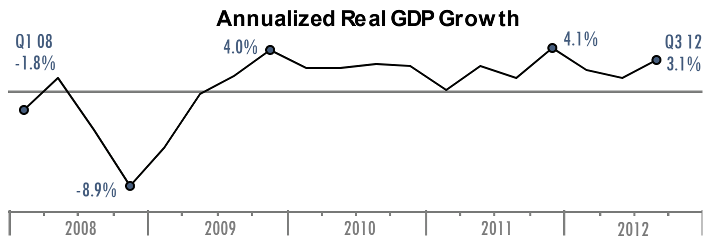
Your Quarterly Update on the Financial Markets
December 31, 2012

4th Quarter

MARKET Recap

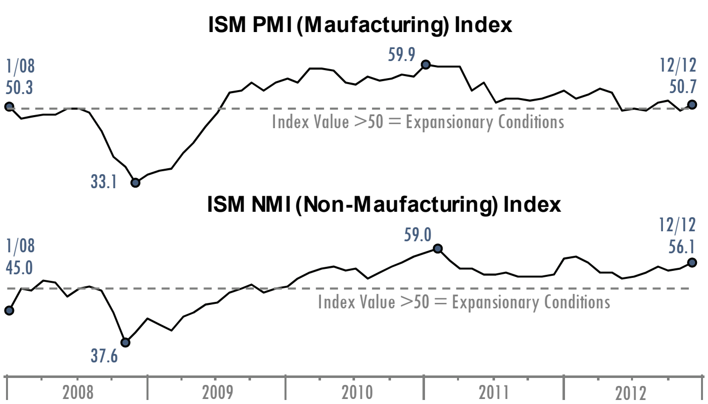
The Economy: *"Coos and Squawks from Doves and Hawks"*

US economic growth picked up in the third quarter, advancing to a 3.1% annualized pace. Most sectors contributed to the acceleration, including personal consumption expenditures, residential fixed investment, and federal government spending. Nonresidential fixed investment contracted and imports increased slightly.



Last quarter we commented on the relatively robust performance of several leading indicators; those conditions persist currently as well. Manufacturing indicators which compose the Institute for Supply Management's PMI Index remained expansionary following lackluster performance earlier in 2012, although the index did not continue to climb quarter-over-quarter. This coupled with falling nonresidential fixed investment suggests a cautious stance by manufacturing business, perhaps driven by uncertainty over the federal government's spending plan for 2013 and beyond. It also reflects the impact in November of Hurricane Sandy.

In contrast, non-manufacturing business activity continues to surge. ISM began publishing a non-manufacturing version of their widely-followed activity index in 2008. The NMI has just now achieved 5-years of history and, while missing the early stages of the credit crisis, it partially chronicles the downfall and recovery of the housing and financial sectors. Of course these sectors are the most directly driven by loose monetary policy and direct intervention by the Fed and Treasury. Were the Fed's goals tied to business activity and price stability, one would think it time to declare "mission accomplished" and ease off the gas pedal a bit. But it is employment, not merely activity, which the Fed seeks – and progress on this fickle goal has been scantier. December unemployment held at 7.8% with broad underemployment unchanged at 14.4%.

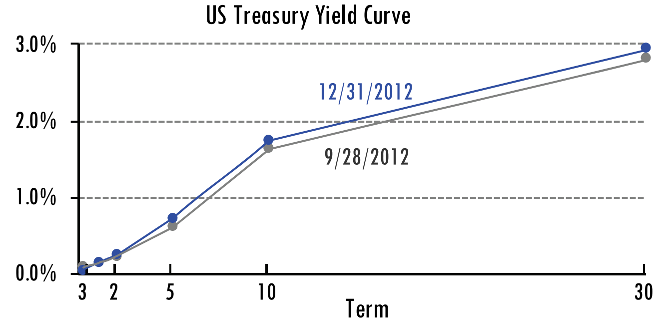


A brisk discussion on policy timing at the December 11 FOMC meeting caught the markets' attention when the minutes were released on January 3rd. While the participants' outlook on the Fed Funds rate was largely unchanged (exceptionally low through 2015), opinions vary on whether quantitative easing should continue through 2013. Members expressing concern over continuing asset purchases focused on a lack of connection between bond purchases and employment, on secondary financial instabilities due to continued rate suppression, and on the sheer size of the Fed's balance sheet. These hawkish members note that the eventual redeployment of assets from the balance sheet may lead to financial instability or inflation, and favor preemptive steps to constrain or begin shrinking the balance sheet. Dovish members are focused on continued financial headwinds, including a high level of uncertainty in federal fiscal policy and further expected weakness in Europe.

Although more participants in the policy-setting process are questioning the need for continued QE, voting members still appear to hold a dovish view. Four voting positions on the 11-member committee rotate annually among 11 regional bank presidents. This year marks a dovish shift in the composition of voting members; notably, Richmond president Jeffrey Lacker rotates off the committee and Boston president Eric Rosengren rotates on. Barring a clear uptick in inflation, we would not expect an early end to quantitative easing.

