Comments on “The cyclical behaviour of optimal bank capital”

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“...The Committee has also considered the argument that a more risk-sensitive framework has the potential to amplify business cycles...”

Basle Committee on Banking Supervision (2001)
Overview of The New Basel Capital Accord
Consultative Document

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- Brief summary
- Few comments
  - Purpose
  - Model
  - Results
  - Empirical findings
  - Policy implications

Summary

- Purpose:
  - To investigate procyclicality of bank capital
- Model:
  - Dynamic setting
  - Forward-looking bank with rational expectations
  - Bank losses follow a cyclical pattern
  - To minimise costs associated with capital:
    - cost of holding capital
    - cost of failure
    - cost of adjusting the level of external capital
  - Capital requirements based on value at risk (VaR)

Summary

- Results:
  - Optimal level of capital negatively correlated with VaR
  - Optimal net changes in capital negatively correlated with VaR
  - Optimal flows of external capital positively correlated with VaR

  - Regulatory capital requirements based on VaR will be procyclical

Summary

- Empirical support for the model
- Policy issues:
  - It is possible to deal with procyclicality
    - Properly calibrate minimum requirements
    - Supervisory review (Pillar 2)
    - VaR-based requirements linked to the flow of external capital

Comments on the purpose

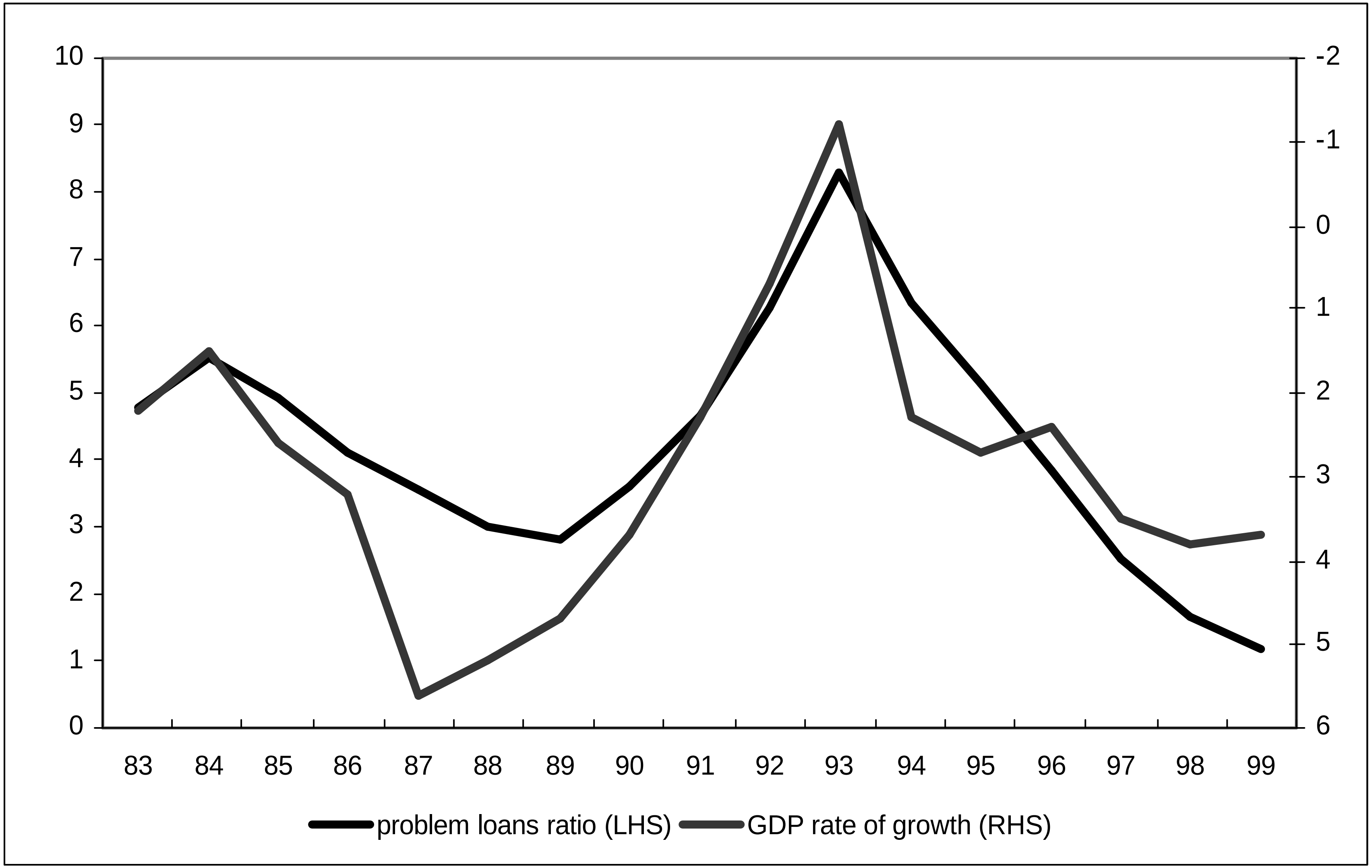
- 1988 Capital Accord: mixed evidence on the procyclical impact
- VaR models (Basel 3?): strongly procyclical

- Basel 2 IRB approach:
  - what can we learn from the model?

