Introduction

Are we entering a new stage of opportunity for hedge funds?

In 2014, easy global central bank policies, heightened geopolitical risks, uncertainty around U.S. monetary shifts and government intervention in mergers made life difficult for many managers, while strategy-specific factors also contributed to mixed results. However, we believe that many of those headwinds are in the process of turning, highlighting opportunities in certain areas of the hedge fund space. In this volume, we provide insights on these key segments:

Chapter 1: Long/Short Equity—Potential Beneficiary of Divergence
Low correlations among stocks, divergent underlying company fundamentals and reasonable valuation levels could support managers. Page 3.

Chapter 2: Event-Driven—Surge in Activity Could Benefit Managers
The environment for a potential increase in corporate activity appears favorable as cash on corporate balance sheets remains high and the pipeline for new deals continues to be robust. Page 9.

Chapter 3: Global Macro and CTA—Finally, a Chance to Lead?
Amid divergent global growth trends, the decoupling of monetary policies could increase volatility in fixed income and currency markets, creating cross-trading opportunities. Page 11.

Chapter 4: Opportunistic—Puerto Rican Debt and Student Loans Stand Out
Among the sector-specific developments we see, Puerto Rican debt restructuring and innovations in the student loan market could prove fruitful for selective investors. Page 21.

We hope you find this content helpful as you consider your investment positioning in the current environment. For more information, please contact your Neuberger Berman representative.
Chapter 1: Long/Short Equity—Potential Beneficiary of Divergence

We believe long/short equity provides a compelling investment opportunity in 2015, particularly in the U.S., as economic and corporate fundamentals remain strong. In addition, the strategy may benefit from increased volatility as well as powerful themes, both of which could help to create a more favorable environment for long and short stock selection across geographies and sectors.

Overview

U.S. economic fundamentals are solid and improving. GDP growth, while modest, is positive and is expected to be in the 2.5–3.5% range\(^1\) for the year. In addition, the U.S. is finally beginning to see signs of wage growth\(^2\) as a lower unemployment rate creates tightness in the labor market, higher minimum wage laws in various states are passed, and large employers voluntarily raise compensation. This, combined with the lagged positive effect of lower gas prices, could provide a tailwind to economic growth as U.S. GDP is driven largely by consumption. The rapid pace of innovation in key areas of the economy, including technology, health care, and energy, should further bolster overall economic output. In addition, while certainly not expected, any legislation around trade, infrastructure and corporate tax reform could be constructive for U.S. economic growth prospects. U.S. businesses remain healthy, with strong balance sheets and easy access to the capital markets.

Corporate activity to unlock shareholder value, be it in the form of mergers and acquisitions, share buybacks, spinoffs, corporate structure conversions or operational turnarounds, remains robust. While these factors are largely constructive for equities, signs of valuation frothiness in segments of the market have emerged. Further, a stronger dollar and tighter monetary policy may put downward pressure on certain companies and sectors. These conflicting factors all form a favorable backdrop for a long/short investment approach.

Throughout 2014, there were periods of sharp downside volatility that affected various segments of the market. In the spring, health care, consumer, small and mid-cap stocks, among others, sold off materially. In July, small and mid-cap stocks were hit again. And perhaps most strikingly, in the first half of October, global equity markets sold off dramatically, with the pain being most pronounced in the energy sector. A number of unlevered long/short equity funds actually took advantage of these periods of volatility by monetizing gains on single-name shorts and finding much more attractive entry points on existing and new long positions where company-specific fundamentals were actually

\(^1\) The Conference Board Global Economic Outlook 2015 and IMF World Economic Outlook Update, January 2015.
improving. While experiencing mark-to-market losses is never pleasant, downside market volatility can help sow the seeds of better performance going forward. In addition, valuation dispersion increased during the course of 2014, providing long/short managers with more opportunities to find compelling longs and shorts. As we turn to 2015 and an equity market that has already seen a fair amount of volatility, we think long/short managers will once again be able to take advantage of that volatility to monetize short gains more easily and build additional upside into their long books.

While overall market valuation levels remain reasonable relative to the historical average, the higher end of the valuation distribution, per the above chart, has become increasingly expensive, and in a number of cases, without commensurate justification from stronger fundamentals. For example, the almost uniform rally across the utility and REIT sectors in 2014 was driven largely by investors looking for yield in a year that saw the 10-year Treasury yield decline materially. This richness at one end of the valuation spectrum provides a more favorable backdrop for the short side of long/short equity portfolios, which, when combined with a market that is likely to remain periodically volatile as it was in 2014, points to another solid year for short alpha generation.

There are also pockets of opportunity outside of the U.S. In Japan, economic fundamentals continue to improve; highly accommodative policies from the Bank of Japan, yen weakness and overseas demand are clear tailwinds for the economy. While investors have understandably rewarded Japanese exporters since stimulative measures were implemented, they have been less quick to recognize the progress of the domestic economy, including a tightening labor market and expanding credit, and the impact this may have on corporate profitability within more domestically focused sectors, such as financials, real estate, retail and capital goods. While Europe continues to work through some economic headwinds, quantitative easing may continue to drive the overall markets higher. In addition, investors may be able to find value opportunities in large, globally focused companies domiciled in Europe, but with significant exposure to faster growing international markets. These companies may also benefit from a weaker euro. There are significant headwinds in emerging markets with the strong dollar and general commodity price weakness. However, there are also signs of positive fiscal policy developments in certain countries which could help improve investor sentiment. As a result, emerging markets may also provide some interesting opportunities on both the long and short sides.

---

4 Bank of Japan.

---
Finally, the year ahead offers a number of compelling themes that are creating winners and losers across sectors, which talented long/short managers should be able to identify and profit from. These include the collapse in commodity prices, the strong U.S. dollar, and continued innovation in technology and health care. We discuss a few of these themes and areas of investment interest below.

Health Care: Change Breeds Opportunity
The U.S. health care landscape has undergone tremendous change in the last few years and we believe it will continue to do so. Health care spending represents 17% of total U.S. GDP and is expected to reach 20% in the near future. Approximately 14% of the U.S. population, or 44.5 million people, are 65 and over, while 10,000 more Americans are turning 65 every day. National health care expenditures in the U.S. are projected to increase by $1.9 trillion by 2022. This significant pickup in health care spending will lead to increased opportunities for managers who are able to identify those companies that benefit from this trend.

Perhaps the most important and dramatic change for the sector in recent years is the Affordable Care Act (ACA), which has thus far resulted in over 12 million newly insured people. Over the next two to three years, an additional 17 million and 13 million people are expected to sign up through the exchanges and in Medicaid and the Children’s Health Insurance Program (CHIP), respectively. We believe that the effects of the implementation of the ACA have only just begun to be felt by companies and their investors. Early in 2014, we received the first look at the law’s incipient effects on utilization rates and health care spending, and what they mean for various subsectors, including hospitals, insurance companies, pharmaceutical companies and medical equipment makers. Already, the ACA has proven to be a positive catalyst for some stocks, particularly hospitals. An additional tailwind for the sector may be new drug development, disease therapies and technological innovation. In recent years, pharmaceutical companies have produced significant breakthroughs in cancer immunotherapy, molecular diagnostics, personalized medicine, diabetes and Alzheimer’s, to name just a few areas. Given that these areas of progress are in major disease categories with large addressable markets, these breakthroughs should drive increased spending.

