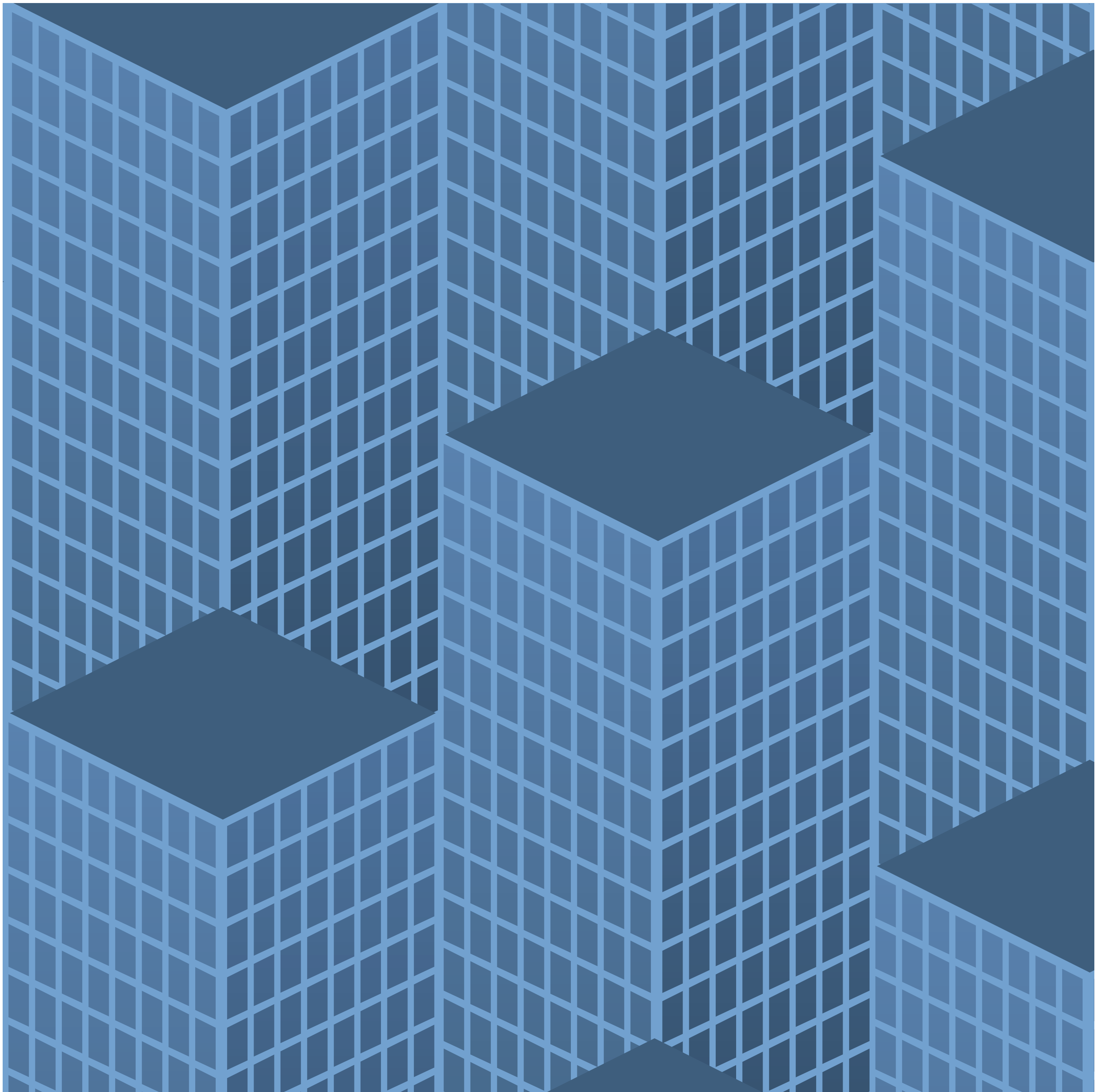
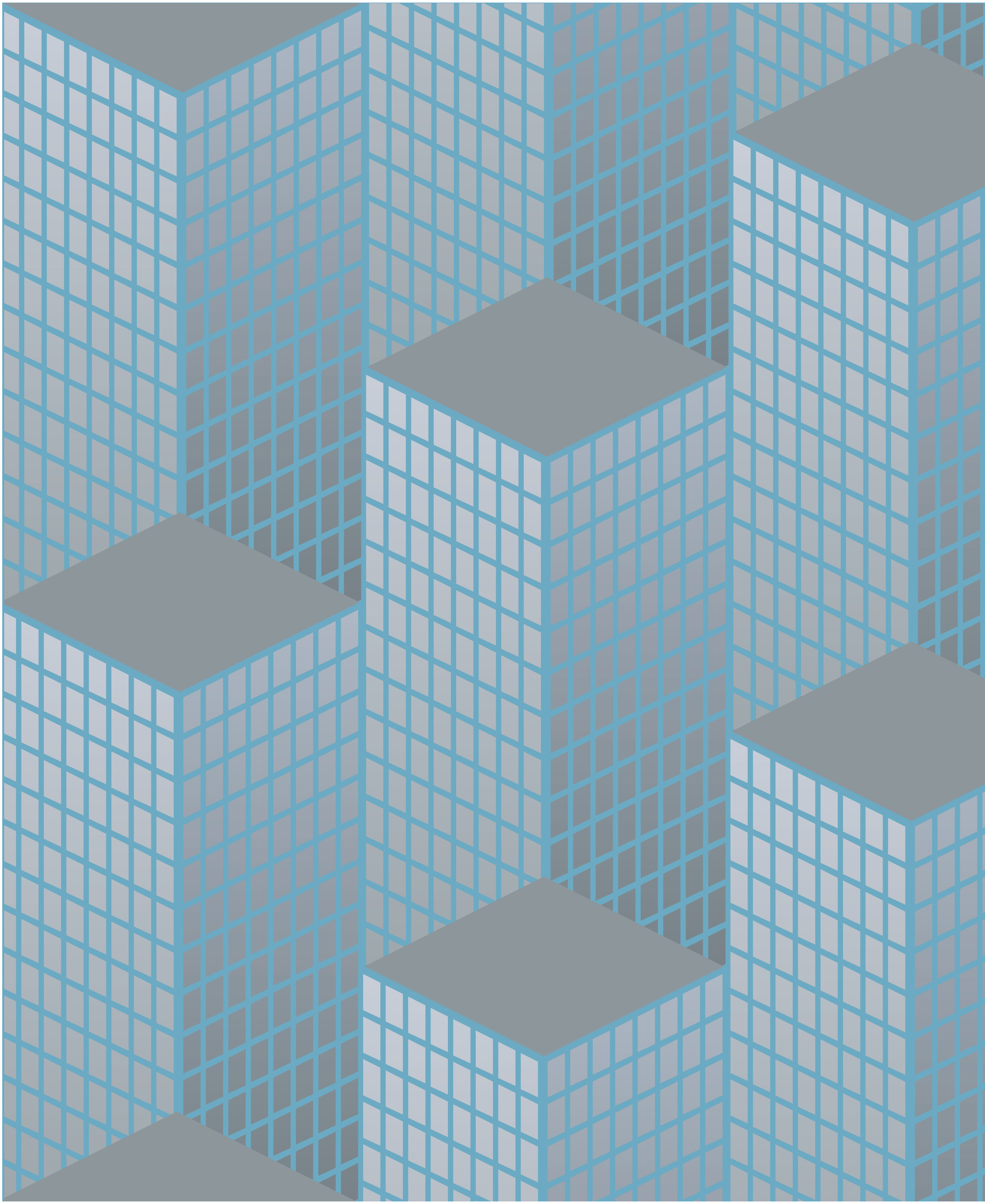
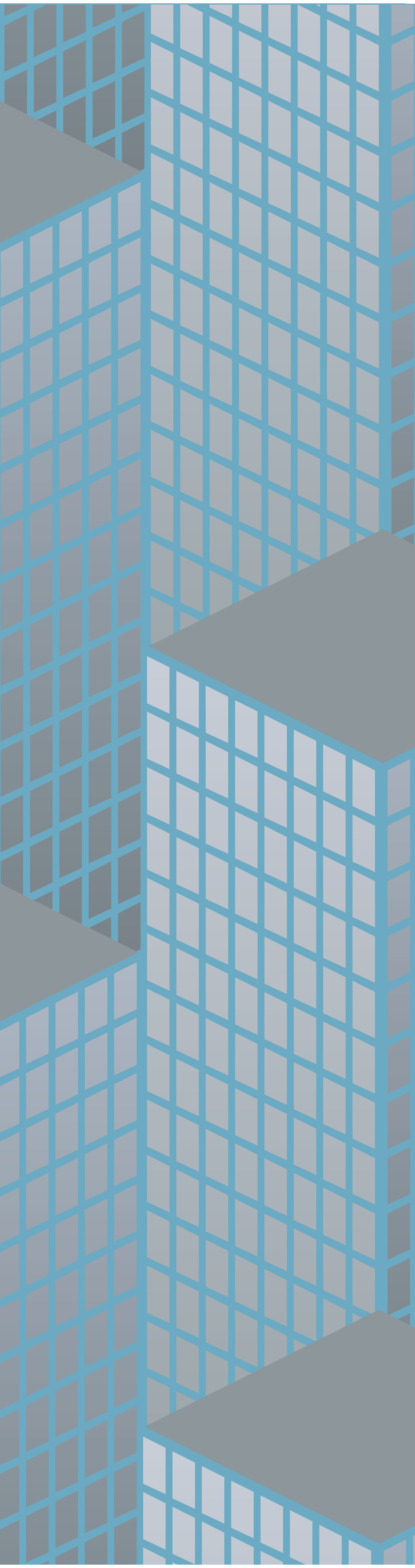


Real Estate Institutional Investor Trends for 2018 Survey

PROBITAS PARTNERS





Contents

probity (prō′bĭ·tē)
n. [from Latin probitas: good, proper, honest.] adherence to the highest principles, ideals and character.

On an ongoing basis, Probitas Partners offers research and investment tools for the alternative investment market to aid its institutional investor and general partner clients. Probitas Partners compiles data from various trade and non-trade sources, then vets and enhances that data via its team's broad knowledge of the market.

The Real Estate Fundraising Environment

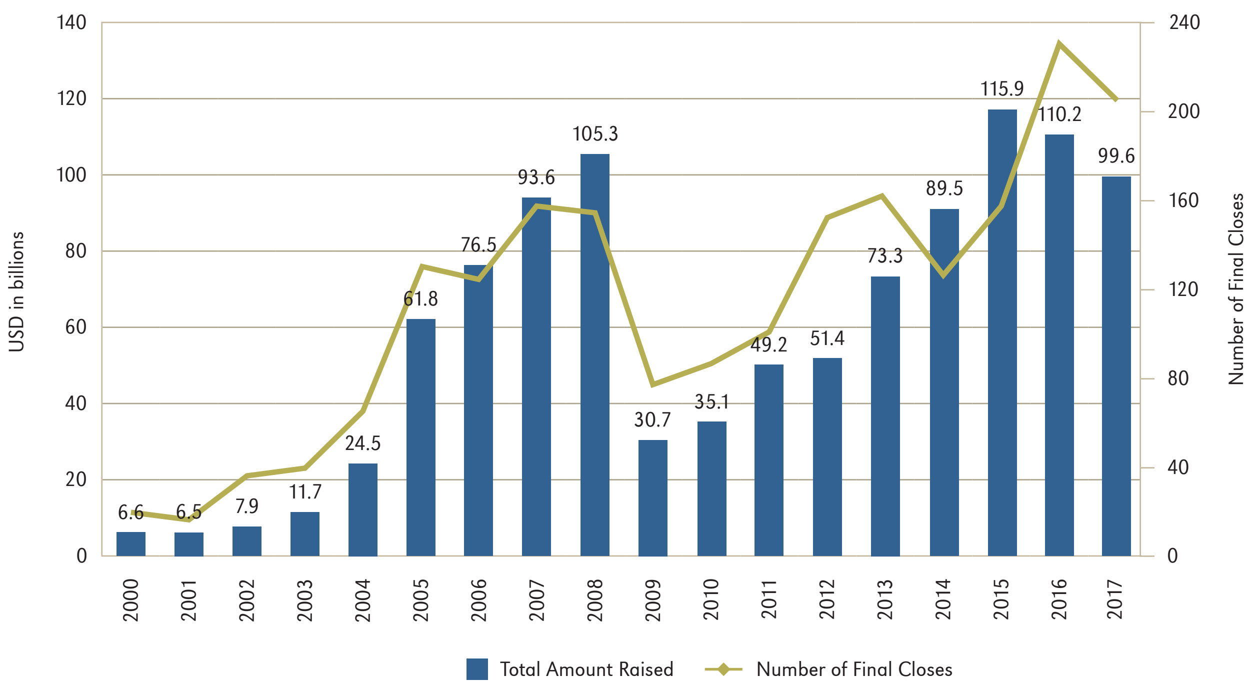
- Real estate closed-end fundraising continued to slide in 2017 (Chart I), falling a further 10% last year, making it one of the few major sectors of closed-end alternatives to decline. In addition, the number of funds that had a final close during 2017 declined significantly, despite shooting up in 2016 .

- Funds focused on North America increased their lead to become an absolute majority of funds raised in 2017, as global funds (mainly transatlantic) and European-focused funds declined as a percentage of activity (Chart II). Large funds closed by PIMCO, Carlyle, and Brookfield led this change.

- The relative importance of opportunistic, value-added, and debt funds remained the same in 2017 as in 2016 (Chart III). There was little interest in core and core plus funds in either year, but the total capital raised through these strategies is understated, as many investors target these sectors directly or through separate accounts that are not captured here.

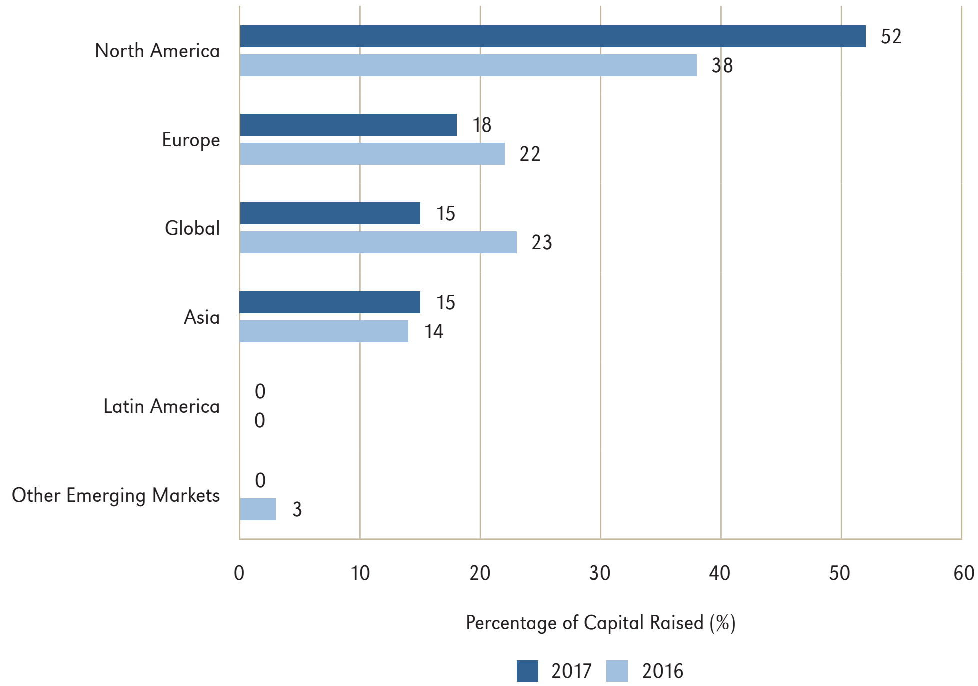
"Fundraising continued to slide in 2017, falling a further 10% last year."

