

II Executive Summary

An Initial public offering (IPO) is the process of a private company offering shares to the public. This external source of financing can allow firms to expend respectively overcome growth problems due to limited resource at low cost of capital (Ibbotson & Ritter, 1995). Furthermore, it represents an elegant exit option for entrepreneurs or can help them to diversify their wealth bound in the firm (Bodnaruk, Kandel, Massa, & Simonov, 2007). However, the premise to launch a successful IPO is an accurate valuation and pricing of the shares before and during the issuing. This is quite difficult, thus the IPO environment is highly regulated due to strong information asymmetry implied by the process between the issuer and investors. Both parties face a precarious information exchange process, hence investors only have few comparable, historical and published information (Draho, 2004), while issuers have usually less knowledge about the financial markets (Baron, 1982). Even literature¹ is still divided, if and which party is able to assess the real value of the offering firm. Although, Kim & Ritter (1999) suggest that accounting figures have only a weak relationship to the offer price of IPOs, Beatty, Riffe, & Thompson (2000) report strong predictive powers of accounting measures for determining the initial market price and even stronger for the offer price.

Nevertheless, the uncertainty continues beyond the offering. It is maintained by an unstable share price development within the first days of public trading and a long-run underperformance of the new issued share. Therefore, this thesis tries to help investors to take investment decisions and assess empirically if it is possible to predict the Total Return Index (TRI) within the five years following the IPO date. Accordingly, regressions using the financial data of 186 IPOs launched between the years 2000 and 2012 on the NASDAQ will evaluate the relation between accounting ratios and the TRI. The analysis is subdivided in different series within three regression sets. One uses the whole raw data, while another only includes IPOs launched in the years 2000-2004 before the financial crisis and finally a last set examines IPOs of the industries health care respectively technology separately. Moreover, each series represents a separate year post IPO date and one series' regression combines the data of all years from one set.

For the analysis, nine accounting ratios are selected as a combination of ratios successful in predicting failure namely Current Assets/Total Assets (CA/TA), Cash/Total Assets

¹ Allen & Faulhaber (1989) as well as Grinblatt & Hwang (1989) believed that investors could assess the real value of a newly issued share, while Rock (1986) takes side of the issuer. Finally, according to Zhang (2012) none of them can assess the real value.

(Cash/TA), Current Assets/Current Liabilities (CA/CL), Current Assets/Sales (CA/S), Quick Assets/Sales (QA/S) (Chen & Shimerda, 1981), and financial figures, which are the most frequently used in recommendation reports of equity analysts from Mexico in practice for regular listed firms (Pech, Noguera, & White, 2015), namely Return on Equity (ROE), Earnings per Share (EPS), Net Debt/Ebitda (ND/EBITDA) and Sales Growth (SG). Other papers trying to predict a company's performance and a financial ratio classification of Pinches, Eubank, Mingo and Caruthers (1975) is used as an orientation for the selection. Furthermore, the different regression models use the natural logarithm of the TRI as a dependent variable similar to the successful model of Beatty et al. (2000). However, the data come from the Datastream database of Thomson Reuters and are cross validated with a sample of annual financial statements of IPOs.. The data for the regression is sorted and the ratios are partly calculated with the processing program Excel. The statistical program R performs then the different regressions.

The results of the analysis are mitigated. The best regression over all three sets has an adjusted R^2 of 41%, while the lowest adjusted R^2 is 11.2%. Nevertheless, the most relevant ratios to make predictions are ROE and SG, which are positively related to the TRI. In all of the regressions, the best model with the highest adjusted R^2 includes one of these two ratios. From the other selected ratios, the short-term assets related ratios are the most successful being statistically significant in half of the series' best models. Their inclusion generally does not increase the adjusted R^2 very much and the leverage related ratios like CA/CL and ND/EBITDA, except for one series, are not relevant at all. However, the interpretation of the results must be made with precaution as different statistical risks like a small sample size or the look-elsewhere effect might affect the analysis or its conclusion. Also the assumption that ratios related to failure are also able to predict generally a firms' performance is seriously questioned. Nonetheless, the findings of the first two sets suggest that at the year end of the IPO date the uncertainty is highest as the corresponding series' models achieves by far the lowest adjusted R^2 and the models of the third set might propose an individual selection of the ratios for single industries. Also investors are generally advised to regard the ratios ROE and SG to assess significant parts of the TRI development for the years following an IPO.

Possibilities to further extend this research seem vast, some of them are even already considered in this thesis. Beside a statistical refinement, some mentions are the inclusion of macro-economic variables, a control group of listed comparable mature firms or to extend the analysis over different countries. Finally, in addition to revealing the predictive powers of accounting

ratios towards the TRI, this thesis was hopefully able to build awareness of the importance and the complexity of IPOs as well as to provide a general overview of the subject.