
**SEB Merchant Banking
Investerarseminarium**

Allocating to Active Managers

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Introduction

Today's Agenda

- Risk premia and the role of active management
 - Returns to active management is limited
 - Risk premia is the main source of active returns
 - Inefficiencies are risky investments
 - Risk premia and inefficiencies may change and/or disappear
- Evaluating Strategies
 - Understanding the investment process
 - Exploiting risk premia or inefficiencies.
 - Optionality of strategies
- Evaluating managers
 - Understanding the biases
 - Decomposing a track record
 - Qualitative due diligence

About RPM and the Speaker

General on RPM

- RPM is an independent company specializing in trading management and risk management/monitoring for alternative asset management products.
- RPM was founded in 1993 and is based in Stockholm.
- The company employs 22 individuals and is wholly owned by its principals.
- RPM is a founding member of the Alternative Investment Management Association (AIMA) and has served the association in various capacities since it's start.
- Our clients are primarily banks and other financial institutions in Europe, North America and Japan, outsourcing general management and administration of alternative asset management products.
- RPM offers its services both as advisor to product sponsors and as product manager.

RPM and Funds-of-Hedge-Funds

- RPM allocates capital to hedge funds and CTAs.
 - Currently ~800 MUSD, 15 managers, 7 portfolios.
 - All investments are made through managed accounts, with daily liquidity and daily full transparency.
 - Currently focus on asset allocation strategies such as Global Macro and Managed Futures
- RPM measures and manages risk in hedge fund based products.
 - Currently > 4bn USD.
- RPM focuses on transparency
 - Transparent Investment Process
 - Transparent Positions
 - Transparent Risk
 - Extensive Daily Reporting

My Background

- Head of Portfolio Management at RPM Risk and Portfolio Management AB
- Adjunct Assistant Professor at the Stockholm School of Economics
 - Market Microstructure
 - Price Formation
 - Tactical Asset Allocation
- Most of my time at RPM goes to
 - Evaluating trading strategies and managers
 - Building and evaluating hedge fund portfolios
 - Flying
- The Managers I meet are a good cross-section of the active manager universe
 - 2-150 employees
 - Assets from 10 MUSD to 35 bn USD.
- Hedge Funds use the same techniques as long-only managers and many hedge fund managers also manage long-only accounts using the same trading approach.

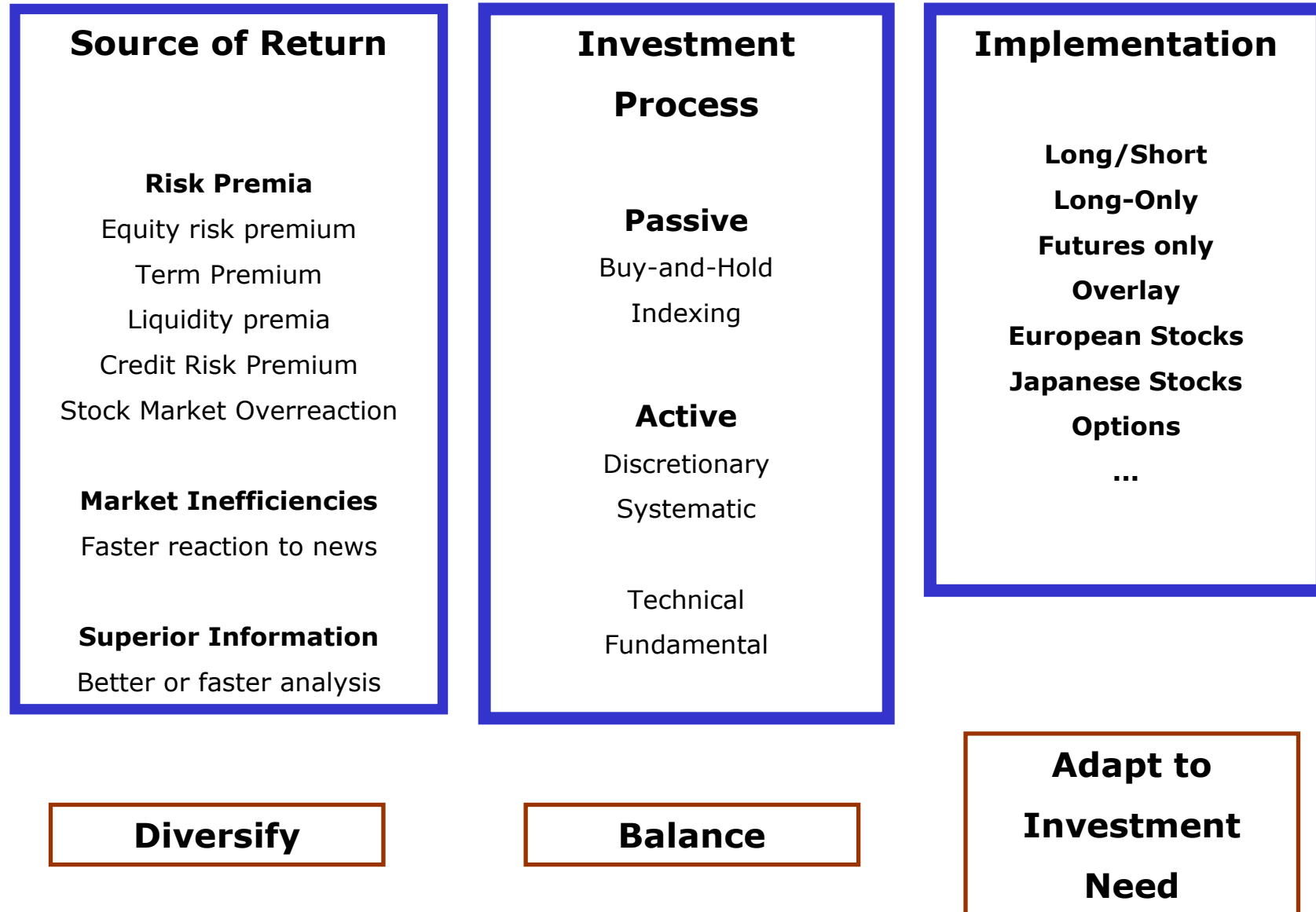
Framework

RPM

When Do We Appoint Active Managers?

