## **Session on Macro-Prudential Issues**

### Comments by Rafael Repullo

Bank of England Workshop

The Relationship between Financial and Monetary Stability

22-23 June 2005

#### Paper 1

### Andrew Filardo (BIS)

"Monetary Policy and Asset Price Bubbles"

#### Paper 2

#### Jesús Saurina (Banco de España)

"Credit Cycles, Credit Risk, and Prudential Regulation"

#### Paper 3

Jón Daníelsson (LSE)

"Regulating Risk"

#### • Issues

- Should monetary policy react to asset price inflation?
- Or should prudential regulation take care of this?

### • Setup

- Macroeconomic model with non-rational bubbles
- Fundamental and bubble component of asset price inflation
- Bubble evolves according to a time-varying Markov process
- CB chooses linear feedback rule to minimise loss function

### • Main results

- CB should tighten in reaction to asset price inflation
- CB should react less to bubble than to fundamental inflation

#### • Main comment

"The endeavours of policymakers to stabilize our economies require a functioning model of the way our economies work. Increasingly, it appears that this model needs to embody movements in equity premiums and the development of bubbles if it is to explain history"

A. Greenspan (2002)

 $\rightarrow$  This paper does not provide a satisfactory model

- Specific comments
  - We need to understand the source of the bubbles in order to derive appropriate policy responses

 $\rightarrow$  A model with non-rational bubbles won't do.

- Distinction between fundamental and bubble components of asset price inflation is entirely ad hoc.
- Very peculiar specification
  - $\rightarrow$  Only bubble inflation enters the Phillips curve
  - $\rightarrow$  Bubble depends on output and interest rates

- Specific comments
  - There is not a single forward-looking element in model.
  - Model of asset price inflation (and deflation), not of positive and negative (?) asset price bubbles
  - Calibration of the many parameters of the model is not properly justified
    - $\rightarrow$  How should we interpret quantitative results?

### • Summing up

"The extant research record into asset price bubbles and their implications has been rather disappointing."

A. Filardo (2004)

 $\rightarrow$  I'm afraid that this paper is no exception

#### • Issues

- How does credit risk vary along the business cycle?
- What should be the appropriate policy response?

- Setup
  - Three models estimated with Spanish data for 1984-2002
    - Non-performing loans (NPL) of individual banks
    - Probability of default of individual loans
    - Probability of collateral of individual loans

### • Main results

- Effect of lagged credit growth on NPL is positive
- Effect of lagged credit growth on PD is positive
- Effect of GDP growth on collateral is negative

### • Policy recommendation

Countercyclical loan-loss provisions to cover the latent (business cycle) risk in banks' portfolios

$$LLP_{it} = specific_{it} + generic_{it} + \alpha(\Delta C_{it} - \gamma C_{it-1})$$

- Main comments
  - Very interesting new evidence on relevant topic, but effects are disappointingly small
  - Proposed new countercyclical provision is almost surely incompatible with international accounting rules (IAS 39)

 $\rightarrow$  but it could be included in Pillar 2

- Other comments
  - Credit growth is measured in nominal terms

 $\rightarrow$  Doesn't inflation matter?

- What would happen if the sample were extended to 2004?
- You cannot stress test an expected loss

 $\rightarrow$  but you can condition it

- Question
  - Is risk-based capital regulation (Basel II) justified?
- Answer
  - No –It will be harmful

- Main arguments
  - Basel II homogenizes behaviour of financial institutions, which increases systemic risk (through feedback effects)
  - Aggregation of risk measures across asset classes introduces noise that makes risk weights "effectively meaningless"
  - Implementation of Basel II will induce procyclicality
- What should we do?
  - Lower risk sensitivity (go back to Basel I) + PCA

### • General comment

Where are the (theoretical or empirical) models that justify such strong charges?

- Reference to WP of Daníelsson and Zigrand (2005), which proposes model of systemic crises (explicitly considering feedback effects)
- But even if a model leads to a particular policy recommendation, many other models may justify the opposite
- Academic researchers should be much more cautious in their policy statements

- Specific comments
  - Basel II does not regulate risk –it regulates capital
  - Some criticisms are directed at regulation of market, not credit risk
  - We do not need definitions of systemic risk (especially, when they are meaningless)  $\rightarrow$  We need models

- Specific comments
  - We do not know whether Basel II will significantly increase procyclicality
    - Regulation is about minimum capital requirements
      → We need models of capital buffers
    - Procyclicality is not about just the supply of credit
      - → We need models with both supply and demand for credit along business cycle