

Neutral Citation Number: [2015] EWHC 1307 (CH)

Case No: HC13B03839

IN THE HIGH COURT OF JUSTICE

**CHANCERY DIVISION**

Royal Courts of Justice

Rolls Building

London, EC4A 1NL

Date: 12 May 2015

**Before**:

MR JUSTICE DAVID RICHARDS

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**Between:**

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|  | **FONDAZIONE ENASARCO** | Claimant |
|  | **- and -** |  |
|  | **LEHMAN BROTHERS FINANCE S.A.**  **ANTHRACITE RATED INVESTMENTS (CAYMAN) LIMITED** | Defendants |

**AND BETWEEN:**

|  |  |  |
| --- | --- | --- |
|  | **ANTHRACITE RATED INVESTMENTS (CAYMAN) LIMITED** | Part 20 Claimant |
|  | **- and -** |  |
|  | **LEHMAN BROTHERS FINANCE S.A.** | Part 20 Defendant |

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**Mark Hapgood QC and Jasbir Dhillon QC** (instructed by **Sidley Austin LLP**)

for the **Claimant**

**Jonathan Nash QC and Sophie Mallinckrodt** (instructed by **Field Fisher Waterhouse LLP**) for the **Defendant/Part 20 Defendant**

**Jeremy Goldring QC and Henry Phillips** (instructed by **Clifford Chance LLP**)

for the **Defendant/Part 20 Claimant**

Hearing dates: 27 and 28 November, 1, 2, 3 and 5 December 2014

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Approved Judgment

I direct that pursuant to CPR PD 39A para 6.1 no official shorthand note shall be taken of this Judgment and that copies of this version as handed down may be treated as authentic.

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**Mr Justice David Richards:**

*Introduction*

1. The principal issues in these proceedings concern the Loss arising as a result of the automatic termination of a put option triggered by the collapse of the Lehman Brothers group on 15 September 2008. For these purposes, Loss is a term defined in the ISDA Master Agreement (1992 edition) and is to be determined in accordance with the provisions of that agreement.
2. While the detail is complex, the commercial context is straightforward. The claimant, Fondazione Enasarco (Enasarco), is a pension fund, established in Italy and providing pensions to commercial agents and others. Its gross assets in about 2007 were of the order of €5 billion. Like many pension funds and other institutions, it wished to have an exposure to hedge funds and for that purpose had made investments which in December 2007 were valued at about €1.2 billion. In that month, it consolidated its hedge fund investments by entering into new, separate arrangements with companies in the Lehman Brothers group and with JP Morgan Chase Bank.
3. Just over €780 million was invested in a structure devised by Lehman Brothers International Europe (LBIE), designed to provide Enasarco with exposure to hedge funds as an asset class but at the same time to provide protection for the initial sum invested. From 2001, LBIE marketed arrangements to achieve these twin purposes, involving a number of different asset classes, under what was called the Anthracite programme with a total value of up to US$10 billion. Anthracite Rated Investments (Cayman) Limited (ARIC), a special purpose vehicle incorporated in the Cayman Islands, issued secured notes under this programme. By 2008 there were 30 different series of notes.
4. Enasarco invested €780,470,000 in notes issued by ARIC. The notes were called Series 26 Principal Protected Notes and were to mature in 2023 (the Series 26 Notes). ARIC invested the proceeds of the notes in redeemable preference shares issued by a wholly owned subsidiary, Anthracite Balanced Company (R-26) Limited (Balco), also to be redeemed in 2023. Balco was a special purpose vehicle dedicated to holding and investing the proceeds of Enasarco’s investment. Balco invested the funds in a range of, principally, funds of hedge funds, that is to say funds whose assets were holdings of units in hedge funds. In this way, the portfolio was indirectly invested in some 200 hedge funds. Under provisions which I shall describe later in more detail, if the value of these investments declined to pre-determined levels, funds would be switched out of the hedge fund investments into “safe” assets, with a view to ensuring so far as possible that the initial investment of €780,470,000 was repaid at maturity.
5. The protection for Enasarco’s initial investment was provided by means of a put option granted by the first defendant, Lehman Brothers Finance SA (LBF) a company incorporated in Switzerland, to ARIC. It was guaranteed by LBF’s ultimate holding company, Lehman Brothers Holdings Inc (LBHI). Under this option (the Put Option) ARIC had the right to put its shares in Balco on LBF in 2023 at a price equal to the shortfall between €780,470,000 and the amount which would be received by ARIC on the redemption of its shares in Balco. It is the calculation of Loss on the early termination of the Put Option which arises in the present case.
6. The terms of the Put Option are contained in an ISDA Master Agreement (1992 edition) (the Master Agreement), a schedule to the Master Agreement and a confirmation dated 14 December 2007. The terms governing the calculation of Loss are contained in the Master Agreement.
7. The Series 26 Notes and the other series of notes issued under the Anthracite programme fall into a category of investment structures commonly referred to as Constant Proportion Portfolio Insurance (CPPI).
8. Not only did the collapse of the Lehman Brothers group, specifically as a result of its holding company filing for protection under Chapter 11 of the US Bankruptcy Code, trigger the automatic early termination of the Put Option, it also made the entire arrangement unworkable. Not only LBF but also other companies in the Lehman Brothers group were parties to the contractual arrangements and fulfilled vital practical functions in the structure.
9. Although ARIC was a key party in the legal structure of the transactions, in practice it played a very limited role. It did not in fact take any commercial decisions. It had no employees, and its directors and administrative services were provided by HSBC Financial Services (Cayman) Ltd. The same was true of Balco.
10. LBIE was the Calculation Agent which performed a central role in the management of the underlying investments and the operation of the structure. In particular, it determined whether to switch from the equity investments to “safe” investments. LBF provided the Put Option, guaranteed by LBHI. The equity portfolio comprised fund shares which were managed by Lehman Brothers Asset Management and foreign exchange contracts entered into by Balco with Lehman Brothers Special Financing Inc. The “safe” assets would comprise swap units to be issued by Lehman Brothers Special Financing Inc. Lehman Commercial Paper Inc provided a credit facility.
11. As was to be expected, Enasarco came under great pressure from the Italian government and from the media in Italy to safeguard its position following the collapse of Lehman Brothers. Within a short time, it was established that the underlying portfolio of investments held by Balco was ring-fenced and did not form part of the assets of any Lehman Brothers company. They therefore remained in effect available to Enasarco. But there was an urgent need to obtain replacement capital protection. I shall later consider the steps taken by Enasarco to achieve this aim, but on 6 May 2009 Enasarco entered into substitute arrangements, albeit on terms which were in some respects significantly different, with Credit Suisse International (Credit Suisse or CS).
12. ARIC calculated its Loss as US $61,507,902, equivalent to €46,236,114 at an exchange rate as at 6 May 2009. This sum represents the difference between the value as at 6 May 2009 of the premiums payable by Enasarco under the put option with Credit Suisse and the premiums previously payable by ARIC under the Put Option, less the premiums payable under the Put Option between 15 September 2008 and 5 September 2009. ARIC subsequently assigned its claim for Loss to Enasarco.
13. The provisions dealing with the calculation of Loss in the Master Agreement can result in a payment from the defaulting party to the non-defaulting party or the other way round. If, for example, a replacement transaction entered into by the non-defaulting party is at a lower cost than the terminated option, the difference may be payable by the non-defaulting party to the defaulting party. It is LBF’s case that if the procedures required by the agreement had been properly followed, ARIC (or Enasarco) would have been able to enter into a replacement transaction at a more beneficial rate than that payable under the Put Option. On this basis, LBF calculates that it is owed US $42,059,565 plus interest.

*The transactions*

1. The US$10 billion secured euro medium term note programme (the Programme) was originally established by LBIE in 2001. A principal trust deed was made on 30 April 2001 between ARIC and HSBC Trustee (C.I.) Ltd (the trustee). It provided that ARIC might from time to time issue notes in one or more series with no minimum issue size and that each series would be constituted and secured by a supplemental trust deed. The principal trust deed was amended and restated by a deed dated 13 December 2007.
2. The notes issued by ARIC to Enasarco comprised Series 26 Principal Protected Notes with a nominal value of €780,470,000 and a maturity date of 14 June 2023. They were constituted and secured by a supplemental trust deed dated 14 December 2007 made between ARIC, the trustee, HSBC Bank plc as issuing and paying agent and custodian, LBF as the derivative counter- party, LBIE as Calculation Agent and Lehman Commercial Paper Inc as credit facility provider. Under the principal trust deed, ARIC covenanted with the trustee to pay the principal amount of the notes at maturity and, under the terms of the supplemental trust deed, the trustee agreed to hold such covenant on trust for Enasarco as the holder of the notes. As security for the covenant, ARIC charged by way of first fixed charge the redeemable shares to be issued by Balco to ARIC and their redemption proceeds and ARIC’s rights under the Put Option granted by LBF.
3. Pursuant to a subscription agreement made on 14 December 2007 and amended and restated on 31 January 2008, ARIC subscribed for class A redeemable preference shares in Balco. The subscription proceeds were invested by Balco in shares or other investments in funds of hedge funds and long-only traditional mutual funds (the equity portfolio). Drawings were made under the credit facility to increase leverage and make further investments. The drawings at 15 September 2008 stood at €346 million.
4. The investment of the underlying assets held by Balco was governed by the Investment Allocation Mechanism (the IAM) set out in the Calculation Agency Agreement made between LBIE and ARIC. Each month, LBIE as the Calculation Agent would determine the value of the equity portfolio and its relationship with the “bond floor”. The bond floor is the amount which if invested in “safe” assets would, on assumptions made in the IAM, provide the capital required at maturity. If the difference, or distance, decreased below a level determined in accordance with the IAM, the investment in the equity portfolio would be reduced and “safe” assets would be purchased. If the distance fell below 10%, the entire equity portfolio would be realised and the proceeds invested in “safe” assets only.
5. In the case of the present arrangements, the “safe” assets would take the form of swap units to be issued by Lehman Brothers Special Financing Inc (LBSF).

