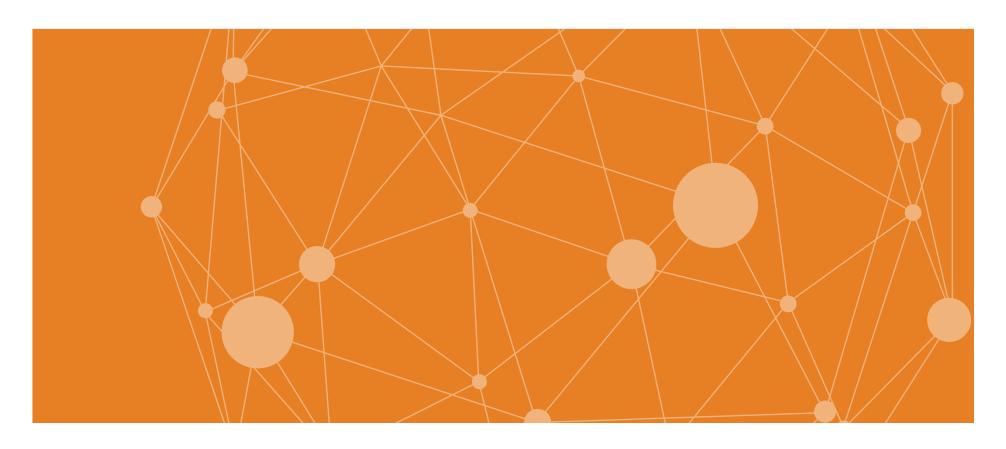
NEVADA SYSTEM OF HIGHER EDUCATION

DISCUSSION MATERIALS





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DISCUSSION MATERIALS

NOVEMBER 29, 2018

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Operating Fund Status

3. OPERATING FUND ACTION ITEMS AND PORTFOLIO UPDATE







Action Items and Executive Summary

ACTION ITEMS

We set forth Operating Fund performance estimates through November 16 along with rebalancing recommendations in the table following this summary. Our proposals reflect the following rebalancing actions:

- 1) Bring the sizing of the Long-Term Pool in line with its 60% policy target by trimming the following allocations:
 - a) \$20 million trim from Vanguard Institutional Index
 - b) \$3 million trim from Manning & Napier
 - c) \$5 million trim from PIMCO Total Return
- 2) \$28 million proceeds from the above added to Short-Term Bonds & Cash, to bring the allocation closer to the 30% policy target.

EXECUTIVE SUMMARY

Operating Fund Performance and Asset Allocation as of September 30, 2018

The Operating Fund posted a return of 2.1% in the third quarter, slightly above of the Policy Index return of 2.0%. U.S. Equity led performance on an absolute basis for the quarter with a 7.7% return, while Global ex U.S. Equity had the highest relative performance of 10 bps over the MSCI EAFE Index (Net). The Opportunistic allocation (-1.3%) had lowest absolute and relative performance. Calendar year to date through September 30, the Operating Fund returned 2.6%, outperforming the Policy Index return of 2.5%. On a trailing ten-year basis, the Operating Fund generated an annualized return of 4.8%, even with the Long-Term Policy Index; since inception, the Operating Fund has returned 5.0% annualized, even with the Long-Term Policy Index.

As of September 30, 2018, adjusted for estimated returns through November 16, 2018, the Operating Fund was overweight Long Term Bonds, Intermediate Term Bonds, and Total Equities (including Opportunistic), with offsetting underweights to Short Term Bonds and Cash, and TIPS.

Performance Estimates & Reserve Account Balance through November 23, 2018

Equity markets suffered a steep selloff in October, with the S&P 500 Index down 6.8% and international developed equities down 8.0% in US dollar terms for the month. Most bond markets posted small losses given poor technicals (with Treasury supply soaring as a result of large budget deficits, and the Federal Reserve shrinking its balance sheet), along with hawkish comments from Fed Chairman Jerome Powell suggesting that interest rate hikes will persist. Against that market backdrop, the Operating Fund declined 3.1% in October, which eroded the Reserve Account balance to \$18 million (2.14% of the total Operating Fund).

Market volatility has persisted into November, with the Operating Fund down an estimated 0.7% through November 23. As a result, we estimate that the Reserve Account balance now stands at roughly \$13 million (less than 2% of the total Operating Fund).



Action Items and Executive Summary

Operating Fund Return Projections

As shown in the following pages, while the Operating Fund Policy has a 3.8% expected real compound return over the long term (i.e., 25+ years), there is a wide range of potential outcomes, particularly over shorter time periods. For example, over any given 3-year period, the Operating Fund has a 50% likelihood of a return between 0.9% and 6.7%, with a 25% likelihood of a return over 6.7% but a 25% likelihood of a real return below 0.9% (i.e., failing to support a 2% payout).

In addition to the general unpredictability of short-term returns, current market valuations pose additional headwinds to investors today: strong performance over recent years have brought assets to levels that we view as unsustainable, implying that intermediate-term returns will likely fall short of long-term expectations. In a hypothetical scenario in which all asset class valuations reverted to their historical averages over the next 10 years, we project that US Equities would return 0.0% real (far below C | A's long-term return assumption of 5.7%), and US Treasuries would return 0.4% real (similarly falling short of C | A's long-term return assumption of 2.8%). Looking across the Operating Fund, this "return to normal" thought exercise suggests a 10-year compound return of 1.4% -- which would fail to keep pace with a 2% payout over that period.

We also present an analysis of returns in historical market downturns, showing that the Operating Fund could experience double-digit declines in environments like the Oil Shock of the early 1970s, the Tech Bubble Burst of the early 2000s or the Global Financial Crisis of 2007-2009. From the estimated Operating Fund balances as of November 23, the Operating Fund would need to experience a decline of merely 3% to bring the Reserve Account down to a \$20 million deficit.



Rebalancing Recommendations

Estimated as of November 23, 2018

		ion as of 60, 2018	Oct 1, 2018 - Nov 23, 2018		I Allocation v 23, 2018		mended nifts	Pro Form	a Allocation	Policy Targets	Allowable Range
	Assets (\$ mm)	(%) Allocation	Est Perf (%)	Assets (\$ mm)	(%) Allocation	(\$ mm)	(%)	Assets (\$ mm)	(%) Allocation	(%)	(%)
U.S. Equity											
Vanguard Institutional Index	\$207.4	22.9%	-9.4%	\$187.9	25.3%	-\$20.0	-2.7%	\$167.9	22.6%		
Total U.S. Equity	\$207.4	22.9%	-9.4%	\$187.9	25.3%	-\$20.0	-2.7%	\$167.9	22.6%	24.0%	20%-30%
Global ex U.S. Equity											
Manning & Napier MFS International	63.5 65.9	7.0 7.3	-10.5 -9.2	56.8 59.9	7.6 8.0	-\$3.0	-0.4	53.8 59.9	7.2 8.0		
Total Global ex U.S. Equity	\$129.4	14.3%	-9.8%	\$116.7	15.7%	-\$3.0	-0.4%	\$113.7	15.3%	16.0%	10%-20%
Marketable Alternatives											
Och-Ziff Overseas Farallon Capital	0.2 2.9	0.0 0.3	-4.7 -4.7	0.2 2.7	0.0 0.4			0.2 2.7	0.0 0.4		
Total Marketable Alternatives	\$3.1	0.3%	-4.7%	\$2.9	0.4%			\$2.9	0.4%	0.0%	
Opportunistic											
PIMCO All Asset All Authority	20.6	2.3	-1.7	20.3	2.7			20.3	2.7		
Total Opportunistic	\$20.6	2.3%	-1.7%	\$20.3	2.7%			\$20.3	2.7%	0.0%	0%-10%
TOTAL EQUITIES (incl. Opportunistic)	\$360.4	39.8%	-9.1%	\$327.8	44.1%	-\$23.0	-3.1%	\$304.8	41.0%	40.0%	30%-50%
TIPS											
Vanguard Inflation-Protected Securities	82.9	9.2	-1.3	81.8	11.0			81.8	11.0		
Total TIPS	\$82.9	9.2%	-1.3%	\$81.8	11.0%			\$81.8	11.0%	12.0%	5%-15%
Long Term Bonds											
PIMCO Total Return Wells Capital Montgomery	43.9 22.7	4.8 2.5	-0.3 -0.8	43.7 22.6	5.9 3.0	-\$5.0	-0.7	38.7 22.6	5.2 3.0		
Total Long Term Bonds	\$66.6	7.4%	-0.5%	\$66.3	8.9%	-\$5.0	-0.7%	\$61.3	8.2%	8.0%	5%-15%
TOTAL LONG-TERM POOL	\$509.9	56.3%	-6.7%	\$475.9	64.0%	-\$28.0	-3.8%	\$447.9	60.2%	60.0%	
Intermediate Term Bonds											
WellsCap Short Duration	91.1	10.1	-0.2	90.9	12.2			90.9	12.2		
Total Intermediate Term Bonds	\$91.1	10.1%	-0.2%	\$90.9	12.2%			\$90.9	12.2%	10.0%	5%-15%
Short Term Bonds and Cash											
Short Term Bonds and Cash *	304.0	33.6		177.1	23.8	+\$28.0	3.8	205.1	27.6		
Total Short Term Bonds and Cash	\$304.0	33.6%		\$177.1	23.8%	\$28.0	3.8%	\$205.1	27.6%	30.0%	25%-40%
TOTAL ASSETS	\$905.0	100.0%	-3.8%	\$743.9	100.0%			\$743.9	100.0%	100.0%	

Note: Market values as of 11/23/2018 are estimated using manager preliminary or mutual fund returns or (if highlighted in peach) index proxies. Actual client-specific returns may ultimately differ from managers' fund-level preliminary estimates. Cash accounts assume a 0% return for the period.

