Rating Developments Review

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Our independent rating advisory service facilitates relations with international rating agencies. Based on twenty years of expertise analysing banks in emerging markets and our independence from both rating agencies and investment banks, our advisory service benefits banks seeking first time ratings and those wanting to appeal against existing ratings.

Subordinated Debt and Rating Agencies

This is the second issue of Rating Developments Review, which from time to time presents original research on credit rating related subjects of concern to banks in emerging markets. The study in this issue contrasts the approaches of regulators and rating agencies towards Subordinated Debt (SND).

Ramin Habibi

Banks throughout Central and Eastern Europe use Subordinated Debt as part of their regulatory capital but rating agencies generally ignore SND in their capital adequacy evaluations. The study in this Review assesses the usefulness of SND as a supplement to bank capital in emerging markets, taking into account the positions of regulators and rating agencies. Its main findings are:

- The major rating agencies do not include plain vanilla subordinated debt (SND) in bank capital adequacy calculations because its interest cannot be deferred. Basel I and Basel II include SND in regulatory capital.
- Banks have to balance between the inclusion of SND in regulatory capital under Basel I and Basel II against its exclusion for capital adequacy calculations by rating agencies.
- There may be scope for rating agency arbitrage as Fitch and Moody's may accept that long term junior SND with deferrable interest has some capital benefit.

Topics in Rating Developments Review are based on several common themes of concern raised by many emerging market banks. They relate to the rules of thumb used by rating agencies and how banks can best work with them.

Please contact me if you have comments about this study or if you wish to know more about our rating advisory services for banks in emerging markets. The next Review looks at the impact of rapid loan growth rates on non-performing loans in Central and Eastern Europe.

Yours most sincerely,

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RATING DEVELOPMENTS

SUBORDINATED DEBT IN BANK CAPITAL: DIFFERENCES BETWEEN REGULATORS AND RATING AGENCIES

Banks throughout Central and Eastern Europe (CEE) use Subordinated Debt (SND) as part of their regulatory capital but international rating agencies generally ignore SND in their capital adequacy evaluations. This paper reviews the usefulness of SND as a supplement to bank capital in emerging markets, taking into account the positions of regulators and rating agencies. The Basel definitions of capital are reviewed in the Annexe.

Summary Findings

- The major rating agencies do not include plain vanilla SND in bank capital adequacy calculations because its interest cannot be deferred. Basel I and Basel II include SND in regulatory capital.
- Banks will have to balance between the inclusion of SND in regulatory capital under Basel I and Basel II against its exclusion for capital adequacy calculations by rating agencies.
- There may be scope for rating agency arbitrage as Fitch and Moody's may accept that long term junior SND with deferrable interest has some capital benefit.

Subordinated Debt and the Basel I Capital Accord

US and UK regulators were among the pioneers of minimum capital requirements for banks by adopting national standards in 1981. Through the Basel Committee on Banking Supervision (BCBS), G-10 regulators went on to agree the original Capital Accord (Basel I) in 1988, with full national implementation of the agreement by end-1992. Basel I legitimised SND as a supplement to regulatory capital, though only up to 100% of Tier 1 capital[1]. The Capital Accord's 1996 amendment incorporated market risks from end-1997 while recognising medium term (2-5 year) subordinated debt in Tier 3 capital to support those market risks. Tier 3 capital is allowed according to the discretion of national regulators and is limited to 250% of a bank's Tier 1 capital that is required to support market risks. "This means that a minimum of about 28½% of market risks needs to be supported by Tier 1 capital that is not required to support risks in the remainder of the book."[2]

Before starting work on an updated and more sophisticated Basel II agreement, the Basel Committee studied the impact of Basel I on banks' behaviour[3]. The study's main conclusions were:

- Basel I had a positive impact on bank capital adequacy: the average ratio of capital to risk-weighted assets of major banks in the G-10 rose from 9.3% in 1988 to 11.2% in 1996.
- When the cost of raising Tier 1 capital is prohibitive, banks may attempt to meet capital requirements through issuance of Tier 2 supplementary capital. Nonetheless banks in some countries carry a higher proportion of equity capital than the regulations would require, probably because of market pressure.
- Broad risk asset classes in Basel I create a gap between the economic capital which banks feel they should be holding to back some loans—particularly the prime end of the book—and the regulatory capital they have to hold. Banks therefore implemented innovations to effectively arbitrage between the two amounts, increasing bank risk relative to minimum capital requirements. Securitisation was one such leading innovative technique.

