

# 2019 INSTITUTIONAL INVESTOR SURVEY

Investor trends and insights



## 2018 - and the year ahead

2018 was the year of two distinct halves. The first was filled with investor optimism fueled by record earnings and tax reform. The second half presented a vicious and unexpected market sell-off prompted by fears of a slowdown in corporate earnings and an escalating global trade war:

- Was the market sell-off a signal to redeem or an opportunity to increase exposure?
- Is now the right time to invest through longer lock vehicles to protect against forced selling and/or monetize future price dislocations?

The market swings of 2018 have investors reassessing their investment strategies. Over the past few years, deciphering the interplay among the following industry headwinds has become increasingly challenging:

- Broader underperformance: Is the S&P the right benchmark?
- Search for new sources of alpha: risk premia, longer lockups, big data
- Market dynamics: unwinding QE, short-lived but intense spikes in volatility, geopolitics, liquidity
- Business complexity: talent, regulatory changes, fee pressure

As complex as these industry dynamics are, investor demand for hedge funds is rising as 32% of investors expect to increase their overall hedge fund allocation in 2019, up from 15% in 2018. As our survey suggests, the search for uncorrelated yield is intensifying, with strategies including volatility arbitrage, macro/RV and credit appearing to be well positioned to attract net inflows in 2019. Risk premia and longer lock vehicles may also be attractive, while UCITS maintain their appeal as they offer benefits of enhanced liquidity and lower fees.

However, investors remain concerned about crowding, style drift and transparency. 80% (up from 62% in prior year) of the respondents cited crowding as a top three concern (with 50% citing it as a primary concern). Style drift and lack of communication/transparency followed as the second and third most cited concerns for 2019. The survey results also suggest capital re-allocation may be increasingly selective, favoring strategies that can monetize structural inefficiencies, niche markets or developing markets such as Asia. This dynamic may bode well for start-up and early stage managers as 69% of investors stated a willingness to invest in new launches.

Larger investors are more likely to concentrate their allocations further to improve their purchasing power with managers and reduce their risk of dilution from over-diversification. Conversely, 33% of respondents cited lowering manager fees may compromise the ability to acquire top talent and expand infrastructure.

The level of additional scrutiny from investors has proved healthy for the industry and will further improve alignment between managers and investors. One key binding constraint for managers will be the extent to which they can source and retain talent, especially as they look to broaden their product offering to meet the needs of investors.

On behalf of the entire J.P. Morgan Capital Advisory team, we thank each investor who responded to this survey. We hope the insight provided in this report will be of great use to you and your firm. Thank you for your continued partnership, and we look forward to working more closely with you in 2019.

Please reach out to me or any member of the Capital Advisory Group with any questions you may have.

With best wishes,

### Michael Monforth

Managing Director, Global Head of Capital Advisory  
michael.h.monforth@jpmorgan.com

### Regional Capital Advisory Group heads:

#### Kenny King

Managing Director, NA Head of Capital Advisory  
kenny.king@jpmorgan.com

#### Kumar Panja

Managing Director, EMEA Head of Capital Advisory  
kumar.panja@jpmorgan.com

#### Stephen Kelly

Executive Director, APAC Head of Capital Advisory  
stephen.w.kelly@jpmorgan.com

## Contents

### I. Summary: Key Findings

### II. Investment criteria and preference for hedge funds

A. Overview of survey respondents.....	4
B. The role of hedge funds in investors' portfolios.....	5
C. Concerns and performance.....	7
D. Hedge fund allocation.....	8

### III. Hedge funds: perspective and trends

A. Fees.....	11
B. Liquidity & lockup preference.....	16
C. Hedge fund performance and expected fund flows.....	18
D. Number of hedge fund investments.....	22
E. Expected strategy exposure change in 2019.....	24
F. Expected geographic exposure change in 2019.....	26
G. New launches.....	26
H. Industry trends.....	29

### IV. Special topics

A. Dry powder.....	30
B. Alternative risk premia.....	31
C. Long-lock/hybrid vehicles.....	33
D. Managed accounts.....	34
E. Funds of one.....	36
F. UCITS funds.....	37
G. Impact investing.....	38
H. Active extension.....	40
I. Due diligence.....	40

## I. Summary: Key Findings

Our 16th annual institutional investor survey collected responses from 227 investors globally. This survey has helped both hedge fund managers and investors understand holistic trends within the hedge fund industry as well as provide a glimpse into the future progression of the hedge fund investor universe. We thank the investors who participated in our survey this year and in years past; with your collaboration, the survey has become a unique source for material insights. The Capital Advisory Group would like to share the key findings from this year's survey.

### What is the investor sentiment on hedge funds?

Positive, but increasingly selective.  
*Sections II.B, III.C - Figures 5, 39*

Investors have become more selective towards hedge funds after a turbulent 2018. Overall, however, 52% of respondents indicated that they use hedge funds primarily as a source of alpha generation (Figure 5). Investor demand for hedge funds is rising with 32% of respondents expecting to increase their hedge fund allocation in 2019 (Figure 39), up from 15% in 2018.

### What are investors' concerns about their hedge fund investments?

Mostly crowding.  
*Section III.C - Figures 8, 9*

Crowding continues to be the primary concern for investors when allocating to hedge funds with 80% of respondents selecting crowding as a top 3 concern when investing in hedge funds (Figure 8). Relating to hedge fund underperformance, over 82% of respondents believe there are too many hedge funds chasing limited opportunities to generate alpha (Figure 9). Style drift, lack of communication/transparency and macroeconomic factors are the other most referenced concerns.

### What are investors' views on hedge fund fee structures?

Targeting structures that align fees and incentives.  
*Section III.A - Figures 16, 23, 25*

For the first time in this survey's history, more than half, 54%, of all investors are negotiating or looking to negotiate fees paid to hedge fund managers (Figure 23). Allocators look to incentivize managers through alignment of interests such as with the "1 or 30" fee structure, which has nearly tripled in use year-over-year (Figure 25). Nearly half of all respondents paid less than 1.5% on average in management fees to their hedge fund managers in 2018 (Figure 16).

### Did hedge fund performance meet investors' expectations in 2018?

Broadly, no.  
*Section III.C - Figure 37*

After increased market volatility throughout 2018 leading to poor hedge fund performance, 68% of respondents indicated that their hedge fund portfolio underperformed relative to its respective target by at least 1% (Figure 37). Just 13% of respondents indicated that their portfolios outperformed their target by at least 1%.

### Overall, did investors allocate or redeem from hedge funds?

Investors redeemed significantly more than expected in 2018.  
*Section III.D - Figure 42, 43*

Outside of banks & platforms and consultants, investors on the whole consolidated their hedge fund portfolios in 2018. Despite only 21% of investors expecting to reduce the number of hedge fund allocations going into 2018, 40% ended up doing so (Figure 43). Looking ahead, 42% of respondents expect to increase their overall number of hedge fund allocations in 2019.

### Where are investors expecting to allocate capital in 2019?

Volatility arbitrage, macro/RV and credit strategies.  
*Sections III.E, III.F - Figures 46, 47*

Most investors plan to maintain or increase their hedge fund exposure in 2019. Capital invested in hedge funds will likely be reallocated across different strategies and managers, particularly away from long biased equity strategies and into volatility arbitrage, macro/RV and credit strategies (Figure 46). From a geographical allocation perspective, and continuing a theme from 2018, 47% of investors plan to increase exposure to the Asia Pacific region (Figure 47).

### Did investors allocate capital to emerging managers?

Strong interest but in line with previous years.  
*Section III.G - Figures 48, 49*

Separate from the +\$1 billion new launches seen in 2018, investors continue to be opportunistic towards investing in new launches. 69% of respondents indicated interest in investing in new launches, (Figure 48) while 43% actually allocated to a new launch in 2018 (Figure 49). For those that did so, approximately half made just one allocation.

### Have more investors been using managed accounts when investing in hedge funds?

Largely in line with last year.  
*Section IV.D - Figures 63, 64*

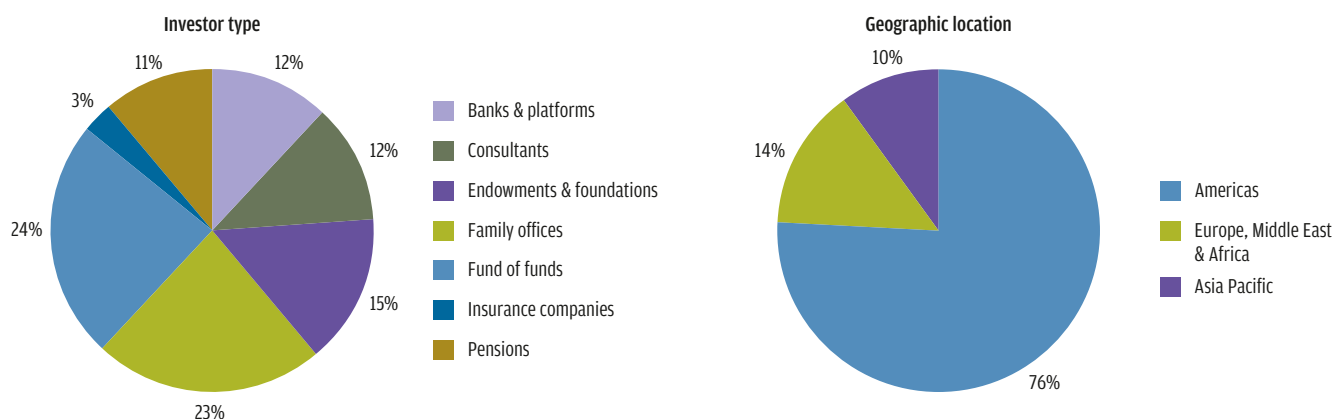
The interest in investing via managed accounts remained in line with last year's survey results, after growth over previous years. Of the 36% of investors utilizing managed accounts, fund of funds and consultants are the most common users (Figure 63). 34% of current users also expect to increase their utilization of managed accounts in 2019 (Figure 64). Cash managed accounts are used far more than synthetic managed accounts, which are most popular with banks & platforms.

## II. Investment criteria and preference for hedge funds

### A. Overview of survey respondents

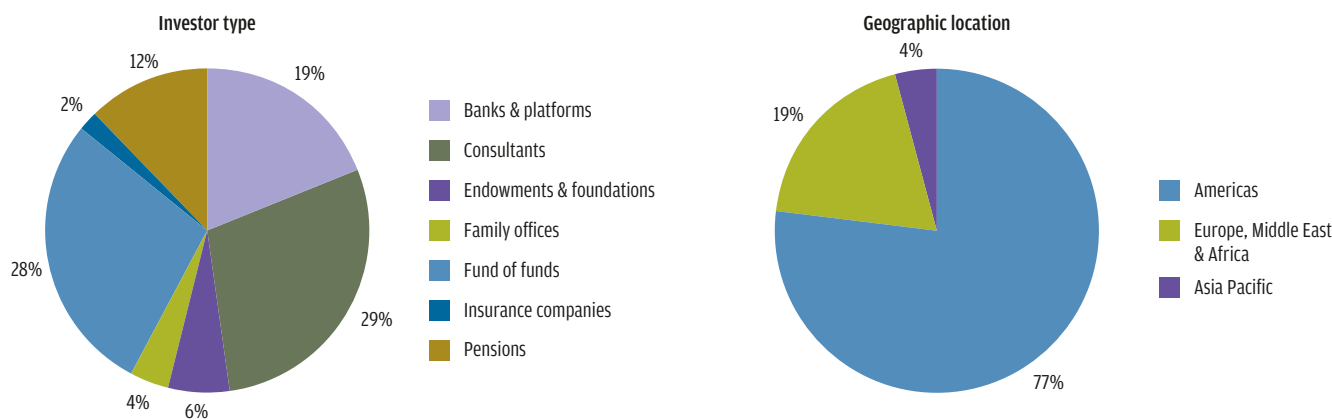
- J.P. Morgan’s Capital Advisory Group conducted its 16th annual Institutional Investor Survey at the turn of the New Year in review of hedge fund allocator trends and a look ahead to 2019. Responses from 227 institutional investors were collected.<sup>1</sup> Fund of funds and family offices represent the largest number of respondents, accounting for 24% and 23% of the total, respectively.
- The respondents’ aggregate assets invested in hedge funds was approximately \$706 billion at the end of 2018. Intermediaries, including consultants and fund of funds, represent 57% of those assets.
- Geographically, 76% of the respondents are from the Americas, representing 77% of the total assets invested in hedge funds.

FIGURE 1 & 2: Investor breakdown (based on the number of respondents)



Note: Figures based on selections from 227 respondents.

FIGURE 3 & 4: Investor breakdown (based on assets invested in hedge funds at the end of 2018)



Note: Figures based on selections from 227 respondents.

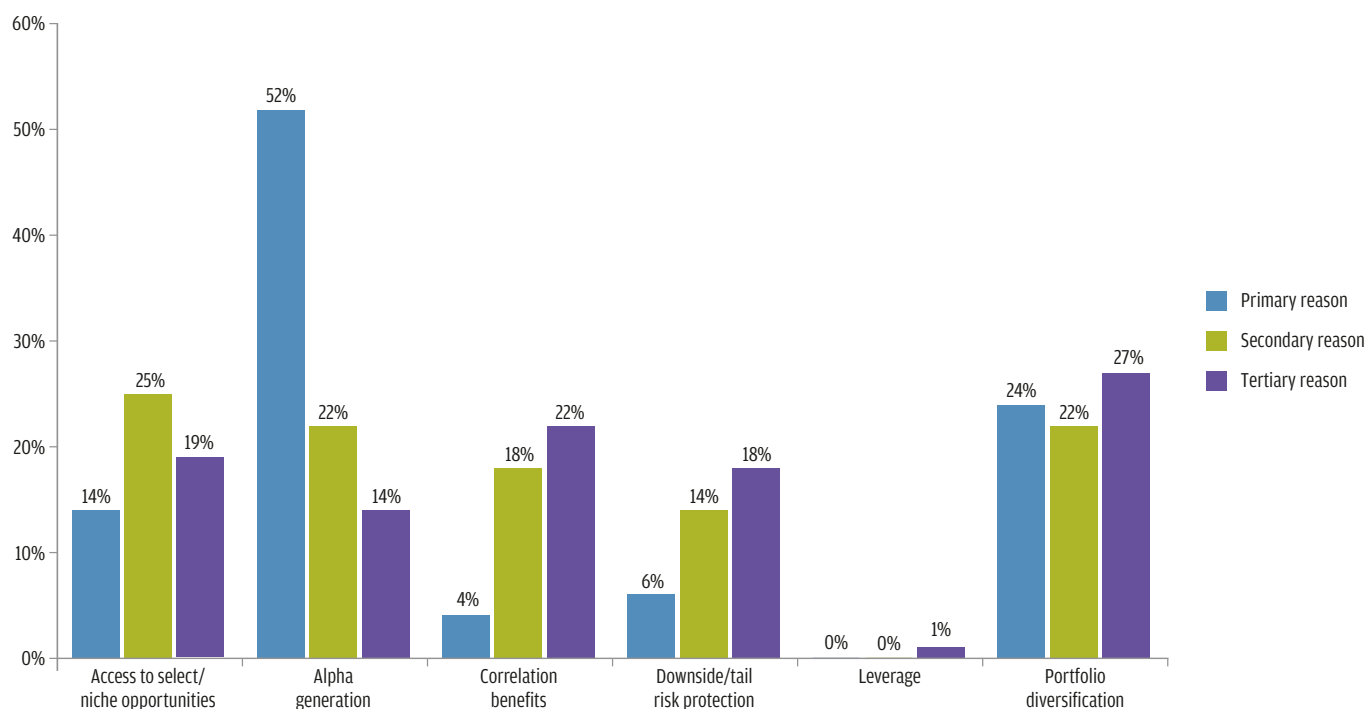
<sup>1</sup> Each chart in this report is based on the actual number of respondents to that specific question. Totals in the charts may not add up to 100% due to rounding.

### B. The role of hedge funds in investor portfolios

Alpha generation and portfolio diversification continue as the top two reasons institutional investors allocate to hedge funds. The percentage of investors citing alpha generation as their primary reason remains in line with last year’s survey. However, respondents reporting portfolio diversification as a primary reason has risen 8%.

- While 73% of all respondents consider portfolio diversification among the top three reasons they invest in hedge funds, the breakdown is evenly split among being a primary, secondary or tertiary reason.
- 58% of respondents indicated access to select or niche opportunities as a top three reason. Those that view this as the primary reason for hedge fund investing represent 14% of the survey’s respondents.
- Access to leverage continues to be a minor purpose, with only 1% of respondents stating this reason.

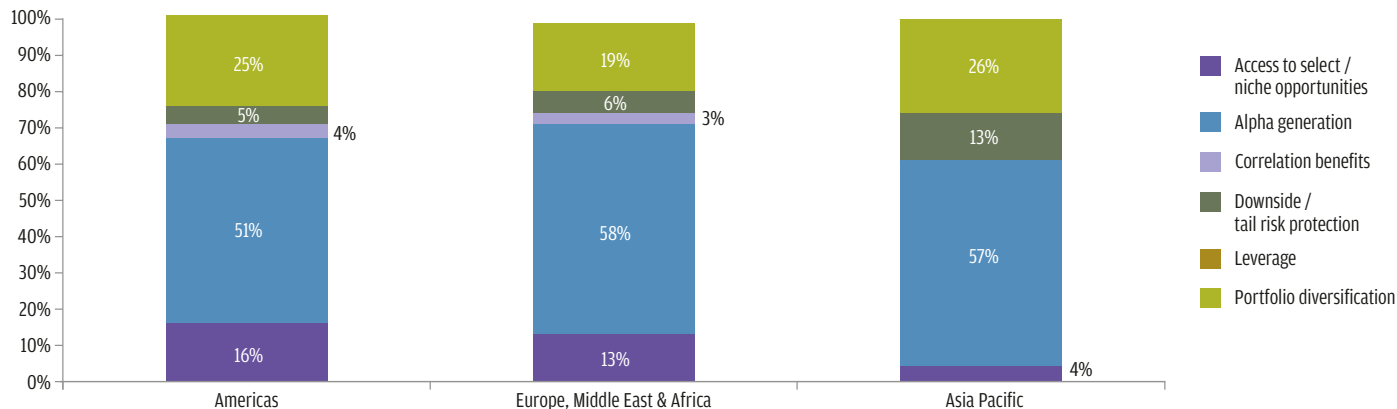
FIGURE 5: Breakdown of top three reasons for investing in a hedge fund



Note: Figures based on selections from 227 respondents. Respondents were permitted to make multiple selections.

- An examination of these investor priorities geographically shows alpha generation to be the primary reason for investors in EMEA (58%) and Asia Pacific (57%), while fewer consider it such in the Americas (51%).
- 16% of investors in the Americas consider access to select/niche opportunities to be the primary reason for investing in hedge funds. This is higher than those in EMEA, at 13%, and significantly higher than those in Asia Pacific, 4%.

FIGURE 6: Primary reason for investing in a hedge fund across regions

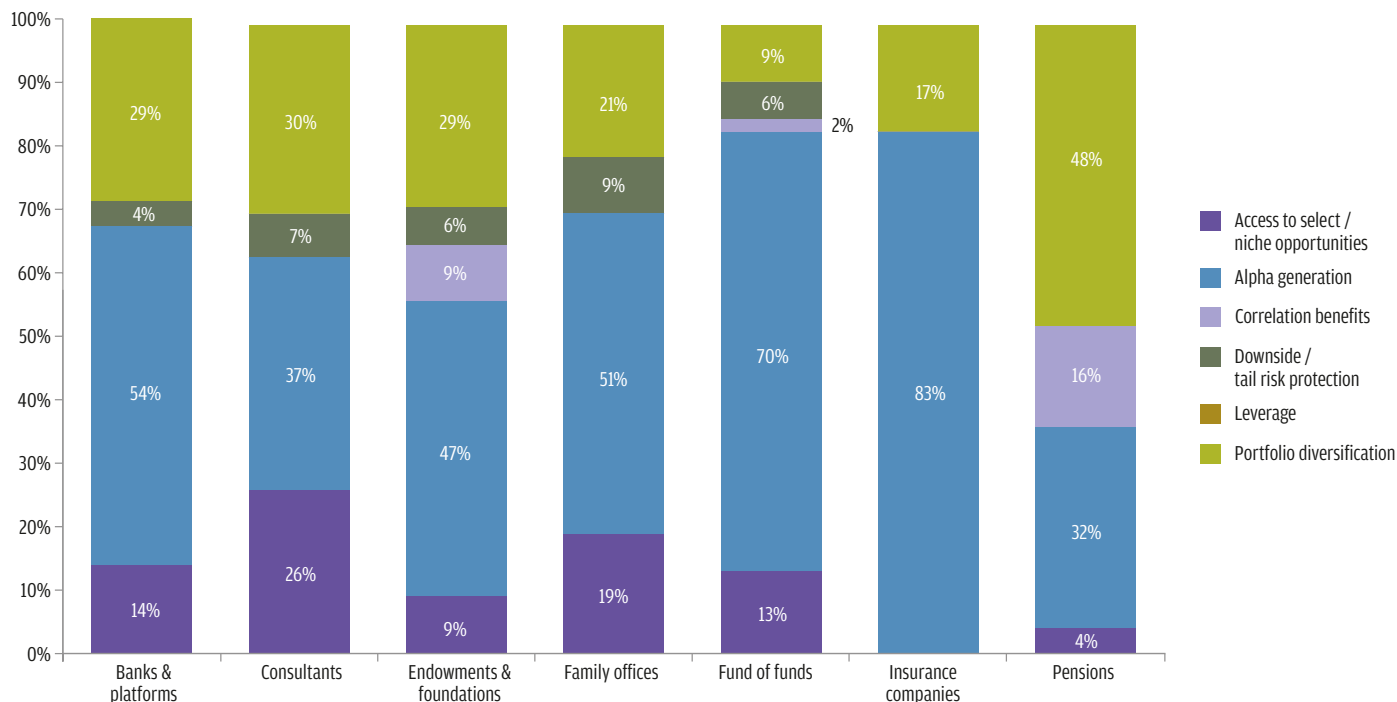


Note: Figures based on selections from 227 respondents.

An analysis of investors by type provides insight into the goal of hedge funds within investment portfolios.

- A significant share of pensions (48%) considers portfolio diversification to be their top reason for investing in hedge funds. At the same time, they represent the lowest portion (32%) of any investor group that considers alpha generation the reason.
- At 59%, consultants have the highest percentage of any investor type that considers access to select/niche opportunities to be the primary reason for investing in hedge funds.

FIGURE 7: Top reasons for investing in a hedge fund by investor type



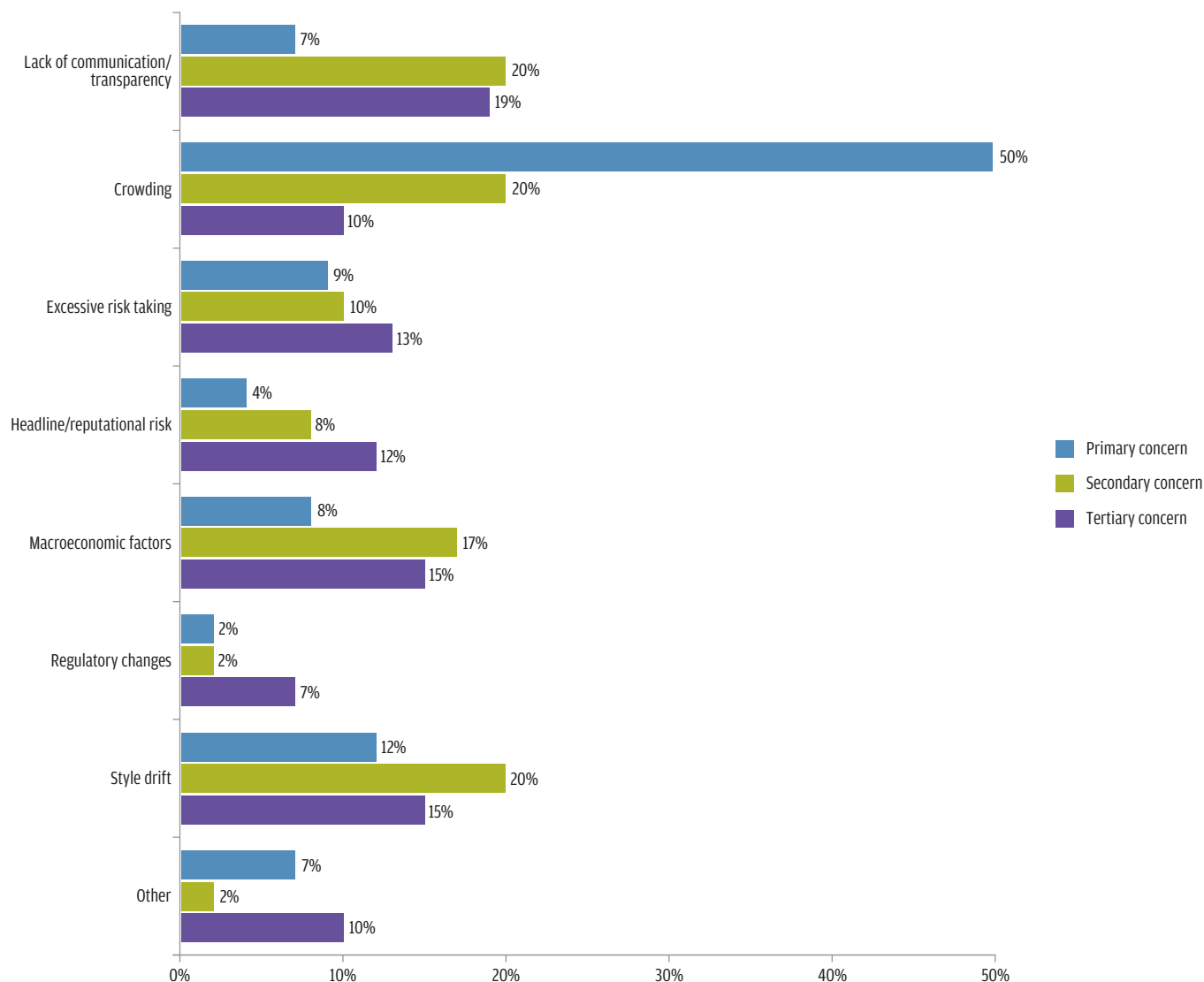
Note: Figures based on selections from 227 respondents.