> "While almost all members thought that the asset purchase program begun in September had been effective and supportive of growth, they also generally saw that the benefits of ongoing purchases were uncertain and that the potential costs could rise as the size of the balance sheet increased."
>
> Minutes of the December 11-12 meeting of the Federal Open Market Committee

The US Bond Market



Source: Bloomberg LP

The fourth quarter saw more of the same in the US bond market. A slow economy, a recession in Europe, and a Federal Reserve committed to quantitative easing combined to produce another year-end at historically low treasury yields. Virtually unchanged from the close of 2011 across most of the yield curve, the biggest differences, drops of 11 basis points, were posted at the 5-year and 10-year maturities. With the media focused intently on the soap opera known as "The Fiscal Cliff," the yield on the 10-year treasury fell to 1.76% at quarter-close, the lowest year-end level since 1962 according to Bloomberg. (The yield on the 5-year treasury of 0.72% was its lowest year-end level since 1986.) But within the quarter, yields actually rose modestly on longer maturities from the close of Q3 as the markets responded to a mid-December announcement by the Federal Reserve of a fresh round of monetary stimulus and anticipated an eventual resolution to the fiscal cliff drama. Last quarter's steepening of the yield curve continued, albeit at a moderate pace, with the spread between the 2-year and 10-year notes widening to 150 basis points at year-end from 140 basis points at the close of Q3 (but still narrower than the 2011 close of 165 basis points).

Bond Indices - Total Returns

	4Q12	2012
BarCap Aggregate	0.22%	4.22%
BarCap Interm. Gov't	0.03%	1.73%
BarCap Long Gov't	-0.71%	3.78%
BarCap Interm. Credit	0.95%	8.10%
BarCap Long Credit	1.30%	12.79%
BarCap High Yield	3.29%	15.81%

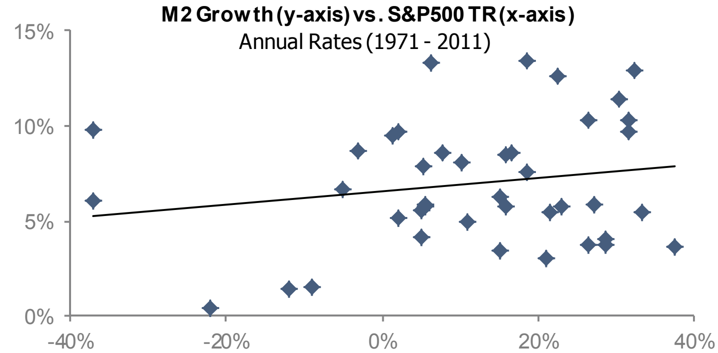
The demand for yield continued in Q4, but the trend was more dramatically demonstrated in full-year returns. Investor favor for high-yield securities pushed spreads down to 511 basis points in final weeks of December, a level not seen since mid-2011. Companies took advantage by issuing record-levels of high-yield bonds. By the final week of the year, $353 billion of high-yield debt had been issued in 2012, according to The Wall Street Journal, not surprising after record-setting issuance in Q1 and Q3. The full-year total issuance exceeded the previous record of $286 billion set in 2010 by 23%. Interestingly, much of this debt had a longer term than that issued in the past. According to Bank of America Merrill Lynch, almost 20% of high-yield debt issued in 2012 had a maturity greater than 8 years and was priced to yield less than 6%. By contrast, less than 1% of high-yield debt issued in 2010 had these characteristics. In actuality, the pricing on these low-yielding high-yield bonds may be more accurate than convention suggests. The default rate on high-yield bonds in the 12 months through November 2012 stood at 2.7% globally, according to Moody's. With no shortage of liquidity and low interest rates likely continuing for some time, there seems to be little to drive default rates higher in the near future.

In no surprise to the markets, the Fed announced another round of quantitative easing in a new bond-buying program worth $45 billion per month of longer-term Treasurys. With the existing program to buy $40 billion a month in mortgage-backed securities also being maintained, the effect of the new program was to keep the total pace of asset purchases at $85 billion a month as it filled in for Operation Twist which expired at year-end. The surprise actually came when the Fed outlined unemployment targets (less than 6.5%) and inflation levels (above 2.5%) that would spell an end to quantitative easing – essentially outlining an exit strategy. Previously, Fed statements said it expected to hold rates low until mid-2015. While some maintain that in an overleveraged economy inflation risk is diminished, it actually may be the target that ends up triggering the long-predicted increase in interest rates. The sustained low-interest-rate environment encouraged companies across the US to invest in efficiency measures – steps that have reduced the demand for workers. (See the Q3 2012 Market Recap for more on Capital-Labor dynamics.) Without systematic retraining opportunities for the American workforce, the remaining gap between current and desired levels of employment may prove quite slow to close.

The US Stock Market

With the damages of Hurricane Sandy still raw, our heartfelt sympathies go out to all the individuals influenced by the super storm. The New York Stock Exchange closed for two consecutive business days due to weather for the first time since the Great Blizzard of 1888, which dumped 40 – 50 inches of snow on New York City. While initial damage estimates range from $30 to $50 billion, equity markets reopened on Halloween with sideways action, a vote of confidence in America's ability to recover from the natural disaster.

