NEPC, LLC

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2013 Survey Results

Hedge Fund Operational Due Diligence

November 2013

Bill Bogle, Partner
Erin Faccone, ODD Consultant
Lauren Walsh, ODD Analyst

255 State Street, Boston, MA 02109 | TEL: 617.374.1300 | FAX: 617.374.1313 | www.nepc.com
BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | SAN FRANCISCO

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Background

- **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 ODD "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 650 investment programs and nearly $750 billion in plan assets**

Survey Results

Survey Results

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

- **The 2013 survey went to 273 managers and 220 responded (Response rate: 81%)**

- **Information on 388 funds was provided**
  - Highlights and trends are summarized herein
  - Major Administrators and all Auditors were contacted independently by NEPC to verify the relationships reported by managers
  - Audited Financial Statements are being reviewed

- **Of the 53 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

Survey Results - Highlights

- **Firm-level data**
  - 95% are registered with the SEC. This figure has risen dramatically (see p. 10 and 18) as regulatory requirements have evolved.
  - 20% have had a change in ownership in the past year
  - 20% are involved in some form of litigation
  - 24% have an affiliated broker/dealer
  - 38% use a third-party marketing firm

- **Product-level data**
  - 15 different audit firms are used, with the top two being PWC and Ernst & Young (29% each). We are seeing increased concentration here (see p. 12).
  - 45 different administrators are used, with the most-used being Citco (18%)
  - 2% of the funds are self-administered
  - 17% have changed a service provider in the last year
  - 3% put up gates or restricted liquidity in the past year. As expected, this figure is down significantly since 2010 (see p. 13).

- **Auditors**
  - Just 15 audit firms utilized by 373* funds
  - Highly concentrated: 84% in the Big Four firms

	Provider	
1	PwC	29%
2	Ernst & Young	29%
3	Deloitte	15%
4	KPMG	12%
	All other providers (11)	16%

84%

  - 98% of the funds utilize one of the Big Four or five other well-known firms (Rothstein Kass, Eisner, Grant Thornton, BDO Seidman, McGladrey & Pullen)

