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2400 AH Alphen aan den Rijn
The Netherlands

Sold and distributed in North, Central and South
America by *Aspen Publishers, Inc.*
7201 McKinney Circle
Frederick, MD 21704
United States of America

Sold and distributed in all other countries
by *Turpin Distribution*
Pegasus Drive
Stratton Business Park, Biggleswade
Bedfordshire SG18 8TQ
United Kingdom

ISSN 0255-8106
© 2008, Kluwer Law International

This journal should be cited as (2008) 25 *J. Int. Arb.* 1

The *Journal of International Arbitration* is published six times per year.
Subscription prices for 2008 [Volume 25, Numbers 1 through 6] including postage and handling:
EUR662/USD874/GBP486 (print)

This journal is also available online at www.kluwerlawonline.com.
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The *Journal of International Arbitration* is indexed/abstracted in the *European Legal Journals Index*.

Printed on acid-free paper

Chorzów's Standard Rejuvenated

Assessing Damages in Investment Treaty Arbitrations

Manuel A. ABDALA and Pablo T. SPILLER*

Whereas damages in treaty arbitration disputes are usually valued at the date when the measures trigger a violation, Chorzów's compensation standard provides the alternative to value as of the date of the award. The latter is critical when investors continue to operate the business, such as in indirect expropriation as well as unjust and inequitable treatment cases. Implementing Chorzów's standard to indirect takings allows the use of ex-post information to capture any elevated value due to improved business conditions. In addition, it deters states from acting opportunistically, by not allowing them to profit from foreign investors when business conditions are expected to improve. Arbitration panels should properly implement Chorzów's standard with renovated thrust.

I. OVERVIEW

Bilateral Investment Treaties (BITs) typically have a compensation clause referring to valuation of the affected investments. Such reference customarily advocates conducting a fair market valuation at (or just prior to) the time of expropriation. When state measures involve partial expropriation or unjust and inequitable treatment,¹ however, valuing damages at the time of the enactment of the first state measures ignores subsequent events that may be relevant for damage valuation purposes, and thus would most likely result in inadequate compensation.²

Reisman and Sloane (2003)³ detected this issue in the context of consequential and creeping expropriation cases. The authors recommend decoupling the “date of expropriation” from the “date of valuation” on a case-by-case basis. They also advocate that “as a general principle, the moment of valuation should be the date on which assessing the fair

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¹ Manuel A. Abdala & Pablo T. Spiller, *Damage Valuation of Indirect Expropriation in International Arbitration Cases*, 14 AM. REV. INT'L ARB. 449 (2003), define indirect expropriation from an economic perspective as: “Indirect expropriation cases are those where, by means of administrative or legislative procedures, the State provokes a unilateral change in contract conditions such that the investor is unable to recover the expected quasi rents of the business under the original contractual framework.” In this article, the term partial expropriation is also applicable to other types of measures, such as “creeping expropriation” and “consequential expropriation.” For a definition of these terms, see, among others, W. M. Reisman and R. D. Sloane, *Indirect Expropriation and its Valuation in the BIT Generation*, 74 BR. Y.B. INT'L L. 115 (2003).

² Abdala & Spiller, *supra* note 1, at 447–60.

³ See Reisman & Sloane, *supra* note 1, at 150.

market value of a foreign investment for purposes of calculating compensation will enable a tribunal to give full effect to *Chorzów Factory's* imperative.”⁴

The thrust of this article is that *Chorzów's* compensation standard, by allowing damages to be computed as the greater of the fair market value at the time of the measures and the fair market value at the date of the award (plus historical lost profits during the interim period), is well suited for investment treaty violations involving indirect expropriation and unjust and inequitable treatment. Although widely cited in arbitration awards, the *Chorzów* standard is not always very well understood, nor is it commonly implemented in practice. A proper implementation of *Chorzów's* compensation standard has many advantages for the analysis of this type of cases.

First, it explicitly uses *ex post* information (also referred to as hindsight information) allowing us not only to calculate the residual value of the investment after the measures, but also to capture any elevated value due to improved business conditions which investors were deprived of due to the state measures. Secondly, it provides incentives for states not to act opportunistically with measures against foreign investment when business conditions are expected to improve, thus acting as a deterrent element.⁵ Finally, its use will provide accurate and adequate damage estimates, given the use of *ex post* information that unravels actual damages as time passes by, critical information that panels must not ignore.

This article is organized as follows. In part II we analyze the economic similarity between expropriation and unjust treatment. In part III we briefly describe *Chorzów's* compensation standard. In part IV we discuss opposing views on the use of *ex post* information in international arbitration cases and show how critical it is to take into account *ex post* information in indirect expropriation and unjust and inequitable treatment cases, and provide some illustrations. Finally, part V contains our concluding remarks on the relevance of *Chorzów's* standard and recommendations as to how to apply it to the most common types of investment treaty disputes observed nowadays.

II. EXPROPRIATION AND UNJUST TREATMENT FROM AN ECONOMIC PERSPECTIVE

Economists see expropriation as the taking by the state of an asset or revenue stream that originally belonged to a private entity. Unjust treatment, in turn, is seen as measures

⁴ *Id.* The authors also conclude that: “To calculate compensation for consequential and creeping expropriations carried out within the legal universe of a BIT, tribunals can no longer be content to evaluate the fair market value of an expropriated investment as of the date when an accretion of governmental acts and omissions has so dramatically devalued that investment as to render it ‘practically useless’ or its value ‘irretrievably lost.’ Because these principles may, in practice, threaten the stable and mutually beneficial normative framework for reciprocal foreign investment that states design BITs to create and maintain, international tribunals seeking to award compensation for investments expropriated consequentially or by a creeping series of measures ‘tantamount to’ expropriation may benefit from an alternative principle. Above all, any standard adopted to determine the appropriate date from which to calculate compensation should effectively deter, not reward, consequential and creeping expropriations. In this regard tribunals seized with cases raising these issues may find it both useful and appropriate to disaggregate the moment of expropriation and the moment of valuation—to distinguish the ‘moment of expropriation’, which goes to the question of liability (i.e. whether an accretion of measures has ripened into a compensable expropriation), from the ‘moment of valuation’, which goes to the question of damages.”

