BASEL II : VINTAGE 2003

Andrew Cornford
Financial Markets Center

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A. The April consultative paper in context

The April 2003 consultative paper of the Basel Committee on Banking Supervision (BCBS), **The New Basel Accord** (henceforth CP3), is the third in a series stretching back to the sketch of key new ideas on the subject in the paper of 1999, **A New Capital Adequacy Framework**. Since mid-1999 working groups on the different subjects to be covered by a new accord have proliferated, and a large-scale consultation exercise has been undertaken. CP3 is a considerable step forward in comparison with its predecessor of January 2001, also entitled **The New Basel Capital Accord** (henceforth CP2) in both coherence and completeness.[1] Gone is the telegraphic expository style of much of CP2 as are the summary treatment and lacunae concerning many topics reflecting the still preliminary state of thinking in the BCBS. But greater coherence has not been accompanied by a reduction in complexity. Much of the complexity is due to the attempt to set global standards for the capital of banks at different levels of sophistication. It also reflects the BCBS's response to rapid financial innovation and abuse of existing regulations, which have led to proposed rules whose variety and esotericism sometimes match those of the practices they are intended to regulate.

Reception of CP3 has been mixed. On the one hand many major banks have undertaken large and costly exercises to overhaul their systems of internal control and capital allocation in response to Basel II, their assumption being that the final outcome of the work on a new accord will be broadly along the lines set out in CP3.[2] However, at the same time CP3 has already elicited a new round of comments. Moreover three important countries have distanced themselves from commitments to implementation. The United States is to limit the new accord's application to the country's major international banks, the remainder of the sector being permitted to continue to operate under the rules based on the 1988 Basel Capital Accord.[3] And China and India have announced that the regimes for their banks will also continue to be those of the 1988 Accord.[4]

At a meeting in Madrid in October 2003, the BCBS extended the period for further work on the new accord until no later than mid-2004, while maintaining the end of 2006 as its target date for the completion of implementation. In its communiqué the BCBS singled out a number of subjects for this work, three of which featured in the commentary which follows: (1) the treatment of expected and unexpected losses in relation to capital requirements; (2) simplifying the treatment of securitisation; and (3) revisiting credit risk mitigation, one matter of particular concern under

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[1] See BCBS**, A New Capital Adequacy Framework** (Basel, 1999) and id**., The New Basel Capital Accord** (Basel, January 2001), which is accompanied by seven specialised supporting documents. For the author's commentary on these documents see A.Cornford, "The Basel Committee's Proposals for revised capital standards: rationale, design and possible incidence"**, G-24 Discussion Paper Series No. 3** (New York and Geneva: UNCTAD and Center for International Development Harvard University, May 2000) and id., "The Basel Committee's proposals for revised capital standards. Mark 2 and the state of play",**UNCTAD Discussion Paper No. 156,** September 2001.

[2] There are reports of many banks allocating 8-15 per cent of their budgets for information technology and operations to Basel II compliance. See "Basel II a new competitive landscape", supplement to **The Banker**, October 2003, p. 4.

[3] The United States is proposing to permit any bank meeting the requirements of Basel II's most advanced approaches for credit and operational risk (discussed below) to follow Basel II. The expectation is that this will include about 20 institutions with about 99 per cent of the foreign assets held by United States banks. See, for example, R.W.Ferguson, "Basel II – scope of application in the United States", speech before the Institute of International Bankers, 10 June 2003 (reprinted in **BIS Review** 26/2003).

[4] See editorial in the **Financial Times**, 15 September 2003, and "Basel II 2007 deadline unlikely",**The Banker**, September 2003.

this heading being the conservatism of CP3's treatment of "double default risk", namely the risk that both borrower and protection provider will default on the same obligation.

B. Salient features of CP3

The discussion which follows provides brief characterisations of the key parts of the New Basel Capital Accord. CP3 retains the basic structure of CP2: 3 Pillars – minimum capital requirements, supervisory review, and market discipline (transparency).

Under Pillar 1 there are two basic approaches to the measurement of credit risk, a less sophisticated "standardised" approach and a more advanced "internal ratings-based" approach (IRBA), and three approaches of progressively greater sophistication to the measurement of operational risk.

Under both the standardised approach and the IRBA, there are further sub-variants, in the case of the latter primarily regarding the relative dependence on internal estimates as opposed to estimates provided externally by supervisors and in the case of the former regarding alternative options for taking account techniques for reducing exposure through credit risk mitigation.

