Actions for a less Procyclical Financial System

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CONTENTS

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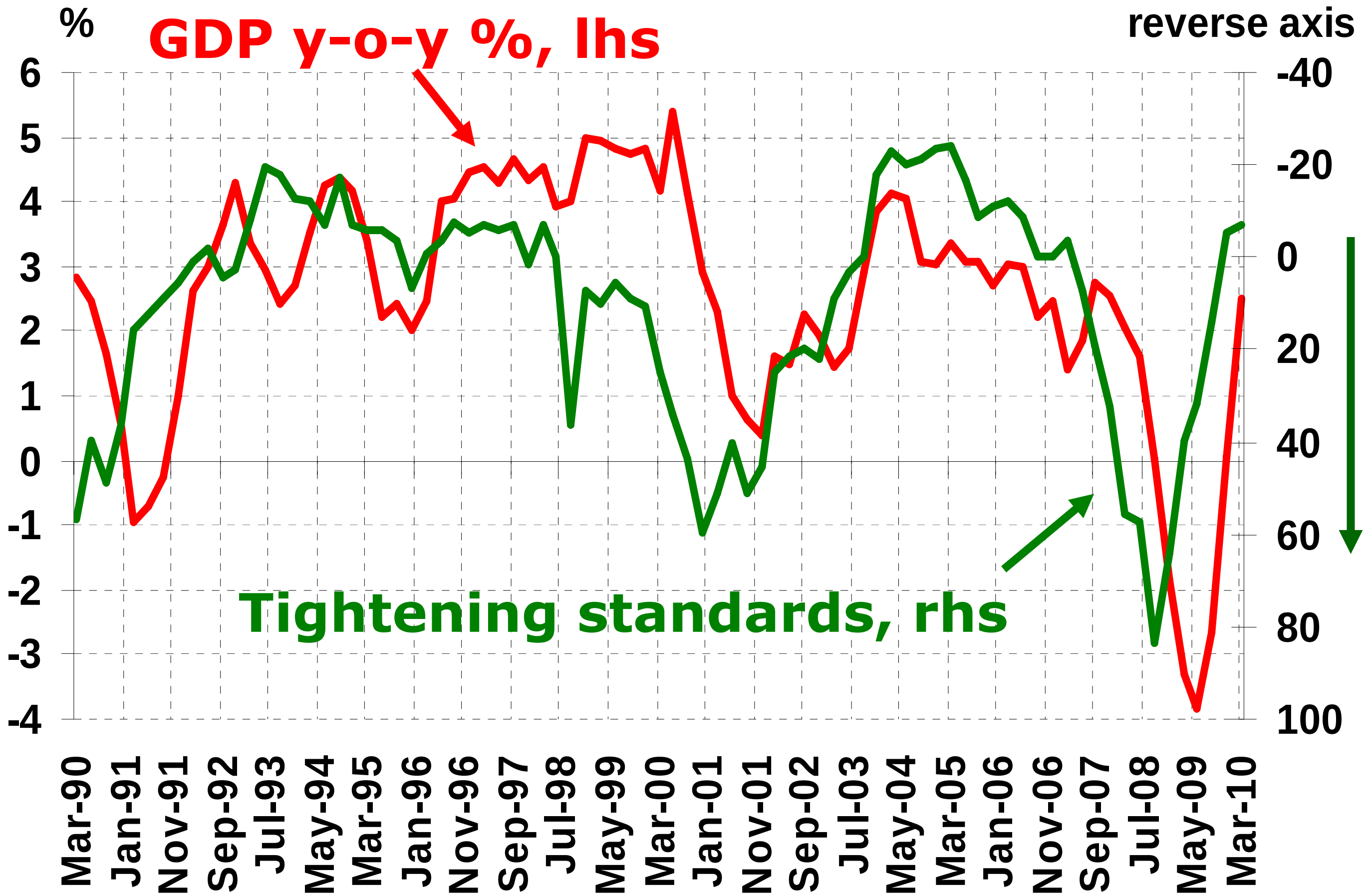
I. Procyclicality vividly seen in US bank degree of tightening of credit standards across cycle