*The Put Option*

1. The principal capital protection for Enasarco’s investment was provided by the Put Option. It was granted by LBF to ARIC and guaranteed by LBHI, the ultimate holding company of the group.
2. The structure of the Put Option for present purposes was that LBF and ARIC entered into an agreement in the form of the ISDA Master Agreement (1992 edition) on 29 April 2005. The Master Agreement was amended and restated on 22 December 2006, together with a schedule. The Put Option for the Series 26 notes was made on the terms of the Master Agreement by a confirmation signed on behalf of both parties and dated 14 December 2007.
3. Under the terms of the Put Option, ARIC was entitled to receive on maturity of the Series 26 Notes in 2023 the amount, if any, by which the redemption proceeds of the shares in Balco was less than €780,470,000. The annual premium payable by ARIC to LBF was fixed at 1.43% for the first 8 years and at 1.03% for the remaining 8 years.

*Loss: terms of the Master Agreement*

1. Central to the present dispute are the provisions contained in the Master Agreement for the automatic early termination of the Put Option and for the calculation of Loss resulting from such termination. The effect of the Master Agreement and the schedule was to provide for the automatic early termination of the Put Option if, among other events, LBHI instituted or had instituted against it a proceeding seeking a judgment of insolvency or bankruptcy. The application made by LBHI on 15 September 2008 to the US Bankruptcy Court for the Southern District of New York for protection under Chapter 11 constituted such a proceeding and therefore caused the automatic termination of the Put Option. By the terms of Section 6(a) an Early Termination Date occurred “as of the time immediately preceding” the application to the US court.
2. By reason of elections made in the schedule to the Master Agreement, it followed from the early automatic termination that, by virtue of Section 6(e)(i)(iv):

*“an amount will be payable equal to the Non-defaulting Party’s Loss in respect of this Agreement. If that amount is a positive number, the Defaulting Party will pay it to the Non-defaulting Party; if it is a negative number, the Non-defaulting Party will pay the absolute value of that amount to the Defaulting Party.”*

1. “Loss” is defined in Section 14 of the Master Agreement as meaning, so far as relevant:

*“… with respect to this Agreement or one or more Terminated Transactions, as the case may be, and a party, the Termination Currency Equivalent of an amount that party reasonably determines in good faith to be its total losses and costs (or gain, in which case expressed as a negative number) in connection with this Agreement or that Terminated Transaction or group of Terminated Transactions, as the case may be, including any loss of bargain, cost of funding or, at the election of such party but without duplication, loss or cost incurred as a result of its terminating, liquidating, obtaining or re-establishing any hedge or related trading position (or any gain resulting from any of them).”*

1. The above-cited extract, when read with Section 6(e)(i)(iv), provides that the Non-defaulting Party’s Loss is to be the “amount that party reasonably determines in good faith to be its total losses and costs …” The definition of “Loss” further provides:

*“A party will determine its Loss as of the relevant Early Termination Date, or, if that is not reasonably practicable, as of the earliest date thereafter as is reasonably practicable. A party may (but need not) determine its Loss by reference to quotations of relevant rates or prices from one or more leading dealers in the relevant markets.”*

1. Under Section 6(d)(i), the party responsible for calculating its Loss must do so on or as soon as reasonably practicable following the occurrence of an Early Termination Date and must provide to the other party a statement showing, in reasonable detail, such calculations and giving details of an account to which payment is to be made. The amount shown in the statement is payable on the day that the notice of the amount becomes effective in accordance with Section 12(a). That amount is payable together with interest.
2. The parties could have elected to choose as the payment measure “Market Quotation” rather than “Loss”. “Market Quotation” is defined in Section 14 to mean:

*“… with respect to one or more Terminated Transactions and a party making the determination, an amount determined on the basis of quotations from Reference Market Makers. Each quotation will be for an amount, if any, that would be paid to such party (expressed as a negative number) or by such party (expressed as a positive number) in consideration of an agreement between such party (taking into account any existing Credit Support Document with respect to the obligations of such party) and the quoting Reference Market-Maker to enter into a transaction (the “Replacement Transaction”) that would have the effect of preserving for such party the economic equivalent of any payment or delivery (whether the underlying obligation was absolute or contingent and assuming the satisfaction of each applicable condition precedent) by the parties under Section 2(a)(i) in respect of such Terminated Transaction or group of Terminated Transactions that would, but for the occurrence of the relevant Early Termination Date, have been required after that date. … The party making the determination (or its agent) will request each Reference Market-Maker to provide its quotation to the extent reasonably practicable as of the same day and time (without regard to different time zones) on or as soon as reasonably practicable after the relevant Early Termination Date. The day and time as of which those quotations are to be obtained will be selected in good faith by the party obliged to make a determination under Section 6(e), and, if each party is obliged, after consultation with the other. …”*

1. In view of the bespoke character of CPPI transactions, such as the Series 26 Notes, and the absence of either market makers in the ordinary sense or daily market quotations, it was appropriate to have elected for Loss rather than Market Quotation. Nonetheless, as counsel for all parties submitted, it is well settled that the two bases for determination are intended to arrive at broadly the same result.

*Events from 15 September 2008*

1. As already noted, LBHI filed for protection under chapter 11 of the US Bankruptcy Code on 15 September 2008 and it is common ground that this constituted an Event of Default with respect to LBF: Section 5(a)(vii) of the Master Agreement. This caused the automatic occurrence of an Early Termination Date (ETD). Also on 15 September 2008, LBIE entered administration in England. On 22 December 2008, LBF entered bankruptcy proceedings in Switzerland.
2. ARIC was the non-defaulting party and LBF was the defaulting party. ARIC was accordingly required by Section 6(d)(i) of the Master Agreement to calculate its Loss on or as soon as reasonably practicable after 15 September 2008.
3. The steps taken by ARIC and Enasarco in the period following 15 September 2008 are at the heart of the central issue between the parties. I detail those steps, and the expert evidence relating to them, later in this judgment.
4. On 6 May 2009, Enasarco entered into an agreement with Credit Suisse under which Credit Suisse granted a put option to Enasarco in respect of the Balco shares (the CS Option). The agreement was made on the terms of the ISDA 1992 Master Agreement, together with a schedule and a confirmation, all dated 6 May 2009. The strike price was the same as that under the Put Option with LBF, but with a new maturity date of 30 June 2039. The premium payable by Enasarco was equal to 1.8% per annum until 29 April 2011, after which it might in certain circumstances reduce to lower levels.
5. As the non-defaulting party, ARIC calculated its Loss for the purposes of the agreement with LBF by reference to the cost of the CS Option. On 16 September 2009, ARIC provided LBF with a calculation statement pursuant to Section 6(d) of the Master Agreement, in which ARIC determined its Loss at US $61,507,902. In the calculation statement ARIC stated that it had determined its Loss by reference to its loss of bargain, which was stated to be €49,190,858, “computed by reference to a firm fixed rate per annum obtained on 6 May 2009 … from a leading dealer”, being the CS Option. It deducted a sum of €2,954,744 in respect of a payment of premium due but not made to LBF on 15 September 2008, together with interest, to arrive at a net Loss of €46,236,114. This figure was converted into US dollars for the purposes of the determination of Loss.
6. On 16 September 2009, ARIC also filed a claim in the bankruptcy of LBF in Switzerland for a sum of CHF 67,377,108.42, being the Swiss Franc equivalent of its calculation of Loss.
7. By a Deed of Purchase and Cancellation dated 18 September 2009, ARIC agreed to transfer its shares in Balco to Enasarco or to its order and assigned to Enasarco all of its claims against LBF as were capable of assignment. Deeds of assignment under English and New York law were entered into on the same day and notice of the assignment was given to LBF and its Swiss liquidators.
8. It is common ground that ARIC’s rights and claims, if any, in respect of the Put Option are now vested in Enasarco.
9. By a letter dated 9 July 2010, Enasarco demanded payment of the Loss figure, together with interest, from LBF.
10. LBF resisted Enasarco’s claim and asserted that it was entitled to a payment of €43.74 million, on grounds which it had set out in a detailed letter dated 14 June 2010 to ARIC. It contended that under provisions contained in the confirmation, an Early Redemption Event (as defined) occurred on 15 September 2008, with the result that any calculation of Loss should not take into account the likely cost of a replacement transaction that would run to maturity but that, instead, a sum called the Early Termination Cash Settlement Amount was payable by ARIC to LBF.
11. Enasarco commenced proceedings in the High Court for determination of this issue and in a judgment given by Briggs J on 15 July 2011, LBF’s case was rejected. A declaration was made that ARIC as the non-defaulting party was entitled to determine its Loss by reference to the cost of a replacement transaction.
12. LBF did not raise in those proceedings, in the alternative, any of the matters on which it has relied in these proceedings for disputing ARIC’s calculation of Loss nor did it raise any case that on a proper calculation of Loss a substantial sum was due by ARIC to it. Nor, as I understand it, were any of these matters raised until April 2013 when the liquidators of LBF rejected ARIC’s proof. It is not suggested by Enasarco or ARIC that LBF is precluded from relying on these matters in the present proceedings, but they nonetheless have legitimate grounds for complaint that these matters were not raised until 3½ years after ARIC lodged its proof.

