

**Discussion Paper of the Association of German Banks
on Appropriate Capital Rules**

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1 Introduction

The financial market crisis has made it blatantly obvious that the global banking system is not crisis-resilient enough. Key components of the reform programme adopted by the G20 are rightly aimed at improving the capital adequacy of banks and creating additional risk buffers that can be drawn upon in an economic downturn. As a result, the Basel Committee on Banking Supervision's new capital adequacy framework (Basel II) has come under close scrutiny, in Europe at any rate, twelve months after being implemented. In particular, the procyclical effects of the framework, as well as the current accounting standards, need to be reviewed in this light.

The debate is necessary and reforms are required, particularly with regard to the capital rules for trading book business that Basel II has failed to modernise to a sufficient extent. It must, however, be remembered that the outbreak of the financial market crisis nearly two years ago and its deeper-lying roots go back to a time that was still shaped by the old "Basel I" capital regime. The majority of European banks have only been applying Basel II since January 2008, whilst Basel II has still to be introduced in the US. There is thus not yet any reliable empirical evidence at present of Basel II's impact over the business cycle. Nevertheless, it is highly likely that earlier implementation of Basel II would have reduced the scale of the crisis.

Irrespective of this, the German private banks believe that there is no alternative to a capital regime which, in line with the underlying concept of Basel II, is geared to the risks run by an institution (institution-specific risk profile). Blanket measurement of capital requirements based solely on the nominal volume of the loan portfolio, for example, would lead to a misallocation of capital and encourage institutions to conduct transactions without covering their risks properly. We therefore welcome the fact that the need for uniform worldwide implementation of Basel II was underlined also in the final communiqué issued at the close of the G20 summit in April.

This is true even though Basel II is generally seen as having a procyclical effect and is a perception based particularly on the experience made with internal rating systems also before Basel II entered into force.

The **aim** of this discussion paper is to make a contribution to the reform debate required. It is not only a question of

- improving the capital adequacy of banks or banking groups in the light of the financial market crisis, but also of
- adopting additional measures to mitigate the procyclical impact of Basel II and of key elements of current accounting standards, particularly fair value measurement based on International Financial Reporting Standards (IFRS).

To this end, proposals under discussion are assessed in terms of their implications for the capital adequacy of banks over a business cycle.¹

This discussion paper takes **procyclicality** to mean, put briefly, the lending behaviour of banks over a business cycle – triggered by the cyclical behaviour of the solvency ratio under Basel II – which has an upturn-reinforcing or crisis-aggravating impact on the economy (for details, see the Annex). Accordingly, measures which counter or mitigate this tendency on the part of the solvency ratio have a **countercyclical effect**, i.e. in a boom, a systematic increase in capital requirements/reduction in capital and, in a slump, a reduction in capital requirements/ increase in capital. Blanket increases in capital requirements under Pillar 1 or 2, for example, therefore do not have a countercyclical effect, as the solvency ratio level is merely shifted as a result. The fluctuations in the solvency ratio over the business cycle are not reduced, however.

It should be stressed that most of the measures discussed in the following cannot be used as a “quick fix” to crises but are designed also to strengthen financial market stability in the long term and thus to prevent future crises. Hurriedly introducing revised or stricter rules would, as we see it, have a crisis-aggravating effect in the present situation. Instead, new rules should be introduced once the crisis is over.

2 Appropriateness of capital adequacy as a risk buffer

2.1 Preliminary remarks

The purpose of appropriate bank capital adequacy is to cushion against the negative effects which unexpected losses that cannot be avoided by means of proactive risk management measures have on an institution’s ability to survive in the marketplace. Such a buffer to absorb losses must be made big enough to ensure a going concern at a certain safety level and to prevent the failure of a single bank having negative implications for the financial system as a whole. At the same time, the aim of supervision in a market economy cannot be to prevent the insolvency of individual market participants under all circumstances.

Neither countercyclical instruments (see section 3) nor loss-absorbing buffers can be designed in such a way as to completely cover sharp cycle swings or other extreme events or market phases.

¹ The focus here is on the procyclical effects of the capital requirements in the banking book. Whether, where banks use internal market risk models to calculate their capital requirements, the capital requirements in the trading book also entail procyclical effects, is something that needs to be examined separately.

2.2 Risk-sensitive adjustment of capital requirements for certain areas

In the light of the extreme financial market turmoil, we support efforts by supervisors to introduce higher capital requirements for

- securitisations, resecuritisations and liquidity facilities, as well as
- trading book positions through explicit inclusion of risk categories not yet covered sufficiently with capital (incremental risk) and tighter parameters.

In response to the financial market crisis, the Basel Committee proposes under Pillar 1 increased capital requirements for resecuritisation instruments and certain liquidity facilities in the banking book and for securitisation/resecuritisation instruments in the trading book. The partial lack of capital requirements for liquidity facilities to asset-backed commercial paper (ABCP) programmes is seen as one of the causes of the financial market crisis. In future, liquidity facilities that are drawn upon only in the event of market disruptions must also be backed with capital, the amount of which will depend on the term of the facility. Due to poorer transparency and more difficult risk assessment, higher capital requirements for resecuritisations than for one-tier securitisations are also appropriate.

