Measuring Banking Risk

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Abstract : The paper develops new indices of financial stability based on an explicit model of expected utility maximization by financial institutions subject to the classical technology restrictions of neoclassical production theory. The model can be estimated using standard econometric techniques, like GMM for dynamic panel data and latent factor analysis for the estimation of co-variance matrices. An explicit functional form for the utility function is not needed and we show how measures of risk aversion and prudence (downside risk aversion) can be derived and estimated from the model. The model is estimated using data for Eurozone countries and we focus particularly on (i) the use of the modeling approach as an "early warning mechanism", (ii) the bank- and country-specific estimates of risk aversion and prudence (downside risk aversion), and (iii) the derivation of a generalized measure of risk that relies on loan-price uncertainty.