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Compliance politics and international investment disputes: a new dataset

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ABSTRACT

The ability to ensure compliance with investor-state arbitral awards is often regarded as one of the strengths of the international investment regime. Yet, there have been few systematic studies of compliance to assess the extent to which states have actually complied with adverse investor-state compensation awards. This paper presents a new dataset that enables empirical research on compliance with these decisions; it is the first publicly available dataset to focus on what happens after awards are handed down, and in this way complements other databases on international investment law. This paper explains the data collection process (and its associated challenges), discusses the design choices made in selecting inputs and variables, presents a descriptive overview of the data, and examines how variables can be used in future research. Moreover, various cases are used as illustrations of the challenges of collecting and coding data on post-award processes and we explore what missing data can tell us about compliance dynamics.

INTRODUCTION

The ability to ensure compliance with investor-state arbitral awards is often regarded as one of the strengths of the international investment regime. The prevalent presumption has been that non-compliant states would risk reputational consequences, such as less foreign investment,[1]

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[1] Todd Allee and Clint Peinhardt, 'Contingent Credibility: The Impact of Investment Treaty Violations on Foreign Direct Investment' (2011) 3 International Organization 65, 401; Ibrahim FI Shihata, 'Towards a Greater Depoliticization of Investment Disputes: The Roles of ICSID and MIGA' (1986) 1 ICSID Review—Foreign Investment Law Journal 1, at 1; Beth A Simmons, 'Bargaining over BITs, Arbitrating Awards: The Regime for Protection and Promotion of International Investment' (2014) 1 World Politics 66, 12.

or enforcement actions under the regime's unique transnational compliance architecture.[2] Thus, states should be willing to comply, and notable examples of non-compliance were presented as outliers within an otherwise self-enforcing regime.[3] Yet, there have been no systematic studies of compliance with awards from investor-state dispute cases.[4]

This paper introduces the *Compliance Politics and International Investment Disputes* (COPIID) dataset, which enables empirical research on compliance with investor-state dispute settlement (ISDS) awards.[5] The COPIID dataset, which will be made publicly available free of charge, is the first to comprehensively map what happens after ISDS awards are handed down, complementing other databases on international investment law.[6] The core goal of the dataset is to provide an in-depth and verifiable resource for researchers who seek to study compliance with treaty-based ISDS. By collecting diverse sources of information about post-award dynamics, it captures the complexities of ISDS post-award processes and facilitates qualitative, quantitative, legal, and computational analysis.

This paper explains the data collection process (and its associated challenges) as well as the design choices in selecting the variables of the dataset that should be considered when drawing conclusions from the data. Cases are discussed throughout to illustrate the challenges of collecting and coding data on post-award processes. The paper also presents a descriptive overview of the data based on available public information.

The paper is divided into six sections. Section 'Research needs' introduces the goals of the dataset and the research gap that the dataset fills. Section 'The dynamic post-award process' provides an overview of the complex process in the post-award phase of ISDS cases. Section 'Method' sets out the data collection process, while Section 'Variables and research applications' provides details on the coding variables and illustrates how these variables can be used in research, complemented by Appendices 1–3, which provide the quantitative dataset, a sample of free text indicators, and the codebook. Finally, Section 'Challenges: reliability and "missingness"', complemented by Supplementary Appendix 4, explores the challenges surrounding reliability of the data, missingness, strategic transparency, and potential for multiple imputation.

RESEARCH NEEDS

The first area of research concerns describing and *explaining* compliance and non-compliance with ISDS awards. In addition to trying to map the extent and nature of compliance, the conditions under which states will comply with rulings rendered against them has been a central question of inquiry for scholars of many other international arenas of judicial or arbitral dispute settlement.[7] To explain compliance (or non-compliance), sophisticated studies examine how compliance is influenced by the response to the judgments, whether domestically (by governing

[2] Alan S Alexandroff and Ian A Laird, 'Compliance and Enforcement' in Peter Muchlinski, Federico Ortino and Christoph Schreuer (eds), *The Oxford Handbook of International Investment Law* (Oxford University Press, Oxford 2008) 0.

[3] See discussion in Emmanuel Gaillard and Ilija Mitrev Penushliski, 'State Compliance with Investment Awards' (2020) 3 ICSID Review—Foreign Investment Law Journal 35, 540.

[4] Ibid; Daniel Peat, 'Perception and Process: Towards a Behavioural Theory of Compliance' (2022) 2 Journal of International Dispute Settlement 13, 179; Yuliya Chernykh et al, *Compliance with ISDS Awards: Empirical Perspectives and Reform Implications*, ISDS Academic Forum Working Group Paper (2022) <https://www.jus.uio.no/pluricourts/english/projects/leginvest/academic-forum/papers/compliance-with-isds-awards—empirical-perspectives-and-reform-implications.pdf> presenting some recent examples of the study of compliance in ISDS.

[5] The dataset is part of a wider project funded by the Research Council of Norway for the period 2022–2025 (project number 326269), partly supported through its Centres of Excellence funding scheme (project number 223274). See <https://www.jus.uio.no/ior/english/research/projects/copiid/> accessed 29 January 2024.

[6] See examples in footnote 12.

[7] See, for example, Tom Ginsburg and Richard H McAdams, 'Adjudicating in Anarchy: An Expressive Theory of International Dispute Resolution' (2003) 4 William & Mary Law Review 45, 1229; Gary Horlick and Judith Coleman, 'The Compliance Problems of the WTO' (2007) 1 Arizona Journal of International and Comparative Law 24, 141; Darren Hawkins and Wade Jacoby, 'Partial Compliance: A Comparison of the European and Inter-American Courts of Human Rights Engagement and Escape: International Legal Institutions and Public Political Contestation' (2010) 1 Journal of International Law and International Relations 6,

institutions and the public) or internationally (by other states and transnational actors with an ability to exert pressure).[8] Likewise, researchers have examined the characteristics of the judgments and other decisions (such as clarity and soundness of the reasoning, transparency, and cost of the decision for a state) and the adjudicating body (including its follow-up procedures and perceived legitimacy), as these may influence the degree to which responding governments can be held accountable for their compliance performance.[9] Other researchers have even inverted the question and examined whether patterns of past compliance influence adjudicative behaviour.[10]

In contrast, in ISDS, the compliance phase is largely a 'black box'. Compliance in ISDS has tended to be assumed rather than empirically studied. Scholarship has been mostly limited to analysing discrete enforcement judgments or select cases. Only recently have empirical studies on ISDS begun to emerge. However, they cover only a little over half of the damages awards and their dataset and coding manuals are not publicly available.[11] Thus, while there is substantial empirical literature and many databases on most aspects of investment law, including treaties, awards, outcomes, arbitrators, and lawyers, there is a distinct and glaring gap in the post-award space.[12] By systematically collecting data on compliance, as we do with the COPIID dataset,

35; Dia Anagnostou and Alina Mungiu-Pippidi, 'Domestic Implementation of Human Rights Judgments in Europe: Legal Infrastructure and Government Effectiveness Matter' (2014) 1 European Journal of International Law 25, 205; Malcolm Langford, César Rodríguez-Garavito and Julieta Rossi (eds), *Social Rights Judgments and the Politics of Compliance: Making it Stick* (Cambridge University Press, Cambridge 2017); Ryan Goodman and Derek Jinks, 'Incomplete Internalization and Compliance with Human Rights Law' (2008) 4 European Journal of International Law 19, 725; Courtney Hillebrecht, *Domestic Politics and International Human Rights Tribunals: The Problem of Compliance* (Cambridge University Press, Cambridge 2014); Sharanbir Grewal and Erik Voeten, 'Are New Democracies Better Human Rights Compliers?' (2015) 2 International Organization 69, 497; Øyvind Stiansen, 'Delayed but not derailed: legislative compliance with European Court of Human Rights judgments' (2019) 8 The International Journal of Human Rights 23, 1221; Jillienne Haglund, Courtney Hillebrecht and Hannah Roesch Read, 'International human rights recommendations at home: Introducing the Women's Rights Compliance Database (WRCD)' (2022) 5 International Interactions 48, 1070.

[8] Erik Voeten, 'Domestic Implementation of European Court of Human Rights Judgments: Legal Infrastructure and Government Effectiveness Matter: A Reply to Dia Anagnostou and Alina Mungiu-Pippidi' (2014) 1 European Journal of International Law 25, 229; Courtney Hillebrecht, 'The power of human rights tribunals: Compliance with the European Court of Human Rights and domestic policy change' (2014) 4 European Journal of International Relations 20, 1100; Aydin B Yildirim et al, 'The internationalization of production and the politics of compliance in WTO disputes' (2018) 1 Review of International Organizations 13, 49; Daniel M Brinks, 'Solving the Problem of (Non)compliance in Social and Economic Rights Litigation' in César Rodríguez-Garavito, Julieta Rossi and Malcolm Langford (eds), *Social Rights Judgments and the Politics of Compliance: Making it Stick* (Cambridge University Press, Cambridge 2017) 475–508.

[9] Jeffrey K Staton and Alexia Romero, 'Rational remedies: The role of opinion clarity in the Inter-American human rights system' (2019) 3 International Studies Quarterly 63, 477; Øyvind Stiansen, 'Directing Compliance? Remedial Approach and Compliance with European Court of Human Rights Judgments' (2021) 2 British Journal of Political Science 51, 899; Jay N Krehbiel, 'Public Awareness and the Behavior of Unpopular Courts' (2021) 4 British Journal of Political Science 51, 1601.

[10] See Ginsburg and McAdams, above n 8, Adjudicating in Anarchy; Jeffrey Kucik and Sergio Puig, 'Do International Dispute Bodies Overreach? Reassessing World Trade Organization Dispute Ruling' (2022) 4 International studies quarterly 66, 1.

[11] See Gaillard and Mitrev Penushliski, above n 4; The top 20 countries that have received the most ISDS awards and 'appear to be the most delinquent in their international law obligations by avoiding payment of Awards rendered against them' was the subject of the recent study by Lavranos: Nikos Lavranos, *Report on Compliance with Investment Treaty Arbitration Awards 2022*, International Law Compliance 1 (2022) <https://www.internationallawcompliance.com/wp-content/uploads/2022/10/Compliance-with-Investment-Treaty-Arbitration-Awards-Report-2022-FINAL-17-10-2022.pdf> accessed 21 October 2022.