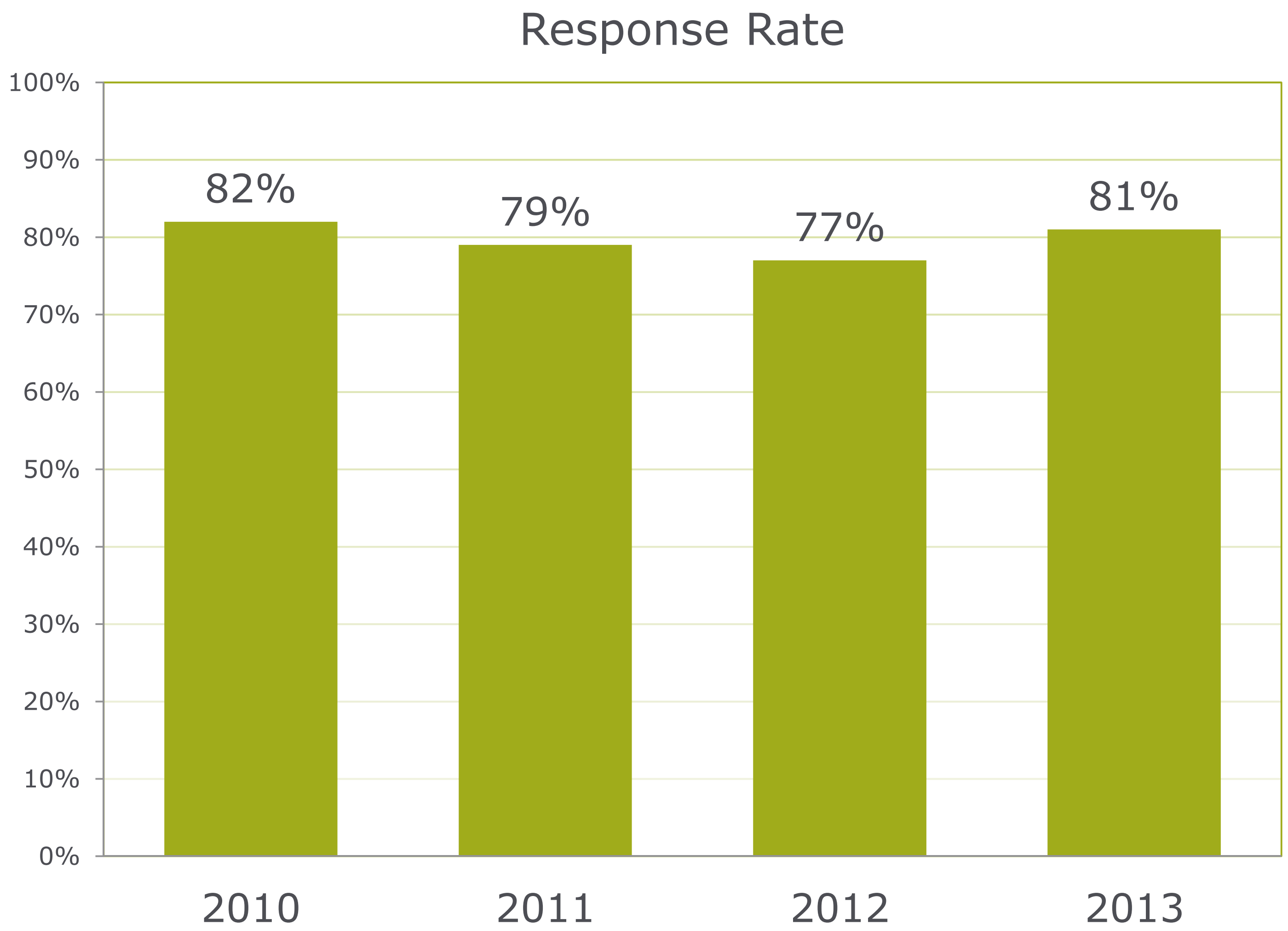
* Differs from total number of responses because some products are no longer being reported or the provider is selected by the investor

- **Administrators**
  - A diverse group of providers: 45 firms across 372* funds
  - Large concentration in the top 10 (71%)
  - 22 of the bottom 35 service just one or two funds used by NEPC clients