Source: Centers for Medicare and Medicaid Services (CMS).

We believe that the effects of the implementation of the ACA have only just begun to be felt by companies and their investors.

Figure 1.3: U.S. Health Care Demographics

Source: Centers for Medicare and Medicaid Services (CMS).

5 Bank of Japan.
6 U.S. Census Bureau.
7 Pew Research Center.
8 Centers for Medicare and Medicaid Services (CMS).
9 U.S. Department of Health & Human Services (HHS). Includes eight million people who selected Qualified Health Plans (QHP) in the Health Insurance Marketplace and 4.8 million newly enrolled in Medicaid and CHIP.
throughout the health care supply chain. Additionally, the U.S. Food and Drug Administration (FDA) review process has become more streamlined in recent years. From 2006 to 2013, the average time it took a drug to go through the approval process decreased from 17.5 months to 13.2 months. In 2014, the FDA approved 41 new medicines, compared to 27 in 2013. Over the next five years, 200 new drugs are expected to be launched and worldwide pharmaceuticals sales are expected to increase 30% to $1.3 trillion.

In general, health care is viewed as defensive and, with the aforementioned factors working in its favor, we believe it calls for a net-long bias. That said, a multiyear period of outperformance for the sector has attracted substantial non-specialist capital, creating pockets of overvaluation where companies can be shorted ahead of negative catalysts. In addition, aspects of the ACA and a focus on managing costs could adversely affect certain companies throughout the sector, reinforcing the appeal of a long/short approach to the space.

Energy: Capitalizing on Shale’s Knock-On Effects
Due to unconventional drilling methods, the U.S. has been the world’s fastest-growing oil and gas producer in the last several years. Recently, this increase in production and a concurrent slowdown in demand growth from China and other countries have led to excess supply (approximately 1.5 – 2 million barrels (mmbbl) per day, or about 2% of daily demand) and a dramatic decline in the price of oil. WTI and Brent crude, both of which traded around $110 this past summer, have since fallen around 40% as of April 2015.

Over the medium to long term, current price levels do not offer adequate returns for a large portion of the energy industry. Already, the lower oil price environment has led numerous energy companies to reduce capital expenditures on exploration and production activity in high cost areas. At the same time, annual demand for oil is likely to continue to increase; indeed, growth has averaged approximately 1 mmbbl/day over the long term. There may be some upside to this number going forward, as the dramatic decrease in the price of oil itself may lead to a further increase in demand. These dynamics would mean an increasing gap between future demand and supply that even rapid increases in U.S. production efficiency may be unable to bridge.

| Source: U.S. Energy Information Administration (EIA). |

Needless to say, the volatility in the oil market will present winning and losing sectors, as well as winning and losing companies, all good news for long/short equity managers focused on the space. Each of the energy subsectors presents various risk/reward profiles and upside potentials,
depending on where oil settles. While each merits ongoing analysis as the price of oil fluctuates, we believe the midstream subsector offers the most attractive risk/reward profile. Typically, a significant portion of midstream companies’ cash flows are contracted out long term and are not tied directly to oil prices. Additionally, with the recent sell-off, midstream stocks offer relatively attractive yields for income-oriented investors, particularly relative to REITS and utilities, both of which were up meaningfully last year. These dynamics could provide a downside buffer for the subsector, even at sustained low oil prices. At the same time, these companies still provide the potential for meaningful upside from improving sentiment, to the extent oil prices eventually stage a sustained rally.

Mid-Caps: Playing Catch-Up

We believe there are both long-term structural reasons and intermediate-term tactical reasons to allocate to mid-cap stocks, particularly using a long/short approach.

Structurally, the mid-cap universe is generally less efficient than the large-cap universe. As seen in the chart below, the smaller the market capitalization, the less sell-side analyst coverage. This lack of coverage can translate into significant mispricing of mid-cap companies on which we believe a long/short manager is best positioned to capitalize, relative to both passive and long-only strategies.

![Figure 1.5: Average Analyst Coverage by Market Capitalization](chart)

Source: Deutsche Asset & Wealth Management.

On a tactical level, we believe the relative underperformance of mid-caps versus large caps in 2014 provides an attractive entry point heading into 2015. In October 2014, the difference between the rolling 12-month performances of the S&P 400 (midcap index) and S&P 500 hit the second lowest level (-9.07%) we have seen over the last nine years, just shy of the 2012 low of -9.38%. While mid-caps have recovered some of this underperformance over the last few months of 2014, they have still underperformed meaningfully. For all of 2014, the S&P 400 underperformed the S&P 500 by approximately 4%, while the average rolling 12-month outperformance since 2006 has been approximately 2.5%, a meaningful spread of over 6%. Additionally, according to our analysis of 13F filings, hedge funds have exhibited an ability to generate meaningful alpha from their long holdings relative to the S&P 500, as well as the S&P 400.

---

17 Bloomberg.
18 Bloomberg.
Lastly, we are constructive on U.S. mid-caps because of their U.S.-centric nature. Companies in the S&P 400 derive approximately 80% of their revenues from the U.S., while companies in the S&P 500 generate only approximately 50% of their revenues domestically.\(^\text{19}\) Given slow economic growth outside of the U.S., mid-caps may provide more pure-play exposure to the relatively strong U.S. economy while providing insulation from a stronger dollar and slowing export demand.

**Conclusion**

We remain constructive on long/short equity in 2015. We believe high valuation dispersion and volatility will persist, presenting opportunities to generate alpha on both the long and short side of portfolios. We are also enthusiastic about the key themes identified above, including the collapse in commodity prices, the strong U.S. dollar and continued innovation in technology and health care, which we believe will create winners and losers—opportunities good long/short equity managers may be able to exploit and benefit from.
Chapter 2: Event-Driven—Surge in Activity Could Benefit Managers

Despite recent headwinds, we believe that the event-driven landscape is constructive, supported by healthy cash balances and the potential for increased corporate activity in anticipation of tightening by the U.S. Federal Reserve.

Overview

Following the global financial crisis in 2008, many companies decided to employ conservative strategies by cutting costs and hoarding cash. The result was a sharp decline in corporate activity, including mergers and acquisitions, share buybacks, dividend increases and spinoffs. Even after the 2007–2009 recession, economic growth was relatively slow and companies struggled to grow organically. Many investors believed that the combination of high corporate and private equity fund cash balances and anemic growth could soon spur the next upswing in corporate activity, but they may have underestimated how defensive these companies had become. Through 2013, the number and volume of announced M&A and spinoffs did not come close to the pre-crisis peaks in 2006 and 2007.

