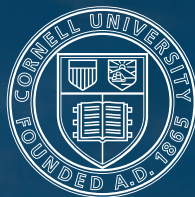


HODESWEILL
& ASSOCIATES



**Cornell
Baker Program
in Real Estate**



2018

**INSTITUTIONAL REAL ESTATE
ALLOCATIONS MONITOR**

Dear Industry Friends,

Cornell University's Baker Program in Real Estate and Hodes Weill & Associates are pleased to present the findings of the sixth annual Institutional Real Estate Allocations Monitor (the "**2018 Allocations Monitor**"). The 2018 Allocations Monitor focuses on the role of real estate in institutional portfolios, and the impact of institutional allocation trends on the investment management industry. Launched in 2013, the 2018 Allocations Monitor is a comprehensive annual assessment of institutions' allocations to, and objectives in, real estate investments. This report analyzes trends in institutional portfolios and allocations by region, type and size of institution.

The 2018 Allocations Monitor includes research collected on a blind basis from 208 institutional investors in 29 countries. The 2018 participants hold total assets under management ("**AUM**") exceeding US\$11.0 trillion and have portfolio investments in real estate totaling approximately US\$1.0 trillion. Our survey consisted of 24 questions concerning portfolio allocations to the asset class, current and future investments in real estate, investor conviction, investment management trends and the role of various investment strategies and vehicles within the context of the real estate allocation (e.g., direct investments, joint ventures, private funds). We also included questions regarding historical and target returns as well as environmental, social and governance ("**ESG**") policies.

Key Findings of the 2018 Allocations Monitor

- (1) **Target allocations to real estate in institutional portfolios continue climbing in 2018.** Average target allocations to real estate increased to 10.4% in 2018, up 30 bps from 2017 and up approximately 150 bps since 2013. While an increasing percentage of institutions are holding flat or decreasing their target allocations year-over-year, the 30 bps increase is consistent with the rate of change in each of the past five years (which has ranged from 20 bps to 40 bps per year). In 2018, 30% of institutions (up from 18% in 2017), decreased their target allocation by an average of 140 bps.
- (2) **Led by institutions in Asia Pacific and EMEA, institutions are forecasted to increase average target allocations over the next 12 months.** On average, institutions are expected to increase target allocations to real estate by 20 bps over the next 12 months. This increase can be largely attributed to institutions in Asia Pacific and EMEA regions, with each region forecasting increases of 40 bps, as compared to target allocations for institutions in the Americas, which are expected to remain constant.
- (3) **The value of institutional real estate portfolios grew significantly over the past 12 months.** A combination of appreciation, a rise in transaction volumes and an increase in capital commitments to real estate private equity vehicles, has contributed to a significant increase in actual allocations (i.e., percent invested) from 9.1% in 2017 to 9.5% in 2018. Due to the consistently strong performance of virtually all assets driving up the value of investable assets (the so called "denominator effect"), aggregate capital exposure to real estate has likely increased well in excess of 10% over the past 12 months.
- (4) **Despite an increase in actual allocations, institutions remain meaningfully under-invested relative to target allocations.** While 92% of institutions report that they are actively investing in real estate, institutions remain approximately 90 bps under-invested relative to target allocations. Insurance companies are the most under-invested, while Endowments & Foundations are closest to their target allocations. Approximately 60% of institutions are under-invested relative to target allocations by an average of 200 bps
- (5) **After two years of moderating portfolio investment returns, performance increased in 2017.** Real estate portfolios generated an average annual investment return of 9.2% in 2017, up from 8.7% in 2016. This is consistent with industry-wide real estate returns, which trended upward in 2017, spurred by a rebound in economic growth which led to stronger operating fundamentals (i.e., rent and occupancy trends) across asset classes and geographies. Moreover, investment returns continue to outpace target returns by a meaningful margin over trailing one-, three- and five-years.

- (6) **Institutional conviction for the asset class increased in 2018.** Between 2017 and 2018, our “Conviction Index”, which measures institutions’ view of real estate as an investment opportunity from a risk-return standpoint, increased from 4.9 to 5.1. This follows four years of steady declines and comes as somewhat of a surprise, as investors continue to cite concerns regarding rising interest rates, asset valuations, and geopolitical risks, in addition to the perception of being late in the cycle (i.e., “late innings” for baseball fans). The increase in the Conviction Index was consistent across all regions (i.e., the Americas, EMEA and APAC).
- (7) **Value add strategies remain the strong preference for institutions, while interest in core strategies declines.** Institutions continue to shift allocations to alpha-generating strategies, including value add investments. Notably, approximately 90% of institutions reported that they are actively focused on value add strategies, as compared 63% of institutions that are actively focused on core strategies (which is down from 69% in 2017).
- (8) **Third-party managed AUM continues to trend upward.** Institutions are allocating the substantial majority (approximately 85%) of their new investment allocations to third-party managers. This trend, in combination with rising allocations and capital appreciation, is driving strong growth in assets under management (“AUM”) for the investment and fund management industry. This is particularly the case for Smaller Institutions (i.e., institutions with less than US\$50 billion in AUM), that do not have the resources to internalize management functions, as well as for institutions that are allocating investments cross border.
- (9) **Cross border capital flows remain strong, as interest shifts from investment in the US to Europe and Asia.** Despite the strong performance of US real estate over the past several years, interest in US-focused investment strategies appears to be waning. This has been compounded by currency hedging considerations for institutions in EMEA and APAC, as the US dollar has strengthened considerably year-to-date. Interest in Europe- and Asia-focused strategies is on the rise, and a notable trend is that APAC institutions have shifted their focus to regional strategies in Asia.
- (10) **Closed-end funds continue to gain favor with institutional investors.** Approximately 93% of institutions are actively allocating capital to closed-end funds (up from 87% in 2017). While Larger Institutions continue to prioritize direct investments, joint ventures and separate accounts, 89% report being actively focused on closed-end funds, in particular for niche and harder to access strategies and geographies.

The 2018 Allocations Monitor leverages the academic resources of Cornell University and the global institutional relationships and real estate experience of Hodes Weill & Associates. We hope this report provides unique insight into the institutional investment industry, serving as a valuable tool for institutional investors in the development of portfolio allocation strategies and peer benchmarking of returns, and for investment managers in business planning and product development. With this goal in mind, please feel free to contact us with any comments, questions or suggestions.

We look forward to sharing additional insights and our perspective on the industry with you more directly in the near future. Again, we would like to express sincere appreciation to everyone that participated in this year’s survey.

Best regards,

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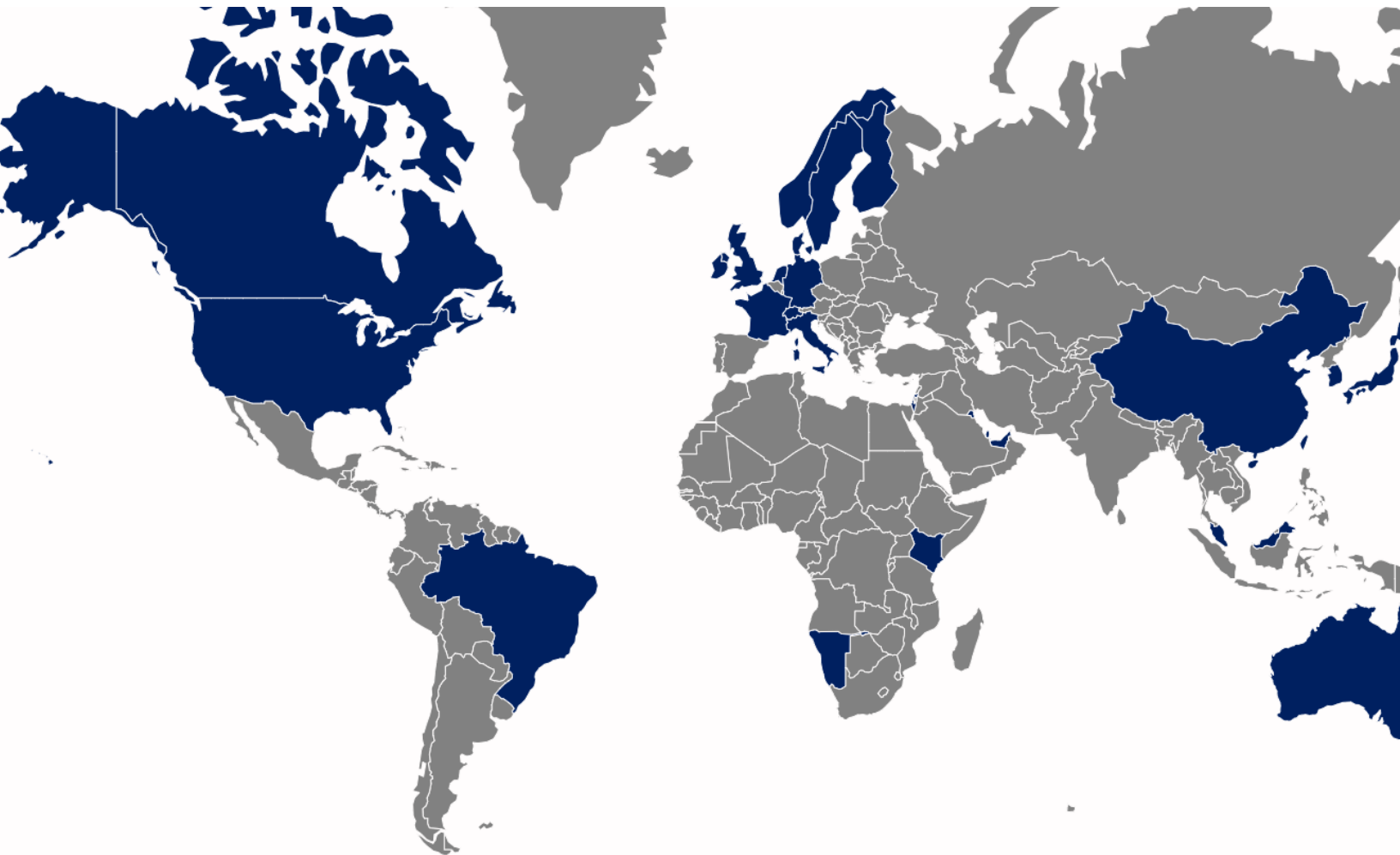
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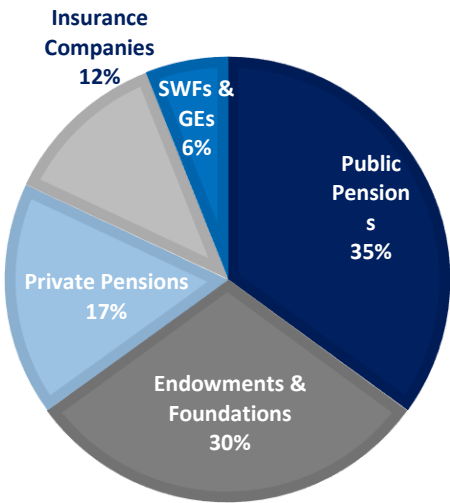
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2018 Global Institutional Participants

