

SWIFT

State Water Implementation Fund for Texas

TEXAS  TRUST
TEXAS TREASURY SAFEKEEPING TRUST COMPANY
COMPTROLLER GLENN HEGAR, CHAIRMAN

Q³ 2018 COMPTROLLER'S INVESTMENT ADVISORY BOARD PORTFOLIO REVIEW

MEETING DATE: JANUARY 29, 2019

SWIFT

State Water Implementation Fund for Texas

The State Water Implementation Fund for Texas (“SWIFT”) was created by the 83rd Texas Legislature, Regular Session, and became effective once voters approved the constitutional amendment to fund the SWIFT with \$2 billion from the Economic Stabilization Fund. The creation of the SWIFT and its requirements are set forth in Chapter 15 of the Texas Water Code. Funds in the SWIFT are used to subsidize financing costs for projects included in the State Water Plan developed and implemented by the Texas Water Development Board (TWDB). The balance of the SWIFT is expected to be drawn down over time; however, funds used for financing subsidies will ultimately be repaid to the SWIFT. The investment objective of the SWIFT is to preserve its purchasing power while maintaining sufficient liquidity to meet the needs of the TWDB.

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Asset Allocation Summary

As of September 30, 2018

Asset Class	Strategy	Number of Funds ^{1,2}	Number of Managers ^{1,2}	Current Market Value	Weight	Target Weight
Fixed Income		38	28	\$1,022,721,226	53.9%	50.0%
	Global Fixed Income (ex-cash)	6	6	142,860,402	7.5%	10.0%
	Cash	4	4	351,926,844	18.5%	5.0%
	Alternative Fixed Income	9	8	280,546,223	14.8%	15.0%
	Private Debt	19	15	247,387,757	13.0%	20.0%
Equity		13	12	\$503,638,525	26.5%	30.0%
	Global Public Equity	2	2	96,957,105	5.1%	5.0%
	Hedged Equity	10	9	404,181,420	21.3%	25.0%
	Private Equity	1	1	2,500,000	0.1%	0.0%
Real Assets		7	5	\$289,859,923	15.3%	20.0%
	Real Estate	7	5	289,859,923	15.3%	15.0%
	Commodities	0	0	0	0.0%	5.0%
Strategic All Asset		2	2	\$81,553,836	4.3%	0.0%
	All Asset Strategies	2	2	81,553,836	4.3%	0.0%
Total Portfolio		60	43	\$1,897,773,510	100.0%	100.0%

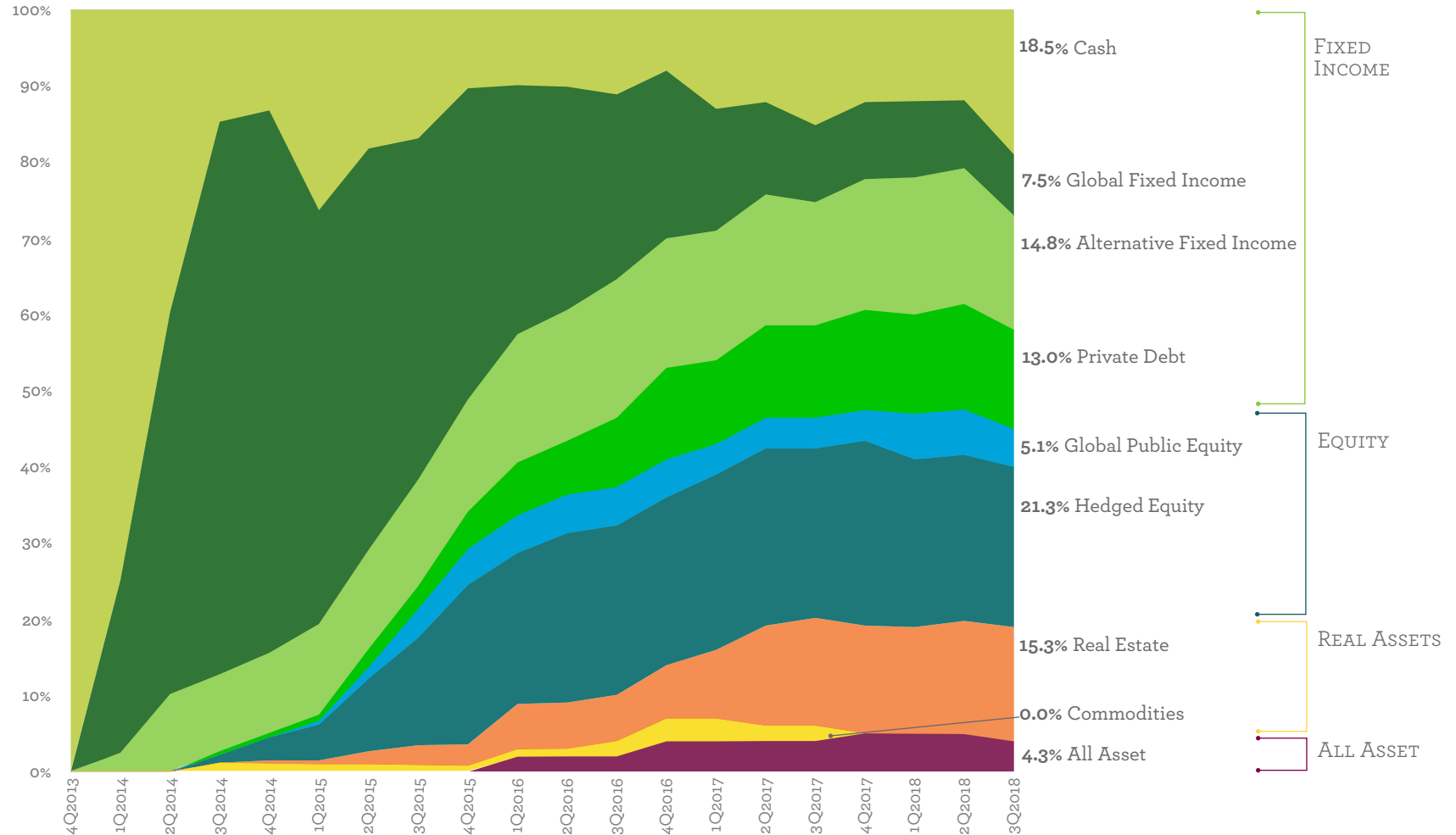
¹ Does not include funds in wind down or redemption.

