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Currency hedging and corporate governance: A cross-country analysis

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ABSTRACT

This paper examines the impact of the strength of governance on firms' use of currency derivatives. Using a sample of firms from 30 countries over the period 1990 to 1999, we find that strongly governed firms tend to use derivatives to hedge currency exposure and overcome costly external financing. On the other hand, weakly governed firms appear to use derivatives mostly for managerial reasons. These results are robust to alternative measures of corporate governance, various subsamples, the use of foreign denominated debt as an alternative strategy to hedge currency exposure, and a potential selection bias. Overall, the results serve as the first comprehensive evidence of the impact of firm- and country-level corporate governance on firms' use of derivatives.

1. Introduction

Risk management theory suggests agency conflicts can forge a link between corporate hedging activities and governance mechanisms. For example, managerial lack of diversification, reputation building, and protecting 'pet' projects have all been argued to influence corporate hedging policies (e.g., DeMarzo and Duffie, 1995; Smith and Stulz, 1985; Stulz, 1984; Tufano, 1998). However, empirical evidence on the impact of agency conflicts that arise from ownership structures and executive compensation policies on corporate hedging activities, which focuses almost exclusively on U.S. firms, is limited and mixed. Indeed, since the United States enjoys a large and stable financial market with strong governance provisions, several important questions remain unanswered regarding how corporate governance influences hedging activities.

This paper analyzes the impact of corporate governance on firms' use of currency derivatives in a cross-country setting.[1] In particular, we hypothesize that weakly governed firms use derivatives for managerial reasons and selective hedging on average, and strongly governed firms use derivatives for other reasons established by the theory such as to overcome financial market frictions and to eliminate currency risk. We consider both *firm-level* governance mechanisms (e.g., ownership structures) and *country-level* governance mechanisms (e.g., investor protection rights), and use them to measure the degree of monitoring of managerial activities.

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[1] We focus on the management of currency exposure because it is easier to control for the sources of a single exposure. Most studies follow a similar approach (e.g., Allayannis and Weston (2001)). Further, the use of interest rate derivatives is highly correlated with that of currency derivatives, and commodity derivative usage is mostly industry-specific.

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The extant empirical literature uses derivatives as a proxy for corporate hedging activities. However, using this proxy is not uncontroversial as firms can use derivatives for hedging, speculation, or both.[2] Survey evidence suggests that corporate use of derivatives for speculation is as likely as for hedging (Bodnar et al., 1998). Derivative contracts are particularly appealing to managers for speculation because of the leverage they can provide and the complexity in interpreting consequences of their use on firms' operations by investors due to limited disclosure in many countries. Thus, measuring hedging activities with derivative usage can create spurious results in testing corporate hedging theories. As a matter of fact, the existing literature provides mixed support for hedging theories.

The strength of corporate governance can influence the use of derivatives in at least three ways. First, corporate governance can affect firms' decisions to use derivatives for hedging or selective hedging/speculation. Foreign exchange rates vary unpredictably and speculating on currency movements can result in significant transactions costs and trading losses for corporations (e.g., Leland, 1998; Stulz, 1996). For example, Volkswagen lost about $1.5 billion in 2003 due to unhedged currency swings.[3] Exposing the firm to such risky positions is less likely to take place in firms with higher transparency and better monitoring of managerial activities. Managers in firms with a weak monitoring environment have more discretion over their firms' activities and are less likely to be disciplined for any improper use (or non-use) of derivatives such as incorporating their personal subjective views into firms' hedging policies. Consistent with this argument, using survey data on the derivatives usage of U.S. firms, Geczy et al. (2007) find that weakly governed firms are more likely to report in the survey that they take a view with derivatives. Thus, we conjecture that firms with weak monitoring of managerial activities use derivatives to a greater extent for selective hedging on average than firms with strong monitoring of managerial activities.