⁵ *Id.* at 148: “BITs and comparable multilateral investment treaties should, as a matter of both the intent of their drafters and the policies that animate them, be construed to deter, not reward, unlawful expropriations of all kinds.”

or omissions by a state which deprive an investor of a revenue stream or impose additional costs to the exploitation of an investor's assets. Whereas outright expropriation involves the physical taking by the state of a particular asset or revenue stream, indirect expropriation, on the other hand, is subtler and translates into the reduction of expected returns to investors without the state taking over ownership or control of the asset. Unjust treatment, from an economic perspective, has the same economic and financial consequences for the affected investment as an indirect expropriation situation.

By reducing, or siphoning away, cash flows via administrative or other measures, unjust treatment and indirect expropriation measures deprive the investor not only of the enjoyment of its business according to its intrinsic potential—absent the state measures—but also from selling it at any point in time at or after the date of the measures, at a value consistent with such potential. The new beneficiary of the revenue stream may be the state, as would be the case with non-payment of services, or third parties, like consumers, as would be the case with the manipulation of utility tariffs. In the latter case, the state still benefits as it may achieve a particular political objective—low natural gas and gasoline prices, for example, albeit at the expense of energy producers.

Unjust treatment and indirect expropriation are probably the most common type of claims observed in investment treaty disputes in the last decade.⁶ Indeed, it is unjust treatment or indirect expropriation that the economic theory of privatization and regulation perceives as the main risk faced by investors in sectors such as energy, water and sanitation, telecommunications, toll roads, ports, airports and construction contracts in general.⁷

Although *Chorzów* is a case of outright expropriation, its compensation standard, as we will see below, has important applications to cases of indirect expropriation and unjust treatment.

III. LOGIC OF CHORZÓW'S TWO-SCHEME COMPENSATION STANDARD

The most cited *Chorzów*'s compensation principle is the sentence that reads:

⁶ Until April 1998, only 14 international arbitration cases had been brought before ICSID involving BITs. However, since the late 1990s, the number of cases has increased to at least 219 by November 2005, with 132 brought before ICSID (including ICSID's Additional Facility) and 87 before other arbitration forums. See UNCTAD, *Investor State Disputes Arising from Investment Treaties: A Review*, in UNCTAD SERIES ON INTERNATIONAL INVESTMENT POLICIES FOR DEVELOPMENT 4–5 (2005). See also UNCTAD, *WORLD INVESTMENT REPORT 71* (2005).

⁷ See Paul L. Joskow & Roger C. Noll, *Regulation in Theory and Practice: An Overview*, in *STUDIES IN PUBLIC REGULATION* (Gary Fromm ed., 1981); Anthony W. Dnes, *Franchising, Natural Monopoly and Privatization*, in *REGULATORS AND THE MARKET: AN ASSESSMENT OF THE GROWTH OF REGULATION IN THE UK* (Cento Veljanovski ed., 1991); Keith J. Crocker & Scott E. Masten, *Regulation and Administered Contracts Revisited: Lessons from Transaction-Cost Economics for Public Utility Regulation*, 9 *J. REGULATORY ECONOMICS* 5 (1996); Pablo T. Spiller, *Regulatory Commitment and Utilities' Privatization: Implications for Future Comparative Research*, in *THE RESEARCH AGENDA IN POLITICAL ECONOMY* (J. Banks & E. Hanusheck eds., 1993); Pablo T. Spiller & William Savedoff, *Commitment and Governance in Infrastructure*, in *CAN PRIVATIZATION DELIVER? INFRASTRUCTURE FOR LATIN AMERICA* (F. Basañes, E. Uribe & R. Willig eds., 1999); BRIAN LEVY & PABLO T. SPILLER, *REGULATIONS, INSTITUTIONS, AND COMMITMENT: COMPARATIVE STUDIES IN TELECOMMUNICATIONS* (1996).

reparation must, as far as possible, wipe out all the consequences of the illegal act and re-establish the situation which would, in all probability, have existed if that act had not been committed.⁸

Translated into monetary compensation, in lieu of restitution, this principle has been related to compensation equivalent to the fair market value of the expropriated investment.

Chorzów also stipulates that:

Restitution in kind, or, if this is not possible, payment of a sum corresponding to the value which a restitution in kind would bear; the award, if need be, of damages for loss sustained which would not be covered by restitution in kind or payment in place of it.⁹

And as it relates to the computation of damages, that they are “not necessarily limited to the value of the undertaking at the moment of dispossession.”¹⁰

Thus, by its emphasis on wiping out all the consequences of the acts of dispossession, *Chorzów* is attempting to restore the damaged party to the situation it would be in today (that is, at the time of computing damages) had the relevant measures not been implemented.

Chorzów’s compensation standard seems to have been misinterpreted due to some confusion concerning the concepts of *damnum emergens*, the value of the expropriated investment, and *lucrum cessans* or lost profits. In particular, it has been argued that there could be double counting if the value of the expropriated investment already includes the future lost profits that such investment can generate; and it is argued, when making a distinction between lawful vs. unlawful expropriation, that there is a punitive element in *Chorzów’s* damage decision. Neither argument is correct. As it relates to double counting, since the lost profits concept developed in *Chorzów* is applicable only when valuing the enterprise as of the time of the award, the lost profits apply to a past, interim period, and have no overlap with expected future profits that determine the value of the expropriated investment. Thus, there is no double counting in its recommendation.

As it relates to the distinction between lawful and unlawful expropriation, we have analyzed *Chorzów’s* compensation standard from a damage expert point of view, and, as will become clear below, have found no punitive element.¹¹ *Chorzów’s* compensation criterion does not add any punitive element to the two alternative valuation exercises posed to their experts. Rather, the optional element addressed two possible criteria to determine full restoration by comparing the (actualized) value of the asset at the time of expropriation with the current value of the asset, had it not been expropriated, plus any lost profits for the interim period since the expropriation date to the date of current

⁸ See *Factory at Chorzów (Claim for Indemnity) (Germany v. Pol.)*, Judgment on the Merits, 1928, P.C.I.J. (ser. A) No. 17, at 47 (September 13).

⁹ *Id.*

¹⁰ *Id.*

¹¹ Although we have seen contracts in which the term “*lucrum cessans*” is used or construed as a punitive element, and thus resulting in total compensation value that may exceed fair market value, this is certainly not the case in *Chorzów’s* decision, as *lucrum cessans* refers to the interim period between the date of expropriation and the date of the award. Thus, there is neither double counting nor any punitive element in *Chorzów’s* decision.

valuation. Indeed, as Reisman and Sloate (2003) correctly note,¹² the loss in value of the investment is the same regardless of the legality of the act. Thus, in what follows, we discard any interpretation that presupposes a distinction, from an economic perspective, between lawful and unlawful expropriation.

