



*Comments on*

# Loan growth and riskiness of banks

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## *What does the paper do?*

*A lot...!*

- (1) Examination of loan growth on banks' (subsequent) loan losses.
- (2) Examination of loan growth on banks' relative interest income.
- (3) Examination of loan growth on banks' capital ratios.

Results are subjected to a variety of sensitivity checks taking M&A activities, and intertemporal two-way linkages into account.

## *Overview and summary of the findings:*

Although there exists a vast literature on effect of loan growth on bank behaviour , the authors do a good job in offering some new insights.

- (1) They examine the effect of loan growth on loan losses in a large cross-country setting.
- (2) They show interesting results for the impact of loan growth on relative interest income and capital ratios.

### *Key findings:*

- (1) Past loan growth is positively associated with subsequent loan losses.
- (2) Past loan growth decreases relative interest income of banks.
- (3) Past loan growth is negatively associated with bank capital ratios.

*These results appear intuitive.*

## Comments and questions:

### *General points:*

1. Link the three hypotheses more precisely into the related theories.

*Recent work by Dell'Ariccia and Marquez (2006), Dell'Ariccia et al. (2008), and Allen et al. (2008) deals with lending booms, lending standards and competition .*

2. Bankscope only provides information on the period 1997-2005. If loan growth peaks three years later, it seems we only look at three „time windows“.

## Comments and questions:

### *General points (cont'd):*

3. Differentiation of results by banks' capitalisation – the division into terciles appears a rough way of analysing the differences for each sub-sample.

*Consider quantile regression (Koenker, 2005). Quantile regression will allow estimating different slope coefficients for different points of the distribution of the equity ratio (see Schaeck, 2008 for an application of quantile regression in the banking literature).*

## Comments and questions:

### *General points (cont'd):*

4. Use of a capital ratio to assess solvency.

*Consider Z-scores as an accounting based measure of the distance to default.*

$$Z = (ROA + E/A)/S.D. ROA$$

*The Z-score provides information about how many standard deviations the bank is away from exhausting the capital base.*

5. *Are the equations for relative interest income and equity ratio aligned with the related literature in the field?*

## Comments and questions:

### *General points (cont'd):*

6. Is there really a causal relation between loan growth and bank risk?

*What about the money supply – the banks could possibly lend more therefore and this is the real reason for increased lending (possibly with lower loan underwriting standards).*

*Note: Not all banks are necessarily affected in the same way by monetary policy.*

## Comments and questions:

### *Econometrics and data-related issues:*

1. What is the intuition behind the use of OLS for the analysis?

*The presence of several lags of the dependent variable on the RHS necessitates the use of a dynamic estimator. It seems that this has been done, but only the OLS results are shown.*

2. The descriptive statistics indicate serious outliers, e.g., banks with E/A ratios of 2.2 percent, loan growth of 234 percent, etc.

*Consider the use of a „winsorising“ procedure.*

3. The variation in the data does not always seem to be well explained by the models – low values for  $R^2$  are reported.



**Minor (editorial) comments:**

1. Show the results for the GMM estimation.
2. Tighten up the discussions of the effects of M&A activities and the two-way linkages between loan growth and loan losses.
3. Include a table with variable definitions.
4. Discuss the economic significance of the main result.



My assessment:

The study is on a timely subject matter.

Several improvements could be made easily.

It is an interesting paper with a number of interesting insights into the behaviour of banks.