NEUBERGER | BERMAN

Hedge Fund Perspectives

Opportunistic Investing – The Case for Merger Appraisal Rights

Hedge Fund Solutions Group
MAY 24, 2016

This niche, legally intensive strategy has the potential for providing compelling uncorrelated returns.

U.S. mergers and acquisitions activity surged to an all-time high in 2015, with deal volume growing over 50% year-over-year to approximately $2.3 trillion.[1] Coinciding with this M&A growth has been an increase in corporate litigation and, in particular, cases in which shareholders have exercised their rights to seek appraisal to challenge the price offered in a buyout. In this article, we discuss appraisal rights in detail and why we believe the strategy represents a compelling investment opportunity.

Overview

Appraisal rights exist to ensure that minority shareholders receive fair value for their shares when a company is acquired in a cash deal. While most states have some form of appraisal remedy (the rules vary significantly from state to state), Delaware is the leading statutory example, with more than half of U.S. public companies incorporated in the state.[2] Given Delaware's extensive case law on the subject, we will focus our thoughts on appraisal rights as it applies to the Delaware General Corporation Law.

Appraisal rights provide shareholders in an acquisition with a legal remedy to petition for an independent determination of fair value as an alternative to accepting the offered deal price. Those seeking appraisal forgo the merger consideration in anticipation that the awarded amount through a judicial determination or settlement will be higher. In order to demand appraisal, shareholders must vote against the transaction (or abstain) and adhere to strict procedural requirements, including several notice provisions. While most cases are settled privately before going to court, those that go to litigation involve discovery along with expert witness reports and rebuttals. A general overview of an appraisal proceeding is provided in Figure 3.1.

Figure 3.1: Appraisal Proceeding in Brief

Source: Magnetar Capital.

After listening to expert testimony and reviewing valuation analysis provided by experts, the court will make a determination as to whether the buyout price was fair. The court arrives at "fair value," which is based on the closing date of the merger, primarily using a discounted cash flow analysis, but it may apply other valuation methodologies involving comparable companies and comparable transactions. In addition to the "fair value" of their shares, appraisers are generally entitled to receive statutory interest equal to the Federal Reserve discount rate plus 5% (currently 6%), win or lose, to compensate the shareholders for having capital tied up in the post-merger entity. Interest is compounded quarterly from the merger closing date until the date they receive "fair value" and is applied to the final adjudicated price.

Growth of Appraisal Rights

Although the appraisal statute has been available for some time, it has generally been overlooked as an investment tool until recently. It is estimated that only about 5% of deals involving Delaware incorporated companies were the subject of appraisal rights cases between 2004 and 2010. By 2014, that figure increased to 15 percent.[3] We believe a number of factors have contributed to the growth of appraisal litigation and the rise of its use as an investment strategy:

Cash-financed deals: Appraisal rights generally only apply to pending cash or heavily cash merger transactions. As cash on corporate balance sheets has increased to record highs, cash has been the preferred deal currency for companies looking to expand. As a result, the number of deals in which appraisal rights may be exercised has also increased.

Case law: A number of key decisions have established precedents for appraisal actions. For example, In re: Appraisal of Transkaryotic Therapies, Inc.[3] provided that shareholders were permitted to seek appraisal so long as they owned the stock as of the merger vote date (as opposed to the much earlier record date). This ruling helped set the stage for shareholders to employ appraisal rights as an investment strategy by creating a time advantage; prospective appraisal investors now have the ability to analyze a deal and delay purchasing shares until the final minute, thereby reducing uncertainty about the merger closing. Another, perhaps more impactful, factor driving shareholders to increasingly pursue appraisal litigation has been the successful outcomes of several recent high-profile cases, including Dell and Dole Food Company. We believe the large payouts in those cases have encouraged others to repeat this approach in other cash merger transactions.

Growth of activist and event-driven funds: Significant amounts of capital have flowed into funds dedicated to activist, event-driven and special situations investing. Many of these funds have the valuation expertise as well as the resources to pursue appraisal litigation. The onerous procedural requirements and the length and high cost of litigation are significant barriers to entry for smaller investors.

Low interest rate environment: The statutory interest equal to the Fed discount rate plus 5% is well above the current market rate and is attractive relative to other yield alternatives.