*The proceedings*

1. The present proceedings were issued on 29 August 2013. As claimant, Enasarco seeks:
   1. payment from LBF of the sum of US $61,507,902 or such other sum as the court determines plus interest; and
   2. a declaration that no sums are payable by Enasarco to LBF.
2. ARIC, as well as LBF, is a defendant to these proceedings but no relief is sought against it by Enasarco. By way of a Part 20 claim, ARIC seeks a declaration that no sums are payable by it to LBF.
3. By way of counterclaim, LBF seeks:
   1. declarations that no sums are payable by it to Enasarco or ARIC,
   2. a declaration that either US $41,781,881 or US $42,059,565 (depending on the calculation of the accrued unpaid premium) plus interest is payable by ARIC to it,
   3. an order for payment of that sum,
4. The Master Agreement provides that it is governed by English law and confers jurisdiction on the English courts. Notwithstanding these provisions LBF applied for a stay of the proceedings in favour of proceedings in Switzerland. I rejected this application in a judgment delivered in January 2014: see *Fondazione Enasarco v Lehman Brothers Finance SA* [2014] EWHC 34 (Ch).

*Evidence*

1. Three witnesses of fact gave evidence at the trial: Brunetto Boco, the president of the board of directors of Enasarco since June 2007; Scott Aitken, an officer of HSBC Bank (Cayman) Ltd with responsibility for the administration and management of special purpose vehicles, who was a director of ARIC from 2006; and Christiana Brunner, one of the liquidators of LBF in Switzerland. Mr Boco led Enasarco’s response to the collapse of Lehman Brothers but was not involved in the detail, relying on others for that. He He was able to give clear high-level evidence of the pressures to which Enasarco was subject and its aims and intentions after 15 September 2008. Mr Aitken’s evidence provided a vivid picture of the pressures to which he and his colleagues were subject after the collapse of Lehman Brothers and made clear the very limited commercial role played by ARIC. Ms Brunner’s evidence was confined to LBF’s claim for default interest.
2. The principal focus at the trial was on the expert evidence given by Dr David Ellis on behalf of Enasarco and Mr Matthias Lennkh on behalf of LBF. The evidence of both experts contained useful material but there were severe limitations to the relevant evidence which each of them could give. Dr Ellis was not at any time a participant in the funds derivatives market or, it is fair to say, in any market. His evidence contained some useful analytical material but one of his principal instructions was to calculate ARIC’s loss as at 15 September 2008 “by way of an accepted financial modelling technique”. So far as Enasarco’s case was concerned, this was very much a back-up, given that it based its case primarily on the quotation provided by CS in May 2009. The calculation of Loss as at 15 September 2008 was carried out by Dr Ellis on the basis of a Monte Carlo simulation. I am satisfied by the evidence of Mr Lennkh that this was not a method in practice used by banks to price fund derivatives products. Accordingly I reject the calculations by Dr Ellis of the hypothetical prices at which a replacement transaction for the Put Option would or might have been struck. While Mr Lennkh was an active trader in the funds derivatives market, his involvement ceased at the end of August 2008. He is accordingly not in a position to give first hand evidence of the state of the markets following the collapse of Lehman Brothers on 15 September 2008. I deal later with his evidence of the extent of activity in this market following 15 September 2008.

*The principal issues*

1. The case for Enasarco and ARIC is that ARIC made a reasonable determination of its Loss in accordance with the relevant provisions of the Master Agreement. ARIC was entitled to and did rely on the cost of a replacement transaction as the basis for the calculation of its Loss in the unusual circumstances which followed the collapse of the Lehman Brothers group and the ensuing financial crisis. The replacement transaction, made with Credit Suisse on 6 May 2009, was made on the first reasonably practicable date after the Early Termination Date, 15 September 2008 (the ETD).
2. Calculation of loss by reference to the cost of a replacement transaction is expressly contemplated and permitted by the last sentence of the definition of “Loss”:

*“A party may (but need not) determine its Loss by reference to quotations of relevant rates or prices from one or more leading dealers in the relevant markets.”*

1. In the light of that provision and the declaration made by Briggs J, it was not open to LBF to contend that ARIC was not entitled to calculate its Loss on this basis and, certainly at trial, it did not seek to do so. Mr Nash QC, on behalf of LBF, accepted that an obvious way of determining loss of bargain for the purposes of a Loss calculation was by reference to the cost of a replacement transaction. The question, he submitted, was when could a replacement transaction have been sourced and at what price? The evidence of the uncertain state of the markets following the collapse of the Lehman Brothers group and the financial crisis shows, in my view, that it was particularly appropriate in this period to look to prices actually quoted for a transaction, rather than any hypothetical prices.
2. LBF’s case is that ARIC did not determine its Loss in accordance with the terms of the Master Agreement because:
   1. 6 May 2009 was not the earliest reasonably practicable date after the ETD as of which ARIC could have determined its Loss on the basis of a quotation for a replacement transaction;
   2. in any event, the terms of the CS Option were so different from those of the Put Option that the price of the CS Option could not be used to determine ARIC’s loss of bargain; and
   3. further, in any event, the date of the calculation statement, 16 September 2009, was not “as soon as reasonably practicable following the occurrence” of the ETD, as required by Section 6(d) of the Master Agreement.
3. Although LBF pleaded that a quotation for a replacement transaction could have been obtained on 15 September 2008, this is in the light of the evidence clearly unrealistic and it was not pursued by LBF. Instead, it is LBF’s case that a quotation could have been obtained within a few weeks after 15 September 2008, and in any event by the end of October 2008.
4. LBF also submitted that under the terms of the Master Agreement the right and obligation to calculate Loss fell on ARIC, whereas in fact all relevant steps were taken by Enasarco save that, on Enasarco’s instructions, ARIC completed its calculation of Loss by reference to the cost of the CS Option. It was not clear whether LBF went so far as to submit that this invalidated ARIC’s calculation of Loss but, in any event, I do not consider that there is anything in the point. There is nothing in the Master Agreement to preclude a non-defaulting party from relying on a quotation for a replacement transaction obtained and negotiated by another person. In circumstances where the entire structure was devised by Lehman Brothers companies for the benefit of Enasarco who, to the knowledge of all those companies including LBF, held the entire economic interest in the investment, it would to say the least be unrealistic to expect that Enasarco would not take the lead in seeking to obtain a replacement transaction. In fact, as the evidence of Mr Aitken made clear, ARIC had neither the staff nor the resources to undertake such tasks on behalf of either Enasarco or any of the other investors in the 30 or so series of notes issued by ARIC.
5. The issues therefore boil down to questions of fact. This, as it seems to me, renders largely academic the interesting submissions and citation of authority on the content of the obligation of the non-defaulting party “reasonably” to determine its total losses and costs as required by the definition of “Loss”. I should nonetheless record my view that the relevant authorities now quite clearly establish that in considering whether the non-defaulting party has “reasonably determined” its Loss, that party is not required to comply with some objective standard of care as in a claim for negligence, but, expressing it negatively, must not arrive at a determination which no reasonable non-defaulting party could come to. It is essentially a test of rationality, of the type developed in the quite different context of public law duties in *Associated Provincial Picture Houses Ltd v Wednesbury Corporation* [1948] 1 KB 223: see *Australian & New Zealand Banking Group Ltd v Societe Generale* [2000] 1 All ER (Comm) 682, *Peregrine Fixed Income Ltd v Robinson Department Store Public Co Ltd* [2000] CLC 1328.

