NEPC, LLC

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2014 Survey Results

Hedge Fund Operational Due Diligence

November 2014

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- **NEPC's hedge fund research team includes investment specialists and a separate team focused on Operational Due Diligence ("ODD")**

- **Ongoing oversight includes an annual ODD survey, sent to all hedge funds utilized by NEPC clients and to additional funds rated "Preferred"**
  - Identifies key operational issues
    - Changes to the firm's ownership structure
    - Senior staff departures
    - Litigation or regulatory action
    - Dramatic decline in assets
    - Service provider changes
  - Allows NEPC to aggregate service providers used across all funds
    - Verify external service providers directly
    - Helps to flag any inaccurate responses
  - Highlights funds with operational "red flags" worthy of further investigation

- **Survey is sent annually in May-June, and the responses are compiled through the summer and fall**

- **NEPC's clients represent approximately 710 investment programs and approximately $850 billion in plan assets ***

* as of 6/30/2014. Includes both advisory and discretionary clients.

Survey Results

- **Each year we survey all hedge funds in place across all clients for whom NEPC advises on hedge funds**

- **The 2014 survey went to 289 managers and 243 responded (Response rate: 84%)**

- **Information on 421 funds was provided**
  - Highlights and trends are summarized herein
  - Each Administrator and Auditor was contacted independently by NEPC to verify the relationships reported by managers
  - Audited Financial Statements are being reviewed

- **Of the 46 non-responders …**
  - Most are in some form of liquidation or were terminated by the investor after the survey was sent
  - None are on NEPC's "Preferred" list

- **Per NEPC policy, non-responders cannot be included in future searches for clients**

- **Firm-level data**
  - 95% are registered with the SEC. This figure has risen dramatically (see p. 10) as regulatory requirements have evolved.
  - 22% have had a change in ownership in the past year.
  - 20% are involved in some form of litigation.
  - 40% have had senior personnel departures in the past year.
  - 26% have an affiliated broker/dealer.
  - 44% use a third-party marketing firm.

- **Product-level data**
  - 14 different audit firms are used, with the top two being Ernst & Young and PWC (29% each). We are seeing increased concentration here (see p. 12).
  - 42 different administrators are used, with the most-used being Citco (18%).
  - 3% of the funds are self-administered.
  - 13% have changed a service provider in the last year.
  - 4% put up gates or restricted liquidity in the past year. As expected, this figure is down significantly since 2010 (see p. 13).

- **Auditors**
  - Just 14 audit firms utilized by 419* funds
  - Highly concentrated: 85% in the Big Four firms

	Provider	
1	Ernst & Young	29%
2	PwC	29%
3	Deloitte	15%
4	KPMG	11%
	All other providers (10)	15%

85% (Big Four: rows 1–4)

  - 98% of the funds utilize one of the Big Four or five other well-known firms (Rothstein Kass, Grant Thornton, EisnerAmper, McGladrey LLP, and Anchin, Block & Anchin)

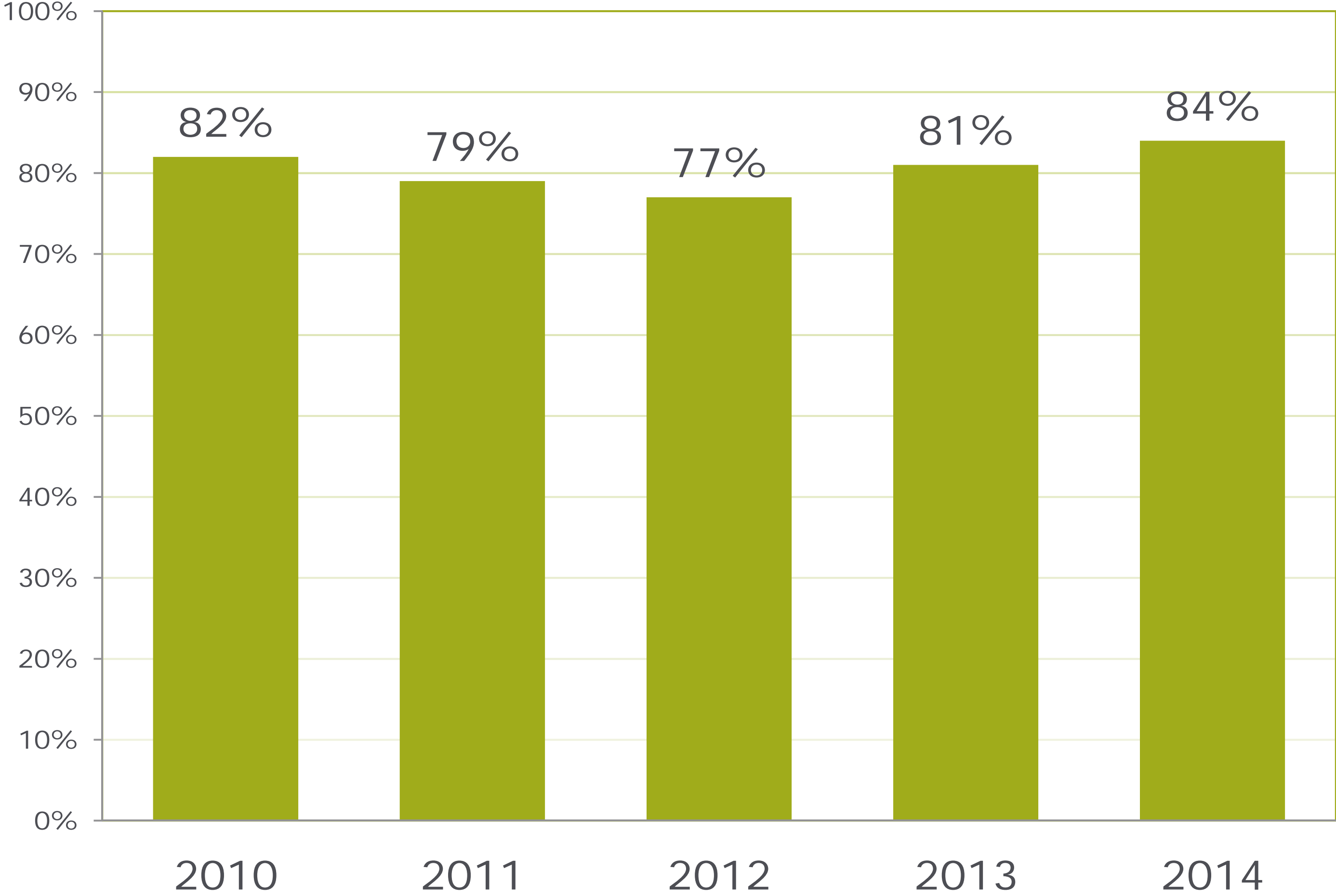
* Differs from total number of responses because some products are no longer being reported or the provider is selected by the investor