Finally, in 2014, the pace of corporate activity began to accelerate. In addition to the factors we have noted, we have found that corporate executives’ confidence seems to be on the rise for the first time in several years, and the prospect of potentially higher interest rates has provided impetus for companies to secure cheap financing for deals before interest rates rise.

The prospect of potentially higher interest rates has provided impetus for companies to secure cheap financing for deals before interest rates rise.
Companies in the U.S. have begun to employ creative measures to dampen the effects of high U.S. corporate tax rates.

In addition to these drivers, companies in the U.S. have begun to employ creative measures to dampen the effects of high U.S. corporate tax rates. The energy sector has seen a wave of MLP conversions; many real estate-related companies (from outdoor advertising to data storage companies) have converted to real estate investment trusts. Finally, U.S. companies with large cash holdings in overseas subsidiaries have been employing tax-inversion mergers to gain access to that cash without triggering U.S. taxes.

Challenges for Event-Driven
While this has all been helpful in providing event-driven strategies with a broad set of opportunities, the strategy has faced several headwinds, the largest of which has been regulatory/legislative in nature. Specifically, in August 2014, three large deals fell apart, leading to speculation about tighter antitrust regulations and potential actions by the U.S. Congress or Treasury against tax-inversion mergers. This in turn led to a sharp decline in positions directly affected by the news and a broad sell-off in unrelated event-driven situations as managers reduced their risk exposures across the board.

In September, the Treasury did in fact implement new rules to make it more difficult to complete tax-inversion mergers, which led to fresh weakness across the event-driven landscape. Finally, in early October, hedge funds suffered from an adverse ruling regarding legislation tied to Fannie Mae and Freddie Mac, followed by an unexpected deal break in one of the large ongoing tax-inversion mergers. This led to yet another extensive decline in event-driven trades.

Conclusion
Despite these headwinds, we believe event-driven managers have relatively attractive prospects moving forward. Even with the already high volume of announced deals, corporate cash balances remain near record levels. Also, we believe the current low-growth economic environment should persist, which could inhibit organic revenue growth and highlight the need for corporate activity. In addition, a rising interest rate environment may be imminent, which could further pressure corporate executives to secure cheap financing to complete deals sooner rather than later. From a more technical vantage point, higher interest rates may lead to wider merger arbitrage spreads, which present the potential for greater total return without increasing risk. At the same time, assets under management for activist hedge funds are now well over $100 billion, meaning that there is considerable dry powder to challenge company managers to accelerate corporate activity. Finally, periods with elevated spinoff activity, as is occurring currently, have historically been precursors to a healthy amount of M&A.

Figure 2.3: Number of Global Spinoffs

Source: Bloomberg.

Chapter 3: Global Macro and CTA—Finally, a Chance to Lead?

Global macro and CTA managers have been held back by financial suppression and a dearth of volatility and sustained trends in the marketplace. With shifts in monetary policy and prospects for increased market turbulence, we believe these strategies are worth watching in the coming months.

Overview

Global macro and CTA strategies generated several years of relatively uninspiring performance after the global financial crisis before rebounding somewhat in 2014. A combination of factors, including globally coordinated central bank activity, which has contributed to a lack of realized volatility and sustained trends across many markets, overly bearish positioning stemming from fresh memories of 2008 (particularly for some global macro funds), and trades that managers have simply gotten wrong, are all to blame, and in varying proportions.

The actions of central banks post-2008 have led fixed income and currency volatility to be anchored at historically low levels, as evidenced by the charts below showing the MOVE Index (U.S. Treasury implied volatility) and historical implied volatilities of G-3 currencies.
In our opinion, the prospects for macro managers and CTAs appear more favorable going forward.

Our view is based in part on the following factors:

- An improving U.S. economy, which should lead to Fed rate hikes while other major central banks are poised to remain highly accommodative for the foreseeable future
- Divergent central bank policies that may finally remove the lid that has been placed on currency and fixed income volatility over the past several years
- An increasing number of geopolitical risk factors, whose ultimate outcomes are impossible to predict, presenting trading opportunities
- Crowded positions in traditional equity and credit markets set against a backdrop of marginal liquidity

**The Economic Picture**

The economic recovery in the U.S., while far from what most would deem impressive, continues to move forward. The unemployment rate in the U.S. has fallen from near 10% at the beginning of 2010 to well under 6% today. Over the same period, GDP growth has averaged between 1% and 3% per year and hit the 4.5% to 5% level for a few quarters in 2014.
Skeptics may point to opposing factors such as slack in the labor market and the decline in the labor force participation rate to help explain away some of the positive impact from the improvement in employment data, but it is difficult to argue with the fact that the economy continues to add jobs, and that job growth has picked up steam every year over the last five years.

The housing market, which played a leading role in the economy’s collapse in 2008, has continued to stabilize. Home prices are up materially from their lows in 2009, the share of distressed home sales relative to total home sales has continued to decline, delinquency rates continue to trend downward and mortgage rates remain low, which is supporting refinancing activity and new home purchases.  

---

21 Bloomberg.
Finally, there are real signs of reduced slack in the labor market, which will be a prerequisite for the Fed to begin increasing rates. The number of people looking for work per job opening is back to levels last seen in 2005 – 2006, while the percentage of homebuilders reporting labor shortages are at multi-year highs.

There are real signs of reduced slack in the labor market, which will be a prerequisite for the Fed to begin increasing rates.
Fed Rate Hikes and Divergent Central Bank Policy

The effectiveness of globally coordinated central bank policy and massive quantitative easing on the economic recovery can be debated, but the direct impact of suppressing interest rates and volatility, and inflating equity markets, is largely undisputed. Given the continued growth and signs of strength from the U.S. economy, the market is anticipating that the Federal Reserve will begin to raise interest rates sometime in mid- to late 2015. In our view, this could be an important catalyst to improve the environment for macro hedge funds and CTAs. Interest rate hikes may help support the U.S. dollar and cause price declines for intermediate- to long-term bonds. As currency and fixed income have long been the preferred domain for most macro hedge funds, and represent meaningful risk allocations for CTAs, the trends created by Fed activity could lead to attractive opportunities for managers. A rising rate environment has often been positive for hedge fund managers. Figure 3.10 shows the performance of macro hedge funds during the last two Fed tightening cycles relative to their performance during the benign post-crisis period of zero interest rates.
We believe the growing economic divergence among some of the world’s largest economies could lead to increased differentiation in central banks’ policies over the short to intermediate term. In addition, we believe the growing economic divergence among some of the world’s largest economies could lead to increased differentiation in central banks’ policies over the short to intermediate term. We anticipate that this could increase volatility and create a greater number of cross-market opportunities for managers to exploit as they take bets on the different economic trajectories and monetary policy paths of various economies. Figure 3.12 shows the market’s forecasts for short-term rates in some of the world’s major economies. Growth in the U.S. and U.K. appears strong enough that short-term rates could begin to rise in 2015. On the other hand, zero-interest-rate policies seem likely to persist in Europe and Japan as the European Central Bank grapples with a stagnating economy resulting in the recently announced QE measures and as the Bank of Japan looks to stimulate growth and close the book on two decades of deflation.
We believe the upcoming Fed tightening cycle will be a major catalyst that ends the easy-money, low-volatility trend that has fueled risk assets over the last several years.

