The Index Investor

Why Pay More for Less?

Model Portfolio Update

The objective of our first set of model portfolios is to deliver higher returns than their respective benchmarks, while taking on no more risk. The benchmark for the first portfolio in this group is an aggressive mix of 80% domestic equities, and 20% domestic bonds. Through the end of July, this benchmark had returned (6.7%), while our model portfolio had returned (14.5%). For the sake of comparison, we have also compared our model portfolios to a set of global benchmarks. In this case, the global benchmark is a mix of 80% global equities, and 20% global bonds. Through the end of July, it had returned (22.5%).

The benchmark for the second portfolio in this group is a mix of 60% domestic equities and 40% domestic bonds. Through the end of last month, it had returned (3.9%), while our model portfolio had returned (9.2%), and the global benchmark had returned (19.1%).

The benchmark for the third portfolio in this group is a conservative mix of 20% domestic equities and 80% domestic bonds. Through the end of last month, it had returned 1.7%, while our model portfolio had returned (3.6%) and the global benchmark (12.1%).

The objective of our second set of model portfolios is to deliver less risk than their respective benchmarks, while delivering at least as much return. The benchmark for the first portfolio in this group is an aggressive mix of 80% domestic equities, and 20% domestic bonds. Through the end of last month, this benchmark had returned (6.7%), while our model portfolio had returned (10.0%). For the sake of comparison, we have also compared our model portfolios to a set of global benchmarks. In this case, the global

benchmark is a mix of 80% global equities, and 20% global bonds. Through the end of June, it had returned (22.5%).

The benchmark for the second portfolio in this group is a mix of 60% domestic equities and 40% domestic bonds. Through the end of last month, it had returned (3.9%), while our model portfolio had returned (2.7%), and the global benchmark had returned (19.1%).

The benchmark for the third portfolio in this group is a conservative mix of 20% domestic equities and 80% domestic bonds. Through the end of last month, it had returned 1.7%, while our model portfolio had returned 0.8% and the global benchmark (12.1%).

The objective of our third set of model portfolios is not to outperform a benchmark index, but rather to deliver a minimum level of compound annual return over a ten-year period. Thus far this year, our 12% target return portfolio has returned (12.6%), our 10% target return portfolio has returned (5.2%) our 8% target return portfolio has returned (2.3%), and our 6% target return portfolio has returned (1.1%).

The Sandler Review

In June, 2001, the UK Treasury Department announced the initiation of a comprehensive review of the operations of the medium and long term savings industry. The review was chaired by Ron Sandler, the former chief operating officer of National Westminster Bank. It is one of the most thorough reviews of its type ever undertaken, and its findings were published in July, 2002. The results are not pretty for many industry players. However, they should be kept clearly in mind by readers of *The Index Investor*, wherever they live, because in our experience the industries in Australia, Canada, the Eurozone, Japan and the United States have much in common with the UK industry analyzed in this report. What follows are key excerpts from the Review. The full document is available at: (www.hm-treasury.gov.uk/documents/financial_services/savings/fin_sav_sand.cfm)

The Review begins with the important observation that "retail savings products are inherently more complex than almost all other consumer goods. Unlike other complex high value added goods such as cars or computers, it is not only the means of delivering the benefit that is complicated. The benefit itself – the potential for higher income in the future through the forgoing of consumption now plus the taking on of risk – is complex. This complexity leads to consumer confusion."

"A further feature of retail savings products is the fact that they deliver their costs and benefits over the long term; additionally, they tend to be purchased infrequently. With regular repeat purchasing, if customers are dissatisfied with product quality or value for money, they can quickly switch to another product or provider. This is very difficult for individual consumers to do in the case of retail savings products."

"Furthermore, partly because the benefits of savings products are deferred for so long, consumers are often reluctant to purchase them, even when confronted with information which suggest that they should."

"Finally, concepts of price and quality, as applicable to a retail savings product, are inherently difficult to understand and to assess. Taking all of these considerations together, the result is a market in which consumers, in general, are weak. This weakness is an extremely important feature of the industry. The structure of the industry, and the way competitive forces operate, both derive from the inability of consumers to exert meaningful influence."

"Providers wishing to sell retail savings products [e.g., mutual fund companies and insurance companies] are confronted with the challenge of consumers who lack understanding of the products and are reluctant to save. Consumers face their own challenges. Some may be so daunted by the overall complexity of the market that, to do anything at all, they feel the need to obtain advice. Others may be more confident, but may conclude that they still require additional specialist resource to research the market,

or to give advice on issues such as tax. Even those who are fully capable of doing all the relevant research themselves may be time constrained and would rather pay an intermediary to research, execute, and manage their investments on their behalf."

"A face to face sales process meets the needs of both product providers and consumers. The adviser/salesperson is able to both persuade consumers of the need to save, and to assist them in overcoming the challenges of product selection and purchase. This transforms the basis of competition among product providers. Consumer weakness means the majority of consumers rely heavily on their advisers. As a consequence, the real customer for the product provider tends to be the adviser, rather than the consumer. The dominance of advised sales means the focus of competition for providers is on winning distribution, rather than on providing simple, good value products to the end consumer."

"In the overwhelming majority of transactions, advisers are remunerated on the basis of commission paid by the product. The commercial attractions of the commission system are obvious. First, it allows advisers to offer advice and consultation which appears entirely free. This is highly effective in attracting otherwise reluctant consumers. At the same time, it allows advisers to be paid for their services, which consumers would otherwise be unwilling to do. Finally, it creates sharp sales related incentives for the adviser, which meets the needs of product providers."