The Federal Reserve continues to expand its balance sheet, and here we wish to explore the correlation between the money supply and stock market performance. While correlation does not necessitate causation, the coefficient of the annual total returns of the S&P 500 versus the growth of the M2 monetary base gave a weak positive correlation of 0.19 as illustrated by the scatterplot over the last 40 years. In other words, the Fed's ability to significantly impact stock market performance is muted at best on a historical basis. Clearly, this analysis oversimplifies the picture. The Fed frequently signals markets ahead of FOMC policy announcements, and investors discount future actions accordingly. Additionally, M2 only captures close money substitutes, leaving out large and long-term money deposits included in M3 (which the Fed stopped tracking in 2006). Yet, the correlation does provide some, albeit not perfect, projection of monetary policy's effect on equity returns.



Value outperformed growth by 2.84% during the quarter based on the broad-market Russell 3000. Dividend stocks performed at a subpar -0.09% rate of return (per the Russell 3000 Dividend Achievers Index), although as with the previous quarter, the gap was relatively small. On a sector basis, the standout showing came from financials, helped by the Fed's commitment to keep a strong bid under MBS and treasury securities alike, a large portion of many banks' balance sheets. Bank of America and Citigroup were among quarterly leaders, returning 31.6% and 20.9%, respectively.

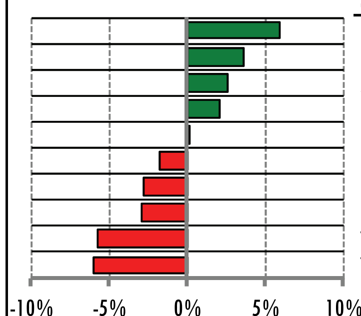
Stock Indices - Total Returns

Largecap Stocks	4Q12	2012	Midcap Stocks	4Q12	2012
S&P 500	-0.38%	16.00%	S&P Midcap 400	3.61%	17.88%
Russell 1000	0.12%	16.42%	Russell Midcap	2.88%	17.28%
Growth	-1.32%	15.26%	Growth	1.69%	15.81%
Value	1.52%	17.51%	Value	3.93%	18.51%
Broad Markets			**Smallcap Stocks**		
Russell 3000	0.25%	16.42%	S&P Smallcap 600	2.22%	16.33%
Growth	-1.19%	15.21%	Russell 2000	1.85%	16.35%
Value	1.65%	17.55%	Growth	0.45%	14.59%
			Value	3.22%	18.05%

The technology sector lagged as economic and regulatory uncertainty delayed capital expenditures and systems upgrades. Company-specific issues for two heavyweights in the sector were also very material. Apple tumbled -19.8% on concerns over profit margin sustainability for blockbuster products like the iPhone, lack of product pipeline, and the leadership void left by Steve Jobs. Since it composes 3.9% of the S&P 500 and 20.7% of the S&P 500 Technology indices, Apple's performance moved these indices by approximately -78 and -409 basis points respectively. Computer hardware giant Hewlett-Packard continued its slide, shedding -15.7% for the quarter and -42.7% for 2012. Year-over-year revenues in several lines of HP's core business dropped double digits, most notably desktops/laptops (-14%) and enterprise servers, storage and networking (-10%). Alleged fraud by a firm HP purchased may have caused them to overpay by as much as $5 billion, also weighing on returns. Midcap and smallcap tech firms stocks better, returning 2.31% and 3.15% respectively.

Ford and General Motors surged 31.9% and 26.7%, respectively, on strong global sales and improving margins. The two US companies have benefited from the recent geopolitical dispute between China and Japan, as Japanese automakers like Honda and Toyota have seen sales slump due to nationalism from Chinese consumers. Additionally, General Motors shares reacted positively after the company announced the repurchase of 200 million shares from the US Treasury at $27.50 per share and the Treasury's intention to sell the remaining 300 million shares on the open market over the next 15 months, thereby eliminating the "government overhang" on the stock.

S&P 500 Economic Group Components - Total Return



Sector	4Q12	2012
Financials	5.92%	28.82%
Industrials	3.70%	15.35%
Materials	2.69%	14.97%
Consumer Disc.	2.11%	23.92%
Health Care	0.07%	17.89%
Consumer Staples	-1.75%	10.76%
Energy	-2.75%	4.61%
Utilities	-2.86%	1.29%
Technology	-5.72%	14.82%
Telecom	-6.02%	18.31%

Source: Standard & Poor's

Overseas Markets

With the focus on discussions to end the looming fiscal crisis in the US, foreign markets took a breather from the constant barrage of issues plaguing Europe (sovereign debt) and the Far East (slowdown in China). Most developed markets ended the year with double-digit gains amid often volatile performance. Emerging markets generally performed well, trailing their developed peers for the quarter but outperforming for the full year.