Second, shareholders use ex-ante governance mechanisms (e.g., executive compensation) and ex-post governance mechanisms (e.g., monitoring managerial activities) as substitutes in maximizing firm value. Firms with weak monitoring mechanisms can use derivatives to accommodate managerial risk preferences in designing executive compensation policies. For example, a manager's stock holdings and compensation in the firm and his human capital linked to the firm can incentivize him to avoid investing in long-term risky positive NPV projects (e.g., Almazan and Suarez, 2003). Shareholders can overcome this agency conflict by either allowing risk-averse managers to reduce the firm-specific risk or monitoring their actions. Some firms may opt for the former option if monitoring is costly for them. Since derivatives can lower a firm's risk, this argument implies that for firms with fewer monitoring mechanisms, there will be a more pronounced link between managerial risk preferences and derivative usage. Further, hedging can reduce the level of managerial compensation associated with bearing the additional firm-specific risk that can be hedged away, and increase the board of directors' ability to measure managerial performance by reducing the noise related to performance measures (DeMarzo and Duffie, 1995; Smith and Stulz, 1985; Stulz, 1984). As a result, managers may have a greater incentive to hedge to reduce such noise in the firm's fundamentals, especially in opaque firms and where monitoring is more costly (e.g., Dadalt et al., 2002; DeMarzo and Duffie, 1995). Thus, managerial reasons are more likely to subsume other incentives in firms with a weak monitoring environment on average in using currency derivatives.

Third, hedging theories related to firms' financial policies (e.g., Froot et al., 1993) assume no managerial agency conflicts. However, managers do not always act in the best interest of shareholders. Empirical literature shows that a greater monitoring of managerial activities can reduce managerial agency conflicts (e.g., La Porta et al., 2002; Mitton, 2002). Thus, firms with a greater monitoring of managerial activities can use derivatives to a greater extent as part of their financial policies, for example to overcome market frictions as in the model of Froot et al. (1993) for costly external financing and to eliminate currency risk.

We examine the link between corporate governance and firms' use of derivatives using a natural laboratory, non-US firms. Corporate governance is potentially more problematic outside the U.S. due to less transparent markets and weak investor protection laws in some countries. A cross-country analysis provides a large cross-sectional variation in firms' governance provisions and derivative-related activities. It also allows us to exploit differences in country-level governance mechanisms that are *exogenous* to firms' use of derivatives and other financial policies. Therefore, analyzing firms' use of derivatives in a cross-country setting allows for more powerful tests of the relationship between corporate governance and derivative policies. However, a study of non-US firms' hedging activities is challenging because the disclosure of information on the use of derivatives is voluntary in most countries. For example, a report by the United Nations states that on average, only half the firms that use derivatives disclosed this information in their financial statements.[4] To overcome this potential reporting bias, we compile a dataset of derivative activities of foreign firms that are by law required to file with the SEC and reconcile with the US GAAP and FASB rules in their annual reports because their shares are traded on U.S. exchanges. This selection of firms mitigates the potential mismeasurement of corporate activities in derivatives due to voluntary reporting as well as controls for differences in accounting standards across countries. On the other hand, a disadvantage of a cross-country sample is that variation in country factors over time might influence hedging and make it more difficult to identify the impact of governance on hedging.[5]

We document that the strength of corporate governance influences how firms use currency derivatives. Derivative usage in strongly governed firms is generally consistent with hedging theories related to costly external financing and with minimizing currency exposure. On the other hand, it is consistent with hedging theories related to managerial incentives in weakly governed

[2] In the context of our paper, speculation is described as the inclusion of subjective managerial views about market conditions when deciding on a risk management strategy. Outright speculation with currency derivatives is fairly rare (e.g., Bodnar et al. (1998)).

[3] The New York Times, January 17, 2004.

[4] "The role of accounting in the East Asian financial crisis: lessons learned?" Transnational Corporations, United Nations Conference on Trade and Development 7 (3), Geneva, December 1998.

[5] We discuss issues related to our sample selection in a greater detail in Section 3.