BASLE COMMITTEE ON BANKING SUPERVISION

BANK FOR INTERNATIONAL SETTLEMENTS, CH-4002 BASLE

EMBARGO

Not to be released until genuine morning editions on Friday, 19th September 1997 and not to be disseminated before 21.00 Central European Time on Thursday, 18th September 1997.

PRESS STATEMENT

The Basle Committee on Banking Supervision has decided to modify the Amendment to the Capital Accord to incorporate market risks that was issued in January 1996 with an implementation deadline of year-end 1997. This change is explained in a short explanatory document that accompanies revised wording for the market risk Amendment.

The modification will have the effect of removing the so-called floor which would have applied to banks using internal models to assess specific risk as part of their overall modelling of market risk. Banks will benefit from the removal of the floor insofar as its retention would have burdened banks using models with a dual calculation.

The Committee is encouraged that banks' modelling of specific risk has progressed sufficiently to enable the floor to be removed, but it notes that the progress has occurred mainly in terms of idiosyncratic variation (i.e., day-to-day variations not explained by general market movements) and has not yet agreed that currently existing methodologies adequately capture event and default risk. Both the Basle Committee and national authorities will continue to monitor the development of modelling techniques and expect that the industry will soon develop acceptable techniques for these other risks. However, until that time, bank measures of specific risk will incur a multiplication factor of four, rather than three.

The text of the Amendment to the Accord and the explanatory paper can be found on the BIS Website at http://www.bis.org.

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Basle Committee
on
Banking Supervision

Explanatory Note
Modification of the Basle Capital Accord of July 1988, as amended in January 1996

The Committee has decided to remove the provision of the 1996 Market Risk Amendment which requires that the specific risk capital charge of the internal models approach be subject to an overall floor equal to 50% of the specific risk amount calculated under the standardised approach.

Since the release of the Market Risk Amendment in early 1996, the Committee and national supervisors have had a dialogue with banks on their methodologies for assessing specific risk. As regards methods for modelling idiosyncratic variation, the Committee notes that it has seen sufficient improvement and innovation in these modelling techniques and enough similarity among methodologies used by banks to set general criteria for modelling idiosyncratic variation (i.e., the day-to-day variation not explained by the general market). However, the Committee as a whole has not yet agreed that currently existing methodologies used by banks adequately capture event and default risk. The Committee notes that approaches for measuring and validating this risk differ widely at present and that modelling in this area is in the process of rapid evolution, making it impractical at this juncture to set forth general guidance for capturing this risk.

In the light of these findings, the Committee has established certain qualitative and quantitative requirements for idiosyncratic risk which will allow banks that meet them to base their specific risk capital charge on modelled estimates of specific risk without reference to the floor. Banks that do not meet these requirements (as set out in the attached text for

amending the Market Risk package) must use the standardised approach to calculate the specific risk capital amount. The requirements are aimed at ensuring that banks accurately estimate and validate idiosyncratic variation as part of a portfolio's overall price variation. Until a bank can demonstrate that the methodologies it uses capture event and default risk adequately, its modelling of specific risk will be treated on the same basis as if a model of general market risk proved deficient during backtesting. As a result, it will be subject to a capital surcharge; that is, a multiplication factor of four on the treatment of specific risk. The minimum multiplication factor of three could only be applied to specific risk models for which it can be demonstrated that all relevant aspects of market risk are captured.

The Committee expects that the banks' continuing efforts to improve their models will soon lead to established market standards that adequately capture event and default risk for traded-debt and equity instruments and is prepared to work with the industry to this end. The Committee and national supervisors are ready to examine at any time the ability of individual methodologies to model both components of specific risk set forth in the regulatory definition. If such an overall ability can be shown to both bodies, any model that is based on the same methodology may immediately obtain the minimum multiplication factor of three; however, a higher multiplication factor of four would be possible if future backtesting results were to indicate a serious deficiency with the model. The Basle Committee and national supervisors will continue to cooperate to ensure that the implementation of such methodologies and practices are done in an appropriate and consistent manner. As soon as market standards have been established within the industry, the Committee will replace this interim approach by defining general guidance for capturing event and default risk for trading book instruments.

The Committee's desire to have banks refine their modelling techniques for capturing event and default risk in the trading book should not be interpreted as a precursor to a decision concerning credit risk modelling for the banking book. The Committee believes that the modelling of event and default risk in the trading book is very different from the modelling of the credit risk in the banking book. In this regard, the Committee emphasises that the modelling of event and default risk as an element of specific risk within the trading book focuses on the potential for occurences such as default to lead to precipitous changes in market values over a short period. The easy availability of market prices, the daily marking-to-market process, and the ability to trade instruments and to hedge using liquid instruments readily distinguishes specific risk modelling of trading book positions from modelling of banking book positions.

MODIFICATIONS TO THE MARKET RISK AMENDMENT

Textual changes to the Amendment to the Basle Capital Accord of January 1996

Table of Contents page of the January 1996 Market Risk Amendment: Add a section under part B (Use of internal models to measure market risk) entitled B.8 Treatment of Specific Risk.

Section b, paragraph 11 of Introduction: Substitute the following for the final sentence: The capital charge for banks which are modelling specific risk is set out in section B.8.

Delete wording under Section k of B.4 Quantitative standards (p. 45) and add the following language:

(k) Banks using models will also be subject to a capital charge to cover specific risk (as defined under the standardised approach) of interest rate related instruments and equity securities. The manner in which the specific risk capital charge is to be calculated is set out in Section B.8 below.

