

# The impact of research and development expenditure on firm value : 以美國生技製藥上市公司為例

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## ABSTRACT

In this study, we investigate the threshold effects among R&D expenditures, debt ratio, and firm value for U.S. listed companies in the biotech pharmaceutical companies. The research period containing 15 years is selected from 1995 to 2010. The type of data is panel. Total of 38 biotech pharmaceutical companies listed on the U.S. stock market are selected as samples. The higher Tobin's Q value represents the better investment opportunities and competitive advantage. After empirical study, the R&D expenditures to total assets ratio has two threshold (0.5353 and 0.6532) effects. When the R&D expenditure to total assets ratio is less than 0.6532, there is a positive relationship between the R&D expenditure to total assets ratio and firm value. Especially, when the R&D expenditure to total assets ratio between 0.5353 and 0.6532, the firm value increase very quickly. However, when the R&D expenditures to total assets ratio is more than 65.32%, the R&D expenditures will damage the firm value due to the excessive investment in R&D.

Keywords : R&D Expenditures; Debt Ratio; Firm Value; Threshold Effects

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