

Dear Industry Friends,

Cornell University's Baker Program in Real Estate and Hodes Weill & Associates are pleased to present the findings of the tenth annual Institutional Real Estate Allocations Monitor (the "**2022 Allocations Monitor**"). The 2022 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 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 2022 Allocations Monitor includes research collected on a blind basis from 173 institutional investors in 34 countries. The 2022 participants hold total assets under management ("**AUM**") exceeding US\$11.0 trillion and have portfolio investments in real estate totaling approximately US\$1.1 trillion. Our survey consisted of 25 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 and private funds). We also included questions regarding historical and target returns as well as environmental, social and governance ("**ESG**") policies.

Key Findings of the 2022 Allocations Monitor

- (1) Institutions continue to increase target allocations to real estate, which is expected to support liquidity and transaction volumes over the coming years.** Average target allocations to real estate rose to 10.8% in 2022, up 10 bps from 2021, which is consistent with the rate of increase we have seen over the past four years. Average target allocations have increased approximately 190 bps since we began the survey in 2013.
- (2) Strong portfolio returns combined with the denominator effect are contributing to overallocation in institutional portfolios.** The percentage of institutions reporting overallocation has more than tripled year-over-year, with 32.0% of institutions invested above their target allocations, compared to 8.7% in 2021. Concerns of overallocation, along with declining conviction, led to a significant slowdown in deployment pacing, beginning in the second quarter of 2022.
- (3) After under-performing in 2020, institutional portfolios delivered outsized returns in 2021, as operating fundamentals remained strong and valuations surged.** Real estate portfolios generated an average investment return of 17.1% in 2021, representing a significant "bounce back" from 2020, when returns were reported at 5.9%. At 9.9%, trailing five-year portfolio returns continue to significantly outpace target annual returns of 8.2%.
- (4) Investor sentiment decreased year-over-year, with institutions taking a more cautious approach to investing.** Decrease in conviction may be attributed to a range of risks that may impact the global economy, including high inflation, rising interest rates, and geopolitical tension. While today's investment environment is challenging, institutions are anticipating that attractive buying opportunities will emerge over the next 12 to 24 months.
- (5) While the United States remains the preferred destination for international capital allocations, cross border investing has decelerated.** Institutions reported a year-over-year decrease in cross border investing, as the current market environment makes foreign investments a riskier bet. In addition, with the strengthening of the US dollar, non-dollar denominated investors report the additional challenge of currency hedging when investing abroad.
- (6) While a select number of larger institutions continue to internalize portfolio management, the majority of institutions continue to rely on the expertise of third party managers.** Institutions expect to allocate approximately 90% of future investments to third party managers. While industry-wide fundraising was down through 3Q 2022, approximately 74% of investors report that they are actively investing in closed-end funds (albeit down from 79% in 2021), while 32% report investing on a direct basis.
- (7) Institutions continue to favor higher return strategies and are anticipating an opportunity to take advantage of potential repricing and dislocation over the next several years.** While appetite declined across the risk spectrum,

value add and opportunistic strategies remain the most popular among institutional investors. US-based institutions continue to show the greatest appetite for risk. Core investments saw the greatest year-over-year decline in interest, contributing to growing net redemptions in open-end funds.

- (8) ESG continues to be a growing focus of investors globally, with more than 50% of institutions now reporting that they have implemented a formal ESG policy.** Despite some political headlines, institutions appear steadfast in their prioritization of ESG as an important component of portfolio management. Australian, European and Canadian institutions continue to take the lead on ESG.

The 2022 Allocations Monitor leverages the academic resources of Cornell University and the global institutional relationships and real estate expertise 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 insight 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.

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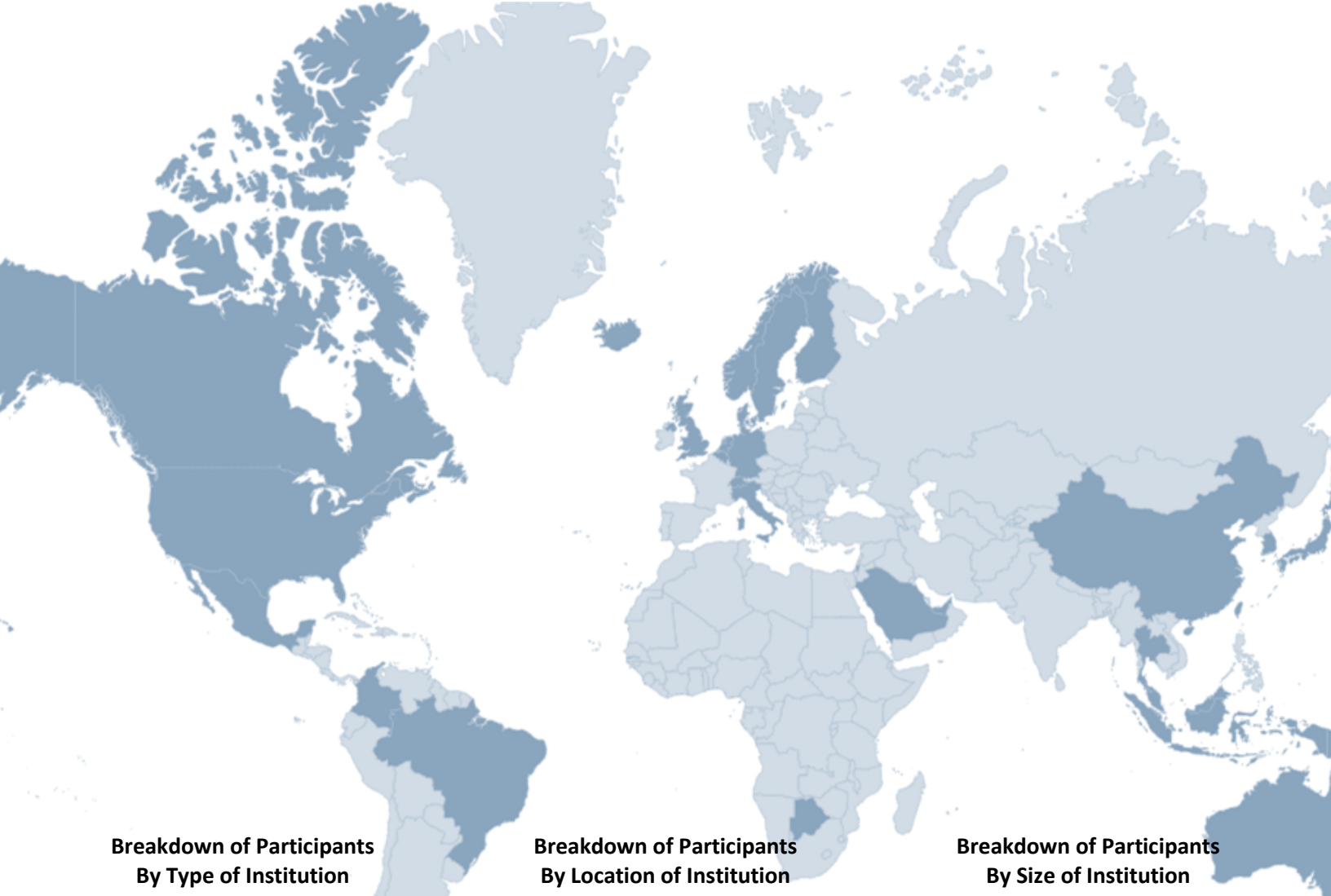
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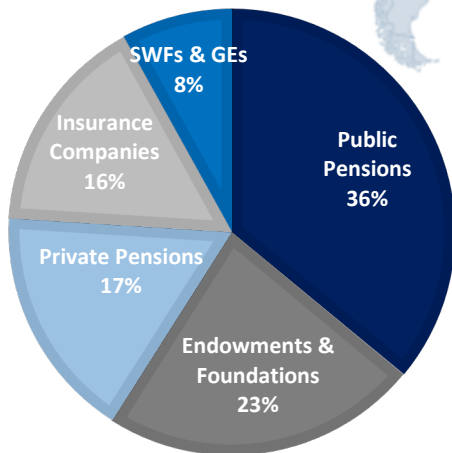
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Global Institutional Participants

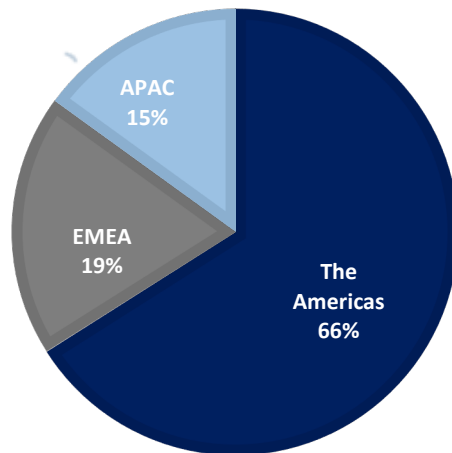
173 participants in 34 countries representing US\$11.0 trillion in AUM and US\$1.1 trillion in Real Estate.



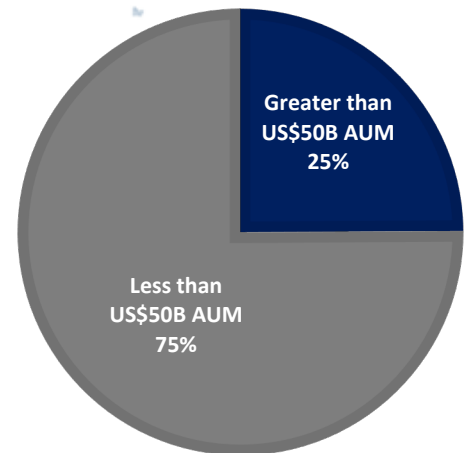
Breakdown of Participants By Type of Institution



Breakdown of Participants By Location of Institution



Breakdown of Participants By Size of Institution



List of Participating Institutions

Americas

Afore Profuturo
American Fidelity Assurance
Boston Foundation
Chicago Firemen's Annuity & Benefit Fund
City of Austin Employees' Retirement System
City of Fresno Employee Retirement System (CFRS)
City of Phoenix Employees' Retirement System
CPP Investment Board (CPPIB)
HRM Pension Plan
Illinois Municipal Retirement Fund
Massachusetts Pension Reserves Investment Management Board
Mendocino County Employees' Retirement Association
Milwaukee County Employees' Retirement System (ERS)
Modern Woodmen of America
New Jersey State Investment Council
Premera Blue Cross
Quadreal
Régime de Retraite de Personnel des CPE GQ
Sacramento County Employees' Retirement System
San Luis Obispo County Pension Trust
Société de transport de Montréal (STM)
State of Wisconsin Investment Board (SWIB)
Tacoma Employees' Retirement System
Texas Municipal Retirement System (TMRS)
Texas TRS
TTC Pension Plan
University of Chicago Endowment
University of Georgia Foundation
Virginia Retirement System
YMCA Retirement Fund

And 85 anonymous participants

APAC

Anglican Church, Diocese of Sydney
First Super
Hyundai Insurance
New Zealand Superannuation Fund
Nippon Life Global Investors Americas (NLI)

And 21 anonymous participants

EMEA

BPF Bouwinvest
BVK - Bayerische Versorgungskammer
Church Commissioners for England
Church of Sweden Pension Fund
Gjensidigestiftelsen
Greater Manchester Pension Fund (GMPF)
Gwynedd Council Pension Fund
Mandatum Life Insurance Company
Nest Sammelstiftung

And 22 anonymous participants

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Participation & Methodology

We wish to thank the 173 institutional investors that participated in the Allocations Monitor survey this year. The survey participants are from 34 countries and represent institutions with over US\$11.0 trillion in total assets and real estate assets of approximately US\$1.1 trillion. **In its 10th year of publication, 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 approximately 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 6% 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 2022 to October 2022.
- Target and estimated future 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 with AUM greater than US\$200 billion were weighted at their listed AUMs – there were 12 such investors in 2022.
- Unless otherwise stated, all other figures are based on straight averages by number of participants, including figures for investment activity, intentions, target returns and risk/return objectives.



