Chapter 5

Early Termination Amounts

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§ 5:1 Overview

Once an event of default or termination event has occurred and an early termination date has been established by delivery of notice to the defaulting party or affected party as described in chapter 4, the parties to the swap transactions must calculate the early termination amounts due under the swap transactions. There is no difference in the method for calculating early termination amounts for an event of default or a termination event under the master agreements.

The calculation of the early termination amount and delivery of a notice to the defaulting party of these calculations is required under Section 6(d)(i) of the master agreements. The determination of the early termination amount differs between the 1992 Master Agreement and 2002 Master Agreement. If parties to the 1992 Master Agreement have elected to adhere to the ISDA Close-Out Protocol, the calculation of the early termination amount will be identical to the procedures established under the 2002 Master Agreement. The 2002 Master Agreement eliminates some of the issues presented in the calculation of early termination amounts under the 1992 Master Agreement that are discussed below.

§ 5:2 Valuation Statement

Upon the designation of an early termination date resulting from an event of default or termination event, the parties are required to calculate the early termination amounts due and owing in respect of the terminated transactions and to provide a valuation statement to the other party. In the case of an event of default, only the non-defaulting party will compute the early termination amounts and send the valuation statement. In the case of a termination event in which there are two affected parties, both parties must calculate early termination amounts and each send a valuation statement to the other party.

In the case of a termination event in which there is one affected party, the party responsible for delivering the valuation statement depends on the type of termination event that was triggered. Generally, the party with the right to terminate a transaction due to the occurrence of a termination event is the party that is responsible for preparing and delivering the valuation statement, although both parties may choose to calculate an early termination amount and deliver a valuation statement.
The responsible party must prepare and deliver a valuation statement to effect close-out netting and the complete termination of the termination transactions. The valuation statement must be sent “as soon as reasonably practicable” on or following the designation of an early termination date. It may not be possible to calculate early termination amounts for terminated transactions in one or two business days. As long as the responsible party is acting in good faith and in a commercially reasonable manner, the delivery of a valuation statement under the master agreements may take several days or several weeks, especially if the responsible party is also trying to ascertain its setoff rights as we discuss in chapter 6.

The valuation statement must provide “reasonable detail” of the method used to calculate the early termination amounts. If market quotations have been utilized to determine all or part of the early termination amount, then the source of the market quotations must be included in the valuation statement. The source may be Bloomberg or any other source of public information. If Bloomberg is utilized, a copy of the relevant Bloomberg Screen may be attached to the valuation statement. If any or all of the early termination amount under a valuation statement utilizes market quotations, it is advisable to provide copies of the Bloomberg screen or other public information source in the valuation statement.1 The more information provided in the valuation statement, the lesser the chance of disputes arising over the calculation of the early termination amount. If the market quotation cannot be verified, the master agreements provide that the quotation obtained by the party making the calculation is “conclusive evidence of the existence and accuracy of such quotation.”

If no market quotations are utilized to calculate the early termination amount, the method by which the early termination amount is derived must be included in reasonable detail in the valuation statement. If the calculation is derived from utilizing proprietary models, a basic description of the model is sufficient.2

Finally, the valuation statement must set forth the early termination amount due and owing by one party to the other party. This payment will include the amounts calculated as the loss suffered by

1. A form of valuation statement utilizing market quotations is set forth in Appendix A8.
one party in respect of all terminated transactions, fees and expenses payable by the defaulting party or affected party to the other party, unpaid amounts due from one party to the other, and the application of setoff rights or collateral liquidation to the settlement amounts calculated by one party.

§ 5:3 First Method and Second Method Under 1992 Master Agreement

There are two primary methods of determining early termination amounts under the 1992 Master Agreement. The election as to which method to utilize in determining early termination amounts is set forth in the schedule to the master agreement. The main difference between the first method and the second method is that under the first method, no early termination amount is ever due to the defaulting party or affected party. The first method completely ignores the payments or value of swap transactions to the defaulting party or affected party, and only compensates the non-defaulting party or non-affected party for any loss it may have suffered from the terminated transactions. For example, a transaction that is deeply in-the-money to the defaulting party would result in no payment to the defaulting party under the first method. As a result of this punitive measure of damages, the first method is widely viewed as being legally unenforceable and is not utilized in market practice. The 2002 Master Agreement eliminates this option entirely. While the first method option still exists under the 1992 Master Agreement, market practice is to avoid the use of the first method.

The second method attempts to compensate both parties for the value of the terminated transactions although the non-defaulting party does receive indemnities for fees, expenses, loss of hedges that are not available to the defaulting party. However, unlike the first method, payments may still be due to a defaulting party by the non-defaulting party under this second method.

§ 5:3.1 Hypothetical Example of Early Termination Amount Calculations

To illustrate the calculation of early termination amounts, let’s take an example of an equity swap on 10,000 shares of stock of ABC Corporation. ABC Corporation stock is worth $100 per share on the date on which the parties enter into a swap agreement. Party A and
Party B enter into an equity swap on ABC Corporation stock whereby Party A is entitled to receive all the upside on 10,000 shares of ABC Corporation stock on the expiration date of the swap transaction. The value of the equity swap is $1 million ($100 per share $\times 10,000$ shares). In return for receiving all of the gain on ABC Corporation stock, Party A is required to periodically pay interest on $1,000,000 to Party B during the term of the transaction. Party A must also pay Party B any decrease in the value of ABC Corporation stock at the expiration date of the transaction. During the term of the transaction, Party A fails to make its periodic interest payment to Party B and fails to remedy the payment default within the applicable grace period [between one to three business days]. Party B sends an event of default notice for a failure to pay and designates an immediate early termination date. On the early termination date, the price of ABC Corporation stock is $150 per share, and the notional value of the transaction between Party A and Party B is $1.5 million ($150 \times 10,000$ shares).

Without taking into account other costs, fees and expenses due to Party B for Party A’s default, Party A owes Party B $50,000. Under the first method, Party B would be owed for its costs, fees and expenses resulting from Party A’s default, but would not be obligated to pay any amount to Party A. Under the first method, Party A’s default is penalized and results in Party A forfeiting its right to $50,000. If Party B has incurred costs, fees or expenses as a result of Party A’s default, Party B would be owed an early termination amount from Party A under the first method, but Party A would not be entitled to any early termination amount.

Under the second method, Party B owes Party A $50,000 from which it can subtract its costs, fees and expenses resulting from Party B’s default. Unless those costs, fees and expenses exceed $50,000, Party B would owe a net early termination amount to Party A even though Party A is a defaulting party. As noted, the first method is widely viewed as being unenforceable because of the penalties exacted upon the defaulting party. If Party A’s failure to pay interest is due to its bankruptcy, for example, the first method constitutes an ipso facto clause and is unenforceable in U.S. bankruptcy proceedings. The implications of the U.S. Bankruptcy Code on terminating transactions is discussed in chapter 7.
§ 5:4 Second Method, Market Quotation Under 1992 Master Agreement

Under the second method, two types of mechanisms exist for ascertaining the early termination amount under terminated transactions. The first is market quotation and the second is loss. Most transactions that have a readily ascertainable market value such as a simple equity swap or interest rate swap utilize market quotation. Transactions with an illiquid underlying such as a hedge fund–linked derivative transaction utilize loss. The choice between market quotation and loss is determined by the parties to the master agreement and is set forth in the schedule. However, if market quotation is not available, loss is the fallback methodology under the 1992 Master Agreement.

Under market quotation, each party is required to determine the cost of preserving for each party that “economic equivalent” of the transaction. A party is required to consult four reference market-makers to determine market quotation. A reference market-maker is a leading dealer in the relevant market with the highest credit standing which satisfy all the criteria that a party would make in determining whether to extend credit and which preferably has an office in the relevant city. As a practical matter, any large derivatives dealer normally qualifies as a reference market-maker. If three or more bids are received, the highest and lowest bids are thrown out and the remaining bids are averaged to determine market quotation.

Going to back to our hypothetical example in section 5:3.1, the equity swap in this illustration is an example of a transaction for which a market quotation can easily be determined. Since the value of the equity swap is derived from the value of the shares of ABC stock, the value of the transaction and the early termination amount due can easily be calculated by reference to the shares of ABC stock. Since shares of ABC stock are worth $150 each on the early termination date, the market quotation for the transaction should be approximately $500,000—the increase in the price of ABC Corporation stock since the inception of the transaction.

However, in some cases, if the block of shares of ABC Corporation subject to an equity swap is large relative to the daily trading of ABC Corporation stock, a reference market-maker would discount the market price of ABC Corporation shares because of the large volume of stock involved. A large volume of stock cannot typically be sold in the market on a single business day without depressing the price of the stock. A block discount is in essence a liquidity discount and is a
permissible factor that may be taken into account in determining early termination amounts. Generally, broker/dealers prefer not to sell more than 10%–15% of the “daily float” of a stock on any given business day. The daily float is the amount of stock of a company that is bought and sold on a daily basis. If the block of ABC Corporation stock exceeds 10%–15% of the daily float of the stock, a block discount would be incorporated into the quotations obtained from reference market-makers.

Market quotation must be ascertained as soon “as reasonably practicable” after the early termination date. Reasonably practicable will differ between market participants. This timing simply requires the parties to act in good faith and in a commercially reasonable manner. A counterparty with a single liquid transaction will be able to determine market quotation much faster than a counterparty with hundreds of cross-border transactions. While it may be possible to calculate market quotation in less than one business day for some transactions, it may take weeks if there are a multitude of various types of transactions denominated in various currencies. Non-defaulting parties should err on the side of accuracy and completeness rather than rushing through these calculations to send a valuation statement out immediately on or after the early termination date.

The parties must also use good faith in selecting the day and time at which market quotation is available. The day should be on or as close to the early termination date as possible without forsaking accuracy. If a bankruptcy event of default has occurred and the parties have chosen automatic early termination, the early termination date may have already occurred prior to obtaining any market quotations. In the Lehman Brothers insolvency proceedings, parties who elected automatic early termination discovered that their derivative transactions had terminated on Friday, September 12, 2008 even though the insolvency proceedings did not occur until Monday, September 15. In such cases, parties should utilize market quotations which are obtained as closely as possible to the early termination date.

