

# FOUNDATION ANNUAL INVESTMENT POOL RETURNS

CALENDAR YEAR 2017



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This report, based on a survey that Cambridge Associates administers annually to our foundation clients, summarizes returns, asset allocation, and other investment-related data for 111 foundations for the year ended December 31, 2017. Included in this year's report are commentary and exhibits across five sections.

Although 2017 was one of the strongest years in recent history for foundation investment performance, most foundations have found it to be a challenging return environment over the long term. Our **INVESTMENT PORTFOLIO RETURNS** section highlights performance results for select periods over the last decade, and investigates some of the factors that contributed to the variation of returns reported among participants. Also included in this section are analyses on asset class composite returns and policy portfolio benchmarks.

Changes to asset allocations over the last ten years have been less drastic than those reported in prior decades. The **ASSET ALLOCATION** section looks back at these changes over the last decade and incorporates data on target asset allocations to lend insights into how foundations are altering their investment policies heading into the future.

The number of managers that foundations use for their overall portfolio and within specific asset classes can vary widely. Our **INVESTMENT MANAGER STRUCTURES** section explores data on this topic as well as implementation strategies for traditional assets and alternative assets.

Meanwhile, the **PAYOUT FROM THE LONG-TERM INVESTMENT PORTFOLIO** section contains analyses that examine spending objectives and policies of private non-operating foundations. These types of foundations are required under the federal tax code to distribute approximately 5% of their assets each year. Most of these foundations' payout objectives are tied closely to this requirement, but some also employ smoothing-type spending rules like those used more commonly among endowments.

Finally, a new set of questions around **INVESTMENT OFFICE STAFFING AND GOVERNANCE** was added to our survey this year. This section of the report takes a look at topics such as the number of personnel in the investment office, the use of external advisors and consultants, decision-making responsibilities for investment functions, and investment committee structure.

# Investment Portfolio Returns

## RETURNS IN CALENDAR YEAR 2017

Calendar year 2017 was one of the strongest years in recent history for foundation investment performance. Most participating foundations in this study reported their highest trailing one-year return since 2009. The mean nominal total return earned by participating foundations in 2017 was 15.4% (Figure 1). In the capital markets, global public equities led the way, with emerging markets producing stellar returns for the calendar year. Private equities and hedge funds also helped boost overall portfolio performance in 2017. Domestic bonds were among the lowest performing asset classes for the year, but still produced positive contributions to returns.

Figure 2 displays the distribution of returns for three broad asset size groups. Foundations with assets under \$300 million reported the highest average return (15.6%) for 2017. These smaller portfolios had the highest average allocation to the outperforming public equity asset classes (Figure 29). Foundations with assets between \$300 million and \$1 billion reported an average return of 15.3%, followed by those with assets above \$1 billion (15.1%).

**FIGURE 1. SUMMARY OF INVESTMENT POOL RETURNS**

Years Ended December 31, 2017 • Percent (%)

<b>Nominal Total Returns</b>				
<b>Responding Institutions</b>	<b>Average Annual Compound Nominal Return</b>			
	<b>1 Year</b>	<b>3 Years</b>	<b>5 Years</b>	<b>10 Years</b>
High	21.3	10.4	11.1	7.6
Low	9.3	4.2	4.4	1.1
Mean	15.4	6.8	7.9	4.9
Median	15.6	6.6	7.8	4.9
<i>n</i>	111	108	106	100
Mean After Spending	9.4	1.4	3.0	0.1
<i>n</i>	80	60	49	29
<b>Benchmarks</b>				
70% Russell 3000® / 30% BBG Barc Govt/Credit	15.8	8.5	11.5	7.6
70% MSCI ACWI / 30% BBG Barc Govt/Credit	18.0	7.5	8.5	5.1
<b>Real Total Returns</b>				
<b>Responding Institutions</b>	<b>Average Annual Compound Real Return</b>			
	<b>1 Year</b>	<b>3 Years</b>	<b>5 Years</b>	<b>10 Years</b>
High	18.8	8.6	9.5	5.9
Low	7.1	2.5	2.9	-0.5
Mean	13.0	5.1	6.4	3.2
Median	13.2	4.9	6.2	3.2
<i>n</i>	111	108	106	100
Mean After Spending	7.1	-0.2	1.6	-1.5
<i>n</i>	80	60	49	29
<b>Benchmarks</b>				
70% Russell 3000® / 30% BBG Barc Govt/Credit	13.4	6.8	9.9	5.9
70% MSCI ACWI / 30% BBG Barc Govt/Credit	15.5	5.8	6.9	3.5

Sources: Foundation data as reported to Cambridge Associates LLC. Index data are provided by Barclays, Bloomberg L.P., Frank Russell Company, and MSCI Inc. MSCI data provided "as is" without any express or implied warranties.

Notes: Real returns are adjusted for inflation as measured by the Consumer Price Index. Total returns for the MSCI ACWI are net of dividend taxes for global ex US securities.

**FIGURE 2. SUMMARY OF INVESTMENT POOL NOMINAL RETURN PERCENTILES BY ASSET SIZE**

Years Ended December 31, 2017 • Percent (%)



	1 Year			3 Years			5 Years			10 Years		
	Under \$300M	\$300M - \$1B	Over \$1B	Under \$300M	\$300M - \$1B	Over \$1B	Under \$300M	\$300M - \$1B	Over \$1B	Under \$300M	\$300M - \$1B	Over \$1B
5th %ile	17.7	18.7	18.8	7.8	8.4	9.4	8.8	9.9	10.9	6.2	7.1	7.4
25th %ile	16.7	15.9	16.4	6.9	7.5	8.0	7.9	8.4	9.7	5.1	6.0	6.2
Median	15.7	15.1	15.4	6.3	6.6	7.2	7.3	8.0	9.2	4.5	5.1	5.5
75th %ile	14.8	14.1	13.4	6.1	6.2	6.9	6.9	7.7	8.0	3.8	4.6	5.1
95th %ile	12.2	12.5	11.8	4.8	5.7	6.1	5.8	7.1	7.6	2.8	4.2	4.5
Mean	15.6	15.3	15.1	6.4	6.9	7.5	7.3	8.2	9.1	4.4	5.3	5.5
n	61	24	26	59	23	26	57	23	26	53	23	24

Source: Foundation data as reported to Cambridge Associates LLC.

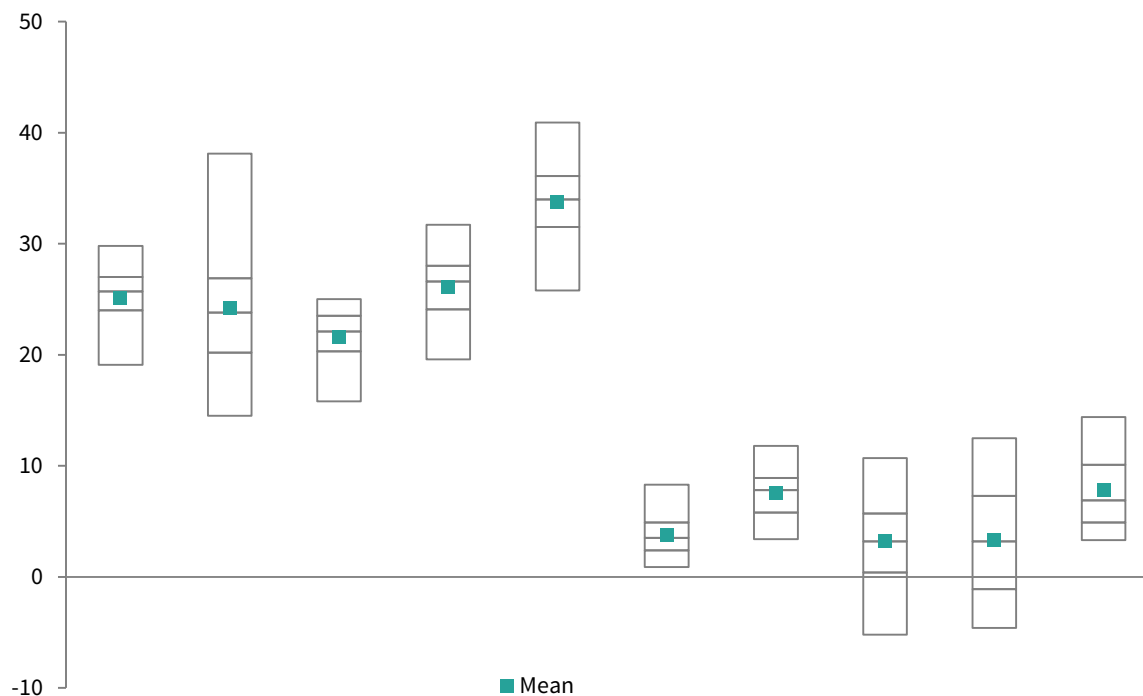
Note: Three, five-, and ten-year returns are annualized.

Figure 3 displays the range of participant returns across marketable asset classes for calendar year 2017, and Figure 4 shows the same information for private investment asset classes. The marketable asset class returns are reported as time-weighted returns, and the private investment data are horizon internal rates of return.<sup>1</sup> The charts that follow in this section provide 2017 median performance for the participant group across these asset classes alongside returns for relevant indexes (all index returns are in USD terms).

<sup>1</sup> A time-weighted return (TWR) captures the total return earned over time on the initial investment and eliminates the impact of future cash flows. TWRs are appropriate where the investor controls the timing of cash flows. An internal rate of return (IRR) extracts a return from a cash flow stream composed of the beginning net asset value (NAV) for the time horizon, all inflows and outflows within the period, and the final NAV of the period. IRRs are more appropriate for investments where the fund managers control the decisions of when to call and return capital.

### FIGURE 3. DISPERSION OF PARTICIPANTS' ASSET CLASS RETURNS: MARKETABLE INVESTMENTS

Trailing 1-Yr as of December 31, 2017



	Public Equity <sup>1</sup>	Global Equity <sup>2</sup>	US Equity	DM ex US Equity	EM Equity	Bonds	Hedge Funds	Public Real Assets <sup>3</sup>	Commodities and Natural Resources	Public Real Estate
5th Percentile	29.8	38.1	25.0	31.7	40.9	8.3	11.8	10.7	12.5	14.4
25th Percentile	27.0	26.9	23.5	28.0	36.1	4.9	8.9	5.7	7.3	10.1
Median	25.7	23.8	22.1	26.6	34.0	3.5	7.8	3.2	3.2	6.9
75th Percentile	24.0	20.2	20.3	24.1	31.5	2.4	5.8	0.4	-1.1	4.9
95th Percentile	19.1	14.5	15.8	19.6	25.8	0.9	3.4	-5.2	-4.6	3.3
Mean	25.1	24.2	21.6	26.1	33.7	3.8	7.5	3.2	3.3	7.8
<i>n</i>	90	53	86	85	84	88	87	64	65	16
<b>Median by Asset Size</b>										
Under \$300M	25.7	22.0	21.8	26.6	33.9	3.6	7.7	3.3	3.3	9.7
<i>n</i>	53	30	53	53	52	52	52	42	42	8
\$300M – \$1B	24.8	23.3	22.8	27.0	33.0	3.1	8.5	2.6	2.8	5.2
<i>n</i>	20	12	19	17	17	18	18	15	13	3
Over \$1B	25.7	24.4	22.0	26.1	38.0	2.7	6.4	7.2	7.5	6.2
<i>n</i>	17	11	14	15	15	18	17	7	10	5

Source: Foundation data as reported to Cambridge Associates LLC.

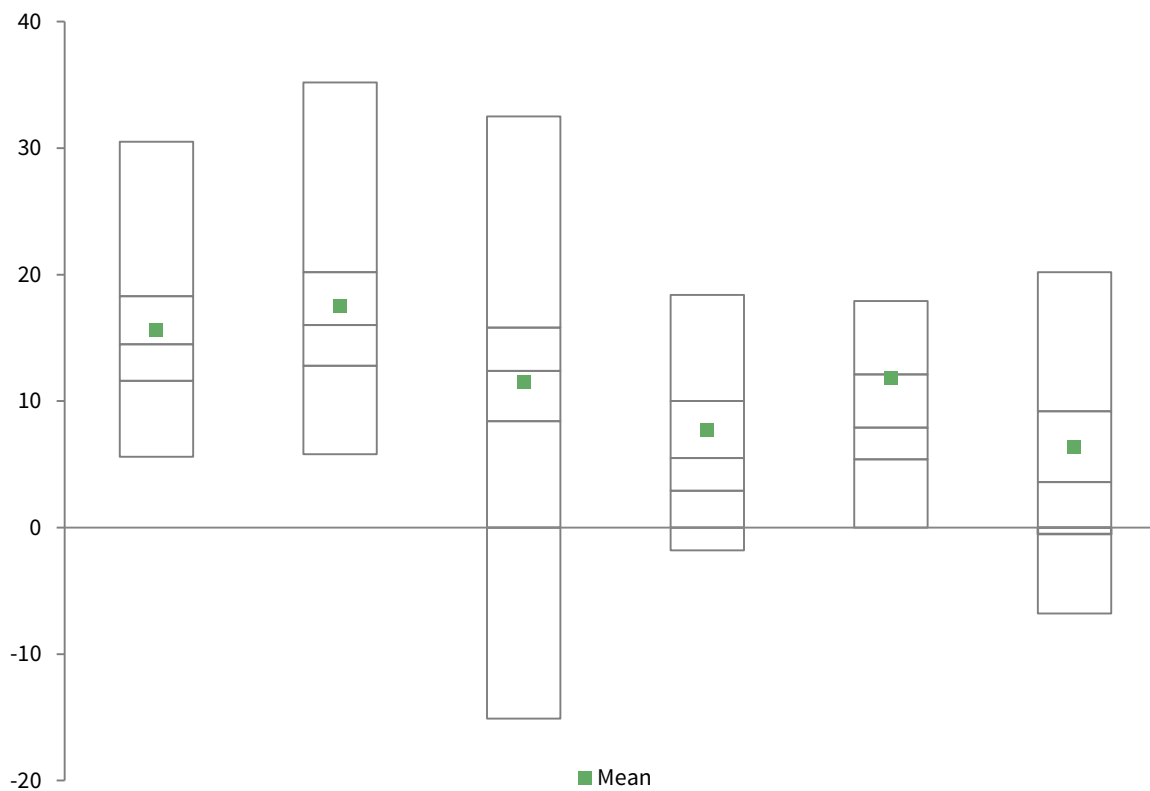
<sup>1</sup> Public equity is a composite of global equity, US equity, developed markets ex US equity, and emerging markets equity.

<sup>2</sup> Global equity includes only investment vehicles that have a mandate to invest in US and international markets.

<sup>3</sup> Public real assets is a composite of public real estate, commodities and natural resources, and inflation-linked bonds.

## FIGURE 4. DISPERSION OF PARTICIPANTS' ASSET CLASS RETURNS: PRIVATE INVESTMENTS

Trailing 1-Yr as of December 31, 2017



	Private Equity <sup>1</sup>	Non-Venture Private Equity <sup>2</sup>	Venture Capital	Private Real Assets <sup>3</sup>	Private Real Estate	Private Natural Resources
5th Percentile	30.5	35.2	32.5	18.4	17.9	20.2
25th Percentile	18.3	20.2	15.8	10.0	12.1	9.2
Median	14.5	16.0	12.4	5.5	7.9	3.6
75th Percentile	11.6	12.8	8.4	2.9	5.4	-0.5
95th Percentile	5.6	5.8	-15.1	-1.8	0.0	-6.8
Mean	15.6	17.5	11.5	7.7	11.8	6.4
<i>n</i>	85	80	71	71	63	67
<u>Median by Asset Size</u>						
Under \$300M	14.7	16.0	12.1	5.4	7.6	1.6
<i>n</i>	46	44	37	39	30	35
\$300M – \$1B	14.2	15.0	12.8	5.5	10.8	3.5
<i>n</i>	22	21	19	20	17	16
Over \$1B	14.5	17.2	12.7	8.3	9.4	9.4
<i>n</i>	17	15	15	12	16	16

Source: Foundation data as reported to Cambridge Associates LLC.

Note: Private investment return statistics are reported as horizon internal rates of return (IRRs).

<sup>1</sup> Private equity is a composite of non-venture private equity and venture capital.

<sup>2</sup> Non-venture private equity also includes distressed securities that are invested through a private investment vehicle.

<sup>3</sup> Private real assets is a composite of private real estate and private natural resources.



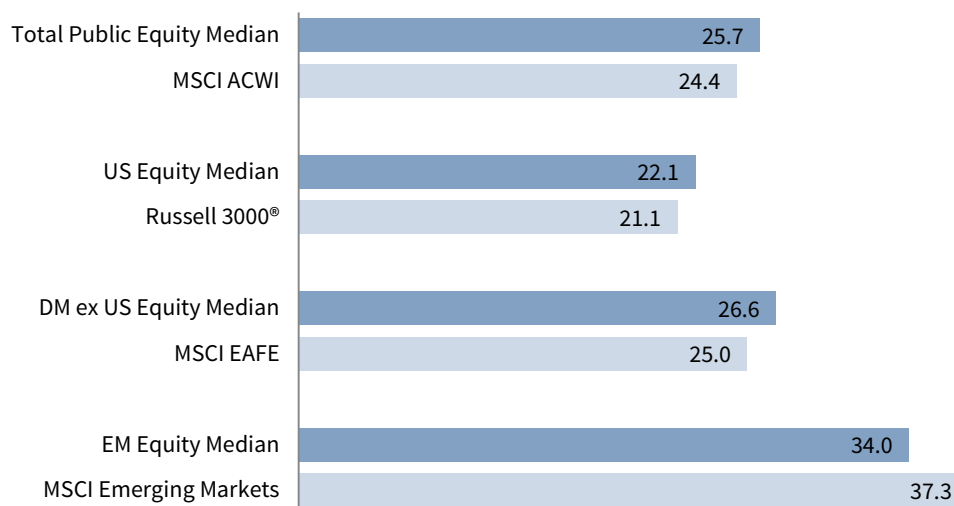
**PUBLIC EQUITY.** Public equity returns were strong across all geographic regions in calendar year 2017, with each of the major indexes returning above 20%. On an index basis, emerging markets equities had the highest trailing one-year return (37.3%), followed by global ex US developed equities (25.0%) and US equities (21.1%). The median total public equity composite return among participants was 25.7%, outperforming the MSCI ACWI Index by 130 basis points (bps) (Figure 5).

Most foundations fared well with active management in the developed markets asset classes in 2017. The median participant return for global ex US developed equities was 26.6%, approximately 160 bps higher than the MSCI EAFE Index. For US equities, the median participant return (22.1%) outperformed the Russell 3000® Index by 100 bps (Figure 5).

Most participants generally did not fare as well in relative terms versus the broad market index in emerging markets. The median participant return (34.0%) was over 300 bps lower than that of the MSCI Emerging Markets Index (Figure 5). The exception was for foundations with assets over \$1 billion, as this subgroup reported a median composite return of 38.0% (Figure 3).

**FIGURE 5. PUBLIC EQUITY: MEDIAN PARTICIPANT RETURN VERSUS INDEX RETURNS**

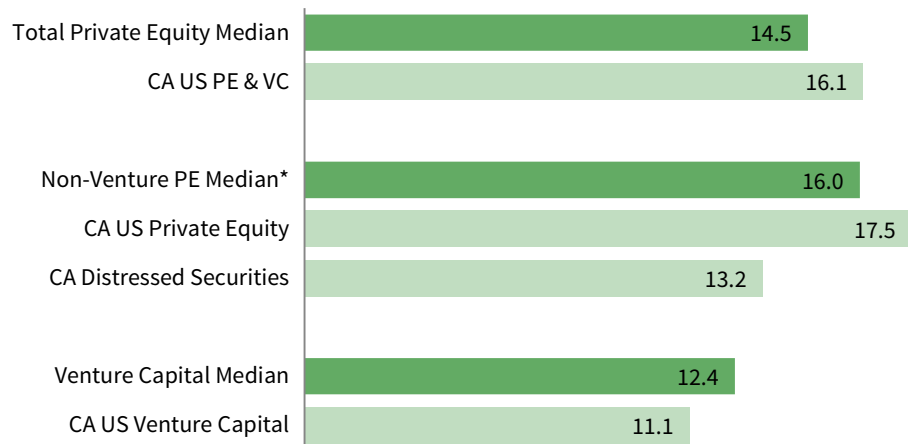
Trailing 1-Yr as of December 31, 2017



Sources: Foundation data as reported to Cambridge Associates LLC. Index data are provided by Frank Russell Company and MSCI Inc. MSCI data provided "as is" without any express or implied warranties.

**PRIVATE EQUITY.** The trailing one-year IRR for the Cambridge Associates US Private Equity and Venture Capital Index was 16.1% (Figure 6). Among participants, the median IRR for the private equity composite was 14.5%. The smallest foundations reported the highest median composite IRR (14.7%) for 2017 (Figure 4). On a more granular level, the median IRR among participants was 16.0% for non-venture private equity and 12.4% for venture capital.

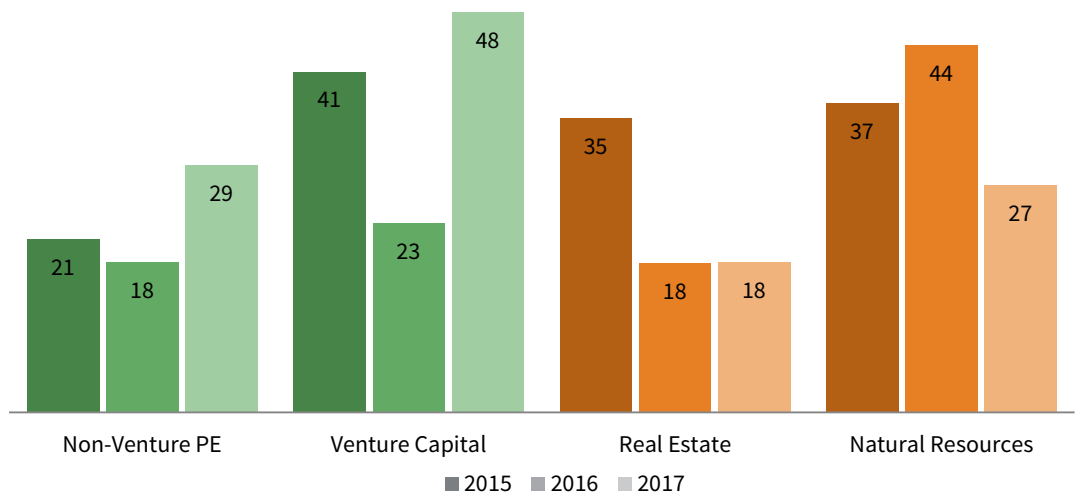
**FIGURE 6. PRIVATE EQUITY: MEDIAN PARTICIPANT RETURN VERSUS INDEX RETURNS**  
Trailing 1-Yr as of December 31, 2017



Sources: Foundation data as reported to Cambridge Associates LLC. Index data are provided by Cambridge Associates LLC.  
Note: Private investment return statistics are reported as horizon internal rates of return (IRRs).  
\* Non-venture private equity also includes distressed securities that are invested through a private investment vehicle.

Historically, private investment fund returns have varied considerably more than public equities, underscoring the importance of manager selection within this strategy. This effect carries over to the asset class composite returns, as there is typically a wide range of returns reported by foundations. Among participants in 2017, the range of returns from the 5th percentile to the 95th percentile was approximately 29 percentage points (ppts) for non-venture private equity and a whopping 48 ppts for venture capital. The return differentials for both of these asset classes are the largest that have been observed in the three years that we have collected this data (Figure 7).

**FIGURE 7. DIFFERENTIAL IN PARTICIPANT RETURNS FROM 5TH TO 95TH PERCENTILES**  
Calendar Years 2015–17 • Percentage Points

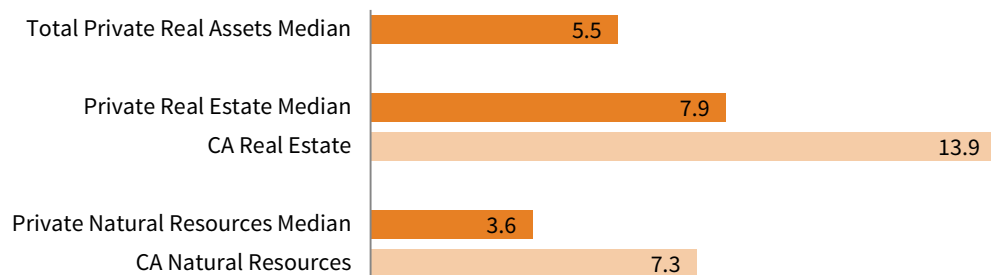


Source: Foundation data as reported to Cambridge Associates LLC.  
Note: Private investment return statistics are reported as horizon internal rates of return (IRRs).