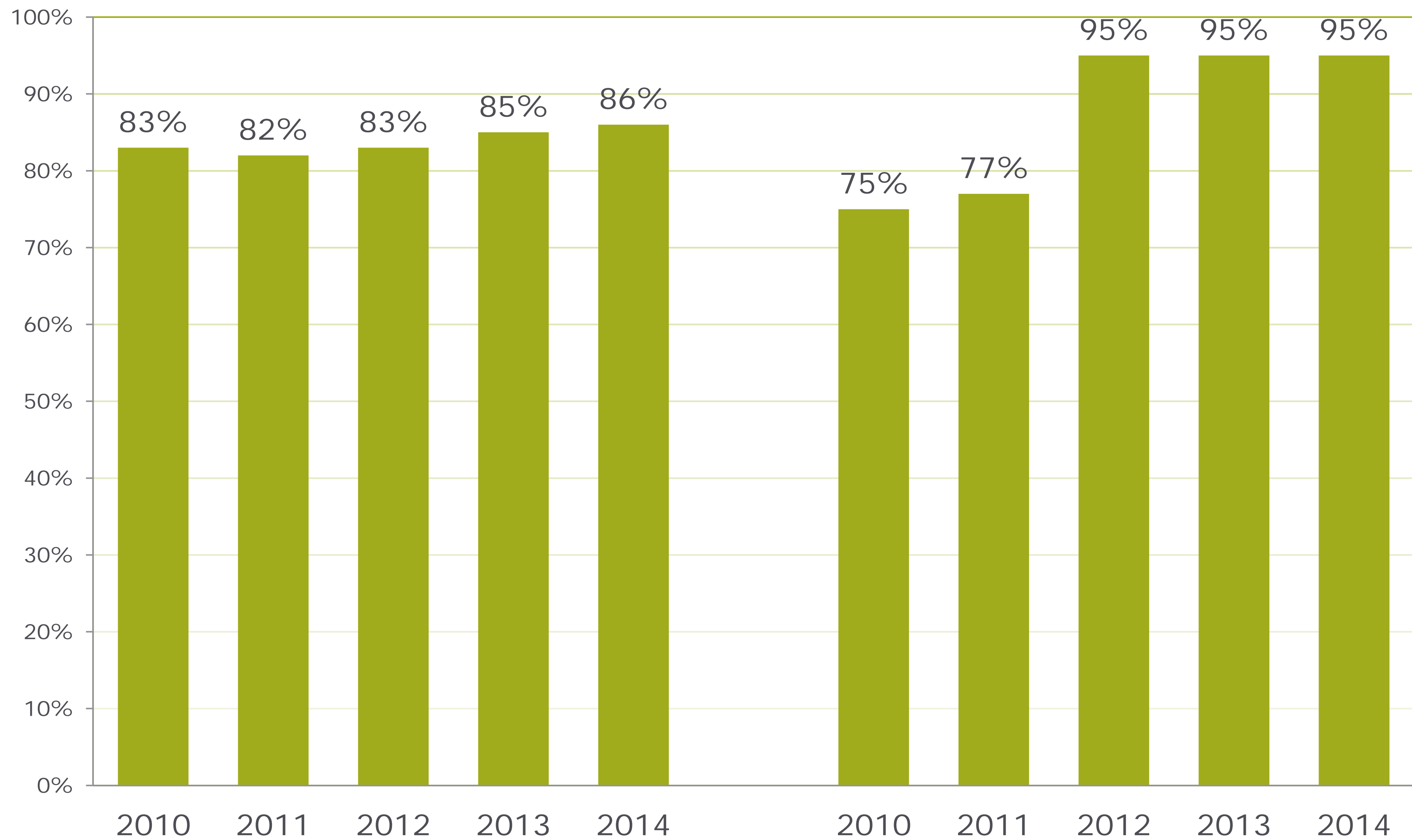
- **Administrators**
  - A diverse group of providers: 42 firms across 408* funds
  - Large concentration in the top 10 (74%)
  - 13 of the bottom 32 service just one fund used by NEPC clients

