All Alternative Funds are Not Equal

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Today’s Discussion

- What are Liquid Alternatives
- Manager Selection
- Operational Due Diligence
- Key Takeaways
WHAT ARE LIQUID ALTERNATIVES
Liquid Alternatives are Available to Everyday Investors

Liquid alternatives are mutual funds that employ non-traditional or alternative strategies

**ALTERNATIVE INVESTMENTS**

**ALTERNATIVE ASSET CLASSES**

- Financial Assets
  - Currency
  - Volatility
- Commodities
  - Oil
  - Precious Metals
  - Agriculture
- Real Assets
  - Real Estate
  - Commodities
  - Global Resources
  - Infrastructure
- Private Equity
  - Managed Futures

**ALTERNATIVE STRATEGIES**

- **Equity Alternative Strategies**
  - Long / short
  - Absolute Return
  - Equity Market Neutral
  - Short Bias
  -Convertible / Merger Arbitrage
  - Global Macro

- **Fixed Income Alternative Strategies**
  - Duration Management
  - Yield Management
  - Long / Short Credit
  - Opportunistic / Unconstrained
  - Distressed Debt
  - Credit Arbitrage

*For illustrative purposes only.*
Hedge Funds Can Improve Risk / Reward Outcomes for Participants

ANNUALIZED RETURNS (JANUARY 1990–DECEMBER 2014)

Source: Factset. The historical performance of the indices shown is for illustrative purposes and is not meant to forecast, imply or guarantee future performance. An investor cannot invest directly in an index and its performance does not reflect that of any Neuberger Berman funds. Unmanaged indices do not reflect fees and expenses associated with the active management of a portfolio. Asset classes are represented by the following indices: Equities – S&P 500; Fixed Income – Barclays Aggregate Bond Index; TIPS – Barclays Global Inflation-Linked; Hedge Funds – HFRI Fund Weighted Composite Index.
### Liquid Alts Offer Hedge Fund Benefits in a DC Friendly Format

Capturing the benefits of both private and public investment vehicles

<table>
<thead>
<tr>
<th>TRADITIONAL MUTUAL FUND INVESTING</th>
<th>TRADITIONAL HEDGE FUND INVESTING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Return Objective</strong></td>
<td>Relative returns</td>
</tr>
<tr>
<td><strong>Benchmark</strong></td>
<td>Benchmark constrained</td>
</tr>
<tr>
<td><strong>Investment Strategies</strong></td>
<td>Limited strategies, long-only, no leverage</td>
</tr>
<tr>
<td><strong>Market Beta</strong></td>
<td>High beta to traditional asset classes</td>
</tr>
<tr>
<td><strong>Performance</strong></td>
<td>Dependent on market direction</td>
</tr>
<tr>
<td><strong>Management Fees</strong></td>
<td>Asset-based fee only; no performance fees</td>
</tr>
<tr>
<td><strong>Liquidity</strong></td>
<td>Daily at NAV</td>
</tr>
<tr>
<td><strong>Investor base</strong></td>
<td>Publicly available</td>
</tr>
<tr>
<td><strong>Transparency</strong></td>
<td>High disclosure and transparency</td>
</tr>
</tbody>
</table>

**BRIDGING BENEFITS**
The Multi Alternative ’40 Act Landscape
Different Fund Structures and Strategies Can Yield Different Risk / Return Characteristics

Key Things to Consider
• Is a single strategy sufficient diversification?
• Do you offer multiple single strategy funds or a single multi-manger fund?
• Does your staff have the knowledge and resources to select and monitor the different hedge fund strategies?
• How will participants know how to allocate between the different strategies?
Benefits of a Managed Account Structure

Investing through separately managed accounts allow for daily liquidity and transparency

'40 Act Fund allocates among Separate Accounts subadvised by hedge fund managers

Separate Account A

Separate Account B

Hedge Fund Manager A

Hedge Fund Manager B

BENEFITS OF A MANAGED ACCOUNT STRUCTURE

• Assets custodied in '40 Act Fund's name
• Full daily transparency
• Dynamic Allocation
• Ability to retain control over assets
• Provides for enhanced oversight
MANAGER SELECTION
Ability to Evaluate Hedge Funds: Manager Selection is Complex

Large dispersion between best and worst performing hedge funds requires dedicated and experienced investment due diligence capabilities.

DISPERSION OF GLOBAL HEDGE FUND RETURNS (5 YEARS ENDING DECEMBER 2014)

1. This information 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. References to peer groups throughout this presentation refer to the team’s proprietary peer groups.

Source: Morningstar Direct. Includes all funds with an Institutional share class in the Morningstar Intermediate-Term Bond and Large-Cap Value categories.

