

Mrs Danièle Nouy  
Secretary General  
Basel Committee on Banking Supervision  
Bank for International Settlements  
4002 Basel

7 February 2003

### **The New Accord, Pillar I - "Quantitative Impact Study 3 Technical Guidance" (October 2002)**

Dear Mrs Nouy

UBS has followed with great interest the developments with respect to "Basel II" and submitted comments to the previous consultative papers. In particular we refer to the statements which we sent to the Basel Committee on 28 May 2001 and 30 March 2000. Since then, we have submitted the results of the third quantitative impact study (QIS 3) to the Swiss Federal Banking Commission (EBK). This analysis was based on the most recent developments with respect to Pillar I of the New Accord, the details of which were outlined in the technical documentation issued in October 2002.

We appreciate the enormous efforts made by the various working groups and the dialogue that has taken place between the Basel Committee, national regulators and industry bodies. The revised Pillar 1 (as we understand it from QIS 3) has addressed some issues that were of a concern to many interested parties (to name but two: risk mitigation – including the w-factor, close-out VaR approach and netting for repo-style transactions; and the treatment of SME, although this adds a further level of complexity to the operation of Basel II).

We understand that the Basel Committee intends to publish CP 3 in May. Given the tight schedule and the limited scope for subsequent changes, we wish to comment on aspects of the proposals which we feel should be considered in the Basel Committee's further deliberations. We have separated these into principal issues (Annex 1) and feedback on more specific issues relating to the rules outlined in the QIS 3 Technical Guidance Document (Annex 2).

We hope that you will find our contribution to the discussion of Pillar I of the New Accord useful. We are fully aware of the often conflicting requirements that you and the various teams at your secretariat are faced with. We appreciate that some decisions have to be made in order to move the ambitious project to a conclusion. It is not our intention to lobby for individual issues which would simply benefit UBS; our interest is to be part of a global banking system that is not subject to increased systemic risk and hence we share your intentions. The elements that we highlight are based on our fundamental concern that the New Accord may face enormous difficulties when it comes to implementation, because of the complexity that it has grown over the past years and the sheer impossibility of calibrating it in a transparent and equitable way. The worst outcome would be that it would be discredited if such implementation does not produce intuitively correct results. Therefore, the project risks for the entire industry and the credibility of "Basel II" are significant. **We continue to favour a more risk-based capital framework. However, we can only support a system change if there is sufficient evidence that the principles set out in Annex 1 can be met - as we believe these are essential for Basel II to meet its own objectives.**

We look forward to the CP 3 document and further news regarding the calibration of the New Accord. If you have any questions on the matters we have raised in this letter or the attachments or would like to discuss any of them further with us, please contact:

Mattia Rattaggi, Group Regulatory Strategy & Relations,  
41 1 234 82 05, [mattia.rattaggi@ubs.com](mailto:mattia.rattaggi@ubs.com)

Urs D. Blümli, Head of Credit & Country Risk Controlling  
41 1 234 69 74, [urs.bluemli@ubs.com](mailto:urs.bluemli@ubs.com)

Nicholas Bolton, Head of Group Consequential Risk  
41 1 234 90 30, [nick.bolton@ubs.com](mailto:nick.bolton@ubs.com)

Yours sincerely,

UBS AG



Walter Stuerzinger  
Group Chief Risk Officer



Urs D. Blümli  
Managing Director  
Credit & Country Risk Controlling

cc  
Mr Daniel Zuberbühler  
Direktor  
Swiss Federal Banking Commission  
Schwanengasse 12  
Postfach  
3001 Bern

## APPENDICES

Annex 1: Key Fundamental Concerns  
Annex 2: Response to QIS 3 Technical Guidance

## ANNEX 1

## KEY FUNDAMENTAL CONCERNS

This annex provides comment on key fundamental concerns about the proposed capital framework which we feel should be considered in the Basel Committee's further deliberations.

## PRINCIPLES OF THE NEW ACCORD

Apart from a more refined regime for minimum capitalisation, a **major aspect of "Basel II" is to ensure that the shift in paradigm in the banking industry is reflected in its regulation. This should encourage banks to adopt best practice standards and establish frameworks to measure and control credit and operational risks.** UBS, as a strongly capitalised institution, fully subscribes to this goal for it helps ensure stability in the banking system.

However, of **equal importance** is the **absolute result**, i.e. the formal "BIS capital ratios" calculated and published under the terms of the New Accord. It is therefore crucial that the architecture of "Basel II" is sound and allows for a fair comparison between institutions. An overarching principle must therefore be the creation of a **"level playing field"** ensuring that **competitive advantages of one institution over another are not due to internal inconsistencies or different implementations of Basel II.** We are fully aware of the difficulties in achieving such an ambition given the large degree of subjectivity in estimating values for PD, LGD and EAD. Realising that a completely "fair" solution cannot be found under such circumstances, we **nevertheless would emphasise our doubts as to whether the goals can be reached to a satisfactory extent**, unless material changes are made to the draft Accord.

In addition, UBS is concerned that, if each country implements the New Accord differently, a global bank which has to comply with national interpretations in its local offices would be faced with incentives that diverge from its own risk evaluation and aggregation standards. Moreover, such an "open supervisory architecture" would impose practical strains on IT systems and banks' controlling departments. We attach therefore great importance to the fact that **rules (especially also under Pillar II) set out by the recognised home regulator should be the basis for the assessment of a bank group by host regulators.**

## Credit Risk

## Principle 1: "Same capital requirements for identical risks".

It is an irony that precisely in the area of Investment banking, where the globally active institutions are positioned and for which segment the more advanced approaches under "Basel II" were originally devised, the implementation of a capital regime based on loss experiences and expectations is very problematic. The IRB approaches for credit risk are driven by the desire to measure statistically the factors contributing to expected loss. Rules and less precisely formulated guidelines of the draft Accord aim at establishing a common basis for the assessment of the risks by different banks. We believe that the degree of subjectivity in risk quantification for the high grade segments ("investment-grade" corporates and the majority of bank counterparties) is and will continue to be substantial. We must avoid that the desired level of "conservatism" is interpreted differently not only by individual regulators but also by banks' auditors.

