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from: General Secretariat of the Council
to: COREPER/COUNCIL

Subject: Final Report of the EFC Working Group on Pro-Cyclicality

Delegations will find attached the Final Report of the EFC Working Group on Pro-Cyclicality, as submitted by the Economic and Financial Committee.

Encl.:

FINAL REPORT
OF THE EFC WORKING GROUP ON PRO-CYCLICALITY TO THE EFC/ECOFIN

Executive Summary

1. Since the start of the current financial crisis, cyclical and pro-cyclical effects observed in the financial system and its regulation have been indicated as one of the important issues to be assessed and duly addressed.

2. Following up to the invitation of the Informal Ecofin of September 2008, the EFC mandated the Working Group on Pro-cyclicality (WGPC) to contribute to the policy reflection in this field by determining how the EU could consider and take on board the Financial Stability Board (FSB) recommendations and subsequent work, by reflecting on methodologies to develop a macro-prudential orientation in supervisory activity, including through the efficient interplay between supervisors and central banks, and by envisaging an adequate exchange of information.

3. The Working Group has assessed causes and nature of pro-cyclicality and debated on possible solutions, taking stock of contributions of its members and relevant work streams in international fora. Pro-cyclicality is the tendency of financial activity to amplify business fluctuations which may lead/contribute to financial instability and operates mainly through feedback mechanisms¹. The current downturn has shown the difficulty and the importance of keeping the credit flowing to enterprises, also due to the play of pro-cyclical effects in the downturn. Whereas monetary and fiscal policies also have an impact on or can be used to influence the business cycle, this Report concentrates, in line with the mandate of the group, on pro-cyclical feedback mechanisms within the financial system due to regulation and practices, as well as on policy options for counteracting and preventing such risk. The Working Group has, within this context, focussed on four main possible policy responses with a view to reducing potential pro-cyclical effects in the financial system and developing counter-cyclical measures: 1) monitoring system-wide risks, 2) building counter-cyclical buffers through capital and provisions, 3) refining accounting rules and 4) establishing a sound framework for remuneration schemes. The Group also considered other policy options, including in respect of initial margining², naked short selling bans and maturity and portfolio mismatches. These deserve to be developed but require further work, which would best be done at a more technical level in the relevant fora.

4. The Group's proposals aim to complement the, at present, predominantly micro-prudential framework with a macro-prudential approach through building in automatic stabilisers into regulation and through providing better information as a basis for discretionary supervisory measures and changes in regulation.

¹ Changes in income, inflation and employment affect credit and market risks, and can also influence uncertainty in agents' expectations and liquidity. At the same time, financing conditions (risk premiums, underwriting standards, LTVs) impinge on spending decisions by households and non-financial firms.

² The initial margin is the percentage of the purchase price of securities (that can be purchased on margin) that the investor must pay for with his or her own cash or marginable securities.

5. The Working Group supports the creation of the European Systemic Risk Board (ESRB) as agreed by the ECOFIN on 9 June 2009 and supported by the European Council of 18-19 June 2009. The ESRB will analyse and monitor system-wide risks and, where necessary, give recommendations or advice on the discretionary supervisory measures and changes in regulation to be implemented. The Working Group notes that attention should be given to the monitoring of risks developing in the non-regulated sector, including risks entailed by some financial innovations.

6. The Working Group supports that counter-cyclical buffers, which will be increased during upturns and reduced in downturns, should be included in the prudential framework. Accounting rules should be improved in strengthening accounting recognition of loan-loss provisioning by incorporating a broader range of credit information. These tools can be created as provisions for loans, as requested within the G-20 work streams, and as capital buffers.

7. In particular, the present loan-loss accounting standards used for the banking books should be improved. They should be changed so that they will allow for a more forward-looking concept of expected credit loss, rather than limit provisions only to losses that have been incurred by the reporting date. This concept should be applied at the level of the loan portfolio rather than only at the level of individual loans, in order to take due account of risks throughout the loan-cycle and not postponing provisioning until risks have materialised. In practice, this will lead to greater provisions in good times, when risks are accumulating. Establishing such a provisioning model would have to be achieved by refining the accounting standards (IFRS). Allowing for recognition of such expected losses by introducing dynamic provisioning would ensure the build up of provisions through accounting in good times which can be used in downturns³ and would help avoiding measurements of profits in good times which may overstate the true economic return, adjust managerial incentives in relation to remuneration and make investors more aware of the underlying risks and further enhance consistency between accounting and prudential rules. The Working Group supports the introduction of dynamic provisioning in order to address credit risk and enhance transparency. The European Commission intends to present a legislative proposal introducing dynamic provisioning requirements for banks in October 2009.

³ Dynamic provisioning avoids the problem of not being able to draw on buffers in downturns as it is not capital and can thus not be perceived as a higher capital level in upturns and drawing down capital in downturns.

8. The early recognition of loan-loss provisions is currently discussed in view of replacing the current incurred-loss model and would imply the replacement of standards applicable to financial instruments. After that, it should be endorsed by the EU. The necessary changes to IFRS that will allow dynamic provisioning by banks and any associated regulatory proposals will be important. In addition, work must progress on increasing the capital buffers of banks that will have a counter-cyclical effect. A number of concrete proposals to this effect are currently being discussed in the EU and at the level of the Basel Committee. They include:

- A proposal put forward by CEBS on bank specific, time varying capital buffers, built up by incorporating recessionary conditions into the regulatory measures for credit risk;
- The possible introduction of multipliers for capital buffers, linked to cyclical or financial market conditions, in order for capital levels to adjust in a counter-cyclical manner throughout the cycle;
- Possible soft fixed targets for capital buffers in good times over and above the regulatory minimum.

9. The advantages and downsides of these proposals are still under active consideration. It is paramount that counter-cyclical capital buffers are not considered as new minimum capital levels when conditions deteriorate, so as to allow banks in downturns to draw on buffers previously built up in good times. The discussions on these possible measures to establish counter-cyclical bank capital buffers have not yet advanced sufficiently for the Group to pronounce itself on any of these options. However, the Group is of the view that these discussions should be followed closely and the necessary follow-up should be accorded to any firm and agreed measures that may result.

10. Agreement has already been reached at international level

- to increase the minimum capital requirements for banks' trading book activities. This will reduce volatility in the present system. The European Commission intends to present the necessary legislative proposals in this area in the summer 2009; and

- on the need to reduce excessive leverage in the financial system. The European Commission intends to present further legislative proposals to introduce simple, non risk-based metrics in October

11. The Group is of the view that all of the measures discussed regarding capital buffers should be subject to rigorous quantitative impact assessments in order to estimate their efficiency in reducing pro-cyclicality.