**REAL ASSETS.** Real assets consists of a diversified group of investments, including commodities, natural resources, real estate, and inflation-linked bonds. Natural resources and real estate are broken out between public and private investments. Among participants, the median one-year IRR for private real assets was 5.5% (Figure 8) and the median TWR for public real assets was 3.2% (Figure 9).

Within private real assets, real estate outperformed natural resources both on an index basis and for participant composite returns. The median private real estate composite IRR was 7.9% and the median private natural resources IRR was 3.6% (Figure 8). The median return for both composites underperformed the Cambridge Associates private investment indexes by substantial margins. The return differentials for 2017 for both of these asset classes from the 5th percentile to the 95th percentage were the smallest that have been observed over the last three years (Figure 5).

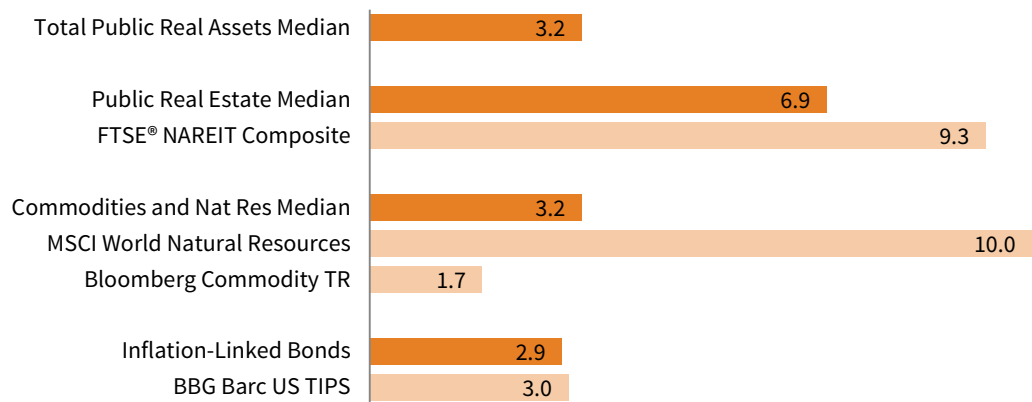
**FIGURE 8. PRIVATE REAL ASSETS: MEDIAN PARTICIPANT RETURN VERSUS INDEX RETURNS**  
Trailing 1-Yr as of December 31, 2017



Sources: Foundation data as reported to Cambridge Associates LLC. Index data are provided by Cambridge Associates LLC.  
Note: Private investment return statistics are reported as horizon internal rates of return.

In public real assets, the median real estate composite return was 6.9% and the median commodities and natural resources composite return was 3.2% (Figure 9). The largest foundations reported the highest median return for the total public real assets composite and commodities and natural resources, while the smallest foundations had the highest median return for public real estate (Figure 3).

**FIGURE 9. PUBLIC REAL ASSETS: MEDIAN PARTICIPANT RETURN VERSUS INDEX RETURNS**  
Trailing 1-Yr as of December 31, 2017

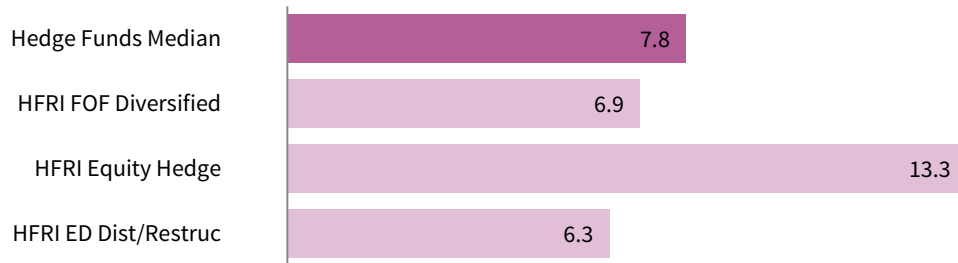


Sources: Foundation data as reported to Cambridge Associates LLC. Index data are provided by Barclays, Bloomberg L.P., FTSE International Limited, and MSCI Inc. MSCI data provided “as is” without any express or implied warranties.

**HEDGE FUNDS.** Hedge fund indexes posted their best calendar year returns since 2013. In 2017, the HFRI Equity Hedge Index returned 13.3% and the HFRI Funds-of-Funds Diversified Index returned 6.9% (Figure 10). The median hedge fund composite return among participants was 7.8%, with midsized foundations reporting the highest median return (8.5%) (Figure 3). The range of composite returns from the 5th percentile to the 95th percentile was just 8 ppts.

**FIGURE 10. HEDGE FUNDS: MEDIAN PARTICIPANT RETURN VERSUS INDEX RETURNS**

Trailing 1-Yr as of December 31, 2017

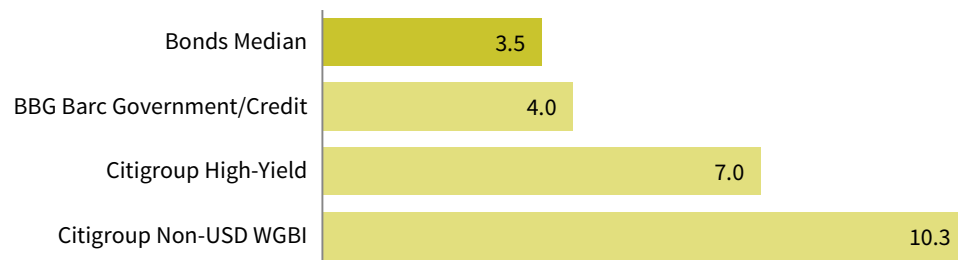


Sources: Foundation data as reported to Cambridge Associates LLC. Index data are provided by Hedge Fund Research, Inc.

**BONDS.** Median participant performance for the bonds composite was just 3.5% in 2017, with the smallest foundations reporting the highest median return (3.6%) (Figure 3). As we have observed in historical years, the median participant return hovers around the returns of the broad US bond market indexes. In 2017, the Bloomberg Barclays Government/Credit Bond Index returned 4.0% (Figure 11). Among participants in this study, the vast majority of the mean bond allocation (11.0%) came from US bonds (9.7%).

**FIGURE 11. BONDS: MEDIAN PARTICIPANT RETURN VERSUS INDEX RETURNS**

Trailing 1-Yr as of December 31, 2017



Sources: Foundation data as reported to Cambridge Associates LLC. Index data are provided by Barclays, Bloomberg L.P., and Citigroup Global Markets.

## ANALYSIS OF TOP AND BOTTOM PERFORMERS IN 2017

Many factors contribute to investor returns, including asset allocation policy and the implementation of that policy. In addition, varying performance measurement methodologies may impact the peer performance statistics reported in this study.

**ASSET ALLOCATION.** Figure 12 looks at the relationship between asset allocation and total portfolio returns in 2017. The participant group is broken out into four quartiles based on 2017 investment performance and each foundation's asset allocation was averaged across the beginning and ending points for the trailing one-year period. The four quartiles in the heat map table represent the average asset allocation of the foundations within each quartile. The chart of index returns provides the context of the market environment for the year.

The differences in average asset allocations among the four performance quartiles often correlate with the backdrop of the market environment. For example in 2017, all three broad-based public equity indexes produced returns above 20%. In addition, the mPME<sup>2</sup> versions of the US public indexes outperformed both the CA US Private Equity and CA US Venture Capital IRRs by substantial margins for the year. Consequently, foundations in the top quartile reported the highest average allocations to each of the public equity asset classes and the lowest average allocation to PE/VC. The opposite was true for foundations in the bottom performance quartile.

**ATTRIBUTION.** Asset allocation is a key driver of performance, but it does not fully explain the variation of returns that are reported across different institutions. The execution or implementation of an asset allocation strategy also contributes to the total returns that portfolios earn. Although we do not have the level of detailed data that is necessary to perform a precise attribution analysis, our data do allow us to conduct an estimated analysis that can help illuminate the main drivers of performance for 2017.

Figure 13 illustrates the results of an analysis based on the one-year return and beginning year asset allocation of 107 respondents that provided sufficient data. The darker shading on the bar chart represents the portion of the mean participant return that can be attributed to asset allocation and is calculated using a blend of representative asset class benchmarks weighted according to each foundation's asset allocation. The lighter shading of the bar is calculated by subtracting the mean asset allocation return from the mean participant return and is the portion of the total return that cannot be explained by asset allocation. This "other" portion of returns is principally driven by implementation or execution decisions, which can include active management and manager selection.<sup>3</sup> The attribution analysis estimates the average portfolio generated an asset allocation return of 15.7% for the trailing one-year period and an implementation return of -0.3%. In other words, implementation decisions actually detracted from total investment performance for the average portfolio over this one-year period.

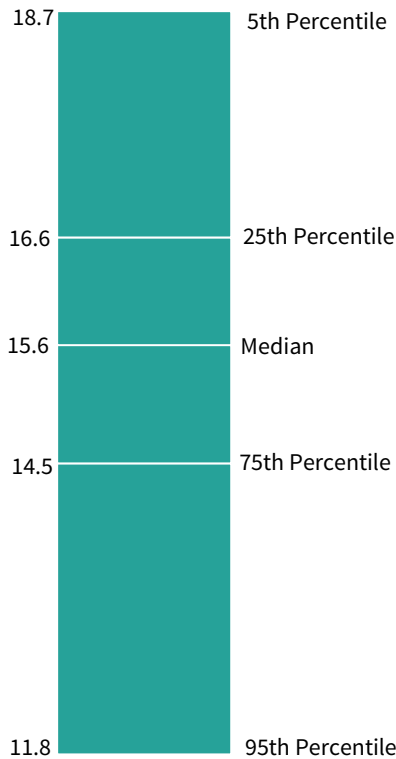
2 Under the CA mPME methodology, the public index's share are purchased and sold according to the private fund cash flow schedule, with distributions calculated in the same proportion as the private fund, and mPME NAV is a function of mPME cash flows and public index returns. The mPME analysis evaluates what return would have been earned had the dollars invested in private investments been invested in the public market instead.

3 This model assumes that flows to and from investment managers take place on the last day of the fiscal year. In addition, the analysis uses a standard set of asset class benchmarks that may be more or less representative of the asset allocation policy across different institutions. Therefore, the portion of returns from other factors may also include some residual/unattributable asset allocation effects.

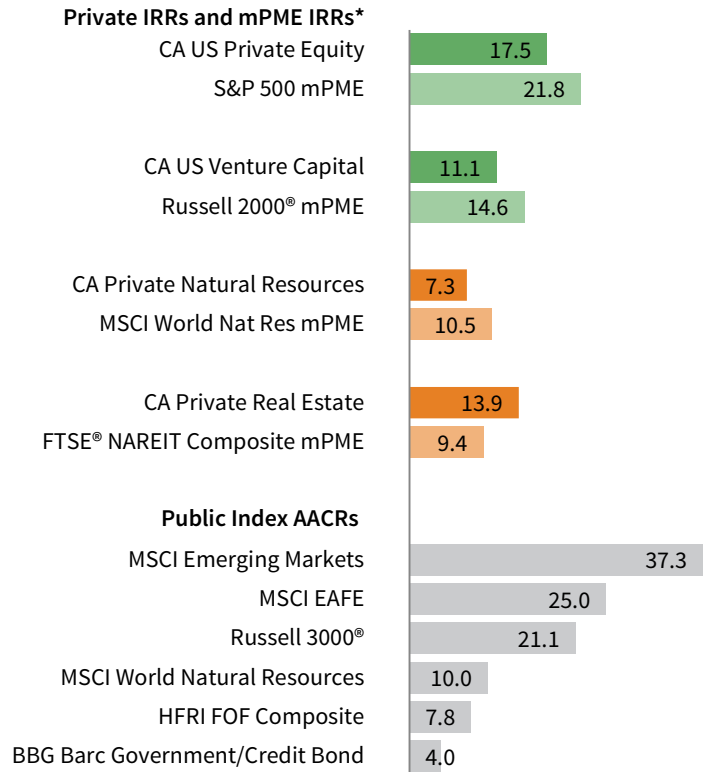
**FIGURE 12. 1-YR ASSET ALLOCATION OF TOP AND BOTTOM PERFORMERS**

As of December 31, 2017 • Percent (%)

**1-Yr Return Distribution**

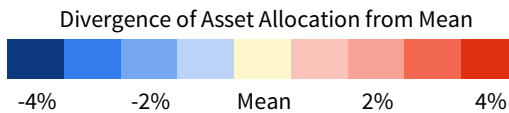


**1-Yr Index Returns**



**Mean Asset Allocation by Performance Quartile: December 31, 2016 to December 31, 2017**

Quartile	US Equity	DM ex US Eqty	EM Equity	Bonds	Hedge Funds	Dist Sec	PE & VC	Priv RA	Pub RA & ILBs	Cash	Other
Top Quartile	28.8	19.8	8.6	11.2	12.9	2.0	5.4	2.8	4.2	4.0	0.4
2nd Quartile	22.9	17.5	8.1	12.3	14.6	2.1	10.1	3.9	4.0	4.0	0.5
3rd Quartile	19.7	15.1	8.3	9.6	19.2	2.9	10.9	5.1	4.5	4.2	0.4
Bottom Quartile	18.1	13.5	7.2	11.6	18.0	3.1	13.5	5.1	4.2	5.1	0.5
All Fdn Mean	22.4	16.5	8.0	11.2	16.1	2.5	10.0	4.2	4.3	4.3	0.4



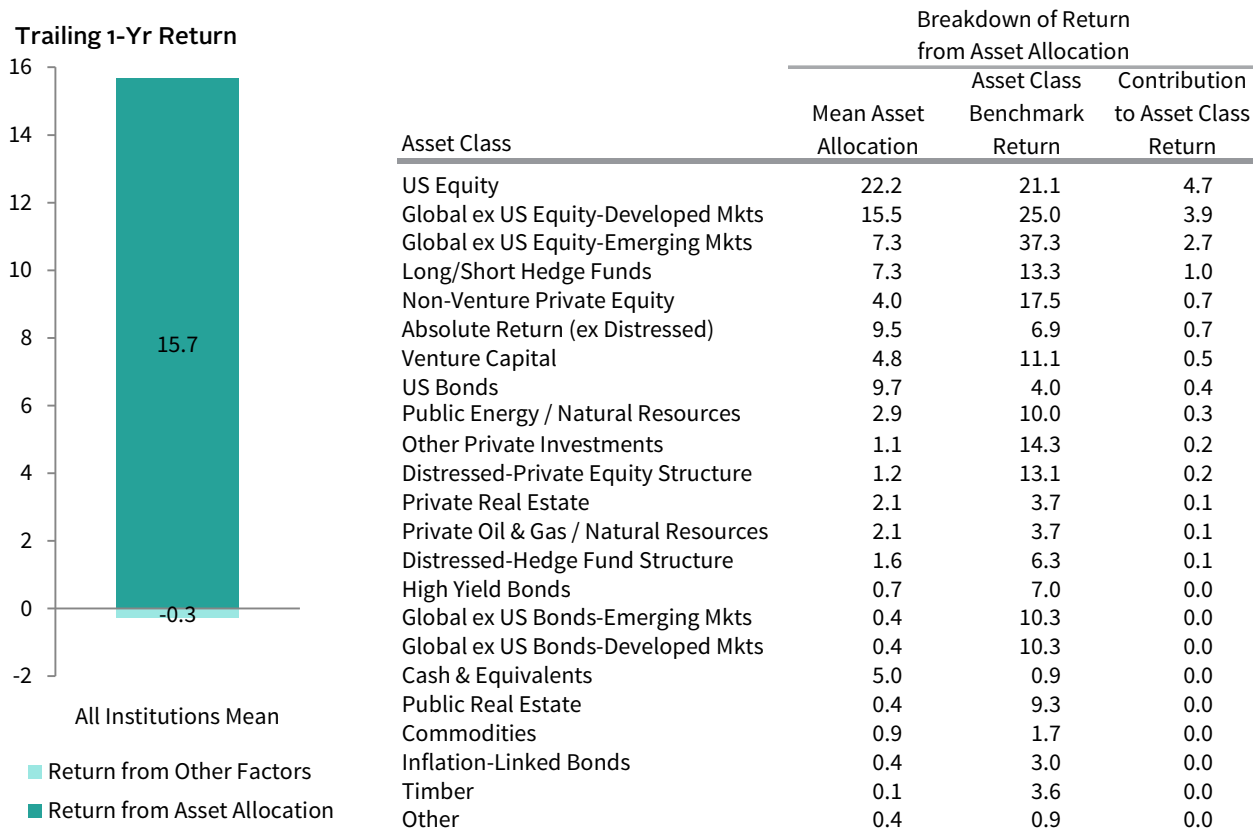
Sources: Foundation data as reported to Cambridge Associates LLC. Index data are provided by Barclays, Bloomberg L.P., Cambridge Associates LLC, Frank Russell Company, FTSE International Limited, Hedge Fund Research, Inc., MSCI Inc., the National Association of Real Estate Investment Trusts, Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Note: Analysis includes data for 107 institutions.

\* Private indexes are pooled horizon IRRs, net of fees, expenses, and carried interest. The CA Modified Public Market Equivalent (mPME) replicates private investment performance under public market conditions. The public index's shares are purchased and sold according to the private fund cash flow schedule, with distributions calculated in the same proportion as the private fund, and mPME NAV is a function of mPME cash flows and public index returns.

**FIGURE 13. ATTRIBUTION ANALYSIS**

As of December 31, 2017 • Percent (%)



Sources: Foundation data as reported to Cambridge Associates LLC. Index data provided by Barclays, Bloomberg L.P., BofA Merrill Lynch, Cambridge Associates LLC, Citigroup Global Markets, Frank Russell Company, FTSE International Limited, Hedge Fund Research, Inc., J.P. Morgan Securities, Inc., MSCI Inc., National Association of Real Estate Investment Trusts, and the National Council of Real Estate Investment Fiduciaries. MSCI data provided “as is” without any express or implied warranties.

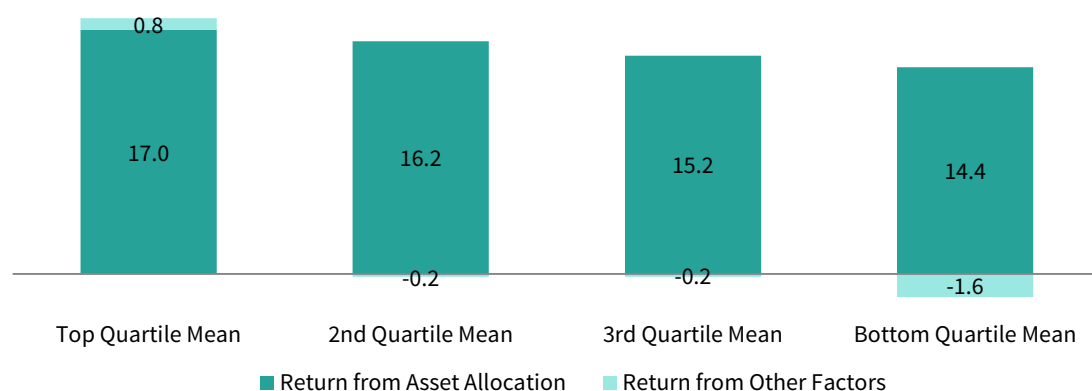
Notes: Includes data for 107 institutions that provided beginning year asset allocation. Mean asset allocation is as of December 31, 2016. The sum of the contribution to asset class return for all categories in the table equals the amount of the total return that was explained by asset allocation. To be consistent with the methodology in which private investment returns are incorporated into the total portfolio composite calculation, private investment benchmark returns are linked quarterly horizon returns.

US equity, which returned 21.1% and had the highest average allocation among the detailed asset classes, made the largest contribution to the mean asset class return. Global ex US developed equities and emerging markets equities also made significant positive contributions to overall portfolio performance. Each category’s contribution to the mean asset class return is a function of its benchmark return as well as the participant group’s average allocation to the category (Figure 13).

Figure 14 provides a breakdown of the attribution data for the four performance quartiles of the overall respondent group. The top performance quartile had a mean asset allocation return of 17.0%, approximately 260 bps higher than the average for the bottom performance quartile (14.4%). The difference in the average implementation return between the top and bottom performers was nearly the same. The top quartile added an average of 80 bps in performance through implementation decisions while the bottom lost an average of 160 bps.

**FIGURE 14. ATTRIBUTION ANALYSIS BY PERFORMANCE QUARTILE**

Trailing 1-Yr Return • As of December 31, 2017 • Percent (%)



Source: Foundation data as reported to Cambridge Associates LLC.

Note: Includes data for 107 institutions that provided beginning year asset allocation.

**RETURN CALCULATION METHODOLOGIES.** Performance reporting methodologies differ across participants in this study. Institutions that place a significant emphasis on benchmarking peer performance should take note of the following issues.

**Private Investments.** There were two main methodologies that foundations used to account for private investments in their 2017 total portfolio return. The most frequently used methodology was to report returns on a current basis, meaning the total portfolio return incorporated private investment valuations for the entire calendar year. The second most frequently used methodology was the lagged basis. Under this methodology, private investment valuations lag other assets in the portfolio by one quarter. In essence, the private investment portion of the 2017 total return represents performance for the period of October 1, 2016, to September 30, 2017.

When assessing the impact of these two methodologies, it is important to consider private investment returns for both fourth quarter 2016 and fourth quarter 2017. With the lagged basis methodology, performance for the former period will be included in the one-year total return calculation, and performance for the latter period will be excluded. For natural resources, the Cambridge Associates private index IRR for fourth quarter 2016 was 400 bps higher than fourth quarter 2017 (Figure 15). However, fourth quarter 2017 IRRs were noticeably better than fourth quarter 2016 for venture

**FIGURE 15. CAMBRIDGE ASSOCIATES PRIVATE INVESTMENT INDEX RETURNS**

	1 Quarter Horizon Pooled Return	
	Q4 2016	Q4 2017
US Private Equity	4.6	5.1
US Venture Capital	-0.1	2.8
Distressed Securities	3.7	3.1
Real Estate	1.4	3.7
Natural Resources	7.7	3.7

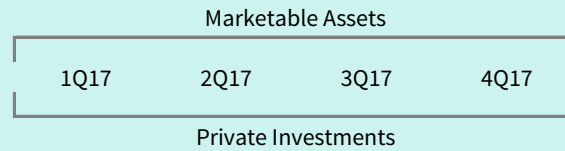
Source: Cambridge Associates LLC.



## PERFORMANCE REPORTING METHODOLOGIES

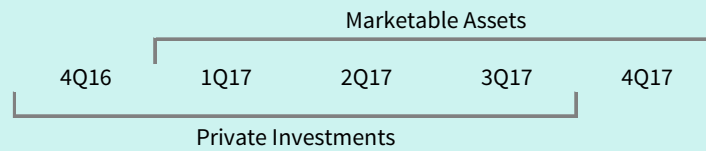
### Current Basis

Total investment pool return for 2017 includes marketable asset and private investment performance for January 1, 2017, to December 31, 2017.



### Lagged Basis

Total investment pool return for 2017 includes marketable asset performance for January 1, 2017, to December 31, 2017, and private investment performance for October 1, 2016, to September 30, 2017.



### Methodologies Used by Participants

Asset Size	Current Basis	Lagged Basis	Other	No PI Allocation
Under \$300M	70%	0%	3%	26%
<i>n</i>	43	0	2	16
\$300M – \$1B	75%	8%	13%	4%
<i>n</i>	18	2	3	1
Over \$1B	42%	58%	0%	0%
<i>n</i>	11	15	0	0
All Institutions	65%	15%	5%	15%
<i>n</i>	72	17	5	17

Source: Foundation data as reported to Cambridge Associates LLC.