[12] See eg Wolfgang Alschner, Manfred Elsig and Rodrigo Polanco, 'Introducing the Electronic Database of Investment Treaties (EDIT): The Genesis of a New Database and Its Use' (2021) 1 World Trade Review 20, 73; Daniel Behn et al, *PITAD Investment Law and Arbitration Database* (Pluricourts Centre of Excellence, University of Oslo, 2019); United Nations Conference on Trade and Development (UNCTAD), 'Investment Dispute Settlement Navigator', <https://investmentpolicy.unctad.org/investment-dispute-settlement> accessed 15 February 2021; United Nations Conference on Trade and Development (UNCTAD), 'International Investment Agreements Navigator', <https://investmentpolicy.unctad.org/international-investment-agreements> accessed 15 February 2021; Andrew Newcombe, 'ITAlaw.com', <https://www.italaw.com> accessed 15 February 2021; 'Jus Mundi', <https://jusmundi.com> accessed 7 June 2022; For a broader overview of empirical works, see Daniel Behn, Malcolm Langford and Laura Létourneau-Tremblay, 'Empirical Perspectives on Investment Arbitration: What Do We Know? Does It Matter?' (2020) 2–3 Journal of World Investment & Trade 21, 188.

researchers can generate new insights about the *extent to, why*, and *when* states comply (or not) with ISDS awards.[13]

A second area of research is more *normative*. Compliance data can contribute to policy reform processes and impact evaluations. This occurs in other public international law regimes, but it has been largely absent from the discussion surrounding ISDS.[14] A narrative of effective, even automatic, enforcement has at times been promoted by officials in intergovernmental organizations, lawyers advising clients, scholars, and others.[15] By collecting publicly available data about post-award dynamics, this dataset may provide material for public policy reflections, including evaluations of traditional narratives of compliance with ISDS awards.

Finally, the dataset may be relevant in *doctrinal* research. Empirical databases are often helpful in identifying and selecting domestic judgments and enforcement processes for doctrinal analysis, avoiding 'the worry of cherry-picking cases that best fit an argument'.[16] Thus, a dataset that provides an overview of all the different enforcement processes for awards can help legal scholars in case selection[17] and provide a more accurate sense of doctrinal trends.

The above discussion indicates the range of distinct research needs that can be served by systematic data gathering on ISDS compliance. It enables researchers to offer and test new theories of compliance with ISDS awards and propose new understandings of actor behaviour, expanding empirical compliance scholarship to the ISDS context, and contributing to policy discussions. The dataset also helps make post-award processes more transparent and helps identify what is still unknown in international investment law. Moreover, the similarities and differences of ISDS with other international courts and tribunals offer the possibility for comparative analysis, thereby enriching compliance theories for international court and tribunal studies generally.

THE DYNAMIC POST-AWARD PROCESS

The study of compliance in ISDS is challenging as it brings up difficult conceptual and operationalization questions. The first conceptual distinction is between first-order and second-order compliance. We focus on compliance with the terms of an arbitral award (second-order compliance),[18] not compliance with investment treaty obligations in the first place (first-order

[13] In this way, the dataset contains verifiable and reproducible coding, thereby contributing to open science and fair data collection principles: The Research Council of Norway, 'Policy on Open Science' (2 December 2022), <https://www.forskningsradet.no/en/research-policy-strategy/open-science/policy/> accessed 16 March 2023; Mark D Wilkinson et al, 'The FAIR Guiding Principles for scientific data management and stewardship' (2016) 1 Scientific Data 3, at https://www.nature.com/articles/sdata201618.

[14] For examples concerning other international bodies, see Open Society Foundations, (*From Judgment to Justice: Implementing International and Regional Human Rights Decisions* 2010) <https://www.refworld.org/docid/4cf3b0682.html> accessed 21 March 2023; on the relationship of compliance to broader impact assessments, see Robert Howse and Ruti Teitel, 'Beyond Compliance: Rethinking Why International Law Really Matters' (2010) 2 Global Policy 1, 127; César Rodríguez-Garavito, 'Beyond Enforcement: Assessing and Enhancing Judicial Impact' in César Rodríguez-Garavito, Julieta Rossi and Malcolm Langford (eds), *Social Rights Judgments and the Politics of Compliance: Making it Stick* (Cambridge University Press, Cambridge 2017) 75–108; and, on the effect of advocacy and research on ECtHR compliance, see Alice Donald and Philip Leach, 'Responding to seismic change in Europe - the road to Reykjavik and beyond' (2023) 2 European Human Rights Law Review, 95.

[15] United Nations Commission on International Trade Law, *Report of Working Group III (Investor-State Dispute Settlement Reform) on the work of its resumed thirty-eighth session*, A/CN.9/1004/Add.1 (2020) <https://documents-dds-ny.un.org/doc/UNDOC/GEN/V20/007/33/PDF/V2000733.pdf?OpenElement> accessed 19 April 2023, para 74 ff; notably, the COPIID project itself emerged from a plenary discussion UNCITRAL Working Group III on investment arbitration reform when states realized they needed information on compliance to address a legal question of the enforceability of a potential Multilateral Investment Court and asked the ISDS Academic Forum for assistance: See Chernykh et al, above n 5.

[16] Katerina Linos and Melissa Carlson, 'Qualitative Methods for Law Review Writing Symposium: Developing Best Practices for Legal Analysis' (2017) 1 University of Chicago Law Review 84, 213, 213, 220.

[17] Jason Seawright and John Gerring, 'Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options' (2008) 2 Political Research Quarterly 61, 294.

[18] This means we engage the scholarship on second-order compliance with the rulings of international courts and tribunals. See, for example, Karen J Alter, *The European Court's political power: selected essays* (University Press, Oxford 2009); Jeffrey K Staton and Will H Moore, 'Judicial Power in Domestic and International Politics' (2011) 3 International Organization 65, 553; See Stiansen, above n 10, Directing Compliance?

compliance).[19] First-order compliance can require domestic legislative changes or other measures to prevent future violations of investment treaty obligations, which is a separate topic and outside the scope of this database. In comparison, second-order compliance in international investment law primarily concerns the order for payment of compensation, since tribunals are rarely able to mandate other remedies, such as removal of non-compliant legislation.

By focusing on second-order compliance, our dataset studies post-award dynamics. We conceptualize the award ordering a state to pay compensation as a focal point within broader, longer-term relations between the investor or other claimants and the respondent state.[20] Defining compliance descriptively as the respondent state's payment of monetary compensation ordered by the tribunal is too narrow for ISDS, and arguably other international courts and tribunals. As we shall see, disputes are commonly resolved through post-award dynamics rather than payment of the full amount ordered by the tribunal. What an ISDS award often does in practice is provide a new focal point around which parties can bargain about the resolution of their dispute rather than simply provide the final determination of what actions a state or other party is obligated to undertake. Thus, payment (or not) of an award is just one of many indicators we seek to measure in capturing how investors and states seek to resolve the dispute after the award.

Moreover, a raft of other questions arises if compliance is only described as the award being paid in full by the respondent state. First, the original award may be modified during the post-award process. Is there still 'compliance' with the award where the parties have entered a post-award settlement agreement which changes the terms of the tribunal's award, including introducing non-pecuniary measures or quid pro quo arrangements?[21] Second, who pays or receives the compensation may be changed. Is it still 'compliance' where the investor has succeeded in enforcement proceedings against another related entity of the state in a foreign jurisdiction?[22] Finally, what if the investor brings new proceedings for breach of the treaty for failure to pay an investor-state award?[23] Does the compliance process continue or start anew?

Variables in the dataset are designed to accommodate these diverse post-award dynamics, as discussed further in Section 'Case and compliance stage'. The coding scheme does not try to force a narrow definition of compliance as a fixed descriptive standard onto ISDS. Instead, we collect data on a series of indicators from the moment of the tribunal's decision through all the steps to payment of compensation (where it occurs). This provides a richer picture of post-award processes than has existed before.

[19] See, for example, Roger Fisher, *Improving Compliance with International Law* (University Press of Virginia, Charlottesville 1981); Abram Chayes and Antonia Handler Chayes, 'On Compliance' (1993) 2 International Organization 47, 175; Kal Raustiala and Anne-Marie Slaughter, 'International Law, International Relations, and Compliance' in Walter Carlsnæs, Thomas Risse and Beth A Simmons (eds), *Handbook of International Relations* (Sage, London 2002).

[20] Malcolm Langford, Taylor St John, Øyvind Stiansen, Yuliya Chernykh, Tarald Berge and Sergio Puig, 'Bargaining in the Shadow of Awards' *working paper*.

[21] This could include both small reductions in the compensation payment to substantially reducing the size of the award in exchange for non-monetary compensation. For example, in *Khan Resources v Mongolia*, before any decision on set-aside was handed down, the parties agreed to settle the claim with a reduction of USD 10 million from the original USD 80 million: see Press Release of Khan Resources dated 6 March 2016 <http://legacy.khanresources.com/investors/news/160306.pdf> accessed 5 May 2022. More substantively, the parties in *Karkey v Pakistan* agreed to reduce a USD 845 million award to 'non-monetary reconciliation', which included release of detained vessels and termination of all other lawsuits: see <https://globalarbitrationreview.com/article/pakistan-settles-billion-dollar-award-without-payment> accessed 6 June 2022.

[22] For example, in *Funnekotter v Zimbabwe*, the investor successfully brought enforcement proceedings in New York against assets of the agricultural and development bank of Zimbabwe: see *Funnekotter v Agricultural Development Bank of Zimbabwe* No. 13 CIV 1918 (CM), Memorandum Decision and Order Granting Plaintiff's Motion for Summary Judgment dated 17 December 2015. In enforcement proceedings brought follong the award in *Sistem Muhendislik v Kyrgyz Republic*, the US District Court in New York issued civil contempt sanctions against the respondent state for failure to pay the award: Judgment of the United States District Court for the Southern District of New York—7 May 2020.

