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The role of salience in portfolio formation ☆

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Abstract

We analyze the likelihood of a stock being included in an investor's portfolio, utilizing a dataset which holds the information opportunity set constant for each of the over 1000 student investors in our sample. Investors rely on the availability heuristic: salience (the number of stories in the national press about a stock in the month before the portfolios are formed) captures over 50% of the variation in our dependent variable.

JEL classification: G12
Keywords: Behavioral finance; Availability heuristic

1. Introduction

How do investors choose stocks for their portfolios? Why do they prefer some stocks over others? Standard finance theory tells us how investors should form their portfolios. Investors should maximize their utility by optimizing the trade-off between return and risk amongst assets in their investment opportunity set (Markowitz, 1991).

Investors appear to ignore Markowitz's sage advice. The weight of evidence demonstrates that investors do not form their portfolios "optimally". Investors do not diversify their portfolios; they

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Table 1
Major identified by students choosing a portfolio

Course	No. of entrants	% of total
Finance major	437	31%
Accounting major	310	22%
Securities Institute course	171	12%
Non-business major	104	7%
Other business major	97	7%
Law / double degree law	92	7%
Economics major	91	6%
Management major	50	4%
Marketing major	36	3%
Majors unknown	24	2%

hold too few stocks (De Bondt, 1998; Barber and Odean, 2001). Even when their pension funds offer them a range of investments, investors tend not to take up these opportunities (Benartzi and Thaler, 2002). Investors choose what is familiar: they prefer to buy stocks that are geographically and culturally close to them (Grinblatt and Keloharju, 2001; Coval and Moskowitz, 1999). Investors "put all their eggs in one basket" by investing in the companies they work for (Huberman, 2001). Investors trade too often, eating up potential profits in trading costs (Barber and Odean, 2000, 2001, 2002). Even Markowitz is reported to have split his retirement fund between stocks and bonds to avoid regret in the future (Shefrin, 2000, p. 120).

We utilize a unique dataset to provide further evidence of how investors choose stocks for their portfolios. The data allows us to hold the information opportunity set constant for each investor and, as such, provides a strong control for the analysis of the use of information in forming portfolios. We find strong support for the hypothesis that investors utilize the availability heuristic when selecting shares.

We examine a dataset of 1412 portfolios of between five and ten stocks, chosen by investors between August 21 and August 24, 2003. The portfolios were selected by Australian university students in order to enter the BRW National Student Share Portfolio Award 2003.[1] Each investor had the same goal: to maximize his or her absolute return over a twelve-month period.[2] Each entrant paid $10 for each portfolio they entered in the game. Each entrant had an initial endowment of $200,000 from which they could invest in 5 to 10 fully paid shares or trust units (but not options, warrants or futures) listed on the Australian Stock Exchange. Each investor was allowed to enter up to five portfolios. No more than $40,000 could be invested in one stock. Additionally, no trading was allowed after the portfolio was "locked-in" on August 23, 2004. The winner[3] – the student earning the greatest return between August 25, 2003 and August 20, 2004 – received $10,000 in cash.

The investors in our sample might be expected to be relatively more sophisticated than the investing population at large: the sample is dominated by business majors, especially those

[1] The BRW is Australia's leading business magazine. The other national sponsors were the Securities Institute and CPA Australia. The national supporters were Shares, Personal Investor (both magazines dealing with investments) and Aspect Financial. The competition rules may be found in Appendix A.

[2] This goal is therefore subtly different from the standard model we refer to in the first paragraph of this paper (that is, the assumption that investors maximize their utility by optimizing the trade-off between return and risk amongst assets in their investment opportunity set). Accordingly, they may follow different rules to investors in the real world. It is also important to note that students had to maximize total, not risk-adjusted, returns.

[3] The winner was Jeremy Bond, a student from the University of Western Australia.