CHAPTER 5

Conclusion and Recommendation

5.1 Conclusion

The objective of this research is to examine the association between systematic risk measures for bond and the default risk in the Thai bond market. To measure default risk, two types of variables are used which are bond ratings and unique corporate-related variables. The hypothesis is that there is a significant association between systematic risk measures for bond and default risk.

The initial empirical work examined the effects of using alternative market indices on the beta coefficient or systematic risk. The results derived from the market model estimation indicated significant differences in the systematic risk. Therefore, the results from the market model which used S-ONE market yield ,S-ONE bond index, and SET index were used in comparison of alternative market indices.

The comparison of the three indices indicated significant differences in terms of R^2, but almost no differences in terms of standard error of regression and autocorrelation in residuals. The results indicated that S-ONE market yield was superior in terms of R^2, and was used in the analysis of the association between systematic risk measures for bond and default risk.

The results derived from an examination of the association between systematic risk measures for bonds and bond ratings did not consistently support

the hypothesis. The results from the S-ONE market yield regression indicated no significant relationship between systematic risk measures for bond and bond ratings.

An analysis of the association between the systematic risk measures for bond and the variables unique to a particular company, indicated no support for the hypothesis. All estimated variables were statistically insignificant, this implied that all of the independent variables (the size of the issuer, the price-earning ratio, and its ability with regard to issuing bonds on the international bond market) did not have effect on the systematic risk measures for bond.

It was commended that the expected relationship for both hypothesises did not emerge because bond ratings and unique company-related variables are assigned on the basis of the probability of default. In contrast, the systematic risk is dependent upon the relationship between changes in bond yield or price and changes in market yields or market prices. While the level of bond yields are influenced by economic conditions and issue characteristics that determine rate of return on a bond, these unique factors are rather stable in the short-run. Therefore, the major factors, that influence short-run price or yield changes, are macroeconomic variables, such as changes in aggregate market rates of interest and changes in the expected rate of inflation.

By definition, these significant macroeconomic factors will have approximately the same effect on all bonds. Therefore, all bonds will have similar systematic risk, irrespective of differences among individual firms or unique bond characteristics.

5.2 Limitation of the Study

Limitation of the study can be divided into two major factors, which are the numbers of debentures and the limited period of time covered by the study itself.

Eventhough the Bond Dealers Club was established which opened for trading on November 1994, the trading data was published to the public in January 1995 by the Manager Information Services. There were a few number of debentures traded on the Bond Dealers Club during those period. Twenty nine debenture issues were initially listed, all of which are corporate debentures and included both rated and non-rated debentures.

Initially, there were 14 rated debentures and the number of debentures in each rating class were less than 5. There were only one or two debentures in some rating classes. Therefore, the study of systematic risk measures for bond did not reflect the real average betas in some rating classes.

Moreover, S-ONE bond index and S-ONE market yield was public introduced by S-ONE Research Institute in January and May 1995 respectively. These indices can be used as indicators to help market participants assess the daily market performance. However, due to a small number of coupon bonds listed on the Bond Dealers Club, the S-ONE bond index may be influenced by certain bonds with large market capitalization.

5.3 Recommendation

Although the Thai bond market has been in existence for several decades, historically it has been dominated by government bonds. Because of government budget surpluses since 1987 which alleviated the need to issue government bonds, along with the redemption of existing issues, the value of government bonds has gradually declined. As regard to the corporate sector, after the enactment of the Securities and Exchange Act, B.E. 2535, companies were able to raise funds by issuing debentures. In addition, a Bond Dealers' Club was founded which opened for trading on November 1, 1994. Therefore, the period during which the study was undertaken witnessed the trading of a few debentures on the Thai bond market.

As stated earlier, this research study is limited by two major factors, namely: the number of debentures and the limited period of time covered by the study itself. Therefore, the result of analysis showing the relationship between default risk and systematic risk is not clear. Further study will be rendered possible when the Thai bond market is more developed and matured enough as well as the supply of good-quality debt instruments increases. The focus of such a future study should relate to all types of debt securities, from government bonds and state-enterprise bonds, to corporate bonds, as well as from short-term to medium, and long-term instruments.

Moreover, once the market's infrastructure has improved, for example by such measures as the introduction of a benchmark interest rate, one can use another variable to measure default risk, namely the yield spread of a company's bonds. The yield spread is the difference between the yield of a corporate bond up to the time of its maturity and that of the government bond which come closest in terms of duration of issue. Based upon prior study[1], the yield spread is directly proportionate to the probability of default.

---

[1] Bierman, H., and J. Haas. " An Analytic Model of Bond Risk Differentials " *Journal of Financial and Quantitative Analysis*, Vol 10, 1975.