[23] For example, following an unsuccessful set-aside attempt and an enforcement battle across jurisdictions, the claimants in *Mohammed Reza Dayyani v Korea* commenced new ISDS proceedings under the Iran–South Korea BIT for failure to pay the 2018 award: see <https://www.iareporter.com/articles/south-korea-secures-ofac-exemption-for-payment-of-treaty-award-in-favour-of-irani-investors/> accessed 20 June 2022.

To understand the difficult task of developing a dataset on these post-award dynamics, it is helpful to outline the different steps or pathways that need to be captured in the dataset in more detail. The dispute in *Unión Fenosa v Egypt* illustrates many of the various steps that could be taken by relevant actors and difficulties in describing compliance. In this dispute, the tribunal awarded the investor USD 2.01 billion for breach of the fair and equitable treatment (FET) obligation in the Egypt-Spain Bilateral Investment Treaty (BIT) (1992) following suspension of gas supplies to the claimant's liquefied natural gas (LNG) plant.[24]

Both the investor and Egypt commenced follow-on proceedings. Such follow-on proceedings are an important part of the post-award dynamics, indicating the time and additional costs of receiving compensation, but also opening new arenas for negotiation or legal resolution. In addition, tracing follow-on proceedings contributes to understanding the perceived legitimacy of investor-state awards at the domestic level. For example, are some states more likely to seek to annul or set-aside the award? If so, why? As the unsuccessful party, Egypt applied to annul the award under Article 52 of the International Centre for the Settlement of Investment Disputes (ICSID) Convention.[25] Since payment was not immediately forthcoming, the investor commenced recognition and enforcement proceedings[26] in the USA,[27] the UK,[28] Luxembourg, the British Virgin Islands, and the Netherlands.[29] No particular assets were targeted by the investor as part of its enforcement attempts. Egypt sought to stay these enforcement proceedings, pending the outcome of the annulment application, with varying success. In the enforcement proceedings in the USA, the court granted this request for stay,[30] whereas the request to continue the stay of enforcement was rejected by the ICSID Annulment Committee.[31]

Alongside these follow-on proceedings, other bargaining processes may occur, whether through diplomatic channels or negotiations between the parties. These processes may end up leading to a post-award settlement agreement. In *Unión Fenosa v Egypt*, the parties (or their associated entities) entered such negotiations and reached an initial settlement agreement in

[24] *Unión Fenosa Gas, S.A. v. Arab Republic of Egypt* (ICSID Case No. ARB/14/4), Award, 31 August 2018, [13.8], [13.7].

[25] Although often used interchangeably, we refer to annulment as the procedure under the ICSID Convention, whereas set-aside refers to procedures in domestic courts under the New York Convention. On annulment *v* set-aside, generally, see Franco Ferrari, Friedrich Rosenfeld and John Fellas, *International Commercial Arbitration* (Edward Elgar Publishing, 2021) 170–196 (chapter 9); Kateryna Bondar, 'Annulment of ICSID and Non-ICSID Investment Awards: Differences in the Extent of Review' (2015) 6 Journal of International Arbitration 32, 621.

[26] We refer to recognition proceedings as involving the formal certification of a foreign arbitral award as if it was a final and binding decision of a local court in that jurisdiction. Recognition is usually the first legal step in a contested compliance process. Enforcement proceedings may then be brought against assets of states, state entities, and state-owned companies in any jurisdiction to force payment through the seizure and sale of such assets. On follow-on proceedings generally, see George A Bermann, 'Recognition and Enforcement of Foreign Arbitral Awards: The Interpretation and Application of the New York Convention by National Courts' in George A Bermann (ed), *Recognition and Enforcement of Foreign Arbitral Awards: The Interpretation and Application of the New York Convention by National Courts* (Springer International Publishing, Cham 2017) 1–78; Herbert Kronke, 'Introduction: The New York Convention Fifty Years on: Overview and Assessment' in Herbert Kronke and Patricia Nacimiento (eds), *Recognition and Enforcement of Foreign Arbitral Awards: A Global Commentary on the New York Convention* (Kluwer Law International, 2010) 1–18; Ruqiya Musa and Martina Polasek, 'The origins and specificities of the ICSID enforcement mechanism' in Julien Fouret (ed), *Enforcement of Investment Treaty Arbitration Awards: A Global Guide* (2nd edn. Globe Law and Business, 2021) 11–31.

[27] The investor sought to enforce the award in the District Court of the District of Columbia: Union Fenosa Gas v Egypt, Case No. 18-cv-02395. In addition, the investor also sought judicial assistance in the District Court of the Southern District of New York for subpoenas and discovery against the Bank of New York and Depositary Trust Company: see Union Fenosa Gas, S.A. *v* The Bank of New York Mellon Corporation, Case No. 1:20-mc-00171; Union Fenosa Gas, S.A. *v* The Depository Trust Company, Case No. 1:20-mc-00188.

[28] The award was registered in England on 19 December 2018. Following issues with service, Egypt sought to set aside orders on alternative service, which was dismissed on 30 June 2020. No decision on recognition or enforcement was made prior to settlement. See Judgment of the High Court of Justice of England and Wales [2020] EWHC 1723 (dated 30 June 2020).

[29] Limited information is available on these other enforcement proceedings. See <https://globalarbitrationreview.com/article/egyptian-lng-saga-finally-end> accessed 21 September 2022.

[30] See Memorandum Opinion of the United States District Court for the District of Columbia dated 4 June 2020.

[31] In October 2019, the Annulment Committee issued a decision on the continuation of the stay of enforcement of the award, which is not public. The stay was terminated in January 2020. See, ICSID case details: <https://icsid.worldbank.org/cases/case-database/case-detail?CaseNo=ARB/14/4> accessed 21 September 2022 and IAReporter on discontinuance: <https://www.iareporter.com/articles/renewed-settlement-leads-to-discontinuation-of-2-billion-egyptian-gas-case/> accessed 21 September 2022.

February 2020, before any of the follow-on proceedings had reached a conclusion. The scope of post-award settlement agreements varies widely, from minor changes to the timeline of payment to large reductions in the compensation awarded by the tribunal, perhaps in exchange for non-monetary remedies.[32] The settlement agreement in *Unión Fenosa v Egypt* substantively changed the terms of compliance with the award: resumption of production at the LNG plant as well as acquisition of shares and corporate restructuring of the claimant. However, due to complications in reaching key conditions and deadlines caused by the COVID-19 pandemic, the settlement agreement fell away[33] and was only reinstated in December 2020.[34] Both parties accepted the completion of the settlement agreement in March 2021[35] and the follow-on proceedings were subsequently abandoned.[36] However, in other disputes, even these negotiated outcomes may not avoid the need for further enforcement proceedings.[37]

As the post-award settlement agreement did not include any direct payment from the respondent to the claimant, the dispute no longer fits the standard descriptive concept of 'compliance'. Therefore, we introduce a 'resolved' indicator in the dataset, an analytical category as a more inclusive measure. We consider disputes as 'resolved' if there is evidence of payment, or settlement, or if the award has been successfully annulled or set aside, or if the tribunal found liability but did not award compensation. A dispute can be considered resolved even if it does not meet the threshold for compliance, understood as the descriptive category of payment of the amount specified in the award. The use of the 'resolved' indicator, alongside payment of compensation variables, allows us to fully capture such disputes within the post-award compliance coding.

Figure 1 sets out many of the possible pathways that may be taken by parties along the route to resolving the dispute and achieving some measure of compliance. The figure illustrates that post-award dynamics may resolve a dispute in four main ways. First is the 'voluntary resolution' as evidenced by the payment under the award, whether immediately after the issuance of the award or after conclusion of follow-on proceedings. Second, 'modified voluntary resolution' may occur when the Respondent State pays an award that has been modified after bilateral negotiations with the claimant investor, such as the *Unión Fenosa v Egypt* dispute. Third is the 'involuntary resolution' through seizure of state assets mandated through follow-on proceedings. Finally, the process may result in no compliance being required, whether because of the investors waiving their rights to compensation[38] or successful annulment proceedings.

[32] See examples in footnote 25 above.

[33] See press release of Naturgy (one of the 50% shareholders of the claimant) dated 23 April 2020: <https://www.cnmv.es/portal/verDoc.axd?t=%7bcfad67fa-16b7-465b-9cfe-f670bed23608%7d> accessed 21 September 2022; Sanderson and Perry, 'Pandemic sinks settlement of Egyptian gas plant dispute', *Global Arbitration Review* (27 April 2020), <https://globalarbitrationreview.com/article/pandemic-sinks-settlement-of-egyptian-gas-plant-dispute> accessed 21 September 2022.

[34] See press release of ENI (the other 50% shareholder of the claimant) dated 1 December 2020: <https://www.eni.com/en-IT/media/press-release/2020/12/cs-eni-accordo-riavvio-impianto-egitto.html> accessed 21 September 2022.

[35] See press release of ENI dated 10 March 2021: <https://www.eni.com/en-IT/media/press-release/2021/03/eni-closes-agreement-partners-restart-damietta-liquefied-natural-gas-plant-egypt.html> accessed 21 September 2022.

[36] The annulment proceedings were discontinued on 12 March 2021 (see ICSID website: <https://icsid.worldbank.org/cases/case-database/case-detail?CaseNo=ARB/14/4> accessed 21 September 2022. The proceedings in the US District of Columbia were discontinued on 16 March 2021.

[37] For example, following an award of USD $25,161,184 in *British Caribbean Bank v Belize* and a pending dispute in *Dunkeld International Investment Ltd v Belize* for breaches of the Belize-UK BIT (1982), Belize entered into a settlement with the claimants. The settlement in the *Dunkeld* dispute resolved the jurisdiction and the merits of the dispute, with the dispute to be referred back to the tribunal to determine the amount of compensation. Despite this settlement agreement, the investor was still required to enforce the USD 96 million award in the Caribbean Court of Justice: see *Boyce v Attorney General of Belize* [2017] CCJ 16 (AJ), [45].

[38] For example, the investors in *Masdar Solar v Spain* renounced their rights to collect damages in order to benefit from a new incentive scheme offered by Spain. See, *IAReporter*, 'Masdar v Spain Case Is Discontinued' (1 December 2020): <https://www.iareporter.com/articles/masdar-v-spain-case-is-discontinued/> accessed 8 March 2023.

