

CIO Report

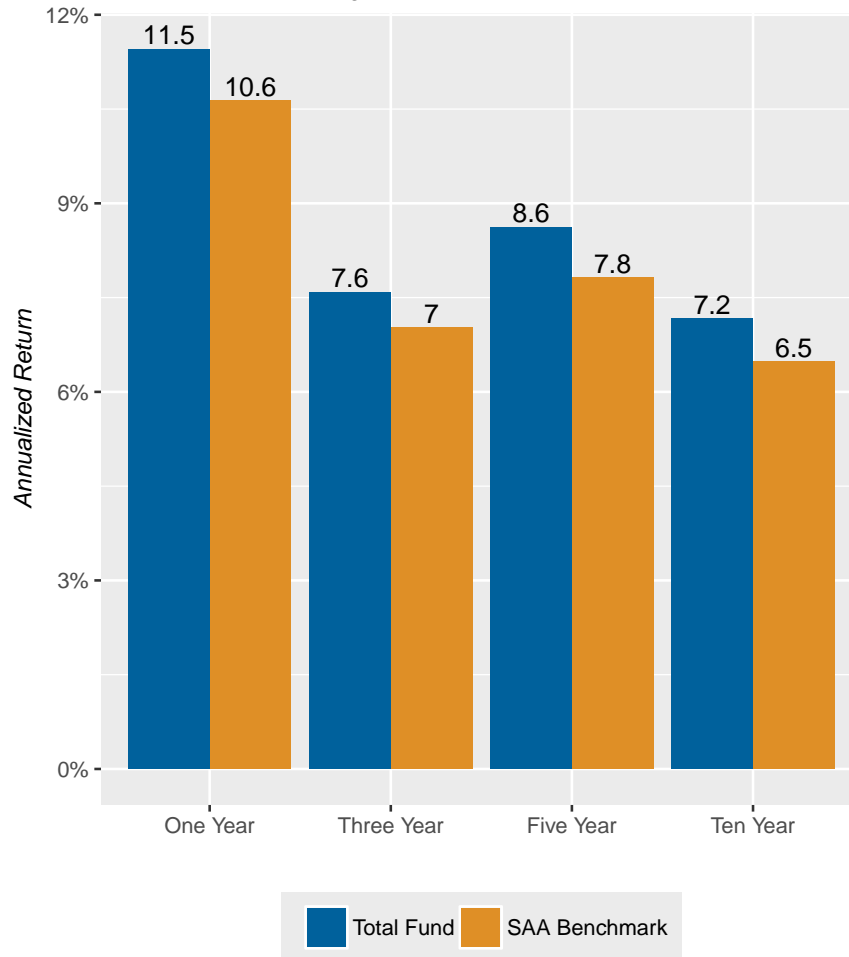
Arizona State Retirement System

June 22, 2018

Trailing Returns & Dollar Value Add - 3/31/2018

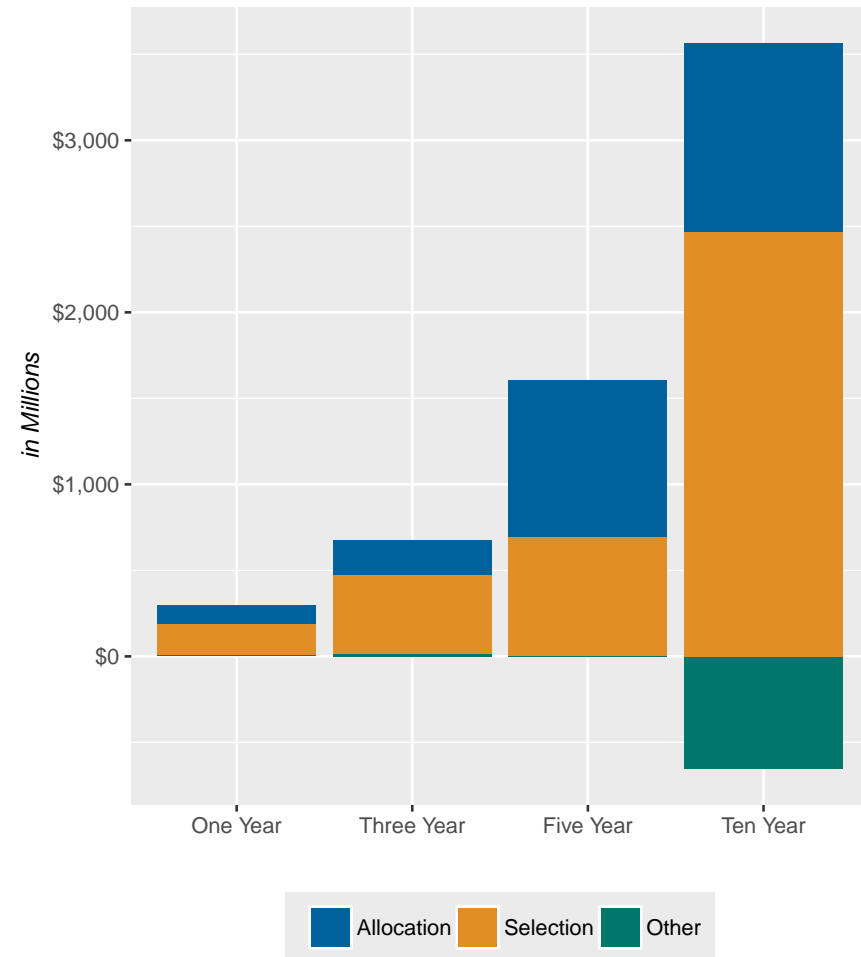
Total Fund and SAA Benchmark

Trailing Period Returns as of 3/31/18



Total Fund Dollar Value Add

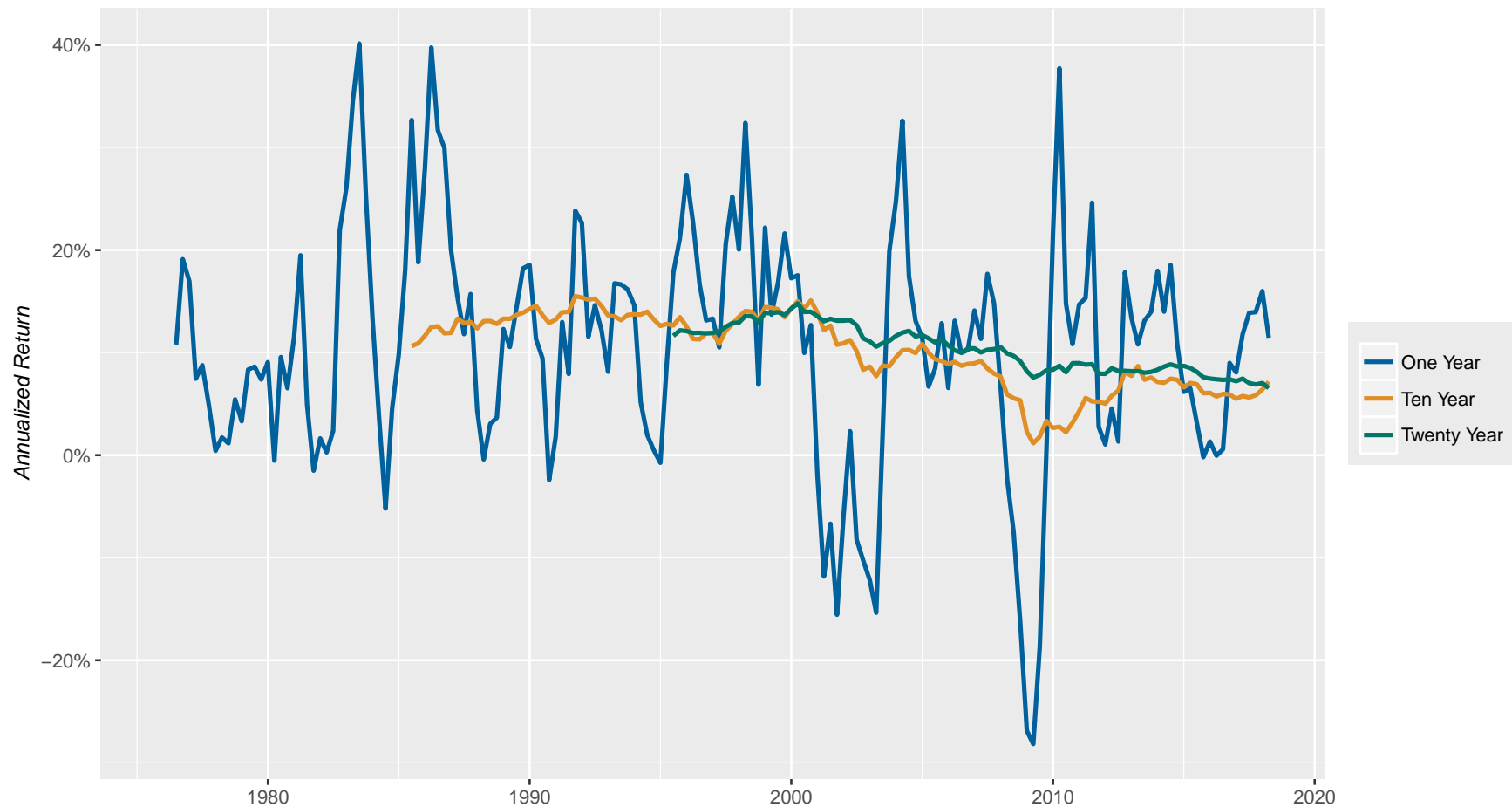