The time must also be selected in good faith. In the example of our equity swap above, the price of ABC Corporation stock may be determined at various points on the early termination date as the stock fluctuates during the trading day. The most conservative approach is to utilize the closing stock price or the volume-weighted average price generated by the stock exchanges on which the stock trades. However, there may be compelling commercial reasons to use
an intra-day price for valuing a stock in which case the intra-day price may be utilized.

One of the major issues with market quotation is the inability to procure market quotations when market quotations are most needed. During the credit crisis that began in 2008, market quotations became virtually impossible to obtain from reference market-makers. This situation also arose in the liquidity crises of 1997 and 1998. Dealers were so busy dealing with issues arising from the credit crisis that began in 2008 or the liquidity crises in 1997 and 1998 that requests for market quotations from other dealers or market participants were ignored. This problem became particularly acute after the Lehman Brothers bankruptcy filing in September 2008 because tens of thousands of transactions involving Lehman Brothers were terminated by hundreds of Lehman’s counterparties. Under these circumstances, attempting to procure market quotations was futile.

Under the 1992 Master Agreement, a failure to obtain at least three market quotations from reference market-makers results in a fallback to the loss calculations. Loss is the second mechanism that is utilized to determine early termination amounts under the 1992 Master Agreement. While the 1992 Master Agreement does not require that evidence be obtained that market quotation cannot be ascertained, it is advisable to document the failure to obtain market quotation in case the determination of an early termination amount is challenged by the defaulting party, its creditors or a bankruptcy court. However, documenting the failure to obtain market quotation does not require that the non-defaulting party incur additional losses. The non-defaulting party may enter into hedges or other offsetting transactions to mitigate its losses as discussed further below. Documenting the failure to obtain a market quotation is relatively simple. A notice should be sent to four or more reference market-makers requesting market quotations for terminated transactions by an established deadline. The deadline should be set by reference to the losses that may be suffered by a non-defaulting party by a delay. In some situations, a short one- or two-business-day deadline is justifiable, but if the non-defaulting party has engaged in offsetting hedges to mitigate its loss, the deadline can be set for a longer period of time. The notice should also show reasonable detail of the type of market quotation desired to

3. A form of this notice is provided in Appendix A10.
be obtained. In our illustration, the notice would request market quotations for an equity swap for 100 shares of ABC Corporation.

If no market quotations are obtained by the deadline set forth in the notice, the non-defaulting party may safely resort to loss to determine the early termination amount. The notices to each reference market-maker should be retained as evidence of the attempt to procure market quotations.

In cases where the transaction is a simple plain vanilla swap, information from third-party pricing sources may be utilized. When the value of the underlying can easily be determined from third-party market sources, such as Bloomberg, an alternative method of market quotation is to simply take a picture of the relevant Bloomberg screen or other market pricing source. Technically, this method is not a market quotation because quotations from four reference market-makers have not been obtained. However, it is difficult to dispute a price that has been set by the market and documented by market pricing services.

Returning to our hypothetical, the price of 10,000 shares of ABC Corporation stock can be determined by reference to the closing price or volume-weighed average price (VWAP) of ABC Corporation stock on the early termination date by the stock exchange on which the stock is listed. A picture of the Bloomberg screen can be taken to document the price on the early termination date. That picture or other documentary evidence of the market value of the stock can be attached to the valuation statement.

§ 5:5 Second Method and Loss

If the parties have specified that loss applies in the schedule to the 1992 Master Agreement or if no market quotations can be obtained, the loss methodology applies to the determination of the early termination amount. Loss is a more subjective measure of the value of the transaction and a more subjective determination of the early termination amount because it represents the losses suffered by the non-defaulting party or non-affected party which may be unique to that party. Loss consists of a party’s total losses and costs resulting from the establishment of an early termination date.

As with market quotation, loss must be determined as of the early termination date, or if that is not “reasonably practicable,” loss may be determined after the early termination date. If a bankruptcy event of default has occurred and the parties have chosen automatic early termination, the early termination date may have already occurred.
prior to obtaining any market quotations. As noted in section 5:4, in the Lehman Brothers insolvency proceedings, parties who elected automatic early termination discovered that their derivative transactions had terminated on Friday, September 12, 2008 even though the insolvency proceedings did not occur until Monday, September 15. In such cases, parties had to determine their losses after the early termination date. In such situations, parties should determine their losses as soon as possible after the automatic early termination date.

Since loss involves more subjective measures of losses and costs than market quotation, the calculation of loss generally is more time-consuming than the determination of market quotation. As with market quotation, parties should be more concerned about accuracy, completeness and verification than with attempting to deliver a valuation statement immediately after the early termination date.

Loss consists of several different measures of damages. A party’s total losses and costs is calculated by determining its (i) loss of bargain; (ii) cost of funding; and (iii) loss or cost incurred as a result of its terminating, liquidating, obtaining and reestablishing any hedge or related trading position. Losses and costs that are duplicative because they fit into more than one category of loss are not counted twice. For example, if a loss or cost could be both a cost of funding and a cost of hedging, it only gets counted once. Similarly, loss is not limited to one of these categories. If a party suffers costs and expenses in all three categories, then those costs and expenses are added together for the loss calculation. However, the valuation statement does not need to break down the loss calculations into these specific categories. These categories are merely guides to the determination of loss by parties.

§ 5:5.1 Loss of Bargain

Loss of bargain is meant to encompass the losses suffered by the non-defaulting party or non-affected party due to the early termination of a transaction because of an event of default or termination event. Loss of bargain is the foregone opportunity cost resulting from an early termination of the transaction especially an opportunity cost that cannot be replaced by the non-defaulting party or non-affected party.

While loss of bargain is easily identifiable with illiquid transactions, it is also possible for loss of bargain to occur with simple transactions. For example, let’s assume that a non-defaulting party has entered into an interest rate swap transaction with a party that has defaulted as a result of bankruptcy. When the non-defaulting party entered into this
interest rate swap transaction, interest rate swaps were attractively priced in the market. The same interest rate swap that existed on the effective date now would cost the non-defaulting party a significantly higher cost even though the credit rating of the non-defaulting party has remained the same and interest rates have remained the same simply because there is a credit crisis or a liquidity crisis. The difference between the cost of an interest rate swap on the effective date and an interest rate swap on the early termination date is an example of a cost related to a loss of bargain. Nothing has changed since the effective date other than spreads to entities with the same credit rating that existed on the effective date have increased.

Another example of loss of bargain is an interest rate swap that provides very favorable provisions to the non-defaulting party on the effective date of the transaction. The non-defaulting party was not required to post collateral and was not subject to any financial covenants. Once the transaction is terminated, market conditions require the non-defaulting party to both post collateral and agree to financial covenants to enter into a reasonably priced interest rate swap. The requirement to post collateral and to include financial covenants is a loss of bargain for the non-defaulting party which should be quantified and included in the loss calculation. Any commercially reasonable methodology can be utilized to quantify this loss of bargain. The non-defaulting party could obtain quotes from reference market-makers as to the cost of entering into a replacement interest rate swap that provides for no collateral postings or includes any financial covenants. The non-defaulting party could also determine the loss of bargain to be the opportunity costs of posting collateral and losing access to the collateral during the term of the replacement swap transaction.

Loss of bargain costs is quite common with illiquid swap transactions such as hedge fund-linked derivative transactions. For example, a hedge fund may enter into a fund-linked derivative transaction with an investment bank to provide a liquidity facility to meet investor redemption requests without having to liquidate any portion of its portfolio. However, the investment bank files for bankruptcy and its bankruptcy sets off a credit crunch in the market. The hedge fund no longer has the benefit of the transaction and, in the current market environment, is not able to enter into a replacement swap transaction. The loss of bargain is the cost of a liquidity facility to facilitate investor redemptions by the hedge fund. The fund could then determine those
costs by reference to the costs of a plain vanilla lending facility for itself. Alternatively, it can compute the costs of liquidating a portion of its portfolio to meet investor redemptions as a loss of bargain cost.

§ 5:5.2 Cost of Funding

The costs of funding are simply a reflection of the funding costs to the non-defaulting party resulting from the termination of transactions. It can take many forms, but the most common are break-funding costs. Break-funding costs are costs, payments and/or fees incurred from the termination of a loan or financing prior to its maturity date. Since most derivative transactions are financings in some form, there are costs, payments or fees to a party if the other party causes an early termination of a transaction. The costs are determined subjectively based on the cost of funding for the non-defaulting party. The cost of funds for a non-defaulting party may be significantly higher than current market interest rates, but this loss measurement is tailored to the cost of funding for the non-defaulting party.

For example, let’s assume that Party A and Party B have entered into a plain vanilla equity swap transaction on 10,000 shares of ABC Corporation stock as described in section 5:3.1. Party A is providing the return on ABC Corporation stock to Party B so it hedges its liability under the equity swap by purchasing 10,000 shares of ABC Corporation stock. To purchase the 10,000 shares, it borrowed the money necessary to purchase the shares and is paying an interest rate on the borrowed funds. If Party B defaults and the equity swap is terminated, Party A must still continue to pay interest on the borrowed funds unless it breaks its funding by prepaying the borrowed amount. However, banks generally charge interest for loans that are terminated prior to maturity based on the present value of the interest rate payments that are due from the time of prepayment to the maturity date. The costs incurred by Party A in terminating its borrowing due to Party B’s default are funding costs that are includable in the loss calculations.

The cost of funds may either be the actual cost of break-funding incurred by a party on a transaction due to the default of the other party or it may also reflect this party’s own internal cost of funding. For example, large banks frequently fund their own borrowings through a separate arm or division of the bank. The bank’s internal cost of funding may serve as the benchmark in computing costs of funding. A bank’s cost of funding may vary significantly from bank to
bank, but the determination of cost of funds is not limited to market interest rates. If a party has a significantly higher cost of funds than the market, an early termination caused or resulting from the other party on derivative transactions will result in a higher cost of funding in the computation of loss. It is a subjective measurement based on the cost of funding for the non-defaulting party and it may be significantly greater than current market interest rates.

§ 5:5.3 Hedging Costs

The final category of the loss calculation is losses or costs resulting from the termination, liquidation, obtainment or re-establishment of a hedge or related trading position. These costs may actually result in a gain to the non-defaulting party. If these costs result in a gain to the non-defaulting party, these expenses would then be subtracted from the loss calculation.

