Every Which Way But Lose

Putting Spring into Investment Decisions

Bay Asset Managers (Pty) Ltd

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… the whirligig of time brings in his revenges.

Feste in
William Shakespeare's *Twelfth Night*

Executive Summary

This report is offered as a service to the clients of Bay Asset Managers (Pty) Ltd, the company's subsidiaries and its associates. The aim of the report is to provide an overview of key factors that drive our investment strategies. In this report, it is argued that one of the principal drivers of investment returns is asset allocation. Other influences of investment performance, which include market timing and manager overconfidence, also are considered as part of the analysis. These factors are found to undermine investment returns. Given the backdrop of this discussion, the report considers appropriate asset allocation stances against current asset class valuations and the economic outlook for the period 2003-2005. The principal objective of this forecasting exercise is to provide you with a view into the thinking behind our positioning of investment portfolios.

1. Introduction and Backdrop to the Analysis

Feeling Lucky, Punk?[1]

Investment analysts spend much of their time trying to identify factors that drive the performance of asset managers. Numerous factors are noted as possible explainers of investment performance. These include managers' ability to time the market and the capacity to generate superior investment information (such as forecasts that are more reliable than 'the market'). However, more often than not, this search for explanatory factors often results in the reviewer coming up empty handed. A simple statistical example illustrates a possible reason for this.

Fund managers that consistently outperform the market are hailed by the press as investment masters,[2] and often lifted to cult status by the media. These managers are portrayed as highly skilled, and money often chases the publicity blitz. Unfortunately, however, statistical rules suggest that the chances of randomly beating an investment benchmark may be the basis for the accolades awarded to some managers. For example, consider Peter Lynch, who was lifted to icon status after successfully managing Fidelity's Magellan Fund for 13 years. Over the period, Lynch outperformed the Standard and Poor's 500 (S&P500) index in 11 of those 13 years. Looking at this performance from a statistical stance, if the chance of beating an index in any one year is 50 percent (like flipping a coin), then the odds of beating the S&P500 in 11 out of 13 years are 1 in 105 (or 0.95 percent). On the basis of hindsight, then, Lynch seems to be deserving of the accolades.

However, if one examines the case on a forward-looking basis, the same conclusion is not as evident. Consider a game where 50 contestants flip a coin 13 times. The contestant with the most heads wins. Given that there are 50 contestants, there is a greater than 40 percent chance that one contestant of the 50 will flip at least 11 heads (if not more). The greater the number of contestants in the game, the more likely the winner is to have tossed at least 11 heads. This begs the question: have we discovered an expert head flipper, or is this gamer just lucky?

So that the analysis is complete, it is necessary to point out the Lynch did not just beat the index in 11 of 13 years, he exceeded it by a wide margin. The Magellan Fund earned an average annual return of 28.0 percent whilst Lynch managed the fund, compared with 17.5 percent for the S&P500. A similar analysis to the coin tossing game can be conducted to determine the chance of beating the index by 10.5 percent or more each year. If 100 funds are considered in the game, then the odds of a manager outperforming in line with Lynch are less than 4.0 percent.

[1] With apologies to Clint Eastwood.
[2] See, for example, John Train's (2003) *Money Masters of Our Time*.

The case for randomness appearing as genius can be put differently if one reflects on the claim of Thomas Huxley, a nineteenth century scientist who supported Charles Darwin's theories of evolution. Specifically, Huxley claimed that a million monkeys typing for a million years would eventually produce the complete works of Shakespeare, at random. Statistically, the outcome is possible. Reality, however, may not conform to statistical laws. To test Huxley's claim, researchers at Plymouth University in England gave six monkeys one computer for a month.[3] What the monkeys generated was a mess. When left alone with the computer, the monkeys initially attacked the machine with stones, and then become interested in urinating and defecating on the keyboard. But the primates eventually settled down to some serious work, and the sextet – Elmo, Gum, Heather, Holly, Mistletoe and Rowan – produced five pages of text. However, the text was composed primarily of the letter S. Later, the letters A, J, L and M crept into the literature. Maybe a month is not a sufficient length of time, and six is not a sufficiently large number of primates, to test for randomness. Maybe the monkeys are not English. But these opinions are unlikely. The more realistic argument is that Huxley was wrong, Lynch is skilled and the monkeys are English.

None the less, for the investor in search of a skilled manager, a problem remains. Distinguishing luck from skill requires investment runs (periods of time) that are longer than is generally available. Behavioral economist John Nofsinger (2002), for instance, argues that a period of five years may not be sufficient to assess whether the differential factor in investment performance is skill or luck. Yet few managers have 'homogenous' investment scorecards that exceed this length of time. Indeed, the global sample is too small to test. So, we are back where we started: what factors matter to investment performance to make a manager a winner?

Go Ahead, Make My Day

The answer to the above question may not be as well hidden as the above examples suggest. A wealth of research into factors responsible for investment performance reveals a small number of factors that explain a large part of performance variation. Specifically, three factors usually are identified:

- strategies that rely on the ability of the manager to time the market;
- manager behaviour, that includes the frequency with which managers trade, and the length of time for which investments are held; and
- asset allocation decisions.

These factors are expanded on below. However, before going ahead, it should be recognised that the above list is not exhaustive. Such a list would be far wider in its embrace. However, this short list is considered to explain somewhere between 80 percent and 100 percent of investment performance variation (depending on the research consulted). Get these three factors right, and the chances of randomly picking

[3] Details of the research are available at http://hatelife.org/s/102697.

