

From: "Saved by Windows Internet Explorer 7"
Sent: Tuesday, November 11, 2008 5:23 AM
Subject: SUNS - South North Development Monitor



SUNS #6586 - 10 November 2008

[Index](#)[Archive](#)[Search](#)

Finance

Banking regulatory reforms emerging, in piecemeal way

Geneva, 7 Nov (Andrew Cornford*) - Even as much of official response to the financial turmoil has been focussing on shoring up tottering financial sectors, with a variety of immediate monetary and fiscal measures and expanded regulation, the shape of longer-term financial reform is beginning to emerge, but in a piecemeal way. The first new proposals tackle technical and relatively uncontroversial issues.

The financial crisis has become more pervasive since the second half of 2007, and has gained momentum since August this year. The most recent period has witnessed a virtual collapse of credit markets and the onset of a serious recession. Much of the official response and measures to shore up the financial sector has involved monetary policy, lender-of-last resort operations and officially imposed mergers of financial firms, and expanded regulation including more inclusive or blanket insurance of deposits. Of special importance have been the blanket guarantees on interbank loans.

Alongside of this immediate response the shape of longer-term reforms of bank regulation is beginning to emerge but in a piecemeal way. Since these reforms will affect cross-border as well as national banking business, they will form an important part of the new international financial architecture which is the ultimate but still ill defined objective of the new political initiatives that can be grouped under the umbrella term, "Bretton Woods II".

Initial indications are that the first new rules and standards to be issued for the banking sector will tackle technical and relatively uncontroversial issues rather than more contentious matters such as bankers' pay and regulation of credit rating agencies. Moreover the principal international rules-making body for banking, the Basel Committee on Banking Supervision, still seems to be shying away from proposals which would integrate the management of macroeconomic risks to the sector (macroprudential regulation) with the wide-ranging microprudential rules and standards which it has enunciated over the years.

A key role in the reformed structure of bank regulation is accorded to the rules of Basel 2 on banks' capital and risk management. Nevertheless, through their vehicle, the Financial Stability Forum, regulators of countries with major financial markets have acknowledged the need to strengthen Basel 2 in the light of lessons drawn from the financial turmoil [SUNS 6511 and 6512].

Proposals for this purpose are being issued throughout the rest of the year. One proposal from this agenda concerns the framework for allocating capital to banks' market risks. This is the subject of two recent consultation documents of the Basel Committee on Banking Supervision, Guidelines for Computing Capital for Incremental Risk in the Trading Book and Proposed Revisions to the Basel II Market Risk Framework.

The Market Risk Framework is now part of the regulatory rules for banks' capital in several developing countries and transition economies of Eastern Europe more than 15, for example, in the sample of developing countries covered in the 2007 Global Survey of the New-York-based Institute of International Bankers [Institute of International Bankers, Global Survey 2007, p.8]. Banks in the great majority of these countries are also permitted by their regulators to use internal models to measure market risks for their minimum regulatory capital requirements (see below).

The Market Risk Amendment was added in 1996 to the original Basel Capital Accord of 1988 (Basel 1). The Amendment is directed at risks associated with banks' trading books, i.e. positions in financial instruments and commodities held either with trading intent or to hedge other positions in the trading book (as opposed to the institutions' banking books which contain assets such as loans and selected off-balance-sheet or contingent positions, both of which were the main target of the 1988 Accord.). Positions in the trading book are regularly revalued and actively managed. The most important risks of these positions are due to movements in their market prices or values.

The Market Risk Amendment was the Basel Committee's response to the increase in the involvement of banks generally in trading (particularly of derivatives) and brokerage as compared to the more traditional business of receiving deposits and other repayable funds from the public and granting credits for their own account. The rules eventually adopted followed a long consultation period, in which banks themselves played an active role, and were designed to incorporate banks' own experience and practices.

The rules of the 1996 Amendment allow two approaches to calculating the minimum regulatory capital requirement for market risk. The standardized approach uses a series of conversion factors for different instruments and positions. This approach is cumbersome and likely to generate a higher minimum regulatory capital requirement than the alternative. Under the internal-models approach banks use their own internal risk models to estimate the requirement.

In addition to general market risk, i.e. that due to overall changes in financial markets in such indicators as equity prices or interest rates, trading books are exposed to specific market risk, i.e. that due to changes in the value of particular instruments such as stocks or bonds. Capital requirements for specific market risk under the standardized approach vary for different instruments and positions. Under the internal-models approach calculation of specific market risk by means of a bank's own models may be permitted by regulators. If not, capital charges for specific market risk are calculated according to rules specified in the standardized approach and are added to that for general market risk.

Under the internal-models approach, exposure to general market risk is calculated on the basis of a measure of VaR or Value at Risk. VaR makes possible a statement of the following form: the bank is X per cent (for example, 99 per cent in the Market Risk Framework) certain that it will not lose more than a specified amount due to general market risk during the holding period, i.e. the period required to liquidate the trading positions, thus stopping further losses. More colloquially VaR is an answer to the question of how bad things can get.

