

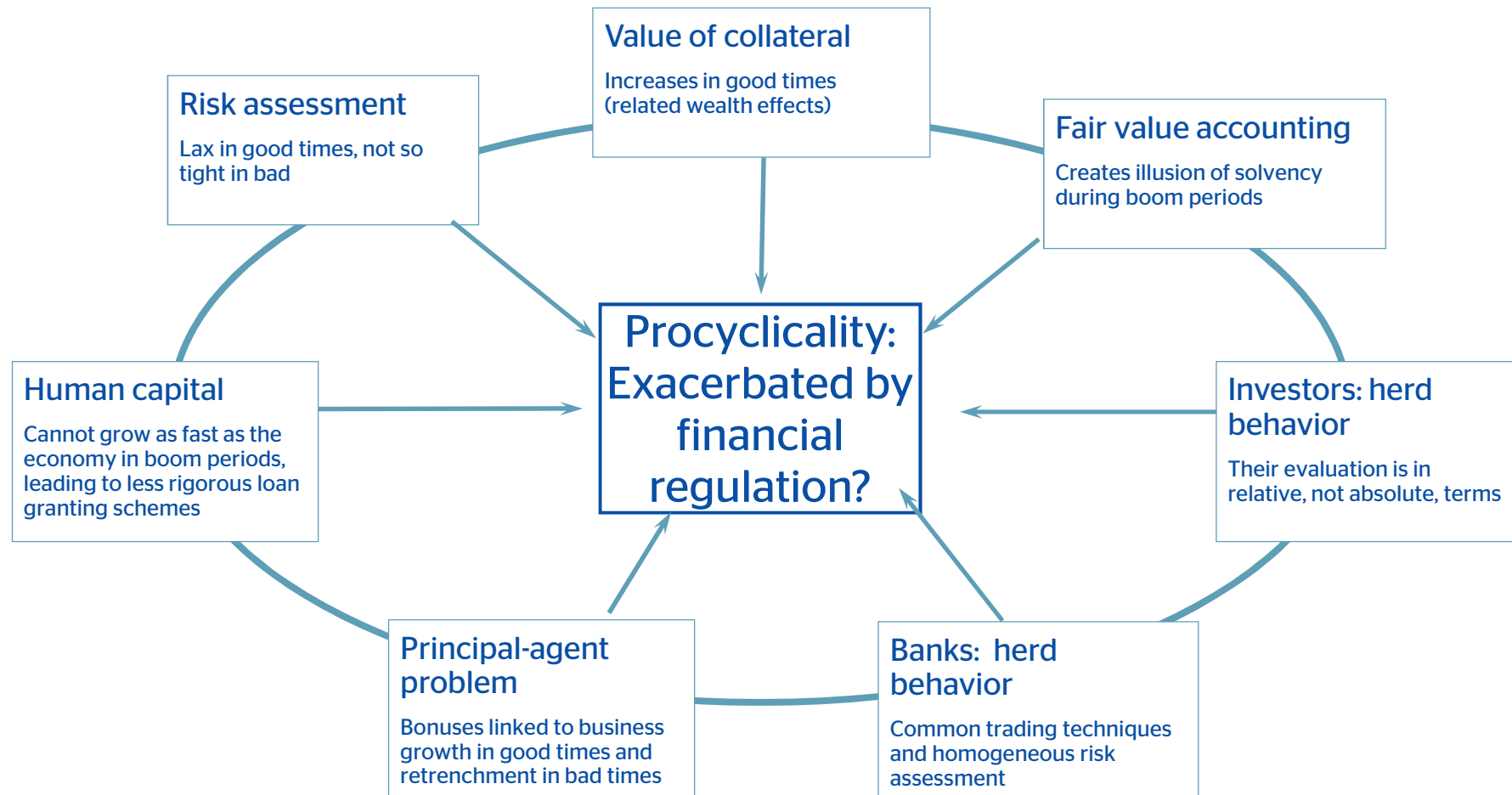
Dynamic provisioning: a buffer rather than a countercyclical tool?

