VII. Conclusions

In most countries, the primary purpose of damages for a breach of contract is to place the claimant in the position it would have been in had the contract been performed. Based upon this principle, the laws in most countries provide that a respondent that has unlawfully failed to perform its contractual obligations is liable for actual losses suffered by the claimant as a result of the breach, as well as any net gains prevented. Although countries lack a common language for identifying these concepts, the concepts are functionally the same from country to country.

All countries place limitations on damages for breach of contract, although they vary from jurisdiction to jurisdiction. The most common limitations are that a claimant may only recover losses that were directly caused by the respondents breach and that were foreseeable as a probable result of the breach. Many countries also preclude the claimant from recovering losses that it could have prevented through mitigation. Some jurisdictions also limit recovery to those damages which can be proven with reasonable certainty.

Many civil law countries also require as a prerequisite to the recovery of damages that the respondent be at fault in breaching the agreement. This typically means that the respondent's breach must have been willful or negligent. In contrast, most common law countries do not impose such a requirement.

The study further finds that while most countries provide for the awarding of lost profits in the event of a breach of contract, the requirements for their recovery vary among countries. In general, lost profits are more difficult to obtain in civil law countries because many of these countries impose a high standard of proof for their recovery.
Like the laws of most countries, the CISG, the UNIDROIT Principles and the PECL provide that if the respondent fails to perform its contractual obligation, the claimant may recover the full amount of the loss it suffered, including lost profits. One significant difference between the three is that the CISG does not allow the recovery of non-pecuniary loss, such as emotional distress, while the UNIDROIT Principles and the PECL do. Also, like many countries, the CISG, the UNIDROIT Principles and the PECL require that the claimant's loss must have been foreseeable and preclude recovery of losses the claimant could have avoided by mitigation.

Some tribunals have awarded damages for breach of contract based on principles of equity. In such situations, they may award *damnus emergens*, *lucrum cessans*, or both.

In light of national laws, conventions, and general principles of international law and equity, there has been an almost universal consensus among tribunals deciding disputes between transnational contracting parties that the goal of damages for breach of contract is to place the injured party in the position that it would have been in had the contract been performed. Consequently, tribunals recognize that the aggrieved party is typically entitled to recover both losses incurred as well as gains of which it was deprived because of the breach.

However, the calculation of damages and, in particular lost profits, has proved more troublesome for courts and tribunals deciding international contract disputes. This result should not come as a surprise. The laws of most countries provide little or no guidance on how lost profits should be calculated. Indeed, most countries simply give the judge or jury broad discretion to fix damages, including lost profits. In addition, the assessment of lost profits is not an exact science. Moreover, some of the methods used to calculate lost profits are complicated. In particular, the DCF method is especially complex because it determines the value of the business by projecting the net cash flow for a certain time period into the future and then discounting it back to present value as of the date of the breach (taking into account inflation and risk). Accordingly, awards of damages by tribunals deciding transnational contract disputes have varied greatly. However, this is not in-and-of-itself a cause for concern. As one tribunal explained:

"There is no reason to apologise for the fact that [the approach used to calculate damages] involves approximations; they are inherent and inevitable. Nor can it be criticised as unrealistic or unbusinesslike; it is precisely how business executives must, and do, proceed when they evaluate a going concern. The fact that they use ranges and estimates does not imply abandonment of the discipline of economic analysis; nor, when adopted by arbitrators, does this method imply abandonment of the discipline of assessing the evidence before them."

Finally, there are steps that the parties can undertake to assist tribunal in determining awards of damages. For example, parties can set forth in their contract how damages are to be calculated in the event of a wrongful breach of contract, provided it does not amount to a penalty that may not be enforced in some countries. Alternatively, parties may consider using final offer arbitration with respect to the amount of any award of damages. In this context, this approach calls for each party to propose to the tribunal the amount of damages that the claimant is entitled to; the tribunal would then choose between the two totals. (This procedure would only apply if the tribunal determined that the respondent was liable to the claimant for damages.) The advantage of this process is that it forces parties to be more reasonable in (their positions or more realistic in their assessment of their positions) and, in theory, should narrow the differences between the parties concerning the amount of damages owed. In fact, this procedure also may facilitate settlement of the dispute. As one commentator explains:

"When the only dispute between parties is a numeric value [as in final offer arbitration], reasonable final offers provide a midpoint and a range of numbers on which to focus negotiations. Each side can assess the likelihood that the arbitrator will value the disputed item as worth more or less than the midpoint. This analysis helps the parties predict which offer the arbitrator will choose. . . . [T]his midpoint analysis promotes settlement. Close final offers usually settle because a compromise number is easy to reach. Final offers which are far apart often settle as well because each side fears that the arbitrator will choose the other's offer."