### C. Concerns and performance

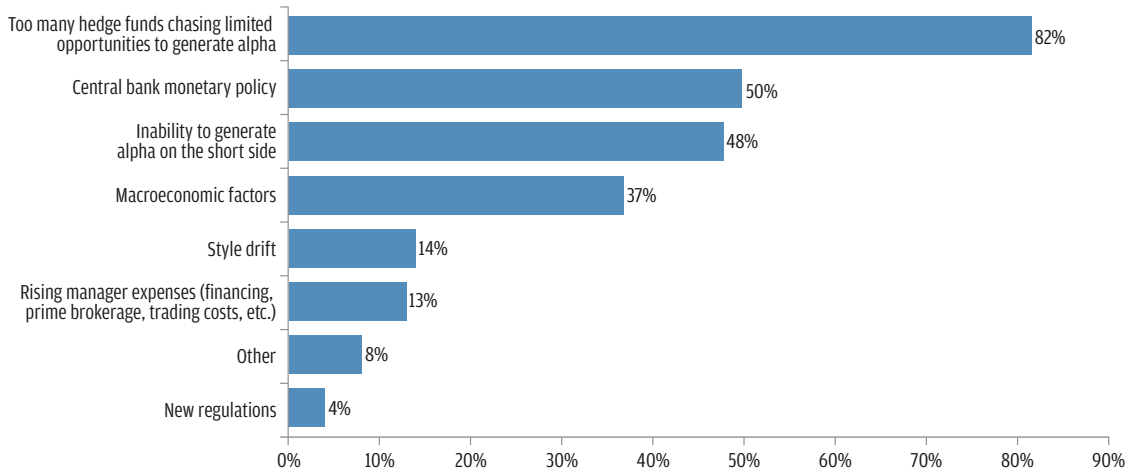
When asked to select their top three concerns when allocating to hedge funds, more investors continue to indicate crowding as their primary concern, an increase of 20% year-over-year. When asked to select the reasons for hedge fund industry underperformance in recent years, over 82% of respondents indicated there are too many hedge funds chasing limited opportunities to generate alpha as one of those reasons. Style drift, lack of communication/transparency and macroeconomic factors are the other leading concerns for investors.

FIGURE 8: Breakdown of top 3 concerns when investing in hedge funds



Note: Figures based on selections from 227 respondents.

FIGURE 9: Main reason for hedge funds underperforming broader market



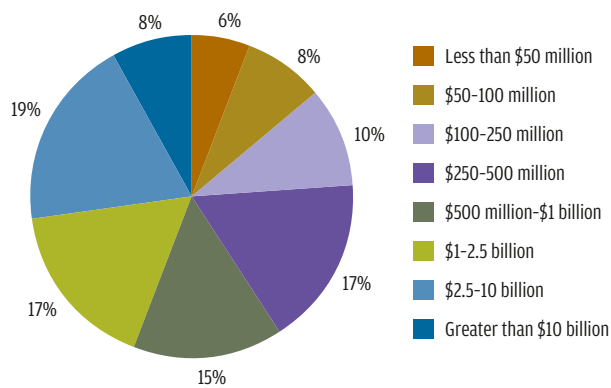
Note: Figures based on selections from 223 respondents. Respondents were permitted to make multiple selections.

### D. Hedge fund allocation

- 44% of respondents have at least \$1 billion allocated in hedge funds; 24% have \$250 million or less.
- 44% of respondents have more than 25% of their portfolios allocated to hedge funds; 32% have less than 10%.
- 72% of pensions and 50% of insurance companies have less than 10% of their portfolios in hedge funds. These segments represent the smallest hedge fund allocation as a percentage

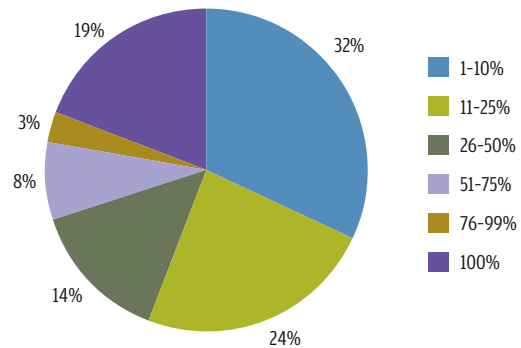
of the greater investment portfolio. Endowments & foundations have the highest percentage of respondents who have 11%-50% of their portfolios allocated to hedge funds. Unsurprisingly, fund of funds have the largest percentage (48%) of respondents allocating 100% of the investment portfolios to hedge funds.

FIGURE 10: Capital invested in hedge funds (2018)



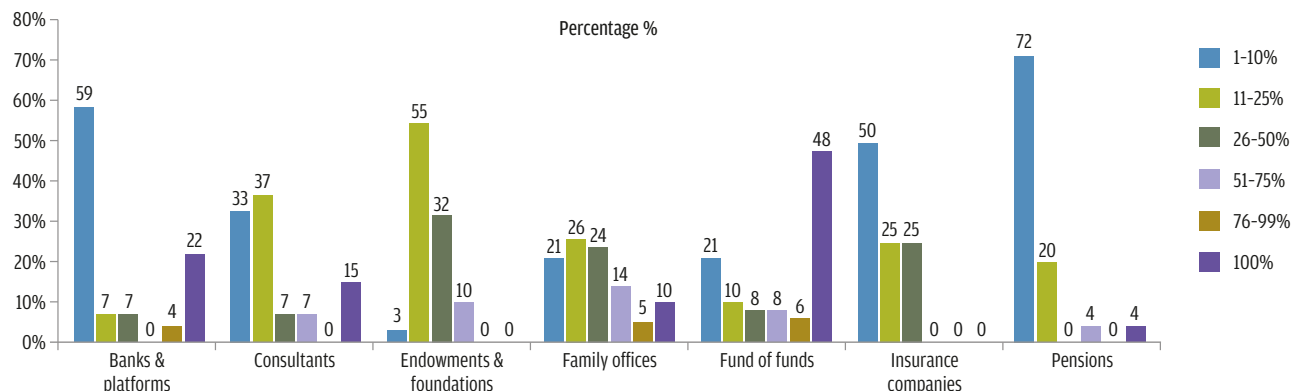
Note: Figure based on selections from 213 respondents.

FIGURE 11: Percentage of portfolio allocated to hedge funds (2018)



Note: Figure based on selections from 208 respondents.

FIGURE 12: Percentage of portfolio allocated to hedge funds by investor type (2018)

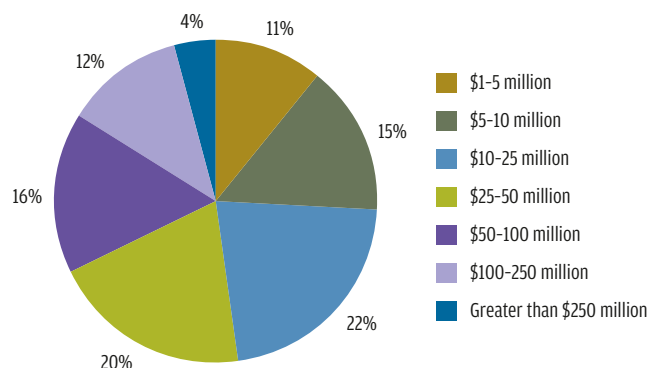


Note: Figure based on selections from 208 respondents.

Consistent with expectations, family offices tend to make the smallest average allocations to hedge fund managers, while pensions and banks & platforms make the largest average allocations. In general, the average allocation from Asia Pacific investors is smaller than from investors in the Americas and EMEA.

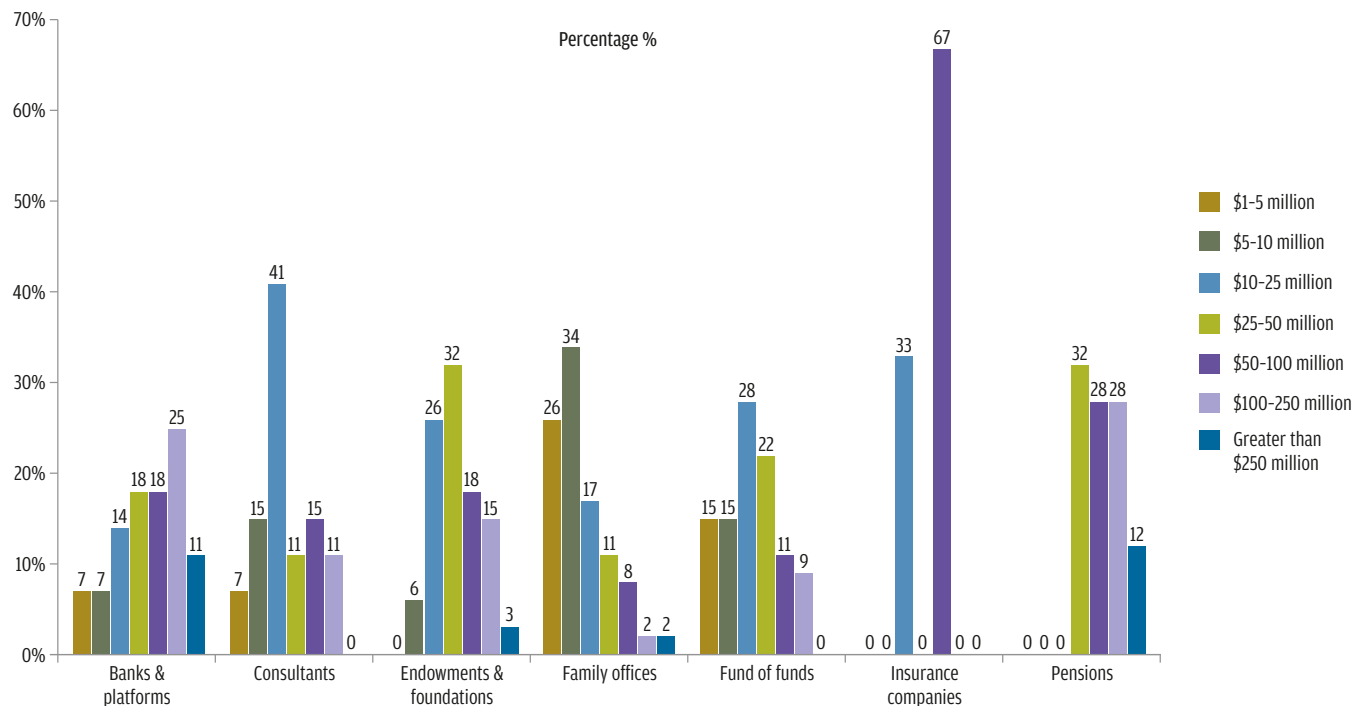
- Approximately 26% of respondents make average allocations of less than \$10 million per hedge fund manager, while slightly over 16% of respondents allocate more than \$100 million on average per manager.
- Family offices tend to make the smallest average allocations to hedge fund managers, with 60% allocating \$10 million or less to a manager on average. Only 12% of family offices make an average allocation of \$50 million or more, well below all other investor types.
- Pensions, on average, make the largest allocations, with 68% of allocating at least \$50 million per hedge fund manager.
- For endowments & foundations, close to 50% of make average allocations of \$25 million to \$100 million to a hedge fund manager.
- Geographically, Asia Pacific investors tend to make smaller hedge fund allocations, with 39% making average allocations of \$1 million to \$10 million, compared with 23% in the Americas and 36% in EMEA. 34% of respondents based in the Americas allocate more than \$50 million on average per hedge fund manager, compared with 26% for Asia Pacific respondents and 19% for EMEA respondents.

FIGURE 13: Average allocation to a hedge fund manager



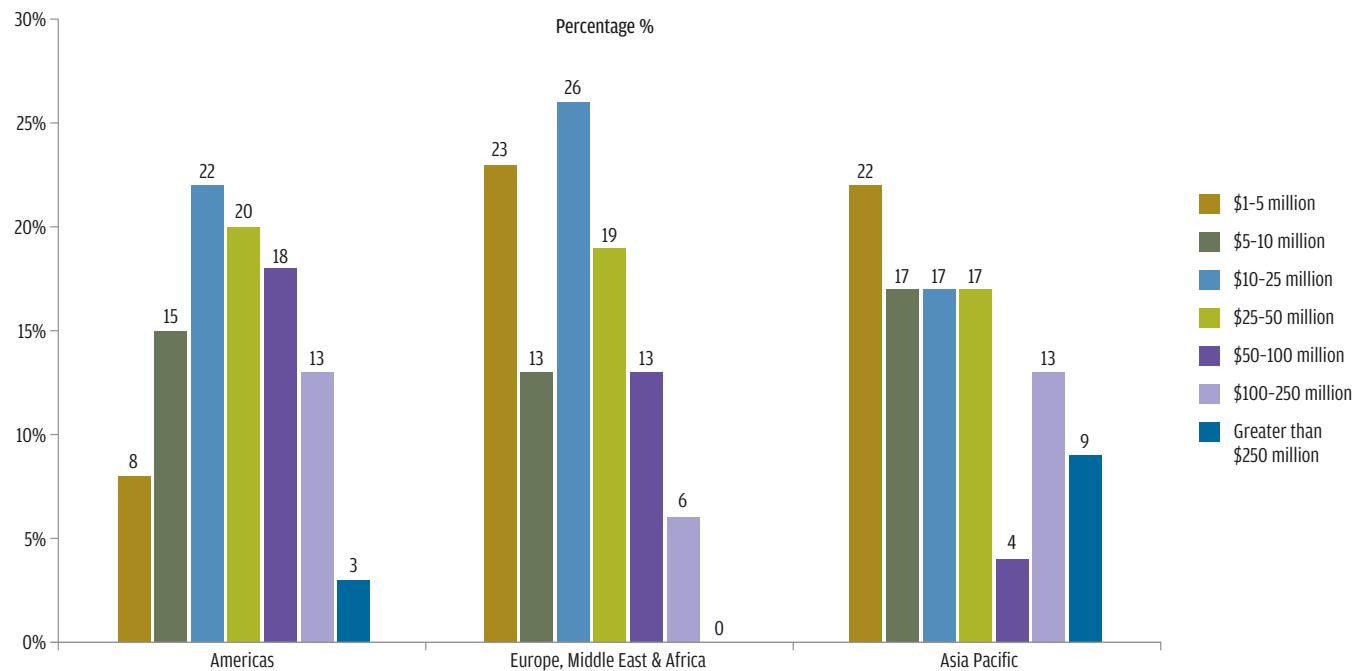
Note: Figure based on selections from 227 respondents.

FIGURE 14: Average allocation to a hedge fund manager by investor type



Note: Figure based on selections from 227 respondents.

FIGURE 15: Average allocation to a hedge fund manager by investor region



Note: Figure based on selections from 227 respondents.

### III. Hedge funds: perspective and trends

#### A. Fees

Investors negotiating fees has become increasingly prevalent when investing in hedge funds. For the first time in this survey’s history, more than half of all survey respondents are negotiating or looking to negotiate fees paid to hedge fund managers. The standard “2 and 20” model has been deemed outdated as allocators look to incentivize managers through alignments of interests such as with the “1 or 30” fee structure.

- Only 4% of all respondents indicated an average management fee paid of 2% or greater and 3% indicated an average performance fee paid of 20% or greater.
- Close to 37% of respondents pay an average management fee of 1.5%-1.75% to their hedge fund managers, while 46% pay less than 1.5%, an increase of 11% last year.
- Nearly half of respondents are paying an average performance fee of 17.5%-19.99%, but 40% are paying less than 17.5%.
- On an asset-weighted basis, average fees paid shift even lower, indicating larger hedge fund investors are paying lower fees to their hedge fund managers.
- In general, bank & platforms and pensions pay the lowest management fees among all investor segments, with 33% and 28% paying less than 1.25%, respectively. However, some banks & platforms also pay the highest management fees, indicating dispersion across the segment.
- Of the respondents, consultants pay the lowest performance fees on average, with 67% paying less than 17.5%. In contrast, banks & platforms and insurance companies pay the highest average performance fees, with 26% and 24% paying at least 20%, respectively.
- Regionally, the only significant distinction in management fees paid is the large portion (25%) of EMEA respondents paying at least 1.75% on average for their management fee. With regard to performance fees, Americas investors pay the highest fees, 64% paying more than 17.5% on average, compared with 52% in EMEA and 43% in Asia Pacific.

FIGURE 16: Average fees paid to managers (2018)

		Management fee							
		Less than 1%	1-1.24%	1.25-1.49%	1.5-1.74%	1.75-1.99%	2%	Greater than 2%	Total
Performance fee	Less than 15%	5%	2%	3%	1%	0%	0%	0%	10%
	15-17.49%	0%	7%	12%	10%	0%	0%	0%	30%
	17.5-19.99%	1%	3%	10%	22%	10%	0%	0%	46%
	20%	0%	2%	1%	4%	1%	3%	0%	11%
	Greater than 20%	1%	0%	0%	0%	0%	0%	1%	3%
	Total	7%	14%	25%	37%	12%	4%	1%	100%

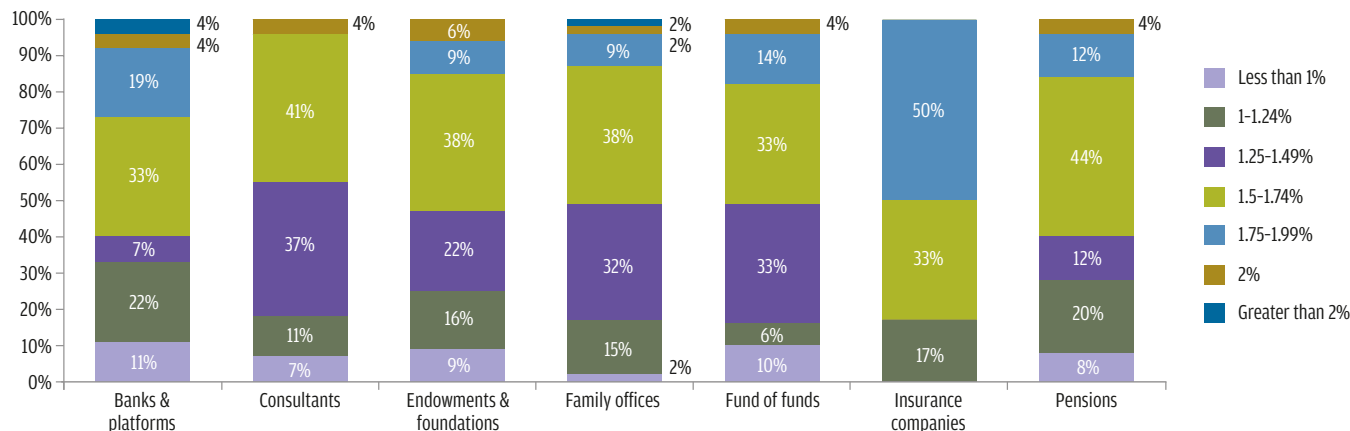
Note: Figure based on selections from 221 respondents. Color coded by concentration.

FIGURE 17: Average fees paid to managers on an asset-weighted basis (2018)

		Management fee						Total	
		Less than 1%	1-1.24%	1.25-1.49%	1.5-1.74%	1.75-1.99%	2%	Greater than 2%	
Performance fee	Less than 15%	10%	1%	1%	0%	0%	0%	0%	12%
	15-17.49%	0%	4%	18%	12%	0%	0%	0%	34%
	17.5-19.99%	3%	5%	10%	10%	10%	0%	0%	39%
	20%	1%	4%	1%	2%	0%	1%	0%	9%
	Greater than 20%	1%	2%	0%	0%	0%	0%	4%	7%
	Total	15%	15%	30%	24%	11%	2%	4%	100%

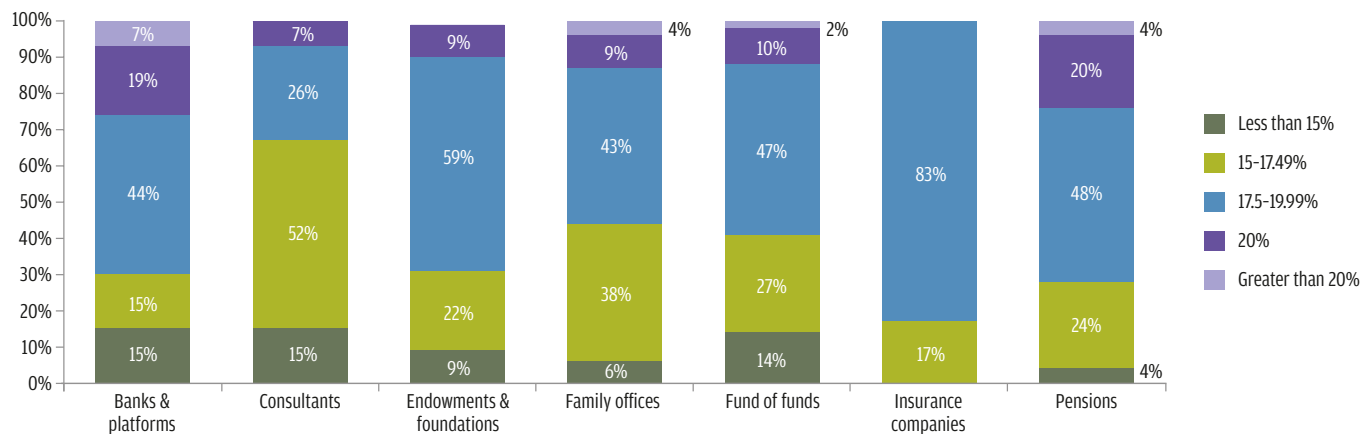
Note: Figure based on selections from 221 respondents. Color coded by concentration.