² Manager count for aggregates are less than sum of components due to managers with multiple strategy allocations.

Asset Allocation Evolution (Actual)

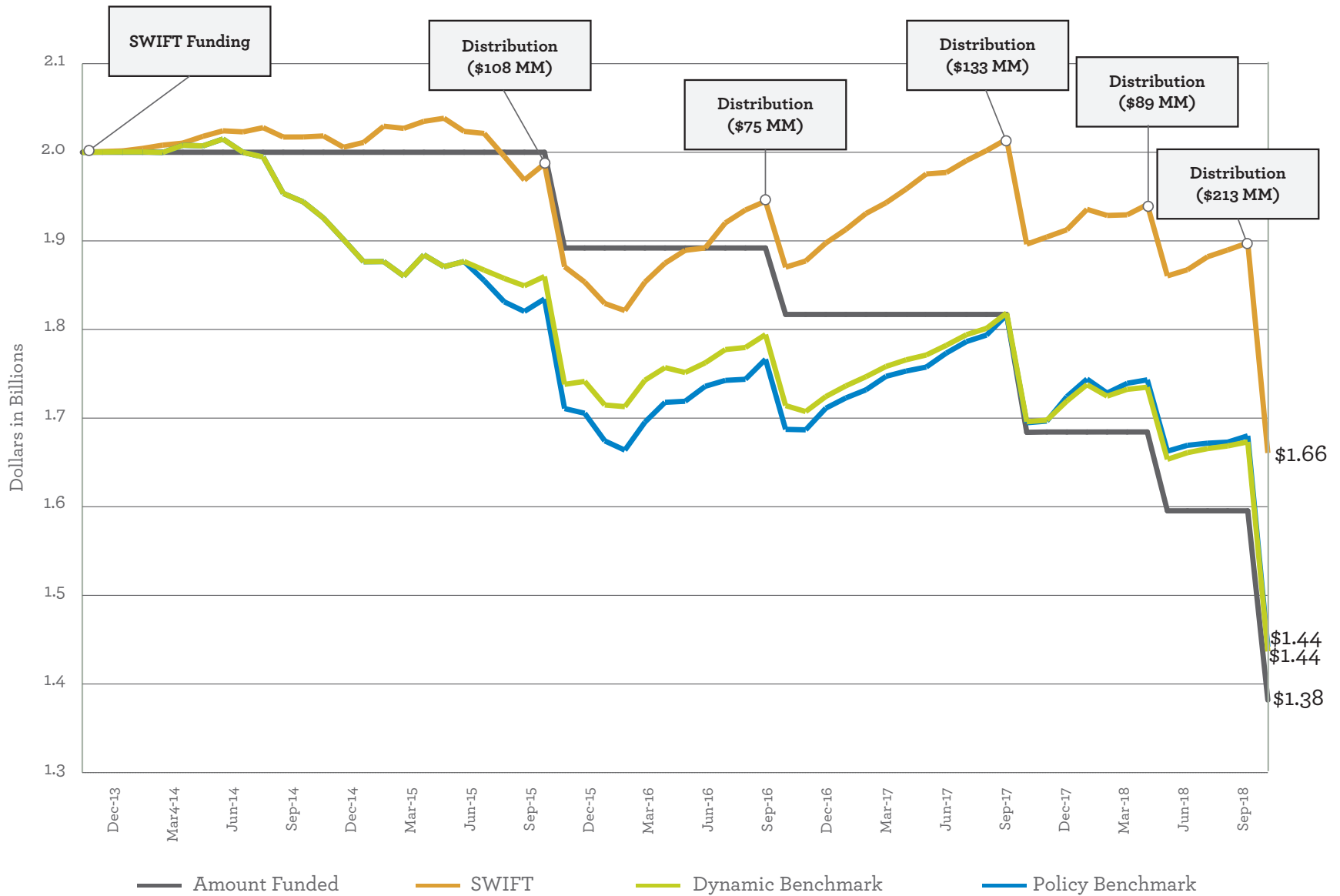
As of September 30, 2018

Total AUM: \$1,897,773,510



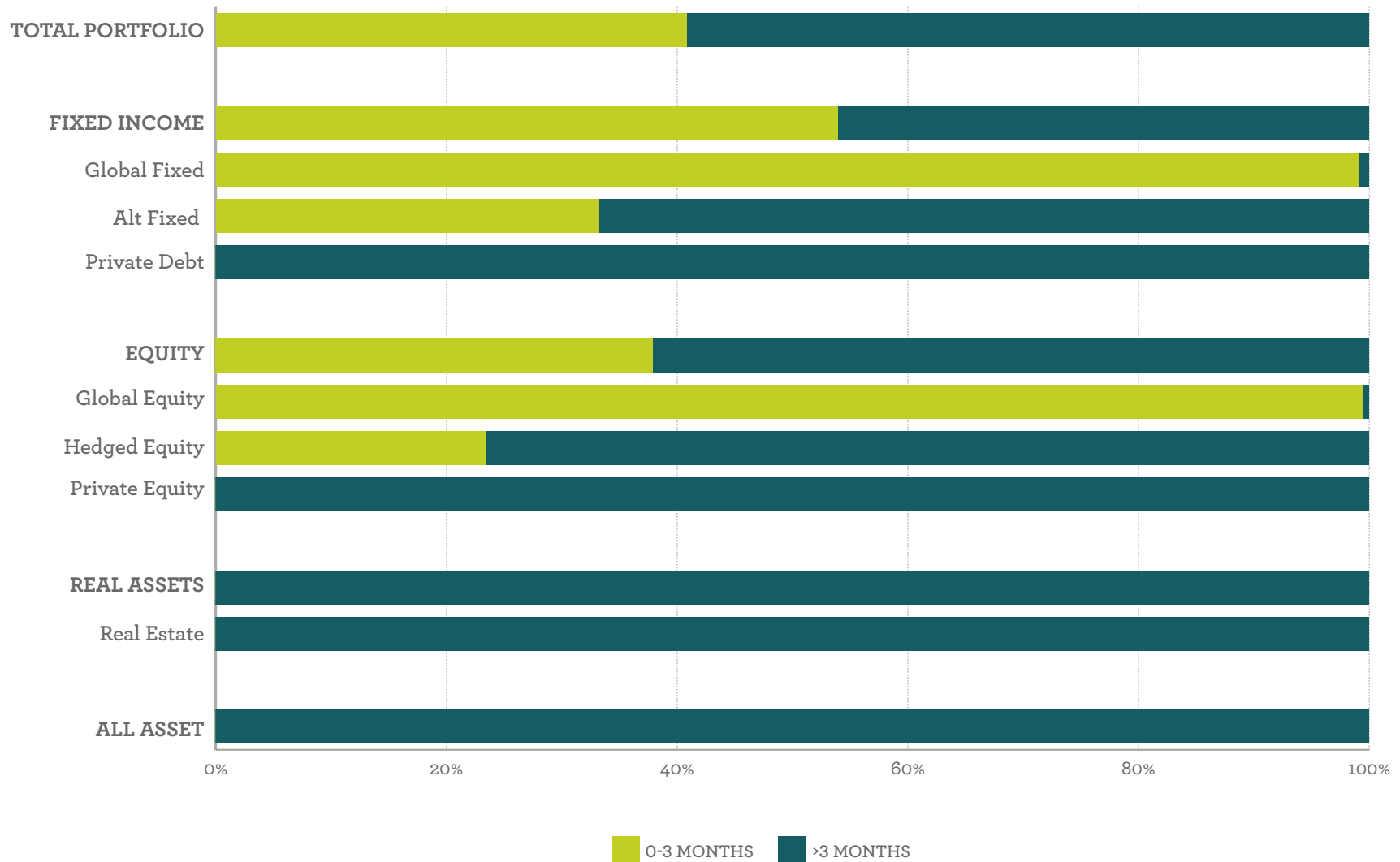
SWIFT Portfolio Market Value

As of October 31, 2018



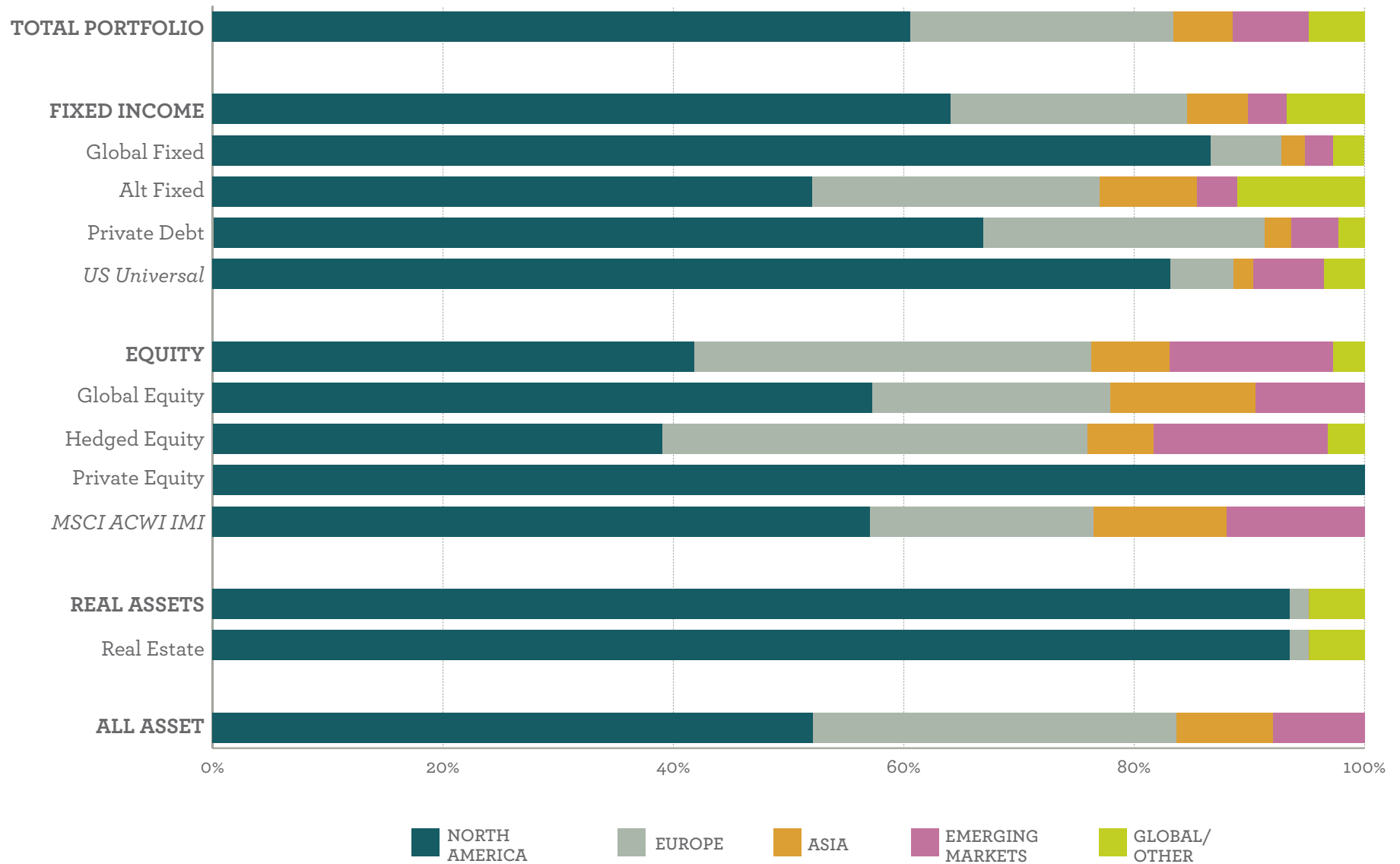
Portfolio Liquidity

As of September 30, 2018



Portfolio Geographic Allocation¹

As of September 30, 2018



¹ Calculated using gross exposures.

Fixed Income Summary

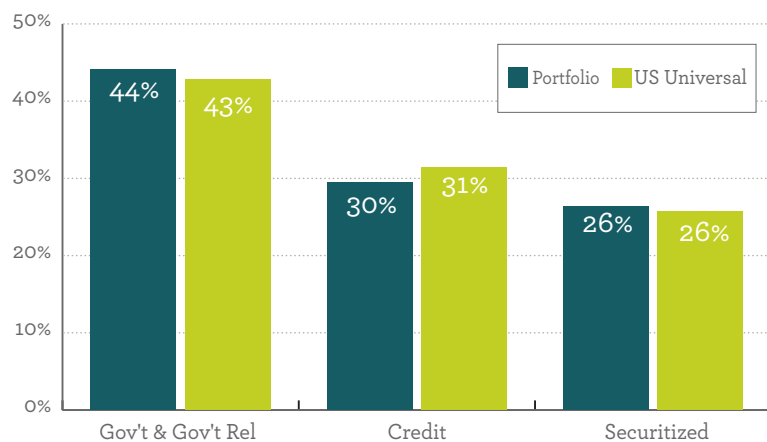
As of September 30, 2018

Strategy	Market Value	Portfolio Weight	Standard Deviation ¹	Sharpe Ratio ¹	% Positive Months ¹	US Universal		HFRI Conservative		MSCI ACWI IMI	
