

A Panel Discussion on Hedge Funds

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Baker: Welcome to the panel discussion on hedge funds. Greg Filbeck and I are serving as the moderators. Our panelists are Hunter Holzhauser, Dianna Preece, and Andrew Spieler, all of whom contributed to *Hedge Funds: Structure, Strategies, and Performance* [2017]. The purpose of today's panel discussion is to provide a current look into the complex and rapidly changing world of hedge funds.

Let's begin by briefly defining a hedge fund and some of its basic characteristics. A hedge fund is a pooled investment vehicle that uses various strategies to invest in a variety of asset classes. Although hedge funds use numerous strategies, two common strategies are directional and absolute return. Directional refers to any strategy that entails taking a net long or short position in the market. Absolute return, also called market neutral, refers to any strategy that aims to produce positive and consistent returns in any market.

Hedge funds have the following characteristics:

- Are only open to "accredited" or qualified investors.
- Use leverage.
- Have limited transparency and liquidity.
- Have high fees and complex incentive structures.
- Are lightly regulated.
- Have wider investment latitude than many other types of pooled investments such as mutual funds.

Greg will now review the assets under management (AUM) and past performance of hedge funds.

Filbeck: As Table 1 shows, AUM for hedge funds excluding fund of funds (FOFs) more than doubled from \$1,683.9 billion in 2010 to \$3,537.7 billion in 2017. Hedge funds grew at an 11.09% compound annual growth rate over this period. By contrast, AUM for FOFs decreased by 42.4% from \$561.7 billion in 2010 to \$323.8 billion in 2017.

Year	Hedge Funds (Excluding FOFs)	Funds of Funds (in Billions of \$)
2010	1,693.9	561.7
2011	1,710.0	532.4
2012	1,798.7	501.4
2013	2,156.7	473.6
2014	2,508.4	455.3
2015	2,796.6	440.2
2016	3,020.2	360.4
2017	3,537.7	323.8

Exhibit 1: Assets Under Management by Hedge Funds and Fund of Funds: 2010-2017

Source: *Barclay Hedge* (https://www.barclayhedge.com/research/indices/ghs/mum/Hedge_Fund.html and https://www.barclayhedge.com/research/indices/ghs/mum/Fund_of_Funds.html).

How have hedge funds performed in recent years? The answer to this question depends on the type of hedge fund examined. For instance, Barclay Hedge identifies 48 categories of hedge funds. Measuring hedge fund performance is difficult due to their private nature. Moreover, hedge fund databases suffer from various biases such as selection bias, survivorship bias, backfill bias, and liquidation bias. With these drawbacks in mind, let's review the annual performance of hedge funds, excluding FOFs, using Barclay's Hedge Fund Index. The Barclay Hedge Fund Index is a measure of the average return of all hedge funds excepting FOFs in the Barclay database. The index is simply the arithmetic average of the net returns of all reporting funds. Table 2 shows that between 2010 and 2017, the Barclay Hedge Fund Index underperformed the S&P 500 Index each year, except during 2015, and usually by a wide margin. This finding is not surprising, given that many hedge fund strategies would be expected to underperform the S&P 500 in a bull market, as experienced since early 2009.

Year	Hedge Funds (Excluding FOFs) (%)	S&P 500 Index (%)
2010	10.88	12.78
2011	-5.48	0.00
2012	8.25	13.41
2013	11.12	29.60
2014	2.88	11.39
2015	0.04	-0.73
2016	6.10	9.42
2017	10.36	19.42

Exhibit 2: Annual Performance of Hedge Funds: 2010-2017

Source: Barclay Hedge (https://www.barclayhedge.com/research/indices/ghs/Hedge_Fund_Index.html). S&P 500 Index (<http://www.macrotrends.net/2526/sp-500-historical-annual-returns>).

Having provided some background about hedge funds, let's now turn to our panelists to answer some questions on the following topics: (1) recent evidence, (2) hedge fund strategies, (3) hedge fund industry, (4) fee structure, (5) hedge fund activism, (6) scandals and taxes, (7) role of technology, (8) future trends, and (9) research opportunities.

Recent Evidence about Hedge Funds

Filbeck: Let's begin with a general question. What are some advantages and disadvantages of investing in hedge funds?

