British Actuarial Journal, Vol. 19, part 2, pp. 404–429. © Institute and Faculty of Actuaries 2014
doi:10.1017/S1357321713000445

Valuing Sponsor Support†

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[Presented to the Institute and Faculty of Actuaries London: 28 January 2013, Edinburgh: 18 February 2013]

Executive summary

Summary views

EIOPA specify the calculation of two definitions of Sponsor Support, the *maximum* value of Sponsor Support and the *market* or *expected* value. The main objective of this paper is to present our thoughts and considerations in quantifying the *maximum* value of Sponsor Support. The maximum value of Sponsor Support is that which would theoretically be available to a pension scheme.

We consider these issues in the context of EIOPA's recent proposals which introduce the concept of the Holistic Balance Sheet ("HBS"), within which the value of Sponsor Support would feature as a material asset. We also comment on the issues we perceive with EIOPA's suggested methodology for assessing the maximum value of Sponsor Support and put forward what we believe is a proportional and practical alternative which is relevant in the context of the UK pensions landscape.

The paper is not intended to be an academic research paper, and has not been written as such. It is intended as a timely contribution to the debate, recognising that EIOPA is conducting further work on the subject of Sponsor Support valuation.

The key views we express in our paper are:

1. We believe that the current EIOPA method for assessing the maximum value of Sponsor Support is insufficiently flexible to cover the large number of different sponsor and scheme situations which exist in the UK pensions landscape.
2. In the majority of cases we believe that the EIOPA method is more likely to mis-state the maximum value of Sponsor Support, which could be detrimental to sponsoring employers, pension scheme trustees and regulators.
3. The concept of "value" we believe is most appropriate in the Sponsor Support context is Economic Value or Value in Use. Applying this value concept would mostly use assumptions (e.g. cash flow assumptions) which would be consistent with market-based inputs, but importantly allows some flexibility to depart from these when it is reasonable to do so.

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† In June 2012 the Institute and Faculty of Actuaries commissioned Barrie & Hibbert and Pricewaterhouse-Coopers to undertake research on the topic of how employer covenants are best taken into account when assessing the capital supporting Institutions of Occupational Retirement Provisions (IORPs). This paper was presented alongside the paper "Market-Consistent Valuation of a Defined Benefit Pension Find's Employer Covenant and its Use in Risk-Based Capital Assessment" at the London and Edinburgh Sessional Meetings [doi:10.1017/S1357321713000433].

https://doi.org/10.1017/S1357321713000445 Published online by Cambridge University Press

4. The narrow legal definition of Sponsor Support used by EIOPA does not capture the potentially considerable value uplift provided by a sponsor being part of a wider group. This is something a traditional covenant review would place value on and which we believe should be considered in assessing the maximum value of Sponsor Support within the EIOPA framework.
5. The maximum value of Sponsor Support changes over time and can change rapidly in a distressed environment. The valuation method and assumptions applied need to be appropriate to the position the sponsor occupies at any time on the "corporate demise curve". This is judgemental. A "one-size fits all" approach in terms of valuation methodology does not work in the real world.
6. Our suggested alternative approach to assessing the maximum value of Sponsor Support is a two stage process. It relies on traditionally recognised business valuation methods and allows for more flexibility and greater application of judgement in terms of methodology and input assumptions.

In summary, we believe the flexibility of our valuation approach is better suited to the variety and complexity observed across the UK pension scheme landscape and permits a more scheme specific approach to assessing the maximum value of Sponsor Support. It is also consistent with current practice for sponsor covenant review work.

1. Introduction

1.1. Background and purpose

The European Insurance and Occupational Pensions Authority ("EIOPA")'s recent proposals on reform of the Institutions of Occupational Retirement Provision ("IORP") directive introduce the concept of the Holistic Balance Sheet ("HBS"). If the proposals are implemented as set out in the consultation, there would be a formal requirement to quantify the "reliance on the Sponsor Support" or "Employer Covenant" as a single figure presented as an asset on the HBS.

Independent covenant assessments are commonplace, but there are no commonly established ways of quantifying the value of Sponsor Support. The main objective of this paper is to comment on these issues and suggest potential approaches for valuing Sponsor Support, specifically for the purposes of the HBS, taking account of the more recent proposal published by EIOPA on 8 October 2012.

Before launching in to the main theme of the paper, we briefly provide some context for the discussion by illustrating how the concept of Sponsor Support fits into EIOPA's HBS, and introduce some important definitions of Sponsor Support which are discussed again later in the paper.

Sponsor support in the context of the HBS

The figure below shows the current regime for assessing pension schemes' assets vs. liabilities on the left compared to EIOPA's proposals on the right (Figure 1).

In summary, the EIOPA proposals introduce additional assets and liabilities which need to be measured/valued. On the liability side EIOPA have introduced additional capital requirements which result from factoring in the shortfall impact of one in two hundred year events. On the asset side of the HBS, Sponsor Support makes up a very significant and important asset which, when added to other scheme assets, may or may not cover the liabilities.

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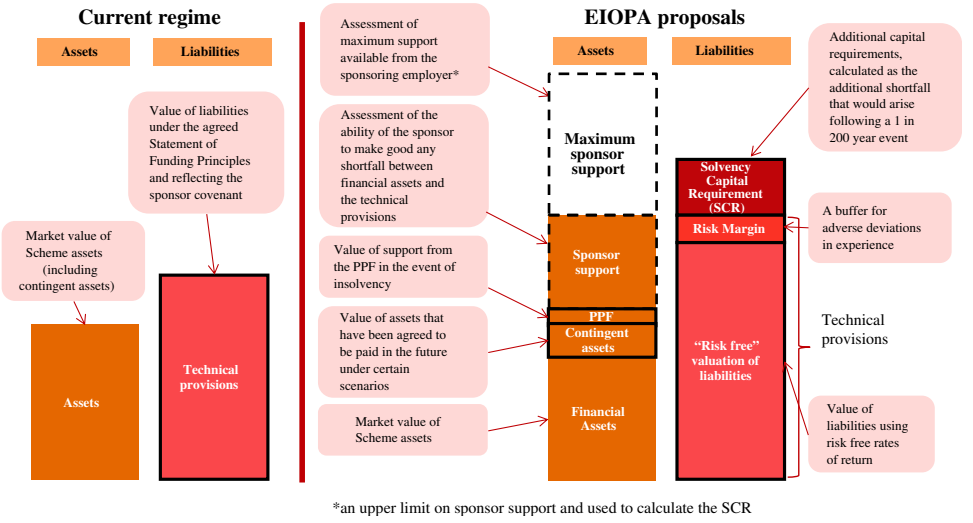


Figure 1. Comparison of current regime and EIOPA's proposals

EIOPA specify the calculation of two definitions of Sponsor Support, the first of which is the main focus of this paper:

- The "maximum amount" of Sponsor Support, which is the amount that would theoretically be available to the pension scheme (HBS 6.42), and
- The "market value" of Sponsor Support, which is the expected level of Sponsor Support required based on the forecast deficit in the pension scheme measured as the difference between the Technical Provisions and Financial Assets (per HBS 6.53 and HBS 6.48).

Although a detailed discussion of the HBS and its components is outside the scope of this paper, it is important to note that under the proposed framework, the market value of Sponsor Support is recorded as an asset and any headroom above the market value up to the maximum amount can be used to reduce the amount of the liabilities by decreasing the Solvency Capital Requirement. We have therefore focused this discussion paper on the maximum value of Sponsor Support as ultimately this drives the overall difference between assets and liabilities on the HBS.

