

The issue of dynamic provisioning. A case study.

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FINANCIAL STABILITY DEPARTMENT

Caveat



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Dynamic provisions



- **Two approaches to dynamic provisions**
 - **Economic approach**
 - **Accounting approach**
- **Both are consistent and complementary, reinforcing each other**
- **Dynamic/statistical/general loan loss provisions**
 - **The substance much more important than the name**

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**
- **Take into account the transition from collective assessment of losses to individually identified losses**
- **Based on extensive research and statistics on historical loan loss experience for bank loan portfolios in Spain**
- **It is not an expected loss model**
- **It does not use the statistical information to forecast future losses**
- **Transparent mechanism**

Economic approach



- **Financial markets have imperfections**
- **Miss-pricing of risks**
 - **Under-pricing of risks due to over-optimism**
 - *(i.e. no more cycles, liquidity flooding,...)*
 - *difficult to deny it the years before the current crisis*
 - *search for yield*
 - **Overpricing of risks due to over-pessimism**
 - *collective failure: coordination problems*
- **Strong competition across banks and between banks and non-bank financial institutions enhances risk miss-pricing**

Economic approach



- **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 makes things worse**
- **Monetary policy (i.e. long periods of low interest rates) increases bank risk taking**

Economic approach

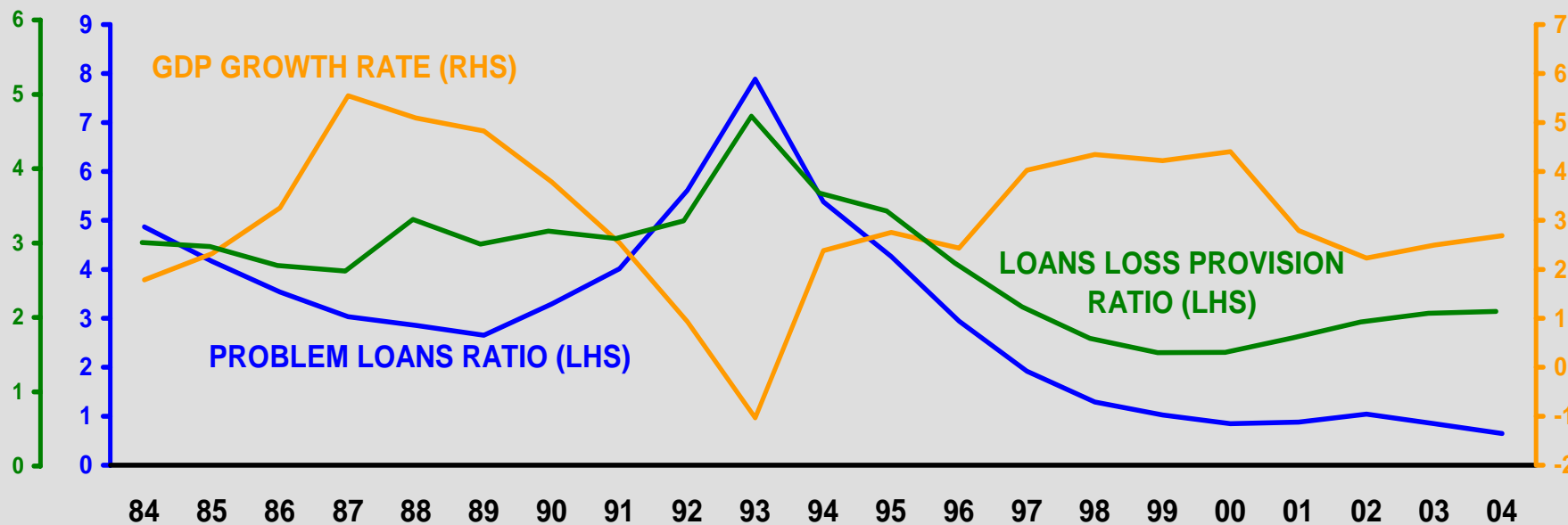


- **There is ample evidence of looser credit standards during expansions**
 - Riskier loans granted when credit expands fast
 - Under-pricing of credit risk
- **Banking supervisors' concerns are well rooted both in theoretical and empirical ground**
- **Need of a tool to cope with the potential problems due to rapid credit growth/under-pricing of risk**
- **One answer is dynamic provisions**

Loan loss provision ratio, problem loans ratio and GDP growth rate



LOANS LOSS PROVISION RATIO, PROBLEM LOANS RATIO AND GDP GROWTH RATE



Accounting framework



- **The provisioning framework refers to the “collective assessment for impairment”**
- **Regulation requires institutions to develop internal methodologies to estimate impairment in the loan portfolio (whether specific transactions or collective assessment)**
- **For banks which do not have their own model, Banco de España (BdE) provides a model based on the historical credit loss information obtained from the BdE’s Central Credit Register**

