

INFRASTRUCTURE INSTITUTIONAL  
INVESTOR TRENDS: 2019 SURVEY RESULTS



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**probity** (prō'бі·tē)

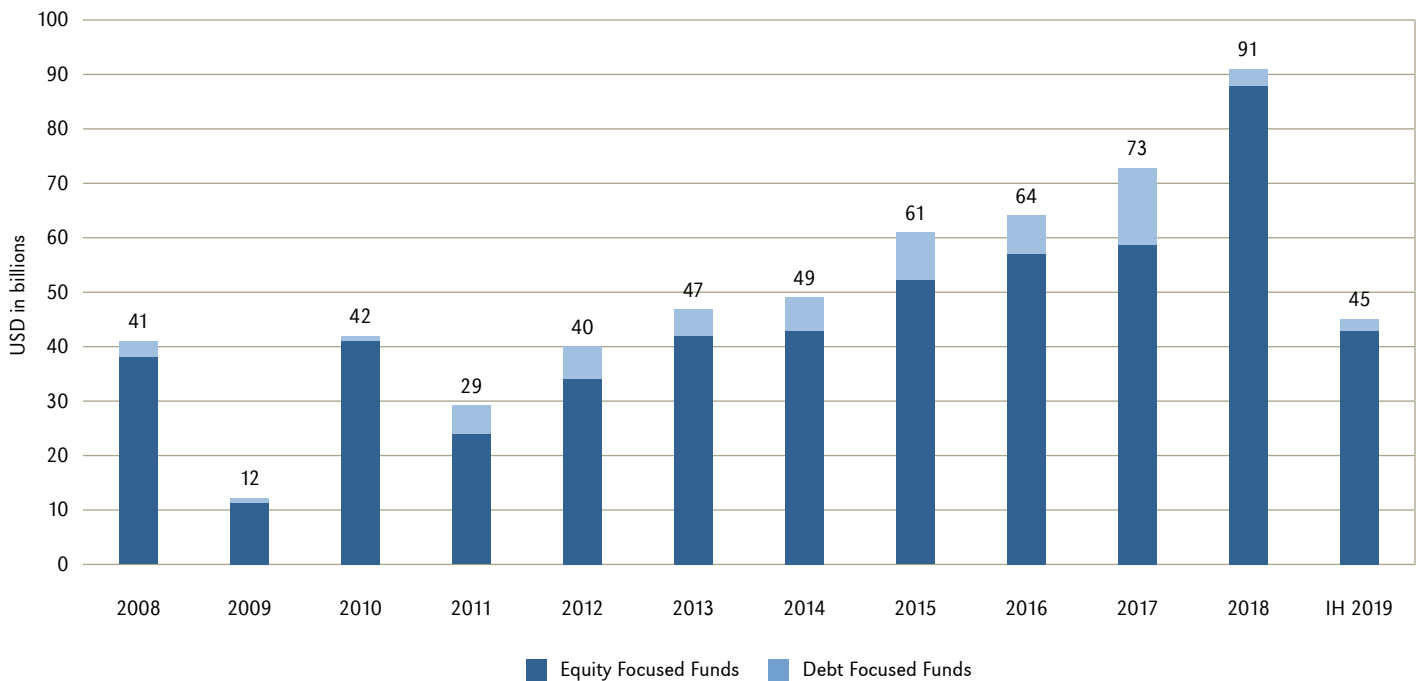
*n.* [from Latin *probitas*: good, proper, honest.] adherence to the highest principles, ideals and character.

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 other sources, then vets and enhances that data via its team's broad knowledge of the market.

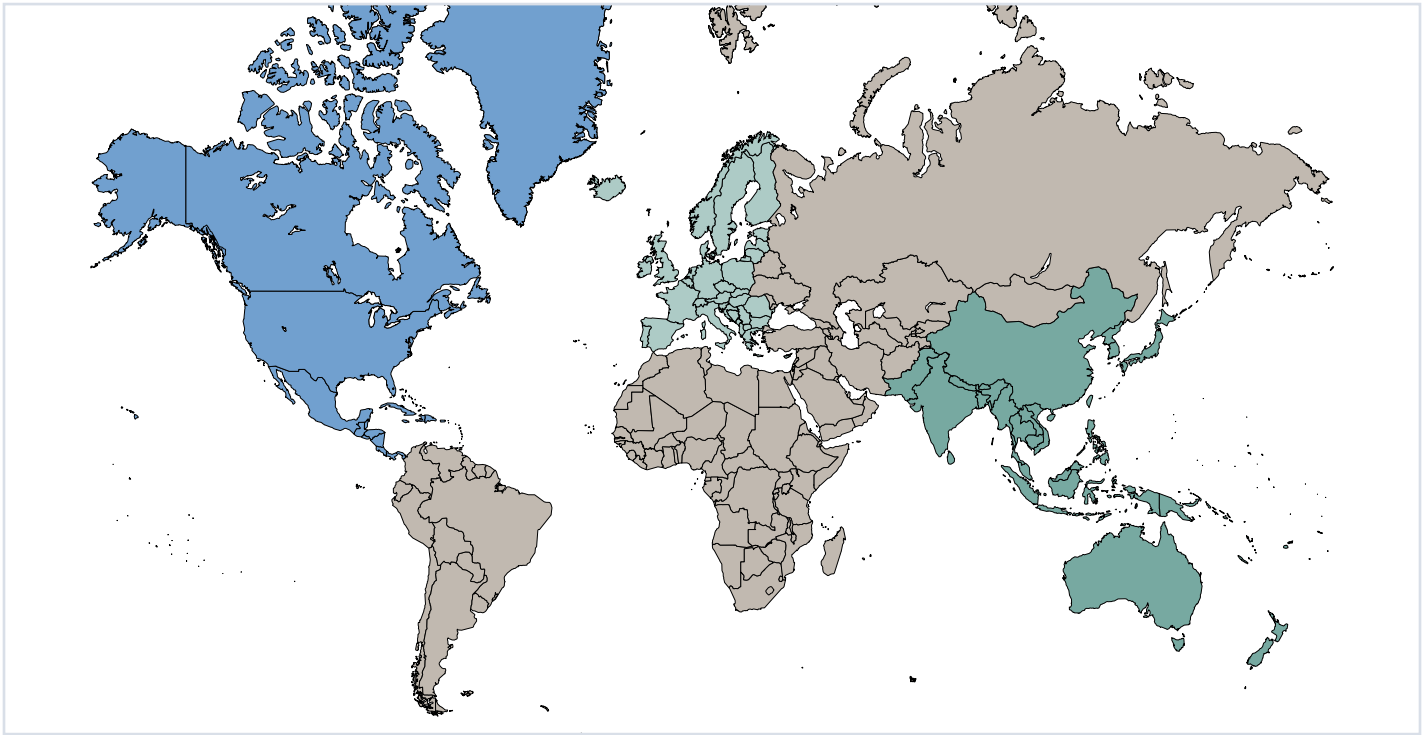
# Infrastructure Landscape

- Closed-end infrastructure funds as a significant sub-sector of alternative investing are a recent phenomenon, only reaching an annual total of over \$5 billion in 2004. Since then, it has grown rapidly – save a pause during the Great Financial Crisis (“GFC”) – with annual fundraising more than doubling in a decade, hitting an all-time peak in 2018 (Chart I).
- Total infrastructure fundraising numbers in the chart are understated, as they do not include capital raised for open-end funds, co-investments, or direct investments coming from larger investors, all of which are more difficult to track.
- As of mid-year 2019, closed-end fundraising remains strong but is slightly behind 2018’s pace. However, GIP and Brookfield are in the market with huge funds likely to have final closes before year-end.
- Infrastructure debt funds have been a more important part of the market over the last decade as project financing from banks has come under pressure. However, debt fundraising over the last eighteen months has been weak after 2017’s peak fundraising year for debt.
- Closed-end infrastructure funds have been dominated by Global funds (which are usually heavily focused on developed markets) and funds targeting North America and Europe (Chart II). During any particular year fundraising for vehicles targeting North America or Europe can vary tremendously, but those annual variations are more technically driven by the closing dates of certain very large funds. On the whole, funds targeting developed markets move from strength to strength.
- Conversely, there has been relatively light interest in funds targeting emerging markets.

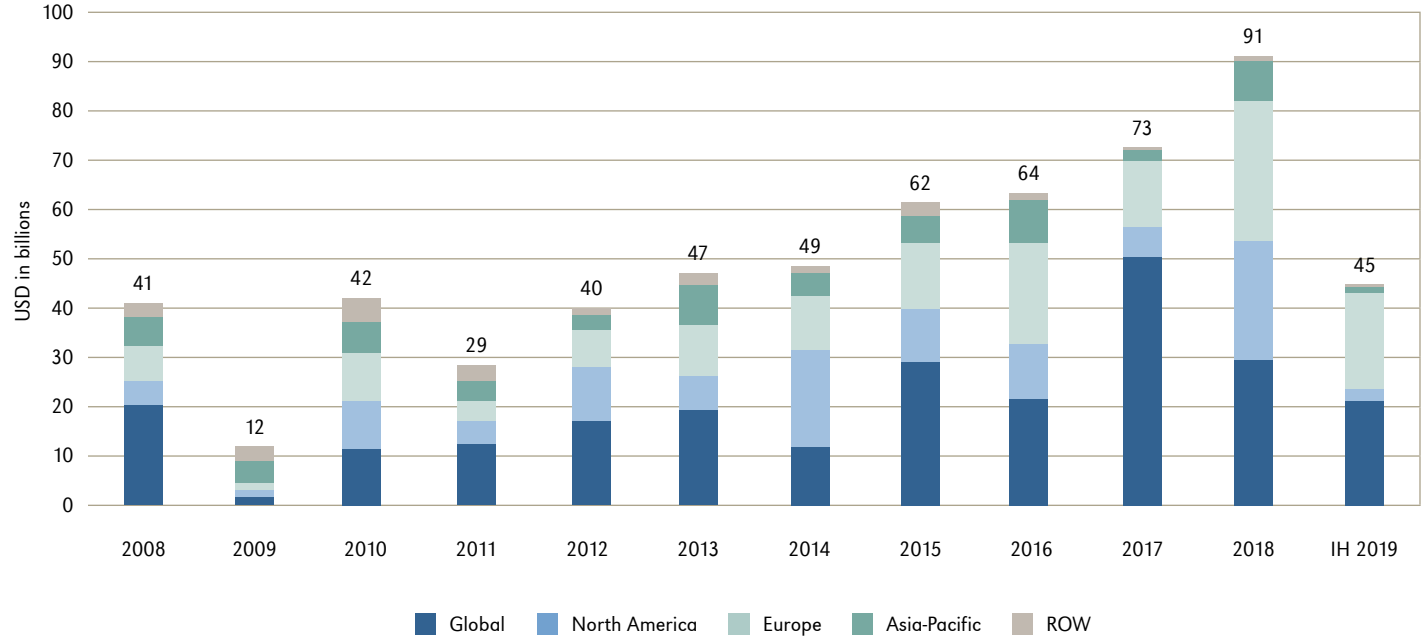
**Chart I Closed-End Infrastructure Fundraising, USD in Billions**



Source: Infrastructure Investor



**Chart II Closed-End Infrastructure Fundraising by Geography**



Source: Infrastructure Investor

# Ten Largest Infrastructure Funds

- Table I details the ten largest closed-end infrastructure funds with final closes raised to date. Both Brookfield or GIP have each raised two of these funds, and both of these managers are currently in the market with funds likely to be at the top of this list next year.
- Seven of the funds are denominated in U.S. dollars, while three others are denominated in Euros, and six of these funds had final closes in 2018 or 2019.
- The funds on this list are all diversified by industry sector and are mainly focused on projects in developed markets.