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1. Why is the financial system procyclical and what can be done
2. Dynamic provisioning: how it works
3. Existing experiences:
 - Spain (longer history, full economic cycle)
 - Colombia
 - Peru
4. Two simulation exercises
 - Asymmetric market discipline
 - Financial inclusion in EMEs
5. Comparison between Spain, Colombia and Peru

Financial markets are procyclical by nature



How can procyclicality be limited? Rules vs Discretion

How should the counter-cyclical component be determined?



Rules

- The required buffers depend on clear metrics
- Not dependent on judgement and once established, not subject to influence or pressure



- Better if policymakers' commitment is not credible
- Key: it must calibrate accurately the business cycle (not always feasible)

Discretion

- Bank regulator must judge the appropriate level of buffers in each case
- No fixed standards



- Decisions may be adapted to economic and macroprudential conditions
- Depends on the quality and independence of the regulator
- Possible time-inconsistency

How can procyclicality be limited? Provisions vs Capital

What regulatory tool should be used?

Capital

- Goal: to create a buffer that protects banks from UNEXPECTED losses
- During crisis market concern is mainly focused on the level of capital
- Regulatory efforts focused in capital

- Basel III:
 - “Capital conservation buffer”: to be phased-in 2016 - 2019. Level: 2,50% in 2019
 - “Countercyclical buffer”: to be activated if excessive credit growth (0 - 2.5%)

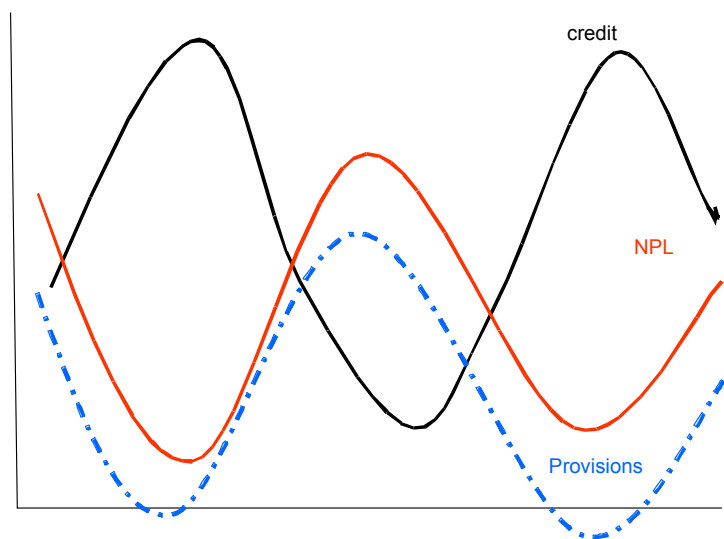
Provisions

- Goal: to protect banks from EXPECTED losses
- Protection from cyclical losses fits better into the role of provisioning (since cycles are not unexpected)
- Could be used to smooth profits (against transparency)

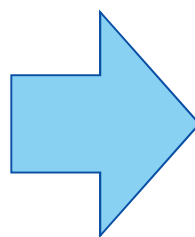
- FSB-IMF-BIS progress report to the G20 (27 October 2011) mentions dynamic provisions among other macro-prudential tools, but does not include specific recommendations

Dynamic provisioning: The theory

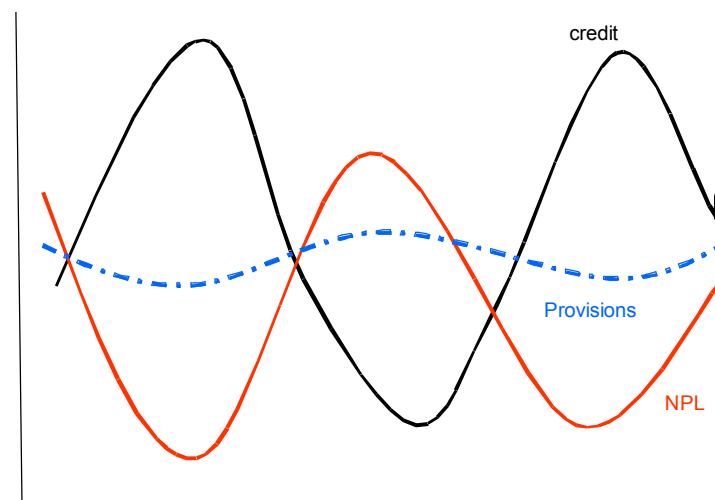
Normal provisioning



- Provisions depend on observed NPLs
- In the upturn: GDP grows above potential, so does credit. Collateral prices rise. Low NPLs, low provisions
- In the downturn, the opposite



Dynamic provisioning



- Goal: to smooth provisions across the cycle and avoid procyclicality
- Aim: try to obtain a flat provisioning effort in terms of the ratio of provisions to credit

Experience in Spain (I): Why dynamic provisions?