Comments on model hypothesis (I)

- Capital covers expected and unexpected losses
  - role of loan loss provisions (LLP) in the model?
  - LLP strongly procyclical
  - LLP for expected losses, capital for unexpected?

Problem loans ratio and GDP growth rate (inverted scale)



Comments on model hypothesis(II)

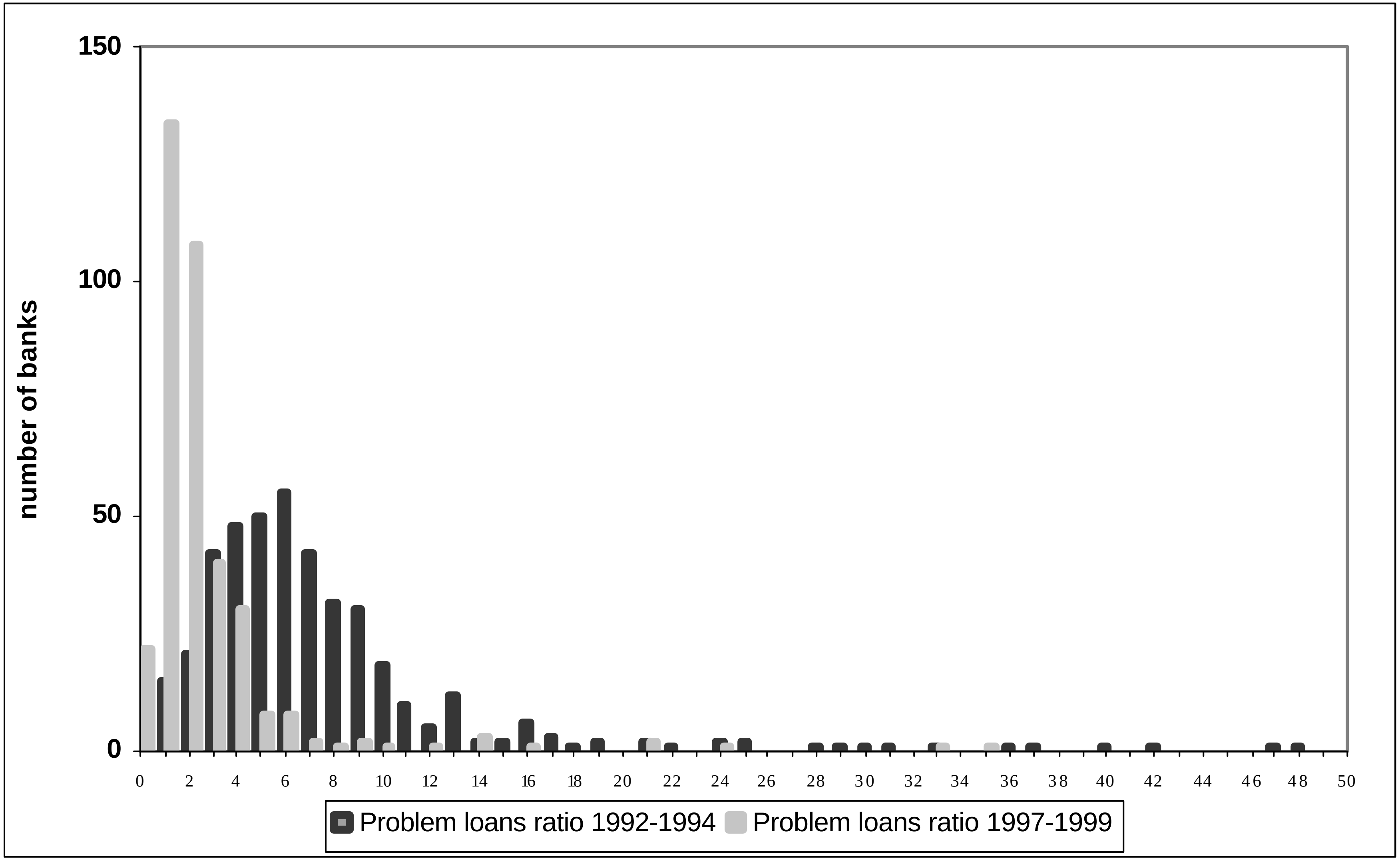
- The cost of holding capital might increase more than proportionally as leverage goes up
- The cost of failure might increase more than proportionally as reputational and legal costs go up
- Sensitivity of model results to a **squared** cost of holding capital function and cost of failure function?
- External capital changes symmetric?
  - impact on model results?

- Why do we need a regulator?
  - where are the externalities in the model?

Comments on empirical evidence

- Accounting data not useful?
  – because of income smoothing (I.S.)?
  – LLP strongly procyclical despite I.S.
- Some evidence of positive relationship between expected losses and their volatility
  – absence of adjustment costs plausible? (page 20)
- General provisions included in net losses but not in capital? (page 22)
- Figure 3 in terms of risk-weighted assets?

Dispersion of problem loans ratio



Comments on policy implications

- Calibration is not easy
- To address procyclicality with Pillar 2 might raise level playing field concerns

- Expected losses covered with provisions, capital for unexpected losses
- If procyclicality is a concern, dynamic provisioning could be an answer