Survey data on Vietnamese retail investors' trading behavior and their psychological and behavioral patterns

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Abstract

The data article describes self-assessments of 621 Vietnamese retail investors on their trading behavior, psychological attributes and socio-demographic characteristics. The dataset was obtained from a randomized survey of 3144 Vietnamese participants on financial attitudes and practice that has been used in Phan et al. [5]. A supplemental material data contains the full text, codes and numerical values of survey instruments. Discussion of theoretical frameworks and the development of hypothesis and measurement of survey variables are found in the associated research article [6].

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Specifications Table

| Subject area | Finance |
|--------------|---------|
| More specific subject area | Behavioral finance/ Behavioral retail portfolios |
| Type of data | Table, text file |
| How data was acquired | Survey |

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2352-3409© 2018 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).
Data format  Raw, filtered and partially analyzed
Experimental factors  Raw data obtained from a survey on Vietnamese subjects who were trading on the Vietnamese stock market. Data with non-response and extreme values were eliminated.
Experimental features  The experiment focuses on examining retail investors' trading behavior, selected psychological and behavioral patterns including: overconfidence, self-control, social transmission bias, risk attitudes and time preferences.
Data source location  Vietnam
Data accessibility  Data is available with this article.

Value of the data
- The data provide insights on the investment behavior of retail investors in an emerging market which covers several interesting behavioral factors at once.
- The data can help to predict the trading mistakes of retail investors, particularly over-trading and under-diversification by examining their psychological and behavioral biases.
- The data offer an opportunity to measure the extent to which trading mistakes retail investors made in emerging markets (in comparison to advanced markets studied in previous works).
- The data allow for a comparison of psychological and behavioral biases with other similar studies amongst retail investors in a meta-analysis.
- The dataset can be employed for further analysis which provides insights into financial information acquisition and its link to the trading frequency of retail investors.

1. Data

The attached dataset (Appendix A) contains 621 records obtained from a randomized survey on 3144 Vietnamese financial clients concerning financial attitudes and behavior which have been first analyzed in the study of Phan et al. [5]. In this paper, we only present results on their psychological, behavioral patterns and trading activities in the Vietnamese stock market. Table 1 and 2 summarize surveyed variables of the provided dataset which can help estimate selected psychological variables (such as illusion of control, self-attribution, self-control, overconfidence in confidence interval estimates (or miscalibration), self-reported risk tolerance and time preferences), equity trading behavior and socio-demographic characteristics at the individual level. Discussion of theoretical backgrounds and development in the measurement and calculation of the survey variables can be found in the associated research article [6].

2. Experimental design, materials and methods

2.1. Questionnaire design

The questionnaire consists of three parts. The first part includes self-reported responses to scales measuring various facets of overconfidence and other psychological attributes. The second part has hypothetical choice tasks which attempt to extract an individual’s time preferences. The last part includes detailed information about participants’ stock holdings, sources of financial information acquisition and their demographic and socio-economic characteristics.

In the first part, selected psychological variables were measured in different ways. Firstly, following Dorn and Huberman [2], six items, on a five-point-Likert-scale from 1 = “totally agree” to 5 = “totally disagree”, were used for extracting an individual’s illusion of control and self-attribution biases. Secondly, ten items of the self-control scale (SCC) adapted from Tangney et al. [8] were
included to assess self-control. All ten items are rated on a five-point Likert-scale, ranging from 1 = “very much like me” to 5 = “not at all like me”. Thirdly, a question about investors’ probability judgments on the future return of the Vietnam Ho Chi Minh stock index (called VN-index) were used for capturing their levels of miscalibration. Moreover, we also included a Likert-scale item measuring participants’ willingness to take risks on a scale where 0 = “risk averse” and 10 = “risk-prone”, following Dohmen et al. [1].

