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Project	<b>Insurance contracts</b>
Topic	<b>Discounting</b>

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### **Purpose of this paper**

1. Both boards previously decided tentatively that the measurement approach for insurance contracts should include the discounting of (probability-weighted) future cash flows and that the discount rate should be updated each reporting period.
2. This paper discusses the objective of the discount rate for the rights and obligations from insurance contracts (because the net combination of those rights and obligations typically result in a liability throughout the life of the contract, we refer to insurance liabilities in this paper). It also gives an overview on relevant characteristics of insurance contracts and presents high-level guidance on how to determine the discount rate for insurance liabilities.
3. Even though both boards have discussed discounting conceptually, there has not been a joint discussion on the objective of the discount rate and on guidance on it. In September 2009 the IASB decided tentatively on both issues and is asked, in this paper, to affirm its previous tentative decisions.

### **Summary of the staff recommendations**

4. Some staff members recommend giving the discount rate the objective to adjust estimated (probability-weighted) future cash flows for the time value of money in a way that captures the characteristics of the liability. Those characteristics are not best reflected in a discount rate based on expected returns on assets

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This paper has been prepared by the technical staff of the FASB and the IASCF for discussion at a public meeting of the FASB or the IASB.

The views expressed in this paper are those of the staff preparing the paper. They do not purport to represent the views of any individual members of the FASB or the IASB.

Comments made in relation to the application of U.S. GAAP or IFRSs do not purport to be acceptable or unacceptable application of U.S. GAAP or IFRSs.

The tentative decisions made by the FASB or the IASB at public meetings are reported in FASB *Action Alert* or in IASB *Update*. Official pronouncements of the FASB or the IASB are published only after each board has completed its full due process, including appropriate public consultation and formal voting procedures.

backing those liabilities (unless those asset returns affect the cash flows to policyholders).

5. Furthermore, these staff members recommend acknowledging liquidity as one of the relevant characteristics of an insurance liability that should be reflected in the discount rate.
6. Other staff members argue that for comparability reasons and to be consistent with the accounting for pensions, a discount rate described as high-grade corporate debt rate should be required for non-participating insurance contracts.
7. The staff recommends that the measurement of participating contracts should consider the fact that the amount, timing and certainty of the insurance contract's cash flows (partially) depend on performance of specific assets.
8. The staff recommends not to give detailed guidance on how to determine the discount rate in practice.

### **Structure of the paper**

9. The rest of this paper is divided into the following sections:
  - (a) Objective of the discount rate (paragraphs 12 to 18)
  - (b) Characteristics of the discount rate (paragraphs 19 to 37)
    - (i) Day one losses (paragraphs 22 to 27)
    - (ii) A simple example (paragraphs 28 to 29)
    - (iii) A slightly more realistic example (paragraphs 30 to 31)
    - (iv) Calculating a liquidity premium (paragraphs 32 to 37)
  - (c) Prescribing a specific observable market rate (paragraphs 38 to 42)
  - (d) Discount rate for participating contracts (paragraphs 43 to 47)
  - (e) Guidance for determining the discount rate (paragraphs 48 to 50)
  - (f) Questions for the boards

- (g) Appendix: Extracts from CEIOPS Task Force on the Illiquidity Premium Report (March 2010)
10. This paper does not address whether claims liabilities arising from non-life contracts could be measured by using undiscounted cash flows (with no margin). The IASB has tentatively decided not to permit such an approach. The FASB will discuss this issue in a future meeting.
11. The model tentatively adopted by the IASB includes a separate building block for the risk adjustment. This paper does not discuss whether it would ever be appropriate to implement such a risk adjustment by adjusting the discount rate. Whenever this paper refers to discount rates, it refers to discount rates that do not include such a risk adjustment.