**Table I Ten Largest Closed-End Infrastructure Funds, July 2019**

Rank	Fund Name	Firm Name	Location	Year	Amount (MM)
1	Global Infrastructure Partners III	Global Infrastructure Partners	New York	2016	USD 15,800
2	Brookfield Infrastructure Fund III	Brookfield Asset Management	Toronto	2016	USD 14,000
3	EQT Infrastructure Fund IV	EQT Partners	Stockholm	2019	EUR 9,000
4	Global Infrastructure Partners II	Global Infrastructure Partners	New York	2013	USD 8,250
5	KKR Global Infrastructure Investors III	KKR	New York	2018	USD 7,400
6	Stonepeak Infrastructure Partners III	Stonepeak Infrastructure Partners	New York	2018	USD 7,200
7	Ardian Infrastructure Fund V	Ardian	Paris	2019	EUR 6,100
8	ISQ Global Infrastructure Fund II	I Squared Capital	New York	2018	USD 7,000
8	Brookfield Infrastructure Fund II	Brookfield Asset Management	Toronto	2013	USD 7,000
10	Macquarie European Infrastructure Fund 6	Macquarie Infrastructure and Real Assets	Sydney; London	2019	EUR 6,000

Source: Probitas Partners

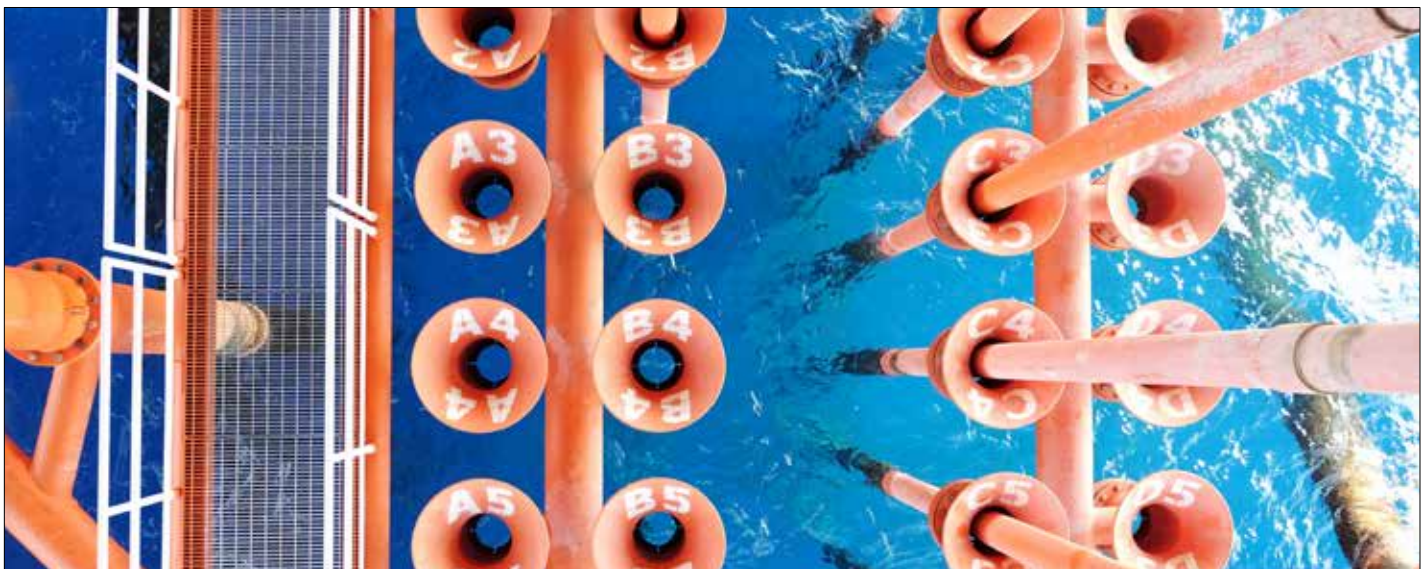
*“[These funds] are all diversified by industry sector and are mainly focused on projects in developed markets.”*

# Infrastructure Institutional Investor Survey

Probitas Partners performs an annual survey of institutional investors globally to determine how their perspectives on the closed-end infrastructure investment market have developed.

## Highlights of Survey Findings

- **Investors' greatest fears — too much money coming into the market impacting future returns, while the market feels "toppy."** Investors are frequently concerned that too much money is entering a market sector, but this year an extremely high 74% felt that way about infrastructure. Fears that we are at or nearing the top of a market cycle have also been a major concern over the last three surveys. These two fears are by far the largest concern of investors, the only two cited by more than 50% of respondents.
- **Despite investors' largest fears, their appetite for infrastructure remains strong.** Fundraising for infrastructure hit an all-time high in 2018, and 96% of respondents said that they will either maintain or increase their investment pace over the next year.
- **Returns on core projects are still under pressure due to direct investor demand. In response, fund investors continue to shift toward value-added funds.** Even as returns on core projects continue to compress, large investors continue to pursue them directly, though they are beginning to be concerned that the risk/return trade off is becoming unbalanced.
- **Investors are still most interested in projects in the developed markets.** Emerging market interest remains weak and fundraising for emerging markets remains weak as well.
- **Limited partners have little interest in infrastructure "light" projects or funds.** There has been an increased interest among fund managers in infrastructure "light" projects or company investments that are related to infrastructure but do not have the same type of downside protections that core investments, in particular, would have. Though returns on infrastructure "light" are higher, so are the risks, and many limited partners consider these to be private equity investments.

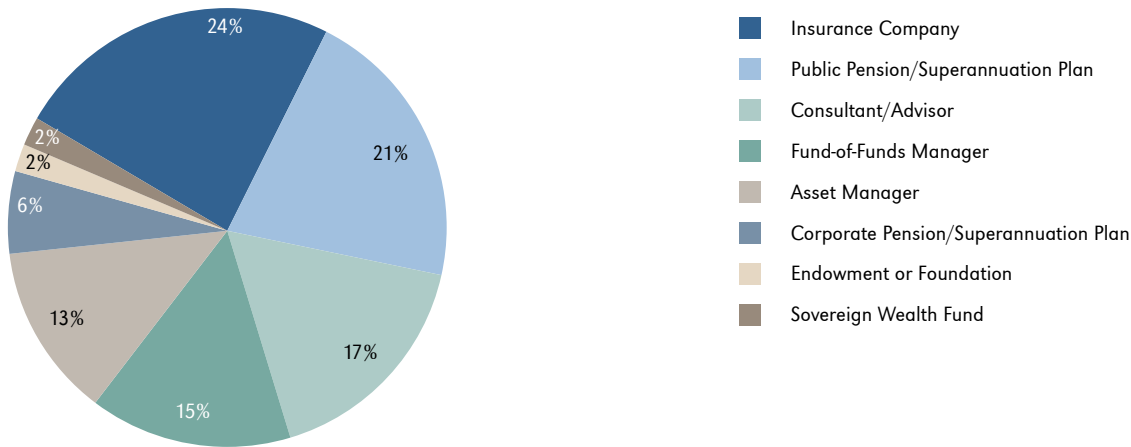


## Profile of Respondents

- A significant number of insurance companies, public pension plans, consultants, fund-of-fund managers, and asset managers responded to the survey (Chart III).
- 60% of respondents were headquartered in North America, with 22% from Europe and 16% from Asia (Chart IV).
- 56% of respondents are active investors in the sector with five years or more of experience, a significant increase from the 41% in that category last year (Chart V), while 23% of the responses were from consultants with clients at various stages.

**Chart III Respondents Categorized by Investor Type**

*I represent a/an:*



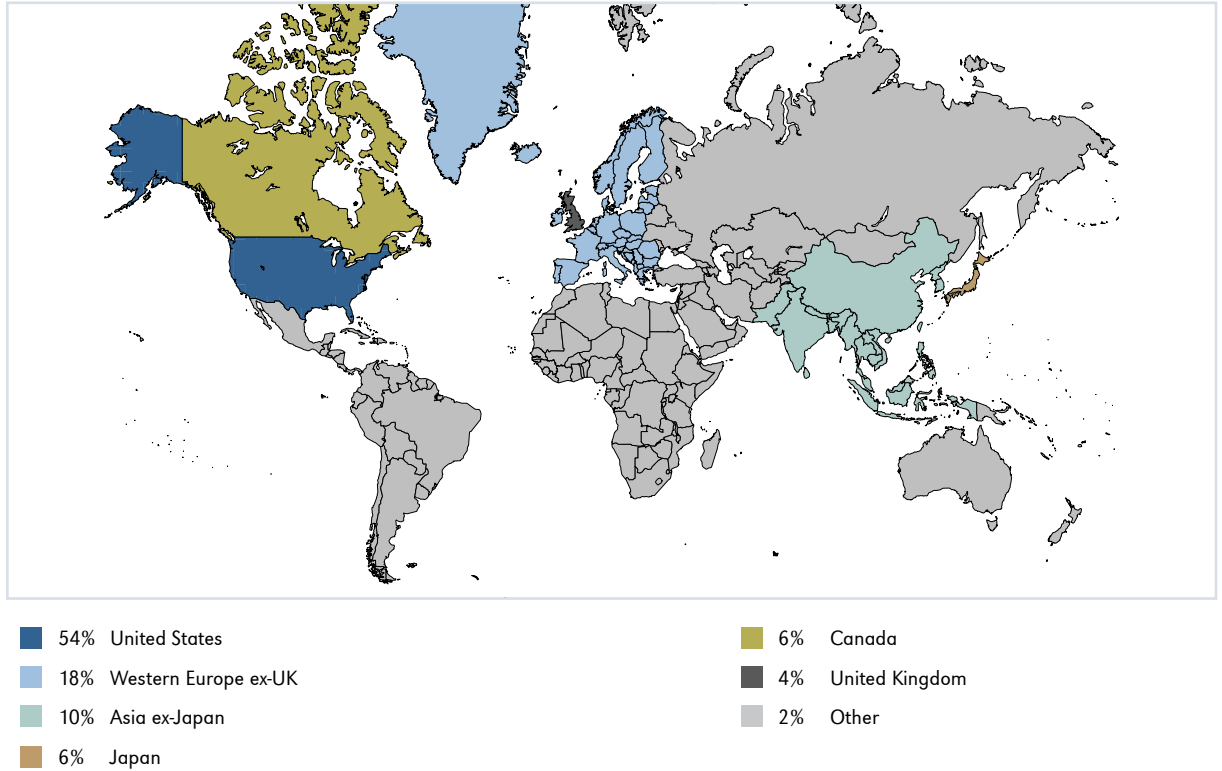
Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results





### Chart IV Respondents Categorized by Firm Headquarters

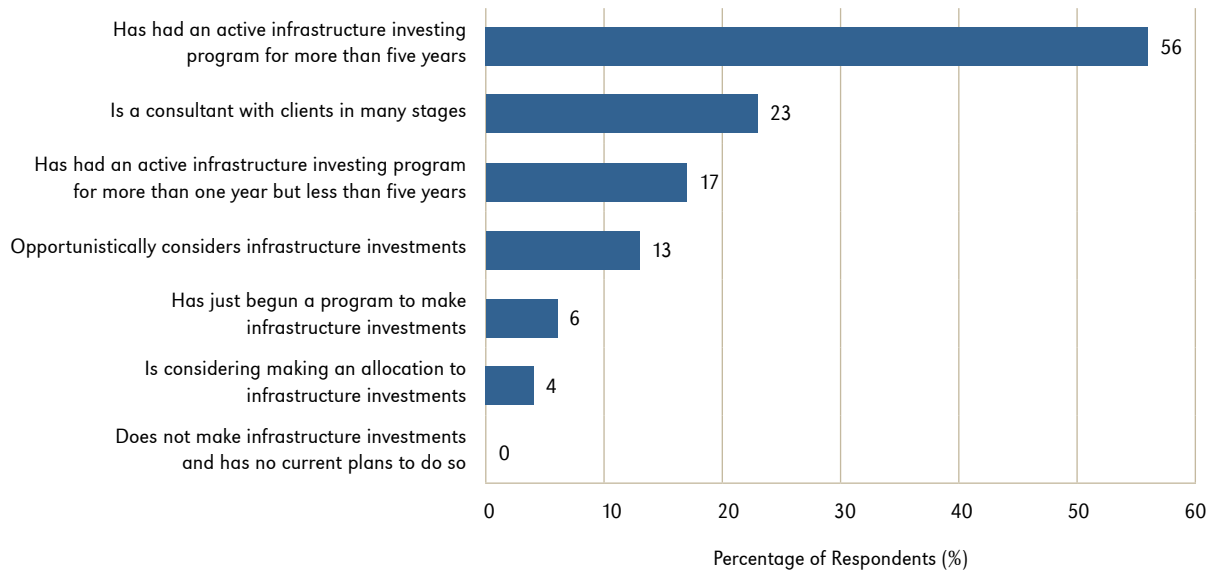
Our firm is headquartered:



Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results

### Chart V Experience Level of Respondents

As far as infrastructure investing is concerned, our firm (choose all that apply):

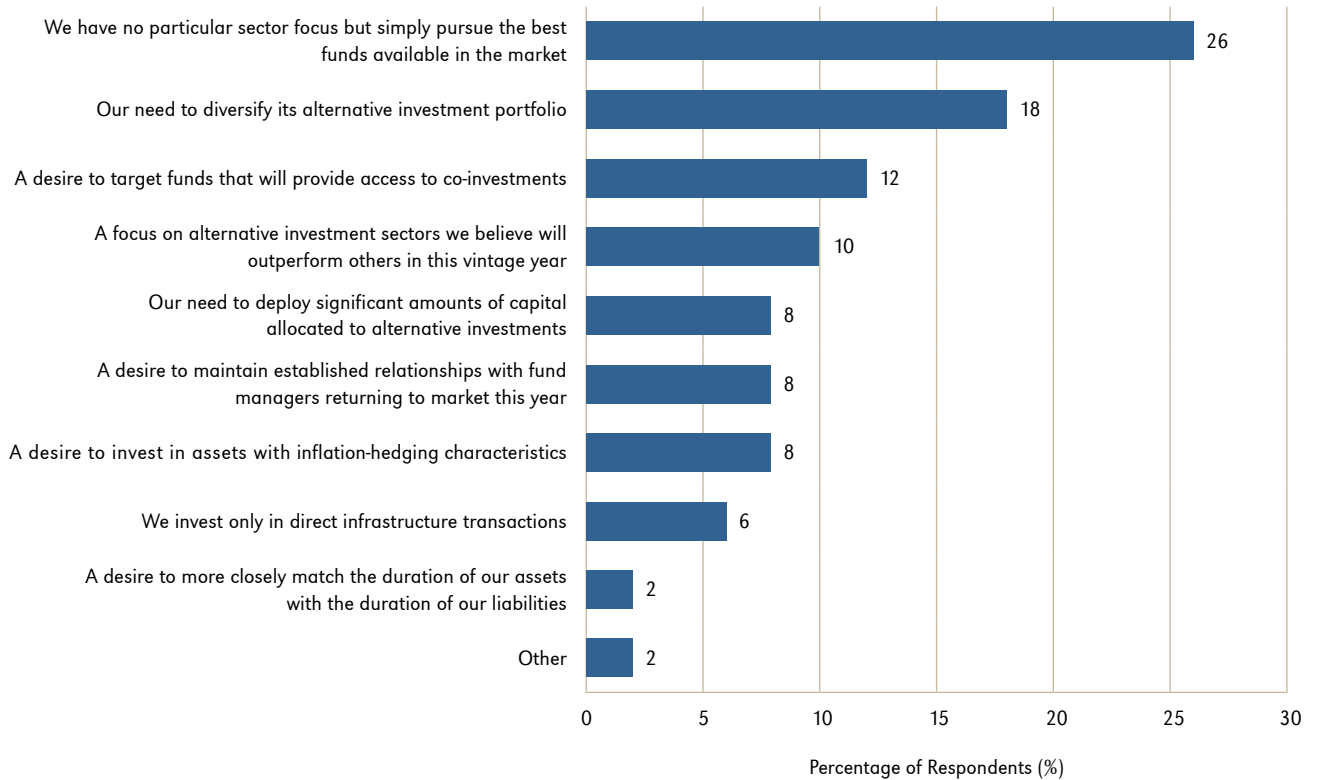


Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results

- In 2015, the driving factor behind respondents' investment decisions was more focused, as 41% of respondents targeted what they deemed to be the best funds available in the market. Over the last five years, the drivers of investor interest have become much more diverse, and though simply targeting the best funds in the market is important, it is not as dominant (Chart VI).
- Though many investors are interested in co-investments, only 12% of respondents are driven to select managers that actively provide co-investment.