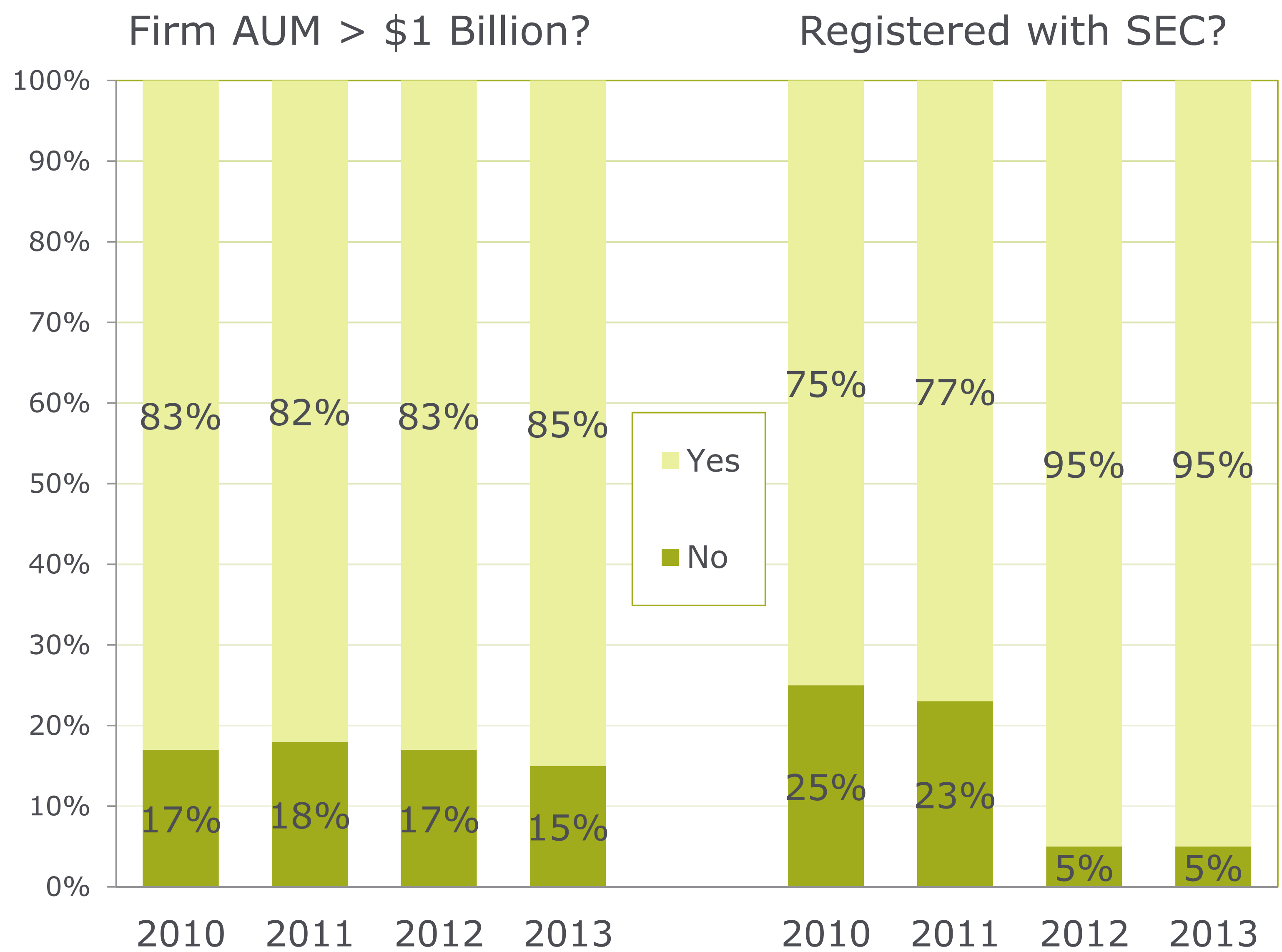
	Provider	
1	Citco Fund Services	18%
2	IFS (International Fund Services)	13%
3	BNY Mellon	9%
4	SEI Fund Administration	8%
5	Citi Fund Administration	7%
6	Morgan Stanley Fund Services	4%
7	JPMorgan Hedge Fund Services	4%
8	SS&C Technologies	4%
9	HedgeServ	3%
10	GlobeOp Financial Services	2%
	Self-Administered	2%
	All other providers (35)	27%

