Draft Technical Specifications: QIS of EIOPA's Advice on the Review of the IORP Directive: Consultation Paper

Responses to Questions to stakeholders

Nematrian Limited, 31 July 2012

Q1. Do stakeholders agree with the general set-up of the QIS exercise as put forward in the Introduction (Chapter 1)? What improvements do stakeholders suggest?

We have had the opportunity to contribute to responses that other organisations are making to this consultation paper. Our own response is therefore limited to one particular aspect of the QIS, namely how sponsor support and pension protection schemes might more practically be incorporated within the proposed HBS. For convenience all of our response is included as an answer to Q5 even though parts of it might also be relevant when answering other questions.

Q5. Do stakeholders believe that the draft technical specifications provide enough guidance on how to set up and value the holistic balance sheet as discussed in Chapter 2? If not, which parts could be improved upon and in what way?

We think that the proposed methods for incorporating sponsor support and for incorporating pension protection schemes in the HBS could be significantly simplified without materially altering their effectiveness for this QIS.

1. Introductory comments

It is first worth noting that if there is an explicit contractual right to sponsor support then the overall value of the (accrued) pension promise to the member is in general underpinned by two security 'mechanisms', although only one is referred to as such in the technical specification. The first such mechanism is the presence of some tangible assets within the IORP. The second is the potential recourse the IORP (and/or its members) has to future contributions from the sponsor.

The asset side of the proposed HBS computation in effect assumes that the 'primary' security members have is the presence of tangible assets (with their presence not being described as a security 'mechanism' as such). The asset side is then expressed as the (market) value of the tangible assets held by the IORP plus an addition corresponding to the value of the extra benefit security arising from the sponsor support.

However, we could equally express the computation with the order of these two mechanisms switched around. The asset side of the HBS would then in this second approach be expressed as a value placed on the promise being provided by the sponsor via the IORP plus an addition corresponding to the extra security being provided because this promise is being collateralised by the presence of assets ring-fenced within the IORP. The first approach may be closer to how IORP balance sheets are usually currently formulated but the two are formally equivalent in an economic sense. Arguably, the first approach is more natural for a 'pure' DC arrangement and the second for a 'pure' DB arrangement.

Subdividing the asset side of the HBS using the second (i.e. 'pure' DB) approach rather than the first (i.e. 'pure' DC) approach:

(a) Makes it easier to identify how in principle to structure the HBS computation

(b) Makes it simpler to identify which inputs might have the most impact on the end answers.

(c) Highlights a presentational challenge that will require some refinement of the HBS approach being proposed by EIOPA if we want the answers to be meaningful.

In the next few sections we describe each of these points in turn and also comment on the input parameters being proposed by EIOPA.

2. Decomposing the HBS into constituent parts

Using the second (i.e. 'pure' DB) formulation as above we see that if the IORP has access to sponsor support then the overall economic value of the pension promise to members can be decomposed into three parts:

(1) The value of the (accrued) pension promise if it was 'certain' to be honoured.

(2) Minus a value representing the fact that the sponsor is not certain to honour the promise, which (if expressed as a proportion of (1)) will depend on the likelihood of default, the magnitude of the accrued liabilities when the sponsor defaults and any recovery that might be received from the sponsor if it defaults.

(3) Plus an uplift partially offsetting (2) because if the sponsor defaults then there will be some collateral available (i.e. some tangible assets held by the IORP) that will limit the loss that would otherwise arise in the event of sponsor default.

There are several possible ways of valuing (1). If we assume that the liability cash flows are known then the (market consistent) value of (1) might be determined by applying appropriate (risk-free) discount rates to these cash flows.

When the liability cash flows are not certain then a market consistent approach would seek to identify some way in which the liabilities could be replicated by assets whose market prices could be reliably determined. If this is not possible then the methodology would typically revert to a best estimate plus risk margin type approach e.g. as per what is currently proposed in HBS.3.2 and HBS.5.2.