Relative to SAA Benchmark as of 3/31/18



Total Fund Returns - 3/31/2018

Total Fund Rolling Returns

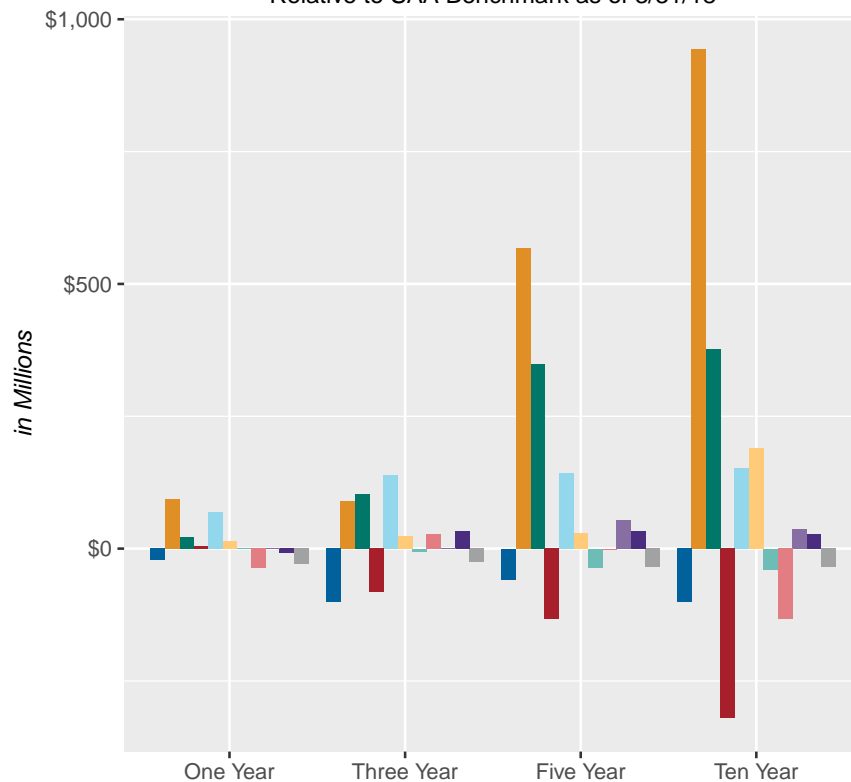
Trailing Period Returns as of 3/31/18



Allocation Effect - 3/31/2018

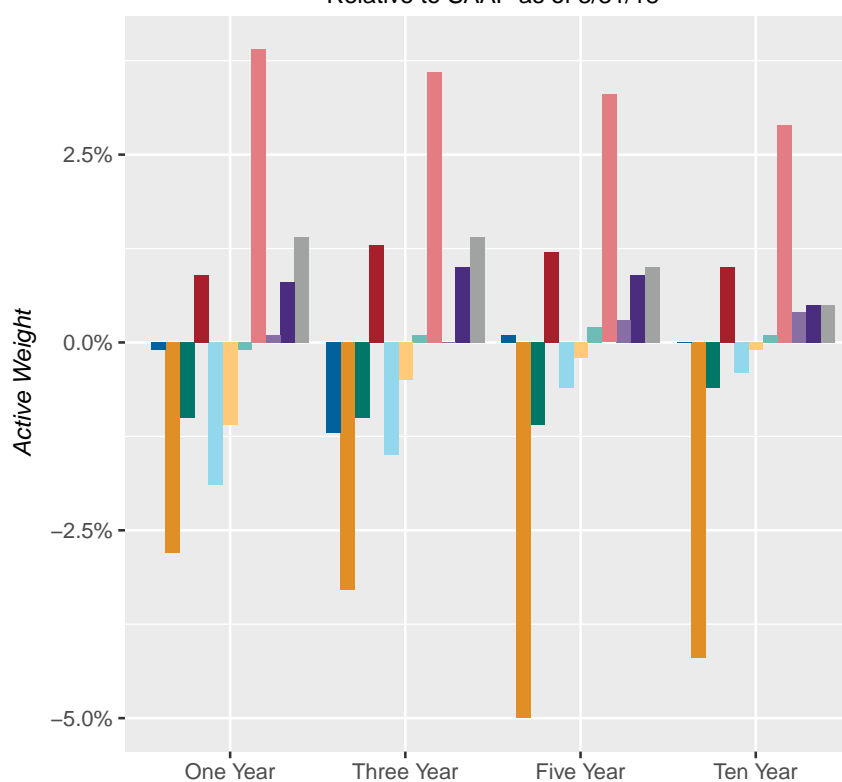
Allocation Effect by Asset Class

Relative to SAA Benchmark as of 3/31/18