Euro adoption: profound impact

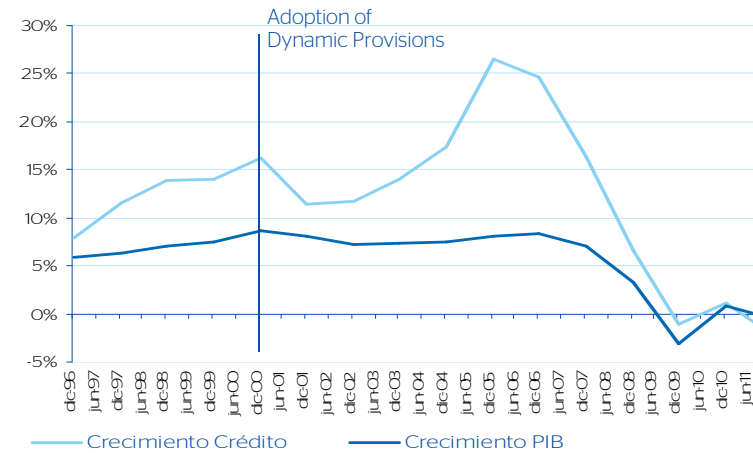
- Interest rates at c4% in the late 90s: very lax monetary conditions in Spain
- Acceleration of credit, GDP & inflation in the aftermath of monetary union
- Increase in house prices



Increasing anxiety in the Bank of Spain

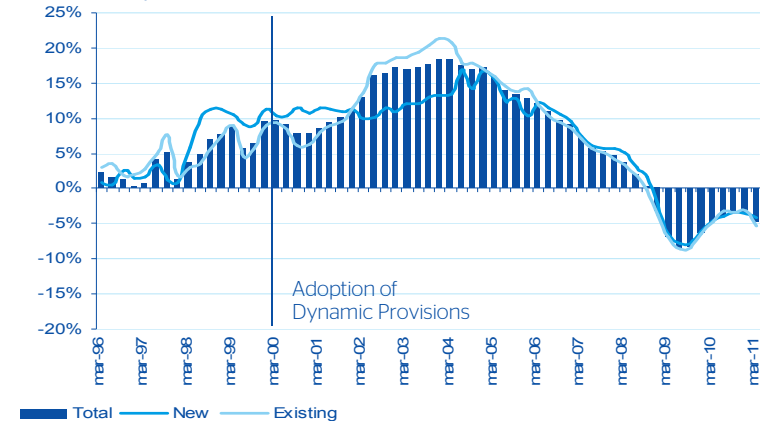
- Monetary and exchange rate policies no longer available
- New regulatory tool needed

Credit growth vs GDP growth
(year on year, %)



Housing prices in Spain
(year on year growth)

Source: Ministry of Public Works



Experience in Spain (II): How were dynamic provisions established?

Objectives

1. To contain credit growth by increasing the cost (in terms of provisioning effort) of the granting of new loans
2. To protect Spanish banks from future losses as a consequence of the relaxation of lending standards typical of boom phases

Functioning: 3 types of provisions

1. Specific provisions: depend on observed bad loans
 2. Generic provisions: 1% of the credit stock
 3. **Statistical provisions**: designed to offset specific provisions along the cycle. **Depended on credit growth**
- } already existing

