International Review of Economics and Finance 20 (2011) 367–375

Contents lists available at ScienceDirect

International Review of Economics and Finance

journal homepage: www.elsevier.com/locate/iref

IPO underpricing: A social comparison perspective

Chih-Hsiang Chang *

Department of Finance, College of Management, National University of Kaohsiung, Kaohsiung, Taiwan, ROC

ARTICLE INFO

Available online 25 November 2010

JEL classification:
G11
G14
G24

Keywords:
IPO underpricing
Behavioral finance
Social comparison

ABSTRACT

This paper studies a social comparison perspective on IPO underpricing. The social comparison theory in behavioral psychology suggests that when people do not know how to make a decision or are exposed to new information, they refer to the behavioral norm of the public or the behavior of others to frame their decisions. I argue that when IPO firms and underwriters are uncertain about an IPO firm's intrinsic values, they refer to similar IPO issuing firms in the same industry that went public earlier to determine the IPO offer price. Using a sample of Taiwan IPOs, I find evidence that supports the social comparison explanation of IPO underpricing.

1. Introduction

It is well known that initial public offerings (IPOs) are underpriced. McDonald and Fisher (1972), Ibbotson (1975), Ritter (1984), Koh and Walter (1989), Kim, Krinsky, and Lee (1995), Mohan and Chen (2001), Loughran and Ritter (2004), Kerins, Kutsuna, and Smith (2007), Krishnamurti and Thong (2008), Chambers and Dimson (2009), among others, consistently document that, on average, the offer price of IPO shares are substantially lower than the closing price on the first day of trading. The first-day abnormal returns of IPO shares, on average, are statistically and economically significant. Ljungqvist (2007) calculates that in the US, the average for IPO underpricing has been approximately 19% since the 1960s.

There are two strands of literature that explain the IPO underpricing puzzle. The first strand focuses on the concepts of rational decision making from traditional finance perspectives. Among the voluminous studies in this area, many lean toward information asymmetry in capital markets as the underlying reason for underpricing. Rock (1986) proposes a winner's curse model based on information asymmetry. Rock (1986) assumes that investors are informationally heterogeneous; that is, some investors (better-informed) know more than others (ordinary investors) about the quality of IPO firms. Hence, better-informed investors only bid on the attractive IPO offerings and leave the overpriced IPOs to ordinary investors. Therefore, to entice the continued participation of ordinary investors, IPO firms use IPO underpricing to compensate for losses by ordinary investors due to the winner's curse. Many studies offer evidence to support the information asymmetry explanation of IPO underpricing. For instance, Lam and Yap (1998) point out that the first-day price behavior of the Singaporean-tendered IPOs is consistent with the information asymmetry explanation. Schenone (2004) documents that IPO firms with a pre-IPO banking relation with a prospective underwriter have, on average, approximately 17% less IPO underpricing. An and Chan (2008) study a sample of IPO firms with and without credit ratings and find that IPO firms with credit ratings one year before their IPO have, on average, 22% less underpricing than those without pre-IPO credit ratings. Hence, a prior banking relation or credit worthiness information helps alleviate information asymmetry in the IPO market place and reduces the magnitude of IPO underpricing.

The second strand of literature relies on behavioral finance concepts to explain IPO underpricing. Thaler (1985) suggests that individuals cannot evaluate all outcomes as a whole so they make decisions through several reference points, which he refers to as mental accounts. Individuals respond differently to different mental accounts. In the IPO pricing decision process, for example,

* Department of Finance, National University of Kaohsiung, No. 700, Kaohsiung University Road, Nanzih District, Kaohsiung 811, Taiwan, ROC. Tel.: +886 7 5919505; fax: +886 7 5919329.

E-mail address: cch@nuk.edu.tw.

1059-0560/$ – see front matter
doi:10.1016/j.iref.2010.11.017

pre-issue shareholders realize that a lower IPO offer price can harm their interest in the issuing firm and result in discontent. However, they understand that after going public, the IPO price will surge and the resulting satisfaction will reduce the discontent caused by the underpricing of the IPO. Accordingly, Thaler (1985) suggests that if there are big gains and minor losses, then decision making should be integrated to ensure a big gain and a minor loss. In such a case, discontent of loss is rendered and its utility maximized. Thus, IPO underpricing is the result of the mental accounting process of pre-issue shareholders. Combining the prospect theory with the mental accounting theory of Thaler (1985), Loughran and Ritter (2002) argue that an IPO issuing firm fails to get upset about leaving money on the table in the form of large first-day returns because they tend to sum the small wealth loss due to IPO underpricing with the large wealth gain on retained shares as prices soar after going public. Loughran and Ritter (2002) and Ljungqvist and Wilhelm (2005) offer evidence to support the behavioral finance explanation of IPO underpricing.

