Alternative Investments: Bringing the Endowment Model to the Individual Investor

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< PUTNAM (MUTUAL FUND)
< COLUMBIA UNIVERSITY ENDOWMENT
< GENERAL MOTORS PENSION PLAN
Agenda

- Why Alternatives?
- What Are Alternatives?
- How Do Institutions Use Alts?
- How Can Individuals Use Alts?
- 2012 Market Outlook

An Update to David Swensen’s “Don’t Try This at Home” Advice

• Factor Allocation
• Liquid Alternatives vs. Traditional Alternatives
Why Alternatives?

Institutional investors pioneered using alternatives over the last 20 years.

Generally, the objective was diversification without sacrificing expected return.

Exception: Private Equity

- Hedge Funds
- Private Equity
- Real Estate
- Commodities
Why Alternatives?

Institutional investors pioneered using alternatives over the last 20 years

Survey of institutional investors on objective of hedge fund strategy

- As opportunistic investments: 60%
- To increase overall returns: 15%
- To improve risk/return of portfolio: 18%
- For diversification purposes/to decrease volatility: 7%

Source: Managed Futures Association
What is Private Equity?

As an asset class, Private Equity is simply levered equity.

Structural advantage over futures and levered ETFs:
• Leverage is applied at the individual company level.
What is Private Equity?

As practiced by top institutional investors, Private Equity generates alpha by creating/restoring wealth generating enterprises:

- Facebook
- Google
- Auto Parts

As of September 30, 2011
Source Cambridge Associates, Bloomberg
What are Real Assets?

Commodities and Real Estate provide some positive exposure to increasing inflation expectations and economic growth.

Top institutional investors ONLY invest in Real Assets through private equity type structures.
What are Real Assets?

For commodities, one reason private investing is favored is because of commodities are thought to be a zero risk premium asset class.

Commodity index returns are driven by factors other than the underlying asset returns.

Source: Erb, Harvey, “The Tactical and Strategic Value of Commodity Futures”
What are Hedge Funds?

Hedge funds are a structure, not an asset class

First hedge fund in 1949 created by Alfred W. Jones (Long and Short)

Structured as a limited partnership

Standard fees: 2% management fee, 20% performance fee
What are Hedge Funds?

Also called marketable alternatives

**Hedge funds are a structure, not a strategy**

Different strategies play different roles in a portfolio

<table>
<thead>
<tr>
<th>Equity Risk</th>
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<td>Fixed Income Arbitrage</td>
<td>Market Making</td>
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Introducing Factor Allocation . . .
How Do Alternatives Fit in a Portfolio?

Traditional Asset Classes

Grouped by Market Risk

- **Equity Risk**
  - Long Equity
  - Credit

- **Interest Rate Risk**
  - Government Bonds

- **Real Assets**
  - Real Estate
  - Commodities
How Do Alternatives Fit in a Portfolio?

Replace Market Risk with Factor Risk

**Deflation/Crisis**
- Government Bonds

**Growth**
- Long Equity
- Credit

**Inflation**
- Real Estate
- Commodities
How Do Alternatives Fit in a Portfolio?

Replace Market Risk with Factor Risk

Role for Alternatives Expands

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Deflation/Crisis
- Government Bonds
- Tail Risk Strategies
- Managed Futures
- Market Making

Growth
- Long Equity
- Credit
- Private Equity-Buyouts
- Private Equity-Venture
- Long Short Equity
- Arbitrage Strategies

Uncorrelated
- Manager Skill
- Global Macro
- Market Neutral

Inflation
- Public Real Estate
- Traded Commodities
- Private Real Estate
- Private Commodities
Institutional Alternative Portfolios

Alternative allocations funded from both equity and fixed income sides of a traditional 60/40 Stock-Bond portfolio

2011 NACUBO Endowment Survey:  Asset Allocation

- Cash/Other
- Alternative Strategies
- International Equities
- Fixed Income
- Domestic Equities