The new rules for the trading book affect institutions which use or intend to use internal market risk models approved by supervisors to estimate the specific risk for calculating capital requirements. Internal models are typically used by large, internationally operating and actively trading banks also to calculate regulatory capital. A large part of international trading transactions are therefore covered by the new rules. For such “model banks”, the requirements for estimation of migration, event and default risk, as well as the introduction of a stressed value-at-risk (VaR) where internal models are used for the trading book, result in much higher capital charges for trading book positions. This is consistent with the diagnosis that internal models and the associated capital charges may have underestimated these risk categories. The importance of these risk categories has increased significantly. Even in what tends to be a short-term trading environment, such loss exposures must be captured appropriately and backed with capital and should no longer be allowed to be covered – like in the past – by means of a general surcharge or even ignored.

The banking sector is already working hard in many areas of internal risk management to deal appropriately with the causes and effects of the financial market crisis. An increase in capital requirements which takes into account individual risks offers clear advantages over a blanket increase in capital requirements prescribed by supervisors. The capital requirements for areas which have understated risk so far must be raised. In addition, both in the trading book and in the banking book synchronisation of the models used internally by banks in future and the prudential requirements (use test) needs to be ensured. Particularly in the area of incremental risk measurement, in which no market standards have yet been established, the (further) development of models should not be restricted by rigid prudential requirements

that are at odds with the principles of active risk management. Furthermore, the new rules on capital requirements must not lead to new disincentives through scope for arbitrage by shifting positions from the trading book to the banking book.

Even where the regulatory requirements are adjusted in a risk-sensitive manner, there may occasionally be cases in which the standardised prudential rules do not produce appropriate results from a risk perspective. As a further – and in fact already possible – prudential measure which can (and should then) be taken individually in exceptional situations, we therefore advocate recognition of “negative special circumstances” at individual banks – for example, where an exceptional risk profile is neither captured appropriately internally by economic capital (EC) models nor backed with capital for prudential purposes.

2.3 Compliance with additional parameters – leverage ratio

The report published by the Financial Stability Forum (FSF) in April 2008 (II.2, p. 13) set the direction of the debate on this issue. It said that international supervisors should, among other things, enter into a dialogue on whether additional measures of capital adequacy could usefully supplement the well-known risk-based capital standards (Tier 1 ratio and solvency ratio) as a further strict limit on business activities. In the meantime, the international discussion revolves around the introduction of a supplementary leverage restriction by fixing a maximum leverage ratio L_{\max} as a debt ceiling or, equivalently, by additionally setting a minimum capital ratio CR_{\min} .

The parameters indicated are usually defined as follows (basic concept):

$$CR = \frac{C}{C+D} \geq CR_{\min} \quad \text{and} \quad L = \frac{1}{CR} = \frac{C+D}{C} \leq L_{\max}$$

Under the basic concept, the nominal on-balance-sheet parameters capital C (or the numerically similar regulatory Tier I capital) and debt D are measured at individual-institution level. A leverage ratio should, however, be defined from the outset at consolidated level, including off-balance-sheet transactions. This is assumed in the following. Besides the definition of the relevant ratios CR and L, the characteristic of L_{\max} (CR_{\min}) must be discussed. The US rules should provide some orientation here. Under these, an FDIC-insured institution is classified as “well capitalized” if a capital ratio of 5% is exceeded ($CR_{\min} = 5\%$) or, equivalently, a leverage ratio of 20 is ($L_{\max} = 20$) undercut.

When looked at superficially, the leverage restriction is often regarded as simple, easy-to-interpret and robust and thus viewed positively. A closer look reveals the following serious drawbacks, however:

- *Lack of comparability due to differing accounting standards*
The size of capital ratios depends to a great extent on the accounting standards chosen. Where business activities are identical, the capital ratios of institutions drawing up their accounts in accordance with US GAAP, IFRS or national accounting standards (e.g. German

Commercial Code) would all differ. Institutions applying US GAAP would regularly have an advantage over IFRS banks, as under US GAAP, for example, netting agreements with a reductive effect on total assets may be used on a much larger scale. Fixing an internationally uniform minimum capital ratio would thus produce serious distortions of competition. We therefore reject the idea tabled in the discussion of a parallel “prudential” – internationally uniform – accounting standard for banks because of the considerable burden it would impose, its lack of meaningfulness and other problems (e.g. non-compatibility with IFRS or US GAAP).

- *Unsuitability as a capital adequacy ratio*

The capital ratio is merely a vertical financing structure ratio and does not constitute – as the “horizontal” Basel capital requirements rightly do – a measure, calculated in accordance with prudential requirements, of the economic risk of loss (total of risk-weighted position values) of a loss-covering factor (capital). This means that a capital ratio is unsuitable for an institution’s internal capital management and may be at odds with this management. At any rate, it unnecessarily increases the complexity of internal capital management to a great degree.

- *Lack of risk sensitivity*

Like the old Basel I rules, nominal treatment of assets does not make any distinction as to whether a bank’s investment entails low or high risks. An AAA investment has the same effect on capital “utilisation” as, for example, an investment in a position rated sub-investment grade. Institutions conducting low-risk business on a large scale (e.g. government-financing banks) are put at a disadvantage and there are “perverse incentives” for transactions which promise higher returns with the same “allocation” of capital and are thus riskier. Opting for a capital ratio in conjunction with nominal treatment of assets therefore tends to lead in relative terms – provided the leverage ratio has a limiting effect – to encouragement of high-risk business. Neglecting the risks inherent in such business cannot be right, however.

