P76 Risk Assessment

1. Introduction

At the Credit Modification Group (CMG) meeting on 23 April, the Modification Proposal and two Alternative options were identified for addressing anomalies in the calculation of Credit Cover Percentage (CCP) arising from negative values of Credit Cover. These are detailed below:

Modification Proposal	Changing the CCP equation itself, to make it robust to negative values of Credit Cover.
Alternative Option 1	Changing the definitions of Credit Cover and Energy Indebtedness to add unpaid Trading Charges to the Energy Indebtedness value, rather than subtracting them from the Credit Cover value as currently.
Alternative Option 2	Changing the definition of Credit Cover to disallow negative values of Credit Cover.

This paper attempts to provide a quantitative assessment of the materiality of negative Credit Cover, in order to assist the Modification Group in deciding which of these options is most appropriate.

2. Summary of Findings

The key finding of this paper can be summarised as follows:

Provided that the ECVAA system is correctly assessing Parties' indebtedness, the extra sophistication of the Modification Proposal or Alternative Option 1 will not have any impact at all on the credit risk faced by BSC Parties.

Once Modification Proposal P2 becomes effective, ECVAA will have access to Trading Charge data from the Interim Information run, and should therefore be able to assess indebtedness with a high level of accuracy. For this reason, it is recommended that Alternative Option 2 (the lowest cost option) is the most appropriate method of dealing with the issues raised by P76.

3. Background to P76

Modification Proposal P76 identifies a possible weakness in the interface from the Payment Default process to the Credit Default process. It is important to understand that these are two distinct processes, serving two different purposes:

- The Payment Default process is designed to ensure that Parties pay their Trading Charges, once the Payment Date is reached. Any Party who fails to do so will be in Default of the BSC at the end of the third Business Day after failing to pay. At this point the Panel has a number of sanctions available, including preventing the Party from continuing to trade.
- The Credit Default process is designed to ensure that Parties have sufficient Credit Cover in place to cover their settlement liabilities for the 29 days for which the Payment Date has not yet been reached.

The only link between the two is that the BSC definition of Credit Cover (in section M2.1.3) takes into account unpaid Trading Charges, by deducting them from the Party's Credit Cover. The issue raised by P76 is that the Credit Default process is not robust to negative values of

Credit Cover, and will therefore give nonsensical answers if a Party runs up unpaid Trading Charges that exceed the total amount of cash and Letters of Credit (LoC) posted.

4. How Do Negative Values of Credit Cover Arise?

Analysis of the conditions under which Credit Cover becomes negative suggests that this can only happen under the following circumstances:

- If the Party is already in Credit Default (in which case the credit checking process can't deliver any further protection to Parties).
- If the Party has unpaid Trading Charges, but these are offset by money owed to the Party for Settlement Days that haven't yet reached the Payment Date. (In this case, the unpaid money will be recovered via the set-off rules in Section N2.6 of the BSC).
- If the ECVAA system has incorrectly assessed the indebtedness of the Party, allowing them to post insufficient Credit Cover. The current rules for assessing indebtedness are known to be poor, which means this situation could well arise. However, once Modification Proposal P2 has been implemented (in September 2002), ECVAA will have access to Trading Charge data from the Interim Information run, and this situation is therefore unlikely to arise.

Annex 1 to this document contains a worked example illustrating the reasons for this. However, in summary, the argument is as follows:

- As described in section 3 above, a Party who doesn't pay Trading Charges will go into Default (as defined in Section H) at the end of the third Business Day, at which point the Panel has the option to prevent further trades. A Party therefore has a limited window of time in which to incur unpaid Trading Charges. If they stop paying on day D, this window might run from approximately day D to day D+5 (depending on where the weekend falls), and therefore include the Initial Settlement runs for Settlement Days D-28 to D-23.
- It follows from this that the Party's Credit Cover can only become negative if the actual Trading Charges for the D-28 to D-23 window exceed the total amount of cash and LoC posted. However, the ECVAA system is designed to place people in Credit Default if their liabilities exceed the credit cover posted, and therefore this situation could only arise in the following circumstances:

  i) If the Party has indeed been placed in Credit Default;

  ii) If the total indebtedness over the period from Settlement Days D-28 to D is less than the indebtedness from D-28 to D-23, because the debts are offset by money owed to the Party for later Settlement Days; or

  iii) If the ECVAA system has incorrectly assessed the Party's indebtedness.

It follows from this that fixing the credit checking process to correctly handle negative values of Credit Cover (i.e. the Modification Proposal or Alternative Option 1 as opposed to Alternative Option 2) doesn't provide any benefit to BSC Parties, unless the ECVAA system has under-estimated the Party's indebtedness, and hence allowed them to post insufficient Credit Cover.

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20 May 2002

Annex 1 – Example of Negative Credit Cover

The following example is intended to illustrate the discussion of negative Credit Cover in section 4 of the paper.

Suppose that a Party stops paying their Trading Charges on 1 May, racking up £8,000,000 in unpaid Trading Charges before the Panel takes action to stop them trading:

Payment Date	Settlement Date	Unpaid Trading Charge
01/05/2002	01/04/2002	£1m
01/05/2002	02/04/2002	£1m
02/05/2002	03/04/2002	£1m
02/05/2002	04/04/2002	£1m
03/05/2002	05/04/2002	£1m
03/05/2002	06/04/2002	£1m
07/05/2002	07/04/2002	£1m
07/05/2002	08/04/2002	£1m

The question raised by Modification Proposal P76 is whether changing the credit checking process to handle negative values of Credit Cover could have allowed ECVAA to detect the problem, and prevent the Party from trading earlier. The answer to this depends upon their credit position when payment of Trading Charges ceases. There would appear to be a number of possible cases:

- Case 1 – The ECVAA system knew about the £8m debt for Settlement Days 1 to 8 April, and ensured that the Party put up at least this much Credit Cover. In this case the unpaid Trading Charges won't lead to negative Credit Cover, and so the issues raised by P76 don't apply.
- Case 2 – The ECVAA system knew about the £8m debt for Settlement Days 1 to 8 April, but the Party didn't put up the required Credit Cover. In this case they would already be in Credit Default prior to 1 May, and improvements to the credit checking process wouldn't provide any additional benefit.
- Case 3 – The ECVAA system didn't know about their £8m debt for Settlement Days 1 to 8 April, and therefore allowed them to reach 1 May with insufficient Credit Cover. In this case negative Credit Cover is a real possibility, and improving the credit checking process to handle this could provide real benefits. However, this situation will be much less likely to arise once Modification Proposal P2 becomes effective, because the ECVAA system will then have access to data from the Interim Information SAA run. Only if this data was grossly inaccurate for Settlement Days 1 to 8 April would a risk of negative Credit Cover arise.
- Case 4 – The ECVAA system knew about the £8m debt for Settlement Days 1 to 8 April, but didn't require Credit Cover to be posted, because the debts were offset by money owed to the Party on other Settlement Days in the period between 9 April and 1 May. In this case the money owed for 9 April to 1 May can be used to recover the unpaid Trading Charges (in accordance with the set-off rules in Section N2.6 of the BSC). The only problem would be if ECVAA's estimate of indebtedness for 9 April to 1 May is incorrect, and the Party isn't really owed money. As discussed under case 3 above, this situation is unlikely to arise once Modification Proposal P2 has been implemented.