Tribunals also may consider a greater use of experts to assist in evaluating claims for damages. Employing experts may help the
tribunal better understand the complexities involved in calculating damages and thus may lead to a more reasoned decision.\textsuperscript{547} The authors of one of the leading treatises on international arbitration explain:

"In international commercial arbitration, the arbitration tribunal is usually composed of lawyers. Where matters of a specialist or technical nature arise, such an arbitral tribunal often needs expert assistance in reaching its conclusions, in order 'to obtain any technical information that might guide it in the search for truth. . . .' For example, . . . [e]xpert help may be needed to investigate the quantification of a claim.\textsuperscript{548}

Of course, the drawbacks are that employing experts may increase the cost of resolving the dispute and may slow the process. These potential drawbacks may be outweighed by the benefits, especially when substantial sums are involved\textsuperscript{549}.

Tribunals also should be mindful that, where the claimant seeks both \textit{damnum emergens} and the \textit{lucrum cessans}, they need to be careful to avoid double counting so that they give the claimant the benefit of the bargain and no more\textsuperscript{550}. The potential for double recovery is especially great when the applicable law provides for the recovery of \textit{damnum emergens} and the \textit{lucrum cessans}, and the tribunal employs the DCF method to calculate damages. As one tribunal explained:

"[F]uture net cash flow generally includes all amortization of investment there will ever be. To ask for the full amount of the future revenue stream when also claiming recoupment of all investment is wanton your cake and eating it too. If the DCF method is applied in a contractual scenario to measure nothing but net cash flow (thus excluding the accrual accounting notion of 'income' which may cover non-cash items such as depreciation), there is no room for recovery of wasted costs. In other words, when the victim of the breach of contract seeks recovery of sunken costs, confident that it is entitled to its \textit{damnum}, it may go on to seek lost profits only with the proviso that its computations reduce future net cash flows by allowing a proper measure of amortization.\textsuperscript{551}

Thus, in general, a claimant should not be able to receive as damages for breach of contract both the recovery of the value of its lost assets (as \textit{damnum emergens}) and lost profits measured by the discounted present value of future cash flows (as \textit{lucrum cessans}) because, in such case, "the expenses of making the contract ... is an element included in the compensation for loss of profit\textsuperscript{552} . Damages should, to the extent possible, place the aggrieved party in the same pecuniary position that it would have been in if the contract had not been breached; not a better position than if the contract had been performed.

\section*{Chapter II. Compensatory interest}

[ . . . ]

\section*{VII. Conclusions}

\subsection*{A. Liability for interest}

The study confirms that there exists a general practice that holds a respondent liable for the payment of interest to ensure that the claimant is fully compensated for the loss of the use of money. The laws of most countries, as well as international conventions and uniform laws, such as the CISG and the UNIDROIT Principles, provide for the payment of compensatory interest. There are a few countries that prohibit the payment of interest, primarily for religious reasons. However, even some of these countries have allowed it in certain commercial transactions. Courts and arbitral tribunals deciding transnational contract disputes also typically award compensatory interest. The practice is so widespread that the liability to pay interest as part of an award of damages is now an accepted international legal principle.\textsuperscript{944}

There are exceptions to the general rule concerning liability for the loss of the use of money. For example, parties may
agree that no interest shall be paid on sums in arrears. Claims for interest may be denied if the payment of interest would result in injustice, be otherwise unconscionable, or violate public policy. In addition, interest may not be awarded if the respondent can show proof of laches, bad faith, duress or fraud on the part of the claimant.

Accordingly, courts and tribunals should presume that an award of monetary damages should include compensatory interest unless there exists a valid exception to its payment.