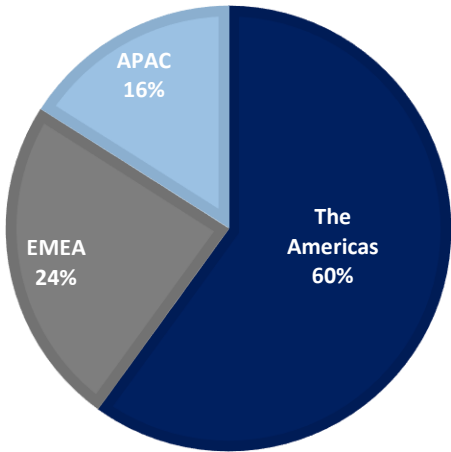
208 participants in 29 countries representing US\$11.0 trillion in AUM



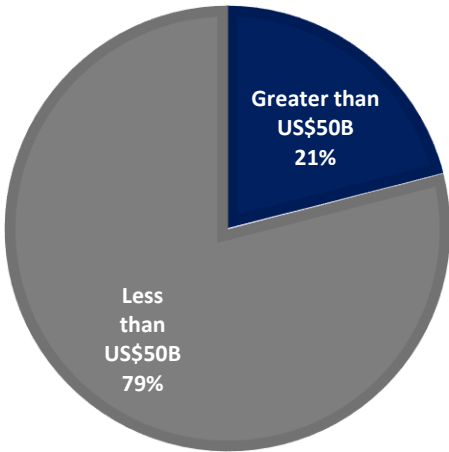
Breakdown of Participants
By Type of Institution



Breakdown of Participants
By Location of Institution



Breakdown of Participants
By Size of Institution





Americas

Alberta Investment Management Corporation
Alberta Teachers' Retirement Fund
Amon G. Carter Foundation
Andrew W. Mellon Foundation
Annie E. Casey Foundation
Ball State University Endowment
Boston Foundation
Calgary Foundation
Canadian Pacific Railway Pension Plan
Carnegie Corporation of New York
Church Pension Group
Claude Worthington Benedum Foundation
Cornell University Endowment
Greater New Orleans Foundation
Healthcare Employees' Pension and Benefits Plan of Manitoba
Healthcare of Ontario Pension Plan
HRM Pension Plan
IBM Retirement Fund
Investment Management Corporation of Ontario
Kern County Employees' Retirement Association
Latash Investments
Los Angeles County Employees' Retirement Association
Maine Community Foundation
Makena Capital Management
Maryland State Retirement and Pension System
MassPRIM
Miami University Endowment
Missouri Local Government Employees Retirement System
MWRA Retirement System
New Jersey State Investment Council
North Dakota State Investment Board
Oregon State Treasury
Pacific Life Insurance Company
Pitcarin Financial Group
Principia Endowment
Public Employees' Retirement System of Nevada
Public School Retirement System of Missouri
Rockefeller Foundation
Sacramento County Employees' Retirement System
San Francisco Foundation
Sempra Energy Pension Plan
Strategic Investment Group
Teacher Retirement System of Texas
Teachers' Retirement System of Louisiana
Texas Municipal Retirement System
Texas Permanent School Fund
Tulare County Employee Retirement Association

United Parcel Service Investments
University of Chicago Endowment
University of Michigan Endowment
University of Nebraska Endowment
UTIMCO
Vancouver Foundation
Ventura County Employees' Retirement Association
Virginia Retirement System
Wespath Benefits and Investments
Western University
Yale University Endowment
YMCA Retirement Fund

And 67 anonymous participants

APAC

DIC Corporation Pension Fund
HESTA Super Fund
HOSTPLUS
National Credit Union Federation of Korea
Police Mutual Aid Association
SunSuper
TransGlobe Life Insurance
TWUSUPER
Victorian Funds Management Corporation

And 23 anonymous participants

EMEA

Abu Dhabi Investment Authority
Alecta Pensionsförsäkring
Akrin Holdings
Basellandschaftliche Pensionskasse
Blue Sky Group
BPF Bouwinvest
DELA
Government Institutions Pension Fund
Hermes Real Estate
MN Services
Paul Hamlyn Foundation
PFA Pension
Philips Pension Fund
Prosperita Stiftung für die Berufliche Vorsorge
Qatar Insurance Company
WPV
Zurich Insurance Group

And 32 anonymous participants

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Participation & Methodology

We wish to thank the 208 institutional investors that participated in our survey this year. The survey participants are from 29 countries and represent institutions with nearly US\$11.0 trillion in total assets and real estate assets of approximately US\$1.0 trillion. **The Allocations Monitor continues to be one of the industry’s most comprehensive global surveys of institutional allocations and intentions in real estate.**

We distributed the survey to over 3,000 institutional investors. Our survey includes only primary allocators to investments, such as pension plans, insurance companies, sovereign wealth funds, and endowments and foundations. Approximately 7% of institutions that were contacted completed the survey, and the participation rate was greater than 5% across a range of regions, investor types and size of institutional portfolios. We believe that this participation rate has resulted in a representative sampling of the real estate institutional investor universe from a statistical standpoint.

Notes to readers regarding methodology:

- We conducted the survey over an approximate five-month period from May 2018 to September 2018.
- Target and projected allocations, actual allocations and the margin between target and actual allocations are presented on a weighted average basis by total AUM. We believe this provides the most relevant presentation of the quantum and directional trend of investable capital.
- To calculate weightings for AUM for each investor, we utilized the midpoint of each investor’s AUM range. For example, investors that indicated an AUM range of US\$10 billion to US\$25 billion were counted as US\$17.5 billion. All investors greater than US\$200 billion were weighted at US\$200 billion – there were 12 such investors in 2018.
- Unless otherwise stated, all other figures are based on straight averages, including for investment activity, intentions, target returns and risk/return objectives.



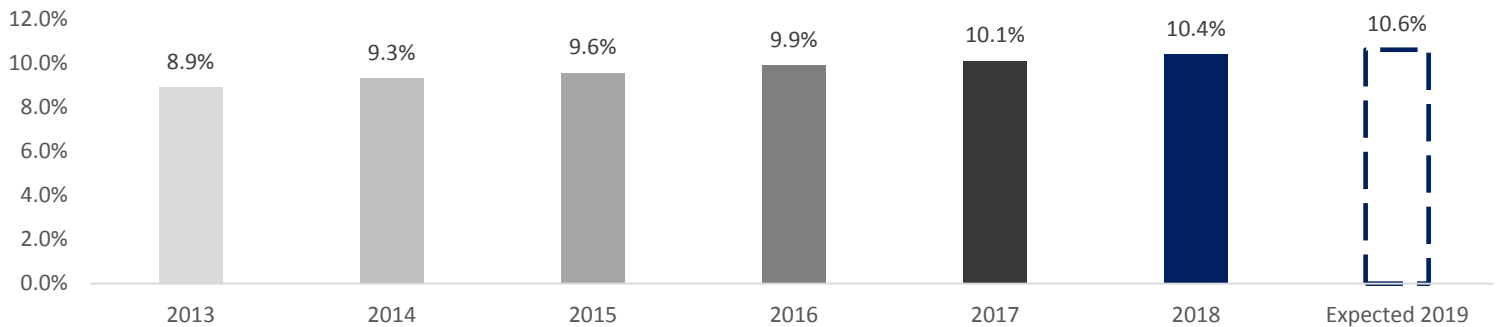
Definitions Guide

- “**APAC**” refers to Asia Pacific and includes institutions located in Asia and Australia
- “**EMEA**” includes institutions located in Europe, the Middle East and Africa
- “**ESG**” refers to environmental, social and governance
- “**SWFs & GEs**” refers to sovereign wealth funds and government-owned entities
- “**The Americas**” includes institutions located in North and South America
- “**Larger Institutions**” includes institutions with AUM greater than US\$50 billion
- “**Smaller Institutions**” includes institutions with AUM less than US\$50 billion

Target Allocations to Real Estate

Target allocations to real estate in institutional portfolios continue climbing in 2018

Exhibit 1: Weighted Average Target Allocation to Real Estate, All Institutions



Target Allocations to Real Estate

While we reported in the 2017 Allocations Monitor that institutions had achieved a meaningful milestone of 10%+ allocations, we also noted that annual increases were likely to moderate over coming years as conviction continued to decline. Contrary to our prediction, target allocations to real estate increased 30 bps in 2018 to 10.4%, up from 10.1% in 2017. This rate of increase is consistent with the historical range of increase of 20 bps to 40 bps over the past five years. Moreover, institutions are forecasting a further increase of 20 bps over the next 12 months. This increase is expected to be led by institutions in EMEA and APAC, with forecasted increases of 40 bps each. It is notable that after increasing target allocations by 130 bps since 2013, institutions in the Americas are expecting to hold target allocations flat over the next 12 months.

Exhibit 2: Weighted Average Target Allocation, By Location of Institution

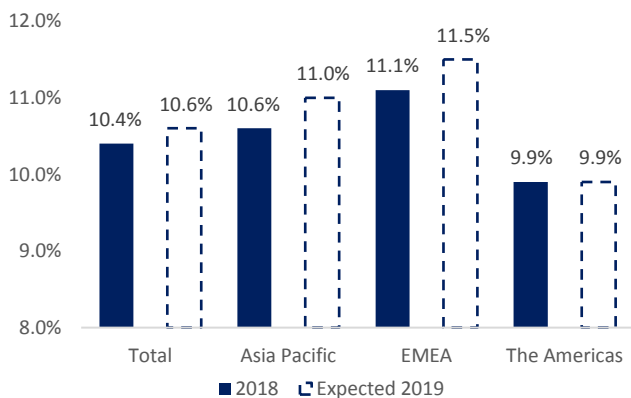
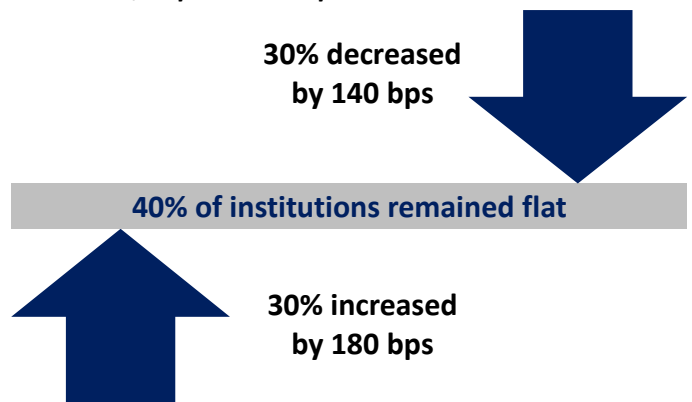


Exhibit 3: Year-Over-Year Increase/Decrease of Target Allocation, Repeat Participants



Approximately 40% of institutions held their target allocations flat in 2018. While 30% of institutions increased their target allocations in 2018 (up 180 bps on average), a like percentage decreased (down 140 bps on average).¹ The percentage of institutions that decreased their target allocations has risen considerably over the past several years, from 16% in 2016 and 18% in 2017. Approximately 20% of institutions do not have a target allocation, while 61% of institutions with a target allocation (weighted by AUM), have a target allocation greater than 10.0%.

