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International diversification, capital structure and cost of capital: evidence from ICT firms listed at NASDAQ

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Abstract

In this study, we intend to examine the information and communication technology (ICT) firms from a financial perspective. The relationship between capital structure and cost of capital (COC) is investigated in a simultaneous equation framework. On the one hand, we relate international diversification to the firm's capital structure, and on the other, we test their individual and collective inferences on the combined debt and equity COC. We expect a negative correlation between international diversification and higher total and long-term debt ratios, and a reduction in the overall COC.

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Notes

[1]In this study, we adopt OECD's 1998 definition of the ICT. Accordingly, we distinguish ICT manufacturing industry from ICT service industry. The product of an ICT manufacturing firm must be anticipated to fulfil the purpose of information processing and communication including transmission and display; or use electronic processing to spot, measure and/or record physical phenomena or to control a physical process. Components primarily intended for use in such products are also included. The products of a candidate service industry must be intended to enable the function of information processing and communication by electronic means; and the service provided must go beyond simply the supply of goods. For a recent review of ICT see also Heshmati and Lee (2007).

[2]The dot-com boom refers to the 1996–2000 period, in which stock markets in Western nations increased in value, especially in the technology and new Internet sectors.

[3]The dot-com burst, numerically, on 10 March 2000, when the technology heavy NASDAQ composite index peaked at 5048.62, more than double its value just a year before, followed by a burst which lingered till 2002.

[4]The authors would like to thank the referee for pointing out this issue.

[5]We expect a reverse effect on the COC compared to the effect on leverage, i.e. if variable ‘X’ has a positive effect on leverage, it would be expected to have a negative effect on the COC.

[6]Metcalfe's law (Gilder, 1993) states that the total value of a good or service that possesses a network effect is roughly proportional to the square of the number of customers already owning that good or using that service. The network effect concept

was used as justification for some of the business models for dot-coms in the late 1990s.

[7]Adverse selection is present when the insiders of an ICT firm know more about the probability of the firm's success than outside investors.

[8]The 3SLS results are used when a two-way causal relationship is detected between leverage and COC, while the 2SLS results are used when the causal relationship is just one way, i.e. when leverage affects COC and not the other way around. The nature of the causal relationship between the two variables and estimation method is determined by the significance of the causal factors.

[9]The results are not reported here for brevity, but are available from the authors upon request.