### **Objective of the discount rate**

12. Some existing accounting models use asset-based discount rates, for example the accounting model for long-duration insurance contracts in the *Financial Services – Insurance Topic (944)* of the FASB Accounting Standards Codification, previously in FAS 60 *Accounting and Reporting by Insurance Enterprises*.
13. Asset-based rates are higher than (credit) risk-free interest rates, because they include a credit spread on top of the risk-free rate. We have been informed that some insurers price their contracts using asset-based rates, others price some or all contracts on a basis that assumes the assets backing the contracts will generate no more than the returns on risk-free assets.
14. However, the Discussion Paper *Preliminary Views on Insurance Contracts (DP)* proposed that the discount rate should reflect the characteristics of the liability and not the characteristics of the assets backing that liability. Most respondents to the DP agreed with this proposal.
15. Nevertheless, some respondents argued that the economics of the insurance business are best reflected when using discount rates based on expected asset returns: either based on assets actually held or an average return, such as high-

quality corporate bond rates. They believe that such rates (ideally the same as used for the pricing of the contract) would:

- (a) prevent large losses at inception for some contracts that are expected to be profitable.
  - (b) avoid the volatility that would arise from subsequent measurements, when asset spreads change and those changes are only reflected in the measurement of the assets but not in the measurement of liabilities.
16. As noted above, the DP expressed the view that the discount rate should reflect the characteristics of the liability, not those of the assets backing the liability. That view was based on the reasoning that cash flows from assets backing an insurance liability are irrelevant for a decision-useful measurement of that liability (unless the cash flows from those assets affect the cash flows arising from that liability). The staff believes that reasoning is still valid.
17. The IASB followed this view in its September 2009 meeting and decided tentatively that for non-participating contracts the discount rate should reflect the characteristics of the liability. The FASB has not yet discussed the objective of the discount rate.
18. The staff recommends to set the objective for the discount rate of the rights and obligations from insurance contracts that the discount rate should reflect the characteristics of the insurance contract. It should not capture characteristics of assets actually held to back the insurance liability, unless the liability does share those characteristics.

### **Characteristics of the discount rate**

19. In the previous section the staff argued that the discount rate should reflect the characteristics of the insurance liability. This section explains what the characteristics of the liability could be and how they are reflected in features of a discount rate.

20. Besides basic characteristics of an insurance liability, such as specified timing/duration and currency, which can be easily reflected in a discount rate, the liability might have additional characteristics, such as non-performance risk as described in paragraph 21 or liquidity as described in paragraphs 24 and the following, that need to be taken into account when determining the discount rate.
21. The boards have decided tentatively that the discount rate should not reflect one particular characteristic of an insurance liability: changes in the risk of non-performance by the insurer. The most practical way to achieve this would be to exclude that non-performance risk from the discount rate entirely, both at inception and subsequently. If this is done, if the risk of non-performance by the insurer affects the pricing of the contract, its effect would be included implicitly in the residual or composite margin at inception of the contract (unless a loss arises at inception).

***Day one losses***

22. As discussed earlier, some respondents to the DP believed that a discount rate for insurance liabilities would not lead to decision useful information if the rate does not consider the return on actual assets held to back those liabilities. Some insurers price some or all insurance contracts using an expected return on assets that exceeds the risk-free rate. Those respondents argued that if (for example) risk-free rates were to be used, significant accounting losses may arise at the inception for some types of insurance contracts and those losses are not economic losses but merely reflect an imperfection in the accounting model. Some field test respondents came to the same conclusion.
23. Those respondents believe that asset-based rates better reflect the economics behind an insurance contract than risk-free rates. An asset-based rate would in their view reflect the relationship, in terms of business model, between the expected insurance contracts payments and the expected cash flows from investments.