- Fiduciary duty must allow it
- Our mandate requires it
- We cannot provide the strategy in-house
 - In-house constraints on skills, cost, management capacity, control,
 - Diversification need, lack of time, reduce dependence on key staff
- We want to benchmark ourselves or other managers
- We want to see the trades of other managers

Three Parts of Any Investment



Basic Ways to Beat The Market

- Market Selection or Tactical Asset Allocation: Identify attractive markets
 - Reasonably easy if the forecasting horizon is long enough
 - Unfortunately very large tracking error
- Security Selection/Sector Selection
 - Screening models based on public information (very hard these days)
 - Theme based models (reasonably easy)
 - Better analysis (very hard and fungible edge)
- Market Timing (Quite easy)
 - In many cases we can tell that markets are more likely to go one way
 - Risk premia are often visible as interest rate differentials, yield curve slopes, price discounts or manifested in prices as trends.
 - Large tracking error

A multi-strategy approach helps to reduce downside risk

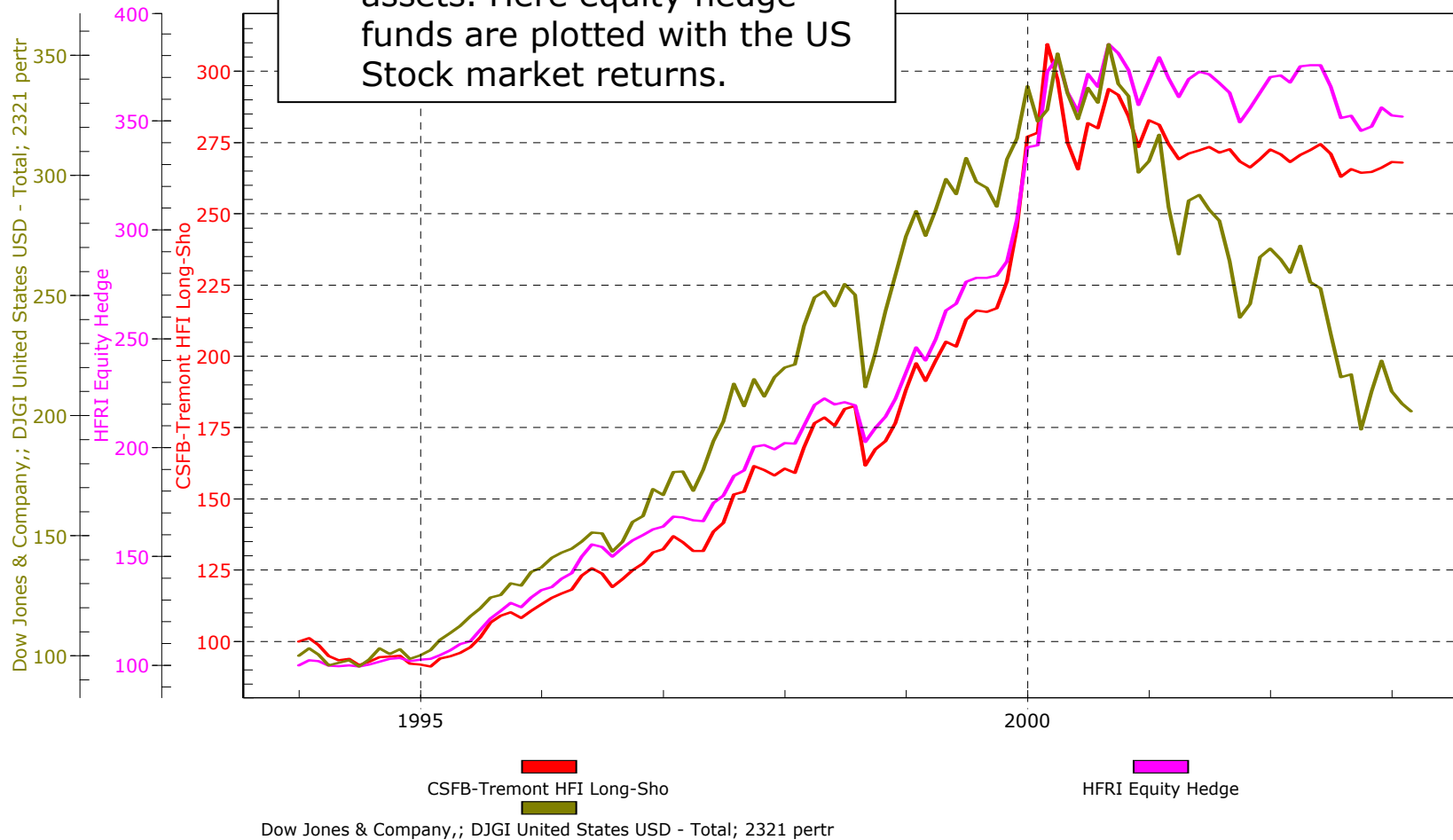
Risk Premia and the Sources of Return of Active management

Risk Premia and Active Management

- Financial instruments serve primarily to finance investment or anticipate consumption.
 - The return typically consists of a compensation for delayed consumption (i.e. interest rate) and a compensation for the assumed risk (i.e. the risk premium)
 - The risk premium varies over time, based on the supply and demand for capital.
 - The risk premium varies across assets, depending on the supply and demand of capital for a particular use.
 - Returns are related to profitability (equity) or solvency (debt)
- By construction the financial rewards are limited by the size of the economy
 - Aggregate financial returns are well described by the aggregate returns to stocks and bonds.
 - Financial returns cannot be higher than the sum of
 - Interest paid by borrowers and
 - Cost of capital paid by companies
- Investors are also subject to a significant mark-to-market risk as interest rates and risk premia change over time.
- Passive strategies seek to get a balanced exposure to various categories of debt and equity related instruments
- Active strategies seek to achieve higher risk adjusted returns by investing in the assets with the currently most attractive expected rate of return.
 - Requires timing or selection skill to be profitable