**Other Factors: Geopolitics and Market Positioning**
The current equity bull market has been accompanied by an elevated level of geopolitical risk.

**Source:** Chicago Board Options Exchange.

Such an increase does not necessarily equate to a rise in the performance of hedge fund strategies (actually, quite the contrary for certain strategies), but it does lead to uncertainty and impacts many of the markets in which macro funds and CTAs trade. Moreover, it is usually unsupportive of more traditional strategies such as those comprised of long equity and corporate credit beta. In
other words, an environment characterized by heightened geopolitical risk increases the potential for large directional moves across asset markets, and thus presents a bigger opportunity set for macro funds and CTAs.

Set against this backdrop of geopolitical uncertainty is fairly heavy long positioning in equity and credit markets by active managers. This comes as no surprise to us, as the six-year bull market and ultra-low interest rates have rewarded risk-taking in recent years. Unfortunately, liquidity in certain markets is poorer than it was before the global financial crisis, due primarily to the reduction of proprietary trading by banks. Pre-crisis, banks were much more willing to step in and provide a backstop to markets. With now diminished liquidity, we would argue that there is increased risk of a correlated unwinding in equity and credit assets. The display below illustrates this dynamic by showing the growth in the outstanding supply of corporate bonds against the amount of primary dealer inventory of corporate bonds.

What is the implication for global macro and CTAs? These two strategies have shown an ability to benefit from the correlated unwinding of such positioning in the past by, for example, being short the equity market, long protection on credit or long government bonds in a “flight to quality” (as
many CTA managers were key portions of 2014 and 2008). There is absolutely no guarantee that macro funds or CTAs will benefit from such moves if they occur, but the strategies have shown the ability to do so in the past.

**Implementation**
Implementing an allocation to global macro or CTAs requires special consideration. Perhaps the least constrained of all hedge fund strategies, the outcomes and returns from individual macro managers usually vary widely. This is also the case with CTAs, which are typically the highest volatility hedge fund strategy. The charts below depict the dispersion of manager returns in macro and CTA versus other hedge fund strategies, and also show volatility and maximum drawdown versus other strategies.

Figure 3.16: Dispersion of Global Hedge Fund Returns (annualized 5 years ending December 2014)

Figure 3.17: Median Annualized Volatility and Maximum Drawdown

The information in figures 3.16 and 3.17 is a combination of the market views and empirical data collected by the NB Alternative Investment Management Team and analyzed from the team’s proprietary peer groups. The team has been tracking information for the past 12 years on 4,000 hedge funds across 80 distinct sub-strategies and geographies, although the number of underlying funds in each peer group will vary over time as new funds are launched and in turn, shut down. NB Alternative Investment Management Team members define the strategies of hedge funds to ensure the strategy definitions accurately reflect each hedge fund’s activities and therefore, each peer group consists of comparable data.
Given the relatively high levels of performance dispersion, volatility and drawdowns, we believe that appropriately sizing a macro or CTA investment in a broader portfolio is critically important. We feel the most prudent approach to take in a macro fund or CTA (all else being equal) is to size the investment smaller than investments in other, more traditional strategies.

**Conclusion**

As a group, macro hedge funds and CTAs have produced relatively disappointing returns over the last several years. As sentiment has turned increasingly negative on these strategies, we are finally starting to see reasons for increased optimism, driven by an improving U.S. economy and upcoming Fed rate hikes and subsequent divergent central bank policy. Meanwhile, unknown risks from geopolitical events and crowded positioning in key equity and credit markets could further bolster the opportunity set.
Chapter 4: Opportunistic—Puerto Rican Debt and Student Loans Stand Out

Although many hedge fund strategies can be tied to broad investment trends or longer-term investment tactics, opportunistic managers focus on more unique, transient investment situations that nevertheless hold potential for favorable risk-adjusted returns. In the current environment, we see two areas of particular interest: the ramifications of Puerto Rican debt restructuring and developments in niche areas of the turbulent student loan market.

Puerto Rico: Restructuring Opens Doors for Investors

Given its triple tax-exempt treatment in the U.S., Puerto Rican debt has historically encountered broad investor demand within the municipal debt market. As such, the Commonwealth of Puerto Rico and various related entities have been able to issue a considerable amount of debt over the years, and currently have about $73 billion of public debt outstanding. However, only $43 billion is guaranteed by the Puerto Rican government, while the remaining issuers are independent public corporations (more details on some of these below) that have no explicit guarantee from the Commonwealth or the Government Development Bank of Puerto Rico. In the midst of a prolonged economic slowdown that has put pressure on cash available for debt service/interest payments, confusion in the market around the actual amount of government debt given the numerous issuing entities, and specific near-term maturities, the Commonwealth approved the Puerto Rico Public Corporation Debt Enforcement and Recovery Act (The Recovery Act) on June 25, 2014.

The Recovery Act and Its Aftermath

The Recovery Act sought to establish a legal framework for restructuring the debt of Puerto Rico’s public corporations, and was modeled on Chapter 9 and Chapter 11 of the U.S. Bankruptcy Code. By excluding government guaranteed debt from the Recovery Act, the Commonwealth essentially tried to create a “ring fence” around this debt and make its seniority to the public corporation debt explicit.

The Recovery Act was immediately challenged by public corporation debtholders and, on February 6, 2015, was invalidated by the U.S. District Court in Puerto Rico. While this decision has left the Commonwealth without an official restructuring framework, numerous avenues to establish one are being pursued, including an appeal of the decision and an attempt to extend Chapter 9 to include Puerto Rico (which it currently does not cover).

The net result is that the Recovery Act has served to kick off a multi-year restructuring process that we believe could offer numerous investment opportunities throughout the Puerto Rico capital structure and across entities, as various events unfold and as economic data are released.

Investment Opportunities: From Ring-Fenced to Insurance-Wrapped

Broadly speaking, there are four different areas of potential opportunity within the Puerto Rican capital structure.

Ring-Fenced Bonds

The first area is “ring-fenced” bonds, which as mentioned above, were originally intended to be excluded from the restructuring process by the Recovery Act. These include General Obligation bonds (GOs), debt backed by the Government Development Bank (GDB debt) and COFINA (Puerto Rico Sales Tax Financing Corporation) bonds, which are backed by the local sales tax. In our view, these bonds are well-positioned relative to other parts of the capital structure as: a) they have either the explicit guarantee of the Commonwealth or GDB, or, in the case of COFINA bonds, are backed by a strong revenue stream; b) have constitutional protections; c) have the most avenues available to generate cash for servicing debt; and d) for as long as this debt remains...
untouched, Puerto Rico can claim that it did not technically default even if other entities are restructured. This last point is likely to be important to Puerto Rico’s ability to borrow and could affect its cost of borrowing in the future.

