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Arbitrator Behaviour in Asymmetrical Adjudication: An Empirical Study of Investment Treaty Arbitration

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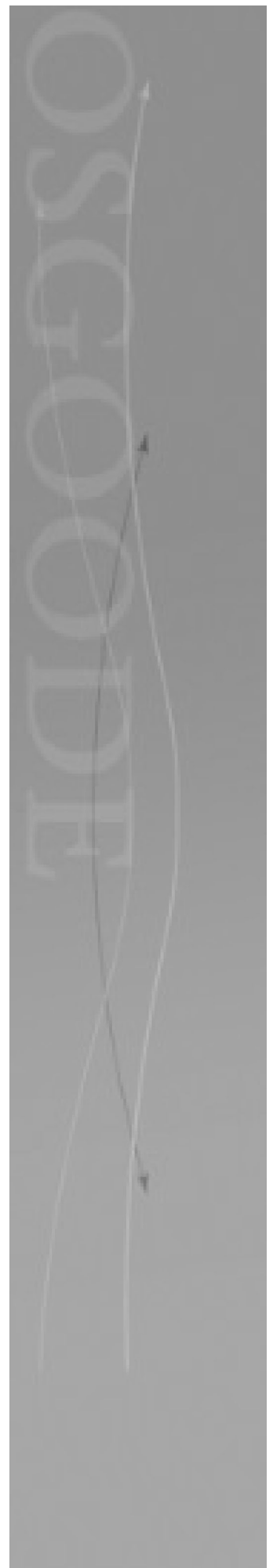
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Comparative Research in
Law & Political Economy



Arbitrator Behaviour in Asymmetrical Adjudication: An Empirical Study of Investment

Treaty Arbitration

Gus Van Harten

The study examines arbitrator behaviour in the unique context of investment treaty arbitration. It employs the method of content analysis to test hypotheses of systemic bias in the resolution of jurisdictional issues in investment treaty law. Unlike earlier studies, the study examines trends in legal interpretation instead of case outcomes and finds statistically significant evidence that arbitrators favour (1) the position of claimants over respondent states and (2) the position of claimants from major Western capital-exporting states over claimants from other states. There is a range of possible explanations for the results and further inferences are required to connect the observed trends to rationales for systemic bias. The key finding is that the observed trends exist and that they are unlikely to be explained by chance. This gives tentative empirical evidence of cause for concern about the use of arbitration in this context.

The take-off of investment treaty arbitration marked a transformation in international dispute settlement. Since the late 1990s, the system has generated hundreds of claims by investors and numerous awards and orders against states. This has prompted debate about the role of investment treaties and their policy implications, and the debate has raised issues of fairness and independence in investment treaty arbitration. Principles of fairness and independence are integral to the legitimizing role of investment arbitration.¹ Some observers argue that the system offers a neutral and impartial forum in which to resolve investor-state disputes as a basis for

¹ See José Augusto Fontoura Costa, “Comparing WTO Panelists and ICSID Arbitrators: the Creation of International Legal Fields” (2011) 1:4 *Oñati Socio-Legal Series* at 3; Catherine A Rogers, “The Vocation of the International Arbitrator” (2005) 20:5 *Am U Int’l L Rev* 957 at 1006-07 [Rogers, “Vocation”].

protecting foreign-owned assets and ensuring the rule of law.² Others claim that the arbitration mechanism favours investors and Western capital-exporting states at the expense of respondent governments, especially governments in the developing world.³ The debate has usually been framed in terms of policy, doctrine, or theory. However, it also points to a role for empirical methods to collect and analyze information on arbitrator decision making.⁴

In this study, expectations of potential bias were examined by drawing on literature on judicial behaviour and on recent empirical studies of the investment treaty system. The intention was to focus on whether there is evidence that the resolution of contested issues of jurisdiction and admissibility in investment treaty law has been influenced by apparent financial or career interests of arbitrators or by wider economic aims of the arbitration industry. The study thus draws primarily on an economic model of adjudicative behaviour in the unique context of investment treaty arbitration. This context is unique because it appears to be the only modern form of adjudication that leads to the final resolution of individual claims against states, in their sovereign capacity, by way of an asymmetrical claims structure,⁵ without mediation by domestic

² See Jan Paulsson, *Denial of Justice in International Law* (Cambridge: Cambridge University Press, 2005) at 265; Thomas W Wälde, “The Present State of Research Carried Out by the English-Speaking Section of the Centre for Studies and Research” in Phillippe Kahn & Thomas W Wälde, eds, *New Aspects of International Investment Law* (Hague Academy of International Law, 2007); Charles N Brower & Stephan W Schill, “Is Arbitration a Threat or a Boon to the Legitimacy of International Investment Law?” (2009) 9:2 *Chicago J Int’l L* 471.

³ See Nathalie Bernasconi-Osterwalder, “Who Wins and Who Loses in Investment Arbitration? Are Investors and Host States on a Level Playing Field? The Lauder/ Czech Republic Legacy” (2005) 6:1 *J World Inv’t & Trade* 69; Olivia Chung, “The Lopsided International Investment Law Regime and Its Effect on the Future of Investor-State Arbitration” (2007) 47:4 *Va J Int’l L* 953; Ibiwonke T Odumosu, “The Antinomies of the (Continued) Relevance of ICSID to the Third World” (2007) 8:2 *San Diego Int’l LJ* 345.

⁴ See Bryant G Garth, “Observations On An Uncomfortable Relationship: Civil Procedure and Empirical Research” (1997) 49:1 *Ala L Rev* 103 at 113.

⁵ See *infra*, Part I.A.

courts and with limited scope for judicial review. This context for adjudication invites empirical study in its own right, but also as a case study for the expansion of arbitration into new realms.⁶

The study is based on a systematic content analysis⁷ of all publicly available awards (*i.e.*, decisions) dealing with jurisdictional matters in 140 known cases under investment treaties until May 2010. The awards were coded for resolutions by the arbitrators of a series of legal issues of jurisdiction and admissibility that were contested in existing awards or secondary literature. The coded data were used to test three hypotheses developed based on theoretical expectations about arbitrator interests arising from the system's structure. Two significant tendencies were observed.⁸ The first was a strong tendency toward expansive resolutions that enhanced the compensatory promise of the system for claimants and, in turn, the risk of liability for respondent states. The second was an accentuated tendency toward expansive resolutions where the claimant was from a Western capital-exporting state. This accentuated tendency was present on a statistically significant basis in cases brought by claimants from the United Kingdom, the United States, and France—with German claimants as a possible exception—and was supported by additional analyses of other groupings associated with Western capital-exporting states. It was most apparent in cases under a bilateral investment treaty (BIT) or the *Energy Charter Treaty (ECT)*;⁹ for certain jurisdictional issues; and for resolutions by frequently appointed arbitrators.

⁶ See Alexander JS Colvin, “An Empirical Study of Employment Arbitration: Case Outcomes and Processes” (2011) 8:1 J Empirical Legal Stud 1; Christopher R Drahozal, “Judicial Incentives and the Appeals Process” (1998) 51:3 SMU L Rev 469 at 501 [Drahozal, “Judicial Incentives”].

⁷ See Mark A Hall & Ronald F Wright, “Systematic Content Analysis of Judicial Opinions” (2008) 96:1 Cal L Rev 63.

⁸ There was insufficient data to test a third hypothesis of systemic bias in favour of France, Germany, the United Kingdom, and the United States as respondent states.

⁹ *Energy Charter Treaty*, 17 December 1994, 34 ILM 360 (Annex I of the Final Act of the European Energy Charter Conference) [ECT].

The study differs from others that have examined possible bias in investment arbitration. First, other studies have analyzed case outcomes rather than legal content. Second, although they have produced useful and interesting findings, other studies have not generated any reliable evidence based on specific hypotheses and, in some cases, have overstated their conclusions. In particular, some studies have been used to make predictive claims about the system based on evidence that was not tested statistically or that carried an unacceptably high risk of error. This study adopts a more cautious approach¹⁰ by limiting its reported findings to evidence found to be statistically significant and to have an effect on the relevant variance in issue resolutions, by noting the author's preconceptions for each hypothesis, and by identifying alternative explanations for the results.

The study offers tentative support for expectations of systemic bias in investment treaty arbitration in the resolution of jurisdictional issues, but it has important limitations. An initial caveat is that the findings do not establish evidence regarding actual bias on the part of any individual or in any particular case.¹¹ Even at a systemic level, there is a range of possible explanations for the results—some of which do not at all entail inappropriate bias—and further inferences are required to connect the observed tendencies to underlying rationales for systemic bias. Likewise, there are limitations of the coding process and analytical tools¹² and of

¹⁰ See Richard Lempert, "Empirical Research for Public Policy: With Examples from Family Law" (2008) 5 J Empirical Legal Stud 907; Les Carlson, "Use, Misuse, and Abuse of Content Analysis for Research on the Consumer Interest" (2008) 42:1 J Consumer Affairs 100 at 102; Gregory C Sisk & Michael Heise, "Judges and Ideology: Public and Academic Debates About Statistical Measures" (2005) 99:2 Nw UL Rev 743 at 792.

¹¹ See Sisk & Heise, *ibid* at 794; David E Bloom, "Empirical Models of Arbitrator Behavior Under Conventional Arbitration" (1986) 68:4 Rev Econ & Statistics 578.

¹² See Hall & Wright, *supra* note 7 at 87-88; Klaus Krippendorff, *Content Analysis: An Introduction to Its Methodology* (Newbury Park: Sage Publications, 1980) at 22.

quantitative methods generally in the examination of adjudicative bias.¹³ The key finding is that the observed tendencies exist in the coded data and are very unlikely to be explained by chance. Also notable is the fact that the observed tendencies reflect variations in the resolution of legal issues arising from ambiguous language in investment treaties. Such variations are less likely to be explained by untested factors that can drive case outcomes, such as factual differences among cases or hidden meanings in the text of awards.¹⁴ The wider question of possible bias calls for further study, and the question of system design should depend ultimately on policy judgments about the system's structure and processes as evaluated against doctrinal and theoretical principles of adjudication.

Three main conclusions are drawn based on the author's own inferences. First, empirical research on possible bias in investment arbitration has led to mixed, but not necessarily contradictory, findings. This is not surprising because the findings of any individual study depend on the topic isolated for study, the choice of methods and project design, the availability of data, the reliability of results, inferences drawn by the researcher, and so on.¹⁵ In light of the many ways to probe the limited data on investment treaty arbitration, the existing evidence on systemic bias is mixed and often inconclusive.

A second conclusion is that there is not, and probably never will be, conclusive empirical evidence of the presence or absence of systemic bias in investment arbitration.¹⁶ In legal

¹³ See CGG Aitken & F Taroni, "Fundamentals of statistical evidence—a primer for legal professionals" (2008) 12:3 *Int'l J Evidence & Proof* 181 at 203.

¹⁴ See Brian Leiter, "Rethinking Legal Realism: Toward a Naturalized Jurisprudence" (1997) 76:2 *Tex L Rev* 267 at 269; Jonathan P Kastlelec, "The Statistical Analysis of Judicial Decisions and Legal Rules with Classification Trees" (2010) 7:2 *J Empirical Legal Stud* 202 at 205-06; Hall & Wright, *supra* note 7 at 99.

¹⁵ See Lempert, *supra* note 10.

¹⁶ See Sisk & Heise, *supra* note 10 at 794.

doctrine, this limitation of empirical methods is a reason, in itself, to require that adjudicative processes be free of reasonably perceived bias, in addition to any demonstrated or admitted actual bias. The point is especially pertinent for adjudicative decisions with broad implications for public law and public policy. The results of the present study thus highlight the role played by conventional safeguards of judicial independence and the risk, in their absence, that perceived bias may arise from aspects of the decision-making structure, including, but not limited to, arbitrator performance. Such safeguards have the advantage of proactivity in the face of risks of actual bias and the potential damage to the confidence of disputing parties or the public in an adjudicative arrangement.

The third conclusion is more tentative. The study found evidence of systemic bias in the case-by-case resolution by arbitrators of disputed issues of investment treaty law. If the system is meant to provide an impartial and independent adjudicative process based on principles of rationality, fairness, and neutrality,¹⁷ then the interpretation and application of the law should reflect a degree of evenness between claimants and respondent states in the resolution of contentious legal issues arising from ambiguous treaty texts and should be free from significant variation based on claimant nationality. However, in the resolution of the coded issues overall, arbitrators tended to favour claimants in general and claimants from major Western capital-exporting states in particular. These tendencies, especially in combination, give tentative cause for concern and

¹⁷ Costa, *supra* note 1 at 3. For some actors, the purpose of the system may be different. For example, the purpose may be to have a system that can be influenced or controlled behind the scenes while appearing impartial. See Eric A Posner & John C Yoo, “Judicial Independence in International Tribunals” (2005) 93:1 Cal L Rev 1. Because the text of many investment treaties and general discourse on investment arbitration typically approaches the purpose of the system in terms of adjudicative fairness, it was assumed for present purposes that impartiality and independence are regarded generally as important.

provide a basis for further study of the system's design, not least because the use of investment treaty arbitration appears to be a relatively recent phenomenon.

I. BACKGROUND

A. RATIONALES FOR ARBITRATOR BEHAVIOUR

Academic models of judicial behaviour identify various factors that may influence judicial decision making, including doctrinal, attitudinal, economic, strategic, and institutional factors.¹⁸

The models have been extended to arbitrator behaviour, often with emphasis on incentives that may influence arbitrators.¹⁹ For example, it is theorized that arbitrators need to maintain their reputations among prospective litigants in the relevant field of adjudication, and so, in conventionally reciprocal arbitration, they will tend to reach balanced or compromise awards.²⁰

On the same rationale, it is also theorized that arbitrators should not have exclusive responsibility over cases that affect third parties or the public.²¹ That said, there are various structures of

¹⁸ See Stephen J Choi & G Mitu Gulati, "Trading Votes for Reasoning: Covering in Judicial Opinions" (2008) 81:4 S Cal L Rev 735 at 736-37; Emerson H Tiller & Frank B Cross, "What is Legal Doctrine?" (2006) 100:1 Nw UL Rev 517; Joshua B Fischman & David S Law, "What is Judicial Ideology, and How Should We Measure It?" (2009) 29:1 Wash UJL & Pol'y 133; Richard A Posner, "Judicial Behavior and Performance: An Economic Approach" (2005) 32:3 Fla S UL Rev 1259 [Posner, "Judicial Behaviour"]; Richard A Posner, "What Do Judges and Justices Maximize? (The Same Thing Everybody Else Does)" (1993) 3 Sup Ct Econ Rev 1; Tracey E George, "Developing a Positive Theory of Decisionmaking on U.S. Courts of Appeals" (1998) 58:5 Ohio St LJ 1635 at 1655-56; Erik Voeten, "The Impartiality of International Judges: Evidence from the European Court of Human Rights" (2008) 102:4 Am Pol Sci Rev 417.

¹⁹ See Colvin, *supra* note 6 at 12; Robert D Cooter, "The Objectives of Private and Public Judges" (1983) 41:1 Pub Choice 107.

²⁰ See Posner, "Judicial Behaviour," *supra* note 18 at 1260-61; Drahozal, "Judicial Incentives," *supra* note 6 at 471; Alan Scott Rau, "Integrity in Private Judging" (1997) 38 S Tex L Rev 485 at 523; G Richard Shell, "Res Judicata and Collateral Estoppel Effects of Commercial Arbitration" (1988) 35 UCLA L Rev 623 at 633-34; Daphna Kapeliuk, "The Repeat Appointment Factor: Exploring Decision Patterns of Elite Investment Arbitrators" (2010) 96:1 Cornell L Rev 47 at 61-63.

²¹ See Cooter, *supra* note 19 at 131.

arbitration and the differences between them could alter arbitrator motivations in important ways.²²

The unconventional, asymmetrical structure of investment treaty arbitration invites study based on the apparent interests of arbitrators relative to those of conventional judges.²³ The system is unique because it uses the model of arbitration to resolve individual claims against the state acting in its sovereign capacity.²⁴ Under domestic legal systems, this type of claim—whether under constitutional law or administrative law—is ultimately subject to resolution in the courts, not by arbitrators. Under customary international law, such claims might culminate in a claim of diplomatic protection by one state against another, in which case any use of arbitration to resolve the dispute would be based on a conventional framework of reciprocal state-to-state arbitration. The same reciprocal framework applies generally in the arbitration of commercial disputes, including commercial disputes between investors and states, the latter acting in a private capacity. Finally, where individuals are permitted to sue states directly under international law, such as in the European regional courts, such disputes are resolved using a judicial model.²⁵

²² See Bloom, *supra* note 11 at 578.