**Chart VI Drivers for Sector Target Focus**

*Our firm's sector investment focus over the next twelve months is driven by:*



Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results

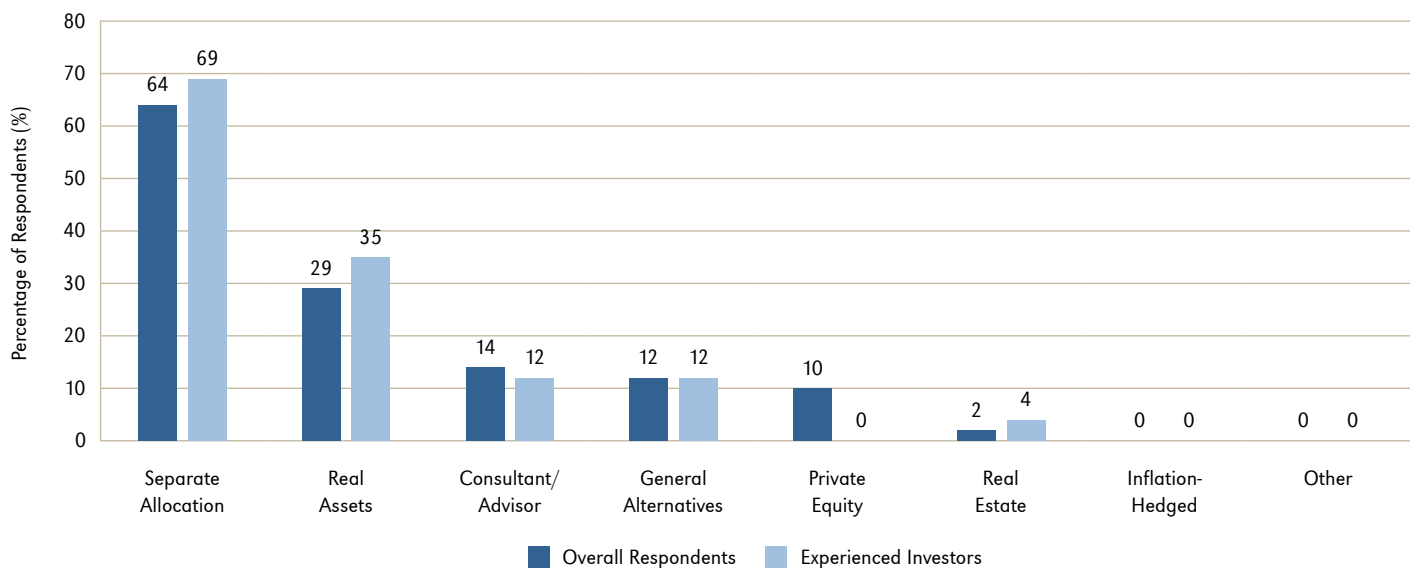
*“Over the last five years, the drivers of investor interest have become much more diverse.”*

## Plans for Infrastructure Investing

- Over the last decade, the market has matured and investors have increasingly created separate infrastructure allocations. This year 64% of all respondents stated that they had separate infrastructure allocations, while 69% of experienced investors have such allocations (Chart VII). In 2007, in our first survey, 46% of respondents made their infrastructure investments from their private equity allocations, while only 26% had separate infrastructure allocations.
- Some respondents making commitments from real asset allocations include a sub-allocation for infrastructure, which is why the numbers below total over 100%.
- Consultants and advisors are treated as a separate category (below), as their clients individually determine their allocations.

### Chart VII Categorizing Infrastructure

Within our portfolio, infrastructure investments are or will be placed in (choose all that apply):



Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results

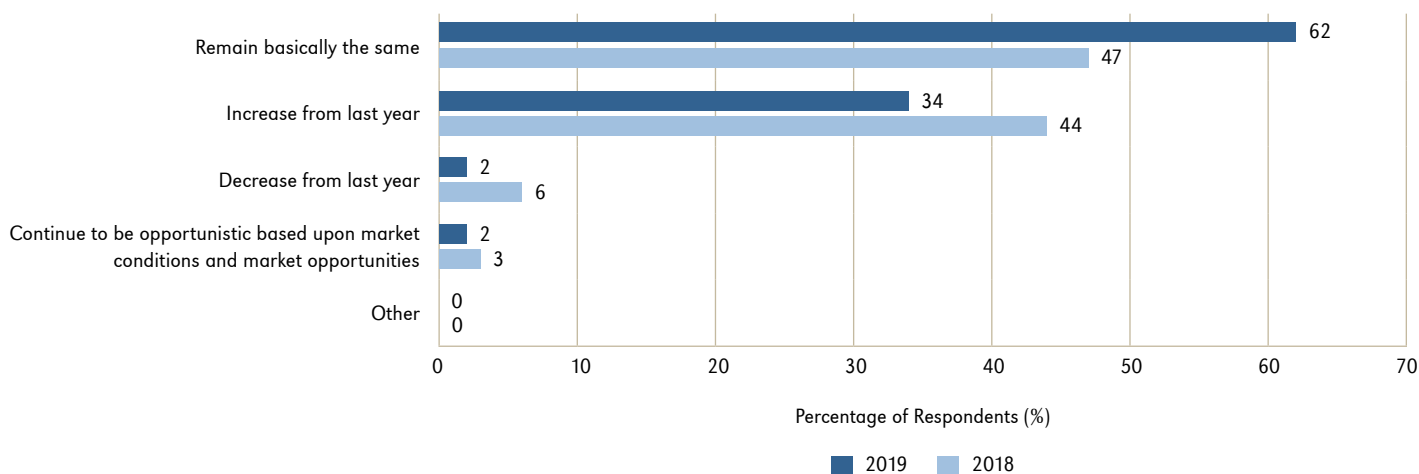
Note: "Experienced Investors" constitutes those investors who have been active in the sector for five years or more.

*“This year 64% of all respondents stated that they had separate infrastructure allocations, while 69% of experienced investors have such allocations.”*

- Respondents are less bullish looking ahead to the next twelve months than they were last year, with the percentage responding that their appetite would increase dropping from 44% to 34%, while those stating that their appetite would remain basically the same increased from 47% to 62% (Chart VIII).
- Respondents to the survey have a wide variety of targeted commitment amounts for the coming year, including some substantial investors looking to commit \$500 million or more (Chart IX).
- The two most popular investing structures for respondents are closed-end infrastructure funds and co-investments (Chart X). There is notable interest in open-end funds, but none of the respondents actively target funds-of-funds.

### Chart VIII Appetite for Infrastructure

Compared to last year, we believe our appetite for infrastructure investments for the next twelve months will:

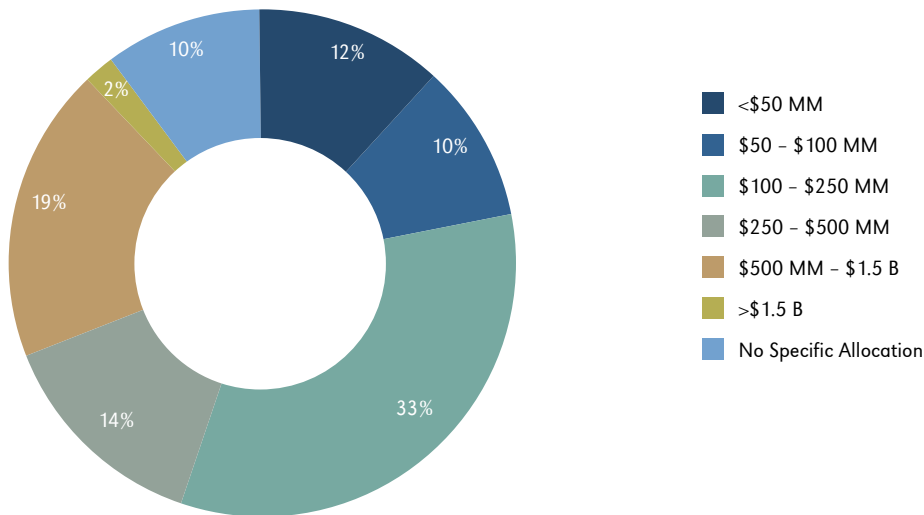


Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results

*“Respondents are less bullish looking ahead to the next twelve months than they were last year.”*

### Chart IX Infrastructure Allocations

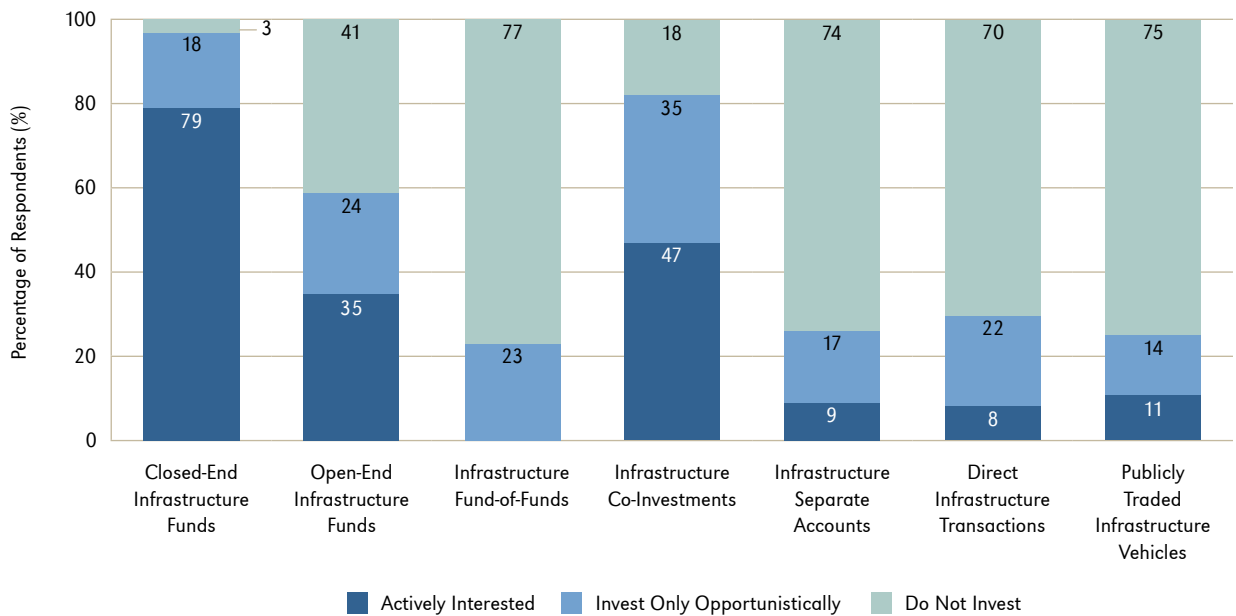
Over the next year, our allocation to infrastructure commitments will be (in USD):



Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2019 Survey  
 Note: Total is greater than 100% of respondents as a few investors had multiple responses.