As it currently stands EIOPA have not made clear what the remedy is if the value of Sponsor Support is insufficient to cover the increased liabilities in the HBS - i.e. what if the "balance sheet" doesn't balance? Whatever remedy is chosen will ultimately drive the degree of focus and effort made in calculating the value of Sponsor Support, so this will be important, but we do note that the UK Pensions Regulator has estimated a potential funding strain on sponsors of ~£150bn, which is a huge number with significant implications for both sponsors and the future of their schemes. For sponsors at the margin (where it may not be clear cut as to whether the value of their support is sufficient) the importance of getting the calculation right will be crucial.

1.2. Structure of this paper

We start by going back to basics and considering what Sponsor Support actually means and some of the definitions used. We then discuss what an appropriate basis of valuation might be for thinking

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about Sponsor Support and comment briefly on how valuation analysis is currently used in assessing and understanding Sponsor Support.

Having considered some of these fundamental building blocks, we then turn to the EIOPA proposals and comment on these both in terms of principle and in relation to specific points on methodology. We also illustrate our comments using an example calculation to help the reader to see the impact of some of the assumptions which drive the calculations.

Lastly we suggest an alternative process and methodology for placing a value on the Sponsor Support for the purposes of the HBS.

2. What is meant by 'Sponsor Support'?

2.1. EIOPA Definition of Sponsor Support

Sponsor Support, as referred to in the EIOPA consultation is made up of a number of elements.

EIOPA considers that Sponsor Support can be divided into four categories (para HBS 6.1):

- A – Increases in contributions – greater ongoing cash which can be paid to the scheme.
- B – Subsidiary liability of the employer – cash which the employer pays directly to scheme beneficiaries (limited existence in the UK).
- C – Contingent assets of the employer – employer assets ring fenced for the scheme in pre-defined circumstances, such as employer insolvency.
- D – Claims on the employer – claims on the employer in an insolvency situation.

This essentially boils down to the same definition used by the UK Pensions Regulator, which defines Sponsor Support as "the employer's legal obligations to a Defined Benefit scheme, *and their ability to meet them*". The main difference is that the employer rarely makes direct payments to scheme beneficiaries in the UK.

2.2. Is this definition wide enough?

Although legal obligation is helpful in placing boundaries on the definition of Sponsor Support, most practitioners would take additional factors into account when assessing the strength of a covenant, and the question is whether some of these factors should also be taken into account in valuation and, if so, how.

In many cases, for example, Sponsor Support is significantly enhanced by the employer being part of a much larger group of companies. In such cases, while primary consideration is still given to the sponsor's legal obligations, it may be possible to place some reliance on the wider group's "willingness" to support the scheme, particularly if certain circumstances are apparent or if the group has a history of supporting the scheme. In many cases this is what already happens in practice and can be beneficial to scheme members as it can allow for a truer reflection of the actual position.

Indeed, the UK Pensions Regulator's 'moral hazard' powers allow it to impose Financial Support Directions and Contribution Notices which may force other group companies other than the Sponoring Employer to support the scheme. Although rarely used, these powers demonstrate the

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intention of the UK parliament that, in certain circumanstances, the support for a pension scheme should reach beyond simply the Sponsor.

2.3. What circumstances might invite a wider definition of Sponsor Support?

The extent (if any) of wider support will, among other things, depend on:

- The strength of current and future commercial inter-dependencies between the sponsor and other parts of the group.
- The strength of the relationship between management of the employer, the trustees of the scheme and the wider group.
- The history and extent of wider group involvement in the policies and actions of the pension scheme.

Examples of situations where Sponsor Support is more likely to be enhanced through group support might include:

- The geographic market of the employer being essential to the commercial success of the group.
- The employer having some heritage or brand strength which is vital to the wider group.
- A presence in the employer's location being needed for licencing or regulatory reasons.
- The employer's location being a key regional supply hub.
- The employer having staff with unique skills which are essential to the wider group.

These are just some examples of circumstances when it is in the commercial interests of the wider group to provide additional support to the sponsor even if they have no legal obligation to do so (such as through a contingent guarantee). The wider group may even have a long history of supporting the sponsor.

These and other considerations are important aspects of a typical covenant review as it would currently be performed. A robust qualitative analysis of the sponsor's position within the group is an important factor in assessing covenant strength even if that wider support is not typically quantified.

Business circumstances can change over time, so understanding whether factors such as those above apply and over what time period is important. Regular monitoring of these factors is a way for trustees to understand the importance of the sponsoring employer to the wider group and how this evolves over time. Where a Scheme relies on something wider than just the legal support, it is important that the nature of this support is understood and monitored, to allow the trustee time to take an alternative view if circumstances change.

2.4. Could such examples be quantified and valued as part of the Sponsor Support?

Valuing only the legal obligations of the sponsor is helpful in providing some boundaries to the asset to be valued. However, the brief examples above highlight the point that value can come from other sources and be a significant or even vital addition to the covenant of the sponsor.

Having too rigid a valuation calculation will fail to capture such factors and risks presenting an unduly pessimistic picture for a significant group of employers who have historically relied on the goodwill and support of other group companies.

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The answer as to whether such support could be valued is "Yes" in theory, as it may be possible to use historical precedent and observations/analysis on the interdependencies between the employer and its group to assess a value for "Group Support", while recognising the inherent uncertainty around quantifying this. This area also highlights the importance of combining regular qualitative assessments of the sponsor and its group with quantitative analysis in determining the wider value of Sponsor Support.

3. What is meant by the ''value'' of the Sponsor Support?

3.1. Bases of valuation

So why is the basis of value important in the HBS context? It is important because in the valuation world the basis of valuation defines the valuation approaches that should be used and the nature of the assumptions which feed into these approaches. An important question any experienced valuation practitioner asks at the start of any valuation assignment is "What is the basis of value being used?"

Three commonly used bases of valuation are summarised in Figure 2:

We note that the concept of "Fair Value" as used in accounting standards has essentially the same meaning as Market Value shown in Figure 2.

The ***market value*** concept is probably the most widely used valuation basis. A typical definition would be:

> "the price which an asset might reasonably be expected to obtain in money or money's worth, in a sale between a willing buyer and a willing seller, each of whom is deemed to be acting for self interest and gain and both of whom are equally well informed about the asset and the markets in which it operates"

Market value pre-supposes that a market exists for an asset. In the context of the HBS, a scheme can never sell its claim on a sponsor, so market value is probably not an appropriate valuation basis, although we note EIOPA's reference to the need to use "market consistent inputs".

Were a market basis of valuation required there is a risk that it would be restrictive in terms of its assumptions and this might lead to valuations of Sponsor Support that are more volatile and may

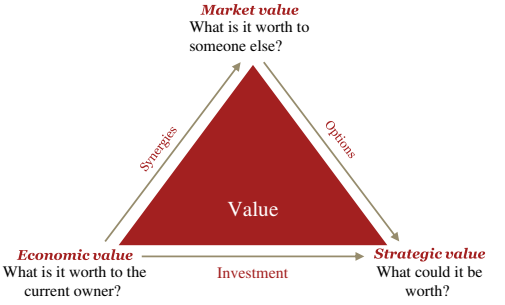


Figure 2. Bases of valuation

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not reflect the underlying cash flow fundamentals of the sponsor. After all, it is the latter which ultimately drive what is available to the scheme.

As an illustration of when market value might not be an appropriate basis of valuation, consider the example of the value of some types of mortgage portfolio during the depths of the financial crisis. Based on observable market transactions (as the best indicator of market value) some portfolios were traded for significantly less than the amount a holder could expect to realise if they held the assets to maturity. This situation reflected the state of the market as it was then and investors' significant 'fear of the unknown'. Market values were inconsistent with values derived from an assessment of the risk adjusted cash flows which the holder could expect to receive, the value of which would typically be termed Economic Value.

