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Property rights, R&D spillovers, and corporate accounting transparency in China[☆]

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ABSTRACT

We explore how property rights protections across different regions in China affect the flow of proprietary information and managers' incentives to disclose details of financial and operating performance. Our focus on research and development spillovers as a proxy for information leakages to competitors allows an examination of whether or not opacity (low transparency) is employed as a mechanism to attenuate such leakages. We find that when the threat of proprietary information leakage is high, information reported by firms is opaque. This relation appears in regions suffering from weak intellectual property rights protections, but not in those with stronger property rights protections. After taking into account the incentive to protect sensitive information, we also document that firm value is no longer related to accounting transparency. Our focus on accounting opacity to protect proprietary information differs from the agency cost explanation of most prior work. Thus we provide evidence of a cost of enhanced disclosure along with new insights on specific channels through which institutional factors influence the costs and benefits of firm disclosure policies.

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1. Introduction

A growing body of research suggests that corporate decisions and policies are largely influenced by the formal institutions under which companies operate. Cross-country variation in the attributes of firm accounting numbers and information disclosures can be explained by institutional characteristics. That is, the institutional environment in which firms operate affects the reporting incentives of managers and the demand for reporting quality by investors, regulators, and other users of financial information (Ball et al., 2000).[3] Prior studies typically focus on the relation between features of the institutional environment and accounting from an agency cost perspective, specifically agency problems between investors and managers (e.g., Ball et al., 2003; Bushman and Piotroski, 2006; DeFond et al., 2007; Leuz et al., 2003). We examine an important yet understudied aspect of the institutional environment: the potential leakage of proprietary information to competitors. Prior research shows that weak property rights protections adversely affect a firm's ability to fully capture the benefits of its investments. As a result, managers have incentives to avoid disclosing financial or operating information of a proprietary nature, since it may convey an advantage to the firm's competitors.

Most of the literature focuses on the potential benefits of transparency, such as lower cost of capital and higher stock liquidity (Bhattacharya et al., 2003) and greater analyst following and institutional holdings (Healy et al., 1999). Our analysis is unique in that it focuses on potential costs of transparency resulting from competitors learning about a firm's innovations. We suggest that a different aspect of the institutional environment affects accounting numbers and information disclosures: the potentially harmful leakage of propriety information to competitors in environments with weak property rights protections.

Central to our analysis is an explicit consideration of how property rights protections are associated with the nature of accounting disclosures. We investigate whether or not the transparency of accounting numbers differs depending on the nature of institutions that affect the leakage of proprietary information. Consistent with Jin and Myers (2006), we define transparency (opacity) as disclosing more (less) firm-specific information about the firm's underlying economic performance to the public.[4] Fan and Wong (2002) and Leuz and Oberholzer-Gee (2006) argue that protecting proprietary information is an important explanation for limited disclosure and low earnings informativeness in emerging markets. Complementing these arguments, we contend that opaque earnings and limited firm-specific disclosures can be used strategically by management to restrict the leakage of proprietary information. This in turn limits the ability of competitors to learn about the firm's operations and performance, thus protecting the firm's intellectual property and preventing competitors from free-riding on the firm's investment activities.

Focusing on research and development (R&D) spillovers as a proxy for information leakage to competitors, we investigate whether or not accounting opacity (low transparency) is employed as a mechanism to attenuate such leakages. Jaffe (1996) defines R&D spillovers as the idea that some of the economic benefits of R&D activities accrue to economic agents other than those that undertake the research. Of note, when property rights protections are weak, spillovers are likely uncompensated. That is, through imitation or theft, competitors can potentially benefit at the expense of firms that innovate.

Prior studies of institutional effects on accounting policy choice typically employ cross-country data and demonstrate that accounting quality and information disclosure are determined by the complex interplay of many institutional factors, including accounting standards and their enforcement, tax regimes, legal systems, market forces, and political pressures. In contrast, we focus on companies in one country, China, where firms face the same accounting standards and similar tax regimes but are subject to different levels of local intellectual property rights (IPR) protections. This single-country focus allows us to concentrate on a specific dimension of the institutional environment—IPR protections—while holding general institutional

[3] See also Alford et al. (1993), Ali and Hwang (2000), Ball et al. (2003), Hung (2001), Leuz et al. (2003), Bushman et al. (2004), Bushman and Piotroski (2006), and DeFond et al. (2007).

[4] Several concepts of accounting transparency exist. For example, Jin and Myers (2006) define more opaque firms as those with greater hidden firm-specific information. Bushman et al. (2004) define corporate transparency as the availability of firm-specific information to those outside the firm. Bhattacharya et al. (2003) define earnings opacity as the extent to which the reported earnings of firms fail to provide information about the distribution of the true, but unobservable, economic earnings.