12. The application of the fair value principle of accounting standards may contribute to pro-cyclicality of reported profits as the valuation of certain financial assets (in the trading book) may understate risks in good times and overstate them in downturns, for instance when 1) financial instruments not suitable for fair value are fair valued, 2) market prices are used when markets are illiquid and 3) modelled prices rely too much on illiquid market prices.

13. The IASB intends to adjust IFRS in the context of its announced revision of IAS39. The IASB has also published a draft on fair value measurement to address the issues raised above. This should include a review of the fair valuation of many categories of financial instruments and adjustments as appropriate, so as to take into account the uncertainty of valuations in the trading book in certain periods and the reality of the business models of banks, the nature and holding horizons of the financial instruments. More generally the options for addressing the uncertainty of valuation could be addressed either by improving disclosure and information within the current accounting standards only or supplementing this by introducing valuation reserves and/or adjustments when data or modelling is weak. The FSB has recommended examining the option of adjustments and/or valuation reserves. The Report calls for greater convergence between accounting standards and prudential rules and stresses the complementarities between financial stability and transparency of financial reports for investors.

14. The recent change by the US standard setters allows losses other than the underlying credit related loss of impaired debt instruments classified as available for sale to be recognised in equity only, thereby not in the income statement. The Working Group welcomes the commitment by the IASB to promptly review the accounting rules on impairment of certain financial instruments in time for the preparation of the 2009 year-end financial statements. In addition, the Working Group supports a comprehensive review of IAS39 by the IASB, taking also into account the objective of achieving global convergence on the accounting for financial instruments, as reflected in the G20 communiqué.

15. Finally, it is broadly recognised that remuneration schemes constitute a source of pro-cyclicality. In this respect, the Report points to the need of establishing schemes which may give the right incentives and are related to the long-term risk-adjusted performance of the institutions. The European Commission [will present/has presented] legislative proposals to the Council and the European Parliament at the end of June on remuneration policies aiming at mitigating excessive short term risk taking in the banking area.

1. The mandate

1. The Informal Ecofin in Nice in September 2008 agreed to set up an EU working group to assess, consistent with FSB and Basel Committee work, the range of policy responses that could help to mitigate undue potential pro-cyclical effects of the financial system.
2. The EFC has mandated its Working Group on Pro-cyclicality to contribute to international analytical work in this field
 - (i) by taking into account all matters identified by the FSB: prudential standards but also accounting rules and compensation schemes
 - (ii) by determining through which tools the EU could take the FSB recommendations on board;
 - (ii) by reflecting on the tools and methods to further develop the macro-prudential orientation in the supervisory activity, in order to take the objective of stability of the financial system as a whole into account;
 - (iii) by assessing how the interplay between supervisors and central banks in the macro-prudential field could be enhanced; and,
 - (iv) by envisaging an adequate exchange of information.
3. On the basis of this mandate and the most recent developments at the FSB and Basel Committee level, the Report identifies and develops a range of four possible policy responses (see section 4). These potential tools were seen as most relevant to the mandate of the Group, although monetary and fiscal policy, as well as risk appetite and leverage in the non-financial sectors are at least as important in causing, amplifying and managing the business cycle.
4. The Group also considered other policy options, including in respect of initial margining, naked short selling bans and maturity and portfolio mismatches, which would deserve to be further developed but would require further work and would be best done at a more technical level in the relevant fora.

2. Pro-cyclical effects in the financial system

5. A micro-prudential approach is not fit to deliver financial stability on its own. The episodes of financial distress that imply significant costs to society can result from the failure of a single institution, but they are typically the consequence of endogenous forces within the financial system that tend to amplify the economic cycle. When authorities do not take the collective behaviour of institutions into account, they fail to monitor risks and take appropriate actions.

6. Pro-cyclicality is the tendency of financial activity to amplify business fluctuations which may lead/contribute to financial instability. It operates mainly through feedback mechanisms⁴ which may give rise to cumulative processes in the form of spirals and self-sustaining booms and busts

7. Pro-cyclicality in the financial system is the inevitable consequence of how participants measure and respond to risk. Part of the pro-cyclicality is difficult to avoid, i.e. in cases of wrong assessment of risks and is the result of market failures or imperfections (e.g. asymmetric information, coordination failures). It leads to inefficiencies in the allocation of risks and savings, as well as to the risk of undesirable equilibrium. However, as seen in the current financial crisis, the existing rules can lead to behaviour where perceived low risk in individual institutions increases aggregate risks which then feeds back to individual institutions, creates financial instability and amplifies the business cycle.

⁴ Changes in income, inflation and employment affect credit and market risks, and can also influence uncertainty in agents' expectations and liquidity. At the same time, financing conditions (risk premiums, underwriting standards, LTVs) impinge on spending decisions by households and non-financial firms.

8. From 2002 to June 2007, the world experienced a broad-based economic upswing and an "exuberant" financial boom, fuelled by an initial period of very low interest rates. In parallel, structural transformation of markets and institutions has induced in some cases a creeping relaxation of risk management standards, as loans were granted to be quickly securitised and transferred to third parties ("originate to distribute" model). Financial innovation has developed subject to no or lighter regulation and supervisory scrutiny. Securitisation facilities and the emergence of highly leveraged players have also generated through time the belief that liquidity was available without limits, with total loans growing at percentages much higher than the growth of the real economy.

9. The accelerating tide of financial distress since July 2007 and macroeconomic costs may suggest that **pro-cyclicality is likely to have increased over the last few years**. The feedback mechanisms from the financial system to the real economy have been unusually fast and deep, possibly spurred by, a.o. (i) the greater use of leverage in the financial and real sectors, (ii) closer ties between market and funding liquidity e.g. through increased use of collateral in secured financing, (iii) increased contagion effects in integrated markets as well as (iv) the (unintended) effects of some regulations, including accounting standards. The scale of the crisis led financial authorities to adopt exceptional intervention measures since October 2008.

10. **In this context, there is a strong case for a policy response aimed at mitigating pro-cyclicality and curbing its economic costs.**

11. Policy responses could consider two types of measures: (1) measures addressing weaknesses in regulations and policies and (2) counter-cyclical measures addressing market imperfections and designed to smooth the economic cycle.

12. Although several potential policy areas, including monetary and fiscal policy, could effectively contribute to achieving this goal, this Report focuses on the possible revisions to the accounting, prudential regulatory and supervisory frameworks, which are among the main dimensions of international financial system reform contemplated in the context of the G-20 discussions⁵.

⁵ The Declaration of the Washington Summit states that "we will also make regulatory regimes more effective over the economic cycle" and also "we request our Finance Ministers to formulate additional recommendations, including in the following specific areas: mitigating against pro-cyclicality in regulatory policy".