In the Eurozone, manufacturing output fell by 2.6% in September, a sharper drop than expected. The drop came after two months of increases. Industrial production in the zone fell at a 3.6% annual rate over the period. The drop was led by intermediate goods where output fell at a 6.4% annual rate over the quarter. Consumer goods output fell at a 4.3% annual rate over three-months, while capital goods production showed a modest increase, rising at a 0.8% annual rate for the period. Adding to signs that a recession may continue into 2013, euro-area manufacturing output contracted more than initially estimated in December. With euro-area unemployment at a record, economists project the region's GDP decreased 0.3% in the fourth quarter, according to a Bloomberg survey. The Eurozone economy has shrunk for two successive quarters and economists predict a further decline in GDP in the final three months of 2012. The Markit Economics

Foreign Stock & Bond Indices - Total Returns

MSCI Broad Indices	4Q12	2012	Barcap Global Indices*	4Q12	2012
World Index	2.49%	15.83%	Global Aggregate	-0.48%	4.32%
EAFE (Developed)	6.57%	17.32%	Pan-Euro	4.43%	12.31%
Emerging Markets	5.58%	18.22%	Asian-Pacific	-8.57%	-7.04%
			Eurodollar	1.05%	7.05%
MSCI Regions			Euro-Yen	-9.19%	-6.34%
Europe	7.02%	19.12%	Other Currencies	1.46%	15.22%
Japan	5.78%	8.18%	*Unhedged		
Pacific ex-Japan	6.06%	24.57%			
Latin America	4.29%	8.66%			

gauge of manufacturing in the 17-nation euro-area registered 46.1, the 17th consecutive month of a reading below 50 (a reading below 50 indicates economic contraction).

Concerns also arose around countries that are projected to be unable to meet budget deficit targets agreed to with the European Union. Many Eurozone nations have been cutting spending and raising taxes in an attempt to reign in budget deficits to meet the mandated 3% of GDP rule. Continued global deleveraging and anemic growth have complicated the ability to achieve the target. The IMF expects France's deficit to be 4.7% of GDP in 2012 and 3.5% of GDP at the end of 2013. France has pledged to cut its deficit to 3% of GDP in 2013. President Francois Hollande's Socialist government unveiled a package of measures, including a 75% tax on incomes over €1 million, to attempt to hit its target. Spain's deficit is expected to hit 5.7% of GDP in 2013, well above its target of 4.5%. Due to its on-going recession and 25% unemployment rate, EU authorities and finance ministers relaxed Spain's target earlier in 2012. Attempting additional cuts to hit 2013 deficit targets might further shake up Europe's political waters and test the powers of national governments to force more austerity through their governing bodies.

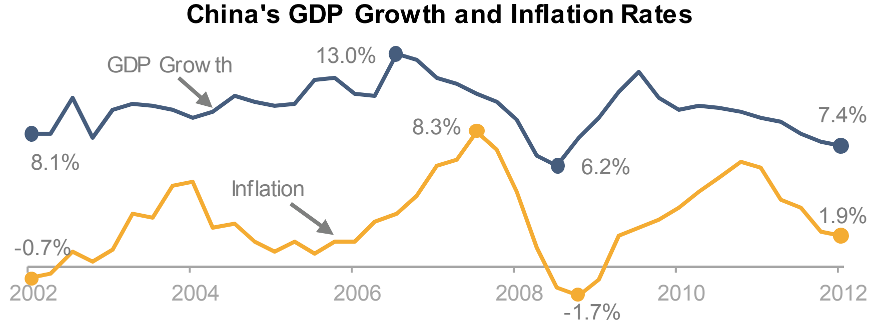
	1/1/2011	2 years	12/31/2012	Low	High
USD/Euro	0.7562		0.7572	0.6804	0.8207
USD/Japanese Yen	82.05		85.21	76.02	85.21
USD/Chinese Yuan	6.613		6.308	6.269	6.613
USD/Chilean Peso	468.8		479.2	459.4	524.3
USD/Brazilian Real	1.679		2.064	1.551	2.105

Japan continues to exhibit weak economic data, underscoring the challenges faced by Shinzo Abe's new government in reviving growth. Industrial output fell in November as demand for exports continued to slow. At the same time consumer prices also dipped, indicating that deflation continues to remain a serious issue in boosting domestic demand. Leadership has been seeking to spur domestic demand to offset the decline in exports, which have fallen for six months in a row. Policymakers' battle with falling consumer prices has been waged for years, hurting domestic consumption as consumers and businesses tend to put off purchases in the hope of getting lower prices in the future. The core consumer price index, which excludes fresh food, fell 0.1% in November, from a year earlier. The Bank of Japan has already come under pressure from Mr. Abe to take steps aimed at tackling deflation. He has called for the bank to raise its inflation target to 2% - double its current target. During his election campaign Mr. Abe had also suggested that the central bank should print "unlimited" yen to help stoke an increase in consumer prices. The latest dip in consumer prices may put further pressure on the central bank to enact measures aimed at monetary easing and a higher inflation target.

According to The Ministry of Economy Trade and Industry, industrial production fell 1.7% in December from the previous month. Industrial output has been hurt by a dip in demand for Japanese exports from the Eurozone and China. The ongoing debt crisis in Eurozone has hurt shipments to the region, while sales to China have been hurt by a territorial dispute between the two countries. The strength of the Japanese currency over the past few months has made matters more difficult for Japanese exporters since their goods have become more expensive for foreign buyers. However, the yen has seen a significant drop in recent weeks, falling more than 10% against the US dollar since October on expectations of aggressive policy actions under the new incoming leadership. A weaker yen is likely to help revive export growth, which in turn will help boost factory output.

In China focus remained on whether another soft landing could be orchestrated by central bankers. October manufacturing data showed the economy edging towards a growth trend with a manufacturing survey by HSBC hitting a 3-month high on increasing factory orders. HSBC's PMI for China registered 49.1 in October, up from 47.9 in September (a reading above 50 represents expansion). The trend was borne out in December when a subsequent HSBC survey came in at 51.5, a full 1 point above November's number.