Chart I Global Real Estate Fundraising 2000–2017



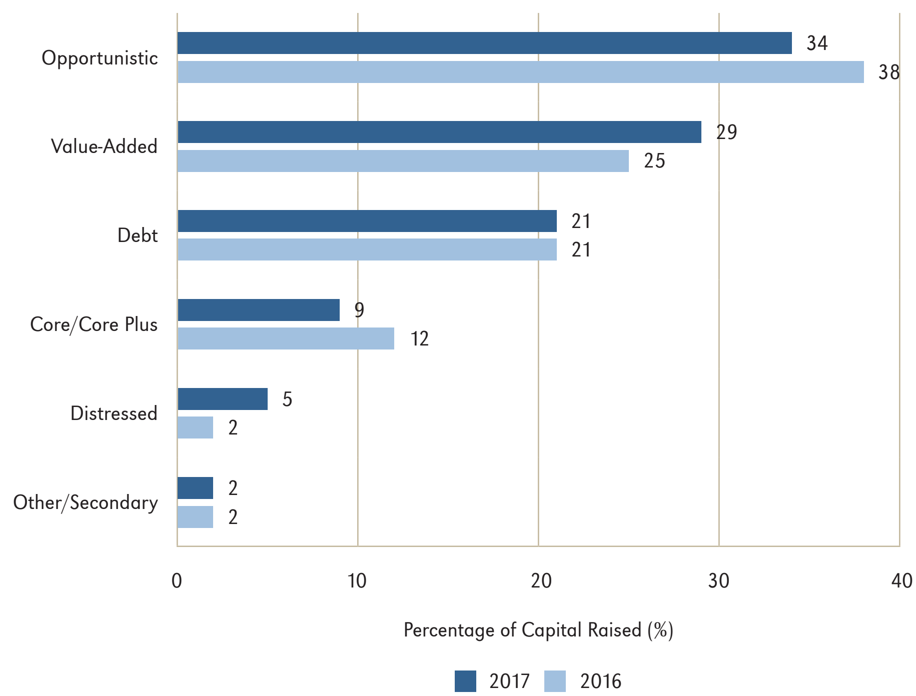
Source: Probitas Partners; PREQIN; PERE; IREI

Chart II Global Real Estate Fundraising by Geography
(in terms of capital raised, USD)



Source: Probitas Partners

Chart III Global Real Estate Fundraising by Strategy
(in terms of capital raised, USD)



Source: Probitas Partners

- The ten largest closed-end real estate funds that had a final close in 2017 made up 29% of total fundraising — a significant amount, but not nearly the level of concentration that the largest mega-buyout funds have in the buyout market. Table I shows that these funds are somewhat diversified by strategy, though the majority are focused on developed markets.

Table I Largest Real Estate Funds Raised with Final Close in 2017

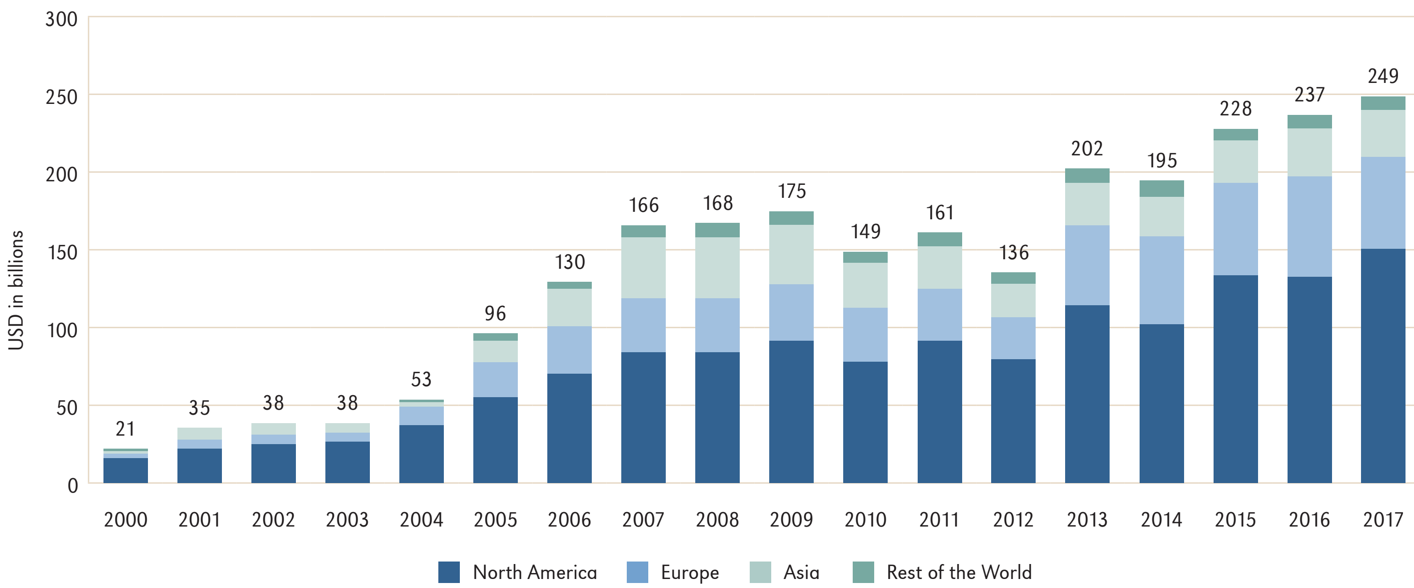
Fund Name	Manager	Strategy	Geographic Focus	Amount Raised (MM)	Headquarters
Blackstone Real Estate Partners Europe V	Blackstone Group	Opportunistic, Distressed	Europe	7,800 EUR	New York; London
Carlyle Realty Partners VIII	Carlyle Group	Opportunistic	United States	5,074 USD	Washington, DC
PIMCO Bravo Fund III	PIMCO	Opportunistic, Distressed	Transatlantic	4,565 USD	Newport Beach, CA
Brookfield Real Estate Finance Fund V	Brookfield Property Group	Debt	United States	3,000 USD	Toronto
North Haven Real Estate Fund IX Global	Morgan Stanley Real Estate Investing	Opportunistic	Global	2,730 USD	New York
Kildare European Partners II	Kildare Partners	Debt	Europe	1,950 USD	London
Secured Capital Real Estate Partners VI	PAG Real Estate	Core Plus, Value-Added	Asia	1,900 USD	Hong Kong
TCI Real Estate Partners Fund II	TCI Fund Management	Debt	Transatlantic	1,900 USD	London
Cerberus Institutional Real Estate Partners IV	Cerberus Real Estate Capital Management	Distressed Debt	Transatlantic	1,823 USD	New York
CRE Senior 10	AXA Investment Managers – Real Assets	Debt	Transatlantic	1,500 EUR	Paris

Source: PREQIN; Probitas Partners
Note: Does not include funds-of-funds

"The ten largest closed-end real estate funds that had a final close made up 29% of total fundraising — the majority are focused on developed markets."

- Besides the annual fundraising totals, the aggregate amount of "dry powder" (or uninvested commitments) is a key factor in assessing likely future activity in the market, as well as potential competition. Even though fundraising decreased in 2017, dry powder increased, reaching a new peak (Chart IV). Dry powder in all areas of the world declined in 2017 — except in North America, where it increased by 14%.

Chart IV Real Estate Dry Powder by Geography



Source: PREQIN, as of February 2018

Real Estate Institutional Investor Survey

Probitas Partners conducted its annual survey of institutional investors in real estate to determine their perspectives on the market. We received responses globally from senior investment staff representing such institutions as pension plans, endowments and foundations, consultants, and insurance companies.

Overview of Survey Findings

The top-line findings from the survey, supplemented by our ongoing conversations with investors, are as follows:

- ***Investors are increasingly concerned that there is too much money in the market and that we are reaching or have reached a cyclical market peak.*** During 2017 closed-end fundraising fell again after a slight drawback in 2016, reflecting investors' increased focus on cyclical risk — though they are not abandoning real estate.
- ***Dry powder remains an issue on investors' minds***. Even though fundraising fell in each of the last two years, dry powder in the United States increased, reflecting slower deal activity.
- ***The shift towards value-added and opportunistic funds and away from core funds continues.*** Many investors feel that so much money has gone into core assets over the last eight years that returns have been driven down too far, making the risk/return profile unattractive. Investors are pursuing higher returns in the value-added and opportunistic sectors.
- ***Interest in debt funds has been volatile.*** Though 2017 was a relatively strong year for debt fundraising, prospective interest has weakened, with the percentage of investors who do not invest in real estate debt doubling from the previous year. Many investors we speak with consider debt a niche sector where they have made their bets, and they are not looking to dramatically expand their relationships.
- ***North America remains a geographic focus for many investors.*** North American closed-end funds have always been the primary target of institutional investors, and that continues to be the case. Though interest in Europe remains relatively strong, interest in emerging markets and key markets in Asia has fallen.
- ***Interest in the multi-family sector regained the number one position in sector interest.*** In addition, student housing and senior housing — both sectors allied to multi-family — also scored strongly.

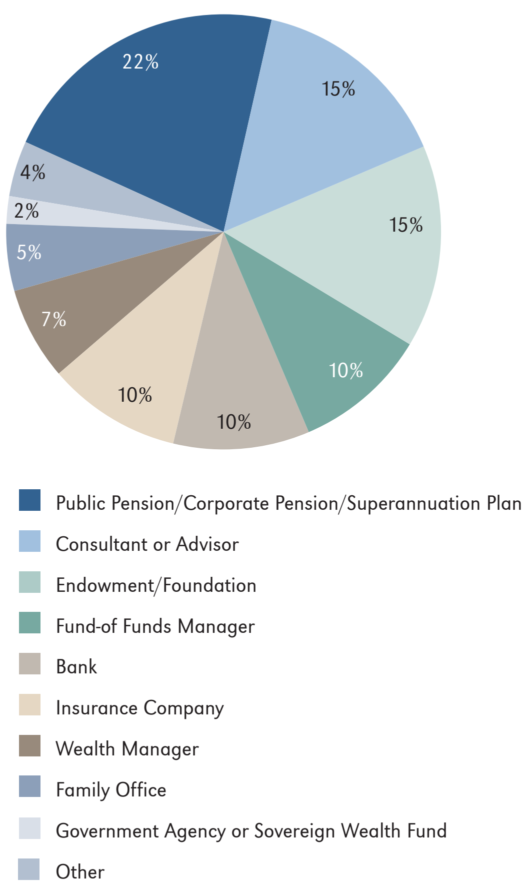
"The shift towards value-added and opportunistic funds and away from core continues."

Profile of Respondents

- Strong participation from pension plans, consultants, and endowments/foundations (Chart V) ensured a diverse group of respondents with varying points of view.
- More than half of the respondents came from the United States, which is not surprising as it is the deepest and longest-lived real estate fund market (Chart VI). However, there was also strong participation from Asia (especially Japan) and Europe.

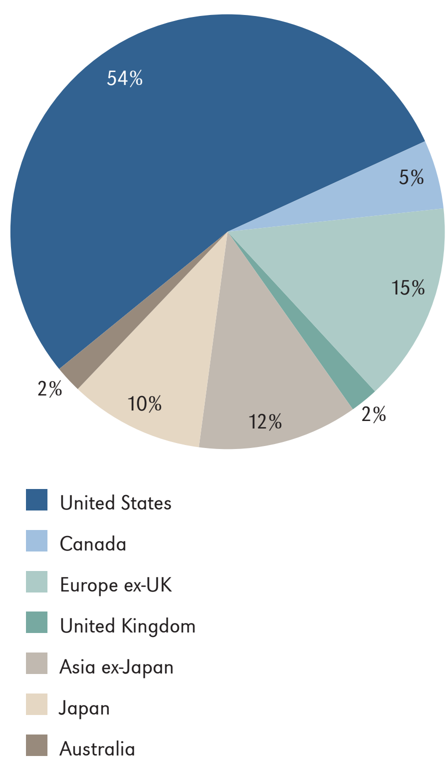
"More than half of the respondents came from the United States — the deepest and longest-lived real estate fund market."

Chart V Respondents Categorized by Investor Type
I represent a:



Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey

Chart VI Respondents Categorized by Firm Headquarters
My firm is headquartered in:

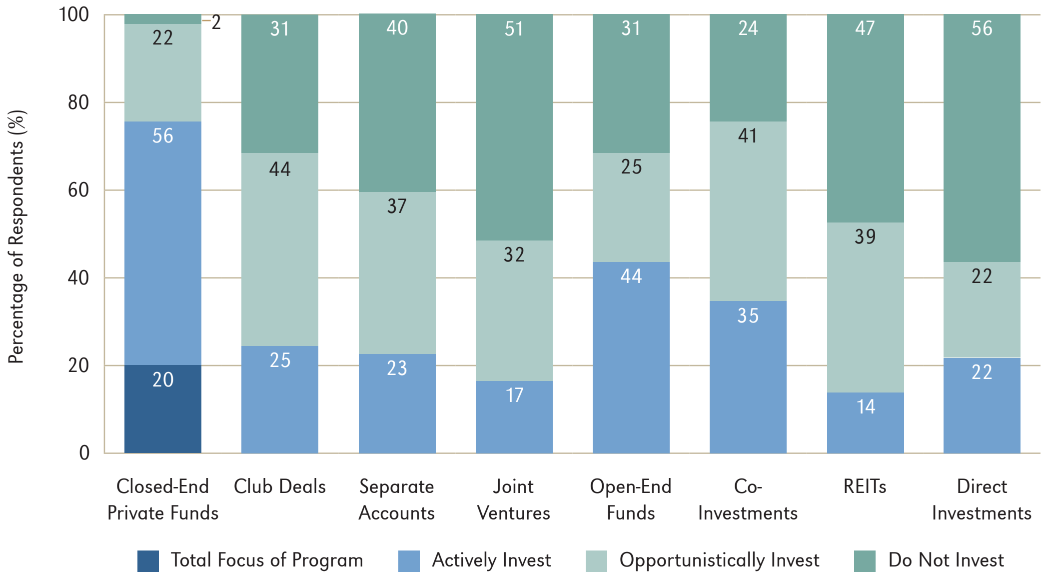


Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey

- The most popular investment structure for respondents was closed-end private funds; for 20% of respondents it was their exclusive focus (Chart VII). 76% of respondents actively or opportunistically invested in co-investments, the second most popular structure, while 44% of respondents actively invested in open-end funds, though REITs were of little interest.

