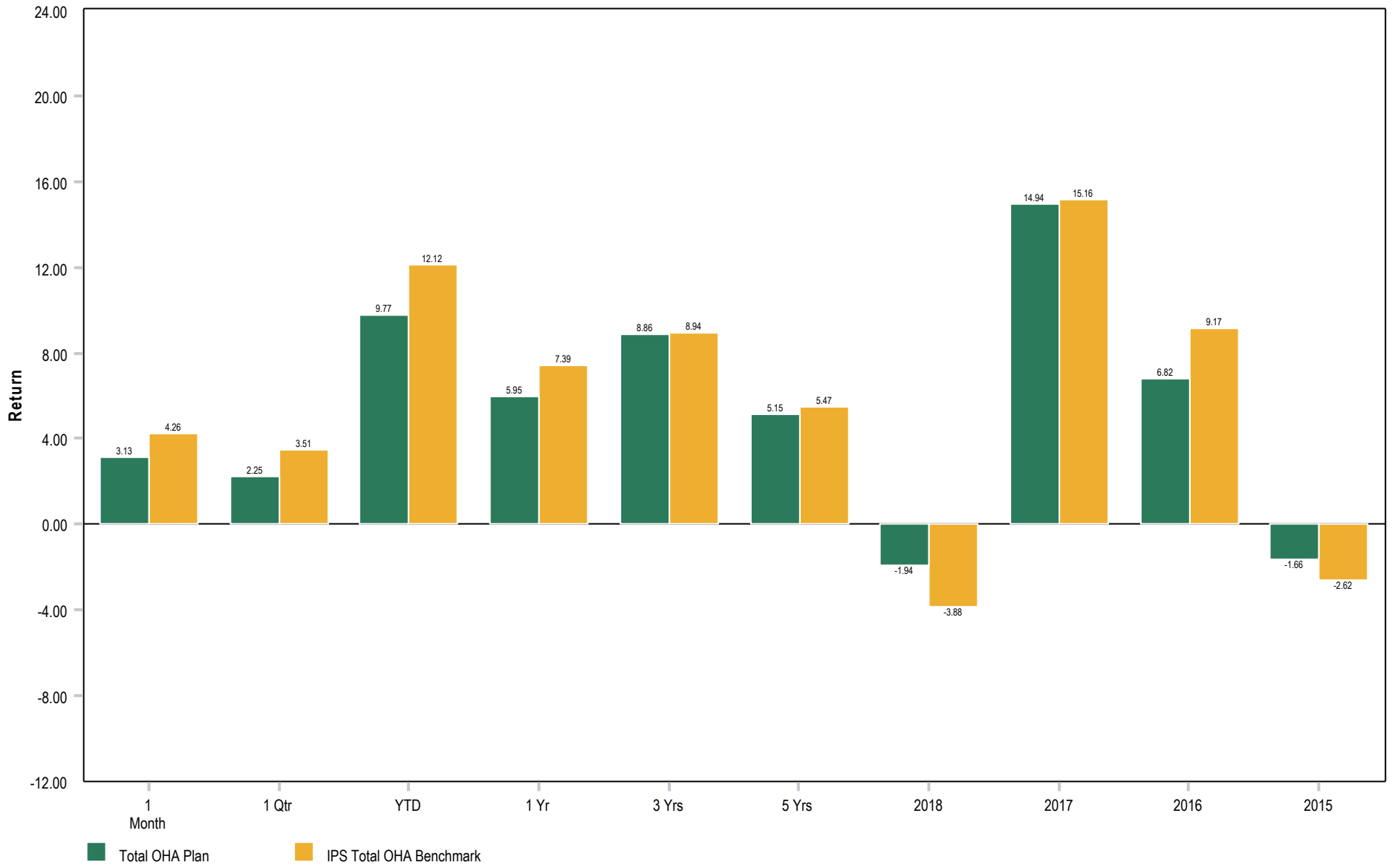
BCOM Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Bloomberg Commodity Index (BCOM)	-1.19	5.06	-6.75	-2.18	-9.15	-3.74
Energy	-4.56	10.64	-14.28	-0.52	-18.19	-11.87
Agriculture	4.50	1.18	-4.18	-10.27	-9.75	-2.91
Industrial Metals	-7.23	4.68	-10.99	6.40	-2.98	-0.43
Precious Metals	7.15	7.17	7.61	-0.75	-1.27	3.00
Livestock	-11.01	-6.84	-3.50	-2.54	-7.14	-2.08

## Commodity and Currency Highlights

- The Bloomberg Commodity Index decreased during Q2, with 15 out of 23 constituents posting negative performance.
- Performance was mixed across sectors as Precious Metals and Agriculture generated positive returns. Precious Metals outperformed amid geopolitical and global growth concerns, while Agriculture rose due to expectations of lower supply amid planting delays in the Midwest as the result of record high rainfall.
- Livestock fell due to oversupply and counter-tariffs on Mexican imports of U.S. meat decreased demand. In spite of increased political tension between the U.S. and Iran, as well as expectations of OPEC production cuts, the Energy sector traded lower on expectations of slowing global growth.
- The USD declined against most major currencies in Q2. Expectations of an interest rate cut pushed the dollar lower.
- The euro, yen, Canadian dollar and the China renminbi all rose against the USD in Q2.



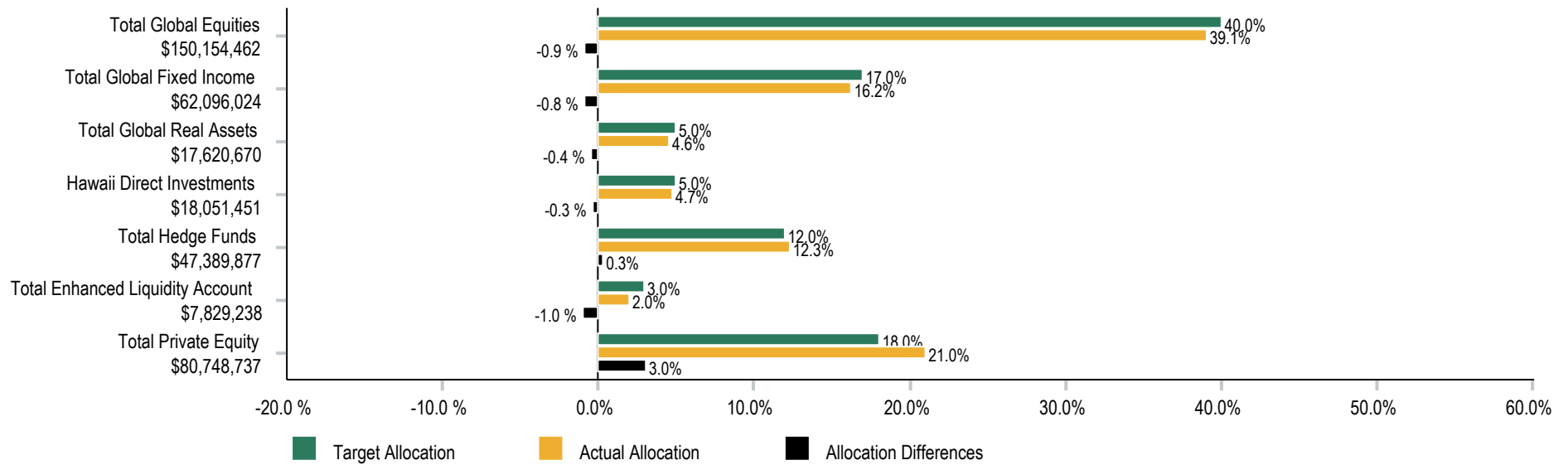
## **Total Plan Overview**



Native Hawaiian Trust Fund

Total OHA Plan

As of June 30, 2019



	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)	Differences (%)	Minimum Allocation (%)	Maximum Allocation (%)
Total OHA Plan	383,890,461	100.00	100.00	0.00	N/A	N/A
Total Global Equities	150,154,462	39.11	40.00	-0.89	22.00	55.00
Total Global Fixed Income	62,096,024	16.18	17.00	-0.82	11.00	22.00
Total Global Real Assets	17,620,670	4.59	5.00	-0.41	0.00	11.00
Hawaii Direct Investments	18,051,451	4.70	5.00	-0.30	0.00	10.00
Total Hedge Funds	47,389,877	12.34	12.00	0.34	6.40	19.20
Total Enhanced Liquidity Account	7,829,238	2.04	3.00	-0.96	0.00	10.00
Total Private Equity	80,748,737	21.03	18.00	3.03	0.00	25.60

## Native Hawaiian Trust Fund

## Asset Allocation

As of June 30, 2019

	Total Fund	
	(\$)	%
<b>Total OHA Plan</b>	<b>383,890,461</b>	<b>100.00</b>
<b>Total Global Equities</b>	<b>150,154,462</b>	<b>39.11</b>
SS Money Market (SALXX)	1,184	0.00
Commonfund Open Cash	1,186,863	0.31
State Street S&P 500 Index Strategy	33,431,300	8.71
JP Morgan US Large Cap Core Plus (JLPSX)	13,560,350	3.53
JP Morgan Disciplined Equity R6 (JDEUX)	9,113,528	2.37
JP Morgan Value Advantage Instl (JVAIX)	8,831,750	2.30
JP Morgan Growth Advantage (JGVVX)	9,263,308	2.41
JP Morgan Mid Cap Equity Select (VSNGX)	2,837,006	0.74
JP Morgan US Small Company Instl (JUSSX)	1,048,744	0.27
State Street Global Equity	27,405,290	7.14
Strategic Solutions Global Equity	14,582,461	3.80
JP Morgan Intl Research (OIEAX)	8,909,423	2.32
JP Morgan Intrepid International (JIFFX)	6,089,661	1.59
JP Morgan International Equity R6 (JNEMX)	6,429,189	1.67
JP Morgan Emerging Markets Equity (JMIEX)	4,343,582	1.13
JP Morgan Emerging Markets Research Enhanced Equity	3,120,824	0.81
<b>Total Global Fixed Income</b>	<b>62,096,024</b>	<b>16.18</b>
SSGA Funds	72,432	0.02
JPM Open Cash	316,562	0.08
State Street Aggregate Bond IN	27,215,581	7.09
JP Morgan Core Bond (JCBUX)	5,279,533	1.38
JP Morgan Core Plus (HLIPX)	3,742,428	0.97
WAMCO Short Dated High Yield Portfolio	5,965,355	1.55
JP Morgan High Yield R6 (JHYUX)	9,505,534	2.48
JP Morgan Floating Rate Income (JPHSX)	5,532,086	1.44
JP Morgan Emerging Mkt Strategic Debt (JECSX)	1,953,466	0.51
JP Morgan Emerging Markets Debt	2,513,047	0.65

## Native Hawaiian Trust Fund

## Asset Allocation

As of June 30, 2019

	Total Fund	
	(\$)	%
<b>Total Global Real Assets</b>	<b>17,620,670</b>	<b>4.59</b>
iShares TIPS Bond (TIP)	2,806,638	0.73
JP Morgan Inflation Managed (JRBSX)	2,805,612	0.73
JPM Realty Income Inst (JPINX)	4,683,898	1.22
State Street Real Asset NL CTF (HWA5)	2,354,659	0.61
SSGA S&P Global Natural Resources Index	1,534,797	0.40
SSGA Tuckerman U.S. REIT Index	2,421,262	0.63
Harvest MLP Income	1,013,805	0.26
<b>Total Private Equity</b>	<b>80,748,737</b>	<b>21.03</b>
<b>Total Diversified Private Equity</b>	<b>56,166,529</b>	<b>14.63</b>
<b>Total Private Equity Fund of Funds</b>	<b>42,571,473</b>	<b>11.09</b>
Pantheon Europe Fund IV LP	493,202	0.13
Pantheon USA Fund VI LP	1,329,139	0.35
Pantheon Europe Fund VI LP	2,259,797	0.59
Pantheon USA Fund VIII LP	4,739,481	1.23
GS PEP 2004 Offshore	709,007	0.18
GS PEP 2005 Offshore	341,842	0.09
GS PEP Asia Offshore	253,508	0.07
GS PEP IX Offshore	222,184	0.06
GS PEP X Offshore	1,020,415	0.27
Commonfund International Partners VII	2,169,458	0.57
Commonfund Venture Partners X	8,416,664	2.19
Pantheon Emerging Asia Fund VI LP	2,499,914	0.65
Commonfund Private Equity Partners VIII	1,590,466	0.41
GS GEM PEM Off	2,395,621	0.62
Commonfund Emerging Markets Partners 2013	5,424,234	1.41
Commonfund Private Equity Partners IX	1,628,564	0.42
Commonfund International Partners VIII	1,829,166	0.48
Commonfund Venture Partners XI	5,248,811	1.37

## Native Hawaiian Trust Fund

## Asset Allocation

As of June 30, 2019

	Total Fund	
	(\$)	%
<b>Total Private Equity Multi-Strategy</b>	<b>13,595,056</b>	<b>3.54</b>
Pantheon Global Co-Investment Opps II	858,129	0.22
Pantheon Global Secondary Fund II LP	73,901	0.02
GS Vintage V Offshore	443,920	0.12
Pantheon Global Secondary Fund IV LP	1,030,545	0.27
GS Vintage VI Offshore	1,854,787	0.48
GS Vintage VII Offshore	3,507,120	0.91
Pantheon Global Secondary Fund V	4,754,294	1.24
GS Co-Investment Partners II Offshore	1,072,360	0.28
<b>Total Private Debt</b>	<b>6,321,604</b>	<b>1.65</b>
GS Mezzanine V	134,516	0.04
Highbridge Offshore Mezzanine Partners II LP	1,784,217	0.46
Highbridge Irish Specialty Loan Fund III	703,080	0.18
GS Broad Street Senior Credit Partners	1,199,181	0.31
Highbridge European Asset Value Offshore	2,500,610	0.65
<b>Total Private Real Assets</b>	<b>18,260,605</b>	<b>4.76</b>
Commonfund Natural Resources Partners IX	9,190,438	2.39
JP Morgan Asian I&R Res Opp Fund II	581,044	0.15
GS Broad Street Real Estate Credit Partners II GP, L.L.C.	365,016	0.10
Pantheon Global Infrastructure Fund II	1,675,961	0.44
Commonfund Natural Resources Partners X	6,448,146	1.68
<b>Total Hedge Funds</b>	<b>47,389,877</b>	<b>12.34</b>
Global Absolute Alpha Company	25,657,257	6.68
PIMCO Tactical Opportunities Fund	21,732,620	5.66
<b>Total Enhanced Liquidity Account</b>	<b>7,829,238</b>	<b>2.04</b>
SSGA 1-3 Year U.S. Credit Index (CM2WNON)	7,829,238	2.04
<b>Hawaii Direct Investments</b>	<b>18,051,451</b>	<b>4.70</b>
SSGA Real Asset NL Strategy (HWA4)	18,051,451	4.70
Cash Awaiting Transfer	-	0.00

# Native Hawaiian Trust Fund

## Comparative Performance

As of June 30, 2019

	Allocation		Performance (%)										
	Market Value (\$000)	%	1 Month	1 Quarter	Year To Date	Jul-2018 To Jun-2019	1 Year	3 Years	5 Years	7 Years	Since Inception	Inception Date	Expense Ratio
<b>Total OHA Plan</b>	383,890	100.00	3.13	2.25	9.77	5.95	5.95	8.86	5.15	7.29	8.30	03/01/2003	
<i>IPS Total OHA Benchmark</i>			4.26	3.51	12.12	7.39	7.39	8.94	5.47	7.48	7.54		
All Endowments-Total Fund Median			4.01	2.94	11.44	5.36	5.36	8.55	5.30	7.66	7.75		
Total OHA Plan Rank			76	86	74	35	35	40	54	61	28		
Population			303	302	299	293	293	275	245	215	109		
<b>Total Traditional Assets</b>	303,142	78.97	4.02	2.92	11.23	5.51	5.51	9.94	5.48	8.53	7.35	01/01/2011	
<i>Traditional Assets Benchmark</i>			3.65	3.24	10.65	6.90	6.90	7.61	5.10	6.64	6.06		
<b>Total Global Equities</b>	150,154	39.11	6.55	3.80	16.88	5.71	5.71	12.44	6.44	10.19	8.47	03/01/2003	
<i>IPS Global Equities Benchmark</i>			6.55	3.61	16.23	5.74	5.74	11.72	6.21	10.02	8.97		
<b>SS Money Market (SALXX)</b>	1	0.00	0.00	0.00	0.35	1.22	1.22	N/A	N/A	N/A	0.88	12/01/2016	0.37
<i>90 Day U.S. Treasury Bill</i>			0.22	0.64	1.24	2.31	2.31	1.37	0.85	0.63	1.55		
IM U.S. Taxable Money Market (MF) Median			0.17	0.52	1.05	1.96	1.96	1.06	0.64	0.46	1.23		0.42
SS Money Market (SALXX) Rank			99	99	99	95	95	N/A	N/A	N/A	84		
Population			819	819	816	806	806	743	641	626	772		
<b>Commonfund Open Cash</b>	1,187	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	07/01/2012	
<i>90 Day U.S. Treasury Bill</i>			0.22	0.64	1.24	2.31	2.31	1.37	0.85	0.63	0.63		
IM U.S. Cash Fixed Income (SA+CF) Median			0.29	0.86	1.84	2.87	2.87	1.85	1.42	1.33	1.33		
Commonfund Open Cash Rank			100	100	100	100	100	100	100	100	100		
Population			55	55	55	55	55	52	50	44	44		
<b>State Street S&amp;P 500 Index Strategy (SSSYX)</b>	33,431	8.71	6.94	4.21	18.48	10.28	10.28	N/A	N/A	N/A	15.96	11/01/2016	0.015
<i>S&amp;P 500</i>			7.05	4.30	18.54	10.42	10.42	14.19	10.71	13.98	15.26		
IM U.S. Large Cap Core Equity (MF) Median			6.70	4.17	17.88	9.26	9.26	13.11	9.33	12.89	13.97		0.81
State Street S&P 500 Index Strategy (SSSYX) Rank			34	49	39	36	36	N/A	N/A	N/A	15		
Population			780	773	768	734	734	635	563	526	646		
<b>JP Morgan US Large Cap Core Plus (JLPSX)</b>	13,560	3.53	6.69	4.08	17.70	7.25	7.25	14.08	9.21	N/A	10.13	05/01/2014	0.85
<i>S&amp;P 500</i>			7.05	4.30	18.54	10.42	10.42	14.19	10.71	13.98	11.28		
IM U.S. Large Cap Core Equity (MF) Median			6.70	4.17	17.88	9.26	9.26	13.11	9.33	12.89	9.96		0.81
JP Morgan US Large Cap Core Plus (JLPSX) Rank			51	55	53	71	71	29	53	N/A	46		
Population			780	773	768	734	734	635	563	526	561		



