

Capital Ratios and Cross-Section of Stock Returns in Banking Industry

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This paper empirically investigates the relationship between different capital ratios and cross-section of stock returns in banking industry by using Japanese listed bank's data from 1990 through 2008. The results show that market-valued capital ratios associate negatively with average returns, while BIS capital ratios, widely used by bank regulators, are showed to be positively related with average returns. We further show that the dispersion in average returns sorted by several ratios could also be largely explained by the Fama-French three-factor model.

Asset pricing theory have taught us that systematic difference in average returns are due to difference in risk, provided stocks are priced rationally. If we decide our understanding about financial market are pretty good and take the position to extract information from asset prices, these facts imply that banks with higher BIS capital ratios are more risky than those with lower BIS ratios, unless we want to probe the possibility that bank's stocks are mis-priced systematically and persistently. On the other hand, lower market-valued capital ratios seem to serve as an informative indicator to identify risky banks,

In addition, asset pricing theory also suggests that risk priced in the financial market could be relevant to bank regulators. The theory says that it is exactly the covariance of an asset's payoffs with the growth of marginal value of wealth that measure risk and generate risk premium in financial markets. Moreover, marginal value of wealth is high generally when it is a bad time that investors desperately want more wealth by giving up a lot of wealth in other time and states. Therefore, banks with higher risk priced in the financial market are those who do badly, or in the worst case even go into bankruptcy, in bad times such as when the banking system, or the whole economy are in trouble. This is probably what bank regulators want to prevent from happening by adopting capital ratio requirements to assess the safety of banks.