2020 SURVEY RESULTS

HEDGE FUND
OPERATIONAL DUE DILIGENCE

December 2020

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BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

TABLE OF CONTENTS

	Page
1. Background	3
2. Survey Results	4
3. Appendix: Survey Questions	17
4. Appendix: Industry News	19
5. Disclaimers / Disclosures	25

BACKGROUND

- **NEPC’s hedge fund research team consists of both 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 any 1-rated funds**
  - Identifies key operational issues
    - Changes to a 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
  - Highlights funds with operational “red flags” worthy of further investigation

- **Survey is sent annually in June, and the responses are compiled through the summer and fall**
  - This year, the survey period spanned from 5/31/2019 – 6/30/2020

- **NEPC services 395 retainer clients with approximately $1.2 trillion in assets across 1,011 separate portfolios, including 72 discretionary clients with assets of $39.5 billion ***

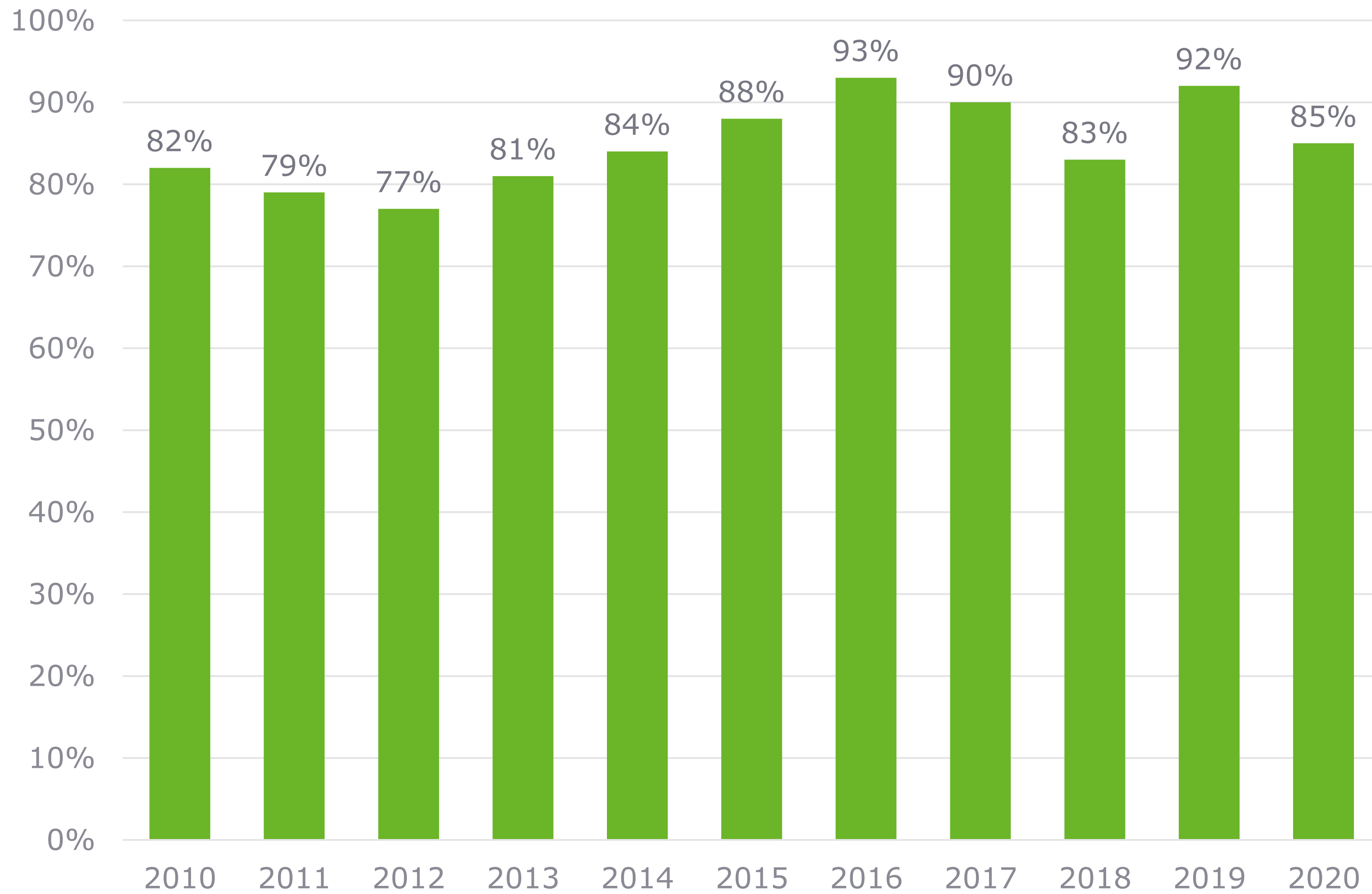
* as of 9/30/2020

SURVEY RESULTS

SURVEY RESULTS

