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Part III: The Award, Chapter 14: Remedies and Interest

14.1 Introduction and Classification

This book concentrates on procedural and evidentiary matters in arbitration. Hence, it does not seek to outline key principles of substantive law that are essential to the arbitral process. Nevertheless, as noted in Chapter 13, the application of substantive law commonly depends heavily on procedural issues as to the way substantive law is determined and on evidentiary matters as to how the law is proven and how salient facts are found. This is also the case where remedies are concerned, as these are generally a subset of substantive applicable law. Another reason to consider these issues is that not all systems see all aspects of remedies as substantive. *Lex arbitri* or rules may deal with some matters at least, such as interest. Classification issues in conflicts of law can also treat some issues as either procedural or substantive. An example is limitation of actions. (1) The law relating to damages is classified by some systems as partly procedural and partly substantive. (2) Equitable doctrines may present particular difficulties with regards to classification. Tracing, for example, involves the identification of assets which could be regarded as an evidentiary and, therefore, procedural matter. However, Dicey and Morris suggest that tracing is a substantive issue as it is an essential step in the bringing of substantive actions in the law of property. (3) Party autonomy can also come into play, with contracts and treaties at times prescribing or proscribing certain

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forms of relief. In some cases there may be a need to interpret ambiguous provisions in that regard, which in turn can raise evidentiary as well as legal challenges.

Another reason to deal with practical aspects of remedies at least in an introductory fashion is that it is a topic not usually dealt with in much detail in treatises. Given that arbitration is essentially about seeking practical and timely solutions to complex international commercial problems, it is perhaps surprising that so little has been written about the nature of relief at the same time as there is a degree of criticism of tribunals in relation to uncertainty, inconsistency, lack of reasoning and the like where remedies are concerned. (4)

Some contentious issues covered in this chapter include what choice of law should be made where a discretion exists, whether and to what extent non-pecuniary remedies are permissible or appropriate, (5) methods of calculation of pecuniary remedies; appropriate standards of proof, the enforceability of liquidated damages and penalty provisions, issues of currency and timing and the related principles of awards of interest.

14.2 Procedural and Evidentiary Aspects of Remedy Determinations

A gateway issue in many cases is that where tribunals have discretion as to applicable law, this choice can have a major impact on the nature and extent of remedies and hence a major impact on the prior rights and obligations of contracting parties. While this can also occur with international litigation, the difference with judges is that they are bound by their national systems' conflicts rules. Even if it is uncertain what law will ultimately be applied, the rules are in existence and known at the time of the contract. Hence, parties can at that stage predict what law is likely to apply. Where arbitration is concerned, because an arbitrator's discretion as to applicable law can come much later and is not constrained by any national law, key decisions on substantive matters, including the applicable law of remedies, can have major effective retroactive impact. This can either open up or bar certain remedies or have significant impact upon measurement of damages. For this reason alone, parties should always make a selection consistent with their reasonable expectations as and when they set price and other terms. An example of such an impact would be choosing between a contract system that opts for damages as a primary remedy as opposed to one which has specific performance as the standard norm. These choices have both philosophical and commercial elements. For

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example, Friedmann argues that specific performance is concerned with protection of the subjective value of the promised performance in the eyes of the aggrieved party, while damages is concerned with objective value. (6) Where there is a disparity between objective and subjective value, one form of remedy will be preferable to the other. Such factors can add to the difficulty and certainty as to tribunal determinations of applicable law.

In making discretionary choices between different systems of applicable law and within systems as to which remedies to award, arbitrators are also making decisions about the role of contract law and the interests worthy of protection by legal systems. It is important to understand at the outset that within most legal systems, there is an ongoing debate as to the ultimate aim of remedial measures. Legal theorists have considered that damages in contract may be concerned with restitutionary interests, which can be divided into reliance interest and expectation interest. (7) Even when a particular substantive law has been identified, it will often be the case that there are major debates within that system as to the exact nature and form of remedies that should apply. An important question is how an arbitrator determines the ambit of an applicable national law that is in the middle of such flux and uncertainty. What is an arbitrator to do when applying a law of contract damages where he or she knows there is a

major debate in the literature and case law about whether the aim is to meet the performance interest, expectations interest, or reliance interest? What attitude is taken to requests for disgorgement of profits when the party in breach makes a windfall gain from that very activity, without causing commensurate loss to the aggrieved party where the applicable law has not taken a firm view on the question? Will arbitrators tend to be more conservative than domestic judges in dealing with cutting edge questions of this nature? Tribunals may not even be limited to a national law. Some tribunals seek to bring in *lex mercatoria*, for example UNIDROIT Principles, through the notion of usages of international trade, referred to in provisions such as Article 28(4) of the UNCITRAL Model Law. (8)

There are also evidentiary issues as to how an applicable law is to be identified. Chapter 13 looked at the distinction between common law systems which treat it as a question of fact, albeit with some residual presumptions, and civilian systems that may apply the *iura novit curia* principle. These issues are equally applicable to the determination of the relevant laws on remedies. Similarly, Chapter 2 looked at the duty to render an enforceable award and the possibility that an enforcement country might see certain awards as against public policy. In some cases, particular remedies, such as punitive damages, may be seen as being against public policy in some systems.

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Once the relevant laws have been determined, there are important procedural and evidentiary questions as to the factual elements of remedy determinations, particularly in relation to damages, where calculations are complex. A further discussion of specific evidentiary challenges in damages assessments is contained in section 14.5.4. Calculation of aspects of damages assessments are discussed further in sections 14.7 and 14.8.

14.3 Party Autonomy, *Lex Arbitri* and Institutional Rules

As always, the powers of relief held by a tribunal can arise from the *lex arbitri*, arbitral rules or the agreement of the parties. Party agreement can operate both positively and negatively in terms of either granting or barring particular forms of relief. Remedy conditions may be drafted by the parties in their initial agreement or agreed to subsequently. Any alleged agreement of the parties as to remedies could itself be subject to dispute and the ideal is that there is a clear stipulation of the parties' wishes. (9) For example, there may be uncertainty where the drafting uses a term such as 'consequential damages', typically in an exclusion clause, which may have a different meaning in different legal systems. (10) From a procedural perspective, any limitation on remedies should usually be acceptable unless it is so imbalanced as to offend equal treatment of the parties. Challenges are more likely under substantive norms. Excessive damages could be seen as unreasonable or unenforceable penalties. Where contractual provisions seek to limit damages, they might be subject to substantive law principles that at times invalidate limitation clauses. (11)

While consent would generally be paramount, this is only vis-à-vis the rights of the parties themselves. For example, the parties cannot simply agree to grant a tribunal a power of disposition over third-party property. Relief may only be granted for or against a party to the arbitration agreement, although that notion might be extended to non-signatories under theories such as group of companies, alter ego or assignment where such claims have been
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brought within the arbitration. More debateable would be remedies as against a party that also adversely affect third parties. An example would be an order for specific performance against a disputed grantor of a patent licence, when the person instead intends to licence a third party allegedly in breach of the agreement subject to arbitration. In many such cases, a tribunal might have a power to order the remedy, but might choose not to do so because of third-party impact and/or inability to have the third party assist in effecting the remedy. A further aspect of party choice is that a tribunal is only entitled to grant the relief as sought. A tribunal should only make an award in relation to the amount sought even if the tribunal believes that a higher amount is appropriate. This is also the case if interest is sought from a date later than could otherwise have been argued. (12) Consequently, if a claim is only for declaratory relief, damages cannot be awarded. However, if declaratory relief is that payment of purchase price should be made good, the declaration itself leads to a monetary obligation.

Tribunal powers do not have to be exhaustively expressed in the *lex arbitri* or rules. Consent to final and binding arbitral awards also implies consent to dispositive powers. The general view is that every remedy available in litigation is also available in arbitration, although that may be impacted upon by the applicable law. (13) Some *lex arbitri* express this principle. For example, section 48(2) of the Arbitration Act 1996 (UK) indicates that absent a contrary agreement of the parties, a tribunal may order payment of money, grant declaratory relief and grant the same relief as an English court with regard to injunctive relief, specific performance and rectification. (14) There are differences in view as to whether a tribunal may even go beyond substantive relief that could be afforded by a court, perhaps based on implied consent of the parties. (15) Obviously that is contentious and would need to be based on some a priori logic, given that at the time the relief is granted, the losing party would not be supportive. While the entitlement to award monetary damages is not contentious, there is more debate about some forms of non-monetary relief. Here there are questions as to the relevant power, the role of discretions and the criteria to apply. Care should be taken to ensure that there are no possible challenges for exceeding authority, although such challenges are unlikely to be successful. (16) To the extent that remedies are substantive, this will limit

P 110 the possibility for enforcement challenges to decisions made. Even then, while the award itself might not be challenged, an arbitrator should be careful in asserting a power that does not exist.

One contentious issue is where a tribunal wishes there to be some form of ongoing scrutiny of the suitability of the relief granted. For example, a tribunal might award a certain form of relief on the understanding that concurrent declaratory orders will be obeyed. To the extent that they are not, this may adversely affect the suitability of the damages assessment that was made contemporaneously. The starting presumption is that awards are meant to be self-contained and tribunals are *functus officio* when the final award is rendered save for correction, interpretation and gap filling powers. In some cases, however, the fact that a tribunal seeks to maintain a supervisory function should not automatically be a ground for challenge, although the tribunal may well be *functus officio*, hence rendering the supervisory power inoperative. Some national courts have considered that retaining jurisdiction does not contravene the *functus officio* principle. (17) In some circumstances, the parties might be able to commence a new arbitration on the basis that the failure to honour the declaration was a breach of the arbitration agreement, hence giving a newly constituted tribunal an opportunity to effectively alter the net damages within the award.

Where there is a long term remedy proposed, the tribunal should certainly consider how to frame this to maximise enforceability by an appropriate court if the identity of that court is known. That should certainly be known in some circumstances, such as an obligation to transfer a licence or patent after a defined time period. A tribunal might always wish to carefully consider whether to grant a form of relief where there may be no suitable oversight of long-term remedies. (18)

14.4 Non-Pecuniary Remedial Measures

14.4.1 Restitution

While this book aims to deal with both commercial and investment matters indiscriminately, it is important to at times differentiate between the two. Remedies are perhaps the area where this is particularly important given the significant difference between investment treaty norms of non-discrimination and compensatory expropriation as opposed to typical contract breaches. Many comments about non-pecuniary remedies have been made in the context of investment and international cases and some caution should apply when considering their potential application to private commercial disputes. Anne van Aaken, for example, writes
P 110 that 'it is clear' that restitution is an available remedy in international law. (19) Having said that, core principles should prima facie apply in each arena. Generally speaking, arbitration is concerned to grapple with questions of *restitution* when considered in its broadest sense.

As a general rule, laws that apply to the availability of remedies in the law of restitution are characterised as substantive rather than procedural. (20) In the *Chorzów Factory* case the PCIJ said 'reparation must, as far as possible, wipe out all the consequences of the illegal act and re-establish the situation which would, in all probability have existed, if that act had not been committed. Restitution in kind, or, if this is not possible, payment of a sum corresponding to the value which a restitution in kind would bear; the award, if need be, of damages for loss sustained which would not be covered by restitution in kind or payment in place of it – such are the principles which should serve to determine the amount of compensation for an act contrary to international law'. (21) The notion of restitution is thus also important in terms of calculating damages even where physical restitution is not possible. (22) Article 36 of the ILC Articles on the Responsibility of States for Internationally Wrongful Acts similarly indicates that:

A State responsible for an internationally wrongful act is under an obligation to make restitution, that is, to re-establish the situation which existed before the wrongful act was committed, provided and to the extent that restitution:

(a) is not materially impossible;

(b) does not involve a burden out of all proportion to the benefit deriving from restitution instead of compensation. (23)

It should be noted, however, that these norms were not drawn up with a view to application in investment disputes involving private parties. (24) Nevertheless, such principles have been applied in investment disputes, although not without controversy. In an ad hoc award in
P 110 *Texaco Overseas Petroleum Co*, the tribunal considered that 'restitution in integrum is... the normal sanction for nonperformance of contractual obligations ...' It considered that it was only inapplicable 'to the extent that restoration of the status quo ante is impossible'. (25) A further example where restitution was ordered is one of the cases concerning the rights of Britons in Spanish Morocco. (26) In that case, the tribunal ordered the Spanish Government to provide replacement premises for the British Consul in Tetuan because the Government was responsible for the destruction of the Consul's previous premises.

Some international treaties expressly refer to restitution, including NAFTA (27) and the Energy Charter Treaty. (28) Nevertheless, some express provisions allow for a State to pay damages in lieu of other remedies as granted. (29) The 1955 Washington Convention does not expressly address the issue, although some have questioned the implications of Article 54(1) of the

Convention by which parties promise to 'recognise an award rendered pursuant to this Convention as binding and enforce the pecuniary obligations imposed by that award...'. Christoph Schreuer has analysed the history of the drafting and concluded that this was a compromise position to accommodate the views of some delegates that non-pecuniary penalties might not be enforceable on public policy grounds but did not wish to proscribe such remedies and still wished to allow such awards to have res judicata effect. (30)

Even if it is permissible to award restitution in kind, there is still a question as to whether it is desirable. Restitution is rarely ordered in international arbitration, as it is often not possible to undo the effects of breaches made and tribunals 'quite rightly tend to avoid making awards that are difficult to enforce'. (31) The award of remedies other than damages by international arbitral tribunals is, therefore, extremely unusual. (32) The difficulties associated with restitution are considerable, and include the length of time that has elapsed since the original unlawful act may make restitution impossible; restitution may not constitute an adequate remedy for all damage involved and it cannot repair moral or personal injury. (33) Redfern and
P 110 Hunter suggest that monetary compensation in *lieu* of restitution is a better alternative. (34) Moreover, they regard the case of *Texaco* as an 'apparent exception' which is 'difficult to accept... as a precedent for the effective granting of restitution in international commercial arbitration'. (35) They note that the case has been severely criticised (36) and that a different conclusion was reached on the same facts in the case of *British Petroleum Company (Libya) Ltd v. The Government of the Libyan Arab Republic*. (37)

The debate is impacted upon by the type of case. Most controversial are situations of expropriation where sovereign rights have to be balanced with notions of just compensation. In the *BP* case just mentioned, Judge Lagergen, as sole arbitrator, considered that even where the nationalisation was unlawful, restitution was inapplicable because the 'nationalisation is *de jure* an exercise of territorial sovereignty, coupled with the low likelihood that a nationalising State will reprivatise a nationalised entity ...'. (38) It has been noted that there are practical problems in enforcing non-pecuniary remedies against States as this would require a State's cooperation within its own territory while damages awards may be enforceable anywhere. (39) Such practical problems were the source of the arbitrator's decision in the *Walter Fletcher Smith* (40) case, where the claimant US requested the restoration of property that had been illegally seized by Cuba, or in the alternative pecuniary compensation. The arbitrator held that it was in the best interests of the parties and the public that the remedy be damages. Sovereign rights may be considered to be more important, the more the investment relates to vital industries such as food, resources, health, communications or transport. (41) Moreover, it
P 110 has been questioned whether the award made in *Texaco* was even intended to be enforceable, in that the claimants in that case were only seeking an authoritative legal opinion on the merits of the case, not an enforceable award. (42)

For these reasons, in most cases an investor will only seek monetary damages and not wish to attempt to continue the investment within an unfavourably disposed host State. That will not always be so, particularly when the investment is intact but some important entitlement has been removed, as was the case in *Goetz v. Burundi*. In that case the arbitrators gave the responding State the option of agreeing on monetary compensation or re-awarding a free trade zone certificate wrongly revoked. (43) The tribunal made the comment in a partial award on liability. The tribunal's suggestions were not remedies for illegal acts, but instead, suggested compensation to make the expropriation lawful. (44)

14.4.2 Specific Performance

Specific performance is typically akin to the restitutionary norms discussed in the previous section where the aim is to effectively restore the position prior to breach by calling for the action that should have occurred but for the breach. Whether a tribunal may order specific performance is generally seen as a question of substantive law, although there is some uncertainty simply because some instruments suggest that this may at times be impacted upon by the law of the forum. For example, international instruments will often reserve some powers to the law of the forum to determine whether adjudicators can grant specific performance. Examples include Article 12.1(c) of the Rome I regulation and Article 28 of the
P 110 CISC (45) Nevertheless, Rome I does not apply directly to arbitration and the better view is that one should look to the *lex causae* to determine this matter. (46) The CISG may itself be the applicable law but again Article 28 does not speak of arbitration. Any limitation on the right to award specific performance in the *lex arbitri* would take precedence over the substantive law unless it is subject to a contrary stipulation of the parties. An example is section 48(5)(b) of the Arbitration Act 1996 (UK) which allows a tribunal to order specific performance generally, but not over a contract relating to land. (47)

In commercial disputes, specific performance might typically be granted in sale of goods contracts, loan agreements and transfers of intellectual property and even licences on the breakdown of joint-venture, distribution or similar arrangements. As long as the subject of a specific performance obligation is within the arbitration agreement, it need not necessarily be the primary contract that the dispute revolves around, although this would be the norm. Specific performance orders do not in and of themselves cover the damage if any from the delay in performance. A separate remedy would normally cover any damage arising from the delay. (48) Principles of remoteness of damage are not generally relevant to specific performance, nor are considerations of mitigation of loss. (49)

According to Redfern and Hunter 'the question of whether an arbitral tribunal is empowered to

order specific performance is ...rarely an issue in international arbitration'. (50) The reason for this is that specific performance is a principal remedy for breach of contract in civil law jurisdictions, (51) and arbitral tribunals in common law are either empowered to award this remedy or have seen tribunals and supervisory courts supporting this broad approach. (52)
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Specific performance is also allowed for under the CISG (53) with the qualification noted above and under the UNIDROIT Principles. (54) The relevant substantive law will have its own internal principles as to when specific performance would be a principal remedy. Under common law systems, it was traditionally thought appropriate to award the remedy of specific performance only when damages would not suffice. For example, specific performance might be ordered when a buyer has sought to acquire the final rare postage stamp to complete a particular set. It may be that some common law jurisdictions are moving to a more open discretionary approach, allowing for specific performance where it is an appropriate remedy in the circumstances of the case. (55) Civilian systems generally start with a rebuttable presumption that it is the preferred remedy. Notwithstanding the obvious differences between the legal traditions, Chappuis suggests that the differences in practice are smaller than one would suppose. (56) Some restrictions apply in all legal systems. Under both common law and civil law systems, specific performance will not be granted to force purely personal actions such as the creation of an industrial design or other work of intellectual property. (57) Specific performance cannot be directed so as to call for assistance by third parties, although specific performance can at times have benefits for third parties who are not otherwise entitled to arbitral determinations or remedies. (58)

One discretionary issue is whether contractual promises are best susceptible of specific performance, particularly in the context of the ability to supervise and enforce them within an arbitral context. Some regard the remedy of specific performance as placing too high a responsibility on enforcing courts, arguing that the New York Convention aims to provide for
P 1108
the minimal involvement of courts at the place of performance and cautioning that tribunals should be loath to provide relief that requires ongoing supervision as to compliance. (59) However, Schneider suggests that possible or real difficulties at the level of enforcement should not be taken as the sole criterion for deciding whether to grant the remedy of specific performance. (60) He points out that 'experience and some studies' have confirmed that the parties comply voluntarily with most decisions made by arbitrators and that difficulties in enforcement should not, therefore, deprive a party of obtaining an order for specific performance, assuming the party is willing to assume the risk of future difficulties in enforcement. (61) Some enforcement courts might even employ an *astreinte* power, which would greatly increase the likelihood of compliance. (62)

There are discretionary factors to consider. Important situations include ongoing joint-venture agreements where there has been a breakdown in the interpersonal relationships between the parties. An adjudicator may not wish to force unwilling parties to return to a collaborative endeavour. Schreuer suggests that where there remains an ongoing relationship, there may be more justification in applying non-pecuniary remedies. (63) It has been conversely argued that 'the more refined and complicated the human relationship, the less reasonable it is to force the parties to be bound thereto against their will'. (64) This is a particularly important issue given the high percentage of modern contracts that are long term in nature, calling for close personal relationships among contracting parties. Difficulties may also be exacerbated where enforcement would be needed in a range of jurisdictions, for example where a regional exclusive distributorship agreement was wrongly repudiated. (65) As noted above, a further problem is where a grant of specific performance would adversely affect the rights of third
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parties such as a purchaser in a substitute transaction by the defaulting party. Not only may a tribunal be unwilling to adversely affect that party, but in some cases that party needs to support the remedy award for it to be effective. Other tribunals might take the view that the party is entitled to the full range of remedies and it is not the tribunal's concern whether the award could be enforced as against the third party.

There are examples of arbitrations involving States where specific performance has been considered inappropriate. (66) Some tribunals take the view that an order for specific performance would offend against notions of State sovereignty and that ultimately, States merely need to be prepared to provide appropriate compensation. (67) Other tribunals might not impose a blanket rule but might consider that specific performance would be rejected if it imposed too heavy a burden on the defaulting party, contrary to Article 35 of the ILC Articles on State Responsibility. (68) Much may depend on the circumstances as it should be far easier to gain an award of specific performance against a State where this does not entail a change to internal regulatory measures. An example might be return of personal items after a multinational and its personnel have been ejected from the host State.

Another issue is whether specific performance may be granted in relation to the arbitration agreement itself. This is not generally a relevant remedy where an arbitrator is concerned, but may be a vexed question for a national court in the context of anti-suit injunctions. It is generally not an appropriate direct remedy for an arbitrator regardless of which party has breached the agreement. If a claimant fails to honour an arbitration agreement, it simply has not proceeded with the case appropriately and the case will in due course be dismissed. Where a respondent fails to take part, relevant *lex arbitri* and rules direct that the tribunal proceed to hear the dispute. The tribunal only needs to give the respondent regular notice but should not seek to compel its involvement. In a rare case, it might be that a court has ordered damages in lieu of specific performance for breach of an arbitration agreement and the tribunal may in due course have to ensure that there was no double counting when its own

damages awards are made. Another relevant scenario where a tribunal itself might consider breaches of an arbitration agreement is where one party has failed to provide the required advance on costs. Arbitrators disagree as to whether this can become a claim under the arbitration agreement, but if so, damages would be the more typical remedy. This is because the norm is to first have the other party pay the defaulting party's share and then seek compensation one way or another. Finally, any anti-suit injunction by the tribunal in the context of litigation commenced in breach of an exclusive arbitration agreement, operates indirectly as an incentive to specific performance although it is not an enforceable remedy as such and the party might abandon the case as of right.

Conversely, where the issue is whether damages would be an adequate remedy, a relevant factor would be whether these are too uncertain. Calculating damages for breach of longer term contracts and distribution and licence agreements is more complicated than for one-off sale of goods transactions. However, damages might still be more appropriate than specific performance. Global sums may be appropriate where the heads of claim necessarily overlap and there would be no objective way to distinguish between categories. An example was *Pabalk v. Norsalor* where there was a claim for lost customers and goodwill, clearly overlapping categories. (69)

A final consideration concerns the procedural approach of arbitral tribunals when defining the performance obligations of a particular party. The level of specificity of an order may depend on the corresponding level of detail in the contract in question. Where an obligations is expansively defined in a contract, it may be possible for a tribunal to order its specific performance without issue, however this will depend on the circumstances of the case. In some cases, the performance obligation may be defined in general terms. For example, in the *Avena* case, the International Court of Justice ordered the US to review and reconsider the conviction and sentencing of certain Mexican nationals 'by means of its own choosing'. (70) Alternatively, an arbitral tribunal may direct a party to offer to the other a number of different options for performance from which to choose. For example, in a case heard before the ICC, the respondent was ordered to choose from amongst three specified countries to which the claimant could return the machines which the respondent claimed. (71)

14.4.3 Satisfaction

The concept of satisfaction is largely concerned with inter-State disputes and hence does not apply readily in investment cases between a host State and a foreign investor, (72) and certainly not in private commercial disputes. Article 37 of the ILC Articles indicates:

1. The State responsible for an internationally wrongful act is under an obligation to give satisfaction for the injury caused by that act insofar as it cannot be made good by restitution or compensation.
2. Satisfaction may consist in an acknowledgment of the breach, an expression of regret, a formal apology or another appropriate modality.
3. Satisfaction shall not be out of proportion to the injury and may not take a form humiliating to the responsible State.

14.4.4 Declarations

Declaratory relief has become a common remedy in international arbitration. (73) The PCIJ considered that a declaratory judgment ensures 'recognition of a situation of law, once and for all and with binding force as between the parties; so that the legal position thus established cannot again be called in question insofar as the legal effects ensuing therefrom are concerned'. (74) Article 48(3) of the English Arbitration Act 1996 states that a tribunal 'may make a declaration as to any matter to be determined in the proceedings'. Declaratory relief may be awarded 'as a result of the law governing the arbitration proceedings or... an agreement of the parties'. (75) While declaratory relief is not capable of enforcement, 'it is capable of recognition'. (76) There are a number of typical scenarios. Parties seeking contractual damages may request a declaration of breach of contract as well. Parties may also limit the scope of the arbitration agreement to the question of determining their legal position, in which case the arbitral tribunal may only give declaratory relief. (77) A well-known example of the provision of declaratory relief occurred in the Aramco arbitration, (78) in which the parties had expressly agreed that the arbitrators should not award damages to either side, but may make a declaratory award only. Acknowledging this restriction, the tribunal stated:

There is no objection whatsoever to Parties limiting the scope of the arbitration agreement to the question of what exactly is their legal position. When the competence of the arbitrators is limited to such a statement of the law and does not allow them to impose the execution of an obligation on either of the Parties, the Arbitration Tribunal can only give declaratory relief. (79)

In some cases such as distribution, franchise and joint-venture agreements, there might be a disagreement about proper prices or profit share arrangements. An arbitral decision may specify the prices for a particular period of time. A declaratory award 'may be useful for further negotiations or adaptation of contracts in long-term or relational contracts'. (80) Formal declarations of an arbitral tribunal may also constitute steps in the tribunal's process leading to a final award. (81) At the domestic level, such limited restrictions on the issuing of declaratory awards as do exist stem from the idea that the resources of the judiciary should be

used efficiently and not wasted on baseless actions. (82) As a consequence, a number of civil law systems require a claimant to show a legitimate legal interest in bringing an action before declaratory relief is sought. (83) However, as Schneider points out, such considerations may not necessarily apply to arbitral tribunals whose services have been sought and paid for by the parties to the arbitration. (84) He concludes that declaratory actions ought to be admissible in international arbitration without the claimant having to show a legal interest such as that required by some civil codes. (85)

14.4.5 Injunctive Relief

Few arbitral statutes expressly empower a tribunal to award injunctive relief. As noted an exception is section 48(2) of the Arbitration Act 1996 (UK) which provides a tribunal with a power to grant similar injunctive relief as an English court. Nevertheless, such powers are presumed by many to be inherent and have been upheld by a number of courts and tribunals. (86) At times the power is subsumed into a broad power to grant any relief deemed just and equitable. (87) Where a power exists, a tribunal is permitted to award injunctive relief as against a party where it also indirectly impacts adversely on third parties although this circumstance may be a key factor in leading to a discretionary decision not to do so. (88)

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Injunctive relief is more likely when the breach and damage is ongoing and an historical assessment will not suffice. Thus, in the *Trail Smelter* case, where there was international pollution, the tribunal not only awarded damages but ordered the producer to refrain from future damage. (89) Where investment arbitration and public international law is concerned, the tribunal in the *Rainbow Warrior* case considered that such an order requires, '... two essential conditions intimately linked, namely that the wrongful act has a continuing character and that the violated rule is in force at the time at which the order is issued'. (90) An ICSID tribunal in *Enron v. Argentina* accepted that it had the power to provide injunctive relief against stamp taxes alleged to be tantamount to expropriation. (91) In that case, the tribunal explicitly stated that 'in addition to declaratory powers, it has the power to order measures involving performance or injunction of certain acts'. (92)

Where ongoing relief is concerned, such as that by way of injunction, the question is again what ongoing supervisory power a tribunal can or should seek to retain. The issue is whether a tribunal is *functus officio* in that regard. If necessary, new proceedings may need to be instigated where that is thought to be a concern.

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14.4.6 Gap Filling and Contract Variation

Redfern and Hunter consider that there are four reasons a tribunal might be asked to adapt a contract made by the parties: to fill a perceived gap in the contract; to change the contract to meet changed circumstances; due to a 'hardship' situation; or, to redress the equilibrium of the contract. Redfern and Hunter also discuss the remedy of *rectification*. (93) The remedy is virtually unknown in civil law countries. It is allowed under the Arbitration Act 1996 (UK), s 48(5)(c) and under the LCIA Rules, Article 22.1(g). The following sections expand on these scenarios.