Chart VII Real Estate Investment Structures

We invest via:



	Closed-End Private Funds	Club Deals	Separate Accounts	Joint Ventures	Open-End Funds	Co-Investments	REITs	Direct Investments
Total Focus of Program	20							
Actively Invest	56	25	23	17	44	35	14	22
Opportunistically Invest	22	44	37	32	25	41	39	22
Do Not Invest	2	31	40	51	31	24	47	56

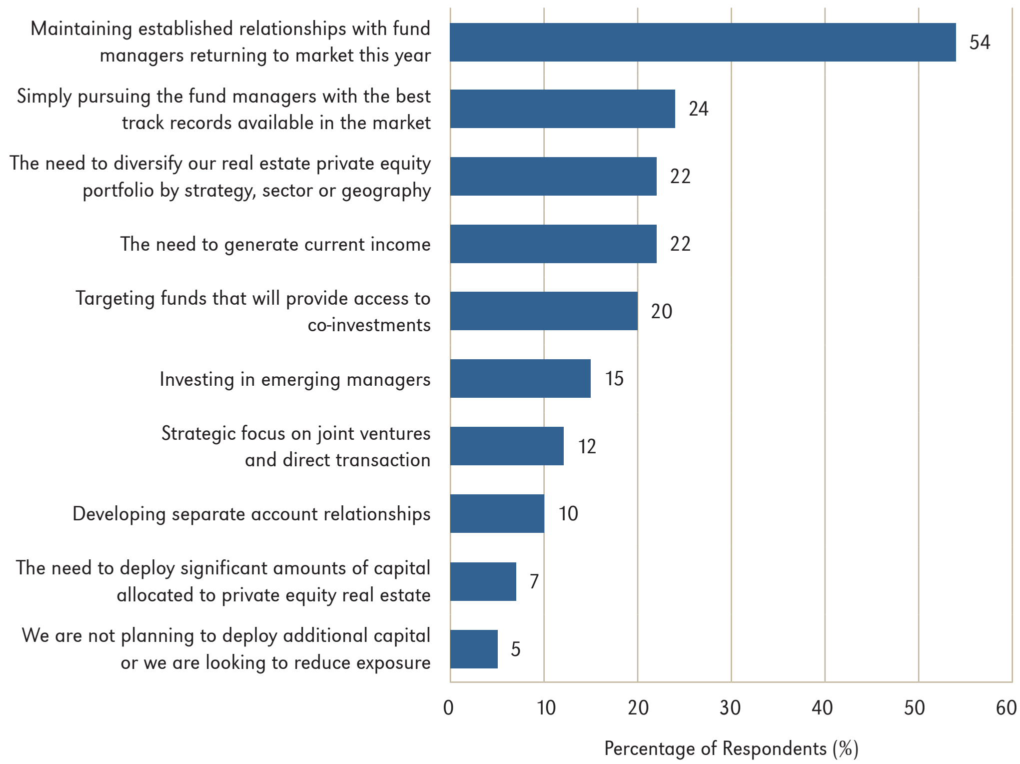
Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey

"The most popular investment structure for respondents was closed-end private funds."

- For the last two years, maintaining established relationships with fund managers was the primary investor focus. This year that interest grew further, to the point where it was more than twice as popular as the next choice (Chart VIII). In past surveys, targeting the fund managers in the market with the best track records had consistently led investors' focus, and this change seems to highlight the difficulty many investors have with gaining and maintaining access to preferred managers.

Chart VIII Drivers of Investment Focus

Our real estate investment focus over the next year will be driven by (choose no more than three):

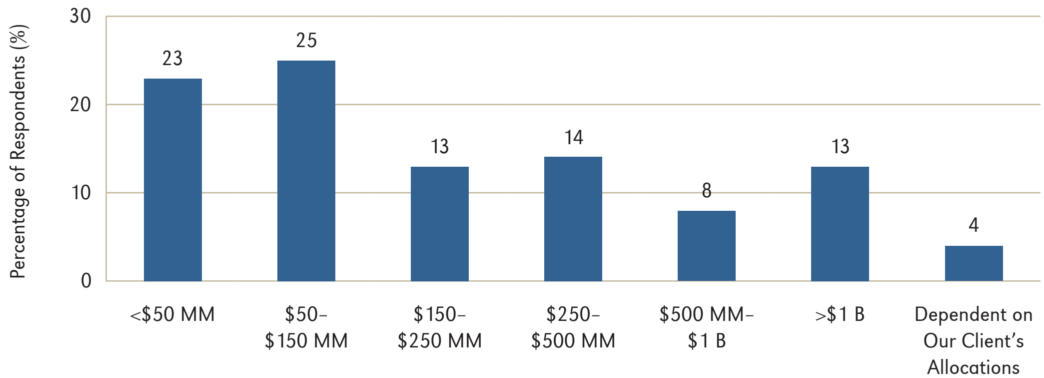


Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey

- This year's survey attracted respondents with plans for future commitments to the sector that were quite widespread (Chart IX), including a significant number looking to commit $500 million or more.
- The average targeted size that respondents expected to devote to individual funds varied considerably (Chart X), though 22% of respondents targeted individual fund commitments of $100 million or more.

Chart IX Real Estate Allocations

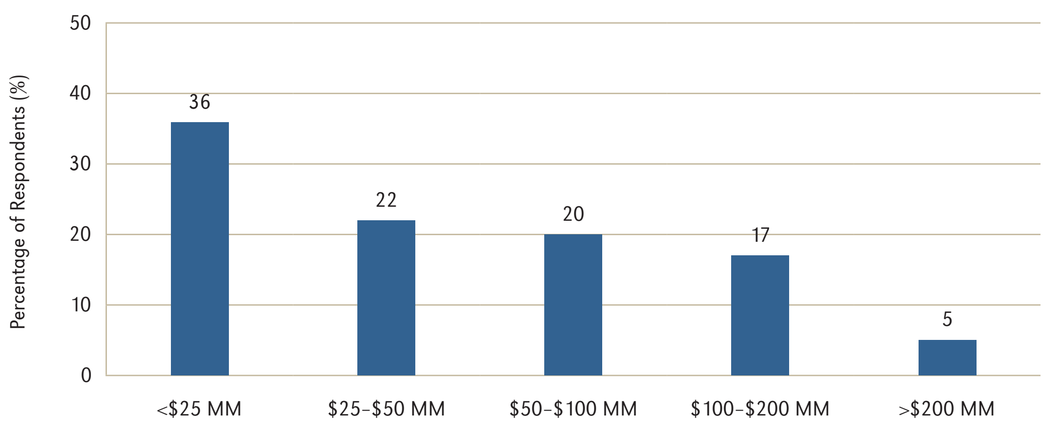
Over the next year, we are looking to commit across all areas of real estate (in USD):



Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey

Chart X Average Size of Investment

Over the next year, we expect our institution's average investment size in real estate investments to be (in USD):

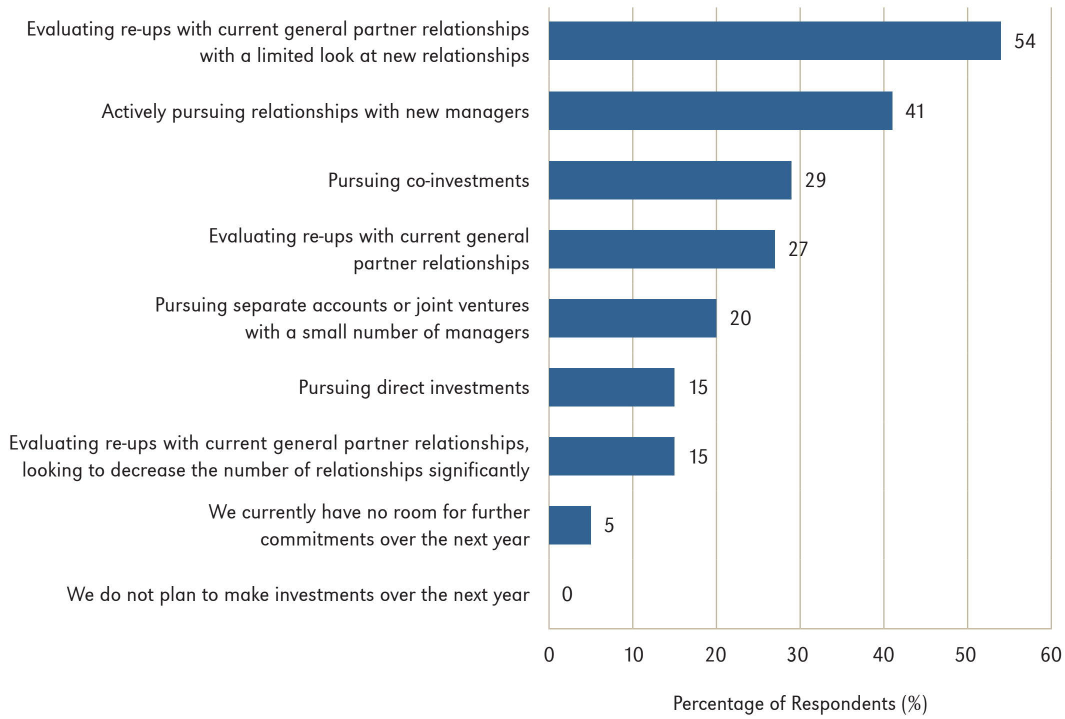


Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey

- Many respondents have limited bandwidth and are focused on re-ups with a limited look at new managers (Chart XI). Interest in pursuing co-investments declined from 38% of respondents last year to 29% this year. Only a few respondents were interested in investing in real estate directly.

Chart XI Private Equity Real Estate Focus

Over the next year we expect our primary private equity real estate focus to be (choose no more than three):



Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey

"Many respondents have limited bandwidth and are focused on re-ups with a limited look at new managers."

Sectors of Interest

- In 2015, 22% of respondents stated that core investment strategies were the total focus of their closed-end fund programs. In 2017 that number fell to 4% and this year it fell to 0% (Chart XII), as investors continued to move to value-added and opportunistic equity strategies in search of higher returns.

- As far as real estate debt funds, interest in the various debt strategies fell this year. Interestingly, interest in senior debt is mixed: 26% of respondents say they actively pursue it (more than any other debt strategy) while 53% of respondents say they do not invest in the strategy, a very sharp split. This likely reflects the establishment of dedicated credit allocations outside real estate that target senior debt.

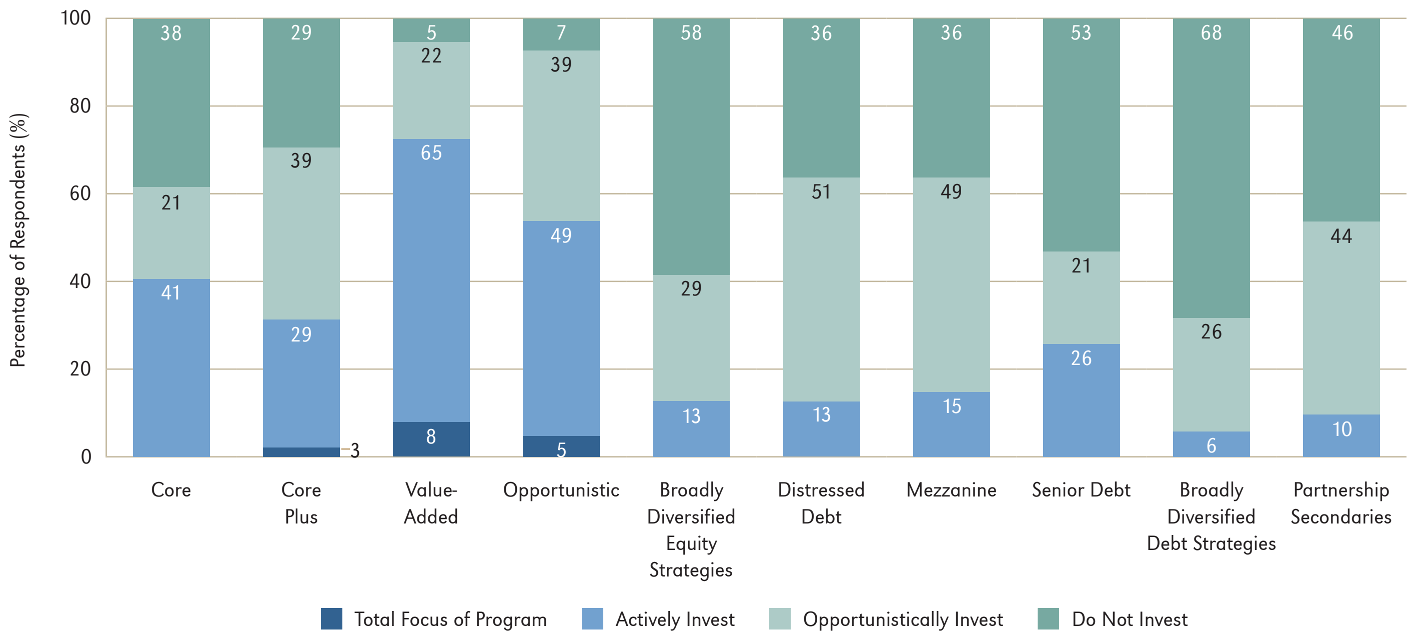
- Partnership secondaries are still relatively new in real estate, and only 10% of respondents actively invest in the sector.

- Interest in the multi-family sector surged from 56% last year to 71% this year. Warehouse/logistics, last year's leader, fell from 75% to 58%. The office and retail sectors round out the top spots, as they have done in previous years (Chart XIII).

- There are some regional differences, however. Leading interest for non-North American investors is the office sector, with 73% of those respondents targeting it, while they ranked multi-family investing only fourth, targeted by 53% of respondents.