"However, commission also leads to the potential for adviser bias, complexity, a poorly functioning market in advice, and to some extent, incentives to focus on higher income consumers."

"The fact that advisers are remunerated at different rates by different providers for selling different products creates the concern that this will lead to consumer detriment through the sale. Research carried out for the Financial Services Authority confirmed the existence of both product and provider bias in certain areas."

The commission approach to compensating advisers "also adds to widespread confusion about the nature of market interactions. Distributors are described as being in the business of providing a series of services to consumers generally referred to collectively as “advice”. Yet because of their remuneration arrangements, one might more accurately describe distributors as being paid for delivering sales of the providers’ products. This prevents the creation of a properly functioning market in the provision of advice."

"Most professional advice (e.g., for legal and accounting services) is paid for by the consumer directly, typically on the basis of an hourly rate. This is not generally the case in the retail savings market. There is some evidence that consumers of financial advice feel that fees, as opposed to commission, are in principle preferable, based upon a concern that commissions lead to biased advice. However, the same research found that most consumers were not prepared to pay the level of hourly fee that gee based advisers are currently charging."

"In an ideal world, financial advisers would compete intensely against each other on the basis of the value for money that each was delivering to customers – specifically, the quality of advice relative to its cost. In this way, the best advisers would prosper at the expense of the worst. In an industry in which consumers are unusually reliant upon the advice of intermediaries, a well functioning market for advice is particularly desirable. The reliance upon remuneration via commission, coupled with poor consumer understanding of the true costs of advice provision, mean that today’s reality is a long way from the ideal."

Finally, the Review notes that "there is an important element of fixed cost in the one-to-one advised sales process. Yet with present commission practices, income to the adviser is directly related to the size of the sums invested. Wealthier customers are therefore inherently more profitable and hence more attractive to advisers. This means hat the market has a natural tendency to target the more affluent, and limit less affluent people’s access to advice."

The Review then moves on to a discussion of whether or not consumers are in fact getting good advice from the advisers they use.

"The quality of investment decisions determines whether individual savers obtain satisfactory financial outcomes appropriate to their specific circumstances…It is important to understand the relative importance of asset allocation and security selection on the performance of an individual's investments. A widespread consensus exists among investment theorists that the asset allocation choice is the critical element in determining long tun overall investment performance." In spite of this, the Review found that "advisers do not pay enough attention to asset allocation. The observed lack of attention to asset allocation by consumers and their advisers tends to be accompanied by a superficial treatment of risk."

The Review then moved on to the way these asset allocation decisions (or non-decisions, as is more often the case) are implemented. In this area, it found "a surprising predominance of active management, notably among advised sales [of retail savings products], where they comprise 97 percent of the total. The contrast with the institutional world is striking: in the UK, around 75 percent of institutional funds under management are actively managed, while in the US it is only 60 percent. This discrepancy is hard to justify, given that institutional investors typically have much greater resources and expertise in the form of professional staff and dedicated investment consultants to devote to identifying superior active managers."

"It is particularly noteworthy that for funds sold direct to consumers, the proportion of passive management was 25 percent , which is essentially the same proportion as in the institutional world. This is consistent with a situation in which the more knowledgeable consumers, who feel able to buy direct, are aware of the difficulty of identifying superior managers. This in turn suggests that advisers are playing an important role in guiding (or not challenging) retail investors' preferences for active management."

"Data from a mystery shopping exercise analyzed by the Review suggested that consumers' preference for active funds is shared by their advisers. Ninety two percent of advisers' fund recommendations were for active funds. Subsequent interviews with advisers confirmed the existence of this preference." Then in a great bit of British understatement, the Review concluded that "it would be implausible to attribute this preference for active management, which is materially greater than that demonstrated by institutional investors, to superior expertise on the part of advisers to individual investors."

The Review then moves on to a discussion of how well consumers (and their advisers) have done at selecting among the actively managed funds they seem to prefer. It initially notes that "the investment performance of unit trusts [mutual funds] bears no relationship to their charges – and in fact the average UK unit trust [mutual fund] underperforms the market by 2.5 percent per year, due to a combination of charges and unsuccessful active management."

However, the Review also notes that "if a fund is a truly superior performer, it will still be well worth investing in it even if its charges are above average. The difficulty is that taking advantage of this is only possible if the best performing funds can be identified in advance. Research suggests strongly that raw data on past performance alone is no guide to future performance. This leads to consumers paying premium prices for funds with good past performance records, which are not in fact justified by subsequent performance achieved. Moreover, this focus on past performance can be positively unhelpful to consumers, to the extent that it leads them to disregard variations in expense charges between providers."

The Review also notes that many "actively managed" funds may not merit that label. "Providers and fund managers generally acknowledge that short-term risks of deviating from the peer group in terms of not gaining new business outweigh any rewards for long term out-performance. Consequently, these incentives are likely to encourage herding, as observed in the institutional market…Evidence suggests that over recent years a new

class of actively managed retail funds has emerged with tracking errors as little as one percent in some cases. This leads to undiscerning retail investors paying charges appropriate for active management in return for management which is quasi passive since the permitted tracking errors [i.e., deviations from a benchmark index against which the fund's performance is measured] are so narrow."

