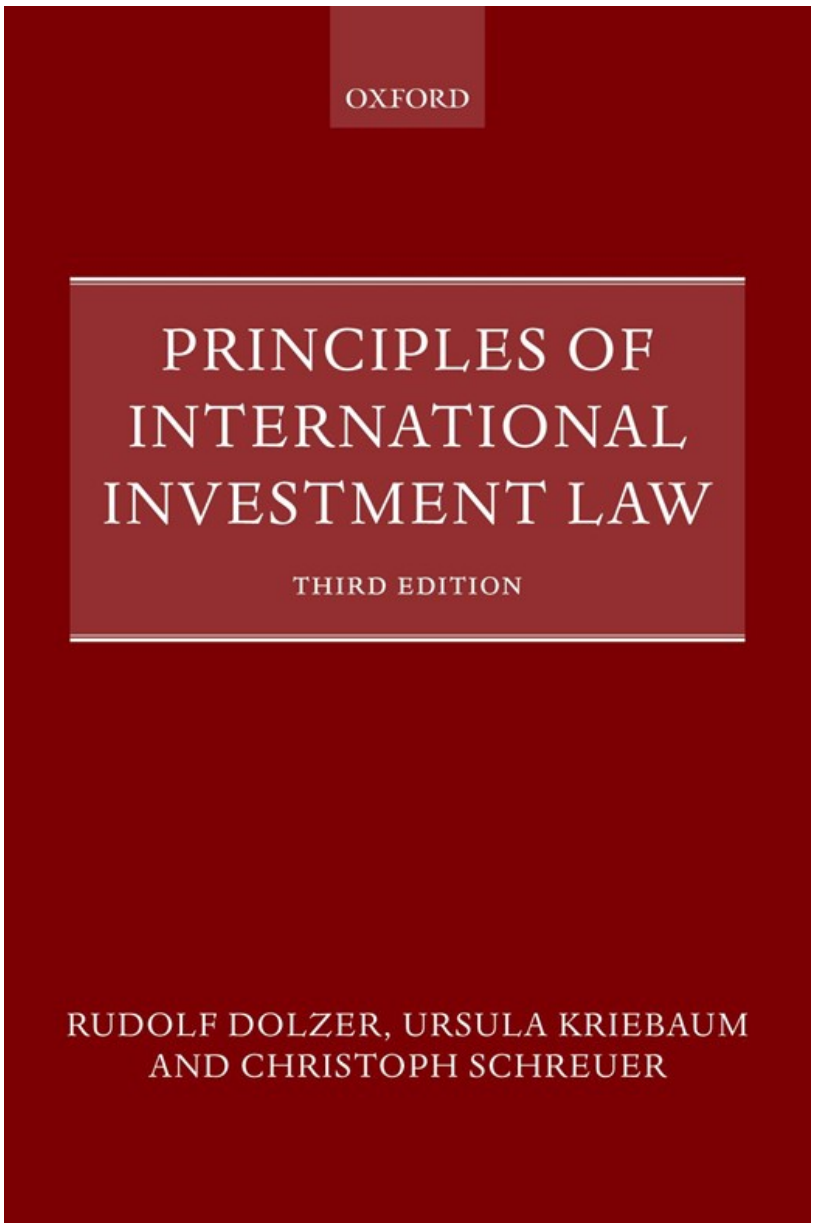

Principles of International Investment Law (3rd Edition)

Ursula Kriebaum et al.

https://doi.org/10.1093/law/9780192857804.001.0001

Published: 06 January 2022

Online ISBN: 9780191948688

Print ISBN: 9780192857804

CHAPTER

VII Expropriation

Rudolf Dolzer

https://doi.org/10.1093/law/9780192857804.003.0007 Pages 146–185

Published: January 2022

Abstract

This chapter addresses the rules of international law governing the expropriation of alien property. Consistent with the notion of territorial sovereignty, the classical rules of international law have accepted the host State's right to expropriate alien property. Customary international law placed certain limitations on the host State's right to take alien property, but even modern investment treaties respect the right to expropriate in principle. Treaty law typically addresses only the conditions and consequences of an expropriation, leaving the right to expropriate as such unaffected. The legality of an expropriation depends on whether these conditions have been met. Practice shows that claims for expropriations relate to a variety of assets, tangible and intangible, and even to arbitral awards. Among intangible assets, the expropriation of contract rights has played an important role in practice. The chapter then looks at how indirect expropriations have gained in importance. An indirect expropriation leaves the title untouched but deprives the investor of the possibility to utilize the investment in a meaningful way. A typical feature of an indirect expropriation is that the State will deny the existence of an expropriation and will not contemplate the payment of compensation.

Keywords: Indirect expropriation

Subject: International Economic Law, Arbitration, Law of Treaties, Settlement of Disputes, Private International Law and Conflict of Laws

Collection: Oxford Scholarly Authorities on International Law

ADDITIONAL READING: GC Christie, 'What Constitutes a Taking of Property under International Law' (1962) 38 *BYIL* 307; R Dolzer, 'New Foundations of the Law of Expropriation of Alien Property' (1981) 75 *AJIL* 553; R Higgins, 'The Taking of Foreign Property by the State' (1982) 176 *Recueil* 259; R Dolzer, 'Indirect Expropriation of Alien Property' (1986) 1 *ICSID Rev* 41; WM Reisman and RD Sloane, 'Indirect Expropriation and its Valuation in the BIT Generation' (2003) 74 *BYIL* 115; Y Fortier and SL Drymer, 'Indirect Expropriation in the Law of International Investment' (2004) 19 *ICSID Rev* 293; A Newcombe, 'The Boundaries of Regulatory Expropriation in International Law' (2005) 20 *ICSID Rev* 1; CH Schreuer, 'The Concept of Expropriation under the ECT and other Investment Protection Treaties' in C Ribeiro (ed) *Investment Arbitration and the Energy Charter Treaty* (2006) 108; V Heiskanen, 'The Doctrine of Indirect Expropriation in Light of the Practice of the Iran–United States Claims Tribunal' (2007) 8 *JWIT* 215; U Kriebaum, 'Partial Expropriation' (2007) 8 *JWIT* 69; U Kriebaum, 'Regulatory Takings' (2007) 8 *JWIT* 717; A Siwy, 'Indirect Expropriation and the Legitimate Expectations of the Investor' in C Klausegger et al (eds) *Austrian Arb YB* (2007) 355; A Hoffmann, 'Indirect Expropriation' in A Reinisch (ed) *Standards of Investment Protection* (2008) 151; A Reinisch, 'Expropriation' in P Muchlinski et al (eds) *The Oxford Handbook of International Investment Law* (2008) 407; U Kriebaum, 'Expropriation' in M Bungenberg et al (eds) *International Investment Law* (2015) 959; SR Ratner, 'Compensation for Expropriations in a World of Investment Treaties' (2017) 111 *AJIL* 7; HG Gharavi, 'Discord Over Judicial Expropriation' (2018) 33 *ICSID Rev* 349; A Rajput, *Regulatory Freedom and Indirect Expropriation in Investment Arbitration* (2018); C Titi, 'Police Powers Doctrine and International Investment Law in A Gattini et al (eds) *General Principles of Law and International Investment Arbitration* (2018) 323; JM Cox, *Expropriation in Investment Treaty Arbitration* (2019); A Reinisch and C Schreuer, *International Protection of Investments* (2020) 1–250.

The rules of international law governing the expropriation of alien property have long been of central concern to foreigners in general and to foreign investors in particular. Expropriation is the most severe form of interference with property. All expectations of the investor are destroyed in case the investment is taken without adequate compensation.

p. 147 Consistent with the notion of territorial sovereignty, the classical rules of international law have accepted the host State's right to expropriate alien property. Customary international law placed certain limitations on the host State's right to take alien property. But even modern investment treaties respect the right to expropriate in principle. Treaty law typically addresses only the conditions and consequences of an expropriation, leaving the right to expropriate as such unaffected. The legality of an expropriation depends on whether these conditions have been met.[1]

1. The object of an expropriation

Most contemporary treaties, in their provisions dealing with expropriation, refer to 'investments'. Similarly, the jurisdiction of arbitral tribunals is typically restricted to disputes arising from 'investments'. Therefore, it is 'investments', as defined in these treaties, that are protected.

As described in Chapter IV, an investment is typically a complex operation consisting of a multitude of tangible and intangible assets. The definitions of 'investments' in treaties, include various intangible rights such as mortgages, shares, claims to money, intellectual property rights, and contracts.[2] Practice shows that claims for expropriations relate to a variety of assets, tangible and intangible, and even to arbitral awards. Among intangible assets, the expropriation of contract rights has played an important role in practice.

(a) Expropriation of contract rights

'The taking away or destruction of rights acquired, transmitted, and defined by a contract is as much a wrong, entitling the sufferer to redress, as the taking away or destruction of tangible property.' This principle, stated in 1903 by a member of the US–Venezuela Mixed Claims Commission in the *Rudloff* case,[3] was followed in 1922 by the Permanent Court of Arbitration in the *Norwegian*
p. 148 *Shipowners* case[4] and also by the Permanent Court of International Justice (PCIJ) in 1926 in the ↳ *Chorzow Factory* case.[5] Cases decided in investment arbitrations[6] and by the Iran–United States Claims Tribunal[7] have confirmed this position.

The Tribunal in *SPP v Egypt*[8] examined whether measures by Egypt affecting rights under a contract to build hotels may amount to an expropriation. The Tribunal said:

> 164. Nor can the Tribunal accept the argument that the term 'expropriation' applies only to *jus in rem*. The Respondent's cancellation of the project had the effect of taking certain important rights and interests of the Claimants… Clearly, those rights and interests were of a contractual rather than *in rem* nature. However, there is considerable authority for the proposition that contract rights are entitled to the protection of international law and that the taking of such rights involves an obligation to make compensation therefore.
>
> 165. Moreover, it has long been recognized that contractual rights may be indirectly expropriated.[9]

In the modern investment context, many investment decisions are accompanied and protected by specific investment agreements with the host State, often covering matters such as taxation, customs regulations, the right and duty to sell at a certain price to the host State, or pricing issues. As set out in more detail in Chapter V, these agreements form the legal and financial foundations of the investment, and the business decisions based upon them may collapse in their absence. Thus, it is understandable that practically all investment treaties state that contracts are covered by the term 'investment'.[10] In turn, provisions dealing with expropriation in these treaties refer to 'investments'. It follows that contracts are protected against expropriation.

The Tribunal in *Tokios Tokelės v Ukraine* stated that all business operations associated with the physical property of the investors are covered by the term 'investment', including contractual rights.[11]

p. 149 The Tribunal in *Siemens v Argentina*,[12] applying the bilateral investment treaty (BIT) between Argentina and Germany, said:

> The Contract falls under the definition of 'investments' under the Treaty and Article 4(2) refers to expropriation or nationalization of investments. Therefore, the State parties recognized that an investment in terms of the Treaty may be expropriated. There is nothing unusual in this regard. There is a long judicial practice that recognizes that expropriation is not limited to tangible property.[13]

(b) Partial expropriation

The doctrine of the unity of the investment[14] would appear to militate against admitting the possibility of an expropriation of only a part of the investment. In addition, the requirement of a substantial or total deprivation of the investment for the existence of an expropriation[15] would make a partial expropriation unlikely.[16]

The Tribunal in *Electrabel v Hungary*[17] rejected the idea of a partial expropriation of the investment. It said:

> If it were possible so easily to parse an investment into several constituent parts each forming a separate investment (as Electrabel here contends), it would render meaningless that tribunal's approach to indirect expropriation based on 'radical deprivation' and 'deprivation of any real substance' as being similar in effect to a direct expropriation or nationalisation. It would also mean, absurdly, that an investor could always meet the test for indirect expropriation by slicing its investment as finely as the particular circumstances required, without that investment as a whole ever meeting that same test… it is clear that both in applying the wording of Article 13(1) ECT and under international law, the test for expropriation is applied to the relevant investment as a whole, even if different parts may separately qualify as investments for jurisdictional purposes. Here the investment held by Electrabel as a whole was its aggregate collection of interests in Dunamenti; it was thus one integral investment; and in the context of expropriation it was not a series of separate, individual investments.[18]

p. 150 Nevertheless, some tribunals have accepted the possibility of an expropriation of particular rights that formed part of an overall business operation.[19] In *Middle East Cement v Egypt*,[20] the investor had, *inter alia*, obtained an import licence for cement and had operated a ship. Egypt subsequently took measures that prevented the investor from operating its licence and seized and auctioned the ship. The investor asserted a series of rights in respect of which it alleged expropriation. These included the import licence and ownership of the ship. The Tribunal looked at these claims separately and determined in respect of each of them whether an expropriation had taken place. It found that the licence qualified as an investment and that the measures that prevented the exercise of the rights under it amounted to an expropriation.[21] The Tribunal examined separately whether an expropriation of the ship had occurred and gave an affirmative answer.[22] Several other claims of expropriation in respect of other rights were also examined but denied for a variety of reasons.[23] Therefore, *Middle East Cement* demonstrates that it is possible to expropriate specific rights enjoyed by the investor separately regardless of the control over the overall investment.

