RESOLVING COMPENSATION ISSUES IN THE FIELD OF INTERNATIONAL INVESTMENT

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Abstract. *Investor–State arbitration awards have increased dramatically in recent years, often reaching hundreds of millions or even billions of dollars. This trend has raised concerns that tribunals are awarding speculative future profits without adequate guidance from treaties or international law. This article examines* ***how compensation is determined in ISDS****, identifies key problems, and explores* ***solutions****. Drawing on new empirical data and doctrinal sources (UNCTAD 2024; Bonnitcha & Brewin 2020) and on comparative case analysis (e.g. Spain's renewable-energy disputes, Tethyan Copper v. Pakistan, Bear Creek v. Peru), we show that tribunals typically apply the customary "full reparation" rule (ARSIWA Art. 31) by estimating the fair market value of the investment plus lost profits. In practice, however, tribunals heavily favor income-based (DCF) valuations and ignore contextual factors (public interest, investor misconduct, state solvency) These practices yield* ***excessive and inconsistent awards*** *(e.g. ISDS Yukos awards ≈US$50B vs. the ECtHR's €1.9B) and diminish state sovereignty. The article argues that treaty reform is needed to correct these issues: modern IIAs could prescribe preferred valuation bases, cap damages (e.g. at invested capital or state gain), and integrate equitable considerations (mitigation, contributory fault, proportionality) Such reforms would better align compensation with sustainable development and legitimate regulation, while still ensuring "full reparation" within reasonable bounds.*

Keywords: *Investor–State Dispute Settlement; Compensation; Damages; Valuation; Discounted Cash Flow; Treaty Reform; Sustainable Development; State Sovereignty.*

Introduction. Investor–State dispute settlement (ISDS) under international investment treaties allows foreign investors to claim monetary damages from host states for treaty breaches.

Although compensation is a central remedy, its legal framework is surprisingly murky.

Old-generation IIAs usually specify only that expropriation be compensated, often by "prompt, adequate and effective" payment at "fair market value", but contain little or no guidance on other breaches (e.g. violations of fair and equitable treatment or umbrella clauses).

In practice, tribunals apply the general international law rule of *full reparation* (Article 31 of the ILC Articles on State Responsibility) to all treaty breaches. This means restoring the investor to the "situation which would, in all probability, have existed" but for the wrongful act.[1]

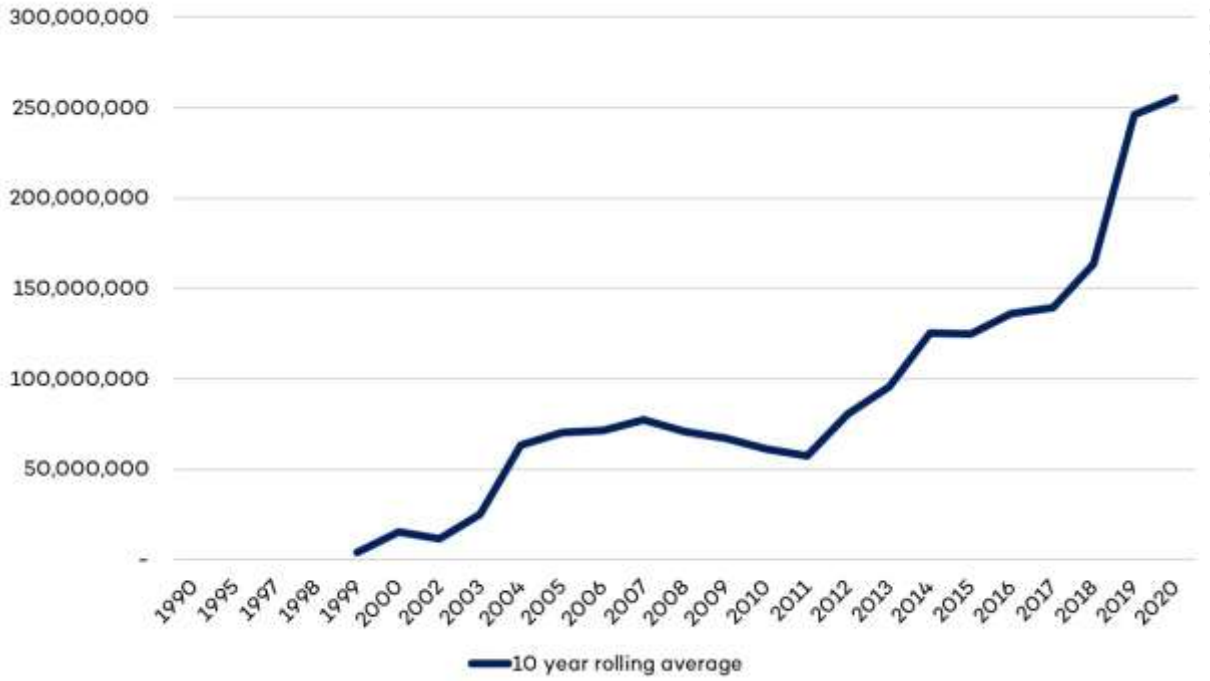
Recent empirical evidence shows that damages awards have soared. UNCTAD reports that average awards in treaty arbitrations have roughly quadrupled in the past decade, from about USD 68 million (2000–09) to over USD 250 million (2010–19).[2] Bonnitcha & Brewin (2020) document that more than a quarter of ISDS cases decided for investors now involve awards above USD 100 million. The largest known awards (e.g. *Yukos* cases) approach USD 40–50 billion. Notably, many of these huge awards arise in "regulatory" disputes over environmental and social measures: for example, a tribunal in *NextEra v. Spain* awarded EUR 327 million for

