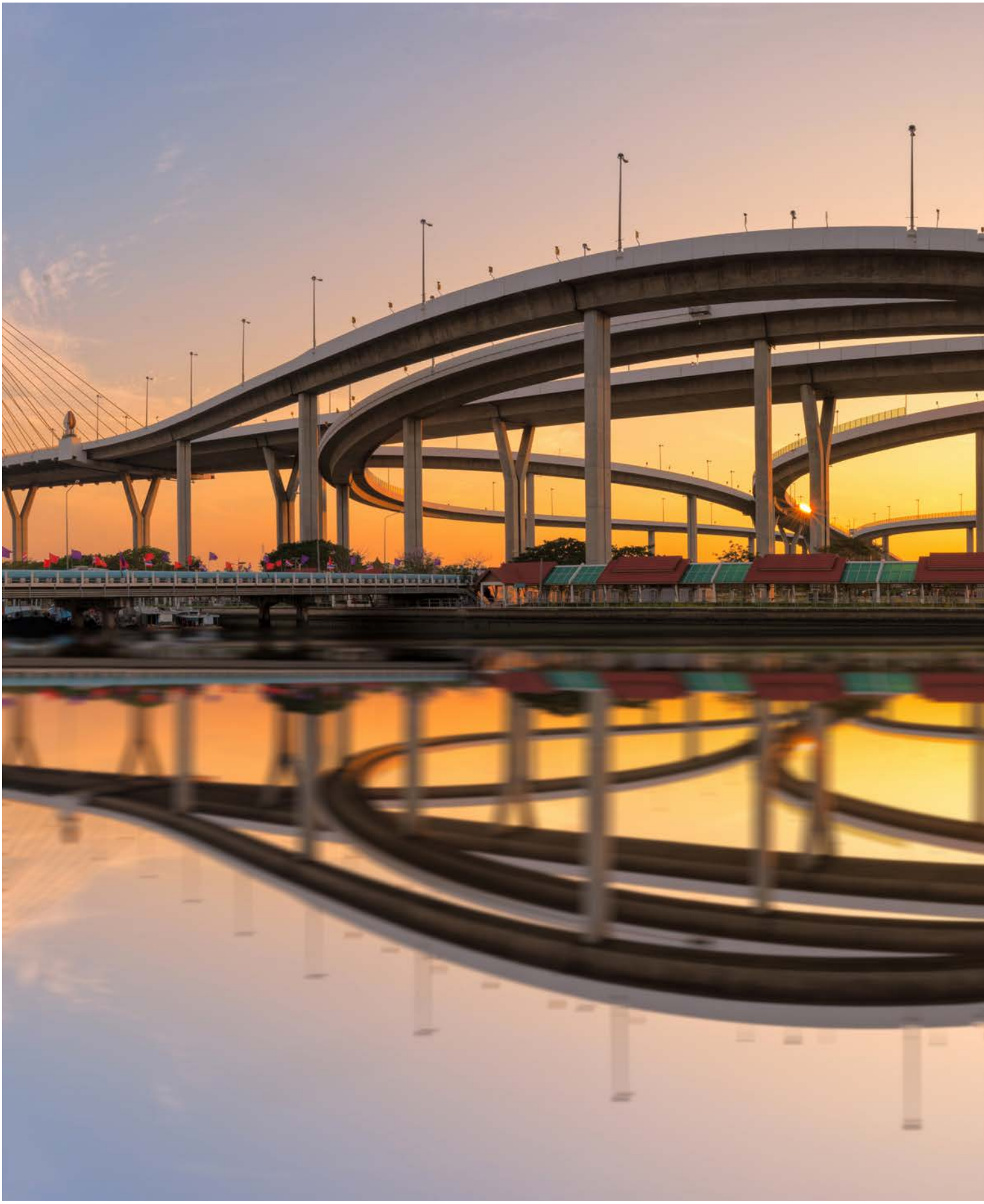
Infrastructure Investor Trends: 2018 Survey Results

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

Infrastructure Landscape

- The overall trend for closed-end infrastructure fundraising in Chart I tells the story of a massive fundraising increase in 2016, followed by a dramatic fall-off in 2017 that continued into 2018. The 2016 spike was driven by the two largest infrastructure funds raised to date — Brookfield III (all of which was raised in 2016) and GIP III (whose first two closes, totaling two-thirds of the fund's final size, also closed in 2016). Together they accounted for 32% of the commitments raised that year. Without these two dominant funds actively raising, fundraising nominally declined, but was still at extremely strong levels.

- The fundraising numbers in the chart are understated as far as new capital coming to market, 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.

- The lumpiness of the infrastructure capital raising markets is likely to continue in 2018/2019 as Stonepeak's recent $7.2 billion closing impacts 2018 numbers. Other closed-end funds either in or coming to market include very large funds from GIP, EQT, and Brookfield, while Blackstone is in the market with a very large open-end fund.

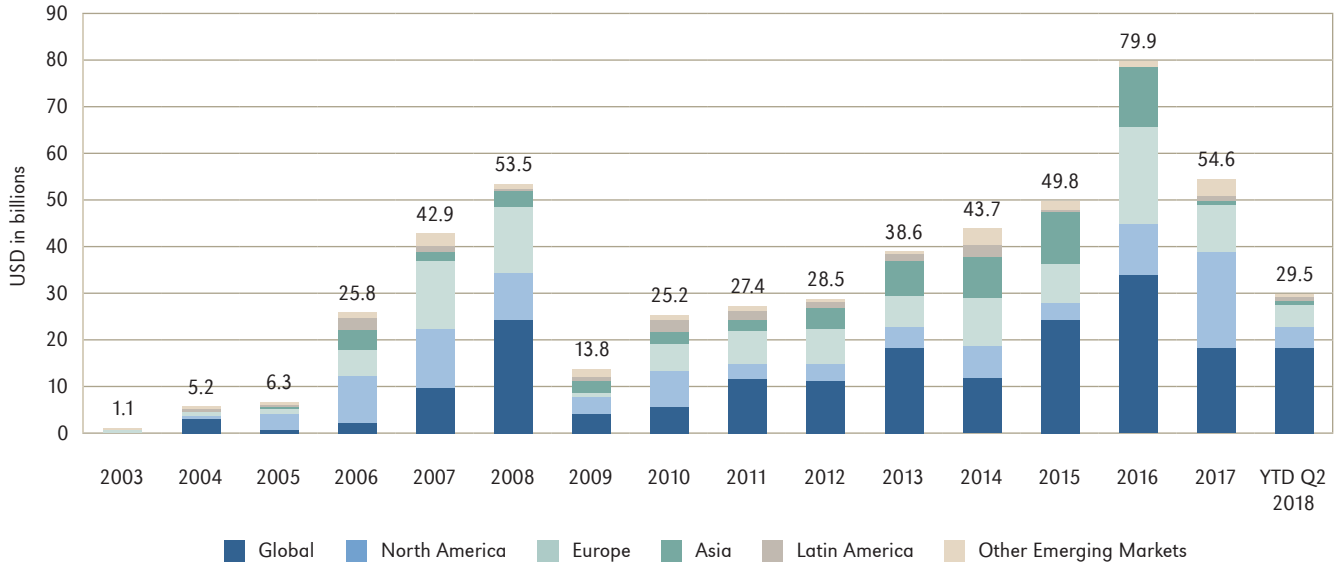
- Historically, the infrastructure market has been dominated by Global funds (usually heavily focused on developed markets) and funds targeting North America and Europe. That has indeed been the case over the last 18 months, with little interest in Asia or other emerging markets.

- Over the last decade, investors have sought higher returns, resulting in a move towards core plus and value-added strategies among closed-end funds, and away from core strategies (Chart II). However, the chart does not track investments by large institutional investors in core projects, whether made directly or through separate accounts. Not included in the 2018 numbers is Macquarie's new "Super Core" fund meant to signal a strategic return to the core market in closed-end fund format; that fund closed at €2.5 billion in July after the June cut-off date for the chart.

- Infrastructure debt funds have been a more important part of the market since the Great Financial Crisis ("GFC"), though debt fundraising in the first half of 2018 was weak.

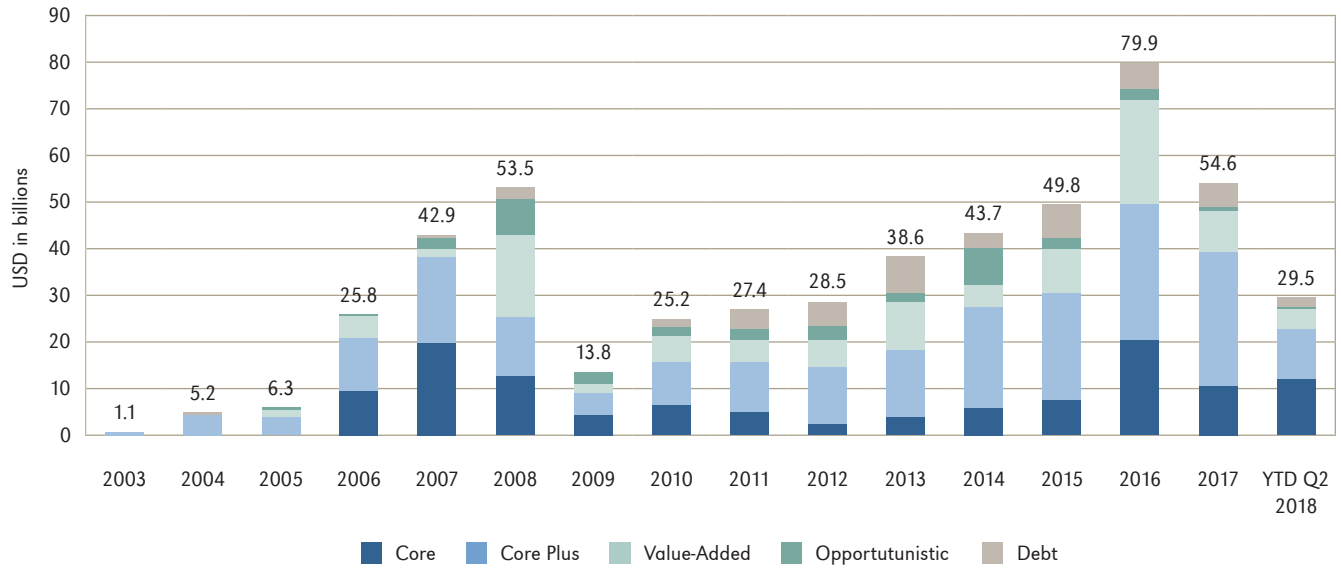
- Diversified funds (investing across two or more industry sectors) have always been dominant in the closed-end market, especially in large funds (Chart III). Industry-focused funds targeting energy and renewables have generated strong investor interest for a long time, while interest in the other sectors is more volatile annually.