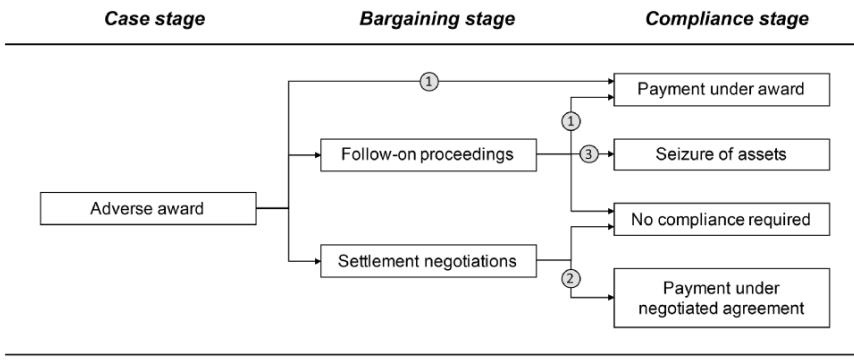

Figure 1. Different stages and potential outcomes in the ISDS compliance process. The encircled numbers indicate voluntary resolution (1), modified voluntary resolution (2), and involuntary resolution (3).

Complicating the picture in Fig. 1 even further is the fact that ISDS awards can be sold as assets. The so-called secondary market players purchase awards and seek to enforce them.[39] Observers note that this practice is rising in the face of greater transparency in ISDS and investor awareness of non-compliance,[40] and is supported by the broader phenomenon of third-party financing in ISDS.[41] As the claimant's identity has changed, this introduces a new element in the compliance process. Since the new 'claimant' has potentially different motivations than the original investor (eg preference for monetary compensation over underlying dispute resolution), it may substantially affect post-award behaviour.

METHOD

From this background on the complex post-award dynamics of ISDS, the proceeding section sets out how our dataset was collected and coded.

Dispute dataset

The universe of ISDS disputes for our compliance dataset was drawn from the PluriCourts Investment Treaty and Arbitration Database (PITAD),[42] which was then cross-checked and verified against other ISDS databases, including United Nations Conference on Trade and Development (UNCTAD)'s Investment Dispute Settlement Navigator[43] and Investor-State Law Guide.[44] The date 31 December 2020 was chosen as the cut-off date as it provides time for

[39] See, for example, the *El Paso v Argentina* (ICSID, ARB/03/15), which was purchased by Gasa Investments, and *BG Group v Argentina* (UNCITRAL ad hoc) award, which was purchased by Queen Avenue Investments LLC: <https://globalarbitrationreview.com/article/third-parties-collect-argentinas-treaty-awards> accessed 9 March 2023.

[40] 'Arbitration awards: A new asset class': Allen & Overy, <https://www.allenovery.com/en-gb/global/news-and-insights/international-arbitration-review/arbitration-awards-a-new-asset-class> accessed 9 March 2023: 'The secondary market for participation in arbitration proceedings is expanding, however, with various investors - in particular, investment funds - showing a keen interest in investing *after* the arbitration proceedings are over, and an award has been rendered in favour of the claimants'.

[41] Florence Dafe and Zoe Williams, 'Banking on courts: financialization and the rise of third-party funding in investment arbitration' (2021) 5 Review of International Political Economy 28, 1362. See, for example, Fuchs v Georgia, (ICSID ARB/07/15), Award of 3 March 2010, in which the respondent referred to the third-party funding arrangement as part of its submission on costs, [691].

[42] Daniel Behn, Malcolm Langford, Ole Kristian Fauchald, Runar Lie, Maxim Usynin, Taylor St John, Laura Letourneau-Tremblay, Tarald Berge, and Tori Loven Kirkebø, PITAD Investment Law and Arbitration Database: Version 1.0, Pluricourts Centre of Excellence, University of Oslo (31 January 2019): <https://pitad.org/index#welcome> accessed 8 March 2023.

[43] United Nations Conference on Trade and Development (UNCTAD), 'Investment Dispute Settlement Navigator', <https://investmentpolicy.unctad.org/investment-dispute-settlement> accessed 15 February 2021.

[44] Investor-State Law Guide (ISLG), 'About ISLG', <https://new-investorstatelawguide-com/about-islg/> accessed 9 March 2023.

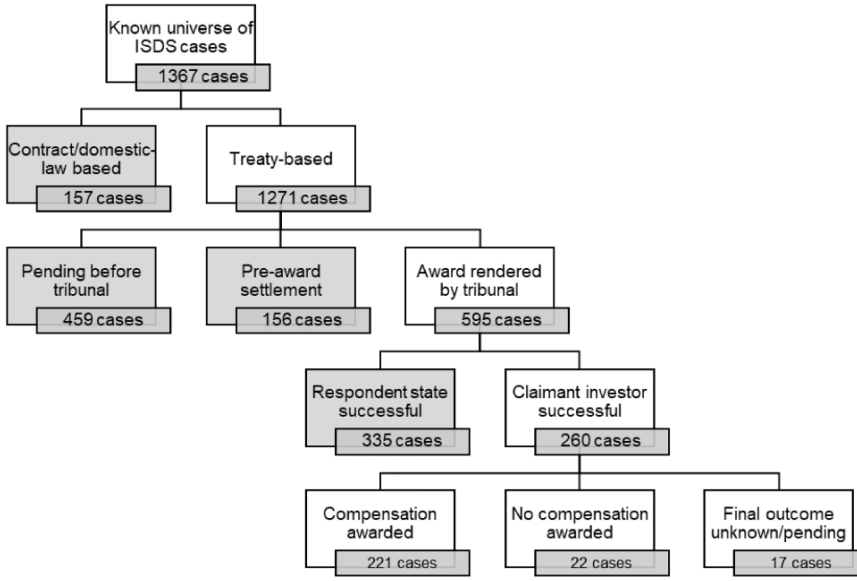

Figure 2. Universe of ISDS cases (up to 31 December 2020) and final sample of cases selected for coding in the COPIID dataset.

post-award processes to mature and come to an end during the research project period. Our universe of cases therefore includes 1271 publicly known disputes based on substantive investment treaties or free trade agreements.[45] A total of 615 cases were pending, discontinued, or may have settled prior to an award, while 595 investment treaty disputes were resolved by a tribunal. Of the latter, investors were successful in 44 per cent of decisions,[46] which left 260 disputes where states had been found in breach of their treaty obligations in the dataset. Figure 2 shows how the cases included in our dataset relate to the universe of ISDS cases.

We took an expansive approach in identifying these 260 awards as we capture awards beyond the strict parameters of a final tribunal award ordering compensation to be paid by the state, including:

(1) Awards in which there is no obligation to pay, including where the state has been found in breach but there is no compensation ordered, or where the award has been later annulled or set-aside in full;[47]
(2) Awards which occur after pre-award settlement agreements;[48]
(3) Awards in which there is not sufficient information to determine the outcome of the dispute; and

[45] As discussed in Supplementary Appendix 4, the dataset does not include cases based on contracts or domestic laws, despite at least 157 known of such cases that fit our parameters for inclusion. We believe examining these differences, and these cases, would be fruitful terrain for future research.

[46] See Behn et al, above n 13; See Behn, Langford, and Létourneau-Tremblay, above n 13, Empirical Perspectives on Investment Arbitration, 192–193.

[47] Such disputes may still lead to annulment or set-aside proceedings, which could ultimately resolve the dispute between the parties. See, for example, *Swissbourgh Diamond Mines (Pty) Limited and others v. The Kingdom of Lesotho* (PCA Case No. 2013–29).

[48] See, for example, *Dunkeld v Belize*, n 47 above.

(4) Disputes in which a decision on liability has been made but final orders have not been made.[49]

Future research may choose to use a reduced dataset to suit specific research questions. However, our expansive approach enables a comprehensive gathering of the dynamic and unique process of ISDS for all known (or possible) awards in which the state is found in breach of a treaty (or has accepted liability). As explained in Section 'Case and compliance stage', we include payment variables and the 'resolved' indicator which identify the small number of awards in which the obligation to pay did not exist or otherwise did not remain in force.

We include only these 260 ISDS awards since we focus on the post-award phase of treaty-based disputes. This limitation allows for more precise measurement of a range of accompanying variables.[50] We recognize that many interesting dynamics occur before final awards are issued, but we focus on the post-award phase because until now, scholars have relatively little sense of dynamics and trends in this phase.

Finally, it is important to note that while we include all cases in PITAD, Investor-State Law Guide, and UNCTAD, the size of the actual population of ISDS disputes is not known. The challenges that this presents for the research program on investment disputes is discussed in more detail in Section 'Challenges: reliability and "missingness"' and Supplementary Appendix 4.

Data collection

The collection of compliance data was divided into five stages: pilot coding and codebook development, desk-based coding, targeted checks, randomized inter-reliability checks, and interview-based coding. We describe each stage in turn, with further details available in the codebook (Supplementary Appendix 3).

First, we carried out pilot coding to develop and refine our codebook. An initial coding template was developed in August 2021 and then several researchers used this template to code a sample of cases. These initial coding experiences informed discussions about how questions should be written, definitions for relevant terms, evidentiary standards, and formats for answers. The codebook emerged out of these discussions and formalized the project's definitions and guidance for coding.

Second, for the desk-based research, a team of 16 coders were assigned batches of awards from the dataset. All coders have previous research experience in international dispute settlement, eight of the 16 coders are post-PhD researchers specialized in international investment law, and the other eight are currently completing related PhDs or master's degrees. The coding team had multi-lingual competence, including English, French, German, Hindi, Hungarian, Romanian, Russian, Spanish, Ukrainian, Uzbek, and familiarity with all Kazakh/Kyrgyz, Scandinavian, Slavic, and some South Asian languages.

Coders undertook independent investigations and inquiries to locate compliance data. Due to the confidentiality and transparency issues in ISDS, coders were instructed to utilize both primary and secondary sources (see definitions in the codebook). Where compliance information was found in secondary sources, coders attempted to trace reports back to primary sources. To ensure the reliability and replicability of the data collection process, coders included extensive source notes and attached publicly available files for each data point.