- **Each year we survey all hedge funds in place across all clients for whom NEPC advises on hedge funds**
- **This year, we used a service called DiligenceVault to administer the survey**
  - DiligenceVault collects data from Form ADV submissions and was used to identify fund service providers (auditor, administrator, and prime brokers) and changes thereto
- **The 2020 survey went to 192 managers and 163 responded (Response rate: 85%)**
  - This year, we collected more data regarding senior level departures by asking about departures from Operations, Finance, Legal/Compliance, and IT
  - We found that Legal/Compliance had the highest turnover, with 17% of managers reporting turnover in this area
- **Information on 244 funds was provided**
  - Fund Administrator, Auditor, and Prime Broker information was collected using Form ADV data
  - Audited Financial Statements are being reviewed
- **29 firms were non-responders**
  - Per NEPC policy, non-responders cannot be included in future searches for clients

SURVEY RESULTS



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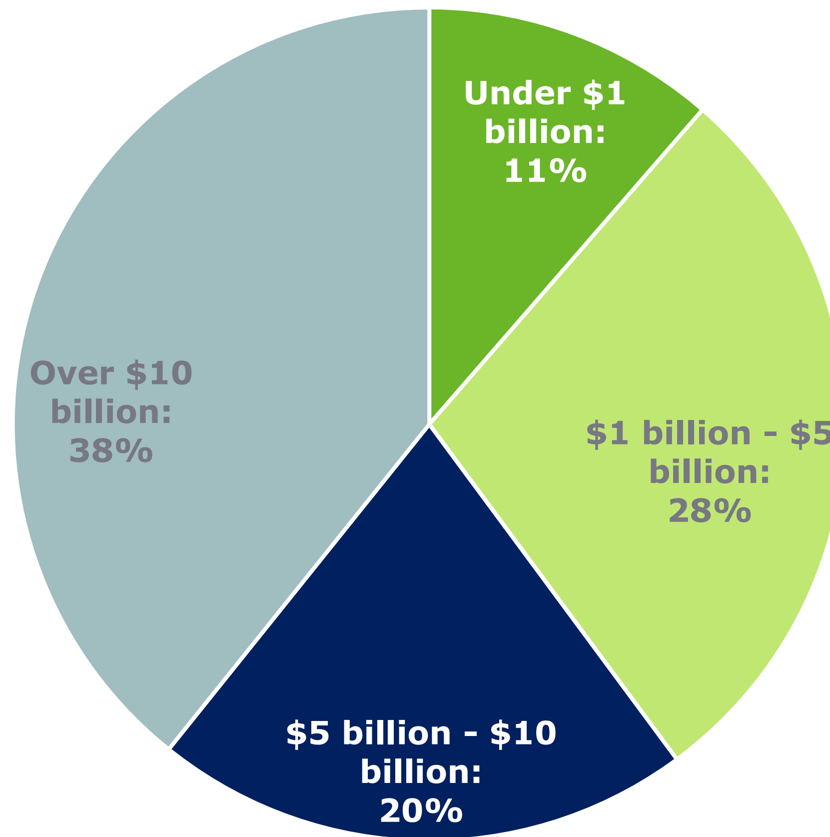
SURVEY RESULTS