Chart I Closed-End Infrastructure Fundraising (by Region)



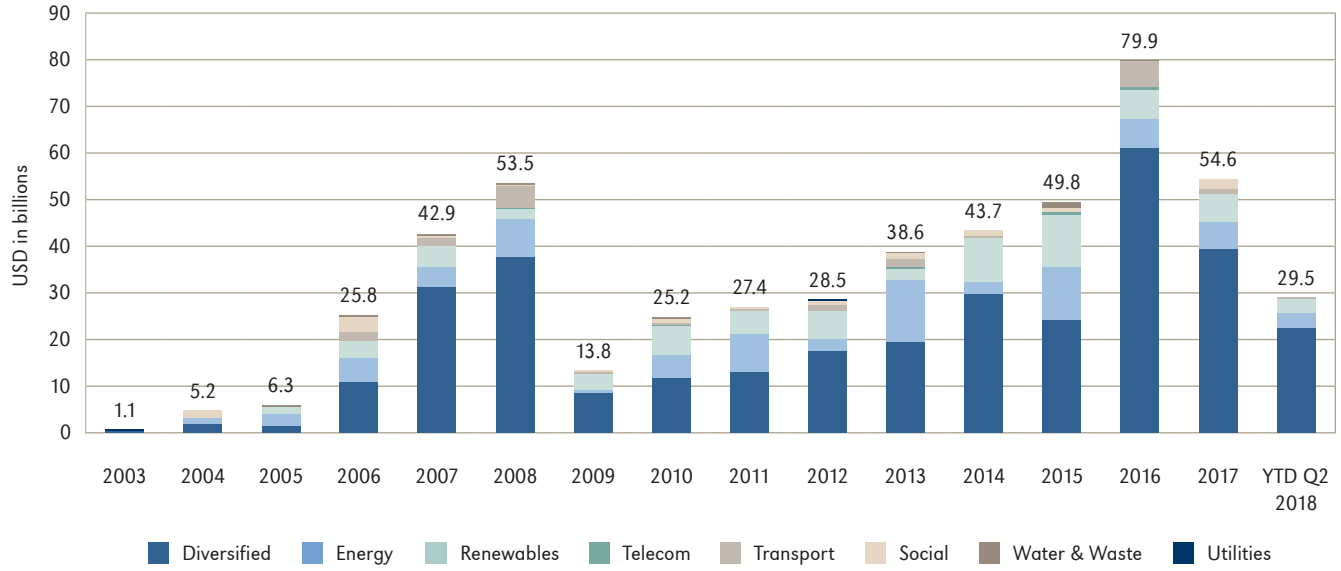
Source: Probitas Partners; PREQIN, Infrastructure Investor

Chart II Closed-End Infrastructure Fundraising (by Strategy)



Source: Probitas Partners; PREQIN, Infrastructure Investor

Chart III Closed-End Infrastructure Fundraising (by Industry)



Source: Probitas Partners; PREQIN, Infrastructure Investor

Ten Largest Infrastructure Funds

- Table I provides summary information on the largest closed-end infrastructure funds that have been raised. Brookfield or GIP raised five of these funds.
- These funds are diversified by industry and are mainly focused on projects in developed markets.
- Nine of the funds are denominated in U.S. dollars, with the Macquarie European Infrastructure Fund denominated in Euros.

Table I Ten Largest Infrastructure Funds, July 2018

Rank	Fund Name	Firm Name	Location	Year	Amount (MM)
1	Global Infrastructure Partners II	Global Infrastructure Partners	New York	2016	USD 15,800
2	Brookfield Infrastructure Fund III	Brookfield Asset Management	Toronto	2016	USD 14,000
3	Global Infrastructure Partners II	Global Infrastructure Partners	New York	2013	USD 8,250
4	Stonepeak Infrastructure Partners III	Stonepeak Infrastructure Partners	New York	2018	USD 7,200
5	Brookfield Infrastructure Fund II	Brookfield Asset Management	Toronto	2013	USD 7,000
6	GS Infrastructure Partners I	GS Infrastructure Investment Group	New York	2006	USD 6,500
6	ISQ Global Infrastructure Fund II	I Squared Capital	New York	2018	USD 6,500
8	KKR Global Infrastructure Investors III (1)	KKR	New York	2018	USD 6,000
9	Macquarie European Infrastructure Fund II	Macquarie Infrastructure and Real Assets	Sydney; London	2006	EUR 4,635
10	Global Infrastructure Partners I	Global Infrastructure Partners	New York	2008	USD 5,640

Source: Probitas Partners
(1) Based on KKR's first close of $6bn; total target is $7bn

Infrastructure Institutional Investor Survey

On an annual basis, Probitas Partners surveys institutional investors globally to determine how their interests in and perspectives on infrastructure have developed.

Highlights of Survey Findings

- ***Investors' greatest fears — too much money flooding in at the top of the market.*** Investors are almost always concerned that too much money is coming into the market, creating diminished returns for new investments. Fears of the market cycle hitting a top have also soared over the last two years; these two fears represent by far the most significant concerns of investors.

- ***Despite investors' largest fears, their appetite for infrastructure remains strong.*** Though fundraising for infrastructure has been strong over the last few years and investors' market fears have increased, 91% of investors report that they will either maintain or increase their investment pace over the next year.

- ***Investors seek higher returns in a market where returns are under pressure, resulting in continuing shifts in interest towards value-added funds and away from core.*** Though this is true for funds, there is still interest in core projects done on a direct basis by large investors — though they are beginning to be concerned as well that they are not getting paid for the risks they are assuming.

- ***There was some decline in interest in energy and power exposure in 2018.*** It is uncertain whether this is a long-term trend or a single year's aberration in reaction to substantial legacy energy exposure in prior funds, but the decline was noticeable.

- ***Investors are less interested in Public Private Partnerships ("PPPs") than they are in independent projects.*** This is the first year we asked this question. While 37% of respondents were interested in portfolios that combined PPPs and independent projects, 30% were interested in portfolios composed solely of independent projects, and only 3% were interested in pure PPP portfolios.

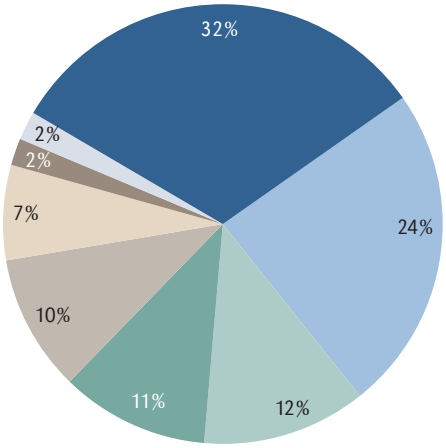
Appetite for infrastructure remains strong . . . 91% of investors report that they will either maintain or increase their investment pace over the next year.

Profile of Respondents

- A significant number of insurance companies, consultants, funds-of-funds, and public pension plans responded to the survey, making up 79% of the respondents (Chart IV).
- Over 50% of respondents were headquartered in the U.S., with 17% from Europe and 22% from Asia (Chart V).
- Over 40% are active investors in the sector, with five years or more of experience, with another 22% being active for at least a year and a further 22% being consultants whose clients have a variety of levels of experience (Chart VI).

Chart IV Respondents Categorized by Investor Type

I represent a/an:

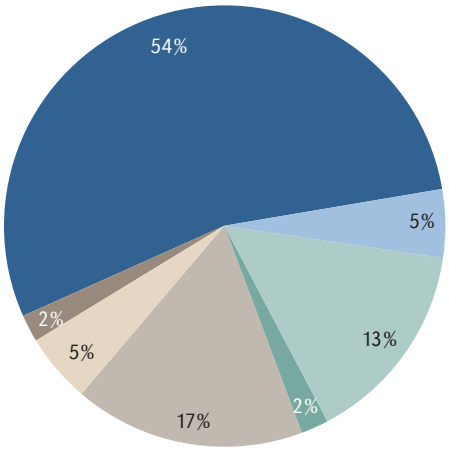


- Insurance Company
- Consultant/Advisor
- Fund-of-Funds Manager
- Public Pension/Superannuation Plan
- Asset Manager
- Endowment or Foundation
- Family Office
- Corporate Pension/Superannuation Plan

Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

Chart V Respondents Categorized by Firm Headquarters

My firm is headquartered:

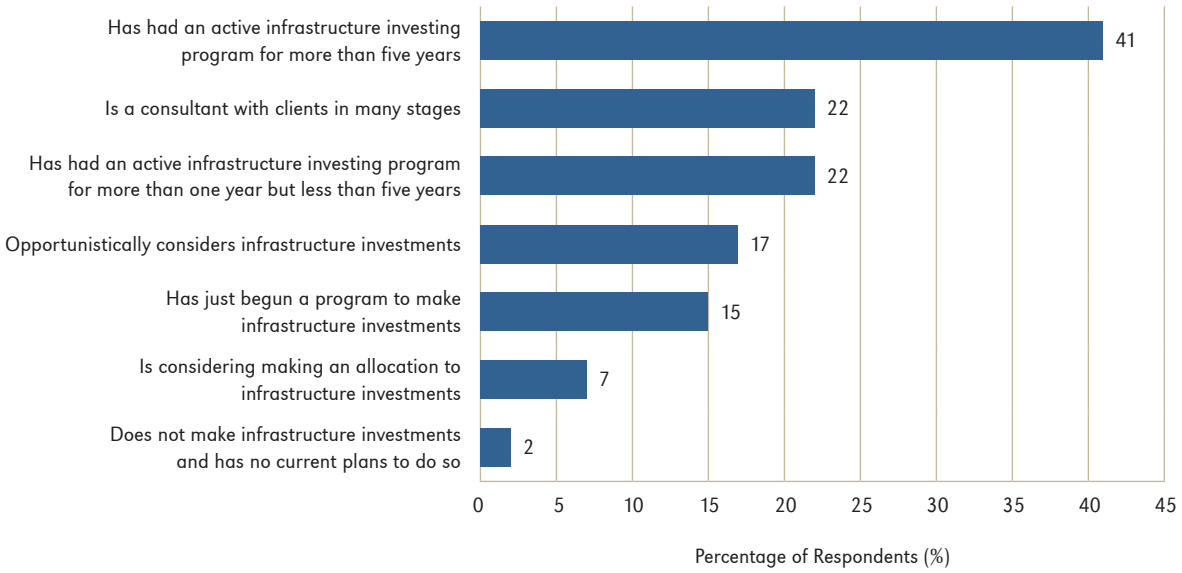


- United States
- Canada
- Western Europe ex-UK
- United Kingdom
- Asia ex-Japan
- Japan
- Middle East

Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

Chart VI Experience Level of Respondents

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

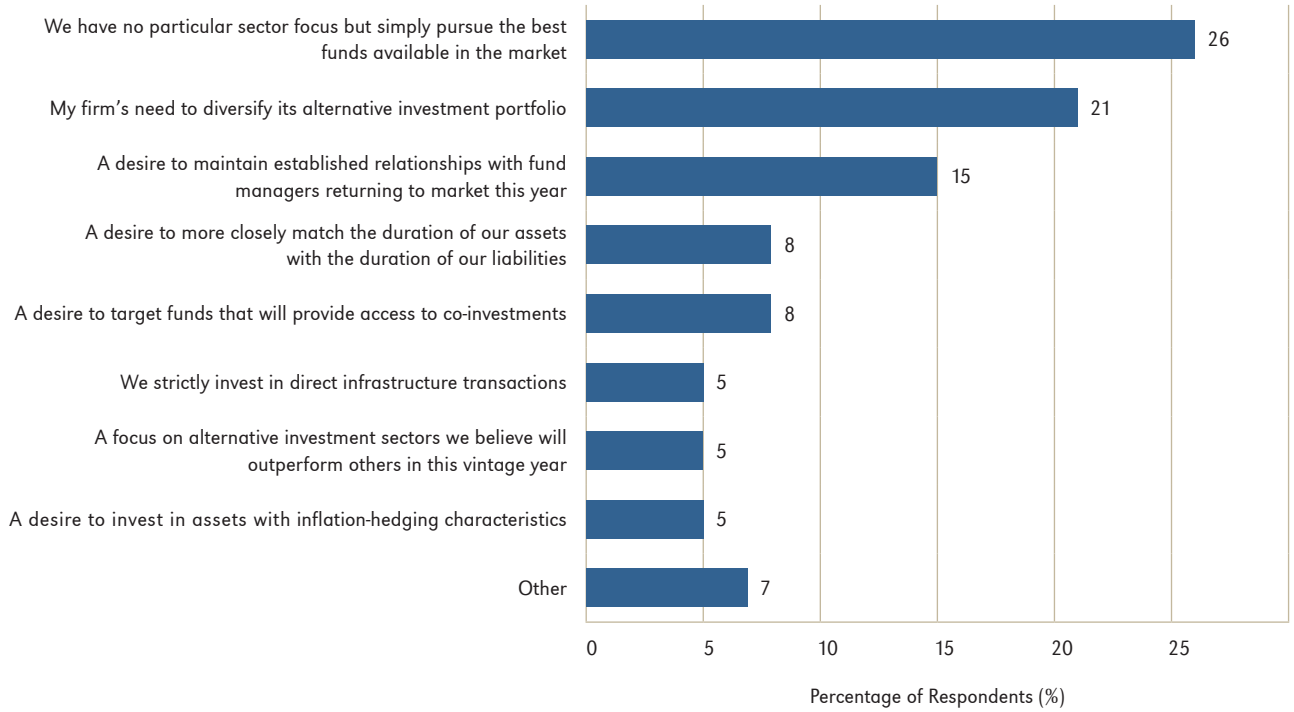


Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

- In our 2015 survey, the driving factor behind respondents' investment decisions was more concentrated, with 41% of respondents simply targeting the best funds available in the market (Chart VII). Since then, the drivers of investment decisions have become much more dispersed. Interestingly, access to co-investment as a driver of interest declined over this period, with only 8% of respondents focused on it.

Chart VII Drivers for Sector Target Focus

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



Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

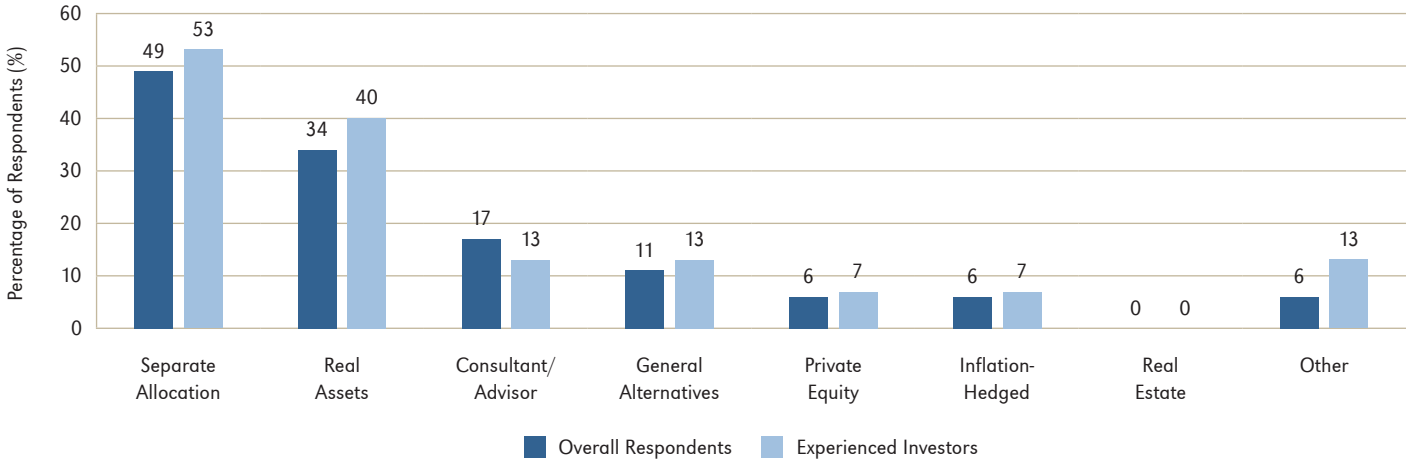
In our 2015 survey, the driving force behind respondents' investment decisions was more concentrated, with 41% of respondents simply targeting the best funds . . . drivers of investment decisions have become much more dispersed.

Plans for Infrastructure Investing

- As the infrastructure market has matured over the last decade, investors have increasingly created separate infrastructure allocations in their portfolios (Chart VIII). As far as investors who are making commitments from real asset allocations, a few respondents have separate sub-allocations for infrastructure within an overall real asset allocation.
- In our first infrastructure survey in 2007, 11% of respondents said their infrastructure investment came from real estate allocations, while no respondents had infrastructure allocations within their real estate bucket over the last three years.
- For consultants and advisors, their clients individually determine their allocations, so they are listed separately.

Chart VIII Categorizing Infrastructure

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



Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey
Note: "Experienced Investors" constitutes those investors who have been active in the sector for five years or more.

- Respondents are more positive going into the next 12 months than in 2017, indicating that their appetites for infrastructure investments will increase, with North Americans feeling this slightly more strongly (Chart IX).

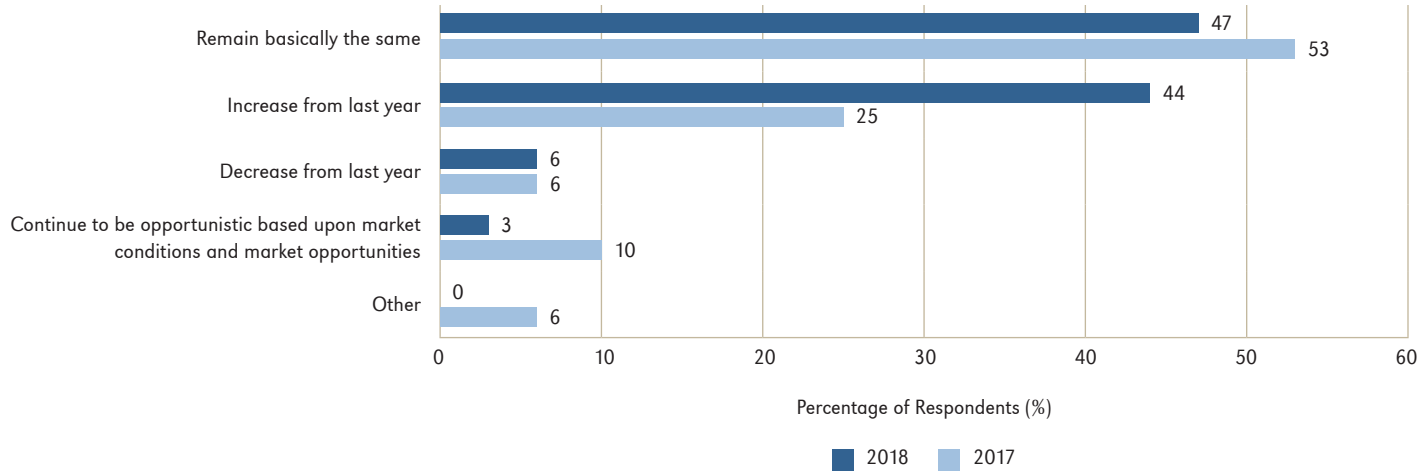
- The respondents to the survey include both those with limited commitment ability as well as some substantial investors looking to commit $500 million or more (Chart X). Those respondents who said they did not have a specific allocation are either consultants whose clients determine allocation or those who invest opportunistically.

- All of the active infrastructure investor respondents indicated that they were committing to closed-end infrastructure funds (Chart XI).

- Co-investments and open-end funds also had a significant number of adherents, while there was little interest in funds-of-funds.

Chart IX Appetite for Infrastructure

Compared to last year, I believe that my firm's appetite for infrastructure investments for the next twelve months will:

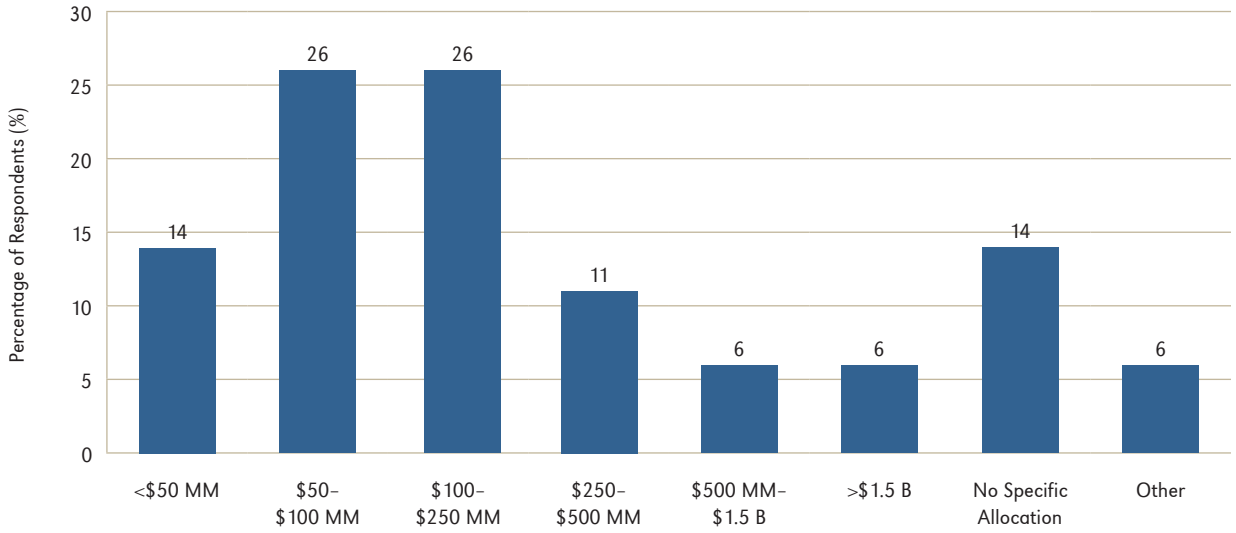


Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

Respondents are more positive going into the next 12 months than in 2017, indicating that their appetites for infrastructure investments will increase.

Chart X Infrastructure Allocations

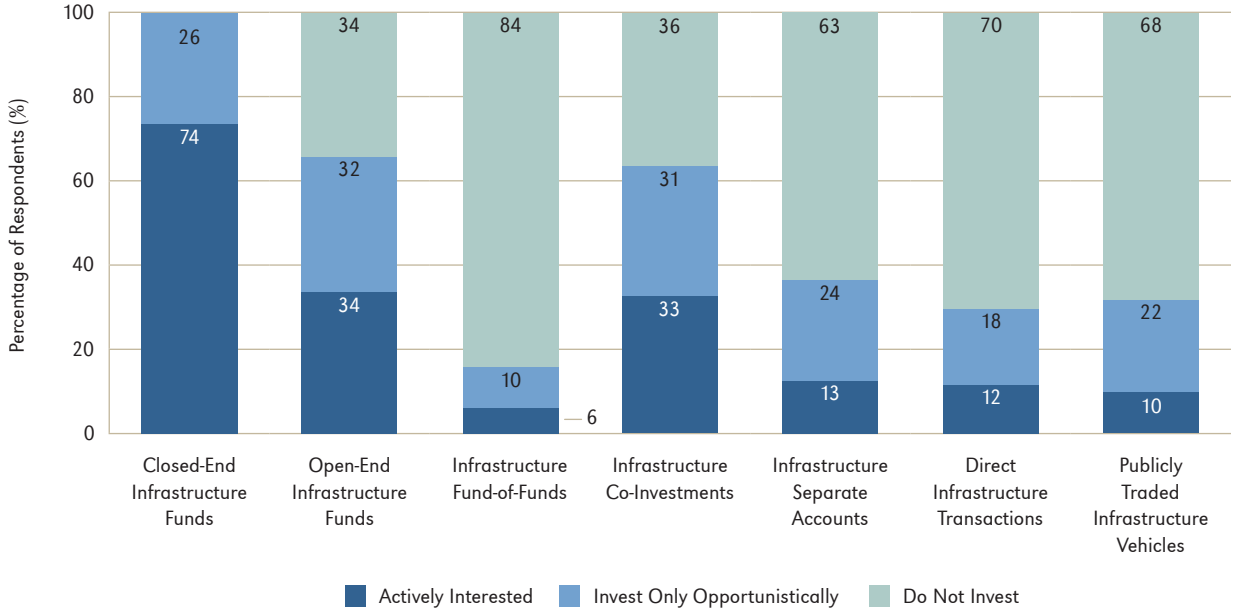
Over the next year, our allocation to infrastructure commitments will be (in USD):



Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey
Note: Total is greater than 100% of respondents as a few investors had multiple responses.

