

Further Proposals for Regulatory Treatment of Operational Risk Expected Losses

**An ISDA paper
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Annex – Material sent to the RMG in December 2001

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1. Introduction

This paper builds on an earlier ISDA submission of December 2001, introducing the idea of recognising coverage of expected loss by means other than capital.

ISDA envisages that, in addressing expected loss (EL), banks will have the opportunity to use one or more of the following techniques:

- Reserves/Provisions; and/or
- Insurance (where linked to identified EL); and/or
- Pricing; and/or
- Expensing.

Further, while the relevant technique may be applied to all or part of the EL, only that portion of the reserves/provisions/etc that meets regulatory standards will be able to reduce the gross regulatory capital. On the other hand, just as capital is fungible, firms will be permitted to allocate reserves/income derived from one business activity to losses incurred in another, subject to the procedural constraints outlined below as to identification and verification of losses and offsets. In any case, for some forms of loss it may be appropriate to allocate offsets at firm-wide level, while for other forms the allocation will be by business line.

This document sets out high-level standards that firms could reasonably be expected to meet, in order to achieve recognition for their coverage of expected operational risk loss by means such as those mentioned above. It focuses on the framework within which EL coverage is ensured, including issues of policy (and its documentation), procedure, transparency and verification. As such, the document provides both support and constraints for firms seeking regulatory recognition of their EL coverage.

In order to qualify for recognition, a firm's policy of EL coverage would have to:

- a) demonstrably be in active use within the firm, and
- b) be tied into its overall framework for management of operational risk.

Reserves/provisions are the most readily acceptable means of covering EL, as they are a widely recognised alternative to capital. (Reserves could include items such as bonus -pool accruals.) The use of pricing/expensing methodologies, on the other hand, will generally require the development of particular policy and procedures. Insurance (which is sometimes seen as a mitigant of *unexpected* loss only) is envisaged as covering that band of losses that falls between the deductible (or excess) on a policy and *unexpected* loss. (For instance, a firm might have a computer theft policy with a deductible of \$3,000, above which a certain amount of losses might be considered 'expected'.)

Where EL is addressed via explicit adjustments to pricing or reflected in expenses, then some confidence is needed that the business is profitable before *unexpected* operational risk losses. Such confidence can be gained via experience and reviewing the business model. Prospective changes in the business environment may also lead to

a realignment in the balance between reserves/provisions and pricing or expenses as mechanisms to address EL.

The possibility of recognition of EL coverage provides an incentive for firms to gather loss data. For firms on the 'Basic' or 'Standardised' Approaches, data gathering constitutes a significant step towards the Advanced Measurement Approach and it is appropriate, therefore, that recognition of EL coverage should be available to firms on the 'Basic' or 'Standardised' Approaches. (As not all firms would necessarily move to the AMA, however, targeted coverage of EL should not be obligatory.)

A schematic representation of the concept of EL coverage is given below.

