Chapter 2: FUNCTION, ROLE, AND IMPORTANCE OF DAMAGES LAW

A. Function of Damages Law

1. Compensatory function

2.01"The principal function of damages law, which is confirmed by the different rules of law on damages including international law, is the compensation of the loss caused by a breach of contract or an illegal measure affecting a complex long-term contract. The payment of an amount of money should place the injured party in the financial position he would be in if the damaging act had not occurred; that is, to wipe out all the consequences of the breach. This rule can be regarded as a general principle of law."

2.02"The compensation function of damages law has its origins in Greek philosophy and Roman law: Aristotle dealt with compensation under the notion of 'corrective or commutative justice', which is a description of a how a private law relationship should be approached. In those days, rectification of an injury through the acknowledgement and execution of one party's claim against the wrongdoer was recognized. Commutative justice treats the wrong and the transfer of resources that undoes it, as a link between the injured party and the wrongdoer. Corrective or commutative justice seeks to subtract the unjust gain of one party to make up for the loss of the other party. In his *Nichomachean Ethics*, Aristotle states that 'the law has regard only to the difference made by the harm done; they are on the same footing, apart from the fact that one has perpetrated and the other suffered the harm' Under Roman law, the actual loss suffered by a contracting party owing to a breach of a contract constitutes ordinary damages (quanti ea res est; 'that is how much the plaintiff has lost'), which are compensated based on market values."
Chapter 5: ANALYSING, FRAMING, AND PROVING A CLAIM

C. Full Compensation as the Guiding Principle

5.05"It is undisputed among legal systems-both domestic and international-that the aggrieved party must be entitled to recover all losses incurred due to the breach of contract. This principle is referred to as the principle of full compensation.'3

5.06"The principal function of damages law is the compensation of the loss caused by a breach. The payment of an amount of money should place the injured party in the financial position it would be in, if the damaging act had not occurred. This rule can be regarded as a general principle of law.4

F. Limitations

5.98"Foreseeability is recognized as a limitation in one way or the other in all rules of law analysed:

• Under English law, a defendant is not liable for loss, which is too remote. Remoteness of damages refers to a legal test where the promisor bears the responsibility for the usual consequences of a breach of the promise, while the promisee implicitly accepts the risk of unusual consequences, unless an explicit clause transfers the risk to the promisor.108 According to Hadley v. Baxendale: 'The damages...should be such as may fairly and reasonably be considered either by arising naturally, i.e. according to the usual course of things, from such breach of contract itself, or such as may reasonably be supposed to have been in the contemplation of both parties at the time they made the contract as the probable result of the breach.'109
• US courts follow the rule in Hadley v. Baxendale, which states that unforeseeable damages are not recoverable. §351 of the Restatement (Second) of Contracts reads that '[d]amages are not recoverable for loss that the party in breach did not have reasons to foresee as a probable result of the breach when the contract was made'. §2-715 of the Uniform Commercial Code (UCC) establishes the foreseeability requirement for consequential damages, which includes 'any loss resulting from general or particular requirements and needs of which the seller at the time of contracting had reason to know'.
• Article 1150 of the French Civil Code limits recoverable losses to losses that are foreseeable. Only damages foreseen at the moment of the execution of the contract are subject to compensation. The foreseeability test is an abstract assessment, where the defendant is held liable for the loss a reasonable person could have foreseen. There has been an extensive debate about the scope of foreseeability. Originally, the French Supreme Court required that the quantum of loss had to be foreseeable. However, such position has been modified in favour of the claimant in later jurisprudence.

• Under German law, adequacy refers to damage as a probable consequence of the breach, observed by an objective observer at the moment of the breach and not at the moment of entering into a contract and not seen from the defendant’s point of view, as in French and Anglo-American law. Objective foreseeability is required in certain circumstances such as in the case of a claim for loss of profits. Under §252 BGB profits are foreseen if they are expected in the normal course of events, or if they could be expected under special circumstances, but were subject to particular measures and precautions of which the debtor was or should have been aware.

• Under Article 74 CISG the loss has to be foreseeable from the point of view of the party in breach and not by both parties. Foreseeability is based on objective (reasonable person) and subjective criteria (actual knowledge). According to para. 3.19 of the Advisory Council Opinion to Article 74 CISG, ‘an aggrieved party is entitled to recover not only profits lost prior to the judgment, but also future lost profits, to the extent that such lost profits can be proved with reasonable certainty and subject to the principles of foreseeability and mitigation. While the Convention does not expressly state that future losses are recoverable, its recovery is consistent with the principle of full compensation.’

• According to Article 7.4.4 PICC (Foreseeability of harm), ‘[t]he non-performing party is liable only for harm which it foresaw or could reasonably have foreseen at the time of the conclusion of contract as being likely to result from its non-performance’.