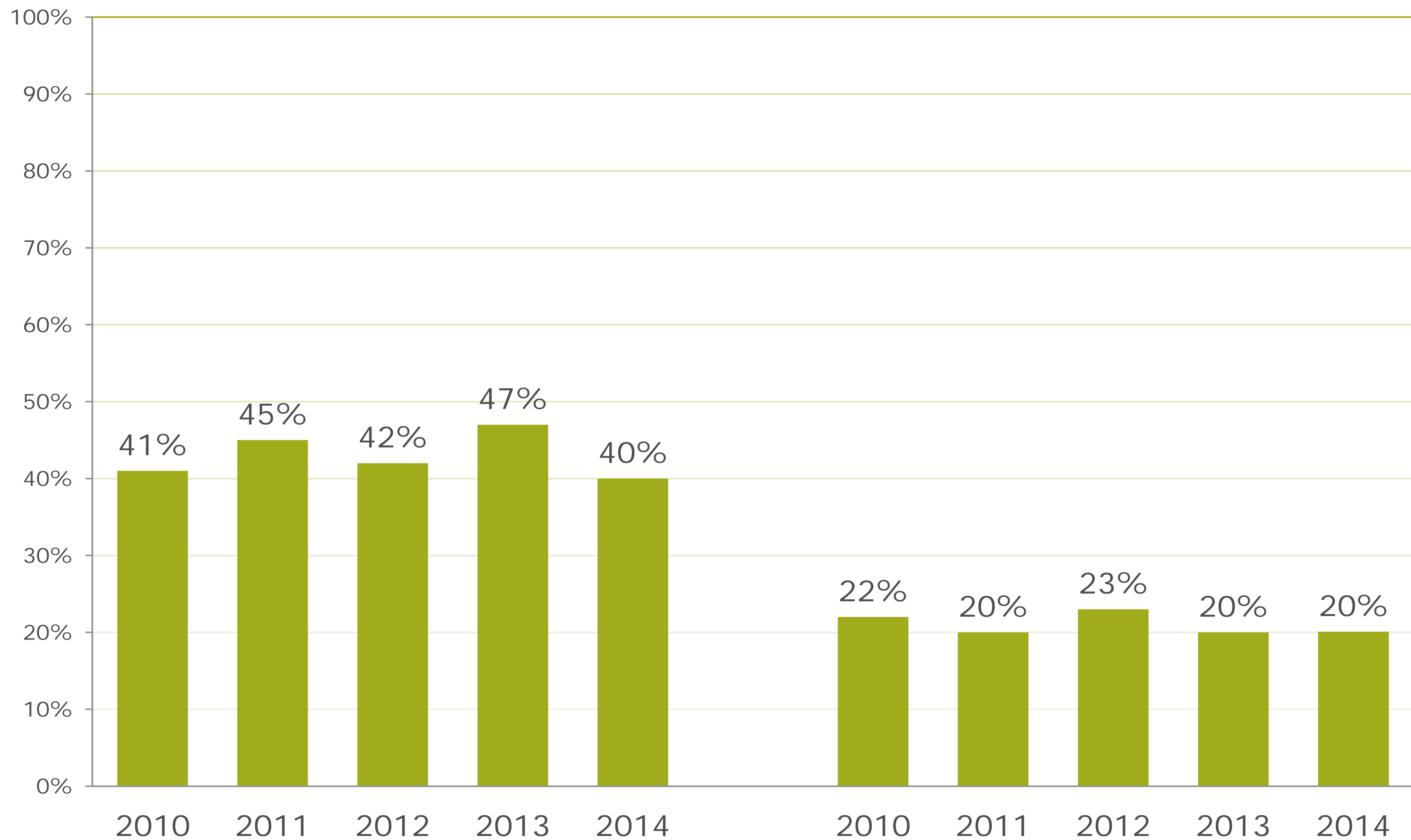
	Provider	
1	Citco Fund Services	18%
2	IFS (International Fund Services)	16%
3	BNY Mellon	10%
4	SS&C GlobeOp	6%
5	Citi Fund Administration	6%
6	SEI Fund Administration	5%
7	Morgan Stanley Fund Services	4%
8	JPMorgan Hedge Fund Services	4%
9	HedgeServ	3%
10	Northern Trust	2%
	Self-Administered	3%
	All other providers (32)	23%