In *Eureko v Poland*,[24] the investor had acquired a minority share in a privatized insurance company. A related agreement granted the investor the right to acquire further shares thereby gaining majority control of the company. The right to acquire the additional shares was subsequently withdrawn by the State. The original investment remained unaffected. The Tribunal found that the right to acquire further shares constituted 'assets', which were separately capable of expropriation.[25] It follows from this decision that even where control over the basic investment remains unaffected, the taking of specific rights that are related to the basic investment may amount to an expropriation.

In *Ampal-American v Egypt*,[26] the Tribunal considered whether Egypt's revocation of a licence to participate in a tax-free zone amounted to an expropriation, although this interference did not destroy the entire project.[27] The Tribunal confirmed that the licence was an investment in its own right and that the revocation therefore was a direct and total taking of a discrete investment protected by the Treaty.[28]

What counts for the tribunals that admit a partial expropriation claim is that the right concerned by the expropriatory measure could
p. 151 have been an investment ↳ by itself and would have enjoyed protection independent from the rest of the investment.[29]

2. Expropriation as an act of government

It is uncontested that expropriation requires an act of the State in its official capacity. Typically, expropriations occur through legislative acts and through measures taken by the State's administration, often in combination. Some cases even involve action or inaction of the host State's courts that are said to be expropriatory.[30]

The need for an act of an official nature is particularly evident in the treatment of claims based on contract. As pointed out above,[31] contracts can be assets that are susceptible to expropriation. But not every failure by a government to perform a contract will amount to an expropriation even if the violation leads to a loss of rights under the contract. A simple breach of contract at the hands of the State is not an expropriation.[32] Tribunals have found that the decisive factor is whether the State has acted in an official, governmental capacity.[33]

In *RFCC v Morocco*, the Tribunal differentiated between the mere exercise of a contractual right and an action by the host State 'in public capacity' and placed emphasis on whether or not a law or a governmental decree had been passed or a judgment executed.[34]

Other tribunals have held similarly that mere breaches of contract or defects in its performance would not amount to an
p. 152 expropriation. What was needed was an act of public authority.[35] In *Siemens v ↳ Argentina*,[36] the Tribunal, in discussing expropriation, found that a State Party to a contract would breach the applicable treaty only if its behaviour went beyond that which an ordinary contracting party could adopt.[37] The Tribunal said:

> for the State to incur international responsibility it must act as such, it must use its public authority. The actions of the State have to be based on its 'superior governmental power'. It is not a matter of being disappointed in the performance of the State in the execution of a contract but rather of interference in the contract execution through governmental action.[38]

Specifically, tribunals have held that a failure to pay a debt under a contract does not amount to an expropriation.[39] *Waste Management v Mexico II*[40] concerned a concession for waste disposal. The Tribunal found that the mere non-payment by the city of Acapulco of amounts due under the concession agreement did not amount to an expropriation.[41] It found that the State's failure to pay bills, did not amount to an 'outright repudiation of the transaction', and did not purport to terminate the contract. Only a decree or executive act or an exercise of legislative public authority could amount to an expropriation. The Tribunal said:

> The mere non-performance of a contractual obligation is not to be equated with a taking of property, nor (unless accompanied by other elements) is it tantamount to expropriation. Any private party can fail to perform its contracts, whereas nationalization and expropriation are inherently governmental acts[42] … The Tribunal concludes that it is one thing to expropriate a right under a contract and another to fail to comply with the contract. Non-compliance by a government with contractual obligations is not the same thing as, or equivalent or tantamount to, an expropriation.[43]

p. 153 While these considerations are clearly helpful, they do not exhaust the subject matter. Indeed, the *Waste Management II* Tribunal itself recognized, without elaboration, that 'one could envisage conduct tantamount to an expropriation which consisted of acts and omissions not specifically or exclusively governmental'.[44] An analysis designed to cover all acts of expropriation cannot focus exclusively on the existence of formal governmental acts. It must also contemplate other relevant factors, such as the exercise of contractual rights as a mere pretext to conceal an expropriatory measure.[45]

3. Indirect expropriation

The difference between a direct or formal expropriation and an indirect expropriation turns on whether the legal title of the owner is affected by the measure in question. Today direct expropriations have become rare.[46] Most States are reluctant to jeopardize their investment climate by taking the drastic and conspicuous step of an open taking of foreign property. An official act that takes the title of the foreign investor's property will attract negative publicity and is likely to do lasting damage to the State's reputation as a venue for foreign investments.

In consequence, indirect expropriations have gained in importance. An indirect expropriation leaves the title untouched but deprives the investor of the possibility to utilize the investment in a meaningful way. A typical feature of an indirect expropriation is that the State will deny the existence of an expropriation and will not contemplate the payment of compensation.

(a) Broad formulae

The contours of the definition of an indirect expropriation are not precisely drawn. This is so, even under new investment protection treaties that attempt to define indirect investment.[47] An increasing number of arbitral cases and a growing body of literature on the subject have shed some light on the issue but the debate goes on. Some tribunals have interpreted the concept of indirect
p. 154 expropriation ↳ narrowly and have preferred to find a violation of the standard of fair and equitable treatment.[48]

The concept of indirect expropriation as such was clearly recognized in the early case law of arbitral tribunals and of the Permanent Court of International Justice in the 1920s and 1930s.[49] Today it is generally accepted that certain types of measures affecting foreign property will be considered an expropriation, and require compensation, even though the owner retains the formal title. What was and remains contentious is the line between non-compensable regulatory and other governmental activity and measures amounting to indirect, compensable expropriation. The issue is equally important to the host State, which may wish to broaden the range of non-compensable activities and to the foreign investor who will argue in favour of a broad understanding of the concept of indirect takings.

Bilateral and multilateral treaties and draft treaties typically contain a reference to indirect expropriation or to measures tantamount to expropriation. The Abs–Shawcross Draft Convention on Investment Abroad (1959) referred to ‘measures against nationals of another Party to deprive them directly or indirectly of their property’. Essentially, the same wording appears in the 1967 OECD Draft Convention on the Protection of Foreign Property. The Draft United Nations Code of Conduct on Transnational Corporations referred to ‘[a]ny such taking of property whether direct or indirect’. The 1992 World Bank Guidelines on the Treatment of Foreign Direct Investment speak of expropriation or ‘measures which have similar effects’. Similarly, the 1998 OECD Draft for a Multilateral Agreement on Investment refers to ‘measures having equivalent effect’. The 1994 Energy Charter Treaty (ECT) similarly refers to ‘a measure or measures having effect equivalent to nationalization or expropriation’. Another variation is contained in the NAFTA of 1992, which speaks of ‘a measure tantamount to nationalization or expropriation’. The USMCA of 2020 speaks of ‘measures equivalent to expropriation or nationalization’.

Most current bilateral investment treaties contain similar language. The French Model Treaty states: ‘Neither Contracting Party shall take any measures of expropriation or nationalization or any other measures having the effect of dispossession, direct or indirect, of nationals or companies of the other Contracting Party of their investments.’[50] According to the 2008 German Model Treaty ‘[i]nvestments by investors of either Contracting State shall not directly or indirectly be expropriated, nationalized or subjected to any other measure the effects of which would be tantamount to expropriation or nationalization’.[51] The 2008 Model Treaty used by
p. 155 the United Kingdom provides that ‘[i]nvestments of nationals or companies of ↳ either Contracting Party shall not be nationalized, expropriated or subjected to measures having effect equivalent to nationalization or expropriation’.[52]

The 2004 and 2012 US Model BITs approach the issue in greater detail. After stating in Article 6(1) that ‘[n]either Party may expropriate or nationalize a covered investment either directly or indirectly through measures equivalent to expropriation or nationalization’,[53] a special Annex B named ‘Expropriation’ adds:

(a) The determination of whether an action or series of actions by a Party, in a specific fact situation, constitutes an indirect expropriation, requires a case-by-case, fact-based inquiry that considers, among other factors:

  (i) the economic impact of the government action, although the fact that an action or series of actions by a Party has an adverse effect on the economic value of an investment, standing alone, does not establish that an indirect expropriation has occurred;

  (ii) the extent to which the government action interferes with distinct, reasonable investment-backed expectations; and

  (iii) the character of the government action.

(b) Except in rare circumstances, non-discriminatory regulatory actions by a Party that are designed and applied to protect legitimate public welfare objectives, such as public health, safety, and the environment, do not constitute indirect expropriations.[54]

Among the broader formulae proposed in general studies and drafts, some have received special attention in the decisions of arbitral tribunals and in academic writings. Professors Sohn and Baxter included in their 1961 Draft Convention on the International Responsibility of States for Injuries to Aliens, a version that contains specific categories of indirect takings:

> A taking of property includes not only an outright taking of property but also any such unreasonable interference with the use, enjoyment, or disposal of property as to justify an inference that the owner thereof will not be able to use, enjoy, or dispose of the property within a reasonable period of time after the inception of such interference.[55]

The 1986 Restatement (Third) of the Foreign Relations Law of the United States (§ 712) is much shorter and in its text only speaks
p. 156 of a 'taking'. Comment (g) refers ↳ to actions 'that have the effect of "taking" the property, in whole or in large part, outright or in stages ("creeping expropriation")'.

A United Nations Conference on Trade and Development (UNCTAD) study, prepared in 2000, uses different language and considers that 'measures short of physical takings may amount to takings in that they result in the effective loss of management, use or control, or a significant depreciation of the value, of the assets of a foreign investor'.[56]

In an early influential article Gordon Christie reviewed the then existing case law and pointed to certain recognized groups and categories of indirect takings, without an attempt to present a general formula.[57] Judge Rosalyn Higgins, in her 1982 Hague Lectures, questioned the usefulness of a distinction between non-compensable *bona fide* governmental regulation and 'taking' for a public purpose:

> Is this distinction intellectually viable? Is not the State in both cases (that is, either by a taking for a public purpose, or by regulating) purporting to act in the common good? And in each case has the owner of the property not suffered loss? Under international law standards, a regulation that amounted (by virtue of its scope and effect) to a taking, would need to be 'for a public purpose' (in the sense of a general, rather than for a private, interest). And just compensation would be due.[58]

It has been argued elsewhere that the international law of expropriation has essentially grown out of, and mirrored, the parallel domestic laws.[59] As a consequence of this linkage, it appears plausible that measures that are, under the rules of the main domestic laws, normally considered regulatory without requiring compensation, will not require compensation under international law either.

The importance of the effect of a measure for the question of whether an expropriation has occurred was highlighted by Reisman and Sloane:

> tribunals have increasingly accepted that expropriation must be analyzed in consequential rather than in formal terms. What matters is the effect of governmental conduct—whether malfeasance, misfeasance, or nonfeasance, or some combination of the three—on foreign property rights or control over an investment, not whether the state promulgates a formal decree or otherwise expressly proclaims its intent to expropriate. For purposes of state responsibility and the
> p. 157 obligation to ↳ make adequate reparation, international law does not distinguish indirect from direct expropriations.[60]

In recent jurisprudence, the formula most often found is that the existence of an expropriation requires a 'substantial deprivation' of an investment.[61]

The oscillating understanding of this approach may be illustrated in the light of relevant jurisprudence.

(b) Some illustrative cases

Cases decided by tribunals demonstrate the variety of scenarios in which the question of indirect expropriation may come up. Tribunals have had to adapt their focus of inquiry to these different circumstances. An emphasis on different aspects of the law must not necessarily be construed as an expression of inconsistency. Often, the facts of a case simply highlight only one specific factor and the neglect of other possible factors does not result from oversight but from their irrelevance to the specific circumstances. A short survey of cases may indicate the diversity of factual bases and of the reasoning of tribunals.

The *Oscar Chinn* case[62] illustrates that the prohibition of uncompensated expropriation is no insurance against changes in the business environment. It concerned the interests of a British shipping business in the Congo. In the aftermath of the economic crisis of 1929, the Belgian government had intervened in the shipping business on the Congo River by reducing the prices charged by Mr Chinn's only competitor, the partly State-owned company, *UNATRA.* The government had also granted corresponding subsidies to *UNATRA* in order to keep the transport system on the Congo River viable. This made the business of Oscar Chinn economically unsustainable. The PCIJ concluded that there was no taking. It said:

> The Court … is unable to see in his [Mr. Chinn's] original position—which was characterized by the possession of customers and the possibility of making a profit—anything in the nature of a genuine vested right. Favourable business conditions and good-will are transient circumstances, subject to inevitable changes; … No enterprise … can escape from the chances and hazards resulting from general economic conditions.[63]

p. 158 The arbitration in *Revere Copper v OPIC*[64] concerned a dispute arising from the insurance by the US Overseas Private Investment Corporation (OPIC)[65] of an investment made by the US claimant in Jamaica. This case illustrates how a State measure that does not interfere with the title to the property (a mining lease) and does not take away the property of the plant or the facilities of an investor, nevertheless makes it impossible to control the investment economically and, therefore, can be an indirect expropriation.