A. CHORZÓW'S THREE BASIC QUESTIONS

Below, we provide our interpretation, from a damage expert's point of view, following strictly the fundamental questions posed by the *Chorzów* Panel to their experts.

In *Chorzów* the experts were asked to answer three basic questions. Question IA asked the experts to compute the fair market value of the factory at the time of expropriation, updated to the time of indemnification (i.e., the date of the award).¹³ Observe that the tribunal's instruction is to update the valuation from the date of expropriation to the date of the award based on the actualized value "in Reichsmarks current at the present time."¹⁴

Question IB asked the experts to value the *lucrum cessans* for the interim period between the date of expropriation and the date of indemnification.¹⁵ Observe, however, that compensation for *lucrum cessans* would not apply if the standard of valuation is the fair market value as of the date of expropriation. In this case, the fair market value of the affected assets would already include all future lost profits, from the date of expropriation to the end of the project, not just to the date of the award. On the other hand, if the standard of valuation is fair market value as of the date of the award, then *lucrum cessans* for the interim period between the date of expropriation and the award ought to be added to the compensation, as otherwise the investor would not be properly compensated.

Finally, Question II asked the experts to compute the fair market value of the factory as of the date of indemnification (or date of the award).¹⁶ Question II, then, leaves aside the situation as of the time of expropriation, and instead focuses on a valuation of the assets as of the time of the expert assessment in the absence of the measures. Observe, that

¹² See Reisman & Sloane, *supra* note 1, at 136.

¹³ See *Chorzów*, *supra* note 8, at 51. Question IA is as follows: "What was the value, on July 3rd, 1922, expressed in Reichsmarks current at the present time, of the undertaking for the manufacture of nitrate products of which the factory was situated at Chorzów in Polish Upper Silesia, in the state in which that undertaking (including the lands, buildings, equipment, stocks and processes at its disposal, supply and delivery contracts, goodwill and future prospects) was, on the date indicated, in the hands of the Bayerische and Oberschlesische Stickstoffwerke?"

¹⁴ This instruction seems to suggest updating the valuation by the loss in value of the currency, i.e., the inflation rate, rather than by time value of money. In high interest rate environments, this particular instruction would discriminate against granting damages based on the valuation as of the date of expropriation.

¹⁵ See *Chorzów*, *supra* note 8, at 51. Question IB is as follows: "What would have been the financial results, expressed in Reichsmarks current at the present time (profits or losses), which would probably have been given by the undertaking thus constituted from July 3rd, 1922, to the date of the present judgment, if it had been in the hands of the said Companies?"

¹⁶ *Id.*, at 51–52. Question II is as follows: "What would be the value at the date of the present judgment, expressed in Reichsmarks current at the present time, of the same undertaking (*Chorzów*) if that undertaking (including lands, buildings, equipment, stocks, available processes, supply and delivery contracts, goodwill and future prospects) had remained in the hands of the Bayerische and Oberschlesische Stickstoffwerke, and had either remained substantially as it was in 1922 or had been developed proportionately on lines similar to those applied in the case of other undertakings of the same kind, controlled by the Bayerische, for instance, the undertaking of which the factory is situated at Piesteritz?"

Question II allows for the reasonable development of the undertaking, not just maintaining the assets as they were as of the time of expropriation, but also including a reasonable investment program.¹⁷

It is straightforward then to interpret *Chorzów* as determining that damages ought to be computed as the highest value between the answer to IA and the resulting sum of the answers to questions II and IB.¹⁸ In *Chorzów*, then, it is clear that wiping out all the effects of the measures through monetary compensation can be achieved by two alternative means:¹⁹

- (i) granting the fair market value as of the date of the expropriation brought forward and expressed in current currency.
- (ii) granting the sum of the fair market value as of the date of the award, plus the profits that the investor would have probably obtained in the interim period, between the date of expropriation and the date of the award brought forward and expressed in current currency.

Chorzów's standard, then, has a powerful economic logic. It is equivalent to transferring to the expropriating state the *ex post* risks (up to the time of the award) associated with the expropriated asset. In other words, if the asset would have increased in value in the absence of the measures, the state ought not to benefit from its expropriating actions, and thus, the windfall ought to belong to the investor. On the other hand, if the asset would have lost value in the absence of the expropriation, the state ought not to benefit by paying a lower compensation, and thus, it should absorb the loss in value. The compensation, in this case, ought to be valued as of the date of expropriation.

Chorzów's compensation principle has important efficiency implications, which we elaborate below. First, it reconciles the use of *ex post* information in computing damages in international arbitration cases. Secondly, it puts states on notice that treaty violations will not grant them economic windfalls. Finally, we show below that for the most common type of treaty violations (i.e., cases of indirect expropriation and unjust treatment), the main contribution of *Chorzów* is its emphasis on the use of *ex post* information.

¹⁷ *Id.*, at 53: "if the normal development presupposed by question II represented an enlargement of the undertaking and an investment of fresh capital, the amount of such sums must be deducted from the value sought for."

¹⁸ *Id.*, at 70–71. Lord Finlay's dissenting opinion in *Chorzów* raised some interesting issues. Lord Finlay said that if the damaged party chose monetary compensation rather than *restitutio in integrum*, then monetary compensation should be based on the value of the undertaking at the time of expropriation. Indeed, he stated: "A Party who has given up his right to *restitutio in integrum* is not entitled to claim damages on the footing that it is right that he should have the enhanced value, if any: that he would have got if he had pressed his claim for restitution." The fact that a party prefers monetary compensation to physical restitution may have nothing to do with the basic principles of *Chorzów's* damage assessment methodology but rather with the fact that restitution may imply taking over a degraded facility. Indeed, absent this element, the fair market value should represent the true value of the (fully-functional) factory, and thus the damaged party should be indifferent between restitution in kind and monetary compensation. Notice that Lord Finlay's other methodological concerns are standard staple in damage assessment. In particular, Lord Finlay's concerns about asset obsolescence, intangibles, creation of new business developments, and uncertainties about future cash flows can be fully controlled for by modeling a "but-for" scenario in a discounted cash flow exercise, using all available *ex post* information.

