



2013

Investment Manager Fees

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CAMBRIDGE ASSOCIATES LLC

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- ◆ Long-only manager fee levels have not changed significantly since 2006, when we last examined them in a published report, and some trends, like the slow climb of U.S. equity ex small-cap and global ex U.S. equity manager fees and the slow descent of U.S. bond manager fees, have continued.
- ◆ Fixed income separate account fees decline as a function of account size at a gradual pace, though the fee break over the full range of account sizes becomes somewhat material at ten to 12 basis points (bps). Equity separate account fees decline more rapidly as a function of account size for the more liquid categories of U.S. ex small-cap and global ex U.S. equities.
- ◆ Fixed income manager fees have dropped sharply at the low end of the separate account size range, while fees at the upper end of the fixed income separate account size range have held steady.
- ◆ Fee ranges exhibit higher dispersion for global ex U.S. equity managers at the smaller end of the separate account size range. One implication is that there is greater scope for fees within this segment to deviate in either direction from levels that would be considered “fair.”
- ◆ Eleemosynary discounts for qualifying nonprofit institutions have been offered by a number of managers of traditional, long-only assets. Discounts can be large enough to have an impact on investment management costs.
- ◆ The basic features of hedge fund fee structures have not changed meaningfully in recent years; the standard form continues to incorporate an asset-based management fee and a performance fee typically subject to a high-water mark.
- ◆ Hedge fund fee levels vary by strategy, with managed futures commanding the highest fee levels and multi-strategy and event-driven close behind. Global macro fees exhibit the widest range, consistent with the diversity of funds within this category. (These observations should be tempered by the small size of our overall universe and particular strategies within it.)
- ◆ Most hedge funds impose initial lock-ups, with one year being the most common. The dominant level of ongoing liquidity post-lock-up is quarterly, offered by 51% of vehicles. Global macro and managed futures fund vehicles offer far greater liquidity than other categories, consistent with the deep, liquid markets in which these funds trade.
- ◆ Many (44%) hedge funds incorporate gates in their terms, with fund-level gates still about five times more prevalent than investor-level gates, notwithstanding the difficulties associated with fund-level gates during the financial crisis of 2008–09.
- ◆ Many hedge funds offer investors multiple liquidity/fee options. On average, managers offered a fee break of 48 bps and/or a carry break of 254 bps per year of liquidity concession. These breaks should induce investors to consider less-liquid share classes when they are offered, assuming they can spare the liquidity. ■

Investment management fees are an important topic for at least two reasons. First, they represent a rare “known” in a sea of “unknowns” in the practice of endowment management. Fees will be exactly as advertised, whereas returns, volatility, correlations, liquidity conditions, and many other factors will always be subject to evolving levels of uncertainty. As such, fees can be managed to a greater degree than most other variables by giving fees full consideration in the context of the manager selection process.

Second, manager fees become increasingly material under the weight of compounding. For example, manager fees paid out by a representative college/university endowment for its U.S. equity allocation alone could result in a cumulative \$13.2 million in real terms over a ten-year period.¹ Vehicle selection within an asset class is also impactful: the ten-year cumulative impact of selecting a set of active U.S. equity managers that are 1 standard deviation more expensive than the mean could amount to a \$3.2 million difference for the same representative endowment.

This report provides data on long-only and hedge fund manager fees for 2012. For long-only managers, we show fee levels and changes over time by asset class, vehicle type, and account size (comparisons to previous years look at 1995, 2001, and 2006, reflecting data from previously published reports). For hedge fund managers, we examine fund structure (liquidity terms with regard to lock-ups,

redemption terms, and gating provisions) and fees in total and across strategies. We also consider the interaction of fees and liquidity terms in situations where hedge fund managers offer multiple share classes along a liquidity continuum.

In this report, long-only data were drawn from the universe of long-only investment managers that report into the Cambridge Associates LLC Investment Manager Database. The number of managers within each strategy (managers may offer multiple vehicles) varies from 1 (global ex U.S. bonds) to 746 (U.S. equity ex small cap). The hedge fund data in this report were based on a sample of vehicles in which Cambridge Associates’ advisory clients have invested and for which we have insight into detailed fee structures and terms. For vehicles with multiple share classes, the most liquid/highest fee share class was selected. The sample consists of 229 vehicles across eight strategy categories. The table on the next page shows a summary of the funds in our analysis.

Other contributors to this report include Gordon Barnes, David Einhorn, Zoë Pond-McPherson, and Gillian Roach.

¹ This figure assumes a pool size of approximately \$600 million and a 20% allocation to U.S. equity ex small cap, and uses Cambridge Associates’ long-term equilibrium return assumptions. The pool size and equity allocation figures represent the median values in the Cambridge Associates college and university universe.

Summary of Strategies in Our Analysis

Long-Only Strategies

	Number of Managers by Placement Amounts for Separate & Segregated Accounts						# of Managers by Placement Amount for Commingled Accounts
	\$5 mm	\$10 mm	\$15 mm	\$25 mm	\$50 mm	\$100 mm	\$5 mm
	Emerging Markets Equity	9	28	28	68	103	126
Global ex U.S. Small-Cap Equity	3	14	15	27	30	32	10
U.S. Small-Cap Equity	185	311	305	384	388	379	52
Global ex U.S. Equity	50	93	91	170	222	240	68
U.S. Equity ex Small Cap	378	547	535	701	746	723	118
U.S. Bonds	82	172	167	255	343	378	50
Municipal Bonds	35	50	50	57	67	64	2
Global ex U.S. Bonds	1	1	1	5	15	19	5
Emerging Markets Debt	6	9	11	20	55	80	17
Bank Loans	1	2	2	4	14	30	5
REITs	12	23	21	27	27	27	7

Hedge Fund Strategies

	Count	Percent (%)
Concentrated Long	3	1.3
Credit Opportunities	32	14.0
Dedicated Short	2	0.9
Fixed Income Arbitrage	5	2.2
Global Macro	22	9.6
Long/Short Equity	120	52.4
Managed Futures	4	1.7
Multi-Strategy	41	17.9
Total	229	100.0

Source: Cambridge Associates LLC.

Notes: Long-only data were drawn from the universe of long-only investment managers that report into the Cambridge Associates LLC Investment Manager Database. The table is a count, by placement amount, of the number of managers that provided sufficient detail on available vehicles and terms to be included in our fee analysis. Most exhibits in this report analyze fees for a \$25 million separate account. The hedge fund data in this report represent a universe of 229 vehicles held by C|A clients (excluding all funds of funds). Only one share class of one vehicle is represented for each hedge fund strategy. For vehicles with multiple share classes, the most liquid/highest fee share class was selected.

Long-Only Manager Fees

Manager fee levels have not changed significantly in recent years (Exhibit 1), though trends since 2001 continue: equity manager fees continue to creep up slowly, to a mean of 69 basis points (bps) and 81 bps in 2012 for U.S. and global ex U.S. managers, respectively, while U.S. bond manager fees slowly compress, to a mean of 32 bps. Global ex U.S. bond manager fees have changed the most since our prior report, dropping 8 bps to 38 bps.

Relative fee levels across the asset categories have not changed a great deal. Emerging markets, U.S. small-cap, and global ex U.S. small-cap equity manager fees continue to command a consistent premium relative to managers in more traditional categories such as U.S. equity ex small cap and U.S. bonds. Higher fees for strategies in less-liquid categories may stem in part from an effort to sustain profitability at lower asset levels in the more capacity-constrained asset classes.

Fixed income separate account fees decline very gradually as a function of account size, though the savings across the full account size range becomes material (Exhibit 2). Emerging markets debt, muni bond, and U.S. bond fees decline by 9 bps to 12 bps as account sizes scale from “entry level” to \$100 million.

Equity separate account fees show a similarly gradual decline with account size (Exhibit 3). Fees fall at a faster rate for U.S. ex small-cap and global ex U.S. equity compared to the other assets. Given that these categories represent the more liquid assets, it is possible that the steeper slopes reflect greater economies of scale and lower disincentives for managers to grow assets relative to managers in capacity-constrained markets, such as U.S. small cap.

There appears to be very little fee difference between commingled vehicles (an assumed \$5 million account) and a separate account (a generally assumed \$25 million account) (Exhibit 4), with a separate account more costly than a commingled account in a handful of cases. (Note that in most of these examples, such as muni bonds and bank loans, sample sizes are small.)

Exhibits 5–10 look at fees for U.S. equity ex small-cap, global ex U.S. equity, U.S. bond, and global ex U.S. bond managers in more detail. Separate account fees for U.S. bond managers show a sharp drop at the low end (account size of \$10 million) and a meaningful decline at the mid-range (\$25 million) since 2006. We do not know the factors behind these drops, though it is reasonable to assume that U.S. bond managers have faced fee pressure in an environment of declining allocations. In contrast, fees for \$50 million accounts have held steady. Again, reasons for this relative fee stability cannot be determined based on this data alone. Possible factors include larger account relationships exhibiting “sticky” qualities that constrain fee negotiations, or fees at the upper size range reaching levels below which managers are reluctant or unable to dip.

Fee dispersion (measured by standard deviation) for U.S. equity ex small-cap managers remains relatively consistent across various separate account size ranges. This is also true for U.S. bond managers. For global ex U.S. equity managers, fee dispersion is higher at the smaller account-size tiers relative to larger accounts (Exhibit 9). While the reasons are unclear, one implication is that there is more scope within this segment of the market for fees to deviate in either direction from norms and levels that should be considered “fair” relative to expected value add and other factors.

Some managers either offer or are willing to consider eleemosynary discounts: fee breaks for charitable foundations and other nonprofits. Eleemosynary discounts often fall in the 10% to 20% range and can thus have a meaningful impact on portfolio management costs. Firms that offer eleemosynary discounts tend to be managers of traditional equity or bond mandates. In addition, these discounts are more commonly associated with separate accounts, though they are offered with commingled vehicles in some cases.

Hedge Fund Manager Fees and Terms

Fees

Hedge fund fees consist of asset-based management fees plus a performance fee applied to investment gains. This basic structure has remained consistent, notwithstanding persistent and widespread criticism that this fee arrangement is unfavorable to investors with respect to both magnitude and structure (asymmetric with respect to gains and losses). The 2009 Cambridge Associates research report *Restoring Balance to GP/LP Relationships* raises a number of other issues encountered with hedge fund structures, including the limited adoption of hurdles, the payment of carry on unrealized profits, and inappropriate use of the side-pocket mechanism, among others.

It is worth asking why the marketplace sticks with a fee structure that is so costly to investors and favorable to managers in a number of respects. First, fees reflect the fact that funds with strong prospects of alpha generation are rare. But, because such funds are difficult to identify before the fact, a number of other funds with dimmer prospects of alpha genera-

tion will also get swept up by this scarcity effect. Second, the industry has no incentive to break fees; in fact, it could be detrimental for managers to do so, as they would risk signaling to the marketplace a lack of confidence in their offering and prospects.

Performance fees (“carry”) for our sample are highly concentrated, with 89% of the vehicles commanding a carry of 20% (Exhibit 11). A premium carry (greater than 20%) is charged on 3.5% of the vehicles, and a “discounted” carry (less than 20%) is assessed on 7% of the vehicles. The lowest positive carry is 15% and the highest is 30%. Adoption of a loss carry forward, or “high-water mark,” is nearly universal, with 98% of the vehicles incorporating such a mechanism. (A high-water mark requires annual losses to be recouped before profit incentive fees can be accessed.)

The mean management fee of hedge fund vehicles in our sample is 1.7%, and the median is 1.5% (Exhibit 11). The distribution of fees reveals two primary modes, 1.5% and 2.0%, and a lesser mode at 1.0% (Exhibit 12).

Recent media reports suggest hedge fund fees are under pressure, and our own experience conducting due diligence on funds raised in 2013 and others launching in early 2014 shows a 1.5% management fee to be common. Our sample, which consists of a select 229 hedge fund products in which our clients are invested to enable evaluation of terms, is too small to be considered representative of fees in the broader industry. As noted in our recent report *Hedge Funds: Value Proposition, Fees, and Future*, just because a manager sets the management or incentive fee at a certain level does not mean the value proposition is unattractive. LPs must prioritize what is most important to them in determining a fund’s value proposition.