Holzhauser: The primary advantage of investing in hedge funds is the diversification benefit from adding another unique asset class to a portfolio. This diversification benefit is especially true in niche areas that are not often covered by traditional mutual funds and exchange-traded funds such as hedge fund targeting distressed companies, venture capital, and mergers and acquisitions. Besides diversification, some hedge funds offer protection against market corrections and recessions. In other words, hedge funds often advertise that they provide higher long-term risk-adjusted returns. Yet, as already mentioned, hedge funds as an asset class have typically underperformed the S&P 500 Index in recent years.

Spieler: I agree that hedge funds can offer diversification if they have low or uncorrelated returns relative to traditional equity and fixed income investments. Some hedge funds also offer unique strategies that are otherwise inaccessible to many market participants.

Filbeck: What disadvantages are associated with investing in hedge funds?

Holzhauser: The primary disadvantage of investing in hedge funds is fees. Some hedge funds may provide higher risk-adjusted returns, but distinguishing whether those returns are net of fees is important. Like most actively managed funds, hedge funds charge a standard asset management fee, usually 1% or 2% of AUM. However, unlike most other funds, hedge funds include a second and often quite substantial performance fee, which can be as high as 20% of the fund's return. Although some hedge fund managers have a reputation that may warrant extra compensation, the industry in general has felt considerable pressure to lower or even eliminate the performance fee. In fact, if the performance fees for hedge funds do not decrease, then many institutional investors such as endowments may continue decreasing their allocations in hedge funds.

Two other notable drawbacks for some investors include the opaqueness and illiquidity in the hedge fund industry. In general, the lack of transparency surrounding hedge funds creates uncertainty for investors, especially since many investors are not privy to the hedge fund's exact investment strategy and must rely on the manager's reputation. Compounding this uncertainty is the fact that most data tracking hedge funds is heavily biased as previously mentioned. Moreover, a chief concern for many investors is the illiquidity of investing in hedge funds. In most cases, investors must invest large sums to participate in a hedge fund and may be unable to get their funds back for several months or even years depending on the initial agreement. Some investors may perceive hedge funds as being too risky even if they can generate higher returns.

Preece: Although I'm unsure if it is actually an advantage or disadvantage, I think some behavioral factors are at play in hedge fund investing. For some individual investors, hedge funds represent an exciting, sexy type of investment that can make them feel like being part of the "cool crowd." I think this was especially true when hedge funds were somewhat shrouded in mystery and available almost by invitation only. Think about the Bernie Madoff scandal. Individuals and some institutional investors felt honored to be allowed to invest. I think some investors did not want to miss out and hence engaged in herding behavior.

Filbeck: Having discussed some of the pros and cons of investing in hedge funds, let's return to the question: How did hedge funds fair during and after the financial crisis of 2007-2008?

Spieler: From a performance perspective, caution is needed in overgeneralizing given the many sophisticated strategies that hedge funds use. Performance varied with some strategies designed to do well during recessions.

Holzhauser: I agree that some hedge fund strategies, such as managed futures, dedicated short funds, distressed company funds, and precious metals funds, are specifically designed to outperform the market – often even profit – during recessions. The financial crisis provided an interesting case study in hedge funds. In general, one of the biggest casualties of the financial crisis was not only the wealth of investors in the market, but also their trust in the market. Hedge fund managers especially felt the sting of losing investors' trust. Many investors associated hedge funds with various mortgage-backed securities and derivative products that contributed to the housing crisis. The loss of trust took its toll on the hedge fund industry. Although hedge funds like other asset classes have regained some of that trust, the industry's underperformance for most years since the financial crisis has created many questions for the hedge fund industry and increased the pressure for them to lower their performance fees.

Filbeck: The financial crisis of 2007-2008 was a rude awakening for many market participants. What lessons did the financial crisis teach about hedge funds?

Holzhauser: The financial crisis provides several takeaways for hedge fund investors. First, the most obvious takeaway is that the financial crisis provided a resounding call for more regulation, especially given that no other area of the market is less regulated than the hedge fund industry. Second, some investors learned much about the illiquidity in the hedge fund industry. They may not have realized how illiquid their holdings were until they tried to sell. Third, the correlation between most hedge funds and the overall market was higher than advertised. Many investors assumed their hedge fund investments would save them from a recession – not simply lose them a little less money. In other words, they didn't want to hear that the hedge fund industry only lost 18% on average in 2008 even if the S&P 500 market lost 38%. For many investors, the financial crisis painted a picture of greedy hedge fund managers too eager to increase performance to worry about the risk management they promised their investors.