						Beta ¹	Correlation ¹	Beta ¹	Correlation ¹	Beta ¹	Correlation ¹
Global Fixed Income (ex-cash)	\$142,860,402	7.5%	2.1%	1.01	63.9%	0.4	0.5	0.5	0.4	0.2	0.7
Cash	\$351,926,844	18.5%	-	-	-	-	-	-	-	-	-
<i>US Universal</i>			2.6%	0.44	63.9%	-	-	-0.3	-0.2	0.0	0.1
Alternative Fixed Income	\$280,546,223	14.8%	2.3%	3.04	88.9%	0.3	0.3	0.6	0.5	0.1	0.5
<i>HFRI FoF: Conservative</i>			1.8%	1.09	80.6%	-0.1	-0.2	-	-	0.1	0.6
Private Debt	\$247,387,757	13.0%	-	-	-	-	-	-	-	-	-
Total Fixed Income	\$1,022,721,226	53.9%	1.6%	2.59	86.1%	0.2	0.4	0.4	0.5	0.1	0.6

¹ Trailing 36 months.

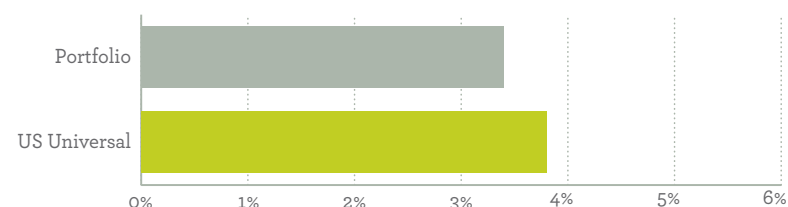
Sector Exposure¹