Within a bank's portfolio, products or transactions which have the same risk profile economically but different structures are not treated identically for capital adequacy purposes (e.g. risk mitigation, EAD for Traded Products).

**Principle 2: Appropriate incentives should be given to banks which aspire to using more advanced methods and conservative estimations to control their risks.**

The incentives of moving to the IRB approaches are not necessarily appropriate. First, the standard approach does not sufficiently penalise institutions that are not willing or able to move to advanced methods. Such banks will, nevertheless, show a comparatively higher capital ratio because of the benign risk weight for so-called unrated exposures. Second – and for us more important – the differences between FIRB and AIRB can be negligible. We believe that this is due to our level of conservatism when estimating future losses. Banks with less conservative assumptions or a biased loss history (e.g. missing present value calculations of loss) may therefore report a relatively higher capital ratio.

In both cases, the external observer is likely to compare the "BIS ratio" of different banks. No detailed level of Pillar III information will change this; the result is that banks with higher capital ratios are not necessarily "healthier" than those with lower figures but may be viewed as such by clients, depositors or investors.

**Principle 3: A balance must be found between necessary and detailed regulation and a simplification of the framework.**

Costs of implementation and maintenance of the framework will be considerable. Although this is a complex area, the basis for regulation or legislation should be more principle based, should omit vague statements and should avoid requiring levels of detail which are not necessary to achieve the goal of the project. We consider a law or ordinance with over 650 paragraphs as excessive. This will grow into a more extensive "rule book" through national implementation where a significant number of issues, which are either deliberately left to national discretion or viewed differently by local regulators, governments or parliaments, are likely to lead to an even more complex supervisory system.

Credit risk quantification is a mix between "art" and "science", which is a major difference to the measurement of market risks. The subjective element can be more important than empirical data. Failure to recognise this and to assume that credit risk modelling is essentially a scientific task would be dangerous. In this context, the "all-or-nothing" approach is still an area of concern.

We strongly suggest focusing on (1) precise rules in areas where internal loss histories are weak across the industry and various methods of calibrating rating tools can be used in good faith, but with very different results, (2) minimum validation standards for statistically based expected loss frameworks and (3) basic governance issues. Most detailed aspects will be subject to best practice regimes in the future and do not need too many specific rules, which are sometimes not practicable or simply too demanding from a cost/benefit point of view.

**Principle 4: It is a prerequisite for the success of the New Accord (FIRB/AIRB), that accounting (IASB) and regulatory standards be harmonised.**

The IASB is rewriting the rules on impairment of financial assets and to establish disclosure guidelines and the regulatory framework must be aligned with this effort. If the definition of default and the valuation of impaired assets, which directly influence the LGD, are different for accounting and regulatory purposes, banks would have to report two different sets of information regarding their portfolio and impaired assets. It is obvious that this makes no sense and rather dilutes than increases transparency. It is therefore in the interest of both parties and other accounting standard setters (USGAAP etc.) to work in harmony.

**Principle 5: A one-time calibration of PD to a risk weight function must be complemented with a clear assessment of the desired level of the capital volatility in the banking system over an economic cycle.**

The statement of the calibration target for Basel II implies that the Basel Committee believes that the current global economic environment is in a "neutral" phase. If this is actually not the case, the calibration target may not be reached over a full economic cycle. In the light of the current state of the economy and the observed bankruptcies in major countries we have our doubts as to the correctness of this assumption.

The draft Accord does not explicitly state what it believes would be acceptable fluctuations in PD estimations over a cycle. Since changes in ratings (migration or re-calibration) will lead to changes in the capital requirements a clearer view of the implications is important. First, it is again an area where distortions in the public perception of a bank may occur and, second, increased volatility in BIS capital ratios over time might lead to a higher systemic risk, especially if banks are forced into "emergency rights issues", which would be a perversion of the original intent to increase stability.

Our main concern is that the simple model choice for the calibration of rating tools to PD results in potentially very significant differences in absolute risk weights and their volatility. The determination of PD based on actuarial information (say the default history observed by rating agencies) crucially depends on the number of years chosen. If PD are estimated with more market-based models (e.g. KMV) the absolute level at a given time and the volatility over a cycle differ potentially significantly from the results of actuarial models. We feel that these important issues have not been sufficiently assessed and addressed so far.

**Principle 6: A "Basel II" compliant risk quantification does not preclude a bank from internally using other risk measurement tools which are more sensitive to the prevailing economic environment by comparison with an actuarial view.**

For internal risk control and limit purposes (and not just restricted to pricing for credit risk), banks may want to adopt a measurement approach that is more sensitive to economic conditions (not just the "state of the economy" but also simply the prevailing view of the bond and equity markets) and less grounded on actuarial analysis. If the "practice test" (paragraphs 391/392) is interpreted literally, banks wishing to manage and control their exposures on a "dynamic" basis would simply not be able to adopt IRB, because the capital volatility would become unsustainable.

**Principle 7: The costs of the New Accord must be in proportion to the expected benefit.**

Implementation and operational costs of "Basel II" have to be kept to a level which is not disproportionate to the expenses which a bank would incur if it aspired to use internal risk quantification methods for its risk management and control processes. It should be sufficient that investments is made where the benefits are evident, and a more pragmatic approach needs to prevail in other areas.

**Operational Risk**

We regret that the treatment of operational risk following the basic indicator and the standardised approaches generates for UBS (and for firms earning substantial fee income) a very punitive charge unrelated to actual operational risk exposure. This is due to a measure of gross income being the sole driver of the capital charge.

**Principle 8: The Committee must consider the calibration of the different approaches and ensure that the adoption of the Advanced Measurement Approaches receives appropriate capital incentives. In the absence of industry data regarding the capital charge generated by AMA, the Committee should consider capping this charge to a percentage of the charge generated by the Basic Indicator or Standardised Approaches.**

We believe that it is essential that the flexibility allowed in the current rules language be retained, and that many of the issues surrounding home and host regulation can be dealt with in the implementation. However, we would expect the Basel Committee to play a leading role in encouraging consistent national implementation.