<table>
<thead>
<tr>
<th>Portfolio Size</th>
<th>Cash/Other</th>
<th>Alternative Strategies</th>
<th>International Equities</th>
<th>Fixed Income</th>
<th>Domestic Equities</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;$1 Billion</td>
<td>3%</td>
<td>60%</td>
<td>19%</td>
<td>9%</td>
<td>12%</td>
</tr>
<tr>
<td>$501 MM to $1 Billion</td>
<td>6%</td>
<td>46%</td>
<td>19%</td>
<td>11%</td>
<td>18%</td>
</tr>
<tr>
<td>$101 MM to $500 MM</td>
<td>5%</td>
<td>35%</td>
<td>18%</td>
<td>15%</td>
<td>27%</td>
</tr>
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</table>
Institutional Alternative Portfolios

Alternative allocations are heavily weighted to marketable alternatives

40% of alternative allocation in marketable

Liquidity constraints on private asset holdings

JPAM’s 2010 Alternative Assets Survey: Alternative Allocation Breakdown

- **Commodities**: 5.2%
- **Real Estate**: 5.0%
- **Private Equity**: 7.2%
- **Hedge Funds**: 12.6%

Endowment and Foundations
Institutional Alternative Portfolios

Higher performing institutions have higher allocations to alternatives

2011 NACUBO Endowment Survey: Returns

<table>
<thead>
<tr>
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<th>1 year</th>
<th>3 year</th>
<th>5 year</th>
<th>10 year</th>
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<td>&gt;$1 Billion</td>
<td>20.1%</td>
<td>2.4%</td>
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Institutional Alternative Allocation Drives Performance

Elite university endowments outperform other institutions

Performance is attributable to asset allocation, NOT manager selection

Endowment Performance 1991-2010

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<th>Others</th>
<th>60/40 Stock -Bond</th>
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<td>Avg. Return (%)</td>
<td>11.5</td>
<td>10.2</td>
<td>8.2</td>
<td>8.5</td>
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Our results suggest that endowments fail to earn alpha from manager selection or dynamic asset allocation. Rather, high average allocations to alternative asset classes explain the document cross-sectional variation in performance.

Using Alternatives in an Individual Portfolio

**Good news:** If asset allocation is the main driver of endowment outperformance, then individuals can benefit from increased allocations to alternatives.

**Bad news:** There are still not viable options for individuals for many alternative asset classes.

- Hedge Funds ?
- Private Equity ?
- Real Estate ?
- Commodities ?
Using Alternatives in an Individual Portfolio

Application of endowment model to individual portfolios should be based on underlying principles

These principles assume you don’t do direct LP investing for your clients

If you do LP investing for your clients, there are still practical considerations:

• Tax reporting
• Cumbersome subscription docs
• Illiquidity
• Lack of transparency

How important is the liquidity premium?

How important is leverage?

Is there “choice”?
Using Alternatives in an Individual Portfolio

Private equity's liquidity premium is significant

Leverage is important

There are some liquid vehicles, but of the handful of equities, all but one are not pure plays

Closed end funds present a promising segment, but options are few <5 and very illiquid

- Hedge Funds?
- Private Equity – No
- Real Estate?
- Commodities?
Using Alternatives in an Individual Portfolio

Since endowments access both Commodities and Real Estate exclusively through private structures, they are difficult to replicate for individuals.

REIT and real estate development companies, however, are decent liquid proxies for the Real Estate allocation.

While there are liquid proxies for commodities, they are too closely linked to underlying asset class, which has no risk premium.

• MLPs are promising, but energy is a sector, not an asset class.

Hedge Funds?

Private Equity - No

Real Estate - Yes, but

Commodities – No
Using Alternatives in an Individual Portfolio

Hedge funds are a structure, not an asset class

Not all hedge fund strategies fit, but some do

Because of industry evolution there is now a breadth of liquid, viable opportunities for some individual appropriate hedge fund strategies

Hedge Funds - Yes, some

Real Estate - Yes, but

Private Equity - No

Commodities - No
Which HF Strategies Fit an Individual Portfolio?

With the exception of activist investing, marketable alternatives do not require a liquidity premium.

