16 February 2011

Treatment of Deferred Tax Assets

A practical yet economic treatment of DTA in Own Funds

Treatment of taxes in Solvency II and any regulatory regime is a challenging issue. At the heart of the issue is the complexity of the way deferred tax items are recognized, coupled with all the complexities of a market consistent valuation regime. This combined complexity and uncertainty manifests itself in a conservative assessment of the value of tax and the role it plays in a valuation system.

As of today, CEIOPS and the European Commission have demonstrated commitment to the tiering of the quality of capital. The CRO Forum appreciates the necessity to assess the quality (loss absorbing nature and the permanency) of capital in Solvency II and any risk-based solvency regime. However, the CRO Forum's core concern is that the development of Solvency II is lopsided in that it is striving to tier the quality of capital based on an amortised cost regime rather than a mark-to-market regime.

The scope of this paper is to analyze the impact of unrealized market value movements in a stress scenario on the quality of own funds. It will become clear that the treatment of Deferred Tax Assets (DTA) in Tier 3 own funds leads to a pro-cyclical solvency framework: The own funds are deteriorating because of the stress but also on top of that by the treatment of DTA in Tier 3 including the 15% restriction. The paper will not address the complexity of taxes in the sense of recoverability rules for DTA, nor will it address complexity around interaction with Deferred Tax items between IFRS and the Solvency II balance sheet.

The core of our concern emanates from the fact that if we tier the quality of capital then we must also consider the quality (or potential realisation and timing of) losses in a mark-to-market regime.

In the (re)insurance industry, insurance contracts can have a very long duration, spanning up to 100 years. In order to properly manage the ALM risks in the business, companies invest in very long duration assets in order to mitigate the interest rate risk in the underlying business. These assets are typically held in a diversified portfolio, including sovereign bonds, corporate bonds and other investments such as equities and real estate, and are selected in such a manner as to sufficiently match expected liability cash flows. By nature, the (re)insurance industry provides stability to capital markets by being a long-term holder of these investments and prior to Solvency II has contributed materially to properly functioning capital markets. The CRO Forum hopes for the benefit of all constituencies, that this practice remains viable under Solvency II.

Why is treatment of Deferred Tax Assets important in tiering of capital? Consider the following example:

Consider a company with a pension product where the benefit is a lifetime annuity where payment commences at retirement. The duration of the liability is 30 years and the market value (technical provision) is 1000. The asset portfolio supporting the liability is comprised of an equal mix of diversified sovereign bonds and high quality corporate bonds and has a market value of 1000. The asset cash flows perfectly match liability cash flows although there is credit risk in the assets, which results in a fixed capital charge of 100 (=SCR). The company also has own funds of 205 resulting in the following balance sheet at t=0:

Assets		Liabilities	
Government Bonds	690	Technical Provisions	1000
Corporate Bonds	500	Own Funds	205
		Tier 1	190
Deferred Tax Assets	15	Tier 3	15
Total Assets	1205	Total Liabilities	1205

Note that the company already has 15 Deferred Tax Assets on the balance sheet. This DTA is also reflected in the own funds of the company as Tier 3 own funds.

Assume further that, at t=1, the economy experiences a down turn and spreads on the corporate bonds widen by 100 basis points but interest rates remain unchanged. The liabilities would still be valued at 1000 but the market value of the corporate bonds would now be 350 (decrease of 1% x duration of 30 or 30% * 500 =150, resulting in a value of 350). Assume further that the corporate tax rate is 30%. Therefore the DTA on the unrealised mark to market loss of 150 would be 45. Here is it assumed that the corporate bonds are recognized for 500 on the tax balance sheet and at 350 after the shock at the economic balance sheet. The DTA is then the tax rate of 30% times the difference (=150) in recognition of the bonds on the two balance sheets mentioned.

