

Portable Alpha: Potent or Pointless?

Robert Hayes
Strategic Advice Service
BlackRock

Agenda

- What is portable alpha?
- Why might it be attractive?
- Concept v reality
 - Three forms of portable alpha
 - Getting at Alpha
 - Residual Beta
 - Fees and costs
- What next?

What is 'portable alpha'

- β
 - Market return or 'economic rent'
 - Normally thought of as 'asset classes'
- α
 - Return from skill or judgment (risk adjusted)
 - Includes stock selection, asset allocation
- Portable alpha is a strategy that aims to combine these in the most efficient way possible

Portable α – Basics

- I want bonds +2%
- The most I can get from conventional bond management is +1.5% (see session A4!)
- My equity manager targets market plus 2.0%
- Can I swap my equity relative return for a bond relative return?

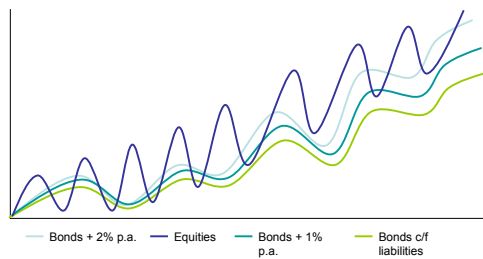
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Current environment

- The secular bull market driven by falling inflation is over
- General expectation for market returns going forward are lower
- Alpha as a proportion of total return is much more important

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Portable α – Basics



Extra return but with the volatility closely aligned to liabilities

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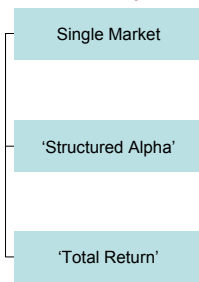
Why Portable Alpha?

- Traditional approach to investing rarely works
 - Determine asset (aka beta) allocation and then hire investment managers to implement
 - Problem: active management risk budget is then overweight the most efficient markets
 - Result: active managers can't beat the market consistently on a fee adjusted basis
- Portable alpha approach can offer higher return/less risk
 - Determine asset (aka beta) allocation and then STOP!
 - Separately, search for alpha and allocate active management risk budget based on alpha risk/return expectations
 - Engineer beta with futures and other derivatives

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Portable Alpha Range

Three broad categories



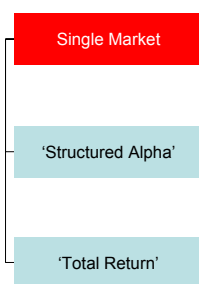
Key Characteristics

- Single long only asset class with market beta removed typically using futures
 - Japanese Equity
 - Currency overlay
- Multiple asset classes
 - Diversified alpha 'stripped' from traditional products
 - Beta engineered to client requirements
- Cash Plus products combined with swap overlay
 - Hedge funds or Fund of Funds
 - 'Target return/ absolute return' products

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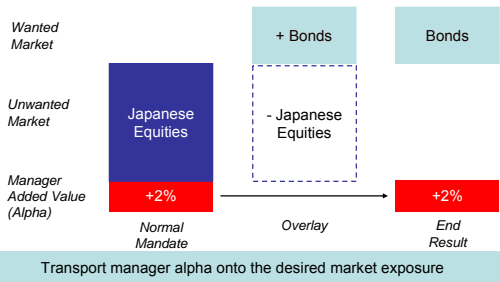


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Portable α – Traditional Model

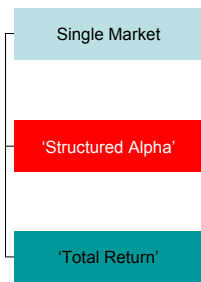


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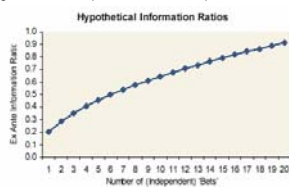


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'Structured Alpha' Multiple Alpha Philosophy

- Financial markets are nearly efficient; as such, a single skilled portfolio manager will only have a slight edge on the market and can be expected to produce only modest information ratios (.2 to .3)
- The only way to produce extraordinary information ratios (above 0.8) is to diversify an alpha portfolio among numerous, independent sources of alpha



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How To Create Alpha Portfolio?