Spieler: I want to reinforce the point about the importance of liquidity. Investors don't like illiquid assets in a bear market. Even the hedge funds that performed well during the financial crisis saw redemptions because investors were looking to get liquidity anywhere they could. Another lesson learned is that investors became much more aware of fees in negative or flat markets.

Holzhauser: I have one additional takeaway from the financial crisis for hedge funds. Investors often don't know what a hedge fund means much less what strategies hedge funds follow. For example, as Michael Lewis discusses in his book *The Big Short* [2010], there were both very big hedge fund winners and losers in the credit default swap (CDS) market during the financial crisis. In fact, only a few hedge fund managers bet against the collateralized debt obligation (CDO) bubble, which means that most hedge funds in the CDS market lost considerable money. Although Lewis' book was very popular and insightful, many investors may not realize the number of other types of hedge funds of which most are outside the CDS market. In short, most hedge funds – like almost all funds – still lost money during the financial crisis, but some hedge funds still outperformed by losing less than the market.

Hedge Fund Strategies

Baker: The next question involves a particular hedge fund strategy. Is the classic "long-short" strategy always viable?

Spieler: Yes. Presuming managers are actively picking winners and losers correctly the strategy is valid. I am hesitant to say "always" as investor preferences can change dramatically as could regulations – severe limitations on shorting would cripple this strategy. With this strategy, the opportunity exists to use leverage and earn "alpha" twice – both on the long and short. I'm attracted to markets where some investors can short but other investors generally can't such as mutual funds and pensions funds. As a result, these strategies work best when intra-stock correlations are low, which is a stock pickers market. However, after the financial crisis correlations have been quite high, which I think resulted at least in part by quantitative easing. During such periods, long/short strategies have a tough time,

which is evident in their relatively low risk-adjusted returns. The S&P 500 Index has had one of the best Sharpe ratios over this time period. Thus, being long/short during periods of high correlation and low volatility is a tough strategy. As quantitative easing reverses, a transition should occur from emphasis on monetary policy to fiscal policy. Such a climate offers the potential of creating more idiosyncratic winners and losers, which should work well for hedge funds following a long/short strategy.

Hedge Fund Industry

Baker: Let's now focus on the hedge fund industry. I'd like to get your views on three questions. The first question is: What is the current state on the hedge fund industry?

Holzhauser: The hedge fund industry has changed dramatically since its inception in 1949 when Alfred Jones created the first modern hedge fund. Today, hedge funds have several trillions of dollars in AUM. Despite impressive growth over the long term, several periods show lackluster growth such as during the high inflationary period in the late 1970s and 1980s and the financial crisis of 2007-2008. Yet, as shown in the introduction to this panel, the hedge fund industry continues to bounce back. Even despite the underperformance for the hedge fund industry since the last recession, the industry remains strong. In a 2016 survey conducted by Prequin [2016], 57% of the institutional investors surveyed report some allocation to hedge funds with nearly 90% of these investors allocating at least 5% to hedge funds. These numbers indicate that hedge funds are still a very popular alternative investment group.

Spieler: Saying that the current state of the hedge fund industry is "very bad" is tempting. True, many hedge funds have had little alpha generation in recent years. With 20/20 hindsight, one could easily show that a passive S&P 500 fund usually performed much better, net of fees, than the typical hedge fund in recent years. But the discussion is more nuanced. Certain parts of the hedge industry are quite healthy. One of the biggest challenges for small funds is fundraising. Sometimes, those responsible for allocating capital would rather be wrong in a crowd than to take the risk of using a non-mainstream manager. Other challenges are finding attractive pricing dislocations with markets near all-time highs and fee pressure. Fee pressure is broad based but the big marquee funds still garner a large premium. Breaking into the industry is likely harder today than a decade ago with fund count declining.

Another factor affecting the state of the hedge fund industry is consolidation. The bigger funds continue to grow while the smaller funds are struggling to raise enough capital to be economically viable. Fee compression is intensifying. Hedge funds are looking for strategies to attract new sources of capital, albeit at a lower fee.