Firm AUM of Responders



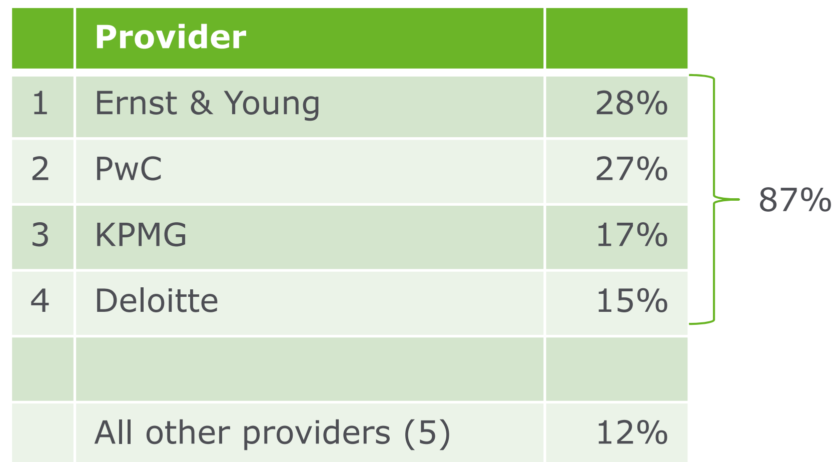
SURVEY RESULTS – HIGHLIGHTS

- **Firm-level data**
  - 99% are registered with the SEC.
  - 35% reported receiving an inquiry from a regulator during the survey period
  - 23% had a change in ownership
  - 6% are involved in some form of litigation
    - Litigation brought against the management company or fund could indicate greater operational risk
  - 28% had senior personnel departures
    - 14% reported turnover in the Operations function
    - 11% reported turnover in the Finance function
    - 17% reported turnover in the Legal/Compliance function
    - 13% reported turnover in the IT function

- **Fund-level data**
  - Nine different audit firms are used, with the top two being Ernst & Young (28%) and PwC (27%)
  - 25 different administrators are used, with the most-used being Citco (20%)
  - 2% of the funds are self-administered
  - 2% have changed a service provider
  - 2% put up gates or restricted liquidity during the survey period
  - 45% reported using an external valuation provider
  - 46% reported using an expert network
  - 15% reported a change in the Board of Directors
  - 77% reported using a compliance consultant

SURVEY RESULTS

- **Auditors**
  - Just nine audit firms are utilized by 220 funds
    - 24 funds were reported to be separately managed accounts which could not be verified using Form ADV data
  - This service is highly concentrated: 87% is with the Big Four audit firms



	Provider	
1	Ernst & Young	28%
2	PwC	27%
3	KPMG	17%
4	Deloitte	15%
	All other providers (5)	12%

SURVEY RESULTS

- **Administrators**
  - A diverse group of providers: 25 firms across 220 funds
    - 24 funds were reported to be separately managed accounts which could not be verified using Form ADV data
  - A large concentration in the top 10 (82%)

	Provider	
1	Citco Fund Services	20%
2	SS&C GlobeOp	17%
3	IFS (International Fund Services)	14%
4	BNY Mellon	10%
5	MUFG Fund Services	5%
6	Morgan Stanley Fund Services	5%
7	HedgeServ	3%
8	SEI Fund Administration	3%
9	Northern Trust Hedge Fund Services	3%
10	JPMorgan Hedge Fund Services	3%
	Self-Administered	2%
	All other providers (15)	15%

82% (rows 1–10)

