

Australian fixed interest management—the sure nickel versus the uncertain dollar

Active/passive theories are a constant theme in funds management. **SIMON ROMIJN** looks at the evidence in the area of fixed interest.

A bird in the hand is worth two in the bush.' A version of this old and popular proverb used on Wall Street is, 'It is better to reap the sure nickel than gamble on the uncertain dollar'.

The proverb can be applied to two approaches to managing Australian fixed interest. Conventional Australian fixed interest products represent the uncertain dollar. These products typically 'seek' to generate between 50 and 75 basis points per annum of excess return mostly by using macroeconomic forecasts to predict bond yields and credit spreads.

Enhanced passive products represent the sure nickel. They typically seek to generate a more modest 10 to 30 basis points per annum of excess performance mostly by exploiting security-specific pricing anomalies using quantitative techniques to control risk closely.

In recent years investors have become increasingly sceptical of the merits of conventional Australian fixed interest products given their general poor performance. In the last five years to 31 December 2001, the median manager's performance was only 0.12% per annum before fees above the UBS Warburg Composite Bond Index. Our research confirms that this scepticism is well-founded.

I found merit, however, in Australian fixed interest products managed on an enhanced passive basis. It would appear that managers of these products are able to exploit market inefficiencies to generate modest but consistent levels of excess return.

I researched a number of questions before concluding that I should refocus the research.

- Why was the performance of conventional Australian fixed interest products so much better in the late 1980s and early 1990s?
- Is it still possible to identify conventional Australian fixed interest products that can generate enough excess returns to satisfy investor interest?

The research indicated that the high levels of excess return generated by conventional managers in the late 1980s and early 1990s resulted from the successful exploitation of generally declining bond yields and State Government bond spreads. This decline, in turn, has been attributed to the reduction in inflation and a much-improved fiscal position of both Commonwealth and State Governments.

The lack of meaningful excess returns since this structural market trend was played out in the mid-1990s suggests that managers struggle to generate

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meaningful excess returns in the absence of a marked structural trend.

The research also indicated that the performance ranking of conventional managers over one and three year periods appears random. It further indicated that the investment processes of most of these managers are broadly similar.

Given the randomness of relative performance and the homogeneous nature of the investment processes, I concluded that it is extremely difficult to identify those few managers who might still be able generate enough excess return to satisfy investor interest.

The uncertain dollar

The median manager of conventional Australian fixed interest products added 0.20% of excess return relative to the UBS Warburg Composite Bond Index in 2001. Over the last five years the median manager generated only 0.12% per annum of excess return before fees. Any lingering excitement should be crushed after taking into account that wholesale management fees for such products are between 0.15% and 0.20% per annum.

It was not always so. Figure 1 illustrates that in the early 1990s conventional Australian fixed interest managers enjoyed a period of healthy excess returns. The median manager was able to generate more than 1.0% per annum of excess return on a rolling five-year basis through to the end of 1993. Figure 1 also illustrates the dramatic decline in excess returns since.

It is often postulated that excess returns during the late 1980s and early 1990s were boosted by the convergence of Australian interest rates to lower levels comparable with other developed markets.

This was attributed to a reduction in inflation to levels comparable in other developed countries. It is further postulated that excess returns were boosted by the simultaneous compression of State government bond spreads relative to Commonwealth Government bond yields.

This was attributed to the substantially improved fiscal position of state governments and the increasing realisation that these spreads were high by international standards. Figure 2 illustrates the convergence of Australian