14.4.6.1 Adaptation

The power of the tribunal to adapt a contract may derive from the law applicable to the substance of the dispute. (94) In some civil codes, the doctrine of *rebus sic stantibus* is implied. This doctrine also exists in public international law. (95) Under the doctrine, the contract is binding 'so long as things stand as they are'. In other words, contractual terms may need to be amended to adapt to a significant change in circumstances. The ICC had formulated special rules on the adaptation of contracts. (96) Though these allowed for the adaptation of contractual terms where expressly agreed to by the parties, the ICC suggested the applicable law may in some cases deny an arbitrator this power. (97) The ICC comments came in for criticism and are no longer published. (98)

In discussing the difference between filling a gap in a contract and amending it to meet new circumstances, Redfern and Hunter remark that it is 'a smaller step for an arbitral tribunal to imply a power to fill a gap in the agreement than to imply a power to change it'. (99) Most tribunals are reluctant to change the terms of a contract unless they have an express power to do so under the arbitration agreement. Red-fern and Hunter explain that 'the ability to adapt contracts effectively expands the competence of the arbitral tribunal into the area of varying or substituting the legal instrument that is the source of the tribunal's own jurisdiction'. This can also raise questions as to interpretation of the arbitration agreement. Have the parties employed the arbitrator to change the contract or merely apply it? Redfern and Hunter conclude that regardless of the legal basis for adapting a contract, 'arbitral tribunals have proved very reluctant to substitute their own views of a fair allocation of contractual risk for that of the parties at the time the contract was originally concluded'. (100)

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14.4.6.2 Hardship

The UNIDROIT Principles incorporate the concept of *hardship*, under which a contract may be amended to restore equilibrium in certain circumstances where 'the occurrence of events fundamentally alters the equilibrium of the contract either because the cost of a party's performance has increased or because the value of the performance a party receives has diminished'. (101) Concepts of hardship are also an expression of *rebus sic stantibus*. Common

law systems do not recognise hardship per se but would limit consideration of such facts to questions of frustration and similar excuses for impossibility of performance. Nevertheless, hardship per se does not meet the normal standards under common law frustration tests. (102)

While the UNIDROIT Principles are commonly cited as encapsulating *lex mercatoria*, its hardship provisions do not reflect a widespread domestic norm and hence are rarely applied
P 111
as such, absent agreement of the parties. (103) As such, hardship provisions will typically apply when agreed to by the parties. The ICC has published a model clause on hardship which parties could incorporate into their agreements. (104) Some contracts expressly provide for adjustment or renegotiation in circumstances of hardship, such as Article 34.12 of the Model Exploration and Production Sharing Agreement of Qatar of 1994. In Article 34.12 it was stated that where any future law, decree or regulation affected the contractor's financial position, both parties would enter into negotiations in good faith to maintain the economic equilibrium of the agreement. However, ICC Case No. 7365 considered that hardship should be regarded as a general principle of law. (105) A contrary view was taken in ICC Case No. 8873. (106) Article 6.2.2 of the UNIDROIT Principles stipulates the preconditions for a hardship claim:

(i) The event must occur or become known after the conclusion of the contract;

(ii) The event could not reasonably have been taken into account at the time the contract was entered into;

(iii) The event is beyond the control of the party claiming hardship; and

(iv) The risk of the event was not assumed by that party.

Each of these elements will involve questions of fact and hypotheses about likely attitudes of the parties by an adjudicator.

Article 6.2.3(1) of the UNIDROIT Principles entitles the disadvantaged party to request re-negotiation in case of hardship. This would not apply if the contract contains its own adaptation rules. (107) If re-negotiation is not effective, the parties can resort to an adjudicator who may terminate the contract or adapt it. (108) Any adaptation ought to be based on an analysis of the initial bargain, of the variations from the hardship events and of the most efficient way in which to re-balance the cost/benefit from both parties' perspectives.

14.4.7 Sequestration of Assets

It is suggested that the tribunal has no power to order sequestration of the defaulting party's
P 112
assets, (109) although it can certainly order specific performance over promises as to assets. It would not be able to sequester assets merely as a way to satisfy a damages award.

14.4.8 Committals for Contempt

An arbitral tribunal has no power to order committal for contempt as against any tribunal orders as against any party. (110) Such court committal powers allow for gaol terms until the party relents as per the judge's order.

14.5 Damages and Monetary Payments

14.5.1 Introduction

There are a number of reasons why damages are the most significant remedy in international commercial dispute settlement. First, they are the primary remedy for breach of contract under the common law where that substantive law applies. Second, in investment arbitration, monetary compensation would be the norm where expropriation occurs as by definition the relevant State has sought to take over the investment. Third, where there is a breakdown in long-term commercial arrangements, even legal systems that try to give primacy to specific performance would be reluctant to make orders forcing unwilling parties to work harmoniously together in the future.

14.5.2 *Lex Arbitri* and Rules Provisions

Unless the parties agree to the contrary or the claim is for other than monetary relief, a tribunal naturally has the power to award damages and related monetary orders. A tribunal can also indicate the time for payment, the mode and the currency. (111) A tribunal would normally look to the substantive law to determine how damages are calculated. Civilian systems commonly treat the calculation of damages as determined by the law of the contract, while English courts have at times seen it as a hybrid. (112) Investment arbitrations have seen a greater tendency to purport to resort to general principles of law (113) or to principles of 'equity ... in conformity with international law standards'. (114)

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14.5.3 Party Autonomy and Agreements to Limit Damages Levels

Parties might seek to make certain agreements in relation to damages. There are a range of means by which parties could modify the otherwise applicable law in determining damages. At the extreme they could totally proscribe damages. Parties might agree to exclude consequential damages. Construction contracts will typically put a cap on damages as do

international transport conventions. This might apply to amount or to the cause, for example excluding loss from simple negligence. The parties could impose a global cap on any individual claim or on the totality of claims over a defined period. They could try and obviate a calculation phase by using a liquidated damages provision as discussed in section 14.18. This provides for a fixed amount, which might either be higher or lower than the actual loss. If higher, there is a question as to whether it might be an improper penalty or might be reduced to a reasonable level. Because the entitlement to damages is generally seen as a substantive matter, such agreements will be effective where permitted under the particular substantive law.

An extreme limitation on damages would be a limitation of liability clause. Historically, legal systems have varied in their approach to such clauses. Limitation of liability clauses typically arise in international carriage rules and treaties. To some, such clauses offend against the fundamental notion of a bargain where each should have rights as well as responsibilities. To others, these clauses are simply a matter of risk allocation and would have been accounted for in the price, at least where parties have equal bargaining power. Price is likely to vary as and when risk varies as well. Some legal systems apply particular interpretation norms such as the *contra proferentem* principle. Under this approach, adjudicators might read down the subject matter that the clause relates to or the type of claim or both. In the extreme, they could be held to be invalid. There is also a question of interpretation and coverage. A typical question is whether the clauses merely apply to intentional wrongdoing, gross recklessness or are broad enough to cover mere negligence, if this has not been stated with clarity.

14.5.4 Procedural and Evidentiary Issues and Damages Assessment

Section 14.2 above looked generally at some procedural and evidentiary issues with all forms of remedies. The point was made that it would be misleading to simply see this as an area where a tribunal simply has to find and apply a suitable substantive law. There are instead a host of procedural and evidentiary issues that have a major impact on the result and hence on the fairness and efficiency of the process. This section expands on these issues in the context of damages assessment, where the challenges are most significant. Assessment of damages will include a range of issues of law, fact and procedure. These issues have both theoretical and practical elements. It is too often the case that both parties put the bulk of their efforts towards respectively proving or disproving liability. This means that factual and legal
P 111
preparation for arguments on remedies are often given less attention than is their due. Where this occurs, damages evidence is not dealt with early enough in the arbitral proceedings and may be left until near the end of the case.

The first issue is as to the quality and quantity of evidence expected. To some arbitrators, rigorous best evidence proof is needed for all matters. To others, if a party is truly deserving and pedantic damages measurement could be too time consuming and costly, reasonable estimates are more in tune with the commercial expectations of the parties. The point to be made is not that one view is necessarily to be preferred, but simply, that the need for even a subconscious choice demonstrates the importance of discretionary procedural and evidentiary questions to the essentially substantive question of remedies. Other discretionary decisions can also have a significant impact on this aspect of sufficiency of evidence. One example is where the claimant provides less than ideal evidence of damages for delay in a construction dispute and the respondent seeks broad-ranging document production on that matter. Does the tribunal limit the respondent's production rights only to those matters on which it has the burden of proof? Alternatively, does it leave it to an analysis of whether the claimant has met appropriate standards of proof? Does the tribunal warn the claimant that more evidence might be needed? At the time of the document production request, it is difficult for the tribunal to reject it simply on the basis that the tribunal would prefer to find against claimant if it fails to establish a prima facie case. At that stage a tribunal would not wish to bind itself to such a commitment, which might not be valid once all evidence is presented at the hearing. Document production has other relevant challenges. For example, there may be added confidentiality issues in relation to documents necessary to prove or disprove damages, for example, third-party contracts where an account of profits is sought. Key documents of this nature may also be in the hands of third parties where there is a claim for lost profits or recovery of damages paid to sub-purchasers. (115) There is also the question as to the extent that a tribunal chooses to analyse the validity of such damages.

More controversial is the tendency of some tribunals to simply award a global lump sum where it is felt that more detailed or itemised calculation would be difficult or would lead to
P 112
problematic overlap. (116) Article 7.4.3 paragraph 3 of the UNIDROIT Principles indicates: 'Where the amount of damages cannot be established with a sufficient degree of certainty the assessment is at the discretion of the court'. Section 10.4.3 looked at issues of standard of proof, including where damages assessments are concerned. It noted that some commentators and cases argue that there are justifications for lesser standards for damages assessment, while others argue that the standards should be the same but arbitrators commonly fail to meet them when granting awards. One argument in favour of laxer standards on proof of damages is that at that stage the adjudicator has determined that the claimant is in fact correct in its liability argument (or respondent as the case may be). If the tribunal is equally confident that there is some damage worthy of compensation, but notes that there is too much difficulty in clarifying the amount, some reasonable assessment is much closer to a just outcome than a rejection in toto on the basis of the failure to meet the burden and standard of proof and may even be more cost effective. A contrary argument is that the same standards of

proof should apply to all elements and respondent has just as much entitlement to protection in that regard where damages are concerned as is the case with primary liability.

Standards of proof are particularly problematic to consider in many damages assessments, dealing as they do with hypotheticals about future scenarios. Loss of profits is particularly problematic given that there are so many variable factors that could determine whether profit would have ensued and if so to what degree. Appropriate standards and the tribunal's involvement in calling for and/or testing evidence also vary where damages are concerned as the focus of analysis shifts from one party to the other. A liability claim is generally about claimant making assertions about actions or omissions of the respondent. Where damages claims are concerned, it is the claimant's (117) own business affairs, prospects and options that are central. The more a party is arguing about evidence in its own possession, the more that adverse inferences or strict application of standards of proof could be applied against it where the evidence is not forthcoming. The situation may be very different if all of the relevant records are under the control of the party in breach, for example where there has been an improper expropriation and the investor has been forced to leave the host State and leave all records behind. Even in such circumstances there is an obligation to do whatever is reasonable and necessary to reconstruct the evidentiary record.

The second key evidentiary issue relates to expert testimony as to damages. Does the tribunal appoint an expert to evaluate the damages claim and merely check the logic in that person's report? What degree of challenge is allowed to that expert if sought by one or both parties? How is a tribunal to resolve conflicting assessments by party-appointed experts? As with any aspect of expert evidence, it is important that the tribunal itself makes the ultimate determination. The more complex and trade-specific the calculations and analysis, the more important it is for the tribunal to understand the merits of different methodologies and ensure that appropriate data and assumptions were used as the basis of the calculations. In many
P 112
cases, there will be no right or wrong view as to various assumptions such as discount rates, but the tribunal must still determine what is most appropriate in the circumstances after being educated by the reports and evidence of the experts. Such a discussion would seem particularly appropriate for a witness conferencing approach. The tribunal can then determine which assumptions it thinks are more likely and invite completion of the calculations accordingly.

There are a number of other strategies that arbitrators may employ to expedite or rationalise the giving of expert evidence. At the initial stages of damages discussions, the tribunal, the parties, their counsel and potentially the experts can examine ways to narrow the damages issues. (118) Such discussions may enable the parties to reach a consensus with regards to the theories and models that will be used to determine the valuation of damages. Kantor makes a number of suggestions for managing the expert report process for valuation purposes. (119) Chapter 12 outlined various alternatives more generally for expert witnesses including exchange of reports, pre-hearing meetings and/or witness conferencing. Kantor suggests that after preliminary exchanges the arbitral tribunal may then request supplemental valuation reports seeking the use of more comparable methodologies and assumptions. However, arbitrators should be very sensitive to the costs involved. (120) As soon as an arbitrator becomes aware of a situation in which experts are using divergent approaches to valuation, arbitrators should consider whether to request the experts to provide valuations on a similar basis. (121)

The CPR Protocol on Determination of Damages in Arbitration provides useful guidance to arbitrators, counsel and their clients concerning the efficient and fair development and presentation of damages evidence in arbitration proceedings. (122) In relation to the issue of experts using different valuation methods, the CPR Protocol suggests that arbitrators require experts to make presentations early in the proceedings in a way that permits arbitrators to understand the methodologies by which the experts reached their conclusions. Chapter .12 also outlined codes of conduct and possible directions for expert witnesses. There may also be codes of conduct from within the valuation industry which may also affect an expert's duties. For example, the AICPA Professional Ethics Division's Code of Professional Conduct binds AICPA members and rejects the position that when providing expert witness services, its members can advocate on behalf of the client. (123) However, as Kantor acknowledges, regardless of any
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professional codes of conduct, expert witnesses in many arbitration proceedings will still conduct themselves as partisan advocates on behalf of the party retaining them. (124) Hence the directions recommended in Chapter 12 remain desirable on valuation issues as well.

Another important evidentiary issue is the way experts are selected. This itself can wholly shape the process. For example, if a valuation method such as Discounted Cash Flow (DCF) (125) requires a number of elements of subjective judgment which cannot easily be articulated by experts, then it is difficult for the tribunal to evaluate conflicting expert testimony. Questions of burden of proof will be significantly impacted upon if instead of relying on party-appointed experts as to valuation, the tribunal appoints its own expert. Two completely contradictory experts on DCF might lead a tribunal to conclude that the claimant has not met its burden of proof. Conversely, if there is only one tribunal-appointed expert who identifies a figure, the tribunal is more likely to accept it. There may also be other issues of contradictory evidence for a tribunal to evaluate. For example, assertions of a party's expert as to lost profits may contradict published accounts, notifications to stock exchanges or prospectuses to investors. A claimant may have undervalued an investment where this is hoped to reduce a licence fee or property tax, only to find that this undermines its case at the time of an expropriation. A

tribunal may try and determine the correct position or rely on the inconsistency to attack credit overall.

A third issue relates to efficiency of proceedings and damages assessments. Choices as to bifurcation may have a significant impact. Heilbron suggests that bifurcation should not be agreed to automatically. Relevant factors would be whether the damages claim is likely to be straightforward, whether there will be overlapping witnesses and other evidence, the nature of expert evidence and the likely delay. A further caution is to be careful as to whether bifurcation is a tactical manoeuvre by either party, either a further effort at delay by respondent or deferral by a claimant with inadequate or unprepared damages claims. (126) For example, a tribunal might feel compromised if an otherwise deserving claimant makes a last minute application for bifurcation when it is obvious that the damages claim is ill-prepared because of counsel's inexperience and could otherwise be lost on burden of proof grounds. A tribunal would also wish to consider how to assess damages and other remedies in the most efficient manner both as to time and cost. For example, if a case is likely to be bifurcated, this may impact on the extent of pleadings and submissions in the early stages as it may be wasteful to call for damages arguments if there is to be a separate hearing in any event. (127) If the proceedings are bifurcated into liability and quantum phases, the tribunal might consider
P 112 similar division with regards to the document production process. One concern is that while claimants and respondents generally bear equal weight for the production of documents necessary to establish liability, if that phase is completed before a quantification of damages, it may lead to noticeably different attitudes towards document production for the quantum phase, (128) where it is generally claimant's documents that are relevant. There is also an issue in determining the appropriate market if a market price is used in calculating damages. Once that is done there will also be evidentiary issues in identifying a market price where there are a range of prices in relation to a particular commodity.

The next set of procedural and evidentiary issues flow from substantive elements in the calculation of damages. For example, there will be evidentiary issues when applying foreseeability tests in terms of consequential loss and reliance on subjective or objective evidence. How claims are characterised may also have a significant impact. For example, different outcomes may apply depending on whether damages are valued at the date of judgment, inclusive of compensation for delay or instead at the date of breach with a separate award of interest for late payment. Are damages measured on the date of the award or at the time of the breach? From a policy perspective, the standards in each case should lead to the same or similar result, although this may be varied by national laws or express agreements of the parties as to applicable legal provisions. Other questions may include whether the particular legal system allows for liquidated damages as a matter of law; if it does so, does it have an exception for provisions that are more truly characterised as penalty provisions; if so, on the facts how is a determination made as to whether it is an a priori assessment of likely damages or an excessive penalty; if there is little evidence from either party, what attitude should a tribunal take?

Another typical scenario noted above is where the purchaser of defective goods claims compensation for damages owed to a sub-purchaser. There are then evidentiary questions of proof of the validity of those losses and whether they arise by way of negotiated agreement or by way of some adjudicatory forum. In the latter event, will the tribunal re-examine those findings as part of the assessment? An added complication is if the claim from a sub-purchaser was through arbitration, subject to confidentiality rights. There is also an overlap with issues of mitigation, given that the claimant might have obviated such losses if it had responded to the breach in differing ways. The ability to mitigate via substitute purchases or sales may involve an evidentiary analysis of likely circumstances in a particular market from time to time. Chapter 10 examined general questions of burden and standard of proof. While the burden is on the party seeking to establish a damages entitlement, the burden is also on the respondent to show that there was a failure to mitigate.

Fluctuations in value are particularly difficult to deal with fairly. For example, there may be problems where the only damage was short-term decline in the market value of an asset still
P 113 held by the aggrieved party. There may also be questions of whether changes in monetary value should be applied in assessing damages. (129) Complex valuation issues will also arise where the question is damage to goodwill or business or personal reputation, breach of a joint-venture or merger agreement or misrepresentation in pre-contractual negotiations. Here there will first be a question as to whether the relevant applicable law allows for claims of that nature and second by what methodology is the claim to be proven. There would also be an intermediate need to prove that there is such reputation or goodwill and that the breach has caused damage to it. In the business context, it is hard to demonstrate such damage without at the same time being able to show loss of revenue or customers. The scenario is more likely to be relevant where there is a growing business and the damage to reputation prevented the business reaching the desired level. Diminution in value of reputation could be measured by lost income, variation in market value or the costs required to repair the harm. There is then a need to discount damages on account of future contingencies, and a question as to the degree to which hindsight should be used in making such calculations. (130)

The overriding point is that so much of the remedy assessment stage is bound up in key procedural and evidentiary determinations and discretionary decisions by tribunal. Without sufficient attention to these factors, determinations are likely to be suboptimal. This applies from the outset through to final deliberations. The proactive arbitrator should be alert to these

issues from the outset. Where deliberations are concerned, because of the complexities of damages assessment, a multi-person tribunal should ensure there is some appropriate time and methodology of deliberating on these issues.

14.6 General Principles of the Law of Damages

This chapter does not aim to outline all of the substantive elements of damage assessments in various potentially applicable legal systems. Nevertheless, some broad observations are appropriate, in particular as they would relate to procedural and evidentiary questions.

There are important differences between legal systems as to the principles by which damages for economic loss are circumscribed. Legal systems seek to circumscribe true damages primarily because if there are no reasonable limits on consequential damages, this would be a great disincentive to engaging in commerce. English and French law look to questions of foreseeability. To some, fore-seeability tests have significant economic logic. This is because the foreseeable consequences are those which the parties would have contemplated when
P 112
negotiating price and other conditions. The foreseeability test has been adopted in Article 74 of the CISC Article 7.4.4 of the UNIDROIT Principles also requires foreseeability of damage. Foreseeability may have both subjective and objective elements, looking to what reasonable people ought to have contemplated at the time and also considering what actually was discussed and contemplated by the parties concerned.

Not all domestic systems follow this approach. German law has been concerned with questions of causation. Some civilian systems include notions of 'certainty' although those that do, do not employ the concept in a literal fashion. (131) The UNIDROIT Principles in Article 7.4.3 refer to harm established with a reasonable degree of certainty where certainty relates to the extent of the harm as well as to its existence. (132)

Terms such as 'certain' or 'uncertain' do not readily differentiate between acceptable and non-acceptable damages, given that these terms must be considered in the context of contested facts and accepted standards of proof. These are essentially factual questions. (133) The UNIDROIT Principles also deal with a standard of proof issue by indicating that the court has the discretion to make the assessment. (134) Default on the part of the wrongdoer may also be relevant depending on whether the breach is by way of simple or gross neglect, recklessness or fraud. (135) Foreseeability tests may not apply where there is some fraud involved. Again categorising behaviour in this way is essentially a factual question.

Where remoteness and foreseeability are concerned, distinctions are at times made between direct and indirect losses, the latter being subject to more strict limitations. Legal systems tend to distinguish between direct consequential damages which are naturally recoverable, and non-recoverable categories that may be described as 'too remote', 'unforeseeable' or 'speculative' and an in-between category of indirect damages that are more controversial. (136) It is the margin between this category and the rejected category that is problematic.

Contracts and treaties will often seek to limit recoverability of indirect or consequential losses. A buyer of faulty goods may suffer a loss of profits claim from an ultimate purchaser. Defective
P 112
machinery may lead to lost output and further customer complaints and loss of market share. It is virtually impossible for statutory provisions or case law to set up bright-line tests between acceptable and non-acceptable degrees of connection. The tests include questions of degree about which adjudicators may differ in approach. The tests also rely on factual assessment of hypotheticals such as foreseeability, which in turn allows much scope for differing approaches by adjudicators. It is suggested that tribunals are likely to take a more expansive approach unless constrained by the applicable law. (137)

The conceptual issues are intertwined with practical issues in the context of burden and standard of proof. At times, an adjudicator may argue that a particular form of loss is too remote or speculative and is rejected as a matter of principle. The CPR Protocol, for example, states that 'where assessing damages would require speculation, they should not be awarded'. (138) In other cases, an adjudicator may simply say that the claimant has failed to establish to the requisite degree that a particular loss was more likely than not to arise or that a particular future profit has in fact been obviated by the breach.

There may also be complex questions of causation, remoteness and foreseeability where there is concurrent liability in contract and tort. Contributory negligence in a tort claim can also have analogies in contract disputes where it is arguable that part or all of the damage was in fact caused by the behaviour of the claimant. The idea of contributory actions is included in Article 80 of the CISC UNIDROIT Principles Article 7.4.7 also calls for non-attribution where harm is partly caused by the act or omission of the aggrieved party. There is also the issue of mitigation, discussed in section 14.17. Legal systems will generally require that the breach be a proximate cause of the loss, hence turning attention in some cases to whether there was an intervening event which breaks the chain of causation. (139) Legal systems grapple with notions of proximity and how to determine what is truly a break in the chain of causation in these circumstances when life has a myriad of related causal events. (140) Situations may vary from cases where an external factor truly caused part or all of the damages which should not be attributable, and instead, external factors that must have been in the parties' reasonable contemplation and which made the breach naturally lead to the damage that ensued.

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Where groups of companies are concerned, there may also be a need to ensure that the loss is actually that of the claimant and not associated entities. (141) A tribunal may also need to consider whether there is joint and several liability in the case of multiple respondents, (142) or whether damages should be allocated pro rata.

14.7 Measurement of Damages

14.7.1 The Compensatory Principle as the Basis for Assessment

The basic principle in common law and civil law systems is that an award of damages should 'as nearly as possible get at that sum of money which will put the party who has been injured, or who has suffered, in the same position as he would have been in if he had not sustained the wrong for which he is now getting his compensation'. (143)

14.7.2 Elements of Damages Awards

Damages will generally protect a claimant's positive expectation (loss of bargain or of the expected performance) (144) and reliance, or out-of-pocket expense (145) interests. There are thus two forms of pecuniary compensation, one relating to *damnum emergens*, meaning the damage suffered by the aggrieved party and the second being *lucrum cessans*, meaning loss of profit. Depending on the circumstances, damages might be awarded for loss of value in defective goods or services, loss of value in property, business and investments, loss of profits, and delay.

While the two broad forms of damages are accepted, the problems of proof vary significantly. There is a difference between assessing damage based on proof of the concrete losses of the aggrieved party and instead by an abstract measure usually based on identifying market value. From an evidentiary point of view, a tribunal is assessing historical events up until the
P 112 hearing but also projecting into the future. (146) Where loss of profits or diminution of the value of a business are concerned, a tribunal will need evidence as to past activities, future plans and past and future market conditions. Where the future is concerned, there will need to be an assessment of various contingencies and appropriate discount factors for likely eventualities.

Some breaches of contractual commitments will give rise to great uncertainty as to the appropriate level of damages. The CPR Protocol provides as an example contracts for the acquisition of a business which produce claims by the buyer based on breaches of warranties in which damages are sought for the difference between what was expected in terms of future earnings and what was obtained. (147) A further example is acquisition agreements with 'earn-out' provisions. Claims may arise in which the seller alleges that the buyer has not operated the business in the contractually specified manner during the earn-out period, giving rise to a damages claim for the difference between what was actually earned and what should have been earned. In such cases, arbitrators are confronted with the difficult task of determining what might or should have happened but did not. Accordingly, compensation is by nature imprecise. It cannot undo the harm done or perform the unperformed contract. It is premised on the simple rationale that 'the established wrong and the material imbalance it generates between the parties cannot be factually undone, so that the award satisfactorily re-adjusts that tangible imbalance such as it can'. (148) There may be problems of calculation within each category of damages and problems of overlap between them. In *Pabalk v. Norsolor*, an ICC tribunal considered that a global lump sum should be identified in such circumstances. (149) In some cases, a contract will provide a very detailed formula for calculation of loss or damages.

14.7.3 Unjust Enrichment: Quantum Meruit and Quantum Valebat

The concept of unjust enrichment exists in one form or another in almost every legal system. (150) It becomes relevant where the application of other rules would lead to an unjust result,
P 113 and is based on notions of justice and equity. The conditions that must be present for the principle of unjust enrichment to apply are well-summarised by the Iran-US Claims Tribunal, which stated in its *Sea-Land* award:

There must have been an enrichment of one party to the detriment of the other, and both must arise as a consequence of the same act or event. There must be no justification for enrichment, and no contractual or other remedy available to the injured party whereby he might seek compensation from the party enriched. (151)

Where an action in unjust enrichment is for the return of money paid, the action is one for money had and received. If the performance of the contract is in the nature of services, the claim is in *quantum meruit*. If the title to property has been transferred under an invalid contract, the action for its recovery is one in *quantum valebat*. (152)

14.7.4 Net Benefits

If a claimant has been benefited in some way by the breach, that would need to be taken into account in calculating damages. (153) This might arise either through obtaining some concrete benefit or through being relieved of the obligation of future outgoings. In some cases this is discussed under the notion of mitigation, although that seems undesirable in the context of direct net damages and the claimant's general burden of proof in that regard. Mitigation is

discussed further in section 14.17.

Comparing the situation arising on breach with what would have happened if the contract was properly performed will at times involve a cost-benefit analysis. The claimant will no doubt highlight the extra costs and losses but in some cases there may even have been savings of expenses that would have arisen if the contract had been validly performed, for example hypothetical storage costs in relation to goods that have not been delivered. A tribunal will have to consider how to approach such issues if they seem obvious but are not raised by the respondent, once again as they can be viewed as part of the claimant's burden.

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14.8 Valuation

14.8.1 Introduction

An integral part of calculating any damages award will be a valuation of the harm that has been inflicted upon a claimant. Ultimately, if a tribunal determines that damages have been incurred, it should award them, even if they are difficult to establish with precision. (154) The biggest challenges are with expectation loss. A tribunal must consider what it is trying to assess, namely the concept of value and the applicable measure, and also the evidence by which it is to be determined. In complex matters, there will typically be conflicting expert evidence as to valuation. Since many lawyers and arbitrators are not themselves experts in accounting or financial analysis, it can be difficult for arbitrators to understand how they may use and interpret expert evidence in determining damages. (155) As one leading arbitrator and scholar recently stated, an arbitrator must arrive at 'an independent determination of value, regardless of whether the competing experts have provided widely divergent estimates of value'. (156) The challenge for the arbitrator then, is to reach a reliable valuation that has 'at best the virtues of a good faith attempt at estimation'. (157) The tribunal must come to an informed decision and not a mere compromise.

14.8.2 The Approaches to Valuation

A starting point for this process of valuation is identified by Dr Shannon Pratt in his treatise on valuation: (158)

An intuitively appealing method of concluding the value estimate is for the analyst: (1) to use subjective but informed judgment and decide on a percentage weight to assign to the indications of each meaningful valuation approach or method and (2) to base the final value estimate on a weighted average of the indications of the various methods. (159)

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It is suggested that arbitrators take a practical approach to valuation questions that incorporates all the relevant facts as well as elements of common sense and reason. (160) This process should enable the arbitrator to weigh the relevant facts and determine their aggregate significance. Parlade briefly mentions 'Quodient Awards' (161) saying they are not permitted unless the parties agree to be bound. They are awards where 'in the absence of agreement on the award, the arbitral tribunal awards an amount which is arrived at by aggregating the sums decided by each member to be due and dividing the sum by the number of arbitrators'. Where experts offer differing models for the calculation of damages, tribunals may request a reconciliation showing the key differences between the models. Joint reports of party-appointed experts is discussed in section 12.14.7.

Complex valuations may need to be made in such things as a breach of a joint-venture or merger agreement or misrepresentation in pre-contractual negotiations. Calculating damages for breach of longer-term contracts and distribution and licence agreements are more complicated than one-off sale of goods transactions. Global sums may be appropriate where the heads of claim necessarily overlap and there would be no objective way to distinguish between categories. An example was *Pabalk v. Norsalor* where there was a claim for lost customers and goodwill, clearly overlapping categories. (162)

14.8.3 Three Approaches to Valuation

In many investment disputes, a central issue will be whether and how the conduct alleged to have injured the claimant has affected the ongoing prospects for the claimant's business. (163) In answering this question, arbitrators must consider future events such as lost revenue, the additional capital required to maintain operations and the reliability of such estimates. The International Valuation Standards Committee (IVSC) has published the Valuation Standards to be used in financial statements and to promote the worldwide observance of valuation approaches. (164) Organisations in over fifty countries subscribe to the IVSC Principles. The three approaches suggested by the IVSC are 'The Income Based-Approach'; 'The Market-Based Approach'; and 'The Asset-Based Approach'. (165) It has been suggested that these approaches have been accepted by the valuation community to create a 'Valuation Mercatoria'. (166)

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14.8.3.1 The Income-Based Approach

5.14.2.1 (IVSC): The *income capitalisation approach* estimates the value of a business, business ownership interest or security by calculating the value of anticipated benefits. The two most common approaches are capitalisation of income and *discounted cash flow* or *dividends*

method.