- *Inconsistency with Basel II*

Analysis to date has not yet taken into account that the leverage restriction should be assessed not only on a stand-alone basis but must instead be seen as a hard additional constraint (alongside the risk-based capital rules) on banking activities: Depending on how L_{\max} is fixed, the constraint is either ineffective or nullifies the risk-based capital rules of Basel II. In the former case, fixing L_{\max} would be superfluous, so that it can be assumed that the constraint is formulated in such a way that it becomes effective at least temporarily and, for certain institutions, as a bottleneck factor. In the latter, more realistic case, the risk-based capital rules no longer have any effect, the leverage restriction then stands by itself and, indirectly, risk-based capital adequacy would have to be adjusted upwards. In this case, the above-mentioned weaknesses come directly into play again.

To address this problem at least rudimentarily, it would be necessary to vary the leverage restriction over time, i.e. to raise or lower it. The idea to vary the leverage restriction in step with the business cycle as a more strongly macroprudential approach by banking supervisors has been introduced into the debate. The aim is to allow procyclical elements of Basel II to be mitigated or corrected by establishing countercyclical measures (see also section 3). According to the proponents of this idea, L_{\max} would be reduced in boom phases and “excessive” lending due to an assumed overestimation of creditworthiness and collateral value would be prevented, whilst in recession phases L_{\max} would be raised.

The idea to vary the leverage restriction over time encounters obstacles which result from the need for official administration of an annually adjusted leverage restriction and which are comparable with the problems posed by an countercyclical financial policy:

supervisors would have to know exactly in each case what phase of the cycle the economy is in, e.g. still in an upward phase or already at a turning point or already in a downward phase. To avoid any competitive disadvantages for large, cross-border banks, such a decision would, moreover, have to be made on an internationally uniform basis. While it is to be welcomed that, following the broadened mandate given to the Financial Stability Board (the former Financial Stability Forum), an international body for such decisions has been created, a uniform decision-making process worldwide will face considerable problems because of the differences in cycles that exist internationally. On top of this, the changes to the regulatory framework would have to be ahead of the cycle in each case to achieve the desired effects on the economy. As an alternative to the above-mentioned discretionary decisions by supervisors on the size of the leverage restriction, managing the size over time via a predefined functional relationship between economic phase and leverage restriction is also under discussion. Due to the enormous difficulty in finding as stable as possible a functional relationship, this approach is also likely to encounter virtually insurmountable problems.

Ultimately, we believe that serious doubts remain as to whether the introduction of a leverage restriction designed as a hard additional constraint, i.e. a further limit, on banking activities can make any significant contribution towards improving the capital adequacy of banks and mitigating procyclical effects.

There has also been discussion recently of whether the leverage ratio can play a prominent role as an early-warning indicator for supervisors. It is not a question here of establishing the leverage ratio as a hard additional constraint but, instead, of supervisors receiving information promptly about significant changes in business activities. It is therefore not the size of the ratio in absolute terms that is analysed in this context but its change within a suitably selected time slot. We believe that this idea basically makes sense and can conceive supervisors including changes in the leverage ratio in their regular analyses. In our view, this

is likely to be particularly useful if the leverage ratio is supplemented by further ratios with an early-warning function.

2.4 Individual capital surcharges under Pillar 2

In contrast to the methods that can be used for prudential purposes under Pillar 1,

- which have a standardised structure,
- which must be comparable between banks for various reasons and
- which greatly reduce in many respects the freedom of scope banks have in calculating their capital requirements,

the use by banks of models to calculate their internal economic capital requirements (EC models) under Pillar 2 is determined solely by internal motives. The restrictions that have to be accepted under Pillar 1 are inappropriate for the models used for strategic purposes. EC models are designed principally to support senior management in the task of calculating the size of economic capital requirements in absolute terms and allocating resources within an institution. It is therefore highly important to make as good and as accurate an estimate as possible on the basis of realistic assumptions, taking into account the institution's risk profile. A key task of a bank's management is to calculate these individual economic capital requirements in line with the institution's own risk profile. This calculation is subject to verification by banking supervisors. The bank can be expected to have risk-covering potential allowing it to cover the economic capital requirements it has itself calculated.

At the same time, it should be noted that positive differences between the results of economic and regulatory capital calculations should not be allowed to lead automatically to additional capital requirements. Pillar 2 model outputs are not suitable for supplementing the regulatory capital requirements under Pillar 1. The two approaches are usually based on completely different strategies which are not comparable (especially not for institutions which do not use any model approaches for prudential purposes), much less nettable. Thus, any plausibilisation of the Pillar 2 results with the aid of the Pillar 1 results and vice versa makes little sense.

Ultimately, we reject any capital surcharges under Pillar 2. Only in a last resort situation, e.g. if an institution's internal risk management policy is judged to be completely inadequate and the results of calculation of economic capital must be questioned, is a surcharge conceivable in our view. This is the tried and tested approach adopted by German supervisors so far.

2.5 Stress test results and capital adequacy

Stress tests are regarded as additional instruments complementing day-to-day models (e.g. rating models, VaR models) and are designed to identify combinations of risk factors or scenarios that could cause large-scale losses in the value of the portfolios examined. They also serve to identify crisis situations and – where deemed necessary by a bank’s management – to enable the adoption of active countermeasures. Stress tests should never be used to calculate capital requirements.

It must therefore be ensured internally at banks that all stress test results receive due management attention and are incorporated into the risk management process. This requires stringent internal rules and processes. The stress test results should be integrated into a plausible action plan. For this purpose, it should be specified which measures could be triggered by a threat indicated by a stress test result. If it becomes clear that certain economic scenarios are materialising and action needs to be taken, appropriate counter-measures should be selected from the action plan and implemented. These will be active risk management measures such as hedging or reducing risk positions. Additional capital buffers, as a passive risk management measure, need not be necessary, nor should they be called for by banking supervisors.

