Pension Protection Fund

Insolvency scoring from 2021/22

Policy statement following consultation on changes to our insolvency scoring methodology

March 2020

Foreword

In December we formally introduced Dun & Bradstreet (D&B) as our new insolvency risk partner. With D&B we launched a range of new services, including a new portal to view insolvency risk scores, a new levy section on our website – PPF.co.uk, new ways to respond to consultations and new communication channels. We also published a consultation seeking views on these services and on the methodology D&B will use to calculate insolvency risk scores.

A wide range of schemes, employers, advisers and representative bodies responded to our consultation (many using our new online service). The feedback we received was positive – respondents generally welcomed new services (especially the redesigned portal), were supportive of D&B's approach in areas such as the construction of financial variables and corporate linkages, and of our proposals to maintain the current insolvency risk model subject to some change to address stakeholder feedback.

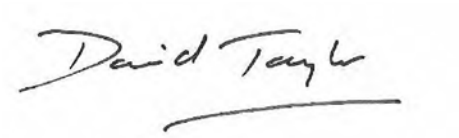
Critically levy payers have also been actively checking their scores and raising queries with D&B. This has helped D&B in their drive to calculate insolvency risk scores for the vast majority of employers and the proportion of employers that have the same levy band as with Experian has significantly increased as a result

Given this, we can now confirm that insolvency risk scores calculated by D&B will 'go-live' from the end of April 2020 – for use in 2021/22 levy invoices.

The basis for scoring will be substantially unchanged from that consulted on. However, we have used feedback to help improve our services (for example, releasing new portal functionality) and will continue to do so in the future. We have also carefully considered suggestions for changes to our insolvency risk methodology. Points raised were typically on issues specific to individual or small groups of employers and this policy statement sets out the detailed analysis we have undertaken.

Switching to live scoring marks the culmination of 14 months of work since D&B were appointed as a result of a competitive procurement. We are extremely grateful to all those stakeholders who have taken time to give us feedback and to the members of our Industry Steering Group and SME Forum for helping us reach this point.

We recognise that we are publishing this policy statement at an extremely difficult and uncertain time due to the Covid-19 outbreak. We do not plan to publish our final rules for the 2021/22 levy year until December. We will monitor developments carefully and consider what, if any, changes to our rules are necessary in view of these exceptional circumstances. We have already introduced flexibilities in relation to the submission of documents for the 2020/21 levy year, details are set out on our website.



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1. Executive Summary

1.1. Introduction

1.1.1. On 19 December 2019 we introduced our new insolvency risk service for 2021/22 onwards - with Dun & Bradstreet (D&B) - and our consultation on changes to our insolvency scoring methodology. We set out the approach that we had followed with D&B - to take over the existing (Experian developed) PPF-specific model, review it, propose changes only where the evidence supported it and consult on the nature and extent of those design changes. In practice, the D&B review confirmed our previous view that the existing model was working well overall and changes were only really needed in response to limited issues raised by stakeholders. We did, however, emphasise in the document that the change of supplier would inevitably mean that a significant number of scores would change. This reflected differences in data collection and handling methodologies and the need to recalibrate scores in line with insolvency experience.

1.1.2. We received a total of 38 responses. This document summarises the responses received, our analysis of the issues raised and the conclusions we reached.

1.2. Customer service

1.2.1. There has been a clear positive response to a number of the key customer service developments. In particular, the new portal for viewing insolvency risk scores and associated information has been widely welcomed as more intuitive and user focused, and users also provided helpful suggestions about further improvements. We are still rolling out some functionality for the portal, having launched as a beta version, and will look to reflect suggestions received where we are able. Since the initial launch of the portal we have already added:

- a tool allowing information on employer insolvency risk scores and the data used in calculating those scores to be downloaded in bulk
- functionality that will offer alerts when levy bands or scores change for employers - users will start to see alerts from May

1.2.2. We also received a number of comments on potential longer term developments for our customer offering such as moving to electronic invoices. We will be using this feedback to inform our ongoing programme of service improvements.

1.2.3. We asked in the consultation whether we should introduce the new scores from April 2020, so that a full year of scores would be averaged in producing 2021/22 invoices in autumn 2021 (rather than, for example, only using scores from October onward). There was majority support for the proposal to use scores from April in 2021/22 levies. However a number of responses asked us to consider flexibility over corrections to data

errors while employers familiarise themselves with the new model and to allow for the filing of accounts on a voluntary basis – in case significant numbers of companies accounts weren't available on time. This might be either because they are voluntarily submitted or collected from 'other permitted sources' - sources other than Companies House, typically not used in business-as-usual scoring by D&B or Experian.