Definitions Guide

“APAC” refers to Asia Pacific and includes institutions located in Asia, The Caucasus 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

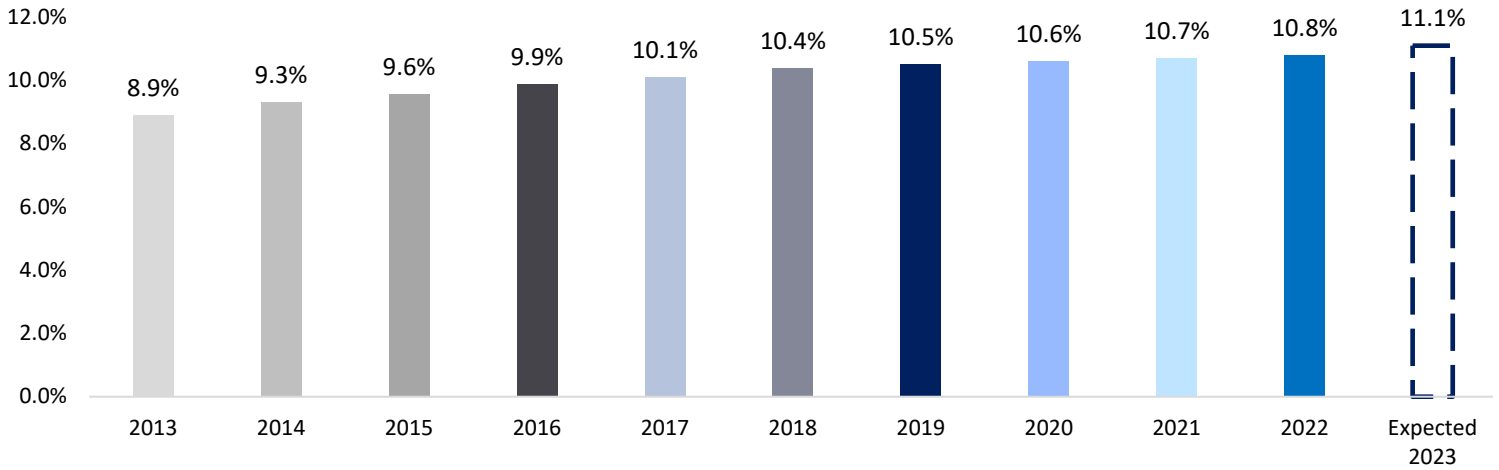
“Large Institutions” includes institutions with AUM greater than US\$50 billion

“Small Institutions” includes institutions with AUM less than US\$50 billion

Target Allocations to Real Estate

Institutions continue to increase target allocations to real estate, which is expected to support liquidity and transaction volumes over the coming years.

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

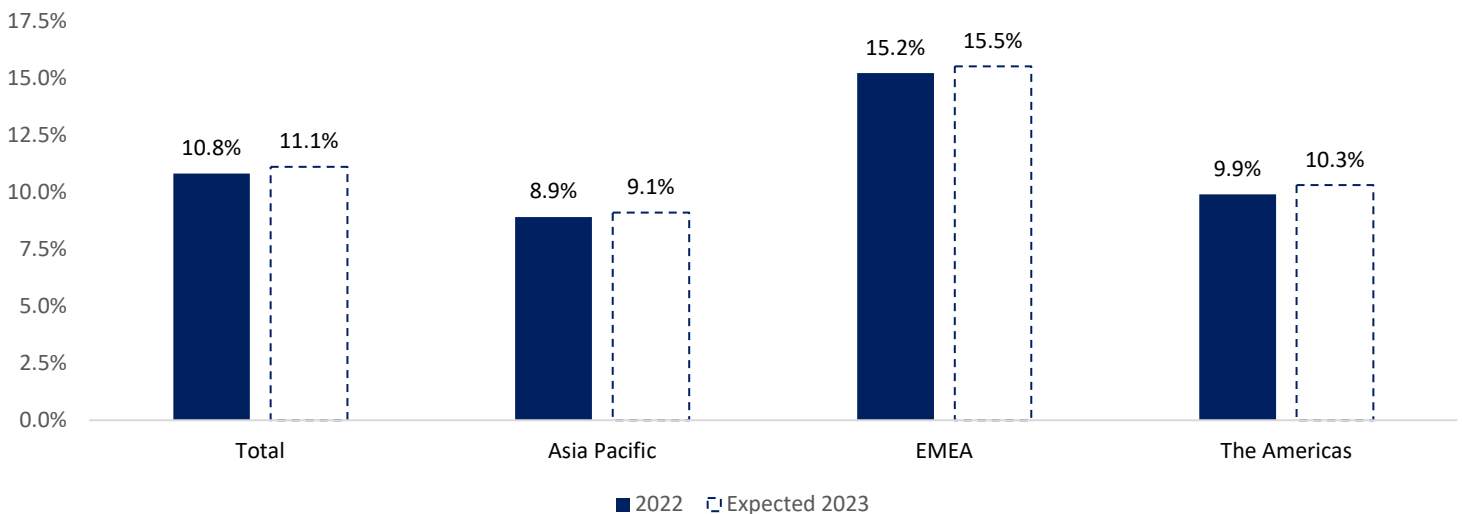


Target Allocations to Real Estate

Target allocations to real estate continued to rise for the ninth straight year, with institutions reporting an average target allocation of 10.8% in 2022. This marks a 10 bps increase from last year’s target of 10.7%, which is consistent with the rate of increase seen over the past four years. Between 2013 and 2018, annual increases in allocations ranged between 20 – 40 bps. The 10 bps increase implies the potential for an additional \$80 to \$120 billion of capital allocations to real estate over the coming years.¹

Institutions are forecasting a 30 bps increase for 2023, which is an acceleration in the pace of increase and would be the largest year-over-year increase since 2014. This growth is fairly consistent across regions, with institutions in the Americas expecting to increase allocations 40 bps in 2023 and institutions in the EMEA and APAC regions anticipating average increases of 30 bps and 20 bps respectively. EMEA-based institutions continue to maintain the highest allocations, with a 2023 target of 15.5%.

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



¹ Source: Hodes Weill estimate of ±\$100 trillion of global AUM based on various public disclosures, research reports, and publications.

Many institutions have been forced to rethink their allocation plans in 2022, as strong performance of real estate portfolios coupled with the underperformance of public equities, fixed income and other alternatives has resulted in an overallocation to the asset class. *In June of this year, Iowa Public Employees Retirement System proposed investing only half of its original allocation intended for real assets, as the outperformance of its real assets investments had lifted the portfolio's value close to its target allocation.*² *The plan ultimately decided to increase its real assets allocation from 8.5% to 9.5% to align targets more closely with actual allocations. CEO, Greg Samorajski, cited this decision was made "to avoid rebalancing illiquid assets and potentially diminishing the portfolio's value, and to ensure vintage year diversification."*³

The asset class's track record as an outperformer continues to attract inflows of capital, particularly following a year of record returns in 2021. *A Public Pension in the Americas cited that while their transaction volumes have slowed in the near-term, they still have a strong appetite for the asset class.* This is along the same line of thinking for many investors that note they are expecting attractive buying opportunities to emerge over the next 24 months. As a result, investment pacing is expected to accelerate over the coming quarters, and investors are positioning themselves to capitalize on potential distress and dislocation resulting from current market volatility.

Target Allocations by Type of Institution

Public Pensions continue to have the highest target allocation to real estate at 12.6%, while Insurance Companies maintain the lowest target allocation at 5.9%. However, Insurance Companies are expected to increase target allocations by the largest margin in 2023, reporting an expected increase of 60 bps to a target allocation of 6.5%. Private Pensions, Endowments & Foundations, and SWFs & GEs all report a moderate expected increase in 2023 at 10 bps. *Sovereign Wealth Fund, Alaska Permanent Fund, has plans to steadily increase allocations over time, raising their target by 100 - 200 bps each year until the end of their 2025 fiscal year, striving to hold their target allocation steady at 12.0% on a go-forward basis.*⁴

Target Allocations by Size of Institution

Institutions with less than \$50 billion in AUM continue to allocate a larger percentage of their portfolios to real estate than those with an AUM of greater than \$50 billion. However, it is possible that Larger Institutions may begin to bridge the gap, as they are expected to raise target allocations by 40 bps in 2023, compared to Smaller Institutions which are only expecting an increase of 20 bps.

Exhibit 3: Weighted Average Target Allocation, By Type of Institution

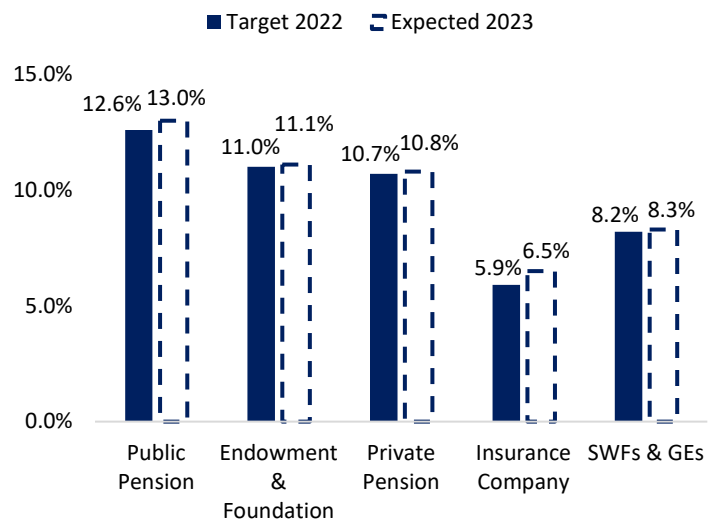
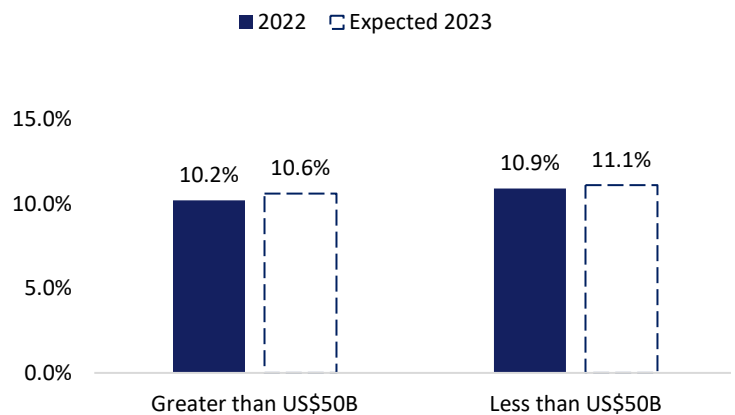


Exhibit 3: Weighted Average Target Allocation, By Size of Institution



² Jon Peterson, "Iowa PERS to Cut Real Assets Investments to Align with Allocation Target," IPE. (June 2022).