In this context, we note that in some member states, e.g. UK, part of the role of the IORP actuary is to estimate the discontinuance position of the IORP, usually understood to refer to the probable buy-out cost were the IORP's liabilities transferred to an insurer. We think that these estimates if available and sufficiently reliable should replace the best estimate + risk margin computation in HBS3.2 and HBS 5.2, on the grounds that such a value can be viewed as corresponding to the market consistent value of the (accrued wind-up) liabilities. If EIOPA do not consider these values to be sufficiently reliable to replace the proposed best estimate + risk margin approach then we would recommend that EIOPA analyse how these sorts of discontinuance values typically compare with the proposed best estimate + risk margin approach. If there is a significant difference then the rationale for using a best estimate plus risk margin computation may be weakened. In the comments below we call the value of the liabilities calculated either as above or using a best estimate plus risk margin approach as the "accrued liability valuation" irrespective of how EIOPA wishes to respond to this point.

In line with traditional credit risk pricing techniques, the (market consistent) value of (2) and (3) combined can be determined by determining for each future year an expected probability of default (PD), an expected loss given default before allowing for possible recoveries (LGD) and an expected recovery rate (R) and then summing PD x LGD x (1-R) for each future year (the probabilities etc. being selected in a market consistent manner).

In such a computation the value of (2) and (3) combined can be expected to be negative, with (3) partially offsetting (2) because the presence of collateral in the form of tangible assets within the IORP should reduce the LGD. In such a computation we may calculate the depletion, *D*, in the overall value of the pension promise to members relative to its value if it were provided by an entity certain to honour the promise. *D* = ((1) – (2) + (3)) / (1). In broad terms *D* might be viewed as corresponding to the 'security' of the pension promise (expressed as a percentage), although see comments on SCR in section 6 below.

3. Identifying the factors to which the HBS is most sensitive

Ignoring other security mechanisms, *D* will depend on the following factors:

(i) How likely the sponsor is to default (i.e. the assumed PD).

(ii) How big the LGD before recoveries might be in the future.

(iii) How large might be any recoveries from the sponsor in the event of sponsor default.

(iv) The extent of interdependencies between the above.

Probabilities of default

The proposed PDs in HBS.6.15 range from 0.002% pa (AAA) to 4.175% pa (CCC or below or unrated), i.e. EIOPA appear to be expecting them to vary by 2000-fold across different types of sponsor. This is a very large range relative to the probable ranges of all other potential drivers likely to influence the value of *D*.

However, there are two weaknesses with the proposed PDs in HBS.6.15:

(i) A fully market consistent approach of the sort EIOPA appears to want to adopt would aim where possible to determine PDs (in combination with recovery rates) by reference to current market observables, e.g. current bond spreads or CDS premium rates. This would result in PDs that change through time and do not necessarily correspond with the current credit rating ascribed to the sponsor. In contrast, EIOPA's current proposals involve static PDs assigned to different (current) credit ratings, presumably in part derived from historic data. We recommend that EIOPA explore whether it would be appropriate to incorporate greater market consistency in their selection of PDs or at least benchmark their proposals against PDs derived from such observables to the extent that this is practical. For example, even if rates for individual sponsors were for convenience to be derived from PDs of the sort currently proposed in the QIS, these could be scaled up or down so that at any given point in time on average they corresponded to then average observed credit spreads.

(ii) PDs for an individual sponsor do not typically stay unchanged through time. Even ignoring the point made in (i), the risk of default over the coming year for say a AAA rated credit may be small, but a currently AAA rated credit is cumulatively quite likely to be materially

downgraded over the lifetime of the IORP's liabilities and therefore its likelihood of defaulting is likely to rise materially through time. The appropriate long term average annual PD to ascribe to it may therefore be materially higher than its current year likelihood of default. The opposite effect applies to currently very poorly rated credits. Ratings-based credit risk models generally take this effect into account by including a *transition matrix* that specifies the likelihood of an entity currently in one rating category moving to another rating category over the coming year. If PDs are to be derived from credit ratings then we would recommend that such a refinement is incorporated in the computation.

Incorporating a transition matrix can reduce substantially the effective range of possible (time-averaged) PDs. Our preliminary analyses suggest that the original 2000-fold range might reduce to the order of a 20-fold range if a plausible transition matrix based on historic data was used, although the resulting range is still large relative to plausible ranges of most other potential factors influencing the value of *D*.

