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Managerial diversion, product market competition, and firm performance

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ABSTRACT

We derive the conditions under which a manager will divert and how managerial diversion affects product market performance and firm profits. Our model predicts that managerial diversion is more likely to occur and leads to more aggressive product market behavior in a firm with weak incentives and corporate governance. In these firms, the relation between managerial diversion and firm profits is inverse U-shaped. Chinese state-owned manufacturing firms are used to test our theoretical model, and we find supportive evidence.

1. Introduction

When ownership and management are separated, the incomplete nature of contracting and monitoring inevitably creates room for managerial opportunism, allowing managers to pursue their private benefits at shareholders' expense. Prior literature has examined various mechanisms through which managers may divert value from shareholders, including self-dealing, insider trading, embezzlement, perquisites, etc. (see Shleifer and Vishny (1997) for a survey). For example, Shleifer and Vishny (1997) argue that, when contracts are incomplete and managers possess more expertise than shareholders, residual rights of control are typically held by the managers, giving them enormous latitude for self-interested behavior. Hand and Rogow (1982) suggest that the imperfection of capital markets make insiders more likely to divert the firm's financial and managerial resources from productive uses and paralyze decision-making. Extending the current literature, this paper studies when managers engage in diversion and its impact on product market performance and firm profits, using a *two-stage* dynamic game model.

While conventional wisdom suggests that managerial diversion is a rent-seeking behavior that should be disapproved and regulated (Bebchuk & Jolls, 1999; Grossman & Hart, 1980; Jensen, 1986; Jensen & Meckling, 1976; Meulbroek, 1992; Shleifer & Wolfenzon, 2002), the existing literature in economics and finance has not yet reached consensus. Easterbrook and Fischel (1991), for example, suggest that managerial diversion is just another form of managerial compensation and, therefore, has no impact on shareholder value. Fama (1980) argues that managerial diversion can be a superior way to incentivize shareholder value creation, provided that its costs are lower than other forms of incentive compensation. He (2006) shows that managerial diversion may occur in equilibrium, and that such diversion may not hurt shareholders if it can incentivize the manager to exert more effort. He and Ho. (2011) argue that when monitoring is inefficient and expensive, the opportunity costs of monitoring are too high. Consequently, it is in the shareholders' best interest to omit monitoring and allow managers to divert firm resources. Congruously, Bruno and Claessens

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(2010) show that "over-monitoring" or a straight-jacket of many corporate governance rules can generate costs, harm managerial initiative, and lead to relatively lower returns and valuations.

Empirically, Roulstone (2003) finds that firms with more stringent rules on insider trading around quarterly earnings announcements tend to provide their executives with higher total and incentive pay, arguably to compensate managers for potential losses due to such restrictions. Using hand-collected data on perks in Chinese-listed companies, Zhang, Song, and Ding (2015) find strong empirical evidence that perks can motivate managers to work hard and, thus, add to firms' value (incentive view), which is more likely to occur in firms with moderate ownership concentration. Emphasizing the potential role of diversion as a form of compensation, this strand of literature argues that restrictions on managerial diversion are totally unnecessary.[1]

In the principal-agent framework, Bebchuk and Jolls (1999) show that, even taking into account the influence of allowing value diversion in setting managerial compensation, diversion behavior still reduces shareholder value. However, they also provide two scenarios in which managerial diversion can increase shareholder value: first, when the manager's benefits from value diversion exceed the direct costs to shareholders; second, when diversion creates strong managerial incentives to exert effort on the firm's behalf.

This paper studies managerial value diversion and its impact, focusing on product market performance and firm profits in a *two-stage* dynamic game model. In line with the traditional view that *ex ante* incentives, monitoring, and *ex post* punishment are three important mechanisms for alleviating the managerial agency problem, our model finds that managerial diversion is more likely when: (i) the incentive mechanisms are weak; (ii) corporate governance is weak and, therefore, the probability of detection is low; or (iii) *ex post* punishment is insufficiently severe to prevent managerial diversion *ex ante*.