FIGURE 18: Average management fees paid by investor type (2018)



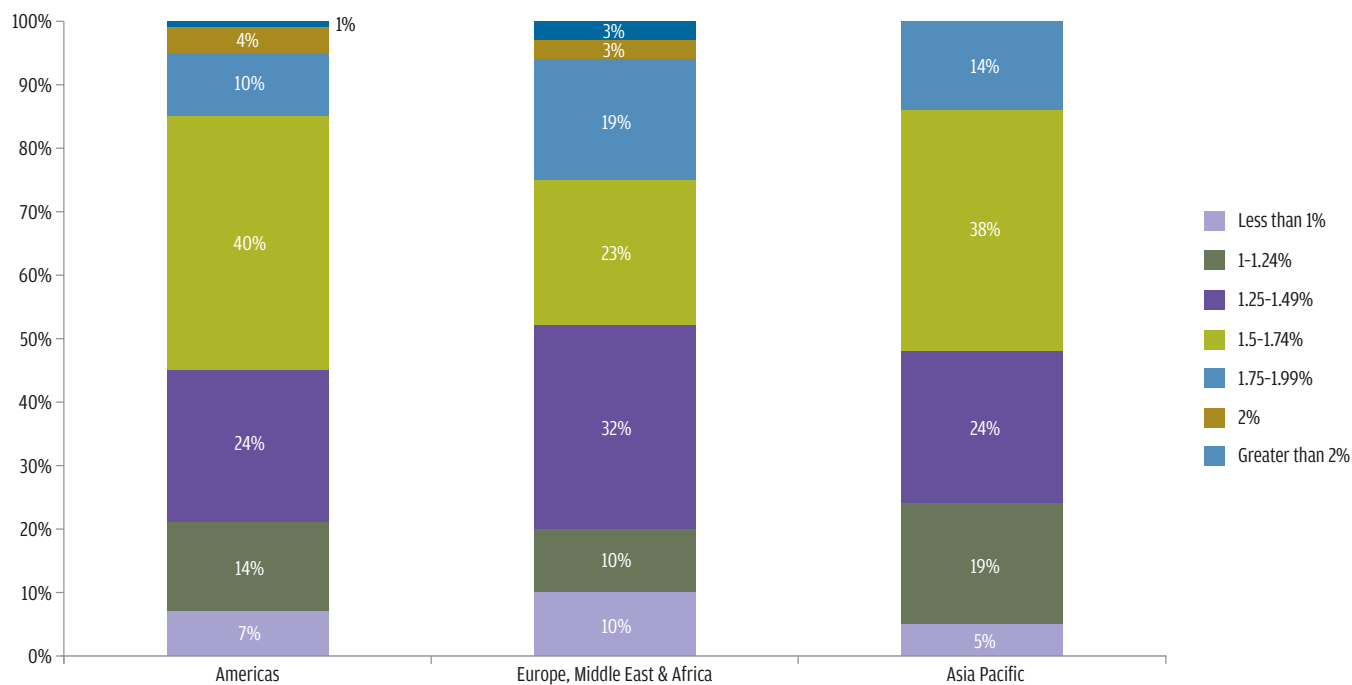
Note: Figure based on selections from 224 respondents.

FIGURE 19: Average performance fees paid by investor type (2018)



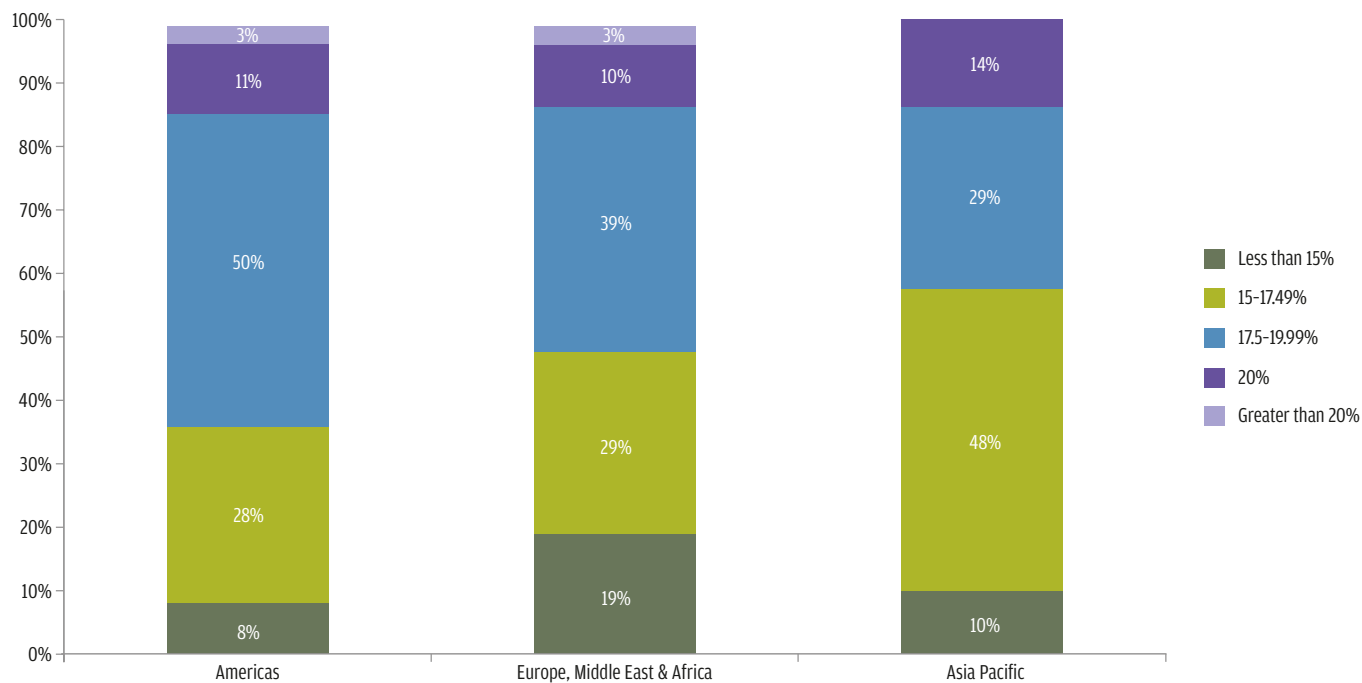
Note: Figure based on selections from 221 respondents.

FIGURE 20: Average management fees paid by investor region (2018)



Note: Figure based on selections from 224 respondents.

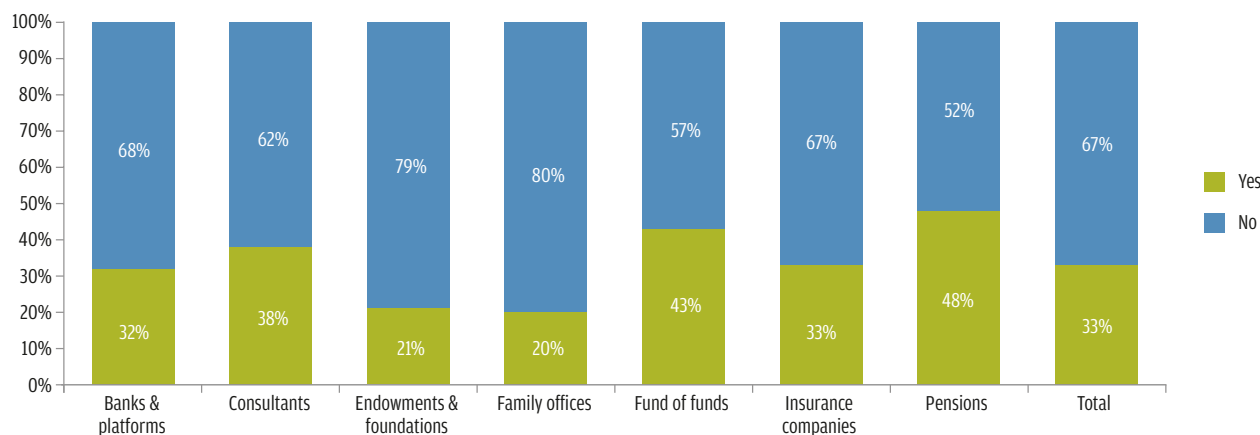
FIGURE 21: Average performance fees paid by investor region (2018)



Note: Figure based on selections from 221 respondents.

Respondents were also asked if there is cause for concern with managers who charge lower fees being able to acquire top talent and generate infrastructure. In total, 33% of respondents believe there is cause for such concern, with pensions leading at 48%, but only 20% of family offices.

FIGURE 22: Concern around low fees?

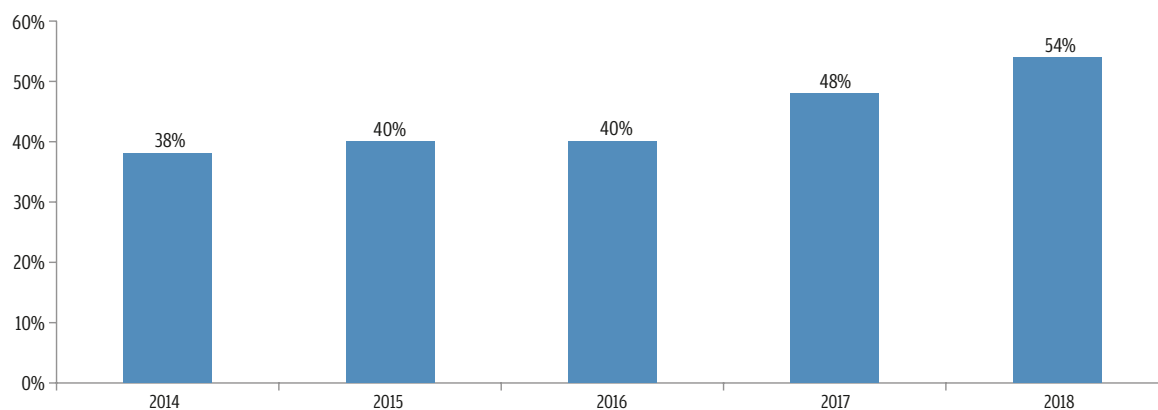


Note: Figures based on selections from 210 respondents.

**An increasing number of investors negotiated or plan to negotiate fees with their hedge fund managers.**

- The percentage of respondents who have negotiated or will negotiate fees with managers has continued to increase over the years, from 38% in 2014 to 54% in 2018.
- More than 50% of family offices, endowments & foundations and fund of funds indicated they will negotiate fees with their hedge fund managers. Approximately one-third of pensions and consultants negotiated fees in 2018.
- In 2018, 67% of respondents who indicated a negotiated fee arrangement were able to receive fee reductions that were based on the size of their investments (size discount), while 48% received fee discounts given the length of their investments (loyalty discount).
- After increasing discussions about the “1 or 30” fee model over the past few years, 17% of survey respondents reportedly implemented this fee structure in 2018, up 6% from 2017.

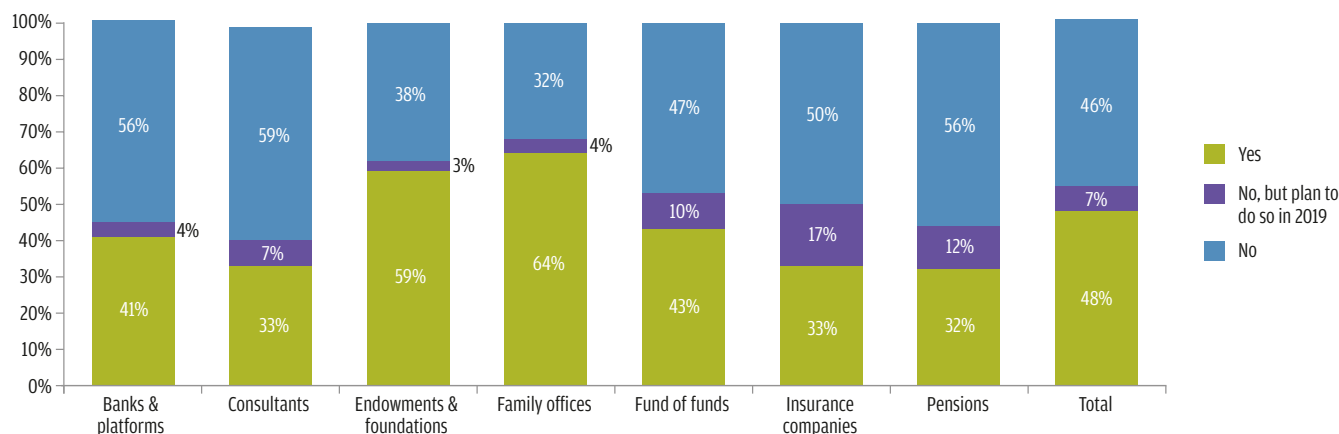
FIGURE 23: Respondents who have negotiated or will negotiate fees



Note: Figure based on selections from respondents in each respective year

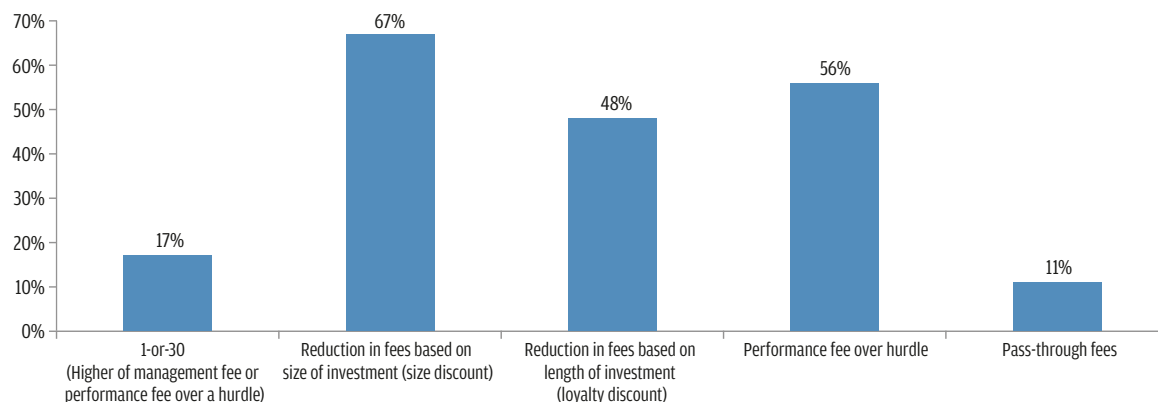


FIGURE 24: Respondents who have negotiated or will negotiate fees (2018)



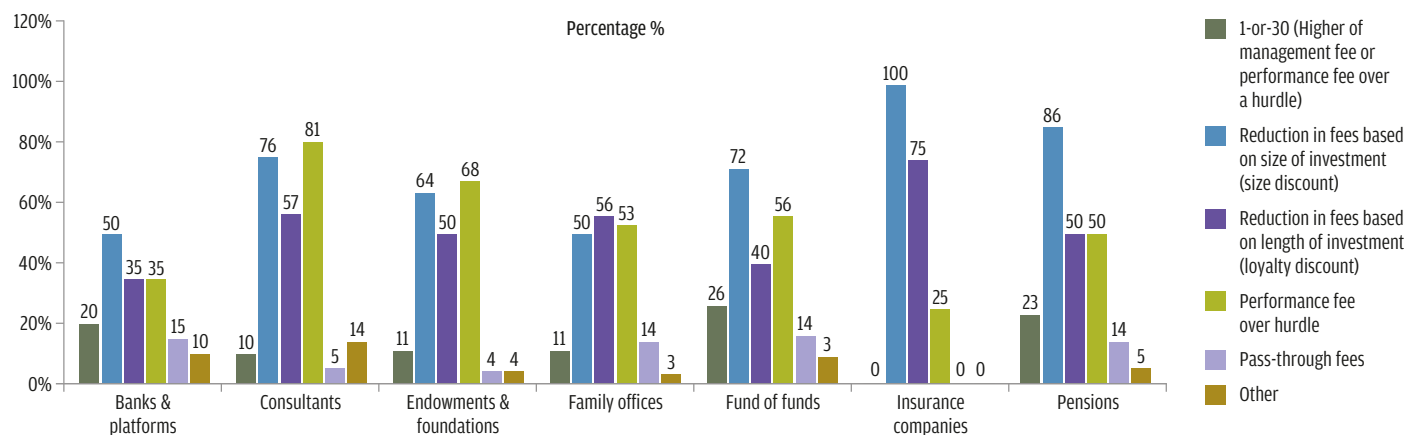
Note: Figure based on selections from 221 respondents.

FIGURE 25: Fee structures used (2018)



Note: Figure based on selections from 174 respondents. Respondents were permitted to make multiple selections.

FIGURE 26: Fee structures used by investor type (2018)



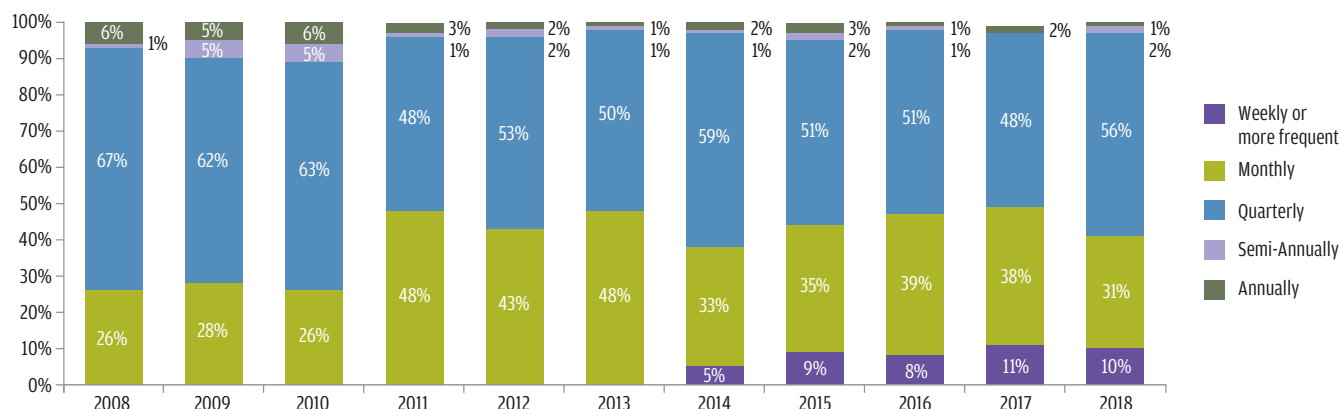
Note: Figure based on selections from 174 respondents. Respondents were permitted to make multiple selections.

### B. Liquidity & lockup preference

Liquidity is important to investors in traditional hedge fund vehicles. The vast majority of hedge fund investors still prefer quarterly or shorter redemption periods.

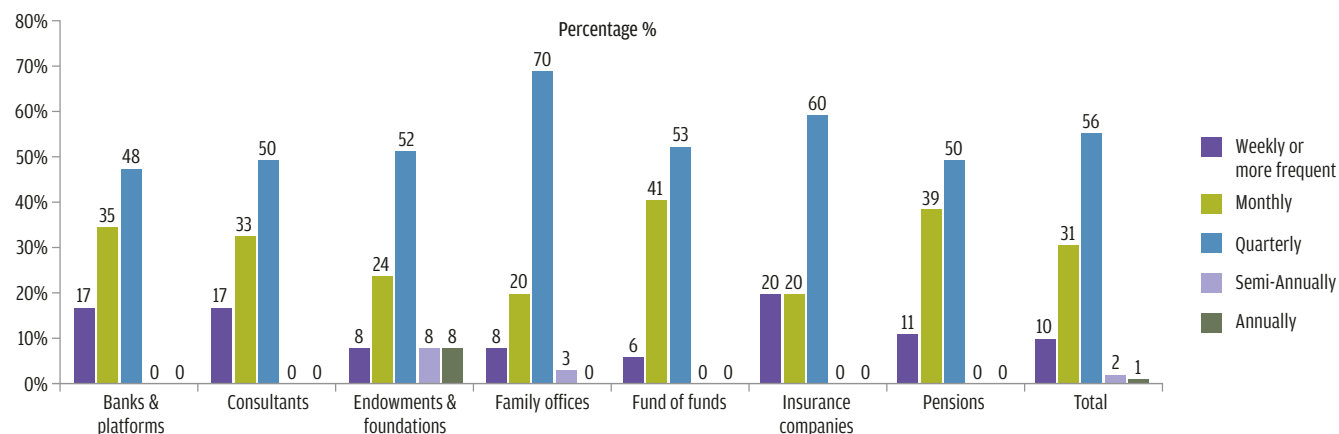
- Of the respondents with a liquidity preference, 97% prefer redemption frequency of quarterly or shorter liquidity. However, the percentage of respondents who prefer monthly or weekly liquidity has decreased slightly in comparison with the past few years.
- Only endowments & foundations and family offices indicated preference for liquidity longer than quarterly, making up 3% of all respondents, while 10% of all respondents indicated a preference for weekly liquidity.
- Geographically, the Americas have the highest proportion of respondents preferring quarterly liquidity at 64%, while Asia Pacific and EMEA respondents prefer monthly liquidity, 58% and 44%, respectively. EMEA also has the highest percentage of respondents who prefer managers with weekly or more frequent liquidity terms at 26%. This may be attributable to the prevalence in Europe of UCITS products, which tend to be much more liquid than traditional hedge fund structures.

FIGURE 27: Preferred liquidity terms



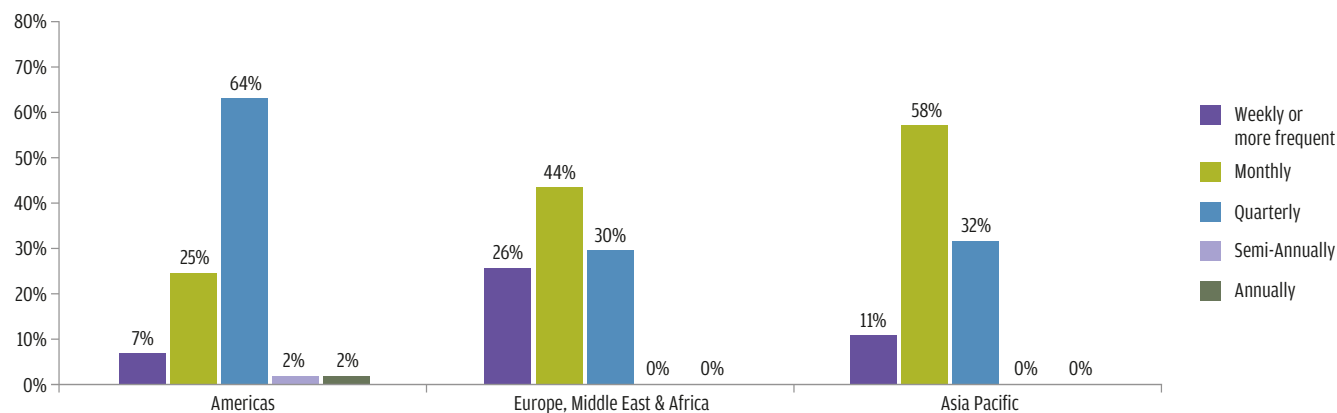
Note: Figure based on selections from respondents in each respective year.

FIGURE 28: Liquidity preference by investor type (2018)



Note: Figure based on selections from 178 respondents.

FIGURE 29: Liquidity preference by investor region (2018)

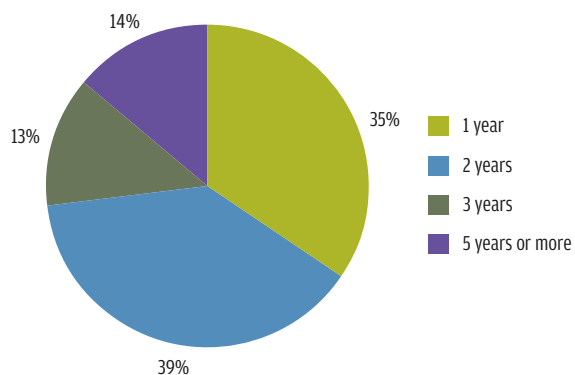


Note: Figure based on selections from 178 respondents.

In general, pensions along with endowments & foundations have a higher tolerance for longer lockups, given their relatively longer investment time horizon.

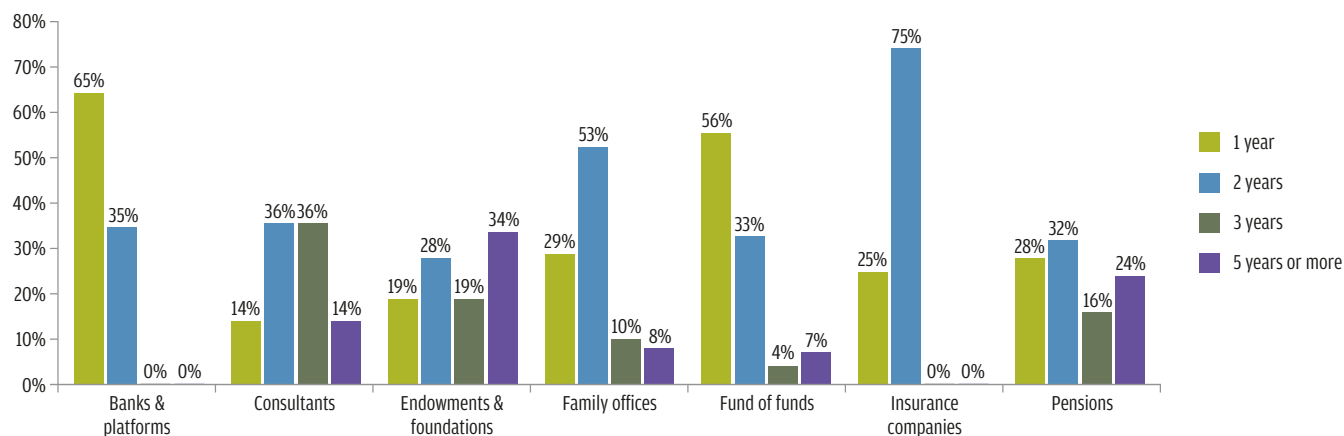
- Of the respondents who are willing to lock up their capital with a hedge fund manager, 35% will accept a maximum lockup of one year.
- Additionally, of those investors accepting lockups, 65% of banks & platforms and 56% of fund of funds typically require shorter lockups of 1 year or less. 53% of endowments & foundations and 40% of pensions will accept a lockup of 3 years or more.
- Family offices and fund of funds have the lowest percentage of respondents who are willing to accept lockup terms of more than two years.
- As has been the case historically, respondents in the Americas have a higher tolerance for lockup terms of two years or more, compared with investors in EMEA and Asia Pacific.