Revere Copper had made substantial investments in the Jamaican bauxite mining sector. An agreement concluded in 1967 between RJA, the investor's local subsidiary, and the Jamaican government fixed the taxes and royalties that were to be paid by RJA for a period of 25 years and provided that no further taxes or financial burdens would be imposed on RJA by the Jamaican authorities. However, in 1972, the newly elected Jamaican government announced a far-reaching reform of the bauxite sector and, in 1974, increased the royalties to be paid by RJA so drastically that RJA ceased operating in 1975.

Revere Copper then sought recovery under its OPIC insurance contract, alleging that the measures adopted by the Jamaican government amounted to an expropriation of its investment. The General Terms and Conditions of the OPIC contract defined 'expropriatory action' *inter alia*, as: 'any action which … for a period of one year directly results in preventing … the Foreign Enterprise from exercising effective control over the use or disposition of substantial portion of its property or from constructing the project or operating the same'. Although there had been no interference with Revere's physical property, the majority of the Tribunal found that the repudiation of the guarantees given to Revere amounted to an action that had resulted in preventing the foreign enterprise from exercising effective control over the use or disposition of a substantial portion of its property:

> OPIC argues that RJA still has all the rights and property that it had before the events of 1974: it is in possession of the plant and other facilities; it has its Mining Lease; it can operate as it did before. This may be true in a formal sense but … we do not regard RJA's 'control' of the use and operation of its properties as any longer 'effective' in view of the destruction by Government actions of its contract rights.[66]

The arbitral Tribunal came to this conclusion by emphasizing that 'control in a large industrial enterprise … is exercised by a continuous stream of decisions' and that without the repudiated agreement between RJA and Jamaica, '[t]here is no way in which rational decisions can be made'.[67]

p. 159 *Metalclad v Mexico*[68] illustrates that the effect of a measure is more important than the form. In *Metalclad*, a US company had been granted a permit for the development and operation of a hazardous waste landfill by the Mexican federal government. Subsequently, the local municipal authorities refused to grant the necessary construction permit and the regional government declared the land in question a national area for the protection of cactuses. The arbitral Tribunal found a violation of the North American Free Trade Agreement (NAFTA) Article 1110, which provides that '[n]o Party may directly or indirectly nationalize or expropriate an investment of an investor of another Party in its territory or take a measure tantamount to nationalization or expropriation of such an investment'. An often-repeated passage in the Tribunal's Award reads:

> Thus, expropriation under NAFTA includes not only open, deliberate and acknowledged takings of property, such as outright seizure or formal or obligatory transfer of title in favour of the host State, but also covert or incidental interference with the use of property which has the effect of depriving the owner, in whole or in significant part, of the

> use or reasonably-to-be-expected economic benefit of property even if not necessarily to the obvious benefit of the host State.[69]

Middle East Cement v Egypt[70] shows that the withdrawal of a licence can also amount to an expropriation. The case concerned the revocation of a free zone licence through the prohibition of import of cement into Egyptian territory. The prohibition resulted in paralysis of the investor's business, which essentially consisted of importing, storing, and dispatching cement within Egypt. The Tribunal found that the import prohibition resulted in an indirect taking of the claimant's investment:

> When measures are taken by a State the effect of which is to deprive the investor of the use and benefit of his investment even though he may retain nominal ownership of the respective rights being the investment, the measures are often referred to as a 'creeping' or 'indirect' expropriation or, as in the BIT, as measures 'the effect of which is tantamount to expropriation.' As a matter of fact, the investor is deprived by such measures of parts of the value of his investment. This is the case here, and, therefore, it is the Tribunal's view that such a taking amounted to an expropriation within the meaning of Art. 4 of the BIT and that, accordingly, Respondent is liable to pay compensation therefor.[71]

p. 160 *Fireman's Fund v Mexico*[72] illustrates that the expropriation clause of investment treaties is no insurance against business risk. The case involved an expropriation claim under NAFTA Chapter XIV, devoted to cross-border investment in financial services. That Chapter allows an expropriation claim under Article 1110 NAFTA but does not allow claims pertaining to a violation of the minimum standard or the rule on national treatment. The US claimant submitted that its investment in a Mexican financial institution was expropriated by a series of actions of the Mexican government.[73] The bank in which claimant had invested was in a delicate financial situation, and the claimant argued that the Mexican government had taken steps which permanently deprived it of the value of the investment. The Tribunal summarized the law of expropriation as follows:

> NAFTA does not give a definition for the word 'expropriation.' In some ten cases in which Article 1110(1) of the NAFTA was considered to date, the definitions appear to vary. Considering those cases and customary international law in general, the present Tribunal retains the following elements.
>
> (a) Expropriation requires a taking (which may include destruction) by a government-type authority of an investment by an investor covered by the NAFTA.
>
> (b) The covered investment may include intangible as well as tangible property.
>
> (c) The taking must be a substantially complete deprivation of the economic use and enjoyment of the rights to the property, or of identifiable distinct parts thereof (i.e., it approaches total impairment).
>
> (d) The taking must be permanent, and not ephemeral or temporary.
>
> (e) The taking usually involves a transfer of ownership to another person (frequently the government authority concerned), but that need not necessarily be so in certain cases (e.g., total destruction of an investment due to measures by a government authority without transfer of rights).
>
> (f) The effects of the host State's measures are dispositive, not the underlying intent, for determining whether there is expropriation.
>
> (g) The taking may be *de jure* or *de facto.*
>
> (h) The taking may be 'direct' or 'indirect.'
>
> (i) The taking may have the form of a single measure or a series of related or unrelated measures over a period of time (the so-called 'creeping' expropriation).
>
> (j) To distinguish between a compensable expropriation and a non-compensable regulation by a host State, the
> p. 161 following factors (usually in combination) may be taken into account: whether the measure is within the ↳ recognized police powers of the host State; the (public) purpose and effect of the measure; whether the measure is

> discriminatory; the proportionality between the means employed and the aim sought to be realized and the bona fide nature of the measure.
>
> (k) The investor's reasonable 'investment-backed expectations' may be a relevant factor whether (indirect) expropriation has occurred.[74]

In the end, the Tribunal considered that the actual cause of the problems faced by the investor was that its investment had been risky and that the business risks involved had materialized. It found that Mexico had discriminated against the investor and possibly had acted in an unfair manner, but that it had no jurisdiction in these respects under NAFTA's rules on financial services.[75]

Vivendi v Argentina[76] is an example for a case where a combination of several State measures, not interfering with the physical control of the investor's assets, can nevertheless lead to an expropriation. The case concerned a concession for a water and sewage business. The claimants alleged that Argentina had unilaterally modified tariffs, had used its power of oversight to confront the claimants with unjustified accusations, had used the media to generate hostility towards claimants, had incited claimants' customers not to pay, and had forced claimants to renegotiate the concession.

The Tribunal agreed with the claimants that Argentina's measures went beyond a partial deprivation,[77] left the concession without value, and held that they amounted to a creeping expropriation. The Tribunal rejected Argentina's defence that claimants' control of their physical assets excluded an expropriation.[78] It pointed to the effects of Argentina's destructive acts[79] and emphasized that the pursuit of a public purpose does not immunize a governmental measure from a claim of expropriation.[80]

Biwater Gauff v Tanzania[81] concerned a claim for expropriation surrounding the peculiar circumstances of a termination of a lease contract in the water and sewage business. The Tribunal confirmed that the contract was an investment,[82] that an expropriation claim must be determined in the light of the effect of the measures (not necessarily of an economic nature),[83] and recognized that all
p. 162 relevant acts of a government affecting the property must be considered cumulatively.[84] The Tribunal ↳ also found that an exercise of *puissance publique* was necessary for a finding of expropriation, but not a denial of justice.[85] According to this decision, an indirect expropriation had to be assumed in case of 'a substantial deprivation of rights for at least a meaningful period of time'.[86]

In the event, the Tribunal found that the formal termination of the lease by Tanzania was of an ordinary contractual nature and therefore could not amount to an expropriation. However, a series of acts preceding the termination did violate the treaty rule on expropriation: an inflammatory press conference by a Minister, the withdrawal of a value-added tax (VAT) exemption, the forceful occupation of claimants' facilities, the usurpation of the claimants' management rights and the deportation of senior staff amounted to an indirect expropriation. The Tribunal examined arbitral jurisprudence and found that occupation and seizure, takeover of management, and the deportation of management personnel in themselves led to this conclusion.

In the end, however, claimants received no compensation; already before the government's interventions, the company had significant liabilities, its contract was about to be terminated, and a willing buyer would not have paid any money to acquire the company.

Suez and InterAgua v Argentina[87] concerned Argentina's treatment of claimant's right to operate, for 30 years, a water and sewage system and to receive corresponding revenues based on a tariff regime for that period. Claimants submitted that regulatory measures by Argentina and also its refusal to adjust the tariffs amounted to an expropriation. On both counts, the Tribunal rejected the claim, pointing to claimant's ongoing control of its operations.[88]

As regards the regulatory measures in particular, the Tribunal relied on the opaque concept of an 'overt taking'[89] which, in its view, did not exist despite a series of measures affecting the right to withdraw cash from bank accounts, new taxes, currency measures resulting in a deprivation of the local Peso, and the abandonment of an index-based scheme of tariff adjustment. In principle, at least, the Tribunal recognized that an examination of a taking must be targeted at the effects, not at the intention of a measure.[90] In general, an indirect expropriation presupposed 'a substantial, permanent deprivation of the claimant's investments or the enjoyment of those investments' economic benefits'. Under the circumstances, the termination of the underlying concession contract by Argentina was deemed contractual in nature and did not involve the exercise of Argentina's sovereign power; as a consequence, the measure was not expropriatory in nature.[91]

p. 163 In *Alpha v Ukraine*[92] the Austrian claimant had entered into an agreement with a State enterprise concerning the renovation and operation of a hotel in the Ukraine. After a while, regular payments due to the claimant under the agreement were stopped amidst political and criminal turmoil. It turned out that the State had, for non-political reasons, halted the payments to the claimant.[93] As a result of the non-payment, the economic value of the rights held by the claimant was largely wiped out. The Tribunal questioned the relevance of the distinction between 'sovereign' and 'commercial' actions to the question whether Ukraine's actions had expropriated the claimant's investment. It concluded that the State's actions amounted to an indirect expropriation. The decision illustrates that the issue of non-payment of debt resists generalization. Depending upon the circumstances, non-payment may amount to an expropriation.

These cases illustrate that indirect expropriations can arise out of very diverse factual situations and take very different forms. Tribunals have considered various factors when they decided whether in a particular case an expropriation had occurred. What all these awards have in common is that a substantial interference through a sovereign act over a significant period of time is always a requirement of an indirect expropriation.

(c) Severity of the deprivation

The effect of the State measure(s) upon the economic benefit and value as well as upon the control over the investment is the key question in determining whether an expropriation has occurred. Whenever the effect is not substantial, tribunals decide that there was no expropriation.[94] Whenever the effect is substantial and lasts for a significant period of time, there is a prima facie assumption that a taking of the property has occurred.[95]

Tribunals have accordingly based their decisions primarily on economic considerations. An indirect expropriation was seen to exist if the measure constituted a deprivation of the economic use and enjoyment, 'as if the rights related thereto—such as the income or benefits … had ceased to exist', or when 'the use or enjoyment of benefits related thereto is exacted or interfered with to a similar extent'.[96] Other formulae and phrases have also been used.[97]

p. 164 In *RFCC v Morocco*,[98] the Tribunal stated that an indirect expropriation exists in case the measures have 'substantial effects of an intensity that reduces and/or removes the legitimate benefits related with the use of the rights targeted by the measure to an extent that they render their further possession useless'.[99]

Other decisions have in various wordings and degrees also emphasized the significance of the severity of the measure.[100] In *CMS v Argentina*,[101] the Tribunal found that no indirect expropriation had occurred when Argentina unilaterally suspended a previously agreed tariff adjustment scheme for the gas transport sector in the context of its economic and financial crisis. The US company CMS had argued, *inter alia*, that the suspension of the tariff adjustment formula amounted to an indirect expropriation of its investment in the Argentine gas transport sector. The Tribunal rejected this argument even though it admitted that the measures had an important effect on the claimant's business:

> The essential question is therefore to establish whether the enjoyment of the property has been effectively neutralized. The standard that a number of tribunals have applied in recent cases where indirect expropriation has been contended is that of substantial deprivation… the investor is in control of the investment; the Government does not manage the day-to-day operations of the company; and the investor has full ownership and control of the investment.[102]

p. 165 In *Telenor v Hungary*,[103] the investor held a telecom concession. It was affected by a special levy on all telecommunications service providers. The Tribunal held that to constitute an expropriation, the conduct complained of must have a major adverse impact on the economic value of the investment.[104] The Tribunal said:

> the interference with the investor's rights must be such as substantially to deprive the investor of the economic value, use or enjoyment of its investment.[105] . . In considering whether measures taken by government constitute expropriation the determinative factors are the intensity and duration of the economic deprivation suffered by the investor as the result of them.[106]

In the event, the Tribunal found that the special levy amounted to a very limited sum and fell below the threshold of the standard defining an indirect expropriation.[107]

