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## **THE BANKS' SUBORDINATED DEBT PROBLEM IN CONNECTION WITH BASEL II AND BASEL III**

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### **Abstract**

It seems that Basel II underestimated many risks that banks were disposed to in the bad times. It seems that tier 2 definitely played too important role in the total banks capital. The private owners of tier 2 and even some debt tier 1 instruments were hit the most by the (banking) crisis; the official debt got more seniorised (the so called subordination problem). It seems that Basel III will force banks to have more capital of the best quality than necessary. As we saw in early 2009 when the markets got very nervous about the solvency and/or liquidity of banks the subordinated debts' market can be hit very hard and subject to selling at any price. The current Eurozone crisis has the potential to cause a very similar situation and the question of whether to buy bank subordinated debt entirely depends on how the Eurozone crisis evolves. Consequently, Basel III implementation was postponed.

Key w Words: banks' subordinated debt, the subordination problem, Basel II, Basel III, crisis

Topic Groups: Business Strategy, Conflict Management, Economic Growth, International Business

### **Introduction**

The aim of this article or problematics - which is in the literature (theory) also known as the subordination problem - is to analyse and to illuminate capital structure of the banks according to the regulatory rules and according to the situation in good and bad times. Does the regulation »understand« banks' capital structure? Is it adopted to critical times? What kind of capital the banks have according to Basel II and will have according to Basel III? Within that: what kind of proportion/ratio between tier 1 and tier 2 (tier 3) the banks have and will have? The subject certainly needs much deeper work and illumination; however, basic

problematics and directions for further examination can be withdrawn from here. The article, nevertheless, gives us many research insights of this problematics and gives us some directions for solving the concrete problems. The article will use just briefly some descriptive methods of research; however, (comparative) analyses, deductive and inductive methods and analysing examples (samples) will prevail.

## **I. RATING AGENCIES**

The top world rating agencies have been constantly downgrading different EU, EMU countries and EU and EMU as whole. Many »EU angled« comments could be possible; however, the fact is that economic picture of all these countries really looks problematic. Even in the long run the picture is very much connected to euro. S&P (Buttonwood's Notebook, 2011) cites five factors:

- (1) Tightening credit conditions across the eurozone;
- (2) Markedly higher risk premiums on a growing number of eurozone sovereigns, including some that are currently still rated 'AAA';
- (3) Continuing disagreements among European policy makers on how to tackle the immediate market confidence crisis and, longer term, how to ensure greater economic, financial, and fiscal convergence among eurozone members;
- (4) High levels of government and household indebtedness across a large area of the eurozone; and
- (5) The rising risk of economic recession in the eurozone as a whole. They expect output to decline next year in countries such as Spain, Portugal, Greece, Slovenia but they also see a high probability of a fall in output for the eurozone as a whole.

## **II. FUTURE QUESTIONS**

Of paramount importance for market participants seems to be that private sector creditors will not be penalised in any future bailout, as they were in Greece. It has been the 50% write off for Greek creditors. ECB opposed this. It didn't help. Their debts were juniorised versus official debts which were seniorised.

And possible future bailouts are to be seen for the countries like Spain, Cyprus, Slovenia, Italy (not necessarily in that order though). ESM is in place what calmed the markets a little bit; however, how can all the debts be returned without economic growth and/or high(er) inflation? These are all the questions that the whole world is asking itself: The crises started in U.S.A. but EU and especially EMU seem to have more problems with it than the country of its origin - trigger. Why? Because in the crises all unsolved and hidden problems and contradictions regarding euro and EMU came up as Nobel laureates Stiglitz and Krugman (2010, 2011, 2012) and some others have been claiming for some time already. Of course, the banks are in the centre of all these questions. The crisis started in the banking sector in U.S.A. and consequently hit the banking sector in Europe. Banks had to be saved first via recapitalisations, denationalisations than privatisations and sometimes even another recapitalisations and denationalisations and finally another privatisations.

## **III. THE SUBORDINATION PROBLEM**

Capital structure and subordination problems of the banks came out as an issue of the paramount importance. Subordinated debt (also known as subordinated loan, subordinated bond, subordinated debenture or junior debt) is debt which ranks after other debts should a company fall into liquidation or bankruptcy. In hard times subordinated debts must 'stay' in the banks, in some cases no interests and/or dividends paid out, the banks don't buy back them back before their respective maturities and investors in tier 2 instruments have to take the burden of banks' rehabilitation and their »going concern«. Royal Bank of Scotland was forced by the U.K. regulator FSA not to call its four subordinated debt issues for example (Global Banking News , 2009).