Chart XI Interest in Investment Structures

My firm's interest in various investment structures is in:



Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

Sectors, Industries, and Geographies of Interest

- Continuing a trend that started in 2017, respondents are moving up the risk spectrum, seeking higher returns in a market where core returns are under pressure, with value-added funds being the beneficiary (Chart XII).

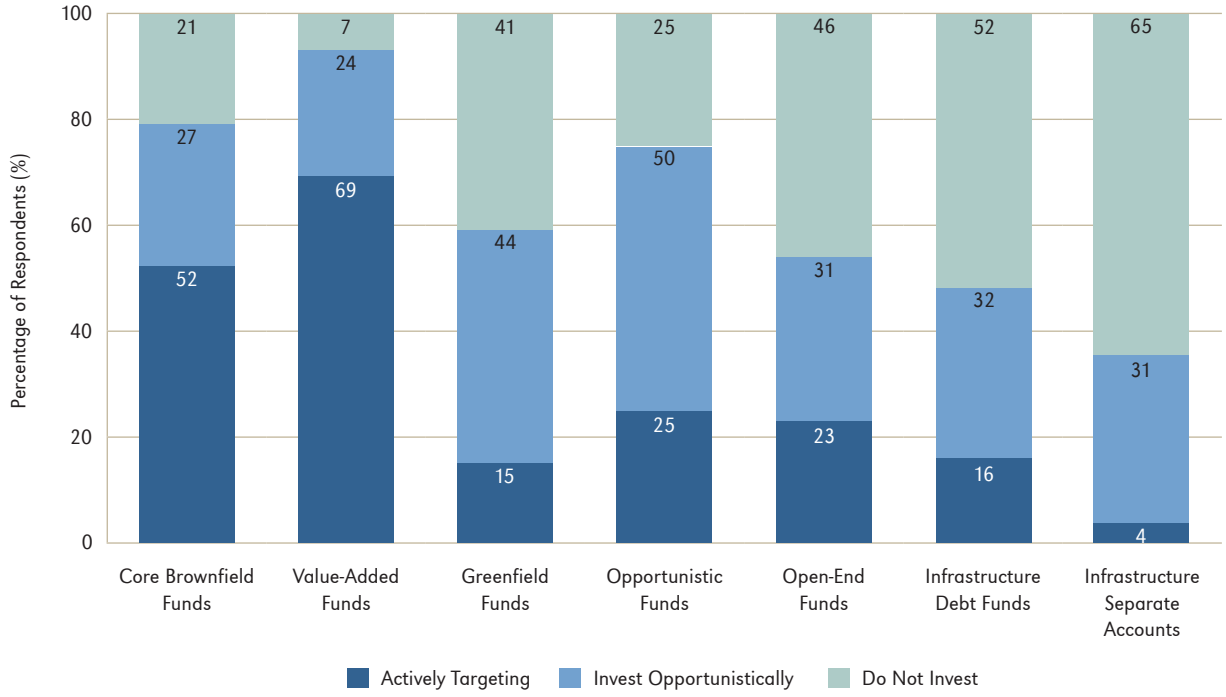
- Even though infrastructure debt funds scored relatively little interest compared to other strategies in 2018, the 16% of respondents actively targeting such funds is a dramatic increase from 3% in 2017.

- As far as industry sectors are concerned, the most significant change from 2017 is the fall in interest in energy and power (Chart XIII). In this sector, there is also a distinct difference between North American investors, 63% of whom are interested in energy and power, and investors from other geographies, only 43% of whom targeted the sector.

- This year we asked for the first time whether respondents are interested in funds that are diversified by sector but limited in exposure to energy and power. 20% responded "yes," a significant portion compared to the 43% who said that they were only interested in diversified funds.

Chart XII Interest in Fund Strategies

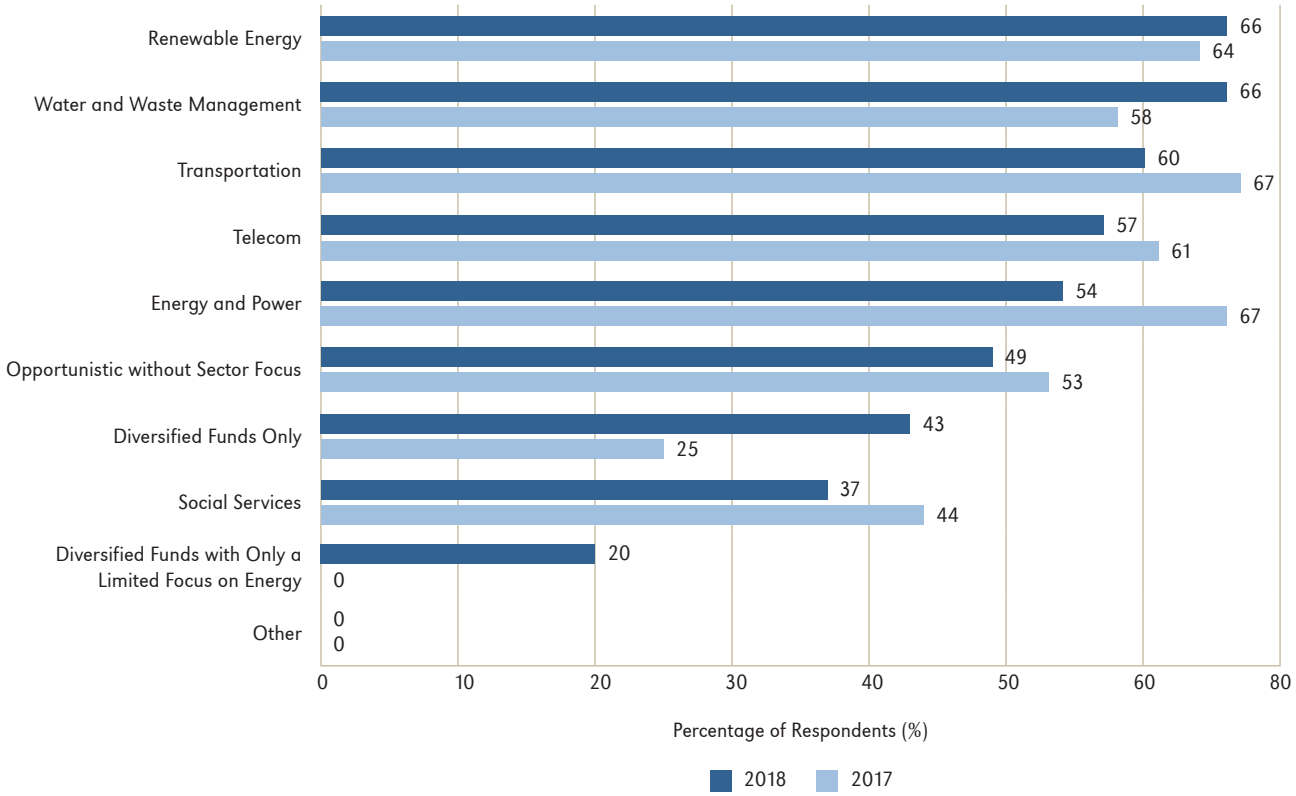
My firm's interest in various fund strategies is in:



Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

Chart XIII Infrastructure Industry Sectors of Interest

My firm seeks to invest in the following sectors (choose all that apply):

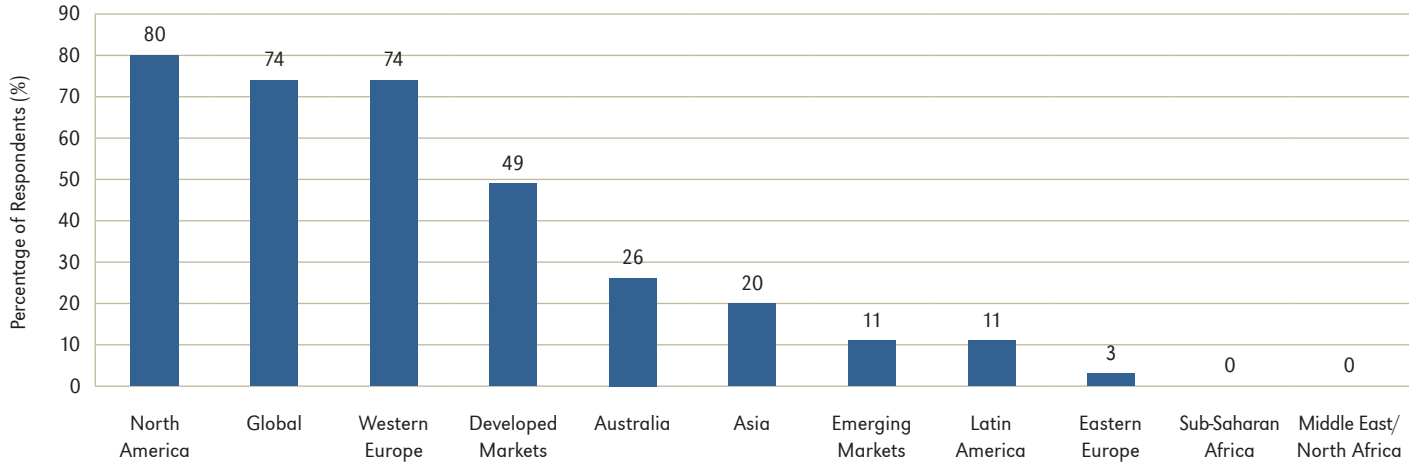


Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

- The developed markets of North America and Europe continue to be the leading geographies of interest, along with global funds that usually focus on OECD countries (Chart XIV). Emerging market interest in specific geographies remained weak and retreated slightly again this year.
- When asked specifically about their interest in emerging markets, however, respondents' interest in emerging markets rebounded somewhat from 2017's very low levels due to these markets' long-term growth potential (Chart XV).

