

Article

The Standard of Compensation for Takings

Mark A. Chinen*

I. INTRODUCTION

In international investment law there is a long-standing debate about the proper standard of compensation for takings. The first alternative is prompt, adequate, and effective compensation: often interpreted as the fair market value of the investment including expected profits. The second is appropriate compensation: a value that can range from full compensation to much less depending on the circumstances.

In order to assess this debate, this Article examines the expected and actual behaviors of the main actors—the investor and the host state—in investment transactions. After a brief description of the two compensation standards in Part II, Part III of this Article considers how a potential foreign investor and host state would likely behave if the investment is viewed from a business perspective. Before it decides to invest in a country, the investor will assess political risks associated with the project, including the chance the host state will take the investment. If the investor believes the investment will be taken, the investor will adjust for that risk. It will require a higher return for its investment, take out insurance, invest less than it would otherwise, or decline to invest altogether. All of these actions represent some cost to the host state. If the investor believes the investment is secure, it will not adjust to the same degree. The point is not that one standard of compensation is better than the other. Rather, a rational investor will always adjust for the risk of loss to a greater or lesser extent, no matter

* Professor, Seattle University School of Law. I would like to thank my colleague Sid DeLong and the participants in the October 2014 American Society of International Law Midyear Meeting and Research Forum for their comments and suggestions to earlier drafts. Bob Menanteaux, recently retired as research librarian at the Seattle University School of Law, provided assistance and advice. All errors remain my own.

what is the standard of compensation. Further, the host state almost always bears the cost of a taking irrespective of the standard used, either directly by paying full compensation, or indirectly because of the precautionary measures taken by an investor if the compensation standard is lower or because the investor decides not to invest at all.

Part III also examines the actual practice of investors. Studies of investor decision making and risk analysis indicate that pre-investment risk assessment varies. As part of their capital budgeting, some firms engage in rather sophisticated risk analysis when possible and adjust accordingly, but sometimes because there is not enough information about a potential host country, other firms perform a rough analysis of potential political risks before deciding to invest, even though they too take certain precautionary measures if they believe such an investment is risky.

Part IV discusses some of the implications of this analysis for standards of compensation. First, as discussed above, the host state will eventually bear the cost of compensation of risk adjustment measures, no matter what the standard of compensation is. The issue for the host state is how it will allocate and bear those costs.

Second, the investor will engage in some form of risk assessment and management no matter what the standard is or how the standard is embodied, whether it is in a contract, treaty, or customary international norm. In the case of a negotiated contract, the investor and host state can adjust their particular risk tolerance levels. In the case of the investment contract or the treaty, the standard of compensation acts like a guarantee on the part of the host state to pay a certain amount if there is a taking. But with treaties, investors do not directly negotiate with host states, home states do. Since at the outset states do not know whether they will be the respondent in an action involving a taking, at first blush it would seem rational for states not to expressly commit to giving full compensation. There might be good reasons why a state would or would not commit in advance to doing so; if, however, a state does not commit itself to full compensation, it will incur costs as potential investors account for a lower standard.

Third, the kind of taking will not matter to the investor. Again, from the perspective of the host state or the international community as a whole, there might be valid reasons for distinguishing between legal and illegal takings. But from the

investor's perspective, either form of taking represents a reduction in the value of the asset, no matter how a particular measure by the state is characterized. An investor would be expected to take the same precautionary measures with respect to either kind of taking—the costs of which will eventually be borne by the host state.

Finally, the fact that an investor will take precautionary measures prior to an investment in some circumstances and not others has implications when the standard of compensation is actually applied—particularly at the valuation stage when investments are appraised and lost profits calculated. If there is evidence that prior to an investment an investor did not care about the risk of a taking, or if it did, had taken precautionary measures, then full compensation might overcompensate the investor. Conversely, an investor would be undercompensated if there is evidence it did not take precautionary measures because it reasonably believed the investment would not be taken or that it would receive full compensation if it was. At the valuation stage, the issue becomes what to do about the possible mismatch between pre-investment risk assessment and the applicable compensation standard post-taking. In part, this problem might account for the inconsistency in awards among cases even when the same standard is purportedly being applied.

II. COMPENSATION FOR TAKINGS

A state is required under international law to compensate a foreign investor for taking an investment,¹ as well as to make reparations for breaches of international investment obligations. Providing such compensation or reparations involves choosing a standard of relief and then using a valuation method to implement the standard chosen. I discuss the relevance of valuation methods to the concerns of this Article more fully in Part IV. This Part, however, is concerned with the standard of compensation. Such standards are often detailed in investment contracts and in the investment provisions of treaties, but the interpretation of such provisions, as well as the determination of

1. The term is used interchangeably with confiscation, expropriation, and nationalization of an investment. M. SORNARAJAH, *THE INTERNATIONAL LAW ON FOREIGN INVESTMENT* 365 (3d ed. 2010). Here, I will use the term in that way. As is well known, under the Calvo Doctrine, the taking of an investment is purely a matter of domestic law so that there is no duty of compensation under international law.

remedies, often rely on customary norms.

The terminology is used somewhat inconsistently, but in broad terms, two measures are urged for legal expropriations (those done for a public purpose, without discrimination, and with compensation) and for breaches of international norms. The first and most commonly adopted measure is full compensation. Full compensation is sometimes equated with the Hull formula of prompt, adequate, and effective compensation, and often interpreted as the fair market value of the investment including expected profits when appropriate.² Supporters of this standard, particularly when a breach is involved, cite language from *Chorzow Factory*,³ which can be read to articulate this measure, and from the Draft Articles on Responsibility of States for Internationally Wrongful Acts.⁴ After *Chorzow*, the measure has been used in a number of cases involving takings or breaches of international law investment standards.⁵

2. See NOAH RUBINS & N. STEPHAN KINSELLA, INTERNATIONAL INVESTMENT, POLITICAL RISK AND DISPUTE RESOLUTION: A PRACTITIONER'S GUIDE 178–79 (2005) (arguing that the modern standard is full compensation, which is equated to “prompt, adequate, and effective” compensation).

3. (“The essential principle contained in the actual notion of an illegal act—a principle which seems to be established by international practice and in particular by the decisions of arbitral tribunals—is that reparation must, as far as possible, wipe-out all the consequences of the illegal act and reestablish the situation which would, in all probability, have existed if that act had not been committed.”) *Factory at Chorzow (Ger. v. Pol.)*, Judgment, 1928 P.C.I.J. (ser. A) No. 17, at 47 (Sept. 3). The *Chorzow* tribunal reflects a long-accepted view of the purpose of remedies: “to redress the wrong by creating the situation that would have existed had the wrong not occurred.” JAMES M. FISCHER, UNDERSTANDING REMEDIES 2 (2d ed. 2006).

4. Article 34 requires “full reparation” for injuries caused by an internationally wrongful act. Int'l Law Comm'n, Draft Articles on Responsibility of States for Internationally Wrongful Acts, in Report of the International Law Commission, U.N. GAOR, 53rd Sess., Supp. No. 10, art. 34, U.N. Doc. A/56/10 (2001), reprinted in [2001] 2 Y.B. Int'l L. Comm'n 20, U.N. Doc. A/CN.4/SER.A/2001/Add.1 [hereinafter Articles on State Responsibility]. Compensation, a form of reparation, includes “any financially assessable damage including loss of profits so far as this is established.” *Id.* at art. 36(1). See also Restatement of the Foreign Relations Law of the United States § 712 cmt. d (1987) (stating that in the case of a taking, “[t]here must be payment for the full value of the property, usually ‘fair market value’ where that can be determined”). However, the comments acknowledge that there might be exceptional circumstances, such as national agricultural reform, when some “deviation” from the standard is permitted. *Id.*

5. See *Sempra Energy Int'l v. Argentina*, ICSID Case No. ARB/02/16, Award, 400–401, 404 (Sept. 28, 2007) (citing *Chorzow* and the Articles on State Responsibility to award fair market value for breach of the fair and equitable treatment obligation); *Archer Daniels Midland Co. v. Mexico*, ICSID Case No. ARB(AF)/04/05, Award, 275–93 (Nov. 21, 2007) (awarding lost profits for breach

However, the payment of full compensation, if interpreted as the full value of an investment, could prevent a state from engaging in broad economic reform. Consequently, appropriate compensation is urged as an alternate measure. Under that standard, it might still be proper to pay full compensation for a taking. M. Sornarajah, for example, argues that under most circumstances, full compensation should be paid if a state takes a relatively small, discrete business.⁶ However, there might be circumstances when a state is engaged in the nationalization of an economic sector, land reform, or indigenization programs when less than full compensation will be paid.⁷ Proponents of this standard point to certain General Assembly resolutions, the Charter of Economic Rights, and the acceptance of less-than-market-value lump sum payments for takings as evidence for appropriate compensation as the norm.⁸

This is a brief discussion of the doctrine and there are more aspects of compensation, such as the possible distinction in

of NAFTA investment provisions based on a full compensation standard); *Tippetts v. TAMS-AFFA Consulting Engineers*, 6 Iran-U.S. Cl. Trib. Rep. 219, 225 (1984) (awarding the “full value” of property deprived by government).

6. SORNARAJAH, *supra* note 1, at 448.

7. *See id.* at 448–49. *See also* Oscar Schachter, *Compensation for Expropriation*, 78 AM. J. INT’L L. 121, 127–30 (1984) (discussing when appropriate compensation might be the proper standard).

8. *See* G.A. Res. 1803 (XVII), Permanent Sovereignty over Natural Resources (Dec. 14, 1962) (stating that appropriate compensation should be paid in the case of takings); G.A. Res. 3171 (XXVIII), Permanent Sovereignty over Natural Resources (Dec. 17, 1973) (affirming that each State is entitled to determine the level of compensation to be paid); G.A. Res. 3281 (XXIX), Charter of Economic Rights and Duties of States (Dec. 12, 1974) (providing that appropriate compensation should be paid). For a discussion of lump sum settlements, see 1 & 2 RICHARD B. LILICH & BURNS H. WESTON, *INTERNATIONAL CLAIMS: THEIR SETTLEMENT BY LUMP SUM AGREEMENTS* (1975). The European Court of Human Rights follows this reasoning. *See* *Lithgow v. United Kingdom*, 102 Eur. Ct. H.R. (ser. A) at 4, 51 (1986) (“[L]egitimate objectives of ‘public interest,’ such as pursued in measures of economic reform or measures designed to achieve greater social justice, may call for less than reimbursement of the full market value”); Stefan Kirchner & Katarzyna Geler-Noch, *Compensation Under the European Convention for Human Rights for Expropriations Enforced Prior to the Applicability of the Convention*, 19 JURISPRUDENCIJA 21, 25 (2012); Ursula Kriebaum, *Nationality and the Protection of Property under the European Court of Human Rights*, in *INTERNATIONAL LAW BETWEEN UNIVERSALISM AND FRAGMENTATION* 649, 654–57 (Isabelle Buffard et al. eds., 2008). As discussed earlier, the terminology is used loosely. For example, the World Bank Guidelines on the Treatment of Foreign Direct Investment call for appropriate compensation, but compensation is appropriate if it is “adequate, effective and prompt,” equal to the fair market value of the business. WORLD BANK, *GUIDELINES ON THE TREATMENT OF FOREIGN INVESTMENT* 209 (1993) [hereinafter *WORLD BANK GUIDELINES*].

remedies for legal and illegal takings, that will be discussed more fully in Part IV. Here, it is enough to note that there is a debate as to which standard should prevail under customary international law. Much of the literature naturally centers on whether either standard meets the requirements of a general and consistent practice of states and *opinio juris*. Thus, there are arguments about the relevance to custom of multilateral, regional, and bilateral treaties, General Assembly resolutions, past practices of states, the decisions of international courts and arbitral tribunals, and the views of commentators.⁹ The reasons why compensation should be paid and what standard should be applied include the need to vindicate individual rights vis-à-vis the general public to prevent unjust enrichment, to deter illegal takings, and to encourage investment.¹⁰ Also at stake, though, is a state's sovereignty over its natural resources and the right to regulate its economy, development, and environment. By the same token, a state has an interest in protecting its nationals abroad, and by extension, its citizens' property.¹¹

As Irmgard Marboe writes, an international practice has developed without vindicating any of the several justifications urged as a compensation requirement.¹² Given these somewhat competing interests, it is difficult to argue that one compensation standard is better than the other, and one's judgment often depends on whether that person is viewing the issue from the perspective of the investor or of the host state. Since investors and host states are the crucial parties in investment activity, it is worth exploring what their respective behaviors might add to the larger debate.

