

## Solvency II: resolving the currency risk problem

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*Please note that this document was originally produced under Insurance Europe's former name, the CEA.*

### Introduction

The CEA paper ECO-SLV-11-308, dated 12 April 2011, sets out problems with QIS5's approach to currency risk and proposes solutions. The CEA has given this paper to the Commission and exchanged emails on the subject.

This led to a meeting on 13 December, 2011 between representatives of the Commission and industry. At the meeting, the Commission's representatives recognised that the proposed approach to currency risk creates some problems, but did not agree to adopt the proposal put forward by industry within the standard formula. Nevertheless, Commission representatives indicated that on the one hand internal models should address these issues, but on the other hand opportunities remain for industry to propose solutions within the standard formula.

The latter must meet the Commission's concerns that that the solution must:

- Be a single solution, applicable to solo entities and, mutatis mutandis, groups.
- Be in line with the Solvency II Directive.
- Not make the standard formula too complex.
- Be capable of application by small and medium-sized firms.
- Represent a "total balance sheet" approach.
- Have general support from industry.

## Background

The currency risk sub-module is part of the Solvency II standard formula's market risk module. The Solvency II Framework Directive describes currency risk as<sup>1</sup>:

*"The sensitivity of the values of assets, liabilities and financial instruments to changes in the level or in the volatility of currency exchange rates".*

The latest draft implementing measures set out the method of calculating the currency risk sub-module capital charge under the standard formula in Article 172. Essentially it requires undertakings to apply a charge of 25% to the "net asset value" (assets less booked liabilities) for any currency other than the currency used to prepare their financial statements. This is the same approach as was used in QIS5.

## Problems with the existing approach

The proposed approach is misconceived. It does not reflect the real currency risks faced by undertakings with exposures in other currencies: some exposures incur disproportionately severe capital charges, whereas other exposures do not incur any charges at all. It incentivises poor currency management, as it encourages undertakings not to hold surplus assets in foreign currencies and therefore not to maintain prudent buffers against foreign currency risks. EIOPA's Report on QIS5 says (page 11):

*"The currency risk module was noted to contain counterintuitive incentives to hold assets in excess of liabilities in the reporting currency rather than in the currencies of the underlying liabilities."*

The proposed approach is not therefore in line with Solvency II's fundamental principles.

- It is not risk-based<sup>2</sup>.
- It does not provide adequate protection of policyholders<sup>3</sup>.
- It is not proportionate to the nature, scale and complexity of an undertaking's risks<sup>4</sup>.
- It is burdensome for undertakings specialising in providing specific types of insurance to specific customer segments, i.e. international insurance and reinsurance business<sup>5</sup>.
- It does not promote good risk management<sup>6</sup>.
- It will reduce the international competitiveness of EU insurers<sup>7</sup>.

## Industry position

We continue to reiterate that the QIS5 treatment of currency risk is flawed and would lead to incorrect capital requirements and incorrect risk management incentives, penalising good risk management and low currency risk exposure and rewarding increases in currency risk with lower capital.

We also continue to believe that the solution to this issue proposed in the CEA paper ECO-SLV-11-308 from 12 April 2011, would correct these issues.

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<sup>1</sup> Contrary to Directive 2009/138/EC, Article 105(5)

<sup>2</sup> Contrary to Recital 15

<sup>3</sup> Contrary to Recital 16

<sup>4</sup> Contrary to Recital 18

<sup>5</sup> Contrary to Recital 20

<sup>6</sup> Contrary to Recital 64

<sup>7</sup> Contrary to Commission Press Release, IP/07/1060, 10 July 2007



However, since the Commission's representatives have insisted that the solution should be identical at solo and group level, we have updated the CEA proposal – to extend the solo treatment proposed in the previous CEA paper to also apply to groups. This solution would also – as per the previous CEA proposal – remove the issues surrounding misalignment with good risk management which arose under QIS5.

### Updated proposal

The local currency is the currency in which the undertaking prepares its financial statements. All other currencies are referred to as foreign currencies.

The capital charge for currency risk should reflect the loss in total currency risk exposure (CRE) which arises from an instantaneous shock (upwards or downwards) in the exchange rate of each material foreign currency against the local currency. This proposal retains the figure of 25% for the instantaneous shock.

The CRE for foreign currency C is:

*Total Assets x (Percentage of assets exposed to currency C – Percentage of liabilities exposed to currency C)*

Note that Total Assets are the undertaking's Total Assets, not the Total Assets held in currency C. So for each foreign currency, the calculation uses the same figure for Total Assets. For each relevant foreign currency, the currency position should take into account all currency hedges.