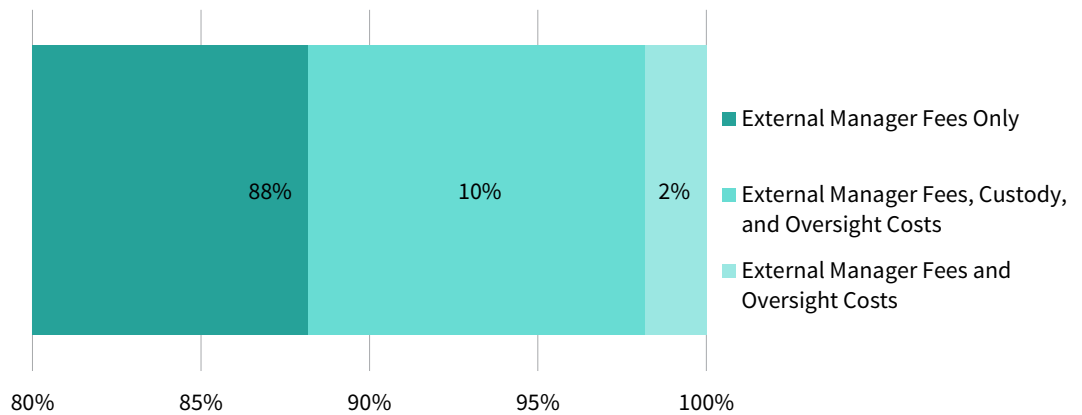
Notes: Private investments include non-venture private equity, venture capital, distressed securities (private equity structure), private oil & gas/natural resources, timber, private real estate, and other private investments. Institutions with no significant private investment allocations (<1% of their total investment portfolios) are reflected in the right-hand column.

capital and private real estate. Whether or not either reporting methodology would have an advantage over the other in the 2017 total return calculation will depend on each institution's allocation across the private investment asset classes and their actual performance in these categories.

**Net of Fee Calculations.** All except one participant in this study provided performance on a net-of-fees basis. Of the foundations that report net of fees, the majority (88%) deduct solely external manager fees in their net calculation. Another 10% of foundations deduct custody expenses in addition to external manager fees. The remaining 2% of foundations deduct the aforementioned fee types as well as some combination of investment office oversight expenses (Figure 16). Past Cambridge Associates surveys have shown that the total annual investment office oversight

**FIGURE 16. TYPES OF FEES DEDUCTED IN NET RETURN CALCULATION**

Calendar Year 2017 • n = 110



Source: Foundation data as reported to Cambridge Associates LLC.

Note: One foundation reports returns gross of external manager fees and investment oversight costs.

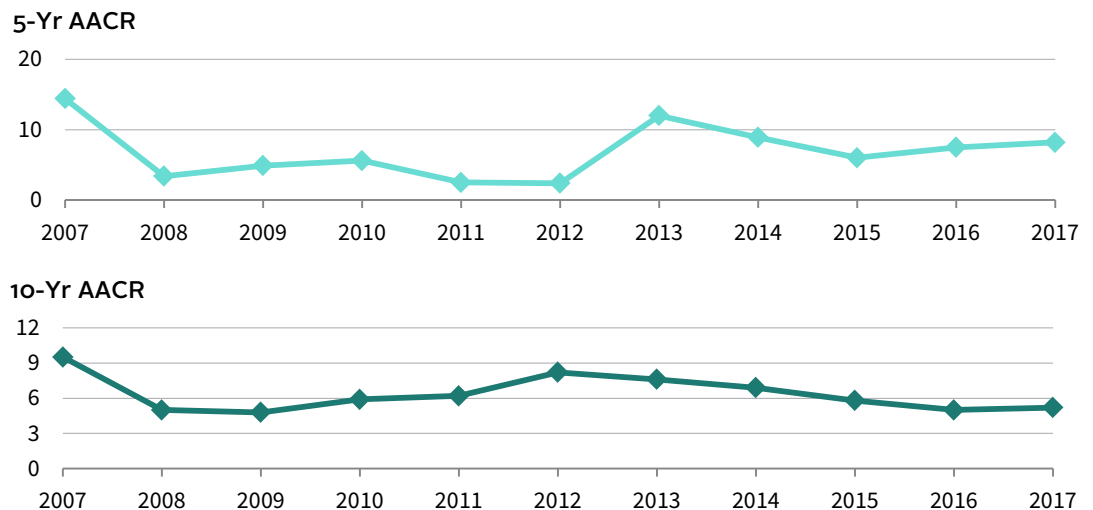
expenses range between 10 bps and 30 bps for most of our endowment and foundation clients. Many factors can impact the overall level of costs including staffing levels, overall complexity of the portfolio, and the types of costs recognized. The scale of asset size can also impact statistics in relative terms, as costs in basis points tend to be lower for institutions with a larger asset base.

### LONG-TERM RETURNS

The mean average annual compound return (AACR) was 7.9% for the five-year period ending December 31, 2017 (Figure 1). Foundations with assets greater than \$1 billion reported the highest average five-year return (9.1%) (Figure 2). The average return for the most recent five-year period is one of the better trailing five-year returns reported over the last decade (Figure 17).

**FIGURE 17. ROLLING 5-YR AND 10-YR AVERAGE ANNUAL COMPOUND RETURNS**

Years Ended December 31 • Percent (%)



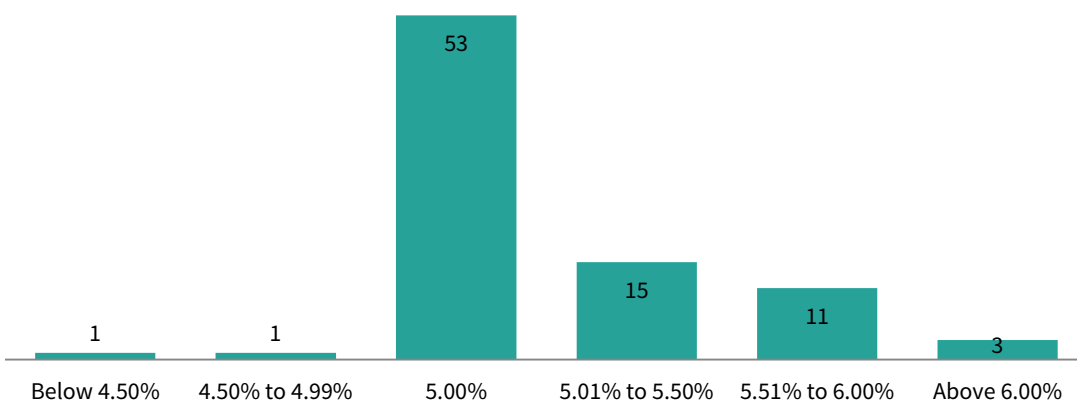
Source: Foundation data as reported to Cambridge Associates LLC.

Note: Analysis includes data for 55 institutions that provided returns for the last 20 years.

The mean nominal AACR for the ten-year period was 4.9% (Figure 1), with the largest portfolios again reporting the highest mean return (5.5%) (Figure 2). The most recent ten-year period is one of the lowest long-term return periods reported over the last decade, surpassing only the ten-year periods ending in 2008, 2009, and 2016 (Figure 17).

The vast majority of foundations in this study are private non-operating foundations and are required to distribute approximately 5% of their assets on an annual basis. To comply with this requirement and maintain purchasing power over time, a foundation must achieve a real return that offsets this 5% spending rate. In fact, the majority of foundations that provided a long-term real return objective (53 of 84) aim to earn 5% (Figure 18). Another 29 reporting foundations have a real return objective above 5%. Of the two foundations that reported a return object below 5%, one was a community foundation and one was a private operating foundation.

**FIGURE 18. REAL TOTAL PORTFOLIO RETURN OBJECTIVES**



Source: Foundation data as reported to Cambridge Associates LLC.

Note: Includes data for 84 institutions that provided a real total portfolio return objective.

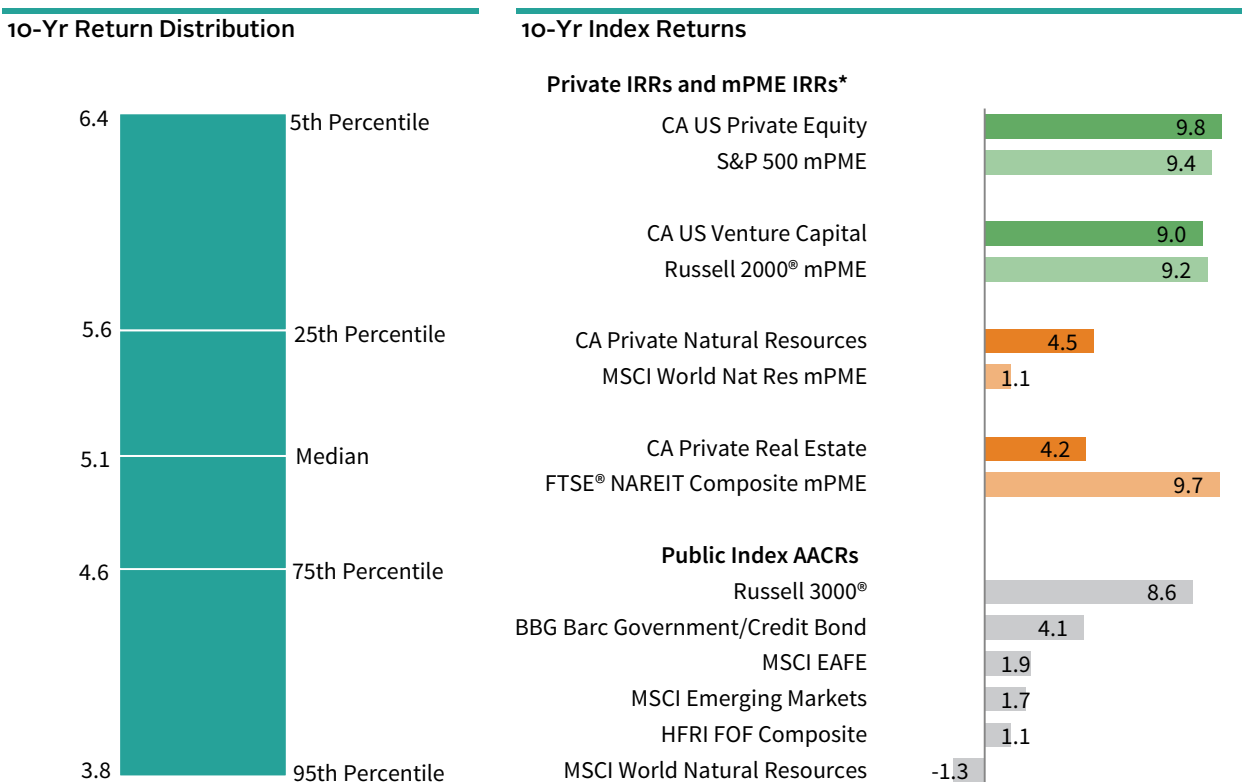
Through the trailing ten-year period ending December 31, 2017, the average real return was just 3.2% (Figure 1). This statistic demonstrates that it has been an enormous struggle over the last decade to achieve a real return that offsets the mandatory 5% spending requirement. For the foundations that also provided spending rates for the last ten years, the average real return after spending was -1.5%, with only 3 of 29 respondents reporting a return above 0%. In other words, only a small proportion of foundations have been able to grow the purchasing power of their portfolios over the last decade.

**RELATIVE RETURNS: SIMPLE PORTFOLIO BENCHMARK.** US equities and bonds have been among the top-performing marketable investments over the past ten years, outperforming global ex US equities, hedge funds, and natural resources (Figure 19). Consequently, portfolios that have diversified across these asset classes have considerably lagged a simple 70/30 benchmark that uses a US index for the equity component.<sup>4</sup> The average return for institutions in this study underperformed this simple benchmark by nearly 270 bps (Figure 1) for the trailing ten-year period. Institutions fared better against a 70/30 benchmark that uses a global equity index, with the mean participant return underperforming this benchmark over the ten-year period by just 20 bps.

<sup>4</sup> Among institutions in this study, the mean combined allocation to global ex US equities, hedge funds, and public natural resources and commodities was 45%.

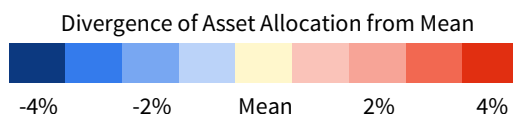
**FIGURE 19: 10-YR ASSET ALLOCATION OF TOP AND BOTTOM PERFORMERS**

As of December 31, 2017 • Percent (%)



**Mean Asset Allocation by Performance Quartile: December 31, 2007 to December 31, 2017**

Quartile	US Equity	DM ex US Eqty	EM Equity	Bonds	Hedge Funds	Dist Sec	PE & VC	Priv RA	Pub RA & ILBs	Cash	Other
Top Quartile	21.3	13.2	7.7	10.0	17.2	2.7	12.2	7.0	3.8	4.7	0.3
2nd Quartile	21.9	14.0	6.5	12.8	18.4	3.4	9.9	4.0	5.5	3.4	0.2
3rd Quartile	19.7	15.3	6.7	11.9	18.3	4.1	7.8	6.3	6.0	3.8	0.1
Bottom Quartile	21.3	15.8	6.6	16.0	17.7	2.2	4.7	1.8	8.4	5.0	0.5
All Fdn Mean	21.1	14.6	6.9	12.6	17.9	3.1	8.7	4.8	5.9	4.2	0.3



Sources: Foundation data as reported to Cambridge Associates LLC. Index data are provided by Barclays, Bloomberg L.P., Cambridge Associates LLC, Frank Russell Company, FTSE International Limited, Hedge Fund Research, Inc., MSCI Inc., the National Association of Real Estate Investment Trusts, Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Note: Analysis includes data for 61 institutions.

\* Private indexes are pooled horizon IRRs, net of fees, expenses, and carried interest. The CA Modified Public Market Equivalent (mPME) replicates private investment performance under public market conditions. The public index's shares are purchased and sold according to the private fund cash flow schedule, with distributions calculated in the same proportion as the private fund, and mPME NAV is a function of mPME cash flows and public index returns.

These simple benchmarks help evaluate the decision to adopt the endowment model of investing where the portfolio is allocated across a diverse set of mostly equity-oriented investments, including non-traditional illiquid assets. Though, in retrospect, diversification among the marketable asset classes did not benefit institutions over the trailing ten-year period, it was another key tenet of the endowment model that was a strong contributor to investment performance over this period. Institutions that had the highest allocations to illiquid private investments generally produced the best returns over the last decade.

As shown in Figure 19, the CA US Private Equity and CA US Venture Capital produced IRRs that were comparable with their mPME reference indexes over the trailing ten-year period. Results for the real assets strategies were mixed, with private natural resources outperforming its mPME reference index and private real estate underperforming. Foundations in the top quartile of performers reported the highest average allocations to PE/VC (12.2%) and private real assets (7.0%) over the last ten years. In contrast, foundations in the bottom quartile of performers reported the lowest average allocation to PE/VC (4.7%) and private real assets (1.8%).

**ATTRIBUTION.** The attribution model further illustrates the impact of different asset allocation structures on the trailing ten-year return. The average asset allocation return over this period for the top quartile of performers (4.8%) was 130 bps higher than the average for the bottom quartile of performers (Figure 20). In addition to the impact on the asset allocation return, private investments seemingly contribute to differences in the implementation return over the long-term. As detailed earlier, the

**FIGURE 20. 10-YR ATTRIBUTION ANALYSIS BY PERFORMANCE QUARTILE**

As of December 31, 2017 • Percent (%)



Sources: Foundation data as reported to Cambridge Associates LLC. Index data provided by Barclays, Bloomberg L.P., BofA Merrill Lynch, Cambridge Associates LLC, Citigroup Global Markets, Frank Russell Company, FTSE International Limited, Hedge Fund Research, Inc., J.P. Morgan Securities, Inc., MSCI Inc., National Association of Real Estate Investment Trusts, and the National Council of Real Estate Investment Fiduciaries. MSCI data provided "as is" without any express or implied warranties.

Notes: Includes data for 61 institutions that provided beginning year asset allocation for each of the last ten years. To be consistent with the methodology in which private investment returns are incorporated into the total portfolio composite calculation, private investment benchmark returns are linked quarterly end-to-end returns. This model assumes that flows to and from investment managers take place on the last day of the fiscal year. In addition, the analysis uses a standard set of asset class benchmarks that may be more or less representative of the asset allocation policy across different institutions. Therefore, the portion of returns from other factors may also include some residual/unattributable asset allocation effects.

range of returns among private investment funds is usually much wider than what is experienced in marketable asset classes. Over the long-term, portfolios with the highest private investment allocations have more potential for earning a larger return from other factors, particularly in venture capital where the potential for excess return can be very significant in certain periods. For the trailing ten-year period, the top quartile's implementation return (1.4%) was 100 bps higher than that of the bottom quartile. The ranges of actual asset class returns across the entire participant group for the trailing five- and ten-year periods are listed in Figures 21 and 22.

**FIGURE 21. DISPERSION OF PARTICIPANTS' ASSET CLASS RETURNS: MARKETABLE INVESTMENTS**

Trailing 5- and 10-Yr • As of December 31, 2017

	Public Equity <sup>1</sup>	Global Equity <sup>2</sup>	US Equity	DM ex US Equity	EM Equity	Bonds	Hedge Funds	Public Real Assets <sup>3</sup>	Commodities and Natural Resources	Public Real Estate
<b>Trailing 5-Yr</b>										
5th Percentile	13.5	15.8	17.0	11.8	8.5	4.2	7.7	3.9	3.2	12.7
25th Percentile	11.9	12.7	16.2	10.6	6.0	2.2	5.9	0.1	-0.9	11.0
Median	11.2	11.6	15.2	9.3	5.3	1.6	5.3	-2.7	-4.2	8.5
75th Percentile	10.5	10.5	14.1	8.3	4.0	1.1	4.6	-4.6	-6.0	7.7
95th Percentile	9.7	7.5	12.3	7.0	3.0	0.5	3.2	-7.2	-9.1	4.7
Mean	11.3	11.5	15.0	9.4	5.4	1.9	5.3	-2.3	-3.5	8.9
<i>n</i>	85	31	79	79	72	81	82	59	59	10
<b>Trailing 10-Yr</b>										
5th Percentile	8.2	9.6	10.5	7.2	6.5	5.8	6.0	3.8	0.6	6.9
25th Percentile	6.5	9.2	9.3	4.8	4.3	4.5	4.5	-1.0	-1.4	6.3
Median	5.8	7.3	8.5	3.2	2.5	4.0	3.9	-2.3	-2.8	4.5
75th Percentile	5.2	5.7	7.7	2.1	1.6	3.3	3.1	-3.5	-4.2	4.0
95th Percentile	4.2	3.2	6.3	1.5	0.4	2.0	1.3	-5.6	-5.5	0.2
Mean	5.9	7.0	8.5	3.8	3.1	4.0	3.6	-1.7	-2.6	4.4
<i>n</i>	77	15	70	66	56	67	69	44	44	8

Source: Foundation data as reported to Cambridge Associates LLC.

<sup>1</sup> Public equity is a composite of global equity, US equity, developed markets ex US equity, and emerging markets equity.

<sup>2</sup> Global equity includes only investment vehicles that have a mandate to invest in US and international markets.

<sup>3</sup> Total public real assets is a composite of public real estate, commodities, and inflation-linked bonds.

**FIGURE 22. DISPERSION OF PARTICIPANTS' ASSET CLASS RETURNS: PRIVATE INVESTMENTS**

Trailing 5- and 10-Yr • As of December 31, 2017

	Total Private Equity <sup>1</sup>	Non-Venture Private Equity <sup>2</sup>	Venture Capital	Total Private Real Assets <sup>3</sup>	Private Real Estate	Private Natural Resources
<b>Trailing 5-Yr</b>						
5th Percentile	21.3	26.4	22.3	11.6	16.3	7.6
25th Percentile	15.7	14.9	17.8	9.2	13.3	4.8
Median	13.4	12.9	13.9	5.7	10.9	1.7
75th Percentile	11.3	10.7	10.7	3.3	9.0	-1.6
95th Percentile	2.3	5.1	-5.0	1.2	3.3	-7.0
Mean	13.7	13.9	12.7	6.1	10.9	1.1
<i>n</i>	80	76	59	62	60	55
<b>Trailing 10-Yr</b>						
5th Percentile	18.5	19.8	20.2	10.5	10.4	11.0
25th Percentile	13.9	14.0	14.9	6.7	6.6	6.8
Median	12.4	12.1	12.4	4.1	4.3	4.7
75th Percentile	10.0	9.8	8.3	2.3	2.3	2.9
95th Percentile	6.3	6.0	-1.7	-0.1	-1.7	-2.4
Mean	11.9	12.1	11.4	4.3	4.3	4.9
<i>n</i>	73	71	54	49	52	49

Source: Foundation data as reported to Cambridge Associates LLC.

Note: Private investment return statistics are reported as internal rates of return (IRRs).

<sup>1</sup> Total private equity is a composite of non-venture private equity and venture capital.<sup>2</sup> Non-venture private equity also includes distressed securities that are invested through a private investment vehicle.<sup>3</sup> Total private real assets is a composite of private real estate and private natural resources.

## POLICY PORTFOLIO BENCHMARKS

**RELATIVE RETURNS.** Benchmarking is all about answering the question, “how are we doing?” in ways that are both accurate and relevant to the objectives of the portfolio being measured. Performance results of peers can be informative, but they are not necessarily the most effective benchmark to evaluate an institution’s investment performance. Despite the mandatory spending floor imposed by the government on private foundations, differing objectives on how much to spend as well as varied risk tolerances can lead to different investment policies among foundations.

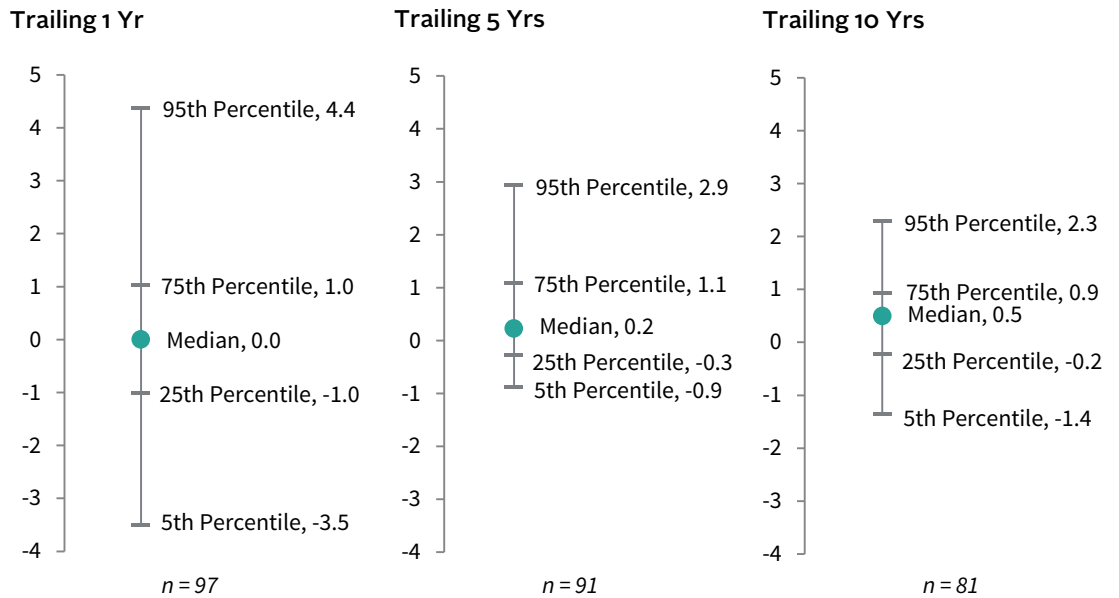
The comparison of a foundation’s return to its policy portfolio benchmark is a better measure for determining whether a portfolio is being successfully managed against its target investment policy. The policy benchmark is typically a blend of indexes that represent the desired portfolio risk exposures without any expression of more active alternatives. In certain asset classes such as hedge funds and private investments, there are often no investable proxies, and other types of benchmarks are used. Measuring performance relative to the policy benchmark captures the impact not only of active management decisions, but also that of portfolio tilts away from the target asset allocation policy.

Benchmarking results for calendar year 2017 were mixed among foundations in this study. There were 47 foundations that outperformed their policy benchmark in 2017, almost identical to the number of foundations that underperformed (48). An additional two foundations equaled their policy benchmark return for the trailing one-year

period. Over the longer term, there were more foundations that outperformed than underperformed their benchmark. The median difference between the total portfolio return and the policy benchmark among all institutions was 0.2 ppt and 0.5 ppt for the trailing five- and ten-year periods, respectively (Figure 23).