**CALIBRATION OF THE FRAMEWORK**

The calibration of the New Accord is based on the premise that the overall level of capital held by the banking system would not change whilst incentives should be provided to institutions that adopt the more sophisticated approaches and are in a position to report on very detailed aspects of their risk management and control processes (Pillar III). Based on our own QIS 3 results, which all lead to an increase in total capital, we are not satisfied that these goals are reached unless further changes are made. This view is confirmed by other institutions, whom we know to have made the same observations.

**ANNEX 2****RESPONSE TO QIS 3 TECHNICAL GUIDANCE**

This annex provides feedback on specific issues arising from the QIS 3 results and selective comments on certain issues addressed in the QIS 3 Technical Guidance document where UBS particularly sees the need for further improvement in the proposed Accord in order to ensure that a risk sensitive framework is guaranteed going forward.

**CALIBRATION TARGET**

Based on informal discussions between a number of banks, the resulting capital charges for credit risk differ widely between institutions. Whilst the average results seem to be in line with the broad goal (to reduce capital across the spectrum of approaches) the variances are unexpectedly large. Our own experience differs from the reported average and substantiates the theory of large variance, for we have reported a significant increase in credit risk capital for the standardised approach and a noticeable decrease for both IRB options<sup>1</sup>. In addition, there was practically no difference between them. We conclude from these observations that the variations between banks are far too big to be a representative data sample for a "fair" calibration of the New Accord. Or – in other words – it confirms our earlier concerns that it is possible to have two banks with essentially the same risk profile (exposures, quality of obligors etc.) but very different capital requirements.

One reason for these varying results of the QIS 3 may be that the studies have been undertaken by institutions, which have often had to use approximations and shortcuts, because internal systems are currently not in a position to deliver the desired calculations exactly in the format requested for the QIS. Data sets are therefore unlikely to be "clean" and complete to permit a realistic conclusion. One area that needs further investigation is the fact that there is no common standard for the calibration to PD of segments, for which no reliable statistics are available (cf. our comment in the Principles section). Mapping of external benchmark information can cause wide distortions in risk capital simply due to the choice of the method (rating agencies, model based estimations – e.g. KMV) and the time horizon, on which averages are based. The definition of default can also be a reason for differing results. This is not surprising given the different practices, which prevail in the market and are largely based on accounting conventions (here the more common use of IAS will hopefully bring some uniformity and – what we consider – sound practices) and cultural and political considerations (renewal of maturing loans in an economic environment where repayment or an arm's length refinancing are impossible). In addition the QIS 3 may have been significantly distorted by national discretion choices.

UBS has severe doubts that the QIS 3 forms a reliable basis for a "fair" assessment of an institution's capital requirements under the New Accord.

We realise that the question of calibration cannot be delayed for a long time for reasons of national legislation. Given the need for banks to upgrade their risk measurement systems and to collate the necessary data in order to have a more reliable basis for the statistical analysis, it would, however be preferable first to lay down the rules for the IRB approaches and to re-calibrate the risk weight functions and operational risk capital only once more robust information is available. This reflects our concern that the entire effort of the New Accord could be discredited, especially, if large banks should consider

<sup>1</sup> Note: We use 88% of the BIS 1988 credit risk capital as the basis for comparisons with the QIS 3 results of the various approaches under the New Accord. This is based on the premise that 12% of the current credit risk capital should be represented by the new operational risk charge under "Basel II".

it against their interest finally to opt for the desired IRB approaches, because they are competitively disadvantaged apart from having to bear significant implementation costs.

## **DATA FOR THE INTERNAL ASSESSMENT OF PD, LGD AND EXPOSURE**

We continue to support the use of IRB approaches as the nucleus for the New Accord since they take up what can be seen as best practice in the industry. The problem with this concept lies in its complexity and – even more importantly – the requirements for sufficient data and some stability of observed defaults and subsequent losses. In a retail banking environment and with corporate loans to SME reasonably big banks should be able to work with a loss history and adequate client information to calibrate their internal rating tools and LGD measures. The Basel Committee has recognised the data problem with some forms of “specialised lending”. We would note, however, that also for Investment banking activities with exposures on highly rated banks and so-called investment-grade corporate clients it is an illusion to believe that the industry will ever have robust enough data to “prove” the assumptions made for the calibration of credit ratings, let alone LGD and EAD. Institutions with the same client base can therefore show very different default probabilities and hence capital requirements, depending on the basis of their analysis.

These considerations should also apply to validation tools for the assessment of the model performance. Regulators must however recognise, when approving models in 2006, that there exist credit portfolios where a thorough statistical validation is possible and that there are other portfolios where a pure quantitative validation approach has to be replaced and/or supplemented by a more qualitative validation based on expert judgement.

Whilst data collection and IT systems play a very important role in ensuring the statistical basis for the development and validation of rating tools, the Accord has onerous requirements that are unnecessary and barely practicable. For example, to have a complete rating history for clients on an individual basis for literally decades adds no value and is costly. UBS recommends restricting the level of detail required. Banks should be obliged to collate as many data as reasonably possible (feasibility and cost/benefit relationship) in order to be in a position to validate existing rating tools and develop new statistical rating models.

Too rigid standards and inflexible rules to allow for exceptions (materiality not only in terms of exposure but also with respect to the contribution to a bank's overall losses) must be avoided. In this context, the “all-or-nothing” approach (although tuned-down with some exemption rules in the latest proposals) is still an area of concern. The origin of this requirement seems to be a suspicion that banks will opt for the “most favourable” model for each segment of its business. Whilst such an approach would be unacceptable, different levels of sophistication might actually be more honest than a fudged compliance with regulatory requirements. This holds particularly true for the choice between FIRB and AIRB. Whilst AIRB may be used in many segments (SME and similar exposures where sufficient loss data are observable over an economic cycle), it is unlikely to be of any value in other business segments. It should be formally recognised that what counts is that banks aspire to the highest possible level of statistical risk measurement and that they use their own “expert” knowledge in other areas. If expert knowledge is not sufficient without statistical validation for AIRB, the list of exceptions from the “all-or-nothing” principle must be much larger and potentially cover entire segments.