The general direction of an institution under the capital planning process must be based on classical risk measurement methods in each case. Stress tests allow an assessment of the general direction of a bank established by means of classical risk measurement methods (day-to-day models) from a second, (as far as possible) independent perspective. Quantitative stress test results should on no account be used for determining capital adequacy under Pillar 1 or Pillar 2, as otherwise there is an incentive to conduct only moderate stress tests. Capital requirements cannot be calibrated to crisis situations under Pillar 1, nor would it be possible to adjust capital levels under Pillar 2 in line with stress test results. If supervisors were to issue corresponding rules, this would result in exorbitantly high capital requirements seriously restricting further business by all institutions, could limit the supply of credit and would systematically impede a reasonable return in the banking sector.

2.6 Blanket increase in the solvency ratio

Although it is not possible to quantify the “appropriate” level of capital in the banking system on a theoretical basis, it is often argued against the backdrop of the current crisis that there is not enough capital in the financial system and that a general increase in capital requirements is therefore needed, e.g. by raising the current 8% solvency ratio or the required Tier 1 ratio of currently 4% based on it.

Generally raising capital requirements harbours the threat of serious negative consequences for the economy, however, and must therefore be rejected.

Banks could respond to any increase in capital requirements in two ways:

- a) by increasing capital (solvency ratio “numerator”) and
- b) by reducing risk-weighted assets (“denominator”).

Obtaining fresh capital is difficult, if not impossible, in times of crisis, so that only restricting lending and cutting back existing business are left to ensure compliance with higher capital requirements. A credit crunch would be likely.

Excessively high capital requirements would, however, have negative macroeconomic consequences in crisis-free times as well. By reducing earnings opportunities, they diminish – irrespective of the type of business conducted – the ability of banks to refinance themselves by ploughing back profits and thus also have a markedly negative impact on their future capital base. The accompanying relatively low return on equity would result in the withdrawal of capital from the banking system and its allocation to other investments. The “numerator” would again be reduced as a result, albeit unintentionally by banks in this case. Ultimately, lending potential would be considerably restricted, with negative consequences for the economy as a whole.

For the aforementioned reasons, an examination is instead needed specifically of where risk measurement may be inappropriate and ought to be adjusted (see section 2.2). Areas with underestimated risks at present would thus, for example, have to be covered with more capital, while lower capital requirements for less risky lines of business should not be generally ruled out.

It should also be noted that the minimum capital requirements in Pillar 1 were not calibrated to crises like the one we face at present, nor is this possible. Stress tests are not designed for measuring capital adequacy. They serve instead to determine how strongly individual institutions would be affected by certain scenarios and risks. As such, stress tests are an adequate tool for launching appropriate risk management activities. They are thus an instrument of active firm-wide risk management. Their purpose cannot be adjusting capital in advance to take account of crisis situations (like those assumed in, among other things, stress tests – see section 2.5). This would be prohibitive.

If it is assumed for the above reasons that only “moderate” increases in the solvency ratio are possible, this raises the question of whether such an increase would have modified the negative consequences of the financial market crisis to any significant extent. In our view, this is unlikely. In a crisis situation, it is instead important that capital reserves are available which can then be tapped. We therefore believe that it makes good sense if institutions decide internally on an individual basis to have solvency ratios that are higher than the regulatory

minimum. Any statutory increase in the solvency ratio would, on the other hand, only raise the regulatory minimum and yet not be available in crisis situations.

2.7 Summary

We fully advocate pinpointed, risk-sensitive adjustment of capital requirements in, for example, the trading sector or for resecuritisations. This is where the financial market crisis has shown that the existing rules fail to capture risks satisfactorily.

Supplementing risk-based capital requirements with a leverage restriction designed as a hard additional constraint encounters serious problems and is unlikely to work. We can, on the other hand, conceive the change in the leverage ratio being incorporated into a system of early warning indicators operated by supervisors.

Whether additional measures to strengthen and improve the capital base are required is something that will have to be examined in the light of the impact of the reform steps already launched. Undifferentiated blanket increases in the Tier 1 capital ratio and/or solvency ratio would be inappropriate also in view of their negative economic implications. We likewise reject any general increases in the scaling factor or confidence level because of their equally undifferentiated impact. The fact that institutions using the internal ratings-based (IRB) approach would be put at a disadvantage should not be forgotten either.

In our view, individual capital surcharges under Pillar 2 are acceptable only as a last resort in exceptional cases. Capital-related regulatory interference should be avoided. We also believe that using stress test results to calculate capital requirements would be wrong. Capital requirements cannot and should not be calibrated to crisis situations under Pillar 1, nor would it be appropriate to adjust capital levels under Pillar 2 in line with stress test results.

3 Measures to mitigate procyclical effects

3.1 Preliminary remarks

As explained in section 1, the risk-sensitive design of Basel II appears to be exacerbating procyclicality in the banking system. Suitable measures should therefore be taken to counter these procyclical effects, that is to say the fluctuations in the solvency ratio over the business cycle. Possible measures could focus either on the numerator (regulatory capital) or on the denominator (capital requirements/risk-weighted assets) of the solvency ratio. If the focus is on the numerator, accounting standards will also play an important role since balance-sheet equity is the basis for calculating regulatory capital.