SURVEY RESULTS

Registered with the SEC *

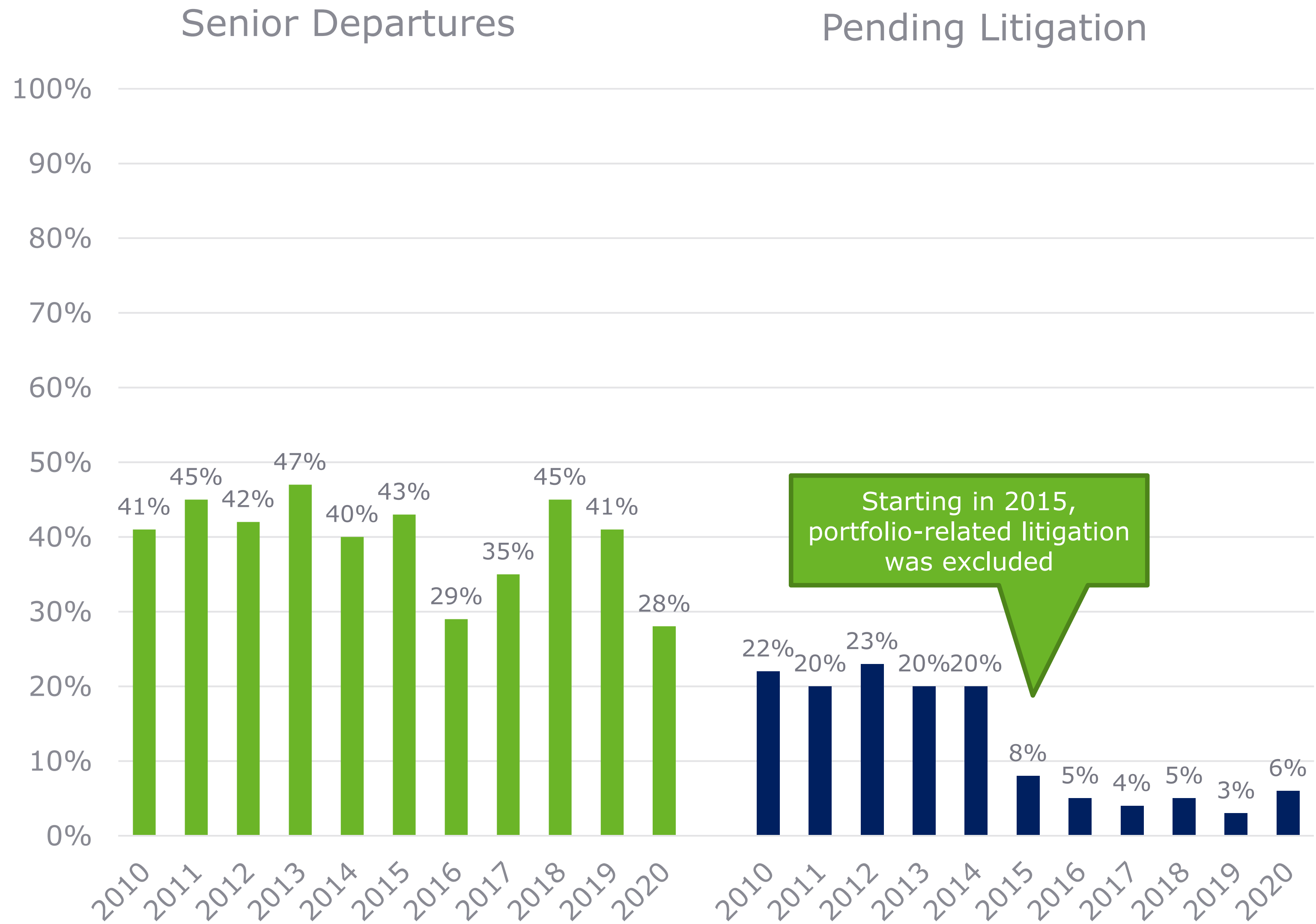
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Registered with the SEC *	75%	77%	95%	95%	95%	98%	98%	99%	99%	98%	99%

Firm AUM > $1 Billion

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Firm AUM > $1 Billion	83%	82%	83%	85%	86%	85%	88%	88%	90%	88%	86%

* Includes Exempt Reporting Advisors

SURVEY RESULTS



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SURVEY RESULTS

Top 10 Administrator Concentration

Year	Concentration
2010	63%
2011	66%
2012	66%
2013	71%
2014	74%
2015	75%
2016	80%
2017	81%
2018	79%
2019	80%
2020	83%

Big Four Auditor Concentration

Year	Concentration
2010	78%
2011	81%
2012	84%
2013	84%
2014	85%
2015	91%
2016	92%
2017	92%
2018	90%
2019	88%
2020	88%