For the purpose of such a calculation the bank requires a statistical frequency distribution or models for the profits and losses due to factors to which its trading book is exposed. These tools are then used to identify the maximum loss to the bank corresponding to the chosen level of probability for its VaR.

Three alternative techniques are used for this purpose: historical simulation, Monte Carlo simulation, and the model-building approach.

Under historical simulation a frequency distribution is derived empirically from the effects on the bank's trading book of actual movements in market variables. In Monte Carlo simulation the frequency distribution of profits and losses in the trading book is generated by sampling values for profits and losses on positions in different instruments which have themselves been generated by statistical modelling. Both of these processes are highly time-consuming and costly in terms of computer power.

Under the internal model-building approach the inputs to the estimates of VaR for trading positions in particular instruments are the sensitivity of the value of the positions to changes in market prices or values and hypothetical maximum changes in these prices or values corresponding to the level of probability selected for the VaR. The VaR of trading positions in particular instruments are then combined into an estimate of the VaR of the trading book as a whole, after taking account of reductions in aggregate VaR due to diversification across particular positions.

Modelling and assumptions about the statistical properties of the distributions of prices or values enter

at three stages in the model-building approach: (1) the estimation of the sensitivities of the values of positions to the determinants of changes in market prices or values; (2) the frequency distribution generating the hypothetical maximum changes in prices or values; and (3) the correlations between different positions used to estimate the benefits from diversification.

Estimates of VaR are not infallible guides to market risk so that, for the purpose of calculating capital levels, a bank's VaR is multiplied by a factor of at least three which is set by the bank's supervisor on the basis of his assessment of its model. A key test of the performance of the bank's model is provided by the results of back-testing, a procedure which compares actual profits and losses with those generated by the model. For VaR corresponding to a 99-per-cent confidence level there should be only one period out of 100 for which the loss exceeds that calculated by the VaR model. A failure to meet this standard leads to an increase by the bank's supervisor in the multiplicative factor used to set its capital requirement. A bank is also to have in place a stress-testing programme providing for computer-based scenario analysis of disturbances capable of having a major impact on the market risks faced by a bank. Such scenarios could include the crash in stock markets of October 1987 and the exchange-rate crisis in the European Union in 1992-1993.

Several reservations have been expressed about the model-building approach and VaR of the Market Risk Framework. Some of these reservations are primarily technical and concern the models and the hypothetical changes in prices and values used to calculate VaR. Others concern their relation to market stability. Thus, for example, the experience of the impact on financial markets of the Russian default and the collapse of the hedge fund, LTCM, in 1998 heightened misgivings about the potential of risk management based on VaR to exacerbate markets' procyclicality.

As a senior risk manager at Goldman Sachs characterized the experience of 1998 at the time, "Consider a situation when volatilities rise and there are some trading losses. VaRs would be higher and tolerances for risk would likely be lower. For an individual firm, it would appear reasonable to reduce trading positions; however, if everybody were to act similarly it would put pressure on their common trading positions". [The quotation is from N.Dunbar, *Inventing Money*, John Wiley, 2000, p. 203.] The increased orders to sell into the market would coincide with a drying-up of buying orders and liquidity.

Recent revisions by the Basel Committee have been directed at some but not all of the Market Risk Framework's perceived shortcomings.

Revisions in 2005 were directed at preventing the gaming of minimum regulatory capital through the shifting of exposures between banking and trading books to reduce capital requirements, at the valuation of trading positions and the need during times of stress to establish special reserves for illiquid positions in the trading book, and at fleshing out the capital requirements for specific risk. In the preamble to these revisions text the Basel Committee acknowledged problems due to the observed assignment by banks to the trading book of an increasing number of instruments related to the management and trading of credit risk and of other structured and exotic products. These practices were the result of financial innovations whose importance had increased during the long process of drafting Basel 2. As the Basel Committee put it, "These products are generally less liquid and give rise to risks that were not entirely contemplated in the market risk framework when it was introduced" [Basel Committee on Banking Supervision, *The Application of Basel II to Trading Activities and the Treatment of Double Default Effects*, July 2005, paras. 258-263].

The Market Risk Framework in the comprehensive, revised 2006 version of Basel 2 included in the model-building approach a requirement for additional capital in the form of an incremental default charge designed to capture the impact of default risk on trading positions which was not already covered by the charge for specific market risk [Basel Committee on Banking Supervision, *International Convergence of Capital Measurement and Capital Standards*, June 2006, paras. 718 (xcii) and 718 (xciii)].

The revisions proposed in the 2008 documents of the Basel Committee reflect agreement reached at a meeting in March 2008 that, reflecting experience of the credit crisis, the scope of the incremental default charge needed to be expanded to become an Incremental Risk Charge to capture the impact on

trading positions not only of default but also of other sources of price risk.