Chart XIV Geographic Focus

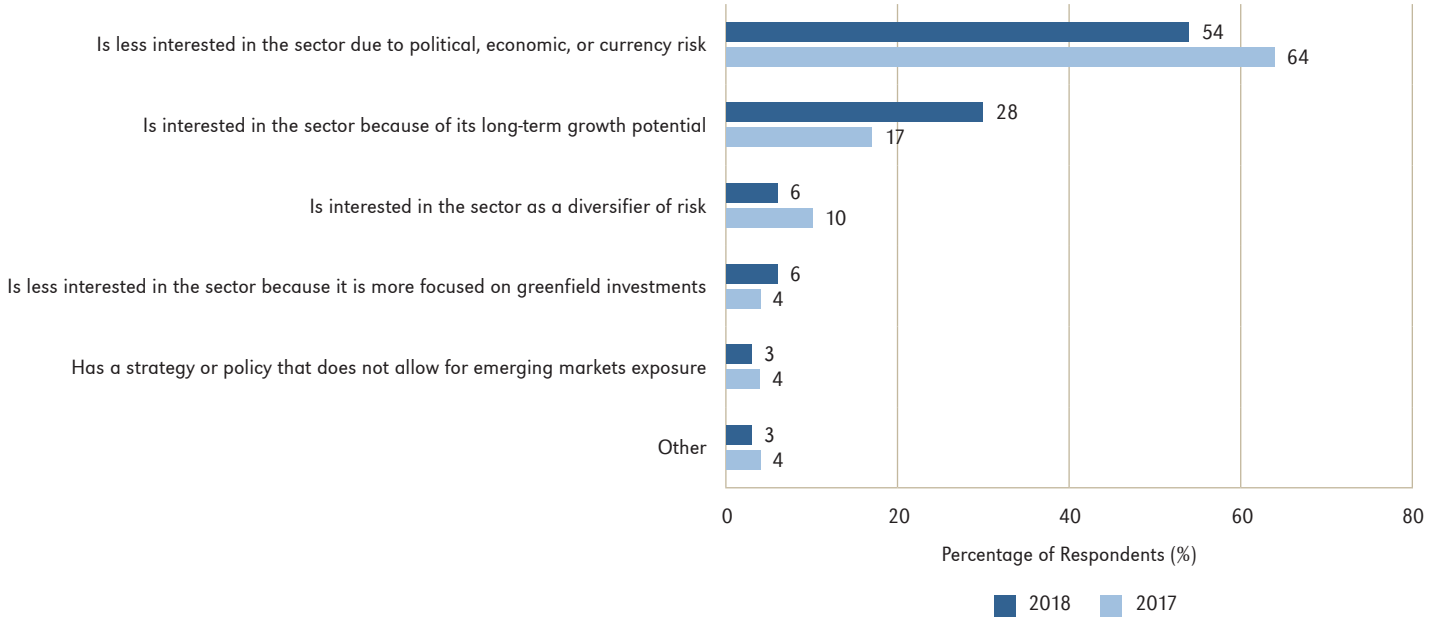
My firm invests in infrastructure funds with investment mandates focused on (choose all that apply):



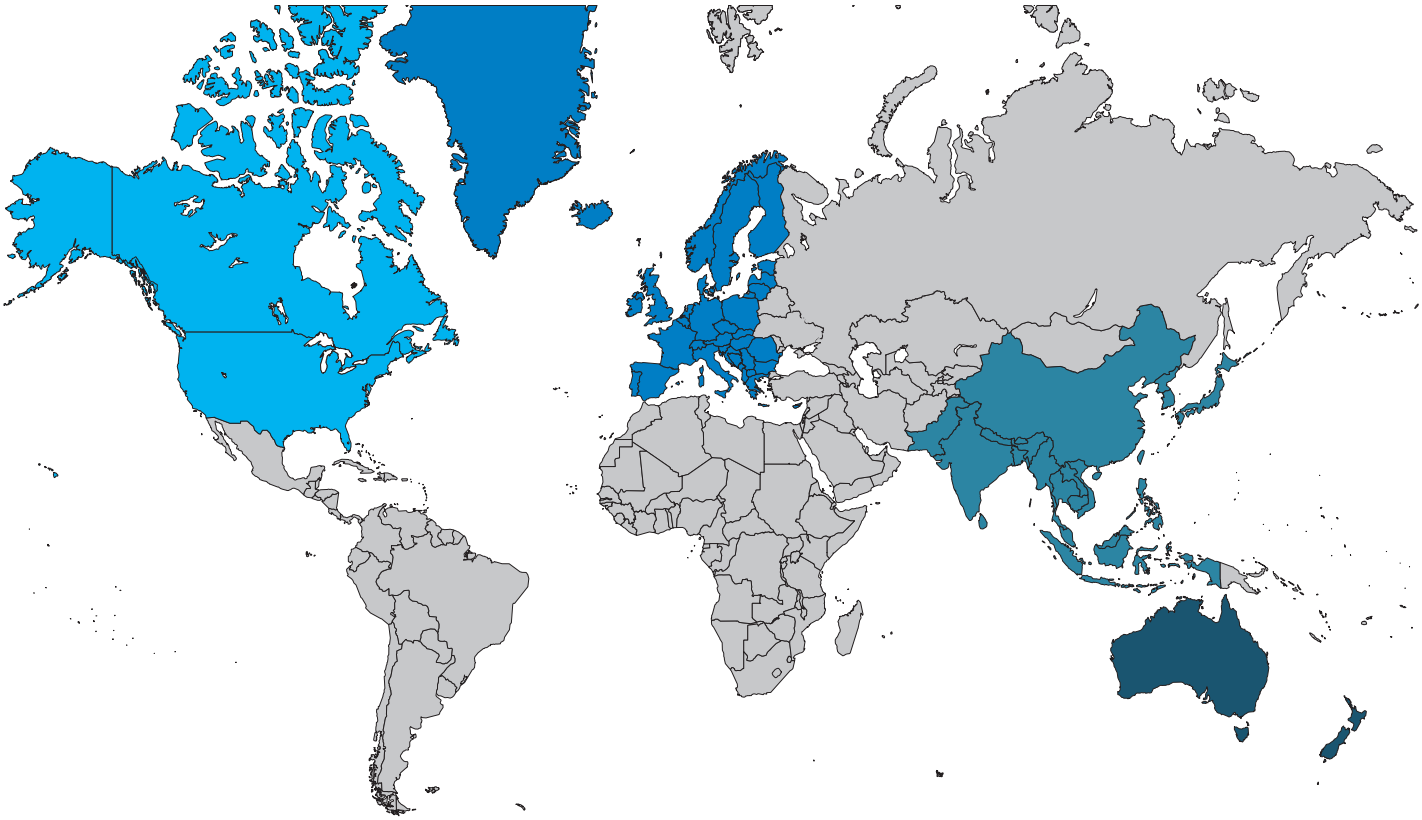
Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

Chart XV Interest in Emerging Markets

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



Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey



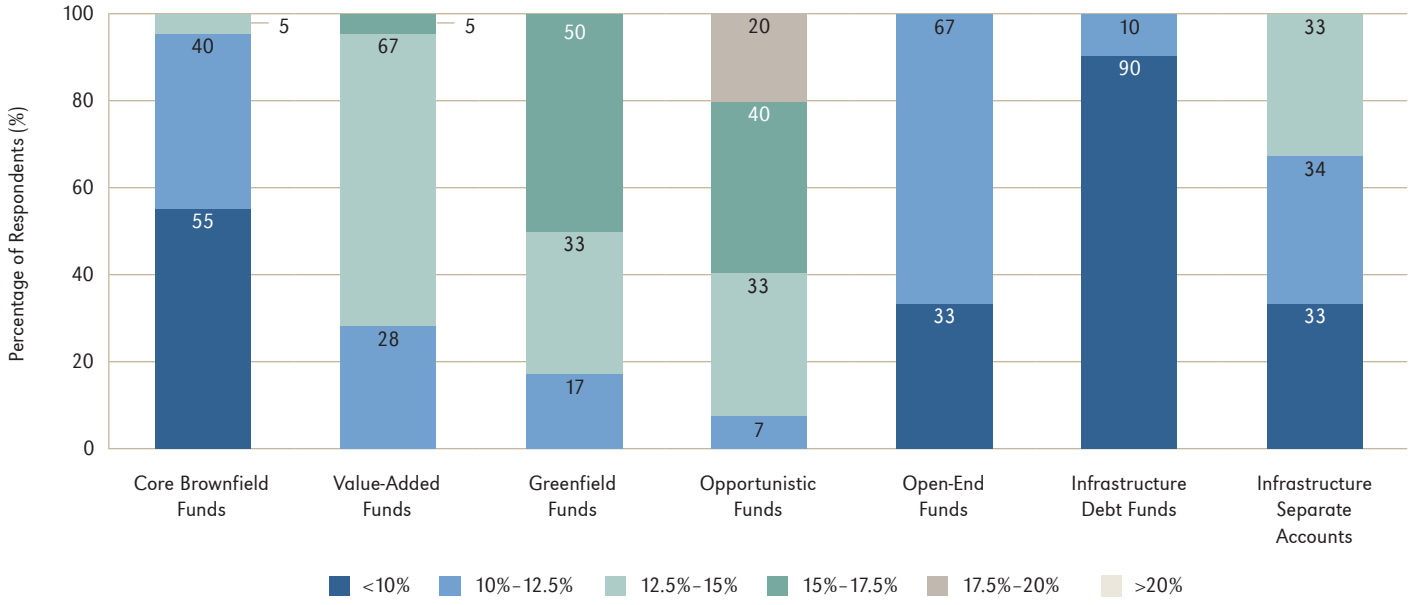
Emerging market interest in specific geographies remained weak and retreated again slightly this year.

Targeted Returns and Fees

- For the four major equity fund types, investor return expectations are driven by perceived risk, as outlined in Chart XVI:
  - 95% of investors expect returns on core brownfield funds to be less than 12.5%, while their expectations for opportunistic funds are much closer to those for private equity funds.
  - Open-end funds have heavy allocations to core brownfield projects, and it is not surprising that their return expectations are like core funds.
  - Debt funds have the lowest expectations, with 90% of investors expecting returns of less than 10%.
  - With separate accounts, the actual mix of project types allowed is negotiated, though there is often a substantial allocation to core projects.
- What investors expect to receive in returns also drives what they are willing to pay in management fees and carried interest (Charts XVII and XVIII):
- The pattern of higher fee and carry expectations moving along with higher expected returns for the four major equity strategies (plus debt funds) is apparent.
- Separate accounts are not typical third-party fund vehicles but negotiated structures, with a single investor making a significant commitment. They are executed with a steep discount in fees and carry in exchange for that commitment.
- Open-end funds are somewhat different. Though the management fee on open-end funds is usually much lower on a stated percentage basis, it is generally calculated on the basis of Net Asset Value, not on committed or drawn-down capital. Since open-end funds are geared towards long-term holds, that difference in the calculation means that the actual amount paid in fees steadily increases over time.