¹⁹ A recent application of *Chorzów's* two-scheme standard can be found in *ADC Affiliate & ADC & ADMC Management v. Republic of Hungary*, ICSID Case ARB/03/16, decided on October 2, 2006, by the Hon. Charles Brower, Prof. Albert Jan van der Berg, and Neil Kaplan CBE QC (President).

IV. USE OF *EX POST* INFORMATION IN INTERNATIONAL ARBITRATION CASES

Contrary to common practice in general damage valuation cases,²⁰ several authors advocate the exclusion of *ex post* information when assessing damages in international arbitration cases. Lieblich (1991)²¹ argues, for example, that under customary international law, at least in cases of lawful takings, the value of the expropriated property should be measured in light of the facts and circumstances known to exist as of the date of the taking (i.e., no use of *ex post* information or post-expropriation events). Similarly, Comeaux and Kinsella (1997)²² also recommend the exclusion of *ex post* information, by citing the *INA v. Iran* panel stating that:

Fair market value may be stated as the amount which a willing buyer would have paid a willing seller for the shares of a going concern, disregarding any diminution of value due to the nationalization itself or the anticipation thereof, and excluding consideration of events thereafter that might have increased or decreased the value of the shares.²³

When it comes to damage valuation, however, BITs normally refer to the concept of fair market value of the affected investment “just prior to” or “at the moment of” expropriation.²⁴ This concept has meant that in practice expropriation damages²⁵ may be computed by looking at the fair market value at the date on which the assets were taken away from the investor, using solely the information and expectations as of such date, thus potentially excluding or limiting the use of *ex post* information in determining damages.

The underlying logic for excluding *ex post* information is simple. Had the investor been able to sell the asset just prior to the measures (rather than being subject to them) it would have received the asset's market value at the time of the measures. Adequate compensation, then, ought to be based on the value of the investment at the time of the measures, plus interest to the date of compensation. Thus, it is claimed that any upside or downside in value that takes place after the asset has been subjected to the measures

²⁰ The use of *ex post* information in computing damages is generally accepted in U.S. courts. This is usually referred to as using the “book of wisdom.” See Michael K. Dunbar & Michael J. Wagner, *Differences Between Economic Damage Analysis and Business Valuation*, in *THE HANDBOOK OF BUSINESS VALUATION AND INTELLECTUAL PROPERTY ANALYSIS* 331 (Robert F. Reilly & Robert P. Schwehs eds., 2004).

²¹ See William C. Lieblich, *Determining the Economic Value of Expropriated Income-Producing Property in International Arbitration*, 8 J. INT'L ARB. 59, 72 (1991): “In valuing an expropriated business, however, the valuation date should be the date on which the expropriation took place, which conforms to the customary international law rule that, at least in cases of lawful takings, the value of the expropriated property should be measured in the light of the facts and circumstances known to exist as of the date of the taking.”

²² See PAUL E. COMEAUX & STEPHAN N. KINSELLA, *PROTECTING FOREIGN INVESTMENT UNDER INTERNATIONAL LAW: LEGAL ASPECTS OF POLITICAL RISK* 89 (1997).

²³ *INA Corp. v. Government of the Islamic Republic of Iran*, Award No. 184-161-1, August 13, 1985, 8 Iran-U.S. Cl. Trib. Rep. 373 (1985).

²⁴ See, e.g., United States–Republic of Turkey BIT, art. III: “Compensation shall be equivalent to the fair market value of the expropriated investment immediately before the expropriatory action was taken or became known.” See also United States–Jamaica BIT, art. III; United Kingdom–Albania BIT, art. 5; and France–Chile BIT, art. V. See also 2004 United States Model BIT, art. 6.

²⁵ Expropriation damages can be defined as damages arising from wealth deprivation of a particular asset. See Burns H. Weston, *Constructive Takings under International Law: A Modest Foray into the Problem of Creeping Expropriation*, 16 VA. J. INT'L L. 103, 112 (1975).

should not be accounted for, since compensation will make the investor indifferent between selling just prior to the measures or being subject to them.²⁶

Notice that this exclusion is contrary to damage valuation theory, which resorting to different approaches,²⁷ accepts the possibility of using events that take place after the date at which the asset has been damaged as a valid method to compute damages.²⁸ It is also contrary to *Chorzów's* standard, because in between the time of the enactment of the measures and the resolution of the case exogenous events may have happened that would have changed the value of the affected assets in the absence of the measures. Such exogenous events could relate to changes in demand, interest rates, input or output prices. These changes could have a large impact on what would have been the value of the assets in the absence of the measures.

In practice, however, the use of *ex post* information in computing damages has been accepted in some international arbitration cases. In *AMCO Asia Corp. v. Indonesia*, for example, the arbitral award was issued ten years after the expropriation had taken place (the investor's license was revoked in 1980 and the arbitral award was issued in 1990). In the award, the panel states that available *ex post* information for the period 1980–89 is to be used for the quantification of damages.²⁹ Most recently, in *CMS v. Argentina*, the panel considered *ex post* information to determine the residual value of the CMS investment that had been treated unjustly.³⁰

The simple logic of excluding *ex post* information fails to consider several basic factors, in particular:

- (a) the difficulty in assessing the starting date at which the measures caused relevant loss in investment value;
- (b) the difficulty in assessing expectations of value at the time of the measures;
- (c) the ongoing control and ownership by the investor, in cases of indirect expropriation and unjust and inequitable treatment cases, which requires the assessment of the asset's residual value post-measures; and
- (d) the fact that states may expropriate or treat investments unjustly (i.e., taxing them heavily) precisely when business conditions are expected to improve or have already improved.

²⁶ Observe that in the case of lawful expropriation, the government has the prerogative to do so provided it grants adequate compensation.

²⁷ There are three categories of damage approaches: (1) the "before and after" approach; (2) the economic modeling approach, also known as "but-for vs. actual", and (3) the yardstick approach. See Dunbar and Wagner, *supra* note 20, at 334. See also SHANNON P. PRATT, ROBERT F. REILLY & ROBERT P. SCHWEIHS, VALUING A BUSINESS: THE ANALYSIS AND APPRAISAL OF CLOSELY HELD COMPANIES 869 (2000).

²⁸ In the "before and after" approach, damages are computed as the difference between the value of the asset before it was damaged and the value of the asset after the damage was done. See Dunbar & Wagner, *supra* note 20, at 334.