### Chart X Interest in Investment Structures

Our interest in various investment structures is in:



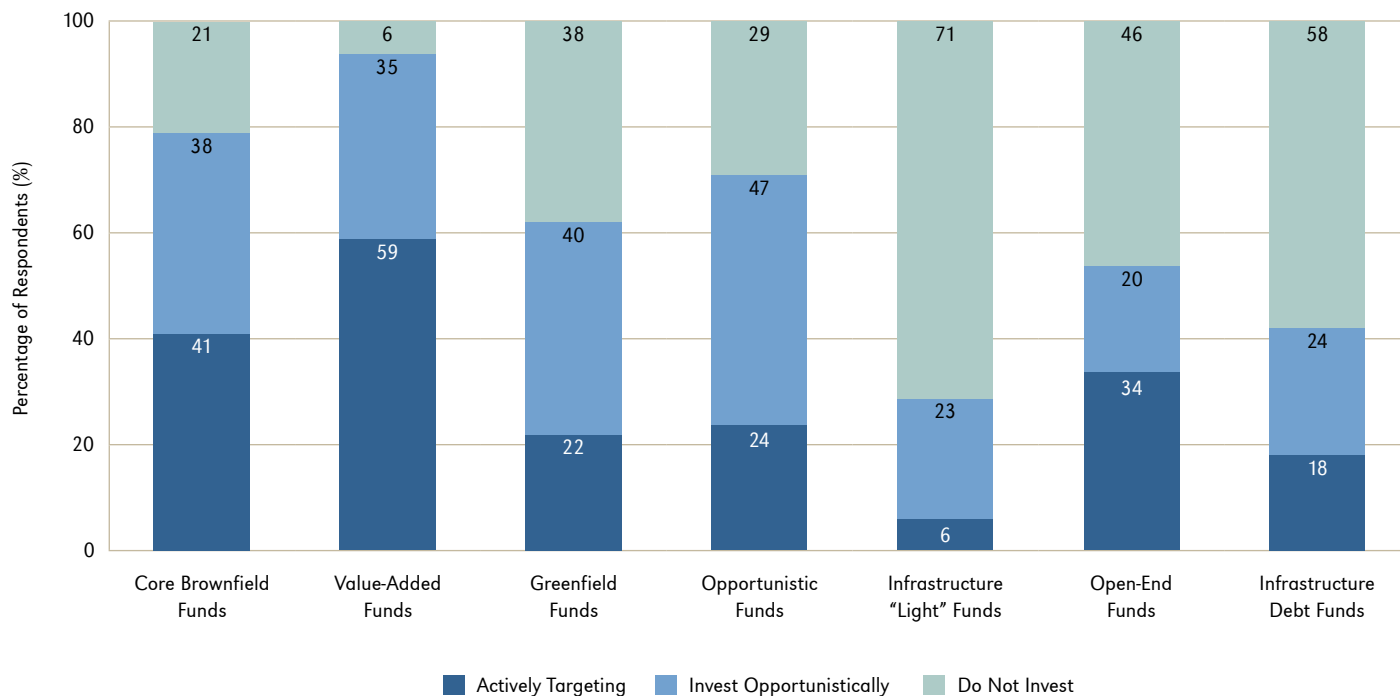
Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results

## Sectors, Industries, and Geographies of Interest

- Over the last few years, interest in fund strategies has shifted from core toward higher return strategies as core yields have come under pressure. The biggest beneficiary has been value-added funds (Chart XI). However, there is still strong interest in core strategies among direct investors whose returns are less burdened by management fees and carry.
- This year for the first time, we asked limited partners about a strategy that certain investors have named infrastructure “light.” Some fund managers are pursuing investments that are targeting higher returns, more like private equity, but without many of the downside protections that many investors associate with infrastructure. This strategy was not popular with this year’s respondents.
- Though infrastructure debt fundraising was low over the last eighteen months, 18% of respondents are currently actively targeting debt.
- Renewable energy retained its position as the leading industry sector of interest, though it was joined in the top position this year by transportation. Interest in energy and power rebounded strongly this year (Chart XII).

**Chart XI Interest in Fund Strategies**

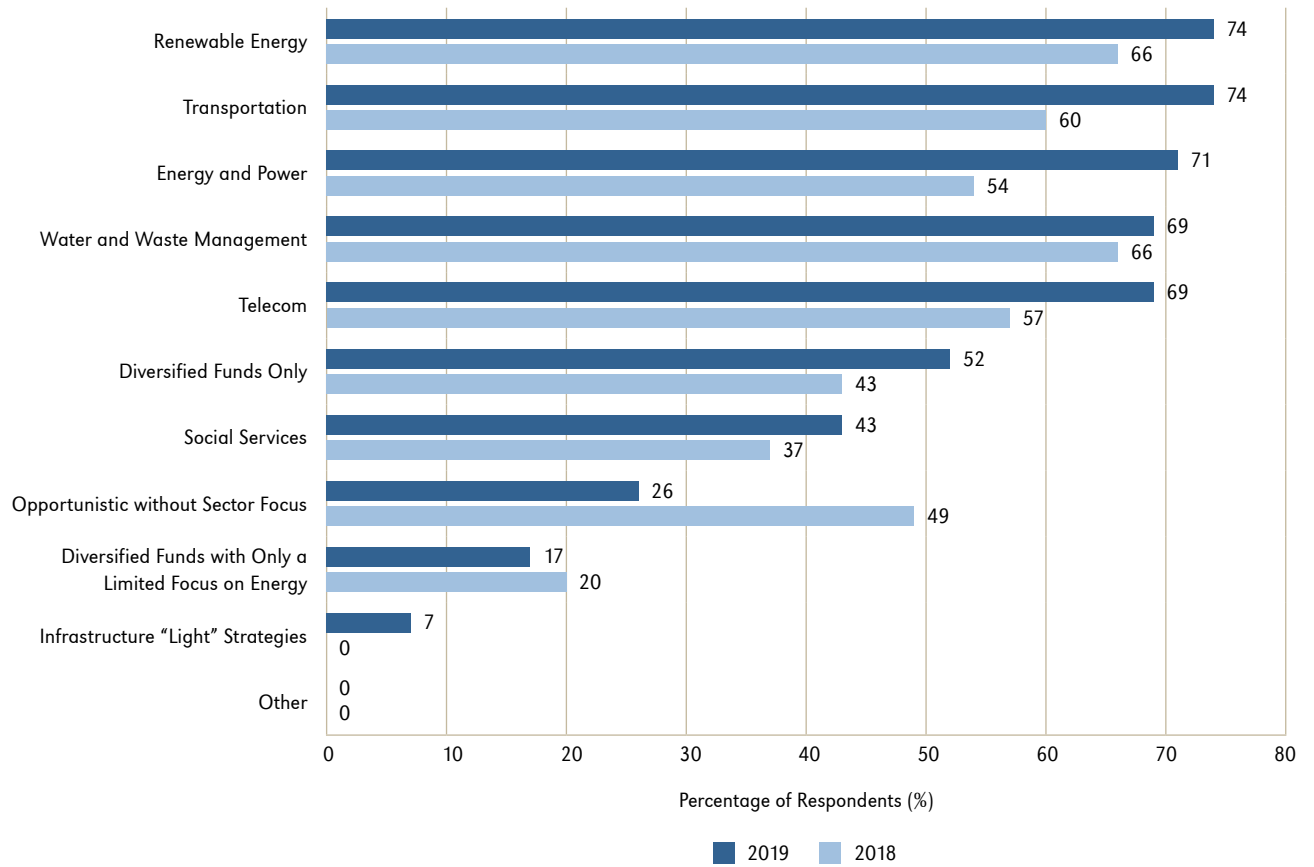
*Our interest in various fund strategies is in:*



Source: Probitas Partners’ Infrastructure Institutional Investor Trends: 2019 Survey Results

## Chart XII Infrastructure Industry Sectors of Interest

We seek to invest in the following sectors (choose all that apply):



Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results

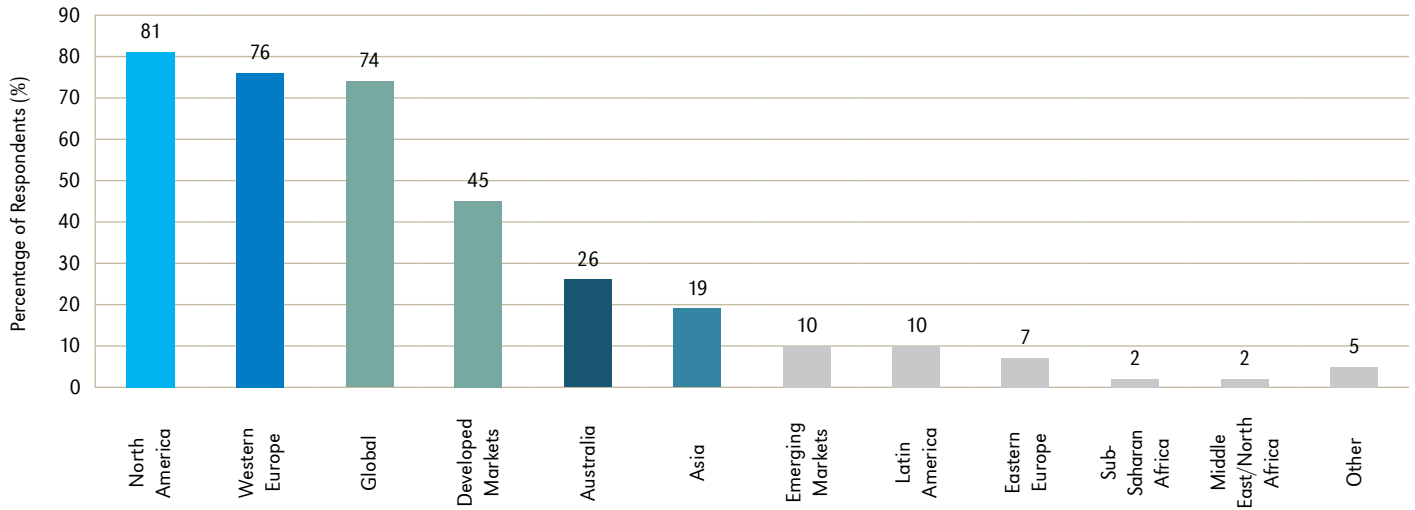


- North America and Western Europe continue to be the geographies of greatest investor focus, along with global funds whose portfolios usually heavily target OECD

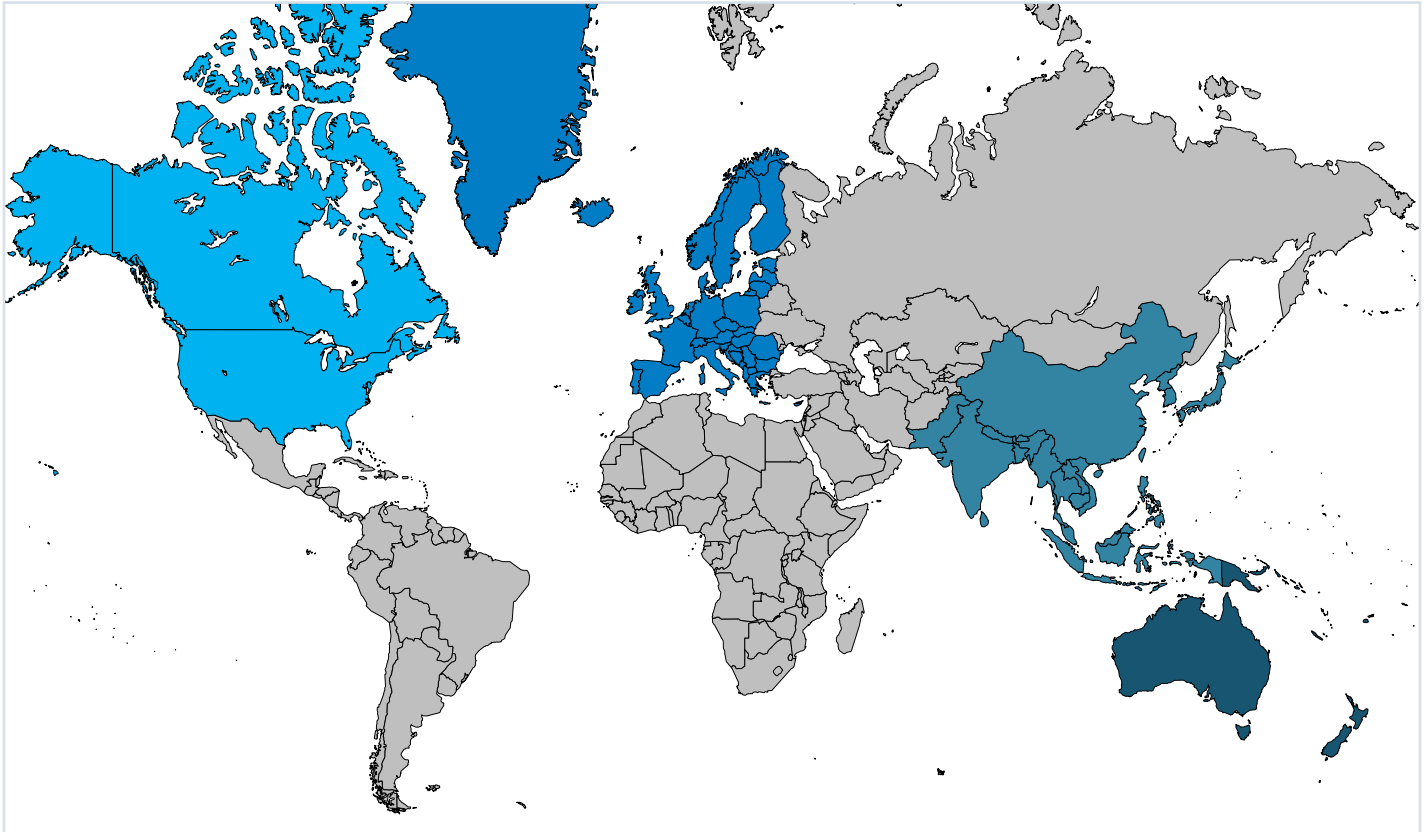
countries (Chart XIII). Emerging market interest was again weak, with interest in Asia being the strongest.