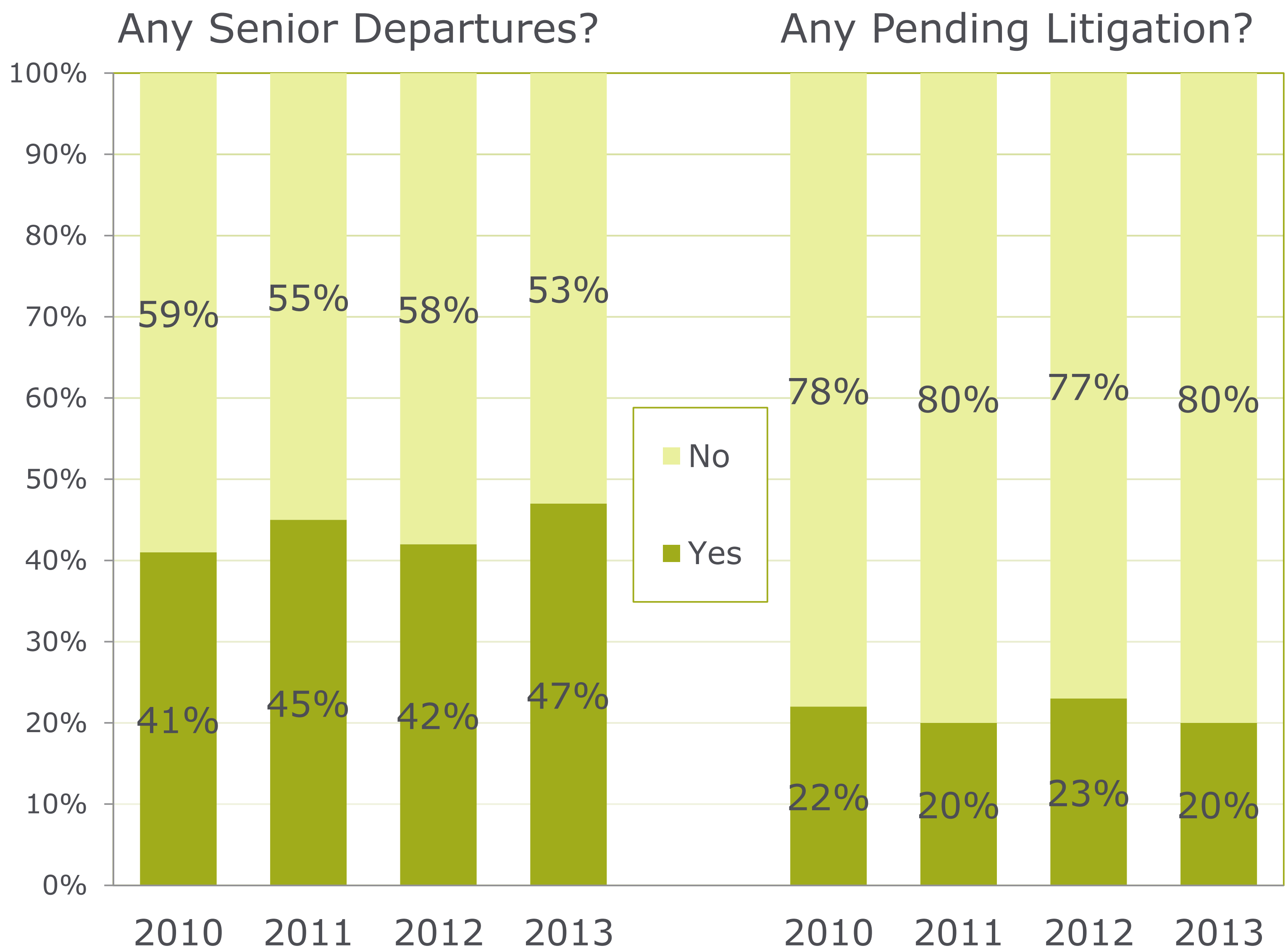
71%

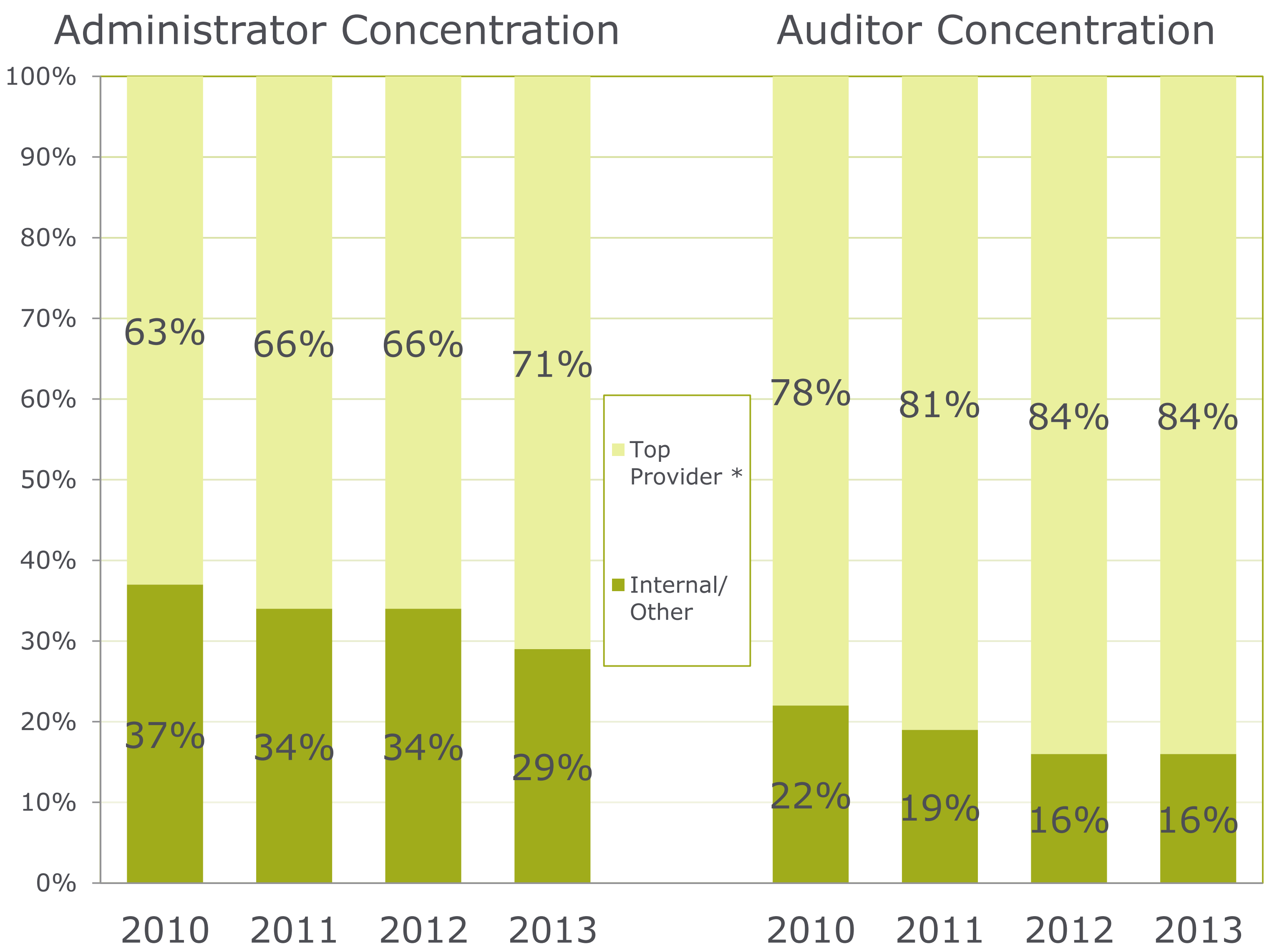
* Differs from total number of responses because some products are no longer being reported, have no administrator or use various providers depending on the investor