14.8.3.2 The Market-Based Approach

5.14.1.1 (IVSC): The *market approach* compares the subject to similar businesses, business ownership interests, and securities that been sold in the market'.

5.14.1.2 (IVSC): The three most common sources of data used in the *market approach* are public stock markets in which ownership interests of similar businesses are traded, the acquisition market in which entire businesses are bought and sold, and prior transactions in the ownership of the subject business'.

5.14.1.3 (IVSC): There must be a reasonable basis for comparison with and reliance upon the similar businesses in the *market approach*....

14.8.3.3 The Asset-Based Approach

5.14.3.1 (IVSC): In business valuation the *asset-based approach* may be similar to the cost approach used by Valuers of different types of assets.

5.14.3.2 (IVSC): The *asset-based approach* is founded on the principle of substitution, i.e., an asset is worth no more that it would cost to replace all of its constituent parts.

5.14.3.3 (IVSC): In the execution of the *asset-based approach*, the cost basis balance sheet is replaced with a balance sheet that reports all assets, tangible and intangible, and all liabilities at *Market Value* or some other appropriate current value.

The *Féderation des Experts Comptables Européens*, the representative organisation for the accountancy profession in Europe, adopts the approach that the valuation of a business for purely financial objectives is based on the present value of net cash flows from the business to the owner. It is a value based on the profits earned by the business which the business will continue to accrue into the future. (167) It might be thought that the Income-Based and Market-
P 113 Based approaches will generally offer the best measure of the value of a business, however particular facts and circumstances and problems of proof may necessitate the use of other valuation approaches.

In reality, all three Approaches take into account future earnings capacity. The Income-Based Approach does this explicitly by reference to a company's earnings capacity, while the Asset-Based and Market-Based approaches may implicitly take account of future earnings through the incorporation of market values. (168) While at first sight the Asset-Based approach may not appear to do so, it typically requires consideration of the market value of tangible and intangible assets. Tangible, fixed assets will usually depreciate over time; however intangible assets like goodwill and intellectual property can and do appreciate *and* depreciate over time. Thus to calculate the value of all of a business' assets, the value of intangibles may need to be adjusted to reflect market values, thereby incorporating future earnings capacity into the valuation process. (169) Hence it is not fully distinct from the other methods. Kantor explains that as a result of the reliance by valuers on the market's perception of future earnings potential, the Income-Based and Market-Based Approaches converge towards a single fundamental measure, namely, earnings. If the different valuation methods are correctly applied, each could be expected to generally produce results consistent with the others. (170) It is thus important to remember that valuation methods are not mutually exclusive. As the US Supreme Court said in *CSX Transport, Inc. v. Georgia State Bd. Of Equalization*, (171) valuation is not 'a matter of mathematics...Rather, the calculation of true market value is an applied science, even a craft. Most appraisers estimate market value by employing not one methodology but a combination. These various methods generate a range of possible market values which the appraiser uses to derive what he considers to be an accurate estimate of the market, based on careful scrutiny of all the data available'. (172)

In the case of *Compañía de Aguas del Acnoquija S.A. & Others (CAA) v. Argentine Republic*, an ICSID Tribunal did not accept the valuation methods proposed by the parties and instead used a method of its own choosing. (173) In that case, claimants argued that the fair market value should be based on the profits that CAA would have obtained had the concession in question not been undermined. (174) The Tribunal declined to adopt this approach, finding that the record of the concession's operations failed to demonstrate with sufficient certainty that it would have been profitable. Ultimately the Tribunal adopted an 'amounts invested' approach
P 113 as the measure of the fair market value which on appeal, the ad hoc Committee held to be 'well within the margin of appreciation of the Tribunal'. (175) Such an approach will be similarly appealing in joint-venture transactions that break down at an early stage, where one party invested capital and the other invested knowhow. In each case, damages for loss of the use of the money or interest in lieu thereof could seem appropriate.

Given the range of estimates that are likely to be put forward by party-appointed experts, it is necessary for arbitrators to have a practical approach in mind when coming to a final valuation. There will also be a need to consider a range of possible estimates of future earnings as conflicting views can be based on key variables about which there can be legitimate debate. For example, the value of a mining concession will depend heavily on future exchange rate projections and general economic conditions. In such circumstances, the adjudicator may wish to consider alternative scenarios and pick the best one or attempt some form of averaging. (176) It may also be necessary for arbitrators to direct parties and expert witnesses to maintain an accurate and detailed audit trail so that the records and sources of

information upon which a valuation is based, and the ties between the valuation and the evidence presented in the case, can be easily identified. (177)

14.8.4 Actual Transaction Cost

Income-based methods like Discounted Cash Flow valuations are often contrasted with market-based methods that rely on stock prices or transactions. However, arbitrators are not required to use the actual or potential sale price for a company as the best indication of value. Actual transaction cost refers to the price paid for a part of or whole company in a recent arm's length transaction. If the tribunal is of the opinion that the price paid for a company or an asset is 'unreasonably high' (178) then it may use the price that it believes a reasonable person would have paid for the company or asset as a foundation for the calculation of damages. The logic would be that the defaulting party only caused damage to the reasonable component. The balance was wasted money in any event. Similarly, where the price negotiated for a company or asset is privately negotiated and the market in which the transaction occurred is limited or uncompetitive, a tribunal may choose not to use actual or potential transaction prices to measure the value of an investment. (179)

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14.8.5 Fair Market Value

Each of the valuation methods considers the market value of a business, asset or investment. Courts and commercial codes have offered different definitions of fair market value. It is useful to set out some of these definitions in full. The ICSID arbitrators in *CMS v. Argentina* adopted the definition of fair market value offered by The American Society of Appraisers, a major international organisation of professional appraisers:

The price, expressed in cash equivalents, at which the property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arms length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts. (180)

The World Bank Guidelines define fair market value as:

an amount that a willing buyer would normally pay to a willing seller after taking into account the nature of the investment, the circumstances in which it would operate in the future and its specific characteristics, including the period in which it has been in existence, the proportion of tangible assets in the total investment and other relevant factors pertinent to the specific circumstances of each case. (181)

Ultimately, the best evidence of the fair market value of a business may be the price agreed to by a willing buyer and a willing seller, each with knowledge of the relevant facts in a recent arms' length transaction. (182) The 'fair market value' compensation principle contains an implicit assumption about the treatment of 'rare events' whether having positive or negative impact on value. Kantor explains that future 'rare events' are 'incorporated into a market valuation only insofar as the market price at the valuation date (rightly or wrongly) considers the prospects for the future rare event'. (183) Thus, in assessing market value, a tribunal is not required to shut its eyes to events subsequent to the date of injury if these shed light in more concrete terms on the value applicable at the date of injury. (184) As noted by the tribunal in *Metalclad*, 'the fair market value of a going concern which has a history of profitable operation may be based on an estimate of future profits subject to a discounted cashflow analysis ...'. (185) The tribunal thought this method would only be appropriate to determine market value where there had been a sufficient period of time and actual experience of profits. However, blanket rules about the time that a business has been active may be misleading. In some businesses it would be very easy to project likely future profit. An example would be a new business with a concrete long-term supply agreement with a high quality sole customer with fixed prices or price formulae.

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In *Enron v. Argentina*, the ICSID Tribunal considered the existence of actual willing sellers and buyers to be 'meaningful' in relation to the Tribunal's findings. Transactions between these buyers and sellers were held by the tribunal to accurately reflect the current market value of the company. (186) The tribunal stated that whilst the use of the Discounted Cash Flow Method (a form of Income-Based valuation) has been applied by other tribunals, the 'real value' obtained in transactions involving the company 'better reflects the current value of such participation'. (187) In that case, Enron Corporation and Ponderosa Assets, through a series of complex transactions, made a number of investments in the Argentinean gas transportation company Trasportadora de Gas del Sur (TGS). The tribunal found that it was able to assess the current value of TGS and the current value of Enron's investment in TGS by reference to the actual sale of Enron's 15.2% stake in TGS to a third party.

In the case of *Ioannis Kardassopolous & others v. The Republic of Georgia*, the Tribunal found it appropriate to rely on the unusual circumstance where it had evidence of three comparable transactions to arrive at the fair market value of the claimant's percentage interest in the business. (188)

In many cases, there is no way to establish market value, because there is no established market for sales of a particular interest. This occurs regularly with respect to equity interests. As Dobbs has said:

In many instances no appropriate market can be found for the property or entitlement in question. This occurs for many reasons, ranging from the fact that no one is buying or selling property of the kind involved, to the fact that a monopoly may control prices. There would P 1137 almost never be a 'market' in real property, only sales of more or less comparable properties. Businesses, opportunities and trade secrets might theoretically be bought and sold, but unique advantages and risks again make standard market prices unlikely. So in many cases, market value, one of the most common bases for damages decisions, is not an existing fact but a legal construct or even a convention. (189)

If an actual market does not exist, arbitrators and the parties will search for substitutes. This process may involve consideration of 'comparable sales, income produced by the property, replacement costs, cost of obtaining a functional substitute, risks of loss and chances of gain' (190) as well as other data for constructing this substitute market. (191)

Other valuation methods include the net value of individual assets, the cost of the assets, the amount required to replace the assets injured and the sale value, either as a whole or under a liquidation process. (192) Each has flaws and assumptions. Looking at cost and replacement ignores important intangibles. Methods that look for net balance sheet value are dependent on accounting standards, depreciation allowances and the like and can see a timing mismatch between accounting valuations and adjudicatory valuations. (193) Tribunals should encourage experts to identify and disclose assumptions underpinning their presentations in order to allow for quicker and easier comparison of positions taken by opposing experts. (194) This point is discussed further in section 12.14.3 While there are different methods of valuing assets, in a properly informed market, all must be relevant to calculations both because of their inherent relationship and because an analysis of alternatives should help a tribunal's confidence level in complex matters. As to the first, while one can speak of the value of an asset being the price available in an appropriate market, that price will be a reflection on the earning potential of the asset itself.

One issue is whether a claimant is entitled to choose whichever method gives it the greatest return. One view is that the adjudicator must apply the most fair and reasonable measure. For example, if a claimant invested USD 100,000,000 in building a hotel which was then expropriated, where evidence shows that the building was grossly over-priced and would only be worth USD 70,000,000 even without expropriation, a respondent might assert that it is not P 1138 reasonable to award claimant full compensation for its inflated expenditure. Conversely, Paulsson seems to argue to the contrary when he states 'the wasted cost is what the claimant has spent in reliance on the agreement, without reference to how judicious or providential those expenditures turned out to be. No further explanation is necessary to understand why victims of contractual breaches tend first and foremost to articulate a plea for *damnum emergens*'. (195)

14.8.6 Discounted Cash Flow

The Discounted Cash Flow Method (DCFM) referred to in the *Enron* case above by the tribunal is explained by Weisburg and Ryan:

The discounted cash flow or 'DCF' is a tool that measures the value of a business by projecting the net cash flow for a fixed period of time into the future and then discounting it back to present value as of the date of injury. The discount rate should reflect the time value of money in the host country and the relative risk associated with the particular investment. (196)

The DCFM recognises that the true value of a going concern is the profits it will generate over its operative life in present value terms. It requires arbitrators to look forward to project a company's future performance by extrapolating from a company's current financial position. (197) Forward looking methods of calculation, such as the DCFM, require an adequate past record available to build on for an acceptable future profit forecast. (198)

It is important to understand that methods such as DCF are built on a range of highly speculative elements. While these may be the best way of assessing value in a market environment, the application of such a principle must be looked at in the context of the requisite burden and standard of proof in an adjudicatory forum. Because the method is built on future predictions as to issues such as currency, asset and commodity prices, inflation, interest and political and commercial risk, results can vary greatly. Other criteria under DCF methods include analysis of general market trends and likely behaviour of existing and prospective members of the relevant industry. With large conglomerates that move in and out P 1139 of different activities depending on how best to utilise their capital, this can be a particularly uncertain exercise. Discount rates need to factor in inflation, market volatility and lending rates. (199) The discount rate should reflect the time value of money in the host country and the relative risks associated with a particular investment. (200) Evaluating host country factors are particularly problematic in non-market economies, (201) or those with volatile political landscapes, oscillating between pro- and anti-business forces.

If the individual elements are too uncertain to give a tribunal even confidence on balance, then the ultimate findings of the method may be similarly problematic. Applying the DCF method might also call for consideration of a vast amount of information not otherwise relevant to the determination of liability. The Iran-US Claims Tribunal questioned the utility of the method in *Amoco*. (202) If DCF is too uncertain because of a start-up operation, then a more appropriate assessment may be one of loss of a chance, discussed in section 14.10.2, although DCF may be the means to assess the chance. (203)

While the burden of proof is on claimant, in complex calculations such as DCF, a tribunal may consider various elements and assumptions, accept those where the burden is satisfied and err in favour of the defaulting party in other circumstances. (204) Where discounted cash flow analysis will occur, while the tribunal will typically analyse the logic and methodology of conflicting experts, it would rarely wish to make its own calculations but would instead 'determine and identify the extent to which it agrees or disagrees with the estimates of both parties and their experts concerning all these elements of valuation...'. (205)

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14.9 Timing and Assessment Dates

14.9.1 Timing and Damages Assessments

As the above cases suggest, the date on which to measure the impact of the harm suffered will have a significant effect on the ultimate calculation of compensation. It is, therefore, desirable that the arbitrator's decision about the applicable valuation date is made and communicated as a preliminary step in proceedings. The possibility of settlement should be enhanced where there is no dispute remaining about the applicable valuation date. Situations such as the one that arose in *Santa Elena v. Cost Rica* (206) will then be avoided. In that ICSID case, the claimant presented a 1993 property appraisal and a fair market discounted cash flow analysis based on a December 1997 valuation date, only to have the panel rule that the operative valuation date was May 5,1978. (207) If a particular date cannot be determined at the outset, the tribunal might still usefully limit the number of potential dates. In this way arbitrators can focus the parties on the impact of different valuation dates. (208) Thus, it will enable the parties' own experts to give evidence relevant to all prospective valuation dates rather than focussing exclusively on the one contended for by the party calling them.

An adjudicator should also be aware that the timing of payment of damages under an award will rarely reflect the way moneys would have flowed but for the breach. Hence tribunals will need to take this into account in making the calculations. The normal situation is that damages come later than would have been the norm, hence the entitlement to interest or damages in lieu of interest. In some cases, however, the reverse is the case, with adjudicatory compensation for loss of profits dealing with the future profit stream that will not arise because of the breach. In these circumstances, the tribunal will need to apply a discount rate to take account of the present value of that future stream. Leaving aside taxation matters, the typical formula for identifying present value of a future income stream at simple interest is P = A/(1 + nr) where P = present value, A = amount due, n = number of years till due and r = rate of interest in decimal form. (209) Present value with annual compound interest is P = A/(1 + r)n.

14.9.2 The Date of Assessment of Value

The predominant rule across legal systems is that damages for breach of contract are assessed as at the date of breach, (210) or restated, the calculation of compensation values the impact of the injury at the date of harm, (211) although this is not a uniform position, some systems requiring notice of claim. This will be determined by the applicable law.

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However, in order to accurately assess damages, and thus satisfy the compensatory principle, facts that occur subsequently to the breach or injury should not be ignored. (212) For example, in the *Golden Victory*, a contract between a ship-owner and a charterer contained a 'war clause' giving each party the right to cancel the contract if war broke out. The respondent charterers wrongfully repudiated the contract three years into its seven year term. A war subsequently broke out fourteen months after the repudiation. The majority in the English House of Lords held that damages were to be measured by taking into account that the owners would only have had the benefit of the charter until the outbreak of the war. (213) Furthermore, steps taken by an injured party to mitigate loss may be taken into account in calculating compensation. (214) In *Sinclair Refining*, the US Supreme Court held that post-injury events may at times appropriately be considered when calculating damages:

The law will make the best appraisal that it can, summoning to its service whatever aids it can.... We find no rule of law that sets a clasp upon its pages, and forbids us to look within.... To correct uncertain prophecies is not to charge the offender with elements of value nonexisting at the time of his offense. It is to bring out and expose to light the elements of value that were there from the beginning. (215)

Further, in *CME Stockholm*, the Tribunal adopted claimant's argument that the investment's actual subsequent performance was relevant to test the reasonableness of the company's earlier pre-injury forecasts: (216)

Settled law makes clear that the Tribunal's valuation of the Claimant's investment in CNTS based on the company's market value should be accomplished by reference to conditions at the time of loss, since a willing buyer would not have known what future events would bring in negotiating a purchase with a willing seller at that time.... Nevertheless, comparison of CME's projections against actual results for the period since the forecasts were prepared reinforces the reasonableness of using those forecasts in valuing CNTS.

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International expropriation law has varied in its approach to these principles, in particular

when dealing with valuation of expropriated property. (217) In *Santa Elena v. Costa Rica*, an ICSID Tribunal rejected the claimant's argument that the value of the expropriated property should be assessed as of the date of judgment and instead held that compensation would be calculated as of the date the expropriation was effected. The tribunal in that case held that 'factors that arose thereafter... must be disregarded'. (218) However, two recent ICSID tribunal decisions have derogated from the 'settled law'. In both *ADC v. Hungary* and *Siemens v. Argentina*, it was concluded that the *Chorzów Factory* (219) reparations standard required compensation for the unlawful conduct to be computed as at the date of the award rather than the expropriation date. The decisions were made on the basis that in order to put the Claimants in the same as position as if the expropriation had not occurred, it was necessary to capture the subsequent increase in value in calculating the award. (220) Finally, in the case of *Amco Asia v. Indonesia (Amco II)*, the ICSID tribunal reasoned:

It may, on one view, be the case that in a lawful taking, Amco would have been entitled to the fair market value of the contract at the moment of dispossession. In making such a valuation, a tribunal in 1990 would necessarily exclude factors subsequent to 1990. But if Amco is to be placed as if the contract had remained in effect, then subsequent known factors bearing on that performance are to be reflected in the valuation technique.

14.10 Lost Profits

Problematic areas in relation to damages include whether lost profits are generally permissible and particularly so when identifying adequate or full compensation in expropriation cases. Article 7.4.2 of the UNIDROIT Principles allows for full compensation which would encompass lost profit. That can be impacted upon by whether one identifies part of the asset as goodwill, which itself reflects profit potential to some degree. There must not be double accounting. A further complication where lost profits is concerned is that it has even been argued that loss of profit stream can itself be expropriation under investor protection norms, a view taken by the dissenting arbitrator in *En Cana v. Equador*. (221)

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In all cases the claimant will need to have sufficient evidence that lost profits resulted from the breach and that profits would have in fact on balance arisen. In *Vivendi v. Argentina*, the Tribunal stated that 'compensation for lost profits is generally awarded only where *future profitability* can be established (*the fact of profitability* as opposed to the *amount*) with some level of certainty. (222) However, the aggrieved party cannot be expected to have clear evidence as to the amount of the loss. (223) The fact that the exercise is inherently uncertain is not a reason for the tribunal to decline to award damages for loss of profits. (224) This point was made by the sole arbitrator in *Sapphire International Petroleums Ltd v. National Iranian Oil Co* (225) who stated:

It is not necessary to prove the exact damage suffered in order to award damages. On the contrary, when such proof is impossible, particularly as a result of the behaviour of the author of the damage, it is enough for the judge to be able to admit with sufficient probability the existence and extent of the damage.

The issue of uncertainty was similarly held not to preclude an ICSID tribunal from assessing the quantum of damages in *South Pacific Properties (Middle East) Ltd v. Arab republic of Egypt*. (226) In that case the tribunal stated that '...it is well settled that the fact that damages cannot be assessed with certainty is not reason not to award damages when a loss has been incurred'. (227) Tribunals are generally allowed a considerable measure of discretion in determining issues of quantum so as to facilitate a prompt and effective resolution to the dispute. Thus, in *Wena Hotels Ltd v. Arab Republic of Egypt* (228) the *ad hoc* Committee held:

With respect to determination of the quantum of damages awarded, it may be recalled that the notion of 'prompt, adequate and effective compensation' confers to the Tribunal a certain margin of discretion, within which, by its nature, few reasons more than a reference to the Tribunal's estimation can be given, together with statements on the relevance and the evaluation of the supporting evidence.

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The determination of the precise amount of damage is a matter for the tribunal's 'informed estimation'. (229) This is a principle that is widely accepted in municipal as well as international law. (230)

Nevertheless, the assessment needs to be as reasonable as possible, including appropriate discount factors. Where lost profits are concerned, in addition to discounting for the time value of the money there should also be a discount in terms of the risk premium that the profits may not eventuate. However, if a party is entitled to lost profits and is able to prove them to a sufficient degree, there should be no diminution simply because the potential profits were particularly high in the context of typical returns on investment. Often profits will be high because the risk is high. A contrary view would be based on an inappropriate reading of the *Aminoil* case which granted a reasonable rate of return as opposed to loss of profits because it found the parties had adopted this standard. (231) In *Aminoil v. Kuwait* (232) the tribunal accepted claimant's argument for compensation based upon the replacement value of the business as a going concern, including lost profits. The tribunal consequently accepted in principle that future earnings prospects should form part of the damages award. (233)

However, in calculating the lost profits that were to form part of the award, the tribunal rejected an Income-Based method in favour of an Assets-Based method. The tribunal awarded the net amount of an adjusted balance sheet plus a rate of return until the award date as the measure of compensation. (234)

There will also be evidentiary issues as to how to identify lost profits, given that it will often be a hypothetical exercise. Calculation problems will arise for example where a mining company wrongly loses a concession or licence. (235) With longer term commercial ventures such as construction contracts, mining exploration or similar joint ventures, there will be complex risk factors to take into account in assessments. (236) Tribunals may reject loss of profits claims where there is insufficient evidence in support. (237) If there is no track record of performance, a tribunal might conclude that a loss of profits claim is too speculative. (238) If profits are less than likely, a claimant may characterise the claim as loss of an opportunity, particularly where the opportunity would have a market value. Venture finance transactions and mining concessions are examples.

Where lost profits are concerned, there is a question as to whether a claimant should present direct evidence of this or rely on a commonly used formula such as the Hudson or Eichleay Formulae. (239) Other questions include whether lost profits should be awarded without any discount for the effort that would have been required if contracts had been validly performed? Given that virtually all legal systems look at cash flow and not utilisation of time, this seems an unavoidable result. Lost profits should be calculated on the basis of net profit after deduction of expenses. It is also important to ensure that there is no double counting. This will typically arise in an avoided construction contract where the builder argues that there have been wasted costs and also seeks lost profits.

14.10.1 Account of Profits

The remedy of an account of profits differs from lost profits in that, if awarded, it requires the respondent to transfer to the claimant any profits that the respondent may have obtained from his or her breach. The question that arises is whether a damages assessment would require a party in breach to disgorge profits from its breach of contract. An example would be an exclusive distribution agreement where the distributor promises not to on-sell the goods in other markets. If the distributor does so profitably, the seller has not suffered any actual loss unless it can show that its own sales were displaced, but in addition to that, the buyer has made a profit from its breach.

At common law, the position has long been that an account of profits is not available for a breach of contract. This is based on the principle that a claimant must show the damage that he has suffered if he is to claim compensation. However, recent UK decisions such as *Attorney General v. Blake* (240) and *Experience Hendrix* (241) in which an account of profits was been awarded for a breach of contract indicate otherwise. Arguably, a principle now exists that where a party to a contract deliberately breaches a contractual term and makes a profit from the breach without causing the innocent party any provable loss, the innocent party may be able to obtain as damages a reasonable payment calculated as a proportion of the contract breaker's profit. In civilian legal systems, the remedy of an account of profits is not generally available, as it is understood to be a punitive remedy. The French Civil Code, for example, provides that the principal objective of contract damages is to compensate loss, (242) and that accordingly, the intention of the party in breach and the extent of any profit accruing by way of the breach are irrelevant.

14.10.2 Loss of a Chance or Opportunity

As noted above, it is important to separately consider the case where there is a significant uncertainty as to whether there would be any profit or not. Legal systems have to decide whether a party who lost a 20% chance of making profit, should gain an appropriately discounted amount of compensation or instead should be told that on balance they were unlikely to be profitable and hence no compensation of that nature should be provided. While legal systems grapple with the theoretical concepts, the proper approach may indeed depend on the particular facts in dispute and whether the rights impaired by the breach would have an independent market value. For example, a licence to explore for oil or minerals might only be based on geological evidence that there is a 5% chance of making a finding and hence of making a profit, but the licence would have a value on the open market. The returns if successful would presumably vastly outweigh the costs. Hence overall the entitlement is positive in value even if actual success is less likely. Loss of an opportunity was allowed for in *Sapphire International Petroleum Ltd* where it was held that it was only necessary for the complainant to show 'sufficient probability (of) the existence and extent of the damage'. (243)

It has been suggested that it may be too difficult to assess damages for loss of chance where a party has breached an obligation to arbitrate. (244) In any event, the problem should not easily arise. If the claimant refuses to commence an arbitration, the putative respondent could do so. If a respondent refuses to attend, the arbitration proceeds in any event and there is no obligation to render an award of specific performance. The arbitration promise is not to attend but merely to allow arbitration to proceed, including the standard approach where a respondent is not in attendance. This is separate to the question of damages for breach of the agreement by commencement of legal proceedings in court.

14.10.3 Measuring Expectancy: Discounted Cash Flow

The discounted cash flow or 'DCF' method mentioned in section 14.8.6 is a tool that measures
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the value of a business by projecting the net cash flow for a fixed period of time into the future and then discounting it back to present value as of the date of the injury. As such it may be used to measure an expectancy discussed in the previous section. A particularly problematic area in that context which sometimes arises is loss of a right to tender in a construction or distribution situation. Here there is the double uncertainty as to whether the tender would have been successful and if so, what profits would have arisen. There is also a question of net gains, as the aggrieved party has been alleviated of the cost of going through the tender and setting up the outgoings of the activity.

14.11 Calculation of Damages in Expropriation and other Investment Standards

Expropriation cases are different to commercial disputes as BITs and customary international law attempt to define valuation standards that arguably modify standard market value analysis. However, as noted above, general comments as to remedies from investment and expropriation cases are commonly resorted to in other disputes. The measure of compensation may vary depending on whether the expropriation is legal or not. A legal expropriation is within the contemplation of the parties from the outset and is based on a compensatory formula that they would have been aware of at the time of the agreement.

While complete restitution is well respected by most if not all legal systems, application of this principle in expropriation cases has always been controversial, in part because of what has become known as the Hull Formula, named after then US Secretary of State Cordell Hull who advocated 'prompt, adequate and effective' compensation when Mexico nationalised foreign owned oil fields in the 1930s. The application of the Hull Formula has been questioned by developing States over the validity of its application. (245) Customary international law was not clear in articulating the nature of expropriation and its remedies. 'In the context of expropriation claims... discussions of fair market value calculations inevitably overlap with the perennial dispute as to whether customary international law requires compensation for an expropriation that is 'prompt, adequate and effective,' 'fair,' 'just,' 'full,' or 'appropriate' or otherwise'. (246)

A number of general principles for a background to this debate. Article 34 of the International Law Commission's Articles on State Responsibility indicates that full reparation for the injury caused by the internationally wrongful act shall take the form of restitution, compensation and satisfaction, either singly or in combination. Under Article 36, a 'state responsible for an
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internationally wrongful act is under an obligation to compensate for the damage caused thereby, insofar as such damage is not made good by restitution' and that such compensation 'shall cover any financially assessable damage, including loss of profits insofar as it is established' UN General Assembly Resolution 3171 declared that a State 'is entitled to determine the amount of possible compensation and the mode of payment, and ... any disputes which might arise should be settled in accordance with the national legislation of [the] State' when expropriating foreign property. (247) Nevertheless, such a Resolution cannot alter customary norms of international law, hence the debate as to the extent of value remains. Some tribunals have moved towards more equivocal terminology such as just, appropriate or equitable compensation as opposed to full compensation. No matter the terminology, full compensation ought to be the starting point, in the sense of an accurate assessment of value, with arguments then permissible about any circumstances that might indicate why some lesser amount would seem fair and reasonable in the circumstances.