While the Recovery Act was clearly intended to focus any potential restructuring on public corporation debt and protect the ring-fenced debt, a series of ratings downgrades across issuers followed its passage and resulted in significant selling of all Puerto Rican paper, including the ring-fenced debt. In our view, this provided an attractive entry point for investors in the ring-fenced debt in terms of downside protection, given forecasted cash available for debt service and recovery potential, and on a relative tax-equivalent yield basis.

In our opinion, ring-fenced debt represents the first leg of the Puerto Rico opportunity set and is currently where the majority of hedge fund exposure resides. Notwithstanding the ultimate resolution of the Recovery Act/restructuring framework, we believe that most of the ring-fenced bonds have meaningful downside protection from a cost basis in the low to mid-70s in even highly draconian economic scenarios, particularly given cash flow projections and the various levers that can be pulled to increase cash available for debt service, if necessary.

That being said, Puerto Rico has already taken significant measures to improve its finances. In an effort to increase revenues, Puerto Rico has increased taxes on petroleum products, cut tax loopholes and expanded the sales tax base. As it relates to expense management, Puerto Rico passed the Fiscal Sustainability Act last year, allowing for the renegotiation of all public employee contracts, passed substantial public employee pension reforms and cut thousands of government jobs. In addition to improving revenues and expenses, Puerto Rico has taken steps to simplify its debt and improve repayment ability for the ring-fenced debt, including increasing the percentage of the sales tax that goes to COFINA. Finally, in the event that public corporation debt is restructured to reduce the overall total debt of Puerto Rican entities (as envisioned by the Recovery Act), we believe the market should have more confidence in the security of the ring-fenced bonds and they should trade closer to par as a result.

Public Corporation Debt

The second area of potential opportunity includes public corporation debt as well as bonds that are subject to a claw-back or that could be adversely affected by changes in appropriations. Most of Puerto Rico’s public corporations have carried significant operating deficits for years and are likely to be a focal point of restructuring activity. The largest of these is the Electric Power Authority, or PREPA, with about $9 billion of debt outstanding. PREPA is an inefficient power producer with significant capital expenditure needs and an unsustainable debt load. Given its challenging liquidity situation, it will likely be one of the first public companies to be restructured. In fact, PREPA entered into a forbearance agreement with creditors in August 2014, allowing it room to come up with a turnaround and restructuring plan. Given the probability that holders of this category’s debt could face significant haircuts, prices would have to decline materially from
current levels to achieve attractive entry points. In addition, there may be opportunities for hedge funds to help directly finance the restructuring of these entities in various ways, thereby creating attractive investments as the process unfolds. For example, a group has formed to help put together a financing deal for the Puerto Rico Infrastructure Financing Authority (PRIFA) which would help refinance highway debt owed to the GDB. Completing this deal is critical to the GDB given its precarious near-term liquidity position. As such, we believe it is likely that any deal that comes to market would have very attractive terms.

Another example is the Puerto Rico Highway and Transportation Authority (PRHTA), which has about $5 billion of debt outstanding that includes certain tranches which are subject to a claw-back while others may not be. Identifying those bonds that are not adequately pricing in the claw-back feature may lead to additional opportunities for hedge fund managers. Employee Retirement System bonds (about $3 billion outstanding) could be affected by spending changes, potentially allowing for trading opportunities driven by any relevant reforms to Commonwealth expenditure plans.

Revenue Bonds
The third category consists of dedicated revenue bonds that are tied to the cash flows of specific assets (e.g., toll bridges) and are not subject to having their cash flows clawed back by the General Fund to help support other budgetary needs, including servicing the debt in the ring-fenced category. Similar to PRHTA debt, uncertainty in the market around which bonds are subject to a claw-back may lead to non-rational pricing and may help create attractive opportunities in this category.

Insurance-Wrapped Bonds
The last area consists of insurance-wrapped bonds. Roughly 20% – 30% of Puerto Rican debt is wrapped with insurance provided by various mono-line insurers. Each insurer has a different credit risk profile, which can create inefficient pricing. A number of hedge funds conducted detailed analysis on the various insurers when they underwrote investments in mono-line-wrapped residential mortgage-backed securities. As such, they should be able to more easily assess the Puerto Rico debt wrapped by these same insurers and take advantage of attractive opportunities as they arise. In addition, from time to time, certain wrapped bond tranches (typically retail) can trade at similar prices to unwrapped bonds, thereby effectively providing the insurance for free.

Risks of Puerto Rican Debt
Investing in Puerto Rican debt entails a number of different risks. Perhaps the most immediate are related to liquidity events: the end of the current PREPA forbearance agreement in Q2 2015 and the potential for the GDB to run out of liquidity by the summer in the absence of a PRIFA deal. Without a restructuring framework in place to deal with PREPA’s overleveraged balance sheet, there is considerable uncertainty around PREPA’s next steps, which could include negotiating another forbearance agreement, securing additional financing at onerous terms or simply defaulting. The resolution of this event will likely have price implications throughout the Puerto Rico capital structure. The GDB, given the role it plays in financing most of the Puerto Rican government agencies, poses a more significant risk in the event its liquidity cannot be shored up. This would likely result in government services being cut off, significant political and social turmoil, and material price declines throughout the capital structure. It would also lead to a rapid and chaotic debt restructuring without a real framework to help guide the process. That being said, knowledgeable hedge funds with patient, longer duration capital should be able to find attractive investment opportunities arising from these risks as well, but would likely suffer meaningful mark-to-market losses as events unfold. Another potential risk to the investment case would be a severe, sustained economic downturn in Puerto Rico beyond even the most recent crisis. Such a situation could adversely affect already significantly discounted downside recovery assumptions throughout various parts of the capital structure and result in losses.

Conclusion
While investing in Puerto Rico debt has its risks, we believe that over a multi-year investment horizon, the island’s large and complex capital structure and rapidly evolving restructuring process should offer astute hedge funds numerous opportunities to generate attractive, risk-adjusted returns.
Student Loans: Negative Sentiment Provides Contrarian Appeal

The U.S. student loan market is both large and troubled. Roughly $1.13 trillion in market value, it is the second largest primary consumer credit sector after the mortgage market. And with roughly $100 billion of federal student loans currently in default (approximately 9% of the market),\(^{22}\) it has been frequently compared to the U.S. housing market before the crash. That default figure actually understates the true extent of the problem, as many student loans are currently in deferment and forbearance. A recent Wall Street Journal column estimated that 16% of the federal student loan market is currently in forbearance,\(^{23}\) which allows borrowers to postpone payments for up to three years. A routine Internet search using the term “student loans” turns up innumerable articles highlighting issues of concern.

On the surface, this data and negative publicity seem to point to a market that should be avoided. However, despite the negative headlines and default and delinquency data, we believe there are two very interesting pockets of opportunity that warrant further exploration, as explained below.

Facts About the Student Loan Market

Unlike most other forms of consumer credit, student loan debt has grown steadily since 2008 and today, as noted, represents a sizable market.

![Figure 4.2: Total Student Loan Debt ($ billions)](image)

Source: Federal Reserve Bank of New York, data through 3Q2014.