# Native Hawaiian Trust Fund

## Comparative Performance

As of June 30, 2019

	Allocation		Performance (%)											
	Market Value (\$000)	%	1 Month	1 Quarter	Year To Date	Jul-2018 To Jun-2019	1 Year	3 Years	5 Years	7 Years	Since Inception	Inception Date	Expense Ratio	
JP Morgan Disciplined Equity R6 (JDEUX)	9,114	2.37	7.08	4.22	18.15	9.80	9.80	13.97	9.32	13.48	12.80	05/01/2012	0.25	
S&P 500			7.05	4.30	18.54	10.42	10.42	14.19	10.71	13.98	13.29			
IM U.S. Large Cap Core Equity (MF) Median			6.70	4.17	17.88	9.26	9.26	13.11	9.33	12.89	12.06		0.81	
JP Morgan Disciplined Equity R6 (JDEUX) Rank			23	48	45	41	41	33	51	31	26			
Population			780	773	768	734	734	635	563	526	520			
JP Morgan Value Advantage Instl (JVAIX)	8,832	2.30	6.45	3.90	16.90	7.56	7.56	11.24	7.52	12.05	11.48	05/01/2012	0.75	
Russell 3000 Value Index			7.12	3.68	16.05	7.34	7.34	10.19	7.31	11.96	11.48			
IM U.S. Multi-Cap Value Equity (MF) Median			7.15	3.16	15.06	2.80	2.80	9.83	5.92	11.07	10.24		0.91	
JP Morgan Value Advantage Instl (JVAIX) Rank			73	24	29	16	16	20	17	20	14			
Population			398	398	398	393	393	340	296	262	261			
JP Morgan Growth Advantage (JGVVX)	9,263	2.41	7.18	4.57	23.41	10.19	10.19	20.47	14.01	17.27	15.76	05/01/2012	0.64	
Russell 3000 Growth Index			6.93	4.50	21.41	10.60	10.60	17.81	13.02	15.54	14.53			
IM U.S. Multi-Cap Growth Equity (MF) Median			6.63	4.87	22.18	10.33	10.33	16.30	11.00	14.22	13.06		1.01	
JP Morgan Growth Advantage (JGVVX) Rank			25	55	39	51	51	15	12	7	9			
Population			546	546	543	531	531	477	420	363	355			
JP Morgan Mid Cap Equity Select (VSNGX)	2,837	0.74	6.76	4.75	23.68	10.20	10.20	13.26	9.06	13.78	13.90	06/01/2012	0.89	
Russell Midcap Index			6.87	4.13	21.35	7.83	7.83	12.16	8.63	13.37	13.64			
IM U.S. Multi-Cap Growth Equity (MF) Median			6.63	4.87	22.18	10.33	10.33	16.30	11.00	14.22	14.40		1.01	
JP Morgan Mid Cap Equity Select (VSNGX) Rank			42	52	37	51	51	84	77	58	58			
Population			546	546	543	531	531	477	420	363	357			
JP Morgan US Small Company Instl (JUSSX)	1,049	0.27	7.06	-0.30	11.81	-8.33	-8.33	8.57	5.36	11.32	11.94	06/01/2012	0.83	
Russell 2000 Index			7.07	2.10	16.98	-3.31	-3.31	12.30	7.06	11.63	12.26			
IM U.S. Small Cap Core Equity (MF) Median			7.25	1.67	13.47	-6.11	-6.11	10.05	6.35	10.71	11.41		1.08	
JP Morgan US Small Company Instl (JUSSX) Rank			57	94	73	69	69	69	64	43	41			
Population			165	165	165	162	162	146	119	105	105			
State Street Global Equity (SSGLX)	27,405	7.14	5.94	3.10	13.70	1.44	1.44	N/A	N/A	N/A	9.29	11/01/2016	0.025	
MSCI AC World ex USA			6.07	3.22	14.00	1.80	1.80	9.91	2.65	6.85	9.01			
IM International Large Cap Core Equity (MF) Median			6.04	3.03	13.66	-0.39	-0.39	8.30	1.07	6.11	7.70		1.02	
State Street Global Equity (SSGLX) Rank			69	46	50	23	23	N/A	N/A	N/A	12			
Population			87	86	86	81	81	67	55	50	69			

# Native Hawaiian Trust Fund

## Comparative Performance

As of June 30, 2019

	Allocation		Performance (%)										
	Market Value (\$000)	%	1 Month	1 Quarter	Year To Date	Jul-2018 To Jun-2019	1 Year	3 Years	5 Years	7 Years	Since Inception	Inception Date	Expense Ratio
Strategic Solutions Global Equity	14,582	3.80	6.55	4.34	17.60	6.66	6.66	12.33	6.58	N/A	6.58	07/01/2014	
MSCI AC World Index (Net)			6.55	3.61	16.23	5.74	5.74	11.62	6.16	9.87	6.16		
IM Global Equity (SA+CF) Median			6.32	3.94	16.80	5.76	5.76	11.45	6.90	11.03	6.90		
Strategic Solutions Global Equity Rank			40	40	45	45	45	41	56	N/A	56		
Population			475	475	475	473	473	447	405	351	405		
JP Morgan Intl Research (OIEAX)	8,909	2.32	6.11	3.49	14.05	0.21	0.21	N/A	N/A	N/A	0.29	10/01/2017	0.35
MSCI EAFE (Net)			5.93	3.68	14.03	1.08	1.08	9.11	2.25	7.31	1.40		
IM International Large Cap Core Equity (MF) Median			6.04	3.03	13.66	-0.39	-0.39	8.30	1.07	6.11	-0.26		1.02
JP Morgan Intl Research (OIEAX) Rank			45	36	46	41	41	N/A	N/A	N/A	40		
Population			87	86	86	81	81	67	55	50	72		
JP Morgan Intrepid International (JIFFX)	6,090	1.59	5.68	1.81	11.81	-3.54	-3.54	6.92	1.23	6.64	5.41	05/01/2012	0.50
MSCI EAFE (Net)			5.93	3.68	14.03	1.08	1.08	9.11	2.25	7.31	6.32		
IM International Equity (MF) Median			5.95	2.58	13.47	-0.27	-0.27	8.44	2.22	6.36	5.36		1.10
JP Morgan Intrepid International (JIFFX) Rank			62	64	69	75	75	73	69	45	49		
Population			3,255	3,253	3,209	3,089	3,089	2,665	2,138	1,758	1,735		
JP Morgan International Equity R6 (JNEMX)	6,429	1.67	7.57	6.19	19.35	3.37	3.37	10.68	3.12	6.93	5.87	05/01/2012	0.50
MSCI EAFE (Net)			5.93	3.68	14.03	1.08	1.08	9.11	2.25	7.31	6.32		
IM International Large Cap Core Equity (MF) Median			6.04	3.03	13.66	-0.39	-0.39	8.30	1.07	6.11	5.22		1.02
JP Morgan International Equity R6 (JNEMX) Rank			2	1	9	5	5	10	1	26	28		
Population			87	86	86	81	81	67	55	50	50		
JP Morgan Emerging Markets Equity (JMIEEX)	4,344	1.13	7.14	4.23	21.34	10.11	10.11	14.49	5.17	5.94	3.45	07/01/2011	0.95
MSCI EM (net)			6.24	0.61	10.59	1.21	1.21	10.66	2.49	4.15	1.40		
IM Emerging Markets Equity (MF) Median			6.30	1.59	12.23	0.93	0.93	9.17	2.10	3.95	1.20		1.25
JP Morgan Emerging Markets Equity (JMIEEX) Rank			14	9	3	4	4	3	4	17	13		
Population			896	896	883	844	844	723	571	409	337		
JP Morgan Emerging Markets Research Enhanced Equity	3,121	0.81	6.42	1.15	N/A	N/A	N/A	N/A	N/A	N/A	1.83	02/01/2019	0.51
MSCI EM (net)			6.24	0.61	10.59	1.21	1.21	10.66	2.49	4.15	1.68		
IM Emerging Markets Equity (MF) Median			6.30	1.59	12.23	0.93	0.93	9.17	2.10	3.95	3.23		1.25
JP Morgan Emerging Markets Research Enhanced Equity Rank			44	60	N/A	N/A	N/A	N/A	N/A	N/A	70		
Population			896	896	883	844	844	723	571	409	889		

# Native Hawaiian Trust Fund

## Comparative Performance

As of June 30, 2019

	Allocation		Performance (%)										Expense Ratio
	Market Value (\$000)	%	1 Month	1 Quarter	Year To Date	Jul-2018 To Jun-2019	1 Year	3 Years	5 Years	7 Years	Since Inception	Inception Date	
Total Global Fixed Income	62,096	16.18	1.55	2.72	6.39	6.91	6.91	3.53	2.16	2.94	4.63	03/01/2003	
<i>IPS Global Fixed Income Benchmark</i>			1.26	3.08	6.11	7.87	7.87	4.14	3.27	3.34	4.41		
SSGA Funds	72	0.02	0.00	0.00	0.00	0.76	0.76	0.64	0.39	N/A	0.34	11/01/2013	
<i>90 Day U.S. Treasury Bill</i>			0.22	0.64	1.24	2.31	2.31	1.37	0.85	0.63	0.76		
IM U.S. Cash Fixed Income (SA+CF) Median			0.29	0.86	1.84	2.87	2.87	1.85	1.42	1.33	1.34		
SSGA Funds Rank			100	100	100	100	100	100	100	N/A	100		
Population			55	55	55	55	55	52	50	44	47		
JPM Open Cash	317	0.08	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	07/01/2011	
<i>90 Day U.S. Treasury Bill</i>			0.22	0.64	1.24	2.31	2.31	1.37	0.85	0.63	0.55		
IM U.S. Cash Fixed Income (SA+CF) Median			0.29	0.86	1.84	2.87	2.87	1.85	1.42	1.33	1.28		
JPM Open Cash Rank			100	100	100	100	100	100	100	100	100		
Population			55	55	55	55	55	52	50	44	42		
State Street Aggregate Bond Index (SSFEX)	27,216	7.09	1.26	3.10	6.10	7.81	7.81	N/A	N/A	N/A	2.46	11/01/2016	0.03
<i>Blmbg. Barc. U.S. Aggregate</i>			1.26	3.08	6.11	7.87	7.87	2.31	2.95	2.62	2.73		
IM U.S. Broad Market Core Fixed Income (MF) Median			1.27	3.04	6.34	7.56	7.56	2.39	2.67	2.62	2.65		0.60
State Street Aggregate Bond Index (SSFEX) Rank			53	40	65	33	33	N/A	N/A	N/A	65		
Population			528	528	525	513	513	449	381	342	457		
JP Morgan Core Bond (JCBUX)	5,280	1.38	1.10	3.05	6.08	7.89	7.89	N/A	N/A	N/A	4.04	11/01/2017	0.35
<i>Blmbg. Barc. U.S. Aggregate</i>			1.26	3.08	6.11	7.87	7.87	2.31	2.95	2.62	3.84		
IM U.S. Broad Market Core Fixed Income (MF) Median			1.27	3.04	6.34	7.56	7.56	2.39	2.67	2.62	3.56		0.60
JP Morgan Core Bond (JCBUX) Rank			79	46	67	25	25	N/A	N/A	N/A	14		
Population			528	528	525	513	513	449	381	342	492		
JP Morgan Core Plus (HLIPX)	3,742	0.97	1.24	2.96	6.47	7.95	7.95	N/A	N/A	N/A	3.99	11/01/2017	0.46
<i>Blmbg. Barc. U.S. Aggregate</i>			1.26	3.08	6.11	7.87	7.87	2.31	2.95	2.62	3.84		
IM U.S. Broad Market Core+ Fixed Income (MF) Median			1.30	3.07	6.81	7.77	7.77	3.07	2.93	3.08	3.64		0.67
JP Morgan Core Plus (HLIPX) Rank			61	62	62	41	41	N/A	N/A	N/A	24		
Population			311	311	308	296	296	242	196	176	265		
WAMCO Short Dated High Yield Portfolio	5,965	1.55	1.52	1.60	7.43	6.33	6.33	6.65	1.23	N/A	1.83	12/01/2013	
<i>Blmbg. Barc. U.S. High Yield Ba/B 2% Issuer Cap</i>			2.49	2.88	10.31	8.77	8.77	7.09	4.74	6.17	5.31		
IM U.S. High Yield Bonds (SA+CF) Median			2.09	2.54	9.64	7.31	7.31	7.33	4.54	6.29	5.25		
WAMCO Short Dated High Yield Portfolio Rank			74	88	76	70	70	73	100	N/A	100		
Population			173	173	172	172	172	164	155	139	148		

# Native Hawaiian Trust Fund

## Comparative Performance

As of June 30, 2019

	Allocation		Performance (%)										
	Market Value (\$000)	%	1 Month	1 Quarter	Year To Date	Jul-2018 To Jun-2019	1 Year	3 Years	5 Years	7 Years	Since Inception	Inception Date	Expense Ratio
JP Morgan High Yield R6 (JHYUX)	9,506	2.48	2.31	2.11	9.63	6.53	6.53	6.49	3.90	5.63	5.56	05/01/2012	0.60
<i>Blmbg. Barc. U.S. High Yield - 2% Issuer Cap</i>			2.28	2.50	9.94	7.48	7.48	7.52	4.71	6.36	6.32		
IM U.S. High Yield Bonds (MF) Median			2.24	2.40	9.37	6.41	6.41	6.44	3.50	5.36	5.28		0.89
JP Morgan High Yield R6 (JHYUX) Rank			45	70	42	46	46	48	33	35	34		
Population			702	702	698	676	676	584	500	411	403		
JP Morgan Floating Rate Income (JPHSX)	5,532	1.44	0.56	1.18	5.06	3.18	3.18	N/A	N/A	N/A	2.78	10/01/2017	0.75
<i>Credit Suisse Leveraged Loan Index</i>			0.22	1.58	5.42	4.15	4.15	5.43	3.86	4.71	4.43		
IM U.S. Bank Loans (MF) Median			0.25	1.33	5.22	3.12	3.12	4.39	2.95	3.69	3.36		0.99
JP Morgan Floating Rate Income (JPHSX) Rank			2	71	61	45	45	N/A	N/A	N/A	79		
Population			252	252	245	243	243	216	194	148	229		
JP Morgan Emerging Mkt Strategic Debt (JECSX)	1,953	0.51	3.51	3.88	9.89	9.02	9.02	3.45	-1.47	N/A	-2.02	01/01/2013	0.95
<i>JPM GBI-EM Global Diversified</i>			5.51	5.64	8.72	8.99	8.99	4.24	-0.45	0.41	-0.90		
IM Emerging Markets Debt (MF) Median			3.52	3.92	10.20	10.47	10.47	4.94	3.45	4.05	2.67		0.95
JP Morgan Emerging Mkt Strategic Debt (JECSX) Rank			52	55	60	80	80	90	95	N/A	94		
Population			290	290	290	277	277	228	180	113	133		
JP Morgan Emerging Markets Debt	2,513	0.65	3.48	3.39	N/A	N/A	N/A	N/A	N/A	N/A	3.39	04/01/2019	0.95
<i>JPM EMBI Global Diversified</i>			3.40	4.08	11.31	12.45	12.45	5.47	5.30	5.57	4.08		
IM Emerging Markets Debt (MF) Median			3.52	3.92	10.20	10.47	10.47	4.94	3.45	4.05	3.92		0.95
JP Morgan Emerging Markets Debt Rank			56	80	N/A	N/A	N/A	N/A	N/A	N/A	80		
Population			290	290	290	277	277	228	180	113	290		
Total Global Real Assets	17,621	4.59	2.41	1.91	13.00	5.83	5.83	3.79	4.27	6.70	7.98	11/01/2003	
<i>IPS Real Asset Benchmark</i>			1.11	3.63	7.73	7.98	7.98	4.08	4.62	7.24	8.57		
iShares TIPS Bond (TIP)	2,807	0.73	0.75	2.75	6.08	4.59	4.59	N/A	N/A	N/A	3.32	11/01/2017	0.19
<i>Blmbg. Barc. U.S. TIPS</i>			0.86	2.86	6.15	4.84	4.84	2.08	1.76	1.17	3.50		
IM U.S. TIPS (MF) Median			0.73	2.50	5.77	4.09	4.09	1.84	1.14	0.70	2.77		0.60
iShares TIPS Bond (TIP) Rank			44	21	38	25	25	N/A	N/A	N/A	14		
Population			232	232	232	228	228	198	169	140	219		
JP Morgan Inflation Managed (JRBSX)	2,806	0.73	0.86	1.79	4.63	3.67	3.67	N/A	N/A	N/A	2.23	11/01/2017	0.60
<i>Blmbg. Barc. U.S. TIPS 1-10 Year</i>			0.99	2.53	5.17	4.67	4.67	1.93	1.42	1.06	3.14		
IM U.S. TIPS (MF) Median			0.73	2.50	5.77	4.09	4.09	1.84	1.14	0.70	2.77		0.60
JP Morgan Inflation Managed (JRBSX) Rank			30	80	79	68	68	N/A	N/A	N/A	78		
Population			232	232	232	228	228	198	169	140	219		