Accounting framework



- **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**
- **BdE model is a statistical model**
- **But is not an expected loss model, rather a backward looking model: it uses historical information to set out provisioning levels at the balance sheet date**
- **The model uses historical loss data information for homogenous groups of loans**
 - **Credit cards, mortgages, loans to SMEs, loans to governments,...**

Accounting framework



- Banks must make provisions against the credit growth according to parameter α which is the average estimate of the credit loss (“collective assessment for impairment” in a year neutral from a cyclical perspective)
- α varies across six homogeneous groups of loans according to our historical information on credit losses
- As credit risk or incurred losses not yet identified in a specific loan translate into specific loan losses at a different speed depending on the business cycle, α is supplemented by a β parameter

Accounting framework



- β is the historical average specific provision of each group of loans. By comparing β with the current level of specific provisions, banks can assess the speed at which “unspecific” (collective) incurred losses evolve into specific losses for individual assets
- In periods of expanding credit risk/under-pricing of risk/increase in incurred collective losses the difference is positive, so is the second component of the general provision
- In periods when specific losses are much more easily identified in individual loans, the difference reverses and thus this component subtracts from the α component and may cause the generic provision fund to be drawn down
- The Spanish general provision also includes a cap in the amount of the general fund being build up
 - to avoid excess provisioning

Specific mechanics



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

$$\dot{gen}_t = \alpha \Delta C_t + \left(\beta - \frac{\dot{espe}_t}{C_t} \right) C_t$$

- **C_t is the stock of loans and ΔC_t 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

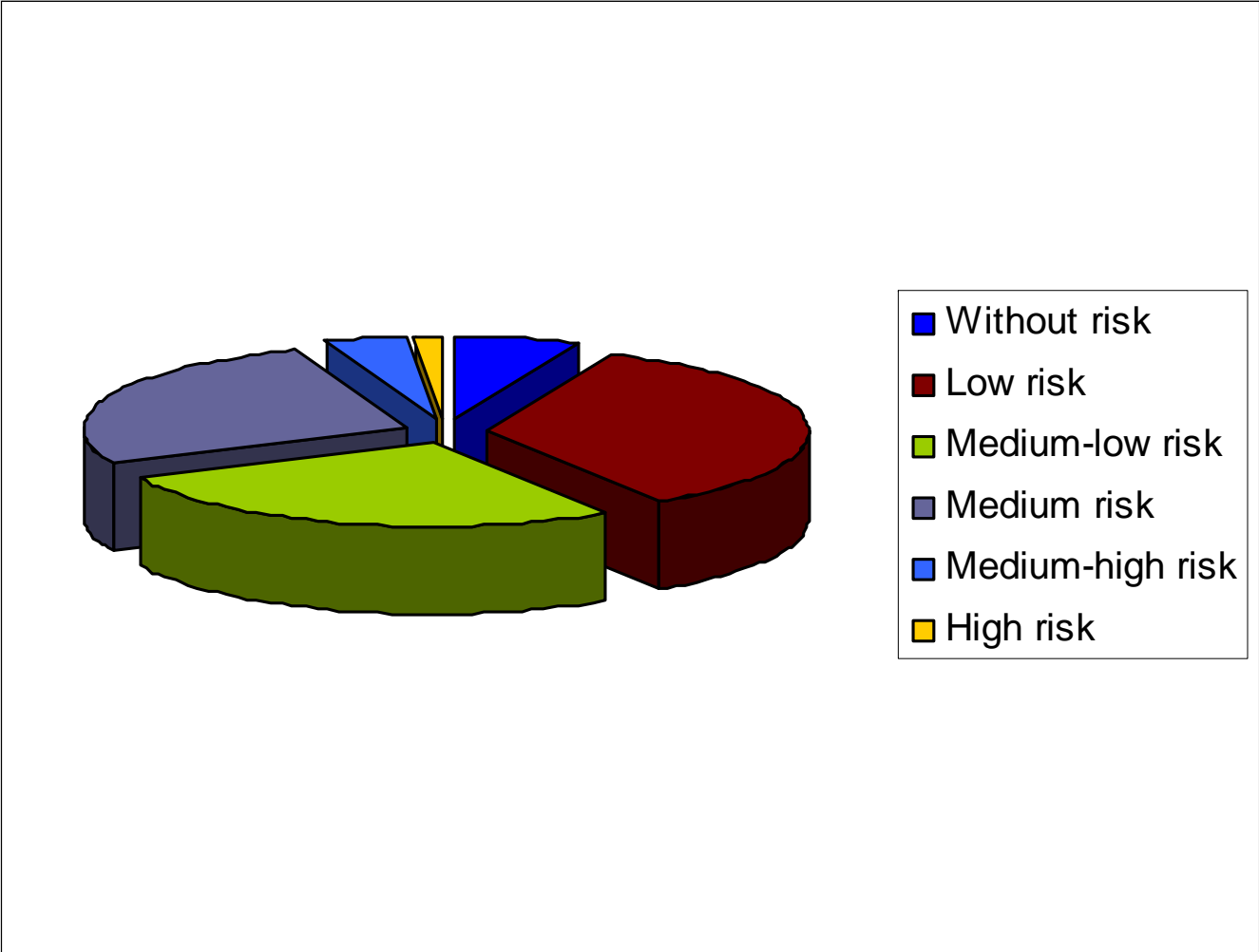


- The formula of the new general provision is:

$$\dot{gen}_t = \sum_{i=1}^6 \alpha_i \Delta C_{it} + \sum_{i=1}^6 \left(\beta_i - \frac{\dot{espe}_{it}}{C_{it}} \right) C_{it} = \sum_{i=1}^6 \alpha_i \Delta C_{it} + \left(\sum_{i=1}^6 \beta_i C_{it} - \dot{espe}_t \right)$$

- There is no need to know which is the exact position in the cycle. That is endogenously provided by current specific provisions that, 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 establish the length of the last lending cycle and, therefore, the average of the cycle specific provision (the β)

Credit across the six risk categories. Dec. 2004



Spanish provisioning model vs the IFRS



- **Under IAS 39 provisions are based on an incurred loss model, supported by objective evidence of impairment**
- **Allows for two broad ways for loans: an individual assessment for individually significant assets and another for those not individually significant**
- **IAS 39 Application Guidance clarifies on this assessment:**
 - All credit grades (and not just the lower quality ones) should be analysed for impairment
 - For the collective assessment, the assets are grouped on the basis of similar credit characteristics
 - Historical loss rates may be used, as well as formula-based or statistical methods

Spanish provisioning model vs the IFRS



- **The Spanish dynamic provisioning model refers to the “collective assessment for impairment”**
- **The key assumption is the transition from the collective assessment to the individually impaired assets and specific provisions**
- **In the BdE model it is assumed that during periods of intensive credit risk increase (under-pricing of risk/increase in incurred losses), it takes longer for provisions to transit from collective assessment to specific provisions**
- **In other periods, the individually impaired assets are easily identified and the transition period from collective assessment to specific provision is shorter**
- **We believe that, although IAS 39 does not specifically address this issue, it does not rule out this assumption**

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**

Fact sheet (1)



- 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%
 - Spanish banks did not have conduits or SIVs, thus, the amount of off-balance sheet assets was very limited
- 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
- General provisions were 73.2% of total loan loss provisions at that time
- Using June-08 data, for those banks applying IRB methods, total loan loss provisions exceeded expected losses by 57.8%, while the excess of general provisions was 22.36%

Fact sheet (2)



- **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 were 78.9% of total provisions at the end of 2007**
- **Parameters imply that for a new (traditional) mortgage (LTV up to 80%), the bank has to set aside 0.71% of its amount as a general provision that, assuming a 15% LGD, means that the effective coverage raised is up to a non-performing loan ratio of close to 4.75%, which compares with 3.85% NPL ratio for mortgages at the peak of the last recession in 1993, while the LGD was around 0%**

Recent developments



- **G20 Leaders' Statement at the London Summit in April 2009 calls for**
 - “accounting standard setters to work urgently with supervisors and regulators to improve standards on valuation and provisioning”
- **Turner Review**
 - a non-distributable Economic Cycle Reserve...
 - ... that should appear somewhere in the P&L
- **Others argue for more judgment to be used**
 - By firms as well as by auditors

A possible way forward



- Differentiating in a transparent way between “regular profits” and “distributable profits”
 - The difference has to appear in the Annual Accounts
 - Included in IFRS
- Difference would be a set of publicly-reported-compulsory reserves that would not interfere with regular profits
 - It could include a TTC reserve earmarked against future losses built up along the lines of the Spanish dynamic provision
 - Reserve valuations for capital gains on complex mark-to-model securities in the trading book
 - A two way mechanism is a must
 - Details to be worked out but fast progress is possible if there is strong consensus on the substance
 - Impact on managers’ incentives (risk transparency and remuneration)

Conclusions



- **The Spanish system allows for an earlier detection of credit losses building up in the banks' loan portfolio**
- **It is a transparent system (rule-based, formula based, with disclosures) and provides information that is comparable across banks**
- **Early warning system for financial statement users**
 - **it signals the build up of credit risk and credit losses**
 - **It delivers the proper information to investors to gauge the true financial condition of the firm**
- **The proper recognition of the increase in credit risk/collective incurred losses since the inception of the dynamic provision, has been very useful for Spanish banks under the current crisis...**
- **... although it is not a silver bullet**

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