(sic) a winning manager are significantly enhanced.

2. Why Some Monkeys Will Never Type Well

Identifying factors that cause managers to become winners is as much about finding effects that cause managers to lose as it is about finding effects that help managers win. In this section, the first set of factors is discussed, namely factors that are commonly responsible for dragging the performance of investment managers down. Two main causes of investment underperformance are identified.

Are Managers Masters of Timing?

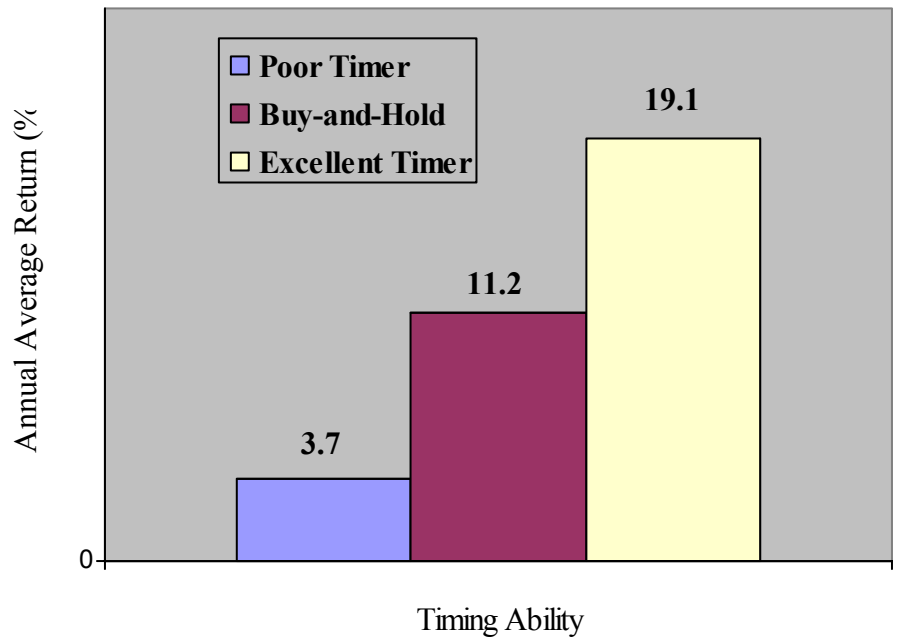
The first cause of underperformance relates to managers attempting to outperform benchmarks by actively timing the market. The argument here is simple. If you want to beat the market, all you have to do is invest before the market goes up, and exit before it goes back down. By way of example, if an investment manager had bought and held a US$1 000 portfolio of Dow Jones Industrial Average (DJIA) stocks at the beginning of 1946, the funds would have been worth US$116 000 at the end of 1991. This equates to an 11.2 percent annual return over the period.[4] However, if the manager was able to time the market to avoid the worst 50 months, the investment would have grown at an annual average rate of 19.0 percent to US$2 541 000. Thus, avoiding the 50 worst months would generate over 20 times more wealth than simply holding the market. Being a good market timer is lucrative.

Of course, if the manager is a bad timer, he may be out of the market during the 50 best months and invested during the remainder of the period – including the 50 worst months. In that case, the investment only would have grown by 3.7 percent per annum to US$4 000 over the period. Figure 1 summarises the data.

Potentially, then, market timing is an extremely lucrative trait in your asset manager. In the above example, the difference between a perfect timer and a perfect mis-timer is a factor of 635 times terminal investment capital (or, in monetary terms, US$2 537 000 over the forty five years). However, the great difficulty of market timing is that investment gains and losses tend to come in brief spurts. For instance, two-thirds of 1991's 26.0 percent gain in the DJIA arose in 21 trading days (Nofsinger, 2002, 104).

[4] Note that this excludes the bull market of the 1990s.

Figure 1: Timing Ability and Investment Returns



Source: Nofsinger (2002: 103-104)

Colin Firer, Mike Ward and Frank Teeuwisse (1987) conducted a similar investigation into the effects of market timing in the South African market. Using the JSE Securities Exchange's (JSE's) All share Index (ALSI), Firer *et al* (1987) found that a buy-and-hold strategy would result in R1000 growing to R45 000 over the period 1967-1986. Similarly, a buy-and hold investment in Treasury Bills would have seen R1 000 grow to R5 000 over the period. However, an investment manager with perfect knowledge could, by switching at quarterly intervals between these two asset classes, have increased her client's wealth from R1 000 to a staggering R665 000. Alternatively, had she been in the 'wrong asset' all the time through perfectly incorrect timing, she would have seen her client's wealth fall from R1 000 to R130 (see Figure 2).[5]

