

Exhibit A

International Centre for Settlement of Investment Disputes

Washington, D.C.

In the proceedings between

Suez, Sociedad General de Aguas de Barcelona S.A., and Vivendi Universal S.A.
(Claimants)

and

The Argentine Republic
(Respondent)

ICSID Case No. ARB/03/19

and

In the arbitration under the Rules of the
United Nations Commission on International Trade Law between

AWG Group Limited
(Claimant)

and

The Argentine Republic
(Respondent)

AWARD

Members of the Tribunal
Professor Jeswald W. Salacuse, President
Professor Gabrielle Kaufmann-Kohler, Arbitrator
Professor Pedro Nikken, Arbitrator

Secretary of the Tribunal
Mr. Gonzalo Flores

Date of dispatch to the parties: April 9, 2015

Representing the Claimants:

Mr. Nigel Blackaby
Mr. Lluís Paradell
Ms. Noiana Marigo
Ms. Lauren Friedman
Freshfields Bruckhaus Deringer LLP
700 13th St NW,
Washington, D.C. 20005
United States of America

Representing the Argentine Republic:

Dra. Angelina María Esther Abbona
Procuradora del Tesoro de la Nación
Procuración del Tesoro de la Nación
Argentina
Posadas 1641
CP 1112 Buenos Aires
Argentina

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I. Background of the Cases

A. Summary of the Facts

1. On July 30, 2010, the Tribunal issued a [Decision on Liability](#) in which it found that the Argentine Republic (“Argentina” or “the Respondent”) had breached its obligations under three bilateral investment treaties by denying the Claimants’ investments fair and equitable treatment as required by the applicable treaties. The investments of Claimants Suez and Vivendi Universal S.A. (“Vivendi”), both incorporated in France, are protected by the 1991 Bilateral Investment Treaty between France and the Argentine Republic (the “France-Argentina BIT”)¹, the investments of Claimant Sociedad General de Aguas de Barcelona S.A. (“AGBAR”), incorporated in Spain, are protected by the 1991 Bilateral Investment Treaty between the Argentine Republic and the Kingdom of Spain (the “Argentina-Spain BIT”),² and the investments of AWG Group Ltd (“AWG”), incorporated in the United Kingdom, are protected by the 1990 Bilateral Investment Treaty between the Argentine Republic and the United Kingdom of Great Britain and Northern Ireland (the “Argentina-UK BIT”).³

2. In 1993, the Claimants had made investments in a concession for water distribution and waste water treatment services in the city of Buenos Aires and some surrounding municipalities. For the purpose of operating the Concession, the Claimants formed an Argentine company, Aguas Argentinas S.A. (“AASA”), with an initial capitalization of USD 120 million, in which they held shares. As required by the applicable regulatory framework and the thirty-year Concession Contract between AASA and the Argentine government, AASA entered into a management contract with Claimant Suez, specifying its duties as Concession Operator and providing for its related compensation. Under the terms of the Concession Contract and the regulatory framework, the Claimants were to make substantial investments to improve and develop the water distribution

¹ Accord entre le Gouvernement de la République française et le Gouvernement de la République Argentine sur l’encouragement et la protection réciproques des investissements (Agreement between the Argentine Republic and the Republic of France for the Promotion and Reciprocal Protection of Investments), signed on July 3, 1991 and in force since March 3, 1993; 1728 UNTS 298.

² Acuerdo para la promoción y protección recíprocas de inversiones entre el Reino de España y la República Argentina (Agreement on the Promotion and Reciprocal Protection of Investments between the Kingdom of Spain and the Argentine Republic), signed in Buenos Aires on October 3, 1991 and in force since September 28, 1992; 1699 UNTS 202.