China's GDP Growth and Inflation Rates



China's once-in-a-decade transition of political leadership gave hope to its citizens and the surrounding world. Widely expected, Xi Jinping was confirmed as General Secretary for the Communist Party of China. Jinping has spoken of the importance of tax reform, support for exports, aid for small businesses, and improvements in the mechanisms of the market economic system. Helped by the prospect of market-friendly reforms, China's equity markets increased 12.9% over the quarter. Still, China's challenges include a widening wage gap, rising expectations among a more educated population, and a slowing economy. The wage gap between urban and rural areas has increased 68% since 1985, creating one of Asia's widest gaps and sparking concerns over social unrest. And between technology and greater university attendance rates, the Chinese are becoming more informed of domestic inequalities and opportunities other developed countries offer. Finally, China's annual GDP growth, while still positive, has been moderating since 2010. Central bank officials have attempted to strike a balance between growth and inflation. As inflation rates fell over the past year, officials focused more on getting GDP growth trending higher, most recently with stimulative monetary policy measures of lowering interest rates to 6.0% and the banking reserve ratio requirement to 20.0%.

While outperforming US equity markets, Latin America faired as one of the weaker foreign regions. Chile, a beacon of democracy and stability, came under pressure as a consequence of falling copper prices (among Chile's top exports), a strengthening Chilean dollar and an upcoming presidential election adding uncertainty to the political and regulatory climate. Copper prices suffered as slowing global growth reduced demand for the industrial metal. Additionally, the Federal Reserve's stimulative monetary policy pushed the Chilean currency to a three-year high against the US dollar earlier this year, prompting a $12 billion currency-market intervention by the Chilean central bank. Exports represent roughly 60% of the country's GDP, a clear concern for leaders in keeping exchange rates in-line and Chilean products competitive abroad. Lastly, elections later this year are becoming more unclear, as market friendly president Sebastian Pinera has fallen in popularity due to a continued widening wealth gap.

Elsewhere, with 200 million citizens and an economy of nearly $2.5 trillion annually, Brazil's economy makes up 43% of Latin America's total GDP. Its equity markets performed in-line with the region, even as the country's trade surplus narrowed to 10-year lows on declining exports. Similar to Chile, Brazil's currency has appreciated due to the weak US dollar policy, putting pressure on the commodity-rich nation's exports and inducing Brazil's central bank to respond with monetary policy measures aimed at weakening the real.

Argentina's equities experienced the most volatile year in the region, increasing 16.1% for quarter, but falling 37.1% for the year. With President Cristina Kirchner in power since late 2011, investors have not been impressed by her market-unfriendly policies. Heavy subsidies, restrictions on dollar purchases and import controls have all contributed to investment fleeing the country for safer pastures. Combine the government's strong regulatory hand with stubbornly high inflation (unofficial estimates are roughly 25%) and unemployment of 7.6% for Q3, and Argentina will likely see investment, which comprises over 20% of GDP, continue to depart from the country.

Focus On: *Hedge Fund Operational Due Diligence*

Since the discovery of the world's largest Ponzi Scheme by Bernie Madoff four years ago, operational due diligence (ODD) has become an increasingly important factor in hedge fund investing. Prior to 2008, many investors ignored this aspect of the investment process or only focused on a select few operational issues in the news. Now, investors have become much more aware of ODD procedures and have the option of either doing the work on their own or with the help of a consulting firm, many of whom focus exclusively on operational due diligence.

There are, however, still a number of misconceptions held by investors. Principal among these is the notion that ODD is a process you go through solely to avoid fraudulent scams like those of the Bayou Hedge Fund Group and Bernard L. Madoff Investment Securities LLC. In reality, due diligence is done to evaluate general fund operational inefficiencies and any resulting investment risks. Fund inefficiencies include improper and inconsistent accounting practices, poor risk management, and lack of compliance and regulatory monitoring. Each can have direct and indirect effects on investments, such as lower returns, investment restatements, investor liquidity issues, and tax implications. With such major implications, it is imperative that due diligence work be comprehensive and broad in scope.

Although there are a number different ways of conducting operational due diligence on hedge funds, the areas of focus are the same. The following is an overview of an effective ODD effort.

People

The first step in an operational due diligence process is researching the appropriate people connected with the hedge fund, starting with the executives. Running background checks and looking at pedigrees are basic steps, but analyzing all direct work experience is a more in-depth, critical piece. An executive or senior employee may have a clean record and come from both a strong school and a respectable previous employer, but still may be unqualified to hold his or her title at the fund. A related and often overlooked issue is a manager's workload, both inside and outside of the firm. Key employees with too many distractions cannot give the level of focus necessary to fulfill their core responsibilities, creating opportunities for unnecessary mistakes. Examples could be a CFO who holds a demanding financial officer position at an unrelated philanthropic organization or who is currently taking on another management role due to the fund's lack of size and scale. Additionally, the interaction and communication between groups within the firm is an important factor to consider. For instance, a portfolio management team that has little interaction with the risk management team or a CFO who does not work well with the legal team should be a red flag to an investor. Finally, as with any investment fund, staying abreast on firm updates of key employee changes is also critical.