²³ See William M Landes & Richard A Posner, “Rational Judicial Behavior: A Statistical Study” (2009) 1:1 J Legal Analysis 775 at 779-80; Frederick Schauer, “Incentives, Reputation, and the Inglorious Determinants of Judicial Behavior” (2000) 68:3 U Cin L Rev 615 at 620-21; Drahozal, “Judicial Incentives”, *supra* note 6 at 472-73.

²⁴ Some forms of domestic arbitration create a de facto asymmetry in which arbitrator interests may appear tied to interests of a dominant class of parties in the claims structure. For example, in employment or consumer arbitration in the United States, employers or producers—as a class of parties—are often repeat players, deep-pocketed, directly in control of the arbitration institution, or in control of the terms of the agreements to arbitrate. See Colvin, *supra* note 6 at 11; Mara Kent, “‘Forced’ vs. Compulsory Arbitration of Civil Rights Claims” (2005) 23:1 Law & Ineq 95 at 95-96; Katherine Palm, “Arbitration Clauses in Nursing Home Admission Agreements: Framing the Debate” (2006) 14:2 Elder LJ 453 at 478. Unlike investment treaty arbitration, these forms of arbitration are usually de facto but not *de jure* asymmetrical and are generally not used to decide regulatory claims against the state without the prospect of court review (but see Catherine A Rogers, “The Arrival of the ‘Have-Nots’ in International Arbitration” (2007) 8:1 Nev LJ 341 at 350-51 [Rogers, “The Arrival”]; Ann E Krasuski, “Mandatory Arbitration Agreements Do Not Belong in Nursing Home Contracts With Residents” (2004) 8:1 DePaul J Health Care L 263 at 268-69).

²⁵ See Gus Van Harten, *Investment Treaty Arbitration and Public Law* (New York: Oxford University Press, 2007) ch 3; Gus Van Harten, “The Public-Private Distinction in the International Arbitration of Individual Claims Against the State” (2007) 56:2 ICLQ 371.

Unlike conventional arbitration,²⁶ then, investment treaty arbitration is non-reciprocal in that investors can sue states under an investment treaty but cannot themselves be sued by states (other than in limited circumstances of a counterclaim arising from the original claim by the investor). In this respect, the system's structure is more akin to that of judicial review in domestic public law.²⁷ Importantly, the system removes the customary duty of private parties to exhaust domestic remedies before proceeding to an international claim against a state. On this basis, the system resembles domestic judicial review to a greater extent than other forms of international adjudication that require exhaustion of domestic remedies. However, unlike domestic or international courts that otherwise resolve these types of claims, investment treaty arbitration does not incorporate conventional safeguards of judicial independence such as secure judicial tenure, objective methods of appointment of judges to specific cases, and restrictions on outside remuneration by the judge.²⁸

The broad question of this study is how this unique structure could affect arbitrator behaviour. The study examines this question by attempting to falsify claims and expectations that the system will favour investors over respondent governments and Western capital-exporting states over developing or transition states.²⁹ The study does so in a focused way by using systematic content analysis to code arbitrators' resolutions of issues of jurisdiction and admissibility in individual

²⁶ See Bloom, *supra* note 11 at 580.

²⁷ See Abram Chayes, "The Role of the Judge in Public Law Litigation" (1976) 89:7 Harv L Rev 1281.

²⁸ See Frank B Cross & Dain C Donelson, "Creating Quality Courts" (2010) 7:3 J Empirical Legal Stud 490 at 498; Catherine A Rogers, "Regulating International Arbitrators: A Functional Approach to Developing Standards of Conduct" (2005) 41:1 Stan J Int'l L 53 at 56-57.

²⁹ See Bernasconi-Osterwalder, *supra* note 3 at 69; Roberto Dañino, "Opening Remarks" (Making the Most of International Investment Agreements: A Common Agenda, Symposium co-organized by ICSID, the OECD and UNCTAD, delivered at OECD Headquarters, Paris, 12 December 2005), [unpublished]; Chung, *supra* note 3 at 963-66; Odumosu, *supra* note 3 at 346-48, 364, 371-72.

cases. The method is discussed later in the article. In the remainder of this section, further information is provided on the rationales for systemic bias and on other studies of possible bias in investment arbitration.

B. RATIONALES FOR SYSTEMIC BIAS

The theoretical rationale for systemic bias in investment treaty arbitration, as tested here, derives from assumptions about arbitrator incentives based on the system's structure.³⁰ The asymmetrical claims structure and absence of institutional markers of judicial independence create apparent incentives for arbitrators to favour the class of parties (here, investors) that is able to invoke the use of the system.³¹ Also, arbitrators may be influenced by a need to appease actors who have power or influence over specific appointment decisions or over the wider position of the relevant arbitration industry.³² Participants in the system have rejected such expectations,³³ and it is not suggested here that they are the only possible factors that can influence arbitrator behaviour. Yet these expectations do reflect the “question of the incentives that so often operate on arbitrators—that is, of their self-interest in trying to secure and expand prospects for future arbitral appointments” (“a dynamic that is well-understood, if rarely discussed with any frankness”) and the related expectations that “[a]n arbitrator may perceive that his award is likely to have an impact on his own acceptability, that is, on the probability of

³⁰ See especially Yves Dezalay & Bryant G Garth, *Dealing in Virtue* (Chicago: University of Chicago Press, 1996) at 8-9, 36, 45, 50, 70, 93, 124, 194.

³¹ Drahozal, “Judicial Incentives”, *supra* note 6 at 500, 503; Nudrat Majeed, “Investor-State Disputes and International Law: From the Far Side” (2004) 98 *Am Soc’y Int’l L Proc* 30 at 31.

³² Walter Mattli, “Private Justice in a Global Economy: From Litigation to Arbitration” (2001) 55:4 *Int’l Organization* 919 at 921-22; Rogers, “Vocation,” *supra* note 1 at 968.

³³ See *e.g.* William W Park, “Arbitrator Integrity: The Transient and the Permanent” (2009) 46:3 *San Diego L Rev* 629 at 651-53, 657-66.

his being appointed again ... [o]r [that] an award may affect the marketability of the appointing organization, on which the arbitrator depends for future referrals.”³⁴

Assuming that investment arbitrators will in general aspire to (re)appointment and to the promotion of the wider industry, they appear to be dependent on:

- (1) those who are able to initiate claims in an asymmetrical claims structure;
- (2) those who exercise power in the arbitration centres that operate as appointing authorities under investment treaties;³⁵
- (3) those who have the power to include investment arbitration clauses in legal instruments such as investment treaties and investment contracts; and
- (4) those who act as ‘gatekeepers’ or otherwise wield influence in the arbitration industry.

Each of these groups of actors has potential influence over the career or financial success of arbitrators and over the wider position of the arbitration industry by their ability to trigger use of the system, appoint or ‘green-light’ individual arbitrators, decide conflict of interest claims, employ arbitrators in a wider professional context, maintain the general use of investment

³⁴ Rau, *supra* note 20 at 521-22.

³⁵ The designated appointing authorities have important powers to appoint arbitrators and to resolve conflict of interest claims against arbitrators, among other powers. These are assigned to executive officials within the relevant organization. The main arbitration organizations in investment treaty arbitration are the International Centre for the Settlement of Investment Disputes (ICSID) in Washington, the Permanent Court of Arbitration in the Hague, the International Chamber of Commerce (ICC) in Paris, the London Court of International Arbitration, and the Stockholm Chamber of Commerce.

arbitration, or otherwise shape market demand for the services of investment arbitrators and the arbitration industry. This outline provides rationales for potential hypotheses about the system, including those tested in the present study. That said, this study does not purport to test all aspects of these rationales.

The study focuses on two sets of actors: prospective claimants and major capital-exporting states. The assumed influence of prospective claimants stems from their power to initiate use of the system, but also from the wider role of foreign investors (especially major firms) in employing arbitrators, making decisions at private arbitration centres such as the International Chamber of Commerce, and concluding investment contracts containing arbitration clauses. The assumed influence of major states stems from their role in authorizing arbitration in investment treaties and their relative power in state-based arbitration centres such as the International Centre for Settlement of Investment Disputes (ICSID) and the Permanent Court of Arbitration.

Thus, the study focuses on possible influences on arbitrator decision making based primarily on an economic model of adjudicative behaviour. That said, the study does not aim to show that any particular set of factors is the sole or dominant determinant of decision making or to isolate one or another rationale among those underlying the hypotheses. The purpose is simply to test and attempt to falsify expectations that certain factors will play an observable role at a systemic level. Importantly, one should not mistake an evaluation of the institutional structure and performance of an adjudicative system for a comprehensive theory of adjudicator behaviour in that system. A range of factors and complex interactions of factors will undoubtedly be present in the thought processes of any adjudicator and in the deliberations of any tribunal. Indeed, it is partly for this

reason, and the corresponding difficulty of pinpointing any actual bias and its cause, that legal doctrine requires the absence of reasonably perceived bias as well as actual bias in judicial decision making.³⁶

C. RELATIONSHIP TO OTHER STUDIES

In this section, the present study is situated in the context of previous work. More detail is provided in Appendix One.

There are several studies relating to the present research question.³⁷ Most of these have focused on quantitative analysis of win-loss or other remedial outcomes in a sample of cases, rather than on other aspects of decision making such as legal reasoning. They have produced useful and interesting information, usually in descriptive terms, but also have important limitations. In general, they have produced mixed or inconclusive information on possible bias in investment arbitration. First, from a qualitative point of view, the seminal study by Dezalay and Garth is dated and may not capture experiences in investment arbitration since the recent explosion of investment treaty claims.³⁸ Second, although there are important variations among them, the general approach of the relevant quantitative studies has been to collect and analyze information

³⁶ See *e.g. Locabail (UK) Ltd v Bayfield Properties Ltd*, [1999] EWCA Civ 3004, [2000] 1 QB 451; *R v Valente*, [1985] 2 SCR 673.

³⁷ See Dezalay & Garth, *supra* note 30; Ole Kristian Fauchald, “The Legal Reasoning of ICSID Tribunals – An Empirical Analysis” (2008) 19:2 EJIL 301; Kathleen S McArthur & Pablo A Ormachea, “International Investor-State Arbitration: An Empirical Analysis of ICSID Decisions on Jurisdiction” (2009) 28:3 Rev Litig 559; Susan D Franck, “Development and Outcomes of Investment Treaty Arbitration” (2009) 50:2 Harv Int’l LJ 435 [Franck, “Development and Outcomes”]; Susan D Franck, “The ICSID Effect? Considering Potential Variations in ICSID Awards” (2010) 51:4 Va J Int’l L 825 [Franck, “The ICSID Effect”]; Kapeliuk, *supra* note 20; Kevin P Gallagher & Elen Shrestha “Investment Treaty Arbitration and Development: A Re-Appraisal” (2011) 11-01 GDAE Working Paper; Costa, *supra* note 1.

³⁸ *Supra* note 30; but see Rogers, “Vocation,” *supra* note 1 at 965-68.

on case outcomes.³⁹ On the issue of possible bias in investment arbitration, these studies should be approached with caution because all were based on limited data, and those that tested for significance identified a high risk that the results were explained by chance. In some cases, the studies included statements that went well beyond the study's results.⁴⁰

These limitations of the existing research are due partly to the significant lack of data on international investment arbitration. However, they may also arise from the focus on case outcomes. This focus reflects a valid approach to empirical study but it has major limitations.⁴¹ Data on outcomes as a measure of actual behaviour are open to a wide range of possible explanations⁴² such as variations in the strength of parties' claims, diversity of fact situations, possible inflation of amounts claimed, procedural and structural variations among arbitration forums, or varying levels of political influence by states and private actors. It is difficult, if not impossible, to identify the 'appropriate' spread of outcomes against which actual outcomes

³⁹ See McArthur & Ormachea, *supra* note 37; Franck, "Development and Outcomes," *supra* note 76; Franck, "The ICSID Effect," *supra* note 37; Kapeliuk, *supra* note 20; Gallagher & Shrestha, *supra* note 37.

⁴⁰ See McArthur & Ormachea, *ibid*. The authors state that the results indicate "that investors are always better off relying on a BIT to establish jurisdiction" (at 582) and that "claims are most likely to fail against those very same countries where an investor had the best reasons to demand international arbitration protection" (at 583). See especially Franck, "Development and Outcomes," *supra* note 37. The study's abstract notes that:

[t]he results demonstrate that, at the macro level, development status does not have a statistically significant relationship with outcome. This suggests that the investment treaty arbitration system, as a whole, functions fairly and that the eradication or radical overhaul of the arbitration process is unnecessary (at 435).

Further, the study concludes with a statement that:

[t]he notion that outcome is not associated with arbitrator or respondent development status ... provides evidence about the integrity of arbitration and casts doubt on the assumption that arbitrators from developed states show a bias in terms of arbitration outcomes or that the development status of respondent states affect[s] such outcomes (at 487).

See also Kapeliuk, *supra* note 20. The study's abstract notes that "[t]he research shows that repeat arbitrators display no biases and no tendencies to 'split the difference'" (at 47), and in the conclusion the author states that the results "clearly defy any claim that investment-arbitration tribunals tend to rule in favour of investors" (at 90).

⁴¹ See Hall & Wright, *supra* note 7 at 85-87; R Polk Wagner & Lee Petherbridge, "Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance" (2004) 152:3 U Pa L Rev 1105 at 1127-28.

⁴² See Gregory C Sisk, Michael Heise & Andrew P Morriss, "Charting the Influences on the Judicial Mind: An Empirical Study of Judicial Reasoning" (1998) 73:5 NYUL Rev 1377 at 1380-82.

should be measured.⁴³ Related to this is the problem that data on outcomes at one or another stage of a case may not capture aspects of tribunal decisions—such as legal interpretations or procedural decisions—that might reflect bias, regardless of the final outcome. Cumulative data on outcomes also do not explain whether some aspect or step in the decision-making process was influenced inappropriately, leaving a prospect for actual or perceived bias in any specific case.

An aim of the present study was to address some of these limitations using the method of content analysis.⁴⁴ This method is “a systematic, replicable technique for compressing many words of text into fewer content categories based on explicit rules of coding” that can be used to supplement other forms of inquiry.⁴⁵ Relative to outcome-based analysis, the method was attractive because it offered a more value-added role for legal expertise in quantitative study and enabled a more systematic approach to collecting information on investment law doctrine. The study is not intended to promote content analysis over other methods but simply to observe the system differently, to provide a means to triangulate data and methods, to encourage further inquiry, and to sharpen issues for discussion.

II. METHODS

A. AIMS AND HYPOTHESES

⁴³ See Lisa B Bingham, “On Repeat Players, Adhesive Contracts, and the Use of Statistics in Judicial Review of Employment Arbitration Awards” (1998) 29:2 *McGeorge L Rev* 223 at 246.

⁴⁴ See Hall & Wright, *supra* note 7 at 66.

⁴⁵ Steve Stemler, “An Overview of Content Analysis,” online: (2001) 7 *Practical Assessment, Research & Evaluation* 17 at para 1 <<http://pareonline.net/getvn.asp?v=7&n=17>>; Krippendorff, *supra* note 12 at 23.

The project was designed to collect and analyze information on contested issues in investment treaty law and, specifically, to test hypotheses arising from the system's structure and from the absence of institutional markers of judicial independence. Three *a priori* hypotheses were identified.⁴⁶

Hypothesis 1: Arbitrators will adopt expansive approaches to issues of legal interpretation more frequently than restrictive approaches.

Hypothesis 1 was based on the expectation that arbitrators would tend to favour expansive approaches to contested issues of jurisdiction or admissibility. The expectation was based on apparent incentives of arbitrators to encourage claims by signalling to prospective claimants that a potential claim is likely to proceed.⁴⁷ The characterization of expansive and restrictive approaches is discussed below. Notably, the coded issues were limited to questions of jurisdiction and admissibility and did not include, for example, substantive standards or procedural issues.