1.2.4. We have carried out extensive, and effective, engagement work with schemes to ensure that accounts are submitted to D&B, and D&B has sought to enhance coverage of other permitted sources. This includes emailing all schemes twice to alert them to the opportunity to check scores and to submit accounts (which applies both to those for whom no accounts are collected and those companies which ordinarily file smaller companies accounts but wish to send full accounts to D&B). We have also publicised these opportunities through industry events and in the press coverage we have secured.

1.2.5. As a result, there are fewer than 100 schemes that pay a risk-based levy, for which Experian hold data on one or more employers that D&B do not, and so a much higher proportion of employers now have the same levy band as that allocated by Experian. We are getting in touch with the remaining schemes where there are data gaps, to emphasise the opportunity to provide accounts for employers in the run up to end April.

1.2.6. We will also ensure data either collected via Companies House/other sources or submitted direct to D&B will be used in April scores if it is provided by 30 April (ordinarily only data received a month before is guaranteed to be used).

1.3. Development of the PPF-specific insolvency risk model

1.3.1. The D&B review confirmed our previous views that the model was working well, though the individual scorecards were not necessarily predicting a level of insolvencies in line with experience. Changes in design were therefore only needed in response to this need to recalibrate to achieve outcomes in line with experience and to address limited issues raised by stakeholders. To address the stakeholder issues our consultation proposed changes in relation to two of the variables appearing on a number of scorecards, following investigation of previous stakeholder feedback. Stakeholders were generally happy with this limited level of change and the proposals made.

1.3.2. For a variable dealing with the presence and age of secured charges ('mortgage age')[1], we proposed an alternate liquidity measure. We chose cash as a proportion of liabilities – which proved the most predictive alternative – and was already used on the scorecard for the largest entities. This replacement was generally welcomed and is being implemented as consulted on.

[1] disliked as it can inhibit business decisions (such as refinancing or purchasing an asset previously rented) and as causing administrative burdens

1.3.3. We also altered the creditor days variable (trade creditors /turnover x 365) to address concerns it does not work for businesses that don't use trade credit in a conventional sense (including financial institutions and agents that can see amounts held for others included in creditors). We found the variable was predictive – but only up to 60 days – and so proposed a cap at this point, and to give a neutral score to companies previously scored using the S&P credit model reflecting that they are unlikely to use trade credit in a conventional sense.

1.3.4. This was welcomed in all answers to the question 'do you support this change', though a few responses expressed disappointment that the variable now had a bigger influence on their score, and some expressed the view that neutral scores should apply more widely. We have considered this, but have concluded that there would be no straightforward adjustment that could be demonstrated to be fair between different types of entity. For those formerly on the credit model we have now set a neutral value that uses the insolvency probabilities of that group (as generated by the credit model) to generate an appropriate neutral score.

1.4. Credit model and credit ratings

1.4.1. Our consultation noted that the proportion of ratings defaults leading to insolvencies appeared to have dropped somewhat, though not to a clearly statistically significant extent. We therefore initially intended to leave the mapping of credit ratings to levy bands unchanged. The majority of responses suggested that we should still recalibrate the mapping, in line with our recalibration of the D&B scorecards. Given responses, we now plan to do this and will confirm the precise basis later in the year – though this may be influenced by our assessment of levy bands (to be covered in our next consultation) and will need to follow agreement to the use of the data from ratings agencies.

1.4.2. Our consultation also proposed to cease using the S&P credit model – which has been used for unrated financial services businesses since 2018/19. All of the responses to our proposal were supportive. Given the substantial cost of operating the model, and the very limited levy collected, we are therefore confirming it will no longer be used from April 2020, with employers transferred to the relevant D&B scorecard.

1.5. Action for stakeholders and next steps

1.5.1. The first monthly score that will be used to calculate mean scores used to calculate levy invoices issued in autumn 2021 (for the 2021/22 levy year) will be generated in April 2020.

1.5.2. We encourage stakeholders to continue to review their scores on the new portal and check that the information D&B hold is up to date and accurate, to provide any self-submitted data to D&B and to raise any issues or concerns with D&B. Doing so will help us ensure scores are appropriate when they are used in invoices.

1.5.3. We are confirming that we will extend the normal deadline for submitting data for use in scores so that data published by Companies House or submitted to D&B will be used in April scores if it is available by 30 April 2020. Where necessary, scores will be retrospectively adjusted to achieve this.

1.5.4. Our next consultation will be in the summer and will seek views on our proposed levy policy that does not relate to insolvency risk measurement. We will then publish our draft levy rules in autumn 2020, with the final rules confirmed by the end of December 2020.