# Native Hawaiian Trust Fund

## Comparative Performance

As of June 30, 2019

	Allocation		Performance (%)										
	Market Value (\$000)	%	1 Month	1 Quarter	Year To Date	Jul-2018 To Jun-2019	1 Year	3 Years	5 Years	7 Years	Since Inception	Inception Date	Expense Ratio
JPM Realty Income Inst (JPINX)	4,684	1.22	1.84	2.92	20.66	12.07	12.07	3.47	7.34	7.85	8.49	07/01/2011	0.68
<i>Wilshire US REIT Index</i>			1.42	1.63	17.92	10.53	10.53	4.11	7.84	8.72	9.27		
IM Real Estate Sector (MF) Median			1.38	2.03	18.42	10.58	10.58	4.01	7.17	7.94	8.52		1.05
JPM Realty Income Inst (JPINX) Rank			13	18	15	33	33	61	45	56	52		
Population			268	268	265	256	256	226	199	170	161		
State Street Real Asset NL CTF	2,355	0.61	3.86	1.32	10.46	1.95	1.95	N/A	N/A	N/A	5.14	12/01/2016	
<i>FTSE EPRA/NAREIT Developed Index (Net)</i>			1.56	-0.07	14.51	7.68	7.68	4.46	4.85	7.26	8.25		
Global Real Assets (MF) Median			4.38	-0.94	13.04	-6.00	-6.00	0.63	-6.60	-2.00	-0.44		
State Street Real Asset NL CTF Rank			58	31	63	31	31	N/A	N/A	N/A	28		
Population			710	710	707	684	684	592	504	395	600		
SSGA S&P Global Natural Resources Index	1,535	0.40	9.65	1.72	14.14	0.90	0.90	10.35	-0.65	N/A	3.60	01/01/2013	
<i>S&amp;P Global Natural Resources Sector Index</i>			9.74	1.30	13.84	-4.02	-4.02	11.37	0.74	3.01	1.84		
IM Global Natural Resources (MF) Median			8.73	-0.49	13.07	-10.91	-10.91	2.91	-6.29	0.41	-1.03		
SSGA S&P Global Natural Resources Index Rank			21	25	31	27	27	10	24	N/A	22		
Population			106	106	106	101	101	94	91	81	85		
SSGA Tuckerman U.S. REIT Index	2,421	0.63	1.35	0.81	16.63	9.80	9.80	3.51	7.24	N/A	8.37	01/01/2013	
<i>FTSE NAREIT All REITs Index</i>			1.63	1.77	18.77	12.65	12.65	6.17	8.78	9.60	9.70		
IM U.S. REIT (SA+CF) Median			1.42	2.11	19.22	12.33	12.33	5.25	8.76	9.49	9.75		
SSGA Tuckerman U.S. REIT Index Rank			67	92	89	89	89	92	91	N/A	97		
Population			48	48	48	48	48	47	47	43	45		
Harvest MLP Income	1,014	0.26	3.31	-0.94	17.17	-2.15	-2.15	N/A	N/A	N/A	3.97	03/01/2018	
<i>Alerian MLP Index</i>			2.64	0.12	16.96	3.09	3.09	-0.42	-7.20	1.02	5.39		

# Native Hawaiian Trust Fund

## Comparative Performance

As of June 30, 2019

	Allocation		Performance (%)										Expense Ratio
	Market Value (\$000)	%	1 Month	1 Quarter	Year To Date	Jul-2018 To Jun-2019	1 Year	3 Years	5 Years	7 Years	Since Inception	Inception Date	
<b>Total Hedge Funds</b>	<b>47,390</b>	<b>12.34</b>	<b>0.71</b>	<b>1.71</b>	<b>3.96</b>	<b>4.46</b>	<b>4.46</b>	<b>3.71</b>	<b>2.24</b>	<b>3.88</b>	<b>1.78</b>	<b>07/01/2010</b>	
<i>IPS Hedge Fund Benchmark</i>			<i>0.55</i>	<i>1.63</i>	<i>3.25</i>	<i>6.40</i>	<i>6.40</i>	<i>5.43</i>	<i>4.89</i>	<i>5.17</i>	<i>4.49</i>		
<b>Global Absolute Alpha Company</b>	<b>25,657</b>	<b>6.68</b>	<b>1.07</b>	<b>1.73</b>	<b>4.00</b>	<b>4.80</b>	<b>4.80</b>	<b>3.63</b>	<b>1.56</b>	<b>3.66</b>	<b>2.72</b>	<b>08/01/2011</b>	
<i>90 Day T-Bills +4%</i>			<i>0.55</i>	<i>1.63</i>	<i>3.25</i>	<i>6.40</i>	<i>6.40</i>	<i>5.44</i>	<i>4.91</i>	<i>4.67</i>	<i>4.60</i>		
<b>Fund of Funds Hedge Funds-[TASS] Median</b>			<b>2.72</b>	<b>1.99</b>	<b>4.57</b>	<b>-1.04</b>	<b>-1.04</b>	<b>2.67</b>	<b>-0.77</b>	<b>1.59</b>	<b>N/A</b>		
Global Absolute Alpha Company Rank			83	58	58	20	20	36	28	23	N/A		
Population			957	951	947	941	941	890	798	707	N/A		
<b>PIMCO Tactical Opportunities Fund</b>	<b>21,733</b>	<b>5.66</b>	<b>0.29</b>	<b>1.69</b>	<b>3.91</b>	<b>4.07</b>	<b>4.07</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>5.95</b>	<b>02/01/2018</b>	
<i>Blmbg. Barc. U.S. Aggregate</i>			<i>1.26</i>	<i>3.08</i>	<i>6.11</i>	<i>7.87</i>	<i>7.87</i>	<i>2.31</i>	<i>2.95</i>	<i>2.62</i>	<i>5.14</i>		
<b>Multi-Strategy Hedge Funds-[TASS] Median</b>			<b>3.36</b>	<b>3.96</b>	<b>5.86</b>	<b>7.77</b>	<b>7.77</b>	<b>4.18</b>	<b>-0.09</b>	<b>1.10</b>	<b>N/A</b>		
PIMCO Tactical Opportunities Fund Rank			91	80	74	68	68	N/A	N/A	N/A	N/A		
Population			601	601	600	595	595	578	555	514	N/A		
<b>Total Enhanced Liquidity Account</b>	<b>7,829</b>	<b>2.04</b>	<b>0.65</b>	<b>1.55</b>	<b>3.22</b>	<b>4.83</b>	<b>4.83</b>	<b>1.12</b>	<b>1.88</b>	<b>2.57</b>	<b>4.17</b>	<b>07/01/2010</b>	
<i>IPS Enhanced Liquidity Account Benchmark</i>			<i>0.52</i>	<i>1.47</i>	<i>2.47</i>	<i>4.02</i>	<i>4.02</i>	<i>0.62</i>	<i>2.20</i>	<i>2.38</i>	<i>3.60</i>		
<b>SSGA 1-3 Year U.S. Credit Index (CM2WNON)</b>	<b>7,829</b>	<b>2.04</b>	<b>0.65</b>	<b>1.55</b>	<b>3.22</b>	<b>4.83</b>	<b>4.83</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>2.38</b>	<b>02/01/2017</b>	
<i>Blmbg. Barc. 1-3 Year Credit</i>			<i>0.64</i>	<i>1.54</i>	<i>3.24</i>	<i>4.82</i>	<i>4.82</i>	<i>2.17</i>	<i>1.93</i>	<i>1.98</i>	<i>2.59</i>		
<b>IM U.S. Short Duration Fixed Income (SA+CF) Median</b>			<b>0.56</b>	<b>1.51</b>	<b>2.99</b>	<b>4.47</b>	<b>4.47</b>	<b>1.94</b>	<b>1.82</b>	<b>1.76</b>	<b>2.48</b>		
SSGA 1-3 Year U.S. Credit Index (CM2WNON) Rank			26	42	28	25	25	N/A	N/A	N/A	60		
Population			107	107	106	106	106	101	99	95	104		
<b>Hawaii Direct Investments</b>	<b>18,051</b>	<b>4.70</b>	<b>3.86</b>	<b>1.32</b>	<b>10.46</b>	<b>1.95</b>	<b>1.95</b>	<b>4.15</b>	<b>-0.25</b>	<b>0.98</b>	<b>2.26</b>	<b>07/01/2010</b>	
<i>IPS Hawaii Direct Investment Benchmark</i>			<i>1.11</i>	<i>3.63</i>	<i>7.73</i>	<i>7.98</i>	<i>7.98</i>	<i>5.82</i>	<i>0.77</i>	<i>1.85</i>	<i>2.38</i>		
<b>SSGA Real Asset NL Strategy</b>	<b>18,051</b>	<b>4.70</b>	<b>3.86</b>	<b>1.32</b>	<b>10.46</b>	<b>1.95</b>	<b>1.95</b>	<b>4.18</b>	<b>-0.12</b>	<b>N/A</b>	<b>1.08</b>	<b>06/01/2013</b>	
<i>FTSE EPRA/NAREIT Developed Index (Net)</i>			<i>1.56</i>	<i>-0.07</i>	<i>14.51</i>	<i>7.68</i>	<i>7.68</i>	<i>4.46</i>	<i>4.85</i>	<i>7.26</i>	<i>5.68</i>		
<b>Global Real Assets (MF) Median</b>			<b>4.38</b>	<b>-0.94</b>	<b>13.04</b>	<b>-6.00</b>	<b>-6.00</b>	<b>0.63</b>	<b>-6.60</b>	<b>-2.00</b>	<b>-3.34</b>		
SSGA Real Asset NL Strategy Rank			58	31	63	31	31	32	27	N/A	27		
Population			710	710	707	684	684	592	504	395	442		

# Native Hawaiian Trust Fund

## Comparative Performance

As of June 30, 2019

	Allocation		Performance (%)										
	Market Value (\$000)	%	1 Month	1 Quarter	Year To Date	Jul-2018 To Jun-2019	1 Year	3 Years	5 Years	7 Years	Since Inception	Inception Date	Expense Ratio
<b>Total Private Equity</b>	80,749	21.03	0.12	0.17	4.96	8.36	8.36	14.44	10.13	11.50	10.82	07/01/2004	
MSCI ACWI +3%			6.86	4.57	18.33	9.51	9.51	15.59	9.94	13.78	10.82	07/01/2004	
<b>Total Fund of Funds</b>	42,571	11.09	0.14	0.16	5.45	13.85	13.85	14.95	11.65	13.07	8.30	08/01/2004	
Pantheon Europe Fund IV LP	493	0.13	0.00	0.00	0.59	3.22	3.22	7.14	2.98	6.24	3.83	09/01/2005	
Pantheon USA Fund VI LP	1,329	0.35	0.00	0.00	2.63	1.49	1.49	6.97	4.47	7.46	5.15	07/01/2004	
Pantheon Europe Fund VI LP	2,260	0.59	2.54	2.54	7.22	10.17	10.17	14.16	9.49	11.73	7.10	07/01/2008	
Pantheon USA Fund VIII LP	4,739	1.23	0.00	0.00	7.48	9.77	9.77	15.68	12.14	13.59	8.38	07/01/2008	
GS PEP 2004 Offshore	709	0.18	0.00	0.00	16.44	6.59	6.59	10.46	6.96	9.77	9.18	03/01/2005	
GS PEP 2005 Offshore	342	0.09	0.00	0.38	8.39	8.33	8.33	11.39	7.16	10.31	5.61	07/01/2006	
GS PEP Asia Offshore	254	0.07	0.00	0.20	5.27	-1.70	-1.70	5.34	9.27	13.55	5.77	09/01/2007	
GS PEP IX Offshore	222	0.06	0.00	0.62	4.99	3.26	3.26	13.20	11.56	13.68	7.23	09/01/2007	
GS PEP X Offshore	1,020	0.27	0.00	0.29	2.12	5.70	5.70	15.99	12.79	15.72	-0.54	10/01/2008	
Commonfund International Partners VII	2,169	0.57	0.00	0.00	1.22	-0.79	-0.79	7.41	8.48	8.48	0.63	06/01/2011	
Commonfund Venture Partners X	8,417	2.19	0.00	0.00	10.69	29.08	29.08	19.53	21.73	N/A	18.68	09/01/2012	
Pantheon Emerging Asia Fund VI LP	2,500	0.65	0.00	0.00	5.52	5.74	5.74	13.28	14.70	N/A	5.07	11/01/2012	
Commonfund Private Equity Partners VIII	1,590	0.41	0.00	0.00	3.24	18.14	18.14	18.36	16.48	N/A	15.90	11/01/2012	
GS GEM PEM Off	2,396	0.62	0.00	0.00	2.30	5.16	5.16	10.47	8.82	N/A	-3.72	05/01/2013	
Commonfund Emerging Markets Partners 2013	5,424	1.41	0.00	0.00	1.79	14.13	14.13	14.86	12.80	N/A	2.31	06/01/2013	
Commonfund Private Equity Partners IX	1,629	0.42	0.00	0.00	3.50	13.64	13.64	17.22	N/A	N/A	15.59	06/01/2015	
Commonfund International Partners VIII	1,829	0.48	0.00	0.00	2.08	12.47	12.47	10.90	N/A	N/A	2.33	06/01/2015	
Commonfund Venture Partners XI	5,249	1.37	0.00	0.00	4.68	25.29	25.29	22.17	N/A	N/A	24.27	02/01/2015	
<b>Total Multi-Strategy</b>	13,595	3.54	0.27	0.47	2.28	3.92	3.92	15.47	11.69	13.16	12.12	08/01/2004	
Pantheon Global Co-Investment Opps II	858	0.22	0.00	0.00	3.87	6.13	6.13	16.53	14.29	N/A	12.52	01/01/2013	
Pantheon Global Secondary Fund II LP	74	0.02	0.00	0.00	-8.02	-12.78	-12.78	-9.18	-6.60	-3.80	1.79	07/01/2004	
GS Vintage V Offshore	444	0.12	0.00	0.63	4.75	6.36	6.36	26.92	19.83	18.83	17.79	10/01/2008	
Pantheon Global Secondary Fund IV LP	1,031	0.27	3.48	3.48	3.72	2.52	2.52	9.27	5.10	9.84	12.79	08/01/2010	
GS Vintage VI Offshore	1,855	0.48	0.00	1.34	3.34	5.21	5.21	11.40	11.31	N/A	20.05	11/01/2012	
GS Vintage VII Offshore	3,507	0.91	0.00	0.00	7.60	13.76	13.76	N/A	N/A	N/A	53.29	09/01/2017	
Pantheon Global Secondary Fund V	4,754	1.24	0.00	0.00	-2.24	-1.58	-1.58	16.82	19.84	N/A	19.84	07/01/2014	
GS Co-Investment Partners II Offshore	1,072	0.28	0.00	0.00	3.63	N/A	N/A	N/A	N/A	N/A	-10.31	09/01/2018	
<b>Total Debt</b>	6,322	1.65	0.00	0.13	1.84	1.00	1.00	10.33	11.30	12.12	10.20	11/01/2007	
GS Mezzanine V	135	0.04	0.00	0.00	15.82	7.00	7.00	6.46	-2.13	1.87	4.08	12/01/2007	
Highbridge Offshore Mezzanine Partners II LP	1,784	0.46	0.00	0.00	-0.35	-13.62	-13.62	10.81	13.63	N/A	14.67	01/01/2013	
Highbridge Irish Specialty Loan Fund III	703	0.18	-0.01	1.16	3.45	6.38	6.38	8.40	8.72	N/A	8.89	06/01/2013	
GS Broad Street Senior Credit Partners	1,199	0.31	0.00	0.00	2.97	5.49	5.49	7.82	N/A	N/A	7.91	07/01/2015	
Highbridge European Asset Value Offshore	2,501	0.65	0.00	0.00	1.71	11.13	11.13	N/A	N/A	N/A	10.96	09/01/2016	

# Native Hawaiian Trust Fund

## Comparative Performance

As of June 30, 2019

	Allocation		Performance (%)										Expense Ratio
	Market Value (\$000)	%	1 Month	1 Quarter	Year To Date	Jul-2018 To Jun-2019	1 Year	3 Years	5 Years	7 Years	Since Inception	Inception Date	
Total Real Assets	18,261	4.76	0.00	0.00	7.04	2.31	2.31	16.25	7.03	N/A	-4.67	10/01/2012	
Commonfund Natural Resources Partners IX	9,190	2.39	0.00	0.00	7.96	-1.16	-1.16	13.78	4.88	N/A	-6.21	10/01/2012	
JP Morgan Asian I&R Res Opp Fund II	581	0.15	0.00	0.00	0.00	0.00	0.00	3.82	N/A	N/A	-7.37	11/01/2014	
GS Broad Street Real Estate Credit Partners II GP, L.L.C.	365	0.10	0.00	0.00	3.94	13.08	13.08	14.31	12.72	N/A	11.98	12/01/2013	
Pantheon Global Infrastructure Fund II	1,676	0.44	0.00	0.00	1.97	5.80	5.80	11.57	11.47	N/A	14.30	03/01/2014	
Commonfund Natural Resources Partners X	6,448	1.68	0.00	0.00	8.05	6.49	6.49	48.20	N/A	N/A	13.34	11/01/2015	