Based on previous non-systematic study of investment law, the author's own tentative preconception was that arbitrators would, in general, favour expansive approaches to issues of jurisdiction and admissibility. The degree to which arbitrators might do so, the degree to which any specific coded issue would arise in cases, and the degree to which the tendencies for any particular issue would be expansive or restrictive, were all unknown. There was also a strong

⁴⁶ Other potential hypotheses were identified in the initial planning of the project based on the theoretical expectations but were not tested in this study. See Lee Epstein & Gary King, "The Rules of Inference" (2002) 69 U Chicago L Rev 1 at 61, 65, 70. For example, other potential hypotheses arose from expectations that arbitrators would tend to favour corporate claimants, especially large companies, over other natural persons. The hypotheses may be the subject of future research.

⁴⁷ See Bernard Trujillo, "Regulating Bankruptcy Abuse: An Empirical Study of Consumer Exemptions Cases" (2006) 3:3 J Empirical Legal Stud 561 at 576.

expectation, based on past studies, that there would be insufficient data to support any statistically significant findings.

Hypothesis 2: The anticipated tendency toward expansive approaches will be accentuated in cases brought by claimants from France, Germany, the United Kingdom, and the United States.

Hypothesis 3: The anticipated tendency toward expansive approaches will be reduced in cases brought against France, Germany, the United Kingdom, and the United States.

These hypotheses were based on expectations that arbitrators would be more responsive to the interests of major Western capital-exporting states than those of other states due to the relative influence of the former. The hypotheses identified four states as an approximate measure of major Western capital-exporters. These states were isolated based on literature and discourse on the system and on country-by-country data on total foreign direct investment outward stock.⁴⁸

Although Hypotheses 2 and 3 were designed to test the expectation of possible bias, the author had no preconceptions about the extent to which either hypothesis would be confirmed, with one exception: an expectation, based on non-systematic study of past cases, that arbitrators would favour a restrictive approach in cases against the United States under the *North American Free*

⁴⁸ According to data from United Nations Conference on Trade and Development (UNCTAD) *World Investment Reports* published between 2004-2010, France, Germany, the United Kingdom, and the United States. were the top states in total foreign direct investment (FDI) outward stock for the five years preceding the design of the study (2003-2007) and in subsequent years (2008-09); the United States was consistently ranked first and France, Germany, and the United Kingdom alternated between the remaining positions, usually with the United Kingdom ranked second. See UNCTAD *World Investment Report* (New York: United Nations, 2004-2010), Annex Table 04 on FDI outward stock, online: <<http://www.unctad.org/Templates/Page.asp?intItemID=5545&lang=1>>.

*Trade Agreement (NAFTA)*⁴⁹ and that there would be little, if any, data for France, Germany, and the United Kingdom as respondents. There was a strong expectation that there would be insufficient data to generate statistically significant evidence for either hypothesis. In light of this, the fact and extent of the accentuated tendency in the results for Hypothesis 2 was surprising.

B. IDENTIFICATION OF ISSUES AND ISSUE RESOLUTIONS

Awards were coded for the occurrence and resolution of seven issues of investment treaty law. All issues related to topics of jurisdiction or admissibility, although in some cases they engaged aspects of other types of issues.⁵⁰ The issues, and the expansive and restrictive approaches to each, were identified in advance.⁵¹ Where an issue was found to have arisen in a case, each arbitrator's resolution of the issue was classified as expansive, restrictive, or non-classifiable.⁵² The expansive and restrictive approaches to each issue reflected positions that tended to enhance or reduce, respectively, the compensatory promise of the system for claimants and the risk of liability for states. Non-classifiable situations included resolutions that, as explained in the

⁴⁹ *North American Free Trade Agreement Between the Government of Canada, the Government of Mexico and the Government of the United States*, 17 December 1992, Can TS 1994 No 2, 32 ILM 289 (entered into force 1 January 1994) [*NAFTA*].

⁵⁰ The focus on issues of jurisdiction and admissibility had no special significance and was arrived at to provide a basis on which to develop the classification system and make the coding process manageable, leaving options for further content analysis on resolutions of substantive or procedural issues in investment treaty law.

⁵¹ The aim was not to examine ideological preferences of arbitrators, and the study is agnostic on the question of the appropriate approach to the resolution of any issue. The language of "pro-investor" or "pro-state" was avoided on the basis that it is also not necessarily the case that an expansive approach, as coded, is pro-investor and so on. In considering whether an expansive approach is pro-investor, for example, should one evaluate the interests of the specific claimant, future claimants, or investors as a whole? If expansive approaches led states to withdraw from the system, they might be said to harm investors as a whole while benefiting the specific claimant.

⁵² An arbitrator was deemed to have resolved an issue where the arbitrator put his or her name to the reasons for an award or decision that explained the relevant resolution. An arbitrator who gave separate reasons for a decision was coded differently than other members of the tribunal where his or her reasons resolved the issue differently from other members.

award, did not fall reasonably within the scope of an expansive or restrictive category in the template.⁵³

An issues template was developed in advance to identify expansive and restrictive resolutions for each coded issue. Coding was intended to cover a reasonable sample of contested approaches to issues of jurisdiction or admissibility. These approaches were developed based on a review of existing awards and secondary literature and on consultations with outside legal experts.⁵⁴ The process was meant to limit and guide the author's discretion in identifying issues and delineating resolutions, but a degree of discretion undoubtedly remained.⁵⁵ The issues identified for coding related to the following general topics: corporate person investor, natural person investor, investment, minority shareholder interest, permissibility of investment, parallel claims, and scope of most-favoured-nation treatment. Coding was not intended to encompass all of the possible legal interpretations of these topics or of the coded issues. Rather, for each issue, descriptions of an expansive or restrictive approach were identified and resolutions were then coded based on whether the tribunal's approach fell reasonably within any of the descriptions. In all cases, the expansive and restrictive approaches reflected situations in which an issue was subject to a measure of ambiguity in the relevant treaty.⁵⁶ Where the treaty was clear and express on how the

⁵³ Non-classifiable situations also included those in which the issue was resolved specifically and expressly by the terms of the relevant treaty, the claim or argument was withdrawn by a party, or the tribunal found it unnecessary to resolve the issue.

⁵⁴ See Hall & Wright, *supra* note 7 at 107; Wagner & Petherbridge, *supra* note 41 at 1131-36.

⁵⁵ For example, the template was developed in the spring of 2009 and it was recognized that, over time, divergences in the law may evolve, and particular issues or approaches may fade in importance. On this, a degree of flexibility was maintained for coding resolutions that appeared to have evolved from an approach described in the template, but in a way that was consistent with the underlying rationale for the classification. This flexibility was exercised very rarely (specifically, in a few cases where the resolution built on the restrictive approach to the concept of investment by extending the *Fedax* criteria beyond the *ICSID Convention*). The general guideline was to maintain the *a priori* characterization of an issue strictly but not slavishly.

⁵⁶ See Carolyn Shapiro, "The Context of Ideology: Law, Politics, and Empirical Legal Scholarship" (2010) 75:1 *Mo L Rev* 79 at 85.

issue should be resolved, the resolution of the issue was not considered a sufficient exercise of arbitrator discretion and was not coded as expansive or restrictive.

The template is reproduced in Appendix Two with footnotes to indicate the sources that were used to model expansive and restrictive approaches. The following provides a brief summary of the topics and issues:

- (1) Corporate person investor: Should a claim be permissible where ownership of the investment extends through a chain of companies running from the host to the home state via a third state? Expansive approach: yes. Restrictive approach: no.

- (2) Natural person investor: Should a claim be permissible where brought by a natural person (a) against the only state of which the person is a citizen or (b) against a state of which the person is a citizen without confirmation of dominant and effective nationality? Expansive answer: yes to either of the two questions. Restrictive approach: no to either of the two questions.

- (3) Investment: Should the *Fedax*⁵⁷ criteria be applied to limit the concept of investment under the *Convention on the Settlement of Investment Disputes Between States and Nationals of Other States (ICSID Convention)*;⁵⁸ or, regardless of whether under the *ICSID Convention*, should there be a requirement for an actual transfer of capital into the host state as a feature

⁵⁷ *Fedax NV v Republic of Venezuela* (1997), 37 ILM 1378 (International Centre for Settlement of Investment Disputes) [*Fedax*].

⁵⁸ *Convention on the Settlement of Investment Disputes Between States and Nationals of Other States*, 18 March 1965, ICSID/15, 4 ILM 524 (entered into force 14 October 1966) [*ICSID Convention*].

of an investment; or should the concept of investment be limited to traditional categories of ownership? Expansive approach: no to any of the three questions. Restrictive approach: yes to any of the three questions.

(4) Minority shareholder interests: Should a claim by a minority shareholder be allowed where the treaty does not permit claims by minority shareholders, such as where the treaty does not include “shares” in the definition of investment, or should it be permitted without limiting the claim to the shareholder’s interest in the value and disposition of the shares (as opposed to interests of the domestic firm itself)? Expansive approach: yes to either of the two questions. Restrictive approach: no to either of the two questions.

(5) Permissibility of investment: Should there be an evident onus placed on the claimant (or the respondent state) to show that an investment was (or was not) affirmatively approved or was (or was not) based on corrupt practices? Expansive approach: onus on the respondent state. Restrictive approach: onus on the claimant.

(6) Parallel claims: Should a claim be allowed in the face of a treaty-based duty to resort to local remedies that clearly was not satisfied by the claimant; in the face of a contractually agreed dispute settlement clause relating to the same factual dispute; in the face of an actual claim, arising from the same factual dispute, via the relevant path of a treaty-based fork-in-road clause;⁵⁹ or in the face of an actual claim, arising from the same factual dispute, via another

⁵⁹ A fork-in-the-road clause requires an investor to choose between pursuing one of two (or more) paths, such as domestic courts and investment treaty arbitration, that are available to adjudicate the dispute with the host state.

treaty that could lead to a damages award in favour of the investor. Expansive approach: yes to any of the four questions. Restrictive approach: no to any of the four questions.

(7) Scope of most-favoured-nation treatment: Should the concept of most-favoured-nation treatment be extended to non-substantive provisions of other treaties (such as dispute settlement provisions)? Expansive approach: yes. Restrictive approach: no.

The aim of this exercise was to capture a reasonable sample of contested legal issues of jurisdiction and admissibility, focusing on issues of general significance on the basis that such issues should ideally be applied consistently across cases and are more likely to have symbolic meaning for investors and for states.⁶⁰ Issues that were specific to a single treaty or case, and factual determinations, were not coded.⁶¹

C. DATA SOURCES AND CODING PROCESS

The primary data source was the text of awards in known⁶² investment treaty cases decided by 10 May 2010 and publicly available⁶³ by 1 June 2010. In the case of a few descriptive fields,

⁶⁰ See Trujillo, *supra* note 47 at 576; Krippendorff, *supra* note 12 at 22.

⁶¹ The line between law and outcome was not always clear. In some cases, aspects of the resolution of an issue were connected to outcome, especially at the jurisdictional stage. That said, resolutions were not coded according to whether the issue determined the jurisdictional outcome of the case. Put differently, distinctions between the *ratio decidendi* and *obiter dicta* of a case were avoided on the basis that they can be difficult to maintain and that a resolution, even if *obiter*, can nevertheless have symbolic meaning for claimants and respondents. But see Fauchald, *supra* note 37 at 315.

⁶² A case was “known” (1) where it was listed on the Investment Treaty Arbitration website (www.italaw.com, maintained by Andrew Newcombe of the University of Victoria) with an indication that it was brought under an investment treaty or (2) where it was listed as a treaty-based case on any of the websites of ICSID, the Permanent Court of Arbitration website, the Energy Charter Treaty Secretariat, or the governments of Canada, Mexico or the United States.

⁶³ An award was “publicly available” where posted on the Investment Treaty Arbitration website (*ibid*).

data were obtained from sources other than the text of awards.⁶⁴ There were two stages of coding.

The first stage proceeded as follows. A codebook was developed and reviewed periodically.⁶⁵ Beginning in the summer of 2008, descriptive information on known cases was collected by three research assistants (all J.D. students) working in sequence over a three-year period. The second and third researchers collected information with knowledge of earlier coding. Thus, the descriptive data were double- and in some cases triple-coded, but not blindly.⁶⁶ At this stage of the coding, discretion was relatively limited.⁶⁷ The key concern was to ensure that coders were well-trained in the codebook—they were given about two weeks to study the codebook and practice its application on sample cases—and confident of their autonomy.

A more elaborate process was used at the second stage of the coding. Following the development of the template, a sample of awards was coded for discussion. All awards were then reviewed in groups according to treaty type or respondent state. Coding required reading all awards in known cases in order to determine whether an issue had arisen and, if so, whether its resolution fit an expansive or restrictive approach. Coding began in the summer of 2009 and was carried out by three coders. The first was a J.D. student and research assistant who coded all of the awards, with

⁶⁴ For example, supplementary information on arbitrator nationalities was collected via a Google search as a supplement to awards. In *NAFTA* Chapter 11 cases, information on dates of claims was obtained from materials filed by the parties rather than simply from awards.

⁶⁵ The codebook included numerous fields of innocuous information. The following information was relevant to the present study: name of case, name and nationality of claimant, name of respondent state, date of claim, dates of known awards, and identity and nationality of arbitrators associated with each award in the case. Further information on the codebook is available from the author.

⁶⁶ About 15% of the descriptive data was checked by the author. Where errors or discrepancies were identified, the coded information was referred back to the coder. In rare cases, the author re-coded data (for the present study, the only data that was re-coded was for dates of claims). Inter-coder reliability was not tracked formally at this stage of the project, although periodic data checks by coders or the author indicated that inconsistencies were rare.

⁶⁷ One example of a discretionary coding issue related to the date of the claim in a case. Under some investment treaties, a notice of claim is filed by an investor prior to the filing of the actual claim. The earlier of the two dates was used to mark the date of the claim.

periodic discussion of general issues arising from the template. The second was the author who coded all issue resolutions, with access to coding decisions of the first coder. Discrepancies in the coding were then reviewed by the first coder.⁶⁸ In cases where the coders disagreed, the matter was referred to a third coder (a research assistant and lawyer) who made a final decision as between the anonymized positions of the first and second coders.

Coding at this stage was based on the text of publicly available awards.⁶⁹ Thus, any issues or resolutions not outlined expressly in the award could not be captured by the coding process. This reflects a general limitation of content analysis.⁷⁰ Also, awards were coded where they engaged any issue in the template, regardless of the stage of the proceedings at which the issue arose or the way in which it was characterized by the parties or the tribunal. The question for coders was whether an issue arose and how it was resolved based on the template; it was not how the issue was framed by the parties or the tribunal, although this may clearly affect whether an issue could be found to have arisen. Where an award was not available in English,⁷¹ the case was not coded so as to maintain consistency across the coders, who shared only English as a common language. Where there was no reference to any jurisdictional or admissibility issues in any publicly available award, the case was coded as not public for all issues.⁷² Thus, in some cases, issues that arose in a case may not have been coded because they were dealt with in an award that was not

⁶⁸ In a small number of cases, the coders' roles were reversed in that the second coder was the first to review a case, identify issues, and refer resolutions for coding by the first coder, subject to a review by the second coder of any differences in coding and final submission to a tiebreaker.

⁶⁹ To maintain consistency across cases and treaties, information in publicly available awards was not supplemented by other potential sources of information, such as materials filed by the parties (typically available under *NAFTA* Chapter 11 but not other treaties) or secondary reports.

⁷⁰ Hall & Wright, *supra* note 7 at 100.

⁷¹ Awards were coded where available originally in English, where available in English via an official translation, or where available in English via an unofficial translation that was posted on the Investment Treaty Arbitration website (*supra* note 62).

⁷² See *e.g. Joseph Charles Lemire v Ukraine* (2000), 15 ICSID Rev 530, 6 ICSID Rep 60 (International Centre for Settlement of Investment Disputes). The only publicly available decision was a record of settlement by the parties that followed a non-public award on jurisdiction. The case was coded as not public.

among the publicly available materials for the case. This was a consequence of varying levels of openness across cases and treaties.⁷³

D. LIMITATIONS OF THE STUDY

This section highlights methodological limitations. The first relates to the dataset, which included the full universe of publicly available English-language awards in known investment treaty cases that had dealt with jurisdictional or admissibility matters up to the cut-off dates. This represented a sample of total investment treaty cases up to the cut-offs because some known cases did not have publicly available awards and because there is an indeterminate number of other cases, the existence of which is unknown.⁷⁴ If the body of coded awards is different from that of non-public or unknown awards, then the study's results will be subject to case-selection bias.⁷⁵ In response to this possibility, the project focused on legal issues arising from decisions at or after the jurisdictional stage, on the assumption that a case is less likely to remain confidential where it has reached that stage. On the other hand, this would not address situations where a known case has not led to a publicly available award.⁷⁶ Even so, the analysis of publicly

⁷³ That said, it was very rare to see cases that had a published award that did not address jurisdictional matters to some degree.