B. Accrual period

With respect to the period for which interest is allowed, the laws of most countries provide that interest starts to accrue from the date of default. Exactly what constitutes a default, however, varies from jurisdiction to jurisdiction. In general, if there is an agreement between the parties providing that a breach of contract will occur if the respondent fails to fulfill its obligations by a certain time and the respondent does not perform by that date, interest will begin to accrue automatically from the time of the breach. If the parties' contract does not set forth such a date, the prevailing view is that interest does not begin to accrue until the claimant demands performance. However, courts and tribunals have differed over the point in time from which interest accrues. Some have awarded interest from the moment that the claimant has been deprived of its money (e.g., the date that the contract is breached), while others have awarded interest from the date when the respondent receives notification of default or from the date that the suit or request for arbitration is filed.

I believe that a respondent should be liable for interest from the date of default up to the date of payment. The date of default should be the date on which the parties have agreed in writing that the respondent will be deemed in breach, without any further action on the part of the claimant, if the respondent has not fulfilled its contractual obligations. However, if the parties have failed to designate such a date in writing, then the date of default should be the earlier of (1) the date the respondent received notice of the default, or (2) the date of the filing of the suit or request for arbitration. This approach should not apply if it would result in extreme prejudice or injustice, violate public policy, or if there is sufficient evidence that the claimant waived the default or extended the time for performance.

This approach is consistent with most municipal laws on the payment of interest. It adequately compensates the claimant where the liability to pay interest is explicit. Where the date from which interest begins to accrue is not clearly set forth in the parties' agreement, it gives the respondent the opportunity to resolve the matter promptly. It also encourages the claimant to be diligent in resolving contract claims.

C. Interest rate

The study reveals that, in most countries, interest on a sum in arrears accrues at the statutory rate applicable through a choice of law analysis, unless the parties' agreement provides for interest to be paid at a different rate. Agreements on the payment of interest are typically enforced unless they violate public policy, such as usury laws. Unfortunately, statutory rates often remain unchanged for years and, as a result, do not accurately reflect compensation for the loss of the use of money. In the United States alone, statutory interest rates vary from 6 per cent to 15 per cent.

Courts and tribunals deciding transnational disputes have used various approaches to determine the rate of interest. Some have applied a statutory interest rate as determined by a choice of law analysis. Other approaches taken by courts and arbitral tribunals include awarding interest by applying: the law of the creditor's place of business, the law of the debtor's place of business, the law of the country of the currency of payment, the law of the country in which payment is to be made, or general principles of law, such as UNIDROIT Principles. Not surprisingly, the rates at which interest have been awarded have varied greatly, ranging from 3 per cent to 31 per cent.
In order to avoid the problems created by the use of various approaches to determine interest rates, I believe that a court or tribunal, faced with a contract silent on interest rates, should presume that interest accrues at a savings rate, or deposit rate that is commonly used in the country of the currency in which payment is to be made\textsuperscript{957}. If the currency is one that is used in more than one jurisdiction, such as the Eurodollar, the rate used should be the savings rate of the currency of payment at the location of payment.

Using a floating savings or deposit rate has two significant advantages over other commonly used approaches for determining the proper rate. First, a floating savings rate will create both uniformity and consistency. Statutory rates, in particular, create numerous problems because they often do not change to reflect economic conditions.

A fixed interest rate could actually encourage the respondent to delay resolution. If the prevailing market interest rate is higher than the interest rate set by statute, the respondent could essentially earn money by delaying payment, earning a high return on the invested funds. On the other hand, if the prevailing savings rate is much lower than the fixed statutory rate, the result will be that the claimant is overcompensated. Furthermore, determining which statutory rate applies in a given situation can be difficult.