FIGURE 30: Longest acceptable lockup period (2018)



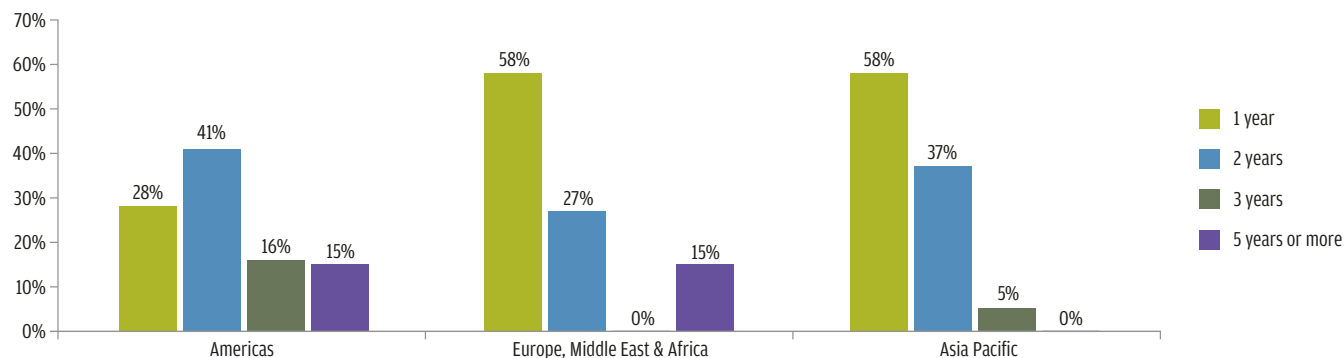
Note: Figure based on selections from 197 respondents.

FIGURE 31: Longest acceptable lockup period by investor type (2018)



Note: Figure based on selections from 197 respondents.

FIGURE 32: Longest acceptable lockup period by investor region (2018)



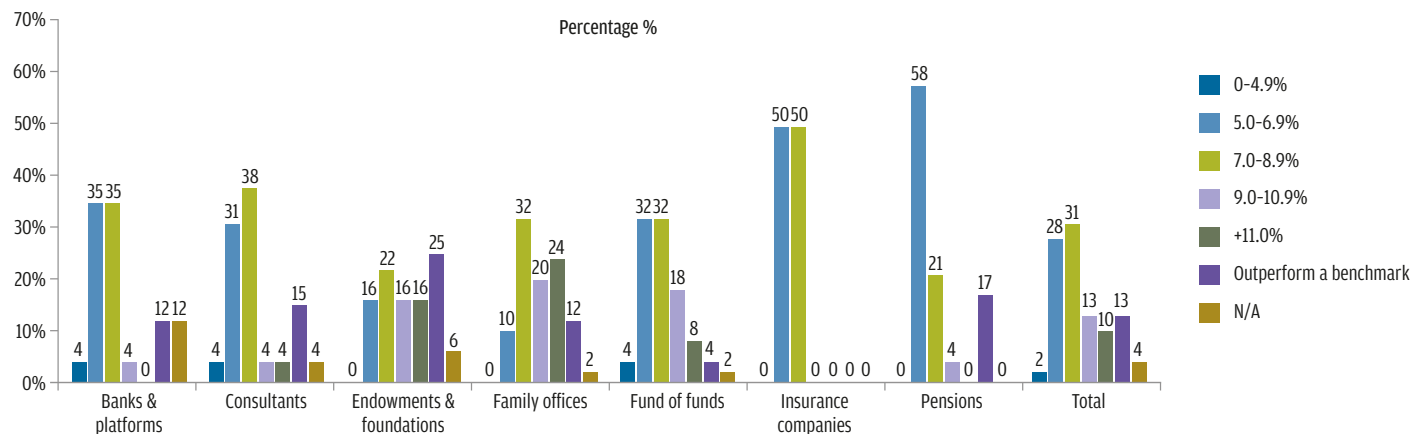
Note: Figure based on selections from 197 respondents.

### C. Hedge fund performance and expected fund flows

After the predominantly positive market environment in 2017, risk assets experienced significant turbulence throughout 2018, which translated into negative year-end performance for many hedge fund investors' portfolios. Over two-thirds of investors saw their hedge fund portfolios underperform the target in 2018. However, for 2019, most hedge fund investors expect to maintain, if not increase, their hedge fund allocations.

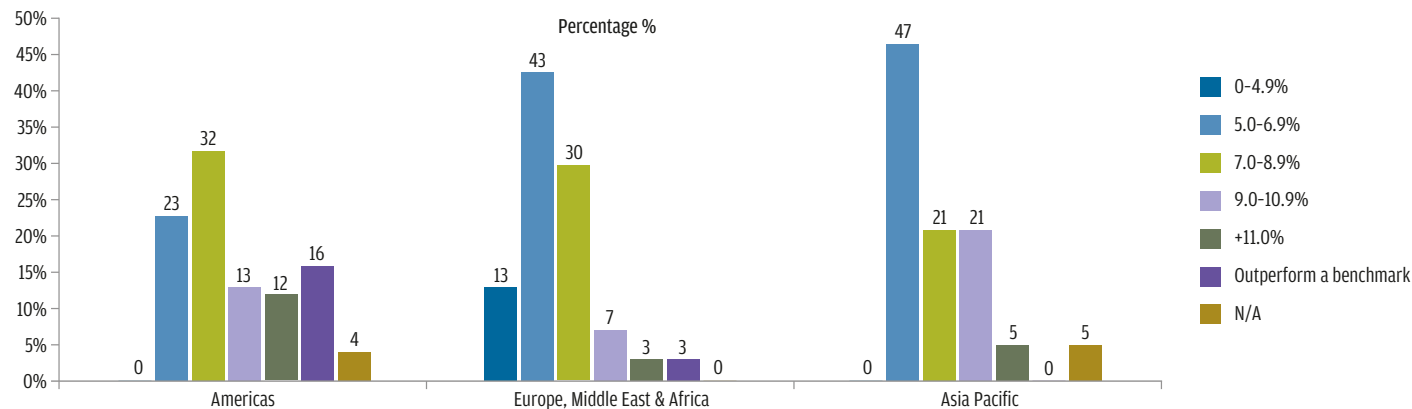
- For 2018, 68% of respondents stated their hedge fund portfolios did not meet their return targets by at least 1%. Only 13% of respondents indicated their portfolios outperformed relative to the target return.
- Americas respondents reported the lowest levels of underperformance, with 63% stating the target was missed by 1% or more, followed by 79% in Asia Pacific and 83% in EMEA. Respondents in the Americas also indicated the highest levels of outperformance, with 16% stating their hedge fund portfolios outperformed the target, followed by 5% in Asia Pacific and zero in EMEA.
- With regards to return targets, only 4% of respondents did not specify the use of a return target or benchmark for their hedge fund portfolios.
- Insurance companies and pensions tend to have a lower return target for their hedge fund investments, as many prioritize low correlation and downside/tail risk protection when investing in hedge funds. Family offices and endowments & foundations are seeking higher hedge fund returns.

FIGURE 33: Target return by investor type (2018)



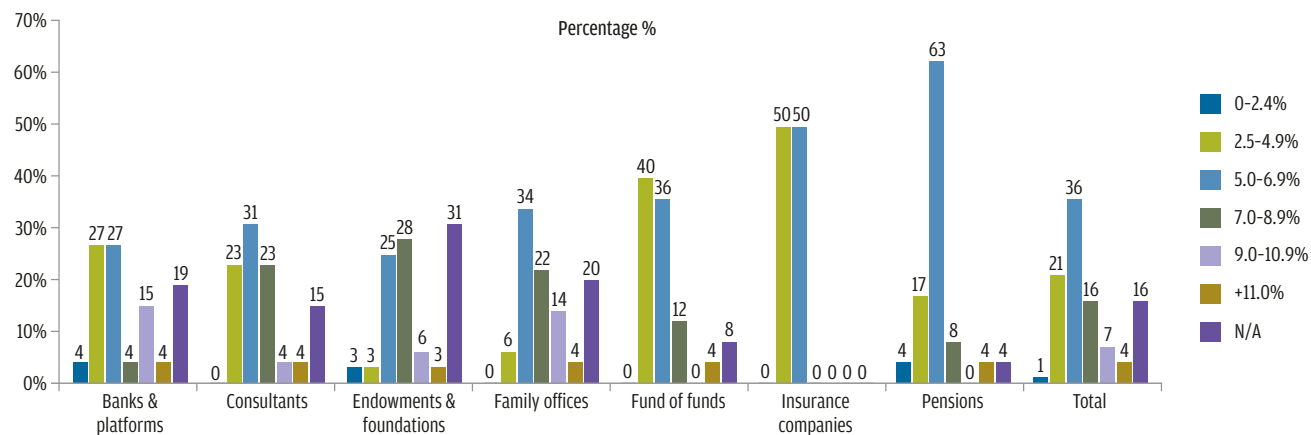
Note: Figure based on selections from 214 respondents.

FIGURE 34: Target return by region (2018)



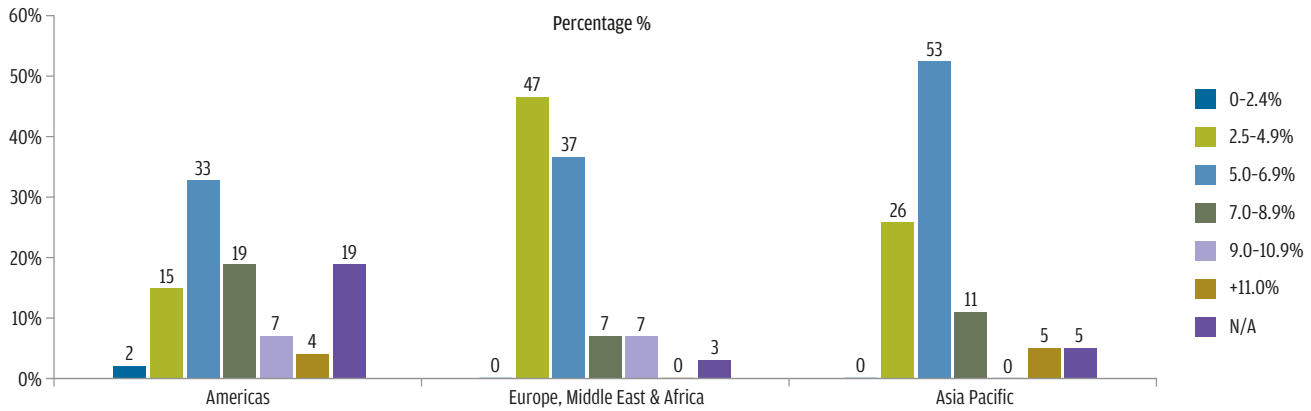
Note: Figure based on selections from 214 respondents.

FIGURE 35: Target volatility by investor type (2018)



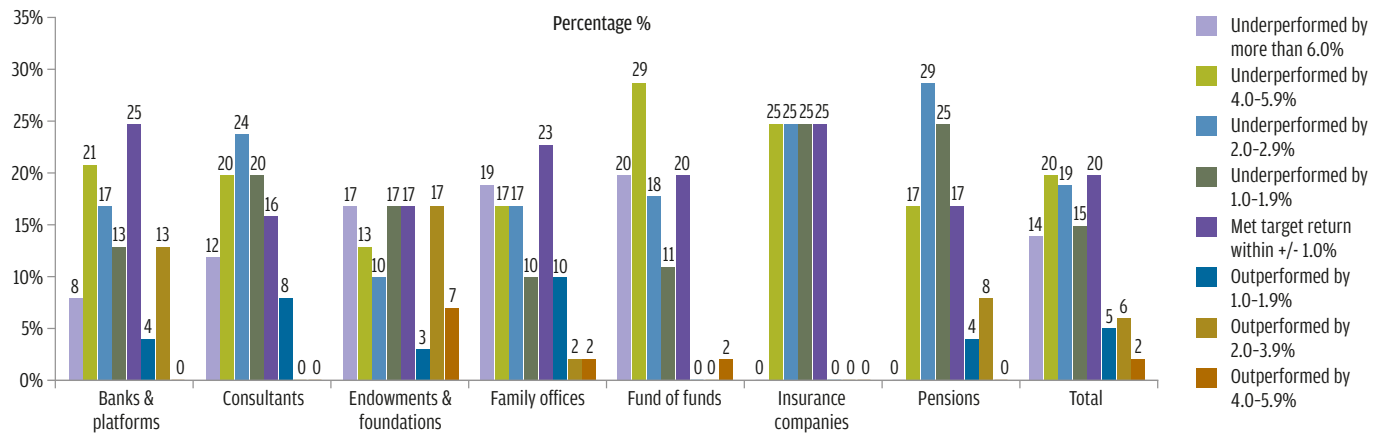
Note: Figure based on selections from 214 respondents.

FIGURE 36: Target volatility by investor region (2018)



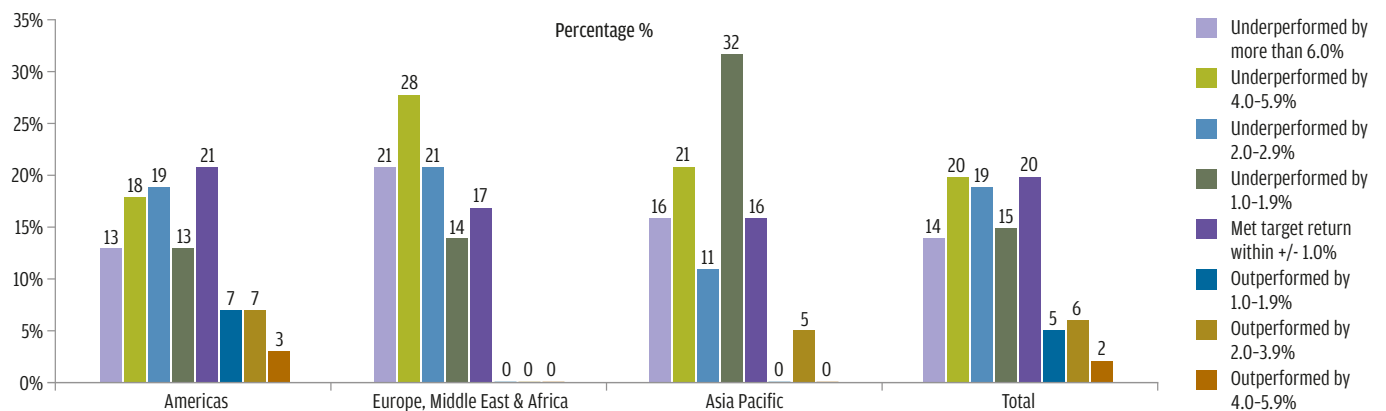
Note: Figure based on selections from 214 respondents.

FIGURE 37: Performance relative to target return by investor type (2018)



Note: Figure based on selections from 200 respondents.

FIGURE 38: Performance relative to target return by region (2018)

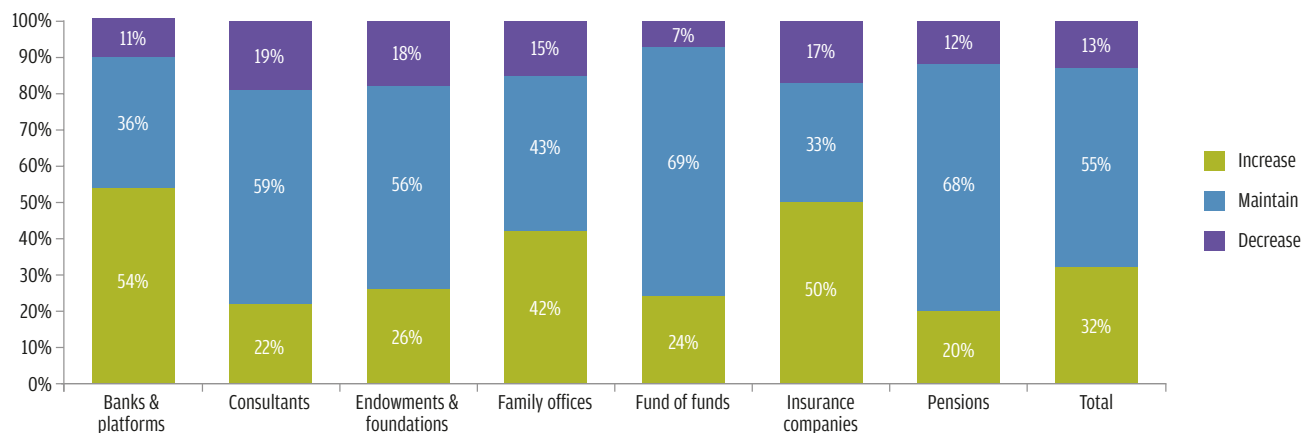


Note: Figure based on selections from 200 respondents.

While the majority of investors expect to maintain their hedge fund exposure in 2019, many will look to redeem capital and reallocate across different strategies and managers, more so than in previous years.

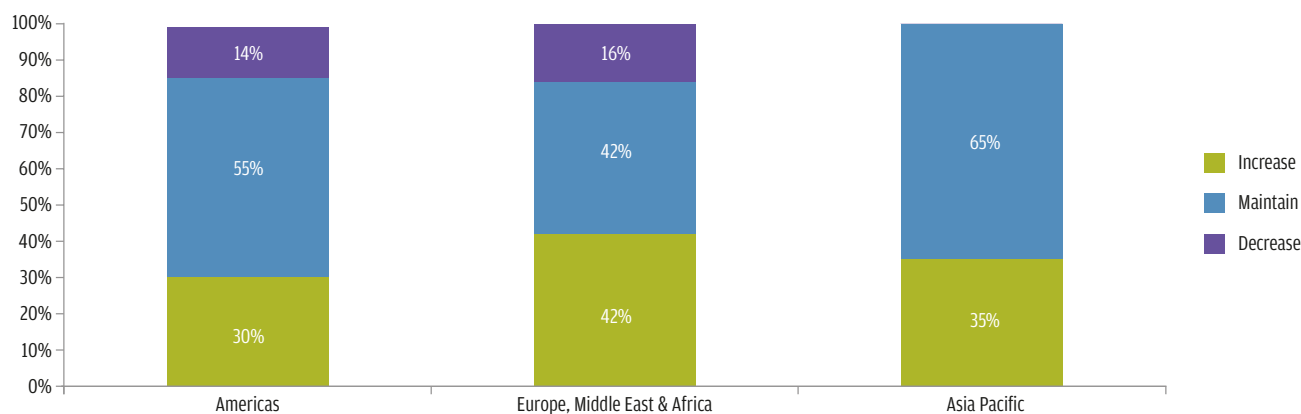
- 55% of respondents indicated their hedge fund allocations will remain the same in 2019, but 32% expect to increase their portfolios' overall hedge fund allocation.
- Banks & platforms and insurance companies have a higher percentage of respondents looking to add to their hedge fund allocations, while pensions and consultants have the lowest percentages.
- From a regional perspective, EMEA respondents expect to have the largest levels of activity, leading both categories in increasing hedge fund exposure and decreasing hedge fund exposure. No Asia Pacific investors reported an expected decrease in hedge fund exposure.

FIGURE 39: Expected change to overall hedge fund allocation in 2019 by investor type



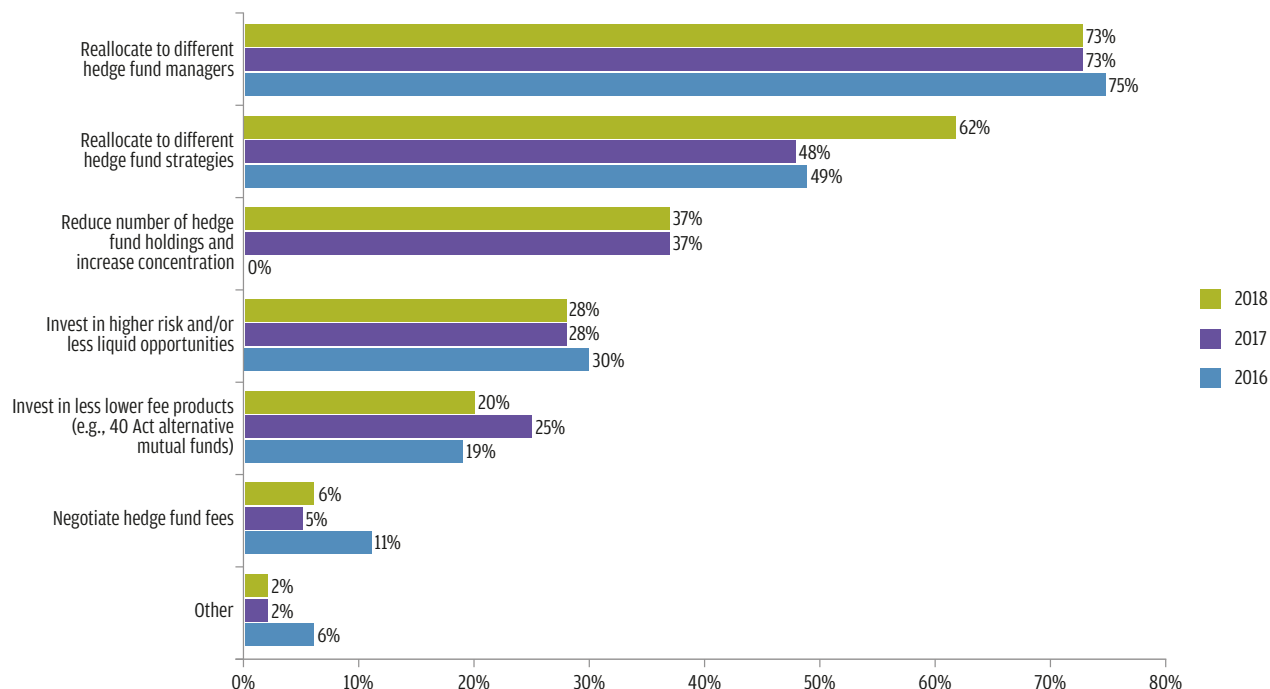
Note: Figure based on selections from 227 respondents.

FIGURE 40: Expected change to overall hedge fund allocation in 2019 by region



Note: Figure based on selections from 227 respondents.

FIGURE 41: Expected portfolio changes to meet return target the following year



Note: Figure based on selections from respondents in each respective year. Respondents were permitted to make multiple selections.

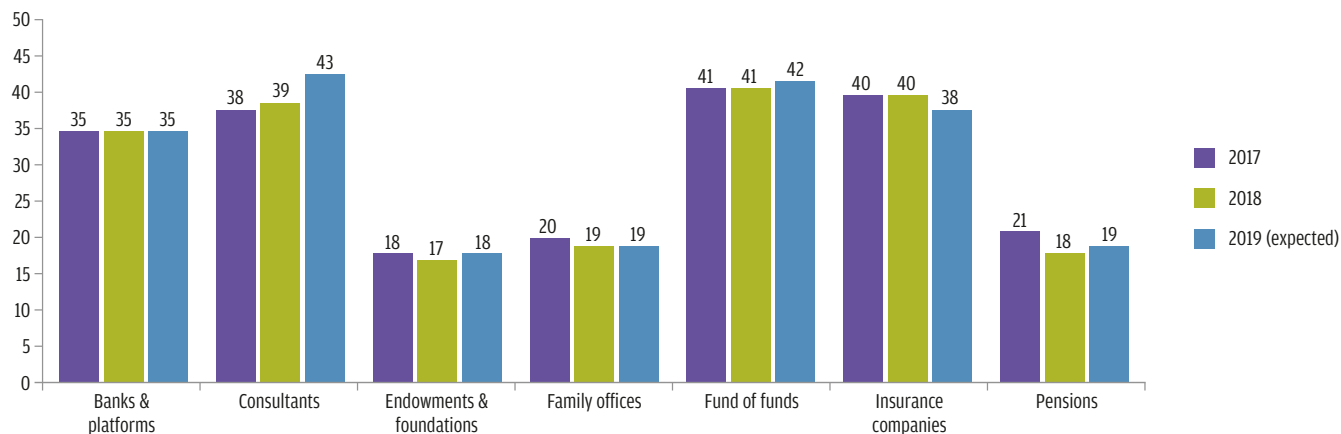
#### D. Number of hedge fund investments

On the back of positive performance in 2017, investors increased the number of line items in their hedge fund portfolios for 2018. In reality, more investors ended up reducing the number of hedge fund investments than those that increased. Looking to 2019, investors predominantly expect to maintain or make additional hedge allocations to their portfolios.

