

Investors Behaving Foolishly

*"I can calculate the motions of the heavenly bodies, but not the madness of people."
Sir Isaac Newton, losing investor in the South Sea bubble.*

One suspects that Sir Isaac would be almost as delighted and amazed by what is now understood about investor behaviour as he would be by late twentieth century advances in the space sciences.

The past 20 years have seen the development of a new discipline, Behavioural Finance, which blends Economics and Psychology in seeking to understand individual and collective financial behaviour. Behavioural Finance explores situations where we behave foolishly: where emotion distorts reasoning and/or where reasoning is faulty. There is now an extensive body of international knowledge derived from many hundreds of studies carried out by researchers in the field.

During the past two years a remarkable series of studies on investor behaviour has been published by Professor Terrance Odean from the Graduate School of Management, University of California, Davis - a world-leading Behavioural Finance researcher and educator. We present here a precis of his [findings](http://faculty.haas.berkeley.edu/odean) <<http://faculty.haas.berkeley.edu/odean>> and our own musings on their relevance.

Fools, Pooled Fools, Highly Paid Fools in Suits

*"The first principle is that you must not fool yourself - and you are the easiest person to fool."
Richard Feynman*

Individual investors exhibit three varieties of foolishness:

- ❖ They trade too often.
- ❖ They sell 'winners' to buy 'losers'.
- ❖ They chase the action.

These are the inescapable conclusions of Professor Odean's studies of tens of thousands of discount brokerage trading accounts over the period 1991-1997. The net result is that their portfolios significantly under-perform relevant benchmarks.

The more you trade the less you earn!

*"Fools rush in where fools have been before."
Unknown*

Professor Odean analysed the 1991-1996 trading of 78,000 households involving 158,000 accounts and nearly 2 million common stock trades at a discount brokerage. The findings are summarised in Fig 1.

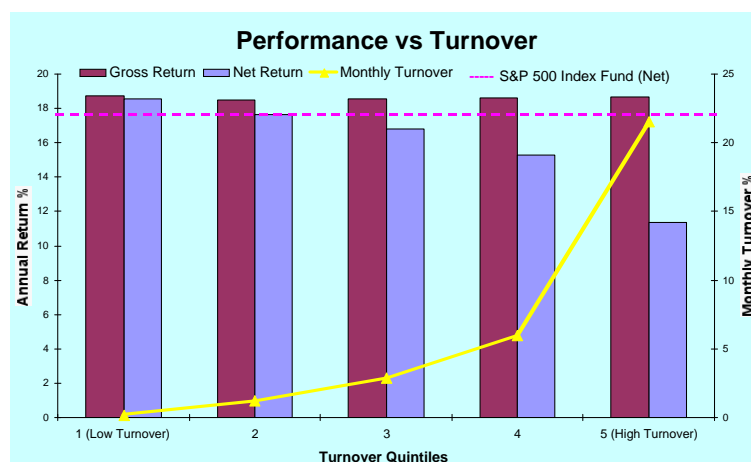


Fig 1

While the market returned 17.9%, the average household earned 16.4%, tilted its portfolio to high-beta, small, value stocks, and had an annual turnover of 75%. The lowest quintile by turnover earned slightly better than the market in both gross and net. But this would not have been so against a risk-adjusted benchmark. Increased trading has little impact on gross return but steadily erodes net return. In the highest quintile, annual turnover has skyrocketed above 250% and net return has fallen by one-third.

It is the cost and frequency of trading, not portfolio selection, that explains the poor performance. In fact, the tilt in the portfolios actually helped performance during the sample period.

What drives this hyper-trading?

Overconfidence seems the most likely culprit! Psychological research has established the existence of this widespread behavioural bias which causes people to overrate the precision of their judgements and which, in financial judgements, men are more prone to than women. Hence gender provides a natural proxy for Overconfidence as shown in these results from an earlier study by Professor Odean.

| | All Women | All Men | Single Women | Single Men |
|--------------------------------|-----------|---------|--------------|------------|
| Monthly Turnover | 4.4 % | 6.4 % | 4.2 % | 7.1 % |
| Annual Benchmarked Performance | -2.8 % | -3.7 % | -1.6 % | - 3.6 % |

Fig 2

Overconfidence gives investors the courage to follow their misguided convictions. Australian anecdotal evidence suggests that individual investors rarely benchmark their performance and those that do rarely use an appropriate benchmark. In a surging market, without this reality check and with selective memory in top gear, market-driven successes reinforce overconfidence.

Selling Winners to Buy Losers

"D'oh"
Homer Simpson

Yes, perverse as it may seem, this is what happens. From yet another of Professor Odean's goldmines:

| Annualised Benchmarked Returns for Sales followed by Purchases | | | |
|--|---------|---------|---------|
| No. of Trading Days Later | 84 | 252 | 504 |
| Stocks Sold | -0.08 % | +0.79 % | +7.31 % |
| Stocks Purchased | -2.54 % | -2.28 % | -1.30 % |
| Combined Result | -2.46 % | -5.07 % | -8.61 % |

Fig 3

Where a purchase follows a sale, the average result two years later is that the stock sold has over-performed the index by 7.31% and the stock purchased has under-performed by 1.3%, with the net result of the trading decisions being under-performance of 8.61%.

Why, Homer? Why?

Homer might fall back on the streaker's defence, "It seemed like a good idea at the time."

Professor Odean suggests a more complex array of causes. Prospect Theory tells us that the positive emotional value of a gain is only one-third of the negative emotional value of a dollar-equivalent loss. This leads to the Disposition Effect whereby, via considerations related to Anchoring (that is, to the reference points against which investors value an investment), investors practice Regret Avoidance by holding onto their losers. Additionally, Professor Odean suggests that it is at least plausible that investors are influenced by a mistaken application of regression to the mean - they think their winners are likely to fall and their losers to rise.