Second, a commercial savings rate is more likely to compensate a claimant fully than a statutory rate. A floating deposit rate will reflect prevailing market conditions and currency valuations. Awarding a claimant interest at a savings rate restores the claimant to its pre-injury condition by compensating it for the opportunity lost by not being able to earn a return on the sum in default\textsuperscript{958}. Awarding the claimant interest at a rate below what could have been earned by investing the funds owed in established commercial investments fails

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...to achieve the goal of fully compensating the claimant for the loss of the use of money. On the other hand, if the interest rate awarded exceeds the prevailing market rate during the relevant period, the respondent will be "unduly punished", and the claimant will receive a windfall\textsuperscript{960}. Awarding a floating savings rate avoids these problems because unlike statutory rates which are rarely amended to keep pace with fluctuations in the market\textsuperscript{960}, the rate periodically adjusts to reflect the "economic realities of our times"\textsuperscript{961}.

A savings rate is preferred over a lending rate because where the claimant is not forced to borrow, it would conceivably be holding the money, using some savings instrument, or reinvesting the money in the company\textsuperscript{962}. However, some commentators instead favour the use of a lending rate, arguing that by not paying on time, the respondent has in effect forced the claimant to make a loan equal to the claimant's harm\textsuperscript{963}. Under this theory, compensatory interest should be awarded to compensate for the reduction in the claimant's net worth because of the delay in payment\textsuperscript{964}. The reasoning behind this argument is that assuming that the claimant is a publicly traded company with ready access to capital markets, the respondent's delay in payment cannot be said to have prevented the claimant from investment opportunities, causing the claimant to miss out on the resulting return because the claimant could have raised the funds through the capital market\textsuperscript{965}.

This approach, however, fails to recognize the traditional reason for awarding compensatory interest, which is to compensate the claimant for the loss of the use of the money, during the period within which the payment was withheld\textsuperscript{966}. Nor does this view account for the fact that the claimant might have placed the money

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owed in a savings account earning interest or used the money owed to pay off its own liabilities. Furthermore, this approach assumes that all parties involved in an interest dispute are publicly traded corporations. This is not the case; the parties involved may be State Governments or private companies who cannot raise funds without having to pay interest on them.

By awarding interest at a savings rate, the claimant will be in the same position as if it had invested the money and will be returned to its pre-injury position. Awarding interest at a borrowing rate may result in overcompensating the claimant if the claimant is not forced to borrow money to continue operations. Additionally, borrowing rates vary depending on the credit rating of the borrower, and not all borrowers are able to borrow at the prime rate\textsuperscript{967}. Savings rates, such as the rate of return on a certificate of deposit, are available to all investors at substantially the same rates. The purpose of interest is to put the claimant in the position in which they would have been had the defendant not delayed. The best way to determine the future value of the amount originally owed to the claimant by the respondent is to use the savings rate of the currency in which payment is to be made under the contract.
However, if a claimant borrows funds from a financial institution that charges interest because it needs to replace the money owed by the respondent, the claimant should be awarded interest at the rate it borrowed. This would fully compensate the claimant for its loss. Thus, focusing on the dual goals of uniformity and returning the claimant to its pre-injury condition, applying the savings rate of the currency in which payment is to be made is the best approach to awarding interest in international disputes in the absence of an agreement on the payment of interest.

D. Simple or compound interest

Most municipal laws provide only for the payment of simple interest. In addition, the traditional view of courts and tribunals deciding transnational disputes is to award only simple interest.

I believe that the traditional view is outdated and should be abandoned. The traditional view is out of step with today's economic world, in which compound interest is the norm in third party financing and investment vehicles. In fact, recently, a number of tribunals deciding investment disputes have recognized this and have awarded compound interest.

Whether simple or compound interest is awarded is significant. Interest awards in some cases may even exceed the principal owed, and an award based on simple interest would be far less than an award based on compound interest.

To best compensate the aggrieved party, compensatory interest should be compounded quarterly. Awarding compound interest brings the claimant closer to its position had the injury not occurred, because most modern financing instruments involve compound, not simple, interest. If the respondent had not defaulted, the claimant could have invested the funds owed to it in an easily available investment instrument, such as a certificate of deposit or a money market account, with compound interest. Thus, awarding the claimant only simple interest would result in the claimant receiving less than it could have earned by reinvesting the funds owed in an established commercial investment vehicle. Furthermore, the difference between awards of compound interest and simple interest are often significant. Therefore, it is important to award compound interest in order to ensure that the aggrieved party is fully compensated for its loss.