Another study[4] found that UK banks tend to respond to higher regulatory requirements by initially raising their Tier 2 capital, raising Tier 1 capital later. Tier 2 SND has offered flexibility to strategic investors that replenish capital in their emerging market banking subsidiaries. Strategic investors in CEE so far have tackled capital crunches faced by their subsidiaries through either direct capital injection or the provision of subordinated loan capital.

Background

Unlike Basel I, rating agencies consider that plain vanilla SND is not sufficiently capital-like to be included in capital adequacy calculations. After all, the Basel Committee included SND in the original Capital Accord mainly to satisfy US concerns that their banks—which were burdened with non-performing Latin American debts at the time—would be undercapitalised without SND[5]. Before Basel II came on the scene with its "Market Discipline Pillar", some US practitioners suggested that banks should be obliged to issue publicly traded SND for market discipline purposes; in the US, market prices for SND have been a useful indicator of banks' credit quality. Although regulators have dropped active consideration of such schemes, SND can be an attractive alternative for under-capitalised banks when the cost of raising equity is excessive. G-10 banks have been prominent issuers.

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[1] "Lower Tier 2" SND cannot exceed 50% of Tier 1 capital for inclusion in the capital base and total Tier 2 capital used to meet banking book requirements cannot exceed 100% of Tier 1 capital used to meet those requirements.
To be fully eligible, SND maturities must exceed five years; those with shorter maturities are amortised in the regulatory ratios according to their remaining terms.

[2] "*Amendment to the Capital Accord to Incorporate Market Risks (January 1996, updated to April 1998)*", BCBS

[3] "*Capital Requirements And Bank Behaviour: The Impact of the Basle Accord*", Working Paper No. 1 – April 1999, BCBS.

[4] "*Bank Capital Dynamics and Regulatory Policy*", Ediz, S, I Michael and W Perraudin (1998), Bank of England.

[5] The 28-largest publicly-traded US banks had a mean 8.9% Tier 1 Capital Adequacy Ratio on 30 September 2004. *Source:* "*US Banking Quarterly Review 3Q04*", Fitch Ratings. The mean ratio has exceeded 8% definitely since 1997 and—most likely—since the early 1990s.

The table below comes from a recent ten-country study[6] by the Basel Committee. The study showed that over the 1990–2001 period, 5,600 SND issues took place, and the banks that issued SND represent more than half of banking assets in all countries. Very small institutions in certain countries (such as Germany and Spain) are active issuers too, although many smaller banks use private placements.

With SND holdings averaging up to 89% of equity, banks in some G10 countries hold more SND than they can use for regulatory purposes. The research shows that this is particularly the case for the largest issuers. The issuance of SND for Tier 3 purposes is limited as the average maturity of SND issues (excluding perpetuals) was quite long at 11.4 years as of end-2001. Moreover, in many countries, banks have not issued short-term SND (2-5 years) at all, which is eligible only for Tier 3 capital.

[2]Outstanding amount of subordinated debt as a % of assets and equity at 31 Dec 2001

Country (No. of banks)	% of total equity	% of total assets
France (23)	89.2	4.0
Netherlands (2)	83.9	2.6
Belgium (6)	73.1	2.9
Germany (50)	55.2	1.6
Switzerland (6)	51.4	2.6
Sweden (4)	43.7	1.8
Japan (10)	31.6	1.1
USA** (48)	29.5	2.3
Spain (50)	24.6	1.5
Average	44.6	2.1

***Total SND outstanding for US banks may include small amounts of limited-life preferred stock.*
Data for the United Kingdom is not available.