A defined benefit pension scheme does not have a choice over who to lend to; it has no option but to lend to its sponsoring employer if there is a deficit. It is impossible to transfer this claim on the business to anyone else. These factors make it unique, and in such a case, the Economic Value concept – the value to the current owner – makes most sense. Economic value means the value of the Sponsor Support to the pension scheme specifically, rather than to a hypothetical third party. The claim which a UK defined benefit pension scheme has on a sponsor is unique in many ways, which in turn makes the Scheme a "unique lender". For example, the majority of any pension scheme claim is a contingent claim and not legally enforceable until such time as any crystallising events happen. Any agreed recovery plan is a committed obligation and a scheme can sue a sponsor for non-payment, but a s75 claim for the entire deficit is only crystallised on a scheme wind up, insolvency or other cessation event.

Applying the Economic Value concept in the context of the HBS would allow schemes to take more optimistic or pessimistic views of the value of Sponsor Support than the market. If, for whatever reason, market sentiment was unduly positive or negative for a sector, and this could not be fully explained by economic fundamentals (i.e. the likely underlying cash flows), then the trustees could justifiably use certain assumptions (for example those in relation to cash flow growth assumptions) which some may regard as not being entirely consistent with current market prices.

A similar concept exists in the accounting world when it comes to testing the carrying values of goodwill and other assets for impairment. The impairment test is a valuation test which compares the carrying value of assets on a balance sheet to the higher of their "fair value less costs to sell" and their "value in use". The former concept is akin to market value (fair value being the accounting term for market value), while the latter is closer to economic value, and gives companies flexibility in recognising that there might be situations where an asset or group of assets are more valuable to the current owner than to a market participant. This was something which was particularly observable in the depths of the 2009 downturn when evidence of market value from transactions was scant but fundamental underlying cash flows were not as badly affected as market values would suggest for many businesses.

We note that an economic basis of valuation can, and in most cases will, still use market based assumptions (consistent with EIOPA's guidance), but importantly it has the flexibility to depart from those assumptions where there is good reason to do so. The strict application of a Market Value concept could lead to significant, and potentially misleading fluctuations in value if the sponsor suffered from a temporary shock or hype driven value increase. The advantage of an Economic Value concept as a basis of valuation is to allow a more considered view of value which recognizes the scheme's position as a specific lender. In the HBS context that flexibility is important.

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3.2. Does the value of the Sponsor Support change over time?

The value of Sponsor Support will vary over time as the value of the sponsor's business varies. For most schemes Sponsor Support is a long term concept, even if for some schemes whose sponsor might be in distress the period of support may be considerably shorter. In assessing the long term prospects of a sponsor, trustees need to consider not just the micro level factors which affect the sponsor's business but also the longer term macroeconomic and regulatory environment in which it operates.

The relationship between business value and Sponsor Support

In general valuation terms, the value of a sponsor, sometimes known as Enterprise Value or business value, would be equal to the present value of the future cash flows which the sponsor's assets are capable of generating. The assets which drive the Enterprise Value of the sponsor might include intangible assets (such as IP or goodwill), tangible assets (such as plant and property) and also working capital. The equivalence of these terms is illustrated in Figure 3. The inherent uncertainty in the quantum and timing of the business cash flows drives volatility in Enterprise Value. For some businesses and sectors this volatility will be significant, while for others Enterprise Value will tend to show more stability over time.

The total Enterprise Value of the business can be thought of as being divided among the different sources of funding in the business. The first slice of value will be taken by any secured creditor, the second slice by unsecured creditors and the top or residual slice would then fall to equity holders. A UK pension scheme would typically sit alongside other unsecured creditors in the capital structure of a sponsor. Once secured creditors have been paid out of the Enterprise Value of the business, a UK pension scheme would therefore be in line for a proportion of the remaining business value depending on the size of the scheme's claim relative to the size of the claims of other equal ranking creditors. In all cases a UK scheme would rank ahead of equity holders in any claim on the sponsor.

Simplistically, for companies with significant Enterprise Value relative to the size of their financing and pension scheme obligations, the maximum value of Sponsor Support will significantly exceed

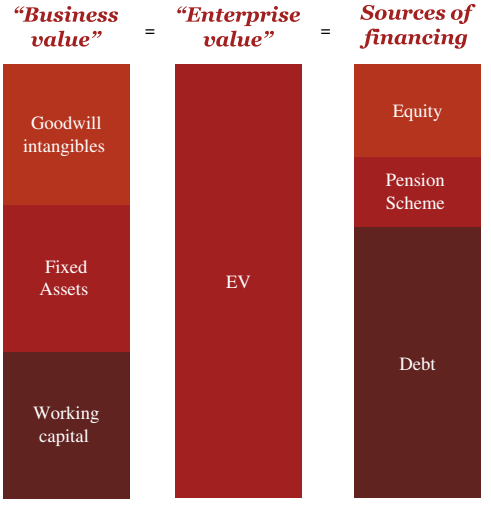


Figure 3. Illustrative Enterprise Value vs. Equity Value

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the value required to meet Level A technical provisions. Another way of putting this is that companies with significant equity value have high values of Sponsor Support. Even quite significant fluctuations in Enterprise Value over time will not leave the scheme exposed and may even still leave considerable headroom. If, on the other hand, the value of the sponsor is only just enough to cover financing and pension scheme obligations (i.e. barely enough to cover Level A technical provisions), the value of Sponsor Support may be less than is required during volatile economic times.

So, how do these concepts translate into a measure of the value of Sponsor Support as envisaged by EIOPA? We would think of the *maximum* value of Sponsor Support being up to the level of the Enterprise Value of the sponsor less debt-like items. The *market* (or required) value of Sponsor Support is equal to the contributions which would be needed to fund the current deficit (assumed to be the full value of the Level A technical provisions). The *minimum* value of Sponsor Support would be the pension scheme's share of any value realised from insolvency. The first two concepts are explained in more detail in the context of EIOPA's calculations in the next section. There is another stage where the business is in distress but the Scheme may be able to negotiate with other creditors to get a better deal than it would in an insolvency outcome.

How Sponsor Support changes with a company's fortunes

Figure 4 is called the Corporate Demise Curve. It provides an illustrative mapping between phases of corporate distress, Sponsor Support strength and business value which the scheme can access. The most significant change in the value of Sponsor Support comes when a sponsor becomes unable to support the Scheme because it is no longer a going concern. This can happen very quickly with some businesses (e.g. due to the sudden loss of a major customer contract), so regular monitoring is vital to ensure the value of Sponsor Support is measured using an appropriate method. We discuss this further in section 6 of this paper where we set out an alternative approach to valuing Sponsor Support.

We note that professional judgement is required to assess where a sponsor sits at any time on the corporate demise curve and therefore what valuation methods might be appropriate to assess Sponsor Support as a result.

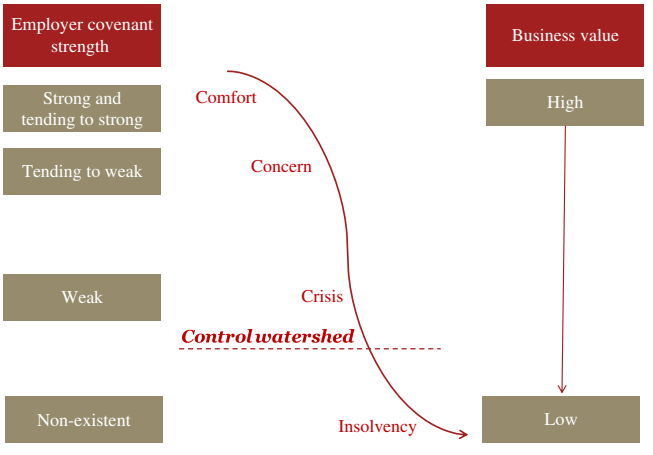


Figure 4. The corporate demise curve

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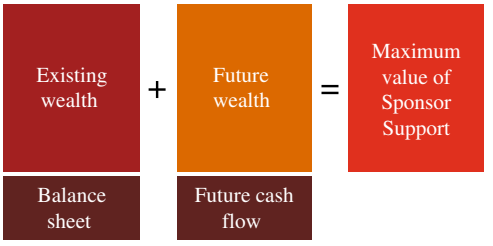


Figure 5. Calculation of the maximum value of sponsor support

4. The EIOPA approach to valuing Sponsor Support

4.1. Overview of the approach

EIOPA has set out its approach to valuing Sponsor Support in section 2.6 of the Consultation Paper published on 15 June 2012 and revised on 2 October 2012 and 8 October 2012.