The Tribunal in *Electrabel v Hungary*[108] summarizes the required effect of the measures as follows:

> In short, the Tribunal considers that the accumulated mass of international legal materials, comprising both arbitral decisions and doctrinal writings, describe for both direct and indirect expropriation, consistently albeit in different terms, the requirement under international law for the investor to establish the substantial, radical, severe, devastating or fundamental deprivation of its rights or the virtual annihilation, effective neutralisation or factual destruction of its investment, its value or enjoyment.[109]

(d) Duration of a measure

Closely related to the severity of the interference is the duration of a governmental measure affecting the interests of a foreign investor. The Iran–United States Claims Tribunal has ruled that the appointment of a temporary manager by the host State against the will of the foreign investor will constitute a taking if the consequential deprivation is not 'merely ephemeral'.[110]

p. 166 Investment tribunals have also laid emphasis on the duration of the measure in question.[111] In *SD Myers v Canada*,[112] the Tribunal said:

> An expropriation usually amounts to a lasting removal of the ability of an owner to make use of its economic rights although it may be that, in some contexts and circumstances, it would be appropriate to view a deprivation as amounting to an expropriation, even if it were partial or temporary.[113]

The Tribunal found that the measure had lasted for 18 months only and that this limited effect did not amount to an expropriation.[114]

In *Wena Hotels v Egypt*,[115] the Tribunal found that the seizure of the investor's hotel lasting for nearly a year was not 'ephemeral' but amounted to an expropriation.[116] In its subsequent Decision on Interpretation[117] the *Wena* Tribunal said:

> It is true that the Original Tribunal did not explicitly state that such expropriation totally and permanently deprived Wena of its fundamental rights of ownership. However, in assessing the weight of the actions described above, there was no doubt in the Tribunal's mind that the deprivation of Wena's fundamental rights of ownership was so profound that the expropriation was indeed a total and permanent one.[118]

LG&E v Argentina also ruled that the duration of the measure had to be taken into account.[119] The Tribunal found that, as a rule, only an interference that is permanent will lead to an expropriation:

> Similarly, one must consider the duration of the measure as it relates to the degree of interference with the investor's ownership rights. Generally, the expropriation must be permanent, that is to say, it cannot have a temporary nature, unless the investment's successful development depends on the realization of certain activities at specific moments that may not endure variations.[120]

p. 167 The Tribunal concluded:

> Thus, the effect of the Argentine State's actions has not been permanent on the value of the Claimants' shares, and Claimants' investment has not ceased to exist. Without a permanent, severe deprivation of LG&E's rights with regard to its investment, or almost complete deprivation of the value of LG&E's investment, the Tribunal concludes that these circumstances do not constitute expropriation.[121]

What is important is the effect over time and not the intended duration of a measure. Therefore, measures that were originally intended to be permanent but are reversed after a short period will not amount to an expropriation. Conversely, even temporary measures that have an equivalent effect to a permanent loss will be considered expropriatory.[122]

(e) Loss of control

Several awards suggest that continued control of an enterprise by the investor militates against a finding that an indirect expropriation has occurred. The requirement of a total or substantial deprivation has led these tribunals to deny the existence of an expropriation where the investor had retained control over the overall investment even though it had been deprived of specific rights.[123]

Azurix v Argentina[124] concerned breaches of a water concession by a province of Argentina. The Tribunal, although finding other breaches of the BIT, including fair and equitable treatment, denied the existence of an indirect expropriation, since the investor had retained control over the enterprise:

> the impact on the investment attributable to the Province's actions was not to the extent required to find that, in the aggregate, these actions amounted to an expropriation; Azurix did not lose the attributes of ownership, at all times
p. 168 continued to control ABA and its ownership of 90% of the shares was unaffected. No doubt the ↳ management of ABA was affected by the Province's actions, but not sufficiently for the Tribunal to find that Azurix's investment was expropriated.[125]

Similarly, in *LG&E v Argentina*,[126] the host State had violated the terms of concessions for the distribution of gas. The Tribunal, although finding that other standards had been violated, denied the existence of an expropriation in view of the investor's continuing control:

> Ownership or enjoyment can be said to be 'neutralized' where a party no longer is in control of the investment, or where it cannot direct the day-to-day operations of the investment… Interference with the investment's ability to carry on its business is not satisfied where the investment continues to operate, even if profits are diminished.[127]

Biwater Gauff v Tanzania,[128] another case dealing with a water concession, is an example for an expropriation through a forceful takeover of management control by the State. The Tribunal noted that effective loss of management, use or control may trigger an expropriation:

> The Treaty encompasses … also de facto or indirect expropriations which do not involve actual takings of title but nonetheless result in the effective loss of management, use or control, or a significant depreciation of the value, of the assets of a foreign investor.[129]

The Tribunal qualified the physical occupation and the takeover of management control as an expropriation.[130]

In *Saint-Gobain v Venezuela*,[131] the Tribunal found a de facto takeover of the investment by the Venezuelan State oil firm PDVSA, and a subsequent formal expropriation by decree. The plant was overrun by local union members shortly after a televised speech in which President Chavez had identified the investment as an impending target for expropriation. The Tribunal saw no conduct
p. 169 attributable to ↳ Venezuela in the takeover itself.[132] However, shortly after the takeover, Venezuela had adopted the private conduct as its own, fulfilling the test in Article 11 of the International Law Commission (ILC) Articles on State Responsibility.[133] PDVSA had taken advantage of the situation to install itself at the plant. It carried out direct instructions from the government to prepare the plant for transfer to State control.[134] The Tribunal held that Saint-Gobain had not abandoned the plant but had in fact tried to regain control, writing letters, and filing requests for 'judicial inspection'.[135] It found that an expropriation had occurred because of the de facto loss of control already before the formal expropriation.[136]

Control is obviously an important aspect in the analysis of a taking.[137] However, the continued exercise of control by the investor is not necessarily the decisive criterion. The issue becomes obvious when a host State substantially deprives the investor of the value of the investment leaving the investor with the control of an entity that does not amount to much more than the shell of the former investment.

This illustrates the significance of a test which includes criteria other than control, such as economic use and benefit. Any attempt to define an indirect expropriation on the basis of one factor alone will not lead to a satisfactory result in all cases. In particular, an

approach that looks exclusively at control over the overall investment is unable to contemplate the expropriation of specific rights enjoyed by the investor.

(f) Effect or intention?

As the Tribunal in *Azurix* pointed out, there is disagreement in the case law of arbitral tribunals whether only the effect or also the purpose of a measure matters:

> Whether to consider only the effect of measures tantamount to expropriation or consider both the effect and purpose of the measures is a point on which not only the parties disagree but also arbitral tribunals.[138]

In some cases, tribunals found that what mattered for an indirect expropriation was only the effect of the measure and that any
p. 170 intention to expropriate was not ↳ decisive.[139] In *Tecmed v Mexico*,[140] the Tribunal held that there had been an indirect expropriation. After explaining the concept of indirect or de facto expropriation, the Tribunal said: 'The government's intention is less important than the effects of the measures on the owner of the assets or on the benefits arising from such assets affected by the measures; and the form of the deprivation measure is less important than its actual effects.'[141]

In *Siemens v Argentina*,[142] the Tribunal found support in the applicable BIT for its finding that what mattered for the existence of an expropriation was the effect of the measures and not the government's intention. The Argentina–Germany BIT, like many other BITs, refers to indirect expropriation in terms of a 'measure the effects of which would be tantamount to expropriation'. The Tribunal said: 'The Treaty refers to measures that have the effect of an expropriation; it does not refer to the intent of the State to expropriate.'[143]

Authority for the 'sole effect doctrine' also comes from the practice of the Iran–US Claims Tribunal. In *Starrett Housing v Iran*,[144] the Tribunal said:

> it is recognized in international law that measures taken by a State can interfere with property rights to such an extent that these rights are rendered so useless that they must be deemed to have been expropriated, even though the State does not purport to have expropriated them and the legal title to the property formally remains with the original owner.[145]

The Tribunal in *Saipem v Bangladesh* also very clearly opted for the sole effect doctrine when it stated:

> As a matter of principle, case law considers that there is expropriation if the deprivation is substantial, as it is in the present case . …[146]

Despite the strong authority for the sole effect doctrine, there are indications that the host State's intentions are not entirely
p. 171 irrelevant. If there is evidence of an ↳ intentional deprivation this will weigh heavily in favour of showing that an expropriation has occurred.[147]

In addition, some decisions, especially in the context of regulatory measures, display a differentiated approach to the relevance of intent. They take account of the context of the measure, including the purpose pursued by the host State.[148] *Sea-Land Service v Iran*[149] seems to fall into this category. Upon review of the case law, Fortier[150] has concluded that an approach balancing different factors seems to be dominant. This is certainly true for the jurisprudence of the European Court of Human Rights (ECtHR).[151] Also, the 2004 and 2012 US Model BITs, in their description of indirect expropriation, refer not only to the economic impact of the government action but also to the design to protect legitimate public welfare objectives.[152] What is uncontroversial is that the mere ex-post facto explanation by the host State of its intention will in itself carry no decisive weight.[153]

Indeed, one tribunal has pointed out that a proper analysis of an expropriation claim must go beyond the technical consideration of the formalities and 'look at the real interests involved and the purpose and effect of the government measure'.[154]

(g) Legitimate expectations

Objective legitimate expectations play a key role in the interpretation of the fair and equitable treatment standard.[155] But they have also found entry into the law governing indirect expropriations. This theme has also found expression in various forms in domestic laws. In fact, it is arguable that the protection of legitimate expectations is part of the general principles of law.

The general nature of the concept of legitimate expectations makes it difficult to draw mechanical conclusions from it but it may be employed usefully in a number of settings. Legitimate expectations may be created not only by explicit undertakings on the part of the host State in contracts but also by undertakings of a more general kind. In particular, the legal framework provided by the host
p. 172 State will be ↳ an important source of expectations on the part of the investor. What matters for the investor's expectations is the state of the law of the host country at the time of the investment. If the law was transparent and did not violate minimum standards, an investor will not convince a tribunal that the proper application of that law has led to an expropriation. What matters are the rights acquired by the investor at the time of the investment.

Not every change in the host State's legal system affecting foreign property will violate legitimate expectations. No such violation will occur if the change remains within the boundaries of normal adjustments customary in the host State and accepted in other States. Such changes are predictable for a prudent investor at the time of the investment. For instance, the Tribunal in *Methanex v United States*[156] found that certain new environmental regulations in California had been foreseeable for the Canadian investor. Apart from specific commitments that were not honoured subsequently, the investor had no legitimate expectations that the environmental regulation would not be changed.[157]

Tribunals have relied on the legitimate expectations of investors in a number of cases relating to indirect expropriation. In *Revere Copper v OPIC*,[158] the host State had given explicit contractual assurances not to increase taxes and royalties. The Tribunal said:

> We regard these principles as particularly applicable where the question is, as here, whether actions taken by a government contrary to and damaging to the economic interests of aliens are in conflict with undertakings and assurances given in good faith to such aliens as an inducement to their making the investments affected by the action.[159]

In *Metalclad v Mexico*,[160] the investor had acted in reliance on assurances to the effect that he had all necessary permits. Nevertheless, the project was foiled by a refusal of the municipality to grant a construction permit. The Tribunal put much emphasis on the expectations created by the government's assurances:

> These measures, taken together with the representations of the Mexican federal government, on which Metalclad relied, and the absence of a timely, orderly or substantive basis for the denial by the Municipality of the local construction permit, amount to an indirect expropriation.[161]

p. 173 In a similar way, in *Tecmed v Mexico*[162] the Tribunal, in determining that the investment had been expropriated, found:

> upon making its investment, the Claimant had legitimate reasons to believe that the operation of the Landfill would extend over the long term… the Claimant's expectation was that of a long-term investment relying on the recovery of its investment and the estimated return through the operation of the Landfill during its entire useful life.[163]

In *Thunderbird v Mexico*,[164] the Tribunal gave a general definition of legitimate expectations:

> Having considered recent investment case law and the good faith principle of international customary law, the concept of 'legitimate expectations' relates, within the context of the NAFTA framework, to a situation where a Contracting Party's conduct creates reasonable and justifiable expectations on the part of an investor (or investment) to act in reliance on said conduct, such that a failure by the NAFTA Party to honour those expectations could cause the investor (or investment) to suffer damages.[165]

On the basis of this definition, the Tribunal reached the conclusion that the investor's continued operation of gaming facilities in Mexico was not based on a legitimate expectation.[166]

In *Azurix v Argentina*,[167] the Tribunal discussed the issue of legitimate expectations at some length.[168] It held that expectations 'are not necessarily based on a contract but on assurances explicit or implicit, or on representations made by the State which the investor took into account in making the investment'.[169]

On that basis it found that Argentina had created 'reasonable expectations' that it had not fulfilled.[170] The Tribunal held, however, that no indirect expropriation had taken place, since the investor had continued to exercise control over the investment.[171]

The Tribunal in *Grand River v United States*[172] also required a specific assurance for the existence of a legitimate expectation. It
p. 174 explained that in the event of an ↳ unsettled situation in domestic law and an absence of specific assurances made to an investor, the investor would not have had a legitimate expectation:

> The Tribunal understands the concept of reasonable or legitimate expectations in the NAFTA context to correspond with those expectations upon which an investor is entitled to rely as a result of representations or conduct by a state party. As the tribunal in *Thunderbird Gaming* explained, the "concept of 'legitimate expectations' relates … to a situation where a Contracting Party's conduct creates reasonable and justifiable expectations on the part of an investor (or investment) to act in reliance on said conduct, such that a failure by the NAFTA Party to honour those expectations could cause the investor (or investment) to suffer damages." The question of reasonable expectations, therefore, is not equivalent to whether or not an investor is ultimately right on a contested legal proposition that would favor the investor.
>
> … Ordinarily, reasonable or legitimate expectations of the kind protected by NAFTA are those that arise through targeted representations or assurances made explicitly or implicitly by a state party.[173]

Therefore, a regulatory interference with an investment that is of the necessary severity and frustrates a government assurance amounts to an expropriation. On the other hand, a breach of explicit assurances is, of course, not always a requirement for the existence of an expropriation.