1. Calculation of minimum capital requirements

This calculation now includes credit, market and operational risk. For the purpose of calculating a bank's capital ratio the denominator consists of risk-weighted assets determined as the sum of the risk-weighted on- and off-balance sheet positions estimated for credit risk and of the capital requirements for market and operational risks times 12.5, the reciprocal of the Basel Capital Accord's minimum capital ratio of 8 per cent.[5] The numerator consists of eligible capital as defined in the 1988 capital Accord and subsequently clarified and amended, and must be at least 8 per cent of risk-weighted assets.

2. The standardised approach to credit risk

Since the 1999 **New Capital Adequacy Framework,** the revised calibration of credit risk for the estimation of risk-weighted assets has been based on the ratings of External Credit Assessment Institutions (ECAIs), which would in practice be either credit rating agencies fulfilling certain conditions or the export credit agencies (ECAs) of major industrial countries.[6] The calibration of exposure by credit risk is expressed through percentages of exposures' nominal values, varying between zero for the highest rated exposures and 150 per cent – or more in certain cases – for the lowest rated. This calibration is designed to replace the cruder one of the 1988 Basel Capital Accord which was characterised by very limited differentiation of private-sector firms and assigned mostly lower weights to exposures to OECD borrowers than to those not from this grouping.

The other principal subjects under the standardised approach are credit risk mitigation and securitisation. The first heading covers techniques such as collateral, guarantees and credit derivatives, and netting. Securitisation refers to the transfer of the risk of assets otherwise part of a bank's balance sheet to outside investors. The New Basel Capital Accord is concerned here with

[5] As in the 1988 Basel Capital off-balance sheeet exposures are converted to on-balance sheet equivalents by multiplication of nominal ammounts by factors specified for different categories of such exposure.

banks' role as investors themselves in securitised assets and with their continuing exposure to risk when they are originators of such assets.

(a) External Credit Assessment Institutions

The rules for using the ratings of ECAIs have been retained in CP3 despite widespread misgivings as to the performance of major credit rating agencies – misgivings which have focussed on their failure to identify declining creditworthiness before the event in recent cases such as the Asian financial crisis of 1997 and the collapse of Enron. It should be noted that the eligibility criteria for ECAIs include the following (CP3, para. 61): "In order to be eligible for recognition, an ECAI does not have to assess firms in more than one country". This should have the important consequence of opening the way for credit rating agencies other than the majors, in particular those of developing countries.

(b) Short-term interbank lending

Owing to the observation that at the time of currency crises countries typically manifest a high degree of dependence on short-term borrowing as well as to the belief that much of this borrowing is interbank and often driven by interest-rate arbitrage, the rules for the assignment of preferentially lower risk weights to interbank exposures have been tightened in CP2 and CP3 in comparison with the 1988 Basel Capital Accord to bring them into closer consonance with real risks. Preferentially lower risk weights now apply only to loans with an original maturity of three months or less, whereas in the original Basel Capital Accord they applied to exposures to banks incorporated in non-OECD countries with a residual (not original) maturity of up to one year.

(c) Claims on corporations

In the interest of greater flexibility and discretion for national policy CP3 includes a new stipulation under which supervisors may allow banks to weight all corporate claims at 100 per cent without regard to external ratings.

(d) Retail claims

CP3 introduces a special risk weighting of 75 per cent for retail exposures.

(e) Claims secured on residential property

CP3 lowers the risk weight for mortgages secured on residential property to 35 per cent from 50 per cent in CP2.

(f) Past due loans

CP3 introduces new rules for the risk weights for past due loans which vary according to the proportion of the loan covered by specific provisions.

(g) Credit risk mitigation

This term refers to the reduction of credit risk through the use of collateral, netting, guarantees, and credit derivatives. The New Basel Capital Accord proposes two alternative approaches ("simple") and ("comprehensive") to risk weighting for collateralised transactions. Under the

former the risk weight of the issuer of collateral is substituted for that of that of the obligor (as in the 1988 Basel Capital Accord); and under the latter the underlying risk exposures are reduced by a conservative estimate of the value of the collateral. Risks under the "comprehensive" approach due to price volatility and the time needed for liquidation are handled through "haircuts" (reductions in the collateral's value), which may be calculated in accordance with supervisory rules or by banks themselves (so long as they meet certain minimum standards).

