

## Countercyclical Regulation in Solvency II: Merits and Flaws

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The October 2011 Solvency II draft introduces the possibility of a countercyclical premium (CCP). Upon a declaration by EIOPA (European Insurance and Occupational Pensions Authority) that distressed market conditions exist, an additional wedge is to be added to the risk-free term structure to value all insurance liabilities subject to fair market valuation.<sup>1</sup>

This measure should reduce balance sheet stress for insurance companies in times of high illiquidity and credit spreads. Such conditions often follow periods of high liquidity and compressed risk premia, where asset values are inflated. High volatility of market prices implies high variability of prudential reserves for insurance companies. If some of this volatility may be considered transitory, insurance regulation should include countercyclical features, to parallel macro-prudential measures in banking such as the countercyclical buffer. These would help regulate excessive exuberance as well as market panic.

The CCP is probably the most controversial and debated innovation. First and foremost because it matters: a small premium on the discount rate leads to much improved solvency ratios (Morgan Stanley & Oliver Wyman, 2012). Second, because its logic is flawed. Third, because it is not countercyclical, and may lead to risk-shifting with the banking system across the credit cycle.

The CCP approach has such evident flaws to require the planning of an early review of Solvency II, to be supported by high-level research and consultation.

The aims of this note are two-fold: 1) to clarify the problem the CCP is meant to address and 2) to sketch an alternative adjustment based on economic logic.

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<sup>1</sup> This means all liabilities not covered by the matching premium exception, which we describe below.

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## 1. The issue

Prudential regulators now recognize the need to contain the risk cycle, which manifests itself in liquidity, credit and asset prices booms and busts. In exuberant times, liquidity is abundant and asset prices may form bubbles, as risk is underestimated and underpriced. This boosts credit, flatters capital ratios and enhances risk incentives. In times of distress, assets become illiquid and may become underpriced, creating the reverse effects.

Excessive volatility<sup>2</sup> has consequences. In hard times it may lead to bank runs and fire sales, while producing sharp drops in insurer capital reserves under market-consistent valuation.

In addition, after a major crisis such as nowadays, insurers' balance sheets further suffer as monetary intervention to avoid fire sales depresses riskless rates. These have a disproportionate impact on long term insurance liabilities, forcing potentially excessive capital adjustment.

Macro prudential policy requires a delicate judgment on the stage of the risk cycle. The specific tool adopted under Basel III are countercyclical reserves. It creates financial buffers for banks in good times, which may be run down in distress times.

The draft Solvency II Level 2 text includes proposals of a matching premium and CCP. The parallel introduction of these principles will have consequences for risk allocation along the risk cycle and across the insurance and banking sectors.

The matching premium and CCP under Solvency II create an accounting buffer for insurers. While some adjustment is at times justifiable, the approach is flawed. There is no economic logic in discounting unconditional promises at a risk premium.

By manipulating the reported value of liabilities, arbitrary discounting enables opaque concessionary adjustments which escape scrutiny.

### *Discounting liabilities*

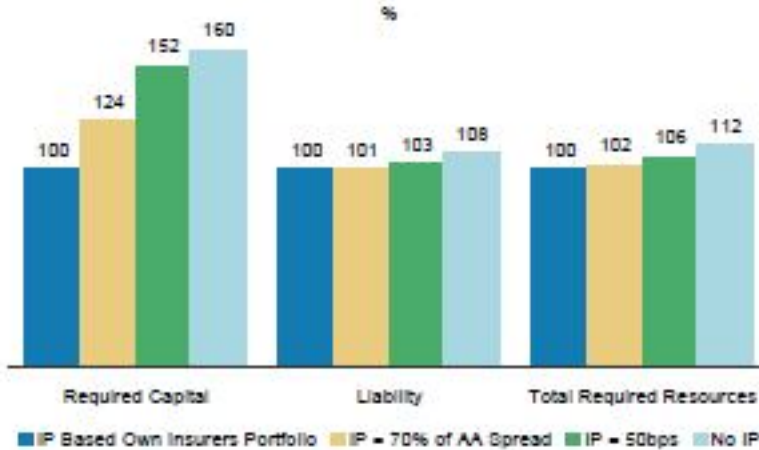
The language of insurance regulation has been upset by the introduction of the so-called "illiquidity premium" in Solvency II's QIS 5, which was rapidly renamed "matching premium" and then finally "matching adjustment". The design of the CCP arises from this concept.