Management fees need to be considered in the context of discretionary fund expenses. Discretionary fund expenses refer to costs for services to the fund that are passed through to the fund rather than borne by the management company. An analysis of fund expenses for a limited set of products tracked by Cambridge Associates is presented in the table below. (This analysis was conducted on a subset of the universe of managers that underlie the fee and term data in this report.) Expense ranges are wide, reflecting the fact that expense policies themselves vary widely across strategies and managers. There are no industry standards on which expenses should be considered acceptable to pass through, though we believe appropriate items include audit, tax, legal, administrative, and directors' fees. Fund expense levels will increase meaningfully to the extent managers burden the fund with expenses for such discretionary items such as research, travel, technology development, investor relations, and salaries, for example. A management fee of 2.0% could be more economical than a fee of 1.75%, to the extent the latter fund carries 50 bps of incremental fund expenses. Unfortunately, fund expenses can be opaque as their determination entails a labor-intensive analysis of fund financials.

Discretionary Expense Summary

Strategy	Discretionary Expense Range	Discretionary Expense Median
Long/Short	0.00% – 0.86%	0.19%
Credit Opportunities	0.04% – 0.64%	0.33%
Multi-Strategy	0.01% – 0.71%	0.23%
Global Macro	0.05% – 0.32%	0.18%

Source: Cambridge Associates LLC.

Note: Expense data based on 104 hedge funds using the three-year average through 2012.

Looking at management fees by strategy (Exhibit 13), managed futures commands the highest fees, with the group charging fees of 2.0% or higher, though the sample size is quite limited. Multi-strategy and the subset of event-driven strategies within represent the next most expensive categories, with a majority commanding fees of 2.0% or higher. Global macro fee levels are difficult to characterize, as these funds run the gamut from the least to the most expensive, which comports with the diversity of models and strategies found within this category. Credit opportunities funds tend to command higher fees than equity long/short, likely reflecting at least in part the costs associated with the robust back office needed to support complex credit trading operations. Fixed income arbitrage carries the lowest fee levels, though again we must acknowledge sample size limitations. With respect to carry, nearly all the premium funds can be found in the global macro and managed futures categories.

As noted, nearly all hedge funds in our sample incorporate high-water-mark mechanisms in their calculation of carry. A minority (17%) have adopted a modified high-water mark (Exhibit 14). A modified high-water mark is structured so that following an annual loss, the carry is reduced, but not eliminated, until, say, 200% of the loss is recouped. Modified high-water marks enhance organizational stability during performance recoveries at the cost of incremental fees to investors, at least during the recovery period.

Terms

In the wake of the financial crisis of 2008–09, hedge fund investors have come to accept terms that restrict their liquidity, as long as such terms are thought to enhance the robustness of the fund. For example, during the crisis, a number

of funds suffered from a liquidity mismatch between fund assets and investor claims. This pitfall is common in the investment industry and often described as “borrowing short and lending long.” Some funds were unable to meet investor redemptions on a cash basis (or unwilling to do so at the prices on offer), thus depriving redeeming investors of liquidity they had a right to expect. Other funds elected to liquidate positions at unattractive prices to satisfy redemptions, thereby locking in losses and compromising forward performance for ongoing investors.

Liquidity-related terms should be aimed at mitigating these risks by aligning the liquidity profile of the investor base with that of the fund assets. Terms that restrict investors’ liquidity, but, if properly structured, enhance fund stability include gates to guard against a “run on the bank,” sufficient lock-ups to screen short-term investors out of the investor base, and reasonable limitations around redemption windows to reduce the likelihood of forced selling.

Investors need to determine whether liquidity restrictions are good faith efforts to match the fund’s capital to its assets, or simply efforts to increase the “stickiness” of investor funds for the sake of the manager’s “P & L.” Addressing this question is a multi-faceted, case-by-case exercise that is beyond the scope of this report, though common sense goes a long way. For example, investors should be skeptical of a high-turnover trend-following strategy requiring a multi-year lock-up, just as they should be cautious with respect to a small-cap credit fund offering quarterly liquidity not subject to gates or lock-ups.

The distribution of initial lock-up periods is shown on Exhibit 15. (A lock-up refers to the initial period following investment during which investors cannot redeem their shares

without penalty.) The most common lock-up period, adopted by 46% of the vehicles, is one year. A lock-up between 13 and 24 months is reflected in 16% of the vehicles’ terms (most of these lock-up periods are 24 months.) A significant percentage (28%) of vehicles require no lock-up, though some of these likely feature other liquidity constraints such as investor gates.

Though most lock-ups are “hard”—fund interests are not redeemable during the lock-up under any circumstances—a significant percentage (28%) are “soft,” meaning shares can be redeemed during the lock-up period if the investor pays a redemption fee to the fund (Exhibit 16). Liquidity terms following the initial lock-up reveal that quarterly exit frequency is by far the most common, having been adopted by 51% of the vehicles in the sample (Exhibit 17). Monthly and annual liquidity are each featured in 20% of the vehicles. Liquidity terms vary a great deal across strategy categories (Exhibit 18). The most notable pattern is dramatically greater liquidity for global macro and managed futures funds. Nearly three-fourths of the global macro sample features monthly liquidity and some managed futures funds offer daily liquidity, with none in our small sample offering anything longer than monthly. The level of liquidity comports with the deep and liquid markets in which these funds tend to traffic. Long/short equity funds feature greater liquidity than multi-strategy, credit, or event-driven funds. This aligns with the relative liquidity of most equity markets relative to credits and the niche markets in which these more diverse fund categories trade. Notice period—the number of days’ advance notice required for a redemption—is presented in Exhibit 19. The most common notice period is between 31 and 60 days (46% of vehicles)

and the next most common notice period is between 61 and 90 days (30%). A healthy percentage (18%) allow for no more than 30-days notice.

The prevalence and types of gates are presented on Exhibit 20. Nearly half (44%) feature some type of gate in their fund terms. The most common type is a fund-level gate, adopted by one-third of the funds. (A fund-level gate limits aggregate redemptions to a stated level at the fund level. If total redemption requests in a given period exceed this limit, redemptions are cut back ratably to accommodate the stated limit.) Investor-level gates are far less common, with just 7% of the funds featuring them. (An investor-level gate sets a limit on how much a particular investor may redeem from its account in a given period.) Combinations of both types of gates are rare.

The most common investor-level gate is 25%, meaning an investor could redeem an account in full within one year, assuming quarterly liquidity (Exhibit 21). Some terms feature investor gates of 33%—these vehicles most likely offer annual liquidity, implying it would take three years to fully redeem an account. The most common fund-level gate is 25%, with 42% of the vehicles with fund gates using this level (Exhibit 22). Nearly half of the fund-level gates are more restrictive, with gates below 25%. These measures are likely motivated in part by an effort to “match” investor capital to fund assets marked by relatively low or unstable market liquidity.

Investor- and fund-level gates offer a rich set of tradeoffs for managers and investors to consider. A fund-level gate offers investors greater liquidity under normal circumstances, though this feature could set off a rush to the exits under stress conditions, as investors seek to claim their share of available liquidity

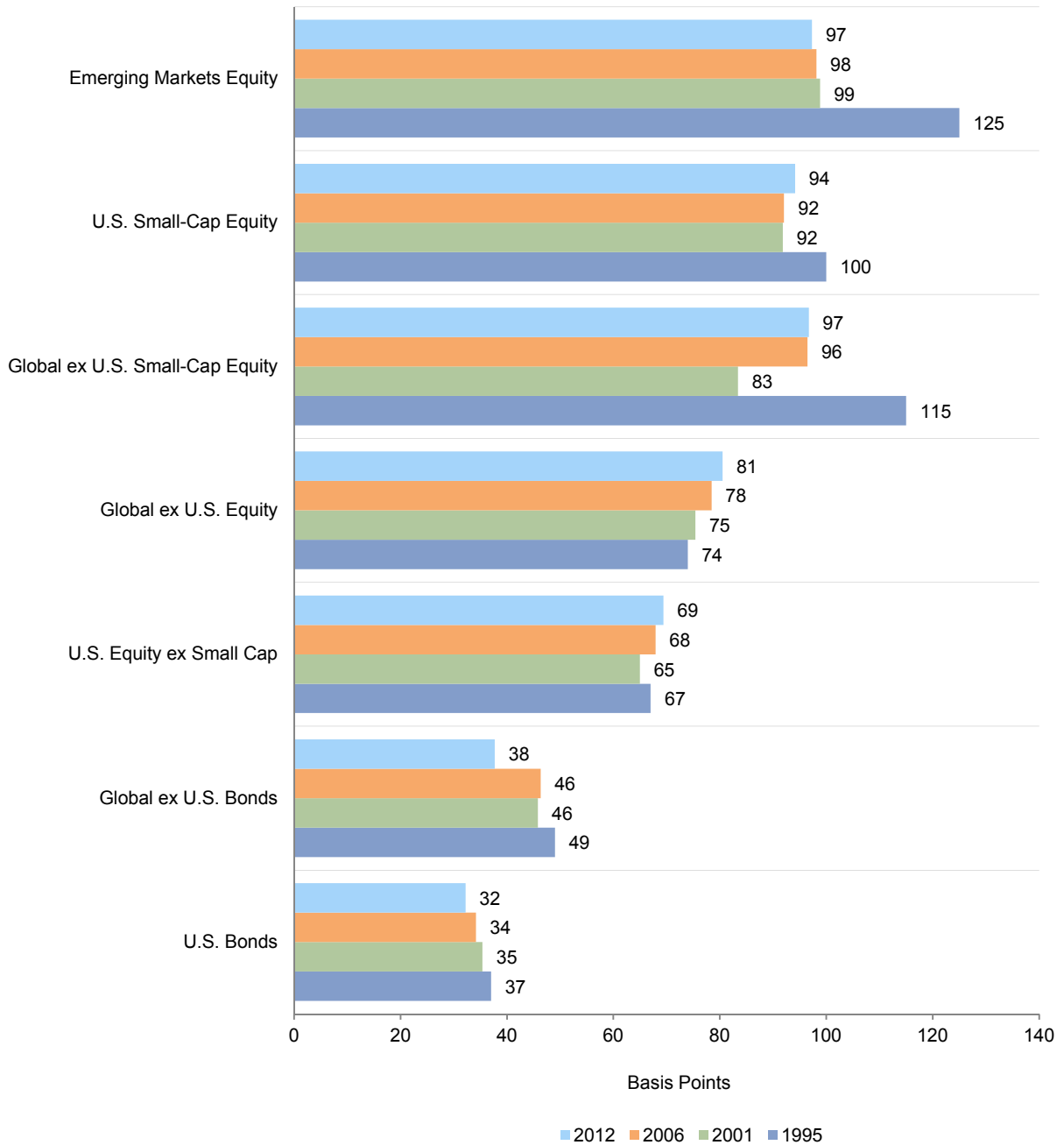
before others and before it is gated for all comers. In addition, the fund-level gate could induce short-term investors such as some funds-of-funds (which may in turn be subject to short-dated investor capital) to “free ride” on the liquidity of longer-term investors. In many cases, the fund-level gate exists as a “nuclear option” should liquidity conditions deteriorate materially, when in practice it is rarely activated. In contrast, an investor-level gate does not heighten this competition for liquidity, though it is more restrictive for investors on an ongoing basis and other normal conditions.