The simplest example of this type of cost is a replacement hedge transaction that replaces the transaction that has been terminated due to an event of default or termination event. Let’s go back to our example of a hedge fund that entered into a fund-linked derivative transaction with a bank that has filed for bankruptcy. If the hedge fund is able to enter into another fund-linked transaction with another bank, but at a higher cost, the hedge fund is entitled to recoupment for these higher costs. The loss measurement in this case would be the difference between the payment obligations under the terminated transaction and the payment obligations under the new transaction. If, however, market conditions are such that the hedge fund is able to enter into a new transaction at a lower cost than the terminated transaction, the cost savings are subtracted from the loss calculations. The cost of the new fund-linked derivative transaction is a cost of re-establishing the hedge.

Another type of cost encompassed in this category is the cost of hedging to offset the loss created by the terminated transaction. A party to a terminated transaction may want to fix its loss as soon as possible by entering into offsetting hedges. Under the laws of the State of New York, parties have a general obligation to mitigate damages so attempting to minimize loss is not only a sound risk management tactic, but a good legal one as well. The costs of entering into these offsetting hedges are includable in this category of the loss calculations.

Another loss measurement in this category is the costs of liquidation hedge positions or other hedging transactions. An example of this
type of loss is an equity swap transaction whereby the non-defaulting party is holding actual shares of the underlying stock. Upon termination of the transaction, the non-defaulting party immediately liquidates and sells all shares of stock that were subject to the equity swap. The brokerage expenses incurred in selling the stock are includable in this category, as well as the actual loss suffered by the party in selling the stock on the early termination date (or such longer period as may be necessary depending on the amount of stock involved).

Let’s go back to our example of an equity swap transaction with ABC Corporation stock (see section 5:3.1), the stock price was $100 per share at the inception of the transaction and the transaction relates to 10,000 shares of ABC Corporation stock, Party A is entitled to receive the increase in value of ABC Corporation stock while Party B receives periodic interest payments from Party A. Generally, Party B would purchase shares of ABC Corporation stock to hedge its obligations under this equity swap transaction. If the transaction is terminated due to an event of default or termination event relating to Party A, Party B will sell all shares of ABC Corporation stock that is subject to the transaction. If it sells ABC Corporation stock for $75 per share and incurs $10,000 in brokerage expenses, the loss calculation would be $(100 − 75 \times 10,000 \text{ shares})$ plus $10,000 for a loss calculation of $260,000. If the transaction is terminated due to an event of default or termination event relating to Party B, Party A may either replace the swap transaction or, in lieu of a swap transaction, purchase shares of ABC Corporation stock in the market. If Party A enters into a replacement swap transaction on 10,000 shares of ABC Corporation stock, but must pay a higher financing cost, the difference between the financing cost in the terminated transaction and the replacement transaction is a measurement of the loss that Party A has suffered. Alternatively, Party A may decide to purchase actual shares of ABC Corporation stock. If ABC Corporation stock sells at $175 per share on the early termination date, Party A has a loss equal to $(175 − 100 \times 10,000 \text{ shares})$ plus brokerage costs of $10,000.

§ 5:5.4 Discretion of Non-Defaulting Party

A party is not required to enter into an offsetting hedge or other transaction upon the early termination of a transaction. The manner in which the non-defaulting party wishes to make itself whole from an early termination of a transaction is the sole discretion of the
non-defaulting party. The loss calculation is also not required to be a measure of the actual out-of-pocket expenses actually incurred by the non-defaulting party. Going back to our example in section 5:3.1 where Party B is the defaulting party, if Party A decides not to purchase ABC Corporation stock or to enter into a replacement equity swap transaction, Party A still has a loss from the early termination of the transaction. Party A may choose as its loss measurement either the cost for a replacement swap or the cost of purchasing ABC Corporation stock in the market. Using the replacement costs of a swap transaction does not mean that the party must enter into the replacement swap transaction. It is simply a measure of the damages suffered by a party. Regardless of whether Party A enters into a replacement transaction or purchases ABC Corporation stock, it has suffered a minimum loss equal to either (i) the difference in financing rates between the two transactions, or (ii) the loss of the stock gain on ABC Corporation stock from the inception of the transaction to its early termination date: ($175 – $100 × 10,000 shares) plus brokerage costs of $10,000 in our example.

In more complex transactions, the measurement of loss can be difficult. If a party is able to enter into a replacement transaction, but on materially different terms than the terminated transaction, how does this party assign economic value to the different terms? There is no set answer other than it must be commercially reasonable.

Let’s take an example of a party that has entered into an interest rate swap transaction to hedge its floating rate exposure on debentures issued by this party and an event of default or termination event occurs with respect to its counterparty. If this party is unable to enter into a replacement swap transaction with the same material terms, what is its measure of loss? There are several possible measures of damages. One way of determining its measure of loss is to calculate the price it would pay to convert the debentures to fixed rate debentures to negate its interest rate risk. It could also try to assign economic value to the materially different terms of the replacement transaction such as the costs of posting collateral. It could also measure its loss by the cost of purchasing an interest rate cap that would act as an approximate substitute hedge for the interest rate swap transaction. As long as the non-defaulting party acts in good faith and in a commercially reasonable manner, its loss calculations should be respected.

While the loss methodology permits the non-defaulting party to obtain quotations of relevant rates or prices from one or more reference
market-makers, it is not required to do so. However, to the extent that prices and rates can be obtained from third parties, it is advisable to include such quotations in the loss calculations. The more verifiable the loss calculation, the less chance there is of a dispute.

§ 5:6 Unpaid Amounts

In addition to market quotation or loss, the amounts which were due on a terminated transaction, but not paid on or prior to the early termination date must be calculated. If market quotation is utilized as the methodology for the loss calculations, these amounts are defined as unpaid amounts. If loss is being utilized for the loss calculations, the loss definition already incorporates the concept of unpaid amounts.

It’s easier to envision these amounts if we split the payment component of a transaction into two distinct categories: (i) amounts or deliveries that were due under the terminated transaction on or prior to the early termination date, and (ii) future amounts or deliveries that would have become due under the terminated transactions after the early termination date. Deliveries contemplate transactions under which physical delivery of the underlying is to be made, such as the physical delivery of oil or other commodities or the physical delivery of stock shares or other securities.

The value of future amounts or deliveries under a terminated transaction are calculated by the market quotation or loss methodologies set forth above. However, only the value of future payments or deliveries after the early termination date is encompassed in the methodologies described above. To fully encompass the gains or losses on a terminated transaction, parties must also include amounts or deliveries that were due and unpaid prior to the early termination date.

There are two types of unpaid amounts: (i) past amounts that were due and unpaid before the establishment of an early termination date, and (ii) amounts that were due and unpaid after the establishment of an early termination date. The establishment of an early termination date immediately suspends all payment and delivery obligations of the parties. A party is not required to make a payment or delivery on a date prior to the early termination date if an early termination date has already been established.4

Let’s go back to our example of an equity swap on 10,000 shares of ABC Corporation stock with a notional value of $1 million. In this example, Party A is required to pay periodic interest payments on $1 million at a fixed rate of 1% per month to Party B in exchange for the total return on ABC Corporation stock. Party A must make the periodic interest payments on the first business day of each month, but Party A has failed to make its March 1 payment to Party B. Party B delivers an event of default notice and establishes an early termination date of March 23. The unpaid amount in this example is an amount equal to the March 1 payment due by Party A to Party B of $10,000 ($1 million × 1.00%). Let’s assume that Party B establishes an early termination date of April 23. In this case, the March 1 and April 1 payments are the unpaid amounts or $20,000 ($1 million × 1.00% × 2).

After calculating its damages from the failure to pay by using market quotation, Party B would add the unpaid amount to the amounts calculated under market quotation. If Party B is unable to obtain market quotations and falls back to the loss methodology, the unpaid amounts are added to the loss calculation.

A more complicated example is when there are periodic two-way payment streams so that both parties are required to make payments to each other on a periodic basis. Using our basic example above, let’s assume that Party B is also required to make payments on the first day of each month to Party A. Party B’s payment is equal to the difference between the current fair market value of ABC Corporation stock and the market value of ABC Corporation stock at the inception of the transaction which is assumed to be $100 per share. On the March 1 payment date, the price of ABC Corporation stock is $115 per share. On March 1, Party B pays Party A an amount equal to $150,000 ($115 minus $100 × 10,000 shares), but Party A fails to make its required interest payment so Party B designates an early termination date of March 23. In this case, the unpaid amount is only equal to Party A’s interest payment to Party B because Party B made its required payment. Let’s assume that Party B designates an early termination date of April 2 and that the market price for ABC Corporation stock is $110 per share. In this case, Party B will not make a payment of $100,000 on April 1 because an early termination date has been established, and as a result, its payment obligations are suspended. Party A has unpaid amounts equal to $20,000 (the March 1 and April 1 interest payments) while Party B has an unpaid amount equal to $100,000. Netting the two payments results in Party B having a net
unpaid amount of $80,000. Party B must then subtract $80,000 from the amounts calculated under the market quotation or loss methodologies.

§ 5:7 Out-of-Pocket Expenses

The non-defaulting party (but not a non-affected party) is also entitled to reimbursement for out-of-pocket expenses incurred as a result of terminated transactions. These out-of-pocket expenses are only payable if an event of default has occurred. They are not payable if the termination of a transaction resulted from a termination event.

There are two types of out-of-pocket expenses typically incurred when a transaction is being terminated. The first category of expenses is out-of-pocket expenses incurred in terminating or liquidating hedge positions or executing replacement swap transactions. These out-of-pocket expenses are related to the calculation of loss. The second category of expenses is out-of-pocket expenses incurred in the enforcement or protection of rights under the terminated transactions. These out-of-pocket expenses are not related to the calculation of loss, and most typically include legal expenses incurred by the non-defaulting party.

The first category of out-of-pocket expenses includes brokerage fees and expenses incurred from liquidating or terminating hedge positions maintained in connection with terminated transactions. If the non-defaulting party is not a reference market-maker, these expenses can also include the reasonable fees of financial advisers or consultants to advise the non-defaulting party on the replacement of the transaction or alternative methods of hedging the risk caused by the termination of a transaction. Any other out-of-pocket expenses resulting from the termination or replacement of terminated transactions belong in this category.