5.99"In essence the test of foreseeability in all the rules of law analysed refers to whether the respondent was aware that the breach could cause lost profits, however some rules of law state that foreseeability refers to the moment of the breach and others to the moment of the execution of the contract.

[...]

Chapter 6: VALUATION OF DAMAGES

[...]

J. Valuation of Damages

[...]

2. Approaches to valuation

[...]

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a. The Income Approach

[...]

6.149". Discounted cash flow (DCF) The DCF method is one of the most fundamental tools of financial valuation; as a tool, it is used in conducting business decisions on a daily basis at companies and by individuals, as well as by analysts and investors in various fields. It relies on a basic and intuitive premise that businesses and assets have value because they are expected to produce net cash flows at some point over time—the DCF method measures that value by assessing the cash flows that the asset is expected to generate over time, and re-expresses those cash flows as of a particular date.

6.150"The DCF method is one of the most common methodologies used in valuation analyses. Most investors and
property owners rely on a DCF analysis to determine whether to undertake a project. It is widely supported in the professional literature, and is widely used by economists, industry practitioners, companies, investors, and regulatory agencies alike. It is also an accepted tool for the computation of claims for damages; it is recommended by international agencies, such as the World Bank, as a valid method to estimate fair market value in international disputes.

6.151"The DCF method is a forward-looking method, based on fundamental principles of financial economics; it considers a company's ability to generate future cash flows rather than simply looking at historical profitability. It generally relies on four main drivers: (i) revenues, (ii) operating expenses (including sales, general, and administrative expenses), (iii) capital expenses, and (iv) the discount rate. Revenues provide cash inflows, while operating and capital expenses (as well as taxes) produce cash outflows; cash flows are computed by netting the cash inflows against the cash outflows.

6.152"In a DCF model, each year’s cash flows must be discounted by the appropriate risk-adjusted discount rate before the cash flows can be aggregated or 're-expressed' as of a particular date, which is generally referred to as the 'date of valuation'. For the purposes of discounting future cash flows as of the date of valuation, it is widely accepted that the appropriate risk-adjusted discount factor is the weighted average cost of capital (WACC) of an efficiently managed firm under a similar market, contractual, and institutional environment.

6.153"Because the DCF method makes explicit and transparent all of the determinants of value— it details revenues, operating costs, capital expenditures, and taxes—it is capable of determining how changes in these determinants affect the overall value, while also accounting for the prevailing economic conditions affecting the business being valued. In the context of an arbitration, a DCF model can be laid out transparently as part of a damages assessment to provide visibility into each of the key parameters selected or assumed as part of valuation scenario. The DCF should be, when properly implemented, the opposite of a 'black box'; the analyst should specify the parameters and assumptions relied on in the DCF, as well as the implications of his or her modeling.

6.154"Under the DCF method, it is possible to test the sensitivity of various inputs, individually or sequentially, to the overall value. For example, if one was using a DCF analysis to value an oil field, one can increase and/or decrease the assumed oil price profile to quantify the effect on the valuation of the field. If one were valuing a contract for the provision of road-toll services, one might consider the rate of inflation that might affect operating costs, labour, and other key determinants of value. This flexibility makes the DCF method particularly useful for assessing the value of an asset and/or business in a counterfactual or but-for scenario.

6.155"The DCF method necessitates an estimation of future cash inflows (revenues) and outflows (costs and taxes). This method is therefore suited for assessing the value of an income-generating asset where it is possible to reasonably estimate future revenues and costs. There are various ways of forecasting revenues and costs, and the appropriate method depends on the asset being valued, along with the measures composing the contract or treaty breach (or breaches) and the assumptions of the but-for scenario. One way to forecast future cash flows is to base them on the historical performance of the company. This, of course, requires that the business being valued has a history of operational performance. If, however, the asset under consideration does not have such a history of performance, or if the history is not complete enough to allow for a projection of cash flows, it is still feasible to estimate future cash flows based on business plans, feasibility studies, or analyst reports that contain analysis of projected costs and revenues, and any of these, where possible, should be validated with market indicators and industry forecasts. Additionally, if there are measures that have affected the historical performance of the asset or business being valued, then it would be inappropriate to use the historical performance as a basis for valuing the asset or business but for the expropriatory measures.

