

Title: “Captive insurance usage by non-financial corporations”

Author: Paul Pudschedl

PhD candidate

Tilburg University, Department of Business Law

Abstract:

Captive insurance is an increasingly popular risk management tool used by firms of all sizes and across all industries. Finance theory asserts that, under perfect market conditions, firms would not engage in insurance transactions or hedging because the costs involved would erode firm value. However, the literature on hedging has shown that because of market imperfections, hedging activities by firms can have a positive financial impact. By decreasing the volatility of cash flows over time, hedging has been shown to lower a firm’s costs of financial distress and thereby allow it to access credit markets more cheaply. Also due to the reduction in the volatility of a firm’s profits and losses over time, hedging has been shown to help firms lower their effective tax rates. Yet despite the enormous literature on firm hedging, the extent to which captive insurance lowers the impact of risk on the financial performance of the firm is unknown.

Managers often claim that captive insurance usage will yield similar benefits as hedging. Using a panel data set consisting of annual financial data of US-listed non-financial corporations over the period 1994-2016, we document the usage of captive insurance structures by non-financial firms and the impact on value. The annual financial data is supplemented by evidence of captive insurance usage gleaned from keyword searches and subsequent manual screening of SEC filings for all firms in the data set. We used a vector-autoregressive fixed-effects model to test the relationship between firm captive insurance usage and firm financial characteristics over time.

Consistent with our hypothesis, we find strong evidence of a positive relationship between firm usage of captive insurance structures and lower borrowing costs and decreased marginal tax rates. The results suggest that captive insurance yields similar benefits to firms as hedging. We then extend our analysis by exploring how firms utilize the savings accrued from lower tax rates and lower borrowing costs. To this end, we test the relationship between captive insurance usage and firm expenditures on dividend payments, share repurchases, and investments in intangible assets and research and development. We find that firms utilizing captive insurance structures spend more money on dividend payments and share repurchases and less money on investments in research and intangible asset development.

This paper contributes to the literature on risk management by showing that captive insurance and hedging have similar effects in addressing risk. Our paper is also related to literature on the way risk management strategies play a role in reducing R&D risk. The findings of this paper indicate that captive insurance usage is positively correlated with dividend expenses and negatively correlated with expenditures on R&D. That said, while this paper may indicate that there is a relationship between a firm’s expenditures on short-term risk management at the expense of investments in long-term value creation, it leaves to further research the study of the effect on any corresponding impact on long-term firm value.

Future studies may wish to consider the relationship between captive insurance usage and the role played by corporate governance.