Chart XII Real Estate Investment Strategies

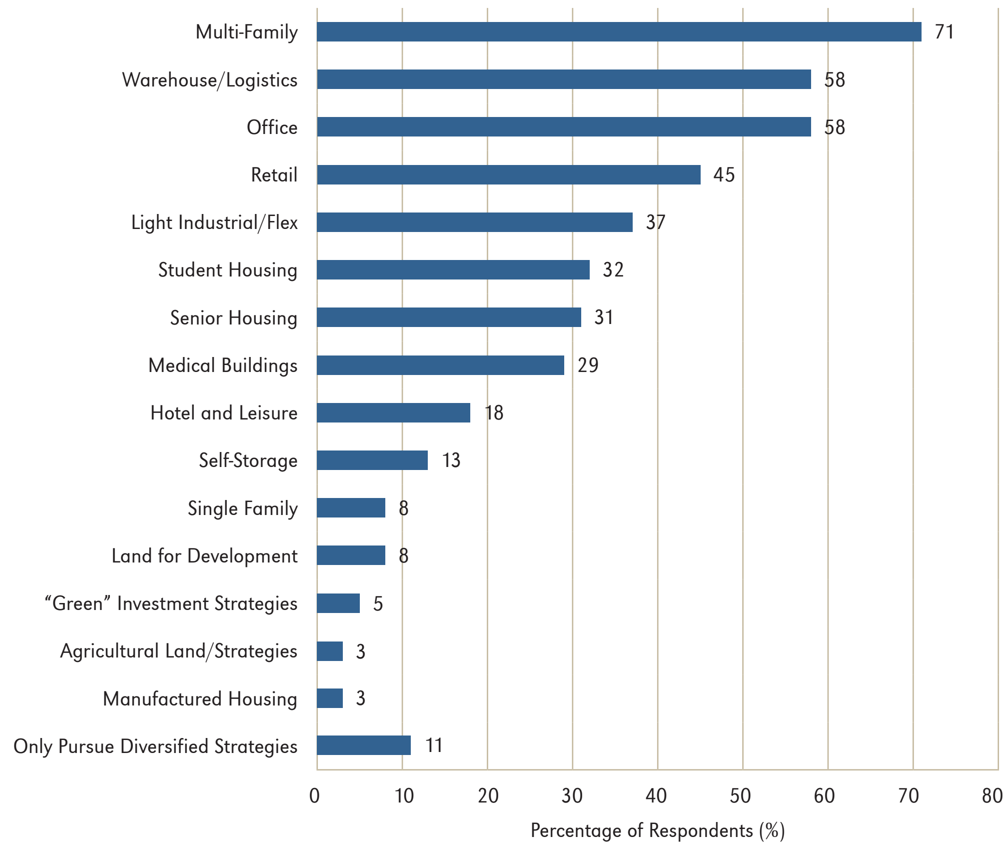
As far as risk/return strategies for funds or properties, we focus on:



Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey

Chart XIII Real Estate Sector Preferences

For the various industry sectors or sub-sectors of real estate globally, we are most interested in (choose no more than five):



Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey

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"Interest in the multi-family sector surged from 56% last year to 71% this year."

- Table II offers a long-term perspective on changes in investors' sector interest, comparing the top five sectors of 2007's survey, taken just before the Great Financial Crisis ("GFC"), to 2018's survey. This year's survey includes more niche strategies that have become more relevant as the market has expanded and deepened, and in consequence 2018 respondents had more options to choose from. In both years, respondents could also enter options that were not predetermined.
- Investors' interests in these two periods are very different. The warehouse/logistics sector was not included as a predetermined option in 2007 and received no write-in votes, but it was the second-largest sector in 2018, with 58% of respondents targeting it. The hotel and leisure sector, which was ranked fifth in 2007's survey (though with relatively few investors targeting it), ranked only ninth in 2018, with sectors such as student housing, senior housing, and medical office buildings ranked higher.

Table II Institutional Investors Focus of Attention Among Real Estate Sectors
Top Five Responses

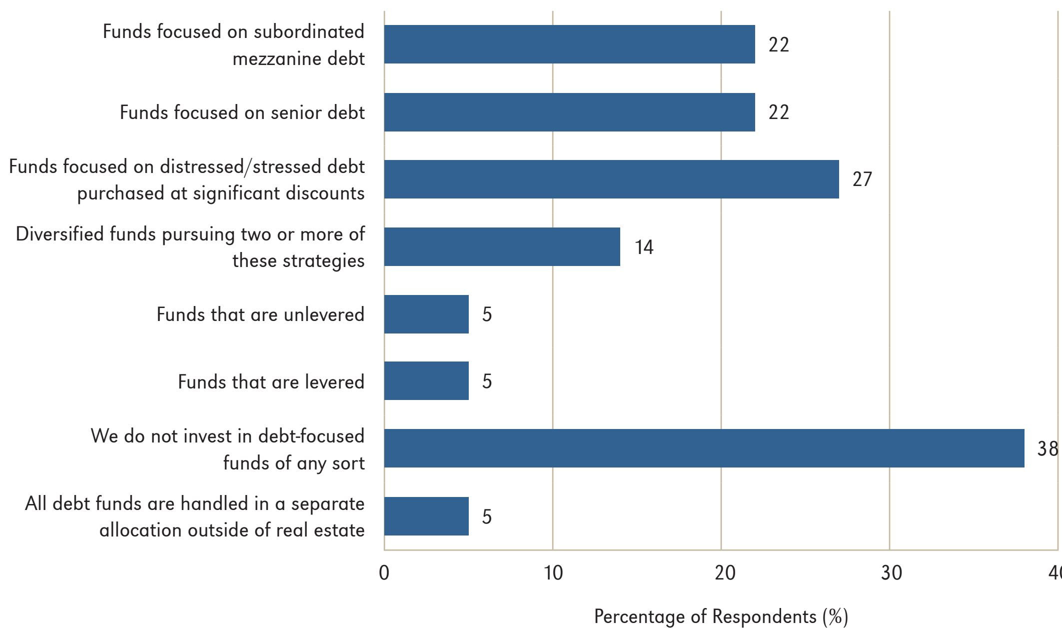
2007		2018	
Sector	**%**	**Sector**	**%**
Office	27%	Multi-Family	71%
Multi-Family	27%	Warehouse/Logistics	58%
Industrial	23%	Office	58%
Retail	14%	Retail	45%
Hotel and Leisure	5%	Light Industrial/Flex	37%

Source: Probitas Partners' Real Estate Institutional Investor Trends Survey, 2007 and 2018

- Interest in real estate debt funds has grown significantly since the GFC stressed traditional real estate lenders. Fundraising for the sector has been volatile, and the number of respondents who said that they did not invest in real estate debt doubled from last year, from 19% to 38% (Chart XIV).
- Investor interest across the three main debt strategies is relatively flat this year, though non-North American respondents were more interested in mezzanine, with 37% of them targeting that strategy.
- For the first time this year, we asked whether investors preferred levered or unlevered funds. Neither of these options elicited a strong response.

Chart XIV Real Estate Debt/Mezzanine Funds

As far as real estate/debt/mezzanine focused funds are concerned, we are interested in (choose all that apply):



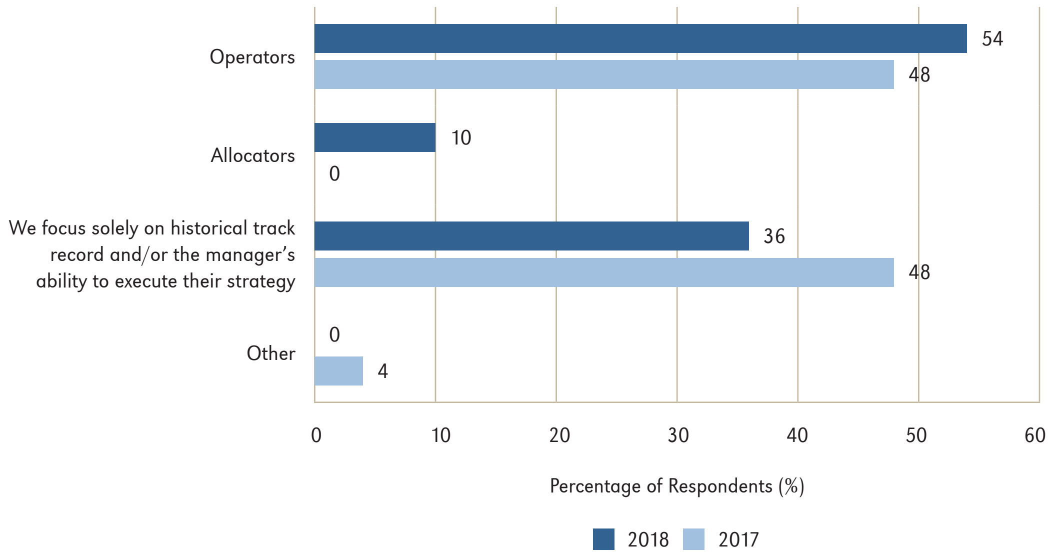
Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey

> *"Interest in real estate funds has grown significantly since the GFC [though] fundraising for the sector has been volatile."*

- Many respondents prefer fund managers who actively operate properties, as opposed to those who allocate capital to underlying managers (Chart XV), with a large minority simply focused on fund managers with a strong historical track record.
- Non-North American respondents were much more focused on historical track records than on the operator/allocator distinction (Chart XVI).

Chart XV Manager Investment Style

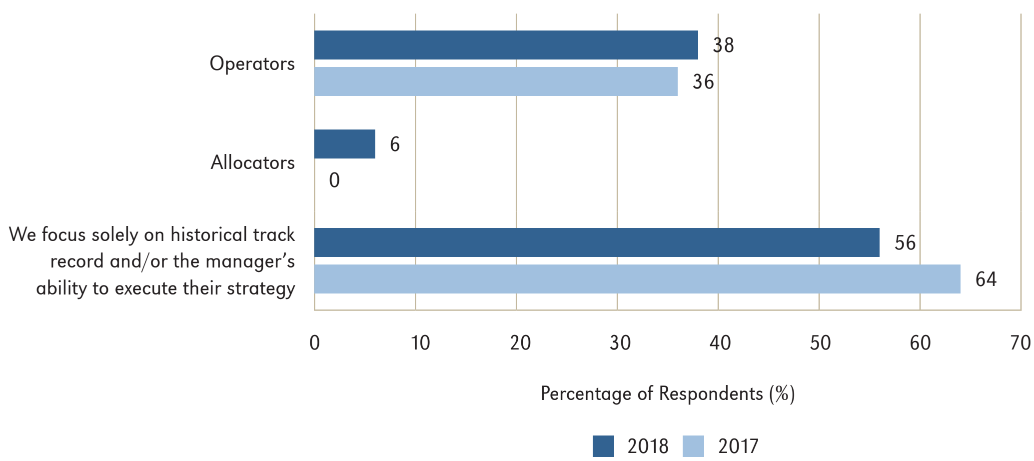
As far as manager investment style, we are more focused on:



Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey and 2017 Survey

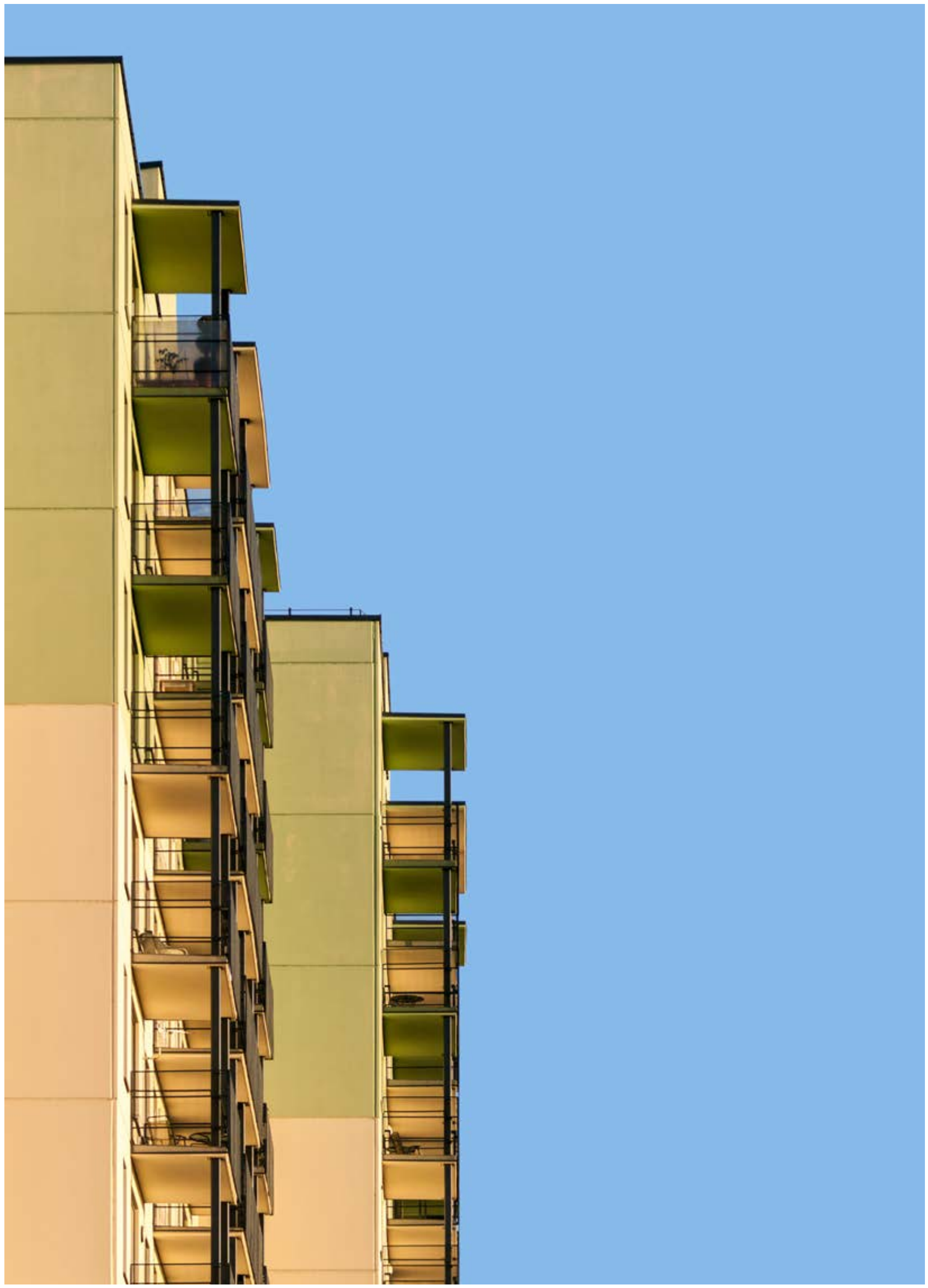
Chart XVI Manager Investment Style — Non-North American Respondents

As far as manager investment style, we are more focused on:



Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey and 2017 Survey

"Many respondents prefer fund managers who actively operate properties."



Geographies of Interest

- Interest in North America fell noticeably from 79% last year to 67% this year, but it continued to dominate investors' preferences. Interest in pan-European funds fell even further, from 55% last year to 36% this year (Chart XVII).

- The only geographic preference that increased from last year was global developed markets, which doubled from 18% to 36%.