## FOUNDATION INTERNAL RATING BASED APPROACH (FIRB)

### Definition of Default

In principle, the definition of default should be aligned with international accounting standards. This is essentially the case with the explanation in paragraph 400 (second bullet point). Banks that report under IAS will recognise the status of an event of default with the establishment of an allowance or provision as soon as it concludes that an obligor is unlikely to pay its obligations in full.

There is a risk that a number of banks have based their rating calibration on loss histories, which do not conform with such a more forward-looking impairment test. This is an issue that the Basel Committee will need to take up with local regulators across to globe, because without a clearer alignment of principles in this area any comparability of individual bank's results will be questionable. It may help that – at least in Europe and for quoted banks – IAS will become the norm.

At the same time, the draft Accord's default definition is overly prescriptive when it comes to dealing with immaterial differences in bank practices across countries. With respect to overdraft limits we wish to state our severe reservation against the condition that they must be communicated to a borrower in order to count as approved overdraft (paragraph 399). The criterion must not be the fact that a limit is advised but that such a limit is established formally by the bank based on individual credit decisions or systems, which generate small overdraft limits based on scoring models. The impairment test would still be the likelihood of repayment, and the 90-day rule would obviously not be undermined.

### Determination of PD

The overriding guidelines are for banks to ensure that they use a conservative bias (or even some element of stress testing) when they calibrate internal rating tools. The problem is not that bankers should have a conservative bias when dealing with risk aspects, but that "conservatism" is not a measure that can be easily assessed and compared. The sparse data – even in some more homogeneous segments – will often mean that it will at best take many years before the validity of the assumptions made can be examined. During such a long time period, it is obvious that also bank practices, rating tools and client segmentation will not be static, which renders a review extremely difficult. Furthermore, it is not certain that long term averages are more representative for the defaults that can be expected on average during a future medium-term period. As stated before, the issue is that two banks with an identical portfolio can potentially have significantly differing capital requirements and that the general public reading the detailed information under Pillar III does not necessarily get a balanced picture for it assumes that "the same is measured almost identically" across the industry. Both banks can even claim that their estimations have been based on conservative values.

Whilst the aim is to derive a one-year default probability, the draft Accord requires the banks to use conservative measures and perform stress analyses to assess the longer term future of an exposure when assigning a rating. This continues to be a contradiction in itself.

### Rating and LGD

UBS seeks clarification as to how article 345 should be interpreted. It is unclear how in the foundation approach PD can be derived from EL, if not based on the valid supervisory estimates of LGD. This, however, becomes an issue where a bank has the means separately to quantify the LGD, but does not fulfil the minimum regulatory requirements to apply the advanced IRB.

## Small to Medium-Sized Entities (SMEs)

UBS wants to stress that there are different ways to account for the size of a company. Using "sales turnover" as suggested in art. 236 is only one way to differentiate firm size and there are certain areas where such a differentiation creates a bias, for instance when comparing companies in the manufacturing sector with trading and services firms. UBS is of the opinion that it should be determined by the bank which size measure is most appropriate and not prescribed by the regulator. If for instance it turns out that "asset size" were more appropriate, a bank should have the possibility to use it.

## Retail

UBS strongly recommends to allow for including incorporated entities under retail if they are investment vehicles of private individuals, since a number of Private Banking clients operate via incorporated entities rather than in their personal capacity. There is no difference in the risk profile of Lombard loans to such companies and those to private individuals.

For retail portfolios where the historical and expected future losses are very small in relation to retail income we recommend - even for less homogeneous portfolios - that a simplified method of determining risk weights should be used, including the possibility of mapping customer segments to rating categories based on the segment's central tendency of PD. Especially for residential mortgages and Lombard loans, UBS does not see a regulatory need for a sophisticated rating process and advocates an empirically validated approach to determining PD and LGD per client/product segment rather than an absolute requirement for sophisticated rating tools. This could lead to concentrations of exposures in one category, but this is not unwarranted given that the segment is composed of similar transactions where the differentiation in terms of PD and LGD would be minimal.

## Stress Testing

UBS also seeks clarification on what consequences are to be expected from art. 384. This article does emphasise that the required stress calculations might not indicate any difference in capital calculated if the economically adverse situations have already been incorporated in the PD/LGD/EAD estimation (as actually required in article 362). If the assumption is that - in case differences occur - a regulator will assign a capital charge equal to the outcome of the stress test scenario capital such a consequence should be clearly stated under Pillar 2. However, UBS would oppose to an additional capital buffer for stress calculations since it presumes that it is up to the management of a bank to react on stress scenario results.

## Maturity Adjustment

We appreciate the idea behind the maturity adjustment, and basically concur with the notion of an average 2.5 year "economic" maturity, but we have serious concerns with the proposal, because the determination of the effective maturity requires rather detailed cash flow specific information which are in practice not comprehensively in place. For this reason, UBS recommends eliminating the maturity adjustment for the calibration of PD to regulatory capital or to replace the effective maturity with the much more simpler concept of residual maturity.

## **ADVANCED INTERNAL RATING BASED APPROACH (AIRB)**

Many of the more general statements about implementation rules and IT/data requirements made for FIRB apply equally to AIRB.

### **LGD**

The Accord specifies that LGD represents economic loss. UBS agrees in general with this statement but the link to accounting rules must not be overlooked. The loss history will be measured on the basis of a bank's loss experience and the latter is represented by the charge to the profit and loss account under "credit loss expenses". Creation of a different measurement basis must be avoided since it will distort the comparability of external information on loan losses that is based on IAS, where section 39 prescribes how provisions, and hence loan losses, are determined. IAS already requests the application of the economic loss concept. Hence, UBS strongly recommends adoption of the same definition for the determination of LGD.

