

CHANGES IN THE RISKINESS OF COMMERCIAL BANKS: 1975-1989

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This study will identify specific periods during the years 1975-1989 where change in bank risk may have occurred. The work of Kane and Unal (1988) is most similar to this study, although different econometric methodology was utilized.

Four return measures are tested. The returns to equity holders will be used as in many other studies. Certificates of deposit represents insured deposits. Bankers acceptances represents the uninsured debt. Interbank lending will be measured by federal funds.

For all of the debt series, the spread between the specific series and the treasury bill rate will be used as the risk measure. The regression coefficient will represent the risk premium of the debt series.

An econometric technique will be used to find switch point dates rather than to prespecify them as in traditional event study methodology. There are two procedures which have been used to do so. The first is the Goldfeld-Quandt switching regressions method developed by Goldfeld and Quandt (1972). The other is a combination of the cumulative sum of the squares of recursive residuals method, developed by Brown, Durbin, and Evans (1975), and the log likelihood ratio technique from Quandt (1958).

In this study, the cumulative sum of the squares of recursive residuals method and the log likelihood ratio will be used in the manner suggested by Hays and Upton (1986). The Hays and Upton contribution consists of a ratcheting technique using increasingly more observations.

After all switch points have been found and heteroskedasticity tested for, parameter estimates for the time periods between the dates will be obtained. If no heteroskedasticity was detected then ordinary least squares will be used. White's consistent covariance matrix will be employed when heteroskedasticity is found. In addition, if autoregressive conditional heteroskedasticity is present, then that model will be used.

A binary dummy variable will be included which will take the value zero before and one after the date being considered. Tests will be performed on these coefficients for changes in risk.