To be 'legitimate' expectations must be objective. In this context, the Tribunal in *ECE v Czech Republic* applied a standard of reasonableness.[174] Therefore, the specificity of the assurance (stabilization clause, contract, specific government programme) as well as the regulatory environment (highly regulated field or not) will be relevant factors in the assessment of the legitimacy of an expectation.

(h) Regulatory measures

A question of prime importance both for the host State and for the foreign investor is the role of general regulatory measures of the host country under the rules of indirect expropriation. Emphasis on the host State's sovereignty supports the argument that the investor should not expect compensation for a measure of general application. One way to identify a taking may indeed be to clarify
p. 175 whether or not the measure in question was taken in the exercise of functions that are generally ↳ considered part of the government's powers to regulate the general welfare.[175] This approach calls for the comparison of domestic legal orders.[176]

In the United States, governmental regulatory powers are referred to as 'police power'. While it is debatable whether the term 'police power' is appropriate in the modern regulatory context, some investment tribunals have relied on it,[177] as did the US Restatement of Foreign Relations Law.[178] The US Model BIT of 2012 contains an explicit exception from the definition of expropriation for 'regulatory actions by a Party that are designed and applied to protect legitimate public welfare objectives'.[179]

The Iran–United States Claims Tribunal ruled in *Too v Greater Modesto Insurance Associates*:[180]

> A state is not responsible for loss of property or for other economic disadvantage resulting from *bona fide* general taxation or any other action that is commonly accepted as within the police power of States, provided it is not discriminatory and is not designed to cause the alien to abandon the property to the State or to sell it at a distress price.

In *Feldman v Mexico*,[181] the Tribunal stated the position as follows:

> the ways in which governmental authorities may force a company out of business, or significantly reduce the economic benefits of its business, are many. In the past, confiscatory taxation, denial of access to infrastructure or necessary raw materials, imposition of unreasonable regulatory regimes, among others, have been considered to be expropriatory actions. At the same time, governments must be free to act in the broader public interest through protection of the environment, new or modified tax regimes, the granting or withdrawal of government subsidies, reductions or increases in tariff levels, imposition of zoning restrictions and the like. Reasonable governmental regulation of this type cannot be
p. 176 achieved ↳ if any business that is adversely affected may seek compensation, and it is safe to say that customary international law recognizes this.[182]

Similarly, the Tribunal in *SD Myers v Canada*[183] held:

> The general body of precedent usually does not treat regulatory action as amounting to expropriation. Regulatory conduct by public authorities is unlikely to be the subject of legitimate complaint under Article 1110 of the NAFTA, although the Tribunal does not rule out that possibility.[184]

In *Methanex v USA*,[185] the arbitral Tribunal found that a Californian ban of the gasoline additive MTBE did not constitute an expropriation because the measure was adopted for a public purpose, was not discriminatory, and because no specific commitments had been given to the foreign investor:

> In the Tribunal's view, Methanex is correct that an intentionally discriminatory regulation against a foreign investor fulfils a key requirement for establishing expropriation. But as a matter of general international law, a non-discriminatory regulation for a public purpose, which is enacted in accordance with due process and, which affects, inter alios, a foreign investor or investment is not deemed expropriatory and compensable unless specific commitments had been given by the regulating government to the then putative foreign investor contemplating investment that the government would refrain from such regulation.[186]

Similarly, in *Saluka v Czech Republic*,[187] the Tribunal said:

> In the opinion of the Tribunal, the principle that a State does not commit an expropriation and is thus not liable to pay compensation to a dispossessed alien investor when it adopts general regulations that are 'commonly accepted as within the police power of States' forms part of customary international law today. There is ample case law in support of this proposition.[188]

The Award in *Continental Casualty v Argentina*[189] refers to

p. 177 > limitations to the use of property in the public interest that fall within typical government regulations of property entailing mostly inevitable limitations imposed in order to ensure the rights of others or of the general public (being ultimately beneficial also to the property affected). These restrictions do not impede the basic, typical use of a given asset and do not impose an unreasonable burden on the owner as compared with other similar situated property owners. These restrictions are not therefore considered a form of expropriation and do not require indemnification, provided however that they do not affect property in an intolerable, discriminatory or disproportionate manner.[190]

On the other hand, general regulatory rules and the measures based on them are subject to the same standards of protection that have been developed for all other instances. In the words of the decision of *Pope & Talbot v Canada*, 'a blanket exception for regulatory measures would create a gaping loophole' in the international rules protecting foreigners.[191]

In *Santa Elena v Costa Rica*,[192] the Tribunal found that the fact that measures were taken for the purpose of environmental protection did not affect their nature as an expropriation. Therefore, the obligation to pay compensation remained. The Tribunal said:

> Expropriatory environmental measures—no matter how laudable and beneficial to society as a whole—are in this respect, similar to any other expropriatory measures that a state may take in order to implement its policies: where property is

> expropriated, even for environmental purposes, whether domestic or international, the state's obligation to pay compensation remains.[193]

In *ADC v Hungary*,[194] the claimants argued that their investment in an airport project was expropriated by measures which deprived them of their rights to operate two airport terminals and to benefit from associated future business opportunities. The Tribunal accepted the claim of indirect expropriation and rejected Hungary's argument based on its right to regulate. The Tribunal said:

> 423. The Tribunal cannot accept the Respondent's position that the actions taken by it against the Claimants were merely an exercise of its rights under international law to regulate its domestic economic and legal affairs. It is the Tribunal's understanding of the basic international law principles that while a sovereign State possesses the inherent right to regulate
> p. 178 its domestic affairs, the exercise of ↳ such right is not unlimited and must have its boundaries. As rightly pointed out by the Claimants, the rule of law, which includes treaty obligations, provides such boundaries. Therefore, when a State enters into a bilateral investment treaty like the one in this case, it becomes bound by it and the investment-protection obligations it undertook therein must be honoured rather than be ignored by a later argument of the State's right to regulate.
>
> 424. The related point made by the Respondent that by investing in a host State, the investor assumes the '*risk*' associated with the State's regulatory regime is equally unacceptable to the Tribunal. It is one thing to say that an investor shall conduct its business in compliance with the host State's domestic laws and regulations. It is quite another to imply that the investor must also be ready to accept whatever the host State decides to do to it. In the present case, had the Claimants ever envisaged the risk of any possible depriving measures, the Tribunal believes that they took that risk with the legitimate and reasonable expectation that they would receive fair treatment and just compensation and not otherwise.[195]

In addition, the Tribunal made the rare finding that the host State had failed to demonstrate that its measures were in the public interest[196] and that, moreover, the taking had not taken place under due process of law.[197]

Some decisions have sought to find a balance between the host State's right to act in the public interest and the protection of the investor's rights by requiring that regulatory measures must be proportionate.[198] The Tribunal in *Azurix*[199] held that the issue was whether legitimate measures serving a public purpose should give rise to a compensation claim. It found the criterion of *bona fide* regulation within the accepted police powers of the State insufficient and contradictory. The Tribunal said about this argument:

> According to it, the BIT would require that investments not be expropriated except for a public purpose and that there be compensation if such expropriation takes place and, at the same time, regulatory measures that may be tantamount to expropriation would not give rise to a claim for compensation if taken for a public purpose.[200]

p. 179 The *Azurix* Tribunal approvingly quoted the ECtHR,[201] which had found that in addition to a legitimate aim in the public interest there had to be 'a reasonable relationship of proportionality between the means employed and the aim sought to be realized'. This proportionality would be lacking if the person concerned 'bears an individual and excessive burden'.[202]

The Tribunal in *LG&E v Argentina*[203] adopted a similar balancing test. It said:

> In order to establish whether State measures constitute expropriation under Article IV(1) of the Bilateral Treaty, the Tribunal must balance two competing interests: the degree of the measure's interference with the right of ownership and the power of the State to adopt its policies… With respect to the power of the State to adopt its policies, it can generally be said that the State has the right to adopt measures having a social or general welfare purpose. In such a case, the measure must be accepted without any imposition of liability, except in cases where the State's action is obviously disproportionate to the need being addressed. The proportionality to be used when making use of this right was recognized in *Tecmed*, which observed that 'whether such actions or measures are proportional to the public interest presumably protected thereby and the protection legally granted to investments, taking into account that the significance of such impact, has a key role upon deciding the proportionality.'[204]

The Tribunal in *Marfin v Cyprus*[205] also applied a balancing approach. The Tribunal first assessed whether the measure deprived the investors of the economic enjoyment of their rights.[206] In a next step it stated several criteria, among them proportionality, to assess whether an expropriation had occurred:

> The Tribunal considers that the economic harm consequent to the non-discriminatory application of generally applicable regulations adopted in order to protect the public welfare do not constitute a compensable taking, provided that the measure was taken in good faith, complied with due process and was proportionate to the aim sought to be achieved.[207]

The Tribunal found that the treaty's expropriation provision must be interpreted in accordance with Article 31(3)(c) of the Vienna
p. 180 Convention on the Law of Treaties.[208] It considered customary international law relevant in the context of ↳ this article and held that a normal exercise of the regulatory power will not lead to a compensable taking.[209] For that purpose the measures must be 'taken *bona fide* for the purpose of protecting the public welfare, must be non-discriminatory and proportionate'.[210]

The Tribunal in *PL Holdings v Poland*[211] further refined the balancing test. It found that the measure, a forced sale of shares, amounted to an indirect expropriation.[212] For that purpose it assessed whether the measures ordered by the authorities were proportionate to the public purpose they sought to achieve.[213] The Tribunal found that the 'principle [of proportionality] is understood in largely similar terms across jurisdictions'.[214] It indicated a number of criteria that had to be fulfilled to satisfy the principle:

> [A] measure must
>
> (a) be one that is *suitable* by nature for achieving a legitimate public purpose,
>
> (b) be *necessary* for achieving that purpose in that no less burdensome measure would suffice, and
>
> (c) *not be excessive* in that its advantages are outweighed by its disadvantages.[215]

(i) Creeping expropriation

The rules on the protection of foreign investment must not be circumvented by way of splitting up a measure amounting to an indirect expropriation into a series of discrete steps which, taken together, have the same effect on the foreign owner. Article 15 of the ILC's Articles on State Responsibility (2001) recognizes that a breach of international law may occur through a series of actions or omissions defined in aggregate as wrongful.[216]

p. 181 Therefore, it has long been accepted that an expropriation may occur 'outright or in stages'.[217] Thus, the term 'creeping expropriation' describes a taking through a series of acts.[218] A study by UNCTAD has referred in this context to 'a slow and incremental encroachment on one or more of the ownership rights of a foreign investor that diminishes the value of its investment'.[219]

Practice has recognized the phenomenon of creeping expropriation.[220] The Tribunal in *Generation Ukraine v Ukraine*[221] explained creeping expropriation as follows:

> Creeping expropriation is a form of indirect expropriation with a distinctive temporal quality in the sense that it encapsulates the situation whereby a series of acts attributable to the State *over a period of time* culminate in the expropriatory taking of such property… A plea of creeping expropriation must proceed on the basis that the investment existed at a particular point in time and that subsequent acts attributable to the State have eroded the investor's rights to its investment to an extent that is violative of the relevant international standard of protection against expropriation.[222]

The decision in *Tradex v Albania*[223] emphasized the cumulative effect of the measures in question:

> While the … Award has come to the conclusion that none of the single decisions and events alleged by Tradex to constitute an expropriation can indeed be qualified by the Tribunal as expropriation, it might still be possible that, and the

> Tribunal, therefore, has to examine and evaluate hereafter whether the combination of the decisions and events can be qualified as expropriation of Tradex' foreign investment in a long, step-by-step process by Albania.[224]

p. 182 In the end, the Tribunal found that a combined evaluation of the events did not amount to an expropriation.[225]

In *Siemens v Argentina*,[226] the host State had taken a series of adverse measures, including postponements and suspensions of the investor's profitable activities, fruitless renegotiations, and ultimately the cancellation of the project. The Tribunal found that this had amounted to an expropriation and described creeping expropriation in the following terms:

> By definition, creeping expropriation refers to a process, to steps that eventually have the effect of an expropriation. If the process stops before it reaches that point, then expropriation would not occur. This does not necessarily mean that no adverse effects would have occurred. Obviously, each step must have an adverse effect but by itself may not be significant or considered an illegal act. The last step in a creeping expropriation that tilts the balance is similar to the straw that breaks the camel's back. The preceding straws may not have had a perceptible effect but are part of the process that led to the break.[227]

Professor Reisman and RD Sloane have rightly pointed out that the issue must sometimes be seen in retrospective:

> Discrete acts, analyzed in isolation rather than in the context of the overall flow of events, may, whether legal or not in themselves, seem innocuous vis-à-vis a potential expropriation. Some may not be expropriatory in themselves. Only, in retrospect will it become evident that those acts comprised part of an accretion of deleterious acts and omissions, which in the aggregate expropriated the foreign investor's property rights… Because of their gradual and cumulative nature, creeping expropriations also render it problematic, perhaps even arbitrary, to identify a single interference (or failure to act where a duty requires it) as the 'moment of expropriation'.[228]

4. The legality of an expropriation

It is generally accepted that the legality of a measure of expropriation is conditioned on three (or four) requirements. These
p. 183 requirements are explicitly stated in ↳ most treaties. They are also regarded as part of customary international law. These requirements must be fulfilled cumulatively:[229]

- The measure must serve a *public purpose*. In most cases the existence of a public purpose is difficult to contest, and tribunals have often left host States with a large measure of discretion in this regard.[230]
- The measure must *not* be *discriminatory*. Most relevant cases concerned discrimination based on nationality.[231] But tribunals have also addressed other instances of discrimination.[232]
- Some treaties explicitly require that the procedure of expropriation must follow principles of *due process*.[233] Due process is an expression of the minimum standard under customary international law and of the requirement of fair and equitable treatment. Therefore, it is not clear whether such a clause adds an independent requirement for the legality of the expropriation. Tribunals have occasionally held an expropriation to be illegal for lack of due process.[234]
- The expropriatory measure must be accompanied by prompt, adequate, and effective *compensation*.

Of these requirements for the legality of an expropriation, the existence and measure of compensation has been by far the most controversial one. In the 1960s and 1970s, the rules of customary law on compensation were at the centre of a heated debate on
p. 184 expropriation.[235] They were discussed in the broader context ↳ of economic decolonization, the notion of 'Permanent Sovereignty over Natural Resources', and of the call for a 'New International Economic Order'. These debates are reflected in a series of Resolutions of the UN General Assembly which culminated in the demand that any disputes about compensation for expropriation should be settled under the domestic law and by the domestic court of the expropriating State.[236]

Today, nearly all expropriation cases before tribunals follow the treaty-based standard of compensation in accordance with the fair market value.[237] In the terminology of the earlier decades this means 'full' or 'adequate' compensation. However, this does not mean that the amount of compensation is easy to determine. Especially in cases of foreign enterprises operating under complex contractual agreements, the task of valuation requires close cooperation of valuation experts and the legal profession.

Various methods may be employed to determine market value. In the case of a going concern that has already produced income, the discounted cash flow method will often be a relevant yardstick, rather than book value or replacement value. Where there is no reliable indicator of profitability, the liquidation value will be the more appropriate measure.

An issue that has never been resolved entirely concerns the consequences of an illegal expropriation. In the case of an indirect expropriation, illegality is the rule since there will be no compensation,[238] although a delay in the payment of compensation will not render the expropriation unlawful.[239]

According to one school of thought, the measure of damages for an illegal expropriation is no different from compensation for a lawful taking.[240] The better view is that an illegal expropriation will fall under the general rules of State responsibility. In case of an illegal act the damages should, as far as possible, restore the situation that would have existed had the illegal act not been
p. 185 committed.[241] By contrast, compensation for a lawful expropriation should represent the market ↳ value at the time of the taking.[242] The result of these two methods can be markedly different.[243] The issue of compensation and damages is discussed in more detail below in the chapter on the settlement of investment disputes.[244]

The requirement of 'prompt' compensation means 'without undue delay'.[245] The requirement of 'effective' compensation means that payment is to be made in a convertible currency.

Notes

1 See VII.4 below.
2 See IV.2(c) and IV.4 above.
5 *Case Concerning Certain German Interests in Polish Upper Silesia*, 1926 PCIJ Series A, No 7, 3.
6 See *Wena Hotels v Egypt*, Award, 8 December 2000, para 98; *CME v Czech Republic*, Partial Award, 13 September 2001, paras 591–609; *Impregilo v Pakistan*, Decision on Jurisdiction, 22 April 2005, para 274; *Eureko v Poland*, Partial Award, 19 August 2005, para 241; *Bayindir v Pakistan*, Decision on Jurisdiction, 14 November 2005, para 255 and Award, 27 August 2009, para 456; *Azurix v Argentina*, Award, 14 July 2006, para 314; *Vivendi v Argentina*, Resubmitted Case: Award, 20 August 2007, para 7.5.4.; *Deutsche Bank v Sri Lanka*, Award, 31 October 2012, para 506; *Flemingo v Poland*, Award, 12 August 2016, paras 592–594; *Karkey v Pakistan*, Award, 22 August 2017, para 646.
13 At para 267. The Tribunal relied on the *Norwegian Shipowners* and *Chorzow Factory* cases.
7 Article IV-2 of the Treaty of Amity between Iran and the USA (1955) protects not only 'property' but also 'interests in property'. According to the Tribunal in *Phillips Petroleum*, the term 'interest in property' was 'included at the insistence of the United States for the stated purpose of ensuring that contract rights in the petroleum industry would be protected by the treaty in the same way as would the older type of property represented by a petroleum concession' (*Phillips Petroleum Company v Iran*, Award, 29 June 1989, 21 Iran–US CTR 79, para 105). See also *Amoco v Iran*, Partial Award, 14 July 1987, 15 Iran–US CTR 189, para 108.
3 American–Venezuelan Mixed Claims Commission, *Rudloff Case*, Decision on Merits, 1 January 1903, 9 RIAA 255.
4 Permanent Court of Arbitration, *Norwegian Shipowners' Claim* (*Norway v USA*), Award, 13 October 1922, (1948) 1 RIAA 307. The arbitrators held that by requisitioning ships that were to be built for Norwegian citizens, the government of the United States had expropriated the underlying construction contracts.
8 *SPP v Egypt*, Award, 20 May 1992.
9 At paras 164–165.
10 See eg Article 1(6)(f) of the Energy Charter: 'any right conferred by law or contract'. See also Article 1139 of the NAFTA and Article 14.1 USMCA.
11 *Tokios Tokelės v Ukraine*, Decision on Jurisdiction, 29 April 2004, paras 92–93.
12 *Siemens v Argentina*, Award, 6 February 2007.
16 In this sense: *Grand River v United States*, Award, 12 January 2011, paras 146–148, 155.

18 At paras 6.57–6.58. See also *Burlington v Ecuador*, Decision on Liability, 14 December 2012, paras 258–261, 398, 470–471.

19 *Waste Management v Mexico II*, Award, 30 April 2004, para 141; *EnCana v Ecuador*, Award, 3 February 2006, paras 172–183; *Philip Morris v Uruguay*, Award, 8 July 2016, paras 280–283.

14 See IV.5 above.

15 See VII.3(c) below.

17 *Electrabel v Hungary*, Decision on Jurisdiction, Applicable Law and Liability, 30 November 2012.

20 *Middle East Cement v Egypt*, Award, 12 April 2002.

21 At paras 101, 105, 107, 127.

22 At paras 138, 144.

23 At paras 152–156, 163–165.

24 *Eureko v Poland*, Partial Award, 19 August 2005.

25 At paras 239–241.

26 *Ampal-American v Egypt*, Decision on Liability and Heads of Loss, 21 February 2017

27 At para 179.

28 At paras 180, 187.

29 U Kriebaum, 'Partial Expropriation' (2007) 8 *JWIT* 69.

30 *Noble Ventures v Romania*, Award, 12 October 2005, paras 211–216; *Saipem v Bangladesh*, Decision on Jurisdiction and Recommendation on Provisional Measures, 21 March 2007, paras 131–133 and Award, 30 June 2009, paras 129, 132; *Swisslion v Macedonia*, Award, 6 July 2012, paras 312–321; *Tatneft v Ukraine*, Award on the Merits, 29 July 2014, paras 459–481; *İçkale v Turkmenistan*, Award, 8 March 2016, paras 371–376; *MNSS v Montenegro*, Award, 4 May 2016, para 370; *Garanti Koza v Turkmenistan*, Award, 19 December 2016, para 365; *Anglia Auto v Czech Republic*, Final Award, 10 March 2017, paras 290–303; *Eli Lilly v Canada*, Final Award, 16 March 2017, para 221; *Teinver v Argentina*, Award, 21 July 2017, paras 954–959; *Krederi v Ukraine*, Award, 2 July 2018, paras 690–716; *Standard Chartered Bank (Hong Kong) v Tanzania*, Award, 11 October 2019, paras 279, 380; *Staur Eiendom v Latvia*, Award, 28 February 2020, paras 511–514; *Interocean v Nigeria*, Award, 6 October 2020, paras 310–315.

35 *Azinian v Mexico*, Award, 1 November 1999, paras 87, 90, 99–100; *Impregilo v Pakistan*, Decision on Jurisdiction, 22 April 2005, paras 260, 274, 281; *Bayindir v Pakistan*, Decision on Jurisdiction, 14 November 2005, para 257 and Award, 27 August 2009, paras 444–445, 458, 461; *Azurix v Argentina*, Award, 14 July 2006, para 315; *Parkerings v Lithuania*, Award, 11 September 2007, paras 440–447; *Biwater Gauff v Tanzania*, Award, 24 July 2008, paras 458, 489, 492; *Saipem v Bangladesh*, Award, 30 June 2009, para 131; *Al-Bahloul v Tajikistan*, Partial Award on Jurisdiction and Liability, 2 September 2009, para 281; *Suez and Vivendi v* Argentina, Decision on Liability, 30 July 2010, para 154; *Inmaris Perestroika v Ukraine*, Award, 1 March 2012, para 301; *Vannessa v Venezuela*, Award, 16 January 2013, paras 209–214; *Convial Callao v Peru*, Final Award, 21 May 2013, para 504; *Tulip v Turkey*, Award, 10 March 2014, paras 417–418; *OI European v Venezuela*, Award, 10 March 2015, para 356; *Crystallex v Venezuela*, Award, 4 April 2016, paras 683–708; *Caratube v Kazakhstan*, Award, 27 September 2017, paras 908, 935; *Gosling v Mauritius*, Award, 18 February 2020, paras 273–277.

39 *SGS v Philippines*, Decision on Jurisdiction, 29 January 2004, para 161.

45 *Alpha v Ukraine*, Award, 8 November 2010, para 412; *Gold Reserve v Venezuela*, Award, 22 September 2014, paras 663–667; *Vigotop v Hungary*, Award, 1 October 2014, paras 331, 634.

31 See VII.1(a) above.

32 For detailed discussion, see SM Schwebel, 'On Whether the Breach by a State of a Contract with an Alien is a Breach of International Law' in *International Law at the Time of its Codification, Essays in Honour of Roberto Ago, III* (1987) 401.

33 See also American Law Institute, *Restatement (Third) of the Foreign Relations Law of the United States*, vol 2 (1986) 201: 'a state is responsible for such a repudiation or breach only … if it is akin to an expropriation in that the contract is repudiated or breached for governmental rather than commercial reasons'.

34 *RFCC v Morocco*, Award, 22 December 2003, paras 60–62, 65–69, 85–89.

36 *Siemens v Argentina*, Award, 6 February 2007.

37 At para 248.

38 At para 253.

40 *Waste Management v Mexico II*, Award, 30 April 2004.