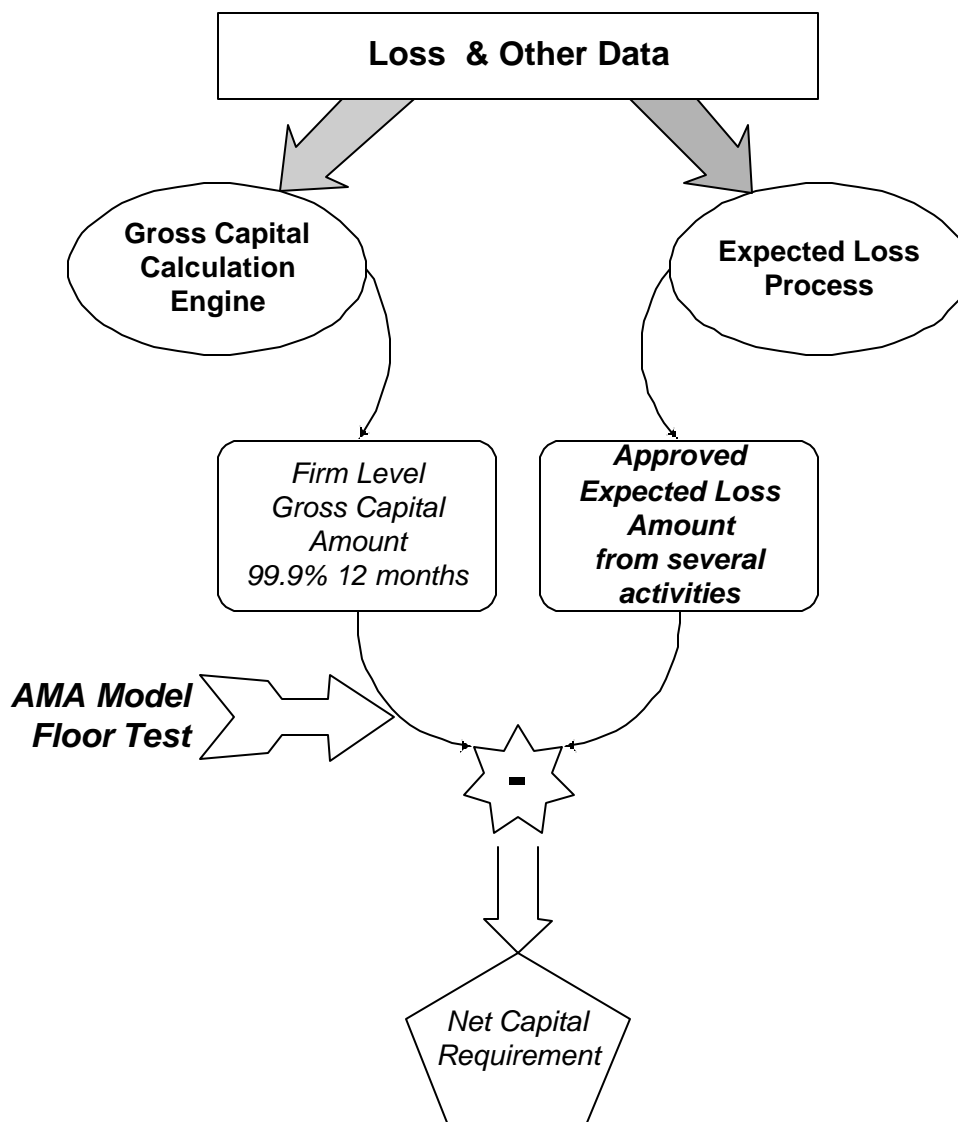


Figure – Schematic of how the EL adjustment could operate

2. Policy Document

The policy document that describes how EL is to be addressed in a given firm should include a number of features, for example documentation standards and who (by function) has the responsibility for making the assessment. This document should be subject to senior management approval, with appropriate input from relevant departments, including relevant business lines and those responsible for audit and risk management.

EL should be defined. This should be done such that, where relevant, it may be expressed either as a reduction in the value of an asset and/or the creation of a liability (including the concept of a loss that is ‘incurred but not yet reported’). Under some circumstances, addressing EL may be a requirement and not optional.

In considering EL for operational risk, a number of interpretations can be used. For example, one view of EL is statistically based, ie, that it can be found below 50% confidence interval on a loss distribution. This paper accepts this as a possible – but not exclusive – definition of EL.

Another view of EL is that it equates to any ‘high-frequency, low-impact’ event. Other views are that EL relates to identified specific events, such as fraud, that have occurred but may not yet have been discovered or that it relates to events ‘expected’ as a result of less than perfect internal processes; or as a result of justifiably anticipated events such as IT virus attacks.

In summary, some possible interpretations of EL are:

- statistical (<50th percentile on loss distribution)
- high-frequency, low-impact events (all)
- high-frequency, low-impact events (average)
- undiscovered events
- internal process failures
- external events

The scope of EL needs to be described in the policy statement and the criteria for considering a loss ‘expected’ should be set out. In particular, the empirical support for any methodology should be clearly demonstrated against objective and independently verified standards.