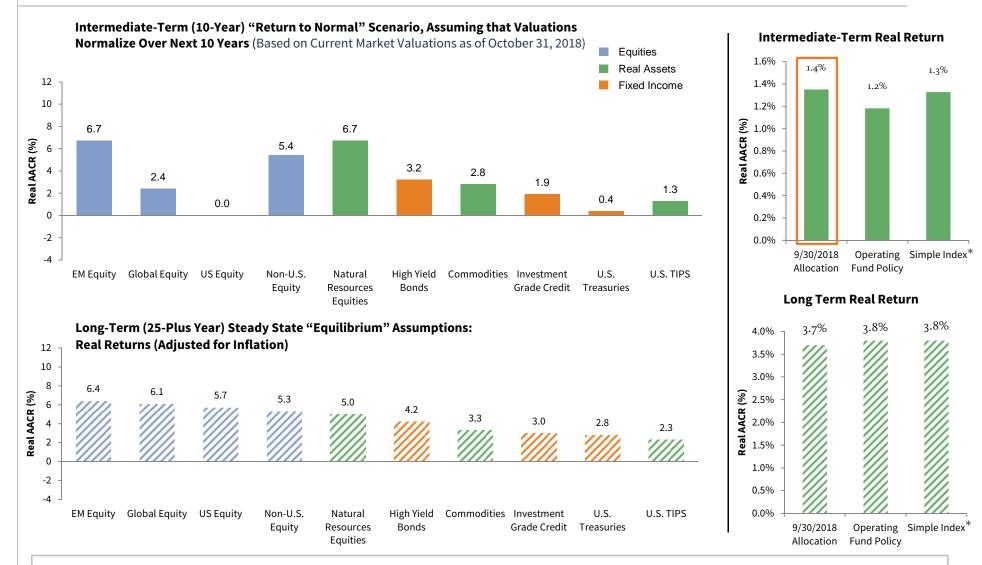
^{*} Estimated Allocation to Short Term Bonds and Cash as of 11/16/2018 was provided by System Staff.

Over Short-Term Periods the Operating Fund Has Meaningful Likelihood of Negative Returns

■ While the Operating Fund Policy has a 3.8% expected real compound return over the long term (i.e. 25+ years), there is a wide range of potential outcomes, particularly over shorter time periods.

Real Return Expectations Real Return Distribution (AACR) 12% 10% 8% 6% 4% 2% 0% -2% -4% 3 Years 10 Years 5 Years 25 Years 3 Years 5 Years 10 Years 25 Years 5th 11.0% 9.4% 7.7% 6.2% Over any given 3-year 25th 6.7% 6.0% 5.4% 4.8% Over any given 25-year period period the Operating Fund 50th 3.8% 3.8% 3.8% 3.8% the Operating Fund Policy has Policy has a 50% 75th 0.9% 1.5% 2.2% 2.8% a 50% likelihood of a return likelihood of a return 95th -3.0% -1.6% 0.0% 1.3% between 2.8% and 4.8% between 0.9% and 6.7%

Intermediate-Term Real Returns Unlikely to Keep Pace With 2% Payout Should Market Valuations Return to Historical Averages



Key Assumptions: Inflation: 3%; Real EPS Growth: 2% for US and Dev ex US, 3% for EMs; Ending 10-Yr US Treasury Yield: 5.0%, Ending 10-Yr US TIPS yield: 2.0%

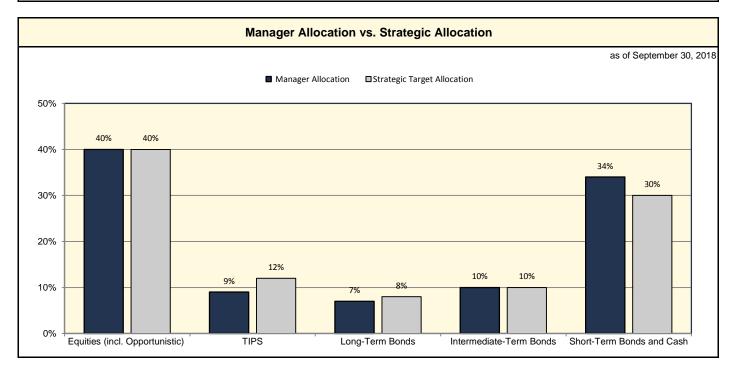
In Stress Environments Operating Fund Can Experience Double-Digit Declines

Current Operating Fund positioning would have held up relatively well in a variety of stress environments.

Stress Name	<u>Dates</u>	Length of Period (Months)		nates - Real	
			9/30/2018 Allocations	Operating Fund Policy	Simple Index*
Oil Shock	January 1, 1973 - September 30, 1974	21	-24.0	-24.6	-26.4
Energy Crisis/Stagflation	September 1, 1979 - March 31, 1980	7	-9.0	-9.4	-11.4
Energy Crisis/Stagflation	March 1, 1980 - March 31, 1980	1	-4.9	-5.2	-5.3
Interest Rate Hikes	July 1, 1980 - September 30, 1981	15	-5.9	-6.5	-8.6
Interest Rate Hikes	August 1, 1981 - July 31, 1982	12	-2.4	-3.3	-1.5
Stock Market Crash	September 1, 1987 - November 30, 1987	3	-9.2	-9.4	-9.2
Japan Market Collapse	January 1, 1990 - September 30, 1990	9	-8.1	-9.5	-9.5
Mexican Peso Crisis	February 1, 1994 - January 31, 1995	12	-2.7	-2.6	-3.1
Russian Debt Default	August 1, 1998 - September 30, 1998	2	-3.4	-3.7	-3.0
Tech Bubble Burst	April 1, 2000 - September 30, 2002	30	-10.5	-11.7	-12.0
Credit Crisis/Great Recession	November 1, 2007 - February 28, 2009	16	-20.0	-21.3	-20.1

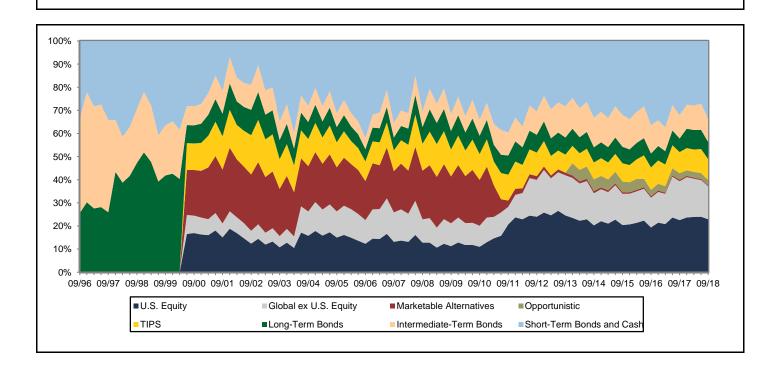
Nevada System of Higher Education Operating Fund Asset Allocation Policy as of September 30, 2018

	Manager	Strategic Target	Strategic Target	Policy Varianc	
	Allocation	Allocation	Range	(\$000)	%
Equities (incl. Opportunistic)	39.8%	40.0%		-\$1,579	-0.2%
U.S. Equity	22.9%	24.0%	20%-30%	-\$9,863	-1.1%
Global ex U.S. Equity	14.3%	16.0%	10%-20%	-\$15,409	-1.7%
Marketable Alternatives	0.3%	0.0%		\$3,091	0.3%
Opportunistic	2.3%	0.0%	0%-10%	\$20,602	2.3%
TIPS	9.2%	12.0%	5%-15%	-\$25,709	-2.8%
Long-Term Bonds	7.4%	8.0%	5%-15%	-\$5,785	-0.6%
Total Long-Term Pool	56.3%	60.0%		-\$33,072	-3.7%
Operating Liquidity Pools	43.7%	40.0%		\$33,072	3.7%
Intermediate-Term Bonds	10.1%	10.0%	5%-15%	\$550	0.1%
Short-Term Bonds and Cash	33.6%	30.0%	25%-40%	\$32,522	3.6%



Nevada System of Higher Education Operating Fund Asset Allocation Over Time as of September 30, 2018

					Market Value (\$)
		% of Po	ortfolio		As Of
	12/31/17	03/31/18	06/30/18	09/30/18	09/30/18
U.S. Equity	23.7%	23.9%	24.0%	22.9%	\$207,353,125
Global ex U.S. Equity	17.4	16.5	15.9	14.3	129,401,470
Marketable Alternatives	0.5	0.4	0.4	0.3	3,091,013
Opportunistic	2.5	2.5	2.6	2.3	20,602,461
TIPS	9.6	9.7	10.4	9.2	82,899,373
Long-Term Bonds	8.4	8.4	8.3	7.4	66,620,814
Total Long-Term Pool	62.0	61.5	61.6	56.3	509,968,255
Intermediate-Term Bonds	10.4	10.6	11.3	10.1	91,056,818
Short-Term Bonds and Cash	27.5	27.9	27.1	33.6	304,041,563
Total Operating Fund	100.0%	100.0%	100.0%	100.0%	\$905,066,636



Nevada System of Higher Education Operating Fund Investment Manager Allocation Over Time as of September 30, 2018

		o,	% of Portfolio				
Investment Manager	09/30/17	12/31/17	03/31/18	06/30/18	09/30/18	Market Value (\$) 09/30/18	
U.S. Equity							
Vanguard Institutional Index	22.5%	23.7%	23.9%	24.0%	22.9%	\$207,353,125	
Global ex U.S. Equity							
Manning & Napier	8.1	8.0	8.2	7.8	7.0	63,479,086	
MFS International	8.8	9.4	8.3	8.1	7.3	65,922,384	
Subtotal	16.8	17.4	16.5	15.9	14.3	129,401,470	
Marketable Alternatives							
Och-Ziff Overseas ⁽¹⁾⁽²⁾	0.0	0.0	0.0	0.0	0.0	188,931	
Farallon Capital (2)(3)	0.5	0.5	0.4	0.4	0.3	2,902,081	
Subtotal	0.5	0.5	0.4	0.4	0.3	3,091,013	
Opportunistic							
PIMCO All Asset	2.9	2.5	2.5	2.6	2.3	20,602,461	
TIPS							
Vanguard Inflation-Protected Securities	9.2	9.6	9.7	10.4	9.2	82,899,373	
Long-Term Bonds							
PIMCO Total Return	3.8	5.1	5.1	5.5	4.8	43,873,447	
Wells Capital Montgomery	2.0	3.2	3.3	2.8	2.5	22,747,367	
Subtotal	5.9	8.4	8.4	8.3	7.4	66,620,814	
Total Long-Term Pool	57.8%	62.0%	61.5%	61.6%	56.3%	\$509,968,255	
Intermediate-Term Bonds							
WellsCap U.S. Short Duration Strategy	10.1	10.4	10.6	11.3	10.1	91,056,818	
Short-Term Bonds and Cash							
State Street Inst Gov't MM	6.7	6.9	7.1	7.6	6.7	61,009,319	
JP Morgan U.S. Treasury Plus MM	12.2	6.9	10.7	8.9	5.0	45,401,938	
Wells Fargo Treasury Money Market	12.8	7.9	10.7	10.0	21.5	194,741,332	
BofA Checking Account	0.3	5.8	-0.7	0.6	0.3	2,265,611	
Funds Pending Placement ⁽⁴⁾	0.1	0.1	0.1	0.1	0.1	623,363	
Subtotal	32.1	27.5	27.9	27.1	33.6	304,041,563	
Total Operating Fund	100.0%	100.0%	100.0%	100.0%	100.0%	\$905,066,636	

⁽¹⁾ Och-Ziff Overseas fully redeemed on 06/30/11. Market value represents holdback amount to be paid out after final audit and Special Situations Accounts.

