Comments on “Equity and Bond Market Signals as Leading Indicators of Bank Fragility in Europe” by R. Gropp, J. Vesala, and G. Vulpes, European Central Bank (2001).

by Jürg Blum, Swiss National Bank

I very much enjoyed reading this interesting, well-written paper. The three points that I like best about it are: (i) The use of non-US data. As the authors point out, the available evidence so far is based almost exclusively on data from the United States. Evidence from other economies is important to verify the robustness of that evidence. (ii) The fact that equity *and* bond data are analyzed in the same study. Often empirical work is focussing only on one of the two. Having both in the same study allows a comparison of the relative performance of the two indicators. (iii) The explicit taking into account of bailout expectations. Given that monitoring incentives and market discipline are affected by the presence of safety nets, the control for any implicit bailout expectations is necessary to obtain unbiased results.

I still have a few comments and suggestions for the paper:

I would like to see some measure of the ‘goodness of fit’ of the estimations. Ultimately, we want to know how well market signals help in identifying banks in trouble. The significance of the coefficients alone is not very helpful in that respect. A pseudo-R^2 or the indication of first-order and second-order errors would be interesting and useful.

While the bond indicator is derived using the payoff pattern of *senior* debt, the empirical estimations are performed using data from *subordinated* debt. This is clearly inconsistent and affects the quality of the estimations.

As the authors note it is puzzling that equity has predictive power up to two years in advance of a downgrade, but very close to the event, the equity data does not seem to contain any significant information anymore. The authors explain this by ‘erratic equity trading’. However, this contradicts the efficiency hypothesis underlying their option pricing approach to extracting information from market data. This obvious contradiction makes me feel a bit uneasy.

Finally, there is the question of what is actually being measured in the paper. In contrast to the title, which mentions ‘bank fragility’, the paper in fact analyzes rating downgrades. Even though the authors try to justify their interpretation of downgrades as being equivalent to fragility, it would be less misleading if the paper were a bit clearer on what is actually being analyzed. Furthermore, a potential endogeneity problem exists: If rating agencies are using market indicators to determine their ratings, the market data does not predict rating downgrades but actually *causes* downgrades. It may be useful to ask the agencies, to what extent they are including market data in their assessments.