3. Developing an EU macro-prudential approach to address pro-cyclicality

13. **The EU prudential framework to date continues to be predominantly based on a micro-prudential approach**, focussing on the financial conditions of individual institutions, with the objective of reducing the probability of socially costly defaults and depositor protection. While the occasional failure of non-systemic individual institutions is not challenging financial stability - and need to be allowed in order to ensure market discipline - financial stability must be ensured by taking the collective behaviour of the financial system into account.

BOX 1: Macro-prudential approach

The macro-prudential approach consists of two dimensions : a cross-sectional dimension (i.e. how risk is distributed in the financial system at a given point in time) and a time dimension, or how aggregate risk evolves over time.

The key issue in the cross-sectional dimension is how to deal with common (correlated) exposures across financial institutions. These arise either because institutions are directly exposed to the same or similar asset classes or because of indirect exposures associated with linkages among them (e.g. counterparty relationships). The importance of monitoring threats to financial stability on a system-wide basis has been recognised for some time and addressed in central bank financial stability reports, efforts to develop early warning tools and macro-stress tests⁶.

The key issue in the time dimension is how system-wide risk is amplified by interactions within the financial system as well as between the financial system and the real economy, including possible pro-cyclicality.⁷

⁶ Borio and Drehmann 2008 and 2009.

⁷ Crockett 2000, Borio et al 2001, BIS 2001, Brunnermeier et al 2009.

The crisis has clearly shown the need to complement the existing micro-prudential regulatory framework with a robust macro-prudential approach, which focuses on a systemic or system-wide orientation of the regulatory and supervisory frameworks and their link to the macro-economy. This approach focuses on the financial system as a whole, i.e. the collective behaviour of financial institutions. Although a better assessment and monitoring of systemic risk has a broader scope than limiting pro-cyclical effects in financial markets, it also contributes to addressing this issue. Both at international (G-20) and EU level (de Larosière Report and the European Commission Communication) proposals have been formulated in respect of enhancing the macro-prudential framework. They are in line with the recommendations and policy tools developed in the context of the present Report, which focuses on helping the market in the correct assessment of the time dimension of system-wide risks and gearing private incentives towards optimal aggregate outcomes.

General principles for a macro-prudential approach

14. The EU should work promptly and effectively to move forward in developing such an EU macro-prudential approach, which could be developed from the following **principles**:

- **Consistency with international standards and approaches.** The EU must continue to actively participate in the shaping of the macro-prudential approach at international level and in line with the ongoing debate within G20, while keeping the initiative of pushing ahead in areas where there are no internationally agreed standards.
- **Effectiveness based on strengthening buffers in good times.** Decisive action by public authorities and financial institutions should be focused on good times, where risks and vulnerabilities are mounting in order to build up buffers that can be drawn down in an economic downturn.
- **Based on rules which would act as automatic stabilisers.** In order to overcome industry or political resistance to increasing buffers in good times and to providing a level playing field, there is a **need for rules**, which could act as automatic stabilisers, i.e. discipline markets in upturns and accommodate risk and ensure available resources in downturns. Expected risks should be addressed automatically.

- **Enhancing the macro-financial dimension in supervisory activities.** Discretionary measures are needed to address new risks due to financial innovation, new rules etc. and risk mounting in the non-regulated sector. The ESRB should give recommendations or advice in this respect. Some action should be taken to make sure that supervisory practices addressing macro-prudential risks are **consistent** across the EU, while reflecting differences in financial structure and economic cycle at national, regional– or sub-regional - level.
- **Transparency for regulators and for financial institutions.** Rules and supervisory actions should be clearly and simply explained and publicly disclosed as appropriate, in order to foster their effectiveness and credibility.

4. Range of potential policy responses

15. There is a host of potential elements which could contribute to **reducing pro-cyclical effects**⁸, encompassing changes in accounting and prudential rules as well as actions by supervisors, central banks and finance ministries. Taking into account its mandate the Group has focused on the following four areas for policy action: 1/ monitoring system-wide risks, 2/ building countercyclical buffers, 3/ refining accounting rules and 4/ establishing a sound framework for remuneration schemes.

⁸ The BIS has identified as many as 9 potential policy measures.

4.1. Enhanced analysis and monitoring of system wide risks

16. Macro prudential monitoring is to inform discretionary actions in supervision and regulation on the basis of **regular assessments of the absolute level of risk in the system**. The G-20 Summit called for better coordination of macro-prudential surveillance and micro-prudential supervision as well as for establishing an early warning mechanism. In order to develop this line of action at EU level several steps are needed:

- **First, ensure that EU authorities tasked with safeguarding financial stability are collecting and sharing comprehensive and reliable data on the EU financial system's activity.** Despite the existing statistical and reporting framework, the financial crisis has shown that macro-prudential data at the EU level is fragmented - in particular compared to the data available in the US. This has been particularly the case for statistics related to securitisation and new markets. With a view to expanding the comprehensiveness and reliability of data:
 - **Data quality standards** should be in place to avoid any bias making them unfit for macro-prudential analysis. There is an obvious need for further data collection initiatives, in particular some macro-prudential data regarding ABS and derivatives markets at EU level, while, taking into account their costs and benefits.
 - **Cooperation at EU level** in data gathering and sharing **should be enhanced**. In this respect, an efficient cooperation framework should be established between EU supervisory committees, central banks and other authorities in charge of macro-prudential assessment at national and EU level, in line with the ongoing discussions in respect of the European Systemic Risk Board (ESRB). There should be no legal obstacles to exchanging data among EU authorities tasked with safeguarding financial stability needed for a meaningful macro-prudential analysis. The information should be available to the relevant authorities overseeing individual firms and should be shared with those authorities exercising macro-prudential oversight of system risk as a whole, subject to specific confidentiality agreements.

- **A clear decision should be taken at political level** to enhance data collection and pooling of information related to system-wide risks and their interaction with the real economy. Macro-prudential data have to adequately capture the macro-economic environment, trends in financial markets (including money markets, credit markets, equity markets, derivatives markets (e.g. CDS markets)) and the aggregate picture of the situation of all relevant groups of financial actors playing a significant role on financial markets (banking sector, insurers, regulated and non-regulated funds).
- **Second, ensure that appropriate tools and methods are in place to further develop the macro-prudential orientation in the supervisory activity, so that supervisors take the macroeconomic context more into account.** Stress testing of different macroeconomic scenarios should be fostered as a tool to gauge the exposure of the financial system to common risk factors. The macroeconomic scenarios for stress tests should be consistent throughout the EU to ensure a level playing-field and additional stress tests also need to be calibrated according to the circumstances and specificity of individual financial systems and economies. The Working Group welcomes the EU-wide stress test exercise and survey of supervisory stress tests currently being coordinated by CEBS for the EFC.
- **Third, sharpening the analysis and tailoring it for policy use.** In this respect, more emphasis is needed **on common factors of risk exposure** in the financial system as well as on correlations in times of stress and substantial efforts need to be made in the context of the ESRB to **foster cooperation on macro-prudential analysis**, by:
 - achieving a sharp and meaningful assessment at EU level;
 - ensuring that the analysis is produced associating all relevant authorities, notably national supervisors and central bankers, in an independent manner, but also determining clearly which authority is primarily responsible for delivering the assessment and which authority is responsible for acting on it.
 - integrating top-down assessments, based on aggregate data and stress tests, and bottom-up evaluations, which benefit from supervisory information and assessment.
 - designing an appropriate format aimed at putting forward the main risks and evolutions, associated with recommendations for possible remedial measures or actions when appropriate;