As already highlighted in the Introduction section of this paper, EIOPA specify the calculation of two definitions of Sponsor Support:

- The "maximum amount" of Sponsor Support that would theoretically be available to the pension scheme (HBS 6.42), and
- The "market value" of Sponsor Support i.e. the expected level of Sponsor Support required based on the forecast deficit in the pension scheme measured as the difference between the Technical Provisions and Financial Assets (per HBS 6.53 and HBS 6.48).

The maximum value of Sponsor Support is used to determine an approximation of the maximum level of payment the sponsor is able to make. Calculation of the maximum value of Sponsor Support comprises two main elements as depicted in Figure 5:

The main steps and assumptions in the calculation are as follows:

Existing wealth

1. Take 50% of the shareholders' funds from the sponsor's balance sheet and add back the liability[1] of the sponsor to the scheme as disclosed in the balance sheet.

Future foreseen wealth

2. Take the current recovery plan contributions and discount them over the period for which the sponsor is expected to have to make payments to the scheme.
3. Add a proportion (33%) of the expected future discounted cash flows of the sponsor over the same time horizon.

[1] It is unclear from the EIOPA consultation whether one should add back the pension scheme deficit as disclosed on the sponsor's balance sheet or the entirety of the liability. The more reasonable interpretation must be to add back the balance sheet deficit, however this is not fully specified in the Consultation.

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It is suggested that the base year cash flows for the purposes of calculating (3) above are derived from the average of the sponsor's last 3 years of accounting data with an allowance for inflation and then increased by inflation over the forecast period.

For the purposes of performing the calculation incorporating the risk of default of the sponsor, EIOPA has provided a table of default probabilities according to a sponsor's credit rating. In the event of default EIOPA suggest using a recovery rate of 50% unless there are good reasons for choosing a different rate. EIOPA has built both deterministic and stochastic models for these calculations[2].

4.2. Our observations on the EIOPA approach

Below we outline our observations on EIOPA's approach to calculating the maximum value of Sponsor Support and illustrate, using an example, the scope for arriving at quite different answers depending on assumptions and methods used.

HBS 6.9 – Market consistent basis

HBS 6.9 says that Sponsor Support should be valued on a "market-consistent basis". We interpret this to mean that assumptions should be adopted which are consistent with those which market participants would use in performing a valuation and future projected cash flows are discounted using market consistent discount rates in a consistent manner with the discount rates being used to discount the pension scheme cash flows.

In the context of our discussion about basis of valuation above, we believe there will be certain situations where the economic value of support may differ considerably from the market value of that support. We have seen this frequently over the last few years when, for certain asset types/businesses, market values have been severely depressed relative to the values which would be derived from the underlying fundamental cash flows of that business/asset. On the flip side there might be market hype surrounding certain sectors which drives valuations which would seem to be far in excess of those supported by the fundamental cash flows. In situations like these there is a risk that Sponsor Support is either under or over-valued and a more flexible approach, allowing for departure from market consistent assumptions, would reduce the risk of a misleading picture.

HBS 6.15 – Ratings for probability of default

HBS 6.15 shows a table with default probabilities for various credit ratings, see table 1.

It is proposed that these be used to assess the employer's probability of default. We note that a rating of B is given the same default probability (4.175%) as CCC or lower, when in fact probabilities of default change significantly between ratings at this end of the scale. Many sponsors of UK pension schemes are "unrated", being private subsidiaries of a wider group, which would lead to them being given the lowest credit rating and highest probability of default when this might well not reflect a fair position. We note that the QiS does allow flexibility to use alternative credit ratings, if there is a justification for doing so, in which case we would suggest deriving a synthetic credit rating based on an analysis of certain key financial metrics for the sponsor. In our own suggested approach later in this paper, the probability of default is implicitly reflected in the suggested valuation method.

[2] Known as Simplification 1 and Simplification 2 respectively.

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Table 1. Default Probabilities for Various Credit Ratings

Rating	Credit Quality Step	Default Probability
A	0	0.002%
AA	1	0.01%
AAA	2	0.05%
B	3	0.24%
BB	4	1.20%
BBB	5	4.175%
CCC or below	6	4.175%

HBS 6.17 – Recovery rate for claims

EIOPA states that the recovery rate for claims on the sponsor in the event of default should not exceed 50%, while acknowledging that this is a figure that requires future investigation. Clearly 50% is an arbitrary rate which will differ considerably from one industry sector and sponsor to another. In some sectors recoveries may be far lower than this, while in others they may comfortably exceed 50%. We believe recovery percentages should be set with reference to the industry sector, which could still follow broad brush percentages, but would be more accurate than the current single estimate.

Maximum value of Sponsor Support

HBS 6.30 – Period of measurement of Sponsor Support

The period of measurement over which Sponsor Support is supposed to be taken is defined as a time horizon, "d", based on the average duration of the pension scheme cash flows, but we question whether the *maximum* value of Sponsor Support needs to be restricted in this way. Future wealth of the sponsor could be measured into perpetuity (as would typically be the case in a business valuation of the sponsor) and might still be available to a scheme within the time horizon of "d", for example as the result of negotiation in a transaction. In practical terms, where "d" is very long, this may not make a significant difference to value.

HBS 6.28 – 6.30 – Double counting

As currently drafted, calculating the maximum value of Sponsor Support involves adding a proportion of the net assets of the sponsor (HBS 6.29) to the value of a proportion of the sponsor's future profit stream (HBS 6.30).

This gives rise to the risk of double counting as the value of the assets of a sponsor is derived from the present value of the cash flows those assets are able to generate. In other words the value of the assets is typically already captured by valuing the future cash flows.

The main exceptions to this would be any surplus assets on the balance sheet, which can legitimately be added to the present value of future cash flows generated by the main business. This might include assets such as a proportion of cash balances not used for working capital (surplus cash), any vacant land or buildings, old master paintings on the board room wall, etc.

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To simplify matters we would suggest an approach which involves calculating the maximum value of Sponsor Support purely on the basis of expected future cash flows. For sponsors with significant surplus assets an adjustment could then be made by exception.

HBS 6.30 – Definition of cash flows

IORPs are requested to report on the definition of cash flows used to assess the value of a sponsor's future wealth which could be made available. This is an area with considerable potential for interpretation and judgment. In HBS 6.39 it is suggested that the starting point for the cash flow input should be the average of the three most recent years' cash flows, which might give very different answers depending on factors such as:

1. The definition of cash flows used (how far down the cash flow statement you go).
2. Whether cash flows from subsidiary companies are included
3. Whether or not any normalisation adjustments are made (i.e. removing exceptional items which distort cash flows in a particular year).
4. Where in a business cycle a particular company is.