[1] Bonnitcha, J. & Brewin, S. (2020). *Compensation under Investment Treaties*. IISD Best Practices Series. Available at: https://www.iisd.org/publications/iisd-best-practices-series-compensation-under-investment-treaties
[2] UNCTAD (2024). *Compensation and Damages in Investor–State Disputes*. IIA Issues Note, March 2024. Available at: https://unctad.org/system/files/official-document/diaepcbinf2024d3_en.pdf

the annulment of a solar subsidy regime[3], and *Tethyan Copper v. Pakistan* resulted in an award of about USD 5–6 billion (including interest) for an unbuilt mining concession.[4]

These trends have generated alarm among states (especially developing countries) that treaty-based damages could threaten debt sustainability and policy space. Yet academic analysis of compensation in investment law remains limited. This article asks: *How do ISDS tribunals determine compensation, what problems arise, and how can they be remedied?* To answer, we combine doctrinal analysis of treaties, customary law and arbitral practice with case-based comparisons across jurisdictions. We particularly focus on examples from Spain (renewable energy disputes), Pakistan (mining), Peru (mining), and Russia (energy), drawing on UNCTAD's latest studies and recent scholarship. Our contribution is to clarify the legal and factual bases of ISDS compensation awards, to diagnose systemic flaws (notably the unchecked use of DCF and the disregard of state interests), and to evaluate concrete reform proposals (e.g. treaty clauses limiting valuation techniques or requiring balancing). We show that reforming compensation rules is crucial for safeguarding sustainable development and respecting state sovereignty, and we outline a path forward in treaty design and arbitral practice.

Figure 1. Arbitral awards 1990 to 2019 - Rolling 10-year average (USD)



Data source: UNCTAD & Italaw.

Literature Review & Theoretical Framing. Under *full reparation* as articulated by the PCIJ, a state that has violated international law must make the injured party whole "as far as possible". This principle, now codified in Article 31 of the ILC Articles on State Responsibility (ARS), requires that the injury be compensated by re-establishing the status quo ante.[5]

[3] *NextEra Energy Global Holdings B.V. and NextEra Energy Spain Holdings B.V. v Kingdom of Spain*, ICSID Case No ARB/14/11, Award (2019). ICSID website summary: https://icsid.worldbank.org/cases/case-database/case-detail?CaseNo=ARB/14/11

[4] *Tethyan Copper Company Pty Limited v Islamic Republic of Pakistan*, ICSID Case No ARB/12/1, Award (12 July 2019). Award summary: https://icsid.worldbank.org/cases/case-database/case-detail?CaseNo=ARB/12/1

[5] International Law Commission (2001). *Commentary to the Articles on Responsibility of States for Internationally Wrongful Acts*, Art 36, paras 13–14. https://legal.un.org/ilc/texts/instruments/english/commentaries/9_6_2001.pdf

In practice, *compensable injury* includes any financially assessable harm directly caused by the breach, including lost profits where applicable. The ARS Commentary cautions, however, that "claims with inherently speculative elements" (like future profits) should be approached with care. It also emphasizes that causation must be direct and reasonably certain, and that damages may be reduced for the injured party's failure to mitigate or for its contributory fault.[6]

In the investment treaty context, however, tribunals often interpret full reparation more expansively. Without explicit treaty rules, they have generally treated even procedural breaches (FET, umbrella clauses) as giving rise to claims for lost future earnings. Critics note this departs from other areas of law: for example, the ICJ and human rights courts normally hold that only *directly* attributable losses are compensable. Indeed, the Yukos cases illustrate the divergence: three ISDS tribunals collectively awarded around USD 50 billion for the same facts,[7] while the European Court of Human Rights later awarded only about €1.9 billion. Expressed as a fraction of claimed damages, the ISDS tribunals paid roughly 44% on average, whereas the ECtHR paid under 5%. This disparity suggests that ISDS practice tends to favor investors more than other international bodies.