UBS supports the observation in art. 415 that LGD must be a default-weighted average across time but does not see the need for choosing the most conservative value rather than the long-run average, given that sufficient years of observation are available.

Further, UBS does not understand the need for a longer data history requirement for LGD/EAD (i.e. seven years) than for PD estimates (i.e. five years) and suggest the requirement to be set at five years for all three risk factors.

It also has to be recognised that for LGD and EAD in particular, statistical testing of the parameters is difficult or even impossible for investment grade portfolios. In order to anyhow allow these portfolios to be subject to the AIRB treatment, the Accord should explicitly recognise these limitations and in these cases accept expert knowledge under AIRB.

## **CREDIT RISK MITIGATION**

### **Same capital for same credit risk**

We appreciate the efforts made by the Committee to come up with a sound and more complete treatment of credit risk mitigation techniques (CRM). It is our view that the guiding principle of the new Accord with respect to CRM should be that the required capital reflects the underlying risks independently of how these risks were generated through different types of CRM. At present this principle is not fulfilled, opening the door for new types of future regulatory capital arbitrage opportunities. We would like to illustrate the inconsistencies we have in mind through the following examples:

Unsecured loan guaranteed by a third party:

A bank has lent \$ 100 for 1 year to a corporate A (PD=100bps) and has obtained a guarantee for the full amount from a third party corporate B with an external rating equal to AAA (PD=8bps)

Under the IRB approach the regulatory capital cannot be less than the capital charge for the same exposure with the guarantor as the new counterparty; with a PD=8bps, an LGD=45% and a time to maturity of 1 year we get  $K=1.31\%$

Unsecured loan collateralised by a corporate bond:

A bank has lent \$ 100 for 1 year to a corporate A (PD=100bps) and has obtained as collateral a corporate bond issued by company B with the same maturity and the same currency as the loan and an external issue rating of AAA

Under the IRB approach the regulatory capital for the collateralised loan is determined through adjusting the LGD by the following formula:  $LGD^* = LGD \times E^*/E$ , where  $E^* = E - C \times (1 - H_c)$  and  $LGD = 45\%$ ; with a PD=100bps and  $C=100$  and a time to maturity of 1 year we get  $K=0.063\%$

Unsecured loan synthetically guaranteed:

A bank has lent \$ 100 for 1 year to a corporate A (PD=100bps) and has obtained a synthetic guarantee for the full amount from a third party corporate B with an external rating equal to AAA (PD=8bps) through the following construction: Corporate B borrows \$100 and deposits the proceeds in the bank; the deposit is used to secure first \$100 of combined losses on the two loans to company A and company B

Under the SFA approach the bank's net position can be treated as \$100 senior position in a pool with two assets.  $K_{IRB} = 1.31\% + 6.31\% = 7.62\%$ ,  $N=2$ ,  $LGD_{pool} = 45\%$  and hence the capital the bank must hold is equal to  $K=0.56\%$ .

These examples clearly illustrate that under the current approach similar risks do not attain similar amounts of regulatory capital

## Financial Collateral

### Use of Own Haircuts

Where a bank is permitted to determine its own haircuts, and those haircuts adequately reflect market volatility and liquidity, it should not be restricted to the standard list of eligible collateral. Supervisors should be permitted to approve other collateral than is stated in art. 109 provided they are satisfied with the haircuts applied to it.

### Special Considerations for Securities Financing Transactions (Repo/Reverse Repo and Stock Borrowing/Lending)

UBS seeks clarification that the term 'repo-style transactions' refers to a group of capital market driven products including repo/reverse repo, stock borrowing/lending and prime brokerage products. The close-out periods of those products are comparable and exposures are remarked and remargined by banks on a daily basis, hence UBS supports identical treatment for them. This would include using the same minimum holding period of five days (art. 130). The term 'secured lending' (as used in art. 130) would consequently apply to private banking margin lending, e.g. Lombard lending, with different treatment to the above mentioned product groups.

Further, we recommend an internationally accepted definition of which players belong to the core market participants to which all supervisors do agree in order to ensure an identical treatment across different legislation.

UBS supports the requirement of appropriate model validation for VaR-based measures of counterparty exposures. However the individual techniques used to validate a model should take due account of the structure of a firm's repo-style transaction portfolio and its main risk parameters relevant to it, rather than descriptively demand a specific backtesting regime, as currently proposed in the QIS3 Technical Guidance. Backtesting of an exposure value, which is one of many factors in the capital calculation formula, also shouldn't be compared to backtesting of market risk VaR, which as a value is the capital number itself (using a multiplier). The effect of the latter VaR value on capital requirement is much more direct than the effect of the exposure VaR number, hence it does not necessarily require the same validation standards. UBS therefore does not support the inclusion of a detailed backtesting requirement for repo-style transaction VaR models in the Accord but suggests that a firm decide with their local supervisor on an appropriate validation technique given the very low and short term risk profile and costs involved. Should backtesting continue to be a specific requirement in the Accord UBS questions the proposed multipliers in art. 144. UBS does struggle to see the technical foundation of the multiplier's size and a multiplier of 2 for the first yellow zone exception category is far too high. UBS would expect a much flatter curve between the zone's and within a zone.

#### Special Considerations for Lombard loans (secured lending transactions)

The Accord uses a 20-day close out period to determine the haircuts for secured lending transactions (as opposed to capital market driven transactions), implying doubts as to the efficacy of collateral management procedures in the area of secured lending. UBS recommends that this be taken into account by means of standards and not as a straight adjustment to the close out period, which does not set the appropriate incentives.

#### **Guarantees and Credit Derivatives**

There should be no separate treatment for credit derivatives. Most regulators have already set minimum standards to address the basis risk in the banking book, and operational risks should be assessed in the same way as for any other products, i.e. covered by operational risk capital. Over the past four years, UBS has actively used its credit securitisation vehicles and individual credit derivative structures to mitigate credit risk, and from the handful of defaults and claims under default protection UBS has, to date, incurred no loss due to unclear documentation etc. Although credit derivative structures are quite new compared with bank guarantees, it should be emphasised that they are standardised and have clear definitions, in contrast to the bespoke guarantees concluded for various purposes and interpreted differently in numerous jurisdictions.