³ Acuerdo entre el Gobierno del Reino Unido de Gran Bretaña e Irlanda del Norte y el Gobierno de la República Argentina para la Promoción y la Protección de Inversiones (Agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the Republic of Argentina for the Promotion and Protection of Investments), signed in London, December 11, 1990, and in force as of February 19, 1993.

and waste water treatment systems entrusted to AASA in return for which they would be compensated by the fees and tariffs paid by consumers to AASA over the thirty-year life of the Concession. In addition to their equity contributions to AASA, the Claimants also guaranteed certain loans made to AASA by three multilateral lending institutions: the Inter-American Development Bank (IDB), the International Finance Corporation (IFC), and the European Investment Bank (EIB). The Decision on Liability describes in some detail the events, and particularly the bidding process leading up to the granting of the Concession (¶¶ 26-34), the regulatory framework governing the Concession (¶¶ 66-126), and the various actions of AASA, the Argentine Government, and the Claimants during the first eight years (1993-2001) of the Concession (¶¶ 35-40).⁴

3. Beginning in the year 2000, Argentina began to experience significant economic difficulties that would have serious consequences for the country, its people, and its investors, both foreign and national. Indeed, the country would within a short time plunge into the worst economic and political crisis in its history. As described in the Decision on Liability (¶¶ 41-57), the Argentine Government took a series of emergency measures to cope with the crisis, including the passage of an emergency law ending the fixed exchange rate of one US dollar (USD) to one Argentine peso (ARS), thereby devaluing the Argentine peso to one third of its previous value, refusing to revise upward the allowable tariffs and fees charged by AASA and other similar public service companies as provided by their prevailing legal frameworks, and seeking to force a renegotiation of concession contracts. These measures and Argentina's refusal to increase the tariffs for water and sewage treatment ultimately led to the failure of AASA since they deprived the Concession of the necessary revenue to meet its financial obligations to its lenders, particularly the multinational financial institutions, to make required investments in the water distribution and waste treatment systems for which it was responsible, and to allow its investors, the Claimants, to earn a reasonable return on their investments in AASA. Thus, in January 2003, July 2004, and March 2006, when AASA was unable to service its debts to the multilateral financial institutions, the Claimants, as guarantors of that debt, paid USD 5.56 million, USD 58.55 million, and USD 233.69 million respectively on those dates – a total of USD 297,793,000 – to the multilateral

⁴ The July 30, 2010 Decision on Liability and the April 3, 2006 Decision on Jurisdiction issued by the Tribunal in these cases are integral parts of this Award.

lenders in order to meet their obligations. As a result, the Claimants became the owners of AASA's debt obligations, originally held by the multilateral lenders.

4. Although negotiations between AASA and the Argentine government continued over four years, no agreement was reached that would allow AASA an increase in tariffs. At the same time, the Argentine regulators insisted that AASA comply with its investment obligations under the Concession Contract and imposed heavy fines for failure to do so. In September 2005, the Claimants requested the government to terminate the Concession, but that request would be denied. Ultimately, on March 21, 2006, alleging various violations of water quality standards, the government terminated the Concession, while demanding payment of a performance bond that the Claimants had pledged when AASA assumed the Concession. The water and sewage systems were immediately transferred to a new entity, *Agua y Saneamientos Argentinos S.A.*, an entity owned, financed, and managed by the Argentine State, thus ending Argentina's thirteen year experience with the privatization of the water and sewage systems of Buenos Aires. Shortly thereafter, an insolvency proceeding (*concurso preventivo*) was begun in the Argentine courts to determine the various rights and obligations arising out of the termination, and AASA also brought suit against Argentina pursuant to the dispute resolution provisions of the Concession Contract for unjustified termination of the Concession.

B. Brief Procedural History

5. In 2003, the Claimants filed a request for arbitration under the applicable treaties with the International Centre for Settlement of Investment Disputes ("ICSID"). The procedural history of the resulting cases has been long and complex and is described in the Decision on Liability.⁵ Claiming a total loss of their investments in AASA, the Claimants alleged that the injury to their investments was caused by Argentina's failure to respect the applicable treaties in three respects: 1) that Argentina's actions amounted to an illegal expropriation of their investments; 2) that Argentina denied their investments full protection and security; and 3) that Argentina failed to afford those investments fair and equitable treatment. The four Claimants alleged that their total loss as of June 2008 was USD 1,019.2 million.⁶ The precise amount of the loss claimed by each

⁵ For a summary of the various procedural steps taken during the several years that these cases have progressed, see the ICSID website at <https://icsid.worldbank.org/apps/ICSIDWEB/Pages/default.aspx>.

