

Active versus Passive Investment Management:

Putting the debate into perspective

Arnerich Massena & Associates, Inc.

August 2007

Contributors:

Tony Arnerich
Sheree Demers-Arntson
Jillian Perkins
Travis J. Pruitt, C.F.A.
Ximena Spicer
Lynn Spruill

Active versus Passive Investment Management: Putting the debate into perspective

Getting Ahead of the Trends

As investment consultants, our job is to stay ahead of the curve and forecast the trends rather than follow them. The current spotlight on passive (or index) investment management strategies presents us with a timely opportunity to investigate more closely the value and viability of active management strategies in comparison. Despite the popularity of index funds (and now the growth in exchange-traded funds—ETFs), investors continue to seek out actively managed mutual funds. Between 1992 and 2005, the total number of mutual funds grew from just over 22,000 (Investment Company Institute, 1998) to nearly 57,000 (Investment Company Institute, 2006), more than double. It is with the objective of providing our clients a clear analysis of the merits of an active versus passive investment approach that we undertake an evaluation. Our evaluation centers around broad asset classes, specifically large and small cap, in order to deliver a general overview and to provide the greatest utility for our clients. In more specialized asset classes, data and conclusions may be different.

Even if you are on the right track, you will get run over if you just sit there.

-Will Rogers

Before we look at active and passive management in the context of both the larger mutual fund market and market trends, there are some initial comparisons which have bearing on the bigger picture. Inherently, each strategy has its advantages and disadvantages.

The Basics

Passively managed funds typically have a lower cost than actively managed funds. Additionally, using ETF products may offer some tax-efficiency for taxable investors by avoiding pass-through costs and taking advantage of redemption-in-kind tax strategies. One of the most powerful claims for indexing is that it has been argued to be the most efficient way

Passive Management

- low cost
- market efficiency
- tax efficiency

Active Management

- expert analysis
 - potential for higher-than-market returns
 - ability to react to market conditions
-

to invest in the market. Because there is little information that is not readily available to all investors, the sum of the choices of all investors should be an efficient portfolio: hence the idea of market efficiency. Although with passive management you avoid the risk of a money manager making costly mistakes, you also lose any ability to take offensive or defensive action in response to market conditions.

Active management offers the advantage of expert analysis backed by research and experience. This means the expense ratio is generally greater, which impacts net returns. But it also means there is a potential for net returns that outpace the market.

In questions of science the authority of a thousand is not worth the humble reasoning of a single individual.

-Galileo

A basic picture of what active and passive management offer is unfortunately as far as many advisors will go in discussing the difference with clients. We believe that how active and passive funds behave in a broader market context is crucial to understanding the potential of active or passive management to maximize your portfolio's success.

Active versus Passive Investment Management: Putting the debate into perspective

Active Management in Different Economic Conditions

Many economists agree that actively managed mutual funds struggle to outperform their benchmarks. There is evidence, however, that the case for mutual fund underperformance may be overstated. First, let's take a look at the data and then we'll discuss the implications.

Large Cap

Figure 1 shows the percentage of active large cap managers who outperformed the S&P 500 Index during each calendar year from 1980-2006. Figure 2 shows the year-end calendar returns for the S&P 500 during the same time period.

A pattern emerges in which it is sometimes true that large cap active management tends to underperform relative to market returns—largely when the market is in an expansionary period. For example, during the boom of the late 90s, you can see that only between 11% and 27% of active managers outperformed the S&P 500. But as the market plummeted between 2000 and 2002, active managers gained in relative performance, with 67% beating the Index in 2000 and nearly 50% in the following two years. When the market recedes, it appears large cap active managers begin to provide greater value over and above index returns. This is consistent with findings by Robert Kosowski from INSEAD: “Overall, our results show that U.S. domestic equity mutual funds perform better in recession than in expansion periods.” (Kosowski, 2006) Fortin and Michelson arrive at a similar conclusion when studying active versus passive management across asset classes: “The managed funds seem to outperform the index funds during periods when the economy is either going into or out of a recession... It appears that active fund management is better than investing in index funds when guiding portfolios through difficult times.” (Fortin and Michelson, 2002)

“Overall, our results show that U.S. domestic equity mutual funds perform better in recession than in expansion periods.” (Kosowski, 2006)