Growth has not been limited to the number of loans. As the cost of tuition has continued to rise, so too has the average student loan balance, which today stands at approximately $32,000.

![Figure 4.3: Average Student Loan Balance](image)

Source: Federal Reserve Bank of New York, Mark Kantrowitz Analysis of National Center for Education Statistics Data.

---

\(^{22}\) Source: Federal Reserve Bank of New York.

More troubling, fundamentals of these loans have weakened, as the proportion of loans that are more than 90 days delinquent or in default has increased.

![Figure 4.4: Student Loans That Are 90+ Days Delinquent (Percentage of Balance)](image)

Source: Federal Reserve Board of New York.

![Figure 4.5: Student Loan Default Rates](image)

Source: U.S. Department of Education.

*While defaults will continue to create losses for taxpayers and underwriters, we believe it is important to distinguish among the various segments of the student loans market.*

Such figures indicate a market that is growing in an unhealthy manner. That said, we believe it is important to put these trends in context, as we do not foresee anything resembling the severity of the subprime mortgage crisis in the student loan arena. The size of the student loan market, while substantial, is modest relative to the housing market. As such, it should have a far smaller impact on the broader economy. Also, we believe that economic trends actually support student loans. The U.S. economy is currently in its sixth year of expansion, and the headline unemployment has fallen from 10% to under 6% over that period. This is especially pertinent given the direct correlation between employment and credit performance within the student loans market over the long term.

Moreover, while defaults will continue to create losses for taxpayers and underwriters, we believe it is important to distinguish among the various segments of the student loans market. In particular, we see opportunities within two discrete areas: graduate and private loans.

**Picking Your Spots: Graduate and Private Loans**

Not all student loans are created equal. This statement is actually not so obvious if one looks at the way credit risk is priced for a typical student loan (i.e., as reflected in its interest rate). We will make a slight oversimplification for brevity's sake: Student loan borrowers pay essentially the same rate of interest on their loans whether they attend a prestigious graduate school and are
subsequently employed in a stable and high-paying professional career, or they attend a school of lesser regard, fail to graduate and perhaps find themselves unemployed. In other words, the concept of risk-based pricing does not exist in this market, unlike in other credit markets. This disparity in pricing is evident in our first area of interest, graduate student loans.

A securitization market has emerged for “high-quality” loans to graduate students, which provides both loan relief to borrowers and an opportunity set to investors. Certain programs offer borrowers a lower interest rate if they refinance their loans, provided they meet strict underwriting criteria. These programs can effectively refinance a fixed 7% or 8% loan into a loan with either a lower floating or fixed rate at various maturities. The loan pools that underlie these securitizations are comprised of low-risk borrowers with stable jobs and high verifiable income, who in most cases graduated from top universities. The loan pools are being securitized, with mid- to high-single-digit unlevered yields available to the subordinated tranches of the securitizations under most conservative loss scenarios. Some of the loan pools that have been created recently for this nascent securitization engine have seen zero defaults and zero delinquencies over the past several years. The credit is solid, and via structural leverage (and even financial leverage if desired), we believe the potential returns can be quite compelling.

Another area of distinction is private-label student loans, as opposed to government-backed student loans. The private student loan market (i.e., loans not issued by an organization such as Sallie Mae) accounts for roughly 10% of the overall student loan market. Private student loans are generally underwritten more soundly than their government counterparts, resulting in better credit performance. Unlike in the government-backed market, where the provision of loans is based on need, credit considerations play a more prominent role on the private side. In addition, private-label student loans generally require a co-signatory, while the underwriters apply greater scrutiny to credit metrics when making the underwriting decision. This combination of factors has yielded lower default rates for private student loans. Given the overall small size of the private student loan market, this space continues to present opportunities as it has not appreciated in price to the same extent as other sectors of the structured credit market; large investors that drive structured credit markets generally are too big to invest in this segment.

**Risk Considerations**

There are several risks which could derail our thesis, including the potential for U.S. economic weakness, increasing competition, and regulatory/policy shifts.

- **Economy:** Employment has a close correlation to the performance of student loans. The U.S. economy is in relatively good shape right now, but a slowdown or a dip back into recession, perhaps fueled by spillover effects from global economic weakness, would likely have negative consequences for the student loan market.

- **Competition:** An increase in the number of players entering the graduate student loan securitization market could degrade returns and, potentially, the credit quality of underlying loan pools, as issuers of securitizations look further down the credit spectrum for supply.

- **Policy:** This is a wildcard for any strategy and quite difficult to accurately forecast. That said, changes in policy, such as further advances in income-based repayment plans, or altering the notion that student loans are not dischargeable in bankruptcy (which is positive for investors), present an ongoing risk.

**Conclusion**

Despite the negative headlines and some unfavorable numbers with respect to credit performance, we see substantial opportunity in the areas we have described. For private student loans, the opportunity is likely in the middle to later innings, but still warrants consideration, in our view. Graduate student loans, meanwhile, are just emerging as a viable investment segment, and have the potential to bear fruit for some time to come.
Barclays Aggregate Bond Index: Represents securities that are U.S. domestic, taxable and dollar-denominated. The Index covers the U.S. investment grade, fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities and asset-backed securities.

Barclays Capital Global High Yield Index: An unmanaged index considered representative of fixed-rate, non-investment grade debt of companies in the U.S., developed markets and emerging markets.

Barclays Capital Long Government Credit Index: Measures the investment return of all medium and larger public issues of U.S. Treasury, agency, investment-grade corporate and investment-grade international dollar-denominated bonds with maturities longer than 10 years.

Barclays Capital Pan-European Aggregate Index: The Pan-European Aggregate Index tracks fixed-rate, investment-grade securities issued in the following European currencies: Euro, British pounds, Norwegian kroner, Danish kroner, Swedish krona, Czech koruna, Hungarian forint, Polish zloty and Slovakian koruna. The principal asset classes in the index are Treasuries, Government-Related, Corporate and Securitized, which include Pfandbriefe, other covered bonds and asset-backed securities.

Barclays Capital U.S. MBS Index: Measures the performance of investment-grade fixed-rate mortgage-backed pass-through securities of Government National Mortgage Association (“FNMA”) and Freddie Mac (“FHLMC”) that have 30-, 20-, 15-year and balloon securities that have a remaining maturity of at least one year, are investment grade and have more than $250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed-rate and non-convertible. The Index is market-capitalization weighted, and the securities in the Index are updated on the last calendar day of each month.

Barclays CTA Index: Measures the composite performance of established programs. For purposes of this index, an established trading program is a trading program that has four years or more of documented performance history. Once a trading program passes this four-year hurdle, its subsequent performance is included in this unweighted index. The Barclay Index does not represent an actual portfolio, which could be invested in, and therefore the index performance results should be deemed to be hypothetical in nature and of comparative value only.

Barclays Aggregate Bond Index: Represents securities that are U.S. domestic, taxable and dollar-denominated. The Index covers the U.S. investment grade, fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities and asset-backed securities.

