Investment Strategy Webinar

November 14, 2012
Presenters

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Discussion Topics

- Opening Remarks
- Market Update and Outlook: Spotlight on Diversification
- New Hewitt EnnisKnupp Thought Leadership: Harvesting the Equity Insurance Risk Premium
- New Hewitt EnnisKnupp Thought Leadership: Conviction in Equity Investing

Q&A Sessions throughout the presentation
Mixed Messages From Consumers and Businesses

US consumers are in confident mood

But businesses are getting nervous about the fiscal cliff
...and the Eurozone remains in the doldrums
Risk-on Risk-off Environment Has Driven Asset Performance

Cross-asset class performance has been very similar for risky asset classes

Treasuries and equities have moved in opposite directions but both have performed well overall!
Correlations Increase During Crises but This Time Has Been Worse

Historic Long Term 1987/88
Black Monday 1998/99
LTCM 2000/02
Dotcom Crisis 2008-

Correlations with Equities

Higher than normal

-1.00
-0.75
-0.50
-0.25
0.00
0.25
0.50
0.75
1.00

Treasuries
Corporate Bonds
Commodities
REITs
Fund of Hedge Funds
Global Macro Hedge Funds

Hewittennisknupp
An Aon Company
Credit: Return Potential Now Limited

- A big squeeze on expected returns is on.

- Credit has rallied big time, driving yields down to very low levels.

- Interest rate (duration) risk here now a problem should global government bond yields rise.

- Even on a pure ‘spread’ basis, our risk-premiums (against expected credit quality risks) suggest limited room for further sustained falls.

2% yields don’t offer much scope for return!

US CORPORATE BOND YIELDS AT VERY LOW LEVELS (Intermediate credit index)

CREDIT RISK PREMIUM NOW APPROACHING PRE-CRISIS LEVELS
## Summary of Medium-term Market Views

| Equities | Cautious on medium-term view, but prefer to bonds  
|  | ▪ Favor large cap  
|  | ▪ Rebalance to neutral within growth-value  
|  | ▪ Favor non-US markets on any rebalancing now neutral on emerging markets |
| Bonds | Ultra low yields make bonds vulnerable  
|  | ▪ Take profits on credit – move back towards target  
|  | ▪ Favor intermediate to long duration interest rate exposure  
|  | ▪ Favor Investment grade and secured loans to high yield |
| Alternative Asset Classes | Favor real estate, hedge funds, infrastructure and selected private equity investments |
Question & Answer

Questions may be submitted at any time during the web seminar by typing the question in the "Ask a Question" text field and clicking "Submit." Questions will be answered live as time permits during the question and answer sessions.
Harvesting the Equity Insurance Risk Premium

John Geissinger
An Investor Challenge

- Investors have been challenged to reduce portfolio sensitivity to equity markets without sacrificing long-term expected returns.
- Risk Parity solutions have gained traction as levered fixed income portfolios have outperformed as interest rates declined to historical lows. It is unclear how this solution will perform in rising interest rate environments.
- Another solution is to find unique sources of non-correlated returns. A wide net must be cast to capture these unique investments. There is no “silver bullet.”
- We believe the “Equity Insurance Risk Premium” is one such source of non-correlated returns.
Motivation for Strategy

- Implied volatility in equity index options systematically overestimates actual realized volatility
Review of Option Pricing: Black-Scholes Model

- Variables in option prices:
  - Stock price-known
  - Strike price-known
  - Time to expiration-known
  - Risk free rate-known
  - Volatility of stock price-Unknown

- Volatility estimates that are biased upwards, all else equal, create overpriced option prices.
Explanation for Anomaly Lies within Behavioral Finance

- Individuals place different values on interim gains and losses relative to a **reference point**, rather than on final wealth.
- Loss aversion: Individuals value losses greater than an equivalent gain, relative to the reference point.
- Variable risk seeking behavior: Individuals prefer an uncertain gamble with an expected loss over a guaranteed loss of the same amount.
- Individuals subjective perception of probability differs from objective probabilities, specifically overestimating low probability outcomes and underweighting all others.
Implications of Behavioral Finance on Option Pricing

Prospect Theory: Loss avoidance (green area) valued more than gain foregone (red area), leading to higher value to option than under risk free arbitrage approach of Black-Scholes. Implied volatility is therefore biased upwards.
Description of Strategy