Asset Class Average Active Weights

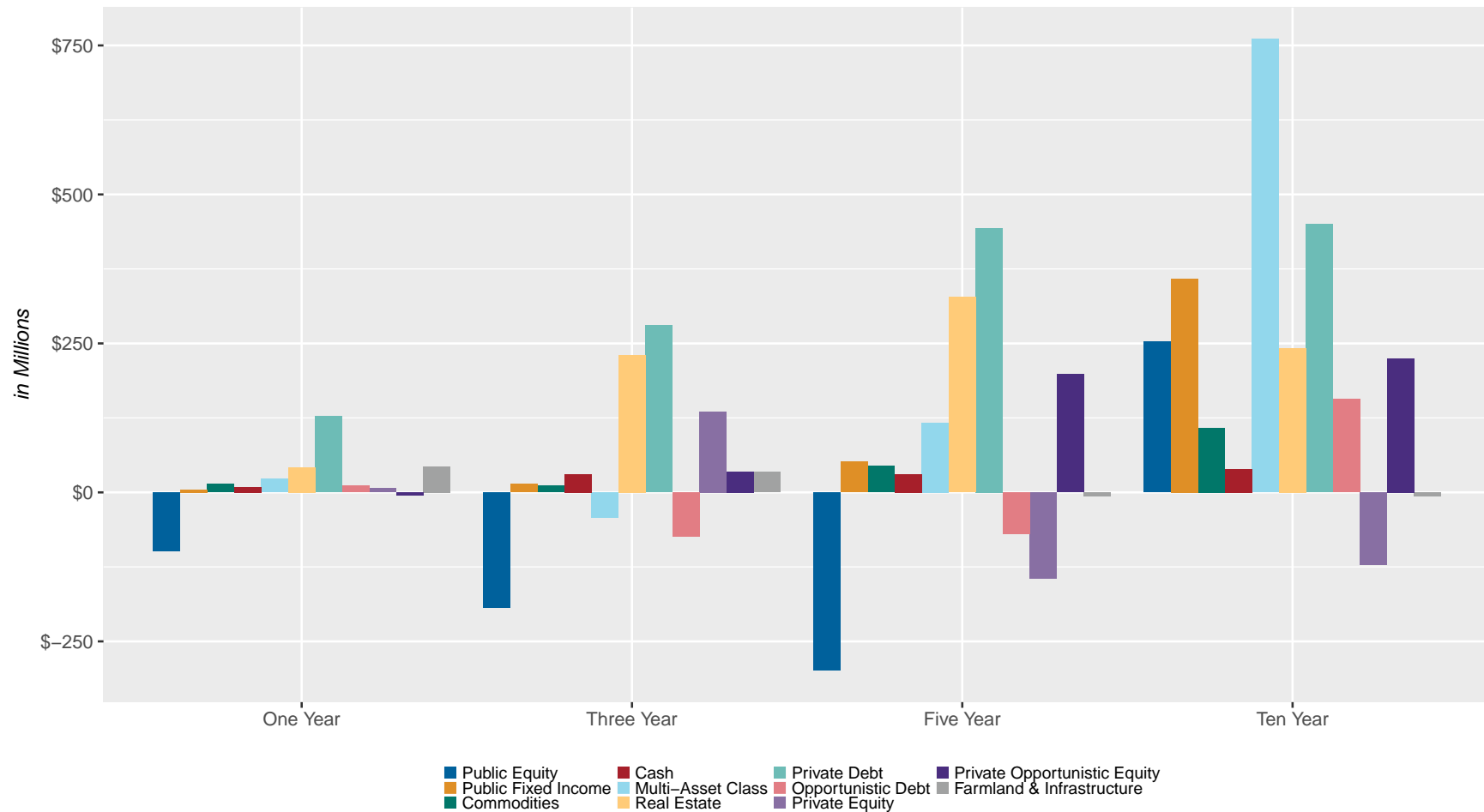
Relative to SAAP as of 3/31/18



Selection Effect - 3/31/2018

Selection Effect by Asset Class

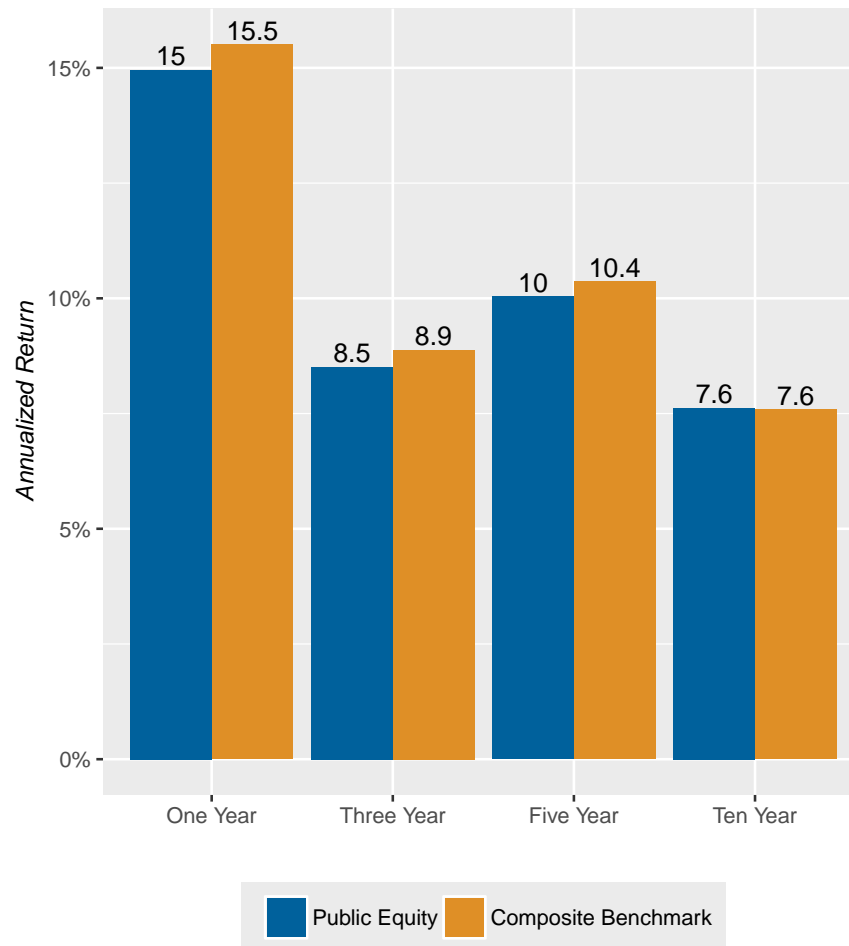
Relative to SAA Benchmark as of 3/31/18



Public Equities Returns & DVA - 3/31/2018

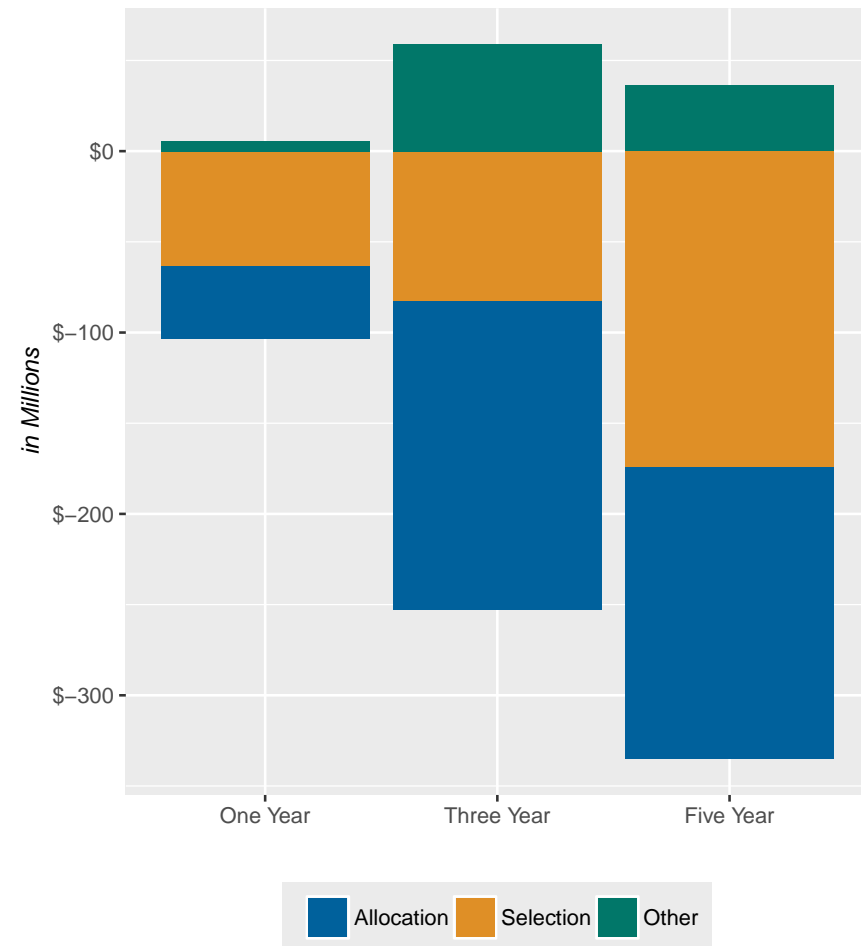