# Native Hawaiian Trust Fund

## Comparative Performance

As of March 31, 2019

	Allocation		Performance (%)										
	Market Value (\$000)	%	1 Month	1 Quarter	Year To Date	Jul-2018 To Mar-2019	1 Year	3 Years	5 Years	7 Years	Since Inception	Inception Date	Expense Ratio
<b>Total Private Equity</b>	82,993	21.82	4.72	4.78	4.78	8.18	12.78	15.11	11.05	11.66	11.00	07/01/2004	
MSCI ACWI +3%			1.57	13.16	13.16	4.73	6.26	14.61	10.24	12.28	10.68	07/01/2004	
<b>Total Fund of Funds</b>	43,891	11.54	5.25	5.29	5.29	13.67	18.07	15.35	12.59	13.15	8.43	08/01/2004	
Pantheon Europe Fund IV LP	493	0.13	0.59	0.59	0.59	3.22	0.71	6.02	3.69	5.90	3.90	09/01/2005	
Pantheon USA Fund VI LP	1,392	0.37	2.63	2.63	2.63	1.49	5.32	7.74	5.23	7.34	5.24	07/01/2004	
Pantheon Europe Fund VI LP	2,653	0.70	4.57	4.57	4.57	7.45	13.47	13.24	10.20	11.19	7.02	07/01/2008	
Pantheon USA Fund VIII LP	5,204	1.37	7.48	7.48	7.48	9.77	17.45	16.58	13.44	13.84	8.58	07/01/2008	
GS PEP 2004 Offshore	709	0.19	16.44	16.44	16.44	6.59	11.27	10.45	7.42	10.15	9.35	03/01/2005	
GS PEP 2005 Offshore	403	0.11	6.18	7.98	7.98	7.92	11.56	12.12	8.16	10.89	5.69	07/01/2006	
GS PEP Asia Offshore	275	0.07	5.06	5.06	5.06	-1.89	-1.80	5.84	10.13	13.72	5.88	09/01/2007	
GS PEP IX Offshore	264	0.07	4.35	4.35	4.35	2.63	9.22	14.41	12.97	13.89	7.33	09/01/2007	
GS PEP X Offshore	1,112	0.29	1.18	1.82	1.82	5.39	10.80	16.78	14.31	15.87	-0.58	10/01/2008	
Commonfund International Partners VII	2,207	0.58	1.22	1.22	1.22	-0.79	-3.70	6.39	9.67	7.71	0.65	06/01/2011	
Commonfund Venture Partners X	8,749	2.30	10.69	10.69	10.69	29.08	37.42	20.02	22.18	N/A	19.45	09/01/2012	
Pantheon Emerging Asia Fund VI LP	2,508	0.66	5.52	5.52	5.52	5.74	6.49	15.84	15.28	N/A	5.28	11/01/2012	
Commonfund Private Equity Partners VIII	1,692	0.44	3.24	3.24	3.24	18.14	22.95	20.06	18.14	N/A	16.57	11/01/2012	
GS GEM PEM Off	2,396	0.63	2.30	2.30	2.30	5.16	4.15	9.87	8.24	N/A	-3.87	05/01/2013	
Commonfund Emerging Markets Partners 2013	5,424	1.43	1.79	1.79	1.79	14.13	16.07	16.25	12.24	N/A	2.41	06/01/2013	
Commonfund Private Equity Partners IX	1,629	0.43	3.50	3.50	3.50	13.64	16.87	19.18	N/A	N/A	16.68	06/01/2015	
Commonfund International Partners VIII	1,720	0.45	2.08	2.08	2.08	12.47	9.26	10.50	N/A	N/A	2.49	06/01/2015	
Commonfund Venture Partners XI	5,061	1.33	4.68	4.68	4.68	25.29	37.04	22.39	N/A	N/A	25.90	02/01/2015	
<b>Total Multi-Strategy</b>	14,167	3.73	1.75	1.80	1.80	3.43	8.80	16.00	12.84	13.23	12.30	08/01/2004	
Pantheon Global Co-Investment Opps II	978	0.26	3.87	3.87	3.87	6.13	10.71	18.86	15.06	N/A	13.05	01/01/2013	
Pantheon Global Secondary Fund II LP	99	0.03	-8.02	-8.02	-8.02	-12.78	-16.06	-10.76	-6.31	-4.26	1.82	07/01/2004	
GS Vintage V Offshore	579	0.15	4.09	4.09	4.09	5.69	24.50	27.76	20.51	19.37	18.18	10/01/2008	
Pantheon Global Secondary Fund IV LP	1,108	0.29	0.23	0.23	0.23	-0.93	3.77	8.30	5.51	9.45	12.74	08/01/2010	
GS Vintage VI Offshore	2,004	0.53	1.98	1.98	1.98	3.82	4.30	10.86	15.78	N/A	20.66	11/01/2012	
GS Vintage VII Offshore	3,507	0.92	7.60	7.60	7.60	13.76	21.14	N/A	N/A	N/A	63.99	09/01/2017	
Pantheon Global Secondary Fund V	4,821	1.27	-2.24	-2.24	-2.24	-1.58	4.23	20.39	N/A	N/A	20.99	07/01/2014	
GS Co-Investment Partners II Offshore	1,072	0.28	2.60	3.63	3.63	N/A	N/A	N/A	N/A	N/A	-10.31	09/01/2018	
<b>Total Debt</b>	6,354	1.67	1.37	1.70	1.70	0.87	2.17	11.65	11.95	12.29	10.43	11/01/2007	
GS Mezzanine V	135	0.04	15.82	15.82	15.82	7.00	13.26	7.05	-1.55	2.05	4.17	12/01/2007	
Highbridge Offshore Mezzanine Partners II LP	1,784	0.47	-0.35	-0.35	-0.35	-13.62	-12.29	12.84	14.83	N/A	15.30	01/01/2013	
Highbridge Irish Specialty Loan Fund III	752	0.20	0.42	2.26	2.26	5.16	7.26	8.64	8.70	N/A	9.07	06/01/2013	
GS Broad Street Senior Credit Partners	1,177	0.31	2.53	2.97	2.97	5.49	6.10	9.47	N/A	N/A	8.46	07/01/2015	
Highbridge European Asset Value Offshore	2,506	0.66	1.71	1.71	1.71	11.13	11.67	N/A	N/A	N/A	12.08	09/01/2016	

# Native Hawaiian Trust Fund

## Comparative Performance

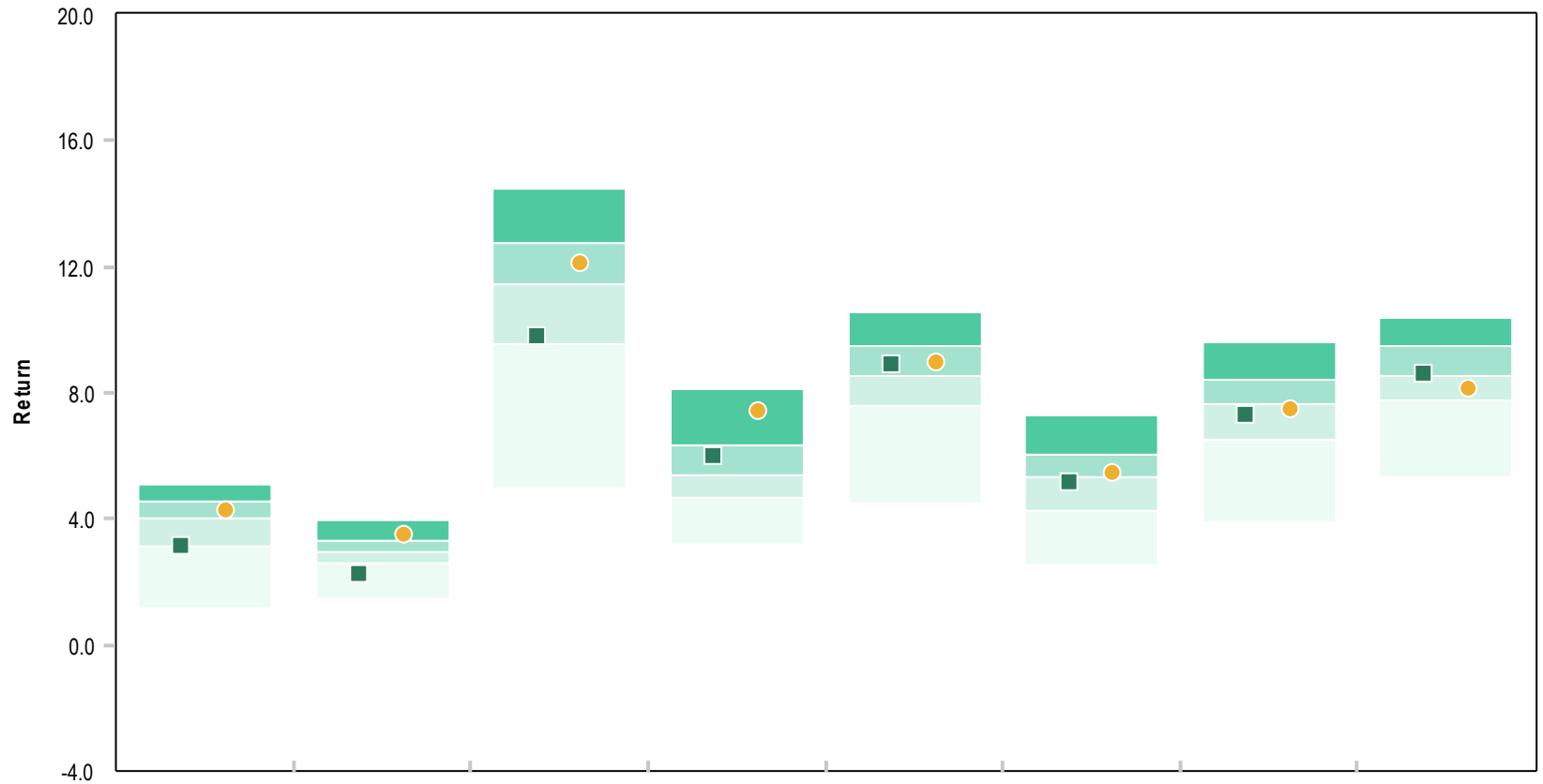
As of March 31, 2019

	Allocation		Performance (%)										
	Market Value (\$000)	%	1 Month	1 Quarter	Year To Date	Jul-2018 To Mar-2019	1 Year	3 Years	5 Years	7 Years	Since Inception	Inception Date	Expense Ratio
Total Real Assets	18,581	4.89	7.02	7.04	7.04	2.31	8.28	17.43	7.69	N/A	-4.85	10/01/2012	
Commonfund Natural Resources Partners IX	9,545	2.51	7.96	7.96	7.96	-1.16	5.01	15.45	5.32	N/A	-6.44	10/01/2012	
JP Morgan Asian I&R Res Opp Fund II	581	0.15	0.00	0.00	0.00	0.00	1.41	1.50	N/A	N/A	-7.77	11/01/2014	
GS Broad Street Real Estate Credit Partners II GP, L.L.C.	414	0.11	3.32	3.94	3.94	13.08	16.63	15.17	14.25	N/A	12.57	12/01/2013	
Pantheon Global Infrastructure Fund II	1,722	0.45	1.97	1.97	1.97	5.80	6.17	12.43	15.32	N/A	15.06	03/01/2014	
Commonfund Natural Resources Partners X	6,318	1.66	8.05	8.05	8.05	6.49	15.21	52.68	N/A	N/A	14.38	11/01/2015	

# Native Hawaiian Trust Fund

## All Endowments-Total Fund

As of June 30, 2019



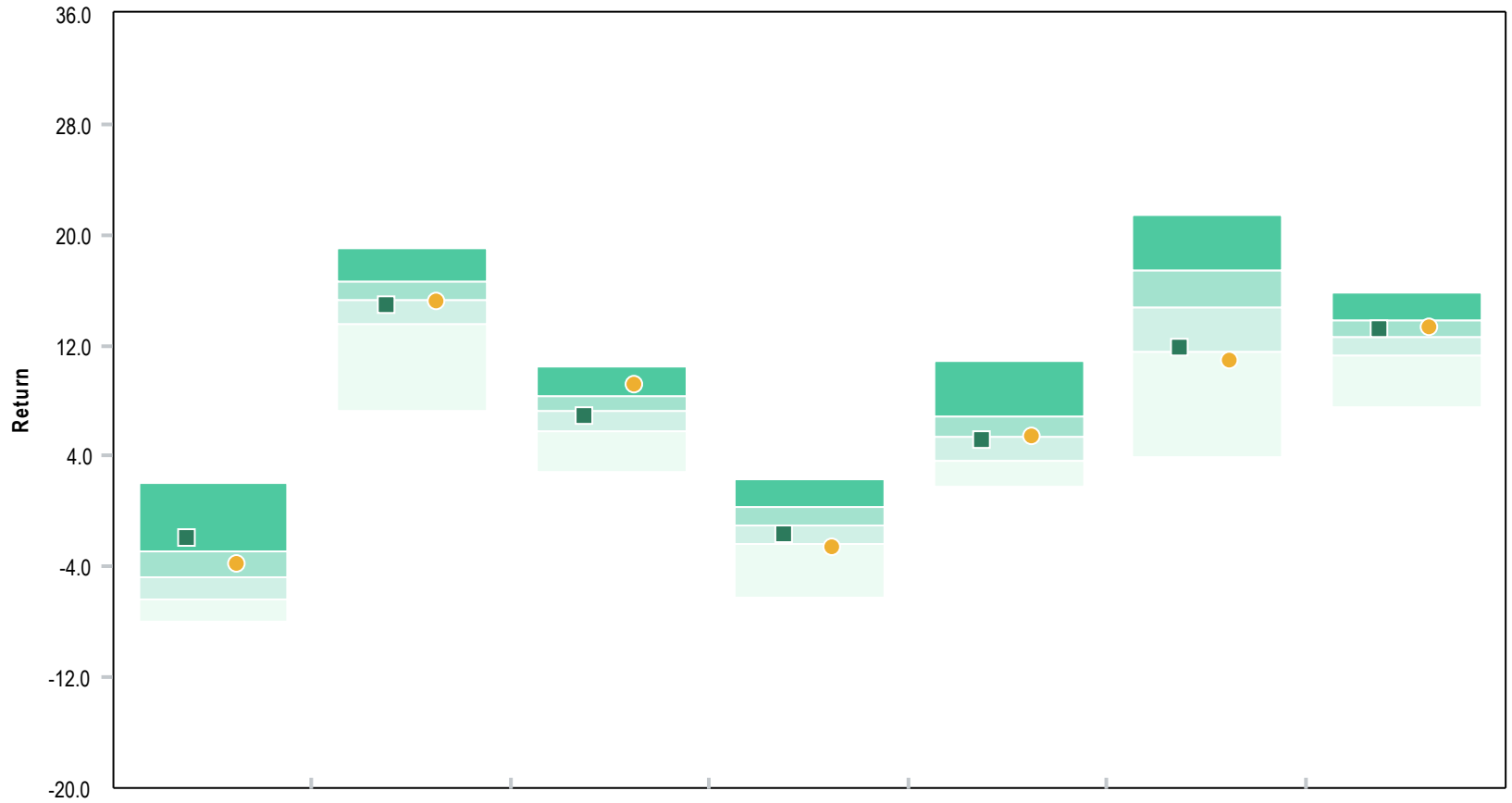
	1 Month	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Total OHA Plan	3.13 (76)	2.25 (86)	9.77 (74)	5.95 (35)	8.86 (40)	5.15 (54)	7.29 (61)	8.57 (50)
● IPS Total OHA Benchmark	4.26 (40)	3.51 (16)	12.12 (37)	7.39 (11)	8.94 (40)	5.47 (46)	7.48 (57)	8.10 (66)
5th Percentile	5.09	3.94	14.49	8.10	10.58	7.27	9.61	10.35
1st Quartile	4.57	3.31	12.75	6.34	9.49	6.04	8.43	9.47
Median	4.01	2.94	11.44	5.36	8.55	5.30	7.66	8.53
3rd Quartile	3.14	2.61	9.54	4.67	7.60	4.23	6.54	7.76
95th Percentile	1.19	1.47	4.99	3.20	4.47	2.56	3.90	5.34

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

# Native Hawaiian Trust Fund

## All Endowments-Total Fund

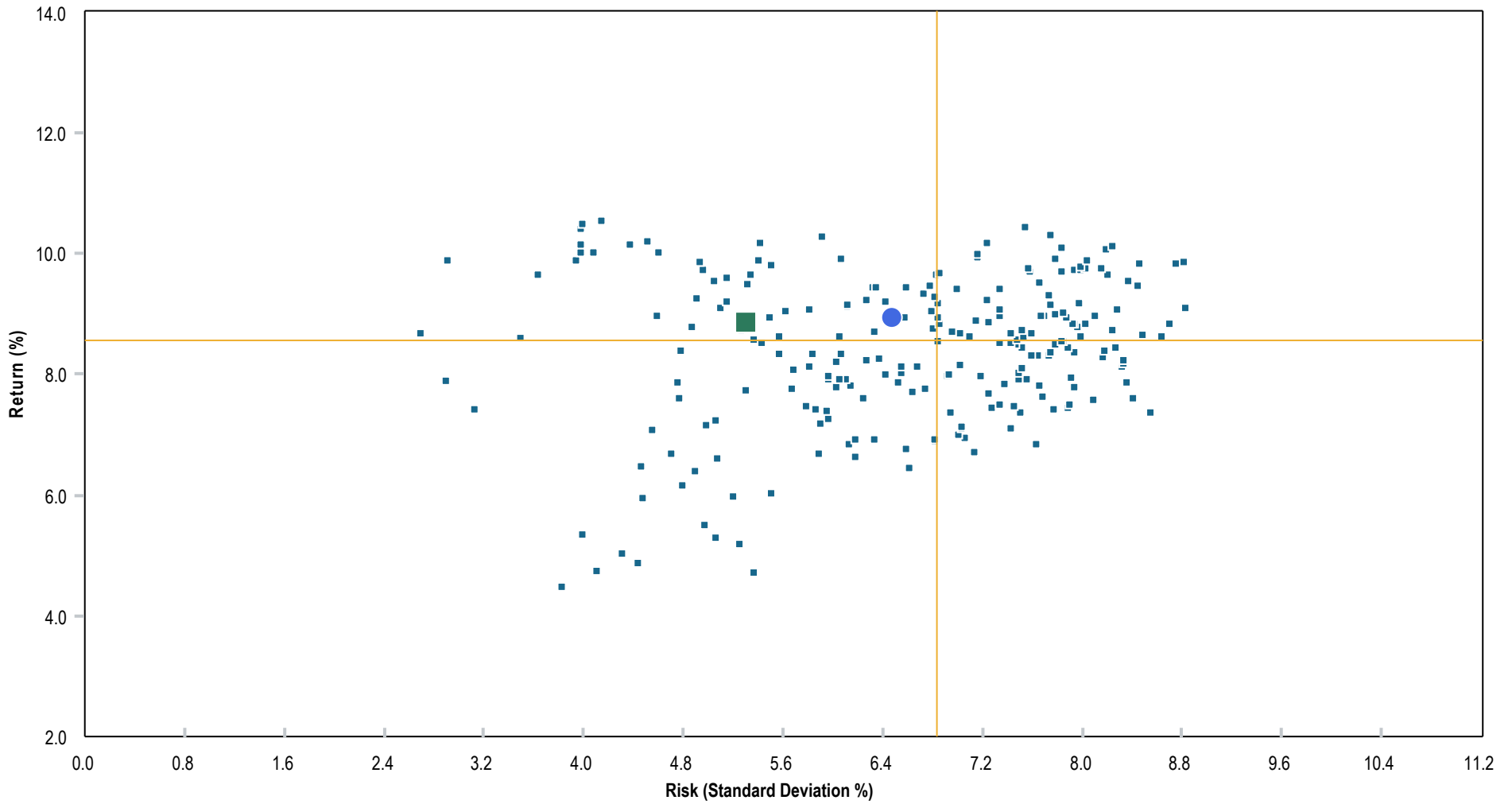
As of June 30, 2019



	2018	2017	2016	2015	2014	2013	2012
■ Total OHA Plan	-1.94 (21)	14.94 (56)	6.82 (58)	-1.66 (62)	5.07 (55)	11.81 (74)	13.08 (40)
● IPS Total OHA Benchmark	-3.88 (40)	15.16 (52)	9.17 (13)	-2.62 (79)	5.46 (50)	10.92 (79)	13.29 (36)

