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Venture capital, ownership structure, accounting standards and IPO underpricing: Evidence from Germany☆

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ABSTRACT

This study investigates the impact of venture capital (VC), ownership structure, and accounting standards on initial public offering (IPO) underpricing in Germany. Using data from Germany's Neuer Markt (NM), we test two key hypotheses regarding IPO underpricing; first, whether VC ownership and higher levels of post-IPO insider ownership result in lower underpricing, and second, whether additional information disclosure results in lower underpricing. Besides the standard underpricing measure, we also use a modified underpricing measure to better assess true entrepreneurial wealth loss. Robust findings indicate that none of these factors are significant in lowering IPO underpricing, which suggests the importance of examining standard theories within alternative institutional environments. Results are consistent with the stylized fact that Germany's NM firms had relatively minimal use of VC financing, which may point to not only a weaker role for venture capitalists in Germany but fewer incentives to reduce information asymmetry arising from outside ownership.

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1. Introduction

Initial public offering (IPO) underpricing has been studied extensively in the finance literature, with several theoretical models developed to explain this persistent feature of the IPO market. Ljungqvist (2006, chap. 7) groups theories of IPO underpricing into four categories, namely, asymmetric information models, institutional explanations, ownership and control models, and behavioral explanations. While there is no single dominant model for underpricing, the asymmetric information models seem to attract most attention (Rock, 1986).[1] All theories of underpricing based on asymmetric information predict that underpricing is positively related to the degree of asymmetric information. However, according to Ritter and Welch (2002), asymmetric information models have been overemphasized and the empirical evidence in favor of those models is rather mixed. This study provides empirical evidence to address the information asymmetry-based explanation for IPO underpricing, focusing on the importance of institutional factors which may affect IPO underpricing with special attention to ownership and control issues.

The German financial system provides an interesting context for examining underpricing theories for several reasons. First, it is characterized by a strong bank influence on firms, while extending a relatively low degree of protection for minority shareholders. In the German universal banking environment where banks have a multi-faceted relationship with firms, it is of particular interest to consider whether VC and firm ownership structure affect underpricing the same way as they do in market-based systems like the US and UK, and specifically to what degree bank ownership may reduce information asymmetries. Second, since German standards for financial reporting are often considered less transparent and more conservative than international accounting standards, exclusive reliance on German accounting information may increase information asymmetries between corporate insiders and investors. All else being equal, this should also lead to a larger degree of IPO underpricing. However, this causality may not hold for NM firms because these firms were specifically required to additionally report under either U.S. Generally Accepted Accounting Principles (GAAP) or International Accounting Standards (IAS) to improve transparency and minimize information asymmetries. Therefore, it is interesting to empirically examine if this additional reporting requirement actually resulted in lower underpricing for NM firms.[2]

The literature is replete with IPO theories suggesting that VC firms should play an important role in the valuation of IPO firms and thus in IPO underpricing. For example, Megginson and Weiss (1991) argue that VCs certify the true value of the firm and therefore reduce IPO underpricing. Barry, Muscarella, Peavy, and Vetsuypens (1990) argue that if VCs are better monitors of the firm, then this will be recognized by capital markets through lower IPO underpricing. Focusing on issue of VC reputations, Gompers (1996) proposes the 'grandstanding hypothesis'. This suggests that since establishing a good reputation is critical to future fund raising, VCs are willing to bear the cost of underpricing because taking a company public signals firm quality. According to the 'grandstanding hypothesis', VCs will grandstand by taking younger companies public and allowing greater underpricing. Empirical results on the impact of VCs are however, rather mixed. Megginson and Weiss (1991) and Lin and Smith (1998) find that VC-backed IPOs suffer less underpricing than non-VC-backed IPOs, supporting the certification role played by VCs. However, Francis and Hasan (2001) present evidence which suggests that underpricing of VC-backed IPOs is higher than that of non-VC-backed IPOs. Lee and Wahal (2004) find similar results and further provide evidence to support the grandstanding hypothesis.

This study examines the impact of VCs on IPO underpricing in terms of venture capital backing of the firm and VC percentage ownership. Unlike the U.S. financial system, banks in Germany play an important role as underwriters, while at the same time are often also founders and financiers of the firm. In other words, banks in Germany carry some of the same corresponding roles as VCs do in the US. Therefore, it is of particular interest to understand the impact of VCs on IPO underpricing in the German institutional setting. It is possible for example that if German VCs are successful in providing

[1] A related paper by Chemmanur and Fulghieri (1999) outlines a theory on the role of information asymmetry in the IPO decision, suggesting that outside shareholders can reduce the informational disadvantage—but only at a cost.

[2] Listing <fn0010>requirements on the NM also required reporting in both English and German to improve transparency.