Magnitudes of future LGDs

Ignoring any interdependency between the PDs and the LGDs, we may note that in nearly all cases the PD x LGD computation will extend over a considerable timeframe, so particularly important will be the LGD some years into the future. Less important in general will be its size now, except to the extent that the current size of the LGD may influence its future size. In nearly all cases the cumulative value of PD x LGD over, say, 5 – 20 years from the valuation date will be much higher than the value of PD x LGD for just the coming year given almost all plausible ways in which the LGD might evolve.

Implicit, therefore, in any HBS that includes sponsor support will be some assumed trajectory through time in the LGD. It is the nature of this trajectory some years out, combined with the PDs, that will dominate the computation rather than the precise value now of the LGD. The trajectory is inherently uncertain as it depends on a wide range of management actions most of which will not be specified or specifiable in advance. It will therefore almost certainly be necessary to assume that it follows some sort of stylised behaviour if it is to be practical to compute a value for sponsor support in the HBS. One such stylised behaviour is specified in the QIS but it is in places difficult to follow or more complicated than we think is necessary. We would suggest consideration be given to the following simplifications:

(i) *Allowance for explicit extra short term contributions promised by the sponsor*: Arguably, these are more 'certain' to be paid to the IORP by the sponsor than other more general contributions. To the extent that these extra short-term contributions exceed those required to provide for additional benefits being accrued over the same timescale, and to the extent that they are sufficiently 'short-term' (perhaps within a time horizon specified by EIOPA) we would suggest that their impact is approximated by reducing the LGD at outset by their present value.

(ii) *Trajectory for LGD thereafter*: Some possible deterministic approaches are set out below:

(a) Perhaps the simplest approach is one in which contributions are set in a manner that results in $(L - A)/L$ being constant until all the liabilities are paid off where A is the amount of (tangible) assets available (now, adjusted as per (i)) and L is the accrued liability valuation (now).

Suppose now is $t = 0$, V_t is the present value (now) of the liability cash flows falling due in the year from $t-1$ to t (so V_1 is the present value of the liability cash flows in the coming year), $L_t = \sum_{x=t+1}^{n} V_t$ is the present value of liability cash flows falling due from t onwards, LGD_t is the loss given default at time t ignoring recoveries and T is the number of years over which $L_t > 0$. Then $L = L_0 = \sum_{i=1}^{T} V_t$. Suppose also that A_t is the amount of tangible assets assumed to be present at time t.

Then in this approach $LGD_t = max(A_t - L_t, 0)$ and A_t satisfies the following:

$$A_t = \frac{A}{L} \times L_t$$

(b) A more complicated although not necessarily more reliable approach involves separately determining the extra contributions needed for each future year's cash flow and assuming that these contributions are spread evenly in present value terms between now and when that cash flow becomes due. The same formula for LGD_t applies as per (a) except that A_t now satisfies the following:

$$A_t = A_{t-1} - V_t + \frac{max(L - A, 0)}{L} \sum_{x=t}^{T} \frac{V_x}{x} \quad \text{for } t > 0$$

(c) An alternative to (b) is to assume that the extra contributions needed for every single future year's liability cash flows are paid evenly in monetary terms between now and the average duration of the total liabilities. This requires an additional input, i, the discount rate used to spread present values evenly in monetary terms rather than in present value terms and also involves computing d, the average duration of the liabilities. This appears to be the deterministic simplification currently being proposed by EIOPA. However, it seems to be more complex than (b) as the LGD still depends on individual years' cash flows. The same formula for LGD_t applies as per (a) except that A_t now satisfies the following:

$$A_t = \begin{cases} A_{t-1} - V_t + \dfrac{C}{(1+i)^t}, & 1 \le t \le d \\ A_{t-1} - V_t, & x > d \end{cases}$$

where $d = \frac{1}{L}\sum_{t=1}^{T}(t - 1/2)V_t$ rounded up to the nearest higher integer, say, and

$$C = i\frac{(1+i)^d}{(1+i)^d - 1} max(L - A, 0)$$

Arguably there should be some constraints on the form of the sponsor support to allow any of the above approaches to be adopted. For example, there might need to be a reasonable expectation that the sponsor would make good deficits through time. If not, IORPs might for example be required to assume that the PV (now) of the LGD remains constant through time until the last cash flow is paid (rather than the LGD trending downwards as the cash flows fall due).