We believe that, where valuation is concerned, the most appropriate and practical definition of cash flows would be one recognised by most financial analysts as "free cash flow", which equates to the cash flows of the business which are available to support debt and equity. That is:

- EBITDA less capital expenditure, un-geared tax and working capital movements.[3]

We recognise that secured debt holders would have a first call on these cash flows and other unsecured debt holders would have an equal ranking call, so the maximum value of Sponsor Support calculated using these cash flows would need to be adjusted to take off debt like items from the final valuation.

The cash flows should also include the entirety of the cash flows which the pension scheme is able to access. So if the sponsor has subsidiary companies which it controls, or associates, then the Sponsor Support calculation should include the cash flows of these entities, and not just the cash flows of the legal entity which is the sponsoring employer. This could be an issue if the cash flows of subsidiaries or associates are not included on a consolidated basis in the sponsor's accounts (for example if the sponsor is not required to prepare consolidated accounts because it is not the top company within the group structure).

The EIOPA guidance seems to require the use of the cash flows of the sponsor only, but inclusion of cash flows from subsidiaries must surely be factored into the calculation as the sponsor has control and influence over those businesses and can dictate their dividend and other policies.

We note that HBS 6.30 requires that if the cash flows are negative, then the future wealth component of sponsor support is set to zero, meaning that the scheme is reliant on the agreed recovery plan payments and the balance sheet assets only. This may be an unfair reflection where a sponsor has been undertaking significant capital expenditure or reducing outstanding debt finance, both of which are activities which would typically enhance the value of Sponsor Support, at least in the long term.

[3] Un-geared or unleveraged tax simply means the tax the business would need to pay ignoring interest payments (which are usually tax deductible).

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HBS 6.31 – Use of future business plans of the sponsor

EIOPA suggest that where sufficient information is available IORPs should use the future business plans of the sponsor in assessing the future wealth available (future cash flows) from the sponsor.

From a valuation perspective this is likely to give a more robust estimate of the value of the sponsor, especially for businesses which are undergoing change, for whom past results may be a poor guide to the future. As business valuers, we would typically look at both past actuals and future forecasts in making an assessment of value.

We note however that the use of actual historical cash flows may provide a more prudent and conservative view of value in some circumstances where historic actuals do not embody the aspirational element sometimes seen in management forecasts. On the flip side, the use of actual historical cash flows may also overstate the value of Sponsor Support, for example for businesses or industries facing long term structural decline (e.g. local newspapers, high street music stores) for whom historic cash flows may well exceed future ones. For calculations done today, for some sponsors it is also the case that using three years of historic cash flows captures strong 2009 results which have not been repeated since. The calculation performed a year later when those strong 2009 cash flows have dropped out is likely to be materially lower.

The extent to which the sponsor will wish to share business plans will depend somewhat on the level of disclosure required by the regulations. In our experience, sponsors are currently willing to share significant information with their pension trustees, some of it commercially sensitive. The current points on disclosure suggest that the regulator will need to be provided with all the information the trustees used to reach their decision on the value of Sponsor Support, but that this will not need to be provided to members or to the markets. The implications of this will need to be considered in further detail to avoid an outcome where the robustness or otherwise of the analysis is compromised by concerns over disclosure.

General level of prudence

Many of the simplifying assumptions set out in the QiS consultation, for example recovery on default and only taking 33% of future cash flows of the sponsor, would seem to err on the conservative side. Taken together the compound effect of multiple conservative assumptions will lead to an overly pessimistic view of the value of Sponsor Support. Scheme members and beneficiaries will not necessarily benefit from overly prudent assumptions, just as they would not benefit from overly optimistic ones.

Balancing this to some extent is the double counting we believe is going on in the addition of existing employer wealth to future cash flows. Overall however, we believe the net effect of the assumptions is likely to lead to an overly prudent picture.

Multi-employer schemes and companies which are participating employers for more than one scheme

It is not clear from the QIS how the EIOPA methodology should be applied in cases where a scheme has multiple employers, particularly where there are cross guarantees or 'last man standing' arrangements which could, in some circumstances, alter where a s75 claim would fall due.

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It is also unclear how the calculation would be performed for companies sponsoring more than one pension scheme[4]. In this case, results for each scheme would be dependent on the calculations in respect of the other schemes.

PwC experience to date

At the time of writing, PwC has looked at early stage HBS assessments in relation to over 20 companies, both publicly quoted and privately held. Our key observations from this process are:

- The EIOPA maximum Sponsor Support value frequently leads to unexpected results, with both higher than expected values and lower than expected values. We have noted examples in which the EIOPA method gives a value higher than one might expect for companies which are currently cash flow negative, but significant recovery plan commitments have been made to the scheme.
- The maximum Sponsor Support value can be very sensitive to specific inputs, however the input which drives the value will vary between situations. As highlighted earlier in this paper, key inputs are the cash flows/ profitability measure selected, the level of net assets and the level of agreed recovery plan contributions.
- The difficulty in dealing with large groups is very apparent in some of the examples we have considered, with materially different results being obtained from using employer specific financial inputs vs group level financial inputs. Where the employer owns significant subsidiaries but is not the ultimate parent company of the group, using the legal entity cash flows from the employer will understate the Sponsor Support value, whereas using group level cash flows (if that is all that is publicly available) may well overstate the Sponsor Support value.
- The time requirement for completing a full HBS assessment is significant.

4.3. An example application of the EIOPA methodology

Our observations on the methodology are best illustrated through the use of an example, which we have taken from a FTSE 100 listed company with a significant pension deficit.

A strict application of the EIOPA approach gives the answers shown in Figure 6:

Some of the key assumptions embodied in this approach are shown in Table 2

For some of the reasons outlined above we believe this gives a potentially misleading picture of the maximum value of Sponsor Support. Were we to refine the calculation, we would make the following changes, which we have compared to the original assumptions in table 3:

Our rationale for the above differences is as follows:

- We would exclude the existing wealth of the business as we believe including it would be double counting value which is captured in discounted future cash flows. Per the latest published accounts, shareholders' funds amount to ~£800m, 50% of which is £400m. We have removed this from our calculation.

[4] For example, British Airways Plc (now part of International Airlines Group) has two defined benefit pension schemes – the Airways Pension Scheme and the New Airways Pension Scheme which both have the same sponsoring employer.

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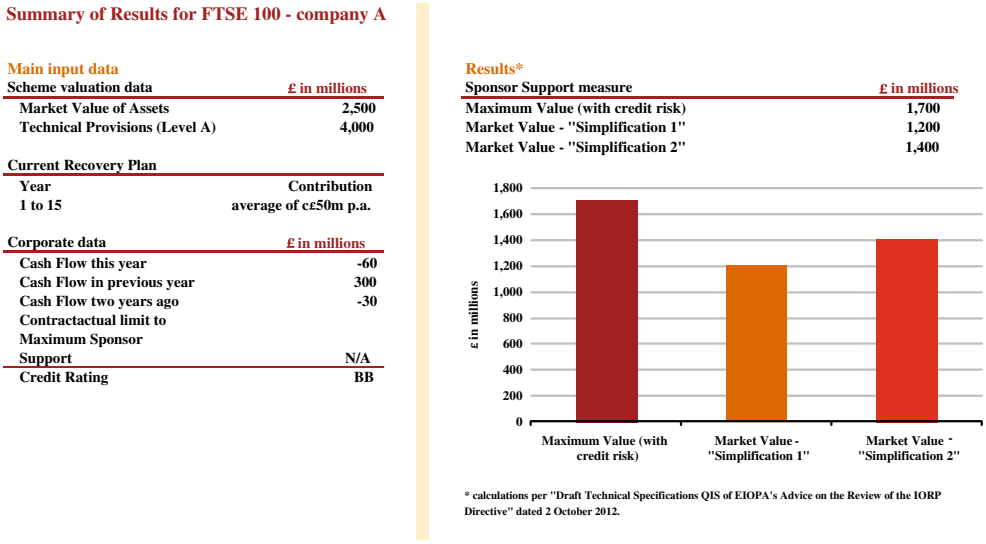


