
It's Time You Knew the Truth – Building Investment Portfolios That Work!

By **Scott Francis** (B.Bus, MBA, ADFS, M.Com, M Fin Plan) and
Scott Keefer (B.Com, Grad Dip Ed, Grad Cert Fin Plan)

Copyright © Scott Francis and Scott Keefer 2006

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the author.

This book should be treated as general information only. It is not designed to provide personal financial advice. The personal situation of the reader has not been taken into account in preparing the content of the book. All readers should check with a licensed financial advisor PRIOR to acting on the advice in this book.

To contact the author please go to his website at www.acleardirection.com.au . This site contains further educational material and details of their independent financial planning practice. It also contains up to date e-mail contact and phone contact details.

Table of Contents

Introduction	Page 4
8 Concepts that Will Make This Book Easier to Read	Page 6
Chapter 1 – Alternate Investment Management Methods	Page 10
Chapter 2 – It’s Time to Stop Believing in the Tooth Fairy	Page 16
Chapter 3 – Why Managed Funds Underperform the Index	Page 21
Chapter 4 – How the Financial Services Industry Assesses Managed Funds	Page 26
Chapter 5 - The Start of Another Investment Approach: Nobel Prize Winners, Market Efficiency, Diversification and Index Funds.	Page 30
Chapter 6 – 3 Factor Model	Page 36
Chapter 7 – Fixed Interest Investments	Page 43
Chapter 8 – Investor or Speculator	Page 47
Chapter 9 – Introduction to Asset Allocation	Page 53
Chapter 10 –Decision 1 – Growth vs Defesive Asset Allocation	Page 56
Chapter 11 – Defensive Asset Allocation	Page 61
Chapter 12 – Growth Asset Allocation	Page 64
Chapter 13 – Case Studies	Page 71
Chapter 14 – A Twist – High Yielding Direct Investments	Page 79
Chapter 15 – Passive and Index Investing – the Arguments For	Page 86
Chapter 16 – Passive Investing Quotes	Page 91
Eureka Report Articles :	
 Behind Closed Doors	Page 94
 Planners Money Drain	Page 96
 Dimensional Investing	Page 101

Acknowledgement:

With particular thanks to all those who have supported us in the building of our business, ‘A Clear Direction Financial Planning’. We take great pride in having built a completely independent, successful financial planning business that incorporates the latest investment research in building investment portfolios that work.

The people we need to thank include:

- Our family and friends – who have been supportive of our endeavour.
- Our clients – who trust us in what we do.
- Our business associates – who work with us in providing great financial solutions.

With sincere thanks,

Scott Francis and Scott Keefer

► A short and important introduction ◀

This book answers a simple question:

Given all the investment options in the world, how do we, as investment advisors, go about building investment portfolios that work?

For us, involved in an independent financial planning firm, this question is profound because it is what we do. We can choose for our clients any investment option in the world - and this book explains which investments we choose and why. Right from the start we want to pre-empt our conclusions by saying that the investments we choose to build portfolios from are:

- Simple
- Inexpensive
- Do not rely on skill for investment returns
- Tax effective

We are not promoting a complex or technical approach towards managing investments. Quite the contrary, our approach is simple, transparent and effective.

This book starts by looking at the status quo in investment management in Australia, the use of managed funds. These managed funds are used everywhere, in superannuation funds, industry superannuation funds and private investment portfolios. There is much research that questions their effectiveness as investment vehicles, and little research to support their widespread use. The first part of the book is dedicated to critiquing this common investment approach.

We then move to look at the components that we use to build portfolios:

- Index funds – what they are and why they work so well
- Asset allocation – the **KEY** decision that you need to make in managing your assets
- Investing in ‘small’ and ‘value’ companies to increase your expected return
- Tax effectiveness, an important part of any approach
- Fixed interest investments – how they can work in a portfolio
- What great investors think about a passive investment approach
- Why high yielding direct investments are worth considering in your portfolio

In short, this book compares an **active approach** to investment management with a **passive approach**. An active approach implies having your money managed by someone with the skills and abilities to pick investments that will perform better than the average and who has the ability to pick and time which asset classes are going to perform better than others. It is the more expensive portfolio management approach, as costs are incurred through research

and trading. It does not mean that you are a ‘trader’, rather that you have a portfolio that, through some expectation of skill, you expect your investments to outperform the average return. This also includes self directed investors who choose to manage their own portfolio. A **passive approach** focuses on building portfolios that reflect the performance of the overall market. They are inexpensive and tax efficient, as very little trading goes on. Over time they have grown in sophistication allowing investors to target specific characteristics of return within the overall market.

As an investor with only a comparatively small pool of wealth, it is easy to become timid about what you should expect from your investments. You should keep the following in mind:

In the world of capital markets there are four key inputs required by businesses to create wealth. These inputs are:

- **Resources (the material inputs involved in business)**
- **Intellectual Capital (the ideas and innovation behind businesses)**
- **Human Capital (the people who work in the business)**
- **Investment Capital (the money provided for use in business)**

As an investor, you are providing a key input into this process, the investment capital, and as such you are entitled to a successful investment experience.

Our opinion, our belief and our reflections on an overwhelming volume of evidence leads us to the conclusion that a passive approach to investment management maximises your chances of having this successful investment experience.

In setting out to write this book we endeavoured to keep it concise, 100 pages was our target. Because of that we could not include all the evidence and research that we would like. That said, the evidence and research included to support our way of investing is significant. Keep in mind that being involved in an independent financial planning firm, the only way that the firm gets remunerated is through the ongoing fees paid by clients – so the pressure is on us to come up with the most outstanding portfolio solutions at all times.

We know that you enjoy reading our book, and that it will add significant value to your investment experiences.

Good Investing!

Scott Francis and Scott Keefer

► 8 Quick Concepts That will Make this Book Easier to Read ◀

The following short section of the book outlines eight concepts that, if you are somewhat familiar with them, will help you understand the content of the book.

An Active Investment Approach

This title seems to imply that an active investor is one who is regularly and often trading. While this may be the case, it actually refers to any investor who makes specific investments thinking that they will beat the average market return. An active investor may be someone with a portfolio of 20 investments that they have put together. While they don't trade these investments regularly, they are active in the sense that they have specifically chosen a portfolio that they believe will give them above average long term returns.

Pretty much every market participant is an active investor. They all have their portfolios of investments, including managed funds, that they think will provide them with above average market returns.

An Index

An index is a collection of all the investments in an investment category. It is used to measure the performance of all the investments in that category. For example, the index of the largest 200 companies listed on the Australian stock exchange is known as the ASX200 index. It measures the average performance of the largest 200 companies by value. As we write, the value of the ASX 200 index is around 5,000 points. In any one day the index may go up by 50 points, or 1%, if the average value of the companies in the index rises by 1%. Alternately, if the average value of the companies falls then the index will fall.

Most indices are 'value weighted', which means that larger companies have more importance in the index. In Australia this is true. In the ASX200 index, companies like BHP, the major banks and Telstra have more weight in the index, so the changes in their price will affect the index more than the companies that are ranked 199 and 200 in the index.

An Index Fund:

Indices were set up as measuring devices. Once research was done looking at the investment performance of active managers, particularly active fund managers, it was noticed that very few active fund managers could 'beat' the index over any extended period. (More evidence of this is included later in the book).

In the early 1970's in the United States the first 'index fund' was developed. All it did was hold all the investments that exist in an index, in the proportion by which they contributed to the index. The return of an index fund is simply the return on the index less costs.

This became a very cheap way of investing, because there is little research or trading cost involved in putting together a portfolio that has exactly the same investments as the index. As well as this, it immediately provides a very well diversified portfolio.

The 3 Factor Model:

We think that this research is so exciting for investors that we have given it a chapter of its own. In the early 1990's two academics, Gene Fama and Ken French, found that there were other sources of return in investment markets rather than just the index return.

They found that additional investment return could be expected by investing in small companies and in what they called 'value' companies, or companies under some financial pressure.

Importantly, Fama and French did not say that these areas were a source of additional 'risk free return', rather they said that the investor took on additional risk for the additional investment return.

Over the long term, additional average returns in the order of 3-4% from investing in value companies and 1-1.5% from investing in small companies have been achieved across many different investment markets. These returns do not show up every year. Indeed there are periods of years where small and value companies can underperform the index. That said, on average, they provide a return premium over the market.

Passive Funds:

Index funds are the first example of passive funds, in that the fund manager is not trying to actively beat the market. Such funds passively invest in all the stocks in the market and accept the market return.

The 'small company' and 'value company' funds set up to take advantage of the additional areas of potential risk and return identified by Professors Fama and French are also described as 'passive' funds. That is because they are not actively researching and selecting stocks for their funds, rather they passively select stocks based on their characteristics.

Dimensional Fund Advisors have set up passive managed funds that specifically invest in small and value companies. For example, their Australian small company trust invests in stocks outside of the top 100 companies by size, and the Australian value trust invests in the 30% of the market with the lowest book to market ratio. There are also other screens that companies are run through prior to investing, to ensure that they are suitable. The point is that these funds invest entirely in the area of suitable small or value companies; they are not seeking to actively pick and choose which companies sit in their portfolio.

Capital Gains Tax:

Capital Gains Tax is the tax that you have to pay when you sell an asset that has gone up in value. Having to pay some capital gains tax is not the worst problem in the world; at least your investments have gone up in value.

Capital gains tax is only payable once you have sold an investment. It becomes a big issue for those people who are trading investments regularly, or for investors who invest in managed funds that are trading regularly.

The capital gain that you make is added to your marginal tax rate. For example, if you buy an asset for \$1,000 and sell it for \$2,000, the \$1,000 capital gain is added to your taxable income. If you pay tax at the rate of 30% then you will pay \$300 of tax (30% of \$1,000)

In Australia, once an investment is held for 12 months you generally get a 50% discount on the rate of tax paid. In this case if you make the same \$1,000 gain and you have owned the asset for more than 12 months, only \$500 of the gain is added to your taxable income, so at a tax rate of 30% the tax paid is \$150.

This does not apply to companies. They are not entitled to any capital gains tax discount.

The rate of tax paid on a discounted capital gain in superannuation is 10%, rather than the full rate of 15% applied to superannuation earnings.

This basic understanding of capital gains tax is important because many active approaches to investment management create high levels of capital gains tax that has to be paid by investors.

Management Expense Ratio (MER):

A management expense ratio is the total cost of a managed fund. The average managed fund cost in Australia is 1.8-2%, although it will be smaller for larger investment amounts. This is important in investing, as it represents a large slice of your expected returns. *If we say that the average expected returns from Australian shares is 12% a year, then a 2% fee translates to 17% of your expected returns.*

Shares/Stock

When companies list on a stock exchange, such as the Australian stock exchange, they issue shares for investors to buy. Buying the shares makes you part owner of the company.

If you invest in a managed fund, they will buy those shares on your behalf. That is, they put together a portfolio of shares that you then invest in. If the shares they have chosen go up, then the value of your investment goes up, and vice versa.

The terms shares and stock can be used interchangeably. You can say 'I want to buy some shares in that company', or 'I want to buy some stock of that company'. Stock tends to be used more in the United States than here in Australia.

►Chapter 1◄

Alternate Investment Management Methods

This book is about why we build investment portfolios the way that we do.

Our approach involves:

- Focus on asset allocation
- Keeping investment costs low
- Use of index and passive funds that are tax effective and well diversified
- Application of high quality (peer reviewed academic standard) research in building investment portfolios

A quick comment on the use of research. ‘Peer Reviewed’ research is research that has been published in high quality journals. These journals do not simply publish what is submitted to them. Prior to publishing, a panel of experts in the field reviews the research regarding its suitability. This ensures that the research is of a high quality. It is this high quality research that we use as the ‘basis of advice’ to build investment portfolios.

There is a lot of very poor quality research surrounding investment management. That is because it is written to suit the needs of particular areas of self interest. As you see it presented in the media or in advertising, keep in mind the saying that you should ‘Always bet on self interest, because at least you know it is trying’. The only way to cut through this maze of low quality research is to limit yourself to working with high quality, peer reviewed research.

You will learn all about our approach through the remainder of the book. Of course, this is not the only way to manage money. The purpose of this first chapter is to quickly critique some of the other methods available.

Alternative Money Management Methods

- **Large Government or Industry Superannuation Funds**

These funds have one thing going for them. They have a low fee structure, and for an investor that is a good thing. They usually offer a number of different funds for investors with different asset allocations. Again, this is generally a good thing.

Most of the time these funds ‘outperform’ other superannuation funds with similar asset allocations. This is a result that we would expect, given that their fee structure is so low (again, a good thing for clients).

These funds are still ‘active’ fund managers, trying to pick and choose investments and asset classes that will outperform the average. In this book we present much evidence that this behaviour does not add value. Indeed, once trading costs are taken into account, it destroys value for the investor.

Most industry funds offer a range of set asset allocations from ‘High Growth’ (100% invested in growth assets) though to ‘Balanced’ (usually around 50% to 75% invested in growth assets) and then ‘Capital Guaranteed’ (100% invested in cash investments). While there is a level of simplicity that comes from having a few pre-set alternatives provided for you, having to choose an ‘off the shelf’ asset allocation takes away a level of flexibility, and indeed sophistication, for the average investor. No longer are they able to think through the asset allocation decision and select an asset allocation that suits themselves. Moreover, the asset allocation decision is usually based on a ‘target range’, meaning that investors can never be quite sure what they are getting.

As these funds grow, their ability to add value will decrease. The sheer volume of money that they are looking after makes it hard to efficiently buy and sell investments.

- **Retail Superannuation Funds**

These are the superannuation funds often supported by the big players in the financial services industry, eg AMP, BT, MLC and so on. These are often recommended by commission based financial planners, who prefer them to the lower cost Government Industry funds because of the commission paid to them.

They are more expensive versions of the Government and Industry Funds. They have similar disadvantages at a higher price. We have seen any number of examples of people in this style of fund paying fees upwards of 3%. This is usually a combination of a fund managers fee (MER), administration fee and an advisor services fee. Don't give away 3% of your returns each year to the financial services industry. *If the average return of a balanced fund is around 8% a year, then you are giving away 37.5% of your expected annual return.*

- **Managed Funds**

We focus a lot on managed funds being an ineffective vehicle in which to manage money. We find that managed funds:

- Are tax ineffective
- Have very high trading costs
- Have high fees
- Do not have any ability to consistently beat the average market return

- **'High Conviction' Managed Funds**

The current trend in managed funds is for 'high conviction' fund managers. These managers take big stakes in a much smaller number of companies than usual fund managers do, and some have been showing excellent returns. Some have been showing very poor returns and we tend to hear less about these!

This range of returns is actually what we would expect from 'high conviction' funds. If you choose a less diversified portfolio then you would expect your returns to vary more than the market average.

Here is the risk. The media and the advertising efforts of the successful high conviction funds breathlessly tout the performance of the good funds. However they forget to mention the poorly performing funds. They don't discuss the possible downside of the lack of diversification offered by a high conviction fund, and that this lack of diversification leads to increased chances of above and below average returns simply through luck.

That said, a 'high conviction' fund makes a lot more sense to us than a really big managed fund, where there is little chance of outperformance. If you want to try to add some value in your portfolio through active management, then at the very least you want a 'high conviction' style fund that takes significant investment positions.

- **Index Funds**

The previous chapter on Concepts discussed what an index fund is. Much of the book focuses on the usefulness of index management. We apply this in our own portfolios; however we also use other more sophisticated passive funds to expose portfolios to other sources of additional return.

One of the newest and most successful financial products launched recently was the 'Virgin Superannuation' product. They use Macquarie bank to manage the funds in superannuation. Here is where it gets interesting. They manage that money using index funds. We don't think that there is any surprise in this. Any person launching a completely new investment approach, who researched potential investment strategies, would have to be swayed by both the research supporting index investing and the actual results achieved by index investing.

It is also interesting to reflect on Macquarie bank's role in managing the assets in index funds. Macquarie have a tremendous long term reputation as financial service innovators, who, at the very least, are acknowledging that index fund management has a lot going for it.

We will talk in detail about index funds in the book. In short they provide well diversified, tax effective, low cost investment solutions. An idea supported in practice by Virgin and Macquarie.

- **Stockbroker**

Lets start by saying that there are many worthwhile stockbrokers who have been valuable to clients in helping them build their wealth. A good stockbroker can be a useful ally in building long term wealth.

There are four downsides with a stockbroker:

- 1/ They have a bias towards Australian share portfolios
- 2/ They are in the business of 'stock picking'
- 3/ They have the wrong incentive structure in place
- 4/ They have a conflict of interest with regard to capital raisings from new floats

Stockbrokers generally deal in Australian shares and listed property trusts. There are now more listed fixed interest and even some international share based listed investment

companies that they can access, however their focus is Australian shares and listed property trusts. The point of this is that they will not focus on asset allocation as a key driver of portfolio returns, i.e. they do not take into account the clients overall financial needs

The business of stockbroking is picking investments that will outperform. Fair enough, but where is the evidence of their success? We have met very few clients of stockbrokers who have ever had the returns on their investment portfolios properly measured and compared with any index. That is, any Australian share portfolio should be compared with an index such as the ASX200 accumulation index (accumulation indices measure both growth and dividends). This is very easy to do given the software most stockbrokers use, however it is certainly not common. Most provide valuation printouts, but not printouts of performance.

Stockbrokers are paid every time that you make a trade. For full service brokers this might be a fee starting at 1% of the value of the trade, and decreasing for larger trades. Usually a minimum fee of \$70 or so will apply. This provides them with an incentive to create activity, encouraging investors to trade. Trading too often for investors is expensive and tax inefficient. Furthermore there seems to be little evidence of the sort of skill by investment managers that results in value added by this trading.

Lastly, many stockbroking firms earn significant fees from raising capital for companies that are floating. Most long term stockbroking clients have stories about investing in floats that have not worked for them and that, in retrospect, did not make sense for them. This is particularly the case in times of stockmarket booms where many companies without good earnings choose to float. The flipside of this is that when more attractive floats come along such as Tattersals, Babcock and Brown or more recently Wotif.com, the average retail investors don't get access to significant quantities of stock. This is referred to as the 'losers curse'. When a retail investor actually gets access to stock in a float it is because the big institutions and the high rating private clients don't want it, and it is more likely to do poorly.

- **Discount stock brokers**

Discount stockbrokers are those stockbrokers that only place orders, leaving investors to make their own trading decisions with low transaction costs.

There are clearly a number of ways that an investor could use a discount broking account, with some people no doubt trading all the time, and other people looking to build long term buy and hold portfolios. The question to ask is, how successful are people with this approach?

In 2001 United States finance academic Brad Barber and Terrance Odean published the paper "Boys will be Boys: Gender, Overconfidence, and Common Stock Investment" in the **Quarterly Journal of Economics**. This paper is particularly interesting in that it considers the problem of overconfidence by examining the trading patterns of 35,000 clients from an online broking firm. This provides an insight into the trading patterns of average 'mum and dad' investors who managed their own portfolio.

On average, men earned a return 2.65% lower than if they had simply held the portfolio that they owned at the start of the year. Women earned a return 1.72% a year lower than if they had simply held the portfolio that they owned at the start of the year. On average both men and women sold shares that earned a better return than the shares that they bought, the difference in the overall return is that men traded more frequently. Both groups would have been significantly better off simply holding the portfolio that they owned at the start of the year and not trading at all.

- **Measuring Returns**

As we write this in July 2006, we have had an extraordinary sharemarket run. During the last 3 years a simply index investment in the sharemarket has now nearly doubled in value as a result of income and capital growth. A problem with these good times is that even if you didn't get the almost 100% return on offer from the index, and only got a return of 85%, you are probably so content that you don't realise that you have really underperformed the average return by 15%. Moreover, many people don't even measure their investment returns.

Once you have read this book you will have a strong understanding of how to use simple investment approaches to build an investment portfolio that will reward you for the amount of risk that you take on. You may decide that this investment approach is not for you. *Either way you should start to take greater ownership of the investment results that you get by taking the time to measure the returns that you get.* That way you will know whether you are getting the investment returns that you deserve.

Keep in mind this last piece of mathematics. Well over 95% of the market is managed 'actively'. That will be through online trading accounts, stockbrokers, managed funds and industry and government superannuation funds. All of these funds will spend around 1.5 to 2% in total costs (trading costs, research and management costs) a year to beat the average market return. And yet, on average, their return will be 1.5% to 2% below the market return. On average, simple mathematics says that these investors will underperform the market return by 1.5% to 2% a year. And yet, all of these investors expect that they will beat the market, or they would simply manage their money using an index fund.

► Chapter 2 ◀

'It's Time to Stop Believing in the Tooth Fairy'

"Santa Claus and the Easter Bunny should take a few pointers from the managed fund industry [and it's fund managers]. All three are trying to pull off elaborate hoaxes. But while Santa and the bunny suffer the derision of eight year olds everywhere, actively-managed stock funds still have an ardent following among otherwise clear-thinking adults. This continued loyalty amazes me. Reams of statistics prove that most of the fund industry's stock pickers fail to beat the market. For instance, over the 10 years through 2001, U.S. stock funds returned 12.4% a year, vs. 12.9% for the Standard & Poor's 500 stock index." Jonathan Clements. Only Fools Fall in ... Managed Funds?, Wall Street Journal, September 15, 2002

Managed funds are investment vehicles where investors contribute to a pool of assets, and become owners of a number of 'units' in those assets. For example, an investor might invest in an Australian share fund, contributing \$1,000 to buy 1,000 units priced at \$1 each. If the value of the underlying assets goes up in price the investors units will increase in value. If the value of the assets fall, so will the investors investment. Traditional managed funds, or 'actively managed funds', look to pick investments or asset classes that will provide above average returns.

