EXCHANGE RATE EXPOSURE, CORPORATE HEDGING AND FIRM MARKET VALUE

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Abstract

This dissertation consists of three essays. The essays examine whether exchange rate movements affect firms’ values and the impact of hedging on exchange rate exposure and the market value of firms.

In the first essay, I empirically examine the firm-specific exchange rate exposure of Japanese multinational corporations (MNC). Exchange rate exposure is defined as the effect of exchange rate changes on the value of a firm. Although financial theory suggests that exchange rate movements should affect the value of a multinational corporation, most previous studies have failed to document significant exchange rate exposure. One major reason for the failure may be the specification of the regression model—in particular, the inappropriate selection of the exchange rate index. I study the problem by using detailed exchange rate data and propose a method to construct a firm-specific exchange rate index for each Japanese MNC based on the number and location of their subsidiaries. In addition, to account for the possibility that exchange-rate crises may have a different impact on a firm from the periods of normal exchange rate fluctuations, I incorporate a crisis indicator in the standard exchange rate exposure regression model proposed by Jorion (1990). Results suggest that using the firm specific exchange rate and allowing for a crisis indicator significantly increases the evidence of exchange rate exposure of the firms in the sample.

In the second essay, I examine the role of hedging in the exchange rate risk management of Japanese multinational corporations. Using a sample of large Japanese multinationals, I examine the impact of hedging on exchange rate exposure. By using foreign currency derivatives as a proxy for financial hedging and geographical dispersion as a proxy for operational hedging, I find that both operational and financial hedging can significantly reduce a firm’s exchange rate exposure. Since the use of the foreign currency derivatives for financial hedging has grown dramatically in the past two decades, I also examine the determinants of the use of foreign currency derivatives. The results suggest that while firm size and the exposure to exchange rate through foreign sales are two important factors...
determining the decision to hedge, the exposure to exchange rate through foreign sales is the sole factor affecting the extent of hedging. These results also show that firms mainly use derivatives for hedging and not for speculation.

In the third essay, I examine the use of foreign currency derivatives (FCDs) in a sample of 275 large Japanese nonfinancial firms between 2000 and 2003 and its potential impact on firm market value. Using Tobin’s Q as a proxy for firm value, I find a positive and significant relationship between the use of FCDs and firm market value in the period of Japanese yen appreciation. Specifically I find that, on average, firms that have foreign involvement and use currency derivatives have an 8.6 percent higher market value than firms that do not use currency derivatives. For firms that have no foreign involvement, but may still be exposed to exchange rate movements through export or import competition, I find a small and statistically insignificant hedging premium.
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