Global Fixed
ex-cash

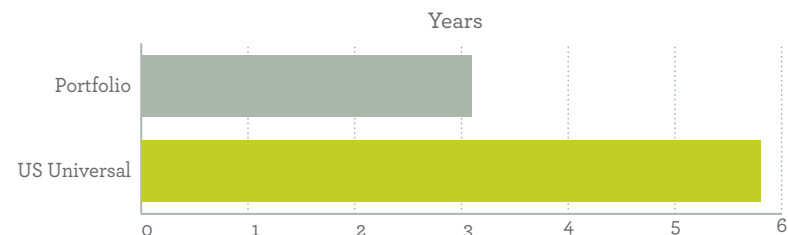


¹ Calculated using gross exposures

Yield



Duration



Equity Summary

As of September 30, 2018

Strategy	Market Value	Portfolio Weight	Standard Deviation ¹	Sharpe Ratio ¹	% Positive Months	MSCI ACWI IMI		HFRI FoF Strategic	
						Beta ¹	Correlation ¹	Beta ¹	Correlation ¹
Global Equity	\$96,957,105	5.1%	7.3%	1.3	69.4%	0.7	1.0	1.2	0.8
<i>MSCI ACWI IMI</i>			9.3%	1.4	75.0%	-	-	1.7	0.8
Hedged Equity	\$404,181,420	21.3%	4.9%	1.1	66.7%	0.4	0.8	1.0	0.9
<i>HFRI FoF: Strategic</i>			4.6%	0.7	69.4%	0.4	0.8	-	-
Private Equity	\$2,500,000	0.1%	-	-	-	-	-	-	-
Total Equity	\$503,638,525	26.5%	5.1%	1.3	72.2%	0.5	0.9	1.0	0.9

¹Trailing 36 months.