¹ Based on "same store" comparison for institutions that participated in the Allocations Monitor survey in both 2017 and 2018.

Target Allocations by Type of Institution

Public Pensions and Insurance Companies increased their target allocations in 2018 by 30 bps and 50 bps, respectively.² This is attributed largely to the recent increase in interest from Insurance Companies looking for more exposure to the asset class to generate yield to match liabilities. The increase in Public Pensions was primarily driven by European pension plans, which increased targets by 70 bps year-over-year. After a 100 bps year-over-year increase last year, Insurance Companies continue to allocate more to the asset class as their outlook towards real estate improves. This trend for Insurance Companies may be driven by favorable portfolio performance relative to target returns.

With a 130 bps decrease in 2018, Endowments & Foundations had the most significant year-over-year reduction in target allocation. Endowments & Foundations tend to focus their real estate investments on higher yielding “absolute return” strategies, which is becoming increasingly difficult to achieve at this point in the cycle. This is consistent with recent reports of US-based, university endowments reducing their allocations. The Yale Endowment, one of the nation’s largest endowments and a thought leader amongst Endowments & Foundations, recently announced a reduction in their real estate allocation by 50bps to 9.5% due to recent below-target performance and the “endowment’s longer-term plan to reduce exposure to illiquid assets”³. It is also notable that SWF & GEs, some of the largest allocators of capital in the industry, reported an average decline of 30 bps.

Exhibit 4: Change in Target Allocation, By Type of Institution – Repeat Participants⁴

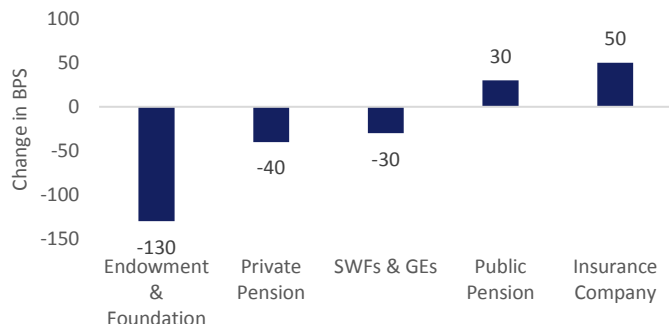


Exhibit 5: Weighted Average Target Allocation, By Size of Institution

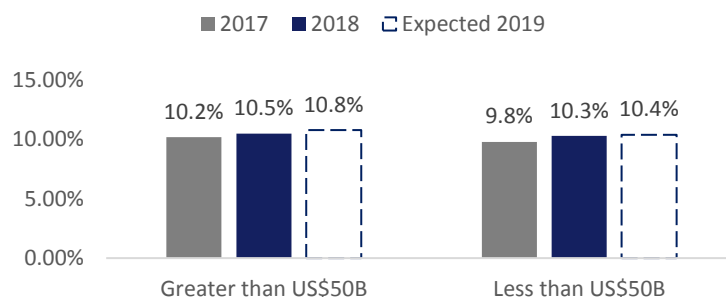


Exhibit 6: Notable Increases/Decreases to Target Allocations⁵

Institution	AUM	Target Allocation		Change
		2017	2018	
Arizona State Retirement System	\$38.0 billion	10.0%	20.0%	↑1,000 bps
Ohio Bureau of Workers' Compensation	\$26.8 billion	12.0%	15.0%	↑300 bps
Los Angeles County Employees' Retirement System	\$16.9 billion	5.0%	7.0%	↑200 bps
Illinois Municipal Retirement Fund	\$41.3 billion	8.0%	9.0%	↑100 bps
Texas Employees' Retirement System	\$29.0 billion	10.0%	11.0%	↑100 bps
Dallas Police and Fire Pension System	\$2.1 billion	11.0%	5.0%	↓600 bps
San Bernadino Country Employees' Retirement Association	\$9.9 billion	9.0%	7.0%	↓200 bps
Pennsylvania Public School Employees' Retirement System	\$56.7 billion	11.0%	10.0%	↓100 bps
North Dakota State Investment Board	\$5.7 billion	6.0%	5.0%	↓100 bps
Yale University Endowment	\$29.4 billion	10.0%	9.5%	↓50 bps

² Based on “same-store” comparison for institutions that participated in the Allocations Monitor survey in both 2017 and 2018.

³ Fu, Lisa. “Yale Lowers RE Allocation Target Again”. PERE. October 3rd 2018.

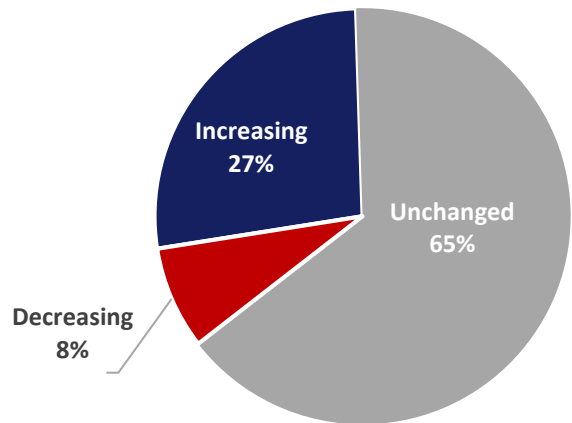
⁴ Based on “same store” comparison for institutions that participated in the Allocations Monitor survey in both 2017 and 2018.

⁵ Based on public disclosures.

Target Allocations by Size of Institution

Larger Institutions have a target allocation of 10.5% and expect to increase their target by an average of 30 bps in 2019, to 10.8%. This trend is driven largely by non-US institutions that have been increasing their focus on geographic diversification of their portfolios. Smaller Institutions have a slightly lower target allocation of 10.3% which is up 50bps from 9.8% in 2017. This pace of growth, however, appears to be moderating, as these institutions expect to increase targets by 10 bps in 2019. Approximately 27% of institutions surveyed indicated an intention to increase their target allocation over the next year, a number that has been consistent over the past few years. Approximately 65% of institutions intend to hold their allocations flat over the next 12 months, while 8% intend to decrease their target.

Exhibit 7: Expected Change in Target Allocations, All Institutions



Current Investments

Despite actual allocations increasing significantly year-over-year, institutions remain significantly under-invested relative to target allocations

Exhibit 8: Actual vs. Target Allocation, By Location of Institution

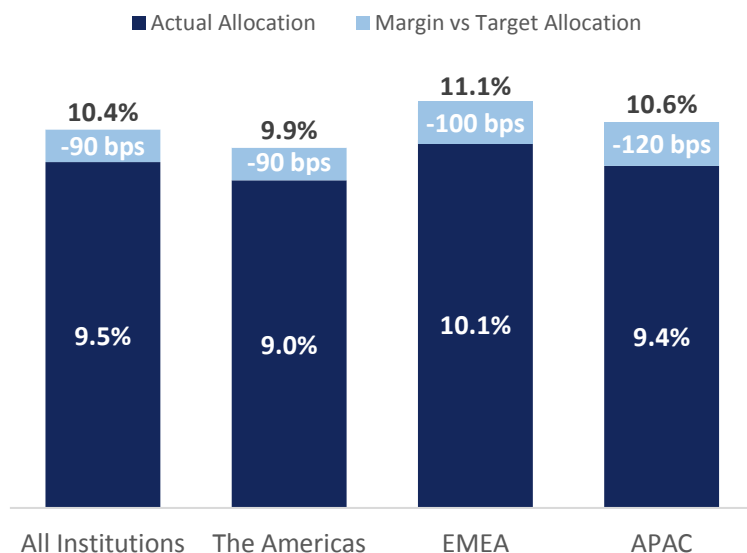
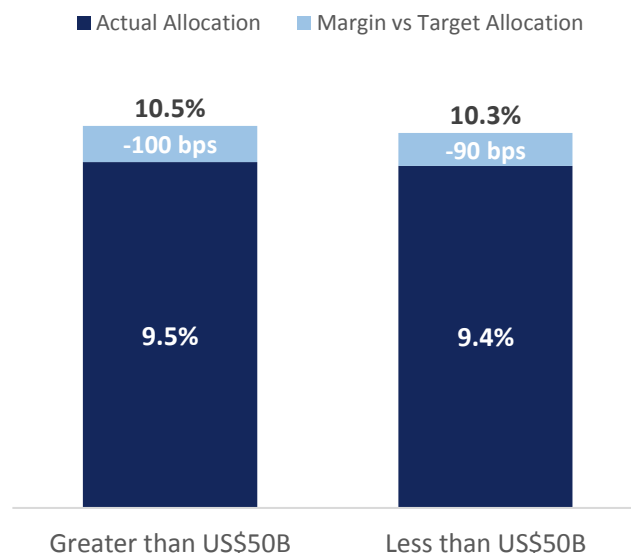


Exhibit 9: Actual vs. Target Allocation, By Size of Institution



The percentage of institutional portfolios invested in real estate (i.e., actual allocations) increased by 40 bps to 9.5% in 2018. However, as target allocations have continued to rise in lock step with actual allocations over the past several years, institutional portfolios have remained under-invested by a consistent margin (ranging from 88 bps to 110 bps since 2013). While institutions have been actively investing in real estate, the “denominator effect” has contributed to portfolios continuing to lag target allocations, as most asset classes have delivered strong and consistent investment performance (i.e., appreciation) since the global financial crisis. The total value of real estate investments held by institutions likely increased by well in excess of 10%, when considering the combination of increasing actual allocations and the “denominator effect”.⁶ Public Pensions, by way of example, reported on increase in total AUM of 13.1% in 2017, and an increase in actual allocations in real estate of 70 bps. This suggests that the value of real estate assets held by Public Pensions increased in excess of 20% over the past 12 months.⁷

Current Investments and Target Allocations by Location and Type of Institution

Institutions across all regions remain under-invested relative to target allocations. APAC based institutions remained the most under invested group for the second year in a row, at a margin of 120 bps below target allocation. This may be attributed, in part, to cross-border investment controls placed on Chinese institutions, which substantially reduced capital allocations from some of the largest and most active global institutions. In some cases, Chinese institutions have been aggressively divesting assets abroad. Institutions in EMEA have the highest actual allocation to real estate at 10.1%, a notable increase of 200 bps year-over-year. Institutions in the Americas are 90 bps under-invested relative to target allocations.