74% (top 10)

* Excludes self-administered funds


Response Rate
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
82%
79%
77%
81%
84%
2010
2011
2012
2013
2014


Firm AUM > $1 Billion
Registered with SEC
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
83%
82%
83%
85%
86%
75%
77%
95%
95%
95%
2010
2011
2012
2013
2014
2010
2011
2012
2013
2014


Senior Departures
Pending Litigation
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
41%
45%
42%
47%
40%
22%
20%
23%
20%
20%
2010
2011
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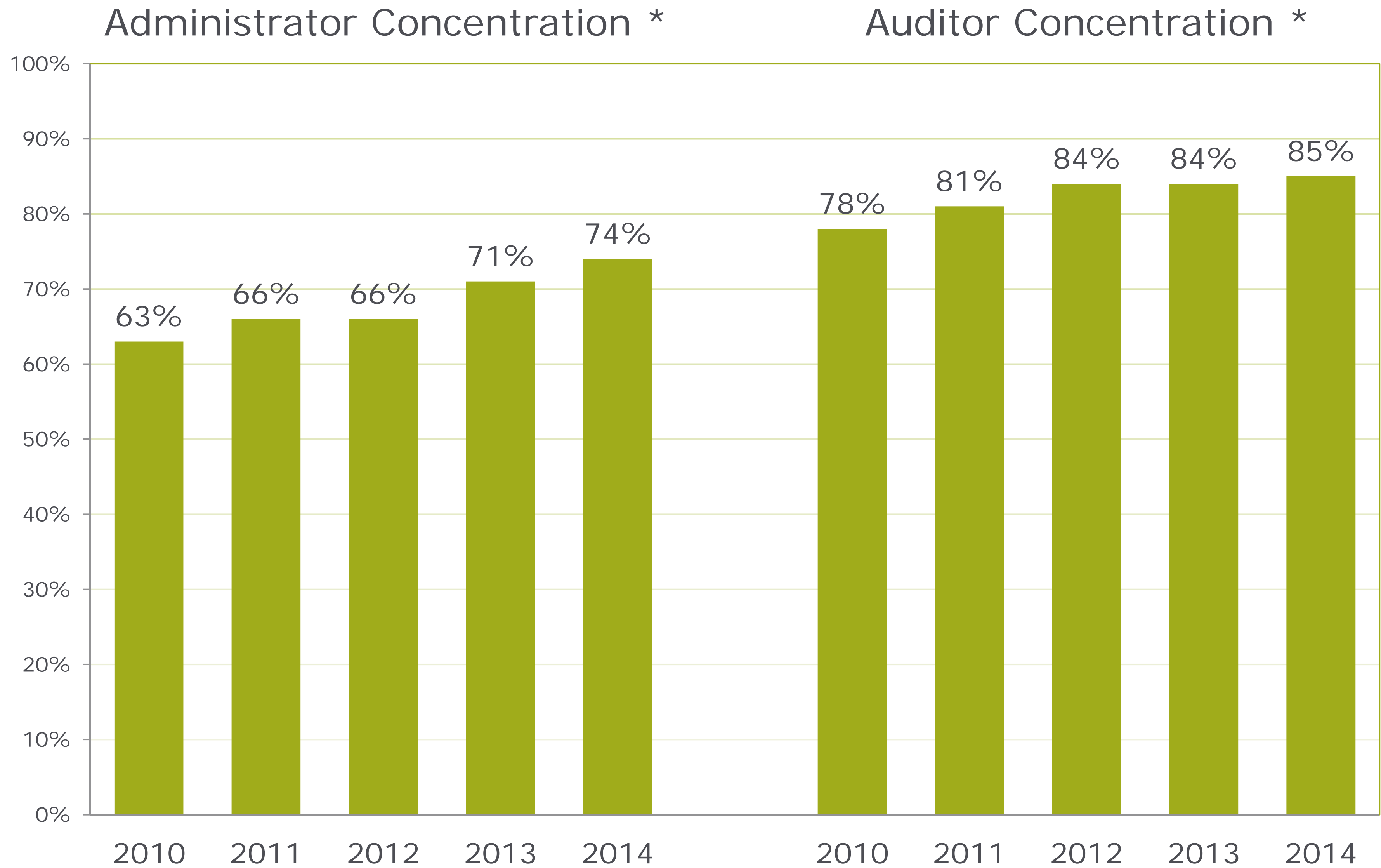
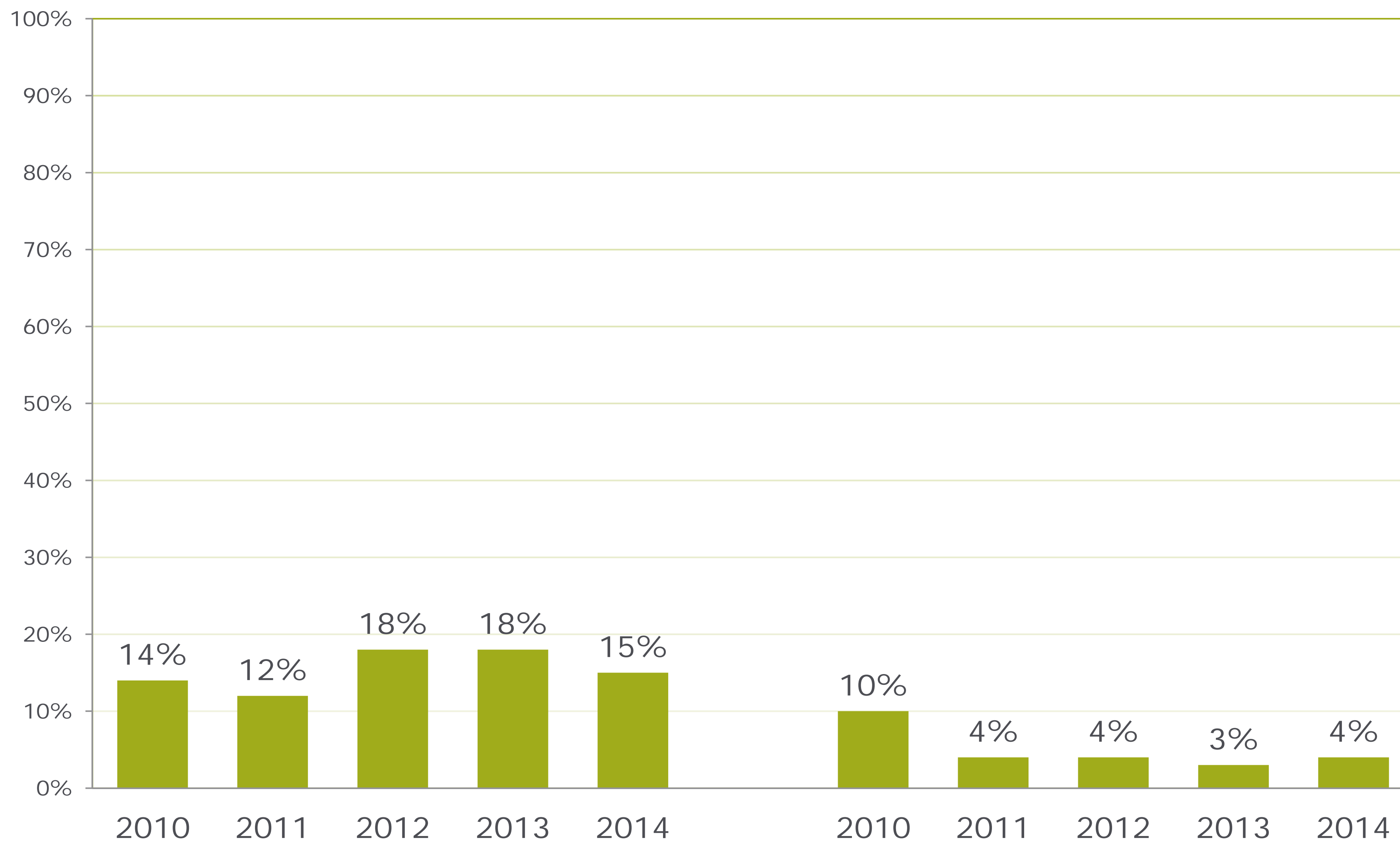
2014
2010
2011
2012
2013
2014