1.5.5. Other key dates relating to the levy can be found on our website

ppf.co.uk/levy-payers/levy-timeline

2. Our new insolvency risk services, with D&B

2.1. Introduction

2.1.1. In December's consultation, we set out how we were using the move of insolvency risk services to D&B as an opportunity to change and improve services offered. A key priority in our strategic objectives is to improve the way we engage with and offer support to our levy payers. We sought feedback through the consultation to help us shape our future developments.

2.2. Pension protection score portal

2.2.1. We launched – alongside the consultation – a new insolvency risk portal where schemes and employers could view the insolvency risk scores produced by D&B and the data used in calculations. The functionality within the portal largely replicates that available from Experian, but was designed to be user centred as opposed to focusing on specific schemes or employers. We launched as a beta version to reflect both that some functionality not critical to initial operation would be added over time, and also that stakeholder feedback on using the portal during the consultation would be helpful in testing and developing the service.

Key developments

2.2.2. A number of changes in functionality when compared to the Experian portal have received positive feedback with some small suggestions for change. Examples of these changes are:

New look website	Entirely new look mirroring the design principles of the PPF website, providing a more intuitive service, helping users find the information they want quickly and easily
Portfolio view	Allows users to create a portfolio of all the schemes and employers they have access to. This allows access without having to log in separately for each employer.
Online WhatIf	A newly designed onscreen 'WhatIf' tool that interactively allows users to scenario test their insolvency risk scores, and download a PDF 'snapshot' of the scenario modelled.

Development in delivery

2.2.3. Functionality we have developed since consultation publication or that is currently being built includes:

Bulk download	Users can download employer score and financial information in spreadsheet format. This can be for one or multiple employers within a portfolio, and enables the user to define the report content at scheme or employer level – based on access type. This functionality has been made available within the portal.
Alerts	As with the current Experian portal, we have developed notifications and alerts. Notifications will be displayed onscreen for all users, and will highlight changes to levy bands and scores at scheme and employer level. Alerts can be configured in the 'my account' section of the portal to allow you to receive emails when scores and / or levy bands change for companies within your portfolio. A new tab under employer scores will also be available – called 'what's changed'. The information under this tab will explain what has driven score changes in greater detail. The first alerts and notifications will compare scores generated in May and April 2020 for change, so this functionality will not be fully released in the portal until the end of May.
How to guides	Explanations of core functionality within the system.

Future developments

2.2.4. We will continue to roll out enhanced functionality, reflecting feedback from the consultation and stakeholder engagement, and will look to deliver this where we are able – maintaining the same user focussed design approach used to design the current offering.

2.2.5. The beta badging on the portal will remain until we have completed this initial phase of development and have given sufficient time for testing in a live environment.

2.3. Accessing the portal

2.3.1. To support customers we wanted to make the transition to new services as seamless as possible. So existing users of the Experian portal who either had access to scheme information as a trustee or had been delegated access by a scheme trustee were migrated to the D&B portal.

2.3.2. Encouraging engagement with scores and data has been an important part of this service launch. In addition to the pre-registered accounts migrated, we have processed nearly 400 further trustee access requests – demonstrating a desire for schemes to understand how their scores are generated.

2.4. Customer support on insolvency risk queries

2.4.1. We aimed to make resolving queries on insolvency risk matters as quick and easy as possible when developing the suite of services offered.

2.4.2. A consultation question surrounding customer support looked to gauge feedback from those who had interacted with the new services. Those stakeholders who had engaged with customer support gave almost unanimously positive feedback, with webchat functionality being highlighted as particularly useful. The ability to obtain transcripts from webchat conversations was requested as a helpful development, which has since been implemented by D&B. Stakeholders can be sent a transcript to their email address once the webchat session has completed.

2.5. Data and engagement

2.5.1. We are encouraging schemes and employers to engage with their scores, particularly in cases where accounts data is self-submitted to Experian as this information hasn't been migrated from Experian to D&B. Many schemes have already done so, and there are now fewer than 100 schemes that pay a risk based levy, for which Experian hold data on one or more employers that D&B do not. We are contacting schemes where we are aware of an issue with the availability of accounts for the employer or parent.

2.5.2. In order to give schemes as much time as possible to provide accounts data voluntarily to D&B, we have extended the cut-off date for April 2020 to 30 April 2020, rather than one calendar month before the cut off as for other monthly scores. Therefore, all data received by 30 April 2020 – whether sourced by D&B or provided by self-submission – will be taken into account in the April scores that feed into levy calculations.

2.5.3. For all later months, the cut-off date for data to be guaranteed to be included when generating a score will be one month before the measurement date.

2.6. Making the PPF website a better resource for customers

2.6.1. The revised structure and developments to our corporate website – www.ppf.co.uk - have been welcomed by stakeholders. The introduction of online forms that capture consultation responses in 'quick' and 'full' formats has been successful with over two thirds of responses being received via these options.