³ Jon Peterson, "Iowa PERS Lifts Real Assets Allocation by 1%," Investments & Pensions Europe. (September 2022).

⁴ Jon Peterson, "Alaska Permanent Ups Real Estate Allocation to Improve Risk-Return Profile," IPE. (March 2022).

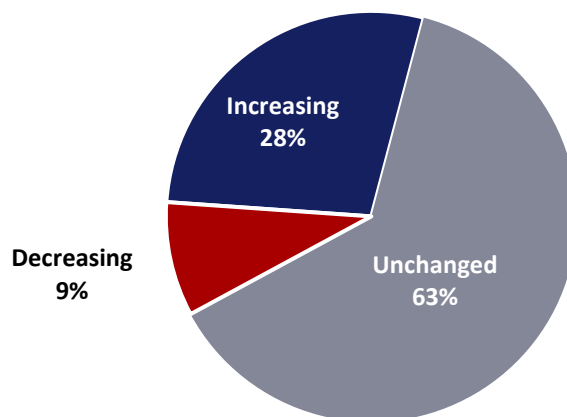
Exhibit 4: Notable Increases / Decreases to Target Real Estate Allocations⁵

Institution	AUM (bn)	Target Allocation		Change
		Prior	New	
Teachers' Retirement System of Louisiana (TRSL)	\$26.2	10.0%	15.0%	↑ 500 bps
California Public Employees' Retirement System (CalPERS)*	\$465.0	13.0%	15.0%	↑ 200 bps
Connecticut Retirement Plans and Trust Funds (CRPTF)	\$42.7	10.0%	12.0%	↑ 200 bps
Alaska Permanent Fund Corporation (APFC)	\$81.0	7.0%	8.0%	↑ 100 bps
California State Teachers' Retirement System (CalSTRS)	\$315.0	14.0%	15.0%	↑ 100 bps
Iowa Public Employees Retirement System (PERS)*	\$40.6	8.5%	9.5%	↑ 100 bps
Los Angeles City Employees' Retirement System (LACERS)	\$22.6	7.0%	6.0%	↓ 100 bps
State of Wisconsin Investment Board (SWIB)	\$147.3	8.0%	7.0%	↓ 100 bps

Expected Change in Target Allocations

Looking forward to 2023, 28% of institutions report that they expect to increase target allocations over the next 12 months, down slightly from 33% in the prior year. Approximately 63% of institutions intend to hold their allocations flat throughout 2023, down slightly from 65% as reported in last year's survey. Approximately 9% of institutions reported they are intending to decrease their target allocations, compared to 2% of institutions last year. *The State of Wisconsin Investment Board ("SWIB") elected to decrease their target allocation to real estate from 8% to 7% in December of 2021, but now the plan is reconsidering this decision; they're proposing to restore the real estate allocation to 8% to maximize their private markets exposure.*

Exhibit 5: Expected Change in Target Allocations in 2022, All Institutions

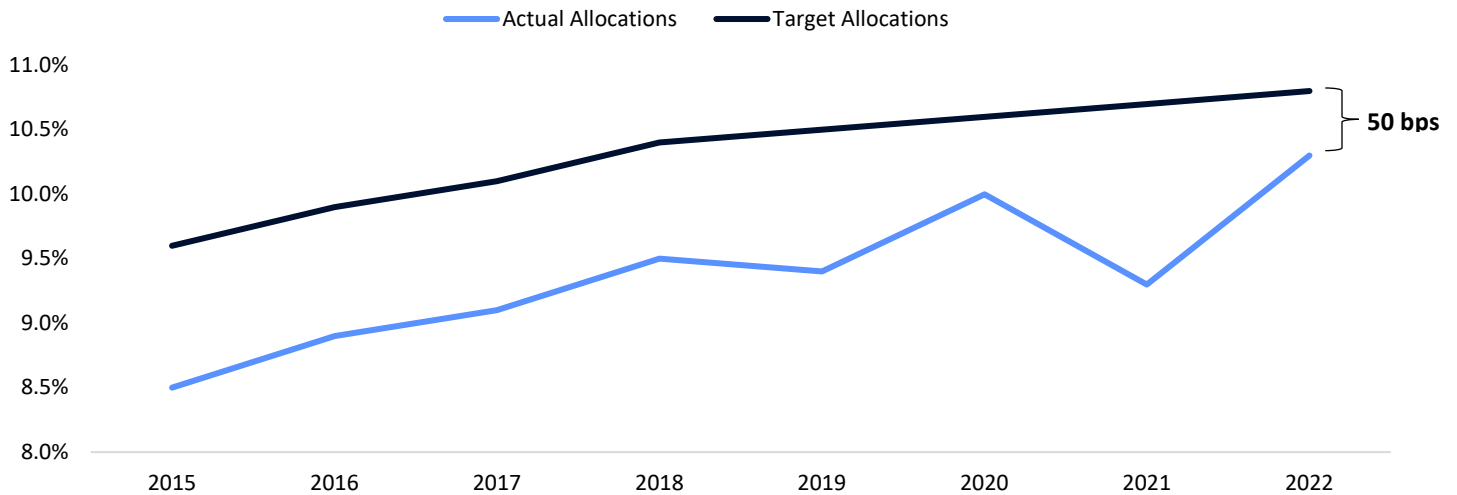


⁵ Based on public disclosures.

Current Investments

Strong portfolio returns combined with the denominator effect are contributing to overallocation in institutional portfolios.

Exhibit 6: Actual vs. Target Allocation, 2015-2022



The percentage of institutional portfolios invested in real estate (i.e., actual “in the ground” allocations) increased significantly in 2022, with institutions reporting actual investments of 10.3% compared to 9.3% in 2021. During our survey period (between May and October), institutions reported underallocations of an average of 50 bps. While last year’s margin between target and actual allocations was the highest we had reported since the inception of the survey (at 140 bps), actual investment trends have reversed significantly. The 50 bps reported is the smallest margin reported over the past eight years and compares to an annual range of 60 bps to 140 bps. We believe that the reported increase in actual allocations has been driven by a combination of a denominator and a numerator effect. While public equities and other asset allocations have declined in value, real estate portfolios benefited from strong performance with high returns and rising valuations.

Not surprisingly, when isolating the survey responses that were completed after mid-August, these institutions are overallocated by an average of 36 bps. The result of this overallocation has been a slowdown in investment pacing, which began in the second quarter of 2022. Investors are waiting for portfolio allocations to rebalance as a result of anticipated write downs in real estate portfolio values over the coming quarters. Institutions are likely to remain largely on the sidelines until they have more clarity in actual investment levels.

Current Investments and Target Allocations by Location and Size of Institution

Institutions in the EMEA region reported being overallocated throughout the course of the survey, with actual allocations of 15.4%, 20 bps above their target allocation of 15.2%. Institutions in the Americas reported being underinvested by an average of 67 bps in 2022, while APAC-based institutions reported underinvestment of 53 bps.

Notably, the percentage of institutions reporting an overallocation to the asset class has more than tripled, from 8.7% in 2021 to 32.0% in 2022. The overallocation to real estate has caused many investors to consider how they will rebalance their portfolios. The issue can be particularly troublesome to pension funds, that may struggle to find the balance between maintaining certain levels of liquidity in their portfolios, while also maintaining exposure to private markets.⁶ *In June of 2022, the Ohio Bureau of Workers Compensation announced that it was planning to suspend making new real estate commitments, as it had become over-allocated to the asset class resulting from declines in its equity and bond portfolios. The pension plan’s real estate portfolio had recorded a 27.3% one-year return, whereas its US equities portfolio recorded a return of -7.8%.⁷* Institutional reactions to the

⁶ Sophie Baker, “Denominator Effect Causes Plans to Rethink Allocations,” Pensions & Investments. (October 2022).

⁷ Jon Peterson, “Denominator Effect Prompts Ohio BWC to Halt Real Estate Commitments,” IPE. (June 2022).

denominator effect have also led to increased redemption activity amongst open-end funds, which began over the summer, when the Federal Reserve increased interest rates by 75 basis points.⁸

Exhibit 7: Actual vs. Target Allocation, By Location of Institution

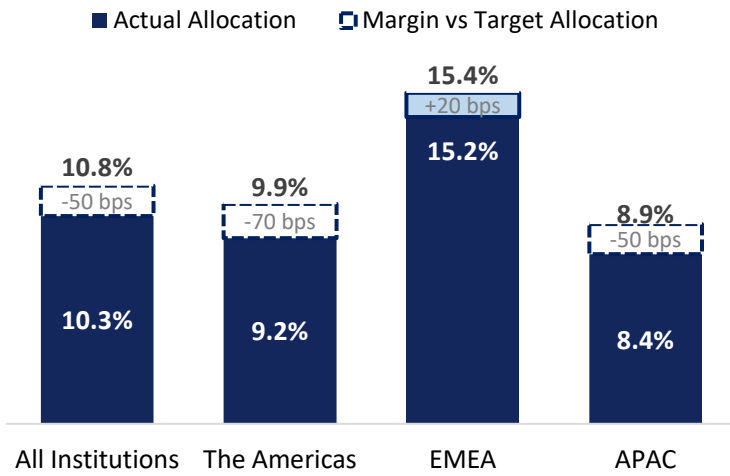
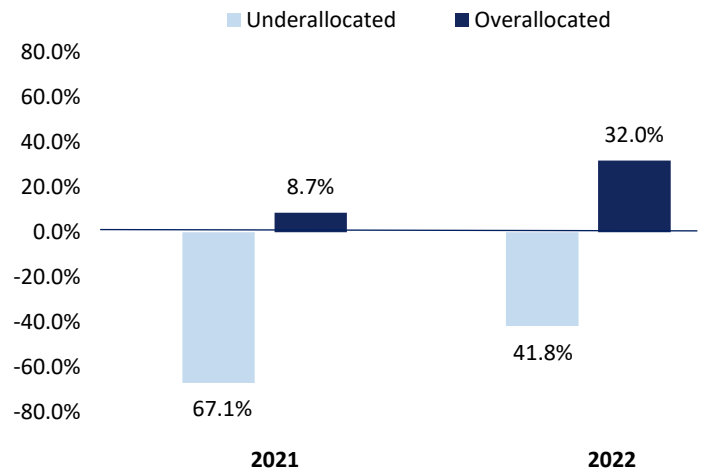


Exhibit 8: Institutions Above and Below Target Allocations, 2021 & 2022



⁸ Arleen Jacobius, "Real Estate Assets under Management Stung by Volatile Economy, Rising Rates," Pensions & Investments (October 2022).

Historical & Target Returns

As anticipated, institutional portfolios delivered outsized returns in 2021, after underperforming target returns in 2020.