⁶ Claimants' Post Hearing Brief, June 18, 2008, ¶ 511.

Claimant varied, depending upon the amount of its equity in AASA, the amount of the debt holdings and debt guarantees which it had purchased from the multilateral lenders, and the amount of its liability under the performance bond. In addition, Suez, as the designated operator of the Concession claimed USD 255.5 million for the loss of management fees pursuant to its Management Contract with AASA.

6. After lengthy hearings and voluminous pleadings, the Tribunal determined in its Decision on Liability that Argentina did not expropriate the Claimants' investment and did not deny them full protection and security as required by the applicable investment treaties. It did, however, conclude that Argentina had denied the Claimants fair and equitable treatment⁷ in that its "...actions in refusing to revise the tariff according to the legal framework of the Concession and in pursuing the forced renegotiation of the Concession Contract contrary to that legal framework violated its obligations under the applicable BITs..."⁸ Although the Claimants had argued that Argentina's unilateral termination of the Concession also violated their rights under the investment treaties, the Tribunal rejected that claim, stating that it had no jurisdiction to judge whether Argentina's actions had breached the Concession Contract since "...[w]hether Argentina breached the Concession Contract by termination it is a matter for the dispute resolution procedures provided in that contract."⁹

7. Having determined the liability of Argentina in these cases, the Tribunal decided that, because of the complexity involved in ascertaining damages, a matter extensively argued with widely differing conclusions by each party with the assistance of financial specialists who prepared extensive reports and testified at the hearing on the merits, it was appropriate after issuing its Decision on Liability to create a separate procedural phase devoted to damages and to seek the services of an independent financial expert to assist the Tribunal in the task of valuing the loss, if any, sustained by the Claimants as a result of Argentina's actions. Before undertaking this phase, the Tribunal asked each party for its observations on the wisdom of the Tribunal appointing a financial expert, the process by which such person might be selected, and the procedure to be

⁷ Decision on Liability, ¶ 246.

⁸ *Ibid.*

⁹ Decision on Liability, ¶ 246.

followed by that person to carry out the tasks assigned by the Tribunal. The Claimants and the Respondent provided their views on these issues in their post-hearing submissions.

8. Having decided in its Decision on Liability to seek the assistance of an independent financial expert, the Tribunal, by letter of September 10, 2010, asked counsel for the parties to confer in order to propose jointly to the Tribunal: 1) the name and qualifications of a person to serve as the Tribunal's independent expert; and 2) the terms of reference to guide such a person. In the event that the parties proved unable to make such a joint proposal by a specific date, the Tribunal further informed the parties that the Tribunal on its own initiative would proceed to propose such an individual and prepare proposed terms of reference, giving the parties thereafter an opportunity to present their observations on the Tribunal's proposals. Counsel for the parties did in fact hold such consultations and requested an extension of time to arrive at a joint proposal. By the beginning of 2011, however, the parties were not able to agree on a joint proposal of an individual to serve as the Tribunal's independent financial expert or on the terms of reference that would guide such person.

9. The Tribunal therefore asked the parties for their individual observations on the terms of reference and in a letter of February 12, 2011, requested each party to submit only to the Secretary of the Tribunal a list of not more than five names of persons to serve as the Tribunal's independent financial expert. Thereafter, the following procedures would be followed: if only one of the names on both lists coincided, the Secretary was to communicate that name and related *curriculum vitae* to the Tribunal, which would then proceed to appoint that individual unless there were compelling reasons not to do so. If two or more names on the lists coincided, the Secretary was to communicate both names to the Tribunal, which would appoint one of those persons, unless compelling reasons required otherwise. If none of the names on the parties' lists coincided, the Secretary was to communicate all names to the Tribunal with an indication of the party that proposed each one. The Tribunal would not appoint any of these candidates and would instead proceed to designate a financial expert from persons not appearing on either list. None of the names proposed by the parties did coincide, so the Tribunal conducted its own search for an independent financial expert and proceeded to draft terms of reference, taking into account the observations of the parties.