Public Equity and Composite Benchmark

Trailing Period Returns as of 3/31/18



Public Equity Dollar Value Add

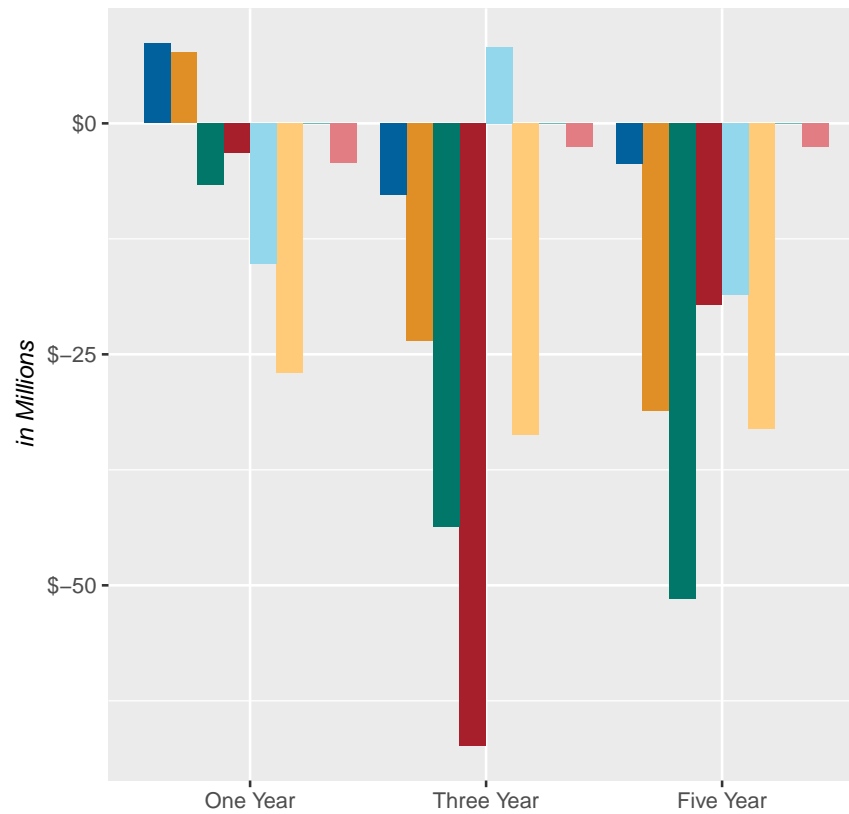
Relative to Composite Benchmark as of 3/31/18



Allocation Effect - 3/31/2018

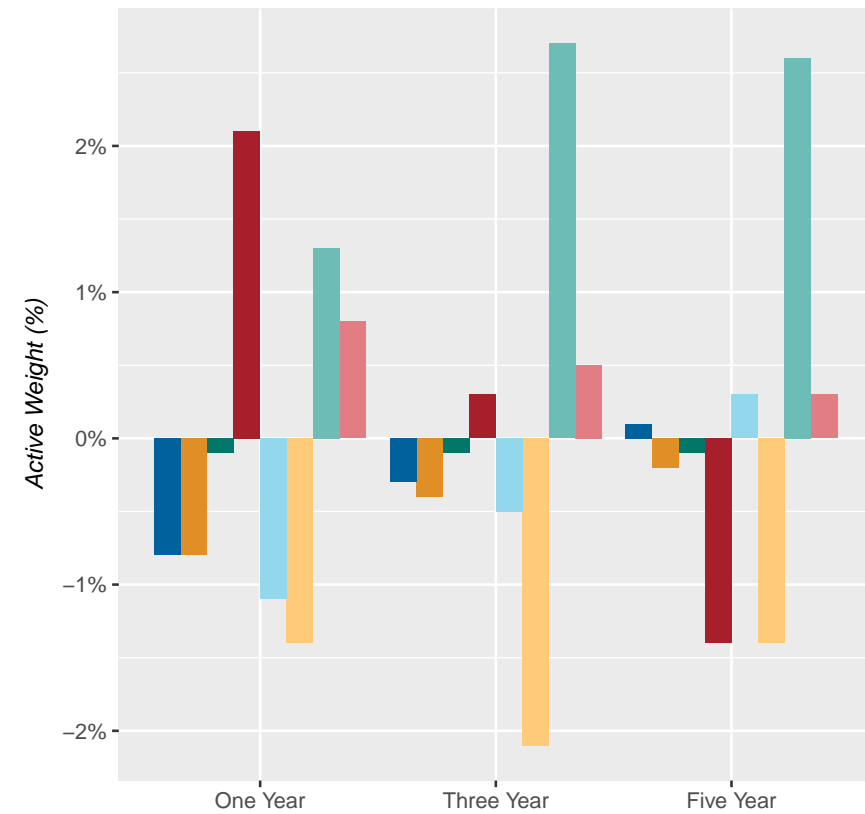
Public Equity Allocation Effect by Sub Asset Class