When segmenting by type of institution, the percent invested varies greatly with Insurance Companies being the least invested at 7.3%, but with the highest shortfall to target allocations at 170bps. Public Pensions have the highest actual allocation at 11.0% and remain 90 bps below target. Endowments & Foundations are closest to their target allocation of 8.2%.

⁶ Global Asset Management 2018: The Digital Metamorphosis. Boston Consulting Group.

⁷ Global Pension Assets Study. Willis Towers Watson.

Under-Investment on the Rise

The percentage of institutional investors that are at or under-invested relative to target allocations has increased for the past several years. Approximately 60% of institutions are under-invested relative to their target allocations (consistent with 2017 and up from 50% in 2016). Only 13% of EMEA-based institutions are over-invested relative to target allocations, compared to 25% of institutions in the Americas.

Real Estate Investments

As conviction has increased year-over-year and the industry has seen an uptick in reported investment returns, the percentage of institutions that report that they are actively investing in real estate remains at a six year high of 92% (and consistent with 2017). Approximately 39% of institutions report an intention to invest the same amount of capital in 2018 (vs 2017), while 33% expect to invest more capital year-over-year. Despite the headlines regarding a surge in the volume of capital raising for debt strategies, 50% of institutions report that they are not actively investing in debt, while a nominal 14% expect to increase their pace of investing in debt in 2018.

Exhibit 10: % Actual vs. Target Allocation, All Institutions

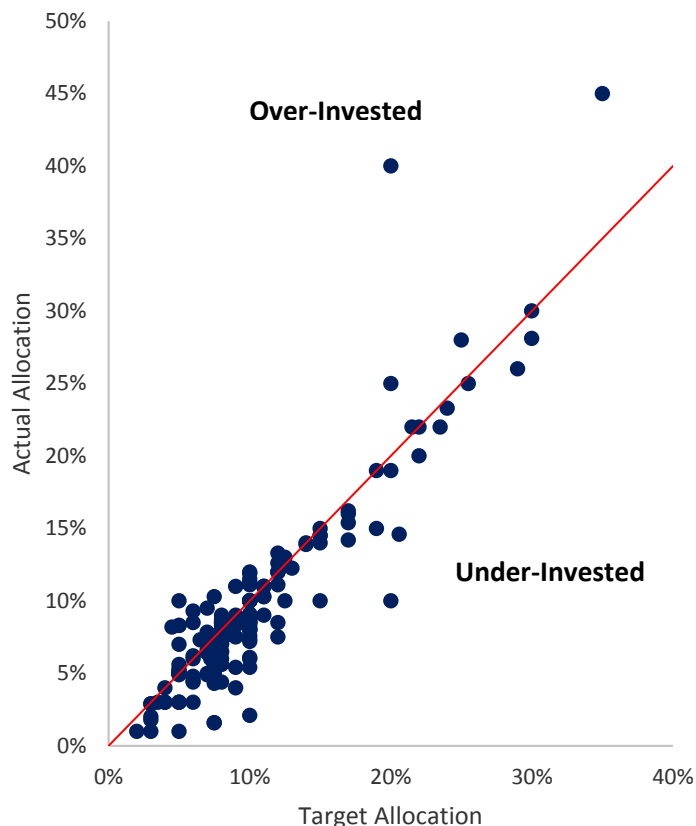


Exhibit 11: Actively Investing in Real Estate, All Institutions

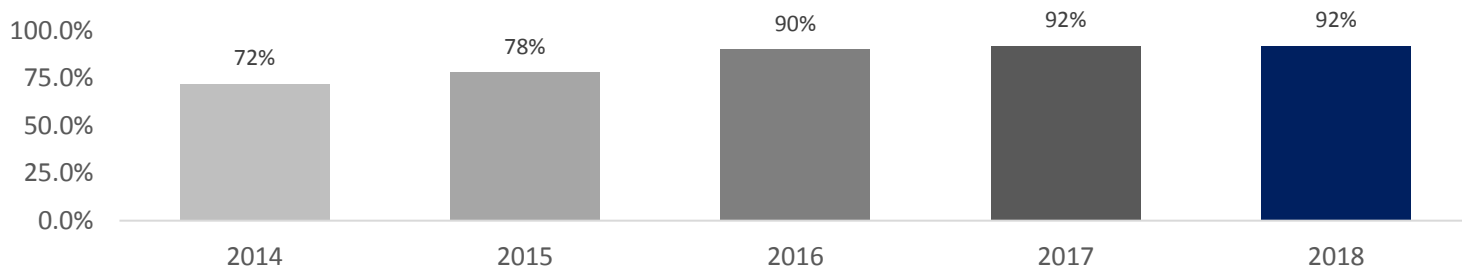
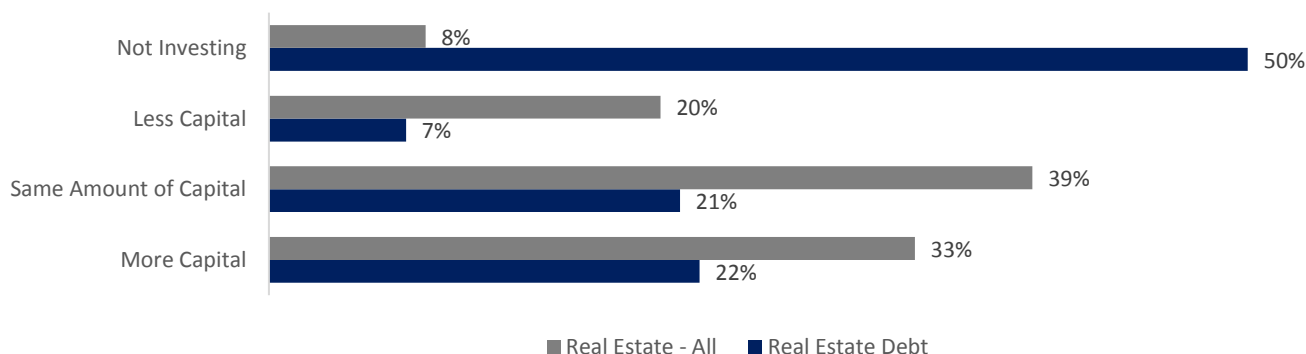


Exhibit 12: Pace of Investment in Real Estate and Real Estate Debt (2018 vs 2017), All Institutions



Historical & Target Returns

Investment performance accelerates in 2017, and continues to outperform long-term target returns

	2018 Target Return	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Actual 2017	Actual 3-Year Average	Actual 5-Year Average
All Institutions	8.2%	9.6%	10.8%	11.8%	10.9%	8.7%	9.2%	9.6%	10.3%
By Type									
Public Pension	7.6%	10.3%	10.0%	11.7%	11.4%	9.0%	9.4%	9.9%	10.3%
Endowment & Foundation	8.8%	9.3%	13.9%	13.0%	11.0%	8.7%	8.9%	9.5%	11.1%
Private Pension	8.4%	9.1%	10.5%	12.6%	11.1%	8.2%	8.9%	9.4%	10.2%
Insurance Company	8.2%	6.8%	7.3%	8.3%	9.3%	9.1%	9.7%	9.4%	8.7%
SWFs & GEs	7.2%	14.4%	11.4%	11.4%	9.7%	8.4%	9.4%	9.2%	10.1%
By Location									
The Americas	8.5%	10.6%	12.5%	12.6%	11.7%	8.6%	9.1%	9.8%	10.9%
EMEA	7.3%	5.9%	6.2%	10.4%	9.3%	8.4%	8.9%	8.8%	8.6%
Asia Pacific	8.1%	9.4%	9.3%	9.5%	10.1%	9.8%	10.2%	10.0%	9.8%
By Size									
Greater than US\$50 billion	7.5%	10.2%	10.1%	11.1%	11.0%	9.3%	9.3%	9.9%	10.2%
Less than US\$50 billion	8.3%	9.5%	10.9%	12.0%	10.9%	8.6%	9.2%	9.6%	10.3%

The average long-term target return for global institutional allocations to real estate remained flat from 2017 to 2018 at 8.2%.

As in previous years, Endowments & Foundations continue to have one of the highest return targets; however, it is notable that their target return decreased 70 bps in 2018, reflecting a more negative outlook on the asset class. This outlook is likely a contributing factor to an overall decline in target allocations (as discussed earlier). SWFs & GEs have the lowest target return at 7.2%, consistent with their heavy emphasis on core investments (with 100% reporting an active focus on core strategies).

After a steep decline in actual returns from 10.9% in 2015 to 8.7% in 2016, returns accelerated in 2017 to 9.2%. In hindsight, the decline in portfolio returns in 2016 may be attributed to a combination of a deceleration in the compression of cap rates and tepid economic growth in 2016 led by a slowdown in capital spending that began in late 2015 and continued into 2016. US GDP growth declined to 1.6% in 2016, as compared to 2.5% in 2014 and 2.9% in 2015. Strong economic growth resumed in 2017, as the annual rate of GDP growth increased to 2.2%, likely contributing to the acceleration in returns for real estate investments.⁸ The increase is consistent with the trendline for global property indexes, including the IPD Global Property Index, which increased to 7.9% in 2017 from 7.4% in 2016.

⁸ Bureau of Economic Analysis, National Income and Product Accounts Tables. GDP Growth Rate

Institutions continue to achieve returns well above their long-term targets, with the 5-year average return for all institutions outpacing target returns by 210 bps. Returns increased about 50 bps year-over-year for institutions from every region, with APAC-based investors winning the trophy for the highest reported annual return in 2017 at 10.2% (repeat champions!). While institutions in the Americas have the highest trailing 5-year average return at 10.9%, investors in APAC have been outperforming their peers in the Americas and EMEA over the past two years and have a trailing 3-year average return of 10.0% (as compared to 9.8% and 8.8% respectively, for the Americas and EMEA). A comparison of trailing 5- and 3-year returns demonstrates how returns have moderated over the past several years, after peaking between 2013 and 2015. As discussed previously, insurance companies are the exception to the trend, with trailing 3-year returns substantially outpacing trailing 5-year returns. APAC institutions may be benefitting from continued strong fundamentals and liquidity flows in their own domestic markets, while also capturing favorable performance from selective offshore investments and currency gains.