- The average number of hedge fund allocations by investor type ranges from 35-40 for banks & platforms, consultants, fund of funds and insurance companies. All other investor segments tend to have approximately 20 hedge fund allocations in their portfolios on average.
- In 2018, 40% of respondents reduced the number of hedge funds in which they were invested, compared with 36% that increased their number of hedge fund allocations.
- For 2019, 42% of respondents are expecting to increase the number of hedge fund investments in their portfolios, a slight increase from the expectation of 37% in 2018. Also similar to last year, only 22% of respondents plan to decrease the number of hedge funds they allocate to.
- 61% of banks & platforms and 50% of consultants plan to increase the number of hedge funds in their portfolios in 2019, the highest across all investor types.
- Geographically, Asia Pacific has the highest percentage of respondents (55%) who are looking to increase their number of hedge funds and the lowest percentage (10%) of those who plan to decrease investments.

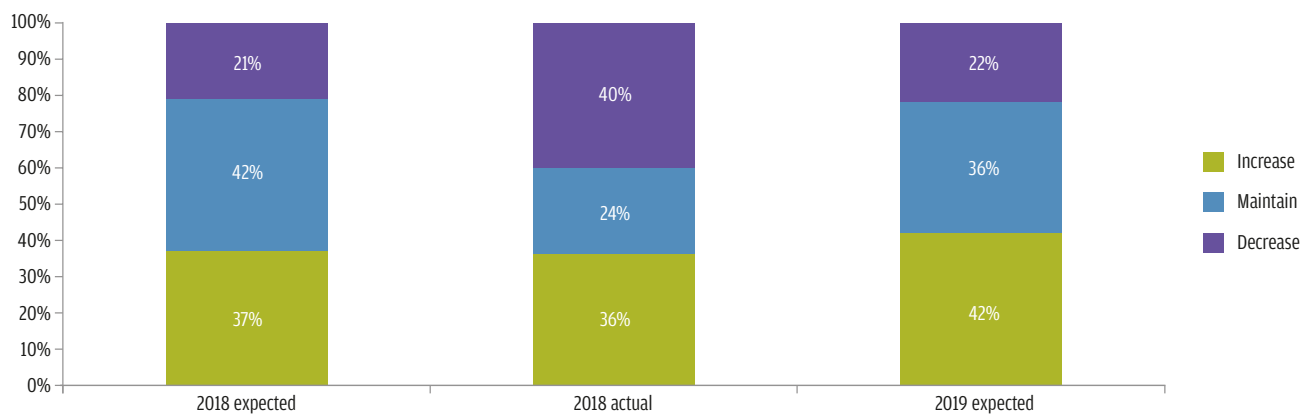


FIGURE 42: Average number of hedge fund allocations



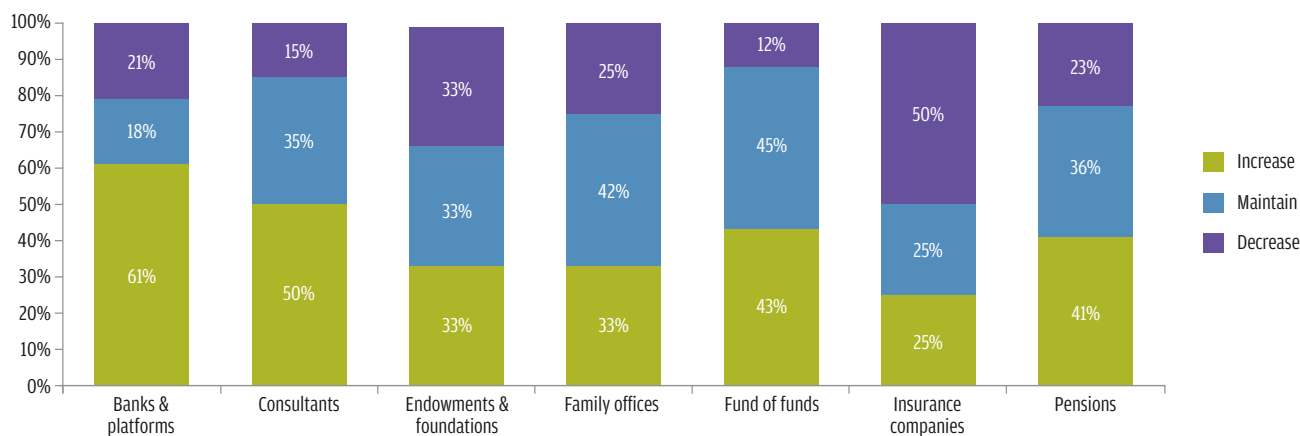
Note: Figure based on selections from respondents in each respective year.

FIGURE 43: Expected and actual change in number of hedge fund allocations



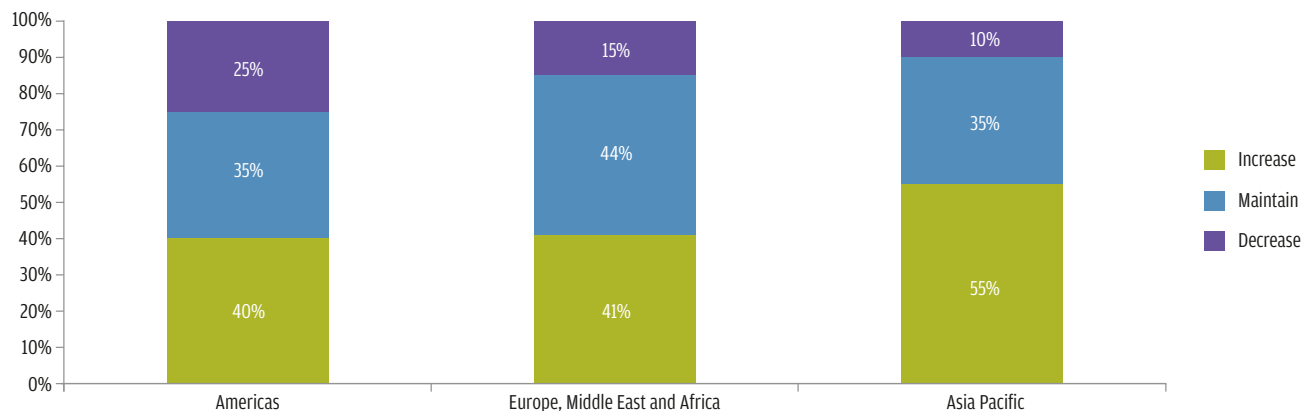
Note: Figure based on selections from respondents in each respective year

FIGURE 44: Expected change in the number of hedge fund investments in 2019 by investor type



Note: Figure based on selections from 210 respondents.

FIGURE 45: Expected change in the number of hedge fund investments in 2019 by investor region



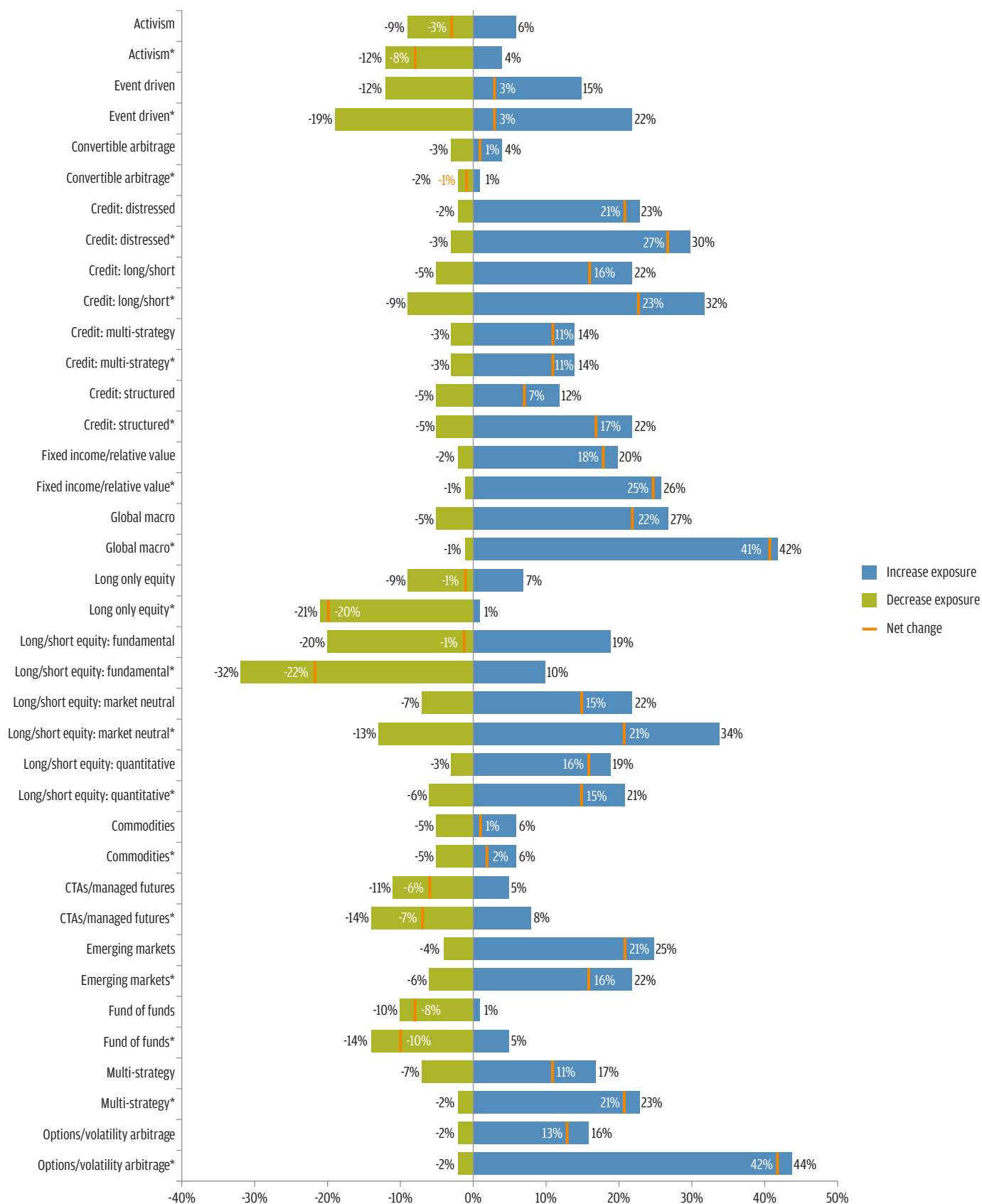
Note: Figure based on selections from 222 respondents.

### E. Expected strategy exposure change in 2019

In 2019, investors are expecting to allocate the most capital to strategies including global macro, emerging markets, credit: distressed, and long/short equity: market neutral. Alternatively, long/short equity: fundamental, event driven, and CTAs/managed futures are expected to have the most outflows.

- On a net basis, 22% of respondents plan to allocate more capital to global macro, followed by emerging markets (21%) and credit: distressed (21%).
- Quantitative strategies as a whole have continued to see increased interest over recent years: 19% of respondents indicated an expectation to increase exposure to long/short equity: quantitative strategies, with only 3% planning to decrease exposure.
- After negative equity performance in 2018, long/short equity: fundamental funds are expected to receive significant redemptions and reallocations as 20% of investors expect to decrease exposure while 19% plan to increase exposure.
- Appetite for credit strategies has increased significantly in comparison with the past few years, with the net exposure change to all credit sub-strategies to be at least 10%.
- Fund of funds continue to expect year-over-year net outflows as 8% of investors expect to decrease exposure to this segment.
- On an asset-weighted basis, changes across strategies are predominantly similar, with the exception that there is a greater magnitude of the expected changes within most strategies. Option/volatility arbitrage is also expected to receive the largest positive exposure change in 2019 on an asset-weighted basis.

FIGURE 46: Expected strategy exposure change in 2019 (\*asset-weighted)



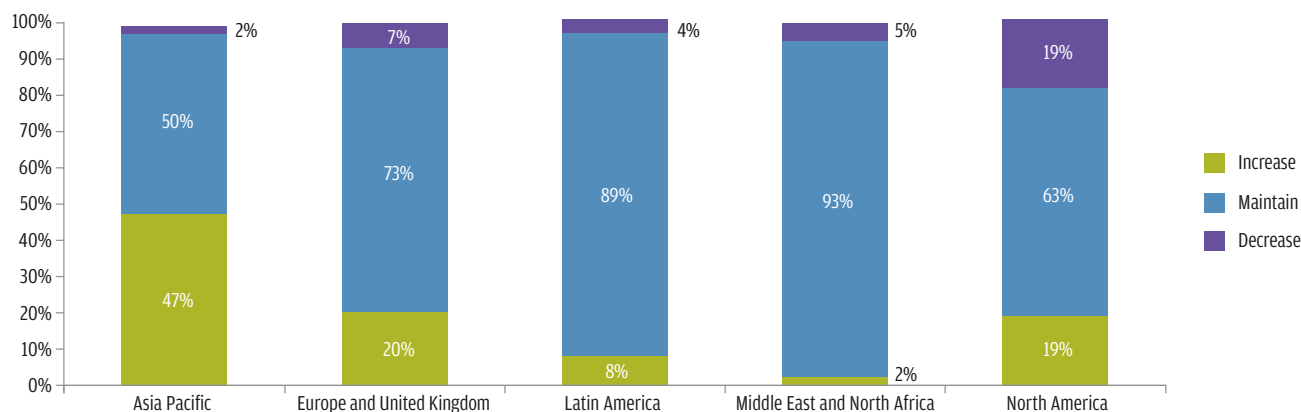
Note: Figure based on selections from 209 respondents.

## F. Expected geographic exposure change in 2019

Respondents to this year's survey are more positive on Asia Pacific and Europe, as many of them plan to increase their exposure to those two regions.

- 69% of respondents indicated current exposure to Asia Pacific and 47% expect to increase their exposure in 2019, by far the largest expected exposure increase among all regions.
- Latin America and the Middle East and North Africa are expected to see the lowest levels of exposure change out of the five regions.

FIGURE 47: Expected change in geographic exposure in 2019



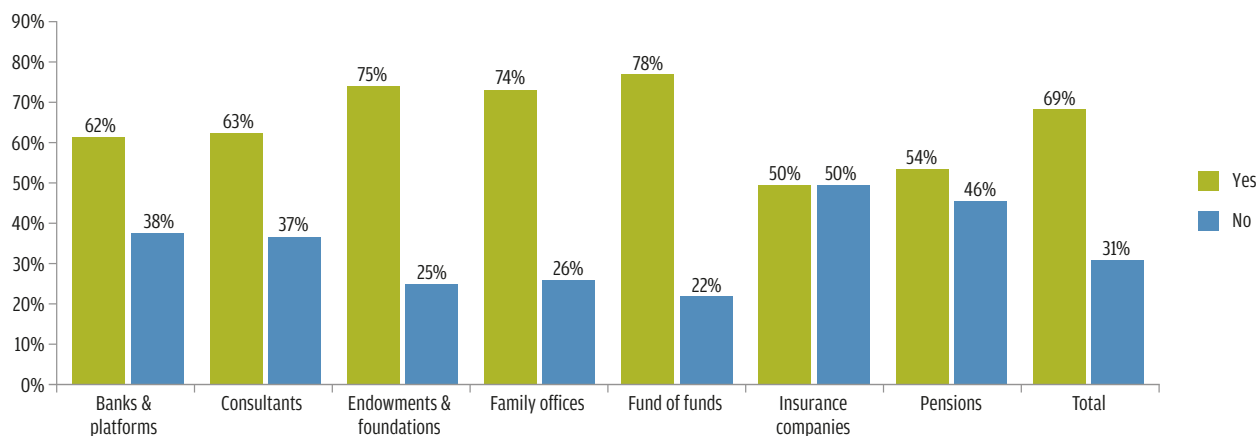
Note: Figure based on selections from 220 respondents.

## G. New launches

Allocating to new launches has been an increasing trend among hedge fund investors for multiple reasons including diversification and access to lower fees. However, the bar remains high for emerging managers to receive allocations, particularly from larger investors. 69% of all investors surveyed indicated willingness to consider allocating to new launches, down slightly from 71% last year. For investors that made at least one allocation to a new launch in 2018, roughly half made a single allocation.

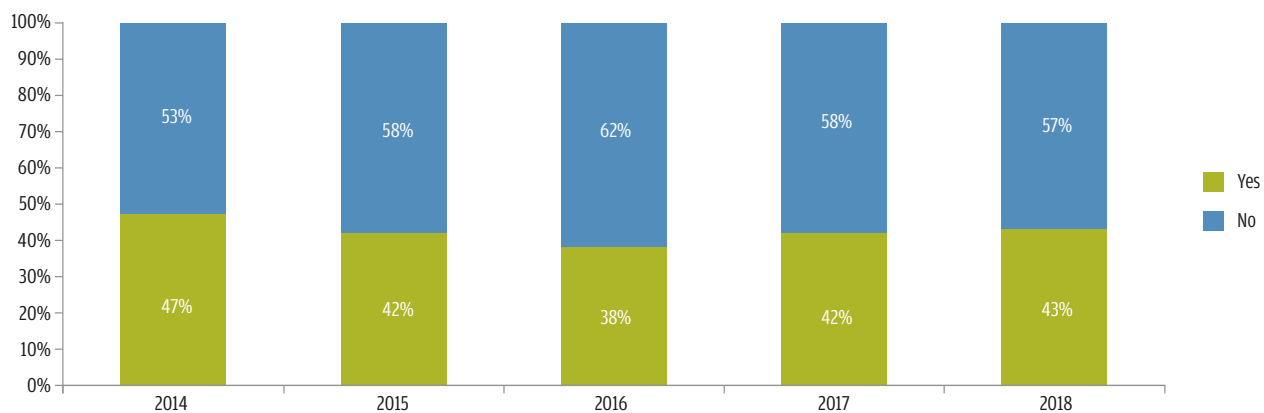
- Compared with 69% of respondents willing to invest in new launches, 43% actually made such an investment in 2018, the highest mark since 2014.
- Fund of funds and banks & platforms are the most active new launch investors. Of those open to investing in new launches, 72% of fund of funds made an allocation, the highest among investor types. 31% of banks & platforms looking at new launches made at least three allocations in 2018, also the most of each investor type.
- 29% of pensions looking at new launches allocated more than \$250 million to the space, the highest percentage in the investor segments. On the opposite end, 54% of family offices allocated \$10 million or less in 2018 to new launch managers.

FIGURE 48: Consider investing in new launches?



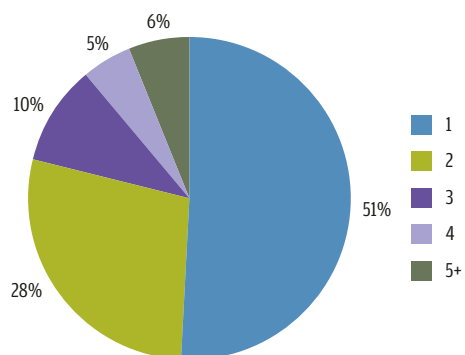
Note: Figure based on selections from 215 respondents.

FIGURE 49: Percentage of investors allocated to at least one new launch



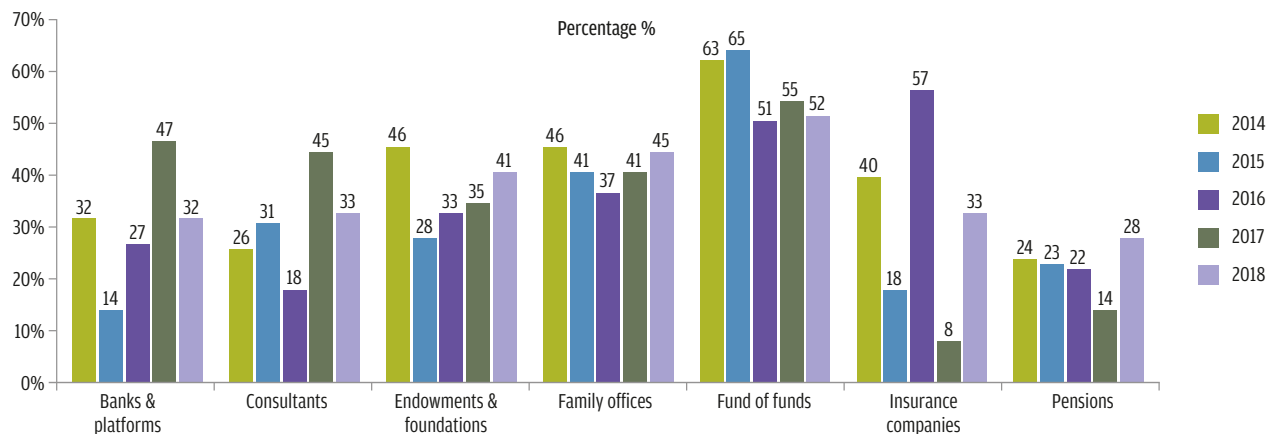
Note: Figure based on selections from respondents in each respective year.

FIGURE 50: Number of investments made to new launch managers (2018)



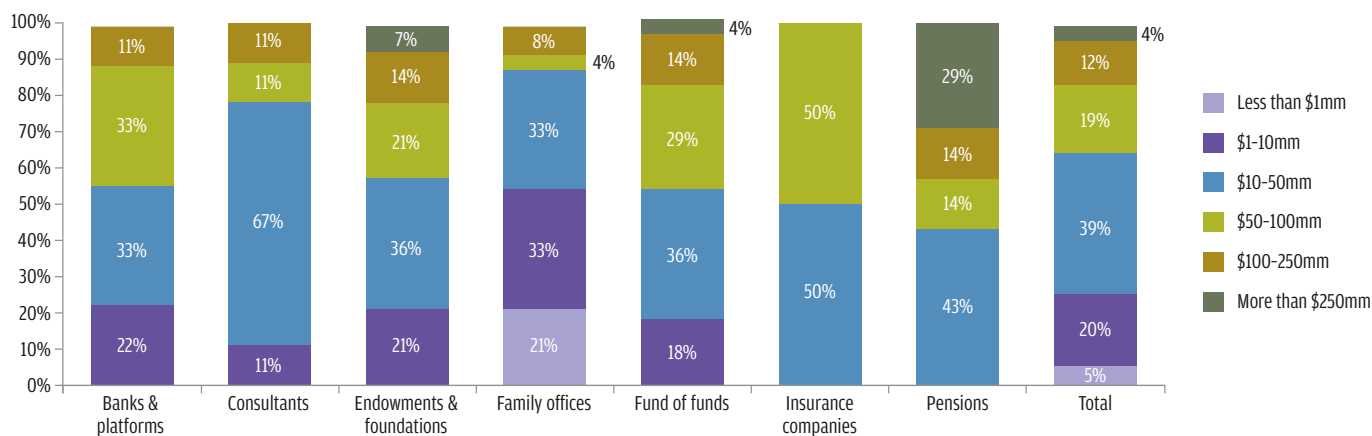
Note: Figure based on selections from 93 respondents.

FIGURE 51: Percentage of respondents who made allocation to new launches by investor type



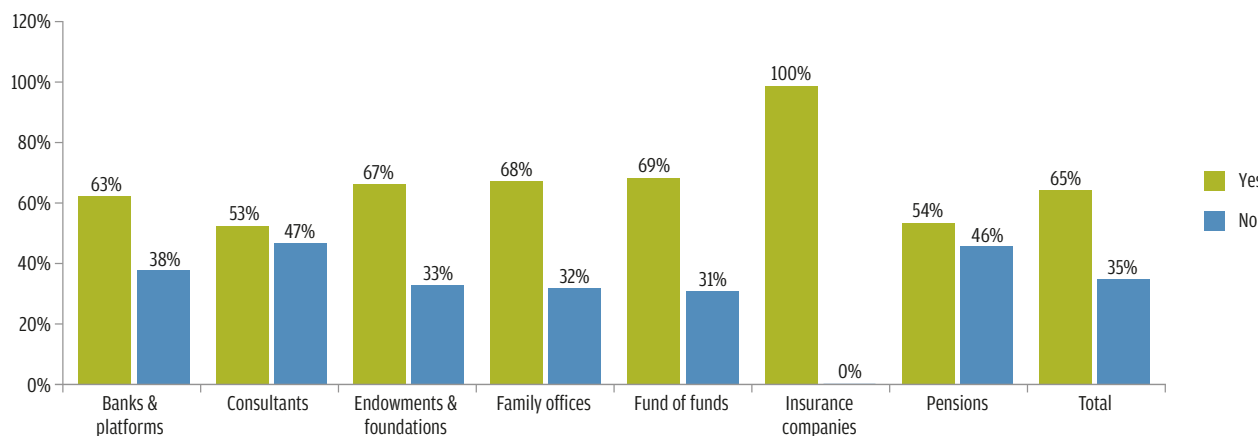
Note: Figure based on selections from respondents in each respective year.