	2022 Target Return	Actual 2012	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Actual 2019	Actual 2020	Actual 2021	Actual 3-Year Average	Actual 5-Year Average
All Institutions	8.2%	9.6%	10.8%	11.8%	11.0%	8.7%	9.1%	8.8%	8.5%	5.9%	17.1%	10.5%	9.9%
By Type													
Public Pension	7.5%	10.3%	10.0%	11.7%	11.6%	8.8%	9.2%	8.4%	8.3%	5.4%	19.2%	11.0%	10.1%
Endowment & Foundation	8.3%	9.3%	13.9%	13.0%	10.9%	9.1%	8.9%	9.1%	8.0%	7.5%	18.0%	11.2%	10.3%
Private Pension	9.1%	9.1%	10.5%	12.6%	11.2%	8.2%	8.9%	9.0%	9.4%	4.8%	16.8%	10.4%	9.8%
Insurance Company	8.7%	6.8%	7.3%	8.3%	9.6%	9.1%	9.9%	8.7%	10.2%	6.3%	12.4%	9.6%	9.5%
SWFs & GEs	8.6%	14.4%	11.4%	11.4%	10.0%	8.1%	8.9%	9.3%	7.9%	5.8%	9.3%	7.6%	8.2%
By Location													
The Americas	8.5%	10.6%	12.5%	12.6%	11.7%	8.7%	9.3%	9.2%	8.6%	5.5%	19.2%	11.1%	10.4%
EMEA	7.1%	5.9%	6.2%	10.4%	9.5%	8.4%	8.5%	7.5%	8.3%	6.2%	13.7%	9.4%	8.9%
Asia Pacific	8.6%	9.4%	9.3%	9.5%	10.0%	9.2%	9.1%	9.1%	8.3%	7.8%	10.4%	8.8%	8.9%
By Size													
Greater than US\$50 billion	8.3%	10.2%	10.1%	11.1%	11.2%	9.4%	9.6%	9.2%	8.4%	4.2%	18.6%	10.4%	10.0%
Less than US\$50 billion	8.2%	9.5%	10.9%	12.0%	11.0%	8.6%	9.0%	8.7%	8.5%	6.2%	16.7%	10.5%	9.8%

Real estate portfolios generated an average investment return of 17.1 in 2021, representing a significant rebound from 2020 and substantially exceeding the average target return of 8.2%. 2021 saw the highest reported returns over the past ten years following a year of poor portfolio performance in 2020, when returns averaged 5.9%, largely attributed to the impact of COVID-19 on demand. Portfolios outperformed across all types of institutions and regions, consistent with industry indexes, including the NCREIF ODCE Index which posted a record annual return of 21.0%, nearly three times the 7.7% average of the past five years.⁹ As predicted in 2021, real estate portfolio returns were bolstered by strong transaction volumes and liquidity, positive operating fundamentals and rental growth as the markets opened back up post-COVID, along with plentiful debt at accretive costs of capital.

Institutions in the Americas reported the highest average annual return at 19.2%, representing a significant recovery from 2020, when institutional portfolios in the region generated an average return of 5.5%. This compared to average returns of 13.7% in EMEA and 10.4% in APAC. SWFs & GEs realized the lowest-returns in 2021, with an average return of 9.3%. This is consistent with results we have observed in the past, and the group also holds the lowest average returns over both a trailing three-year and five-year period. Historically, SWFs & GEs have reported holding the highest allocation to core strategies amongst investor groups, which explains, at least in part, why returns are on the lower end of the range.

Institutions reported an average target return of 8.2% for the third straight year in 2022. It is important to highlight that all portfolios achieved returns well above target returns in 2021, as well as on a trailing five-year basis, with the exception of SWFs

⁹ Christopher Walker and Richard Lowe, "US Core Real Estate Funds: Next Chapter for ODCE Odyssey," Real Assets (June 2022).

& GEs which have been trailing their target returns. The consistent outperformance of the real estate asset class may explain why investors continue to increase their allocations, particularly in 2022, as they struggle to find consistent returns and yield amongst more traditional asset classes.

Exhibit 9: Target vs. Actual Returns, By Type of Institution

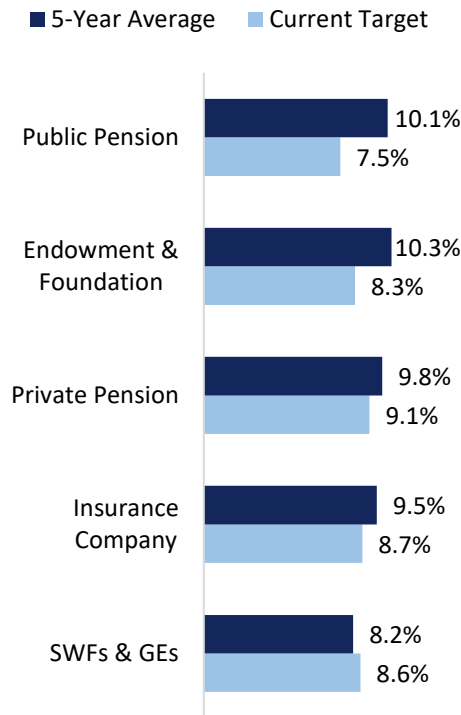


Exhibit 10: Target vs. Actual Returns, By Location of Institution

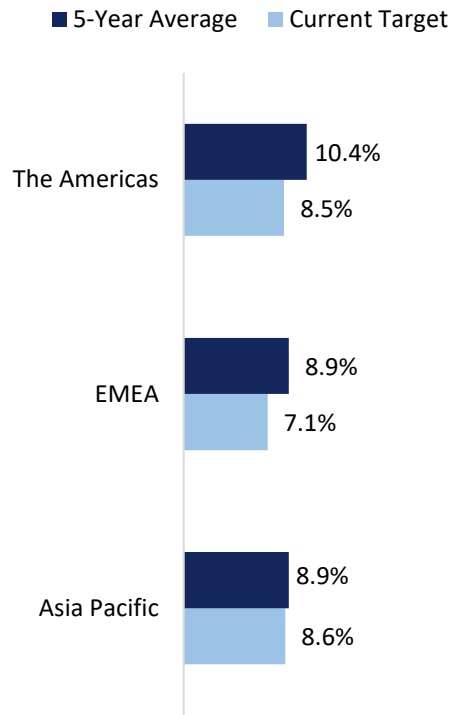
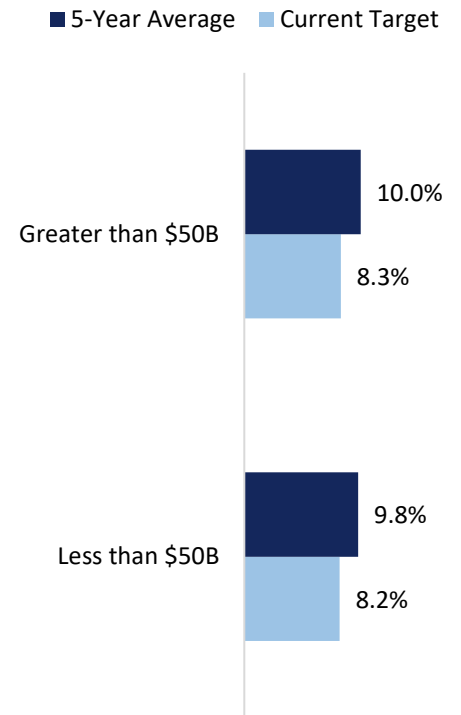


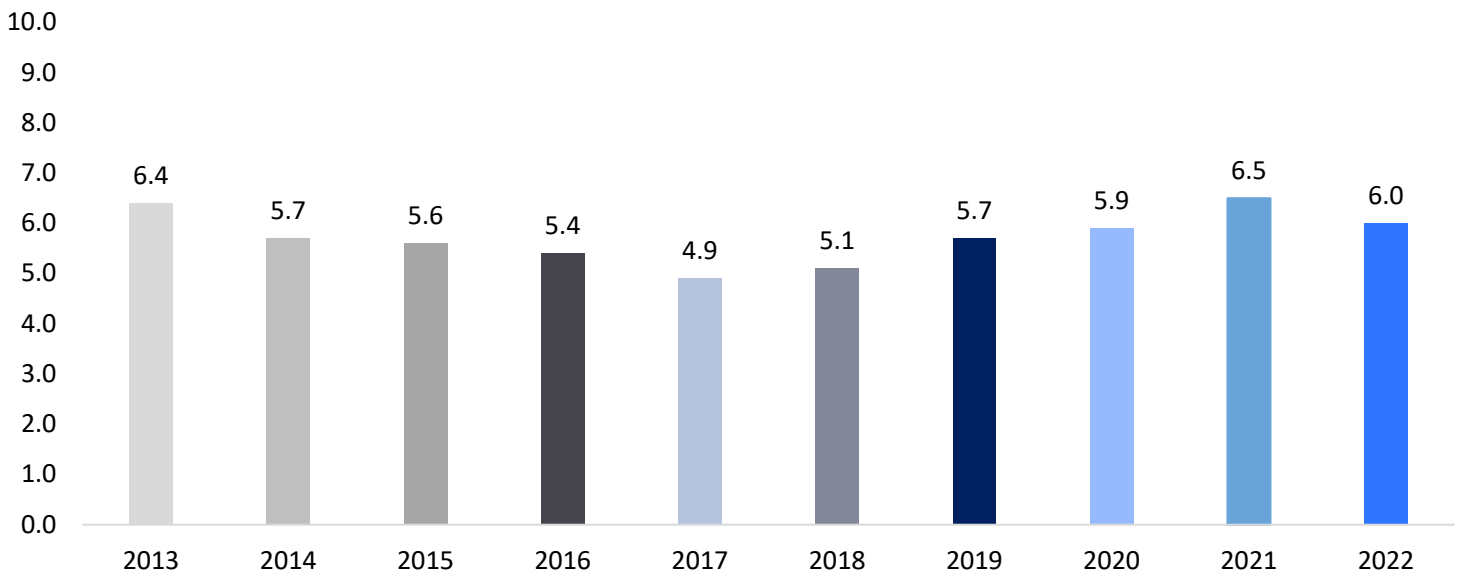
Exhibit 11: Target vs. Actual Returns, By Size of Institution



Conviction Index

Investor sentiment decreased for the first time in four years, reflecting institutions' cautious view of the market and contributing to the slowdown in capital flows.

Exhibit 12: Conviction Index, All Institutions



The Allocations Monitor 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, as institutions cited concerns regarding valuation levels and the potential for a peak in the market cycle. However, as operating fundamentals remained strong and the cost of debt steadily declined, the outlook for real estate investing improved, and market sentiment rose steadily from 2017 to 2021.

While surprising that conviction rose in 2020, given the uncertainty surrounding the impact of COVID-19 on global economies and property markets, investors reported an appetite for risk with a view that distress and dislocation would be emerging. Conviction increased further in 2021 by a considerable margin, to the survey’s all time high of 6.5, as portfolio returns exceeded expectations.