In nineties subordination was even strong suggestion in academic and regulatory world in order to improve market signs of problematic banks; namely, the banks with the higher margins (and spreads) together with lower prices of its subordinated debts in the secondary market and higher in the primary market are supposed to be recognized as problematic from the markets (Evanoff, 2000). Even more so; banks with the good portion of subordinated (debt) instruments behave more rational and are forced to be very disciplined compared to the banks that have only tier 1 capital. Tier 2 capital makes management to behave more rational (Barancik, 1998). The markets and consequently the regulators through the price of subordinated instruments immediately recognize problematic banks; therefore, the subordinated debt is 'good' for regulators, as well – it makes also them more disciplined. Even more so again; a minimum ratio of subordinated debt would ensure continuing market discipline in bad times (Calomiris, 1999). Some (like Hanweck, Spellman; 2002) proposed that bank subordinated debt yields be used as a signaling device to reflect a bank's condition. Of interest to those responsible for the bank itself is a reduction of bank distress in order to promote self-correction. And for the regulator to prevent costly forbearance of an insolvent bank expecting from debtholders to discipline banks when failure occurred. In addition to that a lower cost of capital occurred because of the tax advantages of deducting interest payments on debt as an expense.

Using the Black and Cox (1976) contingent claims model for subordinated debt valuation, they related the signaling device, the bank's subordinated debt yield, to the investors' view of the bank's solvency. The analytical solution to the model revealed that if investor's forbearance expectations were to be under the maximum of 270, subordinated debt yield spreads will generally anticipate the bank's insolvency. If investors hold longer forbearance expectations subordinated debt yield spreads fail to give an early warning of bank insolvency. Based on empirical estimates from banks subordinated debt observations over the second half of the 1990s, investor's expected forbearance exceeded 270 days so that subordinated debt yields did not likely provide early insolvency recognition.

Nowadays, nobody talks about these issues in that manner anymore since nearly all banks became problematic. Or vice versa. Everybody talks about it in problematic way how subordinated bonds' yields characterise problematic times. Yields went up on the markets reflecting and proving some old ideas how to measure subordinated risks to be valid. Interesting example would be to calculate nowadays maximum days allowed, as discussed above. I presume the reaction of public now will be under 270 days owing to strong learning period and negative mass media publicity in the crises times.

The whole issue became much more problematic not only from the institutional investors' point of view but from the retail investors' angle, as well. Many banks were earlier before the crisis in position to issue its tier 2 instruments to retail investors (besides institutionals), as well. With the crisis not only that such solution minimised but many banks ceased to be in

position of buying back its own subordinated debt as it was the case and custom in the times before the crisis. Many investors suffered and therefore added additional oil on the fire of crisis. Special and additional problem which came up with the crisis and together with generally lower interest rates was second loan subordination problem.

### **1. Second Loan Subordination Problems**

When retail investors - well in the crisis already - were trying to refinance their first loan mortgages based on the U.S. government program they got into the second mortgage subordination problem. Basically banks denied the request that required keeping the home equity loan ratio to remain the same as on the moment of getting the loan (Zillow). This looked illogical since refinancing would reduce the mortgage payments and people would improve their credit situation. As seen from the retail (peoples' if you want) point of view, banks still want to capitalize on people who are trying to refinance. From the banks' point of view the attitude was logical and rational keeping better mortgage position in their books and not lowering its interest rates on the assets side. Since such refinancing is completely normal routine in the normal times retail customers, in fact took, over some burden of banks' rehabilitation through above described process, as well.

### **2. Subordination Market in Crises**

There were a lot of tenders and exchange offers for subordinated securities by UK and Eurozone banks towards the end of 2011 and in 2012, as well. Market reactions were mixed with the exchange offers, into lower coupon senior notes. Some cases from the end of 2011 (The most convenient bank Directory and Taber; 2011, 2012):

15 Nov 2011: Santander announced a controversial exchange offer in relation to €6.8 billion of low T2 securities. Offer was to exchange, with exchange ratios ranging from 87% to 99.5%, into new senior securities with substantially lower coupons. The acceptance rate was low at about 24%.

17 Nov 2011: BNP announced an exchange offer in relation to \$4 billion of Tier 1 and Tier 2 securities. The offer was to exchange into new senior floating rate securities. The acceptance level was about 38%.