[49] Such disputes could still result in the investor receiving payment, for example, after a decision on liability, parties may enter into settlement negotiations, removing the need for a final award on compensation by the tribunal. See, for example, *Eureko B.V. v. Republic of Poland* (UNCITRAL, ad hoc) and *Saluka Investments BV v. The Czech Republic* (PCA Case No. 2001–04).

[50] For example, pre-award settlements would not be subject to the ICSID Convention or the New York Convention follow-on proceedings since they have not resulted from a foreign arbitral award. Instead, investors may have to rely on the dispute settlement procedures in the settlement agreement (if any) or domestic court proceedings for breach of the pre-award settlement as a contract.

Third, a series of targeted checks occurred during and after coding to promote consistent and correct coding. As part of training, coders received feedback on their initial coding of three cases from the project team leader. Additionally, after the desk-based coding was complete, the coding of all cases was reviewed by the author of the codebook. This review was a manual check for consistency, with any coding that seemed like it might need to be reviewed sent for re-coding by a second coder. In these targeted checks, researchers looked at both qualitative and quantitative indicators.

Fourth, we carried out randomized inter-coder reliability checks. Inter-coder reliability is a numerical measure of the agreement between different coders regarding how the same data should be coded. We selected six key quantitative indicators for the reliability check: amount of compensation ordered; which treaty obligation(s) was breached; whether there was an objection to jurisdiction; whether the award was annulled or set-aside; if compensation was paid; and if a settlement occurred. Then, 10 per cent of cases were selected at random for reliability checking and allocated to new coders. These coders were asked to code these six indicators, without accessing the original coding.

The calculated inter-coder reliability scores showed 100 per cent agreement in the coding of four variables, with differences observed only for two variables: treaty obligation breached and evidence of compensation paid. For the treaty obligation breached, only one case was coded differently, and the difference was small. There were four cases coded differently for the evidence of compensation paid variable, or 13 per cent of the sample. This reflects how coders could choose between 'yes', 'no', and 'unknown' as answers. For two of the cases, the difference was minimal and related to the slight differences in the coding instructions between 'no' and 'unknown': 'no' requires clear evidence of non-payment, while 'unknown' signified an absence of evidence, and was the default category. Additional guidance was issued to coders during the coding process, leading to more cases being coded as 'unknown', which the research team saw as the more conservative approach. For two of the four differences, 'unknown' was recorded in the dataset, while the second coder believed that the evidence was clear enough for a 'no' answer. Therefore, the only meaningful difference that we found in the intercoder reliability check was the other two cases, which are the result of the initial coder spending more time or having more research expertise with the specific Respondent State. If all five of the differences between the two coders are included, the coding is 97.2 per cent the same. If only the three differences are included, the coding is 98.3 per cent the same.

Fifth, in January 2023, we began gathering additional information from interviews with state officials, investors, and law firms to complement and verify the information gathered from public sources. By design, the version of the dataset found in Supplementary Appendix 1 includes only information that is publicly available and therefore does not include interview-based information. As discussed in Section 'Challenges: reliability and "missingness"' and Supplementary Appendix 4, transparency is an important area of criticism in ISDS. Including only public information facilitates future research on transparency to distinguish what information was publicly available from what information was not available without contacting actors. Further, interview-based data comes with additional ethical and research considerations, especially related to verification and protecting interviewees, and those considerations merit longer, separate treatment. Therefore, the remainder of this paper only discusses data that are publicly available.

Since new compliance-related proceedings occur on a regular basis in tribunals and courts around the world, providing a full picture of compliance with ISDS awards would require continual updates. The initial dataset presented here includes all information available by 31 December 2022. A second release will update the dataset with additional information available by 31 December 2024. With this approach, we can fill gaps in the dataset if more information becomes

publicly available over time, while at the same time being open about the dynamic nature of post-award processes.

VARIABLES AND RESEARCH APPLICATIONS

As noted in Section 'Research needs', identifying the conditions under which states comply with adverse rulings has been central to the study of many international courts and tribunals. Enabling this kind of research for ISDS was an important consideration when designing the dataset, defining variables, and writing coding instructions. At the same time, since compliance information in ISDS is often unavailable or complex, summarization by coders could be more relevant and useful than numerical data to identify trends or as a starting point for more in-depth analysis of individual compliance cases. As such, the design of the dataset had to balance the competing goals of accommodating the heterogeneity of investor-state cases (which pushes toward open-ended coding instructions and fluid categories) and seeking to obtain uniform, comparable data (which pushes toward specific coding instructions and discrete or categorical variables).

The dataset's dual-purpose design is therefore the result of finding a balance between reflecting the complexity of post-award ISDS processes and reducing this complexity into standardized variables. The resulting design enables both quantitative and qualitative information to be drawn from the dataset, which can facilitate both generalizable and specific research on ISDS compliance. On the one hand, standardized variables and numerical values are included to enable medium and large-N studies as well as checks for consistency and reliability of the data. In Supplementary Appendix 1, we provide aggregate data for key standardized variables and numerical values, which can be used for medium-N analysis, with a complete version of the dataset to be publicly released at the conclusion of the research project.

On the other hand, descriptions written by coders to explain the idiosyncratic compliance process are also included, to enable small-N studies or for any researchers interested in the details of a particular case. For example, free-text fields were provided for certain numerical variables, rather than a closed list of options, such as defining the difference in compensation between the award and the post-settlement agreement. In addition, free-text comment fields were included, which allowed coders to provide further information that did not otherwise fit within the variables, to reflect the complexity and heterogeneity of post-award processes. Examples of some of the variation in comments on payment of compensation are included in Supplementary Appendix 2.

In balancing these competing goals, the dataset relies on both the design of the variables as well as the experience of the coders. We therefore made an important design choice to write the codebook on the assumption that coders were experienced researchers who are familiar with ISDS and would be doing their own independent analysis of each award. In this way, the codebook was designed to guide, rather than exhaustively instruct on a limited set of variables. The codebook, with a full list of variables and coding instructions, is provided as Supplementary Appendix 3.

The dataset is organized into five main sections, with two of the sections requiring coders to input key variables for quantitative and comparative data analysis (the award and the compliance sections), while the remaining sections were not required to be completed unless relevant information was found by the coder. The organization of the dataset is visualized in Table 1 below.

Case and compliance stage

As discussed in Section 'The dynamic post-award process', the COPIID dataset does not provide one indicator labelled 'compliance'; instead, it allows for multiple variables to be operationalized

Table 1. Structure and coding questions in the COPIID codebook

Coding category	Main coding question	Conditional coding question
The award	What was the compensation awarded?	
	What was the compensation sought?	
	Did the tribunal order any other remedies?	
	How did the tribunal award arbitration costs?	If not split equally, how much was awarded?
	How did the tribunal award party costs?	If parties do not bear costs, how were they split?
	Did the tribunal award any other costs?	
	Was pre-award interest granted?	If yes, what was the date and rate?
	Was post-award interest granted?	If yes, what was the date and rate?
	Did the tribunal award other interests?	
The breach	What was the applicable treaty?	
	Which treaty obligation was breached?	
	Which state entities were found liable?	
Compliance	Is there evidence of payment of compensation	If yes, how much and when was it paid?
		If yes, primary, or secondary evidence?
		If no, did the state provide reasons for this?
Compliance process	Were there any follow-on proceedings?	If yes, give details.
	Is there evidence of a settlement agreement?	If yes, give details.
Related issues	Is there evidence of third-party funding?	
	Is there evidence of diplomatic involvement?	
	Is there evidence of post-case re-investment?	
	Is there evidence of domestic policy changes?	

as either descriptive compliance through payment of compensation or a more analytical understanding of resolving the dispute. As a descriptive measure of compliance through payment of compensation, it includes binary measures of whether or not compliance has been achieved (*if*), the degree to which an award has been paid in relative monetary terms (*what*), and the promptness of payment in time lapsed from award to compliance (*when*). All these descriptive indicators capture the degree to which a respondent state in an ISDS case pays compensation as ordered in adverse awards. Alongside the categorization of awards as paid or not, other variables capture the entirety of the post-award process, which enables the dataset to be used to

study other iterations or understandings of compliance, including our analytical category of 'resolved'.

As payment of compensation is introduced as a new variable in this dataset, compared to the existing databases focusing on dispute documents in international investment law, coders were instructed to spend most of their investigation determining whether compensation had been paid or other compliance occurred. If the coder was not able to find information on payment, the award was coded as payment unknown. As illustrated in Fig. 3, we have found publicly available evidence that the investor has received either partial[51] or full compensation in 43 per cent of awards (101 awards) in which compensation was awarded (or agreed in settlement),[52] and 11 per cent where the investor has been unsuccessful in their attempt to receive compensation. This includes 17 awards which were annulled or set-aside in full (7 per cent of total), meaning the State's obligation to pay no longer remained in force,[53] and 10 awards (4 per cent of total) where the State has clearly refused to pay. To mark awards as refusal to pay required a high degree of certainty that the award has not, nor would be, paid by the state. For the remaining 46 per cent of awards, the status of payment is unknown (108 awards). While 37 of these awards appear to have pending or only recently concluded follow-on proceedings, there remains a large number of awards which fall into the unknown category, making it challenging to provide a definitive perspective on the state of formal compliance in ISDS.

As discussed in Section 'The dynamic post-award process', we analysed the outcome of the disputes and included a resolved indicator as an alternative way to view the post-award dynamics, instead of the descriptive category of compliance through payment of compensation. This analytical category includes resolution through payment of compensation, negotiated settlement, or annulment. Figure 4 indicates that the majority of disputes have been resolved. However, we only have primary or direct evidence of the resolution of 35 per cent of awards, being either clear primary evidence of payment of compensation or annulment/set-aside of the award. For the remaining 26 per cent of resolved awards, we have relied on indirect or secondary evidence, whether that is secondary (and unverifiable through primary sources) evidence of payment of compensation or evidence of a settlement agreement, without further knowledge of the payment of compensation after the settlement. Nearly a third (31 per cent) of awards remain unresolved with a further 8 per cent of awards with pending appeal proceedings.[54]

Where coders had found information that compensation was either paid or not (rather than unknown), additional fields could be filled in, relating to the amount paid, date of payment (or estimated year of payment if exact date unknown), instalment payments, payment in kind, and so on. However, as discussed in Section 'Challenges: reliability and "missingness"' and Supplementary Appendix 4, there is a lot of missing information for these details.