The managed fund industry in Australia is a huge industry. According to statistics published on the website of the US managed funds industry site the Investment Company Institute, Australia has the fourth biggest managed fund industry in the world. The size of our managed fund industry ranks us behind the US, France and Luxembourg but ahead of financial heavyweights such as Germany, the UK and Japan. At the end of 2005 the value of the assets invested in Australian managed funds was just over \$800 billion or, based on a population of 20 million people, \$40,000 invested in managed funds for every man, woman and child in Australia.

The Morningstar website states that it provides research on over 7,500 Australian managed funds. To put this in perspective, on the 31st of December 2005 there were 1,873 listed companies on the Australian stock exchange. Sure, not all the managed funds will be invested in Australian stocks. However, the fact that there are 4 times as many managed funds in Australia as there are listed companies on the ASX is a testament to the size of the industry in Australia.

The total value of investments listed on the Australian stock exchange (ASX) at the end of 2005 was \$1,110 billion. With \$800 billion invested through managed funds (63% of the value of ASX investments) you can see how significant this industry is.

Why is this the case? Firstly, Australia's superannuation industry sees 9% of most people's salary invested almost exclusively into managed funds, providing an ongoing stream of contributions into managed funds. Secondly, and we think sadly, Australia's financial planning industry is dominated by advisors who generate their cash flow from the commissions paid by managed funds to them. They have an inherent bias toward recommending them.

There remains an intuitive attraction to actively managed funds as investment solutions. They are generally sold on the following claims:

1/ Professional fund managers and researchers provide the expertise that will see your investments funds perform strongly. What they don't mention is that every fund manager in a competitive market place has huge amounts of research and expertise – they can't all perform above the average. They also don't mention that research and expertise are expensive and reduce your expected returns.

2/ These funds provide instant diversification for investment portfolios. What they don't say is that 'index funds', funds that invest in all of the securities of the index, will provide a greater level of diversification at a much lower cost.

3/ They are likely to tell you that the proposed managed fund you are investing in has outperformed the market average over the past 5 years. What they won't tell you is that research has consistently shown that this does not mean that it is likely to outperform over the next 5 year period, and that the outperformance is far more likely to be due to luck rather than skill.

4/ They provide a simple, one stop investment solution. What they don't mention is that a horse and buggy also provides a simple solution, it just doesn't work as well as other alternatives.

What definitely won't be emphasised while you are being encouraged to invest in a managed fund will be:

- What the average managed fund fees of 1.8% to 2% will do to reduce your final investment balance. (Average fees from the Age newspaper, September 2004. Article Entitled 'Competition and Fees' written by John Collett.)
- How frequently managed funds trade and the costs of this trading.
- The difficulty that comes with managing a huge pool of money, such as influencing the price of investments that the fund is buying or selling.
- The role that commissions, both upfront and trailing, have on commission based financial advisors recommending them.
- The tax inefficiency of managed funds.
- The complexity of the annual tax statements from managed funds.

When it all boils down to basics, the question must be asked “are actively managed funds the most efficient way for investors to achieve a successful investment experience?”

The simple summary (of the next nine paragraphs) is this: there is a significant body of academic research that consistently reaches the same conclusion – **that actively managed funds do not outperform the simple market return (index)**. That is, actively managed funds do not add value.

There has been a tremendous amount of research done that compares the investment returns from managed funds with the returns from the market index, which measures the average return from an investment environment. The overwhelming reality is that, on average, managed funds do not outperform the index. Let’s look at some evidence.

Dr Rich Fortin and Dr Stuart Michelson, both finance professors, authored a paper in the September 2002 Journal of Financial Planning entitled ‘Indexing Versus Active Mutual Fund Management’. (A mutual fund is another term for a managed fund). They found that, in both before tax and after tax terms:

- Index funds outperformed managed funds for most share based categories and all fixed interest categories.
- Active management did not add value.

In the summer 2000 edition of the Journal of Portfolio management, Arnott, Berkin and Ye wrote a paper entitled ‘How Well Have Taxable Investors Been Served in the 1980’s and 1990’s?’ Within the paper they state that ‘There can be no question that indexing, for most categories of taxable investor and most market conditions will outperform conventional active (managed funds)’.

David Gallagher and Elvis Jarnecic, from the University of New South Wales, have authored two papers that look at the performance of Australian managed funds that invest in international assets and fixed interest assets. In the article ‘The Performance of Active Australian Bond Funds’, published in the December 2002 Australian Journal of Management, they found that there was ‘significant underperformance for retail bond funds after fees’. In the article ‘International Equity Funds, Performance and Investor Flows: Australian Evidence’, published in 2003 in the Journal of Multinational Financial Management it was found that ‘active management (ie in managed funds) does not provide investors with superior returns to passive indices’. In reviewing the literature concerning managed funds Gallagher and Jarnecic found that ‘...the empirical evidence widely documents the inability of active fund managers to outperform market indices’, with ‘Australian research also supporting this international evidence’.

Two economics professors from the University of Queensland, Michael Drew and Jon Stanford, examined the returns from superannuation investments. In a paper published in

the September 2003 edition of the Service Industry Journal, entitled ‘Returns from Investing in Australian Equity Superannuation Funds, 1991 – 1999’, they found that ‘the average superannuation fund, specialising in the management of domestic share portfolios, underperforms passive market indices by about 2.8 to 4% per annum. Their overall conclusion was ‘Australian superannuation investors would achieve their retirement income objectives more rapidly by engaging a low cost fund manager employing a passive technique (ie indexing)...’. It is interesting to note that most of our superannuation assets are managed in active managed funds.

A number of recent studies have examined the actual ability of fund managers to select investments that perform higher than the average. These studies have included a study by Malcolm Baker (Harvard Business School), Lubomir Litov and Jeffery Wurgler (Stern School of Business) and Jessica Wachter (Wharton School) entitled ‘Can Mutual Fund Managers Pick Stocks’ and ‘An Examination of the Performance of the Trades and Stock Holdings of Fund Managers: Further Evidence’ by Matt Pinnuck (published in the Journal of Financial and Quantitative Analysis: December, 2003). Both of these studies found that fund managers had the ability to select stock (share) investments that outperformed, that is, they could select stocks that perform better than average. This would seem to fly in the face of evidence that actively managed funds underperform passive indexes. However, there is more to this story. In an article entitled ‘Mutual Fund Performance: An Empirical Decomposition into Stock Picking Talent, Style, Transaction Costs and Expenses’ published in the Journal of Finance, Volume 55: Issue 4, the Author, Russ Wermers found agreement for the evidence that managed funds had the ability to select outperforming stock. In fact, the outperformance of the stocks held in a managed fund amounted, on average, to 1.3% a year. However, after taking into account transaction costs and expenses of 1.6%, and the underperformance of non stock holdings (such as cash on deposit from new investments and to meet redemptions) of 0.7%, the actual performance of actively managed funds trailed the index by 1%.

Dr Ross Miller, a finance professor from the United States, in his paper ‘Measuring the True Cost of Active Management by Mutual Funds’, considers the returns from 152 managed funds from January 2002 to December 2004. On an overall basis the 152 mutual funds underperformed the index by an average of 1.5%.

An Intuitive Explanation

As well as this research, we would like to propose an intuitive explanation of these results.

For an active fund manager to add value they have to find a mispricing of an investment that no one else has found. For example, at the moment Telstra shares are trading at around \$3.70. For an active fund manager to add value through active management they have to come to an opinion about whether Telstra shares are too expensive, too cheap or about the right price.

This sounds reasonably simple to do, except that every other investor is doing it, and it is expensive to do. That means that active managers have to do it better than every other investor in the market place and they have to outperform the costs they incur in researching and actively trading.

Telstra's price at the moment reflects a kind of average price of all the expectations and research in the market. Some people are buying Telstra at the current price – they expect to get above average returns from their investments. Some people are selling Telstra at the current price – they expect that Telstra will provide a below average return in the future.

That, in a nutshell, is why active management is so difficult. With thousands of researchers, investors, fund managers and advisors combing investment opportunities it becomes difficult to find any investments mispriced to such an extent that the excess return will cover the costs of researching and trading.

The next step in evaluating managed funds as prospective investment solutions is to ask the question “Why do managed funds underperform the index?”

How Do We Apply This?

The traditional financial planning model uses managed funds as the core of their investment approach. The initial evidence about managed funds as effective investment vehicles and their ability to provide adequate investment returns is not promising.

Given the question mark about the effectiveness of managed funds we are compelled to look at further evidence as to whether they should be used in investment portfolios.

We definitely do not believe in the tooth fairy, we are slowly coming to terms with the fact that there is no Santa Claus and, for all the supposed investment expertise and hype surrounding managed funds, it seems that there is little reason to believe in them either.

► Chapter 3 ◀

“Why Managed Funds Underperform the Index?”

The previous chapter considered a body of research that overwhelmingly found managed funds do not perform above the average market return (the index return). To build a more robust understanding of why managed funds are not effective investment vehicles, we need to understand the reasons for this underperformance of managed funds.

We have identified 5 key factors that end up reducing the performance of managed funds, and they are:

- The high costs associated with managed funds
- The problem of managing large sums of money and cash inflows
- The hidden cost of trading (moving market prices) as a result of the large sums of money that managed funds have to invest.
- Overconfidence and excessive trading
- The problem of managed funds mimicking the index

This chapter considers these five factors, one at a time.

The high costs associated with managed funds

Average managed funds have fees of 1.8% to 2%. (From the Age newspaper, September 2004. Article Entitled ‘Competition and Fees’ written by John Collett.) Wholesale funds, which are funds that have a higher minimum investment generally of \$50,000 or more, often have lower fees of 0.8 to 1.5%. Investors are often encouraged to use ‘platforms’ or ‘wrap accounts’, which are administrative structures that allow investors to invest in managed funds at wholesale prices, although this adds another layer of fees for these ‘platform’ or ‘wrap’ accounts.

The effect of fees is simple to understand. If the long term Australian sharemarket return is 12%, paying 1.8% in fees means that the underlying assets of the fund will have to return 13.8% for the managed fund to provide you with a return equal to the index return. This sounds easy enough. However keep in mind that the extra 1.8% return is equal to an extra 15% return above the market average return of 12%.

These costs are significant. They mean that where the average return on the market is around 12%, the **average** return that a managed fund investor can expect is the market return less the fees, or 10.2% rather than the 12%. This is simple mathematics – there will

be some active fund managers who will outperform, there will be some who underperform: therefore the average must be the market return less fees.

The problem of managing large sums of money and cash inflows

There is commentary that the size of managed funds limits their performance. In Australia, Colonial First State states on their website that they manage \$99 billion worth of funds. AMP on their website state that they manage funds worth \$84 billion. Even if only a third of this is invested in Australian Equities, these are still massive portfolios that they are trying to manage.

Size limits performance because there are only so many outstanding investment opportunities available, and managing such large sums of money means that you have to look beyond just outstanding opportunities to less favourable ones. For example, lets consider ARC energy, a stock listed in the ASX 200 index. This means that it is one of the largest 200 companies on the stock exchange. At the time of writing, it has a market capitalization of around \$370 million. So, if the fund managers at AMP thought it a great investment, they could buy all the ARC energy shares on issue, and it would still make up only about 1% of their Australian Equities portfolio – so there is no real way that they can take a meaningful position in even a company of that size. (Usually fund managers limit the amount of each company that they own, which limits further their ability to take meaningful positions in anything but the largest companies.)

David Gallagher and Elvis Jarnecic, from the University of New South Wales, have authored two papers that look at the performance of Australian managed funds that invest in international assets and fixed interest assets. Both of these papers provide an insight into one of the problems that active fund managers have. For both international funds and fixed interest funds it was found that the inflow of money into managed funds from new investments actually negatively impacted on performance. This makes sense, as investors are more likely to invest new money with a managed fund after it has performed well. However, this period of strong performance may well correlate with a peak in the value of a market. This means that the investment manager has to make more investments when markets have peaked, or has to retain the new money in cash investments until it can be invested in the market. Either approach is likely to detract from the overall performance of the fund.

Christopherson Ding, Greenwood, in their article ‘The Perils of Success’ published in The Journal of Portfolio Management, 2002, put together this theory to conclude that strong investment performance led to inflows of investors money which then led to performance mediocrity, because of the difficulties associated with managing a larger collection of funds.

The Hidden Costs of Trading – The Hidden Costs of Managed Funds

Chalmers, Edelen and Karlee, in a 2001 paper entitled ‘An Analysis of Mutual (Managed) Funds Trading Costs’ looked at the costs associated with 132 managed funds during the period from 1984 to 1991. Their study found that:

- The average trading costs for a managed fund were 0.78% of the funds assets a year. These trading costs are in addition to the annual management fees paid to the fund manager. (add this to the 1.8% to 2% fee you are paying and the total cost of management is over 2.5% a year)
- The higher the trading costs the lower the returns of the fund (which implies that the more actively the funds assets are managed the lower the actual return)
- In considering trading costs they made the statement that ‘a plausible inference from the results is that every dollar that is spent on trading costs results in a dollar less in returns’. They found that where total fund costs were 0.9% the funds underperformed the expected returns by 0.77% and where total fund costs were 3.12%, the funds underperformed the expected return by 4.38%.

Even this research may not fully quantify the price impact that trading may have on a managed fund. For example, if you are a large fund manager wanting to take a position in a reasonable sized company, such as Flight Centre, you will have to buy such a large number of shares that your demand will actually increase the price of the shares of the company. Conversely, when you come to sell that holding you will have so many shares that you are selling that you will decrease the price of the shares. In effect, you will be forced to buy higher than you want, and sell lower than you want. This market impact reduces the returns for the managed fund investors.

These costs are hidden. For example, the Q Super balanced fund (a superannuation fund for Queensland Government Employees) has a management fee of 0.58% per annum. This is a very low management fee. However it does not capture the trading costs associated with the active management of Q Super’s assets.

Overconfidence and Excessive Trading

The hidden costs of trading having been exposed in the previous section. The next question is how often do fund managers trade? Mark Carhart, in his paper entitled ‘On Persistence in Mutual Fund Performance’ published in The Journal of Finance in 1996 measured the turnover of the investments of actively managed funds at 75% of the funds assets each year. That is, 75% of the portfolio of the average managed fund is bought and sold each year.

Using market figures from the Australian Stock Exchange website (www.asx.com.au) we calculated the total turnover in the 12 months to November 2005 as being 89.4% - great for the shareholders of the ASX who generate revenue every trade, but perhaps not so great for investors! During the 12 months to November 2005 the average equity trade was \$35,531.

There was an average of 2.044 million trades per month and the average value of the sharemarket over this time was \$974,000,000,000. This more up to date figure for sharemarket turnover shows the high level of trading across the market.

By definition actively managed funds will be buying and trading shares, looking for investments that will outperform. However, given the high cost of trading, this has a role in decreasing investment returns. If the level of trading of fund managers somewhat approximates the turnover of assets in the Australian stock exchange of nearly 90%, then it is easy to see how excessive trading will reduce managed fund performance.

The problem of managed funds ‘mimicking’ the index

Ross Miller, in his paper ‘Measuring the True Cost of Active Management by Mutual Funds’, sets out to identify how much the returns from mutual funds, a US term for a managed funds, are a result of closet indexing and how much are a result of active management unrelated to the index. He then proportions a reasonable fee for the index fund management based on the Vanguard US S&P 500 Index Fund (0.18%) to find out the true cost of the actively managed portion of the fund. That is, he assumes that the indexing investment management cost 0.18% for the portion of the fund managed this way, with the remaining management cost being attributed to the actively managed portion of the fund.

The results are very interesting. For the 152 ‘large company’ mutual funds that formed the sample, on average only 15.55% of the total funds were actively managed. The average management expense ratio (MER), or managed fund fee, for the actively managed portion of the funds was 6.99%. On average more than 96% of the variance in the returns of the fund was explained by movements in the index. On average the ‘value added’ by the active management was negative 9%. This is an investment loss of 2% on top of the fees of 6.99% apportioned to the actively managed component of the fund, clearly demonstrating that in this sample active management destroyed value. On an overall basis the 152 mutual funds underperformed the index by an average of 1.5%.

Amongst the reasons given for actively managed funds being closet index funds are the ‘marketing imperative’ and the problems of size.

The ‘marketing imperative’ suggests that managed funds are reluctant to take large positions away from the index because if they do, and the positions don’t work out, the fund will have underperformed the benchmark significantly. This underperformance will be difficult to explain to existing investors and even more difficult to use to attract new investors. So the safe alternative is to hold a portfolio that is roughly the same as the index, so that the managed fund will get roughly the same return.

The problem of size means that large fund managers have so much money to deploy that they are forced to purchase investments in a large number of companies, just to get all their money invested. For example, Colonial First State boasts on their website that they have

\$99 billion in funds under management. Let us assume that 1/3 of this, \$33 billion, is invested in Australian shares. The sheer size of this sum of money requires that it is spread over many investments. Particularly, it cannot be focused too much in smaller companies, because they are not big enough for large portions of the \$33 billion. As such, the fund ends up with a large number of investments, tending to have larger investments in the larger companies, much like the index itself.

The net effect of this copying of the index is that active managed funds are so closely aligned to the index that their return will only ever be that of the index, less their fees. There is extremely limited opportunity for them to add value over the index return. Being an active manager there will be attempts to generate value through making trades that in reality will increase the hidden costs of the managed funds.

Conclusion

Our discussion in this chapter looks at some of the key answers to the ‘why?’ question – why do active managed funds underperform the average index return? The answer we have proposed, arrived at through a review of high quality investment research, is fivefold:

- The high costs associated with managed funds
- The problem of managing large sums of money and cash inflows
- The hidden cost of trading (moving market prices)
- Overconfidence and excessive trading
- The problem of managed funds mimicking the index

The next chapter is the last that looks specifically at the evidence that surrounds managed funds. It looks at the naïve approach that is often used by financial planners recommending (selling) managed funds, who focus on simplified research and past performance to try to identify managed funds that will outperform in the future.

How Do We Apply This?

The previous chapter presented the results that suggest managed funds were ineffective investment vehicles, and this chapter looked further into the evidence why.

For us the evidence is building a compelling story that using active managed funds as investment vehicles is not the best solution for building effective investment portfolios.

► Chapter 4 ◀

“How the Financial Services Industry Assesses Managed Funds”

In this chapter we look beyond managed funds to the role of financial advisors, and the process that lies behind the recommendation of managed funds to investors. The question we are looking at is how do investors and advisors assess the myriad of managed funds available to them, and how successful is this process?

In answering this questions there are three particular themes that we will consider:

- How well do the ‘managed fund research companies’ perform in rating funds?
- How useful is past performance as an indicator of future performance?
- How do we differentiate between luck and skill in a fund manager?

We start with a paper written by Julia Sawicki, a financial academic and Kevin Thomson, a financial planner, which examined two key inputs into the process of the selection of managed funds; research company ratings and the past performance of managed funds. Their paper, entitled ‘An Investigation into the Performance of Recommended Funds: Do Managed Funds ‘Approved’ by Research Companies Outperform the *Non Gratea (non approved)?*’, studied these two key approaches to choosing funds.

Sawicki and Thomson had access to the ratings from a research company for the six year period from 1989 to 1995. They found that there was no evidence that funds that were ‘approved’ outperformed the funds that were not approved. In fact, they set up two hypothetical portfolios where \$1,000 was invested into each of the 14 category of funds (eg capital stable funds, equity funds, international funds) and received the average return for either the approved funds or the average return from the non approved funds. At the end of the six year period the approved fund portfolio was valued at \$21,027 and the non approved fund category was valued at \$21,540.

The conclusion by Sawicki and Thomson was clear, ‘**The results generally reveal no significant difference between the performance of approved and non approved funds** on a group as well as an individual basis, suggesting that the classic return-maximising investor would not be aided by the research company’s recommendations.’

The period that was studied was some time ago, 1989 to 1995, so it is worth looking at the present ratings system to see what value it may add to an investor. Arguably the best known ratings company is Morningstar, who use a star rating system to rate managed funds from one star through to five stars. An article by Phillip Gray found on the Morningstar website

provides some information on the methodology behind the star rating system. Funds are rated using a combination of three and five year returns data, with the results being adjusted for the volatility of returns. A fund with a similar level of returns to another, but with greater volatility of returns, will receive a lower rating. Volatility is measured on the basis of monthly returns.

Funds are then allocated a rating between 5 stars and 1 star based on their historical return, adjusted for volatility. A 5 star fund is in the best 10% of funds of that type, a 4 star fund the best 22.5%, 3 stars the middle 35%, 2 stars the next 22.5% and a 1 star fund the worst 10%.

This process of rating funds from 1 star to 5 stars is a completely quantitative process, and does not capture the value that may be added by the qualitative process that a researcher like Morningstar will do. That said, the 5 star system is a powerful and simple way of branding managed funds for investors. Clearly this system is based heavily on historical returns, which was investigated in the second part of the study by Sawicki and Thomson, who concluded that **historical returns are not a predictor of future returns**.

A more recent paper from the United States, entitled ‘The Kiss of Death: A 5-Star Morningstar Mutual Fund Rating’, written by Matthew Morey and published in the Journal of Investment Management in 2005, found that fund performance dropped off significantly after receiving a 5 star rating. This was important because with the 5 star rating came a significant inflow of investors money, 53% above the normal. However, the three year performance of the managed funds after they received a 5 star rating then fell below the expected return for a fund with that level of risk. The 5 star rating from Morningstar was not able to predict better performing managed funds. Furthermore, those funds that had performed well previously to receive their 5 star rating were not able to maintain this strong performance.

In looking at the ability of **historical returns to predict future returns**, Sawicki and Thomson also found that there was no evidence of ‘persistence’ of returns. That is, there was no evidence that choosing a managed fund that had outperformed in the past would provide above average returns.

This conclusion is one that has been reached by many researchers. Mark Carhart, in his paper ‘On Persistence in Mutual Fund Performance’ published in the Journal of Finance in 1997 found that there was no evidence of persistence in the performance of managed funds.