18 Nov 2011: Societe Generale announced a cash tender offer for up to €1.4 billion of its Tier 1 securities.

1 Dec 2011: Lloyds Banking Group announced an offer to exchange £4.9 billion of lowT2 securities into new lowT2 securities with longer maturity at exchange ratios of between 70% and 80.75%. The acceptance rate was about 61%.

5 Dec 2011: Commerzbank announced a cash tender offer for €2.23 billion of its Tier 1 securities at between 40% and 52.5% of nominal.

5 Dec 2011: Barclays announced a cash tender offer for £2.5 billion of its Tier 1 securities at between 70% and 94.5% of nominal.

12 Dec 2011: ING announced a cash tender offer for €5.8 billion of its subordinated bonds at between 58% and 87% of nominal. The acceptance rate was about 60% .

The examples tell us everything; actually, more than the following text. Nevertheless, the focus has been to take advantage of depressed market conditions to generate Core Tier 1 capital through repurchase or exchange of Tier 1 and Tier 2 securities at a discount to

nominal. Offers have been targeted at institutional issuers. Issuers have not tended to include higher coupon Tier 1 issues in these offers. An excellent example how have the markets reacted on the depressed general situation and depressed capital (structure) situation of the leading European banks. And above examples were just good 2 months before ECB cheaply pumped additional E500bn into the banking system (interest rate for 3 years credits was 1% p.a.) via crediting banks taking government bonds' as collaterals.

#### **IV. BASEL II**

Banks' capital structure might be complicated in complicated times. However, it is quite simple since we have tier 1 and tier 2 capital and capital like instruments. In some cases (regulations, countries) tier 3 capital instruments can be added to a capital; nevertheless, also tier 3 (by rule short-term) instruments are supposed to be together with tier 2 instruments at most 50% of all bank's capital. In this and in some following (sub)chapters I use Capital Measurements and Capital Standards from obvious reasons quite a lot (International Convergence of Capital Measurement and Capital Standards. Basel Committee on Banking Supervision, 2006). Finally, tier 1 capital became from many obvious reasons including the regulatory ones more important in the crisis. On the other hand, tier 2 capital became in the crisis the burden for regulators, banks, tier 2 investors and finally financial markets. We could say a kind of 'subordinated domino effect' for everyone included. In hard times regulators tend to upgrade the banks level of tier 1 against reduced level of tier 2 capital in order to improve (by their opinion) a capital structure of the banking sector. We will explore in more details the constituent elements of banks capital.

##### **1. Core capital (Tier 1)**

The crucial and key element of any banks capital is equity capital and disclosed reserves. This element of capital is very transparent and clearly visible in the published accounts of all countries throughout the world and is the basis on which most market judgements of capital adequacy are made. It also has a crucial bearing on profit margins and a bank's competition abilities. This emphasis on equity capital and disclosed reserves is logical and reflects the importance to securing an appropriate quality, and the level, of the total capital resources maintained by major banks (ibidem).

There are also other important parts of a bank's capital base which may be included in the capital provided they fulfill certain conditions.

The capital should be defined in two tiers in a way which will have the effect of requiring at least 50% of a bank's capital base to consist of a core element comprised of equity capital and published reserves from post-tax retained earnings (Tier 1). The other elements of capital (supplementary capital) will be admitted into Tier 2 limited to 100% of Tier 1 (ibidem). Each of these elements may be included or not included by national authorities at their discretion in the light of their national accounting and supervisory regulations and according to their national 'needs and circumstances'. More conservative regulators tend to be conservative regarding the inclusion of certain tier 2 or even tier 3 elements into capital, as well. Different regulators from different countries differently approach this issue; however, EU (especially the continental one) was quite unified regarding these questions.

##### **2. Supplementary capital (Tier 2)**

###### **2.1. Undisclosed reserves**

Unpublished or hidden reserves may be constituted in various ways according to different legal and accounting regimes. Included are only reserves which, though unpublished, have been passed through the profit and loss account and which are accepted by the bank's supervisory authorities (*ibidem*).

They may be of the same quality as published retained earnings, but, according to some nontransparent issues attached to them and the fact that many countries do not recognise them, they are excluded from core equity capital.

## **2.2. *Ordinary shares and noncumulative perpetual preferred stock***

Issued and fully paid ordinary shares/common stock and non-cumulative perpetual preferred stock (but excluding cumulative preferred stock) can be part of Tier 2. I guess these structures don't need additional explanations. They might have been even included in tier 1 under certain additional strict conditions.