[51] See, for example, *Gold Reserve v Venezuela* (ICSID Case No. ARB(AF)/09/1), Award of 22 September 2014, in which there is direct evidence that Venezuela paid over USD 250 million following a settlement agreement. However, Venezuela remained in arrears of USD 930 million and the investor is continuing to seek enforcement in US courts: <https://www.goldreserveinc.com/international-arbitration-new/> accessed 21 October 2022 and <https://www.goldreserveinc.com/gold-reserve-announces-us-delaware-court-issues-order-related-to-the-pdvh-holding-sale-process-23-04/> accessed 21 October 2022.

[52] There are 24 disputes in which payment of compensation was coded as not applicable as either the tribunal had found the Respondent State in breach but not awarded any compensation or there was some aspect of the final award still pending. Although such disputes could include a costs award, we consider it more appropriate to code these separately from the compensation awards, which have much larger compliance implications for States. These disputes are excluded from the figures in the paper.

[53] Given the complexity of ISDS post-award dynamics, even cases that are annulled may be paid. For example, in Cairn Energy PLC v. India (PCA Case No. 2016–17), the award was set-aside in the Hague Court of Appeal in December 2021. However, this was based on the investor's decision not to object following a settlement agreement. This dispute has been coded as compensation paid since the investor confirmed payment has been received: Capricorn Energy PLC, 'India Update – Tax Refund of US$1.06 billion', 24 February 2022, <https://tools.eurolandir.com/tools/Pressreleases/GetPressRelease/?ID=4212666&lang=en-GB&companycode=uk-cne&v=> accessed 21 February 2022.

[54] In addition, there are a further eight awards in which we do not have sufficient information about the compensation award to determine if damages were awarded. These awards have been excluded from the analysis.

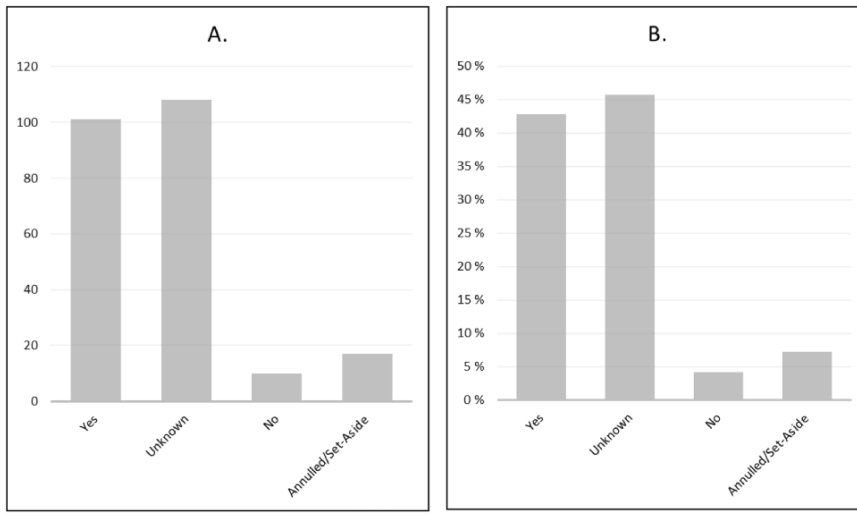

Figure 3. Distribution of compensation paid from the payment data (subfigure A displays counts, and subfigure B displays share of awards).

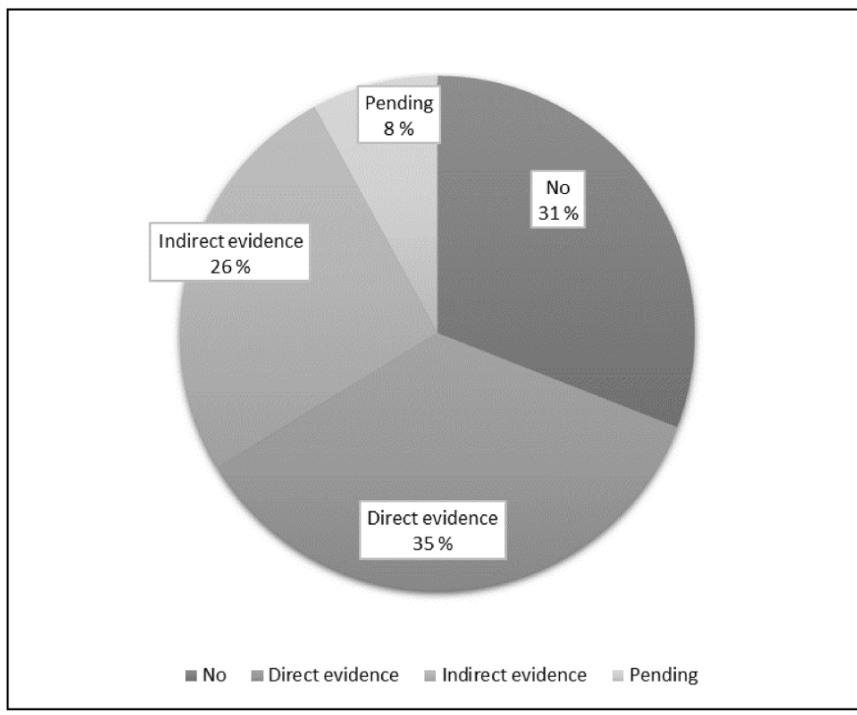

Figure 4. Percentage of disputes resolved.

The dispute dataset also retained PITAD's coding on variables relating to the arbitration procedure. This enables investigation into the differences, for example, by Respondent State or by

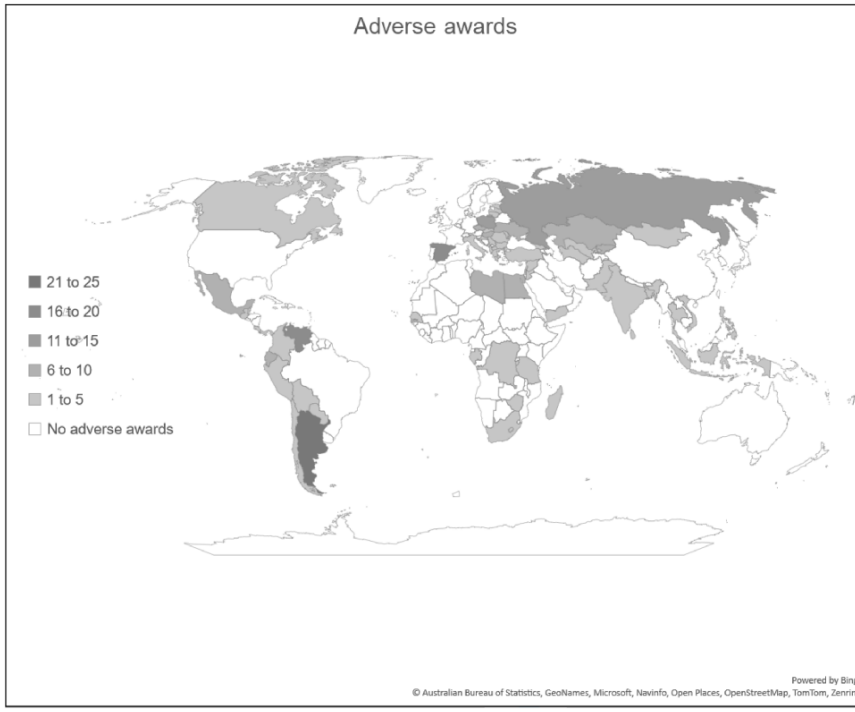

Figure 5. ISDS adverse awards by respondent state.

arbitral institution. First, in relation to differences between Respondent States, Fig. 5 shows that known adverse ISDS awards tend to cluster by state; for instance, adverse awards are not evenly distributed in Europe; they are clustered against Spain, Poland, and a few other states. This is also evident in South America, where Argentina and Venezuela by far have received the most adverse awards. The clustering of cases against several states in this way opens up avenues for research to consider whether states become more or less likely to comply as the number of awards increases against them.

As set out above, the COPIID dataset is unique in that it has comprehensively and systematically coded the post-award process for all the investment treaty arbitrations in Fig. 5, rather than only a subset of awards from select states. Figure 6 illustrates the percentage of awards for which compensation was to be paid[55] for each Respondent State in which we have found evidence of payment to the investor. As a first answer to the *extent* of payment of compensation, we can see substantial differences between Respondent States, including when we compare only those Respondent States with a large number of adverse awards. For example, Argentina has 22 adverse awards, with an 83 per cent payment of compensation rate, compared to Spain's 5 per cent for its 20 adverse awards or Venezuela's 12 per cent for its 17 awards. Future research papers can use these figures as a starting point to investigate *why* compliance outcomes are different between such Respondent States. Apart from Mexico, all Respondent States that have payment rates over 85 per cent have four or less awards in which compensation was to be paid.

[55] This excludes those awards in which no compensation was awarded, or the award was annulled/set-aside in its entirety.

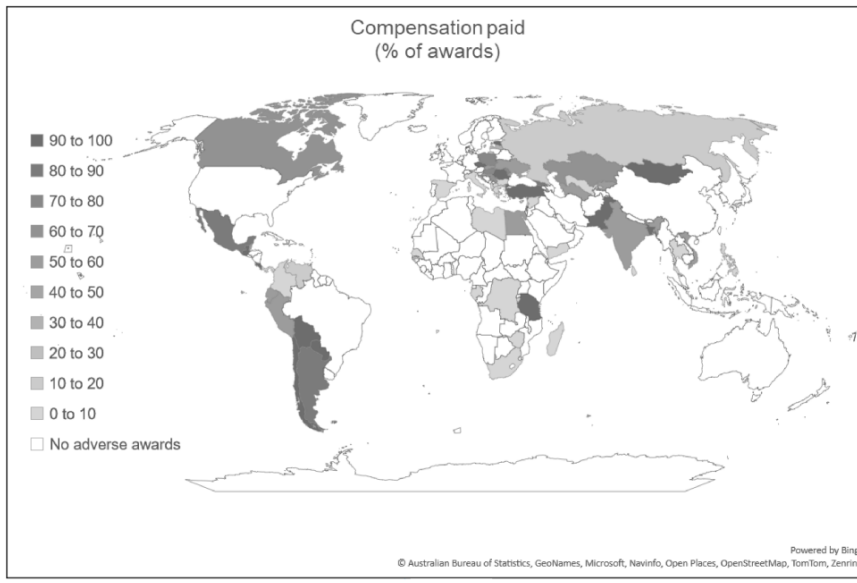

Figure 6. Payment of compensation by respondent state (share of awards).