Returns to Active Strategies are Limited

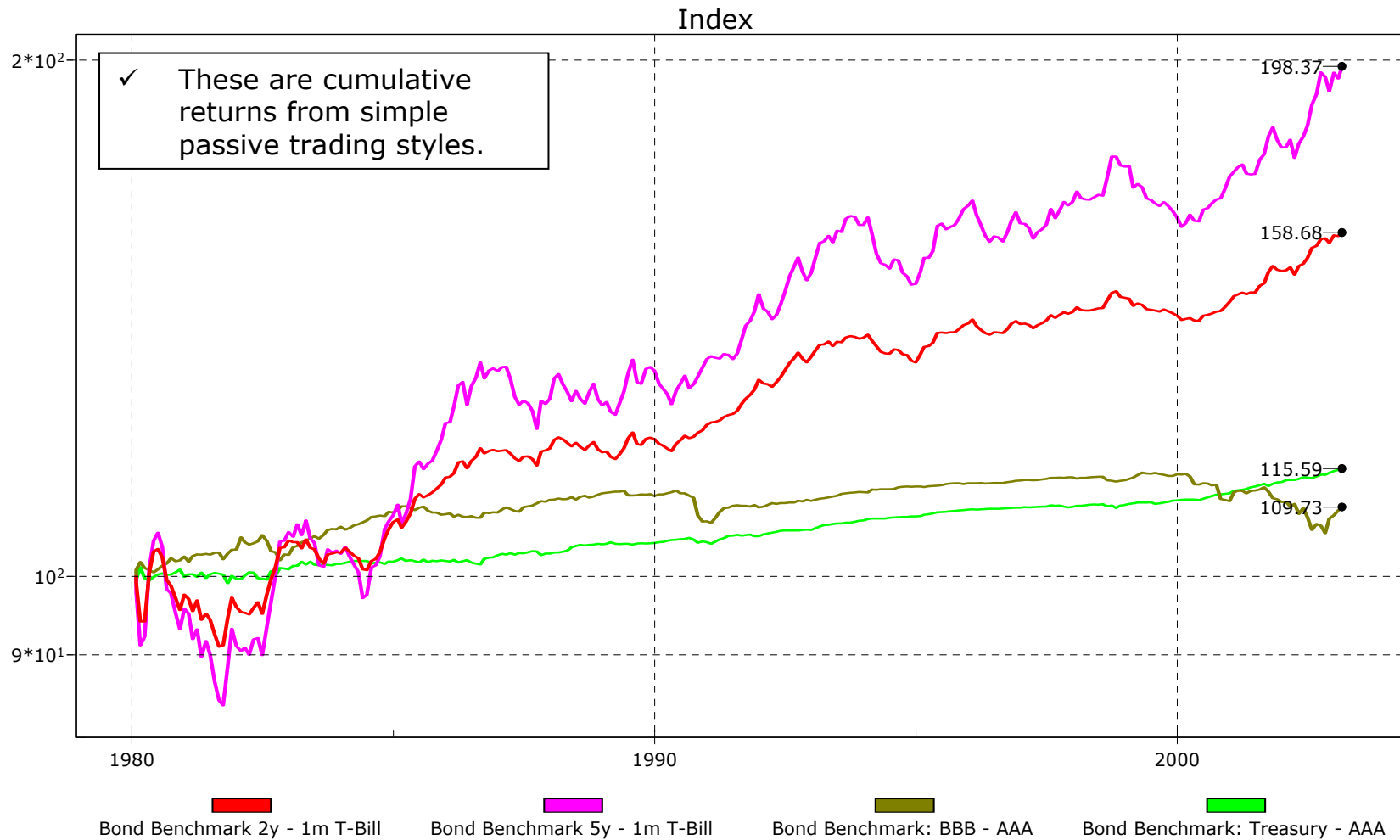
✓ The returns to equity based active strategies will be limited by the available returns in the underlying assets. Here equity hedge funds are plotted with the US Stock market returns.



Well-known Risk Premia

- **Equity risk premium**
 - Risk of owning stocks
 - Cost of monitoring
- **Term premium**
 - Risk of owning bonds
- **Credit risk premium**
 - Risk of default
 - Cost of monitoring
- **Event risk premium**
 - Merger failure risk, bankruptcy risk
- **Exchange rate risk premium**
 - Additional risk of foreign investment
- **Liquidity risk premium**
 - Assets cannot be sold, mark-to-market risk
 - Illiquid stocks, convertibles, out-of-the-money options, distressed securities
- **Small firm risk premium**
 - Monitoring risk
- **Commodity hedging demand premium**
 - Risk of adverse price change (E.g. making investments unprofitable)
 - Energy, metal and agricultural markets

Bond Benchmarks 5y, 2y, Credit

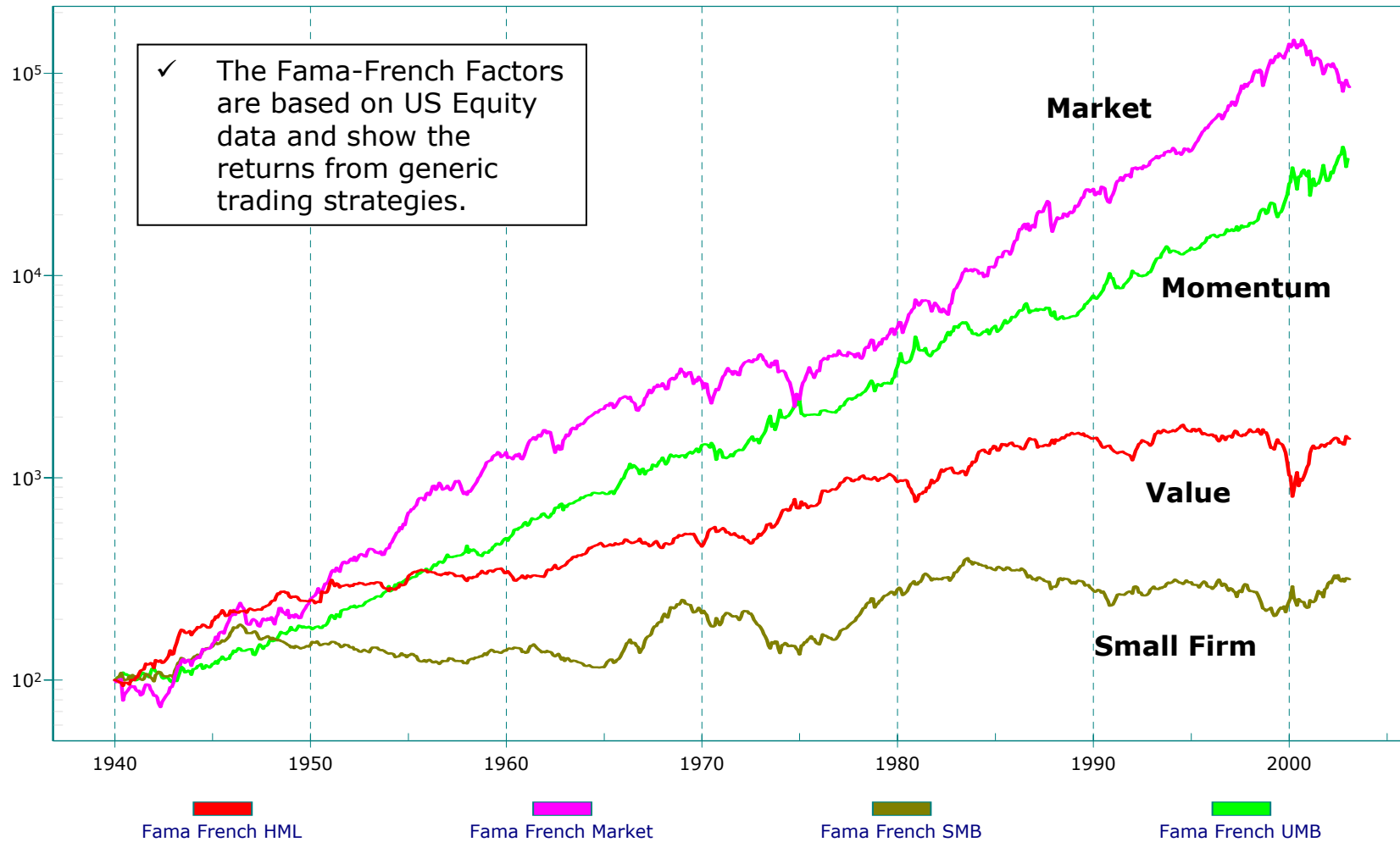


Known Inefficiencies

- Underreaction to earnings announcements
- Overreaction to bad news, underreaction to good news
- Stock momentum
- Value stocks outperform growth stocks
- Small cap stocks outperforms large cap stocks.
- The January effect


- Mispricings tend to disappear with time and it may be hard to maintain a systematic advantage.
 - Was the small-firm effect an anomaly?
 - The January effect?
- Proprietary valuation models and analysts often fail when markets change
 - Missing risk factor is the largest problem
- How do we know that the model is still working?