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

Survey Results

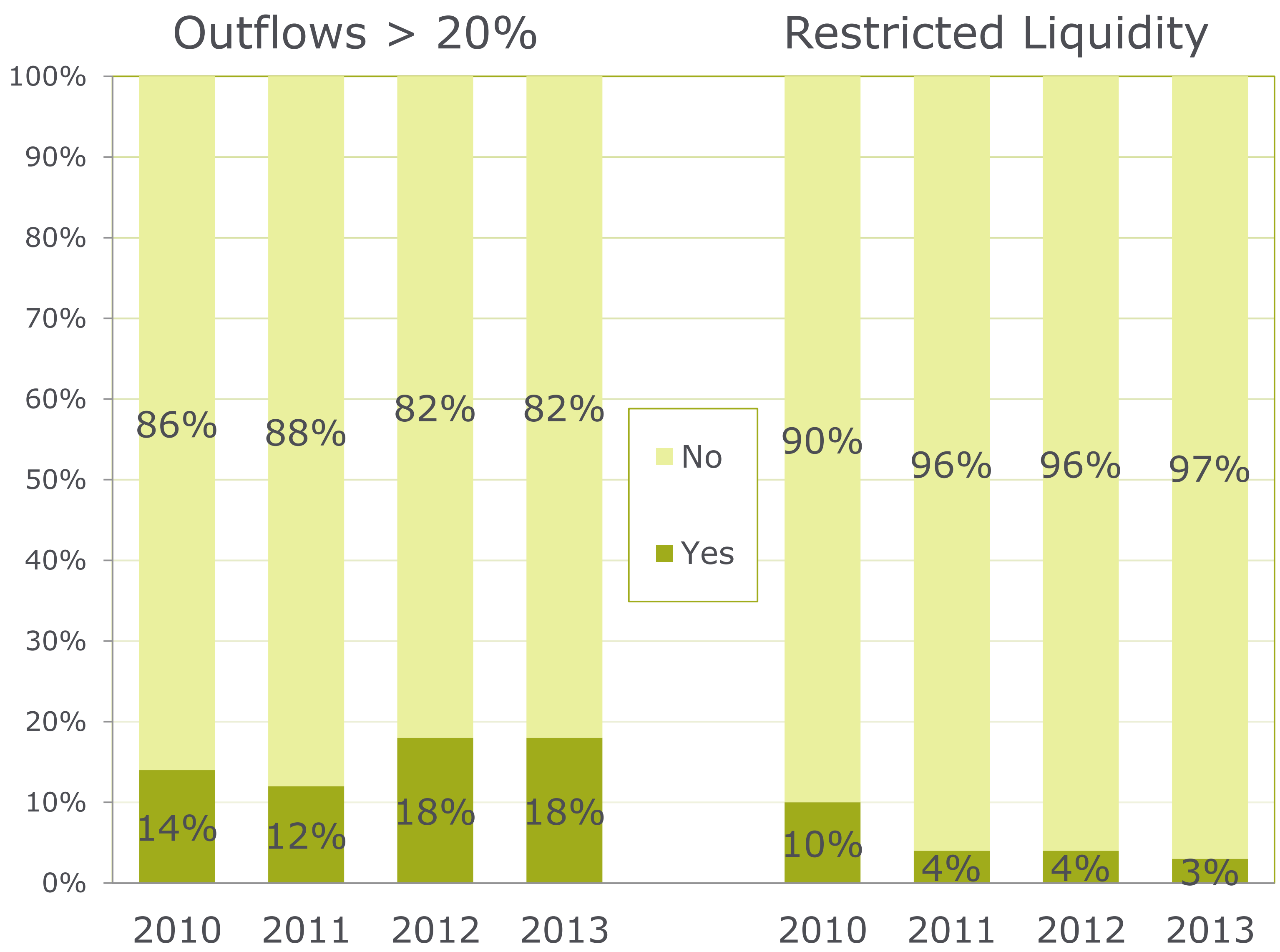



Any Senior Departures?
Any Pending Litigation?
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
59%
55%
58%
53%
41%
45%
42%
47%
78%
80%
77%
80%
22%
20%
23%
20%
No
Yes
2010
2011
2012
2013
2010
2011
2012
2013



* Top 10 Administrators, Big Four Auditors

Survey Results



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 Hit Record High *

- Hedge fund industry assets rose 1.7% to a new industry high — $2.415 trillion — in the quarter ended June 30, according to just-released data from industry tracker Hedge Fund Research.
- Active hedge funds and hedge funds of funds totaled 10,009 as of June 30, a five-year high. HFR noted that fund numbers are approaching the all-time industry high of 10,233 funds in second quarter 2008.

* Source: HFR as reported in P&I, 9/12/2013

The 100 largest hedge funds manage 61% of industry assets **

- The 100 largest hedge funds manage $1.4 trillion, or 61% of all industry AuM in what is further evidence of the flight to size among investors.
- The 100 biggest hedge funds had a median AuM of $9.9 billion, while 17 of these managers run over $20 billion.

** Source: Preqin, 5/31/2013

Hedge Fund Managers Making Significant Investments to comply with Regulatory Changes *

- Hedge fund managers were found to be spending 5-10% and more of their operating costs on compliance technology, headcount and strategy.
- The cost of compliance is creating a heavier burden on smaller firms and could become a barrier to entering the market.
- Managers are shouldering the majority of the costs associated with compliance, and not passing them on to the funds.

* Source: 2013 KPMG/AIMA/MFA Global Hedge Fund Survey, October 2013

Hedge Fund Operational Expenses are Growing **

- Roughly 45% of hedge funds are adding headcount in support functions … in order to manage growth, client requests for more information and the increased regulatory demands.