SURVEY RESULTS

Pass-Through Expense Items *

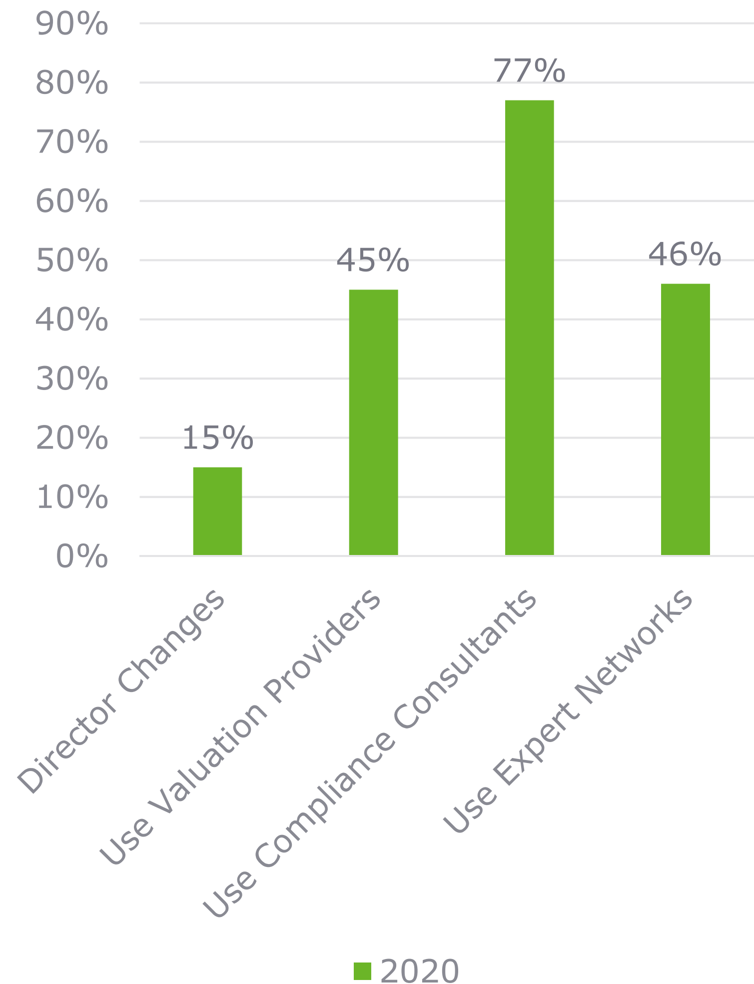
Year	Travel & Entertainment	Research Costs	Employee Overhead/Time	IT Hardware
2014	30%	47%	6%	
2015	37%	48%	7%	
2016	35%	47%	9%	
2017	37%	51%	8%	
2018	36%	53%	9%	
2019	31%	55%	9%	
2020	27%		9%	7%

Questions changed to focus on Travel, Employee Time, and IT Hardware

* Represents the percentage of funds surveyed that charge the specified expense types to investors

SURVEY RESULTS

New Fund-Level Data



- Director changes were primarily due to directors retiring from the industry and needing replacement.
- The 45% of funds that use valuation providers do not necessarily have more accurate NAVs as in many cases the other 55% of funds trade more liquid assets and may not need external valuation providers.
- Many firms do not exclusively rely on a single compliance consultant as they have internal compliance staff and/or utilize external counsel. Some consultants are only engaged for specific projects such as mock audits or email surveillance, thus a Yes answer does not imply that the whole compliance area is outsourced to that provider.
- Expert network usage varies as well, with some funds only occasionally participating in conference calls while other funds may use several expert networks frequently throughout a given month.

APPENDIX

SURVEY QUESTIONS

- **Firm Questions**
  - Firm AUM
  - Did your firm receive an onsite visit, deficiency letter, or sanctions from the SEC or another regulator during the survey period?
  - Is there any pending material litigation related to the firm or current members of the firm brought by any current/former investors or employees? (not including portfolio-related litigation)
  - Was there a material change to the firm's ownership during the survey period?
  - Did any personnel responsible for managing the Operations function leave the firm during the survey period?
  - Did any personnel responsible for managing the Finance function leave the firm during the survey period?
  - Did any personnel responsible for managing the Legal/Compliance functions leave the firm during the survey period?
  - Did any personnel responsible for managing the IT/Technology functions leave the firm during the survey period?