Of the hedge fund managers in our sample, 45 offer multiple liquidity options and inducements to lock up capital for an extended period. For these managers, Exhibit 23 looks at what liquidity terms were adjusted (i.e., what investors were “giving up”) and the type and magnitude of the fee concessions offered (i.e., what investors received as compensation for ceding liquidity). The initial lock-up period was modified 38% of the time and ongoing liquidity (after the initial lock-up) was modified in 16% of the instances in which multiple liquidity options were offered. Both the initial lock-up and the ongoing liquidity were changed 47% of the time. The fee concessions are split relatively evenly between a reduced management fee, reduced carry, and reductions in both fee and carry. The average carry break was 254 bps per year of liquidity concession. The average fee break was 48 bps per year of illiquidity. The magnitude of these breaks appears large enough to motivate investors to consider less liquid share options when they are offered, provided they have the liquidity to spare and have sufficient conviction to make this level of commitment to a particular strategy. ■



Long-Only Exhibits

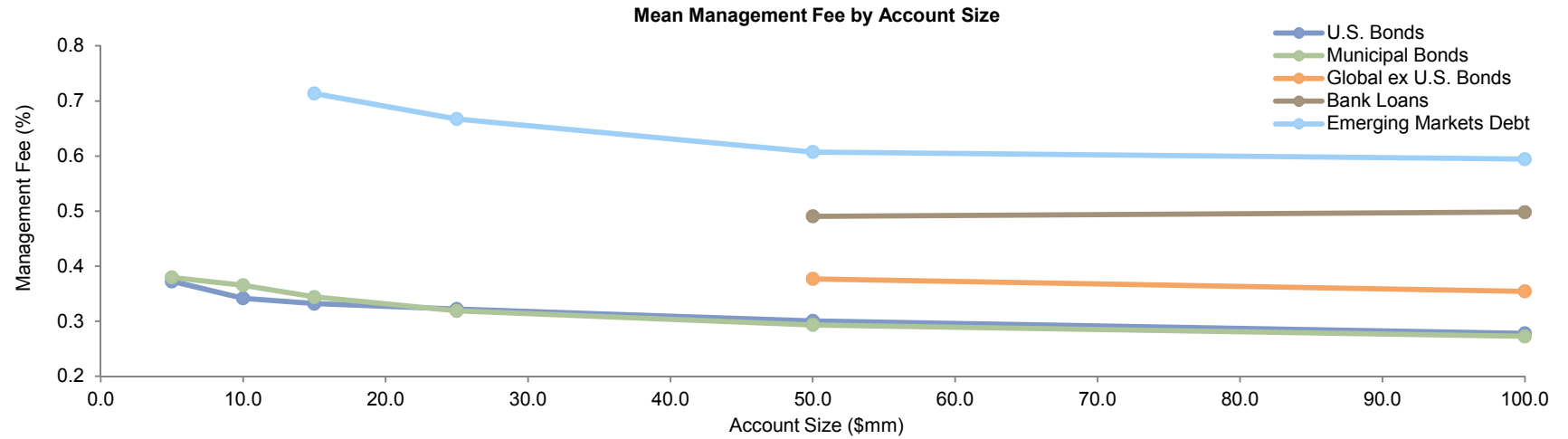
Exhibit 1
Estimated Mean Investment Management Fees
 1995, 2001, 2006, and 2012



Source: Cambridge Associates LLC.

Note: Estimated fees are based on a \$25 million separately managed institutional account.

Exhibit 2
Management Fees by Asset Class and Account Size: Bonds
 As of December 31, 2012

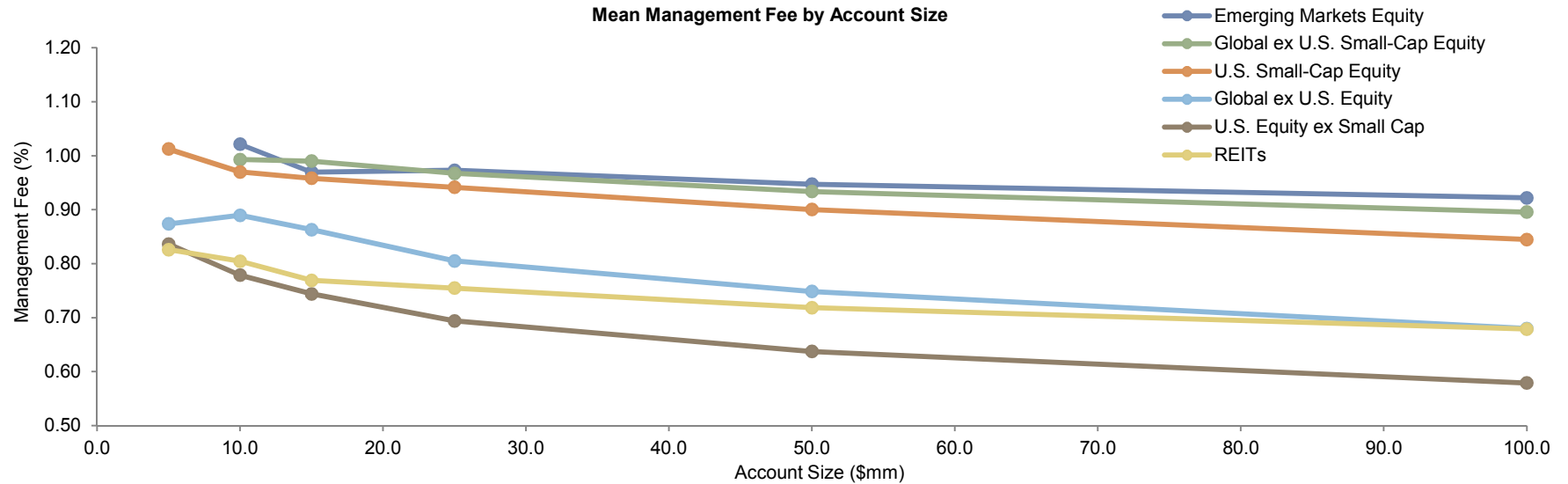


Account Size (\$mm)	U.S. Bonds	Municipal Bonds	Global ex U.S. Bonds	Bank Loans	Emerging Markets Debt
5	0.37	0.38	--	--	--
10	0.34	0.37	--	--	--
15	0.33	0.34	--	--	0.71
25	0.32	0.32	--	--	0.67
50	0.30	0.29	0.38	0.49	0.61
100	0.28	0.27	0.35	0.50	0.59

Source: Cambridge Associates LLC.

Note: Mean fees represent those for separately managed institutional accounts at each asset level.

Exhibit 3
Management Fees By Asset Class and Account Size: Equities
 As of December 31, 2012

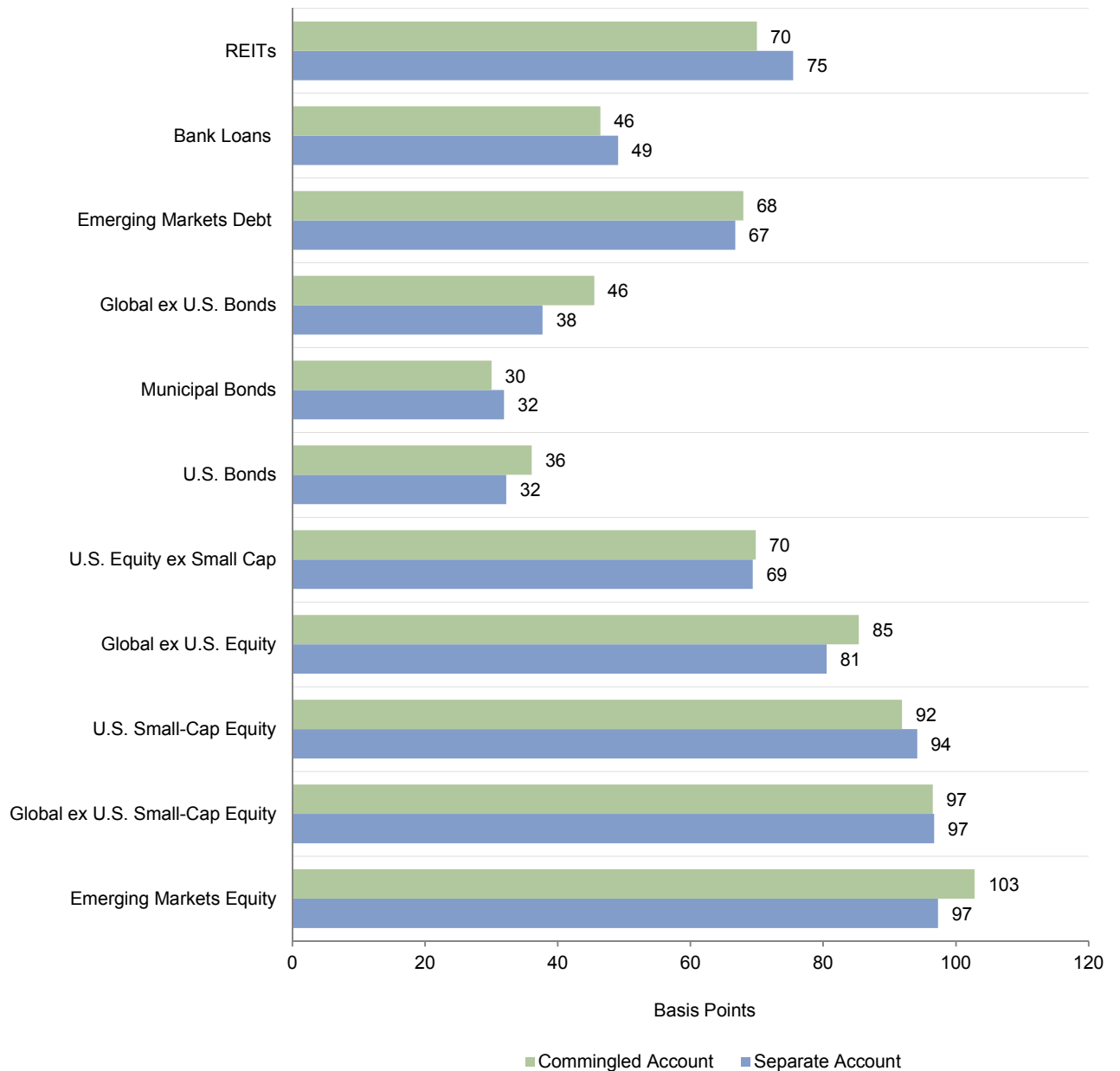


Mean Management Fee (%) by Account Size

Account Size (\$mm)	Emerging Markets Equity	Global ex U.S. Small-Cap Equity	U.S. Small-Cap Equity	Global ex U.S. Equity	U.S. Equity ex Small Cap	REITs
5	--	--	1.01	0.87	0.84	0.83
10	1.02	0.99	0.97	0.89	0.78	0.80
15	0.97	0.99	0.96	0.86	0.74	0.77
25	0.97	0.97	0.94	0.81	0.69	0.75
50	0.95	0.93	0.90	0.75	0.64	0.72
100	0.92	0.90	0.84	0.68	0.58	0.68

Source: Cambridge Associates LLC.
 Note: Mean fees represent those for separately managed institutional accounts at each asset level.

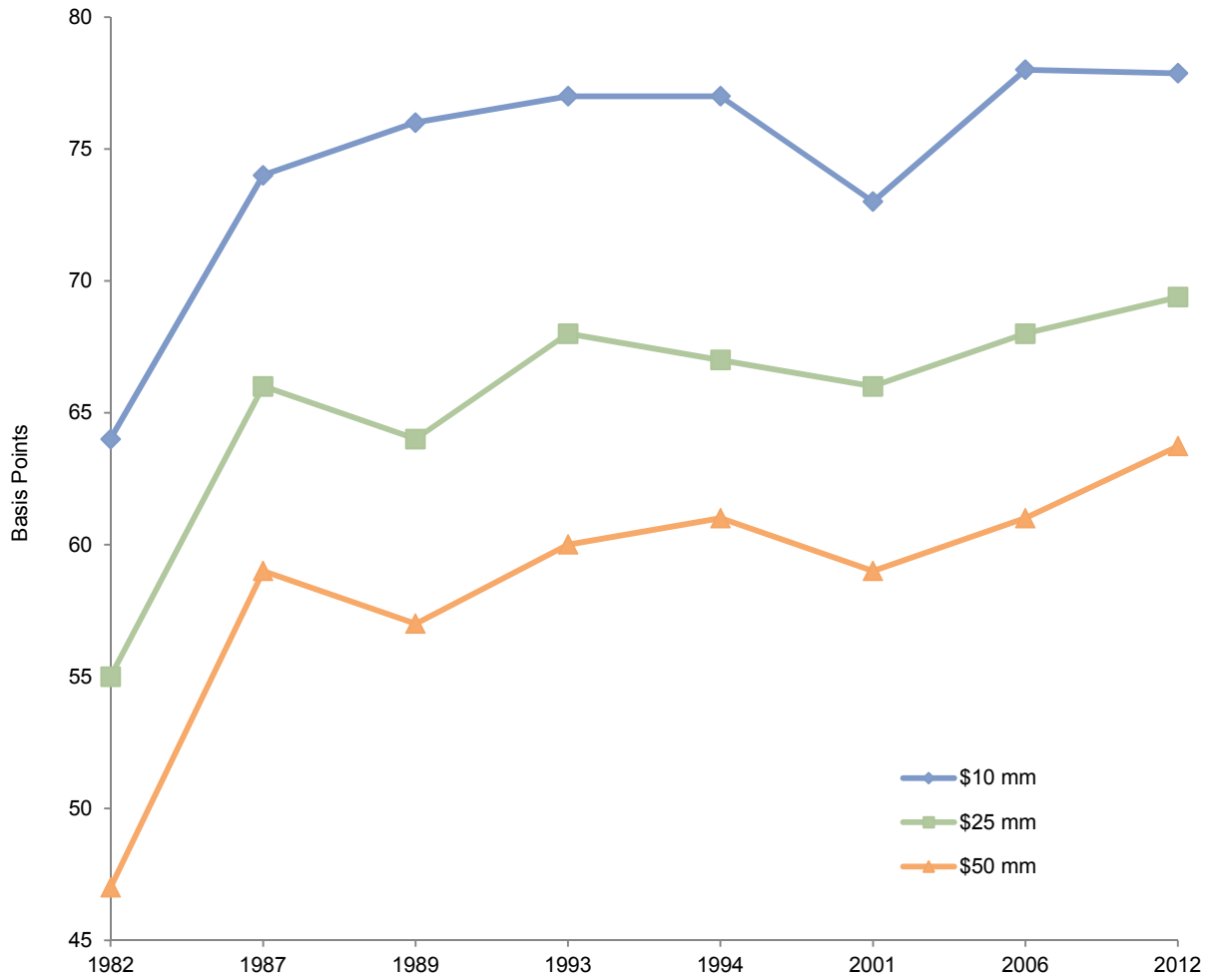
Exhibit 4
Commingled Account and Separate Account Estimated Mean Fees
 As of December 31, 2012



Source: Cambridge Associates LLC.