Exhibit 13: Institutional Portfolio Returns vs. IPD Global Property Index⁹, All Institutions

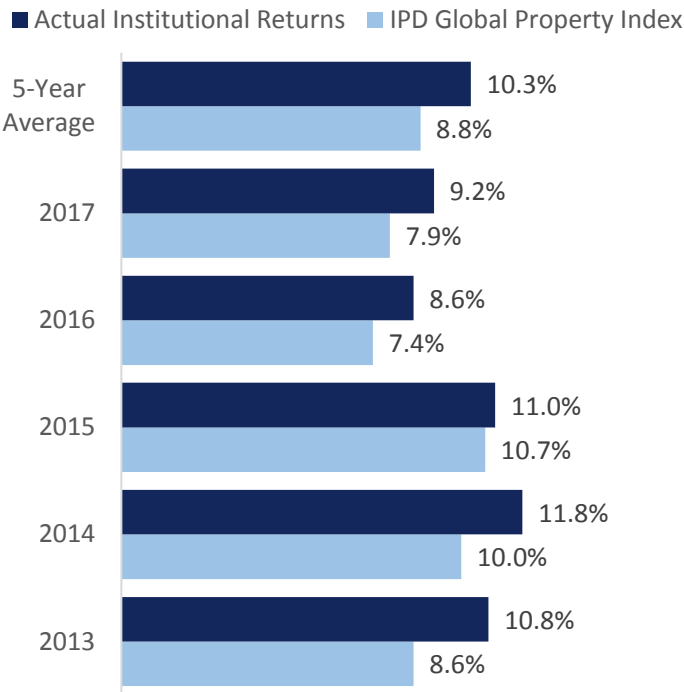


Exhibit 14: Target vs. Historical Returns, By Type of Institution

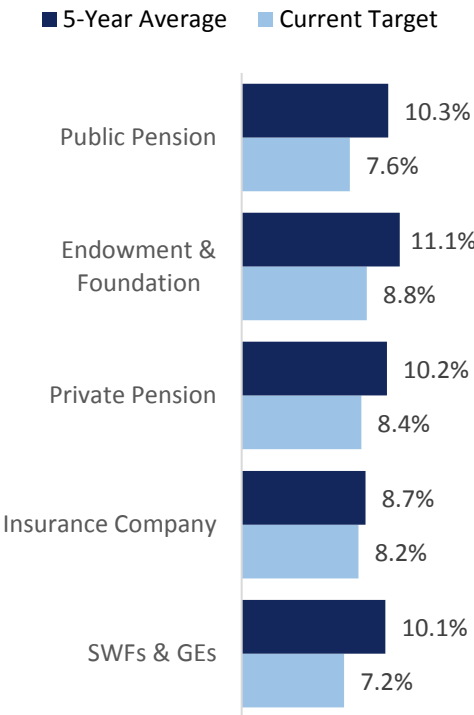


Exhibit 15: Target vs. Historical Returns, By Location of Institution

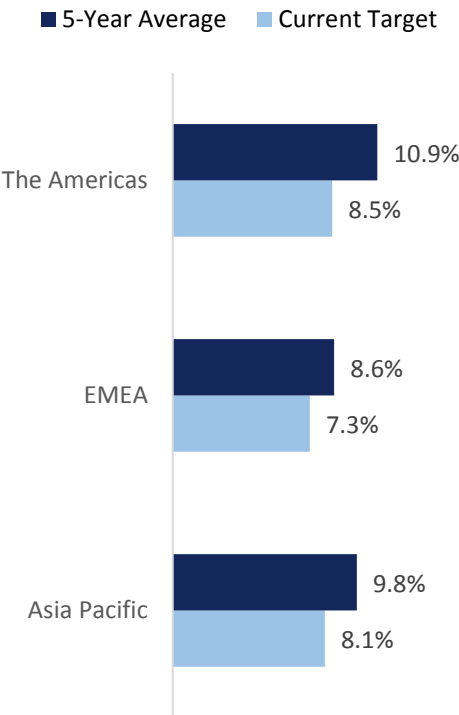
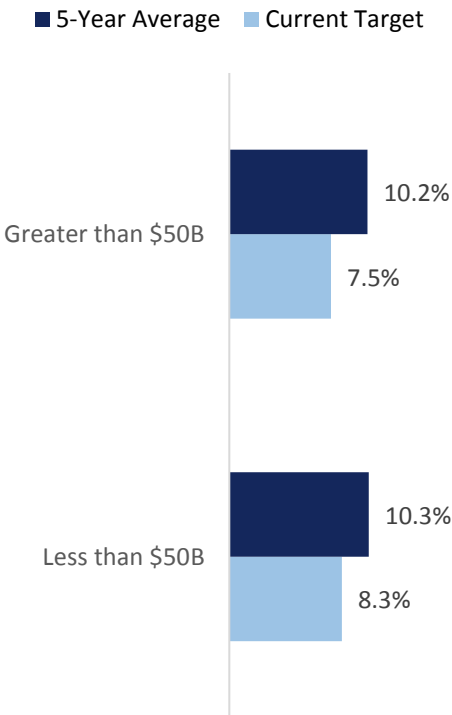


Exhibit 16: Target vs. Historical Returns, By Size of Institution

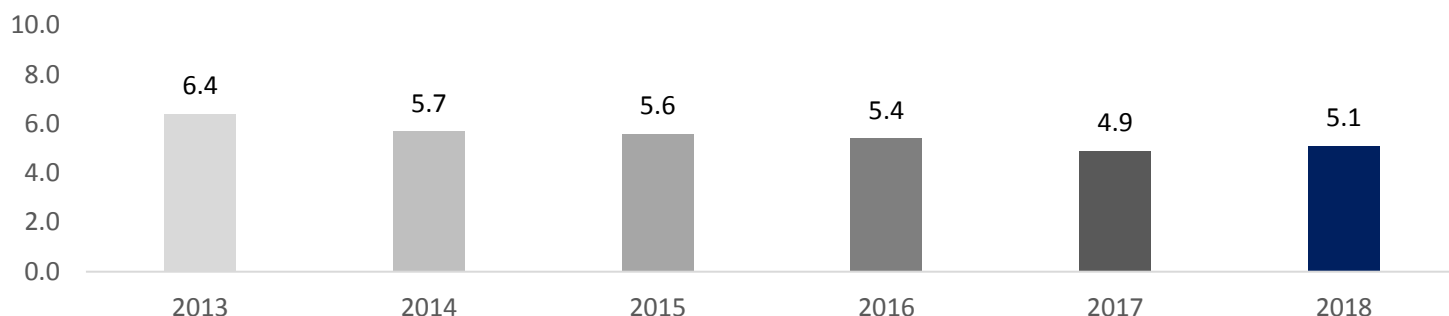


⁹ MSCI – IPD, IPD Global Property Index, 2013 - 2018

Conviction Index

Following a four-year downward trend, institutional conviction for the asset class experienced a slight uptick in 2018

Exhibit 17: Conviction Index, All Institutions

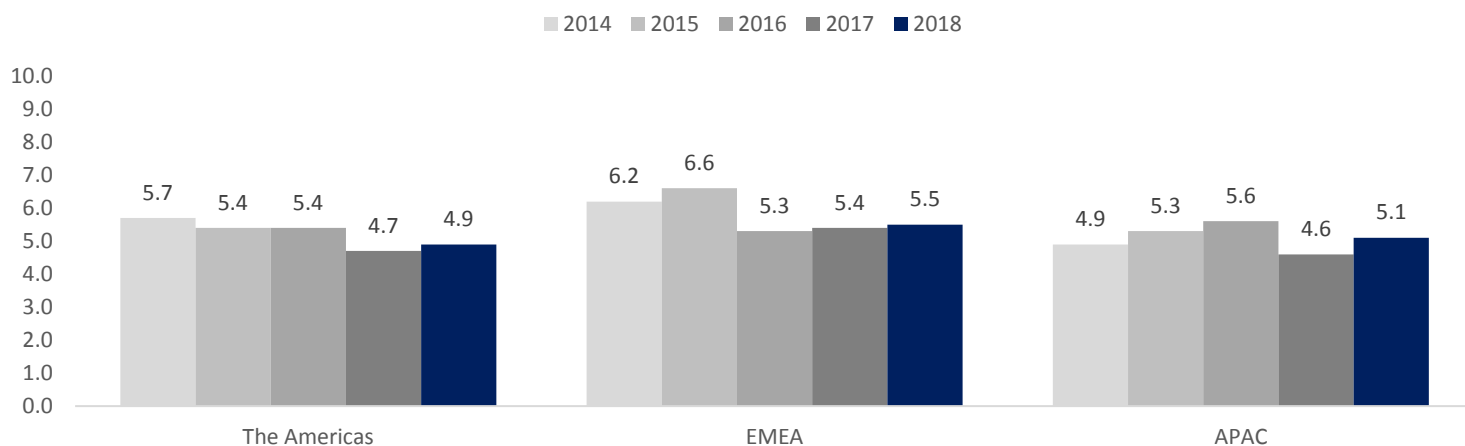


Our survey asks investors to rate on a scale of one-to-ten their view of the investment opportunity in real estate from a risk/return perspective (one being the least favorable, ten being the most favorable). From 2013 to 2017, the “Conviction Index” (i.e., investor sentiment) steadily declined from 6.4 to 4.9. However, in 2018, the Conviction Index increased moderately from 4.9 to 5.1, representing the first year-over-year increase since the start of our survey. This comes as a bit of a surprise, as investors continue to cite concerns regarding rising interest rates, asset valuations, and geopolitical risks, in addition to the perception of being late in the cycle (i.e., “late innings” for baseball fans).