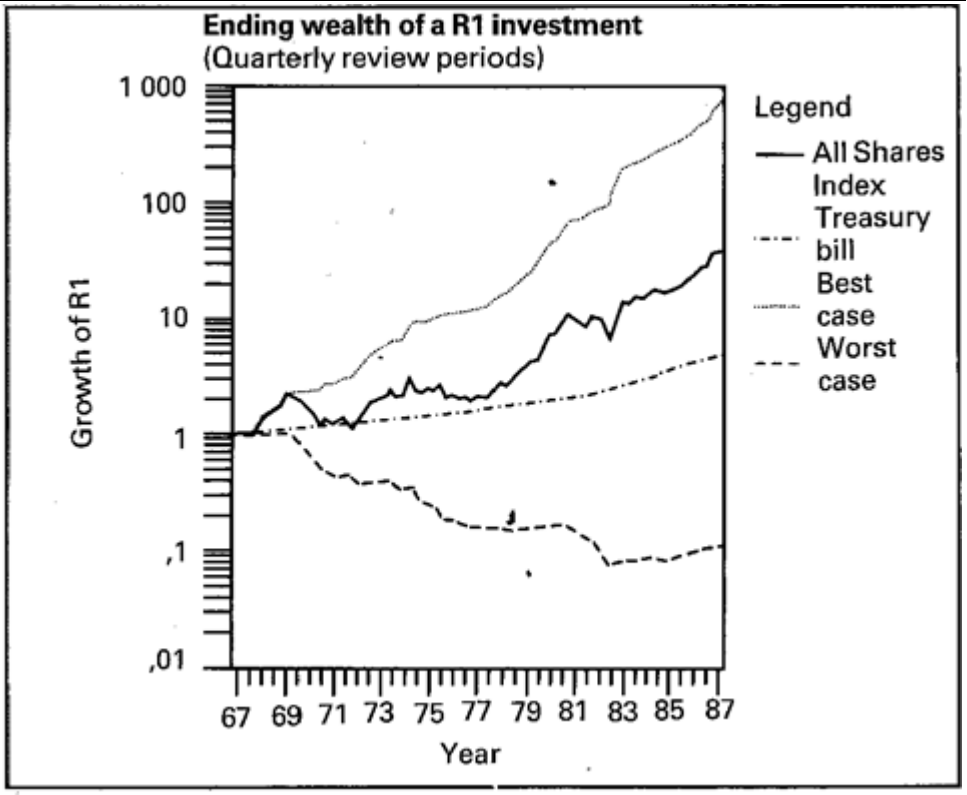
Converting the above figures to annualised returns, the buy-and-hold strategy translates into an annual average rate of return of 20.9 percent. Whilst the perfectly correct and perfectly incorrect timing strategies correspond with annual average rates of return of 38.4 percent and negative 8.5 percent, respectively.

On the back of these results, there can be little doubt that the ability to time the market is an extremely attractive attribute in the investment manager. However, herein lies the problem. Evidence drawn from international and domestic studies suggests that the

[5] The results of a later study (Firer, Sandler and Ward, 1992) support these findings.

manager needs to be extremely skilled to time the market. Moreover, even where skill levels are high, switching costs pose a significant threat to potential returns.

Figure 2: Timing Effects in the South African Setting



Source: Firer *et al* (1987)

For instance, as early as the mid-1970s, Nobel prize winner William Sharpe (1975) noted that unless the manager was more than 83 percent accurate in his timing he could not have matched the equities index in the case of the United States (US) market. Ward and Stansfield (1980) carried out a similar study on the London Stock Exchange. They concluded that timing decisions have to be correct seven times out of ten for speculation to be profitable. In the case of the JSE, similar results have been achieved, with Firer *et al* (1987 and 1992) finding that to be certain of achieving a higher return through switching than via a buy-and-hold strategy, the manager would have had to be in the correct asset class at least 85 percent of the time (on average).

But, to achieve the above degrees of accuracy in switching decisions requires extraordinary forecasting skill. Anything lass than the above levels of accuracy, and the market beats the manager. In light of such evidence, in an editorial to the *Financial Analysts Journal* in 1980, Jack Treynor (1980) observed:

> Clearly any investor who bought and sold the market at its turning points would out-perform (by a vast margin) anyone who based his decisions on the analysis of individual securities … Unfortunately, nobody can call market turning points with anything approaching certainty.

William Sharpe (1975) confirmed this in commenting: '… the top or bottom is only obvious after the fact … different analysts will identify different points as "major" peaks and troughs … even in retrospect'. On the back of this argument, Sharpe concluded that attempts to time the market should be avoided altogether. In similar fashion, institutional investment guru Paul Cabot neatly summarised the argument pertaining to market timing: 'If you're lucky, you win. If you aren't, you lose.'

Statistically, then, unless one has a forecasting tool with greater than circa 80 percent accuracy, switching between asset classes causes returns to fall short of market averages. Despite this, most managers and investors insist on attempting to time the market. Thus, a first rule of outperformance is established: investors looking to at least match the market should seek out managers who do not attempt to time the market.

They're Only Human

I'm only human
Of flesh and blood I'm made
Human
Born to make mistakes

Lyrics to Human, Human League (Crash, 1986)

A second factor that explains manager underperformance is overtrading. The root cause of overtrading is manager overconfidence. Overconfidence is a focus area of researchers who look at 'behavioural anomalies' of asset managers.[6] However, this assemblage contains a number of other manager 'reactions and responses' to investments that result in underperformance. The anomalies are too numerous to mention individually. Volumes have been written on manager conduct in the field of 'behavioral finance'. So, for the sake of this report, one major overconfidence attribute that results in managers frequently underperforming their benchmarks is identified, namely overtrading.

Overtrading causes managers to sell their winners and truncate their time horizons. Or, in other words, managers abandon buy-and-hold strategies in favour of active trading that focus on stock picking. Overconfidence also causes investors to assume more risk by not efficiently diversifying their portfolios.