Preece: I have a somewhat different view on the state of the hedge fund industry. I think for many investors the bloom is off the rose, so to speak. Weakening returns, a backlash against high fees, especially in the wake of poor performance, more accessibility, which means investors may not feel as special being "allowed" to invest in hedge funds, and a rash of scandals such as the Bernie Madoff scandal, SAC capital scandal, and others have all made hedge funds less attractive to many investors. Also, headlines found in publications such as The Guardian by Neate [2016], stating "Top 25 Hedge Fund Managers Earned \$13 bn in 2015 – More than Some Nations" tend to annoy people as the Top 1%/99% debate rails on in the United States. I think it is truly a challenging time for hedge funds.

Baker: Let's now turn to the second question involving the hedge fund industry. "What challenges do hedge funds face in the current environment?"

Spieler: Perception is a big challenge right now. The market has finally become one for stock-pickers. With the inevitable rise in global rates, active strategies may outperform the market and alternatives/diversifiers that are less correlated to equities play an integral role in a portfolio.

Given the less than stellar risk-adjusted returns since the financial crisis, I think clients are taking a harder look at hedge fund value propositions. I tend to think of the classic hedge funds as more of a differentiated fee structure, which works very well to the manager's advantage. What I think will occur over the next 5 to 10 years is further growth in the liquid alternative categories: that is, hedge funds within a mutual fund wrapper. Besides giving clients daily liquidity, the fees are likely to be much lower than today. These liquid alternative mutual funds can do everything a traditional hedge fund can do, so the question becomes why pay excess fees? As for traditional hedge funds, I think investors will allocate less money to them with a shift toward other alternative classes such as private equity, real estate, and infrastructure, which had more consistent returns since the financial crisis than hedge funds.

Preece: I believe one of the biggest challenges that hedge funds face is trying to invest such an enormous amount of capital. Even if some shine has worn off the appeal of hedge funds, hopeful investors are still looking for attractive returns. Since the financial crisis, many hedge funds have struggled to earn a return greater than that of passive investment strategies, which certainly are less costly to investors from a fee perspective. Yet, hedge funds had more than \$3 trillion in AUM at the end of 2017. Some argue that hedge funds have turned into asset gatherers, trying to collect large management fees, and are less about generating high returns for investors.

One way to generate outsized returns is to identify market inefficiencies and exploit them. Doing so requires some highly skilled and talented managers. Yet, some funds have less talented managers and so much money to invest that identifying and exploiting potential opportunities becomes extremely difficult. I believe one of the biggest challenges facing hedge funds is trying to invest such an enormous amount of capital. Even if a bit of the shine has worn off the appeal of hedge funds, hopeful investors are still looking for

returns that beat a decade long period of extremely low bond returns. Stocks have performed well but an abundance of capital is still available. However, since the financial crisis, many hedge funds have struggled to earn a return greater than that of passive investment strategies, which certainly are less costly to investors from a fee perspective. Yet, hedge funds still managed more than \$3 trillion in AUM, which is a large amount of capital to invest. Some argue that hedge funds have turned into asset gatherers, trying to collect large management fees, and are less about generating high returns for investors. One way to generate outsized returns is to identify market inefficiencies and exploit them. Doing this requires high skilled managers. With so much capital, some funds have less talented managers and so much money to invest that identifying and exploiting potential opportunities becomes very difficult.

Baker: The third question about the hedge fund industry is: What role do institutional investors play in the hedge fund industry?

Holzhauser: Three major types of institutional investors in the hedge fund space are pension fund managers, sovereign wealth fund managers, and endowments/foundations. Despite the general underperformance of many hedge funds compared to the market, especially since the financial crisis, many institutional investors maintain a robust weight in hedge funds and are positive on the long-term prospects for the industry. One of the main reasons is because institutional investors value the diversification that hedge funds provide. They also see some hedge funds as insurance policies that provide protection during market corrections and recessions. In other words, hedge funds are not going to disappear overnight.

For example, Marois [2014] reports that even when the highly influential CalPERS pension fund declared it was selling its entire \$4 billion hedge fund portfolio, hardly any other pension funds followed suit. In fact, the only notable pension fund to follow in CalPERS footsteps was the Netherlands-based PFZW. The reason CalPERS' deallocation from hedge funds did not create a ripple effect is simple. Most pension funds only have a small weight in hedge funds, usually no more than 5%. In other words, any perceived risk could easily be mitigated by the perceived diversification benefit. Moreover, many hedge funds are designed to actually hedge risk, which is why they traditionally outperform the market in highly volatile, flat or even bear markets and underperform the market in less volatile bull markets. The more interesting trend to watch is likely to be with endowment funds, which allocate up to 50% of their portfolios to hedge funds. The low volatility and high returns of traditional mutual funds and ETFs following the financial crisis have put considerable pressure on endowments to reconsider their high allocation in more expensive and often less effective hedge funds.

