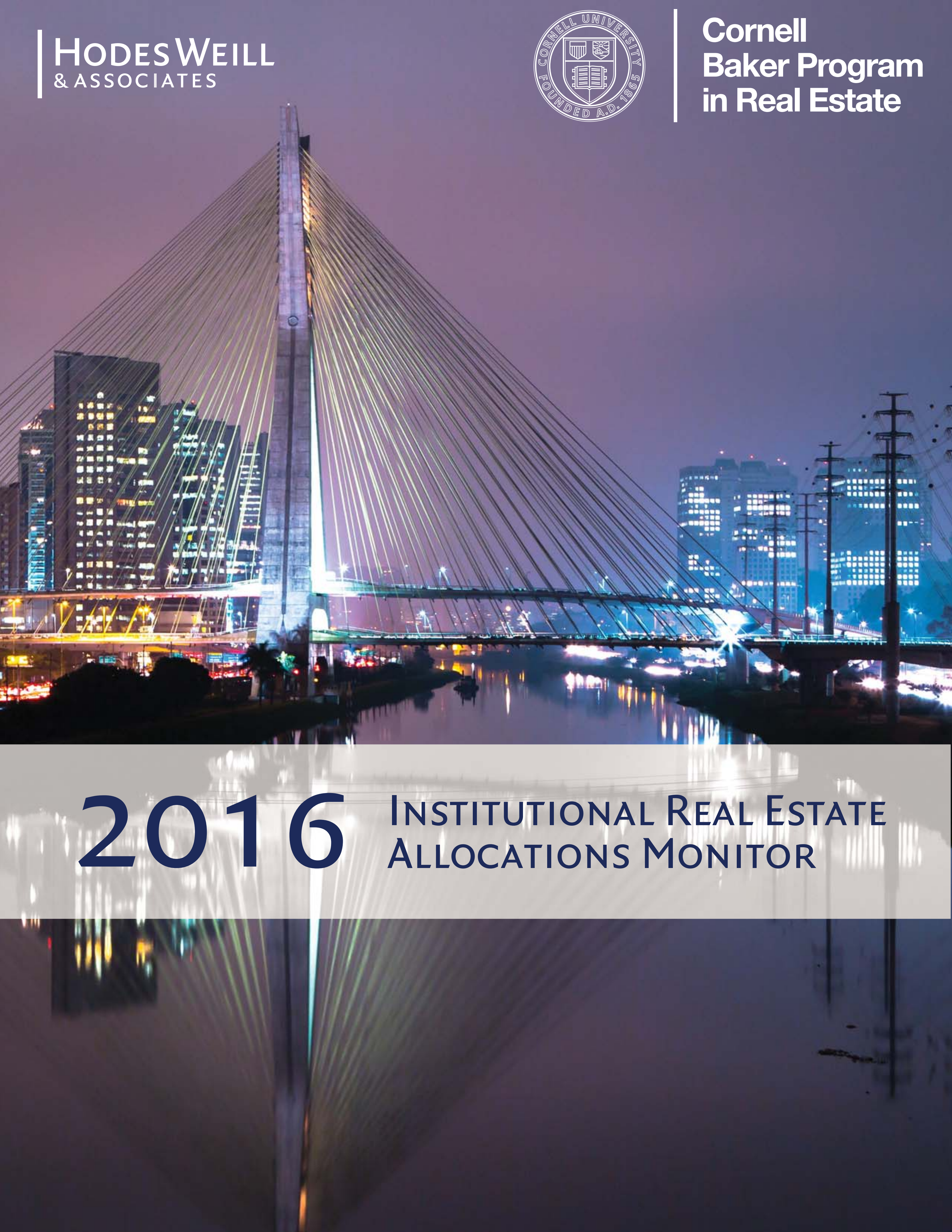

HODES WEILL
& ASSOCIATES

Cornell
Baker Program
in Real Estate

# 2016 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 fourth annual Institutional Real Estate Allocations Monitor (the "**2016 Allocations Monitor**"). The 2016 Allocations Monitor focuses on the role of real estate in institutional portfolios, and the impact of institutional allocation trends on the investment management industry. Founded in 2013, the 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 Allocations Monitor includes research collected on a blind basis from 228 institutional investors in 28 countries. The 2016 participants hold total assets under management ("**AUM**") exceeding US$10.3 trillion and have portfolio investments in real estate totaling approximately US$920 billion. Our survey consisted of 27 questions concerning current and future investments in real estate, portfolio allocations to the asset class, 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 2016 Allocations Monitor**

The key findings of this report include:

1. **Real estate is trending towards a 10%+ institutional portfolio allocation.** The average target allocation to real estate now stands at 9.9%, up 34 bps from 2015 and up approximately 100 bps over the past four years. Institutions have indicated an intention to increase their target allocations by an average of 40 bps over the next 12 months to 10.3%.

2. **Institutions remain broadly under-invested relative to target allocations.** Despite concern about late cycle valuations, 90% of institutions remain active in allocating capital to real estate. Portfolios are 8.9% invested in real estate, up 40 bps from 2015. However, institutions continue to chase their target allocations as portfolios remain approximately 100 bps under-invested.

3. **Institutional real estate portfolios continue to demonstrate strong investment performance.** Real estate has generated an average annual investment return of 10.7% over the past four years. This compares favorably to institutions' average target return of 8.4%, as well as various property return indices over the same time period. Institutions in the Americas get the trophy for the highest four-year average annual return at 11.8%.

4. **Institutional conviction for the asset class declined for the fourth consecutive year.** In contrast to continued momentum in capital flows to the asset class, investor conviction has declined steadily since 2013 as institutions are increasingly concerned about asset valuations, rising interest rates and geopolitical risks. Between 2015 and 2016, our "Conviction Index" declined from 5.6 to 5.4.

5. **Institutional interest in core, value-add and opportunistic strategies has trended steadily upward over the past four years.** By a substantial margin, institutions are most focused on value-add strategies, followed by opportunistic strategies. The strong interest in higher yielding strategies demonstrates that institutions have a growing appetite for alpha-generating strategies.

6. **Industry-wide AUM continues to trend upward, as allocations to third party managed products remain robust.** Despite headlines that institutions are internalizing management functions, the substantial majority of institutions rely on third party managers for their real estate investments. Approximately 94% of institutions have some or all of their investments managed by third parties. In addition, institutions expect to allocate 85% of their invested capital in 2016 to third party managers.

7. **Institutions are showing an increase in appetite to add managers to their portfolios.** Large-cap managers continue to win more than their "fair share" of capital allocations. However, boutique managers may be better positioned to gain allocations over the coming years, as 28% of institutions intend to add managers to their portfolios over the next 12 months.

8. **While North America continues to be the primary destination for investing capital, interest in other geographies has increased substantially.** Although North America and EMEA-based institutions are prioritizing investments in their home markets, cross border capital flows continue to increase. Interest in emerging markets is on the rise, with one out of three institutions actively investing.

9. **Demand for real estate private funds remains strong.** Nearly 80% of institutions are interested in closed-end private funds. There is growing interest for open-end funds, despite recent signs of an acceleration in redemptions. Larger institutions continue to show strong interest for non-fund vehicles including direct investing, joint ventures and separate accounts.

10. **Environmental, Social & Governance (ESG) policies are beginning to influence investment strategies.** While the percentage of institutions with formal ESG policies remained relatively the same year-over-year, the percentage of institutions that indicated that their investment processes are influenced by ESG considerations increased to 29% in 2016 from 16% in 2015.

The 2016 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 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.

Regards,

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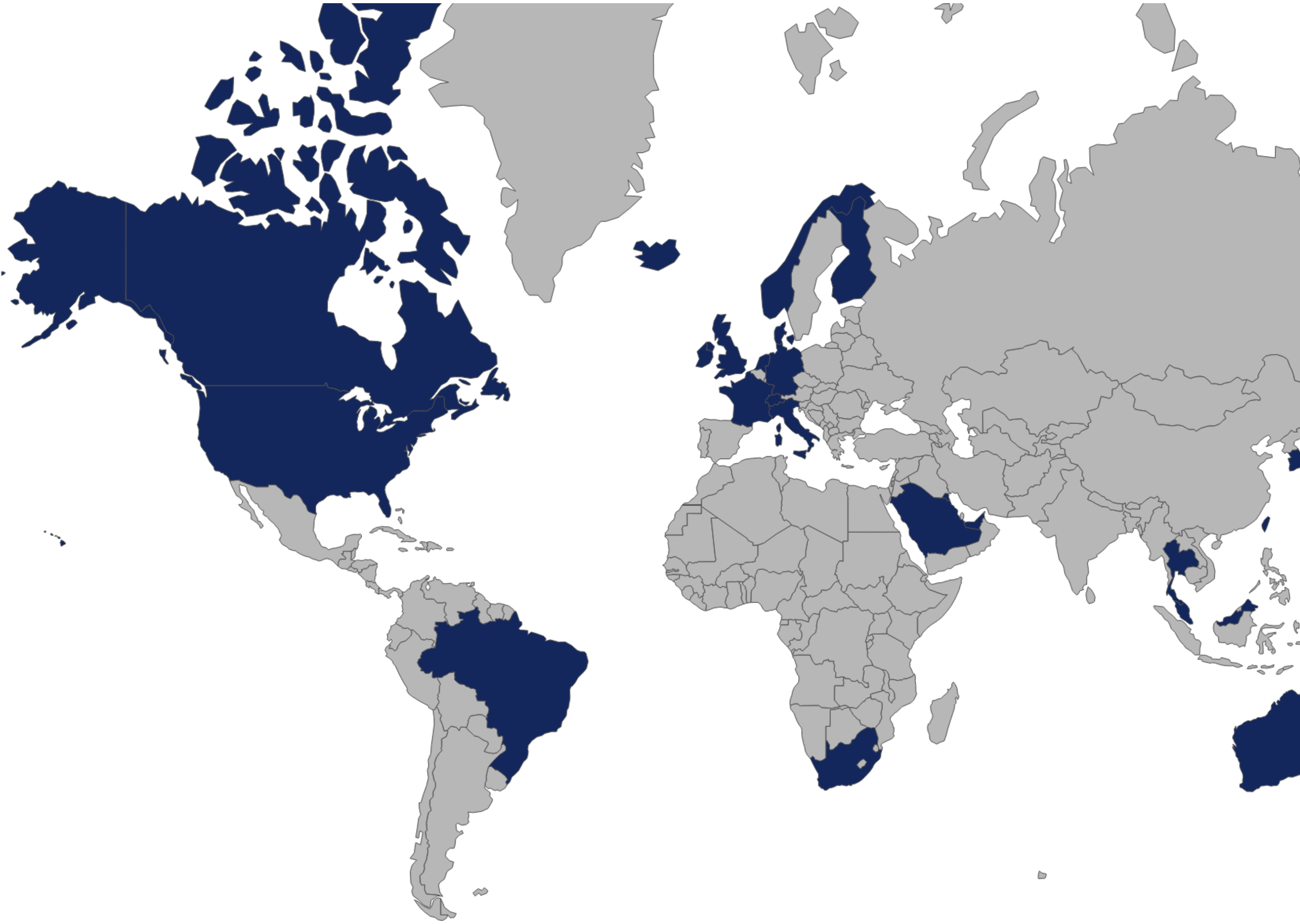
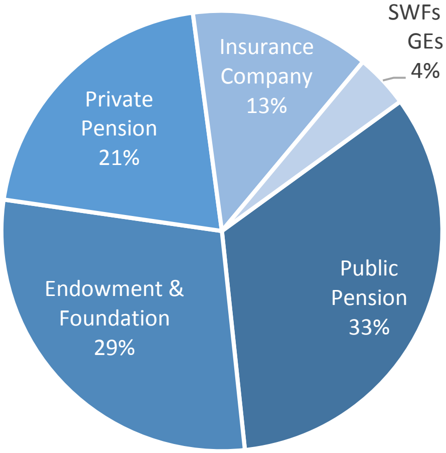
## 2016 Global Institutional Participants