Various proposals for reducing the procyclical effects of Basel II and fair value accounting are discussed below. We evaluate the extent to which these proposals have the potential to mitigate fluctuations in the solvency ratio over the business cycle and would be feasible to implement. We begin by exploring the idea of dynamic provisioning and adjustments to fair value measurement. These two approaches are concerned with determining the level of regulatory capital in the numerator of the solvency ratio. Proposals which focus on determining the capital requirements in the denominator of the solvency ratio are then discussed.

If an effective countercyclical response is to be made to the cyclical fluctuations in a bank's capital requirements, microprudential supervisory parameters need to be complemented by a macroprudential perspective. This should focus first and foremost on systemic risk, which has been disregarded up to now. The aim is to protect the financial system and the economy as a whole by applying a top-down approach. To achieve this, it is necessary to reduce systemic risk, which arises above all when banks expose themselves to the same risk at the same time and in numbers that threaten to disrupt the entire system.

A supranational institution (the G20 suggests the IMF in cooperation with the Financial Stability Board, formerly the FSF; the European Commission recommends the establishment of a European Systemic Risk Council) needs to monitor macroeconomic developments and identify systemic risks. Steps must then be taken to limit these risks in close collaboration with the microprudential supervisors of individual banks.

3.2 Dynamic provisioning

Dynamic provisioning is a measure often suggested in international discussions of Basel II's procyclical effects. This is a system whereby banks build up capital buffers in economic good times to protect themselves against future credit defaults. In economic downturns, these buffers can then be used to cover any defaults that occur so that the bank's regulatory capital will not be adversely affected. Various dynamic provisioning models are currently being discussed and it will be necessary to agree on a single definition before such a system is introduced.

The success of the model used in Spain is frequently cited in this context. Under this system, the level of general loan loss provisions is determined automatically by a set formula and depends on the loan growth in period t and the difference between the estimated average total loan loss provisions over the assumed length of a business cycle and the specific loan loss provisions in the period. Since this difference is normally positive during an upswing, additional amounts are added to the general loan loss provisions. In a downswing, by contrast, a negative difference causes the level of these loan loss provisions to fall.

Another method of calculating capital buffers is by using expected loss models. Under the existing IFRS incurred loss model, the risk premiums/margins (interest recognition) inherent in loans extended have to be recognised immediately in earnings, while potential loan losses only have to be recognised much later. Using standardised or bank-specific expected loss models to calculate loan loss provisions, on the other hand, would enable banks to set aside a portion of the risk premium appropriate to the period in question. This would allow the level of loan loss provisions to reflect a bank's individual risk profile rather than being based on a standardised procedure like that used in Spain. The former approach would be preferable since future loan losses can be estimated most accurately by the banks themselves.

In principle, capital buffers against losses identified in future on the basis of specific loans could be built up (or run down) either through recognition in profit and loss in profit determination or through recognition in retained earnings in profit appropriation.

- At first sight, however, building up provisions for such losses through the profit and loss account would not appear to be totally compatible with the current interpretation of the IFRS incurred loss model. But opinions vary about whether, and to what extent, recognition in profit and loss is possible under the existing rules. Some members of the Financial Crisis Advisory Group, for instance, take the view that it would be permissible. Dialogue is therefore required with the International Accounting Standards Board (IASB) to analyse whether the procedure is consistent with IAS 39 as things stand or whether the standard needs to be amended.
- Building up a capital buffer in the form of dedicated retained earnings would not be incompatible with IFRS. A dividend freeze would have to be placed on these earnings, however, to prevent the capital buffer being used for dividend payments. Furthermore, the retained earnings would have to be excluded from the bank's regulatory capital to avoid undue fluctuations over the business cycle.

The Association of German Banks believes that dynamic provisioning has the potential to reduce the changes in core/regulatory capital and solvency ratios that occur over the business cycle.

We advocate permitting dynamic provisions to be deducted from profit and loss when determining earnings. This method would have an advantage over dedicated retained earnings because the profit and loss account fluctuates less sharply over the business cycle.

German banks need to take account not only of IFRS, but also of the accounting rules set out in the German Commercial Code (*Handelsgesetzbuch*, HGB). Dividends and tax are calculated on the basis of the balance sheet prepared in accordance with these rules. Dynamic provisions would therefore also have to be reported in the HGB balance sheet. This would make it possible for the banks which prepare HGB accounts to use dynamic provisioning too. Furthermore, dynamic provisions should be recognised for tax purposes so that, among other

things, problems do not arise when calculating deferred taxes. Tax recognition of dynamic provisioning would also result in more even tax revenue over time.

3.3 Adjusting fair value accounting rules to reduce quantitative effects on regulatory capital

A bank's regulatory capital may be calculated on the basis of its balance-sheet equity as measured in accordance with IFRS or HGB. As things stand, Section 10a (7) of the German Banking Act (*Kreditwesengesetz*) permits the banks to use consolidated accounts prepared either under HGB or IFRS when calculating their regulatory capital. From 2016 at the latest, however, it will be mandatory for all listed banks to base their calculations on IFRS consolidated accounts.

These legal implications lend accounting information an additional economic dimension. Owing to the fact that market-based (fair value) measurement features more prominently in international accounting standards than has been the case in HGB accounting, market developments impact more directly on the banks' regulatory capital and thus on their ability to enter into risk (e.g. by granting loans).

Since fair value measurement has the potential to exacerbate the current downward economic spiral because more write-downs will ultimately erode the banks' balance-sheet and thus regulatory capital, certain adjustments should be considered. Starting points could include the following:

- a) the deduction of the revaluation reserve from regulatory capital (prudential filter),
- b) amendments to fair value accounting rules and
- c) a separate calculation of regulatory capital.