This first category of expenses is encompassed as an additional element in the loss calculations. However, these expenses are not encompassed in the market quotation methodology. The rationale is that if an early termination amount on a terminated transaction is subject to market quotation, the fees and expenses relating to the replacement transaction are negligible. Parties who envision having to incur fees and expenses in the calculation of termination payments should negotiate loss as the damage methodology.

The second category of expenses is costs incurred from enforcing the terms of terminated transactions. Most typically these expenses
are legal fees. These costs are considered indemnities under the master agreements\(^5\) and are a separate line item added to the amounts calculated as loss or market quotation methodology. The cost of retention of counsel or advisers to aid in the preparation of the valuation statement is also an indemnifiable cost. Stamp tax in jurisdictions where it is applicable is also an indemnifiable expense. Otherwise, taxes incurred from a terminated transaction are generally not indemnifiable.

§ 5:8 Termination Currency

After the calculation of market quotation, loss and unpaid amounts, these amounts must be converted into the termination currency under the 1992 Master Agreement. The termination currency is specified by the parties in the schedule, but if none is specified, the termination currency is deemed to be U.S. dollars. This step is only needed in transactions where any currency other than U.S. dollars is being utilized.

A party may have multiple transactions, but only transactions that are not settled in U.S. dollars must undergo conversion into the termination currency or, if none is specified, into U.S. dollars for purposes of determining the final early termination amount.

§ 5:8.1 Foreign Exchange Agent

If any transaction requires payment in a currency other than U.S. dollars, the party required to convert its payment stream into U.S. dollars must select a foreign exchange agent to obtain spot exchange quotes on the FX exchange rate between the termination currency and the U.S. dollar. Typically, the non-defaulting party would select a foreign exchange agent. If the non-defaulting party is an institution that has FX exchange capabilities, such as a bank, the non-defaulting party may rely on quotations from its own FX desk. FX exchange transactions are standard and commoditized so there is less concern about significant variances in quotations.

If both parties are required to calculate termination currency equivalents, then the foreign exchange agent must be agreed to

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between the parties. However, if a defaulting party does not cooperate in the selection of a foreign exchange agent or if a bankruptcy event of default has occurred, the non-defaulting party may select the foreign exchange agent even if both parties are required to determine termination currency equivalents. For purposes of calculating the termination currency equivalent of a transaction, it is advisable to make a copy of the online screen quotation and attach it to the termination statement.

§ 5:8.2 Conversion Time

The time at which the currency is deemed to be converted is important since currency exchange rates can vary on a minute-by-minute basis. The currency exchange quotation should be determined as of 11:00 A.M. as of the early termination date in the city in which the foreign exchange agent is located. For example, if a party selects a foreign exchange agent in London, the 11:00 A.M. determination time would be 11:00 A.M. London time.

However, if the market quotation or loss calculations are not finalized or ready on the early termination date, the FX exchange rate for conversion into U.S. dollars is delayed until these amounts have been finalized and calculated. There may be many reasons why the calculations are not finalized on the early termination date. The non-defaulting party may have declared an immediate early termination date, but the computations required to finalize the valuation statement are complex and time-consuming. As previously noted, in finalizing the valuation statement, accuracy is more important than timeliness.

Another reason for the delay in calculating market quotations or loss is that an automatic early termination may have occurred. If the parties have selected automatic early termination, the bankruptcy filing of one party will lead to an automatic termination of transactions between the parties. The early termination date will be deemed to occur on the date of the bankruptcy filing so that no time is available to make the market quotation or loss calculations as of the early termination date. This situation is exacerbated if the bankruptcy filing occurs over the weekend.

This situation presented itself with the Lehman Brothers Holdings Inc. bankruptcy filing. Lehman Brothers Holdings Inc., the parent holding company, filed for bankruptcy protection shortly after midnight on Monday, September 15. Parties that had stipulated automatic early termination learned Monday morning that they were parties
to transactions that had automatically terminated. Since the early termination date for an automatic early termination goes back in time to the business day prior to the bankruptcy filing, the early termination date for transactions relating to Lehman Brothers Holdings Inc. was Friday, September 12. Parties first learned Monday morning that their transactions had automatically terminated on the prior Friday, so there was no time to calculate market quotation or loss as of the early termination date.

The currency exchange conversion would then take place on the latter of either the early termination date or the business day on which market quotation or loss has been calculated and finalized. On the business day on which market quotation or loss has been finalized, a quotation for conversion into U.S. dollars would be obtained as of 11:00 A.M. in the city in which the foreign exchange agent is located. If market quotation or loss has been calculated and finalized after close of business in the city where the foreign exchange agent is located, the quotation may be obtained retroactively as of 11:00 A.M. on such business day. However, if a retroactive measurement would produce a commercially unreasonable result such as during a time of significantly high currency volatility, the currency exchange quotation may be obtained on the subsequent business day.

The currency conversion rate may not necessarily be a measure of actual damages. A party is not required to enter into an FX contract to hedge its currency risk under terminated transactions. However, if a party does enter into an FX contract to hedge its currency risk, the cost of the hedge would be a cost picked up by the loss calculations. However, even if a party immediately entered into an FX exchange contract to mitigate its losses under terminated transactions prior to the final calculation of market quotation or loss, the FX conversion rate is still determined as of the final calculation date.

§ 5:8.3 Conversion Amount

The amount for which a termination currency equivalent quotation is obtained is equal to the total amount of the market quotation or loss relating to the terminated transaction requiring conversion into U.S. dollars or the termination currency. In most cases, the conversion amount will not impact the FX rate. However, there are circumstances where the amount sought to be converted would result in a different quotation than market standard. In cases where a large monetary transaction in an illiquid currency must be converted to U.S. dollars,
the quotation obtained will vary based on the amount sought to be converted. In such cases, when obtaining quotations from the foreign exchange agent, the amount to be converted must be provided to the agent.

§ 5:9 Calculation of Early Termination Amount Under 1992 Master Agreement

Once market quotation or loss and the termination currency equivalent have been determined, the settlement amount under the 1992 Master Agreement may be determined. The settlement amount is equal to the sum of the termination currency equivalents of the market quotation or loss determined for each terminated transaction.

As noted, upon the occurrence of certain termination events, such as a termination event in which there are two affected parties, both parties are required to calculate the settlement amount. The final determination of the settlement amount requires reconciliation of the two parties’ calculations. If market quotation has been utilized, then the difference between the settlement amounts calculated by each party is split equally and the settlement amount is the amount equal to one half of the difference between the higher and lower settlement amounts. The unpaid amounts are netted together to calculate a net unpaid amount. The termination currency equivalent of the unpaid amounts of the party with the lowest settlement amount is subtracted from the termination currency equivalent of the unpaid amounts of the party with the highest settlement amount. The resulting figure is added [if positive] or subtracted [if negative] to the average settlement amount. If loss applies, the total loss calculations of each party are added together and then divided by two to obtain the settlement amount that will bind the parties.

§ 5:9.1 Tables for Early Termination Amount Calculations

A summation of the key figures in the valuation statement is set forth below. The settlement amount is the key calculation. The settlement amount is equal to market quotation or loss if no conversion of currency is required. If market quotation or loss has been calculated in a currency other than the termination currency, then the settlement amount is the equivalent amount of market quotation or loss in the termination currency of each transaction.
### Table 5-1

**Early Termination Amount for Transactions Terminated Due to Event of Default**

<table>
<thead>
<tr>
<th>Description</th>
<th>Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Settlement amount (termination currency equivalent of market quotation or loss)</td>
<td>determined by non-defaulting party:</td>
</tr>
<tr>
<td>PLUS</td>
<td></td>
</tr>
<tr>
<td>Reasonable out-of-pocket expenses incurred by the non-defaulting party:</td>
<td></td>
</tr>
<tr>
<td>PLUS</td>
<td></td>
</tr>
</tbody>
</table>
| Termination currency equivalent of unpaid amounts owing by the defaulting party: | MINUS<br>
|                                                                             | Termination currency equivalent of unpaid amounts owing by the non-defaulting party: |
| TOTAL                                                                       | (Settlement amount + Out-of-pocket expenses + or − Net unpaid amounts)       |
### Table 5-2

**Early Termination Amount for Transactions Terminated Due to Termination Event with One Affected Party**

<table>
<thead>
<tr>
<th>Settlement amount (termination currency equivalent of market quotation or loss) determined by non-affected party:</th>
<th>PLUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Termination currency equivalent of unpaid amounts owing by the affected party:</td>
<td>MINUS</td>
</tr>
<tr>
<td>Termination currency equivalent of unpaid amounts owing by the non-affected party:</td>
<td>TOTAL</td>
</tr>
</tbody>
</table>

(Settlement amount + or − Net unpaid amounts)
## Table 5-3

**Early Termination Amount for Transactions Terminated Due to Termination Event with Two Affected Parties**

Highest settlement amount (termination currency equivalent of market quotation or loss) determined by one affected party

PLUS lowest settlement amount (termination currency equivalent of market quotation or loss) determined by other affected party:

\[
\text{TOTAL SETTLEMENT AMOUNTS} \div 2 = \text{SETTLEMENT AMOUNT:}
\]

PLUS

Termination currency equivalent of unpaid amounts owing by the affected party with highest settlement amount:

MINUS

Termination currency equivalent of unpaid amounts owing by the affected party with the lowest settlement amount:

\[
\text{TOTAL}
\]

(SETTLEMENT amount + or − Net unpaid amounts)
§ 5:9.2 Applicable Rate

The non-defaulting party is entitled to receive interest payments on the settlement amount, net unpaid amounts and out-of-pocket expenses due to the non-defaulting party. If the non-defaulting party owes a settlement amount or a net unpaid amount to the defaulting party, the payment is required to be made on the effective date of the valuation statement so, in the case of the non-defaulting party, no interest charges accrue unless the non-defaulting party fails to make its termination payment. If the non-defaulting party fails to make its termination payment, interest also accrues at the applicable rate.