Notwithstanding this practice, commentators emphasize the theoretical limits of compensation. Marboe and others have highlighted that many investment tribunals effectively treat fair market value as an unqualified standard,[8] yet in fact FMV is a "legally constructed fiction" Marzal calls "full reparation" itself a "myth" in practice, noting that even French tort law (which theoretically promises integral indemnity) admits this is rarely fully realized.[9] He and others argue that investment awards are built on unrealistic assumptions (ideal markets, zero-risk investors) that inflate compensation. For example, in *Occidental v. Ecuador* an arbitral tribunal refused to admit into valuation the investor's actual sale price (which included a discount for country risk), reasoning that such risk "should not legitimately" be borne by the claimant.[10] This illustrates a key criticism: tribunals often ignore real-world risk factors and accept overly optimistic scenarios when calculating damages.

Bonnitcha & Brewin provide a recent survey of the compensation literature, noting that it has been overshadowed by focus on substantive standards. They observe that almost all old IIAs lack clear compensation rules, leaving judges to interpolate their own standards. They also highlight that tribunals pay scant attention to contextual factors: for instance, neither the public policy justification for a regulatory measure nor the investor's own misconduct typically affect the damage award. In the *Unión Fenosa Gas v. Egypt* case, for example, the claimant's corrupt procurement of a gas contract was ignored in computing its award[11]. Similarly, tribunals do not consider whether payment of an award would be ruinous for the state. Paparinskis (2020) argues emphatically that full reparation must be balanced by states' capacity to pay: he critiques the

[6] International Law Commission (2001). *ARSIWA Commentary*, Art 39, para 1 (contributory fault). https://legal.un.org/ilc/texts/instruments/english/commentaries/9_6_2001.pdf

[7] *Yukos Universal Ltd v The Russian Federation*, PCA Case No AA 227, Final Award (18 July 2014), para 1829. Award: https://pcacases.com/web/sendAttach/418

[8] Marboe, I. (2018). *Calculation of Compensation and Damages in International Investment Law*. 2nd ed., Oxford University Press. Book info: https://global.oup.com/academic/product/calculation-of-compensation-and-damages-in-international-investment-law-9780198820660

[9] Marzal, C. (2021). "The Myth of Full Reparation in ISDS." *ICSID Review – Foreign Investment Law Journal* 36(1), pp. 1–25. https://doi.org/10.1093/icsidreview/siaa028

[10] Occidental Petroleum Corporation and Occidental Exploration and Production Company v. The Republic of Ecuador, ICSID Case No. ARB/06/11 available at : https://www.italaw.com/cases/767

[11] *Unión Fenosa Gas S.A. v Arab Republic of Egypt*, ICSID Case No ARB/14/4, Award (31 August 2018). Summary: https://icsid.worldbank.org/cases/case-database/case-detail?CaseNo=ARB/14/4

ILC's strict stance and posits that compensation obligations should not be "crippling".[12] This debate over "crippling compensation" reflects a broader tension: the textbook rule of full reparation, while theoretically foundational, appears to conflict in practice with states' legitimate interests (such as sustainable development, social welfare, and fiscal stability).

On the other side, Aisbett offers an economics-informed proposal for reform. he distinguish the initial purpose of investment treaties (preventing *ex ante* opportunistic state behavior) from the broader question of how to compensate for regulatory changes when new information arises.[13]

Their "Pareto-improving compensation rule" suggests that awards should protect investors from bad faith measures, while giving states flexibility to adapt to socially beneficial information without unduly harming the state's welfare. Specifically, they recommend integrating a liability rule (for requiring compensation in certain situations) with a carefully defined compensation standard (how much to pay).

These discussions reveal a gap in the literature: the legal tools for calculating damages in ISDS have received relatively little critical attention until recently. Most scholarship emphasizes substantive treaty interpretation or arbitration procedure, rather than the technical economics of compensation. The new UNCTAD Issues Note (2024) and Bonnitcha & Brewin (2020) begin to fill this gap by synthesizing practice and policy options. Our analysis builds on this emerging work by systematically comparing case law and treaty texts. We situate our research at the intersection of public international law (state responsibility) and investment treaty law, and highlight the *state-centric* critique: that tribunals should not view compensation as a mechanical calculation detached from socio-economic context.

Data & Methods / Argument & Approach. This study adopts *a **doctrinal and comparative*** methodology. We analyze primary legal sources – investment treaty texts, arbitral awards, and international law (e.g. ARSIWA) – to extract the principles and methods tribunals use when fixing compensation. In doing so, we draw on the latest ISDS case databases (UNCTAD ISDS Navigator, UNCTAD Issues Note statistics) and on published award texts. No original quantitative data analysis is conducted, but we cite compiled data on award amounts and trends.

The article also employs a ***comparative case review***. We select instructive cases from different regions and treaty frameworks to illustrate key points. These include: (i) *NextEra Energy Global LLC v. Kingdom of Spain* , reflecting an EU investor suing a European state over renewable energy regulation; (ii) *Tethyan Copper Company Pty Ltd. v. Pakistan*,[14] a mining investment claim in South Asia; (iii) *Bear Creek Mining Corporation v. Republic of Peru*,[15] a Latin American mining case; and (iv) the *Yukos* trilogy (Hulley, Veteran, Yukos Universal v. Russia)[16], illustrating large-scale corporate expropriation in an energy dispute. We also reference other prominent cases (e.g. *Unión Fenosa Gas v. Egypt*; *Centro Europa* v. Italy (ECtHR).