### Chart XIII Geographic Focus

We invest in infrastructure funds with investment mandates focused on (choose all that apply):



Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results



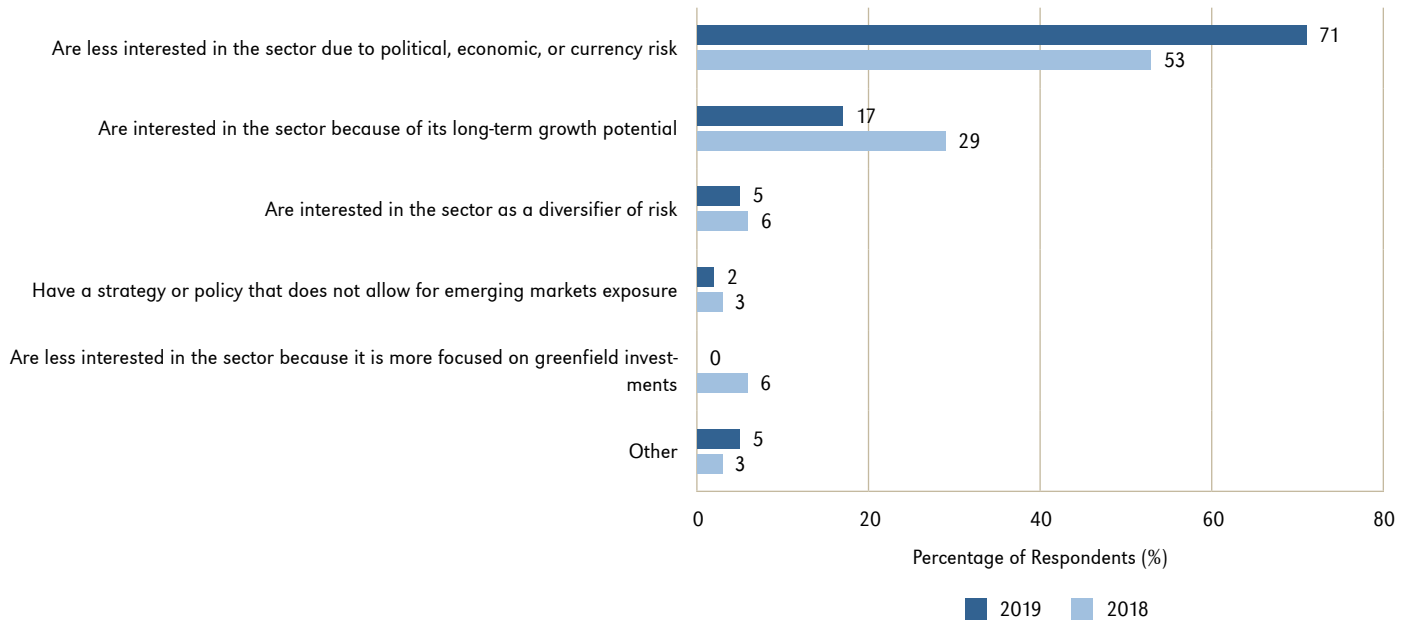


- Chart XIV takes a more detailed look at interest in emerging markets. Compared to last year, there was a significant increase in concern about the risks of

investing in emerging markets and a corresponding decline in interest in emerging markets for their long-term growth potential.

### Chart XIV Interest in Emerging Markets

As far as our interest in emerging markets is concerned, we:



Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results

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*“Compared to last year, there was a significant increase in concern about the risks of investing in emerging markets.”*

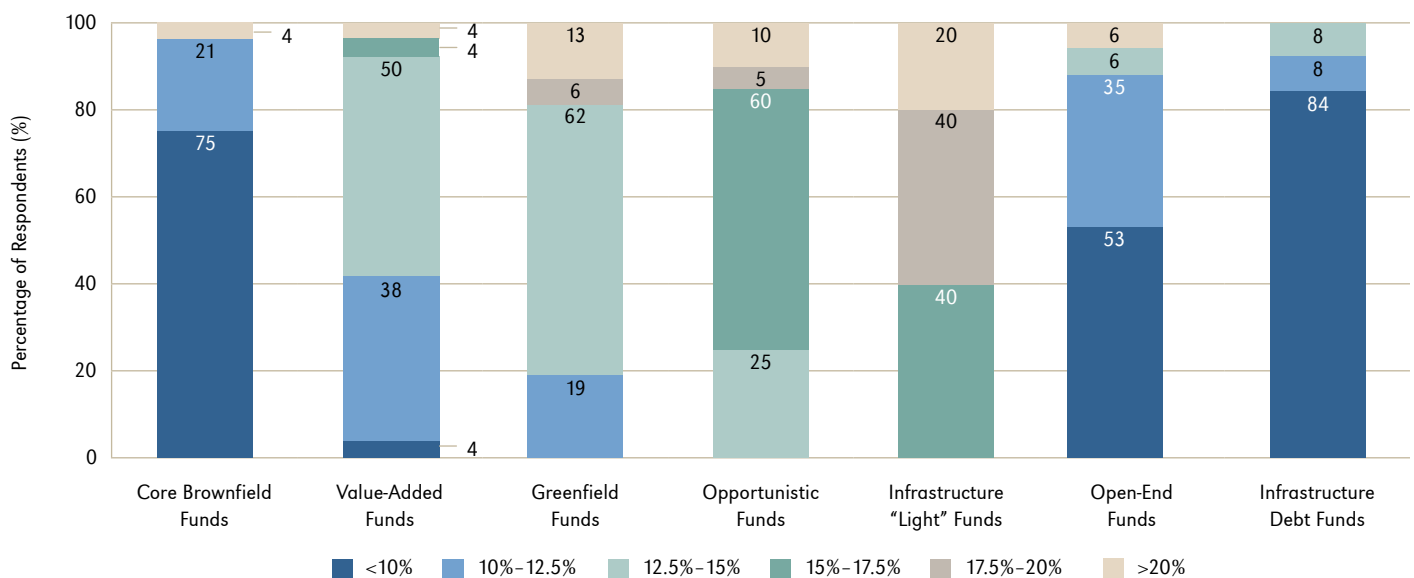
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## Targeted Returns and Fees

- Chart XV lists five major equity fund types. Return expectations for these funds are driven by perceived risk:
  - 75% of respondents expect the net IRR on core brownfield funds to be less than 10%, while 60% expect infrastructure “light” funds to generate net IRRs of 17.5% or higher, much more like private equity.
- Open-end funds can have more diverse strategies but most often they have heavy allocations to core projects. Consequently, their return expectations are most like core funds.
- Unsurprisingly, investors expect that debt funds will have the lowest returns, with 84% of investors expecting net IRRs of less than 10%.

### Chart XV Target Net IRRs

For the major sectors of closed-end infrastructure funds operating in developed markets, our target Net IRRs are as follows:



Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results

*“75% of respondents expect the net IRR on core brownfield funds to be less than 10%. ”*

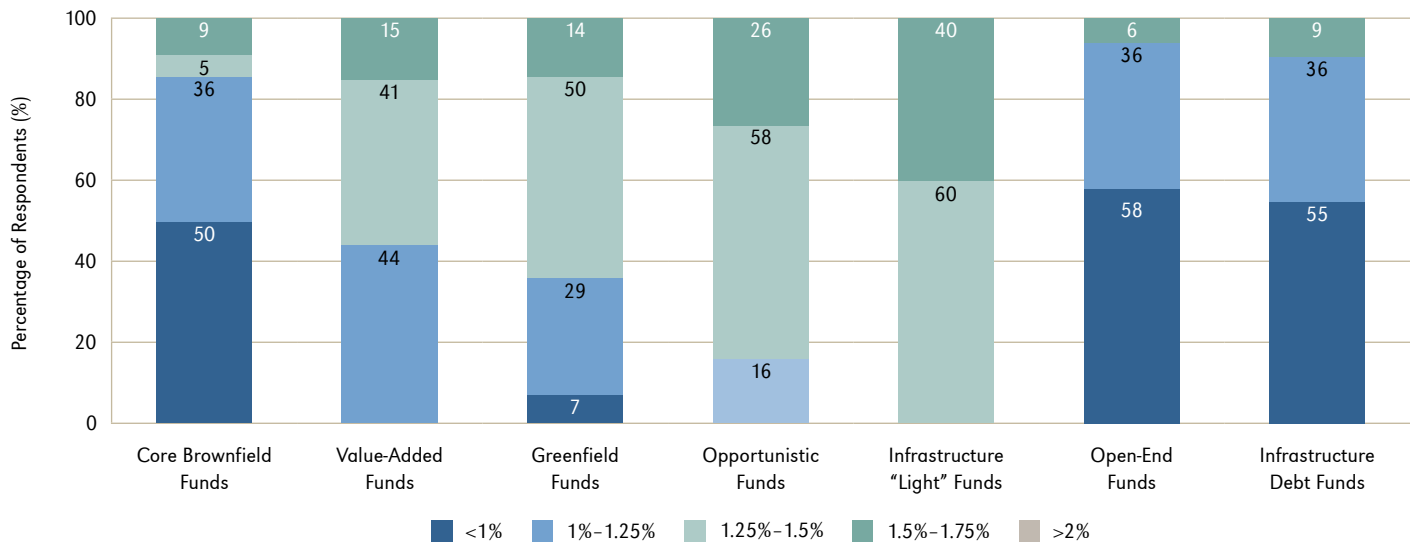
- Investors' return expectations substantially drive what they are willing to pay in management fees and carried interest (Charts XVI and XVII):
  - For the five major equity strategies, as well as debt funds, the pattern of higher expectations for management fees and carry moving in sync with higher expected returns is apparent.
  - Open-end funds are different. Though the return profile of these funds is similar to core closed-end funds and the management fee on open-end funds is usually lower on a stated percentage basis, their

fees are usually calculated on the basis of Net Asset Value, not on committed or drawn-down capital. Since open-end funds are meant to be held for long periods of time, that difference in the calculation means the actual amount paid usually increases over time as NAV increases.

- Investor expectations as far as carry hurdles are similar, with higher return strategies having higher expectations for hurdle rates, though they are more tightly clustered around the 8% level (Chart XVIII).

### Chart XVI Targeted Annual Management Fees

For the major sectors of infrastructure funds operating in developed markets, our targeted management fees are:

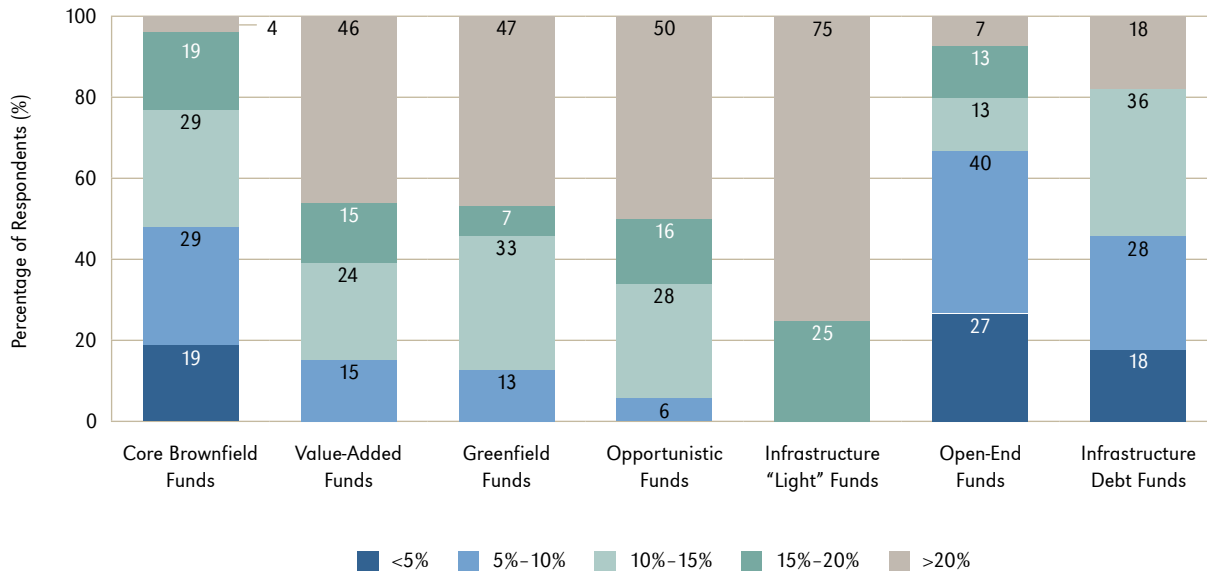


Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results

*“For the five major equity strategies...the pattern of higher expectations for management fees and carry moving in sync with higher expected returns is apparent.”*