Chart XVI Target Net IRRs

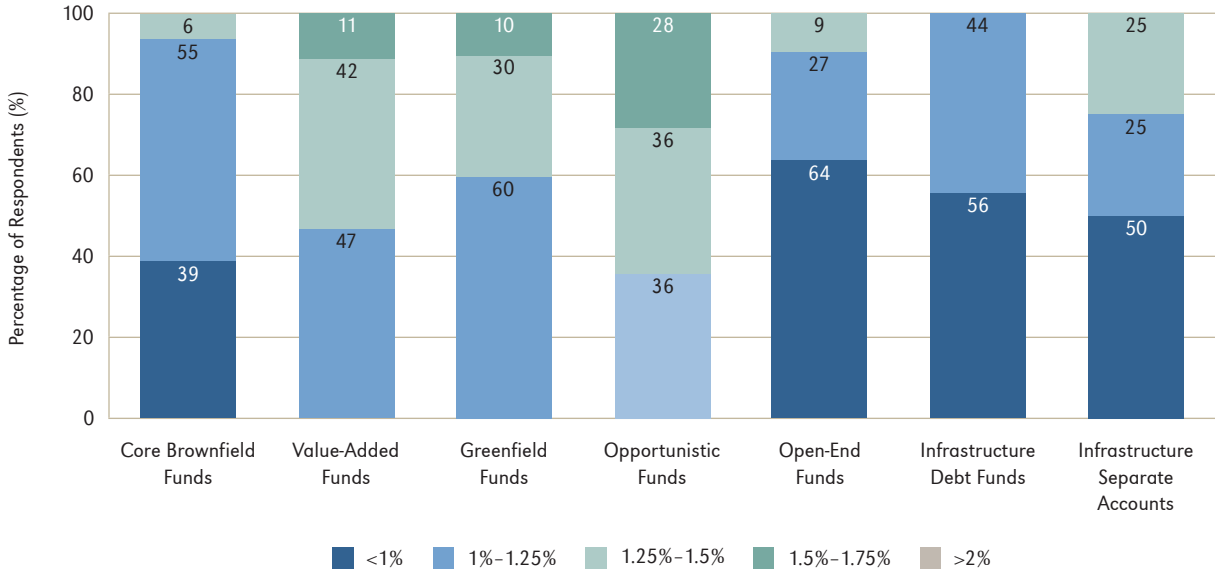
For the major sectors of closed-end infrastructure funds operating in developed markets, my firm's target Net IRRs are as follows:



Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

Chart XVII Targeted Annual Management Fees

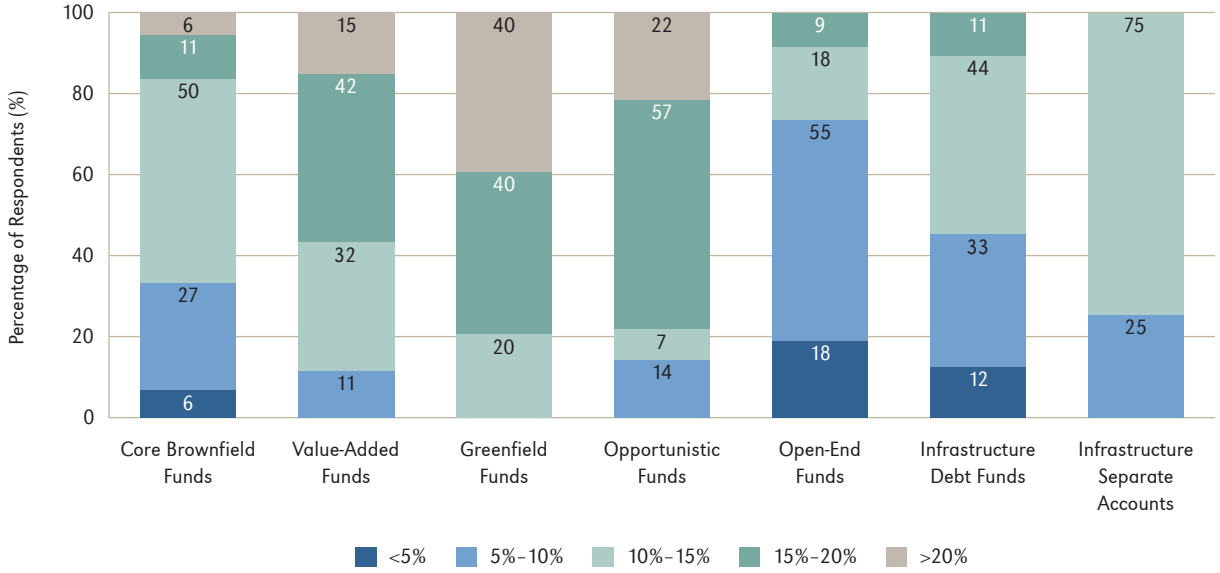
For the major sectors of closed-end infrastructure funds operating in developed markets, my firm's targeted management fees are:



Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

Chart XVIII Targeted Carried Interest

For the major sectors of closed-end infrastructure funds operating in developed markets, my firm's targets for carried interest are:

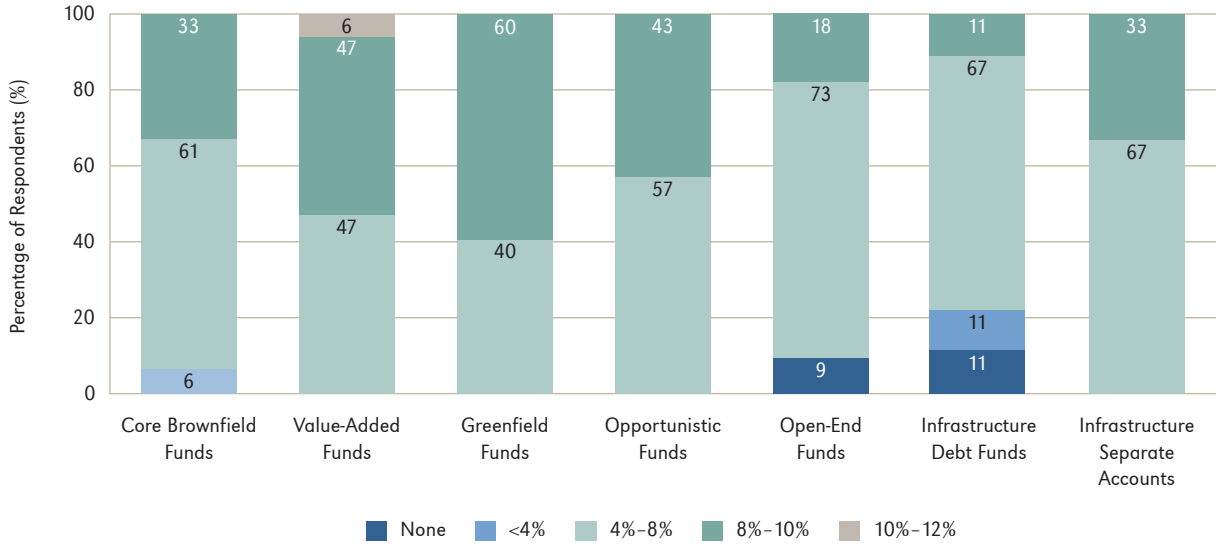


Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

- The pattern of expectations regarding carry hurdles is similar, with higher return strategies having higher hurdles (Chart XIX).
- Unusually, a few investors expected no hurdles at all for infrastructure debt and open-end funds.

Chart XIX Carried Interest Hurdles

For the major sectors of closed-end infrastructure funds operating in developed markets, my firm's targets for carry hurdles are:



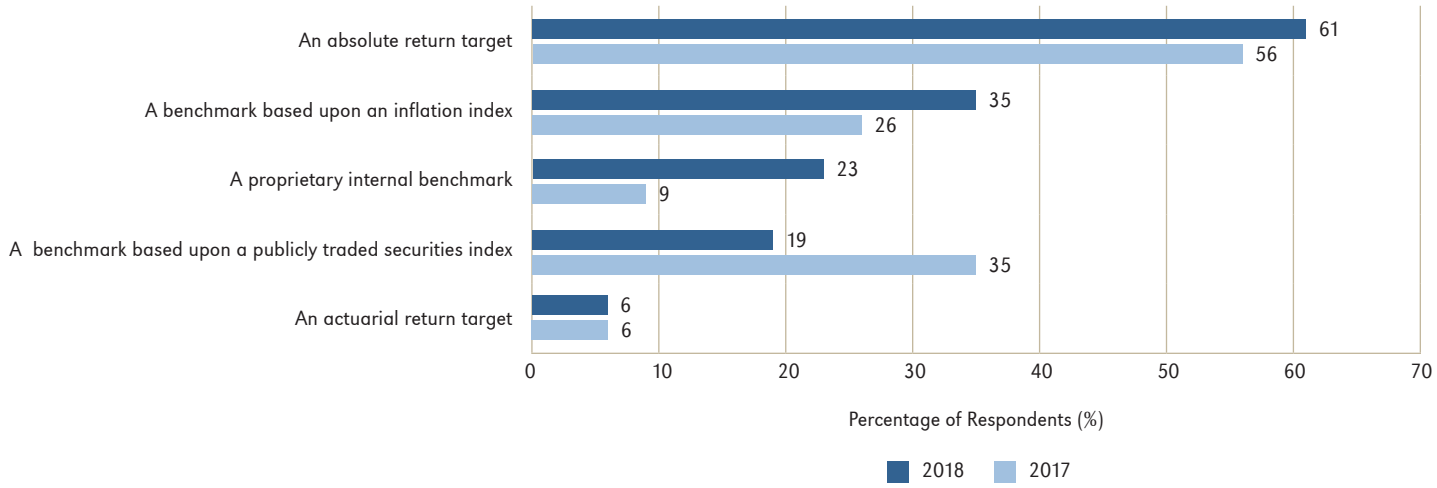
Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

Portfolio Benchmarks

- Absolute return targets are the only benchmark that a majority of investors use, and interest in them increased slightly from 2017 (Chart XX). Interest in other benchmarks flip-flopped compared to 2017, with no clear trend.
- Certain respondents use a number of benchmarks, resulting in the sum of all responses totaling more than 100%.

Chart XX Portfolio Benchmarks

Regarding portfolio benchmarks for infrastructure, my firm uses (choose all that apply):



Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

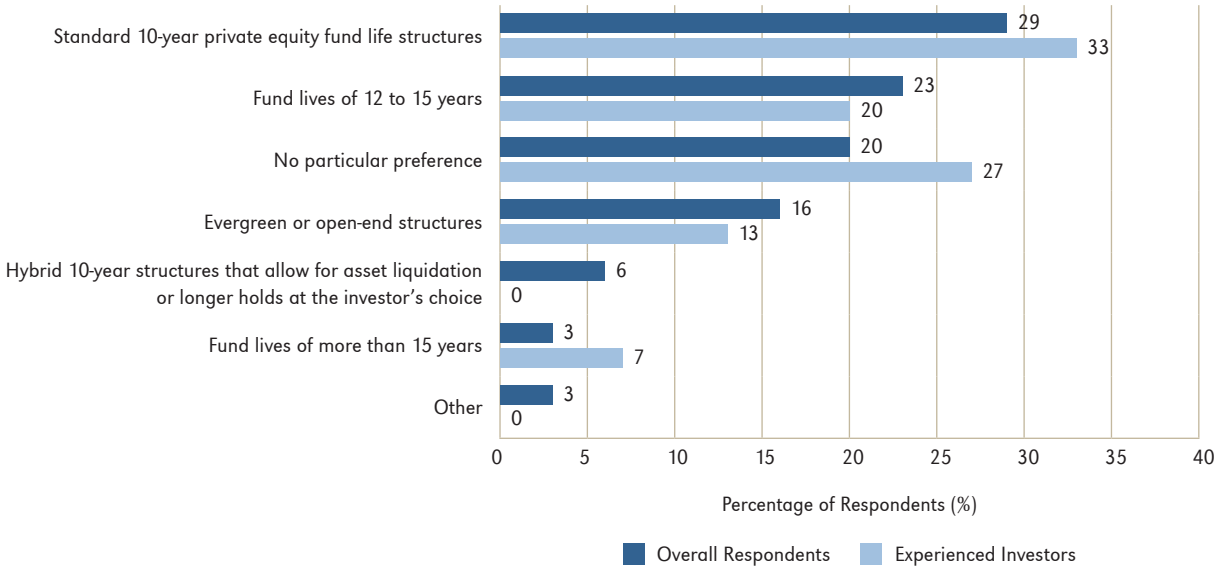
Absolute return targets are the only benchmark that a majority of investors use.

