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The determinants of IPO initial returns in emerging markets: a quantile regression

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Abstract

Purpose – This article investigates the determinants of cross-section variation of initial public offerings' (IPOs) first-day returns in a sample of 710 issues across seven emerging markets between 2013 and 2017.

Design/methodology/approach – Ordinary least squares regression (OLS) and the semi-parametric quantile regression (QR) technique are employed. QR enables to analyse beyond the explanatory variables' relative mean effect at various points in the endogenous variable distribution. Furthermore, parameter estimates under QR are robust to the existence of outliers and long tails in the data distribution.

Findings – Underpricing varies across countries with an average of 78%. According to the OLS results, independent variables explain 26% of the variation of IPOs' first-day returns. Findings show that employing QR is important, given the non-normality of the data and because each quantile is associated with a different effect of explanatory variables.

Originality/value – In addition to firm-specific, market-specific and issue-specific factors, the paper extends IPOs' underpricing literature through studying the impact of country-specific characteristics, largely neglected by literature, on IPO underpricing.

Keywords IPOs underpricing, Country-specific characteristics, Quantile regression

Paper type Research paper

1. Introduction

Initial public offerings (IPOs, hereafter) tend to generate first-day abnormal returns compared to the rest of the market, and thus creating the well-documented IPO underpricing phenomenon (Ljungqvist, 2007). IPO underpricing, initial returns, first-day returns are interchangeably used by researchers (e.g. Ritter and Welch, 2002). Using data from 54 countries, Loughran *et al.* (1994, 2021) document that the variation of underpricing level ranges from a minimum of 5.7% in Argentina to an extreme ratio of 270.1% in the United Arab Emirates. Ritter (1987) argues that underpricing represents a significant cost of going public. In line with this argument, Ritter (2021) reports that the aggregate amount of money left on the table during the period 1980–2020 is around $201.73 billion. Thus, addressing the *explanatory determinants of IPOs underpricing is an important issue*. In other word, understanding the underpricing factors across countries and companies have important implications for issuing firms, investors and policymakers.

Theories explaining IPO underpricing are classified under four categories. These categories are asymmetric information hypotheses, institutional explanations, ownership and control considerations, and behavioural reasons (Ljungqvist, 2007). The asymmetric information theories, assuming the existence of information frictions amongst IPO market

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independence, are thought to signal the quality of the issuing company to investors to mitigate uncertainty and, thus, underpricing. Results show that board size is an insignificance determinant of underpricing whereas board independence plays a slight role in increasing the level of underpricing, implying that highly independent boards may cause a slowdown in companies' decision processes due to excessive control and auditing, which negatively affect firms' values. The certification hypothesis suggests that employing prestigious underwriters are associated with smaller levels of underpricing. However, our results indicate that UR increases underpricing under OLS and the 10th quantile, implying that underwriters are likely to underprice issues since they gain from "leaving money on the table" due to selecting the buy-side clients at a certain level.

Our results validate the investor sentiment hypothesis. The pre-IPO market sentiment significantly influences IPOs' first-day returns. Such conclusion is likely to be useful for investors and managers. The existence of market sentiment represents an incentive for firms to time their issuing through going public during hot periods rather than during cold periods. Results reveal that first-day returns on IPOs are predictable based upon the cumulative country market return in 3 months before the IPO date, implying that public information are not fully incorporated to offer prices. Investors may utilise market returns to formulate an optimal strategy to gain profits from underpricing.

Empirical results highlight the importance of the country-specific characteristics in explaining variation of cross-sectional underpricing. The study finds that corruption control, rule of law, strength of legal rights, contract enforcement, and protection of private property are important factors in explaining underpricing variations across countries. These findings imply that IPO underpricing can be mitigated through corruption control, the protection of private property, and strengthening the legal rights. Thus, policymakers should take the required procedures to combat corruption, enhance the protection of private property and strengthen legal rights with the aim of lowering the costs of going public for domestic firms. These conclusions are in line with those of other scholars (e.g. Engelen and van Essen (2010)).

Limitations of the current study include the exclusion of some important firm-specific variables showing its financial characteristics such as liquidity, profitability, and productivity of assets. Other scholars (e.g. Badru and Ahmad-Zaluki, 2018; Agathee *et al.*, 2012) address the impact of these variables on IPO underpricing through the construction of the composite measure of the firm's pre-IPO performance (known as Altman Z-score).

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