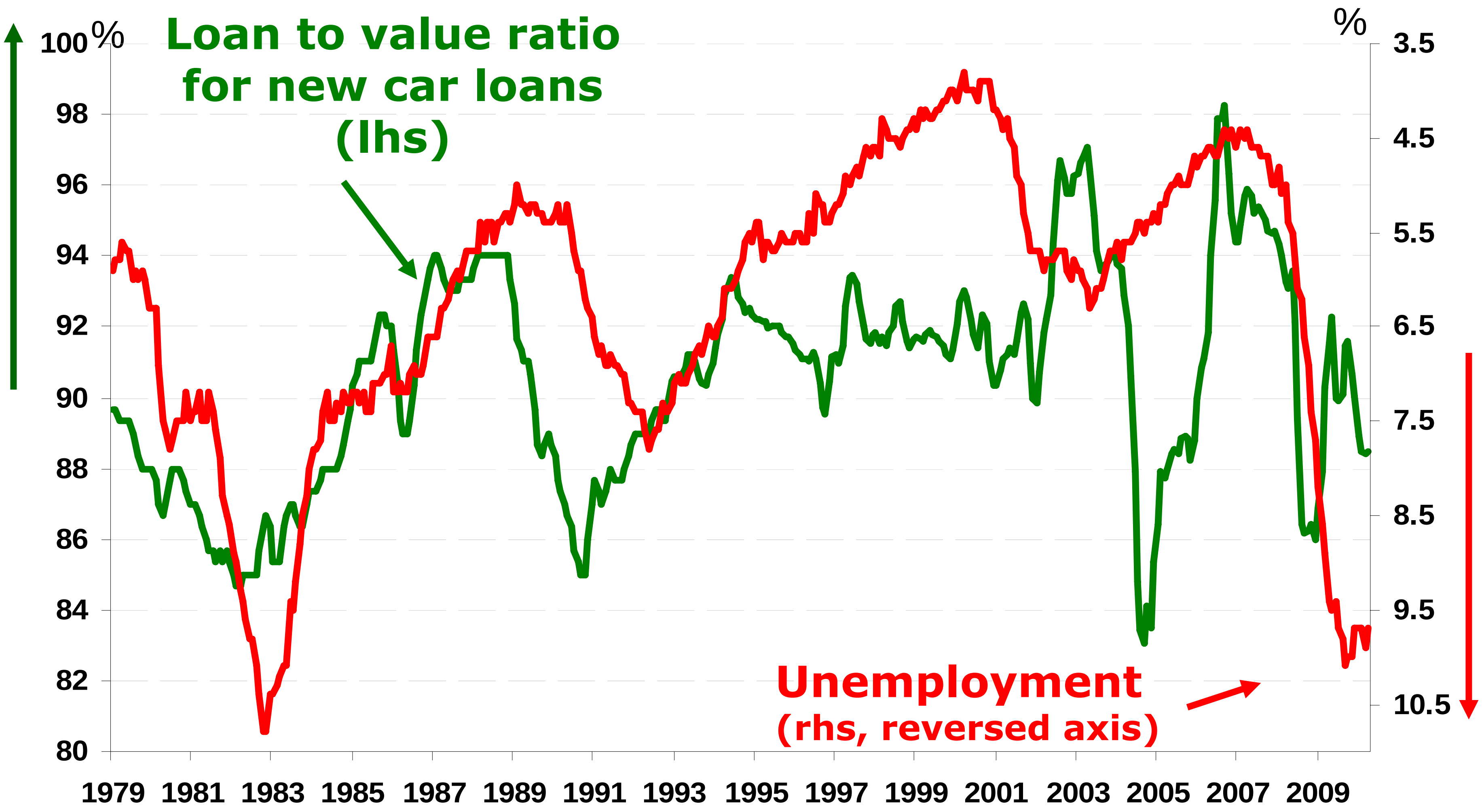
✓ "What is known as **procyclicality** is the fact that over time, the **dynamics of the financial system and of the real economy reinforce each other**, increasing the amplitude of booms and busts and undermining stability of both the financial sector and the real economy." (BIS (2009))