24. The staff believes that a loss that is not an economic loss could arise at inception in some cases if an illiquid (or non-puttable) liability is discounted using the discount rate for a highly-liquid instrument. Consider for example two bank deposits, both with a fixed term, but one without a demand feature and another with a demand feature. Often, the bank deposit without the demand feature would provide the depositor with a higher return to compensate the depositor for the inability to cash in the deposit. That higher return clearly is a characteristic of the bank deposit without a demand feature (like the lower return would be a characteristic of the bank deposit with a demand feature). Thus, the rate applicable to a deposit with a demand feature would not be an appropriate rate to discount the cash flows from a deposit without that feature.
25. Arguably, this principle also applies to insurance contracts. Consider, for example long-term annuity business. Annuity contracts in the payout phase generally do not permit the policyholder to withdraw cash, ie they cannot lead to early payments, and are therefore relatively illiquid. Typically, the policyholder has little or no ability to sell its contracts (claims) to others. (Recently, settlement and viatical markets have emerged in some markets, but these markets do not have the depth and liquidity of major government bond markets.) There are two indications that the settlement market is not deep or liquid. Firstly, the valuation of insurance contracts by settlement firms can differ significantly. And secondly, the fact that most settlement firms purchase claims only if they match specific criteria (expected short life expectancy). In some cases, the policyholder cannot cash the contract in early. In many other cases, the policyholder has a contractual right to cash in early, but would suffer significant contractual deductions or other disadvantages for doing so.
26. As a result of the policyholder's near inability to sell, insurers issuing contracts like long-term annuities can invest in relatively illiquid assets with a higher return than that achievable with more liquid assets. As a result, those insurers are often willing to price such contracts in a way that provides a higher return to the policyholder through lower premium rates or higher credited rates than for contracts in which early surrender is possible; if such liabilities are measured

using a discount rate that reflects returns on highly liquid government bonds, an accounting loss may arise at inception.

27. A highly liquid asset (eg a government bond traded in an active market) contains a feature for the holder (the ability to sell or cash in the asset at any time without any substantial discounts) that is not present in a liability that is not highly liquid. Accordingly, in determining the discount rate for that liability, it would be necessary, in principle, to adjust the observed market rate on highly-liquid assets for illiquidity of the liability. This is illustrated in the following two examples.

***A simple example***

28. The following example illustrates the notions just discussed:
- (a) An insurer prices an annuity liability using an expected asset return of 7%, when the return on highly liquid risk-free assets is 5%.
  - (b) The insurer estimates that the difference of 2% between the expected asset return and the return on highly liquid risk-free assets arises from the following components:
    - (i) premium for illiquidity: 0.8%. This is a premium that investors would require for holding assets that are not readily transferable. (Put differently, the holder of the highly liquid assets is willing to pay a premium of 0.8% for the implicit option to sell those assets in the market.)
    - (ii) premium for bearing the risk of variability in the cash flows from the assets (eg default risk): 1.2%
  - (c) The terms of the annuity do not permit the policyholder to surrender the contract before maturity. Thus, the insurer can never be required to pay cash early.
  - (d) Policyholders may live longer (or indeed shorter) than expected. This example assumes that the required premium for bearing this risk is

incorporated in a separate risk margin that does not affect the discount rate.

- (e) This example assumes that the risk of non-performance by the insurer is negligible.
29. Based on this example we review the suitability of different discount rates:
- (a) Expected return on the actual assets (7%): This rate includes a risk premium for bearing risks associated with the assets. Because those risks do not affect the liability (the asset development and the asset risk do not impact the risks or the development of the insurance contract), they are not relevant to the measurement of the liability.
  - (b) Return on highly liquid risk-free assets (5%): This rate includes an implicit deduction for the amount that the holder of such assets is willing to pay for the implicit option to sell them readily in the market. Because the liability does not contain that option, arguably it is not relevant to the measurement of the liability.
  - (c) Return on a hypothetical asset that does not expose the holder to the risk of variability in the cash flows and does not give the holder an implicit option to sell it (5.8% = 5% + 0.8%). Arguably, this hypothetical asset has exactly the same characteristics as the liability in this example. On that basis, the same discount rate should be used for both. However, because it is a hypothetical asset, it is necessary to estimate what return investors would require for such an asset if it did exist. In the example, there are two obvious ways to estimate that return (both approaches ought to lead conceptually to the same answer; although the outcome in practice might not be exactly the same):
    - (i) Start with the observed returns on highly liquid risk-free assets (5% in the example) and adjust upwards to reflect the illiquidity of the liability (0.8% in the example), giving a discount rate of 5.8%.
    - (ii) Start with the expected return required by market participants from assets (for example high-grade, non-



