



December 31, 2003

Mr. Jaime Caruana
Chairman of the Basel Committee on Banking Supervision
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Dear Mr. Caruana:

Citigroup appreciates the opportunity to comment on the Expected and Unexpected Loss (EL/UL) proposal outlined in the Basel Committee's October 11, 2003 press release.

Citigroup generally supports the Committee's proposal as a material enhancement to the conceptual soundness of Basel II. However, we have some recommendations that would enhance the proposal and we raise a number of issues that require clarification.

Our support of the EL/UL proposal is predicated upon the loan loss reserving practices currently stipulated by FASB, and if these accounting rules change, a rework of the proposal will be required. See Appendix I.

RECOMMENDATIONS

I. CALCULATION OF RWA

We strongly support the idea that regulatory capital should only be required for UL. The Committee will make a consistent and complete improvement to Basel II if EL is removed from the RWA calculation for all risk types. Otherwise, RWA will be EL+UL for some risk types and UL-only for others. Specifically:

- **EL and Credit Risk**

The EL for credit risk is straightforward to calculate and deduct from the A-IRB credit formulas to determine UL-only, subject to the clarifications outlined in recommendation V below.

- **EL and Operational Risk**

The EL for operational risk is dominated by high frequency, low severity losses. These are typically budgeted for as an expense item. We do not believe there

should be any minimum threshold of operational losses below which a bank would not be permitted to deduct EL from its UL calculation.

- **EL and Counterparty Credit Risk**

Counterparty credit risk arises in two broad types of transactions, derivatives and security finance. To summarize the points we make in Appendix II: a) the appropriate loan equivalent to measure the EL of a counterparty is the counterparty's Expected Positive Exposure (EPE); b) the appropriate loan equivalent to measure UL is the counterparty's EPE multiplied by 1.1 for an active trading bank.

II. TREATMENT OF EXCESSES AND SHORTFALLS

The buffer created by the comparison of provisions to EL—either an excess buffer or a shortfall—should be symmetrically treated in the Basel framework. Both the excess and the shortfall should be applied (or deducted) from Tier 1 (50%) and Tier 2 capital (50%). Logic would suggest that this real financial resource (or deficit) should be an adjustment to capital when either positive or negative. Treating the positive buffer solely as Tier 2 inappropriately lessens its worth.

The Basel Committee proposed that the excess in provisions could only be included in Tier 2 capital up to a limit of 20% of Tier 2. This artificial cap has no economic basis, and distorts the soundness of the proposal.

III. IMPAIRED AND DEFAULTED ASSETS

For all assets, the Basel Committee needs to clarify the definition of EL. The need for clarity and consistency in the definition of EL and UL is particularly important for assets that are designated to be impaired (i.e. high probability of defaulting) or are actually in a non-performing state. Local accounting standards may specify the method(s) a bank should employ to calculate the expected loss of non-performing assets. Consequently local accounting standards may be a source of confusion regarding the definition of EL in Basel II. The accounting standards will likely be inconsistent with the Basel II definitions of EL and UL.

IV. RECALIBRATION

We oppose a full-scale recalibration of risk weights in the A-IRB. This would contradict the fact that excluding EL from the definition of risk will necessarily reduce the risk-weighted assets in the system and that the corresponding change in the definition of capital will reduce the total capital in the system. This would also contradict the Basel Committee's stated goal of defining regulatory capital for corporate credit risk at the 99.9% confidence level.

V. ISSUES REQUIRING CLARIFICATION

• **Standardized vs. IRB Approach**

The proposal will create a bifurcation in the treatment of EL/UL under the Standardized and the A-IRB Approaches, and may create a material problem for any bank using a hybrid of a Standardized and A-IRB Approach.

A hybrid approach might occur as a temporary state, for example, if a bank were to make an acquisition and discover that it did not have sufficient historical data

to calculate the A-IRB parameters for its newly acquired credit risk. This situation could be handled under Pillar 2.

- **Definition of EL**

Clarifying the definition of EL, by specifying the time horizon and formula for calculating EL under the A-IRB approach, is required.

The issue raised above regarding the definition of EL for counterparty risk also needs to be addressed – particularly the need for an appropriate definition of the “loan equivalent” for the calculation of EL.

A clear definition of default is also needed to precisely calculate EL. This is particularly important for retail credit where jurisdictions differ on the number of days past due that qualifies as default.

Clarifying the definition of EL is also important to ensure internal consistency between EL and UL. Internal consistency requires consistency in the definition of the components used to calculate of EL and UL. For example, there should be consistency between the past due assumption in the definition of default and the past due assumptions underlying the definition of asset correlation and LGD. Without precise and consistent definitions, the components underlying the calculation of EL and UL cannot meaningfully and consistently be defined.