The following table highlights the varying and growing importance of bank SND across CEE countries that publish readily available data on SND in their banking systems.

CEE Banks' Subordinated Debt Liabilities						
		31Dec2003			30Sep2004	
	Moody's Rating	as % Equity	as % Assets		as % Equity	as % Assets
Slovenia	*Aa3*	22.8%	1.9%		25.2%	1.9%
Hungary (2002)	*A1*	13.5%	1.3%			
Estonia	*A1*	10.6%	1.2%		6.6%	0.7%
Latvia	*A2*	7.9%	0.7%		11.3%	0.9%
Poland	*A2*	7.3%	0.6%			
Bulgaria	*Ba1*	0.8%	0.1%		0.9%	0.1%
Czech	*A1*	0.7%	0.1%		0.6%	0.1%
Slovakia	*A3*	0.1%	0.0%		0.5%	0.0%

Source: Rating Developments based on data from various bank regulator web sites.

Banks in the countries with higher sovereign ratings use relatively more SND. This may be the outcome of the lower cost of borrowings in higher-rated countries or SND's greater availability to stronger banks. The Czech and Slovak markets are exceptions and have the smallest proportion of subordinated loans in the sample. Czech banks used SND more in the past when they had to increase their capital base mainly in the process of privatisation; most of those relatively expensive debts have now been repaid through retained earnings.

Judging from data for the first three quarters of 2004, there was a general increase in the use of SND in the sampled CEE banking markets, despite a decline in Estonia which was mostly due to its largest bank (Hansabank) prepaying expensive debt. Nonetheless, recent evidence suggests that SND issuance by banks in highly rated countries is declining, being replaced by preference share hybrids that qualify as Tier 1 capital at a price competitive with Tier 2 SND.

Subordinated Debt: Plusses and Minuses

From a credit perspective, the positive aspect of SND is that it favours other liabilities to creditors when a bank defaults. However, it does not directly prevent defaults or support timely repayment of obligations, which analysts would prefer. Furthermore, plain vanilla SND is usually subject to cross-default clauses and non-payment of interest is usually a basis for calling a default. While these latter aspects of SND do not enhance capital adequacy, its junior priority among liabilities must have a tangible though limited beneficial impact on losses given default (LGD). Though banking authorities do not want to exclude SND from regulatory capital under Basel II, it would be logical to recognise the positive effect of long term SND through LGD coefficients rather than via bank capital adequacy ratios.

The Rating Agencies' Approaches

Standard and Poor's

"Standard & Poor's emphasizes the quality of capital. Capital with fixed maturities and charges are weaker forms of capital. *Standard & Poor's would not include subordinated debt in capital….*"[7]

S&P's "Summary Guidelines for Including Hybrid Capital in Total Capital Ratios of Banks and bank holding companies: Adjusted Total Equity Ratio" are:

- Up to 10% of total: dated junior subordinated debt with interest deferral mechanism; perpetual junior subordinated debt with limited capacity to defer interest.
- Up to 25%: noncumulative preferred shares; qualifying longer-dated Mandatory Convertible Hybrid Capital securities (MCS).
- Up to 35%: qualifying shorter-dated MCS.

"Standard & Poor's stresses the fact that certain components of Tier 2 capital—notably dated subordinated debt—lack permanency and show poor capacity to preserve cash on a going-concern basis. To the extent that Tier 2 includes weak components, it should not be included in capital resources that provide a cushion to absorb losses on an ongoing basis."[8]

In practice, S&P regards subordinated debt as long term funding.

[6] *"Markets for Bank Subordinated Debt and Equity in Basel Committee Member Countries"*, August 2003, BCBS, Working Paper No. 12

[7] *"Financial Institutions Criteria",* September 2004, Standard & Poor's

[8] *"Basel II: Evolution Not Revolution for Banks"*, 21 October 2004, Standard & Poor's,

Moody's
Moody's seems to follow a more flexible approach to SND than S&P by examining the economic need for capital and unexpected losses. Nonetheless, Moody's generally disregards SND when evaluating bank capital adequacy.