callable corporate bonds) that more closely reflect the liquidity characteristics of the liability (say 7% in the example) and adjust downwards to exclude premiums for characteristics of the assets that are not present in the liability (1.2% in the example), giving a discount rate of 5.8%.

***A slightly more realistic example***

30. The above example assumed that the terms of the contract were such that the insurer could never in any circumstance be required to pay cash early to policyholders. That assumption kept the example simple, but not many real contracts are that straightforward, other than some annuities.
31. Consider now a contract in which the policyholder has some ability to cash in the contract before maturity, although the expectation, reinforced by the design of the contract, is that most policyholders would not willingly do this unless their circumstances have changed. Similarly, some claims may occur earlier than expected. All other facts are the same as in the original example. The insurer still needs some liquidity to meet unexpected claims or lapses, so part of the liquidity premium is still relevant. Suppose the insurer estimates that the appropriate premium for the illiquidity of the liability is 0.5%. In other words, of the premium for illiquidity of 0.8% in the original example, 0.5% is relevant to the measurement of the liability and the remaining 0.3% is not relevant. This suggests that the appropriate discount rate is 5.5% (5% + 0.5%).

***Calculating a liquidity premium***

32. In summary, one can conclude that at least some insurance contracts are illiquid to the holder and that the discount rate should ideally reflect the liquidity needs generated by the insurance liability. The question then remains how to measure the liquidity premium or how to adjust the discount rate for the insurance liability to reflect liquidity characteristics of the liability. For the following

discussion we used input from preparers of financial statements, academics and regulators. We would like to draw attention to a recently published report<sup>1</sup> by the Committee of European Insurance and Occupational Pensions Supervisors' (CEIOPS) task force on the illiquidity premium on various models and their possible application for the measurement of insurance contracts. An extract from that report that summarises the task force's findings and recommendations is included in the Appendix.

33. Academic research indicates that (credit) spreads (spreads on top of a risk-free rate), stem not only from credit risk – the components are: compensation for expected default, compensation for the uncertainty about the probability of default and non-credit risk factors, such as transaction cost related components, such as liquidity, taxes and regulation. There are structural models (based on Merton's model) decomposing any given market rate and, besides identifying and measuring the other components, directly measuring a liquidity premium. Research in this field shows that the spread on top of the risk free rate for less risky instruments can be mostly explained by credit risk. This indicates that better credit quality implies a higher liquidity. This also means that (credit) risk-free instruments can be assumed to be more liquid.
34. The liquidity premium in interest rates tends to be radically higher in times of crisis. This was observable during the recent credit/liquidity crisis. Some research studies provide evidence that the observable spreads were to be allocated mostly to (il-)liquidity and less to credit risk. This may be used to prove that there is something like a liquidity premium and that (il-)liquidity is a characteristic of any instrument.
35. Empirical evidence shows that liquidity impacts asset pricing. A hypothetical portfolio of assets replicating the insurance contract, a so called replicating portfolio, that is used to measure an insurance contract would, therefore, need to take liquidity into account.

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<sup>1</sup> Committee of European Insurance and Occupational Pensions (CEIOPS) Task Force on the Illiquidity Premium (2010): Report. Ref. CEIOPS-SEC-34/10, 1 March 2010.