²⁹ See *AMCO Asia Corp. et al. v. Republic of Indonesia*, ICSID Case ARB/81/1, Award, June 5, 1990, para. 105: "But as to valuation techniques, for 1980–1989 the Tribunal will not use the perspective of what the reasonable businessman in 1980 could foresee, because for this period it can use known data for relevant factors, including the year-by-year inflation rate, as provided to the Tribunal by the World Bank, from Laporan Minggu, Bank Indonesia, as well as actual exchange and taxation rates."

³⁰ See *CMS Gas Co. v. Argentina*, ICSID Case ARB/01/8, Award, May 12, 2005.

In indirect expropriation and unjust treatment cases, however, it is often highly difficult for a panel to assess the precise measure (and its corresponding date) that triggered relevant loss in value. It is equally difficult to determine the expectations of the relevant players concerning the evolution of key variables at the time(s) the investment was affected.³¹ This, however, does not mean that buyers and sellers did not have well defined expectations. When substantial time has passed since the enactment of the measures, it becomes highly speculative for experts, and thus for panel members, to assess what these well defined expectations were, apart from what actual *ex post* information has already revealed. In those cases, using *ex post* information on the evolution of these key variables may turn out to be the most reasonable assumption about the parties' *ex ante* information.³² The passage of time permits a direct insight and a more accurate representation as to the extent of the harm, and thus of the quantum of the damage.

When the investor retains ownership over the assets at stake, as in indirect expropriation and unfair treatment cases, there is an additional rationale for using *ex post* information in computing damages. Indeed, in this type of cases there is always the need to assess and compute the residual value, if any, of the investment—that is, the value of the investment post-measures. Differing from the pre-measures value, often the residual value is readily observable from economic and accounting information. Both experts and panels are unlikely to discard observable information concerning fundamental variables, such as macro-economics, exchange rates, production, product and input prices, input usage, and so on, that is critical to determine the residual value of the investment.³³ Panels will be hard pressed to ignore *ex post* information in these cases; as such *ex post* evidence provides clear grounds as to the determination of the quantum of the damage.³⁴

BITs, as well as case law, have failed to address, explicitly or implicitly, how damage methods must be accommodated to take into account the inherent fact that the business continues to operate and thus there is a, potentially positive, residual value to the investment.³⁵

The use of *ex post* information is also important to prevent opportunistic takings by states. Consider, for example, several policy decisions taken in energy-rich countries after the surge of crude oil prices since the 2003 Iraq war. In Venezuela, Algeria and Bolivia, governments imposed hefty taxes during 2003–06 and asked for contractual adaptation

³¹ Most often there are no well functioning derivative markets where expectations on the future evolution of important variables can be ascertained.

³² Economists call this the “perfect foresight” assumption. See BEN J. HEIJDRRA & RICK VAN DER PLOEG, FOUNDATIONS OF MODERN MACROECONOMICS 8–9 (2002).

³³ The residual value of the investment can also be affected by additional measures and mitigating actions by the state, if any.

³⁴ The consequences of excluding *ex post* information in these cases would be equivalent to the inaccuracies that would result from determining property damages caused by a tropical storm using the weather forecast predicted prior to the storm, as opposed to using the facts on how the storm actually hit the property.

³⁵ See, e.g., United States–Turkey BIT, art. III; United States–Jamaica BIT, art. III; United Kingdom–Albania BIT, art. V; and France–Chile BIT, art. V. See also 2004 United States Model BIT, art. 6. See also Abdala & Spiller, *supra* note 1, and CMS v. Argentina, *supra* note 30, para. 409.

of all existing crude oil and natural gas concession contracts.³⁶ In Argentina, for the same opportunistic reasons, export withholding taxes on crude oil prices were raised, despite prior commitments to the contrary.³⁷ In Jamaica, the same opportunistic taxation policy was observed in the bauxite industry in the 1970s.³⁸

By using *ex post* information, damage experts and panels can measure the extent of the economic windfall taken by states that have acted opportunistically and imposed measures on investments whose business conditions turned out to be better than expected, or just perceived as being too profitable.

In sum, the use of *ex post* information in computing damages in international arbitration cases is, then, not only appropriate but also unavoidable in cases of indirect expropriation and unjust and inequitable treatment. Its use must be symmetrical and consistent across the pre-measures and post-measures valuations. Furthermore, if *Chorzów's* compensation standards were to be properly implemented when assessing damages, rather than just recited, the use of *ex post* information would likely become the norm for damages calculation in these cases. We explore this proposition as well as its caveats with more detail in the following sections.

A. CRITICAL ROLE OF *EX POST* INFORMATION IN INDIRECT EXPROPRIATION AND UNJUST TREATMENT

BITs do not contain explicit language as to how to measure compensation in indirect expropriation or unjust and inequitable treatment cases. It is only recently that panels have mentioned what the standard for damages should be. In both *CMS v. Argentina* and

³⁶ In Venezuela, the state not only imposed heavy retroactive and future taxes, but also forced a conversion of the crude oil operating companies into mixed companies, with required state-majority ownership. See *Venezuela Approves Increase of Oil Taxes to 50%*, EL CRONISTA COMERCIAL, August 30, 2006. A similar policy was later followed in Bolivia, where the state declared invalid the contracts under which the foreign companies had invested in the hydrocarbons sector after the 1996 privatization and forced them to sign new contracts with a 51 percent participation of the Bolivian state-owned company YPF. See Hydrocarbons Law 3058/2005, of May 2005, Decree 28.701 and *The 44 Oil Contracts were Ratified by Parliament*, DIARIO EL MUNDO, December 4, 2006. Recently, in Algeria, the Parliament, among other measures, has agreed to levy a windfall tax on the profits of oil companies, that is, to tax "excess" profits when oil prices average more than U.S.\$30; this is yet to be implemented as a law as of the time of writing. See *Algeria Agrees Oil Windfall Tax*, BBC NEWS, October 15, 2006.

³⁷ When Argentina carried out the liberalization and privatization process of hydrocarbons in the early 1990s, it made a commitment not to impose any fees, duties, rights or withholdings on exports. See Decree 1589/1989, art. 3. In early 2002, however, Law 25,561 authorized the government to impose export withholdings on hydrocarbons. Argentina initially set the withholding tax for crude oil exports at 20 percent. See Decree 310/2002 of March 1, 2002, art. 1. The withholding tax rate was subsequently increased up to 45 percent on August 4, 2004. See Ministry of Economics Resolution 532/2004.