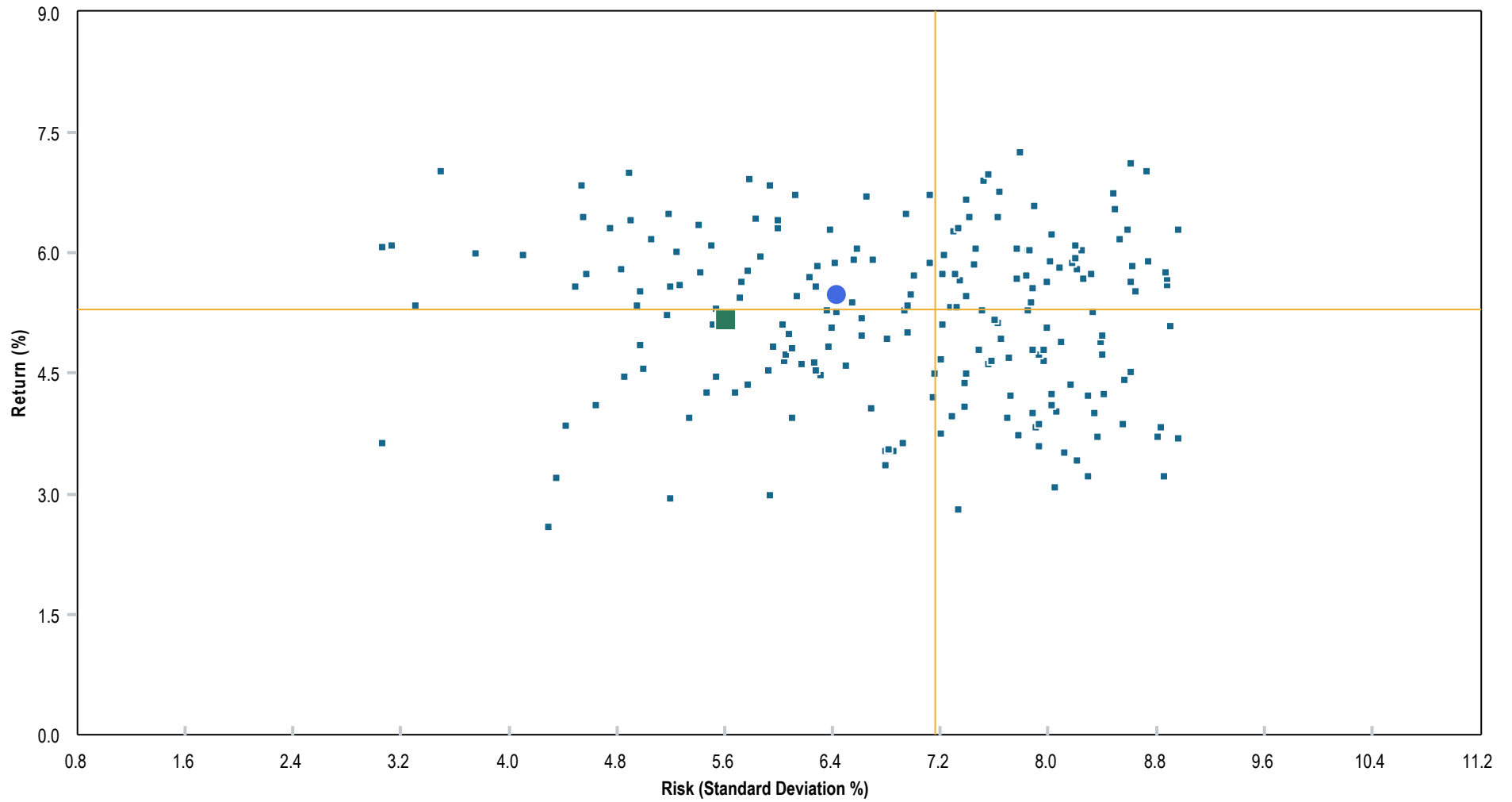
5th Percentile	2.03	19.04	10.45	2.27	10.90	21.49	15.84
1st Quartile	-2.90	16.63	8.36	0.33	6.90	17.49	13.83
Median	-4.78	15.33	7.21	-1.01	5.42	14.70	12.66
3rd Quartile	-6.33	13.50	5.85	-2.37	3.70	11.61	11.32
95th Percentile	-8.00	7.31	2.84	-6.18	1.84	3.96	7.50

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Total OHA Plan	8.86	5.31
● IPS Total OHA Benchmark	8.94	6.48
— Median	8.55	6.84

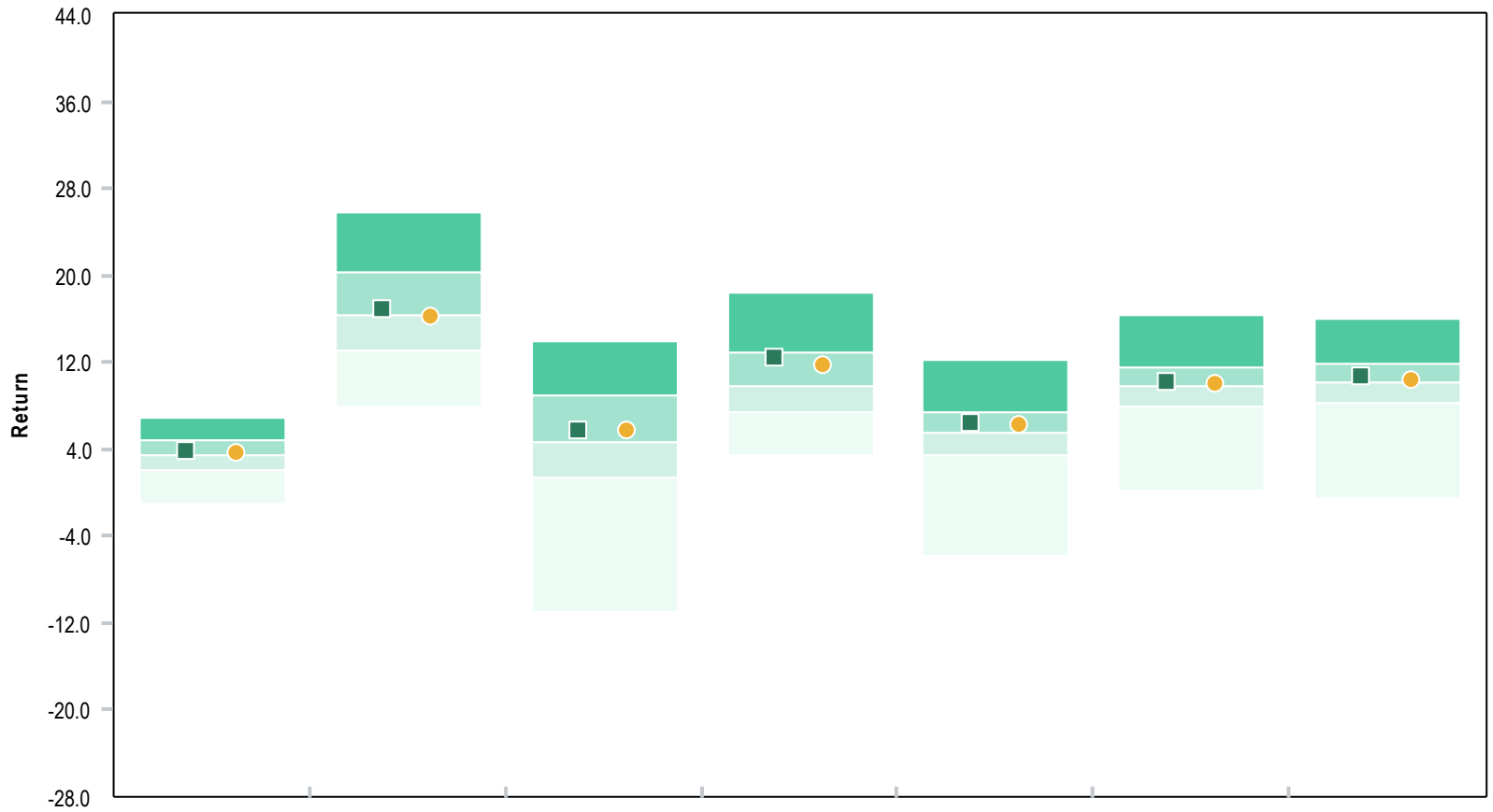
Calculation based on monthly periodicity.



	Return	Standard Deviation
■ Total OHA Plan	5.15	5.62
● IPS Total OHA Benchmark	5.47	6.44
— Median	5.30	7.16

Calculation based on monthly periodicity.

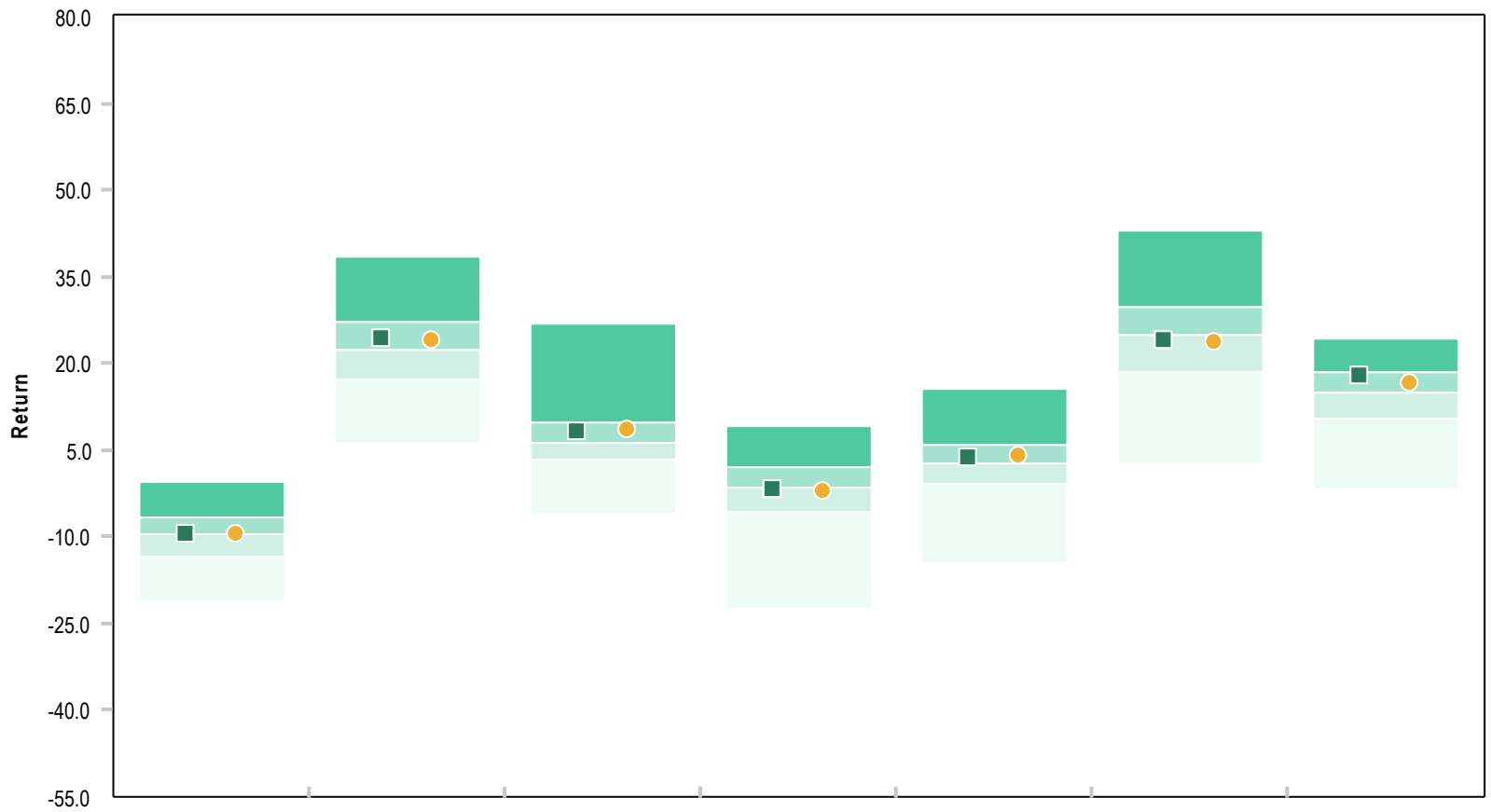
## **Total Global Equities**



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Total Global Equities	3.80 (44)	16.88 (47)	5.71 (43)	12.44 (29)	6.44 (36)	10.19 (45)	10.66 (43)
● IPS Global Equities Benchmark	3.61 (48)	16.23 (52)	5.74 (43)	11.72 (35)	6.21 (39)	10.02 (47)	10.28 (48)
5th Percentile	6.85	25.78	13.85	18.38	12.19	16.37	15.99
1st Quartile	4.75	20.28	8.88	12.96	7.41	11.52	11.89
Median	3.47	16.42	4.61	9.87	5.46	9.84	10.10
3rd Quartile	2.05	13.10	1.33	7.45	3.45	7.83	8.19
95th Percentile	-0.98	7.83	-10.99	3.38	-5.90	0.13	-0.56

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



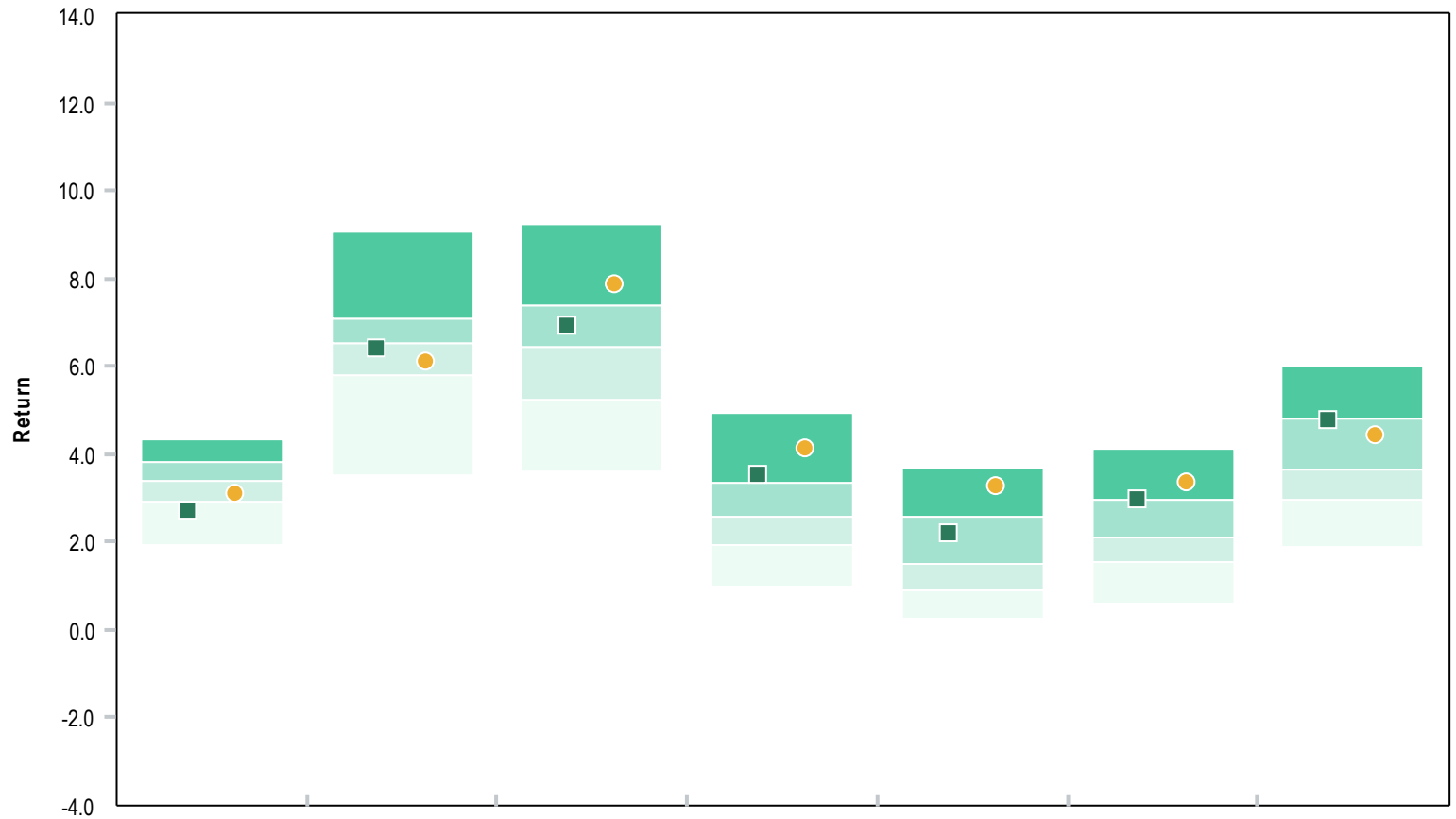


	2018	2017	2016	2015	2014	2013	2012
■ Total Global Equities	-9.72 (51)	24.24 (39)	8.02 (36)	-1.75 (52)	3.50 (43)	23.91 (56)	17.83 (30)
● IPS Global Equities Benchmark	-9.42 (46)	23.89 (42)	8.36 (33)	-2.19 (57)	3.84 (41)	23.55 (58)	16.38 (40)

5th Percentile	-0.63	38.46	26.71	9.06	15.46	43.09	24.32
1st Quartile	-6.74	27.08	9.82	2.03	5.82	29.70	18.53
Median	-9.71	22.31	6.33	-1.64	2.58	25.00	14.88
3rd Quartile	-13.41	17.18	3.17	-5.76	-0.78	18.35	10.48
95th Percentile	-21.07	6.23	-6.09	-22.59	-14.35	2.60	-1.71