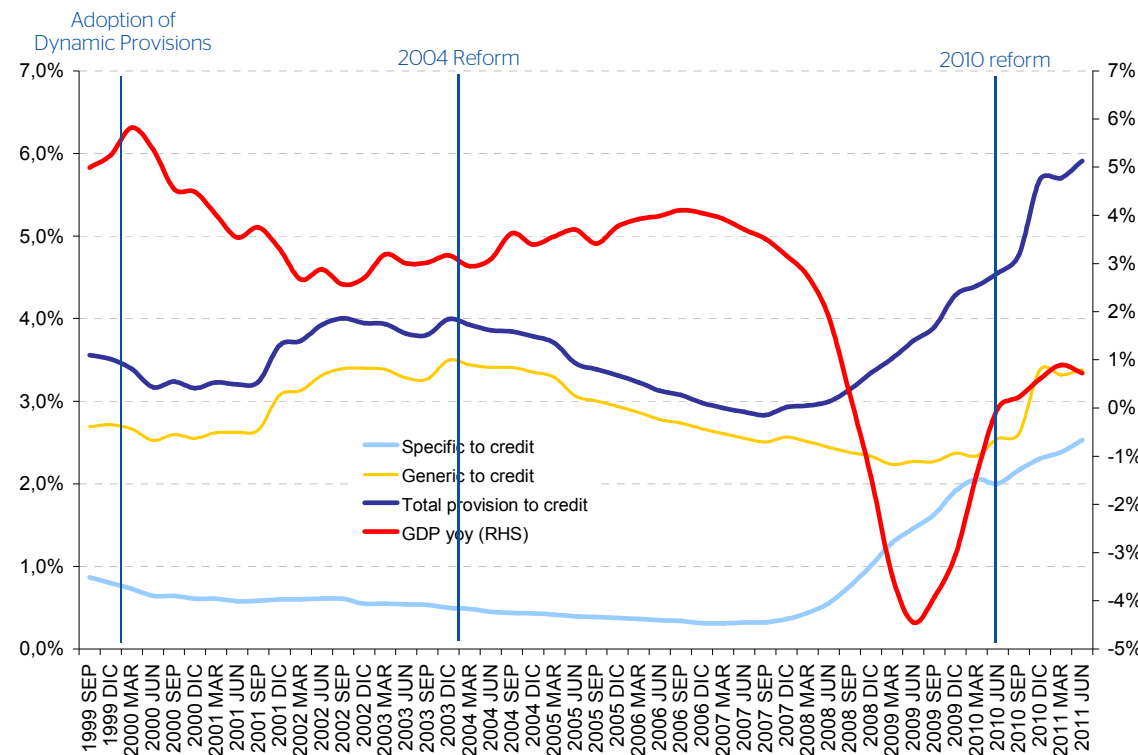
Results

1. By 2004 the accumulation of provisions was regarded as excessive : listed banks' coverage ratio (provisions over bad loans) was 406% on average in December 2004)
2. The system was criticized by international accounting bodies (implied profit smoothing) and Spanish banks (disadvantage vs their European peers)

Experience in Spain (IV): How it really worked

Provisioning to credit and GDP

(As % of credit, left scale, and % GDP growth, right scale)



- The reform in 2004 reduced the pace of accumulation
- Generic provisions smoothed the impact of the crisis in the early stages ...
- ... but they increased again since 2010
- Overall, the anti-cyclical impact was smaller than expected, specially in the downturn

Experience in Spain (III): Reforms in 2004 and 2010

2004 reform

- **Specific provisions**
- **Generic provisions: absorbs the old statistical provision**

$$\text{Generic Provision} = (\alpha \times \text{Total Risk Growth}) + (\beta \times \text{Total Risk}) - (\text{Specific Provision})$$

Type of risk	α	β
No apparent risk	0.0%	0.00%
Low risk	0.6%	0.11%
Low-medium risk	1.5%	0.44%
Medium risk	1.8%	0.65%
Medium-high risk	2.0%	1.10%
High risk	2.5%	1.64%

Rationale:

- Generic provision would be higher with: 1) higher risk profile; 2) higher volume of risks; 3) higher growth of total risks; 4) lower specific provisions in the period

Caps and floors for generic provisions

1. Cap: 125% of Alpha x Total risk
2. Floor: 33% of Alpha x Total risk

2010 reform

Recognition of expected losses: the period of recognition is shortened

- The amount not covered is to be fully provisioned in 12 months (25% quarterly)

Use of collateral

The value of the assets used as collateral is incorporated in the calculation of the severity of the losses.

Haircuts to be applied:

- First residence: 20%
- Undeveloped property in the country, business premises: 30%
- Other finished residence: 40%
- Land: 50%

Lower limit reduced from 33% to 10%

Reposessed assets

Banks are encouraged to clean up the value of reposessed assets on balance sheet.