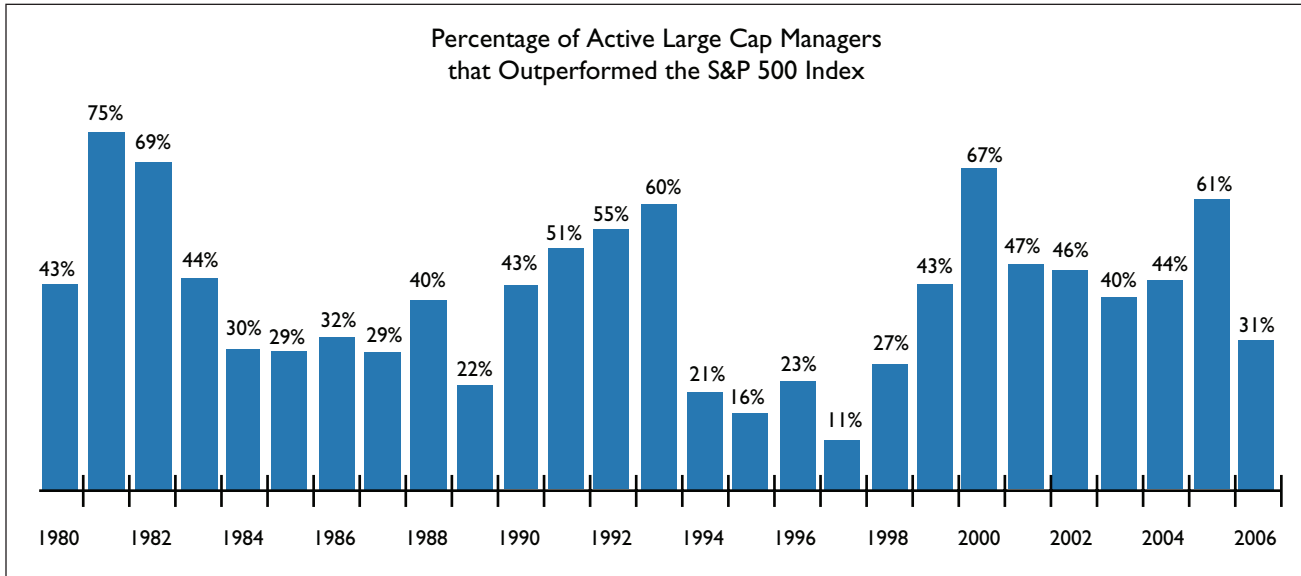
Small Cap

Figures 3 and 4 show the percentage of active small cap managers outperforming the Russell 2000 Index from 1980-2006 and the Index's year-end calendar returns.

In the small cap universe, active management clearly provides a greater return premium than in large cap, outperforming index returns a majority of the time. But the same phenomenon is apparent in the small cap arena, in which outperformance of the Index is strongest in periods when the Index is performing poorly. For example, the poor performance of the Index in 1990 was outpaced by 80% of active small cap managers, whereas only 31% of active small cap managers beat the stellar index performance in 2003. The year 2002 was the worst calendar year for the Russell 2000 since 1980; during that year, 55% of active small cap funds outperformed it. Note that in 2006, most active managers underperformed the strong showing of the Russell 2000.