FIGURE 1 ROLLING FIVE-YEAR EXCESS RETURNS OF CONVENTIONAL AUSTRALIAN FIXED INTEREST MANAGERS



FIGURE 2 THE CONVERGENCE OF US AND AUSTRALIAN 10-YEAR GOVERNMENT BOND YIELDS

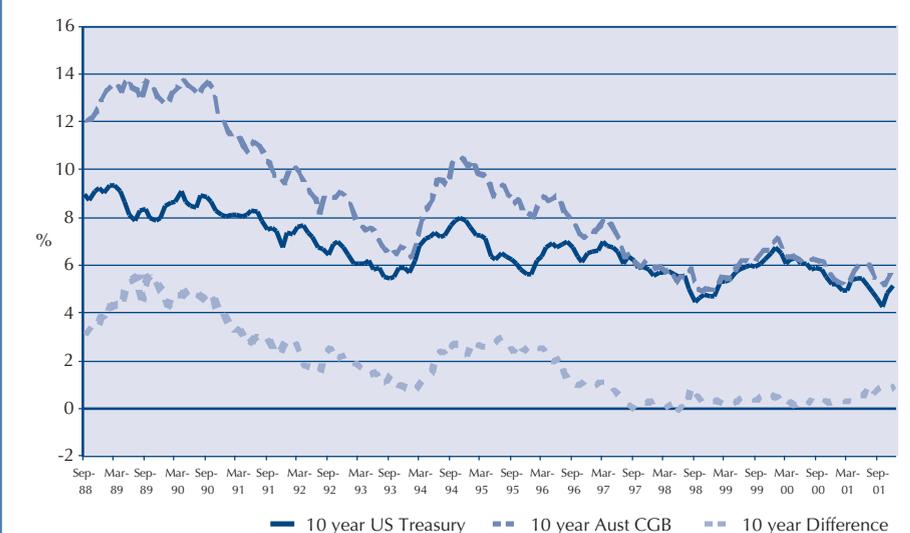
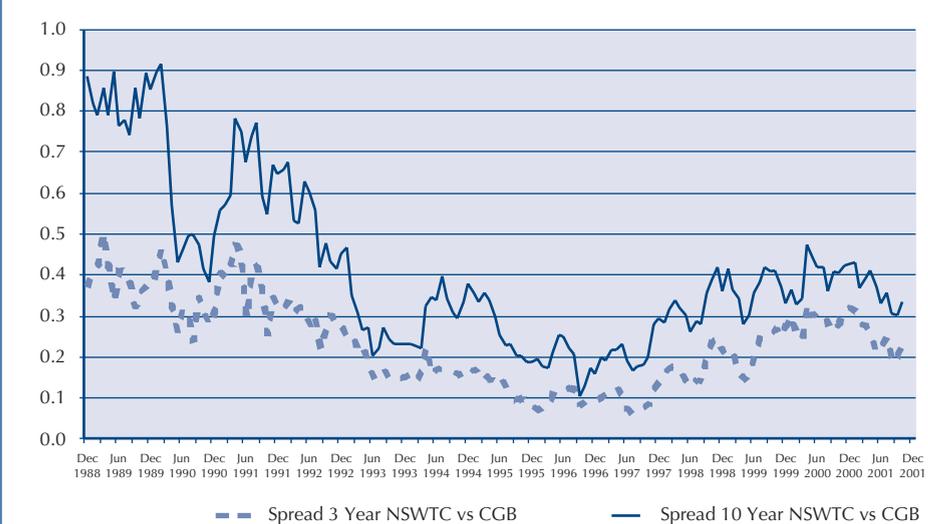


FIGURE 3 AUSTRALIAN STATE GOVERNMENT BOND SPREAD VS COMMONWEALTH GOVERNMENT BONDS



and US 10-year Government bonds over a period from 1988 and Figure 3 illustrates the compression of State government bond spreads relative to Commonwealth Government bond yields.

Convergence is considered a structural market trend rather than cyclical change. It assumed that convergence was successfully identified and exploited by most managers. It is further postulated that the lack of significant excess returns since convergence strategies were substantially played out by mid-1990s reflects that Government bond markets are normally efficient and the breadth of opportunities which can be exploited using macroeconomic forecasting strategies is limited. Hence the poor performance in recent years of conventional Australian fixed interest managers despite their still optimistic excess return target—'the uncertain dollar'.

I set out to determine if these arguments could be quantitatively substantiated.

Regression modelling of rolling 12-month excess returns

I analysed the rolling 12-month excess return of the median manager from December 1989 to December 1996 using multifactor regression modelling. I found that the following three factors explained 80% of the variation of rolling 12-month median manager excess returns:

- the average spread of 10-year State government bonds for a period of 15 months before the end of the rolling 12-month period;
- the change in the yield of three-year Commonwealth government bonds during the rolling 12-month period; and
- the negative change in short-term interest rates over the nine months before the end of the rolling 12-month period.