*The earliest practicable date for a replacement transaction*

1. The first issue is whether the quotation dated 6 May 2009 on which ARIC relied was obtained on the first reasonably practicable date after the ETD. Whether a date is the first reasonably practicable for any purpose is a question of fact to be determined on the evidence. “Reasonably practicable” is not the same as “possible”. To identify the first reasonably practicable date requires a consideration of all the circumstances, including those which are particular to the person who is required to act by that date. However, I rather doubt that this distinction makes much, if any, difference on the facts of the present case.
2. It is Enasarco’s case that a quotation for a replacement transaction could not have been obtained earlier than 6 May 2009 or, alternatively, that if it could have been, it would only have been earlier in 2009 and there would not have been any material difference in price. It is LBF’s case that one or more quotations for a replacement transaction could have been obtained within weeks of the ETD and in any event by the end of October 2008. It says that the price for transactions of this sort significantly increased only later, particularly after the Madoff scandal broke in December 2008.
3. In LBF’s defence, it pleads that the correct approach to calculating the Loss involves a comparison as at the ETD or at the earliest date reasonably practicable thereafter of (a) the contractual price for the principal protection under the Put Option and (b) “the price which would have to be paid for principal protection under a hypothetical replacement transaction.” As presented at trial LBF’s case was not that this comparison should be made by reference to a replacement transaction for which no firm quotation could be obtained. Its case was that a transaction to replace the Put Option could have been made within a few weeks of the ETD. At one stage of the submissions, it appeared that there might be an argument as to whether the reference in the definition of Loss to “quotation of relevant rates and prices from one or more leading dealers in the relevant markets” referred to something less than real offers at which dealers were willing to contract on the day of the quotation. The meaning of the words “quotations from Reference Market-makers” in the definition of “Market Quotation” was held in *Lehman Brothers Finance SA v Sal Oppenheim JR & Cie KGAA* [2014] EWHC 2627 (Comm) to be a real offer at which a dealer was willing to contract on the day of the quotation. In my view, and for the same reasons as given in that judgment, “quotations” carries the same meaning in the definition of Loss. In the event, however, this is not an issue which arises on the way in which the parties put their cases.
4. LBF sought to make its case that quotations for a replacement transaction could have been obtained at a much earlier time than May 2009 by reference to, first, the steps taken by Enasarco and, secondly, the evidence of Mr Lennkh as regards activity in the funds derivatives market.

*Enasarco’s search for a replacement transaction*

1. Whatever the precise effect on markets generally or hedge funds in particular, there can be no doubt that the collapse of the Lehman Brothers group had a profoundly damaging effect on financial markets generally and on the economies of Western countries, creating a loss of confidence and a high level of uncertainty. The insolvency of the Lehman Brothers group was followed by the collapse or rescue of a significant number of banks and other financial institutions in the United States, the United Kingdom and other countries.
2. The impact on the credit standing of the Series 26 Notes held by Enasarco was immediate. Moody’s, the credit rating agency, had rated the Notes as A1 in March 2008, subsequently reducing the rating to A2. On 18 September 2008, Moody’s downgraded the Notes to B3 (speculative and high credit risk), subject to review for possible further downgrade. Moreover, there had been a general decline in the value of hedge funds during 2008. By the end of August 2008, there had been a decline of 5.49% since the issue date and a decline of 1.53% for August alone. There was further decline after the ETD.
3. I found entirely convincing the evidence given by Mr Boco that Enasarco came under intense pressure from the authorities and the media in Italy in view of its exposure to Lehman Brothers and the derivatives markets. It was imperative that Enasarco should find a solution to the crisis caused for it by the collapse of the Lehman Brothers group and should, if possible, secure the capital value of its funds. I am satisfied that Enasarco regarded a replacement for the Put Option as a matter of great urgency. It does not necessarily follow that May 2009 was the earliest reasonably practicable opportunity for securing a replacement transaction, but I am satisfied that there was no desire or intention on the part of Enasarco to delay in obtaining a replacement transaction.
4. LBF accepts that by 17 September 2008, Enasarco had decided to:

*“pursue a strategy that was aimed at preserving the value of the investment; to identify partners (preferably several) amongst financial institutions, which were proven sound and in a position to restructure the debt and take over the position of [LBF] as the provider of the Protection.”*

This is a quotation from Enasarco’s annual report for 2008, which LBF sets out in its defence.

1. By 17 September 2008, Enasarco was seeking advice from its lawyers and financial advisors, in particular Prof. Daniele Pace of Consulenza Institutionale SpA, who had advised on the restructuring of its hedge fund investments in 2007. It wrote to ARIC and to the trustee on 17 September 2008, directing them not to take any action that could result in the early realisation of the underlying assets. In the letter the general manager stated that:

*“We are currently discussing with our advisors possible restructuring alternatives for our investment which do not contemplate the immediate realisation of the Underlying Assets …”*

1. Also on 17 September 2008 the board of Enasarco instructed Dr Pace to provide an opinion on the effects of the collapse of the Lehman Brothers group. In a memo dated 20 September 2008, he advised that the underlying assets and the structure through which they were held fell outside any of the Lehman Brothers companies and as such were not assets of any company subject to any insolvency proceeding. Clearly this was of the greatest possible significance to Enasarco. The memo noted that Enasarco was:

*“faced with a negotiation phase with the Trustee of Anthracite R26, to define the best way to move from the Guarantee provided by Lehman Brothers to another guarantee, to be applied also to several financial instruments deriving from the original one or provided by different entities.”*

1. The memo continued:

*“The change of entity and in the number of entities, if applicable, that will guarantee the note or the notes might, in theory, determine a change also in the current underlyings which, incidentally, had already been undergoing substantial changes and were under constant review to improve their risk/return profile.”*

1. It is clear from the memo that the principal task facing Enasarco was to replace the Put Option provided by LBF.
2. Enasarco approached three major banks in early October 2008: Credit Suisse, Barclays Capital and Société Générale (SG).
3. The involvement of so many entities in the Lehman Brothers group as parties to the transactions meant that significant restructuring was required. The evidence of Mr Boco, which I accept, is that the general manager and the advisors informed Enasarco’s board that no bank would be willing to offer a guarantee without restructuring the transaction. Enasarco’s strategy was to restructure the transaction and re-establish a guarantee of the principal in two phases. The first phase would involve the immediate transfer of ownership of the Series 26 Notes to one bank, so that it could take the steps necessary to terminate the contractual relations with counter-parties in the Lehman Brothers group and with third parties. The new note would have the same nominal value and would be linked to the existing bond. The restructuring would take place in the second phase, after termination of the existing contractual relations.
4. Enasarco’s strategy was set out in a board paper dated 23 October 2008:

*“The strategy that the Foundation has shared with its advisor Professor Pace and the above mentioned Banks, to restructure the investment and re-establish a guarantee on the principal, consists of two different phases:*

*(1) The immediate transfer of ownership of the Anthracite Note to only one of the Banks involved, so that it can terminate any existing contractual relations maintained by Anthracite with the counter-parties of the Lehman Group and with third parties … it would be an exchange of the Anthracite Notes with other securities, in a technical form that allows said swap to be carried out based on the same nominal value (€780 million) and without giving rise to any financial effects, as the new securities would have a return fully linked to that of the current bond. …*

*(2) In the second phase, when the actual restructuring of the investment takes place, once the contractual relations are terminated and the obligations with Lehman are settled and, after receiving the offers, Anthracite’s assets are transferred to the vehicles of the new protected-bonds. In this phase the bond may be “chopped up” among the different Banks, so as to achieve a greater guarantee diversification.”*

1. After setting out what were seen to be the significant benefits for Enasarco of this strategy, the paper stated:

*“Based on the above considerations, this process may be regarded as capable of expediting the restructuring for the Foundation without any material risk.”*

1. Dealing further with the guarantee, the paper stated:

*“The contacted Banks have been asked to prepare proposals to re-establish a guarantee on the capital in a short period of time and possibly also for the initial phase. Obviously, these proposals shall be incorporated and, where necessary, improved in the subsequent phase, when the bond will be finally restructured …*

*All the Banks contacted have confirmed their willingness to issue the guarantee, reserving the right to disclose the relevant terms and conditions at a later time after the completion of the due diligence regarding the assets underlying the current bond.”*