⁷⁴ For example, besides anecdotal reports of non-public cases, the International Chamber of Commerce reported during 2005-2009 an average of 69 arbitrations per year that involved a state or state entity. See International Chamber of Commerce (ICC) International Court of Arbitration, "Facts and Figures on ICC Arbitration – Statistical Reports," online: <<http://www.iccwbo.org/court/arbitration/id5531/index.html>>. No specific information on these cases is public, however, and it is unclear how many were pursuant to treaties, as opposed to investment contracts or domestic legislation.

⁷⁵ See Christopher R Drahozal, "Arbitration by the Numbers: The State of Empirical Research on International Commercial Arbitration" (2006) 22:2 *Arb Int'l* 291 at 294. For example, in order for awards in known cases to be public, the cases must not have been settled before the stage of a first award by a tribunal, and the character of investor-state conflicts in known cases may differ from that of conflicts in cases that have settled at an earlier stage.

⁷⁶ In the dataset, there were 174 known cases that had led to an award on jurisdictional matters. In 22 of these cases (13%) the relevant award was not public.

available awards in known cases remains a reasonable basis of study so long as conclusions reflect appropriate inferences and are limited to the studied universe.⁷⁷

Second, it was recognized that coder discretion was integral to the project and steps were taken to limit this discretion.⁷⁸ These included the development of the coding template; the use of external sources to identify approaches to issue resolutions; communication with experts to review the template; and the use of a double-coding process supplemented by a tiebreaker. At the content analysis stage, the coding decisions of the first and second coders were evaluated for inter-coder reliability⁷⁹ as indicated in Table 1.

INSERT TABLE 1 ABOUT HERE

Despite these steps, discretionary choices were integral at various stages of the project.⁸⁰ For purposes of transparency and replication, the template is appended and case-by-case coded data are publicly available.⁸¹ Other researchers are invited to review the coding decisions on each issue and in each case in order to inform their own conclusions about the coding process and the study.

⁷⁷ See Hall & Wright, *supra* note 7 at 105; Krippendorff, *supra* note 12 at 25-28.

⁷⁸ See Hall & Wright, *ibid* at 109; Michael Evans et al, "Recounting the Courts? Applying Automated Content Analysis to Enhance Empirical Legal Research" (2007) 4 J Empirical Legal Stud 1007 at 1008-09.

⁷⁹ See Wagner & Petherbridge, *supra* note 41 at 1140.

⁸⁰ For example, separate opinions, whether dissenting or concurring, presented coding issues that were resolved as follows. Where the separate opinion dealt with a coded issue explicitly, then it was coded separately from the main reasons of the tribunal. In such circumstances, where the separate opinion identified an issue that was dealt with in the main reasons of the tribunal but the author of the separate opinion did not declare a position on the issue, then the issue resolution for the relevant arbitrator was coded as non-classifiable. However, where the separate opinion did not explicitly raise an issue that was dealt with in the main reasons of the tribunal, then the relevant arbitrator was assumed to share the view of the tribunal as a whole. In the great majority of cases with separate opinions, it was not difficult to either distinguish the separate opinion from the tribunal's main reasons or to identify it with those reasons.

⁸¹ [Note to be inserted.]

Third, the study examined tendencies in interpretative approaches based on the quantification of complex processes of adjudicative decision making. The focus on issue resolutions mitigated some of the limitations of outcome-based research. However, legal content analysis also has important limitations. For one, the examination of jurisdictional issues may mean that the results are unrepresentative of other aspects of investment treaty law. More broadly, content analysis involves a compromise between, on the one hand, the benefits of systematized review and analysis and, on the other hand, the costs of reducing complex qualitative phenomena to quantitative indicators.⁸² The study thus provides approximate correlations not firm conclusions.⁸³

Fourth, it is important to emphasize that the study was not intended to identify actual bias in any specific case but rather to test expectations at a systemic level.⁸⁴ Thus, the study sought to mark out a manoeuvring space that is available for the interpretation of contested legal issues and to locate different decisions within that space. As the law evolves, so too may the definitions of what qualifies as expansive or restrictive. This is particularly important because investment treaty arbitration is not a hierarchical system of adjudication, meaning that there may be greater fluidity and less predictability in the law.⁸⁵

⁸² See Aitken & Taroni, *supra* note 13 at 203; Shapiro, *supra* note 56 at 91-92.

⁸³ See Matthew Hall, "Randomness Reconsidered: Modeling Random Judicial Assignment in the U.S. Courts of Appeals" (2010) 7:3 J Empirical Legal Stud 574 at 574-75.

⁸⁴ See Bingham, *supra* note 43 at 259.

⁸⁵ See Jens Dammann & Henry Hansmann, "Globalizing Commercial Litigation" (2008) 94:1 Cornell L Rev 1 at 34-35; Drahozal, "Judicial Incentives," *supra* note 6 at 470.

The study's findings should therefore be approached with caution. Richard Lempert counsels that "[s]ound research . . . can help policymakers and administrators devise more effective laws and procedures, but empirical studies are almost never a magic bullet."⁸⁶ While the study found statistically significant evidence to support two hypotheses, it is only one study based on a particular method for analysis of focused aspects of a small dataset. Other factors beyond the limited evidence available from existing studies should therefore play an important role in policy discussions about the system. Importantly, the mixed and often inconclusive evidence in existing studies appears to support doctrinal rationales for institutional markers of judicial independence that protect against both reasonably perceived bias and risks of actual bias in adjudication.

III. THE DATASET AND ANALYTICAL MODELS

A. DATASET

The study involved a review of the awards (*i.e.*, decisions) in all known investment treaty cases decided as of 10 May 2010 and publicly available in English as of 1 June 2010. A total of 261 cases were identified, of which 174 were found to have led to an award on jurisdictional matters. Of these 174 cases, 22 were found to have led to an award on jurisdiction that was not publicly available. Of the remaining 152 cases, 9 were unavailable in English and were not coded. Of the remaining 143 cases, 3 had been consolidated with another case and were coded only once under the consolidated case. This left 140 cases for content analysis. These comprise the full universe of publicly available English-language awards in known investment treaty cases that led to an award on jurisdictional matters by the cut-off dates. The cases arose primarily under BITs (74%

⁸⁶ *Supra* note 10 at 909.

of coded awards) and secondarily under *NAFTA* (17%) and the *ECT* (8%). Of the 140 cases, there were 25 in which no issue was found to have arisen, leaving 115 in which one or more issues were found to have arisen. Of these 115 cases, there were 100 in which at least one issue was resolved expansively or restrictively by the tribunal.

B. ANALYTICAL MODEL

An analytical model was developed based on eight primary measures of interest, one dependent variable, and seven covariates that were used to test the hypotheses.⁸⁷ The primary measures of interest were as follows.

Nationality of claimant. The data included claimants with nationality of 26 different states.

Identity of respondent state. There were 44 states among the respondents in the dataset.

For these first two measures, Hypotheses 2 and 3 required an analysis of France, Germany, the United Kingdom, and the United States, individually and as a group, versus all others.⁸⁸ Other groupings were analyzed to include a range of measures associated with Western capital-exporting interests. These other groupings were:

⁸⁷ The author was assisted by statistical experts in the project design and the data analysis. See Lempert, *supra* note 10 at 922-23. Kelly Goldthorpe, a JD student and former statistical analyst, advised on the project design and conducted the initial data analysis. Heather Krause, a data analyst and statistical consultant, designed the model and carried out the regression analysis. Both were remunerated as research assistants.

⁸⁸ In a few cases where there were claimants with different nationalities, the case was classified as falling within the relevant grouping if at least one of the claimant nationalities fell within the grouping.

- the United States versus all others;
- the United Kingdom and the United States versus all others;
- France, Germany, and the United Kingdom versus all others (except the United States);
- Western European former colonial powers⁸⁹ versus all others (except the United States);
- historical G-7 members⁹⁰ versus all others;
- the United Nations geographic classifications of states in North America, Western Europe, Northern Europe, and Southern Europe⁹¹ versus all others;
- the United Nations classification of states in Eastern Europe⁹² versus all others (except North America, Western Europe, Northern Europe, and Southern Europe);
- the Organisation for Economic Co-operation and Development (OECD) members as of 1990⁹³ versus all others;
- the OECD members as of 2000⁹⁴ versus all others;
- World Bank classification of high income countries as of 1990⁹⁵ versus all others; and
- World Bank classification of high income countries as of 2000⁹⁶ versus all others.

⁸⁹ Belgium, Denmark, France, Germany, Italy, Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

⁹⁰ Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.

⁹¹ Albania, Austria, Belgium, Bermuda, Bosnia, Canada, Croatia, Denmark, Estonia, Finland, France, Germany, Gibraltar, Greece, Greenland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Malta, Monaco, Netherlands, Norway, Portugal, Serbia, Slovenia, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

⁹² Belarus, Bulgaria, Czech Republic, Hungary, Moldova, Poland, Romania, Russia, Slovakia, and the Ukraine.

⁹³ Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

⁹⁴ Czech Republic, Hungary, Mexico, Poland, Slovakia, and South Korea, and all OECD members as of 1990 (*ibid*).

⁹⁵ Andorra, Aruba, Australia, Austria, Bahamas, Belgium, Bermuda, Brunei, Canada, Cyprus, Denmark, Finland, France, Germany, Greenland, Hong Kong, Iceland, Ireland, Israel, Italy, Japan, Kuwait, Luxembourg, Netherlands, New Zealand, Norway, Qatar, Singapore, Spain, Sweden, Switzerland, Taiwan, the United Arab Emirates, the United Kingdom, and the United States.

⁹⁶ Barbados, Cayman Islands, Greece, Guam, Liechtenstein, Malta, Monaco, Portugal and Slovenia, and all high income countries as of 1990 (*ibid*).

Treaty/ treaty type. There were four treaties or treaty types in the data: BITs, *NAFTA*, the *ECT*, and the *ASEAN Agreement for the Promotion and Protection of Investments*.⁹⁷ As a descriptive finding, there was a disproportionate representation of *NAFTA* cases among those in which no issue was found to have arisen, indicating that the types of jurisdictional issues arising in *NAFTA* cases may have diverged from those under BITs and the *ECT*.

Issue type. There were seven coded issues in the data. The issue with the most resolutions as expansive or restrictive was parallel claims. The issue with the least resolutions was natural person investor. Resolutions of this issue and another, permissibility of an investment, were found in only a small number of cases.

Count of issues per case. The total number of issues that arose and were decided expansively or responsively ranged from one to four per case. The mean and the median were 2 resolutions per case.

Total appointments per arbitrator. Individual arbitrators in the data were appointed between one and fourteen times per arbitrator. The mean number of appointments was 5 and the median was 3.

Case. There were 100 cases in the data in which a total of 527 unique issues arose that were decided expansively or restrictively.

⁹⁷ *Agreement among the Government of Brunei Darussalam, the Republic of Indonesia, Malaysia, the Republic of the Philippines, the Republic of Singapore and the Kingdom of Thailand for the Promotion and Protection of Investments*, 24 February 1976, 27 ILM 612 (entered into force 15 December 1987) [*ASEAN Agreement*]. The model excluded the *ASEAN Agreement* because it arose in only one case.

Arbitrator. There were 172 individuals appointed as arbitrators in the 100 cases. There were 340 unique arbitrator/ case combinations.

The dependent variable was the *issue resolution*. A total of 180 issues arose and were resolved expansively or restrictively in 100 cases. There were 515 distinct instances in which an arbitrator was found to have resolved an issue expansively or restrictively. Of these, 389 were expansive and 126 were restrictive.

C. ANALYSIS BASED ON GENERALIZED LINEAR MIXED EFFECTS MODEL

For Hypotheses 2 and 3, the analysis used a generalized linear mixed effects model, with the issue resolution as a binary dependent variable. A generalized linear mixed effects model is a combination of a linear mixed effects model and a general linear model and is very similar to a classical general linear model. The most common generalized linear model is logistic regression, with the addition in the present case of random effects to the fixed effects that are treated in classical regression. In a generalized linear model, the error distribution is assumed to be in the exponential family as distinct from the special case of the normal family in linear mixed effects models.⁹⁸ The model was designed in light of the data structure, which nested information within both cases and arbitrators. Issues that are nested will not be independent of each other and this required a model that controlled for the resulting non-independence or correlation. Random effects were used to account for this.

⁹⁸ See Russ Wolfinger & Michael O'Connell, "Generalized Linear Mixed Models: A Pseudo-Likelihood Approach" (1993) 48:3 J Statist Comput Simul 233.

The overall purpose of the model was to determine the likelihood that potential predictors accounted for variations in issue resolutions as opposed to those variations being explained by chance (statistical significance) and the degree to which any of a series of potential predictors had an effect on variations in issue resolutions (effect size). Thus, the analysis tested the possibility that observed tendencies in issue resolutions were explained by chance and that the predictor variables had no or minimal effect on the tendencies.

IV. RESULTS AND DISCUSSION

A. ANTICIPATED TENDENCY TOWARD AN EXPANSIVE APPROACH

1. OVERALL RESULTS

Hypothesis 1 predicted that arbitrators would tend to adopt an expansive approach to the resolution of the coded issues. The results supported this expectation. A one-sample binomial test was used to confirm this, generating a significance level of $p < .001$. Thus, the likelihood that the variation between expansive and restrictive resolutions was explained by chance was extremely low, making it safe to reject the null hypothesis that 50% of the resolutions would be expansive and 50% restrictive. Table 2 summarizes the variation in resolutions for individual issues. As indicated, there were different variances and different amounts of data for each issue.

INSERT TABLE 2 ABOUT HERE.

The results indicated that the strong tendency in favour of an expansive approach was driven by resolutions of four issues. On one issue (scope of most-favour-nation treatment) arbitrators were split between expansive and restrictive approaches, and on two issues (natural person investor and permissibility of investment), there were insufficient data to draw conclusions. Hypothesis 1 was supported by the overall result, across all issues, that expansive approaches to the resolution of disputed jurisdictional issues were about three times more common than restrictive approaches.

2. RESULTS OVER TIME

The data were examined to determine whether the overall tendency toward expansive resolutions varied over time. The analysis was isolated by treaty/ treaty type. It showed that time was of no statistical significance in the prediction of resolutions as expansive or restrictive, including when isolated by treaty/ treaty type. Figure 1 provides an outline of the distribution of resolutions over time by year of claim⁹⁹ and by year of award on jurisdictional matters.

INSERT FIGURE 1 ABOUT HERE.

3. DISCUSSION

⁹⁹ The earlier year was recorded as the year of claim in cases where the claimant filed a notice of claim prior to and in a different year from the actual claim.

It is safe to say that tribunals favoured an expansive approach to the coded issues as a whole, which enhanced the compensatory promise of the system for claimants and the corresponding risk of liability for states. This result supported the hypothesis that tested expectations that arbitrators would interpret the law in ways that encourage claims and support the economic position of the arbitration industry. This suggests that the interests of arbitrators may indeed affect the case-by-case resolution of contested issues of investment treaty law.

The results may not surprise observers who expect tribunals to take a liberal approach to jurisdiction and to the admissibility of claims. The author's preconception based on doctrinal study was that there would be a modest tendency toward an expansive approach, although not to the degree observed. In this respect, the results may provide cause for concern for those who expect the system to deliver evenness—between the interests of claimants and respondent states—in the resolution of silence or ambiguity in investment treaties.¹⁰⁰ In fact, states have lost across a range of contested issues, in some cases overwhelmingly, in the litigation of jurisdictional objections to investor claims. If states expected the relevant issues to be resolved restrictively, this has clearly not been the case in practice.

The results do not establish the truth of any theoretical expectation of systemic bias; that is, they do not establish all of the steps of logic that would be required to connect the observed tendency to the underlying rationales for the hypothesis. It is noteworthy that the overall tendency was driven by four issues and that, for all issues, restrictive approaches were adopted by some arbitrators. In this respect, the findings indicate that some arbitrators go against the grain by

¹⁰⁰ Some arbitrators and commentators present the system in these terms. See *e.g.* Federico Orrego-Vicuña, "Arbitrating Investment Disputes" *International Council for Commercial Arbitration* (2008), online: <<http://www.arbitration-icca.org/index.html>>.

adopting restrictive approaches that are not explained by the tested economic factors. Thus, although the findings supported the hypothesis, other factors clearly play a role in arbitrator behaviour. Finally, the results should not be taken as evidence of actual bias on the part of any individual or in any specific case.