Figure 6. Illustrative example application of the EIOPA methodology

Table 2. Some key assumptions using the EIOPA approach

Input	Assumption
Cash flow measure	Average of the net cash flow for 3 historic years
Cash flows	Equity cash flows – £70m grown at inflation
Shareholders' funds	£400m (50% of £800m)
Discount rate	Risk free

Table 3. A comparison of original and revised assumptions

Input	Original assumption	Revised assumption
Cash flow measure	Average of the net cash flow for 3 historic years	Forecast free cash flows provided by management or from analyst reports
Cash flows	Equity cash flows – £70m grown at inflation	Enterprise cash flows – £356m (2013), £388m (2014) then grown at inflation
Shareholders' funds	£400m (50% of £800m)	nil
Discount rate	Risk free	Weighted average cost of capital
Treatment of Net debt	Implicitly ranks debt ahead of the scheme in the use of equity cash flows	Deducts net debt from enterprise value at the end of the calculation

- The starting point for the cash flows used to calculate the value of future wealth is suggested to be the average of the most recent 3 years' data. Cash flows are not defined by EIOPA, but the average of the last 3 years' cash flows taken straight from the company's cash flow statement amounts to approximately £70m. This masks a massive variation in the cash flow number between years, largely as a result of financing cash flows (repayment of debt). Net cash flow in

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2010 was + £278m, but in 2011 was - £59m, highlighting the danger of just taking numbers from financial statements without adjustment. In this example debt repayment, which is often seen as something which improves the covenant of the pension scheme, actually reduces the value placed on Sponsor Support which cannot be the intent.

- We would use forecast "free cash flows" which are typically defined as pre-interest and financing, post capex, post working capital, post-tax (on an unlevered basis[5]) cash flows. For the purposes of this illustration we have relied on an analyst's view of forecast company performance with certain adjustments to give free cash flows (before debt financing) of £388m by 2014. We have grown these at the rate of inflation post 2014.
- We have discounted the cash flows at a weighted average cost of capital rather than a risk free rate. This is standard practice in business valuations and should in theory give the same answer as would be derived by combining risk neutral cash flows with a risk free rate. The advantage of using a WACC is that it is a more commonly understood concept for most finance practitioners. The WACC is related to the sponsor and has nothing to do with the discount rates used by the pension scheme.
- We have included a terminal value calculation in our version of the approach as we question whether the *maximum* value of Sponsor Support needs to be restricted by time horizon "d".
- In this example, the sponsoring employer is the listed topco entity, and hence the cash flows in their accounts comprise the consolidated cash flows generated by the whole group. In circumstances where the sponsor is not the topco one would need to consider the extent to which cash flows generated by other entities can and should be included.

The above amendments result in a maximum value of Sponsor Support of closer to £4bn. This is slightly above the market capitalisation of the business (~ £3.5bn) and significantly higher the number calculated using the EIOPA method (£1.7bn), suggesting that further refinements to the approach are required. The EIOPA method's seeming understatement of value may be by design to build significant prudence into the calculation – certainly taking just 33% of the cash flow number as suggested in HBS 6.39 would seem to be prudent.

4.4. Consistency with valuation standards

Although there are no universally recognised *valuation* standards, concepts of valuation and approaches are laid out in some of the accounting standards (for example, International Financial Reporting Standards or IFRS). These standards refer to "fair value", which is a market value concept, a typical definition of which would be:

> "The price which the business/shares of the valuee might reasonably be expected to obtain in money or money's worth, in a sale between a willing buyer and a willing seller, each of whom is deemed to be acting for self interest and gain and both of whom are equally well informed about the valuee and the markets in which it operates."

They also refer to other valuation concepts such as "value in use", which is more akin to the Economic Value concept described above.

The EIOPA approach would appear to be consistent with such a market value concept in its requirement to use "market consistent" inputs, but interestingly there is no mention of market *approaches* to valuation in section 2.6, which requires the use of discounted cash flow in determining the value of Sponsor Support.

[5] Unlevered simply means the cash flows without taking into account the effect of interest or debt repayments.

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In this respect the accounting standards also contain guidance on the hierarchy of valuation approaches typically applied in reaching estimates of market value, and this hierarchy is also commonly adopted in the world of tax valuations.

This guidance points to the best evidence of market value being the price at which assets are traded on liquid exchanges. If assets are not traded on liquid exchanges, the next best evidence of market value is a current arms length transaction. It is only when this evidence is not available that valuers are encouraged to use valuation methods such as discounted cash flow, which embody assumptions which would be consistent with views likely to be taken by market participants.

In view of the above, we believe there should be a place for market approaches to valuation such as the comparable listed company and transaction approaches described below:

- The comparable listed company method indicates market value by comparing the valuation subject to publicly traded companies in similar lines of business. The conditions and prospects of similar companies depend on common factors such as overall demand for their products and services. An analysis of the market multiples of companies engaged in similar business yields insight into investor perceptions and, therefore, the value of the subject company.
- The market transactions method indicates market value based on exchange prices in actual transactions and on asking prices for controlling interests in companies currently offered for sale. The process involves comparison and correlation of the subject company with other similar companies. Adjustments for differences in factors described earlier (i.e., size, growth, profitability, risk, and return on investment) are also considered.

From a practical perspective these market approaches are much easier for companies to apply than the discounted cash flow approaches outlined by EIOPA, and we believe companies should be able to use them in determining the value of Sponsor Support. We set out a simple illustrative example of the market approach in Appendix 2.

We also note that valuation best practice advises cross-checks of a main valuation approach, which for EIOPA is a form of discounted cash flow, with other approaches.

4.5. Practicality of implementation of the EIOPA approach

Our thoughts on the practicality of EIOPA's approach to calculating the value of Sponsor Support are as follows:

Advantages

- The majority of the information required is relatively easy to source, from publicly available sources, such as sponsor accounts.
- There is plenty of scope for respondents to use their own assumptions where those suggested by EIOPA are felt likely to give a misleading answer.

Disadvantages

- The approach is relatively complex, open to interpretation and will take time for companies and schemes to understand. The overall calculations have multiple steps and require time and thought to get to grips with. For small schemes with limited resources this will be challenging.

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- There is no suggestion of a staged approach to the calculation which would allow schemes for whom the Sponsor Support is clearly massively in excess of any deficit to adopt more simple methods.
- Although the QiS specifies information sources which are designed to be practical to locate, the downside to this is that the information may give a misleading picture if used inappropriately. The use of the average of 3 years of historic cash flows is a good example.
- For what is essentially a business valuation, the valuation methodologies have some tweaks which would be unfamiliar to most finance staff even if they are commonly used assumptions in the actuarial world. An example would be the use of risk neutral cash flows.

Our overall impression of the EIOPA approach is that the approach itself is quite detailed and complex, but some of the key assumptions/inputs are very broad brush and simple. There is a danger that such an approach will lead to the conclusions being precisely wrong rather than approximately right.

5. Methodologies currently used to assess the strength of Sponsor Support

5.1. What have we seen in the market in terms of Sponsor Support assessments?

In the UK the strength of Sponsor Support (or covenant assessment) feeds into the discount rate assumptions used by the scheme actuary in calculating the technical provisions.