Other changes in the rules for collateral in CP3 include the following:

- The definition of eligible collateral is extended, *inter alia*, to include certain debt securities not rated by a recognised ECAI (an additional flexibility which may be important for some developing countries);
- The formula for the risk-weighted exposure after for collateralisation under the "comprehensive" approach is changed in various ways. In particular there is no longer a floor (less than 100 per cent) to the proportion of the collateral (after taking account of "haircuts") which can be deducted from the nominal value of the exposure; and
- The rationale of the formulae for "haircuts" have been considerably fleshed out.

The treatment of on-balance-sheet netting in CP3 follows the approach of CP2. Net exposure is thus estimated in accordance with the new formula of the "comprehensive" approach for collateralised transactions.

The treatment of guarantees and credit derivatives in CP3 follows the general approach of CP2, namely substitution of the risk weight of the guarantor or issuer of credit derivatives for that of the obligor. Under credit derivatives only credit default swaps and total return swaps are eligible for the purpose of credit risk mitigation.[7] Detailed changes as compared with CP2 include allowing complete substitution of the risk weight of the protection provider for the obligor (and thus dropping the formula in CP2 under which the risk weight after taking account of credit risk mitigation was a weighted average of the weights of the protection provider and of the obligor); and the elimination of the floor on the proportion of the credit protection taken into account (a floor similar to that previously applying also to collateral).

Both these changes accorded with strong representations from within the financial sector. The BCBS has, however, not responded to representations concerning the "double default effect" mentioned earlier, the term covering the probability of default by both obligor and provider of credit protection: CP3 (like CP2) does not recognise a reduction of credit risk due to the lower probability of such joint defaults owing to the absence of a satisfactory way to measure it.

(h) Securitisation

Securitisation is the complete or partial transfer of the risks of assets on a bank's balance sheet to outside investors, most often through the establishment of a special purpose entity (SPE) which receives the assets in question (or risks associated with them) and then issues securities as claims against them. The techniques used and the conditions associated with securitisation have been the subject of substantial development in recent years. Moreover the role of shifts of assets off the

[7] In a total return swap the seller of risk/buyer of protection pays to the buyer of risk/seller of protection the cash flows of a reference asset (appreciations in capital value as well as coupon payments) in return for its cost of funding plus a sum to cover losses on the asset in response to a "credit event" triggering them. In a credit default swap the buyer of risk receives a premium in return for the obligation to pay to the seller of risk a sum linked to losses due to a "credit event".

balance sheet in recent corporate scandals involving non-financial firms such as Enron has presumably heightened the attention also paid by financial regulators to techniques used for this purpose. In such a context it is unsurprising that CP3 has considerably elaborated its coverage of risks associated with securitisation. This elaboration includes an extended treatment of definitions that serves as the basis for setting conditions defining the degree of risk transfer achieved by a securitisation. It should be noted here that securitisation now may involve not only the transfer of the underlying assets themselves to SPEs ("traditional securitisation") but also the transfer to SPEs of guarantees or credit derivatives linked to these assets ("synthetic securitisation").

In CP3 securitisation exposures are risk-weighted differently according to the nature of the risk assumed by the bank as originator or investor, the rules reflecting the different techniques and transactions covered (and generally being more detailed for originators). The rules for many exposures follow lines similar to those for the attribution of risk weights under the standardised approach for non-securitised positions, though the weights corresponding to the ratings of the ECAIs differ. For example, lower-quality and unrated exposures are allocated higher risk weights than in the case of non-securitised exposures (or must be deducted from capital) since in securitisations these are intended to absorb substantial proportions of the losses on assets in an SPE. The most complex rules refer to certain continuing off-balance-sheet exposures for originator banks such as back-up liquidity facilities and early amortisation provisions (which are mechanisms allowing investors in certain circumstances to be paid off prior to the stated maturity of the securities held by them). Recognition of the risk reduction for securitisation exposures due to guarantees and credit derivatives follows the rules for non-securitised assets, and it is interesting in the context of revelations in recent corporate scandals that SPEs are explicitly excluded here as eligible providers of credit protection (CP3, para. 545).

(i) The simplified standardised approach

Many banks, especially in developing countries, are expected to choose the standardised approach owing to difficulties in meeting the requirements for eligibility for the alternatives or on the basis of a balancing of the associated costs and benefits. In this context Annex 9 of CP3 assemples in one place the simplest options under most headings of the standardised approach for calculating risk-weighted assets together with a simplified version of the standardised approach to estimating risk-weighted exposures for securitisations.

3. The internal ratings-based" approach

(a) Estimation of inputs under alternative options

As in CP2, the major elements of the IRBA are a classification of exposures into a set of broad categories, and two alternative versions, "foundation" and "advanced", for setting the values of the inputs into the estimation of risk-weighted assets, namely probability of default (PD), loss given default (LGD), exposure at default (EAD), and maturity (M).