Strategy	Number of Fund Commitments	Commitments	Unfunded Commitments	Total Contributions ¹	Distributions	Remaining Value ²	Total Value
Total Private Equity³	1	\$2,500,000	\$0	\$2,500,000	\$0	\$2,500,000	\$2,500,000

¹Total Contributions include fees and expenses that may not reduce or lower unfunded commitment.

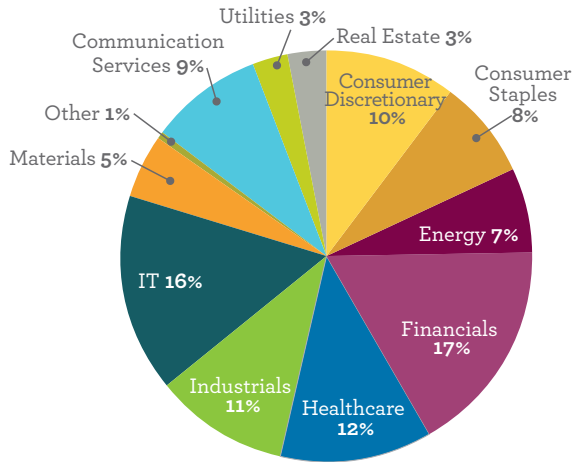
²Remaining Value is equal to the last actual reported capital account value plus subsequent capital calls less subsequent distributions through the indicated date, with no valuation changes.

³Represents a note to participate in 5% of the profits of BNY-RECAP, a joint venture formed by Amherst Holdings and BNY Mellon as a vehicle for Amherst to manage various real estate-related investment strategies. This right is conditioned on a \$125 million total commitment to invest in five future strategies to be offered by the joint venture.