- Banks must provision 10% of the asset's value at foreclosure, 20% after 12 months and 30% after 24 months

Experience in Colombia

First model: 2007

1. 90% of all loans covered (commercial and consumer lending)
2. 3 types of provisions:
 - Individual: based on NPLs
 - Countercyclical: covers changes in borrower's credit risk due to changes in economic cycle.
 - Generic: 1% of total loans
3. Criticized for being highly discretionary. The supervisor decided which matrix of coefficients is used, depending on the cyclical position

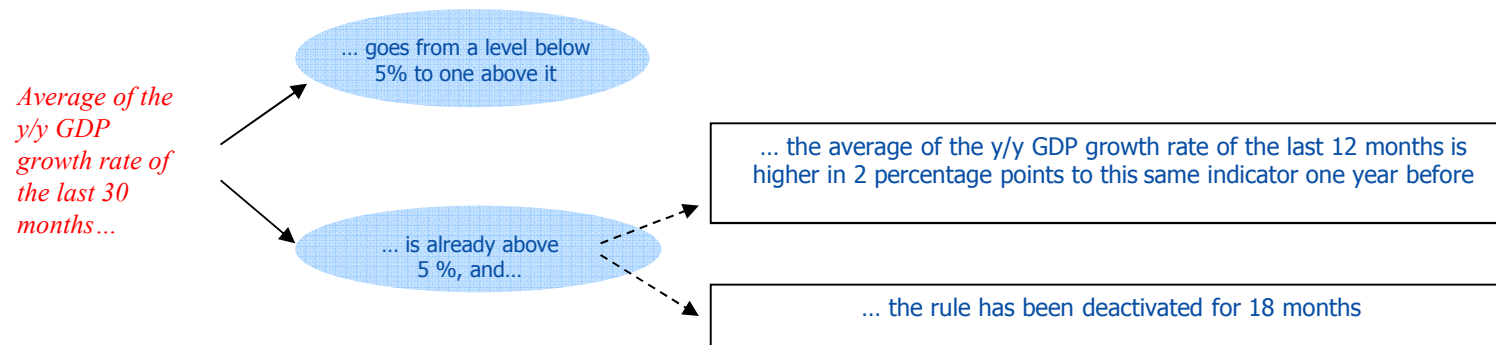
Reform in 2010: rule-based mechanism

1. For commercial and consumption loans, individual provisions were broken down into two components, one procyclical and one countercyclical, with no generic component
2. The remainder of the loan portfolio (housing): individual and generic provisions (at 1% of total loans)
3. Countercyclical provisions depend on 4 indicators with clear trigger values for each of them:
 - Deterioration of the portfolio
 - Efficiency
 - Stability
 - Growth of the credit portfolio
4. If any of the four indicators is not met the bank must accumulate anticyclical provisions. If all four indicators are met the accumulated provisions can be run down

Experience in Peru

- Context: credit boom after 2003
- Authorities decided to introduce business cycle-adjusted provisions to limit credit growth and to generate a buffer
- Cyclical provisions are activated or deactivated according to an automatic mechanism based on GDP growth
- Activated in December 2008 to September 2009, and again in September 2010 to date