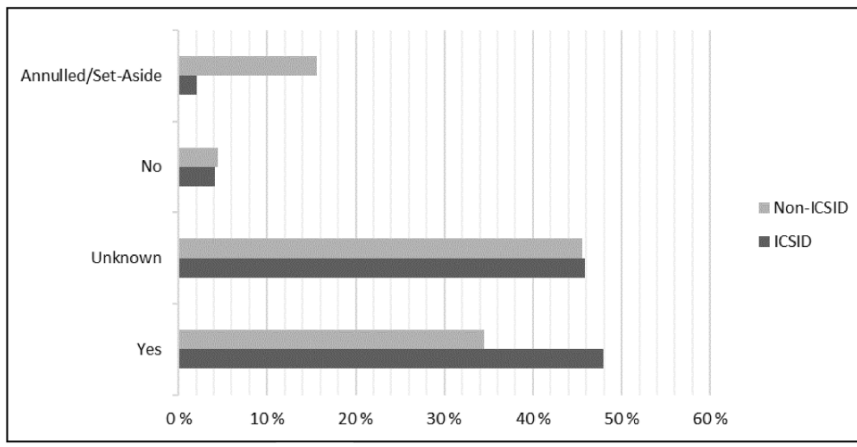

Figure 7. Payment of compensation by institution (share of population).

Second, we can contribute to the discussion of institutional differences in post-award processes. Figure 7 illustrates how we can distinguish payment of compensation between the 156 ICSID awards (of which 146 include an obligation to pay compensation) from the 104 awards (of which 90 include an obligation to pay compensation) from other institutions or ad hoc arbitrations.[56] The notably lower number of non-ICSID awards that are complied with in Fig. 7 is interesting for future reform discussions on follow-on proceedings and the perceived legitimacy of different bodies. However, further consideration is necessary, such as how the Respondent

[56] A total of 18 awards in the dataset were brought under the ICSID Additional Facility Rules and have been included in the ICSID award count.

States, the age of awards, or the general type of dispute may differ between institutions, to ensure this binary analysis is not overstated.

To measure payment of compensation, coders also completed key variables in relation to the final tribunal award. This includes three main sections:

(1) *Compensation*: required variables included the amount of compensation awarded and the currency of the award. In addition, coders answered whether any non-monetary remedies were awarded. As only 19 awards were found to include any other remedies, the dataset confirms the place of monetary damages as the ordinary remedy;
(2) *Costs*: required variables covered how both arbitration and parties' costs were split or awarded by the tribunal, for example, whether costs were split in half, or the state was ordered to pay all costs; and
(3) *Interest*: required variables selected whether the tribunal had awarded pre-award interest, post-award interest, and/or interest on costs.

We also coded details of the breach, including the applicable treaty and treaty obligation breached, drawn from the list of treaties and breaches in both the Electronic Database of Investment Treaties (EDIT)[57] and UNCTAD's Investment Policy Hub data.[58] The breach section not only provides a summary of important aspects of the dispute but also contributes to understanding whether any award or treaty-based factors affect the state of compliance. Figures 8 and 9 illustrate how potential research questions addressing arbitral findings and compliance could be analysed in terms of payment of compensation. First, Fig. 8 splits payment according to the size of the final award. As the size of the award increases, so too does the amount of non-payment. We see a fairly small proportion of non-payment for awards of less than USD 50 million (the majority of adverse awards to date) and USD 50–100 million, yet an even split between payment and non-payment for awards of over USD 1 billion.

Second, Fig. 9 compares payment outcomes through the lens of the breach found by the tribunal, specifically whether the award included a breach of FET (even if FET was only one of the breaches found). The recent rise in notoriety surrounding FET, particularly in the wake of cases in the renewable energy sector, could suggest a reluctance to pay such awards. However, with binary analysis, the payment figures do not support this hypothesis.[59]

Bargaining stage

The remaining sections of the dataset provide a fuller picture of the dynamic post-award process (both in the legal and political arenas). First, the follow-on proceedings in both domestic jurisdictions and ICSID, including set-aside, annulment, enforcement, and recognition proceedings. Coding follow-on proceedings presents several challenges, in particular, the sheer volume of information that could be available for each follow-on proceeding.[60] Consequently, the codebook had to balance the completeness of the follow-on proceeding information against ensuring the data were uniform and quantitatively relevant. To do so, each type of follow-on proceeding in each jurisdiction was recorded as separate entries. Coders were instructed to refer to the most recent decision in that jurisdiction, which has operative legal effect (where

[57] See Alschner, Elsig, and Polanco, above n 13, Introducing the Electronic Database of Investment Treaties (EDIT).
[58] United Nations Conference on Trade and Development (UNCTAD), 'nvestment Policy Hub, <https://investmentpolicy.unctad.org/> accessed 15 February 2021.
[59] Multivariate regression analysis would be needed for a more comprehensive assessment of the hypothesis.
[60] For example, multiple appeals could be lodged in a single follow-on proceeding in a dispute in which multiple follow-on proceedings have been brought. The complexity of follow-on proceedings is demonstrated in the Yukos dispute, in which investors have brought enforcement/recognition proceedings in Antwerp, four proceedings in Paris against different state-owned assets and the Respondent State brought set-aside proceedings in the Netherlands, which was appealed from the Hague District Court to the Supreme Court of the Netherlands.

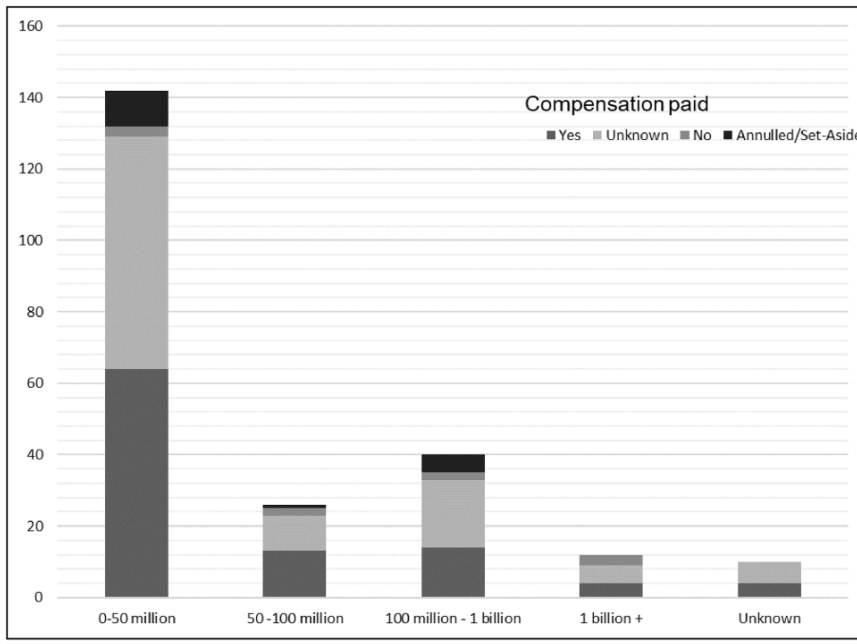

Figure 8. Payment outcomes by size of award (count).

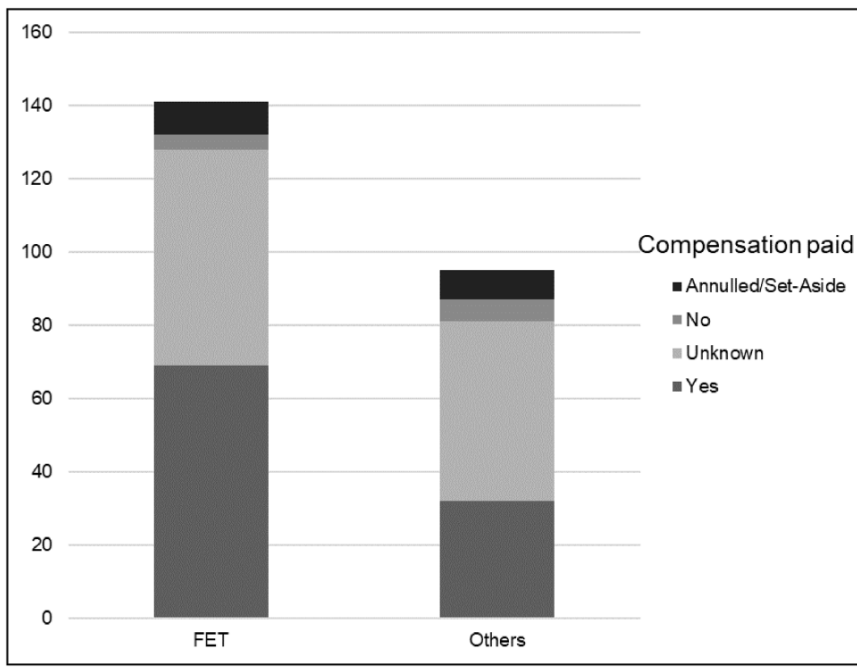

Figure 9. Payment outcomes by breach (count).