SUMMARY

The Basel Committee has made substantial progress with this proposal by recognizing the need for a UL-only approach. Several refinements and clarifications to the UL-only proposal are necessary, however. We hope the Basel Committee includes these enhancements prior to finalizing the Accord.

Yours Sincerely,

Guy Whittaker
Treasurer
Citigroup

cc: OCC, FRB, FDIC, OTS

APPENDIX I

Mitigating the Effect of Changes in Accounting Reserving Practices

- **Accounting Neutral Treatment**

The proposal recognizes general and specific provisions as an offset to EL and defines a Shortfall or Excess in terms of the difference between the sum of a bank's total provisions and its EL. As is well known, there are inconsistencies in the definition and treatment of provisions across jurisdictions. We believe the new proposal should be neutral with regard to: a) current inconsistencies in local accounting standards on provisions; b) potential future changes in these standards.

There are significant tax consequences in moving financial resources from one balance sheet account to another (e.g. in moving excess provisions to book capital) that will have the effect of reducing a bank's available financial resources. For banks that adequately reserve for EL, this may have the effect of directly reducing capital ratios by 50-80 bp.

The Basel proposal should be neutral with regard to changes in the accounting treatment of provisions. This becomes imperative in light of potential changes in the accounting rules under discussion at the FASB and IAS.

- **Defining a "Provision-like" quantity**

To be neutral to changes in accounting regime, the new proposal would need to recognize a broader set of available financial resources that may be used as a buffer against EL.

To this end, the new proposal should broaden the definition of an acceptable offset to EL to include types of accounts that have the same function as provisions, even if they are not labeled as such. In this comment we have identified "specifically budgeted pricing" as an example of an alternative type of financial resource available to absorb expected losses. Other properly defined financial resources should be considered as well.

- **"Specifically Budgeted Pricing" as "Provision-Like"**

Specifically budgeted pricing is a component of budgeted revenue that is intended to cover some specific, budgeted expected annual loss arising from some risk type (e.g. credit card fraud).

We recognize that any bank that employs specifically budgeted pricing as a cushion to absorb EL should be subject to a regulatory review process to ensure it actually did budget for the revenue and associated expected loss.

Furthermore, specifically budgeted pricing would be defined more narrowly than FMI in several ways:

- 1) specifically budgeted pricing must be directly imbedded in a bank's pricing models for its products
- 2) an equivalent line item in the budgeted expense base must exist that is covered by the pricing
- 3) a clear "use test" and review process would be necessary

- **Treatment of Shortfalls and Excesses**

We recommend that the buffers to absorb EL include both provisions and specifically budgeted pricing. Specifically budgeted pricing is a component of pricing designated to cover the expected, budgeted annual loss of a specific risk type (e.g. credit card fraud).

To be prudent, we do not recommend that specifically budgeted pricing should be included in the calculation of Excesses, even though we recommend that it be a component of the calculation of Shortfalls. The reason for the distinction is that we believe Excesses (properly defined) should be included in capital, without limit, and hold them to a higher standard.

In that context we recommend new definitions for and consequence of Shortfalls and Excesses to cover EL:

- **Shortfall**

A shortfall should be defined to occur when the sum of provisions and specifically budgeted pricing is less than EL:

Shortfall = Maximum [(EL – (Provisions + specifically budgeted pricing)) or 0]

- **Excess**

An excess is defined to occur when the sum of provisions is greater than EL:

Excess = Maximum [(Provisions – EL) or 0]

We recommend that an excess of provisions should be included in capital without any cap.

APPENDIX II Counterparty Credit Risk

- **Defining The Loan Equivalent For EL And UL**

Counterparty Credit Risk arises in two broad types of transactions, Derivatives and Security Financing

In the Proposed Accord the RWA for the counterparty credit risk is calculated in two steps:

- 1) The calculation of a Credit Exposure Amount (CEA).
- 2) The multiplication of the CEA by the IRB risk weight.

CP3 leaves the definition of the CEA for derivatives unchanged from the Current Accord while allowing the CEA for Security Financing to be defined by a VAR-like simulation at the 99% CL.

Counterparty credit risk creates several related challenges for the New Accord, such as the need to define:

- 1) The appropriate “loan equivalent” (a.k.a. CEA) needed to measure EL.
- 2) The appropriate “loan equivalent” (a.k.a. CEA) needed to measure UL.
- 3) The appropriate Risk Weight function for counterparty risk (which should be defined in terms of UL and should not include the EL specific to counterparty risk).

It is important to note that the appropriate loan equivalent for calculating EL is not identical to the appropriate loan equivalent for calculating UL. This is because EL is a simple function of the expected positive exposure whereas UL also depends in part on the potential variability around the expected positive exposure and in part on the fact that not all counterparties have exposure at the same time. The effects on UL of the potential variability of each counterparty’s future exposure and offsetting exposures of different counterparties is captured by the scaling factor, alpha.