⁽²⁾ Information is preliminary as of 09/30/18.
(3) Farallon Capital fully redeemed on 12/31/10. Market value represents holdback amount to be paid out after final audit and Special Situations

⁽⁴⁾ Funds Pending Placement includes the value of liquidations from Och-Ziff awaiting cash distribution, amount has been corrected.

Nevada System of Higher Education Operating Fund Investment Returns by Composite (net of fees) as of September 30, 2018

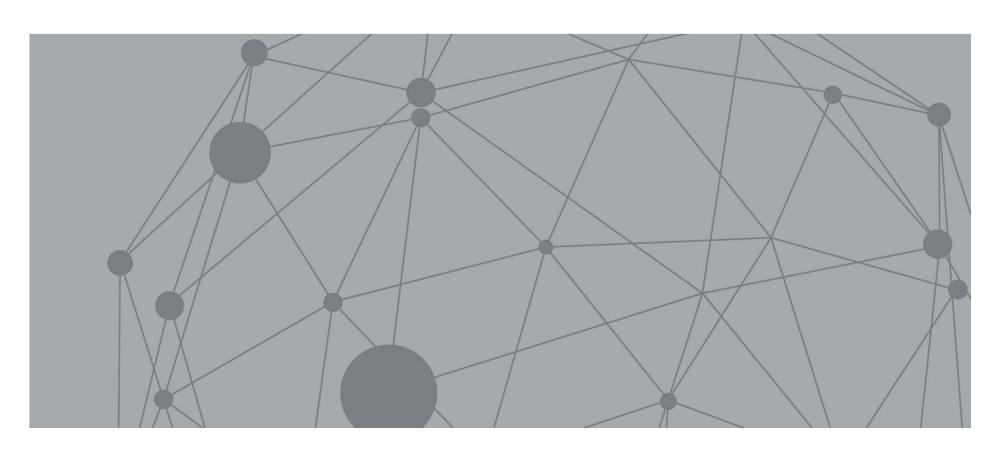
		Total Return (%)							
Composite (Inception Date)	Assets \$ mil	Qtr to Date 06/30/18- 09/30/18	CYTD 12/31/17- 09/30/18	Cumulative Trailing 1 Year	Annualized Trailing 5 Years	Annualized Trailing 10 Years	Annualized Since Inception		
U.S. Equity (06/30/00)	207.4	7.7	10.8	18.2	14.0	12.0	6.2		
S&P 500 Index (06/30/00)		7.7	10.6	17.9	13.9	12.0	5.9		
Value Added		0.0	0.3	0.3	0.0	0.0	0.3		
Global ex U.S. Equity (06/30/00)	129.4	1.4	-0.4	2.9	4.1	5.4	3.6		
MSCI EAFE Index (N) (06/30/00)		1.4	-1.4	2.7	4.4	5.4	3.5		
Value Added		0.1	1.0	0.2	-0.3	0.0	0.1		
Marketable Alternatives (06/30/00)	3.1	0.0	-2.5	-2.1	4.3	3.6	6.2		
HFRI Fund of Funds Diversified Index (06/30/00)		0.6	1.4	3.5	3.2	2.6	3.3		
Value Added		-0.6	-3.9	-5.6	1.1	1.0	2.9		
BofA ML T-Bill + 6% (06/30/00)		1.9	5.8	7.6	6.5	6.3	7.6		
Value Added		-1.9	-8.3	-9.7	-2.2	-2.8	-1.4		
Opportunistic (12/11/13)	20.6	-1.3	-4.4	-2.3			1.0		
Opportunistic Custom Benchmark (11/30/13) ⁽¹⁾		2.1	2.1	4.6			4.2		
Value Added		-3.5	-6.5	-6.9			-3.2		
TIPS (06/30/00)	82.9	-0.9	-0.9	0.3	1.5	3.2	5.2		
BBG Barc US TIPS Index (06/30/00)		-0.8	-0.8	0.4	1.4	3.3	5.2		
Value Added		0.0	-0.1	-0.1	0.1	-0.1	-0.1		
Long-Term Bonds (06/30/96)	66.6	0.0	-1.7	-1.7	2.2	4.9	5.9		
BBG Barc Aggregate Bond Index (06/30/96)		0.0	-1.6	-1.2	2.2	3.8	5.1		
Value Added		0.0	-0.1	-0.4	0.0	1.2	0.8		
Total Long-Term Pool (06/30/96)	510.0	3.2	3.4	7.4	7.0	7.7	6.8		
Intermediate-Term Bonds (06/30/96)	91.1	0.2	0.1	-0.1	0.9	3.1	4.1		
BofA ML 1-3 Yr Treasury Bond Index (06/30/96)		0.2	0.3	0.0	0.6	1.1	3.2		
Value Added		0.0	-0.2	-0.1	0.3	2.0	0.8		
Short-Term Bonds and Cash (06/30/96) ⁽²⁾	304.0	0.3	1.0	1.2	0.3	0.3	2.3		
- 44 - 14 - 4 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -		0.5	1.3	1.6	0.5	0.3	2.3		
BofA ML 91-Day Treasury Bills (06/30/96)		-0.2	-0.3	-0.4	-0.2	-0.1	0.1		

⁽¹⁾ For benchmark details, please refer to the Custom Benchmark Composition exhibit in the Reference section. (2) Includes Funds Pending Placement.

Nevada System of Higher Education Operating Fund Investment Returns by Composite (net of fees) as of September 30, 2018

				Total Re	turn (%)		
Composite (Inception Date)	Assets \$ mil	Qtr to Date 06/30/18- 09/30/18	CYTD 12/31/17- 09/30/18	Cumulative Trailing 1 Year	Annualized Trailing 5 Years	Annualized Trailing 10 Years	Annualized Since Inception
Total Operating Fund (06/30/96)	905.1	2.1	2.6	5.0	4.3	4.8	5.0
Policy Index (06/30/96) ⁽¹⁾		2.0	2.5	5.0	4.6	4.7	4.6
Value Added		0.1	0.1	0.0	-0.3	0.2	0.4
Long-Term Policy Index (06/30/96) ⁽¹⁾		2.0	2.5	5.0	4.6	4.8	5.0
Value Added		0.1	0.1	0.0	-0.3	0.0	0.0

MARKET ENVIRONMENT





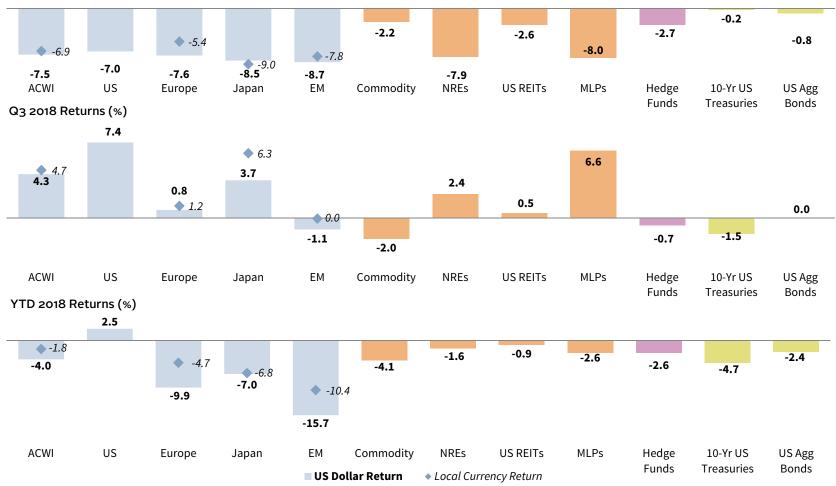
Markets were spooked in October

Equities sold off on fears over trade wars, rising rates, fading earnings, and a variety of other matters

GLOBAL ASSET CLASS PERFORMANCE

As of October 31, 2018 • US Dollar

October 2018 Returns (%)



Sources: Bloomberg Index Services Limited, FTSE International Limited, Hedge Fund Research, Inc., MSCI Inc., National Association of Real Estate Investment Trusts, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

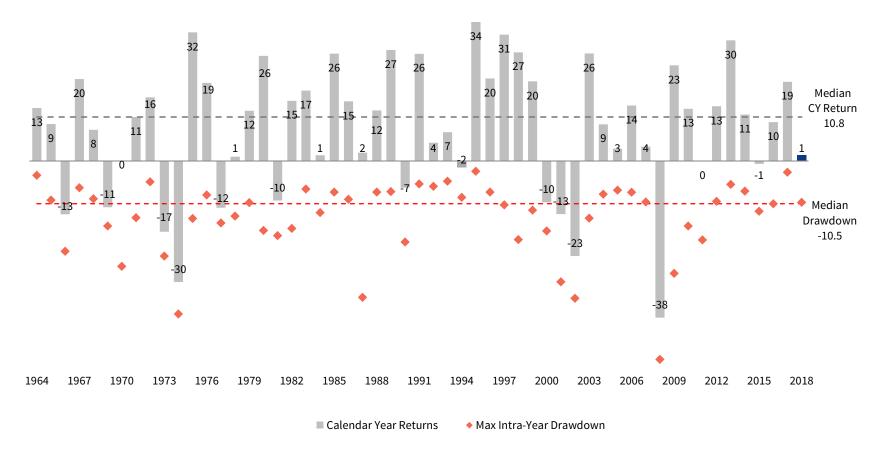


2018's volatility is not unusual

More atypical was market calm in 2017

CALENDAR YEAR RETURNS VS INTRA-YEAR DRAWDOWNS FOR S&P 500

1964-2018 • Price Return in USD (%)



MMHC

Many fears drove the October sell-off

#1

Slowing economic growth momentum #2

Slowing earnings growth momentum #3

Rising rates—
real rates and inflation expectations



Central bank monetary policy tightening

#5

Strong US dollar

#6

China slowdown/ trade war escalation



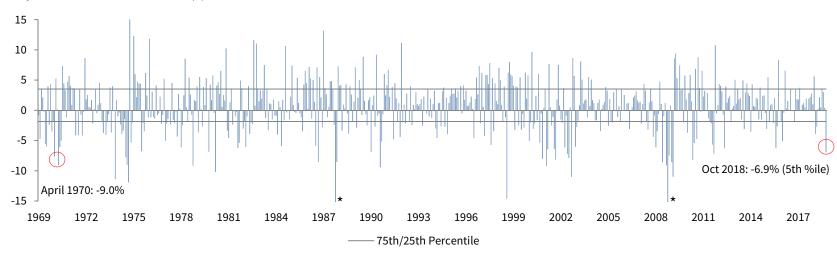
European political stresses

October was worst month for the S&P 500 since late 2011

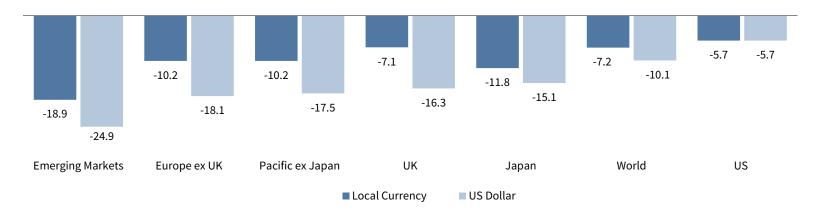
Many indexes are now in correction territory

S&P 500 MONTHLY RETURNS

January 1969 – October 2018 • Price Return (%)



PERFORMANCE SINCE JAN 26, 2018, ACWI INDEX PEAK (%)



Sources: MSCI Inc., Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties. Note: All data are based on price returns.

