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A prudential regulatory issue at the heart of Solvency II

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A delicate regulatory question is under consideration on the capital (reserve) requirements at the heart of Solvency II (the insurance industry equivalent of Basel III), which is scheduled to come into effect by 2013. This decision will have implications for both regulation of insurers and for macroprudential stability. The six authors of this article were invited to discuss the issues and concluded that more public scrutiny over this important question is urgently needed.

Banks are not the only ones getting new regulations after the global crisis. National insurance regulators are drafting rules on capital (reserve) requirements that are analogous to the Basel III capital requirements for banks. These regulators have been under intense industry pressure on the proposed ratio calculation principles.

Recently, senior members of European insurance regulators and EIOPA (the European Insurance and Occupational Pensions Authority, one of the three European Supervisory Authorities) met with insurance and banking academics at the Dutch Central Bank to discuss a controversial new methodology for prudential insurance reserve requirements. A key proposal, on the use of illiquidity premiums to discount liabilities, came under intense criticism. As all participating academics agreed on the conceptual analysis, we decide to present our common arguments and main conclusions.

Under Solvency II, insurers will compute the present value of their insurance liabilities under the actual risk free interest rate term structure curve. This transition in valuation methods has a major impact on some insurers with long-term liabilities.

The industry argument states that as long-term liabilities are predictable and stable and thus “illiquid”, their discount rate should also contain a market liquidity risk premium. This would enable significantly

lower reserve ratios.

In our opinion, this argument has no sound scientific basis.

Capital (reserve) requirements are prudential buffers to back future nominal promises to policyholders. To compute such requirements, promises should not be discounted at a risk premium. The illiquidity of insurance liabilities cannot be treated as equivalent to asset liquidity, as asset owners can sell at their discretion, while this is not usually possible for insurance policies.

Risk free discounting cannot be questioned as a basis to compute the present value of insurer liabilities. Illiquid assets held to maturity do not constitute a riskless hedge. Different valuation schemes, market-consistent valuation and hold-to-maturity view, cannot be mixed in an inconsistent way.

Using a liquidity premium to discount liabilities is in essence a fudge discount rate that is financially unsound and economically indefensible. It would induce risk arbitrage and risk reallocation, e.g. from banking to insurance.

There are, however, good economic arguments and legitimate concerns for long-term insurers to be addressed under Solvency II's transition to market-consistent valuation. The change leads in many countries to a higher value of longer-term promises, in particular at the time that massive monetary support and a flight to liquidity has led to very low risk-free rates.

The monetary expansion has had the effect of transferring value from savers to borrowers. Both insurers and pension funds see the effect on their balance sheet, when properly valued at lower rates. In itself this loss does not justify lower prudential ratios.

However, there is a sound rationale for a gradual transition to market-consistent reserve requirements for firms with longer liability maturities, provided the transitional phase be recognised as such. The insurer ability to honour longer-term promises is less affected by asset liquidity risk, as longer liabilities enable them to hold longer on to the illiquid assets.

To be absolutely clear, the maturity of liabilities should not alter the required capital calculation (the net effect on reserves anyway depends on net duration), but it may affect the desirable speed of the adjustment depending on the duration of the liabilities. Longer term

funded insurers have the ability to earn over time more liquidity premia to consolidate their reserves.

As a final macroprudential consideration, the recent crisis has signalled a need to move the financial sector to a longer-term funding basis. It is unreasonable to demand a rapid adjustment by very stable intermediaries with long-term liabilities, not the least after the monetary bailout of short-term funding.

Yet favouring stable funding should be achieved by other means than by manipulating a discount factor, which is an opaque, financially unsound solution, distorting maturity choices and inducing risk shifting.

Other measures may include a regulatory buffer on the asset side of the balance sheet or a ladder of intervention. Insurance companies with long-term liabilities should not be heavily penalised at stress times of flight to quality.

Granting them more time to adjust would seem particularly reasonable at a time when the market value of illiquid assets is depressed and long-term risk-free rates are arguably abnormally low.

Editor's note: The authors represent the full academic panel at the recent workshop on Solvency II organized by the Dutch Central Bank with EIOPA and EU insurance regulators. Enrico Perotti's statement are his personal opinion and not an official position of the Dutch Central Bank, where he is an independent advisor.

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Liabilities are not all the same

On March 31st, 2011 [screedon](#) says:

Although criticism of the valuation treatment applied in the context of the most recent quantitative impact study has considerable justification, some insurer liabilities are more or less liquid than others and it is entirely consistent with market-derived valuation and recognised

principles of financial economics to treat these differently.

Most insurer liabilities either are unpredictable as to timing or may be 'called' by beneficiaries and are therefore substantially liquid. I agree with the view that is not appropriate to use an 'illiquidity premium' in valuation of these.

However life insurers have material elements of liabilities which are quite predictable and which include no right to 'call' on the part of the beneficiary. Such liabilities are substantially illiquid and it is appropriate to recognise this in market-consistent valuation. Indeed insofar as market-consistent valuation concepts require that an 'illiquidity premium' be applied to reduce 'mark-to-model' valuations of non-traded assets, it would be a conceptual mistake not to use a similar premium in valuation of illiquid liabilities. (see Gaspar, Raquel M. and Pereira, Patrícia, Liquidity Risk Premia: An Empirical Analysis of European Corporate Bond Yields (December 1, 2010). Available at SSRN: <http://ssrn.com/abstract=1744184>).

This discussion leads me to suggest that what is required is co-operation on the part of the academic community and insurance liability experts (usually actuaries) to develop clear guidance on assessment of the liquidity characteristics of various types of liability - e.g. insurance claims liabilities, provisions for savings contracts, and provisions in respect of lifetime annuities.

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On March 31st, 2011 [John Hibbert](#) says:

There is a simple proposition under scrutiny here. Where an insurer faces a fixed liability outgo (which is predictable in that the policyholder has no early surrender options) and two discount bonds are available – a high price, highly liquid bond and a low price, illiquid bond – what is the fair economic value? My understanding is that the view of insurers is that the cost of the cheapest replicating portfolio (which includes the liquidity premium) reveals the fair value. Of course, in practice few liabilities are perfectly predictable and isolating the liquidity component of asset prices is difficult but – for me – this does not undermine the core principle. The acknowledgement of this line of argument is not unique to Solvency II. The principle that economic characteristics of cash flows other than maturity should form part of the construction of valuation interest rates also forms part of the IASB's thinking.

Like the authors I don't like the way Solvency II is being increasingly

shaped by narrow political interest, but I do think the arguments presented in the article deserve more careful consideration.