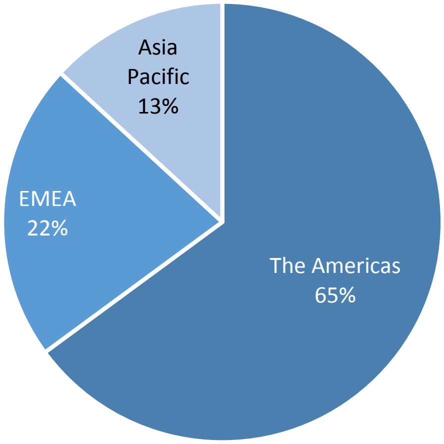
**228 Participants represent US$10.3 trillion in AUM**



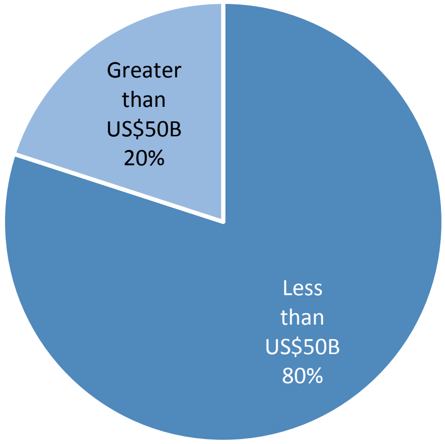
**Breakdown of Participants By Type of Institution**




**Breakdown of Participants By Location of Institution**




**Breakdown of Participants By Size of Institution**



**The Americas (148 Participants)**

Alberta Investment Management Corporation
Alberta Teachers' Retirement Fund
Annie E. Casey Foundation
Arkansas Teacher Retirement System
AT&T Pension Fund
Bank of Canada Pension Plan
Brandeis University Endowment
British Columbia Investment Management Corporation
California Public Employees' Retirement System
Carnegie Corporation of New York
Church Pension Group
City of Omaha Police and Fire Retirement System
City of Phoenix Employees' Retirement System
Cornell University Endowment
Employees' Retirement System of Rhode Island
Employees' Retirement System of Texas
Employees' Retirement System of the State of Hawaii
Erie Indemnity Company
Exelon Corporation
Grinnell College Endowment
Idaho Endowment Fund
Ivanhoe Cambridge
Johns Hopkins University Endowment
Knights of Columbus
Liberty Mutual Insurance
Lincoln Financial Group
Los Angeles City Employees' Retirement System
Los Angeles County Employees' Retirement Association
Manulife Financial
Maryland State Retirement and Pension System
Massachusetts Pension Reserves Investment Management Board
Miami University Endowment and Foundation
National Railroad Retirement Investment Trust
New Mexico Public Employees' Retirement Association
North Carolina Department of State Treasurer
OMERS
Oregon State Treasury
Pennsylvania Public School Employees' Retirement System
Pepperdine University Endowment
Public Employees' Retirement System of Mississippi
Rasmuson Foundation
Rice University Endowment
Rockefeller Foundation
Sacramento County Employees' Retirement System
Seattle City Employees' Retirement System
State of Wisconsin Investment Board
Texas Municipal Retirement System
Texas Permanent School Fund
Texas Tech University System Endowment
The American National Red Cross
UJA Federation of New York
United States Steel and Carnegie Pension Fund
University of Chicago Endowment
University of Louisville Foundation
University of Oklahoma Foundation
University of Rochester Endowment
University of Texas Investment Management Company
University of Virginia Investment Management Company
University of Western Ontario Endowment
Virginia Retirement Systems
Wespath
West Virginia University Foundation
YMCA Retirement Fund
**and 85 anonymous participants**

**EMEA (50 Participants)**

Abu Dhabi Investment Authority
ATP Real Estate
BVK
DNB Life
Hermes Investment
Kuwait Fund for Arab Economic Development
Lancashire County Council Pension Fund
MN Services
Muenchener Verein Versicherung
Nationwide Pension Fund
Nordcapital
Pension Fund for General Practitioners
Pension Fund for the Dutch Construction Industry
Saudi Economic & Development Company
Shell Asset Management Company
Stapi Pension Fund
Tribus Capital Partners
Varma Mutual Pension Insurance Company
VRB
**And 31 anonymous participants**

**APAC (30 Participants)**

CBUS
DIC Corporation Pension Fund
Fubon Life Insurance
Hanwha Life Insurance
IBK Insurance
Insurance Commission of Western Australia
Korea Specialty Contractor Financial Cooperative
KTCU
LUCRF Super
Meiji Yasuda Life Insurance
Mitsubishi Corporation
Muang Thai
Nan Shan Life Insurance
New South Wales Treasury Corporation
NUS Endowment Fund
OOCL
Shin Kong Life Insurance
SunSuper
TWUSUPER
Victorian Funds Management Corporation
**and 10 anonymous participants**

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# Participation & Methodology

We wish to thank the 228 institutional investors that participated in our survey this year. The survey participants are from 28 countries and represent institutions with over US$10.3 trillion in total assets and real estate assets of approximately $US920 billion. We believe this continues to be the industry's most comprehensive global survey of institutional allocations and intentions in global 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 8% 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.

We want to share several important notes to readers regarding methodology:

- We conducted the survey over an approximate five-month period from May 2016 to September 2016.

- Target and projected allocations, percent invested and the current margin between target and percent invested 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 10 such investors in 2016.

- Unless otherwise stated, all other figures are based on straight averages, including for investment activity, intentions, target returns and risk/return objectives.

***Exhibit 1: Total Number of Participants***

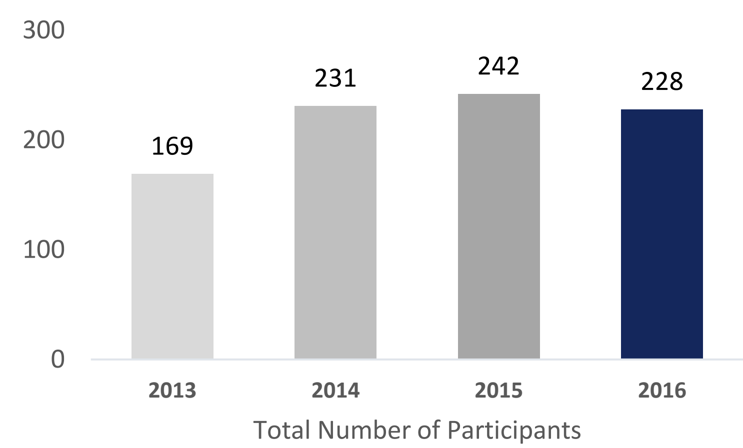
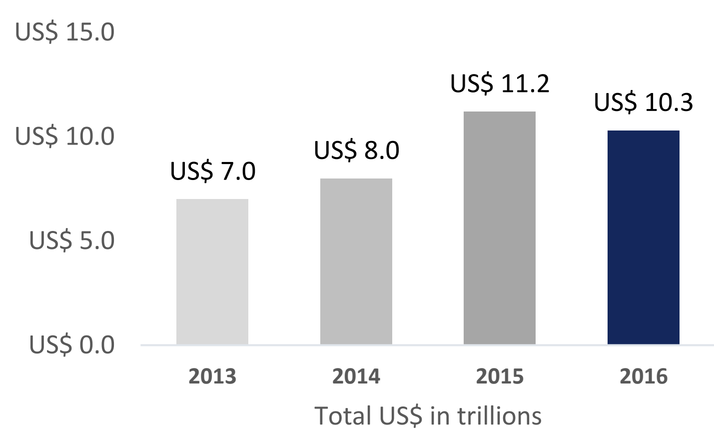



***Exhibit 2: Aggregate AUM of Participants***



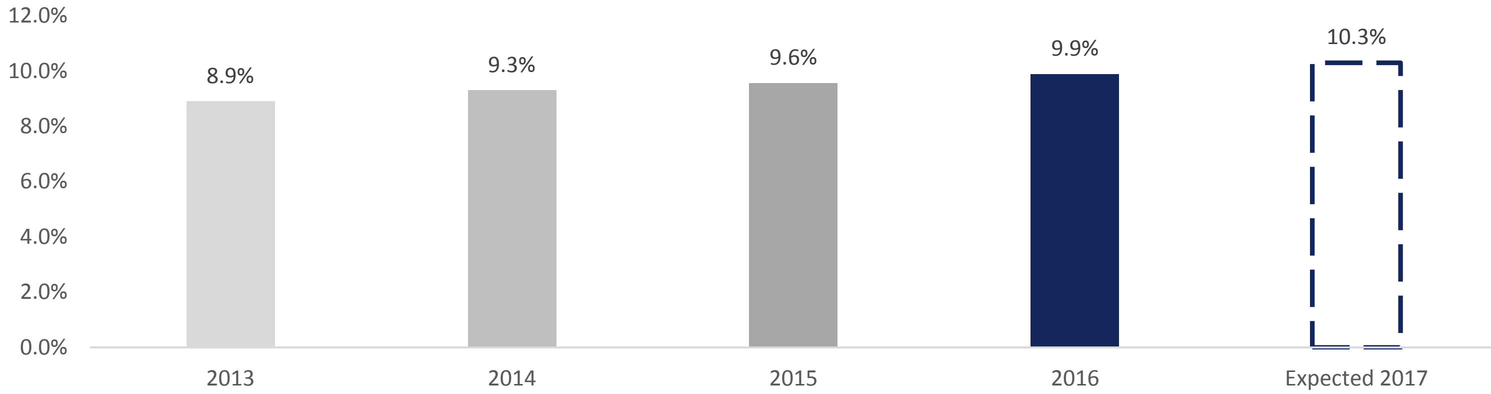

***Definitions Guide***

"**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**" include institutions located in North and South America