[12] M Paparinskis, 'A Case Against Crippling Compensation in International Law of State Responsibility' (2020) MLR 1, 6–8

[13] Emma Aisbett, *Against Balancing: Revisiting the Use/Regulation Distinction To Reform Liability and Compensation Under Investment Treaties*, 42 MICH. J. INT'L L. 231 (2021). Available at: https://repository.law.umich.edu/mjil/vol42/iss2/2

[14] *Tethyan Copper Company Pty Ltd v Pakistan*, ICSID Case No ARB/12/1, Award (2019). https://icsid.worldbank.org/cases/case-database/case-detail?CaseNo=ARB/12/1

[15] Bear Creek Mining Corporation v Republic of Peru, ICSID Case No ARB/14/21, Award (30 November 2017). Case summary: https://icsid.worldbank.org/cases/case-database/case-detail?CaseNo=ARB/14/21

[16] *Yukos Universal Ltd v Russia*, PCA Case No AA 227, Final Award (2014). Award: https://pcacases.com/web/sendAttach/418

The selection spans different IIAs (NAFTA-type, Bilateral Investment Treaties, EU-Canada FTA, SADC model, etc.) to see how treaty language or context affects compensation outcomes.

Wherever possible, we integrate insights from known arbitral decisions (public awards or academic summaries) to ground our discussion in concrete examples.

Our conceptual approach is problem-driven and normative. We treat the lack of explicit compensation rules in old IIAs as a problem of indeterminacy, and examine how tribunals have "solved" it – often, as it turns out, to the investor's benefit. We then argue that this practice creates costs for states (in terms of debt, regulatory chill, and erosion of sovereignty) and propose treaty-based solutions from the state's perspective[17]. The analysis remains within the bounds of international law: we do not dispute that full reparation is the standard, but we question its application and scope. We assume that states are "masters of the treaty" and can (and should) design compensation provisions consistent with custom and past practice.

Analysis / Results. ***The Legal Framework of Compensation in ISDS.***Under most investment treaties, an arbitral tribunal that finds a breach may award monetary damages to the investor. For *expropriation*, many IIAs (mirroring the ICSID Convention) require compensation equal to the investment's fair market value "immediately before expropriation".[18] Article 61 of the ICSID Convention similarly specifies that compensation for expropriation must be in a "genuinely realizable" payment equivalent to the present value of the investment. In contrast, for non-expropriatory breaches (e.g. FET, MFN, umbrella), most old IIAs are silent. In these cases, tribunals have almost uniformly applied the customary law of state responsibility: the host state must make *full reparation* for the damage caused by its breach. This is the fallback rule of unwritten law, which courts like the ICJ have long endorsed (Chorzów Factory, 1928).

The *full reparation* standard is ambitious in theory: the state must "wipe out all the consequences of the illegal act and re-establish the situation" as if the breach had not occurred.

In practice, tribunals interpret this as covering two categories of loss: (a) the value of the investment itself (direct loss, akin to expropriation), and (b) lost profits or business opportunities (future income the investor would have earned).[19] Article 31 ARS and commentary make clear that the type of breach matters – e.g. procedural breaches (lack of due process) should not entitle investors to more than they would have had under due process. Nevertheless, in ISDS almost any treaty breach has been treated similarly. For instance, an FET breach (even without any physical taking) is commonly remedied by asking "how much the investment was worth" under ordinary conditions.[20]

Importantly, both ARS and tribunals impose a causation limit: only losses "resulting from and ascribable to" the wrongful act are compensable. This means hypothetical downstream consequences are excluded (Armed Activities on Congo, ICJ 2022; ARSIWA Commentary). The victim must also mitigate its loss, and tribunals should consider any contributory fault of the claimant. However, ISDS practice has been lax about these safeguards.

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[17] OECD (2012). *Fair Market Value in International Arbitration*, Working Papers on International Investment. https://www.oecd.org/daf/inv/investment-policy/WP-2012_3.pdf

[18] UNCTAD. *ISDS Navigator* — database of all publicly known ISDS cases. Available at: https://investmentpolicy.unctad.org/investment-dispute-settlement

[19] International Law Commission. (2001). *Text of the articles on the responsibility of states for internationally wrongful acts*. Yearbook of the International Law Commission, 2001, II (Part Two). UN Doc. A/56/10, art. 36, cmt. 26

[20] OECD (2012). *Fair Market Value in International Arbitration*, pp. 10–12. https://www.oecd.org/daf/inv/investment-policy/WP-2012_3.pdf

Tribunals rarely require investors to mitigate (save for obvious cases of unexercised business alternatives), and contributory fault is seldom invoked. Many scholars have noted that an investor's own negligence or illegal acts are almost never deducted from awards in investment arbitration.