The payment of compound interest does not result in a windfall to the claimant, rather, it simply restores the claimant to the position it would have been in had it been paid in a timely manner. Although some interest awards, especially in the case of a long-term default,

may exceed the funds withheld, "during that period the wrongdoer has enjoyed the fruits of the money withheld". The claimant has been deprived of the opportunity to invest the money owed. In view of the readily available investment vehicles paying compound interest and the accepted practice of investing in them, it is inconceivable that if the claimant had been timely paid, it would have placed the money in an investment vehicle paying only simple interest.

There are three situations when it is especially appropriate for a tribunal deciding a transnational dispute to award compound interest: (1) when the parties have expressly agreed to the payment of compound interest; (2) when the respondent's failure to fulfill its obligations caused the claimant to incur financing costs in which it paid compound interest; and (3) when the claimant can prove that it would have earned compound interest in the normal course of business on the money owed if it had been paid in a timely manner.

Allowing awards of compound interest when the parties have provided for compound interest in their agreement gives effect to the intent of the parties and furthers the parties' freedom to agree upon the rules that will govern the resolution of their dispute. In addition, it encourages parties to predetermine the consequences of a breach of the agreement and facilitates settlements because the parties will be able to forecast accurately the amount of interest that an arbitrator would award. It also eliminates the need to engage in the often lengthy and complex process of determining which national law should be applied to the interest claim and thus reduces the cost of the proceedings.
Additionally, awarding compound interest is the most appropriate way to fully compensate the claimant if the claimant borrows to cover its loss, and that cost amounted to the claimant paying compound interest\(^979\). Most businesses do not possess an unlimited amount of operating capital\(^980\), and instead finance their operations through lines of credit from financial institutions or through other third-party financing arrangements\(^981\). If the claimant operated on such a basis and was paying compound interest, the claimant should be entitled to the cost of any additional financing charges caused by the respondent's breach of its obligations because such payments directly resulted from respondent's actions\(^982\). Similarly, an unexpected loss resulting from the respondent's failure to fulfill its obligations may cause the claimant to borrow money to cover its loss, either in the form of a loan or an extension in the business' line of credit\(^983\). In some situations, a business utilizes other resources to finance its operations. For example, a business may issue equity to gain the financing it requires because of the loss\(^984\).

Finally, if the claimant can show that, if it had been timely paid, it would have invested the money owed in a vehicle that would have had a compounding effect, the claimant should be awarded compound interest. It is a settled principle that a respondent is liable to repair all damages that have accrued naturally as a result of the failure to perform its obligations\(^985\). This includes the obligation to pay the claimant interest for its lost opportunity cost, which may be in the form of interest\(^986\). However, the opportunity cost in a commercial enterprise is a forgone investment opportunity\(^987\). Thus, awarding compound interest at the claimant's opportunity cost would be the most appropriate way to compensate it for the loss of the use of its money.

The goals of interest are to promote compensation and restitution. Awards of simple interest fall short of attaining those goals. Fortunately, there is no rule of international law prohibiting compound interest and many legal systems and rules under which parties often resolve international commercial disputes allow for awards of compound interest in certain circumstances. Awarding compound interest would better compensate a claimant for the loss of the use of money than the traditional practice of awarding only simple interest. Such an approach would also reconcile the practice of awarding interest with modern economic practices.

Awarding interest in international disputes from the time of the default, at the rate of a commonly used savings vehicle in the country of the currency of payment, and compounded quarterly will place the claimant in the position it would have occupied without the breach. This compensates the claimant for its lost use of the money while preventing the defaulting respondent from unjust enrichment. It also provides a uniform, easily applied rule to create certainty in international contracts.

See Gotanda, op. cit., 88-100 (discussing cases).


See Ball, op. cit., 418; cf. R. Posner, "An Economic Approach to the Law of Evidence", 51 Stan. L. Rev. 1477, 1539 (1999) (stating that a "way to deal with the problem of unintelligibility of complex expert testimony would be more frequent
appointment of court-appointed experts”).


See ibid., 326 (stating that while “it would be very expensive . . . for parties to produce evidence from independent experts, and then for the arbitral tribunal to appoint one or more experts of its own to assess the evidence[,] . . . where the technical issues involved are sufficiently complex, or where the amounts at stake are sufficiently large, this possibility cannot be ruled out”).