## Target Allocations to Real Estate

*Real estate is trending towards a 10%+ institutional portfolio allocation - increasing approximately 100 bps over the past four years*

***Exhibit 3: Average Target Allocation, All Institutions***

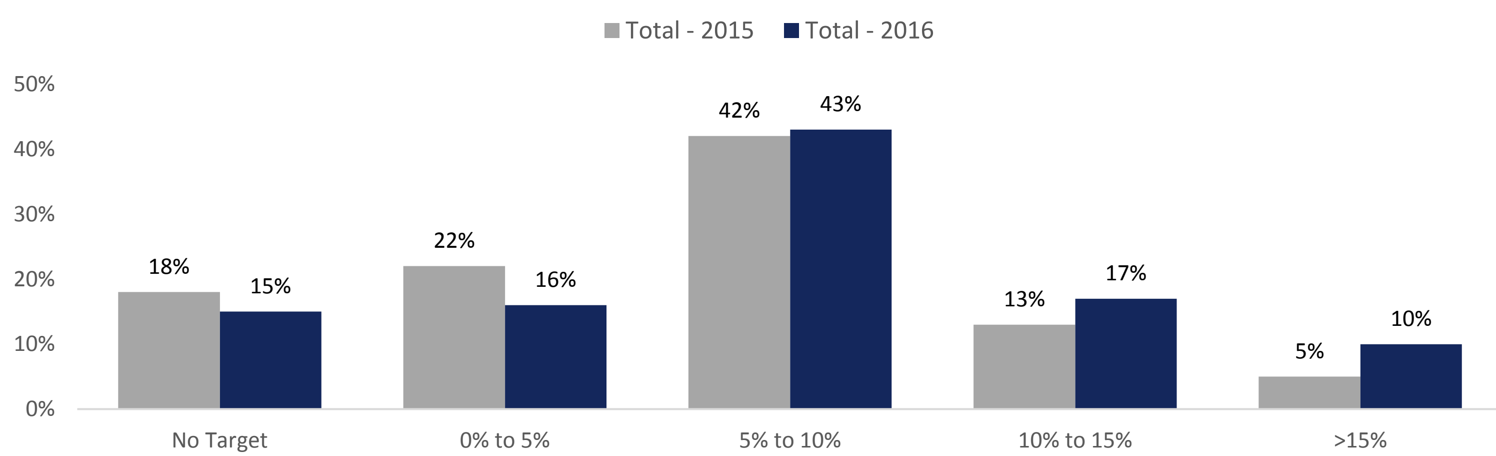



***Target Allocations to Real Estate***

Allocations to real estate continue to increase. The average target allocation to real estate now stands at 9.9%, up 34 bps from 2015, and up 100 bps since 2013. The results of this year's survey are consistent with the outlook from last year's survey, which predicted an average increase in target allocations of 29 bps from 2015 to 2016. Furthermore, institutions have indicated their intention to increase their target allocation by a further 40 bps to 10.3% in 2017. Overall, 32% of survey participants increased their target allocations in 2016, while just 17% decreased in 2016.[1]

As reported in prior editions of the Allocations Monitor, the shift towards a 10%+ real estate allocation in institutional portfolios has been widely predicted (and recommended) by industry participants over the past several years. This shift is most apparent in a year-over-year analysis of the range of target allocations. In 2015, 18% of investors had allocations greater or equal to 10%. In 2016, this figure increased to 27%.

***Exhibit 4: Range of Target Allocations, 2015 vs. 2016***

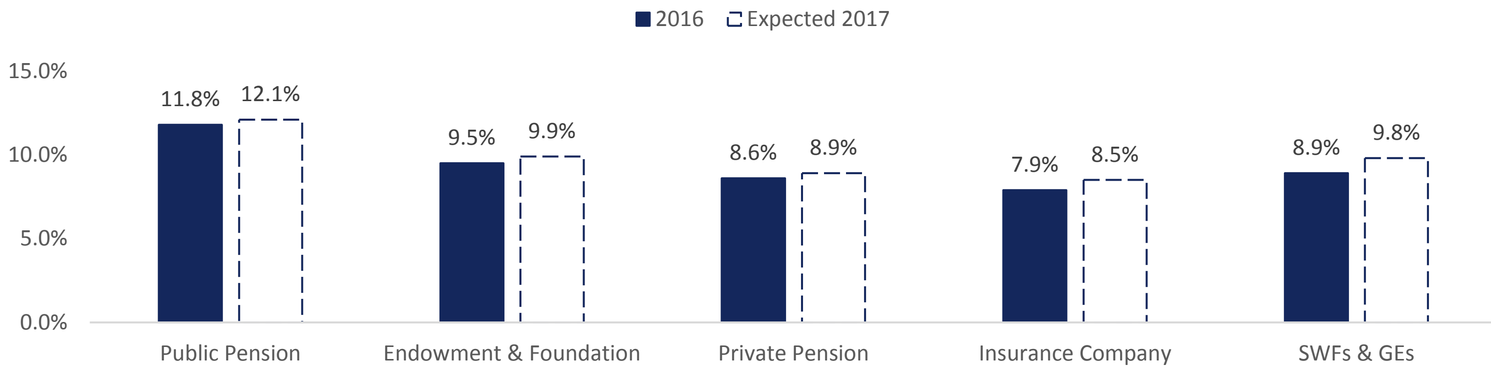



[1] Based on "same-store" comparison for institutions that participated in the Allocations Monitor survey in both 2015 and 2016.

### *Target Allocations by Type of Institution*

Public Pensions have the highest target allocation amongst their peers at 11.8% and expect to increase their target by nearly 30 bps to 12.1% in 2017. Insurance companies continue to have the lowest target allocation at 7.9%, but have the largest projected increase over the next 12 months at 60 bps. This is driven in part by non-US institutions, including a number of prominent insurance companies, that have announced plans to either begin or increase capital allocations to the asset class given the global search for yield in a low interest rate environment. While the impact of risk reserve requirements on "after all cost" returns has historically dampened appetite for real estate on the part of insurance companies, this consideration may diminish given weight of capital and need for yield. Despite being less active in real estate following the global financial crisis, Endowments & Foundations and Private Pensions also now expect to increase their targets from 2016 to 2017. This is notable in that allocations for Endowments & Foundations had declined over the past three years after significant underperformance following the global financial crisis.

***Exhibit 5: Average Target Allocation, By Type of Institution***




### Target Allocations by Size of Institution

Smaller institutions (defined herein as those with AUM less than US$50 billion) have a target allocation of 10.3% and expect to increase by an additional 20 bps in 2017 to 10.5%. Larger institutions (defined herein as those with AUM greater than US$50 billion) have a target allocation of 9.7% and expect to increase their target by 50 bps in 2017, to 10.2%. The difference is likely driven by larger, non-US institutions, including insurance companies and pension funds, that have been increasing their presence in markets around the world – along with the continued appetite from SWFs & GEs for real estate.

Approximately 23% of institutions surveyed indicated an intention to increase their target allocations over the next 12 months, by an average of approximately 140 bps. Approximately 70% of institutions intend to hold their target allocations flat over the next 12 months, and just 7% intend to decrease their target allocations.

***Exhibit 6: Average Target Allocation, By Size of Institution***

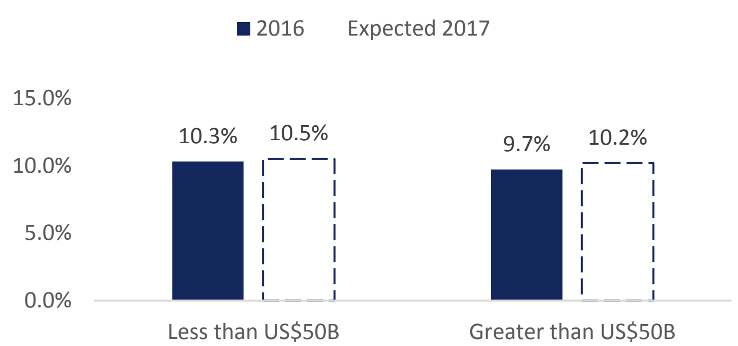
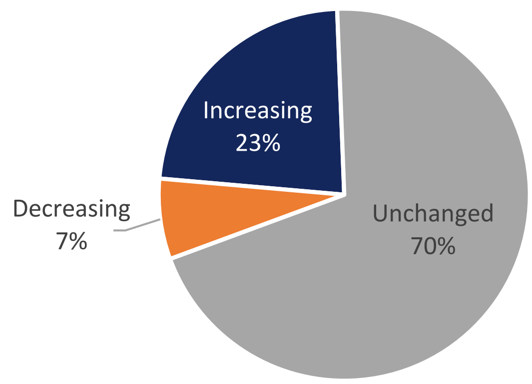



***Exhibit 7: Expected Change in Target Allocations***



## Current Investments

*Despite robust allocations to real estate investment products over the past 12 months, institutions remain broadly under-invested relative to target allocations*

***Exhibit 8: Percent Invested vs. Target Allocation, All Institutions and By Location of Institution***

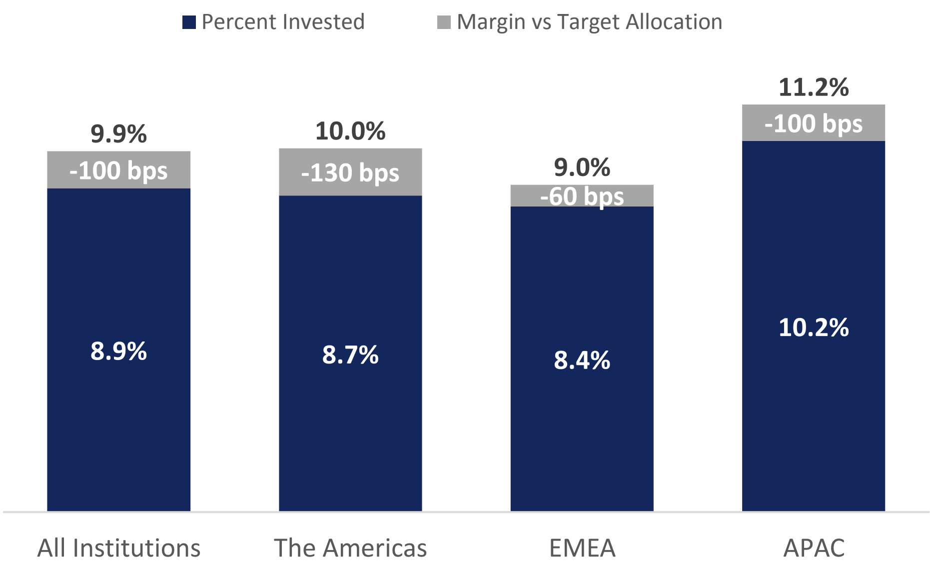
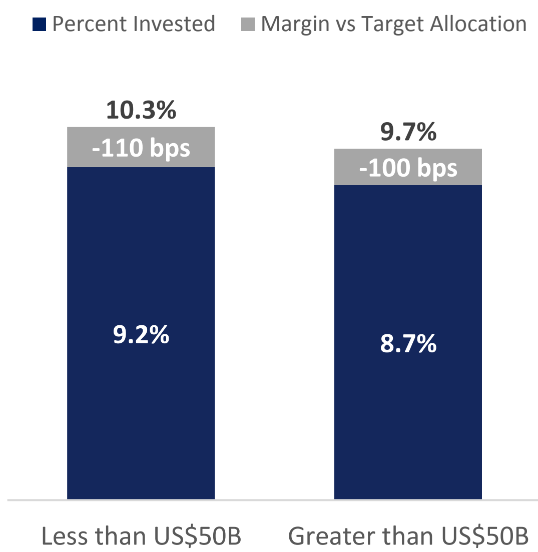