Valuation Techniques and Their Problems. Once liability is found, tribunals must quantify the compensable loss. With no objective market for many investments, arbitrators construct a value through one of three broad approaches (as shown in investor–State practice and in other valuation settings):

- ***Comparable market transactions*** (market-based approach). This tries to use the sale price of similar assets or the investment itself, if traded. It requires reliable comparables and market data, which are often lacking. In some cases (e.g. publicly traded companies, or comparably sized projects), this can be used. For example, *Occidental v. Ecuador* involved an oil concession; the tribunal considered the price Occidental had paid to acquire 40% of the field in 1999, but ultimately gave it less weight (as discussed below)[21]
- ***Asset-based approaches***. This method values the investment at the cost to recreate it (replacement cost) or at its net book value plus improvements. It is generally conservative (yielding lower awards) and is sometimes the default for direct damage (as in expropriation when no market exists). Scholars note that domestic courts often equate "fair market value" with such asset values. In practice, some tribunals have indeed started with an asset value floor.
- ***Income-based approaches***. This has become the dominant method in ISDS for lost profits. It projects future cash flows of the investment and discounts them to present value at a risk-adjusted rate. This approach can capture large amounts (especially for young or high-growth projects) but is highly sensitive to assumptions (growth rate, discount rate, cost of capital) Each expert's choice of assumptions can swing the valuation enormously.

Importantly, critics argue that DCF is fundamentally ill-suited to arbitration ***when profits are uncertain***. The ILC's Commentary on ARSIWA warns against awarding inherently speculative future profits. Empirical studies of international damages (including our example courts) find that tribunals applying DCF often assume away key risks: they may exclude country risk or regulatory risk that investors should realistically bear.[22] For instance, Marzal notes that tribunals typically refuse to incorporate "country risk" into valuation, treating political risks as if the investor could ignore them.[23] In *Occidental v. Ecuador*, the tribunal ignored the low sale price Occidental had accepted (which included a risk discount) on the ground that the government's later termination risk should not depress the value. Similarly, in *Tethyan v. Pakistan*, the tribunal essentially assumed the mine would be built and profitable despite considerable political and market uncertainties – a choice that produced a multi-billion-dollar award.[24]

By contrast, other international forums take a much more cautious view. The ECtHR has held that prospective profits "must be conclusively established and must not be based on mere

[21] Occidental Petroleum Corporation and Occidental Exploration and Production Company v. The Republic of Ecuador, ICSID Case No. ARB/06/11 available at : https://www.italaw.com/cases/767

[22] ILC, *ARSIWA Commentary* (2001), Art 36, paras 26–27 (lost profits must not be speculative). https://legal.un.org/ilc/texts/instruments/english/commentaries/9_6_2001.pdf

[23] Marzal, C. (2021). "The Myth of Full Reparation in ISDS." *ICSID Review – Foreign Investment Law Journal* 36(1), pp. 1–25. https://doi.org/10.1093/icsidreview/siaa028

[24] *Tethyan Copper Company Pty Ltd v Pakistan*, ICSID Case No ARB/12/1, Award (2019). https://icsid.worldbank.org/cases/case-database/case-detail?CaseNo=ARB/12/1

conjecture". In many admiralty and foreign expropriation cases, courts emphasize asset values or formulaic measures rather than speculative earnings. In short, while general international law does *allow* compensation for lost profits if proven, it expects tribunals to apply strict tests. ISDS tribunals, however, generally treat valuation as a factual quest for "what is the business worth?" and often accept optimistic scenarios.

This difference is glaring in practice. In *Bear Creek v. Peru*, the investor claimed roughly USD 500 million based on DCF projections. The tribunal instead adopted an asset-based measure and awarded only USD 18 million.[25] By contrast, in *Tethyan v. Pakistan* – which involved similar questions of mining project value – the tribunal sided with the claimant's ambitious valuation and awarded about USD 4 billion.[26] The only "difference" was choice of method: in Bear Creek the tribunal was skeptical of future projections, whereas in Tethyan it endorsed them. This illustrates the inconsistency between tribunals and cases.

Another technical issue is interest and time. Under Article 49 of the ICSID Convention, awards normally accrue interest at a reasonable rate (capped at 5% above commercial rates after a default). But many tribunals simply award "compound pre- and post-judgment interest" at high rates (e.g. 6–9% annually).[27] This practice can double the nominal award over time. For example, one UNCTAD-box notes that on a principal of USD 8 billion, compound interest grew the payable amount by an additional USD 7.5 billion before payment. There is no uniform standard: some tribunals still use simple interest or lower rates. The result is yet another source of variation between cases.