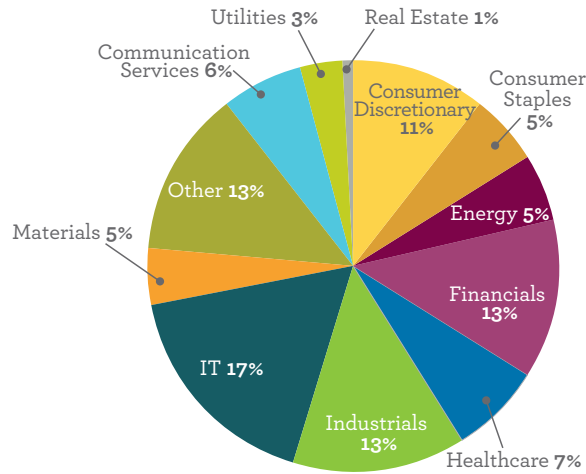
Equity Detail

As of September 30, 2018

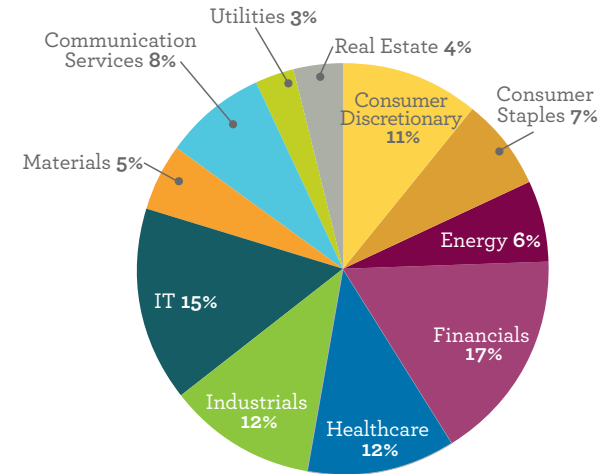
Global Equity



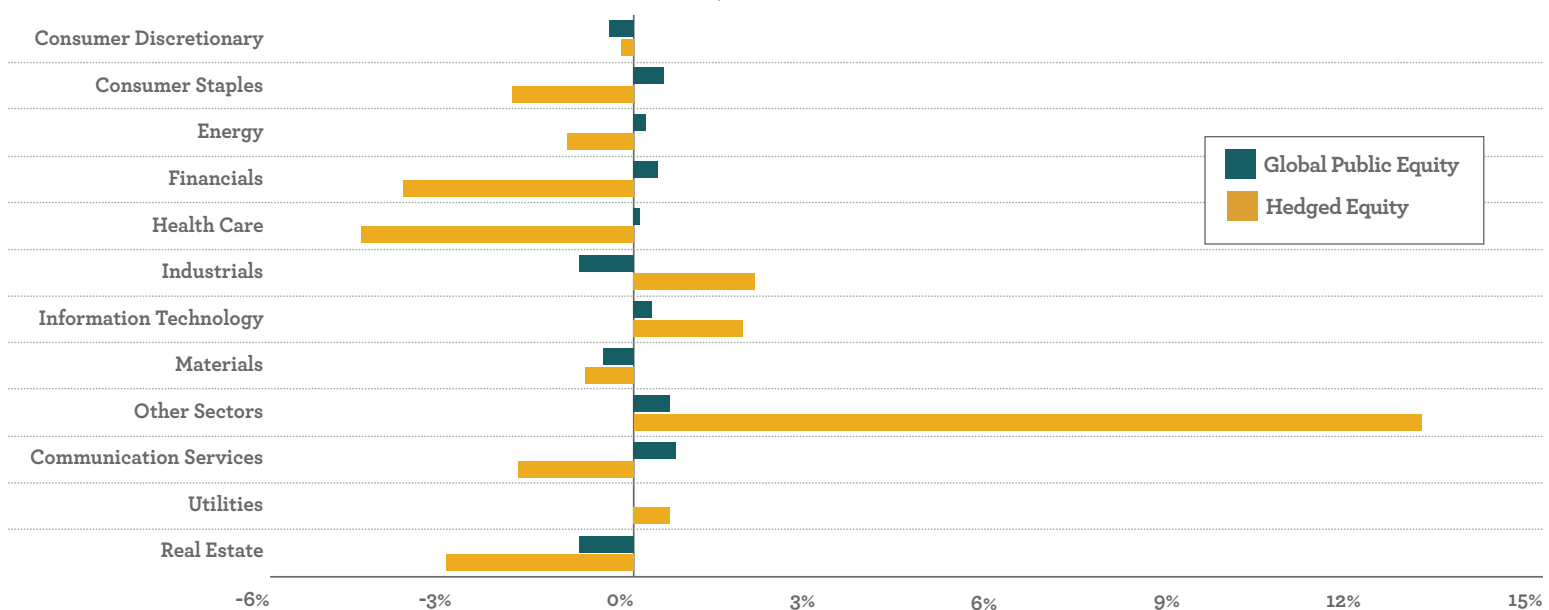
Hedged Equity



MSCI ACWI IMI



Sector Under/Over Allocation¹



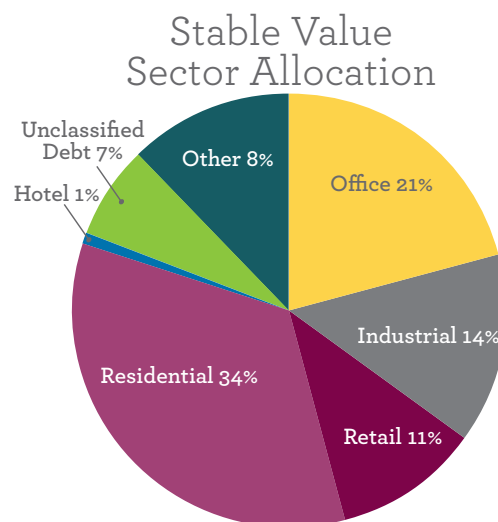
¹ Relative to MSCI ACWI IMI

Real Estate Summary

As of September 30, 2018

Strategy	Number of Current Fund Commitments	Portfolio Weight	Commitments	Unfunded Commitments	Total Contributions	Distributions	Remaining Value	Total Value
Real Estate	7	15.3%	\$339,000,000	\$51,662,540	\$326,391,348	\$89,458,824	\$289,859,923	\$379,318,747

Strategy	Distributed/Paid In (DPI)	Total Value/Paid In (TVPI)	1 Year IRR	ITD IRR	Time Weighted Returns		
					1 Year	3 Year	5 Year
Real Estate	0.27	1.16	8.9%	9.4%	8.9%	9.7%	-
<i>Real Estate Blend</i>					7.5%	8.4%	-



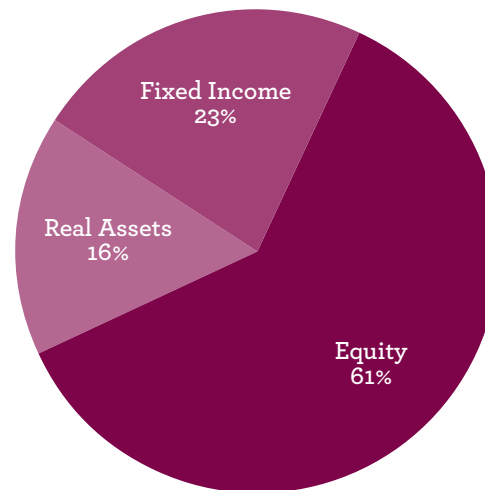
All Asset Strategies

As of September 30, 2018

Strategy	Market Value	Portfolio Weight	Standard Deviation ¹	Sharpe Ratio ¹	Downside Deviation ¹	Max Drawdown ¹	% Positive Months ¹	Total Policy Benchmark	
								Beta ¹	Correlation ¹
Multi-Strategy	\$81,553,836	4.3%	-	-	-	-	-	-	-
All Asset Total	\$81,553,836	4.3%	-	-	-	-	-	-	-
<i>TTSTC Blended Endowment</i>			<i>2.6%</i>	<i>1.71</i>	<i>3.2%</i>	<i>-3.6%</i>	<i>80.6%</i>	<i>-</i>	<i>-</i>

¹ Trailing 36 months.