Under the "foundation" version banks provide their own estimates of PD and, subject to national supervisory discretion, of M. Under the "advanced" version banks also provide their own estimates of other key inputs. In CP2 banks meeting the supervisory conditions for adoption of the IRBA for some of its exposures were expected to apply it to all their exposures in a short time. This requirement has now been replaced by greater flexibility, under which banks may adopt "a phased rollout of the IRB approach", for example, adopting IRBA across asset classes within the same business unit or across business units within the same banking group, or moving

from the "foundation" to the "advanced" version only for some inputs to risk-weighted assets (CP3, paras. 225-226). This flexibility may facilitate adoption of the IRBA for less sophisticated banks, a feature likely to be important in certain developing countries.

(b) Exposure classes

CP3 has reorganised and elaborated the categorisation of exposures under the IRBA in comparison with CP2. The basic categories are now (1) corporate, (2) sovereign, (3) bank, (4) retail, and (5) equity.[8] Within the corporate class five subclasses of specialised lending are specified: project finance (PF) (a method of financing where the revenues generated by the project are expected to be the principal source of funds for servicing the debt): object finance (OF) (where the physical assets financed – such as ships, aircraft, or satellites – are expected to be the principal source of debt service); commodities finance (CF) (short-term lending where repayment is met from the proceeds of the sales of the commodities); income-producing real estate (IPRE) (where debt service is again expected to be met primarily by cash flows generated by the asset and which for this reason can be distinguished from other collateralised corporate exposures where this link is less strong); and high-volatility commercial real estate (HVCRE) (which includes much of the financing of land acquisition, development, and construction where the source of repayment at the origination of the exposure is substantially uncertain). Retail exposures are classified into three subclasses: residential mortgages to individuals, other exposures to individuals, and loans of up to 1 million euros which are managed as retail exposures.

(c) The formula for risk-weighted assets for corporate, sovereign and bank exposures

As in CP2, the formula for risk-weighted assets is somewhat cumbersome, being the product of 12,5, EAD, and a factor K, of which the last is itself the product od LGD, an expression giving the conditional probability of default, and an expression designed to take account of the effect of the exposure's maturity.[9]

(d) Adjustment of risk weights for SMEs

One widely expressed criticism of the IRBA formula for corporate exposures in CP2, with important political implications in some major member countries of the BCBS, was that it was capable of imposing punitive interest charges on lending to small and medium-sized enterprises (SMEs).[10] The BCBS's response to this in CP3 is a downward adjustment to the variable in the

[8] For the purpose of estimating risk weights CP3 also distinguishes the separate category of "purchased receivables". These are then classified as retail or corporate and, subject to certain adjustments reflecting the specific features of receivables, are assigned risk weights on the basis of the methods used for corporate and retail exposures under the IRBA.

[9] The somewhat daunting formula for K in its algebraic form (before particular values are specified for its parameters) can be derived relatively simply from a model in which the asset value of a claim on a borrower (and thus the corresponding exposure) is a linear combination of a systemic factor affecting all borrowers and a factor depending on the borrower's idiosyncratic risk, and in which default is triggered if this asset value hits a threshold. The parameter values for K and the expression giving the adjustment for maturity are set by the BCBS, presumably in consonance with certain benchmarks and on the basis of statistical evidence. For a lucid discussion of the derivation of the analogous formula in CP2 see A.Resti, "The New Basel Capital Accord: structure, possible changes and micro- and macroeconomic effects", **CEPS Research Report No. 30** (Brussels: Centre for European Policy Studies, September 2002).

[10] In Germany, a country whose SMEs provide about 70 per cent of employment and are highly dependent on bank financing, estimates of the effects of the IRBA in CP2 indicated that on average SMEs would incur an

factor K explained above. This has the effect of lowering the risk weight of the bank's portfolio of corporate exposures owing to the diversification effect of the share of this portfolio represented by lending to SMEs.

Annex 3 of CP3 illustrates the impact of this adjustment for SMEs with a numerical simulation of the risk weight for an exposure with a maturity of 2.5 years to a firm with a turnover of 5 million euros for different levels of PD. The risk weight is reduced by about 20 per cent for levels of PD up to 6 per cent and by a diminishing amount for higher levels.