Notes: For separate accounts, estimated fees are for \$25 million institutional separately managed accounts, with the exception of global ex U.S. bonds and bank loans, which are for \$50 million separately managed accounts. For commingled accounts, estimated fees are for a \$5 million commingled account.

Exhibit 5
Investment Management Average Reported Fees for U.S. Equity ex Small-Cap Managers
 1982–2012

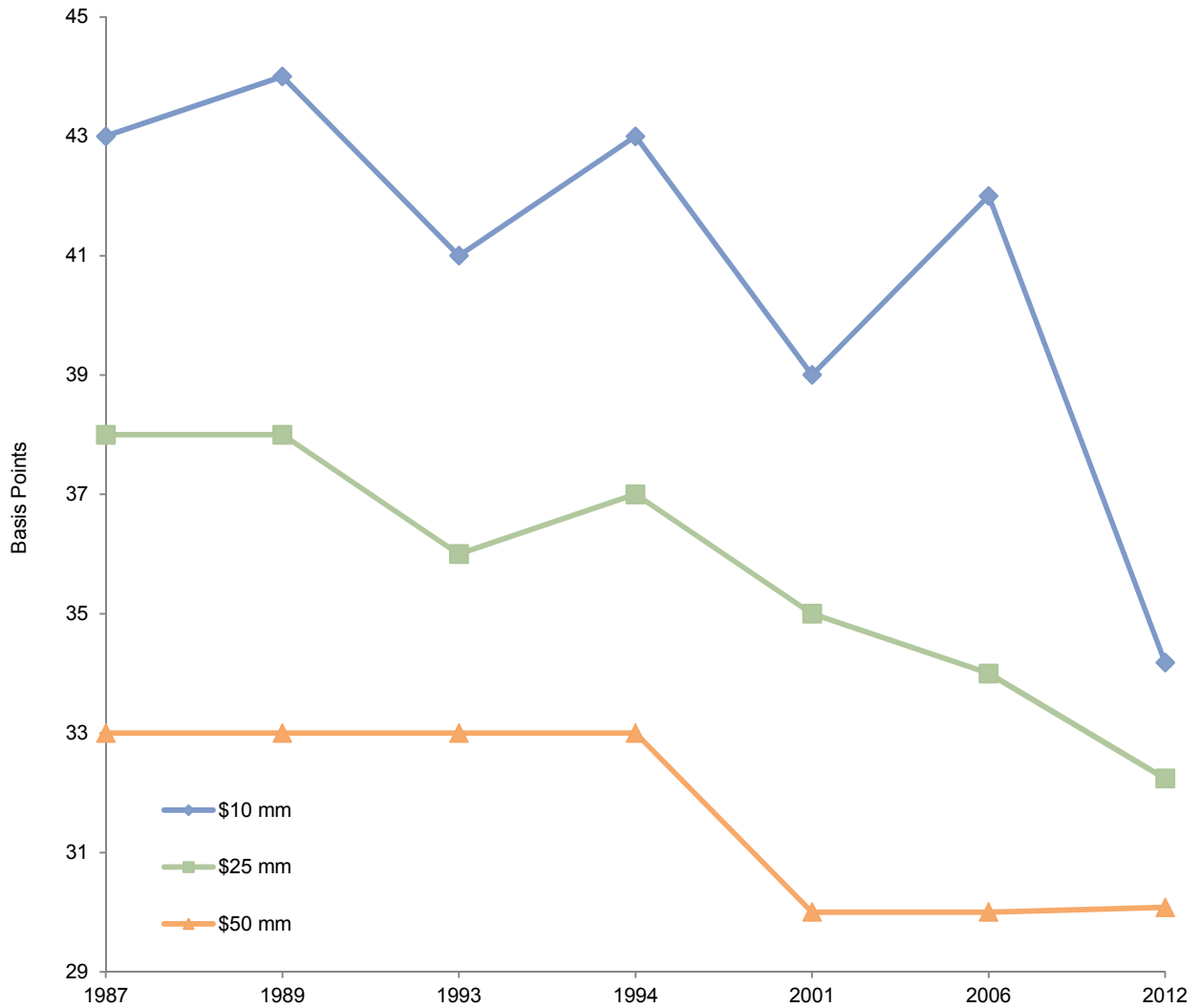


	<u>1982</u>	<u>1987</u>	<u>1989</u>	<u>1993</u>	<u>1994</u>	<u>2001</u>	<u>2006</u>	<u>2012</u>
\$10 million account	64	74	76	77	77	73	78	78
\$25 million account	55	66	64	68	67	66	68	69
\$50 million account	47	59	57	60	61	59	61	64

Source: Cambridge Associates LLC.

Note: Mean fees represent those for separate accounts at each asset level.

Exhibit 6
Investment Management Average Reported Fees for U.S. Bond Managers
 1987–2012



	<u>1987</u>	<u>1989</u>	<u>1993</u>	<u>1994</u>	<u>2001</u>	<u>2006</u>	<u>2012</u>
\$10 million account	43	44	41	43	39	42	34
\$25 million account	38	38	36	37	35	34	32
\$50 million account	33	33	33	33	30	30	30

Source: Cambridge Associates LLC.
 Note: Mean fees represent those for separate accounts at each asset level.

Exhibit 7
U.S. Equity ex Small-Cap Manager Reported Fees
 As of December 31, 2012

	<u>\$10 mm</u>	<u>\$15 mm</u>	<u>\$25 mm</u>	<u>\$50 mm</u>	<u>\$100 mm</u>
Mean Fee (basis points)	78	74	69	64	58
Standard Deviation	19.2	16.8	17.5	17.9	18.4

Percentage of Managers (%)

<u>Fee Range (basis points)</u>	<u>\$10 mm</u>	<u>\$15 mm</u>	<u>\$25 mm</u>	<u>\$50 mm</u>	<u>\$100 mm</u>
0–20	0.0	0.0	0.3	0.8	1.5
21–40	2.2	2.6	5.8	7.2	11.8
41–60	13.5	14.4	24.5	42.4	50.1
61–80	51.2	53.8	49.2	37.7	27.0
81–100	29.3	26.9	18.4	10.9	8.4
101–150	3.5	2.2	1.7	0.9	1.2
Over 150	0.4	0.0	0.0	0.1	0.0

Cumulative Percentage of Managers (%)

<u>Fee Range (basis points)</u>	<u>\$10 mm</u>	<u>\$15 mm</u>	<u>\$25 mm</u>	<u>\$50 mm</u>	<u>\$100 mm</u>
0–20	0.0	0.0	0.3	0.8	1.5
21–40	2.2	2.6	6.1	8.0	13.3
41–60	15.7	17.0	30.7	50.4	63.3
61–80	66.9	70.8	79.9	88.1	90.3
81–100	96.2	97.8	98.3	98.9	98.8
101–150	99.6	100.0	100.0	99.9	100.0
Over 150	100.0	100.0	100.0	100.0	100.0

Source: Cambridge Associates LLC.

Note: Data represent separately managed institutional accounts at each asset level.

Exhibit 8
U.S. Bond Manager Reported Fees
 As of December 31, 2012

	<u>\$10 mm</u>	<u>\$15 mm</u>	<u>\$25 mm</u>	<u>\$50 mm</u>	<u>\$100 mm</u>
Mean Fee (basis points)	34	33	32	30	28
Standard Deviation	9.3	9.5	8.3	9.2	9.2

Percentage of Managers (%)

<u>Fee Range (basis points)</u>	<u>\$10 mm</u>	<u>\$15 mm</u>	<u>\$25 mm</u>	<u>\$50 mm</u>	<u>\$100 mm</u>
0–20	6.4	8.4	6.7	9.3	14.0
21–40	79.7	77.2	85.5	85.7	81.7
41–60	12.8	13.2	7.1	3.5	3.2
61–80	1.2	1.2	0.8	1.2	0.8
81–100	0.0	0.0	0.0	0.3	0.3
101–150	0.0	0.0	0.0	0.0	0.0
Over 150	0.0	0.0	0.0	0.0	0.0

Cumulative Percentage of Managers (%)

<u>Fee Range (basis points)</u>	<u>\$10 mm</u>	<u>\$15 mm</u>	<u>\$25 mm</u>	<u>\$50 mm</u>	<u>\$100 mm</u>
0–20	6.4	8.4	6.7	9.3	14.0
21–40	86.0	85.6	92.2	95.0	95.8
41–60	98.8	98.8	99.2	98.5	98.9
61–80	100.0	100.0	100.0	99.7	99.7
81–100	100.0	100.0	100.0	100.0	100.0
101–150	100.0	100.0	100.0	100.0	100.0
Over 150	100.0	100.0	100.0	100.0	100.0

Source: Cambridge Associates LLC.

Note: Data represent separately managed institutional accounts at each asset level.

Exhibit 9
Global ex U.S. Equity Manager Reported Fees
 As of December 31, 2012

	<u>\$10 mm</u>	<u>\$15 mm</u>	<u>\$25 mm</u>	<u>\$50 mm</u>	<u>\$100 mm</u>
Mean Fee (basis points)	89	86	81	75	68
Standard Deviation	28.6	25.8	19.4	17.8	19.0

Percentage of Managers (%)

<u>Fee Range (basis points)</u>	<u>\$10 mm</u>	<u>\$15 mm</u>	<u>\$25 mm</u>	<u>\$50 mm</u>	<u>\$100 mm</u>
20-40	2.2	2.2	1.8	1.4	3.3
41-60	7.5	7.7	6.5	10.8	30.0
61-80	38.7	41.8	56.5	66.7	53.3
81-100	36.6	35.2	28.8	17.1	10.0
101-150	12.9	11.0	5.9	3.6	2.9
Over 150	2.2	2.2	0.6	0.5	0.4

Cumulative Percentage of Managers (%)

<u>Fee Range (basis points)</u>	<u>\$10 mm</u>	<u>\$15 mm</u>	<u>\$25 mm</u>	<u>\$50 mm</u>	<u>\$100 mm</u>
20-40	2.2	2.2	1.8	1.4	3.3
41-60	9.7	9.9	8.2	12.2	33.3
61-80	48.4	51.6	64.7	78.8	86.7
81-100	84.9	86.8	93.5	95.9	96.7
101-150	97.8	97.8	99.4	99.5	99.6
Over 150	100.0	100.0	100.0	100.0	100.0

Source: Cambridge Associates LLC.

Note: Data represent separately managed institutional accounts at each asset level.