- Invest 50% in the S&P 500 and sell out of the money calls with a probability of exercise of approximately 20%
- Invest 50% in cash and sell out of the money puts with a probability of exercise of approximately 20%
The presence of an insurance risk premium will reduce risk and add diversified return.
Historical Performance

Rolling 3 Year Returns

Option Strategy
S&P 500
Equity/Bill Blend
Historical Performance  
(1/90-3/12)

<table>
<thead>
<tr>
<th>Annualized Return</th>
<th>Option Strategy</th>
<th>S&amp;P 500</th>
<th>50% S&amp;P 500/50% Tbills</th>
</tr>
</thead>
<tbody>
<tr>
<td>1yr</td>
<td>11.63%</td>
<td>8.54%</td>
<td>4.54%</td>
</tr>
<tr>
<td>3yr</td>
<td>18.14%</td>
<td>23.42%</td>
<td>11.55%</td>
</tr>
<tr>
<td>5yr</td>
<td>7.53%</td>
<td>2.01%</td>
<td>2.00%</td>
</tr>
<tr>
<td>10yr</td>
<td>8.32%</td>
<td>4.12%</td>
<td>3.31%</td>
</tr>
<tr>
<td>20yr</td>
<td>10.54%</td>
<td>8.59%</td>
<td>6.19%</td>
</tr>
<tr>
<td>Inception</td>
<td>10.47%</td>
<td>8.71%</td>
<td>6.42%</td>
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</table>

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<thead>
<tr>
<th>Annualized Standard Deviation</th>
<th>Option Strategy</th>
<th>S&amp;P 500</th>
<th>50% S&amp;P 500/50% Tbills</th>
</tr>
</thead>
<tbody>
<tr>
<td>1yr</td>
<td>8.29%</td>
<td>16.08%</td>
<td>8.04%</td>
</tr>
<tr>
<td>3yr</td>
<td>8.18%</td>
<td>16.00%</td>
<td>8.00%</td>
</tr>
<tr>
<td>5yr</td>
<td>10.65%</td>
<td>18.92%</td>
<td>9.45%</td>
</tr>
<tr>
<td>10yr</td>
<td>8.86%</td>
<td>15.92%</td>
<td>7.96%</td>
</tr>
<tr>
<td>20yr</td>
<td>8.30%</td>
<td>15.03%</td>
<td>7.54%</td>
</tr>
<tr>
<td>Inception</td>
<td>8.26%</td>
<td>15.15%</td>
<td>7.60%</td>
</tr>
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<tr>
<th>Sharpe Ratio</th>
<th>Option Strategy</th>
<th>S&amp;P 500</th>
<th>50% S&amp;P 500/50% Tbills</th>
</tr>
</thead>
<tbody>
<tr>
<td>1yr</td>
<td>1.397</td>
<td>0.529</td>
<td>0.559</td>
</tr>
<tr>
<td>3yr</td>
<td>2.205</td>
<td>1.457</td>
<td>1.430</td>
</tr>
<tr>
<td>5yr</td>
<td>0.609</td>
<td>0.051</td>
<td>0.101</td>
</tr>
<tr>
<td>10yr</td>
<td>0.733</td>
<td>0.144</td>
<td>0.185</td>
</tr>
<tr>
<td>20yr</td>
<td>0.880</td>
<td>0.356</td>
<td>0.392</td>
</tr>
<tr>
<td>Inception</td>
<td>0.836</td>
<td>0.339</td>
<td>0.375</td>
</tr>
</tbody>
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- Diversification of equity insurance risk premium provides enhanced returns
Risks

- Short term underperformance in periods of sharp market movements when options will be exercised.
- Underperformance in a trending market with low volatility.
- These risks are mitigated to some extent through the use of one month options and dynamic strike prices.
A Final Thought: Selling Insurance vs Buying Insurance

- Insurance buyer payoff is replicated by “buying high and selling low”.
- Profitable long term strategy is to do the opposite: “buy low, sell high”
Question & Answer

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Conviction in Equity Investing