Besides behavioral finance, behaviorism in psychology also explores other decision-making processes of individuals in uncertain situations. The social comparison theory in behavioral psychology suggests that when people do not know how to make a decision or are exposed to new information, they refer to the behavioral norm of the public or the behavior of others to frame their decisions. The social comparison theory was originally developed by Festinger (1954) to explain how individuals evaluate their attitudes toward an issue. The theory proposes that individuals prefer to evaluate self and self characteristics based on objective standards. When the standards are not available, they compare themselves with society or others around them and look for alternative comparison standards.

The social comparison theory has been applied to finance in the past. Fox and Dayan (2004), for instance, apply the social comparison theory to illustrate that when investing, investors are not only influenced by their past successes or failures, but they also compare their experiences with others when it comes to decision making. I argue that the degree of information asymmetry between issuing firms and investors is high. Pre-issue shareholders and underwriters likely have some, but incomplete, knowledge regarding the intrinsic value of their IPO firm. Thus, they compare their IPO firms with their 'peers' in the same industry that went public earlier. Similarly, investors likely have little knowledge about the intrinsic value of the IPO firm. Therefore, when investors make IPO subscription decisions, they compare their IPO prospect with other recent IPOs in the same industry. Thus, it is possible to apply the social comparison theory to explain IPO underpricing. Specifically, I use the social comparison theory to explain how issuing firms (or underwriters) determine the IPO offer prices and to discuss how investors respond to information regarding an IPO offer price. This study represents a first attempt to relate the social comparison theory to IPO research.

Using a sample of Taiwan IPOs, I show that the social comparison theory explains IPO underpricing. Specifically, the results suggest that the price earnings (PE), price-book (PB), market capitalization to total assets (MA), market capitalization to operating income (MO) ratios, and first-day abnormal returns of the IPO firm are positively correlated to the same variables in other IPO firms in the same industry that went public earlier. IPO firms heavily rely on their 'peers' in the IPO decision-making process when setting their offer price, which contributes to IPO underpricing. In addition, when explaining the first-day IPO abnormal returns with information asymmetry, mental accounting, and social comparison variables, the social comparison variables continue to be significant determinants of first-day IPO abnormal returns. The evidence suggests that the social comparison theory is a viable alternative to explain IPO underpricing.

The paper is organized as follows. Section 2 briefly discusses the IPO market in Taiwan and shows IPO underpricing in Taiwan. Section 3 discusses the social comparison theory explanation of IPO underpricing, and Section 4 concludes the paper.

2. IPOs in Taiwan

2.1. Overview of Taiwan's IPO market

The IPO data are from the *Taiwan Economic Journal* database, specifically the first 11 IPOs listed on the Taiwan Stock Exchange Corporation (TSEC) on February 9, 1962. A sample of these IPO firms includes Taiwan Cement, Wei Chuan Corporation, Chang Hwa Bank, among others. Since 1990, the industrial structure of Taiwan has transformed into an information technology-focused structure and the number of IPOs in Taiwan has steadily increased. Table 1 indicates that there are 1558 IPOs in Taiwan for the full sample (1962 to 2009) with an average 10.59% IPO mean returns on the first day.

A closer look at Table 1 suggests that the number of IPOs soars in the late 1990s to early 2000s, while the mean first-day IPO returns during the same period are low. This is inconsistent with Guo, Brooks, and Shami (2010), which indicates that the features of a hot IPO market include a large volume of new offerings and high underpricing. The reason of the low mean returns in the late 1990s to early 2000s may attribute to the Asian financial crisis in 1997 and the burst of the Internet bubble. Chambers and Dimson (2009) show that the capitalization weighted mean first-day returns of British IPOs during the Internet bubble burst (2001–2003) and a hot IPO market (2004–2007) are lower than those over the entire period (1917–2007). In addition, the mean first-day IPO returns in Table 1 are unusually high in recent years. The mean returns are approximately 53%, 62%, 30%, and 87% in 2006, 2007, 2008, and 2009, respectively. I speculate that the reason for the unusually high IPO returns is that IPOs have been exempt from the 7% daily price limit regulation in the first five trading days after going public since March 1, 2005.[1] The TSEC contends that removing the restriction of the 7% price limit on IPOs helps improve the market trading mechanism and market efficiency in IPO markets.

[1] Before October 11, 1989, the price limits in the Taiwan Stock Exchange were 5% of the closing price on the preceding trading day.