Michael Drew and Jon Stanford, academics and economists, wrote the paper 'Returns from Investing in Australian Equity Superannuation Funds, 1991 – 1999' that was published in the Services Industry Journal in 2003. They found that there was 'no evidence that active fund management adds value' and 'the market for equities in Australia appears to be remarkably efficient'. These conclusions oppose the idea that a fund manager can consistently outperform the market. In fact, Drew and Stanford found that on average fund managers underperformed passive index returns by 2.80% to 4.00%. The conclusions reached by Carhart, Sawicki and Thomson, Drew and Standford are important as they question any link between historical returns and future returns, which is a key element in the rating of managed funds.

Is any outperformance a result of **skill or luck**? When we come across an advertisement for a managed fund that has performed above the index average for each year over the past 5 years we have an immediate bias to categorise this as an example of investment skill. However there are over 7,000 managed funds in the Australian market place. Simple maths and random chance suggests that each year 3,500 are going to perform better than the average fund, and 3,500 worse. Over time some funds, simply due to chance, will put together a co-incidental run of wins and look to have outstanding performance.

The often cited example of this is to have a coin tossing competition. 200 people each have a \$1 coin and flip it. Those people who flip a heads win. Of the 200 people on average 100 will have heads and 100 tails. The 100 winners take the \$1 coins of the losers and flip again. There will be 50 winners who each now have \$4. The next round will see, on average 25 winners with \$8. With such a run of success we might mistakenly think that the 25 winners who have increased their initial \$1 by 800% have some skill, although we can see by the 50:50 split of winners and losers it is nothing more than luck.

If there is really skill in investment management then we would expect it to come through in the form of some level of persistence in managed fund returns. That is an outstanding fund manager over one period would be an outstanding manager over the next, and we would expect that well resourced managed fund rating companies would be able to identify this skill. We have already made the case in this chapter that there is no sign of persistence in managed fund returns and no sign of managed fund ratings companies being able to identify skilled managers.

We don't want to dismiss completely the idea that there may be skilled investment managers out there. It is just that it will take a very long time to distinguish their investment skill versus luck.

On a practical level this means that if a financial planner is justifying the value that they add to your situation by touting a managed fund selection process that involves using ratings from a research company and the past performance of a fund manager, then they are likely to be adding little value to your financial situation. Of course, if it were as simple as just identifying a fund that had outperformed in the past then we could all choose our own investments with confidence. Moreover, the results that showed managed funds underperforming passive index benchmarks by 2.8% to 4% must bring into question whether managed funds are the ideal vehicle to use for managing your wealth, and whether they deserve such an important place in the Australian investment industry.

This is where our analysis of managed funds, the investment management vehicles so dominant on the Australian landscape ends. Our portfolio management decision is that managed funds are generally not the ideal vehicles for creating wealth. The next chapter looks at the theory of 'market efficiency', introduces 'index funds' and discusses why 'diversification' plays a key role in investment success.

How Do We Apply This?

This chapter itself looked at further evidence that financial planning using managed funds does not really cut it. That is, using past performance and the recommendations of ratings companies does not work in identifying strong future performance.

The three previous chapters have set the tone that:

- * **Active fund managers do not add value for investors**
- * **The process of active management, that is a managed fund having this skill to beat the index, has questionable value**
- * **The financial planning and fund management industry's use of past performance and fund ratings to justify investment does not produce the best results for investors**

The next chapter starts to build the case that there is a better way to build 'investment portfolios that work'.

► Chapter 5 ◀

The Start of A Better Investment Approach: Nobel Prize Winners, Market Efficiency, Diversification and Index Funds.

We are sure that by this stage of the book you will see that most investment managers are ‘active’ managers, looking to beat the market through market timing and investment selection. You will also have seen that the ability of even professional investors to beat the market consistently, using skill, is very low.

So where to from here?

What if we started with the great thinkers in the area of Financial Economics, three Nobel Prize Winners such as William Sharpe, Harry Markowitz and Merton Miller, and consider how they would manage an investment portfolio.

William Sharpe (1990 Nobel Prize in Economic Sciences)

William Sharpe’s contribution to financial economics revolved around his work which showed that investors get rewarded for taking on a level of risk in their portfolios. That risk comes in the form of the fluctuation of returns of a portfolio (ie volatility). A ‘risky’ portfolio will have a higher fluctuation of returns, or volatility of returns. A lower risk portfolio will have less volatility of returns – and a lower expected return.

William Sharpe proposed a model that said your expected investment returns came from your decision to allocate your investment capital somewhere between a zero risk investment, which we could best conceptualise today as a high interest cash account, and a higher risk investment in the stock market. The cash account will provide you with a known return, and effectively no risk of any drop in the value of your investment. A key risk in investing in long cash assets is that the investment return is so low that the purchasing power of the cash investment is eroded over time due to inflation. The stock market investment provides you with a higher expected return, with much greater fluctuation of returns or volatility.

This higher expected return from investing in the stock market is often referred to as the ‘equity risk premium’. Sharpe’s model says that to get a return above the ‘risk free’ rate of return, you should expose a portion of your investment capital to the market to benefit from the higher return you receive through the equity risk premium. This model does not say that you should be trying to time your investment to your market, or pick outperforming securities – it says that exposure to the equity risk premium over time will provide you with a return above the risk free rate of return you could get.

Harry Markowitz (1990 Nobel Prize in Economic Sciences)

Markowitz's contribution to portfolio management came in his consideration of the concept of diversification, and treating all of the individual investments in a portfolio as a whole, not on an individual basis. At its most basic level diversification means that rather than have a portfolio of one or two securities, you have a portfolio made up of many securities. Let us assume that there are a large group of investments which all have an expected investment return of 12%. You could choose to invest all your money in one investment and hope that nothing bad happens to your investment. Your expected return is 12%. However if something happens to that investment that does not happen to any other investment you could lose all of your money. The alternate course of action is to put some of your money into all of the investments with an expected return of 12%. Your expected return is still 12%. However you have now diversified away any chance that a one off event that just affects one investment will have a significant effect on your portfolio. This is the crux of diversification. It means that portfolios of securities can be built that have a similar expected return to an individual investment. That return comes from the 'equity risk premium', the premium you get from investing in shares. Holding a well diversified portfolio leads to an overall lower volatility of returns. Markowitz's proposition was that investors would use diversification to reduce the risk (volatility) of their portfolio for their chosen level of return.

Merton Miller (1990 Nobel Prize in Economic Sciences)

Miller's work revolved significantly around the 'cost of capital', that is the rate of return that a company would have to offer to an investor or borrower to entice them to invest in a project. This concept of 'cost of capital' becomes a significant component behind the idea of risk and reward. If a company is a risky company, then they will only be able to borrow money at a higher rate of interest or, if they are issuing shares they will have to issue shares that offer a higher potential rate of return.

As investors, this link between the risk and reward of an investment is a fundamental that leads to the clear purpose of an investor. As an investor you invest your money into enterprises, either through lending money to these enterprises (fixed interest investments) or owning these enterprises (shares), and you are entitled to receive an investment return equal to the risk associated with the investment.

The link between risk and reward means a company's cost of capital is linked to its risk. This goes against the idea of trying to find investments that will somehow provide a higher level of return for a lower level of risk. The link between risk and reward means that companies who wish to lower their 'cost of capital' will offer no higher return than they need to for any given level of risk.

The Conclusion from These Three Nobel Prize Winning Financial Economists:

To receive a higher rate of return than that which you can receive in a 'risk free' cash investment you need to expose some proportion of your investment wealth to 'risky' investments, eg the share market, where you will receive a higher rate of return to compensate you for the higher risk that you take on. That is, you will be able to capture the 'equity risk premium' that compensates you for the higher risk that you take on through investing in equity markets. In seeking this higher rate of return you should be well diversified to reduce the volatility of your portfolio. Risk and reward are linked, so the only way of receiving a higher investment return is to take on a higher level of risk.

At a practical level this means:

- Invest some of your assets in the sharemarket if you want to capture the 'equity risk premium'.
- Hold a well diversified portfolio
- Accept that there is 'no free lunch' in investment – risk and reward are linked

All of this points to investing in a market fund, whose composition would replicate the composition of the underlying investment market.

Index Funds

Index funds are low cost investment funds that, rather than try and find some way of beating the average market return through active management, simply own all the assets of the market in the same proportion as they exist in the market. They have a lower cost than actively managed funds, as they are not spending money on research. Because their investment objective is simply to match the index, there is very little trading that the fund has to do. As we saw in the previous chapter, trading by managed funds is expensive, and reduces the returns of the fund. This expense is not captured in the 'Management Expense Ratio', the normal measure of the costs of the fund. Trading expenses show up as a reduction in the performance of the fund.

Another advantage of the lack of trading by index funds is that there are low levels of capital gains tax distributed to investors. When investors have either managed fund or index fund investments, they are responsible for paying the capital gains tax when the fund manager chooses to sell investments. Because index fund managers tend to trade much less than active fund managers then there are lower levels of capital gains that are passed onto investors.

Index funds seem like a simple idea. However, as you can see, they are embedded in profound thought. They were first developed in the United States in the 1970's and in Australia in the 1990's. Conceptually, index funds are often thought of as being

‘conservative’ and ‘boring’ investment strategies. However they are a more radical and recent financial innovation than active management, derived out of the desire for higher investment returns than active management provides.

The success of index funds is linked to the ‘efficient market theory’ which states that the market does such an efficient job of pricing each investment that there is no point in spending resources (time and money) trying to find the mispriced investments. You are much better to hold a low cost, diversified investment portfolio and receive the market rate of return for your portfolio.

Efficient Market Theory

The Efficient Market Theory revolves around the idea that markets are so efficient that all available public information is already included in the price of every market investment. As new information comes to hand at a market level and an investment level, the price of the investments will change. For example, if some financial data is produced that suggests an increasing chance of interest rate rises then the overall value of the stockmarket might react to what is generally considered to be a negative event. For example, at an investment level QANTAS might issue a statement warning that the higher cost of fuel is going to decrease their profits, and the value of QANTAS shares will fall.

The most significant criticism of the efficient market theory is that the market cannot be efficient if bubbles and crashes happen, such as the soaring prices of internet investments during the ‘dot com’ boom, and the subsequent market ‘crash’.

There seems to be a matter of conflict of definitions here. No one has ever said that markets are perfect, just that they are efficient. An efficient market uses all available information to price the investments and will react when new information changes the expectations for investors.

The efficient market theory attracts debate and the value of indexing as an investment approach should not hinge simply on this one debate. The model of an efficient market supports indexing as an effective investment strategy. Much of the evidence that we have discussed in the early chapters of this book also shows that the market is at least efficient enough to make it extremely difficult for highly paid, well resourced fund managers to beat it.

Do Active Managers Rely on an Efficient Market?

Active investors, whether they be fund managers, stockbrokers or private investors are looking for investments that are mispriced. For example, they might look at Telstra at current prices and say that it is too cheap, and that it, as an investment, will outperform the

average market. So they buy it from another investor who holds exactly the opposite view and has come to the conclusion that Telstra is not a good investment to own.

By their actions both the buyer and seller of Telstra are saying that the market has come to the wrong conclusion about the stock. However, having spent resources on researching and trading based on their conclusion, aren't they now relying on the efficiency of the market to somehow come to the right conclusion about the value of the stock? It seems that they are saying that the market is at the very least 'kind of' efficient. They have somehow spotted an inefficiency BUT the market will get the price of Telstra right in the future.

It's Simple Maths Too

So does indexing rely in an acceptance of the efficient market theory as its only justification? The answer is not at all – indexing is about simple maths as well.

Let us start with the proposition that the average market return over time is 12%. The return that index funds will get is 12%, less the costs of the fund, say 0.35% for an index fund in Australia. The average return to index fund investors will be 11.65%.

Take away the index investors and the active market participants will also get an average market return of 12%, less their costs. However the costs of the active market participants will be higher, including such things as the cost of trading, the cost of research, the cost of investing in a managed fund, the cost of paying an investment advisor and so on. An educated guess would suggest that these costs would run to at least 1 to 1.5% a year. So the average return that an active market participant will get is 10.5 to 11%, less than the average return to the index fund investor.

This is why Bill Sharpe, Nobel Prize winner in economics said: "Properly measured, the average actively managed dollar must underperform the average passively managed dollar, net of costs. Empirical analyses that appear to refute this principal are guilty of improper measurement."

Let's call this the first paradox of active management. People expect to outperform the average market return, however the simple maths of active management means that on average active market participants must get a return below the index return and below the returns of an index investor.

The Overconfidence Problem

In Australia a vast minority of assets are managed by index funds, less than 4% of the total market. That means that the majority of market participants are active investors, expecting to beat the market even though simple maths means that most of them won't. This is a clear example of the destructive effect of overconfidence amongst market participants.

How Do We Apply This?

Prior to this chapter we examined much academic research that questioned an active approach to investing. In this chapter we looked at the work of three great financial economists, and how their ideas built to suggest indexing as an investment strategy.

In so many professions nobel prize winners are revered for their outstanding ideas and intellect. No so in financial markets where the majority of participants choose to ignore the ideas of great thinkers like Sharpe, Miller, Markowitz and so many others.

We considered also the efficient market theory, including the paradox that active fund managers rely both on the initial inefficiency of the market to find a mispriced investment, and then later efficiency to properly price the investments.

Most of all we use index funds as part of our investment portfolios. They are low cost, tax efficient investment vehicles that provide an appropriate return for the investment risk that is taken.

Simple maths suggest that index fund investors will get a better return than active market participants, however overconfidence means that people are too quick to think that they will be part of the minority that gets a better investment return.....

However, they form only part of our investment approach. As every good salesperson says: 'but wait, there's more.....'

► Chapter 6 ◀

3 Factor Model Investing

This chapter explores the 3 factor model. There are many people for whom the index investing story does not provide a strong enough value proposition to entice them to take action. Somehow it is not compelling enough. The application of the 3 factor model to investment portfolios makes a passive approach to investing more compelling. Fama and French, researchers and finance professors from the United States, found that investing in companies with specific attributes could provide an expected return above that of the index. Indexing was the exciting innovation of the 1970's, and Fama and French's research provides the more recent and exciting innovation.

The previous chapters have outlined the benefit of taking index positions, over time. This chapter asks:

- Is there potential to tweak this model to produce slightly higher, or premium, returns?
- Are there market segments that consistently outperform according to their risk, over time?

Some leading academic research, initiated by Fama and French's research, suggests that there are possible positions that can be taken by investors to achieve premiums above the expected index return.

Basic Principles

Before delving into the specific research, let's first review some of the important principles surrounding this issue. We clearly subscribe to the view that markets are efficient. This means that we believe that prices of traded assets reflect all known information and in doing so identify the collective beliefs of all investors about future prospects. In short, this implies that it is impossible to consistently outperform the market once it has been adjusted for risk. As shown earlier in this book there is significant evidence that backs up this belief.

We also agree with the basic principles outlined in Sharpe's Single Factor Model as outlined in his 1964 Journal of Finance article. Sharpe suggested that investors are rewarded for the amount of risk they take relative to all other things in which they could have invested. i.e. the entire stock market. This model is also known as the CAPM, Capital Asset Pricing Model. Investing in the stock market entitled the investor to the 'market risk premium', additional return for the risk that they have taken on.

However, later research has shown that the CAPM does not tell the full story. In particular, research carried out by Fama and French, as published in their **Journal of Finance** article in

1992, determined that there was more than just a simple relationship between stock returns and market returns suggested by the US stockmarket data that existed for the period 1941 to 1990. The researchers continued on to suggest, supported by the data, that there was instead evidence to suggest that a multi-dimensional approach to explain returns was more appropriate.

Fama & French Research

Fama and French, discovered that 3 factors together do the best job explaining expected returns:

- Market beta – a measure of overall market risk
- Firm size –market capitalisation
- The Value Effect – based on book-to-market measurement

As such, Fama and French concluded that all 3 factors were risk factors that markets reward with higher average returns over time.

Intuitively, the market beta factor makes sense. Most investors would acknowledge that investing in the stock market pays a premium over fixed interest securities such as government bonds. Investors are rewarded for the extra risk they take investing in the sharemarket.

Similarly, many would agree that small cap stocks are riskier than large stocks, and therefore have a higher expected return for investors. This relates to Miller's idea that a firm has a 'cost of capital', and the higher the cost of capital the higher the returns that a firm has to offer an investor to invest in that company. Small companies, being perceived as riskier, have to offer higher returns to compensate for this higher risk when they issue shares.

However the third factor, the value effect, where an investor has a higher expected return from value stocks is a little more difficult to understand at face value. Fama and French suggested that a measure of book-to-market gave an indication of an underlying source of risk – the level of financial pressure or distress. High BtM stocks are lower-priced stocks. The market values the book value of the company at a lower level than other stocks. Why? The market judges that the company is in some kind of financial pressure or distress, maybe from poor management, difficult industry conditions or poor historical returns.

Why does this make sense? As investors view a company as distressed they expect a higher level of return for the money that they invest in the company. This expected return is the cost of capital to the business. Investors require greater returns from these distressed companies to entice them to invest in them.

Anecdotal Support – Michelle Clayman’s – In Search of Excellence or Unexcellence

In 1987 Michelle Clayman published a study in the Journal of Finance (Volume 63 May-June) whereby she looked at a group of 29 “Excellent” companies as identified in a New York Times best-seller written in 1982 by Tom Peters and Bob Waterman *In Search of Excellence*. Using the same criteria, Clayman identified the 29 worst companies and called these the “Unexcellent” companies. She then compared the investment return of value-weighted portfolios of the Excellent companies versus the Unexcellent companies. From 1981 to 1985 the Unexcellent companies outperformed the S&P 500 by 12% while the excellent companies outperformed the S&P 500 by only 1%.

To be fair though, Clayman conducted a similar study from 1988 to 1992 and in this study the Excellent companies outperformed the Unexcellent companies. She published her results in the May-June volume of the Financial Analysts Journal of 1994. Clayman concluded that combining the two studies, there appears to be a tradeoff between growth and profitability versus valuation ratios. “Good companies do not necessarily make good investments, the market appears to reward profitable companies selling at reasonable multiples.”

Clayman’s studies support the idea that portfolios with different characteristics perform differently at different periods of time. It also contains a small sample of companies that fit the criteria of a higher value company. To make the optimal position an investor should take a diversified position by investing in most if not all companies that fit the description of a high value company.

Further Support

Another earlier study looking at value stocks was conducted by Paul Miller. In 1964, Miller compared buying the 10 lowest and 10 highest P/E (price/earnings) stocks of the Dow 30 from July 1936 to June 1964. The P/E ratio is the price of the company divided by the earnings of the company. A lower P/E ratio is another definition of a value stock. He found that the 10 lowest P/E stocks greatly outperformed the 10 highest. However the lowest 10 P/E stocks also had a greater variation in returns. This identified that returns for these stocks were more volatile suggesting that there was a greater risk in holding these shares.

It should be noted that the measurement of value could also be undertaken by using the Price to Earnings ratio (P/E) as used by Miller. This measures how much shareholders are paying for each dollar of earnings of the company. **The smaller the P/E ratio, the cheaper is each dollar of earnings.** A practical problem with using this ratio is that some companies do not have any earnings, they make losses.

A third measure of value is **dividend yield**. This ratio measures the amount of dividend paid to shareholders divided by the price of the stock. Use of this unit of measurement also has problems as some companies may not issue dividends, or reduce the amount of dividend

issued during a period of growth, instead using profits for developing new business ventures. Alternately companies may not be able to issue dividends due to poor performance or distress.

For these reasons Fama and French chose the **Book to Market (BtM)** ratio as the most consistent financial ratio to identify 'value' companies. Every company has a book value, the net value of its assets and relatively stable from year to year.

What all 3 studies are saying was that investing in bad companies provides a premium to investors. This may be due to the fact that these companies are somehow 'out of favour' with the market (the behavioural explanation) or that these companies are under financial pressure and have therefore been 'sold down' by the market. **Good companies, conversely, are expensive relative to their book value.**

The cost of capital argument also helps to understand this situation. Bad companies will have to offer high expected returns to entice investors, whereas the good companies will be able to offer lower expected returns and still entice investors. Once a company is trading on the stock exchange, the stock exchange acts as the pricing mechanism through which investors bid the prices that they will be prepared to pay for a company. These prices will be based on the required returns needed, with investors needing higher expected returns to entice them to invest in the poorer companies.

It should be acknowledged that at the time of the research and subsequent publication of findings, Fama and French were criticised for what is referred to as data mining. Basically this suggested that they had a hypothesis and then went looking for the data to back up their position. It should also be noted that a significant number of studies have followed that support the work of Fama and French. These further studies have included studies in many different countries and over many different time periods. There is a strong body of research that now supports the concept that small and value companies outperform over time.

So well accepted is the Fama and French research that almost all academic studies of share market performance now use the 3 factor model as the benchmark for investment returns.

Practical Implications

By using the findings of Fama and French, long term investment strategies can be developed to harness some of these expected premium returns. Positions could be taken in small companies and / or value companies with high BtM ratios.

- Can we pick which small and value companies we should invest in?

The answer, as before is no. Rather a 'passive' position should be created.

We have previously talked about index funds, where a managed fund holds all the investments in an index in the proportion that they occur in the index. In this case, there is no formal 'small company' index or 'value company' index. However, it is possible to form a sub group of companies that have the common characteristic of being small companies or high BtM companies.

That means we take all the small cap companies in the index or all the high BtM companies or all the small companies that are available for investment. Taking these positions reduce the risk of picking the 'right' or 'wrong' shares. It also saves the cost of researching exactly which companies should be selected, and saves ongoing trading while providing an extremely well diversified portfolio of companies. The approach is a 'passive' one, where an investment universe of small companies or value companies is created for investing.