9. For a discussion of the debate, see SERGEY RIPINSKY & KEVIN WILLIAMS, *DAMAGES IN INTERNATIONAL INVESTMENT LAW* 19–48 (2008) (discussing the sources of international law on damages including customary international law); RUBINS & KINSELLA, *supra* note 2, at 178–79 (arguing that full compensation is the standard); SORNARAJAH, *supra* note 1, at 412–43 (arguing that full compensation is not the customary norm); José E. Alvarez, *A BIT on Custom*, 42 N.Y.U. J. INT'L L. & POL. 17 (2009) (discussing the relationship between bilateral investment treaties and customary international law).

10. IRMGARD MARBOE, *CALCULATION OF COMPENSATION AND DAMAGES IN INTERNATIONAL INVESTMENT LAW* 14–15 (2009).

11. *See* Part IV.

12. MARBOE, *supra* note 10, at 15.

III. THE DECISION TO INVEST OR ALLOW INVESTMENT

A. INVESTMENT AND RISK

Any firm must choose from various potential business projects in which it will invest its capital, but faces the risk that the project(s) it chooses will underperform. Presumably, before making that choice, a firm will explicitly or implicitly undergo a capital budgeting process through which it will compare a project's potential earning power with that of others. Part of that comparison will include an assessment of the risk that the project will not perform as hoped. On balance, projects expected to result in higher income with less risk will be chosen over those expected to result in lower income or those in the same income range but with higher risk. A firm might also choose to invest in a riskier project but will require a greater return to make up for the greater potential loss.¹³

A firm considering investments in another country will likely carry out the same budgeting process it would if the investment were domestic. The categories often blur, but risks are often divided roughly into market risk (sometimes termed investment and commercial risk) and political risk. Market risk includes challenges associated with any business, including the potential for a drop in demand for a firm's products or services, competition from other firms, and rising costs of labor and inputs, et cetera. Sometimes these risks are quantified by industry sector. Of course, such risks might be higher in a foreign market because of factors such as unfamiliarity with the local culture, foreign exchange risk, and possible hostility towards a foreign investment.

Political risk involves government actions that could prevent an investment from performing as anticipated, such as the imposition of price controls, performance requirements, taxation, and the taking of the investment itself. In the case of foreign investment, there are also risks that a host state government might prevent the repatriation of profits or in some

13. For introductions to corporate finance and the investment process, see RICHARD A. BREALEY & STEWART C. MYERS, *CAPITAL INVESTMENT AND VALUATION* (2003); RICHARD A. BREALEY & STEWART C. MYERS, *FINANCING AND RISK MANAGEMENT* (2003); ASWATH DAMODARAN, *APPLIED CORPORATE FINANCE* (3d ed. 2011); STEVEN PETERSON, *INVESTMENT THEORY AND RISK MANAGEMENT* (2012).

way discriminate against the foreign investor. Finally, there is country risk, the risk associated with the relative stability of a country—e.g., political unrest.¹⁴

The host state undergoes a decision-making process of its own. A host state seeks foreign investment because there is not enough domestic capital to meet demand and because it seeks the positive spillover effects of increased employment, training, and technology that purportedly come from foreign investment.¹⁵ A host state with no restrictions on foreign investment has presumably decided that the market will determine which projects will go forward within its jurisdiction and which will not. But in many states, at least some sectors of the economy are regulated or owned by the state. In determining which of these sectors to open to foreign investment, and certainly when deciding to undergo large-scale infrastructure projects that almost always require some level of foreign participation, the state must also choose between a number of possible economic activities that offer benefits from the state's perspective, but which also pose risks. Regarding foreign investment, the state faces the risk that the foreign investment projects will not yield the direct and indirect benefits that were expected to result, sometimes due to the action or inaction of the foreign investor.¹⁶

It is commonplace in economic theory, particularly in the study of incomplete contracts, that if there were perfect information and no transaction costs, the potential investor and host state would be able to accurately assess the costs, benefits, and risks associated with a proposed investment project. They would then be able to structure the transaction to account for all contingencies and allocate all risks between them. This would

14. For a discussion of the risks to foreign investors and the risk assessment process, see RIPINSKY & WILLIAMS, *supra* note 9, at 326; SORNARAJAH, *supra* note 1, at 69–79.

15. This is a highly idealized account of investor and host state behavior. Kate Miles tracks the interplay of politics, trade, and law in the development of international investment law in KATE MILES, *THE ORIGINS OF INTERNATIONAL INVESTMENT LAW: EMPIRE, ENVIRONMENT AND THE SAFEGUARDING OF CAPITAL* (2013).

16. See generally TIMOTHY C. IRWIN, *GOVERNMENT GUARANTEES: ALLOCATING AND VALUING RISK IN PRIVATELY FINANCED INFRASTRUCTURE PROJECTS* (2007) (discussing the risks to host states and their valuation in connection with large-scale infrastructure projects). For simplicity, this Article focuses mostly on pre-investment decision making at the initial stage. In reality, firms and host states often make similar decisions throughout the life of the investment project.

also include accurately setting a price for the investment, as well as determining the compensation that would be paid if one of the parties does not meet its obligations to the project or to one another, or harms the other in connection with the proposed investment. There would likely be no discrepancy between the ex ante evaluation of the project and the ex post results after the project is completed, even if the project fails. And in the case of failure to perform, there would be almost no chance of undercompensation or overcompensation. Of course, real investors and host states do not live in such a world.

B. INCOME PROJECTIONS, RISK EVALUATION, AND MITIGATION

1. The Investor

It is instructive to examine how actors behave when information is imperfect and transaction costs exist. A potential investor can account for various risks through financial projections of a project's performance. There have been many studies of the financial methods firms use when engaging in capital budgeting or when contemplating investing abroad in particular.¹⁷ As will be discussed in Part IV, such methods are also important for purposes of this Article because they are often used at the quantum stage of investment disputes.

Three methods appear to be widely used, although not exclusively. The first is the net present value approach. Under this method, the investor identifies all potential cash inflows and outflows through the life of the project. It then determines a discount rate, which is used to determine the present value of

17. See, e.g., John R. Graham & Campbell R. Harvey, *How Do CFOs Make Capital Budgeting and Capital Structure Decisions?*, 15 J. APP. CORP. FIN. 8 (2002); John R. Graham & Campbell R. Harvey, *The Theory and Practice of Corporate Finance: Evidence from the Field*, 60 J. FIN. ECON. 187 (2000) [hereinafter Graham & Harvey, *Theory and Practice of Corporate Finance*]; Patricia A. Ryan & Glenn P. Ryan, *Capital Budgeting Practices of the Fortune 1000: How Have Things Changed?*, 8 J. BUS. & MGMT. 335 (2002); Nico Sykianakis, *Risk Assessment and Management in FDI: A Case Study in the Balkans*, 4 INV. MGMT. & FIN. INNOVATIONS 31 (2007); Giang Truong et al., *Cost-of-Capital Estimation and Capital-Budgeting Practice in Australia*, 33 AUSTL. J. MGMT. 95 (2008). See also Martin Holmén & Bengt Pramborg, *Capital Budgeting and Political Risk: Empirical Evidence*, 20 J. INT'L FIN. MGT. & ACCT. 105 (2009); Adel Abed Rabbo al Khattab et al., *The Use of Political Risk Assessment Techniques in Jordanian Multinational Corporations*, 14 J. RISK RES. 97 (2011); Satish Verma et al., *A Survey of Capital Budgeting Practices in Corporate India*, 13 VISION—J. BUS. PERSP. 1 (2009).

the outflows and inflows. A project is desirable if the net present value of such outflows and inflows is positive. Much turns on the determination of the appropriate discount rate. It is common to use the firm's weighted average cost of capital as the discount.¹⁸

Another method is the internal rate of return. This method avoids choosing a discount rate because it is determined internally by calculating the rate that would cause the cash outflows and inflows to net to zero. The result of the calculation is the yield of every dollar put into the project.¹⁹ If that rate clears an internal hurdle set by the company, often linked to the obligations a company has to holders of its equity and debt, the contemplated investment is desirable.²⁰

A third method is the payback method. Under this approach, the firm calculates the period of time needed for the amount invested in a project to be paid for by the net cash flows generated by the project.²¹ All things equal, projects with shorter payback periods are more desirable than projects with longer periods. The payback method is easier to use than the net present value and internal rate of return methods, but because it is only concerned with the time it takes to pay for a particular asset, it does not take into account the potential value of that asset beyond the payback period.²²

Political risk can be taken into account under each of these methods by adjusting the expected cash flows downward for such risk, and then in the case of the net present value method,

18. *Quantitative Methods—Net Present Value and the Internal Rate of Return*, INVESTOPEDIA, <http://www.investopedia.com/exam-guide/cfa-level-1/quantitative-methods/discounted-cash-flow-npv-irr.asp> (last visited Feb. 16, 2016). Despite theoretical and empirical shortcomings, the Capital Pricing Asset Model (CAPM) is frequently used to calculate the cost of capital. See Graham & Harvey, *Theory and Practice of Corporate Finance*, *supra* note 17, at 201 (discussing broad use of CAPM method); Giang Truong et al., *supra* note 17, at 107 (discussing the same result in Australia); Eugene F. Fama & Kenneth R. French, *The Capital Asset Pricing Model: Theory and Evidence*, 19 J. ECON. PERSP. 25 (2004) (arguing against using the CAPM on theoretical and empirical grounds).

19. Robert Schmidt, *Understanding the Difference Between NPV vs IRR*, PROPERTYMETRICS (June 28, 2013), <http://www.propertymetrics.com/blog/2013/06/28/npv-vs-irr/>.

20. Charles Tooman, *Measuring Opportunity and Risk in Global Energy Investments: Practices and Techniques for Assessing International Investment Risk and Enhancing Capital Allocation*, 10 J. STRUCTURED & PROJECT FIN. 62, 68 (2004).

21. *Payback Method/Payback Period Formula*, ACCOUNTING TOOLS, <http://www.accountingtools.com/payback-period-formula> (last visited Feb. 14, 2016).

22. *Id.*

discounting the adjusted cash flows. With the net present value method, a roughly equivalent result would come from leaving expected cash flows as they are and adjusting the discount rate upward for the risk instead.²³ Apparently, this is the approach preferred by foreign investors, and it is not uncommon for there to be discount rates of twenty percent or more.²⁴ Similarly, in the internal rate of return method, adjusting for risk could be done by moving the rate of return downward, thus making it harder for a project to clear the internal hurdle set by the firm. Finally, although the payback method does not rely on a discount or rate of return, risk could also be accounted for by requiring a shorter payback period.

Two observations about the use of these methods are relevant to this Article. First, some commentators observe that as firms become more sophisticated and computing ability increases, the net present value and internal rate of return methods are used more frequently, particularly by larger firms²⁵ and perhaps by those from developed countries.²⁶ However, the payback method continues to be widely used.²⁷ There is some

23. See Stephan A. Ross, *Uses, Abuses, and Alternatives to the Net-Present-Value-Rule*, 24 FIN. MGMT. 96, 98 (1995). In the net present value method, since the discount rate is often linked to the weighted average cost of capital, political risk can be taken into account through the calculation of that cost. Charles Tooman lists ways in which such risk premiums can be calculated, each with advantages and disadvantages. Tooman, *supra* note 20, at 67.

24. V. Ravi Anshuman et al., *Accounting for Sovereign Risk When Investing in Emerging Markets*, 23 J. APPLIED CORP. FIN. 41 (2011).

25. See, e.g., Graham & Harvey, *Theory and Practice of Corporate Finance*, *supra* note 17, at 197 (finding that larger firms use the net present value method significantly more than smaller firms).

26. See, e.g., Niels Hermes et al., *Capital Budgeting Practices: A Comparative Study of the Netherlands and China*, 16 INT'L BUS. REV. 630 (2007). In their study, the chief financial officers of 250 Dutch companies and 300 Chinese companies were surveyed. 89% of Dutch respondents said they almost always use the net present value method, while only 49% of Chinese respondents did so. *Id.* at 639, 641. The authors attribute this difference in part to the level of development of the two countries, but do not want to draw too strong a connection: there does not appear to be much of a difference in how often Dutch firms and Chinese firms use the internal rate of return method and the capital asset pricing model to estimate the cost of equity. *Id.* at 632, 651.

27. Scott Beasley and Eugene Brigham find that after reviewing surveys over a forty-year period that the traditional payback method has declined in use while the net present value and internal rate of return methods have increased:

indication that the difficulties in assessing political risk are at play here. As discussed above, firms which use the net present value method do adjust the discount rate for political risk, but several observers show the quantification of such risk is difficult.²⁸ Thus, in a survey of Swedish multinational firms, Martin Holmén and Bengt Pramborg found that firms tend to use the net present value method when political risk is perceived to be relatively low, but use the payback method when political risk increases. A plausible explanation is that the payback method allows firms to avoid high deliberation costs. Further, when there is a high threat of a taking, there is a sense in which the net present value and payback period methods roughly equate anyway because net present value is likely to be based on short-term cash flows that would fall within the payback period.²⁹ Under some circumstances, then, it makes sense for a firm to base its investment decision, not on the value of the

Period	Traditional Payback Period	NPV	IRR
1970s	85%	65%	80%
1980s	78	75	88
1990s	60	80	79
2000s	53	85	77

SCOTT BEASLEY & EUGENE BRIGHAM, *ESSENTIALS OF MANAGERIAL FINANCE* 377 (2008). For a more detailed discussion of the history of capital budgeting methods, see Véronique Blum, *Capital Budgeting Practices in Companies with Activity Abroad: The Evolution of Tools Through Time* (Grenoble Ecole de Management, Working Paper No. SPR/WPS 06-02, 2006).