2022 results indicate a 0.5 point decline in conviction, though 6.0 points remains the third highest level reported over the past ten years. Decrease in conviction may be attributed to the many uncertainties facing the global economy, including high inflation, geopolitical tension, rising interest rates and fears of a global recession. *A Private Pension in the Americas cited that investing in today’s market is difficult, as there is no direct comparable investing environment.* Transaction activity began to slow during the second quarter of 2022, as the bid/ask spread on transactions widened, which was further compounded by constraints on the availability of debt financing (not to mention a steepening yield curve and widening credit spreads). While institutional portfolios have not yet reflected a repricing in the market, researchers have estimated that property values began declining in the second quarter. *As of October, Green Street estimates that property values in the U.S. have declined 12.9% from their peak in March of 2022.¹⁰ In a recent market commentary, Green Street observed “next year’s news on property prices will be ugly, as slow-to-react appraisers have barely begun to notice a downturn. In reality, prices are already down by a double-digit amount and further declines are more likely than not.”¹¹*

Despite a decline in conviction, institutions continue to increase allocations to real estate, and are citing an expectation that attractive investment opportunities will emerge over the next 12 to 24 months. For many, if the distress and dislocation that was

¹⁰ “Property Prices Down 13% This Year,” Green Street, (November 2022).

¹¹ “Heard on the Beach – Duration Frustration,” Green Street (November 2022).

expected to follow COVID-19 in 2020 instead begins to materialize in 2023 and 2024, the next several years may prove to be good vintages for capital deployment. There are already signs of institutional capital returning to the market to take advantage of distress, with several pensions and SWFs actively investing in public REITs and debt securities and deploying capital into credit strategies. *A spokeswoman for Connecticut Retirement Plans and Trust Funds noted that they are looking to "take advantage of the lack of capital in certain areas" as well as "distress in the market."*¹²

Conviction remains high for real estate assets that are driven by long-term demographic and secular tailwinds. Investors are expected to continue to allocate capital to industrial/logistics, multi- and single-family rentals, life sciences and lab space, data centers, storage and other non-traditional asset sectors. Despite industrial pricing cooling over the past several quarters, valuations remain 15.5% above levels 12 months ago and up 53.9% over the past two years.¹³ Office assets have proven to be highly bifurcated: new, highly amenitized buildings in the right locations are performing well, while outdated, commodity buildings are struggling to retain and attract tenants. Today's mantra is that office space needs to be "commute worthy."

Appetite is high for niche sectors such as life sciences and data centers, developed by specialized, seasoned managers. But it is worth noting the many new entrants into these alternative asset classes. The question for investors is whether these new entrants will develop the in-depth understanding of the fundamentals of these niche assets which are in many cases operationally intensive businesses, in order to compete effectively with the seasoned specialists.

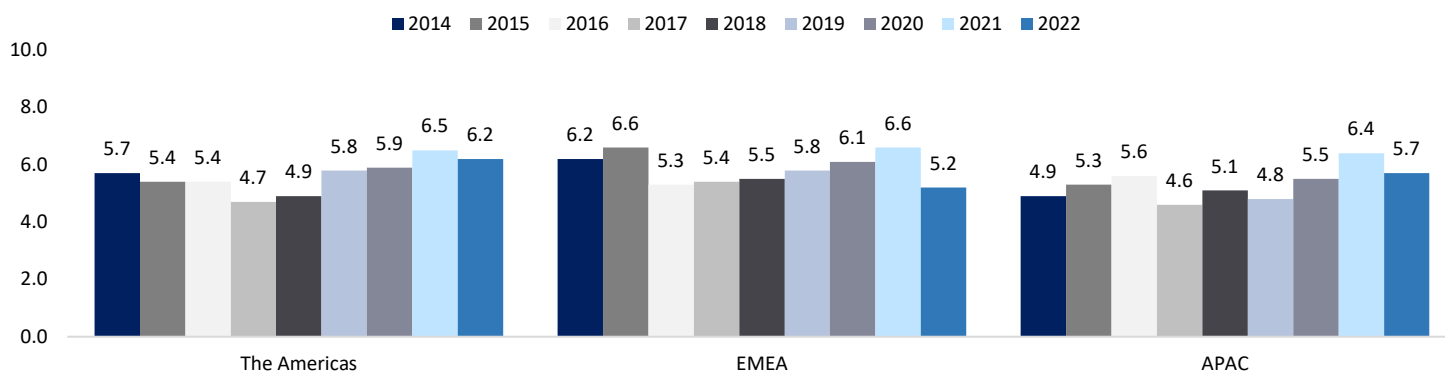
Necessity and grocer-anchored retail is back on the radar of many institutions. This segment of the retail industry has proven resilient over multiple cycles, and the strength of consumer spending continues to support traffic and sales. Lastly, institutions have been actively deploying capital into credit strategies, with flows expected to grow as investors look to take advantage of rising interest rates and cyclically high credit spreads. According to PERE, real estate debt funds have made up 26% of real estate fundraising year-to-date, which is the second highest proportion ever recorded.¹⁴

Positioning of the Institutional Property Markets, Today vs. Heading into the Global Financial Crisis

It is illustrative to look back to the Global Financial Crisis ("GFC"), to assess the relative position of the institutional real estate industry. Survey participants note that the industry is better positioned today, whereas real estate was the "problem child" heading into the GFC, with slowing demand trends, over-building and excess levels of leverage. The result was that many institutions did not allocate capital to real estate for several years following the GFC. In contrast, while the property markets are currently repricing, operating fundamentals remain stable to strong, and leverage levels are more moderate. Moreover, leverage is also supported by higher quality borrowers.

While institutions are anticipating several quarters of negative returns, much of the diminution in value is expected to be attributed to a shift in cap rates and borrowing costs, some of which may be offset by the continued strength in demand and rents.

Exhibit 13: Conviction Index, By Location of Institutions

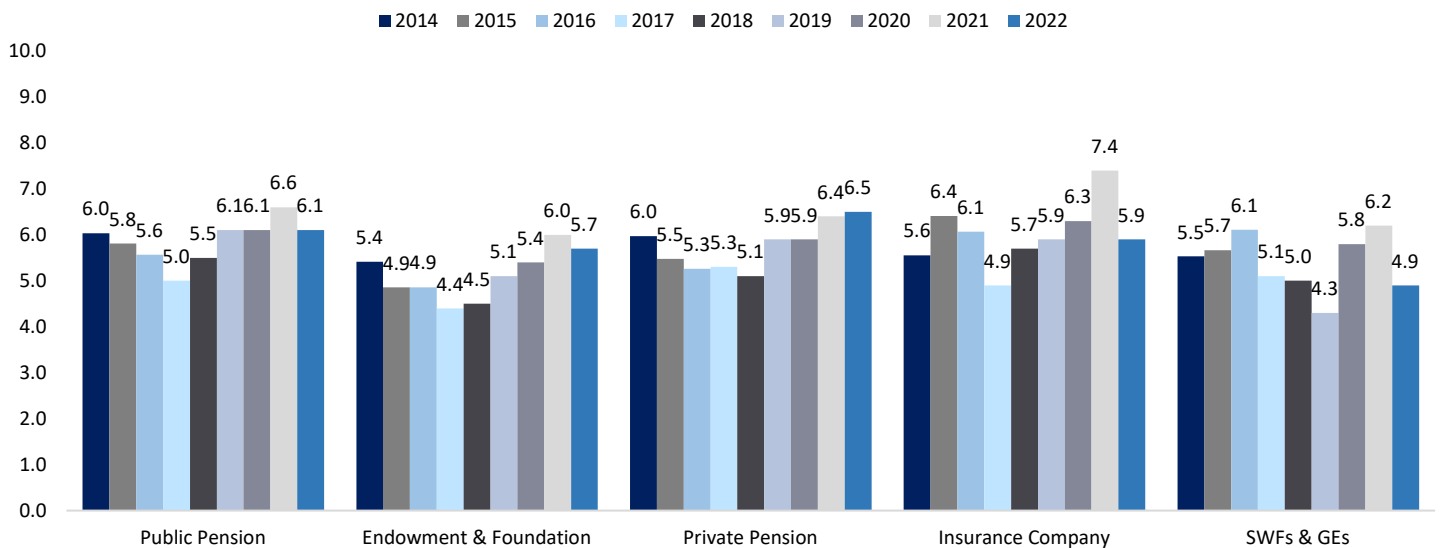


¹² Joe Dyton, "Pension funds scale back on CRE investing," Connected Real Estate Magazine. (October 2022)

¹³ Lynn Pollack, "Industrial Pricing Cools in Q3 as Headwinds Loom," Globe Street. (October 2022).

¹⁴ "PERE Fundraising Report Q3 2022." PERE. (2022).

Exhibit 14: Conviction Index, By Type of Institutions



Conviction declined in all geographic regions in 2022. The Conviction Index for institutions in EMEA had the highest 2021 level at 6.6 and decreased by the largest margin of 1.4-points to 5.2. This significant reversal likely reflects a combination of the broader global issues as well as regional-specific issues of high inflation, slowing to negative GDP growth, an energy crisis and political and military conflict. Confidence in the asset class was the highest amongst Americas-based institutions, which report a Conviction Index of 6.2, albeit down from 6.5 in 2021.

Insurance Companies report a Conviction Index of 5.9, a significant decrease from last year at 7.4. This may be attributed to the recent performance of real estate credit portfolios, which comprises an outsized allocation for most Insurance Companies, resulting from the rapid rise in interest rates and widening of credit spreads.

Exhibit 15: Range of Conviction Index 2021 & 2022, All Institutions

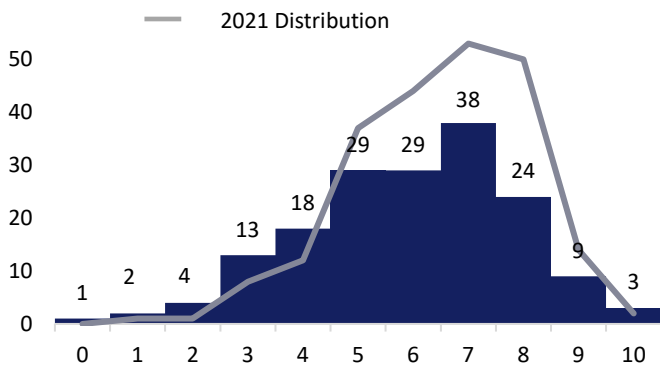
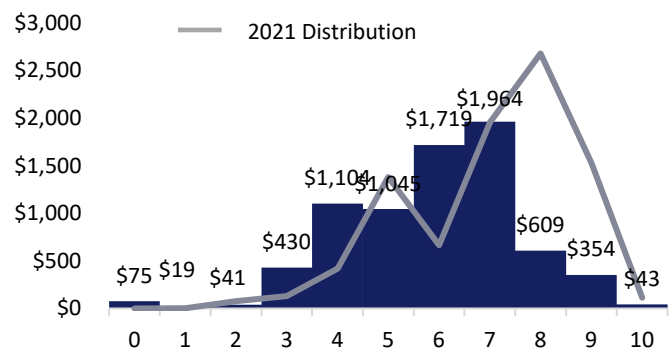


Exhibit 16: Range of Conviction Index 2021 & 2022, By AUM Midpoint (US\$ Billions)



“Real estate has been the recipient of capital markets tailwinds and capital flows for the last year or so. Given prospects of higher interest rates and slowing economic growth, investors seem to be taking a pause at the transactional level. That said, investors seem to still have a bid for the asset class in general in terms of fund flows.”