Active versus Passive Investment Management: Putting the debate into perspective

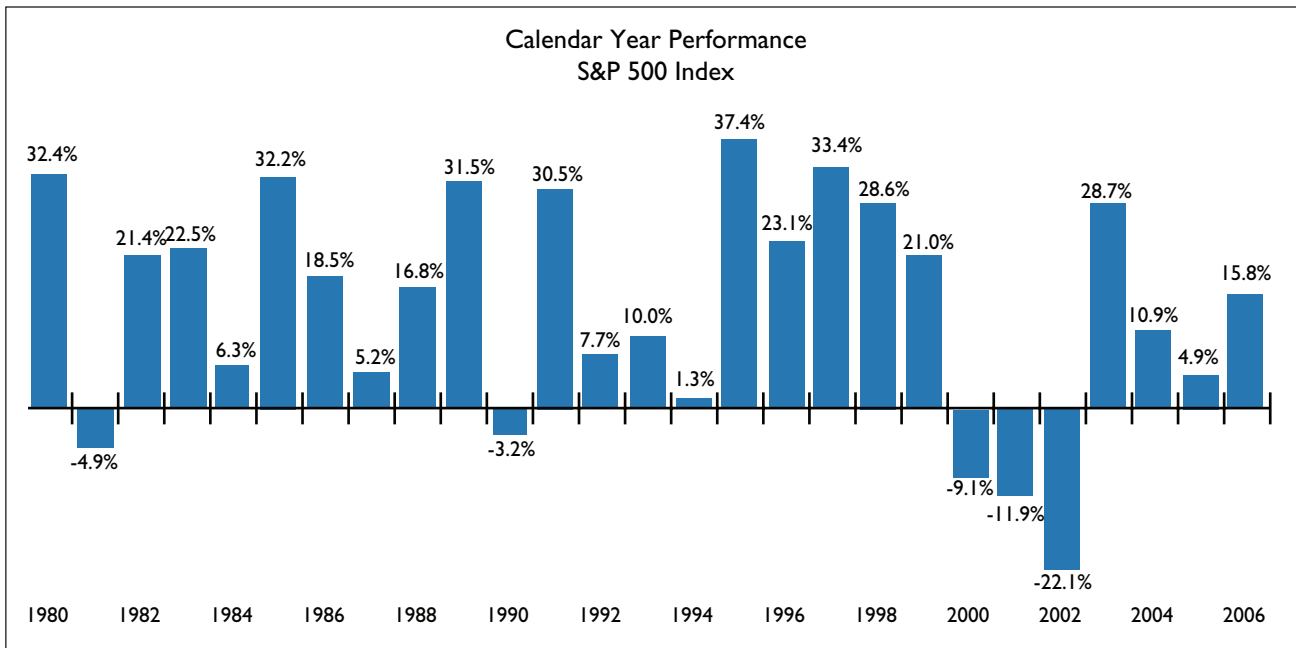
Fig. 1



source: Morningstar

The large cap universe includes the growth, value, and blend styles as determined by Morningstar – this may include some aggressive allocation funds and sector specific funds. All share classes were used in the universe counts and calculations.