In assessing the strength of Sponsor Support, most trustee boards and their covenant advisors typically look at a range of qualitative and quantitative factors. As an example, the methodology followed by PwC considers factors under the following broad headings:

- The corporate group structure, in particular the position of the sponsor in the wider group and the ability of the scheme to access value in the group through the sponsor, and any other arrangements in place for the benefit of the scheme (such as guarantees from non-sponsor entities).
- Recent and forecast profitability and cash flow of the sponsor to indicate its ability to support the scheme.
- The balance sheet of the sponsor to indicate the support that might be provided in the event of an insolvency of the sponsor or scheme wind-up.
- The markets in which the sponsor operates and the sponsor's position in those markets, to indicate longer term trends which might affect the strength of Sponsor Support.
- The financial position of the wider corporate group to consider the additional comfort or risk that this presents to the Sponsor Support. The extent to which the wider group is relevant will vary depending on the specifics of the case (such as formalised group support).
- The financial position of the scheme and related risks, as the assessment of Sponsor Support should be in the context of the level of risk that is being underwritten.

As shown above, the areas typically reviewed by covenant advisers cover some similar areas to those that EIOPA is looking at, such as the ongoing level and affordability of scheme contributions and the level of realisations in a distress scenario. However, a covenant review will typically include

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Table 4. The main covenant approaches

Approach	Typical Output	Pros	Cons
Accounting/Corporate finance: analysis of a range of qualitative and quantitative factors (such as described above). A tried and tested approach developed over several years.	Discrete categories of covenant (usually 3-5 categories).	In line with covenant rating currently used by the Pensions Regulator. Allows judgment and discretion to reflect the particular circumstances of each case. Similar to the approach taken by banks in assessing debt quality.	Does not give a numerical output. Category approach can make it harder to track small changes in covenant strength.
Discounted Cash Flow.	'Covenant value' based on DCF of the business plan – usually a range rather than a single point estimate.	Numerical output, relatively easy to monitor. Analogous to an equity analyst approach.	Judgment still required around forecast assumptions. Usually combined with assessment of other factors to reach an overall conclusion.

additional, more qualitative factors, and the overall weighting of these factors in the analysis requires judgement based on the experience of the reviewer.

We have sometimes seen valuation analysis used to support the overall covenant assessment by providing an assessment of the equity value of the sponsor using standard valuation methods such as discounted cash flow, and earnings multiples derived from comparable transactions and comparable listed companies. The valuation is typically just one factor which provides comfort (or otherwise) in the assessment of the employer's ability to support the scheme but the analysis we have seen rarely concludes on a specific figure for the value of Sponsor Support. Valuations we have seen to date usually provide a likely range of outcomes rather than a precise figure, and these valuations are usually of the business as a going concern, rather than in a distress situation which is more usually covered through balance sheet analysis.

Overview of UK covenant provider market

There are a range of companies providing covenant assessments in the UK, ranging from accountancy firms (including PwC) to actuarial firms, economic consultancies and boutique pension advisory firms. We summarise the main approaches and outputs in table 4:

6. An alternative approach to valuing Sponsor Support

6.1. A staged approach

A characteristic of the UK pension landscape is that there are a large number of schemes with widely varying funding positions and sponsors providing very different levels of support. This calls for a proportionate approach to valuing Sponsor Support which is designed to target those schemes whose Sponsor's Support is either insufficient, or only marginally sufficient, with the most rigorous methodology. With this in mind, a better targeted approach might look something like in Figure 7:

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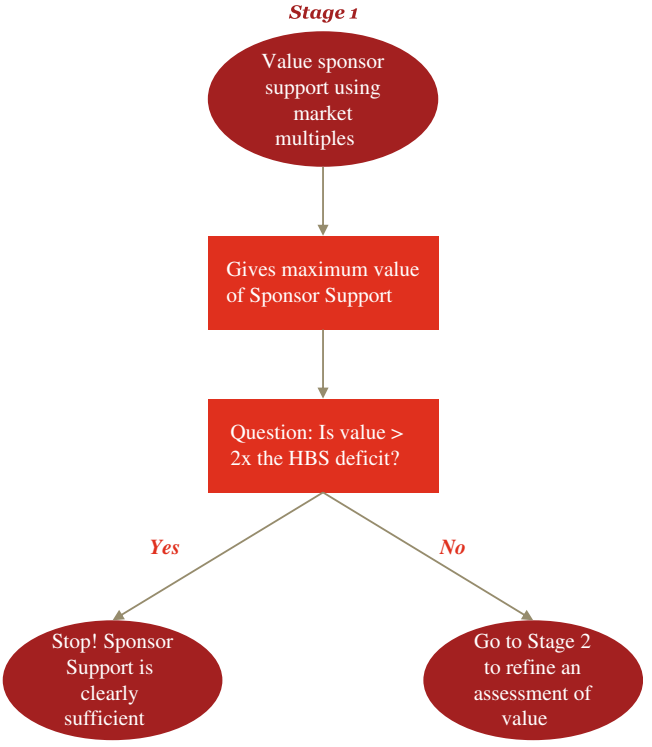


Figure 7. An alternative approach to valuing Sponsor Support

Stage 1 would involve:

- Performing a high level valuation of the business operations of the sponsor using a market approach to valuation. Multiples derived from relevant transactions and listed companies from the same industry sector are applied to an earnings measure such as EBITDA. This will give an approximate enterprise value for the sponsor, from which net debt is subtracted to give total equity value.[6]
- The resulting equity value represents the maximum value of Sponsor Support.
- If this value is more than 2x the market (required) value of Sponsor Support, then this is deemed sufficient and no further work is required. That multiple could be set with reference to the historic equity volatility of the sponsor, or the sponsor and other comparable companies from its sector. Further discussion and comments would be welcome on the appropriate level of valuation that should be used for Stage 1 i.e. whether the proposed value of 2x market value is sufficient.

[6] We note that the business value calculated this way may implicitly assume that the business continues to trade into perpetuity, in contrast to the scheme which (if closed to new members) has a finite life over which member benefits will need to be paid. As most schemes will have over 50 years to go before all liabilities are satisfied, and the proportion of value which exists after 50 years is very small, we believe this approximation is appropriate. However we recommend significant headroom in our stage 1 assessment to allow for this inaccuracy.

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The advantage of such an approach is as follows:

- The information required (publicly available data on valuation multiples from listed companies and transactions, coupled with sponsor earnings) is relatively easy to obtain.
- Market approaches to valuation are something which most schemes will recognise and may have applied in other contexts.
- The exercise is relatively short and simple for schemes with sponsors that clearly have more than adequate headroom.

For a sponsor who passes Stage 1, the maximum value of Sponsor Support is noted for reference, but the value which is used for the purposes of the HBS is only the market value of Sponsor Support described above in section 4.1.

If the sponsor does not pass Stage 1 (i.e. the resulting equity value is less than 2x the HBS deficit), then a more detailed analysis should be undertaken at **Stage 2** as shown in Figure 8.

Stage 2 is essentially a refinement of the equity value calculation performed at Stage 1, but the calculation is more rigorous and detailed. It involves a refinement of the market approach to valuation used in Stage 1 (for example, refining the earnings estimate and doing a broader search for suitable comparables), the calculation of a discounted cash flow ("DCF") approach to valuation (potentially involving scenario and sensitivity analysis), and also an assessment of balance sheet realisation in the event of insolvency. At Stage 2 more expert judgment will be required along with an understanding of commonly applied business valuation methods.

The market and DCF approaches indicate the maximum value of Sponsor Support, while the balance sheet insolvency analysis provides a view on the minimum value based on an assessment of asset realisations and the size of the scheme claim vs. other creditor claims. Depending on where a company is on the corporate demise curve, it may be that at some point the maximum value of Sponsor Support becomes the balance sheet insolvency value.

