Our Research Based Approach

Importance of Scientific / Academic Research

Our approach to building investment portfolios is focused on scientific / academic research. We believe this is crucial as this research has stood up to the rigours of a peer review process whereby it is assessed for its quality before being published. This scrutiny works to ensure that the research can be relied upon when making important investment decisions.

Stupid Data Miner Tricks: Overfitting the S&P 500  *The Journal of Investing*

David J. Leinweber (Haas School of Business, Berkeley, University of California)
Spring 2007

What the paper says: It provides examples of blatant, totally bogus applications of data mining in finance to make the point of the need to be aware of the risks of data mining in quantitative investing. The examples showed that the production of butter in Bangladesh explained 75% of the variation in US stockmarket returns. The production of butter in Bangladesh and the US; the sheep population in Bangladesh and the US; and the production of cheese in the US explained 99% of the variation in US stockmarket returns (which is a extraordinarily high amount of explanatory power)

In the author’s own words: "The dark side of data mining is to pick and choose from a large set of data to try to explain a small one ... When data mining techniques are used to scour a vast selection of data to explain a small piece of financial market history, the results are often ridiculous. These ridiculous results fall into two categories: those that are taken seriously, and those that are regarded as totally bogus. Human nature being what it is, people often differ on which category is which."

The following outline highlights the key scientific / academic research (not data mining) we have used to build portfolios for our clients.

Importance of Asset Allocation

Our approach:
Research shows that this mix of asset classes is the number 1 determinant of investment returns. The first and most important stage of the building an investment portfolio is to carefully consider what mix of assets is best for your portfolio. This will be different for every person.

The research:

Determinants of Portfolio Performance  *Financial Analysts Journal*

Gary P. Brinson, L. Randolph Hood, and Gilbert L. Beebower

What the paper says: Data from 91 large U.S. pension plans over the 1974-83 period indicate that investment policy (asset allocation) dominates investment strategy (market timing and security selection), explaining on average 95.6 percent of the variation in total plan return

In the author’s own words: “total return to a plan is dominated by investment policy (asset allocation) decisions.”
**Does Asset Allocation Policy Explain 40, 90, or 100 Percent of Performance?**
*Financial Analysts Journal*
Roger G. Ibbotson and Paul D. Kaplan
January 2000, Vol. 56, No. 1: 26-33

**What the paper says:** Choice of asset allocation explains 100% of the level of returns.

**In the author’s own words:** "We found that about 90 percent of the variability in returns of a typical fund across time is explained by policy (asset allocation), and on average about 100 percent of the return level is explained by the policy (asset allocation) return level."

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**Efficient Market Theory**

**Our approach:**
Research shows that no investor or even professional fund manager can consistently gain a reliable advantage over all of the other market participants. Asset prices quickly and fully reflect the knowledge and expectations of investors. i.e. stock selection and market timing provide little value. Therefore we do not pick particular stocks or markets and consider that trying to time market entry is not productive.

**The research:**

**Comments on Overall Theory**

Eugene Fama
Link - [http://student.bus.olemiss.edu/files/Riley/FIN%20633/Market%20Efficiency/Fama%201970%20JF.pdf](http://student.bus.olemiss.edu/files/Riley/FIN%20633/Market%20Efficiency/Fama%201970%20JF.pdf)

**What the paper says:** Security prices at any time fully reflect all available information.

**In the author’s own words:** "In short the evidence in support of the efficient markets model is extensive, and (somewhat uniquely in economics) contradictory evidence is sparse."

**As applied to “Stock Analysts”**

**Prophets during doom and gloom downunder** *Global Finance Journal*
Sarah Azzi and Ron Bird

**What the paper says:** Over the entire period of the study (1994 to 2003), shares with both 'strong buy' and 'buy' recommendations underperformed the average market return. Over the poor period of market returns, analysts appeared to perform even worse. The average 'sell' recommendation outperformed both 'strong buy' and 'buy' recommendations over the poor period of market returns.

**In the author’s own words:** analyst recommendations, "if anything, have negative value".

**As applied to “Fund Rating Agencies”**

**Morningstar Ratings and Future Performance** *Accounting and Finance*
Paul A. Gerrans
December 2006, Vol. 46, No. 4: 605-628

**What the paper says:** This paper explores the relationship between Morningstar, qualitative and quantitative ratings and future fund product performance. Results do not support predictive power in the ratings, in the relatively short periods available for analysis, using a range of commonly used performance measures.

**In the author’s own words:** “Overall, the evidence does not support the view that five-star funds will subsequently outperform lower rated funds”
As applied to “Individual Investors”
Trading is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors The Journal of Finance
Brad M. Barber and Terrance Odean
April 2000, Vol. LV, No. 2: 773-806

What the paper says: Individual investors who hold common stocks directly pay a tremendous performance penalty for active trading.

In the author’s own words: “Our central message is that trading is hazardous to your wealth”

As applied to “Media coverage”
Are Cover Stories Effective Contrarian Indicators? Financial Analysts Journal
Tom Arnold, John H. Earl Jr. and David S. North
March/April 2007, Vol. 63, No. 2: 70-75

What the paper says: Statistical testing implied that positive stories generally indicate the end of superior performance and negative news generally indicates the end of poor performance.