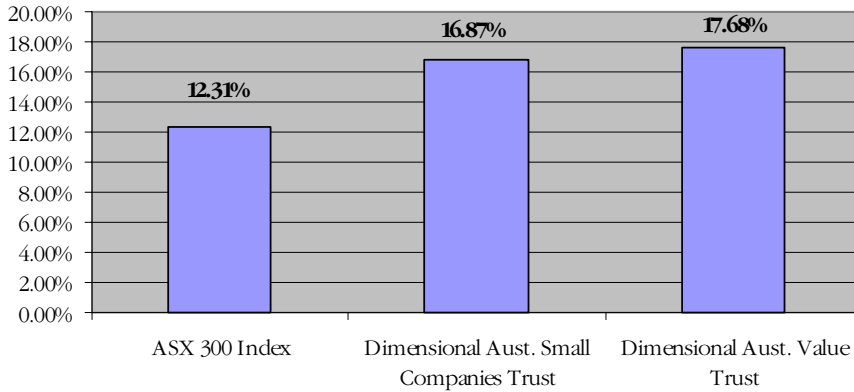
Of course the approach taken must consider the relevant risk aversion of the individual investor. Investments in small companies and / or value companies will be more volatile reflecting the inherent extra risk. If this risk does not sit well with an investor they should hold investments in less risky assets such as the market indexes, or hold a portion of their portfolio in cash investments.

Practical Evidence in Australia

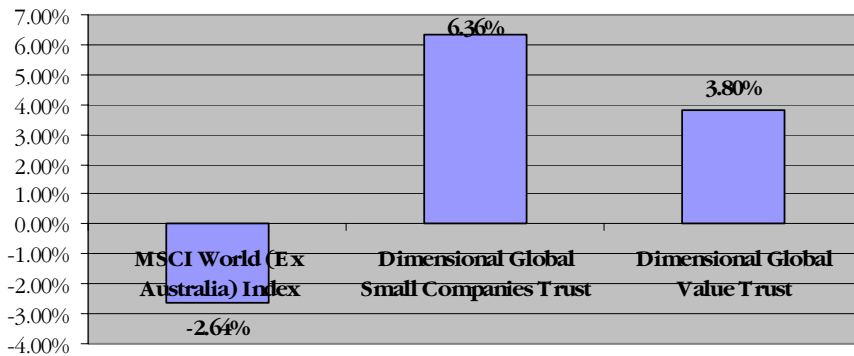
Dimensional Fund Advisors have worked with the Fama and French research to build passive managed funds that invest in small and value companies. Indeed, both Professor French and Professor Fama are key people in Dimensional Fund Advisors.

Dimensional Fund Advisors have now been in Australia long enough that there is 5 year historical data from their Australian small and value companies. There is also 5 years of data for the international small and value funds set up for Australian investors. We have compared these returns with the relevant index, the ASX 300 in the case of Australian shares and the MSCI world index (excluding Australia) in the case of international shares. In each case returns are **after fees**.

5 Year Return to 30 June 2006 - Australian Market



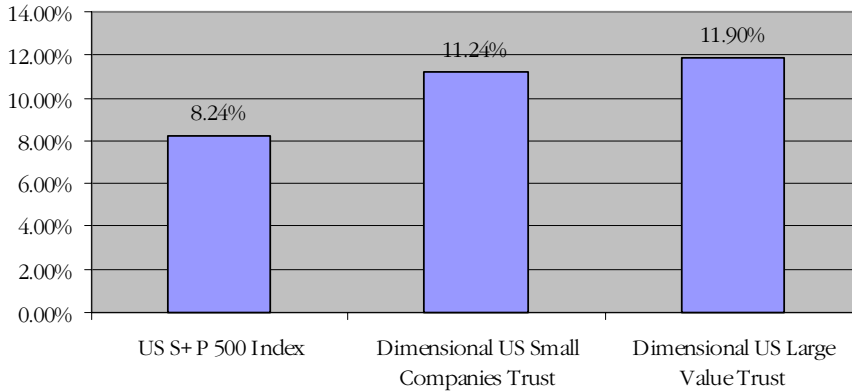
5 Year Returns to 30 June 2006 - International Investments (made from Australia)



The previous graph of returns from international shares for Australian investors reminds us that investing must be a long term venture, and that even a 5 year investment period may not produce strong results. Even the investment returns from the Dimensional small company and value company funds, while stronger than the returns of the underlying index, have been poor over this 5 year period.

In the United States, Dimensional Fund Advisors have had funds in place long enough so there are 10 year performance histories available for both their small company and value company funds. The following graph compares the 10 year performance history of their funds with the S&P 500 index return. The S&P 500 is a broad based index of US companies.

10 Year Return to 30 June 2006 - US Market



Keep in mind that in each of the 3 graphs presented we have compared an index return to the return of the Dimensional small company and value company strategies. An actual index fund, which we can invest in, will approximate the return from the index, less the costs of the fund.

How Do We Apply This?

In a nutshell, the three factor model suggests that the only way to outperform or underperform the investor next to you (and the market) is to invest in companies with more or less size and / or Higher Value (BtM) risk.

The power of this is that investors can now build a passive portfolio that, through exposure to small companies and value companies can outperform the simple index. This method does not require investment skill, expensive research or tax ineffective trading.

► Chapter 7 ◀

Fixed Interest Investments

Fixed interest securities are traditionally loans made by investors to governments or companies. These types of securities represent a loan to the issuer usually in return for periodic fixed interest payments. These payments continue until the security is redeemed by the issuer at maturity or earlier if called. Under law, holders of debt have the first call on the income and assets of a company. Specifically interest payments have priority over any dividend payments to shareholders. As a consequence such investments are generally viewed as less risky than equity investments because holders must be paid first before any returns are paid to shareholders. However, fixed interest securities are not risk-free and may carry many different kinds of risk. As a result these investments are riskier than holding cash.

We would therefore expect, over time, that the expected returns on fixed interest securities would be less than returns to owners of shares in a company but more than simply leaving cash in the bank.

Use of these type of securities sounds simple. However there is much more to the story.

Let's first start with an overview of the basic principles surrounding fixed interest investments.

Basic Principles

As mentioned previously, fixed interest securities are loans issued by a company or government usually in return for periodic fixed interest payments. Payments to holders of fixed interest securities continue until the security is redeemed by the issuer at a pre-determined maturity date or earlier if called by the issuer. Holders of these securities face a number of major risks that need to be carefully considered. Particularly our focus will be on:

- Default risk
- Interest rate and maturity risk

The default risk of a particular fixed interest security issue is directly related to the riskiness of the venture for which the funds are being raised. If the issuer does not have the cash flow to make the interest payments they are at risk of defaulting. The possible default risk is clearly measured by a range of rating agencies such as Moody's or Standard and Poor's (S&P). These agencies measure the credit worthiness of the issuers of the bonds and each issue of credit. The agencies clearly identify the perceived ability of the issuer to honour the

interest payments and pay back the value of the bond at maturity. These ratings, therefore, directly affect the necessary reward that the issuer must provide to the holder of the bond, that being the interest rate. The greater the risk, the greater the expected return to holders of the bonds and therefore the higher the level of interest that needs to be offered to attract people to hold these bonds.

To give an example, the highest possible rating by S&P for an issue of fixed interest securities is AAA. The ratings then decrease to AA, A, BBB, BB, B, CCC, CC, C and D with D indicating there has been a payment default. Therefore you would expect to receive a smaller interest rate for a fixed interest security issue with an AAA rating compared to one with a BBB rating, all other things being equal.

A second major risk to be considered by prospective holders of fixed income securities is that of interest rate risk. We all know that interest rates fluctuate over time. On the first Tuesday of every month the board of the Reserve Bank of Australia meets to determine the cash rate target. We will not go in to detail at this time but in simple terms this decision affects all other interest rate products throughout the country, fixed income securities included. The price of fixed income securities move in the opposite direction of these rates, i.e. when rates rise, the price of bonds fall and vice versa. For example, consider a newly issued 15 year government bond with an 8 percent coupon. If over the next year interest rates rise by 3 percent, new 15 year government bonds will be offered with an 11 percent coupon, all other factors remaining equal. Therefore the old 8 percent bonds will be worth less than the new bonds. This in turn will force the price of the old bonds down. As the length of maturity increases, the likelihood of such interest rates movements becomes more likely and creates more volatility. This has the effect of making these types of securities much riskier.

Therefore when considering the use of fixed income securities within a portfolio, clear consideration needs to be given to the length of time until maturity. Bonds have different lengths of time before maturity. Bonds with a maturity date of less than five years are considered short term, between five and twelve years are intermediate and maturities longer than twelve years are long term.

From our previous discussion it would appear that the longer an investor holds a particular fixed income security the greater the risk for doing so. We next need to ask whether holders of these longer term bonds are appropriately rewarded for holding this extra risk. Eugene Fama of the University of Chicago studied the rates of return of long-term bonds in the US from 1964 to 1997. He found that bonds with maturities beyond 5 years did not offer sufficient reward for their higher risk.

Considering the types of risk for fixed interest securities, we start seeing that as default and maturity risks rise the fixed interest security starts to behave more like equity. However investors are not being adequately compensated for holding this greater risk and would be better advised to invest their money in other asset classes such as shares.

Why then would or should people hold long term fixed interest securities?

The major investors in this market are corporate pension plans and life insurance companies. They hold these securities to help fund long-term obligations and are not concerned with volatility of the value of the security or the effects of inflation because their future payments are fixed in maturity date and amount.

The Role of fixed interest in a portfolio

There is a place for fixed interest securities in an investment portfolio. Fixed interest securities play an important part of a comprehensive portfolio as they provide less volatility compared to equity investments. They also pay higher rates of returns than holding cash in a bank. Holding these securities within a portfolio provides greater stability and lowers the risk of the overall portfolio. This can be achieved by using short-term fixed income securities with a high rating, say of AA or AAA standard. Fixed interest securities should not be used to obtain high returns via lowly rated issues and / or issues with long maturity dates.

Diversification

The pricing of fixed interest securities is efficient enough that so that if one company is offering AA rated bonds with a 5 year term and 7% yield, then another company with an AA rating will be offering almost exactly the same yield.

So, the expected return from holding either companies bonds will be 7%. There is no chance that, if you hold the bonds to maturity, you will get a higher return than the 7%. However you are still exposed to the risk that if either company fails, which is still a small possibility even with AA rated bonds, you will lose your investment.

Clearly holding as many AA rated bonds as possible that offer a 7% return does not reduce your expected return. However it does decrease the extent to which you are exposed to one company defaulting on their bond repayments. There can be no question that with fixed interest securities diversification is your friend.

How Do We Apply This?

Investors are wise to use high quality (rated AA or better) fixed interest securities with a short-term maturity date of less than 5 years. Holding such securities will reduce the volatility of an investment portfolio.

The fixed interest asset class of a portfolio is not a place to take high risks. The share and property investments in a portfolio are the place to do this. Fixed interest investments are the portion of your portfolio that, while only providing moderate investment returns, reduces the overall risk (volatility) of the portfolio.

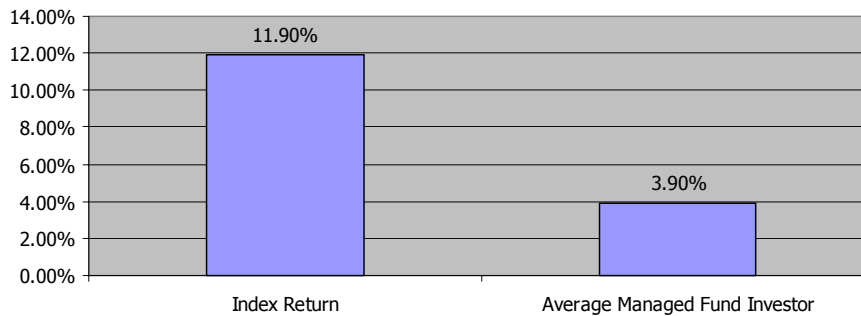
► Chapter 8 ◀

Investor or Speculator?

Many good investment books and investment authors go out of their way to point out that there is a distinction between an investor and a speculator. It is worth articulating this difference, so that you can be sure that if you want to be an investor, you are acting in the appropriate manner.

The risk of not acting like an investor is profound reduction in investment returns. A famous study by Dalbar Incorporated looked at how successful US investors in managed funds had been. The average return from the investment index over the period from 1985 to 2006 has been 11.90%. The actual managed fund investor over this period received an annual return of only 3.90%.

Index Return (S&P 500) vs Actual Average Return for Managed Fund Investor (United States) 1985 to 2006



They say that a picture speaks a thousand words. While not a picture, this graph must be worth a couple of hundred words at least, or thousands of dollars to those people who learn the lesson from it. It points out simply, concisely and clearly the difference between a long term investor who was prepared to simply hold the market portfolio and earn 11.90% a year and a speculator who tried to time when they bought and sold into the market, and invested in active funds that were expensive to own and incurred trading costs. They received a return of only 3.90%.

The first mistake, trying to time when we buy into the market and when we sell is one that should be avoided. People tend to react counter-intuitively to market movements. When markets fall in price, such as the 25% - 35% decline that we saw in October 1987, people tend to be sellers of investments. When markets rise strongly in value, such as between 2003 and 2006, people then start to become more interested in buying investments. In reality, when markets decline sharply the expected long term return from the market actually

increases. Conversely, when markets have already increased sharply in value the expected long term return actually decreases.

If you take away nothing else from this book have a look at the preceding graph again, and think about the emotional reactions to price changes that cause such ineffective investment returns.

We have addressed six different dimensions of an investor as opposed to a speculator, and compared the activities of an investor with the activities of a speculator. Let's be very clear from the start, our view is that while there may be a few successful speculators, being an investor is the intelligent and successful approach for the vast majority of people. The dimensions are:

1. Investment Time Frame/holding period
2. Investment Benefit
3. Expectations of Returns
4. Awareness of Fundamentals
5. Understanding the Business and Knowing the Management
6. Reactions to Fluctuation in Price

1. Investment Time Frame/holding period

An investor looks to hold investments for the long term, periods of at least five years or more.

Speculators have a shorter horizon for holding an investment. This means that the portfolio of a speculator is characterised by higher levels of trading. This leads to greater transactions costs (brokerage for shares, agents fee etc for real estate) and tax inefficiency.

2. Investment Benefit

An investor looks to an investment to provide a strong stream of 'earnings'. More than likely their expectations are that the stream of earnings will increase over time. For example, a share based investment will be used to provide an ever increasing stream of company earnings, which are paid out in the form of increasing dividends to the investor.

A speculator's focus is on selling the asset purchased with a price rise in mind. They are not concerned with the income produced from the asset, just that it goes up in price.

3. Expectations of Returns

An investor's aim is to receive a reasonable return on their investment over a period of time.

A speculator is often focused on receiving a very high return on their investment. Given the relationship between risk and return, this implies greater risk for the speculator.

4. Awareness of Fundamentals

An investor purchases an asset with an understanding of the underlying fundamentals of the investment – the earnings of the company, the dividends paid, or the rental stream from a property.

A speculator, who has purchased the asset because they believe it will go up in price, is not greatly concerned with the fundamentals of the investment. In fact, with the use of derivatives a speculator might even bet on the price of an investment going down.

5. Understanding the Business and Knowing the Management

The attitude of the investor who purchases shares is that they are becoming part owner of a business and therefore they must have some understanding of the business and the quality of the people managing that business.

The speculator is much less concerned with the nature of the business and who is managing it. The aim is to buy shares that will go up in price and provide a quick return, rather than the long term ownership of an outstanding business.

6. Reactions to Fluctuation in Price

An investor is less about the day to day fluctuations in the price of the asset they own. Because they are more interested in the long term earnings of the asset, price does not overly concern them. In fact, a drop in price may allow them the opportunity to increase their investment in the asset at a lower price.

The speculator is far more concerned with the price of the asset, as the primary aim is to own an asset that goes up in price.

It is probably worth considering that speculation and investment are not mutually exclusive and people will show characteristics of both. The most profound question, then, is who wins – speculators or investors? Chris Leithner, in his book ‘The Intelligent Australian Investor’ (Wrightbooks, 2005), concluded that ‘Although there are undoubtedly some individual exceptions, speculators as a class are almost certain to lose money. Investors tend to make money because their operations conform to certain laws of economics and human actions.’

Examples of Speculation

Two activities that have the characteristics of speculation include the use of software to trade on the sharemarket and the use of deposit bonds to purchase property prior to construction with the intent to resell the property before it is completed.

Most share trading software is classic speculation. It looks to purchase shares, hold them for a short period while they go up in price, and then sell them at a profit. There is no interest in the underlying business, fundamentals, or management. It seems counter intuitive to me that someone who has found a way to trade and earn excellent returns would then sell that system to other people. What will happen is that, as more people buy at the same time as each other, the price of the stock will go up and, as they all try to sell at the same time, the price of the stock will go down. That will reduce the returns for everyone, including the person who initially developed the profitable trading system. In fact, if we ever find a profitable way to trade like this, the last thing we will be doing is sharing it with everyone else!

ASIC has spent some time warning people about software trading systems. A document on their consumer website, FIDO encourages consumers to:

Be realistic.

No-one has ever found a foolproof system to make money on the stock market. No piece of computer software can make you get rich quickly - so don't believe inflated claims of success. Even the most experienced professional traders and investors make losses. Some of Australia's major investment managers, stockbrokers and institutions have millions of dollars worth of computer power to help them invest. They still make losing trades as well as profitable ones.

Warning

Beware of promoters of such software who:

- 1. promise high returns over a short period*
- 2. do not disclose the potential losses and risks of actively trading shares or futures*
- 3. claim the program will make you a successful trader*
- 4. provide examples of large profits made by investors in the past as a result of using the program or*
- 5. overseas promoters/vendors who promote trading software for sale.*

An example of speculation in real estate involves the use of deposit bonds to purchase property 'off the plan', with the intent of reselling the property before settlement, at a profit. This fits the definition of speculation, the short term acquisition of an asset with the aim of an increase in price. When a buyer can be found to purchase the property at a profit it works well. If a buyer cannot be found it is a disaster.

An article entitled 'Flat Broke' by John Stensholt and Amanda Gome, published in the Business Review Weekly in July 2003, shows how badly this speculation can turn out. The

example they give is of high-rise apartments in Darlinghurst. These apartments were purchased with deposit bonds of \$10,000. The price of the apartments at the time of purchase was \$1 million. At the time of the article being written the apartments were being advertised at \$750,000. Effectively, and assuming that the apartments could even be sold for \$750,000, investors (speculators) were looking at making a \$250,000 loss before transaction costs, a negative 2,500% return on their initial investment of \$10,000. The article also notes that ‘the bonds are secured, usually against family homes, and if a buyer defaults at the time of settlement, the bond issuer will pay out the vendor and pursue the buyer.’

There seems to be much to advocate the approach of the investor over that of the speculator. Perhaps though, the greatest danger of all is to think that you are an investor when you really are a speculator. In that case you are engaged in much riskier behaviour without acknowledging it. We suspect the property speculators in the example would have told you that they were property investors.

Our suspicion is that the media promotes speculation over investment. Most of the media stories we are exposed to are of boom stocks that have gone up, the rise or fall of the sharemarket on a daily basis, and the list of suburbs where property prices are about to boom. It simply isn't a great story to talk about the way Wesfarmers shares have steadily increased their dividends over the past 15 years, or the way a well located property has delivered an ever increasing stream of rent to an owner.

Furthermore, the advertising section of the media must be able to generate higher response rates from share trading software or property development opportunities that promise speculative returns. After all, none of us get too excited by the advertisement that offers a reasonable return for an appropriate rate of risk and with low level of fees. Speculative advertisements seem so much more likely to satisfy our emotional need for great returns and more of everything!

How Do We Apply This?

We know that acting like an investor is important to a successful investment experience. Our focus is on building a portfolio with increasing investment earnings over time – not on trading to try to exploit short term movements in the price of assets.

We also accept the reality of volatility in a portfolio. That means that we will not panic when investment markets fall, rather we accept this as a reality of investing.

Most of all we don't pretend that we have skill in market timing, switching investments between asset classes to maximise investment returns.

Lastly, we know that much of the 'noise' generated around investment is really about speculative activities. As investors we give ourselves permission to focus on the key aspects of building successful investment portfolios, such as asset allocation, and ignore the noise and hype surrounding us.

►Chapter 9◄

Introduction to Asset Allocation

Asset allocation refers to the way an investment portfolio is split between various asset classes. These asset classes include growth assets and defensive assets. Common growth asset classes include:

- Australian shares,
- International shares,
- Listed property investments and
- Direct property investments.

Defensive asset classes include fixed interest and cash investments.

There are also many alternative investments such as agricultural investments, hedge funds and mezzanine debt investments, all of which would be classified as growth assets.

In the Financial Analysts Journal in 1991, Brinson, Singer and Beebower provided an update to their 1986 article 'Determinants of Portfolio Performance'. This study examined 91 US pension funds during the period 1974 to 1983. The study looked at **three factors** to see which **made the biggest difference to portfolio returns**. The first factor was the asset allocation. The second factor was security selection, which were the investments within each asset class that the managers actually chose. The third factor was market timing, which was the ability of the portfolio manager to move from underperforming asset classes to better performing ones. That is, choosing the best time to invest in each asset class.

The results were conclusive, with over 90% of the variation in returns explained by asset allocation. 4.6% of the variation in returns was explained by security selection and 1.8% by market timing.

For our purposes we use this study to justify a focus on asset allocation as being the key driver of portfolio performance. We also use it to justify why we are not going to try to use market timing, moving from asset class to asset class, to try to increase performance. The article shows that this is difficult, if not impossible to achieve. So our approach is to build an appropriate long term asset allocation, and then stick with it over time.

More recent studies by Ibbotson and Kaplan (2001) 'Does Asset Allocation Policy Explain 40, 90, 100 Percent of Performance?' published in the Financial Analysts Journal in 2001 and 'Another Look at the Determinants of Portfolio Performance' by Craig French and available at ssrn.com, found that **asset allocation policy explains more than 90 per cent of**

the variation in total portfolio return. This supports the original study of Brinson, Singer and Beebower.