2.6.2. Queries were raised about how historic rules, guidance and FAQs are to be displayed on the redesigned website – citing that the legacy site was useful in this regard. A new webpage has been designed to address this feedback –

ppf.co.uk/levy-payers/past-levy-year-rules

Documents from previous years can now be downloaded as a single ZIP file including published FAQs relating to specific matters that arose at the time.

2.7. New PPF functionality to support the invoicing process

2.7.1. The introduction of changes to support levy payers better during invoicing is underway:

- Since publishing our consultation, we have fully tested and delivered electronic invoice receipting. This sends an email to scheme contacts when a levy bill has been paid confirming receipt of funds, giving levy payers certainty without the need to contact us.
- We are in the delivery phase of a project that introduces functionality to issue copy invoices electronically alongside statements of accounts and payment reminders. It is expected that this will be fully tested and delivered in the coming months.

2.7.2. We are exploring how we can continue to improve services to make understanding and paying the levy easier, reflecting stakeholder feedback in our continued development. In particular, we are investigating the feasibility of introducing electronic invoicing and levy estimate tools.

3. Insolvency risk modelling

3.1. Introduction

3.1.1. The PPF-specific model has been the main basis on which insolvency risk scores have been calculated since the 2015/16 Levy Year. Rigorous testing demonstrated that the model continues to perform well discriminating between solvent and insolvent employers, though individual scorecards were not necessarily predicting a level of insolvencies in line with experience. Aside from the need for recalibration to match the number of predicted and observed insolvencies the changes we proposed in the consultation were limited and based upon stakeholder feedback where there was evidence to support a change.

3.1.2. The consultation invited comments on the basis for assessing the performance of the model and the conclusions we drew on the extent of change undertaken.

3.1.3. We explained that D&B constructed a replica of the model and tested that, for the same inputs, it produces the same outputs. We also explained that

- Data differences could affect the scores produced by the replica model;
- We tested the performance of the model – in terms of whether the levels of insolvencies predicted are consistent with our experience and of the model's level of predictiveness;
- We proposed adjusting the model where predicted levels of insolvency are out of line with actual experience;
- We evaluated the case for changes to the model – particularly in response to stakeholder feedback; and
- Considered the future use of credit ratings and the S&P credit model.

3.2. Data collection differences

3.2.1. As with any credit scoring company, different approaches may be taken in areas such as how and when data is collected and the approach to the identification of specific data fields. We explained that the 'business as usual' approaches that D&B use would be reflected in our Rules and we published (in Appendix 4 of the Appendices Document) definitions of data items used by D&B. One particularly important difference is that D&B distinguish between zeros and unknown data within employers' accounts whereas Experian do not (and therefore treat both the same in their calculation of insolvency risk scores). More generally, D&B will adjust certain data items in accounts - in accordance with defined rules using information provided in the notes - to standardise them in order to improve comparability. We will publish updated scorecard and data definitions reflecting the conclusions of the consultation shortly.

3.2.2. We also explained that D&B take a different approach to Experian in identifying the Ultimate Parents of corporate groups. Where this leads to a different Ultimate Parent

company it can impact the scores of employers that are subsidiaries – positively or negatively.

3.2.3. There was general support for the standardised, rules based approach to any adjustments of accounts data and to the approach to identifying the Ultimate Parent companies. Some caution was expressed as there had been a limited opportunity to see the new approach in practice and it was noted that as D&B would be expected to identify a new parent company before they file accounts including their new subsidiaries, there might be a delay before the data used to score them included that subsidiary data.

3.2.4. We will therefore maintain D&B's approach to accounts collection and handling including the identification of ultimate parent companies and limited rules based adjustments (these do not require interaction with stakeholders as they simply rely on taking account of other data fields also published in the accounts in some circumstances). We will also maintain their approach to zeros and unknown data.

3.2.5. We also proposed a data driven approach to scorecard categorisation (so in broad terms where profit and loss data is absent then categorisation is normally to a small scorecard, and where such data is present, to a full accounts scorecard), rather than relying on the categorisation assigned by Companies House.

3.2.6. This was supported by most responding and it was suggested by one that this approach would reduce the need to raise appeals in order to be categorised appropriately. We will continue to monitor this area with D&B.

3.2.7. A couple of responses in this area raised the question of voluntary submission of full accounts (where small accounts are filed). The rules have allowed employers that file small accounts with Companies House (or elsewhere that we collect from) to additionally file full accounts with Experian (and now D&B) since 2015/16. Where this is done they are categorised as being on the relevant full accounts scorecard. In order to avoid misuse of the rule for gaming purposes there has been a requirement that once an employer has opted to voluntarily file full accounts it remains on the relevant full accounts scorecard in future years. This applies even if they do not provide full accounts in later years (meaning a number of fields are unknown).