Fitch Ratings
"Fitch[9] IBCA[10] sets a limit to the proportional relationship it will accept between common equity and capital in the form of lower Tier 1 and upper Tier 2…[11]. The composition of a company's equity and quasi-equity, including prefs and hybrids, has an influence on the credit of the entity and on the ratings of its senior and senior subordinated debt. Fitch IBCA takes into account both the aggregate amount of preferred stock and hybrids and the terms and provisions of the instruments in order to evaluate the financial flexibility afforded to the company during periods of stress. Since common equity represents a permanent source of capital without any contractual dividend or interest requirement, it provides the strongest cushion to debt investors.

"Fitch IBCA does not favour an excessive use of prefs or hybrids. As a rule, it is comfortable when prefs and hybrids together do not amount to more than 25% of a company's total common equity. Ultimately, an increasing proportion of debt-like preferred and hybrid instruments in the capital structure may lead to a downgrade of senior debt, reflecting the weaker quality of the capital base."

Observations
While all three agencies exclude plain vanilla SND from their capital adequacy calculations because its interest cannot be deferred, S&P goes further by objecting to its lack of permanency. Fitch and Moody's may be more flexible by considering that SND with deferrable interest has some capital benefit for a bank if its term exceeds the terms of the longest assets and liabilities and connected legal process.

Therefore there may be an opportunity for banks to arbitrage between rating agencies if they plan to issue long term junior SND with deferrable interest. The issue is unimportant for banks that already have strong Tier 1 capital adequacy, but it is important for borderline and weak cases. This is particularly the case in CEE markets, many of which are experiencing rapid growth while growing competition squeezes profits margins and retained earnings. Capital should not be a problem for CEE banks that are part of large international groups. But capital is a serious constraint for many of the other (usually smaller) banks that are struggling to increase their market shares in markets that are already growing quickly.

[9] "Rating preference stock and hybrid securities of financial institutions", May 1999, Financial Institutions Special Report, Fitch-IBCA.
[10] Later renamed as Fitch Ratings.
[11] …the difference between Tier 1 and upper Tier 2 winnows down to two characteristics:

- Tier 1 capital instruments with mixed debt/equity features *MUST* be *non-cumulative* and, by implication, in terms of preference in the distribution of income and in a winding up, they must not rank higher than noncumulative preference capital but may rank lower.
- Also, holders of such instruments should have no voting rights.

Upper Tier 2" instruments need to be subordinated to all debt. (*"Markets for Bank Subordinated Debt and Equity in Basel Committee Member Countries")*

ANNEX: Minimum Regulatory Capital under Basel I&II

Basel I on the use of Subordinated Debt[12]

23. The Committee is agreed that subordinated term debt instruments have significant deficiencies as constituents of capital in view of their fixed maturity and inability to absorb losses except in a liquidation. These deficiencies justify an additional restriction on the amount of such debt capital which is eligible for inclusion within the capital base. Consequently, it has been concluded that subordinated term debt instruments with a minimum original term to maturity of over five years may be included within the supplementary elements of capital, but only to a maximum of 50% of the core capital element and subject to adequate amortisation arrangements.

(e) Subordinated term debt: includes conventional unsecured subordinated debt capital instruments with a minimum original fixed term to maturity of over five years and limited life redeemable preference shares. During the last five years to maturity, a cumulative discount (or amortisation) factor of 20% per year will be applied to reflect the diminishing value of these instruments as a continuing source of strength. Unlike instruments included in item (d), these instruments are not normally available to participate in the losses of a bank which continues trading. For this reason these instruments will be limited to a maximum of 50% of tier 1.