Exhibit 10
Global ex U.S. Bond Manager Reported Fees
 As of December 31, 2012

	<u>\$10 mm</u>	<u>\$15 mm</u>	<u>\$25 mm</u>	<u>\$50 mm</u>	<u>\$100 mm</u>
Mean Fee (basis points)	30	30	39	38	35
Standard Deviation	---	---	9	5	5

Percentage of Managers (%)

<u>Fee Range (basis points)</u>	<u>\$10 mm</u>	<u>\$15 mm</u>	<u>\$25 mm</u>	<u>\$50 mm</u>	<u>\$100 mm</u>
30–35	100.0	100.0	60.0	46.7	68.4
36–40	0.0	0.0	0.0	26.7	15.8
41–45	0.0	0.0	20.0	26.7	10.5
46–50	0.0	0.0	20.0	0.0	5.3
51–55	0.0	0.0	0.0	0.0	0.0
56–60	0.0	0.0	0.0	0.0	0.0

Cumulative Percentage of Managers (%)

<u>Fee Range (basis points)</u>	<u>\$10 mm</u>	<u>\$15 mm</u>	<u>\$25 mm</u>	<u>\$50 mm</u>	<u>\$100 mm</u>
30–35	100.0	100.0	60.0	46.7	68.4
36–40	100.0	100.0	60.0	73.3	84.2
41–45	100.0	100.0	80.0	100.0	94.7
46–50	100.0	100.0	100.0	100.0	100.0
51–55	100.0	100.0	100.0	100.0	100.0
56–60	100.0	100.0	100.0	100.0	100.0

Source: Cambridge Associates LLC.

Note: Data represent separately managed institutional accounts at each asset level.



Hedge Fund Exhibits



Exhibit 11
Hedge Fund Manager Reported Fees

As of December 31, 2012

	<u>Asset Fees (%)</u>	<u>Performance Fees (%)</u>
High	4.0	30.0
Low	0.0	0.0
Mean	1.7	19.8
Median	1.5	20.0

<u>Performance-Based Fee Ranges</u>	<u>Number of Vehicles</u>	<u>Percentage of Universe (%)</u>	<u>Asset-Based Fee Range (%)</u>
0% of Net Profits	2	0.9%	1.0
0.01% to 14.99% of Net Profits	0	0.0%	N/A
15% of Net Profits	9	3.9%	1.0–2.0
15.01% to 19.99% of Net Profits	6	2.6%	1.0–1.75
20% of Net Profits	204	89.1%	0.0–3.0
20.01% to 25% of Net Profits	7	3.1%	2.0–4.0
Over 25% of Net Profits	1	0.4%	3.0

<u>Asset-Based Fee Ranges</u>	<u>Number of Vehicles</u>	<u>Percentage of Universe</u>	<u>Performance-Based Fee Range (%)</u>
0% to 0.99% of Assets	2	0.9%	20–20
1.00% of Assets	29	12.7%	0–20
1.01% to 1.49% of Assets	5	2.2%	20–20
1.50% of Assets	84	36.7%	15–20
1.51% to 1.99% of Assets	9	3.9%	17.5–20
2.00% of Assets	88	38.4%	15–25
2.01% to 2.50% of Assets	7	3.1%	20–25
Over 2.5% of Assets	5	2.2%	20–30

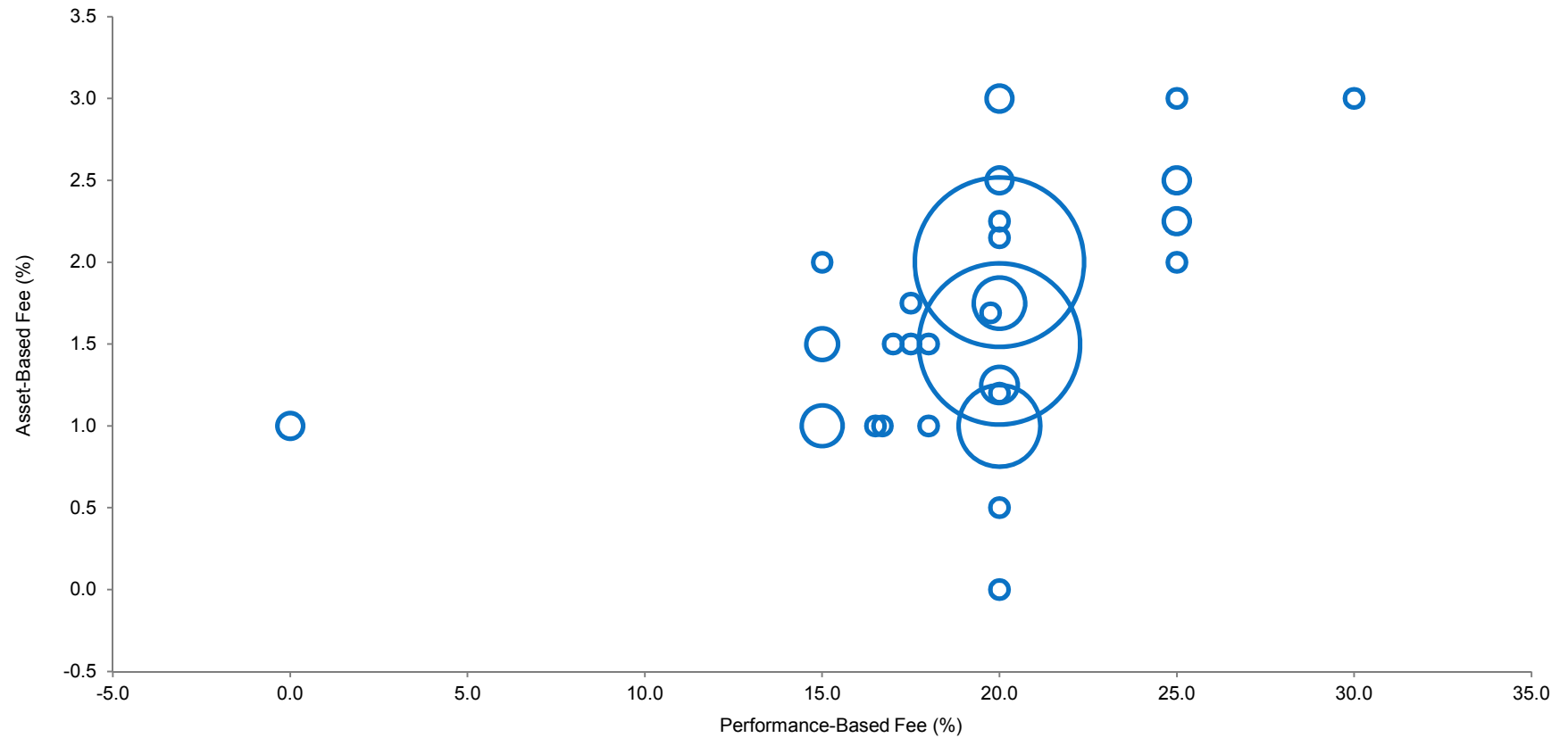
<u>Other</u>	<u>Number of Vehicles</u>	<u>Percentage of Universe</u>
Loss Carry Forward - High-Water Mark*	225	98.3%

Source: Cambridge Associates LLC.

Notes: The data represent a universe of 229 hedge fund vehicles held by C|A clients (excluding all funds of funds). Only one share class of one vehicle is represented for each hedge fund strategy. For vehicles with multiple share classes, the most liquid/highest fee share class was selected.

* With loss carry forward or high-water mark provisions, the fund must beat its historical high before the general partner can assess a performance-based fee.

Exhibit 12
Hedge Fund Manager Fee Distribution
As of December 31, 2012



Source: Cambridge Associates LLC.

Notes: The bubble sizes are determined by the number of managers that charge a fee mapped at their center points. The data represent a universe of 229 hedge fund vehicles held by C|A clients (excluding all funds of funds). Only one share class of one vehicle is represented for each hedge fund strategy. For vehicles with multiple share classes, the most liquid/highest fee share class was selected.

Exhibit 13
Hedge Fund Fees by Strategy
 As of December 31, 2012

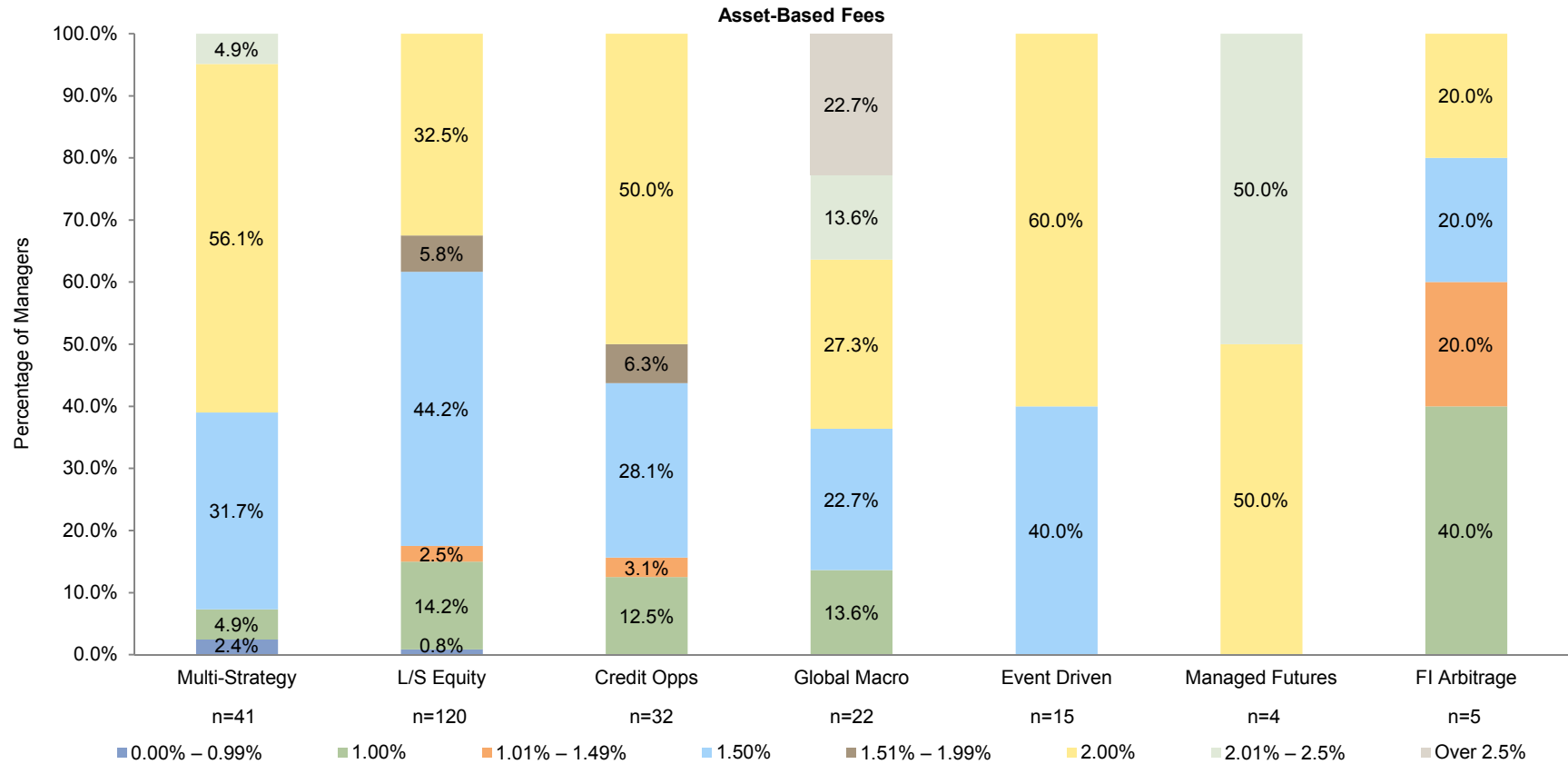
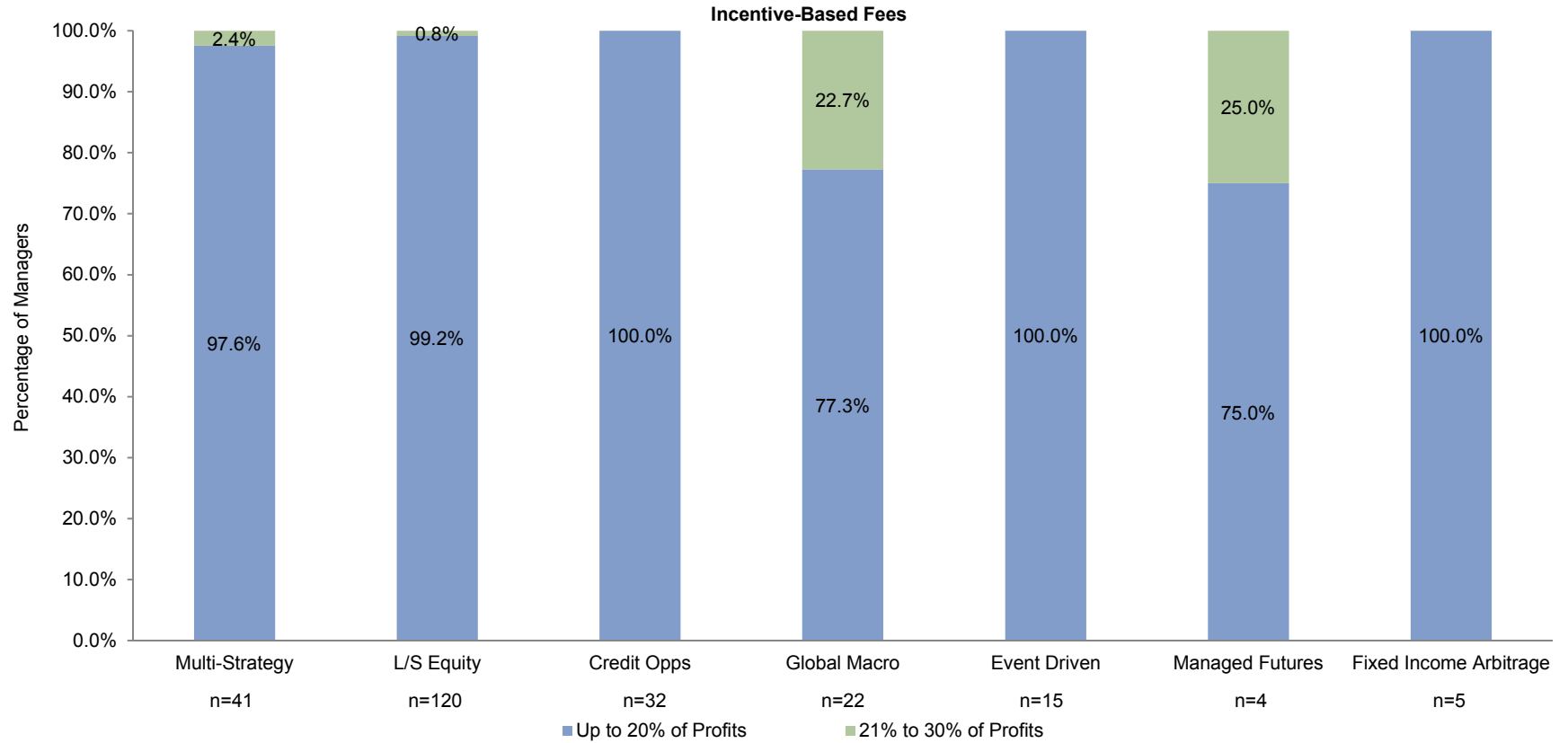