10. After further consultations with the parties, the Tribunal, on June 15, 2011, issued a Procedural Order Concerning the Terms of Reference of the Tribunal-Appointed Financial Expert. The basic direction of the Terms of Reference was as follows:

“The Expert shall examine, analyze, and provide the Tribunal with a written report (the Report) with respect to the financial injury sustained by the Claimants as a result of the breach of the relevant bilateral investment treaties by the Respondent, as determined by the Tribunal in its Decision on Liability of 30 July 2010.”

11. In furtherance of this basic mission, the Procedural Order specified the various documents that the Financial Expert was to examine, the specific issues to be addressed in the Financial Expert’s Report to the Tribunal, and the powers of the Expert to consult with the parties and party-appointed experts and to seek clarifications from the Tribunal. Within one hundred and twenty (120) days of receiving all the specified documents, the Expert was to prepare a Preliminary Report, which after review by the Tribunal was to be sent to the parties who were to submit their written comments within sixty (60) days of receipt. After considering the parties’ comments, the Expert was to prepare a Final Report. Within forty-five (45) days of receiving the Final Report, the parties were to submit their comments. Thereafter, a hearing of not more than three (3) days would be held at which the parties would have an opportunity to examine the Expert.

12. In the meanwhile, the Tribunal conducted an international search for an individual expert who possessed the competence and the independence to serve as the Tribunal’s Financial Expert in these cases. The required expertise necessitated a person who was not only deeply knowledgeable in the theory and practice of finance but was also learned in the economics and financial dimensions of infrastructure projects. For that person to be independent, in the opinion of the Tribunal, he or she should not have financial relationships with any of the parties and should not have been engaged in any litigation on behalf of or against any of the parties or for any law firm that had represented any of the parties in these cases or any law firm that had engaged in litigation against any of the parties. Ultimately, without objection from any of the parties, the Tribunal by a Procedural Order of August 3, 2011, appointed as its independent Financial Expert, Dr. Akash Deep, Senior Lecturer in Public Policy at the John F. Kennedy School of Government of Harvard University, a former Senior Economist of the Bank for International Settlements in

Basel, Switzerland, and an expert on infrastructure finance, valuation, regulation, and privatization.

13. Within a few days of appointment of the Financial Expert, the Tribunal Secretary, at the direction of the Tribunal, sent Dr. Deep numerous documents relating to these cases, including the parties' several memorials and submissions, with the accompanying reports of their financial experts, and the transcripts of the hearing on the merits. After examining this voluminous material, Dr. Deep determined that he needed extensive additional information in order to carry out his assigned tasks as the Tribunal's Independent Financial Expert, and he therefore communicated to the Tribunal the precise documents that would be required. By Procedural Order of December 28, 2011, requesting additional pleadings and documentation from the parties with respect to damages, the Tribunal asked the parties to provide the various valuation model spread sheets and other documents requested by Dr. Deep. Moreover, since the original pleadings of the parties with respect to damages were based on the Claimants' allegations that Argentina had violated the applicable investment treaties in three respects, illegal expropriation, failure to provide full protection and security, and the denial of fair and equitable treatment, and since the Tribunal, in its Decision of Liability found only the last mentioned violation, the Procedural Order of December 28, 2011, also asked the parties " ...to submit simultaneous memorials to the Secretary of the Tribunal in which they may make any adjustments they deem necessary to their prior pleadings in these cases with respect to damages so as to take account of the Tribunal's Decision on Liability..." By letter of February 8, 2012 to the parties, the Tribunal provided certain clarifications with respect to its Procedural Order of December 28, 2011.