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

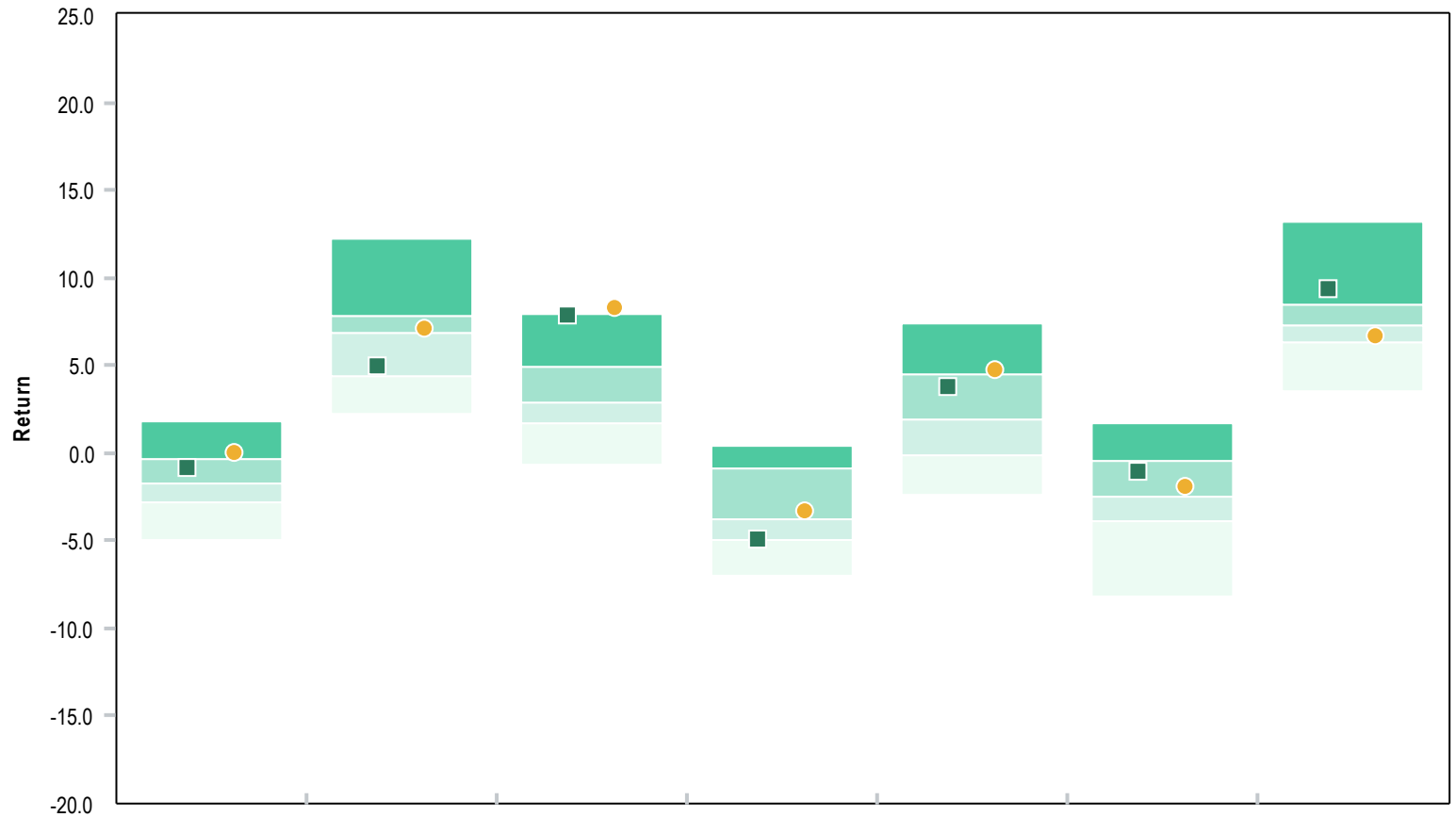
## **Total Global Fixed Income**



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Total Global Fixed Income	2.72 (82)	6.39 (59)	6.91 (37)	3.53 (21)	2.16 (33)	2.94 (25)	4.75 (28)
● IPS Global Fixed Income Benchmark	3.08 (69)	6.11 (69)	7.87 (19)	4.14 (16)	3.27 (14)	3.34 (15)	4.43 (34)

5th Percentile	4.35	9.07	9.23	4.92	3.69	4.13	5.99
1st Quartile	3.84	7.09	7.40	3.34	2.55	2.94	4.79
Median	3.37	6.54	6.42	2.56	1.51	2.09	3.66
3rd Quartile	2.93	5.81	5.25	1.93	0.90	1.54	2.96
95th Percentile	1.94	3.53	3.60	1.00	0.23	0.58	1.88

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

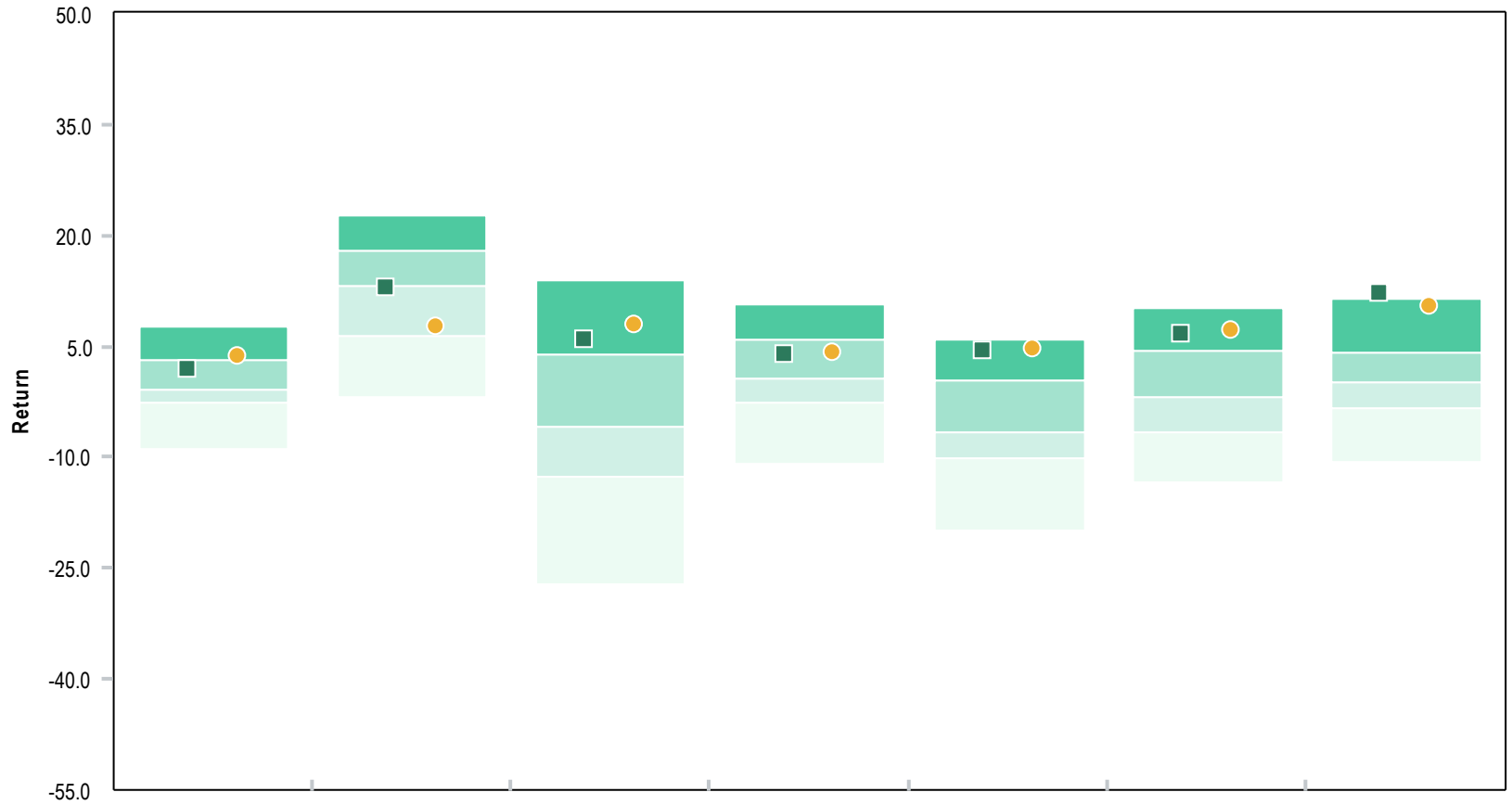


	2018	2017	2016	2015	2014	2013	2012
■ Total Global Fixed Income	-0.91 (35)	4.95 (74)	7.85 (6)	-4.92 (75)	3.75 (30)	-1.10 (32)	9.31 (18)
● IPS Global Fixed Income Benchmark	0.01 (17)	7.11 (45)	8.25 (4)	-3.40 (44)	4.65 (24)	-1.93 (42)	6.59 (69)

5th Percentile	1.84	12.27	7.96	0.40	7.36	1.66	13.22
1st Quartile	-0.37	7.86	4.95	-0.86	4.52	-0.49	8.43
Median	-1.75	6.81	2.92	-3.83	1.91	-2.52	7.33
3rd Quartile	-2.78	4.42	1.70	-4.94	-0.14	-3.90	6.27
95th Percentile	-4.98	2.21	-0.62	-7.00	-2.35	-8.15	3.48

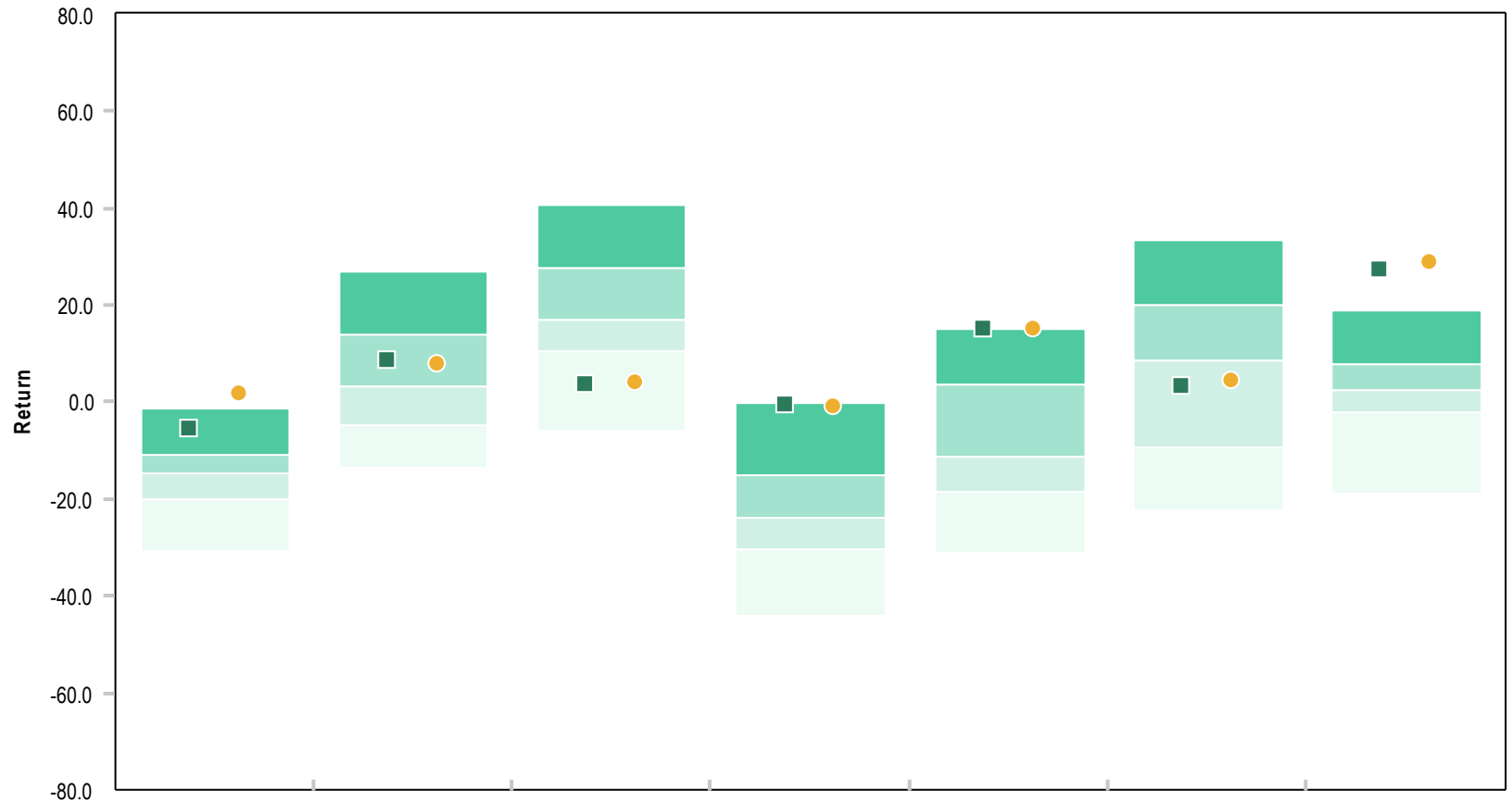
Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

# Total Global Real Assets



	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Total Global Real Assets	1.91 (28)	13.00 (51)	5.83 (23)	3.79 (34)	4.27 (13)	6.70 (19)	12.05 (4)
● IPS Real Assets Benchmark	3.63 (23)	7.73 (73)	7.98 (21)	4.08 (33)	4.62 (11)	7.24 (17)	10.39 (9)
5th Percentile	7.58	22.66	14.01	10.55	5.80	10.10	11.46
1st Quartile	3.10	18.03	4.01	5.98	0.47	4.30	4.23
Median	-0.94	13.04	-6.00	0.63	-6.60	-2.00	0.10
3rd Quartile	-2.68	6.50	-12.57	-2.67	-10.04	-6.57	-3.35
95th Percentile	-8.94	-1.81	-27.28	-10.87	-19.82	-13.31	-10.76

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

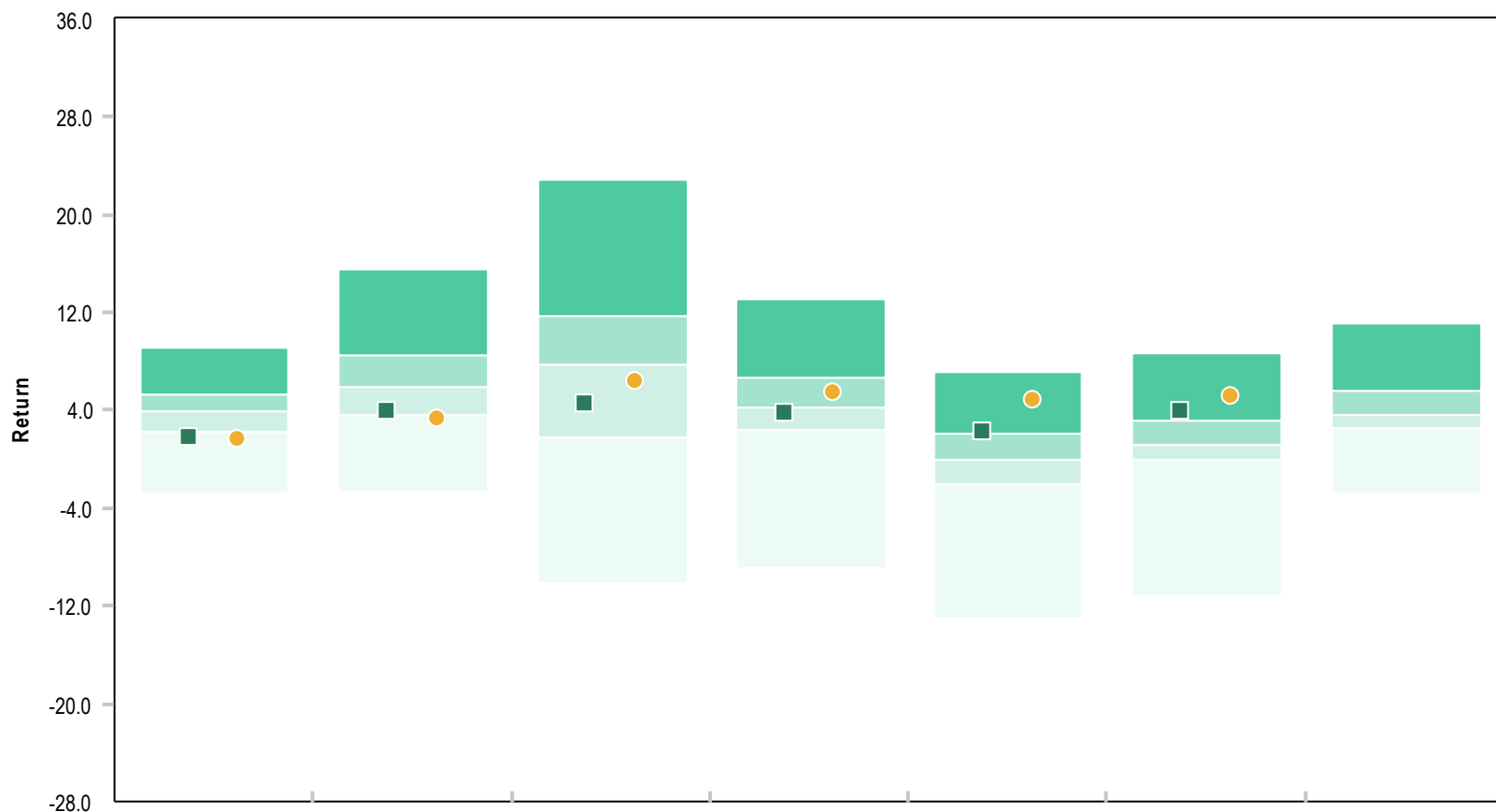


	2018	2017	2016	2015	2014	2013	2012
■ Total Global Real Assets	-5.37 (9)	8.74 (35)	3.55 (92)	-0.67 (6)	15.27 (5)	3.16 (56)	27.37 (1)
● IPS Real Assets Benchmark	1.70 (4)	7.65 (37)	4.06 (92)	-0.79 (6)	15.02 (6)	4.39 (55)	28.65 (1)
5th Percentile	-1.40	26.84	40.54	-0.15	15.18	33.25	18.93
1st Quartile	-10.92	14.08	27.78	-14.92	3.63	20.16	7.74
Median	-14.79	3.16	17.07	-23.83	-11.32	8.49	2.30
3rd Quartile	-20.16	-4.75	10.44	-30.38	-18.52	-9.21	-2.15
95th Percentile	-30.67	-13.73	-5.95	-44.02	-31.27	-22.15	-18.83