The Conviction Index for APAC-based institutions is up by the widest margin at 0.5 points, which followed a meaningful decline between 2016 and 2017. This may be attributed to the strength of portfolio returns over the past several years (despite the standard disclaimer that - “*past performance is not an indicator of future results.*”). Conviction in the Americas and EMEA also increased, albeit slightly, which based on submitted commentary may be attributed to a rebound in economic growth. It is worth mentioning that the US Consumer Confidence Index hit an 18-year high in September 2018.¹⁰

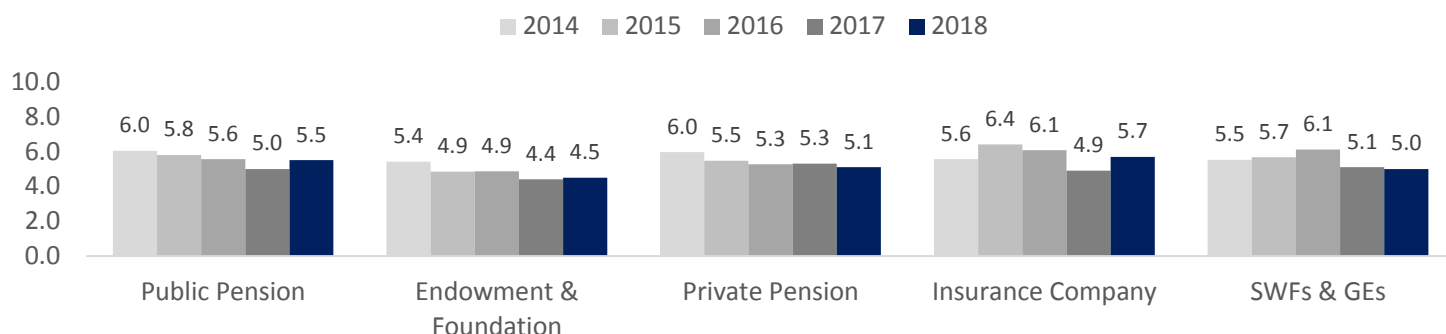
Private Pensions and SWFs & GEs were the only types of institutions with a lower Conviction Index year-over-year, while Insurance Companies and Public Pensions increased considerably (0.8 and 0.5 points, respectively). Endowments & Foundations continue to have the most pessimistic view of the asset class. From what we have heard across the industry, Insurance Companies have become more bullish on real estate over the past few years, and their increase in actual returns for the fifth consecutive year is likely contributing to this. This also correlates with their annual change to Target Allocations.

Exhibit 18: Conviction Index, By Location of Institution



¹⁰ Wall Street Journal. US Consumer Confidence Hits 18-Year High. September 25, 2018.

Exhibit 19: Conviction Index, By Type of Institution



“Compared to other asset classes, real estate still appears more attractive and we must continue to invest. “Long only” investment strategies within real estate seem only modestly attractive given real estate’s upward only performance over the last decade. We are concerned that all positive expectations for property performance is already priced in.”

– Sovereign Wealth Fund / Government Agency, The Americas, US\$25.0 to US\$50.0 billion

“The economy is late in the cycle. Interest rates are rising. Although the current real estate environment is positive, real estate is highly sensitive to the economic cycle and it does not make sense to put new capital at risk given such high valuations.”

– Endowment / Foundation, The Americas, US\$1.0 to US\$5.0 billion

“The coming slowdown will be a soft patch, thanks to low leverage, continued relative attractiveness of real estate relative to other asset classes and timid supply pipeline.”

– Insurance Company, EMEA, Greater than US\$200.0 billion

“Core real estate is fully priced, especially in gateway markets. We are looking at value add strategies, secondary markets, and niche property sectors, as well as commercial real estate debt investments.”

– Public Pension, The Americas, US\$100.0 to US\$200.0 billion

“Unclear geopolitical issues, the projected rise in global interest rates, and high valuations in most big cities make it hard to allocate to gateway cities.”

– Public Pension, Asia Pacific, US\$5.0 to US\$10.0 billion

Exhibit 20: Range of Conviction Index, All Institutions

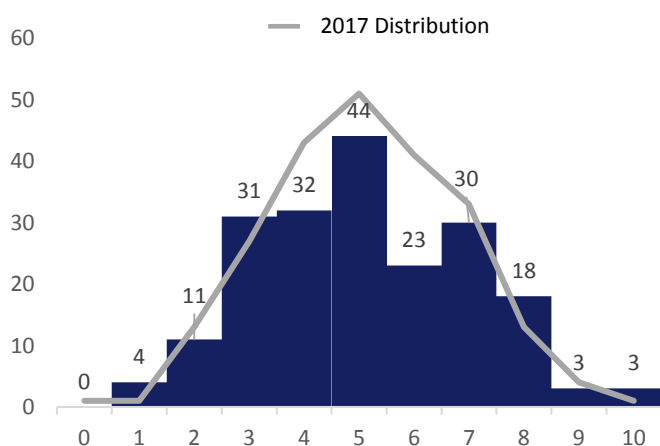
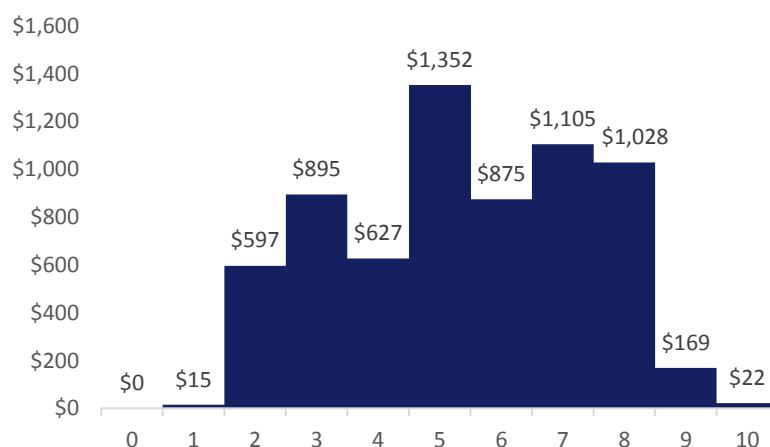


Exhibit 21: Range of Conviction Index, By AUM Midpoint (US\$ Billions)



Third Party Management

Third-party managed AUM continues to trend upward in 2018

Existing Investments

The percentage of institutions that outsource their entire real estate portfolio to third party managers is approximately 70%. This number has steadily increased year-over-year, while the percentage of investors that manage their entire real estate allocation in-house is a nominal 4% (the lowest level since the inception of our survey). As expected, a significantly larger proportion of Smaller Institutions outsource investment portfolios (78%), as compared to Larger Institutions (35%), which can be largely attributed to a lack of internal personnel and resources to manage investments in-house.

Future Allocations

Rising target allocations and an increase in cross-border investing continue to drive the percentage of investors that plan to outsource management of their real estate portfolio investments to third-party managers. It is expected that 85% of new investments over the next 12 months will be allocated to third-party managers.

While institutions continue to favor allocating capital to existing manager relationships, the percentage of institutions intending to increase the number of new manager relationships trended up to 25%, the third straight annual increase. Additionally, 33% of managers indicate that they intend to increase their number of manager relationships, as compared to 11% of participants indicating an intention to decrease the number of manager relationships.

Emerging managers continue to be at a distinct disadvantage to larger cap, established managers, as only 16% of institutions noted that they are willing to invest with first-time fund managers. Endowments & Foundations are the most likely type of institution to allocate capital to a first-time manager at 23%.

Exhibit 25: Willingness to Invest with First-Time Managers, All Institutions and by Type of Institution

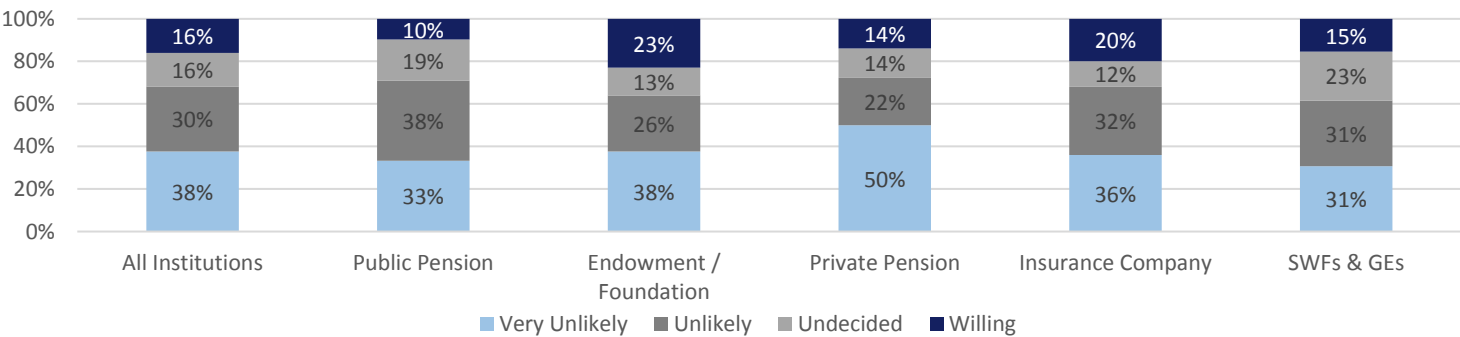


Exhibit 22: Percentage of Portfolio Outsourced to Third-Party Managers, All Institutions

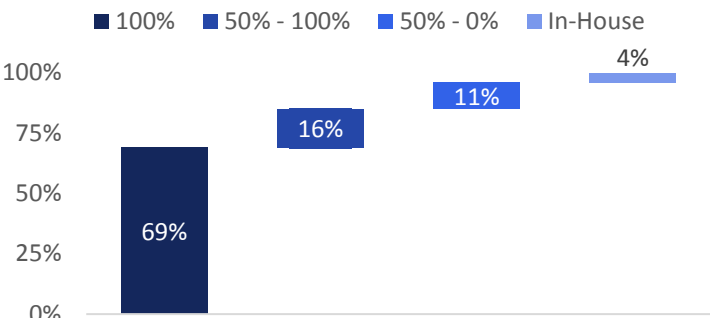


Exhibit 23: Allocations to Managers in 2018, All Institutions

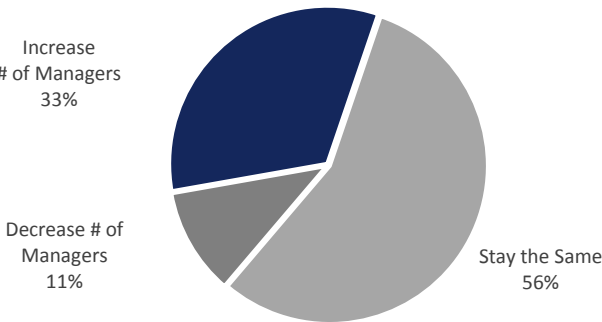
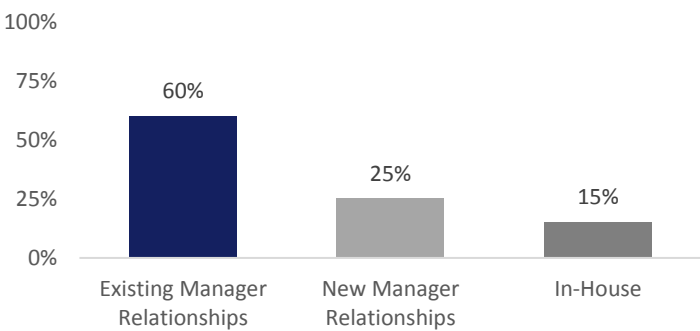