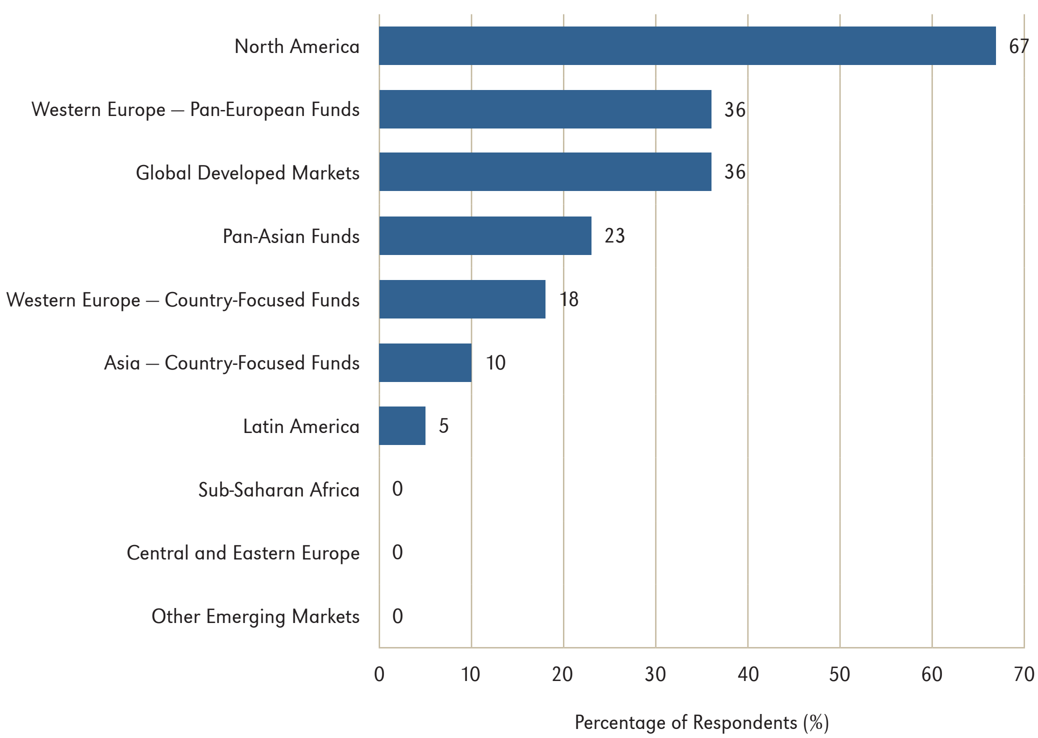
- As in past years, there is little interest in emerging markets outside of Asia.

- Large differences do exist between North American respondents and others (Chart XVIII). North American respondents more heavily target both North American and pan-European funds, while Asian and European investors are more heavily focused on European country-focused funds and pan-Asian funds. This likely reflects both some degree of home-market bias as well as the tax consequences of FIRPTA, which affects many foreign entities investing in real assets in the United States.

> *"Interest in North America . . . continued to dominate investors' preferences."*

Chart XVII Geographic Focus (by Region)

For the major geographic sectors of real estate, we are mainly focused on (choose no more than three):



Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey

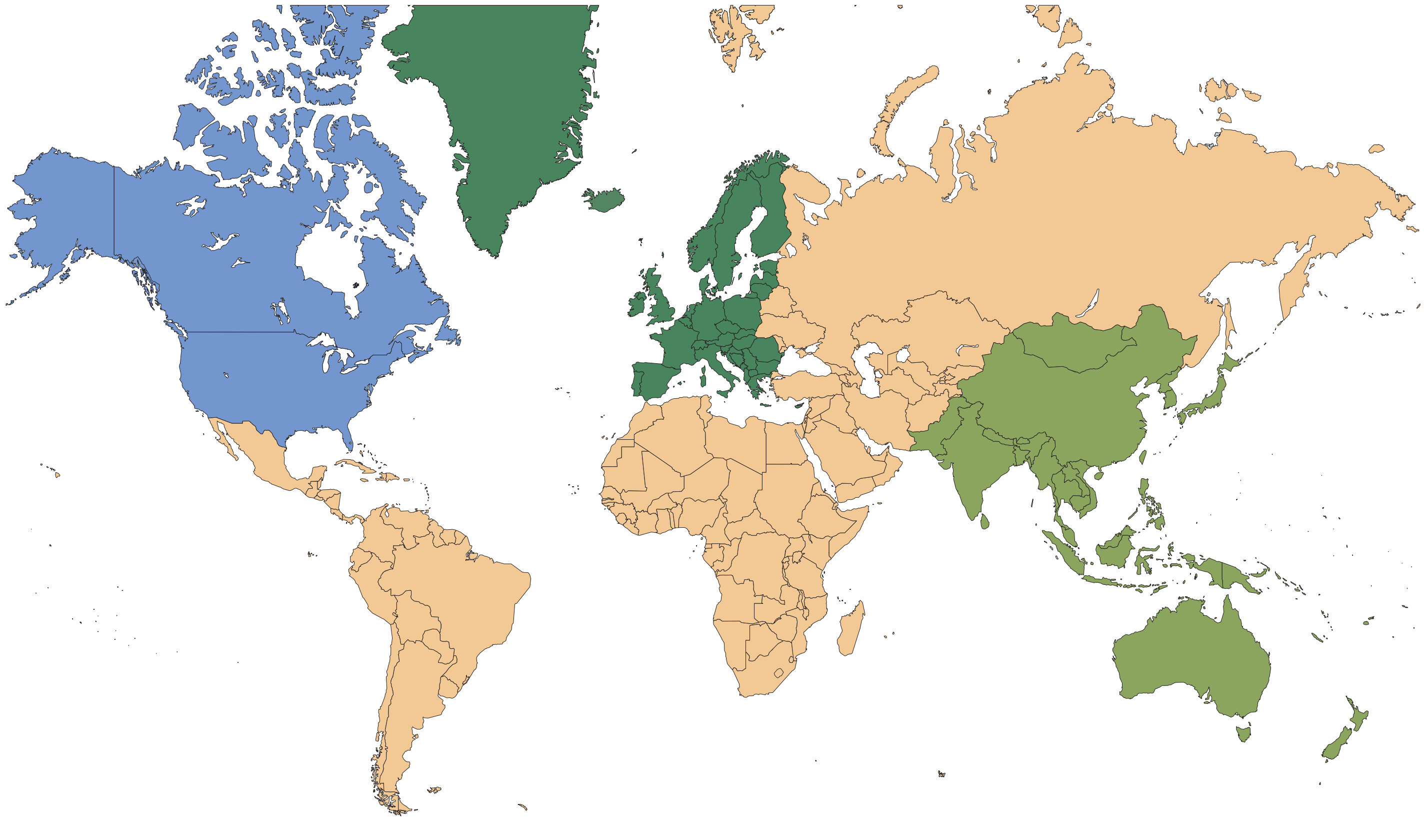
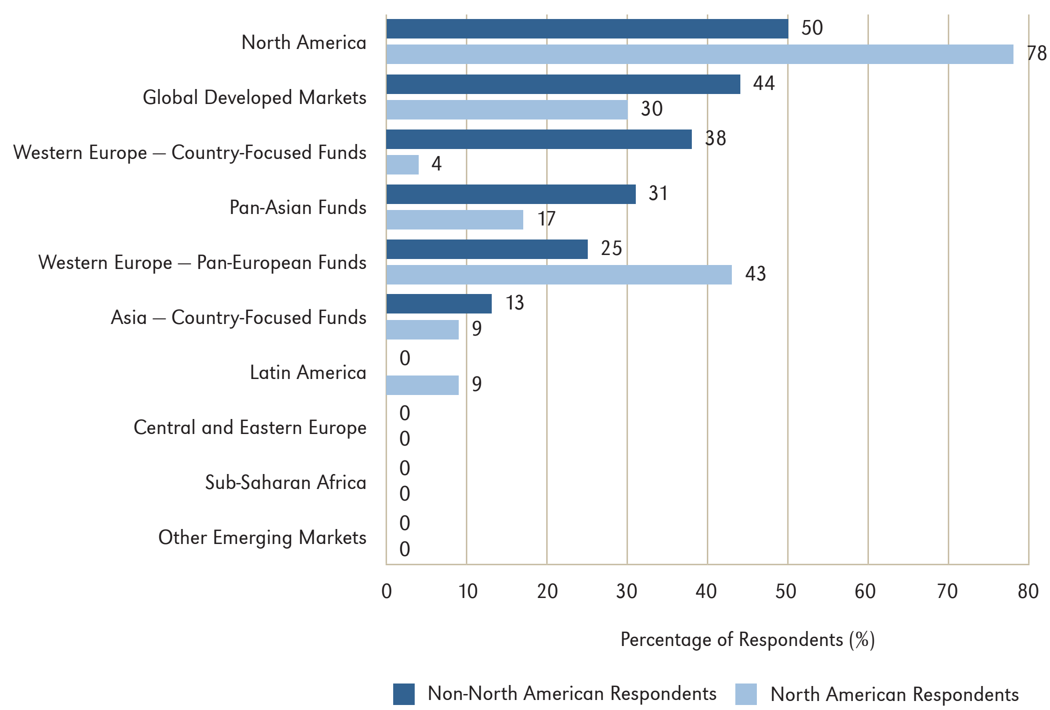


Chart XVIII Geographic Focus (by Region) — by Geography of Respondents

For the major geographic sectors of real estate, we are mainly focused on (choose no more than three):



Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey

- As in the past, German and UK-focused funds led investor interest in Europe, with pan-European funds following closely (Chart XIX). Responses from European investors, who were mainly from the Continent, were quite different, with 71% targeting Germany and only 14% targeting the United Kingdom — but the UK attracts much more interest from investors from North America and Asia.

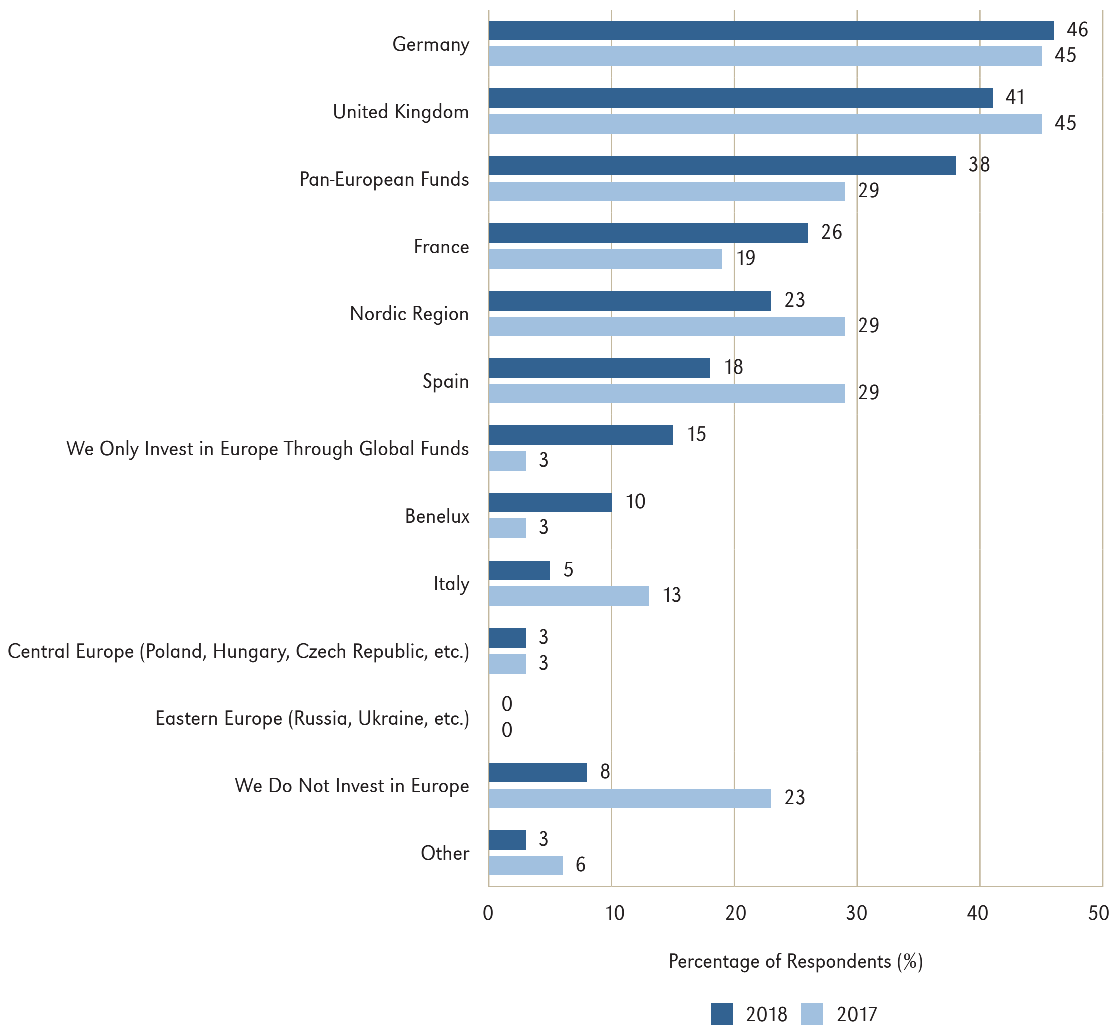
- In other European geographies, there was increased interest in France and the Benelux, while interest in Spain and Italy decreased.

- As has been the case for the last three years, no respondents targeted Eastern Europe and interest in Central Europe remained weak.

- Investors who said that they did not invest in Europe at all declined significantly, from 23% last year to only 8% this year.

Chart XIX Most Attractive Markets in Europe

For Europe, we find the most attractive markets to be (choose no more than three):



Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey and 2017 Survey

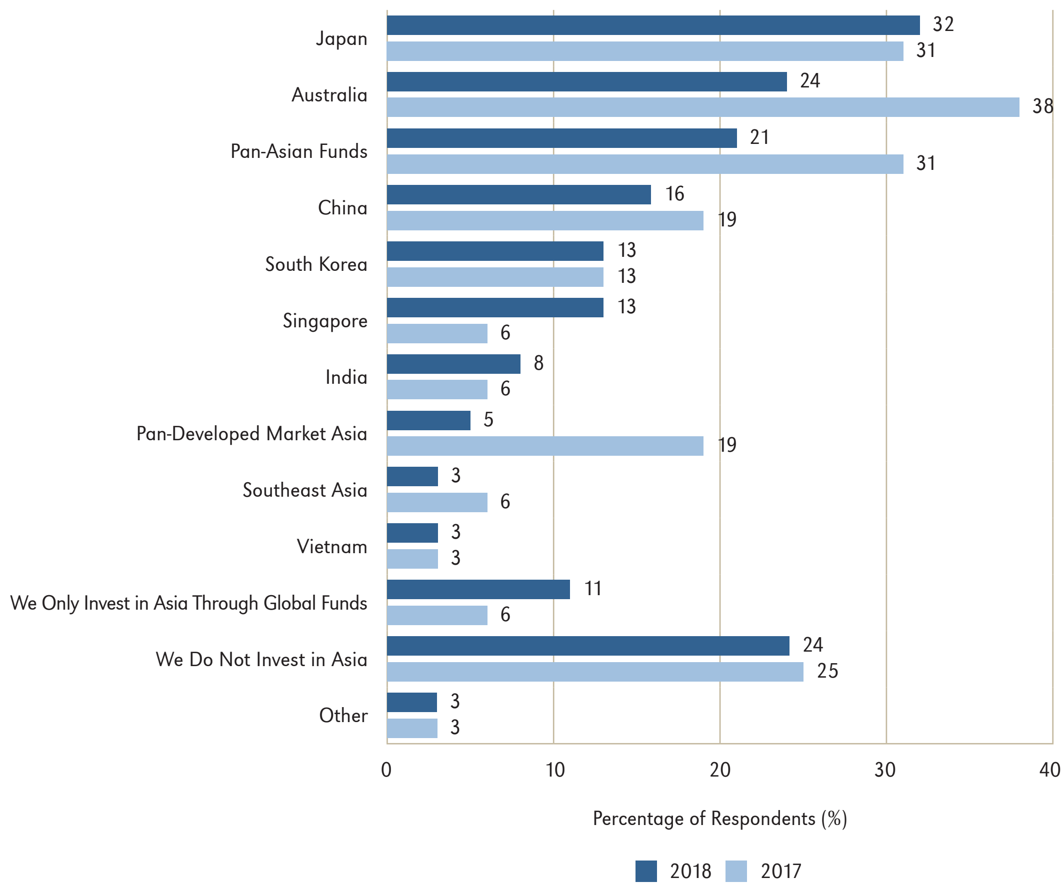
- Japan was the strongest geography of interest in Asia this year (Chart XX), with interest in Australian, pan-Asian, and pan-developed market Asia funds falling notably.