* Top 10 Administrators and Big Four Auditors


Outflows > 20%
Restricted Liquidity
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
14%
12%
18%
18%
15%
10%
4%
4%
3%
4%
2010
2011
2012
2013
2014
2010
2011
2012
2013
2014

Appendix

Survey Questions

- **Firm Questions**
  - Firm AUM
  - Is the firm registered with the SEC?
  - Has the firm been subject to a regulatory exam in the past year?
  - Has the firm's legal structure changed in the past year?
  - Has the firm's ownership changed in the past year?
  - Did any senior personnel leave the firm in the past year?
  - Is there any pending litigation related to the firm or management company?
  - Do you operate or are you affiliated with a Broker/Dealer?
  - Do you utilize the services of any third party marketing firm or Placement Agent?

- **Investment Product Questions**
  - Prime Broker(s)
  - Risk Aggregation System(s)
  - Fund Auditor
  - Fund Administrator and Service Location(s)
  - Custodian
  - How much of the fund is held in a side pocket, how often are the assets priced, and who prices them?
  - Have you changed any of the service providers listed above in the past year?
  - Have net outflows in the past year exceeded 20% of the fund's NAV?
  - Did you put up any gates or restrict liquidity in the past year?

Hedge Fund Assets Reach Record High *

- Hedge fund assets in aggregate received just enough net inflows and investment returns to reach a new industry high of $2.8 trillion as of Sept. 30, data from Hedge Fund Research showed. Assets were up 0.6% compared to June 30, representing the ninth consecutive quarterly record.

* Source: Pensions & Investments, 10/20/2014

Hedge Fund Industry Growing **

- The hedge fund industry is growing, both in terms of assets and volume, with more than 4,600 fund managers now managing more than 10,500 funds, an increase from May 2013 when there were around 4,150 managers running approximately 10,000 funds.
- There are currently more than 500 hedge fund managers with $1 billion or more in assets under management. These firms represent approximately 90% of total industry assets. There are currently 25 fund managers with more than $20 billion in assets.
- Long/short is by far the most utilized of all the strategies, with around 42% of all funds managed by $1 billion Club members using this strategy.

** Source: Opalesque monthly monitor, June 2014

Evolution of the Hedge Fund Industry *

- Hedge funds are now far more regulated than they were pre-2008, with the advent of legislation including the Dodd-Frank Wall Street Reform and Consumer Protection Act in the U.S. and AIFMD in Europe.
- Institutional investors are now a much bigger part of the industry, accounting for 63% of total dollars invested in hedge funds post-2008, compared with 45% before.

* Source: Preqin (via Institutional Investor's Alpha), 9/26/2014

Regulators are Gathering More Information from Managers **

- Data on the size of funds and their leverage and liquidity ratios is now being collected through Form ADV, Form PF, Forms CPO PQR and PQF and Annex IV of the Alternative Investment Fund Managers Directive (AIFMD). This raises questions about what the regulators are going to do with all the information they are now gathering.

** Source: FSB-IOSCO paper, cited in COO Connect, 4/28/2014

Are '40 Act Hedge Funds the future of the Industry? +

- A number of hedge fund managers have issued mutual funds regulated under the 1940 Investment Company Act. Blackstone, Apollo Global Management and AQR have all launched regulated products aimed at retail investors, sporting minimum investment thresholds as low as $2,500.
- It is regulation (such as Forms PF and CPO-PQR) rather than deregulation (such as the JOBS Act) which is doing most to blur the once rigid demarcation between hedge fund managers and their mutual fund brethren. The heavier reporting requirements now laid on hedge funds makes compliance with `40 Act requirements seem less daunting than it once did.

+ Source: CCO Connect, 2/24/2014

Standard fee structure is less prevalent *

- The proportion of funds charging the standard 2-and-20 annual fee structure has fallen, from 28% in September 2008 to just 23% now.

  * Source: Preqin (via Institutional Investor's Alpha), 9/26/2014

New funds are imposing tougher redemption terms **

- Newly launched US hedge funds are imposing tougher redemption terms on investors although management fees have declined, according to a study by Seward & Kissel.
- Eighty-nine percent of new funds restricted redemptions to a quarterly or longer-term basis in 2013 compared with 64% in 2012. Just 11% permitted monthly redemptions in 2013, down from 36% in 2012. The number of funds employing a hard lock-up, usually of one year, rose dramatically from 8% in 2012 to 27% in 2013.

  ** Source: COO Connect, 2/26/2014

Lock-ups at hybrid hedge funds could be up to seven years +

- The growing convergence between hedge funds and private equity could potentially see some managers imposing lock-ups of three years, or even seven in the near future.
- "We have seen a growing number of hedge funds investing in private equity investments and this is a trend that is likely to continue," said Chris Franzek, managing director at Duff & Phelps. "The line is becoming increasingly blurred between hedge funds and private equity funds."

  + Source: COO Connect, 5/2/2014

Hedge Funds get High Scores in New SEC Audits *

- Hedge fund and private-equity firms are doing pretty well in the Securities and Exchange Commission's new "presence exams."
- The SEC said last week that it is issuing deficiency letters to only about half of the firms its reviewed so far. Routine exams yield deficiency letters in about 80% of cases.
- The "presence exams" are being conducted at the roughly 1,500 new private investment advisers required to register under the Dodd-Frank financial reform law. Such exams take less time than routine exams, but focus extensively on areas such as valuation, conflicts of interest and custody arrangements.
- The SEC has conducted 250 such exams on newly-registered firms, putting it on pace to meet its goal of auditing 25% of them within two years.