 $^{^{\}star}$ Chart capped at +/- 15% for scale purposes; the S&P 500 returned -21.8% in October 1987 and -16.9% in October 2008. MMHC

US growth stocks still lead in 2018 YTD, but EM stocks go from first to worst

THE BENEFITS OF DIVERSIFICATION: GLOBAL AND US INDEXES

2006-18 • US Dollar

															ough 1/2017
2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	YTD 2018	Strategy	5-Year AACR	10-Year AACR
35.1%	39.4%	5.2%	78.5%	29.1%	8.3%	19.7%	43.3%	28.0%	5.7%	31.7%	37.3%	6.6%	US Large-Cap Growth	17.3%	10.2%
32.1%	16.2%	-28.9%	37.2%	27.9%	7.8%	18.2%	34.5%	13.5%	2.8%	17.3%	30.2%	1.1%	US Small-Cap Growth	15.2%	9.4%
26.3%	11.8%	-35.6%	34.5%	24.5%	2.6%	18.1%	33.5%	13.0%	0.5%	11.8%	25.0%	-0.9%	US Large-Cap Value	14.0%	7.3%
23.5%	11.2%	-36.8%	31.8%	18.9%	0.4%	17.5%	32.5%	6.0%	-0.8%	11.3%	22.2%	-1.5%	US Small-Cap Value	13.0%	8.3%
22.2%	7.0%	-37.7%	28.0%	16.8%	-2.9%	17.3%	22.8%	5.6%	-1.4%	11.2%	13.7%	-2.4%	Public Real Estate	9.8%	8.0%
13.3%	7.0%	-38.4%	20.6%	16.7%	-5.5%	15.3%	2.9%	4.2%	-3.8%	8.6%	8.7%	-2.5%	Non-US Dev Mkts	7.9%	2.2%
9.1%	-0.2%	-38.5%	19.7%	15.5%	-12.1%	14.6%	-2.0%	-2.2%	-7.5%	7.1%	7.8%	-4.1%	Emerging Mkts	4.3%	2.3%
4.3%	-9.8%	-43.4%	18.9%	7.8%	-13.3%	4.2%	-2.6%	-4.9%	-14.9%	2.6%	3.5%	-9.3%	US Bonds	2.1%	4.0%
2.1%	-15.7%	-53.3%	5.9%	6.5%	-18.4%	-1.1%	-9.5%	-17.0%	-24.7%	1.0%	1.7%	-15.7%	Commodities	-8.5%	-6.7%
			S	pread of	Returns I	Between	Highest-		est-Perfo age Points	rming St	rategies	within a G	iven Period		
33.0	55.1	58.6	72.6	22.5	26.7	20.8	52.8	45.0	30.3	30.7	35.6	22.3		25.8	16.9

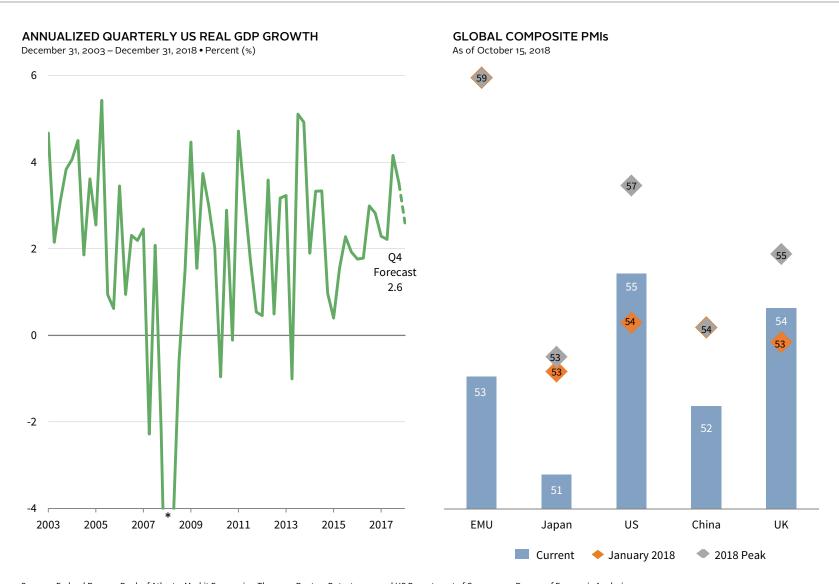
Sources: Bloomberg Index Services Limited, Frank Russell Company, FTSE International Limited, MSCI Inc., National Association of Real Estate Investment Trusts, and Thomson Reuters Datastream.

MSCI data provided "as is" without any express or implied warranties.

Notes: US large-cap style represents the performance of the Russell 1000° style indexes. US small-cap style represents the performance of the Russell 2000° style indexes. Non-US Dev Mkts represents the performance of the MSCI Europe, Australasia, and Far East (EAFE) Index. Emerging Mkts represents the performance of the MSCI Emerging Markets Index. US Bonds represents the performance of the Bloomberg Barclays Aggregate Bond Index. Public Real Estate represents the performance of the FTSE° NAREIT All Equity REITs Index. Commodities represents the performance of the Bloomberg Commodity Total Return Index. Total return data for all MSCI indexes are net of dividend taxes. Data for YTD 2018 are as of October 31.

US GDP numbers have been strong

But globally growth is decoupling and decelerating





Sources: Federal Reserve Bank of Atlanta, Markit Economics, Thomson Reuters Datastream, and US Department of Commerce - Bureau of Economic Analysis.

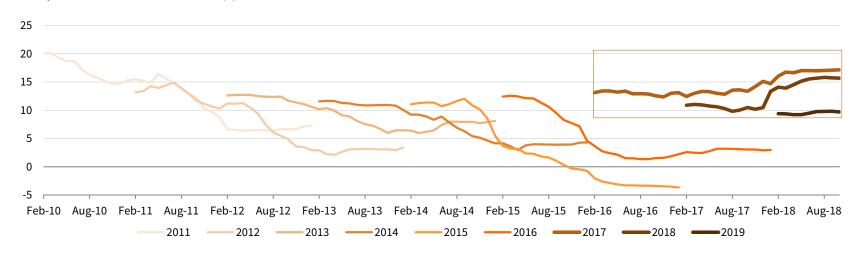
Notes: Q4 GDP data based on Atlanta Federal Reserve forecast. Composite PMI data include both manufacturing and services PMI surveys; a reading above 50 is expansionary. Composite PMI data for the most recent month are flash estimates; data for China, Japan, and UK are through September 2018; US and China had peak 2018 PMI in January.

Earnings growth looks set to moderate in 2019

Boost from US tax reform and fiscal stimulus expected to fade but the EPS outlook remains healthy for now

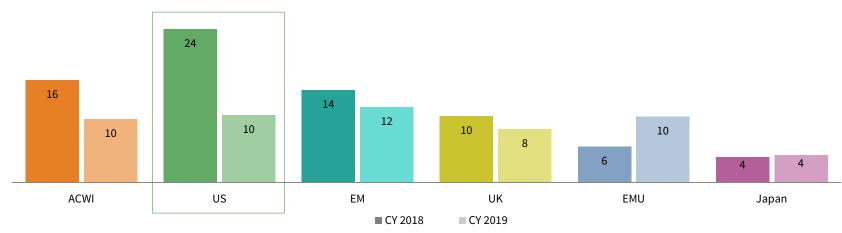
MSCI ACWI EPS GROWTH ESTIMATES OVER TIME BY FISCAL YEAR

February 28, 2010 - October 31, 2018 • Percent (%)



CALENDAR YEAR 2018 & 2019 EPS GROWTH ESTIMATES FOR SELECT REGIONS

As of October 31, 2018 • Percent (%)



Sources: I/B/E/S, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Notes: EPS growth forecasts data are undated weekly. MSCI ACWI and EM estimates are in USD terms and reflect the impact of currency fluctuations. All other

Crude sold off in October as growth fears mounted

Major producers also show no signs of easing up on supply

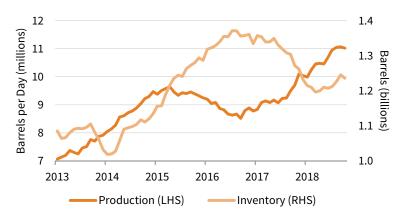
BRENT CRUDE OIL PRICES

January 1, 2013 - October 31, 2018 • US Dollar per Barrel



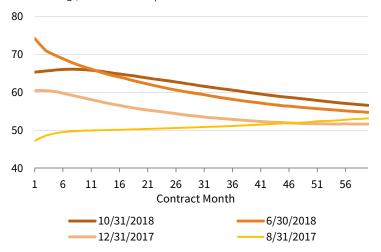
US CRUDE OIL SUPPLY

January 15, 2013 – October 15, 2018



NYMEX CRUDE OIL FUTURES CURVE

As of October 31, 2018 • US Dollar per Barrel



Sources: Energy Information Administration, NYMEX, and Thomson Reuters Datastream. Notes: Brent crude oil prices are daily. All other data are monthly.