**FIGURE 23. RANGE OF OUT/UNDERPERFORMANCE OF TOTAL RETURN VERSUS POLICY PORTFOLIO BENCHMARK**

As of December 31, 2017 • Percentage Points



Source: Foundation data as reported to Cambridge Associates LLC.

Note: Data points represent the difference between the total portfolio return and the policy portfolio benchmark return.

**POLICY PORTFOLIO BENCHMARK COMPONENTS.** Nearly 90% of the respondents (91 of 102) that provided a policy portfolio benchmark use a detailed, asset class-specific benchmark to evaluate the performance of the total portfolio. The other 11 foundations that provided data use a simple benchmark that typically incorporates a broad-based equity market index and a bond index weighted in proportion to the overall risk profile of the portfolio.

For those that use a detailed policy portfolio benchmark, the components of the benchmark should align with the asset classes or role-in-portfolio categories stated in the portfolio's asset allocation policy. Since policy allocations can be set at varying levels of granularity, approaches to benchmarking vary among institutions. One area where this is noticeable is in public and private equities, where 15% of foundations use a single index to benchmark their entire equity allocation. This method is appropriate where there is a broad target allocation to equity stated in the investment policy and there is discretion in choosing the strategies to fill out that allocation.<sup>5</sup> The remaining 85% of foundations assign separate indexes for public and private equities and/or based on geographic orientation (Figure 24).

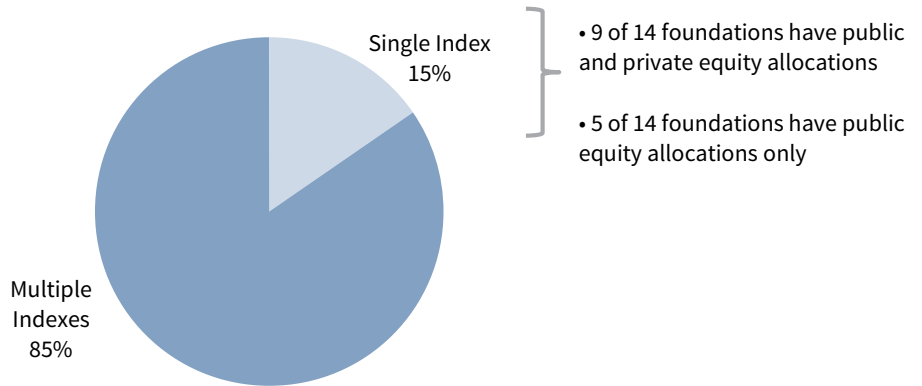
<sup>5</sup> Even in such cases where the target allocation to equity is not broken out by public and private substrategies, there is typically a liquidity policy that sets limits on the proportion of the portfolio that can be invested in illiquid private investments.



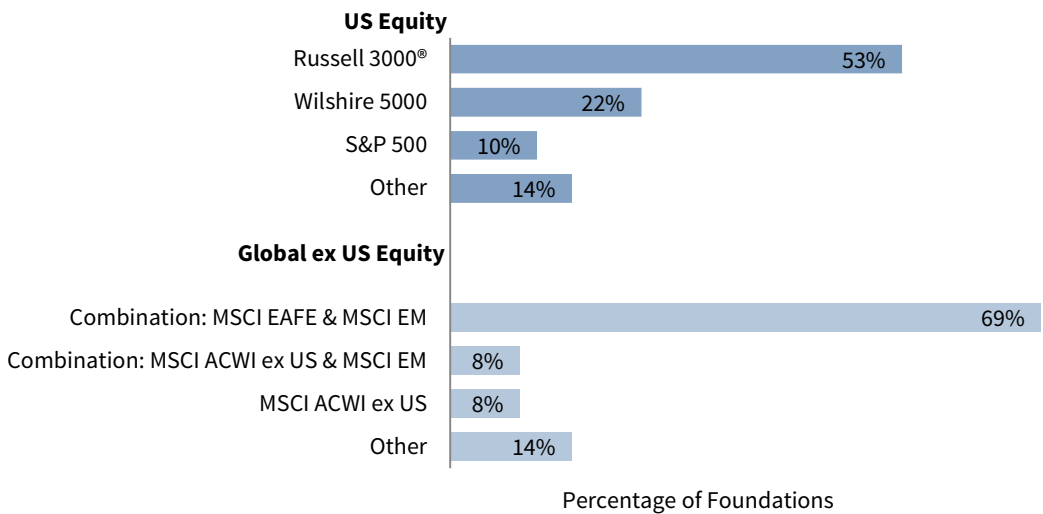
**FIGURE 24. FREQUENTLY USED COMPONENTS OF POLICY PORTFOLIO BENCHMARKS: PUBLIC AND PRIVATE EQUITY**

As of December 31, 2017

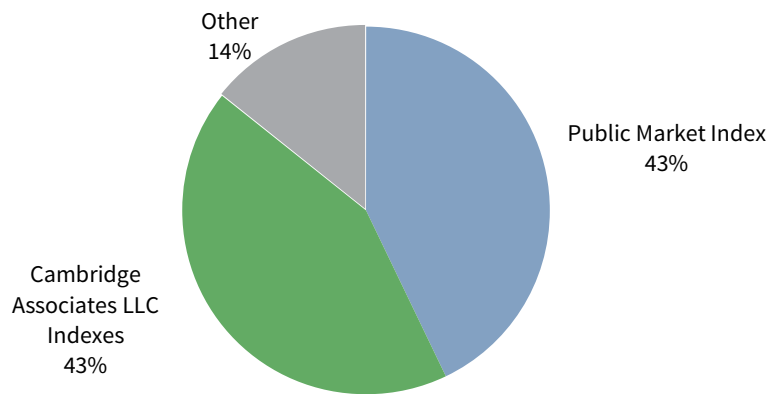
**Benchmark for the Entire Equity Allocation (n = 91)**



**Public Equity Indexes Reported by Geographic Orientation (n = 49)**



**Private Equity Indexes (n = 56)**



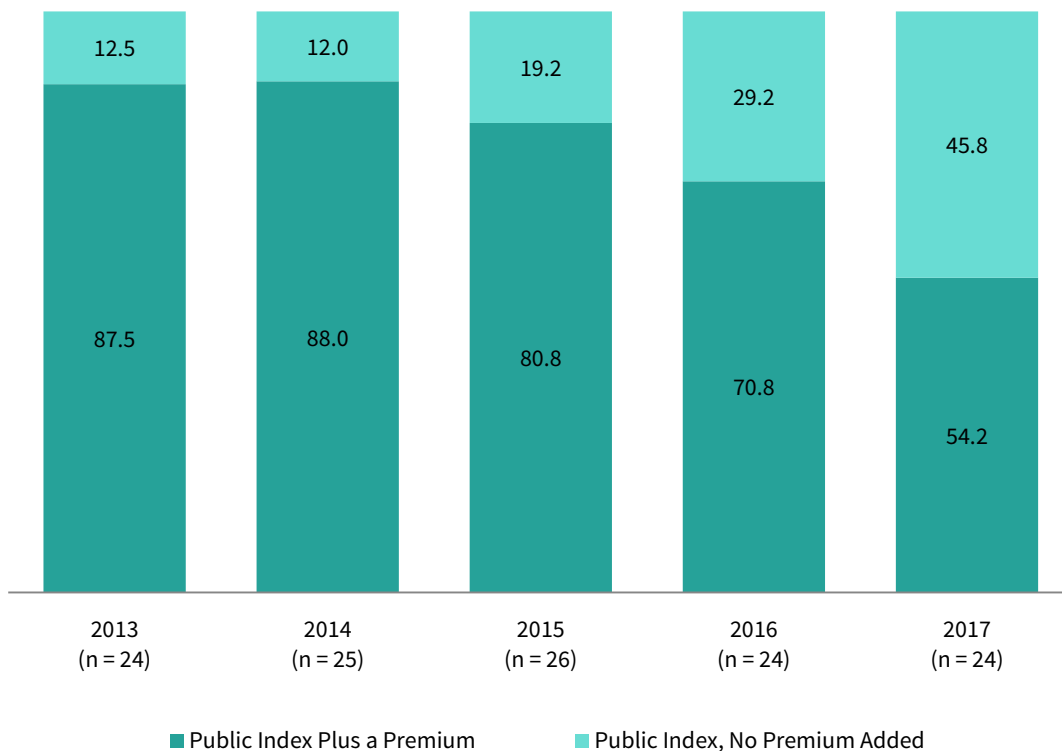
Source: Foundation data as reported to Cambridge Associates LLC.

Where separate indexes were reported for public equities based on geographic orientation, the Russell 3000® Index was cited by 53% of foundations for US equities. A higher proportion of foundations (69%) used a blend of the MSCI EAFE and MSCI Emerging Markets indexes to measure global ex US equities. This approach is appropriate for institutions that have separate targets to global ex US developed and emerging markets, particularly if the targets are out of proportion to the weightings of the MSCI ACWI ex US Index.

For respondents that benchmark private equity and venture capital separately from public equity, 43% use the Cambridge Associates LLC Private Equity and Venture Capital Indexes, the same percentage that reported using a public market index (Figure 24). While there has been little fluctuation in the number of foundations using a public market index over the last five years, the proportion of foundations that add on a premium to the public index return has dropped dramatically. In 2013, almost 88% of foundations using a public index added a premium to the index return. For this most recent year, that proportion had dropped to 54% (Figure 25). The amount of premium added to the index return ranges from 2% to 5% among respondents. The choice of the actual public indexes reported by institutions varies widely and should be representative of the private equity program’s exposure and geographic orientation.

**FIGURE 25. TYPES OF PUBLIC MARKET INDEXES USED FOR PRIVATE EQUITY IN THE POLICY PORTFOLIO BENCHMARK**

Years Ended December 31 • Percent (%)

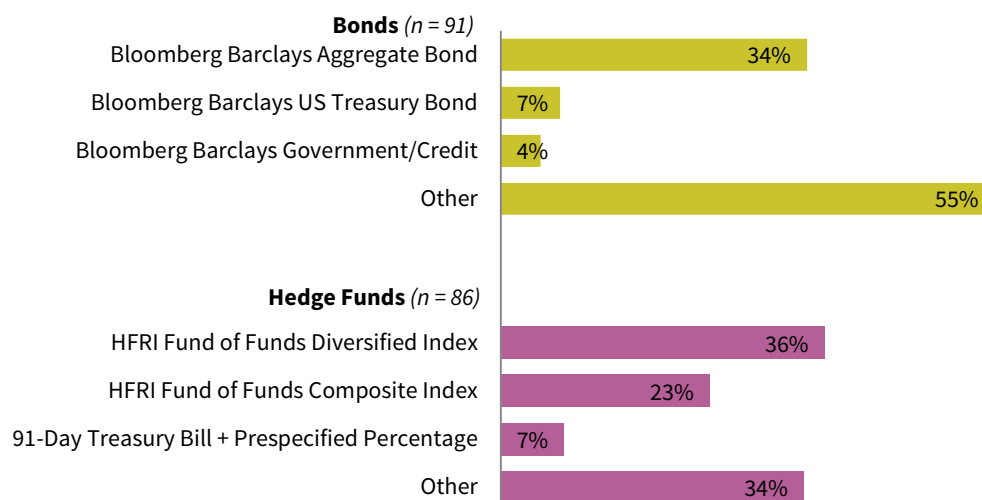


Source: Foundation data as reported to Cambridge Associates LLC.

The most common benchmarking approach for bonds was the sole use of the Bloomberg Barclays Aggregate Bond Index, reported by 34% of foundations (Figure 26). However, many foundations use unique index combinations to better reflect their underlying bond exposure. Benchmarks should depend on whether allocations are made domestically or globally, as well as the type of issuer (sovereign versus corporate or both). Most respondents use an HFRI index for hedge funds, with the Fund-of-Funds Diversified Index reported by 36% of foundations. For real assets, benchmark combinations are unique across most participants due to the wide variety of strategies under this category.

**FIGURE 26. FREQUENTLY USED COMPONENTS OF POLICY PORTFOLIO BENCHMARKS: BONDS AND HEDGE FUNDS**

As of December 31, 2017



Source: Foundation data as reported to Cambridge Associates LLC.

### RISK-ADJUSTED PERFORMANCE

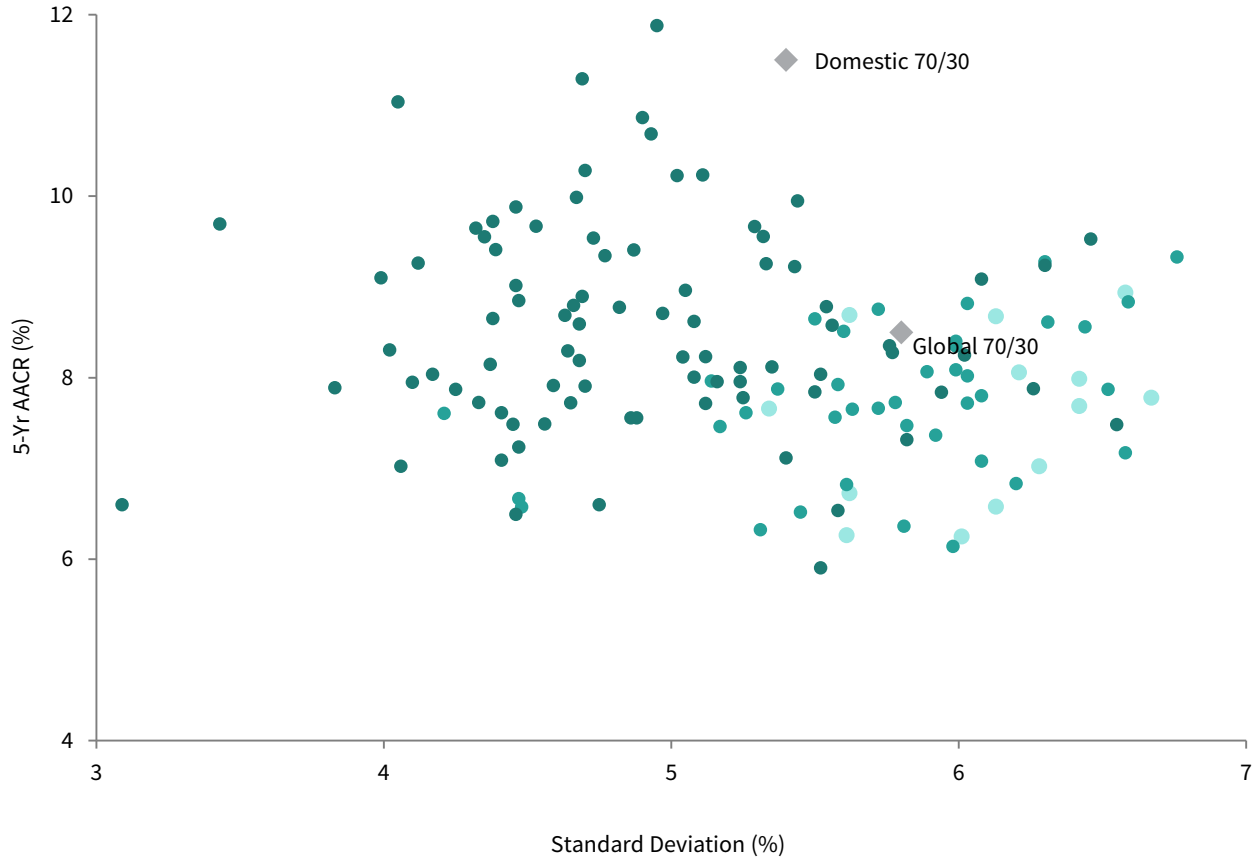
Risk-adjusted performance is important to evaluate as it measures the total return relative to the total amount of risk taken by the portfolio. The most common approach to measuring risk-adjusted performance is by the Sharpe ratio, which shows how much return above the risk-free rate (T-bills) the investor has earned per unit of risk (defined as the standard deviation of returns). The higher the Sharpe ratio, the more the investor has been compensated for each unit of risk taken.

Risk-adjusted performance comparisons can be complicated when portfolios have significant allocations to private investments. The frequency and timing of private investment valuations can artificially dampen the standard deviation for the returns of these assets. Thus, a portfolio with high allocations to private investments can yield a lower volatility statistic that does not fully represent the amount of risk it has actually taken. For this reason, we have split foundations out into subcategories in Figure 27 based on their allocations to private investments.

Institutions that had an allocation of 15% or more to private investments over the last five years reported an average Sharpe ratio of 1.68, significantly higher than that of the other subgroups with smaller private allocations. Although the magnitude of the differences in average Sharpe ratios is partly a function of this group's higher average five-year return, it is also attributable to its lower average standard deviation.

**FIGURE 27. STANDARD DEVIATION AND SHARPE RATIO**

5 Yrs Ended December 31, 2017



● Institutions Under 5% PI    ● Institutions Between 5% and 15% PI    ● Institutions Over 15% PI

	All Institutions Mean	Mean by PI Allocation			70/30 Benchmarks	
		Under 5%	5%–15%	Over 15%	Domestic	Global
5-Yr AACR	7.9	7.5	7.3	8.6	11.5	8.5
Standard Deviation	5.5	6.0	5.7	5.0	5.4	5.8
Sharpe Ratio	1.44	1.20	1.25	1.68	2.02	1.39
<i>n</i>	90	26	22	42		

Sources: Foundation data as reported to Cambridge Associates LLC. Index data are provided by Barclays, Bloomberg L.P., Frank Russell Company, and MSCI Inc. MSCI data provided "as is" without any express or implied warranties.

Notes: Analysis includes only institutions that provided underlying quarterly returns and asset allocation for the last five years. Each institution's private investment allocation represents the mean for the six December 31 periods from 2012 to 2017. The Domestic 70/30 benchmark is composed of 70% Russell 3000® / 30% Bloomberg Barclays Government/Credit and the Global 70/30 benchmark is composed of 70% MSCI ACWI / 30% Bloomberg Barclays Government/Credit.

## Portfolio Asset Allocation

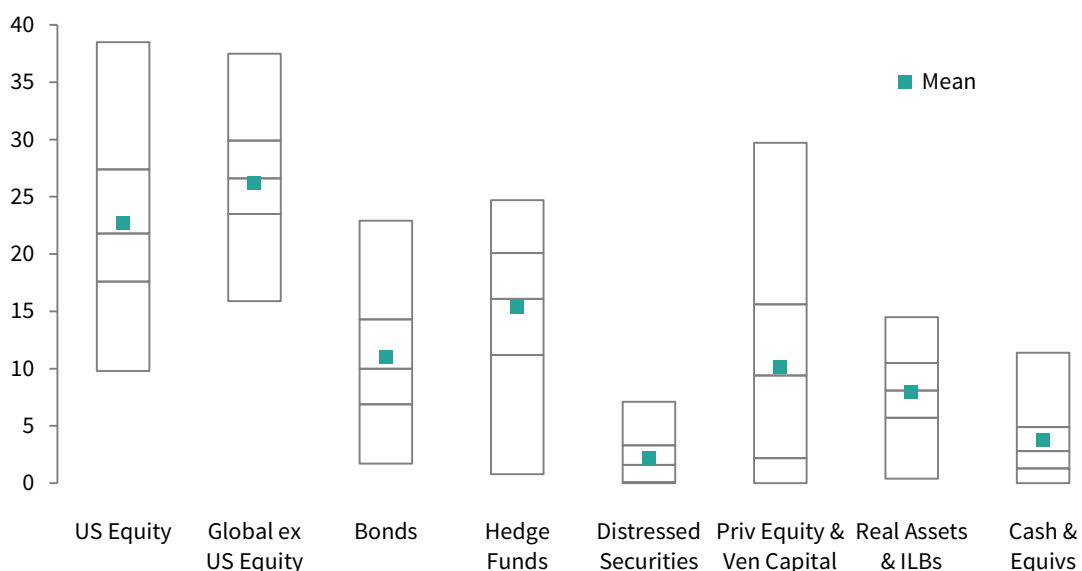
### 2017 ASSET ALLOCATION

Nearly half (48.9%) of the average long-term investment portfolio (LTIP) consisted of public equities at December 31, 2017. On average, allocations to global ex US equities (26.2%) were higher than those to US equities (22.7%). Portfolios had significant exposure to alternative assets, with 15.4% allocated to hedge funds and 10.1% allocated to private equity and venture capital, on average. Another 2.2% was allocated, on average, to distressed securities, which are invested through either a hedge fund or private equity-type investment vehicle. Real assets, which consist of a diversified group of public and private assets, made up 8.0% of portfolios, on average. Average allocations to bonds and cash were 11.0% and 3.8%, respectively (Figure 28).

As Figure 29 shows, allocations to these broad asset classes vary considerably. A key factor in the variation of asset allocations continues to be the total value of assets under management. Portfolios with asset sizes under \$300 million continue to maintain higher allocations to public equities and bonds, while those with assets over \$1 billion have the highest allocations to private investments. Also displayed in Figure 29 is a more granular view of allocations within each broad asset class.

**FIGURE 28. ASSET ALLOCATION DISTRIBUTION BY ASSET CLASS**

As of December 31, 2017 • Percent (%) • n = 111



	US Equity	Global ex US Equity	Bonds	Hedge Funds	Distressed Securities	Priv Equity & Ven Capital	Real Assets & ILBs	Cash & Equivs
5th Percentile	38.5	37.5	22.9	24.7	7.1	29.7	14.5	11.4
25th Percentile	27.4	29.9	14.3	20.1	3.3	15.6	10.5	4.9
Median	21.8	26.6	10.0	16.1	1.6	9.4	8.1	2.8
75th Percentile	17.6	23.5	6.9	11.2	0.1	2.2	5.7	1.3
95th Percentile	9.8	15.9	1.7	0.8	0.0	0.0	0.4	0.0
Mean	22.7	26.2	11.0	15.4	2.2	10.1	8.0	3.8

Source: Foundation data as reported to Cambridge Associates LLC.