36. The staff wants to point out though that in practice the measurement of a liquidity premium is still controversial and complex. The staff also remarks that the research regarding measurement of liquidity in academia is more or less restricted to the liquidity of assets, which may or may not be an indicator for the measurement of liquidity of liabilities.
37. Some staff members recommend acknowledging liquidity as one of the characteristics of an insurance liability that, where relevant, should be considered in determining the discount rate for that liability. The other staff members would agree with the concept of liquidity, however, they favour a different approach to determining the discount rate (as discussed in paragraphs 38 and following).

### **Prescribing a specific observable market rate**

38. Some say that an approach based on the principle set out in the previous section might theoretically result in an appropriate discount rate, but would result in too much diversity in practice and could increase complexity and undermine comparability. They would therefore prefer an approach that prescribes a particular observable market rate or a set of observable market rates. Options are, for example:
- (a) high-quality corporate bonds (applied in for example IAS 19 *Employee benefits*). According to the basis for conclusions, the IASB's predecessor, the IASC, set that rate to reflect the time value of money, without considering the expected return on the plan assets and to avoid reflecting the entity's own credit rating (paragraph BC31).
  - (b) high-quality fixed-income debt instruments (applied in for example the *Compensation – Retirement Benefits Topic (715)* of the FASB Accounting Standards Codification, first introduced to US GAAP by FAS 87 *Employers' Accounting for Pensions* and FAS 106 *Employers' Accounting for Postretirement Benefits Other Than Pensions*.) The FASB chose that rate based on the relationship between rates inherent

in the prices of annuity contracts and rates available in investment markets because of the ability to reinvest future cash flows from the initial investment during the period until benefits are payable.

- (c) a risk-free rate, for example based on government bonds (applied in for example in the *Financial Services – Insurance Topic (944)* of the FASB Accounting Standards Codification, first introduced to US GAAP by FAS 163 *Accounting for Financial Guarantee Insurance Contracts—an interpretation of FASB Statement No. 60*). The FASB chose that rate based on cost-benefit considerations and because it is simple to observe and apply.
39. But others would argue that an approach based on a specific discount rate would be inconsistent with a principles based approach by eliminating judgement; any choice might be somewhat arbitrary and could result in a discount rate that does not fully reflect the nature of the liability. For example, the required return on a high-quality corporate bond rate includes the premium for bearing the risk of unexpected defaults by the issuer of that bond or of unexpected changes in the issuer's credit rating. That premium, although perhaps sometimes small for a high-quality issuer, may not reflect the characteristics of the insurance liability being measured.
40. Considering the arguments in paragraph 39, some staff members recommend that the objective of the discount rate should be to adjust future (probability-weighted) cash flows for the time value of money and at the same time capture the characteristics of the liability (and not any characteristics of assets backing the liability that the liability does not share).
41. Based on the arguments in paragraph 38, other staff members recommend using a specific observable market rate - a high-grade corporate debt rate. They select that rate for comparability reasons and to be consistent with the measurement of pension liabilities. These staff members also believe that separating from an observed market rate the characteristics related to a liability might be subjective and lead to arbitrary results and could lead to a practice whereby the discount rate simply would be some imprecisely specified amount less than the asset-

based rate. These staff members also question the ability to audit a discount rate based on the characteristics of a liability.

42. Finally, these staff members recommend a specific return on asset rate (high-grade corporate bond rate) to prevent the use of overly optimistic assumptions about how much of the expected return on assets is attributable to compensation for bearing illiquidity factors.

### **Discount rate for participating contracts**

43. The discussion earlier in this paper focused on non-participating contracts. We now turn to participating contracts. Perhaps the simplest way to think about estimating the discount rate for a participating insurance contract is to consider the notion of a replicating portfolio. A replicating portfolio is a portfolio of assets providing cash flows that exactly match the cash flows from the liability in all scenarios. If such a portfolio exists, the appropriate discount rate(s) for the replicating portfolio would also be the appropriate discount rate(s) for the liability.
44. There are three important things to note about a replicating portfolio.
  - (a) The notion of a replicating portfolio does not depend on whether the insurer actually holds the portfolio. The notion is applicable even if the insurer does not actually hold it.
  - (b) A portfolio is a replicating portfolio only if the cash flows match in **all** scenarios. Matching the expected (probability-weighted) cash flows is not sufficient.
  - (c) Some components of participating and unit-linked insurance contracts could actually be fully reflected in an existing replicating portfolio. It may be possible to apply the notion of a replicating portfolio to some of the cash flows from a contract and then apply other techniques to the remaining cash flows.