Exhibit 24: Estimated Breakdown of 2018 Investments, All Institutions



Risk Preferences

Value add strategies remain the strongest preference for institutions, while interest in core strategies declines

Exhibit 26: Risk Preference, All Institutions

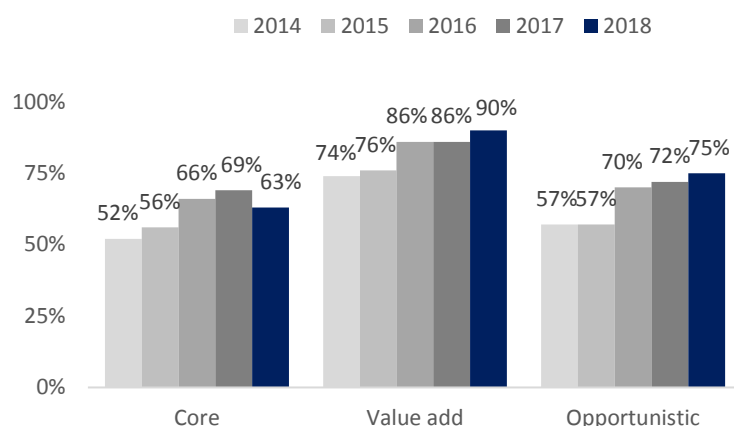


Exhibit 27: Risk Preference, By Location of Institution

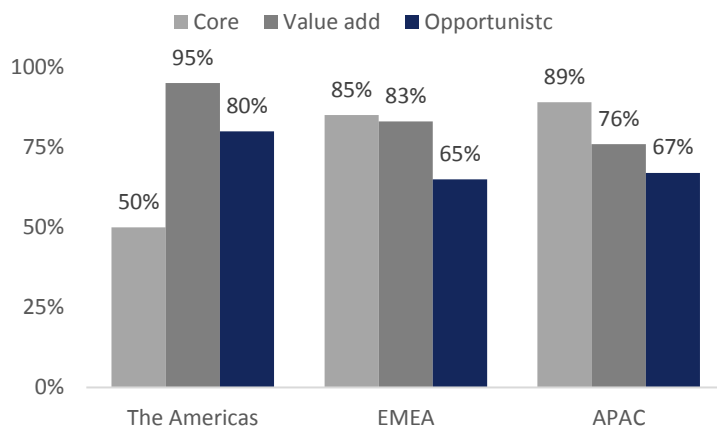
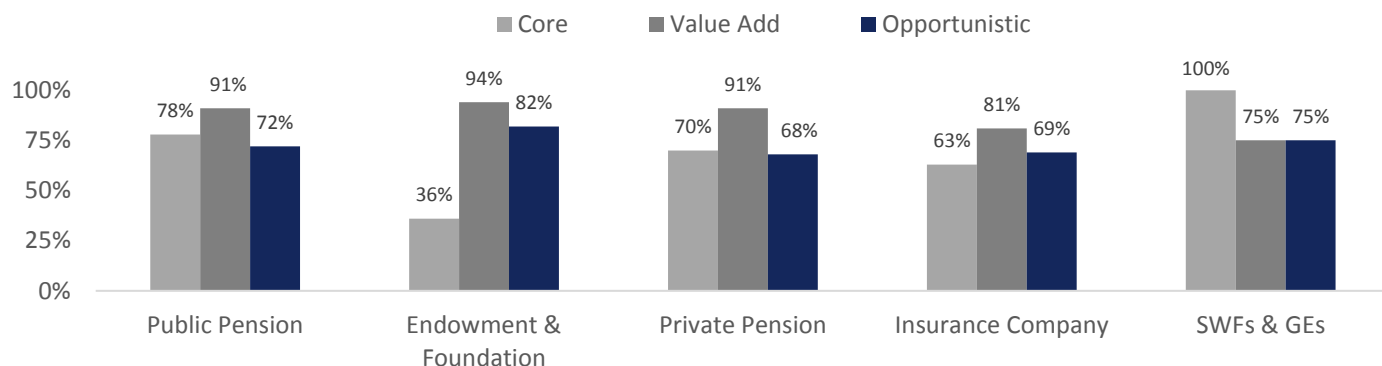


Exhibit 28: Risk Preference, By Type of Institution



Value add strategies continue to be the most favorable investment strategy, with 90% of institutions reporting that they are actively allocating to value add investments; this is up from 86% in 2017. Approximately 75% of institutions are focused on opportunistic strategies, up from 72% in 2017. Interest in core strategies is trending down, with approximately 63% of institutions targeting core investments in 2018, as compared to 69% in 2017. This is the first year we have seen a decrease in the percentage of institutions investing in any strategy since we began the survey in 2013. This can be attributed to investors' belief that we are late in the cycle, and that cap rates are more likely to increase vs decrease over the coming years, especially when/if interest rates rise.

Investor preferences vary by region and by type of institution. Interest in core strategies amongst institutions based in the Americas decreased from 63% in 2017 to 50% in 2018, while nearly all are actively targeting value add investments (95%). This is likely based on concerns about valuations peaking, driven in part by an influx of foreign capital in recent years into major North American real estate markets. The increased competition for core products in these markets has driven up asset values and forced institutions to pursue core opportunities in secondary markets in an effort to find more favorable risk-adjusted returns. Conversely, institutions in EMEA and APAC continue to prefer core strategies and are considerably less likely to invest in higher return strategies.

Value add and opportunistic strategies are being targeted by all types of institutions, while interest in core strategies varies significantly. Only 36% of Endowments & Foundations indicate that they are actively investing in core strategies, as compared to 78% of Public Pensions and 100% of SWFs & GEs. This is consistent with the focus of Endowments & Foundations on absolute returns and being nimbler with respect to altering asset allocations as markets cycle.

Investment Strategy Preferences

Cross-border capital flows remain strong, led by institutions in North America and EMEA, as interest shifts from investment in the U.S. to Europe and Asia

Exhibit 29: Geographic Focus, All Institutions

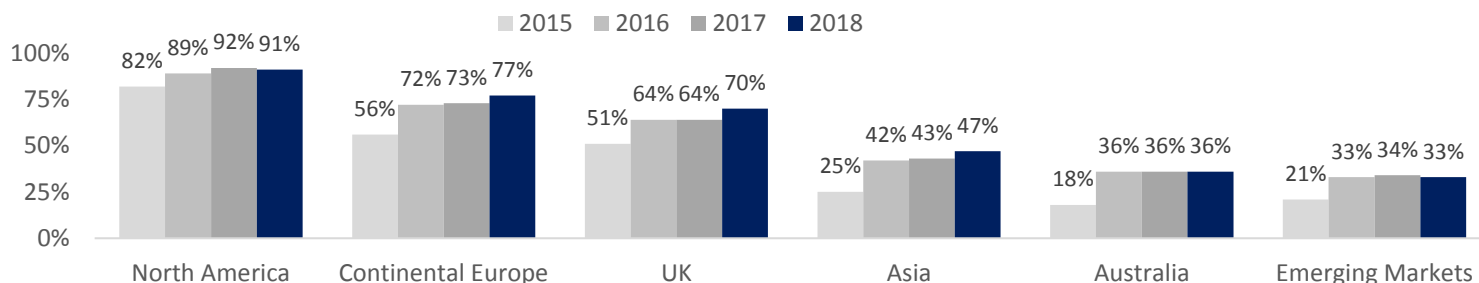
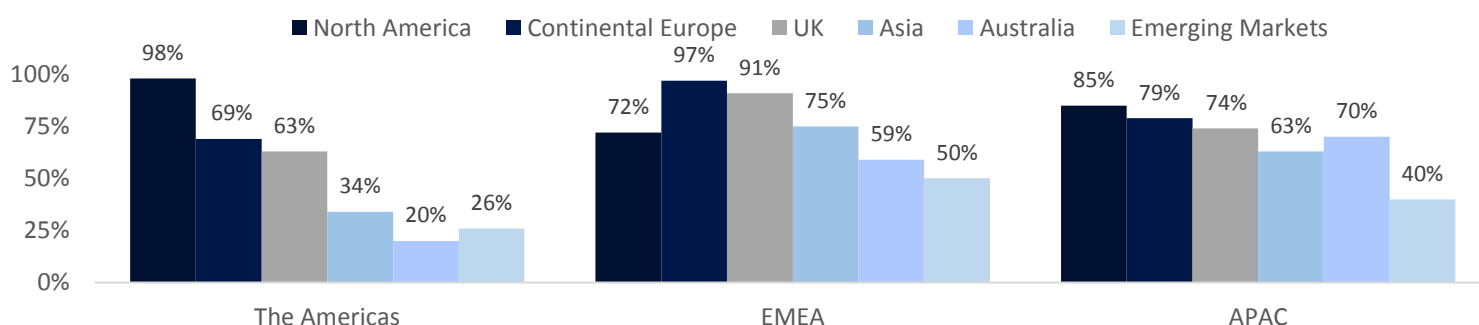


Exhibit 30: Geographic Focus, By Location of Institution



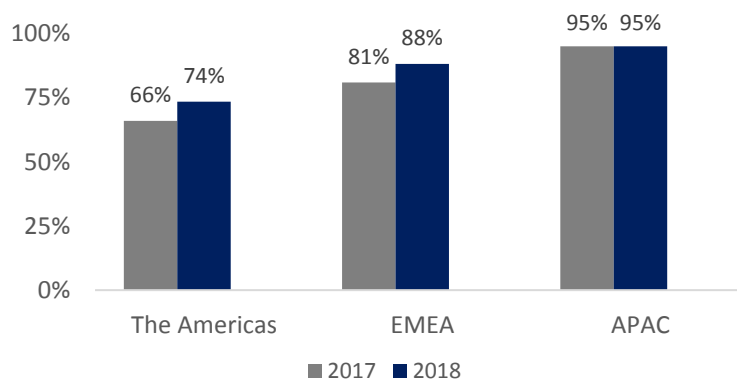
While North America continues to be the preferred destination for capital, with 91% of institutions intending to invest in the region in 2018, interest has increased for investments in Continental Europe, the U.K. and Asia. This trend may be attributed to the outlook for sustained economic growth in Europe and Asia Pacific.

The fear of “catching a falling knife” due to Brexit, appears to be abating, as interest in the UK from EMEA based institutions increased significantly year-over-year from 74% in 2017 to 91% in 2018. Although US investments have been the focus of off-shore institutions for several years, Europe- and Asia-focused strategies are beginning to draw more interest.