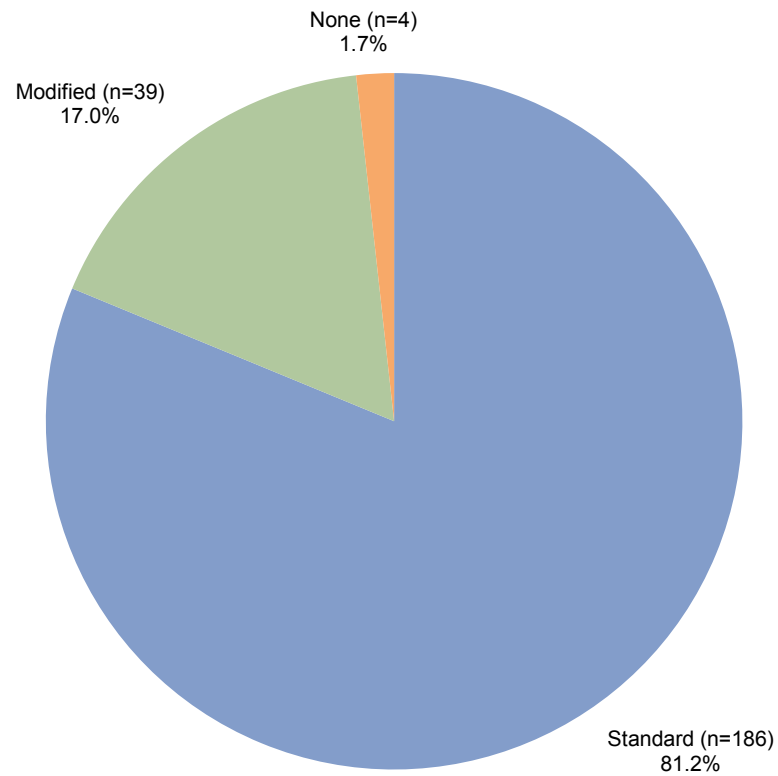
Exhibit 13 (continued)
Hedge Fund Fees by Strategy
 As of December 31, 2012



Source: Cambridge Associates LLC.

Notes: The data represent a universe of 224 hedge fund vehicles held by C|A clients (excluding all funds of funds). The 15 event-driven funds are also included in the 41 multi-strategy funds. Only one share class of one vehicle is represented for each hedge fund strategy. For vehicles with multiple share classes, the most liquid/highest fee share class was selected.

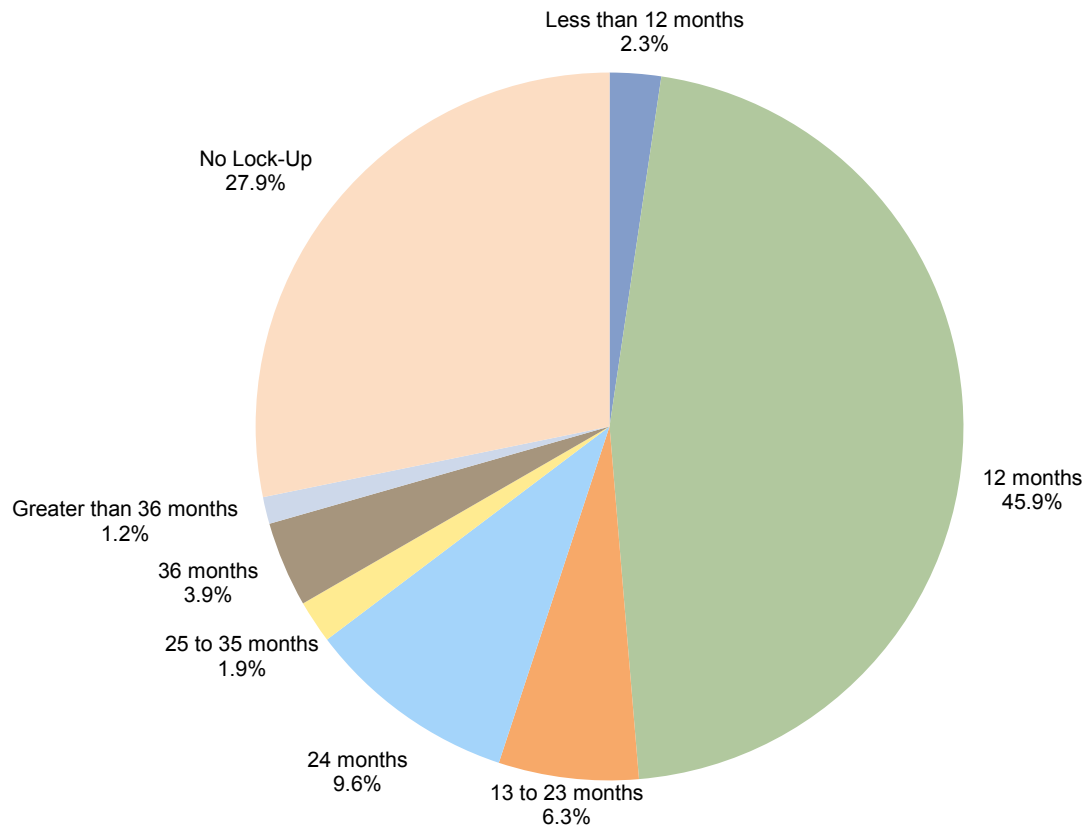
Exhibit 14
Hedge Fund Managers' Use of High-Water Marks
As of December 31, 2012



Source: Cambridge Associates LLC.

Notes: The data represent a universe of 229 hedge fund vehicles held by C|A clients (excluding all funds of funds). Only one share class of one vehicle is represented for each hedge fund strategy. For vehicles with multiple share classes, the most liquid/highest fee share class was selected.

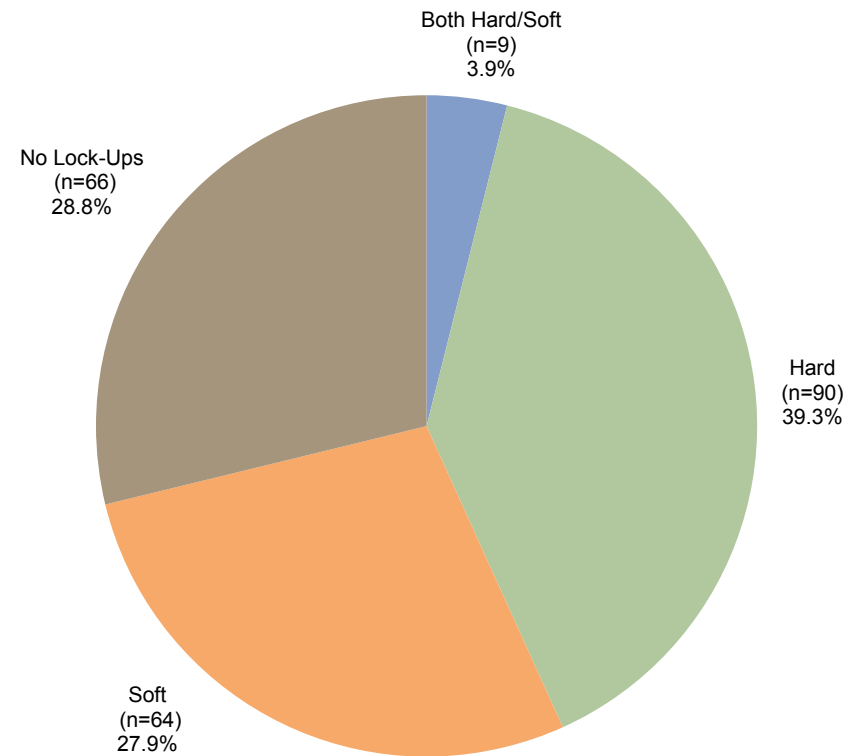
Exhibit 15
Average Hedge Fund Lock-Up Periods
 As of December 31, 2012



Source: Cambridge Associates LLC.

Notes: The data represent a universe of 229 hedge fund vehicles held by C|A clients (excluding all funds of funds). Only one share class of one vehicle is represented for each hedge fund strategy. For vehicles with multiple share classes, the most liquid/highest fee share class was selected.