Intuitively it is reasonable to consider that asset allocation is the significant driver of portfolio performance. Regardless of your thoughts on whether active management can increase the returns within an asset class, the expectation is that the majority of reasonably well diversified investors will get an investment return within 2% of the index return. However, the difference in returns from the underlying asset classes will vary more substantially.

In the financial year ended June 2005, the index return for international shares was 0.1%, the index return for Australian shares was 24.7% and the index return for listed property trusts was 18.1%. The average return on a cash management trust was 4.5%. Regardless of whether an active manager was able to add an extra 2% of performance, or underperformed the index by 2% because of costs, what would have been far more influential on your portfolio were the asset classes your investments were held in.

Even over the 5 years leading up to June 2005 we see that asset allocation was more important to investment returns than any manager increasing or decreasing returns by 2%. Australian shares returned an average 10.1% per year over this period. International shares returned negative 5.7% per year over this period and listed property trusts 15.4% per year. Clearly the percentage of a portfolio exposed to each asset class is crucial in driving the overall portfolio return.

In considering the asset allocation decision it is worth re-iterating the lack of ability that people have demonstrated in 'timing markets', i.e. in successfully switching between one asset class to the next to maximise investment returns. Rather, our focus is on using asset allocation as a tool to reduce the overall volatility of the portfolio.

There are two reasons why we want to reduce the overall volatility of an investment portfolio. The first is that for a given level of return people would prefer to have less volatility. For example, if an investor had the choice between a 10% return each year, or an average return of 10% that was made up by a 30% return one year and then a -10% return the next the choice would be the less volatile return of 10% a year.

Secondly there is a compounding effect that means a lower standard deviation of returns over time leads to a higher ending investment balance given the same average return. An example of this would be to compare \$10,000 invested in an international share portfolio that mirrored the index return over the period from July 1970 to June 2005. The portfolio had an average return of 13.58% a year and grew to \$461,000 over the period. A diversified portfolio that was invested in 50% Australian shares and 50% international shares through to June 1980, and was then invested in 33% Australian shares, 33% international shares and 33% listed property trusts had an average return of 13.37% a year. Here is the twist. Even

though the average return was lower, this portfolio had a lower level of volatility which lead to a greater compounding of returns over time and the portfolio had an ending balance of \$578,000.

Volatility is measured by the ‘standard deviation’ of returns. Standard deviation is a mathematical measure of the ‘spread’ of returns. The higher the standard deviation, the greater the spread of returns from the average. The international share portfolio had a standard deviation of 22.17% whereas the diversified portfolio had a standard deviation of 15.73%. There are two benefits from this reduced portfolio volatility:

- There is a greater compounding of returns over time
- Less fluctuation in the value of a portfolio is generally less worrying for an investor

Diversification is the tool that we have available to minimise volatility within a portfolio. Within an asset class, diversification allows exposure to so many companies that if one underperforms there is not a great impact on the overall investment portfolio. There is an argument that diversification can reduce expected returns and that a more focused approach to choosing a portfolio of investments may be prudent. This argument relies on the assumption that there is some level of investment skill that is capable of selecting companies that will outperform the index. We have discussed in previous chapters that this skill is very rare.

Diversification is a key plank of the benefits offered by the index funds, and passive funds that we utilize in building investment portfolios.

In the following three chapters of the book we consider the three key questions associated with building an investment portfolio.

- The first question is how do we allocate the assets of a portfolio between growth and defensive assets?
- The second question is how do we build the investments within the defensive asset allocation?
- The third question is how do we build the investments within the growth asset allocation?

How Do We Apply This?

Asset allocation is the key driver of investment returns. Therefore we make it the number one decision in the process of building an investment portfolio.

►Chapter 10◄

Decision 1 – Growth vs Defensive Asset Allocation

Growth Assets (ownership assets)	Defensive Assets
Australian Shares International Shares Listed Property Trusts Direct Residential Property 'Alternate Assets'	Cash Fixed Interest Investments

The first decision to be made in building an investment portfolio is what percentage of assets should be exposed to growth assets and what to defensive assets. To do this we need to understand exactly what role growth assets and defensive assets play in a portfolio.

Growth Assets

Growth assets are those assets that involve the part ownership of an enterprise. For example, Australian share investments involve the part ownership of a company or portfolio of companies. Listed property trust investments involve the part ownership of property assets. Being a part owner of an enterprise you are entitled to an investment return that will be driven by the success of the underlying enterprise or enterprises. This return will be realized through receipt of some income and through the long term growth in the value of the assets you own. This is the good news.

The bad news is that, as the part owner of a portfolio of various enterprises, you are exposed to the down side of these enterprises. This will include times when the profitability of the enterprises fall, when other investors look less favourably on the enterprises you own or when general economic conditions are poor.

The basic summary of the last two paragraphs is that:

- Growth assets provide you with a higher expected return
- Growth assets have a greater degree of volatility and downside risk

This way of looking at the growth assets in your portfolio, that is from the perspective of being a part owner of a portfolio of enterprises, should help in building an intuitive understanding of the role of diversification and longer term investment horizons required in building a portfolio.

Diversification is important. It makes sense that if there is the opportunity to become the part owner of one enterprise, or many enterprises, being part owner of many enterprises reduces the financial impact of any one enterprise failing. Long term investment horizons are realistic. If you were to buy and operate a real enterprise you would not expect to benefit from that ownership in the short term. You would expect to own the enterprise for some period of time to benefit. Investing is no different – you are becoming the part owner of a portfolio of enterprises and should recognise that it will take time for the value of this investment to be increased.

In his book ‘The Essential Buffet’ (Wiley and Sons, 2001), Robert Hagstrom analysed 1,200 companies over an 18 year period to see how much the change in price of a share was explained by variances in earnings. Over a one year period, between 13% and 36% of the change in price of a share was explained by changes in company earnings. Over a ten year period, between 59.3% and 69.5% of the change in share price was explained by changes in earnings and over 18 years, 68.6% of the change in share price was explained by changes in earnings. This is compelling evidence that investing in growth assets requires a long term investment horizon to be sure that the value of your investment holding will reflect the change in earnings of the underlying investment.

Defensive assets include fixed interest and cash investments. As previously discussed in this book, we see fixed interest investments as being low risk, reasonably short term investments where the aim is to provide a return slightly higher than the return available from cash investments. We do not see this as an area of the portfolio that should be exposed to any great risks.

Perhaps the easiest description of the defensive assets in an investment portfolio is that they are the assets that should let you sleep comfortably at night. They are the assets that let you know that there is:

- enough cash immediately available to you to meet your cost of living plus a ‘cash reserve’ should an unexpected event arise that needs extra money
- enough funds in this section of your portfolio that, when added to a modest expectation of future income, could fund the next 5-10 years of your income needs

The role of defensive assets in a portfolio is to provide liquidity (ie cash available when you need it) and to reduce the overall volatility of the portfolio.

Choosing the Split: Defensive vs Growth

While there is a significant weight of research behind how the investment options within each investment class are chosen, the choices of asset allocation are driven by the needs and preferences of each individual investor. This is where the investment process gets personal.

There are three criteria that we consider at this stage including:

The timeframe of the portfolio
The liquidity (potential cash requirements) from the portfolio
The risk tolerance and experience of the investor

Let us look at each of these in turn.

The Timeframe of the Portfolio

Because of the volatility of growth assets, there should be great reluctance to use them in a portfolio where the investment timeframe is less than 5 years. This is because there is a chance that over that time the value of the portfolio could fall sharply, significantly reducing the end value of the portfolio. Short term investing should be heavily biased toward cash and high quality fixed interest investments, where there is no chance of volatility negatively impacting on the final portfolio balance.

In assessing the timeframe of a portfolio, keep in mind that even if you are at the point of retirement, for example, the investment portfolio could be in place for the next 20, 30 or 40 years. Even though you are starting to fund your lifestyle from your investment portfolio, there is still a strong argument to include growth assets to increase the expected returns from your portfolio, so that the portfolio will continue to perform well and be able to meet your longer term income requirements.

Liquidity – The Need for Cash

A portfolio may be required to provide cash for either regular payments over time, such as pension payments, or payments in an emergency, such as an unforeseen medical situation.

There is no exact level of cash that you should keep on hand. We wish that you could say ‘that the correct and exact amount of cash that should be available in a portfolio is enough to cover the needs of 92.6 weeks expenditure’. However this level of prediction is just not possible.

Having enough cash on hand to cover payments for at least the next 12 to 18 months makes good sense. For example, a person at retirement with a \$500,000 portfolio might be taking \$30,000 a year from their portfolio. Keeping \$30,000 to \$45,000 cash in the portfolio provides enough liquidity to meet future payments.

Consideration should also be given to how much income will be drawn in the next 5 years from the portfolio. Given that it is preferable not to invest in growth assets with a time horizon of less than 5 years, this amount of money should be invested in defensive investments. Referring back to the example of the person with \$500,000 drawing \$30,000 a year, having \$150,000 invested in defensive assets will mean that there should be no

concerns about making the \$30,000 a year payments for the next 5 years. You will note that this is only \$150,000 of the \$500,000 portfolio, or 30%.

Over the 5 years, income payments will be received from the growth assets and these can be re-invested in defensive assets as the defensive assets are withdrawn from the portfolio. This is important as you cannot simply assume that in 5 years time you will get a positive investment return from growth assets. There have been 5 year periods where growth assets have performed poorly. The combination of having 5 years of living expenses set aside in defensive assets, plus receiving further income from the growth investments, should provide a reasonably base to fund payments from the portfolio beyond the initial 5 years.

Relying on growth assets to fund short term cash needs runs the risk that these assets may fall sharply in value, and you will then be forced to sell them at a time when their value is low.

Personal Risk Tolerance and Investment Experience

This third criterion relates to a personal preference as to how much volatility can be tolerated by you within your portfolio. Of course, you need to keep in mind that as you reduce the volatility of your portfolio, you also reduce your expected longer term return.

A good way to consider how you might cope with volatility is to look at the worse case scenario. Over the past 30 years the biggest market downturn has been the 1987 sharemarket crash. During this time growth assets fell in value by 30-35%.

The question that you can then ask yourself is, if there was another 35% market downturn, what magnitude fall in my portfolio could I handle? Of course, we would all prefer a 0% market downturn. However to achieve that we would have to have 0% of our investments in growth assets, meaning that our expected portfolio return would only be equal to or just above the the cash return, around 6%.

The following table shows the trade off between asset allocation, the fall in portfolio value in the event of a 35% market downturn and the expected return of a portfolio.

Asset Alloc:	Fall in Growth Assets	Fall in Value of Portfolio	Average Expected Return*
0% Growth	35%	0%	5%
33% Growth	35%	12%	7%
66% Growth	35%	25%	9%
100% Growth	35%	35%	11%

**Average Expected Return: Growth Return 12%: Defensive Return 6%: Fees 1%:*

**Does Not Consider Inflation or Taxes:*

**Long Term Return – will be volatile in the short term:*

**NB This is a simplistic Calculation*

A common response seems to be that downside risk of about 20% in the event of a 1987 style market crash would be acceptable. That corresponds with an asset allocation that has about 60% of the investments held in growth assets, 40% in defensive.

How Do We Apply This?

If asset allocation matters, and it does, then this first decision of what percentage of assets are invested in growth assets and what percentage are invested in defensive assets is an important one.

While there is no ‘magic formula’ in choosing an asset allocation, the important aspects that are considered include:

The time frame of the portfolio – a short time frame is not suitable for more volatile growth assets.

The ‘liquidity’ needs from the portfolio (or the money that has to be taken from the portfolio) – short term needs should be provided for through cash and medium term needs from cash and fixed interest investments.

Personal comfort with volatility – every one reacts differently to their portfolio rising and falling in value. This is taken into account in building portfolios.

►Chapter 11◄

Defensive Asset Allocation

Defensive investments consist of cash or fixed interest investments.

Having decided which proportion of your portfolio you want to be allocated to defensive assets, the next step is to allocate those funds between cash investments and fixed interest investments.

At this point we will say that this process is only valid if you subscribe to the view that fixed interest investments should be:

High credit quality

Relatively short duration investments (generally less than 4-6 years)

If you are trying to chase higher returns from your fixed interest investments, such as investing in 'promisory notes', 'debentures', 'mezzanine finance', or 'unsecured notes' then our approach to asset allocation is not appropriate.

It is best to build the approach to choosing the split between fixed interest and cash investments by acknowledging the three key differences between them

1/ Liquidity – cash can immediately be accessed. It will usually take some time (often only days) to redeem a fixed interest investment. In the case of some fixed interest investments such as bank term deposits they may only be redeemed on maturity, which could be a matter of months.

2/ Expected Return – there is a **slightly higher** expected return from holding fixed interest securities over cash.

3/ Volatility – fixed interest investments, which are not highly volatile, will still provide some volatility. Cash investments will have no capital volatility.

These three points lead us to build an understanding of the two, and how they vary subtly. Their application within the defensive portfolio should be guided by these differences – cash being used for immediate cash needs, and fixed interest investments for longer term needs where the slightly higher return will benefit the investment portfolio. The volatility of fixed interest investments mean that they are not suitable to meet short term cash needs, on the off chance that the fixed interest investments have fallen in value and have to be redeemed at a low price.

As a rule of thumb keeping 18 months of cash requirements, or potential cash requirements, invested directly in cash investments makes sense. That way there is no risk that fixed

interest investments will have to be redeemed during a period of volatility when they have fallen in value.

As a simple example, let us assume that a person had a \$200,000 investment portfolio. They had decided that 30% of their portfolio, \$60,000, should be invested in defensive assets.

They considered that the maximum that they would need to draw from their portfolio is \$20,000 for a new car in about 12 months time. They also wanted to keep an extra \$10,000 cash reserve in case they have some unforeseen expense. This would mean that keeping \$30,000 of their \$60,000 defensive investments in cash will cover both of these eventualities. The other \$30,000 can then be invested in high quality fixed interest investments to target a slightly higher investment return.

Re-investing income in a portfolio

When you start an investment portfolio, or buy a holding of shares, you are often offered the opportunity to 're-invest' the income (dividends or distributions from an investment). This means that rather than the investor receiving cash income, this income is automatically used to buy additional units or shares in the investment. Should a person do this?

There is really no correct answer, and no wrong thing to do. Our preference is to receive the income as cash and then re-invest it. Receiving income as cash allows the cash to be strategically re-invested wherever it is most needed. For example, if a person has drawn some cash out of their portfolio then the income received can simply be left in cash to replace the income drawn. Alternately, if the asset allocation of the portfolio has changed due to the movement in value of the underlying assets, and the portfolio has less exposure to an asset class than the target exposure, the income can be allocated to increase the exposure to this asset class.

You should note that there are no tax differences between receiving income as cash or dividend/distribution re-investing. In both cases the value of the income is taxable. Sometimes, particularly with shares or listed property trust investments, income can be re-invested at a slight discount to the market price of the investment.

The one time that we are inclined to automatically re-invest income is when a person is just starting to build an investment portfolio, and the amounts of income will be particularly small. In this case choosing to re-invest the income is a simple option.

Choosing Investments

Having decided to allocate portions of your portfolio to cash and high quality fixed interest investments the next question is which investments to use?

Preferred cash investments tend to be cash management trusts that provide some degree of functionality such as cheque books or B-Pay. This allows the cash account to also become somewhat of a 'centre' of the whole investment portfolio, collecting income, paying for new purchases, paying fees and providing income from the portfolio.

It is worth noting that there are now many 'e-accounts' that provide good cash returns provided the user is prepared to operate the bank account online.

We tend to use the Dimensional Five Year Fixed Interest Trust as our primary fixed interest investment. It does not invest in securities that have more than 5 years to maturity, and only invests in AAA and AA rated securities. These are the highest fixed interest ratings available.

How Do We Apply This?

Allocating defensive assets between fixed interest and cash requires an understanding of the subtle differences between these two asset classes.

The key differences are:

Cash is more liquid (readily available) than fixed interest investments

Fixed interest is more volatile with a slightly higher expected return

Therefore our focus is on building defensive asset allocations with enough cash to meet all short term cash requirements, with the remaining defensive investments in fixed interest investments.

►Chapter 12◄

Growth Asset Allocation

There are three key growth asset classes that we use in our portfolios. These are:

- **Australian Shares**

Australian shares trade on the Australian Stock Exchange. The owner of shares in a company is a part owner of the company. For example, Telstra is a company that trades on the Australian stock exchange and an owner of their shares becomes a part owner of Telstra.

- **International Shares**

International shares also provide part ownership in a company, in this case companies that are listed overseas.

- **Listed Property Trusts**

Listed property trusts trade on the Australian Stock Exchange. The owner of units in a listed property trust becomes part owner of the property assets, and receives a share of the income generated by the property assets. For example, the Westfield property trust owns a portfolio of shopping centres. A unit holder in the Westfield property trust becomes a part owner in the shopping centres and receives distributions of the rent generated from these shopping centres.

We do not use direct residential property because most clients have exposure to it through their own home and/or through their own investment properties. It is also difficult to include in the style of investment portfolio we favour because it is difficult to buy in small quantities, and it is usually one asset only, rather than a diversified portfolio that we favour within each asset class.

It is interesting to look at the index fund returns for each asset class.

Over the 35 years to June 30 2005, Australian share funds have returned 13.0% a year.

Over the 35 years to June 30 2005, International share funds have returned 13.6% a year.

Over the 25 years to June 30 2005, Australian listed property trusts have returned 14.7% a year. (Listed property trusts only started to be established in the 1970's, with the index returns starting from 1980, so there is not 35 years of data for the returns).

What does all of this demonstrate?

We might be tempted to draw the conclusion that listed property trusts have the superior investment return and we should invest all of our growth assets in them. That is really

putting too much emphasis on the small outperformance over this period of listed property trusts. We use the data to say that all three asset classes have produced attractive long term returns above the return on defensive investments, and therefore we should be exposed to all three asset classes. This will increase the diversification of the investment portfolio so that we will get around the same long term expected investment return with less volatility of returns.

Clearly the average return will not be all that different being exposed to one asset class or all three – it will be somewhere between 13% and 14.7%. The returns between asset classes are not ‘perfectly correlated’, that is, at any one time, one asset class might perform well while another performs poorly. This means that being exposed to all three growth asset classes will help to smooth the returns received, reducing portfolio volatility and increasing the long term compounding effect of the portfolio.

This would suggest that one third of growth assets should be invested in Australian shares, one third in international shares and one third in listed property trusts.

We do not proceed in quite such a simple manner as we consider two other factors. The first is the value of franking credits, which are received from Australian shares. The second is that within the international share asset class there is greater opportunity for diversification that with listed property trusts.

Cannavan, Finn and Grey, in an article entitled 'The Value of Dividend Imputation Tax Credits in Australia' published in the **Journal of Financial Economics**, found that franking (or imputation) credits are not priced into the value of shares. That is, they are effectively an 'additional bonus' of share ownership. Therefore we look to increase portfolio exposure to Australian shares to pick up this bonus.

Franking credits are usually paid as part of the dividends from Australian shares, and are able to be used fully by Australian investors to either reduce their tax or, if their franking credits are greater than their tax owing, to receive a tax refund for the value of the credits. A 'fully franked' dividend valued at \$70 will include a further \$30 in value from franking credits. The research notes that international investors often cannot use the franking credits and, as such, they have no value to them. If these investors are the price setting investors, then this explains why franking credits are not priced into the value of shares.

This 'additional bonus' can be significant. Even a share yielding around the market average of 4% provides an extra 1.7% of return through franking credits if the dividend is fully franked. An investment yielding around 6% (fully franked) provides an extra 2.6% return through franking credits. There remains work to be done validating this research, and we will be monitoring future research to ensure that these findings are validated over time.

On an anecdotal level, the average annual return from the Australian stockmarket over the 14 years since the introduction of franking credits has been 12.8% a year. This return does

not include franking credits and is remarkably similar to the 35 year average return of 13%. On this basis it might be reasonable to conclude that the introduction of franking credits does not seem to have varied the average return from Australian shares, also suggesting that they are an ‘additional bonus’ of sharemarket investing. We would emphasise that such simple data over a short period of only 14 years should not be considered conclusive evidence. It is more of an interesting observation that is consistent with the recent research into the value of franking credits.

On this basis we increase the exposure of portfolios to Australian shares beyond simply one third of the growth asset allocation, tending to have around 45% of the growth assets of a portfolio invested in Australian shares.

The remaining 55% of the growth assets are split between international shares and listed property trusts.

We bias this part of the portfolio towards international shares, on the basis that there are more sub asset classes available for investment in international shares. These include:

- large international companies
- international value companies
- international small companies
- emerging international markets

While we have discussed the application of value and small companies within portfolios, we have not yet mentioned emerging markets. Emerging markets, or developing markets, are those markets less developed than major international markets.

Whereas there are four ‘sub asset’ classes in international shares, there are only two in listed property trusts. These are Australian listed property and international listed property. On this basis we favour a slightly higher allocation of international shares over listed property trusts. We would tend to allocate 30% of the growth portfolio to international shares and 25% to listed property trusts.

Therefore the growth asset allocation is:

45% Australian shares
30% International shares
25% Listed property trusts

At this juncture let us pause to make a key point. Not all allocations within portfolios will look exactly like this. We may change the asset allocation depending on the requirements or preferences of any individual investor. Therefore what is suggested within the context of this chapter is the style of portfolio that might be built for an average investor.

Within each asset class, Australian shares, international shares and listed property trusts we have to decide how to allocate between the sub asset classes. Again, there is no set formula for doing this, the following is simply an indication of how we might allocate the portfolio for an average client.

Keep in mind that exposure to small companies, value companies and emerging markets is effectively exposure to riskier investment opportunities. For taking on this risk we will be rewarded over time. Clients who are particularly uncomfortable about taking on additional risk would have a smaller exposure to small companies, value companies and emerging markets. Clients who are more comfortable with risk may have greater exposure to these areas of additional risk and reward.

The following looks at how we allocate the assets within Australian shares, international shares and listed property trusts. This asset allocation would be typical of an 'average' investor; however this will be adjusted to meet the needs of each individual investor.