Investment treaties now typically aim to clarify the standards that are to apply. (248) In *ADC*, an ICSID Tribunal stated that 'there is general authority for the view that a BIT can be considered as a *lex specialis* whose provisions will prevail over rules of customary international law'. (249) Thus in the case of a BIT that specifies the standard of compensation in the case of both lawful and unlawful expropriation, the Tribunal will most likely apply the standard stipulated in the BIT. However, where the treaty, BIT or alternative governing instrument does not contain any *lex specialis* rules governing the issue of compensation, the tribunal will apply the customary international law standard prescribed in the *Chorzow Factory* case. In that case, the court famously said:

The essential principle contained in the actual notion of an illegal act – a principle which seems to be established by international practice and in particular decisions of arbitral tribunals – is that reparation must, as far as possible, wipe out all the consequences of the illegal act and re-establish the situation that would, in all probability, have existed if that act had not been committed. (250)

Nevertheless, absent specific guidance, it is also possible to take different views as to the aim
P 114
of damages in lieu of restitution and what is fair. Professor Brownlie in dissent in *CME Stockholm* (251) interprets the phrase 'just compensation' in the Czech-Netherlands BIT as taking into account the hardship that a large award would cause to the Czech State. (252) He concludes that the injured investor's recovery should have been limited to the amount actually invested in the expropriated venture, profits retained by the venture and not distributed to the investor, and 'foreseeable profits' based on 'a reasonable rate of return'. (253) This valuation approach relies on a calculation of the sunk investment costs along with a commensurate return from the injury date until the recovery date calculated at a rate the tribunal considers reasonable in the circumstances. The important difference between the two

approaches is that Prof. Brownlie would place the investor back into a position as if *the investment had never occurred* while the *Chorzow Factory* dictum focuses on putting the investor back in a position as if the investment had been made but *the injury had never occurred*. (254) The recent case of *Ioannis Kardassopolous & others v. The Republic of Georgia* (255) provides a useful example of how an ICSID tribunal defines the appropriate standard of compensation for unlawful expropriation. In that case, the tribunal had available to it three contemporaneous arm's length transactions to assist in valuing the expropriated investment. Accordingly, the tribunal found that it was appropriate in the case to assess the fair market value of the investment by reference to the three transactions.

A further consideration is whether a claimant is entitled to 'full compensation' or whether 'public interest' should be taken into account. In *James v. UK*, the European Court of Human Rights ruled that the European Convention on Human Rights does not 'guarantee a right to full compensation in all circumstances. Legitimate objective of 'public interest' such as pursued in measures of economic reform or measures designed to achieve greater social justice, may call for less reimbursement than full market value'. (256) This approach has however been rejected by an ICSID Tribunal, which stated that international investment law should not follow the ECHR perspective because 'Article I of the First Protocol to the European Convention on Human Rights permits a margin of appreciation not found in customary international law or the Treaty'. (257) The traditional approach has since been followed by other ICSID tribunals,
P 115 including the tribunal in *Siemens*, in which it was stated:

The law applicable to the determination of compensation for a breach of such Treaty obligations is customary international law. The Treaty itself only provides for compensation for expropriation in accordance with the terms of the Treaty.

The key difference between compensation under the Draft Articles and the Factory at Chorzow case formula, and Article 4(2) of the Treaty is that under the former, compensation must take into account 'all financially assessable damage' or 'wipe out all the consequences of the illegal act' as opposed to compensation 'equivalent to the value of the expropriated investment' under the treaty. Under customary international law Siemens is entitled not just to the value of its enterprise as of May 18, 2001, the date of expropriation, but also to any greater value that enterprise has gained up to the date of this Award, plus any consequential damages' (258)

Some cases have considered whether these principles apply to non-expropriation situations. The tribunal in *LG&E v. Argentina* in its Award on Damages held against this:

In the Tribunal's view, this type of valuation [Fair Market Value assessed through DCF] is appropriate in cases of expropriation in which the claimants have lost the title to their investment or when interference with property rights has led to a loss equivalent to the total loss of investment. However, this is not the case. The Tribunal rejected the claim for indirect expropriation put forward by the Claimants ... For the Tribunal, compensation in this case cannot be determined by the impact on the asset value; it does not reflect the actual damage incurred by Claimants. The measure of compensation has to be different. (259)

Other recent awards have instead considered that the absence of explicit standards of compensation for non-expropriatory breaches of international investment law does not preclude the use of standards applicable in case of expropriation. In *CMS v. Argentina* (260) it was said that:

the Tribunal is persuaded that the cumulative nature of the breaches discussed here is best dealt with by resorting to the standard of fair market value. While this standard figures prominently in respect of expropriation, it is not excluded that it might also be appropriate for breaches different from expropriation if their effect results in important long-term losses. Moreover, precisely because this is not a case of expropriation, the Claimant has offered to
P 116 transfer its shares in TGN to the Argentine Republic, and the Tribunal will address this question in due course.

This is an approach that has been followed in *Azurix*, (261)

Enron (262) and *Sempra*. (263) A recent essay by Pierre Yves Tschanz and Jorge E Vinuales explores the rules applicable to the determination of damages for breaches of investment protection standards other than expropriation. (264) They suggest that as a general matter 'the rules and methodologies... that may be used to assess damages in non-expropriatory breaches of international investment law are flexible, contrary to those applicable in case of expropriation, which are much more precise'. (265) In the absence of any specific language contained in an arbitration agreement to the contrary, the ICSID Tribunal in *Vivendi* stated as follows:

Based on these principles, and absent limiting terms in the relevant treaty, it is generally accepted today that, regardless of the type of investment, and regardless of the nature of the illegitimate measure, the level of damages awarded in international investment arbitration is supposed to be sufficient to compensate the affected party fully and to eliminate the consequences of the state's action.

Of course, the level of damages necessary to compensate for a breach of the fair and equitable treatment standard could be different from a case where the same government expropriates the foreign investment. The difference will generally turn on whether the investment has merely been impaired or destroyed.

This approach has been endorsed by other ICSID Tribunals and by other arbitral investment

tribunals. (266)

Assessment of compensation is easier where an investment is totally destroyed or completely expropriated than where it is adversely impacted upon by a measure, such as a new environmental regulation that renders a product less valuable in the market place. Another complication where damages for expropriation are concerned is the relevant time both as to
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the expropriation itself and also in determining value. (267) A further reason why assessing compensation and damages in investment cases is more complicated is because there is a very broad definition of investment typically covered, which includes intellectual property and many legal instruments such as shares, rights to use property, loans and the like as well as physical assets, often difficult to assess without a ready market for such assets.

Because of the broad legal principles under investment treaties and customary norms, these can at times be sought to be argued in relation to domestic litigation remedies. An example was the *Loewen* dispute where an applicant failed under a NAFTA investment arbitration claim when it complained in part as to USD 400,000,000 in punitive damages and USD 74,000,000 in compensation for emotional distress in a State court trial, where the initial dispute was over some USD 4,000,000. (268)

While there are cases indicating that expropriation standards of damages should not apply to non-expropriation cases, this may arise in any event where the value of the relevant investment has been completely destroyed. This also arises because in many cases, claims of discriminatory behaviour can also be argued in the alternative as indirect expropriation of part of the value.

14.12 Currency of Damages

Generally speaking, issues of currency are substantive and flow from the applicable law and the terms of any contract between the parties. However, the discretion as to currency of remedies is at times enshrined in arbitral statutes and rules. (269) Where broad procedural discretions are concerned, there are a range of factors the tribunal should consider in determining what currency to award damages in. A tribunal might look to the reasonable expectations of the parties; or the currency that would best meet restitutionary concepts in the substantive law; or give adequate concern to convertibility where there would be major obstacles in some jurisdictions, although this should be in the context of anticipated convertibility in the underlying contract if there had been no dispute. The permitted currency in an award may not be the same as the currency required for enforcement purposes, although the latter may also be a factor in a tribunal deciding on the applicable currency.

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Redfern and Hunter note that money sums are usually awarded in the currency of the contract or the currency of the loss. (270) However, in some cases, tribunals may need to receive written or oral submissions as to the currency or currencies in which the award should be made, for instance, in large international projects in which reference is made to several different currencies. If a remedy is to be provided in a currency requiring conversion, an adjudicator will typically select either the date of breach, the date of the award or the date of payment. There is also a need to pick a correct rate of conversion. If there is more than one that is listed, this may depend on which would be consistent with the commercial abilities of the relevant parties to attract that rate. The logic flows from broad restitutionary principles. There might also be concern with the problem of currency fluctuations and selection of a fair conversion rate. The latter is more difficult as it may involve a predictive exercise as to the likely value at the time an award is honoured. (271)

14.13 Some Specific Scenarios in Damages Assessment

14.13.1 Arbitration Costs as Damages

Costs are dealt with separately in Chapter 15. At this stage it is merely appropriate to note that a party could in theory seek to construct an argument that breach of contract that includes an arbitration agreement leads to consequential losses in relation to the costs of the arbitration itself. This would not be the normal way that a tribunal would approach this issue. A particular concern would be where the parties have expressly agreed that there is to be no costs award by the tribunal. It would undermine the intent if the successful party was allowed to recharacterise costs as damages.

14.13.2 Failure to Pay an Advance on Costs

There are two approaches to seeking recovery by one party when it has had to advance a share of costs of its opponent to allow the arbitration to proceed. One approach is based on a 'contractually agreed procedural duty' while the alternative is to consider it as some form of interim measure. (272) Whether it is possible to claim damages for breach of the supposed contractual duty may depend upon whether it is institutional or ad hoc arbitration. Where an
P 115
institution is concerned, an express agreement to the rules that expressly directs contributions to advances could be argued to be an agreement between the parties, a breach of which might lead to a damages entitlement. However, this is not uniformly supported. ICC Case No. 12491 considered that there was no damage at that stage and allocation of costs would only be determined at the time of the award. (273) This is discussed further in section

6.11.

14.13.3 Damages for Litigation Expenses Caused by Breach of an Arbitration Agreement

If one party commences court action in breach of an arbitration clause, the breach itself could cause loss to the innocent party, at the very least in seeking to bar the court action on the basis of the exclusive arbitration clause. While the relevant court may itself award costs, these may be limited and the balance could be argued to be damages in the arbitration. Common law courts have accepted this approach. (274) It is suggested that in the civilian law tradition, the better view is that forum selection clauses are procedural, the breach of which does not give an entitlement to damages. (275) It is even suggested that the innocent party may need to defend the court proceedings by way of mitigation of loss. (276)

14.13.4 Delays in Construction Disputes

A problematic area of damages calculation is when there are claims for delay and disruption, most typically in a construction dispute. Delays can be considered in the context of breach or simply in the context of contractual entitlements to extension of time. (211) Assessing damages for delay where all relevant cash flows will ultimately ensue, may simply be a present value analysis of delayed profits. Delay in construction contracts will generally lead to increased overheads in terms of staff and office costs. Different formulae are typically applied so as to avoid the need to specify the exact marginal impact on overhead expenses. (278) Because extensions of time or expenses for delay and disruption usually involve establishing certain conditional requirements and following stipulated procedures, there will be interpretation issues as to both entitlement and amount. Another evidentiary issue is whether final certificates in construction matters constitute binding evidence as to their content. (279)

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Disputes about delaying completion for construction contracts are particularly problematic as they often involve cross-claims and difficult questions of causation. For example, the contractor might argue that the delay was caused by changes called for by the employer or the latter's failure to provide necessary information and assistance. The employer might blame the contractor for failing to proceed at an appropriate rate. Each may blame third parties or external circumstances for their own lack of performance. As with other matters in this chapter, the actual rights and obligations in a particular transaction will depend on the applicable law and terms of the contract. Many questions are simply about liability and would not otherwise impact on calculations. Nevertheless, some broad proposition in the context of evidence and procedure can be appropriately made. While it is relatively easy to state a date for completion, the degree of completion is more open to debate as it will typically involve a contractual stipulation of a concept such as 'practical completion'. Even the date for completion is problematic, as it needs to be read in the context of entitlements for extensions. Evidentiary problems are exacerbated by the fact that it rarely makes commercial sense to demand that a contractor stick to a rigid and detailed programme but in the absence of such a document it is harder to identify and compare what was intended and what did in fact happen. (280)

Even if there is no detailed contractual programme, there should be appropriate evidence of what has occurred from time to time as to the basis of delay claims. In some cases a question may also arise whether a programme is approved and whether an employer was entitled to refuse to approve a tendered programme. Where external circumstances are involved, delay analysis will involve interpreting the contract to determine who ought to have borne the risk for this external event.

14.13.5 Reasonableness, Good Faith and Abuse of Rights

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Principles of reasonableness and good faith could be applied to articulating the interface between primary damages entitlements and mitigation duties. The *Himpurna* tribunal considered that on the facts before it, a claim for lost profits on investments not as yet made was so unrealistic in terms of the potential detriment to the host State that it was 'likely to constitute an abuse of right inconsistent with the duty of good faith that is fundamental to the Indonesian Law of Obligation'. (281)

It is undesirable to use the concept of abuse of right to limit the damages in *Himpurna*. The abuse of rights doctrine relates to concepts of good faith and contemplates rights being used in ways which would not be legitimately contemplated. This is quite different to the case of contractual terms that are seen as being unbalanced from the outset. (282) It is difficult to employ an abuse of rights logic absent a consideration of more direct concepts such as that of hardship. If a party repudiates a contract that has become grossly unfavourable because of changed circumstances, most would agree that the expenditure of the innocent party should be recoverable but it is more problematic to consider whether it should be entitled to full loss of profits when the new circumstances make the risk/reward for both parties grossly different to their original expectations. (283)

14.14 Non-Pecuniary and Moral Damages

Two issues will typically arise, the first whether such damages are claimable and second whether the claimant has satisfied its burden of proof. (284) A number of civilian legal systems allow various categories of non-pecuniary loss, including pain and suffering, emotional distress

and moral harm. (285) The ILC Articles specifically require reparation for moral as well as material damages. Article 31(2) provides that '[i]njury includes any damage, whether material or moral, caused by the internationally wrongful act of a State'. Computational issues will obviously be different. The evidentiary basis of claims for pain and suffering or loss of general reputation cannot be as precise as such items as wasted expenditure, although measuring loss of reputation in a commercial context ought to be similar to valuing diminution in goodwill. (286)

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Investment treaty provisions rarely provide for claims by the State, including claims for loss of its own reputation as a result of improper prosecution. (287) There may be private law principles that could otherwise apply. Whether an investor is entitled to moral damages may depend on whether the relevant BIT refers to nondiscriminatory and similar treatment to the investor as well as the investment. (288) In turn that may depend on whether the investor is an individual or a corporation. Even non-discrimination in relation to an investor may be limited to treatment of the investment itself. In *Desert Lion Projects LLC v. Yemen* (289) an arbitral tribunal awarded moral damages for stress as well as to injured reputation when armed gunmen expelled the investor from the relevant country.

One risk to be avoided in awarding compensation for moral harms is double-counting, in case such harms have already been compensated as material damage. (290) The risk is more likely to be present when the fair market value (FMV) of a business is used as the measure of compensation. This is because among the various components of FMV is goodwill, which includes the value of the business's reputation. (291) According to Sabahi and Birch, when an arbitral tribunal uses some other valuation method which does not take into account the goodwill, or more specifically damage to reputation, then the recovery of moral damage to reputation would be justified. (292)

14.15 Set-off

Whether other claims can be set off as against damages entitlements is a vexed question in international arbitration, primarily because there is no consensus as to whether set-off should be seen as a matter of procedure or substance. Brower refers to a case where an ICC tribunal did not set off a monetary award to an insolvent claimant against a far greater award to a counterclaiming sovereign respondent. The defaulting claimant assigned its entitlement to an

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affiliated company which sought to enforce it, while at the same time seeking to evade its own award debt. (293) A rare example of a rule seeking to expressly allow for set off rights is contained in Article 21.5 of the Swiss Rules of International Arbitration 2012. Set off is discussed in detail in section 4.4.3.

14.16 Force Majeure and Frustration

In most legal systems, proof that the cause of the loss was a force majeure or frustrating event will relieve the respondent of the obligation to pay damages. Key legal and evidentiary issues would include analysing questions of impossibility and foreseeability at the time the contract was entered into. If the contract or applicable law does not expressly deal with this defence, some would assert that it is a principle of *lex mercatoria* in any event, although that would be open to debate.

14.17 Mitigation of Damages

Most substantive laws will require the innocent party to take reasonable steps to mitigate losses, including loss of profits, arising from breach. This may overlap with general duties of good faith, duties to renegotiate for changed circumstances and hardship provisions. It may also overlap with causation and foreseeability analysis. Comparative law suggests that different legal systems address the various categories either through notions of mitigation, contributory negligence or causation. Civilian legal systems may have been less concerned with principles of mitigation simply because specific performance was the primary remedy, with damages only being residual. Many civilian legal systems do not speak of mitigation per se but instead consider notions of fault on behalf of the aggrieved party. (294) From a conceptual perspective, mitigation can simply be seen as an aspect of the need for a causal link, as arises for example under French law. (295) This has important implications if there is an inadequate evidentiary record and a tribunal wishes to apply a strict approach to burdens of

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proof. Such an approach is not to be preferred. The duty to mitigate could also be asserted to arise as a matter of custom and usage (296) and constitute an element of *lex mercatoria*. (297)

While mitigation is often spoken of as a duty, it is not a duty in the sense that it give rights to claim breach to other persons, but instead it is a means of reducing damages otherwise proven. (298) Concepts of mitigation are also commonly built into the primary rules of assessment of damages even subconsciously. For example, if a purchaser of goods has entered into a substitute transaction, the actual loss will be the difference between the two, the substitute being a mitigating event. It could also be dealt with under foreseeability notions if unmitigated loss is 'outside of the *bona fide* expectation of the non-performing party'. (299) It would normally be the case that if the parties have agreed on liquidated damages, a duty to mitigate would not be a basis of decreasing the entitlement. (300)

Article 9.504 of the Principles of European Contract Law directs that the non-performing party is not liable for loss suffered by the aggrieved party if the latter contributes to the non-performance effects. Article 9.505 also indicates that the non-performing party is not liable for loss 'to the extent that the aggrieved party could have reduced the loss by taking reasonable steps and that the aggrieved party is entitled to recovery any expenses reasonably incurred in attempting to reduce the loss'. Article 7.4.8 of the UNIDROIT Principles states:

1. The non-performing party is not liable for harm suffered by the aggrieved party to the extent that the harm could have been reduced by the latter party's taking reasonable steps.
2. The aggrieved party is entitled to recover any expenses reasonably incurred in attempting to reduce the harm.

Article 77 of the CISG states:

A party who relies on a breach of contract must take such measures as are reasonable in the circumstances to mitigate the loss, including loss of profit, resulting from the breach. If he fails to take such measures, the party in breach may claim a reduction in the damages in the amount by which the loss should have been mitigated.

While it is easy to state the general principles of mitigation in this way, the more difficult question, including legal and evidentiary perspectives, is what standard of behaviour is to be
P 116 expected. In a commercial context the difficulty is that many steps would be expensive, uncertain and may be problematic if the claimant does not have a strong liquidity position. How much risk and expense should a claimant undertake in order to ensure that damages otherwise payable are not reduced under mitigation principles? Laws, cases and commentators naturally fall back on broad expressions such as a requirement to take 'reasonable' measures, that the claimant need not take every imaginable step, but will invariably suggest that quite significant and costly steps will at times be appropriate.

The relevant substantive law will also have its own particular test as to the kind of behaviour that would be considered reasonable and the extent to which the innocent party must take risks in seeking to minimise the loss. Important issues of timing include whether steps only need to be taken once the breach occurs or should at times be taken previously, when breach can be reasonably anticipated. (301) This might be answered by the applicable substantive law although any tests will ideally depend on the circumstances, as there must be situations where an impending breach is so clearly the case and reasonable alternative steps are immediately available that this should be taken into account. Once the legal standards are determined, what did happen and what ought to have happened would be questions of fact for the adjudicator's determination. Evidentiary challenges are also compounded by the fact that the burden of proof will typically be on the breaching party to show that the claimant failed to mitigate its loss, but it naturally does not have access to the key relevant data. For example, a seller of defective goods seeking to argue that alternative supplies were readily available, would be looking for supportive information from its competitor manufacturers. An adjudicator will also face document production issues in such circumstances. One problem is that much of the market information may be confidential and not readily available from third parties. The innocent party itself may not wish to divulge confidential internal information in relation to which such assessments might be made.

There are a number of aspects of mitigation calculation. First, a party will not be entitled to damages which could reasonably have been avoided. If reasonable steps have been taken, which consequently reduced the loss, the cost of those steps should also be borne by the person in breach. Only a net analysis would be commercially realistic. A party should also not do anything to aggravate the loss. If the claimant did so, this would break the causal link as to that part of damages in any event. However, the corollary of the duty to act reasonably to minimise loss should be that if the steps were seen as reasonable at the time but in fact increased the loss, that should still be at the expense of the party in breach. That could also be justified under causation and foreseeability analysis.

It is generally accepted that the burden of proving a failure to mitigate should be on the breaching party. (302) The key aspect will be comparing what the innocent party did do with
P 116 what its opponent alleges it ought to have done. This involves a combination of factual market information and hypothetical assessment. In considering the kinds of activities that may or may not be reasonable, there may be a need to balance a number of factors including cost, time, risk and impact upon goodwill. Where the latter is concerned, it may be reasonable to seek all damages within a confidential arbitration as opposed to going into the market-place to highlight a problem with one's business. In some cases an adjudicator might hold that while steps were taken which did reduce the loss, more reasonable or timely steps could have been taken which should again be a means of reducing residual damages. An example might be a delayed substitute purchase by an innocent buyer in a market with steeply rising prices. If the purchases had occurred earlier, the cost of the alternative would have been lower. In making the assessment, it is important to consider what would have been reasonable to foresee or to consider as alternatives in the circumstances known to the parties at the time or which could have been known on reasonable inquiry. It should not be examined through hindsight. Other problematic scenarios might include an improper breach of a distribution agreement that offered generous terms to the distributor, with the party in breach offering a far less favourable but still profitable arrangement in lieu thereof. A distributor who has

worked full time for that supplier would not necessarily be expected to continue in such unpleasant circumstances. There may also be moral and ethical issues that arise, such as whether a builder should lay off construction workers when a supplier of materials will significantly delay delivery.

A duty to mitigate will often imply a duty to give the party in breach an opportunity to cure the defect. There may then be factual questions as to how long one should give the party in breach to do so and what assistance both in time and money should be provided. At other times the duty to mitigate entails the innocent party actively working with the party in breach to try and consummate the transaction. For example, if a seller of goods does not have the funds to organise transport, the buyer would need to do so even if it was a CIF contract. In other cases where a seller provides goods not in accordance with the requirements of the contract, the buyer may still need to take delivery, on-sell the goods at a profit and call for a new shipment of the intended specifications. If a third-party sale was at a loss, that might be problematic in terms of being able to recover the difference as damages, particularly if the seller could have instead taken back the non-complying goods.

In cases where the seller has breached the contract but promises to make amends in time if the buyer keeps the contract on foot, situations may arise where it would be needed to determine whether the buyer should legitimately have taken the risk, given the circumstances and the seller's overall reputation and likely ability to deliver on its new promises. A tribunal might consider that loss might only be mitigated after a considerable time and would allow full damages in the meantime, including loss of profits. (303)

Most legal systems will not require a claimant to refrain from avoiding a contract if valid grounds exist simply because this might reduce the total damages, although in the latter
P 1162 circumstances it becomes arguable that the breach was not sufficiently fundamental to constitute an entitlement to terminate. This is essentially a question of applicable substantive law. Ultimately, an adjudicator should make the best possible factual assessment of the impact of the hypothetical reasonable steps on the actual loss suffered and should not simply pluck a round figure as a discount.

When considering what degree of risk a party could hypothetically be expected to take, one uncertainty is whether that party's own historical risk aversion preferences should be taken into account. Risk aversion should certainly take into account the liquidity position of the innocent party. An example of a situation of risk and uncertainty would be delayed payment in a foreign currency that is falling drastically on exchange rate markets. Whether the innocent party should undertake a hedging contract to stem the potential losses is difficult to determine as the exchange market could turn around. Because the burden is on the breaching party to show breach of a duty to mitigate, in that circumstance it might need to show that consistent expert advice was that the currency situation would continue to deteriorate and hence a hedging contract would stem the losses.

In some cases a failure to take out insurance might be seen as a failure to mitigate or at least a contributory cause of the loss, although this would not be so under legal systems that require no mitigating activities until breach occurs. A contentious example would be a failure to take political risk insurance in an investment scenario. Given that such insurance is often provided by the investor's home State on favourable terms, one argument is that a reasonable person would have naturally undertaken such a step. Another example of risk is where the issue is whether an investor should continue with an investment after some bad experiences where the host State has breached its obligations in drastic ways. Even if the investor is entitled to cease activities on this basis, there would be a duty to sell its interest at the best possible price, although in some circumstances, a tribunal could rightly conclude that there would be no likely buyer. (304)

Where avoiding loss from a sale of goods contract is concerned, the innocent party, whether buyer or seller, would normally look to make a substitute contract. (305) As long as the substitute contract is profitable, there would be a duty to undertake one on less favourable conditions as any profit will mitigate the damage. In some cases, however, it will not be readily apparent whether the substitute contract is reasonable or not. For example, if a party habitually buys high grade materials with challenging specifications from one reliable supplier in a particular country who fails to deliver, what expense should be undertaken to find suitable suppliers in other countries and what risks should be taken where there is insufficient time to properly test for quality? At the extreme, one might be able to say that the hypothetical substitute is not truly of that nature, particularly where quality and reliability is crucial. (306)
P 1163 Substitute transactions are also difficult to analyse from an evidentiary point of view as traders are always trying to make as many sales as possible, hence it is at times difficult to distinguish between a truly substitute purchase which could have mitigated the loss and another transaction which could have been undertaken in any event but for the breach. (307)

Where a respondent establishes that the claimant may have failed to mitigate its loss, the CPR Protocol recommends that tribunals should consider granting requests from the respondent for the claimant to supply information concerning its activities following the breach. (308) In this way the arbitrators can better determine the financial impact of mitigation measures that the claimant might have taken as well as any benefits derived by the claimant from the breach.

14.18 Liquidated or Agreed Damages and The Prohibition on Penalties

Both civil and common law families allow for liquidated damages but each allows challenges

to be made where the amounts are excessive. Civilian systems will typically allow for reductions, while common law systems will seek to determine whether the clause is void or voidable as an improper penalty provision. Under French law, a judge may vary the amount even on an ex officio basis, which cannot be prevented by the parties. (309) Islamic principles would incline to this approach. Article 7.4.13 of the UNIDROIT Principles adopts the civilian approach allowing for specified damages but allowing the sum to be reduced to a reasonable amount if grossly excessive in relation to the harm resulting from non-performance and in the context of other circumstances. (310) Liquidated damages were accepted in ICC Case No. 3267. Even if struck down, this does not preclude a claim based on proper proof of actual damage if brought within time and in the appropriate manner.

Liquidated damages or penalty provisions are essentially calling for determinations of a factual nature. Under the civilian approach, where amounts can be reduced if they are unreasonable, there would usually need to be comparable evidence to show that the amount is actually excessive. Under the common law approach, attention is given to such data but also such factors as whether it was truly an attempt to fix compensation or instead to provide for a punishment. This is because common law looks at the factual issue of the *intent* of the clause which to be valid requires 'a genuine covenanted pre-estimate of damage'. (311) Distinguishing between acceptable levels of preordained damages and penalties to promote enforcement will raise evidentiary issues as to methods of calculation and appropriate discounting for a range of contingencies. Other evidentiary elements that P 1164 may come into play are whether the provision in issue was adequately compensated for through the price or other mechanisms. Where that is so, a provision that might look problematic in isolation may be highly commercial when viewed in context. An owner might accept a building tender at a higher quote where the builder has shown a belief that tight timeframes can be met in the context of high-end liquidated damages.

Conversely, where liquidated damages provisions provide for a capped lower level, they become akin to partial exclusion clauses, (312) although some legal systems allow claims for additional damages over and above the liquidated amounts. (313) Liquidated damages provisions also mean that as long as the provision is valid, the claimant will not need to prove actual damage. It would normally be the case that if the parties have agreed on liquidated damages, a duty to mitigate would not be a basis of decreasing the entitlement, although each case should be looked at on the merits as it may be a question of drafting and interpretation. As noted, liquidated damages are commonly provided for in construction contracts for late completion where delay is problematic but hard to quantify. A liquidated damages clause can also induce the builder to stay on track as the agreed damages may soon remove the builder's profit on the deal. There may be debates as to whether the clause is truly a liquidated damage clause or is instead a formula for proper calculation of loss. There may also be questions of interpretation such as whether it should be construed narrowly. (314) In some cases it is not the level of damages that may render the clause penal in nature under common law analysis but rather factors such as timing of payment as against stages of the work or a lack of indication as to how cumulative delays are properly addressed. (315) For example, a lack of appropriate extension of time mechanisms where the fault might be that of the employer can undermine a liquidated damages provision. (316)

From a procedural perspective, penalty provisions and limitation of liability clauses may prove problematic for arbitrators where there is no choice of law by the parties, the matter is left to the arbitrators' discretion and there are tenable arguments for at least two legal systems, only one of which supports such provisions. Similar problems arise where one system is more liberal than the other. In making the choice as to applicable law, the arbitrator will be aware that he or she is making a choice as to the validity, vulnerability or ambit of the clause P 1165 itself. There may also be a conflict between trade usage and the applicable law if trade usage is more readily accepting of incentive and disincentive provisions that are not tied to actual damages. For example, we readily accept agency and distribution agreements that may give variable benefits depending on turnover. On one view, there is no reason to see construction contracts as a priori problematic simply because they also provide incentives and disincentives for early or late completion. Informed people will build all of this into price and their risk assessment. The argument proceeds that if limitation of liability clauses are enforced under the applicable law, the converse situation which crystallises liability may not need paternalistic interference by adjudicators.

14.19 Exclusionary Clauses

As with other issues, it will be a question for the applicable law as to the validity and treatment of exclusionary clauses. Provisions which limit remedies will typically raise important evidentiary issues such as evaluation of pre-conditional scenarios such as where parties limit damages to fraud, deliberate acts or gross recklessness. Where there is a limitation on consequential loss, this may require interpretation as to the meaning of the term. (317) There may be general interpretation questions such as the application of *contra proferentem*.