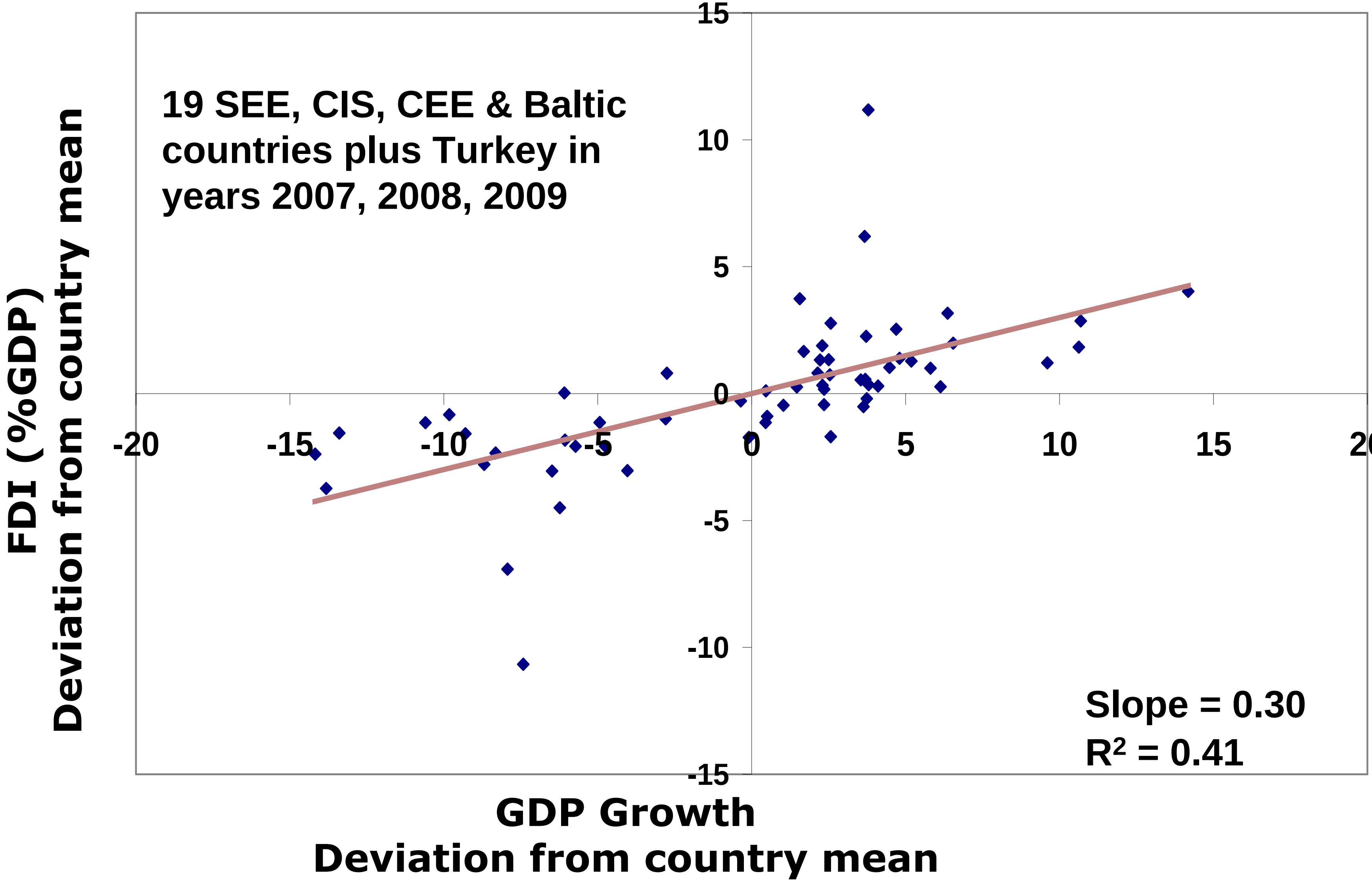
USA, data for real GDP growth (lhs) and the net percentage of banks reporting a tightening of credit standards in Consumer & Industrial loans to large & medium sized firms (rhs, reverse scale)

Source: Federal Reserve, The Senior Loan Officer Opinion Survey on Bank Lending Practices, April 2010

I. Procyclicality also seen in US finance companies' tightening of credit standards



I. Global procyclicality seen in ebbs & flows of net FDI in emerging European economies



Source: Central Banks, IMF, Eurobank Research

I. Procyclicality: A negative externality

- ✓ A strong macroeconomic cycle may force behavioral conformity even on agents who see through the cycle, i.e. even the ones who have different expectations from the prevailing majority.
  - ❖ For example, it pays to ride a bubble for a while rather than take a position against it (Abreu & Brunnermeier (Econometrica, 2003)).
  - ❖ Or, regarding the behavior of bankers, "As the music continues to play, you have to keep dancing, …" (C. Prince (FT, 7/2007))
- ✓ Pro-cyclicality leads to suboptimal behavior ⇨ need to reduce it
- ✓ Policies that counteract procyclicality cannot be purely financial or economic, but mixed
- ✓ How can pro-cyclicality
  - ❖ Be reduced? Consensus for need of pro-active counter-cyclical regulations
  - ❖ be reduced without imposing too much extra cost on financial intermediation? (Kashyap, Rajan, Stein (2008))

I. Description of procyclicality
Case I: good times

- ✓ **In good times**, excessive risk taking & excessive financial activity
- ✓ During output booms, risk premia ↓ and quantity of risk taking ↑

1) Firms and households become optimistic and take large investment and employment risks
2) Capital flows to emerging countries ↑, emerging economies ↑ ⇨ common global business cycle in an upward direction
3) Households in emerging countries borrow in FX as interest rates in developed markets are lower ⇨ FX risk ↑
4) Commercial bank credit extension ↑ ⇨ bank competition ↑ ⇨ interest rate margins ↓ ⇨ loosening of credit standards: Down payments or other type of required collateral ↓ ⇨ Loan/Value ↑ ⇨ more squeeze on margins.
5) Collateral values ↑ as asset prices ↑ ⇨ Market monitoring of FIs ↓

I. Description of procyclicality
Case I: good times (continued)

6) Investment banks seek more deals as margins-per-deal ↓, own-account trade ↑, leverage ↑, financial innovation ↑ which tends to create hidden under-priced risk

7) Hedge funds become more aggressive as asset prices ↑ in order to find investment opportunities ⇨ leverage ↑

8) Herd behavior reinforces asset price boom across different classes of assets and different countries ⇨ correlation among returns ↑ not just from the correlation of fundamentals ⇨ diversification gets destroyed

9) Regulators become less strict as they confuse the boom for a new virtuous steady state. Capital regulation formulas do not react, as they are procyclical rather than countercyclical