3.2.8. We proposed, as part of the move to D&B, that an employer's past practice (whether or not they voluntarily submitted full accounts) would not impact their categorisation for 2021/22. D&B will score on the basis of data collected, unless full accounts are voluntarily submitted.

3.2.9. It was suggested that we allow employers to decide each year whether they wish to provide D&B with full accounts but to prevent gaming, we believe the requirement to be consistent in approach over time is correct. Therefore if full accounts are submitted to D&B for use in scoring we will continue to score that entity on a full accounts scorecard even if further sets of full accounts are not provided.

3.3. Performance Testing

3.3.1. We tested the performance of the PPF-specific model using two important measures. Firstly we tested the predictive quality of each of the scorecards. We used the Gini Coefficient – a percentage based measure – where performance at 40% or higher indicates satisfactory performance, 50% or higher indicates good performance and 60% or higher indicates strong performance.

3.3.2. All but one of the scorecards (over the period 2008 to 2018) performed at a good or strong level, with the other scorecard satisfactory. One of the responses asked whether we had done similar testing to that when we first moved to the PPF-specific model. At that time we compared the performance (in relation to the PPF universe) of the PPF-specific model to Experian's Commercial Delphi (an insolvency risk model used for the wider business population).

3.3.3. We have carried out a similar exercise comparing the revised PPF-specific model (including the consultation proposals) to D&B's off-the-shelf Failure Score model which assesses all UK businesses. As would be expected for a model developed to particularly assess the PPF universe, the PPF-specific model performed better overall. The Gini for the employer population was higher for the PPF-specific model than using Failure Scores. This exercise also identified that Failure Scores would significantly over or under predict insolvencies on all but one scorecard and so could not be used to achieve a fair distribution of levies.

3.3.4. We were asked whether we could take account of more non-financial information within the model (such as company age and trade sectors). These are issues that we have considered in the past and which are more frequently used in models that assess the wider business population. A range of non-financial variables were considered by Experian when they originally developed the PPF-specific score, however they were not selected for a range of reasons. Principally this was because measures that are predictive for the general population proved less so for our employers (for example age of company may not differentiate much between companies most of which are long-established, and may be seen as unfair if a company is created as a result of a restructuring) or there would not be a sufficient number of companies in our universe to produce robust conclusions (e.g. for a trade sector). Additionally, some non-financial items have proven to be open to manipulation (number of company directors, even company location). In the context of a limited re-design of the model we did not consider it appropriate to explore again the use of non-financial variables.

3.4. Calibration of the Model

3.4.1. In addition to testing the ability of the model to discriminate between solvent and insolvent employers we reviewed the extent to which predicted insolvencies matched actual insolvencies. We based the recalibration of the scorecards on the difference – with Scorecards 1, 2 and 7 being found to have under-predicted the number of insolvencies and the remaining ones having over-predicted.

3.4.2. The approach we used for the baseline scores for all scorecards was to re-estimate each variable's contribution to overall insolvency risk assessment. This has the effect both of addressing over or under prediction overall and, where the evidence shows a variable is more or less predictive, of adjusting its relative weight in the formula. This was done including the evidence available since the last review of the model. For the consultation model for Scorecards 6 to 8 we consulted on whether, instead, to use an alternative, simpler single adjustment factor to the raw scores (moving all scores calculated on the scorecard in the same way).

3.4.3. One request was made to simply apply an adjustment factor for all scorecards. In principle, when doing a recalibration a full exercise (including a re-estimation of variables) is the 'fairest' approach – since it recognises the individual characteristics of the employers measured by the scorecard rather than applying a standard adjustment – and typically maximises predictiveness for that set of variables. However, it does mean scores are less stable at the point the new scorecards are introduced.

3.4.4. Where we were also proposing wider changes to scorecards 1 to 5, including introducing new variables, this in any case required co-efficients to be re-worked. For scorecards where there was little other change, stability is a priority and applying a single adjustment factor means that the weight of individual variables don't change (so scores only vary to the extent necessary to offset under or overprediction of insolvencies). This makes the change easier to understand and engage with, which we also consider worthwhile, particularly for the smaller entities on these scorecards. We are therefore confirming that the recalibration will be implemented in line with the approach for the consultation model.

3.4.5. One stakeholder asked us to consider whether cliff edges for variables on the Group Scorecards (3, 4 & 5) may have been made more likely. These cliff edges can occur where a single factor score is used for all values within discrete 'buckets' or ranges of data.