Fama French Factors



Source: Ken French website, dartmouth.edu

Investment Process

- An investment process is the method used to profit from a return source
 - No investment process is without risk!!
 - Otherwise the risk premium or inefficiency would be crowded out immediately.
 - All active strategies imply option like exposure
 - Think in terms of option replication. A stop-loss will e.g. look like a bought put.
-  Although different investment processes can be used to extract the same return source they have *different* weaknesses and optionality
- Make sure not to have one-sided optionality
 - Make sure to balance the downside of individual investment processes

Investment Processes

Ways to extract the exchange rate risk premium

Trend Following

Weakness: Relatively inefficient. Notoriously bad at turning points.

Strength: Never miss a trade, easily implemented over all currencies and crosses.

Carry trades

Weakness: The market often change before the carry.

Strength: Fairly efficient, well documented, easy to implement

Scenario Analysis

Weakness: Few trade opportunities, inefficient risk budgeting, too close stop losses.

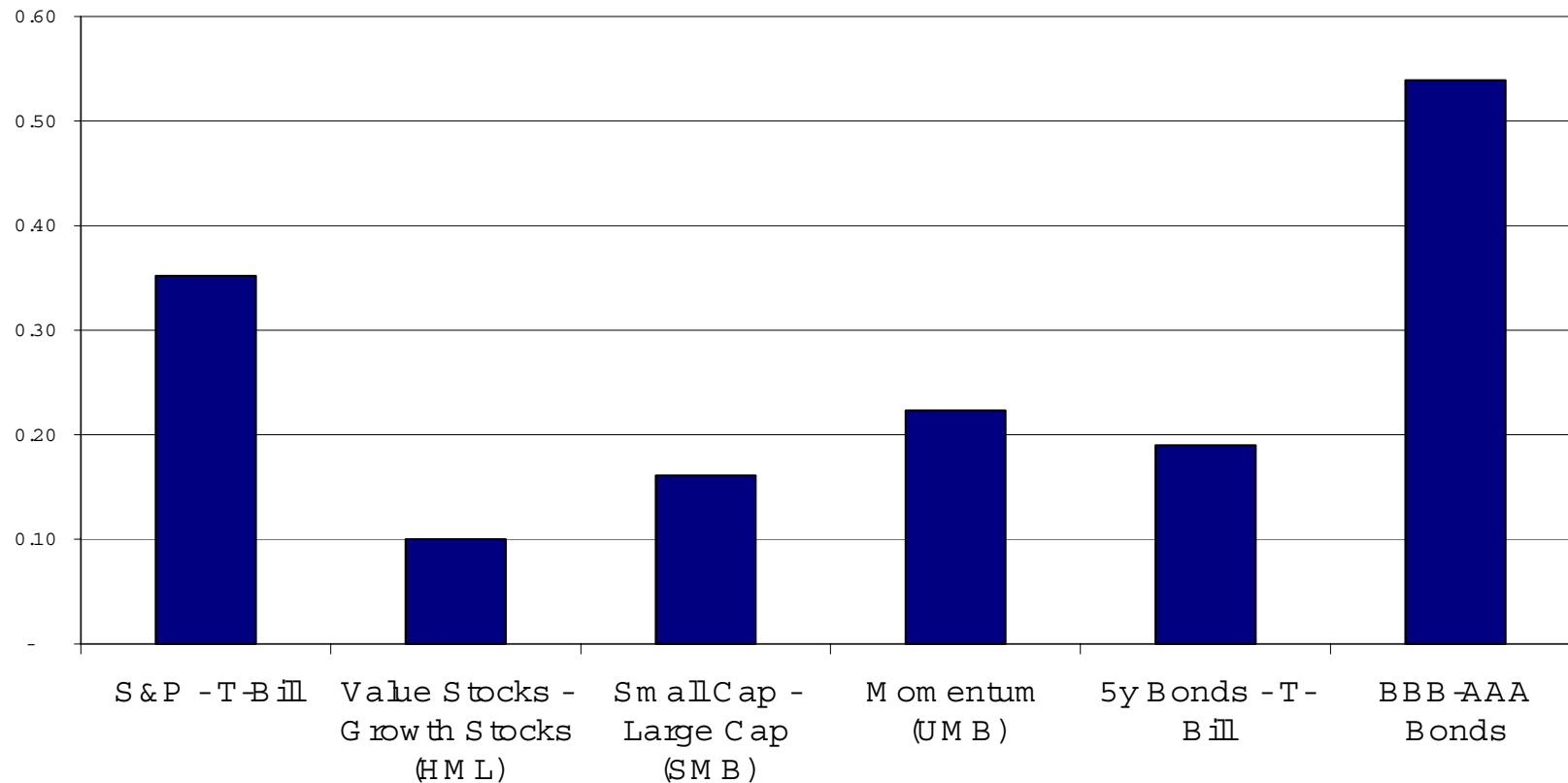
Strength: Efficient trades

Evaluating and Selecting Strategies or Investment Styles

CSFB Hedge Fund Index

- Hedge funds are a large set of active management strategies.
- We see in the graph that hedge funds have positive exposure to all major risk factors.
- The exposure varies from manager to manager, style to style, but on average exposure is linked to economic factors.