1. Each of the banks approached by Enasarco put forward their proposals in October 2008. Subject to what is said below, none of them put forward a proposal for an immediate or even an early guarantee of the capital. Without exception, none of them quoted a price for any guarantee.
2. CS’s proposal involved three phases. The first was to swap the Series 26 Notes held by Enasarco for a certificate to be issued by CS. The second phase would involve the liquidation of the Anthracite structure and the transfer of the portfolio to CS. The second phase would also involve terminating the contracts with counter-parties, including those with companies in the Lehman Brothers group, and putting in place new arrangements. Under the third phase Enasarco would swap the CS certificate for new credit-protected notes linked to the portfolio of segregated assets which would by then be held by CS. The notes would have the benefit of a capital guarantee in consideration for the payment of an annual premium.
3. CS expected that phase 1 would be completed on or around 29 October 2008. The second phase would involve discussions between CS and Enasarco and the counter-parties in the existing structure with a view to the liquidation of the structure, leading to a restructuring and liquidation agreement to be negotiated and agreed between all those parties and the transfer of the underlying portfolio to CS’s own platform. The expected timing was to be determined. Only at phase 3 would Enasarco obtain the benefit of capital protection through what is described as “possible issue by CS of CPPI notes”, linked to the portfolio of segregated assets held on CS’s platform. Again the timing was to be determined. The CPPI notes would guarantee the capital of the portfolio at maturity.
4. Barclays submitted its proposal on 21 October 2008. Paragraph 1.3 records Enasarco’s request that Barclays put together a proposal which would allow Enasarco to replace the Series 26 Notes with securities issued by another bankruptcy remote vehicle, give Enasarco control in respect of any decision related to the notes, and minimise Enasarco’s credit exposure to Barclays. The letter set out Barclays’ proposal for a replacement structure involving notes issued by a special purpose vehicle and shares of an Irish qualifying investor fund. As regards capital protection, paragraph 2.2 stated:

*“Furthermore after the implementation of the Proposed Replacement Structure, the bank shall consider providing Protection in relation to certain assets that are currently held within the Balanced Company …”*

1. The provision of protection would be subject to a number of conditions being satisfied in the sole discretion of Barclays. These included that “the level of protection shall be determined only after the transfer of assets to the Fund has been completed”, confirmation that the assets satisfied investment guidelines (to be agreed), confirmation that no actual or contingent liabilities were owed to any Lehman Brothers company, and the payment of fees to be agreed. The letter stated that it did not constitute an offer by Barclays to provide the proposed replacement structure and that any implementation was subject to final approval of Enasarco and the bank, noting that the proposed structure had not yet been approved through Barclays’ corporate governance committees.
2. It is apparent from the proposal put forward by Barclays that it had severe reservations concerning the portfolio of hedge funds held within the Anthracite structure. To meet Enasarco’s objectives, Barclays proposed to keep the principal protected note format but to supplement it with a gradual reduction in the allocation to hedge funds “which are not attractive from risk/return characteristics and replace with other more attractive funds” and to “put in place a dynamic overlay” consisting of liquid publicly-traded instruments which would “reduce the downside associated with the Hedge Fund Portfolio while preserving and potentially increasing the upside.”
3. SG provided its proposals on 28 October 2008. No price was quoted for the protection element which, like the rest of the proposal, was subject to numerous conditions. The conditions included the liquidation of all the Series 26 Notes by a given date and a requirement that the proceeds from the repayment of the Notes were at least equal to the present value of the zero coupon bond to be issued by SG. The effect of these conditions was that, if they were not satisfied, SG was not prepared to provide principal protection to the same level as the Put Option.
4. None of the proposals put forward by the banks suggested a willingness to provide an immediate guarantee to replace the Put Option. It is fair to say that Enasarco was putting forward a proposal for a restructuring, in which the protection would be provided at phase 2 but it is clear that none of the banks would simply replace the Put Option but leave the existing structure otherwise unchanged. Indeed, it is apparent that it would be impossible to do so, given the number of Lehman Brothers group entities involved in key positions in the existing structure. All proposals were subject to full due diligence on the underlying assets and either their realisation or the determination of their value.
5. The only qualification to this is that in the board’s paper dated 23 October 2008, it was recorded that CS had stated that “it was able to provide a conditional guarantee for the principal, for the period necessary to terminate any relations maintained by Anthracite”. In an email sent on 24 October 2008, CS had stated:

*“As discussed during yesterday’s meeting at our office, we confirm that we are able to guarantee 100% of the capital of maturity, provided that the Anthracite Note’s NAV is equal to or greater than the current value of 100% of the nominal value of the Anthracite Note on the maturity date. The calculation of the current value will be made at a rate equal to Euribor flat, reflecting the high credit standing of Credit Suisse in the current market conditions.”*

1. At a board meeting on 29 October 2008, Enasarco resolved to proceed with CS and to exchange its Series 26 Notes for CS certificates. One of the reasons for proceeding with CS was the prospect of a guarantee in the short term.
2. In fact, no such short term guarantee was provided. The furthest the proposal got was a letter dated 5 December 2008 from CS confirming that it was “able to protect at maturity” payment of the outstanding principle of the Series 26 Notes subject to (i) CS continuing to hold the notes or there being effected a restructuring satisfactory to CS; and (ii) the unwind value of the notes being greater than the then present value of the obligation to pay the outstanding principal amount of the notes at the scheduled maturity date. Critically, the letter ended by stating:

*“This letter is submitted on the basis that it does not give rise to any commitment to issue or purchase any securities, derivatives or guarantees and does not impose any obligation on any party. The transactions are subject to continuing discussions, development and agreement by and between ourselves and yourselves and to further consideration by our legal, credit, tax, risk and regulatory compliance departments.”*

1. At no time did CS quote a premium for any short-term guarantee and, as Mr Boco made clear in his evidence, it was therefore apparent that there was no binding guarantee. An expression of support by CS was nonetheless of some value to Enasarco because it enabled it to give public reassurances about the security of its assets. It also provided Enasarco with some comfort that CS was in principle prepared to provide principal protection.
2. On 14 November 2008 phase 1 of CS’s proposal was implemented and Enasarco swapped its Series 26 Notes for CS certificates. The CS certificates were simply pass-through certificates, entitling Enasarco to all income, principal and any other amounts paid or due in respect of the Series 26 Notes. The new certificates did not provide any principal protection or other guarantee.
3. On 24 November 2008 CS sent a restructuring procedures memorandum to Enasarco, setting out the detailed steps for restructuring the notes and associated structure. It was stated to be subject to continuing discussions and was submitted on the basis that it would not give rise to any obligation on any party. The annex set out 22 detailed steps in three phases to implement the proposed restructuring. The first six steps related to the exchange of Enasarco’s Series 26 Notes for the CS certificate which had been completed on 14 November 2008.
4. The second phase included, at steps 10 and 11, the preparation and execution of a Calculation Agency Agreement, appointing CS as the Calculation Agent to Balco. The new Calculation Agency Agreement was in fact executed on 15 January 2009 after lengthy negotiations. It established procedures necessary for the implementation of the further phases of the restructuring. Step 14 in the second phase was “Settlement of Principal Protection Agreement Close out amount” for which the relevant parties are identified as CS, Enasarco, ARIC and Lehman. Phase 2 also included the performance of due diligence by CS on the underlying funds and the transfer of assets out of Balco to CS.
5. Phase 3 included the issue of new protection by CS, described as

*“Issue of a new CPPI by CSi linked to the Fund where the funds of hedge fund shares have been transferred to”.*

It also included a closing out of the existing structure, including the winding-up of Balco. In fact, ultimately Balco was not wound up and the assets remained within it.

1. Mr Nash’s overall submission on this document was that it rather neatly illustrated the complexity of the transaction on which Enasarco embarked with CS, when compared with what it needed to do if it was simply seeking a replacement protection provider and valuing the loss which it had sustained as a result of the termination of the Put Option.
2. Mr Nash drew attention to the inclusion of the close-out of the Put Option and the calculation of the resulting loss or gain in phase 2 and that it was not dependent on the issue of new capital protection. This shows, he submitted, that the calculation of loss or gain could have been made at a much earlier date than 6 May 2009. I do not consider that this document provides support for Mr Nash. First, it is not in the least clear how those responsible for preparing this document envisaged that the loss or gain on the Put Option would be calculated. There is no suggestion in the document that quotations for alternative capital protection would be sought as part of phase 2. The quotation would presumably be provided as a prelude to the issue of new capital protection in phase 3 as step 20. Further, the document provides no timetable for phase 2 but, as appears below, it was estimated at this time that it could take until the end of February 2009.
3. The general manager of Enasarco prepared a board paper dated 12 December 2008. It refers to the steps already taken with CS and to the work undertaken by CS, with a team of 14 professionals grouped in five sub-teams, each for a specific area of expertise, working an average of 130 hours per week. It records that thanks to their efforts and the efforts of Enasarco’s financial and legal advisors:

*“the Anthracite R26 Note held by the Enasarco Foundation is at a more advanced stage in the restructuring process than all the Anthracite Notes held by institutional investors.”*

1. It states that the note winding-up phase, which is described as the first phase but corresponds to phase 2 in the CS restructuring procedures memorandum, will last for several more weeks in 2009. It states:

*“The best-case scenario is that the first phase will terminate at the end of January 2009 at the earliest, but it is much more realistic to expect that at least the whole of February will pass before its conclusion.”*

1. The next or second phase is:

*“the actual restructuring of the investment, for which, on the instructions of the Board, it is intended to appoint more than one Bank, selected through a beauty contest in order to diversify the provision of guarantees.”*