3.4.6. Experian use interpolation (a smoother continuous basis of scoring) in these scorecards. However, because of the different data used by D&B, that approach cannot simply be replicated using the same buckets currently used. In order to introduce interpolation D&B would need to undertake a four stage process – optimising bands (so that the top and bottom scores for each band joined those of the adjacent bands), establishing intervals, creating interpolation and recalibrating. This would lead to a very significant change in scores – using interpolation would not result in a closer match to Experian scores. We do not think this is justified given the strong performance of the model. We have therefore concluded that the group scorecards should be maintained as consulted on but we will continue to monitor the impact in practice to see whether – in future reviews – there is a case to change approach.

3.5. Proposed changes to respond to stakeholder feedback

3.5.1. We proposed limited changes to scorecard variables – where we considered it would improve the performance of the model and where there was an evidence based alternative to variables that stakeholders had concerns about.

Removal of mortgage age variable on group scorecards

3.5.2. One variable that stakeholders asked we review was the use of 'mortgage age'. This variable is highly predictive but its use has required us to develop a certification regime to exclude certain categories of mortgages not related to insolvency risk and stakeholders have expressed concerns that its use affects business decisions to an unacceptable degree. In our review for the 2018/19 levy year we had already removed mortgage age from the scorecards we rebuilt. However, the variable continued to be used in the group company scorecards.

3.5.3. In this review, we considered whether an alternative variable could be used in place of mortgage age in these scorecards. A number of candidate models were considered using alternative measures of liquidity. Cash by liabilities performed best and in the consultation we proposed using this variable in place of mortgage age.

3.5.4. Most responses supported the change but a few stakeholders asked for consideration of an adjustment where cash pooling arrangements were in place within the group. It was suggested that the cash pooling arrangements could mean that subsidiary companies that had deposited the bulk of their cash in the cash pool at the time accounts were completed would be disadvantaged by the variable unless an adjustment was allowed.

3.5.5. In considering the request to allow an adjustment we noted that for accounting purposes cash pooling arrangements are considered to be within intra-group debtors (part of current assets) and that several alternative variables had been tested including current assets/liabilities. Cash by liabilities was found to be the most predictive.

3.5.6. We also noted that our experience of insolvency events showed that, legally and in practice, cash in a cash pool is an unsecured claim against a group company and not as secure as cash held in the company's own name at a regulated bank (a well-known example being the case of Lehman Brothers where cash pooled with the ultimate parent could not be accessed[2]).

3.5.7. We have therefore concluded that we should implement the change of this variable but not allow adjustment for cash held within a cash pool.

Ending use of the S&P Credit Model

3.5.8. In the consultation document we explained that we proposed moving employers currently scored on the S&P Credit Model (certain banks, building societies and insurers

[2] Joint Administrators Report of 14 April 2009

without a credit rating) to the PPF-specific model. This was due to the cost incurred for a limited number of employers and levy charged, along with the added complexity and reduced transparency it brings.

3.5.9. In order to be scored appropriately we have applied a neutral score for the creditor days variable for all employers that were being scored by the S&P Credit Model. We received five responses supporting the change in scoring (though none were from financial institutions affected) and we are confirming this change.

Creditor Days variable

3.5.10. Stakeholders have raised questions about the creditor days variable in past consultation exercises. It has been argued that some employers do not have trade creditors at all, or not in the normal sense and so outlier results can be generated.

3.5.11. As highlighted above we have previously addressed these concerns by assessing a group of entities that would have been particularly impacted by using the S&P Credit Model instead of the PPF specific model. As we are moving these entities back onto the PPF-specific model we proposed using a neutral creditor days score for them (see below).

3.5.12. In order to address outlier values we previously set a cap on creditor days at 365 days. We reviewed the level at which the cap was set and concluded that 60 days was the most appropriate point to revise it to. The following table illustrates that at levels above 60 days insolvency experience is not statistically different to 60 days as the ranges for a 95% confidence interval start to overlap.

					95% Confidence Interval Insolvency Rate	
PPF - SC01 / SC02 / SC05	Non-Insolvencies	Insolvencies	Total	Insolvency Rate	Lower Band	Upper Band
Missing	9611	45	9656	0.4660%	0.3314%	0.6007%
Zero	61	0	61	0.0000%	NA	NA
0-30	19562	86	19648	0.4377%	0.3461%	0.5293%
31-60	8056	137	8193	1.6722%	1.3792%	1.9285%
61-90	1895	28	1923	1.4561%	0.9360%	1.9761%
91-above	2211	19	2230	0.8520%	0.4933%	1.2556%
Total	41396	315	41711	0.7552%	0.6689%	0.8343%

Insolvency Rate for PPF Universe scored on scorecards SC01, SC02, and SC05. NA indicates no confidence interval could be calculated as insolvencies are zero.