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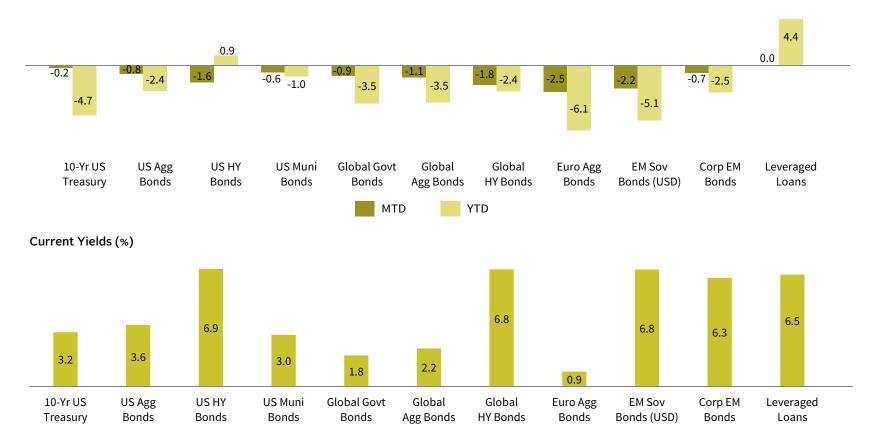
Bonds offered little respite in October

Worries over a more aggressive Fed pushed benchmark rates higher

FIXED INCOME MARKET SUMMARY

As of October 31, 2018 • US Dollar

MTD and YTD 2018 Returns (%)



Sources: Bloomberg Index Services Limited, Credit Suisse, J.P. Morgan Securities, Inc., and Thomson Reuters Datastream.

Notes: Asset classes represented by: US Benchmark 10-Year Datastream Government Index (10-Yr US Treasury), Bloomberg Barclays US Aggregate Bonds Index (US Agg Bonds), Bloomberg Barclays US Corporate High Yield Bond Index (US HY Bonds), Bloomberg Barclays Municipal Bond Index (US Muni Bonds), J.P. Morgan Global Government Bond Index (Global Gov Bonds), Bloomberg Barclays Global Aggregate Bond Index (Global Agg Bonds), Bloomberg Barclays Global High Yield Bond Index (Global HY Bonds), Bloomberg Barclays European Aggregate Bond Index (Euro Agg Bonds), J.P. Morgan EM Bond Index Global Diversified (EM Sov Bonds [USD]), J.P. Morgan Corporate Emerging Markets Bond Index (Corp EM Bonds), and Credit Suisse Leveraged Loans Index (Leveraged Loans).

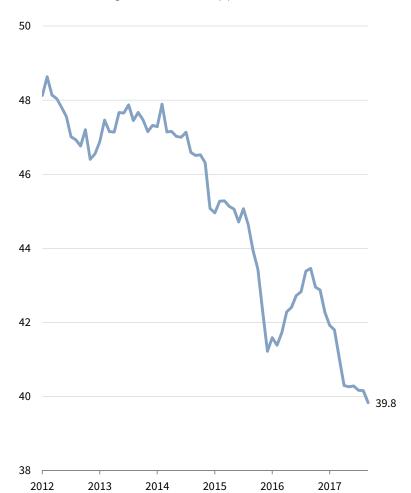
ммнс

Treasury market suffers from less foreign buying as Fed is shrinking its balance sheet

Foreigners are cutting back as the cost of hedging USD instruments soars

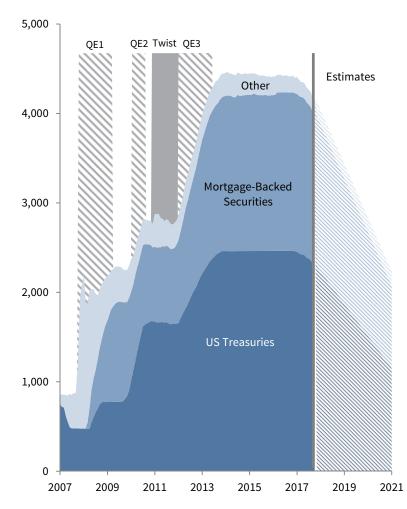
FOREIGN OWNERSHIP OF US TREASURY DEBT

December 31, 2012 - August 31, 2018 • Percent (%)



GROWTH OF THE FEDERAL RESERVE'S BALANCE SHEET

December 31, 2007 – December 31, 2021 • USD (billions)



 $Sources: Federal\ Reserve, Thomson\ Reuters\ Datastream, and\ US\ Department\ of\ the\ Treasury.$

Note: Actual Federal Reserve balance sheet data are through October 19, 2018, and estimates are based on Federal Reserve forecasts.

MMHC

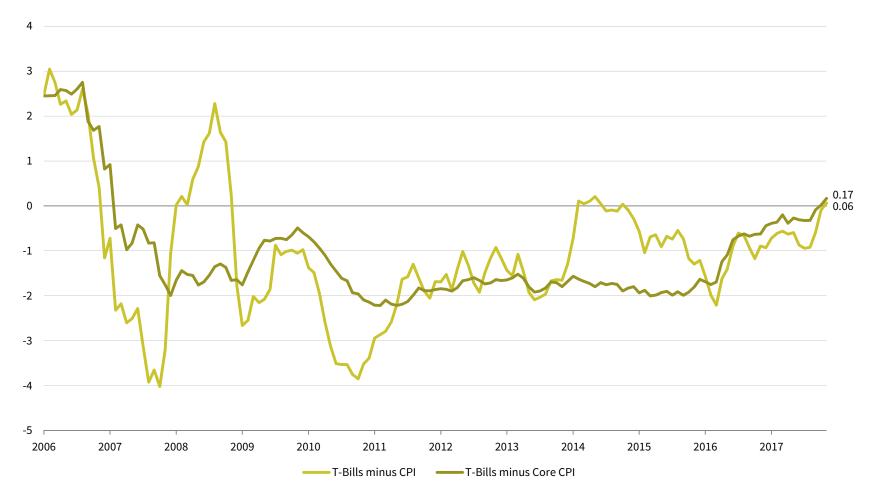
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Cash is no longer trash

Real yields on short-term debt are highest in more than a decade

US INFLATION-ADJUSTED CASH YIELDS

December 31, 2006 – October 31, 2018

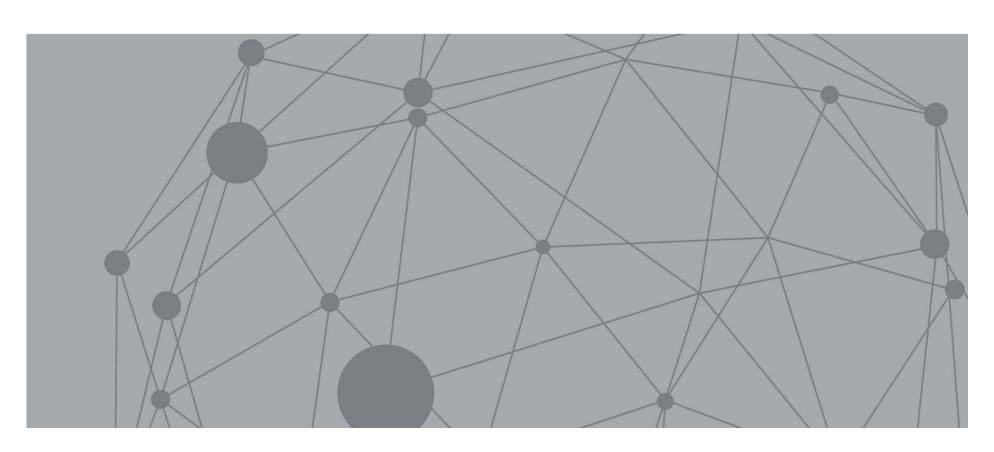


Sources: Federal Reserve, Thomson Reuters Datastream, and US Department of Labor - Bureau of Labor Statistics.

Notes: US inflation-adjusted cash yield data are represented by the difference between the three-month US Treasury-bill yield and the year-over-year percentage change in the inflation measure. Inflation data are through September 30, 2018.

MMHC

VALUATIONS



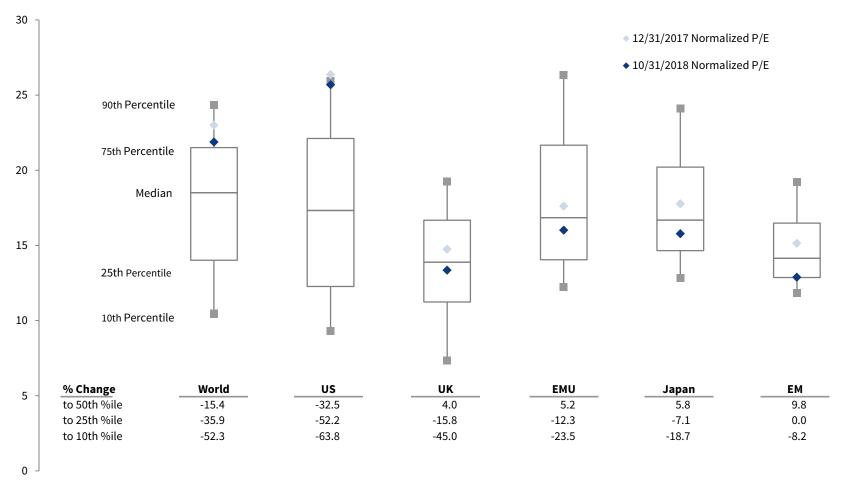


Equity valuations now well below start of 2018

Non-US stocks trade at a discount to historical median valuations

COMPOSITE NORMALIZED PRICE-EARNINGS RATIOS BY REGION

As of October 31, 2018



Sources: MSCI Inc. and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Notes: Composite normalized price-earnings (P/E) ratio is used for World, US, UK, and EMU. Return on equity (ROE)-adjusted P/E ratio is used for Japan and EM. The composite normalized P/E ratio is calculated by dividing the inflation-adjusted index price by the simple average of three normalized earnings metrics: ten-year average real earnings (i.e., Shiller earnings), trend-line earnings, and ROE-adjusted earnings. Observation periods begin: January 31, 1970 for World; December 31, 1969 for US and UK; April 30, 1998 for EMU; January 31, 2002 for Japan; and September 30, 1995 for EM.