FIGURE 52: Capital allocated to new launches by investor type (2018)



Note: Figure based on selections from 93 respondents.

FIGURE 53: Willingness to allocate to new launch managers without a pre-existing relationship (2018)



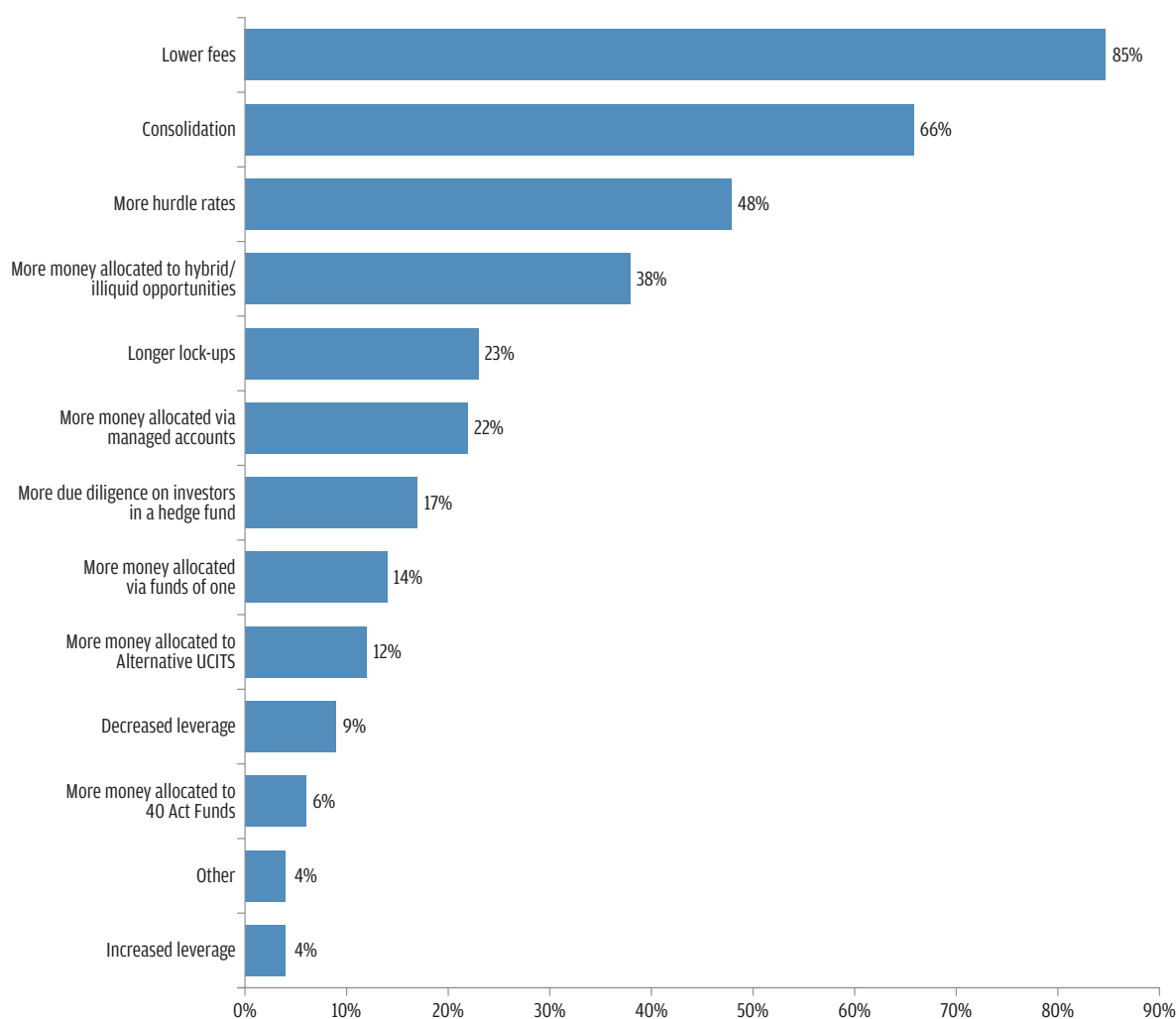
Note: Figure based on selections from 149 respondents.

### H. Industry trends

Similar to last year, respondents indicated they expect to see lower fees and consolidation as key themes in the hedge fund industry.

- Lower fees and more hurdle rates continue as the dominant trend of the past several years as investors and hedge fund managers work together to build fee structures that seek an alignment of interests.
- Respondents are also expecting more capital to flow into less liquid, hybrid vehicles. These types of hybrid opportunities are typically seen as uncorrelated return streams that complement investors’ hedge fund portfolios.

FIGURE 54: Expected industry trends in 2019



Note: Figure based on selections from 223 respondents. Respondents were permitted to make multiple selections.

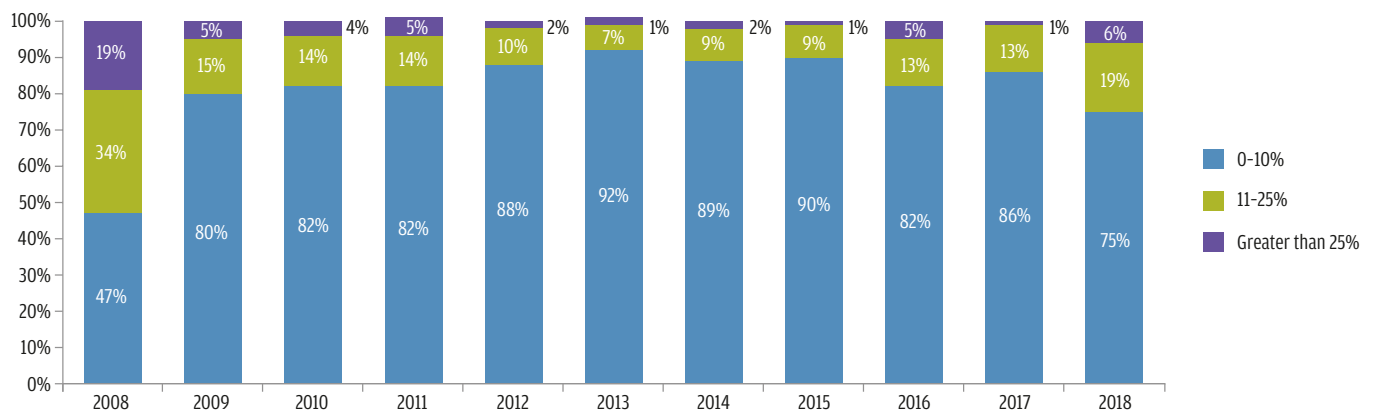
## IV. Special topics

### A. Dry powder

As 2018 drew to a close, investors indicated having higher levels of dry powder in their portfolios than previous years, most notably in the family office segment.

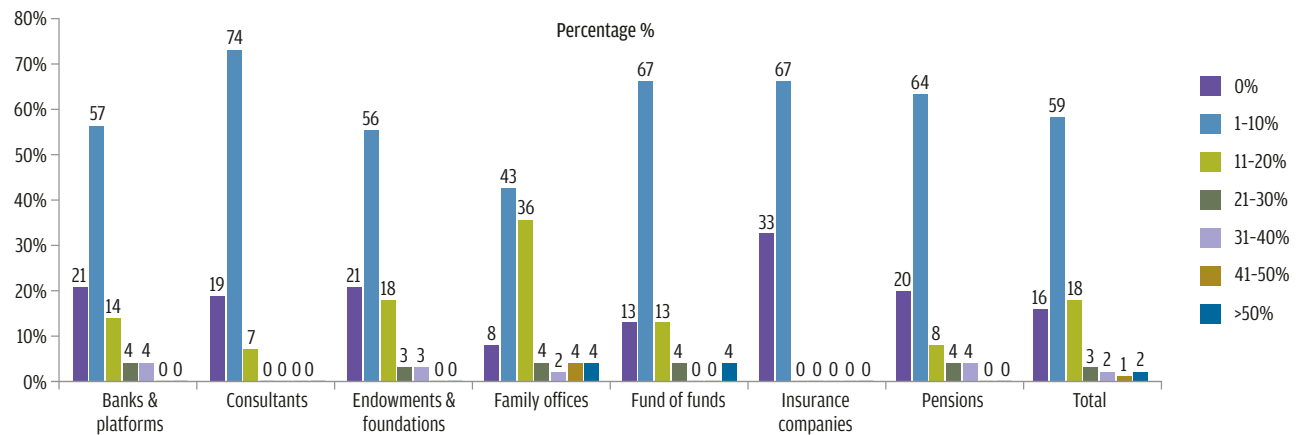
- 25% of respondents' portfolios are at least 10% dry powder, which is the highest level of dry powder since 2008.
- 13% of family offices have more than 20% of their portfolios in dry powder, the highest among all investor types.

FIGURE 55: Percent of dry powder in portfolio



Note: Figure based on selections from respondents in each respective year.

FIGURE 56: Percent of portfolio in dry powder by investor type (2018)



Note: Figure based on selections from 227 respondents.

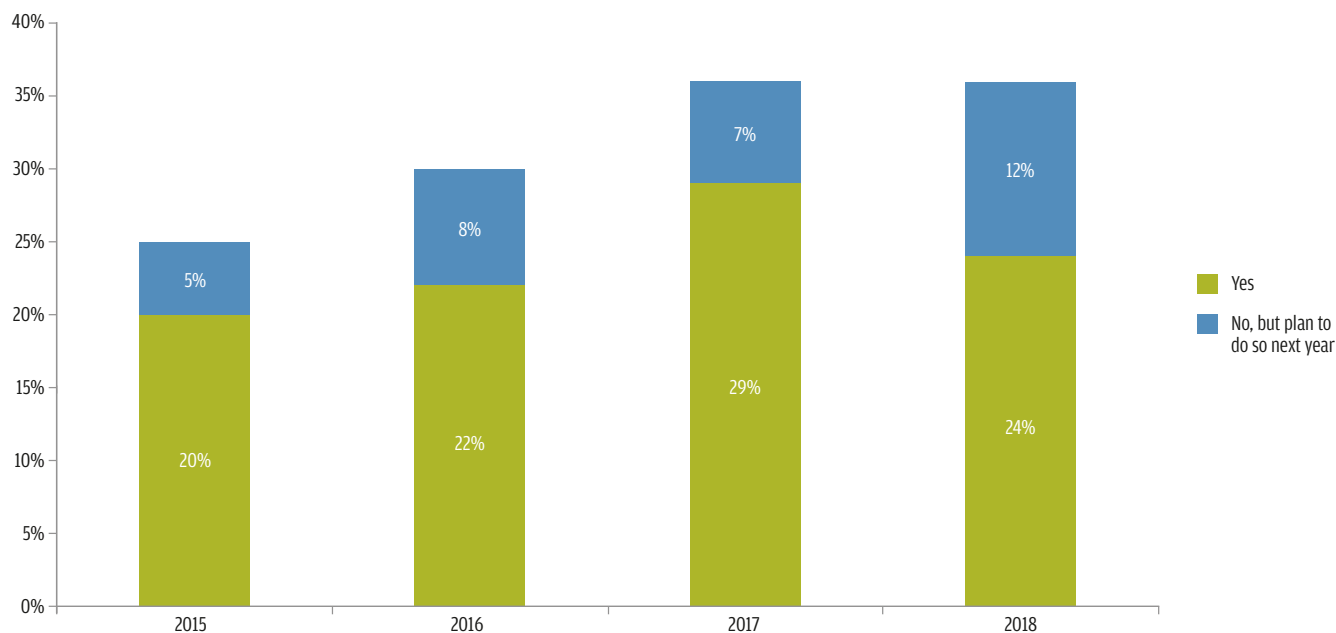


## B. Alternative risk premia

Overall, interest in risk premia strategies has tempered, likely due to stagnant performance in 2018. However, investors outside EMEA (where risk premia is most highly utilized) plan to increase their exposure significantly in 2019, particularly in the private bank & pension segments. Common reasons for investing in risk premia strategies have consistently included isolating risk premia exposures, low costs and liquidity.

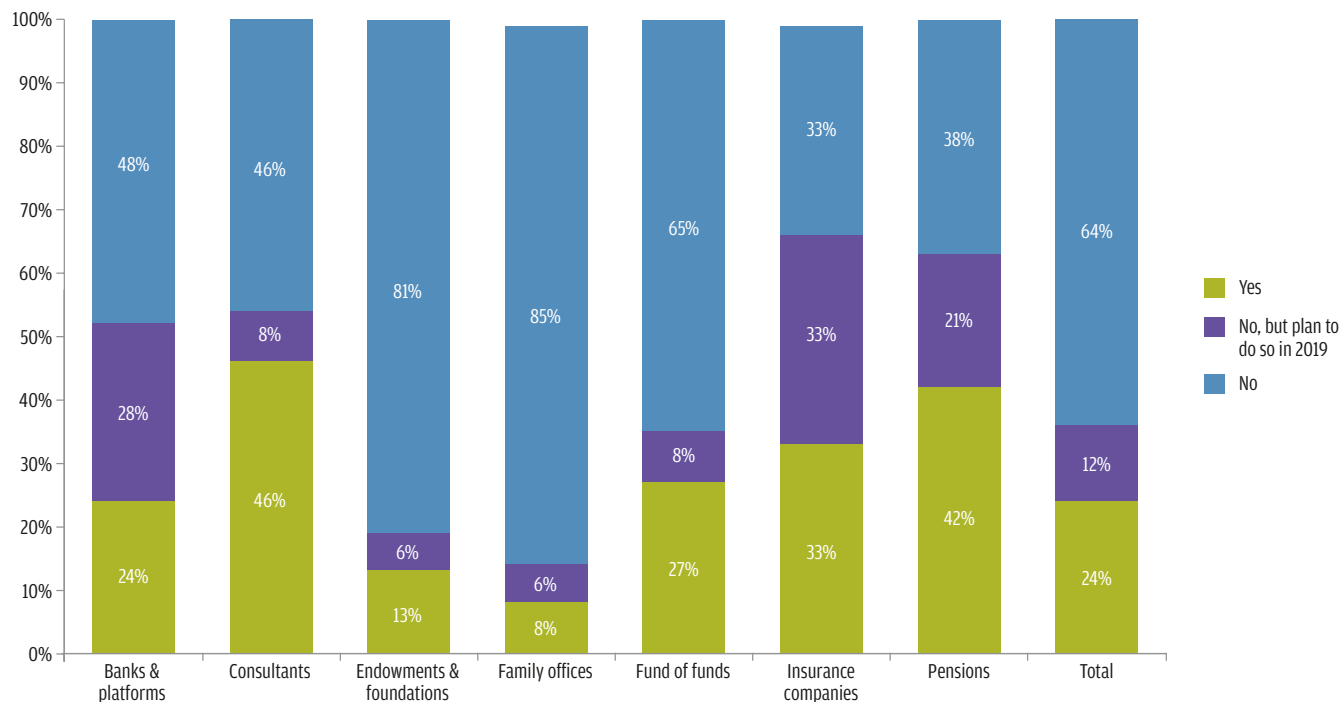
- 24% of respondents are invested in risk premia strategies as of 2018, down from 29% in 2017. However, 12% of respondents are considering allocating to risk premia in 2019.
- As of 2018, consultants (46%) and pensions (42%) use risk premia strategies more than any other investor types. On the opposite end, only 8% of family offices and 13% of endowments & foundations currently allocate to risk premia strategies.
- Of the respondents who have invested or will invest in alternative risk premia strategies, close to 90% view these products as a complement to their hedge fund investments. Less than 5% of respondents use alternative risk premia strategies to replace their hedge fund allocations.
- Regionally, 21% of Asia Pacific respondents are expecting to add initial risk premia allocations in 2019, the highest percentage among the three regions. Americas respondents make up the lowest percentage of risk premia utilization at 19%, but 13% expect to add initial allocations in 2019.

FIGURE 57: Allocation to alternative risk premia



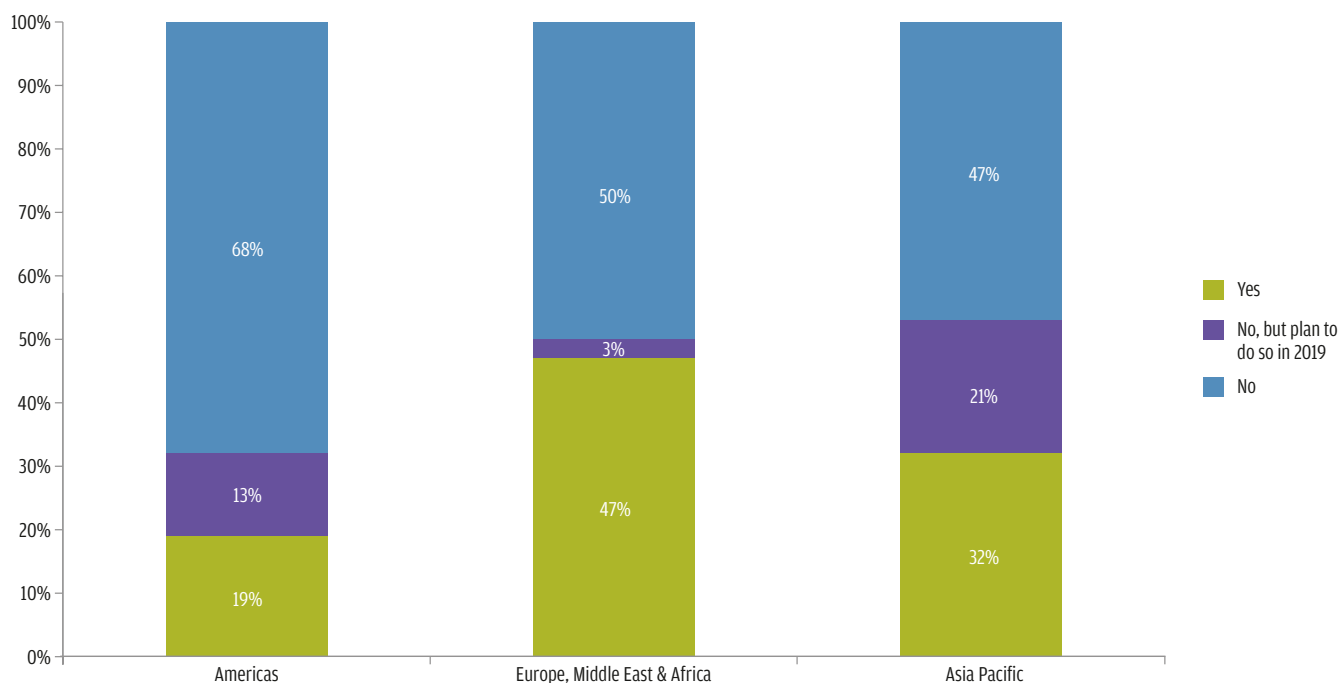
Note: Figures based on selections from respondents in each respective year.

FIGURE 58: Allocation to alternative risk premia by investor type (2018)



Note: Figure based on selections from 209 respondents.

FIGURE 59: Allocation to alternative risk premia by investor region (2018)



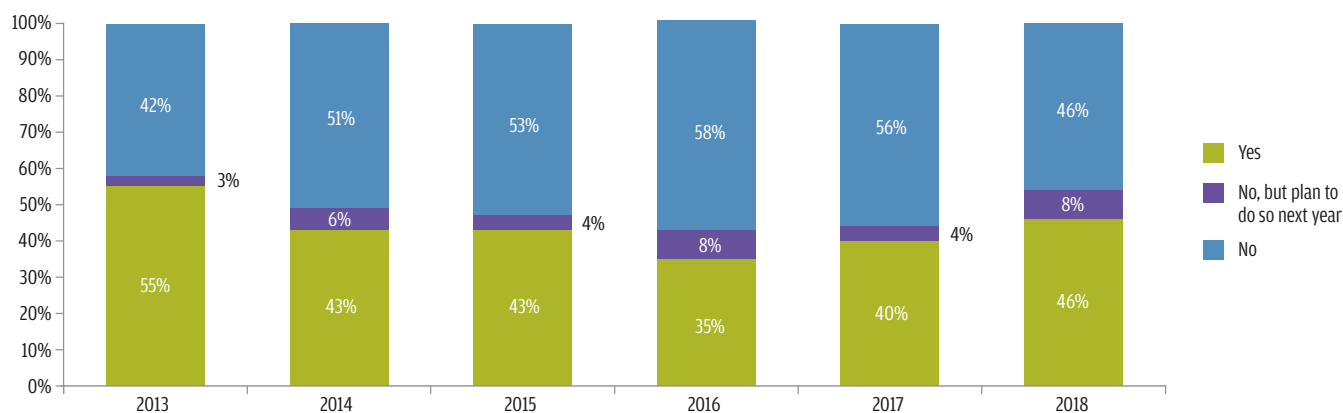
Note: Figure based on selections from 209 respondents.

### C. Longer-lock/hybrid vehicles

There continues to be increased appetite for illiquid/hybrid funds offered by hedge fund managers. These vehicles typically include a drawdown feature and have a typical lifespan of three to five years. As discussed in section 3.H, Industry trends, these opportunities are typically seen as uncorrelated and offer higher returns.

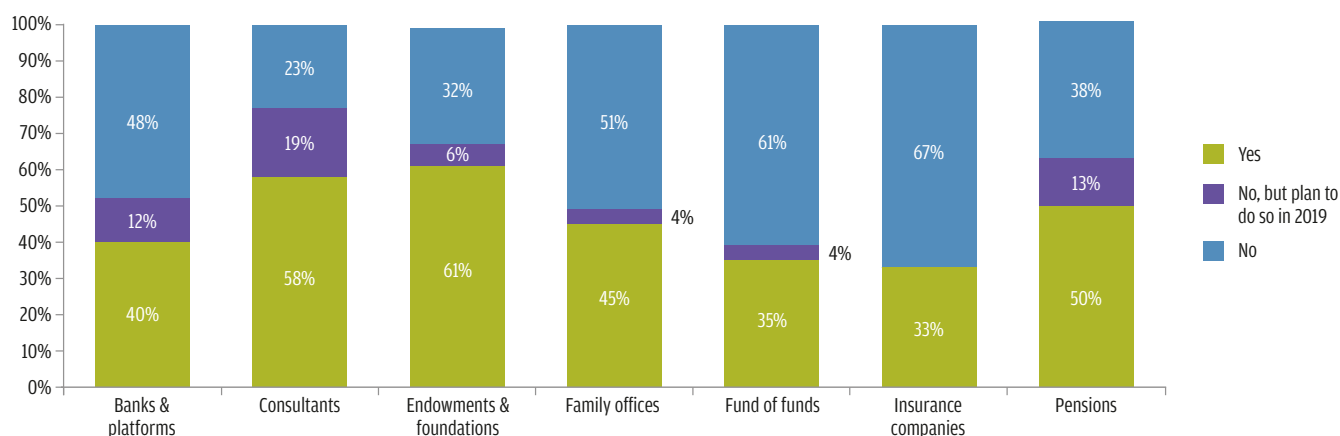
- 46% of respondents in 2018 had investments in longer-lock hybrid funds, the highest level since 2013. Outside this group, 8% of respondents also plan to make an investment to a hybrid fund in 2019.
- As expected, due to their flexibility and long investment horizon, endowments & foundations are the highest users of hybrid funds. In contrast, insurance companies are the lowest users of hybrid funds.

FIGURE 60: Invest in long-lock/hybrid funds



Note: Figure based on selections from respondents in each respective year.