- **Fourth, monitor developments of risks outside the regulated sector**, so as to contain the possibility that enhanced countercyclical requirements for supervised institutions lead to a shifting of risks to non-regulated entities, which could generate new sources of pro-cyclicality in the financial system.
- And, finally, macro-prudential monitoring will only bear fruit if it is **translated into concrete policy actions**, where appropriate.

17. To streamline the process, notably in the EFC including in its EFC Financial Stability Table format, a clear definition of contributions should be ensured, and the appropriate process and frequency in discussing the results of this macro-prudential assessment should be determined, in order to come, at the EFC level, to concrete policy recommendations.

4.2. Building countercyclical buffers through provisions and capital

18. The build-in of regulatory countercyclical buffers can be achieved by a variety of instruments of which some would require changes in accounting standards, such as dynamic provisioning, and others would not, such as capital buffers. Other accounting issues, such as the application of fair value in illiquid markets and the treatment of impairment of Available for Sale instruments due the recent changes in the US GAAP, are discussed in section 4.3.

19. Under the current accounting framework, banks must make provisions for loan losses that have been incurred by the reporting date, but may not provision on a more forward looking basis. However, the current crisis has shown that the amount of banks' buffers, both capital and provisions, held during the upside cycle have been insufficient to cover losses that have emerged since mid-2007. This has been a key factor in the spreading of the financial crisis. In fact, banks have been forced to strengthen their capital base, mainly by recapitalising and reducing their leverage in very difficult market conditions in order to absorb losses coming from risks previously taken.

20. In order to counter such pro-cyclical effects in the future, the prudential and accounting frameworks should be revised to ensure that financial institutions build sufficient buffers in good times, in the form of both provisions and capital, which can be drawn down when the cycle turns. The G-20 Leaders also agreed in April that regulation must require buffers of resources to be built up in good times.

Provisioning for loan portfolios

21. **Provisions for loan losses** reduce an institution's reported net income in the period in which the provision is recognised and decrease the carrying value of the loans. As already indicated in the previous paragraph, accounting standards (for instance, IFRS) currently follow the "incurred loss model", allowing recognition of losses in case of events that have been incurred at the balance sheet date. In practice, current standards do not permit credit losses based on events that are expected to occur in the future to be included in provisions.

22. For a long term loan portfolio initiated during an economic upturn, there may be no 'incurred loss' events and, in that case, no provisions will be set up under IFRS for credit losses on individual loans. However, based on historical data on credit losses, it is statistically probable that some credit losses will emerge over the lifetime of such portfolio. Under the current incurred loss model, historical loss rates or statistical methods can be used to make provisions for losses which are "incurred but not yet reported". The IASB is working on improving the model for recognition of credit losses for loans and will publish proposals on provisioning in October 2009, including consideration of an 'expected loss' model. A move from the notion of incurred loss to that of expected loss could be helpful in mitigating pro-cyclicality. It would be desirable to come as close as possible to a notion of expected losses based on through-the-cycle measures.⁹

⁹ The advantages of allowing for recognition of such expected losses before profits rather than after profits are as follows:

- Ensure the build up of provisions in good times, which can be used in downturns
- measurements of profits in good times do not overstate the true economic return
- adjustment of managerial incentives in relation to remuneration
- investors gets more aware of the underlying risks
- enhance consistency between accounting and prudential rules.

23. Banking supervisors and the European Commission have urged the IASB to reconsider its strict 'incurred loss' approach and give more flexibility for provisioning under IFRS in order to ensure a timely recognition of expected losses. This would make investors and bank managers more aware of the underlying risks: moreover, pro-cyclicality may be dampened.

24. The FSB (Financial Stability Board) believes that earlier recognition of loan losses could have potentially reduced pro-cyclicality in the current crisis. It recently requested that standard setters allow the use of reasonable estimates for appropriate recognition and measurement of provisioning for loan losses under the current accounting requirements. The BCBS (Basel Committee of Banking Supervisors) and FSB also requested to reconsider the incurred loss model by analyzing alternative approaches for the recognition and measuring of loan losses. In fact, appropriate changes to the loan loss accounting model would capture credit impairment earlier in the credit cycle and therefore contribute to better reflecting the underlying economics of lending activities.

25. In the insurance world, insurers and, in particular credit insurers, also face pro-cyclicality risks. A credit insurer insures the risk that a third party is unable to meet its financial obligations to the policyholder. Credit insurance is, in terms of its risks, substantially similar to the banking business and faces the same pro-cyclical challenges. Credit insurance could therefore also benefit from a dampening mechanism, such as dynamic reserving or provisioning. In the current insurance prudential framework, known as Solvency I, such a specific system for the credit insurance business already exists. However, the new Solvency II framework does not foresee a dynamic reserve or provision for the credit insurance business. In light of recent events, it is advisable to reconsider the inclusion in Solvency II of dynamic reserves or provisions for credit insurance.

Counter-cyclical Capital Requirements

26. In view of its risk-sensitive nature, the application of Basel II/CRD might exacerbate the cyclicity of the financial system. Indeed, risk-based regulatory capital requirements tend to rise more in recessions and grow less during expansions, laying the ground for potentially pro-cyclical effects. The final version of the framework therefore includes some mitigating factors to dampen the potential pro-cyclical effect of Basel II's increased risk-sensitivity¹⁰.

27. Even though the track record of the CRD, which was fully implemented in 2008, is very short to deliver any reliable data on its impact, and in particular on whether or not it adds to pro-cyclicality, the ECB and the European Commission are already working on the report to the Council and the European Parliament on its potential pro-cyclical effects, which is due by the end of 2009 in accordance with Article 156 of the CRD. Further examination of the issue is needed, including conducting empirical analysis, based on Basel II data as well.