1. It suggests a total of seven banks, including CS, should be invited to tender in the beauty contest. The board paper confirms that the provision of new capital protection will be an important element of this phase. The paper sets out some detail on the approach to be taken to assessing tenders and choosing the appropriate bank or banks. Mr Nash correctly observed that the closing out of the Put Option appears to form part of what is described in the board paper as the first phase.
2. On 18 December 2008, the board of Enasarco resolved to accept the proposals set out in the general manager’s board paper.
3. The new Calculation Agency Agreement between Enasarco and CS was executed on 15 January 2009. The appointment of a new calculation agent was, of course, essential to the proper functioning of the whole structure. In particular it re-established reporting in respect of Balco’s net asset value and procedures for the purchase and sale of assets and for making payments.
4. On 29 January 2009, formal requests for proposals were sent to the seven banks identified in the general manager’s board paper. They were requested to put forward proposals for the provision of principal protection on the underlying assets held by Balco and the possible restructuring of the transaction. Proposals were received from four banks: Barclays, CS, HSBC and SG. None of the proposals was entirely satisfactory and certainly none of them provided any quotation for an unconditional principal protection.
5. Mr Lennkh provides a useful, brief analysis of these proposals in his first report at paragraphs 407ff. Barclays’ proposal was “the poorest as it was vague and did not contain sufficient commitments regarding the new principal protection.” It was quickly rejected by Enasarco. The price offered by HSBC was “the most commercially favourable” but:

*“It was subject to a condition that the assets under BalCo had to be first unwound during a “portfolio re-profiling phase” and that the proceeds from such redemptions had to be above the value of an HSBC zero-coupon (or an Italian government bond, at Enasarco’s discretion), with a maturity not beyond 2034. HSBC expected this re-profiling phase not to last beyond December 2010. In the event redemption proceeds did not exceed the value of the agreed zero-coupon curve, the structure would simply be unwound without any protection provided by HSBC. If the re-profiling succeeded, the new underlying assets would be required to be very liquid: most of the funds were required to have weekly liquidity; the worst redemption frequency would have to be monthly.”*

The price offered by SG “had some commercially favourable aspects, but it was difficult to compare it to other prices because the structure was not a standard CPPI.” CS proposed providing capital protection with Balco’s shares remaining as the underlying asset. Balco’s assets would be managed in accordance with a revised, more conservative investment allocation mechanism. CS took a conservative view of the performance of the underlying portfolio and therefore required Enasarco to sell a credit default swap to CS for a significant fee which would be transferred to Balco’s assets in order to increase its net asset value.

1. With none of these proposals being entirely satisfactory, Enasarco’s preferred choice was HSBC and it entered into negotiations with it with a view to agreeing final terms. The problem remained that there was no certainty of principal protection during the “re-profiling phase” under HSBC’s proposal which could last until December 2010.
2. On 2 April 2009 Enasarco appointed both CS and HSBC under a mandate agreement for the purposes of the restructuring but ultimately it concluded the best course lay in an arrangement with CS alone. This led to the CS Option agreed on 6 May 2009. While the initial protection fee had increased from 1.75% per annum under CS’s original proposal to 1.80%, the requirement for a credit default swap was removed.
3. I have set out this history at length because Enasarco relies on it to show that replacing the Put Option was a complex and time consuming process, particularly in the changed financial conditions following the collapse of Lehman Brothers. By contrast, LBF relies on it to show unnecessarily complicated and delayed was the process of obtaining quotations for a replacement transaction.
4. Enasarco points to a number of particular features in this connection. First, the Series 26 Notes represented a large and complex transaction. The original investment, and the amount guaranteed on maturity, was €780,470,000. The value of the portfolio as at the ETD was €929 million and €346.9 million had been drawn under the credit facility. Maturity was not until June 2023. The underlying portfolio comprised investments of an illiquid nature, with the right to the payment of redemption proceeds of individual investments arising only after some considerable time following the making of a redemption request. The value and liquidity of hedge fund investments was adversely affected by the financial crisis following the collapse of Lehman Brothers. The IAM and other features of the structure involved considerable complexity. Although Mr Lennkh was no doubt correct in his evidence that the underlying structure of the Anthracite programme was well-known among the leading participants in this market, it is nevertheless in my judgment undeniable that the size and complexity of Enasarco’s investment, coupled with market conditions following 15 September 2008, would make the replacement of the Put Option, combined with the necessary restructuring of the transaction, a difficult and time-consuming exercise.
5. Secondly, the hedge fund market was far from immune from the general adverse conditions in the markets at this time. Increasing levels of redemption requests reduced the liquidity of many funds and increased the periods between requests and payment. Hedge funds introduced a variety of restrictions on the right to redeem in response to these pressures. Morgan Stanley estimated that the hedge fund industry had shrunk by 35% to 45% between June and December 2008.
6. Thirdly, there was not a ready market for CPPI protection in the ordinary sense. Deals had to be negotiated with individual banks. The number of banks prepared to conduct this business, particularly following 15 September 2008, was small and, as the various proposals from the banks discussed above show, negotiating CPPI protection was complex and each bank had its own approach to these transactions.
7. A further feature particular to the Anthracite programme, including the Series 26 Notes, was the extent of the involvement of entities in the Lehman Brothers group. None of these companies could fulfil their roles in the structure after 15 September 2008 and in due course all of them entered formal insolvency proceedings. Replacing the Put Option was not therefore a simple matter of substituting a put option from a different bank for the Put Option provided by LBF. The entire transaction needed to be restructured with different and financially sound entities replacing the various Lehman companies. Enasarco submits that the history of its ultimately successful attempt to replace the Put Option demonstrates the difficulty of this task.
8. While not accepting that this process need have taken as long as it did, Mr Lennkh accepted that the transaction required restructuring before a new put option could be placed. In his first report at paragraph 457 he stated:

*“I appreciate that, due to the number of Lehman Brothers affiliated entities involved, a transaction such as the Series 26 Notes may have taken a long time to unwind and restructure into a new bond.”*

1. While he believes that the time taken for the restructuring was in part due to what he describes as Enasarco’s complicated strategy for implementing it, he accepts that delays would have been caused primarily by complications and slow response times when dealing with the Lehman Brothers entities, given that they were now subject to insolvency proceedings.
2. In his second report at paragraphs 159-160, Mr Lennkh acknowledges the need for a restructuring:

*“159. In calculating the replacement cost for the Transaction, I believe that one cannot look at the principal transaction on a standalone basis; instead, one should look at all the key components of the bonds that enable the protection of capital at maturity. These components are the principal protection transaction, the Swap Units and the Calculation Agent’s allocation of the BalCo’s assets in line with the Investment Allocation Mechanism and other transactional documents.*

*160. For a fund derivatives practitioner, it is not realistic to price the principal protection transaction by itself without assuming that the Principal Protection Provider would also be Calculation Agent and Swap Counterparty, or at least assuming that they are related entities.”*

1. Enasarco relies on the evidence, which I have accepted, that it was vital to the protection of its present and future pensioners that it secured a satisfactory replacement for the Put Option as soon as possible, and that it was under great pressure to do so.
2. LBF criticises Enasarco for adopting an over-complex approach to its attempts to replace the Put Option, thereby delaying quotations for new protection. It also submits that CS was eager to do a deal in October 2008 and was willing then to provide protection for Enasarco’s investment.
3. I do not accept that these criticisms are well-founded. It is indisputable that the investment needed to be restructured before replacement protection could be put in place. In my view, Enasarco’s approach involved no greater level of complexity than was necessary to achieve this. The responses received from banks in October 2008 and February 2009 involved considerable complexity but, for the most part, the complexities were introduced by those banks, rather than by Enasarco. The submission that CS was willing to provide protection in October 2008, and if pressed by Enasarco would have done so, is in my judgment simply not supported by the evidence. There is nothing in the proposal put forward by CS to indicate that it was prepared to complete a deal in a short period and, as regards its suggestion of interim protection, no price was ever quoted. I find it impossible to conclude that at that stage CS was prepared to provide any binding protection.