The 25% shock is applied to each foreign currency CRE, to calculate a capital charge. The undertaking's total currency risk capital charge is the summation of the capital charges over all currencies. This applies equally to groups and solo undertakings.

Calculation of the capital charge for currency risk on this basis does not require any additional information in comparison with the QIS5 Technical Specifications. The formula within the QIS5 spreadsheet could be easily modified to enable this calculation.

Proposed changes to the draft Implementing Measures are set out in appendix 1.

This method assumes that it is prudent for an undertaking to hold its assets in foreign currencies in proportion to its liabilities. Not only does this protect against the risk of having to purchase foreign currency assets at short notice to match increases in foreign currency liabilities, it also recognises the "natural hedging" effect of currency movements, whereby a reduction in the local currency value of a foreign currency reduces the local currency value of foreign currency assets, liabilities and capital requirements equally.

Undertakings therefore incur currency risk capital charges if there is a mismatch between the proportions in which they hold foreign currency assets and foreign currency liabilities.

An undertaking that does not transact foreign currency business, and does not hold foreign currency assets will not incur a currency risk capital charge. It will incur a capital charge if it decides, nevertheless, to invest in foreign currency assets.

### Assessment of the proposal

An evaluation of this proposal against points raised by the Commission is set out below, demonstrating how the proposal meets the Commission's concerns.

- A single solution

The proposal represents a single approach, for adoption by solo undertakings and groups. The CEA's earlier paper presented separate solutions for solo undertakings and groups. It now supports a single approach for both types of entity.

- In line with the Solvency II Directive

A detailed assessment of the compatibility of this proposal with the Solvency II Directive, in comparison with the existing QIS5 approach, is set out in appendix 2. The conclusions drawn from this exercise are that the new proposal is in line with the Solvency II Directive, whereas the QIS5 approach is not.

- Not too complex

The new proposal does not require any additional information. All the data required by its calculation is captured by the currency risk section of the standard formula spreadsheet. The calculation does not therefore require any more effort than the QIS5 approach.

- Capable of application by small and medium-sized undertakings

As the new proposal is no more complex than the approach that it would replace, small and medium-sized undertakings would have no difficulty in using it.

Most small and medium-sized undertakings transact insurance business in their domestic currency only and have little or no foreign currency investment. Consequently, they do not need to calculate a currency risk capital charge.

The QIS5 approach to currency risk could discourage such firms from seeking to transact international business. If they write foreign currency business, the associated investment in foreign currency assets will mean that they incur a hefty capital charge. Moreover, the imprudent currency mismatching that this approach encourages could have severe consequences for smaller enterprises. Their management is bound to weigh up the risks associated with different investment strategies, taking into account the costs – in terms of additional capital requirements – of adopting prudent approaches to currency risk management. They may well conclude that transacting foreign currency business imposes too heavy a capital burden.

- Represents a "total balance sheet" approach

The new proposal is a total balance sheet approach, as it accounts for stresses to the total assets and liabilities.

The proposal does not interfere with the fundamental position that an undertaking's capital – like the assets backing its technical provisions – are available to meet any policyholder claims – i.e. that the assets are fully fungible. It simply seeks to ensure that the approach to holding that capital is protecting the policyholder to the desired confidence level, in light of the liabilities that the undertaking has incurred or will incur over one year. Assets held in foreign currency remain assets of the entire business: their availability is not restricted to the support of foreign currency transactions and comparisons with ring-fenced funds are inapposite. No useful regulatory purpose would be served by treating them like ring-fenced funds, whereas the proposal does serve the useful regulatory purpose of enhancing the protection of foreign currency policyholders.

- Has general support from industry

To date, concerns about Solvency II's approach to currency risk have been voiced by particular sections of industry, rather than by the industry as a whole. This does not mean that most EU undertakings are happy about existing proposals: rather it is a consequence of the undoubted fact

that most EU undertakings transact little or no foreign currency business, so are not affected by an unsatisfactory approach to currency risk.

Undertakings that transact foreign currency business have significant concerns about the existing approach and support the proposal to amend it. EIOPA's QIS5 Report noted that:

*"In a couple of countries undertakings felt that currency risk was overestimated, and two noted a counterintuitive incentive to hold the reporting currency rather than the currency of underlying liabilities."*

To reiterate, the restricted extent of these concerns is because currency risk is not a relevant consideration to many undertakings, not because those for whom it is relevant accept the approach currently proposed.