However, while this may explain why investors sell winners, it does not explain why they buy losers. For this we must look elsewhere.

Chasing the Action

*"Sometimes the noisy handful is right, sometimes wrong; but no matter, the crowd follows it."
Mark Twain*

There are thousands of stocks and investors have limited processing ability. They can only choose from those stocks that catch their attention. Their trading behaviour indicates that they focus on stocks that are in the news. As Professor Odean's chart in Fig 4 shows, the hot action takes place at the extremes where stocks are already performing noticeably well or noticeably poorly.

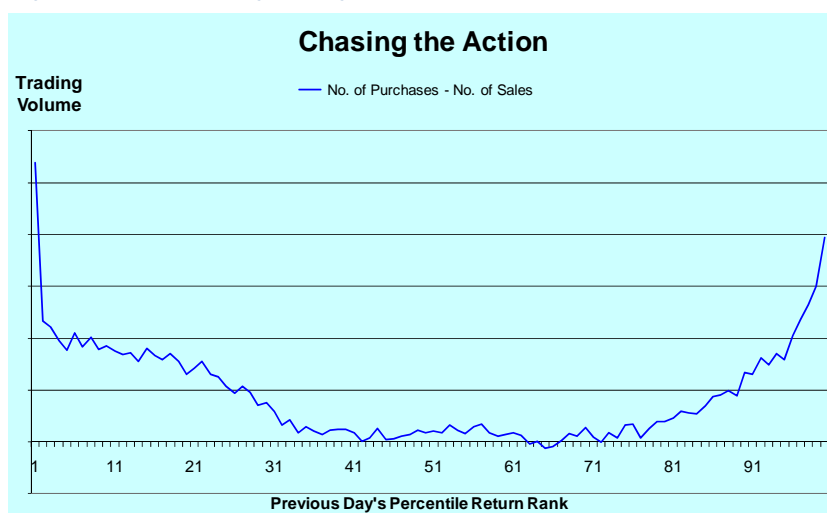


Fig 4

It could be supposed that activity at the low end derives from contrarian strategies and at the high end from bandwagon strategies. But, in any event, this behaviour is clearly a function of information flow - individual investors' attention is drawn to the noisy few and they act after they see the results of other investors' actions.

Pooled Fools

*"It's not what a man don't know that makes him a fool but what he does know that ain't so."
Josh Billings*

Could it be that when individuals get together and pool their information and skills, their individual behavioural biases will be avoided? They should be so lucky! Once again it would appear that democracy produces a lowest common denominator result. As can be seen in Fig 5, investment clubs literally just pool the individual investors' foolish behaviours. Rather than improving on individuals' results, investment clubs' net and gross performance are both worse.

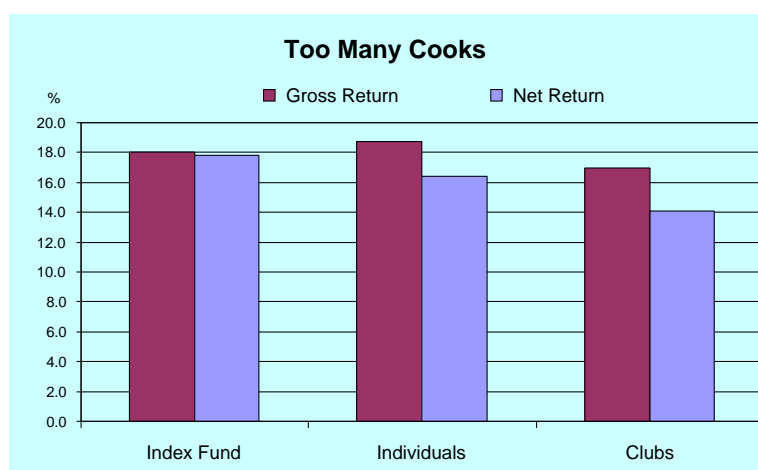


Fig 5

Highly Paid Fools in Suits

"The whole problem with the world is that fools and fanatics are always so certain of themselves, but wiser people so full of doubts."
Bertrand Russell

Many individual investors would see investment advisers and managers as just that - highly paid fools in suits - and some would have good reason to do so. Our industry's past is not blemish-free. We have had our share of crooks and fools, and have driven many clients to the point where they prefer to follow their own counsel. Others, having heard their friends' war stories, have decided that, if anyone is going to be foolish with their money, it may as well be them.

With this in mind, we might be well-advised to ask ourselves whether we exhibit any of the behavioural biases evident in Professor Odean's studies.

As advisers, are we overconfident? Is our judgement really as good as we think it is? Do we re-jig plans unnecessarily or suggest particular strategies that might not stand up to unbiased scrutiny? Do we practice regret avoidance? Are we too slow to change our advice when what we advised is not working? Do we chase the action? Is our attention over-focused on market noise and flavours-of-the-month?

When active managers are spruiking their results, do we question their trading levels? Are they overconfident? Too much trading turns a positive sum game into a negative sum game, making it that much harder to come out a winner. Do they have the skills to overcome the handicap of greater transaction costs? Are they locked into losing positions because they can't stomach a loss of face? Do they chase the action? Can they persuade us that they're immune to the normal behavioural biases which are so damaging to investment performance?

*"When we remember we are all mad,
the mysteries disappear and life stands explained."*
Mark Twain

Geoff Davey and Paul Resnik
March 2001