*The state of the funds derivatives market after 15 September 2008*

1. Leaving aside LBF’s criticisms of Enasarco’s efforts, LBF’s case depends on showing that there was a sufficiently active market and sufficient interest in doing deals such as replacing the Put Option that quotations could have been obtained at a much earlier date than May 2009. The thrust of its case, based on the evidence of Mr Lennkh, is that prices for CPPI protection rose only towards the end of 2008, particularly following the arrest of Bernie Madoff on 11 December 2008 and disclosure of his fraudulent activities. Mr Lennkh’s evidence is that prices started to rise gradually after October 2008 but accelerated with the discovery of the Madoff fraud. By way of example, Mr Lennkh refers to the indicative prices of put cliquet options on the HFRX Global Hedge Fund Index which, for a five year monthly put cliquet option, showed prices of 0.41% pa on 15 June 2008, 0.50% pa on 15 September 2008, rising to 0.70% pa on 15 December 2008 and thereafter in 2009 within a band of 0.70 – 0.75% pa. Consistently with those figures, Mr Lennkh’s evidence does not suggest that prices continued to rise significantly from the beginning of 2009. A replacement transaction closed in January or February 2009 is unlikely to have been at a significantly different price from that obtained from CS in May 2009. LBF’s case has therefore to be, and is, that quotations could have been obtained before December 2008.
2. LBF relies on the evidence of Mr Lennkh to establish that quotations at a materially lower level could have been obtained by Enasarco or ARIC in 2008. The critical issue is how, if at all, the market for CPPI products was functioning following the collapse of Lehman Brothers. The amount of publicly available data is very limited indeed, as the evidence of Mr Lennkh demonstrates. The evidence of someone who was actively engaged in the market in this period would therefore be of great value. Mr Lennkh was personally active in the funds derivatives market, but critically only until the end of August 2008. He was head of the European fund derivatives teams at Bear Stearns International Limited in London for three years until 2008, but he ceased to work at Bear Stearns at the end of August 2008 and, after that, he did not work in the funds derivative market or indeed in any markets.
3. Mr Lennkh cannot therefore speak from his own personal experience as to the state of the market on or after 15 September 2008. He cannot say from his own personal experience how many banks had any interest in quoting for this type of business, their appetite for it and the prices, if any, at which they were willing to quote. Nor can he speak to the willingness of banks to take over structures created by Lehman Brothers or their requirements in terms of restructuring these transactions or their underlying assets.
4. Unable to draw on his own knowledge and experience, Mr Lennkh relies on two sources of information for his evidence.
5. The first source, as he explains in paragraphs 362-365 of his first report, were interviews with traders and others active in the market:

*“361. In this Section, I review a number of fund derivatives transactions that traded on or around the ETD, which I have observed. I also explain how the fund derivatives market evolved following the ETD.*

*362. Some of the information I provide in this Section is based on interviews that I conducted with 23 different professionals who were directly involved in the fund derivatives market during the period around and following the ETD.*

*363. Through these interviews, I wanted to gather a more comprehensive view of the market, including the experiences of traders, structures and salespeople at other banks, in order to complement my own personal experience of working in the fund derivatives market during that time.*

*364. The time period covered was from July 2008 to December 2008. I find that there were at least eleven different fund derivatives transactions that traded during this period.*

*365. I find evidence that, despite the bankruptcy of Lehman Brothers on 15 September 2008, the fund derivatives market was active and functional during that month and the following months. This is shown in the number of transactions which occurred in that period.”*

1. This is not a proper or satisfactory basis for Mr Lennkh’s evidence. It is unattributed hearsay. Mr Lennkh took no notes of these conversations. He does not identify the professionals to whom he spoke or the banks at which they worked. He does not state their direct experience, if any, of comparable transactions or the number of comparable transactions which were executed or which were rejected or the prices which were quoted. He does not state whether the experience of these professionals related to the period before or after 15 September 2008 and how their experience differed before and after that date. This is an important point, particularly in view of his statement in paragraph 363 that their experience complemented his own personal experience of working in the fund derivatives market “*during that time*”.
2. The second source for Mr Lennkh’s evidence are eleven fund derivative transactions, summarised in paragraph 366 of his first report. Of these eleven transactions, two were executed in July 2008 and are not therefore relevant to the market after 15 September 2008. Another transaction included by Mr Lennkh is the issue of the pass-through certificate by CS to Enasarco in November 2008. It is however clear, as Mr Lennkh accepts, that no guarantee or other principal protection was provided at that time. Mr Lennkh has nonetheless included it because, as he put it, it was “a sign of activity in the funds derivatives market.” This, as it seems to me, supports the case of Enasarco rather than LBF. If the issue of the pass-through certificate was a sign of activity in that market, it tends to show how low the level of activity was.
3. Another transaction is described as “CPPI (Anthracite restructuring)” with Barclays at a price of between 1% and 1.25% in respect of a basket of funds and trading strategy indices. The trade date is given as September 2008 to December 2008. On the face of it, this could be a highly pertinent piece of evidence. There is however no further evidence of it, and in particular no evidence of its date or size. It is not known which Anthracite series was involved and whether LBF was the original capital protection provider but, if it was, LBF should have been in a position in these proceedings to provide evidence of the resulting loss calculation. Any Loss calculation would presumably have been based on the price quoted by Barclays.
4. A further CPPI transaction listed by Mr Lennkh was with Deutsche Bank for an unknown amount at a price of between 1% and 1.5%, said to have been made between September and December 2008. Again there is no further evidence concerning this transaction and, assuming it was executed, it is not known whether that was before or after 15 September 2008, nor is there any evidence to enable a comparison to be made with the Put Option. Equally, there is no evidence concerning a further three transactions, each of them leverage as opposed to CPPI transactions, involving KBC FP (September 2000), Nordea (October 2008) and SG (“between September and December 2008”).
5. Mr Lennkh does, however, produce evidence concerning the remaining two transactions, which were linked as part of one overall transaction. On 25 September 2008, Man Investments, the asset management division of Man Group plc, issued Protected Notes called Man–IP220 Series 6 Notes which provided exposure to one fund of funds and one single hedge fund. A call option was granted by Nordea Bank Finland plc as, according to Mr Lennkh’s understanding, a hedge to the Man IP Notes. Both experts analysed in some detail the terms of the notes and the Nordea call option. In my judgment, Dr Ellis demonstrates that there were significant differences between these transactions and the Series 26 Notes. In particular, under the Man-IP Notes 55% of the proceeds of the issue of the notes were immediately allocated to a security fund and invested in zero coupon bonds as security for the obligations of the guarantee provided by Deutsche Bank to repay the notes at par on the maturity date in 2021. From the point of view of the note holders, this guarantee performed the same function as the Put Option but it is clearly an entirely different type of transaction. The Nordea call option was a short term product, with a three month rolling maturity which Nordea was permitted to terminate at its sole discretion on any day. If it remained in effect on 31 October 2009, Nordea could extend its maturity to 1 July 2013 and, if such extension occurred, it could extend the maturity further on six months’ prior notice.
6. There is a further very significant fact in relation to these transactions. Although they became effective on 25 September 2008, the prospectus had been issued in July 2008 and Mr Lennkh agreed that the transactions would have been priced at that stage, that is to say before the collapse of Lehman Brothers on 15 September 2008. Mr Lennkh gave somewhat contradictory evidence as to whether market participants felt themselves bound by prices already agreed at the stage of a prospectus, but, assuming that they were nonetheless free not to proceed with the transaction until 25 September 2008, the circumstances surrounding this transaction provide in my judgment little guide to the state of the market in the weeks and months following the ETD and the willingness of market participants to quote for and enter into a replacement transaction for the Put Option.
7. As evidence of prices of CPPI transactions after 15 September 2008, Mr Lennkh relies on 13 prices listed in Annex 3 to his first report. They comprise one CPPI price, six prices for put cliquet options and six leveraged transactions. The CPPI price does not reflect a transaction but only an indicative quotation given on 18 September 2008 in terms which suggest that there was not then any market appetite for CPPI replacement transactions. It is derived entirely from an email from RBS dated 18 September 2008 and headed “Lehman re hedging”. It reads:

*“Talked to few guys at different c-parties [counter-parties], and feedbacks so far are pretty much in line with each other. All of them (CS, Unicredit, waiting from Citi) are showing levels on a pure indication-valuation basis, confirming they will not trade now.”*

1. It states, as regards price, “Index Fee around 145-175 bps”, ie 1.45-1.75%. This is a purely indicative quotation, as the email makes clear, and no particular index is specified. It may be noted that the price quoted is significantly higher than the price at which Mr Lennkh says that a replacement option could have been executed.
2. The put cliquet option prices are indicative only. Put cliquet options are a series of forward put options, each one starting when the previous option expires. The strike price is re-set at the start of each option. The options on which Mr Lennkh relies were not individual transactions but were against a market index, the HFRX index. They are clearly quite different transactions from the sort of option written by LBF but Mr Lennkh is of the view that their prices can nonetheless provide a good guide to CPPI prices. Whether or not that is the case, the prices cited by Mr Lennkh in Annex 3 are of no assistance to the issue in this case. First, the dates for the prices are in one case June 2008 and, in the other five cases June 2009. One is too early and the others too late. Secondly, the prices are not quotations for actual deals. The prices were provided by Markit, a market data company, and Mr Lennkh explained the way in which these prices were collected in his oral evidence on day 4 at pages 111-112:

*“A. Markit had a service called Totem and Totem was something that enabled investment banks to mark their books for OTC transactions, which were not observable on the screen in the market. So typically it was a risk management department at a bank who would feed information to Markit and Markit would aggregate the information across all the banks and then give back an average figure.*

*So it was a standardised transaction, for a particular standardised transaction. Totem would poll the banks; each bank would give its number. The average number came back to the banks and that allowed the Markit risk departments to say their particular book was marked at market levels below or above, basically; give them an indication.*

*Q. I see. So the essence of what Markit does is to provide an average of bids? Is that a fair way of putting it?*

