Thesis Title	An Economics Analysis of the Issuing of Common Stocks, Debentures, Debentures with Warrants, and Convertible Debentures.
Author	Mr. Narongsak Wongsitthigom
M.Econ.	Economics

Examining Committee :	Lecturer Dr. Songsak	Sriboonchitta	Chairman
	Associate Prof. Dr. Aree	Wiboonpongse	Member
	Assistant Prof. Pongsa	Viboonsanti	Member

Abstract

This economic analysis of the issuing of common stocks, debentures, debentures with warrants, and convertible debentures had three objectives: 1) To study the criteria which affect the decision to raising capital in each method; 2) To calculate the price of debentures, warrants, and convertible debentures; and 3) To test the price predicting ability of the different models.

These objectives were accomplished by studying the securities in the banking and finance and securities sectors in the Stock Exchange of Thailand, during 1993-1995. Twenty four cases were studied by separating them into two parts. These are (1) the analysis of the fund raising alternatives, and (2) the price valuation of debt and equity-linked instruments.

In the first part, a study of the characteristics of firms desiring to raise funds and the criteria which affect the decision to raise capital using the different instruments was conducted. It was found that the characteristics of the firm desiring to raise funds had to have growth in the last few years, have returns on equity and on assets higher than average values of the industry. Where the criteria of the firm's size and the amount of funds desired determined possible methods it was able to use. Afterwards, the firm's internal factors which are debt-equity ratio, effective interest rate, interest coverage ratio, earnings per share, and also the firm's external factors which include stock market and interest rate conditions were examined together in order to find the specific fund raising method that

was most appropriate with the company. From this analysis it was found that the decision to using each method of raising capital gave different importance to different criteria. These criteria can be summarized as follows: 1. The criteria which effected the decision to raise capital by issuing common stocks with warrants or warrants including internal criteria were the earnings per share and the debt-equity ratio, while external criterion was the "Bull" market conditions; 2. Concerning the criteria which effected the decision to raise capital by issuing debentures it was found that internal criteria had no effect on decision making, while external criterion including "Bear" market conditions had 100% on decision making; 3. The criteria which effected the decision to raise capital by issuing debentures with warrants including internal criteria were the interest coverage ratio, the debt-equity ratio, the earnings per share, the effective interest rate, while the external criteria were "Bull" market and low interest rate conditions; and 4. The internal criteria which effected the decision to raise capital by issuing convertible debentures were the effective interest rate, the interest coverage ratio, the earnings per share, and the debt-equity ratio, while external criteria were "Bull" market conditions and low interest rates.

In the second part, a study of the debt and equity-linked instruments price predictions was conducted by separating the predictions into 3 cases. These 3 cases are as follows: 1) The prediction of debenture prices. 2) The prediction of warrant prices. 3) The prediction of Euro-convertible debenture. In the first case it was found that when the debenture price was calculated using the *Present Value* model the smallest amount of prediction error was achieved, i.e. the average market price of a debenture was only slightly higher than the predicted price. In the second case is was found that on average the market price for warrants when averaged together was higher than the price predicted using the *Original Black & Scholes* model and the *Adjusted Black & Scholes* model. The combined use of both the *Original Black & Scholes* model and the volatility of common stocks, which was calculated from the daily closing stock prices over a 180 day period, provided a greater ability of prediction of warrant prices than other models. In the third case, the prediction of Euro-convertible debenture, it was found that on average the market price of Euro-convertible debentures was lower than the predicted model price. When predicting the Euro-convertible debenture price, the *Adjusted Contingent Claims* model used the government bond yield rate as the proxy for the risk-free rate. The volatility of common stocks was calculated from the daily closing stock prices over a 30 day period. This model gave a better ability to predict the Euro-convertible debenture price than any of the other models tested.