SURVEY QUESTIONS

- **Strategy Questions**
  - Strategy Net Assets
  - Are there independent directors that sit on the boards or advisory committees of any of the fund vehicles in the strategy?
    - If yes, did any of the independent directors changed during the survey period?
  - Were any of the strategy's assets side-pocketed during the survey period?
  - Did the fund create new gates to reduce liquidity for current investors during the survey period?
  - Did you use a third-party valuation provider during the survey period to price hard-to-value positions?
  - Did you use an expert network during the survey period?
  - Were travel costs (including research related travel) charged to the fund during the survey period?
  - Was any employee time charged to the fund during the survey period?
  - Were any costs related to IT hardware charged to the fund during the survey period?

- **Form ADV Data**
  - Administrator
  - Auditor
  - Prime Brokers and/or Custodians
  - Changes in Administrator or Auditor

INDUSTRY NEWS – GROWTH IN ASSETS AND FUNDS

US dominates both investors and managers involved with hedge funds *

- The United States accounts for three-quarters of Assets Under Management (AUM) across the globe in the hedge fund industry, said a study. Despite hedge fund activity in other regions globally expanding alongside that of the United States, the country accounts for 3,405 of the 5,523 institutional investors active in hedge funds and 3,319 of the 5,383 active hedge fund managers.

* Source: *Opalesque,* July 20, 2020

Hedge fund assets regain ground after losses in first quarter **

- The hedge fund industry in the third quarter continued to regain assets lost in the first three months of the year from the early panic of the COVID-19 outbreak, data released … by Hedge Fund Research showed.
- Worldwide aggregate hedge fund assets rose 4.1% to $3.31 trillion in the quarter ended Sept. 30, a bit less than the 7.4% gain in the prior quarter, according to the firm's quarterly asset flow report. … Over the nine-month period ended Sept. 30, the hedge fund industry nearly regained its peak AUM of $3.32 trillion on December 31, HFR data showed.
- The $13 billion of net inflows in the quarter ended Sept. 30 were the first positive flows HFR has tracked since the first quarter of 2018, when net flows were $1.1 billion. However, aggregate hedge fund investment gains of $119.8 billion across strategies were the main reason for the rise, compared to investment gains of $231.7 billion in the prior quarter and investment losses of $333.2 billion in the first quarter of 2020.
- In the news release, Kenneth J. Heinz, HFR's president, attributed the industry's positive net inflows to investors who "allocated new capital to hedge funds in the third quarter as a result of both defensive outperformance through coronavirus-driven volatility in early 2020 as well as (from) opportunistic gains through the uneven financial market recovery in the second and third quarters."
- He added: "Institutions globally are making forward-looking allocations to hedge funds, anticipating and positioning for the near-term uncertainties of both the virus and the U.S. election, as well as intermediate-term macroeconomic uncertainties of the U.S., European and Asian economies into 2021."

** Source: *Pensions & Investments,* October 21, 2020

INDUSTRY NEWS – FUND TERMS

Hedge Fund Fees in Free Fall is the New Reality for a Humbled Industry *

- Hedge-fund fees had already been shrinking before the pandemic ripped through global markets. Now, they're in terminal decline.
- Long notorious for charging high fees, the $3 trillion industry runs portfolios that are generally open only to institutions and affluent individuals. It's going to extraordinary lengths to attract new money as the coronavirus pandemic triggers losses and accelerates an investor exodus that has plagued the industry for years. Many of the world's most prominent managers have come to the stark realization that they need to upend the "two-and-twenty" fee model that's been a fixture for decades if they want to expand. For some smaller firms, the goal isn't growth. It's survival.
- "The hedge fund industry is littered with the carcasses of small funds that never reached scale," says Andrew Beer, founder of New York-based Dynamic Beta Investments, whose firm seeks to outperform hedge funds with lower costs. "Fees in the industry are still twice what they should be."
- But mediocre performance since the 2008 financial crisis has sparked an investor mutiny. Now even the best-known managers are coming around to the notion that they need to make some concessions to stay competitive: industry titans such as Alan Howard, David Harding and Paul Tudor Jones have all cut their fees in recent years.
- There are notable exceptions. Billionaire Jeff Talpins's Element Capital Management hiked its incentive fees to 40% last year and even a discount on management fees only brought them down to the industry norm of 2%. D.E. Shaw & Co. has upped the charges in its biggest hedge fund to a 30% share of gains and a 3% annual levy. But they're now the minority.
- Some managers are signaling that they're ready to waive fixed fees altogether while also offering other perks. Giving clients access to their prized research, co-investment deals allowing clients to put money into exclusive deals alongside hedge funds, and even risking all their money before clients bear the loss of a single penny are suddenly on the menu.