B. ANTICIPATED ACCENTUATION OF THE EXPANSIVE TENDENCY IN CASES BROUGHT BY CLAIMANTS FROM FRANCE, GERMANY, THE UNITED KINGDOM, OR THE UNITED STATES

1. OVERALL RESULTS

Hypothesis 2 predicted that the anticipated tendency in favour of an expansive approach would be accentuated where the claimant was a national of France, Germany, the United Kingdom, or the United States. These states were identified at the outset as a measure of major Western capital-exporting states. The measure was supplemented by analyses of additional groupings associated with Western capital-exporting interests. The hypothesis related to predictive factors that could influence variances in issue resolutions across cases. The aim of the model was to test the data by controlling for different potential predictors of variances in issue resolutions and by mitigating the risk of overstatement of the significance or effect of any predictor. The fixed effects controlled for were:

- claimant's state of nationality,
- specific issue among the coded issues,

- treaty or treaty type,
- total appointments per arbitrator, and
- total issue resolutions per case.

Accounting for these variables, the model was well suited to the data structure, generating an F (F=13.79, 8, 93) that was significantly lower than the critical F value, with a $p < .001$. Thus, it was safe to reject the null hypothesis on the basis of statistically significant evidence of a relationship between the response variable and all predictor variables or covariates simultaneously. Table 3 outlines the results of the regression analysis.

INSERT TABLE 3 ABOUT HERE.

The data were tested for effect sizes. A commonly used measure of effect size in regression analysis is the R-squared statistic. The R-squared statistic is a goodness-of-fit statistic that can be applied to regression models in order to measure the amounts of the variation in the dependent variable that are being explained by each of the predictor variables. This goodness-of-fit measure is widely used to measure the amount of variance in the dependent variable that can be attributed to individual predictors in regression models. No precise measure of R-squared is available for generalized linear mixed models, but there is a formula for calculating a McFadden pseudo R-squared for generalized linear models.¹⁰¹ The formula generates a pseudo statistic that should be

¹⁰¹ See Shinichi Nakagawa & Innes C Cuthill, “Effect size, confidence interval and statistical significance: a practical guide for biologists” (2007) 82:4 *Biological Rev* 591; A Colin Cameron & Frank AG Windmeijer, “An R-squared measure of goodness of fit for some common nonlinear regression models” (1997) 77:2 *J Econometrics* 329.

treated as an approximation.¹⁰² If there is an error, the pseudo R-squared statistic will tend to underestimate, rather than overestimate, the strength of the association.

For the model as a whole, the McFadden pseudo R-squared was .20, which can be taken as an approximate indicator that the model explains 20% of the variance in the probability of whether an issue resolution is expansive or restrictive. In terms of the individual predictor variables, the changes in the pseudo R-squared were as follows:

- (1) Claimant's state of nationality (primary grouping of France, Germany, the United Kingdom, and the United States): .08
- (2) Specific issue among the coded issues: .08
- (3) Category of treaty or treaty type: .07
- (4) Total appointments per arbitrator: .02
- (5) Total issue resolutions in the case: .02

Thus, using the generalized linear mixed effects model, in 515 issue resolutions over 100 cases there was evidence of a strong tendency in favour of an accentuated expansive approach where the claimant was a national of a Western capital-exporting state. This was most apparent for cases under a BIT or the *ECT*, for four of the coded issues, and for issue resolutions by frequently appointed arbitrators. The evidence was statistically significant in that there was an extremely low risk that the observed variance in issue resolutions was explained by chance. The results are elaborated below.

¹⁰² The statistic is pseudo in that it is an approximation based on a comparison of the log likelihood in the models, which is a measure of the magnitude of the error terms in the estimation.

2. RESULTS BASED ON CLAIMANT NATIONALITY: PRIMARY GROUPING

Hypothesis 2 predicted that the anticipated tendency toward an expansive approach would be accentuated in cases brought by claimants with the nationality of France, Germany, the United Kingdom, and the United States. Based on the relative position of these states as capital-exporters, a detailed expectation was that the accentuated tendency would be strongest for US claimants followed by the other three states. The analysis was organized as follows:

- Group 1A: France
- Group 1B: Germany
- Group 1C: United Kingdom
- Group 1D: United States
- Group 1E: all other states

Overall, the effect of claimant nationality for this grouping was statistically significant ($F=5.78, 5, 93; p<.001$). Table 4 provides the probability of an issue being resolved expansively for each of the five categories of claimant nationality when all other covariates are held steady.

INSERT TABLE 4 ABOUT HERE.

Besides the overall effect, the analysis demonstrated that the country-by-country variances between claimants from France, the United Kingdom, or the United States and claimants from other states were all statistically significant.

The results thus confirmed the detailed expectation that the strongest accentuation of the expansive approach would be for US claimants, followed by the other three states. However, there was limited country-specific data for Germany and France. Of the 100 cases, 30 involved a US claimant,¹⁰³ 9 a UK claimant,¹⁰⁴ 6 a French claimant,¹⁰⁵ and 5 a German claimant.¹⁰⁶ Also, the hypothesis was not supported by the results for Germany. There was no statistically significant difference between German claimants and claimants from other states; moreover, there was an apparent tendency toward a less expansive approach for German claimants although this finding was not statistically significant in that it was accompanied by an unacceptable risk (36%) that the variance was explained by chance.

3. RESULTS BASED ON CLAIMANT NATIONALITY: ADDITIONAL GROUPINGS

¹⁰³ As a descriptive finding, in 30 cases brought by a US claimant, 47 coded issues were resolved expansively or restrictively (leading to 140 distinct issue resolutions by individual arbitrators in those cases). There were 128 expansive resolutions and 12 restrictive resolutions. The cases were spread among 12 respondent states.

¹⁰⁴ As a descriptive finding, in 9 cases brought by a UK claimant, 17 coded issues were resolved expansively or restrictively (leading to 49 distinct issue resolutions by individual arbitrators in those cases). There were 42 expansive resolutions and 7 restrictive resolutions. The cases were spread among 6 respondent states.

¹⁰⁵ As a descriptive finding, in 6 cases brought by a French claimant, 15 coded issues were resolved expansively or restrictively (leading to 45 distinct issue resolutions by individual arbitrators in those cases). There were 36 expansive resolutions and 9 restrictive resolutions. Notably, 5 of the cases were against Argentina; the remaining case was against the Dominican Republic.

¹⁰⁶ As a descriptive finding, in 5 cases brought by a German claimant, 8 coded issues were resolved expansively or restrictively (leading to 24 distinct issue resolutions by individual members of the tribunal in those cases). There were 13 expansive resolutions and 11 restrictive resolutions. The cases were spread among 4 respondent states (Argentina, the Philippines, Russia, and the Ukraine).

The robustness of the findings for the primary grouping was tested by analyzing other groupings of claimant nationalities associated with Western capital-exporting interests.¹⁰⁷ Additional evidence was found of an accentuated tendency toward an expansive approach in cases brought by claimants from the United States; the United States or the United Kingdom; a G-7 state; a Western European former colonial power; and an OECD member state as of 1990 or 2000. The findings for each of these groupings were statistically significant. Similar tendencies were observed for other groupings based on United Nations geographic classifications and World Bank income classifications, but the findings were not statistically significant. A detailed report of the further analyses is provided in Table 5.

INSERT TABLE 5 ABOUT HERE.

The analyses for these other groupings supported the finding on the primary grouping. That is, they supported the expectation that claimants from Western capital-exporting states would tend to benefit from an accentuated expansive approach to the resolution of the coded issues.

4. RESULTS BASED ON THE SPECIFIC ISSUE

A fixed effect, controlled for in the model, was the specific issue among the seven that were coded. There was a variation in the tendency toward expansive or restrictive approaches depending on the specific issue. The variations among the issues had a statistically significant effect on issue resolutions ($F=14.19, 6, 208, p<.001$). The size of this effect was .08, meaning as a best estimate that issue-by-issue variation accounted for 8% of the overall variance in

¹⁰⁷ These analyses did not flow from any detailed country-specific expectations.

expansive or restrictive interpretations. The finding highlighted the importance of focusing on the five coded issues for which there was sufficient data in the comparison of issue-by-issue tendencies. It also indicated that both the general tendency toward expansive resolutions and the accentuated tendency based on claimant nationality were driven by four issues. Figure 2 outlines the issue-by-issue results across the 100 cases.

INSERT FIGURE 2 ABOUT HERE.

For two issues, natural person investor and permissibility of investment, there were limited data. For one issue, scope of most-favoured-nation treatment, arbitrators were divided between expansive and restrictive resolutions. For the remaining four issues, there was a strong tendency toward an expansive approach. It should be emphasized that these issue-by-issue results are descriptive findings. Only the overall tendency for all issues was the subject of focused analysis in the statistical model. There were no expectations about how frequently each of the issues would arise and be resolved expansively or restrictively.

5. RESULTS BASED ON TREATY/ TREATY TYPE

The model included an examination of possible variances in issue resolutions among three different treaties/ treaty types: BITs, the *ECT*, and *NAFTA*. The analysis revealed that variations in the treaty/ treaty type had a statistically significant effect on the variance in issue resolutions ($F=10.79, 2,95, p<.001$) with an effect size of 7%. Issues in cases under *NAFTA* had the lowest probability of being resolved expansively and this was a statistically significant difference

relative to cases under BITs and the *ECT*. On the other hand, there were no statistically significant differences between BITs and the *ECT*.

Table 6 outlines the log-odds of the effects of the different categories of treaty or treaty type.

INSERT TABLE 6 ABOUT HERE

Figure 3 illustrates the probability of an expansive resolution for each treaty or treaty type when all other covariates are held constant.

INSERT FIGURE 3 ABOUT HERE.

These results indicate that the resolution of issues under *NAFTA* appears to have a distinct trajectory. Although the data were limited for *NAFTA* and *ECT* cases,¹⁰⁸ issues were less likely to be resolved expansively under *NAFTA*. The observed tendencies for Hypotheses 1 and 2 were driven by BITs and the *ECT*.

6. RESULTS BASED ON TOTAL APPOINTMENTS PER ARBITRATOR

The model included an analysis of the impact of the frequency of appointment of arbitrators on variance in issue resolutions. This variable was added to the model after the data were collected and it was noticed that the 24 individual arbitrators who had each resolved more than five issues

¹⁰⁸ There were 419 resolutions in cases under BITs, 39 in cases under *NAFTA*, and 48 in cases under the *ECT*.

were as a group responsible for nearly half of total issue resolutions.¹⁰⁹ To evaluate this potential predictor, the variable of total count of appointments per arbitrator was added to the model. The analysis revealed statistically significant evidence that frequently appointed arbitrators were more likely to resolve issues expansively ($F=4.41, 1, 194, p=.03$). However, the effect size of .02 was small relative to other variables, indicating as a best estimate that 2% of the variance in issue resolutions was explained by this variable. Thus, while the variable contributed to the overall model on a statistically significant basis, it was not important relative to other variables as a predictor of variance in issue resolutions.

7. RESULTS BASED ON TOTAL ISSUE RESOLUTIONS PER CASE

The unit of analysis was issues, not cases or arbitrators. This allowed an examination of resolutions by arbitrators of a variety of issues in investment treaty law.¹¹⁰ However, it was anticipated that this approach could give greater weight to cases in which multiple issues and skew possibly the tendency toward an expansive or restrictive approach. To test for this, the variable of total issue resolutions per case was included in the model as a fixed effect. The variable was statistically significant ($p=.05$), so it was important to include it as a control variable. The change in the pseudo R-squared that was accounted for by this variable was .02, indicating that the total number of issue resolutions per case accounted for about 2% of the variance in issue resolutions. The general tendency was that, as the total issue resolutions increased per case, so did the likelihood that the issues would be resolved expansively. However,

¹⁰⁹ Recent studies have also examined aspects of the role of frequently appointed or “elite” investment arbitrators in arbitrator behaviour. See Kapeliuk, *supra* note 20 at 68 and 88-89; Costa, *supra* note 1.

¹¹⁰ See Shapiro, *supra* note 56 at 97-100.

the effect size of .02 was small relative to other variables in the model. Thus, it was not important as an isolated predictor of variance in issue resolutions.

8. DISCUSSION OF RESULTS FOR HYPOTHESIS 2

The findings supported the expectation that arbitrators would resolve issues differently where the claimant was a national of a Western capital-exporting state. Issue resolutions in cases brought by claimants from France, Germany, the United Kingdom, and the United States, as a group that was expected to benefit from a systemic bias, were 84% more likely to be resolved expansively. This finding was supported by analyses of other groupings associated with Western capital-exporting interests. The tendency was statistically significant with a modest effect size among the individual variables that contributed to an overall strong effect. Thus, the strongest finding was that claimants from major Western capital-exporting states who bring claims under a BIT or the *ECT* (as opposed to *NAFTA*) that raise four of the coded issues, before frequently appointed arbitrators, are more likely to benefit from an expansive approach. By extension, it can be inferred that a respondent state, although at a disadvantage on such issues relative to investors generally, is more likely to benefit from a restrictive approach where the claimant has the nationality of a state other than a major Western capital-exporter, where the claim is under *NAFTA*, and where the arbitrators are not frequently appointed.

Although the findings confirmed the hypothesis, there are a range of possible explanations for this tendency and further inferences are necessary to connect it to underlying rationales. The findings also do not provide evidence of actual bias on the part of any individual or in any

particular case; the observed tendencies were at a systemic level and were limited to issues of jurisdiction and admissibility. Also, although based on limited data, the experience of German claimants provided an apparent exception to the anticipated tendency. On the other hand, the results for other groupings confirmed that the tendency is not limited to the experience of claimants from the United Kingdom, the United States, and France.

The author did not have any preconception about whether the relevant hypothesis would be supported, other than an expectation that there would be insufficient data to support statistically significant findings. The results were therefore surprising. Observers might anticipate that the resolution of contested issues in investment treaty law, arising from ambiguous language in the treaties, does not vary significantly based on claimant nationality. This is a basic proposition of neutrality and impartiality in adjudication. In this respect, the findings spotlight the question of whether the apparent interests of arbitrators to appease major states and their investors may help to explain these results. However, while a series of economic factors provided rationales for the study's hypotheses, they are not the only possible explanation. Alternative explanations may include: factual or contextual variations that encourage arbitrators to bend the law in order to assume or decline jurisdiction depending on claimant nationality; ideological preferences that cause arbitrators to be more dubious of the legal arguments of non-Western or capital-importing states and their nationals; variations in the quality of legal representation or the wisdom of appointment decisions among different claimant nationalities; variations in the degree to which specific cases influence interpretations adopted in subsequent cases; disproportionate influence by a small cohort of frequently appointed arbitrators who are represented on many tribunals;

structural factors such as the role of appointing authorities in choosing arbitrators; or a complex and varying mix of these and other possible explanations.¹¹¹

Thus, the study is tentative and conditional. Yet, whatever the explanation for the results, the fact that the observed tendencies exist in the coded data and are unlikely to be explained by chance invites further discussion. The results also give cause for consideration by policy makers about the purpose of investment treaties and the degree to which investment arbitration allows for fair and adequate representation of different interests. Most importantly, the findings highlight the prospect that perceptions of bias, based on discrete but essential aspects of arbitrator decision making, may arise in the absence of conventional safeguards of judicial independence in the final resolution of individual claims against the state.

C. ANTICIPATED REDUCTION OF THE EXPANSIVE TENDENCY IN CASES AGAINST FRANCE, GERMANY, THE UNITED KINGDOM, OR THE UNITED STATES

Hypothesis 3 was that the anticipated tendency in favour of an expansive approach would be diminished where the respondent state was France, Germany, the United, or the United States. Due to limited data, the analysis did not demonstrate any statistically significant patterns or any effect size of interest for this hypothesis. There were no cases against France, Germany, or the United Kingdom and only a small number of issue resolutions in cases against the United

¹¹¹ See Sisk & Heise, *supra* note 10 at 746; Wagner & Petherbridge, *supra* note 41 at 1129; Rogers, “The Arrival,” *supra* note 24 at 357-58; Choi & Gulati, *supra* note 18 at 739; Fauchald, *supra* note 37 at 337-38; Kapeliuk, *supra* note 20 at 68-69; Leiter, *supra* note 14 at 277-78.

States.¹¹² It was thus not possible to test the hypothesis reliably. Supplementary analyses based on other groupings were not carried out due to the lack of data.