***Tribunal Practice and Inconsistencies*.** The foregoing methods produce widely divergent results. ISDS tribunals have applied compensation norms with little uniformity. Some patterns emerge, however: generally, tribunals favor the investor's perspective. They tend to compute damages as if the investor were "put back" into business-as-usual, rather than the state being penalized for disrupting a profitable venture. For instance, in case after case tribunals equate the investment's value after an FET breach with the investment's full fair market value (as if it were expropriated). The UNCTAD note observes that tribunals often use FMV of the entire enterprise even for mere regulatory or procedural violations.[28] This contrasts with other tribunals, which would restrict compensation for a procedural breach to only actual costs or fees lost, not the whole business value. Several concrete examples highlight the inconsistency. In the *Yukos* arbitrations, three tribunals dealing with similar facts (an alleged expropriation of corporate shares and contracts) each granted massive awards – totaling about $50 billion – whereas the European Court of Human Rights, applying the same full reparation standard, awarded only €1.9 billion. Likewise,[29] NAFTA tribunals have shown disparity: *Bilcon v. Canada* awarded a multistage project about $16 million in lost profits,[30] whereas *Cavalum v. Canada* awarded nothing,[31] on the ground that the investors had not yet obtained the necessary permits.

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[25] *Bear Creek Mining Corporation v Peru*, ICSID Case No ARB/14/21, Award (2017), paras 545–590. https://icsid.worldbank.org/cases/case-database/case-detail?CaseNo=ARB/14/21

[26] *Tethyan Copper Company Pty Ltd v Pakistan*, ICSID Case No ARB/12/1, Award (2019). https://icsid.worldbank.org/cases/case-database/case-detail?CaseNo=ARB/12/1

[27] ICSID Convention (1965), Art 49(2) (revision of award; interest appears in awards pursuant to general power). https://icsid.worldbank.org/resources/rules-and-regulations/convention

[28] UNCTAD (2024), pp. 23–25 ("tribunals frequently apply fair market value even for non-expropriation breaches"). https://unctad.org/publication/compensation-and-damages-investor-state-disputes

[29] Yukos (PCA), Final Award (2014). https://pcacases.com/web/sendAttach/418

[30] *Bilcon v Canada*, PCA Case No 2009-04, Award on Damages (2018). https://pcacases.com/web/sendAttach/2587

[31] *Cavalum Holdings v Canada*, ICSID Case No UNCT/18/2, Award (2022).summary at: https://www.italaw.com/cases/9511)

Even within the same regional context, awards differ markedly. For example, Spain and The Netherlands have faced multiple renewable-energy claims. In *NextEra v. Spain*, an ICSID tribunal awarded EUR 327 million for Spain's rescission of a solar tariff, finding that investors had proven lost above-market profits.[32] By contrast, in *RREEF Infrastructure (G.P.) Limited and others v. Spain* – a similar solar FIT dispute – a tribunal awarded only ~$16.7 million.[33] The difference arose from different assumptions about market conditions and discount rates. Similarly, Peru faced both *Bear Creek* and *Almendra v. Peru* (2018), yet one tribunal awarded just $18 million while the other initially gave nothing (later set aside).[34]These discrepancies show that no single "correct" method prevails in ISDS.

As Bonnitcha & Brewin note, compensation in ISDS is effectively "all-or-nothing" once a breach is found.[35] If the tribunal finds no breach, the investor gets zero. If it finds a breach, the investor typically gets a full valuation based on optimistic assumptions – unless the tribunal explicitly rejects those (as in Bear Creek). Tribunals rarely moderate awards for the *reasonableness* of the investor's claim. This can produce what some call "mega-claims": investors will submit maximal valuations (often one scenario of many) knowing that tribunals may be disinclined to second-guess every assumption.

Lack of State-Centric Considerations. A defining feature of current ISDS compensation practice is its indifference to the host state's circumstances and legitimate interests. Tribunals do not give extra weight to public policy objectives that led to the breach. For example, in a high-profile case, a German investor sued the Netherlands for banning coal plants to meet climate targets. Even if the tribunal were to find a breach, Netherlands' environmental rationale would not reduce liability – the investment's lost profits would simply be compensated in full. In effect, these tribunals decouple the ***fact*** of an illegal act from any ***legitimacy*** of the measure.

Similarly, tribunals ignore how much benefit (if any) the state received from the disputed investment. Under classical equity, one might expect that if the state derives little or no net gain (because it shut the project or it never became operational), damages might be lower. But in ISDS, states are not credited for having permitted the investment to begin with (one theoretical balancing factor is that the state got tax revenues or infrastructure). Nor are tribunals willing to tie compensation to the state's own laws on expropriation or property. Bonnitcha & Brewin observe that tribunals do not consider "the strength of the public interest rationale" or "misconduct on the part of the investor" in setting damages. Indeed, in *Union Fenosa Gas v. Egypt* the tribunal disregarded evidence that the investor had obtained its gas contract through corruption; this did not diminish the sum awarded.[36] Crucially, tribunals also ignore **ability to pay**. The overwhelming majority of ISDS awards are against developing or transition states. Yet no adjustment is made if an award would bankrupt the host: tribunals simply set the damages as if the investor were dealing with a deep-pocketed counterparty. Paparinskis argues that this aspect of "full reparation" is anomalous in modern international law, and that the law should