Re. a) Deduction of the revaluation reserve from regulatory capital (prudential filter)

With a view to ensuring stable and robust financial markets, the Committee of European Banking Supervisors (CEBS) suggested applying adjustments ("prudential filters") to equity reported in IFRS consolidated accounts. On the basis of this proposal, the German Federal Financial Supervisory Authority (BaFin) issued the Group Financial Statements Transition Regulation (*Konzernabschlussüberleitungsverordnung*).

The prudential filters under this regulation only apply to calculating consolidated regulatory capital with particular emphasis on the revaluation reserve. Asset valuation pursuant to IFRS and thus the value of risk-weighted assets (RWAs) remain unaffected. The prudential filter on the revaluation reserve can have the effect of reducing the amount of regulatory capital and of excluding some or all unrealised valuation gains from the calculation of Tier 2 capital.

In the view of German supervisors, the fair value measurement of financial instruments in the available-for-sale (AFS) category has a particularly undesirable impact on regulatory capital if the AFS revaluation reserve is positive (fair value > book value). Since unrealised valuation gains are included in the AFS revaluation reserve, it cannot be included in regulatory core capital. Section 2 of the Group Financial Statements Transition Regulation does, however, permit up to 45% of a net positive revaluation reserve (valuation gains > valuation losses of AFS instruments) to be included in Tier 2 capital. But any subsequent negative AFS revaluation reserve has to be deducted in full from core capital. The treatment of valuation gains and valuation losses in the AFS category thus lacks consistency.

The current market situation has resulted in highly negative revaluation reserves in the available-for-sale category. This hits banks especially hard because they assign a large number of securities to this category. We therefore advocate amending the prudential filter rules to allow banks to exclude (on a permanent basis) the revaluation reserve for at least debt instruments when calculating regulatory capital. According to a CEBS study, this procedure is already common practice in many European countries. Amending the German Group Financial Statements Transition Regulation would also have the advantage of making it unnecessary to change either IFRS or the Basel II Framework.

Re. b) Amendments to fair value accounting rules

A major problem in the current situation is how to value assets in illiquid or inactive markets. IFRS do not define precisely when a market may be deemed inactive. Despite guidelines recently issued by the IASB, it remains extremely difficult and time-consuming for banks to demonstrate – even to their own auditors – that a market is inactive. We believe that if, for instance, there is a total lack of meaningful prices or quotes on a network such as Bloomberg for a certain security at a certain time, this could be accepted as proof of an inactive market. The same could apply in the event of extreme price volatility, regardless of whether the volatility is observed over a period of time or among the prices quoted by different market makers. Furthermore, “group recognition” of inactive markets on the basis of plausible illustrative categories might be a more pragmatic approach than requiring proof of inactivity for each individual security.

Demonstrating that a market is inactive is a prerequisite for using alternative valuation techniques. Here too, however, IFRS require the greatest possible use (in discounted cash flow models, for example) of data observed in active markets. It would be worth considering modelling market data for use in the DCF model instead of using distorted or inactive market data. Such data should not, however, be “frozen” at a historical level, but adjusted to reflect market developments such as changes in liquidity spreads.

In addition, greater flexibility in redesignating instruments should be considered in times of inactive markets. As things stand, financial instruments cannot be redesignated if, for example, the fair value option has been exercised and they have been assigned to the “at fair value through profit and loss” category. Redesignation would require a further change to IAS 39.

For the reasons mentioned above, it should be made possible for the banks to demonstrate that a market is inactive without disproportionate effort and on a factual basis. As an alternative to each individual bank providing its own proof, a central (public) agency could establish whether or not a market is active. This would trigger the use of alternative valuation methods. The use of a public agency would have the advantage that its decision would be binding and thus ensure a consistent assessment of market activity by all banks. Valuation models, on the other hand, should not be standardised. This is also not required by IFRS.

Re. c) Separate calculation of regulatory capital

Another option would be to prepare separate accounts for the purposes of calculating regulatory capital based, for example, on the principle of prudence. There would then be no need to deviate from fair value accounting. There are a number of drawbacks to this proposal, however. A considerable amount of additional time and effort would be required. Differences between equity and regulatory capital figures would radically increase the complexity of financial statements. What is more, there would be a risk of losing sight of the objective of globally consistent accounting standards. This approach does not therefore represent a suitable alternative, especially given the additional burden it would impose on the banks (see also section 2.3).

3.4 Adjusting capital requirements over the cycle

Cyclical fluctuations in solvency ratios caused by the Basel II Framework could be at least mitigated by making countercyclical adjustments to capital requirements under Pillar 1. Increasing capital requirements in economic good times would cool lending growth while relaxing the requirements in a recession would lessen the likelihood of a credit crunch. Such a strategy would also be in line with a more macroprudential supervisory perspective which focused on limiting systemic risk.

There are various possible approaches to making countercyclical adjustments of this kind.

a) Rules-based: lending growth-driven RWA-surcharge/deduction

A prerequisite for using an RWA-surcharge or deduction to smooth capital requirements over the business cycle is a precise definition of “excessive” lending growth for each business segment. If growth were found to be excessive as measured by a predetermined mathematical formula, a multiplier in excess of 1 would be applied to the bank’s total risk-weighted assets calculated under Basel II. The result would be an increase in its Pillar 1 capital requirements. If growth were negative, by contrast, a multiplier of less than 1 would be applied. A countercyclical adjustment of this kind could be used under the standardised or IRB approaches. Another advantage is that the system would function automatically once the formula had been set, so the need for adjustment would not have to be continuously monitored.