Summarized, the balance sheet of the company at t=1 is as follows. Here we assume that there is no restriction on the amount of DTA in the own funds.

t=1; -30% shock in corporate bonds, no own funds restriction

Assets		Liabilities	
Government Bonds	690	Technical Provisions	1000
Corporate Bonds	350	Own Funds	100
		Tier 1	40
Deferred Tax Assets	60	Tier 3	60
Total Assets	1100	Total Liabilities	1100

For simplicity we assume that SCR after the shock is still equal to 100. Under the current Solvency II proposals (QIS5), the value of the DTA on unrealised losses in own funds would be treated as Tier 3 capital and limited to 15% of the SCR, regardless of the likelihood of recoverability and timing of the actual unrealised loss. Including the QIS5 restriction that the maximum amount of Tier 3 is 15% of SCR the (QIS5) balance sheet looks as follows:

t=1; -30% shock in corporate bonds, 15% Tier 3 restriction in own funds

Assets		Liabilities	
Government Bonds	690	Technical Provisions	1000
Corporate Bonds	350	Own Funds	55
		Tier 1	40
Deferred Tax Assets	15	Tier 3	15
Total Assets	1055	Total Liabilities	1055

Note that in the above example, Tier 3 is already at the 15% limit of the SCR for the company at t=0. After the shock of 30% on the corporate bonds the company suffers both from an after tax decrease of 150*(1-tax rate) on the bonds, and the fact that the additional DTA of 45 cannot be recognized in own funds due to the 15% Tier 3 limit. This is despite the fact that the loss may not be realised for decades or not realised at all if the diversified portfolio of bonds matures without incidence of default. The additional DTA that is not recognized here in own funds is 4.5% of the technical provisions of the company. From an economic point of view it makes sense to recognize the deferred tax assets since (1) not all losses are realized right away and (2) if the losses were realized a loss carry forward is recognized on the balance sheet. To put this example in perspective for the industry as a whole, consider that technical provisions measure in the EUR trillions.

If these losses were supported after assessment for the recoverability of taxes, then this treatment would be justified in a risk-based solvency regime. However the CRO Forum argues strongly that the current proposed treatment in Solvency II introduces an artificial floor in capital adequacy which is in conflict with the letter, spirit and intent of the Directive.

The 15% limit of Tier 3 own funds will lead to a pro-cyclical solvency framework: DTAs and DTLs need to be reassessed at each reporting date. Deferred taxes that result from changes in fair values that are accounted for in the Solvency II economic balance sheet but not for tax purposes, are subject to significant changes in times of volatile markets. It does not make economically sense to require additional capital based on the potentially volatile amount of DTAs. Moreover, after an adverse shock in financial markets, an insurance company suffers from both a depreciation of the assets and an exclusion of DTA in the own funds of the company. This may lead to de-risking of re-capitalisation of the company in an already weak market.
Note that within Tier 3 own funds more instruments can be categorized. Thus the 15% restriction is even more restrictive than considered in the example and can have undesirable effect in a stressed market environment.

The CRO Forum's key position is that in the financial crisis, approximately 95% of losses were unrealised in nature and it is unimaginable that unrealised tax offsets in Own Funds and in the SCR would not be given full credit to the extent that these losses can be demonstrated as recoverable. In the year that followed, almost all of the 95% unrealised losses reversed in practice. Artificial rules on taxes will greatly increase the pro-cyclical nature of Solvency II, resulting in capital strains and consequent increases in the cost of insurance to the consumer.

Proposal for the way forward

(Re)insurance undertakings should be required to demonstrate the recoverability of taxes during the Pillar II process. The undertakings approach to DTA recognition would naturally remain part of the Pillar II process, thereby strengthening the quality of this process.
The result should directly impact the tiering of DTA in that amounts demonstrated as recoverable with a high degree of certainty are included in Tier 1, whilst other DTA should be allocated to Tier 3, as the potential for recoverability remains, even if it is less certain.

We would also like to stress that the sole fact that judgement is applied in recognising DTAs should not on its own justify a tiering of DTAs (and potential requirements for capital increases). Judgement is inherent in many other accounting estimates as well and is an inherent part of market consistent valuation regimes.