Spieler: Yes, some institutional investors still make sizeable allocations to hedge funds. Although hedge funds can play an important role, I see allocations continuing to move away from traditional hedge fund mandates. Start-up hedge funds have greater difficulty succeeding today because institutional capital typically flows to the largest players and many of the FOFs are also allocating to the largest industry players.

Fee Structure

Filbeck: Let's delve into the topic of fee structure. Have the high fees paid to hedge fund managers resulted in high returns in the last few years?

Spieler: Absolutely not, especially when the comparison is made to equity markets. But most hedge fund strategies would be expected to underperform the S&P 500 index in a market like we have observed recently.

Preece: High fees have not resulted in high returns over the last few years. However, some argue that hedge funds provide better returns in bear markets even if they earn less in bull markets, as we've experienced in the stock market since early 2009. I'm not sure I believe it though as hedge funds suffered significant losses during the financial crisis. Hedge funds did outperform mutual funds and were not on the verge of collapse like banks, so perhaps in times of distress, hedge funds can play a positive role in a diversified portfolio.

Filbeck: As a follow-up, how is the fee structure changing for hedge funds?

Preece: After the financial crisis, a trend started to lower both management and performance fees. However, I think that some investors are willing to pay higher fees if the returns support it. The problem for the industry of late, however, is that the returns have not followed the high fees. This situation puts pressure on hedge funds to cut fees. Also, another trend is to create hedge fund-like strategies in mutual funds without hedge fund fees. If these funds are successful, they are likely to put even greater pressure on hedge fund managers to reduce fees.

Spieler: I agree. Evidence supports both trends.

Holzhauser: Hedge fund manager, Cliff Asness, once stated, "There's no investment so good that there's not a fee large enough to make it bad." This simple statement explains much of the negative sentiment around hedge funds. Even Warren Buffett has been vocal about the hedge fund industry charging high fees yet failing to outperform the market. In fact, in 2017, Buffett bet Protégé Partners \$1 million that the S&P 500 index would beat a basket of hedge funds over the next 10 years. In 2017, he declared an easy victory. In a Prequin [2015] survey of hedge fund investors, 46% want to see an improved fee structure.

Hedge Fund Activism

Baker: Our next two questions focus on the subject of hedge fund activism. First, what has led to the rise in activism?

Preece: Hedge fund activism and investor activism in general are on the rise. Hedge funds often play an activist role in attempt to acquire a large number of shares of a public company and then use their stake to pressure the firm to provide them a seat on the board of directors. Famous activist investors include Carl Icahn and Bill Ackman. But smaller funds are also playing the activist role. For example, Tuesday Morning, which is a discount retailer, saw its shares increase by 15 percent in 2017 after two separate activist hedge funds announced they were trying to replace the company's CEO. What is interesting is that the CEO himself, Steven Becker, was an activist hedge fund manager. He ended up in the CEO position at Tuesday Morning after the company, following a battle with the activist hedge fund, agreed to put Becker on the board and fire the then CEO Kathleen Mason. Becker then liquidated his position in the activist fund and became the CEO of Tuesday Morning. Overall, activism is on the rise in the United States and is spreading to countries like the United Kingdom, which activists see as ripe with opportunity.

Spieler: I think we have seen more activism as hedge fund managers look to create alpha in a world with high correlations. Complacency at some board of directors and management teams is shockingly high, which allows activist to create meaningful value by pushing for change. Today, boards and management teams are more willing to listen to activists than they have historically, which creates a positive cycle for more activist campaigns. The biggest difference among activist strategies is whether they are trying to drive short-term value creation or truly long-term value creation. The level of due diligence and thought put behind suggestions also varies widely among different activists, with the ones that conduct much deeper due diligence often having much better outcomes for shareholders. Further, activism is partly due to a lack of attractive catalyst ideas with hedge fund managers trying to manufacture a catalyst.

Baker: How do the actions and intentions of activist investors differ?

Spieler: Activist investors tend to focus more on short-term returns. Although a long-term perspective may be discussed, the activist hedge fund managers may exit after earning profits.

Scandals and Taxes

Filbeck: Next, let's turn to the enticing subject of scandals. What are some examples of insider trading scandals that have rocked the hedge fund world?