28. See, e.g., Klára Szűcs Markovics, *A Comprehensive Review of Scientific Literature on Methods for Determining Discount Rates in Corporate Practices*, 8 CLUB ECON. MISKOLC 81 (2012) (discussing the various ways firms calculate the discount rate); Tooman, *supra* note 20, at 68 (making a similar point about the difficulty of making risk adjustments); B.C. Lee & J.G. Powell, *Valuation of Foreign Direct Investment in the Presence of Political Risk* 1 (University of Wollongong, Faculty of Business, Economics Working Paper No. 99-8, 1999) (arguing that “appropriate risk adjusted discount rates are notoriously difficult to estimate in an international setting”). There are several country risk rating services, including the Economist Intelligence Unit, Euromoney, Institutional Investor, International Country Risk Guide, Moody’s, Political Risk Services, and Standard & Poors. For a discussion of the ratings, see Suhejla Hoti & Michael McAleer, *An Empirical Assessment of Country Risk Ratings and Associated Models*, 18 J. ECON. SURV. 539 (2004). Carl McGowan and Susan Moeller propose a method that would allow firms to engage in such analysis on their own. Carl B. McGowan, Jr. & Susan E. Moeller, *A Model for Making Foreign Direct Investment Decisions Using Real Variables for Political and Economic Risk Analysis*, 7 MANAGING GLOBAL TRANSITIONS 27 (2009).

29. Holmén & Pramborg, *supra* note 17, at 109, 127.

project during its full lifetime, but only on its value during the project's payback period.

Second, there are some indications that firms that do use the net present value and internal rate of return methods sometimes misapply them in their investment decision making when it comes to risk analysis. In an older study, Edward Farragher found that although a large majority of U.S. companies surveyed used sophisticated techniques in their financial analysis, about half of them did not use quantitative analysis in assessing risk.³⁰ Therefore, in some companies, risk analysis takes place apart from financial projections. Most managers surveyed reported that strategic factors were more important than financial analysis when deciding whether to invest in a project.³¹ It also appears that some companies will not use the net present value method, out of lack of experience or training or doubts about the usefulness of the method.³² In such cases, other planning methods—such as standardized checklists, consultations with groups of experts, or scenario analyses—are used alone or in combination with quantitative methods.³³

30. Edward J. Farragher et al., *Current Capital Investment Practices*, 44 *ENG. ECONOMIST* 137, 144 (1999).

31. *Id.* at 146. These results concur with Nico Sykianakis' case study of a Greek ice cream firm's decision to invest in the Balkans. The treasurer of that company writes, "[C]ountry risk did not have any quantitative expression and was not incorporated in the NPV analysis." Sykianakis, *supra* note 17, at 35. As to the NPV's role in the decision of whether or not invest, the treasurer says, "If relying only on NPV, no investment would have take[n] place in the Balkans. Greek entrepreneurs make FDI decisions with their instinct Any decision for investing relied on market and strategic criteria." *Id.* Similarly, in the survey conducted by Farragher et al., 45% of respondents said that they would accept a project if it offered strategic advantages even if it had a negative net present value. Farragher et al., *supra* note 30, at 145. *See also* Alfredo Jimenéz et al., *The Influence of Political Risk on the Scope of Internationalization of Regulated Companies: Insights from a Spanish Sample*, 49 *J. WORLD BUS.* 301 (2014). The authors find through statistical analysis that companies, in particular those in highly-regulated industries, will sometimes invest in countries with high political risk because they believe they have enough political power to gain a competitive advantage in such countries. *Id.* at 302.

32. For example, Adel Rabbo al Hattab et al. report that only 9.3% of Jordanian multinational companies used "scientific" techniques to assess political risk. The rest used heuristic approaches because they are easier and cheaper. Further, since the companies lack confidence in the reliability of domestic economic data, they are equally doubtful about foreign numeric data used to quantify risk in other countries. Al Khattab et al., *supra* note 17, at 105, 107.

33. *Id.* at 99–100.

Investors also manage the risk of a taking through the project's structure. Among other things, a firm might invest incrementally, for example, by opening shops in only a few locations before expanding. When practical, an investor might use obsolete or second-hand equipment to reduce capital costs and losses in the event of a taking.³⁴ It can keep intellectual, financial, and other assets outside of the country and license or lease them to the subsidiary in the host state.³⁵ Over time, leverage shifts from the investor to the host state and with it, the risk of a taking. In a large infrastructure project, an investor might lower this risk by setting in advance a time when the project will be transferred to the host state.³⁶ A firm will also try to structure the project so that the revenue will start to stream as soon as possible.³⁷ In addition, a firm can take out political risk via insurance. Such coverage is useful in its own right, but also enlists third-party support for the project. Since political risk insurance is offered by international financial institutions, a host state might refrain from taking the investment because it does not want to harm its relationship with those organizations.³⁸ In that regard, financing for the project can be structured so that international, governmental, or quasi-governmental agencies participate in the project.³⁹

Notably, if political risk is factored into financial projections or into the structure of the investment, political risk is then shifted from the investor to the host state. Part IV will discuss arguments that are perfectly appropriate for this matter. However, costs are associated with this shift of risk. For those companies that do engage in financial analysis, a risky investment project will be worthwhile only if there is an increase in cash flows. If it is dealing with a country in need of investment, the investor might be in a position to obtain those

34. Sykianakis, *supra* note 17, at 36 (discussing how an ice cream company took an incremental approach and used secondhand equipment in its foreign investment).

35. RUBINS & KINSELLA, *supra* note 2, at 39.

36. Anshuman et al., *supra* note 24, at 46. Project finance is designed to limit the risk of loss to the assets of the project. *Id.* at 47. In this regard, see Kojo Yelapaala, *Rethinking the Foreign Direct Investment Process and Incentives in Post-Conflict Transition Countries*, 30 NW. J. INT'L L. & BUS. 23 (2010) (discussing ways in which build-operate-transfer projects can be structured to shift political risk to host governments).

37. Holmén & Pramborg, *supra* note 17, at 120.

38. Anshuman et al., *supra* note 24, at 47.

39. RUBINS & KINSELLA, *supra* note 2, at 39.

increases; otherwise, it will not invest at all. This represents a cost to the host country or its consumers. The same applies to risk mitigation practices: the hosting state bears the cost of such measures in the form of inferior equipment, less technology transfers, and a faster payout period. As discussed below, this raises the question of whether such ‘costs’ are relevant to the compensation a host state should pay if there is a taking or breach of an international investment standard.

2. The Host State

Host states engage with foreign investors by setting general investment policies,⁴⁰ screening proposed investments, and participating directly in specific projects. However, there appear to be few, if any, surveys of methods states use when engaging in pre-investment financial and risk analyses. Sornarajah notes that screening agencies sometimes require potential investors to submit feasibility studies as part of the investment approval process,⁴¹ and such studies will likely include financial projections. Further, Timothy Irwin recommends relatively sophisticated valuation and risk assessment methods that states should use when asked to issue government guarantees for foreign investment.⁴² This Article will assume that administrative agencies that screen potential investments or evaluate proposals for direct state involvement in investments use a variety of quantitative and non-quantitative methods akin to those used by investors.⁴³

Host states also use risk mitigation strategies. At the

40. UNITED NATIONS CONF. ON TRADE AND DEV., INVESTMENT POLICY MONITOR (2013), <http://unctad.org/en/pages/publications/Investment-Policy-Monitor.aspx>. For country-specific discussions of investment policies, see UNITED NATIONS CONF. ON TRADE AND DEV., INVESTMENT POLICY REVIEW SERIES (2013), <http://unctad.org/en/pages/publications/Investment-Policy-Review-%28Series%29.aspx>.

41. SORNARAJAH, *supra* note 1, at 104.

42. IRWIN, *supra* note 16, at 128–40. *See also* INT’L INSTITUTE FOR ENV’T AND DEV., HOW TO SCRUTINIZE A PRODUCTION SHARING AGREEMENT: A GUIDE FOR THE OIL AND GAS SECTOR BASED ON EXPERIENCE FROM THE CASPIAN REGION 26–30 (2012), <http://pubs.iied.org/pdfs/16031IIED.pdf> (explaining how corporate finance concepts can be applied to production sharing agreements).

43. For a discussion of the quantitative and qualitative criteria and other guidelines used by Australia, Great Britain, and South Africa in risk assessment and allocation, see *id.* at 108–09. The state also determines the effect of investment in general or of a particular investment on other state interests, such as national security.

statutory and administrative levels, performance, local content, and local participation requirements can be understood in part as reducing the risk that the positive spillover effects of foreign investment will not be realized. Further, specific transactions can be structured with a view towards minimizing perceived risks from the host state's perspective. The types of requirements that appear in investment statutes are often part of the contracts that memorialize transactions in which the state participates. The type of agreement itself can change to adjust for risk. For example, in the energy sector, the shift from long-term concession agreements to production sharing agreements, and more recently, to service agreements has been explained as an attempt by host states to retain ownership over their natural resources and to reallocate risks between the host state and foreign investor.⁴⁴

From the host state's perspective, the use of risk mitigation strategies is rational and appropriate. But just as the pre-investment strategies used by foreign investors can be said to impose costs on the state, so too can those taken by host states be said to impose costs on the prospective investor. An investor's current business model might be incompatible with one or more of the host state's requirements. This leads to greater cash outflows (and thus less inflows) or higher risk—or both—because second-best alternatives to at least some aspects of the model must be used that create uncertainty. If an investor adjusts for these requirements it might forego the investment entirely or require a higher return, either of which represents an off-setting cost to the host state. However, if the literature on a company's behavior is accurate, some companies might not adjust for such home state strategies. The decision to invest will be made under some other set of guidelines that does not try to quantify and adjust for risk.

The picture that emerges from this brief review of the pre-investment behavior of foreign investors and host states is what one would expect of actors with limited knowledge. Those with sufficient resources will try to approximate a world of perfect

44. KIRSTEN BINDEMANN, PRODUCTION SHARING AGREEMENTS: AN ECONOMIC ANALYSIS 9–11 (1999) (discussing the history of petroleum contracts and comparing the allocation of risks and benefits between concession agreements, production sharing agreements, and service contracts (as well as joint ventures)); Abbas Ghandi & C-Y Cynthia Lin, *Oil and Gas Service Contracts Around the World: A Review*, 3 ENERGY STRAT. REV. 63 (2014) (arguing that host state interest in service contracts is informed, in part, by sovereignty concerns).

information through various quantitative and qualitative techniques, while others with less resources or who are skeptical of quantitative methods will use other heuristic devices as they decide to invest or to allow an investment. All, however, appear in some degree to use multi-factor decision-making processes. Moreover, investors and host states use risk management tools in hopes of reducing the risk of disappointing results. The question for this Article is the degree, if any, to which the pre-investment behavior of the investor or host state and the possible motivations behind their respective behaviors should affect what standard of compensation is used when there is disappointment, and once chosen, how that standard should be applied.

IV. IMPLICATIONS FOR DOCTRINE AND PRACTICE

The remainder of this Article responds to the question raised from the prior Section by examining a few issues in compensation law. This Part begins by exploring the allocation of risks and costs between investors and host states, as well as the role compensation plays in that allocation. It then discusses standards of compensation as they are embodied in contracts and treaties, compensation for legal and illegal takings and breaches of other investment standards, and compensation standards as they are used in dispute resolution.

A. COMPENSATION AND THE ALLOCATION OF RISK

As mentioned above, this Article suggests that when a prospective investor factors political risk into its quantitative and qualitative financial projections or takes precautionary measures such as off-shoring intellectual property, this can represent a cost to the state in the form of less investment and less income or higher prices to consumers in the host state, or maybe no investment at all. Similarly, when a host state takes measures to ensure that an investment will benefit the host state and its citizens, such measures impose costs on the investor that could rebound on the host state as the investor responds to those measures, thus creating a loop of increasing costs to the host state.