- In private equity, funds focused on China still lead the market. In real estate, China-focused funds continued to decline in interest, falling by more than half in the past four years, from 36% to only 16% this year.

- Pan-Asian funds were the leading geography for North American investors, favored by 27% of them.

Chart XX Most Attractive Asian Markets

For Asia, we find the most attractive markets to be (choose no more than three):



Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey and 2017 Survey

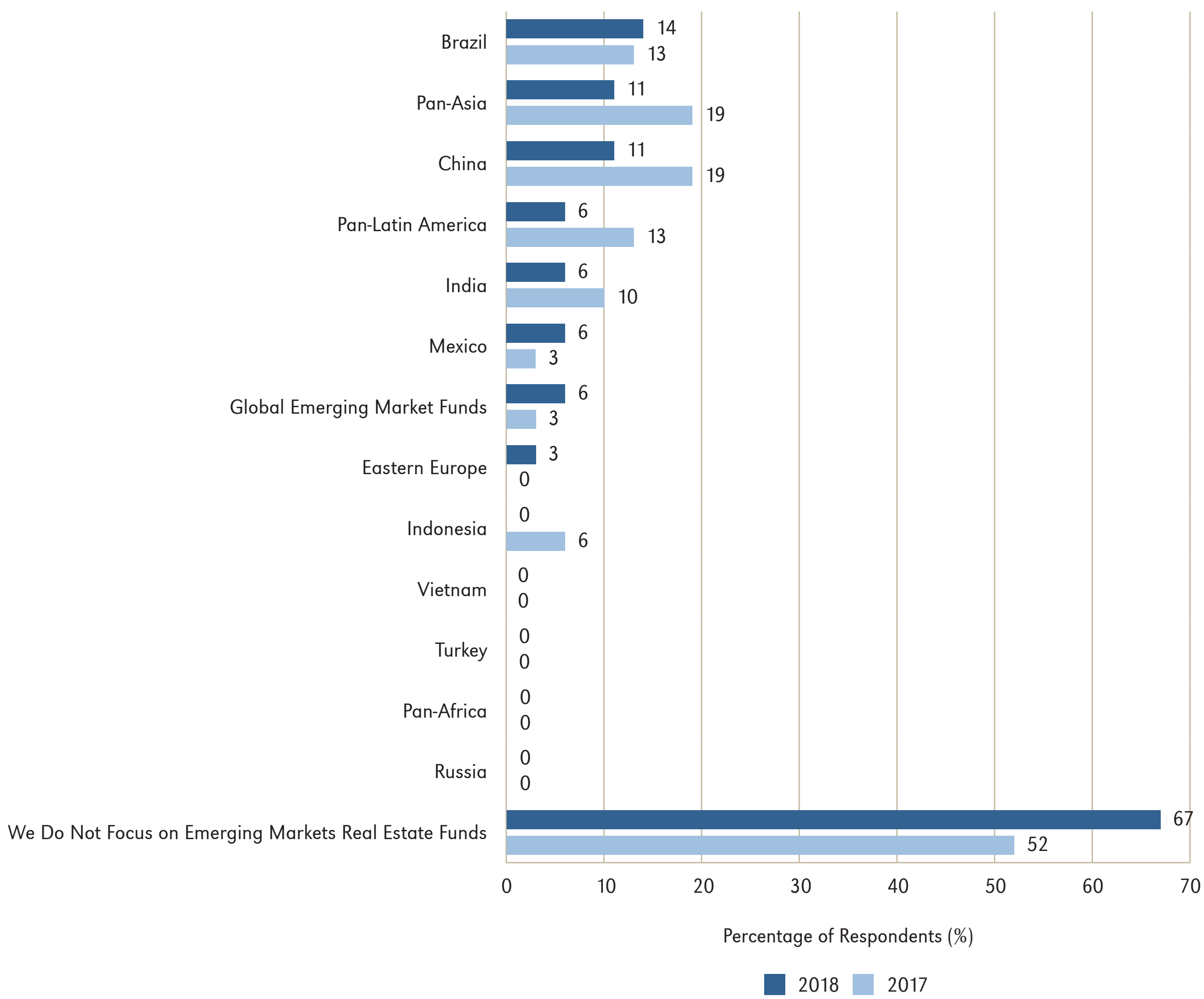
> *"China-focused funds continued to decline in interest, falling by more than half in the past four years."*

Emerging Markets

- Emerging markets remained of little interest to investors, with the leading response (67%) being that the respondent was not investing in emerging markets at all, a notably higher level than the 52% that responded that way last year (Chart XXI).
- China had been the leading emerging market of interest in our past surveys, but interest fell significantly this year and Brazil moved into the lead.
- Besides Brazil, China, or pan-Asian funds, no emerging market geography garnered the attention of more than 10% of respondents.

Chart XXI Most Attractive Emerging Markets

For emerging markets, we are targeting (choose no more than three):



Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey and 2017 Survey

The Secondary Market

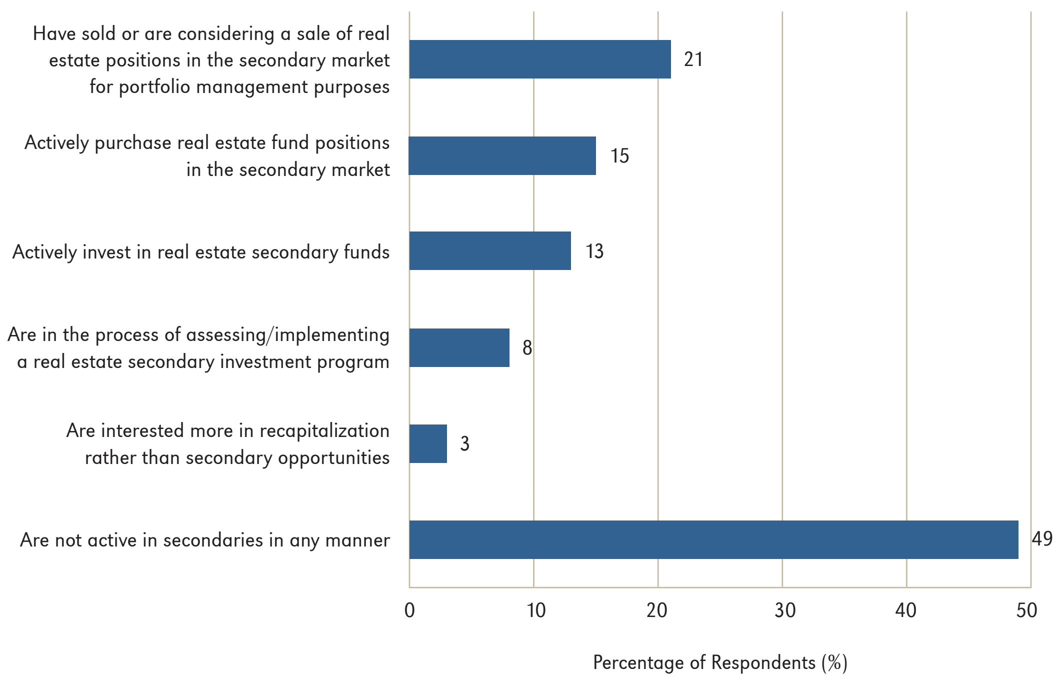
- The real estate partnership secondary market remains relatively new, though it is growing slowly. However, 49% of investors said that they were not active in secondaries in any way (up slightly from 44% last year), while interest in investing in specialized secondary funds fell from 25% last year to 13% this year (Chart XXII).

- Fundraising numbers for specialist secondary funds in 2017 seemed to tell a different story (Chart XXIII), with commitments raised last year hitting an all-time high. However, this total was driven by a single fund, with $1.4 billion raised by the Partners Group.

- The fundraising totals in Chart XXIII understate the amounts targeting real estate secondaries as they are only for specialized secondary funds. There are also a few investors who purchase positions directly in the secondary market, as noted in Chart XXII, while another 8% of respondents are considering starting secondary programs.

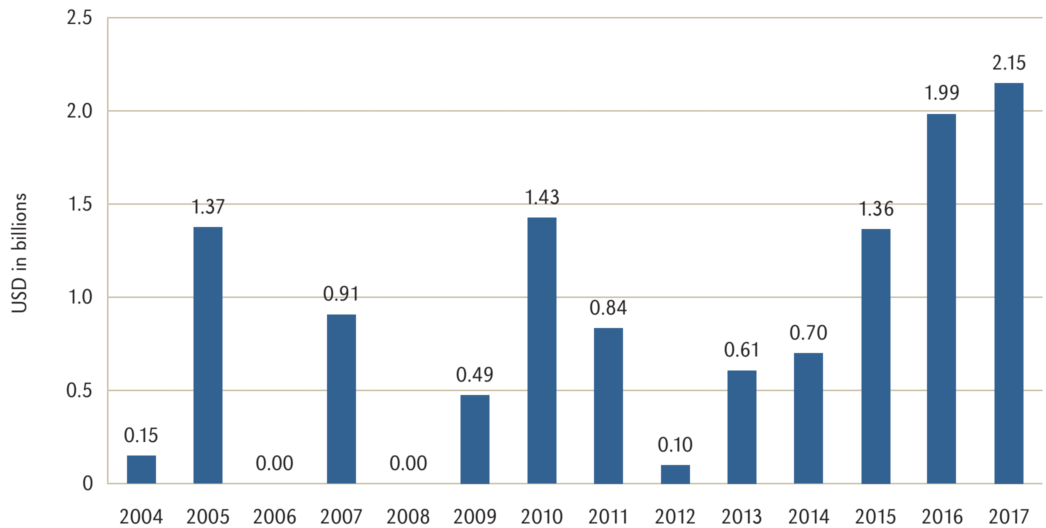
Chart XXII Secondary Market Investments

In the private equity real estate secondary market, we (check all that apply):



Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey

Chart XXIII Specialist Real Estate Secondary Fundraising 2004 – 2017



Source: Probitas Partners

"The real estate partnership secondary market remains relatively new, though it is growing slowly."

Key Terms and Emerging Managers

- As with our previous surveys, management fees were investors' top focus (Chart XXIV). Concern over carry distribution waterfalls soared from 30% last year to 53% this year, and the level of general partner commitment to a fund, last year's second-ranked answer, fell to tenth place this year, with only 16% of respondents selecting it as a priority.
- Strict ESG policies have been a rising area of focus for private equity, especially among Europeans, but they are barely an issue in real estate.