Barclays Capital Global High Yield Index: An unmanaged index considered representative of fixed-rate, non-investment grade debt of companies in the U.S., developed markets and emerging markets.

Barclays Capital Long Government Credit Index: Measures the investment return of all medium and larger public issues of U.S. Treasury, agency, investment-grade corporate and investment-grade international dollar-denominated bonds with maturities longer than 10 years.

Barclays Capital Pan-European Aggregate Index: The Pan-European Aggregate Index tracks fixed-rate, investment-grade securities issued in the following European currencies: Euro, British pounds, Norwegian kroner, Danish kroner, Swedish krona, Czech koruna, Hungarian forint, Polish zloty and Slovakian koruna. The principal asset classes in the index are Treasuries, Government-Related, Corporate and Securitized, which include Pfandbriefe, other covered bonds and asset-backed securities.

Barclays Capital U.S. MBS Index: Measures the performance of investment-grade fixed-rate mortgage-backed pass-through securities of Government National Mortgage Association (“FNMA”), Federal National Mortgage Association (“FNMA”) and Freddie Mac (“FHLMC”) that have 30-, 20-, 15-year and balloon securities that have a remaining maturity of at least one year, are investment grade and have more than $250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed-rate and non-convertible. The Index is market-capitalization weighted, and the securities in the Index are updated on the last calendar day of each month.

Barclays CTA Index: Measures the composite performance of established programs. For purposes of this index, an established trading program is a trading program that has four years or more of documented performance history. Once a trading program passes this four-year hurdle, its subsequent performance is included in this unweighted index. The Barclay Index does not represent an actual portfolio, which could be invested in, and therefore the index performance results should be deemed to be hypothetical in nature and of comparative value only.

Basis Risk: Basis risk refers to the imperfect correlation where offsetting investments in a hedging strategy do not experience price changes in entirely opposite directions from each other. This creates the potential for excess gains or losses in a hedging strategy and adds risk to the position.

Beta: A measure of the systematic risk of a portfolio. It is the covariance of the portfolio and the benchmark divided by the variance of the benchmark. Beta measures the historical sensitivity of a portfolio’s returns to movements in the benchmark. The beta of the benchmark will always be one. A portfolio with a beta above the benchmark (i.e. >1) means that the portfolio has greater volatility than the benchmark. If the beta of the portfolio is 1.2, a market increase in return of 1% implies a 1.2% increase in the portfolio's return. If the beta of the portfolio is 0.8, a market decrease in return of 1% implies a 0.8% decrease in the portfolio’s return.

Correlation: A statistical measure of how a portfolio moves in relation to its benchmark. Correlation values range from +1.0 to -1.0. A positive correlation implies that they move in the same direction. Negative correlation means they move in opposite paths. A correlation of +1.0 means that the portfolio and benchmark move in exactly the same direction; -1.0 means they move in exactly the opposite direction; 0.0 means they do not correlate at all with each other.

Dow Jones-UBS Commodity Index: An index composed of futures contracts on physical commodities, consisting of commodities traded on U.S. exchanges, with the exception of aluminum, nickel and zinc, which trade on the London Metal Exchange.

HFRI Fixed Income – Asset Backed Index: Includes strategies in which the investment thesis is predicated on realization of a spread between related instruments in which one or multiple components of the spread is a fixed income instrument backed by physical collateral or other financial obligations (loans, credit cards) other than those of a specific corporation. Strategies employ an investment process designed to isolate attractive opportunities between a variety of fixed income instruments specifically securitized by collateral commitments which frequently include loans, pools and portfolios of loans, receivables, real estate, machinery or other tangible financial commitments. Investment thesis may be predicated on an attractive spread given the nature and quality of the collateral, the liquidity characteristics of the underlying instruments and on issuance and trends in collateralized fixed income instruments, broadly speaking. In many cases, investment managers hedge, limit or offset interest rate exposure in the interest of isolating the risk of the position to strictly the yield disparity of the instrument relative to the lower risk instruments.

HFRI Fund Weighted Composite Index: Includes equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their own hedge funds. The HFRI is broken down into four main strategies, each with multiple sub-strategies. All single-manager HFRI Index constituents are included in the index, which accounts for over 2,200 funds listed on the internal HFR Database.

HFRI Macro Index: Tracks a broad range of hedge fund strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on various types of investments. Macro strategies employ a distinct investment thesis that is predicated on predicted or future movements in the underlying instruments rather than realization of a valuation discrepancy between securities.
HFRI RV Fixed Income—Corporate Index: Includes strategies in which the investment thesis is predicated on realization of a spread between related instruments in which one or multiple components of the spread is a corporate fixed income instrument. Strategies employ an investment process designed to isolate attractive opportunities between a variety of fixed income instruments, typically realizing an attractive spread between multiple corporate bonds or between a corporate and risk-free government bond.

HFRI Equity Hedge Index: Maintains positions both long and short in primarily equity and equity derivative securities. A wide variety of investment processes can be employed to arrive at an investment decision, including both quantitative and fundamental techniques; strategies can be broadly diversified or narrowly focused on specific sectors and can range broadly in terms of levels of net exposure, leverage employed, holding period, concentrations of market capitalizations and valuation ranges of typical portfolios. Equity Hedge managers would typically maintain at least 50% exposure to, and may in some cases be entirely invested in, equities—both long and short.

HFRI Macro Systematic Diversified CTA Index: Has investment processes typically as function of mathematical, algorithmic and technical models, with little or no influence of individuals over the portfolio positioning. Strategies which employ an investment process designed to identify opportunities in markets exhibiting trending or momentum characteristics across individual instruments or asset classes. Strategies typically employ quantitative process which focus on statistically robust or technical patterns in the return series of the asset, and typically focus on highly liquid instruments and maintain shorter holding periods than either discretionary or mean reverting strategies. Although some strategies seek to employ counter trend models, strategies benefit most from an environment characterized by persistent, discernible trending behavior. Systematic Diversified strategies typically would expect to have no greater than 35% of portfolio in either dedicated currency or commodity exposures over a given market cycle.

Information ratio: A measure of risk-adjusted return. The average excess return (over an appropriate benchmark or risk-free rate) is divided by the standard deviation of these excess returns. The higher the measure, the higher the risk-adjusted return. The Information Ratio of the benchmark will equal zero.

Loan-to-value ratio ("LTV"): A lending risk assessment ratio that financial institutions and other lenders examine prior to approving a mortgage. Typically, assessments with high LTV ratios are generally seen as higher risk and, therefore, if the mortgage is accepted, the loan will generally cost the borrower more.

NAR Housing Affordability Composite Index: Measures the ability of a family earning the median income to purchase a median-priced home. The index is formed by the ratio of a percentage of the average income of all families in the area to the monthly loan payment needed to purchase the average priced home sold in that area. An index value of 1.00 indicates that half of the families in the area could afford to buy the average home. The higher the index, the more affordable is the housing in the area at the time.

