Macroprudential tools at work. The case of Spain.

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Banco Central del Uruguay and the IMF Conference

Macroprudential policies to achieve financial stability

Punta del Este, 2nd March 2011

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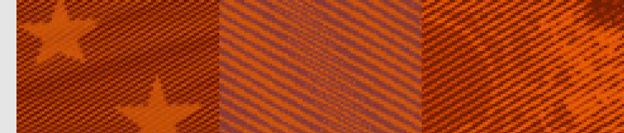

Caveat

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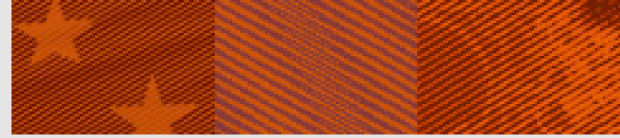
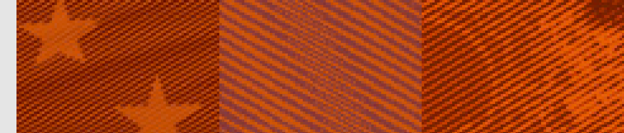


DYNAMIC PROVISIONS

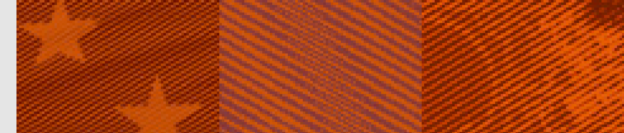


Lending cycles

- Banking supervisors know that banks' lending mistakes are more prevalent during upturns
  - Borrowers and lenders are overconfident about investment projects
  - Banks' over optimism implies lower lending standards
- During recessions, banks suddenly turn very conservative and tighten lending standards
- Lending cycle with impact on the real economy
- Too much competition may make things worse
- Monetary policy (i.e. long periods of low interest rates) may increase bank risk taking

Lending cycles

- There is ample evidence of looser credit standards during expansions
- For Spain Jiménez and Saurina (IJCB 2006) find robust evidence of
  - A direct though lagged relationship between credit growth and credit risk
  - Loans granted during boom periods have a higher PD than those granted during slow credit growth periods
  - In boom periods collateral requirements are relaxed while the opposite happens during recessions
- Banking supervisors' concerns are well rooted in empirical ground
- Need of a tool to cope with the potential problems due to rapid credit growth/under-pricing of risk
- One answer is dynamic provisions



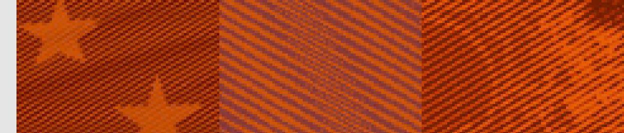
Dynamic provisions-Summary

- Set aside in mid-2000; modified in 2004 (to be consistent with IFRS)
- Spanish LLP cover the increase in credit risk/losses during lending expansions
- Build up a buffer in good times to be used in bad times
- They are a macroprudential tool to decrease procyclicality
- Based on extensive research and statistics on historical loan loss experience for bank loan portfolios in Spain
- Transparent mechanism
- The crisis has shown they are very useful…but not a silver bullet

Accounting framework

- Specific provisions cover incurred losses already identified in a specific loan
- General provisions cover incurred losses not yet individualy identified in a specific loan through a collective assessment for impairment
- Banco de España (BdE) provides a model based on the historical credit loss information obtained from our Credit Register (CIR)
  - *Information for homogenous groups of loans (credit cards, mortgages, loans to SMEs, loans to governments,…)*
- BdE model applies to cover incurred losses only for credit activity in Spain
  - not possible to apply Spanish parameters to loans granted abroad by Spanish banks

A simple countercyclical mechanism



- In periods of expanding credit risk/under-pricing of risk/increase in incurred collective losses, a buffer of provisions is being build up, precisely to cover the increase in credit risk and incurred losses not yet materialized in specific loan
- In periods when specific losses materialize in individual loans, the banks can draw down from the previously build buffer of provisions
- The Spanish general provision also includes a cap in the amount of the general fund being build up to avoid excess provisioning
- There is a simple formula governing the process