Given the heterogeneous nature of the banks’ business models, however, finding a “one-size-fits-all” dividing line between business segments would present virtually insurmountable difficulties. Furthermore, we believe it would be highly problematic to agree on a binding mathematical formula to determine when lending growth was “excessive” as opposed to “normal”.

b) Based on a decision by supervisors: temporal adjustment of the scaling factor or confidence level

Countercyclical adjustments could also be made in the form of modifications over the business cycle to the scaling factor (of 1.06 at present) or confidence level (now 99%) used in the Basel formulae for calculating capital requirements. During upswings, requirements would be increased by raising the scaling factor and/or confidence level; in downturns they would be reduced by lowering the figures. The adjustment could correct the assumed understatement or overstatement of unexpected loss.

In practice, however, the same difficulties as those mentioned above would be encountered when making the necessary adjustments over time. Each decision would have to be based on an accurate assessment of where the economy stood in the cycle. As discussed in section 2.3, moreover, internationally uniform criteria would need to apply so as to avoid placing large multinational banks at a competitive disadvantage. The mandate of the Financial Stability Board could be extended to include this task. But regional variations in the timing of the business cycle would make it extremely difficult to make an internationally applicable decision.

We basically support the idea of countercyclical adjustments to capital requirements under Pillar 1. The adjustments should apply to all banks. We nevertheless foresee considerable problems when it comes to implementing such measures. These problems will not be

eliminated by establishing international institutions or mandating existing ones to monitor and limit global systemic risks.

3.5 Switching from PIT to TTC estimates

It has also been suggested that the procyclical effects of Basel II could be moderated under Pillar 1 if the banks modified their internal rating systems so that probabilities of default (PDs) were based on through-the-cycle (TTC) instead of point-in-time (PIT) estimates. This switch could be achieved without amending the Basel Framework.

Basel II requires probabilities of default to be estimated as “one-year PDs”. However, supervisors allow these one-year PDs to be estimated either as the forecast for the next period (point in time) or as the average of future periods over the business cycle (through the cycle).

PIT rating systems result in a borrower tending to spend a shorter period in a given rating class. Cyclical influences lead to relatively frequent reassignments with corresponding implications for capital charges (a downgrade, for example, will result in a higher PD in the lower rating class; this, in turn, will increase the capital requirement). If TTC rating systems are used, by contrast, migration to another rating class will ideally be triggered not by general cyclical influences but merely by industry-related and/or borrower-specific changes in credit quality. Annual default rates per rating class certainly fluctuate in a TTC system too. But PD estimates tend to be more stable because they are calculated on the basis of historical annual default rates over a longer period of time.

The advantage of PIT rating systems is that they are more sensitive within the business cycle. They enable a borrower’s current situation to be analysed and provide timely input for internal risk management. Since TTC rating systems tend to produce fewer rating migrations, on the other hand, banks find it easier to make a medium to long-term assessment of risk and thus determine long-term loss potential. The two rating approaches are currently used in parallel both across the industry, depending on the bank’s business model and risk management philosophy, and also sometimes by a single bank. Both therefore have their justification.

It would consequently serve no useful purpose to dispense with the PIT concept, as is currently being discussed. We reject such a step because both types of rating system are needed for the banks’ internal use. Nor would it be practicable for the banks to use PIT systems for internal purposes and TTC systems for prudential purposes since conflicting responses might be generated by the respective results. What is more, such a procedure would not be compatible with the Basel use test, which sensibly requires internal systems to be identical to those used to calculate capital requirements.

3.6 Sliding RWA average

Also under discussion is the idea of using not only actual but also average RWAs to determine regulatory capital requirements. The latter would be calculated as the average over a certain period (e.g. the previous two years). This proposal fails to convince once its possible forms are examined in detail, however.

The capital requirements could be calculated on the basis of whichever was the higher: actual or average RWAs. There would be considerable disadvantages to such a system. Assuming that the bank's business model remained the same, average RWAs would restrict its ability to expand lending at the beginning of an economic upswing. This approach would not have a mitigating effect in a recession, however, since actual RWAs would generally exceed average RWAs.

The idea of a general switch from actual to average RWAs is also less than convincing. Although this would smooth capital requirements over the cycle, the banks could no longer manage their risks in an appropriate manner. If average RWAs were used only to calculate capital requirements, the banks would be unable to satisfy the use test (see section 3.5). A gap would open up between risk management for internal and for regulatory purposes. Furthermore, it would take some time for modifications to the composition of a portfolio to be reflected in average RWAs. The banks would therefore have to set capital aside to cover risks that had ceased to exist while new business would not generate an appropriate capital charge. Capital requirements would become less risk sensitive.

We consequently reject the above alternatives for using average RWAs.

3.7 Downturn PD

In January 2009, CEBS issued a proposal for discussion on mitigating the procyclical effects of Basel II. The proposal envisages that banks should create capital buffers under Pillar 2 to sustain them in economic downturns. The amount of capital to set aside would be calculated with the help of a downturn PD. This downturn PD would be the highest of the PDs determined under Pillar 1 within a yet to be specified period for a given rating class, client category or portfolio.

During an upswing, for example, the actual Pillar 1 PD for a given rating class would be much lower than the downturn PD. Under the CEBS proposal, therefore, a capital buffer would have to be created. The size of the buffer would be the difference between the actual minimum capital requirements under Pillar 1 and the capital requirements calculated on the basis of the downturn PD. If, during an economic decline, the Pillar 1 PD and downturn PD began to

converge, less capital would need to be set aside. In short, CEBS envisages that the banks would at all times have to meet capital requirements appropriate to a recession.