In the second part, we included four hypothetical choice tasks to elicit an individual’s ability to defer gratifications. Following Sutter et al. [7], we asked participants to state an early payoff which makes them indifferent with a fixed later payoff of 200 EUR (1 EUR is equivalent to approx. 10,000 VND PPP [4]) in four different time frames. In the one-month-delay task, subjects were asked to give an early payoff today for a delay in one month. For the second task, the delay in one month is kept but the early payoff is shifted one month later from today (one-month upfront-delay). Similarly, the third and fourth tasks ask subjects to differentiate a payoff between today and one year (one-year delay) and between one month and thirteen months (one-year upfront-delay). For each task, we show them

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**Table 1**

Survey variables.

| Code(s) | Variable(s) | Variable type | Value labels |
|---------|-------------|---------------|--------------|
| **Panel A–Psychological variables** | | | |
| iq1–iq4 | Illusion of control | Ordinal | Likert-scale where “1 = Strongly agree” “5 = Strongly disagree” |
| aq5–aq6 | Self-attribution | Ordinal | Likert-scale where “1 = Strongly agree” “5 = Strongly disagree” |
| cq7–cq16 | Self-control | Ordinal | Likert-scale where “1 = Very much like me” “5 = Not at all like me” |
| upper | Upper bound | Scale | As reported |
| average | Estimated average | Scale | As reported |
| lower | Lower bound | Scale | As reported |
| psyrisk | Willingness to take risks | Ordinal | Likert-scale where “0 = risk averse” “10 = risk prone” |
| **Panel B–Time preferences** | | | |
| q1Delay1m | 1-month delay | Scale | As reported |
| q2Upfront1m | 1-month upfront-delay | Scale | As reported |
| q3Delay1y | 1-year-delay | Scale | As reported |
| q4Upfront1y | 1-year-upfront-delay | Scale | As reported |
| **Panel C–Trading behavior** | | | |
| qA1_r | Equity investor | Nominal | 1: Applicable; 0: Not |
| qA2_r | Investment portfolio size | Ordinal | 1: < 50 Million VND 2: 50–100 Million VND 3: 100–250 Million VND 4: 250–500 Million VND 5: 500–1 Billion VND 6: > 1 Billion VND |
| qA3_r | Trading frequency (#trade/month) | Ordinal | 1: 1–3 trades; 2: 4–5 trades 3: 6–10 trades; 4: 11–15 trades 5: > 15 trades |
| qA4_r | Evaluate frequency | Ordinal | 1: Annually; 2: Quarterly 3: Monthly; 4: Weekly 5: A couple of times/week 6: Daily; 7: > 3 times/day |
an illustration of a combination between early and later payoffs as summarized in Figure 1 in Phan et al. [6]’s paper.

In the last part, we focus on an individual investor’s trading behavior and socio-demographic attributes. In particular, we asked participants about their trading activities such as the frequency at which they trade stocks and evaluate their investment performance, portfolio composites, sources of financial information acquisition and reasons for their stock purchases and sales. Moreover, questions about age, gender, educational background, employment, work in the financial industry and monthly net income were also included.

2.2. Materials

Survey data were collected via an anonymous self-administered questionnaire. The questionnaire with the full phrasing of the surveyed items is included in Appendix A1.

2.3. Data collection

We randomly distributed the questionnaires to three types of financial clients between March and May in 2016 in Vietnam including: customers at stock brokerage companies and commercial banks and those who attended financial training workshops organized by the companies, as well as to students at universities or institutions of higher education (either full-time or part-time students

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1 We only present the part of our original questionnaire used in Phan et al. [6]. The remaining part was reported in the study of Phan et al. [5]

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Table 2
Survey variables (cont.).

| Code(s) | Variable(s) | Variable type | Value labels |
|---------|-------------|---------------|--------------|
| qA5a_r  | Stock-market-fund investors | Nominal | 1: Applicable; 0: Not |
| qA5b_r  | The number of different single stocks in a respondent’s current investment portfolio | Ordinal | 0: No stocks; 1: 1 stock; 2: 2 stocks; 3: 3–5 stocks; 4: 6–10 stocks; 5: > 10 stocks |
| qA6a...qA6g | Reasons for stock purchases | Nominal | 1: Applicable; 0: Not |
| qA7a...qA7g | Sources of information acquisition | Nominal | 1: Applicable; 0: Not |
| qA8a...qA8j | Reasons for stock sales | Nominal | 1: Applicable; 0: Not |