Specific mechanics

- Currently, we have specific provisions and general provisions
- General provisions are set aside according to:

$$dot.gen_t = \alpha \Delta C_t + (\beta - \frac{dot.espe_t}{C_t})C_t$$

- Ct is the stock of loans and ΔCt its variation
- α which is the average estimate of the credit loss
- β is the historical average specific provision

Specific mechanics

- The former formula is a simplified way of presenting things
- In fact, α and β are assigned according to the six risk buckets or six homogeneous risk categories
- The parameter vectors are:

  (0%; 0.6%; 1.5%; 1.8%; 2%; 2.5%) for α

  (0%; 0.11%; 0.44%; 0.65%; 1.1% y 1.64%) for β
- Six homogeneous groups:
  1. zero risk (cash, public sector debt)
  2. home mortgages with LTV below 80%, corporates with rating A or above
  3. loans with real guarantees and home mortgages with LTV above 80%
  4. rest of loans, including corporates and SMEs
  5. consumer durables financing
  6. credit cards and overdrafts

Specific mechanism

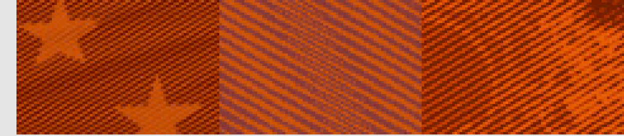
- The formula of the new general provision is:

$$dot.gen_t = \sum_{i=1}^{6} \alpha_i \Delta C_{it} + \sum_{i=1}^{6} \left(\beta_i - \frac{dot.espe_{it}}{C_{it}} \right) C_{it} = \sum_{i=1}^{6} \alpha_i \Delta C_{it} + \left(\sum_{i=1}^{6} \beta_i C_{it} - dot.espe_t \right)$$

- There is no need to know which is the exact position in the cycle. That is endogenously provided by current specific provisions which by definition are closely tied to non-performing loans, a variable closely linked to the lending and the business cycle
- It is easy to look backwards and stablish the length of the last lending cycle and, therefore, the average of the cycle specific provision (the β)

Transparency

- Banks are required to disclose the amount of the dynamic provision, apart from the specific provision
- Thus, users of accounting statements can “undo” the impact of the dynamic provision on the P&L
- Our aim is that financial statements (balance sheet and, in particular, the P&L) properly reflect the true financial situation on the bank
  - To recognize the credit risk/losses when they appear
    - Avoid biases in profits, dividends, and bonuses
  - To deliver the proper incentives to investors
    - As well as to bank managers



Lending cycle and NPL in Spain

Credit growth
Non-performing loan ratio

%

30 25 20 15 10 5 0 -5

6,0 5,0 4,0 3,0 2,0 1,0 0,0

Dec-00 Jun-01 Dec-01 Jun-02 Dec-02 Jun-03 Dec-03 Jun-04 Dec-04 Jun-05 Dec-05 Jun-06 Dec-06 Jun-07 Dec-07 Jun-08 Dec-08 Jun-09 Dec-09 Jun-10

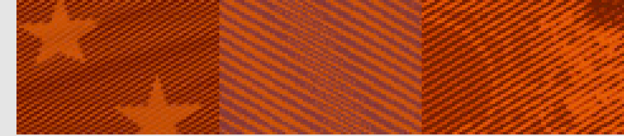
Flow of provisions as a %of total loans

Total provisions Specific provisions General provisions

%

0,7
0,6
0,5
0,4
0,3
0,2
0,1
0,0
-0,1
-0,2
-0,3

Jun-01 Dec-01 Jun-02 Dec-02 Jun-03 Dec-03 Jun-04 Dec-04 Jun-05 Dec-05 Jun-06 Dec-06 Jun-07 Dec-07 Jun-08 Dec-08 Jun-09 Dec-09 Jun-10