Himpurna, op. cit., 73. The arbitrator in the Sapphire case noted: “[The plaintiff should be] put ... in the same pecuniary position as they would have been if the contract had been performed. But the repayment of the expenses incurred in concluding the contract would tend to put them in the position they would be in if the contract had never been concluded (negative damages). . . . Undoubtedly, the plaintiff was justified in hoping to recover the expenses of making the contract out of the profit which they were expecting. But this is an element included in the compensation for loss of profit. Adding positive and negative damages together is a contradiction, and cannot be allowed.” Sapphire, op. cit., 186-187.


See, e.g., D.C. Code Ann. § 28-3302 (2005) (“The rate of interest in the District upon the loan or forbearance of money, goods, or things in action in the absence of expressed contract, is 6% per annum”); N.M. Stat. Ann. §56-8-3 (1978) (allowing the court to award interest at its discretion, at a rate of up to 15 per cent) ; S.D. Codified Laws § 54-3-5 (setting the statutory rate of interest for money due at 15 per cent). See, e.g., CLOUT case No. 122; CLOUT case No. 97; see also Judgment 5 0 543/88, Landgericht Hamburg, 26 September 1990 (Ger.); Arbitration Award 7567/94, ICC 1994 (available in Unilex).


See, e.g., Award No. 01 93 1061, Tribunal Cantonal de Vaud 11 March 1996 (Switz.).


The savings vehicle should be easily accessible to the average entity in the claimant's position. It could be a certificate of deposit, money market account or commercial savings account.

See Branson and Wallace, op. cit., 943 (citing cases).

Branson and Wallace, op. cit., 943.


Lillich, op. cit., 57.

Cf. Siemens AG. v. Argentine Republic, ICSID Case No. ARB/02/8, 6 February 2007, available at http://www.worldbank.org/icsid/cases/awards.htm (ruling that the rate of interest to be applied was "the average rate of interest applicable to US six-month certificates of deposit" (about 2.66 per cent from May 2001 to the end of September 2006) and rejecting the argument to use the rate of corporate borrowing on the ground that the appropriate rate is one that reflects the amount of compensation that the claimant would have earned).

See J. Colon and M. Knoll, "The Calculation of Prejudgment Interest", available at...
See ibid., 9.
See Branson and Wallace, *op. cit.*, 922.
See Stoll and Gruber, *op. cit.* (citing cases).

In *Wena Hotels Ltd. v. Arab Republic of Egypt*, 41 *ILM* 918 (2002), the tribunal awarded US$8,061,896.55 in damages and US$11,431,386.88 interest at a rate of 9 per cent compounded quarterly. With respect to the award of interest, the tribunal explained: "[A]n award of compound (as opposed to simple) interest is generally appropriate in most modern, commercial arbitrations. . . . [A]lmost all financing and investment vehicles involve compound interest. . . . If the claimant could have received compound interest merely by placing its money in a readily available and commonly used investment vehicle, it is neither logical nor equitable to award the claimant only simple interest." *Ibid.* (quoting Gotanda, 'Awarding Interest', *op. cit.*, 61).


Quarterly compounding is a compromise, attempting to provide the claimant with full compensation without burdening tribunals with excessively complicated calculations. Daily compounding can be burdensome, especially if interest accrues over a long period of time. Yearly compounding may not fully compensate the claimant for two reasons. First, most savings vehicles are compounded on a more regular basis. Second, yearly compounding is not responsive enough to market and currency value fluctuations to fully compensate the claimant for its loss. Quartered compounded interest is generally accepted in commercial investment vehicles.

See Decision of 21 October 1988, High Court of Bombay, reprinted in 15 *YB Com. Arb.* 488 (1990). Compound interest is regularly awarded in the United States, and also is available in some Asian countries under specific conditions. See Minpo, *Art. 405* (Japan); *ROC Civ. C. Art. 207*.

For example, a business engaged in transnational activities could invest the money in a short-term investment vehicle, such as a 90-day Eurodollar deposit rate.