D. SUPPLEMENTARY ANALYSIS OF CASE OUTCOMES AT THE JURISDICTIONAL STAGE

In light of past studies on case outcomes,¹¹³ the data were analyzed against jurisdictional outcomes in each case. To what extent was the jurisdictional outcome of the case associated with any of the explanatory variables explored in the study? The only finding of note on this question was the descriptive finding that there was a clear tendency toward tribunals assuming jurisdiction in the 100 cases analyzed. However, the tendency was not explained on a statistically significant basis by any of the variables explored in the model. In general, this was due to the lack of data; the small number of cases in which jurisdiction was denied meant that it was not possible to partition the variance in outcomes in a meaningful way. This confirmed the results of earlier studies in which the lack of data frustrated efforts to test hypotheses by analyzing case outcomes.

IV. CONCLUSION

The study was based on a content analysis of arbitrators' resolutions of contested issues of jurisdiction and admissibility in investment treaty law. The method of content analysis was used

¹¹² As a descriptive finding, in 3 cases brought against the United States 5 coded issues were resolved expansively or restrictively (leading to 15 distinct issue resolutions by individual arbitrators in those cases). All of the resolutions were restrictive.

¹¹³ See Dezalay & Garth, *supra* note 30; Fauchald, *supra* note 37; McArthur & Ormachea, *supra* note 37; Franck, "Development and Outcomes," *supra* note 37; Franck, "The ICSID Effect," *supra* note 37; Kapeliuk, *supra* note 20; Gallagher & Shrestha, *supra* note 37; Costa, *supra* note 1.

in part to avoid limitations in outcome-based research. A benefit of content analysis, from the perspective of legal scholarship, is that it assigns a greater value-added role for legal expertise alongside statistical expertise.¹¹⁴ On the other hand, content analysis is complex and relies for its validity on the replicability of the coding process and transparency of the coded results. Analysis of data on arbitrator decision-making provides one way in which to research arbitrator behaviour, but should be assessed in tandem with other methods, including qualitative methods, theoretical and doctrinal study, and comparative institutional analysis.

Read alongside other studies in the field, the study highlights that the results of empirical research on possible bias will vary according to the questions asked, methods used, project designed, and inferences drawn. Given the diversity of approaches, it is not surprising that there is mixed (often inconclusive) evidence regarding possible bias in investment arbitration. This study contributes to the literature by its choice of method and by its findings of statistically significant evidence in support of specific hypotheses. There was strong support for the anticipated tendency toward an expansive approach in the resolution of contested issues of jurisdiction and admissibility and for the expected accentuation of this tendency for claimants from France, Germany, the United Kingdom, or the United States. The experience of German claimants, based on limited data, was a possible exception. The overall finding was supported by analyses of other groupings of Western capital-exporting states, such as G-7 members, Western European former colonial powers, and OECD members. The evidence was strongest for cases under a BIT or the *ECT*, for four of the coded issues, and for frequently appointed arbitrators.

¹¹⁴ See Hall & Wright, *supra* note 7 at 64.

The study is subject to limitations as summarized in the introduction and elaborated in the text. Briefly, empirical legal methods have much to contribute in the collection and analysis of data on adjudicative decision making, but their capacity to resolve questions of possible bias is inherently limited. Empirical research cannot resolve issues of possible bias in any particular case and, even at a systemic level, any empirical project should be understood as an attempt not to prove or disprove possible bias, but rather to falsify discrete expectations arising from aspects of a decision-making mechanism.¹¹⁵ There will always be a range of possible explanations for observed tendencies and this study is not—nor is there likely ever to be—a final word on whether there is systemic bias in the system.¹¹⁶

What is clear from the study is that the observed tendencies on the resolution of jurisdictional issues exist in the coded data and are unlikely to be explained by chance. The main conclusions drawn from this, based on the author's inferences, are as follows. First, in the context of arbitrator resolutions of contested jurisdictional issues, there is tentative support for expectations of systemic bias arising from the interests of arbitrators in light of the system's asymmetrical claims structure and the absence of conventional markers of judicial independence. Second, the results of this study suggest a need for further scrutiny and evaluation of the design and performance of investment treaty arbitration. Third, based on legal doctrine and comparative institutional analysis, there is reason to take a cautious approach to the risk of actual bias in an adjudicative system of public importance by adopting institutional safeguards to reduce any reasonably perceived bias arising from the system's structure or performance.

¹¹⁵ See Lempert, *supra* note 10 at 916.

¹¹⁶ See Sisk & Heise, *supra* note 10 at 794.

Appendix One

Summary of existing empirical studies related to the research question

A key work in the literature is the qualitative study of international arbitration by Dezalay and Garth based on interviews of about 300 participants in the field. The authors made a series of observations that provide context for the expectations of systemic bias that are tested here.¹¹⁷ Their main conclusion was that arbitrators operate in a marketplace in which each is a supplier of symbolic capital arising from his or her reputation.¹¹⁸ It was also observed that the arbitrators, especially the new generation of entrepreneurs, seek to appeal to those who have power in the club and marketplace of international arbitration. The study provides useful background for expectations about arbitrator behaviour where arbitration incorporates an asymmetrical structure of claims in the absence of conventional markers of independence.¹¹⁹ However, the study is dated and does not necessarily explain the behaviour of investment treaty arbitrators.

In an innovative study, Fauchald reviewed awards in 92 ICSID cases in order to evaluate tribunals' interpretive arguments.¹²⁰ The study was presented appropriately in descriptive terms and offered insights into the extent and style of different forms of legal reasoning. The study was not framed in terms of any expectation of possible bias; however, for present purposes, by systematically tracking the different interpretive approaches of tribunal, it demonstrated the interpretive discretion of tribunals in the resolution of legal issues. For example, among other findings, Fauchald found that tribunals preferred an objective approach to treaty interpretation but in practice often did not closely examine the exact wording of relevant provisions; that tribunals referred to the object and purpose of a treaty but often did not refer to specific sources for that object and purpose; that tribunals relied heavily on other ICSID case law but often deviated from previous case law; and that tribunals regarded legal doctrine—writings by experts in investment law, many of whom are themselves arbitrators—as one of the most important interpretive arguments.

In a quantitative study of 74 investment arbitration cases at the ICSID, McArthur and Ormachea collected information on jurisdictional outcomes, although their findings were not tested statistically.¹²¹ They highlighted (highly tentative) findings that tribunals rarely dismissed claims on jurisdictional grounds, were more likely to dismiss claims on jurisdictional grounds where the claim was brought under an investment contract rather than an investment treaty, and were less likely to dismiss claims by investors from the wealthiest countries. These and other results of the study were presented, appropriately, in descriptive terms. To the extent that the authors drifted into predictive claims,¹²² the conclusions should be discounted due to the lack of an *a priori* hypothesis and any statistical testing of the data.

¹¹⁷ *Supra* note 30.

¹¹⁸ *Ibid* at 8-9, 18, 36, 70, 194.

¹¹⁹ Cooter, *supra* note 18; Shimon Shetreet, *Judges on Trial*, ed by Gordon J Borrie (Amsterdam: North Holland, 1976).

¹²⁰ *Supra* note 37.

¹²¹ *Supra* note 37.

¹²² *Ibid*. See, for example, the statements in the study's conclusion that the results indicated "that investors are always better off relying on a BIT to establish jurisdiction" (at 582) and that "claims are most likely to fail against

In a study of 52 investment treaty cases, Franck provided useful information on the system.¹²³ Based on findings that there was no statistically significant evidence of a link between case outcomes and the development status of presiding arbitrators and respondent states, Franck concluded that the system appeared to be functioning fairly. The study was rigorous in various respects and its results were tested for significance and effects. However, some conclusions were misstated or overstated given that the study did not reject the null hypothesis that development status would affect outcome.¹²⁴ Put differently, the study did not produce reliable evidence to support or refute expectations of possible bias based on development status.¹²⁵ Notably, in a recent study using the same dataset, Franck did not find statistically significant evidence of a difference in outcomes in ICSID investment arbitrations relative to outcomes at other arbitration forums.¹²⁶ While the study is in some respects used by the researcher to arrive at broad conclusions, it appears mainly to confirm the lack of data in the field and should not be taken to have generated reliable evidence on the presence or absence of possible bias in ICSID arbitration relative to other forums.

In a study of 131 ICSID cases, Kapeliuk provided useful descriptive information about the system, although the data was not tested for significance or effects.¹²⁷ It was found that 15% of arbitrators served on four or more ICSID tribunals and that at least one of these “elite” arbitrators participated in 80% of cases. In terms of outcomes, arbitrators were very unlikely to ‘split the difference’ by awarding 40% to 60% of the amount claimed. Most awards dismissed the investor’s claim and over 80% of decisions (in favour of the claimant) awarded less than 40% of the claimed amount. The study found no apparent differences in decision making on outcomes by elite as opposed to other arbitrators. However, the study did not report any hypothesis, and given the limited data,¹²⁸ the findings likely carry an unacceptable risk that they are explained by chance. For this reason, the findings should be treated as descriptive and tentative, and bold or predictive claims by the researcher should be discounted accordingly.¹²⁹

those very same countries where an investor had the best reasons to demand international arbitration protections” (at 583).

¹²³ “Development and Outcomes,” *supra* note 37. See also Susan D Franck, “Empirically Evaluating Claims About Investment Treaty Arbitration” (2007) 86:1 NCL Rev 1.

¹²⁴ “Development and Outcomes,” *ibid*. The study’s abstract notes that:

[t]he results demonstrate that, at the macro level, development status does not have a statistically significant relationship with outcome. This suggests that the investment treaty arbitration system, as a whole, functions fairly and that the eradication or radical overhaul of the arbitration process is unnecessary (at 435).

Further, the study concludes with a statement that:

[t]he notion that outcome is not associated with arbitrator or respondent development status... provides evidence about the integrity of arbitration and casts doubt on the assumption that arbitrators from developed states show a bias in terms of arbitration outcomes or that the development status of respondent states affect[s] such outcomes (at 487).

¹²⁵ The study sought to test expectations of bias linked to development status by classifying arbitrator nationalities and respondent states based on the measures of OECD membership and World Bank income classifications.

¹²⁶ “The ICSID Effect,” *supra* note 37.

¹²⁷ *Supra* note 20.

¹²⁸ *Ibid* at 86-88 (by way of example, the discussion of awards by individual arbitrators).

¹²⁹ *Ibid*. The study’s abstract notes that “[t]he research shows that repeat arbitrators display no biases and no tendencies to ‘split the difference’” (at 47), and in the conclusion the author states that the results “clearly defy any claim that investment arbitration tribunals display a tendency to rule in favour of investors” (at 90).

In a study of 105 investment treaty cases, Gallagher and Shrestha offered descriptive information based on analysis of claims and case outcomes.¹³⁰ They found that developing countries were disproportionately subjected to claims in raw terms and relative to their share of global investment flows. They found also that US claimants brought a high proportion of claims against developing countries, that US claimants lost more cases than they won, and that the US government won all cases as respondent. The researchers noted the limited nature of the data and outlined their findings appropriately in descriptive terms. They also noted that there are many investor-state disputes that do not proceed to formal arbitration and that are not captured by the quantitative research.

Finally, in a comparative study of ICSID arbitration and WTO dispute settlement, Costa collected information on 273 individuals who served as ICSID arbitrators and on 212 individual who served as WTO panelists from 1972–2009.¹³¹ He found that repeat appointments were much more common, and that a small group of elite arbitrators played a more central role, in ICSID arbitration. Thus, 12 individuals accounted for nearly 25% of all appointments in ICSID cases and were present on the ICSID tribunal in 60% of cases. The study provided an interesting, if highly targeted, update to the qualitative work of Dezalay and Garth,¹³² and, based on the same theoretical framework, the researcher highlighted the system’s need for individuals “who can provide technically correct decisions and the special aura given by sanctified arbitrators” for the legitimization of investment arbitration on a case-by-case basis.¹³³

¹³⁰ *Supra* note 37.

¹³¹ *Supra* note 1.

¹³² *Supra* note 30.

¹³³ Costa, *supra* note 1 at 16.

Appendix Two

Investment treaty arbitration coding project – issues classification template (June 2009)

<i>Issue 1: “corporate person investor” – expansive approach</i> ¹³⁴	<i>Issue 1: “corporate person investor” – restrictive approach</i> ¹³⁵
<p>Flexible approach to claims by holding companies, indicated by:</p> <p>(a) flexible approach to claims by foreign holding companies, including:</p> <ol style="list-style-type: none"> (1) prioritization of corporate form over control of the investment vehicle or rejection of an implied origin-of-capital test; (2) allowance of a claim by a foreign company that is owned and likely controlled by nationals of the host state; and (3) allowance of a claim by a shareholder whose investment in the host state is owned by an intermediary company of a third state. <p>Note: Allowance of a claim by a foreign company or natural person whose ownership of the investment extends through a chain of companies running from the host state to the home state, but does not extend into any third state or end in the host state, does <i>not</i> qualify as an expansive approach.</p> <p>Note: An award is non-classifiable where the issue is dealt with expressly and specifically in the text of the relevant investment treaty and this forms the basis of the</p>	<p>Restrictive approach to claims by holding companies, indicated by:</p> <p>(a) restrictive approach to claims by foreign holding companies, including:</p> <ol style="list-style-type: none"> (1) flexible use of veil-piercing or of an indirect control test or of a substantial connection text in order to preclude jurisdiction/ admissibility; (2) refusal of a claim by a foreign company that is owned and likely controlled by nationals of the host state; and (3) refusal of a claim by a shareholder whose investment in the host state is owned by an intermediary company of a third state. <p>Note: Refusal of a claim by a foreign company or natural person whose ownership of the investment extends through a chain of companies running from the host state to the home state, even where it does not extend into any third state or end in the host state, nevertheless <i>does</i> qualify as a restrictive approach.</p> <p>Note: An award is non-classifiable where the issue is dealt with expressly and specifically in the text of the relevant investment treaty and this forms the basis of the</p>

¹³⁴ Modeled on (1) *Tokios Tokelès v Ukraine* (2004), 20 ICSID Rev 205 (International Centre for Settlement of Investment Disputes) [*Tokios*] (majority reasons on jurisdiction, which allowed a claim by a foreign company that was 98 per cent owned by nationals of the respondent state, thus favouring corporate form over substantive control of the investment vehicle, denying an implied origin-of-capital test, and refusing to pierce the corporate veil); (2) *Agua del Tunari SA v Republic of Bolivia* (2005), 20 ICSID Rev 450 (International Centre for Settlement of Investment Disputes) [*Agua*] (majority reasons on jurisdiction, which allowed a claim by a foreign holding company despite the recent migration of the investment by the ultimate owners to a Dutch holding company after a dispute with the host government was developing, thus preferencing the principle of legal rather than factual control by the corporate claimant); and (3) *Société Générale v Dominican Republic* (2008), LCIA Case No UN 7927 (London Court of International Arbitration) (which allowed a claim despite a byzantine corporate structure whereby the corporate claimant was several steps removed from first-level foreign investor). See also Campbell McLachlan, Laurence Shore & Matthew Weiniger, *International Investment Arbitration – Substantive Principles* (Oxford: Oxford University Press, 2008) at 191-93.

¹³⁵ Modeled on (1) *Tokios*, *ibid* (minority reasons on jurisdiction, which adopted a flexible approach to veil-piercing under the *ICSID Convention* where the claim was brought in effect by nationals of the respondent state, in spite of the absence of an express origin-of-capital test in the BIT); (2) *Agua*, *ibid* (minority reasons on jurisdiction, which refused to allow a claim based on a flexible approach to indirect control in the context of recent corporate restructuring that was likely influenced by the prospect of BIT claim); and (3) *Loewen Group Inc and Raymond L Loewen v United States of America* (2003), 42 ILM 811 (International Centre for Settlement of Investment Disputes) [*Loewen*] (which adopted a strict requirement the investor to maintain continuous foreign nationality until final resolution of claim and which, according to *Tokios* majority, in effect lifted the corporate veil in order to look behind the claimant’s corporate holding vehicle).