28. But the crisis has prompted a more fundamental reflection on the possible need to revise key elements of the Basel II framework in order to address concerns over capital adequacy, including also the issue of pro-cyclicality. In the buoyant years preceding the turmoil, many large and internationally active credit institutions aggressively increased leverage, and thus amplifying risks which were not adequately captured. Although improved risk management was one of the drivers for the introduction of Basel II, it now appears that neither regulatory capital nor economic capital has been in several cases commensurate to actual risk, particularly the risk contained in the trading book. In order to achieve the higher capital ratios currently considered appropriate by the market, many banks have had to de-leverage abruptly – which in itself has pro-cyclical effects - and seek fresh capital in a difficult environment, adding to stress in the real economy.

29. The Basel Committee and CEBS are working on a comprehensive roadmap to address the lessons of the crisis with respect to the capital framework.

¹⁰ (Pillar 1's stress testing requirements, Pillar 2's supervisory review process, the use of downturn LGDs (Loss Given Default) and PD (Probability of Default) estimates based on long data series and technical adjustments that were made to the risk weight function).

30. Several proposals are being considered in order to dampen the effects of cyclical fluctuations of capital requirements by building up capital buffers in good times which will be allowed to be drawn down during downturns. In this respect, it is paramount that the buffers are not perceived as new minimum capital levels when conditions deteriorate, or generally are seen to replace the Basel II requirements, as this would aggravate potential pro-cyclical pressures. Three types of measures are being explored by the Basel Committee.

- a) *Complement strict minimum requirements that always hold with a fixed, but soft long-term target capital level for good times.* A largely non-discretionary mechanism – based on restrictions on dividends, share buy-backs and other capital distributions – could help ensuring that banks indeed build up capital buffers in good times. This would be particularly effective as it would build on Pillar 1 capital requirements. On the other hand, it may be perceived to replace the Basel II minimum capital requirements, would be difficult to apply to non-listed banks that do not distribute dividends and reduces the capital buffer as such only in terms of the outflows.

- b) *The proposal published by CEBS in a discussion paper containing an operational proposal for firm-specific time-varying capital buffers.* The main objective of this proposal is to provide supervisors with a practical tool to assess the adequacy of banks' capital buffers. The size of the buffer decreases in recession and increases in an upswing based on the differences between the probabilities of default (PD) estimated by banks in an economic downturn/recession and current PD estimates; the differences are used to dynamically adjust the current estimates. CEBS proposes two alternative options for the calculation of the buffer: 1) a portfolio level option and 2) a rating-grade level (i.e., more granular) option, together with variants of each option (see Annex 2). The two options present some differences: option 1 is easier to implement and less data-intensive but maybe less precise, whereas option 2 is more granular but at the same time more data demanding. Therefore, the trade-off between accuracy and manageability must be adequately managed.

Notwithstanding some technical and computational differences, first evidence – which might be complemented in the coming months by further quantitative analysis – suggests that at least the portfolio-level options provide broadly similar results. Even though its current formulation is more tailored for use under the Pillar 2 umbrella, the proposal might easily be adapted in a Pillar 1 context. While the proposal would be neutral with respect to the approaches of individual banks to risk measurements, it would leave room for discretion and possibly generate level playing field issues if not applied as a hard measure under Pillar 2.

- c) *Other possible variable capital buffers are under consideration*, e.g. based on multipliers reflecting market developments. The advantages and drawbacks of these proposals are still under active consideration. The discussions on these possible measures to establish counter-cyclical bank capital buffers have not yet advanced sufficiently for the Group to pronounce itself on any of these options. However, the Group is of the view that these discussions should be followed closely and the necessary follow-up should be accorded to any firm and agreed measures that may result from these measures.

It is important to further develop these approaches and to investigate to what extent they could be complementary measures.

31. The Basel Committee is also considering other measures to damping pro-cyclicality, including:

- *Supplementing the risk-based metric with a simple measure.* Preliminary options which have been discussed include (i) a leverage ratio¹¹, based on non-risk sensitive measures, (ii) some funding ratios aim at evaluating the appropriateness of stable funding sources, (iii) an indicator based on gross income or an alternative metric compared to capital buffers. At its forthcoming meeting, the Basel Committee will review a concrete proposal to supplement Basel II's risk-based capital requirements with a stock based measure of leverage. The Commission will present legislative proposals to constrain unsustainable and excessive balance sheet growth in October 2009. The exact design of the metric, its objective (back-stop ratio or indicator) and calibration still require further work.
- *Strengthening guidance for Pillar 2, in particular on sound stress testing practices.*
- *Technical adjustments in the calculation of capital.* The Committee will analyse whether it would be warranted, in view of the crisis, to promote greater use of through-the-cycle PD (probability of default) estimates as well as to introduce an Incremental Risk Charge in the Trading Book¹².

32. **The EU should endorse the idea to work along these lines, notwithstanding the need to examine in detail their technical implications**, while remaining as consistent as possible with the conclusions of the Basel Committee.

¹¹ The US has limits on leverage ratios and this did not prevent bank crises: in the US, leverage expanded in non bank financial institutions and off balance sheet vehicles outside the perimeter of regulated bank leverage ratios. This highlights the significance of monitoring of risks in the non-regulated sectors.

¹² Announced by the Basel Committee on 16 January 2009.

33. In the **insurance field**, dampener tools have been introduced during the Solvency II **negotiations**, though only for equity risk. Pro-cyclicality is addressed through counter-cyclical capital requirements and Pillar 2 provisions since technical provisions, reflecting as precisely as possible the insurer's commitment towards its policyholders, cannot be modulated. These technical provisions only relate to business already written and, therefore, Solvency II currently favours a 'point in time' approach over a 'through the cycle' approach for credit risk in insurance contracts. Where an insurance product is significantly exposed to credit risk and where contracts are written for a period substantially shorter than a full business cycle (e.g. for credit insurance), a separate reserve or provision, incorporating the entire business cycle, could be introduced to account for this pro-cyclical effect.

4.3. Refining accounting rules

34. **Some EU supervisors and** central banks have long been voicing concerns about the need to include the objective of financial stability in IFRS¹³ and to promote more convergence between prudential and accounting standards. There is no trade-off between financial stability and transparency for investors; reliable information is good for financial stability and improved disclosure about uncertainties and risks is good for investors. In the current crisis, the information conveyed to investors through the accounts of financial firms has not adequately captured the risks and uncertainties of valuations during the *upswing*.