As the Basel Committee put it, "The decision [to propose an Incremental Risk Charge] was taken in the light of the recent credit market turmoil where a number of major banking organisations have experienced large losses, most of which were sustained in banks' trading books. Most of those losses were not captured in the 99%/10-day VaR. Since the losses have not arisen from actual defaults but rather from credit migrations [transfers of positions in the trading book between different risk classes in banks' systems for rating credit risk], combined with widening of credit spreads [due to increased credit risks] and the loss of liquidity, applying an incremental risk charge covering default risk only would not appear adequate. For example, the incremental default risk charge would not have captured recent losses of CDOs [collateralised debt obligations] of ABS [asset-backed securities] and other resecuritisations held in the trading book" [Basel Committee on Banking Supervision, Guidelines for Computing Capital for Incremental Risk in the Trading Book, July 2008, para. 1].

More specifically the Basel Committee states that the Incremental Risk Charge is intended to address shortcomings in the existing VaR framework. Here it singles out the failure of VaR to allow for differences in the liquidity of positions in the trading book as well as the short-run focus of many systems of VaR measurement. The latter may result in a failure to take adequate account of infrequent but large daily losses and of large cumulative price movements over periods lasting weeks or months.

The Basel Committee acknowledges that there is not yet an industry standard for addressing and thus measuring the risks covered by the Incremental Risk Charge. Thus its guidelines take the form of high-level principles with considerable flexibility for banks as to how they implement them.

The time table proposed by the Basel Committee would involve implementation during 2010-2011 of models which would incorporate progressively the different risks to be covered by the Incremental Risk Charge. However, before issuing definitive guidelines, the Basel Committee is seeking comments on several issues. These include the scope and coverage of the risks to be included under the Incremental Risk Charge and the question - likely to be crucial to rules designed to make the Incremental Risk Charge operational of whether the differences between general and specific market risks, on the one hand, and the other market risks covered by the Charge, on the other, are well defined and measurable.

How far does the Incremental Risk Charge contribute to meeting the objective of strengthening Basel 2 as specified in the Financial Stability Forum's agenda for financial regulatory reform in response to the current turmoil?

The Charge refines the calibration of the risks covered by the Market Risk Framework and would lead to higher minimum regulatory capital requirements, and thus reduced leverage, for banks. The charge thus meets the commitment in the reform agenda to strengthen the treatment in Basel 2 of structured credit and securitization activities and to issue specific proposals for the raising of capital requirements for certain complex structured credit products such as CDOs of asset-backed securities.

But the Incremental Risk Charge does not address the potentially procyclical character of the capital requirements of Basel 2. According to the reform agenda of the Financial Stability Forum, this issue is to be left to the future scrutiny by supervisors of the cyclicity of Basel 2 and to additional measures to be proposed in the light of findings of a new data collection framework.

The Basel Committee's priorities here will be widely seen as questionable. Critical commentary on Basel 2 has placed special emphasis on its potential for exacerbating the procyclicality of bank lending and on the consequent need to incorporate macroprudential risks into a set of rules still of a largely microprudential character. Under an alternative set of priorities the risks to be covered by the Incremental Risk Charge could have been handled by an increase in the multiplicative factor applied to VaR in setting the capital charge for market risk. This would have had two advantages. Detailed rules for the Incremental Risk Charge could await further development of banks' own modeling and internal controls for the risks which the Charge is intended to cover. At the same time the Basel Committee's work could be more fully concentrated on developing rules for the incorporation of the management

and regulation of macroprudential riskss in Basel 2.

Other questions posed by the new guidelines relate to the global implementation of Basel 2 and to the implications of the proposal for an Incremental Risk Charge for VaR as a risk management tool.

In the absence of an industry consensus on the measurement of the risks covered by the Incremental Risk Charge, implementation of the Charge can be expected to lead to still greater variation in the choice of options for setting minimum regulatory capital requirements by regulators and by banks in different countries under Basel 2. The charge is thus likely to further undermine one of the underlying objectives of Basel 2, namely "maintaining sufficient consistency that capital adequacy regulation will not be a source of competitive inequality among internationally active banks".

For developing countries which introduce the Market Risk Framework the Incremental Risk Charge will represent a challenge to their supervisors additional to the others posed by the implementation of Basel 2, even though the Basel Committee does also propose in its guidelines a simpler fall back option.

Perhaps most important for techniques of risk management more generally is the questioning of the effectiveness of VaR which is implicit in the Basel Committee's acknowledgement that the Incremental Risk Charge is explicitly intended to address perceived shortcomings in the VaR framework. Since the early 1990s VaR has been one of the principal jewels in the crown of quantitative financial risk management. Its downgrading in the Basel Committee's new guidelines may be pointing towards reassessment of the existing framework for financial risk management in the light of recent experience.

(* Andrew Cornford was formerly a senior UNCTAD economist and is currently Research Fellow at the Financial Markets Center.)

[c] 2007, SUNS - All rights reserved. May not be reproduced, reprinted or posted to any system or service without specific permission from SUNS. This limitation includes incorporation into a database, distribution via Usenet News, bulletin board systems, mailing lists, print media or broadcast. For information about reproduction or multi-user subscriptions please contact: sunstwn@bluewin.ch