***Exhibit 9: Percent Invested vs. Target Allocation, By Size of Institution***



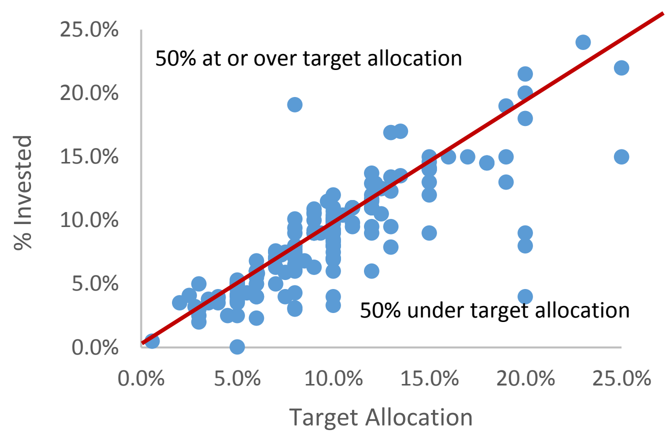

On average, institutional portfolios are 8.9% invested in real estate, up 40 bps from 8.5% in 2015. Despite widespread concern about late cycle valuations, investors remain very active in allocating capital to real estate investments across regions, risk strategies and products. As discussed herein, we anticipate that investors will continue to struggle reaching their target allocations as their conviction continues to decline. With a heavy weight of capital and "pressure to invest", institutions are signaling their intention to shift to more defensive strategies including credit, corporate net leases and non-cyclical/niche asset classes such as student housing, healthcare and self-storage. One institution commented that they are seeking "long-term stable cash flow in an uncertain economy".

***Target Allocations by Location of Institution***

Institutions across all regions remain under-invested relative to target allocations. Institutions in EMEA have the lowest target allocation at 9.0%, and the smallest gap between actual and target allocation, which may be attributed to weaker investment performance in other asset classes. Institutions in APAC continue to have the highest target allocation at 11.2% and have been very active investors around the globe. Chinese and Korean investors, in particular, have grabbed headlines with numerous high profile transactions over the past several years. Accordingly, APAC-based institutions have seen their margin of under-investment decline from 220 bps in 2015 to 100 bps in 2016. Institutions in the Americas increased their target allocations by an average of 60 bps over the past 12 months and they remain the most under-invested at a margin of 130 bps – which may be explained by a decline in conviction over the past several years, as well the strength of the performance of other asset classes (including public equities and private equity). Several investors indicated that an additional factor contributing to under-investment is the pace of realizations and distributions, which have exceeded the pace of deployments over the past several years.

Although investors remain significantly under-invested relative to target allocations, the total number of investors that are under-invested has decreased year-over-year. Approximately 50% of institutions are at, or exceed, their target allocation by an average of 200 bps, while 50% of institutions are under-invested relative to their target allocations by an average of 250 bps (as compared to 59% in 2015 at an average under-investment margin of 220 bps). This would indicate that there is a concentration of capital held by a smaller number of larger, under-invested institutions.

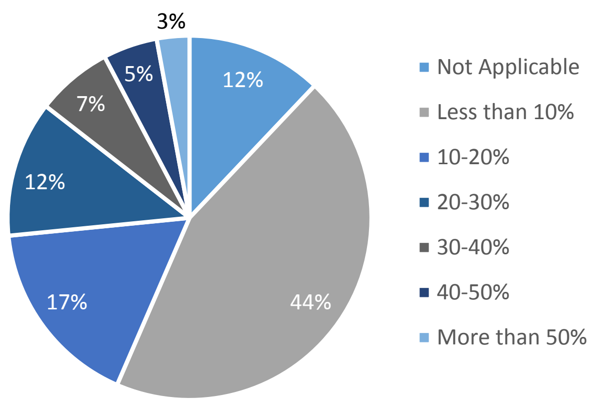
***Exhibit 10: % Invested vs. Target Allocation, All Institutions***




***Unfunded Capital Commitments***

In this year's survey, we asked investors to indicate what percentage of their total real estate allocation is currently comprised of unfunded capital commitments. Over the past few years, we have repeatedly heard that investors had significant amounts of capital "sitting on the sidelines" as managers have been slow to call capital due to an increase in caution regarding investing capital late in the cycle. While approximately 44% of investors have less than 10% of their capital commitments outstanding, over a quarter of investors have more than 20% outstanding. One institution commented, "real estate valuations have gotten ahead of underlying fundamentals. And dry powder accumulation is a major concern as competition is intense for all sectors and quality of real estate".

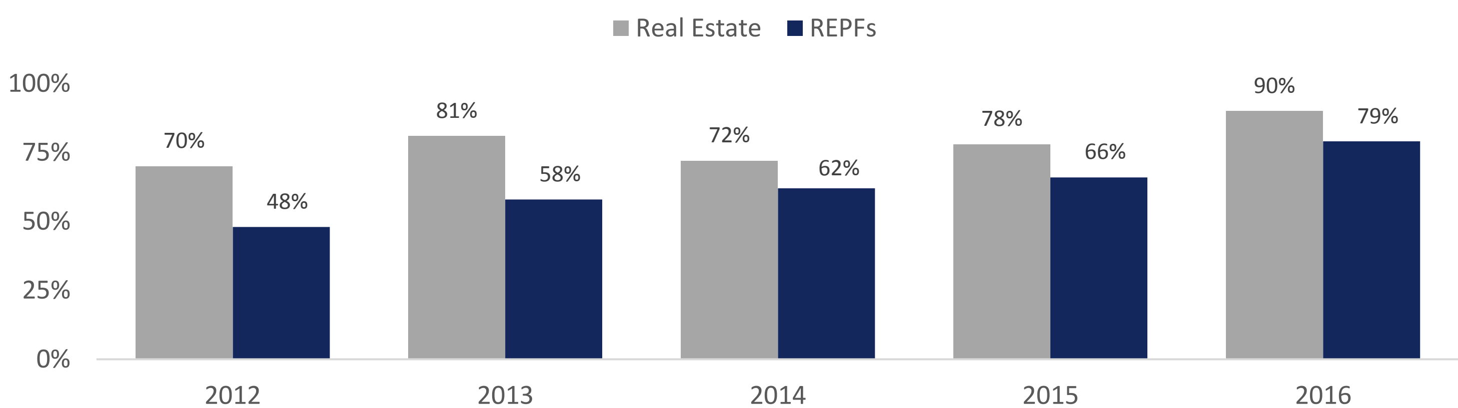
***Exhibit 11: Unfunded Capital Commitments***




**Real Estate Investments**

Despite an abundance of caution on the part of investors, 90% of institutions report that they are actively investing in real estate. This is up from 78% in 2015, demonstrating continued momentum in capital flows to the asset class. This includes capital allocated to direct investments, joint ventures, separate accounts, co-investments and real estate private funds ("**REPFs**"). Moreover, 79% of institutions are actively investing in real estate private equity funds in 2016 - up from 66% in 2015 - despite announced strategies that would imply a general shift towards more direct investing. Surprisingly, this increase in fund participation is particularly pronounced for larger institutions, of which 96% are actively investing in private funds (up from 80% in 2015).

***Exhibit 12: Investing in Real Estate and Real Estate Private Funds***



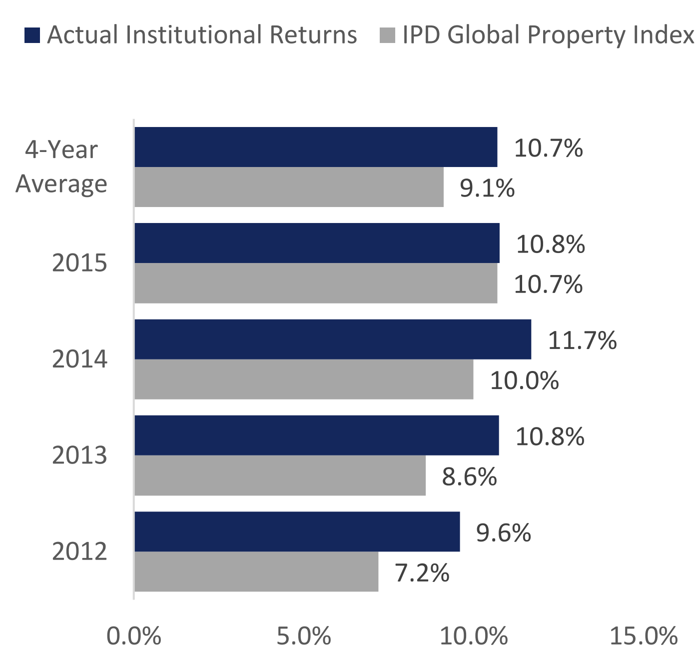
## Historical & Target Returns

*The average return target for real estate increased by 20 bps in 2016 despite headlines that institutions are reducing target returns across asset allocations based on the expectation that investment performance will decline*

| | Target Returns | | Actual Returns | | | | |
|---|---|---|---|---|---|---|---|
| | ***2015 Target Return*** | ***2016 Target Return*** | ***Actual 2012*** | ***Actual 2013*** | ***Actual 2014*** | ***Actual 2015*** | ***Actual 4-Year Average*** |
| **All Institutions** | 8.2% | 8.4% | 9.6% | 10.8% | 11.7% | 10.8% | 10.7% |
| **By Type** | | | | | | | |
| Public Pension | 7.9% | 7.9% | 10.3% | 10.0% | 11.7% | 11.1% | 10.8% |
| Endowment & Foundation | 8.9% | 9.6% | 9.3% | 13.9% | 12.5% | 11.0% | 11.7% |
| Private Pension | 8.2% | 7.8% | 9.1% | 10.5% | 13.4% | 10.9% | 10.9% |
| Insurance Company | 7.7% | 7.8% | 6.8% | 7.3% | 7.4% | 9.5% | 7.7% |
| SWFs & GEs | 7.4% | 8.8% | 14.4% | 11.4% | 12.7% | 9.9% | 12.1% |
| **By Location** | | | | | | | |
| The Americas | 8.6% | 8.5% | 10.6% | 12.5% | 12.6% | 11.7% | 11.8% |
| EMEA | 7.1% | 8.0% | 5.9% | 6.2% | 10.3% | 8.5% | 7.7% |
| APAC | 7.7% | 8.4% | 9.4% | 9.3% | 9.2% | 10.3% | 9.5% |
| **By Size** | | | | | | | |
| Greater than US$50 billion | 7.9% | 7.7% | 10.2% | 10.1% | 10.6% | 10.9% | 10.4% |
| Less than US$50 billion | 8.3% | 8.5% | 9.5% | 10.9% | 12.0% | 10.7% | 10.8% |

The average target return for institutional allocations for real estate stands at 8.4% globally. As we would expect, institutions that use real estate to match fund liabilities have lower target returns, prioritizing investments in fixed income-oriented strategies. For example, insurance companies and pension funds target notably lower returns at an average of 7.8% each as compared to 9.6% for Endowments and Foundations. Endowments and Foundations have the highest target return for real estate, which is not surprising given their focus on absolute return investing. This generally leads them to prioritize higher-returning strategies including value-add and opportunistic funds and programmatic ventures.