¹³ See ECB Occasional Paper no 13 (2004) and BSC Report on the Assessment of accounting standards from a financial stability perspective (2006)

35. *While the independence of accounting standards setters, including the International Accounting Standards Board (IASB), is essential in order to ensure confidence in the financial reports, further efforts are needed to ensure that financial stability is properly considered by standard setters. In particular, there is an urgent need to ensure that the views of regulators and prudential supervisors are properly integrated into the standard-setting process. Although this can most easily be achieved through continued cooperation between supervisors and the IASB, further adjustments are needed including to the institutional setting, i.e. reforms of the governance of the International Accounting Standards Committee Foundation (IASCF), and enhancements to the due process, including the agenda setting of the IASB. The current review of the IASB constitution, together with our international partners, should be used to promote these objectives.*

36. Beyond the ad hoc emergency response by standard setters (see Box 2), the fundamental debate on the need to revise accounting standards for financial assets has re-emerged. The complexity and the economic stakes of the issue **call for further consideration of fundamental and lasting solutions**, not only to be applied in times of stress, but also during boom periods.

37. Many separate accounting issues have been raised since the beginning of the financial crisis, including the application of fair value in illiquid markets and the treatment of impairment of available for sale instruments due the recent changes in the US GAAP. The recent change by the US standard setters allows unrealised losses other than the credit losses of impaired debt securities classified as available for sale to be recognised in equity only, thereby not in the income statement.

38. The IASB has committed to a comprehensive review of the international accounting standard IAS 39. Proposals will be published during the second half of 2009.

Refining the application of fair value to financial instruments

39. While recognising the benefits of the application of fair value to financial instruments for conveying the true short term economic situation of the firms to investors, the financial crisis has highlighted several shortcomings of applying to the financial sector an accounting framework based on a notion of fair value applied as the strict immediate market exit price, including contributing to increased volatility and its implications for financial stability. Under these circumstances, market prices may very well have overshot, accelerating the downturn after having exaggerated profits during the cyclical upturn¹⁴.

40. This calls for a general refinement in the application of accounting rules in order to give, not only in periods of market stress, an enhanced picture of the true financial and economic situation of firms to investors. Allowing for recognition of uncertainty in the valuation of some financial products along the cycle **could introduce some prudence** which, the current crisis has shown, is fully warranted (i.e. search for yield in good times, bad assessment of underlying correlations, difficulties in the models to grasp credit, liquidity and counterparty risks, etc.). This implies, in particular, that the application of fair value to financial instruments should better take into account their effective time horizon, their real economic use and the actual liquidity of the markets on which they are traded.

41. In October 2008 (see box 2), the IASB issued guidance on the fair value of financial instruments in illiquid markets. This emphasises that prices of transactions in such markets are not necessarily representative of fair value, that management judgement must be used and that valuations derived from internal models can be used in such circumstances. This guidance was well received by European stakeholders and is applied without difficulty.

¹⁴ Plantin, Sapra and Shin, *Marking-to-Market : Panacea or Pandora's Box?*. August 2007. This paper compares the inefficiencies of marking to market compared with historical cost regime. The conclusions are that measurement itself has an impact on pricing and that marking to market induces lower inefficiencies for sufficiently short-lived, liquid and junior assets.

42. In April 2009 the US standard setter changed the impairment rules for available for sales instruments. These are instruments which are valued at fair value. Under IFRS impairment losses are to be recognised in the income statement. After the change in the US impairment losses in American banks can split impairments into two components, i.e. a) credit related losses which are recognised in the income statement and b) the other losses (e.g. liquidity) which are not recognised in the income statement but only in equity. There is a general sentiment among EU stakeholders that this has created an unfair competitive advantage in favour of US financial firms. This issue has been debated at several ECOFIN meetings. The IASB intends to review its approach to classification and impairment of financial assets to deal with this issue before year end 2009.

43. The Working Group welcomes the commitment by the IASB to promptly review the accounting rules on impairment of certain financial instruments quickly and in time for the preparation of the 2009 year-end financial statements. In addition, the Working Group supports a more comprehensive review of IAS39 by the IASB, taking also into account the objective of achieving convergence on the accounting for financial instruments, as mentioned in the G-20 communiqué.

44. The challenge is to refine the application of fair value in the long term to take due account of the substantial uncertainty around the valuation of many categories of financial instruments. One possibility to address this uncertainty could be through improved disclosures and the provision of appropriate information about the uncertainties in the notes to the financial statements, so that users of the financial statements will be able to discern and appropriately assess the difficulties and risks surrounding the valuation of certain products and understand that the fundamental value is different from what market prices indicate at that moment. Another possibility, as recommended by the FSB, is to also examine the use of valuation reserves or adjustments for fair valued financial instruments when data or modelling needed to support their valuation is weak. These valuation adjustments would need to be accurately measured, coupled with strict internal controls on their use, in particular regarding possible changes in the parameters, in order to avoid any type of cherry-picking. They should also be supported by robust economic analysis and be thoroughly cross-checked by external auditors.

BOX 2: Classification and valuation of financial assets

IAS 39 *Financial Instruments: Recognition and Measurement* requires financial assets to be classified (and valued) in one of the following categories:

- a) **Financial assets at Fair Value through profit or loss**
 - a. Designated on initial recognition
 - b. Held for trading (all derivatives, except those designated hedging instruments, and financial assets acquired or held for the purpose of selling in the short term or for which there is a recent pattern of short term profit taking)
- b) **Available-for-sale financial assets at Fair Value through equity** (except for impairment losses and foreign exchange gains and losses, until the financial asset is derecognised, at which time the cumulative gain or loss previously recognised in equity shall be recognised in profit or loss)
- c) **Loans and receivables at amortized cost.**
- d) **Held-to-maturity investments at amortized cost.**

In response to several recommendations of international organizations, mainly the FSB, the IASB has accomplished a set of reforms, clarifications and proposals to address some weaknesses of accounting standards and has increased the degree of cooperation with the FASB.

October 2008: Reclassification amendment to IAS 39 and IFRS 7 *Financial Instruments: Disclosures*. It softens the conditions to allow companies to reclassify assets from fair value categories to amortized cost categories (from the trading book to the banking book, in supervisory terminology).

- Reclassification of securities out of the *held for trading category* in particular circumstances.
- Reclassification from *available for sale category* to *loan and receivables category* if intention and ability to hold for the foreseeable future (loans) or until maturity (debt securities).

Also in **October 2008**, IASB's Expert Advisory Panel (EAP) published a report on

Measuring and disclosing the fair value of financial instruments in markets that are no longer active.

March 2009: FASB published a guidance for *Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That are Not Orderly*. The IASB confirms that this guidance is consistent with the IFRS's. This guidance reaffirms the need to use judgment to ascertain if a formerly active market has become inactive and in determining fair values when markets have indeed become inactive.

The US FASB published guidance for *Recognition and Presentation of Other-Than-Temporary Impairments*. This guidance clarifies when other-than-temporary impairment of debt securities exists and foresees the bifurcation of credit-related and other impairment losses on those debt securities in certain circumstances.

At the end of May, the IASB released an Exposure Draft on Fair Value Measurement, based on the IASB EAP report on Fair Value Measurement, in order to achieve a full alignment with the FASB amendment.