(e) Specialised lending

Not all banks otherwise qualifying for the "foundation" version of the IRBA are expected to meet the supervisory requirements for estimating PD for PF, CF, OF, and IPRE. In this case banks are to map their own internal gradings into a scale of supervisory categories. Each with an assigned risk weight. Moreover discretion is accorded national supervisors to permit banks to assign lower risk weights than those in this scale to certain "strong" and "good" exposures. HVCRE exposures are singled out for special treatment, presumably because of the role often played by speculative property development in financial booms and busts. In the case of banks using the IRBA the correlation variable in the factor K is increased for such lending, thus raising the risk weight of the corporate part of a bank's portfolio owing to the reduction of the degree of its diversification. Banks not meeting the requirements fro estimating PD are to use a scale of supervisory categories which maps into higher risk weights than for other categories of specialised lending.

(f) Retail exposures

As mentioned above, under retail exposures three different categories are distinguished: residential mortgage loans, qualifying revolving retail exposures (QRREs) (revolving, unsecured exposures to individuals with a value up to 100,000 euros, which would include much credit-card business), and other retail exposures (which can include loans to SMEs up to a ceiling of 1 million euros). The different formulae used to calculate risk-weighted assets for each of three categories apply to pools of exposures, not to individual loans. None of the formulae includes an adjustment for the exposure's maturity. The principal source of variation between the formulae for the different categories is the correlation term in the factor K. To the extent that banks use the IRBA, a higher proportion of lending to SMEs than in developed countries may be covered under the category, "other retail", than under the SME version of corporate exposures.

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interest rate of 1.5 per cent higher than larger firms. This led Chancellor Schröder to declare that the New Basel Capital Accord would be unacceptable without major changes, and in mid 2001 an all-party motion passed by the Bundestag specified minimum conditions to be met by the Accord. These were directed not only at the cost of loan financing but also at flexible transition periods for the appliaction of the IRBA, the broadening of the definition of eligible collateral, and rules to ensure that the risk weights for equity holdings in the banking book were not excessive. In mid-2002 Schröder declared that a compromise had been reached with changes sufficient for Germany to withdraw its objections. See K.C.Engelen, "Why Schröder is ready to shoot down Basel II", **Central Banking**, XII (3), February 2002, and M.Imeson, "SMEs mind the financing gap", **The Banker,** October 2002 . Under the standardised approach to credit risk the BCBS assigned a relatively low risk weight to unrated corporations precisely because of its concern to avoid an unwarranted increase in the cost of financing for SMEs. However, the German banking sector has been experiencing strong competitive pressures to adopt the IRBA.

(g) Equity exposures

A bank's equity exposures may be in its trading or its banking book (a distinction discussed further below). Those held in the latter may be assigned risk weights according to two alternatives under the so-called markets based approach or under a PD/LGD approach. The two alternatives under the first are the use of externally set risk weights which vary according to whether the shares are publicly traded, or the use of risk weights generated by internal models. Under the PD/LGD approach risk weights would be set subject to certain restrictions on the basis of banks' own estimates of PD, an externally assigned LGD of 90 per cent, and the value of the position shown in financial statements.

Limited amounts of banks' equity holdings can be excluded from capital requirements if they are the result of "legislated programmes that provide significant subsidies for the investment to the bank and involve some form of government oversight and restrictions on the equity investments" which are associated with limits to the potential risk of the investment to the bank (CP3, para. 327). CP3 mentions here promotion of specified sectors of the economy as a possible reason for such programmes. An exemption of this kind might facilitate various industrial or sectoral policies in developing countries so long as some at least of the banks in the countries in question had adopted the IRBA. Equity holdings benefiting from exclusion from capital requirements might also be associated with investments linked to the restructuring of balance sheets in the aftermath of financial crises such as those experienced by several Asian and Latin American countries in the 1990s.

(h) Credit risk mitigation

Under the IRBA credit risk mitigation through collateral, guarantees, or credit derivatives is handled through its effects on LGD or (as an alternative possibility in the "advanced" version) on PD. Under the "foundation" version the estimates follow lines similar to those in the "comprehensive" approach under the standardised approach to estimating risk weights. As in CP2, in this version eligible collateral includes commercial and residential property meeting certain restrictions but has now also been extended to receivables and other physical collateral for which easily identifiable prices exist. Under the "advanced" version of the IRBA a bank's own estimates of LGD (or PD) would take account of credit risk mitigation.