* Source: FIN Alternatives, 2/13/2014

SEC forms squad to examine private funds **

- The SEC has put together a dedicated group to examine private equity and hedge funds, after the 2010 Dodd-Frank law required most midsize and large private equity and hedge funds to register. The examiners will look at areas including how private equity and hedge funds value their assets, disclose their fees, and communicate with investors.
- The SEC already has examiners who specialize in funds, but historically it has focused on public asset managers such as mutual funds that have been highly regulated since 1940.
- The SEC has asked Congress for more resources for fund inspections. SEC Chair Mary Jo White told a U.S. House of Representatives appropriations panel ... that the regulator examined only about 9 percent of registered investment fund advisers in the last fiscal year.
- The SEC has a separate team that investigates asset managers in its enforcement division. That group was formed in 2010.

** Source: Reuters, 4/7/2014

Half of hedge funds have changed a service provider *

- Almost half of hedge funds have changed a service provider since inception, according to a survey of 100 managers by Preqin. Prime brokers and fund administrators were the most frequently switched provider.
- Three quarters of all Asia-based managers and those in the Rest of the World (ROW) have swapped fund administrators over the last five years compared to 56% of European firms and 52% of North American hedge funds.
- SS&C GlobeOp was selected by the largest number of funds launched in 2013 for its administration services, followed by Morgan Stanley Fund Services, Citco and State Street.
- North American (61%) and European (48%) managers were more likely to change prime brokers than Asia-Pacific hedge funds (25%).

* Source: COO Connect, 3/20/2014

KPMG becomes Top-Ranked Hedge Fund Auditor **

- In July 2014, KPMG announced that it had completed the acquisition of Rothstein, Kass and Company. According to the 2014 Preqin Global Hedge Fund Report, prior to the acquisition both KPMG and Rothstein Kass each serviced 13% of all single manager hedge funds; post-acquisition, KPMG now becomes the most utilised hedge fund auditor based on funds serviced, displacing EY from the number one spot.
- In 2013 the 'Big Four' audit firms (EY, PricewaterhouseCoopers, KPMG and Deloitte) serviced around 67% of the total hedge fund industry, with EY (21%) and PwC (20%) having the largest share.
- Rothstein Kass proved to be an attractive target for KPMG, with an enviable list of clients such as Paulson and Co., Brigade Capital and Pennant Capital.
- Although KPMG has almost doubled their market share in North America, they still trail behind PwC and EY both in Europe and in Asia. In Europe, both PwC and EY both service more funds. Within Asia, PwC and EY are each looking after almost twice as many funds as KPMG.

** Source: Preqin, 8/28/2014

Fund managers still grappling with FATCA requirements *

- FATCA is fast becoming a major concern for fund managers. A survey by SunGard and Aite Group revealed that 74% of fund managers viewed FATCA as their biggest regulatory challenge, putting it well ahead of Form PF and compliance with the EU's Alternative Investment Fund Managers Directive (AIFMD).

  * Source: COO Connect, 3/26/2014

Hedge Funds warned on FCPA **

- Government agencies have warned hedge funds that enforcement of the Foreign Corrupt Practices Act (FCPA) will be a priority for 2014.
- "Hedge funds are likely to fall into two buckets. The first would be if they are soliciting investments from a foreign official or a sovereign wealth fund or pension fund controlled by the state, and we will be scrutinizing any gifts, entertainment or travel afforded to those individuals to ensure they do not break the rules. The other area where hedge funds may fall foul is when they invest in a market where corruption is a way of life," said Sarah Coyne, chief of the business and securities fraud section at the US Attorney's Office for the Eastern District of New York.
- The FCPA prohibits US organizations from bribing foreign officials for government contracts and other business. "The use of a third party in a jurisdiction where corruption is widespread or the use of a consultant who has awareness about the local culture and who may be dealing with a sovereign wealth fund is an area where hedge funds are most likely to get into trouble under the FCPA" said Coyne.

  ** Source: COO Connect, 4/7/2014

[1] FATCA: The Foreign Account Tax Compliance Act
[2] FCPA: Foreign Corrupt Practices Act

JOBS Act, AIFMD*

- A survey by Aksia of 198 global hedge funds with collective AuM of more than $1 trillion found just 1% of respondents intend to advertise because of the JOBS Act. Nearly a quarter told Aksia they would "wait and see", and 73% said they would not make use of the liberalised advertising and marketing rules. Similar apprehension was expressed in a Preqin study of 150 private equity managers and hedge funds. Seventy-seven per-cent of private equity firms and 63% of hedge fund managers told Preqin they would "never or not at this time" market under the JOBS Act. Just 4% of hedge funds and 5% of private equity shops have registered to market under the JOBS Act, adds Preqin.
- Perhaps the biggest stumbling blocks lie with the regulators. Firms hoping to make use of general solicitation must be dually registered with the SEC and Commodity Futures Trading Commission (CFTC).
- The EU's Alternative Investment Fund Managers Directive (AIFMD) has led some member states – most notably France, Italy and Germany – to impose onerous marketing restrictions on AIFMs and non-EU funds. Firms can only market to EU investors through national private placement regimes, which vary across member states. Managers taking advantage of private placement are required under AIFMD to … report to national regulators through Annex IV and disclose the remuneration packages of their senior executives. Predictably, the majority of US managers are reluctant to adhere to AIFMD.
- Compliance obligations with the JOBS Act are also onerous. All solicitation material must be passed to the SEC which would make managers more susceptible to regulatory action, something which could discourage firms from either using social media or improving transparency on their websites.
- The SEC has warned hedge funds taking advantage of the JOBS Act that they will be the first managers subjected to regulatory audits.