Consideration of the downturn PD when calculating capital adequacy raises capital requirements in a way which, as we see it, has no countercyclical effect. It is true that the proposal would have a moderating effect in good times. In bad times, however, it would provide no relief. What is more, CEBS's proposal constitutes a change to the Pillar 2 philosophy. And in our view, Pillar 2 arrangements are first and foremost at the discretion of each individual bank, with the primary focus on internal considerations (see section 2.4).

The application of a downturn PD can be interpreted as a particular stress scenario for credit risk with no further benefits. The banks already use a number of stress tests for various types of risk under Pillar 2. Furthermore, the CEBS proposal would penalise transactions with a low risk of default. The capital buffers for transactions of good credit quality would be comparatively larger than for those of inferior credit quality.

For the reasons outlined above, we firmly reject CEBS's proposal.

3.8 Summary

The Association of German Banks strongly supports the introduction of dynamic provisioning, preferably in the form of bank-specific capital buffers set aside when determining earnings.

We are also in favour of measures to mitigate the procyclical impact of fair value accounting on the level of the banks' regulatory capital. This could be achieved, first, by excluding the revaluation reserve from calculations of regulatory capital. Second, adjustments could be made to fair value measurement rules to allow banks to apply alternative instead of market-based valuation methods at an earlier stage in an inactive market. If these measures were implemented immediately, they would bring relief to the banks even in the present crisis.

In principle, we also support measures aimed at making countercyclical adjustments to capital requirements under Pillar 1. Such countercyclical adjustments to total risk-weighted assets should apply to all banks. We foresee considerable difficulties, however, in implementing the proposals currently under discussion in this context.

By contrast, we reject the idea of creating capital buffers under Pillar 2 whose levels would fluctuate over the course of the business cycle but constantly remain positive (see section 3.7). Pillar 2 arrangements are at the discretion of each individual bank and regulatory interference should be avoided. We also reject as unfeasible proposals to apply average RWAs or switch from PIT to TTC estimates of PD. Measures of this kind would, in particular, open up a gap between internal risk management strategies and regulatory requirements. Basel II's aim of bringing internal and regulatory procedures into line with one another should be retained.

Annex: The procyclical effect of Basel II and IFRS

The Basel Committee achieved its objective of making capital requirements under Basel II more risk sensitive than they were under Basel I. As a result of this greater risk sensitivity, capital requirements will normally fall during an economic upswing because the banks' (estimated) credit risk is lower, while during a recession they will tend to rise. This cyclical pattern will be particularly evident at banks which use internal ratings-based (IRB) approaches to calculate capital requirements for credit risk. Under the foundation and advanced IRB approaches, the banks assess the credit quality of loans with the help of their own rating systems, which – in Germany – have been approved by the Federal Financial Supervisory Authority (BaFin). Probabilities of default (PDs) are assigned to these internal ratings. The better the rating, the lower the PD. The estimated PDs, along with the other parameters – namely assessment basis, loss given default and maturity – are used to determine how much capital to set aside.

In economic booms, the vast majority of banks judge borrowers' creditworthiness to be higher on average than is the case during a downturn. A given credit volume will generally generate a lower total of risk-weighted assets (RWAs) and thus, all other things being equal, a higher solvency ratio² (quotient of regulatory capital and capital requirements for credit, market and operational risk). Fair value accounting might also have the effect of raising solvency ratios during a boom phase. Asset prices tend to rise in economic good times. If they are measured at fair value in accordance with IFRS, the increase in the market value of the assets will lead to a higher amount being reported in the balance sheet and thus to a rise in the revaluation reserve for the available-for-sale category (see section 3.3) and to higher reported profits. Owing to the increase in the revaluation reserve and the possible retention of the increase in income, regulatory capital and, in consequence, the solvency ratio will rise.

The effects of Basel II and fair value accounting enable the banks to expand their loan volume in an upswing – possibly also by taking on greater risk – until their solvency ratio reaches an internally or externally imposed limit. The solvency ratio set by regulators constitutes the minimum capital adequacy requirement. By optimising their capital adequacy, the banks can increase profitability. It may be assumed that for listed banks, at least, one of the objectives of loan portfolio management is to achieve a solvency ratio close to the level favoured by market participants (e.g. credit rating agencies). The last economic upswing may have been reinforced by these expansive lending practices. As recent events have shown, rating agencies seem to prefer capital and solvency ratios to remain at a constant level in every phase of the business cycle.

² Some banks manage their loan portfolios with the help of core capital ratios (also known as Tier 1 ratios). Most of this paper's statements about solvency ratios also apply to core capital ratios.

During downturns, by contrast, banks will see a rise in the RWAs of even their existing credit volume since borrowers' ratings and thus PDs are normally judged to be lower. In parallel, asset prices tend to fall and result under IFRS in lower valuations in the balance sheet and income statement. Reported losses along, possibly, with a negative revaluation reserve reduce the bank's equity. The solvency ratio declines and threatens to fall below the internal or regulatory limit. To keep their solvency ratios at a constant level, the banks would have to limit the amount of new lending and/or cut back existing business. Adverse conditions in the capital market mean that it would make little economic sense – and might even be impossible – for the banks to raise additional capital. The supply of credit to the economy would consequently be restricted. Projects requiring capital investment could not be funded. This could accelerate the economic downward spiral.