In the author’s own words: “As one might expect, positive feature stories headlined on business magazine covers follow extremely positive company performance and negative headlines follow extremely negative performance. In both cases, however, the appearance on a cover of Business Week, Fortune, or Forbes tends to signal the end of the extreme performance.”

Active Fund Managers Underperform

Our approach:
The research overwhelmingly has shown that active investment managers do not consistently outperform the market. We therefore choose an asset class approach to choosing investments using index style investments.

The research:

Measuring the True Cost of Active Management by Mutual Funds Journal of Investment Management
Ross M. Miller
Link - http://home.earthlink.net/~millerrisk/Expenses/Miller_1Q2007_JOIM_True_Cost_of_Active_Management.PDF

What the paper says: Even the average mutual fund, which ostensibly provides only active management, will have over 90% of the variance in its returns explained by its benchmark index.

In the author’s own words: “funds engaging in closet or shadow indexing charge their investors for active management while providing them with little more than an indexed investment.”

On Persistence in Mutual Fund Performance The Journal of Finance
Mark M. Cahart

What the paper says: There is no evidence that choosing a managed fund that had outperformed in the past would provide above average returns into the future.

In the author’s own words: “The results do not support the existence of skilled or informed mutual fund portfolio managers.”
Returns From Investing in Australian Equity Superannuation Funds, 1991-1999
Services Industry Journal
Michael Drew and Jon Stanford (University of Queensland)
Link - http://www.informaworld.com/smpp/content~content=a714040293~db=all

What the paper says: Rather than add value for investors, the fund managers in the superannuation industry ended up performing so poorly that they actually underperformed the average index return by a significant margin.

In the author's own words: 'as an industry, investment managers destroyed value for superannuation investors for the period 1991 through 1999, under-performing passive portfolio returns by 2.80-4.00 per cent per annum on a risk-unadjusted basis'.

Diversification

Our approach:
Research shows that diversification across different asset classes and within asset classes reduces portfolio volatility in the longer term. We therefore recommend investment in all the major asset classes – cash, fixed interest, Australian shares, international shares and property and within those asset classes use an index style approach.

The research:

Portfolio Selection The Journal of Finance
Harry Markowitz
March 1952, Vol. 7, No. 1: 77-91

What the paper says: Markowitz’s proposition was that investors would use diversification to reduce the risk (volatility) of their portfolio for their chosen level of return.

In the author's own words: "Diversification is both observed and sensible; a rule of behavior which does not imply the superiority of diversification must be rejected...."

Three Factor Model

Our approach:
Research shows that exposing portfolios to three factors will very reliably explain virtually all portfolio performance - the market, company size and the value effect. The research, which has been consistently repeated in markets around the world, shows that two factors – company size and value (or company health) are sources of above market average returns. We therefore expose investment portfolios to all three factors.

The research:

The Cross-Section of Expected Stock Returns The Journal of Finance
Eugene F. Fama and Kenneth R. French

What the paper says: The three factors of: 1) market beta, 2) firm size & 3) value effect do the best job of explaining expected returns and are rewarded by markets with higher average returns over time.

In the author's own words: "performance versus the market or versus the next guy depends almost entirely on the amount of stocks in general, the amount of small cap stocks and/or high BtM (value) stocks you hold.”
The Value Effect
Excellence Revisited Financial Analysts Journal
Michelle Clayman
May/June 1994, Vol. 50, No. 3: 61-65

What the paper says: There is a tradeoff between growth and profitability versus valuation ratios.

In the author’s own words: “Good companies do not necessarily make good investments, the market appears to reward profitable companies selling at reasonable multiples.”

Imputation Credits

Our approach:
Research shows that franking credits are not priced into the value of shares in Australia. This is why we recommend holding a slightly greater higher allocation of Australian shares compared to international shares and property within portfolios.

The research:

The value of dividend imputation tax credits in Australia
Journal of Financial Economics
Damien Cannavan, Frank Finn and Stephen Gray
July 2004, Vol. 73, No. 1: 167-197

What the paper says: Franking (or imputation) credits are not priced into the value of shares.

In the author’s own words: ‘the implied value of tax credits has been insignificantly different from zero’.

The Impact of Fees on Returns

Our approach:
The research shows that higher fees lead to poorer performance. Investment portfolios should be accessed on a low cost basis thus adding to the bottom line investment result.

The research:

Is there a Positive Relationship Between Superannuation Fund Costs and Returns?
Economic Papers (Economic Society of Australia)
Michael Drew and Jon Stanford
September, 2003
Link - http://findarticles.com/p/articles/mi_m0PAO/is_3_22/ai_n6141833/pg_1

What the paper says: There is no evidence that paying higher fees leads to higher superannuation returns. Indeed, the opposite would appear to be the case with higher fees leading to poorer performance.

In the author’s own words: funds that levy the lowest MERs (fees), produced, as a group, the best returns ... the highest MER group, delivered the most inferior returns to contributors.

This document has been prepared as a brief summary of the research behind how we develop investment portfolios. If you would like more detailed information please refer to our ‘Investment Portfolio Basics’ & ‘Investment Philosophy’ which can be obtained through our website or by requesting a copy by email or phone. It is a publication of A Clear Direction Financial Planning. It contains general financial advice. Readers should check this advice with a professional financial adviser before acting on any of the material contained in this document.