Risk mitigation via credit risk derivatives transforms generally unsecured banking book risk into generally collateralised, nettable trading book risk negotiated under ISDA documentation. UBS does not feel that the current Accord's treatment of credit derivatives as risk mitigants, using a simplified substitution approach, represents a sophisticated and risk sensitive approach. We would expect to see more risk sensitive models (e.g. joint default probabilities, short CDS credit risk to off-set long loan credit risk) for CDS included in amendment discussions about OTC derivatives.

As described in the previous comment on the treatment of a hedged banking book positions, credit derivatives transfer the banking book risk into generally collateralised, nettable trading book risk negotiated under ISDA documentation. The counterparty risk in the banking book is substituted by the counterparty risk of the hedge seller in the trading book. The capital charge to correspond to that risk is identified and captured under the Trading Book rules and so any additional requirements under the Banking book rules creates dual charge for these instruments. This creates a disconnect between economic risk and regulatory capital and in the extreme this may provide a disincentive to hedge loan

risks. Any valid credit derivatives hedge should extinguish the Banking Book capital requirement and the capital charge should only be required on the Trading Book counterparty risk to the hedge seller.

## **EXPOSURE MEASUREMENT OF OTC DERIVATIVES**

The Accord makes no proposal to amend the treatment of counterparty credit risk on OTC derivatives. Given the increased risk sensitivity and sophistication being introduced in other aspects of credit risk, this is an unfortunate omission. The static, undifferentiated add-on tables, and the crude – and in some cases highly misleading – netting formula are in urgent need of revision. It should be noted that risk may as easily be under- as over-estimated under the current netting formula.

Regulators have encouraged and, indeed, pressed international banks to develop more sophisticated and risk sensitive measures of counterparty credit risk, and even small banks have moved away from the outmoded “mark to market plus add-on” approach.

The Committee should encourage these developments further by amending the Accord. We recommend that, within some well-defined parameters, a variety of methods should be recognised from the quite simple to the most sophisticated models for projecting exposure over the appropriate time frame, at the counterparty portfolio level.

This (unchanged to the 1988 Accord) treatment of OTC derivatives using static and undifferentiated add-on tables with a nonsensical netting formulae does not match the sophistication introduced by the new Accord in other areas. UBS recommends that other, more sophisticated models for OTC exposure measurement be allowed under the new Accord. It is understood from the ISDA counterparty risk working group that further work in this area is anticipated for 2004 to improve the current proposed treatment of OTC derivatives.

## **TREATMENT OF FAIR VALUED LOANS**

More liquid markets and instruments to hedge credit risk in the market place will lead to a changing business paradigm in some areas of international banking. Banks may therefore elect to mark an increasing proportion of their loans to market prices or model-based valuations, which may yield a result below par, even if the asset is not impaired from a credit risk point of view. The current rules do not give clear guidance on this issue (only for instances where there are specific provisions impacting the loan value). In analogy to the treatment of impaired loans, we would expect that the risk weight of such loans would be determined based on the nominal value of the claim and that any discount booked through the profit and loss account could be off-set against the capital requirement.

## **TRADING BOOK**

UBS interprets art. 620 as that this would apply (but would seek clarification) where there are prohibitions on transferability of the instrument. However it would not apply to loans which have transferability subject to borrower consent where such consent cannot be unreasonably withheld. UBSW suggests that ‘financial instruments must be either free of any restrictive covenants on their tradability (unless tradability can be proven) or able to be hedged completely’.

UBS considers the explicit requirement of an expected holding horizon (art. 623) unrealistic and contradictory to day-to-day holding decisions in the trading book. We support the need for processes to ensure genuine trading intent, daily review and an ability to exit the position at short notice instead.

## ASSET SECURITISATION

### Introductory Comments

As the Committee itself recognises, securitisation can serve as an efficient means of redistributing a bank's credit risk to other banks and non-bank investors. Securitisation permits banks to achieve a more precise matching of the duration of its managed assets and its liabilities. Securitisation has also proven its value as an efficient funding and capital management tool. Securitisation is frequently a more efficient and flexible financing option in comparison with others available to banks. Securitisation is a source of safe, fixed income assets for banks as investors. Securitisation transactions subject bank assets to market scrutiny, and can result in capital allocations that better reflect the relative risks of positions. From a broader economic and systemic perspective, the existence of efficient securitisation markets has increased the availability, and reduced the cost, of financing in the primary lending markets. Efficient securitisation markets serve to reduce disparities in the availability and cost of credit by linking local credit extension activities to a broader capital market system. As a result of that linkage, securitisation subjects the credit extension functions of individual financial institutions to the pricing and valuation discipline of the capital markets. The securitisation process thus promotes the efficient allocation of capital and management of risk within those institutions while serving to mitigate systemic risk throughout the financial system as a whole. In turn, borrowers and other recipients of credit benefit directly from its increased supply and lower cost. Because of its many benefits to banks, investors and recipients of credit, securitisation has grown significantly over the past two decades, not only in absolute size but also in importance to the smooth functioning of the capital markets.

### Supervisory Formula Approach ("SFA")

We provide below our comments on the formulas (the "Proposed Formulas") comprising the Supervisory Formula Approach ("SFA"). The Proposed Formulas, adjusted as we have recommended below (the "Adjusted Formulas"), appear to be consistent with observed risk function.

#### *Add-ons*

The Proposed Formulas contain a number of additional factors that are not justified and should be eliminated in their entirety. These add-ons not only inflate the regulatory capital burden on banks without any reasonable basis, but also render the Proposed Formulas too complex and burdensome to apply in practice. The pure SFA model ("Adjusted Formulas") is obtained with no artificial deduction for all positions below  $K_{IRB}$  (by setting the omega ( $\omega$ ) factor at infinity), a floor (the  $h$  factor) of zero, the beta ( $\beta$ ) factor at zero, and the tau ( $\tau$ ) factor at infinity. Regulatory capital calculated pursuant to the Adjusted Formulas achieves a regulatory confidence level of 99.9%. We have discussed each of these add-on factors in turn below.