April 2009: IASB published a six-month timetable for publishing a proposal to replace the existing IAS 39. During April-June the IASB will develop measurement methods including **consideration of the expected loss methodology** for the loan portfolio.

The IASB intends to publish an exposure draft on the classification and measurement of financial instruments in July 2009 and is committed to achieve by year-end the first phase of the new IAS 39. In October 2009, the IASB will publish an exposure draft on the accounting for provisioning and by December 2009 an exposure draft on hedging.

4.4. Remuneration schemes

45. In the strongly competitive environment of the financial boom years, the design of incentives schemes for financial decision makers (traders, fund managers, directors) may have fostered excessive pro-cyclicality, by stimulating herd behaviour and excessive risk taking by focusing on short-term profitability performance without adequately capturing and adjusting for risk or for the long-term global performance. Moreover, in a context of abundant funding liquidity, these incentives have also fuelled leverage, which served as a tool to boost short-term performance. When excesses have unwound, both elements have accelerated the ensuing financial distress.

46. Inappropriate remuneration schemes have different dimensions of concern for public policy. In this case, the focus should be on the implications for the willingness to take risks and its aggregate dynamic impact.

47. The conclusion that remuneration policies can enhance pro-cyclicality by promoting short-termism is shared by the Group, as well as the proposal to link remunerations to the long-term performance of banks. Following the FSB Report recommendation and recent initiatives by some EU countries, supervisors could address this concern through Pillar 2 guidance by imposing organizational measures able to directly correct the weaknesses in the remuneration policies and, if necessary, some additional capital requirements. A coordinated approach at EU level would seem appropriate.

48. Monitoring risks arising from compensation policies could be reinforced by extending the scope of Pillar 3 to require intermediaries to properly disclose their remuneration policies.

49. The private checks and balances (shareholder monitoring, market discipline and so forth) in place to address agency problems and ensure that remuneration schemes are value-creating for financial firms have failed in most instances. In this respect, following on the recommendation in the April 2008 FSB Report, the Basel Committee intends to include in its enhanced Pillar 2 Guidance the expectation by supervisors that banks establish appropriate incentives throughout the firm to reflect the long term risks and rewards associated with their respective business models. The FSB work stream on Compensation in April adopted principles for sound compensation practices. These principles are intended to reduce incentives towards excessive risk taking, without prescribing particular designs or levels of compensation, and require effective governance of compensation, alignment with prudent risk taking, supervisory oversight and engagement by stakeholders. These principles were fully endorsed by the G 20 Leaders.

50. In the EU, several supervisory authorities have already issued guidelines on sound compensation practices¹⁵ and the CEBS has adopted a set of high-level "Principles on remuneration" in April. Industry groups have also delivered a set of recommendations and best practices¹⁶ which should be implemented to overcome the flaws of the last few years. The European Commission has recently issued two recommendations on executive remuneration and on remuneration in the financial sector. The first complements the existing Recommendations of 2004 and 2005 on directors' pay and applies to directors of listed companies. The second applies to staff of all financial undertaking (regardless of legal status and size and whether the financial undertaking is listed or not) whose professional activities have a material impact on the risk profile of the financial undertaking. The recommendations invite Member States to ensure that:

- remuneration policies are designed in a way to establish a balance between a fixed and a variable component, to strengthen the link between performance and pay and to allow for flexible bonus policies;

¹⁵ Italy, the Netherlands and the UK have issued principles.

¹⁶ CRMPG III, Containing Systemic Risk: The Road to Reform, August, 2008; IIF, Final Report of the IIF Committee on Market Best Practices, July 2008.

- remuneration policies promote long term sustainability of companies through a balance between long and short term performance criteria, the deferment of variable pay, a minimum vesting period for stock options and shares;
- companies are able to reclaim variable pay paid on the basis of data which proved to be manifestly misstated;
- governance of the remuneration process is improved, by enhancing the role of shareholders and/or the remuneration committee in listed companies, and/or of internal functions in financial undertakings;

51. The recommendation on remuneration in the financial services sector further invites Member States to ensure that the remuneration policies are consistent with and promote sound and effective risk management and included in the scope of the supervisory review by financial supervisors.

52. In line with the G 20 and FSB proposals, the European Commission will present legislative proposals soon which will expressly and legally subject the remuneration policies of banks to supervisory oversight. The proposed amendments to the Capital Requirements Directive will impose a binding obligation on banks to have remuneration policies that are consistent with sound risk management and a power for supervisory authorities to require a firm to take measures to rectify any problems that they might identify, including the imposition of financial or non-financial penalties against firms that fail to comply.

5. Implementation and co-ordination issues at EU level

53. Clear processes are foreseen for implementation and coordination in the areas of accounting, capital and remuneration policies, while procedures are being developed in respect of the implementation and coordination of macro-prudential monitoring in follow-up to the de Larosière Report. In this context, it will be paramount to ensure appropriate cooperation with authorities from third countries and also with the IMF, the FSB and other international institutions as the macro-prudential approach is also being developed at global level.

ANNEX 1: Market behaviour and market failure as causes of pro-cyclicality

Assessing the extent and the causes of pro-cyclicality of financial systems is challenging. Some manifestations of pro-cyclicality may reflect rational responses of agents to changes in the set of expected prices and macroeconomic prospects. Some may be due to financial system imperfections. These stem in particular from deficiencies in the efficient identification and pricing of risks through the economic cycle and the negative externalities of individual responses to risks by market participants at aggregate level (coordination failures). The resulting equilibrium is suboptimal: too much credit and investment take place during upswings while both are excessively curbed in bad times. The main imperfections explaining this pattern, which is often compounded by macroeconomic policy mistakes, include the following:

- Asymmetric information. This creates conflicts of interest which can end up in credit rationing. One of the best known mechanisms is the *financial accelerator*, linked to the superior information of borrowers and firms over that available to external financiers.
- Misperception of risks. Agents have particular difficulties in assessing the time dimension of absolute risk, although they usually fare better when dealing with the relative distribution of risks. Faced with uncertainty about the true model of the economy, agents form their beliefs subject to some well-documented biases¹⁷. The outcome is an inability to detect the build up of systemic risk during booms.
- Limitations of incentives and coordination failures. Strong competitive pressures and short time horizons in incentives schemes lay the ground for herd behaviour or for situations in which rational individual actions turn out as suboptimal aggregate outcomes. During periods of financial euphoria, traders and institutions are reluctant to deviate from the common pattern because their performance is assessed on a relative basis. When the cycle turns and uncertainty and risk aversion increase, the process goes into reverse as liquidity is hoarded to get insured; but these individual decisions end up worsening the macroeconomic situation.