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

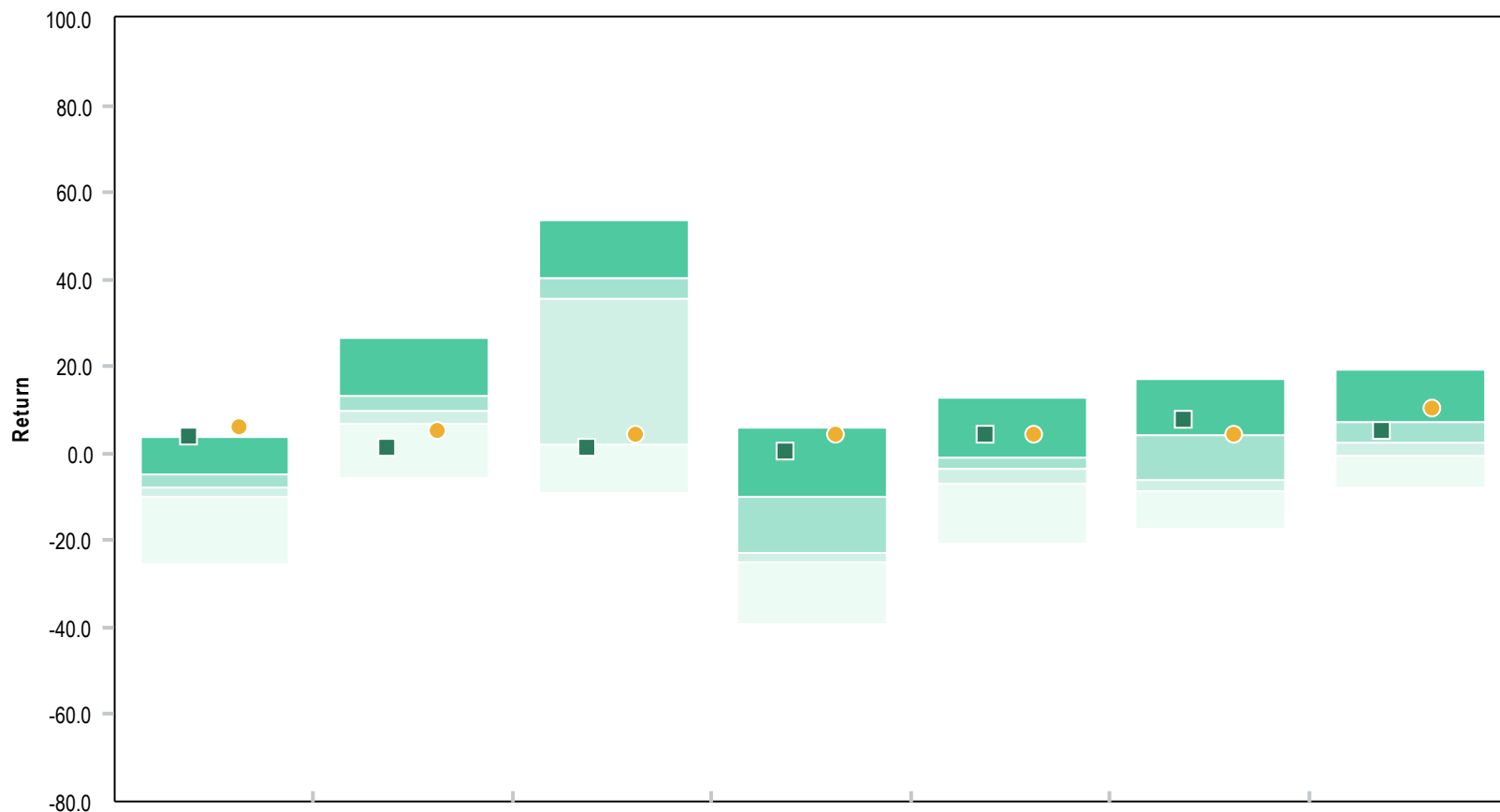
## **Total Hedge Funds**





	1 Qtr	YTD	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs
■ Total Hedge Funds	1.71 (80)	3.96 (73)	4.46 (67)	3.71 (58)	2.24 (23)	3.88 (21)	N/A
● IPS Hedge Fund Benchmark	1.63 (80)	3.25 (78)	6.40 (61)	5.43 (36)	4.89 (9)	5.17 (11)	N/A
5th Percentile	9.11	15.53	22.91	13.13	7.08	8.58	11.12
1st Quartile	5.36	8.56	11.65	6.73	2.03	3.10	5.61
Median	3.96	5.86	7.77	4.18	-0.09	1.10	3.61
3rd Quartile	2.27	3.68	1.74	2.36	-1.99	-0.11	2.58
95th Percentile	-2.83	-2.65	-10.18	-8.86	-13.08	-11.15	-2.83

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.



	2018	2017	2016	2015	2014	2013	2012
■ Total Hedge Funds	3.73 (6)	1.41 (91)	1.37 (77)	0.26 (11)	4.30 (13)	7.59 (22)	5.18 (34)
● IPS Hedge Fund Benchmark	5.95 (4)	4.88 (82)	4.28 (74)	4.03 (6)	4.03 (13)	4.05 (26)	10.14 (16)
5th Percentile	3.74	26.40	53.58	6.12	12.68	16.92	19.31
1st Quartile	-4.69	13.23	40.24	-9.90	-0.77	4.34	7.14
Median	-8.04	9.71	35.71	-22.72	-3.37	-6.29	2.50
3rd Quartile	-9.81	6.94	2.22	-24.87	-7.06	-8.82	-0.56
95th Percentile	-25.42	-5.47	-9.25	-39.30	-20.72	-17.46	-7.69

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

## **Total Private Equity**

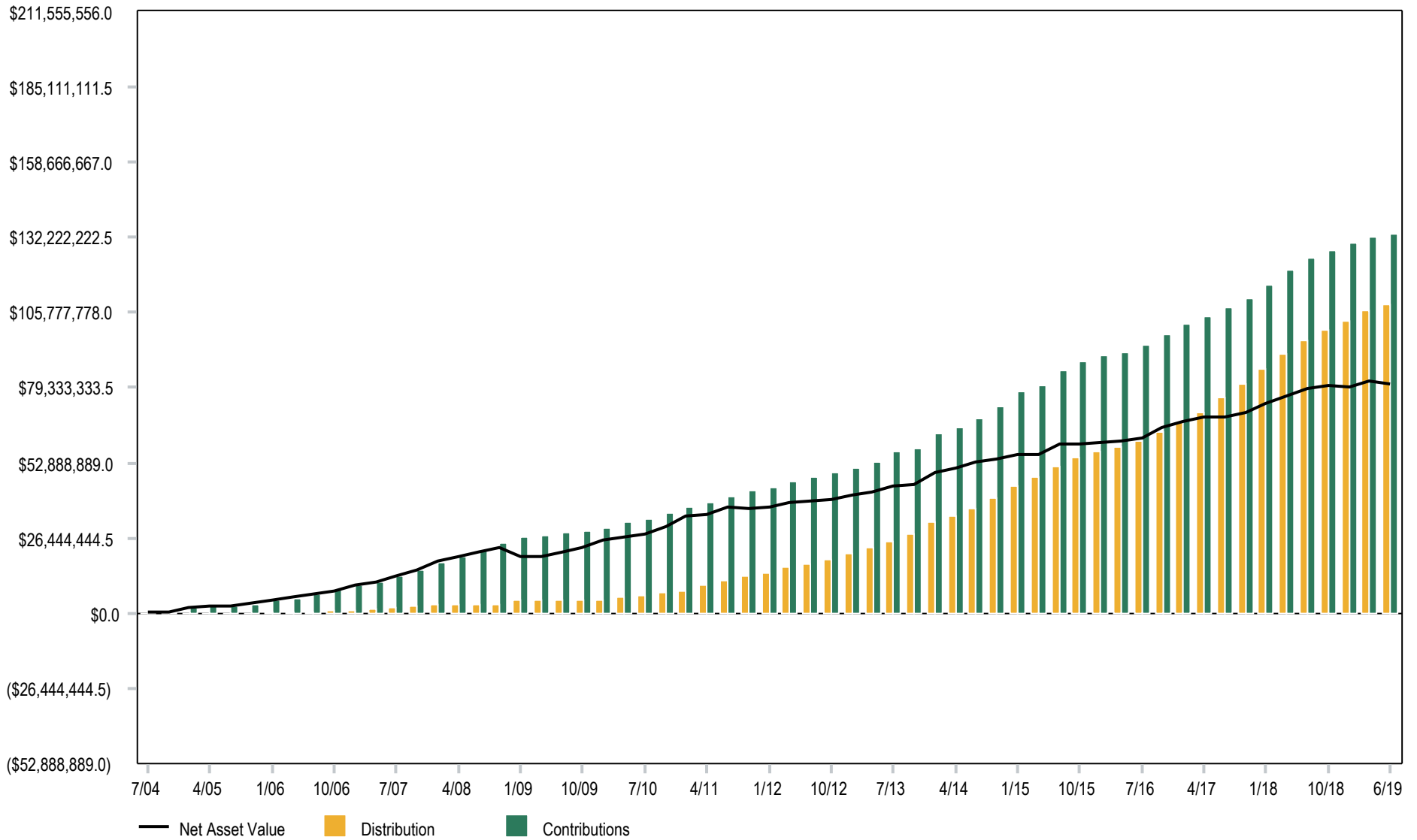
Partnerships	Investment Type	Vintage Year	Investment Strategy	Capital Committed (\$000)	Total Contribution (\$000)	Total Distribution (\$000)	Market Value (\$000)	IRR (%)	TVPI Multiple	DPI Multiple	PIC Multiple	PME+
Pantheon Europe Fund IV LP	Fund Of Funds	2004	International Private Equity	5,172	4,836	5,822	493	4.72	1.31	1.20	0.94	8.10
Pantheon Global Secondary Fund II LP	Secondary	2004	Secondaries	5,000	4,750	5,620	74	4.33	1.20	1.18	0.95	6.12
Pantheon USA Fund VI LP	Fund Of Funds	2004	Hybrid	6,000	5,670	7,616	1,329	7.07	1.58	1.34	0.95	7.60
GS PEP 2004 Offshore	Fund Of Funds	2004	Buyouts	9,900	11,077	15,075	709	6.86	1.43	1.36	1.12	6.95
GS PEP 2005 Offshore	Fund Of Funds	2005	Hybrid	2,000	2,177	2,289	342	3.30	1.21	1.05	1.09	8.78
Pantheon Europe Fund VI LP	Fund Of Funds	2007	International Private Equity	6,481	5,807	6,754	2,260	9.15	1.55	1.16	0.90	13.93
Pantheon USA Fund VIII LP	Fund Of Funds	2007	Other	7,500	6,750	7,901	4,739	12.14	1.87	1.17	0.90	13.25
GS PEP Asia Offshore	Fund Of Funds	2007	Buyouts	1,000	894	1,120	254	9.57	1.54	1.25	0.89	12.67
GS PEP IX Offshore	Fund Of Funds	2007	Buyouts	1,000	1,039	1,371	222	9.04	1.53	1.32	1.04	12.44
GS Mezzanine V	Partnership	2007	Other	8,500	7,768	10,032	135	10.00	1.31	1.29	0.91	7.19
GS PEP X Offshore	Fund Of Funds	2008	Buyouts	3,000	2,930	3,741	1,020	11.51	1.63	1.28	0.98	13.92
GS Vintage V Offshore	Secondary	2008	Secondaries	4,500	3,973	6,038	444	13.10	1.63	1.52	0.88	14.54
Pantheon Global Secondary Fund IV LP	Secondary	2010	Secondaries	5,000	3,358	4,195	1,031	13.33	1.56	1.25	0.67	14.81
Commonfund International Partners VII	Fund Of Funds	2011	Buyouts	3,000	2,651	1,315	2,169	7.18	1.32	0.50	0.88	13.54
Commonfund Natural Resources Partners IX	Fund Of Funds	2011	Energy & Natural Resources	10,000	8,665	1,776	9,190	7.20	1.27	0.21	0.87	12.31
Commonfund Venture Partners X	Fund Of Funds	2012	Venture Capital	5,000	4,625	1,577	8,417	20.91	2.16	0.34	0.93	11.98
Pantheon Emerging Asia Fund VI LP	Fund Of Funds	2012	International Private Equity	2,000	1,754	48	2,500	10.77	1.45	0.03	0.88	12.76
Pantheon Global Co-Investment Opps II	Co-Investment	2012	International Private Equity	1,000	928	804	858	15.05	1.79	0.87	0.93	12.40
Highbridge Offshore Mezzanine Partners II LP	Direct	2012	Mezzanine	5,000	4,802	5,170	1,784	15.30	1.50	1.12	0.93	11.69
Commonfund Private Equity Partners VIII	Fund Of Funds	2012	Buyouts	2,000	1,550	1,028	1,590	16.41	1.69	0.66	0.78	12.08
GS Vintage VI Offshore	Secondary	2012	Secondaries	5,000	4,354	3,841	1,855	11.41	1.31	0.88	0.87	12.41
GS GEM PEM Off	Fund Of Funds	2012	Buyouts	2,500	2,585	616	2,396	4.67	1.17	0.24	1.03	12.40
Commonfund Emerging Markets Partners 2013	Fund Of Funds	2013	International Private Equity	5,000	4,000	653	5,424	14.69	1.52	0.16	0.80	12.14
Highbridge Irish Specialty Loan Fund III	Direct	2013	Other	3,000	3,672	3,637	703	6.22	1.18	0.99	1.22	10.74
Pantheon Global Infrastructure Fund II	Secondary	2013	Infrastructure	2,000	1,686	588	1,676	12.91	1.34	0.35	0.84	12.29
JP Morgan Asian I&R Res Opp Fund II	Other	2013	Infrastructure	930	996	64	581	-10.02	0.64	0.06	1.07	10.49
GS Broad Street Real Estate Credit Partners II GP, L.L.C.	Partnership	2013	Real Estate	3,000	3,668	3,825	365	10.62	1.14	1.04	1.22	10.16
Pantheon Global Secondary Fund V	Secondary	2014	Secondaries	7,000	4,701	1,449	4,754	13.75	1.32	0.31	0.67	11.29
Commonfund Private Equity Partners IX	Fund Of Funds	2014	Buyouts	2,000	1,420	397	1,629	17.65	1.43	0.28	0.71	12.97
Commonfund International Partners VIII	Fund Of Funds	2014	Buyouts	3,000	1,853	334	1,829	8.87	1.17	0.18	0.62	13.57
Commonfund Natural Resources Partners X	Fund Of Funds	2014	Energy & Natural Resources	9,500	5,771	1,379	6,448	25.55	1.36	0.24	0.61	12.52
Commonfund Venture Partners XI	Fund Of Funds	2015	Venture Capital	4,750	3,741	307	5,249	22.53	1.49	0.08	0.79	12.61
GS Broad Street Senior Credit Partners	Partnership	2015	Other	2,500	2,355	1,360	1,199	7.67	1.09	0.58	0.94	12.53
Highbridge European Asset Value Offshore	Direct	2016	Other	3,000	2,411	278	2,501	8.56	1.17	0.12	0.80	11.74

Partnerships	Investment Type	Vintage Year	Investment Strategy	Capital Committed (\$000)	Total Contribution (\$000)	Total Distribution (\$000)	Market Value (\$000)	IRR (%)	TVPI Multiple	DPI Multiple	PIC Multiple	PME+
GS Vintage VII Offshore	Secondary	2016	Secondaries	4,921	3,259	563	3,507	25.29	1.25	0.17	0.66	11.79
GS Co-Investment Partners II Offshore	Co-Investment	2018	Buyouts	8,000	1,082	-	1,072	-1.27	1.00	0.00	0.13	-1.27
<b>Total Private Equity</b>	<b>Total Fund</b>		<b>Hybrid</b>	<b>159,154</b>	<b>133,557</b>	<b>108,583</b>	<b>80,749</b>	<b>9.37</b>	<b>1.42</b>	<b>0.81</b>	<b>0.84</b>	<b>10.22</b>

## Cash Flow Summary

Capital Committed:	\$159,153,673
Total Contributions:	\$133,556,680
Remaining Capital Commitment:	\$31,141,258
Total Distributions:	\$108,582,700
Market Value:	\$80,748,737
Inception Date:	07/20/2004
Inception IRR:	9.37
TVPI:	1.42

Cash Flow Analysis



# Appendix



**Total IPS OHA Benchmark**

**3/1/03 to 12/31/08:**

<b>27.8%</b>	<b>U.S. Large Cap Equity</b>	100.0% Russell 1000 Index
<b>11.1%</b>	<b>U.S. Small Cap Equity</b>	100.0% Russell 2000 Index
<b>11.1%</b>	<b>International Equity</b>	100.0% MSCI EAFE (Net)
<b>22.2%</b>	<b>Core Fixed Income</b>	100.0% Barclays U.S. Aggregate
<b>5.6%</b>	<b>High Yield Fixed Income</b>	100.0% Barclays U.S. Corporate High Yield
<b>11.1%</b>	<b>Global Real Estate</b>	25.0% FTSE NAREIT Equity 75.0% NCREIF
<b>11.1%</b>	<b>Absolute Return</b>	100.0% 3-month LIBOR + 4%

**1/1/09 to 8/30/09:**

<b>37.5%</b>	<b>Traditional Global Equities</b>	100.0% MSCI All Country World (Net)
<b>20.5%</b>	<b>Traditional Global Fixed Income</b>	100.0% Barclays U.S. Aggregate
<b>10.0%</b>	<b>Global Real Estate</b>	50.0% FTSE NAREIT Equity 50.0% NCREIF
<b>15.0%</b>	<b>Absolute Return</b>	100.0% 3-month LIBOR + 3%
<b>12.5%</b>	<b>Equity Alternatives</b>	100.0% MSCI All Country World (Net) +3%
<b>2.5%</b>	<b>Fixed Income Alternatives</b>	100.0% Barclays U.S. Corporate High Yield +1%
<b>2.0%</b>	<b>Commodities</b>	100.0% S&P GS Commodities

**9/1/09 to 6/30/10:**

<b>37.5%</b>	<b>Traditional Global Equities</b>	100.0% MSCI All Country World (Net)
<b>20.5%</b>	<b>Traditional Global Fixed Income</b>	100.0% Barclays U.S. Aggregate
<b>5.0%</b>	<b>Global Public Real Estate</b>	100.0% FTSE EPRA/NAREIT Developed
<b>5.0%</b>	<b>Global Private Real Estate</b>	100.0% NCREIF
<b>15.0%</b>	<b>Absolute Return</b>	100.0% 3-month T-Bill + 3%
<b>12.5%</b>	<b>Equity Alternatives</b>	100.0% MSCI All Country World (Net) +3%
<b>2.5%</b>	<b>Fixed Income Alternatives</b>	100.0% Barclays U.S. Corporate High Yield +1%
<b>2.0%</b>	<b>Commodities</b>	100.0% S&P GS Commodities