#### *Deduction below $K_{IRB}$*

In the Proposed Formulas, omega ( $\omega$ ) is set at 20 rather than infinity, with the effect that marginal capital immediately above  $K_{IRB}$  is set at 1. This in turn effectively means that all positions below  $K_{IRB}$  are deducted from capital. We strongly recommend that there be no omega premium – no full deduction from capital of positions below  $K_{IRB}$  – because such a premium fails to reflect that real risk transfer occurs when positions above  $K_{IRB}$  are acquired by third parties. Both the Proposed Formulas and the Adjusted Formulas show that, in fact, such a risk transfer occurs. Setting an omega factor at less than infinity also increases the overall regulatory capital required by the Proposed Formulas due to the other add-ons. Was it not for the full deduction of positions below  $K_{IRB}$ , the tau ( $\tau$ ) factor and the floor ( $h$ ) described below would simply redistribute capital from below  $K_{IRB}$  to above it. However, under the Proposed Formulas, the tau factor and the floor increase regulatory capital for positions above  $K_{IRB}$  but there is offsetting reductions for positions below it.

#### *Beta ( $\beta$ ) factor*

As we have already repeatedly noted, there is absolutely no intellectual justification for a beta in excess of zero. Securitisation does not create, it only re-distributes risk.

#### *Floor ( $h$ factor)*

There is no reason to adopt a floor. The Adjusted Formulas will yield an accurate and appropriate capital weight for all positions from the most junior to the most senior. The floor should be dropped. In particular, we are concerned that the adoption of a floor above  $K_{IRB}$  in the case of high-quality asset pools will impose an unduly large and damaging capital burden on those positions that is not justified by the actual risks inherent in them. In the case of a floor of any size, investors will require a greater return to compensate for the added regulatory capital costs. This “tax” will, perversely, extract value from a bank originator holding the residual interest in such assets. As a result, such a tax should only be imposed if it serves a legitimate regulatory purpose. Where the residual risks of a portfolio inherent in a position are truly minuscule, the floor should not constitute any meaningful proportion of an investor’s investment in that position.

#### *Tau ( $\tau$ ) factor*

The tau factor, set at 1000 in the Proposed Formulas instead of infinity, appears to do nothing more than increase the regulatory capital charges above  $K_{IRB}$  for a large underlying portfolio. As with the other premia, this factor is not needed in order for the Adjusted Formulas to produce regulatory capital that is sensitive to the risks of the relevant positions and should be dropped.

#### *All premia*

If the Securitisation Group nevertheless proposes adopting an omega below infinity, a floor, a positive beta and a tau below infinity, we propose that the total amount of these premia be capped for all positions in excess of  $K_{IRB}$  so that they do not exceed 10% of  $K_{IRB}$ .

### **Ratings Based Approach (“RBA”)**

#### *Ratings Based Approach (“RBA”) for all rated positions*

It is essential that the Accord permits all parties to use the Ratings Based Approach (“RBA”) to determine regulatory capital for all rated positions, including those that are rated less than investment grade and including positions held by originators that are less than  $K_{IRB}$ :

1. We believe that a workable RBA for all positions is necessary to avoid significant and unwarranted disruption in the investor base for new ABS issuance and secondary trading activity. We ask why the securitisation market is being singled out, since the Proposals if adopted in their current form will provide no similar impairment to a bank’s ability to lend to B-, BB- and BBB rated corporate borrowers. We believe that most bank investors will not be able to use the SFA because they will not have access to the necessary SFA formula inputs due to client confidentiality and bank secrecy rules. If they are not able to use the RBA for all positions but must rather use the SFA for some of them, they simply will not buy those securities. Driving such investors out of the market will reduce liquidity, drive up prices, and impair banks’ ability to use securitisation as a risk management tool.
2. There is no reason to abandon the RBA solely due to the particular rating of a position. More importantly, there is no justification for imposing a deduction from capital on a position that has been rated by external rating agencies.



3. Making the RBA available at all ratings levels is entirely consistent with requiring investors to conduct prudent due diligence on their investments. In the existing market, banks conduct due diligence on below-investment grade rated positions prior to investing, even if they are not permitted (due to client confidentiality and bank secrecy rules) to obtain all of the information (such as the identities of the obligors in the pool) needed to adopt an SFA analysis of the portfolio. In our experience, banks acquiring positions rated below investment grade are in fact more expert in making such investments than those that only acquire positions above investment grade, and are sufficiently diligent in their analysis.
4. Permitting use of the RBA for below-investment grade positions would not result in originators “gaming” the regulatory capital rules (a concern expressed in prior communications from the Securitisation Group). If a bank investor holds a rated position, even a second loss position, it is entirely consistent and appropriate that the position attract regulatory capital on the basis of that rating.

#### *RBA capital weights excessive*

Capital weights determined pursuant to the RBA, whether under the standardised or the IRB approach, are excessive in comparison with the required regulatory capital determined pursuant to the SFA formulas (even before eliminating the add-ons as recommended above!). However, we believe, there is little cause to distinguish between ABS positions and like-rated corporate positions. The Securitisation Group has sought to justify the inordinate burdens placed on like-rated ABS positions compared with corporate positions due to:

1. the perceived greater loss given default of subordinated ABS tranches, which are often “thin” and, by definition, low in the capital structure of most securitisation transactions, and
2. the perceived greater marginal contribution to portfolio risk (defined as EL + UL) for a bank adding one additional ABS position to a well-diversified asset pool compared with adding one additional corporate position to that pool.