***Exhibit 13: Actual Institutional Returns vs. IPD Global Property Index[2]***




[2] MSCI – IPD, IPD Global Property Index, 2012 - 2016

Institutions with greater than US$50 billion of AUM (including public pension funds and insurance companies) have a lower average target return at 7.7% as compared to smaller institutions at 8.5%. This supports the emphasis on maintaining substantial core portfolios by larger institutions.

Institutions in the Americas and APAC have the highest target returns at an average of 8.5% and 8.4% respectively, as compared to EMEA-based institutions at 8.0%. This may be attributed to institutions in the Americas investing higher up the risk curve and institutions in EMEA utilizing lower levels of leverage.

Real estate, as an institutional allocation, has generated an average annual return of 10.7% over the past four years. While 2015 annual returns declined from 2014 by 90 bps, they were still substantially above the current average target return of 8.4% and in excess (albeit slightly) of global unlevered property returns. It is important to note that a comparison to unlevered property returns is not necessarily analogous, as institutions utilize leverage, assume various degrees of risk, and often pay portfolio management fees and/or taxes. And while we all know that past performance is not an indication of future performance, the favorable recent performance of the asset class has likely contributed to continued increases in target allocations and investment activities in the market.

SWFs & GEs, which have the second highest current target return, have achieved the highest four-year average return at 12.1%, which is 330 bps over their current target return. Many of these are new investors that have minimal holdings dating back more than 4-5 years, so limited drag on their performance following the global financial crisis. Investment returns for insurance companies continue to lag the market, although demonstrated a substantial increase year-over-year. This may be an indication that insurance companies are increasing their appetite for risk. While other institutions' returns have outperformed target returns by a fairly wide margin, insurance companies' four-year average return has not beaten their target.

Investors in the Americas get the trophy for the highest four-year average return at 11.8%. This is 410 bps greater than the EMEA-based investors four-year average and 230 bps greater than that of APAC-based investors.

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

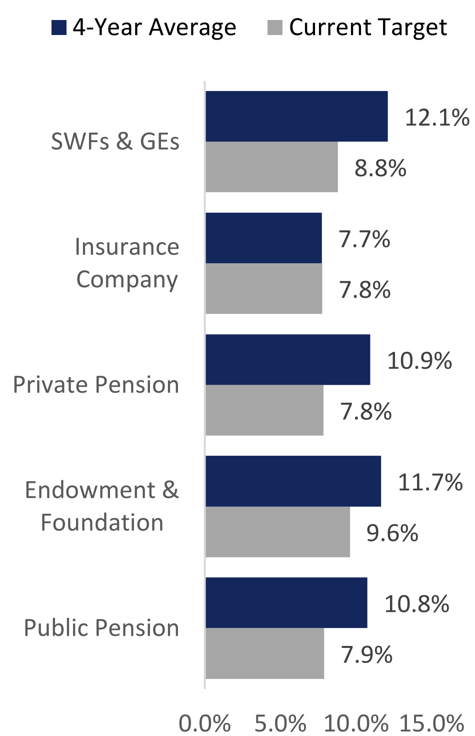



***Exhibit 15: Target vs. Historical Returns, By Location of Institution***

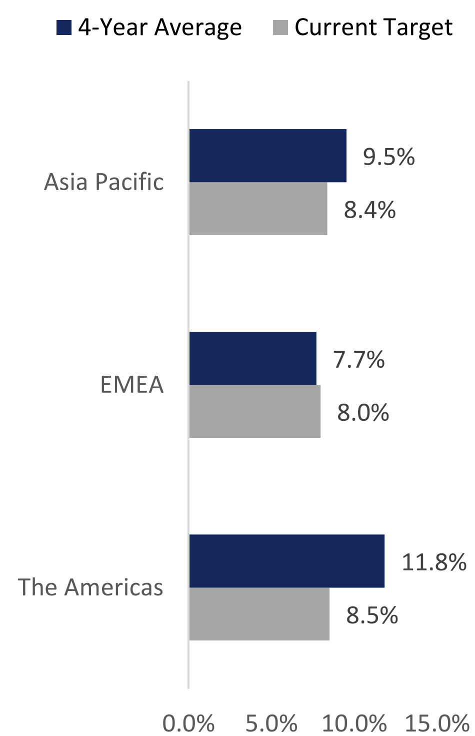
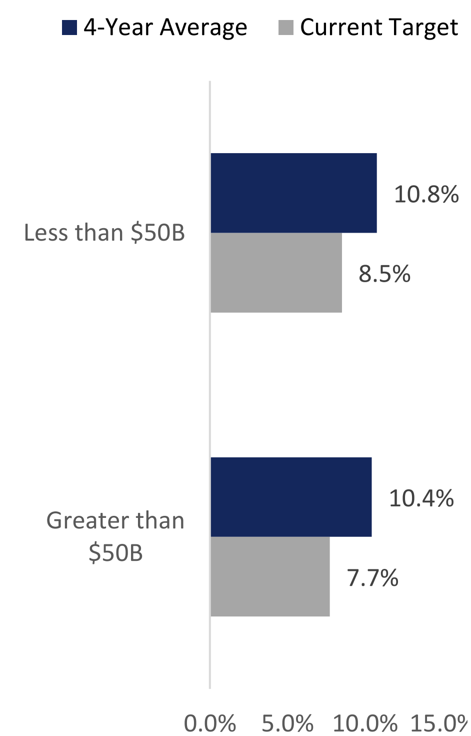


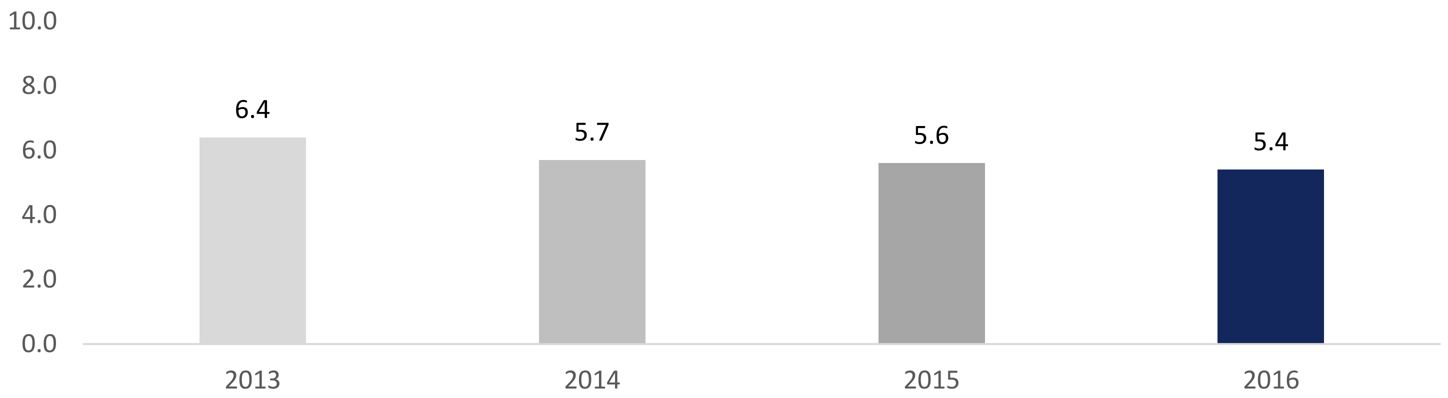

***Exhibit 16: Target vs. Historical Returns, By Size of Institution***



## Conviction Index

*Institutional conviction for the asset class declined for the fourth consecutive year, as institutions are increasingly concerned about asset valuations, rising interest rates and geopolitical risks*

***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 2015, this "Conviction Index" (i.e., investor sentiment) has steadily declined from 6.4 to 5.6. In 2016, the Conviction Index remained on a downward trend to 5.4. Investors continue to cite too much capital pushing valuations ahead of fundamentals, the risk of rising interest rates, global capital markets volatility and geopolitical risks as causes for concern. This investor sentiment is in stark contrast to trends in allocations. Institutions are feeling the pressure to invest as real estate "in the eyes of the CIO" offers a favorable risk/adjusted return relative to other asset allocations. One institution commented, "since we can't just take our money and go home, but instead must be reasonably fully invested, real estate offers decent risk/return opportunities vs. our global opportunity set across asset classes".

The Conviction Index for EMEA-based institutions is down by the widest margin at 1.3 points, which may be attributed to concerns relating to Brexit, terrorism, the slow economic growth in the region and any continued hangover in confidence from the global financial crisis. Conviction in the Americas remained flat despite the fact that institutions have been increasingly vocal regarding concerns about valuations and rising interest rates. It is interesting to note that conviction in APAC has increased for the third year in a row – this may be attributed to the recent strong performance of cross-border real estate investments from the region.