1900m

Cambridge Associates Current Valuations Summary*

November 7, 2018

VERY OVERVALUED	OVERVALUED	FAIRLY VALUED	UNDERVALUED	VERY UNDERVALUED
US Equities US Growth Equities Euro-Denominated Credits Core EMU Sovereign Bonds New Zealand Govt Bonds US Venture Capital (late stage) US Private Equity European Private Equity	Developed Markets Equities US Value Equities US High-Quality Equities New Zealand Equities UK Sterling-Denominated Credits Leveraged Loans US High-Yield Bonds Global Inflation-Linked Bonds UK Gilts Canadian Govt Bonds Australian Govt Bonds US REITs Distressed Investing (Non-Control) USD vs DM Currencies US Private Property UK Private Property Asian Private Property Europe ex UK Private Property Asian Private Equity US Venture Capital US Venture Capital (expan stage)	Developed ex US Equities Dev ex US Small-Cap Equities (>) UK Equities Europe ex UK Equities EMU Equities Japanese Equities Canadian Equities Australian Equities Emerging Markets Equities EM Equities Latin America EM Small-Cap Equities Frontier Markets Equities US Bonds** US Corporate Bonds US Inflation-Linked Bonds US Treasuries EM Debt (Local Currency)*** EM Debt (USD Corporate) EM Debt (USD Sovereign) Commodities Natural Resources Equities Dev Mkts Property Securities Event-Driven Investing Emerging Markets Currencies Energy MLPs Private Oil, Gas, & Other Energy Private Infrastructure US Venture Capital (early stage) European Venture Equity	Asia ex Japan Equities (>) EM Equities Asia (>) EM Equities EMEA (>) Private Metals and Mining	Chinese A-Share Equities

Notes: Data on fundamental valuations do not provide forecasts of expected returns; they reflect the vulnerability of a given asset class to disappointing economic and profit developments. Therefore, valuations may not necessarily correspond to short-term or even intermediate-term returns. For example, asset classes and investment strategies can be fairly valued yet still retain a negative outlook due to deteriorating fundamentals. Asset class and investment strategy valuations do not reflect currency valuations. Bold type represents the aggregate of asset classes for which we show valuation ratings for underlying strategies. Italic type represents non-marketable asset classes. Valuations of such investments are based on our views on prospects for new commitments made today, which are informed by recent transactions, as well as consideration of near-term trends and intermediate-term expectations such as supply and demand factors, exit opportunities, and expectations of conditions that will influence risk and return over the life of a fund. Private equity includes buyouts and growth equity. (<) Indicates a recent move in the direction of more overvalued. (>) Indicates a recent move in the direction of more undervalued.

^{*} For more detail on our views, read our monthly Asset Class Views, available on our client website

^{**} Reflects a broad-based US bonds allocation similar to the Bloomberg Barclays Aggregate Bond Index.

^{***} Currency is considered against the US dollar.

4. OPERATING FUND STATUS





	Operating Fund <u>Market Value*</u>	Investment Income <u>Earned</u>	Investment Income <u>Distributed</u>	Reserve Account Ending Balance	Reserve/(Deficit) as % of Total Operating Fund
Apr-2000 ^[1]	190,603,064	131,861	- 3,012,039	- 2,880,266	-1.51
May-2000	211,846,354	163,167	- 1,162,937	- 3,880,036	-1.83
Jun-2000	205,824,654	2,542,870	- 939,750	- 2,276,916	-1.11
Jul-2000	221,886,621	282,084	- 873,438	- 2,868,270	-1.29
Aug-2000	224,788,824	4,493,952	- 904,024	721,658	0.32
Sep-2000	210,004,756	- 1,229,654	- 1,231,755	- 1,739,751	-0.83
Oct-2000 [2]	207,797,786	1,506,098	- 1,164,746	- 1,398,399	-0.67
Nov-2000	200,269,779	- 1,984,486	- 1,141,711	- 4,524,596	-2.26
Dec-2000	208,182,114	2,418,755	- 1,049,935	- 3,155,776	-1.52
Jan-2001	217,937,307	3,123,733	- 1,167,002	- 1,199,045	-0.55
Feb-2001	206,043,730	- 1,074,401	- 1,194,381	- 3,467,826	-1.68
Mar-2001	194,803,547	- 1,391,260	- 1,114,499	- 5,973,585	-3.07
Apr-2001	187,311,217	3,000,904	- 1,100,876	- 4,073,557	-2.17
May-2001 [3]	195,326,437	1,255,172	- 1,106,330	- 3,924,715	-2.01
Jun-2001	181,680,689	- 742,900	- 1,102,094	- 5,769,709	-3.18
Jul-2001	202,347,577	1,445,927	- 847,180	- 4,282,488	-2.12
Aug-2001	209,448,723	- 1,130,375	- 859,295	- 6,299,894	-3.01
Sep-2001	222,633,859	- 2,329,410	- 902,965	- 9,566,420	-4.30
Oct-2001	221,768,653	1,000,136	- 829,611	- 9,427,304	-4.25
Nov-2001	172,568,948	2,019,519	- 813,644	- 8,221,748	-4.76
Dec-2001	167,605,959	329,048	- 781,211	- 8,673,911	-5.18
Jan-2002 [4]	202,807,058	529,077	- 740,482	- 8,885,317	-4.38
Feb-2002	198,414,963	574,482	- 745,550	- 9,056,385	-4.56
Mar-2002	187,854,679	1,267,945	- 715,383	- 8,503,822	-4.53
Apr-2002	194,483,372	1,031,063	- 730,349	- 8,203,110	-4.22
May-2002	199,428,572	1,470,532	- 739,859	- 7,472,437	-3.75
Jun-2002	190,274,431	- 2,383,454	- 729,181	- 10,585,072	-5.56
Jul-2002 ^[5]	164,908,334	- 3,330,103	- 585,121	- 14,500,296	-8.79
Aug-2002	200,314,802	- 25,511	- 591,599	- 15,117,406	-7.55
Sep-2002	186,307,147	- 2,456,156	- 638,849	- 18,212,411	-9.78
Oct-2002 [6]	187,872,082	1,902,625	- 610,407	- 16,920,193	-9.01
Nov-2002	199,286,311	2,082,786	- 581,252	- 15,132,310	-7.59
Dec-2002	197,101,437	1,301,796	- 574,879	- 14,405,394	-7.31
Jan-2003	216,042,889	373,621	- 630,125	- 14,661,898	-6.79
Feb-2003	223,873,793	913,271	- 652,965	- 14,401,592	-6.43
Mar-2003	227,320,382	- 504,203	- 663,018	- 15,568,813	-6.85
Apr-2003	225,055,464	3,621,910	- 656,412	- 12,603,315	-5.60
May-2003	218,291,356	6,046,346	- 636,683	- 7,193,530	-3.30
Jun-2003	235,523,055	1,647,556	- 686,942	- 6,232,829	-2.65
Jul-2003	225,061,174	- 1,305,304	- 674,445	- 8,212,420	-3.65
Aug-2003	241,526,531	2,223,696	- 719,494	- 6,707,917	-2.78
Sep-2003	284,905,882	3,067,753	- 835,773	- 4,475,866	-1.57
Oct-2003	284,905,882	3,463,060	- 815,074	- 1,827,815	-0.64
Nov-2003	267,256,457	2,085,338	- 785,343	- 1,827,813 - 527,777	-0.20
Dec-2003	270,053,685	3,621,731	- 783,343 - 792,490	- <i>321,777</i> 2,301,522	0.85
Jan-2004	304,898,705	3,239,296	- 792,490 - 899,911	4,641,067	1.52
Feb-2004			- 699,911 - 925,891		2.12
1 50- 200 4	306,353,392	2,786,761	- 323,031	6,501,985	۷.۱۷

	Operating Fund Market Value*	Investment Income <u>Earned</u>	Investment Income <u>Distributed</u>	Reserve Account Ending Balance	Reserve/(Deficit) as % of Total Operating Fund
Mar-2004	334,140,321	880,979	- 959,699	6,423,321	1.92
Apr-2004	323,733,799	- 3,271,914	- 935,653	2,215,804	0.68
May-2004	310,820,065	2,978,607	- 884,508	4,308,156	1.39
Jun-2004	319,089,113	1,756,998	- 924,163	5,141,050	1.61
Jul-2004	276,525,679	- 3,003,616	- 853,527	1,284,158	0.46
Aug-2004	300,350,870	1,787,372	- 878,380	2,193,830	0.73
Sep-2004	329,175,987	3,970,031	- 946,862	5,217,350	1.58
Oct-2004	325,280,731	2,674,159	- 906,294	6,985,541	2.15
Nov-2004	325,501,494	4,944,533	- 927,189	11,003,523	3.38
Dec-2004	317,086,382	6,159,801	- 863,703	16,300,918	5.14
Jan-2005	358,775,910	- 1,537,890	- 1,012,932	13,752,561	3.83
Feb-2005	368,348,060	4,214,824	- 1,034,309	16,933,741	4.60
Mar-2005	368,184,915	- 1,390,602	- 998,491	14,545,251	3.95
Apr-2005	322,747,036	- 373,270	- 997,321	13,175,791	4.08
May-2005	351,522,927	3,172,862	- 986,250	15,968,809	4.54
Jun-2005	350,676,848	1,881,696	- 980,355	16,872,276	4.81
Jul-2005	324,372,566	2,325,199	- 894,849	18,303,775	5.64
Aug-2005	336,278,510	2,577,885	- 935,037	19,950,951	5.93
Sep-2005	380,767,534	2,845,247	- 1,022,572	21,774,810	5.72
Oct-2005	382,463,815	- 2,503,281	- 1,031,408	18,241,926	4.77
Nov-2005	370,575,423	2,876,089	- 1,026,612	20,092,768	5.42
Dec-2005	362,198,735	3,886,306	- 996,500	22,984,930	6.35
Jan-2006	400,119,473	6,214,511	- 1,101,206	28,104,444	7.02
Feb-2006 [7]	363,661,874	2,407,655	- 1,158,882	14,359,096	3.95
Mar-2006	421,741,479	1,870,205	- 1,104,085	14,862,142	3.52
Apr-2006	412,409,442	4,126,708	- 1,189,962	17,807,634	4.32
May-2006	428,050,405	- 2,712,303	- 1,229,022	13,874,468	3.24
Jun-2006	397,038,132	759,423	- 1,472,632	13,168,597	3.32
Jul-2006	426,778,295	3,170,187	- 1,232,828	15,016,412	3.52
Aug-2006	446,949,399	4,809,494	- 1,280,842	18,545,951	4.15
Sep-2006	485,309,106	3,886,176	- 1,339,432	21,098,900	4.35
Oct-2006	491,077,464	5,745,522	- 1,336,522	25,515,258	5.20
Nov-2006	479,641,782	5,384,183	- 1,357,014	29,564,126	6.16
Dec-2006	469,227,138	3,423,923	- 1,349,797	31,627,934	6.74
Jan-2007	476,690,202	3,514,501	- 1,309,708	33,761,919	7.08
Feb-2007	463,957,730	1,793,443	- 1,376,674	34,183,412	7.37
Mar-2007	456,916,695	4,250,674	- 1,339,581	37,099,388	8.12
Apr-2007	447,774,841	6,834,702	- 1,300,756	42,652,711	9.53
May-2007	443,169,778	4,304,247	- 1,283,507	45,557,251	10.28
Jun-2007	429,014,210	1,318,682	- 1,283,307 - 1,276,064	45,562,802	10.62
Jul-2007	422,800,379	978,076	- 1,294,859	45,256,506	10.70
Aug-2007 [8]	463,287,774	1,141,142	- 1,327,393 - 1,327,393	33,468,232	7.22
Sep-2007	503,693,516	6,725,006	- 1,327,393 - 1,471,903	38,732,523	7.69
Oct-2007	532,953,405	8,939,371	- 1,471,903 - 1,484,274		7.69 6.79
Nov-2007	524,833,392	- 474,987	- 1,484,274 - 1,455,000	36,196,965 34,269,215	6.53
Dec-2007	488,058,329	- 163,714 - 7.274,704	- 1,438,155 - 1,525,533	32,669,497 23,871,592	6.69
Jan-2008	498,662,871	- 7,274,704	- 1,525,533	23,871,592	4.79