The same factors/strategies used outlined in the previous model were also used to model the upper 75th percentile rolling 12-month excess returns from November 1989 until November 1996. This model for upper 75th percentile excess returns, as illustrated in Figure 6, explained an even greater 87% of the variation of the excess returns. This indicates that more

FIGURE 4 REGRESSION MODEL OF MEDIAN MANAGER ROLLING 12-MONTH EXCESS RETURNS FROM DEC 89 TO DEC 96

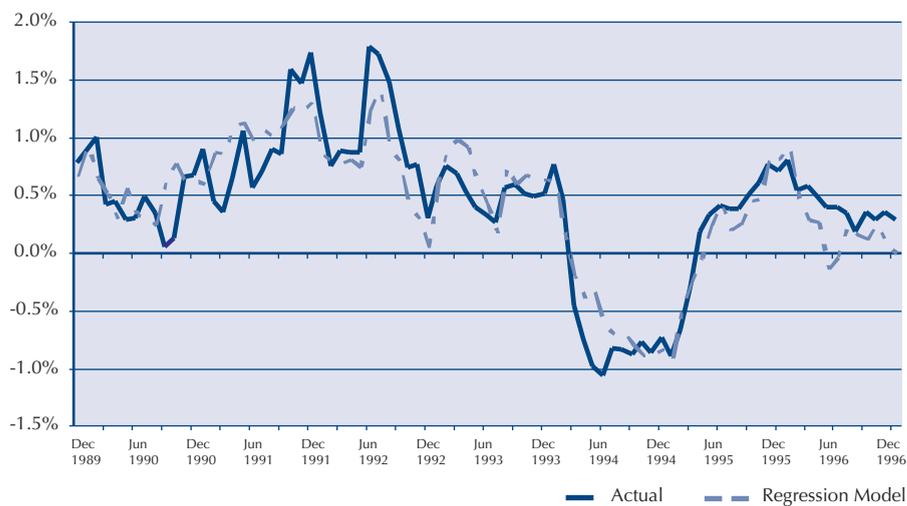


FIGURE 5 REGRESSION MODEL OF MEDIAN MANAGER ROLLING 12-MONTH EXCESS RETURNS FROM DEC 89 TO DEC 01

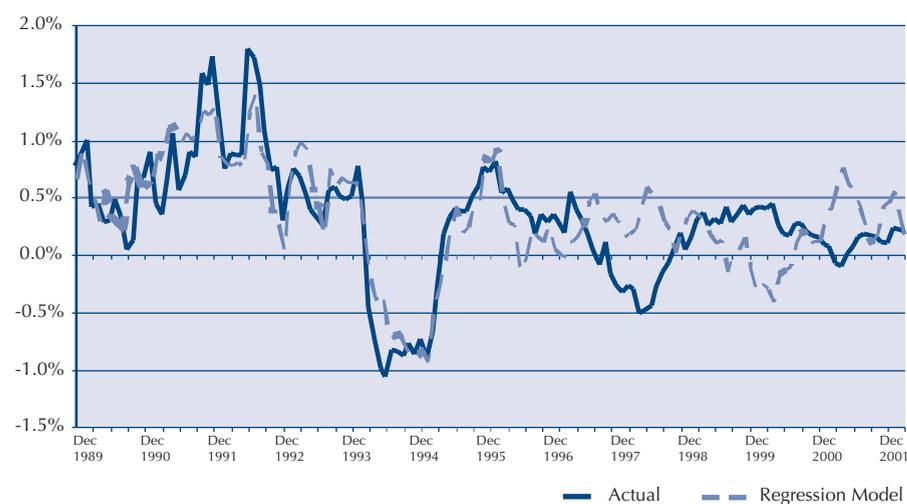
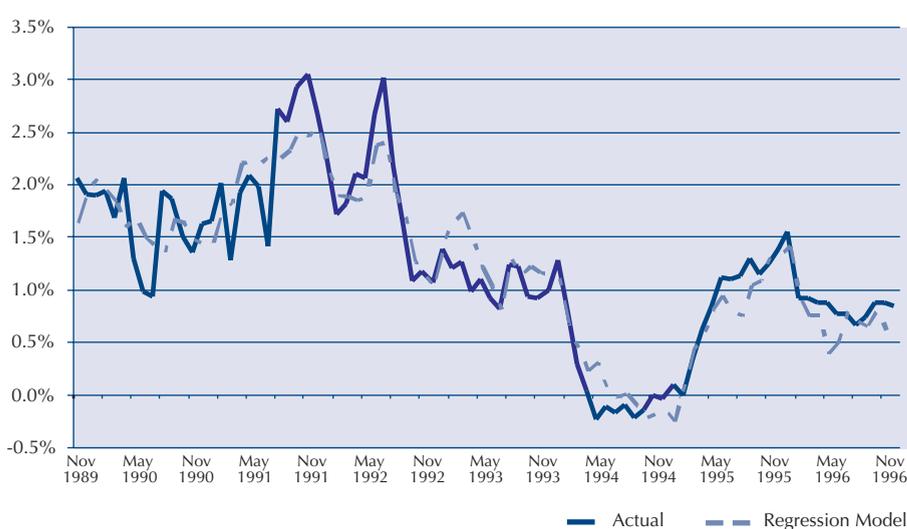