***Exhibit 18: Conviction Index, By Location of Institution***

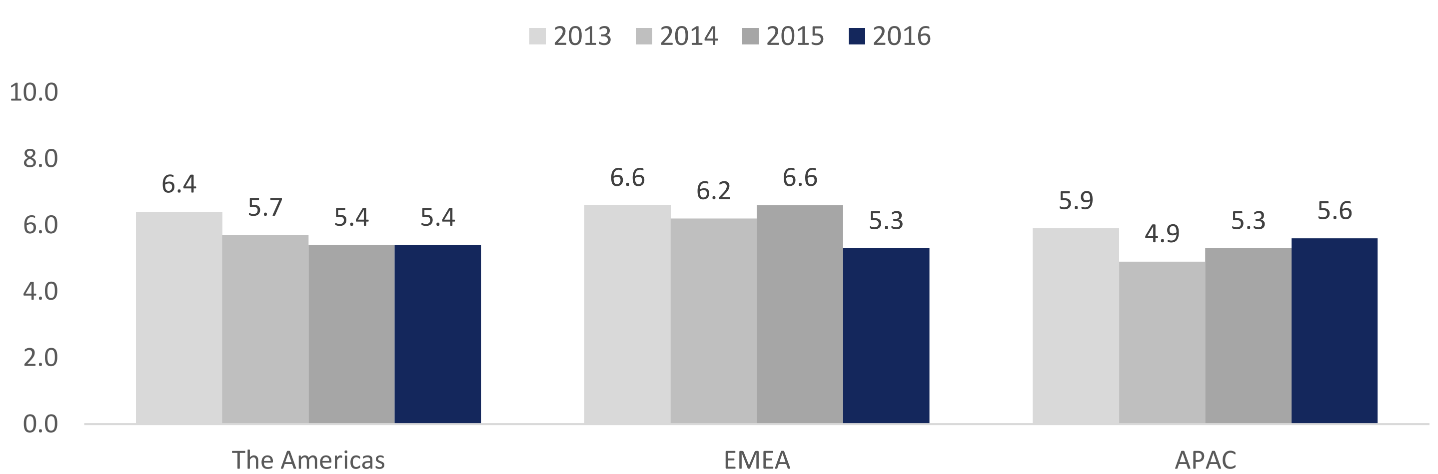
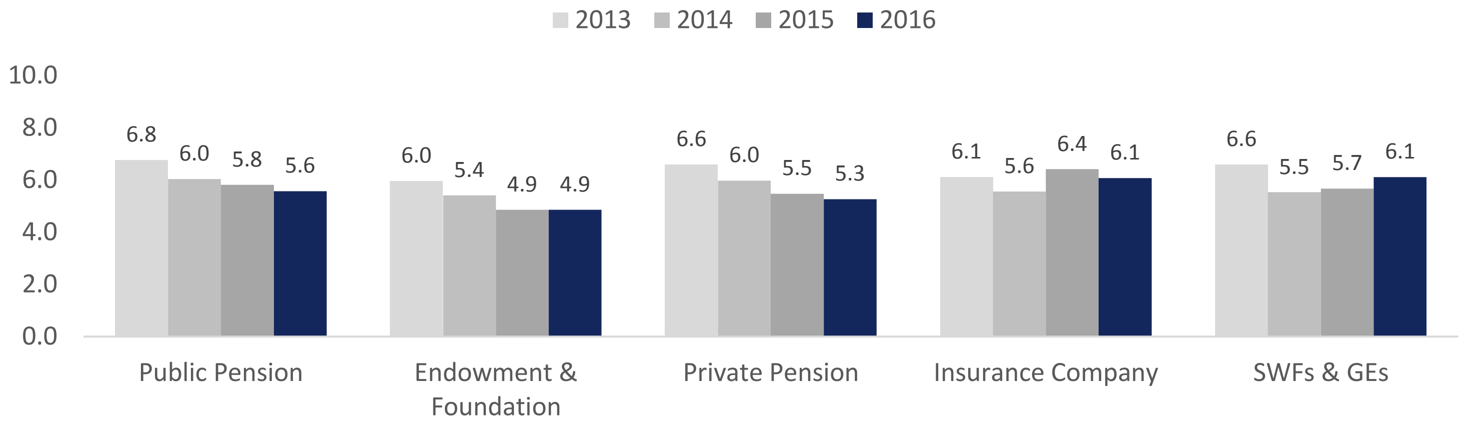


*Exhibit 19: Conviction Index, By Type of Institution*




**"One of the better houses on a bad block."**

– Private Pension, The Americas, US$10.0 to US$25.0 billion

**"Real estate has been a strong source of five year returns, but those returns were driven by compressed cap rates leading to heightened valuations. These same conditions make future real estate investments less attractive."**

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

**"On an absolute basis, commercial real estate pricing is quite toppy. On a relative basis when compared to fixed income and other alternatives, it remains attractive in this artificially low yield environment."**

– Public Pension, The Americas, US$50.0 to US$100.0 billion

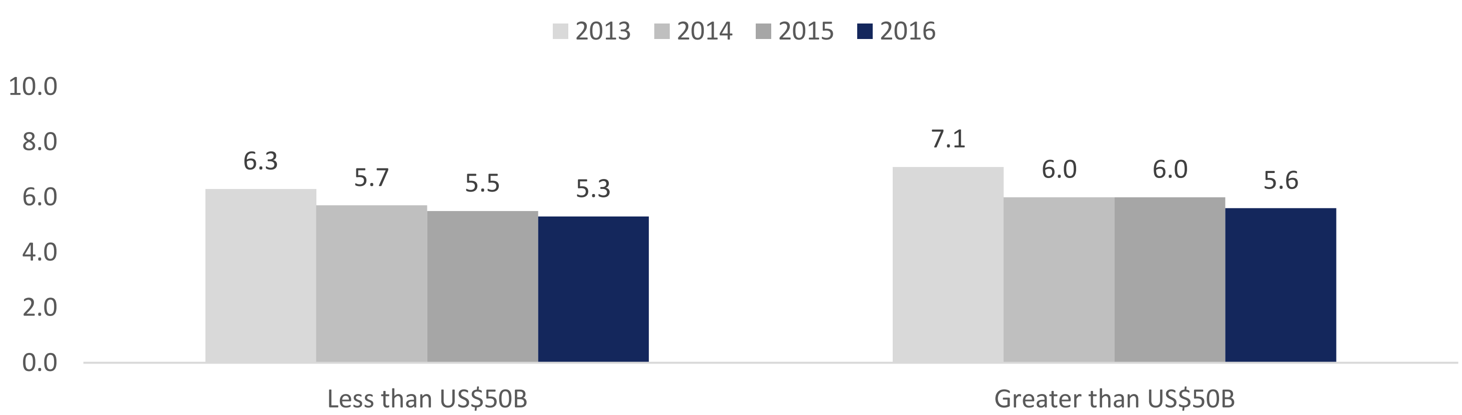
**"The long-term low interest rate environment has pushed up valuation of real estate assets to new peaks in some markets without any support from the real economy. Our organization is protecting our position by investing in real estate debt rather than equity."**

– Insurance Company, Asia Pacific, US$50.0 to US$100.0 billion

**"Geopolitical risks are most worrisome. First, a slowdown in China. Then, Zika. Then, Brexit.
What's next?"**

– Private Pension, The Americas, US$25.0 to US$50.0 billion

*Exhibit 20: Conviction Index, By Size of Institution*



# Third Party Management

*Despite headlines that institutions are decreasing the number of managers in their portfolios and in some cases internalizing investment management functions, allocations to third party managers remain robust and investors are showing increasing appetite to add managers to their portfolios*

**Existing Investments**

Investors continue to rely on third party managers to invest in real estate. Approximately 94% of institutions have some or all of their investments managed by third parties, while only 6% manage all of their real estate investments in-house. Approximately 71% of smaller investors (AUM < US$50 billion) outsource their entire real estate portfolio to third-party managers, as compared to 47% for larger investors (AUM > US$50 billion).

**Future Allocations**

Institutions intend to allocate 85% of their invested capital in 2016 to third party managers. Approximately 65% of new investments are likely to be allocated to existing manager relationships. But it is important to note that 28% of institutions are actively adding new manager relationships to their portfolios. This is good news for boutique managers that continue to lose allocations to large-cap managers. As reported by PERE, approximately 55% of capital allocations over the past five years were made to a total of 10 managers. While boutique managers may be better positioned to gain their "fair share" of capital allocations over the coming years, emerging and new managers are likely to continue to struggle, as only 14% of institutions intend to allocate to first time funds.

Managers are well advised to focus their marketing efforts in Asia, as 43% of institutions in APAC intend to add new managers to their portfolios. This may be attributable to the fact that Asian institutions are increasingly global in terms of investment focus and also have less developed and mature portfolios. In addition, larger institutions are more likely to add new managers, with 35% interested in increasing the number of managers in their portfolios.

***Exhibit 21: % of Portfolio Outsourced to Third-Party Managers, All Institutions***

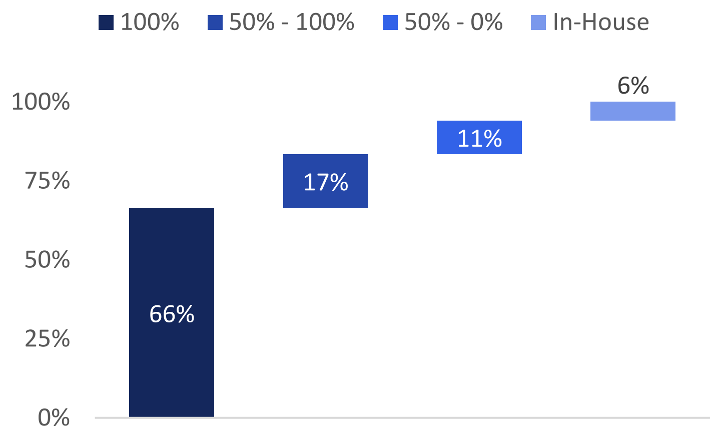



***Exhibit 22: Estimated Breakdown of 2016 Investments***

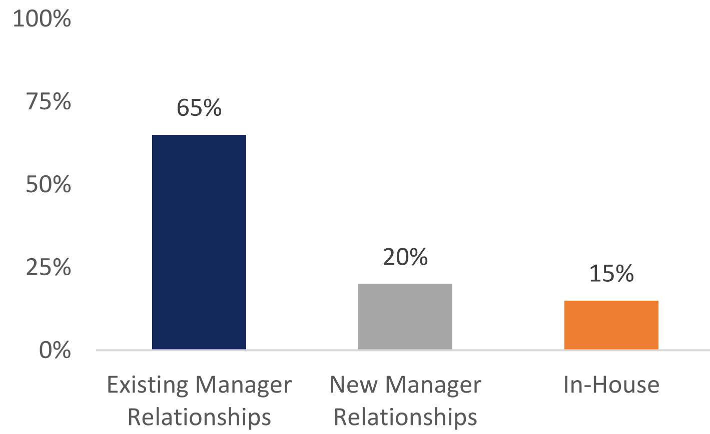



***Exhibit 23: Allocations to Managers***

## Risk Preferences

*Institutional interest in core, value-add and opportunistic strategies has trended steadily upward over the past four years*