Relative to Composite Benchmark as of 3/31/18



Public Equity Average Monthly Active Weight

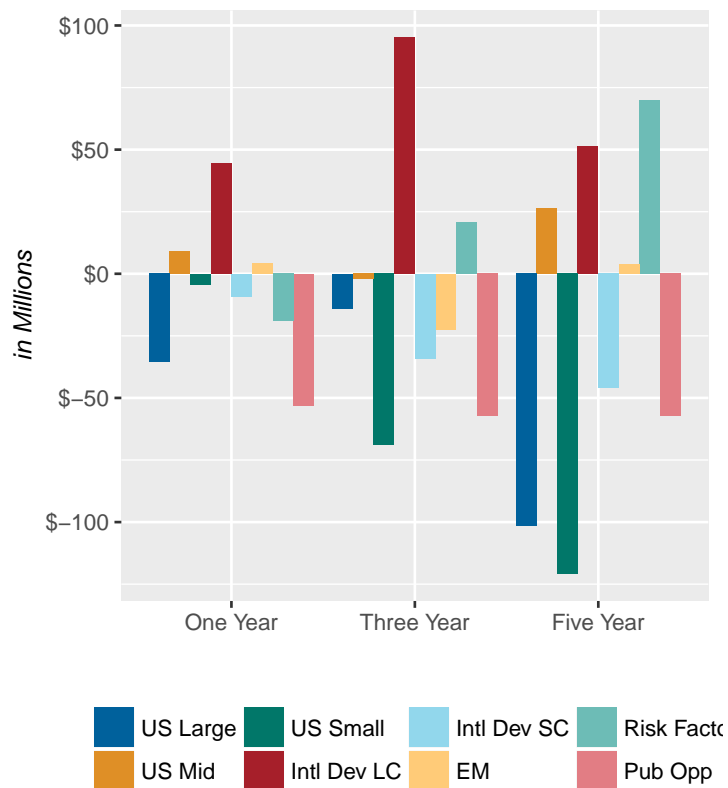
Relative to Composite Benchmark as of 3/31/18



Selection Effect - 3/31/2018

Public Equity Selection Effect

Relative to Composite Benchmark as of 3/31/18



Annualized Returns

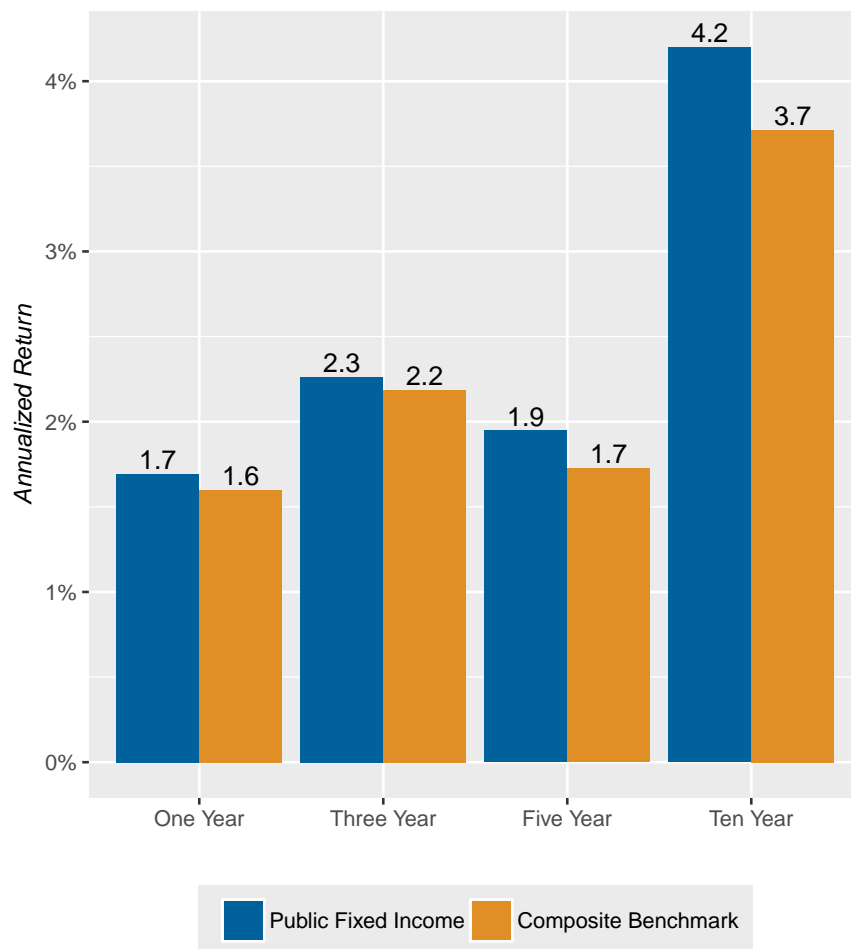
as of 3/31/18

Composite	One Year	Three Year	Five Year	Ten Year
US Large Cap	13.48%	10.72%	13.07%	9.56%
Benchmark	13.99%	10.78%	13.31%	9.49%
Excess	-0.51%	-0.06%	-0.23%	0.07%
US Mid Cap	12.14%	8.9%	12.2%	10.82%
Benchmark	10.97%	8.96%	11.97%	10.9%
Excess	1.16%	-0.06%	0.23%	-0.08%
US Small Cap	12.27%	8.43%	11.59%	10.95%
Benchmark	12.68%	10.76%	13.56%	11.35%
Excess	-0.41%	-2.33%	-1.97%	-0.41%
Int'l Dev Large Cap	15.53%	6.05%	6.67%	NA%
Benchmark	14.8%	5.55%	6.56%	NA%
Excess	0.73%	0.5%	0.11%	NA%
Int'l Dev Small Cap	21.5%	10.74%	10.18%	NA%
Benchmark	23.49%	12.25%	11.15%	NA%
Excess	-2%	-1.51%	-0.97%	NA%
Emerging Markets	25.34%	8.31%	4.97%	NA%
Benchmark	24.93%	8.81%	5.05%	NA%
Excess	0.41%	-0.5%	-0.08%	NA%
Public Opportunistic	-19.55%	NA%	NA%	NA%
Benchmark	13.55%	NA%	NA%	NA%
Excess	-33.11%	NA%	NA%	NA%