Australian Shares

Within Australian shares we allocate 50% of the Australian share assets to an Australian share index fund. We do this through a simple index fund, usually the Vanguard Australian shares fund. The remaining 50% is allocated with 30% invested in Australian value companies and 20% in Australian small companies. For these investments we use the Dimensional Australian Value Trust and the Dimensional Australian Small Companies Trust. We tend to favour value companies over small companies as the value premium tends to be more regular and slightly higher than the small company premium.

International Shares

Within international shares we start by allocating 50% of the assets to the international index fund. We generally use the Vanguard international shares fund. 25% of the funds are invested in international value funds, through the Dimensional Global Value Trust, 15% in small companies through the Dimensional Global Small Companies Trust and 10% in emerging markets through the Dimensional Emerging Markets Trust.

Listed Property Trusts

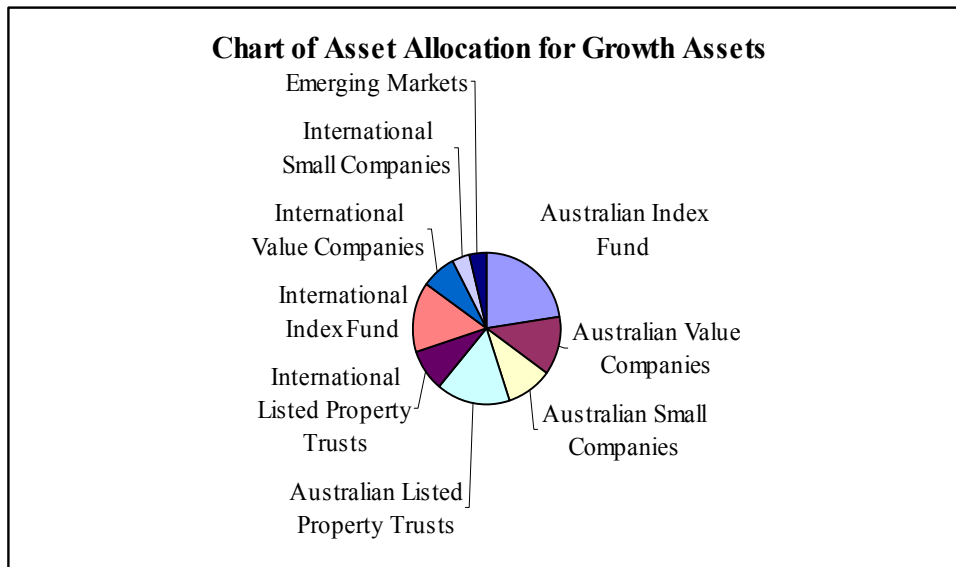
Within the listed property trusts we access both international and Australian trusts, favoring Australian trust 2 to 1 for their more reliable delivery of tax advantaged income. We use the Vanguard Property Securities Fund for exposure to Australian listed property trusts and the Vanguard International Property Securities Index Fund (hedged) for international listed property trust exposure.

Using a hedged fund means that currency transactions are put in place to negate any changes in foreign currency exchange rates. We do not worry about this with international shares, as

we use the exposure to international currencies to further diversify portfolio returns. However, with listed property investments where a key benefit that we target is regular income, we prefer currency hedging to smooth out volatility in income distributions.

The following table shows the decision making process from left to right. Keep in mind that this might be altered for any particular investor. The final column shows the actual percentage that each portfolio has of each sub asset class. You will notice that the final column has been rounded somewhat. We do this because we don't want to pretend that we have some extremely precise mechanism for allocation of growth assets. Rather we have a process that thoughtfully divides the growth assets of a portfolio between asset classes.

Decision 1 – Asset Allocation		Decision 2 – Sub Asset Allocation		Overall % Exposure of Growth Assets
Australian Shares	45% of the growth portfolio	Australian Index Fund	50% of the Australian Share allocation	22.5%
		Australian Value Companies	30%	12.5%
		Australian Small Companies	20%	10%
 				
Listed Property	25% of the growth portfolio	Australian Listed Property Trusts	67% of the listed property allocation	16%
		International Listed Property Trusts	33%	9%
 				
International Shares	30% of the growth portfolio	International Index Fund	50% of the international share allocation	15%
		International Value Companies	25%	7.5%
		International Small Companies	15%	4%
		Emerging Markets	10%	3.5%



One Question: Vanguard and Dimensional funds are used a lot, is this prudent?

This is a good question, and one that has two parts to its answer.

Firstly, Vanguard and Dimensional are both passive fund managers. They are not trying to show investment skill and outperform markets. Rather they build low cost, extremely well diversified portfolios that rely on a clear and transparent investment philosophy, such as building an investment portfolio that mirrors the ASX 200 index, rather than any investment skill for their returns.

Secondly, the Australian funds management industry is well regulated, and requires assets of a fund to be held by a third party, a custodian. The custodian is then responsible for the process of holding the managed fund assets and the reporting.

Beyond this, both Vanguard and Dimensional are companies with a long trading history in the United States who have established excellent corporate reputations.

Both are low cost providers of funds, which most funds charging between 0.25% and 0.5% a year, well below the average for a managed fund of 1.8% to 2%. There are no trailing commissions paid from either Vanguard or Dimensional.

How Do We Apply This?

This is how we think about the process of building the growth asset allocation within an investment portfolio.

It is a process that can and should be tailored to the individual circumstance of the portfolio.

The process involves two carefully considered stages:

Stage 1 – allocating assets between the three growth asset classes

Stage 2 – allocation assets between the sub-asset classes in each asset class

The biggest part of the ‘How Do We Apply This’ is this:

Remember, the most important factor is this:

Asset allocation is the most critical driver of investment returns. The asset allocation process in building an investment portfolio has to reflect this importance.

▶Chapter 13◀

Case Studies – Building Portfolios to Suit Investor Needs

The last four chapters have provided much information about how to build an investment portfolio using index funds and passive funds while focusing on asset allocation. This chapter presents two practical examples of this process in action.

Investor 1

Let us consider investor 1, a 30 year old with \$40,000 to invest along with \$200 a week of surplus income.

Decision 1 – Defensive vs Growth Asset Allocation

The investor has a long time frame for their portfolio, planning to use it to help fund their retirement at age 55.

They feel that they are comfortable with investment risk and, because they understand that it is a long term investment, they are prepared to accept a fall in value of their assets of around 35% were a 1987 style sharemarket crash to recur.

They have their life insurances and health insurances up to date, so there is little concern that they will need any funds from the portfolio to help meet their cost of living. That said, they also have an adequate cash reserve and mentioned that having a further \$5,000 to \$10,000 to meet any unexpected costs made sense to them.

On the basis of this information it would appear that the portfolio could be heavily biased toward growth assets. Keeping \$5,000, or 12.5% of the portfolio in defensive investments will allow the investor to access this money if there is an unforeseen need for money. If the ongoing contributions of \$200 are invested in the same way, with 12.5% in defensive investments, then this \$5,000 can be built to \$10,000 to provide ready access to cash for the investor.

Let's review this decision against the three key drivers of the decision as to how much of the portfolio to allocate to defensive assets and how much to growth assets.

1/ **The timeframe of the portfolio.** The timeframe is 25 years, a long timeframe, and is suited to investing in growth assets.

2/ **The liquidity requirements.** Only \$5,000 to \$10,000 is required and only for an unexpected event. Allocating 12.5% of the portfolio to defensive assets provides \$5,000 if

required, plus 12.5% of the ongoing \$200 a week portfolio contributions will increase this above the \$5,000.

3/ **The risk tolerance and experience of the investor.** The investor has indicated that they are comfortable with their portfolio falling in value by 35% in the case of a 1987 style stockmarket crash. The 12.5% of the portfolio invested in defensive assets will mean that a 35% fall in the value of growth assets will see the portfolio fall in value by about 30%.

All in all allocating 12.5% of the portfolio to defensive assets and the remainder to growth assets is a reasonable decision.

Decision 2 – Within the Defensive Asset Allocation

The subtle differences between cash and fixed interest investments need to be considered in building the defensive asset allocation. In this case the defensive asset allocation of the portfolio is only providing a pool of funds in the event of some sort of crisis. On that basis, and given that the investor has some other cash outside of this investment portfolio, it is reasonable to invest this money into fixed interest investments – provided that they are high credit quality bonds without unreasonably long time periods to maturity. At a practical level we would use the Dimensional Five-Year Diversified Fixed Interest Trust to meet this need.

Decision 3 – Within the Growth Asset Allocation

The first decision that the investor has to make relates to the weighting of Australian shares, international shares and listed property investments within the growth section of their portfolio. In this case the investor was comfortable with the rationale for investing the growth assets:

45% Australian Shares
30% International Shares
25% Listed Property

The investor has read about the higher average returns possible from investing in small and value companies. They also accept that these returns are the result of taking on more investment risk. They feel that given their long investment horizon, they would like above average exposure to these sources of additional risk and reward.

After discussion it is agreed that their portfolio will have a significant exposure to value companies and small companies.

Within the Australian share portion of their portfolio they have chosen to have 40% of their assets in the index fund, 35% in value companies and 25% in small companies.

Let us again be very clear about two factors here – 1/ this asset allocation provides a higher expected return and 2/ it also increases the risk of the portfolio: taking on small company and value company exposure increases both the expected return and risk of the portfolio.

Within the international shares portion of their portfolio the theme for more exposure to small companies, value companies and emerging markets results in an asset allocation that sees:

- 35% of the international share exposure invested in an international index fund
- 30% invested in international value companies
- 20% invested in international small companies
- 15% invested in international emerging markets

Within the listed property asset allocation the investor was comfortable having 67% exposure through an Australian listed property trust and 33% through international listed property trusts (hedged).

The table on the next page calculates the exposure to each asset class and sub asset class. To work out the exposure for each asset class we start by multiplying the weighting of defensive vs growth by the asset class weighting by the sub asset class weighting. For example, Australian index fund exposure is in the 87.5% growth allocation multiplied by the 45% Australian share exposure multiplied by the 40% sub asset allocation to the Australian index fund:

$$87.5\% \times 45\% \times 40\% = 15.75\%.$$

We round this up to 16% because we don't want the figures to suggest that they are more precise than they really are.

Asset Allocation – Investor 1

Decision 1 – Asset Allocation		Decision 2 – Sub Asset Allocation		Overall Exposure Portfolio	% of
Defensive Assets – 12.5% of portfolio		Cash	0% of defensive asset allocation	0%	
		Fixed Interest	100% of defensive asset allocation	12.5%	
Growth Assets – 87.5% of portfolio					
Australian Shares	45% of the growth portfolio	Australian Index Fund	40% of the Australian Share allocation	16%	
		Australian Value Comp.	35%	13.5%	
		Australian Small Comp.	25%	10%	
Listed Property					
Listed Property	25% of the growth portfolio	Australian Listed Property Trusts	67% of the listed property allocation	15%	
		International Listed Property Trusts	33%	7%	
International Shares					
International Shares	30% of the growth portfolio	International Index Fund	35% of the international shares	9%	
		International Value Comp.	30%	8%	
		International Small Comp.	20%	5%	
		Emerging Markets	15%	4%	

Actual trusts used for each sub asset class are listed at the end of the chapter.

Investor 2

Let us consider a second investor, a 55 year old with a \$1,000,000 investment portfolio. They have recently retired and wish for the portfolio to fund their cost of living in retirement.

Decision 1 – Defensive vs Growth Asset Allocation

The investor wants to immediately start drawing \$50,000 a year from their investment portfolio. This is a drawing rate of 5% a year, which should be sustainable in the long term.

Now that they are living off their investment portfolio the investor has said that they are not very comfortable with as much volatility in their portfolio. They feel that they would be able to accept a 20% drop in the value of their portfolio if a 1987 style investment crash were to recur.

The portfolio will also have to act as a 'cash reserve', and the investor has indicated that they would like to have a further \$30,000 invested in cash so that in the event of any unforeseen need this money would be available.

On the basis of this information it would appear that at least \$280,000 of the \$1,000,000 should be invested in defensive assets. This would allow the payment of 5 years of income at \$50,000, with an extra \$30,000 available if required. However the reluctance to accept downside beyond 20% of the value of the portfolio suggests that only about 60% of the portfolio should be invested in growth assets.

Let's review this decision against the three key drivers of the decision as to how much of the portfolio to allocate to defensive assets and how much to growth assets.

1/ **The timeframe of the portfolio.** The timeframe for the portfolio shows that it is starting to be used to fund the investor's living costs immediately. This suggests that a higher portion of the portfolio should be retained in defensive assets. Of course, while the investor is retiring at age 55 they may well still be relying on the portfolio in 35 years time, which will require some of the portfolio to be invested in growth assets.

2/ **The liquidity requirements.** At least \$280,000 should be invested in defensive assets to provide the cash needs for the next 5 years plus a cash reserve of \$30,000 to cope with any unexpected financial problems.

3/ **The risk tolerance and experience of the investor.** They have indicated that they are comfortable with their portfolio falling in value by 20% in the case of a 1987 style stockmarket crash. This implies a maximum growth asset allocation of 60% of the portfolio.

All in all allocating 40% of the portfolio to defensive assets and the remaining 60% growth assets is a reasonable decision.

Decision 2 – Within the Defensive Asset Allocation

40% of the portfolio, or \$400,000, is to be invested in defensive assets.

In this case the need for cash can be met by keeping 18 months of income requirements (\$75,000) and the \$30,000 cash reserve invested in cash. We can round this to \$100,000, or 25% of the defensive asset allocation. The remaining \$300,000 can be invested in fixed interest securities that will provide a slightly higher expected return. At a practical level we

would use a combination of a good cash management trust with the Dimensional Five-Year Diversified Fixed Interest Trust to meet this need.

Decision 3 – Within the Growth Asset Allocation

The first decision that the investor has to make relates to the weighting of Australian shares, international shares and listed property investments within the growth section of their portfolio. In this case the investor was comfortable with the rationale for investing the growth assets:

45% Australian Shares
30% International Shares
25% Listed Property

In this situation the investor has asked that they use a conservative allocation towards value and small companies. After discussions there is agreement to increase the exposure to the index fund and decrease the exposure to small company and value funds.

Within the Australian share portion of their portfolio they have chosen to have 60% of their assets in the index fund, 25% in value companies and 15% in small companies.

Let us again be very clear about 2 factors here – 1/ this asset allocation provides a lower expected return than the asset allocation for investor 1 who had more exposure to small and value companies and 2/ it also decreases the risk (volatility) of the portfolio: taking on less small company and value company exposure decreases both the expected return and expected risk of the portfolio.

Within the international shares portion of their portfolio the theme for less exposure to small companies, value companies and emerging markets results in an asset allocation as follows:

- 60% of the international share exposure invested in an international index fund
- 20% invested in international value companies
- 10% invested in international small companies
- 10% invested in international emerging markets

Within the listed property asset allocation the investor was comfortable having 67% exposure through an Australian listed property trust and 33% through international listed property trusts (hedged).

The following table sets up the exposure to each asset class and sub asset class. To work out the exposure for each asset class we start by multiplying the weighting of defensive vs growth by the asset class weighting by the sub asset class weighting. For example, Australian index fund exposure is in the 60% growth allocation multiplied by the 45% Australian share exposure multiplied by the 60% sub asset allocation to the Australian index fund:

$87.5\% \times .45\% \times .4\% = 16.2\%$.

We round this up to 16% because we don't want the figures to suggest that they are more precise than they really are.

Asset Allocation – Investor 2

Decision 1 – Asset Allocation		Decision 2 – Sub Asset Allocation		Overall Exposure of Portfolio %
Defensive Assets – 40% of portfolio		Cash	25% of defensive asset allocation	10%
		Fixed Interest	75% of defensive asset allocation	30%
Growth Assets – 60% of portfolio				
Australian Shares	45% of the growth portfolio	Australian Index Fund	60% of the Australian Share allocation	16%
		Australian Value Comp.	25%	7%
		Australian Small Comp.	15%	4%
Listed Property				
Listed Property	25% of the growth portfolio	Australian Listed Property Trusts	67% of the listed property allocation	10%
		International Listed Property Trusts	33%	5%
International Shares				
International Shares	30% of the growth portfolio	International Index Fund	35% of the international shares	10%
		International Value Comp.	30%	4%
		International Small Comp.	20%	2%
		Emerging Markets	15%	2%

Comparing the process for the two investors with different needs and therefore different asset allocations demonstrates how portfolios can be built to suit individual investors and individual circumstances. The reality is that large funds, particularly superannuation funds that offer only five to ten different investment options do not allow this thoughtful construction of individualised investment portfolios.

The following table outlines the actual investment funds that we use to invest in each sub asset class.

Sub Asset Class	Fund Used
Cash	Cash Management trust
Fixed Interest	Dimensional 5 Year Diversified Fixed Interest Trust
Australian Index Fund	Vanguard Australian Share Trust
Australian Value Comp.	Dimensional Australian Value Trust
Australian Small Comp.	Dimensional Australian Small Companies Trust
Australian Listed Property Trusts	Vanguard Listed Property Securities Fund
International Listed Property Trusts	Vanguard International Listed Property Securities Fund (Hedged)
International Index Fund	Vanguard International Share Fund
International Value Comp.	Dimensional Global Value Trust
International Small Comp.	Dimensional Global Small Companies Trust
Emerging Markets	Dimensional Emerging Markets Trust

►Chapter 14◄

A Twist - Using Higher Yielding Securities in Your Portfolio

By now you understand most of what we are trying to achieve in building investment portfolios. There is one more twist that we use in building portfolios which focuses on using higher income 'direct' securities in portfolios.

By 'direct' securities we mean investing directly in shares, listed property trusts or fixed interest investments listed on the Australian stock exchange.

As mentioned in the earlier chapter on choosing the asset allocation for growth assets, Cannavan, Finn and Grey, in an article entitled 'The Value of Dividend Imputation Tax Credits in Australia' published in the **Journal of Financial Economics**, found that franking (or imputation) credits are not priced into the value of shares. That is, they are effectively an 'additional bonus' of share ownership. This differed from previous research that found that franking credits did have some value, however this previous research was carried out in a time when franking credits were able to be traded between investors.

Franking credits are usually paid as part of the dividends from Australian shares and are able to be used fully by Australian investors to either reduce their tax or, if their franking credits are greater than their tax owing, to receive a tax refund for the value of the credits. A 'fully franked' dividend valued at \$70 will include a further \$30 in value from franking credits. The research notes that international investors often cannot use the franking credits and, as such, they have no value to them. If these investors are the price setting investors, then this explains why franking credits are not priced into the value of shares.

This 'additional bonus' can be significant. Even a share yielding around the market average of 4% provides an extra 1.7% of return through franking credits if the dividend is fully franked. An investment yielding around 6% (fully franked) provides an extra 2.6% return through franking credits.

This remains the first and foremost reason for using some direct investments within a portfolio, to target higher yielding securities to increase the access to this bonus return.

We are also prepared to purchase some direct fixed interest and listed property trust securities that pay above average income streams. This increases the average yield of the portfolio. In the case of listed property trusts it allows us to target the tax effectiveness of 'tax deferred' or 'tax free' income paid by listed property trusts. As their names imply, tax free income is not taxed and tax deferred income is not taxed until you sell the listed property trust.

Let's be really clear about our use of direct securities in a portfolio: **we are not trying or expecting to beat the market with these investments.** That would make no sense at all and would stand in contradiction to our overall investment philosophy. We are using direct investments to increase the tax effective income received by the portfolio.

There are other advantages to holding direct securities including:

- Zero ongoing costs
- Complete control of trading and capital gains tax
- The 'dollar cost averaging' that comes from re-investing income in a portfolio

There are downsides including:

- Loss of diversification
- Time taken to manage investments

Let's look at these advantages and disadvantages one at a time.

Advantage - Zero Ongoing Costs

Holding direct securities means that you have no ongoing management fees. Once the brokerage has been paid to purchase the investments there are no direct ongoing fees.

This helps to reduce the overall costs associated with the portfolio. Just as one of the advantages of index investing or passive investing is the low fees. This is also an advantage in holding some direct securities.

Advantage - Complete Control of Trading and Capital Gains Tax

A benefit of using a passive or index fund is that there are low levels of trading and therefore low levels of capital gains tax to be paid.

Holding direct securities means that you have almost complete control over the timing of any sales of investments. The only time you lose some control is if an investment that you own is taken over and you are forced to sell your holding.

Advantage - The Dollar Cost Averaging that Comes From Reinvesting Income

One certainty is that over time markets will fall and markets will rise. Having a constant stream of income produced by your investments means that in the down time you will be able to reinvest this income into assets when their price is low.

This is similar to the concept of 'dollar cost averaging'. Dollar cost averaging is the effect that you get by investing a regular amount of money into a portfolio at regular intervals. When investment markets are down you end up buying more investment units and when

they are up you end up buying fewer. The overall effect is that it lowers your average purchase price.

This stream of income produced by your portfolio is improved by targeting some high income securities. This in turn increases the dollar cost averaging effect of reinvesting income back into the investment portfolio over time.

Disadvantage – Loss of Diversification

Indexing and passive investments are made up of portfolios of hundreds of securities. A portfolio with a variety of index and passive funds is therefore made up of exposure to thousands of securities.

Exposing part of your portfolio, say 30%, to 10 or so direct securities means that this part of your portfolio is far less diversified than the other 70%. In fact, you now have 10 securities that each represents about 3% of the value of your portfolio. If any one investment suffers an isolated business problem that wipes 50% of the value of that investment, then your overall portfolio will fall in value by 1.5%.

Disadvantage – Time and Cost Taken to Manage Investments

Holding a portfolio of direct securities means that more time is spent monitoring the investments. It is also likely that decisions on individual investments will have to be taken, such as when companies offer additional shares to investors, if there is a share buyback offered or if the company is a subject of a takeover bid.

There are also individual dividend statements to collect and records of purchasing and selling to be kept.