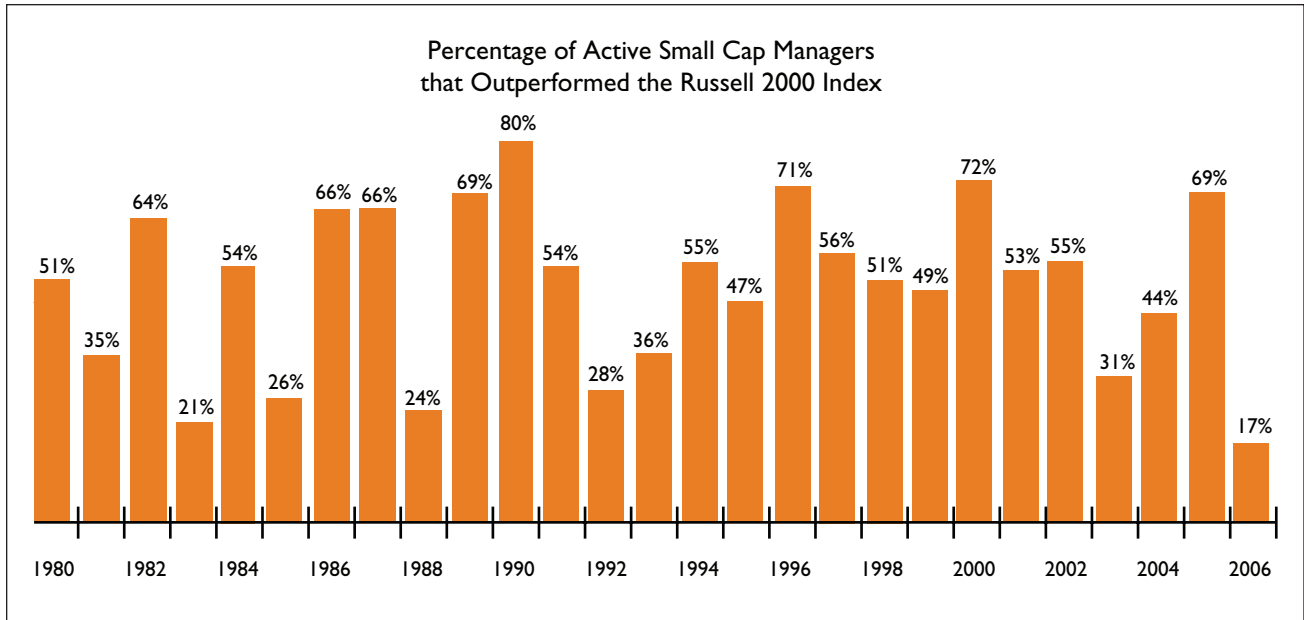
Fig. 2



source: Ibbotson Associates

Active versus Passive Investment Management: Putting the debate into perspective

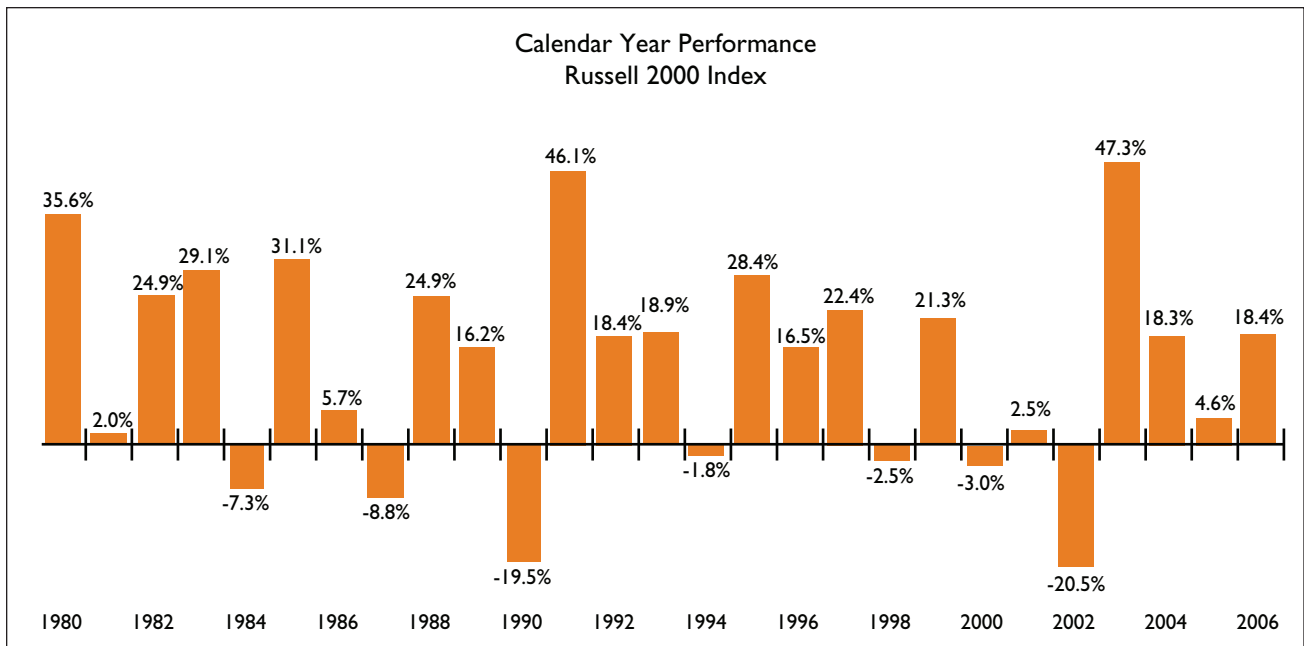
Fig. 3



source: Morningstar

The small cap universe includes the growth, value, and blend styles as determined by Morningstar – this may include some aggressive allocation funds and sector specific funds. All share classes were used in the universe counts and calculations.

Fig. 4



source: Ibbotson Associates

Active versus Passive Investment Management: Putting the debate into perspective

Why does active management provide a return premium during down markets? This is due in part to the cash holdings maintained in actively managed funds. Fund managers must hold cash to meet redemptions and maintain liquidity of the fund. In an up market, a large portion of assets in cash will drag performance down. Additionally, cash inflow is high during expansionary periods as investors seek to invest more when they perceive the potential for a high return. "... It would be difficult for a manager to immediately and optimally place a major inflow of newly contributed cash into 'core' assets; hence, the holding of such cash will result in the temporary 'parking' of the money, thereby leading to a depressed percentage return of the fund." (Benson, Faff, and Smith) Conversely, in a down market, maintaining cash holdings becomes a defensive strategy and can actually reduce the risk of loss.