Adjustments to the risk-free term structure have no historical precedent in insurance. The use of discounting liabilities comes from a UK accounting practice of matched portfolios. Credit risk-adjusted assets were dedicated to fund long-term unredeemable liabilities deemed highly predictable (annuities, pensions). This is mathematically equivalent to discount liabilities at the expected rate of return on assets.

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<sup>2</sup> Excessive volatility may be caused by collective exuberance, followed by distress and illiquid markets once the excessive risk is recognized. In a risk cycle, high credit growth phases with compressed risk premia are followed by correction phases, where risk premia may be excessive, reflecting in part temporary illiquidity, in part a change in future risks.

Figure 1. Balance sheet resource requirements are highly sensitive to the illiquidity premium (IP)



Source: Morgan Stanley Research and Oliver Wyman.

Simply put: it does not make economic sense to discount fixed insurance promises at a risk premium: their amount should be treated as unconditional, and thus discounted at the riskless rate (certainly for the sake of computing prudential reserves!).

The extraordinary step of adopting such a flawed valuation adjustment has been noted by the top industry specialists. In their 2012 review of Solvency II, Morgan Stanley and Oliver Wyman candidly state:

Initially discarded entirely by almost anyone except the UK annuity writers, it has now become accepted as an important element of the future design of the Solvency 2 framework. In particular, this is because it can reduce the capital requirement for spread volatility.

Only under heroic assumptions (guaranteeing exactly matched cash flows at no transaction costs, with all asset and liability risk perfectly hedged), the required reserve is the same as under an illiquidity or matching premium. Yet a perfectly replicating portfolio simply does not exist due to the inherent unhedgeable nature of insurance liabilities.<sup>3</sup> Moreover, valuation in this context is based on a hold-to-maturity principle, conceptually at odds with market-consistent (transfer or settlement) valuation principles of Solvency II.

It is true that illiquid assets carry an illiquidity premium, which, if held to maturity, disappears. (Incidentally, it is very hard to separate from credit risk.) But the illiquidity premium is an adjustment to asset values, not liabilities. The fact that insurers' assets may earn this illiquidity premium thanks to long-term liabilities may enhance the long-term value of their investment. There is no reason why it ought to reduce the present value of the liabilities.

In a narrowly defined application, dedicated or matched portfolios may be tolerated as a short cut with limited risks. But this tolerance should not extend to validate the discounting insurance promises at some risk premium as a fundamental valuation procedure, in the face of uniform academic disagreement.<sup>4</sup>

<sup>3</sup> A few examples of unhedgeable risks include, but are by no means limited to, longevity risk, inflation, and long term promises for which there are no assets of matching maturity.

<sup>4</sup> This was expressed, inter alia in a joint public statement following a workshop with EIOPA in Amsterdam in March 2011 (Danielsson et al., VOXEU), and in the recommendations of the advisory panel called by the European Parliament OMNIBUS committee in March 2012.

Yet this flawed approach has now been generalized by the introduction of the countercyclical premium, designed to discount liabilities not subject to a matching premium in times of distress.

### *The CCP approach*

We summarize below the main flaws inherent in the CCP approach:

- Applying a fudge discount rate to discount insurance liabilities such as the CCP decreases the transparency and rigor of insurance regulation. It flatters the valuation of technical reserves, blurring scrutiny on the soundness and performance of the industry. This is troublesome as Solvency II was meant to increase transparency.
- The hold-to-maturity principle is at odds with market-consistent valuation.
- The CCP is not countercyclical. In periods of financial stress, it reduces balance sheet stress for insurance companies, yet in times of excessive exuberance no prudential buffers are built up (even though in this case asset prices are in fact too high).
- Since Basel III introduces a symmetric macro-prudential tool via countercyclical buffers, the misalignment created by an asymmetric CCP may induce risk-shifting from the banking to the insurance sector in a credit expansion phase.
- To the extent that intervention becomes predictable, it will be anticipated in individual investment choices.
- Leniency in downturns gives risk herding incentives to the EU insurance industry, leading to correlated investment strategies.
- Applying the CCP crucially relies on a proper assessment of the risk cycle, a highly challenging econometric exercise. EIOPA does not appear equipped at present to perform such a task, and it should not be empowered to declare publicly a state of “systemic” distress. There is no proper operational procedure underlying the CCP in its current form and high-level research on the issue is urgently required.
- Explicit advice by the European Systemic Risk Board (ESRB) has been included in later versions as critical for calling the state of distress. Yet there has been no proper consultation with the ESRB (or for that matter, with the scientific community) in the elaboration of Solvency II.
- Finally, the industry has strongly argued that the call of the CCP should be formularized. While predictability is a plus, it is clear that declaring collective distress should require extraordinary circumstances, in which discretionarity is important.

## **2. A consistent response: Countercyclical buffers**

Some form of capital relief may be justified for insurers in exceptional distress phases, if risk premia on less liquid assets are expected to partially revert to more normal levels in due time. Some leeway is particularly reasonable when riskless rates are also depressed by emergency monetary expansion. This is not primarily, as some claim, to avoid fire sales, as less capitalized insurers would not (unlike banks) easily be forced into fire sales.

It is impossible to rapidly formulate a well thought-through alternative to the CCP. Solvency II must introduce an early review process to evaluate these extraordinary measures. But it is possible to spell out some of the necessary ingredients of a sensible solution.

A proper adjustment to excessive market volatility should primarily be focused on asset valuation. It would involve the creation of precautionary buffers in insurance regulation, just as in Basel III.

This policy would enable tolerating lower solvency ratios in distress time but would also avoid excessive distribution of capital to shareholders and beneficiaries in booms.

After all, recognizing excessive volatility implies that asset prices also become inflated in boom times. A balanced policy would be justifiable on macro- and micro-prudential arguments.

A simple approach would be to have three ‘policy phases’. Next to a normal phase, when market valuation should be the norm, there should be a boom phase calling for reserve accumulation, and a distress phase when buffers may be run down.

Implementation of any countercyclical tool is fraught with delicate issues of assessment of the risk cycle. Alternatively, a transition path may be designed to recover reserve ratios over some period, adjusting the ladder of intervention.

The degree of relief (such as the time of recovery) should be based on the percentage of long term liabilities in the balance sheet. Intuitively, insurers with more long term (unredeemable) obligations have more time to weather the transition to ‘normal’ risk premia. Otherwise, any capital ratio concession in distress time would unduly favour short-term insurance policies, and distort industry choices.

Deviations from the ‘normal’ phase should be recognized as being temporary. Furthermore, the principles determining the timing and degree of deviation should be regularly reviewed. The extent of leeway offered should be eventually based on high-level research.

### 3. Conclusions

Solvency II was meant to introduce market valuation as a foundation for insurance regulation and was vigorously supported by the industry in the boom. It is now evident that asset prices go through phases of overconfidence as well as extreme risk avoidance. To the extent that this results in temporary volatility, market-consistent valuation induces excessive volatility in solvency ratios for insurers with matched long-term liabilities. Solvency II should introduce measures recognizing the possibility of temporary adjustments in required solvency ratios, to facilitate carrying matched long-term promises. However, the road chosen is a form of creative accounting via arbitrary discounting of liabilities, hiding their real value, rather than recognizing the issues where they lie, namely on the asset valuation side.

The proposed CCP adjustment defines a valuation concept with no economic foundations, and thus one that is easily manipulated. It even fails to be countercyclical, as it adjusts reserve requirements only in distress. We call instead for a fully countercyclical buffer approach, consistent with the Basel III approach, which would avoid risk-shifting from the banking to the insurance industry over the cycle.

There is essentially unanimity of views in the academic community on these issues. An early rather than late review of the Solvency II regulation is indispensable.

### References

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