## **2.3. *Revaluation reserves***

Some countries, under their national regulatory or accounting arrangements, allow certain assets to be revalued to reflect their current value, or something closer to their current value than historic cost, and the resultant revaluation reserves to be included in the capital base (*ibidem*). Such revaluations can arise either via formal revaluations or via hidden values coming out of conservative securities valuations. A discount of 55% on the difference between the historic cost book value and market value is agreed to be appropriate in the light of these considerations.

## **2.4. *General provisions/general loan-loss reserves***

General provisions or general loan-loss reserves are created against the possibility of losses not yet identified (*ibidem*). Where they do not reflect a known deterioration in the valuation of particular assets, these reserves qualify for inclusion in Tier 2 capital. The general provisions or general loan-loss reserves will only be included in capital if they are not intended to deal with the deterioration of particular assets, whether individual or grouped.

General provisions/general loan-loss reserves that qualify for inclusion in Tier 2 are subject to a limit of 1.25 percentage points of weighted risk assets to the extent a bank uses the Standardised Approach for credit risk and/or 0.6 percentage points of credit risk-weighted assets to the extent a bank uses the IRB Approach for credit risk (*ibidem*).

## **2.5. *Hybrid debt capital instruments***

In this category fall capital instruments which combine certain characteristics of equity and certain characteristics of debt. Each of these has particular features which can be considered to affect its quality as capital (*ibidem*). This category also offers a lot of interesting, complex and complicated combinations of different instruments.

Where these instruments are closer to equity, in particular when they are able to support losses on an on-going basis without causing liquidation, they may be included in supplementary capital. In addition to perpetual preference shares carrying a cumulative fixed charge, the specific national instruments from certain countries/markets qualify. For example long-term preferred shares in Canada, titres participatifs and titres subordonnés à durée indéterminée in France, Genussscheine in Germany, perpetual debt instruments in the United

Kingdom and mandatory convertible debt instruments in the United States and some other similar ones in some other countries (*ibidem*).

## **2.6. Subordinated term debt**

The 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 case of liquidation (*ibidem*). We saw some other views regarding their qualities in good times (obligatory subordinated debt - see the text above in chapter III.). These deficiencies justify an additional restriction on the amount of such debt capital eligible for inclusion in the capital. The 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 proportional amortisation arrangements due for each year of duration.

## **3. Short-term subordinated debt covering market risk (Tier 3)**

The capital to cover market risks consists of shareholders' equity and retained earnings (representing Tier 1) and supplementary instruments (representing Tier 2). But, at the discretion of national authorities, banks may employ a third tier of capital ("Tier 3"), consisting of short-term subordinated debt for the purpose of covering market risks (*ibidem*). This inclusion has certain very strict requirements. In brief; valid for credit and counterparty risk, limitation of 250% of banks Tier 1 part supporting market risks, Tier 2 and Tier 3 together not exceeding 100% of Tier 1 and some other technical issues maybe not so important for our article. Short-term subordinated debt must have capability of becoming part of a bank's permanent capital in the event of insolvency or some other urgent circumstances. It has to be fully paid- and locked-in.

It is important to point out that national authorities have discretion to refuse the use of short-term subordinated debt for individual banks or for their banking systems generally (Slovenia to be typical example).

## **4. Deductions from capital**

According to Basel II (Accord) certain deductions have to be made from the capital base for the purpose of calculating the risk-weighted capital ratio in order to fairly and transparently display (*ibidem*) the banks capital. Goodwill and increase in equity resulting from securitisation exposure are to be deducted from Tier 1. Especially important issues are deductions resulting from investments in subsidiaries engaged in banking and financial activities which are not consolidated in national systems. On the other hand, the normal practice would be to consolidate subsidiaries for the purpose of assessing the capital adequacy of banking groups in order not to double count (the so called double gearing or leveraging) the capital (adequacy) which could lead to very dangerous higher systematic risk causing transmission of problems from one to another financial institution. However, individual supervisory authorities are supposed to be free at their discretion how to apply a policy of deduction.