Mike Sebastian
## Classifications of Manager Skill

<table>
<thead>
<tr>
<th></th>
<th>Underperform on average after fees and trading costs</th>
<th>Net alpha &lt; 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unskilled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Evidence of Net Alpha</td>
<td>Earn enough excess return on average to cover fees and costs, but no more</td>
<td>Net alpha ≈ 0</td>
</tr>
<tr>
<td>Skilled</td>
<td>Outperform on average net of fees and costs</td>
<td>Net alpha &gt; 0</td>
</tr>
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Our research separates investment manager products into three categories based on statistical analysis of returns.
Manager skill has steadily declined since the 1990s, and we estimate that only about 2% of products demonstrate evidence of true skill today. Success with active management requires a high bar.
Clients spend significant resources overseeing active managers; there is a fixed element to these soft costs that suggests an efficiency argument for using more active management if any is used at all
## Evidence on Outperformance of Higher Active Risk Managers

<table>
<thead>
<tr>
<th>Study</th>
<th>Finding</th>
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<tbody>
<tr>
<td>Amihud and Goyenko [2012]</td>
<td>Funds with lower $R^2$ (greater deviation from the market) outperform</td>
</tr>
<tr>
<td>Baks, Busse and Green [2006]</td>
<td>Managers willing to take big bets outperform</td>
</tr>
<tr>
<td>Cremers, Ferreira, Matos and Starks [2011]</td>
<td>The most active funds outperform; closet indexers underperform</td>
</tr>
<tr>
<td>Da, Gao and Jagannathan [2010]</td>
<td>High active share and aggressive growth managers outperform</td>
</tr>
<tr>
<td>Duan, Hu and McLean [2009]</td>
<td>Managers exhibit stock picking ability only in high-volatility stocks</td>
</tr>
<tr>
<td>Huij and Derwall [2011]</td>
<td>Fund managers willing to take big bets, and with broader investment strategies, outperform</td>
</tr>
<tr>
<td>Ivkovic, Sialm and Weisbenner [2008]</td>
<td>Households with more concentrated stock holdings earn better returns</td>
</tr>
<tr>
<td>Petajisto [2010]</td>
<td>The most active stock pickers outperform; closet indexers underperform</td>
</tr>
<tr>
<td>Wang and Zheng [2012]</td>
<td>Hedge funds with strategies more distinctive from peers outperform</td>
</tr>
<tr>
<td>Wermers [2000]</td>
<td>Funds that trade more actively outperform</td>
</tr>
</tbody>
</table>

There is significant evidence of a link between investment manager products with higher active risk (higher conviction on the part of the manager) and value added.
### Active Manager Value Added and Active Risk

Our research finds a strong link between active risk and performance relative to the benchmark.
When fully adjusting for manager style and risk, we find value added only among the managers who take the most significant active bets.
Evidence of true skill is much stronger among the most active managers
A Risk Puzzle

- Institutional investors spend significant time and resources on active management
- But active management accounts for only a small amount (5% or less) of typical total fund risk
- Investors’ portfolios are positioned to earn less alpha than they expect
A Solution

- We recommend that investors consider one of two directions with their public equity investments:
  - An *Efficiency* equity portfolio that is 100% indexed to a broad global equity benchmark
  - An *Opportunity* portfolio that maximizes the odds of success from active management in a high-conviction approach that is 80% or more actively managed
- *We believe that the Efficiency model is optimal for most investors.* Efficiency investors demonstrate conviction through a bold course of action of differing from peers who subscribe to the current model of active equity management.
- For investors unwilling to go to such extremes, at a minimum consider a strategy that combines indexing with high-conviction active strategies and avoids the expensive diversification of low active risk strategies and multitudes of actively managed portfolios.
A Call to Action

- We call on the major players in active equity management to step up their game:
  - Investment managers must focus on higher-conviction strategies that allow their skill to flow through to client returns, and reject low active risk strategies whose alpha is eaten up by fees and trading costs.
  - Consultants must also act with greater conviction, putting forward only their strongest recommendations, avoiding “safe” managers and being willing to recommend indexing instead in areas where credible products are lacking, or closed to new investors.
  - Asset owners must look within themselves to discover whether they are true believers. Those who are (the Opportunity investors) must demand conviction from managers and consultants, but also defeat their own value-destroying tendencies to chase returns and fire underperformers.
Thank you.

Question & Answer

Questions may be submitted at any time during the web seminar by typing the question in the "Ask a Question" text field and clicking "Submit." Questions will be answered live as time permits during the question and answer sessions.
Our next investment strategy update call is scheduled for Wednesday, December 19th, at 10 a.m. CST.