Basel I Definition of Minimum Capital[13]

1. The principal form of eligible capital to cover market risks consists of shareholders' equity and retained earnings (tier 1 capital) and supplementary capital (tier 2 capital) as defined in the 1988 Accord. But banks may also, at the discretion of their national authority, employ a third tier of capital ("tier 3"), consisting of short-term subordinated debt as defined in paragraph 2 below for the *sole* purpose of meeting a proportion of the capital requirements for market risks, subject to the following conditions:

- banks will be entitled to use tier 3 capital solely to support market risks as defined in Parts A and B. This means that any capital requirement arising in respect of credit and counterparty risk in the terms of the 1988 Accord, including the credit counterparty risk in respect of derivatives in both trading and banking books, needs to be met by the existing definition of capital in the 1988 Accord (i.e. tiers 1 and 2);
- tier 3 capital will be limited to 250% of a bank's tier 1 capital that is required to support market risks. This means that a minimum of about 28½% of market risks needs to be supported by tier 1 capital that is not required to support risks in the remainder of the book;
- tier 2 elements may be substituted for tier 3 up to the same limit of 250% in so far as the overall limits in the 1988 Accord are not breached, that is to say eligible tier 2 capital may not exceed total tier 1 capital, and long-term subordinated debt may not exceed 50% of tier 1 capital;
- in addition, since the Committee believes that tier 3 capital is only appropriate to meet market risk, a significant number of member countries are in favour of retaining the principle in the present Accord that tier 1 capital should represent at least half of total eligible capital, i.e. that the sum total of tier 2 plus tier 3 capital should not exceed total tier 1. However, the Committee has decided that any decision whether or not to apply such a rule should be a matter for national discretion. Some member countries may keep the constraint, except in cases where banking activities are proportionately very small. Additionally, national authorities will have discretion to refuse the use of short-term subordinated debt for individual banks or for their banking systems generally.

2. For short-term subordinated debt to be eligible as tier 3 capital, it needs, if circumstances demand, to be capable of becoming part of a bank's permanent capital and thus be available to absorb losses in the event of insolvency. It must, therefore, at a minimum:

- be unsecured, subordinated and fully paid up;
- have an original maturity of at least two years;
- not be repayable before the agreed repayment date unless the supervisory authority agrees;
- be subject to a lock-in clause which stipulates that neither interest nor principal may be paid (even at maturity) if such payment means that the bank falls below or remains below its minimum capital requirement.

Basel II Definition of Minimum Capital[14]

40. Part 2 presents the calculation of the total minimum capital requirements for credit, market and operational risk. The capital ratio is calculated using the definition of regulatory capital and risk-weighted assets. The total capital ratio must be no lower than 8%. Tier 2 capital is limited to 100% of Tier 1 capital.

A. Regulatory capital

41. The definition of eligible regulatory capital, as outlined in the 1988 Accord10 and clarified in the 27 October 1998 press release on "Instruments eligible for inclusion in Tier 1 capital", remains in place except for the modifications in paragraphs 37 to 39 and 43.

42. Under the standardised approach to credit risk, general provisions, as explained in paragraphs 381 to 383, can be included in Tier 2 capital subject to the limit of 1.25% of riskweighted assets.

43. Under the internal ratings-based (IRB) approach, the treatment of the 1988 Accord to include general provisions (or general loan-loss reserves) in Tier 2 capital is withdrawn. Banks using the IRB approach for securitisation exposures or the PD/LGD approach for equity exposures must first deduct the EL amounts subject to the corresponding conditions in paragraphs 563 and 386, respectively. Banks using the IRB approach for other asset classes must compare (i) the amount of total eligible provisions, as defined in paragraph 380, with (ii) the total expected losses amount as calculated within the IRB approach and defined in paragraph 375. Where the total expected loss amount exceeds total eligible provisions, banks must deduct the difference. Deduction must be on the basis of 50% from Tier 1 and 50% from Tier 2. Where the total expected loss amount is less than total eligible provisions, as explained in paragraphs 380 to 383, banks may recognise the difference in Tier 2 capital up to a maximum of 0.6% of credit risk-weighted assets. At national discretion, a limit lower than 0.6% may be applied.

[12] *"International Convergence of Capital Measurement And Capital Standards"*, July 1988: BCBS

[13] *"Amendment To The Capital Accord To Incorporate Market Risks"*

[14] *"International Convergence of Capital Measurement and Capital Standards; A Revised Framework",* June 2004: BCBS