^{*} Average Market Value for the month Numbered footnotes are presented at the end of this exhibit

	Operating Fund <u>Market Value*</u>	Investment Income <u>Earned</u>	Investment Income <u>Distributed</u>	Reserve Account Ending Balance	Reserve/(Deficit) as % of Total Operating Fund
Feb-2008	522,429,681	1,770,738	- 1,538,431	24,110,273	4.62
Mar-2008 [10]	508,017,279	- 3,288,747	- 1,483,288	14,100,201	2.78
Apr-2008	480,885,277	3,415,203	- 1,461,259	16,054,657	3.34
May-2008	461,741,980	3,456,286	- 1,382,621	18,150,032	3.93
Jun-2008	429,413,850	- 8,450,547	- 1,386,824	8,313,390	1.94
Jul-2008	410,663,405	- 4,628,107	- 1,344,792	2,340,375	0.57
Aug-2008	475,058,191	- 725,811	- 1,301,470	313,725	0.07
Sep-2008	528,357,492	- 24,682,230	0	- 24,368,505	-4.61
Oct-2008	499,948,331	- 22,338,217	0	- 46,706,721	-9.34
Nov-2008 [10.5]	384,017,951	- 10,810,207	0	- 62,831,615	-16.36
Dec-2008	365,149,131	7,289,401	0	- 55,562,986	-15.22
Jan-2009	395,078,444	- 8,312,962	0	- 63,898,394	-16.17
Feb-2009	412,489,609	- 11,778,961	0	- 75,700,296	-18.35
Mar-2009	394,110,706	9,195,194	0	- 66,527,948	-16.88
Apr-2009	385,281,546	9,210,151	0	- 57,339,861	-14.88
May-2009	386,438,273	10,367,154	0	- 46,963,715	-12.15
Jun-2009	388,504,496	8,396,302	0	- 38,691,756	-9.96
Jul-2009	379,884,652	8,920,793	0	- 29,791,574	-7.84
Aug-2009	417,718,890	7,745,266	0	- 22,211,230	-5.32
Sep-2009	476,920,474	11,390,789	0	- 10,848,845	-2.27
Oct-2009	478,206,217	- 1,260,470	0	- 12,134,968	-2.54
Nov-2009	467,981,428	7,816,435	0	- 4,339,904	-0.93
Dec-2009	460,887,939	978,601	0	- 3,386,044	-0.73
Jan-2010	494,113,754	- 536,799	0	- 3,954,220	-0.80
Feb-2010	536,415,257	2,629,875	0	- 1,350,564	-0.25
Mar-2010	529,962,831	7,950,695	0	6,592,916	1.24
Apr-2010	505,028,620	3,769,231	0	10,366,971	2.05
May-2010	495,723,958	- 8,178,556	0	2,164,107	0.44
Jun-2010	483,015,094	- 3,741,998	0	- 1,715,881	-0.36
Jul-2010	454,152,490	8,216,789	0	6,477,955	1.43
Aug-2010	478,983,837	- 954,095	0	5,493,768	1.15
Sep-2010	531,289,764	11,065,950	0	16,376,944	3.08
Oct-2010	545,098,997	8,352,517	0	24,701,594	4.53
Nov-2010 [11]	537,632,325	- 1,485,861	0	3,191,638	0.59
Dec-2010	526,037,834	7,596,878	0	10,761,836	2.05
Jan-2011	543,100,034	4,427,520	0	15,156,209	2.79
Feb-2011	584,582,290	7,036,994	0	22,226,373	3.80
Mar-2011	602,634,879	168,183	0	22,316,281	3.70
Apr-2011	602,899,146	8,660,352	0	30,976,656	5.14
May-2011	600,527,414	- 1,003,816	0	30,000,368	5.00
Jun-2011	584,153,071	- 2,244,871	0	27,687,521	4.74
Jul-2011	553,620,075	383,544	- 909,098	27,161,999	4.91
Aug-2011	550,357,944	- 11,607,805	- 902,641	14,651,568	2.66
Sep-2011	580,320,257	- 16,972,235	- 1,011,187	- 3,331,839	-0.57
Oct-2011	616,014,627	19,660,977	- 1,022,377	15,306,775	2.48
Nov-2011	614,641,484	- 2,138,517	- 1,051,805	12,116,473	1.97
Dec-2011	570,282,703	1,812,147	- 1,017,403	12,758,773	2.24

	Operating Fund <u>Market Value*</u>	Investment Income <u>Earned</u>	Investment Income <u>Distributed</u>	Reserve Account Ending Balance	Reserve/(Deficit) as % of Total Operating Fund
Jan-2012	588,887,714	12,029,128	- 1,001,701	23,759,216	4.03
Feb-2012	640,696,614	10,597,480	- 1,075,899	33,258,187	5.19
Mar-2012 [12]	665,476,106	6,211,504	- 1,076,596	8,322,216	1.25
Apr-2012	675,583,556	- 46,605	- 1,088,493	7,168,811	1.06
May-2012	650,891,109	- 14,138,289	- 1,072,313	- 8,061,857	-1.24
Jun-2012	651,130,437	10,716,945	- 1,037,938	1,471,157	0.23
Jul-2012	646,978,870	5,879,922	- 998,094	6,258,602	0.97
Aug-2012	649,388,408	7,839,154	- 970,634	13,104,020	2.02
Sep-2012	696,232,882	8,049,795	- 1,050,089	21,081,049	3.03
Oct-2012	710,358,991	- 1,197,576	- 1,067,091	18,810,096	2.65
Nov-2012	691,059,345	5,398,282	- 1,042,304	23,118,256	3.35
Dec-2012	676,084,453	5,351,934	- 1,023,111	27,408,223	4.05
Jan-2013	698,562,775	12,404,710	- 1,017,830	38,765,511	5.55
Feb-2013	734,583,537	2,136,815	- 1,110,373	39,781,379	5.42
Mar-2013	741,356,785	7,909,680	- 1,118,897	46,560,042	6.28
Apr-2013 [13]	746,499,564	8,176,059	- 1,098,001	33,597,353	4.50
May-2013	749,121,650	- 232,068	- 1,086,419	32,122,561	4.29
Jun-2013	730,655,804	- 11,399,623	- 1,070,174	18,372,158	2.51
Jul-2013	699,864,927	17,517,869	- 995,266	35,972,372	5.14
Aug-2013	722,698,696	- 10,850,330	- 1,017,100	24,104,402	3.34
Sep-2013 [14]	757,589,559	16,932,055	- 1,113,457	24,944,753	3.29
Oct-2013	773,300,230	13,389,288	- 1,110,570	37,198,388	4.81
Nov-2013	782,311,772	7,133,796	- 1,126,357	43,114,980	5.51
Dec-2013	766,348,636	3,839,932	- 1,096,572	45,808,074	5.98
Jan-2014	794,356,651	- 10,323,902	- 1,103,315	34,364,198	4.33
Feb-2014	832,429,376	17,369,351	- 1,199,782	50,609,052	6.08
Mar-2014 [15]	827,743,406	658,708	- 1,232,998	29,973,696	3.62
Apr-2014	811,778,308	5,011,098	- 1,192,620	33,733,052	4.16
May-2014	802,766,371	9,865,028	- 1,167,436	42,329,115	5.27
Jun-2014	796,867,536	5,137,303	- 1,132,848	44,988,631	5.65
Jul-2014	769,443,193	- 7,085,988	- 1,088,507	37,893,670	4.92
Aug-2014	768,458,918	9,717,438	- 1,074,041	46,500,161	6.05
Sep-2014	799,195,918	- 12,343,439	- 1,174,737	32,956,777	4.12
Oct-2014	809,138,417	3,728,437	- 1,179,110	35,489,183	4.39
Nov-2014	803,360,295	7,715,321	- 1,179,110	42,007,603	5.23
Dec-2014	787,894,117	- 8,447,678	- 1,162,452	32,373,324	4.11
Jan-2015	817,081,803	- 76,950	- 1,146,238	31,126,582	3.81
Feb-2015	861,706,208	14,825,760	- 1,173,599	44,758,231	5.19
Mar-2015	846,665,997	- 6,106,183	- 1,266,477	37,276,172	4.40
Apr-2015	816,988,387	8,550,962	- 1,236,365	44,571,763	5.46
May-2015	800,253,288	878,840	- 1,180,152	44,251,472	5.53
Jun-2015	775,206,818	- 8,971,779	- 2,277,378	32,851,768	4.24
Jul-2015	741,262,295	3,882,734	0	36,716,269	4.95
Aug-2015	730,652,584	- 21,602,156	- 1,044,825	14,046,895	1.92
Sep-2015	743,692,218	- 9,918,574	- 1,053,121	2,945,392	0.40
Oct-2015	763,715,634	22,165,405	- 1,145,809	23,945,040	3.14
Nov-2015	773,032,685	- 1,931,303	- 1,153,337	20,734,926	2.68