¹⁷ Disaster myopia (i.e. the underestimation of the probability of very large negative shocks) and cognitive dissonance (i.e. the tendency for economic agents to avoid addressing contradictory ideas about the future) are perhaps the most relevant.

ANNEX 2: Dynamic provisioning and capital requirements in practice

1. Dynamic provisioning

Dynamic provisioning has been applied in Spain since mid-2000. It was modified in 2004 in order to increase consistency with IFRS. The mechanism of the statistical provision is as follows. Banks provision the credit growth according to a parameter (α) which is the average estimate of credit loss. The α parameter corresponds to the “collective assessment for impairment” in a year neutral from a cyclical perspective. The parameter α varies across homogeneous groups of loans (i.e. it is different within groups of loans; 0,6% for mortgages, 2,5% for credit cards) according to the historical information on credit losses. That information covers more than a full business cycle and allows for separate parameters depending on different levels of credit risk. Altogether, there are six different homogeneous loan portfolios each one with a different α that picks up a distinct level of credit risk and credit losses.

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. The speed is quite high in downturns and may be quite low in long periods of expansion. Therefore, the α parameter is supplemented by a β parameter. This β parameter is calibrated as the historical average specific provision of each group of homogenous loans. By comparing the β parameter with the current level of specific provisions, the bank can assess the speed at which incurred losses not yet identified in a specific asset evolve into specific losses identified for individual assets. In good times the distance is large, so that the provision is positive. In bad times, the distance is almost non-existent and the β component of the general provision is negative.

It is important to mention that parameters α and β are based on the historical experienced stemming from the Spanish Central Credit register. Along an entire business cycle, the β component cancels out, that is, the positive amount in the periods where the transition from incurred-non-individually-identified losses to already-identified-specific-losses is slow (i.e. a positive β component) cancels out with those periods where the opposite is true (negative β component).

The Spanish statistical provision also includes a cap and a floor in the amount of the statistical fund build up. In order to avoid excess provisioning in good times (i.e. in order to avoid the creation of excess reserves), there is a cap on the amount of the general provisions that can be built up in a banks' balance sheets. On the other hand, the statistical fund cannot be fully depleted because the collective assessment for impairment should always be positive

2. Countercyclical capital requirements:

CEBS proposal

The mechanism proposed by CEBS to determine the size of the capital buffer is based on the differences between the probabilities of default (PDs) estimated by banks in an economic downturn/recession and current PD estimates. These differences are used to dynamically adjust either the current PD estimates or the confidence level (solvency probability) of 99.9% of the risk weight function. By construction, the size of the buffer decreases in a recession and increases in expansionary phases.

Based on the same underlying philosophy, CEBS proposes two alternative options for the calculation of the buffer: 1) a portfolio level option and 2) a rating-grade level (i.e., more granular) option, together with variants of each option. Notwithstanding some technical and computational differences, first evidence – which might be complemented in the coming months by further quantitative analysis – suggests that at least the portfolio-level options provide broadly similar results. The proposal has already been discussed with the industry, in a comprehensive round of multilateral and bilateral meetings with both European bankers' associations and some major intermediaries. Overall, the dialogue with banks has been very fruitful.

Option 1 (portfolio level) looks at the portfolio level. In the first variant the PD of the portfolio at time t is calculated as the average of grade PDs weighted by the number of counterparties in each grade at that time. The PD of the portfolio would change over the cycle as a result of the migration of borrowers across grades and of the change of grade PDs. The buffer would be determined accordingly. In the second variant the buffer is determined by making the confidence level of the risk-weight function time-varying, depending on the difference between PD estimates in an economic downturn/recession and current PD estimates. The adjusted confidence level would then replace the 99.9% level to compute banks' capital needs in the stress scenario.

Option 2 (grade level), more granular, looks at each rating grade. The two possible variants determine the buffer either by using simply the recessionary PD (i.e., the highest PD) for each rating grade or by a two-step approach taking also into account rating migrations. This latter variant seems preferable, as it would deliver results that are less dependent on whether a through-the-cycle or a point-in-time rating system is used.

The two options present some differences: option 1 is easier to implement and less data-intensive but maybe less precise, whereas option 2 is more granular but at the same time more data demanding. Therefore, the trade-off between accuracy and manageability must be adequately managed. However, notwithstanding the above differences between the two technical options, the overall approach shows different advantages:

- The use of automatic quantitative mechanisms implies that no discretion is required to supervisors in order to have a common quantitative benchmark.
- Since they are calibrated to individual banks' portfolios, such mechanisms would not suffer the shortcomings of adjustments based on aggregate data or "one-fits-all" measures (the adjustment is tailored to portfolio's riskiness of each bank).
- PD and confidence interval rescaling are suitable for any IRB bank (while, for example, equity-index / spread based multipliers assume that financial market are efficient and that most firms are listed, which is not necessarily true for all European countries). Both options of the approach do not require macroeconomic forecasting, therefore they are more manageable than other approaches.

- The approach does not pose perverse incentives and arbitrage opportunities, since it is based on Basel II risk-sensitive concepts and it aims at being neutral with respect to the rating philosophy adopted by banks.
- Compliance with the use-test is ensured, since input parameters stay unchanged.
- A common tool for assessing banks' stress test results levels the playing field across banks and jurisdictions.
- Finally, the mechanisms might be implemented either in Pillar 1 or under Pillar 2. The current formulation of the proposal is more tailored for a Pillar 2 use: since problems of structural breaks may emerge in banks' time series of PDs or portfolios, Pillar 2 flexibility leaves room for ad-hoc adjustments; furthermore, the introduction of such a mechanism would allow to shift the burden of the proof on the adequacy of buffers from supervisors to banks. However, the dependency of a supervisory benchmark mechanism on different national approaches to Pillar 2 might make the implementation of such a mechanism somehow uneven across jurisdictions. Therefore, a Pillar 1 use of the proposal might also be elaborated in the future.

Complementing strict minimum requirements with fixed, but soft long term target capital levels

Another approach, which is being explored by the Basel Committee – but which needs to be developed in more detail – is to complement strict minimum requirements that always hold with a soft long-term target capital level. These solvency levels refer to the Basel II (core) Tier 1 ratio, which would have the advantage that it extends an existing framework rather than adding a completely new tool. Moving between the two levels introduces a countercyclical element, provided that banks indeed raise their capital towards the capital level in good times and reduce these buffers in a downturn. Such an adjustment mechanism can be readily designed in a way that is compatible with banks' own incentives. In particular, this can be done in a non-discriminatory manner by limiting distributions to owners of the firm that would have a drain on core Tier 1 capital as long as capital coverage is below the target level. This would include dividend payments, share buy-backs and other capital distributions. To accommodate stable dividend policies, the proportion of earnings that can be distributed could gradually increase as the firm moves towards its target level.