Evidence of the above traits is widely available. For the sake of brevity, however, only a

[6] To be accurate in this analysis, attempts to time the market also are attributable to manager overconfidence. However, for the sake of continuity, overconfidence is treated more fully under the overtrading banner.

few key examples are used to illustrate each point. To start with, it is widely acknowledged that about 90 percent of stock-specific risk is diversified away by holding a 16 stock portfolio. At 32 stocks, 95 percent of stock-specific risk is diversified away. Against this backdrop, and in exploring the diversification behaviour of individual portfolio managers, William Goetzmann and Alok Kumar (2001) examined 62 000 portfolios. In the study it was discovered that the median portfolio held just three stocks. Specfically, more than 70 percent of portfolios owned five stocks or fewer. Only 11.8 percent of the portfolios held more than 10 stocks. This suggests that stock-specific risk is generally not diversified away. Moreover, the evidence reveals that these highly concentrated portfolios underperformed the market. Picking a few winners is not an effective investment strategy. Rather, one basis for investment success lies in effective diversification of idiosyncratic or stock-specific risk.

What about manager overconfidence causing overtrading? Here, again, a wealth of evidence is available. Again, a few simple – but well recognised – examples are thought to suffice. In a well-documented study of 78 000 individual accounts, University of California Finance Professor Terrance Odean found that overtrading on equity portfolios undermines investment returns. Considering the data, the evidence reveals that average portfolio turnover on individual portfolios is about 75 percent per annum. However, Odean found that at 70 percent turnover, portfolios underperformed a market index by 3.7 percentage points per annum.[7] Moreover, the harder the portfolio manager tries, the worse he does. For example, when a portfolio is turned over more than 200 percent a year, the annual net return trails the market index by 10.3 percentage points. In addition, Odean found that by overtrading, managers tend to sell their winners and buy losers. Over a period of 24 months, for instance, Odean found that stocks that were sold outperformed stocks acquired by 8.6 percent.[8] The evidence is unambiguous: trading is hazardous to your wealth.

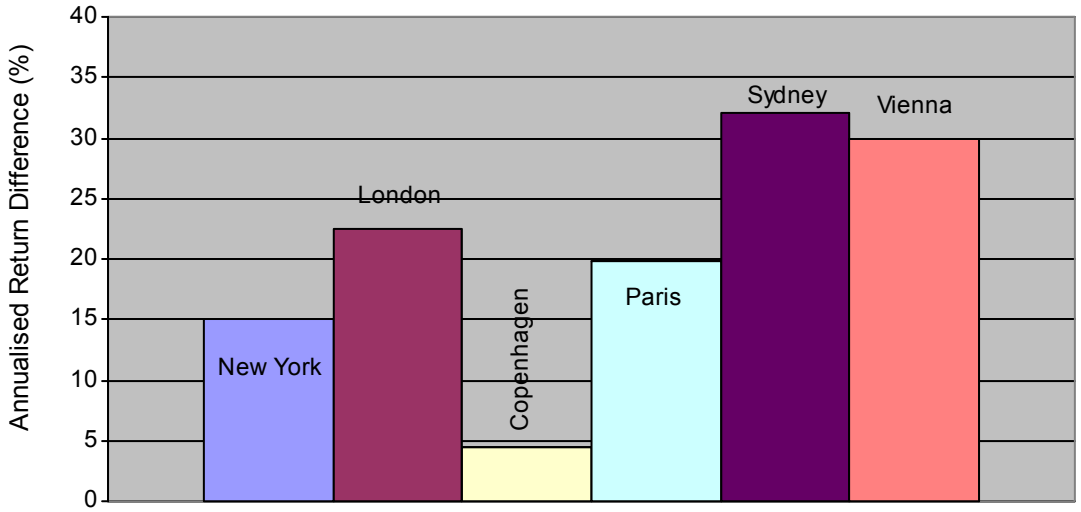
Why, then, do so many managers insist on aggressively trading on their clients' portfolios? Again, the explanatory factor behind overtrading is overconfidence or, perhaps more accurately, overoptimism. Managers who reign in their confidence in their ability – paradoxically – are likely to deliver investment performances that are superior to performances of managers who trade on overconfidence. But reigning in confidence is not necessarily an easy task. Most people are overoptimistic about all sorts of things. For instance, the bias of optimism causes 80 percent of smokers to believe that their brand of cigarette contains less than the average tar level.[9] Similarly, most college students put their own chances of developing breast cancer or becoming an alcoholic as very low. They give their roommates a much higher chance of developing cancer or becoming an alcoholic. Of course, the two students probably have equal chances, but we tend to see our own prospects as rosier. In yet another example, Kahneman says that if

[7] The index is made up of American Exchange, New York Stock Exchange and NASDAQ-listed stocks.
[8] One more point. But we will relegate this one to a footnote. Odean found that a principal cause of overtrading is 'testosterone': men trade more than women, and single men trade more than married men (perhaps the second part of this evidence could be lifted back into the main body of the text to bolster the case of the writer).
[9] See Nofsinger (2002, 52).

you ask new business owners about their chances of success, two-thirds of them think it is 70 percent or higher, and 25 percent think success is certain. In reality, 65 percent of new businesses fail in the first five years.[10] In short, we tend to be overly optimistic about our chances and our abilities.