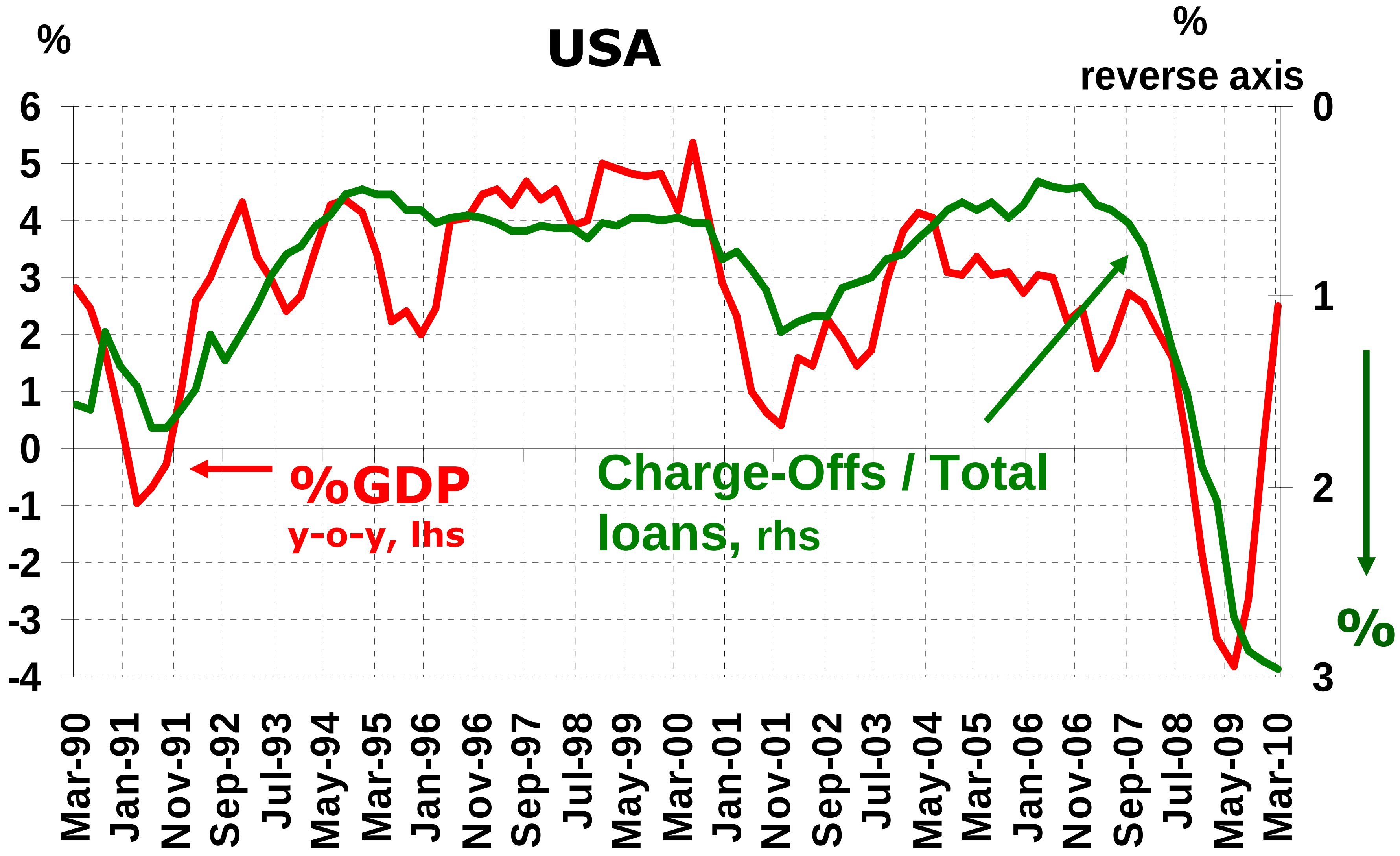
10) All this accelerates the economic boom and feeds the process in the same upward direction ⇨ Tail risks ↑

✓ Process stops abruptly from defaults in one area, which can spread quickly as the system has become vulnerable from excessive leverage & insufficient liquidity

I. Description of procyclicality
Case II: bad times

- ✓ In **bad times,** insufficient risk taking & low financial activity
- ✓ During output busts, risk premia ↑ and quantity of risk taking ↓
  1) NPLs ↑ ⇨ provisions ↑ ⇨ Commercial bank credit extension ↓ due to demand and supply factors, as banks apply stricter credit standards: Required down payments or other type of collateral ↑, Loan/Value ↓
  2) Profitability ↓ ⇨ Retained earnings ↓ ⇨ Capital Reserves / Assets ↓ ⇨ balance sheet stops growing or ↓
  3) Collateral values ↓ as asset prices ↓ due to fundamentals and due to forced selling
  4) Capital flows to emerging countries ↓ or stop abruptly ⇨ emerging economies ↓ ⇨ common downward global business cycle
  5) Households in emerging countries face problems with their previous FX loans as local currencies depreciate and their disposable incomes shrink
  6) Regulators become strict and watchful
  7) All this accelerates the downturn, which reinforces the downward spiral
  8) If bad times turn to crisis, contagion takes place as well, correlation among asset returns → 1, and diversification is destroyed

I. Charge-Offs vary countercyclically



Source: Federal Reserve

II.