* Source: *Bloomberg*, July 27, 2020

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INDUSTRY NEWS – FUND TERMS

Hedge Funds might Charge 2-and-20, but Investors are Paying More *

- A new study from the National Bureau of Economic Research has found that, over the long run, the total performance fees paid by investors are more than 2.5 times higher than what they signed up for — and that's before taking management fees into account, according to authors Itzhak Ben-David and Justin Birru of the Ohio State University and University of Arizona professor Andrea Rossi.
- "During the 22-year sample period, investors paid about half of their aggregate gross profits as incentive fees — whereas the average contractual incentive fee is below 20 percent," they wrote. "After including management fees, investors collected about 36 cents for each dollar of gross excess return generated by funds on their invested capital. The other 64 cents were paid as management and incentive fees."
- The study was based on analysis of nearly 6,000 hedge funds operating between 1995 and 2016. These hedge funds, on average, charged a performance fee of 19 percent of gross profits. "In practice, however, investors paid 49.6 percent of the cumulative gross profits as incentive fees," the authors said.
- According to the study, there are a few reasons why the actual fees paid are so much higher than the stated fee rate. For one, investors pay fees based on individual manager performance, rather than across their total hedge fund portfolios. So even if nine-out-of-ten hedge funds are losing money, the investor still has to pay incentive fees to the one manager that's making money.
- The other reason for higher effective fees … is that hedge fund investments tend to be discontinued after losses — and investors don't recoup the incentive fees they paid back when the funds were making money.
- This is in spite of high-water marks, fee mechanisms that hedge funds offer to ensure that investors recover losses before they pay performance fees. As the authors explain, high-water marks don't matter if investors redeem their capital before a losing hedge fund starts making money again — or if the hedge fund itself shuts down.
- "Fund managers are substantially more likely to liquidate their funds following large losses than following gains," the authors wrote. "When a fund is liquidated following losses, investors automatically lose the opportunity to earn back their losses without paying additional incentive fees."

* Source: *Institutional Investor*, August 5, 2020

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INDUSTRY NEWS – FUND TERMS

When Hedge Funds Lock Up Investor Money, the Whole Market Benefits *

- Strict redemption policies aren't just good for hedge fund firms. According to new research, they're good for the markets too.
- Stocks purchased by hedge funds with more redemption restrictions tend to be less volatile and have better returns following surprise events, according to a paper published by Julia Elizabeth Reynolds, a financial economist for the U.S. Securities and Exchange Commission.
- Research has already shown that ownership concentration can lead to demands for liquidity that are too big for the market to effectively handle. This results in more volatile security prices. But, according to Reynolds, there is a tool that investors can use to combat this problem: redemption policies.
- Reynolds analyzed the impact of these policies by dividing hedge funds into two categories: "High redemption restriction funds" and "low redemption restriction funds." Low restrictions meant redemption periods of about 30 days, lockups of two months, pay-outs of two weeks, and about ten redemptions per year.
- Conversely, high-restriction funds had redemption notice periods of about 60 days, lock-up periods of about nine months, pay-out periods of nearly one month, and about four redemption periods per year. According to the study, these hedge funds had a 12 percent lower portfolio turnover rate than their peers.
- According to the paper, stock prices were less volatile after a hedge fund with high redemption restrictions bought shares through block transactions than when shares were purchased by low-restriction funds. The decrease in volatility was up to 3.6 percent in the three quarters following the purchase. "This result highlights that the redemption policies of hedge funds have real consequences for market participants and market quality," Reynolds wrote in the paper.
- The stocks owned by hedge funds with stricter policies were also found to be 4.7 percent less likely to be exposed to fire sales, or what Reynolds calls "flow-induced liquidity trading." This is beneficial to other investors, who can identify their exposure to this type of volatility by looking at funds' forecasted trading behavior, according to the paper.