Panel D—Socio-demographic backgrounds

| gender | Gender | Nominal | 0: Male; 1: Female |
| age | Age | Ordinal | 1: 18–35 years old; 2: 36–50 years old; 3: > 51 years old |
| selfedu | Education level | Ordinal | 1: Less than high school; 2: High school leaving cert.; 3: Vocational school degree; 4: University degrees |
| unistudent | Students at university | Nominal | 1: Applicable; 0: Not |
| selfmajor1 | Specialization in the first and second degrees respectively | Categorical | 1: Economics; 2: Natural sciences/Medicine; 3: Social sciences/Others |
| selfmajor2 | | | |
| employment | Currently employed | Nominal | 1: Applicable; 0: Not |
| q15a...q15g | Occupational status | Nominal | 1: Applicable; 0: Not |
| q16 | Financial occupation | Nominal | 1: Applicable; 0: Not |
| income | Monthly net income | Ordinal | 1: 5 Million VND or less; 2: 5–10 Million VND; 3: 10–20 Million VND; 4: > 20 Million VND |
while working). Additionally, people without financial educational backgrounds were recruited through “the quota and snow-ball sampling” survey method.

Of the 3144 respondents who completed the questionnaires, 448 were omitted due to too few answers (80% as a cutting point) or response differences in two pairs of identical items\(^2\). From those, 647 participants were individual investors who were trading in the Vietnamese stock market. However, we further excluded 26 participants due to their extreme answers on the four hypothetical choice tasks\(^3\). Therefore, our dataset includes only 621 records as identified in this data article.

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**Transparency document. Supporting information**

Transparency data associated with this article can be found in the online version at https://doi.org/10.1016/j.dib.2018.05.113.

**References**

[1] T. Dohmen, A. Falk, D. Huffman, U. Sunde, J. Schupp, G.G. Wagner, Individual risk attitudes: measurement, determinants, and behavioral consequences, J. Eur. Econ. Assoc. 9 (3) (2011) 522–550.
[2] D. Dorn, G. Huberman, Talk and action: what individual investors say and what they do, Rev. Financ. 9 (4) (2005) 437–481.
[3] B. Fünfgeld, M. Wang, Attitudes and behaviour in everyday finance: evidence from Switzerland, Int. J. Bank Mark. 27 (2) (2009) 108–128.
[4] IMF, I. M. F. World economic outlook database, 2016. URL (http://www.imf.org).
[5] C.T. Phan, M.O. Rieger, M. Wang, Segmentation of financial clients by attitudes and behavior: a comparison between Switzerland and Vietnam, Int. J. Bank Mark. (2018), in press.
[6] C.T. Phan, M.O. Rieger, M. Wang, What leads to overtrading and under-diversification? Survey evidence from retail investors in an emerging market, J. Behav. Exp. Financ. (2018), http://dx.doi.org/10.1016/j.jbef.2018.04.001 in press.
[7] M. Sutter, M.G. Kocher, D. Glätzle-Rützler, S.T. Trautmann, Impatience and uncertainty: experimental decisions predict adolescents’ field behavior, Am. Econ. Rev. 103 (1) (2013) 510–531.
[8] J.P. Tangney, R.F. Baumeister, A.L. Boone, High self-control predicts good adjustment, less pathology, better grades, and interpersonal success, J. Pers. 72 (2) (2004) 271–324.

\(^2\) In the original version of the questionnaire, we included 17 five-point-Likert-scale statements towards financial attitudes as proposed by Fünfgeld and Wang [3]. Two of them were repeated twice. Subjects were excluded from the dataset if providing different answers to those questions. The results regarding these statements can be found in Phan et al. [5].

\(^3\) Subjects are defined as outliers if their interest rates elicited from the hypothetical choice tasks fell out the 25–75% quantiles of the related data.