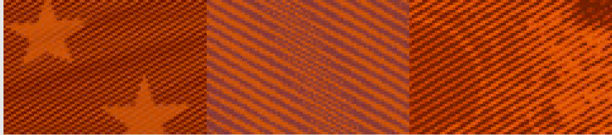
Provision funds: Specific, General and Total

Total provisions | Specific provisions | General provisions

million €

60.000
50.000
40.000
30.000
20.000
10.000
0

Dec-00 Jun-01 Dec-01 Jun-02 Dec-02 Jun-03 Dec-03 Jun-04 Dec-04 Jun-05 Dec-05 Jun-06 Dec-06 Jun-07 Dec-07 Jun-08 Dec-08 Jun-09 Dec-09 Jun-10



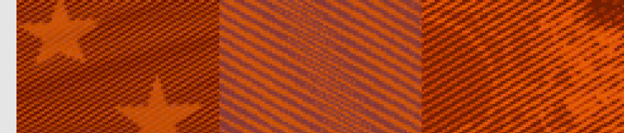
Provision funds over total loans

Total provisions — Specific provisions — General provisions

%

2,5
2,0
1,5
1,0
0,5
0,0

Dec-00 Dec-01 Dec-02 Dec-03 Dec-04 Dec-05 Dec-06 Dec-07 Dec-08 Dec-09



General Loan Loss Provisions over Net Operating Income

%

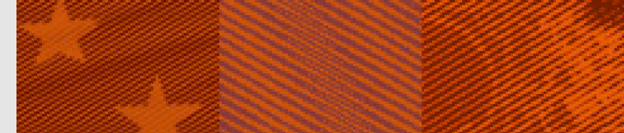
30
20
10
0
-10
-20
-30
-40

Average

Average

Jun-01 Dec-01 Jun-02 Dec-02 Jun-03 Dec-03 Jun-04 Dec-04 Jun-05 Dec-05 Jun-06 Dec-06 Jun-07 Dec-07 Jun-08 Dec-08 Jun-09 Dec-09 Jun-10

Fact sheet



- Total loan loss provisions at a consolidated level at the end of 2007 were 1.33% of total consolidated assets
- The ratio of bank capital and those total assets was 5.78%
- At the end of 2007, Spanish banks at a consolidated level had 1.20% of general provisions over total credit granted
- The ratio of general provisions to credit subject to **positive** dynamic provisioning requirements was 1.44% at the end of 2007 at a consolidated level
- The ratio of general provisions over total credit subject to the dynamic provision at the end of 2007 for **individual balance sheets** was 1.22%
- If we exclude those exposures with 0% weighting, the coverage ratio climbs to 1.59%
- For non-consolidated data in Spain, the generic provisions were78.9% of total provisions at the end of 2007

Discussion on dynamic provisions

- Usefulness
- Rules versus discretion
- Relation with other instruments
    - Countercyclical capital buffer
- Relation with other policies:
    - lending cycle / interest rates / macroprudential tools

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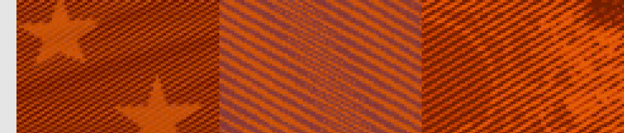

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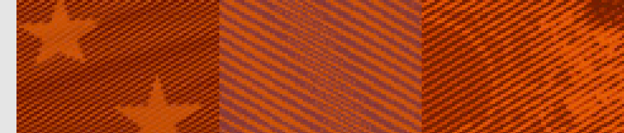

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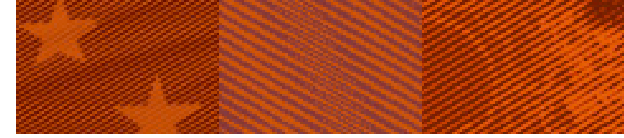

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THANK YOU FOR YOUR ATTENTION