The Review then goes on to note that " the evidence suggest that consumers tend to use inappropriately short timescales over which to assess the performance of their investments. Switching on the basis of short-term performance is likely to increase the likelihood of under-performance by wrongly identifying managers as failing, (due to an inability to separate the affects of poor manager performance from falling markets) and increasing the level of charges incurred by consumers [as they incur commissions when they switch between funds]."

In summary, the Sandler Review finds that "consumers are generally not discerning or sophisticated investors. They find it extremely difficult to assess likely future investment performance, and rely heavily on past performance, which is a poor guide to future outcomes. They also have inappropriately short time scales for measuring performance…The UK retail savings market is characterized by a high degree of complexity: there are a huge range of products, charging structures are complex, complicated tax treatment compound the difficulties, and wide use is made of technical terms which are largely incomprehensible to the layman, and, in many cases, may not even mean the same thing when used by different providers…There are only modest incentives for distributors to offer superior advice on long term investment, to seek out the best value products, or to promote simple products. Rather, competition in distribution tends to focus on maximizing sales to higher income consumers, with products that can be differentiated by their tax benefits, or because of minor additional features…[Finally], there are correspondingly few incentives for product providers to improve efficiency, simplify their products, or to seek to deliver superior investment performance over a long term time frame."

As we said at the outset, The Sandler Review does not paint a pretty picture. Still, we believe is an accurate one. As important, we also think it is one which provides further support for the core principles which drive us here at *The Index Investor*: focus on getting your asset allocation decision right, and implement it at the lowest possible cost through index funds. Over time, these index investments will outperform all but a few actively managed competitors, whose identities cannot be predicted in advance.

Financial Research Roundup

As long term subscribers know, we spend a lot of time wading through the latest academic financial research on investment management, in search of valuable insights for our readers. This month, for your summer reading pleasure (or whatever…), we'll summarize some of the more interesting materials we've reviewed. Because many of the documents to which we refer are preliminary working papers, we hesitate to provide links, for fear that many of them will turn out not to work (for example, when a working paper is published, it may only become available on a single journal's site). Instead, if you want to obtain a copy of the full paper, we recommend using a search engine like www.google.com, and inputting the paper's title in quotes ("title"), followed by the authors' names ("title" author1 author2 author3). That will generally get you right to the paper you are seeking. You may also want to add "pdf" to your search terms, if that is the format in which you want to see the document in question. Now, on to the research.

Let's start with the fundamental challenge facing someone who wants to pick an actively managed mutual fund whose future returns over the next ten years will be better than that of an index fund that tracks the same index against which the active fund measures its performance. Before he or she makes their investment decision, this person has to answer two critical questions: First, how likely is it that any active fund manager will outperform an index fund over the next ten years? Second, what are the chances I will be able to identify these superior managers in advance? Let's look at what recent academic research has to say to our investor.

With respect to the first question, research entitled "Can Mutual Fund Stars Really Pick Stocks?" by Kosowski, Timmerman, White and Wermers begin by noting that "in the huge universe of funds, it is natural to expect that some funds will outperformn market indexes by a large amount simply by chance." Their study attempts to take this into account, and distinguish between those managers whose superior performance over time is due to skill, and those for whom it is due to luck. They find that "superior funds that beat their benchmarks (net of expenses) by an economically and statistically significant amount do exist. Notably, we also find strong evidence of inferior funds. We do not find it surprising that large numbers of inferior managers exist in our sample, since performance measurement is a difficult task requiring for precision a long fund lifespan. This evidence of inferior fund management is consistent with consumers who have difficulty in identifying the few fund managers that can beat the market, and especially in terms of judging the skills of managers of relatively new funds." Specifically, they found that truly talented managers accounted for only five percent of their sample. However, they did not take two important costs into account in their analysis: sales loads and taxes. Were these included, the number of fund managers who beat their respective indexes on the basis of their superior skill would have been even lower than five percent. Finally, the authors of this study concluded with a very important caution: "it remains to future research to determine whether a fund manager with superior past talents is any more likely than a randomly chosen manger to exhibit stock picking talents in the future."

Three further studies shed additional light on why it is so difficult for active fund managers to beat the performance of index funds over long periods of time. In "Mutual Fund Flows and Performance in Rational Markets" by Berk and Green, the authors thesis is that "the fact that investments with active managers do not outperform passive benchmarks is a consequence of the competitiveness in the market for capital investment. If investors compete with each other for superior returns, they end up ensuring that none exist." However, and this is a very good insight, they also note that "this lack of persistence, however, does not imply that differential ability across managers is unrewarded." How could this be?

The authors ask us to "imagine an economy [in which everyone has complete] information. Skilled investment mangers exist who can generate positive, risk-adjusted returns [in excess of their benchmark indexes]. Managers and investors alike know who these superior managers are. What would the returns these managers provide to investors look like? In equilibrium, investors who choose to invest with active managers cannot expect to receive positive excess returns on a risk-adjusted basis. If they did, there would be an excess supply of capital to those managers who achieved superior returns. Every investor in the economy who held asset of equivalent risk would want to sell those assets and invest with the superior active mangers instead. Markets can only clear when the expected return to investors in these funds equals the expected return in alternative investment opportunities."