<p>tribunal’s reasoning. On the present issue, a treaty does not satisfy this threshold unless it expressly and specifically allows claims by foreign holding companies regardless of their ultimate ownership and control. A treaty that refers generally to “direct and indirect” ownership of the investment does not satisfy this threshold.</p> <p>Note: A tribunal’s reasoning on minority shareholder claims and interests may relate to the issue of ‘corporate person investor’ and to that of ‘minority shareholder interest’ (see below). A degree of coding overlap may therefore be unavoidable, leading in some cases to entry of an award under both issues. That said, a distinction should be maintained between these issues, where possible, on the basis that the reasoning will relate to (1) the issue of ‘corporate person investor’ where the claim involves the use of a holding company, whether or not by a minority shareholder, so as to facilitate a claim where it might not otherwise be possible, or (2) the issue of ‘minority shareholder interest’ where the claim has been brought by a minority shareholder of the domestic investment, thus necessarily raising the issue of the nature and scope of the claimant’s interest as a minority shareholder.</p>	<p>tribunal’s reasoning. On the present issue, a treaty does not satisfy this threshold unless it expressly and specifically precludes claims by foreign holding companies on the basis of their particular ownership and control or it expressly and specifically provides for application of the relevant test outlined in (1) above.</p>
<p><i>Issue 2: “natural person investor” – expansive approach</i>¹³⁶</p>	<p><i>Issue 2: “natural person investor” – restrictive approach</i>¹³⁷</p>
<p>Flexible approach to claims by natural persons, indicated by:</p> <p>(a) allowance of claim against the only state of which the claimant is a citizen;</p> <p>OR</p> <p>(b) allowance of claim against a state of which the claimant is a citizen without conformation that the citizenship upon which the claim is based is dominant and effective;</p>	<p>Strict approach to claims by natural persons, indicated by:</p> <p>(a) refusal of claim against the only state of which the claimant is a citizen;</p> <p>OR</p> <p>(b) refusal of claim against a state of which the claimant is a citizen following confirmation that the citizenship upon which the claim is based is not dominant and effective;</p>

¹³⁶ Modeled on (1) *Waguih Elie George Siag and Clorinda Vecchi v The Arab Republic of Egypt* (2007), ICSID Case No ARB/05/5 (International Centre for the Settlement of Investment Disputes) (which allowed claim to proceed even though claimant used Egyptian nationality to make the investment); and (2) *Bayview Irrigation District et al v United Mexican States* (2007), ICSID Case No ARB(AF)/05/1 (International Centre for the Settlement of Investment Disputes) (in which the respondent state submitted that some of the claimants were Mexican nationals). See also *Nottebohm Case (Liechtenstein v Guatemala) Second Phase*, Order of 6 April 1955, [1955] ICJ Rep 4.

¹³⁷ Modeled on (1) *Hussein Nuaman Soufraki v United Arab Emirates* (2004), 17 WTAM 129 (International Centre for Settlement of Investment Disputes) (which refused jurisdiction on the basis that claimant was not shown to be a national of the home state, or that this nationality was not the claimant’s dominant and effective nationality, at the time of the claim); and (2) *Loewen, supra* note 135 (which required the claimant to maintain continuous foreign nationality from origin of dispute until the conclusion (rather than the initiation) of an international claim). See also Anthony C Sinclair, “Nationality Requirements for Investors in ICSID Arbitration: The Award in *Soufraki v. The United Arab Emirates*” (2004) online: Investment Treaty Arbitration <<http://italaw.com/documents/CommentonSoufraki.pdf>>.

<p>OR</p> <p>(c) allowance of claim based on a flexible application of the requirement for foreign nationality as customarily applied to natural persons.</p> <p>Note: An award is non-classifiable where the issue is dealt with expressly and specifically in the text of the relevant investment treaty and this forms the basis of the tribunal’s reasoning.</p>	<p>OR</p> <p>(c) refusal of claim based on a strict application of the requirement for foreign nationality as customarily applied to natural persons.</p> <p>Note: An award is non-classifiable where the issue is dealt with expressly and specifically in the text of the relevant investment treaty and this forms the basis of the tribunal’s reasoning.</p>
<p><i>Issue 3: “concept of investment” – expansive approach</i>¹³⁸</p>	<p><i>Issue 3: “concept of investment” – restrictive approach</i>¹³⁹</p>
<p>Flexible approach to the concept of ‘investment’, indicated by:</p> <p>(a) where a claim is under the ICSID Convention, non-application of the <i>Fedax</i> criteria, including by focusing primarily on the definition of investment in the BIT or other investment treaty (also known as subjective theory of investment under ICSID);</p> <p>OR</p> <p>(b) where the claim is under the ICSID Convention, liberal application of the <i>Fedax</i> criteria to include as “investment” any activities that are stand-alone and that go beyond conventional FDI project activities, in line with “the liberal movement, favourable to an extension of the jurisdiction of ICSID tribunals to every kind of economic rights”,¹⁴⁰</p> <p>OR</p>	<p>Restrictive approach to the concept of ‘investment’, indicated by:</p> <p>(a) where a claim is under the ICSID Convention, strict application of the <i>Fedax</i> criteria (i.e. rejection of subjective theory focusing primarily on the definition of investment in the BIT or other investment treaty) to limit “investment” to conventional FDI project activities or otherwise to deny claim;</p> <p>OR</p> <p>(b) whether or not the claim is under the ICSID Convention, adoption of a requirement for an actual transfer of capital into the respondent state as a feature of investment;</p> <p>OR</p> <p>(c) whether or not the claim is under the ICSID</p>

¹³⁸ Modeled on (1) *MTD Equity Sdn Bhd v Republic of Chile* (2004), 44 ILM 91 (International Centre for Settlement of Investment Disputes) [MTD] (which rejected the *Fedax* requirement that an investment, to qualify under *ICSID Convention*, must contribute to the host economy and further rejected any requirement for a transfer of capital into the respondent state in association with an investment); and (2) *Salini Costruttori SpA and Italstrade SpA v Kingdom of Morocco* (2001), 42 ILM 609 (International Centre for Settlement of Investment Disputes) (which adopted a flexible application of the *Fedax* criteria regarding a construction contract that lacked a long term contribution to respondent state economy). See also Farouk Yala, “The Notion of ‘Investment’ in ICSID Case Law: A Drifting Jurisdictional Requirement?” (2005) 22:2 J Int’l Arb 105 at 106, 110; Martin Hunter & Alexei Barbuk, “Reflections on the Definition of an Investment” in Gerald Aksen et al, eds, *Global reflections on international law, commerce and dispute resolution: Liber Amicorum in Honor of Robert Briner* (Paris: International Chamber of Commerce, 2005) 381 at 383.

¹³⁹ Modeled on (1) *Malaysian Historical Salvors Sdn, Bhd v Malaysia* (2007), ICSID Case No ARB/05/10 (International Centre for Settlement of Investment Disputes) (which denied jurisdiction based on the application of *Fedax* criterion that investment must contribute to the host economy); and (2) *Joy Mining Machinery Ltd v Arab Republic of Egypt* (2004), 44 ILM 73 (International Centre for Settlement of Investment Disputes) (which denied jurisdiction on basis that performance guarantees given by the claimant to an Egyptian state entity were sales contracts on normal commercial terms that did not rise to the level of investment activity). See also Yulia Andreeva, “The Tribunal in *Malaysian Historical Salvors v. Malaysia* Adopts a Restrictive Interpretation of the Term ‘Investment’” (2008) 25:4 J Int’l Arb 503.

¹⁴⁰ Yala, *supra* note 139 at 108.

<p>(c) whether or not the claim is under the ICSID Convention, rejection of the requirement for an actual transfer of capital into the respondent state as a feature of investment (unless there are extenuating circumstances such as corrupt practices that block an investor from doing so);</p> <p>OR</p> <p>(d) whether or not the claim is under the ICSID Convention, inclusion of non-traditional categories of ownership within the concept of “investment”, <i>e.g.</i>, ownership of a sales office, market share, or corporate governance rights in a contract, where the asset is not part of conventional FDI project activities.</p> <p>Note: An award is non-classifiable where the issue is dealt with expressly and specifically in the text of the relevant investment treaty and this forms the basis of the tribunal’s reasoning. On the present issue, a treaty that expressly and clearly incorporates the relevant asset that is included by the tribunal as part of a non-traditional conception of ‘investment’ will satisfy this threshold unless the claim is an ICSID claim and either (a) or (b) above apply.</p>	<p>convention, exclusion of non-traditional categories of ownership where not linked directly to conventional FDI project activities.</p> <p>Note: An award is non-classifiable where the issue is dealt with expressly and specifically in the text of the relevant investment treaty and this forms the basis of the tribunal’s reasoning.</p>
<p><i>Issue 4: “minority shareholder interest” – expansive approach</i>¹⁴¹</p>	<p><i>Issue 4: “minority shareholder interest” – restrictive approach</i>¹⁴²</p>
<p>Flexible approach to claims by minority shareholders, indicated by:</p> <p>(a) allowance of claim by a minority shareholder without limiting the claim to the shareholder’s interest in the value and disposition of the shares (as opposed to interests of the domestic firm as a whole);</p> <p>OR</p> <p>(b) allowance of claim by a minority shareholder where the treaty does not clearly and specifically allow it.</p> <p>Note: An award is non-classifiable where the issue is dealt with expressly and specifically in the text of the relevant investment treaty and this forms the basis of the tribunal’s reasoning. On (b) above, most treaties allow</p>	<p>Narrow approach to claims by minority shareholders, indicated by:</p> <p>(a) limitation of such a claim to the extent of the claimant’s minority shareholder interest in the value and disposition of the shares;</p> <p>OR</p> <p>(a) preclusion of a claim by minority shareholder due to lack of control over the investment (in circumstances where, for example, the treaty does not define investment to include ownership of stock or shares in a domestic company).</p> <p>Note: an award is non-classifiable where the issue is dealt with expressly and specifically in the text of the</p>

¹⁴¹ Modeled on *GAMI Investments, Inc v The Government of the United Mexican States* (2004), 44 ILM 545 (International Centre for Settlement of Investment Disputes) [*GAMI*] (which allowed a claim by a minority shareholder on behalf of the domestic firm rather than on behalf of the shareholder’s interests alone, despite submissions to the contrary by the home state as well as the respondent state). See Stanimir A Alexandrov, “The ‘Baby Boom’ of Treaty-Based Arbitrations and the Jurisdiction of ICSID Tribunals: Shareholders as ‘Investors’ and Jurisdiction *Ratione Temporis*” (2005) 4:1 Law & Prac Int’l Courts & Trib 19 at 33; Christoph Schreuer, “Shareholder Protection in International Investment Law” in Pierre-Marie Dupuy et al, eds, *Common Values in International Law* (Kehl: NP Engel Verlag, 2005) 601 at 608.

¹⁴² Modeled on the position argued by both the home state and the respondent state in *GAMI, ibid.*

expressly and specifically allow claims by minority shareholders by defining investment to include ownership of stock or shares in a domestic company.	relevant investment treaty and this forms the basis of the tribunal's reasoning.
<i>Issue 5: "permissibility of investment" – expansive approach</i> ¹⁴³	<i>Issue 5: "permissibility of investment" – restrictive approach</i> ¹⁴⁴
Flexible approach to approval/ permissibility of "investment," indicated by: (a) Evident onus on state to show that investment was not affirmatively approved or was based on corrupt practices. Note: An award is non-classifiable where the issue is dealt with expressly and specifically in the text of the relevant investment treaty and this forms the basis of the tribunal's reasoning.	Restrictive approach to approval/ permissibility of "investment," indicated by: (a) Evident onus on investor to show that investment was affirmatively approved or was not based on corrupt practices. Note: An award is non-classifiable where the issue is dealt with expressly and specifically in the text of the relevant investment treaty and this forms the basis of the tribunal's reasoning.
<i>Issue 6: "parallel claims" – expansive approach</i> ¹⁴⁵	<i>Issue 6: "parallel claims" – restrictive approach</i> ¹⁴⁶

¹⁴³ Modeled on *Metalclad Corporation v The United Mexican States* (2000), 40 ILM 36 (International Centre for Settlement of Investment Disputes). See also *Mexico v Metalclad Corp*, 2001 BCSC 664, 89 BCLR (3rd) 359 and *TSA Spectrum de Argentina SA v Argentine Republic* (2008), ICSID Case No. ARB/5/5 (International Centre for Settlement of Investment Disputes) (in both of which the respondent state raised objections that the claimant engaged in corrupt activities).

¹⁴⁴ Modeled on (1) *World Duty Free Company Limited v Republic of Kenya* (2006), ICSID Case No ARB/00/7 (International Centre for Settlement of Investment Disputes) (which, although an investment contract case, declined jurisdiction on the basis that the claimant engaged in corrupt practices and did not come to the arbitration with clean hands); and (2) *Yaung Chi Oo Trading Pte Ltd v Government of the Union of Myanmar* (2003), 42 ILM 540 (International Centre for Settlement of Investment Disputes) (which declined jurisdiction on the basis that there was no express subsequent act of approval by the respondent state for pre-existing investments after the relevant treaty was concluded).

¹⁴⁵ Modeled on (1) *MTD, supra* note 139 (which rejected the argument, based on litigation in domestic courts, that a BIT fork-in-road clause barred the claim); (2) *Occidental Petroleum Company v Republic of Ecuador (No 2)* (2008), IIC 337 (International Centre for Settlement of Investment Disputes) (which required an express waiver in an investment contract (that provided for an exclusive dispute settlement forum) of the investor's right to resort to BIT arbitration); (3) *Biwater Gauff (Tanzania) Ltd v United Republic of Tanzania* (2008), IIC 330 (International Centre for Settlement of Investment Disputes) [*Biwater*] (dissenting reasons, which rejected the majority's finding that a dispute over a performance bond should have been resolved via contract arbitration); (4) *Rumeli Telekom AS and Telsim Mobil Telekomikasyon Hizmetleri AS v Republic of Kazakhstan* (2008), IIC 344 (International Centre for Settlement of Investment Disputes) (which found a breach of fair and equitable treatment based on the respondent state's termination of the contract without notice and its suspension of the contract to address alleged breaches on the part of the claimant, without a requirement for the claimant to resort to the contractually agreed forum for dispute settlement); and (5) *CME Republic BV v The Czech Republic* (2001), 14 WTAM 288 (United Nations Commission on International Trade Law) (which adopted a flexible approach to parallel BIT claims based on a strict approach to the doctrine of *lis pendens*). See also Christer Söderlund, "Lis Pendens, Res Judicata and the Issue of Parallel Judicial Proceedings" (2005) 22 J Int'l Arb 301; Bernardo M Cremades & Ignacio Madalena, "Parallel Proceedings in International Arbitration" (2008) 24 Arb Int'l 507 at 516, 522); Gilles Cuniberti, "Parallel Litigation and Foreign Investment Dispute Settlement" (2006) 21 ICSID Rev 381.

