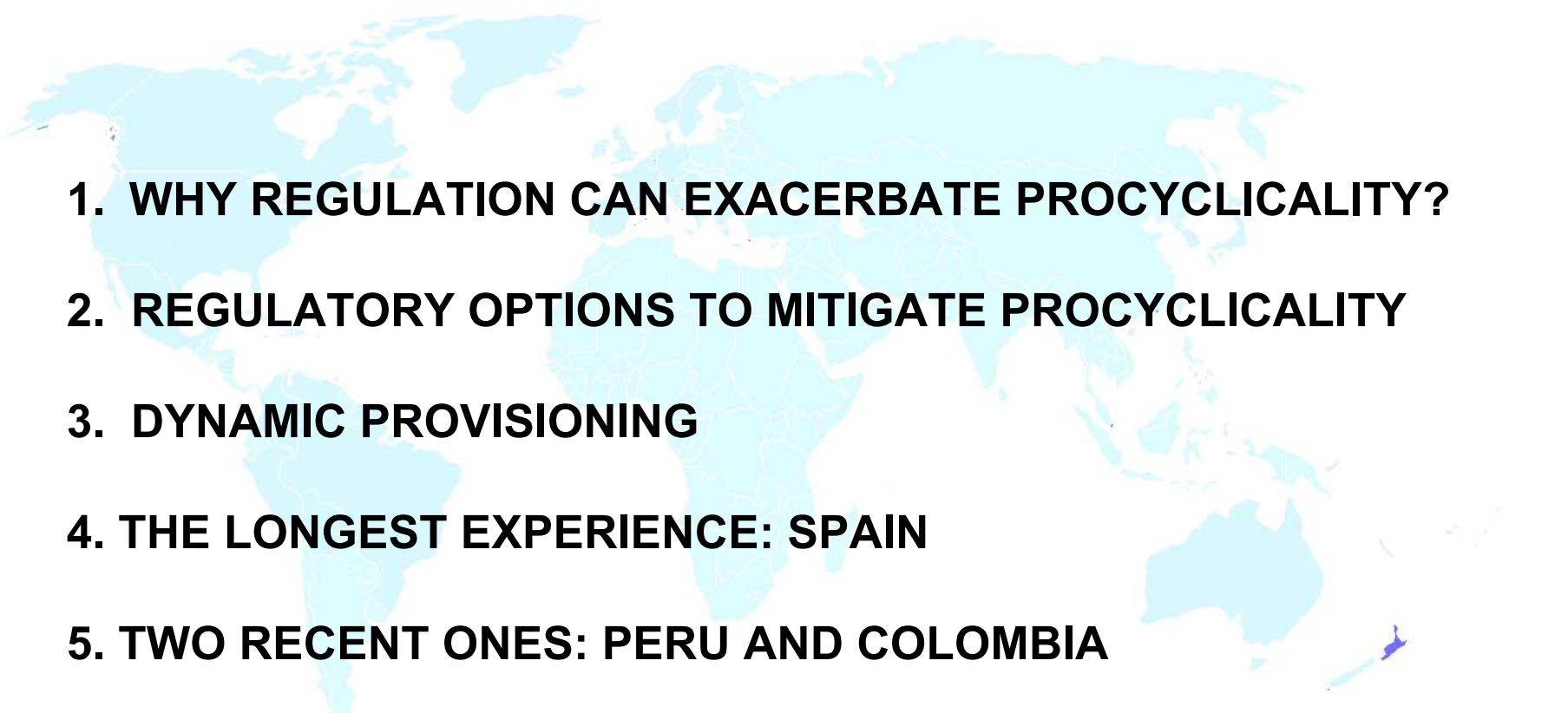


***How can the regulatory system
be made less procyclical?:
Some experiences with dynamic provisioning***

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- The crisis has not only unveiled flaws in the functioning of the financial system...
- But also in crisis management
- And regulation and supervision
- This presentation focuses on **regulation**
- One of the better known problems with regulation –widely discussed during the preparatory work to Basel II – is its procyclicality
- The objective of this paper is to **assess the usefulness of existing regulatory tools to reduce procyclicality**
- **Special attention to the Spanish case with dynamic provisioning. Also to the more recent cases of Colombia and Peru**

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- 1. WHY REGULATION CAN EXACERBATE PROCYCLICALITY?**
 - 2. REGULATORY OPTIONS TO MITIGATE PROCYCLICALITY**
 - 3. DYNAMIC PROVISIONING**
 - 4. THE LONGEST EXPERIENCE: SPAIN**
 - 5. TWO RECENT ONES: PERU AND COLOMBIA**
 - 6. A QUICK COMPARISON**
 - 7. CONCLUSIONS**

- **Capital requirements are procyclical in as far as it is harder to find new capital when economic conditions are poorer.**
 - **A more marketable concept of capital (specially for Tier 2) has led to higher procyclicality.**
- **Loan loss provisions have a pro-cyclical bias**
 - **Linked to the volume of contemporaneous problem assets**
- **Innovation in accounting is also introducing more procyclicality**
 - **In particular fair value accounting**

Beyond macro options (esp. monetary policy), different regulatory tools

1. Moral suasion

- By regulators (fashionable after China's success)
- Banks can cooperate through codes of conduct.

