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Birds of a feather flock together: A study of new shareholders and Swedish IPOs

Martin Abrahamson

Uppsala University, Sweden

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ABSTRACT

This paper analyzes new individual investors (rookies) and the importance of initial public offerings (IPOs) in attracting rookies to the stock market, which is an issue previous research has not focused on. The paper uses stock ownership records for publicly listed Swedish firms together with data on IPOs for the period 2004–2010. We find the proportion of IPO investors among rookies to be larger than for non-rookies and that rookies are more likely to invest in IPOs than non-rookies. Thus, IPOs appear to attract rookies to a larger extent than non-rookies. Moreover, rookies investing in IPOs have a higher income and hold larger stock portfolios, but they receive lower returns compared with other rookies. In addition, the results show that even for rookies, sophisticated investors receive higher returns than less sophisticated investors.

1. Introduction

This empirical study combines two areas of finance, namely, the portfolio selection of new individual stock market investors (henceforth rookies) and initial public offerings (henceforth IPOs). Specifically, the focus is on rookies with direct stock holdings in IPOs. Investor characteristics and portfolio composition are used to examine whether IPOs attract rookies to the stock market. With the decline in direct stock holdings by individuals, the issue is important for the stock market to maintain a sufficient investor base. Furthermore, this study examines investor sophistication among rookies and compares stock holdings and returns based on whether they invest in IPOs.

Markowitz (1952) established the theory of portfolio selection. However, empirical studies of portfolio selection among individual investors through large datasets have been limited and researchers have settled for small-scale studies of students, questionnaires, or datasets from single brokerage houses. In this study, the data are based on a registry of all shareholders in one country (Sweden).

Researchers have expressed concern regarding individual investors leaving the stock market. Davis (2009) stating that the individual investors are "dying". Rydqvist et al. (2014) show that, during the last 60 years, the fraction of shares held by individuals has diminished. Abrahamson (2016) shows a similar decreasing pattern of individuals leaving the stock market in Sweden. With the continued decrease in individuals investing directly in the stock market,[1] attracting rookies is important to mitigate the decrease. This study examines whether IPOs play a role in attracting rookies.

Based on Merton (1987), Amihud et al. (1999) show that an increase in a firm's investor base increases the value of the firm. King and Mittoo (2007) show that enlarging the shareholder base will lead to a higher firm valuation. Furthermore, Amihud et al. (1999) argue that an increase in the number of investors who can potentially hold a security should be value-increasing for the same. Thus, increasing the knowledge of what attracts rookies is valuable to the stock market. For Sweden, individual investors generally constitute the majority of the shareholder base, although they hold a mere fraction of the shares.[2] In the present study, the proportion of rookies investing in IPOs is compared with the proportion of non-rookie investors who do the same. Hence, determining whether IPOs attract rookies, and thereby, increase the investor base for the firm and for the stock market.

IPOs have been studied widely in academic research,[3] e.g., underpricing, the initial return (IR), the allocation of shares, and post-IPO firm performance. Salient for an IPO is the fact that prior to the IPO, the stock market has never priced the share on an open market. To compensate for the uncertainty, referable to the

E-mail address: martin.abrahamson@fek.uu.se.

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[1] E.g., Klemkosky and Scott (1973), Davis (2009), Rydqvist et al. (2014) and Abrahamson (2016).

[2] IPO firms need a sufficient number of shareholders, e.g., to meet the listing requirements of the stock exchange. According to Statistics Sweden, Swedish individuals held approximately 13–15% of the total value of all shares in Swedish listed firms during the sample period.

[3] E.g., Rock (1986), Ritter (1991), Kim and Ritter (1999), Ritter and Welch (2002), Loughran and Ritter (2002) and Chambers and Dimson (2009).

valuation of the share, IPO shares are generally underpriced.[4] Underpricing IPOs can give investors an IR, which is considered a wealth transfer from old to new shareholders.

West et al. (2017) claim that the general public may treat IPO investing like a lottery. This could be due to the uncertainty in the market pricing of an IPO and the possible gains. Kumar (2009) shows that individual investors prefer stocks with lottery features. Thus, when studying rookies, there is reason to argue that these investors are more prone to invest based on chance rather than experience. This study adds to the knowledge of IPOs primarily through examining the previously overlooked role that IPOs have in attracting rookies. Furthermore, this study compares post-IR returns received by rookies investing in IPOs with returns received by rookies investing in only non-IPO firms.

To the best of our knowledge, no studies have covered events that attract rookies to the stock market. The study shows that approximately twice the proportion of rookies hold IPO firms compared with non-rookie investors. Therefore, there is reason to believe that IPOs attract rookies to the stock market. Furthermore, rookies with IPO holdings have higher income and hold larger portfolios (both in value and number of stocks) than non-IPO rookies, which indicate investor sophistication. However, IPO rookies receive lower returns compared with non-IPO rookies and compared with market returns. Nevertheless, the results show that despite a lack of shareholder experience, the sophisticated rookies receive higher returns compared with unsophisticated rookies.