[...]
A. Interest as Damages

Interest as damages or compensatory interest, on the other hand, aims to make the injured party whole for the time lapsed between the moment of the determination of the damages and their actual payment. The aim of interest is to compensate the injured party for the loss of the use of money. Therefore, interest for breach of long-term contracts arise in damages claims (i) as pre-award interest, if applicable, or (ii) as post-award interest. Interest as damages and not only delay or legal interest are admissible under the different rules of law analysed, as shown in the following:

- In England, according to a study by the Law Commission, courts typically award pre-judgment interest at a rate of 8 per cent. The English Arbitration Act gives arbitrators the authority to award simple or compound interest at such dates and rates that it considers meet the justice of the case.
- In the USA, the recovery of interest is subject to state or federal law depending on the matter in question. Statutory interest ranges from 6 to 15 per cent. Some federal courts award pre-judgment interest at the same rate as the post-judgment interest. Other federal courts apply state statutes or rely on the principle of reasonableness and fairness, which gives them a wide margin of discretion. As stated by Professor Gotanda: "When federal courts approach compensatory interest issues without consulting state law, district courts exercise broad discretion in resolving claims for compensatory interest."
- Under French law, article 1153 of the Civil Code provides for interest at the statutory rate in case of obligations restricted to the payment of a certain sum, without the creditor having to prove any loss. The statutory annual rate is 0.04 per cent in 2013. Such provision further establishes that in case of delays caused by bad faith, the injured party may recover additional interest as damages independent from the interest accruing on overdue payments. French law also allows the injured party to obtain interest as damages. The right to recover interest as damages follows the rule established by the Cour de cassation, which in line with the but-for premise: "The nature of liability is to re-establish as exactly as possible the equilibrium that the damages destroyed and to have the aggrieved party into the same situation that would have been if the damaging event had not occurred."
- In Mexico, according to Article 362 of the Mexican Commercial Code, the commercial interest rate is 6 per cent per annum. Compound interest is prohibited unless agreed upon in the contract. This, however, does not exclude additional interest as damages.
- In Germany, under §288 (2) BGB, delay interest is in the amount of 8 per cent above the applicable 'base rate'. Compound interest is not admissible (§289, first sentence, BGB), however, this may be asked for as damages according to §§280 (1) and (2), and 286 BGB. §288 BGB states that an injured party 'may claim higher interest on a different legal basis'. Compound interest may be claimed as damages when the injured party has paid compound interest to its bank or if the claimant would have received compound interest had he invested the principal sum claimed.
- Article 78 CISG provides: 'If either party fails to pay the price or any other sum that is in arrears, the other party is entitled to interest on it, without prejudice to any claim for damages recoverable under Article 74.' Article 78 is silent with respect to the interest rate but allows for interest as damages. According to Professor Gotanda: "The general principles most often applied to the issue of interest under CISG are: full compensation to the aggrieved party for the loss they have endured, reasonableness, and restitution to the aggrieved party for unjust enrichment gained by the defendant."
- Article 7.4.10 PICC (Interest on Damages) expressly states that interest on damages accrues from the date of non-performance. Paragraph (3) of Article 7.4.9 (Interest for failure to pay money) establishes that the aggrieved party is entitled to additional damages if the non-payment caused it a greater harm. According to official comment 3 to that article, such additional damages have to be proved as regards the certainty of loss and foreseeability. As interest on damages is
an accessory claim to the principal damages, foreseeability should not play a role, as the damages have already been considered foreseeable otherwise they would not have been awarded. Mitigation might only play a role if the company is able to reduce its cost of capital, which it would do anyway, when that is possible as it is in its own benefit.

• According to article 38 of the ILC Articles on State Responsibility.\textsuperscript{17}

1. Interest on any principal sum payable under this Chapter shall be payable when necessary in order to ensure full reparation. The interest rate and mode of calculation shall be set as to achieve that result; 2. Interest runs from the date when the principal sum should have been paid until the date the obligation to pay is fulfilled.

• Commentary 7 to such article notes that there is a trend of international decisions and practice towards ‘greater availability of interest and an aspect of full reparation’, which ‘depends on the circumstances of each case; in particular, on whether an award of interest is necessary in order to ensure full reparation’.

7.08"Under all rules of law analysed interest as damages or compensatory interest as pre-judgment or pre-award interest is admissible. It may therefore be concluded that, ‘the relevant statutes typically envisage that the court may grant interest on damages for any period between the time when the cause of action arose and the judgment’,\textsuperscript{18} which should aim at full compensation.

\textsuperscript{1}Irmgard Marboe, \textit{Calculation of Compensation and Damages in International Investment Law} (Oxford University Press 2009) 27, with further references; Ingeborg Schwenzer, Pascal Hachem, and Christopher Kee, \textit{Global Sales and Contract Law} (Oxford University Press 2012) para. 44.19; see chapter 4.
\textsuperscript{3}Gerard J. Hughes, \textit{The Routledge Guidebook to Aristotle's Nicomachean Ethics} (Taylor & Francis Group 2013); V, 4, 1132a2-6.
\textsuperscript{5}Ingeborg Schwenzer, Pascal Hachem, and Christopher Kee, \textit{Global Sales and Contract Law} (Oxford University Press 2012) para. 44.19.
\textsuperscript{6}Irmgard Marboe, \textit{Calculation of Compensation and Damages in International Investment Law} (Oxford University Press 2009) para. 2.72, with further references; see chapter 4.