Perhaps, it is entirely appropriate that this would happen. If a risk should be allocated to the party better able to manage it, particularly by avoiding or reducing such risk, then by

definition, the state will be the better risk-bearing, and thus cost-bearing, party when it comes to political risk. Likewise, if a host state imposes requirements on investment to further particular economic and political ends, it seems appropriate that it “pays” for them. Indeed, there are arguments to the contrary. Sometimes the investor is financially better able to absorb losses, and with respect to measures designed to further the aims of the host country, it can be argued the investor should pay for the privilege of doing business in a host state by contributing to the goals set by that state.⁴⁵

It is unlikely that these competing views of risk allocation will be resolved, but for purposes of this Article, a number of observations can be made about that allocation. One is that even though the risk associated with a project has been distributed, if there is a taking or breach of an investment standard, the level of compensation chosen could result in undercompensation or overcompensation if that allocation is not taken into account.⁴⁶ Full compensation is often equated with the fair market value of the business, including expected profits if they can be established. As Irwin points out, theoretically, if a state takes an investment and pays the investor fair market value, the state neither gains nor loses because although it has gained an asset it has also paid for it.⁴⁷ The same applies for the investor. Sornarajah, who argues against full compensation as customary international law, describes the logic of the Hull formula: “If the

45. For a discussion of risk allocation in infrastructure projects, see DALE COOPER ET AL., PROJECT RISK MANAGEMENT GUIDELINES: MANAGING RISK IN LARGE PROJECTS AND COMPLEX PROCUREMENTS 161–70 (2005) (stating ways in which risk can be allocated via contract); IRWIN, *supra* note 16, at 5, 65–67. These and other studies discuss risk identification and allocation in qualitative terms. See also Awad S. Hanna et al., *Construction Risk Identification and Allocation: Cooperative Approach*, 139 J. CONSTRUCTION ENGINEERING & MGT. 1098 (2013). Some of the literature proposes quantitative methods for allocating risk. See, e.g., Garshasb Khazaeni et al., *Optimum Risk Allocation Model for Construction Contracts: Fuzzy TOPSIS Approach*, 39 CAN. J. CIV. ENGINEERING 789 (2012). Others explore desirable risk allocation strategies for particular kinds of projects or in certain countries. See, e.g., Djoen San Santoso et al., *Public-Private Partnerships for Tollway Construction and Operation: Risk Assessment and Allocation from the Perspective of Investors*, 17 J. CONSTRUCTION IN DEVELOPING COUNTRIES 45 (2012); Chan et al., *Empirical Study of Risk Assessment and Allocation of Public-Private Partnership Projects in China*, 27 J. MGMT. ENGINEERING 136 (2011).

46. As Alan Schwartz points out, the chance of mispricing arises whenever a third-party is called on to determine the value of performance. Alan Schwartz, *The Case for Specific Performance*, 89 YALE L.J. 271, 275–77 (1980). He argues that in contracts, damages are often undercompensatory. *Id.* at 276.

47. IRWIN, *supra* note 16, at 172.

full value of the property which is subject to the expropriation and the anticipated earnings of the foreign investment are immediately replaced in currency which is convertible, the foreign investor will not have suffered in any material sense”⁴⁸ This suggests, again theoretically, that the state and the foreign investor would be indifferent to whether there is a taking or not: in at least monetary terms, their positions are not affected. However, for either party, this “equitable” result assumes that the level of compensation accurately reflects any risk premiums that the investor has charged as well as the value of any pre-investment measures taken. Otherwise, one party or the other will be put in a better position than it would have been had there been no taking.

Suppose a company that is about to engage in a foreign investment has a choice between using one of two types of equipment, one that is obsolete in the firm’s home country and another that is state-of-the-art. The firm worries that its equipment will be taken without compensation, so it chooses to use the obsolete equipment, which the firm is willing to lose even if it is not compensated for it. As Anshuman points out, a scenario such as this can lead to an unexpected result.⁴⁹ The investor chooses the obsolete equipment as a risk management device, in case it is taken by the host state. The investor would seem to enjoy a windfall if the host state does not take the equipment because the investor would get to keep something it was prepared to lose in the first place.

This reasoning can proceed a step further: if the state takes the equipment but is then required to pay its fair market value as compensation, the windfall is restored to the investor. From the state’s perspective, this result would seem egregious because the state has already borne the political risk associated with the investor’s risk mitigation strategy. Although the investor never sees these “risk payments,” the state has incurred the cost of lost productivity or technical knowledge that would have been realized had the more modern equipment been installed. Further, it would be worse if the investor’s risk management strategy had required a higher share of the cash flows from the investment.⁵⁰ Thus, as far as compensation is concerned,

48. SORNARAJAH, *supra* note 1, at 414.

49. Anshuman et al., *supra* note 24, at 45.

50. I use this illustration only to give a sense of the issue. Realistically, the equipment would depreciate over time. Anshuman uses a better quantitative example. *Id.* A hypothetical oil company estimates that an oil project will earn

sometimes the issue is not with the value of the taken asset, but rather with the allocation of risk and whether it has already been paid for by the party to whom it was assigned. If the company felt there was no risk of a taking without compensation and used state-of-the-art equipment instead, it would be the host state that would gain a windfall at the expense of the company if the host state takes the equipment without compensating the investor at fair market value.⁵¹

This seems to be a surprising, perhaps absurd, result. Taken to its logical extreme, it appears tantamount to arguing that if a promisee takes into account the possibility that the promisor will breach, the promisor is relieved from paying damages if such a breach occurs. Or, if a lender charges a higher interest rate because it fears a borrower will default, the borrower is relieved of his duty to pay. Concerns about undercompensation or overcompensation do not necessarily lead to complete relief from the obligation to compensate, however. Take, for instance, the requirement to mitigate damages. The rule requires the rational promisee to act as if the contract law provides no remedies at all. Such a promisee would take reasonable steps to minimize its losses. Damages are not available to a promisee who fails to do so; they only make up for the shortfall. Similarly, in most cases, if a lender has charged an interest rate that includes a risk premium over and above what a lender would normally charge, it seems appropriate that the borrower pay both principal and interest. However, if the lender has engaged in rent-seeking, then issues of overcompensation arise.

It can also be argued that other reasons for compensation override concerns about overcompensation even in the hypotheticals described above. Lessons can be drawn from domestic takings jurisprudence. In the United States, various reasons have been given for the Takings Clause and the requirement to pay just compensation, not dissimilar to those

pre-tax income of \$350 million per year. The company believes there is a high probability of expropriation, so it uses a 20% discount rate to calculate the present value of the cash flows, 8% of which represents a required internal rate of return and a 12% sovereign risk premium, which in turn reflects an annual probability of expropriation equal to 10%. The company will then try to negotiate an arrangement whereby the annual cash flows to the company result in an internal rate of return of at least 20%. If the host state finds out that the company has secured an income stream based on a 10% probability of a taking in any given year, the host will realize unless it does take the investment, the investor will receive a major windfall.

51. As discussed in Part IV, the same issue arises with anticipated profits.

used to justify compensation at the international level discussed earlier. The Clause has been understood as promoting fairness, deterring the abuse of small groups, preventing “fiscal illusion” by making salient the costs of a taking, diffusing the power of interest groups, reducing landholder opposition to regulation, preventing government rent-seeking, and preventing politicians from taking property for selfish reasons instead of public ends.⁵² As a historical matter, the compensation requirement in international law has its origins in a state’s interest in protecting its nationals abroad, an interest that extended to nationals’ property.⁵³ However, it is not unusual for a norm, once in place, to have multiple uses and consequences, so that the compensation norm on the international level might have numerous effects analogous to those on the domestic level. For example, if the norm does prevent host state leaders from taking property for personal instead of public reasons, it encourages legal takings (takings done for a public purpose without discrimination and with compensation) by reinforcing the public purpose requirement.

Another response is that full compensation actually undercompensates the investor. This is one of the criticisms leveled against the contract law equivalent of full compensation—expectation damages. Disputably, the damage limitations of certainty and foreseeability and the mitigation requirement (and in countries like the United States, where attorney’s fees are generally not available to the prevailing party) make it unlikely that damages will put the injured party in the position it would have been had there been performance.⁵⁴ In other words, expectation damages cannot compensate for the intrinsic value a promisee has placed on the promisor’s performance.⁵⁵ A case can be made that an investor might similarly be undercompensated even when the full compensation standard is used. Recovery by investors has been limited through doctrines like certainty, and there may well be intrinsic values that are not captured by full compensation.⁵⁶

52. Abraham Bell & Gideon Parchomovsky, *The Hidden Function of Takings Compensation*, 96 VA. L. REV. 1673, 1677–90 (2010) (providing an overview of the some of the major justifications for the Takings Clause).

53. SORNARAJAH, *supra* note 1, at 11, 36.

54. George M. Cohen, *The Fault Lines in Contract Damages*, 80 VA. L. REV. 1225, 1229 (1994); Schwartz, *supra* note 46.

55. Marco J. Jimenez, *The Value of a Promise: A Utilitarian Approach to Contract Law Remedies*, 56 UCLA L. REV. 59, 107 (2008).

56. On the other hand, it is hard to see how intrinsic value fits into the

Nonetheless, any of the justifications given for the compensation requirement can be qualified to some extent, particularly when brought into a multi-factor analysis that is often used in actual disputes. It might be unfair for a host state to take property without paying for it, but it might also be unfair for an investor to receive a windfall, especially if the state has already borne the cost of a possible taking with no indication of rent-seeking. Similarly, the compensation requirement could indeed make the state aware of the true costs of its actions, but that still might not override a state's need and right to regulate its economy or environment, let alone to engage in sweeping economic or political reform. Finally, any compensation standard can risk being too stingy or too generous.⁵⁷ The concern about overcompensation continues to be a factor worth considering even if it is not the deciding one.

B. COMPENSATION STANDARDS IN CONTRACTS, TREATIES, AND CUSTOMARY INTERNATIONAL LAW

Host states and investors in direct transactions can agree on a standard of compensation in their contracts. Host states often decide on specific standards in treaties with other states. Alternatively, a standard can emerge into customary international law. This Section discusses how the risk assessment and amelioration conducted by a company and host country may affect the choice of compensation standard and how the chosen standard reflects these considerations.

more sophisticated financial and risk analyses used by a significant number of companies.

57. This is why some contracts scholars prefer specific performance as a remedy because it allows the parties' own valuation of performance to control. See, e.g., Jimenez, *supra* note 55, at 108; Schwartz, *supra* note 46. These concerns correspond to the Articles on State Responsibility's preference for restitution as a form of reparations. Articles on State Responsibility, *supra* note 4, art. 36(1). However, in the investment cases discussed in Part IV(D), most investors sought compensation. This could indicate that irrespective of any intrinsic value investors might attach to an investment, it is still in the investor's interest to seek damages, often because restitution is impractical or domestic and market conditions that led to the taking make it undesirable to remain in the host country. See Alan Schwartz & Robert E. Scott, *Market Damages, Efficient Contracting, and the Economic Waste Fallacy*, 108 COLUM. L. REV. 1610, 1613 (2008) (pointing out that when a buyer can find replacement goods, it will not seek specific performance even in jurisdictions where the remedy is available).

1. Contracts

With respect to investment contracts, investors and host states can be more nuanced in their choice of standard. In their due diligence, host states should inquire directly how prospective investors are identifying political risk and adjusting to it since host states, in one way or another, will bear the costs of that risk. If the parties choose full compensation measured by fair market value, they should plan in advance to avoid undercompensation or overcompensation. Host states with strong bargaining power may be able to insist on appropriate compensation, thus permitting the use of less-than-fair-market value under certain circumstances. However, investors with resources are rarely willing to shoulder political risk without the guarantee of full compensation, and even when they do, they are likely to require something of value in exchange, which increases costs to the states.⁵⁸

2. Treaties

Additional issues arise in how standards of compensation are embodied in treaties. Since treaties are between states rather than between host states and investors, states might avail themselves of the flexibility of the appropriate compensation standard, allowing full compensation while providing an option to pay less in some circumstances. This standard may have greater adoption in future treaties, particularly as developing countries become more assertive and developed countries gain more experience as host states in complying with international investment standards.⁵⁹

58. These points illustrate Katz's argument that while it is hard to embody efficient norms in treaties, parties probably have enough information to craft norms that suit their particular needs in individual transactions. See Avery Weiner Katz, *The Economics of Form and Substance in Contract Interpretation*, 104 COLUM. L. REV. 496, 507 (2004) [hereinafter Katz, *Economics*]; Avery W. Katz, *Remedies for Breach of Contract Under the CISG*, 25 INT'L REV. L. & ECON. 378, 381–82 (2005) [hereinafter Katz, *Remedies for Breach of Contract*]. See also Richard Craswell, *Against Fuller and Purdue*, 67 U. CHI. L. REV. 99, 158 (2000) (arguing that parties might decide in advance on a contract remedy above or below the standard measure of expectation damages).

59. UNCTAD estimates that 1,300 out of the 3,000 bilateral investment treaties in effect have reached the stage in which they can be terminated at any time. By 2018, that number is expected to grow to about 1,600. U.N. CONFERENCE ON TRADE AND DEVELOPMENT [UNCTAD], *World Investment Report 2013: Global Value Chains: Investment and Trade for Development*,

Nevertheless, present investment treaties often provide for full compensation or fair market value as the standard for takings.⁶⁰ A state committing to pay full compensation in the event of a taking is not unlike guaranteeing an investment up to its fair market value. But why would a state agree to this higher standard in advance?