- Public Pension, The Americas

“Tremendous opportunities exist in the right subcategories and locations.”

- Public Pension, The Americas

“There are always opportunities in real estate. Stay off the beaten path and leave no stone unturned in your due diligence efforts.”

- Public Pension, The Americas

“Aiming for selective real estate and strategies exposure rather than broad based and looking for more recession resilient sectors or parts of the capital structure.”

- Endowment / Foundation, APAC

“We will begin to transition to normalized interest rates. We expect attractive opportunities will emerge over the next 24 months.”

- Public Pension, The Americas

“Challenging and need to be very selective.”

- Public Pension, APAC

“We are not expecting to invest much in parts of the world experiencing political turmoil.”

- Public Pension, The Americas

Third Party Management

While a select number of larger institutions continue to internalize portfolio management, the majority of institutions continue to rely on the expertise of third party managers.

Existing Investments

Approximately 62% of institutions report outsourcing their entire real estate portfolio to third party managers. Overall, 96% of institutions report outsourcing all or a portion of their portfolio to third party managers, while 4% report managing their entire real estate allocation in-house (up from 2% in 2021). The shift towards in-house management by larger institutions is typically driven by dual objectives to enhance returns through the reduction of fees and to maintain more discretion over investment and asset management decisions.

Consistent with the findings from prior surveys, a significantly larger proportion of Small Institutions outsource management of their entire real estate investment portfolios at 67%, as compared to Large Institutions at 45%. With their lack of resources and internal personnel, Small Institutions rely heavily on the expertise of their managers, particularly in times of economic uncertainty.

Future Allocations

Amidst volatile market conditions, it seems investors are finding comfort in familiarity. Institutions continue to favor allocating capital to existing manager relationships, with 66% of 2022 investments expected to be allocated to pre-existing manager relationships. Allocations to new manager relationships kept pace in 2022, at 24%, unchanged from 2021. Notably, this still represents a significant decline from 2013 when 69% of participants were planning to allocate to new manager relationships in the wake of the 2008 financial crisis.

Additionally, just 31% of participants intend to increase their number of manager relationships over the next 12 months, compared to 41% in 2021. Approximately 8% of participants anticipate decreasing their number of manager relationships throughout 2023.

Emerging managers continue to be at a disadvantage when competing for capital, as only 16% of institutions noted that they are willing to invest with first-time fund managers. While this is up 2 percentage points from 2021, institutions maintain a high bar for investing with new managers, which has likely increased with today's market volatility. Among the most important

Exhibit 17: Percentage of Portfolio Outsourced to Third party Managers, All Institutions

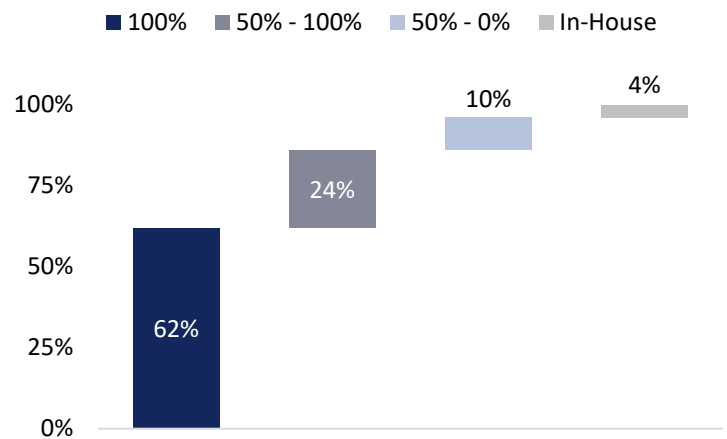


Exhibit 18: Allocations to Managers in 2022, All Institutions

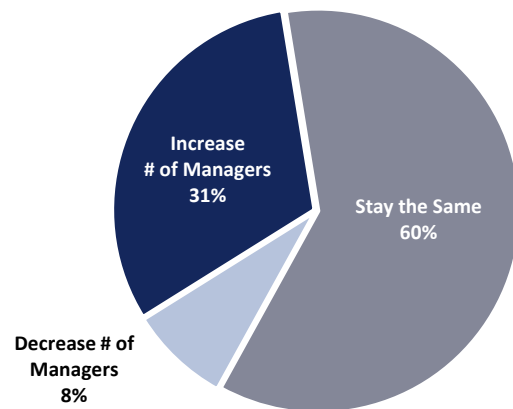
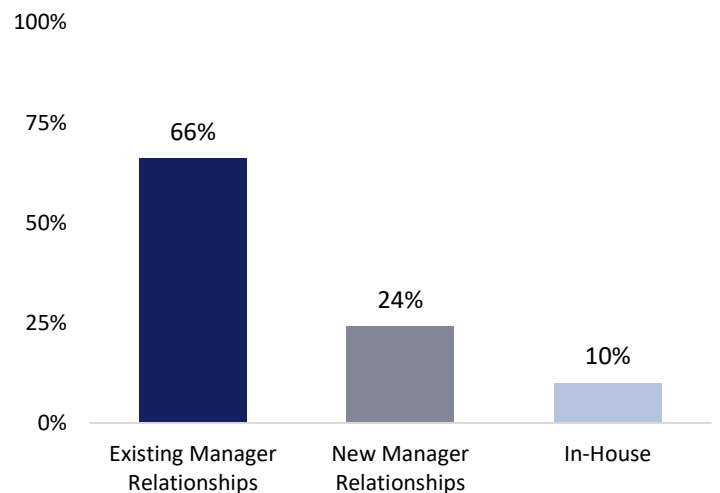


Exhibit 19: Estimated Breakdown of 2022 Investments, All Institutions



considerations for investment with first-time fund managers today is the team's experience investing during market downturns. Managers with cycle-tested team members are better positioned to receive capital allocations in today's environment. That said, investors express concerns about legacy portfolios impacting their managers' attention.

Risk Preferences

Institutions continue to favor higher return strategies and are anticipating an opportunity to take advantage of potential repricing and dislocation over the next several years.

Exhibit 20: Risk Preference, All Institutions

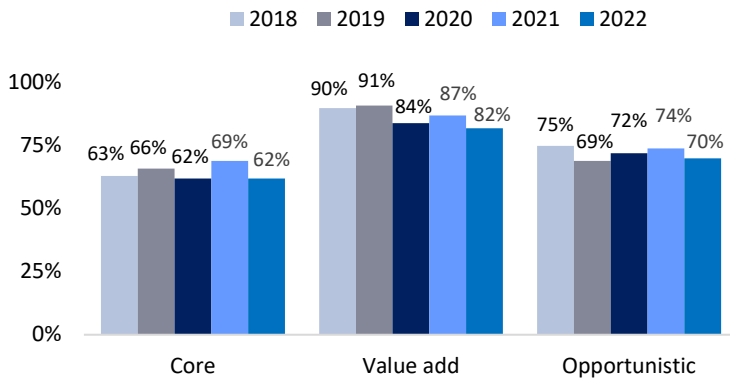


Exhibit 21: Risk Preference, By Location of Institution

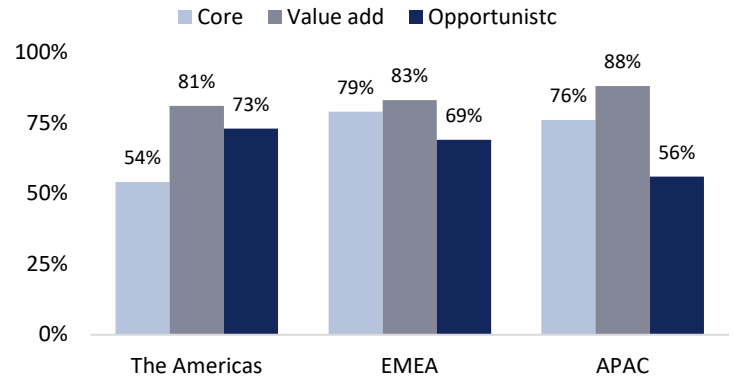
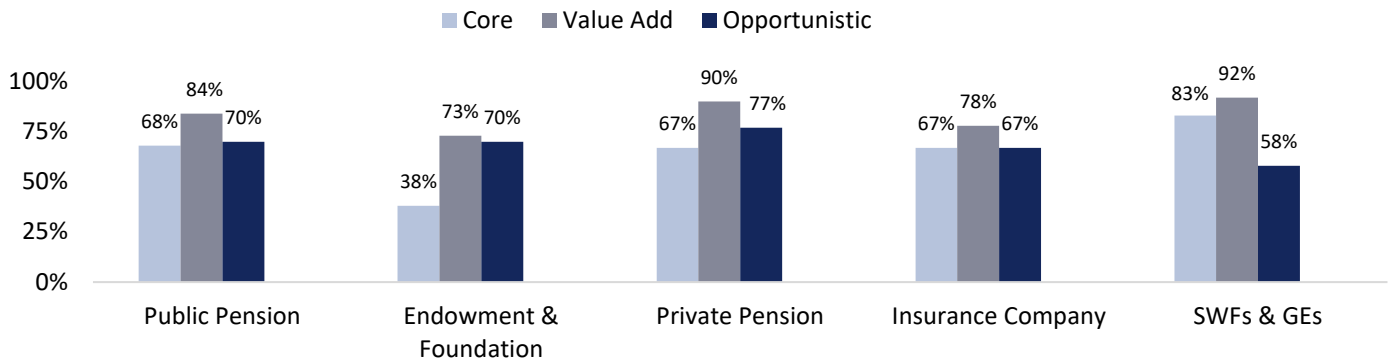


Exhibit 22: Risk Preference, By Type of Institution



While appetite declined across the risk spectrum, value add and opportunistic strategies remain the most favored strategies among institutional investors. Investors continue to demonstrate appetite for higher returns, anticipating a compelling opportunity over the next several years to take advantage of potential distress and repricing. Approximately 84% of institutions report that they are actively allocating capital to value add and/or opportunistic strategies in 2022. Value add strategies continue to be most favored, with 82% of institutions reporting that they are actively allocating to value add investments, compared to 70% allocating to opportunistic and 62% allocating to core. *An Insurance Company in the APAC region noted that today's yield compression is pushing investors towards riskier assets, requiring more due diligence and attention.*

Investor preferences vary by region and by type of institution. With the current interest rate environment creating challenging conditions for core investments, the year-over-year decrease in appetite for core strategies across all regions is not surprising. EMEA investors remain the most active in core, with an objective for the asset class to deliver stability and yield versus total return as part of a greater institutional portfolio. When considered in combination with their low 5.2 Conviction Index, this could reflect their defensive posture going forward. Alternatively, their low Conviction Index could indicate a negative outlook for a mandated core investment approach. While EMEA-based institutions reported a consistent appetite for value add strategies at 83%, institutions in the Americas and APAC both reported a decrease in appetite for value add strategies year-over-year. All regions reported a decline in investments in opportunistic strategies in 2022, with 70% of investors reporting that they are actively allocating capital to opportunistic investments, down from 74% in 2021.