ODD Review Points	
People	Executives Managers Analysts Board Members
Business Groups	Accounting Legal Compliance Risk
Service Providers	Prime Brokers Administrator Auditor Tax Advisor
Documents	Form ADV Operating Agreement Private Placement Memorandum Subscription/Redemption Agreements Marketing Materials Audited Financial Statements
Other	Technology Business Continuity Business Development

Business Groups

The next step is to look at the different operational groups of the firm, mainly accounting, legal, compliance, and risk. In ODD, the accounting team is the most appropriate starting point. Making sure the team is knowledgeable, properly-staffed, and easy to work with is essential. The accounting process starts with booking trades and ends with annual financial statements, so it is imperative that the entire process be analyzed in detail. Researching the fund's trading and accounting systems for quality and capability is also important, as these are critical investments for the firm. Having inadequate or outdated systems is an easy way to put investor money at risk, through improper booking of trades, incorrect valuations, or misallocation of profit/loss and fees.

Another accounting area to focus on is investment valuation, mainly methods, techniques, and frequency. For funds invested in highly liquid, exchange-traded products like equities, commodities, or futures, this will be much less of a factor than for funds that invest in private or less liquid securities. Ideally, securities are valued at market price ("mark-to-market"), but when there is little or no market to trade in, illiquid securities may be mispriced or simply booked at cost due to lack of information. It is important to research the fund's methodology in valuing these securities, such as whether they are valued only in-house or also by a third party. Investors should be wary of funds that do not use third party valuations, as this may lead to accidental or intentional mispricing. Many funds will designate a valuation committee for illiquid securities, as a collaborative effort may lead to more accurate pricing and higher consistency in technique. Valuation techniques should be the most accurate and accepted in the industry, so ensuring the accounting team and third party valuation firm are staying up-to-date is critical.

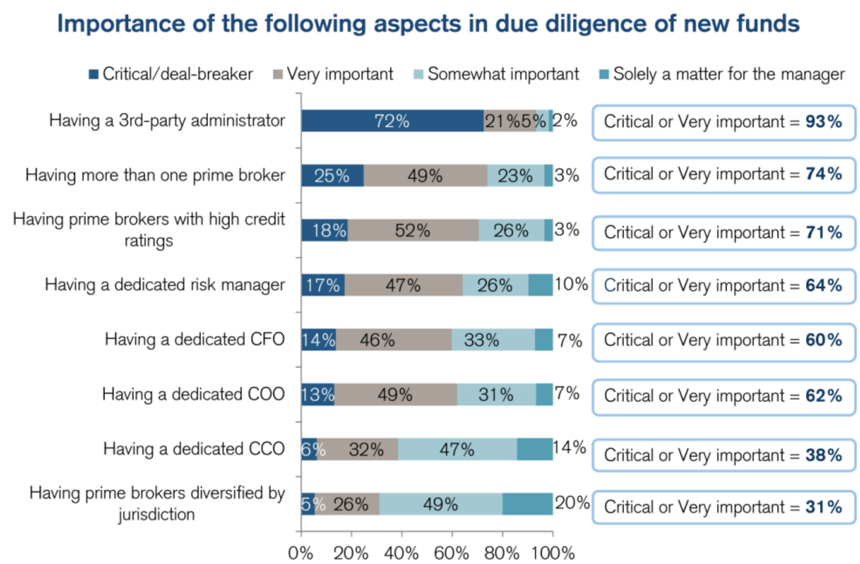
With many hedge funds invested in illiquid securities, investors need to be aware of the policies surrounding their management. Funds investing a significant percentage of the portfolio in such securities should be using "side-pockets" or secondary portfolios to hold the illiquid or private investments. Doing this eliminates issues of investment timing and ensures ownership fairness among investors of the fund, similar to a private equity fund. Specifics of how the side-pockets will be managed should be presented in the offering documents, detailing the percentage of fund assets to be included and criteria for transfers into and out of the main portfolio. Also, any fees being charged in the side-pocket need to be outlined for investors.

Finally, fund expenses are accounted for through an accrual process. Because expenses may be more significant at certain times during the year, funds will estimate annual expenses and accrue a certain amount each period based on the estimation. This creates liabilities on the fund's books and when the actual expenses are paid by the fund, the liabilities are reduced accordingly. In the event of an over- or under-accrual, the liability is then adjusted at year-end. Many funds allow redemptions during the year rather than just at year-end so errors in accrual calculations would likely lead to inaccurate investor redemption payments prior to that point. Investors should keep in mind that small and sometimes even larger accrual differences may exist for legitimate, unforeseen reasons. It is the lack of a structured accrual process due to negligence or inexperience that creates risks for investors.