There may also be costs in terms of research to support the decisions to buy, sell and hold investments.

Keep in mind that high income is a proxy for ‘value’

With the Fama and French research into ‘value’ companies and small companies, there were many different financial ratios that they could have used to define what a ‘value’ company is. One of the ratios is income; companies offering above average yield could be considered ‘value’ companies.

On that basis it should be acknowledged that targeting higher income securities effectively gives a portfolio a value bias.

Choosing the Exact Securities

We don't have the time to detail the exact process of choosing these high income paying securities. Scott Francis's previous book, 'A Clear Direction – Your Personal Finance Guide' provides more information about analysing the key financial ratios of these investments. We have included the key aspects of direct Australian share investments, direct listed property trust investments and direct listed fixed interest investments in the following three paragraphs. In all cases we are targeting investments with above average income payments.

Within the direct **Australian share** holdings we are looking for shares that are paying a yield at least 25% above the market average. Because of our desire to target franking credits we are looking for fully franked, or substantially franked investments. Currently the average sharemarket yield is 4%. Therefore we are looking for investments paying fully franked income streams of 5% or more. The other characteristics we are looking for in the companies include:

- Strong 'dividend cover', that is the earnings of the company comfortably cover the dividend payments.
- A history of increasing dividends over time. This is what we want from the dividends in the future and we look for this trend historically.
- A moderate level of debt, ideally a debt to equity ratio of 55% or less. This reduces the potential impact of interest rate rises on both the company and the dividend stream.

At the time of writing, the sort of opportunities that would fit broadly into these parameters include companies such as Wesfarmers, the banks, Tabcorp and Macquarie Airports.

This is very similar to what we are looking for in the **Listed Property Trust** sector. Our focus is on targeting securities with above average yield, cash earnings that cover the income payments and moderate levels of debt. This currently includes investments like Macquarie Prologis (which does have higher levels of debt than we would like) and Abacus property group.

In direct **fixed interest investments** we are still looking at securities of high credit quality with time to maturity of no more than 5 years. We are currently using Hi Fi securities as part of some portfolios. The series 3 Hi Fi investment has a AA Standards and Poors rating, holds a portfolio of 70 underlying fixed interest investments, matures in just over 2 years and pays interest at a rate of just over 7.3%. This relatively high interest rate is a function of the fact that the underlying securities, which were issued at \$100, are currently trading at around \$96.00.

A Marginal Benefit, With Risks, That Will Not be For Everyone

The bottom line with this strategy is that:

- We would only use this with a small portion of a portfolio, probably no more than 30%
- It would sit alongside a core of index and passive funds
- We do not intend to try to outperform the average market return
- We use it to increase the income from the portfolio
- It will decrease the diversification of the portfolio

This is one area where, after explaining the risks and rewards, we let clients make their own decision about whether they are comfortable with using direct investments as part of their investment strategy.

To give people more information about how we went about building portfolios of direct investments, two years ago we build a portfolio of primarily direct investments using \$100,000 of real money (as opposed to the ‘model portfolios’ that are never invested). While 90% of the portfolio is made up of direct investments, there are some managed funds used for small amounts of the international share exposure and the listed property trust exposure.

We did not build the portfolio to show that we had any great skill that could beat the market. We wanted to show that a low turnover, well diversified portfolio of Australian shares, listed property trusts, international shares, fixed interest and cash investments would provide a good investment outcome. We particularly focused on showing the income and imputation credits received from the portfolio. You would note the growth of these from the first year to the second year. We also record the value of sales and purchases for the portfolio, to show that we use a very low rate of trading in the portfolio. Over the two years we have sold around \$30,000 of investments, an annual turnover rate of around 15%. This is much less than the market average. We have bought \$45,000 of additional investments. This higher rate of purchasing has come about as we have purchased new investments with the income received in the portfolio.

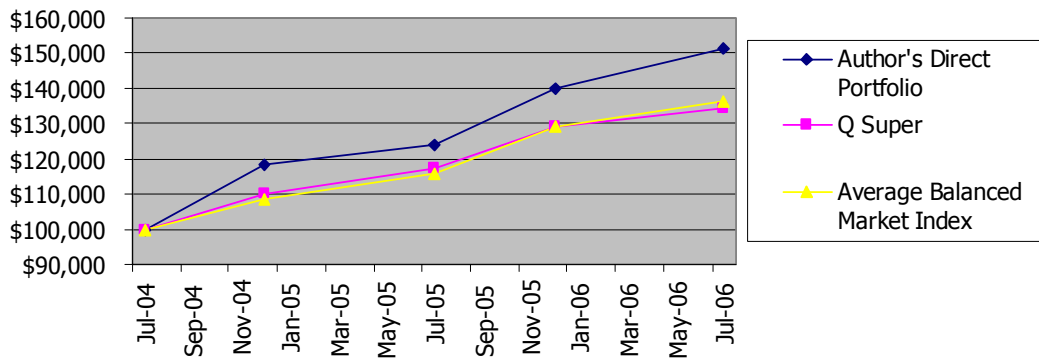
The table showing the performance of the portfolio is on the next page.

Period	Income Received	Imputation Credits	Value of Sales	Value of Purchases	Ending Value
1 July 2004 to 31 Dec 2004	\$2,697	\$459	\$10,140	\$8,923	\$118,441
1 Jan 2005 to 30 June 2005	\$3,485	\$340	\$4,420	\$2,872	\$124,098
1 July 2005 to 31 Dec 2005	\$4,747	\$833	\$3,694	\$25,507	\$139,907
1 Jan 2006 to 30 June 2006	\$4,199	\$518	\$11,305	\$8,100	\$151,263
2 Year Totals	\$15,128	\$2,150	\$29,559	\$45,402	\$0

The graph on the next page compares the performance of our portfolio with Q Super's balanced allocated pension fund and the average balanced market index, as reported by Praemium portfolio services. All results are before taxes. That is why we compare our performance to the Q Super allocated pension, as it is a tax free result.

It is worth noting that a portion of the outperformance of our portfolio is explained by asset allocation. Compared to most funds we have a lower exposure to international shares and a higher exposure to listed property trusts. Over the last two years listed property trusts have performed more strongly than international shares. The graph shows that the Q Super fund and the average balanced market index have performed very similarly, with the direct portfolio showing stronger results.

Comparison of Author's Direct Portfolio with Q Super Balanced Allocated Pension returns and Average Balanced Market Index Return (Praemium Portfolio Services)



More details of this portfolio, including investment holdings, are available from our website.

How Do We Apply This?

The evidence that franking credits are an ‘unpriced’ bonus paid by direct Australian shares provides the initial impetus for using direct securities with strong income streams as part of investment portfolios.

This approach will not be for everyone, and for those who choose some direct investment exposure they must be aware of the potential downside of this strategy.

While at first glance holding a portfolio of direct investments would seem to contradict the idea of index and passive investing, we are trying to achieve many of the same benefits including:

- * We are not trying to outperform the index, rather we are trying to expose the portfolio to characteristics that are beneficial**
- * We are looking to keep costs low, as there are no ongoing fees associated with holding direct investments**
- * Similar to index and passive funds we are looking to keep the level of portfolio turnover very low by not buying and selling regularly**

Being a slightly ‘controversial’ idea, combining an index and passive approach with a direct portfolio of Australian shares, listed property trusts and fixed interest securities, we have built an actual investment portfolio to show the returns, level of trading and income received by the portfolio. The portfolio was started with \$100,000 and all investments are actual investments (ie it is a real portfolio, not a ‘model portfolio’). It can be found at:

http://www.acleardirection.com.au/direct_p_folio

►Chapter 15◄

Passive Investments: Tax Efficiency, Research Costs, Market Impact, Portfolio Asset Allocation Control, Diversification and Fees

In the early chapters of this book we looked at managed funds and saw that they were ineffective investment vehicles when compared to the simpler strategy of investing in index funds. We also saw that passive funds that capture the small company and value company premiums discovered by Fama and French in the early 1990's allow passive investors to build portfolios that will outperform the simple index.

We looked at the importance of asset allocation and discussed the fact that asset allocation is the key driver of investment returns. By using passive funds we are able to focus on building an asset allocation that suits the requirements of each investor.

This chapter sets out some advantages of using index and passive funds to build an investment portfolio. Some of the issues have been touched on in previous parts of the book. However it does not hurt to review them. The six areas of advantage that index and passive funds have over active management include:

- Tax Efficiency
- Reduced Market Impact
- Research Costs
- Portfolio Asset Allocation Control
- Diversification
- Fees

As we saw in the early chapters of this book passive and index funds also have the important attribute of providing above average investment returns. For this section of the book let's focus on the six points listed above, and consider these one at a time.

Tax Efficiency

Active management, regardless of whether it is done by a managed fund, stockbroker or an individual assumes that you are going to actively make investment decisions over time that will result in a higher than average portfolio performance. These decisions mean that you will have to buy and sell investments.

Each time you buy or sell an investment you have to pay capital gains tax, assuming that the investment has increased in value. This applies even if you are an investor in a managed

fund. If the fund manager sells an investment at a profit you become liable to pay capital gains tax on this profit at the end of the financial year.

An interesting way to think about an unrealised capital gain that you have in an investment is that it is 'an interest free loan from the tax department'. (An unrealised gain is where an investment has made a gain, however you have not yet sold the investment. So the gain is described as 'unrealised'.) As soon as you sell the investment you will have a tax obligation that will need to be paid. However, if you never sell the investment then you will never have to pay that capital gain.

Therein lies the tax efficiency of passive investing. If all the underlying investment manager is doing is tracking an index or subsection of the index, then there is little need for any trading. Less trading means less realised capital gains, and more 'interest free loans from the tax department' in your underlying investment portfolio.

Using market figures from the Australian Stock Exchange website (www.asx.com.au), we calculated the total turnover for the Australian Stock Exchange in the 12 months to November 2005 as being 89.4% - great for the shareholders of the ASX who generate revenue every trade, but perhaps not so great for investors who have to pay tax on every profitable trade. We actually find this level of share trading quite staggering. A nearly 90% sharemarket turnover implies that every 13 or 14 months every single investment on the Australian stock exchange is traded. Clearly index funds are not trading much at all, so the remaining market participants must have very high levels of trading in their portfolios.

Reduced Market Impact

A key problem with managing large sums of money in structures such as managed funds is that when a large fund manager wants to buy or sell an investment they end up moving the price of that investment against themselves. For example, if a fund manager wanted to take a \$40 million position in a listed company such as Leightons, their demand for shares would be pushing the price of the shares up as they bought in. Similarly, when they decided to sell their stake in Leightons, their \$40 million of shares would mean an oversupply of sellers and therefore push the price of the shares down. This market impact effect sees the price of the shares increase as the fund manager buys and decrease as the fund manager sells, reducing the expected return from the investment.

Index funds have less of a problem in this regard. Firstly, they are trading less than active market participants, so have fewer trades that can be affected by market impact. Secondly they own all of the companies in an index, so they have their capital more evenly spread over all the investments in a market, rather than just the 30 or 40 that might be targeted by an active manager.

Market impact costs, exacerbated by the high level of trading by fund managers, are largely avoided with index funds.

Research Costs

There are many levels of research services that offer advice to investors on which managed funds to invest in or which individual shares to buy. These include services such as:

- Portfolio management services that manage direct share portfolios for investors
- Investment newsletters and stock picking sheets
- Services that help select managed funds
- Financial planners that help select managed funds for a commission payment

With index funds these services are no longer important. An index fund is a simple 'commodity' that investors should feel confident choosing themselves based on the price of the fund. All Australian share funds based on the ASX200 will be almost exactly the same, and investors should be confident simply choosing the cheapest fund.

- Portfolio Asset Allocation Control

This book has presented significant evidence that asset allocation is the primary driver of portfolio performance. Using index funds that mirror each asset class, and in the case of small companies and value companies passive funds that provide exposure to sub-asset classes, the focus can be taken away from the investment selection process and onto building a portfolio with an asset allocation that best suits each investor.

The adoption of index investment and passive investment is something that should empower individuals to be more closely involved in their own investment process. The simplicity and effectiveness of indexing and passive investment means that investors are no longer compelled to pay high fees to the financial services industry for mediocre results.

- Diversification

That indexing and passive investment allows a great deal of diversification is not hard to understand. For example, an index fund based around the 200 largest stocks in the Australian share market will have 200 investments in its portfolio. This minimises the impact that a fall in value of any one investment can have on your portfolio, the key advantage of diversification.

Once you start to get into the world of active management it is almost a given that the portfolios formed will be less diversified than the underlying index. However, active investment managers often choose to have well diversified portfolios.

Here is a fundamental problem for active management. Let's call it the **third paradox of active management**. The more diversified an investment portfolio becomes the more it will look like the underlying investment index, and the less it becomes able or likely to

outperform the index. The paradox is this: most active fund managers and investment managers exist because of their belief that they have ‘skill’ that can beat the relevant investment index; however they also believe in diversification as a risk management tool. **If active fund managers really believed in their skill at picking outperforming investments, surely they would only choose the best 10 – 15 investment ideas to hold in their portfolio! If they have the ability to pick better performing investments, then why not just hold the very best of their ideas? Why water these best ideas down with diversification?**

Consider a large company fund invested from the top 200 companies in the Australian Stock Exchange. Large investment managers are always touting the idea of ‘diversification’ as a way of managing risk and often hold portfolios that consist of the majority of the investments in an index. Suddenly active management starts to look very much like very expensive index management, an issue addressed in a recent academic study.

Ross Miller, in his paper ‘Measuring the True Cost of Active Management by Mutual Funds’, sets out to identify how much the returns from mutual funds (US term for a managed funds), are a result of closet indexing and how much they are a result of active management unrelated to the index. He then proportions a reasonable fee for the index fund management based on the Vanguard S&P 500 Index Fund (0.18%) to find out the true cost of the actively managed portion of the fund. That is, he assumes that the indexing investment management cost 0.18% for the portion of the fund managed this way, with the remaining management cost being attributed to the actively managed portion of the fund. The results are very interesting. For the 152 ‘large company’ mutual funds that formed the sample, on average only 15.55% of the total funds were actively managed. (ie the other 84.45% effectively mirrored the index return). The average management expense ratio (MER) for the actively managed portion of the funds was 6.99%. On average more than 96% of the variance in the returns of the fund was explained by movements in the index. On average the ‘value added’ by the active management was negative 9%. This is an investment loss of 2% on top of the fees of 6.99% apportioned to the actively managed component of the fund, clearly demonstrating that in this sample active management destroyed value.

On an overall basis the 152 mutual funds underperformed the index by an average of 1.5%.

- Fees

Earlier in the chapter we looked at the research costs borne by investors and the market impact costs of investing through an actively managed fund. It stands to reason that any active investment process will incur higher level of fees as the underlying investment manager is really selling you their expertise.

This expertise might be ‘sold’ to you in the form of the fees paid on a managed fund, the fees paid for a portfolio management service or the fees paid to a financial planner.

These fees add up, and it is not uncommon to find people paying in excess of 2% of the value of their portfolio in fees. In fact, most active managed funds charge fees of around 1.8% to 2% per year.

Somehow a 2% fee doesn’t sound too expensive. However, a \$4,000 annual fee on a portfolio valued at \$200,000 starts to add up very quickly.

Assessing fees in the world of active management is difficult, because of the assumption that the fund manager, portfolio manager or research company that you have chosen will outperform the market anyway. If they can do better than average, then why worry about fees? Once the reality that they cannot outperform sinks in, then the level of fees that have been paid becomes a very sad lesson.

Whereas the average fees for a managed fund are 1.8% to 2%, the fees on an index fund start at around 0.7%. This level of fee is still higher than in the United States, where fees start at around 0.18%, and it is hoped that over time as the Australian index fund market matures and becomes less expensive the level of fees charged will fall.

Lower fees in index and passive funds are a function of the lack of research needed to run index or passive funds. Simply holding all the investments in a market, in the proportion that they exist in the market, requires little research, ongoing monitoring or advanced decision making.

How Do We Apply This?

We have looked at evidence that concludes that index and passive investing are effective. This chapter presents the reasons behind that effectiveness.

These reasons lie at the core of the success of index and passive investing. They are part of the compelling evidence for building investment portfolios using this approach.

Index and Passive funds are not only effective but inexpensive, extremely well diversified and tax effective. It is no wonder that they form the basis of our investment approach!

►Chapter 16◄

Quotes Related to Passive Investing

"Properly measured, the average actively managed dollar must underperform the average passively managed dollar, net of costs. Empirical analyses that appear to refute this principle are guilty of improper measurement." William F. Sharpe, Nobel Laureate in Economics, 1990. *The Arithmetic of Active Management*, *The Financial Analysts' Journal* Vol. 47, No. 1, January/February 1991. pp. 7-9

"The deeper one delves, the worse things look for actively managed funds." Bernstein, William *The Intelligent Asset Allocator*

"This message (that attempting to beat the market is futile) can never be sold on Wall Street because it is in effect telling stock analysts to drop dead." Paul Samuelson, Ph.D., Nobel Prize laureate.

Q. So investors shouldn't delude themselves about beating the market? A. "They're just not going to do it. It's just not going to happen." Daniel Kahneman, Nobel Laureate in Economics, 2002. *Investors Can't Beat Market*, Jan 2, 2002.

"If there's 10,000 people looking at the stocks and trying to pick winners, one in 10,000 is going to score, by chance alone, a great coup, and that's all that's going on. It's a game, it's a chance operation, and people think they are doing something purposeful... but they're really not." Miller, Merton Nobel Laureate and Professor of Economics, Univ. of Chicago, 2000.

"It's human nature to find patterns where there are none and to find skill where luck is a more likely explanation (particularly if you're the lucky [mutual fund] manager)." *Mutual fund manager performance does not persist and the return of stock picking is zero.* Bernstein, William. *The Intelligent Asset Allocator*.

"It's just not true that you can't beat the market. Every year about one-third of the fund managers do it. Of course, each year it is a different group." Stovall, Robert, *Investment Manager*, 2002.

"Most investors, both institutional and individual, will find that the best way to own common stocks ("shares") is through an index fund that charges minimal fees. Those following this path are sure to beat the net results (after fees and expenses) of the great majority of investment professionals." - Warren Buffett, Berkshire Hathaway letter to shareholders 1996

"Why does indexing outmaneuver the best minds on Wall Street? Paradoxically, it is because the best and brightest in the financial community have made the stock market very efficient. When information arises about individual stocks or the market as a whole, it gets reflected in stock prices without delay, making one stock as reasonably priced as another. Active managers who frequently shift from security to security actually detract from performance [compared to an index fund] by incurring transaction costs." Burton G. Malkiel, author of *A Random Walk Down Wall Street*.

All the time and effort people devote to picking the right fund, the hot hand, the great manager, have in most cases led to no advantage." and "Most individual investors would be better off in an index mutual fund." Peter Lynch. "Beat the Street", Simon and Schuster, 1993, p. 60.

"... skepticism about past returns is crucial. The truth is, much as you may wish you could know which funds will be hot, you can't -- and neither can the legions of advisers and publications that claim they can. That's why building a portfolio around index funds isn't really settling for average. It's just refusing to believe in magic." Bethany McLean. "The Skeptic's Guide to Mutual Funds," *Fortune Magazine*, March 15, 1999.

"Santa Claus and the Easter Bunny should take a few pointers from the managed fund industry [and it's fund managers]. All three are trying to pull off elaborate hoaxes. But while Santa and the bunny suffer the derision of eight year olds everywhere, actively-managed stock funds still have an ardent following among otherwise clear-thinking adults. This continued loyalty amazes me. Reams of statistics prove that most of the fund industry's stock pickers fail to beat the market. For instance, over the 10 years through 2001, U.S. stock funds returned 12.4% a year, vs. 12.9% for the Standard & Poor's 500 stock index." Jonathan Clements. *Only Fools Fall in ... Managed Funds?*, *Wall Street Journal*, September 15, 2002

Michael Drew and Jon Stanford, academics and economists, wrote the paper 'Returns from Investing in Australian Equity Superannuation Funds, 1991 – 1999' that was published in the *Services Industry Journal* in 2003. They found that there was 'no evidence that active fund management adds value' and 'the market for equities in Australia appears to be remarkably efficient'.

As Buffett said in the 1993 annual report of Berkshire Hathaway, "By periodically investing in an index fund, the know-nothing investor can actually out-perform most investment professionals."

"If you go through life convinced that your way is always best, all the new ideas in the world will pass you by." Morita Akio, Founder & CEO, Sony Corporation

"Don't try to buy at the bottom and sell at the top. It can't be done except by liars."

Bernard Baruch

“I favour passive investing for most investors, because markets are amazingly successful devices for incorporating information into stock prices.” Merton Miller. Nobel Laureate in Economics, 1985.

“Properly Measured, the average actively managed dollar must underperform the average passively managed dollar, net of costs. Empirical analyses that appear to refute this principal are guilty of improper measurement.” William Sharpe, Nobel Laureate in Economics, 1990.



'Behind Closed Doors'
26 April 2006. By Scott Francis

PORTFOLIO POINT: Many actively managed funds are all too often 'hugging the index' and actively managing only a small portion of capital in order to protect their returns. Compare the investments of your managed fund against the index carefully to avoid paying for a service you aren't receiving.

It's the bane of fund management investing: fund managers who charge big fees for doing little more than tracking sharemarket indices. It's called 'closet indexing' or 'index hugging' and a flurry of recent research has revealed the problem is worse than many investors might ever have imagined.

Among the reasons given for actively managed funds being closet index funds are the 'marketing imperative' and the problems of size. The 'marketing imperative' suggests that managed funds are reluctant to take big positions away from the index because if they do, and the positions don't work out, the fund will have significantly underperformed their benchmark (such as the S&P/ASX 200). This underperformance will be difficult to explain to existing investors and even more troublesome when it comes to attracting new investors. So the safe alternative is to hold a portfolio that is roughly the same as the index, that way the managed fund will get roughly the same return.