The applicable rate consists of four components:

(i) the interest rate payable on unpaid amounts and settlement amounts due by the defaulting party;

(ii) the interest rate payable on the amounts calculated as market quotation or loss after the due date of this payment;

(iii) the interest rate payable on unpaid amounts and settlement amounts due by the non-defaulting party; and

(iv) the interest rate payable on any other amount that does not fit into one of the above categories.

With respect to amounts payable under clauses (i) and (ii), the interest rate due on these amounts is called the default rate. The default rate equals the cost of funds incurred by a party if it were to borrow an amount equal to the sum of the settlement amount, the net unpaid amount, and in the case of the non-defaulting party, the out-of-pocket expenses plus 1.0%. Since the applicable rate is a subjective cost of funding measurement, the applicable rate will be different for each party. Each party computes its own applicable rate based on its internal cost of funding. Each party must certify to the other party its own internal cost of funding, but no further proof of the internal cost of funding is necessary.

The interest rate payable on unpaid amounts due by the non-defaulting party is equal to the non-default rate. The non-default rate is the internal cost of funding by the non-defaulting party of the unpaid amount. As with the default rate, the non-defaulting party must certify that the non-default rate is accurate, but is not otherwise required to submit proof or evidence of its internal cost of funding.
The interest rate payable on all other amounts is equal to the **termination rate**. The termination rate is the average of each party’s internal cost of funds to fund these amounts. Each party must certify as to its cost of funding, but neither party is required to provide proof. The termination rate will only apply if a transaction or group of transactions has been terminated as a result of the occurrence of a termination event as opposed to an event of default. The termination rate does not apply if the termination of a transaction results from an event of default. The termination rate applies to amounts calculated as market quotation or loss calculations from the early termination date until the date of which payment is due. Unpaid amounts are not subject to the termination rate because an unpaid amount can only result from an event of default. Instead, unpaid amounts accrue interest at the default rate.

Interest calculated at the applicable rate accrues based on the actual number of calendar days that have elapsed. Interest is also compounded daily at the applicable rate. The payment of interest at the default rate by a defaulting party that is subject to bankruptcy proceedings may be invalidated by a bankruptcy court. The bankruptcy implications of these payments are discussed in chapter 7.

### § 5:9.3 Interest Accrual Dates

To determine the correct applicable rate to apply to the various amounts due from the termination of one or more transactions, the dates on which amounts are payable must be determined.

With respect to unpaid amounts, these amounts were due on a pre-established payment date, but not made as a result of the event of default or a potential event of default or because of the establishment of an early termination date. Interest accrues on unpaid amounts from, and including, the date on which these amounts were due to be paid, but not paid to, but excluding, the early termination date. For the defaulting party, these unpaid amounts will bear interest at the default rate. For the non-defaulting party, the unpaid amounts will bear interest at the non-default rate.

The next key period of time for the accrual of interest is the time from the early termination date until the payment date of amounts due on early termination. With this period of time, the cause of the termination of the transaction is relevant in determining the applicable rate. If the transaction terminated due to an event of default, then interest accrues during this time period at the default rate if the defaulting party owes an early termination amount to the
non-defaulting party. If the non-defaulting party owes an early termination amount to the defaulting party, the applicable rate during this time period is the non-default rate. However, if the transaction terminated as a result of a termination event, then the applicable rate during this time period is the termination rate.

The third key period of time is the time after the due date of the early termination amount. In this case, it doesn’t matter whether the termination resulted from an event of default or a termination event. It also doesn’t matter which party is the defaulting or non-defaulting party. A party is required to make payment on the effective date of the valuation statement. A party who doesn’t make these payments is required to pay interest at the default rate from the date on which the payment was due until the date that payment was actually made.

For purposes of the valuation statement, the amount of interest cannot be calculated if the date of payment is unknown. Accordingly, the valuation statement should simply set forth that interest payments are due on the effective date, as well as a notation that interest payments will increase if payment is delayed.

§ 5:9.4 Payment Date of Early Termination Amount

The date of payment for the calculated early termination amount depends on whether the transaction was terminated as a result of an event of default or a termination event.

If the transactions terminated due to an event of default, the payment date for the early termination amount is the effective date of delivery of the valuation statement. The effective date is determined by the method of delivery of the valuation statement. A valuation statement must be delivered by messenger, courier, certified mail or registered mail. The effective dates are as follows:

1. if the valuation statement is delivered by messenger, the effective date is the date the notice is delivered; and

2. if the valuation statement is delivered by certified or registered mail, the effective date is the date of delivery or date on which delivery is attempted.

If the transactions terminated due to a termination event, the payment date is two local business days after the effective date of the valuation statement. Accordingly, if a valuation statement is delivered by messenger and the cause of the termination is an event
of default, then the payment date for the termination payment is the date of delivery. If the termination resulted from a termination event, the payment date is two local business days from the date of delivery of the valuation statement.

§ 5:10 Close-Out Amounts Under 2002 Master Agreement

The 2002 Master Agreement streamlines the calculation of the early termination amount by addressing issues that existed in the 1992 Master Agreement. For example, there is no concept of market quotation or loss as with the 1992 Master Agreement. The 2002 Master Agreement instead introduces the concept of the close-out amounts due under terminated transactions. The close-out amount methodology was developed in response to the difficulty of obtaining market quotations and determining loss for terminated transactions during the liquidity crises of 1997 and 1998.

The close-out amounts incorporate portions of the methodologies derived from both the market quotation and loss concepts in the 1992 Master Agreement. However, there is no election by the parties as to whether market quotation or loss applies to any early termination amount for transactions documented under the 2002 Master Agreement. The close-out amount concept applies to all transactions documented under the 2002 Master Agreement. The close-out amount is more analogous to the loss methodology since it permits the valuation of an early termination amount in a subjective manner that may be unique to the determining party. A form of valuation statement that may be utilized under the 2002 Master Agreement is set forth in Appendix A11.

As noted, one key difference between the 1992 Master Agreement and the 2002 Master Agreement is the elimination of the market quotation process under the 2002 Master Agreement. As described in section 5:4, market quotation requires that quotations be obtained from at least four reference market-makers as to the "economic equivalent" value of future payments or deliveries under a termination transaction. If market quotations cannot be obtained, loss becomes the fall-back methodology. As described in section 5:4, efforts must be made to obtain market quotations even if they are generally not available. Under the 2002 Master Agreement, no attempt needs to be made to procure market quotations. While the close-out amount methodology permits the parties to obtain market quotations, there is no requirement to do so. The concept of obtaining market quotations...
from reference market-makers has been deleted so that market quotations may be obtained from dealers, end-users, information vendors, internal sources and other market information sources.

As with market quotation and loss, the close-out amount must be determined as of the early termination date, or if that is not “commercially reasonable,” the close-out amount may be determined after the early termination date. The close-out amount must be determined for all terminated transactions. As with market quotation and loss under the 1992 Master Agreement, parties should be more concerned about the accuracy, completeness and verification of the close-out amount than with attempting to deliver a valuation statement immediately after the early termination date.

§ 5:10.1 Determining Party and Commercial Reasonableness

Under the 2002 Master Agreement, the party determining the early termination amount is called the determining party. Both parties are required to calculate the early termination amount after the designation of an early termination date. However, in most instances where the termination is due to an event of default, the non-defaulting party is the determining party.

As with the 1992 Master Agreement, the determining party must act in a commercially reasonable manner and in good faith. As with the loss methodology, there is tremendous discretion available to the determining party in calculating the early termination amount. This discretion is subject to a standard of good faith and commercial reasonableness. As long as the determining party acts in good faith and in a commercially reasonable manner, its calculation of the early termination amount should be respected.

Unlike the 1992 Master Agreement, the 2002 Master Agreement sets forth non-exclusive standards as to what constitutes commercial reasonableness in determining the close-out amount. Use of market data and information in determining the close-out amount is a commercially reasonable procedure as discussed below in section 5:10.3. Using different valuation methodology to value various terminated transactions depending on their “type, complexity, size or number” is also commercially reasonable. For example, an interest rate swap would not be valued in the same manner as a more complex credit default swap would be. The same valuation methodology should be utilized for similar derivatives, but not for derivatives that are
fundamentally different in complexity. For example, interest rate swaps should be valued similarly by a determining party, but the valuation methodology of interest rate swaps is most likely not appropriate for equity swaps or credit default swaps.

Moreover, the size or number of terminated transactions may also impact the valuation methodology. Equity swaps on shares of a company with large market capitalization with highly liquid shares would not be valued in the same manner as an equity swap on a very large block of stock on a company with illiquid shares. The large capitalization company equity swap could be valued based on market price of the stock. However, stock that cannot be readily sold in the market because of its quantity or illiquidity must then be valued in a different manner. Most banks in structuring equity swaps use a rule of thumb that stock sales or purchases relating to equity swaps on any business day should be limited to 10%–15% of its average daily float. Average daily float measures that daily trading level of a stock. Companies with large market capitalization have a high daily float. Closely held companies or companies with small market capitalization do not. While it would be appropriate to utilize the market price of a stock to value an equity swap if the underlying stock referenced in the equity swap is less than 10% of the average daily float, the market price would not be a fair reflection of the value of an equity swap if the referenced underlying stock constitutes 50% of a company’s average daily float.

All of these factors may be taken into account by the determining party in valuing terminated transactions. In fact, in most instances, these factors must be taken into account to produce a commercially reasonable result.

§ 5:10.2 Economic Equivalence

Similarly to the market quotation methodology under the 1992 Master Agreement, the close-out amount under the 2002 Master Agreement attempts to calculate the losses or costs “under the prevailing circumstances” of replacing the terminated transaction to maintain the economic equivalence of the terminated transaction to the determining party. However, while the 1992 Master Agreement determines economic equivalence only for payment or deliveries that were not made due to the termination, the 2002 Master Agreement determines the economic equivalence of the “material terms” of the transaction which includes future payments or deliveries as well as the
“option rights” of the parties. While these terms may also be included in a calculation of loss under the 1992 Master Agreement, the 2002 Master Agreement makes it an explicit contractual right of the parties.

The “material terms” may be significant in determining the close-out amount for uniquely negotiated transactions. For example, a party that was not required to post collateral in a transaction may be required to do so in a replacement transaction. The cost of posting collateral is expressly permitted to be included in close-out amount. The determining party may assign any commercially reasonable value to the cost of posting collateral. These costs are also implicitly included in a loss calculation, but under the close-out amount methodology, it is expressly permitted.