When comparing risk preferences by type of institution, Public Pensions have led the market's shift away from core strategies, reporting a decrease of 18 percentage points from 2021. Endowments & Foundations remain the least likely to invest in core strategies, while Private Pensions now lead as the most likely to invest in higher return strategies.

Geographic Preferences

While the United States remains the preferred destination for international capital allocations, cross border investing has decelerated.

Exhibit 23: Geographic Focus, All Institutions

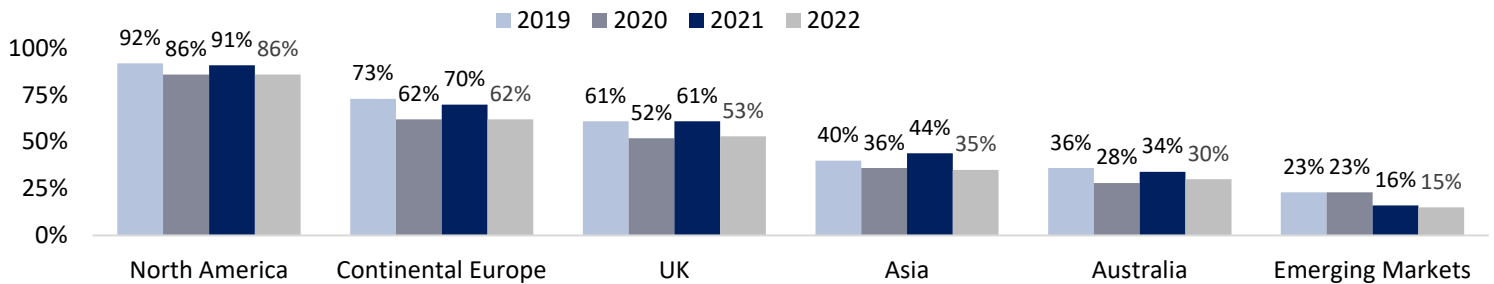
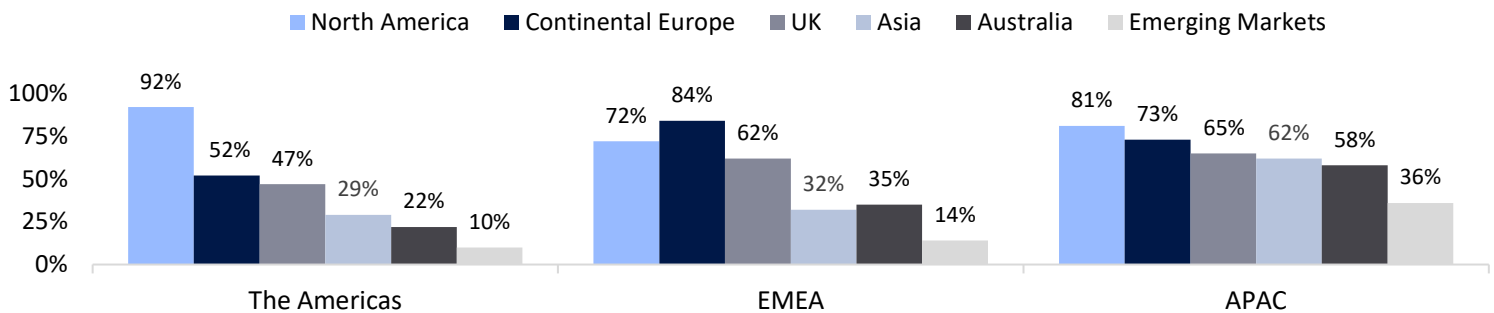


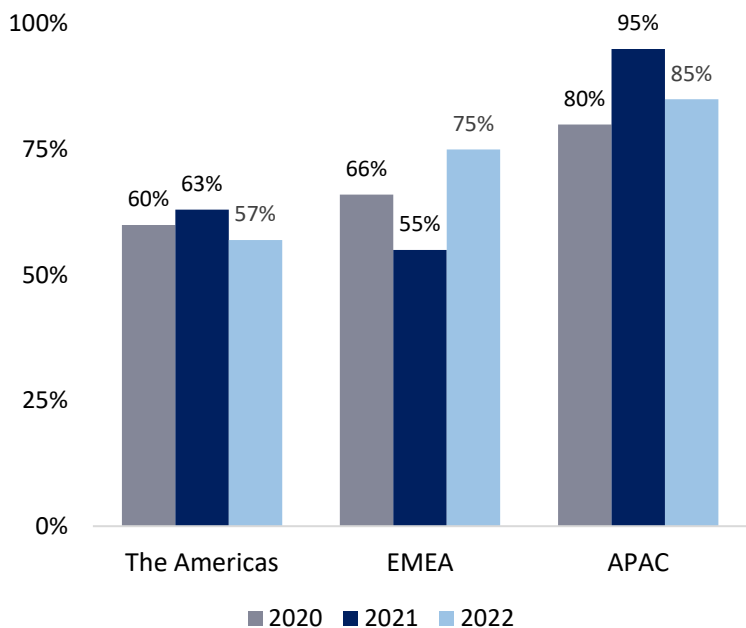
Exhibit 24: Geographic Focus, By Location of Institution



North America continues to be the largest recipient of capital allocations, followed by Continental Europe. Investor demand remained largely consistent year-over-year, but each region saw a decrease in the amount of capital allocations. Institutions universally expressed declining interest in the UK, with 53% of investors reporting actively allocating to the region, down from 61% in 2021. A *Private Pension in the Americas* cited that their concerns surrounding Europe were a combination of geopolitical risk, foreign exchange rate risk, valuations and rates.

As in prior years, institutions in the APAC region have the largest appetite for cross border investments. However, while 85% of APAC institutions are investing outside of their domestic region, this is a 10% decline from 2021. Institutions in the Americas are also less likely to invest outside of their domestic region, with 57% making cross border investments in 2022 compared to 63% in 2021. This decrease can be attributed to a view that with more familiarity, home markets present less risk. For institutions considering US-dollar denominated investments, the cost of currency hedging is an additional consideration. A *Public Pension* noted that “exchange rate deterioration” is causing them to rethink their overseas allocations.

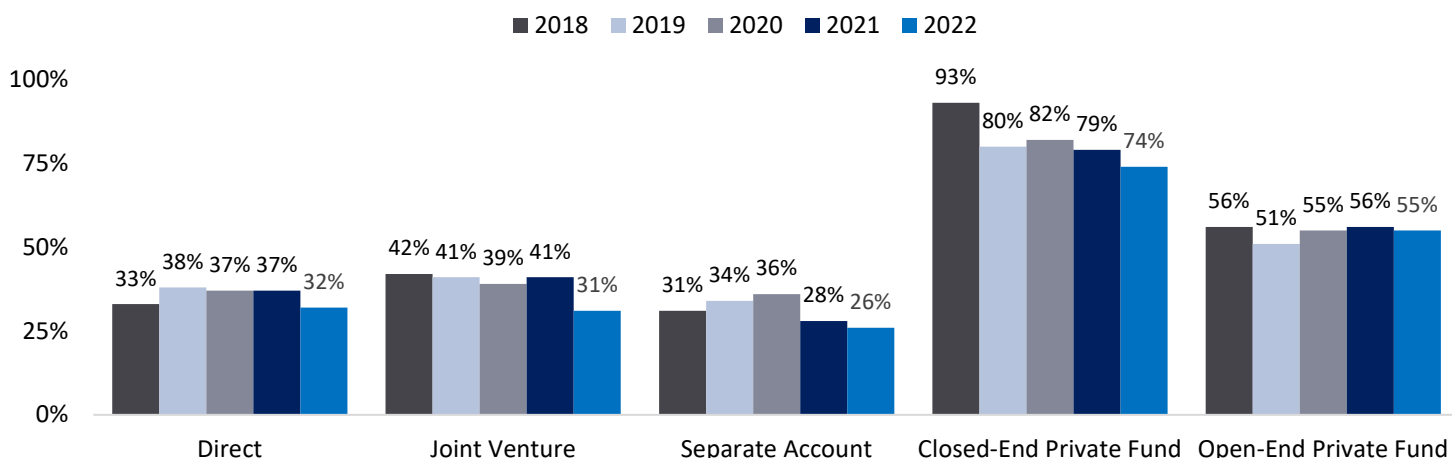
Exhibit 25: Institutions Investing Outside of their Domestic Region, By Location of Institution



Investment Product Trends

While industry-wide fundraising was down through 3Q 2022, the majority of institutions report that they are actively investing in closed- and open-end private funds.

Exhibit 26: Investment Product Preferences, All Institutions



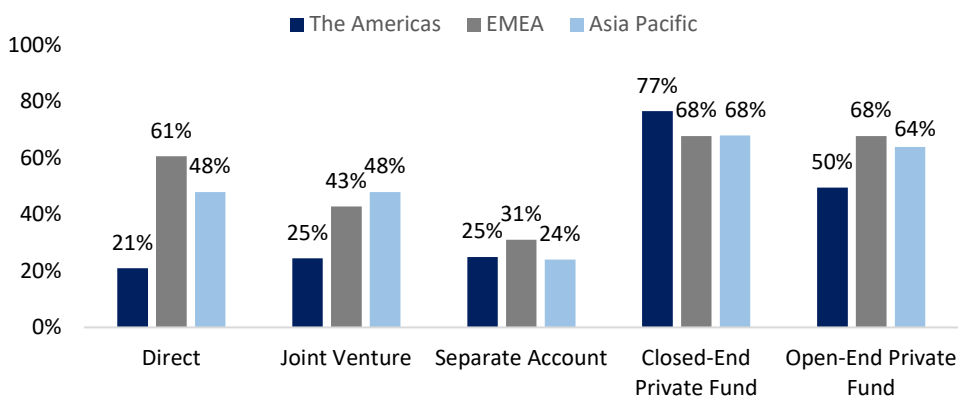
While Q4 of 2021 was a record quarter for fundraising, allocations to funds slowed down significantly after the start of the new year. Real estate funds raised a total of \$107.3 billion between Q1 and Q3 of 2022, marking the slowest Q1-Q3 of fundraising since 2013. Notably, 2022 is estimated to see the fewest number of funds closed in over ten years, as industry consolidation continues, and fund sizes get larger.¹⁵ Appetite for all types of real estate products has decreased slightly as investors slow deployment pacing.

Closed-end private funds remain the most popular investment product for institutions in 2022, with 74% of investors reporting that they are actively allocating to such vehicles. The preference for closed-end funds is followed by a preference for open-end private funds. While today's open-end funds have growing redemption queues, institutions are showing increased appetite for open-end funds that are sector-specific in nature, including industrial and multi-family.

Similar to prior years, appetite for direct real estate investments is lowest for institutions in the Americas but remains quite high for institutions based in APAC and EMEA. Approximately 61% of EMEA-based investors and 48% of APAC-based investors have plans to make direct real estate investments in 2022.

As in prior years, interest in direct investments, joint ventures, and separate accounts varies significantly depending on the size of the institution. While Large Institutions (with AUM over \$50B) continue to favor closed- and open-end vehicles, they remain highly active in allocating capital to direct investments, joint ventures, and separate accounts. Small Institutions have continued to maintain their preference for closed and open-end vehicles.