14.20 Punitive Damages and Statutory Formulae

The notion of punitive damages involves an award of more than a compensatory amount to respond to inappropriate behaviour by the losing party. Where such damages are sought in arbitration, there will always be a need to consider express statutes and rules and any

agreement of the parties. Historically, punitive damages have been treated differently in different legal families. They have been accepted at times in common law jurisdictions and are often used for public policy reasons such as in the common law of tort and in statutory antitrust regimes. In each case this is with a view to deterring inappropriate behaviour and in the latter case, also providing incentives for weaker commercial parties to take action against major entities. (318) Conversely, civilian legal families tended to consider such damages to be improper, although there have been recent moves to at least consider such developments in certain circumstances.

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Where there is no express guidance, some writers (319) have argued against such powers for arbitrators on the basis that punitive damages were only for judges so authorised by the State, that arbitral consent does not go to punishment, that the absence of an appeal mechanism makes punitive damages inappropriate, and finally, that the confidential nature of arbitration means that the broader educative value will not be felt. Those who argue against punitive damages often rely on the explicit refusal of certain tribunals to award punitive damages. Gray notes that the most famous of these is perhaps Umpire Parker's discussion of the problem in the 1923 US-Germany Commission. (320) A converse view is that if a particular issue is arbitrable and it naturally has punitive damages in a business setting, to deny an arbitrator that power would mean that the expected commercial outcome cannot be achieved through the arbitral process.

At times, rules of *lex arbitri* will be determinative. For example, Article 28.5 of the AAA International Arbitration Rules prohibits the tribunal from awarding 'punitive, exemplary or similar damages...' unless agreed to by the parties or unless such relief is required by an applicable statute. Care should be taken with some civil law jurisdictions which view punitive damages as contrary to public policy. Some *lex arbitri* will prohibit the awarding of punitive damages even if the applicable law provides for this. Some take the view that in appropriate circumstances, a tribunal's broad powers do extend to the granting of punitive damages. In *Sedco Inc v. NIOC*, Judge Brower in a separate opinion, considered that punitive damages may be acceptable where there is an unlawful taking. (321) The view was rejected subsequently in *Amoco Int'l Fin Corp v. Iran*. (322)

The suggested approach by Redfern and Hunter is for the arbitral tribunal to examine whether punitive damages may be awarded under the law applicable to the substance of the dispute, and to also consider 'the threshold question' of whether they have the power to award punitive damages by examining the *lex arbitri*, the law of the place of arbitration, and the terms of the
P 1167
arbitration agreement. (323) Regarding enforceability concerns, Redfern and Hunter argue that such concerns 'should be left for the courts at the place of enforcement' but suggest tribunals 'treat any award in respect of punitive damages or any other penalties as an entirely separate claim, in order to ensure that the punitive portion of the award is severable in the event of a successful challenge in the courts at the place of enforcement'. (324)

Because of the problems of classification, selection of an applicable law does not necessarily resolve all issues. For example, if the parties select a law that does not allow for punitive damages, a tribunal may still conclude that this only deals with the criteria for determining when punitive damages may be awarded and not whether the arbitrator has a power in the first place. (325) The contrary view is that arbitrators should not ignore an express choice of law by the parties. Parties cannot be presumed to agree to one without the other. The situation may be different with statutory damages where the relevant statute is considered arbitrable. The best example is US antitrust law, where relevant statutory provisions allow a claimant to seek treble damages. The US Supreme Court upheld an arbitrator's ability to determine punitive statutory damages in a domestic arbitration in *Mastrobuono v. Shearson Lehman Hutton Inc*. (326) There may also be questions whether certain jurisdictions will enforce awards of punitive damages under public policy norms. An award for punitive damages has been refused enforcement in Japan as being contrary to public policy. (327) It has also been suggested that in Germany and Switzerland, punitive damages awards may be considered incompatible with domestic public policy and may be set aside for that reason. (328) Thus, party agreement may not necessarily empower the award of punitive damages where that
P 1168
would be against public policy. (329) In a controversial decision, a Swiss tribunal applying New York law considered that punitive or exemplary damages were contrary to Swiss public policy and should not be applied by a tribunal sitting in Switzerland. (330) The decision is rightly criticised by Born who points out that setting aside is only possible under transnational public policy and further that if the parties have selected a law allowing for punitive damages, this should be respected. (331)

A number of situations may vary depending on whether the parties have expressly allowed for punitive damages or conversely, where one of the parties makes a controversial claim in law giving rise to similar effect. For example, if the parties expressly agree to arbitrate a US antitrust dispute they are agreeing to all of the remedies including triple damages. A converse situation is a contract with an express choice of law of one of the parties, where the other argues that its own antitrust law applies extraterritorially notwithstanding the choice of law of the contract itself. The latter scenario raises issues of mandatory law. If the antitrust law is in fact mandatory and comes with those remedies, then an arbitrator may feel bound to apply it, although the ambit of mandatory laws is also controversial. (332) A consideration of mandatory laws even adds further complexity, given that it may at times be argued that a mandatory law of the forum is against the application of punitive damages under consensual arbitration.

It is important to understand that a tribunal can be challenged either way. For example, an arbitrator sitting in the US where antitrust or RICO laws apply may be forced to consider awarding punitive damages or could otherwise be alleged to have failed to complete the mandate or otherwise be challenged on the grounds of public policy. (333) Conversely, if the Seat of arbitration is in a place that does not support punitive damages, the tribunal may find it difficult in deciding how to proceed, particularly when the parties have not selected the law imposing punitive damages but where the argument is that it is a mandatory substantive law in any event. The Chartered Institute's Guidelines suggest that where a tribunal is in doubt it might 'make the award according to the applicable law chosen by the parties, make it clear which parts of the award relate to any punitive damages element and risk partial annulment or limited enforcement of the award'. (334)

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14.21 Judicial Penalties

It is not clear whether arbitrators are entitled to impose judicial penalties otherwise known as *astreintes*. (335) This involves an adjudicator ordering a payment of a specified sum of money in the event of a failure to meet another adjudicatory direction. The aim is to induce compliance with the latter. Judicial penalties are different to liquidated damages or penalty provisions in contracts, although the latter can also aim to provide incentives for timely compliance. A judicial penalty will typically be a stipulated amount for each day, week or month that the obligation remains unmet. Penalties may relate to substantive issues such as specific performance of contractual obligations, or bringing to an end actions in contravention of contractual obligations. In these circumstances, there is compensatory logic. A penalty to induce performance could in part compensate for damages for delay. A penalty seeking to prevent continued breach could cover the lost profit or unjust enrichment from the breach. Nevertheless, the essential nature of the judicial penalty is an amount set more as an incentive or disincentive as the case may be. A judicial penalty could also relate to procedural matters, such as responding to document production orders.

Whether arbitrators can or should award punitive damages was considered in various US cases including *Mitsubishi Motors Corp v. Soler Chrysler Plymouth Inc* (336) and *Mastrobuono v. Shearson Lehman Hutton Inc*. (337) On the one hand, it might be argued that only judicial officers ought to have the power to punish through damages awards for wider societal benefits. A converse view is that if a particular issue is arbitrable and it naturally has punitive damages in a business setting, to deny an arbitrator that power would mean that the expected commercial outcome cannot be achieved through the arbitral process. Judicial penalties are more likely to arise in conjunction with injunctive relief. Thus, in ICC Case No. 7895 a tribunal granted an injunction against sales of goods subject to an exclusive distribution agreement coupled with a fine for each product sold in violation of the injunction. (338) Intellectual property, distribution and licensing arrangements would be examples where this should at least be considered. Mourre refers to a number of unpublished awards that ordered penalties in support of orders or injunctions, (339) although he concluded that these were insufficient to show a common arbitral practice.

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Where substantive penalties are concerned, there may be more of a question of applicability where the primary obligation is as to monetary payments, as these can be enforced by other means and late payment can be subject to an interest direction. (340) The application would be less contentious if the monetary obligation was to pay an amount to a third party or open an escrow account as per direction, (341) although the latter could be part of a procedural order in any event. The penalty set could be provisional or final.

The entitlement to apply a procedural penalty would naturally flow from procedural powers applicable to the arbitration. Where substantive penalties are concerned, they would naturally seem to relate to the power to do so under the applicable substantive law, although in some cases this could still be seen as a procedural issue, relating as it does to the primary order on a substantive matter. Poudret and Besson acknowledge the distinction by suggesting that astreintes are permissible to reinforce merits determinations where allowed by the *lex causae*, but this should not apply to procedural orders. (342) In some cases, therefore, a judicial penalty will be akin to a provisional measure. If that is so, there is a need to ensure that any action taken is consistent with express provisional measure rules. If the entitlement to judicial penalties depends on the *lex causae*, any limits on the tribunal's powers to award specific performance would naturally undermine the penalty entitlement, as the latter strongly relates to this primary remedy.

Such powers are allowed for under the UNIDROIT Principles Article 7.2.4 which refers to court orders. (343)

(1) Where the court orders a party to perform, it may also direct that this party pay a penalty if it does not comply with the order.

(2) The penalty shall be paid to the aggrieved party unless mandatory provisions of the law of the forum provide otherwise. Payment of the penalty to the aggrieved party does not exclude any claim for damages.

Article 1.11 of the UNIDROIT Principles defines 'court' to include an arbitral tribunal. The Commentary to the UNIDROIT Principles makes the following observation:

While a majority of legal systems seem to deny such a power to arbitrators, some modern

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legislation and recent court practice have recognised it. This solution, which is in keeping with the increasingly important role of arbitration as an alternative means of dispute resolution, especially in international commerce, is endorsed by the Principles. Since the execution of a penalty imposed by arbitrators can only be effected by, or with the assistance of, a court, appropriate supervision is available to prevent any possible abuse of arbitrators' power. (344)

Most arbitration statutes are silent on this although the entitlement is proscribed under the Swedish Arbitration Act, (345) and probably Italian law as well. Statutory provisions or case law seem to support the power in Belgium, France, The Netherlands and Switzerland. (346) There are differences in view whether the power to impose penalties is inherent, absent agreement to the contrary by the parties, (347) or absent a contrary direction in the *lex arbitri*. The inherent power argument appears somewhat strained given the lack of worldwide consensus on this issue. Even more strained is an implied consent argument. (348) This may depend on whether the matter is seen as a procedural or substantive penalty. Laurent Lévy (349) and Alexis Mourre (350) both support the view that judicial penalties should apply in international arbitration to assist the efficacy of arbitral determinations. There may also be problems in seeking to rely on courts to impose such penalties as part of post-award relief, (351) although in many cases that may be different to the kind of conduct during the arbitral proceedings themselves.

An important question where any procedural issue is concerned is whether an enforcement or annulment court would take issue with what it felt was an erroneous utilisation of a judicial
P 117 penalty. Some enforcement courts might also see a judicial penalty as a determination contrary to public policy. The Court of Appeals of Paris chose not to overturn an award even where the tribunal imposed a penalty without being requested to do so by claimant. (352) This also raises the question as to whether there will be a difference between requests made by a party and ex officio determinations by a tribunal. An application ex officio may be more problematic in jurisdictions that otherwise allow for the power. (353) Because of the uncertainties around the entitlement, parties negotiating contracts where directions, declarations or injunctions may be central to an efficient outcome, may well wish to expressly grant the tribunal such powers.

Because such penalties are independent of damages assessments, and are paid to the aggrieved party, they may lead to the latter being more than fully compensated, (354) although this may depend on the applicable law as to the penalty and whether an adjudicator would wish to take this into account in the assessment of restitutionary damages. Where that is concerned, Mourre makes the important observation that these might lose their deterrent effect if the party in breach knew they were merely an advance on damages. (355) In one sense, they can never be purely seen as an advance, as if the aggrieved party loses the case, the party subject to the judicial penalty does not get compensation for the penalty paid. If the aggrieved party wins and the judicial penalty is higher than the amount of damages that would otherwise have been assessed, the difference is not refunded either. While the amount of the penalty assessed may to some extent be arbitrary, most would assess it at a level sufficiently high to clearly outweigh any commercial benefits for the defaulting party if it fails to comply with the primary obligation. In setting the level in this manner, attention is naturally given to either the ongoing loss suffered by the aggrieved party from non-compliance, or the unjust enrichment for such noncompliance by the defaulting party.

If a judicial penalty is a final determination, it should be rendered as an award so it may be enforced. (356) Where evidentiary questions arise as to the amount of the penalty, there is a question as to whether the tribunal can resolve disputes as to the amount. A Paris Court of Appeals considered that this was an enforcement issue outside of the tribunal's jurisdiction, (357) but this confuses finalisation of the exact amount as awarded by the tribunal and the enforcement of its payments. (358) If a judicial penalty is imposed, there may be an
P 118 evidentiary question as to when a primary obligation has been completed so that the penalty no longer applies. Where there is any dispute, it may be that the defaulting party would need to prove that performance had been completed. (359)

14.22 Application of Equity and The Assessment of Damages

Damages calculations should not vary when a tribunal is empowered to determine the outcome *et aqueo et bono*, although there might be grounds to discount or pro rata a calculation made. (360) This is discussed further in section 13.14

14.23 Security, Timing of Effect and Ongoing Supervision by the Tribunal

A tribunal might wish to order a security arrangement prior to the date for honouring the final award. Generally speaking, such a determination should be upheld. One issue discussed above is where a tribunal wishes to have some form of ongoing scrutiny of the suitability of the relief granted. For example, a tribunal might award a certain form of relief on the understanding that concurrent declaratory orders will be obeyed. To the extent that they are not, this may adversely affect the suitability of the damages amount. The fact that a tribunal seeks to maintain a supervisory function should not of itself be a ground for challenge, although the tribunal may well be. *functus officio*, hence rendering the supervisory power inoperative. Some national courts have considered that retaining jurisdiction does not contravene the *functus officio* principle. (361) It was suggested that in some circumstances, the parties might be able

to commence a new arbitration on the basis that the failure to honour the declaration was a breach of the arbitration agreement, hence giving a newly constituted tribunal an opportunity to effectively alter the net damages within the award.

P 1174 Where there is a long-term remedy proposed, the tribunal should certainly consider how to frame this to maximise enforceability by an appropriate court if the identity of that court can be anticipated. That should certainly be known in some circumstances, such as an obligation to transfer a licence or patent to a specified party after a defined time period.

14.22 Interest

There are a number of challenging issues in determining the entitlement and amount of interest as a remedy. Key questions include whether interest is an entitlement; if so, whether it is an element of damages or an addition to damages entitlement; is it a procedural or substantive issue; what rate of interest is to apply; what are the commencement and completion dates for the obligation; should different rates apply to pre and post award interest; and, will interest be calculated on a simple or compound basis?

Arbitral case law does not display any uniform solutions or unifying principles. (362) Writing in 1996, Gotanda asserted that the various methods used by tribunals in awarding interest have led to inconsistent and arbitrary awards. (363) One of the many problems preventing a harmonised solution is that there have been significant differences between investment and commercial arbitration, in part because of different sources of law and the differences in the inherent nature of the disputes. (364) In addition, various national systems and courts have historically had mixed views about the awarding of interest. This is understandable given religious opprobrium to money lending. Nevertheless, over time virtually all systems have come to understand the importance of borrowing for trade and investment purposes and in turn, the need to count the value of time lost in truly awarding damages to a successful arbitral party. A failure to provide for interest in times of high inflation may also be an incentive towards breach. (365) An award of interest can also prevent unjust enrichment by the party in P 1175 breach. (366) An entitlement to interest also promotes prompt settlement. (367) From a practical point of view, the longer it takes to complete an arbitration, the more significant that claims of interest will become. Similarly, the longer any applicable limitation of action statute and the longer the delay in commencing arbitration within that time frame, the more significant pre-award interest could prove to be.

It is important to distinguish between cases where an entitlement to interest arises from express contract provisions and separately where it arises as part of some general applicable remedy. For example, interest may be a contractual entitlement where there is late certification or non-certification in building contracts. Here it flows from party autonomy and not a mandatory discretionary remedy. Party agreement may still be overridden where it offends against fundamental public policy, is against the parties' true intentions or involves extreme prejudice or injustice to one party. (368) There may also be equitable or good faith considerations that may militate against an award of interest such as fraud, duress or bad faith. (369)

Because there are significant differences between legal families as to the entitlement itself and the means of calculation, little clear guidance is contained in many statutes and rules. Statutory provisions and rules will typically leave the awarding of interest to the discretion of the tribunal. The UNCITRAL Model Law does not contain a provision concerning interest, although some countries which have adopted it have added a provision to that effect. (370) The NAFTA Agreement also allows for 'any applicable interest'. (371) Many national legal systems allow for interest to be awarded in addition to damages to account for the delay in receipt of appropriate compensation for default. Article 49 of the Arbitration Act 1996 (UK) provides a broad discretion as to interest. There are no express provisions in Swiss PILA and French NCCP. Many institutional rules are also silent as to the question of interest. (372) Article 60 of the WIPO Rules empowers the tribunal to award simple or compound interest. The tribunal is given a broad discretion as to the rate and period. The AAA Arbitration Rules provide a more P 1176 constrained discretion in Article 28.4 referring as it does to an award of interest 'as it considers appropriate, taking into consideration the contract and applicable law'. (373)

The question is not necessarily resolved by an examination of the *lex arbitri* and rules. It has been suggested that the right to interest 'is an accepted international legal principle', (374) is part of the inherent authority of tribunals, (375) and the entitlement may have become part of *lex mercatoria*. (376) The Iran-US Claims Tribunal considered that it was customary to award interest even where not expressly referred to in the *compromise*. (377) Nevertheless, the Claims Tribunal did not manage to develop a consistent jurisprudence with regard to interest. (378) It has been suggested that the express direction in various laws to consider custom and trade usage may also be broad enough to encompass the awarding of interest. (379) That may be dependent on what trade usage is relevant to, as there is a major difference between considering usage to evaluate a remedy within power and instead considering usage as the basis for the remedy itself. That will be dependent on the wording of the mandate in the relevant law. If permitted there will also be a factual question as to the norms of the particular industry.

While some see the authority to determine interest as a procedural matter governed by the *lex arbitri* and any arbitral rules, some cases have taken differing approaches, looking to the applicable substantive law. The majority of national systems would see interest as a

P 117 substantive matter, being part of damages. (380) English law distinguished between the entitlement to interest which it saw as a matter of substantive law and the rate, being seen as a procedural matter. (381) Red-fern and Hunter assert that the right to interest flows generally from the parties' contract or the applicable law. (382) They note that in some regions, the power of tribunals to award interest is governed by the law of the place of arbitration (383) but in others the law of the contract governs this power, such as under German conflict of laws rules. (384) At times the substantive law itself will directly deal with this. An example is Article 78 of the Vienna Convention on the International Sale of Goods. (385) A pure conflicts approach may have to consider the applicable conflicts rule as a first step. Gotanda points to particular choice of law difficulties where differing legal families treat the payment of interest as either substantive or procedural or treat different aspects of the entitlement in differing ways. (386) Those applying a substantive law conflicts approach have looked at the applicable law as chosen by the parties; (387) or to the State with the closest connection. (388) In some cases a tribunal might not consider such a choice to be effective, if it believes that the relevant domestic law is not intended to apply to arbitrations. (389) A conflicts approach would depend on whether the *lex arbitri* or applicable rules invited an indirect choice of law via a conflicts methodology or a direct choice such as per the ICC Rules. In either event, tribunals are likely to apply the same law on the basis that an essential contract term is as to interest, although the possibility of depecage remains.

P 117 If a tribunal is exercising a discretion to determine the applicable law, one issue will be its impact on choice if one of the possibilities otherwise meritorious, leads to an entitlement to interest that could infringe on international public policy in the country where execution is likely to take place. (390) Born suggests that arbitrators in practice have generally looked to the substantive law to determine the amount of interest. (391) This may also mean that a tribunal might refuse to award interest if the applicable law is Islamic and forbids such a remedy. (392) Some Islamic legal systems might proscribe the entitlement to interest as Shari'a expressly prohibits the taking of interest or (riba). (393) In Islamic countries it is generally the case that for interest to be permitted, there needs to be some positive rule to that effect either directly or indirectly via drawing express distinctions between commercial and non-commercial matters. Some Islamic systems allow for interest in transactions with foreigners whose laws permit such payments. (394) More often, Islamic systems allow exceptions in favour of interest or allow for similar service or administrative fees. (395) It is suggested that where the law of the arbitration agreement or of the contract under which a dispute arises prohibits an award of interest, a tribunal will have to follow that law. (396) Born questions the consistency of such provisions with the New York Convention provisions in Article III and V(1)(d). (397)

To the extent that the issues are substantive, there should again be less scope for annulment or challenges to enforcement, although the fact that some proscriptions are argued to be mandatory or matters of public policy leaves open the potential for challenges. Consideration would also need to be given as to whether an offending part of the award is severable or whether the entire award could be tainted under a challenge to an order of interest. In regards

P 117 to the law of the place of enforcement as a possible barrier to the entitlement to interest, Redfern and Hunter argue it would too onerous to expect an arbitral tribunal to take into account 'the likely consequences of [an award of interest] in a potential place of enforcement'; they suggest a tribunal should only consider the issue if it is brought to its attention. (398) Even where a tribunal is applying the substantive law of the contract, if the law of the place of arbitration prohibits an award of interest, and especially if such provisions are mandatory, Redfern and Hunter suggest the tribunal separate any award of interest from the rest of the award, in case their award is attacked under the law of the place where it was made. (399) Lew, Mistelis and Kröll make the same suggestion for any award expected to be enforced in an Islamic country. (400) A party can affect this issue with its claims, simply by seeking the time value of money as part of its damages claim. If it seeks interest as well as such damages in the alternative, it will still be for a tribunal to determine which approach is the most appropriate in the circumstances. An important difference is when interest is claimed as such, proof of loss is not required. If claimed as damage, it must be subject to normal standards of proof and assessment. Claim by way of damages may still be preferable where the innocent party has had to borrow in mitigation at higher than standard interest rates owing to their own liquidity problems, although the applicable law may not necessarily allow this.

Finally, while the following sections deal separately with questions of what interest may be applied to, the applicable rate, questions of timing and whether compound or simple interest should apply, the answers to these questions can depend heavily on the view a tribunal takes as to the aim of the entitlement. A full reparation approach to interest led the tribunal in *Siemens* to identify the starting date, the rate and to award compound interest. (401)

14.24.1 What Is Interest Applied To?

Interest naturally applies to the damages awarded or an unpaid contractual sum. Where pre-award damages are concerned, tribunals might be reluctant to accept arguments that there should be interest on costs awarded as from the time the costs were incurred. The situation might be different if the costs were entitled to be claimed as damages. Interest may not necessarily flow on non-pecuniary elements of damages as the tribunal might instead have identified an amount that seems reasonable at the time of the award in the light of the likely payment date.

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14.24.2 The Appropriate Rate

There are difficulties in selecting the appropriate rate. Rates vary between countries and within countries over time. Rates also vary depending on the financial circumstances of borrowers and lenders. Differences will also arise depending on whether one looks at depositor rates or borrower rates. Borrowing rates may be more applicable for many businesses that have lost liquidity through breach, but in some cases may be unfair if the relevant claimant has sufficient capital. (402) Borrowing rates also depend on the credit rating of the relevant party, which would be difficult to assess by a tribunal unless there were comparable borrowings. In a modern world, people may borrow in a range of jurisdictions, a range of currencies and can choose to hedge against currency or interest fluctuations. A tribunal would not wish to make an interest award that leads to windfall gains or undeserved losses but the disparity in rates creates inevitable problems.

While the difficulty remains, some broad principles should apply. If the parties agree on the rate of interest in their contract or during the arbitration, this would be accepted by most tribunals, unless the rate was seen as an excessive charge or inappropriate penalty by the relevant legal system. Excessive interest rates as agreed between the parties may also be against public policy. In some cases the parties have not agreed on a rate of interest for awards but instead for payments contemplated under the contract. In some cases a tribunal will utilise this for award amounts as well. (403) There may be exceptions and conflicting instruments may need to be reconciled. For example, in the *CMI* case, a tribunal considered that the express broad discretion in the Iran-US Claims Settlement Declaration allowed the tribunal to depart from the express choice of the parties. (404) In some cases a rate agreed to by the parties may be higher than that stipulated in the applicable law. Where a government ordains a ceiling, that is an aspect of domestic public policy which could have some impact in annulment or enforcement actions. In ICC Case No. 8874, a tribunal acting as amiable compositeur considered that principles of equity meant that a contractually agreed monthly interest rate of 1.4% was too high. (405) It is questionable on what basis a tribunal should ignore such an agreement of the parties. (406) Where discretion applies, uniformity does not necessarily need to apply to the exact rate, but ideally, to the method of calculating it. A uniform rate applied to people in different countries with different credit ratings may not in fact be truly equal or consistent as a matter of policy. If the aim is to compensate the relevant party for the loss of the use of the money, there may even be a difference in
P 1181
choice of type of rate depending on whether the party would have invested the money in a financial instrument, used it as capital in its business or used it to obviate the need for borrowings otherwise made.

Some *lex arbitri* specifically direct the determination of a reasonable rate. (407) If a rate is not directed, there is a conflicts issue as to whether the rate of interest is determined by the rate applicable in the forum, the rate under the applicable contractual law, the rate at the place of payment or such other reasonable rate as determined by the tribunal. (408) There have been cases that have applied the statutory interest rate in the country whose currency is the currency of payment. (409) Another case looked to the interest rate customarily awarded by courts in the place where the award was likely to be enforced. (410) Another approach is the habitual rate in the currency of the debt. An alternative is the currency of the award. Another possibility is to look at interest rates in the domicile of the aggrieved party as this is where that party could most easily invest the money. There are cases covering each approach. (411) This may be impacted upon by whether the tribunal sees it as a question of procedure or substance. One of the problems with a conflicts approach is that given the disparity of interest rates around the world, in part because of floating currencies, no single national system will necessarily meet the reasonable expectations of the parties at the time of their initial contract.

Lew, Mistelis and Kröll suggest that parties should provide for the rate of interest on monies due in their agreement, but assert that if no such agreement exists, tribunals should look to the law governing the arbitration or the arbitration rules. (412) Redfern and Hunter assert that most applicable laws leave questions such as the rate, start date and currency of interest to be awarded to the discretion of the tribunal. (413) Ordinarily, tribunals will invite parties to make
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submissions and present evidence on these questions. Gotanda advocated a two-step approach for resolving interest claims with a view to promoting consistency, while still allowing for appropriate flexibility. The first step would involve a determination of whether the parties expressly included a provision as to payment of interest or specified the law applicable to the merits. In either case, the tribunal should resolve interest issues in accordance with that specification. Where the contract is silent or sufficiently ambiguous, then the second step would involve resolution on the basis of certain presumptions namely '(1) the debtor is liable for the payment of interest; (2) interest runs from the date of default; and (3) interest accrues at a rate corresponding to that of a commonly used savings vehicle in the country of the currency in which payment is to be made and it is compounded quarterly'. (414)

Some tribunals look to general principles of law in awarding interest, (415) although those relying on general principles of international law would find it difficult to identify an exact rate of interest and any timing rule that has become accepted in that way. The same would be true in regard to arguments based on entitlement under *lex mercatoria*. Some tribunals simply look at what is considered to be fair and reasonable in the circumstances. (416) In ICC Case No. 8521,

the tribunal considered that the trend in practice and scholarly analysis is to see an arbitrator having broad freedom in fixing rates and that the tribunal is, therefore, not bound by conflicts of laws rules or by a need to select a particular national system. (417) In *McCollough & Co*, the Iran-US Claims Tribunal applied a reasonableness standard in the light of all surrounding circumstances including:

(i) any pertinent contractual stipulations (which, when they exist, are usually followed for the determination of the rates);

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(ii) the rules and principles of the law applicable to the contract;

(iii) the nature of the facts generating the damage;

(iv) the nature or level of the compensation awarded, particularly if it extends to the lost profit or includes a profit in the costs to be reimbursed;

(v) the knowledge that the defaulting party could have had of the financial consequences of its default for the other party;

(vi) the rates in effect on the markets concerned; and

(vii) the rates of inflation. (418)

A restitutionary approach would look at the rate the successful party might have earned on the funds if paid in time. (419) However, a modern globalised world where funds can be invested anywhere, chasing best interest rates and at times speculating on currency movements, makes this less of a logical corollary of a restitutionary model. In *Sylvania*, the tribunal considered that interest should be 'based approximately on the amount that the successful claimant would have been in a position to have earned if it had been paid in time and had the funds available to invest in a form of commercial investment in common use in its own country'. (420)

Secomb suggests a three-step approach to promote certainty and consistency, namely:

(1) Apply the parties' agreement, if it deals with interest;

(2) If not, the parties should be able to prove their actual borrowing costs; and

(3) If they cannot or do not, a commonly used commercial rate for the relevant currency should be applied. (421)

The corollary of the third principle is that arbitrators should not simply apply statutory rates from a national law and should not simply take it upon themselves to determine a reasonable rate from a range of sources.

The UNIDROIT Principles 2004 Article 7.4.9 suggest that the rate should be 'the average bank short-term lending rate to prime borrowers prevailing for the currency of payment at the place for payment, or where no such rate exists at that place, then the same rate in the State of the currency of payment'. Article 7.4.10 indicates that 'unless otherwise agreed, interest on damages for non-performance of non-monetary obligations accrues as from the time of non-performance'. (422) The Principles of European Contract Law 1998 Article 9:508 adopts a similar

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approach to the UNIDROIT Principles. An EC Directive (423) seeks to set interests rates at a level significant enough to discourage delay in payment under commercial transactions. This may impact upon otherwise applicable law in the European context. (424) This goes beyond restutitionary notions.

14.24.2.1 Simple or Compound Interest

If the most widely accepted rationale for the awarding of interest is to put the successful party in the position it would have been in if the contract had been validly performed, then there is an argument in favour of the award of compound interest as a matter of course. Compound interest can be justified from a restitutionary perspective on the basis that it equates to opportunity costs. (425) Compound interest would also be a natural element of damage if the funds underlying the damages award had been earned or saved under the contract if it had been performed. (426) Compound interest is not intended to be punitive but instead, to provide commercially realistic restitution as if payments had all been made promptly, enabling further investment or other productive use as and when received.