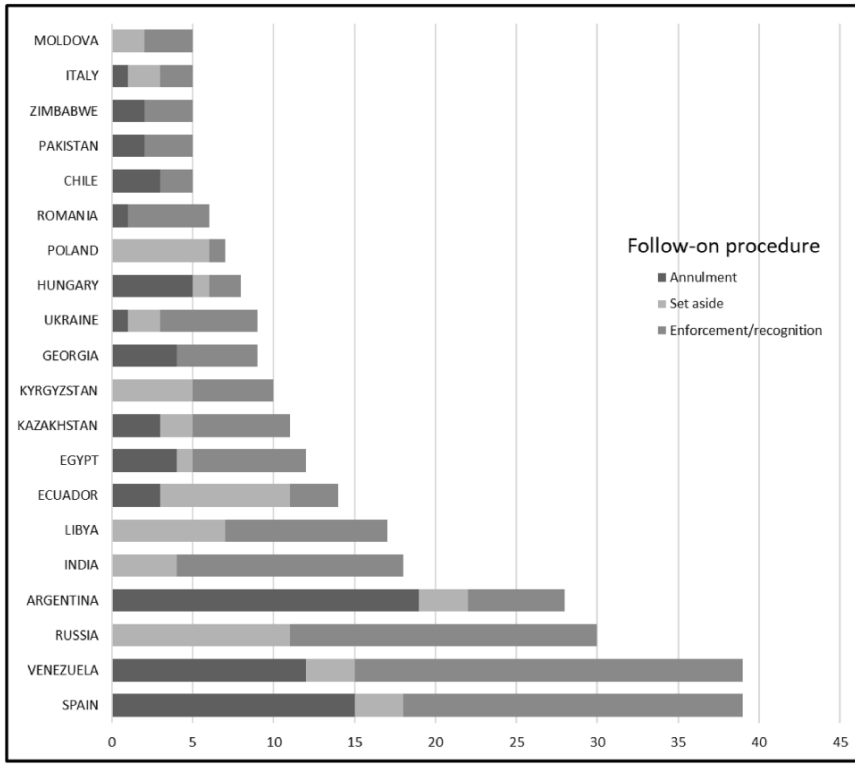

Figure 10. Follow-on procedures by top 20 states.

available), with the case history to be noted in free-text fields. Required variables then indicated the type (set-aside, annulment, stay of enforcement, or enforcement/recognition), the status of the follow-on proceeding (concluded, pending, or unknown), and the outcome(s) of the proceedings (if any). Inputting the data in this way enables a quantitative picture of the overall number of proceedings, the outcome of follow-on proceedings as well as the common jurisdictions in which follow-on proceedings are brought. Researchers can then dive into the free-text comments and source notes for qualitative analysis of specific disputes or trends.

A total of 353 follow-on procedures have been coded in the dataset, of which the majority are annulment (96) or set-aside (85) proceedings. Taken together, annulment or set-aside proceedings were initiated in 68 per cent of disputes.[61] The majority of these attempts were unsuccessful: 64 per cent for set-aside and 57 per cent for annulment (compared to 21 per cent fully or partially set-aside and 12 per cent fully or partially annulled).[62] Investors brought 172 individual enforcement or recognition proceedings across a range of domestic jurisdictions. Since multiple enforcement proceedings can be brought for a single arbitral award, the count does not

[61] This includes a small number of partial annulments sought by the claimant, for example, if the claimant investor was unhappy with the amount of compensation awarded. See, for example, Dominion Minerals Corp. v. Republic of Panama (ICSID Case No. ARB/16/13) and Cementos La Union S.A. and Aridos Jativa S.L.U v. Arab Republic of Egypt (ICSID Case No. ARB/13/29).

[62] In addition, there are 14 proceedings still pending and 22 were discontinued. There are also four annulments and one set-aside for which the outcome is unknown. For further discussion, see Strain, 'Comparing Annulment and Set-Aside Proceedings initiated by Respondent States', *working paper*.

reflect the number of awards subject to enforcement but rather the total number of attempted enforcement proceedings.

Figure 10 displays counts of the different categories of follow-on proceedings for the Respondent States with the highest number of such proceedings. Unsurprisingly, this matches the top-20 most-sued States. All such Respondent States attempted to have some (and often many) of their adverse awards annulled or set-aside. Poland, Hungary, Ecuador, and Argentina stand out in having a much higher number of annulment/set-aside proceedings compared to investor attempts to enforce their awards. When we compare with the payment results in Fig. 6, we can see these countries have relatively high rates of payment of compensation (but not the highest), suggesting interesting avenues for country-specific research.

The second section of the post-award process required coders to search for evidence of post-award settlement agreements. If such evidence was found, coders filled in variables relating to when the settlement was reached (both as a date and in relation to the commencement or conclusion of follow-on proceedings), whether settlement was reached together with other awards, whether a difference in compensation was agreed, and whether there was evidence of payment made pursuant to the settlement agreement. The fact that settlement agreements can be shrouded in secrecy and confidentiality, while also modifying the terms of compliance, merits more comprehensive discussion in future research papers of the project.[63]

In addition, the dataset also includes information on award purchase and third-party funding, where coders found public evidence of it. These known instances are likely to be a fraction of the actual incidence, so absence of information should not be construed as absence of the phenomenon. This variable should be used as a starting point for further inquiry, not as a quantitative indicator or summary of how often third-party funding or award purchase occurs. We also attempted to collect evidence on several other variables, including the diplomatic relationship between the host and home state, the post-dispute relationship between the host state and the investor, and notable changes in the host state's domestic investment politics. While we think these variables are important, we do not include them in the dataset in Supplementary Appendix 1, because (i) the absence of information on these indicators may be interpreted as an absence of the phenomenon and (ii) of the difficulty of quantitatively capturing all possible variations of the relationship dynamics.[64] In our view, the reality is more likely that all these phenomena are occurring, but they are very difficult to observe in publicly available information, and particularly in second-order compliance sources.

CHALLENGES: RELIABILITY AND 'MISSINGNESS'

The heterogeneity of international investment law and the lack of transparency within the field present problems for both data collection and creating the coding instructions. This section, together with Supplementary Appendix 4, examines the inherent 'missingness' in this field of study, in particular the challenges of the unknown disputes and the unknown compliance data. Even with our best efforts to overcome data collection problems, there are missing data. The combination of quantitative and qualitative information available in the dataset, however, enables broad trends to be taken from the data, even in the absence of complete information. When using the data, researchers should consider the implications of these issues on their analyses.

[63] See further, Sattorova and Chernykh, 'Unpacking the Meaning of Transparency in Post-Award Settlement in ISDS' (2023).

[64] These relationship variables raise several questions, for example, how should the home state be defined given the structure of multi-national corporations and the use of subsidiaries in investment disputes, or what level of interaction meets the definition of diplomatic involvement? It is not within the scope of this paper to address such complex issues.

The confidentiality of investor-state disputes makes it impossible to study the complete universe of awards and settlement agreements.[65] Based on estimates from scholars and others in the field, non-ICSID (as well as contract-based) disputes are more likely to be unknown to the public.[66] Confidentiality of disputes also varies by country so we are more likely to know the entire universe of cases against countries which have policies of transparency.[67] Whether this transparency in disputes also translates to transparency in compliance is a question this dataset can help researchers to address.

In most cases, it is likely that missingness occurs because the information is simply unavailable through open sources. This unavailability is interesting as a departure point for research in its own right.[68] Therefore, we view missingness more as an encouragement for future research. The COPIID dataset enables researchers to begin probing whether the missingness is systematic and, if it is, to start analysing trends in missingness. One way to see this missingness is as a problem for large-N analysis and use imputation or other techniques to fill in the blanks,[69] as we do in Supplementary Appendix 4. Another way to see this missingness is as a prompt to ask: why is this information not available? What explains the variation in information availability? For instance, Mexico makes information about payments to foreign investors easily accessible on a government website, in contrast to Canada. Why? This might suggest Mexican officials see their main audience differently, or there might be other explanations for the variation. In our view, exploring cross-national differences, or even cross-case differences in transparency, is likely to lead to research insights. Getting to these insights, however, requires a systematic and reliable picture of what information is available and what is not—and this is what the dataset provides.

CONCLUSION

This paper has introduced a new dataset on compliance with treaty-based international investment awards. The core goal of this dataset is to provide a sophisticated and comprehensive picture of compliance in an otherwise under-researched area of compliance with international judicial decisions. As part of a larger research project, the dataset enables the development and refinement of compliance-theory in both international investment law and international courts and tribunals more generally. In addition, this paper illustrates how the dataset can be utilized in empirical analysis and statistical application. Yet, the collection and categorization of this data is an ongoing process, reflective of the complex task of studying compliance in international investment law.

SUPPLEMENTARY MATERIAL

Supplementary material is available at *Function* online.

[65] See similarly the methodology of the Uppsala Conflict Data Program, which is based only on publicly reported events: Ralph Sundberg, Kristine Eck and Joakim Kreutz, 'Introducing the UCDP Non-State Conflict Dataset' (2012) 2 Journal of Peace Research 49, 351.

[66] See Rachel L Wellhausen, 'Recent Trends in Investor–State Dispute Settlement' (2016) 1 Journal of International Dispute Settlement 7, 117; See Behn, Langford, and Létourneau-Tremblay, above n 13, Empirical Perspectives on Investment Arbitration; Sebastian Puerta and Tim R Samples, 'Investment Law's Transparency Gap' (2022) 1 Cornell International Law Journal 55, 9. Contract-disputes are more likely to be unknown to the public as they have not been subject to UNCTAD's transparency efforts in the ISDS Navigator, which focuses on investment treaty disputes: <https://investmentpolicy.unctad.org/investment-dispute-settlement> accessed 15 February 2021.

[67] For example, since 2015, the Czech Republic has sought to provide public information on completed and ongoing arbitration disputes: see <https://www.mfcr.cz/cs/zahranicni-sektor/ochrana-financnich-zajmu/arbitraze/prehled-arbitraznich-sporu-vedenych-prot> accessed 9 March 2023. Similarly, Canada provides information on cases filed against it 'for transparency purposes': <https://www.international.gc.ca/trade-agreements-accords-commerciaux/topics-domaines/disp-diff/gov.aspx?lang=eng> accessed 9 March 2023.

[68] We are grateful to Beth Simmons for suggesting that the missingness within the data be a topic for research.

[69] Gary King et al, 'Analyzing Incomplete Political Science Data: An Alternative Algorithm for Multiple Imputation' (2001) 1 American Political Science Review 95, 49; Ranjit Lall, 'How Multiple Imputation Makes a Difference' (2017) 4 Political Analysis 24, 414; Ranjit Lall, 'The Missing Dimension of the Political Resource Curse Debate' (2017) 10 Comparative Political Studies 50, 1291.

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