**FIGURE 29. SUMMARY ASSET ALLOCATION BY ASSET SIZE**

As of December 31, 2017 • Percent (%)

	Under \$300M (n = 61)				\$300M – \$1B (n = 24)				Over \$1B (n = 26)			
	Low	Mean	Median	High	Low	Mean	Median	High	Low	Mean	Median	High
<b>US Equity</b>	<b>10.6</b>	<b>24.2</b>	<b>22.9</b>	<b>49.4</b>	<b>5.6</b>	<b>22.8</b>	<b>21.8</b>	<b>44.7</b>	<b>4.5</b>	<b>19.0</b>	<b>18.5</b>	<b>47.7</b>
<b>Global ex US Equity</b>	<b>5.3</b>	<b>28.6</b>	<b>28.0</b>	<b>38.6</b>	<b>9.1</b>	<b>23.7</b>	<b>24.9</b>	<b>40.8</b>	<b>15.0</b>	<b>23.1</b>	<b>23.3</b>	<b>36.3</b>
Developed Markets	5.3	19.7	19.6	30.6	0.1	15.5	15.8	28.7	5.1	13.9	12.9	25.7
Emerging Markets	0.0	8.8	9.0	15.4	0.0	8.2	8.4	16.5	4.4	9.3	9.3	15.6
<b>Bonds</b>	<b>0.0</b>	<b>12.7</b>	<b>11.8</b>	<b>37.9</b>	<b>0.0</b>	<b>10.5</b>	<b>9.6</b>	<b>28.4</b>	<b>0.0</b>	<b>7.6</b>	<b>7.3</b>	<b>16.4</b>
US Bonds	0.0	11.0	11.7	25.7	0.0	9.8	8.9	28.4	0.0	6.5	6.8	12.7
Global ex US Bonds (DM)	0.0	0.5	0.0	7.6	0.0	0.2	0.0	1.9	0.0	0.3	0.0	2.2
Global ex US Bonds (EM)	-0.1	0.5	0.0	6.2	0.0	0.2	0.0	1.9	0.0	0.2	0.0	4.0
High-Yield Bonds	0.0	0.7	0.0	23.1	0.0	0.2	0.0	6.0	0.0	0.6	0.0	6.2
<b>Hedge Funds</b>	<b>0.0</b>	<b>15.6</b>	<b>16.1</b>	<b>32.2</b>	<b>0.0</b>	<b>14.2</b>	<b>14.3</b>	<b>25.6</b>	<b>0.0</b>	<b>16.2</b>	<b>16.6</b>	<b>26.9</b>
Long/Short Hedge Funds	0.0	4.7	3.4	22.4	0.0	5.8	5.0	15.3	0.0	6.3	6.7	13.2
Absolute Return (ex Distressed)	0.0	10.9	10.6	25.3	0.0	8.3	9.1	16.6	0.0	9.9	9.5	21.4
<b>Distressed Securities</b>	<b>0.0</b>	<b>1.7</b>	<b>0.8</b>	<b>9.8</b>	<b>0.0</b>	<b>2.4</b>	<b>1.9</b>	<b>7.7</b>	<b>0.0</b>	<b>3.2</b>	<b>2.3</b>	<b>9.5</b>
Hedge Fund Structure	0.0	0.9	0.0	8.9	0.0	1.3	0.4	7.7	0.0	1.6	0.9	6.2
Private Equity Structure	0.0	0.8	0.3	3.6	0.0	1.1	1.0	3.1	0.0	1.6	0.8	8.5
<b>PE &amp; VC</b>	<b>0.0</b>	<b>5.8</b>	<b>3.8</b>	<b>28.8</b>	<b>0.0</b>	<b>13.6</b>	<b>9.8</b>	<b>46.4</b>	<b>0.9</b>	<b>17.1</b>	<b>16.8</b>	<b>30.7</b>
Non-Venture Private Equity	0.0	1.8	0.7	11.6	0.0	5.8	4.3	32.1	0.9	7.5	7.6	13.0
Venture Capital	0.0	2.0	0.7	10.9	0.0	7.2	5.1	39.7	0.0	9.2	7.0	23.3
Other Private Investments	0.0	2.0	0.8	23.2	0.0	0.6	0.2	2.6	0.0	0.5	0.0	6.7
<b>Real Assets &amp; Infl-Linked Bonds</b>	<b>0.0</b>	<b>7.1</b>	<b>7.7</b>	<b>15.7</b>	<b>0.1</b>	<b>8.2</b>	<b>7.6</b>	<b>13.6</b>	<b>1.2</b>	<b>10.0</b>	<b>9.8</b>	<b>21.8</b>
Private Real Estate	0.0	1.1	0.4	12.1	0.0	1.7	1.1	5.6	0.0	3.4	2.7	8.9
Public Real Estate	0.0	0.3	0.0	3.1	0.0	0.6	0.0	5.5	0.0	0.4	0.0	3.0
Commodities	0.0	0.9	0.0	10.9	0.0	0.7	0.0	4.6	0.0	0.6	0.0	6.5
Public Energy/Nat Resources	0.0	3.2	2.9	13.5	0.0	2.2	1.5	12.6	0.0	1.1	0.0	7.1
Private O&G/Nat Resources	0.0	1.3	0.8	5.6	0.0	2.6	2.4	8.5	0.0	4.1	3.9	10.6
Timber	0.0	0.1	0.0	2.3	0.0	0.1	0.0	1.1	0.0	0.1	0.0	0.5
Inflation-Linked Bonds	0.0	0.3	0.0	3.5	0.0	0.4	0.0	3.2	0.0	0.3	0.0	3.0
<b>Cash &amp; Equivalents</b>	<b>0.0</b>	<b>3.6</b>	<b>2.8</b>	<b>13.9</b>	<b>0.0</b>	<b>4.6</b>	<b>3.0</b>	<b>21.5</b>	<b>-3.3</b>	<b>3.5</b>	<b>2.5</b>	<b>15.1</b>
<b>Other</b>	<b>0.0</b>	<b>0.7</b>	<b>0.0</b>	<b>16.4</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>	<b>2.8</b>	<b>0.0</b>	<b>0.3</b>	<b>0.0</b>	<b>3.3</b>

Source: Foundation data as reported to Cambridge Associates LLC.

**HISTORICAL ASSET ALLOCATION**

Institutional investors that have adopted the endowment model of investing have seen significant shifts in their asset allocation policies over the last few decades. Exposure to bonds has decreased while the larger equity allocation has become more diversified. The largest endowments pioneered this transition in the 1980s, with the trend spreading among other institutions in the 1990s and then accelerating throughout much of the first decade of the new millennium. By the time that the 2008 financial crisis occurred, many foundations in this study had already built highly diversified portfolios. While there have been some shifts in asset allocations in the decade since the onset of the financial crisis, the changes have been less drastic than what occurred in prior decades.

**PUBLIC EQUITIES.** The last ten years of the data analyzed in this study stretches back to December 31, 2007, and the early stages of the global financial crisis. Average allocations to public equities dropped in 2008 after the steep decline in the global stock market, but ticked back up in subsequent years as the market recovered (Figure 30). For the foundations that provided data over the last decade, the average total public equity allocation at the end of 2017 (48.8%) was nearly identical to the average allocation at the end of 2007 (48.4%). The average decline in US equity allocations (3.2 ppts) over the last decade was offset by an average increase in emerging markets allocations of the same amount. The average allocation to global ex US developed equities in 2017 was nearly the same as ten years prior.

**PRIVATE EQUITY & VENTURE CAPITAL.** Unlike the experience with public equities, private equity allocations actually increased during the global financial crisis. While some of this was attributable to the fact that private valuations did not drop as much as public stocks, it was also a result of the differences in liquidity between the two markets. Whereas institutions could more readily access liquidity from their public equities, the illiquid nature of private investments largely prevented institutions from redeeming funds from private equity during this period. Foundations continued to add to PE/VC allocations after financial crises ended and the average allocation to these assets has nearly doubled over the last decade, increasing from 5.5% to 10.1%.

**BONDS.** The average bond allocation spiked up from 15.0% to 18.1% in 2008, a year in which bonds overwhelmingly outperformed equities. However, allocations trended downward over the next few years as the stock market recovered. By the end of 2017, bonds represented just 10.3% of the average portfolio for the constant universe group. Average allocations to bonds have hovered around 10% for the last five years.

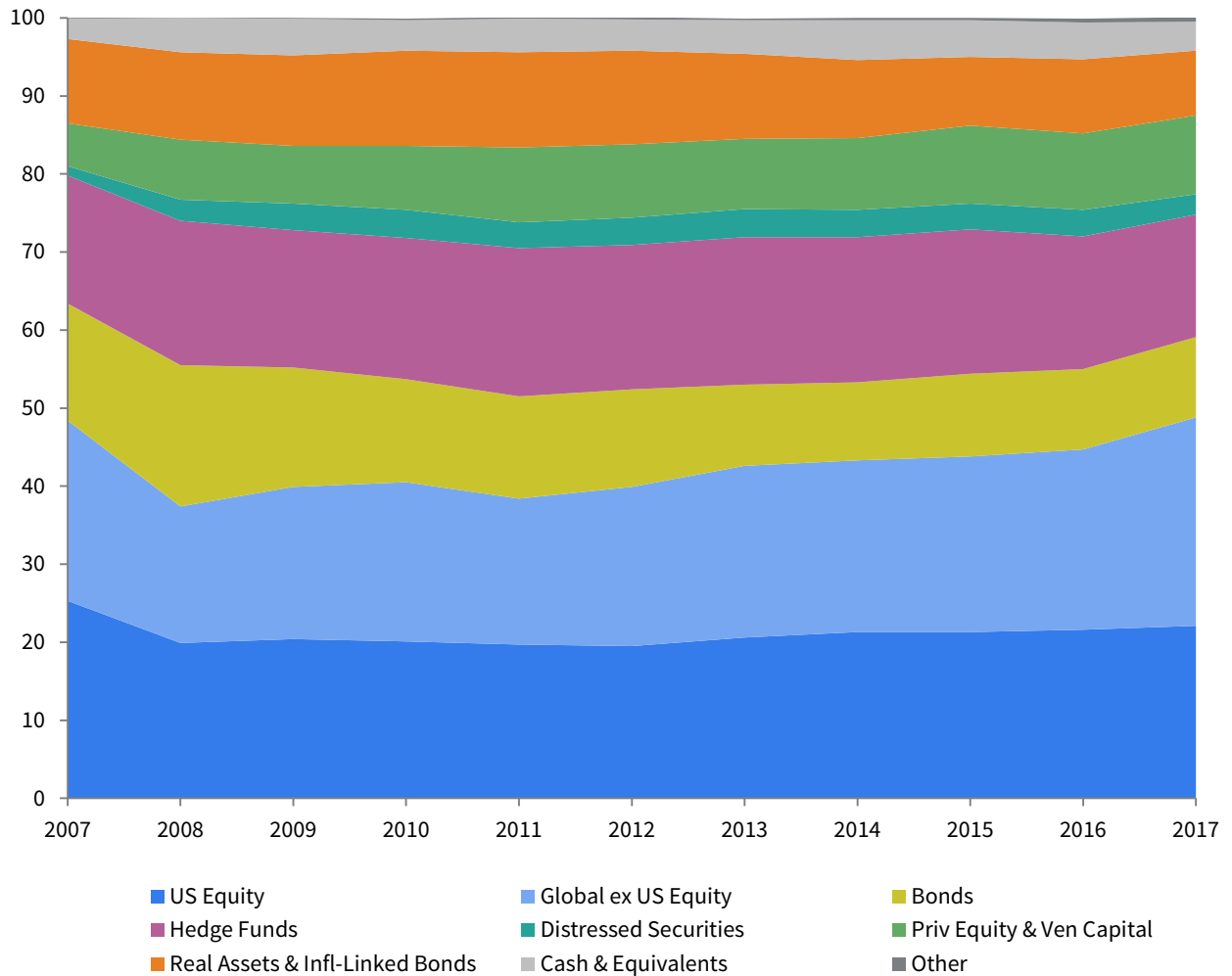
**HEDGE FUNDS.** The average allocation to hedge funds jumped up by over 2 ppts from 2007 to 2008. Allocations then fluctuated within a relatively narrow range from 2008 to 2015 before trending downward. Hedge funds have experienced the largest average decline in allocation of all the asset classes over the last two years, falling by an average of 2.8 ppts since the end of 2015.

**REAL ASSETS.** Real assets represented 10.8% of the average portfolio at the beginning of the last decade. By 2011, the average allocation to these assets had increased to 12.2%. However, the average allocation to real assets has declined in all but one year since 2011 and represented just 8.3% of the average portfolio in the constant universe group at the end of 2017.

Figure 31 breaks the overall constant universe down into the three broad asset size groups and shows the average asset allocation in 2007, 2012, and 2017.

**FIGURE 30. HISTORICAL MEAN ASSET ALLOCATION TRENDS**

Years Ended December 31 • Percent (%)



	Constant Universe											All Fdn
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017
US Equity	25.3	19.9	20.4	20.1	19.7	19.5	20.6	21.3	21.3	21.6	22.1	22.7
Global ex US Equity	23.1	17.5	19.5	20.4	18.7	20.4	22.0	22.0	22.5	23.1	26.7	26.2
<i>Developed Markets</i>	17.0	13.4	13.7	13.7	12.3	13.1	14.6	14.1	15.3	15.3	17.4	17.4
<i>Emerging Markets</i>	6.1	4.1	5.8	6.7	6.4	7.3	7.4	7.9	7.2	7.8	9.3	8.8
Bonds	15.0	18.1	15.3	13.2	13.1	12.5	10.4	10.0	10.6	10.3	10.3	11.0
Hedge Funds	16.4	18.5	17.6	18.1	19.0	18.5	18.9	18.6	18.5	17.0	15.7	15.4
Distressed Securities	1.2	2.7	3.4	3.6	3.3	3.5	3.6	3.5	3.3	3.4	2.6	2.2
Priv Equity & Ven Capital	5.5	7.7	7.4	8.2	9.6	9.4	9.0	9.2	10.0	9.8	10.1	10.1
Real Assets & Infl-Linked Bonds	10.8	11.2	11.6	12.2	12.2	12.0	10.9	10.0	8.8	9.5	8.3	8.0
Cash & Equivalents	2.6	4.4	4.7	3.9	4.3	4.0	4.3	5.1	4.7	4.7	3.7	3.8
Other	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.3	0.3	0.5	0.6	0.5

Source: Foundation data as reported to Cambridge Associates LLC.

Notes: Constant universe represents 61 institutions that provided asset allocation data for each year from 2007 to 2017. All Fdn represents 111 institutions that provided 2017 data.



**FIGURE 31. TRENDS IN ASSET ALLOCATION BY ASSET SIZE**

Equal-Weighted Means as of December 31 • Percent (%)

	US	Global ex US			Bonds	Hedge Funds	Dist Sec	PE & VC	RA & ILBs	Cash & Equiv
	Equity	Total	Dev	EM						
<b>Under \$300M (n = 31)</b>										
2007	24.5	23.7	18.1	5.6	16.9	16.2	0.7	4.4	10.8	2.7
2012	20.1	20.8	14.2	6.6	15.0	18.0	3.0	7.3	11.1	4.4
2017	23.6	28.2	19.1	9.0	11.8	14.8	2.2	7.0	7.2	4.2
Change (ppt)										
2012–2017	3.5	7.3	4.9	2.5	-3.2	-3.2	-0.8	-0.3	-3.9	-0.2
2007–2017	-0.9	4.4	1.0	3.4	-5.1	-1.4	1.5	2.6	-3.6	1.5
<b>\$300M – \$1B (n = 11)</b>										
2007	31.8	23.1	17.4	5.7	15.1	14.5	1.1	2.0	10.7	1.5
2012	23.1	23.5	16.0	7.5	10.8	19.2	3.5	5.8	11.5	2.5
2017	21.5	27.7	18.5	9.3	9.0	17.9	2.9	9.0	9.3	2.7
Change (ppt)										
2012–2017	-1.6	4.3	2.5	1.8	-1.8	-1.3	-0.5	3.3	-2.2	0.2
2007–2017	-10.4	4.6	1.0	3.6	-6.1	3.4	1.8	7.0	-1.4	1.2
<b>Over \$1B (n = 19)</b>										
2007	22.7	22.1	15.0	7.1	12.0	17.8	2.1	9.2	11.0	3.0
2012	16.4	17.9	9.7	8.2	9.4	19.0	4.3	14.8	13.8	4.1
2017	19.9	23.8	14.0	9.7	8.4	15.7	3.1	15.7	9.5	3.5
Change (ppt)										
2012–2017	3.5	5.9	4.4	1.5	-1.0	-3.2	-1.2	0.9	-4.3	-0.6
2007–2017	-2.8	1.6	-1.0	2.6	-3.6	-2.0	1.0	6.6	-1.5	0.5

Source: Foundation data as reported to Cambridge Associates LLC.

Note: Asset sizes are based on December 31, 2017, data.

**TARGET ASSET ALLOCATION**

Though long-term asset allocation trends clearly show how investment policies have evolved over time, one-year changes in actual allocations can be influenced by factors such as asset returns and rebalancing flows. Using shorter-term asset allocation data can be misleading in determining whether institutions are altering their long-term asset allocation policies. For instance from 2016 to 2017, the average allocation to emerging markets equities increased by 1.5 ppts (Figure 30). Yet, the average target allocation to emerging markets equities increased by less than 0.1 ppt over the same period. It was the extraordinary performance of the asset class that was most responsible for the increase in emerging market equity allocations year-over-year.

Target allocation data are more insightful in revealing how institutions have adjusted their long-term asset allocation policies over the last year. Most survey participants (105 of 111) provided target asset allocation data for 2017. Institutions construct their target asset allocation mix under different frameworks. Of the 105 foundations that

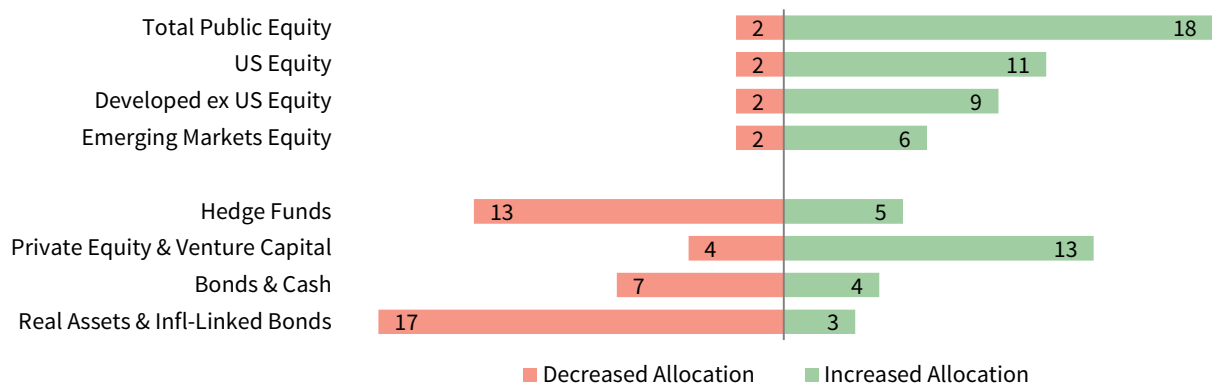
provided target asset allocation data, 85% reported data using the traditional asset allocation–centered structure. The remaining foundations reported data using other frameworks, including role-in-portfolio. Under the role-in-portfolio framework, targets are set to broad categories based on the roles that certain investments are expected to play in the portfolio (e.g., growth, deflation-hedging, diversifier).

Our trend analysis on this topic focuses on foundations that reported under the traditional asset allocation–centered framework. Just over one-third of foundations (36%) made a change to their policy targets in 2017. Foundations with larger portfolios were most likely to make changes to their policy targets (40%) followed by smaller portfolios (35%) and mid-sized portfolios (33%).

As shown in Figure 32, many foundations are increasing the equity exposure in their portfolio. Almost one in five respondents (18%) increased their overall target to public equity asset classes, while just 2% lowered their target. For private equity and venture capital, 13% of foundations raised their target allocation in 2017 versus just 4% that lowered their target. Among the other broad asset class categories, the proportion of foundations that lowered their hedge fund target (13%) was more than double the proportion that reported increases. Meanwhile as in the last few years, the proportion of institutions lowering their targets to real assets was considerably higher than the proportion that increased their target allocation. Figure 33 shows detailed data by asset size.

**FIGURE 32. CHANGES IN TARGET ASSET ALLOCATION**

December 31, 2016 – December 31, 2017 • Percentage of Foundations Increasing or Decreasing Targets



Source: Foundation data as reported to Cambridge Associates LLC.

Note: Exhibit represents data for 81 foundations that provided target asset allocation data for 2016 and 2017. Only foundations that provided targets by geographic region are included in the statistics for US equity, global ex US equity, and emerging markets equity. Total public equity is a composite of global equity and the aforementioned geographic regions. Real assets includes targets to both public and private assets.

**FIGURE 33. CHANGES IN TARGET ASSET ALLOCATION BY ASSET SIZE**

December 31, 2016 – December 31, 2017

	Total Equity	US Equity	DM ex US Equity	EM Equity	Hedge Funds	PE & VC	Bonds & Cash	RA & ILBs	Other
<b>Under \$300M (n = 43)</b>									
Mean Target AA (%)									
2016	47.0	22.3	17.6	7.5	19.2	7.6	16.1	9.7	0.5
2017	48.0	23.2	18.0	7.6	18.4	8.4	15.9	8.8	0.5
% of Inst Making Changes to Targets									
Increased	26	28	25	13	7	19	7	2	0
Decreased	2	0	0	4	19	5	12	19	0
<b>\$300M – \$1B (n = 18)</b>									
Mean Target AA (%)									
2016	46.2	24.8	15.0	8.0	14.6	14.8	14.7	9.2	0.6
2017	46.9	24.4	15.4	7.9	13.5	15.6	14.4	9.1	0.4
% of Inst Making Changes to Targets									
Increased	22	0	9	0	6	11	0	6	6
Decreased	6	8	0	10	11	0	6	28	6
<b>Over \$1B (n = 20)</b>									
Mean Target AA (%)									
2016	37.8	16.0	12.6	7.3	19.8	16.0	11.5	12.6	2.3
2017	38.3	16.5	12.3	7.5	19.3	16.1	11.5	12.4	2.4
% of Inst Making Changes to Targets									
Increased	15	23	17	23	5	15	5	5	5
Decreased	0	8	17	0	15	10	5	20	0

Source: Foundation data as reported to Cambridge Associates LLC.

**PRIVATE INVESTMENTS AND UNCALLED CAPITAL COMMITMENTS**

One of the core principles of the endowment model is the use of private investments that, in part due to their illiquid nature, offer the potential for higher long-term returns than those of public equities. Participating foundations, particularly those with larger asset sizes, allocate a significant portion of their portfolios to private investments.<sup>6</sup> The average allocation to private investments for all participants was 15.2%, while those with portfolios greater than \$1 billion had an average allocation of 26.3% (Figure 29).

Investors should be mindful of the liquidity implications of investing in and funding a private investments program. Uncalled capital represents a commitment of capital to be funded in the future. Although annual spending distributions usually represent the biggest liquidity need of a portfolio, institutions with private investment programs must also consider the potential impact of uncalled capital commitments.

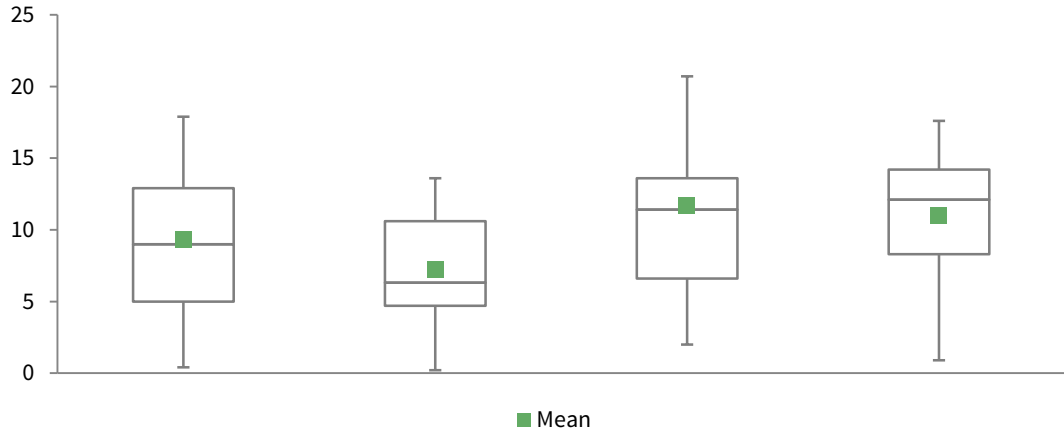
For participants with private investment programs, the median ratio of uncalled capital commitments to the total LTIP value was 9.0% at the end of 2017 (Figure 34). Foundations with larger asset sizes tend to have a higher ratio. The median ratio

<sup>6</sup> Private investments include private equity, venture capital, private distressed securities, private real estate, private oil & gas/natural resources, and timber.

**FIGURE 34. UNCALLED CAPITAL COMMITTED TO PRIVATE INVESTMENT FUNDS**

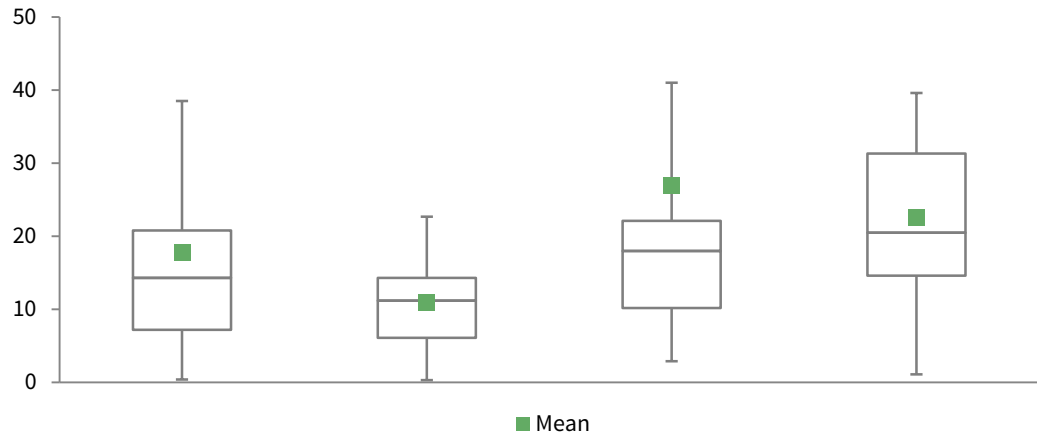
As of December 31, 2017 • Percent (%)

**Uncalled Capital Commitments as a Percentage of the Total LTIP**



	All Institutions	Under \$300M	\$300M – \$1B	Over \$1B
5th Percentile	17.9	13.6	20.7	17.6
25th Percentile	12.9	10.6	13.6	14.2
Median	9.0	6.3	11.4	12.1
75th Percentile	5.0	4.7	6.6	8.3
95th Percentile	0.4	0.2	2.0	0.9
Mean	9.3	7.2	11.7	11.0
<i>n</i>	91	45	21	25

**Uncalled Capital Commitments as a Percentage of the LTIP's Liquid Assets**



	All Institutions	Under \$300M	\$300M – \$1B	Over \$1B
5th Percentile	38.5	22.7	41.0	39.6
25th Percentile	20.8	14.3	22.1	31.3
Median	14.3	11.2	18.0	20.5
75th Percentile	7.2	6.1	10.2	14.6
95th Percentile	0.4	0.3	2.9	1.1
Mean	17.8	10.9	26.9	22.5
<i>n</i>	91	45	21	25

Source: Foundation data as reported to Cambridge Associates LLC.