Our theoretical analysis posits that managerial diversion creates strong incentives for managers to increase output and boost product market performance. The relation between managerial diversion and the firm's profits is inverse U-shaped. At modest levels, managerial diversion improves firm performance; however, excessive managerial diversion leads to poor firm performance. This reconciles the existing literature and emphasizes both the incentive compensation and rent-seeking roles of managerial diversion in affecting firm performance. The interaction of these positive and negative effects eventually generates an inverse U-shaped relationship between managerial diversion and firm profits.

Motivated by our theoretical model, our empirical study uses a large panel of Chinese firm-level data obtained from the Annual Industrial Companies Database (Chinese National Bureau of Statistics, NBS) to study the impact of managerial diversion on product market performance and firm profits in state-owned enterprises (SOEs). The data cover the universe of China's SOEs and all of the large- and medium-sized non-SOEs in the manufacturing sector.[2] Compared to using only public firm data, using the current data presents a more complete picture of the industry structure and allows the construction of a more accurate measure of product market performance (Ali, Klasa, & Yeung, 2009).

We believe that the Chinese SOE sample is especially suitable for testing our theory for the following reasons. First, SOEs operate under soft budget constraints, with loss-making firms often bailed out by the government. Misaligned managerial incentives and the absence of a market for corporate control reduce SOE managers' incentives to maximize firm value. The existing literature shows that, instead of maximizing firm value, SOE managers tend to pursue other objectives, such as pursuing their own benefits via managerial diversion (Meng & Perkins, 1998). Second, in the sample period we examine, most SOE managers' compensation packages are highly regulated and tied to their rank. Thus, both incentive mechanisms and corporate governance in SOEs tend to be weak, which might trigger managerial diversion, as our model suggests.[3] Our empirical results reveal managerial diversion in SOE firms to positively impact product market performance and have an inverse U-shaped impact on firm profits.

As a parallel test to support our theory, we also examine the impact of managerial diversion on product market performance and firm profits in private firms. Given that private firms in China are usually owner-run enterprises with very concentrated ownership,[4] the incentive mechanisms and the corporate governance in these firms are likely to be sufficiently strong to prevent managerial diversion behavior. This coincides with Jensen and Meckling's (1976) original agency theory, which sets the single owner-managed firm as the zero agency-cost base case. Indeed, Meng and Perkins (1998) find that private firms in China behave like profit-maximizing firms. We find that the effects of managerial diversion on product market performance and firm profits are negative in private firms.

Our study suggests that modest managerial diversion can only provide incentives for shareholder value creation in firms with weak corporate governance and managerial incentives. For firms with strong corporate governance and managerial incentives, managerial diversion is harmful for both product market competition and firm performance.

Our paper contributes to the voluminous literature on managerial diversion. Our results provide a novel explanation for why the

[1] This literature also includes Manne (1966, 1970)), Scott (1980), Easterbrook and Fischel (1982, 1991), Carlton and Fischel (1983), and Haddock and Macey (1987), among others.

[2] The large- and medium-sized non-SOE firms are defined as other manufacturing firms reporting > 5 million Yuan (approximately 600,000 US dollars) in annual sales. The same data have been used by Hsieh and Klenow (2009) and Li, Yue, and Zhao (2009).

[3] A recent example of such diversion is the case of Mr. Tonghai Chen, the ex-president of SinoPec (ranked 5th in Fortune Global 500 in 2011), who was prosecuted and convicted for accepting about RMB 200 million in bribes in 2008. It was found that, for about 10 years, Mr. Chen had taken monthly "entertainment" expenditures of over RMB 1 million from SinoPec's administrative expense account. For comparison, in 2006, the annual salary of the CFO of SinoPec Group was only RMB 446,090 RMB, or equivalently USD 60,000.

[4] According to the 2003 Survey of Chinese Private Firms conducted by The United Front Work Department of Communist Party of China Central Committee, All-China Federation of Industry and Commerce, and Chinese National Private Economy Research Association, the median ownership of the controlling shareholder was 70%. The same survey conducted in 1996, 1999, 2001, and 2006 reported that the percentages of private enterprises run by their owners were 97.2%, 96.8%, 96%, and 89.3%, respectively.