¹⁴⁶ Modeled on (1) *Loewen, supra* note 135 (which incorporated an implied obligation to resort to local remedies as a component of the minimum standard of treatment in the context of a judicial decision); (2) *Generation Ukraine, Inc v Ukraine* (2003), 44 ILM 404 (International Centre for Settlement of Investment Disputes) (which incorporated an implied obligation to resort to local remedies based on the conclusion that, for an investor to establish that conduct by the state is tantamount to expropriation, the investor must have made reasonable efforts to obtain a correction domestically); (3) *Biwater, ibid* (majority reasons, which found that a dispute over a performance bond should have been resolved via contract arbitration); and (4) *Azinian (Robert) et al v United Mexican States* (1999), 39 ILM 537 (International Centre for Settlement of Investment Disputes) (which required the claimant, who had

<p>Flexible approach to parallel claims, indicated by:</p> <p>(a) allowance of treaty claim in face of:</p> <ol style="list-style-type: none"> (1) a treaty-based duty to exhaust (or other claim-related condition such as a time-limited duty to pursue) local remedies which has clearly not been satisfied by the claimant, whether or not the claim relates to a contract; (2) a contractually agreed dispute settlement clause that was consented to by the claimant or a closely related company, where the claim appears to relate to a contractual dispute but regardless of whether any claim has been brought in the contractually agreed forum and regardless of whether the treaty claim is based on an umbrella clause; (3) a fork-in-road clause, where the claimant or a closely related company (“closely related” meaning a company owned and likely controlled by the investor) has brought a parallel claim via the relevant ‘path’ of the fork-in-road (<i>i.e.</i>, in a domestic court or a domestic or international tribunal, according to the relevant path of the fork-in-road) and the claim arises from the same underlying factual dispute; and (4) an actual claim pursuant to another treaty, arising from the same factual dispute. <p>Note: Allowance of treaty claims in any of these circumstances will typically be based on the strict application of the <i>lis pendens</i> or <i>res judicata</i> rule, using a civil law-based “triple identity” test to require that (i) the parties, (ii) the cause of action, and (iii) the dispute all be identical before a parallel treaty claim can be stayed.</p>	<p>Restrictive approach to parallel claims, indicated by:</p> <p>(a) refusal or delay (in order to permit resolution of aspects of the dispute in another forum) of a treaty claim in face of:</p> <ol style="list-style-type: none"> (1) a duty to exhaust (or other claim-related condition such as a time-limited duty to pursue) local remedies which has clearly not been satisfied by the claimant, whether or not the claim relates to a contract; (2) a contractually agreed dispute settlement clause, where the claim appears to relate to the contract but regardless of whether or not any claim has been brought in the contractually agreed forum and regardless of whether the treaty claim is based on an umbrella clause; (3) a fork-in-road clause, where the claimant or a closely related company has brought a parallel claim via the relevant path of the fork-in-road and the claim arises from the same underlying factual dispute; and (4) an actual claim pursuant to another treaty, arising from the same factual dispute. <p>Note: Refusal or delay of treaty claims in any of these circumstances may be based on a flexible approach to <i>lis pendens</i> or <i>res judicata</i>, common law doctrines of issue estoppel or <i>forum non conveniens</i>, abuse of process, incorporation of an effective duty to resort to local remedies as a component of a substantive standard, or the rationale that a fork-in-road clause these clause entails a choice by the claimant not only of forum but also of available remedies and causes of action (<i>i.e.</i>, the investor (and closely related companies) can choose to bring either a treaty claim or a claim before a domestic court or a domestic or international tribunal, but not both).</p> <p>Note: An award is non-classifiable where the issue is dealt with expressly and specifically in the text of the relevant investment treaty and this forms the basis of the tribunal’s reasoning.</p>
<p><i>Issue 7: “scope of MFN treatment” – expansive approach</i>¹⁴⁷</p>	<p><i>Issue 7: “scope of MFN treatment” – restrictive approach</i>¹⁴⁸</p>

resorted to local courts, to show denial of justice on the part of local courts). See also McLachlan, Shore & Weiniger, *supra* note 134 at 184-85 and 188-89; Christoph Schreuer, “Calvo’s Grandchildren: The Return of Local Remedies in Investment Arbitration” (2005) 4:1 Law & Prac Int’l Courts & Trib 1.

¹⁴⁷ Modeled on (1) *Maffezini (Emilio Agustín) v Kingdom of Spain* (2000), 124 ILR 9 (International Centre for the Settlement of Investment Disputes); and (2) *Siemens AG v Argentine Republic* (2004), 44 ILM 138 (International Centre for the Settlement of Investment Disputes) (both of which also extended the scope of MFN treatment to dispute settlement provisions of other investment treaties). See also Mara Valenti, “The Most Favoured Nation

<p>Flexible approach to most-favoured-nation (MFN) treatment, indicated by:</p> <p>(a) extension of MFN to non-substantive/ treatment-oriented provisions of other treaties (<i>e.g.</i>, so as to include dispute settlement provisions of other treaties).</p> <p>Note: An award is non-classifiable where the issue is dealt with expressly and specifically in the text of the relevant investment treaty and this forms the basis of the tribunal's reasoning. On the present issue, this threshold is crossed where the treaty states explicitly that the MFN clause either does or does not apply to the dispute settlement (or other non-substantive) provisions in other treaties. If the treaty makes a more general statement, for example that the MFN clause applies to "all matters" or to matters of "treatment" in other treaties, then this does not satisfy this threshold for an express and specific resolution of the issue.</p>	<p>Restrictive approach to most-favoured-nation (MFN) treatment, indicated by:</p> <p>(a) refusal to extend MFN to substantive/ treatment-oriented provisions of other treaties (<i>e.g.</i>, so as to include dispute settlement provisions of other treaties).</p>
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Clause in BITs as a Basis for Jurisdiction in Foreign Investor-Host State Arbitration" (2008) 24:3 Arb Int'l 447; Emmanuel Gaillard, "Establishing Jurisdiction Through a Most-Favoured-Nation Clause" (2005) 233:105 NYLJ.
¹⁴⁸ Modeled on (1) *Plama Consortium Limited v Republic of Bulgaria* (2005), 44 ILM 721 (International Centre for Settlement of Investment Disputes); and (2) *Salini Costruttori SpA and Italstrade SpA v The Hashemite Kingdom of Jordan* (2004), 44 ILM 573 (International Centre for Settlement of Investment Disputes) (both of which declined to extend the scope of MFN treatment to dispute settlement provisions of other treaties, barring clear intention on the part of the states parties). See also McLachlan, Shore & Weiniger, *supra* note 134 at 254-57; Yannick Radi, "The Application of the Most-Favoured-Nation Clause to the Dispute Settlement Provisions of Bilateral Investment Treaties: Domesticating the 'Trojan Horse'" (2007) 18:4 EJIL 757.

Table 1: Inter-Coder Reliability

Coding aspect	Actual inter-coder reliability (%)	Random chance of inter-coder reliability (%)
Coding of whether or not an issue arose (for coding as either expansive or restrictive).	74.7	50
Coding of whether the resolution of an issue was either expansive or restrictive.	98.7	50

Table 2: Classification of Issue Resolutions by Issue

Issue	No. of issue resolutions	Resolution of issue	
		Expansive (%)	Restrictive (%)
1 – corporate person investor	69	81.94	18.06
2 – natural person investor	6	0.00	100.00
3 – concept of investment	116	72.27	27.73
4 – minority shareholder interest	72	92.00	8.00
5 – permissibility of investment	27	66.67	33.33
6 – parallel claims	165	82.74	17.26
7 – scope of MFN treatment	60	50.00	50.00
Cumulative	515	76.09	23.91

Table 3: Regression Results of the Model

Variable	Estimate	Std. error	p-value
<i>Claimant nationality</i>	.59	.52	<.001
<i>Issue</i>	-.68	.16	.003
<i>Treaty/ treaty type</i>	-.06	.62	.01
<i>Total issue resolutions in the case</i>	.42	.21	.05
<i>Arbitrator total appointments</i>	.11	.05	.01

Dependent variable: Issue Resolution

Table 4: Effects of Claimant Nationality (Grouping #1) on the Likelihood of an Expansive Resolution

Claimant nationality	Probability of expansive resolution	Statistical significance
<i>France</i>	.86	p=.005
<i>Germany</i>	.47	p=.38
<i>United Kingdom</i>	.95	p<.001
<i>United States</i>	.98	p<.001
<i>All others</i>	.69	p<.001

Table 5: Results of Analyses of Additional Groupings of Claimant Nationalities

Grouping	Summary of results
<u>Grouping #2</u> Group 2A: US (n=140) Group 2B: all other states (n=375)	The grouping had a statistically significant effect (F=15.43, 2,95, p<.001). Claimants from the US were 91% more likely to benefit from an expansive resolution than claimants from all other states combined.
<u>Grouping #3</u> Group 3A: France, Germany, and UK (n=100) Group 3B: all other states (except US) (n=275)	The grouping had an overall statistically significant effect (F=13.47, 2,95, p<.001). Claimants from a state in Group 3A were 55% more likely to benefit from an expansive resolution than claimants from all other states combined, other than the US.
<u>Grouping #4</u> Group 4A: UK, US (n=189) Group 4B: all other states (n=326)	The grouping had an overall statistically significant effect (F=30.52, 11, p<.001). Claimants from the UK or the US were 90% more likely to benefit from an expansive resolution than claimants from all other states combined.
<u>Grouping #5</u> Group 5A: France, Germany, UK, US (n=258) Group 5B: all other states (n=257)	The grouping had an overall statistically significant effect (F=19.42, 2,95, p<.001). Claimants from a state listed in Group 5A were 84% more likely to benefit from an expansive resolution than claimants from all other states combined.
<u>Grouping #6</u> Group 6A: historical G-7 states (n=297) Group 6B: all other states (n=218)	The grouping had an overall statistically significant effect (F=12.06, 2,95, p<.005). Claimants from a state in Group 6A were 22% more likely to benefit from an expansive resolution than claimants from all other states combined. Notably, there were no cases in Group 6A involving a claimant from Japan.
<u>Grouping #7</u> Group 7A: Western European former colonial powers (n=187) Group 7B: all other states (except US) (n=188)	The grouping had an overall statistically significant effect (F=15.32, 2,95, p<.006). Claimants from a state in Group 7A were 75% more likely to benefit from an expansive resolution than claimants from all other states combined, other than the US.
<u>Grouping #8</u> Group 8A: States in North America, Western Europe, Southern Europe, and Northern Europe (n=428) Group 8B: all other states (n=87)	The grouping did not have an overall statistically significant effect (F=2.16, 2,95, p<.14). Claimants from states in Group 8A were 69% more likely to benefit from an expansive resolution than claimants from all other states, but the effect was not statistically significant because it carried a 14% probability that it was explained by chance. Notably, as a descriptive finding, 83% of total issue resolutions arose in cases brought by a claimant from a state in Group 8A.
<u>Grouping #9</u> Group 9A: States in Eastern Europe Group 9B: All others (except states in North America, Western Europe, Southern Europe, and Northern Europe)	The grouping could not be tested because there was insufficient data on claimant nationalities in Group 9A.
<u>Grouping #10</u> Group 10A: OECD members as of 1990 (n=422) Group 10B: all other states (n=93)	The grouping had an overall statistically significant effect (F=15.19, 2,95, p<.001). Claimants from states in Group 10A were 16% more likely to benefit from an expansive resolution than claimants from all other states.
<u>Grouping #11</u> Group 11A: OECD members as of 2000 (n=425) Group 11B: all others (n=90)	The grouping had an overall statistically significant effect (F=24.75, 2,95, p<.001). Claimants from states in Group 11A were 15% more likely to benefit from an expansive resolution than claimants from all other states combined.
<u>Group #12</u> Group 12A: High income states as of 1990 (n=411)	The grouping did not have an overall statistically significant effect (F=1.53, 2,95, p<.46). Claimants from states in Group 12A were 40% more likely to benefit from an expansive

Group 12B: all other states (n=104)	resolution, but the effect was not statistically significant because it carried a 46% probability that it was explained by chance. Notably, as a descriptive finding, 80% of total issues resolutions arose in cases brought by a claimant from a state in Group 12A.
<u>Group #13</u> Group 13A: High income states as of 2000 (n=422) Group 13B: all other (n=93)	The grouping did not have an overall statistically significant effect (F=1.37, p<.73). Claimants from states in Group 13A were 50% more likely to benefit from an expansive resolution, but the effect was not statistically significant because it carried a 73% likelihood that it happened by chance. Notably, as a descriptive finding, 82% of total issues resolutions arose in cases brought by a claimant from a state in Group 13A.

Table 6: Effects of Treaty/ Treaty Type on the Likelihood of an Expansive Resolution

Treaty/ treaty type	Probability	<i>p-value</i>
Bilateral investment treaty (BIT)	.95	.00008
<i>Energy Charter Treaty (ECT)</i>	.97	.0022
<i>North American Free Trade Agreement (NAFTA)</i>	.77	.94

Figure 1: Total issue resolutions and % that were expansive (by year of award)

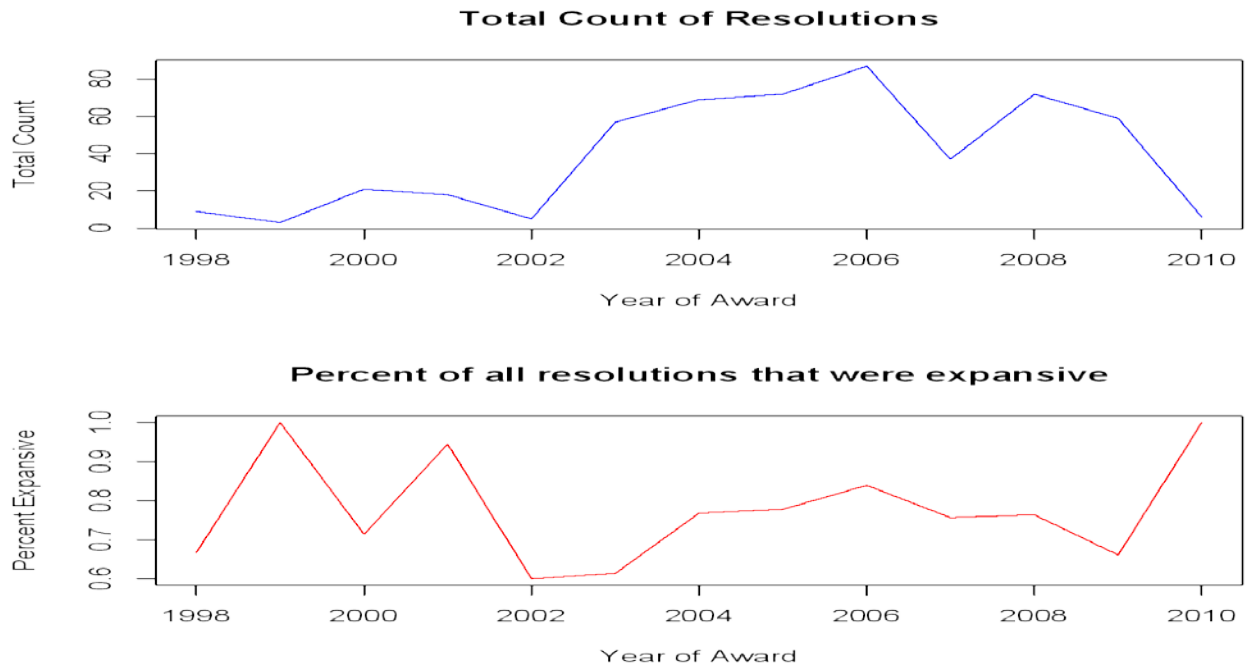


Figure 2: Breakdown of issue resolutions by specific issue

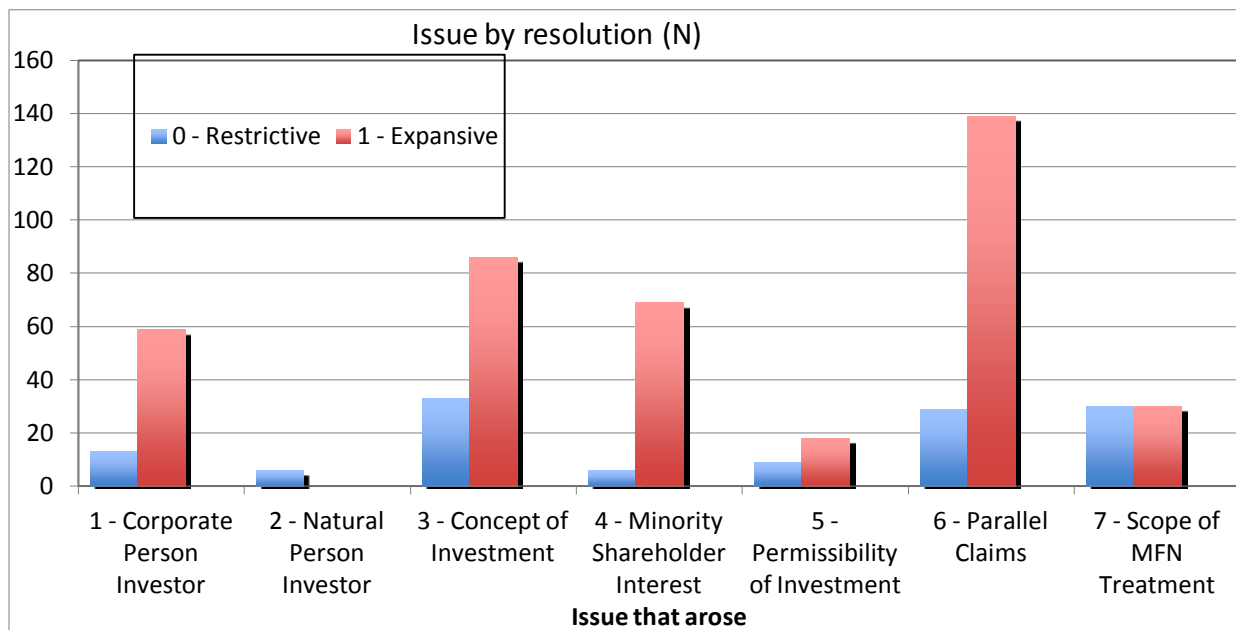


Figure 3: Probability of expansive resolution for treaty/ treaty type