(i) Securitisation

The rules for calculating risk weights for securitised assets under the IRBA are amongst the most complex of CP3. These rules have to address the problem that investors' claims on the SPE holding the securitised assets generally vary from higher to lower seniority, the money available for these claims sometimes being graphically described as a waterfall of cash flows which cascades in progressively decreasing amounts through the successive levels of seniority. A bank's exposures to losses before other holders of claims on the SPE (its first loss position) is handled in the rules by the deduction of the amount in question from its capital. Deduction from capital also applies to other positions retained by the bank up to the amount of capital which would have been held against its exposure to the SPE's securitised assets, had it not securitised them and estimated the corresponding capital requirement under the IRBA. This procedure is designed to act as an incentive to originating banks to transfer the risk associated with low seniority positions to outside investors. Other positions with higher seniority in the SPE's assets are assigned risk weights on the basis of two alternative approaches: a ratings-based approach which is based on external credit ratings, the maturity of the claim, the "granularity" of the SPE's underlying pool of

assets (a measure of its risk concentration), and the claim's seniority in relation to other highly rated claims in the pool; or a Supervisory Formula for estimating the capital charges of the securitisation tranches (whose complexity defies intuitive explanation of its underlying rationale).

(j) Recognition of provisions

Neither the 1988 Basel Capital Accord nor the proposed versions so far of the New Basel Capital Accord incorporate a clear distinction between expected and unexpected losses (EL and UL). In the literature on the management of banking risk EL are treated as a cost of doing business to be covered by reserves or provisions set aside for the purpose, while UL are to be covered by capital. The BCBS decided against going this route in setting capital levels, and general loss provisions are actually included in eligible capital up to a preset ceiling. CP3 now takes some cautious steps in the direction of extending the possibility for banks to recognise loss provisions (specific as well as general) to offset the EL of risk-weighted assets under the IRBA. Subject to some adjustments applying to specific categories of exposure, EL are defined as 12.5 times PD times LGD times EAD. Various rules for offsetting are then proposed. For example, 12.5 times the sum of specific provisions and partial write-offs for assets belonging to a class can be used to reduce the EL portion of risk-weighted defaulted assets in that class. General loan loss provisions can be used to offset the capital charge on EL to the extent that this charge, after allowance for certain specific provisions, exceeds the ceiling amount of general loan loss provisions currently eligible for inclusion in capital. And so on.

(k) Requirements for eligibility for the IRBA

Like CP2, CP3 describes at considerable length the requirements which a bank must meet if it is to be eligible to use the IRBA. These cover internal controls, internal and external audit, the design and operation of rating systems, other aspects of corporate governance, the quantification of risk, stress testing, etc. A few subjects merit special attention here.

- Banks have to demonstrate that they have been using systems of credit rating broadly in line with the requirements set out in CP3 for at least three years prior to qualification for the IRBA;
- The period of data used to estimate PD must be at least five years. For corporate, interbank, and retail exposures banks typically have large amounts of internally generated data, but estimating PD for sovereigns may be more problematic and necessitate some reliance on the assessments of credit rating agencies, data for credit spreads, and other market-based and more qualitative ways of measuring credit risk;
- Default is self-evidently an essential element in the setting of standards related to credit risk. However, operational definition is not as simple as it might appear (varying among legal regimes)[11], so that CP3 (CP3, paras. 414-419) fleshes out the definition of default of CP2 (CP2, para. 272), which is based either on the bank's own evaluation of an

[11] Countries typically classify problem loans into a number of different categories such as substandard, doubtful, and loss, each of which is linked to rules as to the corresponding amount of specific provisions to be set aside. Only loss loans are assigned an extremely low probability of collectibility. But loans in other categories applied in several countries would be classified as in default under the definition of CP3. For variation in the classification of problem loans in some Asian countries and recent moves towards greater convergence see J.Golin, **The Bank Credit Analysis Handbook: a Guide for Amalysts, Bankers and Investors** (Singapore,etc.: John Wiley and Sons (Asia), 2001), chapter 10.

obligor's ability to meet its obligations in full or on the more objective indication that the obligor is overdue more than 90 days on a material obligation to the bank;

- CP3 (CP3, para. 379) emphasises that its guidelines for statistical and other mechanical methods for estimating PD, LGD and EAD are in themselves insufficient for minimising rating errors: "human judgement and human oversight is {also} necessary to ensure that all relevant information, including that which is outside the scope of the model, is also taken into consideration, and that the model is used appropriately".

4. Operational risk

The setting of capital charges for operational risk has proved a particularly contentious part of the revision of the 1988 Basel Capital Accord, some commentators even arguing that such risk should not carry a capital charge but should be reserved for supervisory review under Pillar 2. CP3 retains the basic approach of CP2, namely three options of progressively greater sophistication, but with revisions and, especially in the case of the most advanced option, considerable simplification.