*A. An average of valuations.*

*Q. An average of valuations; thank you.*

*A. Fair values.”*

1. Accordingly these prices were the prices at which banks were marking their exposures to Markit and did not provide evidence of the prices at which transactions were being quoted and concluded.
2. The remaining prices listed in Annex 3 to Mr Lennkh’s report are for leveraged transactions. Three of them were entered into in 2009, one in March 2009 and two in July 2009. The remaining three are the Nordea call option and two other transactions referred to by Mr Lennkh in paragraph 366 of his report and dealt with above.
3. Overall, my conclusion on this part of the case is that it was not reasonably practicable, or even possible, for Enasarco or ARIC to have obtained a firm quotation for and entered into a replacement transaction either by the end of October 2008 or indeed by the end of the year 2008. The evidence of Enasarco’s attempts to replace the Put Option, against the very considerable pressure to which it was subject at the time, satisfies me that it did all that it reasonably could to obtain quotations. The evidence given by Mr Lennkh of activity in the funds derivatives market and the prices at which transactions were entered into is too thin to satisfy me that Enasarco or ARIC could have obtained firm quotations for a replacement transaction by the end of 2008.
4. In the course of his cross examination, it was put to Dr Ellis, and he accepted, that it would have been possible to obtain a quotation for a replacement transaction for the Put Option by the end of October 2008. LBF naturally relies strongly on this evidence. I am not, however, impressed by it. As the cross examination of Dr Ellis as a whole made clear, he had no experience and very limited knowledge of the day to day workings of the funds derivatives market and he had neither the experience nor the material on which to give this particular evidence.
5. I am also satisfied that, even if it had been practical to obtain quotations for a replacement transaction earlier in 2009 than May, it would have made no difference to the price of a replacement transaction. This was indeed accepted by Mr Lennkh.

*Different terms*

1. As a separate ground on which LBF contended that Enasarco was not entitled to rely on the CS Option, it submitted that the CS Option, in a number of respects including its terms, was so different from the Put Option that it was not a comparable replacement transaction.
2. Four principal points of substantial difference were relied on by LBF.
3. First, the maturity date of the CS Option was June 2039, not 2023. However, the evidence establishes that this difference in maturity date did not have a significant impact on the price, and hence on the calculation of Loss by ARIC, and indeed may have caused the price to be lower. First, it was the evidence of Mr Lennkh, in his second report, that the maturity of a CPPI transaction does not have a meaningful impact on its price. Secondly, it was the unchallenged evidence of Mr Boco that a particular point for negotiation with CS was its concern that the equity portfolio had dropped significantly in value since its inception in 2007 with a resulting greater risk that the portfolio would not increase in value sufficiently by 2023 to avoid the Put Option being exercised. A means had to be found of dealing with this concern and CS made a number of proposals, including an extension in the maturity date or the investment by Enasarco of additional sums into the notes. The agreement reached was the extended maturity date. Mr Lennkh in his oral evidence said that, so far as CS was concerned, this extension reduced its risk.
4. Secondly, LBF relied on the terms of the CS Option which provided for reductions in certain circumstances of the premium initially fixed at 1.8% per annum. The premium could go as low as 0.06% per annum. The terms of the CS Option provided for an annual review of the price starting in April 2011, according to a mechanism which depended on the liquidity and volatility of the underlying portfolio. However, a reduction in the premium would first require a significant re-balancing of the composition of the underlying portfolio. A substantial proportion of the funds in the portfolio would have to be redeemed and replaced with investments which were significantly more liquid. This would require a substantial change in Enasarco’s investment strategy and, in arriving at the price of a transaction to replace the Put Option, there is no requirement or basis for valuing the new Put Option on the assumption that such a change in strategy would or even might occur.
5. Thirdly, LBF points to the deterioration in the underlying portfolio between September 2008 and May 2009. The average liquidity of the portfolio, that is the period between giving notice of redemption and the payment of redemption proceeds, had significantly increased and a number of the funds had introduced restrictions on redemptions. This was all in response to the deteriorating state of the markets, and in particular the hedge funds market, following the collapse of the Lehman Brothers group. This had a negative impact on the price for protection.
6. This deterioration results simply from the change in market conditions between the ETD and the earliest practicable date at which a quotation for a replacement transaction could be obtained. It is impossible to obtain a quotation on any particular day except on the basis of the conditions as they exist on that day. If I had accepted LBF’s case that a quotation could have been obtained by the end of October 2008, but there had been a significant deterioration in the value or liquidity of the underlying portfolio between 15 September 2008 and the end of October 2008, that deterioration would inevitably have been reflected in the price quoted for the replacement transaction. This potential result could be avoided only if the definition of Loss required a hypothetical valuation to be made as of the ETD.
7. Fourthly, LBF points to what it says was the credit enhancement involved in the CS Option. CS had a better credit rating and a stronger balance sheet than Lehman Brothers or a bank similar to Lehman Brothers, prior to its insolvency. Accordingly, what ARIC lost was principal protection provided by a bank of the standing of Lehman Brothers not protection provided by a higher-rated bank. In my judgment, LBF cannot rely on this factor to displace or reduce the calculation of Loss based on the cost of the CS Option. First, there was no reliable evidence that any bank with a standing equivalent to that of Lehman Brothers was in the market to write CPPI transactions of this type. Secondly, under the definition of Loss in the Master Agreement, the non-defaulting party which elects to determine its loss by reference to “quotations of relevant rates or prices from one or more leading dealers in the relevant markets” is not required to obtain quotations from banks of an equivalent credit rating to the defaulting bank. If it were, and there were no such banks offering quotations at or after the ETD, it would follow that the non-defaulting party was not entitled to determine its Loss by reference to such quotations, but LBF, rightly in my view, accepts that ARIC was entitled to do so in this case.
8. LBF relies on the definition of Market Quotation for support that a replacement transaction is one which preserves for the non-defaulting party the economic equivalent of the terminated transaction, which includes the credit rating of the defaulting party. In my judgment, that involves a mis-reading of the definition of Market Quotation. The quotations required by that definition are “to enter into a transaction (the “Replacement Transaction”) that would have the effect of preserving for such party the economic equivalent of any payment or delivery” by the parties under the terms of the terminated transaction. The definition requires the replacement transaction to preserve “the economic equivalent of any payment or delivery”, not the economic equivalent of the covenant under the terminated transaction to make a payment or delivery. The focus is on the payment to be made under the terminated transaction, not on the prospects of performance by the counter-party.

*The date of calculation statement*

1. ARIC provided its calculation statement to LBF on 16 September 2009. Its obligation under Section 6(d)(1) was to provide the statement “on or as soon as reasonably practicable following the occurrence of an Early Termination Date”. LBF submits that, even if 6 May 2009 was the earliest practicable date on which a quotation for a replacement transaction could be obtained, the delay until September 2009 was not justifiable and there was a breach by ARIC of its obligation to provide the calculation statement as soon as reasonably practicable. If, as LBF contends, the earliest practicable date for a quotation for a replacement transaction was by the end of October 2008 or at some time between then and May 2009, then the same submission is made, but with correspondingly greater force.
2. I accept that the calculation statement could have been provided significantly earlier than September 2009, even on the basis that the first practicable date for a quotation for a replacement transaction was 6 May 2009. Enasarco submitted that, as ARIC was dependent on the provision of relevant information to it by Enasarco and that information was not provided until July 2009, ARIC acted as soon as it was reasonably practicable for it to do so, given the continuing pressures on its resources caused by the need to deal with the consequences of the collapse of Lehman Brothers. However, in circumstances where ARIC left it to Enasarco to put in place a replacement transaction, it seems to me that it was required to ensure that it was kept up to date with information from Enasarco so that it could perform its contractual obligation to provide the calculation statement.
3. However, this breach of contract on the part of ARIC has no impact on the validity or otherwise of the calculation of loss itself. Mr Nash accepted that the lateness in the provision of the calculation statement did not affect the binding nature of the calculation of Loss, if it was otherwise valid.

*Conclusion*

1. For the reasons given in this judgment, I am satisfied that ARIC validly calculated its Loss in accordance with the relevant provisions of the Master Agreement and that accordingly Enasarco is entitled to the payment of US $61,507,902, together with interest, from LBF. It follows that no sums are payable by either ARIC or Enasarco to LBF.
2. It also follows that I reject the calculation of Loss put forward by Mr Lennkh in his evidence. It will be clear from what I have already said that I do not consider that the evidence bears out his calculation. I should add that I also do not accept his so-called “Convolution Model” on which he based this calculation. For this purpose he took a range of prices for what he considered to be equivalent transactions between July 2008 and mid-2009 and produced an average price based on them. In my judgment this must be a faulty method of arriving at a price which might have been quoted at any particular point in that period.
3. Submissions were made as to the appropriate rate of interest payable if I had held that a sum was due by way of Loss from ARIC to LBF. Those submissions require no findings of primary fact but do raise issues which may be significant in other cases governed by the same provisions of the ISDA Master Agreement. Resolution of those issues in cases where they must be decided would not, I think, be assisted by the expression of non-binding views in the present case.