***Exhibit 24: Risk Preference, All Institutions***

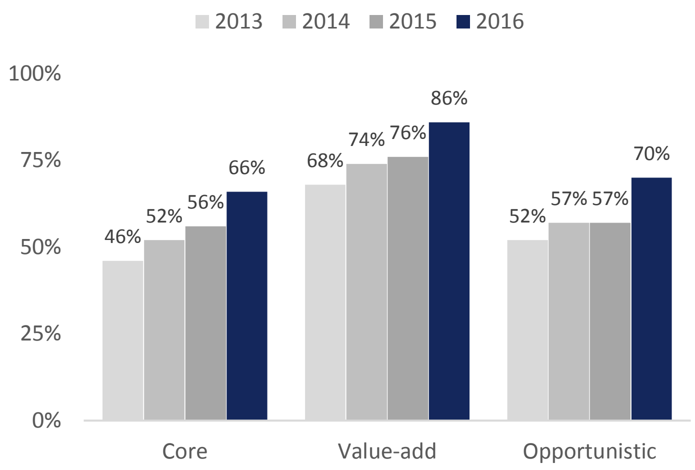



***Exhibit 25: Risk Preference, By Location of Institution***

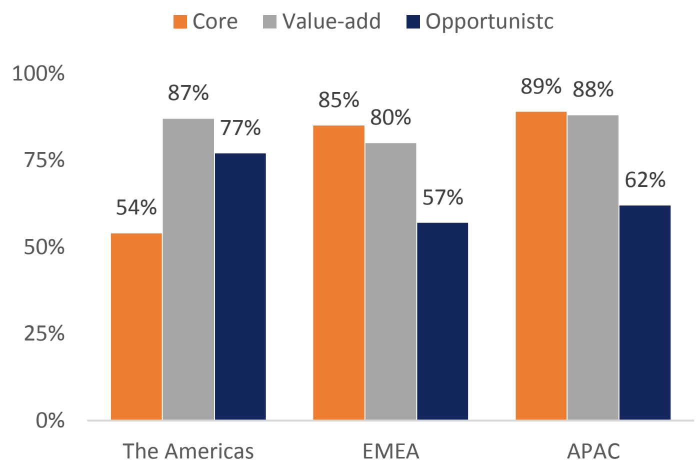
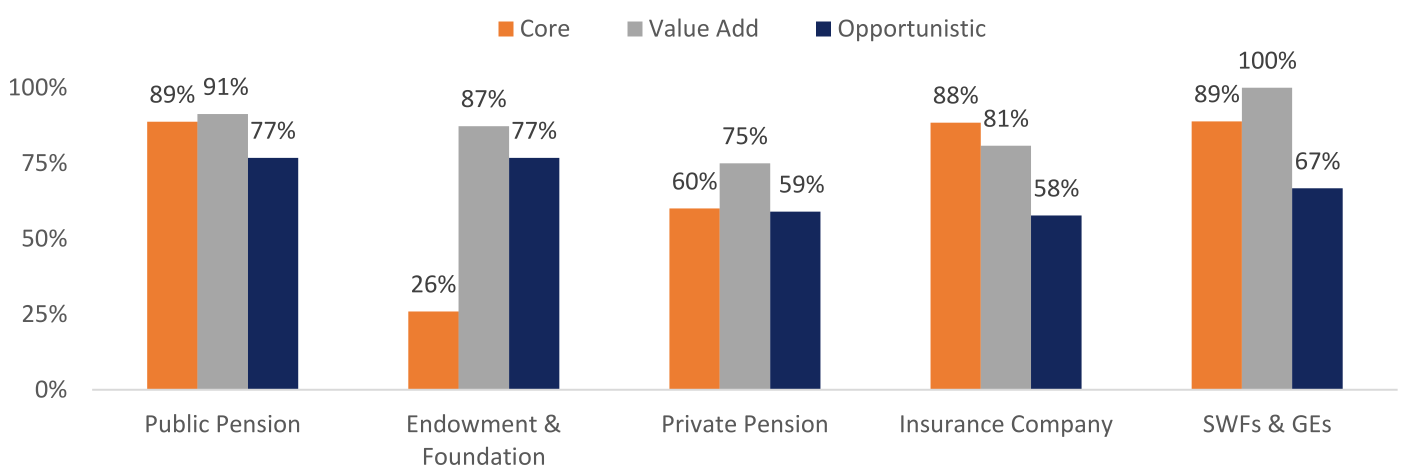



***Exhibit 26: Risk Preference, By Type of Institution***




Institutions are highly focused on value-add strategies, with 86% of institutions targeting investments in 2016. Over the past 12 months, the percent of institutions intending to invest in core strategies also rose from 56% to 66%, while appetite for opportunistic strategies increased from 57% to 70%. The strong interest globally in value-add strategies highlights that institutions continue to use their real estate portfolios as an alpha driver.

While value-add strategies are being pursued by the majority of institutions, investor appetite for core and opportunistic strategies vary by type of institution. For example, only 26% of Endowments & Foundations intend to invest in core, as compared to about 90% of Public Pensions, Insurance Companies, and SWFs & GEs. Similarly, 40% of smaller institutions (<US$50 billion of AUM) are not investing in core strategies, whereas about 90% of larger investors intend to do so.

Institutions in the Americas remain less interested in core strategies, with nearly 50% of institutions reporting they are not investing in core in 2016. Conversely, institutions in EMEA and APAC are showing strong interest in core and value add strategies, but are hesitant to invest in opportunistic strategies. Many of these institutions are building global portfolios and looking to utilize core strategies to develop long-term portfolio holdings. Approximately 43% of EMEA-based and 38% of APAC-based institutions are not investing in opportunistic strategies in 2016.

# Investment Strategy Preferences

*North America continues to be the primary destination for investing capital, but interest in other geographies has increased substantially year-over-year, including the emerging markets*

***Exhibit 27: Geographic Focus, All Institutions***

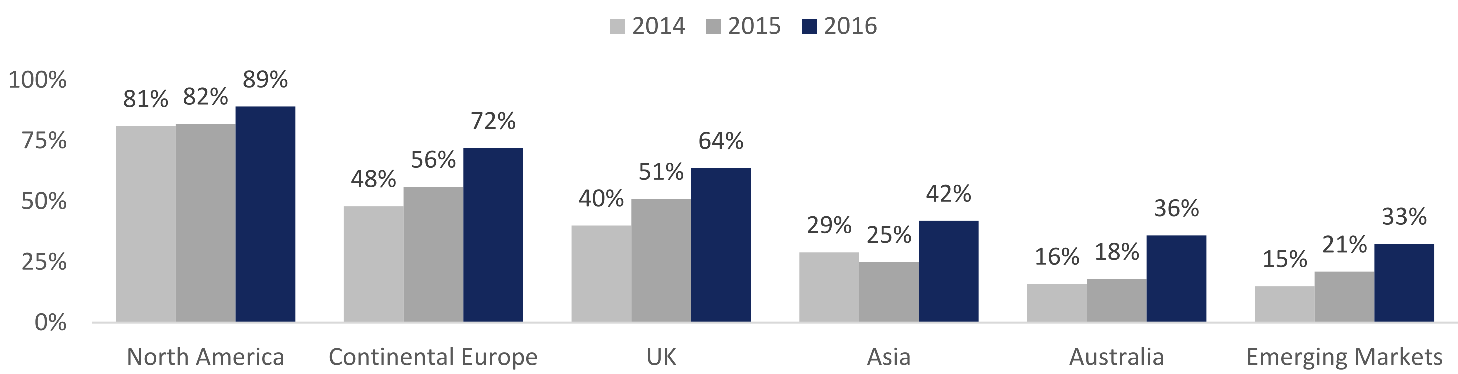
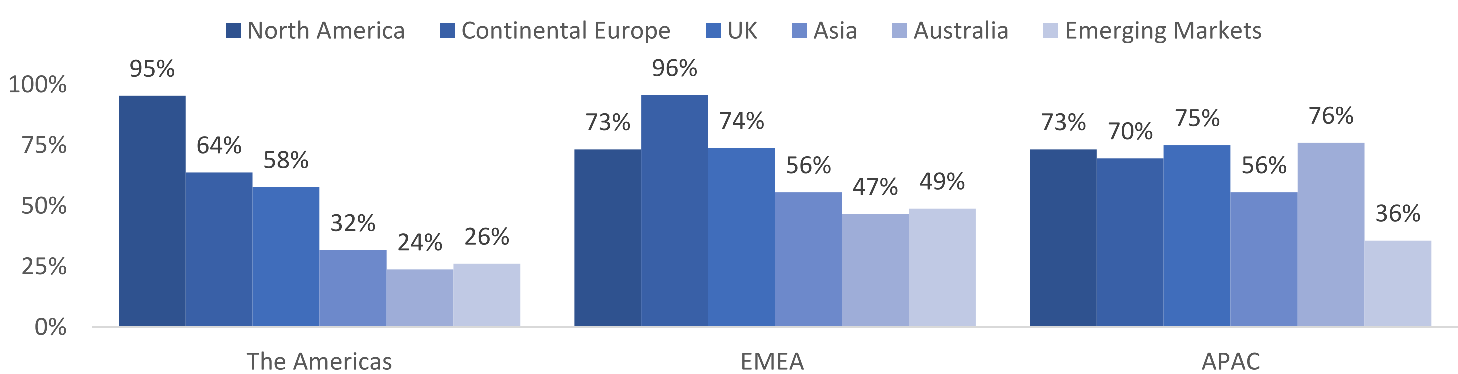


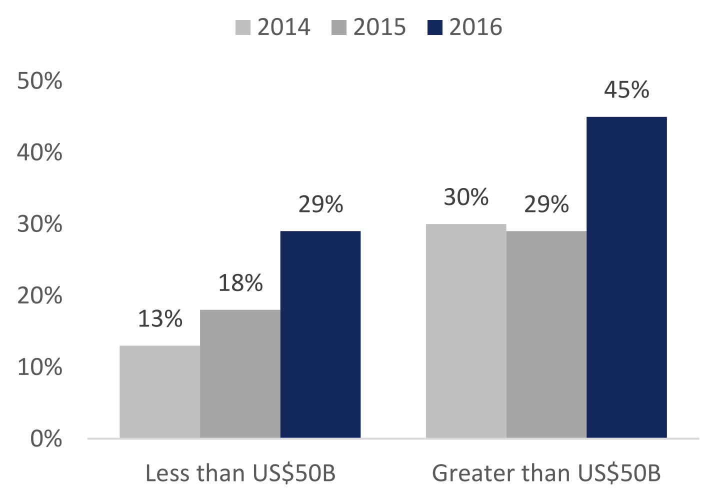

***Exhibit 28: Geographic Focus, By Location of Institution***




**Geographic Focus**

North America still remains the priority destination for capital with 89% of institutions intending to invest in the region in 2016. However, both the UK and Continental Europe are high priorities (despite Brexit). Interest in Asia, Australia and Emerging Markets also increased significantly year-over-year. Cross-border capital flows continue to increase despite North America and EMEA-based institutions prioritizing investments in their home markets – institutions' interest in other regions increased across the board in 2016.