Gotanda notes the potential problem of proof for a claimant to show how it normally deals with cash surpluses and at what rates and the proper way to deal with differing situations where excess cash is reinvested, paid out as dividends or otherwise returned to shareholders. (427) Fénéchal argues that under a commercially realist compensation principle, the opportunity cost exercise should aim at making the injured party whole, should adjust for the passage of time, should reflect market reality and go beyond pure inflation based approaches to identify a fair market rate taking into account risk. He suggests that cost of capital could be a proxy, noting that this could be a problem for non-listed companies and for some regions. Compound interest is recommended, using an annual basis as a conservative estimate. (428) This would apply both to substantive damages and also any award as to costs.

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Nevertheless, many tribunals would restrict themselves to the award of simple interest. In part this is because there was previously the view that compound interest was not acceptable under customary international law, a principle if correct, that would be most influential in

investment arbitration. (429) In addition, the ability to accurately compound interest to equate to what would really have applied if the contract was not breached is only possible after tax liabilities have been met. Hence, a basic compounding formula will typically be unrealistic or difficult to determine. The entitlement to compound interest on top of damages may also be affected by whether the aggrieved party is itself suffering damage by way of compound interest. (430) However, compound interest has also become more acceptable over time as it more readily replicates the real commercial environment and hence meets the reasonable expectations of commercial parties. Redfern and Hunter explain this growing acceptance of the appropriateness of awarding compound interest by suggesting that international tribunals are increasingly realising that simple interest may not fully compensate a party for the loss suffered by them. (431) Redfern and Hunter contend, 'sources of international law are no clearer'. (432) Nevertheless, the authors claim that the award of compound interest is becoming 'more common' and 'is no longer an exception to the rule'. (433) They cite the cases of *Santa Elena* (434) and *Wena Hotels*. (435) In *Santa Elena* the tribunal found 'no uniform law has emerged from the practice in international arbitration as regards the determination of whether compound or simple interest is appropriate in any given case'.

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Wena Hotels found compound interest to be generally appropriate in modern arbitration. These cases have since been followed by many tribunals. (436) Brower and Sharpe do not necessarily criticise the policy outcome, but provide a forceful critique as to the way these more expansive principles have been developed by investment arbitration tribunals through questionable use of comments in earlier cases. (437) Most problematic is reliance on the *Aminoil* Awards where a tribunal awarded USD 83,000,000 in net damages plus USD 96,000,000 by way of 7.5% interest and 10% as per level of inflation, each compounded annually. Brower and Sharpe argue that it is sui generis, using compounded levels of inflation and compound interest to effectively compensate Aminoil for an unlawful expropriation while purporting to hold that the expropriation was lawful. (438)

Recent arbitration legislation in some common law countries expressly provides for an award of compound interest. (439) However, there remain common law countries in which the power to award compound interest is limited (440) or varies within the country from one State or region to the next. (441) A number of arbitral rules expressly allow for compound interest. (442) In civil law jurisdictions, arbitral tribunals often have the power to award a 'statutory' interest rate, which is simple interest at a rate statutorily defined, (443) however not all civil law jurisdictions allow for this to occur. (444)

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If compounding is to occur, there is also a need to consider the relevant time period on which to compound. There is no inherently correct time. Annual compounding would be typical and is a conservative approach. (445)

14.24.2.2 Timing of Interest

Most legal systems would allow interest to accrue from the date of breach or from when a debt becomes payable. ICC Case No. 6281 calculated interest from the date of the breach. (446) Some relevant statutory periods provide an express starting point. (447) Some only allow interest to accrue from the date of a claim. (448) Some only allow for interest from the date of the award. (449) Where the relevant time period is from that of the breach or default, there may be evidentiary questions as to when that has arisen. Timing may also be affected by issues of waiver and acquiescence or agreed extensions as to the time of performance. Another approach is to look at the date proceedings commenced. While loss of funds occurred beforehand, in some cases a tribunal might feel that the claimant has taken too long to make a claim and is hence partially responsible for loss of the use of its money. (450)

Timing can also be dependent on other contractual provisions. For example, in a construction dispute, if an engineer fails to adequately certify entitlements which are then confirmed by an arbitral tribunal, the engineer's decision is not necessarily one of fault, but is simply part of an escalating adjudicatory process. (451) In some cases there may be a need to make a specific demand to commence entitlement to interest. This may flow from the substantive law or from general principles of reasonable entitlement. (452) This can be because the applicable law might find no entitlement to any relief until certain notice of non-performance has been provided. Where the EU Directive of 2000 is concerned, this seeks to specify the relevant dates and does not require notice. There is also a need to consider the end date. (453)

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Domestic litigation systems also commonly differentiate between prejudgment and post-judgment interest. This is because pre-judgment interest involves an analysis by the adjudicator of a fair and reasonable rate in all the circumstances. Pre-award interest should be further divided into true arbitral interest and post-request and pre-award interest. Post-judgment interest is not scrutinised by the judicial adjudicator and is typically at a statutory rate set by government that may for policy reasons be set at a high level to encourage prompt payment. An arbitral tribunal will often simply concern itself with finding the appropriate rate for both pre and post-award interest. However, Redfern and Hunter contend that it is open to arbitrators to set a post-award interest rate they deem appropriate, which is 'often the rate that would apply to a judgment in the country where the award is made'. (454) At the stage of enforcement, when the award is enforced in a court judgment, a post-award interest rate may be replaced by the rate applicable to such judgments. (455) If a tribunal denies entitlement to pre-award interest then interest will flow from the date of the award. This is more likely to

arise where the claimant has itself acted in a way which might undermine its entitlement to earlier interest. (456)

It is not appropriate to consider that a tribunal is *functus officio* and hence unable to grant post-award interest. (457) Any ongoing remedy, including declaratory and injunction relief can postdate the tribunal's termination of office as can be the case with payment of damages themselves.

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References

1) Julian D.M. Lew, Loukas A. Mistelis & Stefan M. Kröll, *Comparative International Commercial Arbitration* (The Hague: Kluwer Law International, 2003), 649. See also Lawrence Collins (ed.), *Dicey, Morris & Collins on The Conflict of Laws*, 14th edn (London: Sweet & Maxwell, 2006), 177–206.
2) Lawrence Collins (ed.), *Dicey, Morris & Collins on The Conflict of Laws*, 14th edn (London: Sweet & Maxwell, 2006), 192.
3) *Ibid.*, 180.
4) See, e.g., Felix Praendl, 'Measure of Damages in International Commercial Arbitration', *Stanford Journal of International law* 23, no. 1 (1987): 263; Andreas Reiner, 'Burden and General Standards of Proof, in Alan Redfern et al., 'The Standards and Burden of Proof in International Arbitration', *Arbitration International* 10, no. 3 (1994): 317, 328.
5) Where non-pecuniary remedies are concerned, some have already have been considered in the context of provisional measures discussed in section 8.2 above. This chapter only deals with final remedies of that nature.
6) Daniel Friedmann, 'Economic Aspects of Damages and Specific Performance Compared', in *Contract Damages: Domestic and International Perspectives*, ed. Djakhongir Saidov & Ralph Cunnington (Oxford: Hart Publishing, 2008), 65.
7) L. Fuller & W. Perdue, 'The Reliance Interest in Contract Damages', *Yale Law Journal* 46, no. 1 (1936): 52.
8) These issues were discussed in sections 13.6 and 13.7.
9) In some cases there may be issues about uncertainty in drafting and whether certain heads of damage have been successfully excluded.
10) Paul-A Gelinas, 'General Characteristics of Recoverable Damages in International Arbitration', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 17. See also ICC Case No. 9950, Final Award 2001, the UNIDROIT Principles: New Developments and Applications, 2005 Special Supplement – ICC Int'l Ct of Arb Bull 77–9.
11) Felix Praendl, 'Measure of Damages in International Commercial Arbitration', *Stanford Journal of International Law* 23, no. 1 (1987): 296. For a case where the parties unsuccessfully sought to bar set-off rights see *USSR Project Arbitration (France v. Yugoslavia)* ICC Case No. 3540, Award of 3 October 1980, *Journal de Droit International* 4 (1981): 914, excerpted in Pieter Sanders (ed.), *Yearbook Commercial Arbitration*, vol. VIII (The Hague: Kluwer Law International, 1982), 124. An example of a contractual limitation is cl. 17.6 of the General Conditions of Contract for Construction, FIDIC 1998.
12) Judgment of 28 June 1988, *Total Chine v. E.M.H. et G.S.C*, Cour d'appel de Paris, *Revue de l'Arbitrage* (1989): 328.
13) Julian D.M. Lew, Loukas A. Mistelis & Stefan M. Kröll, *Comparative International Commercial Arbitration* (The Hague: Kluwer Law International, 2003), 649.
14) This is consistent with the traditional English approach and conflicts rules *Kremezi v. Ridgway* [1949] 1 All ER 662, 664. More recently, English courts have looked to the substantive law to determine what losses may be claimed but look to procedural law to determine assessment. Felix Praendl, 'Measure of Damages in International Commercial Arbitration', *Stanford Journal of International law* 23, no. 1 (1987): 263, 268.
15) Gary B. Born, *International Commercial Arbitration* (The Hague: Kluwer Law International, 2009), 2479.
16) *ibid.*
17) *Ibid.*, 2483 citing *Dreis & Krump Mfg Co. v. Int'l Assoc of Machinists & Aerospace Workers, etc.*, 802 F. 2d 247 (7th Cir 1986); *Engis Corp. v. Engis ltd*, 800 F. Supp. 627, 632 (N.D. 111. 1992).
18) Gary B. Born, *International Commercial Arbitration* (The Hague: Kluwer Law International, 2009), 2482.
19) Anne van Aaken, 'Remedies in International Law and Investment Law', in *International Investment Law and Comparative Public Law*, ed. Stephen W. Schill (Oxford: Oxford University Press, 2010), 731.
20) Where courts are concerned, notwithstanding that matters of procedure are governed by the *lex fori*, Cook suggests that in private international law, a court should apply as much of the foreign law as it can without unduly inconveniencing itself. Walter Wheeler Cook, *Logical and Legal Bases of the Conflict of Laws* (Cambridge: Harvard University Press, 1942), 154–193. See also Joanna Bird, 'Choice of Law', in *Restitution and the Conflict of Laws*, ed. Francis Rose (Oxford: Mansfield Press, 1995), 84, 166.

21) *Chorzów Factory (Poland v. Germany)*, PCIJ 1926 Merits, Judgment No. 13, 1928, PCIJ Series A No. 17, 29, available at <www.worldcourts.com>.
22) *CNS Gas Transmission Company v. The Argentine Republic* (ICSID Case No. ARB/01/8, Award, 12 May 2005) 406.
23) ILC Articles, Art. 35.
24) Carole Malinvaud, 'Non-Pecuniary Remedies in Investment Treaty and Commercial Arbitration', in *50 Years of the New York Convention, ICCA International Arbitration Conference, ICCA Congress Series no. 14, Dublin 2009)*, ed. Albert Jan van den Berg (Paris: ICC Publishing, 2009), 209, 225.
25) Award of 19 January 1977, *Texaco Overseas Petroleum Co v. The Government of the Libyan Arab Republic and others* in Pieter Sanders (ed.), *Yearbook Commercial Arbitration*, vol. IV (The Hague: Kluwer Law International 1979), 177, 184.
26) 1923 Spain/United Kingdom 2 RIAA 615 at 722.
27) NAFTA Art. 1135.
28) Article 26(8).
29) Such a formulation is also utilised in bilateral investment treaties. See, e.g., the Draft US Model BIT, 5 February 2004, Art. 34.
30) Christoph Schreuer, *The ICSID Convention: A Commentary* (Leiden: Cambridge University Press, 2001), 1115; Christoph Schreuer, 'Non-Pecuniary Remedies in ICSID Arbitration', *Arbitration International* 20, no. 4 (2004): 325.
31) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 532.
32) Christine D. Gray, *Judicial Remedies in International Law* (Oxford: Clarendon Press, 1987), 12.
33) *Ibid.*, 15.
34) Article 1135 of Chapter 11 of the NAFTA provides that although a tribunal may award 'restitution of property', such awards 'shall provide that the disputing party may pay monetary damages and any applicable interest in lieu of restitution'.
35) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 532.
36) Brigitte Stern, Trois Arbitrages, Un Même Problème, Trois Solutions: Les Nationalisations Pétrolières Libyennes Devant l'Arbitrage International' (1980) *Revue de l'Arbitrage* (1980): 1, 36. See also *Amco Asia Corp. and others v. The Republic of Indonesia* (ICSID Case No. ARB/81/1, Award on the Merits, 21 November 1984) 202 in 24 *International Legal Materials*, 24 (1985) 1022.
37) (1979) 53 ILR 297.
38) Extracted and translated in Carole Malinvaud, 'Non-Pecuniary Remedies in Investment Treaty and Commercial Arbitration', in *50 Years of the New York Convention, ICCA International Arbitration Conference, ICCA Congress Series no. 14, Dublin 2009)*, ed. Albert Jan van den Berg (Paris: ICC Publishing, 2009), 209, 222.
39) Carole Malinvaud, 'Non-Pecuniary Remedies in Investment Treaty and Commercial Arbitration', in *50 Years of the New York Convention, ICCA International Arbitration Conference, ICCA Congress Series no. 14, Dublin 2009)*, ed. Albert Jan van den Berg (Paris: ICC Publishing, 2009), 209, 228–229.
40) 1929 United States/Cuba 2 RIAA 913.
41) Carole Malinvaud, 'Non-Pecuniary Remedies in Investment Treaty and Commercial Arbitration', in *50 Years of the New York Convention, ICCA International Arbitration Conference, ICCA Congress Series no. 14, Dublin 2009)*, ed. Albert Jan van den Berg (Paris: ICC Publishing, 2009), 209, 229.
42) The parties reached a damages settlement after the award and specific performance was never accepted. Carole Malinvaud, 'Non-Pecuniary Remedies in Investment Treaty and Commercial Arbitration', in *50 Years of the New York Convention, ICCA International Arbitration Conference, ICCA Congress Series no. 14, Dublin 2009)*, ed. Albert Jan van den Berg (Paris: ICC Publishing, 2009), 209, 222.
43) *Antoine Goetz et. al. v. The Republic of Burundi* (Decision of 2 September 1998) *ICSID Review*, 15 (2000) 457, paragraph 133.
44) The suggestion of creation of a new free trade zone was based on an agreement of the parties and not necessarily an example of awarding non-pecuniary relief. Christoph Schreuer, 'Non-pecuniary Remedies in ICSID Arbitration', *Arbitration International* 20, no. 4 (2004): 325, 330.
45) Regulation (EC) No. 593/2008 of the European Parliament and of the Council of 17 June 2008 on the law applicable to contractual obligations (Rome I). A provision with similar effect was set out at Art. 10.1(c) of the Convention on the Law Applicable to Contractual Obligations, opened for signature in Rome on 19 June 1980: 'The law applicable to a contract by virtue of Articles 3 to 6 and 12 of this Convention shall govern in particular:... (c) within the limits of the powers conferred on the court by its procedural law, the consequences of breach, including the assessment of damages in so far as it is governed by rules of law...': United Nations Convention on Contracts for the International Sale of Goods, opened for signature 11 April 1980, 1489 UNTS 3, Art. 28: 'If, in accordance with the provisions of this Convention, one party is entitled to require performance of any obligation by the other party, a court is not bound to enter a judgement for specific performance unless the court would do so under its own law in respect of similar contracts of sale not governed by this Convention'.

46) Alexis Mourre, 'Judicial Penalties and Specific Performance in International Arbitration', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 67, referring to similar issues with regard to the Rome Convention. In particular, arbitration agreements are expressly excluded from the scope of the Regulation of Art. 1.2(e).

47) This is not a mandatory provision per s. 4 of Schedule 1 and hence may be overridden by the parties.

48) B. Friedmann, 'Economic Aspects of Damages and Specific Performance Compared', in *Contract Damages: Domestic and International Perspectives*, ed. Djakhongir Saidov & Ralph Cunnington (Oxford: Hart Publishing, 2008), 65, 69.

49) *Ibid.*, 65.

50) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 531.

51) See, e.g., Art. 1184(2) French Civil Code; Switzerland Art. 97 Code des Obligations.

52) The powers were recognised by tribunals in Award on Merits of 10 October 1973, *British Petroleum Exploration Company (Libya) Ltd v. The Government of the Libyan Arab Republic*, in Pieter Sanders (ed.), *Yearbook Commercial Arbitration*, vol. V (The Hague: Kluwer Law International, 1979), 143, 150; Award of 12 April 1977, *Libyan American Oil Company (LIAMCO) v. The Government of the Libyan Arab Republic*, in Pieter Sanders (ed.), *Yearbook Commercial Arbitration*, vol. VI (The Hague: Kluwer Law International, 1981) 89, 105, however restitution was not awarded in these cases due to practical impossibility. The US Federal Arbitration Act and the Uniform Arbitration Act (UAA) do not expressly specify the remedies available in international arbitrations taking place in the US; nonetheless US courts have confirmed the power of arbitrators to award specific performance, even where this remedy is not specified in the arbitration agreement. See, e.g., *Brandon v. MedPartners Inc*, 203 FRD 677, 686 (SD Fla 2001). Also, there are examples where State courts in common law countries have upheld tribunal orders for specific performance, for example, *In re Staklinski* 6 N.Y.2d 159, 160 N.E.2d 78, 188 N.Y.S.2d 541 (1959) where the granting of specific performance of an employment contract was held not to be contrary to public policy. Julian D.M. Lew, Loukas A. Mistelis & Stefan M. Kröll, *Comparative International Commercial Arbitration* (The Hague: Kluwer Law International, 2003), 650.

53) Articles 28, 46 and 62.

54) Article 7.2.2 and 7.2.3.

55) Edwin Peel, *The law of Contract*, 12th ed, (London: Sweet & Maxwell, 2007), 1107.

56) Christine Chappuis, 'A Comparative Overview on Performance as a Remedy: A Key to Divergent Approaches', in *Performance as a Remedy: Non-Monetary Relief in International Arbitration*, ed. Michael E. Schneider & Jaochim Knoll (New York: Juris, 2011), 70 citing Lord Hoffmann in *Co-operative Insurance Society ltd v. Argyll Stores (Holdings) ltd* [1997] C.L.C. 1114, 1117.

57) Carole Malinvaud, 'Non-Pecuniary Remedies in Investment Treaty and Commercial Arbitration', in *50 Years of the New York Convention, ICCA International Arbitration Conference, ICCA Congress Series no. 14, Dublin 2009)*, ed. Albert Jan van den Berg (Paris: ICC Publishing, 2009), 209, 213. This position is an application of the principle *nemo praecise cogi potest ad factum*.

58) B. Friedmann, 'Economic Aspects of Damages and Specific Performance Compared', in *Contract Damages: Domestic and International Perspectives*, ed. Djakhongir Saidov & Ralph Cunnington (Oxford: Hart Publishing, 2008), 65.

59) This viewpoint is noted by Lew, Mistelis Kröll: Julian D.M. Lew, Loukas A. Mistelis & Stefan M. Kröll, *Comparative International Commercial Arbitration* (The Hague: Kluwer Law International, 2003), 650-651, and see Troy E. Elder, 'The Case against Arbitral Awards of Specific Performance in Transnational Commercial Disputes', *Arbitration International* 13, no. 1 (1997): 1, 7.

60) Michael E. Schneider, 'Non-monetary Relief in International Arbitration: Principles and Arbitration Practice', in *Performance as a Remedy: Non-Monetary Relief in International Arbitration*, ed. Michael E. Schneider & Jaochim Knoll (New York: Juris, 2011), 5.

61) *Ibid.*

62) This power is discussed in section 14.21.

63) Christoph Schreuer, 'Non-Pecuniary Remedies in ICSID Arbitration', *Arbitration International* 20, no. 4 (2004): 325, 332.

64) F. Bellivier & R. Sefton-Green, 'Force Obligatoire et Exécutionen Nature du Contrat Men Droit Français et Anglais: Bonnes et Mauvaises Surprises du Comparatitne', in *he Contrat au Début du XXème Siècle Etudes Offertes à J Ghestin*, ed. G. Goubeaux et al. (LGDJ, 2001), 91 at 111 cited and translated in Carole Malinvaud, 'Non-Pecuniary Remedies in Investment Treaty and Commercial Arbitration', in *50 Years of the New York Convention, ICCA International Arbitration Conference, ICCA Congress Series no. 14, Dublin 2009)*, ed. Albert Jan van den Berg (Paris: ICC Publishing, 2009), 209, 214. See also Troy E. Elder, 'The Case against Arbitral Awards of Specific Performance in Transnational Commercial Disputes', *Arbitration International* 13, no. 1 (1997): 1, 8.

65) Troy E. Elder, 'The Case against Arbitral Awards of Specific Performance in Transnational Commercial Disputes', *Arbitration International* 13, no. 1 (1997): 1, 24.

66) Cases where the remedy of specific performance has been deemed inappropriate include, e.g., ICSID Final award, 31 March 1986 and Interim award, 24 October 1984, *Liberian Eastern Timber Corporation ('LETCO') v. The Government of the Republic of Liberia*, 26 ILM 647 (1987), *Yearbook of Commercial Arbitration*, vol. XIII, 35 (1988); Zurich arbitration award in Case No. 273/95, 31 May 1996, *raw material processor (Hungary) and processing Group (Argentina) v.raw material seller (Russian Federation), Yearbook of Commercial Arbitration*, vol. XXIII, 128 (1998); ICC Award No. 8032 (1995), *Yearbook of Commercial Arbitration*, vol. XXI, 113 (1996).

67) *Libya American Oil Company (LIANCO) Ltd v. Libyan Arab Republic* 20 ILM 1 (1981) 63; *BP Exploration Company (Libya) Limited v. Libyan Arab Republic*, 52 ILR 297 (1974) 354.

68) *Occidental Petroleum Corporation and Occidental Exploration and Production Company v. The Republic of Ecuador*, ICSID Case No. ARB/06/11, Decision on Provisional Measures, 17 August 2007, §§ 82–84.

69) *Pabalk Ticaret Ltd v. Norsalor SA (Turkey v. France)* ICC Case No. 3131, Award of 26 October 1979, 1985 *Yearbook of Commercial Arbitration* 109; upheld in *Norsalor SA v. Pabalk Ticaret Ltd, Oberster Gerichtschof* (Austrian Supreme Court) Judgment of 18 November 1982, 1984 *Yearbook of Commercial Arbitration* 159.

70) *Avena and Other Mexican Nationals (Mexico v. United States)* Judgment, ICJ Reports 2004, 23.

71) Francesca Mazza, 'International Chamber of Commerce (ICC)', in *Performance as a Remedy: Non-Monetary Relief in International Arbitration*, ed. Michael E. Schneider & Jaochim Knoll (New York: Juris, 2011) 149.

72) Carole Malinvaud, 'Non-Pecuniary Remedies in Investment Treaty and Commercial Arbitration', in *50 Years of the New York Convention, ICCA International Arbitration Conference, ICCA Congress Series no. 14, Dublin 2009)*, ed. Albert Jan van den Berg (Paris: ICC Publishing, 2009), 209, 221.

73) Nigel Blackaby et al., Hunter, *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 535. Arbitration legislation often makes express provision for the granting of declaratory relief. See, e.g., the English Arbitration Act 1996 s. 48(3).

74) *Case Concerning the Factory at Chorzów*, PCIJ Series A, No. 13, 20 (PCIJ 1928).

75) Julian D.M. Lew, Loukas A. Mistelis & Stefan M. Kröll, *Comparative International Commercial Arbitration* (The Hague: Kluwer Law International, 2003), 652; they cite s. 48(3) of the English Arbitration Act as an example of a law providing for declaratory relief.

76) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 535.

77) *Saudi Arabia v. Arabian American Oil Company (Aramco)* (1963) 27 ILR 117, at 145. As no party wished to jeopardise their business relationship, the tribunal was asked to make a declaration that the agreement had been breached without claiming damages.

78) *Saudi Arabia v. Arabian American Oil Company (Aramco)*, 27 ILR 117 (1963).

79) *Ibid.*, 145.

80) Julian D.M. Lew, Loukas A. Mistelis & Stefan M. Kröll, *Comparative International Commercial Arbitration* (The Hague: Kluwer Law International, 2003), 652.

81) Michael E. Schneider, 'Non-Monetary Relief in International Arbitration: Principles and Arbitration Practice', in *Performance as a Remedy: Non-Monetary Relief in International Arbitration*, ed. Michael E. Schneider & Jaochim Knoll (New York: Juris, 2011), 28.

82) *Ibid.*, 30.

83) New Code of Civil Procedure (France) Art. 31; German Code of Civil Procedure (ZPO) s. 256; Swiss Code of Civil Procedure Art. 59(2)(a) which prescribes in a general manner that a claimant must have a justified interest in a legal action.

84) Michael E. Schneider, 'Non-Monetary Relief in International Arbitration: Principles and Arbitration Practice', in *Performance as a Remedy: Non-Monetary Relief in International Arbitration*, ed. Michael E. Schneider & Jaochim Knoll (New York: Juris, 2011), 30.

85) *Ibid.*

86) Gary B. Born, *International Commercial Arbitration* (The Hague: Kluwer Law International, 2009), 2481 cites *Adamas Mgt & Services Inc v. Aurado Energy Inc, Yearbook of Commercial Arbitration*, vol. XXX, 479 (New Brunswick QB 2004) (2005); *IPOC Int'l Growth Fund Ltd v. LV Finance Group Ltd*, Civil Appeal No. 30 of 2006 (B .V.I. Court of Appeal, 18 June 2007); *LV Finance Group Ltd v. IPOC Int'l Growth Fund Ltd* [2006] Bda LR 69 (Bermuda Commercial Court); *Ethiopian Oil Seeds & Pulses Exp Corp v. Rio del Mar Feeds Inc* [1990] 1 Lloyd's Rep 86 (QB); *NSW Racing v. TAB* [2002] NSWSC 742 (New South Wales Supreme Court); *Enron Corp and Ponderosa Assets LP v. Argentine Republic*, Decision on Jurisdiction, ICSID Case No. ARB/01/3 (14 January 2004) para. 81, available at <http://icsid.worldbank.org>.

87) For example, Rule 43 AAA Rules as interpreted in *Island Creek Coal Sales Co v. City of Gainesville*, 729 R2d 1046, 1049 (6th Cir 1984).

88) Most international and institutional rules make clear that the arbitration clause is not to be taken as excluding the jurisdiction of national courts to make orders for interim measures of protection: see, e.g., ICC Rules 2012 Art. 28; UNCITRAL Rules 2010 Art. 26.

89) *Trail Smelter Case (United States v. Canada)*, Award, 16 April 1938 and 11 March 1941, 3 RIAA 1905.

90) *Rainbow Warrior* RIAA vol. XX (1990) 217 at 270.

91) *Enron Corp and Ponderosa Assets IP v. Argentine Republic* ICSID Case No. ARB/01/03 Decision on Jurisdiction, 14 January 2004, available at <www.asil.org/ilib/Enron.pdf>.

92) *Enron Corp and Ponderosa Assets LP v. Argentine Republic* ICSID Case No. ARB/01/03 Decision on Jurisdiction, 14 January 2004, para. 76.

93) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 535–536.
94) Laws which expressly or impliedly provide the power to fill a gap in, or amend, a contract include Bulgaria, Arbitration Act 1988/1993 Art. 1(2); Netherlands, CCP Art. 1020(3); Sweden, Arbitration Act Art. 1(2); CEPANI Rules Art. 7(4); and query Art. 7(3) UNCITRAL Model Law, cited in Kröll, *Ergänzung und Anpassung von Verträgen durch Schiedsgerichte*. Kröll concludes at 305 that the English and German arbitration laws also provide the tribunal with this power.
95) Bin Cheng, *General Principles of Law as Applied by International Courts and Tribunals* (reprinted edn, Cambridge University Press, 2006), 118–119. In *Himpurna California Energy Ltd v. PT (Persero) Perusahaan Listruik Negara*, UNCITRAL Award of 4 May 1999, (2000) Yearbook of Commercial Arbitration, vol. XXX, 13, at 58 et seq, *rebus sic stantibus* was one basis upon which the Indonesian State parties sought to change their payment obligations under various independent power project contracts following the South-East Asian economic crisis of the late 1990s.
96) 'Rules for Adaptation of Contracts' (1978) ICC Publication No. 326.
97) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 539–540 referring to ICC Publication No. 326.
98) See W. Laurence Craig, William W. Park & Jan Paulsson, *International Chamber of Commerce Arbitration*, 3rd edn (Oxford: Oxford University Press, 2000), 709 for an outline of the rules and the critique by Derains.
99) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 537.
100) *Ibid.*, 539. See also *Himpurna California Energy ltd v. PT (Persero) Perusahaan listruik Negara*, UNCITRAL Award of 4 May 1999, (2000) *Yearbook of Commercial Arbitration*, vol. XXV, 13, at 61 and 62, where an arbitral tribunal commented '... The arbitrators cannot usurp the role of government officials or business leaders. They have no political authority, and no right to presume to impose their personal view of what might be an appropriate negotiated solution. Whatever the purity of their intent, arbitrators who acted in such a fashion would be derelict in their duties, and would create more mischief than good. The focus of the Arbitral Tribunal's inquiry has been to ascertain the rights and obligations of the parties to the particular contractual arrangements from which its authority is derived'. See generally James Otis Rodner, 'Hardship under the UNIDROIT Principles of International Commercial Contracts', in *Global Reflections on International law, Commerce and Dispute Resolution: liber Amicorum in Honour of Robert Briner*, ed. Gerald Aksen et al. (ICC Publishing, 2005), 677.
101) UNIDROIT Principles Art. 6.2.2.
102) *Davis Contractors ltd v. Fareham* (JVC [1956] AC 696, 729.
103) James Otis Rodner, 'Hardship under the UNIDROIT Principles of International Commercial Contracts', in *Global Reflections on International law, Commerce and Dispute Resolution: liber Amicorum in Honour of Robert Briner*, ed. Gerald Aksen et al. (ICC Publishing, 2005), 678.
104) ICC Hardship Clause 2003 – ICC Publication 650.
105) M.J. Bonell (ed.), *The UNIDROIT Principles in Practice: Case Law and Bibliography on the Principles of Commercial Contracts* (New York: Transnational, 2002), 491.
106) (1999) 10:2 ICC ICArb Bull 78 cited in James Otis Rodner, 'Hardship under the UNIDROIT Principles of International Commercial Contracts', in *Global Reflections on International Law, Commerce and Dispute Resolution: Liber Amicorum in Honour of Robert Briner*, ed. Gerald Aksen et al. (ICC Publishing, 2005), 677, 685. ICC Case No. 7367, it was considered a general principle of law.106 A converse view is found in lCC Case No. 8873 (1999) 10:2 ICC ICArb Bull 78.
107) Article 6.2.3 Comment 1, UNIDROIT Principles.
108) Article 6.2.3(4).
109) Alexis Mourre, 'Judicial Penalties and Specific Performance in International Arbitration', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 53.
110) Such powers may apply on enforcement applications.
111) Gary B. Born, *International Commercial Arbitration* (The Hague: Kluwer Law International, 2009), 2480.
112) See *Kremezi v. Ridgway* [1949] All ER 662, 663; *Kohnke v. Karger* [1951] 2 K.B. 670, 677; D'almeida *Araujo v. Becker* [1953] 2 QB 329.
113) For example, *CMI Int'l Inc v. Iran (US v. Iran)*, Iran-US Claims Tribunal Case No. 245 (99-245-2) (Award of 27 December 1983) 1985 *Yearbook of Commercial Arbitration* 316, 319.
114) Award of 23 July 1981, *Shipping Arbitration (Norway v. Belgium)*, in Pieter Sanders (ed.), *Yearbook Commercial Arbitration*, vol. VIII (The Hague: Kluwer Law International, 1983), 89, 91. Iran-US Claims Tribunal cases need to be looked at in the context of the Claims Settlement Declaration which itself has a choice of law provision. Award of 27 December 1983, *CMI Internationall Inc v. Ministry of Roads and Transportation, the Islamic Republic of Iran (US v. Iran)*, in Pieter Sanders (ed.), *Yearbook Commercial Arbitration*, vol. X (The Hague: Kluwer Law International, 1985), 316, 319; *North Sea Continental Shelf (West Germany v. Denmark; West Germany v. Netherlands)* (1969) ICJ 3, judgment of 20 February 1969, reprinted in (1969) 8 ILM 340, 379.

115) Hilary Heilbron QC, 'Assessing Damages in International Arbitration: Practical Considerations', in *The leading Arbitrators' Guide to International Arbitration*, ed. L.W. Newman & R.D. Hill (Huntington: Juris Publishing, 2008), 454.
116) *Pabalk Ticaret Ltd v. Norsalor SA (Turkey v. France)* ICC Case No. 3131, Award of 26 October 1979, 1985 *Yearbook of Commercial Arbitration* 109; upheld in *Norsalor SA v. Pabalk Ticaret Ltd, Oberster Gerichtschof* (Austrian Supreme Court) Judgment of 18 November 1982, 1984 *Yearbook of Commercial Arbitration* 159.
117) Or respondent's on a counter-claim.
118) International Institute for Conflict Prevention & Resolution, *CPR Protocol on Determination of Damages in Arbitration* (2010) 3.
119) Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 283.
120) *Ibid.*
121) *Ibid.*
122) International Institute for Conflict Prevention & Resolution, *CPR Protocol on Determination of Damages in Arbitration* (2010).
123) American Institute of CPAs, *Code of Professional Conduct*, Rule 101 <www.aicpa.org/Research/Standards/CodeofConduct/Pages/et_101.aspx#et_101.04>.
124) Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 289.
125) This method is discussed in section 14.8.5.
126) Hilary Heilbron QC, 'Assessing Damages in International Arbitration: Practical Considerations', in *The Leading Arbitrators' Guide to International Arbitration*, ed. L.W. Newman & R.D. Hill (Huntington: Juris Publishing, 2008), 449.
127) *Ibid.*, 450.
128) Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 282.
129) Charles Proctor, 'Changes in Monetary Values and the Assessment of Damages', in *Contract Damages: Domestic and International Perspectives*, ed. Djakhongir Saidov & Ralph Cunning-ton (Oxford: Hart Publishing, 2008), 65, 459.
130) Michael Bridge, 'The Market Rule of Damages Assessment', in *Contract Damages: Domestic and International Perspectives*, ed. Djakhongir Saidov & Ralph Cunnington (Oxford: Hart Publishing, 2008), 65, 430, 435.
131) Ole Lando & Hugh Beale, *Principles of European Contract Law, Parts I and II* (The Hague: Kluwer Law International, 2000), 2443.
132) Official Comment on Art. 7.4.3.
133) Alexander S Komarav, 'Mitigation of Damages', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 253.
134) Article 7.4.3(3).
135) Paul-A Gélinas, 'General Characteristics of Recoverable Damages in International Arbitration', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 20.
136) Jan Paulsson, 'The Expectation Model', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 59.
137) Hilary Heilbron QC, 'Assessing Damages in International Arbitration: Practical Considerations', in *The Leading Arbitrators' Guide to International Arbitration*, ed. L.W. Newman & R.D. Hill (Huntington: Juris Publishing, 2008), 462.
138) International Institute for Conflict Prevention & Resolution, *CPR Protocol on Determination of Damages in Arbitration* (2010) 2.
139) Hilary Heilbron QC, 'Assessing Damages in International Arbitration: Practical Considerations', in *The Leading Arbitrators' Guide to International Arbitration*, ed. L.W. Newman & R.D. Hill (Huntington: Juris Publishing, 2008), 460.
140) *S D Myers v. The Government of Canada*, partial award of 13 November 2000, § 316; *Pope & Talbot v. The Government of Canada*, award in respect of damages of 31 May 2002, § 80.
141) Hilary Heilbron QC, 'Assessing Damages in International Arbitration: Practical Considerations', in *The Leading Arbitrators' Guide to International Arbitration*, ed. L.W. Newman & R.D. Hill (Huntington: Juris Publishing, 2008), 470.
142) *Ibid.*, 464.
143) *Livingstone v. Rawyards Coal Co.* [1880] 5 AC 25, at 39 per Lord Blackburn. The position taken at English law is that there exists a fundamental principle 'to restore the injured party to the same position he would have been in but for the breach' but that this principle should not be misapplied to unjustly enrich a plaintiff. See *Golden Strait Corp v. Nippon Yusen Kubishika Kaisha (The Golden Victory)* [2007] UKHL 12, 83.
144) *Robinson v. Harman* [1848] 154 ER 363, 365: '[W]here a party sustains loss by breach of a contract, he is, so far as money can do it, to be placed in the same position, with respect to damages, as if the contract had been performed.'
145) *Anglia Television v. Reed* [1972] 1 QB 60.
146) Hilary Heilbron QC, 'Assessing Damages in International Arbitration: Practical Considerations', in *The Leading Arbitrators' Guide to International Arbitration*, ed. L.W. Newman & R.D. Hill (Huntington: Juris Publishing, 2008), 466.

147) International Institute for Conflict Prevention & Resolution, *CPR Protocol on Determination of Damages in Arbitration* (2010) 1.
148) Olusoji Elia, *Judicial Remedies in the Conflict of Laws* (Oxford: Hart Publishing, 2001), 76.
149) *Pabalk Ticaret Ltdv. Norsalor SA (Turkey v. France)* ICC Case No. 3131, Award of 26 October 1979, 1985 *Yearbook of Commercial Arbitration* 109; upheld in *Norsalor SA v. Pabalk Ticaret Ltd, Oberster Gerichtschof* (Austrian Supreme Court) Judgment of 18 November 1982, 1984 *Yearbook of Commercial Arbitration* 159. As to assessment of global sums see *Window Arbitration*, Netherlands Arbitration Court Building Industry Award of 16 April 1975, Summary in 1976 *Yearbook of Commercial Arbitration* 137.
150) Norber Wuhler, 'Application of General Principles of Law', in *Planning Efficient Arbitration Proceedings/The Law Applicable in International Arbitration, ICCA Congress Series No. 7 (Vienna 1994)*, ed. Albert Jan van den Berg (The Hague: Kluwer Law International, 1996), 559.
151) *Sea-Land Service v. The Government of the Islamic Republic of Iran* (1984) 6 Iran-US Claims Tribunal Reports 149, 168.
152) Phillip Landolt, *Modernised EC Competition Law in International Arbitration*, (The Hague: Kluwer Law International, 2006), 351.
153) Alexander S Komarav, 'Mitigation of Damages', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 38.
154) International Institute for Conflict Prevention & Resolution, *CPR Protocol on Determination of Damages in Arbitration* (2010) 2.
155) *Ibid.*
156) Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 1.
157) *Ibid.*, 2.
158) Dr Pratt's approach was cited with approval by the ICSID Tribunal in *Ioannis Kardassopolous & others v.The Republic of Georgia* (ICSID 3 March 2010) at para. 601.
159) Shannon P. Pratt, Robert F. Reilly & Robert P. Schneihs, *Valuing a Business: The Analysis and Appraisal of Closely Held Companies*, 4th edn (New York: Mcgraw-Hill, 2000), 445.
160) Mark Kantor, Valuation for Arbitration: Compensation Standards, *Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 2.
161) Custodio O. Parlade, 'Arbitral Awards', in *The Asian Leading Arbitrators' Guide to International Arbitration*, ed. Michael Pryles & Michael Moser (Huntington: JurisNet LLC, 2007), 389.
162) *Pabalk Ticaret Ltd v. Norsalor SA (Turkey v. France)* ICC Case No. 3131, Award of 26 October 1979, 1985 *Yearbook of Commercial Arbitration* 109; upheld in *Norsalor SA v. Pabalk Ticaret Ltd, Oberster Gerichtschof* (Austrian Supreme Court) Judgment of 18 November 1982, 1984 *Yearbook of Commercial Arbitration* 159.
163) Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 13.
164) *Ibid.*, 3.
165) IVSC, Guidance Note GN 6 on Business Valuation (International Valuation Standards, 8th edn 2007).
166) Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 9.
167) *Ibid.*, 10.
168) *Ibid.*, 15.
169) *Ibid.*
170) *Ibid.*, 27.
171) *CSX Transport., Inc. v. Georgia State Bd. Of Equalization* 128 S. Ct. 467 (4 December 2007).
172) *Ibid.*
173) *Compañía de Aguas del Acnoquija S.A. & Others v. Argentine Republic*, ICSID 10 August 2010 para. 32.
174) *Ibid.*, para. 173.
175) *Ibid.*, para. 255.
176) Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 286.
177) *Ibid.*
178) *Azurix v. Argentina*, ICSID Case No. ARB/CAF/01/12, Award dispatched 14 July 2006, at para. 426: An ICSID Tribunal found the price of USD 438.55 million paid by Azurix to the Province of Buenos Aires for a water concession to be unreasonable high. In calculating damages, the tribunal founded its award on the lower fair market value of USD 60 million, plus verified additional subsequent capital investments.
179) See *Southern Pacific Properties (Middle East) Limited v. Arab Republic of Egypt*, ICSID Case No. ARB/84/3 at para. 197.
180) *CMS Transmission Company v. The Argentina Republic*, ICSID Case No. ARB/01/08, Award at 402. The definition employed by the tribunal is found at International Glossary of Business Valuation Terms, available at <www.bvapprasiers.org/glossary/glossary.pdf>, This definition was also adopted by the tribunal in *National Grid pic v. Argentina* UNCITRAL, Award, 3 November 2008, para. 263, note 99.
181) World Bank Guidelines IV 5, International Bank for Reconstruction and Development 'Report to the Development Committee and Guidelines on the Treatment of Foreign Direct Investment (1992) 31 ILM 1366.
182) Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 18.

183) *Ibid.*, 35. For further discussion of rare events (or Black Swans as they are known) see Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 24–25; Taleb, *The Black Swan: The Impact of the Highly Improbably*, at xvii (Random House 2007).

184) *Republic of Kazakhstan v. Rumeli Telekom A.S.* ICSID Case No. ARB/05/16, 25 March 2010 at para. 151; Mark Kant or, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 68–69; *Golden Strait Corp v. Nippon Yusen Kubishika Kaisha (The Golden Victory)* [2007] 2 WLR 691 at para. 36.

185) *Metalclad Corporation v. The United Mexican States*, ICSID Case No. ARB(AF) 97/1, Award of 30 August 2000, §§ 119–120.

186) *Enron Corporation and Ponderosa Assets, LP. v. Republic of Argentina*, ICSID Case No. ARB/01/3, Award may 22 2007.

187) *Ibid.*, at 388.

188) *Ioannis Kardassopolous & others v. The Republic of Georgia* (ICSID 3 March 2010) at para. 603.

189) Dobbs, *Law of Remedies*, 2nd edn (St Paul: West Publishing Co., 1993), at 3.5.

190) *CME Czech Republic B.V. v. The Czech Republic*, Final Award issued in Stockholm, Sweden, in the UNCITRAL Arbitration Proceedings, March 14 2003 at 161.

191) Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 59.

192) Henry Weisburg & Christopher Ryan, 'Means to be made Whole: Damages in the Context of International Investment Arbitration', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law IV*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 179.

193) *Ibid.*, citing World Bank Report, 31 ILM 1377 (1992); *Aminoil*, 21 ILM 1038-1039.

194) International Institute for Conflict Prevention & Resolution, *CPR Protocol on Determination of Damages in Arbitration* (2010) 4.

195) Jan Paulsson, 'The Expectation Model', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 65.

196) Henry Weisburg & Christopher Ryan, 'Means to Be made Whole: Damages in the Context of International Investment Arbitration', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law IV*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 173.

197) *Ibid.*, 174.

198) BorzuSabahi & Nicholas J. Birch, 'Comparative Compensation for Expropriation', in Stephen W. Schill, *International Investment Law and Comparative Public Law* (Oxford: Oxford University Press, 2010) 764; for examples of arbitral tribunals that have used the DCF method, see *CME Czech Republic BV v. Czech Republic* Ad Hoc UNCITRAL Arbitration Rules, Final Award and Separate Opinion, 14 March 2003, paras 595–620; *CMS Gas Transmission Co v. Argentina* ICSID Case No. ARB/01/8, Award, 12 May 2005, para. 403.

199) Henry Weisburg & Christopher Ryan, 'Means to be made Whole: Damages in the Context of International Investment Arbitration', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 174; *Amoco International Finance Corporation v. Islamic Republic of Iran*, Partial Award of 14 July 1987, 27 ILM 1320, 1988, 1365.

200) Henry Weisburg & Christopher Ryan, 'Means to be made Whole: Damages in the Context of International Investment Arbitration', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 176. Paul B. Friedland & Eleanor Wong, 'Measuring Damages for the Deprivation of Income-Producing Assets: ICSID Case Studies', *ICSID Review – Foreign Investment law Journal* 6, no. 2 (1991), 400, 406–407.

201) Henry Weisburg & Christopher Ryan, 'Means to be made Whole: Damages in the Context of International Investment Arbitration', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 174.

202) *Amoco International Finance Corporation v. Islamic Republic of Iran*, Partial Award of 14 July 1987, 27 ILM 1320, 1988, §238.

203) Hilary Heilbron QC, 'Assessing Damages in International Arbitration: Practical Considerations', in *The leading Arbitrators' Guide to International Arbitration*, ed. L.W. Newman & R.D. Hill (Huntington: Juris Publishing, 2008), 469.

204) See, e.g., *Himpurna California Energy ltd v. PP Persero Perusahaan listruik Negana (PL)* ad hoc, 4 May 1999, *Yearbook of Commercial Arbitration*, vol. XXV, 13 (2000), 84.

205) Iran-US Claims Tribunal, Philipps Petroleum Award, *Factory at Chorzów (Germany v. Poland) (Indemnity)*, 1928 PCD (Ser A) No. 17, § 111, 114.

206) *Compania del Desarrollo de Santa Elena, S.A. v. Costa Rica*, ICSID Case No. ARB/96/1, Final Award (17 February 2000), 15 ICSID Rev.-FILJ 169 (2000).

207) Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 281.

208) *Ibid.*

209) A flat discount rate was applied in ICC Case No. 6829, 1991, in J.J. Arnaldez, Y. Derains & D. Hascher, *Collection of ICC Arbitral Awards 1996 – 2000*, vol. 5 (The Hague: Kluwer Law International, 1997), 282.

210) *Golden Strait Corp v. Nippon Yusen Kubishika Kaisha (The Golden Victory)* [2007] UKHL 12.
211) Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 61.
212) *Golden Strait Corp v. Nippon Yusen Kubishika Kaisha (The Golden Victory)* [2007] UKHL 12.
213) *Ibid.*
214) *Enron Corporation and Ponderosa Assets, L.P. v.Republic of Argentina*, ICSID Case No. ARB/01/3, Award may 22 2007 at para. 200.
215) *Sinclair Refining Co. v. Jenkins Petroleum Process Co.*, 289 US 689, 698 (1933) (citations omitted).
216) *CME Stockholm*, Final Award, at 131.
217) See Borzu Sabahi & Nicholas J. Birch, 'Comparative Compensation for Expropriation', in *International Investment Law and Comparative Public Law*, ed. Stephen W. Schill (Oxford: Oxford University Press, 2010), 766–771.

218) *Compania del Desarollo de Santa Elena, S.A. v. Costa Rica*, ICSID Case No. ARB/96/1, Final Award (17 February 2000) at 76–83.
219) *Case concerning The Factory at Chorzów*, PCIJ Series A, No. 13 (PCIJ 1928).
220) Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 67.
221) *En Cana v. Equador*, UNCITRAL/LCIA Case No UN3481 (Award) (3 February 2006) reprinted in (2006) 45 *ILM* 895 with comment by Dev Krishan.
222) *Compañia de Aguas del Aconquija SA and Compagnie Générate des Eaux/Vivendi Universal (Vivendi') v. Argentine Republic* (ICSID Case No. ARB/97/3), Second Award, 20 August 2007, para. 8.3.3 (emphasis in original).
223) Jan Paulsson, 'The Expectation Model', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 60 citing *Kyocera v. Prudential-Baché*, 299 F. 3d 769, 790 (9th Cir 2002).
224) *Republic of Kazakhstan v. Rumeli Telekom A.S.* ICSID Case No. ARB/05/16, 25 March 2010 at para. 144.
225) (Award) (1963) 35 ILR 136, 187–188.
226) ICSID Case No. ARB/84/3, Award 20 May 1992, 3 ICSID Rep 189.
227) *South Pacific Properties (Middle East) Ltd v. Arab republic of Egypt*, ICSID Case No. ARB/84/3, Award 20 May 1992, 3 ICSID Rep 189, para. 215.
228) (ICSID Case No. ARB/98/4), Decision on Annulment, 5 February 2002, 6 ICSID Rep 129, para. 91.
229) Per Brennan J, *Sellars v. Adelaide Petroleum NL* (1992–1994) 179 CLR 332, 368 (HCA).
230) Gotanda 'Recovering Lost Profits in International Disputes' (2004–2005) 36 Georgetown JIL 61, 101.
231) Jan Paulsson, 'The Expectation Model', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 61 citing *Aminoil v. Kuwait*, ad hoc Award of 24 March 1982, 66 International Law Reports 518 (1984).
232) *American Independent Oil Company v. Government of Kuwait*, Award of 24 March 1982, 66 I.L.R. 518 (1984).
233) Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 21.
234) *Ibid.*
235) See, e.g., *Mechema Ltd v. MNM (UK v. Belgium)* Award of 3 November 1977, 1982 *Yearbook of Commercial Arbitration* 77.
236) See, e.g., *FPP (Middle East) Ltd v. Egypt (Hong Kong v. Egypt)* ICC Case No. 3493, Award of 16 February 1983, Summary in 1984 *Yearbook of Commercial Arbitration* 112, 123.
237) Paul-A Gélinas, 'General Characteristics of Recoverable Damages in International Arbitration', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 21, fn 18.
238) *Metalclad* (fn. 43).
239) Jane Jenkins & Simon Stebbings, *International Construction Arbitration Law* (Kluwer Law International: 2006) 196.
240) [2001] 1 AC 268; see also *Devenish Nutrition Limited v. Sanofi-Aventis SA (France) & Ors* [2008] EWCA 1086.
241) *Experience Hendrix LLC v. PPX Enterprise Inc* [2003] EWCA 323.
242) French Civil Code Art. 1149.
243) *Sapphire International Petroleum ltd v. National Iranian Oil Co*, Arbitral Award, 15 March 1963, reprinted in 35 International Law Reports 136, 187–188.
244) Emmanuel Gaillard & John Savage (eds), Fouchard Gaillard Goldman on International Commercial Arbitration (The Hague: Kluwer Law International, 1999), 384.
245) Henry Weisburg & Christopher Ryan, 'Means to be made Whole: Damages in the Context of International Investment Arbitration', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 166, fn 8.
246) Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 49.

247) UN General Assembly Resolution 3171 (XXVII) Permanent Sovereignty Over Natural Resources, 28 UN GAOR Supp, No. 30, at 52, UN Doc A/390, 1973, reprinted in 13 ILM 238, 1974.
248) Pierre Bienvenu & Martin J. Valasek, 'Compensation for Unlawful Expropriation, and Other Recent Manifestations of the Principle of Full Reparation in International Investment Law', in *50 Years of the New York Convention* (ICCA International Arbitration Conference, ICCA Congress Series no. 14, Dublin 2009), ed. Albert Jan van den Berg (Paris: ICC Publishing, 2009), 231. For example, the 2004 US Model Bilateral Investment Treaty indicates that expropriation may only occur 'upon payment of prompt, adequate and effective compensation' measured as the fair market value of the property before expropriation too place. available at <www.state.gov/document/organisation/39710.pdf>.
249) *ADC v. Hungary*, ICSID Case No. ARB/03/16, Award (2 October 2006) para. 481.
250) *Case Concerning the Factory at Chorzów*, PCIJ Series A, No. 13, 20 (PCIJ 1928) at 47.
251) *CME Czech Republic B.V. v. The Czech Republic*, Final Award issued in Stockholm, Sweden, in the UNCITRAL Arbitration Proceedings, March 14 2003.
252) Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 50.
253) *Ibid.*
254) *Ibid.*, 52.
255) *Ioannis Kardassopolous & others v. The Republic of Georgia* Case No. ARB/05/18 (ICSID 3 March 2010).
256) *James v. UK*, European Court of Human Rights, 1986, 8 EHRR 123, at 48.
257) *Siemens A.G. v. The Argentine Republic*, ICSID Case No. ARB/02/08, Award (6 February 2007) at para. 346.
258) *Ibid.*, at paras 349 and 352. This approach was also adopted by the tribunal in *Vivendi v. Argentina* ICSID Case No. ARB/97/3, Award (20 August 2007) at 8.2.2-8.2.5.
259) *LG&E v. Argentina*, ICSID Case No. ARB/02/1, Damages Award of 25 July 2007, paras 35-36.
260) *CMS Gas Transmission Co. v. Argentina*, ICSID Case No. ARB/01/08 (US-Argentina BIT Award of 12 May 2005 para. 410.
261) *Azurix Corp v. Argentina*, ICSID Case No. ARB/01/12, Award of 14 July 2006 paras 419–424.
262) *Enron and Ponderosa Assets v. Argentina*, ICSID Case ARB/01/3, Award of 22 May 2007 paras 359–363.
263) *Sempra Energy v. Argentina*, ICSID Case No. ARB/02/16 Award of 28 September 2007 paras 402–404.
264) Pierre Yves Tschanz & Jorge E. Viñuales, 'Compensation for Non-expropriatory Breaches of International Investment Law', *Journal of International Arbitration* 26, no. 5 (2009): 729–743.
265) *ibid.*, 737.
266) See, e.g., *D. Myers, Inc. v. Canada*, UNCITRAL (NAFTA), Partial Award (13 November 2000), at paras 311–315; *Metalclad Corporation v. United Mexican States*, ICSID Case No. ARB(AF)/97/l, Award (30 August 2000), at para. 122; *MTD Equity Sdn. Bhd. & MTD Chile S.A. v. Chile*, ICSID Case No. ARB/01/7, Award (25 May 2004) at para. 238; *Enron Corporation and Ponderosa Assets, L.P. v. Republic of Argentina*, ICSID Case No. ARB/01/3, Award 22 May 2007 at paras 359–361.
267) Timing is particularly problematic with creeping or indirect expropriation. William W. Park, 'Framing the Case on Quantum', *World Arbitration and Mediation Review* 2, no. 4 (2008): 59, 62; John Y Gotanda, Damages in Private International Law, 326 Recueil des Cours 73 (2007); Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence* (The Hague: Kluwer Law International, 2008), 61.
268) *The Loewen Group Inc. v. United States of America*, ICSID Case No. ARB(AF)/98/3, Final Award of 26 June 2003.
269) See, for instance, s. 48 of the Arbitration Act 1996 (UK), which was applied in *Lesotho Highlands Development Authority v. Impregilo SpA and others* [2006] 1 AC 221.
270) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 327.
271) See Smit, Judgments and Arbitral Awards in a Foreign Currency: A Means of Dealing with Currency Fluctuations in International Adjudication (1996) 7 *Am Rev Int'l Arb* 21.
272) José Rosell, 'Arbitration Costs as Relief and/or Damages', *Journal of International Arbitration* 28, no. 2 (2008): 122.
273) ICC Case No. 12491, Partial Award No. 2, 1 June 2004, 24 ASA Bull 281 (2006).
274) *Mantovani v. Carapelli* S.p.A. [1980] 1 Lloyd's Rep 375 (CA); *CMA, COM, S.A. v. Hyundai Mito Dockyard Ltd* [2008] EWCH (Comm) 2791; *Paramedics Electromedicina Comercial Ltda v. GE Medical Systems Information Technologies, Inc* 369 F. 3d 645 (2d Cir 2004).
275) José Rosell, 'Arbitration Costs as Relief and/or Damages', *Journal of International Arbitration* 28, no. 2 (2008): 124.
276) *Ibid.*
211) Varying approaches, particularly in common law jurisdictions are discussed in Mr Justice Vivian Ramsey, 'Problems of Delay and Disruption Damages in International Construction Arbitration', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 193; and citing The Great Delay Analysis Debate, King's College, London, 18 October 2005, organised by the Society of Construction Law and the Centre for Construction Law and Management and Concurrent Delay, John Marrin QC, Society of Construction Law, London, 5 February 2002, available at <www.scl.org.uk>.

278) The key formulae are the Hudson, Enden and Eichleay formulae, described in Mr Justice Vivian Ramsey, 'Problems of Delay and Disruption Damages in International Construction Arbitration', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 209.
279) Jane Jenkins & Simon Stebbings, *International Construction Arbitration Law* (Alphen aan den Rijn: Kluwer Law International, 2006), 46–47.
280) *Ibid.*, 217–218.
281) *Yearbook of Commercial Arbitration*, vol. XXV, 2000 at 89–90.
282) Henry Weisburg & Christopher Ryan, 'Means to be made Whole: Damages in the Context of International Investment Arbitration', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 178.
283) See the discussion in Jan Paulsson, 'The Expectation Model', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 72–73.
284) Felix Praendl, 'Measure of Damages in International Commercial Arbitration', *Stanford Journal of International Law* 23, no. 1 (1987): 263, 292.
285) Jacques Werner, 'Punitive and Exemplary Damages in International Arbitration', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 102.
286) Ingeborg Schwenzer & Pascal Hachem, 'Moral Damages in International Investment Arbitration', in *International Arbitration and International Commercial Law: Synergy, Convergence and Evolution, Liber Amicorum Eric Bergsten*, ed. S. Kröll et al. (Alphen aan den Rijn: KluwerLaw International, 2011), 425.
287) *Ibid.*, 426.
288) For example, Art. 5 Model Norwegian Bilateral Investment Treaty (2007) cited in Ingeborg Schwenzer & Pascal Hachem, 'Moral Damages in International Investment Arbitration', in *International Arbitration and International Commercial Law: Synergy, Convergence and Evolution, Liber Amicorum Eric Bergsten*, ed. S. Kröll et al. (Alphen aan den Rijn: Kluwer Law International, 2011), 419.
289) *Desert Lion Projects LLC v. Yemen*, ICSID Case No. ARB/05/17 (Award) (6. February 2008).
290) See Borzu Sabahi & Nicholas J. Birch, 'Comparative Compensation for Expropriation', in *International Investment Law and Comparative Public Law*, ed. Stephen W. Schill (Oxford: Oxford University Press, 2010), 771.
291) International Valuation Standards Committee, *International Valuation Standards*, 8th edn (London: IVSC, 2007), 208.
292) See Borzu Sabahi & Nicholas J. Birch, 'Comparative Compensation for Expropriation' in *International Investment Law and Comparative Public Law*, ed. Stephen W. Schill (Oxford: Oxford University Press, 2010), 772.
293) Charles Brower, 'Correction and Completion of Awards; Enforcement of Partial and Final Awards; Collaboration by Courts for an Award to Be Effective; 'Impact of International Public Policy' on Arbitration', in *International Arbitration in a Changing World, ICCA Congress Series No. 6 (Bahrain 1993)*, ed. Albert Jan van den Berg (Paris: ICC Publishing, 1994), 213, 214.
294) Alexander S Komarav, 'Mitigation of Damages', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 256.
295) *Ibid.*, 39.
296) *Ibid.*, 40.
297) *Middle East Cement Shipping and Handling Co v. Republic of Egypt*, Award of 12 April 2002, ICSID Case No. ARB/99/6.
298) Alexander S Komarav, 'Mitigation of Damages', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 37.
299) Yasuhei Taniguchi, 'The Obligation to Mitigate Damages', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 84.
300) UNCITRAL Digest of Case Law on the UN CISG (A/CN.9 SEI.C/Digest/CISG/77, Hof Arnhem, The Netherlands, 22 August 1995, Unilex.
301) Alexander S Komarav, 'Mitigation of Damages', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 46.
302) *Ibid.*, 51.
303) See, e.g., ICC Award No. 7006, *Yearbook of Commercial Arbitration*, vol. XVIII 1993, at 58.
304) ICSID Final Award of 5 June 1990, Case No. ARB/81/8 and Decision on Supplemental Decision and Rectification of 17 October 1990, *Yearbook of Commercial Arbitration*, vol. XVII, 1992, 73.
305) A substitute purchase is described as a cover purchase under American law.
306) Alexander S Komarav, 'Mitigation of Damages', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 42.
307) *Ibid.*, 44.
308) International Institute for Conflict Prevention & Resolution, *CPR Protocol on Determination of Damages in Arbitration* (2010) 2.