FIGURE 61: Invest in long-lock/hybrid funds by investor type (2018)



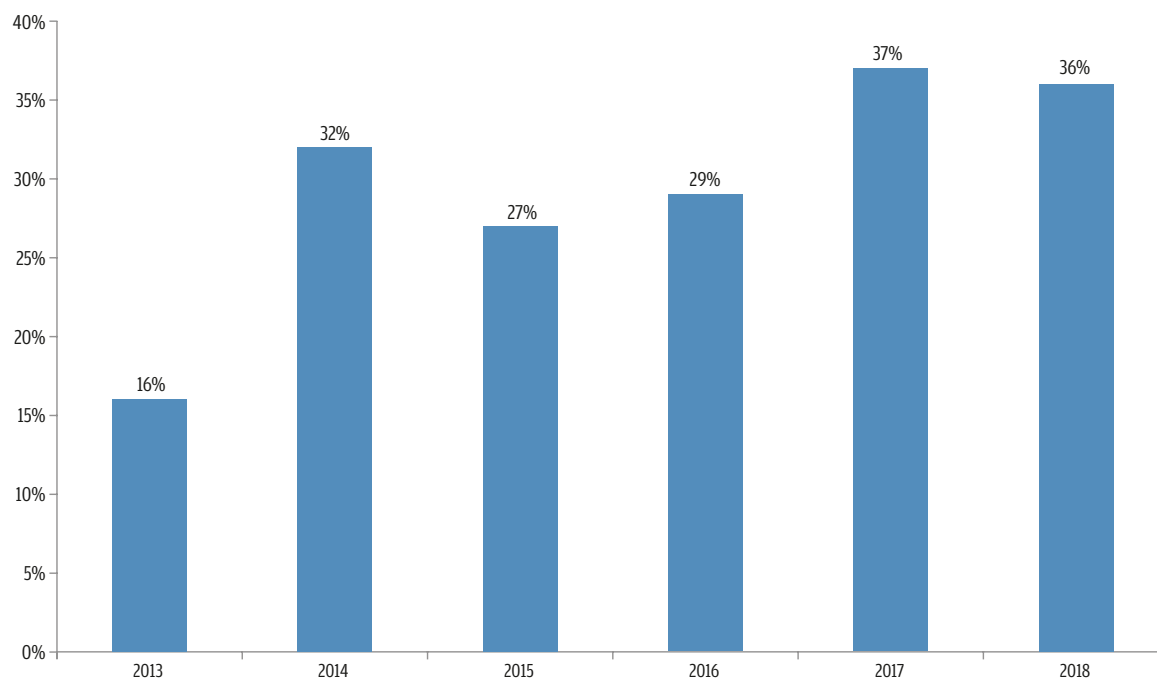
Note: Figure based on selections from 208 respondents.

## D. Managed accounts

The interest in investing via managed accounts remained in line with last year's survey results, after growth over previous years. Use of managed accounts is driven by various benefits the accounts bring to investors' portfolios, such as transparency, control over assets, lower fees and customization.

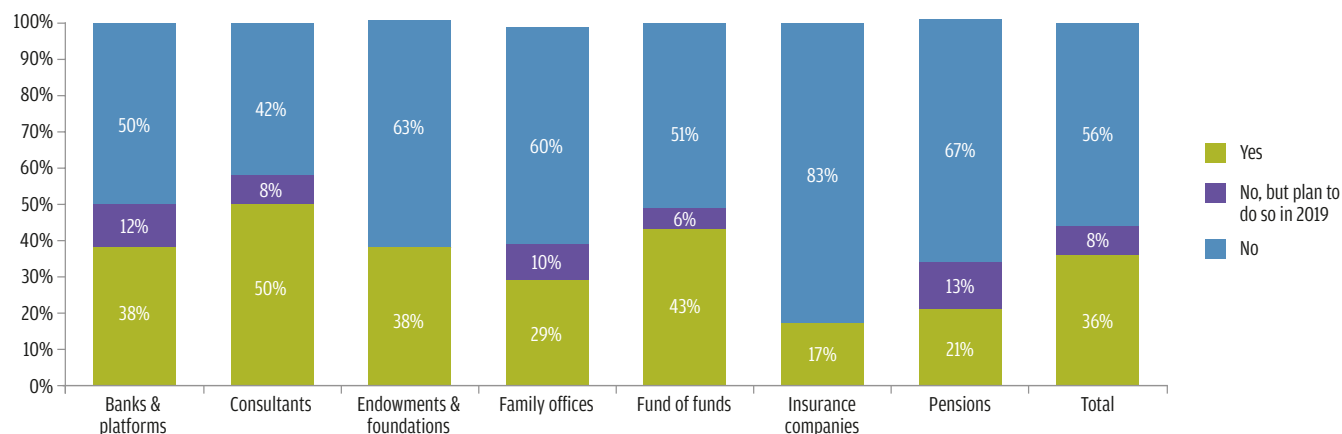
- 36% of respondents invested in hedge funds via managed accounts in 2018, compared with 37% in 2017 and 29% in 2016.
- While transparency is the most common reason respondents indicated for why they invest via managed accounts, increased control over assets and lower fees are also common factors.
- Of those who can or do invest via managed accounts, 72% of the respondents had less than 25% of their hedge fund portfolios invested via managed accounts in 2018. 9% of respondents, including banks & platforms and fund of funds, utilize managed accounts for 100% of their hedge fund allocations.
- Of the respondents who invest in hedge funds via managed accounts, 34% plan to increase their use of managed accounts. As expected, pensions (60%) and fund of funds (57%), plan to increase their usage the most.
- Of those respondents already investing via managed accounts, the majority indicated they utilize cash managed accounts (72%) over synthetic managed accounts (21%). The remaining 7% use both. 60% of pensions use synthetic managed accounts, more than double any other investor type.

FIGURE 62: Use of managed accounts



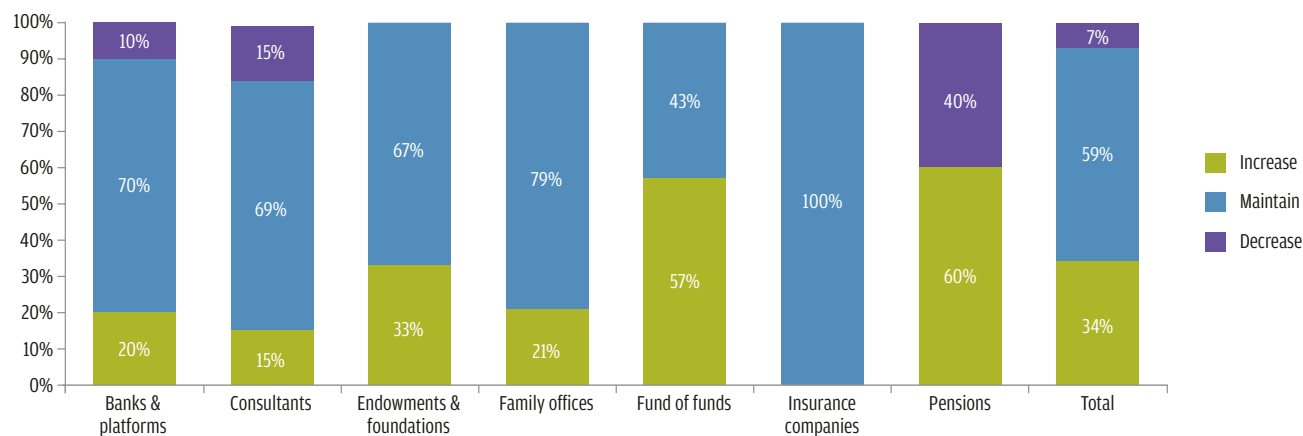
Note: Figure based on selections from respondents in each respective year.

FIGURE 63: Use of managed accounts by investor type (2018)



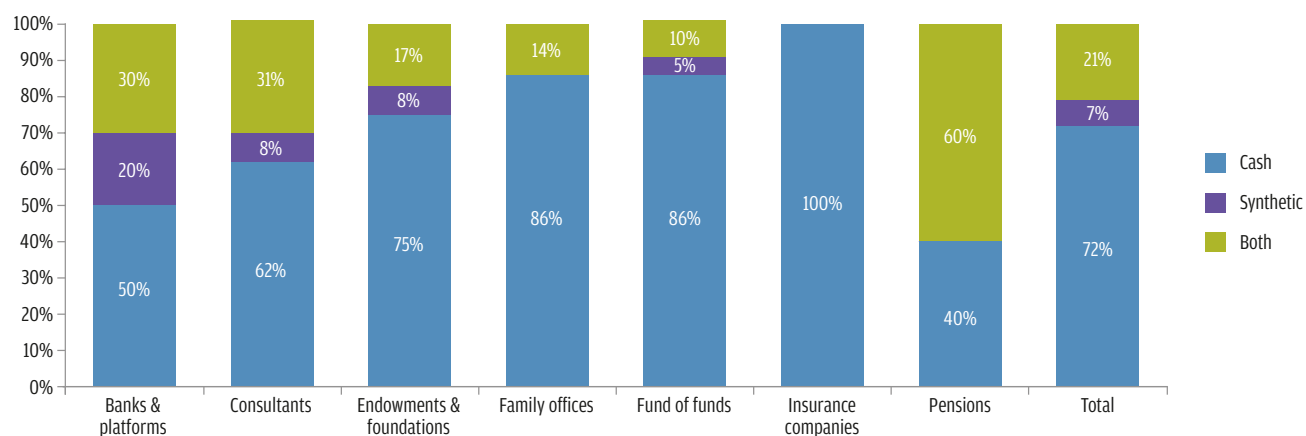
Note: Figure based on selections from 211 respondents.

FIGURE 64: Existing managed account investors expected change in use for 2019



Note: Figure based on selections from 76 respondents.

FIGURE 65: Use of cash and synthetic managed accounts (2018)



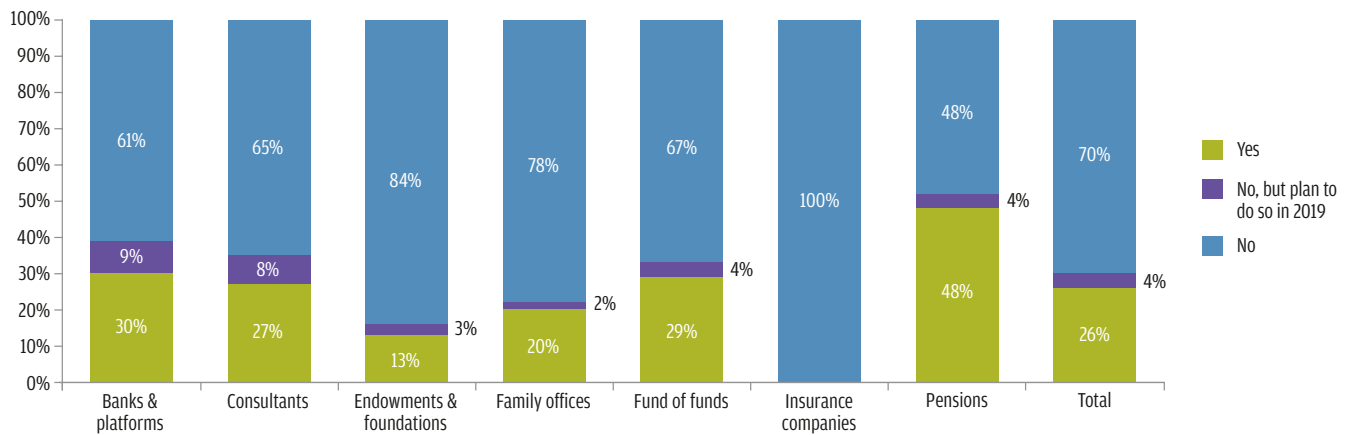
Note: Figure based on selections from 76 respondents.

### E. Funds of one

While less popular than managed accounts, roughly one-quarter of investors currently utilize funds of one.

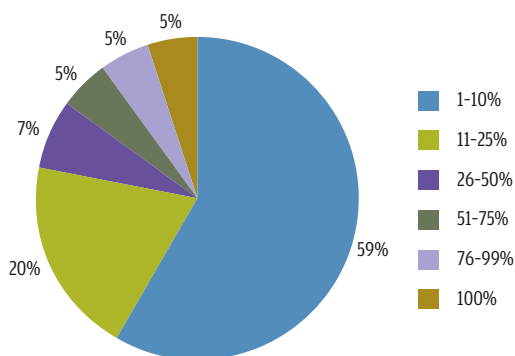
- 48% of pensions utilize funds of one, by far the highest percentage across investor types. No insurance company respondents indicated use of funds of one.
- 5% of respondents who currently utilize funds of one are making 100% of their hedge fund allocations via funds of one, while 56% allocate 1-10% of their portfolios via funds of one.
- Typical allocation sizes for funds of one vary; 40% of respondents allocated \$50 million or less on average to hedge fund managers via funds of one, while another 40% allocate at least \$100 million on average.

FIGURE 66: Use of funds of one by investor type (2018)



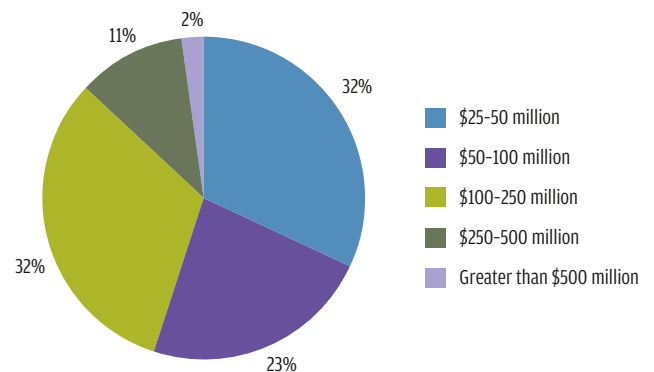
Note: Figure based on selections from 203 respondents.

FIGURE 67: Percentage of hedge fund investments via funds of one



Note: Figure based on selections from 44 respondents.

FIGURE 68: Typical size when investing in hedge funds via funds of one



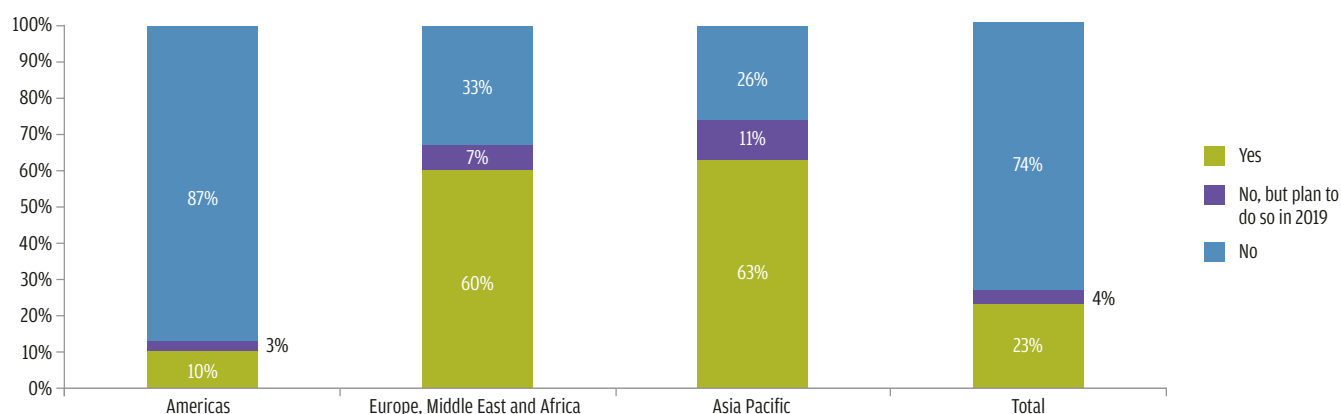
Note: Figure based on selections from 44 respondents.

### F. UCITS funds

Roughly one-quarter of the hedge investor base allocated to UCITS products in 2018, relatively stable in comparison with previous years.

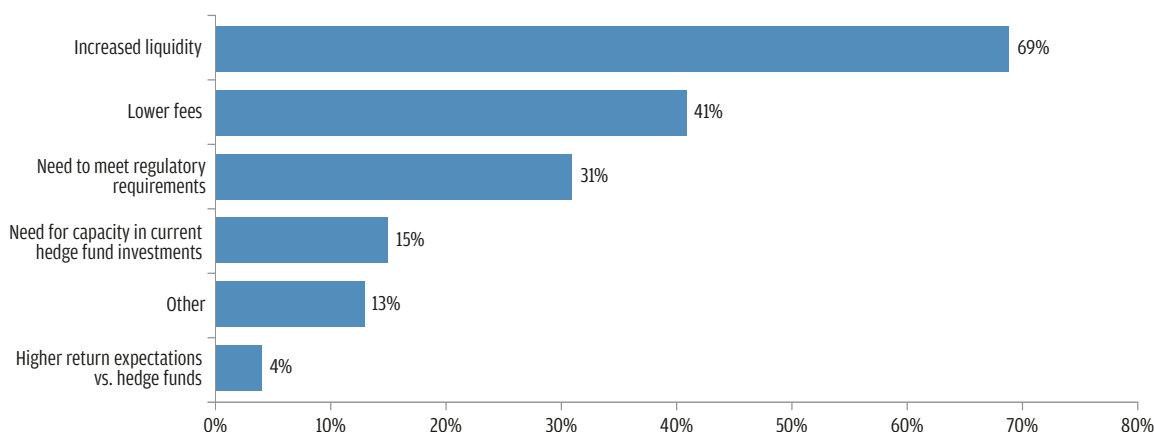
- 23% of respondents in 2018 invested in UCITS products, compared with 27% in 2017. However, 4% of respondents plan to allocate to UCITS funds in 2019, up 1% year-over-year.
- Regionally, Asia Pacific and EMEA are more active in this area, with roughly 60% of respondents in each region having current allocations to UCITS funds. In the Americas, just 10% of respondents have allocations to UCITS funds.
- Liquidity remains the dominant factor for investing in UCITS funds by hedge fund investors, followed by lower fees.
- Of the 23% of investors with current allocations, nearly 50% of respondents have less than \$100 million invested in UCITS funds.
- Although, the majority of respondents will keep their UCITS exposures consistent, 43% of these respondents expect to increase their UCITS allocations in 2019.

FIGURE 69: Investors with allocations to UCITS funds by region (2018)



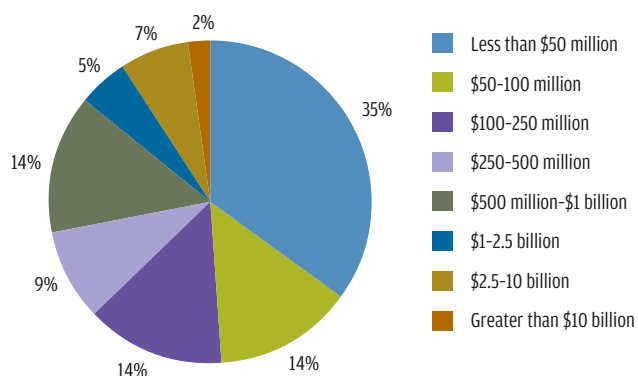
Note: Figure based on selections from 204 respondents.

FIGURE 70: Breakdown of reasons for investing in UCITS funds



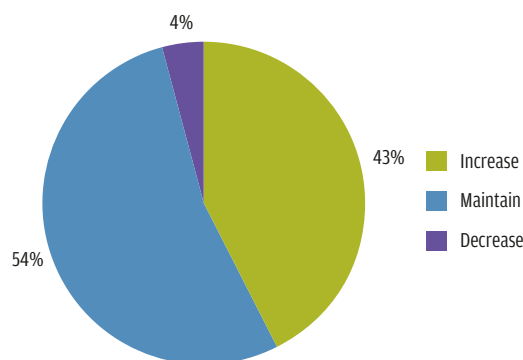
Note: Figure based on selections from 93 respondents. Respondents were permitted to make multiple selections.

FIGURE 71: Capital allocated to UCITS funds



Note: Figure based on selections from 43 respondents.

FIGURE 72: Existing UCITS investors expected change in exposure for 2019

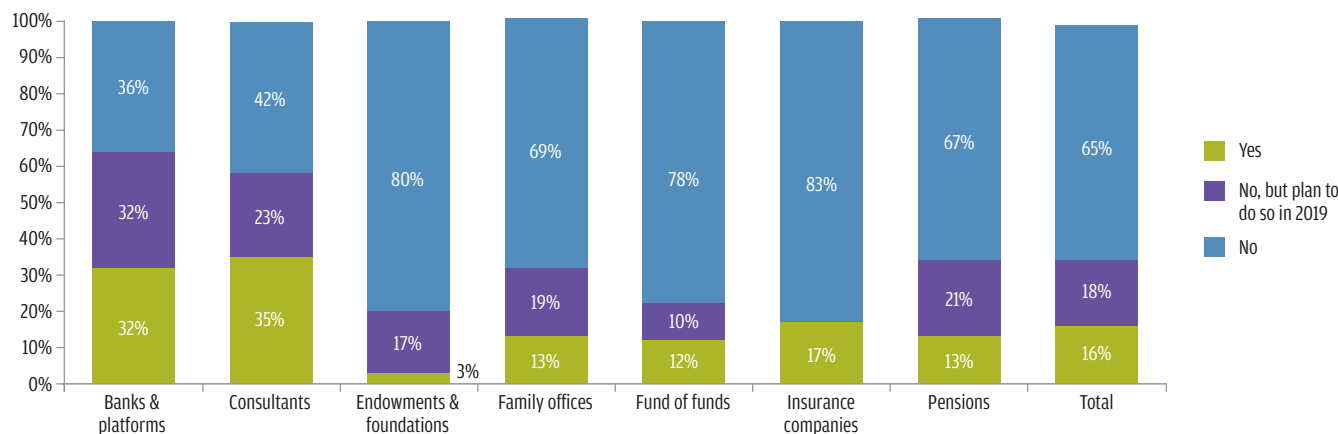


Note: Figure based on selections from 54 respondents.

### G. Impact investing

Although only 16% of respondents currently have exposure to environmental, social and governance (ESG) or socially responsible investing (SRI) investments, an additional 18% expect to add exposure in 2019. More than 20% of banks & platforms, consultants and pensions expect to add exposure to ESG or SRI strategies in 2019. Of the respondents who have or plan to add ESG or SRI exposure, 32% have a stated mandate to do so. A further 15% plan to add an ESG/SRI mandate in 2019. 41% of investors are accessing their ESG/SRI exposure through their hedge fund investments, up from 37% last year. However, other fund structures such as mutual funds/venture capital are still the more popular choice for investors' ESG/SRI exposure.

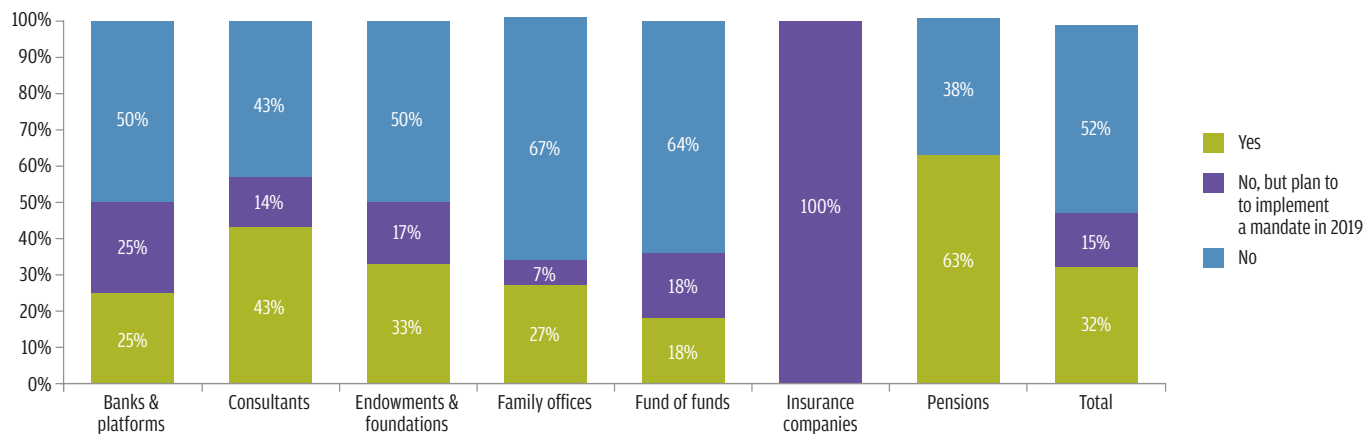
FIGURE 73: ESG/SRI hedge fund allocations by investor type (2018)



Note: Figure based on selections from 208 respondents.

