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...”

Index

• 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)

- Problem loans ratio (LHS)
- GDP rate of growth (RHS)
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 \textbf{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

Problem loans ratio 1992-1994
Problem loans ratio 1997-1999
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