Public Fixed Income Returns & DVA - 3/31/2018

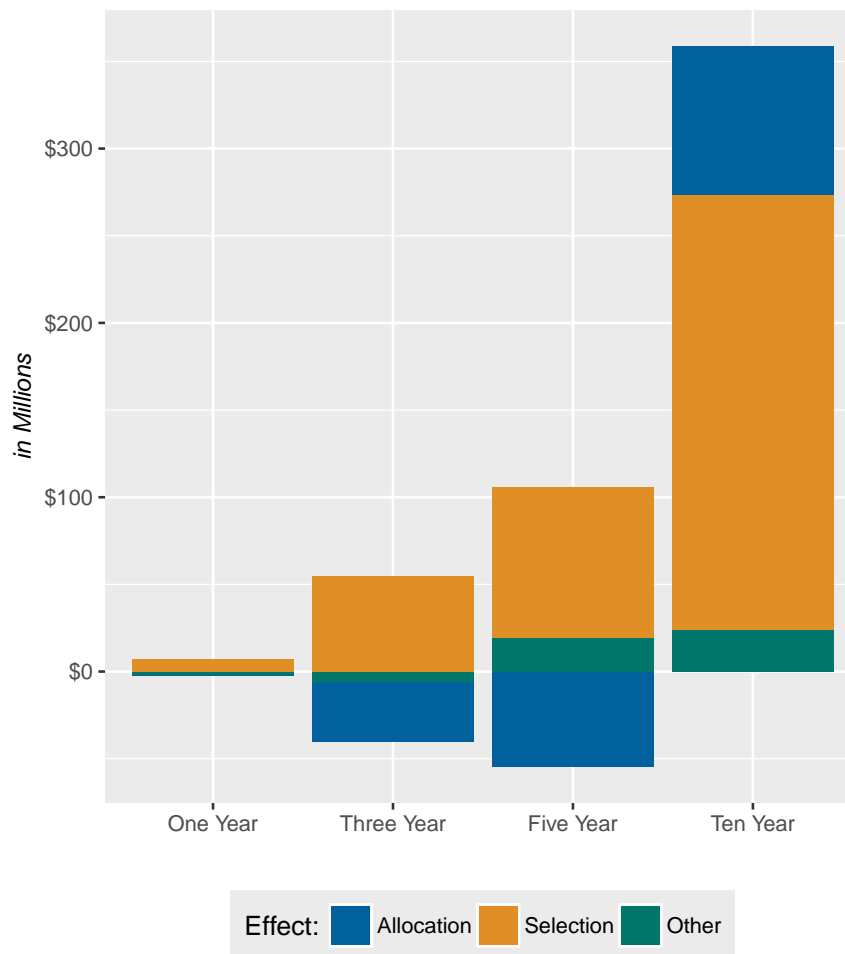
Public Fixed Income and Composite Benchmark

Trailing Period Returns as of 3/31/18



Public Fixed Income Dollar Value Add

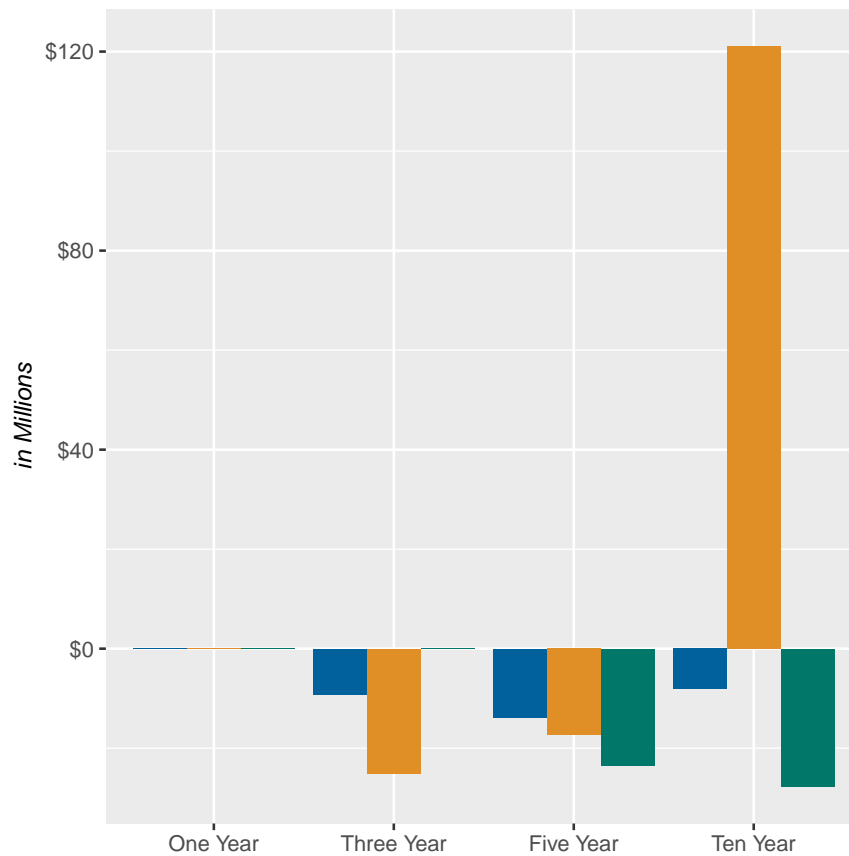
Relative to Composite Benchmark as of 3/31/18



Allocation Effect - 3/31/2018

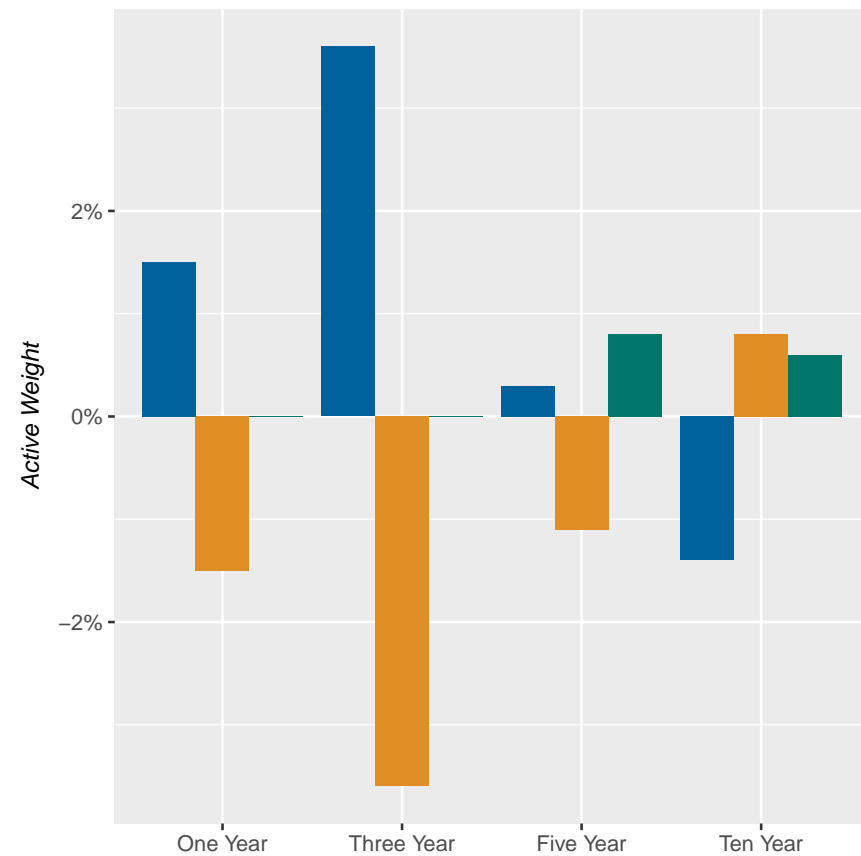
Fixed Income Allocation Effect by Sub Asset Class