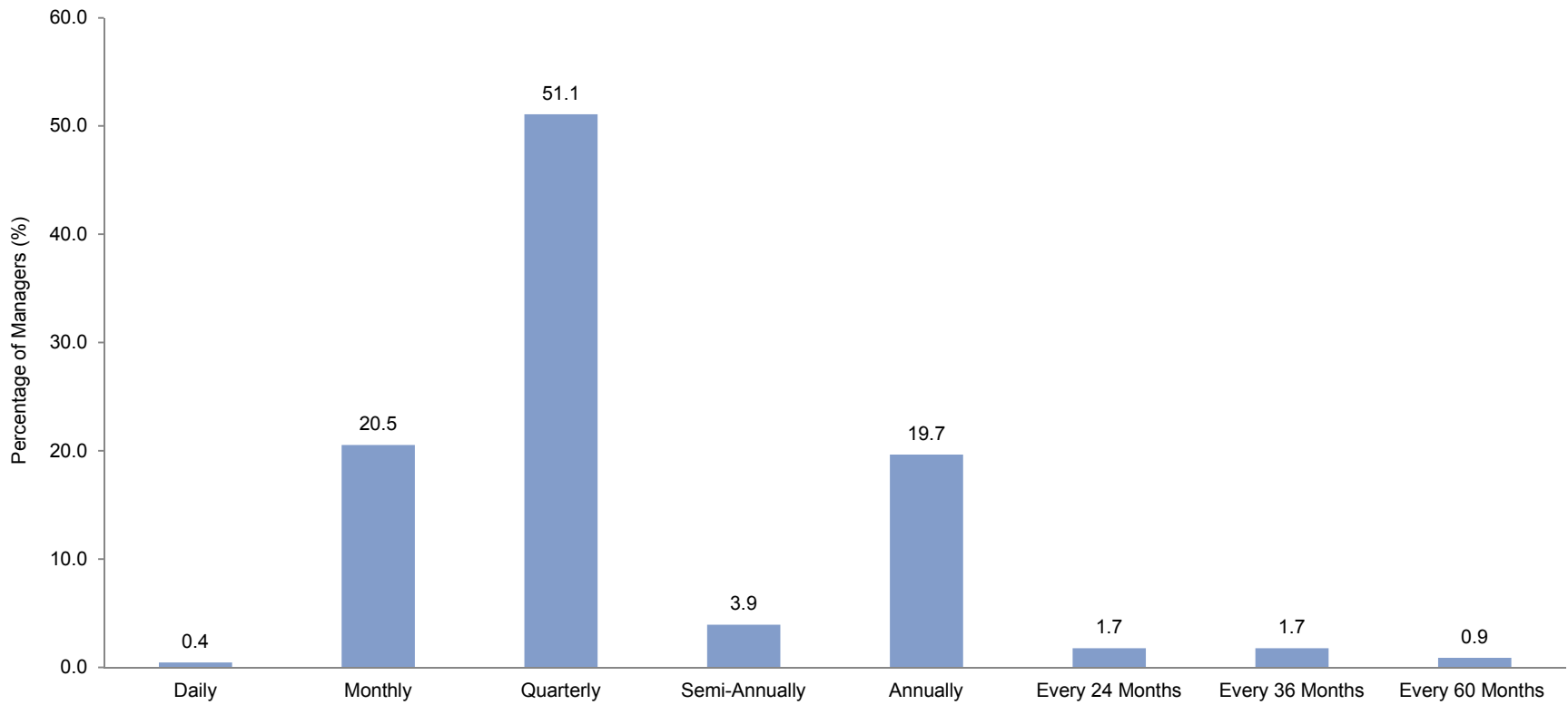
Exhibit 16
Hedge Fund Managers by Lock-Up Type
As of December 31, 2012



Source: Cambridge Associates LLC.

Notes: The data represent a universe of 229 hedge fund vehicles held by C|A clients (excluding all funds of funds). Only one share class of one vehicle is represented for each hedge fund strategy. For vehicles with multiple share classes, the most liquid/highest fee share class was selected.

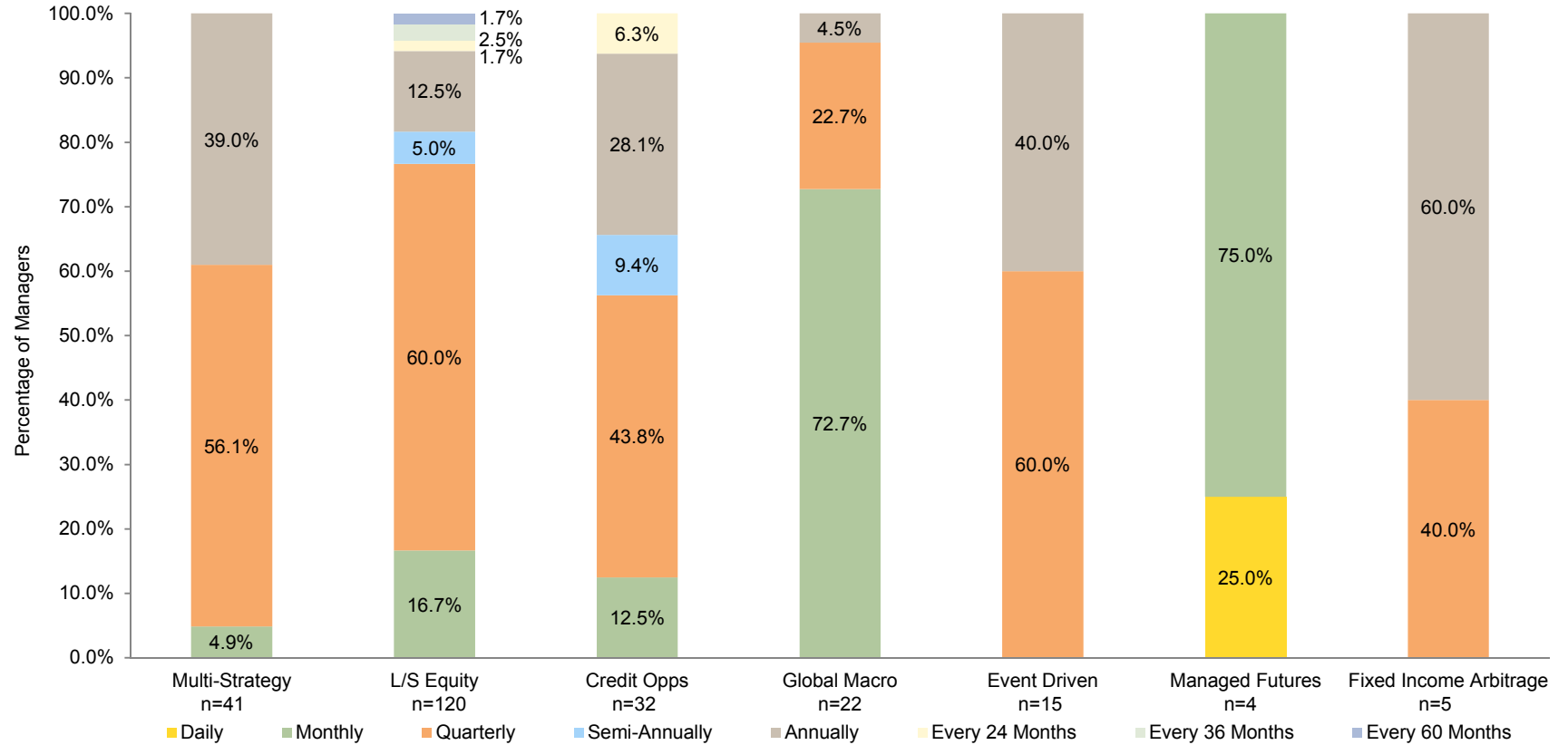
Exhibit 17
Hedge Fund Manager Liquidity Terms by Exit Frequency
 As of December 31, 2012



Source: Cambridge Associates LLC.

Notes: The data represent a universe of 229 hedge fund vehicles held by C|A clients (excluding all funds of funds). Only one share class of one vehicle is represented for each hedge fund strategy. For vehicles with multiple share classes, the most liquid/highest fee share class was selected.

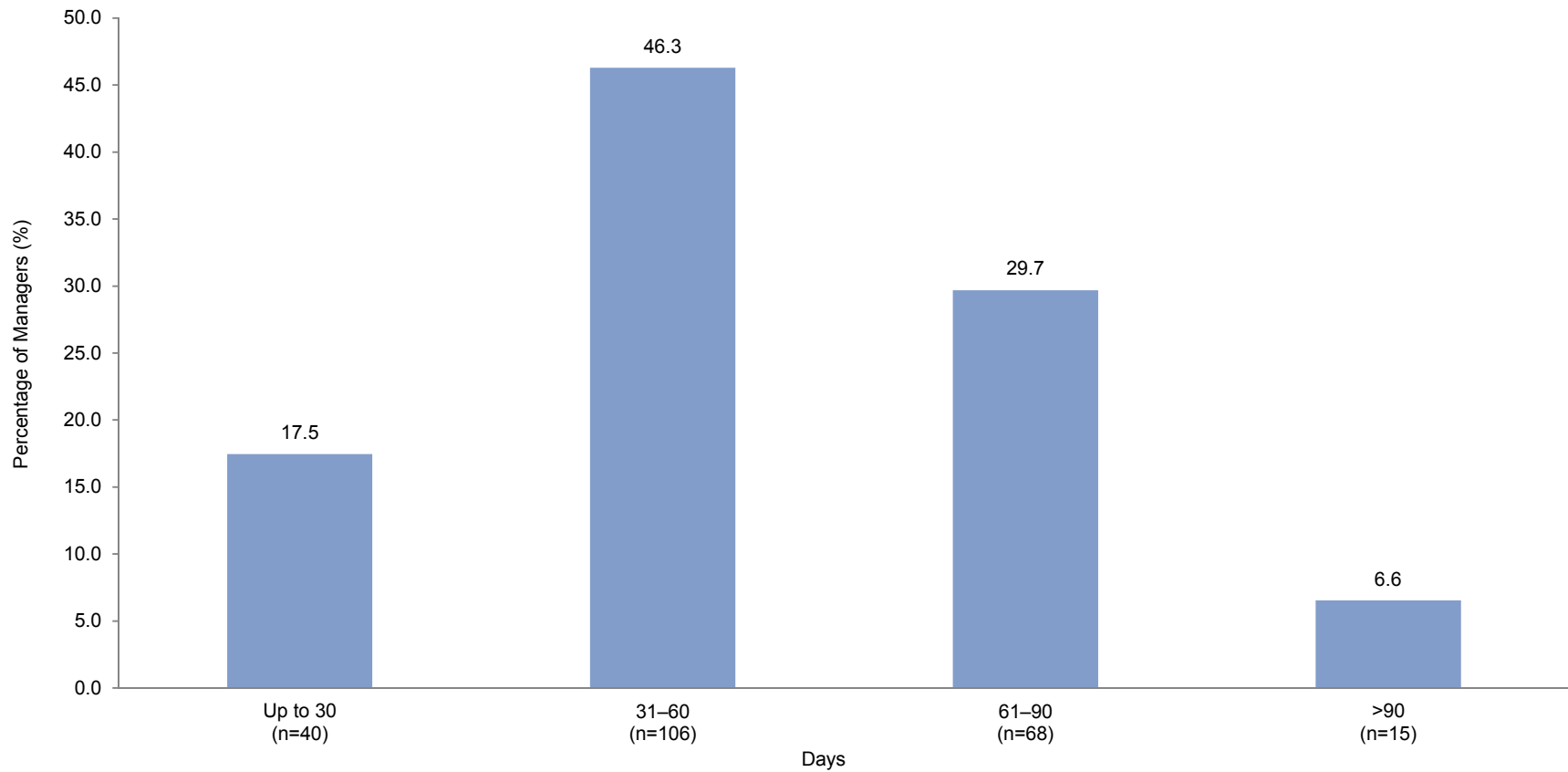
Exhibit 18
Liquidity by Hedge Fund Strategy
 As of December 31, 2012



Source: Cambridge Associates LLC.

Notes: The data points listed represent the percentage of funds in each strategy with liquidity in that time frame. The data represent a universe of 224 hedge fund vehicles held by C|A clients (excluding all funds of funds). The 15 event-driven funds are also included in the 41 multi-strategy funds. Only one share class of one vehicle is represented for each hedge fund strategy. For vehicles with multiple share classes, the most liquid/highest fee share class was selected.