FACTORS THAT
REINFORCE PROCYCLICALITY
AND
ACTIONS TO REDUCE IT

A. FACTORS RELATED TO THE ECONOMIC ENVIRONMENT

B. FACTORS RELATED TO THE FINANCIAL ENVIRONMENT

C. FACTORS RELATED TO ECONOMIC POLICY MAKING

D. FACTORS RELATED TO INSTITUTIONAL FEATURES OF THE FINANCIAL SYSTEM

E. OTHER ISSUES:

- ❖ INSTRUMENTS & PLAYERS
- ❖ ADDITIONAL REGULATIONS ARE COSTLY

II. Factors that reinforce procyclicality & Actions to reduce it

A. Economic environment

1) **The advent of globalization**, as shocks move quickly from one country to another and make business cycles **similar** across the globe

   Action: *Hard and not necessarily beneficial to counteract the globalization movement, yet emerging countries may and often do impose some **restrictions on speculative capital inflows** and on the **FX exposure** of domestic firms and households*

2) **Technological improvements** in information dissemination across the globe, implying **similar** inputs to decision making

   Action: *Cannot and should not restrict the dissemination of information*

II. Factors that reinforce procyclicality & Actions to reduce it

A. Economic environment

3) **Short-termism** in the behavior of firm managers, who cannot see beyond the current cycle and seek short-term profits since their salary/bonus is usually based on a short-term evaluation and the value of stocks, which is highly procyclical. **Dealing in short horizons makes them myopic**.

Action: *Corporate governance deals with issues of short-termism and structures of remuneration. Recent attempts to differentiate the bonus mechanism in the financial sector from the rest of the corporate sectors, taking into account not only equity but debt (NY Fed (2010))*

De Larosiére Report (2009) suggests *bonuses should be set in a multi-year framework, spreading bonus payments over the cycle; the same principles should apply to proprietary traders and asset managers; bonuses should reflect actual performance and not be guaranteed in advance.*

4) **Inertia** in household and business sentiment, as individuals tend to think that the future will be **similar** to the present, and thus take decisions that prolong a cycle

Action: *Lack of full rationality among private agents is a contestable topic in Economics for a long time. In any case, it would be difficult to alter human behavior in democracies, apart from providing education.*

II. Factors that reinforce procyclicality & Actions to reduce it

B. Financial environment

5) **The similarity of techniques and input data** used to assess risk, (e.g. Value at Risk methodology, use of current market prices to assess riskiness) which leads to similar buying or selling behavior and prolongs the cycle

   Action: *Pay less attention to current market measures of price of risk. Regulators could be more careful when assessing VAR models and other techniques. Yet, difficult to impose variety on the techniques and data used by private FIs to assess risk. Private agents will do what fits them best.*

6) **The lack of true independence of risk managers** in financial firms, who tend to obey the views of money making business units – or else they could lose their jobs, which reinforces continuity in past behavior that prolongs the cycle. This issue is particularly important in smaller economies with few specialized job opportunities

   Action: *There is an attempt in the Basel Framework to preserve the independence of risk managers by having them report directly to the Board. In practice, this get bypassed, especially in smaller financial institutions.*

II. Factors that reinforce procyclicality & Actions to reduce it

B. Financial environment

7) **The similarity of behavior of fund managers**, who herd because they are evaluated against each other, hence they worry more about relative performance rather than the time horizon of returns, leading to a prolongation of the cycle

   Action: *Herding by fund managers cannot be ruled out, neither can the exchange of views among them be considered illegal*

8) **The rating firms'** behavior to **sail with the wind** as they get business on the upside of the cycle and from the firms they assess (leading firms to shop for the best rater) and are pressured by markets on the down turn

   Action: *The issue of rating firms' behavior and their de facto oligopoly is serious and has to be addressed. Currently in Europe, there is strong suspicion of the motives of the "American-based" rating firms*

II. Factors that reinforce procyclicality & Actions to reduce it

C. Regulatory and Economic Policy behavior

9) **The political pressures** on regulators to behave in a way similar to the market and the powerful financiers, and not to "take the punch away exactly when the party is rolling"

Action: *Establish rules to complement discretion in order to avoid regulatory capture (Geneva Report (2009))*

10) "**Greenspan-type puts**" established by the behavior of fiscal and monetary authorities, who rush to save the economy from "**too big to fail**" FIs at the expense of the tax payer and "forget" to control the markets when business is booming, a behavior that reinforces moral hazard and a continuation of the cycle