Avery Katz maintains it is unlikely that norms codified in statutes and treaties are or can be chosen for efficiency reasons alone because states do not have enough information to know whether such norms will encourage efficient outcomes in all cases.⁶¹ Katz explains that a rule impacts many aspects of contracting behavior, such as the decision to perform or breach, how much to mitigate in the event of breach, and how much information to disclose during contract negotiations. It is thus impossible for a state to know in advance how the rule will affect the parties in every transaction.⁶² In his view, the rules embodied in “public legal texts” are better understood as the results from the tug-of-wars and compromises that mark political and diplomatic processes.⁶³ Applying Katz’s theory more broadly, states might choose the full compensation standard because they want to secure reciprocal protection for their investors, or because such norms serve as pre-commitment strategies that provide for the benefits of takings clauses and other benefits,⁶⁴ or because the standard signals greater openness to foreign investment and thereby attracts investors. Along these lines, when bilateral investment treaties began to

UNCTAD/WIR/2013, 108–10 (2013).

60. *E.g.*, Andrew Newcombe, *Sustainable Development and Investment Treaty Law*, 8 J. WORLD INVESTMENT & TRADE 357 (2007); Valerie H. Ruttenberg, *The United States Bilateral Investment Treaty Program: Variations on the Model*, 9 U. PA. J. INT’L BUS. L. 121 (1987); Kenneth J. Vandeveld, *The Bilateral Treaty Investment Program of the United States*, 21 CORNELL INT’L L.J. 201 (1988).

61. Katz, *Remedies for Breach of Contract*, *supra* note 58 at 382.

62. *Id.*

63. *Id.*

64. *E.g.*, Raquel Fernández & Jonathan Portes, *Returns to Regionalism: An Analysis of Nontraditional Gains from Regional Trade Agreements*, 12 WORLD BANK ECON. REV. 197 (1998). The authors explain that states should be encouraged to enter regional trade agreements for a number of non-traditional reasons, including support for domestic policy reforms and discouraging change to that law by subsequent regimes. *See id.* at 206–07. Membership might also strengthen the state’s bargaining power at the international level. *See id.* at 211–12. Entry can also help insure against protectionist moves by counterparties and help coordinate trade and non-trade policies, such as environmental standards. *See id.* at 208–13.

mushroom in number, Andrew Guzman opined that although developing countries as a group are likely to benefit from extracting concessions from investors in the form of opposition to the full compensation standard, each state has an incentive to adopt the full or even better-than-full standard to stand out from the others.⁶⁵

Regardless, it is worth considering whether the full compensation standard does in fact affect a company's decision to invest in a particular country. On one hand, practitioners and scholars urge potential investors to assess the legal environment of a potential host state, including the investment treaties that a state has entered, as part of pre-investment due diligence, and to also consider structuring investments in order to take advantage of favorable investment treaties.⁶⁶ As discussed in Part III, multiple companies take into account the political stability of a host country as they make investment decisions and demand higher returns to account for political risk.⁶⁷ Rodolphe Desbordes suggests that host countries can express and pay for this risk through tax relief, and host states with less resources could choose incentives such as favorable laws as proxies for direct payments.⁶⁸ Thus, a host state might see the full compensation standard as part of a larger package of non-monetary incentives.

On the other hand, it is not always clear how important the treaty guarantee is in theory or in practice. The promise to compensate at fair market value is roughly equivalent to a promise not to expropriate at all. Accordingly, an investor would be expected to assess the risk that a state will not pay full

65. Andrew T. Guzman, *Why LDCs Sign Treaties that Hurt Them: Explaining the Popularity of Bilateral Investment Treaties*, 38 VA. J. INT'L L. 639, 643 (1998). *But see* SANTIAGO MONTT, STATE LIABILITY IN INVESTMENT TREATY ARBITRATION: GLOBAL CONSTITUTIONAL AND ADMINISTRATIVE LAW IN THE BIT GENERATION 83–123 (2009) (arguing that the rapid acceptance of bilateral investment treaties and their standardization is better understood through network effects: a state otherwise inclined not to agree to a standard term does so because it wants to enjoy the benefits that accrue when significant numbers of states adopt a common standard).

66. *See, e.g.*, RUBINS & KINSELLA, *supra* note 2, at 25–26, 38.

67. *See* text accompanying notes 23–28 *supra*. *See also* Rodolphe Desbordes, *Global and Diplomatic Political Risks and Foreign Direct Investment*, 22 ECON. & POL. 92 (2010) (arguing that U.S. multinational enterprises consider global and diplomatic risks when deciding to invest). *See also* Kwan V. Le, *Political and Economic Determinants of Private Investment*, 16 J. INT'L DEV. 589 (2004) (finding, among other things, that unconstitutional regime change tends to hinder private investment).

68. Desbordes, *supra* note 67, at 120.

compensation just as it would assess the risk of expropriation. But because of this rough equivalency,⁶⁹ the investor has only delayed the risk analysis one step further. This might explain why the risk assessment literature focuses much more on conditions that might lead to the taking itself as if compensation is unavailable. As Irwin puts it, “[The company’s] decision whether to invest . . . depends on its estimate of the probability of the investment being expropriated and the values of the investment when the government keeps the promise and when the government expropriates.”⁷⁰ If an investor discounts the risk of expropriation without adjusting for the possibility of compensation, the problem of possible overcompensation discussed in the last Section reemerges—albeit in a somewhat different form.

Since a commitment to a standard of compensation can be part of a larger package of incentives a state might offer to a potential investor, it follows that commitment might be important when compared to other incentives or factors that make a country attractive, or it might not. This is one of the reasons South Africa recently decided to terminate some of its bilateral investment treaties, after having entered into a number of them during its return to democracy in the 1990s. The government noted that in the years following, it had received foreign investment from companies whose home countries had not entered into bilateral investment treaties with South Africa and no investment from companies from countries who had.⁷¹

This experience is anecdotal. According to an UNCTAD literature review, more recent studies indicate that bilateral investment treaties can lead to increased investment, largely by contributing to greater political certainty and investment

69. One can calculate a legal remedy such as compensation or damages as Dq , where D is the remedy and q is the probability of enforcement of the remedy. Qi Zhou, *An Economic Perspective on Legal Remedies for Unconscionable Contracts*, 6 EUR. REV. CONTRACT L. 25, 32 (2010). If full compensation is equated with fair market value (FMV), the remedy becomes $FMVq$. Since the host state completely controls whether or not it will pay FMV absent third-party intervention, q is equivalent to the probability the investor would have received full FMV without a taking. So, third-party adjudication can be seen as a way of increasing q . *Id.*

70. Irwin, *supra* note 16, at 90.

71. Xavier Carim, Dep’t. Trade & Indus., Rep. S. Afr., *Update on the Review of Bilateral Investment Treaties in South Africa* (Feb. 15, 2013), http://www.safpi.org/sites/default/files/publications/dti_review_of_bits_ppc_20130215.pdf.

protection.⁷² At the same time, regional and preferential trade agreements tend to have a greater impact than bilateral investment treaties because they improve economic conditions such as market size and costs of resources—which appear to be more important to businesses in investment decisions than the protections provided in bilateral investment treaties.⁷³

Similarly, it is not clear how treaty commitments, let alone a commitment to pay a specific standard of compensation, are accounted for in quantitative assessments of political risk. For example, the International Country Risk Guide, a proprietary publication used in quantifying country risk, divides such risk into economic, financial, and political components.⁷⁴ In assessing political risk, numeric scores are given in relation to twelve parameters: government stability, socio-economic conditions, investment profile, internal conflict, external conflict, corruption, political involvement of the military, religious tensions, law and order, ethnic tension, democratic accountability, and bureaucratic quality.⁷⁵ A state's treaty commitments, including the commitment to pay full compensation, could be relevant to the scoring of some of these parameters, such as government stability and law and order, but it is unclear how much weight would be given to them in comparison to all other factors.

A state may therefore choose to commit to full compensation

72. See U.N. CONFERENCE ON TRADE AND DEVELOPMENT [UNCTAD], *The Role of International Investment Agreements in Attracting Foreign Direct Investment to Developing Countries*, UNCTAD/DIAE/IA/2009/5, 55 (2009) [hereinafter *Role of International Investment Agreements*]. The study points out, however, that it is difficult to draw policy lessons from econometric studies because of limitations in the methodology and lack of data. See *id.* at 56–58. Since UNCTAD's somewhat positive report in 2009, studies have been equivocal about the impact of investment treaties on foreign direct investment flows. See, e.g., Axel Berger et al., *More Stringent BITs, Less Ambiguous Effects on FDI? Not a Bit!*, 112 *ECON. LETTERS* 270 (2011) (finding that there is no correlation between BITs that contain strong investor dispute provisions and increased FDI); Selen Sarisoy Geurin, *Do Bilateral Investment Treaties Encourage FDI Outflows?* (Ctr. Eur. Policy Studies, Working Paper No. 333 (Feb. 2011)), <http://homepages.ulb.ac.be/~mzanardi/BTW/Guerin.pdf> (finding a strong correlation between BITs entered by EU member states and investment outflows to developing countries).

73. UNCTAD, *Role of International Investment Agreements*, *supra* note 72, at 110.

74. See Hoti & McAleer, *supra* note 28, at 557–58; *International Country Risk Guide (ICRG)*, PRS GROUP, <http://epub.prsgroup.com/products/international-country-risk-guide-icrg> (last visited Mar. 20, 2016).

75. Hoti & McAleer, *supra* note 28, at 557–58.

in the treaties in hopes of attracting foreign investment, and there is some evidence that it will do so on balance. However, it appears that whether a state attracts investment will depend on a number of factors, such as market conditions, which could be far more important to the investors. Since it seems likely that a careful investor will plan as if compensation is unavailable, a state should weigh whether making such a commitment is worthwhile. Yet, a state faces a dilemma: if it chooses an appropriate compensation standard to preserve flexibility, it risks at least some investors taking the potentially lower standard into account as they decide whether to invest in the first place and charge the host state accordingly if they do.

Finally, it should be noted that committing to the full compensation standard in treaties increases the possibility of overcompensation. As will be discussed later, although adjudicators are sensitive to the problem of double payment and adjust awards accordingly, it is not common that the parties take the pre-investment allocations of risk into account, except perhaps in a general way. It is possible that even if an adjudicator is made aware of this issue, she could decide that since the host state has agreed to full compensation in the treaty, the standard should control without adjustment, particularly because there are other reasons that a state might commit to such a standard.

3. Customary International Law

As Parts I and II discussed, whether there is a single standard of compensation under customary international law is subject to debate. One could conceive of a general and consistent practice that emerges from the myriad individual transactions between investors and states—a practice recognized as obligatory over time. Such a standard could make its way into treaties (or vice versa), thereby formalizing an existing dynamic where treaties and customary norms interact with one another. At the contract level, an individual investor and host state are able to choose a standard that best fits their respective needs. The previous Section noted that states might choose the full compensation standard in their investment treaties for a number of valid reasons but questioned whether it always makes sense to do so, particularly when the appropriate compensation standard provides more flexibility without precluding full compensation. This Section will draw from some of the law and

economics literature on contracts to ask whether full compensation might nevertheless be the preferred standard, specifically as a customary norm.⁷⁶

From an economic perspective, a standard of compensation (as with any contract rule) should perform three functions: it should encourage parties to enter into contracts when it is mutually beneficial to do so, it should encourage the parties to invest the right amount into the contract to maximize the benefits gained from the contractual relationship, and it should give an incentive for each of the parties to perform if the value to be gained from performance is higher than the cost.⁷⁷ Hopefully, a compensation standard in international investment law would perform the same functions—one around which host states and investors might coalesce. Such a hope is somewhat dim.

In a 2003 review of thirty years of law and economics literature, Eric Posner argues that although the approach has added a number of insights into the contract law, it has largely failed in at least two respects.⁷⁸ First, Posner asserts that as a theory, law and economics has not been able to adequately explain or predict the content of contract law.⁷⁹ Posner uses

76. Arguably, these issues might be better understood from a property paradigm, particularly since much of the takings literature is based on property principles as previously discussed. In my view, however, the contract analogy is apt: many foreign investments expressly take the form of contracts, and the decisions whether to invest, how much to invest, and on the part of the state, whether to take an investment or not can be seen as similar to those made by parties in contracts. In support of this position, see JESWALD W. SALACUSE, *THE THREE LAWS OF INTERNATIONAL INVESTMENT: NATIONAL, CONTRACTUAL, AND INTERNATIONAL FRAMEWORKS FOR FOREIGN CAPITAL* 29 (2013) (explaining that investment is a form of negotiation between the host state and the investor). This discussion could have perhaps fit just as easily into the discussion of treaties. I choose to locate it here because it is intriguing to think of international norms as emerging out of sub-international or transnational interactions that crystallize into higher-level norms, or perhaps out of evolutionary processes that are the concern of evolutionary game theory and complexity theory.