## **V. BASEL III**

Basel 3 was supposed to take effect from 1 January 2013 but it was delayed owing to many opened questions (many of them I displayed in this text) and crisis (BIS; International

Regulatory Framework for banks (Basel III)). It seems that all existing Tier 1 securities and preference shares will not count as Tier 1 under Basel 3 (ibidem and Taber). Additional Tier 1 Capital elements under Basel 3 are:

1. Issued and paid-in.
2. Subordinated to depositors, general creditors and subordinated debt of the bank.
3. Is neither secured nor covered by a guarantee of the issuer or related entity or other arrangement that legally or economically enhances the seniority of the claim vis-à-vis bank creditors.
4. Is perpetual with no maturity date and no step-ups or other incentives to redeem.
5. May be callable at the initiative of the issuer only after a minimum of five years and even in that case under certain extremely strict requirements.
6. Any repayment of principal (eg through repurchase or redemption) must be with prior supervisory approval and banks should not assume or create market expectations that supervisory approval will be given.
7. Very favourable dividends outpayments discretions for the banks.
8. The instrument cannot have a credit sensitive dividend feature, that is a dividend/coupon that is reset periodically based in whole or in part on the banking organisation's credit standing.
9. The instrument cannot contribute to liabilities exceeding assets if such a balance sheet test forms part of national insolvency law.
10. Instruments classified as liabilities for accounting purposes must have principal loss absorption through either conversion to common shares at an objective pre-specified trigger point or a write-down mechanism which allocates losses to the instrument at a pre-specified trigger point.
11. Neither the bank nor a related party over which the bank exercises control or significant influence can have purchased the instrument, nor can the bank directly or indirectly have funded the purchase of the instrument.
12. The instrument cannot have any features that hinder recapitalisation, such as provisions that require the issuer to compensate investors if a new instrument is issued at a lower price during a specified time frame.
13. If the instrument is not issued out of an operating entity or the holding company in the consolidated group (but through a special purpose vehicle), proceeds must be immediately available without limitation to an operating entity or the holding company in the consolidated group in a form which meets or exceeds all of the other criteria for inclusion in Additional Tier 1 capital.

These criteria, and particularly item 10 which introduces a requirement for principal loss absorption prior to insolvency, mean that old Tier 1 securities will no longer qualify under Basel 3! And such securities are supposed - according to Basel III - to be phased out over a 10 year horizon beginning with the time of a start of Basel III. Those issues with an incentive to redeem will stop qualifying as Tier 1 or Tier 2 capital, respectively, at the first call date,

and, as a consequence, there is a strong incentive for the issuers to redeem those bonds. For bonds with first call date within Basel III period, but without an incentive to redeem such as a step-up, the capital recognition will be reduced by 10% each year starting from the beginning of Basel III. This seems to provide an incentive for issuers to tender for bonds with long-dated first calls, unless there is a regulatory call option available to force early redemption. However, I do not think that this means that issuers will automatically seek to repurchase / exchange non-qualifying 'grandfathered' securities at the earliest opportunity. Irrespective of Basel 3 they are still a source of finance and, therefore, I think issuers will only seek to repurchase / exchange them where it makes commercial sense for them to do so. The key drivers here will be the cost of the securities and the nature of the holders.

## **VI. FINDINGS, CONCLUSIONS, IMPLICATIONS AND DISCUSSION**

It seems that Basel II underestimated many risks that banks were disposed to in the bad times. It seems that tier 2 (and not even to mention tier 3 where applicable) definitely played too important role in the total banks capital in spite of the fact that many (especially in the U.S.) wanted tier 2 and especially subordinated instruments within it to play even more important role.

The private owners of tier 2 and even some debt tier 1 instruments were hit the most by the (banking) crisis; the official debt got more seniorised (the so called subordination problem).

It seems that Basel III (when or if adopted as proposed) will force banks to have more capital of the best quality than necessary; therefore, the banks might underestimate the evaluations of their risks in the future in a bookkeeping way – not in the real life, however then there will be more conservative than in the past.

As we saw in early 2009 when the markets got very nervous about the solvency and/or liquidity of banks the subordinated debts' market can be hit very hard and subject to selling at any price. The current Eurozone crisis has the potential to cause a very similar situation and the question of whether to buy bank subordinated debt entirely depends on how the Eurozone crisis evolves.

The article's advancement of the business and business related science is in analyzing subordination problem in connection with banks' capital structure which came out so problematic in crisis. Even more so; it could have been the cause of it. The article exactly reserches and defines which parts of the capital were and are the most problematic within Basel II but also within new proposed capital accord Basel III. To such extent it is original and precise contribution to the business and business related science and concrete practice. Of course, all these banking problems caused many (conflict) management problems and consequently also business and general economic growth problems.

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