Spieler: There are too many to list! SAC Capital and the Galleon Hedge Fund Insider Trading Scandal are both great examples.

Preece: Insider trading is trading on material, nonpublic information. Firms call it "edge" and many put pressure on traders to produce edge. The lines are blurry though and proving insider trading is often difficult to prove. As Andrew mentioned, one of the most famous insider trading cases is that of SAC Capital Advisors. SAC Capital was under investigation for insider trading. SAC Capital's CEO Steve Cohen said in a deposition about insider trading, that "it's vague." What was novel about the case was that the investigators used wire-taps, formerly reserved for investigations of mob activities. Although SAC Capital was fined a record \$1.8 billion in a plea agreement where the firm admitted insider trading, founder Cohen was not criminally indicted on insider trading charges.

In contrast, in 2011, Raj Rajaratnam was found guilty of trading on information provided by corporate executives, traders, brokers, bankers, and directors of public companies. Rajat Gupta, a member of the board of directors of Goldman Sachs, provided Rajaratnam with information. Gupta served a two-year prison sentence for his role in the trading scandal. Hedge fund investing relies on information. While it may be difficult to prove, most firms are trying to get an edge. Some get caught, others do not, and still others may never cross the line, but it is hard to imagine they are not all trying to gain information that their competitor funds do not have, and that often is inside information.

Filbeck: Next, let's chat about taxes. How are hedge fund manager incomes taxed and has this been a subject of debate?

Preece: The tax treatment of hedge fund earnings has also been the subject of great debate dating back to when Mitt Romney was running for president. Critics attacked Romney for paying a lower tax rate than most of the Americans he represented based on the more attractive tax treatment of investment income. In particular, the 20 percent performance fee earned by hedge funds is taxed at the long-term capital gains rate of 20 percent instead of the ordinary income tax rate that once was 39.6 percent. This difference means hedge fund managers are afforded a substantial tax advantage over ordinary working citizens.

Spieler: Most hedge fund returns are taxed as long-term capital gains, if positions are held for more than one year, which is much less than ordinary income. Also, those recognizing off-shore gains can defer taxes

Role of Technology

Baker: What role does technology play in changing the hedge fund landscape?

Holzhauser: Over the last few years, the costs of technology have risen to represent more than 10 percent of the average hedge fund's budget. Rising complexity in the hedge fund industry requires hedge funds to incorporate new technology with regards to investing, investment options and reporting requirements. From an investing perspective, the single biggest disruptor to the financial markets over the last decade has been the steady rise of algorithmic trading. Algorithms offer hedge fund managers the potential to quickly capitalize on market inefficiencies and set an array of risk and return objectives. However, the impact that algorithms may have on each other and the overall health of the markets – especially the hedge fund market – is difficult to predict.

From an investment options perspective, new products such as ETFs – especially inverse and leveraged ETFs – have provided average investors with simple products for hedging and speculating on the market. For example, investors can now trade the VIX and the inverse of the VIX. Hedge fund managers will need to work harder to communicate to their clients about the dangers of holding some of these products for more than a day. In short, hedge fund managers will need to tell clients why some forms of investing should be left to professionals.

From a reporting perspective, hedge fund managers will need to invest in more complex data architectures and operational systems for managing a wider array of risks. HFs will also need to build more advanced infrastructure for linking front-, middle-, and back-office operations such as email, telephone, security, and data storage. Technology will also provide opportunities for smaller hedge funds to outsource some costly in-house services in order to improve margins. In contrast, larger hedge funds are likely to do less outsourcing as they take advantage of the economies of scale. In fact, a study by Ernst Young [2015] reported that about 75 percent of larger hedge funds have highly sophisticated tech systems for data and reporting. However, only about half of other (medium-sized and smaller) hedge funds do.

Spieler: As extension to what Hunter said, retail investors can now more easily replicate once-super complex quant strategies employed by hedge funds. One of the benefits of charging higher fees is that hedge funds can pay for more resources to try to extract alpha. The acceleration of big data and technology is a prime example. Hedge funds were first to pay for credit card data compiled by big data firms to have an edge on things such as same store sales for a particular retailer or by using satellite data of parking lots to assess traffic at certain department stores. The hard part of using technology is that the edge disappears quite quickly as others pay for the data and copy the approach, so continued investment needs to be made to look for the next cutting-edge data set that big data analytics can extract some predictive power.