41 At paras 159–174.

42 At para 174.

43 At para 175.

44 At para 175.
46 But occasionally States still resort to direct expropriations, see eg *Santa Elena v Costa Rica*, Final Award, 17 February 2000, para 17; *Funnekotter v Zimbabwe*, Award, 22 April 2009, paras 55, 90; *Siag v Egypt*, Award, 1 June 2009, para 427; *von Pezold v Zimbabwe*, Award, 28 July 2015, para 494; *Quiborax v Bolivia*, Award, 16 September 2015, paras 200–234; *Rusoro Mining v Venezuela*, Award, 22 August 2016, paras 377, 379; *Gavrilovic v Croatia*, Award, 26 July 2018, paras 922, 933.
48 See eg *Saluka v Czech Republic*, Partial Award, 17 March 2006, paras 276, 407.
49 See *Norwegian Shipowners' Claims*, 13 October 1922 (1948) 1 RIAA 307; *Case concerning certain German interests in Polish Upper Silesia*, 25 May 1926, PCIJ Series A, No 7 (1926) 3.
61 See eg *Société Générale v Dominican Republic*, Award, 19 September 2008, para 64; *Alpha v Ukraine*, Award, 8 November 2010, para 408; *Bosh v Ukraine*, Award, 25 October 2012, para 218; *Enkev Beheer v Poland*, First Partial Award, 29 April 2014, para 344; *UP and C.D v Hungary*, Award, 9 October 2018, paras 333, 335, 354; *Casinos Austria v Argentina*, Decision on Jurisdiction, 29 June 2018, para 228.
47 See eg Annex B to the 2004 and 2012 US Model BIT.
50 Article 6(2) of the French Model Treaty.
51 Article 4(2) of the German Model Treaty.
52 Article 5(1) of the UK Model Treaty.
53 See Article 6(1) of the US Model Treaties.
54 Annex B, Article 4 of the 2004 and 2012 US Model Treaties.
55 LB Sohn and RR Baxter, 'Responsibility of States for Injuries to the Economic Interests of Aliens' (1961) 55 *AJIL* 545, 553 (Article 10(3)(a)).
56 UNCTAD, *Series on Issues in International Investment Agreements: 'Taking of Property'* (2000) 4.
57 GC Christie, 'What Constitutes a Taking of Property under International Law?' (1962) 38 *BYIL* 307.
58 R Higgins, 'The Taking of Property by the State: Recent Developments in International Law' (1982-III) 176 *Recueil* 259, 331.
59 R Dolzer, 'Indirect Expropriation of Alien Property' (1986) 1 *ICSID Rev* 41.
60 WM Reisman and RD Sloane, 'Indirect Expropriation and its Valuation in the BIT Generation' (2003) 74 *BYIL* 115, 121. Footnotes omitted.
62 *Oscar Chinn Case* (*UK v Belgium*), Judgment, 12 December 1934, PCIJ Series A/B, No 63 (1934) 4.
63 At 27.
64 *Revere Copper v OPIC*, Award, 24 August 1978, 56 ILR 258.
65 On investment insurance see Chapter XI below.
66 At 291–292.
67 At 292.
68 *Metalclad v Mexico*, Award, 30 August 2000.
69 At para 103.
70 *Middle East Cement v Egypt*, Award, 12 April 2002.
71 At para 107.
72 *Fireman's Fund v Mexico*, Award, 17 July 2006.
73 At para 185.
74 At para 176.
75 At paras 203, 217–218.
76 *Vivendi v Argentina*, Resubmitted Case: Award, 20 August 2007.
77 At para 7.5.11.
78 At para 7.5.18.
79 At para 7.5.20.
80 At para 7.5.21.
81 *Biwater Gauff v Tanzania*, Award, 24 July 2008.
82 At para 453.
83 At para 455.
84 At para 456.
85 At para 458.
86 At para 463.
87 *Suez and InterAgua v Argentina*, Decision on Liability, 30 July 2010.
88 At paras 117 et seq.
89 At para 125.

90 At para 122.
91 At para 143.
92 *Alpha v Ukraine*, Award, 8 November 2010.
93 At para 412.
94 See eg *SD Myers v Canada*, First Partial Award, 13 November 2000, paras 283–284; *Azurix v Argentina*, Award, 14 July 2006, para 322; *Glamis Gold v United States*, Award, 8 June 2009, para 536; *Roussalis v Romania*, Award, 7 December 2011, paras 354–358; *Allard v Barbados*, Award, 27 June 2016, paras 263–266.
95 See eg *Norwegian Shipowners' Claims*, 13 October 1922, 1 RIAA 307.
96 *Tecmed v Mexico*, Award, 29 May 2003, paras 115–116.
99 At para 69 (original in French: 'avoir des effets substantiels d'une intensité certaine qui réduisent et/ou font disparaître les bénéfices légitimement attendus de l'exploitation des droits objets de ladite mesure à un point tel qu'ils rendent la détention de ces droits inutile'). See also *LESI & ASTALDI v Algeria*, Award, 12 November 2008, para 132; *Bayindir v Pakistan*, Award, 27 August 2009, para 459.
100 *Pope & Talbot v Canada*, Interim Award, 26 June 2000, para 102; *Metalclad v Mexico*, Award, 30 August 2000, para 103; *Tecmed v Mexico*, Award, 29 May 2003, paras 102, 115; *Bayindir v Pakistan*, Decision on Jurisdiction, 14 November 2005, para 255; *Vivendi v Argentina*, Resubmitted Case: Award, 20 August 2007, para 7.5.34; *Biwater Gauff v Tanzania*, Award, 24 July 2008, paras 452, 463; *Plama v Bulgaria*, Award, 27 August 2008, para 193; *AES v Hungary*, Award, 23 September 2010, para 14.3.1; *Bosh v Ukraine*, Award, 25 October 2012, para 218; *Enkev Beheer v Poland*, First Partial Award, 29 April 2014, para 344; *Venezuela Holdings v Venezuela*, Award, 9 October 2014, para 286; *Belokon v Kyrgyz Republic*, Award, 24 October 2014, para 206; *Allard v Barbados*, Award, 27 June 2016, para 263; *Isolux v Spain*, Award, 17 July 2016, para 839; *Busta v Czech Republic*, Final Award, 10 March 2017, para 389; *Valores Mundiales v Venezuela*, Award, 25 July 2017, paras 389–394; *Casinos Austria v Argentina*, Decision on Jurisdiction, 29 June 2018, para 228; *InfraRed v Spain*, Award, 2 August 2019, paras 504, 505.
97 See Y Fortier and S L Drymer, 'Indirect Expropriation in the Law of International Investment: I Know It When I See It, or *Caveat Investor*' (2004) 19 *ICSID Rev* 293, 305:
'the required level of interference with such rights—has been variously described as: (1) *unreasonable*; (2) an interference that renders rights so *useless that they must be deemed to have been expropriated*; (3) an interference that deprives the investor of *fundamental rights of ownership*; (4) an interference that makes rights *practically useless*; (5) an interference *sufficiently restrictive* to warrant a conclusion that the property has been 'taken'; (6) and interference that deprives, in whole or in significant part, the *use or reasonably-to-be-expected economic benefit* of the property; (7) an interference that *radically deprives* the economical use and enjoyment of an investment, as if the rights related thereto had ceased to exist; (8) an interference that makes *any form of exploitation of the property disappear* …; (9) an interference such that the property can no longer be put to *reasonable use*.'
See also U Kriebaum, 'Expropriation' in M Bungenberg et al (eds) *International Investment Law* (2015) 959, at 984, 985; JM Cox, *Expropriation in Investment Treaty Arbitration* (2019) 169.
98 *RFCC v Morocco*, Award, 22 December 2003.
101 *CMS v Argentina*, Award, 12 May 2005.
102 At paras 262, 263.
103 *Telenor v Hungary*, Award, 13 September 2006.
104 At para 64.
105 At para 65.
106 At para 70. Footnote omitted.
107 At para 79.
108 *Electrabel v Hungary*, Decision on Jurisdiction, Applicable Law and Liability, 30 November 2012.
109 At para 6.62.
111 *Tecmed v Mexico*, Award, 29 May 2003, at para 116; *Generation Ukraine v Ukraine*, Award, 16 September 2003, para 20.32; *RFCC v Morocco*, Award, 22 December 2003, para 68; *Azurix v Argentina*, Award, 14 July 2006, para 313; *Unglaube v Costa Rica*, Award, 16 May 2012, paras 226, 234; *Achmea v Slovak Republic*, Final Award, 7 December 2012, paras 289, 292; *Olin v Libya*, Final Award, 25 May 2018, para 165; *Gavrilovic v Croatia*, Award, 26 July 2018, para 922.
122 *RFCC v Morocco*, Award, 22 December 2003, para 68; *Achmea* (formerly *Eureko*) *v Slovakia*, Final Award, 7 December 2012, paras 289, 292; *Unglaube v Costa Rica*, Award, 16 May 2012, paras 226, 227, 234; *Olin v Libya*, Final Award, 25 May 2018, para 165.
110 See *Tippetts v TAMS-AFFA*, Award, 22 June 1984, 6 Iran–US CTR 219, 225; *Phelps Dodge v Iran*, Award, 19

March 1986, 10 Iran–US CTR 121, 130; *Saghi v Iran*, Award, 22 January 1993, 29 Iran–US CTR 44 et seq.

112 *SD Myers v Canada*, First Partial Award, 13 November 2000.

113 At para 283.

114 At para 287.

115 *Wena Hotels v Egypt*, Award, 8 December 2000.

116 At para 99.

117 *Wena Hotels v Egypt*, Decision on Interpretation, 31 October 2005.

118 At para 120.

119 *LG&E v Argentina*, Decision on Liability, 3 October 2006.

120 At para 193.

121 At para 200.

123 *Feldman v Mexico*, Award, 16 December 2002, paras 142, 152; *Nykomb v Latvia*, Award, 16 December 2003, para 4.3.1; *Occidental Exploration v Ecuador*, Final Award, 1 July 2004, para 89; *CMS v Argentina*, Award, 12 May 2005, paras 263, 264; *Enron v Argentina*, Award, 22 May 2007, para 245; *PSEG v Turkey*, Award, 19 January 2007, para 278; *Sempra v Argentina*, Award 28 September 2007, para 285; *Archer Daniels Midland v Mexico*, Award, 21 November 2007, paras 242, 244; *AES v Hungary*, Award, 23 September 2010, para 14.3.2; *El Paso v Argentina*, Award, 31 October 2011, paras 245, 248–249; *Mobil v Argentina*, Decision on Jurisdiction and Liability, 10 April 2013, para 843; *Cervin v Costa Rica*, Decision on Jurisdiction, 15 December 2014, para 333.

137 See also: *El Paso v Argentina*, Award, 31 October 2011, para 248; *Enkev Beheer v Poland*, First Partial Award, 29 April 2014, para 344.

130 At paras 503, 510. The Tribunal cited a series of cases of the Iran–US Claims Tribunal in which a usurpation of management had led to the finding of an expropriation: *Sedco v National Iranian Oil Company*, Award, 24 October 1985, 9 Iran–US CTR 248, 278; *Tippetts v TAMS-AFFA*, Award, 22 June 1984, 6 Iran–US CTR 219, 225; *Starrett Housing v Iran*, Award, 19 September 1983, 4 Iran–US CTR 122, 154–155; *ITT Industries v Iran*, Award, 26 May 1983, 2 Iran–US CTR 348, 351–352; *Phelps Dodge v Iran*, Award, 19 March 1986, 10 Iran–US CTR 121, 130–131.

124 *Azurix v Argentina*, Award, 14 July 2006.

125 At para 322.

126 *LG&E v Argentina*, Decision on Liability, 3 October 2006.

127 At paras 188, 191. Footnotes omitted.

128 *Biwater Gauff v Tanzania*, Award, 24 July 2008.

129 At para 452.

131 *Saint-Gobain v Venezuela*, Decision on Liability and the Principles of Quantum, 30 December 2016.

132 At para 454.

133 At paras 455–456. ILC Articles on State Responsibility Article 11: '*Conduct acknowledged and adopted by a State as its own* Conduct which is not attributable to a State under the preceding articles shall nevertheless be considered an act of that State under international law if and to the extent that the State acknowledges and adopts the conduct in question as its own.'

134 At para 464.

135 At para 475.

136 At para 477.

139 *Biloune v Ghana*, Award on Jurisdiction and Liability, 27 October 1989, 95 ILR 183, 209; *Azurix v Argentina*, Award, 14 July 2006, at para 310; *Chemtura v Canada*, Award, 2 August 2010, para 242.

140 *Tecmed v Mexico*, Award, 29 May 2003, cited in *Plama v Bulgaria*, Award, 27 August 2008, para 192.

144 *Starrett Housing v Iran*, Award, 19 December 1983, 4 Iran–US CTR 122, 154–155, cited in *Plama v Bulgaria*, Award, 27 August 2008, para 191.

147 *Vivendi v Argentina*, Resubmitted Case: Award, 20 August 2007, para 7.5.20; *Rumeli v Kazakhstan*, Award, 29 July 2008, para 700; *Bayindir v Pakistan*, Award, 27 August 2009, para 459; *Gemplus v Mexico*, Award, 16 June 2010, paras 8–23; *E energija v Latvia*, Award, 22 December 2017, para 1079.

151 See *Sporrong&Lönnroth v Sweden*, Judgment of 23 September 1982, ECtHR Series A/52, paras 69–74.

153 *Norwegian Shipowners' Claims* (1922) 1 RIAA 307; R Dolzer, 'Indirect Expropriations: New Developments?' (2003) 11 *NYU Environmental LJ* 64, 91.

154 *SD Myers v Canada*, First Partial Award, 13 November 2000, para 285.

145 At p 154. See also *Tippetts v TAMS-AFFA*, Award, 22 June 1984, 6 Iran–US CTR 219, 225–226; *Phillips Petroleum v Iran*, Award, 29 June 1989, 21 Iran–US CTR 79, 115, para 97; *Ebrahimi v Iran*, Award, 12 October 1994, 30 Iran–US CTR 170, 189–190, para 72.