Exposure to Risk Factors



Source: author

Active Management and Benchmark Exposure

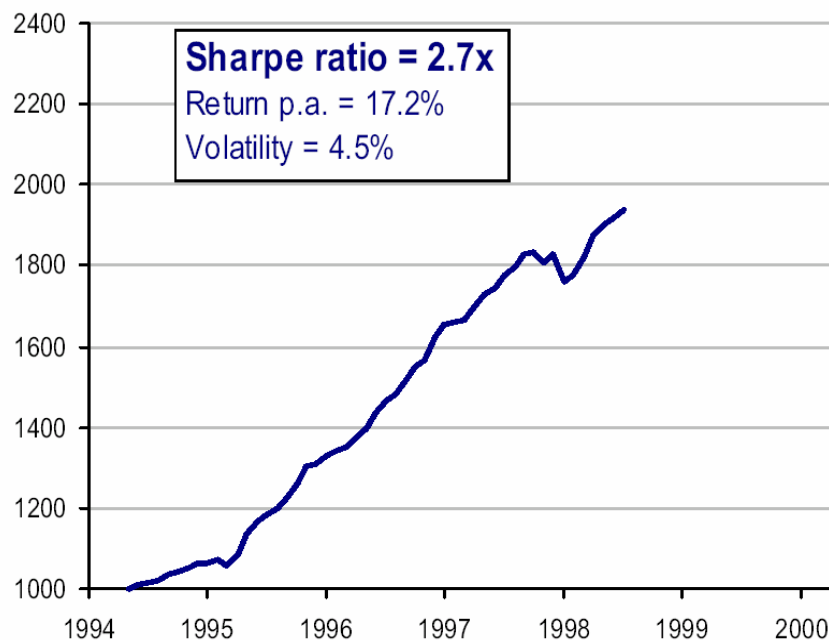
- Active strategies always carry implicit exposure to risk factors
 - The CSFB Hedge Fund index has positive exposure to bonds, corporate bonds, stocks, value stocks (B/M), small stocks (SML), Stock momentum (UMB).
 - Allocating always means changing exposure to risk factors
 - ‘Buy value stocks with positive momentum’
 - ‘Buy stocks that have underreacted to sector news’
 - ‘Rank stocks on 70 factors, take a positions that are neutral to 5 other factors’
 - ‘Buy/Sell Bonds that are cheap/expensive relative to a reference yield curve’
 - Active management always means option-like exposure to the markets
 - ‘If the stock ranks in the top 5 percentile, then’
 - ‘If the portfolio loses more than x% on a position then close’
 - ‘If the portfolio makes more than x% on a position then take profit’
- ☞ Controlling for exposure and optionality is the main hurdle to performance evaluation.
- ☞ Selecting exposure and optionality is the main task before allocating to managers.

Active Investment Styles Imply Optionality

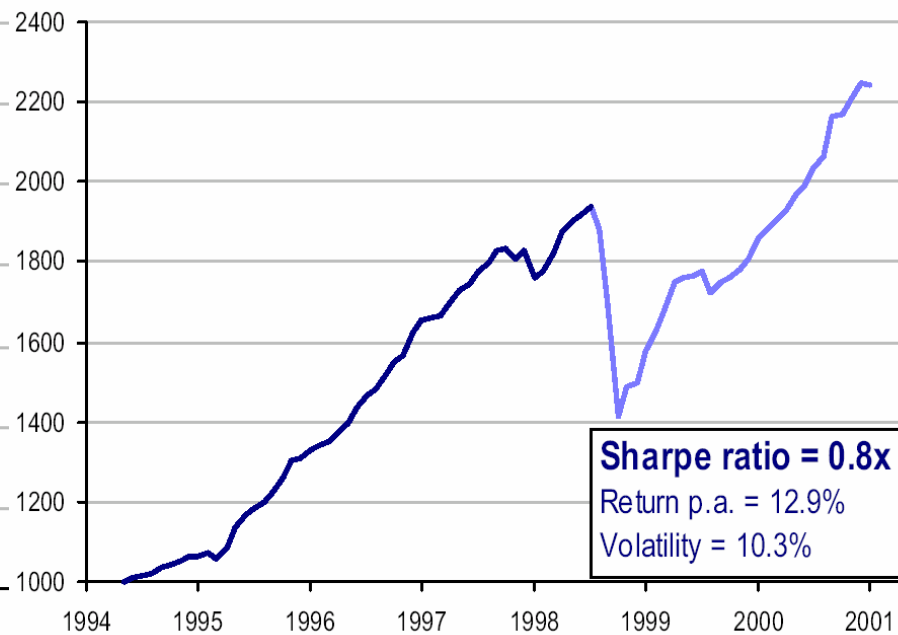
How Optionality Affects Performance Patterns

- Fixed income arbitrage has a significant sold-option profile
- The degree of optionality will differ from manager to manager.

Fixed Income Arbitrage before 1998



Fixed Income Arbitrage until 2002

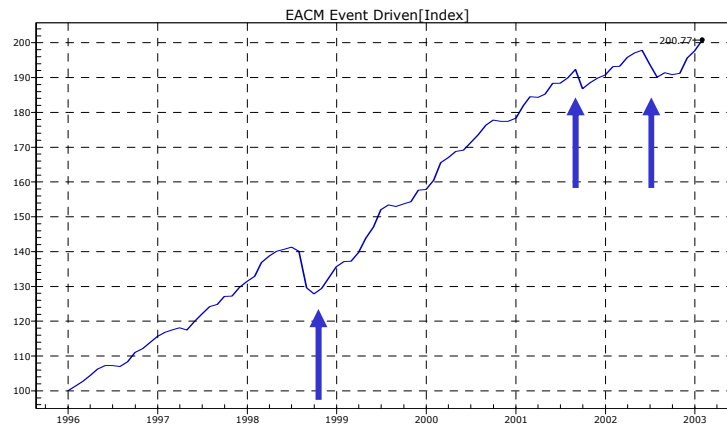


Source: UBS. Ineichen, The Search For Alpha Continues

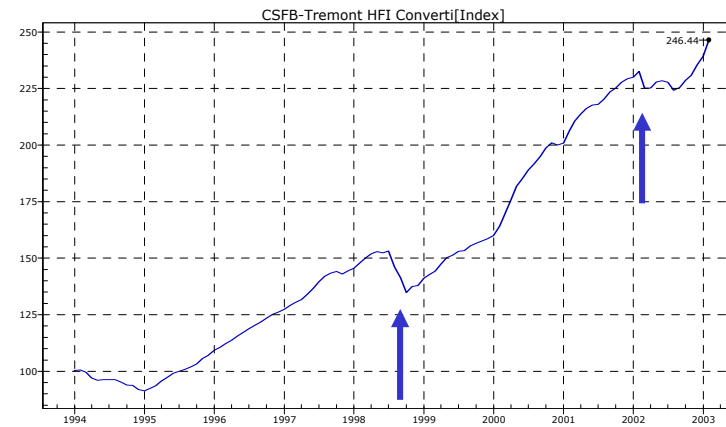
More Sold Options

- ✓ Most major stock picking styles have a sold option profile built in as they bet on convergence between similar instruments.