While EL may be defined in different ways, it will (consistent with the regulatory definition of operational risk) in all cases refer to the financial impact of specific events, as distinct from overheads or from investment (such as IT improvements) indirectly related to that type of event

The complexity of the method used to determine the impact on reserves/provisions, pricing or expenses will vary within and between firms.

The frequency with which EL should be considered and calculated must be set out as a procedural element, for example quarterly. The procedures should also state (and justify the choice as to) the period into the future being considered, for example, the next 3 months or the next 12 months. The appropriate horizon will probably be a function of the type of business and type of loss.

Guidance on the operational risk policy statement for EL can be obtained by reviewing the equivalent statement for credit risk . (The policy should address how a firm determines operational loss as distinct from credit loss and how it determines the relevant boundary.)

As industry practice in this area develops, firms should ensure that their approach conforms to any clearly established sound practices.

3. Procedure

As well as being conceptually sound and actively employed, the policy that a firm adopts must be operated by appropriately skilled staff. It may in addition be appropriate to ensure the involvement of an independent unit, such as a centralised operational risk management function.

A firm should establish clear procedures to determine reserves/provisions and/or the impact on pricing or expenses for expected EL. The relative balance between the various techniques for addressing EL may vary for a number of reasons, for example tax treatment, but guidance should be provided as part of the procedures.

It is expected that the procedures may vary according to the risk or event type concerned (for example Employment Practices vs. Execution Delivery & Process Management). The procedures may also vary according to the business activity, for example Retail Banking vs. Asset Management vs Payments & Settlement. Firms may apply for recognition of EL coverage for as many or few risks/activities as they wish.

A number of factors can be used, individually or in combination, to arrive at an EL amount. The factors include:

- Internal loss data;
- Industry benchmarking results, including external loss data;
- Qualitative factors – analysis of changes in:
 - external business environment; and/or
 - internal business environment, eg projected business volumes; and/or
 - internal control factors.

Normally, internal loss data would be expected to be the primary source of information as to a firm’s EL for operational risk. There may, however, be circumstances when reliance on other sources may be acceptable or even appropriate. Any internal adjustments to the amount of loss coverage should be clearly set out and consistent with documented policy.

Data should be subject to clearly documented initial checking, as well as the *ex post facto* verification described in section 5 below. Losses must clearly be distinguished from normal operating overheads.

Any amounts set aside to offset EL must be formally identified, properly documented, appropriately reported and fully verifiable. In other words, a firm's procedures must be disciplined, transparent and compliant with principles of corporate governance.

Coverage of EL should be demonstrably integrated into a firm's framework for management of operational risk and capital. It should not be considered a substitute for risk assessment and/or risk management, including risk-trend and cost analysis.

4. Transparency

Not only should the procedures be documented, but also how each estimate is derived. Such documentation should be available for review by Internal Audit and, if required, External Audit and regulators.

Senior management should not only sign off on the firm's policy (see above) but also the amounts offset as a result of operating the policy.

Each stage of the procedures a firm adopts should be capable of and, at appropriate intervals, subject to independent checking. Oversight and revision should themselves be transparently recorded.

5. Verification

Where EL is addressed through any of the recognised techniques, there must be a regular comparison between the expectations and the subsequent reality. This comparison may result in changes to the determination process, the parameters used and the values of those parameters.¹

Such verification may be achieved by reference to benchmarks and/or external assessments.

It will be important that a firm can demonstrate the consistent application of its policy over time and, where appropriate, across activities. (As mentioned above, the specific individual implementation of policy and/or procedure may legitimately vary by risk/event and/or business type.)

¹ Where reserves are taken for specific individual events, eg, pending legal action, then these should be reviewed more frequently.

Annex – Material sent to the RMG in January ‘02

1. Overview

Objective

The objective of this note is to follow-up on the willingness of the Risk Management Group to consider the use of reserves/provisions and net future margin income to offset Expected Operational Risk Losses. This is consistent with developing thinking in the credit field and recognises the industry view that certain sorts of operational loss are likely to be highly predictable in their frequency and limited in their severity.