Does Active Management Add Value?

Added value is a concept that may be evaluated on multiple levels. Outperformance of an index may be one criterion, but there are other criteria that are less concretely defined. When questioning whether active management adds value, academics have considered the following:

*An ounce of action is worth
a ton of theory.*

-Friedrich Engels

Since 1926, the market (as represented by the S&P 500 Index) has generated a positive return in 72% of the calendar years. The data presented show that since 1980, in both large and small cap active management, the best opportunity to outperform an index has been in periods of market and/or economic weakness. Prospect theory of behavioral economics (Kahneman and Tversky, 1979) suggests that recessions are when outperformance matters most to investors. Studies based on this theory tell us that psychologically, the risk of loss outweighs the possibility of gains: "Loss aversion is the tendency to feel the pain of a loss more acutely than the pleasure of an equal-sized gain." (Rabin and Thaler, 2001) During an up market, even if your actively managed fund isn't outperforming its index, it may still be making a strong showing. But in a down market, a few basis points of outperformance make a bigger difference. Kosowski points out that it is in recessionary periods that investors derive the greatest marginal

What about ETFs?

Some of the recent furor over passive management has been in the arena of exchange-traded funds (ETFs). "New [ETF] funds are being offered at a rate that outpaces regular mutual funds. Total assets have more than doubled to some \$450 billion in less than three years." (Salisbury, 2007) Why is the ETF market booming and how does this affect the practical application of active versus passive management?

Like index funds, exchange-traded funds are designed to match the performance of market returns by holding index securities. Rather than being valued daily like mutual funds, exchange-traded funds are traded on the market like stocks, so the price may fluctuate throughout the day as investors make trades. ETFs have several advantages: "ETFs ... have lower management fees, there is the ability to sell short, there is increased tax-efficiency, and there is the ability to create and delete units of the Trust." (Boney, Doran, and Peterson, 2006)

One growing development in the ETF world is the creation of highly specialized passively managed products that try to capture a small portion of the market, such as technology funds or healthcare funds. Such specialty fund offerings allow investors an efficient route to establishing exposure to sectors the investor finds attractive. The number of funds and strategies among specialty ETFs is exploding— the number of ETFs on the market increased from 359 to 454 between December 2006 and March 2007 alone. (Investment Company Institute,

Active versus Passive Investment Management: Putting the debate into perspective

utility from active management: “Other things equal, an asset that does badly in states of nature like a recession, in which the investor feels poor and is consuming little, is less desirable than an asset that does badly in states of nature such as expansions in which the investor feels wealthy and is consuming a lot. Applied to mutual fund investors, this implies that investors are willing to trade off some overall performance or average return for good performance in particular states of nature.” (Kosowski, 2006)

In the ten-year period ending March 31, 2007, 65% of active small cap managers outperformed the Russell 2000, providing an average annualized premium of 2.8%.

Additionally, the value of active management depends on the manager. As we saw in figure 1, each calendar year there are some mutual funds that outperformed market benchmarks, and this is true during a range of business cycles. Large cap managers have arguably had a more difficult time outperforming the S&P 500, although those that have outperformed have provided solid premiums. For the ten years ending March 31, 2007, 37% of the active large cap managers in Morningstar have outperformed the S&P 500 on an annualized basis, adding an average annualized premium of 1.8%. Active small cap managers have an even better track record, with 65% outperforming the Russell 2000 over the ten-year period ending in March, providing an average annualized premium of 2.8%. While survivorship bias (poorly performing funds tend to close down or merge away their performance, thus becoming removed from later data) may account for some of the percentage, the data still suggest some ability to add value through active strategies. And clearly, even with the growth in index funds and passively managed ETFs (see sidebar), the investing public seems to continue to find value in actively managed mutual funds, pouring millions of dollars each year into actively managed strategies.

March 2007) This suggests that some level of consolidation will occur after the initial boom has faded.

But ETFs also have some potential downsides. Some ETFs may not be tracking their indexes as closely as investors think. “A fund with 100 holdings might have over half of its assets concentrated in five or six stocks. Some ETF firms try to replicate entire sectors with a few stocks. They argue that these are always chosen carefully to be representative. But skeptics see it as more akin to the stock picking of active managers than the diversification promised by index funds.” (The Economist, 2007) Also, the purchase of ETFs may be associated with commission costs.