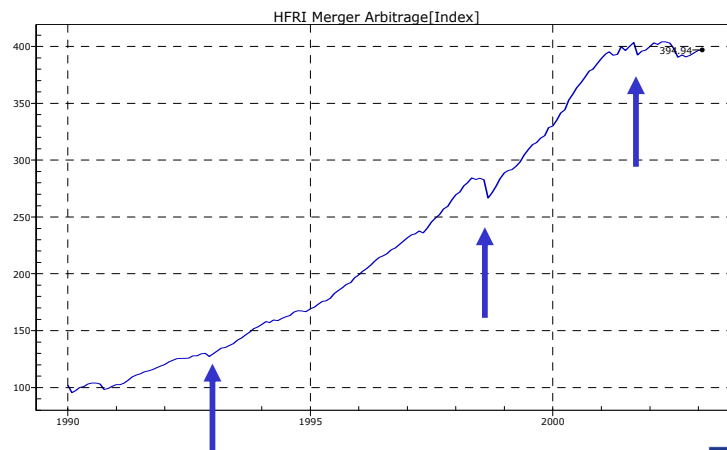
Event Driven



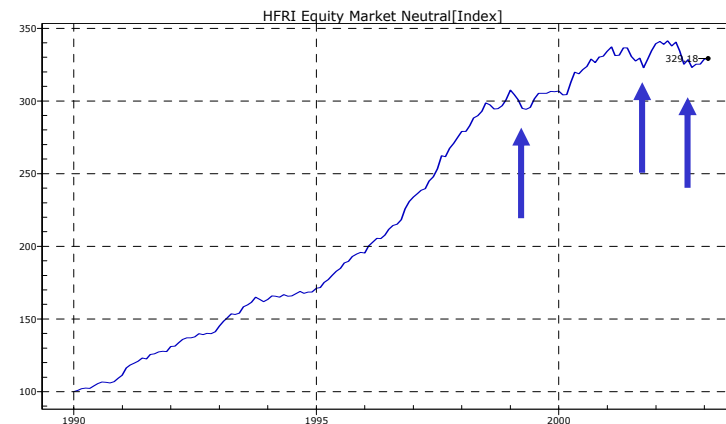
Convertibles



Merger Arbitrage

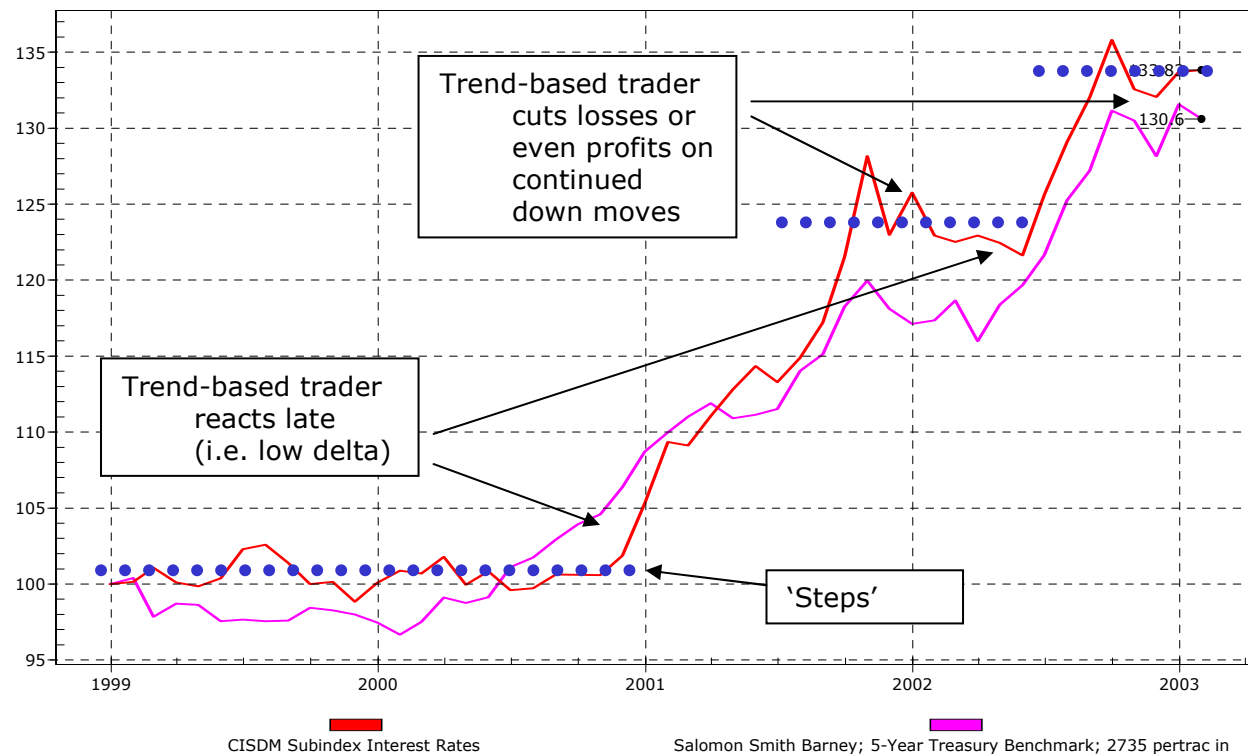


Equity Market Neutral



How Optionality Affects Performance Patterns

- A typical managed future program will use trend-based indicators to invest in e.g. global bond markets.
- The approach results in something that looks like a dynamically replicated straddle on bonds.
- As a result the return profile looks more like a step function than the underlying market.
- The degree of optionality is different from manager to manager



Evaluating and Selecting Manager Candidates

Looking through the Manager Smoke Screen

- It is in many managers' interest to be secretive about what they are doing. This is particularly true when positions are large or the strategy is based on a mispricing.
- In addition the manager may easily confuse the returns of the hedging strategy with the underlying return source.
- Survivorship bias
 - Farm team of strategies
 - Marketing always focuses on recent stars
 - Money flows in based on past performance so significant assets may mean nothing
- Important to understand the top-down approach as well as the bottom-up approach
- Control for opportunities
 - How many strategies are employed?

Ensure That Comparisons are Valid

- Managers are comparable when they follow a similar investment process otherwise not.
 - Since trading styles can vary in so many ways it is typically impossible to analyse a track record without discussing the trading style in detail with the managers.
- A verifiable investment process is necessary for proper analysis
 - Many discretionary investment processes are hard to verify. Managers know *how* they do, not *what* they do.
 - Returns must be measured against and explained by the investment process.

Systematic value driven stock selection

- 1 factor? 15 factors? 70 factors? Barra? Beta Neutral? Multi factor Neutral? Exposure bands? Sector exposure? Number of stocks? Turnover....

Analyst driven

- Value focus, Growth focus, top-down, bottom-up, sector exposure limits, shorts versus longs, ...

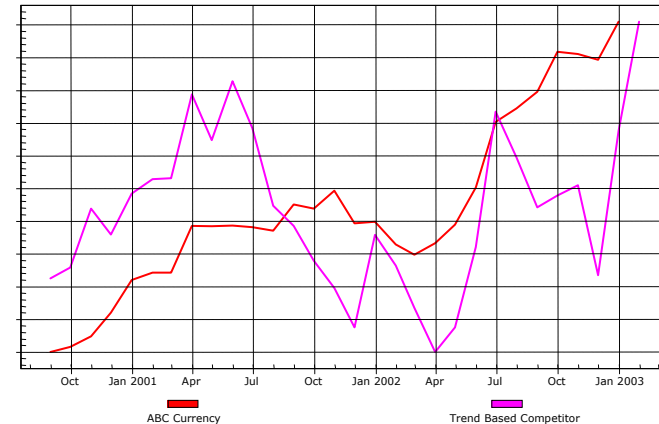
Trend-based futures trading

- Time-frame, market selection, stop-losses, profit targets, portfolio diversification, ...