Baker: Picking up on the theme of quantitative strategies, how has the emergence of fintech affected quantitative strategies and arbitrage strategies?

Spieler: The last few years have shown a big push for quant strategies at some of the big shops. The increased competition is making quant investing more difficult and inefficiencies are arbitrated out more quickly. Increases in black box/quant strategies will likely reduce the arbitrage opportunities in the market.

Future Trends

Baker: What is the likely impact of regulatory changes on hedge funds?

Holzhauser: In the aftermath of the financial crisis of 2007-2008 crisis, the Obama administration and Congress primarily focused on increasing regulations by passing legislation such as the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act). The Dodd-Frank Act included several reforms including the Volcker Rule, which restricts U.S. banks from making certain types of speculative investments that do not directly benefit their clients. Another example of increased regulation includes the Foreign Account Tax Compliance Act (FATCA), which requires many types of foreign entities such as financial institutions to report on foreign assets held by U.S. clients. Several other important pieces of legislation passed in other global markets. For example, in 2011, the Alternative Investment Fund Managers Directive (AIFMD) was passed in the European Union to regulate several types of investment funds including hedge funds. Many hedge fund managers are waiting to see the impact of increased regulation. For example, increased regulations are having a compounding effect on fees as several costs associated with compliance, such as increased prime brokerage fees, are passed on from brokers to hedge funds. Hedge fund managers are also worried that tax loopholes may eventually be closed including the current tax regulations that allow hedge fund managers to pay lower taxes on capital gains than taxes on ordinary income. In the short term, hedge fund managers are paying close attention to changes in the political landscape. For example, the regulatory tune obviously changed somewhat in 2016 with the election of President Trump, who is seen as a champion of deregulation. That said, only time will tell if any substantial deregulation policies concerning hedge funds are passed while President Trump is in office.

Spieler: I would say increased disclosure, but the future is uncertain with the Trump administration.

Baker: What future trends are likely to occur in the hedge fund industry that could lead to areas ripe for research?

Spieler: Driven by investors, expect to see more consolidation and fee compression.

Holzhauser: Any discussion on trends must consider the role of technology. Technology will force hedge funds to lower their fees as technology increases more investment options and provides investors with leverage to negotiate more favorable terms.

Setting aside the rippling impact of technology, the most general long-term trend is growth – especially by institutional investors. In fact, some experts are predicting that the growth in the hedge fund industry will outpace the market. Citi Investor Services [2014] predicted that the hedge fund industry will nearly double from \$2.63 AUM in 2013 to \$4.81 trillion AUM in 2018 – with nearly three-fourths of the growth coming from institutional investors. The number of hedge funds has also been increasing to meet investor demand. As evidence, Delevingne [2015] reports that hedge fund investors can choose from an estimated 10,149 hedge funds and FoFs as of March 2015. In other words, the hedge fund industry has finally crested over the previous high-water mark of 10,096 hedge funds previously set in 2007 before the financial crisis of 2007-2008. Still, short-term uncertainty remains in the hedge fund industry, which has recently triggered substantial divestment. Much of this recent divestment can be attributed to underperformance in the hedge fund industry compared to the overall market since the financial crisis. A large portion of the hedge fund industry is simply not designed to compete with long bull markets with low volatility. Considering that all markets are somewhat cyclical, a future rise in volatility or a strong market correction or even mild recession should favor the hedge fund industry.

Dissecting the growth trend further, many hedge funds are flirting with new approaches to growth. One clear example is the rise in diversity among hedge fund managers with more female hedge fund managers, more minority hedge fund managers, and even more socially conscious hedge fund managers focused on the rise in socially responsible investing (SRI) and impact investing. Size will also dictate some growth patterns. For example, larger hedge funds currently seem more focused on increasing the penetration of existing products or funds while smaller hedge funds are trying to get new investor bases in existing markets. The end result will likely be that larger hedge funds will continue to get even larger while smaller hedge funds will likely perform better. The primary reason for this trend is that larger hedge funds appear safer to investors while smaller hedge funds are often nimbler and better suited to focus on a particular niche in the market.

Spieler: As previously mentioned the use of big data is a huge trend in hedge funds and will lead to extensive research opportunities. Managerial career concerns present another research opportunity.

Filbeck: Our time has come to an end. Kent and I would like to take this opportunity to thank each of our panelists for participating in this enlightening discussion.

Endnotes

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