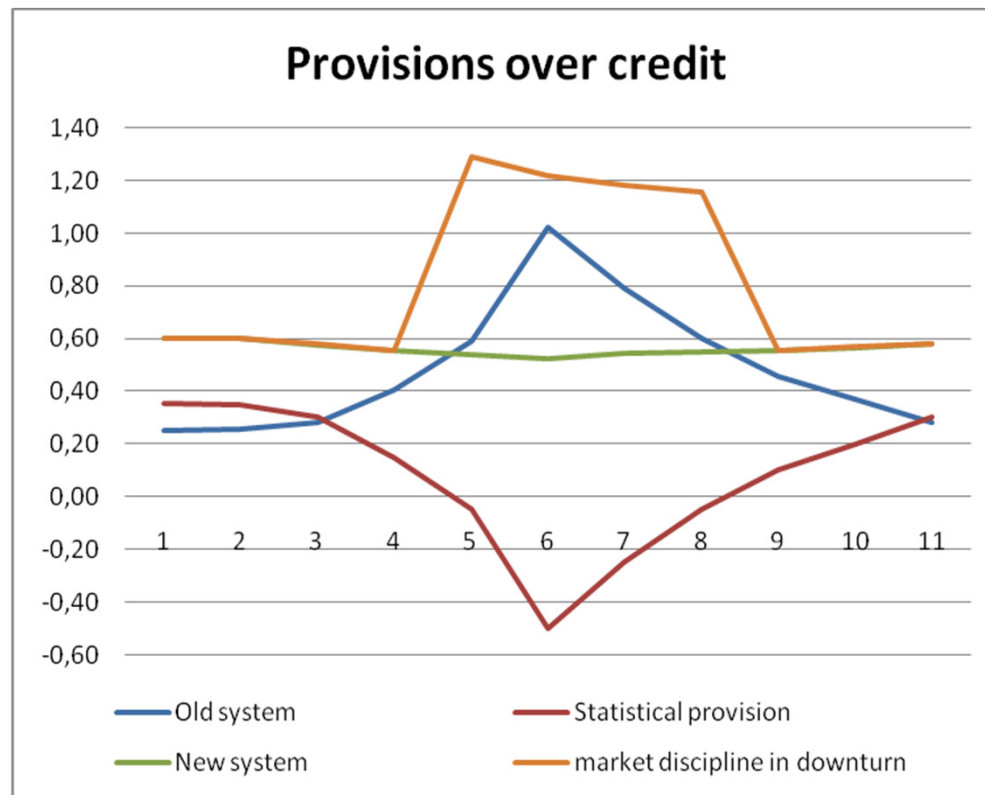
Activation of cyclical provisions



- Cyclical provisions are part of generic provisions, not related to individual loans

Simulation exercise: Spain

	Boom phase		Crisis	
	Years	Average credit growth	Years	Average credit growth
Expected	4	13%	4	6%
Observed	8	16%	4+	1%



- Based on initial estimates, what happens if there are restrictions to the use of generic provisions to distribute profits in the bas times (asymmetric market discipline)

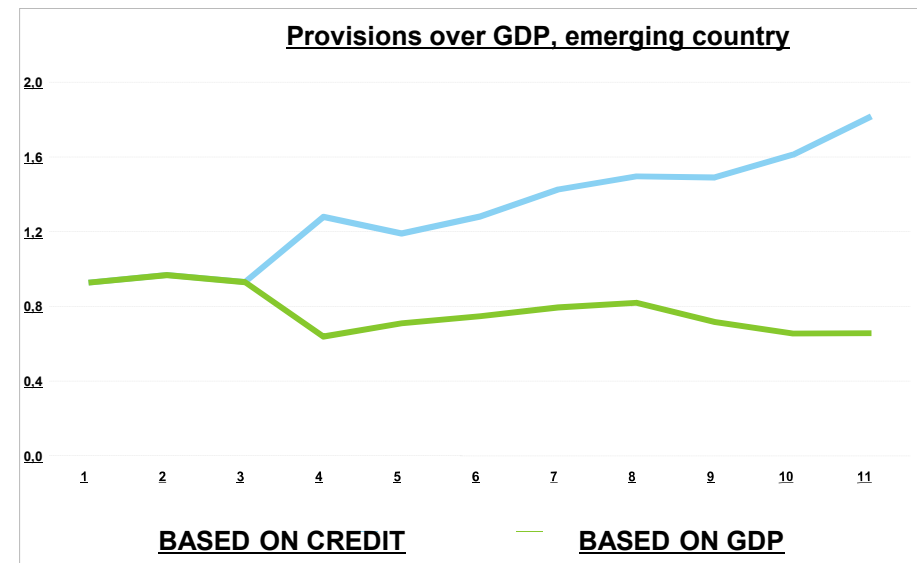
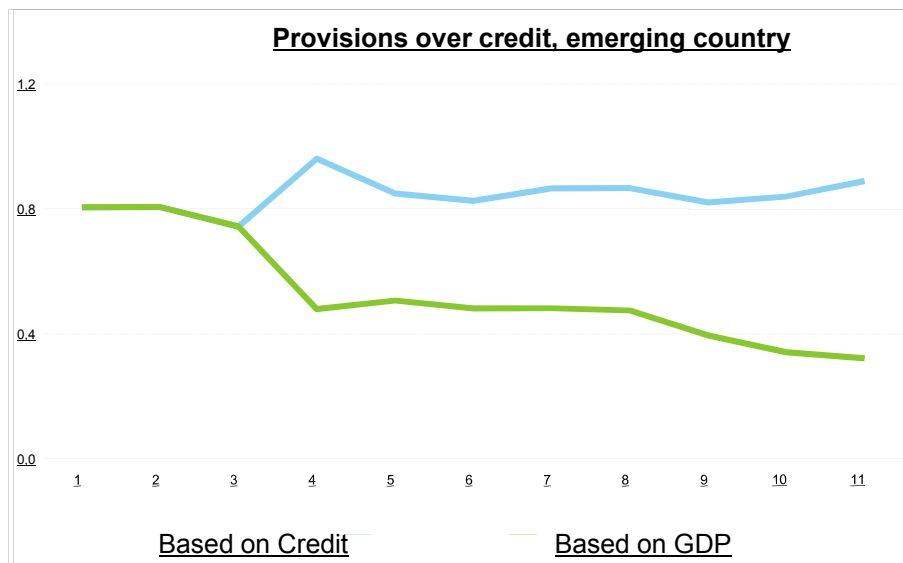
Conclusions of the exercise:

- Dynamic provisions, as originally designed, did not avoid pro-cyclicality...
- ...but provided a cushion that was useful in the bad times.
- If dynamic provisions were meant to lead to a constant level of provisions over credit along the cycle, the constraints on profits distributions in the downturn need to be factored into the system.

[1] FM&S (2001)

Simulation exercise: Provisions based on GDP or credit

- Provisions based on GDP allow for financial inclusion in EMEs



Comparison between Spain, Peru and Colombia

	SPAIN	PERU	COLOMBIA
Introduced	July 2000	November 2008	June 2007 (commercial) June 2008 (consumption)
Based on	Rule: Credit (stock and growth)	Rule: GDP	Rule based in 4 indicators
Discreet/continuous	Continuous	Discreet (on/off)	Continuous
System vs. institutions	Institution- specific	System-based	Institutions specific
Thresholds	Fund limits: 10%-125%	Potential GDP (5%) implicit minimum threshold. Change in GDP growth also plays a role	Implicit threshold in the provisioning coefficients set by the authorities
Symmetry	Yes, generic provisions can increase or decrease	Yes, "pro-cyclical" provisions can increase or decrease	The use of provisions in the downturn is subject to considerable constraints
Use: individual or general	General. Can smooth profits in the downturn	General. Can smooth profits in the downturn	Individual
Amount	Depends on specific provisions, credit level, credit growth and riskiness of portfolio	Depends on riskiness of portfolio	Depends on specific (individual) provisions and riskiness of portfolio
Tax deductibility	Yes (1% limit)		Yes

Conclusions

1. **Provisions vs capital:** anti-cyclical capital buffer already adopted in Basel III; dynamic provisions among desirable macro-prudential tools, but not proposals yet. Related to debate on international accounting harmonization (expected loss). Transparency issues and profit smoothing relevant in this debate
2. **Double objective of dynamic provisions:** (i) to smooth credit growth and (ii) to allow for the creation of buffers in the good times to be used in the bad times. Spanish experience seems to show they are more useful as a buffer
3. **Asymmetric market discipline** may undermine the usefulness of dynamic provisions as a counter-cyclical tool, as illustrated by the Spanish case
4. **Rules vs discretion:** a rules-based system is desirable, but practical application is challenging. Balance between (i) availability of high quality data to calibrate the cycle “ex ante” and (ii) to ensure a credible commitment by the authorities. The Peruvian system seems more rules-based than the Spanish and (a priori) the Colombian systems. The experience of Spain suggests that a theoretically rules-based system may be applied in a discretionary way
5. For **Emerging Market Economies** one important consideration is to allow for financial inclusion. A system based on GDP accommodates financial inclusion, but is not based on a banking sector variable and is not institution-specific
6. **Caveat:** regulation cannot completely eliminate pro-cyclicality