The “option rights” of the parties is also implicitly included in the loss methodology, but the 2002 Master Agreement makes it an express cost to be recognized in calculating the close-out amount. Option rights would include the value of any options embedded in a transaction. For example, an option to physically acquire a stock at the end of an equity swap transaction is an option right for which a monetary value can be assigned in determining close-out amount.

Finally, close-out amount expressly incorporates the concept that the valuation of a terminated transaction is determined in accordance with the circumstances of the “prevailing times.” Thus, if a transaction is terminated during a period of severe market crisis or dislocation, the valuation of the close-out amount will be significantly different than if the transaction is valued during a time of low market volatility. While the loss methodology implicitly recognizes that the timing of the termination of a transaction is a significant factor in determining losses, the close-out amount methodology explicitly recognizes that different market circumstances may result in significantly different valuations for an identical transaction.

§ 5:10.3 Market Data and Information

The close-out amount methodology requires the determining party to consider market data and information relating to the replacement value of the terminated transactions, but it does not require that the determining party utilize these sources or that these sources qualify as reference market-makers. If the determining party believes in good faith that consideration of these market sources would yield a commercially unreasonable result, it is not required to utilize or consider market data in determining the close-out amount.
Most importantly, if this data is not readily available, the determining party is not required to wait until it becomes available. For example, in the credit crisis of 2008, it became difficult to obtain relevant market data and it was nearly impossible to obtain market quotations for replacement transactions. In a market crisis, delay in terminating transactions can result in greater losses to the determining party which in turn results in greater damages owing by the defaulting party. Since the close-out amount methodology was developed partly in response to the liquidity crises of 1997 and 1998, the methodology recognizes that delays in valuing terminated transactions result in increased costs for the parties.

The 2002 Master Agreement provides that the close-out amount may be determined with one or more of the following market sources:

i. quotations (either firm or indicative) for replacement transactions supplied by one or more third parties that may take into account the creditworthiness of the determining party at the time the quotation is provided and the terms of any relevant documentation, including credit support documentation, between the determining party and the third party providing the quotation;

ii. information consisting of relevant market data in the relevant market supplied by one or more third parties including, without limitation, relevant rates, prices, yields, yield curves, volatilities, spreads, correlations or other relevant market data in the relevant market; or

iii. information of the types described in clause (i) or (ii) above from internal sources (including any of the determining party’s Affiliates) if that information is of the same type used by the determining party in the regular course of its business for the valuation of similar transactions.

Unlike the market quotation methodology under the 1992 Master Agreement, market data and information may come from third parties who are not leading dealers in the derivatives market. The end-users of the relevant derivative transactions, such as hedge funds or asset managers, may be utilized as well as information vendors, such as Bloomberg. Brokers and other sources of market information may also be utilized.

The close-out amount also expressly permits the use of internal market data if the determining party or any of its affiliates utilizes this
type of market data in its businesses. This provision in the close-out amount permits parties that are banks, hedge funds, insurance companies and other financial institutions to rely on internal market data in trying to determine the close-out amount.

§ 5:10.4 Unpaid Amounts

As with the 1992 Master Agreement, the 2002 Master Agreement excludes unpaid amounts from the calculation of close-out amounts. Net unpaid amounts are added or subtracted to the close-out amount in a manner similar to the 1992 Master Agreement as described in section 5:6.

§ 5:10.5 Costs of Funding and Hedging Costs

As with the loss methodology under the 1992 Master Agreement, the close-out amount permits costs of funding or break-funding costs to be included in the calculation of the close-out amount. Costs of funding are described in more detail in section 5:5.2.

The close-out amount also permits the inclusion of hedging costs incurred in the termination, liquidation or re-establishment of hedge positions. These costs are described in more detail in section 5:5.3.

§ 5:10.6 Out-of-Pocket Expenses

As with the 1992 Master Agreement, the 2002 Master Agreement provides indemnity for out-of-pocket expenses incurred in connection with the enforcement and protection of a party’s rights under the master agreement. As with the 1992 Master Agreement, these costs are only permitted if an event of default has occurred. It is not available if a termination event has led to the termination of transactions. These costs are typically legal fees incurred by the non-defaulting party.

One difference between the indemnity for out-of-pocket expenses under the 1992 Master Agreement and the 2002 Master Agreement is that out-of-pocket expenses include “execution fees.” A detailed description of these costs is contained in section 5:7.

§ 5:10.7 Termination Currency Equivalent

Similarly to the 1992 Master Agreement, the close-out amount must be converted into the termination currency. A detailed description of this conversion process is contained in section 5:8.
§ 5:10.8 Calculation of Early Termination Amount Under 2002 Master Agreement

Once the close-out amount has been determined, the termination currency equivalents for each terminated transaction must also be determined. The final determination of the close-out amount requires reconciliation of the two parties’ calculations. If the early termination results from an event of default, the non-defaulting party’s calculations are the ones that are utilized.

If the early termination date is due to the occurrence of a termination event, then the reconciliation of the two parties’ calculations depends on (i) whether there are one or two affected parties, and (ii) whether the termination event resulted from an illegality or force majeure event. If there is only one affected party, the calculations of the non-affected party will be utilized for purposes of finalizing the settlement amount.

If, however, there are two affected parties, then the calculations of both parties are utilized and reconciled. The difference between the settlement amounts calculated by each party is split equally and the settlement amount is the amount equal to one half of the difference between the higher and lower settlement amounts. The unpaid amounts are netted together to calculate a net unpaid amount. The termination currency equivalent of the unpaid amounts of the party with the lowest settlement amount is subtracted from the termination currency equivalent of the unpaid amounts of the party with the highest settlement amount. The resulting figure is added (if positive) or subtracted (if negative) to the average settlement amount.

If the transactions terminated due to an illegality or force majeure and there is one affected party, then the calculations of the non-affected party are utilized with two modifications. First, the non-affected party may not ask third-party providers to take into account the creditworthiness of the non-affected party in providing quotations for replacement transactions. The creditworthiness of the non-affected party may be a positive or negative factor impacting pricing and that factor must be eliminated if the termination event is an illegality or force majeure. Second, mid-market quotations must be utilized in calculating the close-out amount. Mid-market quotation is the midpoint between the bid and offer price.

If the illegality or force majeure results in two affected parties, the calculations of both parties are utilized and split as is the case with a termination event with two affected parties. However, the
creditworthiness of either party cannot be utilized as a factor in obtaining any third-party quotations and mid-market quotations must be utilized in calculating the close-out amount.

§ 5:10.9 Tables for Early Termination Amount Calculations

A summation of the key figures in the valuation statement under the 2002 Master Agreement is set forth below. The close-out amount is the key calculation. The close-out amount is equal to market quotation or loss if no conversion of currency is required. If the close-out amount has been calculated in a currency other than the termination currency, then the settlement amount is the equivalent amount of market quotation or loss in the termination currency of each transaction.
### Table 5-4

**Early Termination Amount for Transactions Terminated Due to Event of Default**

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Termination currency equivalent of close-out amount determined by non-defaulting party:</td>
</tr>
<tr>
<td><strong>PLUS</strong></td>
</tr>
<tr>
<td>Reasonable out-of-pocket expenses incurred by the non-defaulting party:</td>
</tr>
<tr>
<td><strong>PLUS</strong></td>
</tr>
<tr>
<td>Termination currency equivalent of unpaid amounts owing by the defaulting party:</td>
</tr>
<tr>
<td><strong>MINUS</strong></td>
</tr>
<tr>
<td>Termination currency equivalent of unpaid amounts owing by the non-defaulting party:</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
</tr>
<tr>
<td>(Close-out amount + Out-of-pocket expenses + or − Net unpaid amounts)</td>
</tr>
</tbody>
</table>
| **Table 5-5**  
| Early Termination Amount for Transactions  
| Terminated Due to Termination Event  
| with One Affected Party Other Than an Illegality or Force Majeure |

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Termination currency equivalent of close-out amount determined by non-affected party:</strong></td>
<td><strong>PLUS</strong></td>
</tr>
<tr>
<td><strong>Termination currency equivalent of unpaid amounts owing by the affected party:</strong></td>
<td><strong>MINUS</strong></td>
</tr>
<tr>
<td><strong>Termination currency equivalent of unpaid amounts owing by the non-affected party:</strong></td>
<td><strong>TOTAL</strong></td>
</tr>
<tr>
<td></td>
<td>(Close-out amount + or − Net unpaid amounts)</td>
</tr>
</tbody>
</table>
Table 5-6

Early Termination Amount for Transactions Terminated Due to Termination Event with Two Affected Parties Other Than an Illegality or Force Majeure

<table>
<thead>
<tr>
<th>Highest settlement amount (termination currency equivalent of close-out amount) determined by one affected party PLUS lowest settlement amount (termination currency equivalent of close-out amount) determined by other affected party:</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL CLOSE-OUT AMOUNTS ÷ 2 = SETTLEMENT AMOUNT:</td>
</tr>
<tr>
<td>PLUS</td>
</tr>
<tr>
<td>Termination currency equivalent of unpaid amounts owing by the affected party with highest settlement amount:</td>
</tr>
<tr>
<td>MINUS</td>
</tr>
<tr>
<td>Termination currency equivalent of unpaid amounts owing by the affected party with the lowest settlement amount:</td>
</tr>
<tr>
<td>TOTAL</td>
</tr>
<tr>
<td>(Close-out amount + or − Net unpaid amounts)</td>
</tr>
</tbody>
</table>
Table 5-7

**Early Termination Amount for Transactions Terminated Due to Illegality or Force Majeure with One Affected Party**

<table>
<thead>
<tr>
<th>Description</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Termination currency equivalent of close-out amount determined by non-affected party utilizing mid-market quotations without consideration of creditworthiness of non-affected party:</td>
<td>PLUS Termination currency equivalent of unpaid amounts owing by the affected party:</td>
</tr>
<tr>
<td></td>
<td>MINUS Termination currency equivalent of unpaid amounts owing by the non-affected party:</td>
</tr>
<tr>
<td></td>
<td>TOTAL (Close-out amount + or − Net unpaid amounts)</td>
</tr>
</tbody>
</table>
Table 5-8