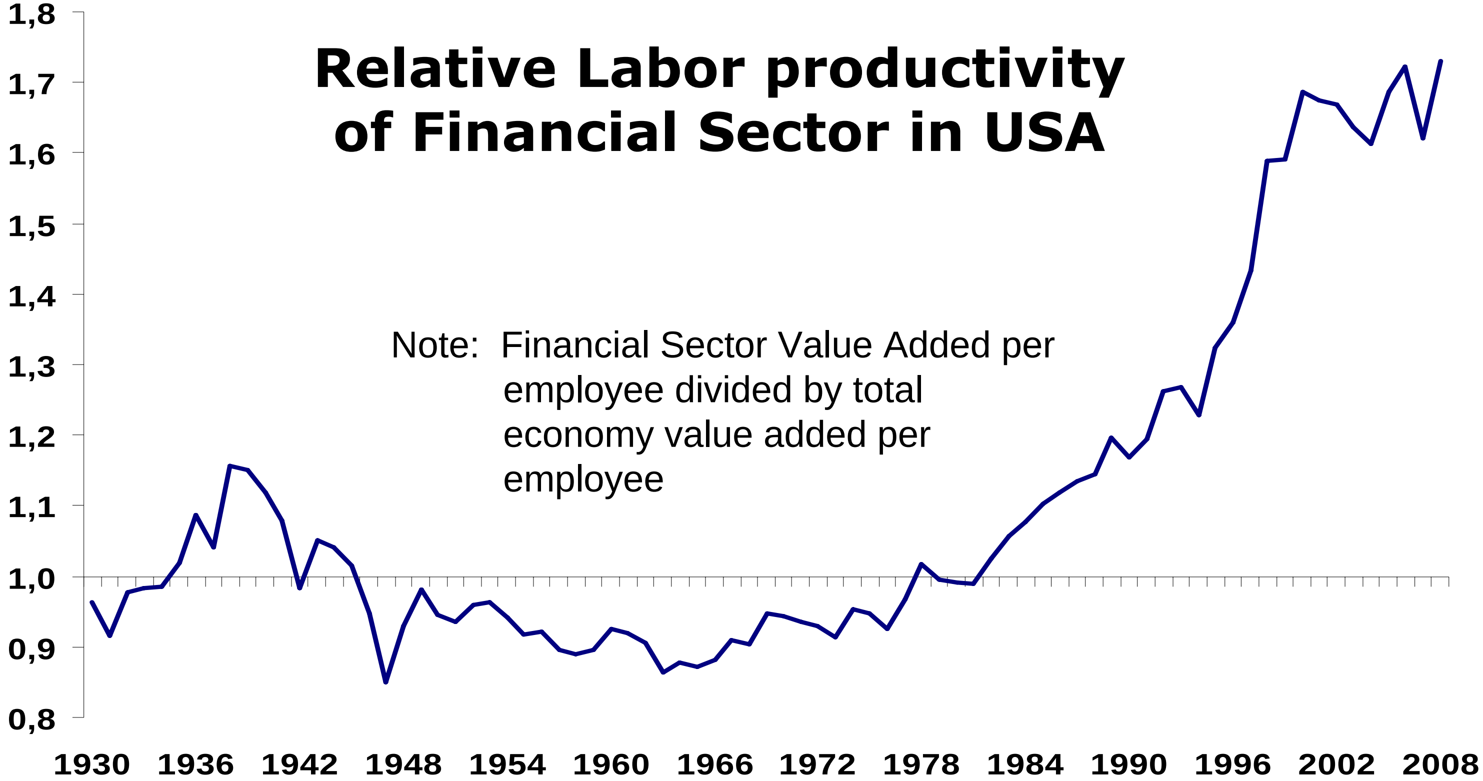
Action: *Provide disincentives on size of FIs (say, via capital requirements) or other methods to reduce contagion and similarity in FI response , which behaviorally transforms small FIs into a single large one*

II. Factors that reinforce procyclicality & Actions to reduce it

C. Regulatory and Economic Policy behavior

11) **The dominance of the financial sector** over the other sectors of the real economy since the 1980s, which has attracted talent and has cumulated money in a few hands, who then are able to shift politics in their desired direction, prolonging a financial cycle

Action:
Impose direct "speed limits" on financial sector expansion (Stiglitz (2008)).



II. Factors that reinforce procyclicality & Actions to reduce it

D. Institutional features

12) **Capital adequacy rules**, which are pro-cyclical, as regulatory capital is based on market prices & short-horizon VARs

    Action: *Do not stop at erasing pro-cyclicality. Impose countercyclical capital requirements, taking into account the global dimension: Suggested trigger mechanism for the cycle: (a) real credit growth (Goodhart & Persaud(2008), (b) credit spreads (Gordy (2008)), (c) credit/GDP plus real estate prices (Borio & Drehmann (2009)).*

13) **The degree & type of restrictions on provisioning**

    Action: *Provisioning can be made a function of future expected losses the moment a loan is dispersed, perhaps in a countercyclical manner, with the cash to be held in non-distributable reserves (Spain). Unexpected losses would then be taken care by capital requirements*

14) **Mark-to-market accounting**, which appears pro-cyclical

    Action: *Evidence on pro-cyclicality contested, yet should we impose countercyclical weights on Market and AFS portfolios?*