As an aside, overconfidence, or mood, manifests itself in numerous ways. As already noted, overconfidence tends to cause overtrading and excessive portfolio concentration. But other effects are also evident. In a study on human behaviour under different weather conditions, it was found that hotel guests leave tips for assistants that are fifty percent greater on sunny days than on rainy days. For stock market followers, the effect of weather on investment returns is equally interesting. The figure below sets out the annualised differences in stock market returns between sunny days and rainy days for several large financial centers. Applying the law of large numbers, it is difficult to conceive of anything other than human behaviour – read 'irrational behaviour' – as being responsible for the investment pattern revealed by the figure below.

Figure 3: Returns and Weather Patterns



Source: Nofsinger (2002, 51)

Reflecting on the above, the evidence appears to confirm the case: investment managers are human, driven by 'animal spirits'. However, these 'animal spirits' carry across into the investment decision process, such that various biases are introduced in the management of portfolios. Typically, the greater these biases, the greater the extent to which managers erode portfolio performance. Conversely, the greater the extent to which managers are aware of their biases, the greater their ability to cater for their partiality and so recover investment performance.

[10] http://students.washington.edu/artemiza/350/behavioral%20finance.htm.

On the back of the evidence presented above, important biases for which managers need to cater are overconfidence and optimism. By being aware of these biases, investment managers have a greater capacity to manage the bias and so erode this source of portfolio underperformance. Continuing with the argument, the biases identified typically result in underdiversification and overtrading of portfolios. By *consciously diversifying and moderating trading activity* the investment manager is likely to boost the performance of clients' portfolios under his management.

The rules generated by the above examination, then, appear to be relatively simple. Better portfolio performance is delivered by diversifying, buying, holding and being patient. Also, picking up from the earlier argument dealing with asset allocation, it follows that an important aspect of diversification is not just within asset classes – but also across asset classes, with managers making the correct asset allocation decisions at the outset of the investment process. Switching between asset classes does not appear to serve as a basis for delivering improved investment returns. However, asset allocation plays a further – and arguably far more important – role in portfolio management.

3. Manage the Risk and the Returns Look After Themselves

When the stars threw down their spears
And water'd heaven with their tears:
Did he smile his work to see?
Did he who made the lamb make thee?

William Blake, *The Tyger*

As noted in the above section, in practice, aggressive switching between asset classes is not a basis for outperformance. This means that optimal asset allocation needs to take place at the outset of the investment process, and that this allocation should be held through the investment process. To illustrate the case, we return to the empirical evidence. But first, a note on the term asset allocation is useful in guiding the discussion.

Asset allocation involves balancing between risk and reward by determining how much of a portfolio to invest in each of the four primary investing vehicles: equities, bonds, property and cash. Following on from this, asset allocation often is argued to be the primary driver of investment return and level of risk to which the portfolio is exposed. Thus, choosing the proper diversification to protect funds from market risk and to maximise returns is a crucial consideration for the investment manager. The reasoning behind this argument is simple: it is estimated that the variations in investment returns and portfolio risk are explained almost entirely by asset allocation.

On this score, evidence examined by the a number of large pension funds in the US suggests that as much as 90 percent of investment returns are directly attributable to asset

allocation decisions.[11] In this vein, Gary Brinson conducted extensive research in the 1980s and early 1990s into the importance of asset allocation.[12] Brinson's findings attribute 90 percent of investment returns to asset allocation. A more recent study takes the argument further. Ibbotson and Kaplan (2000) show that asset allocation accounts for up to 90 percent of portfolio volatility and 100 percent of investment returns.

In short, the evidence is overwhelming and convincing: developing a successful investment strategy hinges critically upon asset allocation. Moreover, the mechanics behind the argument are elegantly simple. In a declining stock market, the average portfolio manager must underperform absolute return asset classes (cash). Similarly, in boom times, even the clumsiest stock picker has a viable platform from which to outperform other, out of favour, asset classes (such as property or cash).

From the above, it follows that the process of asset allocation is critical in determining optimal allocations for the broad categories of assets, namely:

- equities, which include large, mid- and small capitalisation stocks and international stocks;
- bonds, such as government bonds, quasi-government bonds and corporate bonds – local and global;
- property, which embraces domestic and international commercial, industrial and retail real estate; and
- cash (incorporating all investible currencies).

Putting the argument in other words, alternative asset allocations correspond with different levels of risk and return. The caveat is that this outcome requires 'the long run' to hold. Moreover, the argument is backward looking. Thus, forecasting becomes useful for making predictions about optimal asset allocation looking forwards. Nevertheless, taking international return data computed for a period of 75 years (a very long run indeed), it is possible to establish an asset allocation-return matrix that yields optimal investment strategies for desired rates of return based on the historical data. The data are presented in the table below.

In interpreting the data, three points need to be borne in mind. First, as one moves down the table forecast returns increase, but so does the level of risk (portfolio volatility). Second, for risk-return outcomes to be realised may require extreme patience on the part of the manager – and the investor. Impatience prompts switching – or market timing. As noted above, this strategy erodes investment performance. Third, nothing guarantees that the future investment performance will mimic the past. The investment manager needs to satisfy himself – and his clients – that asset classes have the capacity to continue to deliver their characteristic risk-return combinations over the longer term (even if near term departures from the matrix are anticipated).