1. Identify skilled managers and attractive alpha strategies
2. Establish risk, return & correlation assumptions for each manager/strategy
3. Create efficient frontier of alpha portfolios
4. Choose portfolio based on investor active management risk budget
5. Engineer beta

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Alpha Philosophy: Diversification is Key

- The optimal alpha portfolio should be diversified across instruments, regions, and strategy styles
- Example range:

| Instruments | Regions | Strategy Styles |
|----------------------------|------------------|------------------------------|
| Stocks | US | Arbitrage |
| Large Cap | UK | Volatility |
| Small Cap | Europe | Event Driven |
| Value | Japan | Capital Structure |
| Growth | Asia | Bottom-Up Security Selection |
| Bonds | Emerging Markets | Fundamental |
| Treasuries | Canada | Technical |
| Mortgage Backed Securities | Australia | Quantitative |
| Corporates | | Top-Down Macro Investing |
| High Yield | | Fundamental |
| Convertibles | | Technical |
| | | Quantitative |

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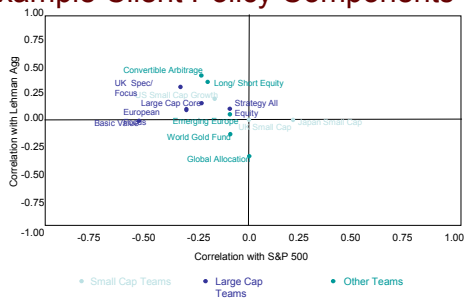
Example Alpha Correlations Among Themselves

| | US SC | UK SC | Japan SC | Basic Value | Large Cap Core Equity | All Focus | Eur. Focus | UK Focus | Global All. | World Gold | Emerging Europe | Long/Short Equity | Convert. Arbitrage |
|-------------------|-------|-------|----------|-------------|-----------------------|-----------|------------|----------|-------------|------------|-----------------|-------------------|--------------------|
| US SC | 1.0 | | | | | | | | | | | | |
| UK SC | 0.0 | 1.0 | | | | | | | | | | | |
| Japan SC | -0.2 | 0.1 | 1.0 | | | | | | | | | | |
| Basic Value | -0.4 | 0.0 | -0.1 | 1.0 | | | | | | | | | |
| Large Cap Core | 0.4 | -0.1 | -0.3 | 0.2 | 1.0 | | | | | | | | |
| All Equity | -0.2 | 0.3 | 0.1 | -0.1 | 0.4 | 1.0 | | | | | | | |
| Eur. Focus | 0.2 | 0.2 | -0.3 | 0.0 | 0.4 | -0.2 | 1.0 | | | | | | |
| UK Focus | 0.3 | 0.2 | -0.1 | 0.1 | 0.3 | 0.5 | 0.0 | 1.0 | | | | | |
| Global All. | -0.4 | 0.1 | 0.0 | 0.3 | -0.3 | 0.3 | -0.1 | 0.1 | 1.0 | | | | |
| World Gold | 1.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.3 | 0.1 | 0.1 | 0.2 | 1.0 | | | |
| Emerging Europe | 0.1 | 0.1 | 0.0 | 0.2 | 0.3 | 0.3 | 0.0 | 0.0 | -0.1 | 0.1 | 1.0 | | |
| Long/Short Equity | 0.2 | 0.4 | -0.1 | -0.4 | 0.3 | 0.3 | 0.1 | 0.3 | -0.1 | -0.1 | 0.3 | 1.0 | |
| Convert. Arb. | 0.0 | -0.2 | 0.1 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | -0.2 | 0.1 | 0.3 | 1.0 |

Source: BlackRock returns are from January 1994 to April 2004 or Since Inception. Illustrative only

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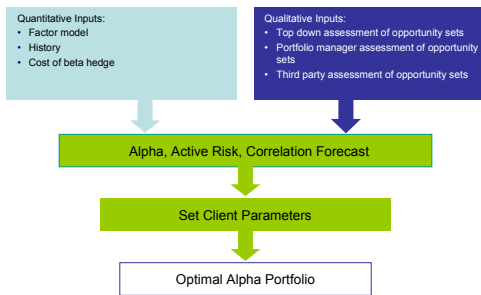
Example Alpha Correlations With Example Client Policy Components



Source: MLIM returns are from January 1994 to April 2004 or Since Inception.

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Alpha Portfolio Construction



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Historical Characteristics of Sample Alpha Portfolio

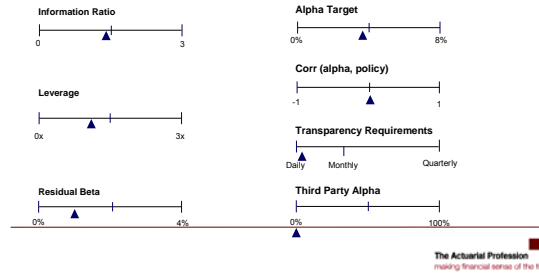
| Five Years Ending Sep 2004 | |
|----------------------------|-------|
| Monthly Statistics | |
| average | 0.4% |
| standard deviation | 0.8% |
| minimum | -1.1% |
| maximum | 2.3% |
| # below -1% | 1 |
| # bet 0, -1% | 16 |
| # bet 0, 1 | 31 |
| # bet 1, 2 | 10 |
| # bet 2, 3 | 2 |
| Total months | 60 |

Source: BlackRock. Analysis of historical performance returns based on mutual funds and institutional separate accounts.