77. Schwartz & Scott, *supra* note 57, at 1611.

78. *E.g.*, Eric A. Posner, *Economic Analysis of Contract Law After Three Decades: Success or Failure?*, 112 YALE L.J. 828 (2003).

79. *Id.* at 830. For direct rejoinders to Posner's critique, see Ian Ayres, *Valuing Modern Contract Scholarship*, 112 YALE L.J. 881 (2003); Richard Craswell, *In That Case, What is the Question? Economics and the Demands of Contract Theory*, 112 YALE L.J. 903 (2003). Jeffrey Harrison surveys the influence of law and economics in contract law through a study of citations of law and economics scholarship in Jeffrey L. Harrison, *The Influence of Law and Economics Scholarship on Contract Law: Impressions Twenty-Five Years Later*,

contract remedies as one of several illustrations to support his argument.⁸⁰ Perhaps the expectation measure of damages gives a promisor proper incentives to perform when it is efficient to do so and to breach when it is not. This is because the expectation measure is supposed to represent the value of the contract, so a promisor will perform when the cost of performance is lower than that value and will breach when the costs are higher. This measure also has the salutary effect of allowing the promisor to breach the contract if another party values performance even more, as long as the promisor compensates the non-breaching party.⁸¹ But the measure fails to ensure that the promisee does not over-rely on the contract. Absent a damage award, a promisee will base its reliance in part on its estimate of the chances the promisor will default. Expectation damages can have the unwanted effect of causing the promisee to invest in a transaction more than is efficient since the promisee knows in advance that her return is certain.⁸² A better measure of damages would compensate the promisee when her reliance is efficient but not otherwise. Yet, Posner points out, expectation damages continue to be the predominant form of damages awarded, without much attention paid to the problem of inefficient reliance.⁸³

A second shortcoming for Posner is that the theory does not “provide a solid basis for criticizing and reforming contract

68 N.Y.U. ANN. SURV. AM. L. 1 (2012).

80. See Posner, *supra* note 78.

81. This is the efficient breach theory. *But see* Daniel J. Friedman, *The Efficient Breach Fallacy*, 18 J. LEGAL STUD. 1 (1989); Florian Rödl, *Contractual Freedom, Contractual Justice, and Contract Law (Theory)*, 76 LAW & CONTEMP. PROBS. 57, 58 (2013). These critiques argue that the efficient breach theory proves too much because it would justify conversion. In my view, that particular critique assumes that there is a one-to-one match between the motivations for contract law and those that inform property law.

82. As George Cohen puts it, “Other things equal, a higher damage measure will lead the promisor to take more precautions and mitigation steps, but will lead the promisee to take fewer precautions and mitigation steps.” George M. Cohen, *The Fault Lines in Contract Damages*, 80 VA. L. REV. 1225, 1235 (1994).

83. See Posner, *supra* note 78, at 835, 838. There are other problems with the theory. Coase’s insight indicates that if negotiation costs are low enough, any damage rule will lead to efficient outcomes. If a promisee wants performance badly enough and the measure is low, he will pay the promisor for performance; if the promisor no longer thinks it is worthwhile to perform and the measure is high, he will pay the promisee to be released. *Id.* at 835. The measure also does not account for the ability to set damages in advance of the contract and does not work well when there is asymmetric information. *Id.* at 835–36.

law.”⁸⁴ This follows from the inability to explain existing doctrine. One of the upshots of the critique of the expectancy measure is that different measures of damages will be efficient depending on the circumstances. So, in theory, contract law could try to embody these different damage measures and circumstances in the doctrine, but has not done so. One might pick a measure because it represents the average behavior of parties, but as Posner points out, that assumption is difficult to verify in fact.⁸⁵

Posner notes further that the literature on incomplete contracts leads to a similar impasse in regulating efficient performance and reliance.⁸⁶ The focus on this literature is on contract design as opposed to contract rules. Again, if it were possible, a contract would be designed to encourage the promisor to perform if the value of the contract is greater than the cost, and the promisee to make an optimal investment.⁸⁷ According to the literature, transaction costs make it impossible for a court to assess the investment made by the promisee.⁸⁸ Contract law could solve this problem by providing procedures for parties to bargain with one another based on their estimates of value and reliance, but in general, contract law does not supply doctrines that allow for this kind of ex post bargaining.⁸⁹ In short, “Simple models do not justify legal reform because these models exclude relevant variables. Complex models do not justify legal reform because the optimal rule depends on empirical conditions that cannot be observed.”⁹⁰

If Posner is right about the state of law and economics with regard to contract, what implications might this critique have for the formation of a standard of compensation under customary international law? Customary international law is concerned with a general and consistent practice of states performed out of a sense of legal obligation. These emerging practices are not necessarily associated with efficiency, nor does one normally argue for a particular, efficient norm around which states should coalesce. In theory, however, if different compensation rules are efficient under different circumstances,

84. *Id.* at 830.

85. *See id.* at 880.

86. *See id.* at 856.

87. *Id.*

88. *Id.* at 857.

89. *Id.* at 859.

90. *Id.* at 854.

then states will not orient their practices around one norm, whether a substantive norm like full compensation or a process norm such as a right to renegotiate, since neither can claim to represent the average practice of individual parties in specific transactions. Even if such a norm existed, it would be too complex to be workable. If states did in fact converge on one or perhaps two compensation standards, the implication would be that states have other, non-economic reasons for choosing such standards, just as they would in choosing a particular standard for a treaty.

At the same time, no matter what the motivation is for choosing to follow a particular practice, such a method will not make the problem of inefficient performance or reliance go away. This is another way in which a state potentially bears the cost of investment: it has decided to incur monetary costs (or forgo an investment completely) in furtherance of other goals.

It can be argued that this critique proves too much. Setting a compensation rule as a customary norm or a treaty norm for future application is, after all, another way of planning for that future. The fact that there is no way to predict how a compensation rule will affect the behavior of the parties is true of any measure states or investors take before a decision to invest. Nevertheless, as discussed in Part III, parties do plan for that future by using methods of varying sophistication to predict risk and by structuring their agreements in hopes of allocating that risk. Obviously, as Katz argues, the better tailored the planning method is to particular circumstances, the more likely it is to succeed, so a standard of compensation chosen at the individual transaction level is more likely to result in optimal levels of investment and performance than one chosen to apply in all cases.⁹¹ Further, it may be that other methods are better than a compensation standard at obtaining those results, but all of this is a matter of degree.

Even though a fixed standard may not give adequate incentives for efficient performance or reliance, and even though the doctrine itself does not facilitate bargaining between the parties at the time of performance to adjust for that reliance, nothing prevents the parties from contracting around the existing laws. More complex contracts do contain provisions that encourage efficient reliance on the part of the promisee⁹² and

91. See Katz, *Economics*, *supra* note 58, at 507; Katz, *Remedies for Breach of Contract*, *supra* note 58, at 394.

92. For example, production sharing agreements contain provisions that

clauses that permit re-pricing to at least some extent.⁹³ Moreover, there is always the possibility of negotiations throughout the term of a contractual relationship.⁹⁴ At the other end of the relationship, it is also expected that performance and reliance issues will arise when there is a dispute and the compensation standard is applied, whichever it may be. As will be discussed in Section D, decision makers appear to be aware of these issues and some respond to them to greater or lesser extents. Since none of these measures work universally, it is difficult to see how any compensation norm rising to the level of customary international law would do any better.

C. TYPES OF TAKINGS AND BREACHES OF OTHER OBLIGATIONS

Another issue is whether a standard of compensation should depend on the legality of the taking⁹⁵ and what rule should apply when a host state has violated other investment obligations. Sornarajah takes the view that *Chorzow's* full reparation standard should apply only when a state has breached an obligation of international law.⁹⁶ Others argue there must be a

monitor the expenses energy companies incur in performing the contract. See *Timor-Leste Model Production Sharing Contract Under the Petroleum Act*, art. 16, <http://www.laohamutuk.org/Oil/PetRegime/PSC%20model%20270805.pdf> [hereinafter *Timor-Leste Model Production Sharing Contract*] (establishing a committee consisting of representatives of the home state ministry and the contractor which oversees budgets, work orders, etc.); Egyptian Natural Gas Holding Company "EGAS," *2012 International Bid Round: Main Contract Terms and Conditions*, ¶ 15 (on file with author) (contemplating that budgets for a project awarded under the bid process will be governed by a joint committee of the government and the contractor for eventual approval by the relevant ministry). A production sharing agreement used in energy projects is an arrangement whereby a host country allows an investor to develop a region to produce oil and gas in exchange for a share of the oil and gas sold. The host country retains title to undeveloped oil. INT'L INSTITUTE FOR ENV'T AND DEV., *supra* note 42, at 21.

93. Article 10 of the *Timor-Leste Model Production Sharing Contract*, *supra* note 92, sets the price of oil as of the time when delivered to the place of export. Thus, the price of the commodity itself is able to change. However, the ultimate percentage of petroleum shared between the parties remains fixed. *Id.* at art. 7.1.

94. Some investment contracts appear akin to the long-term, intertwined contracts addressed in relational contract theory, in which there might be an expectation of period extra-judicial and judicial adjustments to the contract or contracts that govern that relationship. See IAN R. MACNEIL, *THE NEW SOCIAL CONTRACT: AN INQUIRY INTO MODERN CONTRACTUAL RELATIONS* (1980).

95. Recall that a taking is legal if it is done for a public purpose, in a non-discriminatory way, with compensation to the investor.

96. SORNARAJAH, *supra* note 1, at 425–26.

distinction in remedies based on legality, since otherwise there would be no distinction between legal and illegal behavior and the deterrent effect of the law would be weakened.⁹⁷ As a result, some contend that when a taking is legal, fair market value as of the time immediately before the taking became known should be awarded and when it is illegal, fair market value including increases in value up to the time of the judgment should go to the investor.⁹⁸ Others find that anticipated profits should be awarded when a taking is legal, but should not be available when it is not.⁹⁹ Some tribunals have awarded full compensation including anticipated profits without regard to legality.¹⁰⁰ For breaches of other investment obligations, tribunals have found that full compensation including lost profits is the appropriate measure, in such cases often referring to the law of state responsibility as set out in the Articles on State Responsibility as the basis for that standard.¹⁰¹

An investor might agree that the remedies for an illegal taking should be greater than the remedies for a legal taking, but all things being equal, it seems more likely that an investor would view the issue differently: it would prefer to receive, at a minimum, an amount necessary to recover its investment irrespective of the legality of the taking or the obligation breached,¹⁰² and would likely accept any award over that

97. See RIPINSKY & WILLIAMS, *supra* note 9, at 65. The issue should not be taken lightly since it is so closely tied to the rule of law, in which a remedy exists for every wrong. See FISCHER, *supra* note 3, at 1 (citing 1 WILLIAM BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND 23 (1765)).

98. See RIPINSKY & WILLIAMS, *supra* note 9, at 86–87. Timing does not always turn on legality or illegality. In *ADC Affiliates v. Hungary*, the tribunal awarded compensation as of the date of judgment because the value of expropriated assets in question had increased since the expropriation. See *ADC Affiliates v. Republic of Hung.*, ICSID Case No. ARB/03/16, Award, ¶ 499 (Oct. 2, 2006). In the tribunal's view, this was necessary to restore the claimants to the position they would have been in had there been no expropriation. *Id.* ¶ 497.

99. See RIPINSKY & WILLIAMS, *supra* note 9.

100. See CHARLES N. BROWER & JASON D. BRUESCHKE, THE IRAN-UNITED STATES CLAIMS TRIBUNAL 536 (1998) (reporting that the vast majority of decisions before the Iran-United States Claims Tribunal have awarded full compensation irrespective of the legality of the taking).

101. See, e.g., *Railroad Development Corporation v. Republic of Guat.*, ICSID Case No. ARB/07/23, Award, ¶ 244 (June 29, 2012) (stating that the Articles on State Responsibility require full reparation for breach of the minimum standard of treatment under CAFTA); *Arif v. Republic of Mold.*, ICSID Case No. Arb/11/23, Award, ¶ 560 (Apr. 8, 2013) (affirming that the Articles on State Responsibility require full compensation for breach of a fair and equitable treatment provision in a bilateral investment treaty).

102. Arguably, the claimant has already priced unlawful acts through its

amount. An investor would therefore likely ask for full compensation in all situations. Charles Brower and Jason Brueschke observe that claimants before the Iran-United States Claims Tribunal have asked for such compensation regardless of the legality of the taking.¹⁰³ Interestingly, claimants have tended not to ask for punitive damages.¹⁰⁴ This might be because the law appears well-settled that punitive damages are unavailable, so claimants are not inclined to ask, but it might also be because claimants are less concerned with deterring future takings or vindicating wrongs than with recovering their investment. Indeed, if more recovery is available for illegal takings, this creates an odd incentive for investors to prefer states that engage in illegal, as opposed to legal, takings.