"If skill or superior ability in active portfolio management could be deployed on an unlimited scale without dissipating its effectiveness, then in a given risk class, all funds in this hypothetical world would flow to the manager with the highest ability. However, it seems reasonable to assume that managerial ability to generate excess returns cannot be effectively employed on an unlimited scale. If there are decreasing returns to scale in the use of [investment management] ability, funds will be invested with skilled managers only up to the point where the manager provides investors with expected returns equal to those available in passive alternatives."

"This also suggests the mechanism the skilled manager can use to capture a substantial share of the value created by his or her skills. He or she can charge a fee that is proportional to the assets under management. With this incentive scheme, investment will flow into the fund until it is so large that its expected excess return is zero. Highly skilled managers will manage larger funds, earning more income than less skilled peers."

In a more realistic economy in which people lack perfect information (that is, one in which uncertainty exists), investors will need to infer fund managers' relative ability from their past returns. In this case, the same process will play out, but over a longer period of time. The authors' key conclusion is that the process they describe (which

essentially says that investment capital will flow into its most productive uses, bidding up their price, and reducing their returns to levels in line with other assets of similar risk) "necessarily implies that investors cannot expect to make positive excess returns going forward, which also implies that superior performance cannot be predictable in advance."

"Mutual Fund Performance: An Empirical Decomposition", by Russ Wermers, is the most thorough analysis to date of mutual fund economics. In this paper, Wermers finds that on average, stocks held by mutual funds outperform the broad market index [e.g., the Wilshire 5000) by about 1.3% per year over the 1975 to 1994 period. Of the 130 basis points in superior performance, 60 basis points is due to higher returns associated with characteristics of the stocks held by funds relative to the index (e.g., size, sector, and style tilts), and 70 basis points is due to talents in picking stocks whose returns exceed those of the sub-index in which they are included.

However, net of expenses, mutual funds underperform the broad market index by an average of 1% per year. What accounts for this 2.3% difference? The fact that the broad index, by definition, is always fully invested in stocks while mutual funds are not (also known as "cash drag") accounts for .7% of the funds' underperformance. The remaining 1.6% is due to the impact of fund expenses (1%) and transaction costs (.6%). So on average, active managers' returns aren't even covering their costs. Here it is important to note that Wermer's analysis does not include sales loads or taxes, which would have cast active funds in an even more unfavorable light.

In his analysis, Wermers calculates the enormous cost the cost difference between actively managed and index funds imposes on investors [note: we have updated his data to the most recent available]: "The industry average mutual fund expense ratio, weighted by net assets, is roughly 100 basis points [that is, 1%] per year, compared to 18 basis points at the Vanguard S&P 500 index mutual fund, or a difference of about 80 basis points. Total equity mutual fund assets in the United States were $3,089.2 billion at the end of June, 2002. Multiplying this amount times the 80 basis point difference in expenses yields excess costs of $24.7 billion per year."

Wermers also notes that not only does the Vanguard S&P 500 Index Fund have expense advantage, but it also has one in the area of transaction costs. "Transaction costs incurred by the [Vanguard] fund as it responds to cash inflows and outflows, and to changes in the composition of the index, are extremely low -- in general, below 10 basis points per year [versus 60 basis points per year at the average mutual fund]. This provides a large advantage to the Vanguard fund over actively managed funds." We note that this adds about $15.5 billion more to the cost disadvantage of active management relative to index funds, or $40.2 billion altogether. Wermer's analysis is powerful stuff, and not at all good news for active management advocates. However, given the amount of money at stake ($40 billion buys quite a nice lifestyle for a lot of people), is it any wonder that the actively managed funds industry spends so much trying to overwhelm the communications efforts of those who advocate the use of index funds?

Another paper, "Portfolio Constraints and the Fundamental Law of Active Management" by Clarke, de Silva, and Thorley, sheds further light on why actively managed funds underperform index funds. These authors note that "the expected value added in an actively managed portfolio is dependent on both the manager's forecasting skill and on his or her ability to take appropriate [portfolio positions] that reflect those forecasts." However, most mutual funds constrain managers' ability to do this. "Constraints like no short sales, turnover limits, and maximum concentration limits impede the translation of informational advantages into superior returns." Specifically, the authors estimate that only 30% to 80% of information advantages get translated into portfolio results. Given this, is it any surprise that so many good mutual fund managers have left to run their own hedge funds, where they face far fewer constraints, and can earn far higher compensation for themselves?

Of course, it may be the case that an investor acknowledges all of the points made in these studies, but still believes that he or she has the ability to pick in advance those funds whose future performance will beat those of the relevant index funds. What does recent research say about this view? In short, nothing positive.

In "The Value of Active Fund management", Chen, Jagadeesh, and Wermers find that "stocks widely held by mutual funds don't outperform other stocks. However, stocks recently purchased by funds have significantly higher subsequently returns than the stocks recently sold." To the authors, "this evidence suggests that mutual funds hold stocks longer than the horizon over which they can predict returns, possibly because of a preference to avoid high transaction costs or capital gains." The also find that "the funds which trade most frequently have, at best, marginally better stock selection skills than the funds trading less often."

Finally, as have past studies, the authors "find that much of the observed persistence in fund performance is due to the momentum effect in stock returns [that is, by price changes in the stocks they already own]…stocks that are newly bought by winning funds only marginally outperform those bought by losing funds."