***Exhibit 29: Institutions Investing in Emerging Markets, By Size of Institution***




**Emerging Markets**

One-in-three institutions intends to invest in emerging markets – up from one-in-five in 2015. This may be driven in part by investors' interest in higher yielding strategies as more mature markets are 5 years or greater in their cycles. Approximately 45% of large institutions plan to invest in emerging markets, whereas only 29% of smaller institutions intend to do so. Recent volatility in emerging markets appears to be signaling the beginning of the next "distress/recovery" opportunity.

## Investment Product Trends

*Demand for real estate private funds remains strong – in particular for closed-end funds*

***Exhibit 30: Investment Product Preferences, All Institutions***

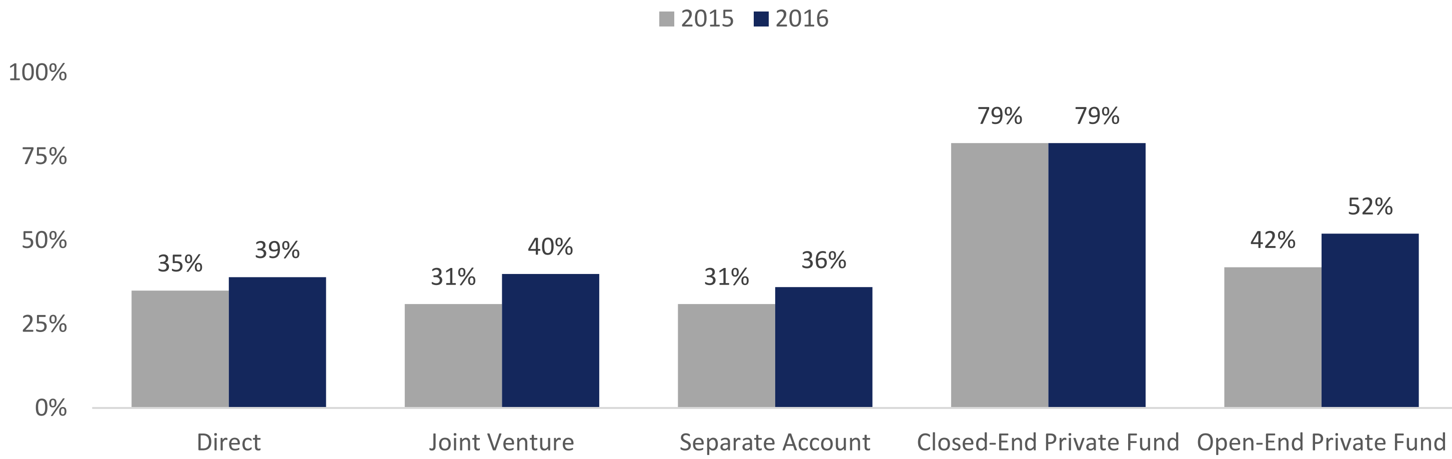
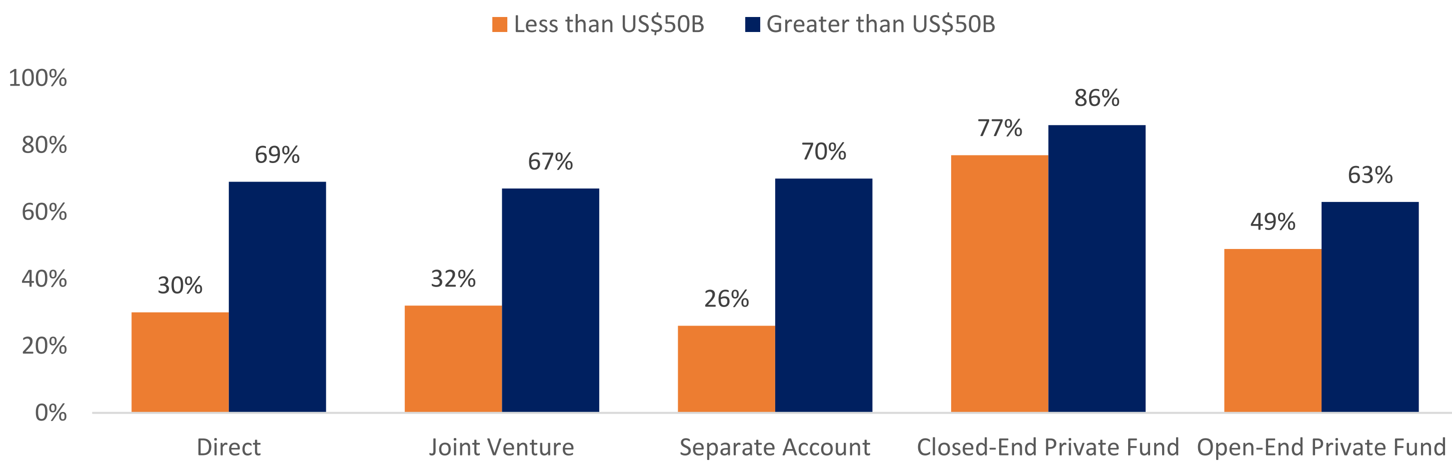



***Exhibit 31: Investment Product Preferences, By Size of Institution***




The demand for closed-end real estate private funds remains strong, followed by continued and growing interest in open-end funds. Most institutions are not staffed to run direct or joint venture programs, or otherwise don't have sufficient scale of capital to allocate to separate accounts. While closed-end funds have traditionally been focused on higher yielding strategies, the market is shifting as managers have launched a range of lower yielding, closed-end vehicles over the past 12 months, focused on core plus and income strategies. While demand for open-end funds remains strong, in particular for sector focused and credit funds, there have been very recent signs of an acceleration in redemptions from diversified funds in the US. These recent redemptions may be attributable to investors' concern about valuations.

Interest in direct investing, joint ventures, and separate accounts varies significantly depending on the size of the institution. Approximately 70% of larger institutions are interested in direct investing, joint ventures and/or separate accounts, compared with only about 30% for smaller institutions.

# Environmental, Social & Governance (ESG)

*ESG policies are beginning to influence investment strategies*

For the past several years, ESG has been a front and center topic in the real estate industry, as investors call for more socially responsible and environmentally friendly investment practices. Both investment managers and institutional investors have been assessing the best ways to implement ESG friendly practices. Moreover, while the definition of ESG varies by investor, it has become the "catch-all" term for socially-responsible investing.

We asked investors if they have a formal policy for ESG and whether ESG influences their investment process. Institutions in EMEA are significantly more focused on ESG investment objectives than institutions in APAC and the Americas. However, the percentage of institutions in all regions that are influenced by ESG is rising dramatically.

Similar to 2015, approximately 61% of EMEA-based institutions have an ESG policy, which continues to be significantly higher than institutions in the Americas and APAC at 21% and 40%, respectively. Overall, approximately the same percentage of institutions as last year have formal ESG policies.

***Exhibit 32: Formal ESG Polices***

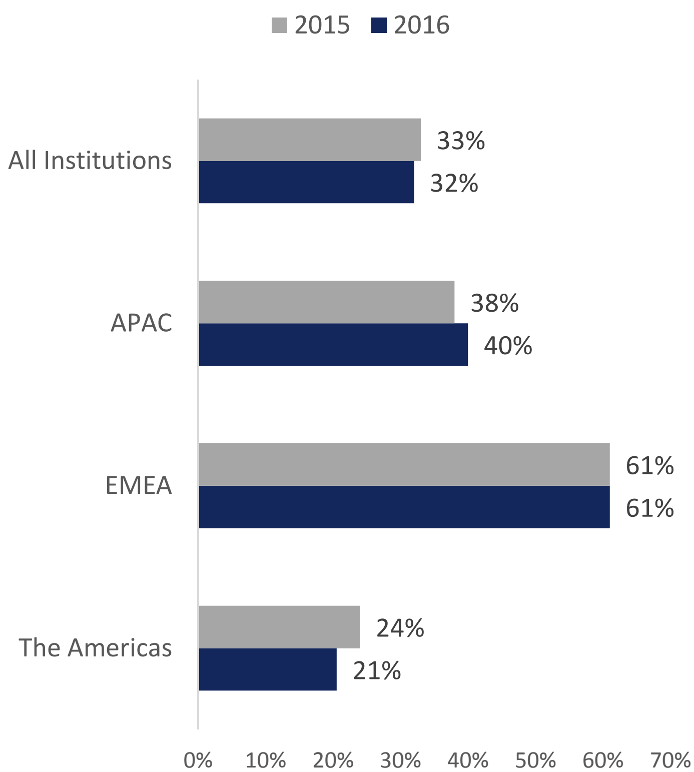
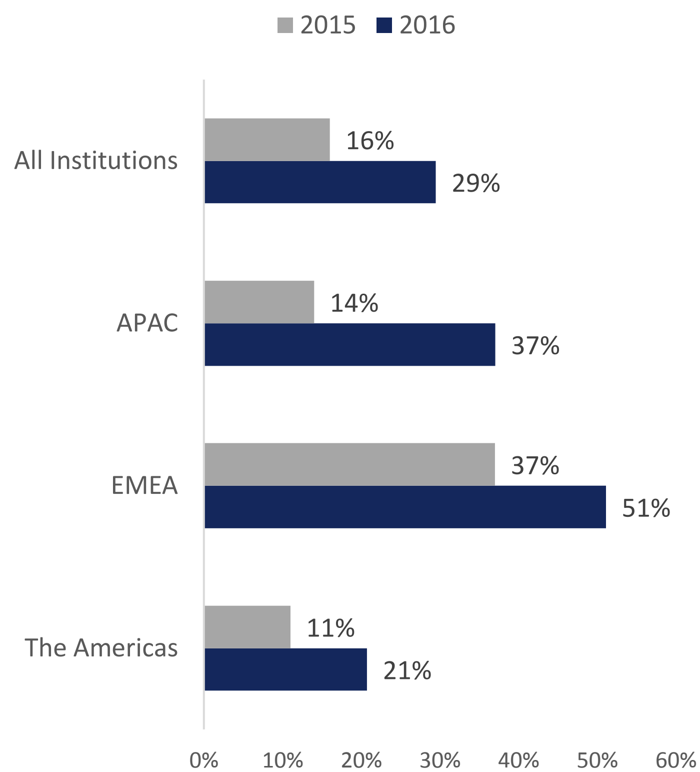



***Exhibit 33: Investment Process Influenced by Formal ESG Policies***




Despite the percentage of institutions with formal ESG policies staying relatively the same, the percentage of institutions whose investment process is influenced by ESG considerations increased significantly across all regions. Approximately 29% of all institutions reported that they are influenced by ESG – this is almost double the 16% figure that was reported last year.

In last year's Allocations Monitor, we noted that while many investors were instituting ESG policies, their policies were not affecting the investment process. This appears to be changing as the talk about ESG appears to be manifesting itself in demonstrated action.

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Cornell boasts the largest full-time, on campus real estate faculty in the country, including three endowed positions in real estate, with its 19 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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