One consequence of recognising reserves/provisions and net future margin income will be that, for at least some activities, Capital is associated with Unexpected Losses. ISDA believes that this is appropriate, in the sense that Capital should be required for Unexpected Loss alone. Failing this, ISDA believes regulators should recognise reserves/provisions and net future margin income.

This note is to begin the development of any general, qualitative and quantitative criteria that may be used in the use of reserves/provisions and net future margin income. It represents preliminary discussions among the ISDA membership and remains relatively undeveloped because ISDA wishes to provide the Risk Management Group's with input as soon as possible, given the RMG's need to commence drafting work on CP3. Further consideration needs to be given to the mechanical aspects of how reserves/provisions and net future margin income are reflected in the capital calculations and precisely how Expected Loss is defined. It is important to note that, even if firms today do not use the techniques outlined below, they may wish to in the future.

The precedent is regulatory consideration of these techniques when addressing portions of credit risk². It has been suggested that these issues will be addressed in the forthcoming CP3 for operational risk, in addition to whatever is mentioned for Credit Risk.

At the level of the Firm, the sum of specific and General Reserves/Provisions and Net Future Margin Income cannot be in excess of the Firm level Expected Operational Risk Loss. For some calculations the figure representing Expected Loss is transparent, for other calculations, e.g. the Standardised Approach, it remains to be seen how to determine the equivalent figure.

Assumptions

As stated above, this paper assumes that gross regulatory capital will be based upon Expected and Unexpected Operational Risk Loss, even though ISDA's view is that it is only appropriate to require capital for Unexpected Loss.

Current accounting standards may not always be suited to supporting the use particularly of general provisions on a consistent basis internationally. However, ISDA believes it is important to establish the principle that firms are, based on robust loss data, able to quantify and cover Expected Loss.

The proposals below, although designed for the Advanced Measurement Approach, may also be applicable to the Standardised and Basic Indicator Approaches.

The degree of benefit from reserves/provisions may be restricted.

The degree of benefit from net future margin income may be restricted.

² Basel Committee (July 2001) "Working paper on the IRB Treatment of Expected Losses and Future Margin Income"

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Firms should not be required to disclose a breakdown of the purpose of reserves they have made, as this may constitute sensitive and/or proprietary information.

2. Proposals for the regulatory recognition of *Reserves/Provisions*

Rationale for recognising the use of Reserves/Provisions against Gross OR

For Market Risk there is the requirement to mark the book to market on a regular basis. The results of this process influence the market risk capital: losses are deducted from Tier 1 equity and profits form Tier 3.

For Credit Risk the use of specific reserves can be viewed as effectively marking the credit exposure to market.

Changes in the value of on- and off-balance sheet positions giving rise to Credit and Market Risk alter the economic value of the firm. For Operational Risk there may not be individual balance sheet positions that can be revalued as some operational risks are environmental and some are transaction based, as for Custody or processing activities. Nevertheless, Operational Risk events do affect the economic value of the firm.

It is proposed that reserves/provisions that are specifically established in anticipation of operational risk events should have regulatory recognition and lead to a reduction of the amount of risk that has to be met from Tier 1 & 2 capital. Alternatively, these operational risk reserves/provisions could be used to alter the amounts of Tier 1 & 2 capital for operational risk. Some ISDA members would prefer that the definition of capital be reviewed, but recognise that it may be necessary for the time being to adopt the alternative approach to incorporating reserves/provisions.

Qualitative Criteria

The firm should have a structured approach that, in general, is applied consistently to the increase and decrease of reserves/provisions. From time to time there may be special circumstances requiring actions outside the structured approach.

Allocating reserves/provisions for OR should have a consistent priority in the P&L process with Credit reserves/provisions.

Reserves/Provisions may be specific or general. At one extreme Specific Reserves/Provisions are for individual events eg Law suits, or event types eg Settlement Failures. In contrast General Reserves/Provisions are for non-specific issues such as operational risk incidents arising from a re-structuring or a Merger & Acquisition.

The size of Reserves/Provisions must be reviewed on a regular basis (consistent with regulatory capital calculations).