    *Have supervisors insist on existence of **orderly default** mechanism*

II. Factors that reinforce procyclicality & Actions to reduce it

D. Institutional features (continued)

15) The degree & type of restrictions on leverage

Action: *Restrictions on leverage, using simple formulas of capital/assets, since risk-weighting was abused. Perhaps prohibit investment bankers, whose job is advising, from leveraging and investing on own-account.*

16) The degree & type of restrictions on liquidity, particularly funding liquidity

Action: *Funding liquidity is pro-cyclical, hence requirements ought to be countercyclical. Geneva & Warrick reports suggest capital requirements to increase by a multiplier, which is a function of maturity mismatches (and credit growth).* ***Yet, watch out !! Maturity transformation is what banks do.***

17) The degree & type of restrictions on collateral values & margins

Action: *Impose floors on Loan-to-Value ratios during economic busts and ceilings during booms, that is, impose a band on L/V*

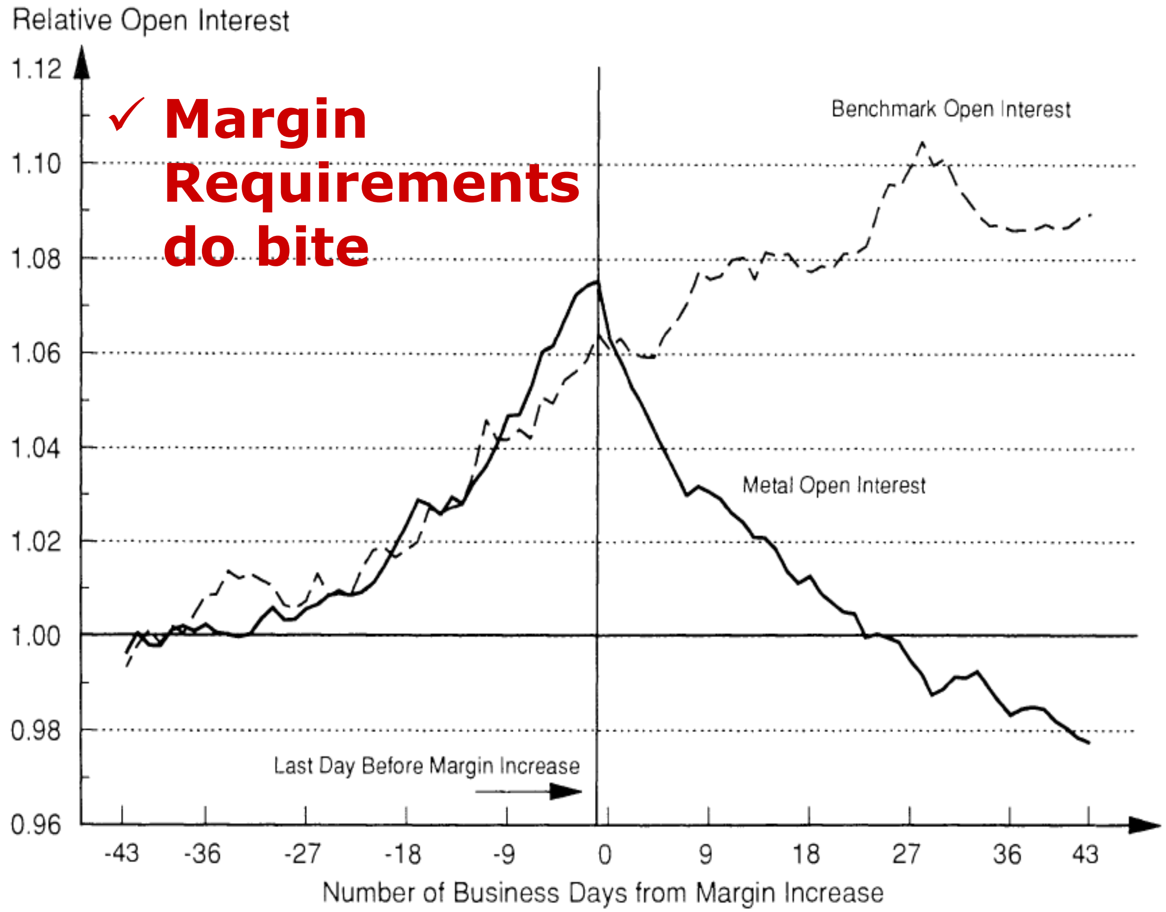
II. Factors that reinforce procyclicality & Actions to reduce it

D. Institutional features (continued)

17) The degree & type of restrictions on collateral values and margins (continued)

Action: *After a sudden & large fall in asset prices ⇨ reduce margin requirements but increase them to their long-term steady state in normal periods when markets calm, without necessarily raising them if bubbles develop – but only in special cases, thus avoiding the criticism that it is hard to differentiate a bubble from a reduction in risk premia. (Hardouvelis (2002,2003)*

The behavior of Open Interest before and after an increase in margin requirements in metal futures markets



Source: Hardouvelis & Kim, <u>JMCB</u>, 27:3, August 1995, pp. 659-71

II. Factors that reinforce procyclicality & Actions to reduce it

D. Institutional features

18) **Large FIs** contribute more than proportionally to systemic risk, transmit shocks across the globe and are also too big to fail and save