Researching a firm's legal and compliance teams is another important part of an operational due diligence process. Because all hedge funds will use at least one outside law firm, investors should conduct further due diligence on those firms. The smaller the fund, the larger the reliance on outside firms as the in-house legal team may be extremely small or even non-existent. The case is similar for compliance where smaller funds may rely on other senior members of the firm take on compliance responsibilities. In either case, it would be ideal to review all sources of legal and compliance work for the fund. Equally important is staying up-to-date with new laws and regulatory changes, as well as with the firm's ability to adapt to such changes. As is often the case over time, laws and regulations have become more prevalent and increasingly strict in the hedge fund industry. This has been especially true in 2012, as Form PF went into effect this past August. Form PF, a regulatory filing conducted by the SEC, requires private funds to provide information on investor demographics, detailed investment exposure of specific positions, and "what-if" scenario risk analysis. Currently, private funds are not required to release any information reported in Form PF to investors, but increasing investor demand will likely drive greater transparency. This reporting has become a major expense for many, as funds with assets greater than $1.5 billion have had to hire consultants and purchase new software to meet quarterly reporting requirements. (Funds with assets between $150 million and $1.5 billion report annually.) In a situation such as Form PF, a fund with strong legal and compliance teams and a solid operational structure will have an easier time navigating the new waters. This will help avoid regulatory fees, lawsuits, increased legal/consulting fees, and system and software upgrades, each of which could have a direct negative impact on investments in the fund.

Source: Credit Suisse Global Survey of Hedge Fund Investor Appetite and Activity, 2012

Risk management is also an important group to include in operational due diligence, although there may be some overlap with the investment due diligence process, or IDD. Strong research on not just the risk management systems, but how the investment teams use them is extremely important. Over the years, risk management software has become significantly more advanced as managers and investors alike have demanded better resources for monitoring portfolios. Simply having a program calculate VaR (Value at Risk) is no longer adequate in the hedge fund industry. There is also a need to understand how the programs are used by portfolio managers and analysts on a regular basis. If there is little or no interaction between the systems and the investment teams, investors should be concerned. It is one thing to use the software and knowingly take on risk, but unacceptable when funds do not properly use the software and unknowingly take on added risk. Being able to distinguish between the two is a critical component of due diligence.



Source: Credit Suisse Global Survey of Hedge Fund Investor Appetite and Activity, 2012

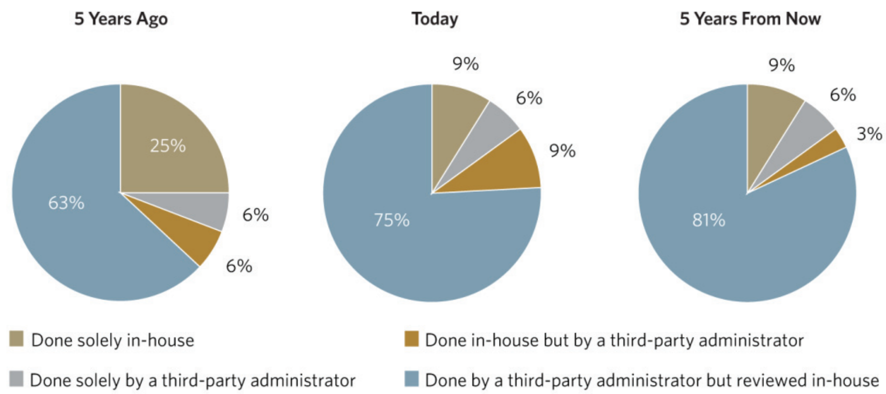
Service Providers

The use of external service providers has become a significantly growing trend in the industry, as firms have recognized the investor demand for unbiased, independent work as well as the value of outsourcing for certain services. Such third party operational providers include prime brokers, administrators, auditors, and tax managers.

Although hedge funds have always used prime brokers, the space has changed dramatically over time. Services have increased beyond just custody, financing, and securities lending to include capital introduction and consulting on a wide range of business areas. The view of prime brokers has also changed, mainly since the 2008 bankruptcy of Lehman Brothers and the 2011 bankruptcy of MF Global. These major events led to diversification among prime brokers, as funds began opening additional accounts with other financial institutions. When investors evaluate a fund's prime broker(s), one of the easiest criteria to judge is whether they have diversification amongst fund assets. Funds that use a single prime broker or keep a large majority of assets with only one are no longer acceptable investment options; note that smaller funds may have a harder time opening multiple prime broker accounts due to asset levels and smaller trading volumes. In the case of MF Global, client money was being used to fund capital requirements of the firm's bad investments. ODD efforts may have been unable to identify that these specific actions were taking place at the time; however they would have revealed chronic risk management failures and liquidity concerns. While the increased use of multiple prime brokers will create more work, it is critical to evaluate their financial stability, operational efficiency, risk and compliance practices, and relationship with the funds.

Hedge fund administrators can also play a major part in a firm's operations, as they offer comprehensive accounting and communication services. An administrator not only helps to legitimize the firm's business for investors, but it also creates another layer of review to help avoid mistakes. In many cases, if a hedge fund is going to hire an administrator, it will use the administrator's full suite of services. This includes trade booking, NAV calculation, and financial statement preparation, along with processing investor capital activity and both regular and unique investor communication. In conducting due diligence on a fund's administrator, simply checking to see if one exists is not enough, as it overlooks the quality of service. Poor service can lead to both investment risk and administrative headaches for investors.