** Source: Ernst & Young's annual Global Hedge Fund Survey, 5/7/2013

Hedge funds need at least $250 million AuM to break even ***

- Hedge fund managers need to run between $250 million and $375 million AuM to enable their management fee to adequately cover the costs of support personnel and third party expenses.
- Hedge fund expenditures on support personnel and third party expenses are estimated to be $14.1 billion or 65 basis points of the $2.2 trillion global AuM.
- Regulation including AIFMD, Form PF, CFTC registration, mandatory clearing of swaps and FATCA are going to ramp up costs at managers.

*** Source: Citi Prime Finance, 12/12/2012

Britain's FCA Cracks Down On Hedge Funds *

- The U.K.'s new financial markets regulator is tightening its oversight of the hedge fund industry. The Financial Conduct Authority, which succeeded the Financial Services Authority in April, has begun to review proposed senior appointments at hedge funds, and has informally vetoed several candidates, the Financial Times reports.
- The FCA is also taking a close look at U.S. hedge funds' London operations … with concerns that U.S. funds' London offices are too beholden to their U.S. superiors and not beholden enough to the FCA.

* Source: FIN Alternatives, 6/20/2013

SEC Makes Strides to Strengthen Oversight **

- Hedge fund and private equity managers can expect increased attention from the Securities and Exchange Commission, as the agency builds staff expertise in both asset classes.
- The SEC's approach to alternative investment managers has changed in the past year. It hired former hedge fund managers, private equity analysts, due diligence professionals and other practitioners in all of its divisions; the specialized enforcement unit for asset management — created in 2010 — matured; and divisions within the regulator coordinated more closely with each other. The changes come after the Dodd-Frank Wall Street Reform and Consumer Protection Act required some 1,500 hedge fund and private equity managers to register with the SEC in 2012.
- The SEC's investment management division is also paying attention to how private funds handle valuation, developing guidance for fund managers and directors and hiring more examiners and risk experts from the industry.
- Since 2010, the SEC has brought more than 100 cases against hedge fund managers for conflicts of interest, questionable performance or inadequate compliance controls, and is beginning to do more with private equity.

** Source: P&I, 3/18/2013

FATCA: The Foreign Account Tax Compliance Act

FATCA Headache Looming *

- Except for a few asset managers with purely U.S. funds and no offshore vehicles, most private equity and hedge funds will have to register with the IRS as a foreign financial institution. Skipping registration, or not registering correctly, can trigger a 30% withholding tax on any payment or dividend considered a “withholdable payment”.
- FATCA officially begins in January 2014, when non-compliant firms are subject to the tax. But experts say the real deadline for asset managers is October 2013, when the IRS will start designating financial institutions as FATCA-compliant.

* Source: Pensions & Investments, 3/4/2013

IRS delays certain key dates for FATCA compliance **

- The starting date for FATCA withholding with respect to new obligations has been delayed six months — from January 1, 2014, to July 1, 2014.

** Source: Bingham Legal Alert, 7/12/2013

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.

Hedge funds lagging on AIFMD reporting provisions *

- Hedge funds appear to be lagging behind with their preparations for AIFMD reporting requirements, while regulators have been urged to issue technical guidance for managers impacted by the reporting rules.
- [Hedge Funds] must supply to European regulators detailed reports not too dissimilar to Form PF in the US on either an annual, semi-annual or quarterly basis depending on AuM and leverage if they want to take full advantage of private placement regimes.
- AIFMD will be implemented from July 22, 2013 although managers will have a one year transitional period to become compliant.

* Source: COO Connect, 3/11/2013

AIFMD Regulation **

- The Regulation is most relevant to EU-domiciled managers. However, certain aspects of the Regulation will also impact investment fund managers domiciled outside the EU who wish to market to European investors.

** Source: Bingham alert, 1/9/2013

Form PF presents daunting challenges *

- Form PF has presented, and continues to present, daunting challenges for hedge fund managers required to file the form. Very large hedge fund advisers – those with $5 billion in regulatory assets under management – were required to file their initial Forms PF by August 29, 2012. The initial filing highlighted some best practices as well as some pitfalls associated with the Form PF process.