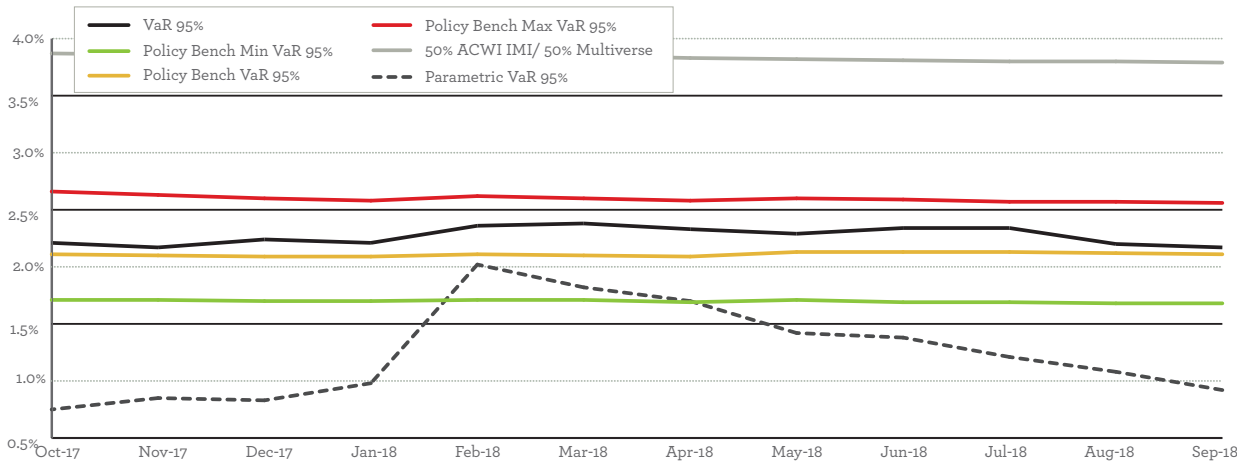
All Asset Breakdown



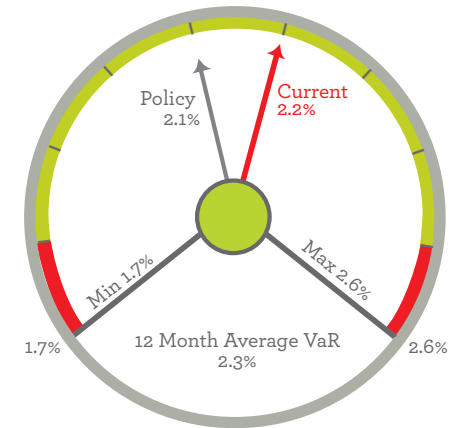
Value at Risk (VaR) Analysis

As of September 30, 2018

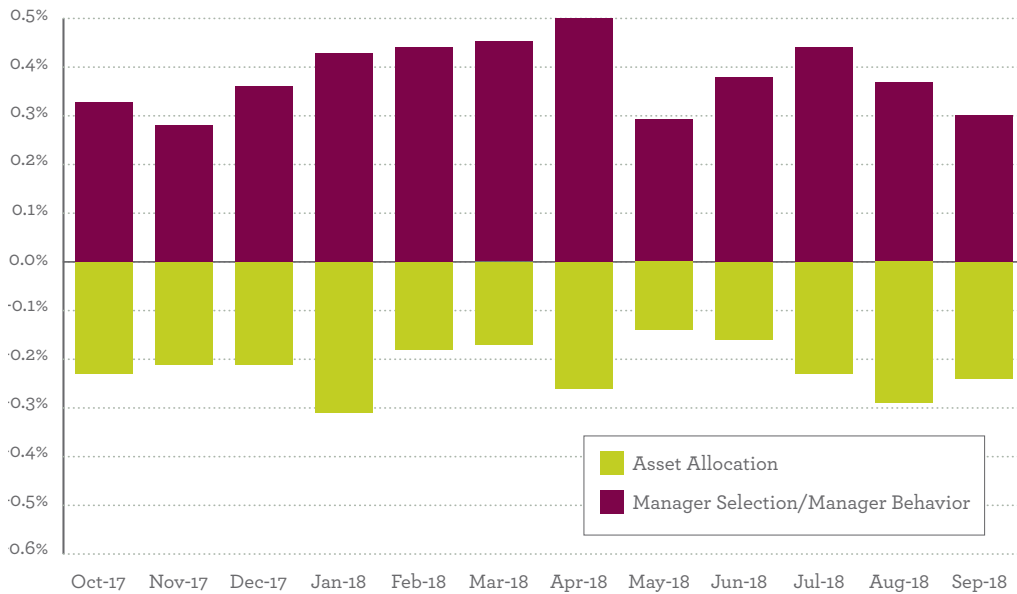
Twelve Month History



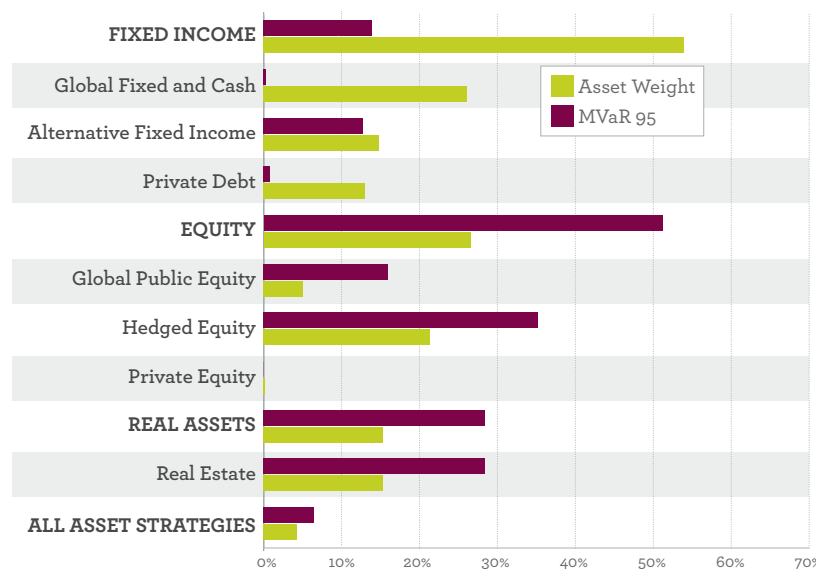
VaR as a Percent of Market Value (One Month, 95% Confidence)