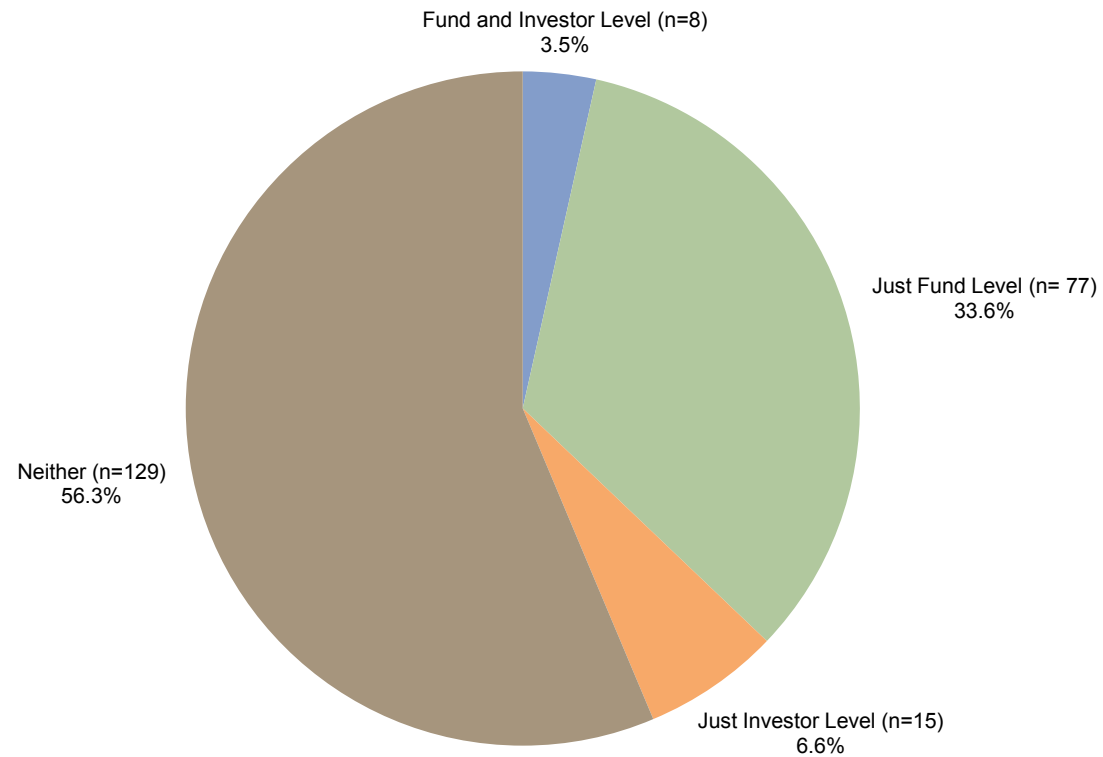
Exhibit 19
Hedge Fund Managers by Notice Period
 As of December 31, 2012



Source: Cambridge Associates LLC.

Notes: The data represent a universe of 229 hedge fund vehicles held by C|A clients (excluding all funds of funds). Only one share class of one vehicle is represented for each hedge fund strategy. For vehicles with multiple share classes, the most liquid/highest fee share class was selected.

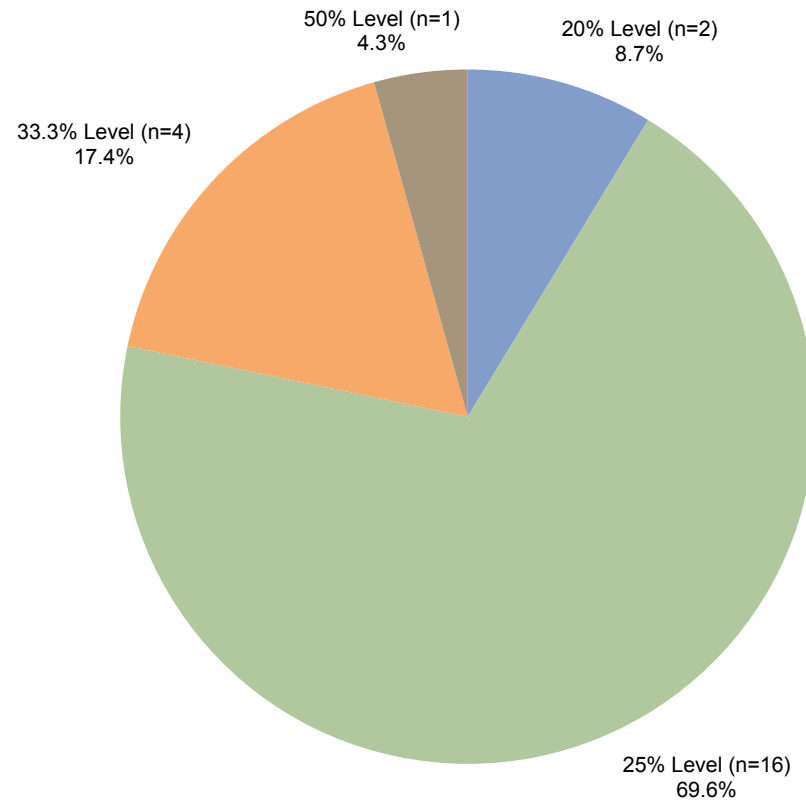
Exhibit 20
Hedge Funds Managers' Use of Gates
As of December 31, 2012



Source: Cambridge Associates LLC.

Notes: The data represent a universe of 229 hedge fund vehicles held by C|A clients (excluding all funds of funds). Only one share class of one vehicle is represented for each hedge fund strategy. For vehicles with multiple share classes, the most liquid/highest fee share class was selected.

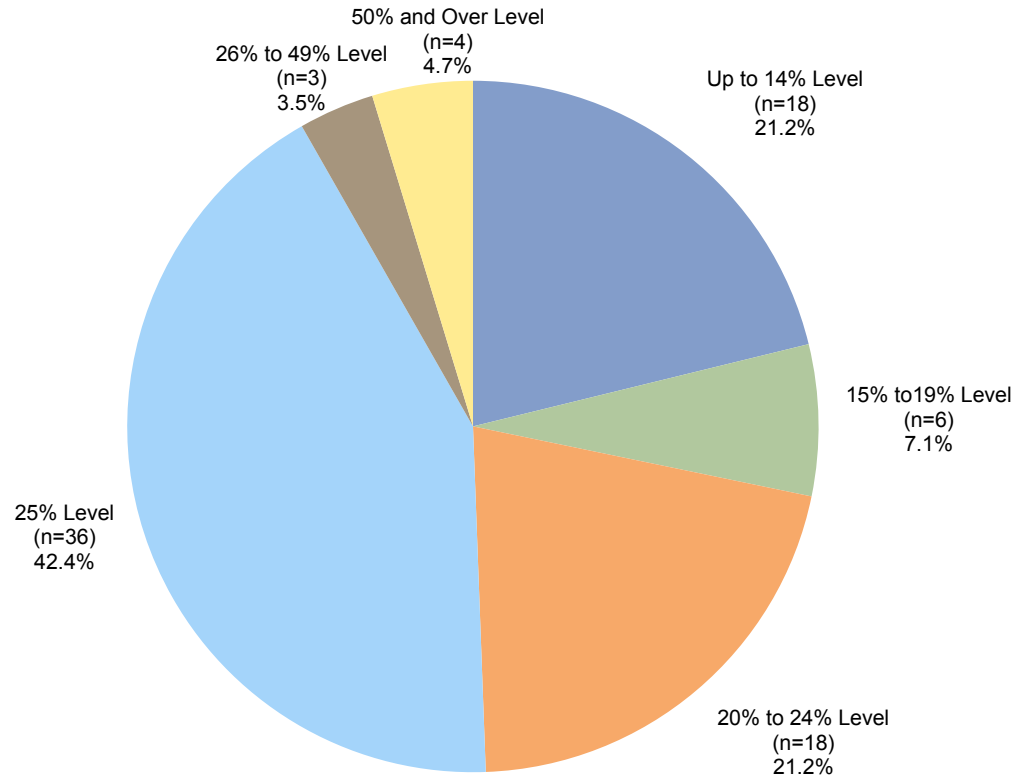
Exhibit 21
Hedge Fund Managers Using Investor-Level Gates
As of December 31, 2012



Source: Cambridge Associates LLC.

Notes: The data represent the 23 vehicles with investor-level gates from our universe of 229 hedge fund vehicles held by C|A clients (excluding all funds of funds). Only one share class of one vehicle is represented for each hedge fund strategy. For vehicles with multiple share classes, the most liquid/highest fee share class was selected.

Exhibit 22
Hedge Fund Managers Using Fund-Level Gates
 As of December 31, 2012

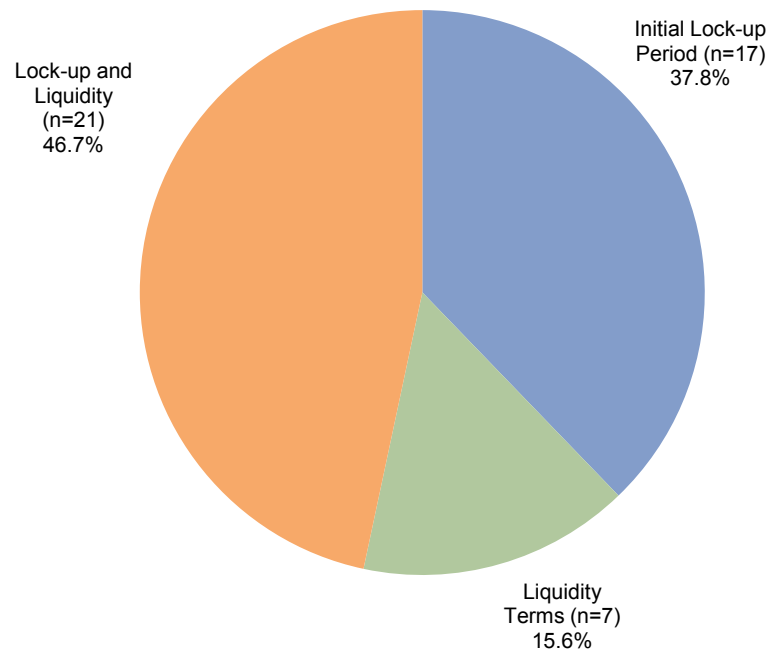


Source: Cambridge Associates LLC.

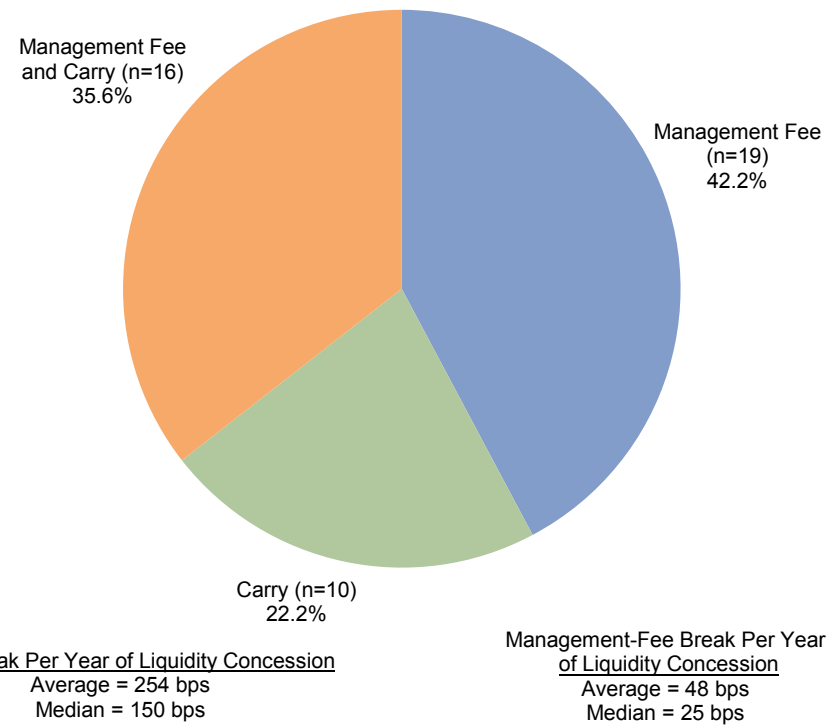
Notes: The data represent a universe of 229 hedge fund vehicles held by C|A clients (excluding all funds of funds). Only one share class of one vehicle is represented for each hedge fund strategy. For vehicles with multiple share classes, the most liquid/highest fee share class was selected.

Exhibit 23
Hedge Fund Liquidity/Fee Options
 As of December 31, 2012 • Managers Employing Type of Schedule

Which Liquidity Terms Are Varied?



Which Fees Are Varied?



Carry Break Per Year of Liquidity Concession
 Average = 254 bps
 Median = 150 bps

Management-Fee Break Per Year of Liquidity Concession
 Average = 48 bps
 Median = 25 bps

Source: Cambridge Associates LLC.

Notes: The data represent 45 vehicles that offer multiple liquidity options and inducements to lock-up capital from a broader universe of 229 hedge fund vehicles held by C/A clients (excluding all funds of funds). Only one share class of one vehicle is represented for each hedge fund strategy. For vehicles with multiple share classes, the most liquid/highest fee share class was selected.