When evaluating the administrator, it is important to focus on the team, systems, and interaction with the fund's internal accounting group. An aspect of the administrator's team to pay particular attention to is the organizational structure. Some administrators may use one group of employees to complete all the work, while others will have different teams assigned to each step of the process. Investors may have a certain bias towards one method over another. However, it is obvious that using multiple teams leads to extra hands touching the work, potentially causing confusion and communication breakdown. Just as in many other areas of ODD, researching the systems or software is an important consideration. Administrators will use investor level accounting systems which some funds may not consider purchasing. Investor accounting software takes the fund's profit or loss for the period and distributes the result to all of the investors, taking into account capital activity, base currency, and fee levels. In this case, the quality of the software matters greatly as there is one less level of review. Also, evaluating the interaction between the firm and their administrator is important. Some firms may rely on the administrator significantly, while others simply use their work as a secondary check against their own referred to as "shadow accounting". In either case, investors should feel comfortable with the quality of work being done on both sides.



Source: BNY Mellon's "Risk Roadmap: Hedge Funds and Investors' Evolving Approach to Risk"

Audit and tax advisors are used by almost all firms and although the work is done less frequently than with a prime broker or administrator, it is equally important to the fund and its investors. Auditors work periodically throughout the year collecting information from both the fund and the administrator for their rigorous testing. However, the majority of their work is done after year-end when books are closed and financial statements are being prepared. Tax advisors have a similar work schedule in preparing both estimated and final K-1s for investors. Conducting ODD on an auditor or tax advisor is more difficult, mainly due to their strict independence of all parties involved. The main focus should be profiling each of the key team members and gaining as much insight on their process as possible. This is especially true for smaller hedge funds, as they are less likely to be able to afford the top, well-known accounting firms. Researching any prior auditors and their relationships with the fund is also an important step. A fund that has consistently changed auditors should trigger concern, as this may be a result of the fund interfering with the audit. The relationship between the auditor and the administrator should be studied as well since they will be working very closely together. In the end, investors need to have a strong sense of each team's impartiality and objectivity.

Documents

Apart from researching people and process, analyzing all fund documents is an obvious and important part of the operational due diligence process. This includes all legal documents such as a Form ADV, Operating Agreement, Private Placement Memorandum or Offering Memorandum, Subscription and Redemption Agreements, and other marketing documents. While many of these are written with boilerplate legal language, reading through all the documents is a must. From an operational risk standpoint, it is critical that there are no inconsistencies in the documents. All repeated information should match prior references, giving the documents complete uniformity. The absence of any of the above documents or multiple, substantial changes over the life of a fund are red flags to investors.

A significant amount of time should be spent evaluating the fund's financial statements. Investors will want to obtain not just the most recent copy, but financial statements dating back a few years. If a fund has periods of exceptionally high or low returns during its history, it may also be helpful for investors to study the corresponding financial statements to gain more insight into what drove the abnormal returns. When analyzing financial statements for operational risk, investors should focus on cash management and portfolio holdings. Funds that manage cash efficiently will be able to pay bills on time, leading to fewer fees and business interruptions, as well as fulfill investor redemption obligations. Looking at both fund liabilities on the Statement of Assets and Liabilities and payments made on the Statement of Cash Flows is an effective means of evaluation. It is also important to see that liabilities such as tax, audit, legal, and administration are segregated appropriately on the balance sheet and the balances are reasonable. If in fact the liability balances are aggregated into one line, investors need to reach out to the fund for more detail.

In analyzing the portfolio, investors will want to match the holdings, liquidity, and use of derivatives to the fund strategy. The fund holdings can be found in the Schedule of Investments broken out by security type, region, sector, and even investment or issuer (if over 5% of assets). Portfolio liquidity can be seen in the fair value measurements (FAS 157) footnote of the financial statements where holdings are categorized and then labeled by level of liquidity. There is additional information on Level 3 securities which are considered illiquid by definition. Derivative investment detail is shown in the derivative contracts (FAS 161) footnote of the financial statements disclosing notional amounts, numbers of contracts, and fair values. This information makes it easier to verify the fund strategy is represented by the portfolio and that the risk management framework is being utilized.

Other

Other, more general but essential, due diligence considerations are technology and business development. Technology, mentioned often above, pervades every aspect of the hedge fund's business. Outdated and low quality hardware and software can cause widespread operational inefficiencies and risks for investors. Also, in the event of natural disaster, technology needs to be in place so the fund can continue to run from a remote location to avoid business disruptions. Ensuring that a firm is dedicated to investing in technology is an important factor in the ODD process. Additionally, business development of the firm over time and as assets grow is a necessary consideration. The IDD process will analyze a firm's capacity for assets in regards to the fund strategy, but investors need to look into the operational capabilities of the firm at different asset levels. Hedge funds, from a business standpoint, may struggle to keep up with assets if a strategy or product unexpectedly gains popularity, and vice versa. A firm that could struggle to cut operating expenses if assets suddenly fall in size should also be a concern for investors.

Summary

Many investors today continue to overlook the importance of operational due diligence of hedge funds, being either a second thought or even a non-consideration. The truth behind the reason for such due diligence is not only to avoid the next Ponzi scheme, but also reduce overall investment risk. As the hedge fund industry becomes increasingly regulated in the future, occurrences of fraudulent behavior should reduce drastically. However, other operational risks will continue to exist for firms. By conducting comprehensive operational due diligence on both potential and current investments, investors can limit these investment risks. Whether the due diligence translates into higher returns or simply eases concerns and headaches, the process will be well-worth the time and energy.

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