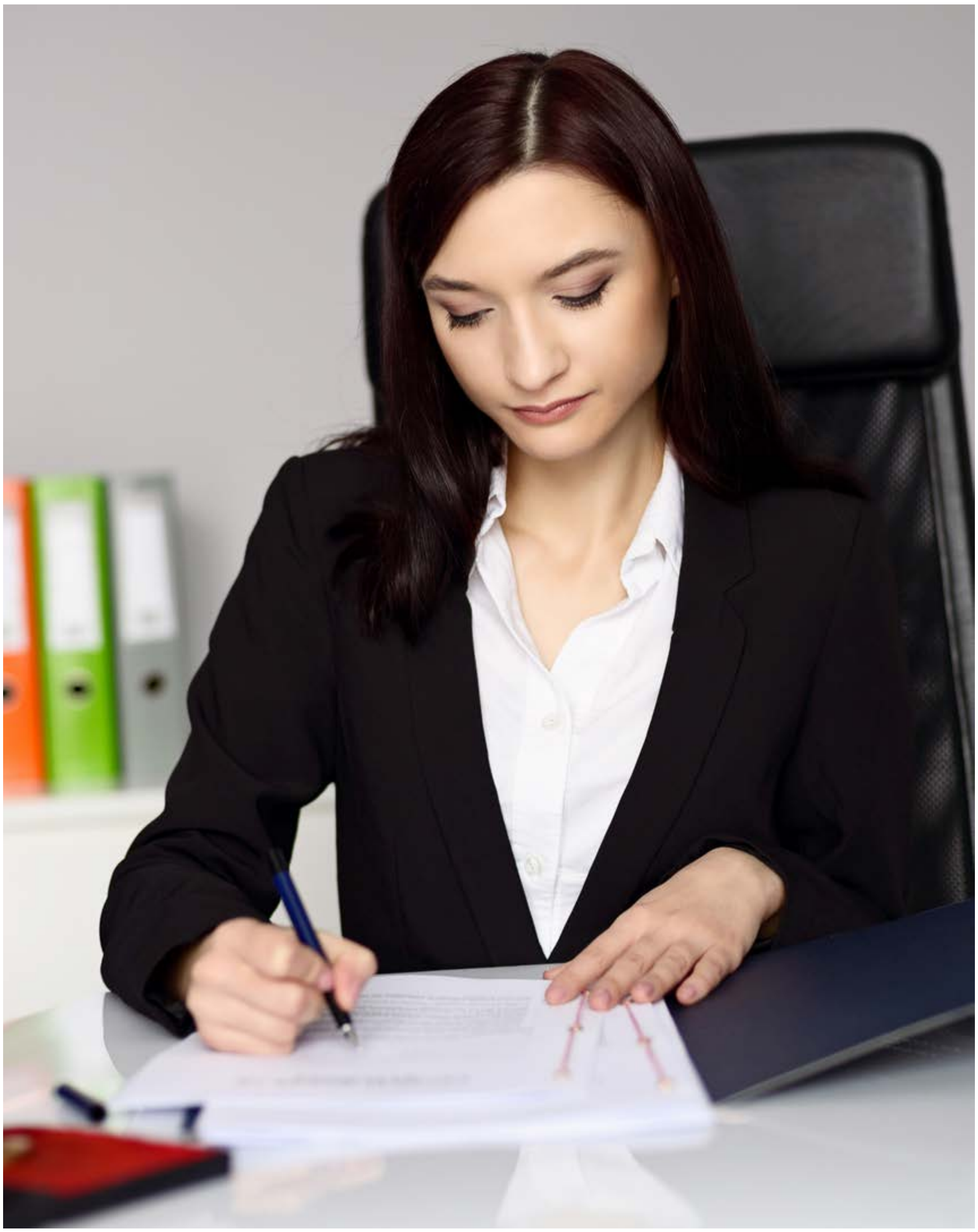
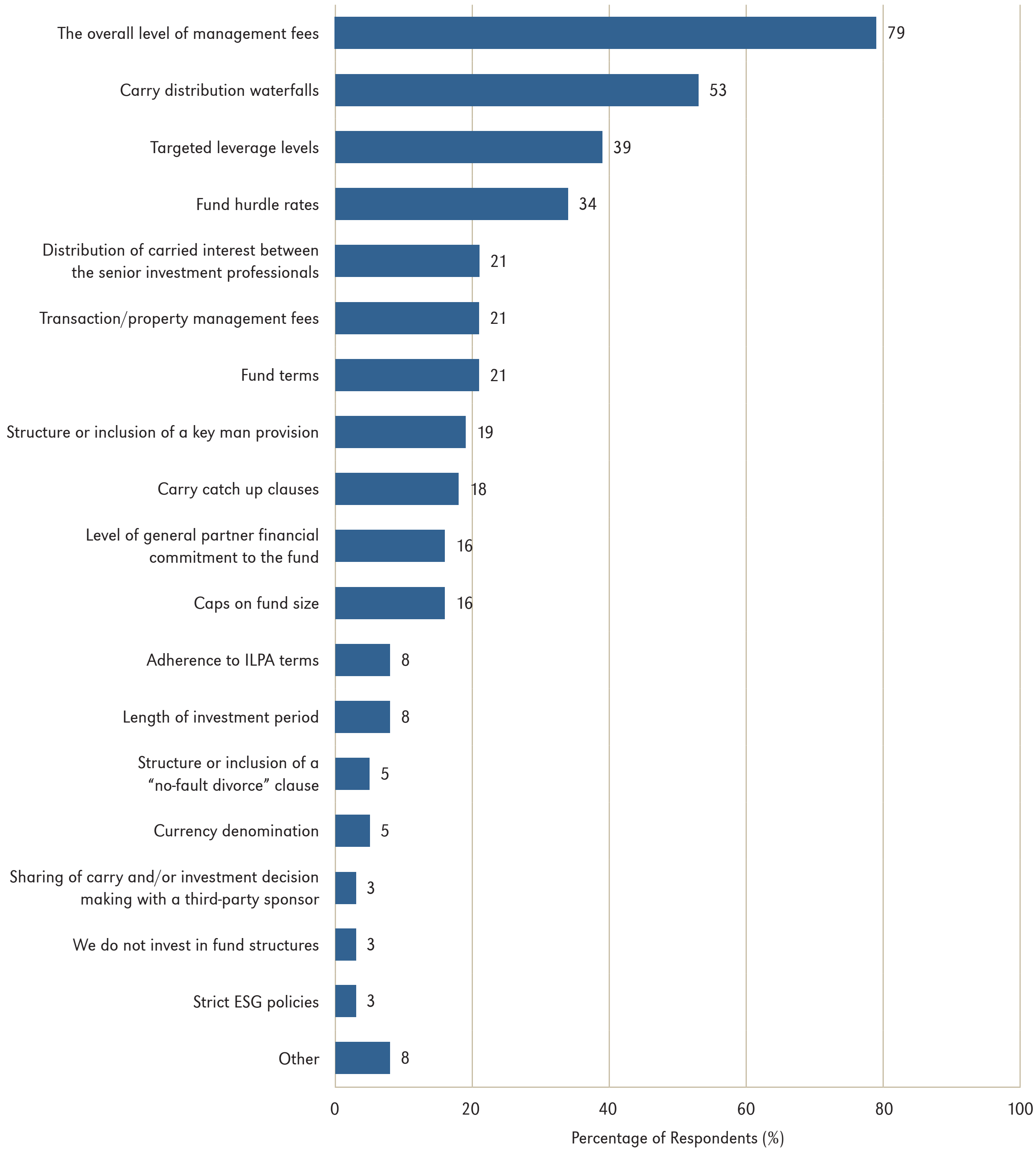


Chart XXIV Issues Regarding Terms or Fund Structures

The terms or fund structures we most care about are (choose no more than three):

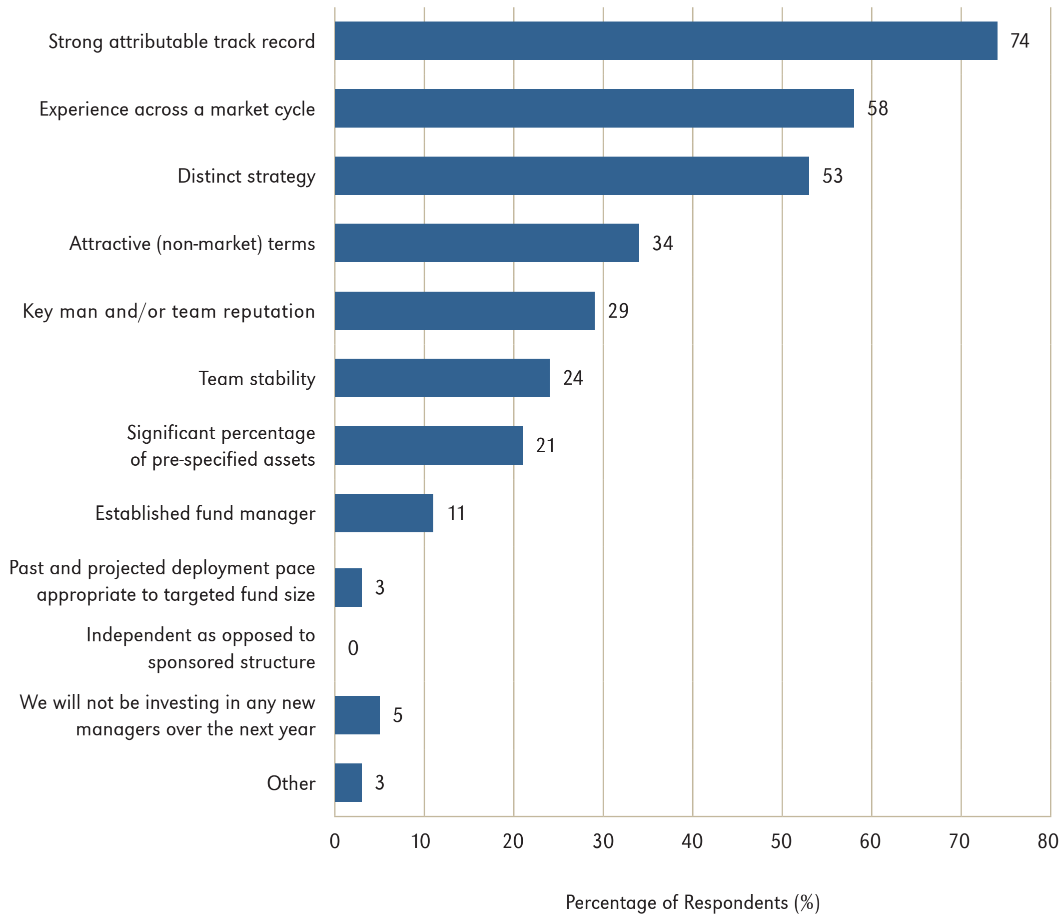


Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey

- As in past surveys, when looking at new managers, investors were very focused on the fund manager having a strong, attributable track record (Chart XXV).
- This year we added a new potential response to the survey, asking about the importance of managers having experience across a market cycle. Given investors' current fears, it is not surprising that this answer ranked second.

Chart XXV Key Characteristics of New Fund Managers

The key characteristics required for us to consider an investment in a new manager (choose no more than three):

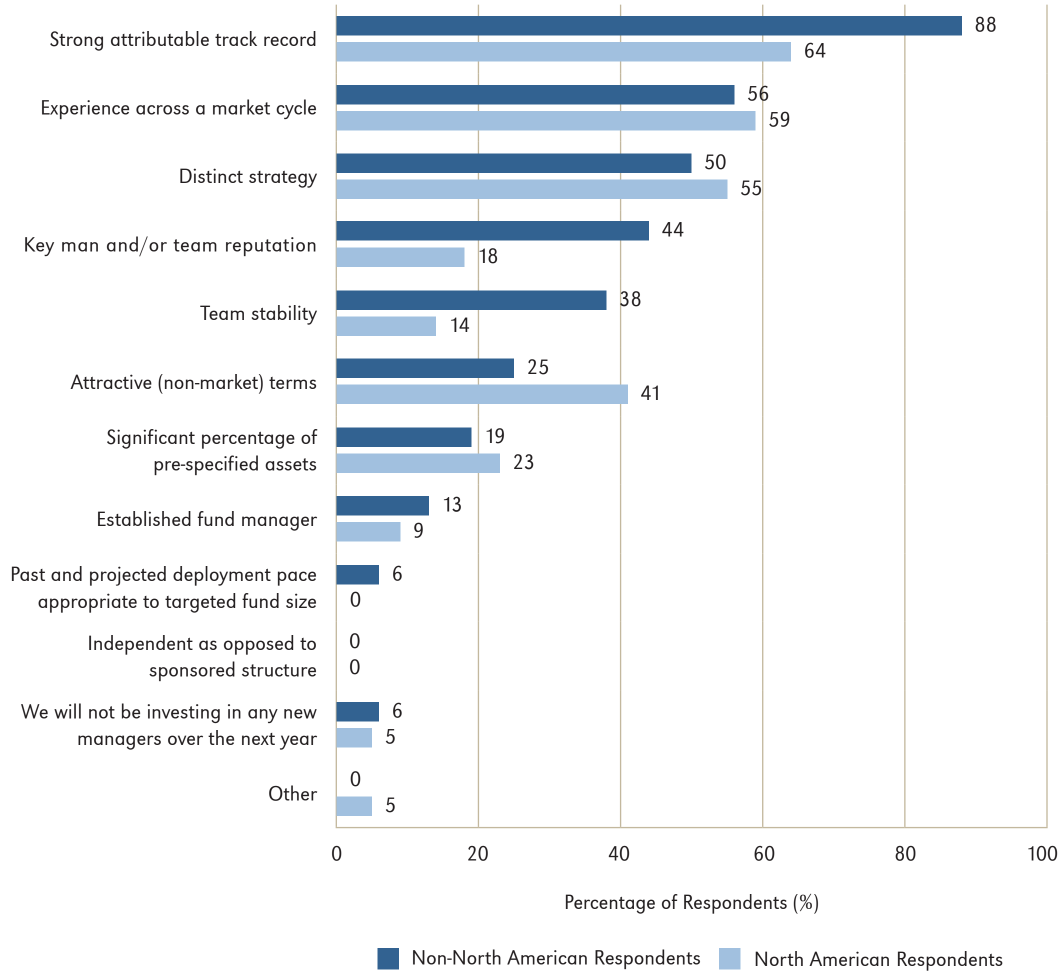


Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey

- There were distinct differences of opinion between investors coming from different geographies. North American investors were much more interested in receiving non-market terms, while respondents outside of North America were more focused on the track record, key man reputation, and team stability (Chart XXVI).

Chart XXVI Key Characteristics of New Fund Managers — by Geography of Respondents

The key characteristics required for us to consider an investment in a new manager (choose no more than three):



Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey

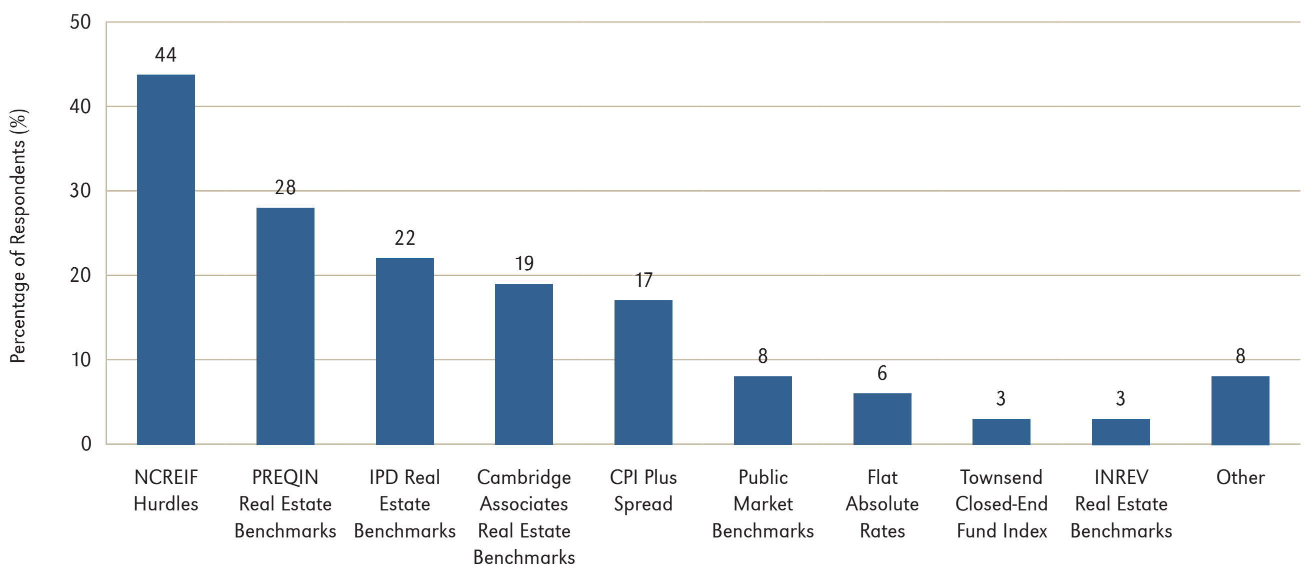
> *"Respondents outside of North America were more focused on the track record, key man reputation, and team stability."*

Benchmarking

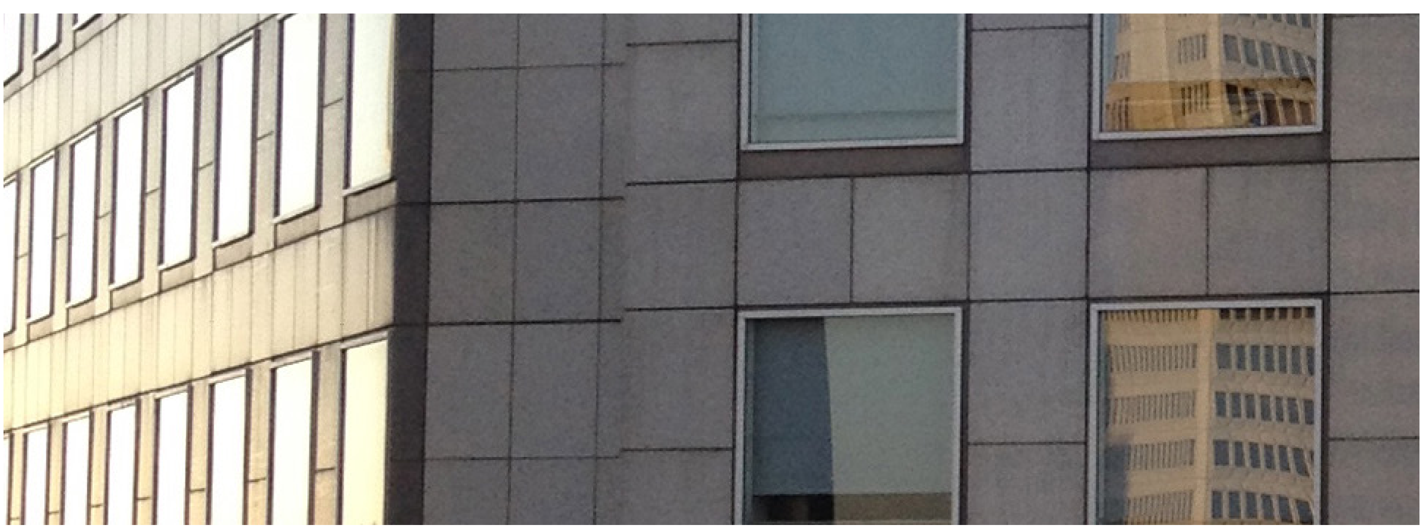
- Several respondents use multiple benchmarks, and though NCREIF hurdles are the leading benchmark, they are not dominant (Chart XXVII).
- Over the last year, investors using NCREIF increased from 36% to 44%, while PREQIN increased from 21% to 28% and IPD increased from 12% to 22%.
- Outside of North America, investors are much more focused on PREQIN, with 50% of respondents using it. In North America, NCREIF is much more important, with 63% of respondents using it.