Early Termination Amount for Transactions Terminated Due to Illegality or Force Majeure with Two Affected Parties

Highest settlement amount (termination currency equivalent of close-out amount) determined by one affected party PLUS lowest settlement amount (termination currency equivalent of close-out amount) determined by other affected party utilizing mid-market quotations without consideration of credit-worthiness of either party:

TOTAL CLOSE-OUT AMOUNTS ÷ 2 = SETTLEMENT AMOUNT:

PLUS

Termination currency equivalent of unpaid amounts owing by the affected party with highest settlement amount:

MINUS

Termination currency equivalent of unpaid amounts owing by the affected party with the lowest settlement amount:

TOTAL

(Close-out amount + or − Net unpaid amounts)
§ 5:10.10 Applicable Rate

As with the 1992 Master Agreement, the 2002 Master Agreement contains provisions for the payment of interest on unpaid amounts and early termination amounts. However, the 2002 Master Agreement adds additional provisions depending on whether the termination of transactions results from an event of default or a termination event, whether there are one or two affected parties, and whether the termination is due from an illegality or force majeure.6

[A] Interest on Defaulted Amounts Prior to Termination

Prior to the establishment of an early termination date, the non-defaulting party is entitled to interest on defaulted payments at a rate equal to the default rate. The interest is calculated in the same currency as the currency in which the defaulted payment is denominated. The default rate under the 2002 Master Agreement is identical to the default rate under the 1992 Master Agreement. It is equal to the cost of funding for the non-defaulting party plus 1.0%. The cost of funding for the non-defaulting party is certified by the non-defaulting party, but does not have to be proved. Interest at the default rate accrues on defaulted payments from (and including) the date of which the defaulted payment was due to (but excluding) the date on which payment is made. While the provisions for interest calculations can be overlapping, no double counting of interest is permitted. Accordingly, if and when an early termination date is established, the defaulted payment becomes an unpaid amount which accrues interest as described below and this provision becomes inapplicable. Thus, once an early termination date is established, interest does not accrue on the defaulted payment twice because the defaulted payment becomes an unpaid amount and will accrue on the defaulted payment as an unpaid amount as described below. This provision applies only if a defaulted payment is not made and no early termination is declared.7


Prior to the establishment of an early termination date, a non-defaulting party is also entitled to interest on deliveries that have not been made for transactions in which physical delivery of a financial instrument or commodity is required. Interest is due on the fair market value of the financial instrument or commodity which was not delivered. The fair market value must be determined by the non-defaulting party in good faith and in a commercially reasonable manner as of the date on which delivery was required to be made. Interest also accrues in the same currency as the currency in which the fair market value was determined. Interest is paid at the default rate from (and including) the date on which delivery was required until the date on which delivery is made. As with interest on defaulted payments, once an early termination date is established, the failure to deliver becomes an unpaid amount and is calculated with the provisions below.\(^8\)

[B] Interest on Unpaid Amounts

Unless the reason for termination is due to an illegality or force majeure, if the non-defaulting party has declared an early termination date, interest on defaulted payments or deliveries becomes an unpaid amount and interest is calculated based on the applicable close-out rate. The applicable close-out rate is the default rate if the defaulting party owes an unpaid amount due to a failure to make a payment or delivery a commodity or financial instrument. For unpaid amounts owed by the non-defaulting party, interest is calculated at the non-default rate. The non-default rate is equal to the rate offered to the non-defaulting party by a major bank in the relevant market for overnight deposits in the applicable currency. The non-default rate in the 2002 Master Agreement is different than in the 1992 Master Agreement in that it requires the non-defaulting party to select a bank to provide it with a funding rate. The 1992 Master Agreement simply required a certification by the non-defaulting party of its internal cost of funding, but the 2002 Master Agreement requires that the non-defaulting party receive a rate quotation from a bank located in its market.\(^9\)

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Interest accrues on unpaid amounts from the date on which the payment or delivery was required to be made by the defaulting party or non-defaulting party to (but excluding) the early termination date.

[C] Interest on Deferred Payments or Deliveries Due to Illegality or Force Majeure

The 2002 Master Agreement adds new interest concepts if the termination of transactions is due to an illegality or force majeure termination event. As described in chapter 4, force majeure is a concept that does not exist in the 1992 Master Agreement.

As discussed in chapter 4, under the 2002 Master Agreement, if a payment or delivery has not been made because of the occurrence of an illegality or force majeure, no termination event may be declared by the non-affected party until the earlier of the end of the waiting period or the end of the illegality or force majeure. The waiting period is three business days for an illegality or eight business days for a force majeure. However, if an event of default has occurred and the defaulting party is the party subject to the illegality or force majeure, an event of default may be declared by the non-defaulting party and the deferral provisions and interest accrual provisions relating to it are no longer applicable.

During this deferral period, interest accrues on the deferred payment or delivery at the applicable deferral rate. The applicable deferral rate is a concept that only exists in the 2002 Master Agreement to deal with interest due on deferred payments. The applicable deferral rate only applies during the waiting period resulting from a force majeure or illegality. The applicable deferral rate is the rate certified by the party to whom a payment or delivery is due (that is, the non-affected party) as the rate offered by prime banks by a major bank in the relevant market for overnight deposits in the applicable currency. The bank is selected by the non-affected party in consultation with the affected party in good faith. This rate may actually be significantly less than the internal cost of funding for the non-affected party. However, the 2002 Master Agreement views the occurrence of an illegality or force majeure as a circumstance in which no party is at fault. It therefore calculates interest at a lesser rate than if a party has defaulted or been subject to another termination event other than illegality or force majeure.

Interest at the prime rate on deferred payments during the force majeure or illegality accrues from the date on which the payment was due until the earlier of the end of the waiting period or the date on which the force majeure or illegality ceases to exist.

However, if interest on deferred deliveries is not made to the occurrence of a force majeure or illegality, no interest accrues on the deferred delivery unless the parties have specifically negotiated an interest payment in the relevant confirmation. No interest accrues from the date on which the delivery is due to the date on which the illegality or force majeure has ceased to exist or the waiting period has terminated.

If an affected party fails to make payment or delivery on the business day after the earlier of the waiting period or the date on which the illegality or force majeure ceases to exist, the payment or delivery becomes a defaulted payment or delivery and is dealt with in the same manner as other defaulted payments or deliveries. Furthermore, if an event of default or a potential event of default occurs and the defaulting party is the party that is unable to make payment or delivery due to a force majeure or illegality, there is no deferral available and the non-defaulting party may declare an event of default. Interest accrual on payments in this case is made as though they were defaulted payments or deliveries.

If after the earlier of the end of the waiting period or the cessation of the force majeure of illegality, the non-affected party fails to make payment, an event of default has occurred and the non-defaulting party may declare an early termination date. In this case, interest accrues on the failed payment at a rate equal to the arithmetic average of (i) the rate certified by the non-defaulting party to be the rate offered to the non-defaulting party by a major bank in the relevant market for overnight deposits, and (ii) the non-defaulting party’s internal cost of funding if it were to fund an amount equal to the defaulted payment. This rate accrues from (and including) the date on which the payment was due, but for the occurrence of the force majeure or illegality to (but excluding) the earlier of the date on which either the waiting period ends or the illegality or force majeure has ceased to occur, that is, the date on which the payment was due after the deferral period.

However, a failure to make a delivery after the earlier of the cessation of the force majeure or illegality or the end of the waiting period does not result in the payment of accrued interest unless the parties have specifically negotiated otherwise in the confirmation.
[D] Interest on Deferred Payments or Deliveries Due to Failure of Conditions Precedent

As previously noted, the obligations of a party to make a payment or delivery is subject to (i) the lack of occurrence of an event of default or a potential event of default; (ii) no establishment of an early termination date; or (iii) the failure to satisfy other conditions precedent in the schedule or confirmation which have been negotiated by the parties. If a party fails to make a payment for these reasons, interest is due on the failed payment at the rate certified by the payer as being the rate offered to the payer by a major bank in the relevant market for overnight deposits in the applicable currency. Interest accrues at this rate from (and including) the date on which payment was due to (and excluding) the date on which payment was made. This provision recognizes that a non-defaulting party may fail to make a payment because it determines that the other party will not make its payment.

A party that fails to make a delivery for these same reasons is not required to pay accrued interest unless the parties have specifically negotiated otherwise in the schedule or confirmation.

As with the 1992 Master Agreement, the non-defaulting party is entitled to receive interest payments on the defaulted close-out amount and net unpaid due to the non-defaulting party.

[E] Interest on Early Termination Amount

If an early termination date has been declared, the payment of interest on the early termination amount depends on whether the early termination date was established due to an event of default or termination event. If the early termination date is established due to a termination event, the payment of interest on the early termination amount depends on whether there are one or two affected parties.

If the early termination date is due to an event of default, interest accrues on the early termination amount due to a non-defaulting party by the defaulting party at the default rate. Interest is calculated from (and including) the early termination date to (but excluding) the payment date on which the early termination amount is due as calculated under section 5:10.11.

If the non-defaulting party owes an early termination amount to the defaulting party, the early termination amount due to the defaulting party accrues interest from (and including) the early termination date to (but excluding) the payment date on which the early termination amount is due as calculated under section 5:10.11. As with interest
due on unpaid amounts, the non-default rate is the rate offered to the non-defaulting party by a major bank in the relevant market for overnight deposits in the applicable currency.

If the early termination date occurs as a result of a termination event, interest accrues from (and including) the early termination date to (but excluding) the payment date on which the early termination amount is due as calculated and described under section 5:10.11. Interest is paid at a rate equal to the arithmetic average of (i) the rate certified by the payer to be the rate offered to the payer by a major bank in the relevant market for overnight deposits, and (ii) the payee’s internal cost of funding if it were to fund an amount equal to the early termination amount.

Failure to pay the early termination amount on its due date results in another interest calculation from (and including) the business day on which the early termination amount was due to (but excluding) the date on which the payment is actually made. The interest rate accrued during this time period depends on whether an event of default, termination event, force majeure or illegality occurred.