### Chart XVII Targeted Carried Interest

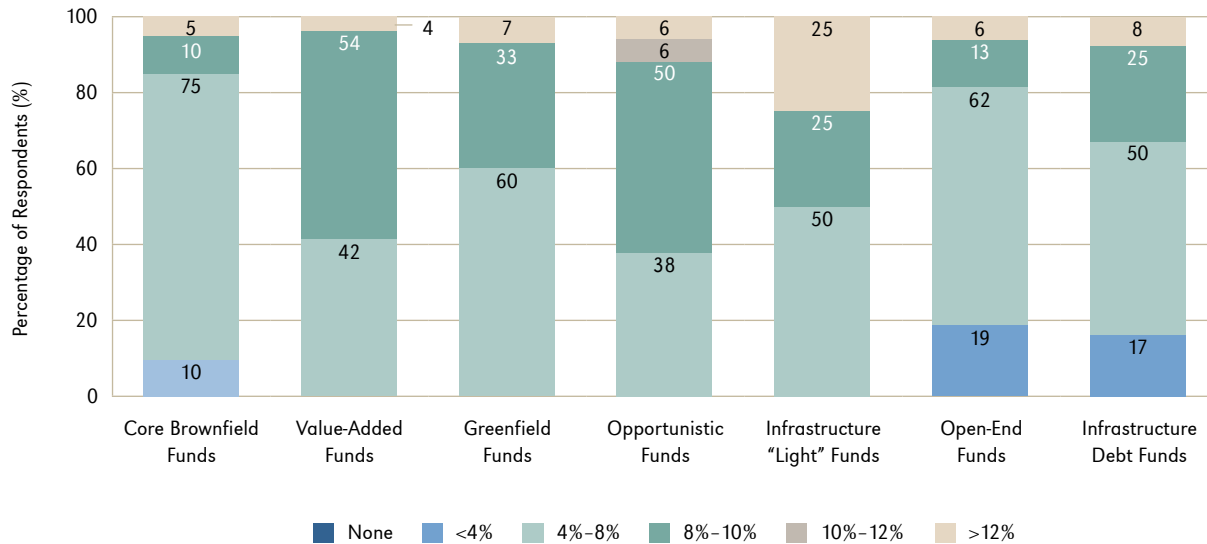
For the major sectors of infrastructure funds operating in developed markets, our targets for carried interest are:



Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results

### Chart XVIII Carried Interest Hurdles

For the major sectors of infrastructure funds operating in developed markets, our targets for carry hurdles are:



Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results

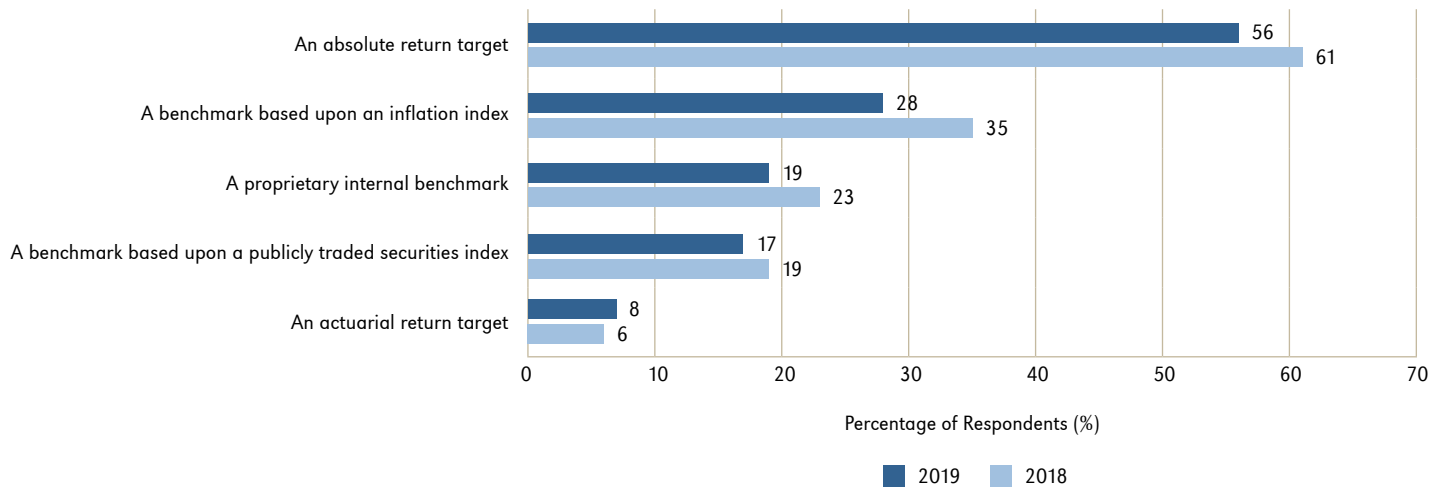


# Portfolio Benchmarks

- As far as portfolio benchmarks, an absolute return target is the only one that over 50% of investors use (Chart XIX); the remaining interest is scattered with no clear trend.
- A few respondents use multiple benchmarks. As a result, the sum of all responses totals more than 100%.
- Among the other responses, a few investors use Cambridge or PREQIN benchmarks

## Chart XIX Portfolio Benchmarks

Regarding portfolio benchmarks for infrastructure, we use (choose all that apply):



Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results

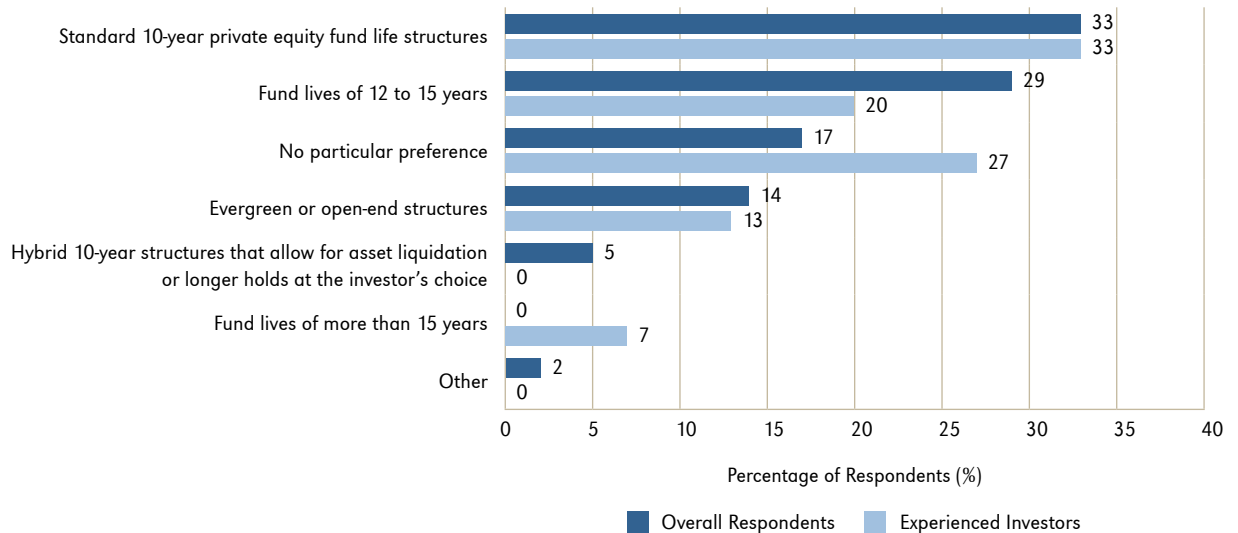


## Investment Structures

- The potential to build very long-lived assets in infrastructure means that there is more diversity in infrastructure vehicle term structures than there is in private equity or real estate (Chart XX). This year, no structure was dominant. However, among overall investors there has been an increase in interest in 12 to 15-year fund life structures, bringing that interest nearly to parity with 10-year structures which have clearly led in the past.
- Interest in evergreen or open-ended structures remains weak.

### Chart XX Preferred Terms Structures, 2019

We prefer to invest in vehicles with the following duration:



Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results

Note: "Experienced Investors" constitutes those investors who have been active in the sector for five years or more.

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*"The biggest areas of focus are the level of management fees, the overall level of carry and the structure of the key person provision."*

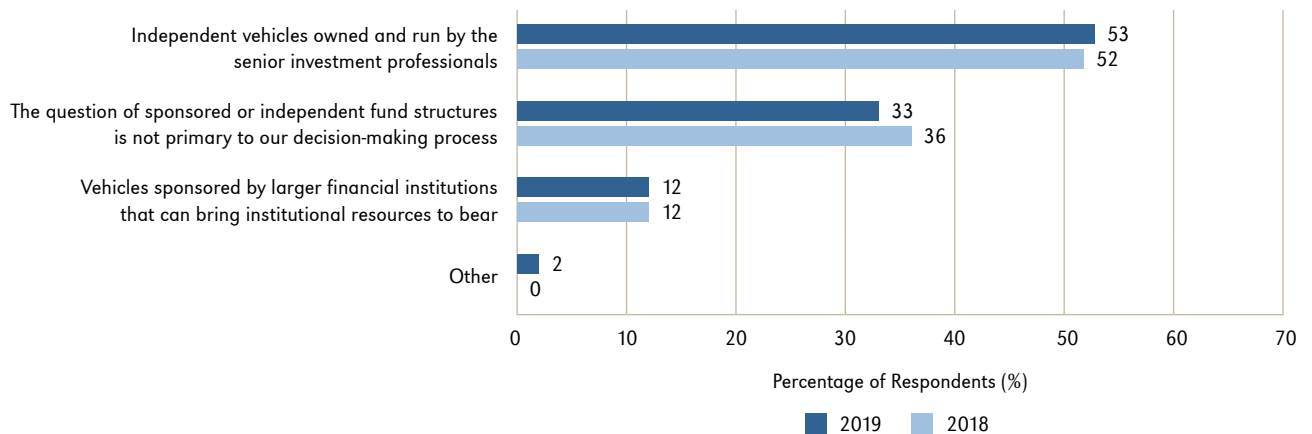
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- As far as a preference for independent fund managers or sponsored vehicles, independent funds continued to lead, with very little change in preference over the last year (Chart XXI).
- One of the largest differences between infrastructure investing and other alternative sectors is the significant number of government projects structured as Public-Private Partnerships (“PPPs”). A decade ago, PPPs

were a mainstay of core investing, but the process of awarding PPPs has proven to be more difficult and for political reasons, they have fallen out of favor in certain jurisdictions. Chart XXII covers the attractiveness of PPPs to investors. The leading response – at 36% – is that investors prefer funds focused on independent projects; only 2% of respondents targeted vehicles that focused on PPPs.

### Chart XXI Independent vs. Sponsored Fund Structures

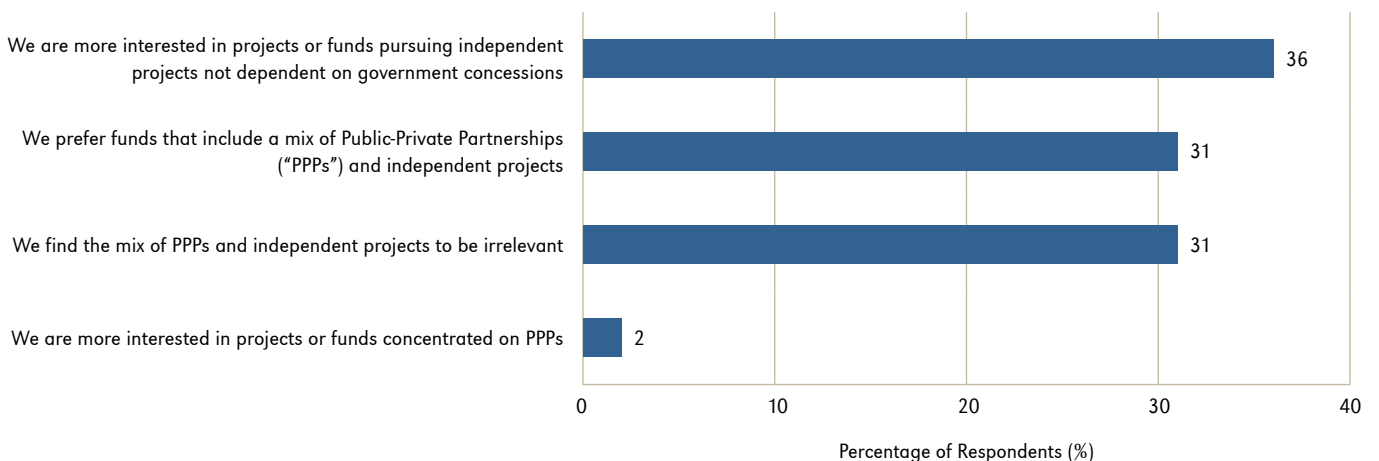
As far as terms and conditions are concerned, we would prefer to invest in funds that are (choose only one):



Source: Probitas Partners’ Infrastructure Institutional Investor Trends: 2019 Survey Results

### Chart XXII Public-Private Partnerships

As far as project structures are concerned:



Source: Probitas Partners’ Infrastructure Institutional Investor Trends: 2019 Survey Results