[11] http://www.apfc.org/investments/aachart&res.cfm?s=3.
[12] http://www.finportfolio.com/education/tutorial/tutorial_strategic_asset_allocation.html.

Table 1: Optimal Asset Allocation for Various Desired Real Returns

Desired Capital Return (%)	Large Capitalisation Stocks	Small and Mid-Capitalisation Stocks	International Stocks	Bonds*	Cash
6.0	5.8	1.6	6.6	16.4	69.6
8.0	10.2	4.7	10.8	33.3	41.0
10.0	14.5	7.8	15.1	50.2	12.4
12.0	25.2	13.0	20.4	41.4	0.0
14.0	40.8	19.8	26.4	13.0	0.0

* Note that bond allocations incorporate property allocations.
Source: Nofsinger (2002, 261)

Based on the above arguments, it is concluded that asset allocation is central to investment strategy. This is because asset allocation is the primary driver of investment returns and portfolio risk. Moreover, efforts made by investment managers to bolster performance and reduce risk often achieve the opposite. Specifically, timing the market and actively managing stock picks often accentuate risk and amplify asset underperformance. Returning to the point of departure, then, the process of identifying winning asset managers starts with locating managers who are principally concerned with moving portfolios into acceptable risk-return spaces, based on asset allocation decisions. Little else matters.

4. Keep Your Head Down and Follow Through

Why are her eyes so bright, so bright,
Why do her lips control
The kisses of a summer night
When I would love her soul?

Richard Barham Middleton, *Any Lover, Any Lass*

To complete the analysis, then, some comment is required on forecasts for specific asset classes. More to the point, having identified appropriate risk-return relationships, allocating across asset classes requires forecasting investment outcomes that will have a material impact on asset classes. For example, forecasts of a deflationary price environment would make cash – even low yielding cash – a more attractive option than equities, all else equal.

That aside, in the commentary below, we focus our comments on domestic asset classes, but make observations on offshore assets through our exchange rate predictions, interest rate forecasts and estimates of future growth in gross domestic product (GDP) in leading economies. We also offer estimates of future prices of leading commodities, namely gold, platinum and oil.

Considering domestic asset classes, our economic forecasts for the period to end 2005 are broadly supportive of the risk-return matrix for the various asset classes. Specifically, we favour equities over bonds. In turn, these two capital classes are favoured over property and cash.[13] Our forecasts for major macroeconomic variables are set out in the Table 2 below.

The forecast environment is broadly supportive of our view that equities remain cheap, and are likely to deliver solid returns on a medium- to long-term view. The arguments behind our favouring equities are varied, but the most critical components to the argument relate to the cheapness of equities relative to other asset classes and their own track record (see *Babies and Bathwater: A Case for South African Equities*, Autumn 2003). Moreover, as already suggested, our forecasts for macroeconomic variables are anticipated to play a large part in promoting a positive equity environment.

Specifically, in terms of key variables influencing equity returns, we expect:

- The Rand to gradually weaken against all major currencies – albeit to varying degrees – including the US$, €, £ and ¥. Specifically, we expect the Rand to fall by about 20 percent against the US$ between now and end 2005, and 30 percent against the € over the same period. Depreciations against £ and ¥ in the early 20s are also forecast on the same basis. The gradual decline that is anticipated is due to a narrow price inflation differential and a positive – but declining – real interest rate differential between South Africa and major trading partners. The weaker currency is expected to aid domestic equity performance (witness the sharp erosion of equity values brought about by the dramatic currency appreciation of 2003).

- Nominal interest rates to fall. Our forecast is for a further cut of 100 basis points (1 percent) in 2003, followed by cuts of 100 basis points each in the first and fourth quarter of 2004. We anticipate a single cut to follow in 2005, with rates then starting to firm in sympathy with global economic buoyancy and the tighter monetary conditions anticipated from late 2004 onwards. In the interim, however, softer rates are expected to continue to benefit specific sectors on the JSE, especially cyclical sectors such as the automobile, household goods, retail, leisure and banking sectors. The construction sector could receive a double whammy via lower interest rates aiding private sector investment spending as well as higher levels of infrastructural spending by the public sector.

[13] Stock specific selections are available from our monthly models.

Table 2: Economic Forecasts

Real Economy		2002*	2003	2004	2005
GDP Growth (%)		3.0	2.0	3.3	3.7
GDE Growth (%)		4.2	2.4	3.4	3.6
	Consumption	3.2	2.5	3.0	3.1
	Investment	6.5	5.7	4.9	4.6
	Government	3.7	3.7	4.2	4.0
	Exports	-1.4	-1.0	1.9	2.9
	Imports	3.1	2.1	2.0	1.6
Monetary Sector		**2002***	**2003**	**2004**	**2005**
Inflation	CPIX (%)	9.3	7.4	4.8	5.4
	PPI (%)	14.2	3.8	3.2	4.0
Interest Rates	Prime (%)	15.8	15.7	12.3	11.3
	NCD (3 month)	12.0	12.1	9.3	8.2
	R153 (%)	11.7	9.7	8.0	7.3
Currencies	US$-Euro	0.95	1.12	1.19	1.20
	Yen-US$	125.35	112.9	111.0	112.0
	US$-Sterling	1.51	1.64	1.65	1.63
	Rand-US$	10.36	8.05	8.45	8.84
	Rand-Euro	9.78	9.03	10.08	10.63
	Rand-Sterling	15.60	13.18	13.95	14.44
	Yen-Rand	12.10	14.03	13.14	12.67
Commodities		**2002***	**2003**	**2004**	**2005**
Commodities (US$)	Gold (US$)	313.20	356.75	348.00	348.00
	Platinum (US$)	540.03	682.18	692.52	704.70
	Oil (Brent) (US$)	23.90	29.63	27.63	25.88
Commodities (Rand)	Gold (Rand)	3244.75	2871.65	2940.11	3074.64
	Platinum (Rand)	5594.71	5495.00	5850.82	6226.14
	Oil (Brent) (Rand)	247.60	238.70	233.39	228.69
Factors		**2002***	**2003**	**2004**	**2005**
US	Inflation (CPI)	3.00	2.40	1.80	1.80
	Interest Rates	1.21	1.00	1.00	1.31
	Growth (GDP)	2.1	2.20	3.30	3.10
Euro Area	Inflation (CPI)	2.10	1.80	1.50	1.60
	Interest Rates	3.39	2.25	2.45	2.63
	Growth (GDP)	1.30	0.88	0.78	1.50