So, to summarize, the very clear message of recent academic research is that active funds that beat their respective index fund counterparts on the basis of superior skill are very rare, and basically impossible to predict in advance. Think about it: if that wasn't the case, why didn't more people invest in Warren Buffet's Berkshire Hathaway shares thirty years ago? While he is undoubtedly one of those investment managers whose results reflect superior skill, it was next to impossible to know this in advance thirty years ago. And the same thing is true today. And if this is the case, then the burden of proof is truly on those who don't invest in index funds, rather than those who do. Amen.

Recent academic research has also delivered some interesting insights into the way financial markets function. In "Market Liquidity as a Sentiment Indicator", Baker and Stein find that increases in liquidity (lower bid/ask spreads, lower price impact per trade, higher trading volume) predict lower subsequent returns. In "Forecasting Crashes: Trading Volumes, Past Returns, and Conditional Skewness in Stock Prices", Chen, Hong, and Stein explore some of the possible underlying causes for this. They show that aggregate stock market returns are negatively skewed, with the biggest single day moves

mostly on the downside. To explain this, they start with the common sense observation that investors are a heterogenous bunch, holding a wide range of beliefs. The more intense the disagreement between these beliefs, the higher the volume of trading. However, and this is the critical point, short sales constraints mean that negative information and beliefs will be incorporated into market prices more slowly than positive information. When volumes are high, it is more likely that short sales constraints are binding, and that negative news is incompletely incorporated into current prices. In this way, high past returns and rising volume often indicate lower future returns. In "DotCom Mainia: The Rise and Fall of Internet Stock Prices", Ofek and Richardson support this short sale constraint hypothesis.

In "Breath of Ownership and Stock Returns", Chen, Hong, and Stein show that when ownership breadth is low (few investors have long positions in a stock), the short sales constraint is more likely to be binding tightly, implying a higher probability that prices are high relative to their fundamental value, and expected returns are low. In constrast, an increase in breadth forecasts higher returns. They show how stocks with lowest breadth underperformed those with highest by 4.95% per year between 1979 and 1998. In "Mispricing in the Large Cap Sector: Its Mostly on the Short Side", Finn, Fuller, and Kling support Chen, Hong, and Stein's thesis with data from their experience in the markets.

On a different tack, in "Moral Hazard and the US Stock Market: Analyzing the Greenspan Put", Miller, Weller, and Zhang advance a very interesting point of view. They assert that in contrast to "irrational exuberance" about likely future growth rates, the nineties stock priced bubble was caused by repeated one sided interventions by the U.S. Federal Reserve, and an "exaggerated faith in the stabilizing power of Mr. Greenspan", which led to reduction in required equity risk premium. In another look at possible causes of the stock price bubble, Antulio Bomfim, in "Heterogenous Forecasts and Aggregate Dymanics" begins by noting that investors have different expectations about future prices because they use different mental models and/or because they use different subsets of available data. He also notes how the most sophisticated agents try to forecast the forecasts of others. The result of this is that the presence of even a small number of

investors whose simple rule of thumb models are inaccurate leads to overshooting in markets -- in short, the development of bubbles and crashes.

The last study on this theme is "The Application of Regret Theory to Asset Pricing" by Anna Dodonova. She begins by noting that investor satisfaction depends not only on the value of one's own portfolio, but also on the outcome of alternatives not chosen. Given this, an investor feels worse (i.e., feels more regret) the larger the difference between her realized returns and the best return she believes she could have earned if she had made different decisions in the past. To minimize the chances of feeling regret in the future, Dodonova suggests that they will have a tendency to invest more than they should in past winners, and that this in turn both reduces long term investment results and contributes to the development of price momentum in financial markets.

On a related note, in "Aspiration Levels and Risk Taking by Government Bond Traders", Zur Shapira founds that risk taking was affected by the reference points against which one measures one's performance. This is in line with the predictions of Prospect Theory, which has found that, as a country song might put it, "losing hurts twice as much as winning feels good" and that we are more likely to take risks when our performance is below our reference point, and to act more conservatively when our performance is above it. Finally, somewhat in line with Regret Theory, Shapira found that these reference points are most often set in relation to the performance of others. In some situations (e.g., running a government bond trading desk) this may make sense. However, when it comes to the management of your own portfolio, it doesn't. Think about it: which is more important: that you are still on track to accumulate the amount you need to retire in twenty five years, or that your portfolio returned more than your Uncle Charlie's did over the past three months? Unfortunately, the latter approach is all too common, and undoubtedly leads to excessive trading and lower returns than people otherwise would earn.

Finally, In "Out of Sight, Out of Mind: The Effect of Expenses on Mutual Fund Flows", authors Barber, Odean, and Zheng find that the "purchase decisions of mutual fund

investors are most strongly affected by attention grabbing information, including past performance and advertising, and front end sales loads." The first two have positive impacts on fund sales, and the last a negative impact. They also find that "fund expenses have little affect [on investor decisions]", and that their impact is hard for most investors to understand, because they "masked by the volatility of fund returns." The authors also find a positive relationship between 12b-1 fees (which cover marketing and advertising expenses) and mutual fund cash flows: in short, they find that mutual fund advertising works. This is, we suppose, good news for people trying to convince investors of the merits of active fund management, if not for the people buying the funds they advertise.