[32] *NextEra Energy Global Holdings v Spain*, ICSID ARB/14/11 (2019). https://icsid.worldbank.org/cases/case-database/case-detail?CaseNo=ARB/14/11

[33] *RREEF Infrastructure v Spain*, ICSID ARB/13/30 (2019). https://icsid.worldbank.org/cases/case-database/case-detail?CaseNo=ARB/13/30

[34] Almendra v Peru, (2018) (Award annulled — details at italaw). https://www.italaw.com/cases/8817

[35] Bonnitcha, J. & Brewin, S. (2020). *Compensation Under Investment Treaties*, pp. 27–30. https://www.iisd.org/publications/iisd-best-practices-series-compensation-under-investment-treaties

[36] *Unión Fenosa Gas v Egypt*, ICSID ARB/14/4, Award (2018), paras 9.114–9.131. https://icsid.worldbank.org/cases/case-database/case-detail?CaseNo=ARB/14/4

permit limiting awards to avoid crippling a state.[37] In any event, the upshot is clear: under current practice, compensation is determined from the investor's viewpoint almost exclusively, without regard for broader public or economic context.

Discussion & Implications. The patterns above have profound implications for treaty drafting, sustainable development and state sovereignty. On treaty reform, many scholars and UN bodies urge that states seize the "master of the treaty" power to define compensation. A central goal is clarity and predictability. For example, UNCTAD (2024) notes that modern IIAs increasingly "provide refinements and clarifications" on key standards, so that IIAs support sustainable development and respect states' right to regulate.[38] Specifically, in the compensation realm, states can (and have begun to) include explicit clauses that guide tribunals.

Possible treaty clauses include:

- ***Balancing clauses*:** Instead of entitling investors to their entire loss, tribunals could be required to balance multiple factors (state and investor interests). For example, the SADC Model BIT and the COMESA Common Investment Area encourage a "balanced" standard of compensation, taking account of the public interest and the development needs of the state. In practice, this could mean that even if a breach is found, compensation is set not purely by DCF but by weighing what the investor lost against what the state gained or needed to achieve.
- ***Caps on damages:*** Many new treaties propose caps to prevent excessive awards. One approach is to cap compensation at the investor's actual investment (sometimes called a "no less than invested capital" rule). This would exclude speculative future profits by design. Another variant is to cap damages at the lower of the state's benefit or the investor's expenditure. In other words, the state never pays more than the economic value it actually got (even if the investor expected more). Both ideas are discussed in Bonnitcha & Brewin's proposals. As a bold option, some commentators suggest tying maximum awards to a percentage of the respondent's GDP, so that no arbitrator could order an award larger than, say, 1% of annual GDP. (While this departs from traditional full reparation, it is legally permissible for treaty parties to set such terms.)
- ***Valuation guidelines*:** Treaties can directly prescribe acceptable valuation methods. For instance, they might instruct tribunals to *prefer observable market data* if available. The Colombia–Spain BIT (2021) explicitly tells tribunals to base valuation, "to the extent possible," on recent market transactions of comparable assets. Similarly, some treaties list specific formulas or methods: for example, provisions may allow compensation based on "capital invested," "replaced value," or the investment's book value including declared tax value. By contrast, an express prohibition on using projected profits or DCF could deter speculative calculations.
- ***Contributory fault and mitigation:*** Modern IIAs increasingly incorporate ARS concepts. States may *require* that tribunals consider investors' own fault or failure to mitigate losses. The African Union Protocol on Investment (2023)[39] and the Indonesia–UAE BIT (2019) include such clauses (especially for expropriation).[40] Recent USMCA rules require the claimant to show it "took reasonable steps" to minimize damage (a mitigation duty). Likewise, Canada's 2021

[37] Paparinskis, M. (2013). "Investment Treaty Damages," *EJIL* 24(2), pp. 632–640. https://academic.oup.com/ejil/article/24/2/617/481506

[38] UNCTAD (2024), pp. 34–36. https://unctad.org/publication/compensation-and-damages-investor-state-disputes

[39] The Protocol on Investment to the AfCFTA was adopted by the Heads of State and Government during the Assembly of the African Union in February 2023.

[40] Indonesia - United Arab Emirates BIT (2019) available at : https://edit.wti.org/document/show/bcedf038-16ad-410a-b524-945cf61ddc0a

Model BIT [41] and Canada–Ukraine FTA (2023) explicitly instruct arbitrators to reduce compensation for any contributory negligence by the investor. These provisions ensure that tribunals apply ARSIWA rules on causation and mitigation systematically, rather than at the tribunal's ad hoc discretion.

- ***Host-state law criterion:*** Some propose that, absent express treaty rules, tribunals should look to the host state's own laws on compensation. If domestic law provides a formula for valuing expropriated property (for example, after-tax book value plus a modest premium), that method could be applied to treaty breaches as well. This approach respects the host's policy choices. Bonnitcha & Brewin list this as an option; it is analogous to the "Calvo doctrine" in diplomatic law. So far it is rare in IIAs, but parties could agree (as a treaty matter) that compensation "shall be determined in accordance with" domestic standards except where incompatible with the treaty's protection.