* Source: *Institutional Investor*, October 20, 2020

INDUSTRY NEWS – OTHER ISSUES

Hedge fund industry players unsure about returning to offices *

- About 67% of hedge fund managers, institutional investors and industry service providers were working entirely remotely and 25% were mostly working at home as of June 1, according to a survey of 240 respondents conducted by the Alternative Investment Management Association. The remaining 8% of the 67,000 employees worldwide at the respondent firms were working entirely or mostly from a disaster-recovery center.
- As for returning to work in their offices, 49% of those surveyed said they expect that 50% or more of staff will return to the office in November. Some 1 in 5 respondents don't expect that any of their employees will return to their offices until Jan. 1, 2021, at earliest.
- However, about 75% of respondents said they expect to be able to host visitors in their office buildings starting in the fourth quarter this year. Three-quarters of survey takers said they likely will not travel outside their country for the remainder of 2020, and two-thirds said they expect their companies will adopt a more liberal work-for-home policy going forward.
- The five areas of greatest concern for the respondents whose entities are contemplating a return of their employees to the workplace universe in order of response were concern about travel to work via public transportation; a second wave of the spread of the COVID-19 virus; overly restrictive measures implemented by federal and local government authorities; safety of key staff; and other risks relating to sick employees in the office.
- About 63% of AIMA survey respondents were from hedge fund managers, 30% work for service providers and 7% were asset owners, AIMA researchers said in a report about the survey.
- By geography, 45% of respondents to AIMA's survey universe were from Europe, the Middle East and Africa; 37% from North America; and 18% from the Asia-Pacific region.

* Source: *Pensions & Investments,* June 15, 2020

INDUSTRY NEWS – OTHER ISSUES

Is Hedge Fund Secrecy a Sign of Skill — or a Red Flag? *

- Researchers Sergiy Gorovyy, Patrick Kelly, and Olga Kuzmina analyzed 192 hedge funds during the period between April 2006 and March 2009, looking at how the most secretive managers compared to those that were more transparent.
- "What the paper can shed a light on is, is there reason to be concerned if a hedge fund is being secretive," said Kelly, a senior lecturer at Australia's University of Melbourne. As Kelly and his co-authors write, "secrecy is the hallmark of the hedge fund industry." Exempt from many disclosure requirements under the Investment Company Act of 1940, hedge funds generally have a reputation for being secretive.
- The conventional wisdom is that this lack of transparency is a trade-off for better performance. As one hedge fund consultant observed, "the managers that are less transparent tend to be managers that have done very well and performed very well, and they can kind of dictate not only the terms of their fund but the level of disclosure they're willing to give."
- Based on their findings, secrecy — with respect to investors — doesn't necessarily indicate a successful proprietary strategy or private information. The more secretive funds, they found, did not outperform the more transparent funds. Instead, the researchers found that secretive hedge funds actually underperformed peers during the financial crisis — suggesting, according to the authors, that the secrecy veiled higher risk-taking.
- "As best as we can tell, it doesn't seem to signal skill," Kelly said. "If anything, it suggests that funds might be taking on more risk."
- Admittedly, the sample is limited, focusing on a slice of the larger hedge fund industry over a relatively short time period culminating in the 2008 financial crisis — a seismic event for the asset management industry that brought changes in regulation and investor behavior.
- Still, the research, though based on a decade-old data set, is timely, as the U.S. Securities and Exchange Commission considers a rule change that would significantly reduce the number of hedge funds required to disclose their largest U.S. equity positions via quarterly 13F filings. The SEC has proposed raising the threshold for firms required to submit these forms from $100 million in assets under management to more than $3.5 billion — exempting roughly 90 percent of current filers, according to the *Wall Street Journal*.

* Source: *Institutional Investor,* July 20, 2020

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DISCLAIMERS AND DISCLOSURES

Data used to prepare this report was obtained directly from the investment manager(s). While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.

The "Industry News" items contain excerpts from published articles. Some content has been excluded due to space limitations.

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