# Terms and Conditions

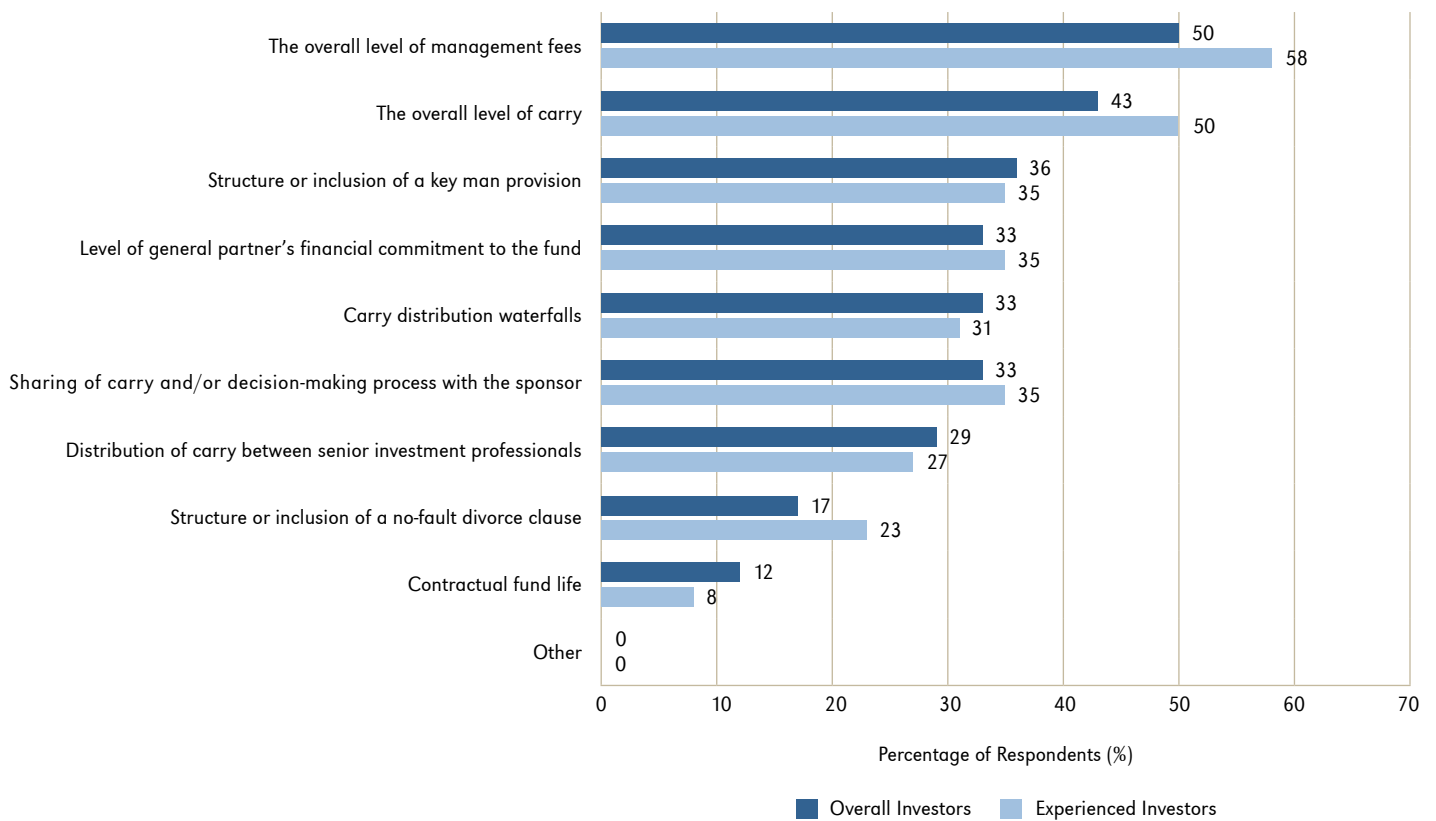
- As far as terms and conditions, separate from due diligence issues, the biggest areas of focus are the level of management fees, the overall level of carry and the structure of the key person provision (Chart XXIII). The level of carry increased for overall responses from 33% last year to 43% this year and the structure of the key person provision surged from 14% last year to 36% this year, both notable changes. The level of general

partner’s commitment to the fund and distribution of carry between investment professionals fell out of the top three responses, though in percentage terms they did not change much.

- This year experienced investors were more focused on no-fault divorce clauses than other investors.

## Chart XXIII Terms and Conditions Focus

As far as terms and conditions are concerned, separate from due diligence issues, we are most focused on (choose no more than two):



Source: Probitas Partners’ Infrastructure Institutional Investor Trends: 2019 Survey Results

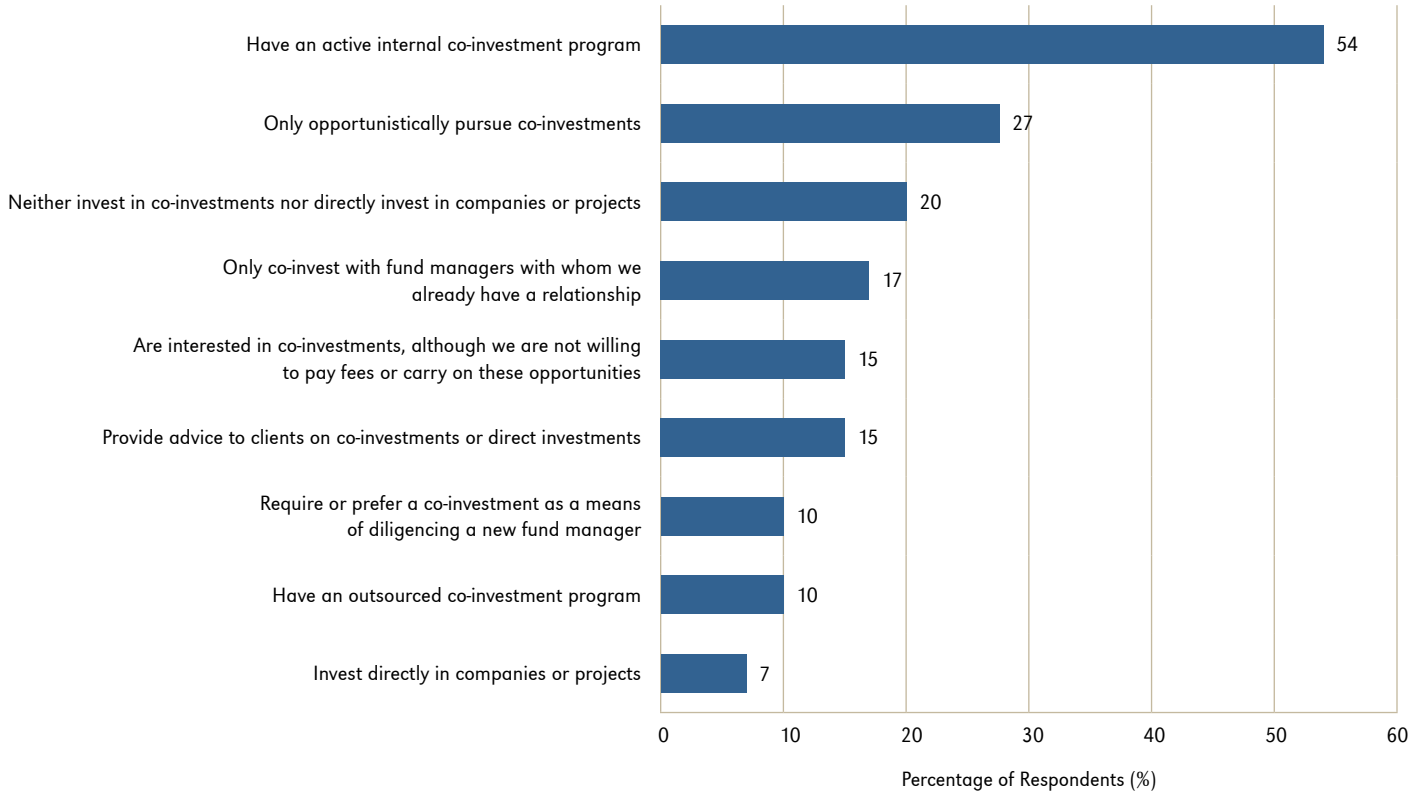
Note: “Experienced Investors” constitutes those investors who have been active in the sector for five years or more.

- Chart XXIV covers interest in co-investments and direct investments. 64% of respondents either have active internal or outsourced co-investment programs, while only

7% did direct investments. Only 20% of respondents did not pursue either co-investments or direct investments.

### Chart XXIV Directs and Co-Investments

Regarding directs and co-investments, we (choose all that apply):



Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results



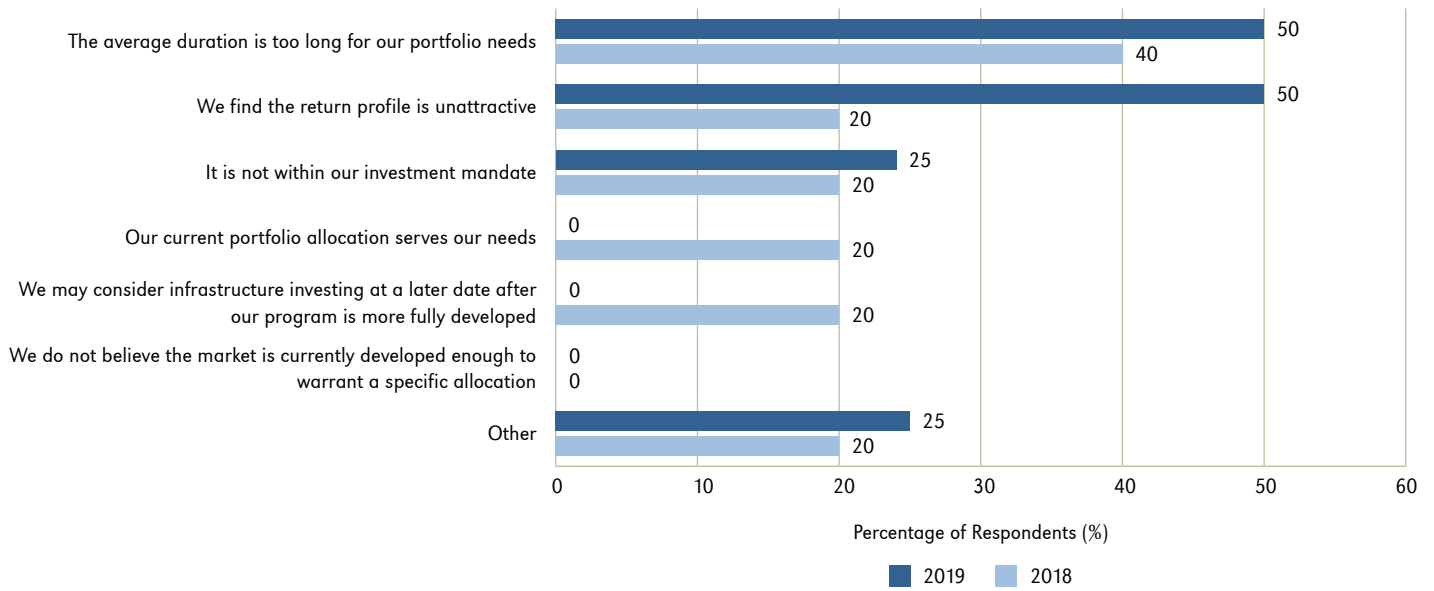
# Reasons for Not Investing

- Few respondents to the survey were not active in infrastructure in any manner. For these respondents, 50% felt that the average duration of the investments was

too long for their needs, and 50% felt that the return profile was unattractive (Chart XXV).

## Chart XXV Reasons for Not Investing in Infrastructure

We are not interested in infrastructure because (choose all that apply):



Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results



## Infrastructure Investment Concerns

- Table II provides perspective by comparing the top concerns from Probitas’ 2010 survey, done in the immediate aftermath of the GFC, to the current market.
- The biggest difference between the two periods was the extreme concentration on two major issues in 2019, with too much money in the market and the market feeling “toppy” being issues of concern to more than 50% of respondents, while in 2010 investor fears were much more scattered. In addition, the lack of experienced managers which was the leading concern in 2010 is no longer a major issue.
- The two top concerns in 2019 were the same in 2018 and 2017.
- Chart XXVI on the next page provides details on all the responses.
- There was also one significant “Other” response from an investor:
  - *The rise of populism impacting the public view of infrastructure assets.*

**Table II What Keeps You Up at Night?**

*Top Four Responses*

2010	
Issue	%
The lack of experienced fund managers in the sector	34%
Too much new money coming into the sector affecting future returns	31%
The amount of leverage that has been used by some of my fund managers	28%
Standard fee levels on brownfield-focused funds are eating away at my returns	23%

2019	
Issue	%
Too much new money coming into the sector affecting future returns	74%
The market feels like we are at or near the top of the cycle	55%
Government agencies seem to be dragging their feet in approving PPP plans	19%
The lack of operational capabilities on many fund manager teams	17%

Source: Probitas Partners’ Infrastructure Institutional Investor Trends Survey, 2010 & 2019