45. If a replicating portfolio actually exists and can be measured directly, there is no need to use a building block approach for the liabilities replicated by that portfolio. The measurements of the replicating portfolio and the replicated assets are identical.
46. The staff members supporting the objective that the discount rate should reflect the characteristics of the liability think that this objective is also applicable for participating and unit-linked contracts. Some (or all) of the cash flows of these types of contracts depend on the performance of the assets backing those liabilities. The discount rate should reflect that fact. This does not simply mean the use of an asset-based discount rate. Rather, the measurement of participating contracts will consider the fact that the amount, timing and certainty of the insurance contract's cash flows (partially) depend on performance of specific assets.
47. As noted in paragraphs 41 to 42, some staff members support a high-grade corporate bond rate as discount rate for non-participating contracts. Nevertheless, for participating contracts, those staff members also agree with the conclusion in paragraph 46 (that the measurement for participating contracts should consider the fact that the amount, timing and certainty of the insurance contract's cash flows (partially) depend on the performance of specific assets).

### **Guidance for determining the discount rate**

48. The staff thinks that estimating a discount rate for a debt instrument is essentially the same task as estimating the fair value of that instrument. Moreover, the boards have decided tentatively that the measurement of financial market inputs to the insurance contract measurements, such as discount rates, should be consistent with the observable market information (excluding non-performance risk).
49. Accordingly, the staff proposes to use a general cross-reference to the boards' guidance on fair value measurements as a means of providing guidance on how to estimate discount rates. (To avoid introducing irrelevant factors it would be

necessary to specify that the instrument in question is one that carries no default risk and that has the same put or call features, if any, as the insurance liability being measured and the same tax characteristics). For US GAAP, that guidance is in the *Fair Value Measurements and Disclosures Topic* (820) of the FASB Accounting Standards Codification, introduced to US GAAP by FAS 157 *Fair Value Measurements*. For IFRSs, it is in IAS 39 *Financial Instruments: Recognition and Measurement*, which is expected to be replaced in 2010 by an IFRS resulting from the exposure draft *Fair Value Measurement*.

50. For example, suppose the cash flows for a contract include a fixed amount of 100 currency units (CU) due in 1 year. To discount those cash flows, the insurer would use the discount rate for a one year zero coupon bond in the same currency that carries no default risk and has the same put or call features, if any, as the insurance liability being measured and the same tax characteristics. The insurer would use the fair value measurement guidance to determine the appropriate discount rate for that bond and hence its fair value.

## Questions for the boards

### Question 1 for the boards

The staff worked out two approaches how to determine a discount rate for non-participating insurance contracts:

(a) giving the discount rate the objective to adjust estimated (probability-weighted) future cash flows for the time value of money in a way that captures the characteristics of the rights and obligations from the insurance contract. It should not capture characteristics of assets actually held to back the insurance liability, unless the liability does share those characteristics. See paragraph 18.

(b) requiring to use a high-grade corporate debt rate. See paragraph 41 to 42

Which approach do you want to take?

### Question 2 for the boards

If you decided to take the approach of giving the objective to reflect the characteristics of the insurance contract (Question 1, option (a)), do you:

agree to acknowledge liquidity as one of the characteristics of an insurance liability that, where relevant, should be considered in determining the discount rate for that liability? See paragraph 37.

### Question 3 for the boards

Do you agree with the staff recommendation in paragraphs 46 to 47 that the measurement of participating contracts should consider the fact that the amount, timing and certainty of the insurance contract's cash flows (partially) depend on performance of specific assets?