If an early termination amount is due because of the occurrence of an event of default, the interest rate that accrues after the due date of the early termination amount is the default rate if the early termination amount is payable by the defaulting party or the non-default rate if the early termination amount is payable by the non-defaulting party. The early termination amount is required to be made on the payment date of the early termination amount as determined in accordance with the provisions of section 5:10.11. If the non-defaulting party fails to make this payment to the defaulting party on the payment date of the early termination amount, the non-defaulting party is required to pay interest to the defaulting party at the non-default rate. As with interest due on unpaid amounts, the non-default rate is the rate offered to the non-defaulting party by a major bank in the relevant market for overnight deposits in the applicable currency.

If the early termination amount cannot be paid on its due date by a party due to the occurrence of an event which would otherwise constitute a force majeure or illegality, the amount of interest due is equal to the arithmetic average of (i) the rate certified by the payer to be the rate offered to the payer by a major bank in the relevant market for overnight deposits, and (ii) the payee’s internal cost of funding if it were to fund an amount equal to the early termination amount.
If an early termination amount is due and not paid for any other reason, the interest due is equal to the termination rate. The termination rate is the average of the internal cost of funds of each party if it were to fund the early termination amount.

§ 5:10.11 Payment Date of Early Termination Amount

The date of payment for the calculated early termination amount depends on whether the transaction was terminated as a result of an event of default or a termination event.

If the transactions terminated due to an event of default, the payment date for the early termination amount is the effective date of delivery of the valuation statement. The effective date is determined by the method of delivery of the valuation statement. A valuation statement must be delivered by messenger, courier, certified mail or registered mail. The effective dates are as follows:

(1) if the valuation statement is delivered by messenger, the effective date is the date the notice is delivered; and

(2) if the valuation statement is delivered by certified or registered mail, the effective date is the date of delivery or date on which delivery is attempted.

If the transactions terminated due to a termination event in which there is only one affected party, the payment date is two local business days after the effective date of the valuation statement. Accordingly, if a valuation statement is delivered by messenger and the cause of the termination is an event of default, then the payment date for the termination payment is the date of delivery. If the termination resulted from a termination event, the payment date is two local business days from the date of delivery of the valuation statement.

If the transactions terminated due to a termination event with two affected parties, both parties are required to make calculations of the early termination amount and to deliver a valuation statement. In such a case, the payment date of the early termination amount is the first business day after the second valuation statement has been delivered by a party. Unlike the 1992 Master Agreement, the 2002 Master Agreement recognizes that an early termination amount should not be due and payable in circumstances where both parties are affected parties until both parties have delivered a valuation statement. The effective date is based on the delivery of the latest statement.
§ 5:10.12 Payment of Early Termination Amount if Force Majeure or Illegality

The payment of the early termination amount under the 2002 Master Agreement does not constitute an event of default if the failure to pay is due to the occurrence of a force majeure or illegality. Section 6(e)(4) provides the following:

*Adjustment for Illegality or Force Majeure Event.* The failure by a party or any Credit Support Provider of such party to pay, when due, any Early Termination Amount will not constitute an Event of Default under Section 5(a)(i) or 5(a)(iii)(1) if such failure is due to the occurrence of an event or circumstance which would, if it occurred with respect to payment, delivery or compliance related to a Transaction, constitute or give rise to an Illegality or a Force Majeure Event. Such amount will (1) accrue interest and otherwise be treated as an Unpaid Amount owing to the other party if subsequently an Early Termination Date results from an Event of Default, a Credit Event Upon Merger or an Additional Termination Event in respect of which all outstanding Transactions are Affected Transactions and (2) otherwise accrue interest in accordance with Section 9(h)(ii)(2).

§ 5:11 Legal Enforceability of Termination Amount Calculations

Early termination amounts payable under the master agreements are determined according to the provisions of the master agreements and schedule. These provisions do not require that losses of a party be determined by reference to the actual damages or losses actually incurred by the parties, but instead reference a broader category of loss, including loss of bargain or replacement costs.

The market quotation methodology represents an approximate calculation of the market value of the terminated transactions. The loss methodology under the 1992 Master Agreement and the close-out amount methodology under the 2002 Master Agreement represent an agreement for liquidated damages resulting from an early termination

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11. This section was written by Dmitry Ivanov, attorney at Greenberg Traurig, LLP, with the editorial assistance of the author.
of derivative transactions. However, are these loss valuation measures enforceable under the laws of the State of New York? In order to be enforceable, such provisions need to qualify as liquidated damages, and not as a penalty, which is unenforceable in New York.

For this reason, the 1992 Master Agreement contains the following language relating to calculations made under market quotation:

**Pre-Estimate.** The parties agree that an amount recoverable under this Section 6(c) is a reasonable pre-estimate of loss and not a penalty. Such amount is payable for the loss of bargain and the loss of protection against future risks, and, except as otherwise provided in this Agreement, neither party will be entitled to recover any additional damages as a consequence of the termination of the Terminated Transactions. (Section 6(e)(iv) of the 1992 Master Agreement.)

There is no similar language for the 1992 loss methodology, but the 2002 Master Agreement contains the same concept for the early termination amount:

**Pre-Estimate.** The parties agree that an amount recoverable under this Section 6(e) is a reasonable pre-estimate of loss and not a penalty. Such amount is payable for the loss of bargain and the loss of protection against future risks, and, except as otherwise provided in this Agreement, neither party will be entitled to recover any additional damages as a consequence of the termination of the Terminated Transactions. (Section 6(e)(v) of the 2002 Master Agreement.)

§ 5:11.1 Liquidated Damages Under New York Law

Liquidated damages are generally described as a “contractually predetermined amount of compensation due in case of a breach of contract.”\(^{12}\) This serves as an “estimate” by the parties of the probable injury in case of a breach at the time they enter into the contract.\(^{13}\) The liquidated damages provisions effectively allow the parties to


determine the amount of damages without going through the possibly lengthy and burdensome process of dispute resolution and proving actual losses incurred due to a breach. For a liquidated damages provision to be enforceable, the contractual stipulation for damages should not amount to a penalty designed to punish a party in breach, but should instead be compensating the non-defaulting party for losses.

Under New York law, liquidated damages will generally not be considered a penalty and will be upheld if the following two requirements are satisfied: (a) the stipulated amount must bear a “reasonable proportion to the probable loss” and must not be “plainly and grossly disproportionate to the probable loss anticipated when the contract was executed”; and (b) the actual losses are difficult to determine or estimate precisely. Accordingly, the payments of damages as determined by the relevant contractual provisions should not necessarily include calculation of actual damages, but rather should constitute a “reasonable estimate” of probable losses, even if the pre-determined quantification of damages was not the best possible resolution that was closest to the actual losses incurred due to the breach.

In one of the more relevant decisions, a Delaware state court (applying New York law) found that the liquidated damages provision in the 1987 ISDA Interest and Currency Swap Agreement (the precursor to the master agreements) was enforceable even though the non-defaulting party seeking the payment of damages had not actually entered into a replacement swap agreement. The calculation of loss under the 1987 ISDA Interest and Currency Swap Agreement (the 1987 Swap Agreement) is similar to the market quotation methodology under the 1992 Master Agreement. In that case, the non-defaulting party sought market quotation on the replacement value of the swap but decided not to actually execute a replacement swap. The defaulting party contended that due to the non-defaulting party’s failure to enter into a substitute agreement “the damages . . .

were not actually incurred.”

The non-defaulting party contended that it had made a business decision not to cover or replace the terminated swap based on its “analysis of risks and market trends,” and that it has complied with the requirements of the 1987 swap agreement by securing necessary quotes from market participants and providing a valuation statement to the defaulting party. The court agreed that the terms of the 1987 Swap Agreement “call[ed] for a value which represent[ed] the actual cost of cover for the Swap Agreement on the date of the default,” without requiring the non-defaulting party to enter into a replacement agreement, and that such measure of damages was proportionate to the actual loss, and in fact would have been the actual loss had the non-defaulting party elected to enter into the replacement swap agreement. This important decision underscores that a non-defaulting party does not need to enter into a replacement transaction in calculating the liquidated damages under the master agreements. The value of the derivative transactions under the master agreements is the relevant concept for loss calculations—not the actual damages that may have been suffered by the non-defaulting party.

Another factor for enforceability of the liquidated damages clause was the “mutuality” of the determination of damages mechanism utilized under the 1987 Swap Agreement. The court found that the terms of the 1987 Swap Agreement “call for a value which represents the actual cost of cover for the Swap Agreement on the date of default. As such, it is not only proportional to the actual loss, it is the actual loss if the non-defaulting party elects to cover. . . . Because the mechanism for the determination of damages is mutual as to the parties and is based on quotes developed at the time of the default with tight time constraints imposed on the non-defaulting party, I find no basis for the argument that the liquidation provision is invalid.”

The liquidated damages provision would in fact preclude the parties from recovering actual losses in addition to the damages stipulated by the parties at the time the agreement was made. Thus, the liquidated

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18. Id. at *3.
19. Id.
20. Id.
21. Id.
damages clause is considered to provide an “exclusive remedy” for the parties. The parties are also not given an option to choose between recovering liquidated or actual damages after the breach.\textsuperscript{23} Consequential (or special) damages, which include loss of profit or revenue, are generally recoverable only to the extent they are actually incurred, and as part of actual damages will not be awarded on top of the liquidated damages agreed upon by the parties.\textsuperscript{24}

The courts in New York appear to generally favor the freedom of contract and enforce the liquidated damages provisions, unless they clearly “disregard the principle of compensation.”\textsuperscript{25} This appears to be especially true in situations where all parties are sophisticated commercial enterprises.\textsuperscript{26}

In determining the enforceability of the determination of early termination amounts under the master agreements, in addition to considering the specific contractual language contained in the master agreements and the mutuality of the damages provisions, the courts will also likely take into account the proportionality of the losses claimed by the parties against actual losses incurred by the parties. Parties acting in good faith and in a commercially reasonable manner should not have difficulty enforcing the provisions of the loss valuation mechanisms in the master agreements.

\textsuperscript{23} Id.
\textsuperscript{24} See 36 N.Y. JUR. 2d Damages § 10 [2005].
\textsuperscript{25} See, e.g., Global Crossing Bandwith, Inc. v. OLS, Inc., 566 F. Supp. 2d 196, 202 [W.D.N.Y. 2008].
\textsuperscript{26} Id.