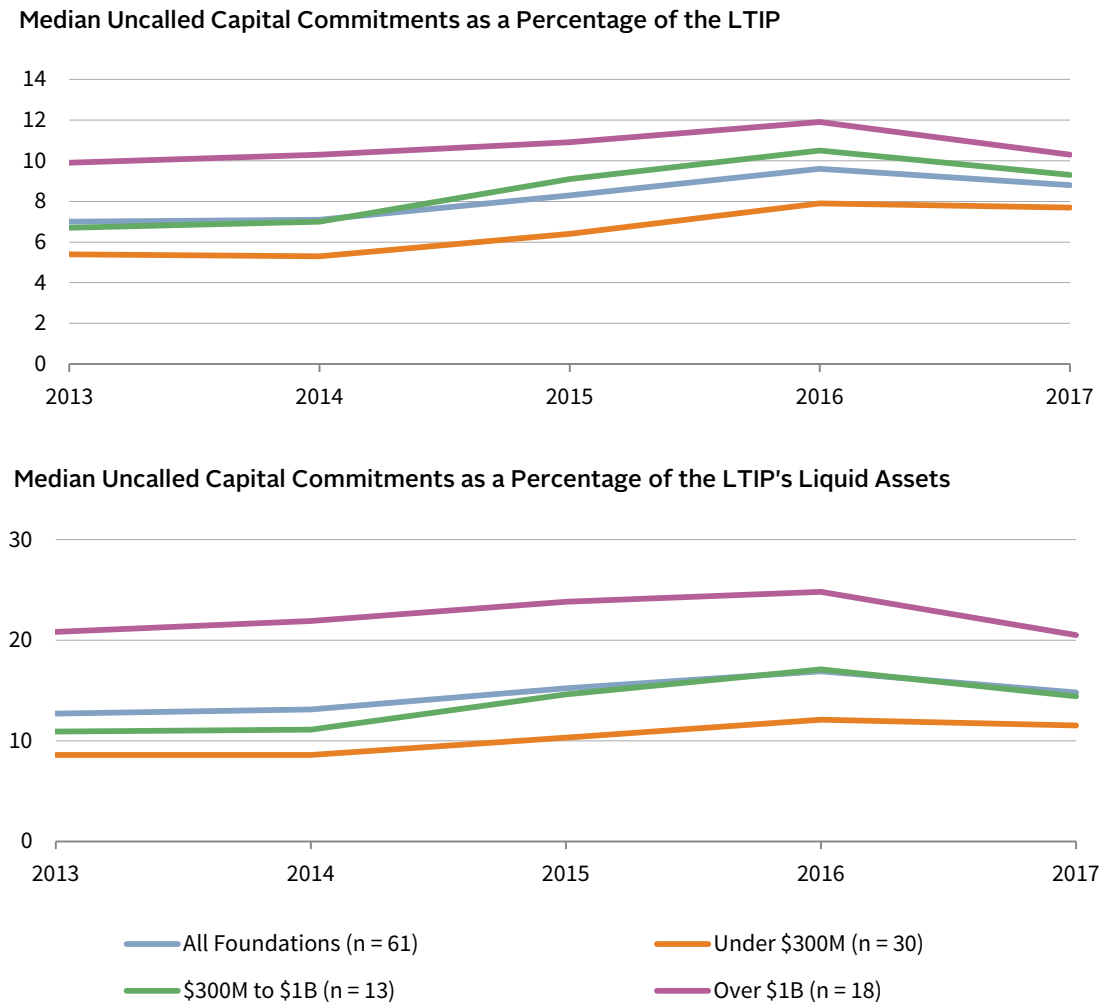
Notes: Uncalled capital is the amount committed, but not yet paid in, to private investment funds. Liquid assets consist of all LTIP assets excluding hedge funds and private investments. Private investments include non-venture private equity, venture capital, distressed securities (private equity structure), private oil & gas/natural resources, private real estate, and timber.

was 12.1% for foundations with asset sizes greater than \$1 billion and 11.4% for those with assets between \$300 million and \$1 billion. The smallest foundations reported a median ratio of just 6.3%.

Larger portfolios also tend to have a higher ratio of uncalled capital commitments to the LTIP's total liquid assets, which exclude hedge funds and private investments. For foundations with asset sizes greater than \$1 billion, the median ratio of uncalled capital commitments to total liquid assets was 20.5%. For institutions with asset sizes under \$300 million, the median ratio was 11.2% (Figure 34).

Both of the aforementioned median ratios were lower in 2017 compared to 2016 for all asset size subgroups, with the largest foundations seeing substantial declines (Figure 35). This was a result of portfolio asset values growing at a much higher rate than the amount of uncalled capital commitments over the last year. Among foundations over

**FIGURE 35. TREND IN UNCALLED CAPITAL COMMITMENTS TO PRIVATE INVESTMENT FUNDS**  
Years Ended December 31 • Percent (%)



Source: Foundation data as reported to Cambridge Associates LLC.

Notes: Uncalled capital is the amount committed, but not yet paid in, to private investment funds. Liquid assets consist of all LTIP assets excluding hedge funds and private investments. Private investments include non-venture private equity, venture capital, distressed securities (private equity structure), private oil & gas/natural resources, private real estate, and timber.

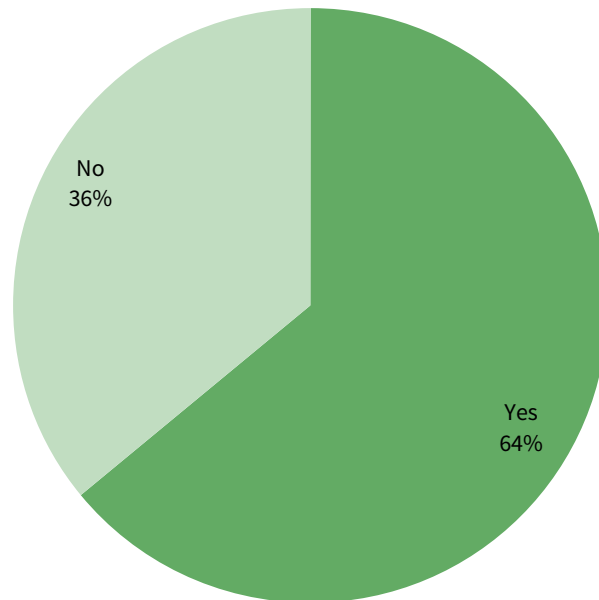
\$1 billion, the value of liquid assets and total portfolio assets grew over the last year by a median rate of 16.0% and 12.0%, respectively. In contrast, the median change in the amount of uncalled capital commitments among these large foundations was an increase of just 2.8%.

In 2017, approximately two-thirds (64%) of foundations reported that their private investment programs were cash flow positive, meaning the amount of fund distributions was higher than paid-in capital calls (Figure 36). For participants whose private investment fund distributions are not enough to offset new capital calls, the remaining funding of capital calls has to come from cash reserves or other liquidity sources, which could include proceeds from sales of other investment assets in the LTIP.

**FIGURE 36. PRIVATE INVESTMENT PROGRAM CASH FLOW**

As of December 31, 2017 • n = 94

**Was Your Private Investment Program Cash Flow Positive in 2016?**



**By Asset Size**

	Yes	No
Under \$300M	62%	38%
<i>n</i>	29	18
\$300M – \$1B	50%	50%
<i>n</i>	11	11
Over \$1B	80%	20%
<i>n</i>	20	5

Source: Foundation data as reported to Cambridge Associates LLC.

Note: Private investment fund programs were considered cash flow positive if fund distributions were higher than paid in capital calls in 2017.

## Investment Manager Structures

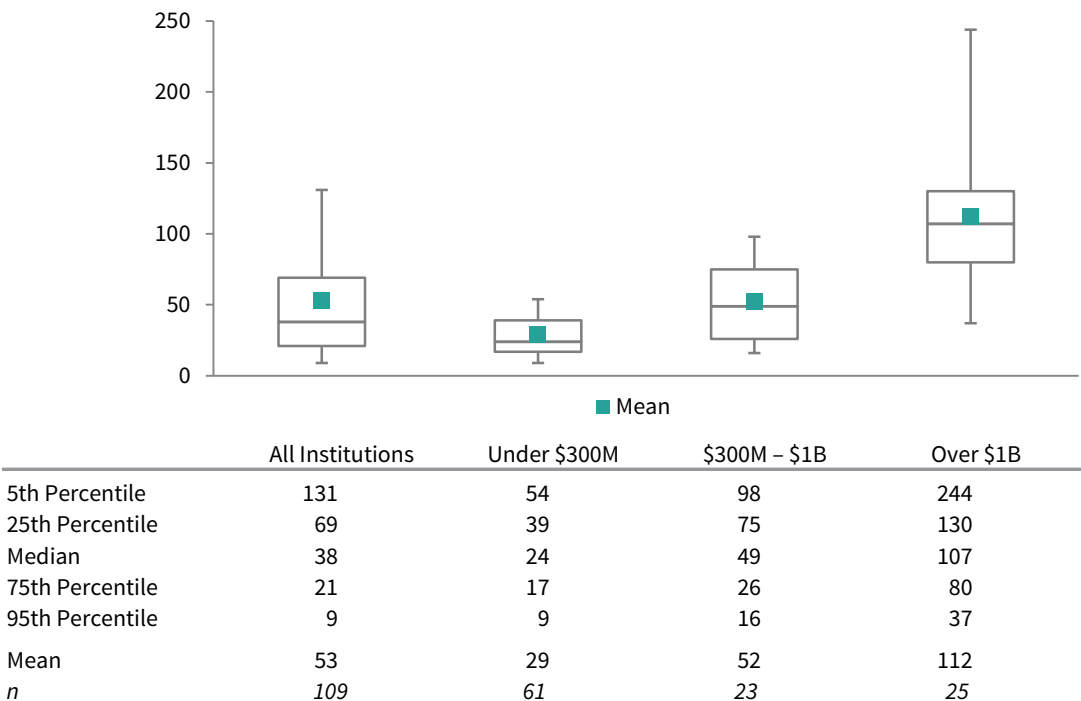
### NUMBER OF EXTERNAL MANAGERS

Many factors contribute to the number of managers employed within an investment portfolio. The scale of total assets under management is a primary factor, as portfolios with more assets generally spread their assets across a greater number of managers. On average, foundations with assets over \$1 billion employed 112 external investment managers in 2017 (Figure 37). In contrast, mid-sized portfolios had an average of 52 managers, and smaller portfolios reported even fewer (29). For foundations that have provided historical data, the average number of external managers was higher in 2017 than it was five years ago for all foundations (Figure 38). However, compared to one year ago, the average number of managers in 2017 was lower for larger foundations while slightly higher for the other asset size groups.

Even within the broad asset size groups, the range of managers employed can be wide. Within the smallest portfolios, the number of managers employed at the 25th percentile (39) was more than double the number used at the 75th percentile (17) (Figure 37). For portfolios over \$1 billion, 244 managers were employed at the 5th percentile compared to just 37 at the 95th percentile. Much of the variation can be attributed to the management of alternative asset classes. As Figure 39 shows, the dispersion in the number of alternative asset managers employed, particularly within private investments, is much wider than that of the more traditional equity and bond asset classes. Further detail on these and other asset classes are provided for the three broad asset size groups in Figure 40.

**FIGURE 37. NUMBER OF EXTERNAL MANAGERS**

As of December 31, 2017

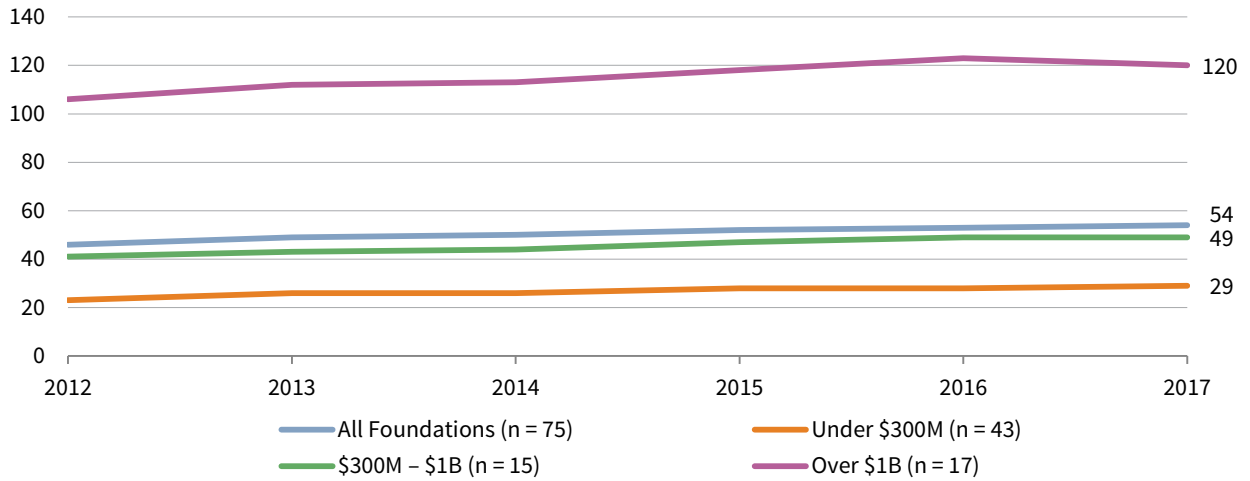


Source: Foundation data as reported to Cambridge Associates LLC.

Note: Funds-of-funds are counted as one separate investment manager.

**FIGURE 38. TREND IN NUMBER OF AVERAGE EXTERNAL MANAGERS**

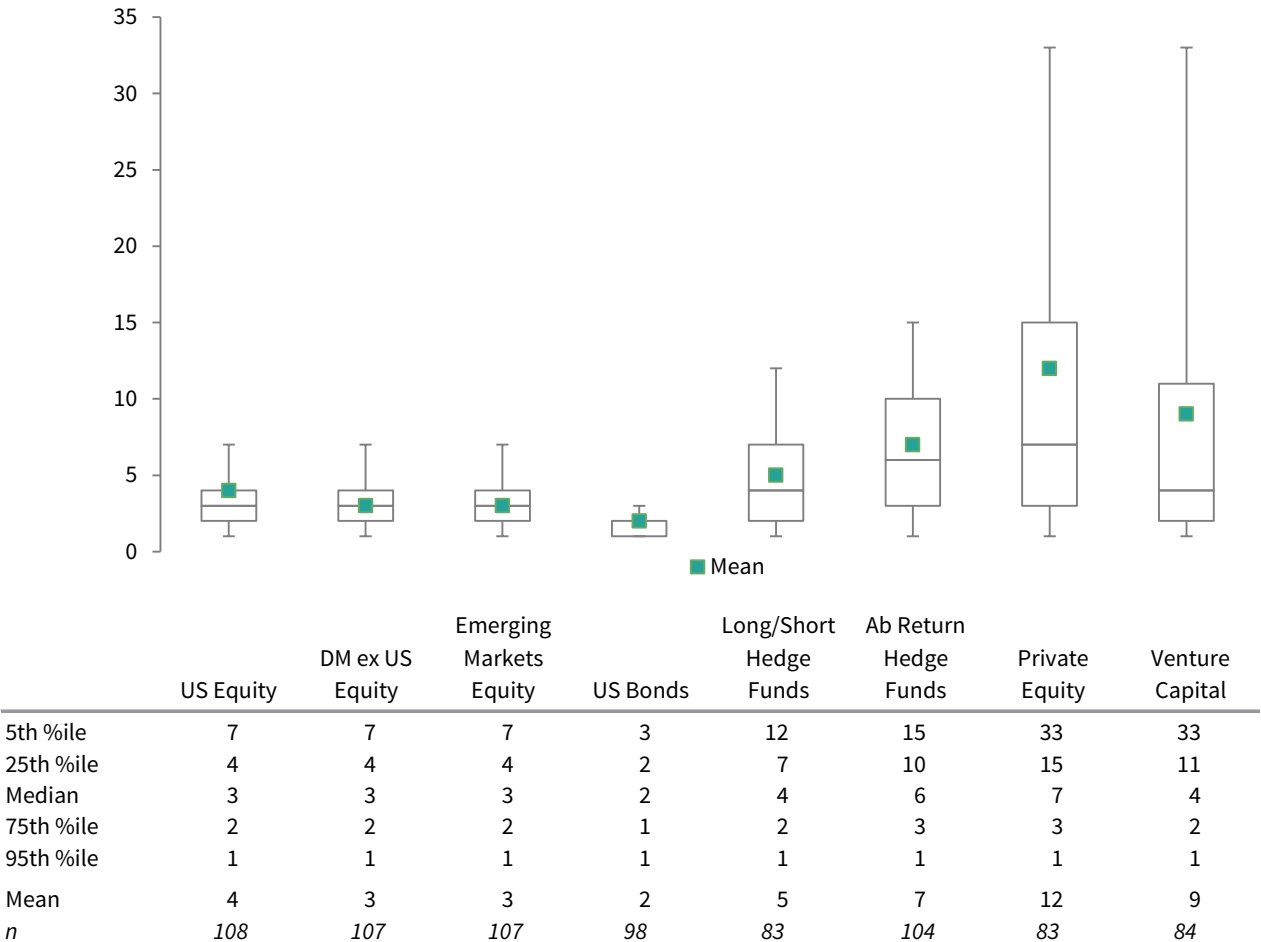
2012-17



Source: Foundation data as reported to Cambridge Associates LLC.

**FIGURE 39. DISPERSION IN NUMBER OF MANAGERS FOR SELECTED ASSET CLASSES**

As of December 31, 2017



Source: Foundation data as reported to Cambridge Associates LLC.

Notes: Only those institutions with an allocation to the specific asset class have been included. Funds-of-funds are counted as one manager.



## FIGURE 40. EXTERNAL MANAGERS BY STRATEGY

As of December 31, 2017

Strategy	Under \$300M		\$300M – \$1B		Over \$1B	
	Average Number of Managers	<i>n</i>	Average Number of Managers	<i>n</i>	Average Number of Managers	<i>n</i>
<b>Traditional Equity</b>						
Global Equity	2	40	2	15	4	18
US Equity	3	60	4	23	5	25
Developed ex US Equity	3	60	3	22	5	25
Emerging Markets Equity	3	60	3	22	5	25
<b>Traditional Bonds</b>						
Global Bonds	1	19	1	5	2	6
US Bonds	2	58	2	20	2	20
Developed ex US Bonds	1	1	2	1	2	2
Emerging Markets Bonds	2	2	-	-	1	2
High-Yield Bonds	1	8	7	1	3	5
<b>Hedge Funds</b>						
Long/Short Hedge Funds	3	41	6	20	8	22
Absolute Return (ex Dist Securities)	5	59	8	21	10	24
<b>Distressed Securities</b>						
Distressed (Hedge Fund Structure)	1	19	2	13	3	16
Distressed (Private Equity Structure)	2	35	3	20	8	17
<b>Private Investments</b>						
Non-Venture Private Equity	4	36	8	22	25	25
Venture Capital	3	41	8	19	20	24
Other Private Investments	2	40	2	15	4	9
<b>Real Assets &amp; ILBs</b>						
Private Real Estate	2	32	5	18	13	24
Public Real Estate	1	9	1	5	1	7
Commodities	1	12	1	9	4	5
Inflation-Linked Bonds (TIPS)	1	5	1	4	1	3
Private Oil & Gas / Natural Resources	2	35	6	17	11	23
Timber	1	5	2	6	2	9
Public Energy/Natural Resources	2	43	2	15	2	8
Diversified (Multi-Strategy) RA	1	2	-	-	-	-
<b>Cash (Dedicated Cash Managers Only)</b>	1	18	1	11	1	12
<b>Tactical Asset Allocation</b>	1	14	1	2	1	1
<b>Other</b>	1	2	1	1	16	2

Source: Foundation data as reported to Cambridge Associates LLC.

Notes: *n* indicates the number of foundations that are included in the average number of managers. Only those institutions with an allocation to the specific asset class are included in each category. As a result, the sum of the individual asset classes will not equal the true total average of managers.

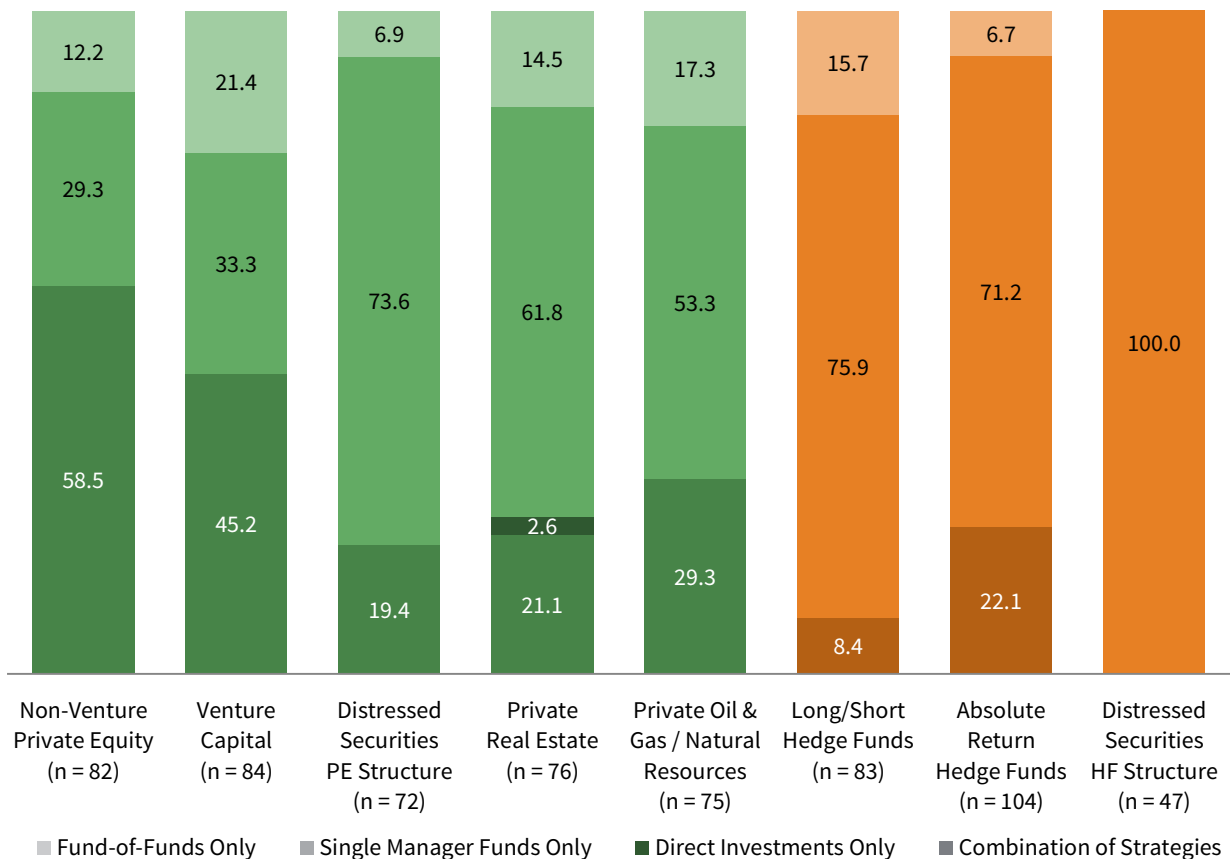
## ASSET CLASS IMPLEMENTATION

**ALTERNATIVE ASSETS.** Institutions can use different strategies when it comes to implementing their alternative asset allocations. For hedge funds, there are two primary types of investment vehicles that institutions use. A single manager fund is a type of investment vehicle where the investment manager makes the decisions for the securities and assets held within the fund. In contrast, a fund-of-funds is a type of strategy where the investment manager invests in a collection of other investment funds. Within each of the hedge fund categories in our asset allocation framework, the vast majority of institutions solely use single manager funds to implement their allocations (Figure 41).