Expectations for ETFs are that they improve after-tax returns versus index mutual funds; our analysis suggests that there is some tax efficiency over time. Traditional mutual funds must buy or sell underlying stock positions to deal with inflows and outflows of investor dollars. “...ETF shares can be bought or sold any number of times without the underlying stocks they represent being touched,” (Salisbury, 2007) providing perhaps a marginal edge in tax efficiency.

Despite some small critical review of the ETF environment, we expect the ETF market to continue to grow and evolve.

Active versus Passive Investment Management: Putting the debate into perspective

Conclusions

The bottom line question is how to incorporate active and/or passive investment management into a successful asset allocation strategy. For us, success is unique to each of our client's specific investment goals and directives. Based on our research and analysis, we do not believe there is necessarily a single answer.

Constructing a portfolio using only passive management may be viable depending on a client's tax status, time horizon, and tolerance for risk. A portfolio designed with all active strategies can also make sense, potentially providing better downside protection and retaining the ability for managers to react to market conditions. For many, some combination of active and passive implementation is optimal. The degree to which a portfolio is tilted in one direction or the other will vary largely based on the client's particular sensitivities and definitions regarding risk, as well as how that client measures added value. In general, we believe:

Chance favors only the prepared mind.

-Louis Pasteur

- High quality active management is available in most asset classes; however, investing in passive management strategies in part or whole may improve portfolio construction when used in asset classes that have a more difficult time outperforming their benchmarks (e.g. large cap stocks).
- Less efficient asset classes such as small cap stocks have been shown historically to provide better opportunity for active management implementations.
- All strategies, particularly those incorporating active management, must be undertaken with a focus on the long term. Markets move in cycles and what may look unbeatable today could plummet in another year. Having a disciplined and long-term approach is necessary whether implementing an active or passive strategy.
- ETFs offer a low-cost and efficient vehicle for providing exposure to both the broad market and specific sectors of the market. ETFs may be used strategically to take advantage of an individual long-term market call (e.g. a dedicated healthcare allocation) or to provide exposure in an asset class where an investor may not currently have access to a quality active manager (e.g. in small cap value).
- Manager selection is the key to a successful active strategy, and we pride ourselves on our ability to identify consistently top-performing managers. This is reflected in the return premium shown by our approved managers over time.

How much to incorporate active versus passive management in your portfolio is a decision that should be discussed thoughtfully and decided carefully. We look forward to having this discussion with each of our clients and finding the most appropriate solutions for different circumstances.

Active versus Passive Investment Management: Putting the debate into perspective

ENDNOTES

1998 Mutual Fund Fact Book; Investment Company Institute

2006 Mutual Fund Fact Book; Investment Company Institute

Exchange-Traded Fund Assets; Investment Company Institute, March 2007

Anomalies: Risk Aversion by Matthew Rabin and Richard H. Thaler; *Journal of Economic Perspectives*, vol. 15, no. 1, Winter 2001, pages 219-232

A Close Race, a Surprising Finish: Against Sleek ETF Rivals, Top Index Mutual Funds Use Ultra-Low Costs To Gain Performance Edge by Ian Salisbury; *The Wall Street Journal*, May 2007

Do Mutual Funds Perform When it Matters Most to Investors? US Mutual Fund Performance and Risk in Recessions and Expansions by Robert Kosowski; Finance Department, INSEAD, August 2006

The Effect of SPIDERS on the Cash Flow of Funds of Index Mutual Funds by Vaneesha Boney, James S. Doran, and David R. Peterson; Florida State University, January 2006

Endogeneity in Fund Flow and Return: Evidence from Individual Funds by Karen Benson, University of Queensland; Robert W. Faff, Monash University; Tom Smith, Australian National University

Fund Flow Volatility and Performance by David Rakowski; Georgia State University, April, 2003

Indexing Versus Active Mutual Fund Management by Rich Fortin, Ph.D. and Stuart Michelson, Ph.D.; *Journal of Financial Planning*, September 2002

Measuring Fund Strategy and Performance in Changing Economic Conditions by Wayne E. Ferson and Rudi W. Schadt; *Journal of Finance*, 1996

Prospect Theory: An Analysis of Decision Under Risk by Daniel Kahneman and Amos Tversky; *Econometrica*, vol. 47, issue 2, March 1979, pages 263-292

Revolution or Pollution? *The Economist*, April 2007