So, there you have it. Between the Sandler Review and the Research Roundup, a pretty damning (and well documented) picture if you are an active investment manager, or an adviser or broker selling actively managed funds. Unfortunately, those of us who, to borrow a phrase from Apple Computer "think different" are still very much in the minority. Like David, we struggle against an active management Goliath which stands to lose $40 billion or so (in the U.S. alone) if we are successful in convincing others of the importance of asset allocation and indexing to achieving one's long term financial goals. Still, with every new study (however reluctant the media may be to publicize them), supporting our position, our challenge gets easier. So, to all our readers we say "hang in there", "keep up the good work", and, most important, "tell your friends."

Equity Market Valuation Update

A number of readers wrote in to ask how this month's equity market declines have affected the market valuation analysis we published last month. As you recall, that analysis was based on two fundamental assumptions: that over the long term, labor

productivity growth in our six major regions would converge at 3.5% per year, and that the long term real equity risk premium is 4% per year. Given those assumptions, here is our updated analysis at 31 July, 2002:

Country	Dividend Yield	Expected Real Growth Rate*	Expected Real Rate of Return on Equities	Real Risk Free Rate	Equity Risk Premium
Australia	3.6%	4.3%	7.9%	3.28%	4.0%
Canada	2.0%	4.1%	6.1%	3.46%	4.0%
Eurozone	3.1%	3.5%	6.6%	3.21%	4.0%
Japan	0.9%	3.2%	4.1%	2.64%	4.0%
U.K.	3.4%	3.5%	6.9%	2.52%	4.0%
U.S.A.	1.8%	4.4%	6.2%	2.44%	4.0%

*This reflects not only productivity growth, but also expected labor force growth.

Country	Implied Index Value	Current Index Value	Actual/Current
Australia	245.20	202.97	83%
Canada	120.45	202.35	168%
Eurozone	100.04	119.73	120%
Japan	22.32	85.31	382%
U.K.	300.92	267.29	89%
U.S.A.	329.38	373.30	113%

Clearly, the biggest impact of the events of this past month appears to have been the sharp reduction in the overvaluation of the U.S. equity market.

Model Portfolios

These portfolios seek to maximize return while matching their benchmark's risk (standard deviation)					
	Ticker	**YTD 31July02**	**Weight**	Weighted Return	.
		In A$		In A$	
High Risk Portfolio					
With suggested US Index Funds					*Suggested Australian Index Funds*
Australia Benchmark					
Australia Equity ETF	EWA	-9.5%	**80%**	**-7.6%**	Vanguard ASX 300
Australia Bond Index	SSB AUS	4.5%	**20%**	**0.9%**	Vanguard Diversified Bond
			100%	**-6.7%**	
Global Benchmark					
US Equity Index (DJTMI ETF)	IYY	-26.8%	**40%**	**-10.7%**	Vanguard International Shares
Vanguard Total International Market	VGTSX	-25.1%	**40%**	**-10.1%**	-- covers world ex Australia
Vanguard Total U.S. Bond Market Index	VBMFX	-2.9%	**5%**	**-0.1%**	TD Waterhouse Bond Index
TRP International (Non US$) Bond Fund	RPIBX	-10.5%	**15%**	**-1.6%**	None available so far
			100%	**-22.5%**	
Recommended					
Australia Equity ETF	EWA	-9.5%	**30%**	**-2.9%**	Vanguard ASX 300
US Equity Index (DJTMI ETF)	IYY	-26.8%	**30%**	**-8.1%**	TD Waterhouse S&P 500
Vanguard Europe	VEURX	-20.9%	**11%**	**-2.3%**	TD Waterhouse European
Australia Bond Index	SSB AUS	4.5%	**19%**	**0.9%**	Vanguard Diversified Bond
DJ US Energy Sector ETF	IYE	-21.6%	**10%**	**-2.2%**	None available so far
			100%	**-14.5%**	

These portfolios seek to maximize return while matching their benchmark's risk (standard deviation)					
	Ticker	**YTD 31July02**	**Weight**	Weighted Return	.
		In A$		In A$	
Medium Risk Portfolio					
With suggested US Index Funds					*Suggested Australian Index Funds*
Australia Benchmark					
Australia Equity ETF	EWA	-9.5%	**60%**	**-5.7%**	Vanguard ASX 300
Australia Bond Index	SSB AUS	4.5%	**40%**	**1.8%**	Vanguard Diversified Bond
			100%	**-3.9%**	
Global Benchmark					
US Equity Index (DJTMI ETF)	IYY	-26.8%	**30%**	**-8.1%**	Vanguard International Shares
Vanguard Total International Market	VGTSX	-25.1%	**30%**	**-7.5%**	-- covers world ex Australia
Vanguard Total U.S. Bond Market Index	VBMFX	-2.9%	**10%**	**-0.3%**	TD Waterhouse Bond Index
TRP International (Non US$) Bond Fund	RPIBX	-10.5%	**30%**	**-3.2%**	None available so far
			100%	**-19.1%**	
Recommended					
Australia Equity ETF	EWA	-9.5%	**25%**	**-2.4%**	Vanguard ASX 300
US Equity Index (DJTMI ETF)	IYY	-26.8%	**20%**	**-5.4%**	TD Waterhouse S&P 500
Australia Bond Index	SSB AUS	4.5%	**40%**	**1.8%**	Vanguard Diversified Bond
DJ US Energy Sector ETF	IYE	-21.6%	**10%**	**-2.2%**	None available so far
Vanguard Europe	VEURX	-20.9%	**5%**	**-1.0%**	TD Waterhouse European
			100%	**-9.2%**	