Exhibit 27: Investment Product Preferences By Location of Institution



¹⁵ "PERE Fundraising Report Q3 2022." PERE. (2022).

Environmental, Social & Governance (ESG)

ESG continues to be a growing focus of investors globally, with more than 50% of institutions now reporting that they have implemented a formal ESG policy.

Exhibit 28: Formal ESG Policies, 2016 – 2022

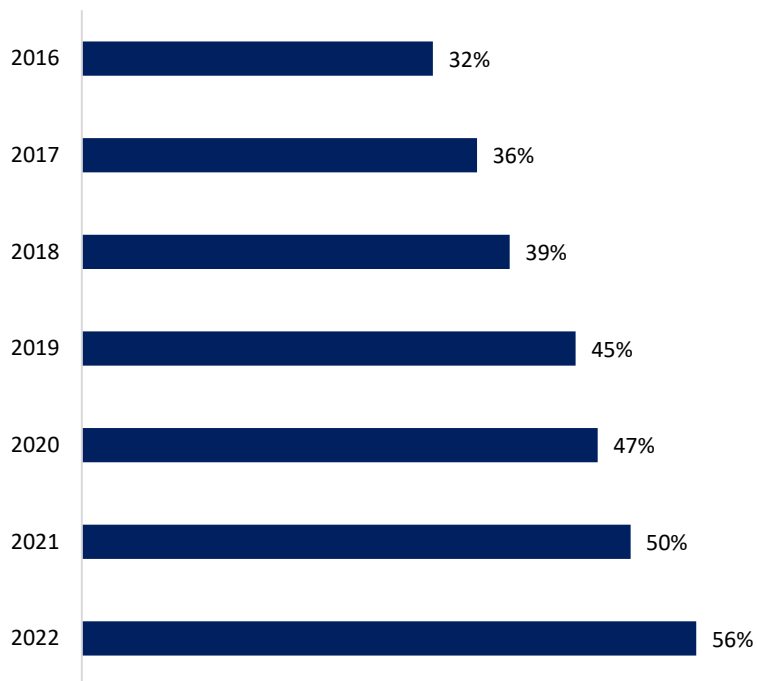
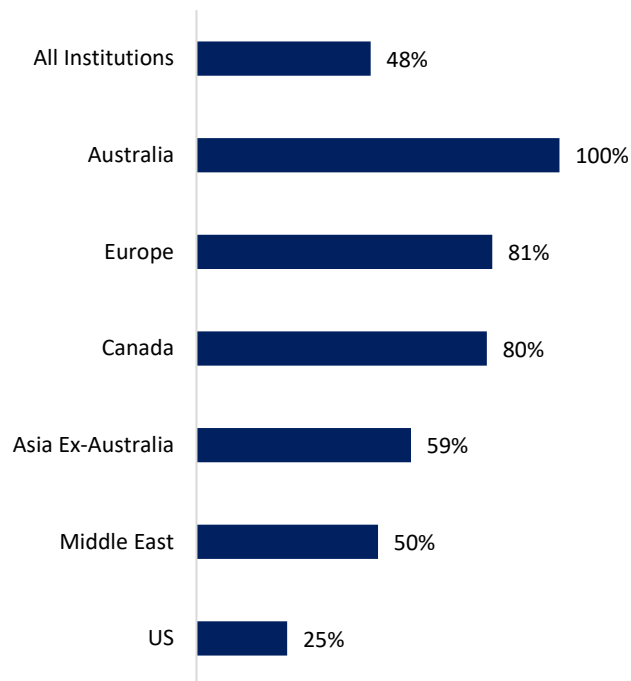


Exhibit 29: Investment Process Influenced by ESG Policies, by Location of Institution



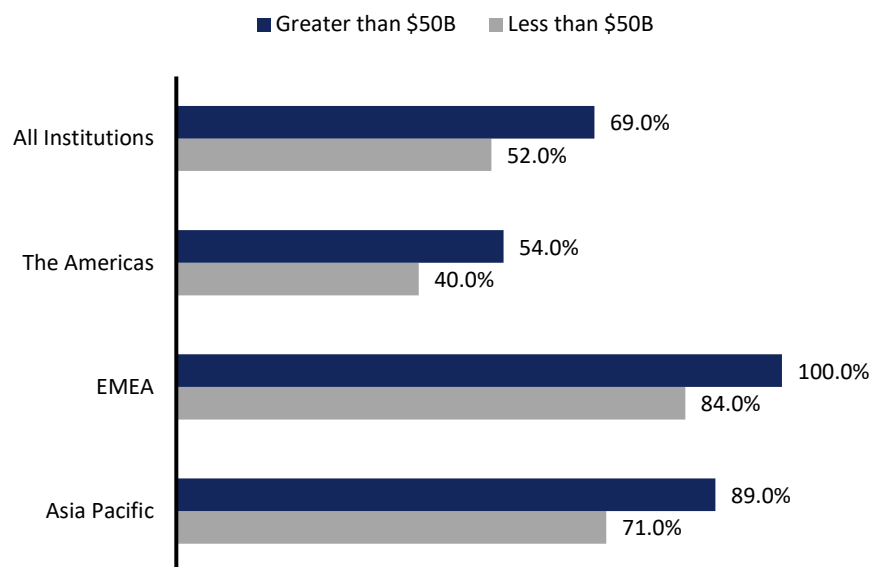
ESG Considerations

The importance of environmental sustainability, social responsibility, and governance continues to shape institutions' investment decisions, management, and product offerings. This year marks the first time that more than 50% of institutions report having implemented a formal ESG policy. Approximately 56% of institutions have formal policies in place, up from 50% in 2021 and 32% in 2016. Despite headlines, institutions appear steadfast in their prioritization of ESG as an important component of portfolio management.

As noted in prior years, ESG considerations vary by type, size, and location of institutions. All Australia-based institutions report having an ESG policy which influences their investment decisions, followed by Europeans at 81% and Canadians at 80%. Once again, institutions in the United States have been the slowest to adopt ESG into their investment processes.

Large Institutions have been faster to adopt ESG policies. Approximately 69% of institutions with more than \$50 billion AUM have ESG policies, compared to 52% of Small Institutions. Notably 100% of Large Institutions in the EMEA region report having formal ESG policies in place. *Tobias Read, treasurer at Oregon State Treasury (\$95bn AUM), remarked "climate change is already affecting the profitability of entire industries in*

Exhibit 30: Formal ESG Policy, by Region & Size of Institution



which my fund is invested. For people in my position to actively avoid information about such profound risks is a breach of their duty as a fiduciary.”¹⁶

A heated movement of “anti-ESG” has recently made its way into US politics, with local governments in red states putting in place restrictions on their pension plans’ use of ESG policies to evaluate investments.¹⁷ Government officials in the movement have cited concerns that ESG-focused managers are not prioritizing shareholder returns, and ultimately pose a threat to their states’ economic models. Investment manager BlackRock has been at the center of this debate, as a handful of states have begun to divest capital invested with the manager due to its commitment to net-zero. Missouri State Employees’ Retirement System became the most recent plan to do so, selling off all its public equities managed by BlackRock and following in the footsteps of both the Louisiana and South Carolina’s state treasurer’s office.^{18,19} University of Pennsylvania Professor of Management, Witold Henisz cited that while this movement “imposes a cost on companies like BlackRock... there’s no way they’re going to abandon modeling climate change. The consequences of that would be orders of magnitude more.”²⁰ Despite all the near term interest in fossil fuels, the majority of new investment going into the power sector is allocated for renewable energy and storage.²¹ Anecdotally, we learned this year of one large North American investor that is being guided to prioritize the overall de-carbonization goals of the institution, even at the expense of making incremental investments. A key, early investment committee requirement is to articulate how a proposed investment reduces or contributes to the overall carbon footprint of the portfolio. We will continue to watch these trends closely.

¹⁶ Tobias Reed, “A Sneaky Form of Climate Obstruction Hurts Pension Funds,” New York Times. (September 2022).

¹⁷ Dees Stribling, “As States Escalate Resistance, ESG Backlash Could Come At A Cost To Investors,” Bisnow. (October 2022)

¹⁸ Palash Ghosh, “Missouri State Employees Becomes Latest to Divest BlackRock over ESG Concerns,” Pensions & Investments. (October 2022).

¹⁹ Brian Croce, “South Carolina Treasurer to Pull \$200 Million from BlackRock over ESG Concerns,” Pensions & Investments. (October 2022).

²⁰ Dees Stribling, “As States Escalate Resistance, ESG Backlash Could Come At A Cost To Investors,” Bisnow. (October 2022)

²¹ “The Bottom Line on Banks,” New York Times (November 2022).



Cornell Baker Program in Real Estate



Cornell's Baker Program in Real Estate is a unique 2-year Masters of Professional Studies in Real Estate, which boasts a comprehensive, graduate-level curriculum with the rigor, structure, and academic profile of an MBA while focusing mainly on Real Estate. The program is jointly administered by the College of Architecture, Art, and Planning and the School of Hotel Administration under the Cornell SC Johnson College of Business.

The Cornell Baker Program in Real Estate boasts the largest full-time real estate faculty in the country. Comprising faculty from four colleges at Cornell, the Baker Program includes experts to research, advise, and teach real estate classes in any specialty within the industry. The core courses in the Baker Program in Real Estate are drawn from each of the colleges to create a multidisciplinary educational experience that utilizes the full resources at Cornell. Students in the program receive broad exposure to real estate, from real estate finance & investment to real estate development, and asset management to deal structuring, as part of their core coursework.

The two month internship after the first year and the ability to specialize in one of six real estate niches during their second year create the opportunity to maximize Cornell's extensive real estate offerings in sculpting a concentration ideally suited to the individual student's interests. A weekly Distinguished Speaker Series that attracts global industry leaders and alumni to campus is another highlight of the program. This provides the students valuable industry connection and exclusive opportunity to interact with recognizable figures from diverse fields of real estate.

Cornell is also home to the Cornell Real Estate Council (CREC), a non-profit, volunteer-led organization which is one of the largest university-based real estate alumni networks in the world. CREC represents the many voices of 'real estate at Cornell,' including current and former members of Cornell's world-renowned graduate and undergraduate schools of business, real estate, hotel administration, architecture, art, and planning, engineering, law, industrial and labor relations, and more. The annual Cornell Real Estate Conference is a highlight event organized by CREC.

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Since inception, Hodes Weill has completed advisory assignments for property companies and fund managers involving approximately US\$159.0 billion of assets under management and closed approximately US\$23.8 billion of institutional private placements for funds, separate accounts and joint ventures.

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The 2022 Allocations Monitor results presented herein are based on the subset of institutional investors that participated in the Allocations Monitor. If a greater number of institutional investors had participated in the Allocations Monitor, the Allocations Monitor results may have been different and contrary to the findings presented herein. Information contained herein is also based on data obtained from recognized statistical services, market reports or communications, or other sources, believed to be reliable. No representation is made and no attempt was made to verify its accuracy or completeness. Neither Cornell University nor Hodes Weill & Associates, LP has any obligation to update the Allocations Monitor.

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