From the perspective of the host state, paying less compensation is preferred, since any compensation standard raises the cost of its policy decisions. As discussed, in theory, if the standard is full compensation equal to fair market value (including profits earned through the life of the project), a host state's position does not change post-taking because the value gained (including any surplus enjoyed by the investor) is offset by the costs of compensation. To tip the balance in favor of a taking, returns must exceed the value of the investment, perhaps through network effects, and the returns here often are not represented by value of the project alone, but includes intrinsic gains such as furthering macroeconomic or national sovereignty goals. A full compensation standard would allow the state to enjoy those gains while making the investor whole. However, as explained in Part III, unless the full compensation standard can be adjusted, it does not allow the state to prevent potential windfalls that come from an investor's pre-investment risk mitigation strategies. Furthermore, if the state does not have enough resources to compensate the investor (assuming compensation must be prompt), the full compensation standard would prevent the state from engaging in activities that might result in those gains. Since the appropriate compensation standard would permit less than full compensation to be paid, that standard would obviously enable the state to engage in gainful activities. This would sometimes be at the expense of the

calculation of expected returns and pre-investment strategies.

103. BROWER & BRUESCHKE, *supra* note 100, at 507–08. Such claimants provide that such a remedy is available under the treaty that establishes the tribunal and under customary international law. *Id.*

104. *Id.* at 477.

investor, however. This could be justified on utilitarian grounds, but other investors would be expected to take notice and require the state to pay more for their investments. Note that throughout this discussion, the legality or illegality of the taking matters only insofar as it leads to a difference in the amount of compensation.

With respect to compensation for other breaches, the concern that the expansion of obligations owed to investors restricts host states' ability to regulate their economies and address environmental issues is not new. Most of that debate appropriately centers on the substance of such standards. Still, it is obvious the remedy for their breach is not an irrelevant question. Remedies are presumably available in case of states' failure to give fair and equitable treatment, denial of justice, failure to provide effective remedies, disappointment of reasonable expectations, and actions tantamount to a taking. If these rise to the level of international obligations, the full compensation standard equal to fair market value and expected profits often applies. The concern is whether that standard would deter states from engaging in beneficial activities, or in the case of breach, overcompensate the investor for any injury suffered. As might be expected, much of this turns on how one values such injuries and on the posture of the investor when it makes a claim, among the issues to which this Article now turns.

D. STANDARDS OF COMPENSATION IN DISPUTE RESOLUTION

The debate over standards of compensation and their application is most keenly felt when there is a dispute between the host state and the investor. Tribunals are criticized for their lack of consistency in both their selection and application of these standards.¹⁰⁵ As for valuation, decision makers receive harsh reviews for lacking financial expertise, failing to explain their reasoning in determining values, and resorting to rules of thumb such as splitting-the-difference—to the detriment of investor-state dispute resolution's legitimacy.¹⁰⁶ At its core, if

105. See, e.g., John Y. Gotanda, *Recovering Lost Profits in International Disputes*, 36 GEO. J. INT'L L. 61, 61–62 (2005) (analyzing inconsistencies in awarding profits); Irmgard Marboe, *Compensation and Damages in International Law: The Limits of "Fair Market Value,"* 7 J. WORLD INVESTMENT & TRADE 723, 723 (2006) (stating that "judgments and awards often lack sufficient reasoning or consistency").

106. For a discussion of the threat this inconsistency poses to the legitimacy

compensation for takings and remedies for breach are designed to place the investor in the position it would have been had the state not taken the investment or breached an obligation with respect to it, tribunals face a difficult conceptual problem of predicting what the world would have been had the state not acted. Additionally, given concerns about overcompensation and undercompensation as well as the other policies that motivate that law, it is not surprising there is variation as those rules are applied in individual cases.

At the outset, however one weighs judicial or arbitral decisions as evidence of international law,¹⁰⁷ the trend in investment disputes has been to apply a full compensation standard or its equivalent, particularly if a taking is found to be illegal or the state is found to have breached some international investment obligation. Thus, the remainder of this discussion will focus on the full compensation standard and the way the issues discussed in this Article might appear as that standard is applied at the valuation stage.¹⁰⁸

The valuation of investments is a large discipline unto itself and it is impossible to do it justice in the limited space here.¹⁰⁹ A useful starting point is the commentaries to the Articles on

of the dispute resolution system, see Joshua B. Simmons, *Valuation in Investor-State Arbitration: Toward a More Exact Science*, 30 BERKELEY J. INT'L L. 196, 208–218 (2012).

107. See Eric De Brabandere, *Arbitral Decisions as a Source of International Investment Law*, in INTERNATIONAL INVESTMENT LAW: THE SOURCES OF RIGHTS AND OBLIGATIONS 245, 246–47 (Tarcisio Gazzini & Eric De Brabandere eds., 2012) (arguing that arbitral precedents are an “important but subsidiary source of international investment law”); SORNARAJAH, *supra* note 1, at 429 (explaining that the decisions of arbitral tribunals should be given little weight in establishing international norms).

108. Ursula Kriebaum and August Reinisch argue that the actual valuation technique used in a proceeding is more important than what compensation standard is chosen. Ursula Kriebaum & August Reinisch, *Property, Right to, International Protection*, in MAX PLANCK ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW ¶ 31 (Rüdiger Wolfrum ed., 2009), <http://opil.ouplaw.com/home/EPIL>. See also Maarten H. Muller, *Compensation for Nationalization: A North-South Dialogue*, 19 COLUM. J. TRANSNAT'L L. 35, 37 (1981) (arguing that because valuation is difficult, “compensation standards cannot be captured under such rubrics as ‘adequate,’ ‘appropriate,’ ‘just,’ ‘equitable,’ or ‘fair’”). In contrast, Sornarajah says that the debate should remain at the choice of standard, not valuation. SORNARAJAH, *supra* note 1, at 450 (“Methods of valuation should not be the means by which the tail is made to wag the dog.”).

109. For recent studies, see MARK KANTOR, VALUATION FOR ARBITRATION: COMPENSATION STANDARDS, VALUATION METHODS AND EXPERT EVIDENCE (2008); MARBOE, *supra* note 10; BORZU SABAHI, COMPENSATION AND RESTITUTION IN INVESTOR-STATE ARBITRATION: PRINCIPLES AND PRACTICE (2011).

State Responsibility.¹¹⁰ The commentaries observe that compensation for loss falls under two main categories: capital value and loss of profits.¹¹¹ Loss to capital is often assessed by its fair market value and fair market value itself is assessed according to the nature of the asset involved.¹¹² The task is relatively straightforward if there are comparable assets on the open market; it becomes more complicated if a business is privately held.¹¹³ With regard to businesses, the attempt is to value the company's assets and to allow for good will and profitability as appropriate.¹¹⁴ Another method for evaluating capital loss is net book value, the difference between the company's assets and liabilities as they appear on its books.¹¹⁵ If the business is not a going concern, sometimes "dissolution" value is used. This is the value of the assets if the company is broken up and the assets are sold separately.¹¹⁶ Lost profits may arise prior to the taking, between the taking and the adjudication, and after adjudication, and are available depending on the circumstances. However, they are not awarded if they cannot be established as a legal right and are subject to standard damage limitations such as foreseeability and certainty.¹¹⁷ In general business litigation, as a rule of thumb, loss in capital or business value (including loss of future

110. Rep. of the Int'l Law Comm'n, 53rd Sess., U.N. Doc. A/56/10 (Apr. 23–June 1, July 2–Aug. 10, 2001); GOAR, 56th Sess., Supp. No. 10 (2001). [hereinafter *Commentaries*]. For discussion of valuation techniques in international law, see also Marboe, *supra* note 105, at 736–42 (discussing valuation methods); RIPINSKY & WILLIAMS, *supra* note 9, at 181–259.

111. *Commentaries*, *supra* note 110, art. 36, Commentary ¶ 21. Incidental expenses are another category of damages. *Id.*

112. *Id.* ¶ 22.

113. *Id.* The goal is to estimate the value the business would have realized in an arm's length transaction. It is:

an amount that a willing buyer would normally pay to a willing seller after taking into account the nature of the investment, the circumstances in which it would operate in the future and its specific characteristics, including the period in which it has been in existence, the proportion of tangible assets in the total investment and other relevant factors pertinent to the specific circumstances of each case.

WORLD BANK GUIDELINES, *supra* note 8, art. IV(5).

114. *Commentaries*, *supra* note 110, art. 36, Commentary ¶ 23.

115. *Id.* ¶ 24.

116. *Id.* ¶ 25.

117. *Id.* ¶¶ 28–32.

earnings and good will) is appropriate when the business has been destroyed as a result of another's actions. If the business is not destroyed, lost profits are more appropriate. A combination of the two is payable when a business has been impaired for a period of time and then eventually is destroyed.¹¹⁸

The pre-investment risk assessment and risk mitigation and allocation strategies that companies and host states employ raise at least three issues when it comes to valuation: timing of valuation, consideration of political risk before breach, and the award of lost profits.

1. Timing

Recall that the value of assets is calculated as of the time immediately before a taking or breach, or in some cases at the time of adjudication. Suppose that prior to beginning a project, an investor and host state estimate that the project will be worth \$1 million at year ten. In year ten, the project is expropriated and the investment is found to be worth \$1.5 million. Under the current rules, the investor will receive the \$500,000 surplus as a matter of course. But should it? That depends on who is primarily responsible for that surplus. The argument in favor of the investor is that, but for its capital, the surplus would not be possible. In addition, the investor company takes the downside business risk, so it should be able to enjoy the upside benefit. Yet, Sornarajah and others argue, in some cases, the increase in value of the investment is better understood as a windfall. For example, an unforeseen reduction in the supply of oil in another part of the world could suddenly make an investment in a host state far more valuable. Sornarajah questions whether the investor should be entitled to the full value of the investment under such circumstances.¹¹⁹

This argument concerning windfalls is a specific example of the more general debate discussed earlier on the extent to which an investor and host state's pre-investment risk allocations should influence an award. In the example, the investor has

118. See Elizabeth A. Evans et al., *Developing Damage Theories and Models*, in LITIGATION SERVICES HANDBOOK: THE ROLE OF THE FINANCIAL EXPERT 4.1, 4.17 (Roman L. Well et al. eds., 5th ed. 2012); Kenneth M. Kolaski & Mark Kuga, *Measuring Commercial Damages via Lost Profits or Loss of Business Value: Are These Measures Redundant or Distinguishable?*, 18 J.L. & COM. 1, 4-5 (1998).

119. See SORNARAJAH, *supra* note 1, at 39, 75. See also Muller, *supra* note 108, at 68-69 (laying out the arguments for recouping "windfalls").

presumably priced its reliance and has taken risk management measures with a view towards having an asset worth \$1 million in year ten. The state has likely incurred costs as well on the assumption that the project will be worth that much.¹²⁰ Awarding the full \$500,000 to one party would raise issues of unjust enrichment at the expense of the other. Under such circumstances, a strategy such as splitting-down-the-middle begins to look less arbitrary than it does at first glance.

2. Pre-Investment Risk Strategies More Generally

As just discussed, the issue of timing is a variation of the more general concern that an investor might be overcompensated if a decision maker does not take the parties' pre-investment risk assessment and allocations into account. Courts and tribunals sometimes do take those allocations into consideration in rough terms. If, for example, an investor underestimates or ignores possible risks prior to investing, the investor can be said to have assumed such risks, in a sense contributing to whatever loss it has suffered.¹²¹ However, this does not happen in a systematic way, particularly when fair market value is assessed through a discounted cash flow analysis. As mentioned in Part III, the textbook way to account for political risk or other risks associated with a particular project is to adjust the amount of expected cash flows; nonetheless, companies often factor such risks into the discount

120. If the investment's value at the time of the taking is less than the pre-investment estimate of value, the same problem of distributing the loss arises and will be based on who is responsible for it. If the state is responsible for the loss in value, the recovery will likely be based on an estimate of what the value of the investment would have been but for the state's action or omission.