Differential from Policy VaR



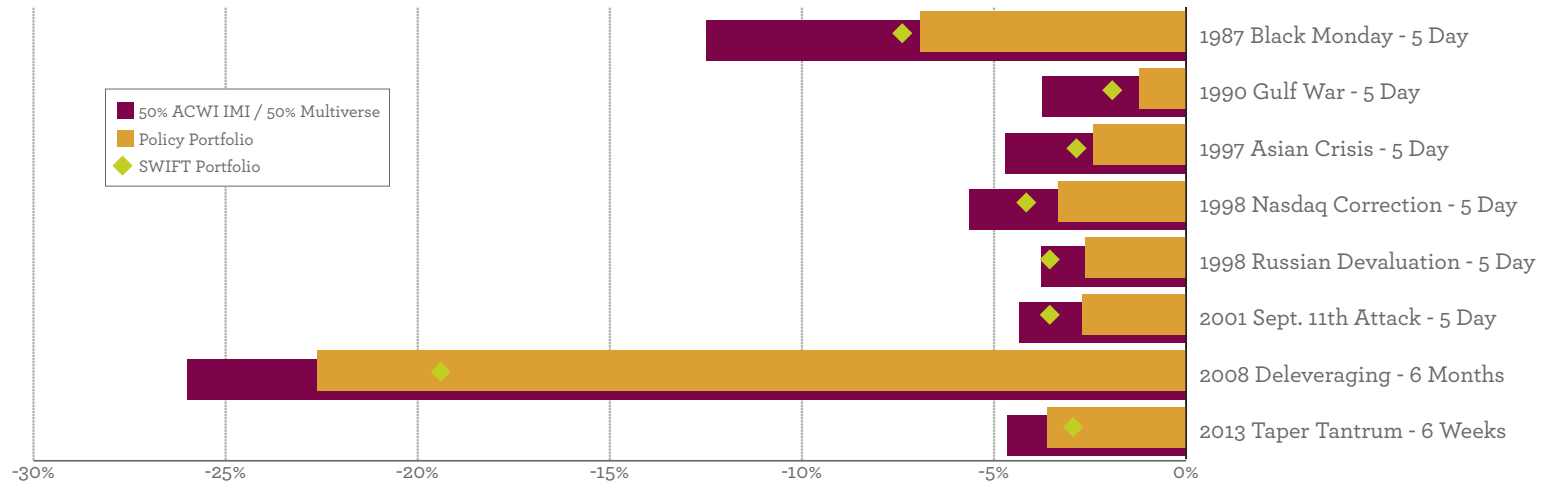
VaR Contribution



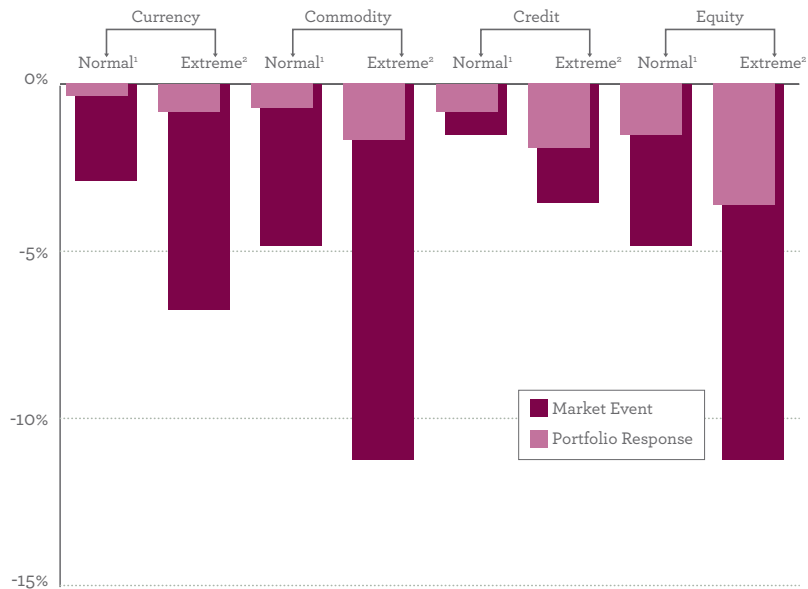
Portfolio Risk Summary

As of September 30, 2018

Scenario Analysis

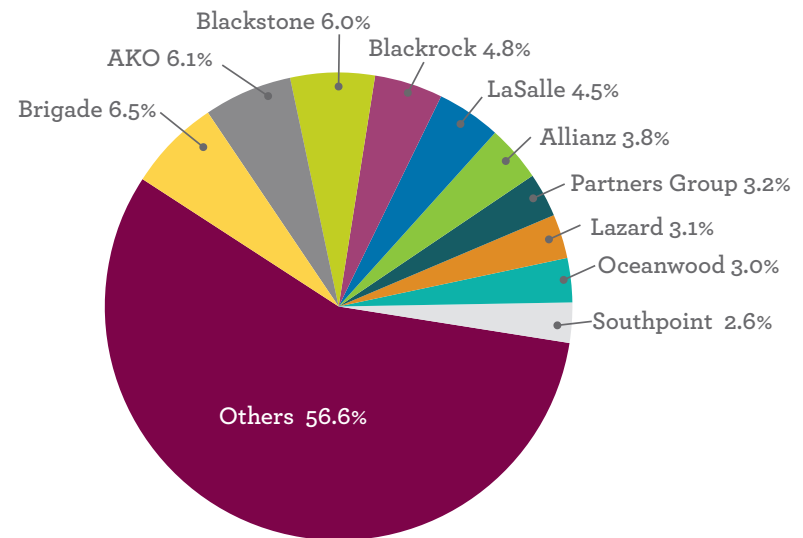


Monthly Portfolio Tail Risk Profile



¹ Normal Scenarios - 16% Probability.
² Extreme Scenarios - 1% Probability.

Manager Concentration



SWIFT Performance Table

As of September 30, 2018

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2013												0.0%	0.0%
2014	0.0%	0.1%	0.2%	0.1%	0.4%	0.3%	-0.1%	0.3%	-0.5%	0.0%	0.1%	-0.6%	0.3%
2015	0.3%	0.9%	-0.1%	0.4%	0.2%	-0.7%	-0.1%	-1.3%	-1.3%	1.0%	-0.4%	-1.1%	-2.2%
2016	-1.3%	-0.4%	1.8%	1.2%	0.8%	0.1%	1.5%	0.8%	0.5%	0.0%	0.4%	1.1%	6.6%
2017	0.8%	1.0%	0.6%	0.8%	0.9%	0.1%	0.7%	0.6%	0.7%	0.8%	0.4%	0.4%	8.1%
2018	1.2%	-0.3%	0.1%	0.6%	0.5%	0.4%	0.8%	0.4%	0.4%				4.1%



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