Newedge CTA Index: Provides the market with a reliable daily performance benchmark of major commodity trading advisors ("CTAs"). The Newedge CTA Index calculates the daily rate of return for a pool of CTAs selected from the larger managers that are open to new investment. Selection of the pool of qualified CTAs used in construction of the Index will be conducted annually, with re-balancing on January 1st of each year. A committee of industry professionals has been established to monitor the methodology of the index on a regular basis.

Standard & Poor's European Leveraged Loan Index ("ELLI"): Is a multi-currency index that covers the European leveraged loan market back to 2003 and is currently calculated on a weekly basis.

Standard & Poor's/LSTA Leveraged Loan Index: Is a daily total return index that uses LSTA/LPC Mark-to-Market Pricing to calculate market value change. It tracks the current outstanding balance and spread over LIBOR for fully funded term loans. The facilities included in the index represent a broad cross-section of leveraged loans syndicated in the U.S., including dollar-denominated loans to overseas issuers.

S&P 500 Index: Consists of 500 stocks chosen for market size, liquidity and industry group representation. It is a market value-weighted index (stock price times number of shares outstanding), with each stock’s weight in the Index proportionate to its market value. The "500" is one of the most widely used benchmarks of U.S. equity performance. As of September 16, 2005, S&P switched to a float-adjusted format, which weights only those shares that are available to investors, not all of a company’s outstanding shares. The value of the index now reflects the value available in the public markets.

S&P/Case-Shiller® Home Price Index: An indicator for the U.S. residential housing market, tracking changes in the value of residential real estate, both nationally as well as in 20 metropolitan regions.

U.S. Dollar Index: Measures the performance of the U.S. Dollar against a basket of currencies: EUR, JPY, GBP, CAD, CHF and SEK. It includes nine chart types, one up to 1,000 periods and a vast range of customizable technical indicators.
Risk Considerations

While hedge funds offer you the potential for attractive returns and diversification for your portfolio, they also pose greater risks than more traditional investments. There is no guarantee that any fund will meet its investment objective. An investment in hedge funds is only intended for sophisticated investors. Investors may lose all or a substantial portion of their investment.

You should consider the risks inherent with investing in hedge funds:

Leveraged and Speculative Investments—An investment in hedge funds is speculative and involves a high degree of risk. Hedge funds commonly engage in swaps, futures, forwards, options and other derivative transactions that can result in volatile fund performance. Leveraging may increase risk in hedge funds.

Limited Liquidity—There are limited channels in the secondary market through which investors can attempt to sell and/or purchase interests in hedge funds; and an investor’s ability to transact business in the secondary market is subject to restrictions on transferring interest in hedge funds. Hedge funds may suspend or limit the right of redemption under certain circumstances. Thus, an investment in hedge funds should be regarded as illiquid.

Absence of Regulatory Oversight—Hedge funds are not required to be registered under the U.S. Investment Company Act of 1940; therefore hedge funds are not subject to the same regulatory requirements as mutual funds.

Dependence upon Investment Manager—The General Partner or manager of a hedge fund normally has total trading authority over its respective fund. The use of a single advisor applying generally similar trading programs could mean the lack of diversification and, consequently, higher risk.

Foreign Exchanges—Selective hedge funds may execute a portion of their trades on foreign exchanges. Material economic conditions and/or events involving those exchanges may affect future results.

Fees and Expenses—Hedge funds often charge high fees; such fees and expenses may offset trading profits. Fees on funds of funds are in addition to the fees of underlying funds, resulting in two layers of fees. Performance or incentive fees may incentivize the manager of those funds to make riskier investments.

Complex Tax Structures—Hedge funds may involve complex tax structures and delays in distributing important tax information.

Limited Reporting—While hedge funds generally may provide periodic performance reports and annual audited financial statements, they are not otherwise required to provide periodic pricing or valuation information to investors.

Business and Regulatory Risks of Hedge Funds—Legal, tax and regulatory changes could occur during the term of a hedge fund that may adversely affect the fund or its managers.

In addition to these risk considerations, specific risks will apply to each hedge fund based on its particular investment strategy. Any investment decision with respect to an investment in a hedge fund or a private equity fund of funds should be made based upon the information contained in the Confidential Private Placement Memorandum of that fund.

Hedge Fund Data and Analyses—The hedge fund data contained in this material is based upon internal analyses of information obtained from public and third-party sources. Any returns shown were constructed for illustrative purposes only. There are numerous limitations inherent in the data presented, including incompleteness and unavailability of hedge fund holdings, activity and performance data (i.e., unavailability of short activity and intraquarter activity), and the reliance upon assumptions. No representation or warranty is made as to the accuracy of the information shown, the reasonableness of the assumptions used, or that all assumptions and limitations inherent in such analysis have been fully stated or considered. Changes in assumptions may have a material impact on the data and the results presented. The simulated, estimated and expected returns and characteristics constructed for any hedge fund strategies are shown for illustrative purposes only, and actual returns and characteristics of any fund or group of funds may differ significantly from any simulated, estimated and expected returns shown. All return data is shown net of fees and other expenses and reflect reinvestment of any dividend and distributions.

This material is provided for informational purposes only and nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security. Information is obtained from sources deemed reliable, but there is no representation or warranty as to its accuracy, completeness or reliability. All information is current as of the date of this material and is subject to change without notice. Any views or opinions expressed may not reflect those of the firm as a whole.

Neuberger Berman products and services may not be available in all jurisdictions or to all client types.

This material may include estimates, outlooks, projections and other "forward-looking statements." Due to a variety of factors, actual events may differ significantly from those presented. Investing entails risks, including possible loss of principal. Investments in hedge funds and private equity are speculative and involve a higher degree of risk than more traditional investments. Investments in hedge funds and private equity are intended for sophisticated investors only. Indexes are unmanaged and are not available for direct investment. Past performance is no guarantee of future results.

All information as of the date indicated, except as otherwise noted. Firm data, including employee and assets under management figures, reflect collective data for the various affiliated investment advisers that are subsidiaries of Neuberger Berman Group LLC.

This material is being issued on a limited basis through various global subsidiaries and affiliates of Neuberger Berman Group LLC. Please visit www.nb.com/disclosure-global-communications for the specific entities and jurisdictional limitations and restrictions.

The “Neuberger Berman” name and logo are registered service marks of Neuberger Berman Group LLC.

©2015 Neuberger Berman Group LLC. All rights reserved.
This report was prepared by the NB Alternative Investment Management and operational due diligence teams.

**NB ALTERNATIVE INVESTMENT MANAGEMENT TEAM AND OPERATIONAL DUE DILIGENCE MEMBERS**

David Kupperman, Jeff Majit, Eric Weinstein, Fred Ingham, Ian Haas, Patrick Deaton, James McDermott, Avery Kiser, Paresh Shah, Sophie Ware, Calliea Pan, Johan Kim, Manish Amin, Declan Redfern, Jay Berger, Joshua Myers, Hamad Masood, Richard Wilson, Nathan Wang

Please contact your Neuberger Berman representative or NBAIM_IR@nb.com for additional information.