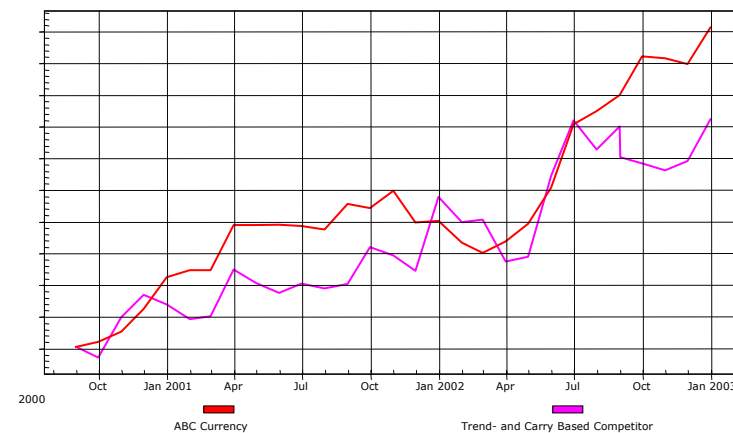
Example: Finding the Valid Comparison

- ABC trading is part of an asset manager managing in excess of a 4 bn USD in various strategies.
- The Currency Program has strong performance and was marketed as a typical trend-based currency program.
- After visiting, it turned out only approximately half of the performance was due to carry-based trading. (Which gives better performance as well as a 'sold-option' performance profile.)
- The relative performance was due to so called carry trades. The performance against a properly defined benchmark was good, but not outstanding. See lower graph.
- Other factors came to be deciding instead.

ABC against Trend-based competitor



ABC against trend and carry-based competitor



Evaluating Managers

- It is relatively straightforward to eliminate poor managers
 - Look for consistently underperforming managers
- Make sure all that risks taken are priced and that predictive power is not hedged away e.g.
 - No sector position without sector analysis
 - Analyst based stock picking should (typically) not be implemented in multi-factor neutral way (since much of analyst's prediction relate to sector and country effects)
- It is hard to identify good managers
 - The wrong benchmark makes many managers look good
 - It is easy to beat a benchmark if you add more sources of return.
 - Sold option profile tends to overstate performance measures such as the Sharpe Ratio

Evaluating Managers II

- It is not typically not possible to meaningfully establish differences in ability between good teams following the same investment approach
 - Stay with the 'good enough crowd' finding the best is typically less rewarding and risk of mistakes are larger
 - Even after sorting out the evaluation of managers, it is not obvious that we can allocate to the best managers.
 - Administrative requirements
 - Transparency
 - Have to allow proper evaluation
- Conclusion: Try to find good managers with a consistent style.
- Make sure the trading style is still valid – be ready to close winners as well as losers based on your market conviction.
 - Multi-factor neutral stock screening?
 - Value? Small-firm effect?

Qualitative Due Diligence

Qualitative Due Diligence

- Due Diligence questionnaires are helpful in verifying minimum standards
 - Standards are not absolute, but must vary with the type of mandate considered.
- Major points are often disguised as minor points in written documents
 - Market selection, trading style, research process etc. is hard for managers to describe in writing since this has to be adapted to the target audience.
 - 'They did not even develop their own models' (UK-based colleague)
 - 'Their models are based on generally accepted academic research (me).'
- Markets change and therefore it is important that the manager has a process for
 - Development – testing – evaluation – implementation – evaluation – rejection
 - An open mind towards new ideas and clear reasons for why certain approaches are avoided

✓ Many managers have been seduced by their own trading methodology. This is particularly true for method driven managers (matematics, statistics, factor models, ...).