* Actual data.
Source: Bay Asset Managers (Pty) Ltd

- The gold price to remain below the critical US$400 per ounce level. This forecast is in contrast to the consensus view, which has gold heading above US$400 per ounce in the near term. Rather, we anticipate that the gold price will retrace towards the

US$340 mark by end 2005 (although the price band between now and then may not be as narrow as this forecast implies). But the weaker Rand should assist margins in the sector, by taking the Rand price of gold about 15 percent higher than current levels. Platinum stocks, however, are expected to do better than golds, aided by industrial demand – especially Chinese buying of the metal – which will help the metal price higher, as well as a weaker Rand. Principally for these reasons, we favour platinum stocks over gold stocks. That said, the almost zero correlation between gold stocks and the rest of the JSE make golds a compelling risk diversifier.

- That the trend towards lower rates of consumer and producer inflation will persist. We see consumer price inflation falling into the 3-6 percent tunnel set by the South African Reserve Bank (SARB) by the fourth quarter of 2003. Consumer price inflation is anticipated to remain inside of the target range set by the SARB over the remainder of the forecast period. The improved inflationary environment is expected to offer positive spinoffs for companies listed on the JSE via better trade relationships, wage settlement agreements and similar. The figure below summarises our forecasts of inflation based on the consumer price index (CPI) and producer price index (PPI) to end 2005.

- GDP growth to head into better territory as we move out of 2003's difficult business environment into a setting characterised by firmer global conditions and a more settled domestic climate. We expect GDP growth for 2003 of 2.0 percent. But that figure is forecast to climb to 3.3 percent and 3.7 percent in 2004 and 2005, respectively. The more buoyant setting will aid corporate profits and, so should help lift the prices paid for stocks listed on the JSE. GDP growth is expected to be led by government and investment spending.

In short, we continue to see equities as inexpensive relative to their historical valuations and relative to the buoyant economic conditions. In particular, we think the latter will aid corporate earnings and, by implication, investors' willingness to buy equities. As usual, though, some caveats apply. For instance, consumer and corporate debt levels in leading economies are at historically high levels. If interest rates spike upwards too quickly, or extant fiscal and monetary policies fail to take, a further bout of malaise in global economic growth will undermine South Africa's economic position and investors' appetite for risk.

Equities aside, if we extend the above macroeconomic forecasts to the other asset classes, stocks remain an attractive bet – the above average risk-return relationship is expected to hold over the forecast period. Specifically, with the exception of medium-dated bonds, the bond market is seen as being expensive, with interest rate cuts and the lower inflationary environment already priced into the market. Similarly, we see the property market as overpriced. It is unrealistic to expect returns earned over the recent past to persist. Indeed, we think that the property market is likely to disappoint investors looking for capital appreciation over the near to medium term. However, the asset class remains an important component in portfolios that are seeking income with below average volatility in capital values. Finally, in the lower interest rate environment, money market

yields are forecast to trend steadily lower over the period to end 2005. Here, we see the prime lending rate ending 2005 at 10.5 percent, with the yield on three-month negotiable certificates of deposit falling to 7.4 percent (about 400 basis points lower than current yields). The figure below summarises our yield forecasts on money markets to end 2005.

Figure 4: CPI and PPI Inflation (Actual and Forecast)