Source: Neuberger Berman Alternatives Proprietary Peer Groups.
## Selecting Your Liquid Alternative Strategies

<table>
<thead>
<tr>
<th>STRATEGY</th>
<th>Can you explain the fund’s strategy? In which environments do you anticipate the strategy will be the most effective?</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPERIENCE OF THE TEAM</td>
<td>How experienced is the manager and their team? How long has the firm run a mutual fund platform?</td>
</tr>
<tr>
<td>SCALE / INFRASTRUCTURE</td>
<td>Does the firm have the right resources needed to support an alternative strategy? How long has the firm run a mutual fund platform?</td>
</tr>
<tr>
<td>METRICS</td>
<td>What are the risk-adjusted metrics? Performance across market cycles?</td>
</tr>
<tr>
<td>LIQUIDITY</td>
<td>Does the manager understand liquidity? Is it credible to believe that the underlying investment strategy can be operated in a vehicle providing daily liquidity?</td>
</tr>
<tr>
<td>LEVERAGE</td>
<td>What is the role of leverage in the fund and how important is it in generating investment return?</td>
</tr>
<tr>
<td>STRUCTURE</td>
<td>What level of transparency does the manager have? Is there a robust oversight system in place through managed accounts? Are there shadowing accounts?</td>
</tr>
<tr>
<td>RISK MANAGEMENT</td>
<td>What procedures are in place? Are sensitivity analyses and stress tests conducted? Is there ongoing due diligence?</td>
</tr>
</tbody>
</table>
Unique Skills Needed For Managing Liquid Alternatives

1. Ability to Evaluate Hedge Fund Managers
2. Operational Infrastructure to Support '40 Act Funds
Ability to Evaluate Hedge Funds: Value of Existing Hedge Fund Capabilities

Investment firms that manage traditional hedge fund products have several key advantages

**EXPERIENCED INVESTMENT PROFESSIONALS**
- Have experience and capability to evaluate hedge fund managers
  - Understand what to look for and how to identify potential red flags, etc.
- Consistent team
- Strong track record of selecting and monitoring managers

**ESTABLISHED INVESTMENT PROCESS**
- Established process tested across market cycles
- Refined to incorporate lessons learned

**LEVERAGE LONG-TERM RELATIONSHIPS**
- Access high-quality hedge funds and strategies
- Negotiate lower fees
- Utilize network to go beyond standard background reviews to enhance manager reference checks
Operational Infrastructure to Support ‘40 Act Funds
Multiple control layers needed to minimize risk and manage a liquid alternatives fund

- Trade Capture
  - How are portfolio activity and holdings tracked?

- Operations
  - How frequently are holdings reconciled to managers / custodians and administrators? By whom?

- Fund Accounting
  - Who performs daily price verification and variance testing?

- Cash and Collateral Management
  - Who controls money movement?

- Mutual Fund Compliance
  - What is the process for monitoring?

- Risk Management
  - Is there an independent team?
OPERATIONAL DUE DILIGENCE
Independent Operational Due Diligence is Essential

Look for an independent and robust process that evaluates each underlying managers’ non-investment functions

<table>
<thead>
<tr>
<th>ORGANIZATIONAL REVIEW</th>
<th>ON-SITE REVIEW</th>
<th>SERVICE PROVIDER REVIEW</th>
<th>ANALYSIS AND RECOMMENDATION</th>
<th>ONGOING DUE DILIGENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Key documents</td>
<td>• Firm overview</td>
<td>• Fund administrator</td>
<td>• Approve</td>
<td>• Formal updates</td>
</tr>
<tr>
<td>• Background check</td>
<td>• Compliance</td>
<td>• Auditor</td>
<td>• Monitor</td>
<td>performed on a periodic</td>
</tr>
<tr>
<td>• Legal / Compliance</td>
<td>• Trade processing</td>
<td>• Prime broker /</td>
<td>• Veto</td>
<td>basis</td>
</tr>
<tr>
<td></td>
<td>• Valuation</td>
<td>custodian</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cash management</td>
<td>• Legal counsel</td>
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<tr>
<td></td>
<td>• Technology infrastructure</td>
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</tbody>
</table>
Independent Ongoing Due Diligence

- SCHEDULED UPDATES
- ORGANIZATIONAL REVIEW
- ON-SITE REVIEW
- SERVICE PROVIDER REVIEW
- RISK BASED REVIEWS
- ANALYSIS AND RECOMMENDATION (APPROVE, MONITOR, VETO)
- APPROVED FUND

FUND UNDER REVIEW

Alternatives in DC Conference
Practical Considerations in the Selection of a Liquid Alts Manager

- **Decide what type of strategy makes sense in your plan:** single manager or multi-manager

- **Find an experienced team:** with both hedge fund and mutual fund expertise

- **Look for a fund with proper operational infrastructure and ODD:** providing an extra layer of diligence
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Several of the strategies utilized by the Fund may engage in frequent and active trading and have a high portfolio turnover rate, which may increase the Fund’s transaction costs, may adversely affect the Fund’s performance or may generate a greater amount of capital gain distributions to shareholders than if the Fund had a low portfolio turnover rate.

The Barclays U.S. Aggregate Bond Index represents securities that are SEC-registered, 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.

The HFRX Absolute Return 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.

The 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 S&P 500 Index is one of the most widely used benchmarks of U.S. equity performance.

Beta is a measure of the volatility, or systematic (market-related) risk, of a portfolio as compared to the overall market. The lower the beta, the lower the market risk (volatility).

Drawdown is a term for the largest loss an investment experiences from its peak, or highest point, to its lowest over a period of time. The higher the drawdown number, the more an investment has lost.

Standard Deviation (Risk/Volatility) is a statistical measure of the historical volatility of a mutual fund or portfolio.

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