138 *Azurix v Argentina*, Award, 14 July 2006, para 309.
141 At para 116. Footnote omitted.
142 *Siemens v Argentina*, Award, 6 February 2007.
143 At para 270.
146 *Saipem v Bangladesh*, Award, 30 June 2009, paras 133–134.
148 See also VII.3(h) below.
149 *Sea-Land Service v Iran*, Award, 20 June 1984, 6 Iran–US CTR 149, 166.
150 Y Fortier and SL Drymer, 'Indirect Expropriation in the Law of International Investment: I Know It When I See It, or Caveat Investor' (2004) 19 *ICSID Rev* 293.
152 US Model BITs 2004 and 2012, Annex B, para 4.
155 See VIII.1(g)bb below. For the requirement of objective legitimate expectations see eg *ECE v Czech Republic*, Award, 19 September 2013, para 4.813.
156 *Methanex v United States*, Final Award on Jurisdiction and Merits, 3 August 2005.
157 At IV, D, para 10.
158 *Revere Copper v OPIC*, Award, 24 August 1978, 56 ILR 258.
159 At 271.
160 *Metalclad v Mexico*, Award, 30 August 2000.
161 At para 107.
162 *Tecmed v Mexico*, Award, 29 May 2003.
163 At para 149.
164 *Thunderbird v Mexico*, Award, 26 January 2006.
165 At para 147. Footnote omitted.
166 At para 208.
167 *Azurix v Argentina*, Award, 14 July 2006.
168 At paras 316–322.
169 At para 318.
170 See paras 316 et seq.
171 At para 322.
172 *Grand River v United States*, Award, 12 January 2011.
173 At paras 140–141.
174 *ECE v Czech Republic*, Award, 19 September 2013, para 4.813.
175 *Telenor v Hungary*, Award, 13 September 2006, at para 78; *Philip Morris v Uruguay*, Award, 8 July 2016, paras 291–307; *A11Y v Czech Republic*, Award, 29 June 2018, paras 211–217; *Marfin v Cyprus*, Award, 26 July 2018, para 826.
177 See eg *Tecmed v Mexico*, Award, 29 May 2003, paras 115, 119.
188 At para 262, citing *Methanex v United States*.
193 At para 72. Quoted with approval in *Azurix v Argentina*, Award, 14 July 2006, para 309.
198 See *Tecmed v Mexico*, Award, 29 May 2003, para 122; *Fireman's Fund v Mexico*, Award, 17 July 2006, para 176(j); *Deutsche Bank v Sri Lanka*, Award, 31 October 2012, para 522; *Mobil v Argentina*, Decision on Jurisdiction and Liability, 10 April 2013, paras 818, 820; *Novenergia II v Spain*, Final Award, 15 February 2018, paras 732–737. For a proposal to balance investor and host state rights that goes beyond current arbitral practice, see U Kriebaum, 'Regulatory Takings: Balancing the Interests of the Investor and the State' (2007) 8 *JWIT* 717.
201 *James v United Kingdom*, Judgment, 21 February 1986, ECtHR, Series A/98, paras 50 and 63.
209 At paras 827–828. For the same approach see eg *Philipp Morris v Uruguay*, Award, 8 July 2016, para 290.
180 *Too v Greater Modesto Insurance Associates*, Award, 29 December 1989, 23 Iran–US CTR 378, 387, para 26. See also *SEDCO v NIOC*, Award, 24 October 1985, 9 Iran–US CTR 248, 275.
176 R Dolzer, 'Indirect Expropriation of Alien Property' (1986) 1 *ICSID Rev* 41.
178 American Law Institute, *Restatement (Third) of the Foreign Relations Law of the United States*, vol 1 (1987), Section 712, Comment (g):
a state is not responsible for loss of property or for other economic disadvantage resulting from *bona fide* general taxation, regulation, forfeiture for crime, or other action of the kind that is commonly accepted as within the police power of the states, if not discriminatory.
179 See VII.3(a) above.
181 *Feldman v Mexico*, Award, 16 December 2002.
182 At para 103.
183 *SD Myers v Canada*, First Partial Award, 13 November 2000.

184 At para 281.
185 *Methanex v USA*, Final Award on Jurisdiction and Merits, 3 August 2005.
186 At IV, D, para 7.
187 *Saluka v Czech Republic*, Partial Award, 17 March 2006.
189 *Continental Casualty v Argentina*, Award, 5 September 2008.
190 At para 276. Footnotes omitted.
191 *Pope & Talbot v Canada*, Interim Award, 26 June 2000, para 99.
192 *Santa Elena v Costa Rica*, Final Award, 17 February 2000.
194 *ADC v Hungary*, Award, 2 October 2006.
195 At paras 423, 424.
196 At para 433.
197 At paras 434–440.
199 *Azurix v Argentina*, Award, 14 July 2006.
200 At para 311.
202 *Azurix v Argentina*, Award, 14 July 2006, para 311.
203 *LG&E v Argentina*, Decision on Liability, 3 October 2006.
204 At paras 189, 195. Footnote omitted.
205 *Marfin v Cyprus*, Award, 26 July 2018.
206 At para 823.
207 At para 826.
208 Article 31(3)(c) VCLT: '3. There shall be taken into account, together with the context: … (c) any relevant rules of international law applicable in the relations between the parties.'
210 At para 829.
211 *PL Holdings v Poland*, Partial Award, 28 June 2017.
212 At paras 320–323.
213 At para 354.
214 At para 355.
215 At para 355. Emphases added.
220 *Biloune v Ghana*, Award on Jurisdiction and Liability, 27 October 1989, 95 ILR 183, 209; *Santa Elena v Costa Rica*, Final Award, 17 February 2000, para 76; *Azurix v Argentina*, Award, 14 July 2006, para 313; *Telenor v Hungary*, Award, 13 September 2006, para 63; *Rumeli v Kazakhstan*, Award, 29 July 2008, paras 700, 708; *Meerapfel v Central African Republic*, Award, 12 May 2011, para 316; *Burlington v Ecuador*, Decision on Liability, 14 December 2012, para 538; *Crystallex v Venezuela*, Award, 4 April 2016, paras 668–671; *Valores Mundiales v Venezuela*, Award, 25 July 2017, para 398.
223 *Tradex v Albania*, Award, 29 April 1999.
224 At para 191.
225 At para 203.
226 *Siemens v Argentina*, Award, 6 February 2007.
227 At para 263.
228 WM Reisman and RD Sloane, 'Indirect Expropriation and its Valuation in the BIT Generation' (2003) 74 *BYIL* 115, 123.
216 Articles on Responsibility of States for Internationally Wrongful Acts:
Article 15 *Breach consisting of a composite* act

1. The breach of an international obligation by a State through a series of actions or omissions defined in aggregate as wrongful occurs when the action or omission occurs which, taken with the other actions or omissions, is sufficient to constitute the wrongful act.

2. In such a case, the breach extends over the entire period starting with the first of the actions or omissions of the series and lasts for as long as these actions or omissions are repeated and remain not in conformity with the international obligation.

217 See American Law Institute, *Restatement (Third) of the Foreign Relations Law of the United States*, vol 1 (1987) § 712; GC Christie, 'What Constitutes a Taking of Property under International Law?' (1962) 38 *BYIL* 307.
218 The term 'creeping expropriation' has occasionally also been used interchangeably with term 'indirect expropriation'.
219 UNCTAD, *Series on Issues in International Investment Agreements: 'Taking of Property'* (2000) 11.

221 *Generation Ukraine v Ukraine*, Award, 16 September 2003.

222 At paras 20.22, 20.26. Italics original.

229 *Bogdanov v Moldova*, Arbitral Award, 22 September 2005, para 4.2.5; *Siag v Egypt*, Award, 1 June 2009, para 428; *Al Tamimi v Oman*, Award, 3 November 2015, para 347; *Vestey v Venezuela*, Award, 15 April 2016, para 250.

230 *SPP v Egypt*, Award, 20 May 1992, para 158; *Santa Elena v Costa Rica*, Final Award, 17 February 2000, para 71; *ADC v Hungary*, Award, 2 October 2006, paras 429–433; *Siemens v Argentina*, Award, 6 February 2007, para 273; *Siag v Egypt*, Award, 1 June 2009, paras 431–433; *Kardassopoulos v Georgia*, Award, 3 March 2010, paras 391–392; *von Pezold v Zimbabwe*, Award 28 July 2015, para 502; *Copper Mesa v Ecuador*, Award, 15 March 2016, para 6.64; *Vestey v Venezuela*, Award, 15 April 2016, paras 294, 296; *Devas v India*, Award on Jurisdiction and Merits, 25 July 2016, para 413; *Rusoro v Venezuela*, Award, 22 August 2016, para 385; *Teinver v Argentina*, Award, 21 July 2017, paras 984, 985; *UP and C.D v Hungary*, Award, 9 October 2018, paras 414–415.

231 *Eureko v Poland*, Partial Award, 19 August 2005, paras 241–243; *ADC v Hungary*, Award, 2 October 2006, paras 441–443; *Tatneft v Ukraine*, Award on the Merits, 29 July 2014, para 469; *Rusoro v Venezuela*, Award, 22 August 2016, paras 394–397; *Olin v Libya*, Final Award, 25 May 2018, paras 173–174, 200–218; *UP and C.D v Hungary*, Award, 9 October 2018, para 417.

232 *von Pezold v Zimbabwe*, Award 28 July 2015, para 501.

234 *ADC v Hungary*, Award, 2 October 2006, paras 435–440; *Siag v Egypt*, Award, 1 June 2009, paras 440–442; *Kardassopoulos v Georgia*, Award, 3 March 2010, paras 397–404; *Deutsche Bank v Sri Lanka*, Award, 31 October 2012, para 523; *Yukos v Russia*, Final Award, 18 July 2014, para 1583; *OI European v Venezuela*, Award, 10 March 2015, para 392; *von Pezold v Zimbabwe*, Award 28 July 2015, para 499; *Quiborax v Bolivia*, Award, 16 September 2015, paras 221–227; *Crystallex v Venezuela*, Award, 4 April 2016, paras 713–714; *Vestey v Venezuela*, Award, 15 April 2016, para 309; *Bear Creek v Peru*, Award, 30 November 2017, paras 446–447.

237 For a decision based on customary international law see *Santa Elena v Costa Rica*, Final Award, 17 February 2000, para 73.

238 *Siemens v Argentina*, Award, 6 February 2007, para 273; *Kardassopoulos v Georgia*, Award, 3 March 2010, para 408; *Gemplus v Mexico*, Award, 16 June 2010, paras 8–25; *Burlington v Ecuador*, Decision on Liability, 14 December 2012, paras 543–545; *Guaracachi v Bolivia*, Award, 31 January 2014, para 441; *Crystallex v Venezuela*, Award, 4 April 2016, para 717; *Olin v Libya*, Final Award, 25 May 2018, paras 175–181; *Gavrilovic v Croatia*, Award, 26 July 2018, para 949; *UP and C.D v Hungary*, Award, 9 October 2018, para 411.

239 *ConocoPhillips v Venezuela*, Decision on Jurisdiction and Merits, 3 September 2013, para 362; *Venezuela Holdings v Venezuela*, Award, 9 October 2014, para 301; *Tidewater v Venezuela*, Award, 13 March 2015, paras 122–146.

240 *Gemplus v Mexico*, Award, 16 June 2010, paras 15–53, 16–16; *Guaracachi v Bolivia*, Award, 31 January 2014, para 443; *Tenaris v Venezuela I*, Award, 29 January 2016, paras 512 et seq.

242 *SPP v Egypt*, Award, 20 May 1992, para 183; *ADC v Hungary*, Award, 2 October 2006, paras 479–499; *Siemens v Argentina*, Award, 6 February 2007, para 352; *Kardassopoulos v Georgia*, Award, 3 March 2010, para 502–517; *ConocoPhillips v Venezuela*, Decision on Jurisdiction and Merits, 3 September 2013, para 342; *Venezuela Holding v Venezuela*, Award, 9 October 2014, para 307; *Saint-Gobain v Venezuela*, Decision on Liability and the Principles of Quantum, 30 December 2016, paras 596–602; *Magyar Farming v Hungary*, Award, 13 November 2019, paras 368–372.

245 *Siag v Egypt*, Award, 1 June 2009, paras 434–435; *OI European v Venezuela*, Award, 10 March 2015, para 425; *Saint-Gobain v Venezuela*, Decision on Liability and the Principles of Quantum, 30 December 2016, paras 417–425.

233 Article 6(1)(d) of the 2004 and 2012 US Model BITs.

235 See I.1(c) above.

236 UN GA Resolution on Permanent Sovereignty over Natural Resources, GA Res. 1803 (XVII) 1962; UN GA Resolution on Permanent Sovereignty over Natural Resources, UNGA Res. 3171 (XXVIII) 1973; UN GA Resolution on a Charter of Economic Rights and Duties of States, UNGA Res. 3281 (XXIX) 1974.

241 Article 31 ILC Articles on State Responsibility.

243 I Marboe, 'Compensation and Damages in International Law, The Limits of "Fair Market Value" ' (2006) 7 *JWIT* 723.

244 See XII.13(c) below.