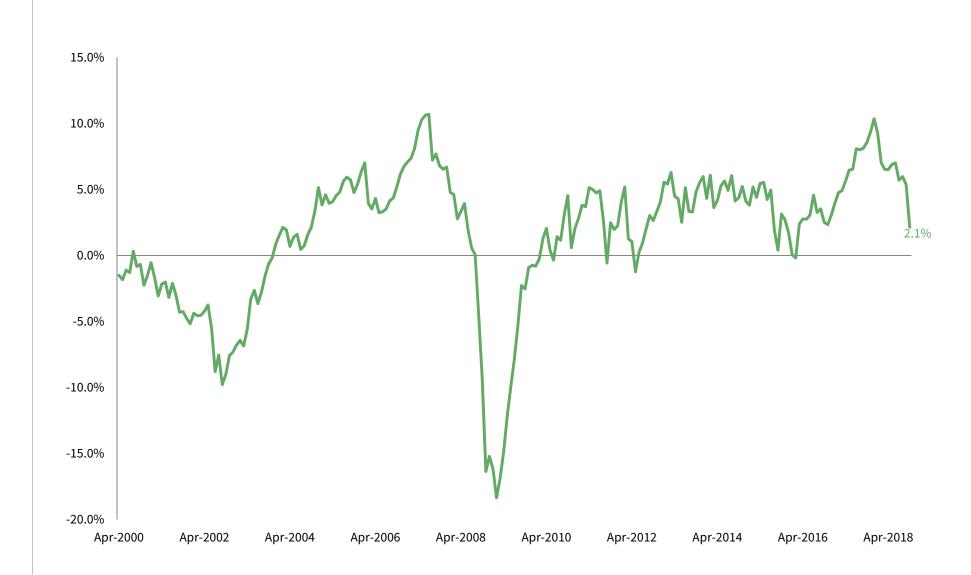
	Operating Fund Market Value*	Investment Income <u>Earned</u>	Investment Income <u>Distributed</u>	Reserve Account Ending Balance	Reserve/(Deficit) as % of Total Operating Fund
Dec-2015	757,261,248	- 6,511,571	- 1,159,535	12,989,860	1.72
Jan-2016	753,972,401	- 11,441,815	- 1,155,539	370,580	0.05
Feb-2016	790,998,777	- 681,126	- 1,124,930	- 1,455,417	-0.18
Mar-2016	797,575,047	21,771,860	- 1,224,413	18,964,772	2.38
Apr-2016	766,518,822	3,441,429	- 1,170,933	21,216,478	2.77
May-2016	757,996,550	701,573	- 1,125,582	20,774,029	2.74
Jun-2016	755,484,888	3,775,103	- 1,098,587	23,146,343	3.06
Jul-2016	733,302,986	11,461,092	- 1,059,136	33,491,949	4.57
Aug-2016 [16]	766,724,276	- 2,118,513	- 1,045,608	25,041,315	3.27
Sep-2016	842,005,030	5,780,022	- 1,194,237	29,752,500	3.53
Oct-2016	862,418,660	- 6,852,761	- 1,202,643	21,682,310	2.51
Nov-2016	845,771,679	- 741,201	- 1,181,669	19,718,479	2.33
Dec-2016	817,936,437	6,570,718	- 1,128,775	25,086,318	3.07
Jan-2017	830,799,148	9,054,706	- 1,084,201	32,985,285	3.97
Feb-2017	880,425,266	10,058,347	- 1,242,283	41,938,224	4.76
Mar-2017	893,424,246	3,300,433	- 1,232,302	43,973,971	4.92
Apr-2017	887,806,037	7,463,148	- 1,217,247	50,184,988	5.65
May-2017	887,269,645	8,464,067	- 1,198,145	57,369,255	6.47
Jun-2017	847,739,260	675,163	- 1,143,788	55,459,088	6.54
Jul-2017	813,856,671	10,359,659	- 1,076,066	65,797,343	8.08
Aug-2017	839,204,422	2,535,845	- 1,066,881	67,230,046	8.01
Sep-2017	881,692,900	5,616,527	- 1,202,797	71,754,200	8.14
Oct-2017	901,627,087	6,727,263	- 1,229,105	77,279,939	8.57
Nov-2017	897,702,172	7,822,907	- 1,153,420	83,851,878	9.34
Dec-2017	855,516,473	5,905,871	- 1,073,414	88,582,274	10.35
Jan-2018 ^[17]	870,092,454	18,446,268	- 1,084,399	80,652,619	9.27
Feb-2018	895,531,308	- 16,708,736	- 1,163,952	62,862,530	7.02
Mar-2018	866,802,937	- 5,188,184	- 1,208,065	56,484,006	6.52
Apr-2018	869,750,629	1,383,567	- 1,207,801	56,632,529	6.51
May-2018	868,282,529	4,480,231	- 1,010,580	59,885,226	6.90
Jun-2018	828,275,019	504,749	- 1,105,523	58,061,099	7.01
Jul-2018 ^[18]	781,211,535	11,568,283	- 1,004,059	44,605,676	5.71
Aug-2018	810,642,123	4,837,891	- 1,076,126	48,410,834	5.97
Sep-2018	879,381,343	- 14,451	- 1,137,144	47,294,965	5.38
Oct-2018	843,212,368	- 27,059,717	- 1,137,144	18,072,015	2.14

Operating Fund Investment Income Investment Income Reserve Account Reserve/(Deficit) as % <u>Market Value*</u> <u>Earned</u> <u>Distributed</u> <u>Ending Balance</u> <u>of Total Operating Fund</u>

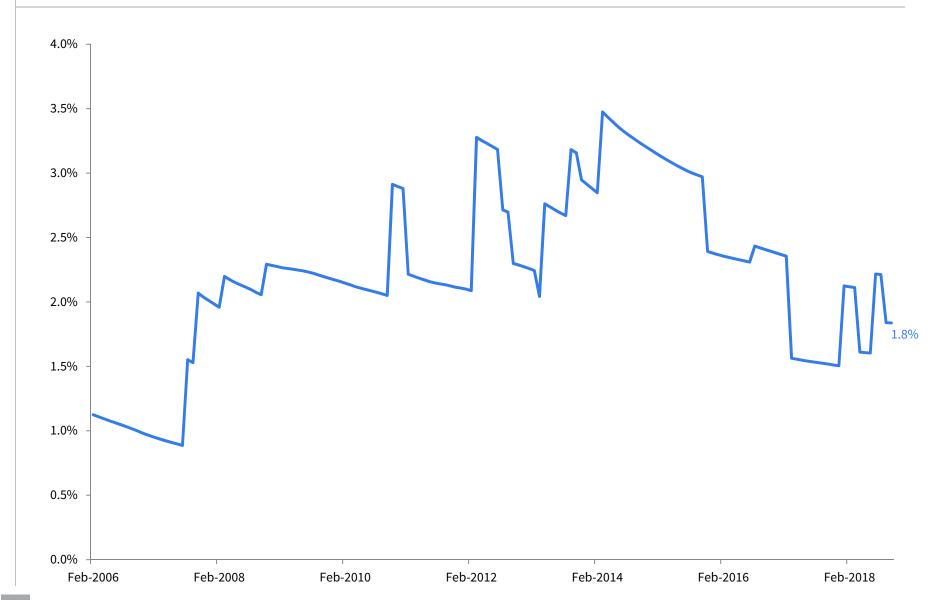
ENDNOTES

- [1] New Board policy to distribute 5.0% of the average cash balance was approved at the March 2000 Investment Committee meeting, and made retroactive to January 2000. A special cash distribution was made in April to adjust the year to date campus investment income allocation.
- [2] Annual distribution rate increased to 6.2%
- [3] Annual distribution rate cut to 5.0%, effective July 2001.
- [4] Annual distribution rate cut to 4.0%, effective January 1, 2002.
- [5] Annual distribution rate cut to 3.5%, effective July 1, 2002.
- [6] At the Oct 2002 mtg, the Committee established a "trigger" point for the Operating Fund. The distribution rate would be automatically reduced to 1.8% should the reserve account deficit exceed \$20M.
- [7] Includes a \$15.0 mm distribution to the iNtegrate project.
- [8] Includes a distribution of \$10.0 mm to the campuses, \$1.5 mm to Health Science, and \$107,000 to WNC for Athletic Fee Waiver.
- [9] Includes a distribution of \$10.0 mm to the campuses.
- [10] Includes a distribution of \$5.2 mm to integrate.
- [10.5] Includes a distribution of \$5.0 mm to the campuses.
- [11] Includes a distribution of \$20.0 mm to the iNtegrate project, as approved by the Investment Committee at the December 2010 meeting.
- [12] At the March 2012 meeting, the committee approved to decrease the Reserve Account by \$30.0 mm for reallocation into the Market Fluctuation account.
- [13] Includes a further decrease of the Reserve Account of \$20.0 mm for reallocation into the Market Fluctuation account.
- [14] Includes a distribution of \$15.0 mm to address formula implementation and budgetary items otherwise foregone or delayed without this funding.
- [15] Includes a distribution of \$20.0 mm to the iNtegrate project.
- [16] Includes a distribution of \$5.0 mm for campus initiatives such as the medical education transition in Las Vegas, program start-up and other budgetary opportunities.
- [18] Includes a special distribution of \$25.0 mm to the campuses.
- [17] Includes a special distribution of \$25.0 mm to the campuses.

Reserve/(Deficit) as % of Total Operating Pool



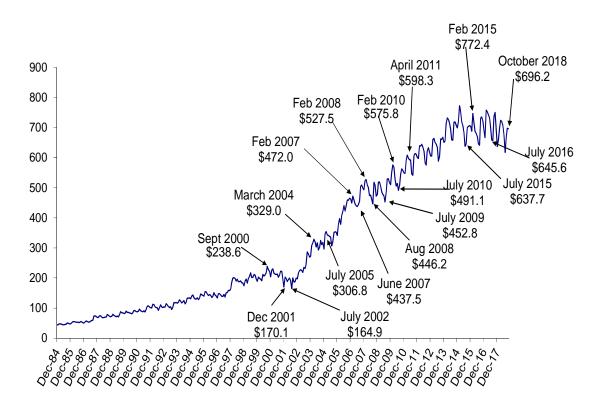
Rolling 5-Year Special Distributions





Operating Fund Average Daily Balances

January 1985 through October 2018



Largest Peak to Valley	-134.7	February 2015 - July 2015
Largest Quarterly Decline	-102.4	Fourth Quarter 2017
Largest Monthly Decline	\$ (mm) -59.4	<u>Date</u> December 2017