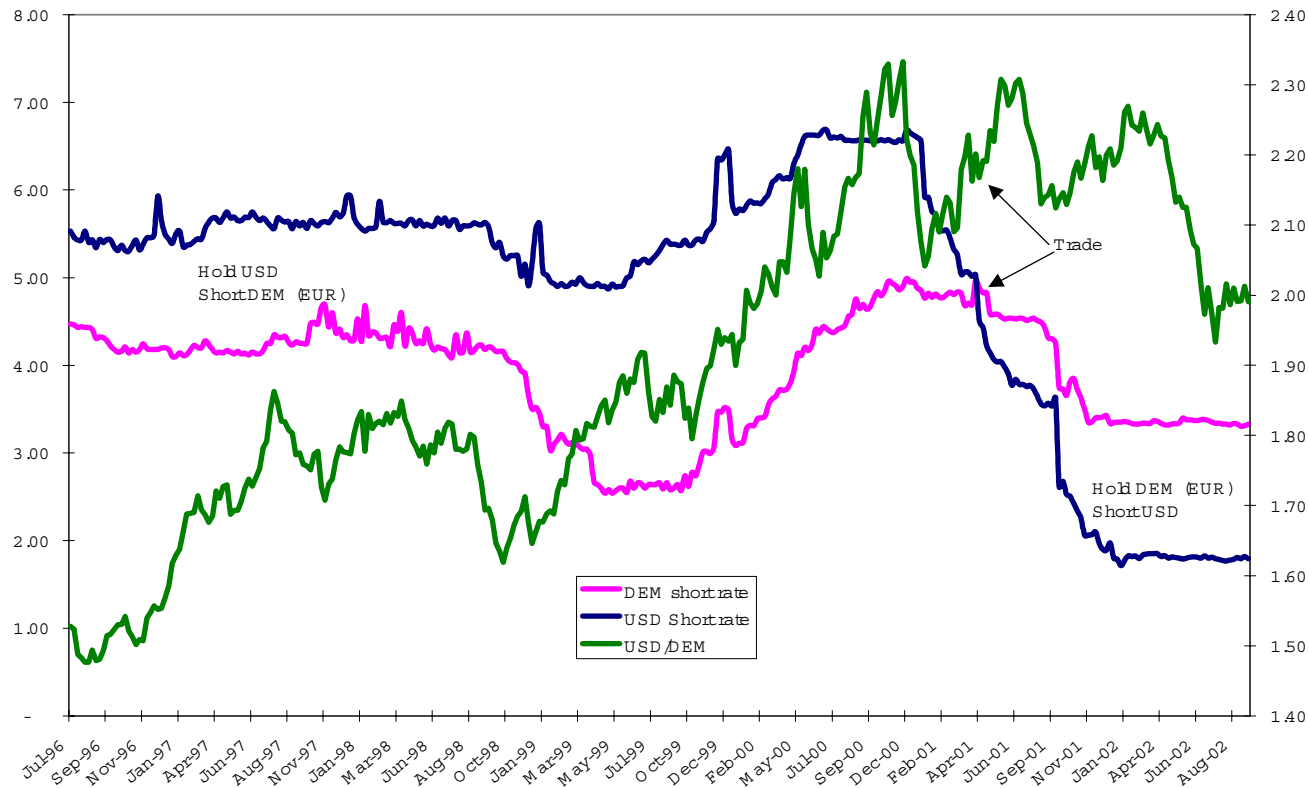
Tactical Asset Allocation

Tactical Asset Allocation

- We know that there are large potential returns from tactical asset allocation.
 - Typically a horizon of 12 months or more is needed for macro based variables to work – trend-based variables can be a bit faster.
- At the same time, Tactical asset allocation is very difficult and in many cases the realised information ratio is low.
- Properly implemented asset allocation must combine several different trading approaches
 - Just as long-short management should.

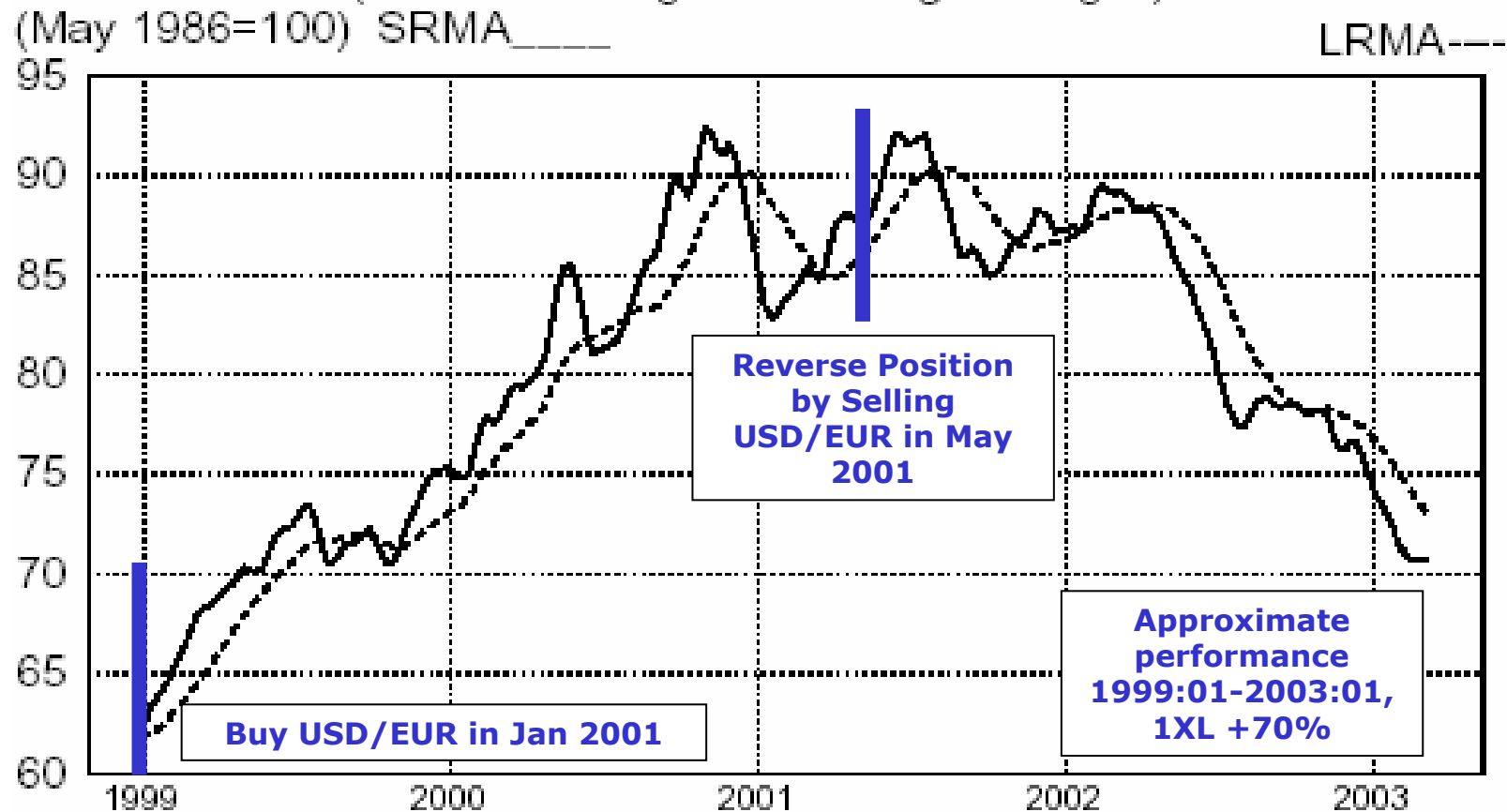
A Simple Global Macro Model

- Hold USD and borrow DEM (EUR) when the USD short rate is higher than that of DEM (EUR)



Simple Global Macro Performance

U.S. Dollar/Euro Carry Index Moving-Average Trading Rule (Short and Long-Run Moving Averages)



Conclusions

Active Managers

- Institutional managers
 - Have better infrastructure
 - Offer higher transparency
 - Are more willing to customise
 - Often charge lower fees
 - Understand evaluation process
- Small team hedge funds and money managers
 - Are fast-moving and creative.
 - Often act in niches that may become crowded
 - Often lack infrastructure, typically completely outsourced. Have weaker control
 - Often act in an informational vacuum – it can be hard to evolve with markets. Edge may vanish
- In-House Teams
 - Lack control and incentives to perform
 - Primarily a lack of downside, not missing upside

Strategy Outlook

- Some limited capacity strategies seem to be are crowded
 - Pure arbitrage strategies
 - Factor Neutral Statistical Arbitrage (i.e. Systematic stock picking).
 - Convertible Arbitrage?
- What risks are priced in the market place?
 - Is equity risk priced today?
 - What is the expected return on long-term bonds today?
 - Real Estate?
- Currency potential seems large over the next 1-2 years
 - Several divergences emerging
- TAA potential seems large over the next 1-2 years
- Strategies based on anomalies or informational advantage may lose profitability without warning

Conclusion

- Selecting managers implies selecting both source of return and investment process
 - Differences in market exposure makes direct evaluation difficult
 - Active trading style implies option-like returns
 - Opportunities vary over time
- Common sense and trust helps
 - Performance numbers are often false friends
- It is important to balance trading styles.
 - It typically makes little sense to diversify across similar managers
- Select consistent managers
 - Must have a process for change and development
- Most incremental returns come from identifying expected risk premia
 - but the risk is also large so more than one process is needed for timing exposure