- **“Loan equivalent” for EL**

The appropriate “loan equivalent” (or credit exposure amount) for measuring the EL of a counterparty should begin with the expected positive exposure profile of the counterparty. The expected positive exposure profile is a profile over time, defined over a set of future dates over the life of the transactions with the counterparty. At each future date it is equal to the expected positive value of the potential exposure to the counterparty. It is calculated on a portfolio basis by means of Monte Carlo simulation, taking into account all legally enforceable risk mitigant agreements, such as netting and margin.

Depending on the definition of the time horizon for which EL should be calculated, the expected positive exposure profile can be condensed to a single number: its average value over a specified time horizon, such as a year. The average expected

positive exposure over some time horizon is called the Expected Positive Exposure (EPE)¹

EPE is the appropriate “loan equivalent” to use when calculating the expected loss due to counterparty risk.

The important point to note is that for both derivatives and security financing, the definition of the CEA in CP3 may materially differ from the EPE arising from counterparty risk. The CEA for counterparty risk, as currently defined in CP3 for derivatives and security finance, is inappropriate for the calculation of EL

- **“Loan equivalent” for UL (i.e. CEA used to calculate Risk Weighted Assets)**

Citigroup’s July 31 comments on CP3 criticized the proposal for not enhancing the method of calculating the CEA that is used to calculate risk weighted assets for derivatives. We advocated a consistent approach for all forms of counterparty risk in which the CEA would be defined as the EPE of each counterparty multiplied by a scale factor, alpha. Based on the work done by ISDA, alpha for a large bank would be approximately 1.1. We raise these points to provide a context for our recommendation of the calculation of UL and EL for counterparty risk.

- **Our Recommendations For EL And UL For Counterparty Risk:**

- o EL should be defined as: $EL = EPE * PD * LGD$. (No alpha scale factor needed – the loan equivalent for EL is simply the EPE). To implement this formula the Basel Committee needs to clarify the time horizon over which EL should be defined (see clarification section above), which will determine the appropriate time horizon over which EPE and PD should be calculated. Given the current definition of PD, we assume the time horizon for EL will be one year.
 - o The CEA used to calculate RWA (i.e. UL) should be defined as the counterparty’s EPE multiplied by a scale factor, alpha (as per ISDA’s proposal).
 - o The Risk Weight function for counterparty credit risk under the A-IRB approach should be defined in terms of UL only, with the EL (as defined above) subtracted from the loss distribution used in CP3.
- **Managing Counterparty Credit Risk (Recognition of Provisions and MVA)**

The expected loss from counterparty credit risk is managed at large banks in one of two ways:

 - 1) By setting aside provisions for EL or
 - 2) By adjusting the net mark-to-market (MTM) value of derivatives with each counterparty to reflect the credit risk of the counterparty. For example, the net MTM of a portfolio of derivatives with a counterparty may be defined as:

¹ The EPE is an average in two senses: It is an average over some time horizon (e.g. one year) of the expected positive exposure profile of the counterparty. At each future date, the expected positive exposure is calculated by simulating thousands of potential states of the market and calculating the average of all simulated positive values (with simulated negative values set to zero) of the exposure to the counterparty.

$$PV_k = \sum \text{MTM}(\text{risk free})_j - \text{MVA}_k$$

Where:

- PV_k is the adjusted net market value of the transactions with counterparty k after subtracting the cost of credit risk.
- $\sum \text{MTM}(\text{risk free})$ is the net market value of the transactions with counterparty k, calculated by discounting all expected future cash flows at a risk free rate (e.g. LIBOR).
- MVA_k is the market value adjustment for the credit risk of counterparty k, taking into account market spreads and the counterparty's risk rating. The MVA needs to be calculated on a portfolio basis, by means of Monte Carlo simulation, across all derivatives with the counterparty. When the MVA is calculated on the basis of market credit spreads it is almost always larger than the EL of the derivatives with the counterparty, because market spreads include not only expected loss but also a risk premium for unexpected losses and liquidity risk.

The MVA, in summary, is the reduction of the net market value of the transactions with a counterparty from a risk free value, due to the credit risk of the counterparty.

We recommend that banks that calculate MVA for counterparty risk should be allowed to implement one of two processes for comparing their total EL to their total available resources against EL. They should either:

- Exclude the EL generated by counterparty risk from the total EL and exclude MVA from total available financial resources , so long as $\text{MVA} > \text{EL}$.
- Include the EL for counterparty risk in the total EL and include the MVA in the total available financial resources, independent of whether $\text{MVA} > \text{EL}$.