Nevertheless, concerns about this approach are widespread. The recent meeting with the Commission was attended by undertakings headquartered in Germany, the Netherlands, Ireland and the UK. The CEA's position on currency risk has been discussed and agreed by its Solvency II Steering Group, which includes representatives of associations and undertakings from across Europe. The CRO Forum has members in many European countries: it has set out its concerns about the treatment of currency risk in its paper entitled *"Currency risk under Solvency II: The day an accounting treatment hatched into a risk"*.

## Conclusions

There is ample evidence that the QIS5 approach to currency risk is flawed. It penalises entities for adopting prudent approaches to currency risk management and hence endangers policyholder protection via wrong incentives. The way in which currency mismatch is minimized under the current standard-formula approach maximises exposure to fluctuations in exchange rates and creates risks that there will be insufficient assets available to meet policyholder obligations. Consequently, it is out of line with Solvency II's fundamental principle, laid down in Directive recital 16:

*"The main objective of insurance and reinsurance regulation and supervision is the adequate protection of policy holders and beneficiaries."*

It is therefore recommended that it be replaced by the proposal set out in this paper, which: Is a single solution, applicable to solo entities and groups.

- Is in line with the Solvency II Directive.
- Does not make the standard formula too complex.
- Is capable of application by small and medium-sized firms.
- Represents a "total balance sheet" approach.
- Has general support from industry.

For internal model users more refined approaches should be allowed, e.g. by reflecting the risk profile of the undertaking or the group.

## Proposed Changes to the draft Implementing Measures

In order to accommodate the proposals set out in this paper, the following changes should be made to the current draft Implementing Measures text:

### Article 172 CR1

3. The capital requirement for the risk of an increase in the value of the foreign currency against the local currency shall be equal to the loss in the ~~basic-own-funds~~ Currency Risk Exposure (CRE) in the local currency that would result from an instantaneous increase of 25% in the value of ~~the~~ each material foreign currency against the local currency, where CRE is defined as:

*CRE = Total Assets x (Percentage of assets exposed to currency C – Percentage of liabilities exposed to currency C)*

4. The capital requirement for the risk of a decrease in the value of the foreign currency against the local currency shall be equal to the loss in the ~~basic-own-funds~~ Currency Risk Exposure (CRE) in the local currency that would result from an instantaneous decrease of 25% in the value of ~~the~~ each material foreign currency against the local currency, where the CRE is defined as per Article 172 (3). ...”

### Currency risk and the Solvency II Directive: A comparison of the QIS5 approach and the CEA proposal

Relevant provisions are discussed below.

*Recital 64 – “in order to promote good risk management and align regulatory capital with industry practices, the Solvency Capital Requirement should be determined as the economic capital to be held by ....undertakings in order to ensure that ruin occurs no more often than once in every 200 cases or, alternatively, that those undertakings will still be in a position, with probability of at least 99.5% to meet their obligations to policyholders and beneficiaries over the following 12 months”.*

- QIS5 approach – does not promote good risk management and especially does not protect the policyholder to the desired confidence level. It incentivises undertakings to hold surplus assets in domestic currency, whereas it is good currency risk management to hold assets in the same currency as that in which business is conducted. The regulatory capital approach that it enforces is directly opposite to that of most undertakings carrying on international business, which hold assets in foreign currencies to match the liabilities that may arise. Hence, regulatory capital calculations are not aligned to industry best practices.
- CEA proposal – promotes good risk management and aligns regulatory capital with industry practices. It ensures that an appropriate risk capital charge is calculated in proportion to the degree of matching in the total asset requirements of an undertaking. A high degree of matching implies a low estimate of currency risk and also a low currency risk charge (and vice versa).

*Article 101 – “... 3. [The Solvency Capital Requirement] shall correspond to the Value-at-Risk of the basic own funds of an insurance or reinsurance undertaking subject to a confidence level of 99.5% over a one-year period ...”*

- QIS5 approach – does not ensure that there are adequate funds to cover policyholder obligations over the following 12 months with a 99.5% confidence level. An undertaking may have significant exposure in a non-domestic currency, yet is encouraged to hold all its capital in domestic currency. The QIS5 approach does not impose a capital charge to reflect the currency risk arising from the undertaking’s investment strategy. There is a risk that an unfavourable currency movement, possibly coupled with a rise in insurance liabilities, means that there are insufficient assets to cover policyholder obligations.
- CEA proposal - exactly assesses the structural mismatch between actual assets held and the estimated asset requirement (in 12 months’ time) from a currency perspective.