Relative to Composite Benchmark as of 3/31/18



Fixed Income Average Monthly Active Weights

Relative to Composite Benchmark as of 3/31/18

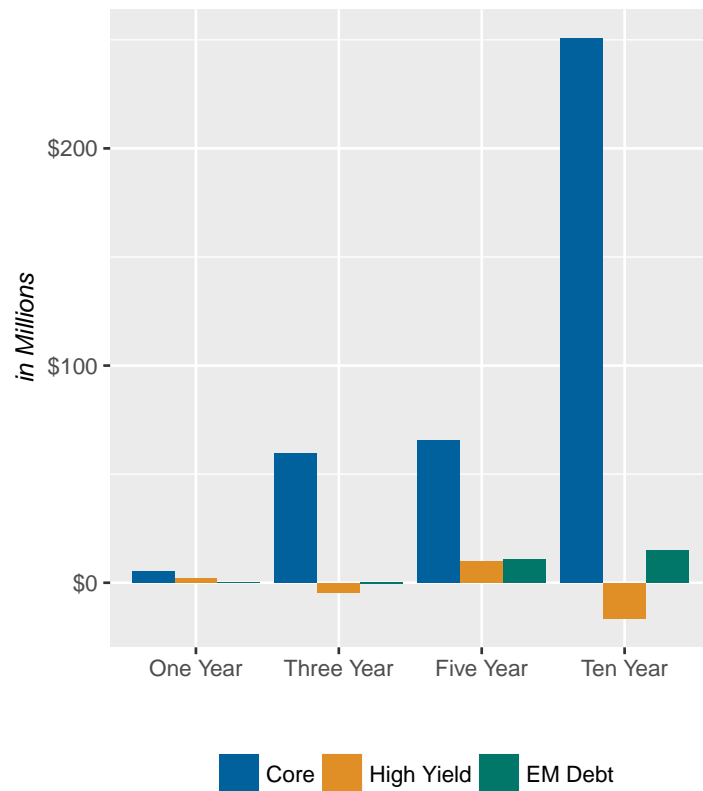


Interest Rate Sensitive High Yield Composite Emerging Market Debt

Selection Effect - 3/31/2018

Fixed Income Selection Effect

Relative to Composite Benchmark



Annualized Returns

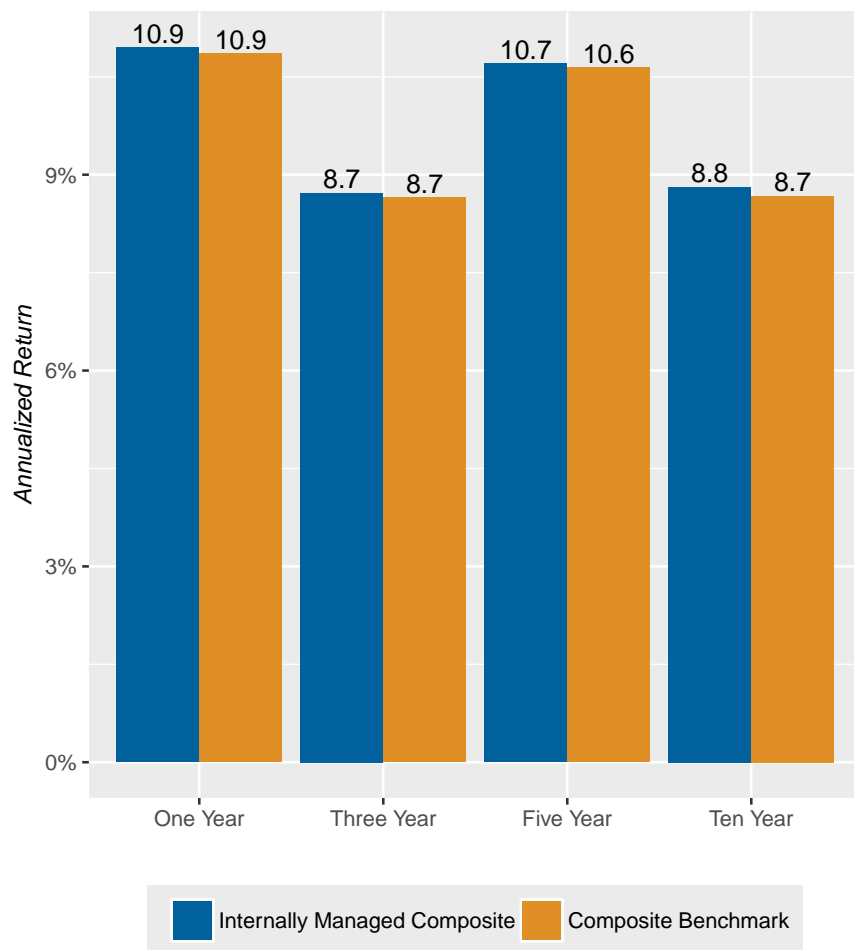
as of 3/31/18

	Composite	One Year	Three Year	Five Year	Ten Year
Interest Rate Sensitive		1.33%	1.63%	2.12%	4.01%
Benchmark		1.2%	1.2%	1.82%	3.63%
Excess		0.13%	0.43%	0.29%	0.38%
High Yield Composite		3.96%	4.95%	5.08%	NA%
Benchmark		3.78%	5.17%	4.99%	NA%
Excess		0.18%	-0.22%	0.08%	NA%

Internally Managed Portfolios - 3/31/2018

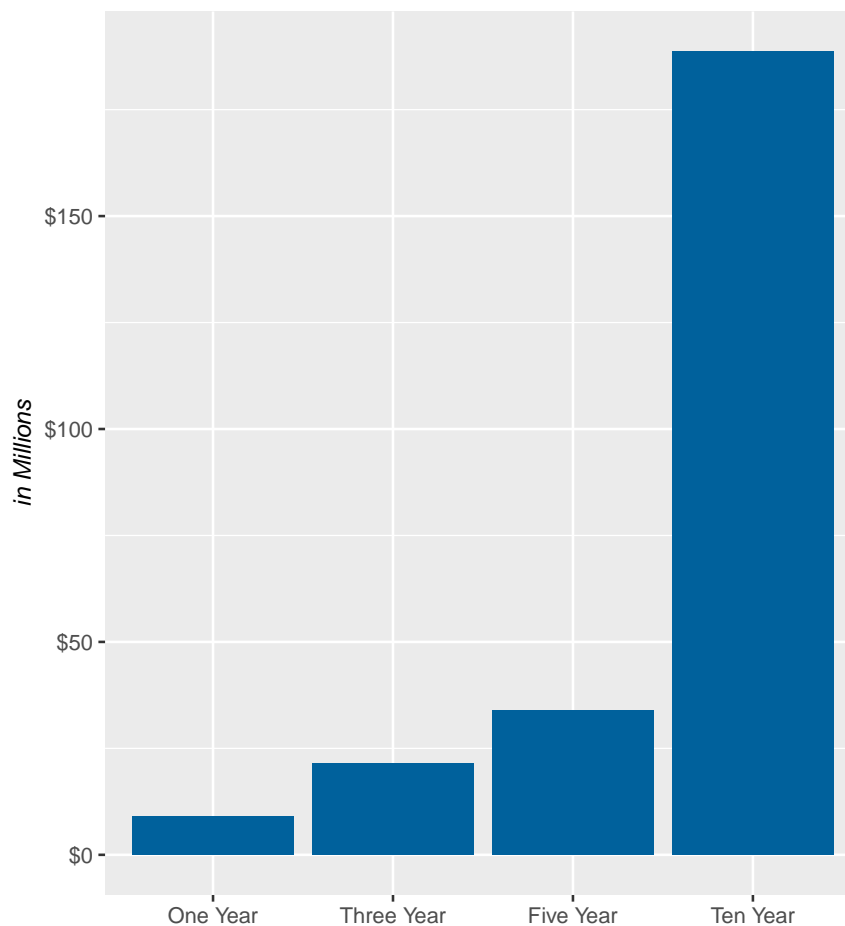
Internally Managed Portfolios and Composite Benchmark