2. Controls on quantities

- Considered a very old fashioned (again China may be changing this view)
- However, using simple leverage ratios could be difficult:
 - Growth trends may be very different across countries but leverage limits need to be the same to avoid regulatory arbitrage
 - Besides if regulator introduced different caps depending on the business model, bank soundness, asset risk, etc: overregulation!!

3. Influencing prices

- **Different regulatory tools:**
 - **On capital**
 - **A simple one is changing capital requirements depending on leverage (used in Spain for mortgages and in other countries)**
 - **On provisions**
 - **Best known one is dynamic provisioning**

- **Mechanism to overcome co-ordination problems of individual banks** when economy is booming for the sake of medium-term bank solvency.
- It can also be seen a proper accounting recognition **of ex ante credit risk**
- **An important side effect is mitigating excessive profit volatility**
 - **Against IAS view of the world but quite in line with how economists see it!**

- **Dynamic provisioning was introduced in Spain in 2000 with a clear macro-prudential objective, i.e., to limit credit growth**
- **Banks can decide to use their own internal models (once approved by regulator) or take the formula calibrated by BE.**

$DP = \alpha \Delta \text{Credit} + \beta \text{ stock of Credit} - \text{Specific provisions}$

where **$0 \leq \alpha \leq 2.5\%$**

and **$0 \leq \beta \leq 1.64\%$**

depends on the risk behind different assets

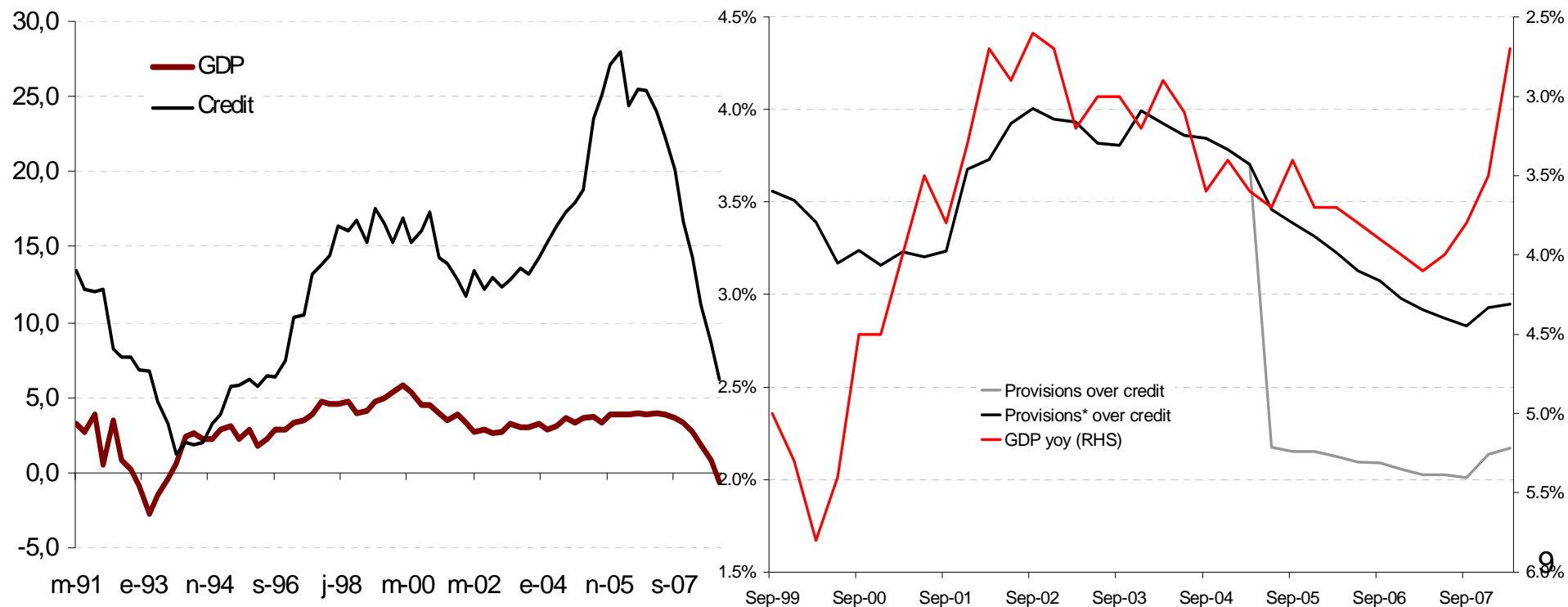
Note that DP could be positive or negative (clearly negative in bad times)

When looking at the fast credit growth in Spain during the last few years, dynamic provisioning does not look very effective (see left Graph)

But still some impact!

the dynamic provision absorbed 20% of Spanish banking institutions' pre-tax profits during 2002-2004 (Caruana 2005) and even more thereafter.