Recovery rate in the event that the sponsor defaults

These will in principle depend on the priority that the IORP has (versus other creditors) over any residual sponsor value in the event of sponsor default. Ratings-based credit risk models quite

commonly assume a similar or identical constant recovery rate, *R*, across multiple different entities (often 40% or 50%). This in the main seems to be what EIOPA is proposing here (the 50% referred to in HBS.6.17 seems to have been based on Solvency II QIS5 which in turn seems to have been based on rating agency historical data). However, the average recovery for an IORP may not be the same as for the types of creditors underlying the historic data on which EIOPA's assumptions seem to be based. We suggest either that the recovery rate assumptions adopted in this QIS are reviewed with this in mind or that EIOPA takes this factor into account when drawing conclusions from the results of the QIS.

Interdependencies between PD, LGD and R

In theory, the PDs, LGDs and Rs are not independent of each other. A particularly important issue here is that this dependency can be expected to vary according to how large the IORP is relative to its sponsor. In the extreme case where the sponsor is negligible in size relative to the IORP then the sponsor PD may be almost 100% correlated with the LGD being positive and R may be almost zero. In the other extreme case where the IORP is negligible in size relative to the sponsor then there may be relatively little correlation between sponsor PD, LGD and R (although probably not zero correlation as all three may be influenced by common underlying economic factors).

Even when the IORP is small relative to the sponsor, handling such dependencies in theory requires the LGD and PD trajectories to be jointly projected in a stochastic rather than a deterministic manner but this would considerably complicate the QIS. The underlying simulation technology and expertise is not currently widely available to IORP industry participants. Moreover, identifying appropriate assumptions to use in such simulations would still be challenging even if the underlying simulation technology and expertise was readily available. In practice, a deterministic approach perhaps with some compensating adjustment to PDs introduced by EIOPA is likely to be the most practical approach for this QIS.

More important, probably, is to handle the potential dependency on sponsor size (relative to IORP size). The approach currently being proposed by EIOPA tries to tackle this issue by identifying a maximum (prudent) available sponsor support value (derived primarily from historic balance sheet and P&L data) and in effect limiting the value that can be ascribed to sponsor support in the HBS to this maximum available sponsor support value.

Given the uncertainties involved and given the purpose of the QIS, tackling this issue by placing some maximum value on sponsor support seems reasonable to us although we think that identifying any formulaic way of determining this maximum value is inherently challenging. Whether the methodology currently proposed in this respect by EIOPA is likely to prove contentious is unclear to us. Reaction is likely to be driven strongly by any sponsors who think they may be materially discriminated against by the proposed methodology.

An impression that can be gained by reading the current QIS specification is that there is a complicated interaction between this and other aspects of the sponsor support valuation. We would suggest reordering the QIS to make the computation easier to follow and perhaps simpler. This involves having the PD x LGD computation as above specified first (including a primary focus on a suitable deterministic simplification) and then limiting the resulting value ascribed to sponsor support to a maximum available sponsor support value derived in some suitable fashion.

4. Presentational challenge arising with sponsor support within the HBS

The inclusion of sponsor support within a HBS introduces a presentational challenge. The main reason is that the total economic (and hence market consistent) value of the tangible assets plus sponsor support shown in the HBS, i.e. 2(1) – 2(2) + 2(3), can be expected in general to be less than the value of the accrued liabilities discounted using a risk-free yield curve, i.e. 2(1) in isolation. This is because benefits will in general be lower if the sponsor defaults. However, given the way in which the QIS is specified, the value placed on the liabilities will be 2(1). So, all other things being equal, the value of the assets in the HBS *including* the sponsor support will be *less* than the value of the liabilities in the HBS (if A < L) however well-resourced is the IORP.

This contrasts with a typical insurance company balance sheet which will in general have the total value of assets *greater* than the total value of the liabilities by at least the SCR if it is to be deemed adequately capitalised.