Implementation practices are more varied across private investment asset classes. A combination of single manager funds and funds-of-funds was most prevalent for non-venture private equity (59% of respondents) and venture capital (45%). Among these foundations that use a combination of strategies, single manager funds made up an average of 64% and 52% of the non-venture private equity and venture capital allocations, respectively.

**FIGURE 41. PORTFOLIO IMPLEMENTATION: PRIVATE INVESTMENTS AND HEDGE FUNDS**

As of December 31, 2017 • Percent (%)



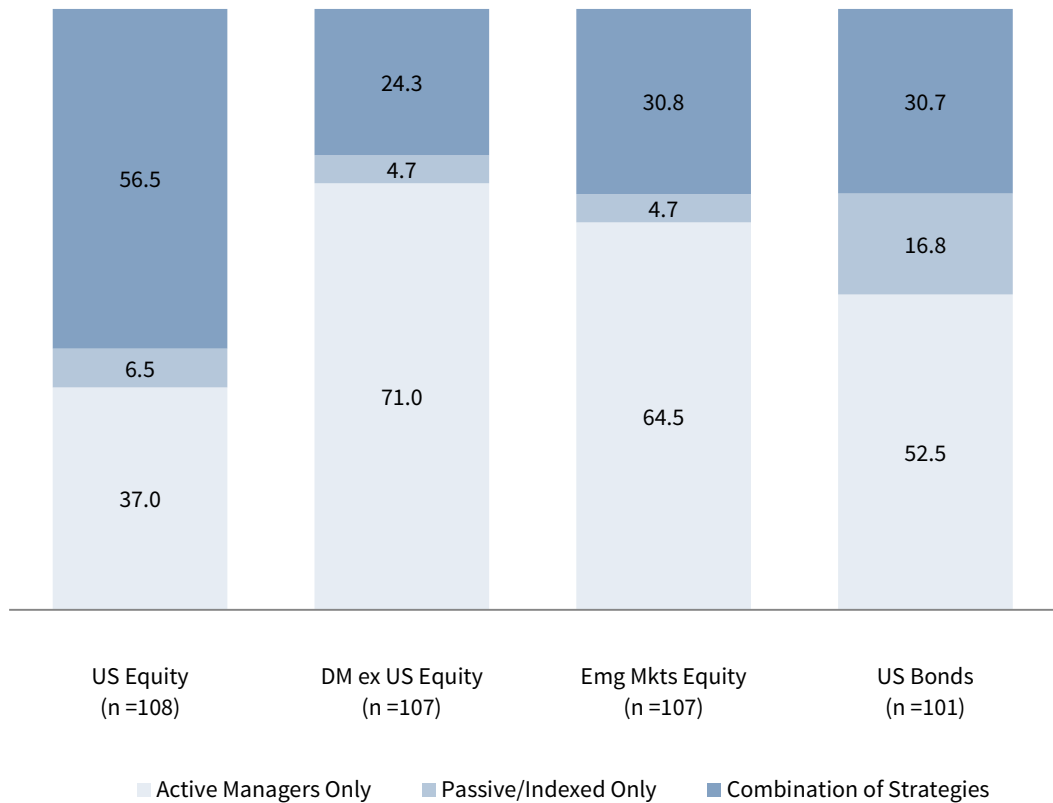
Source: Foundation data as reported to Cambridge Associates LLC.

Note: *n* represents the number of institutions that provided the portfolio implementation for each asset class.

A sole reliance upon single manager funds was reported by a majority of foundations for private distressed securities (74%), private real estate (62%), and private oil & gas/natural resources (53%). Smaller portfolios generally employ more funds-of-funds managers than larger portfolios in all private investment asset classes.

**PUBLIC EQUITIES AND BONDS.** Of the foundations that provided implementation data on traditional asset classes, 37% used active managers for all of their US equity allocation, while most (57%) use a combination of active and passive implementation (Figure 42). Among those that use a combination of strategies, an average of 64% of the US equity allocation was implemented through active management. Global ex US developed equities and emerging markets allocations were achieved solely through active managers for 71% and 65% of respondents, respectively. For US bonds, 53% of respondents used only active managers for their allocation.

**FIGURE 42. PORTFOLIO IMPLEMENTATION: TRADITIONAL EQUITIES AND BONDS**  
As of December 31, 2017 • Percent (%)



Source: Foundation data as reported to Cambridge Associates LLC.

Note: *n* represents the number of institutions that provided the portfolio implementation for each asset class.

## Payout from the Long-Term Investment Portfolio

### SPENDING REQUIREMENTS

While all foundations are charitable organizations, specific characteristics and objectives help to distinguish foundations into three broad classification types.

Private foundations, which generally receive funding from a single donor, are defined by the IRS as one of two types: operating or non-operating. Both must meet an annual spending requirement, but each is subject to different conditions that determine the minimum spending amount.

- **PRIVATE NON-OPERATING FOUNDATIONS.** Private non-operating foundations, which make up the majority of participants in this study, are required to make qualifying distributions of at least 5% of their asset value every year. They function primarily as grant-making organizations, providing funding and support to other charitable organizations.
- **PRIVATE OPERATING FOUNDATIONS.** In contrast, private operating foundations are established not with the intention to fund grants to outside organizations, but to provide funding and support to the foundation's own programs and activities. Bound by an annual spending requirement, private operating foundations are subject to specific guidelines that determine the minimum required distribution.
- **COMMUNITY FOUNDATIONS.** Community foundations are a type of public charity, deriving funds from many donors rather than a single source. They mainly function as grant-making organizations, funding charitable support in the immediate region or locality where they are located. Community foundations are not subject to a minimum spending requirement.

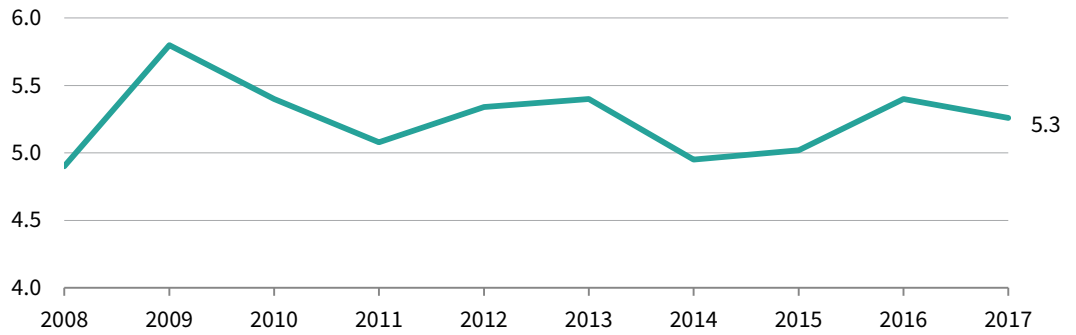
### PAYOUT RATES

Annual spending distributions are withdrawn from investment assets to fund grants, as well as to fund direct charitable programs, program-related investments, and administrative expenses related to charitable purposes. The payout rate in this study is the annual spending distribution as a percentage of the beginning year market value of the long-term investment portfolio.

For the 67 private non-operating foundations that provided data in 2017, the median payout rate was 5.4%. As shown in Figure 43, when looking at a constant universe of 25 foundations that provided data from 2008 to 2017, the median payout for 2017 was near the middle of the median rates reported over the last ten years. The median payout rate for the nine community foundations that provided data for 2017 was 5.6%, while the median for the three operating foundations was 5.1%.

**FIGURE 43. MEDIAN ANNUAL PAYOUT RATE**

2008–17 • Percent (%)



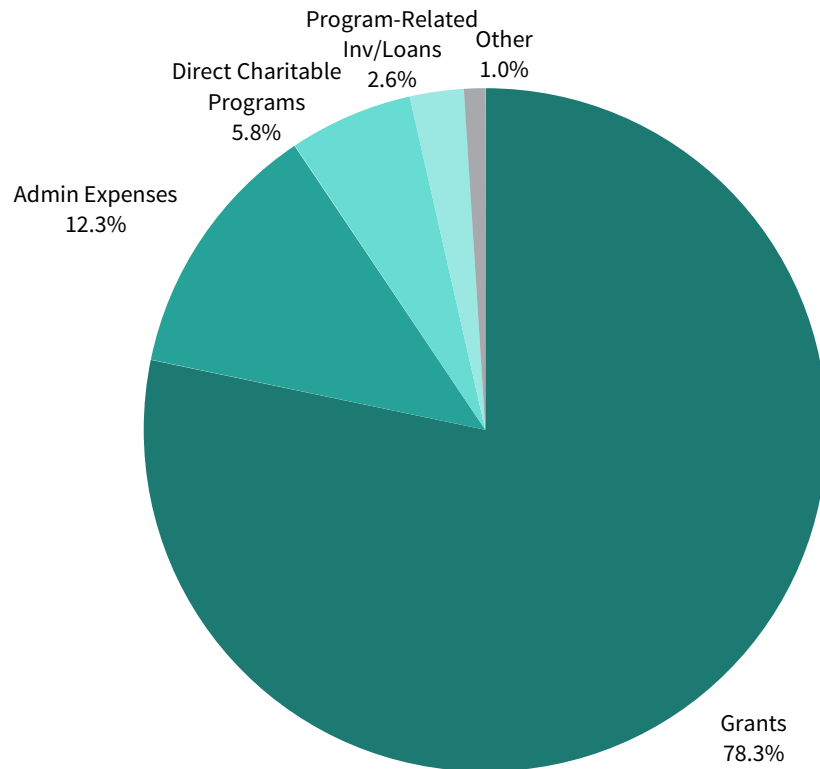
Source: Foundation data as reported to Cambridge Associates LLC.

Note: Data represent the average of 25 private non-operating foundations that provided payout rates for each year from 2008 to 2017.

**COMPONENTS OF PAYOUT.** Figure 44 takes a detailed look at the different components that compose the annual payout distribution for private non-operating foundations. Grants are the single largest component of annual payout, making up an average of 78%. Administrative expenses were the next largest component, representing about 12% of total payout. For the four community foundations that provided data, grants also made up the vast majority of payout (91%).

**FIGURE 44. COMPONENTS OF PAYOUT DISTRIBUTION**

2017 • Percent (%) of Total Payout



Source: Foundation data as reported to Cambridge Associates LLC.

Note: Analysis included data for 56 private non-operating foundations.

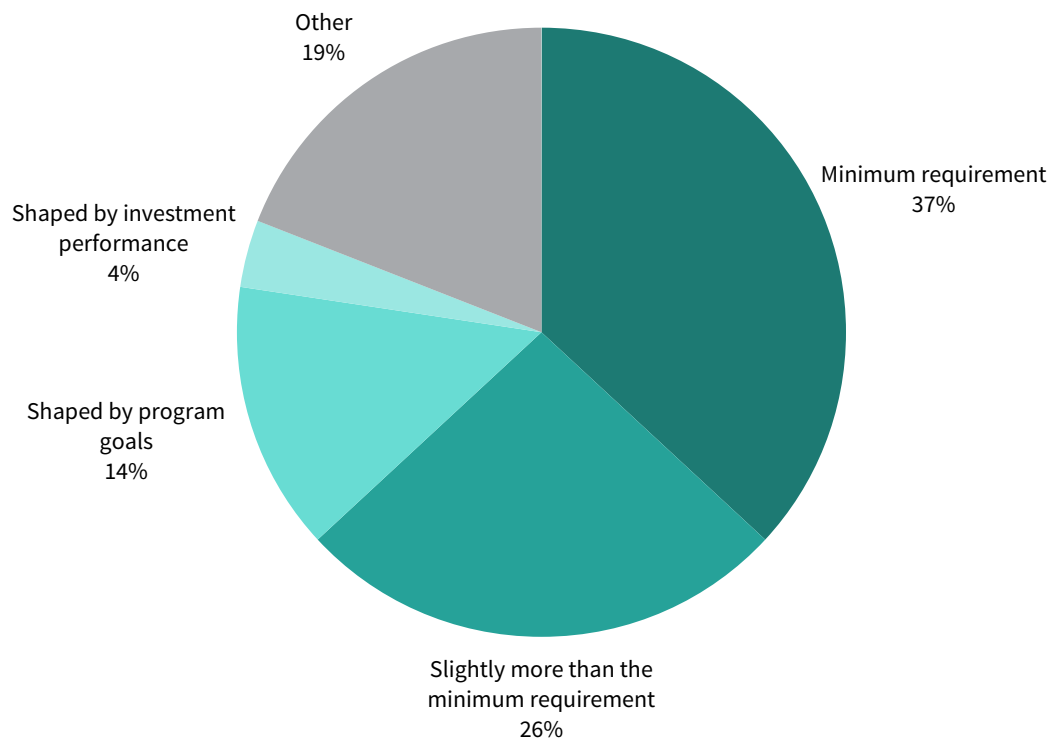
## PAYOUT OBJECTIVES

Of the 84 private non-operating foundations that provided information about their payout objective, 37% indicated that their objective is to pay out the minimum required distribution (or 5% of assets). An additional 26% reported an objective of paying out slightly more than the minimum required distribution, 14% had an objective shaped mainly by program goals, 4% had a payout objective shaped mainly by investment performance, and 19% reported their objective was something other than the aforementioned objectives (Figure 45).

Of the nine community foundations in this study that provided a payout objective, two indicated that their objective was shaped mainly by program goals and another two stated that payout was shaped mainly by investment performance. The remaining five community foundations reported some other objective.

Three private operating foundations stated their payout objective was to pay out slightly more than the legal requirement, and one reported some other objective.

**FIGURE 45. PAYOUT POLICY OBJECTIVES FOR PRIVATE NON-OPERATING FOUNDATIONS**  
2017 • n = 84



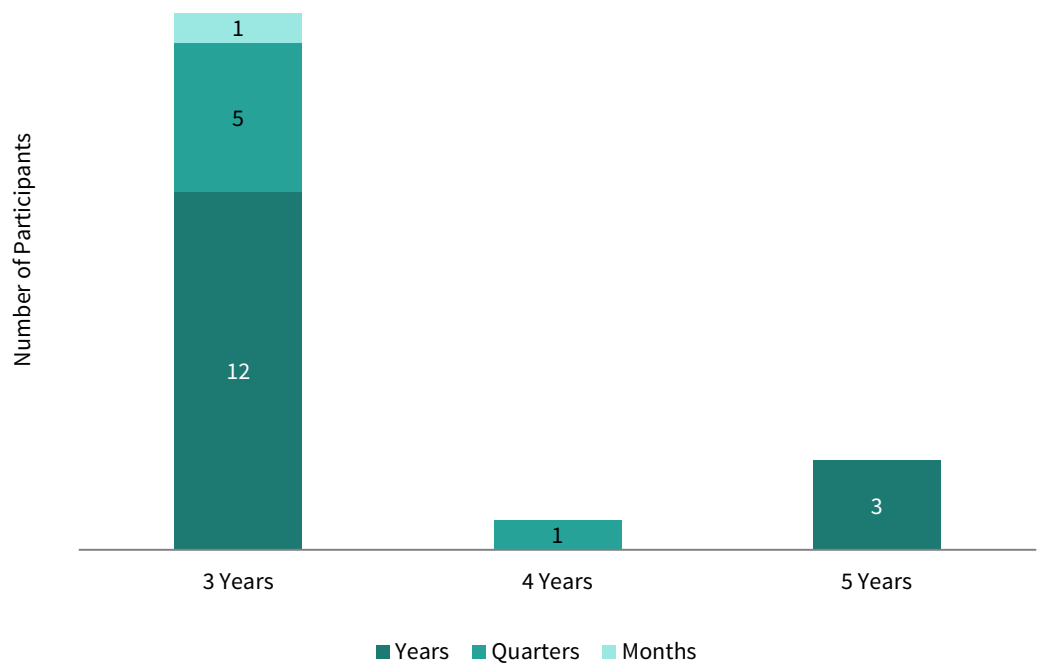
Source: Foundation data as reported to Cambridge Associates LLC.

**SMOOTHING RULE.** In an effort to avoid fluctuations in their annual spending budget, some foundations will employ a smoothing rule, usually spending a targeted percentage of a moving-average of market values. This helps to bring stability to annual spending distributions, allowing foundations to better forecast future expenditures without the risk of compromising the long-term viability of the portfolio. The use of carryover credits and payments assists private foundations in avoiding penalties in years where underspending may occur.

There were 22 private non-operating foundations in this study that indicated the use of a market value-based smoothing rule to help contain year-to-year spending. A target spending rate of 5.0% was used by 64% of these foundations, while the remaining foundations reported a target rate above 5.0%. Smoothing periods ranged from three to five years (Figure 46).

**FIGURE 46. SPENDING POLICY: SMOOTHING PERIODS**

December 31, 2017



Source: Foundation data as reported to Cambridge Associates LLC.

Note. Data represents 22 private non-operating foundations that indicated the use of a market value-based smoothing rule.

## Investment Office Staffing and Governance

### STAFFING

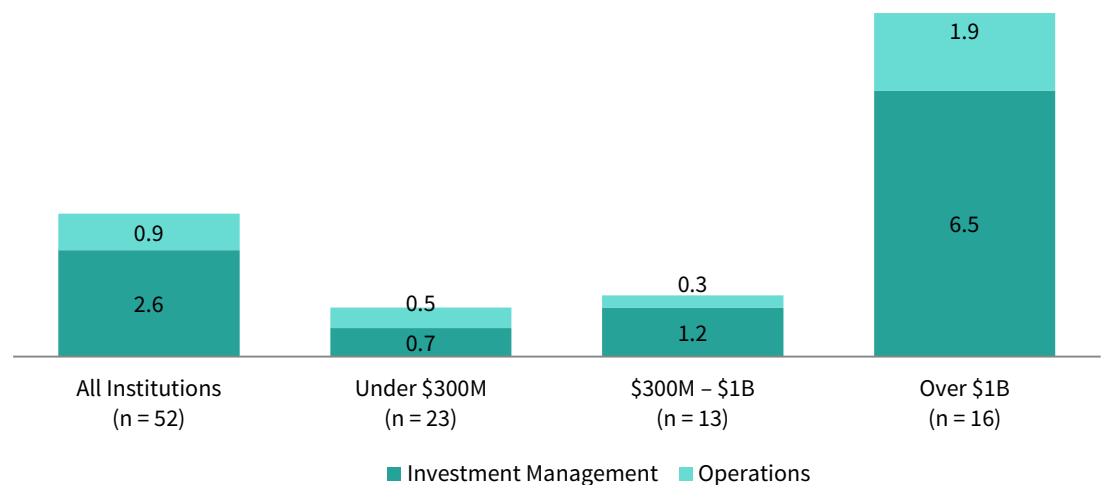
The primary mission of an investment office is to assume day-to-day responsibility for the long-term assets of the foundation. This mission will be defined by the set of functions that internal investment office staff will carry out or oversee. Since both the investment philosophy and the demands on the office will vary among foundations, each office will have its own unique profile. Therefore, when evaluating the current structure or anticipated growth of an investment office, it is important to consider not only the size of the asset base, but also the portfolio complexity (whether handled by internal or external resources), the secondary demands on the staff (i.e., treasury functions), the use of outside consultants or advisors, and the level of involvement by boards and committees. Both the number of internal professional investment staff and the depth of specialization required to successfully manage the asset base will fluctuate based on these characteristics.

**STAFFING LEVELS.** Our survey shows that investment office staffing levels typically correlate with asset size. This is perhaps not surprising as larger portfolios tend to invest with more fund managers and favor a more active investment approach, which can require more resources. Overall, participating foundations employed an average of 3.5 full-time equivalents (FTEs) to manage their investment assets. The largest foundations employed 8.4 FTEs on average, while the smallest institutions maintained 1.2 FTE, on average (Figure 47). Comparing the breakout of investment management and operations roles, we see the average investment staff consisted of 2.6 investment management and 0.9 operations personnel.

Larger foundations (assets over \$1 billion) report a mixture of senior-, mid-, and junior-level investment positions. Senior investment professionals typically carry the title of

**FIGURE 47. AVERAGE STAFFING LEVELS**

As of December 31, 2017 • Average Number of Full-Time Equivalents (FTEs)



Source: Foundation data as reported to Cambridge Associates LLC.



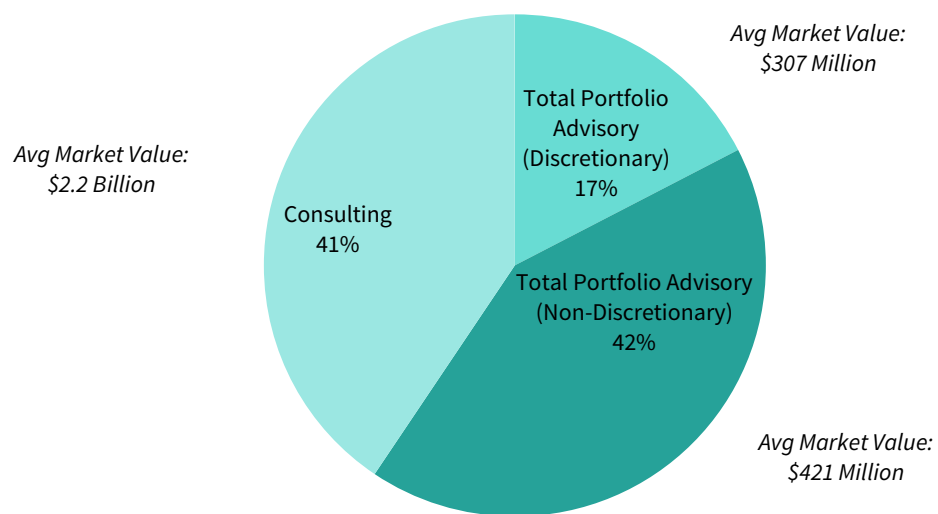
investment director or managing director and have more than ten years of professional experience. Mid-level professionals can hold the titles of investment officer or associate and bring five to ten years of experience. Junior-level positions are usually recent graduates or those with a few years of experience and usually carry the title of investment analyst or associate. On average, large foundations have two directors, one officer, and two analyst positions.

**CHIEF INVESTMENT OFFICER.** The presence of a dedicated chief investment officer (CIO) also correlates with asset size and is most common at larger foundations. Approximately 81% of the respondents with assets greater than \$1 billion have a full-time CIO. At foundations with less than \$1 billion in assets, just 17% of respondents indicated they had a CIO in place. It is most common for the CIO to report directly to the CEO or president of the foundation.

**RELIANCE ON OUTSIDE CONSULTANTS AND ADVISORS.** Foundations engage external advisors and consultants in varying degrees and across a wide variety of functions. Based on survey responses, foundations with assets under \$1 billion rely more heavily on external advisors to manage or help manage their investment portfolios, while larger foundations will seek outside support in the form of traditional consulting (Figure 48).

Total portfolio advisory, also known as the OCIO (outsourced CIO) model, can be conducted on a discretionary or non-discretionary basis. The latter form, used by 42% of respondents, has the advisor positioned as an extension to smaller staffed organizations. A discretionary model gives advisors more direct portfolio supervision and was used by 17% of respondents.

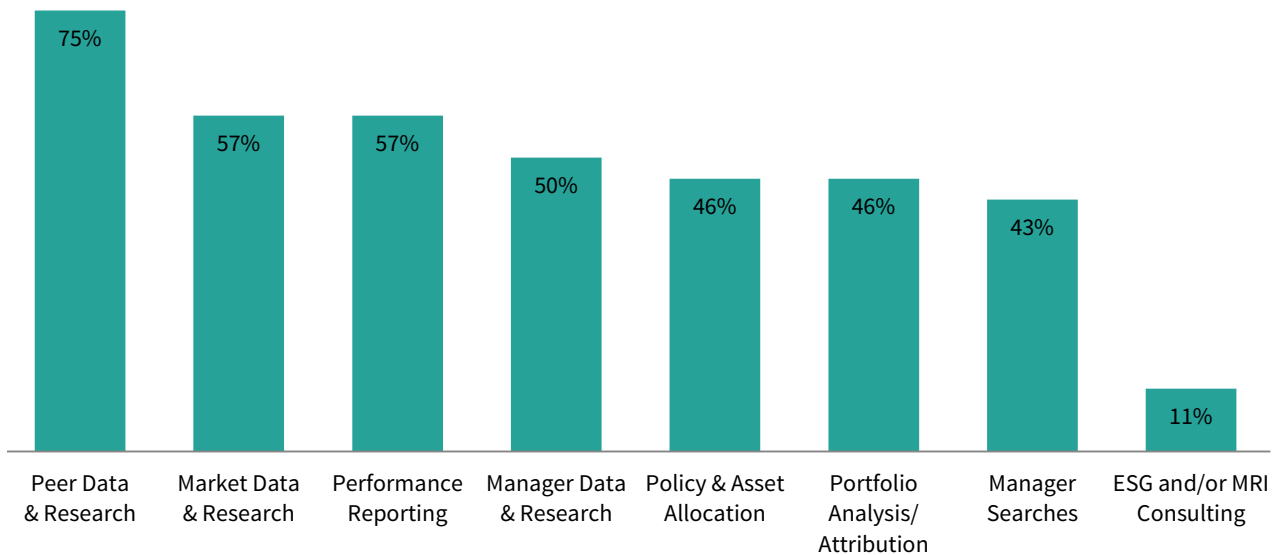
**FIGURE 48. USE OF EXTERNAL ADVISORS AND CONSULTANTS**  
As of December 31, 2017 • n = 69



Source: Foundation data as reported to Cambridge Associates LLC.