The relation between Operational Risk Reserves/Provisions should not be constrained by statutory accounting requirements. However, the revenue stream should not be double counted as contributing to reserves/provisions and simultaneously contributing to the Tier 1 capital base.

Quantitative Criteria

The Reserves/Provisions are derived using historic loss data. This also provides a partial validation of the size of the reserves/provisions.

As capital is required for a future period so reserves for future probable losses may be larger than historic loss experience.

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Expert judgement, calculations or a combination of these may amend historic data to arrive at the level of Reserves/Provisions.

Specific Reserves/Provisions are applied against the gross operational risk exposure of a business line and/or event category.

Specific Reserves/Provisions are capped at the size of Expected Losses³ for the business line and/or event category combination. However, “excess” reserves/provisions for one business line and/or event category combination may be carried over to a business line and/or event category combination where there is an apparent “deficit”. The allocation mechanism is at the discretion of the individual firm, but will be reviewed by the regulators for transparency and consistency. This is based upon the fungibility of Reserves/Provisions as they are generated from the revenue stream of the firm that eventually amends the capital account of the firm.

For General Reserves/Provisions it is proposed that their allocation for use at the business line or firm level is at the discretion of the individual firm, but will be reviewed by the regulators for transparency and consistency. This is based upon the fungibility of Reserves/Provisions as they are generated from the revenue stream of the firm that eventually amends the capital account of the firm.

Other Issues/Aspects/Features

In some jurisdictions, tax considerations may influence the economic attractiveness of making reserves/provisions. Such considerations should not affect the principle of recognising reserves/provisions.

Many firms make reserves/provisions that may not comply with statutory accounting requirements (IAS42, US GAAP). Such management reserves/provisions eg withholding day-1 gross revenue for possible pricing model errors for new/complex products can still contribute to specific reserves/provisions subject to non-double counting.

Reserves/Provisions are not equivalent to a recovery leading to a net operational risk loss as Reserves/Provisions are taken before the event materialises and recoveries can only occur after the event.

The regulators will periodically review the Reserving/Provisioning policies and their application.

³ Alternative descriptions of the “cap” may be needed for some AMA calculations, and for the Standardised and Basic Indicator Approaches.

Proposals for the regulatory recognition of *Future Margin Income*

Rationale for recognising the use of Future Margin Income against Gross OR
Firms are regulated as going concerns. As a result, a conservative estimate of future revenues can be used to offset a portion of the operational risks that are to be experienced in the future. There are similarities between Future Margin Income and the treatment of mark-to-market profits in the Market Risk calculations.

Qualitative Criteria

The calculations to determine the Future Margin Income that can be used to reduce the operational risk capital requirement must be implemented with consistency and transparency. The Future Margin Income for operational risk must not be double counted with the Future Margin Income that is used for other risk types, such as Credit Risk.

Quantitative Criteria

Future revenues are by nature uncertain, therefore the methodology used to determine Gross Future Margin Income (as a buffer to absorb EL) must be conservative. One possibility is to base it upon historic data, for example the lowest Gross Margin (Gross Revenue less Gross Costs, before movements in reserves/provisions) over the past 3 years.

Alternatively, the Gross Future Margin Income may be derived from a projection of historic data and an explicit estimate of Expected Operational Risk Losses.

Other techniques, or combination of techniques, may be used to arrive at the Gross Future Margin Income.

In view of the differing degrees of certainty and precision in the possible techniques to arrive at the Gross Future Margin Income, different discounts may be applied in arriving at the Net Future Margin income that can be used to offset Expected Operational Risk Losses. Such discounts may be as high as 50%.

For a business line in the event that there is excess Net Future Margin Income in relation to Expected Losses (before or after taking into account the related level of Reserves/Provisions) the excess may be transferred to a business line where there is a deficit. The allocation of the "excess Net Future Margin Income, for use at the business line or firm level is at the discretion of the individual firm, but will be reviewed by the regulators for transparency and consistency. This is based upon the fungibility of Net Future Margin Income as it is generated from the revenue stream of the firm that eventually amends the capital account of the firm.