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Setting Client Parameters

- The composition of an optimal alpha portfolio is independent of a benchmark; however, the clients optimal alpha portfolio will not be the same as other investors due to its preferences on several key parameters.



Beta Management

Objective function:

- Minimize beta exposure between alpha portfolio and client benchmark

By varying exposures to:

- listed futures and customized swaps
- May also need selective stock shorts

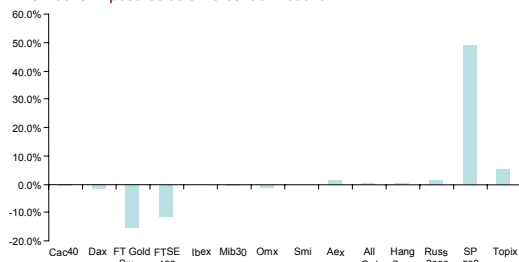
Subject to:

- maximum residual beta of 100 bps (or as set by client)
- derivative notional not to exceed market value of alpha portfolio

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Beta Trades

Derivative Exposures as a Percent of Notional

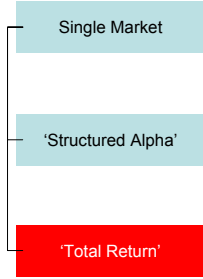


Source: Internal

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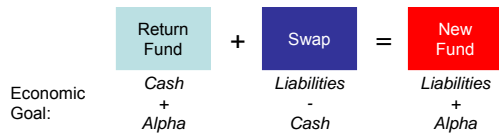
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Portable Alpha With Total Return Fund

- Example investment objective is liabilities + alpha



- Swap provides interest rate sensitivity

Single vehicle for achieving goal

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Portable Alpha Basic Questions

- Do you believe in Alpha?
- Best alpha markets are often most difficult (and expensive) to port
 - Emerging markets
 - Small cap
- Are alphas stable so that you can model /optimise them?
- Costs
 - Alpha should be considered net of costs
 - Porting (especially for esoteric markets) has transaction costs

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Conclusions - Comparative Advantages

- Traditional Approach to Balanced Investing
 - Determine target asset mix
 - Chose managers within each asset class
- Limitations of Traditional Approach
 - Restricted universe of managers
 - Inadequate diversification across strategies
 - Mandates usually constrained
 - Alpha allocations highly dependent upon beta exposures
 - Worst of all, searching for alpha in the wrong places (i.e., most efficient markets)
- "Portable Alpha" Approach to Balanced Investing
 - Determine target asset mix
 - Determine optimal alpha portfolio independent of target asset mix
- Benefits of "Portable Alpha" Approach
 - Diverse universe of managers
 - Diverse types of strategies
 - Harvesting alpha with less constrained mandates
 - Alpha allocations dependent upon risk/ return characteristics of alpha strategies
 - Best of all, seeking alpha in the right places (i.e., less efficient markets)

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Appendix

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Equity Financing Costs

| European Equity Finance Index Swap Quotes | | | | |
|---|------|-------|-------|----------------|
| | Bid | Offer | Size | Refunding rate |
| Amsterdam Exchange Index - AEX | L-25 | L-35 | 50MM | Euribor |
| CAC 40 Index (France) - CAC | L-15 | L-5 | 200MM | Euribor |
| German Stock Index - DAX | L-14 | L-12 | 50MM | Euribor |
| FTSE 100 (UK) - UKX | L-30 | L-7 | 100MM | Sterling Libor |
| FTSE 250 (UK) - MCX | L-75 | L-5 | 50MM | Sterling Libor |
| IBEX 35 (Spain) - BSE | L-45 | L-25 | 25MM | Euribor |
| S&P MIB Index (Italy) - SPMB | L-45 | L-20 | 25MM | Euribor |
| Swiss Market Index - SMI | L-20 | L-30 | 25MM | Swiss Libor |
| Dow Jones Euro Stock 50 - SX5E | L-5 | L-15 | 100MM | Euribor |

| | Bid on Gross Dividend Basis | Offer on Net Dividend Basis | Size | Refunding rate |
|------------|-----------------------------|-----------------------------|-------|----------------|
| MSCI SAFE | L-50 | L-50 | 100MM | USD Libor |
| MSCI World | L-65 | L-30 | 100MM | USD Libor |

* All quotes are indicative
* All rates in USD notional
* All durations 1 year

Source: Goldman Sachs Synthetic Products Group

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