3.5.13. Two responses questioned the increased weighting given to the creditor days variable after the cap was applied. Setting the cap at the lower level of 60 days made the variable more predictive and a higher weighting is then a natural consequence in the modelling. We therefore consider the increased weighting to be appropriate, and are confirming the revised cap for the creditor days variable at 60 days.

3.5.14. As mentioned above we also proposed a neutral score to be used for employers that were previously scored using the S&P Credit Model. As these businesses do not

normally utilise trade credit this change was intended to ensure they could be scored appropriately by the PPF-specific model. We received a number of comments asking about the approach we were taking to producing a neutral score and whether there were other entities that might appropriately receive it.

3.5.15. We have reflected on the calculation of the neutral score, the intention of which is to focus the insolvency risk calculation on the remaining scorecard elements. To generate an appropriate neutral value for creditor days we compared the insolvency experience of companies with different creditor days values with the average insolvency probability of those employers currently scored on the S&P Credit Model. This showed that the creditor days level which most closely matched the average insolvency probability of the employers scored on the S&P Credit Model was just under 4 days.

3.5.16. Scores shown in the portal for companies previously on the credit model are being adjusted, as the original calculation had a more significant positive impact than appropriate for an approach intended to be neutral, and additionally have been particularly affected by data gaps as some institutions do not file with Companies House. Accordingly, we particularly recommend checking portal scores, which will be updated in early April ahead of the end of April Monthly Score calculation. Affected schemes can get the up to date score from D&B's customer services team prior to it being available on the portal.

3.5.17. We were asked to consider widening the scope of those entities that we use a neutral score for beyond entities on the Bank of England lists for Banks, Building Societies and Insurance companies that we used to identify entities previously scored on the S&P Credit Model.

3.5.18. We considered whether other financial services employers (for example those registered by the FCA) should have the neutral score used. The difficulty with such an approach was that this wider group included a wide range of entities with disparate characteristics including those where the supply of financial services might be ancillary to their main activity and where it was not clear that treating them in the same way as banks, building societies and insurance companies would be appropriate. In addition, the approach used above would not be based on the evidence of insolvency of this group of employers.

3.5.19. The same difficulties exist for employers where it is argued that their trade creditors and turnover are calculated on different basis from one another. This has been raised by employers that act in an agency capacity. Their turnover (which may be commission based) therefore can appear to be untypically low in relation to their trade creditors (calculated on the basis of the value of supplies by the principal). We accept that this business structure does not follow a typical pattern but we are not persuaded that we can calculate insolvency risk differently for a small number of similar or individual employers. As well as the broad reasons why we are unable to develop a model that can deal with individual circumstances, in the cases we have looked at more than one item of data would need to be adjusted and this may feed into a number of variables

for example cash and total assets may be increased as well as creditors – and typically would tend to alter scores in the opposite direction.

3.5.20. We need a statistically sound model that is capable of scoring around 15,000 scheme employers. The creditor days variable has been found to be highly predictive and better than alternative measures considered. Where we are able to make evidence based adjustments to meet stakeholder concerns we have done so (for example by removing the mortgage age variable) but we cannot make adjustments at an individual level or for a small number of similar employers.

Parental strength measure for small groups

3.5.21. Two responses questioned the relevance and impact of the parental strength measure for subsidiaries within small groups. Specifically it was suggested that there are circumstances where the ultimate parent did not add significantly to a sole subsidiary company and it was suggested it should be disregarded when assessing the insolvency risk of the subsidiary company.

3.5.22. Ignoring the existence of corporate group structures would not be consistent with the basis upon which the model has been developed (irrespective of the extent to which the parent is considered material) and might not be accepted by all stakeholders.

3.5.23. There is also no obvious basis on which to consider materiality. When we have considered this previously we found that the spread of scores for parent companies was not significantly different whether the parent was immaterial (using a basis of less than 5% of turnover and capital employed) or not.

3.5.24. We have carried out further analysis which shows that applying such an approach to all subsidiaries (scoring them on an independent scorecard – in most cases Scorecard 2) would lead to significantly more scores worsening (55 per cent) than improving (16 per cent). Our conclusion is that we should not implement such a change in the rules.

Other issues

3.5.25. We were asked to consider an increase in the number of levy bands (particularly at the higher end – Bands 5 to 10) as a means of reducing the extent of significant increases in levy when employers move levy band. We will be considering the structure of the levy bands and rates in our summer consultation and will make proposals at that time.

3.5.26. We invited comments on our proposal to leave the mapping of credit ratings to levy bands unchanged, instead of adjusting to reflect the most recent data. This was because the latest data showed that only a slightly lower proportion of defaults resulted in an insolvency. However, the majority of responses supported an adjustment to the mapping in order to be consistent with the recalibration applied to the core scorecards. We accept the case for this and will therefore be introducing a revised mapping.