Trailing Period Returns as of 3/31/18



Internally Managed Portfolios Dollar Value Add

Relative to Composite Benchmark as of 3/31/18



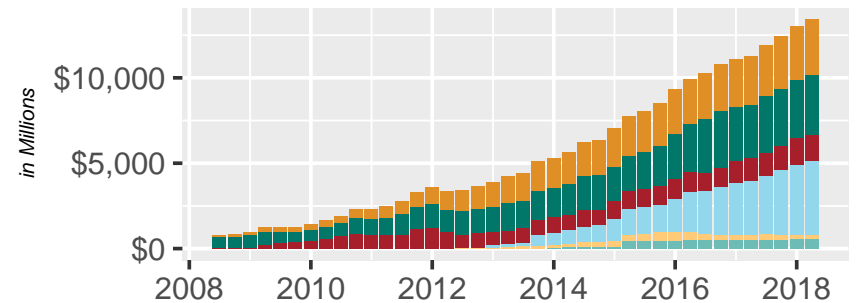
Private Markets Decomposition - 3/31/2018

Annualized IRRs

as Reported 3/31/18

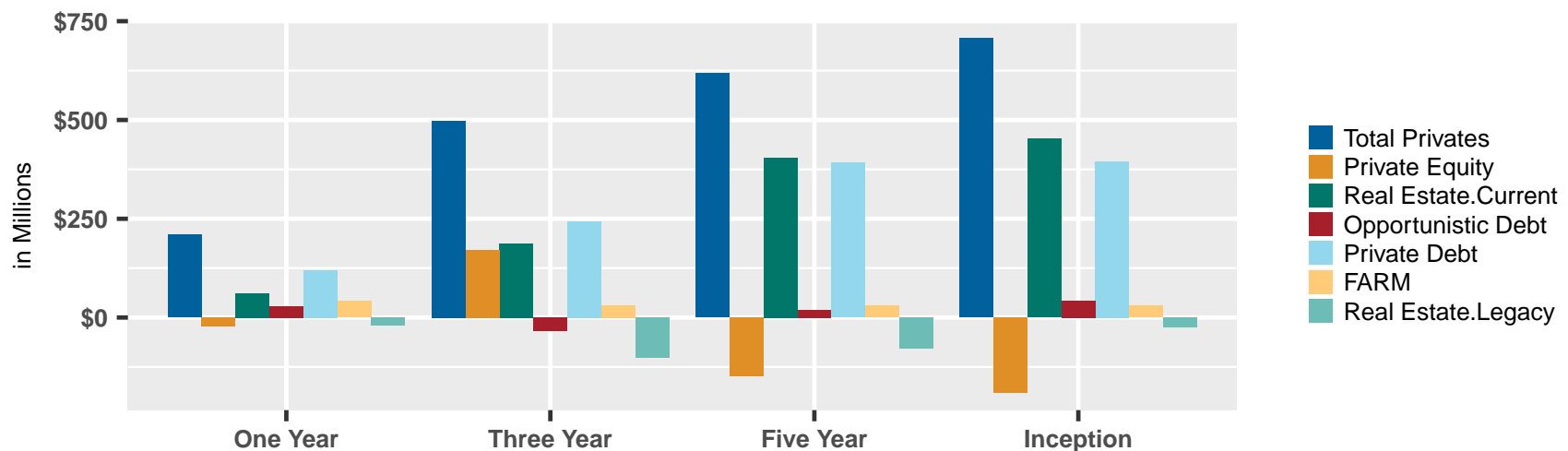
	One Year	Three Year	Five Year	Inception
Total Private Markets	10.58%	10.36%	11.46%	10.26%
Benchmark	8.85%	8.88%	10.2%	9.31%
Excess	1.73%	1.48%	1.26%	0.95%

Private Market Values as of 3/31/18



Private Equity Real Estate Opportunistic Debt Private Debt Private Opportunistic Equity Farmland and Infrastructure

Private Markets Dollar Value Add Relative to Composite Benchmarks



Private Markets Composites - 3/31/2018

Annualized IRRs

as Reported 3/31/18

	One Year	Three Year	Five Year	Inception
Private Equity	14.23%	12.11%	12.97%	12.4%
PE Benchmark	14.93%	10.34%	13.92%	13.23%
PE Excess	-0.7%	1.76%	-0.95%	-0.83%
Real Estate Current	8.78%	12.08%	14.52%	14.86%
RE Current Benchmark	6.7%	9.59%	10.09%	10.09%
RE Current Excess	2.07%	2.49%	4.43%	4.77%
Real Estate Legacy	2.31%	7.02%	10.46%	5.93%
RE Legacy Benchmark	6.76%	11.13%	11.78%	6.08%
RE Legacy Excess	-4.44%	-4.1%	-1.32%	-0.15%
Opportunistic Debt	8.78%	6.27%	7%	9.64%
Opp Debt Benchmark	6.73%	7.13%	6.7%	9.26%
Opp Debt Excess	2.04%	-0.86%	0.31%	0.38%
Private Debt	10.04%	10.34%	10.84%	10.9%
PD Benchmark	6.71%	7.46%	7.01%	7.06%
PD Excess	3.33%	2.88%	3.84%	3.84%
Farmland & Infrastructure	13.44%	7.54%	NA%	7.16%
Farmland Benchmark	5.32%	5.58%	NA%	5.53%
Farmland Excess	8.12%	1.96%	NA%	1.63%

Asset Class Committe Schedule

- The asset class committees met on the following days in 2018:

Date	Combined Asset Class Committee	Investment Committee
January 18	X	
February 5	X	
February 27	X	
March 16	X	
March 23	X	
March 27	X	
April 5	X	
April 17		X
May 1	X	
May 10	X	
May 22	X	
May 22		X

IMD Project Status

ASRS Investment Management Division Projects