### Question 4 for the boards

Do you agree with (IASB: affirm) the staff's recommendation in paragraph 49 not to provide specific guidance on how to estimate a discount rate for insurance liabilities, beyond providing a cross-reference to the guidance on fair value measurements?



**Appendix: Extracts from CEIOPS Task Force on the Illiquidity Premium Report (March 2010)**

A1. [...] The **insurance industry** [ie task force members from the insurance industry] concludes [...] that the addition of a liquidity premium for the valuation of illiquid liabilities is justified, but adds that such an addition would only occur to a significant extent during the infrequent periods where a similar premium can be identified on the asset side. While it is the case that many insurance liabilities are illiquid on a permanent basis, the industry accepts that this does not result in a permanent level of a significant liquidity premium. In periods where the additional price asked by markets in compensation for illiquidity is low on the asset side, it seems logical that a similar low credit for illiquidity should be granted on the liabilities side of the balance sheet as well.

**Conclusions:**

As a conclusion of its work on decomposition of spreads of corporate bonds versus government bonds and swap rates, the insurance industry concludes that:

- (a) In normal circumstances the liquidity premium on assets is small and has thus no significant influence on the valuation of insurance liabilities.
- (b) During periods of stressed liquidity the liquidity premium on assets has a positive value, but its application to insurance liabilities aims only to eliminate an valuation mismatch between the valuation of assets and liabilities.
- (c) Although it is not its main objective, the liquidity premium has an anticyclical effect and allows a harmonized treatment of distressed market conditions. [...]

A2. [...] A minority of task force members, representing a majority of **CEIOPS Task Force members industry** [ie task force members from European insurance regulators], consider that there is a lack of theoretically sound, reliable and appropriately back-tested methods which could be used in practice to

include a liquidity premium in the discount rate of cash flows arising from insurance liabilities based on the degree of liquidity of these liabilities consistently with the principles set out below.

Where an allowance for a “liquidity premium” in the determination of risk free interest rates is made, this should be also compatible with the criteria of absence of credit risk, realism, reliability, high liquidity and absence of technical bias as stated in CEIOPS advice on the risk free interest rate term structure and the principles-based requirements laid out below.

It is proposed that the following 9 principles should apply to the use of liquidity premiums.

#1. The risk free reference rate applicable to the valuation of a liability should be the sum of a basic risk free reference rate and a liquidity premium depending on the nature of the liability.

#2. The liquidity premium should be independent of the investment strategy adopted by the company.

#3. The liquidity premium applicable to a liability should not exceed the extra return which can be earned by the insurer by holding illiquid assets free of credit risk, available in the financial markets and matching the cash flows of the liability.

#4. The liquidity premium applicable to a liability should depend on the nature of the liabilities having regard to the currency, the predictability of their cash flows (e.g. the ability to cash back/withdraw/surrender) and the resilience to forced sales of illiquid assets covering technical liabilities (e.g. where any loss of liquidity premium can be transferred to policyholders).

#5. The liquidity premium should be calculated and published by a central EU institution with the same frequency and according to the same procedures as the basic risk free interest rate.

#6. The liquidity premium should be assessed and quantified by reliable methods based on objective market data from the relevant financial markets and consistent with solvency valuation methods.

#7. No liquidity premium should be applied to liabilities in the absence of a corresponding liquidity premium evidenced in the valuation of assets.

#8. The design and calibration of the SCR [Solvency Capital Requirement] standard formula should ensure that its calculation is consistent with a recognition of a liquidity premium in the valuation of liabilities and compatible with the set Solvency II target criteria for solvency assessment. The calculation of the SCR with internal models should also include an appropriate recognition of the risk arising from the liquidity premium in order to guarantee the targeted confidence level.

#9. The undertaking should have in place risk management systems and investment policy provisions specifically oriented to the risks inherent to the application of a liquidity premium, including liquidity risks. [...]