We would suggest addressing this issue in cases where there is a contractual right to sponsor support in the following manner. Added to the asset side of the HBS or deducted from the liability side would be an adjustment. This adjustment would equal the value of the accrued liabilities calculated assuming a zero likelihood of non-payment less the (lower) value of the same accrued liabilities but calculated assuming some specific non-zero likelihood of non-payment. The specified non-zero likelihood of non-payment used in this computation would be chosen to reflect an agreed view about how risky a pension promise being provided by an adequately resourced IORP 'should' be. The adjustment is easy to quantify as long as liability cash flows by year of payment are available as it involves calculating their present value using two different discount rates/yield curves.

For example, the 'target' likelihood of non-payment might be set at 0.5% per annum, notionally corresponding to a 1 in 200 year target (perhaps then with some assumed partial payment level if non-payment was triggered), or at some amount calibrated by reference to the current average IORP position. Alternatively, the target could be set in a manner that varies across time in a counter-cyclical manner along the lines described in Kemp, M.H.D. (2009), *Market consistency: model calibration in imperfect markets*, if it was desired to limit the extent to which a focus on market consistency might otherwise create pro-cyclical effects.

With such an adjustment, a HBS surplus would indicate that the IORP was better than adequately resourced (taking into account all applicable benefit security mechanisms) whilst a deficit would indicate that it was worse than adequately resourced, according to some agreed (but possibly time-varying) criterion for 'adequate'.

In theory the same sort of adjustment is also needed even when no sponsor support is present. However it is implicit in the proposal that the accrued liability valuation be derived from the cost of buying out these liabilities with an insurance company. 'Adequate' is then in effect being defined by reference to having sufficient assets to buy out the liabilities in this manner.

5. Pension protection schemes

Taking account of pension protection schemes (PPSs) in the HBS has advantages and disadvantages. A disadvantage is that it could lead to moral hazard. An advantage is that it better reflects the benefit security actually present as far as members are concerned.

If EIOPA deem it appropriate to take account of PPSs in the HBS then the approach currently proposed in the QIS in broad terms makes sense. However, we would suggest that the actual mechanics are again simplified (and in certain respects caveated) in a similar manner to the approach proposed above for sponsor support. We would propose that:

(a) A suitable (annual) PD would be identified for each relevant PPS. These PDs will presumably need to be identified by EIOPA bearing in mind that there is some non-zero but hopefully small risk of a systemic crisis for an entire member state's occupational pension provision.

(b) The current value of the accrued benefits covered by the PPS as a fraction of the current value of total accrued benefits would be calculated.

(c) Unless manifestly inappropriate, the fraction in (b) would be assumed to remain constant through time when determining the LGD arising were the sponsor to default. This is akin to the simplest deterministic approach we have suggested above for the sponsor covenant.

(d) The same broad approach suggested for including the sponsor covenant as a security mechanism can then be used for the PPS. This would still merely involve a tabulation of PVs (now) of accrued liability cash flows by year of payment coupled with elements not dependent on an IORP's own liabilities. The latter would now include the fraction calculated as per (c) above plus a more complicated probability tree as per the one in HBS.6.78.

In these circumstances an adjustment similar to the one noted is section 4 above would be necessary if it has not already been introduced when incorporating sponsor support within the HBS.

In principle caveats are needed to distinguish a PPS from other more general types of insurance arrangements. Probably most or all member state PPSs as conventionally understood would meet the relevant criteria so these caveats are not likely in practice to present an issue. Specifically, for an arrangement to be considered a PPS it should in effect be required to provide guaranteed continuing coverage probably for the entire lifetime of the liabilities and there should also be some reasonable expectation that the premiums or levies the PPS charges will be met from additional sponsor contributions broadly as they are levied. Sponsor default needs to trigger mandatory transfer of benefits from the IORP to some suitably protected structure. This could involve buyout with an insurance company or could involve retention of assets and liabilities by the PPS.

If the PPS typically retains the assets and liabilities itself (which is the case in some member states e.g. UK) then in principle there should be a further caveat since not all PPSs are themselves (EU-domiciled) insurance companies. In principle the PPS needs to be deemed by EIOPA to be sufficiently well-resourced to be able to transfer its own accrued liabilities to an insurance company whenever it wanted to. If this is not the case then in principle the PPS support conditional on the sponsor defaulting in a particular year should be valued by reference to subsequent years' liability cash flows and likelihoods of the PPS subsequently defaulting, in much the same sort of manner as described above for the original sponsor support.