Under the simplest ("basic indicator") approach, the capital charge would be equal to a proportion (alpha) of 15 per cent of the bank's average annual gross income during the previous three years. The main change here in comparison with CP2 is a reduction in alpha from 30 per cent. Under the second option, the standardised approach, a bank's activities are divided into eight business lines, each of which is assigned a factor, beta (i), that relates the operational risk of line i to its gross income. The capital charge is then the sum over the i of the beta (i) times the gross income of business line i. Here the main change compared with CP2 is a simplification of the classification of business lines and the use of a single proxy for the source of operational risk.[12]

Under the most sophisticated Advanced Management Approach (AMA) the capital charge is generated by the bank's internal system for measuring operational risk (subject to its meeting specified supervisory criteria). The main change is in the direction greater flexibility and simplicity, CP2 having specified a set of parameters which banks were to estimate as part of measuring their their exposure to operational risk for different business lines. The greater flexibility of CP3's AMA is designed to accommodate the rapid development of techniques for managing and measuring operational risk which the BCBS anticipates in the coming years. Other changes compared with CP2 are permission for partial use of AMA, i.e. adoption of AMA for some parts of a bank's operations and the "basic Indicator" or standardised approach for the rest; and recognition of the risk mitigating impact of insurance up to a ceiling of 20 per cent of the capital charge for operational risk.

5. Pillar 2

The first part of CP3's treatment of supervisory review follows closely that of CP2. It is centred around four principles concerning (1) banks' processes for evaluating their capital in relation to their risks, (2) supervisors' assessment of these processes and their capacity to take action as necessary, (3) the expectation of supervisors that banks will have capital in excess of

[12] National supervisors are permitted to opt for an alternative standardised approach which for the business lines, retail and commercial banking, would substitute a fixed factor times a three-year average of outstanding loans and advances.

that prescribed by minimum regulatory ratios, and (4) the need for supervisors to intervene to prevent banks' capital from falling below these minima. These key principles are linked to criteria for assessment of compliance with the BCBS's **Core Principles for Effective Banking Supervision** in the areas of capital adequacy and risk management as set out in the BCBS's **Core Principles Methodology**.[13] In view of the role of such assessments in IMF Article IV surveillance, that now includes compliance with key financial standards of which that concerning bank supervision consists of the BCBS's **Core Principles**, the result will be to provide a link between this surveillance and the implementation of the New Capital Accord. While the logic of such a link may seem impeccable in principle, it may prove problematic in practice owing to the difficulty of assessing compliance with so complex an agreement in a context where compliance is already imposing a considerable new burden on most country's supervisors.[14]

Two other features of the treatment of Pillar in the New Basel Accord deserve special attention:

- Firstly, amongst factors external to the bank reference is made to the effects of business cycles as a subject suitable for incorporation in supervisory review (CP3, para.682). However, guidance here is limited to the general references to the need for a bank's management to take account of the stage of the business cycle in assessing capital adequacy (CP3, para. 684) and for supervisors to do the same (CP3, para. 710);
- Secondly, the BCBS has decided against prescribing a capital charge under Pillar 1 for interest-rate risk in the banking book owing to the lack of agreement among banks and their supervisors as to the appropriate way to set such a charge.[15] Interest-rate risk is instead singled out as a subject for Pillar 2, some particular guidelines for supervisory review being provided.

Under Pillar 2 there are also references to other subjects in addition to interest-rate risk in the banking book which are considered to be of special importance to supervisory review, namely operational risks, stress testing, the definition of default, the residual risk remaining after credit risk mitigation, credit concentration risk, and securitisation. These are all subjects covered as part of the setting of risk weights under Pillar 1, and the treatment under Pillar 2 is devoted to particular problems under the different headings which may in some cases indicate the need for additional capital charges. Two matters here merit comment.

- Credit concentration is a heading which covers an important part of the effect of cyclical downturns on banks' risk profiles (although there is no explicit reference to business cycles as such here).

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[13] See BCBS, **Core Principles for Effective Banking Supervision** (Basel, September 1997) and id., **Core Principles Methodology** (Basel, October 1999).

[14] For a fuller account of the problems likely to be associated with assessment under IMF surveillance see Cornford, "The Basel Committee's proposals for revised capital standards: Mark 2 and the state of play" (op. cit. at footnote 1), pp.11-12.