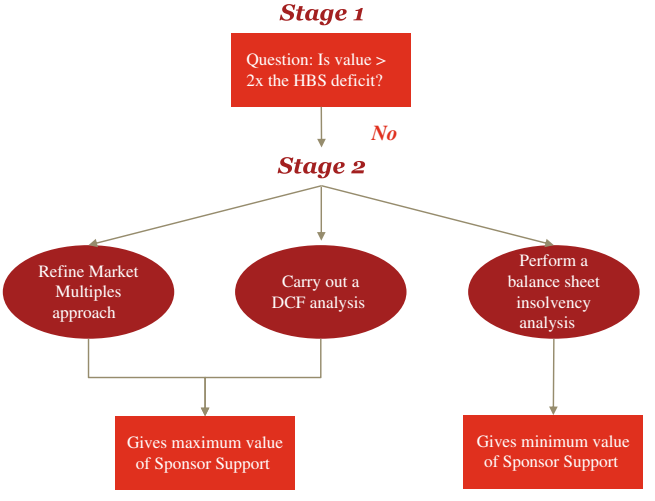


Figure 8. Alternative approach where Stage 1 is not passed

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Table 5. Suggested valuation approaches based on covenant strength

Phase of the Demise Curve	Covenant Strength	Business Value	Covenant Valuation Methodology – *maximum* Value of Sponsor Covenant	Covenant Valuation Methodology – *minimum* Value of Sponsor Covenant
Comfort	Strong or tending to strong	High	High level market multiples approach	Balance sheet insolvency analysis
Concern	Tending to Weak		Refined market multiples approach, DCF	Balance sheet insolvency analysis
Crisis	Weak		Refined market multiples approach, DCF	Balance sheet insolvency analysis
Insolvency	None	Low	Balance sheet insolvency analysis	Balance sheet insolvency analysis

Valuation approach at different points on the demise curve

In all cases our approach recommends applying a high level multiples method at Stage 1, with subsequent refinement if required. Table 5 draws together the idea of different valuation approaches being relevant for Stage 2 depending on where the sponsor is on the corporate demise curve, providing an approximate guide to which methodology we believe is appropriate in each case.

6.2. Information requirements and practicality

The Stage 1 approach described above only requires information that should be publicly available from the accounts of the sponsor and from publicly available databases containing transactions and listed company multiples.

The only additional information required for the purposes of a Stage 2 approach, which would not be publicly available, is the sponsor's latest business plan. We would expect sponsors to be able to share this with their schemes where the scheme is in a situation where the value of the Sponsor Support calculated under Stage 1 has caused the scheme to go down the Stage 2 route. At that point it would be in the sponsor's interests to help the scheme as much as practically possible to get to an answer that it, the sponsor, is comfortable with.

It is unclear from the EIOPA proposals who will be responsible for performing HBS calculations, but in the case of both the wider calculations and our suggested approach to valuing Sponsor Support, a key and obvious requirement is that whoever performs them is professionally competent. Although the valuation approaches we have suggested are commonly used and recognised in the worlds of accounting, finance and in business generally, they require a certain level of experience and expertise to apply, as well as input from both the sponsor and the Trustees. A good Scheme – Employer working relationship will therefore be important.

Appendices

Appendix A: Translate Ltd: a simple worked example of a valuation using a market multiples approach

This appendix sets out an illustrative worked example of a simple business valuation using a market multiples approach.

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For simplicity we consider an unlisted business with one sponsoring employer which is the only legal entity. The hypothetical business information is set out below for Translate Ltd, a business offering language translation services to the European Commission.

Financial information

2012 EBITDA (historical)	£100m
2013 EBITDA (forecast)	£130m
One off recruitment costs incurred in November 2012	£20m
Financial year end	June
Secured bank debt	£70m
Market value of sponsor support	£150m

Maintainable earnings

The starting point for any multiples valuation is to obtain a 'normalised' or 'maintainable' financial estimate for the metric you are using, whether that be EBITDA, profit after tax, revenue or some other metric. This means removing the effect of any 'one-off' or exceptional items which might give a distorted picture. Examples might include mid-year acquisitions or disposals, provision releases, new business set up costs or restructuring costs.

In this example we use EBITDA. The table above highlights that there were larger than expected recruitment costs in 2012 which were a one-off item and should be added back to get a more stable, maintainable EBITDA of £120m for that year. EBITDA is forecast to grow to £130m in 2013.

Multiples – Comparable companies listed on the stock market

These are selected based on similarity to the valuation subject, in this case Translate Ltd. Factors to consider when selecting the benchmark set include common industry and drivers of demand, geographical location, size and profitability among others. The table below shows four fictitious companies which are listed on stock exchanges and for which there are observable market multiples.

Company	Trailing EBITDA multiple	Forward EBITDA multiple
SpeakEasy Ltd	5.4x	4.9x
TraduitRapide S.A.	6.1x	6.0x
Eurolingo Ltd	5.7x	5.5x
Average	**5.2x**	**5.3x**

Multiples—Market benchmarks from recent transactions

The other source of benchmark multiples is from recent transaction prices. Again, it is important to seek out companies as similar as possible to the sponsor to ensure an accurate valuation. Some illustrative numbers are given below.

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Date	Acquired company	Trailing EBITDA multiple
20 June 2012	Language Lovers Ltd	5.9x
17 September 2012	Talk More Ltd	5.3x
31 January 2009	TellMeMore plc	7.6x
Average		**6.2x**
Average without TellMeMore plc		**5.6x**

The eagle eyed reader will spot that the EBITDA multiple for TellMeMore plc is significantly higher than those of the other transactions and the listed companies. In this instance, TellMeMore plc was a listed company which was the subject of a bidding war which pushed the price up above what is normally seen in the market, as overseas players were keen to get a foothold in the lucrative European translation market. The transaction is also significantly older than the others and may not be reflective of current market conditions. We have therefore excluded it from the analysis.

Putting it all together

We now have our maintainable earnings (EBITDA) for Translate Ltd of £120m on a historic basis and £130m on a forecast basis. Our multiples analysis shows historic EBITDA multiples of between 5.2x (trailing listed company multiples) and 5.6x (transaction multiples excluding TellMeMore). Forecast multiples average 5.3x (forecast listed company multiples). The Enterprise value of the business is therefore between **£624m and £689m**, this being £120m times 5.2 and £130m times 5.3 respectively.

In order to assess covenant value, the PwC approach suggests looking at equity value, which is the enterprise value less prior ranking debt. The bank debt for Translate Ltd is £70m, which is deducted from the enterprise value to give an equity value range of **£554m to £619m.**

Going back to the financial information provided at the start of this example and comparing this equity or 'covenant' value against the amount required in respect of Sponsor Support (£150m), the equity value range of £554m – £619m is clearly in excess of the £150m required. In this made up example, the trustees can be confident that there is sufficient employer strength available to support the scheme and a Stage 2 valuation analysis would not be required.

Caveat: In practice the application of the multiples approach is rarely this straight forward, and it may be difficult to identify as many good comparators as in this example. Depending on the level of accuracy applied, it may be necessary to adjust the multiples for one off items, discontinued divisions, different year ends and so on. In some cases there may be synergies paid over in transactions which will lead to a control premium and this may also need to be adjusted for.

Appendix B: Sources

This appendix sets out the key external sources we have relied on.

In compiling this paper we have mainly relied on our professional experience, but we have also used the following sources of information:

- International Financial Reporting Standards covering valuation
- US Financial Accounting Standards covering valuation

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- Quantitative Impact Study (QIS) on Institutions for Occupational Retirement Provision (IORPs), Technical Specifications, European Insurance and Occupational Pensions Authority, dated 8 October 2012
- Pensions Regulator Statement, June 2010
- Consultation Paper published on 15 June 2012 and revised on 2 October 2012 and 8 October 2012

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