309) Article 1152 French Civil Code.
310) See also Art. 9:509 Principles of European Contract Law.
311) *Dunlop Pneumatic Car Co Ltd v. New Garage & Motor Co Ltd* [1915] PC 79, 86.
312) See generally ICC Guide on Penalty and Liquidated Damages Clauses, Publication No. 478 (1999).
313) For an annex on published awards in relation to liquidated damages see Antonias Dimolitsa, 'Contractual Remedies: Clauses Penales and Liquidated Damages Clauses', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 27.
314) Hilary Heilbron QC, 'Assessing Damages in International Arbitration: Practical Considerations', in *The Leading Arbitrators' Guide to International Arbitration*, ed. L.W. Newman & R.D. Hill (Huntington: Juris Publishing, 2008), 465.
315) Jane Jenkins & Simon Stebbings, *International Construction Arbitration Law* (Kluwer Law International 2006) 39.
316) *Ibid.*, 40.
317) Hilary Heilbron QC, 'Assessing Damages in International Arbitration: Practical Considerations', in *The Leading Arbitrators' Guide to International Arbitration*, ed. L.W. Newman & R.D. Hill (Huntington: Juris Publishing, 2008), 465 citing Clause 17.6 General Conditions of Contracts for Construction FIDIC 1998.
318) From a consent-based policy perspective, a government's general desire to encourage whistleblowers is not a dominant factor where arbitral jurisdiction is concerned. The situation may be very different where the parties agree on applicable law as opposed to situations where instead the tribunal applies its own broad discretion, absent an agreement between the parties. Redfern and Hunter note that under English law punitive damages may only be awarded in tort actions and only in three category of cases, which are '(1) abuse of power by servants of the government; (2) conduct which was motivated by the pursuit of profits; and (3) where punitive (aka exemplary) damages are expressly authorised by statute': Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), *Rookes* v. *Barnard* [1964] AC 1129. The situation is different in the US where there are statutes expressly allowing for the payment of multiple damages, such as the Racketeer Influenced and Corrupt Organizations Act (18 USCS) (RICO) and antitrust laws that provide for treble damages.
319) See, e.g., Bin Cheng, *General Principles of law as Applied by International Courts and Tribunals* (reprinted edn, Cambridge University Press, 2006), 234, 236.
320) Christine D. Gray, *Judicial Remedies in International law* (Oxford: Clarendon Press, 1987), 26.
321) *Sedco Inc v. NIAC* 10 Iran-US Claims Trib Rep 180, 1986.
322) *Amoco Int'l Fin Corp v. Iran* 15 Iran-US Claims Trib Rep 189, 1987.
323) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 331.
324) *Ibid.*
325) See the US Federal Court of Appeals decision in *Bonar v. Dean Witter Reynolds* 837 F. 2d 1378, 1387 (11th Cir 1988). As to the desirability of a higher award of damages for unlawful as opposed to lawful expropriation see the separate opinion of Judge Brower in *Sedco Inc v. NIOC*, 10 Iran-US CTR 180, 205 (1986).
326) *Mastrobuono v. Shearson Lehman Hutton Inc* 514 US 52 (US S. Ct. 1995); the award of punitive damages in this case was made for wilful fraud in the inducement of a contract. See also *Willoughby Roofing Supply Co v. Kajima International Inc*, 776 F 2d 269 (11th Cir 1985), approving awards of statutory treble damages for antitrust violations and *Mitsubishi v. Soler Chrysler-Plymouth Inc*, 473 US 614 (1985). However, in *Garrity v. Lyle Stuart Inc*, 40 NY 2d 354; 353 NE 2d 793 (1976) a US court held that 'the prohibition against an arbitrator awarding punitive damages is based on strong public policy indeed'.
327) Emmanuel Gaillard, 'The Role of the Arbitrator in Determining the Applicable Law' in *The leading Arbitrators' Guide to International Arbitration*, ed. L.W. Newman & R.D. Hill (Huntington: Juris Publishing, 2008), 176.
328) Jacques Werner, 'Punitive and Exemplary Damages in International Arbitration', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 107.
329) Julian D.M. Lew, Loukas A. Mistelis & Stefan M. Kröll, *Comparative International Commercial Arbitration* (The Hague: Kluwer Law International, 2003), 651.
330) Final Award in ICC Case No. 5946, *Yearbook of Commercial Arbitration*, vol. XVI, 97 (1991). Also, in a leading judgment in Germany in 1992, which has since been affirmed, the Federal Supreme Court (*Bundesgerichtshof*) refused to enforce that part of a US court decision allowing recovery of punitive damages on the grounds that it was contrary to German public policy: *Bundesgerichtshof* (Neue Juristische Wochenschrift, 1992), 3096 et seq. Redfern and Hunter suggest German courts would react similarly to an arbitral award providing the recovery of punitive damages: Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 330–331. In the District Court of Rotterdam, 17 February 1995, NIPR 1996, 205 et seq. (207) a Dutch courts held that a judgment to pay punitive damages could not be recognised and enforced in the Netherlands without further enquiry.
331) Gary B. Born, *International Commercial Arbitration* (The Hague: Kluwer Law International, 2009), 2487 fn 362.

332) See Andrew Barraclough & Jeff Waincymer, 'Mandatory Laws and International Commercial Arbitration', *Melbourne Journal of International Law* 6, no. 2 (2005); Jeff Waincymer, 'International Commercial Arbitration and the Application of Mandatory Rules of Law', *Asian International Arbitration Journal 5*, no. 1 (2009); section 13.8.
333) Chartered Institute of Arbitrators: Guidelines for Arbitrators Dealing with Jurisdictional Problems in International Cases 123 available at <www.ciarb.org>.
334) *Ibid.*
335) There is also the question as to whether national courts might impose such penalties as part of enforcement processes. This is outside the scope of this book.
336) 473 US 614 (1985).
337) 115S.Q. 1212(1995).
338) 11 ICC Court Bulletin 2000, No. 1, 57.
339) Alexis Mourre, 'Judicial Penalties and Specific Performance in International Arbitration', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 58.
340) *Ibid.*, 53.
341) *Ibid.*
342) Jean-François Poudret & Sébastien Besson, *Comparative Law of International Arbitration*, 2nd edn (London: Sweet & Maxwell, 2007), 540.
343) Article 7.2.4 (Judicial Penalty): No similar provision is contained in the Principles of European Contract Law.
344) UNIDROIT. Principles of International Commercial Contracts 2004, 215.
345) Section 25 Swedish Arbitration Act 1999.
346) Alexis Mourre, 'Judicial Penalties and Specific Performance in International Arbitration', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 58.
347) Carole Malinvaud, 'Non-Pecuniary Remedies in Investment Treaty and Commercial Arbitration', in *50 Years of the New York Convention, ICCA International Arbitration Conference, ICCA Congress Series no. 14, Dublin 2009)*, ed. Albert Jan van den Berg (Paris: ICC Publishing, 2009), 209, 216 referring to the conflicting views of Charles Jarrasson and Pierre Mayer. Mourre citing Besson makes the point that if it was an inherent power, it may not be excluded by the parties, which seems an unappealing outcome. Alexis Mourre, 'Judicial Penalties and Specific Performance in International Arbitration', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 59 citing Sebastien Besson, *Arbitrage international et mesures provisoires: Etude de droit compare*, Swiss Studies in International Law, vol. 105 (Zurich: Schulthess Polygraphischer Verlag, 1998), 131.
348) Jean-François Poudret & Sébastien Besson, *Comparative Law of International Arbitration*, 2nd edn (London: Sweet & Maxwell, 2007), 540 argue against such an implied term.
349) L. Lévy, 'Les Astreintes et 1'Arbitrage International en Suisse', *ASA Bulletin* 19, no. 1 (2001), 24.
350) Alexis Mourre, 'Judicial Penalties and Specific Performance in International Arbitration', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 53.
351) *Ibid*, 58.
352) Paris 24 May 1991 (1992) Rev Arb 636, with a note by J Pellerin.
353) L. Lévy, 'Les Astreintes et l'Arbitrage International en Suisse', *ASA Bulletin* 19, no. 1 (2001), 32.
354) Alexis Mourre, 'Judicial Penalties and Specific Performance in International Arbitration', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 54.
355) *Ibid.*
356) There may be procedural questions as to enforcement with escalating amounts where the primary obligation is still unmet.
357) Paris, 11 October 1991, Rev Arb 1992, 636, Note by J Pellerin.
358) Alexis Mourre, 'Judicial Penalties and Specific Performance in International Arbitration', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 62.
359) *Ibid.*, 54.
360) As to the use of equitable standards to determine damages see ICJ Administrative Tribunal case. Judgment for the Administrative Tribunal of the ILO upon Complaints against UNESCO 1956 ICJ 75, 100 (Advisory Opinion of 23 October 1956). See Bernard Hanotiau, 'La Détermination et L'évalutation du Dommage Réparble: Principes Généraux et Principes en Émergence', in *Transnational Rules in International Commercial Arbitration, Dossiers of the Institute of International* Business Law and Practice, ICC Publication No. 480/4, ed. E. Gaillard (Paris: ICC Publishing, 1993), 209.

361) Gary B. Born, *International Commercial Arbitration* (The Hague: Kluwer Law International, 2009), 2483 citing *Dreis & Krump Mfg Co v. Int'l Assoc of Machinists & Aerospace Workers, etc.*, 802 F.2d 247 (7th Cir 1986); *Engis Corp. v. Engis ltd*, 800 F.Supp. 627, 632 (N.D. I11. 1992).
362) Andrea Giardina, 'Issues of Applicable Law and Uniform Law on Interest: Basic Distinctions in National and International Practice', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 131, 150–151.
363) John Y Gotanda, 'Awarding Interest in International Arbitration', *American Journal of International Law* 90, no. 1 (1996): 55. See also John Y Gotanda, 'A Study of Interest', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 169.
364) John Y Gotanda, 'A Study of Interest', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 186.
365) Yves Derains, 'Conclusion', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 225.
366) John Y Gotanda, 'A Study of Interest', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 131, 170.
367) Charles N. Brower & Jeremy K. Sharpe, 'Awards of Compound Interest in International Arbitration: The Aminoil *Non*-Precedent', in *Global Reflections on International law, Commerce and Dispute Resolution: liber Amicorum in Honour of Robert Briner*, ed. Gerald Aksen et al. (ICC Publishing, 2005), 156.
368) John Y Gotanda, 'Awarding Interest in International Arbitration', *American Journal of International law* 90, no. 1 (1996): 40, 57.
369) John Y Gotanda, 'A Study of Interest', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 131, 174.
370) Australian International Arbitration Act ss 25–26; Hong Kong Arbitration Ordinance Art. 79, 80.
371) North American Free Trade Agreement, 17 December 1992, Art. 1135(1), 32ILM (1993) 289, 646 (entered into force 1 January 1994).
372) A notable exception is the LCIA Rules which allows for compound interest Art. 26.6 LCIA Rules.
373) AAA Arbitration Rules Art. 28.4.
374) John Yukio Gotanda, *Supplemental Damages in Private International haw: The Awarding of Interest, Attorneys' Fees and Costs, Punitive Damages and Damages in Foreign Currency Examined in the Comparative and International Context* (The Hague: Kluwer Law International, 1998).
375) *Islamic Republic of Iran v. United States of America*, Decision No Dec65-A19-F3 (30 September 1987) (1998) 16 Iran-US CTR 285, 289–290; *Plywood Trade Arbitration (Syria v. Ghana)* ICC Case No. 4237, Award of 17 February 1984, excerpted in 1985 *Yearbook of Commercial Arbitration* 52, 59–60.
376) J.D.N. Lew, 'Interest on Money Awards in International Arbitration', in *Making Commercial Law: Essays in Honour of Roy Goods*, ed. Ross Cranston (Oxford: Oxford University Press, 1997), 558. Charles M. Brower & Jeremy K. Sharpe, 'Awards of Compound Interest in International Arbitration: The Aminoil Non-Precedent', in *Global Reflections on International Law, Commerce and Dispute Resolution: Liber Amicorum in Honour of Robert Briner*, ed. Gerald Aksen et al. (ICC Publishing, 2005), 155.
377) *Islamic Republic of Iran v. United States of America*, Decision No DEC65-A19-FT (30 September 1987), (1998) (16 Iran US CTR 285 at 289-290, cited in Brower and Sharpe, *ibid.*, 155).
378) Charles M. Brower & Jeremy K. Sharpe, 'Awards of Compound Interest in International Arbitration: The Aminoil Non-Precedent', in *Global Reflections on International Law, Commerce and Dispute Resolution: Liber Amicorum in Honour of Robert Briner*, ed. Gerald Aksen et al. (ICC Publishing, 2005), 156; J.G. Wetter, 'Interest as an Element of Damages in the Arbitral Process', *International Financial Law Rev* 5, no. 12 (1986): 20, 21.
379) John Y Gotanda, 'Awarding Interest in International Arbitration', *American Journal of International Law* 90, no. 1 (1996): 40, 57.
380) ICC Case No. 9771 of 2001 cited in J.D.N. Lew, 'Interest on Money Awards in International Arbitration', in *Making Commercial Law: Essays in Honour of Roy Goods*, ed. Ross Cranston (Oxford: Oxford University Press, 1997), 543.
381) J.D.N. Lew, 'Interest on Money Awards in International Arbitration', in *Making Commercial Law: Essays in Honour of Roy Goods*, ed. Ross Cranston (Oxford: Oxford University Press, 1997), 543.
382) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 540.
383) See Arbitration Act 1996 (UK) s. 49.
384) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 541. (They provide Bermuda, Hong Kong, England, and Scotland as examples.)
385) While the CISG refers to interest in Art. 78, it provides little detail as to timing and rate as the contracting States would not have been able to agree on a set of principles.

386) John Y Gotanda, 'Awarding Interest in International Arbitration', *American Journal of International Law* 90, no. 1 (1996): 40, 52.
387) See, e.g., *Guinea v. Maritime International Nominees Establishment – MINE (Liechtenstein)*, ICSID Decision on Application for Annulment (14 December 1989), *Yearbook of Commercial Arbitration*, vol. XVI40, 45, 51 (1991). ICC Case No. 6527 of 1991, Final Award in *Yearbook of Commercial Arbitration*, vol. XVIII (1993), 44, ICC Award in Case No. 9448 of July 1999, Final Award.
388) See, e.g., *Dr Horst Reineccius v. Bank for Int'l Settlements*, Final Award in Permanent Court of Arbitration (19 September 2003), *Yearbook of Commercial Arbitration*, vol. XXVIII, 100, 151-152 (2003).
389) See, e.g., *Grove-Skanska v. Lockheed Aircraft International AG*, ICC Award No. 3903, cited in John Y Gotanda, 'Awarding Interest in International Arbitration', *American Journal of International Law* 90, no. 1 (1996): 40, 51 where the arbitrators considered that the New York laws as selected only related to court actions. The tribunal relied on general principles of international law.
390) Nayla Comair-Obeid, 'Recovery of Damages for Breach of an Obligation of Payment', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 146.
391) Gary B. Born, *International Commercial Arbitration* (The Hague: Kluwer Law International, 2009), 2505 and cases cited in fn. 466.
392) Interim Award in ICC Case No. 5277, *Yearbook of Commercial Arbitration*, vol. XIII, 80, 89–90 (1988). Abdul Hamid el-Ahdab, 'Enforcement of Arbitral Awards in the Arab Countries', *Arbitration International* 11, no. 2 (1995): 169.
393) See Samir Saleh, 'The recognition and enforcement of foreign arbitral awards in the States of the Arab Middle East', in *Contemporary Problems in International Arbitration*, ed. Julian D.M. Lew (Dordrecht: Martinus Nijhoff Publishers, 1986), 348, 349. However, see the decision of the English courts in *Sanghi Polyesters Ltd (India) v. The International Investor KCFC (Kuwait)* [2000] 1 Lloyd's Rep 480, which suggests that, in some Islamic jurisdictions, interest may be awarded under another name.
394) Nayla Comair-Obeid, 'Recovery of Damages for Breach of an Obligation of Payment', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 141. Saudi Arabia maintains the strictest regime opposing the potential for interest.
395) John Y. Gotanda, 'Awarding Interest in International Arbitration', *American Journal of International Law* 90, no. 1 (1996): 40, 47–48.
396) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 543–544.
397) Gary B. Born, *International Commercial Arbitration* (The Hague: Kluwer Law International, 2009), 2504, fn 460. Interest was routinely awarded against Iran and claimed by Iranian claims and counterclaims before the US-Iran Claims Tribunal. John Y. Gotanda, 'Awarding Interest in International Arbitration', *American Journal of International Law* 90, no. 1 (1996): 40, 49–50.
398) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 544.
399) *Ibid.*
400) Julian D.M. Lew, Loukas A. Mistelis & Stefan M. Kröll, *Comparative International Commercial Arbitration* (The Hague: Kluwer Law International, 2003), 657.
401) *Siemens AG v. The Argentine Republic*, ICSID Case No. ARB/02/8, Final Award of 6 February 2007, 126–127.
402) John Y. Gotanda, 'Awarding Interest in International Arbitration', *American Journal of International Law* 90, no. 1 (1996): 40, 60.
403) See, e.g., ICC Award 7622, ICC International Court of Arbitration Bulletin 15(1) (2004) 79.
404) 4 Iran-US Claims Tribunal Rep 263, 267–268 (1983).
405) Final Award ICC Case No. 8874, *ICC International Court of Arbitration Bulletin* Vol. 10 No. 2, 1999, 85.
406) Nayla Comair-Obeid, 'Recovery of Damages for Breach of an Obligation of Payment', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business Law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 136.
407) See, e.g., s. 25 International Arbitration Act (Australia).
408) Gary B. Born, *International Commercial Arbitration* (The Hague: Kluwer Law International, 2009), 2506.
409) ICC Case No. 2930, Final Award (1982) reprinted in 9 *Yearbook of Commercial Arbitration* 105 (1984).
410) Final Award in Case No. 5460 of 1983, reprinted in 13 *Yearbook of Commercial Arbitration* 104, 106 (1988).
411) Compare Case No. 5731, *ICC International Court of Arbitration Bulletin* Vol. 3 No. 1, 1992; Case No. 7078, ICC Final Award, *ICC International Court of Arbitration Bulletin* Vol. 15 No. 1, 70; Case No. 5324 of 1989, ICC Final Award, *ICC International Court of Arbitration BulletinWoX*. 3 No. 2, 1992, 53; *ICC International Court of Arbitration Bulletin* Vol. 10 No. 2, 1999, 77; ICC Final Award, Case No. 7063 of 1993, ICC Arbitral Awards, 1996–2000, 75; *Yearbook of Commercial Arbitration* Final Awards, Case No. 9771 (2001) *Yearbook of Commercial Arbitration*, vol, XXIX, 2004, 46.

412) Julian D.M. Lew, Loukas A. Mistelis & Stefan M. Kröll, *Comparative International Commercial Arbitration* (The Hague: Kluwer Law International, 2003), 655. They also state in footnote 169, 656, that 'there is a general presumption that interest accrues at a rate corresponding to that of a commonly used saving vehicle in the currency in which payment is to be made and is to be compounded quarterly'.

413) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 541. Section 49(3) of the English Arbitration Act 1996, empowers a tribunal seated in England to award interest 'from such dates, at such rates and with such rests as it considers meets the justice of the case'. Almost identical provisions are found in the Irish Arbitration (International) Commercial Act 1998 s. 10(2). Australian law permits a tribunal to award interest 'at such reasonable rate as the tribunal determines for the whole or any part of the money, for the whole or any part of the period between the date on which the cause of action arose and the date on which the award is made' and thereafter 'from the day of the making of the award or such later day as the tribunal specifies, on so much of the money as is from time to time unpaid': Australian International Arbitration Act ss 25(1)and 26; equivalent provisions are found in the Maltese Arbitration Act 1996 ss 63(1) and 64. Other jurisdictions such as Hong Kong, India, and Singapore have enacted laws giving arbitrators similar discretion in the award of interest: Hong Kong Arbitration Ordinance 2011 ss 79 and 80; Indian Arbitration and Conciliation Act 1996 s. 31(7)(a) and (b); Singapore International Arbitration Act (Ch 143A) 2002 ss 12(5)(b) and 20.

414) John Y Gotanda, 'A Study of Interest', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 131.

415) See, e.g., ICC Case No. 3572, Final Award 1982, reprinted in 14 *Yearbook of Commercial Arbitration* 111 (1989).

416) See, e.g., *Asian Agricultural Products Ltd v. Sri Lanka*, reprinted in 17 *Yearbook of Commercial Arbitration* 106 (1992).

417) ICC Final Award of April 1997, Case No. 8521, *ICC International Court of Arbitration Bulletin* Vol. 15 No. 1, 2004, 90.

418) *McCollough & Co v. Ministry of Post, Telegraph and Telephone* 11 Iran-US Claims Tribunal Reports at 28.

419) See, e.g., Iran-US Claims Tribunal Case 64 of 1985 (fn. 103).

420) *Sylvania Technical Systems Inc v. Government of the Islamic Republic of Iran*, Award No. 180-64-1 17 June 1985 in (1985) 8 Iran-US CTR 298, 320.

421) Matthew Secomb, 'A Uniform, Thee-Step Approach to Interest Rates in International Arbitration', in *International Arbitration and International Commercial law: Synergy, Convergence and Evolution, liber Amicorum Eric Bergsten*, ed. S. Kröll et al. (Alphen aan den Rijn: Kluwer Law International, 2011), 432.

422) The UNIDROIT Principles were applied in *Petrobart ltd v. Kyrgyzstan*, SC3 Case No. 126/2003 113 184, 29 March 2005.

423) 2000/35/EC of 29 June 2000 OJ L 200 8 August 2000 Art. 3.

424) See Andrea Giardina, 'Issues of Applicable Law and Uniform Law on Interest: Basic Distinctions in National and International Practice', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 131, 150–151.

425) John Y Gotanda, 'A Study of Interest', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 131, 188; *Hungerfordv. Walker* (1989) 171 CLR 125 at 143.

426) See, e.g., *Mqffezini v. Kingdom of Spain*, ICSID Case No. ARB/97/7, 13 November 2000, §§96.

427) John Y Gotanda, 'A Study of Interest', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 131, 188.

428) Thierry J Fénéchal, 'Present-Day Valuation in International Arbitration: A Conceptual Framework for Awarding Interest', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 131, 219.

429) A contrary analysis was presented by F. A. Mann, 'Compound Interest as an Item of Damage in International Law', in F.A. Mann, *Further Studies in International Law* (New York: OUP, 1990), 377 at 381; F.A. Mann, 'Compound Interest as an Item of Damage in International Law', *Davis LR* 21, no. 3 (1998): 577.

430) Holtzmann J in *Starrett Housing Corporation v. The Government of the Islamic Republic of Iran*, Award No. 314-24-1, 14 August 1987, reprinted in 16 Iran-US CTR 112 at 254.

431) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 534. They note that this view was reached in 1983 by Judge Howard Holtzmann in a dissenting judgment in *Starrett Housing Corporation v. Iran*, Iran–US CTR 122, 269. Further, they note the view of Gotanda that 'almost 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': John Y. Gotanda, 'Awarding Interest in International Arbitration', *American Journal of International Law* 90, no. 1 (1996): 40, 61.

432) Redfern and Hunter note the example of Art. 38 of the International Law Commission's *Draft Articles on Responsibility of States for Internationally Wrongful Acts*, providing that 'interest shall be payable on any principal sum when necessary in order to ensure full reparation': Official Records of the General Assembly, F50, 6th Session, Supplement No. 10 (AR/56/10), Ch IV, E.l).
433) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 543.
434) *Compañia del Desarollo de Santa Elena SA v. Republic of Costa Rica* (2000) 39 ILM 1317, para. 103.
435) *Wena Hotels Limited v. Egypt*, Award, ICSID Case No. ARB/98/4; IIC 273 (2000); 41 ILM 896 (2002).
436) Redfern and Hunter cite the following examples, available online at <http://icsid.worldbank.org> and <www.investmentclaims.com>: with respect to NAFTA claims, *Pope Talbot v. Government of Canada*, Award on Damages, Ad hoc UNCITRAL Rules; IIC 195 (2002); and *SD Myers Inc v. Government of Canada*, Second Partial Award, Ad hoc UNCITRAL; IIC 250 (2002). Other awards include: *Middle East Cement Shipping and Handling G SA v. Arab Republic of Egypt*, Award, ICSID Case No. ARB/99/6); IIC 169 (2002); *CME Czech Republic BVv. The Czech Republic*, Final Award and Separate Opinion, Ad hoc-UNCITRAL Rules; IIC 62 (2003); *Azurix Corporation v. The Argentine Republic*, Award, ICSID Case No. ARB/01/ 12; IIC 24 (2006); *ADC Affiliate Ltd, ADC & ADMC Management Limited v. The Republic of Hungary*, Award, ICSID Case No. ARB/03/16, IIC 1 (2006); *Siemens AG v. The Argentine Republic*, Award, ICSID Case No. ARB/02/8, IIC 227 (2007); and *LG&E Energy Corp, LG&E Capital Corp, and LG&E International Inc v. The Argentine Republic*, Award, ICSID Case No. ARB/02/1; IIC 295 (2007).
437) Charles M. Brower & Jeremy K. Sharpe, 'Awards of Compound Interest in International Arbitration: The Aminoil Non-Precedent', in *Global Reflections on International Law, Commerce and Dispute Resolution: Liber Amicorum in Honour of Robert Briner*, ed. Gerald Aksen et al. (ICC Publishing, 2005), 155.
438) *Ibid.*
439) For example, in England, Ireland, Hong Kong, and Bermuda. See the English Arbitration Act 1996 s. 49, which provides for the award of simple or compound interest unless the parties agree otherwise.
440) Australia and New Zealand are good examples.
441) This is the case in Canada and the US.
442) For example, AAA International Arbitration Rules Art. 38.4; LCIA Rules Art. 26.6; WIPO Arbitration Rules Art. 60(b).
443) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 542.
444) Under the Dutch and Japanese civil codes, 'statutory interest is automatically capitalised at the end of each year': Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 542.
445) Thierry J Fénéchal, 'Present-Day Valuation in International Arbitration: A Conceptual Framework for Awarding Interest', in *Interest, Auxiliary and Alternative Remedies in International Arbitration*, Dossiers ICC Institute of World Business Law, ed. Filip de Ly & Laurent Lévy (Paris: ICC Publishing, 2008), 131, 219.
446) ICC Arbitral Awards, 1986–1990, 394.
447) See, e.g., *Flourmill Insurance Arbitration, 1981 Yearbook of Commercial Arbitration* 121, 124.
448) See, e.g., *I J Reynolds Tobacco Co v. Iranian Tobacco Co, 1985 Yearbook of Commercial Arbitration* 258, 261.
449) See, e.g., *lianco v. libya*, 62 ILR 140 (1982), 20 ILM 1 (1981).
450) See, e.g., ICC Case No. 6162 of 1990 and Case No. 10329 of 2000. ICC Case No. 6162, *Yearbook of Commercial Arbitration* 1990, 85; ICC Case No. 10329 of 2000, *Yearbook of Commercial Arbitration* Final Award.
451) Different common law cases have taken different views on this issue. See Mr Justice Vivian Ramsey, 'Problems of Delay and Disruption Damages in International Construction Arbitration', in *Evaluation of Damages in International Arbitration, Dossier of the ICC Institute of World Business law*, ed. Yves Derains & Richard H. Kreindler (Paris: ICC Publishing, 2006), 207–208.
452) *Yearbook of Commercial Arbitration*, vol, XVII, 1992, 221; ICC Case No. 6754 of 1993, ICC Arbitral Awards 1991–1995, 600; ICC Case No. 7331 of 1994 and ICC Case No. 7078.
453) 2000/35/EC of 29 June 2000 OJ L 200 8 August 2000.
454) Nigel Blackaby et al., *Redfern and Hunter on International Arbitration*, 5th edn (Oxford: Oxford University Press, 2009), 544.
455) *Ibid.*
456) See, e.g., ICC Case No. 8264 of 1997.
457) In England, s. 49(3) of the England Arbitration Act 1996 expressly permits the arbitral tribunal to exercise its discretion to award interest up to the date of payment.