FIGURE 6 REGRESSION MODEL OF UPPER 75TH PERCENTILE ROLLING 12-MONTH EXCESS RETURNS FROM NOV 89 TO NOV 96



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FIGURE 7 REGRESSION MODEL OF UPPER 75TH PERCENTILE ROLLING 12-MONTH EXCESS RETURNS FROM NOV 89 TO DEC 01



successful managers sought to exploit the same strategies even more aggressively. Figure 7 illustrates that this model also broke down after 1996.

The regression model based on data through to December 1996 is illustrated in Figure 4. The broken line representing the model closely tracks the median excess returns even through the dramatic reversal in manager fortunes in 1994.

These results confirm that managers, in general, successfully exploited convergence strategies until the end of 1996.

The modelling indicated that the most significant strategy in terms of its contribution to excess returns was the play on the compression of long-dated State government bond spreads.

The fact that the optimal regression result corresponded with average spreads over a period of 15 months rather than over the rolling 12-month periods suggests that managers were more likely to hold a greater overweight position in long-dated state government bonds if the spreads were high in the months immediately before the rolling 12-month return period.

The modelling also indicated that the level and direction of the change of three-year rather than 10-year Commonwealth Government bonds during the 12-month return period correlated better with median manager performance.

This and the fact that level and direction of the change of short-term

interest rates during most of 12-month return period was negatively correlated with median manager performance suggest that managers expressed a long duration strategy by making extensive

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use of three-year Commonwealth government bond futures. This was verified from anecdotal discussions with managers.

Strong support for the conclusions is provided by the fact that the models capture the dramatic reversal of manager fortunes in 1994 as bond markets reacted negatively to fears of a re-emergence of inflation in the US.

Managers abandoned these convergence strategies during 1996. This probably reflected their view that these strategies would no longer work in a post-convergence environment. They were probably fearful of being caught again by a dramatic increase in bond yields and spreads as seen in 1994.

The research therefore strongly supports the speculation regarding the decline in excess returns. I postulate further that in the absence of a major structural market trend such as a significant change in interest rates or credit spreads that managers will

continue to struggle to add significant excess returns from the macroeconomic forecasting of bond yields and spreads. In the current low inflation environment a major structural theme is unlikely.

Is it still possible to identify superior managers?

The fact that the median manager has not been able to generate significant excess returns should not in itself discourage active management. Active management could still be supported if there were superior managers capable of consistently outperforming the benchmark. There are three elements which have to be addressed to answer this question:

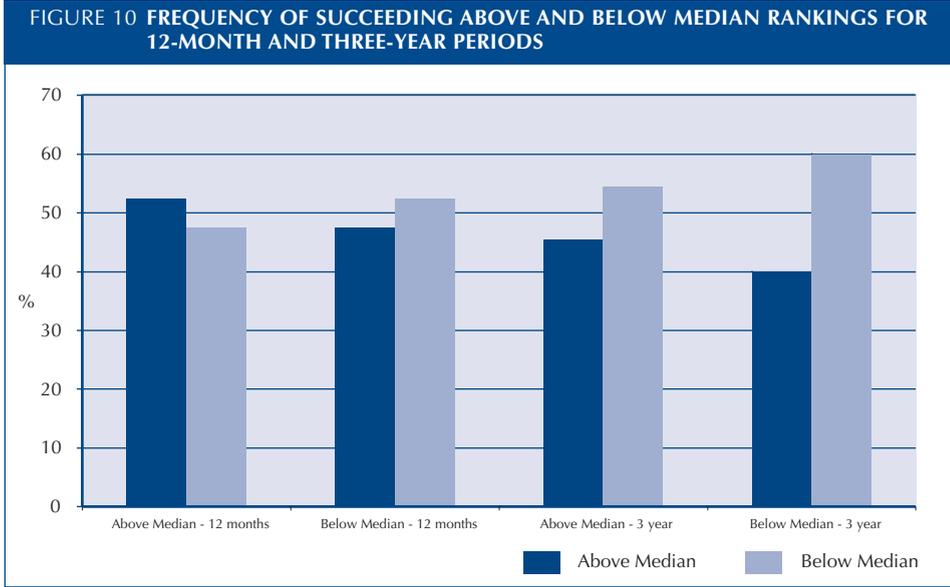
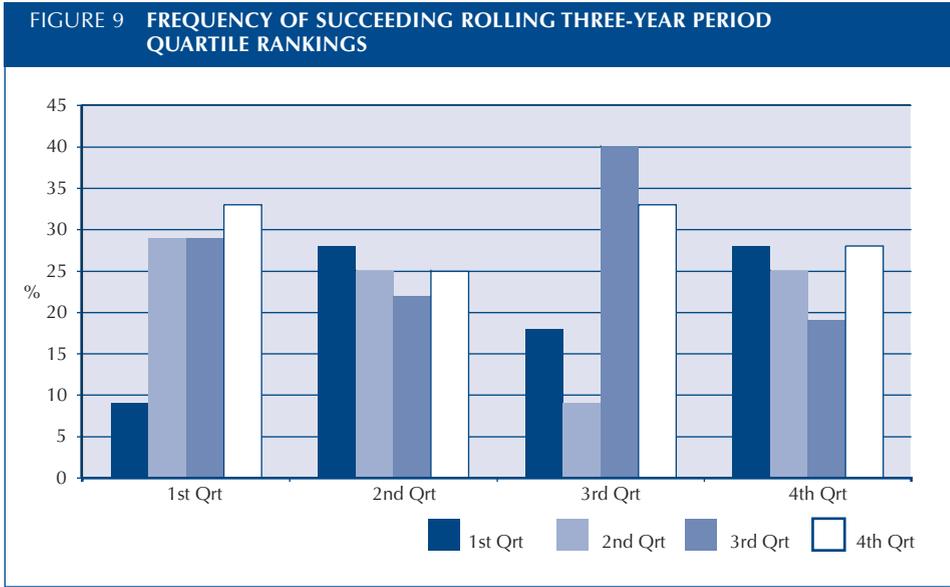
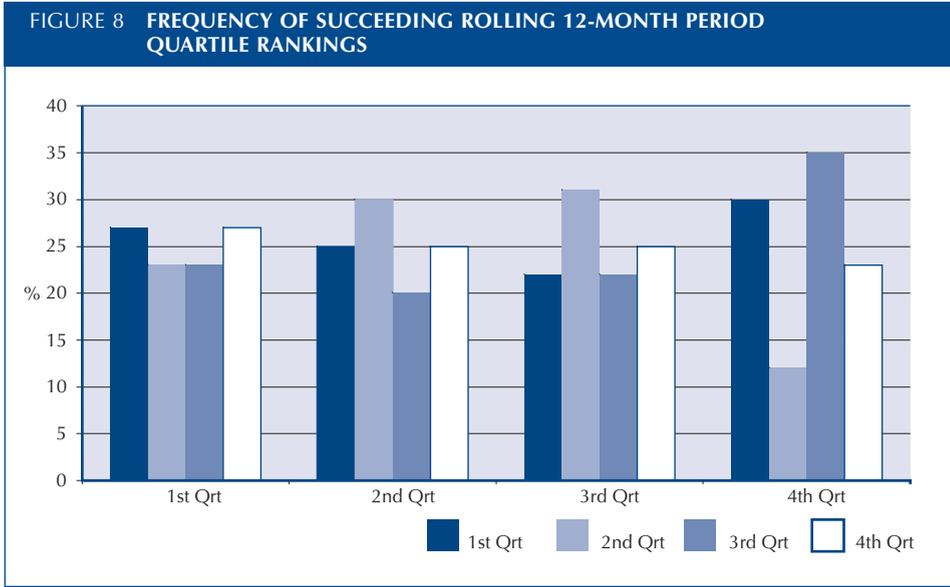
- Do superior managers generate enough excess performance?
- Are superior managers able to generate excess performance consistently?
- Can we identify managers who can generate excess performance consistently?

Top quartile managers generated between 0.5% and 1.5% of excess return in 2001. This top quartile range is not high compared to other asset classes but if some managers could consistently generate results in this range an active management strategy would still be attractive.

However, top quartile managers based on the last five years of performance generated between 0.3% and 0.6% per annum of excess return. The sharp difference between the excess returns of top quartile managers over 12 months and five years suggests that superior performance is not consistently maintained.

I further researched the consistency question by tracking the period-by-period quartile rankings and above and below median performance of managers from Mercer Performance Surveys on both a rolling 12-month and three-year basis over the last 12 years. This involved comparing the quartile rankings and above and below median performance of surviving managers going from one period to the next.