**7/1/10 to 6/30/11:**

<b>37.5%</b>	<b>Traditional Global Equities</b>	100.0% MSCI All Country World IMI (Net)
<b>20.5%</b>	<b>Traditional Global Fixed Income</b>	100.0% Barclays U.S. Aggregate
<b>5.0%</b>	<b>Global Real Estate</b>	100.0% FTSE EPRA/NAREIT Developed
<b>15.0%</b>	<b>Absolute Return</b>	100.0% 3-month T-Bill + 3%
<b>12.5%</b>	<b>Equity Alternatives</b>	100.0% MSCI All Country World IMI (Net) +3%
<b>2.5%</b>	<b>Fixed Income Alternatives</b>	100.0% Barclays U.S. Corporate High Yield +1%
<b>2.0%</b>	<b>Commodities</b>	100.0% S&P GS Commodities
<b>5.0%</b>	<b>Hawaii Direct Investments</b>	100.0% Barclays U.S. TIPS +4.75%

**7/1/11 to 12/31/12:**

<b>37.5%</b>	<b>Traditional Global Equities</b>	100.0% MSCI All Country World IMI (Net)
<b>20.5%</b>	<b>Traditional Global Fixed Income</b>	80.0% Barclays U.S. Aggregate 10.0% Merrill Lynch HY Master II 10.0% JPM GBI-EM Global Diversified
<b>5.0%</b>	<b>Global Public Real Estate</b>	100.0% FTSE EPRA/NAREIT Developed (Net)
<b>15.0%</b>	<b>Absolute Return</b>	50.0% T-Bills +4% 33.3% MSCI All Country World IMI (Net) 16.7% Merrill Lynch HY Master II
<b>12.5%</b>	<b>Equity Alternatives</b>	100.0% MSCI All Country World IMI (Net) +3%
<b>2.5%</b>	<b>Fixed Income Alternatives</b>	100.0% Merrill Lynch HY Master II + 1%
<b>2.0%</b>	<b>Commodities</b>	100.0% Bloomberg Commodity Index Total Return
<b>5.0%</b>	<b>Hawaii Direct Investments</b>	25.0% Barclays U.S. TIPS 20.0% DJ U.S. Select REIT TR 35.0% S&P Global Lrg MidCap Common Resources (Net) 20.0% DJ UBS Commodity TR

**1/1/13 to 6/30/14:**

<b>38.5%</b>	<b>Traditional Global Equities</b>	100.0% MSCI All Country World IMI (Net)
<b>11.0%</b>	<b>Traditional Global Credit</b>	65.0% Barclays U.S. Credit Bond 15.0% JPM GBI-EM Global Diversified 15.0% Barclays U.S. High Yield – 2% Issuer Cap 5.0% JPM EMBI Global
<b>5.5%</b>	<b>Traditional Global Real Assets</b>	100.0% FTSE EPRA/NAREIT Developed (Net)
<b>8.0%</b>	<b>Enhanced Liquidity</b>	n/a DJ UBS Commodity TR (Actual Weight) n/a Barclays U.S. Gov't (Actual Weight)
<b>5.0%</b>	<b>Hawaii Direct Investments</b>	25.0% Barclays U.S. TIPS 20.0% DJ U.S. Select REIT TR 35.0% S&P Global Lrg MidCap Common Resources (Net) 20.0% DJ UBS Commodity TR
<b>12.8%</b>	<b>Low Volatility Marketable Alternatives</b>	80.0% T-Bills +4% 20.0% DJ UBS Commodity TR
<b>12.8%</b>	<b>N.M. Equity</b>	100.0% MSCI All Country World IMI +3% (Qtr Lag)
<b>2.4%</b>	<b>N.M. Credit</b>	100.0% Merrill Lynch HY Master II + 1.5% (Qtr Lag)
<b>4.0%</b>	<b>N.M. Opportunistic &amp; Real Assets</b>	25.0% Barclays U.S. TIPS 20.0% DJ U.S. Select REIT TR 35.0% S&P Global Lrg MidCap Common Resources (Net) 20.0% DJ UBS Commodity TR (Qtr Lag +3% per annum)

**7/1/14 to 10/31/2015:**

<b>38.5%</b>	<b>Traditional Global Equities</b>	100.0% MSCI All Country World IMI (Net)
<b>11.0%</b>	<b>Traditional Global Credit</b>	65.0% Barclays U.S. Credit Bond 15.0% JPM GBI-EM Global Diversified 15.0% Barclays U.S. High Yield – 2% Issuer Cap 5.0% JPM EMBI Global
<b>5.5%</b>	<b>Traditional Global Real Assets</b>	100.0% FTSE EPRA/NAREIT Developed (Net)
<b>8.0%</b>	<b>Enhanced Liquidity</b>	n/a Citigroup 3 Month T-Bill + 4% (Actual Weight) n/a Barclays U.S. Gov't (Actual Weight)
<b>5.0%</b>	<b>Hawaii Direct Investments</b>	25.0% Barclays U.S. TIPS 20.0% DJ U.S. Select REIT TR 35.0% S&P Global Lrg MidCap Common Resources (Net) 20.0% DJ UBS Commodity TR
<b>12.8%</b>	<b>Low Volatility Marketable Alternatives</b>	80.0% OHA Citigroup 3 Month T Bill + 4% 20.0% Bloomberg Commodity Index Total Return
<b>12.8%</b>	<b>N.M. Equity</b>	100.0% MSCI All Country World IMI +3%
<b>2.4%</b>	<b>N.M. Credit</b>	100.0% Merrill Lynch HY Master II + 1.5%
<b>4.0%</b>	<b>N.M. Opportunistic &amp; Real Assets</b>	25.0% Barclays U.S. TIPS 20.0% DJ U.S. Select REIT TR 35.0% S&P Global Lrg MidCap Common Resources (Net) 20.0% DJ UBS Commodity TR (Qtr Lag +3% per annum)

**11/1/15 to 10/31/17:**

<b>38.5%</b>	<b>Traditional Global Equities</b>	100.0% MSCI All Country World IMI (Net)
<b>11.0%</b>	<b>Traditional Global Credit</b>	65.0% Barclays U.S. Credit Bond 15.0% JPM GBI-EM Global Diversified 15.0% Barclays U.S. High Yield – 2% Issuer Cap 5.0% JPM EMBI Global
<b>5.5%</b>	<b>Traditional Global Real Assets</b>	100.0% FTSE EPRA/NAREIT Developed (Net)
<b>8.0%</b>	<b>Enhanced Liquidity</b>	n/a Citigroup 3 Month T-Bill + 4% (Actual Weight)
<b>5.0%</b>	<b>Hawaii Direct Investments</b>	100.0% SSgA Real Asset Strategy
<b>12.8%</b>	<b>Low Volatility Marketable Alternatives</b>	100.0% Citigroup 3 Month T-Bill
<b>12.8%</b>	<b>N.M. Equity</b>	100.0% MSCI All Country World IMI +4%
<b>2.4%</b>	<b>N.M. Credit</b>	100.0% Merrill Lynch HY Master II + 1.5%
<b>4.0%</b>	<b>N.M. Opportunistic &amp; Real Assets</b>	25.0% Barclays U.S. TIPS 20.0% DJ U.S. Select REIT TR 35.0% S&P Global Lrg MidCap Common Resources (Net) 20.0% DJ Brookfield Glb Infra (Qtr Lag +3% per annum)

**11/1/17 to Present:**

<b>40.0%</b>	<b>Traditional Global Equities</b>	100.0% MSCI All Country World
<b>17.0%</b>	<b>Traditional Global Credit</b>	100.0% Bloomberg Barclays U.S. Aggregate
<b>5.0%</b>	<b>Traditional Global Real Assets</b>	100.0% Bloomberg Barclays U.S. TIPS +3%
<b>12.0%</b>	<b>Hedge Funds</b>	100.0% Citigroup 3 Month T-Bill +4%
<b>18.0%</b>	<b>Private Equity</b>	100.0% MSCI All Country World +3%
<b>3.0%</b>	<b>Enhanced Liquidity</b>	100.0% Bloomberg Barclays 1-3 Year Treasury
<b>5.0%</b>	<b>Hawaii Direct Investments</b>	100.0% Bloomberg Barclays U.S. TIPS +3%

**Total IPS Traditional Assets Benchmark**

**1/1/11 to 6/30/11:**

<b>59.5%</b>	<b>Traditional Global Equities</b>	100.0% MSCI All Country World IMI (Net)
<b>32.5%</b>	<b>Traditional Global Fixed Income</b>	100.0% Bloomberg Barclays U.S. Aggregate
<b>8.0%</b>	<b>Traditional Global Real Assets</b>	100.0% FTSE EPRA/NAREIT Developed

**7/1/11 to 12/31/2012:**

<b>59.5%</b>	<b>Traditional Global Equities</b>	100.0% MSCI All Country World IMI (Net)
<b>32.5%</b>	<b>Traditional Global Fixed Income</b>	80.0% Barclays U.S. Aggregate 10.0% Merrill Lynch HY Master II 10.0% JPM GBI-EM Global Diversified
<b>8.0%</b>	<b>Global Public Real Estate</b>	100.0% FTSE EPRA/NAREIT Developed (Net)

**1/1/13 to 10/31/17:**

<b>70.0%</b>	<b>Traditional Global Equities</b>	100.0% MSCI All Country World IMI (Net)
<b>20.0%</b>	<b>Traditional Global Fixed Income</b>	65.0% Barclays U.S. Credit Bond 15.0% JPM GBI-EM Global Diversified 15.0% Barclays U.S. High Yield – 2% Issuer Cap 5.0% JPM EMBI Global
<b>10.0%</b>	<b>Global Public Real Estate</b>	100.0% FTSE EPRA/NAREIT Developed (Net)

**11/1/17 to Present:**

<b>64.5%</b>	<b>Traditional Global Equities</b>	100.0% MSCI All Country World
<b>27.4%</b>	<b>Traditional Global Credit</b>	100.0% Bloomberg Barclays U.S. Aggregate
<b>8.1%</b>	<b>Traditional Global Real Assets</b>	100.0% Bloomberg Barclays U.S. TIPS +3%

**Total IPS Global Equities Benchmark**

**3/1/03 to 12/31/08:**

- 55.6%** **U.S. Large Cap Equity**  
100.0% Russell 1000 Index
- 22.2%** **U.S. Small Cap Equity**  
100.0% Russell 2000 Index
- 22.2%** **International Equity**  
100.0% MSCI EAFE (Net)

**1/1/09 to 6/30/10:**

- 55.1%** **Traditional Global Equities**  
100.0% MSCI All Country World (Net)
- 30.2%** **Traditional Global Fixed Income**  
100.0% Barclays U.S. Aggregate
- 14.7%** **Global Real Estate**  
50.0% FTSE NAREIT Equity  
50.0% NCREIF

**7/1/10 to 6/30/11:**

- 59.5%** **Traditional Global Equities**  
100.0% MSCI All Country World IMI (Net)
- 32.5%** **Traditional Global Fixed Income**  
100.0% Barclays U.S. Aggregate
- 8.0%** **Global Real Estate**  
100.0% FTSE EPRA/NAREIT Developed

**7/1/11 to 12/31/12:**

- 59.5%** **Traditional Global Equities**  
100.0% MSCI All Country World IMI (Net)
- 32.5%** **Traditional Global Fixed Income**  
80.0% Barclays U.S. Aggregate  
10.0% Merrill Lynch HY Master II  
10.0% JPM GBI-EM Global Diversified
- 8.0%** **Global Public Real Estate**  
100.0% FTSE EPRA/NAREIT Developed (Net)

**1/1/13 to 10/31/17:**

- 70.0%** **Traditional Global Equities**  
100.0% MSCI All Country World IMI (Net)
- 20.0%** **Traditional Global Credit**  
65.0% Barclays U.S. Credit Bond  
15.0% JPM GBI-EM Global Diversified  
15.0% Barclays U.S. High Yield – 2% Issuer Cap  
5.0% JPM EMBI Global
- 10.0%** **Traditional Global Real Assets**  
100.0% FTSE EPRA/NAREIT Developed (Net)

**11/1/17 to Present:**

- 64.5%** **Traditional Global Equities**  
100.0% MSCI All Country World
- 27.4%** **Traditional Global Credit**  
100.0% Bloomberg Barclays U.S. Aggregate
- 8.1%** **Traditional Global Real Assets**  
100.0% Bloomberg Barclays U.S. TIPS +3%

**Total IPS Global Fixed Income Benchmark**

**3/1/03 to 12/31/08:**

**79.9% Core Fixed Income**

100.0% Barclays U.S. Aggregate

**20.1% High Yield Fixed Income**

100.0% Barclays U.S. Corporate High Yield

**1/1/09 to 6/30/11:**

**100.0% Traditional Global Fixed Income**

100.0% Barclays U.S. Aggregate

**7/1/11 to 12/31/12:**

**100.0% Traditional Global Fixed Income**

80.0% Barclays U.S. Aggregate

10.0% Merrill Lynch HY Master II

10.0% JPM GBI-EM Global Diversified

**1/1/13 to 10/31/17:**

**100.0% Traditional Global Credit**

65.0% Barclays U.S. Credit Bond

15.0% JPM GBI-EM Global Diversified

15.0% Barclays U.S. High Yield – 2% Issuer Cap

5.0% JPM EMBI Global

**11/1/17 to Present:**

**100.0% Traditional Global Credit**

100.0% Bloomberg Barclays U.S. Aggregate

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**Total IPS Global Real Assets Benchmark**

**11/1/03 to 12/31/08:**

**100.0% Global Real Estate**

25.0% FTSE NAREIT Equity  
75.0% NCREIF

**1/1/09 to 6/30/10:**

**100.0% Global Real Estate**

50.0% FTSE NAREIT Equity  
50.0% NCREIF

**7/1/10 to 12/31/13:**

**100.0% Global Real Estate**

100.0% FTSE EPRA/NAREIT Developed

**1/1/14 to 10/31/17:**

**100.0% Traditional Global Real Assets**

100.0% FTSE EPRA/NAREIT Developed (Net)

**11/1/17 to Present:**

**100.0% Traditional Global Real Assets**

100.0% Bloomberg Barclays U.S. TIPS +3%

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**Total IPS Hedge Funds Benchmark**

**7/1/10 to 6/30/11:**

**100.0% Absolute Return**

100.0% 3-month T-Bill + 3%

**7/1/11 to 12/31/12:**

**100.0% Absolute Return**

50.0% T-Bills +4%  
33.3% MSCI All Country World IMI (Net)  
16.7% Merrill Lynch HY Master II

**1/1/13 to 6/30/14:**

**100.0% Low Volatility Marketable Alternatives**

80.0% T-Bills +4%  
20.0% DJ UBS Commodity TR

**7/1/14 to 10/31/15:**

**100.0% Low Volatility Marketable Alternatives**

80.0% OHA Citigroup 3 Month T Bill + 4%  
20.0% Bloomberg Commodity Index Total Return

**11/1/15 to 10/31/17:**

**100.0% Low Volatility Marketable Alternatives**

100.0% Citigroup 3 Month T-Bill

**11/1/17 to Present:**

**100.0% Hedge Funds**

100.0% Citigroup 3 Month T-Bill +4%

**Total IPS Enhanced Liquidity Account Benchmark**

**7/1/10 to 6/30/11:**

- 50.0% Traditional Global Equities**  
100.0% MSCI All Country World IMI (Net)
- 20.5% Traditional Global Fixed Income**  
100.0% Barclays U.S. Aggregate
- 5.0% Global Public Real Estate**  
100.0% FTSE EPRA/NAREIT Developed
- 15.0% Absolute Return**  
100.0% 3-month T-Bill + 3%
- 2.5% Fixed Income Alternatives**  
100.0% Barclays U.S. Corporate High Yield
- 2.0% Commodities**  
100.0% S&P GS Commodities
- 5.0% Hawaii Direct Investments**  
100.0% Barclays U.S. TIPS

**7/1/11 to 12/31/12:**

- 55.0% Traditional Global Equities**  
100.0% MSCI All Country World IMI (Net)
- 18.5% Traditional Global Fixed Income**  
100.0% Barclays U.S. Aggregate
- 5.0% Global Public Real Estate**  
100.0% FTSE EPRA/NAREIT Developed
- 7.5% Absolute Return**  
100.0% 1-month T-Bill + 3%
- 7.0% Fixed Income Alternatives**  
100.0% Merrill Lynch High Yield Master II
- 2.0% Commodities**  
100.0% DJ UBS Commodity TR
- 5.0% Hawaii Direct Investments**  
100.0% SSgA Real Asset Strategy

**1/1/13 to 6/30/14:**

- n/a Diversifying Strategies**  
n/a DJ UBS Commodity TR (Actual Weight)
- n/a U.S. Gov't Securities**  
n/a Barclays U.S. Gov't (Actual Weight)

**7/1/14 to 1/31/16:**

- n/a Diversifying Strategies**  
n/a Citigroup 3 Month T-Bill +4% (Actual Weight)
- n/a U.S. Gov't Securities**  
n/a Barclays U.S. Gov't (Actual Weight)

**2/1/16 to 10/31/17:**

- n/a U.S. Gov't Securities**  
n/a Barclays U.S. Gov't (Actual Weight)

**11/1/17 to Present:**

- 100.0% Enhanced Liquidity Account**  
100.0% Bloomberg Barclays 1-3 Year Treasury



**Total IPS Hawaii Direct Investments Benchmark**

**7/1/10 to 6/30/11:**

**100.0% Hawaii Direct Investments**

100.0% Barclays U.S. TIPS +4.75%

**7/1/11 to 6/30/16:**

**100.0% Hawaii Direct Investments**

25.0% Barclays U.S. TIPS

20.0% DJ U.S. Select REIT TR

35.0% S&P Global Lrg MidCap Common Resources (Net)

20.0% DJ UBS Commodity TR

**7/1/16 to 9/30/17:**

**100.0% Hawaii Direct Investments**

25.0% Barclays U.S. TIPS

15.0% DJ U.S. Select REIT TR

10.0% S&P Global Infrastructure

25.0% S&P Global Lrg MidCap Common Resources (Net)

25.0% Bloomberg Roll Select Commodity and Resources

**10/1/17 to Present:**

**100.0% Hawaii Direct Investments**

100.0% Barclays U.S. TIPS +3%