Anecdotally, we have heard from investors in EMEA and APAC that it has become increasingly harder to find attractive opportunities in the US, which has only been exacerbated by the strength of the US dollar and historically high cost of currency hedging, while numerous institutions feel Europe is a few years behind in the U.S. in terms of a post-GFC recovery. Institutions in EMEA are increasingly focusing on Asia Pacific, as 75% report that they are actively focused on Asia Pacific (up from 59% in 2017). Investors in Asia Pacific have shifted their priorities from North America to their home markets.

As expected, more institutions from every region are growing their focus on intra-regional investments, with investors in the Americas indicating an 8 percentage point increase in focus on non-domestic investment strategies. At this point in the cycle, and with many of the major US markets at cyclical highs, we expect to see an increase in the pace of outbound cross border investments. This bodes well for managers, as the percentage of institutions that outsource to a third-party manager is generally higher for international investments.

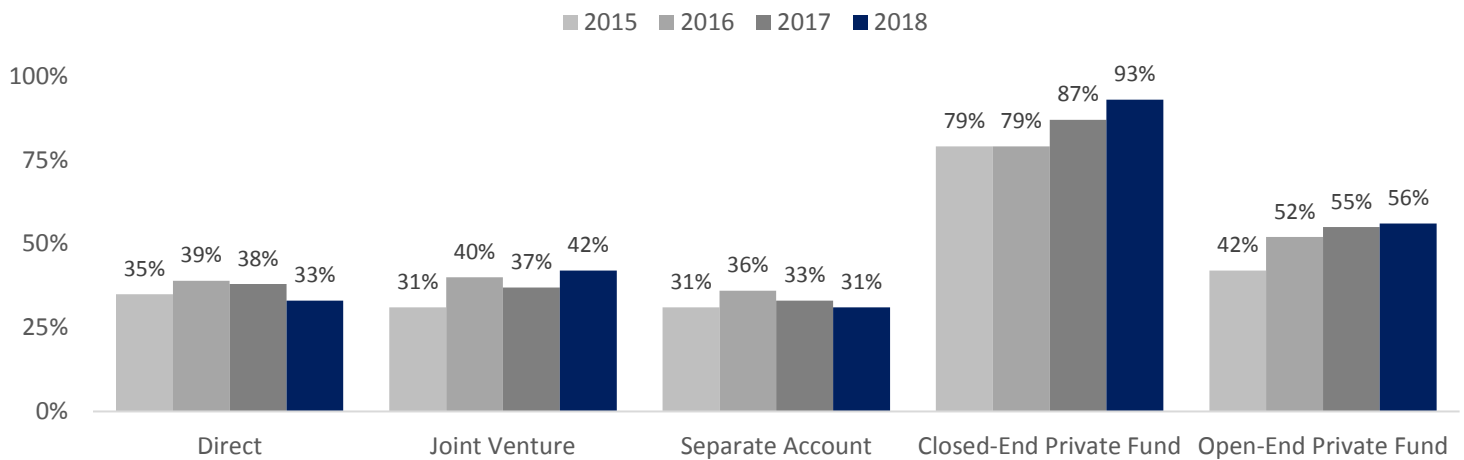
Exhibit 31: Institutions Investing Outside of their Domestic Region, By Location of Institution



Investment Product Trends

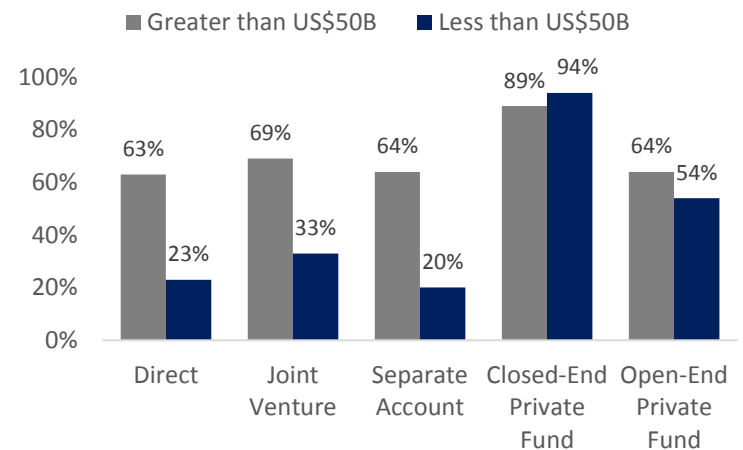
Closed-end funds continue to gain favor with institutional investors

**Exhibit 32: Investment Product Preferences,
All Institutions**



After the amount of capital raised for private funds decreased annually in 2016 and 2017, the trend has reversed year to date in 2018. Capital raised has increased 12.5% on a year-to-date basis in 2018¹¹. Closed end funds continue to be the most popular investment vehicle amongst institutional investors, with 93% of institutions intending to invest in closed-end private funds in 2018. Closed-end funds experienced the largest year-over-year change of any investment product preference at 6%, while interest in other products remained relatively flat year-over-year. This is consistent with the trend of more institutions allocating investments to third-party managers, as private funds are less management intensive for Smaller Institutions and for institutions looking to invest globally in sector-specific or pan-regional investment strategies.

**Exhibit 33: Investment Product Preferences
By Size of Institution**



Direct investments and separate accounts are the least popular investment product, now having declined for the second straight year. Institutions based in The Americas are the least likely to make direct investments in 2018, with only 20% indicating interest. Approximately 59% of EMEA based investors and 47% of APAC based investors have plans to make direct real estate investments.

Interest in direct investing, joint ventures, and separate accounts varies significantly depending on the size of the institution. Larger institutions (greater than US\$50bn in AUM) are typically able to make larger investments and, in return, generally look for more control over investment decisions (i.e., discretion), as compared to Smaller Institutions. Smaller Institutions are often not staffed to participate in direct investments, JVs, or separate accounts, and they get most of their exposure through private funds or other commingled products.

¹¹ Preqin data. Accessed October 2018

Environmental, Social & Governance (ESG)

ESG policies continue to be increasingly important for institutions, and investment managers should take notice

ESG Considerations

As expected, the focus on ESG policies has continued its upward trend in 2018. Approximately 39% of institutions indicate that they have a formal ESG policy, up from 36% in 2017. We asked institutions if they have a stated formal policy toward ESG and whether that policy influences their investment process.

Responses to ESG considerations varied greatly by the type, the size, and the regional location of institution. Only a quarter of institutions in the Americas reported that they are influenced by ESG policies, indicating that they considerably less focused on environmental and social considerations, relative to institutions in EMEA and APAC. Endowments & Foundations are the least likely to be influenced by ESG policies at 19%, while all other institutions were either at, or above the average of 36%.

Exhibit 34: Formal ESG Policies, All Institutions

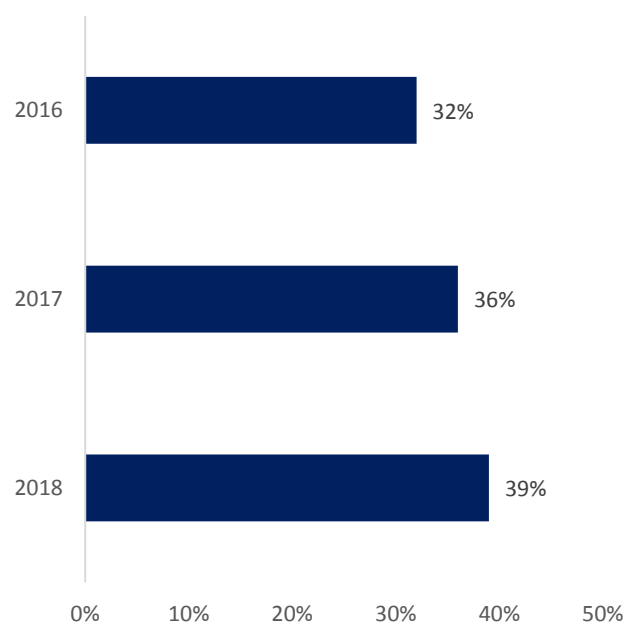
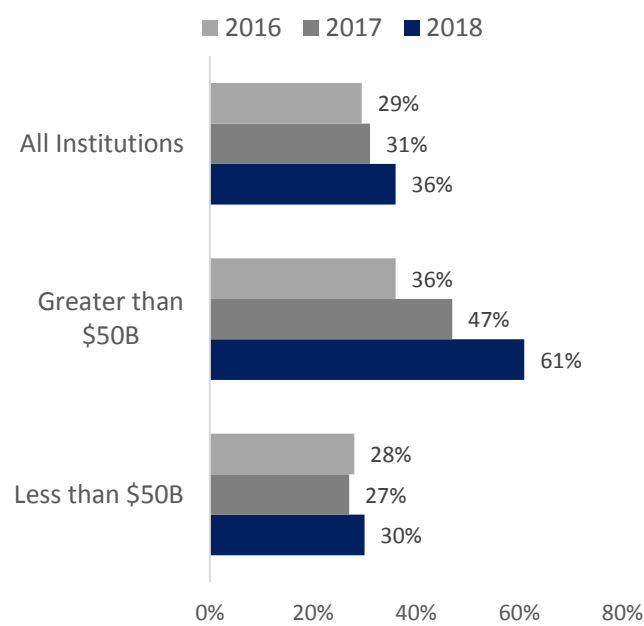


Exhibit 35: Investment Process Influenced by ESG Policies All Institutions and by Size of Institution



The influence of ESG policies also varies significantly based on size of institution. Only about 30% of Smaller Institutions reported that ESG policies have an impact on their investment process while 61% of Larger Institutions stated that ESG has an influence. The percentage of Larger Institutions influenced by ESG policies has grown 25 percentage points over the past two years, while the percentage of Smaller Institutions has remained relatively flat.



Cornell's Baker Program in Real Estate is home to the 2-year Masters of Professional Studies in Real Estate degree, a comprehensive, graduate-level curriculum that educates the next generation of real estate industry leaders. Cornell is also home to the Cornell Real Estate Council, an extensive alumni network of over 2,000 real estate industry leaders, with 10 domestic chapters that host the annual Cornell Real Estate Conference.

Cornell boasts the largest full-time, on campus real estate faculty in the country, including three endowed positions in real estate, with its 26-full-time real estate field faculty selected from seven colleges at Cornell to create a unique interdisciplinary structure. The core courses in the Program in Real Estate are drawn from each of the colleges to create a multidisciplinary educational experience that utilizes the full resources of Cornell. Students at Cornell receive broad exposure to real estate, from architectural design, construction management, real estate finance/investment, and real estate development to deal structuring, as part of their core coursework. The ability to specialize in one of ten real estate niches during their second year, furthermore, creates the opportunity to maximize Cornell's extensive real estate offerings in sculpting a concentration ideally suited to the individual student's interests.

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