Many, however, do require more leverage than permitted under the 40 Act to achieve historical return hurdles.

Most, other than long/short equity and managed futures, do not have a critical mass of choice:

- **177 Funds in Morningstar’s long/short equity category**

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Factors to Consider if Trying this at Home

Manager Selection

While manager selection does not seem important in explaining endowment performance, it IS important in explaining hedged mutual fund performance:

“Authentic” hedged mutual funds out perform those run by traditionally long only organizations

(Boyson, Agarwal, Naik, “Hedge Funds for Retail Investors? An Examination of Hedged Mutual Funds”, 2009)
Factors to Consider if Trying this at Home

**Manager Selection**

Avoid managers who are long-biased (average 50% or more net exposure)

**Net Market Exposure**

- Returns from beta are not worth premium fees

**Fundamental Approach**

Quantitative approaches to investing have no “moat”: all that is required is a lot of data and a fast computer

**Shorting Skill**

- Very hard to diagnose quant strategies: is underperformance a result of decay or just a bad outcome?
Factors to Consider if Trying this at Home

Manager Selection

Net Market Exposure

Fundamental Approach

Shorting Skill

One of the best predictors of future hedge equity performance is the ability of the manager to run a profitable short book.

Two sided alpha:

Long Alpha + Short Alpha = Portfolio Alpha
Using Alternatives in an Individual Portfolio

**Traditional 60/40 Portfolio**

- Targets 10% Volatility
- Large corporate bond weight
- Corporate bonds have a negatively skewed return profile
- Exposure to three risk factors
  - Equity Risk
  - Duration [Interest Rate] Risk
  - Inflation Risk
Using Alternatives in an Individual Portfolio

Replace corporate bonds and some equity with REITS and Hedged Equity

Still targets 10% Volatility

Exposure to four risk factors
• Equity Risk
• Manager Skill
• Duration [Interest Rate] Risk
• Inflation Risk

Traditional Portfolio

- Stocks: 60%
- Treasurys: 20%
- Corps/Mtgs: 20%

Portfolio with Alternatives

- Stocks: 40%
- Treasurys: 20%
- REITS: 20%
- Hedged Equity: 20%
Using Alternatives in an Individual Portfolio

Simple 40%/20%/20%/20% alternative portfolio outperforms broad endowment universe and keeps pace with the top institutions

Caveats:
• Time period specific
• Survivor bias

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*Source: Bloomberg. S&P 500 Total Return, HFRI Hedged Equity Total Return, ML/BofA Broad Corp and Master Treasury Indices
Using Alternatives in an Individual Portfolio

For more a risk target more appropriate to near retirement individuals:

- Target 7.5% volatility
- Replace some Equity and REIT allocations with Hedged Equity and Treasurys
- Exposure to four risk factors:
  - Equity Risk
  - Manager Skill
  - Duration [Interest Rate] Risk
  - Inflation Risk
Using Alternatives in an Individual Portfolio

More conservative alternative portfolio still outperforms broad endowment universe and keeps pace with the top institutions

Caveats:
- Time period specific
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<td>Stocks 20%</td>
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<td>10.6%</td>
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*Source: Bloomberg. S&P 500 Total Return, HFRI Hedged Equity Total Return, ML/BofA Broad , Corp and Master Treasury Indices*
Conclusion

Alternatives are diverse category – different alternatives play different roles in a portfolio

Best used with in conjunction with a Factor Allocation framework

Alternatives diversify, they don’t increase average annual returns

Real Estate and some Hedge Fund strategies are accessible and a good fit for client portfolios

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Market Outlook 2012

Feels like 2011 all over again, except . .

Backdrop of economic recovery

Many of the biggest risks are more “known” unknowns than they were going into 2011.
Market Outlook 2012

China risk is still a point of contention

While many structural imbalances persist around the world, China’s imbalances are glaring, egregious and underappreciated.

China’s construction boom is a debt fueled bubble, the unwinding of which will be painful.

Gold imports are up dramatically, likely to overtake India this year. What do the locals know?

Source: GMO, LLC