Pursuing Appraisal as an Investment Strategy

For the reasons mentioned above, multi-strategy hedge funds have entered the scene to pursue appraisal as an investment strategy, while some funds have even been created solely for this purpose. While not all funds seek appraisal rights in the same deals, their fundamental strategies are fairly similar. In general, these funds invest in cash merger deals where the target company is being acquired at a price they believe is deficient, exercise their appraisal rights, and litigate to achieve "fair value." They tend to be very selective in their deal choices (i.e., 2-3 deals per year) and typically only pursue the most egregiously undervalued mergers, particularly where there are issues in the sales process and inherent conflicts of interest (e.g., an insider's attempt to cheaply buy out minority shareholders). In fact, recent case law has revealed that appraisal cases are becoming more difficult to win on valuation alone, and in these instances, the court commonly awards the merger consideration. In contrast, the highest appraisal awards tend to involve transactions for which there was not a meaningful market check as part of the sales process. Given this trend, funds generally look for flaws in the sales process (e.g., the company did not contact multiple bidders or did not give prospective buyers the same access to due diligence), in conjunction with a deficient takeout price, when determining whether to exercise their appraisal rights. In the accompanying sidebar, we provide a case study to demonstrate the characteristics of a successful appraisal situation.

Appraisal Rights Case Study

Background:

An investor group led by a private equity firm (PE buyer) announced it would acquire a grocery chain.

The deal closed almost a year later with each share receiving approximately $35 in cash + two non-tradable contingent value rights (CVR).

Valuation:

Appraisers believed the business was worth significantly more than the purchase price, with discounted cash flow valuations generally ranging between $40-$50 per share, excluding the value of the company's real estate and the CVR.

Management had estimated that the company's real estate was worth roughly $11 billion, which was more than the purchase price of the entire company.

Between the announcement date and the closing date, the stock prices of publicly traded peers moved significantly higher.

Appraisers believed the takeout price was inadequate based on these findings.

Sales Process:

The company negotiated exclusively with one bidder, a PE buyer.

Other prospective buyers were reluctant to compete with the agreed-upon transaction. Without competition, the PE buyer was not compelled to put forth its best offer.

The company gave the PE buyer the right to fully review and match any competing bid. This effectively reduced the company's negotiating power to achieve the best price for its shareholders.

The company held a prohibitively short "go shop" period and as a result other prospective buyers did not have the same time and access to information.

Prior to agreeing to the sale, the company received a last-minute offer from a competitor who proposed a higher price than PE buyer's bid. Despite the potentially higher offer, the company's board agreed to the PE buyer deal.

Appraisers concluded that management did not properly shop the company to test its market value.

Outcome:

About four months after the closing date, the company reached a settlement with some appraisers for roughly $44 in cash and the retention of the CVR. The cash award represented about a 26% premium to the deal price.

Other appraisers declined the settlement and went into litigation. The trial is scheduled for later this year.

Once a fund petitions for appraisal, it becomes a creditor of the acquiring company. The credit risk is akin to a multiyear unsecured bond with no covenant protection, as appraisal litigation typically lasts two to three years. For this reason, some funds will hedge their credit risk to isolate the litigation component of the deal. Common hedges include credit default swap protection on the acquirer with terms varying based on the expected length of the case, and short positions in the company's cash bonds. Hedging strategies can also vary depending on the type of transaction (i.e., strategic deals may have very different credit profiles from LBOs), with hedging more common in deals with significant amounts of leverage. Some funds will also focus on industries that have stable cash flows as a way to mitigate credit risk.

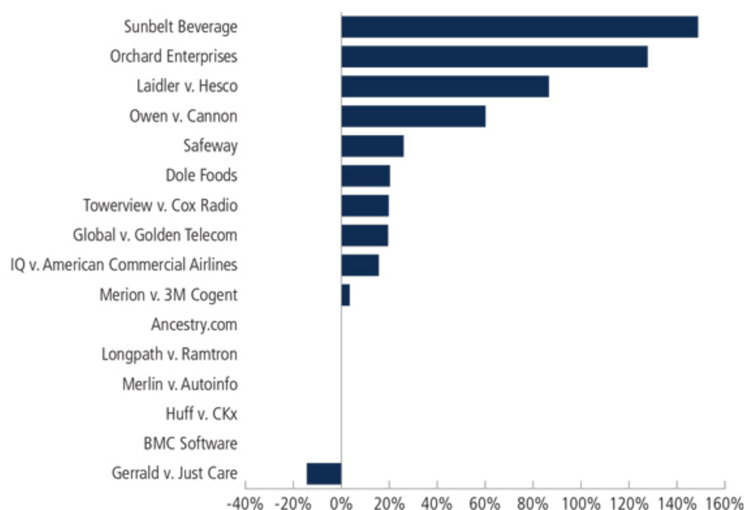
Investment Merits

We believe appraisal strategies offer a number of potentially compelling benefits:

Uncorrelated source of returns: Outcomes are based on a negotiated settlement or decision from the court and, as a result, the strategy's returns are not tied to the performance of the equity or credit markets.

Asymmetric return profile with limited downside and strong upside optionality: A review of all Delaware appraisal cases over the last 20 years found that 80% of the decisions resulted in a higher appraised value,[5] and, typically, the worst-case scenario is that investors receive the merger price. The success rate is even higher in interested party transactions (i.e., controlling shareholder or parent-subsidiary mergers) where a robust competitive bidding process was not conducted, which are the situations most funds focus on when seeking appraisal. We believe cases with the proper characteristics for appraisal have the potential to offer double-digit returns. Below is a summary of the premiums over merger prices of the Delaware appraisal decisions since 2010, many of which have exceeded 15%.

Figure 3.2: Delaware Appraisal Decisions — Premium Over Merger Price



Source: Harvard Law School Forum on Corporate Governance and Financial Regulation and Fried Frank Harris Shriver & Jacobson LLP.

Statutory interest: The accrual of statutory interest at 5% plus the Fed discount rate is attractive in a low rate environment. It also cushions the downside in the event that the court determines that the "fair value" is below the merger price. Currently, appraisers earn 6% on their stake from the closing date of the merger to the date of the final determination.

Robust M&A environment: The increase in M&A activity has resulted in a greater opportunity set for the strategy. However, the type of activity matters; transactions involving motivated selling shareholders, particularly an insider or management team that has strong financial incentives to take the company private at a discount, tend to be better candidates for appraisal.

Limited competition: Appraisal rights strategies do not have a natural fit within the hedge fund universe given their liquidity constraints and strict operational requirements. Despite having the merger valuation expertise, risk arbitrageurs tend to avoid asserting their appraisal rights because the litigation duration and illiquidity of such actions do not match the redemption terms of their funds (typically monthly redemptions with 30 days' notice). As a result, multi-strategy funds, which can take more illiquidity risk, and a handful of funds with dedicated appraisal rights strategies are the only real players in the space.

Investment Risks

We believe investors must consider the following risks associated with the strategy:

Liquidity/duration: Once a deal closes, the shares held by appraisers no longer trade and their investment is tied up while the lawsuit is adjudicated. It has not been uncommon for the process to last two-plus years until a final judgment occurs (unless a settlement is reached).

Deal break risk: There is the potential for the deal to fall apart if not enough shareholders vote in favor of the transaction.

Opportunity set: There is no guarantee that the deals with the proper characteristics for appraisal will occur as the vast majority of mergers are fairly valued. Additionally, given the rise of appraisal litigation, it may become more common for merger agreements to include appraisal closing conditions that give the buyer the option to terminate

the deal should the percentage of dissenting shareholders reach a certain level. Lastly, recent appraisal decisions suggest that there is a greater burden on the petitioner to prove there was a flaw in the sales process in addition to a deficient valuation, which may further constrain the opportunity set.

Unfavorable decisions: There is the potential for the court to rule that "fair value" is below the deal price; however, this has only happened in a very small percentage of cases. It is even rarer in transactions involving insiders that did not conduct a fair auction process.

Credit risk: Once entering appraisal, the plaintiff bears the credit risk of the acquiring company, which is responsible for the payment of any settlement or court award. However, this risk can be hedged a number of ways as discussed earlier in the article.

Legislative change: The Delaware bar recently proposed amendments to the appraisal statute, which, if adopted, would allow a company to cut off the accrual of interest by pre-paying dissenting shareholders a certain amount. However, interest would accrue on any excess of the final appraisal award over the prepaid amount.

Credit availability: A regulatory cap of total debt/EBITDA of 6:1 could reduce the number of private equity buyouts. At the same time, deals that are completed could look more favorable from a valuation standpoint as a result of these financing limitations.