Investment Structures

- The potential to build very long-dated infrastructure cash flows means that there is much higher diversity in term structures than there is in private equity.
- In past years there were starker differences for vehicle structures between experienced and less experienced investors than is the case in 2018 (Chart XXI). A plurality of respondents was in favor of 10-year life structures, though over the last few years interest in fund lives of 12 to 15 years has continued to increase.
- Investors continue to prefer independent managers to sponsored vehicles, though over the last year that difference of opinion has narrowed (Chart XXII).
- Infrastructure is different from other areas of alternatives because there are a significant number of government projects structured as PPPs. However, the governmental process of awarding PPPs can be difficult, and the attractiveness of these contracts can change as governments change. Chart XXIII focuses on the attractiveness to investors of PPPs, and though the leading response (from 37% of investors) is that they prefer funds with a mix of independent projects and PPPs, only 3% of respondents were interested in vehicles that strictly focused on PPPs.

Chart XXI Preferred Terms Structures, 2018

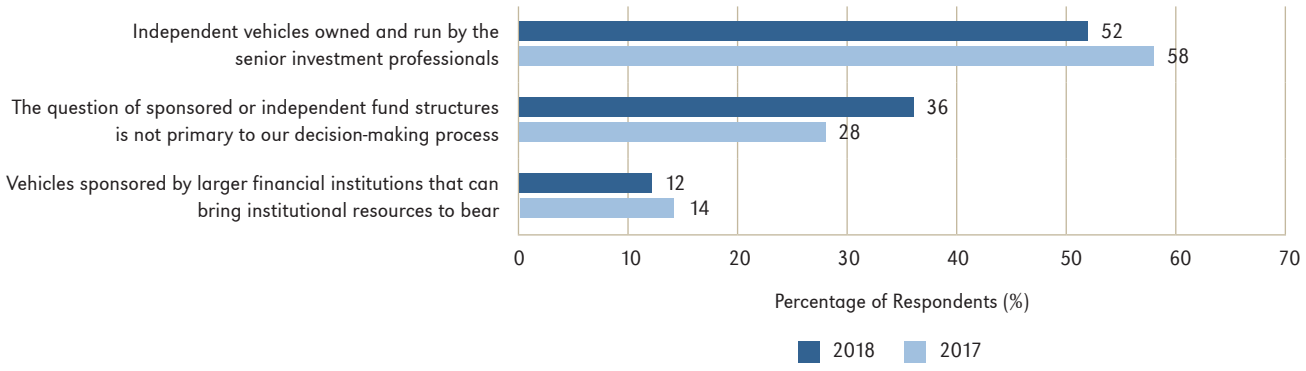
My firm prefers to invest in vehicles with the following duration:



Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey
Note: "Experienced Investors" constitutes those investors who have been active in the sector for five years or more.

Chart XXII Independent vs. Sponsored Fund Structures

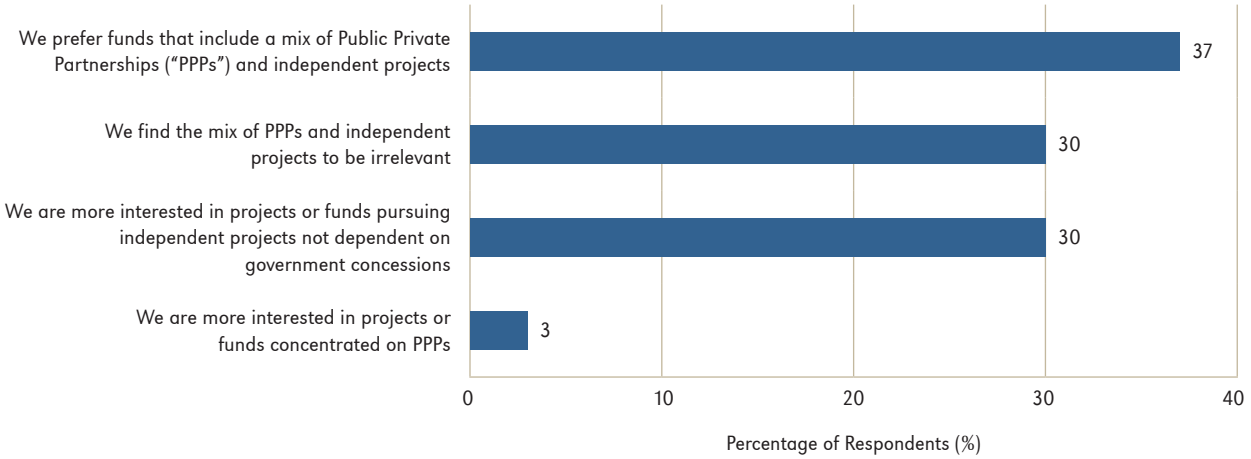
As far as terms and conditions are concerned, we would prefer to invest in funds that are (choose only one):



Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

Chart XXIII Public Private Partnerships

As far as project structures are concerned:



Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

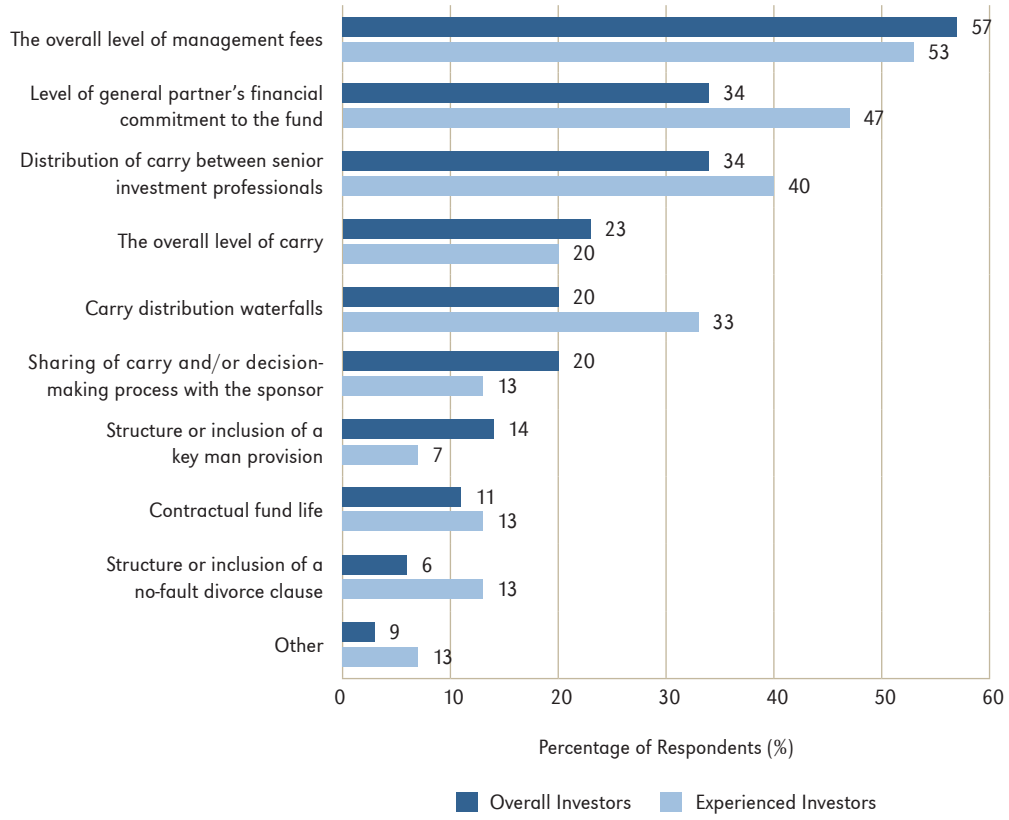
Only 3% of investors were interested in vehicles focused on PPPs.

Terms and Conditions

- The top three areas of focus for fund terms and conditions are the level of management fees, the amount of the fund manager's financial commitment to the fund, and the distribution of carry among senior investment professionals (Chart XXIII). Though there are differences in emphasis between overall and experienced respondents, the top three concerns are the same in both cases.
- Experienced investors were considerably more interested in carry distribution waterfalls than less experienced investors.

Chart XXIV Terms and Conditions Focus

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



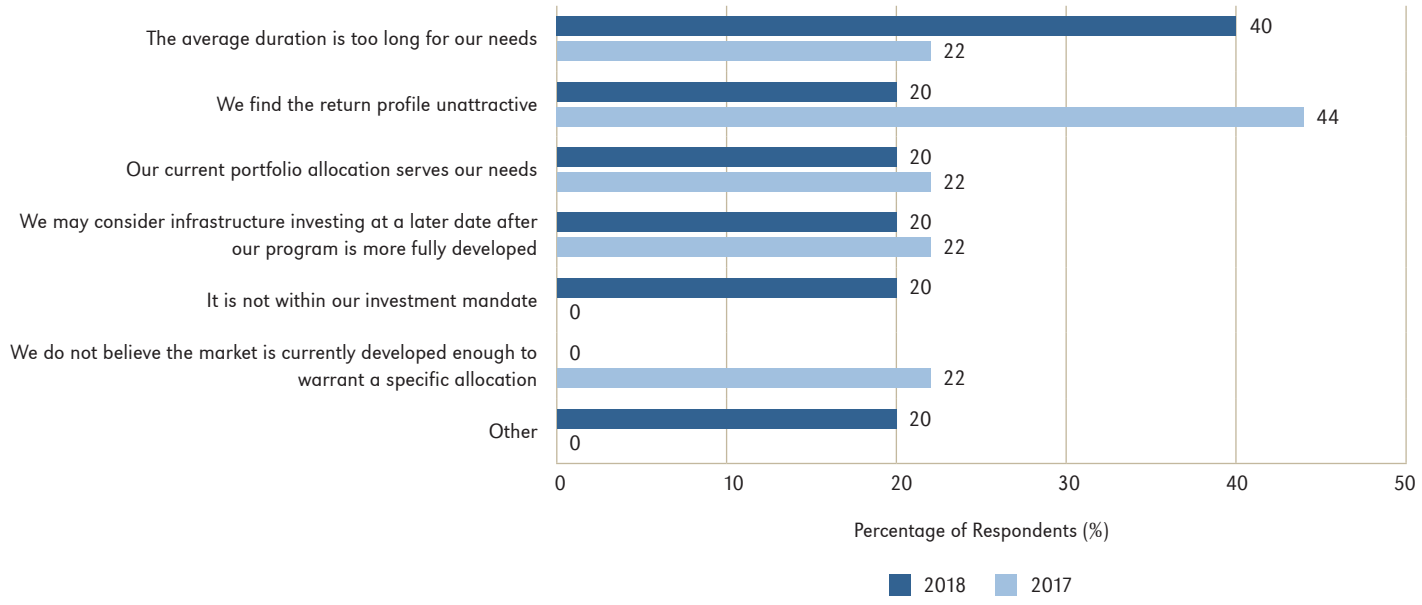
Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey
Note: "Experienced Investors" constitutes those investors who have been active in the sector for five years or more.

Reasons for Not Investing

- For the few respondents who were not actively investing in infrastructure, 40% felt that the average duration of the investments was too long for their needs, a significant change from 2017 when 44% believed the return profile was unattractive (Chart XXV).