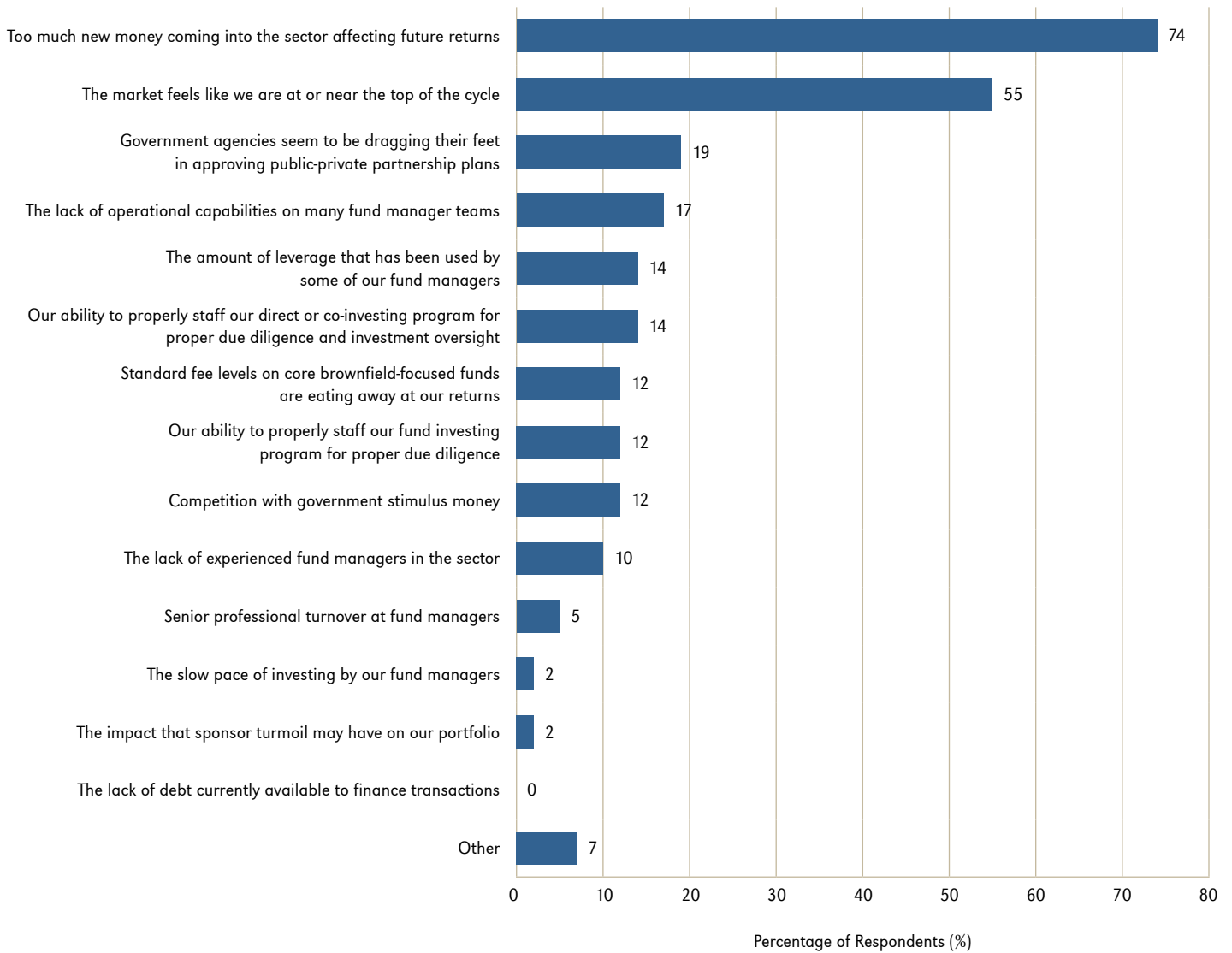
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*“Many of these investors believe that returns on core investments are attractive on a direct basis but are unattractive when burdened by the usual fee and carry of a fund structure.”*

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### Chart XXVI Infrastructure Investing Concerns

As an infrastructure investor, what keeps you up at night (choose no more than two)?:



Source: Probitas Partners' Infrastructure Institutional Investor Trends: 2019 Survey Results

# Key Trends

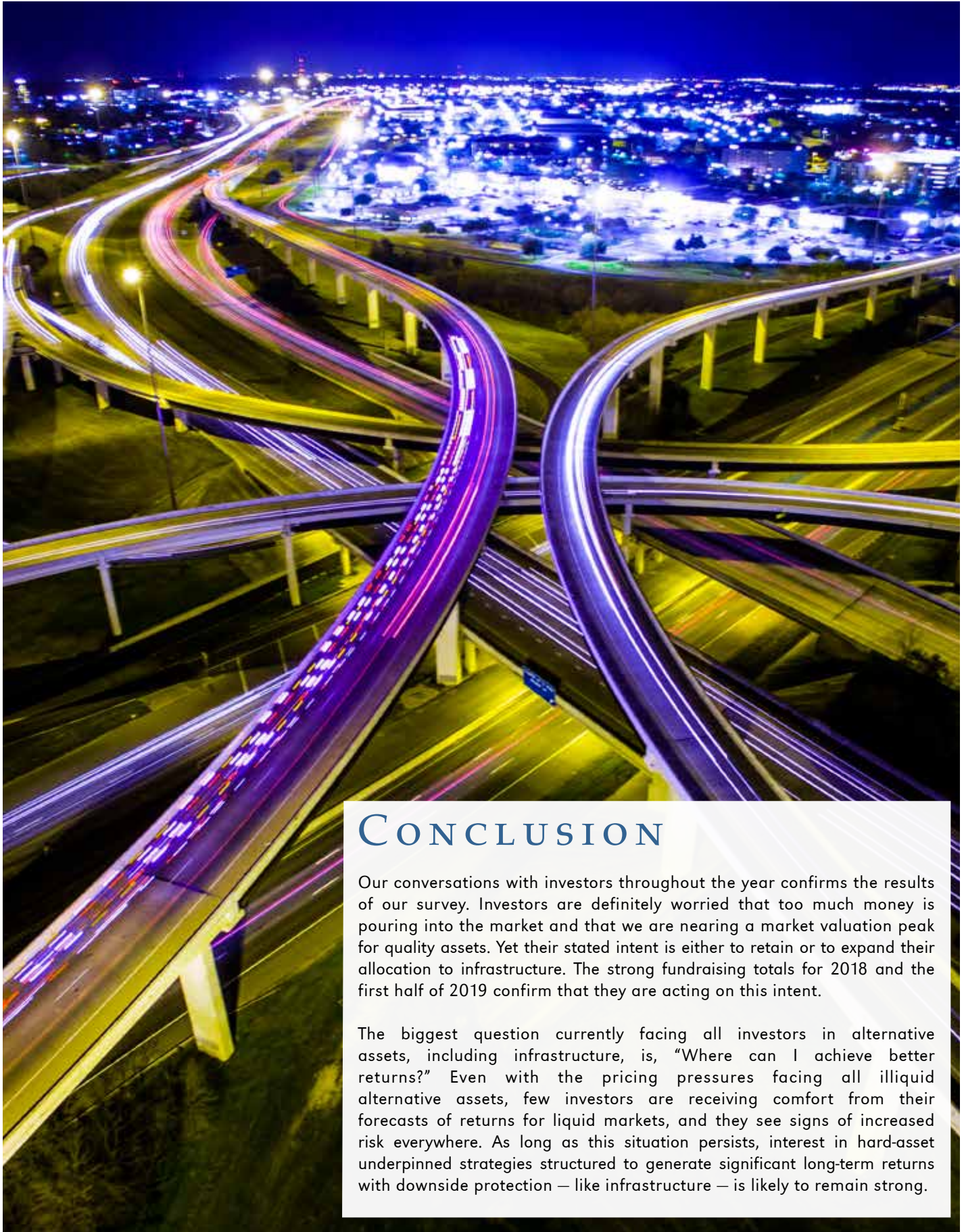
Besides issues covered in the survey, our ongoing conversations with infrastructure investors globally provide added insight on a few key trends:

- **Many large direct investors continue to have a strong focus on core projects:** Core projects have the lowest presumed risk/return profile in infrastructure (unless the project is highly leveraged), and these projects often have long investment maturities attractive to those looking to match asset/liability risk. Many of these investors believe that returns on core investments are attractive on a direct basis but are unattractive when burdened by the usual fee and carry of a fund structure. However, competition for core assets by these direct investors and large fund managers continue to drive return expectations lower, and certain investors are beginning to fear that the risk/return balance is becoming upset.
- **The 10-year closed-end maturity typical of private equity remains common, but there is an ongoing shift toward longer maturities:** Funds with maturities of 12 to 15 years are becoming more popular, and there is some interest in funds with maturities up to 20 years. At the same time, interest in evergreen or open-end structures has been basically unchanged over our last surveys.
- **Co-investment is becoming an increasingly important focus for investors.** Investors are increasingly putting in place formal internal co-investment programs designed to both lower their costs as well as to strategically add exposure to certain industry sectors they favor.
- **Investor interest is moving away from PPPs toward independent projects:** Difficulties in executing requests for proposals, blowback on certain previous projects, and political infighting in various jurisdictions, have made it more challenging to execute PPPs. As a result, investors are becoming more interested in independent projects.
- **Certain investors are beginning to focus on middle-market funds focusing on middle-market projects they believe can be more profitable:** Many core projects are quite large, and stiff competition for these transactions is driving down returns. Investors highly focused on returns have begun to turn to middle-market opportunities, more often executed in independent rather than PPP structures, to achieve their return targets.

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*“Difficulties in executing requests for proposals, blowback on certain previous projects, and political infighting in various jurisdictions, have made it more challenging to execute PPPs.”*

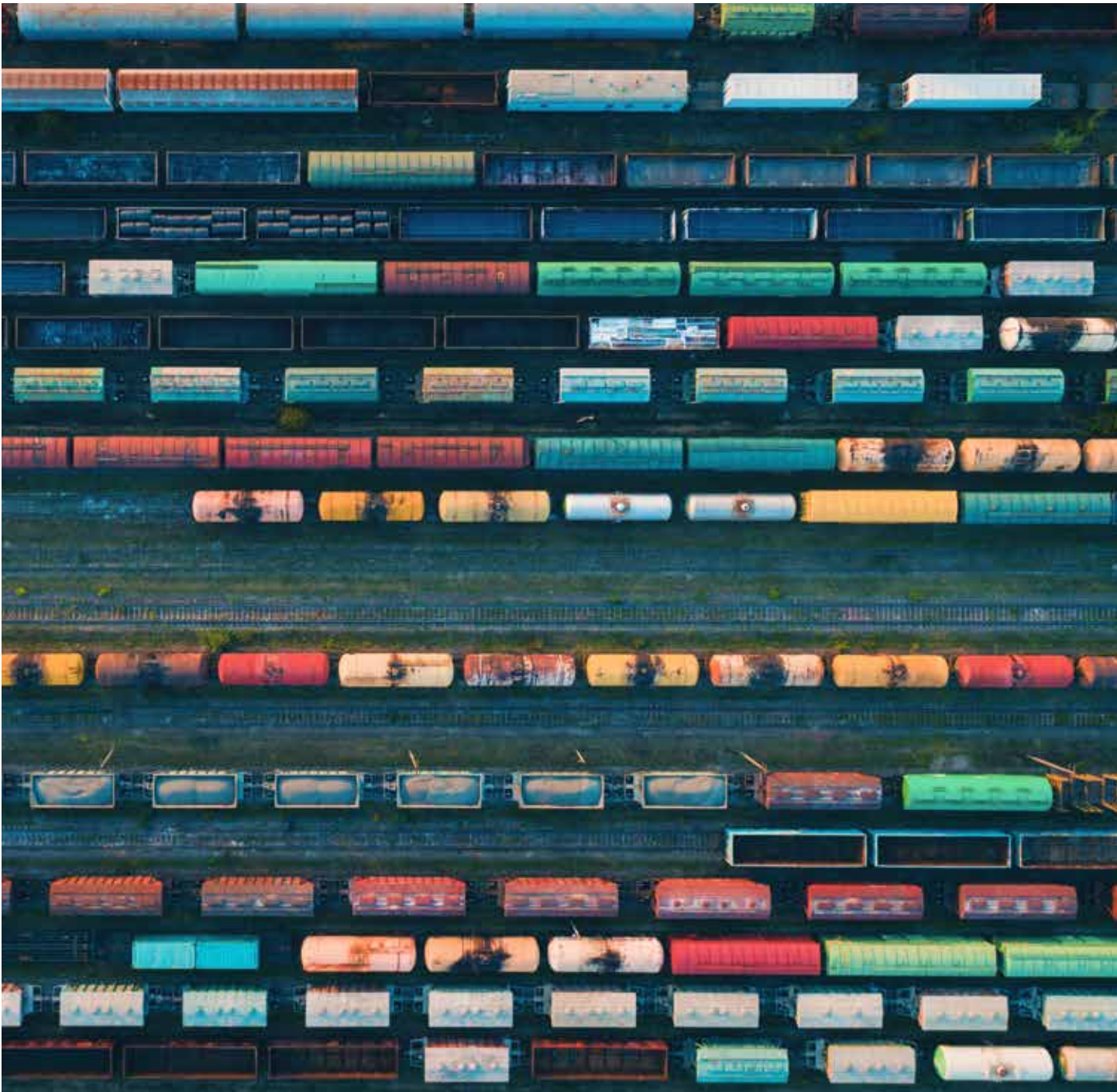
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## CONCLUSION

Our conversations with investors throughout the year confirms the results of our survey. Investors are definitely worried that too much money is pouring into the market and that we are nearing a market valuation peak for quality assets. Yet their stated intent is either to retain or to expand their allocation to infrastructure. The strong fundraising totals for 2018 and the first half of 2019 confirm that they are acting on this intent.

The biggest question currently facing all investors in alternative assets, including infrastructure, is, “Where can I achieve better returns?” Even with the pricing pressures facing all illiquid alternative assets, few investors are receiving comfort from their forecasts of returns for liquid markets, and they see signs of increased risk everywhere. As long as this situation persists, interest in hard-asset underpinned strategies structured to generate significant long-term returns with downside protection – like infrastructure – is likely to remain strong.



# INFRASTRUCTURE INSTITUTIONAL INVESTOR TRENDS: 2019 SURVEY RESULTS

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