109 (1854) 9 Exch. 341 at 354.
110 ‘Le débiteur n’est tenu que des dommages et intérêts qui ont été prévus ou qu’on a pu prévoir lors du contrat, lorsque ce n’est point par son dol que l’obligation n’est point exécutée’
112 Civ., 7 July 1924, Sirey 1925.1, 321; Schwenzer, Hachem, and Kee, \textit{Global Sales and Contract Law} paras. 44.106-8 (n.3).

163 See Brealey, Myers, and Allen, \textit{Principles of Corporate Finance} Chs 2 and 3 (n. 162). See also Damodaran, 'Investment Valuation: Tools and Techniques' 11 (n. 96). See also Koller, Goedhart, and Wessels, \textit{Valuation: Measuring and Managing the Value of Companies} Ch 6 (n. 161).

164 See World Bank, 'Guidelines on the Treatment of Foreign Direct Investment' paras. 5 and 6 (n. 37). The DCF method has also been used in several international arbitration cases. See, for example, Iran-US Claims Tribunal, \textit{Starrett Housing Corp. v. Iran}, 16 Iran-U.S.C.T.R., at paras. 279 and 280; ICSID Award, \textit{AMCO Asia Corp. et al. v. The Republic of Indonesia}, YCA 1992, at paras. 105-7; \textit{ADC et al v. Hungary}, para. 502 (n. 70); and ICSID Award, \textit{CMS Gas Transmission Company v. The Argentine Republic}, para. 416 (n. 31).

165 The WACC represents a firm’s cost of raising funds from both shareholders and lenders in an efficient proportion, called the optimal capital structure. The cost of raising funds from shareholders is measured by the cost of equity, which represents the expected rate of return on equity contributions. The cost of raising funds from lenders is given by the interest rate that an efficiently managed firm would have to pay for its long-term debt. It is measured by the firm’s own
cost of debt or by a proxy such as the average yield to maturity of the debt of firms of comparable credit risk that are operating in the same location. The cost of debt is used on an after-tax basis. Thus, it is adjusted to reflect the tax benefits to the enterprise of the deductibility of interest payments. The WACC is the weighted average cost of the cost of equity and the cost of debt, with the weightings (which sum to 100%) determined by the optimal capital structure in the industry. See nn. 96 and 97 for standard references on how to assess cost of capital to a typical project or asset.

Mathematically, the DCF method provides the value of an enterprise by computing the present value (as of the date of valuation) of future cash flows discounted at the WACC. The value to its shareholders, however, can be inferred from such discounted value by deducting the value of the debt, or alternatively, by computing directly the net present value of cash flows to equity, by deducting from the firm's cash flows payments to creditors and additions to reserves, and discounting the cash flow to equity at the cost of equity, which is a component of the WACC.

This may be the case for assets that have just started operating (for example, a mine that has just moved from the development stage, where the infrastructure of the mine is being constructed, to the production stage).

5 John Y. Gotanda, 'A Study of Interest' in Filip de Ly and Laurent Lévy (eds.), Interest, Auxiliary and Alternative Remedies in International Arbitration 170 (n. 4).
6 The Law Commission, Pre-judgment Interest on Debts and Damages, No. 287 Law Com 21 (2004).
7 Arbitration Act 1996, c. 23 § 49 (Eng.).
9 Gotanda, ‘Damages in Private International Law’ 214 (footnotes omitted) (n. 8).
11 ‘Le propre de la responsabilité civile est de replacer la victime dans la situation où elle se serait trouvée si l'acte dommageable ne s’était pas produit’, Cour de cassation, Deuxième chambre civile, 9 July 1981, Bull civ II, p. 1561.
12 http://basiszinssatz.info.
13 Wolfgang Fikentscher and Andreas Heinemann, Schuldrecht, 10. Auflage (De Gruyter 2006) 473.
15 Peter Schlechtriem and Ingeborg Schwenzer, Commentary on the UN Convention on the International Sale of Goods (GISG) (2nd (English) edn., Oxford University Press 2005) para. 46.06.
16 Gotanda, ‘Damages in Private International Law’ 241-2 (n. 8).
17 Chapter 5, para. 5.178.

Referring Principles:

- VII.1 - Damages in case of non-performance
- VII.2 - Principle of foreseeability of loss
- VII.6 - Duty to pay interest
- XI.1 - Compensation for expropriation