    Action: *Impose capital requirements that increase with size of assets plus the size of the total banking sector, or the size of the FIs' contribution to total systemic risk*

19) **Home instead of host country supervision** of bank subsidiaries, which does not allow the easy resolution of local shocks

    Action: *Allow host country supervision (since bailouts done by host national authorities)? (Warrick report (2009)) This may run against efforts in EU.*

20) **Market structure & organization**, i.e. centralized vs. OTC as lack of transparency can magnify concerns and amplify cyclical activity

    Action: *Centralize large markets like the CDSs and impose transparency rules on smaller OTC markets*

II. Other issues: Instruments & Players

- ✓ The financial system ought to be stabilized with **more than one instrument**: FIs may be able to arbitrage any free-standing single instrument, e.g. risk-based capital, margin requirements, but cannot arbitrage a set of them
- ✓ **Regulations** should be **comprehensive**, i.e.
  - ❖ **similar for similar types of financial transactions**, whether imposed on banks or the capital markets. For example, (a) security issuance in capital markets is equivalent to bank lending; (b) collateral requirements in banking should correspond to margin requirements in broker-dealer lending in cash and derivative instruments. This way regulations will **not be circumvented**.
  - ❖ All FIs who handle **other people's money** should be commonly regulated
- ✓ Countercyclical trigger mechanisms ought to take into account both domestic and **international** economic developments, both micro and **macro** developments
- ✓ **Monetary policy** cannot control inflation and stabilize the financial system with only one instrument, interest rates.
- ✓ The **choice of regulator** to enforce financial market stability is perhaps less important, although lately issues of information & liquidity provision suggest aggregating those functions under the central bank

II. Other issues: Additional regulations are costly

- ✓ As we saw, capital rules and provisioning remain the basic tools of countercyclical regulatory policy in most recent reports
- ✓ Deciding the optimal capital level of FIs is not straightforward. Yet, it may be easier to establish capital levels that vary across the cycle
- ✓ Kashyap-Rajan-Stein (2008) argue that in a crisis no amount of capital is enough to withstand a downward spiral in balance sheets. Instead of costly extra capital rules, which would probably be circumvented, the authors suggest the use of less costly ways to insure against catastrophic crashes: Either (a) buy direct insurance or (b) issue **bonds that would automatically be converted into stocks in a crisis**.

III.

RECENT REGULATORY EFFORTS

III. Regulatory decisions to reduce procyclicality

EU De Larosiére Report (February 2009)

- ✓ **More capital and more high quality capital** in the banking system
- ✓ **More capital in good times** to cover idiosyncratic & macro-prudential risks
- ✓ Gradual implementation of new regulations in order to avoid procyclical drawbacks and an aggravation of the present credit crunch.
- ✓ “Excessive" pro-cyclicality in the Basel framework must be reduced by using several methods:
  - ❖ In **banking book**, assess probability of losses and default "**through the cycle**" . Also use "**dynamic provisioning**" that rises during expansions and under certain circumstances is drawn down in recessions. The approach reduces the risk of bank failures, but is also desirable from a macro-prudential and macroeconomic perspective.
  - ❖ In **trading book**, additional capital requirements under Pillar 2 of Basel II.

    Report states that present statistical VaR models are clearly procyclical (too often derived from observations of too short time periods and from other questionable assumptions). If volatility goes down in a year, the models combined with the accounting rules tend to understate the risks involved (often low volatility and credit growth are signs of irrational low risk aversion and hence of upcoming reversals). More generally, the level of capital required against trading books has been well too low relative to the risks being taken in a system where banks heavily relied on liquidity through "marketable instruments" which eventually, when liquidity evaporated, proved not to be marketable. If banks engage in proprietary activities for a significant part of their total activities, much higher capital requirements will be needed.

III. Regulatory decisions to reduce procyclicality

- ✓ **Spain** on provisions, **Switzerland** on capital, **India** on real estate, **Canada** and **China** on mortgage down payments, **Thailand** on credit cards
- ✓ **G-20: Key elements of the new proposals:**
  - ❖ Raise the **quality**, consistency and transparency of the capital base;
  - ❖ Strengthen the **risk coverage** of the capital framework, particularly in respect of counterparty credit exposures;
  - ❖ Introduce a **leverage ratio** as a supplementary backstop to the Basel II framework with a view to migrating to a Pillar 1 treatment based on appropriate review and calibration;
  - ❖ Introduce a **countercyclical capital framework** that promotes the build-up of capital buffers in good times that can be drawn down in periods of stress; **BCBS proposals expected by mid 2010**
  - ❖ Introduce a **minimum liquidity** standard for internationally active banks
  - ❖ Strengthen **accounting standards**: FSB encourages the IASB and FASB to recognize credit losses in loan portfolios at an earlier stage and supports continued work on impairment standards based on an expected loss model. Expected loss estimation processes to be linked with bank risk management systems, draw from information used for Basel II purposes and mitigate risks of procyclicality

THANK YOU
FOR YOUR ATTENTION!!

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