* Source: The Hedge Fund Law Report

Form PF filings **

- The first Form PF filing, applicable at end-August to managers running more than $5 billion in "Regulatory AuM" went relatively smoothly. The second batch of submissions, aimed at managers running between $150 million and $1.5 billion, is due for submission 60 days after year-end. It is bound to be more of a struggle, thanks to the number and size of the managers involved, and the inevitably limited data management capabilities of many of them.

** Source: COO Connect, 12/18/2012

Form PF not available to investors ***

- Most managers do not intend to provide the complete Form PF to investors, and investors are generally on board, provided that relevant information from the Form PF is incorporated into the manager's due diligence documentation.

*** Source: Ernst & Young's annual Global Hedge Fund Survey, 5/7/2013

Recent FoHF Transactions

- Franklin Templeton bought a majority stake in K2 Associates (2012)
- London-based Man Group acquired FRM Capital Advisors (2012)
- Legg Mason agreed to buy London's Fauchier Partners, and combine it with Permal Investment Management, its existing FoHF business (December 2012)
- Wells Fargo Investment Group acquired a 35% stake in Rock Creek Group (December 2012)
- Principal Global Investors said it would acquire a 55% stake in Liongate Capital Management (March 2013)

Comments on FoHF *

- The funds of funds which survived the financial crisis are stronger, while the weaker players have died out.
- Some funds of funds have scaled down fees amid investor pressure.
- Funds of funds are reinventing their business model through advisory services, predominantly manager selection, investment due diligence and research.

* Source: Panelists at the annual SALT Conference - COO Connect, 5/8/2013

FoHF data from Preqin **

- Total assets have shrunk by one-third, from a peak of $1.2 trillion in 2008 to about $810 billion.
- North America is the only region with an increase in FOF assets, having grown from $485 billion in December 2011 to $508 billion in December 2012.

** Source: Preqin, March 2013 and COO Connect, 3/4/2013

CFTC Registration *

- The CFTC announced in February 2012 that managers trading certain derivatives must register as Commodity Pool Operators (CPOs) and become members of the National Futures Association (NFA) by December 31, 2012. Exemptions can be claimed for firms trading a minimal number of derivatives. Funds of funds were given an extended deadline till June 2013 amid concerns they would struggle to obtain data on all of their underlying managers in time to confirm they too met the minimal trading requirements. Most hedge funds acknowledged CFTC and NFA registration had not been that onerous although added fingerprinting senior traders (as is required under NFA rules) was a minor hassle. Ironically, the biggest operational headache next year is likely to be on firms, particularly funds of funds, trying to claim the de minimis trading exemption.

* Source: COO Connect, 12/18/2012

Advertising *

- Buried inside the JOBS Act … is a clause scrapping the historic ban on hedge funds advertising and marketing. Supporters of the legislation argue hedge funds are more likely to make public information about their businesses, and that this will be of help to investors as well as regulators. A likelier outcome is continuation of the status quo, as successful managers feel no need to advertise their products to a broader audience.
- The rules have been delayed amid concerns from mutual funds and investor protection groups, which worry less sophisticated investors could find themselves buying into products they ill-understand.

* Source: COO Connect, 12/18/2012

Rule 506 Exemption **

- New Rule 506(d) effectively prevents any adviser, SEC registered or not, with "bad actors" in its senior leadership from being able to use any of the Reg D exemptions for its funds.
  - Disqualifying disciplinary events include securities-related felonies, misdemeanors, restraints and enjoinders, and certain sanctions contained in any regulatory orders issued by the SEC and other regulators.
- Advisers to private funds that rely on the Rule 506 exemption should act now to query their staff, affiliates, boards, and others to identify any "bad actors" in their midst. Firms that identify such personnel should prepare written disclosures to provide to investors subscribing after September 23, 2013.

** Source: ACA Compliance Group, 9/23/2013

Disclaimer / Disclosures

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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