We discuss in further detail below that (1.) loss given default assumptions for ABS and corporate positions should be generally comparable because ABS and corporate positions are themselves structurally comparable, and (2.) no regulatory capital distinction can be made on the basis of marginal contribution to portfolio risk because the distinctions between marginal contribution to portfolio risk regarding any position (when compared with any other position), when added to the well-diversified asset pool of a typical international bank, are so close to zero as to be irrelevant. As a result, we see no basis for the excessively discriminatory regulatory capital weights proposed for the RBA for securitisation, both in comparison to like-rated corporate positions and in comparison to the SFA-determined weights for securitisation positions.

#### *Loss Given Default*

Corporate and ABS positions are broadly comparable structurally. If anything, ABS positions are structured to exhibit less unexpected loss, justifying less regulatory capital for those positions compared with corporate ones. For example, rating agencies analyse six levels of subordination for corporate positions each with its own assumed loss rate. Such a subordination structure is very similar to the range of capital structures for ABS transactions. Corporate and ABS positions are also broadly comparable in their leverage and tranche thinness. The Securitisation Group has generally assumed that the junior tranches of ABS transactions are generally “thin” in comparison with the senior tranches and overall liabilities. While such an observation may be accurate for some securitisation transactions in

nominal terms, we disagree with it in relative terms compared to corporate positions. Lower rated high-yield corporate positions often reflect very high levels of leverage and are also relatively “thin.”

#### *Marginal diversity benefits*

Perceived differences between ABS and corporate positions regarding their relative contribution to portfolio risk simply cannot serve as the basis for regulatory capital discrimination against ABS positions for typically active banks. First, the differential contributions to portfolio risk obtained by adding an ABS or a corporate position to a large, well-diversified portfolio are so negligible as to be irrelevant. Data show that, for asset pools comprising about 300 positions, each rated approximately BBB or BB, the marginal contribution to diversity gained by adding another position approaches zero. Of course, this inflection point differs depending on the rating of the assets, however, given that the portfolios of typically active banks contain positions approaching the millions (and not just the 300) measuring marginal diversity contributions become meaningless. Even if positions are added to portfolios that are not already well diversified, the sheer size of those portfolios (except in the case of extreme idiosyncrasy) means that distinctions between marginal contribution to portfolio risk are also so close to zero as to be meaningless. Moreover, these concerns do not apply to typical banks. The Committee has already acknowledged that most banks’ portfolios are “well diversified and highly granular.”

### **Liquidity Facilities**

#### *Alternate proposal*

The Proposals continue to ignore many important structural and contractual features of liquidity commitments that should be taken into account when determining the appropriate level of regulatory capital therefor. Moreover, the Proposals seem ignore all available evidence regarding the minimum risks inherent in liquidity commitments, data that covers nearly 20 years of ABCP conduit activity. We propose a simple rule that would apply to all liquidity commitments, whether determined pursuant to the Standardised or the IRB approaches for banks. The regulatory capital for liquidity facilities should be determined by multiplying a credit conversion factor (“CCF”) of 10% for commitments of one year or less (and 50% for commitments of greater than one year) times the notional amount of the pool covered, provided that:

1. the ABCP conduit funding such pool issues commercial paper having one of the two highest short-term ratings available for such securities
2. the liquidity facility contains a good asset test based on a reasonably recent pool report; and
3. repayment of the liquidity is *pari-passu* with the other investors of the ABCP conduit.

The condition in clause (1.) above ensures that the quality of the asset pool remains sufficiently strong to support the proposed capital treatment. The condition in clause (2.) ensures that the liquidity facility does not fund bad assets, as would transaction-level and programme level credit enhancement. Given the condition in clause (3.), there is no need for a limitation on when liquidity can be drawn, whether before or after credit enhancement. As we have mentioned in earlier comment letters, there is significant theoretical justification for setting a very low conversion factor for liquidity facilities, which is further supported by all available data:

1. Liquidity commitments are unlikely to be drawn in the ordinary course as they are back up funding sources for the highly stable ABCP market, which is the primary funding source for multi-seller conduit transactions.

2. Multiseller conduit transactions have structural features designed to allow an administering bank to maintain the stability of a receivables pool and mitigate the effect of defaults, including frequent pool reporting requirements, amortisation triggers and audit mechanisms.
3. Liquidity commitments to multi-seller conduits employ asset-quality tests designed to ensure that the level of an outstanding commitment at any time does not exceed the availability of performing assets. The credit quality of the assets that would actually be funded under a draw on a liquidity commitment is enhanced by the diversity and isolation of the underlying receivables pools.
4. Liquidity commitments in multi-seller conduits have the benefit of the first loss position provided at the pool level as well as, often, the other credit enhancement.

### **Synthetic Securitisation**

#### *Proposed capital weights excessive*

For the reasons set forth below, we continue to believe that a hedged super senior position should be zero risk-weighted. If the Committee elects not to adopt such an approach, we strongly believe that a conversion factor should be applied to the underlying notional in recognition of the remoteness of the risk embedded in hedged super senior tranches. Specifically, we would propose that a conversion factor of 5% be adopted for such positions in the final Accord. Such a conversion factor would reflect the add-on, which the Committee is considering applying to credit default swaps negotiated upon qualifying underlyings for the calculation of counterparty risk charges in the trading book.

#### *Market treats super senior risk as minimal*

The proposed capital weights for synthetic securitisations are excessive in light of the risks involved. While we do not oppose the dollar for dollar capital charge against retained first loss, which we believe is already by itself conservative, that approach becomes unnecessarily onerous when combined with the current proposed treatment of hedged super senior tranches. Capital requirements against the hedged super senior position should take account of diversification effects, especially if the protection provider is investment grade. Failure to do so will lead to charges that are out of proportion to the credit risk embedded in the tranche. Our analysis of the synthetic securitisation market suggests that the market treats the risk of such transactions as minimal. Spreads on super senior tranches are not only significantly lower than Aaa/AAA rated tranches of cash bonds backed by similar assets (averaging 6-9 basis points per annum, versus 25-40 basis points per annum, depending on the asset type), but tend to be insensitive to credit-related market events that affect other tranches. The reason for the much lower spreads on the super senior tranche is the structural subordination.