Add a new Section to the Market Risk Package:

B.8 Treatment of Specific Risk

1. Banks using models will be permitted to base their specific risk capital charge on modelled estimates if they meet all of the qualitative and quantitative requirements for general risk models as well as additional criteria set out below. Banks which are unable to meet these additional criteria will be required to base their specific risk capital charge on the full amount of the standardised-based specific risk charge.

2. The criteria for applying modelled estimates of specific risk require that a bank's model:

- explain the historical price variation in the portfolio;[1]

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1 The key ex ante measures of model quality are "goodness-of-fit" measures which address the question of how much of the historical variation in price value is explained by the model. One measure of this type which can often be used is an R-squared measure from regression methodology. If this measure is to be used, the bank's model would be expected to be able to explain a high percentage, such as 90%, of the historical price variation or to explicitly include estimates of the residual variability not captured in the factors included in this regression. For some types of models, it may not be feasible to calculate a goodness-of-fit measure. In such an instance, a bank is expected to work with its national supervisor to define an acceptable alternative measure which would meet this regulatory objective.

- demonstrably capture concentration (magnitude and changes in composition);[2]
- be robust to an adverse environment;[3] and
- be validated through backtesting aimed at assessing whether specific risk is being accurately captured.

In addition, the bank must be able to demonstrate that it has methodologies in place which allow it to adequately capture event and default risk for its traded-debt and equity positions.

3. Banks which meet the criteria set out above for models but do not have methodologies in place to adequately capture event and default risk will be required to calculate their specific risk capital charge based on the internal-model measurements plus an additional prudential surcharge as defined in the following paragraph. The surcharge is designed to treat the modelling of specific risk on the same basis as a general market risk model that has proven deficient during backtesting. That is, the equivalent of a scaling factor of four would apply to the estimate of specific risk until such time as a bank can demonstrate that the methodologies it uses adequately capture event and default risk. Once a bank is able to demonstrate this, the minimum multiplication factor of three can be applied. However, a higher multiplication factor of four on the modelling of specific risk would remain possible if future backtesting results were to indicate a serious deficiency with the model.

4. For banks applying the surcharge, the total market risk capital requirement will equal a minimum of three times the internal model's general and specific risk measure plus a surcharge in the amount of either:

a) the specific risk portion of the value-at-risk measure which should be isolated according to supervisory guidelines;[4] or, at the bank's option,

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2 The bank would be expected to demonstrate that the model is sensitive to changes in portfolio construction and that higher capital charges are attracted for portfolios that have increasing concentrations.

3 The bank should be able to demonstrate that the model will signal rising risk in an adverse environment. This could be achieved by incorporating in the historical estimation period of the model at least one full credit cycle and ensuring that the model would not have been inaccurate in the downward portion of the cycle. Another approach for demonstrating this is through simulation of historical or plausible worst-case environments.

4 Techniques for separating general market risk and specific risk would include the following:

Equities

- The market should be identified with a single factor that is representative of the market as a whole, for example, a widely accepted broadly based stock index for the country concerned.
- Banks that use factor models may assign one factor of their model, or a single linear combination of factors, as their general market risk factor.

b) the value-at-risk measures of sub-portfolios of debt and equity positions that contain specific risk.[5]

Banks using option b are required to identify their sub-portfolio structure ahead of time and should not change it without supervisory consent.

5. Banks which apply modelled estimates of specific risk are required to conduct backtesting aimed at assessing whether specific risk is being accurately captured. The methodology a bank should use for validating its specific risk estimates is to perform separate backtests on sub-portfolios using daily data on sub-portfolios subject to specific risk. The key sub-portfolios for this purpose are traded-debt and equity positions. However, if a bank itself decomposes its trading portfolio into finer categories (e.g., emerging markets, traded corporate debt, etc.), it is appropriate to keep these distinctions for sub-portfolio backtesting purposes. Banks are required to commit to a sub-portfolio structure and stick to it unless it can be demonstrated to the supervisor that it would make sense to change the structure.

6. Banks are required to have in place a process to analyse exceptions identified through the backtesting of specific risk. This process is intended to serve as the fundamental way in which banks correct their models of specific risk in the event they become inaccurate. There will be a presumption that models that incorporate specific risk are "unacceptable" if the results at the sub-portfolio level produce a number of exceptions commensurate with the *Red Zone* as defined in this Amendment. Banks with "unacceptable" specific risk models are expected to take immediate action to correct the problem in the model and to ensure that there is a sufficient capital /buffer to absorb the risk that the backtest showed had not been adequately captured.

Bonds

- The market should be identified with a reference curve for the currency concerned. For example, the curve might be a government bond yield curve or a swap curve; in any case, the curve should be based on a well-established and liquid underlying market and should be accepted by the market as a reference curve for the currency concerned.

Banks may select their own technique for identifying the specific risk component of the value-at-risk measure for purposes of applying the multiplier of 4. Techniques would include:

- using the incremental increase in value at risk arising from the modelling of specific risk factors;
- using the difference between the value-at-risk measure and a measure calculated by substituting each individual equity position by a representative index; or
- using an analytic separation between general market risk and specific risk implied by a particular model.

5 This would apply to sub-portfolios containing positions that would be subject to specific risk under the standardised-based approach.