Figures 8 and 9 illustrate the frequency of quartile rankings of managers over succeeding 12-month



and three-year periods respectively based on Mercer Performance Surveys. Figure 10 illustrates the frequency of above and below median performance over 12-month and three-year periods.

Any persistence in top quartile or above median performance would be indicated by a higher frequency than would otherwise be indicated by chance: 25% in the case of the quartile rankings and 50% in the case of above/below median ranking.

The charts do not indicate that there is any significant persistence in top quartile ranking or above median performance over 12-month and 3-year periods. In fact, Figure 9 indicates that over longer periods the chance of sustaining top quartile performance is less than would be the case if the quartile ranking from one period to the next were dictated only by chance.

The figures also indicate a marginal persistence in below median performance. The conclusion from this research is that any superior performance over time by certain managers is as likely to be a result of chance as of superior skill.

Mercer has researched conventional fixed interest managers since the late 1980s. I found it difficult to identify managers who can outperform their peers. This is probably not surprising given the lack of consistency in relative performance and the homogeneous nature of the investment processes employed.

I found that the majority of conventional active Australian fixed interest managers employ similar analytical techniques and processes and the personnel involved have similar education backgrounds and experience. Some market participants have referred to this as a 'homogenisation' of investment process.

I therefore conclude that it is very difficult to identify managers of conventional fixed interest products who are able to outperform their peers.

The sure nickel—the enhanced passive approach

In recent years a new type of Australian fixed interest product has emerged whose results have been very

promising. The new product is referred to as enhanced passive because of the more modest target excess returns relative to conventional products. They target between 0.10% and 0.30% per annum of excess return and between 0.05% and 0.20% per annum of tracking error.

These products have typically been able to generate information ratios in excess of two. (The information ratio is defined as excess return over tracking error.) After taking into account management fees levels between 0.07% and 0.10% per annum, these products

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have been able to provide investors with a small but consistent level of above benchmark performance—'the sure nickel'.

Enhanced passive managers look to exploit a wide range of security-specific pricing anomalies using quantitative techniques to control risk closely. Managers hold portfolio duration neutral to benchmark and mostly maintain the portfolio yield curve close to benchmark. Positions are mostly classified as relative value trades, credit positions and arbitrage.

An example of a relative value trade involves a manager identifying State government bonds which are both cheap and expensive relative to the spreads of other State governments bonds over Commonwealth bonds.

By holding long and short positions in such State government bonds relative to Commonwealth government bonds, the manager seeks to exploit these pricing anomalies, while not assuming duration or yield curve risk. Credit strategies mostly involve holding cheaper corporate bonds in place of more expensive corporate bonds with the same ratings and term structure.

The most frequently used arbitrage strategy involves holding interest rate futures contracts rather than physical bonds when the futures trade below fair value. The list of strategies adopted is

not exhaustive. Managers continue to develop further such strategies.

Active positions are small. Managers seek to add no more than one or two basis points of excess performance from any successful position. Conventional active fixed interest managers also seek to exploit such opportunities but place more emphasis on duration and yield curve positioning.

Interestingly, a number of Australian fixed interest managers use their enhanced passive product as a core portfolio. They offer an enhanced passive product but also offer a conventional active product by using interest rate futures to express duration and yield curve views as an overlay in respect of the enhanced passive portfolio.

Enhanced passive strategies are therefore well known to conventional managers. This raises the possibility that these strategies may account for a large part of the meagre 0.12% per annum of excess returns recorded by the median conventional manager in the last five years.

I believe that enhanced passive products can sustain their current performance notwithstanding the possibility of new entrants and additional funds under management.

The door remains open to active managers

Australian fixed interest managers continue to research and develop new strategies to generate higher levels of excess returns than enhanced passive products. For example, one manager completed significant research last year to develop quantitative techniques to forecast yield curve changes.

Other managers are concentrating their processes increasingly on market supply and demand. Still other managers continue to concentrate on the use of non-benchmark corporate bonds to add value. These developments may at some stage lead to the improved performance. Mercer will continue to monitor these developments. **J**

Note: Data in tables sourced from Bloomberg & Mercer.

NEW MEMBERS

The Securities Institute extends a warm welcome to all new members admitted to membership between 1 November 2002 and 31 January 2003, and congratulates those elevated to a higher membership level over 2003.

A list of new members for the three months detailed above is to be found on the Institute's website at: www.securities.edu.au/members/ in a downloadable format.

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