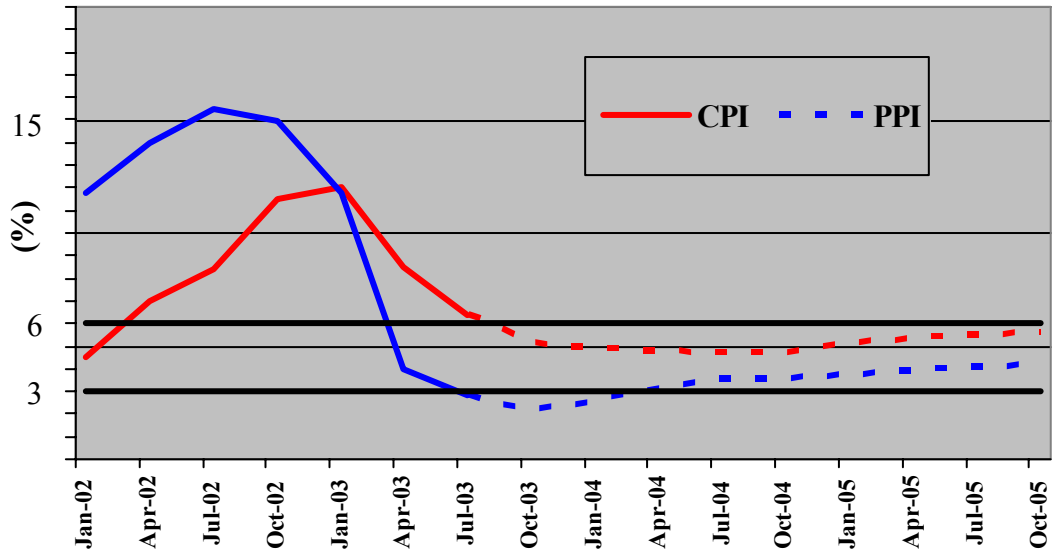
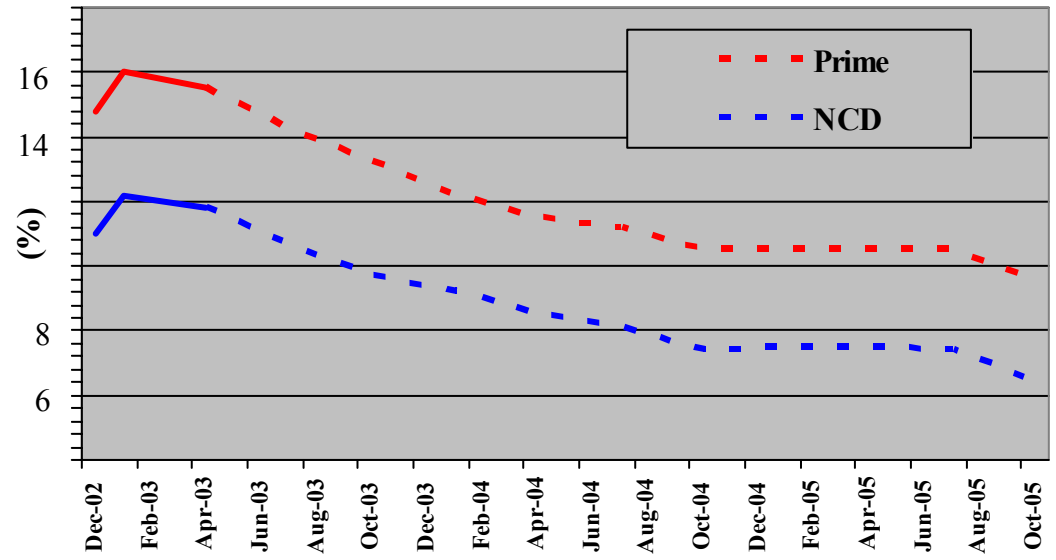


Figure 5: Yields (Actual and Forecast)



Source: Bay Asset Managers (Pty) Ltd

As a final comment on asset class returns, we run a regularly updated Markowitz asset

allocation model, which employs over forty years of data to forecast risk and return rates on the two major asset classes in South African capital markets. Without dragging readers through the tedium of the detail, the model uses past rates of return to forecast future risk-return outcomes. These forecasts typically explain anywhere between 30 and 65 percent of observed future risk and return on the two main asset classes – equities and bonds. Based on the most recently available data, the model anticipates equities and bonds to deliver capital returns of 13.8 percent and -1.4 percent, respectively, over the coming 12 months. The respective levels of volatility stand at 21.9 percent and 10.2 percent. Once we allow for forecast income yields of 3.7 percent on equities and 9.5 percent on bonds, the quantitative forecasts conform to our qualitative forecasts set out above, with equities forecast to deliver a twelve month return of 17.5 percent versus 8.5 percent on bonds.

Table 3: Markowitz Asset Allocation Model (South African Data: 1960-2003)*

Equities	
Actual Return (Previous 12 Months)	-4.44
Forecast Return (12 Months) (R Squared = 0.65)	13.78
Forecast Standard Deviation (12 Months) (R Squared = 0.49)	21.94
Bonds	
Actual Return (Previous 12 Months)	18.73
Forecast Return (12 Months) (R Squared = 0.43)	-1.40
Forecast Standard Deviation (12 Months) (R Squared = 0.29)	10.15
Forecast Risk-Adjusted Returns	
Equities	0.46
Bonds	-0.10

* Updated 25 August 2003
Source: Bay Asset Managers (Pty) Ltd

5. Summary

The domestic investment soil remains fertile, and is likely to yield healthy fruits over the near- to medium term. However, the greatest benefits will accrue to investors and investment managers who observe some well-established but generally ignored principles of investment management:

- There is *no* such thing as a *good time to time the market*.
- Manage the risk by moving assets into *appropriate asset classes*, and the *returns will manage themselves*.
- The *more active the manager*, the *busier the idiot*.

- The most successful investment plans are those built on *patience*.

The above rules cannot guarantee outcomes. However, consistent and discipline application of the above rules are likely to benefit investment returns. Indeed, observation and evidence provide us with the vantage point of knowing that winning investment managers and winning investment portfolios are most likely to flow from the hands of managers who acknowledge and adhere to the above set of well-established investment principles. These are the winning ways of winning managers.

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