6. SCR

The HBS methodology proposed by EIOPA and the further simplifications proposed above implicitly assume that IORP members view a security mechanism through its (market consistent) value (to them). Without some further element it thus implicitly assumes that IORP members have infinitely-well diversified credit exposures, including any to the sponsors of IORPs introduced via their IORP benefit entitlements.

This in practice will not be the case. Therefore, we might expect the capital computation to include some penalty, e.g. via a capital requirement in the SCR computation, corresponding to the dis-utility arising from concentration towards a single credit, here the sponsor (and perhaps also the PPS).

There is in our opinion no theoretically correct way of determining the overall level of this additional capital requirement. Some individual members may have benefits from many different IORPs by the time they retire and may have other assets that provide diversification. For these members the appropriate SCR concentration charge as a proportion of the accrued liability valuation may be close to zero. Other individual members may have all of their IORP benefits coming from a single IORP and may have little else by way of assets to sustain them in retirement. A more significant SCR concentration charge may be appropriate for them. There is no practical way of ascertaining where within this spectrum any such charge 'ought' to be set. Any theoretically correct aggregate level for an IORP may not be the same as the corresponding level for an insurer (or for another financial services entity).

However, all other things being equal, some dependency on credit rating is to be expected. It would be reasonable for any SCR concentration add-on to be lower for more highly rated exposures, as the risks involved are then less likely to materialise.

For schemes relying materially on sponsor support, the contribution to the SCR arising from sponsor default risk may be sizeable in comparison with other risks covered by the SCR. We therefore recommend that the in the SCR computation sponsor default risk be carved out into a separate risk module distinct from all other counterparty risk elements.

In the light of the above we also suggest that EIOPA is open-minded about how to calculate the capital charge for sponsor default risk. We note that the concentration capital add-on currently being proposed if the IORP had no other type 1 counterparty exposures appears to be as follows:

Rating	PD (%)	σ (%)	$SCR_{def,1}$ (% of LGD after allowing for recoveries)
AAA	.002	0.4	1.3
AA	.01	1.0	3.0
A	.05	2.2	6.7
BBB	.24	4.9	14.7
BB	1.2	10.9	54.4
B or lower (or unrated excl. Solvency II insurers)	4.175	20.0	100.0

For the lowest rated categories and for most unrated sponsors the proposed capital charge seems likely to be quite onerous for IORPs. Please bear in mind that there may be many unrated sponsors for smaller IORPs.

We hope shortly to provide EIOPA with and/or make available via www.nematrian.com a spreadsheet illustrating how this component of the proposed SCR methodology would interact with other elements of the HBS as described above. Our preliminary analysis suggests that it would result in sponsor support being deemed largely useless as a security mechanism for any IORP that was less than fully funded and had a sponsor rated BB or below (or unrated and not a Solvency II insurer) for any of the LGD trajectories described in section 3 (including the one currently proposed by EIOPA).

7. Other comments

Part of the HBS computations proposed by EIOPA involves discounting using two different discount yield curves, a level A computation that is designed to be 'risk-free' and a level B computation that

involves a higher return (and therefore lower liability) based on an assumed equity risk premium and an assumed simplified strategic asset mix.

We understand that the level B computation is in effect designed to provide a signal that would highlight if the IORP was underfunded by such an extent that it would not be 'self-sufficient' even with some assumed level of equity risk premium.

We question whether the additional complexity introduced by the level B computation or rather by how it is currently set and justified in the proposed QIS is helpful. Relying on some (risky) equity risk premium or other source of outperformance implicitly involves higher risk of non-delivery except in relation to conditional benefits that depend on asset returns. So reducing the value placed on the accrued liabilities by using a higher discount rate implicitly involves placing a greater reliance on other security mechanisms, i.e. reduces the value we should place on sponsor support in the HBS (and, if appropriate, on any applicable PPS).

Indeed, in the deterministic simplifications suggested above the adjustments would be exactly offsetting. This is because the LGD in the event of sponsor default is in effect assumed to decay through time in a manner that assumes that extra returns generated on any assets present within the IORP accrue to the sponsor (by way of future adjustments to its contributions) rather than to IORP members. So the extra returns assumed to arise in the Level B do not over the longer term actually improve members' benefit security materially.