Chart XXVII Portfolio Benchmarks

What benchmarks do you use for the return of your overall portfolio? (choose all that apply)



Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey



Investor Fears and Concerns

- The fears that too much money was in the market, driving down future returns, was basically tied at the top of the chart with the fear that we are nearing the top of a market cycle (Chart XXVIII).
- This year we added a new potential concern — that increasing interest rates will negatively impact portfolio valuations. This option ended up ranking third, with 47% of respondents concerned.
- In Table III, the three greatest fears from our 2008 survey, taken in the spring just before the GFC, are compared to this year's survey. Building credit problems in mature markets was by far the biggest issue investors cited in 2008. In 2018, the two top issues were either direct or indirect concerns about where we stand in the market cycle.

Table III What Keeps You Up at Night?
Top Three Responses

2008	
Issue	**%**
Credit problems in Western or mature markets will dramatically impact performance	67%
Capitalization rates will increase significantly impacting existing portfolio valuations	30%
Fund structures and underlying property management fees are destroying alignment of interest between investors and fund managers	24%

2018	
Issue	**%**
Too much money is flooding into real estate, driving down returns while adding risk	68%
We are nearing another cyclical market high point	66%
Increasing interest rates will negatively impact our portfolio valuations	47%

Source: Probitas Partners' Real Estate Institutional Investor Trends Survey, 2008 and 2018

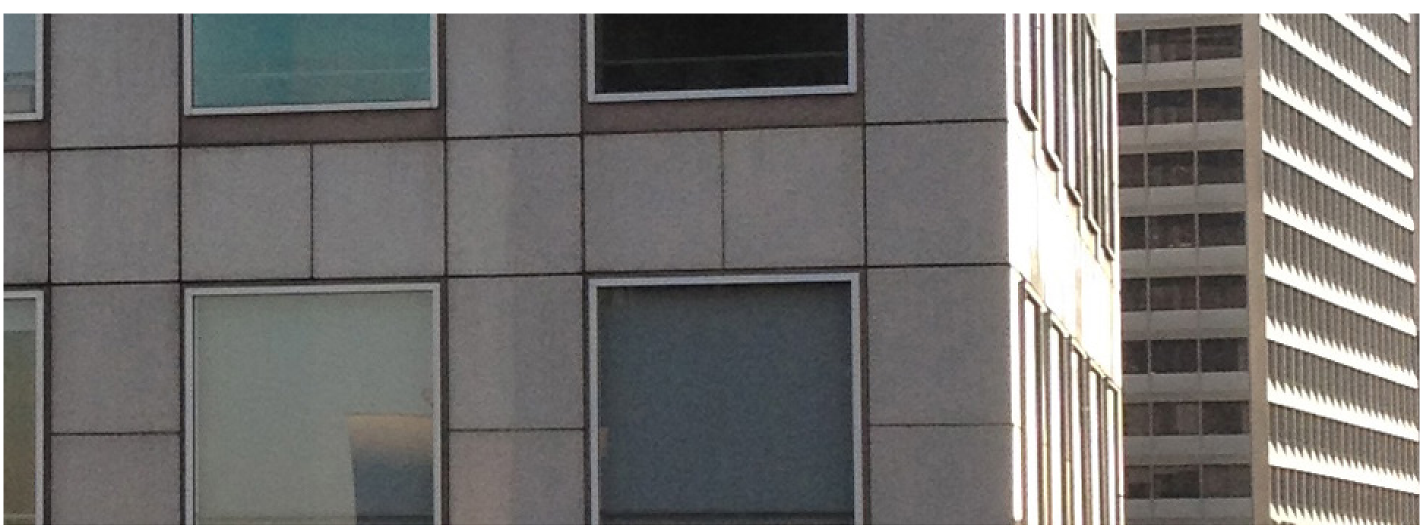
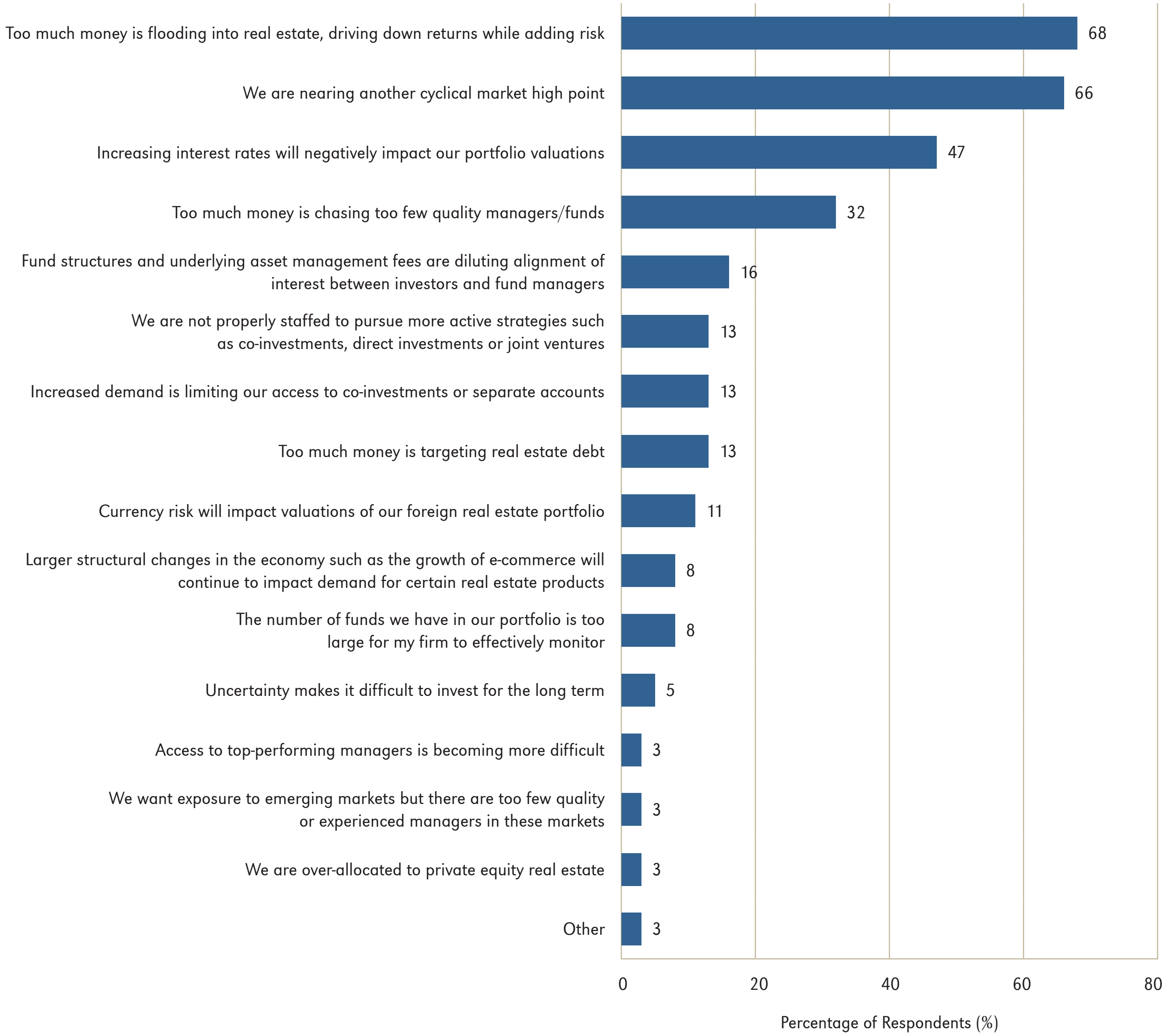


Chart XXVIII Greatest Fears

Our three greatest fears in the real estate market at this moment are:



Source: Probitas Partners' Real Estate Institutional Investor Trends for 2018 Survey

Our View of the Future

We see several trends continuing or building in the market:

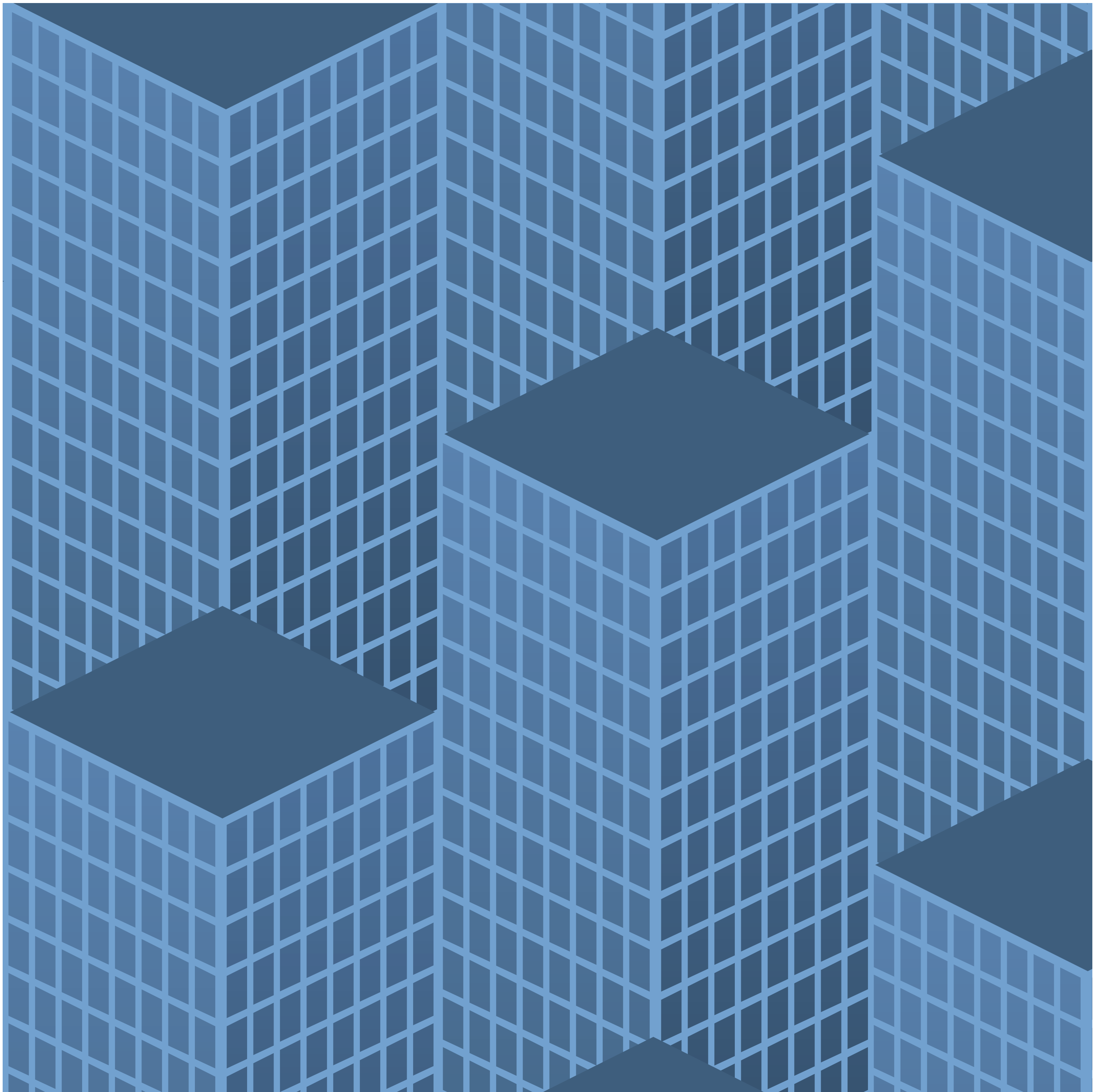
- ***There is likely to be continued downward pressure in fundraising.*** We do not expect a sudden market collapse — unless there is a sudden reversal in the public markets — but the growing fear that we are nearing or are at the top of a market cycle is making investors cautious. Though still under pressure to deploy capital, they are becoming more conservative in manager selection and more focused on potential downside risks.

- ***The more active strategies of direct investments, separate accounts, and joint ventures will increasingly be targeted by large investors.*** Investors continue to seek lower investment costs in both fees and carry to enhance net returns, and they seek more control over portfolio construction. The more direct strategies require experienced, highly-paid staff to execute effectively. Consequently, it is not an approach to the market that smaller investors without these resources can easily replicate. Large activist investors pursuing these strategies are deploying significant amounts of capital away from closed-end funds into these efforts and will continue to do so.

- ***In an increasing split between limited partners, closed-end funds focused on value-added and opportunistic strategies will continue to attract investors who lack the resources to invest directly.*** However, these investors are not blindly investing in funds. Many of them are concerned that we are at the top of the market, with more downside than upside risk. They are very focused on manager selection, with a demonstrated ability to deal with adverse market cycles becoming just as important as recent returns.

- ***There seems to be building concern with emerging markets, even larger ones such as China.*** Emerging markets broadly have never been a huge target for real estate investors, but the past three years have seen a marked step back, without a lot of building interest under the surface. Over this period more than 50% of the respondents to our surveys have stated that they do not invest in emerging markets.

"The growing fear that we are nearing or are at the top of a market cycle is making investors cautious."



Real Estate Institutional Investor Trends for 2018 Survey

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