These portfolios seek to maximize return while matching their benchmark's risk (standard deviation)					
	Ticker	**YTD 31July02**	**Weight**	**Weighted Return**	.
		In A$		In A$	
Low Risk Portfolio					
With suggested US Index Funds					*Suggested Australian Index Funds*
Australia Benchmark					
Australia Equity ETF	EWA	-9.5%	**20%**	**-1.9%**	Vanguard ASX 300
Australia Bond Index	SSB AUS	4.5%	**80%**	**3.6%**	Vanguard Diversified Bond
			100%	**1.7%**	
Global Benchmark					
US Equity Index (DJTMI ETF)	IYY	-26.8%	**10%**	**-2.7%**	Vanguard International Shares
Vanguard Total International Market	VGTSX	-25.1%	**10%**	**-2.5%**	-- covers world ex Australia
Vanguard Total U.S. Bond Market Index	VBMFX	-2.9%	**20%**	**-0.6%**	TD Waterhouse Bond Index
TRP International (Non US$) Bond Fund	RPIBX	-10.5%	**60%**	**-6.3%**	None available so far
			100%	**-12.1%**	
Recommended					
Australia Equity ETF	EWA	-9.5%	**10%**	**-1.0%**	Vanguard ASX 300
US Equity Index (DJTMI ETF)	IYY	-26.8%	**10%**	**-2.7%**	TD Waterhouse S&P 500
Australia Bond Index	SSB AUS	4.5%	**60%**	**2.7%**	Vanguard Diversified Bond
Global Bond Index	Custom	-1.2%	**8%**	**-0.1%**	None available so far
Vanguard Europe	VEURX	-20.9%	**5%**	**-1.0%**	TD Waterhouse European
DJ US Energy Sector ETF	IYE	-21.6%	**7%**	**-1.5%**	None available so far
			100%	**-3.6%**	
Global Bond Index = 25% US$ plus 75% Non-US$ Bonds					

These portfolios seek to minimize risk while matching their benchmark's returns.					
	Ticker	**YTD 31July02**	**Weight**	**Weighted Return**	.
		In A$		In A$	
High Return Portfolio					
With suggested US Index Funds					*Suggested Australian Index Funds*
Australia Benchmark					
Australia Equity ETF	EWA	-9.5%	**80%**	**-7.6%**	Vanguard ASX 300
Australia Bond Index	SSB AUS	4.5%	**20%**	**0.9%**	Vanguard Diversified Bond
			100%	**-6.7%**	
Global Benchmark					
US Equity Index (DJTMI ETF)	IYY	-26.8%	**40%**	**-10.7%**	Vanguard International Shares
Vanguard Total International Market	VGTSX	-25.1%	**40%**	**-10.1%**	-- covers world ex Australia
Vanguard Total U.S. Bond Market Index	VBMFX	-2.9%	**5%**	**-0.1%**	TD Waterhouse Bond Index
TRP International (Non US$) Bond Fund	RPIBX	-10.5%	**15%**	**-1.6%**	None available so far
			100%	**-22.5%**	
Recommended					
Australia Equity ETF	EWA	-9.5%	**11%**	**-1.1%**	Vanguard ASX 300
US Equity Index (DJTMI ETF)	IYY	-26.8%	**29%**	**-7.8%**	TD Waterhouse S&P 500
Australia Bond Index	SSB AUS	4.5%	**45%**	**2.0%**	Vanguard Diversified Bond
Vanguard Europe	VEURX	-20.9%	**5%**	**-1.0%**	TD Waterhouse European
DJ US Energy Sector ETF	IYE	-21.6%	**10%**	**-2.2%**	None available so far
			100%	**-10.0%**	

These portfolios seek to minimize risk while matching their benchmark's returns.					
	Ticker	**YTD 31July02**	**Weight**	**Weighted Return**	.
		In A$		In A$	
Medium Return Portfolio					
With suggested US Index Funds					*Suggested Australian Index Funds*
Australia Benchmark					
Australia Equity ETF	EWA	-9.5%	60.0%	-5.7%	Vanguard ASX 300
Australia Bond Index	SSB AUS	4.5%	40.0%	1.8%	Vanguard Diversified Bond
			100%	-3.9%	
Global Benchmark					
US Equity Index (DJTMI ETF)	IYY	-26.8%	30%	-8.1%	Vanguard International Shares
Vanguard Total International Market	VGTSX	-25.1%	30%	-7.5%	-- covers world ex Australia
Vanguard Total U.S. Bond Market Index	VBMFX	-2.9%	10%	-0.3%	TD Waterhouse Bond Index
TRP International (Non US$) Bond Fund	RPIBX	-10.5%	30%	-3.2%	None available so far
			100%	-19.1%	
Recommended					
Australia Equity ETF	EWA	-9.5%	10%	-1.0%	Vanguard ASX 300
US Equity Index (DJTMI ETF)	IYY	-26.8%	12%	-3.2%	TD Waterhouse S&P 500
Australia Bond Index	SSB AUS	4.5%	60.0%	2.7%	Vanguard Diversified Bond
Global Bond Index	Custom	-1.2%	13%	-0.2%	None available so far
DJ US Energy Sector ETF	IYE	-21.6%	5%	-1.1%	None available so far
			100%	**-2.7%**	