³⁸ Bauxite mining began in Jamaica in 1952. By 1957, Jamaica was the largest bauxite producer in the world, accounting for 23 percent of world output. In 1974, following dramatic oil price rises, the government increased bauxite taxes by a Production Levy. The levy, in effect, indexed the price of bauxite to the price at which the aluminum companies sold aluminum ingots. See Ian Boyne, *Jamaica Bauxite Institute Playing Critical Role*, JAMAICA INFORMATION SERVICE (2006). This levy led to the presentation of a claim at the International Center for Investment Disputes (ICSID) by the U.S. companies dedicated to bauxite production in Jamaica. See *Alcoa Minerals of Jamaica, Inc. v. Jamaica* (Case ARB/74/2), *Kaiser Bauxite Co. v. Jamaica* (Case ARB/74/3), and *Reynolds Jamaica Mines Ltd & Reynolds Metals Co. v. Jamaica* (Case ARB/74/4).

Azurix v. Argentina, different panels established that for damage valuation purposes, the unjust treatment compensation should be rooted in the fair market value principle.³⁹

Unlike outright expropriation, the fair market value principle must be applied to both the value of the investment in the absence of the measures and its post-measures value, or what we call residual investment value. We next turn to the importance of *ex post* information in determining this residual value.

1. Ex Post Information and Assessing the Residual Investment Value

Since typically BIT arbitrations last several years from the initial date of the measures to the date of the award, the post-measures observable information will be substantial and may reflect several sources of changes in company or asset value that can be categorized and summarized into the following four main factors:

- (i) subsequent measures by state affecting value;
- (ii) damage mitigation actions by the investor;
- (iii) actions within the control of the investor that are unrelated to the measures and that result in an *ex post* reduction or increase in the value of the investment;
- (iv) exogenous economic factors (i.e., change in business conditions) that are both outside the control of the investor and unrelated to actions (or inactions) by the state.

Experts, and panels, then, as a practical matter have to determine what part to use of all the observable information about the performance of the company from the moment it was affected by the measures until the valuation exercise date.

Subsequent measures by the state must be considered in assessing residual valuation, as otherwise we would be valuing the residual value above its true fair market value. Thus, a valuation as of the date of expropriation cannot be implemented without considering future, *ex post* information.

Similarly, mitigating actions taken by the investor ought to be considered, as otherwise the residual value would be underestimated.⁴⁰ Such actions may involve cost or investment reductions that have first order impact on valuation. Neither factor, though,

³⁹ See *CMS v. Argentina*, *supra* note 30, para. 410; *Azurix Corp. v. Argentina*, ICSID Case ARB/01/12, Award, July 14, 2006, para. 420.

⁴⁰ See Felix Prandl, *Measure of Damages in International Commercial Arbitration*, 23 *STANFORD J. INT'L L.* 263, 297 (1987): "National laws and international conventions generally provide that a party may not recover damages that it can reasonably avoid." See also THOMAS W. WÄLDE & BORZU SABAHI, *COMPENSATION, DAMAGES AND VALUATION IN INTERNATIONAL INVESTMENT LAW* 28 (International Law Association, Committee on International Law of Foreign Investment, 2004): "On the other hand, under the principles of contributory negligence and damage mitigation tribunals have felt entitled to substantially reduce compensation if they considered that the investor contributed substantially to risk or damage and did not apply professional due diligence." International arbitration panels have, in fact, recognized the claimant's duty to mitigate damages. See *Middle East Cement Shipping v. Arab Republic of Egypt*, ICSID Case ARB/99/6, Award, April 12, 2002, para. 167: "The duty to mitigate damages is not expressly mentioned in the BIT. However, this duty can be considered to be part of the General Principles of Law which, in turn, are part of the rules of international law which are applicable in this dispute according to Art. 42 of the ICSID Convention."

ought to be used to compute pre-measures valuations. Obviously, subsequent measures should not affect the value prior to the initial measures, and similarly, damage mitigation actions should not affect the pre-measures value, as these actions would not have been taken in the absence of the initial state measures. Damages, then, will be overstated if mitigation events are ignored and will be underestimated if subsequent measures by the state are not factored in the computation of the residual value of investment.

On the other hand, actions under the control of the investor that are unrelated to the measures and that may impact on the valuation should be considered symmetrically in both the pre-measures and post-measures valuations (i.e., included or excluded from both valuations). Thus, states must neither be responsible (i.e., compensate) for reductions⁴¹ nor benefit (i.e., reduce compensation) from increases in value⁴² related to the own decisions of the investor that are unrelated to state measures.⁴³

Finally, the role of exogenous economic factors (i.e., change in business conditions) that are both outside the control of the investor and unrelated to actions (or inactions) by the state is the most controversial and least understood factor.⁴⁴ Should changes in business conditions since the date of the initial measures be taken into consideration? If business conditions have improved, should this higher than anticipated residual value be considered? If not considered, would this not allow the state to get away with lower damages? On the other hand, if business conditions worsened, and are taken into account, is it not the case that a lower residual value of the investment ends up in compensation for events related to business risk rather than state actions? In addition, should these changed business conditions also be used to compute pre-measures valuations? We deal with these questions in the next section, and we also relate it to *Chorzów's* compensation standard.

a. *Case for considering improved business conditions*

Consider, as an example, a claim of indirect expropriation or unjust treatment involving a crude oil field, say *circa* 2004. Assume that the state, having promised the investor a tax holiday, slaps a 50 percent production tax on oil revenues. The oil field remains under the control and ownership of the investor, but the investor now cannot enjoy the full potential of the crude oil field as it originally expected. Assume, further, that at the time of the measure, crude oil prices were at U.S.\$35/barrel. However, right after the imposition of the production tax, crude oil prices doubled to U.S.\$70/barrel. The investor post-measures sells oil at U.S.\$70/barrel, pays U.S.\$35 per barrel produced

⁴¹ The most common example is when the loss in investment value is due to misjudgments by the foreign investor. See Reisman & Sloane, *supra* note 1, at 130.

⁴² Such could be the case if the investor develops an unrelated line of business that increases the post-measures value of the business. As long as this line of business would have been profitable in the absence of the measures, it is reasonable to assume that it would be undertaken also, and thus, should not be counted to mitigate damages.

⁴³ In some cases it may be difficult to determine to what extent a decision by the investor that affects the value of its investment may or may not be related to the state measures.