In fact provisions over credit resulted to be much higher than without the dynamic provisioning (right Graph)



Specific reasons why the impact was limited:

1. The context was exceptionally good worldwide
↓ risk premia ↓ real interest rate ↑ credit growth and ↑ house prices
One of the longest cycles which points to calibration issues
2. Spain had just entered EMU, which limited the policy instruments
3. It was hard for the regulator! No level playing field for Spanish banks since nobody else seemed willing to introduce it.

- **Impact on the downward side of the cycle hard to assess so far**
 - **For the time being, accumulated dynamic provisions have proved very useful in limiting the impact of the current crisis on the results of Spanish financial institutions**
- **In any event, for the dynamic provisioning to be more effective one could think of a number of improvements:**
 - **Refine the calibration (always hard in the event of a structural break like Spain's entry to monetary union)**
 - **Apply it globally**
 - **Allow for enough competition to avoid cost being transferred to depositors**
 - **Perhaps allow for some discretion?**
 - **The Spanish model is rule based but changes were introduced in 2004 and 2005**
 - **However, global application also makes discretion more problematic an equal footing needs to be ensured**

Other problems can be tackled, such as incompatibility with IAS

Restoy and Roldan (2009) propose to distinguish regular profits from distributable profits in public financial statements

- **Accounting principles would govern the distribution of regular profits and how the P&L is prepared.**
- **Regulators would, however, set rules as to how such profits can be distributed: the difference would be a set of publicly-reported compulsory reserves.**
- **This could be through-the cycle earmarked against future losses**

- **Peru and Colombia introduced dynamic provisioning right before the global crisis hit both countries severely**
- **They went for two different models:**
 - **Colombia opted for a more discretionary one (although a new regulation is now being issued changing that feature)**
 - **Peru opted for a rule-based system but still different from that of Spain**

- **Colombia's** regulator, using historical data, calculated two risk scenarios, A and B (where B is a riskier scenario). The outputs of this calculation are two default probability matrixes with probabilities for every type of credit and borrower. One of those matrixes is used in the good times and the other in the bad ones.
- Once the regulator declares the *change of state* (from matrix A to B or otherwise) all banks can use countercyclical provisions, regardless of the financial health of individual institutions.
- The regulator has experienced two main problems with this model
 1. On the one hand too discretionary: with no principles behind the change of state
 2. On the other not enough discretion: institutions are treated equally independently on their behavior.This probably explains the recent revamp

PERU introduced dynamic provisioning in December 2008. Cyclical provisioning is activated when the rate of GDP growth exceeds a certain threshold (in boom periods), which is related to a conservative estimate of potential output growth.

Cyclical provisioning is part of generic provisions. When cyclical provisioning is activated, generic provision charges increase (although this depends on the type of debtor).

- In times of economic slowdown, on the other hand, the rule is deactivated and generic rates are reduced (this is the case already now). Accumulated cyclical provisions then constitute a buffer (this time a very small one...)
- An strange future is that the rule is based on GDP growth and not on an individual measure (of credit growth). GDP has been found to precede credit in Peru (and thus also future banks losses). Furthermore, CB in Peru is in control of GDP statistics, which are monthly!

Another issue to consider is that a GDP based-rule is systemic. This means that its activation does not depend on a bank's behavior, but on the economy's (system) as a whole. So banks with different behaviors (more or less aggressive) have to provision the same amount: equal footing may thus not be ensured

1. How system is activated/deactivated very different

Spain/Peru is rule-based (not Colombia)

2. Reference variable different (from more to less specific)

Spain: individual credit (issues with calibration and internal vs supervisory model)

Colombia: aggregate credit (for countries in need of financial deepening, target hard to choose). Also large institutions have advantage

Peru GDP: (domestic demand probably better for countries with current account deficit)

Note that in Colombia and Peru a prudent institution or one loosing market share will need to provision more

3. Compensation between specific and generic provisions

In Spain, compensation is automatic: objective is to reach a constant total provisioning along the cycle. No benchmark in Peruvian case

There are probably many more differences but time is need for Peruvian and Colombian models to work and then be assessed

- In the light of huge booms and bust in asset prices and the possibility of a credit crunch worldwide today, reducing the procyclicality in regulation seems key
- Better capital quality capital (and less Tier II) would already help but clearly also that of provisioning
- Spain is a clear case in point of smoother provisioning trends in the last few years and also smoother profit stream for banks. Peru and Colombia are trying other venues
- Equal footing, i.e., introducing dynamic provisioning in the global regulatory platform is crucial

**Comments/questions
welcome
Thank you**