121. Article 39 of the Articles on State Responsibility, *supra* note 4, provides that when determining reparations, "account shall be taken of the contribution to the injury by willful or negligent action or omission of the injured State or any person or entity in relation to whom reparation is sought." In *Azurix Corp. v. Argentina*, the tribunal denied an investor's claim to be compensated for the price it had paid via a bidding process for a water and sewage concession. In the tribunal's view, the claimant's bid had been too aggressive. It argued that a reasonable investor would have realized that, given the tariffs that were being charged for the service and the limitations on how much those tariffs could be increased, the price for the concession would have been recoverable only through an expansion of the system and improvements in efficiency. *Azurix Corp. v. Argentina*, ICSID Case No. ARB/01/12, Award, ¶¶ 426–29 (July 14, 2006). *See also* *Impreglilo S.p.A. v. Argentina*, ICSID Case No. ARB/07/17, Award, ¶¶ 364, 374–75 (June 21, 2011) (criticizing an investor's pre-investment forecasts about the value of a concession as being too optimistic).

rate. When the discounted cash flow method is used to calculate fair market value, some respondents have asked that the discount rate be increased to reflect political risk so that the valuation will be lower.¹²² Sometimes the issue does not appear to be raised.¹²³

One case comes close to addressing these concerns about discount rates. In *LG&E Energy Corp. v. Argentina*,¹²⁴ the respondent was found in breach of various obligations under a bilateral investment treaty with respect to investors in a number of gas distribution companies. The respondent had abrogated a tariff regime that was to serve as the principal source of income

122. For example, in *Kardassopoulos v. Georgia*, the respondent was found to have breached a treaty obligation to provide fair and equitable treatment to investors who were to construct and operate an oil pipeline. At the valuation stage, a discounted cash flow analysis was used to calculate the fair market value of the joint venture and concession associated with the project. Claimants and respondent argued about the extent to which the discount rate should be increased to reflect political risk, and the tribunal held for the claimants' discount rate. *Kardassopoulos v. Georgia*, ICSID Case Nos. ARB/05/18 and ARB/07/15, Award, ¶¶ 624–31 (Mar. 3, 2010). In some circumstances, a lower valuation could result in higher compensation for the claimant. In *Sempra Energy Int'l v. Argentina*, the tribunal was required to determine how much an investment in gas distribution companies would have been worth had Argentina not instituted a series of economic measures during the crisis of 1998–2001, so that it could award the difference between that value and the value of the investment after those measures had been taken. *Sempra Energy Int'l v. Argentina*, ICSID Case No. ARB/02/16, Award (Sept. 28, 2007). The tribunal considered whether the discount rate should be increased to reflect the fact that the premium for government bonds issued by Argentina was high because the bonds were in default. *Id.* ¶ 432. It decided not to do so, in part because it had been established that the country risk premium used by investors in private companies at the relevant time was lower than Argentina's credit risk premium. The tribunal also reasoned that, given the regulatory structure for gas distribution that would have been in place had the measures not been taken, the claimants would have been shielded to some extent from the greater crisis. *Id.* ¶ 433. Finally, although the tribunal conceded that, had the claimants sold the investment during the crisis, "investors might very well have applied an extremely high discount rate and undervalued the equity." *Id.* ¶ 435. However, the tribunal did assess the impact the crisis had on the tariffs charged on gas and on gas consumption. *Id.* ¶¶ 437–50.

123. In *Alpha Projektholding GMBH v. Ukraine*, the claimant and respondent agreed to use the discounted cash flow method to measure the fair market value of assets associated with the renovation and operation of a hotel. *Alpha Projektholding GMBH v. Ukraine*, ICSID Case No. ARB/07/16, Award (Nov. 8, 2010). The tribunal agreed with the claimant's discount rate, which was the weighted average cost of capital based on the debt-to-equity ratio of the hotels and motels category for emerging markets as set out in a commercial reporting service. *Id.* ¶ 482. There is no indication either claimant or respondent adjusted the discount rate for political risk.

124. ICSID Case No. ARB/02/1, Award (July 25, 2007).

for the businesses. At the damages stage, the respondent claimed that a country risk premium had already been factored into the calculation of the tariffs; thus the claimants had already been compensated for that risk, presumably through higher tariffs while the regime had been in place.¹²⁵ The tribunal acknowledged that a premium had been factored in, but rejected the argument that compensation should be reduced to account for it. The tribunal reasoned that the tariff regime had “additional conditions than those covered by the country risk premium.”¹²⁶ It was also persuaded by the claimant’s rejoinder that acknowledging the respondent’s arguments “would result in the absurd situation that high-risk borrowers would be excused from their international responsibility.”¹²⁷

The tribunal’s reasoning has merit, but it only serves to highlight the tension that arises between business practice and the aims of the law. To take the borrowing analogy further, there are high-risk borrowers, but there are high-risk lenders as well. To elaborate on a point made earlier in Section A of this Part, such lenders mitigate that risk through various forms of credit enhancement: higher interest rates, third-party guarantees, and insurance. Here, higher interest rates in the form of higher tariff rates for gas was one of the mechanisms chosen, so that while the tariff regime was in place, the investors were in fact being paid more to invest in a risky business environment. At the same time, the respondent had in fact breached international obligations. Under international law the very finding of international responsibility is a form of sanction, so even if no reparations are awarded, a state would not be absolved of responsibility. It would still be of little comfort to the injured party, unless it has already been compensated in the form of higher payments prior to the state’s wrongful act.¹²⁸

125. *Id.* ¶ 27.

126. *Id.* ¶ 52.

127. *Id.*

128. Notably in the *LG&E* case, the claimants only prevailed in part. Claimants asked for the full fair market value of their shares in the three gas companies in which they invested. That value was to be based on the sale price of their publicly traded shares for two public companies and on comparable sales for the third (which was privately held). *Id.* ¶ 14. The tribunal rejected this argument because, in its view, the abrogation of the tariff regime had depressed the level of dividends payable to shareholders but had not destroyed the value of the shares. Thus, it based its award on the amount of dividends that would have been received but for the abrogation. *Id.* ¶¶ 47–48. The tribunal also found that future dividends could not be paid because they were too speculative. *Id.* ¶ 90.

3. Lost Profits

Recall that the Articles on State Responsibility provide that “compensation shall cover any financially assessable damage including loss of profits insofar as it is established,”¹²⁹ and that in the business context this refers to a business’s capital value and profits. These two types of damages roughly match Roman law concepts of *damnum emergens*, a measure akin to reliance, and *lucrum cessans*, the loss of expected gains. As Mark Kantor notes, though, modern valuation techniques, such as the discounted cash flow method, do not map readily onto these traditional concepts.¹³⁰ It appears well understood among commentators that if the standards are misapplied, there will be double counting. This is because the discounted cash flow method used to calculate value is based on the cash flows that will be generated throughout the life of the investment, which includes what might be understood as profit.¹³¹ The solution is to award either the loss in value or lost profits, but not both, or award the two, but use some method to ensure that there is no overlap.¹³² As commentators observe, however, tribunals have not always been sensitive to the issue.¹³³

129. Articles on State Responsibility, *supra* note 4, art. 36.

130. See KANTOR, *supra* note 109, at 198–99.

131. See *id.* See also MARBOE, *supra* note 10, at 102–07; SABAHI, *supra* note 109, at 126–27; *Commentaries*, *supra* note 110, art. 36 cmt. 26; Louis T. Wells, *Double Dipping in Arbitration Awards? An Economist Questions Damages Awarded to Karaha Bodas Company in Indonesia*, 19 ARB. INT’L 471 (2003). Kantor explains:

An Income-Based Approach like a DCF forecast calculates the net present value of *all* cash flows an equity investor will receive, including the component of those cash flows that constitutes a recovery by the investor of invested capital (sunk investment costs) as well as the component that constitutes a return on that equity capital (gross profits to the investor). If the arbitrator awards recovery of the invested capital as *damnum emergens* and also separately awards the net present DCF amount as *lucrum cessans*, the investor’s recovery will double count the invested capital.

KANTOR, *supra* note 109, at 199.

132. KANTOR, *supra* note 109, at 200; MARBOE, *supra* note 10, at 106–07.

133. One case in particular, *Karaha Bodas Co. v. Pertamina*, has been criticized on this ground. *Karaha Bodas Co. v. Perusahaan Pertambangan Minyak Dan Gas Bumi Negara (Pertamina)*, Award (Dec. 18, 2000). The Award is available as an Exhibit to Petition to Confirm Arbitral Award and to Enter Judgment in Favor of Petitioner, *In re* Arbitration between Karaha Bodas Co.

There may be another limitation on profits. As discussed in Part III, even though the practice is waning, a significant number of companies still use heuristic financial techniques such as the payback period method when deciding whether to invest. Imagine a company that uses this method estimates that it will take five years to recoup its investment and decides to invest on that basis alone. Imagine again that the company's prediction is correct, and the project does generate enough cash flow to pay for the investment within the first five years. After the seventh year, the host state breaches an obligation with respect to the investor so that the project is impaired, but not completely destroyed. Can the state argue that it does not need to pay the company's loss in profits, because from the company's *ex ante* perspective, it has been more than compensated for its investment already by receiving two more years' worth of cash flow than was sufficient to cause it to invest in the first place? By using the payback method, the investor has by definition ignored the cash flows, let alone the profits that would be earned after the end of the payback period. So the question arises why any compensation should be paid at all, since the investor has already been compensated for those assets during the payback period, and this was the basis upon which the investor decided to invest in the first place.

The company would argue that the five-year period of cash flow only represented the floor for its investment decision—of course it had hoped the project would generate more. If the company has investments elsewhere, it needs projects like this one that over-perform to offset those that underperform. But everything depends on the facts. To return one last time to the concerns raised earlier, if the investor insisted that it receive the lion's share of cash flow *vis-à-vis* the host state to ensure that

v. *Perusahaan Pertambangan Minyak Dan Gas Bumi Negara*, 190 F. Supp. 2d 936 (S.D. Texas 2001). The case involved a foreign-owned contractor hired to construct and operate a power plant. The resulting electricity would be sold to an Indonesian state-owned company. Due to an economic downturn, the Indonesian company cancelled its contract with the contractor. Prior to the cancellation, the contractor had invested a nominal amount into the project in comparison to the project's size, and the power plant was not yet operating. The case went to *ad hoc* arbitration, where the tribunal found that the Indonesian company had breached its contract. It awarded the investor a multiple of the amount it had invested in the property and, in addition, lost profits of \$150 million. Louis Wells argues that the tribunal likely overcompensated the claimants by awarding the amount of the original investment with no adjustment, plus the net present value of the expected cash flows. *See also* Wells, *supra* note 131, at 473–77.

the investment did pay for itself in five years, in a sense the investor has already insured itself against the state's breach.

These competing factors explain, at least in part, the variation in results by tribunals. To be sure, tribunals can benefit from further training in financial valuation methods to avoid conceptual errors that lead to great costs to the investor or to the host state. But on the other hand, valuation will always be less of a science and more of an art because of the different ways compensation, damages, and their relationship to one another are understood and justified. Recall Marboe's observation that an international practice has developed without vindicating any one of the several justifications urged for the requirement to compensate.¹³⁴ However, the fact that no theory has been vindicated does not mean that those theories do not inform decision makers as they craft remedies and value assets. This Article has argued that the pre-investment risk assessments of the investor and host state have some bearing on the standard of compensation used and the valuations of assets because investors and host states, viewed as economic actors, might have already provided in advance for possible losses and might not care about distinctions between compensation and damages. Given that there are cross-cutting issues at play, it is not surprising that there will be variation in the way awards are calculated.

V. CONCLUSION

There may be many reasons for the division in the international community over what standard of compensation should be used when a host state takes an investment or when it breaches an obligation owed to an investor, as well as the criticisms about the uneven way in which the standard is applied. This Article has asked what implications the investor's and host state's behavior might have on those standards and their application. Before there is an investment, investors and host states who wish to maximize the benefits of that investment appear to engage in a number of quantitative and qualitative risk assessments and allocation strategies that range from sophisticated analyses to rules of thumb. The result often is that the host state bears the cost of political risk in one way or another. This risk allocation raises the possibility of

134. MARBOE, *supra* note 10, at 14–15.

undercompensation or overcompensation once there is a dispute. This Article has also argued that a desire to maximize the benefits of an investment would influence the way the standard of compensation is chosen or embodied in individual contracts, treaties, and customary international law. Since it is unlikely that any one rule best meets the needs of even a majority of investors and host states from an efficiency standpoint, it would be surprising if either rule would emerge as the clear winner. States would be expected to try to adopt a standard that would preserve as much flexibility as possible, which would be afforded by the appropriate compensation standard. In a similar vein, it probably would not matter to an investor whether a taking is legal or illegal, or whether an award is characterized as compensation for a legal taking or as damages for an internationally wrongful act so long as it recoups the loss caused by the host state's actions. Finally, the pre-investment behavior of investors and host states should affect the way the full compensation standard, the one most commonly used, is applied.

That the full compensation standard is so often used could be seen as further confirmation that the law and the international community (including host states) that created it are concerned with more than the preferences of the main actors in investment transactions when those transactions are viewed as purely business matters. However, those other concerns do not make the possibility of mispriced compensation disappear. Given the large sums of money often at stake and the fact that many host states have limited resources to meet their responsibilities to both investors and their own citizens, it is worth paying at least some attention to the issues discussed here.