⁴⁴ Reisman & Sloane, *supra* note 1, at 130, argue that exogenous economic factors unrelated to state measures prompt no rights of compensation to the foreign investor, following the decision in *Oscar Chinn (Belg. v. U.K.)*, 1934 P.C.I.J. (Ser. A/B) No. 63 (December 12).

in taxes, and receives net of tax U.S.\$35/barrel, exactly the same per barrel price as prior to the imposition of the tax.

The question, then, is the following: in computing either unjust treatment or indirect expropriation damages, should damages be based on a price per barrel of U.S.\$35, U.S.\$70, or some other combination of both?

As we discuss next, the answer to this question is that whichever price is used, it ought to be used symmetrically in assessing both the pre- and post-measures value of the asset.

b. *Asymmetric treatment of ex post information generates absurd results*

The “before vs. after” approach, in its simplest form, consists of using pre-measures information to compute the value prior to the initial measures and using post-measures information to compute the value after. Damages, then, would be the difference between the two valuations. If such an approach is used for the crude oil example provided above, the investor has no claim, as after the measures its net tax crude oil revenues are U.S.\$35/barrel, exactly the same as prior to the measures. The state, however, is able to freely violate an explicit tax holiday commitment.

This result is not only unjust, as the investor is being denied, on an ongoing basis, 50 percent of the price of his now improved crude oil business, but would also be inefficient from an economic perspective, as it would increase the cost of capital of subsequent investments due to the higher risk of expropriation, thus contributing negatively to higher social costs to the economy.⁴⁵

The problem with this linear understanding of the “before vs. after” approach is that it includes *ex post* information about changes in business conditions solely in the “after” valuation. In other words, the approach uses *ex post* information on new business conditions (that are certainly not triggered or controlled by the damaging party) in an asymmetric fashion, affecting only one side of the damage equation—the “after” value. This will result systematically in over- or under-compensation; that is, either attributing damages for actions for which the state is not responsible (if business conditions worsened independently of the measures) or, alternatively, depriving the investor of the adequate compensation he is entitled to when business conditions improve.⁴⁶

⁴⁵ The state, however, is unjustly enriching itself. It now collects 50 percent of the new crude oil price, while it does not have to compensate the investor. Should the state be allowed to keep this extra value that the investor would have necessarily generated for itself in the absence of the measures? Furthermore, there are many cases of subsequent measures in which the state amplifies the effects on investments precisely because business conditions turn out to be better than they were when the first measures were taken. Under this perspective, the state eludes compensation payments.

⁴⁶ The potential for error is biased towards under-compensation. Indeed, since panels would be reluctant to award higher damages simply because business conditions worsened, the asymmetric approach to damage computation actually may foster expropriatory or opportunistic behavior by states, with the consequent negative implications for foreign direct investment.

Thus, to avoid this flaw of a simplistic interpretation of the “before vs. after” approach, and thus to avoid over- or under-compensation, changed business conditions ought to be considered symmetrically, in both the pre- and post-measures valuations.⁴⁷

c. *Symmetric treatment of ex post information*

In the “but-for vs. actual” approach, changes in business conditions since the initial date of measures are to be accounted for in both scenarios, and thus, damages (computed as the difference between “but-for” and “actual”) will reflect differences attributable to the measures only.

Let us return to the crude oil example of the introduction. Recall that pre-measures crude oil prices were at U.S.\$35/barrel. With a 50 percent tax on crude oil revenues, and assuming that crude oil prices would have stayed the same at U.S.\$ 35 per barrel, and that the crude oil field was expected to be operated the same way with the tax or without it, damages should be equivalent to U.S.\$17.5 per barrel assuming that no damage mitigation actions exist either from the state or the investor itself.

Consider now the doubling of crude oil prices mentioned in the example. The increase in crude oil prices makes the residual value of the company, after the imposition of the production tax, exactly equal to its pre-measures value. How should this *ex post* change be taken into account?

As discussed, applying the *ex post* information asymmetrically generates an absurd result (no compensation in this case). The issue is, then, how do damage results vary between applying, symmetrically, the changed business conditions and not applying them at all? Returning to the crude oil example, we have two possibilities: using the pre-measures prices in both the “but-for” and “actual” scenarios, which would result in damages of U.S.\$17.5 per barrel, or using the post-measures prices, which would result in damages of U.S.\$35 per barrel.

2. *Damages Ignoring Ex Post Information*

Using the pre-measures oil prices has some credibility in this case, as crude oil, being a widely traded commodity, has well developed forward markets, which, as of the date prior to the measures would have forecasted future prices at around U.S.\$35 per barrel. Thus, we can compute both scenarios with some reliable estimates of what the parties expected would be crude oil free market prices.

Observe, however, that if the investor wanted to sell its oil field post-measures, it would get a value commensurate with an after-tax price of U.S.\$35 per barrel. Thus, adding

⁴⁷ For support of the use of information in a symmetric fashion, see Pratt, Reilly, & Schweih, *supra* note 27, at 869: “Ideally, operations before and after the damage period will show similar trends, thereby enabling the expert to estimate the subject property’s performance during the damage period using either pre- or post-damage operations as a performance standard with comparable damage amounts resulting. In many cases, only the ‘before’ period or the ‘after’ period is available to use to predict the ‘but-for’ performance during the damage period.”

just a U.S.\$17.5 per barrel compensation under the BIT, the investor is worse off *ex post* with the measures since without them it would have received a U.S.\$70 per barrel price. In other words, the investor has not been adequately compensated. It prefers not to have the tax enacted rather than having the tax enacted and being compensated as per the value at the time of expropriation. The state, however, benefited from the measures, as it would compensate at U.S.\$17.5 per barrel but collect taxes at U.S.\$35 per barrel.

3. Damages Using Ex post Information

Consider now using *ex post* information to compute damages. Using *ex post* information means that “but for” the measures the investor would be collecting U.S.\$70 per barrel, whereas he is actually receiving U.S.\$35 per barrel. Thus, a compensation based on a fair market valuation at the most recent date (plus the actual losses since the date of introduction of the tax) would exactly leave the investor indifferent between the state introducing the measures or not, which is in essence what the *Chorzów* principle of restoration aims to achieve. Thus, *ex post* business conditions information, when introduced symmetrically in the “but-for vs. actual” or the “before vs. after” analysis would provide for adequate compensation to the investor in cases of indirect expropriation or unjust and inequitable treatment.

The use of *ex post* information regarding business conditions has also additional positive features because it provides the panel with a reality check as to what are the actual damages suffered historically since the date of the initial measures, given the fact that actual business conditions are used, as opposed to engaging in a theoretical exercise as to what the value of the actual investment is worth, assuming no changes in business conditions since the date of initial measures.