Chart XXV Reasons for Not Investing in Infrastructure

My firm is not interested in infrastructure because (choose all that apply):



Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

Infrastructure Investment Concerns

- To provide perspective, Table II compares the top concerns from Probitas' 2010 survey tracking the aftermath of the GFC to the current top results.
- Though there are differences in the two periods, what is most notable is that the 2010 list is tightly clustered, with the top three responses equally weighted. There was a much wider spread among the top answers in 2018, with two responses — too much money coming into the sector and the fear that we are at or nearing the top of a market cycle — clearly of greatest concern.
- 2018's top two concerns are the same as they were in 2017.
- Chart XXVI on the next page provides details on all the responses.
- There was also one significant "Other" response from an investor:
  - *The impact of inflation on asset costs/revenues and rising interest rates. Whether existing fund investments will be liquidated at current values (or better).*

Table II What Keeps You Up at Night?
Top Four Responses

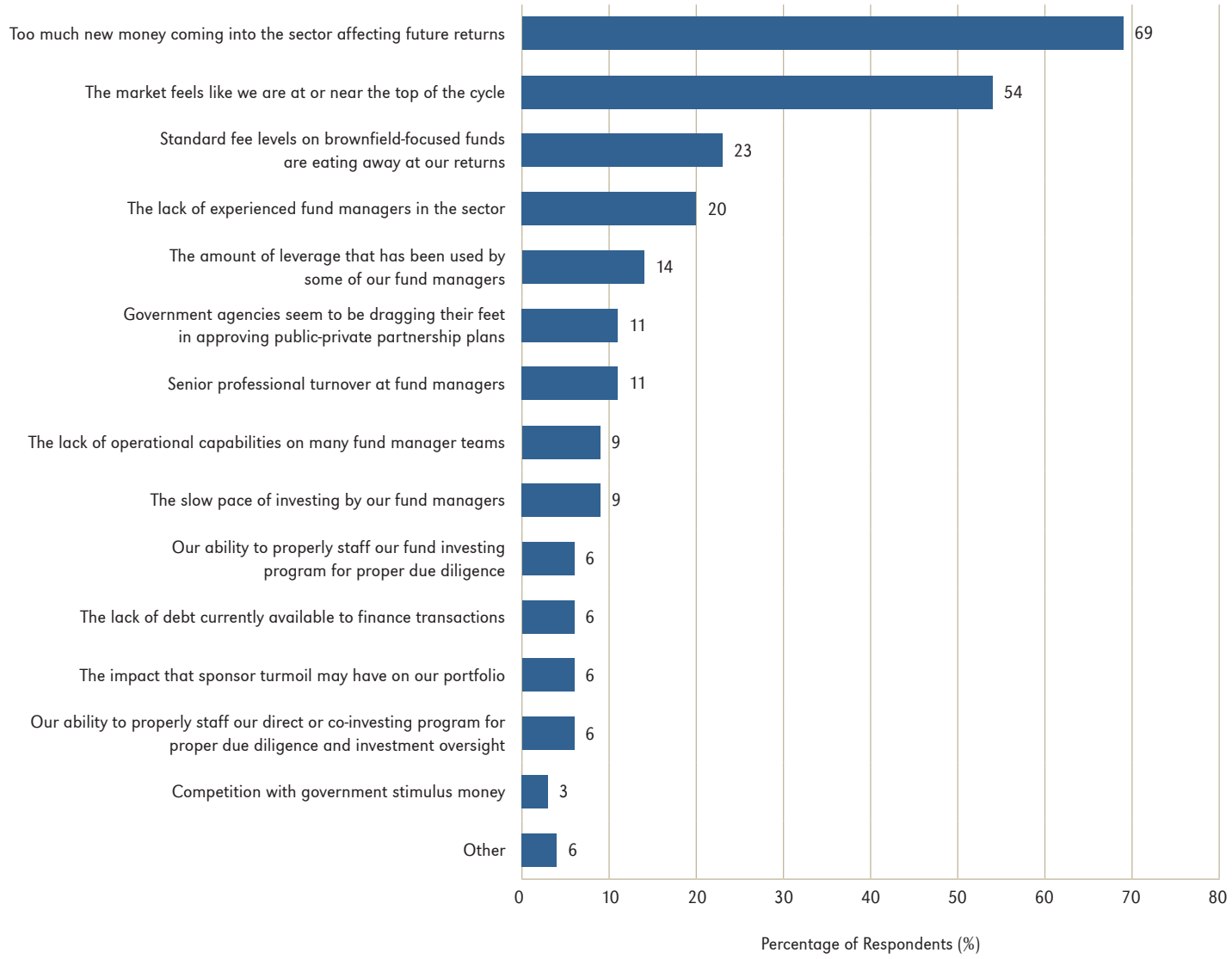
2010	
Issue	%
The lack of experienced fund managers in the sector	34%
Too much new money coming into the sector affecting future returns	31%
The amount of leverage that has been used by some of my fund managers	28%
Standard fee levels on brownfield-focused funds are eating away at my returns	23%

2018	
Issue	%
Too much new money coming into the sector affecting future returns	69%
The market feels like we are at or near the top of the cycle	54%
Standard fee levels on a core brownfield-focused funds are eating away at my returns	23%
The lack of experienced fund managers in the sector	20%

Source: Probitas Partners' Infrastructure Institutional Investor Trends Survey, 2010 & 2018

Chart XXVI Infrastructure Investing Concerns

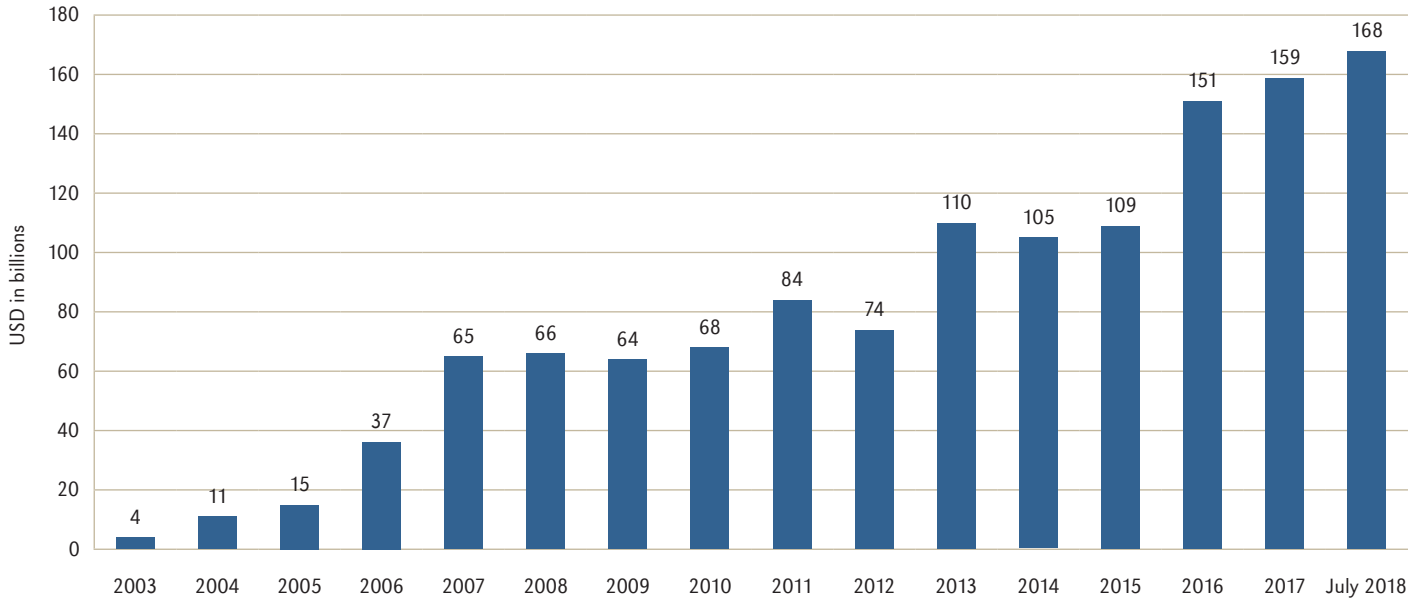
As an infrastructure investor, what keeps you up at night? (choose no more than two):



Source: Probitas Partners' Infrastructure Institutional Investor Trends for 2018 Survey

Chart XXVII Infrastructure Dry Powder

Closed-end infrastructure funds



Source: PREQIN

Key Trends

Besides issues covered in the survey, our 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:*** These projects have the lowest risk/return profile in infrastructure (unless they are highly-leveraged), and many of these projects have long maturities attractive to investors seeking to match asset/liability risk in their portfolios. Many of these projects are pursued directly outside fund structures by sophisticated investors, who believe that returns on core investments are attractive on a direct basis but cannot support the usual fee and carry of a fund structure. Also, aggressive competition for these core assets by a growing universe of direct investors continues to drive return expectations even lower, with certain investors fearing that they are no longer receiving enough return to compensate for the risk being taken.

- ***The most typical closed-end structure remains the 10-year maturity common to private equity, but there is a notable shift toward longer maturities:*** Investors are increasingly interested in funds with maturities of 12 to 15 years, with some building interest in funds with maturities up to 20 years. Interest in evergreen or open-end structures has remained flat over our last few surveys.

  While there is talk about more flexible structures at fund end-of-life to accommodate a perpetuation of ownership of assets for limited partners that might like to convert fund assets into core holdings, or more flexible structures that could extend the life of the fund with a reset of terms to reflect the then core-like nature of remaining assets, those structures have yet to evolve in any meaningful way. However, over the past couple of years, there has been increased interest by secondary funds in addressing these liquidity issues through structured secondaries.

- ***Investor interest is moving away from PPPs toward independent projects:*** Volatility in the project request for proposal (RFP) process and political infighting in various jurisdictions, as well as blowback on certain previous deals, have made it more challenging to execute PPPs. Especially in certain industry sectors, there is more interest in independent projects.

- ***Infrastructure "dry powder" continues to rise:*** Surging fundraising over the last two and a half years combined with challenges in deploying capital has led to a dramatic increase in dry powder in closed-end infrastructure funds (Chart XXVIII). These dry powder totals do not include capital targeting the sector from direct investors, co-investors, and open-end funds. Investor fears that too much money is chasing too few deals are warranted.

  This concern is heavier at the upper end of the market where fund sizes are growing well in excess of $5 billion, mirroring the private equity buyout market in terms of an emerging "bulge bracket" of players. Unlike the private equity buyout market, however, there is a relative scarcity of established middle-market funds with diversified investment mandates from which investors can choose, if they are attracted to the fundamentals of the less competitive middle-market space.

Surging fundraising over the last two and a half years combined with challenges in deploying capital has led to a dramatic increase in dry powder.

Conclusion

Our direct conversations with investors confirm the results of our survey, showing that there is a conflict in investors' perceptions of the market. Investors are indeed worried that there is too much money in the market and that we are approaching or already at a market peak. Yet their stated intent is to retain or expand their allocation levels; the strong fundraising totals for the first half of 2018 confirm this orientation.

The biggest question facing investors currently is, "Where do I expect better returns?" Even with the pressures facing all illiquid alternative assets, investors are getting little comfort from their forecasts for liquid markets and are seeing signs of danger and increased risk everywhere. As long as this situation persists, interest in hard asset underpinned strategies like infrastructure is likely to remain strong.

Infrastructure Investor Trends: 2018 Survey Results

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