These portfolios seek to minimize risk while matching their benchmark's returns.					
	Ticker	**YTD 31July02**	**Weight**	**Weighted Return**	.
		In A$		In A$	
Low Return Portfolio					
Suggested US Index Funds					*Suggested Australian Index Funds*
Australia Benchmark					
Australia Equity ETF	EWA	-9.5%	20.0%	-1.9%	Vanguard ASX 300
Australia Bond Index	SSB AUS	4.5%	80.0%	3.6%	Vanguard Diversified Bond
			100%	1.7%	
Global Benchmark					
US Equity Index (DJTMI ETF)	IYY	-26.8%	10.0%	-2.7%	Vanguard International Shares
Vanguard Total International Market	VGTSX	-25.1%	10.0%	-2.5%	-- covers world ex Australia
Vanguard Total U.S. Bond Market Index	VBMFX	-2.9%	20.0%	-0.6%	TD Waterhouse Bond Index
TRP International (Non US$) Bond Fund	RPIBX	-10.5%	60.0%	-6.3%	None available so far
			100%	-12.1%	
Recommended					
Australia Equity ETF	EWA	-9.5%	12.0%	-1.1%	Vanguard ASX 300
Vanguard Emerging Markets	VEIEX	-13.6%	3.0%	-0.4%	None available so far
Australia Bond Index	SSB AUS	4.5%	60.0%	2.7%	Vanguard Diversified Bond
Global Bond Index	Custom	-1.2%	25.0%	-0.3%	None available so far
			100%	**0.8%**	
Global Bond Index = 25% US$ plus 75% Non-US$ Bonds					

These portfolios seek to maximize the probability of achieving at least the target return over ten years, at the lowest possible risk.					
	Ticker	**YTD 31July02**	**Weight**	**Weighted Return**	.
		In A$		In A$	
Suggested US Index Funds					*Suggested Australian Index Funds*
12% Target Return					
Recommended					
Australia Equity ETF	EWA	-9.5%	**6%**	**-0.6%**	Vanguard ASX 300
US Equity Index (DJTMI ETF)	IYY	-26.8%	**24%**	**-6.4%**	TD Waterhouse S&P 500
Vanguard Europe	VEURX	-20.9%	**17%**	**-3.6%**	TD Waterhouse European
Australia Bond Index	SSB AUS	4.5%	**12%**	**0.5%**	Vanguard Diversified Bond
DJ US Energy Sector ETF	IYE	-21.6%	**5%**	**-1.1%**	None available so far
Vanguard Emerging Markets	VEIEX	-13.6%	**8%**	**-1.1%**	None available so far
Global Bond Index	Custom	-1.2%	**28%**	**-0.3%**	None available so far
			100%	**-12.6%**	
10% Target Return					
Recommended					
Australia Equity ETF	EWA	-9.5%	**23%**	**-2.2%**	Vanguard ASX 300
Australia Bond Index	SSB AUS	4.5%	**30%**	**1.3%**	Vanguard Diversified Bond
US Equity Index (DJTMI ETF)	IYY	-26.8%	**6%**	**-1.6%**	TD Waterhouse S&P 500
Vanguard Europe	VEURX	-20.9%	**5%**	**-1.0%**	TD Waterhouse European
DJ US Energy Sector ETF	IYE	-21.6%	**6%**	**-1.3%**	None available so far
Global Bond Index	Custom	-1.2%	**30%**	**-0.4%**	None available so far
			100%	**-5.2%**	

These portfolios seek to maximize the probability of achieving at least the target return over ten years, at the lowest possible risk.					
	Ticker	**YTD 31July02**	**Weight**	**Weighted Return**	.
		In A$		In A$	
Suggested US Index Funds					*Suggested Australian Index Funds*
8% Target Return					
Recommended					
Australia Equity ETF	EWA	-9.5%	**18%**	**-1.7%**	Vanguard ASX 300
US Equity Index (DJTMI ETF)	IYY	-26.8%	**2%**	**-0.5%**	TD Waterhouse S&P 500
Australia Bond Index	SSB AUS	4.5%	**41%**	**1.8%**	Vanguard Diversified Bond
DJ US Energy Sector ETF	IYE	-21.6%	**4%**	**-0.9%**	None available so far
Vanguard Emerging Markets	VEIEX	-13.6%	**2%**	**-0.3%**	None available so far
Vanguard Europe	VEURX	-20.9%	**1%**	**-0.2%**	TD Waterhouse European
Global Bond Index	Custom	-1.2%	**30%**	**-0.4%**	None available so far
Vanguard Pacific	VPACX	-6.8%	**2%**	**-0.1%**	None available so far
			100%	**-2.3%**	
6% Target Return					
Recommended					
Australia Equity ETF	EWA	-9.5%	**7%**	**-0.7%**	Vanguard ASX 300
US Equity Index (DJTMI ETF)	IYY	-26.8%	**2%**	**-0.5%**	TD Waterhouse S&P 500
Australia Bond Index	SSB AUS	4.5%	**44%**	**2.0%**	Vanguard Diversified Bond
DJ US Energy Sector ETF	IYE	-21.6%	**5%**	**-1.1%**	None available so far
Global Bond Index	Custom	-1.2%	**40%**	**-0.5%**	None available so far
Vanguard Emerging Markets	VEIEX	-13.6%	**2%**	**-0.3%**	None available so far
			100%	**-1.1%**	
Global Bond Index = 25% US$ plus 75% Non-US$ Bonds					