Conclusion

Hedge funds have helped transform appraisal rights litigation, a long-ignored part of corporate law, into an important weapon in their activist investment arsenal. We believe funds that have developed specialized investment strategies based on appraisal, particularly those that are highly selective in the deals they pursue, offer investors access to a niche strategy with limited competition and the potential to earn attractive returns in a relatively low-risk and uncorrelated manner.

---

[1]FactSet.
[2]Delaware Department of State, Division of Corporations.
[3]Fried, Frank, Harris, Shriver & Jacobson LLP
[4]Harvard Law School Forum on Corporate Governance and Financial Regulation.
[5]Fish & Richardson P.C.

Definitions

Alpha (Jensen's Alpha): A risk-adjusted performance measure that is the excess return of a portfolio over and above that predicted by the Capital Asset Pricing Model ("CAPM"), given the portfolio's beta and the average market return. Jensen's Alpha measures the value added of an active strategy.

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 krone, Danish krone, 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 ("GNMA"), 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.

Barclays U.S. Corporate High Yield: An unmanaged index considered representative of fixed-rate, non-investment grade debt of companies in the U.S.

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.

Bloomberg High Yield Corporate Bond Energy Index: A rules-based, market-value weighted index engineered to measure publicly issued non-investment grade USD fixed-rate, taxable, corporate bonds.

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.

Credit Suisse High Yield Index: Designed to mirror the investable universe of U.S. Dollar-denominated non-investment grade corporate bonds.

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 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.

HFRX Absolute Return Index: This index is designed to be representative of the overall composition of the hedge fund universe. It is comprised of all eligible hedge fund strategies, including but not limited to convertible arbitrage, distressed securities, equity hedge, equity market neutral, event driven, macro, merger arbitrage and relative value arbitrage. As a component of the optimization process, the index selects constituents which characteristically exhibit lower volatilities and lower correlations to standard directional benchmarks of equity market and hedge fund industry performance. Hedge Fund Research, Inc. (HFR) utilizes a UCITSIII compliant methodology to construct the HFRX Hedge Fund Indices. The methodology is based on defined and predetermined rules and objective criteria to select and rebalance components to maximize representation of the Hedge Fund Universe. HFRX Indices utilize state-of-the-art quantitative techniques and analysis; multi-level screening, cluster analysis, Monte-Carlo simulations and optimization techniques ensure that each Index is a pure representation of its corresponding investment focus.

HFRX Macro Commodity Index: Includes strategies which invest in commodities on both a discretionary and systematic basis. Systematic commodity managers have investment processes typically as a function of mathematical, algorithmic and technical models, with little or no influence of individuals over the portfolio positioning. Strategies employ an investment process designed to identify opportunities in markets exhibiting trending or momentum characteristics across commodity assets classes, frequently with related ancillary exposure in commodity sensitive equities or other derivative instruments. Discretionary commodity strategies are reliant on the fundamental evaluation of market data, relationships and influences as they pertain primarily to commodity markets including positions in energy, agricultural, resources or metal assets. Portfolio positions typically are predicated on the evolution of investment themes the managers expect to materialize over a relevant timeframe, which in many cases contain contrarian or volatility focused components.

HFRX 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.

J.P. Morgan High Yield Index: Designed to mirror the investable universe of the U.S. dollar global high yield corporate debt market, including domestic and international issues.

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.

Russell 2000® Index: Measures the performance of the 2,000 smallest companies in the Russell 3000® Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index. As of the latest reconstitution, the weighted average market capitalization was approximately $732 million; the median market capitalization was approximately $306 million. The largest company in the index had an approximate market capitalization of $1.7 billion and the smallest of $78 million.

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 GSCI Index: Formerly known as the S&P Goldman Sachs Commodity Index, the S&P GSCI Index serves as a benchmark for investment in the commodity markets and as a measure of commodity performance over time. It is a tradable index that is readily available to market participants of the Chicago Mercantile Exchange. The index was originally developed by Goldman Sachs. In 2007, ownership transferred to Standard & Poor's, who currently own and publish it. Futures of the S&P GSCI use a multiple of 250. The index contains a much higher exposure to energy than other commodity price indices such as the Bloomberg Commodity Index.

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.