In our experience, panels consider this observable evidence as very valuable. In addition, in complex damages cases it is often too difficult to construct a theoretical residual value based purely on *ex ante* information. In particular, a potential mistake is to try to assess the residual value at the day immediately after the measures and compare it with the stock market quotes just prior to the measures. This may not shed any light as to the extent of damages, as it is usually the case that such date is too premature to fully understand the effects and subsequent implementation of the state measures in place. Indeed, in indirect expropriation and unjust treatment it is not uncommon to observe that some of the measures may be removed afterwards, or their impact may be eroded through time, having an impact on damages that cannot be ignored.⁴⁸

⁴⁸ Some measures, although of a permanent nature, may not last forever and thus the impact on the business or affected asset, although significant, may be restricted to a limited period of time. For instance, the CMS v. Argentina panel which determined that Argentina had failed to provide just and equitable treatment, considered that the “actual” scenario would be more favorable in the future than estimated by the claimant. The claimant estimated that revenues in the “actual” scenario would not increase at all throughout a 26-year period, whereas the panel considered that periodical increases might take place. This change resulted in mitigated damages to the claimant. See CMS v. Argentina, *supra* note 30, para. 457.

Another advantage of using *ex post* information is that post-measure events provide essential information as to what extent the investor has been able to mitigate damages, by adapting the performance of the affected company to the new circumstances. Ignoring such business adaptation will be equivalent to ignoring an element of damage mitigation that might be quite relevant.

Thus, choosing the proper valuation date for damages requires the selection of a time when the measures and its implications are already well understood by the market and fully implemented. This may be several months or years after the initial measures have started. The safest and most accurate method is to use all the most recent and available information (i.e., as of the date of the award), as one of *Chorzów's* valuation options wisely recommends.

B. HOW TO CONSIDER WORSENED BUSINESS CONDITIONS IN INDIRECT EXPROPRIATION AND UNJUST TREATMENT CASES

Consider now in our simple example a fall in crude oil prices, which is equivalent to worsened business conditions for reasons unrelated to state measures. Assume the price of oil drops from U.S.\$35 to U.S.\$20 per barrel. Due to the tax, compensation as of the most recent date would now be equivalent to U.S.\$10 per barrel (50 percent of current oil prices), whereas as of the date of the measures it would be higher, at U.S.\$17.5 per barrel.

To the extent that the state measures did not prevent the investor from selling its assets at a prior point in time when business conditions were better, panels would probably be reluctant to grant compensation that exceeds current actual damages, at U.S.\$10 per barrel. The reason is twofold. First, if the investor wants to sell now (with worsened business conditions) it could obtain no more than U.S.\$20 per barrel in the absence of the measures. Secondly, forcing the state to compensate on the basis of U.S.\$17.5 per barrel today, when it is collecting only U.S.\$10 per barrel, seems unfair—leaving aside punitive considerations—as the state will be made worse off.

Thus, compensation at U.S.\$10 per barrel would leave the investor in the position as if the measures had not taken place, at least to the extent that the state is not responsible for inhibiting the possibility of the investor selling its asset. Notice that this conclusion differs from the *Chorzów* standard for full expropriation. Indeed, with outright (and full-fledged) expropriation the investor was prevented by the state measures from exercising the option of selling its business at arm's length, and instead was forced to transfer it to the state. In *Chorzów*, then, the use of the value as known as of the time of the expropriation does not necessarily generate an unjust compensation to the investor, and the transfer of the *ex post* business risk to the state does not imply any over-compensation.

On the other hand, to avoid the possibility of over-compensation the optional element of *Chorzów* should not be used in indirect expropriation and unjust and inequitable treatment. Rather, damages ought to be valued directly using the most recent information (i.e., valued at the date of the award, or at a prior date but using all available *ex post* information).

V. CONCLUSION

Unlike outright expropriation where the investor is forced to transfer the asset to the state, unjust treatment and indirect expropriation have some distinctive economic features. We have shown in this article that at least two of these distinctive features (accounting for a residual value and changing business conditions), require the use of *ex post* information to adequately value damages and to comply with the *Chorzów's* principle of full restoration.

Changing business conditions is a relevant feature of *ex post* information that deserves special consideration. We have demonstrated in this article that *ex post* information on business conditions must not only be used to compute "full-restoration" damages, but also has to be treated symmetrically in the "but-for vs. actual" damage valuation approach. Asymmetric use of *ex post* information, which is similar to a simplistic interpretation of the "before vs. after" approach to damages, on the contrary, will result in inadequate compensation given the complexities in choosing proper dates of valuation as well as improper (asymmetric) comparison of *ex post* facts that have altered the value of the investment through time.

We find that the introduction of *ex post* information on business conditions is not only reasonable but also often unavoidable, as the residual value of the investment is fully contaminated by those changing business conditions. The real challenge for the damage expert and panels alike is, then, how to separate out the observable *ex post* information so as to:

- (a) appropriately and accurately compute damages without taking into account changes in value that may be unrelated to the actions by the state, without ignoring the *ex post* consequences of damaging measures; and
- (b) symmetrically account for *ex post* business conditions in modeling the "but-for" and "actual" scenarios.

Chorzów's compensation standard, by allowing as an option to compute damages as the fair market value of the investment as of the date of the award (plus historical losses since the date of the measure) fully captures our recommendations about the need for including *ex post* information to properly value damages. This, because computing damages *à la Chorzów* as of the date of the award also requires the full use of all the relevant *ex post* information available. In addition, applying *Chorzów's* standard preserves the deterrent component of the compensation by not allowing states to capture profits from improved business conditions since the date of the measures. The only caveat that prevents us from fully advocating *Chorzów's* dual compensation standard in indirect expropriation and unjust treatment cases is that when business conditions deteriorate and are unrelated to state measures, the option to assess damages as of the "date of the measures" without considering any *ex post* information might well result in over-compensation, and thus ought to be discarded as an option. Instead, a valuation as of the date of the award must be used.

Thus, our final recommendation is that in indirect expropriation and unjust and inequitable treatment cases, panels should “rejuvenate” *Chorzów’s* compensation standards and lean towards valuation exercises that compute damages as of the date of the award, using all *ex post* information available, rather than trying to isolate, recreate and/or second-guess valuation exercises that require investor expectations of the distant past, ignoring actual events.

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