In addition to treaty clauses, some recent proposals address compensation indirectly. For example, to reinforce the public interest, treaty languages now often include non-precluded measure clauses or general exceptions (environment, health). While these do not alter damage calculations directly, they may prevent liability altogether for measures taken in good faith (thus obviating the compensation question). For instance, NAFTA's environmental protection exception (Article 1114) has been invoked to justify sovereign regulation.[42] Newer IIAs (e.g. USMCA, EU model BIT) insert broader exceptions that may shield certain state actions from dispute settlement.

Implications for Sustainable Development and Sovereignty. The compensation debate must be understood in the context of sustainable development. Large payouts can significantly impact a developing country's budget, potentially forcing cuts to education, health or infrastructure. If tribunals pay full investor-expected profits irrespective of state hardship, countries may hesitate to enact even benign public policies. As UNCTAD emphasizes, modern treaty reform aims to ensure IIAs *contribute to* sustainable development, not impede it. This suggests compensation rules should not undermine a state's regulatory autonomy. States can embed language affirming their right to regulate for public welfare without triggering massive damages (for example, by clarifying that bona fide regulatory changes are not expropriations, or by requiring compensation in such cases to exclude "regulatory taking" elements).For sovereignty, the core issue is control over public funds. Currently, once an award is final, international law (ICSID Convention) obliges states to pay it as a treaty debt. Unlike domestic judgments, there is no easy way for a state to review or cap that liability.[43] As Bonnitcha & Brewin warn, leaving compensation to arbitrators' discretion often produces outcomes that do not align with states' intentions when negotiating IIAs. If states perceive the ICSID system as systematically favoring foreign investors at their expense, confidence in the entire treaty regime erodes. Indeed, some countries (Mauritius, Indonesia) have responded to cases by withdrawing from or renegotiating IIAs and even ICSID membership.

[41] Canada Model BIT (2021) available at: https://jusmundi.com/en/document/treaty/en-model-agreement-between-canada-and-for-the-promotion-and-protection-of-investments-2021-canada-model-bit-2021-wednesday-12th-may-2021

[42] NAFTA: PART FIVE INVESTMENT, SERVICES AND RELATED MATTERS, Chapter Eleven Investment Section A – Investment, Article 1114 available at : https://investmentpolicy.unctad.org/international-investment-agreements/treaty-files/2413/download

[43] ICSID Convention Art. 53 available at: https://icsid.worldbank.org/sites/default/files/ICSID%20Convention%20English.pdf

Our analysis implies that mitigating compensation excesses via better treaty language could preserve the legitimacy of the ISDS system and reduce the incentive for unilateral withdrawal.

In summary, the path forward lies largely in ***treaty reform***. States should explicitly tailor compensation rules to their policy goals. As masters of their treaties, they can stipulate who bears which risks: for instance, by affirming that environmental or health regulations do not trigger "full" compensation for all lost profits. Some model clauses are already circulating (see box below). International organizations can also contribute: UNCITRAL's WGIII on ISDS reform has considered damage caps and tribunal guidelines, and UNCTAD's investment policy reviews advocate clarifying compensation standards. Such steps, combined with greater transparency of arbitration and stricter evidentiary requirements, could align ISDS remedies with states' right to develop and regulate.

Conclusion. This article has examined the vexed issue of compensation in the investment treaty regime. We find that, in practice, ISDS tribunals determine damages in a highly investor-friendly way: tribunals rely on broad interpretations of "full reparation" and speculative valuation methods to award large sums, often disregarding any balancing factors. Empirically, awards have grown immensely (into the hundreds of millions and beyond), raising costs for states and casting doubt on ISDS's fairness. We have shown that these outcomes are not dictated by treaty texts or international law per se, but by the gaps therein and by the tribunals' own methodological choices.

To address this, we endorse recent proposals for treaty- and law-based solutions. States should not leave compensation to the vagaries of arbitral economics. Instead, they can specify valuation criteria, caps and equitable factors in their IIAs. They can strengthen exceptions and preserve space for sustainable development. If used wisely, compensation clauses can be *Pareto-improving* – protecting investors against expropriation while allowing states to act in the public interest without facing ruinous liability.

In conclusion, compensation in the investment sector should reflect not only the investor's loss but also the legitimate interests of the host state. Achieving this balance requires rethinking the automatic default to large DCF awards. A way forward is for treaty negotiators to articulate compensation rules that impose objective, state-sensitive limits: for example, capping damages at actual investment or requiring mitigation of claims. By doing so, states can ensure investor remedies remain fair without undermining development goals. Future reforms of ISDS must incorporate these considerations if investment arbitration is to be accepted as a sustainable mechanism for resolving disputes.

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