* Source: COO Connect, 5/20/2014

US managers "reluctantly embracing" AIFMD*

- US fund managers are "reluctantly embracing" the Alternative Investment Fund Managers Directive (AIFMD) as question marks are increasingly raised about the viability of reverse solicitation, according to Dechert.
- US managers have made their disdain of AIFMD no secret, and many view compliance with the Directive as an avoidance exercise. The bulk of US firms have sought to rely on reverse solicitation, which excuses them from AIFMD compliance provided they only respond to inquiries by European allocators.
- However, the vagueness of what constitutes reverse solicitation versus actual marketing has alarmed some firms. Furthermore, a growing chorus of European investors are pushing managers to attain compliance with AIFMD.
- "US managers are gradually adopting elements of the AIFMD, not because they want to, but because European investors, particularly on the institutional side, are pushing it. It is very early stages at the moment though. The majority of US managers are particularly resentful towards the remuneration rules contained within the Directive and are waiting to see how these rules bed down in terms of impact on US compensation packages before deciding whether to pursue the passport option. Ultimately, I do believe US managers will be more open to AIFMD compliance," said Declan O' Sullivan, partner at Dechert in Dublin.
- "Many US managers have been focused on their Form PF and Dodd-Frank requirements and have not afforded much attention to Europe."

* Source: COO Connect, 7/23/2014

[1] The Alternative Investment Fund Managers Directive (AIFMD) is a European Union law which will put hedge funds and private equity funds under the supervision of an EU regulatory body and require disclosures.

SEC rule could push trading costs higher *

- The Securities and Exchange Commission's latest salvo in the war against market instability could mean higher trading fees for money managers.
- The SEC's Regulation Systems Compliance and Integrity, or Reg SCI, would require all trading venues — exchanges, automated trading systems and dark pools — to submit alternative plans for operations in the event of a system breakdown. It also would require regular testing by the venues to ensure those alternative plans would work. Now, those emergency systems are not required by the SEC.
- "The exchanges will have to pay for the testing, and that will be passed on to the execution firms, the brokers," said Christopher Nagy of market structure research firm KOR Group LLC, Omaha, Neb. "And there will be significant costs. It'll raise the bar for cost to entry."
- "This is another level of insurance, and someone will have to pay for it," said Henry Yegerman of financial data provider Markit Group Ltd., New York. "Initially the sell side (venue operators, for example) will pay, but the question is, will this be extended eventually to the buy side and the original asset owner. The sell side is already financially stressed by regulations…..This new added cost will go to the traders, who'll pass it on to the buy side."
- If the cost of complying with Reg SCI is passed on eventually to money managers, smaller firms will feel the pinch more, said Michael T. Lee, chief investment officer at RBC Global Asset Management (U.S.) Inc. "I couldn't see us passing on the cost of this to our customers. If I were a smaller player, I could see it having a greater impact and they might have to pass that cost on to their clients."

* Source: Pensions & Investments, 9/15/2014

Hedge funds unprepared for cyber-threats *

- Seventy percent of hedge fund managers do not feel prepared to deal with cyber-threats, according to a survey by COO Connect.
- This comes as the Securities and Exchange Commission (SEC) announced it would review the policies and safeguards asset managers have in place to protect themselves against cyber-attacks. The review, which is part of the SEC's investment adviser examination program, will also scrutinize whether managers are adequately protecting themselves against potential security breaches by IT vendors that have access to their technology systems. The SEC also said it was considering a requirement that would force asset managers to report significant cyber-events to regulators.
- In terms of threats, managers identified business continuity failure, external attacks and accidental disclosure of data as their main concerns. The majority of cyber-threats tend to come from within organizations themselves, often the work of disgruntled employees.

* Source: COO Connect, 2/21/2014

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Non-traditional investment strategies including hedge funds and private equity have the following characteristics:

1. Performance can be volatile and investors could lose all or a substantial portion of their investment
2. Leverage and other speculative practices may increase the risk of loss
3. Past performance may be revised due to the revaluation of investments
4. These investments can be illiquid, and investors may be subject to lock-ups or lengthy redemption terms
5. A secondary market may not be available for all funds, and any sales that occur may take place at a discount to value
6. These funds are not subject to the same regulatory requirements as registered investment vehicles
7. Managers may not be required to provide periodic pricing or valuation information to investors
8. These funds may have complex tax structures and delays in distributing important tax information
9. These funds often charge high fees
10. Investment agreements often give the manager authority to trade in securities, markets or currencies that are not within the manager's realm of expertise or contemplated investment strategy