3.5.27. However, implementing the change will require consent from the rating agencies which we are in the process of obtaining and may also be affected by any wider proposals we bring forward on levy bands. Accordingly we are not in position to implement this change now, but will set out our proposed approach in later consultations (including the basis for the revised mapping).

3.6. Start of D&B live scoring

3.6.1. In the consultation document we explained that we planned to use the twelve monthly scores starting from April 2020 for levy year 2021/22 (invoices expected to go out in autumn 2021), but that if there were a need for significant changes following the consultation this might change. As we have not identified the need for significant changes we can confirm that scores will start to be used from April 2020.

3.6.2. We have made a number of attempts to encourage submission of accounts and estimate that, in respect of sponsoring employers of schemes that pay a risk-based levy, there are fewer than 100 schemes that pay a risk-based levy, for which Experian hold data on one or more employers that D&B do not. Additionally there are a similar number of cases where Experian hold parent company information and D&B do not. We will be contacting these schemes. We will also allow an extension until the end of April 2020 for voluntarily submitted data (primarily accounts) to be submitted to D&B where they could not be collected from Companies House, the Charity Commission or permitted sources as well as data collected directly by D&B.

3.6.3. We received some responses asking for a longer extension of time for data to be submitted but we think in part at least some stakeholders may not have appreciated the limited circumstances in which D&B will adjust published accounts data as set out in Appendix 4 of the Technical Appendices document. We will be publishing an update of this and scorecard information including the coefficients and replacement values.

3.6.4. Any adjustments will be made in a consistent, rules based manner, which should not require any additional engagement with D&B (the adjustments use data within the accounts, not separately supplied data). We accept that schemes may have also wanted longer to engage with the portal and ensure the data being used was as accurate as possible but we have also taken account of past consultation exercises where stakeholders have shown a preference for twelve months of data being used where possible. We have therefore concluded that we should retain the one-off extended period for data either collected or voluntarily submitted by the end of April 2020 (to be used to calculate the end of April 2020 Monthly Score) and confirm the use of the twelve monthly scores from April 2020 to March 2021

4. Next steps, action required and key dates

4.1. Next steps

4.1.1. We asked for suggestions on areas to consider in the wider consultation we plan in the summer. Areas suggested in responses included requests for a review of asset classifications, to consider whether the extent of increases in levy that can occur when employers move across the higher risk bands could be reduced and more generally whether we could make further changes to assist small schemes. When considering whether to make proposals in these or other areas we will need to take account of key regulatory stakeholders and weigh the potential benefits of any changes against an often expressed preference for stability where possible amongst levy payers.

4.2. Action required

4.2.1. We encourage schemes and employers to continue to engage with D&B and monitor scores on the portal. In particular, if you previously 'self-submitted' accounts to Experian please consider submitting to D&B as well to ensure they can calculate the most accurate scores.

4.2.2. To give schemes and employers more time to adjust to the change and ensure correct data is used for scoring we have extended the deadline for collection of information published at Companies House and for self-submitted data for April 2020 scores to 30 April 2020. Usually, the deadline for data submissions would be the end of March to be used in scoring for April.

4.3. Experian

4.3.1. Transitioning to a new provider adds a number of complexities to the usual levy cycle with overlapping deadlines and the running of two independent portals. We are very aware of this and are trying to ensure we can make the switch over as easy as possible.

4.3.2. Experian scores will be used to calculate the levy for the 2020/21 levy year. This means that the mean average of monthly scores generated by Experian between April 2019 and March 2020 will be used in levy invoices issued in autumn 2020.

4.3.3. The final monthly score will be displayed on the Experian portal on 1 April 2020. Mean scores used in the levy will be published on the Experian portal in July 2020, it is important that you check these scores when published.

4.3.4. Historic scores will remain visible in the Experian portal until March 2021, after which, the portal will become inactive as part of the process to wind down the services offered by Experian.

4.3.5. Experian's telephone helpline will also remain active until March 2021.

4.4. Key dates

4.4.1. The first monthly score used in the levy calculation for 2021/22 will be generated in April 2020. The mean average of monthly scores generated between April 2020 and March 2021 will be used to calculate levy invoices issued in autumn 2021.

4.4.2. The following table sets out the key dates in the coming year and our intended schedule for consultation phases:

Item	**Key dates and times**
Scoring under the new methodology starts for 2021/22 levy calculations	April 2020
Final date to self-submit accounts to D&B so they are used for the first monthly score in the 2021/22 levy year	30 April 2020
PPF consultation on non-model policy for the 2021/22 levy year	Expected mid 2020
PPF consultation on the Determination and levy rules for the 2021/22 levy year	Autumn 2020
Publication of the 2021/22 levy year policy statement and final levy rules	By end December 2020