The remainder of this paper is structured as follows. The next section describes this study's relation to prior studies on individual investors and on IPOs. Section 3 describes the data and methodology. Section 4 presents the results, and Section 5 concludes.

2. Previous studies

Chiang et al. (2011) study the experience and serial investments among investors in IPO auctions in Taiwan. They study the likelihood of IPO participation based on previous IPO auction returns. In comparison, this paper focuses on rookies investing in IPOs rather than serial bid–ask prices from auctions in which experienced investors with IPO investment strategies participate. Kaustia and Knüpfer (2008) demonstrate that the likelihood of IPO participation among individual investors is based on the performance of their past IPO holdings. However, this present study adds to the knowledge on IPO participation through the analysis of inexperienced investors.

Under-diversification of individual investors or households has been shown in the US.[5] Abrahamson (2016) shows that such results also hold for Sweden, reporting that most investors hold shares in only one firm.

2.1. Studies of individual investors

Previous studies on individual portfolio choices, which are based on small survey data (e.g., McInish and Srivastava (1984)), have failed to show significant results based on demographic characteristics. Other studies have been based on data from a chosen brokerage house (e.g., Barber and Odean (2000, 2001, 2002) and Goetzmann and Zhu (2005)). Barber and Odean show that individuals overtrade and thereby lose money. They also reveal gender differences, where household accounts opened by women lose less money due to overtrading than do those opened by men. Hoffmann et al. (2013) study the individual investor behavior of 1510 brokerage accounts during 2008 and 2009 to detect the trading activity and risk perception of these brokerage clients during the crisis. They state that individual investors continue to trade and do not reduce risk during the crisis.

Access to information on individual investor portfolios restricts researchers to create a generalizable picture of investors. De Bondt (1998) presents a portrait of individual investors based on 45 selected investors from a stock investor's club. Durand et al. (2008) present a portrait of investors based on 18 Australian stock market individuals. In comparison, this study is based on all individual investors in Sweden.

2.2. Studies of individual investors in Scandinavia

Andersson (2013) studied the trading activity and returns of 10,600 investors with accounts in a Swedish brokerage house. His results support previous studies (e.g., Barber and Odean (2002), Grinblatt and Keloharju (2000, 2009)) that argue that some investors lose money due to overtrading. Lindblom et al. (2016) report (in a study using a dataset that is similar to the one in the present study) that Swedish individual investors have a local investment bias based on their birthplace.

Rookies have been examined previously in two studies using Scandinavian data. First, Kaustia and Knüpfer (2012) show that rookies in Finland increased from 1000 to 5000 per year at the Helsinki stock market peak during the IT-bubble. Second, Abrahamson (2016) presents a portrait of rookies showing that women enter the stock market later in life and hold larger and more diversified stock portfolios compared with men. Moreover, his study supports the declining development discussed in Davis (2009) and shown in Klemkosky and Scott (1973) and Rydqvist et al. (2014), that individual investors hold fewer shares compared to institutions. Together previous studies of individual investors show the need for studies on what attracts rookies to the stock market. In that respect, the role of IPO firms is highlighted in this study.

2.3. Studies of IPOs

Ritter and Welch report that several studies of IPOs focus on firm performance following an IPO.[6] Michel et al. (2014) connect the performance of IPOs with the public float, arguing that there is a U-shape in which the best post-IPO performance is achieved by firms with a very small (large) public float. Fernando et al. (2004) also report a U-shape relationship, although for the IR and nominal price level in which the lowest and highest prices have the highest IR. Loughran and Ritter (2002) ask "why issuers don't get upset about the money left on the table", equivalent to the total sum of the IR. Loughran and Ritter (2002) link their ideas to the prospect theory developed by Kahneman and Tversky (1979), and construct a framework for it to be used to explain the IPO bargaining process between a firm and underwriters. Benveniste and Spindt (1989), and Roosenboom (2012) study the importance of underwriters and the price setting they establish with respect to IPOs. While previous studies have analyzed IPO firm performance, this present study analyzes stock portfolio returns of IPO investors.

Pham et al. (2003) demonstrate that the probability of underpricing is negatively related to firm size. Abrahamson and De Ridder (2015) describe the allocation to institutional and individual investors of shares with high IR vis-à-vis low IR. They show that in Sweden, institutional investors, particularly foreign ones, hold a larger proportion of shares with high initial returns. Consequently, individual investors hold shares with low IR to a larger extent than do institutional investors.

[4] According to the previous literature, e.g., Loughran et al. (1994), Brennan and Franks (1997) and Ritter and Welch (2002).

[5] E.g., Kelly (1995), Kumar (2007), Mitton and Vorkink (2007) and Goetzmann and Kumar (2008).

[6] E.g., Ritter (1991), Brav et al. (2000) and Chambers and Dimson (2009) study post-IPO performance.

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