If, however, the business chose to reinvest its earnings in its own company, a compound rate of return would still result. This is because the business would be accelerating its growth, which would also increase the businesses' intrinsic value and increase its stock price. Cf. C. Loomis. *Warren Buffett on the Stock Marker, Fortune*, 10 December 2001, 81-86 (*"Well-managed industrial companies, do not as a rule, distribute to shareholders the whole of their earned profits. In good years, if not in all years, they retain a part of their profits and put them back in the business. Thus, there is an element of compound interest operating in favor of a sound industrial investment"*).

See, e.g., *Compañía del Desarrollo de Santa Elena, S.A. v. Costa Rica*, 15 ICSID (W. Bank) 169 (2000), available at http://www.worldbank.org/icsid/cases/awards.htm (awarding to the claimant a total of US$16 million for property that it determined had a value of US$4.15 million when it was expropriated by the respondent 22 years earlier, which included US $11.85 million in interest based on a rate that was compounded semi-annually compared to US$5.7 million, if the tribunal had awarded simple interest).

It should be noted, however, that the difference between awards of simple and compound interest may be de minimis if the time period in which interest accrues is of very short duration. For example, an award that accrues interest for three years at a rate of 5 per cent, compounded yearly, will only be 0.66 percent greater than an award that accrues interest for the same period at a rate of 5 per cent simple interest. The rate at which interest accrues, as well as the number of compounding periods, also could have an effect on the difference between an award of compound as opposed to simple interest. The size of the principal may also affect the significance of the difference between an award of simple and compound interest from a monetary standpoint (although it will not change the statistical difference).

Mann, *Further Studies*, *op. cit.*, 384-385 (*[I]t is completely wrong to attach any significance to the fact that the award of interest, or compound interest, may lead to the payment of a sum exceeding the capital due from the wrongdoer*).

To be entitled to such interest, the claimant would need to produce the applicable loan documents or other similar financial records. See Kizer, op. cit., 1299-1300; see also R. Lanzillotti and A. Esquibel. "Measuring Damages in Commercial Litigation: Present Value of Lost Opportunities", 5 J. Acct. Auditing & Fin. 739 (1989) (recognizing that interest rate calculation should employ the claimant's borrowing cost if it had to borrow to cover its loss).

See Mann, op. cit., 384 (recognizing that business people commonly have their funds "invested in brick and mortar, machinery and equipment, and [their] working capital is obtained by way of loans or overdrafts from banks" and not necessarily from internal financing); see also Bringham and Houston, op. cit., 491 (stating that when a business expands, it needs capital, and that capital can come from debt or equity).

See Bringham and Houston, op. cit., 666 (stating that there are numerous sources of short term financing including accruals, accounts payable (trade credit), bank loans (lines of credit) and/or commercial paper).

See Award of 30 May 1979 in Case Nos. 3099 and 3100. in Collection of ICC Arbitral Awards 1974-1995 74 (1990); see also Dobbs: op. cit., § 3.6 (2) n. 12 (citing cases).

See Kizer, op. cit., 1299-1300 (recognizing that some courts have awarded the plaintiff its actual borrowing cost, usually a loan or extension in corporation's line of credit).

See Bringham and Houston, op. cit., 491 (stating that businesses can finance with either debt or equity).


See Brealey and Myers, op. cit., 280 (stating that if a firm chooses to invest in a project, the present value of the project would have to be higher than the firm's cost of capital or else the firm would not choose to invest in that project, and, even though it may be true that the firm might invest in a losing proposition to penetrate a market, the firm would still eventually have to exceed its opportunity cost of capital in long run or firm would not be profitable); Keir and Keir, op. cit., 147-149 (stating that opportunity costs vary from entity to entity and in each case courts should evaluate the various opportunity costs and choose from a range of rates).

See Keir and Keir. op. cit., 146 (stating that "opportunity cost is the benefit that is forgone when a resource is not used in its next best alternative"); see also Rothschild, op. cit., 192 (stating that "if a judgment, years after the fact, provides only the amount of damage sustained by the claimant at the time of the incident, the claimant will have lost the opportunity to invest the amount of the damages and to earn a return on that investment").

**Referring Principles:**

- VII.1 - Damages in case of non-performance
- VII.6 - Duty to pay interest
- VII.7 - Right to charge compound interest