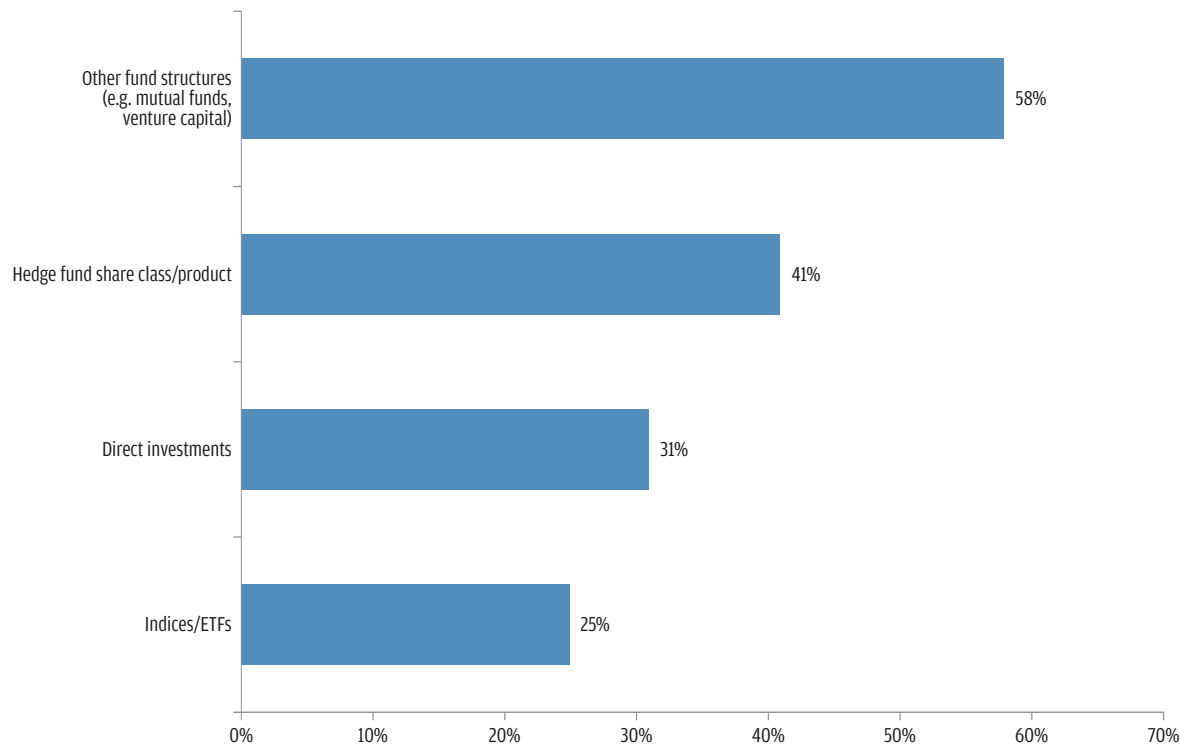


FIGURE 74: ESG/SRI investment mandate



Note: Figure based on selections from 71 respondents.

FIGURE 75: Implementation of ESG/SRI mandate

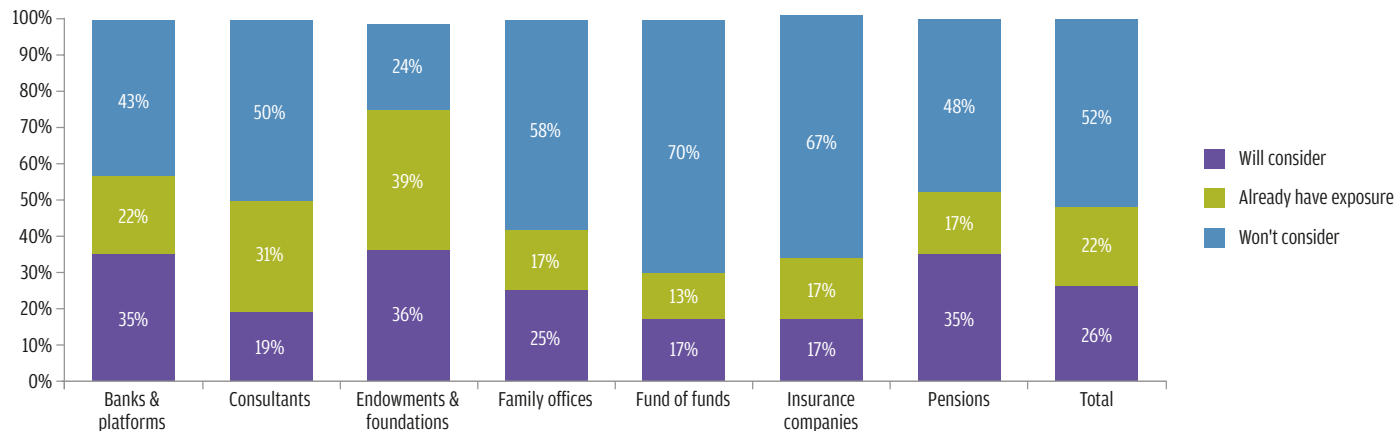


Note: Figure based on selections from 71 respondents. Respondents were permitted to make multiple selections.

### H. Active extension

Active extension or “beta one” strategies are roughly split between respondents who already invest or are willing to invest against those who won’t consider these types of strategies. Endowments & foundations not only utilize these strategies the most, but are also the most open to consider them going into 2019.

FIGURE 76: Active extension use by investor type (2018)



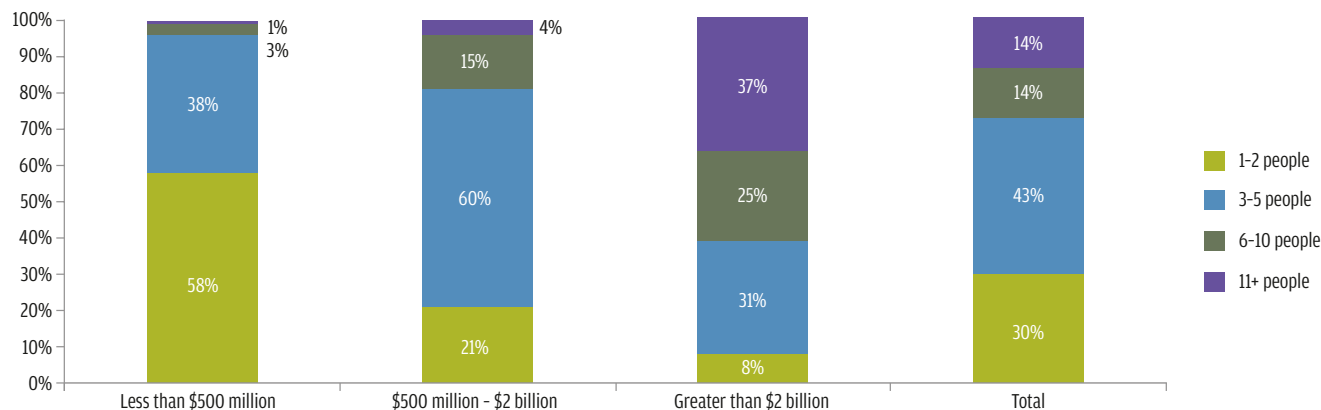
Note: Figure based on selections from 206 respondents.

### I. Due diligence

Over 70% of respondents have fewer than five investment professionals dedicated to hedge fund due diligence.

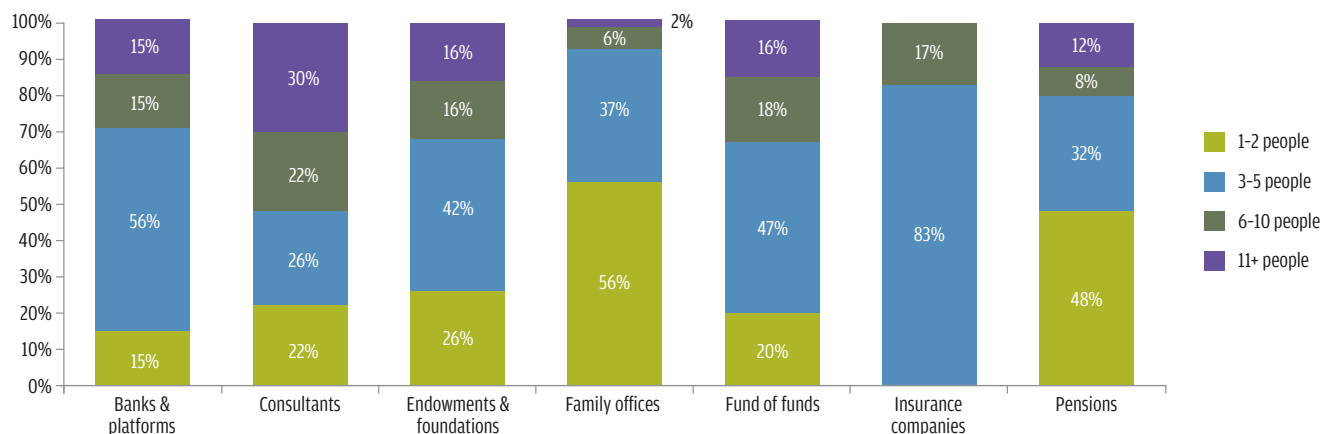
- Family offices (56%) and pensions (48%) tend to have the smallest investment teams; 30% of consultants have investment teams of 11 or more people.
- No respondents to the survey indicated outsourced investment due diligence, down from 1% of respondents last year.

FIGURE 77: Size of the investment due diligence team by HF assets managed (2018)



Note: Figure based on selections from 219 respondents.

FIGURE 78: Size of the investment due diligence team by investor type (2018)



Note: Figure based on selections from 219 respondents.

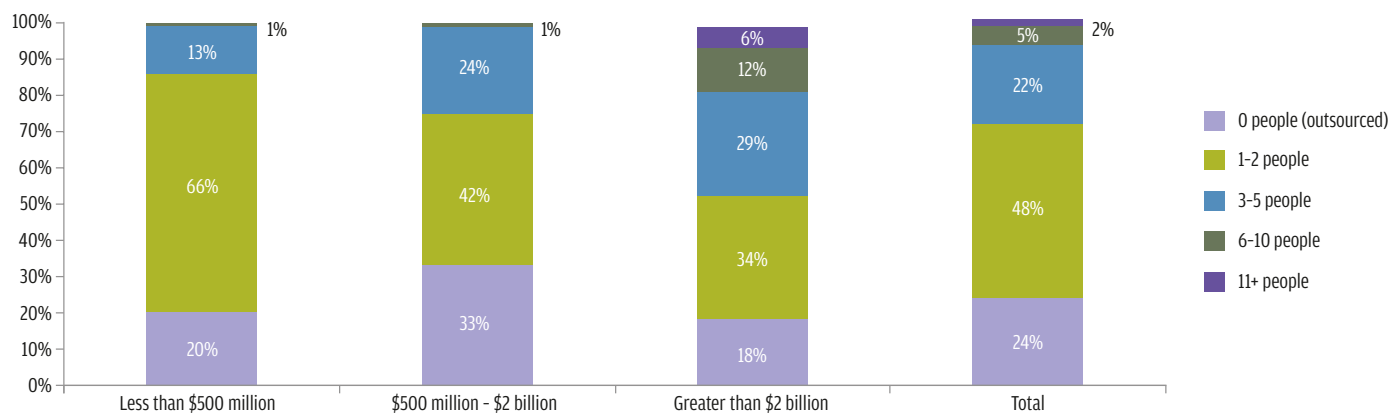
Operational due diligence remains a critical piece of allocation decisions, although the percentage of respondents who have decided against making a hedge fund allocation for operational reasons has declined since 2013.

- 24% of respondents either outsource their operational due diligence functions to third parties or do not have a dedicated operational due diligence team. Across investor segments, 56% of pensions outsource their operational due diligence, significantly more than any other investor type. Banks & platforms tend to have the largest operational due diligence teams, with 18% having at least six professionals.

For respondents who do have an internal operational due diligence team, 48% have one or two professionals.

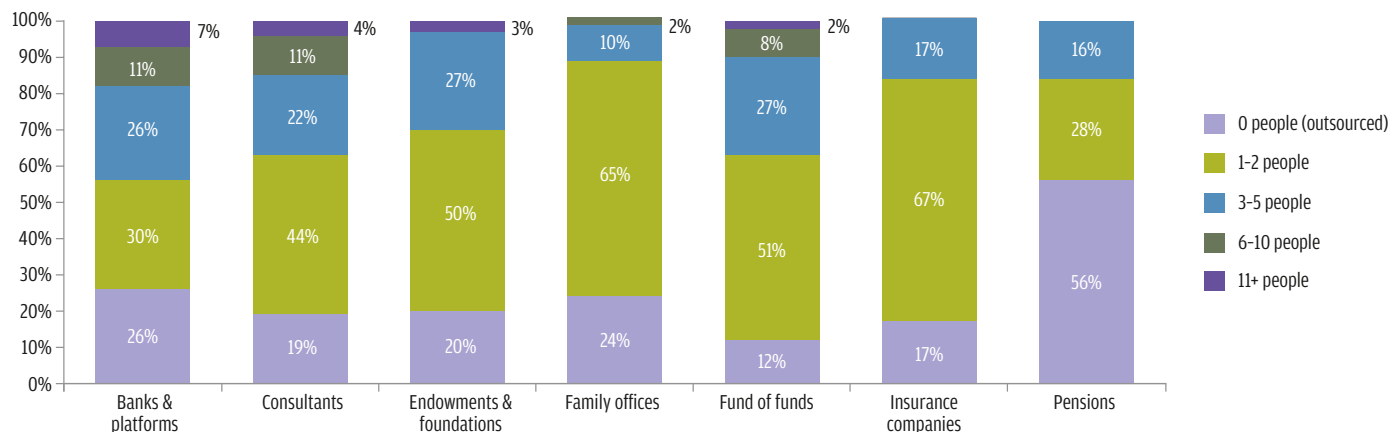
- 33% of respondents in 2018 indicated they did not allocate to a hedge fund because the manager did not pass operational due diligence, a decline from 35% in 2017 and 37% in 2016.

FIGURE 79: Size of the operational due diligence team by HF assets managed (2018)



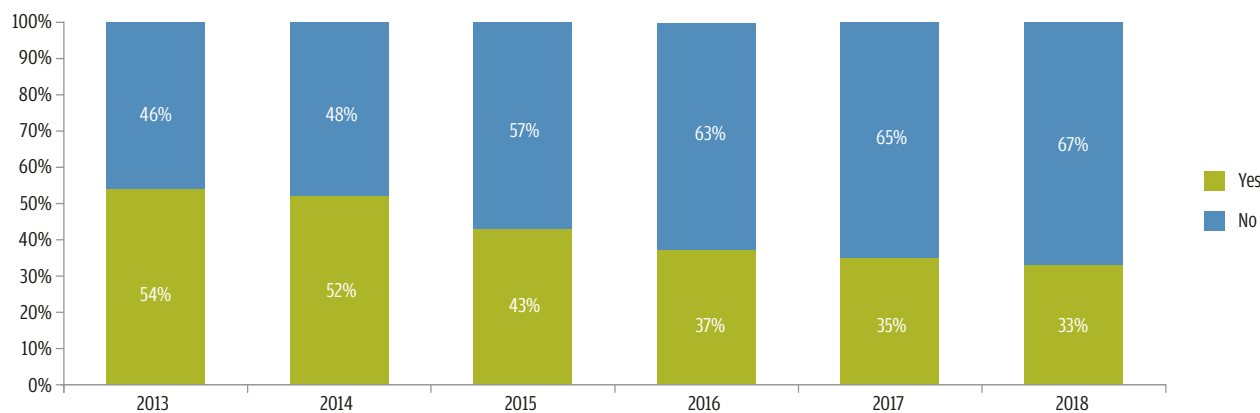
Note: Figure based on selections from 217 respondents.

FIGURE 80: Size of the operational due diligence team by investor type (2018)



Note: Figure based on selections from 217 respondents.

FIGURE 81: Investors that did not allocate to at least one manager due to an operational issue

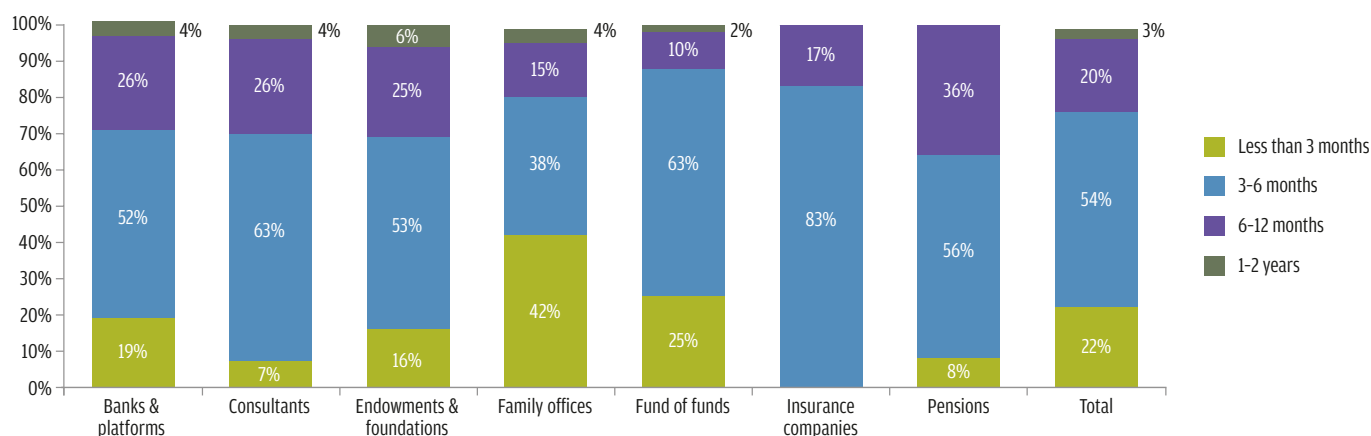


Note: Figure based on selections from 212 respondents.

Consistently, the majority of respondents are capable of completing their formal due diligence on a hedge fund investment within six months of engagement.

- Approximately 75% of respondents in this year’s survey indicated they could finish both their investment and operational due diligence on a hedge fund manager within six months, with 22% able to complete the process in less than three months.
- Pensions are commonly thought to require more time for their due diligence process. However, all pensions that participated in this year’s survey indicated they spend less than 12 months on hedge fund due diligence, with 64% completing the process within six months.
- Family offices have the shortest average due diligence period, with 42% of respondents taking less than three months to complete all due diligence, followed by fund of funds at 25%.

FIGURE 82: Average time to complete formal due diligence by investor type (2018)



Note: Figure based on selections from 212 respondents.

## IMPORTANT DISCLAIMER

These materials (“Materials”) have been prepared by J.P. Morgan’s Capital Advisory Group (“CAG”) for informational purposes only. No research department within JPMorgan Chase & Co. was involved in the preparation of or data collected for these Materials. These Materials are intended to serve solely as a summary of survey responses provided to CAG by institutional hedge fund investors that participate in J.P. Morgan’s Capital Introduction Program (the “CAG Program”). The number of institutional hedge fund investors polled for these Materials is small relative to the size of the institutional hedge fund investor marketplace, and these Materials are not intended to summarize the views of the institutional hedge fund investor marketplace at large. Further, the information presented in these Materials does not represent any assumptions, estimates, views, predictions or opinions of JPMorgan Chase & Co. or of any of its subsidiaries, their respective affiliates, successors, assigns, agents, or any of their respective officers, directors, employees, agents or advisers (collectively, “J.P. Morgan”).

These Materials have not been verified for accuracy or completeness by J.P. Morgan, and J.P. Morgan does not guarantee these Materials in any respect, including but not limited to, their accuracy, completeness or timeliness. Information for these Materials was collected and compiled during the stated timeframe. Past performance is not necessarily indicative of future results and J.P. Morgan in no way guarantees the investment performance, earnings or return of capital invested in any of the products or securities detailed in the Materials. These Materials may not be relied upon as definitive, and shall not form the basis of any decisions contemplated thereby. It is the user’s responsibility to independently confirm the information presented in these Materials, and to obtain any other information deemed relevant to any decision made in connection with the subject matter contained in these Materials. It is the responsibility of the recipients of these Materials (and the information therein) to consult with their own financial, tax, legal, or equivalent advisers prior to making any investment decision. J.P. Morgan makes no representation or warranty (express or implied) regarding the fairness, accuracy, fitness for purpose, correctness or completeness of the statements, opinions, estimates, conclusions and other information contained in these Materials and J.P. Morgan accepts no responsibility whatsoever for any loss, direct or indirect, arising from the Materials. J.P. Morgan has no obligation to update any portion of these Materials.

J.P. Morgan does not charge or receive fees for introduction services provided through the CAG Program. The CAG Program does not provide capital raising, placement agent, referral, solicitation or equivalent services (“Placement Services”) to funds, their related investment managers, general partners, managing members or their equivalents that participate in the CAG Program (“Manager Participants”). The CAG Program does not provide investment recommendations or endorsements of any kind (“Advisory Services”) to eligible prospective institutional investors participating in the CAG Program (“Investor Participants”), including in relation to Manager Participants, recommendations or endorsements of their services, products, investments or investment strategies. Placement Services and Advisory Services may, however, be provided by J.P. Morgan businesses unrelated to the CAG Program. Information presented in connection with the CAG Program may not be suitable for all institutions. Under all applicable laws, including but not limited to, the U.S. Employee Retirement Income Security Act of 1974, as amended, or the U.S. Internal Revenue Code of 1986, none of the information presented in connection with the CAG Program shall constitute, or be construed as constituting or be deemed to constitute “investment advice,” and J.P. Morgan is not acting as fiduciary for any purpose.

These Materials do not constitute, and shall not be construed as constituting or be deemed to constitute an invitation to treat in respect of, or an offer or a solicitation of an offer to buy or sell, any securities or constitute advice to buy or sell any security. In the United States, these Materials are intended solely for institutions that are “accredited investors” (as defined by the U.S. Securities Act of 1933) and “qualified purchasers” (as defined in the U.S. Investment Company Act of 1940). In the United Kingdom, these Materials are intended solely for institutions that are “investment professionals” for the purposes of Article 14 of the Financial Services and Markets Act 2000 (Promotion of Collective Investment Schemes) (Exemptions) Order 2001 (the “CIS Order”) or that qualify as a “high net worth company or unincorporated association” for the purposes of Article 22 of the CIS Order. In other jurisdictions where such standards exist, these Materials are intended solely for institutions qualifying under equivalent standards to that of an “accredited investor”, “qualified purchaser” or “investment professional” under the laws of the jurisdictions of their residence.

An investment in a hedge fund is speculative and involves a high degree of risk, which each investor must carefully consider. Returns generated from an investment in a hedge fund may not adequately compensate investors for the business and financial risks assumed. An investor in hedge funds could lose all or a substantial amount of his or her investment. While hedge funds are subject to market risks common to other types of investments, including market volatility, hedge funds employ certain trading techniques, such as the use of leveraging and other speculative investment practices that may increase the risk of investment loss. Other risks associated with hedge fund investments include, but are not limited to, the fact that hedge funds: can be highly illiquid; are not required to provide periodic pricing or valuation information to investors; may involve complex tax structures and delays in distributing important tax information; are not subject to the same regulatory requirements as mutual funds; often charge higher fees and the high fees may offset the fund’s trading profits; may have a limited operating history; can have performance that is volatile; may have a fund manager who has total trading authority over the fund and the use of a single adviser applying generally similar trading programs could mean a lack of diversification, and consequentially, higher risk; may not have a secondary market for an investor’s interest in the fund and none may be expected to develop; may have restrictions on transferring interests in the fund; and may affect a substantial portion of its trades on foreign exchanges.

These Materials and the information contained herein is confidential. These Materials are provided for the intended recipients’ internal use only. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution or use of the Information contained herein (including any reliance thereon) is STRICTLY PROHIBITED.

IRS Circular 230 Disclosure: JPMorgan Chase & Co. and its affiliates do not provide tax advice. Accordingly, any discussion of U.S. tax matters included herein (including any attachments) is not intended or written to be used, and cannot be used, in connection with the promotion, marketing or recommendation by anyone not affiliated with JPMorgan Chase & Co. of any of the matters addressed herein or for the purpose of avoiding U.S. tax-related penalties.

© 2019 JPMorgan Chase & Co. All rights reserved. J.P. Morgan is the global brand name for JPMorgan Chase & Co. and its subsidiaries and affiliates worldwide. All product names, company names and logos mentioned herein are trademarks or registered trademarks of their respective owners. Access to financial products and execution services is offered through J.P. Morgan Securities LLC (“JPMS”) and J.P. Morgan Securities plc (“JPMS plc”). Clearing, prime brokerage and brokerage custody services are provided by J.P. Morgan Securities LLC (“JPMS”) in the US and JPMS plc in the UK. An enhanced securities lending product is offered through J.P. Morgan Prime, Inc. (“JPMPPI”). Bank custody services are provided by JPMorgan Chase Bank, N.A. (“JPMCB”). JPMS and JPMPPI are registered US broker dealer affiliates of JPMorgan Chase & Co., and are members of FINRA and SIPC. J.P. Morgan Securities plc is authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority in the UK. J.P. Morgan Securities (Asia Pacific) Limited is regulated by the HKMA. **FOR INSTITUTIONAL CLIENT USE ONLY.**