Of the foundations surveyed, 41% use consulting in a traditional sense. These foundations tend to be larger and have built their own internal investment teams to manage their portfolios. Reliance on consultants for peer data & research, market data & research, and performance reporting was most frequently cited for this group (Figure 49).

**FIGURE 49. USE OF OUTSIDE CONSULTANTS**  
As of December 31, 2017 • n = 28 • Percent of Institutions (%)



Source: Foundation data as reported to Cambridge Associates LLC.

## GOVERNANCE

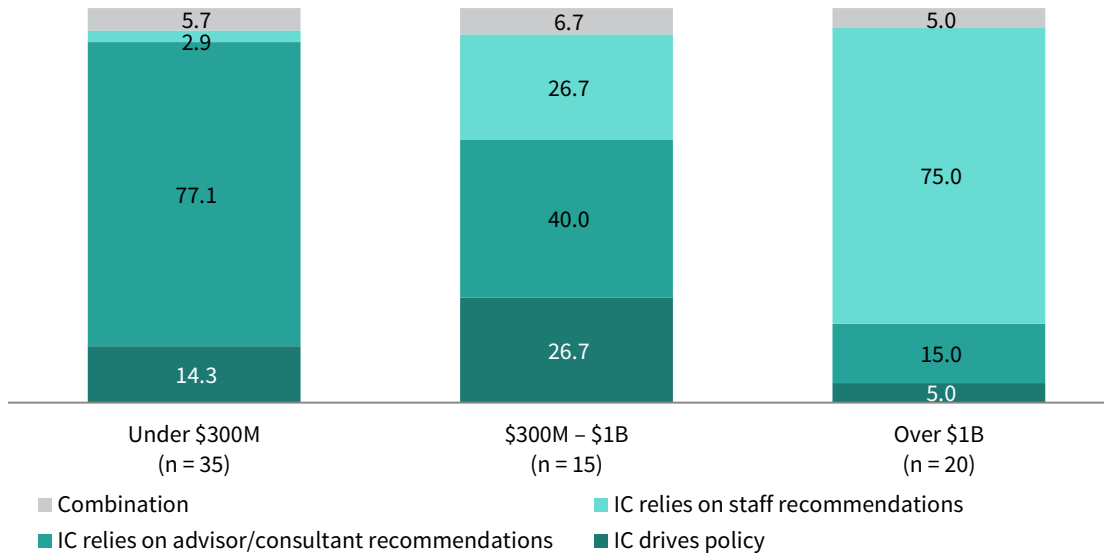
Good governance is one key factor to a successful investment program. To create the conditions for good governance, foundations should assess whether they have in place the appropriate model for portfolio oversight and management, are upholding their fiduciary responsibilities, and are learning about peer best practices in structure, process, and policies.

**DECISION-MAKING RESPONSIBILITY.** To help quantify the dynamic between the governing body (hereafter referred to as simply the investment committee) and investment office staff members, we asked who possessed decision-making responsibility for four integral investment functions: asset allocation policy development, portfolio rebalancing, manager selection, and manager termination. The resulting data show certain trends in the balance of authority between investment committees, staff, and advisors.

For foundations over \$1 billion, the majority of asset allocation policy is developed by committees acting on staff recommendations (Figure 50). Institutions under \$1 billion depend far more on the recommendations of outside advisors or investment committees driving policy autonomously. The role of the investment committee and advisors in portfolio rebalancing is steadily diminished as assets increase, because an investment office staff typically performs this function with discretion (Figure 51).

**FIGURE 50. DECISION-MAKING AND IMPLEMENTATION RESPONSIBILITY FOR KEY INVESTMENT FUNCTIONS: ASSET ALLOCATION POLICY DEVELOPMENT**

As of December 31, 2017 • n = 70 • Percent of Institutions (%)

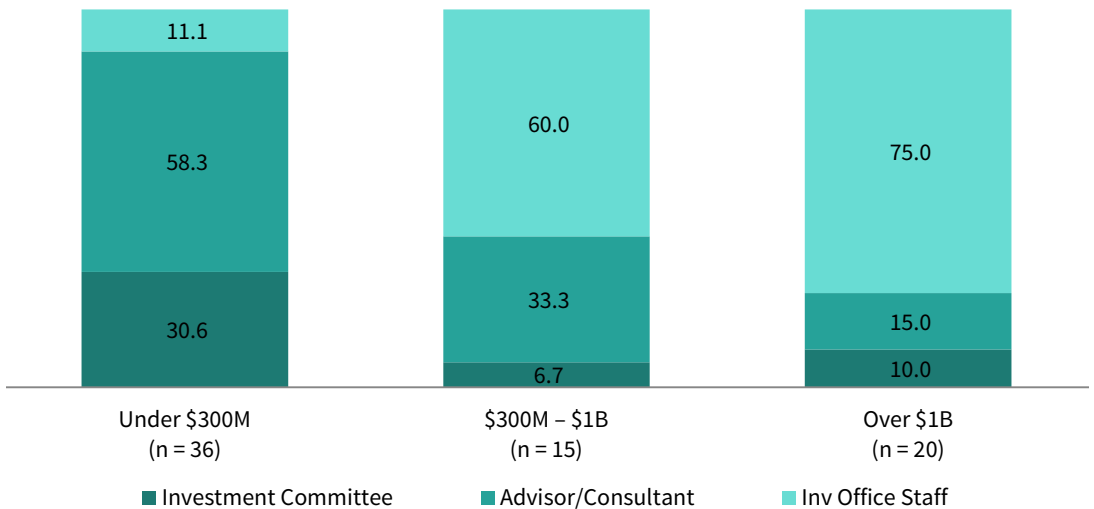


Source: Foundation data as reported to Cambridge Associates LLC.

Note: Investment committee is shorthand for any governing body.

**FIGURE 51. DECISION-MAKING AND IMPLEMENTATION RESPONSIBILITY FOR KEY INVESTMENT FUNCTIONS: PORTFOLIO REBALANCING**

As of December 31, 2017 • n = 71 • Percent of Institutions (%)



Source: Foundation data as reported to Cambridge Associates LLC.

Note: Investment committee is shorthand for any governing body.

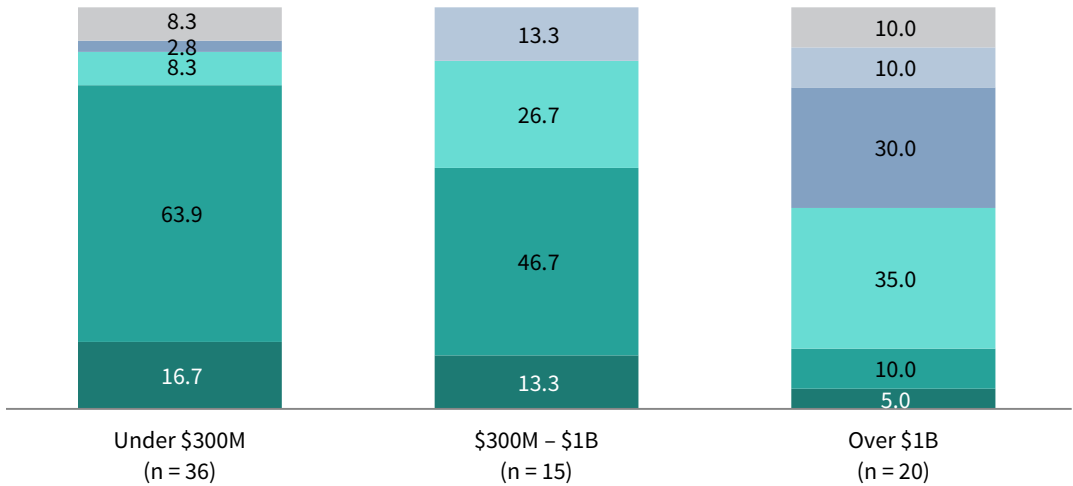
The process of manager selection and termination also involves committees, advisors, and staff, but with different degrees of discretion (Figure 52). Advisor recommendations play a significant role in both selection and termination at foundations with less than \$300 million in assets, while staff recommendations are increasingly relied upon at foundations with assets greater than \$1 billion.

Among the investment committees involved in manager selection, the predominant role is to approve managers, but not interview them. There is also notable difference in manager selection and manager termination for organizations over \$1 billion. Only 30% grant staff full discretion in manager selection, but 55% allow total staff discretion in manager termination.

**FIGURE 52. DECISION-MAKING AND IMPLEMENTATION RESPONSIBILITY FOR KEY INVESTMENT FUNCTIONS: MANAGER SELECTION AND TERMINATION**

As of December 31, 2017 • n = 71 • Percent (%)

**Manager Selection**



**Manager Termination**



- Other
- Staff Discretion with Guidelines
- Full Staff Discretion
- Staff Recommends and Committee Approves
- Consultant Recommends and Committee Approves
- Committee Interviews & Approves

Source: Foundation data as reported to Cambridge Associates LLC.

Note: Investment committee is shorthand for any governing body.

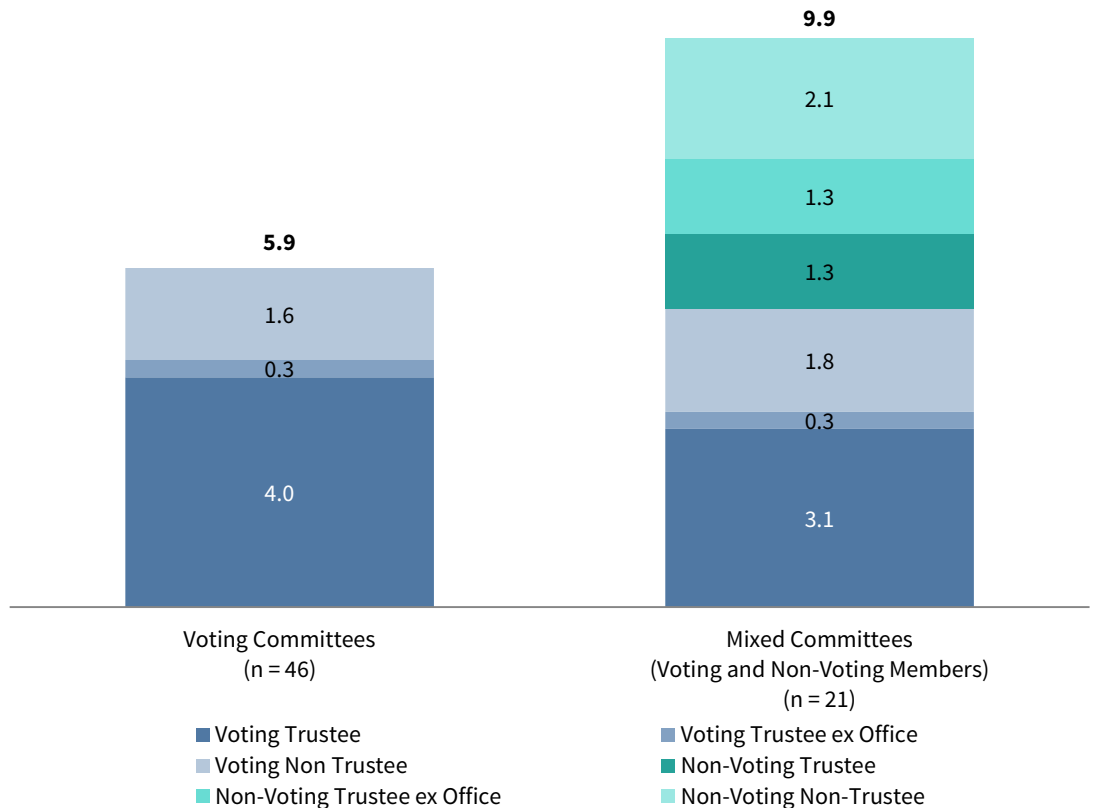
**INVESTMENT COMMITTEE COMPOSITION.** Two types of committees emerged from our survey data. We found that the majority of investment committees (46 of 67) are fully comprised of voting members, while the remaining 21 investment committees also include nonvoting members. Although mandatory voting encourages accountability, there can be good reasons to include nonvoting members. Organizations should weigh the benefit of these advisory members against the prospects of an oversized committee.

The average size of voting committees is 5.9 members, which on average consists of 4.0 trustees, 1.6 non-trustees, and 0.3 *ex officio* members. Examples of *ex officio* committee members include the president of the foundation or chairman of the board or of another committee, whose investment committee membership is included in the official duties of the position. Committees including non-voting members averaged 9.9 people (Figure 53).

Investment committee members can bring diverse experience to assist in overseeing institutional investment assets. At least some committee members should have professional institutional investment experience, not just experience managing their own money. If the organization lacks sufficient trustees with such qualifications, the committee often includes non-trustee members with investment expertise to fulfill this role.

**FIGURE 53. PROFILE OF INVESTMENT COMMITTEE MEMBERS**

As of December 31, 2017 • n = 67



Source: Foundation data as reported to Cambridge Associates LLC.

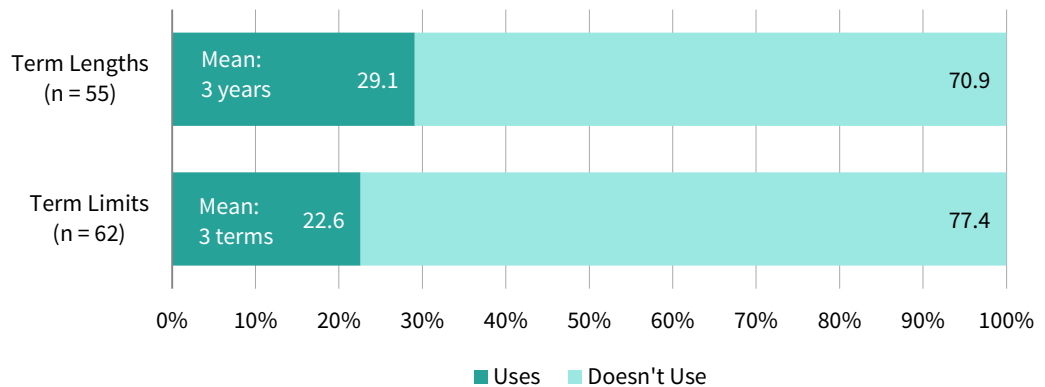
Notes: Investment committee is shorthand for any governing body. One institution that responded to the survey has only six non-voting members: one trustee and five non-voting non-trustees.

On average, respondents indicated that 52% of their committee members have investment experience. This composition does not change substantially when viewed by asset size. Foundations with assets over \$1 billion reported an average of 57% of committee membership have investment experience. At foundations under \$1 billion, the proportion was just slightly lower at 51%.

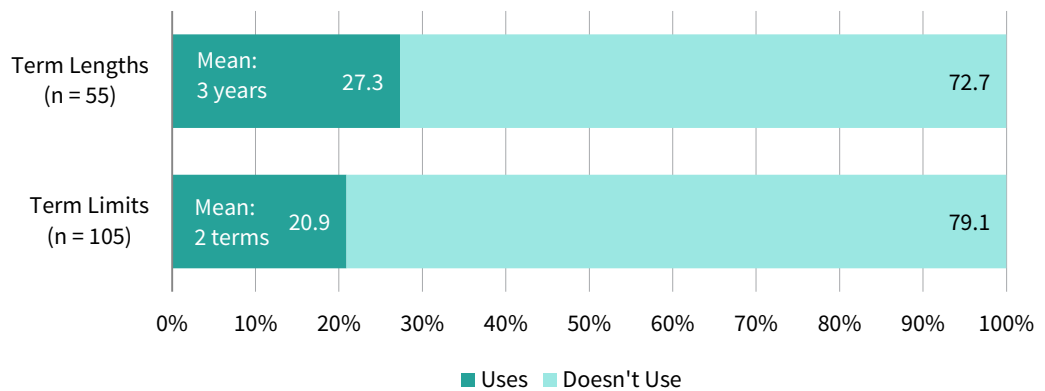
**TERM LIMITS AND LENGTHS.** Although setting guidelines for terms can help manage member turnover and mitigate committee stagnation, a majority of respondents indicated they have no term limits for the investment committee. Responses regarding term length and limit policy indicated that term length guidelines are generally more common than term limits: for committee members, term lengths (an average of three years) were specified by 29% of foundations, while term limits (an average of three terms) were mandated by 23% of institutions (Figure 54). Term length and limit policies applied similarly to committee chairmanship (27% and 21%, respectively). The lack of policies around term limits and lengths could suggest that foundations value the stability of a long-standing committee and view turnover as disruptive to long-term investment policy.

**FIGURE 54. INVESTMENT COMMITTEE TERM LENGTHS AND LIMITS**  
As of December 31, 2017

**Investment Committee Member**



**Investment Committee Chair**



Source: Foundation data as reported to Cambridge Associates LLC.  
Note: Investment Committee is shorthand for governing body.

**INVESTMENT COMMITTEE MEETINGS.** Our survey responses show that the majority of foundations (72%) hold quarterly meetings. Few institutions hold meetings on a more or less frequent schedule, but ad hoc conference calls are a frequently cited occurrence. Regular attendance of investment committee members is critical to proper oversight. Participants indicated that average attendance was strong, at 92%.

**REIMBURSEMENT AND CONFLICT OF INTEREST POLICY.** About two-thirds of respondents provide committee members with expense reimbursement, which generally includes travel-related and other out-of-pocket expenses. A little over half of respondents (55%) also offer their committee members some sort of compensation other than expense reimbursement. This compensation most often comes in the form of charitable gifts and honorariums.

Nearly all respondents have a conflict of interest policy for investment committee members (91%). These policies can require disclosure, recusal, or both disclosure and recusal. Policies may differ by asset class, with institutions requiring disclosure for long-only equity conflicts and recusal for private equity conflicts, for example. A slightly smaller proportion of respondents (80%) have a conflict of interest policy for investment staff. ■

## Notes on the Data

### DATA COLLECTION AND RESULTS

This report includes data for 111 foundations. The majority of participants are private foundations, 95 of which are classified as non-operating foundations and four as operating foundations. Of the remaining participants, 11 are community foundations and one is a public charity.

All participants provided data on their long-term investment portfolio (LTIP) as of December 31, 2017. The LTIP size of participating foundations ranged from \$7.5 million to \$50.7 billion. The mean LTIP size was \$1.5 billion and the median was \$239.4 million. Throughout the report, the notation of n denotes the number of institutions included in each analysis.

### CALCULATION OF THE REAL RATE OF RETURN

The real, or inflation-adjusted, rate of return for a given investment is calculated by dividing the nominal total return by the appropriate deflator for the same time period. Throughout the report, the deflation measure used for this purpose is the Consumer Price Index. Note that simply subtracting the deflator from the nominal total return does not result in an accurate computation of real total return. The formula is:

$$\frac{1 + \text{Nominal Total Return}}{1 + \text{CPI-U}} - 1 = \text{Real Total Return}$$

### CALCULATION OF THE RETURN AFTER SPENDING

The rate of return after spending for a given investment is calculated by dividing the total return by the effective spending rate for the time period. The effective spending rate is the dollar amount of spending (endowment spending policy distribution and other annual appropriations) for a fiscal year as a percentage of the beginning market value of assets. The effective spending rate does not include investment management fees that are netted out of returns. Note that simply subtracting the effective spending rate from the total return does not result in an accurate computation of total return after spending. The formula is:

$$\frac{1 + \text{Nominal Total Return}}{1 + \text{Spending Rate}} - 1 = \text{Total Return After Spending}$$



## PARTICIPANTS

Access Strategies Fund  
Albany Foundation  
The James B. and Lois R. Archer Charitable Foundation  
Associated Jewish Community Fed. of Baltimore  
Atherton Family Foundation  
Baltimore Community Foundation  
Marion and Henry Bloch Family Foundation  
The Herb Block Foundation  
Buena Vista Foundation  
The California Endowment  
James & Abigail Campbell Family Foundation  
Carnegie Corporation of New York  
The Annie E. Casey Foundation  
The Chestnut Foundation  
The Clarence T.C. Ching Foundation  
Circle of Service Foundation  
Connecticut Health Foundation, Inc.  
The Dana Foundation  
The Duke Endowment  
Alfred I. duPont Testamentary Trust  
The Erie Community Foundation  
Richard M. Fairbanks Foundation, Inc.  
Sherman Fairchild Foundation  
Fetzer Institute  
The Field Foundation of Illinois Inc.  
The Flinn Foundation  
The Ford Family Foundation  
France-Merrick Foundation  
Franklin Southampton Charities  
Bill and Melinda Gates Foundation Trust  
The Gerber Foundation  
GHR Foundation  
Gidwitz Memorial Foundation  
Eugene & Marilyn Glick Family Foundation  
John T. Gorman Foundation  
The Florence Gould Foundation  
Grantham Foundation for the Protection of the Environment  
William Caspar Graustein Memorial Fund  
The Heinz Endowments  
Clarence E. Heller Charitable Foundation  
The F.B. Heron Foundation  
The Highland Street Foundation  
Conrad N. Hilton Foundation  
The H & R Block Foundation  
The Hyams Foundation  
Inasmuch Foundation and Ethics and Excellence in Journalism  
InFaith Community Foundation  
The Robert Wood Johnson Foundation  
Johnson Scholarship Foundation  
The Fletcher Jones Foundation  
The Shimon Ben Joseph Foundation  
Kansas Health Foundation  
Ewing Marion Kauffman Foundation  
W.K. Kellogg Foundation Trust  
Kleberg Foundation  
John S. and James L. Knight Foundation  
The Kresge Foundation  
Forrest C. & Frances H. Lattner Foundation  
Leaves of Grass Foundation  
The Limestone Foundation  
John and Catherine MacArthur Foundation  
Maine Community Foundation  
Mathile Family Foundation  
McGregor Fund  
The Andrew W. Mellon Foundation  
Eugene and Agnes E. Meyer Foundation  
Meyer Memorial Trust  
Milbank Memorial Fund  
The Gordon & Betty Moore Foundation  
Moorings Capital LLC  
Charles Stewart Mott Foundation  
The Mt. Cuba Center Inc.  
The Dan Murphy Foundation  
National Endowment for Financial Education  
New Hampshire Charitable Foundation  
Greater New Orleans Foundation  
New York Community Trust  
New York State Health Foundation  
Orange County Community Foundation  
The Oregon Community Foundation  
Osprey Cove Foundation  
The David and Lucile Packard Foundation  
The Ralph M. Parsons Foundation  
Virginia G. Piper Charitable Trust  
Nina Mason Pulliam Charitable Trust  
The Queen Lili'uokalani Trust  
Rainwater Charitable Foundation  
The REACH Healthcare Foundation  
Regenstrief Foundation  
Winthrop Rockefeller Charitable Trust  
The Rockefeller Foundation  
Rocky Road Foundations  
The Scherman Foundation Inc.  
Caroline & Sigmund Schott Fund  
The Skoll Foundation  
Alfred P. Sloan Foundation  
The Sontag Foundation  
Square One Foundation  
The Starr Foundation  
The Steelcase Foundation  
Steele Foundation  
W. Clement & Jessie Stone Foundation  
The Aaron Straus & Lillie Straus Foundation, Inc.  
Surdna Foundation Inc.  
The Mamoru and Aiko Takitani Foundation  
Communities Foundation of Texas  
The Tinker Foundation  
The Wallace Foundation  
The Robert A. Welch Foundation  
Wenner-Gren Foundation  
Zellerbach Family Foundation

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