[15] A major difficulty here is that of defining the maturity of a bank's total core deposits: in legal terms this is treated as very short or sometimes as subject to some conventional but arbitrary amortisation process but in practice is better classified as more or less unlimited outside periods of high financial uncertainty. Interest-rate risk is typically managed and hedged as part of asset and liability management (ALM), which relies heavily on analysis of possible future scenarios for assets, liabilities and interest rates. Banks' ALM is a subject suitable for supervisory review.

- The guidelines for supervisory review in the area of securitisation suggest the influence on regulatory thinking of recent corporate scandals and the role therein of shifts of assets and liabilities off the balance sheet. Under the heading of "market innovations" CP3 interestingly notes (CP3, para. 742): "As the minimum capital requirements for securitisation may not be able to address all potential issues, supervisory authorities are expected to consider new features of securitisation transactions as they arise. Such assessments would include reviewing the impact new features may have on credit risk transfer...A Pillar 1 response may be formulated to take account of market innovations".

6. Pillar 3

Under disclosure the lists of subjects covered have been simplified in CP3 in comparison with CP2, and are more easily related to Pillar 1. The distinction in CP2 between "core" disclosures (i.e. those essential for the operation of market discipline) and "supplementary" disclosures (not of crucial importance for all institutions but which are expected of sophisticated internationally active banks) has been dropped. None the less the requirements of Pillar 3 remain demanding and cover the scope of application (corporate structure and possible impediments to the transfer of capital and funds within the corporate group), capital structure, capital adequacy and requirements, the different categories of banking risk (which will include both actual exposures and banks' methods for assigning risk weights under the standardised approach and the different versions of the IRBA), and credit risk mitigation and securitisation (which also includes the parts of the bank's portfolio involved and its policies and techniques under these headings).The frequency specified for disclosure is semi-annual or, in the case of larger banks for information concerning overall capital adequacy, quarterly. Banks are also urged to "publish material information as soon as practicable" (CP3, para. 767). This last seems a step, albeit tentative, towards the real-time disclosure mandated by the Sarbanes-Oxley Act in the United States, which requires timely disclosure of all material changes in a firm's financial condition.[16]

7. Trading book issues

Like the corresponding section of CP2, this section of CP3 covers definitions, guidance on valuation of items in the trading book, and fleshed-out revisions of the provisions of the 1996 **Amendment to the Capital Accord to Incorporate Market Risks** regarding the specific market (as opposed to the general market) risk and the credit risk of items in the trading book.[17] Under the heading of specific market risk here the New Basel Capital Accord sets the rules for specific-risk capital charges for positions hedged with credit derivatives, an elaborated version of which is provided in CP3.

The definition of the trading book in the New Basel Capital Accord (financial instruments and commodities held either with a trading intent or to hedge other elements of the trading book)

[16] "Each issuer shall disclose to the public on a rapid and current basis such additional information concerning material changes in the financial condition or operations of the issuer, in plain English, ... as the Commission {SEC} determines is necessary or useful for the protection of investors and in the public interest" (sec 409. Real Time Issuer Disclosures).

[17] See BCBS, **Amendment to the Capital Accord to Incorporate Market Risks** (Basel, January 1996).

is presumably intended to help to prevent regulatory arbitrage through shifting items between the trading and banking books to minimise capital charges and to assist supervisors in assigning new financial instruments such as credit derivatives to one or the other. The guidance on marking-to-model (used where marking-to-market valuationis are not feasible, and involving valuation "which has to be benchmarked, extrapolated or otherwise calculated from a market input" (CP3, para. 653) gains interest from the use of this technique for the manipulation of reported earnings by firms in recent financial scandals. And in comparison with CP2 a section on a requirement for price verification by a unit independent of the dealing room has been inserted. While such a requirement sounds fine in principle, there must be doubt as to how it will actually be achieved in many cases since the traders in a security or other instrument not traded on a daily basis will often be the only source of relevant information as to its valuation.

The principal changes in CP3 concerning the credit risk of items in the trading book are the specification of capital charges for counterparty credit risk for certain transactions booked in the trading book such as repos and OTC derivatives – charges which are separate from those for specific and general market risk – and rules for the treatment of cases in which a bank conducts an internal hedge of an exposure in the banking book through a credit derivative in the trading book. If the bank is to benefit from a reduction in its capital charge for the exposure in its banking book in the latter, the credit risk in the trading book must be transferred to an outside party eligible to provide such credit protection. Once again it is possible to sense the influence of regulatory wariness concerning the possibilities for shifting risks between different parts of corporate structures.