In a formal sense, including a level B computation alongside a level A computation seems to be akin to the adjustment proposed in section 4 above. However, the justification for the differential and hence its probable magnitude is different. Following the logic described in section 4 it should ideally be set in a manner that corresponds to an 'adequate' level of security (possibly time varying) for the pension promise according to some definition of 'adequate'. This does not necessarily have any direct link with the expected long-term outperformance we might expect equities to exhibit versus bonds.

8. Conclusions

We recommend that:

(a) The current best estimate plus risk margin approach to calculating the value of the accrued liabilities should be replaced by the estimated cost of buying out the accrued benefits with an insurer (subject to Solvency II), if such a costing is readily available and can be reliably estimated.

(b) The section on sponsor support should be reworded to focus on a computation that derives the value of the sponsor covenant by reference to assumed future probabilities of default (PDs) and losses given default (LGDs) subject to an upper limit set by reference to some assumed maximum available sponsor support, rather than vice versa.

(c) In the component of the sponsor support derived from PDs and LGDs:

  (1) The PDs should reflect the possibility that the sponsor could move between ratings categories via a transition matrix and ideally should be more market consistent than presently proposed.
  (2) Given inherent uncertainties in longer-term trajectories of the LGDs and given the purpose of this QIS, the derivation of the LGDs for this QIS should focus largely on a

deterministic approach, only reverting to a stochastic approach if the deterministic approach seems manifestly inappropriate. This topic could be reviewed if proposals for regulatory change arise as a result of the QIS. The likely long lead times involved would then give the IORP industry more time to develop the relevant systems and expertise needed for greater use of stochastic simulations. Some further simplifications can be introduced to the deterministic approach currently being proposed without materially altering its effectiveness for the purposes of this QIS. We recommend that these simplifications are incorporated in the final QIS.

(d) In the component of the sponsor support involving determination of an appropriate assumed maximum available sponsor support EIOPA should be prepared to explore alternative approaches depending on the numbers and types of sponsor most likely to be affected by selected methodologies.

(e) If EIOPA deem it appropriate to include PPS coverage within the HBS then further simplifications similar to those suggested in (c)(2) but applied to the PPS should be considered. The mathematics is also simplified if the computations can assume that on sponsor default the PPS buys out covered benefits with an insurance company or an equivalently resourced entity. If this buy-out entity is the PPS itself then in principle EIOPA should confirm that the relevant PPS has suitable capital resources to support such buy-outs in cases where the PPS is not itself an insurance company.

(f) It would be desirable to clarify what a contractual right to sponsor support (or to a PPS if it is deemed appropriate) needs to exhibit to constitute a 'security mechanism' in the context of the HBS. In particular, these mechanisms need to have a long-term dynamic, e.g. they need to be guaranteed to apply for say the lifetime of the liabilities (if the provider of the support mechanism does not default in the meantime) rather than e.g. merely being potentially renegotiable on an IORP/sponsor specific basis year-on-year with no guarantee of renewal.

(g) Where IORPS have a contractual right to sponsor support (or to a PPS if deemed appropriate) then a notional credit should be included in the HBS so that the overall result indicates whether the IORP is better or worse than adequately resourced (taking into account all applicable benefit security mechanisms) according to some agreed (but possibly time-varying) criterion for 'adequate'. The mathematics involved is in a formal sense similar to the differential currently being proposed between level A and level B discount rates. However the justification is different and therefore the size of the differential is unlikely to be in line with the differential implicitly included in EIOPA's current proposals.

(h) For IORPs with a contractual right to sponsor support the calibration of the contribution to the SCR from sponsor default risk may prove contentious. It would be desirable to separate out sponsor default risk into a separate risk module and to recalibrate its computation.

The simplifications proposed above appear to allow the sponsor support component of the HBS (and the PPS component if it is deemed appropriate to include such a component) to be approximated using a relatively straightforward spreadsheet. This assumes that a subdivision by year of payment of the accrued liability valuation is readily available (and that suitable sponsor/PPS PD and recovery assumptions and maximum available sponsor support computations are also readily available).