The SCR estimates the 99.5% point of the distributions of own funds required to ensure that adequate assets will be available in 12 months, to meet the estimated technical provisions at that time. From a currency risk perspective, this represents any additional own funds that would be required at the valuation date to cover the mismatching of the total assets held (at the valuation date) and the estimated obligations that will need to be met in 12 months’ time (i.e. the current best estimate PLUS the additional capital requirements).

*Article 105 – “The market risk...shall reflect the risk arising from the level or volatility of market prices...which have an impact upon the value of assets and liabilities of the undertaking. It shall properly reflect the structural mismatch between assets and liabilities....it shall be calculated....as the capital requirements for at least...*

*... 5. (e) the sensitivity of the value of assets, liabilities and financial instruments to the level or in the volatility of currency exchange rates (currency risk) ...”*

- QIS5 proposal – does not aim to match capital.
- CEA proposal – exactly assesses the impact of currency mismatching on the total assets held and the estimated liabilities over the following 12 month period as required by the directive.

*Article 132 – "... 2. All assets, in particular those covering the Minimum Capital Requirement and the Solvency Capital Requirement, shall be invested in such a manner as to ensure the security, quality, liquidity and profitability of the portfolio as a whole. In addition the localisation of those assets shall be such as to ensure their availability."*

- QIS5 proposal – introduces a counter-intuitive incentive that is fundamentally at odds with the "prudent person principle". In particular it actively discourages the localisation of assets, by incentivising the holding of surpluses in domestic currency, which does not ensure asset availability when foreign currency liabilities arise.
- CEA proposal – is consistent with the prudent person principle and with Solvency II's approach to technical provisions. The prudent person principle (and good risk management) requires an undertaking to hold its capital in line with its exposures/liabilities, to minimise the risk associated with converting capital to meet liabilities in a stressed scenario.

Splits of technical provisions and capital by currency are, like all insurance liabilities, estimates. This should not deter efforts to match assets to these estimates, for technical provisions and capital.

## Examples of the application of the CEA proposal

### Example 1 - Undertaking aims to split NAV with regard to liabilities

Net Asset Value approach (QIS5)			
All figures shown in Euros, the domestic currency.			
	Pound Sterling	Euro	Total entity
Assets	10000	9000	19000
Liabilities	<u>5000</u>	<u>5000</u>	- 10000
Net Asset Value	5000	4000	
Currency risk charge	1250	0	<b>1250</b>
Approach based on CRE (our proposal)			
	Pound sterling	Euro	Total entity
Assets	10000	9000	19000
Liabilities	<u>5000</u>	<u>5000</u>	- 10000
Net Asset Value	5000	4000	
Percent of assets in currency	52.6%	47.4%	
Percent of liabilities in currency	50.0%	50.0%	
Target Asset Currency Split <sup>1</sup>	9500	9500	
Currency risk charge	125	0	<b>125</b>

<sup>1</sup> "Target Asset Currency Split" is equal to the total assets allocated in proportion to the liabilities

Under QIS5 there is an excessive currency risk charge, driven by a charge on all the Sterling held within the net asset value.

However, under our proposal, there is a more representative currency risk charge, reflecting the slight over weighting of net asset value to Sterling. The charge is more reflective of the underlying situation.

Example 2 - Undertaking holds entire NAV in domestic currency

Net Asset Value approach (QIS5)			
All figures shown in Euros, the domestic currency.			
	Pound Sterling	Euro	Total entity
Assets	5000	14000	19000
Liabilities	<u>5000</u>	<u>5000</u>	- 10000
Net Asset Value	0	9000	
Currency risk charge	0	0	0
Approach based on CRE (our proposal)			
	Pound sterling	Euro	Total entity
Assets	5000	14000	19000
Liabilities	<u>5000</u>	<u>5000</u>	- 10000
Net Asset Value	0	9000	
Percent of assets in currency	26.3%	73.7%	
Percent of liabilities in currency	50.0%	50.0%	
Target Asset Currency Split <sup>1</sup>	9500	9500	
Currency risk charge	1125	0	1125

<sup>1</sup> "Target Asset Currency Split" is equal to the total assets allocated in proportion to the liabilities

In the second example the undertaking has no net asset value in Sterling (its non-domestic currency). As all surplus is held in EUR (the domestic currency) this results in a zero currency charge under the approach for QIS5.

However, there should be a charge for this due to the lack of matching of NAV to exposure in each currency of the liabilities.

Our approach gives a charge for this reflective of risk arising due to the mismatch.