The problem of size means that large fund managers have so much money to deploy that they are forced to purchase investments in a large number of companies, just to get all their money invested. For example, Colonial First State says on its website that it has \$99 billion in funds under management. Let us assume that one third of this, \$33 billion, is invested in Australian shares. The sheer size of this sum of money requires that it is spread over many investments. Particularly it cannot be focused too much in smaller companies, because they are not big enough for large portions of the \$33 billion. As such, the fund ends up with a large number of investments, tending to have bigger investments in the bigger companies, much like the index itself.

US academic Ross Miller, in his paper 'Measuring the True Cost of Active Management by Mutual Funds', sets out to identify how much the returns from mutual funds, a US term for managed funds, are a result of closet indexing and what proportion of returns actually come from active management unrelated to the index. He then attributes a reasonable fee for the index fund management based on the Vanguard S&P 500 Index Fund (0.18%) to find out the true cost of the actively managed portion of the fund. That is, he assumes that the indexing investment management cost 0.18% for the portion of the fund managed this way, with the remaining management cost being attributed to the actively managed portion of the fund.

The results are very interesting. For the 152 'large company' mutual funds that formed the sample, on average only 15.55% of the total funds were actively managed. The average MER for the actively managed portion of the funds was 6.99%. On average more than 96% of the variance in the returns of the fund was explained by movements in the index. On average the 'value added' by the active management was negative 9%. This is an investment loss of 2% on top of the fees of 6.99%

apportioned to the actively managed component of the fund, clearly demonstrating that in this sample active management destroyed value.

On an overall basis the 152 mutual funds underperformed the index by an average of 1.5%.

It is worth making some comments on the study. Firstly, the data sample was for an 18 month period from January 2002 to December 2004. This is a short time frame from which to be drawing conclusions about performance. Secondly, the results assume the cost of an index fund to be 0.18%, based on the Vanguard S&P 500 index fund available to retail investors in the US. In Australia, the Vanguard Australian Share Fund has an MER of 0.7%. Given this difference in the underlying cost of indexing it is reasonable to assume that the results would not have been as dramatic if this study were performed in the Australian Managed Fund environment. Thirdly, the study does not consider the tax consequences of using an actively managed fund. All performance considered in the study was before tax. We know that actively managed funds tend to have higher portfolio turnover than index funds, and therefore higher levels of realized capital gains, which decreases their tax efficiency.

Overall the study provides a different perspective on the academic literature that widely questions the ability of active fund managers to outperform the index. Its conclusion that the active management of funds does not add value for investors is consistent with much of the existing literature, including research carried out in Australia. It also provides a strong indication that the problem of 'closet indexing' or 'index hugging' is a significant issue in actively managed funds. It is fair to suggest that this 'closet indexing' issue brings into question the value added by the managers of actively managed funds.

It also highlights one of the differences in using an index fund in Australia, with the cost of the Vanguard Australian Share Fund for a retail investor 0.7%, nearly four times the cost of the equivalent Vanguard investment for a US retail investor of 0.18%. It seems reasonable to put these differences down to differences in the scale of markets and the difference in maturity of index funds in the two different markets. According to the Vanguard websites in the US and Australia, Vanguard in the US has \$950 billion in funds under management whereas Vanguard in Australia manages \$36 billion. Vanguard in the US was founded in 1975 whereas Vanguard in Australia was started in 1996.

The problem of closet indexing is that you end up paying too much for the service being delivered to you. It is worth looking at the investments in managed funds that you own, and considering how similar they are to the top companies in the index. If you are concerned that your managed fund looks like the index, performs like the index but charges more, perhaps you should consider either using a lower cost index fund, or find a manager who takes a genuinely active approach to their investments. Such managers often describe themselves as 'index unaware', will often hold smaller portfolios of 15 to 30 investments and will have performances history often quite different to the underlying index. Of course, you don't need to do one or the other, and may choose to use the combination of an index fund and some genuine active management, so long as you know what you are paying for... and that you get what you expect.



'Planners Money Drain'
2 August 2006. By Scott Francis

PORTFOLIO POINT: Most offerings to retail investors promise to beat the market, but few do. Investors should compare carefully and be sure to check funds' after-tax returns.

Financial planners are getting into all sorts of trouble this year over what might be called “professional standards”, but for most investors the burning question is how they have performed as investment managers.

Sharemarket funds run by the “back end” of the big finance houses — which in turn operate the big financial planning networks — remain the main path to market for many private investors.

If the funds recommended by the planning networks perform strongly, many investors will forgive any failings at the front end of the system.

Virtually every sharemarket fund offered by the big planning networks will promise to “beat the market”. Investors take these promises at face value, but how often do they come true?

AMP is not alone in having a large base of financial planners; most of the big financial service companies examined here having financial advisers recommending their own products.

It's worth noting that AMP is by far the biggest financial planning network in the local market with a network 1552 financial planners. AMP's nearest rival is National Australia Bank with 1346, then Commonwealth Bank with 1022: The rest of the market has significantly smaller networks: AXA 951, ANZ 821 and Westpac 504.

AMP is in the front line as controversy surrounds how the finance house does business. A new survey from ASIC revealed that up to half of the investment recommendations offered by AMP planners in a random sample could not be justified under the terms of current regulations.

Of the 11 financial services companies in the ASX Top 100, AMP — although it is not the biggest company — has by far the biggest planning network. The companies are:

- AMP
- ANZ
- AXA
- Challenger
- Commonwealth Bank (Colonial First State)
- Macquarie Bank
- National Bank (MLC)

- Perpetual
- St George (Advance)
- Suncorp Metway
- Westpac (BT funds Management)

So how have the biggest operators in financial planning actually performed? There is little value in looking at short-term returns so I have looked at five-year managed fund returns. The past five years have been quite a mixed period for the Australian sharemarket. The first two were difficult, with overall negative returns, and then the following three were very strong years, with the total return from the index over the last three-year period returning just over 90%.

In order to fairly compare sharemarket funds with sharemarket returns, the most useful benchmark is the Accumulation Index, which measures the growth in value of all the companies in the index, plus the dividends paid, to work out the total average return for shareholders

Over the five years to the June 30, 2006, the ASX 300 Accumulation Index has provided an average return of 12.31% a year. (Companies in the index are weighted according to size, so that bigger companies have a bigger impact on the index.)

Another feasible comparison to sharemarket fund returns is sharemarket index funds. These are managed funds that invest in all of the companies in the index and in the same proportion that they exist in the index, to provide investors with the same return as the index, less the cost of the fund. One of the best known of these is the Vanguard Index Australian Shares Fund. It mirrors the ASX300 index and its return over the five years to June 30 has been 11.63% a year.

Index funds should be low cost but it is not always the case. The Vanguard Index Australian Shares Fund has a management expense ratio (MER) of 0.75% but if an investor buys into it through the MLC financial planning network it is going to cost a lot more: 1.28%.

So how have the big funds matched these benchmarks of 12.31% a year for the market and 11.63% for the best known index fund?

The results are comprehensively disappointing. I have looked at the core Australian managed funds for each company: their Australian share fund, imputation fund or industrial companies fund. I have not considered specialist funds such as ethical funds. I have also excluded small-company funds, as they should be compared against a different index. The appropriate index for small-company funds is generally the ASX Small Ordinaries Index

The Challenger funds group had a major restructure four years ago, so does not yet have five-year results data. The returns from AMP and MLC funds are only updated to May 31, 2006. It is not expected that these returns will be significantly different from the five-year returns to June 30, 2006.

As you can see from the table on the next page, over the last five years you would almost always be better off putting your money directly into the market than putting it into share market funds from the big planning groups. On average you will lose \$8,000 on every \$100,000 in lost earnings.

How the funds performed			
Fund	5-yr annual return to 30.6.06	5-yr under or over performance	Value created/destroyed on \$100k investment
Index Return	12.31%		
AMP Limited			
AMP Equity Fund*	10.80%	-1.51%	-\$7,325
AMP Blue Chip Fund*	10.70%	-1.61%	-\$7,795
ANZ			
ING Australian Share Trust	11.07%	-1.24%	-\$6,048
AXA Asia Pacific Holdings Limited			
AXA Equity Imputation Fund	9.10%	-3.21%	-\$15,052
AXA Australian Equity Growth Fund	9.30%	-3.01%	-\$14,171
AXA Industrial Fund	8.90%	-3.41%	-\$15,926
Commonwealth Bank Of Australia			
Colonial Australian Share Fund	10.20%	-2.11%	-\$10,114
Colonial Imputation Fund	10.11%	-2.20%	-\$10,527
Macquarie Bank Limited			
Macquarie Leaders Imputation Trust	10.15%	-2.16%	-\$10,343
Macquarie Active Aust. Equity Trust	9.17%	-3.14%	-\$14,745
National Australia Bank Limited			
MLC Vanguard Aust. Shares Index*	11.03%	-1.28%	-\$6,238
MLC Australian Share Fund*	10.10%	-2.21%	-\$10,572
Perpetual Limited			
Perpetual Industrial Share Fund	12.20%	-0.11%	-\$549
St George Bank Limited			
Advance Imputation Fund	9.28%	-3.03%	-\$14,259
Suncorp-Metway Limited			
Suncorp Australian Shares Fund	12.83%	0.52%	\$2,627
Westpac Banking Corporation			
BT Australian Share Fund	11.14%	-1.17%	-\$5,715
BT Imputation Fund	14.88%	2.57%	\$13,528
Average	10.64%	-1.67%	-\$8,054

* 5 year returns to 31 May 2006

The average return was 10.64%, against the index return of 12.31%. Yet the funds listed belong to some of the biggest and, you would expect, best-resourced financial services companies in Australia. The value added by Suncorp Metway and the BT Imputation fund go against the general trend. BT's imputation fund provided a very strong return but its Australian share fund failed to beat the index.

What about tax?

These return figures are all pre-tax. The after-tax returns will generally be a lot worse.

One of the realities of these managed funds is that there would be considerable trading within their portfolio over the five-year period. This trading means there will be tax to be paid on capital gains, and therefore the after-tax returns to investors will be less than the returns published.

Very few Australian fund managers publish after-tax returns. This is a shame, because pre-tax returns offer an incomplete picture for the investor. At the end of the day tax is a reality for all investors, and returns after tax are all that really matter.

Vanguard does publish after-tax returns. For an investor with a 31.5% tax rate, the five-year after-tax return from the Vanguard Index Australian Shares Fund is 11.33%, meaning that only 0.3% of the fund's return is lost in tax. This is based on the investor not selling the actual investment, just paying any capital gains tax and income tax each year. Index funds are very tax-effective because they are not actively trading and trying to beat the overall market; there is very much a buy and hold strategy.

It is disappointing that other fund managers have been reluctant to make this information available, information that would help investors make informed investment decisions. The calculation of this should not be difficult. Indeed, if I had money invested with a fund manager who did not have the skills or resources to calculate after-tax returns for each of five tax rates rates — the super fund rate, a 16.5% rate, 31.5%, 41.5% and 46.5%, then I would be extremely worried about their competence to manage my money.

Most people take an “active” approach to managing their money. This does not necessarily mean that they are regular traders and always looking to buy and sell; rather it means that they hold investment positions that are different from the index in the expectation that they will get long-term returns that are higher than the index. There is certainly nothing wrong with this approach, but it is worth measuring your returns to be sure that the active approach you have chosen is actually adding value to the index. After all, if the biggest and best-resourced financial service companies in Australia can't beat the index it would seem to be a difficult task for anyone.

Are wrap accounts an alternative?

The short answer is no. Here's why: Many financial planners like to promote their ability to access investments at wholesale rates. In most cases this means placing investments into wholesale funds using “wrap”-style accounts.

Wrap style accounts collectively invest money into cheaper wholesale accounts. The catch is that the wrap accounts have their own fees. The fees on wrap accounts are up to 1%. Add that to a fee of 1% for the wholesale managed funds and you are paying the same amount as when you started out as a retail investor stuck with retail fees. You generally have to access the wrap account through a financial planner, so if they add another 1% fee on top of the wrap fees and wholesale managed fund fees the total fee being paid is 3%.

Some financial planners will argue that the wrap account adds significant value to the client. The

wrap account will collect the paperwork for the year, prepare a tax statement and allow clients to log on to a screen and see all their investments in the one place. However, a 1% fee is a lot to pay, particularly if a client is happy to collect the paperwork for themselves and track the value of their investments themselves. What is also certain is that wrap accounts make things very easy for financial planners. They have all their client accounts at the one place, they can charge their fees through the wrap account and can use the wrap service to print of portfolio reports and performance reports for clients. If a financial planner recommends a wrap account, you should ensure that you are getting real value from the recommendation; that it is not merely in your planner's best interest. After all, there is no point in saving 0.5% in fees by accessing a wholesale managed fund if you are paying an extra 1% in fees for the wrap account.

Conclusion

The results of the past five years show that large managed funds, even when they are managed by the biggest financial services firms, do not produce great results for investors. With this in mind, all investors should keep one eye of the performance of their investments, to ensure that they are getting the investment returns that they deserve.

You can try and access lower fees through wrap accounts, but unfortunately you are likely to end up paying even higher fees at the end of the day.

The poor performance of the biggest players in financial planning, many of whom will be supported by a strong sales force of "financial advisers", is a reminder that all investors relying on the advice of an adviser should know exactly how they are paid and who owns their firm.



'Dimensional Investing'
26 September 2006. By Scott Francis

PORTFOLIO POINT: Dimensional Fund Advisors' passive approach to investing, based on a belief that markets are usually right, produces good returns over time for the risks involved.

This article looks at Dimensional Fund Advisors, which applies academic research findings to investment solutions. With two Nobel Prize winners on its board, Dimensional has always had close ties to academia. Not surprisingly then, it focuses more on the science of capital markets than on speculation.

First, a couple of disclaimers: I use Dimensional funds as a key part of the investment solutions for my clients. That said, I am not paid by Dimensional, nor do I receive commissions from them. I use them only because, as an independent financial planner, I believe they provide the best portfolio solutions for my clients. To take self-interest even further, I invest a significant portion of my own portfolio in Dimensional funds.

The '3 factor model'

In 1992, two University of Chicago professors, Gene Fama and Ken French, wrote a paper entitled *The Cross Section of Expected Stock Returns*. This long-term study of the US market, which was published in the *Journal of Finance*, found that the bulk of variation in portfolio returns could be related to three factors:

- Stocks are riskier than bonds and have greater expected returns.
- Small stocks are riskier than large stocks.
- Value stocks are riskier than growth stocks.

The small-company factor had been documented by other researchers and was the foundation of Dimensional's initial strategy on its formation in 1981. Intuitively, this concept sits well with people, because investing in smaller companies is considered riskier and therefore requires a higher return to compensate for that risk.

"Value" is a commonly used investment term and, in its broader use, refers to stocks with low price/earnings ratios or high dividend yields. For their research, Fama and French identified value stocks by using the book-to-market ratio. This ratio, which compares the accounting value of a company's assets to its market value as measured by the share price, is less variable year to year than other ratios such as price/earnings and dividends.

Value stocks — those with high book to market ratios — are companies that are out of favour with the market for one reason or another. So while value and small stocks offer a higher expected return, they also represent a greater risk. This means the additional return, which is the same as the company's cost of capital, can be seen as compensation for that additional risk.

Early critics of Fama and French accused them of “data mining”, of sourcing data to support the results that they wanted to find. Since then, however, significant out-of-sample testing of the results, across varying timeframes and different markets, found that both the value and size effects hold true. Today, almost all research into investment returns uses the three-factor model as a benchmark. And in the academic world, the Fama-French model is widely accepted as a premier standard of investment performance.

A second important idea behind the Dimensional approach is the efficient market hypothesis. This theory, developed by Fama in the 1960s, is that markets do such a good job of pricing individual investments that it is difficult to “beat” them consistently. This is the theoretical basis for investing in index funds or using passive managers generally. Since the market is mostly efficient (no one says it's perfect), the long-term costs and tax implications of trying to beat it by picking individual stocks and trying to time your entry and exit points do not pay.

Building funds from the ‘3 factor model’

Dimensional has built four Australian equity funds based on the three-factor model and the efficient markets hypothesis: large caps, small caps and value. The fourth, the core equity strategy, provides a single vehicle to capture all three dimensions of risk.

The large-company trust is similar to an index fund: simply investing in the market's biggest 100 companies. Designed to be a core component of an Australian equity portfolio, it distinguishes itself through patient trading and controlling transaction costs. Costs associated with the fund are 0.25% per annum.

The small-company trust invests in companies smaller than the top 100 companies down to as low as \$15 million in market capitalisation. It takes care to avoid extremely small or illiquid investments. As at June 30, there were 409 companies in the fund; the cost ratio is 0.6%.

The value fund invests in companies that are in the 30% of the market with the highest book to market ratios; as at June 30, the fund owned 211 companies with a cost ratio of 0.36%.

The relatively new core equity fund invests across the broad market with an increased exposure to small and value stocks than you would find in a market-weighted portfolio; the cost ratio is 0.35%.

This style of asset class investing provides the individual investor with the benefits of diversification, cost effectiveness and tax efficiency:

- Diversification by holding nearly all the stocks in a particular section of the market.
- Cost effectiveness by not funding expensive research aimed at finding individual stocks that might outperform.
- Tax efficiency by reducing portfolio turnover; that is, the manager is freed from having to pick stocks.

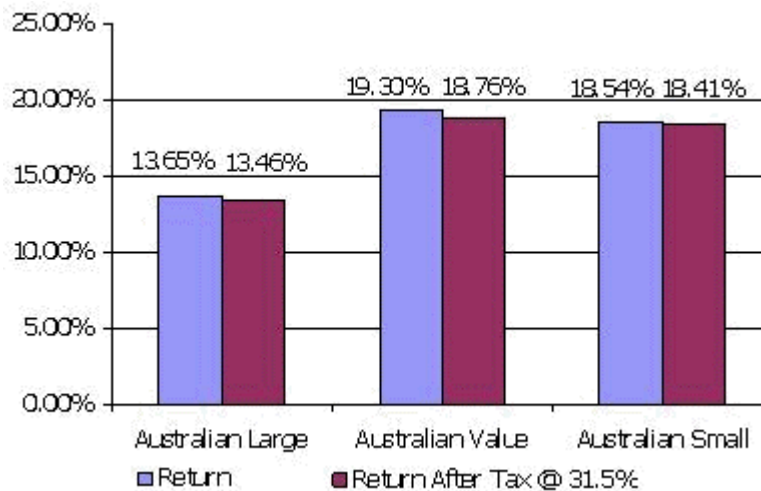
The results from Dimensional funds

The vast majority of fund managers in Australia do not publish after-tax returns. Two that do are Vanguard (which builds index funds) and Dimensional. That is because the approaches taken by Vanguard and Dimensional are tax-efficient and they are happy to publish the results. It seems to me that returns before tax are not of great use to investors; tax is a reality and only after paying tax are your investment returns really yours to keep.

Five-year average annual returns, after expenses, for an investor in the 31.5% tax bracket to the end of August this year were:

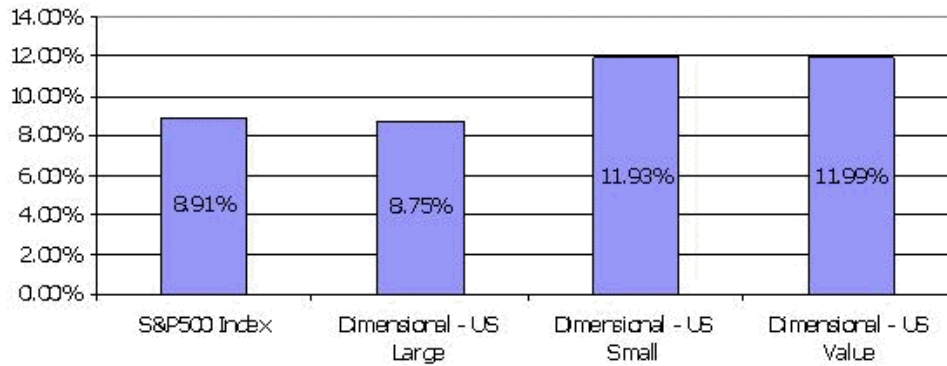
- Australian Large Trust: 13.65% (13.46% after tax).
- Australian Value Trust: 19.30% (18.76% after tax).
- Australian Small Trust: 18.54% (18.41% after tax).

Dimensional trusts: Five-year average returns to August 31



Dimensional has a longer history in the United States, where the company was established. It is interesting to look at the 10-year data for the similar funds there during a time when overall annualised market returns, as measured by the S&P-500 index, were 8.91%.

US Dimensional funds, 10-year returns to August 31



Building portfolios

Dimensional's funds are available to individuals only through accredited, fees-only financial planners who have been through educational programs about the company's philosophy and approach to markets.

Dimensional also asks that their funds not be used in isolation but as part of an overall portfolio with a clear focus on asset allocation, which research shows explains more than 90% of the variation in total portfolio returns.

Having built an appropriate asset allocation, the funds are then used to diversify Australian shareholdings between large, small and value companies, depending on the client's tolerance of risk. Large, small and value funds are also available for international investments. To reduce volatility in a diversified portfolio, the company also offers fixed-interest trusts, which focus on short-maturity and high credit quality investments.

Are markets are right or wrong?

As an investor, the most profound question you have to ask is whether you are going to build your portfolio using an active approach — trying to pick stocks, sectors, fund managers and asset classes that will provide above average returns — or are you going to use a passive approach, employing index managers or structured asset class managers like Dimensional.

The significant difference is that the active approach means you are working on the basis that markets are wrong. You are trying to identify shares (or sectors or asset classes) that are, for some reason, wrongly priced and that will have above-average returns in the future. Ironically, the investor in these supposedly mispriced securities is then banking on the market to somehow become more efficient in the future and get the price right, so that their true value will be recognised and the investor can earn an above-average return.

The passive approach works on the premise that markets actually work well. They do a good job of rewarding you over time for the risk that you take on.