14. In response to that Procedural Order and the clarifying letter, the Claimants and the Respondent each filed Memorials on Damages, accompanied by supporting reports from their respective financial experts, on March 15, 2012. On May 18, 2012, each party submitted comments on the Memorial on Damages previously submitted by the other party. In essence, the Claimants asserted that as of March 2007 they had sustained a loss as a result of Argentina's failure to provide their investments with fair and equitable treatment of USD 889.1 million, which when actualized to February 2012 amounted to total loss of USD 1,060.9 million. Argentina, on the other hand, asserted for various reasons that the amount of the loss sustained by the Claimants as a result of Argentina's measures was "zero."

15. In the following months, Dr. Deep requested various additional documents from the parties, and Argentina submitted various additional documents and submissions which the Claimants challenged, requiring the Tribunal to issue Procedural Orders on the admissibility of documents.

16. On December 24, 2012, pursuant to his Terms of Reference, Dr. Deep submitted a *Preliminary Report of the Financial Expert to the Tribunal*. Based on comments from the Tribunal, Dr. Deep prepared a revised version of the *Preliminary Report* on January 31, 2013, which after further examination by the Tribunal, was forwarded to the parties for their comments and observations. On April 8, 2013, the parties submitted their comments to Dr. Deep's *Preliminary Report*. After reviewing these comments, Dr. Deep prepared and submitted to the Tribunal on July 22, 2013 his *Final Report of the Financial Expert to the Tribunal*, a 171-page document, plus detailed supporting annexes, which was then forwarded to the parties. On August 27 and 28, 2013, the parties submitted to the Tribunal their comments on Dr. Deep's *Final Report*, along with supporting reports from their individual financial experts.

17. As agreed by the parties, the Tribunal held a hearing on damages (*quantum*), from September 19 through 21, 2013, at the seat of the Centre in Washington, D.C. At the hearing, Dr. Deep presented his findings with respect to the amount of compensation that the individual Claimants should receive as a result of the injury caused by Argentina's actions, and was examined by counsel of each of the parties. Thereafter, the parties' financial experts testified as to their views on the amount of the losses sustained by the Claimants, and they were in turn examined by opposing counsel. At the conclusion of the hearing, the parties agreed that the submission of post-hearing pleadings would not be necessary.¹⁰ The Tribunal agreed but asked that each party submit a statement of the costs incurred in the arbitration. The parties made their submissions on costs on October 21, and 22, 2013, respectively. Those submissions would also be the subject of challenges by the parties.

18. In the process of its deliberations following the hearing, the Tribunal addressed the following question to Dr. Deep: "Was AASA going to fail anyway because of its high leverage or for other reasons not connected to the Argentine Government's actions during the crisis?" By

¹⁰ The parties also agreed on Dr. Deep's continued assistance to the Tribunal through the conclusion of the cases. Transcript of the Hearing on Damages, Saturday, September 21, 2013, p. 625, lines 13-20.

memorandum of September 21, 2014, Dr. Deep responded to this question. The Tribunal submitted this memorandum to the parties for their observations and they responded in due course.

19. On February 20, 2015, the Tribunal declared the proceedings closed.

20. On the basis of the voluminous submissions in this case, the *Final Report* of the Tribunal's Financial Expert, and the testimony and exhibits presented at three days of hearings, September 19-21, 2013, it is now the task of the Tribunal to determine the amount of compensation, if any, that the Respondent owes to the Claimants as a result of its actions which this Tribunal determined in its Decision on Liability of July 30, 2010 violated Argentina's treaty obligations to accord the Claimants' investments fair and equitable treatment.

21. The four Claimants in these two cases, Suez, Vivendi, AGBAR, and AWG, allege that the total amount of their injury resulting from Argentina's treaty breaches is USD 868 million, actualized to December 31, 2012. This total amount of the loss, which is some 20% less than what the Claimants previously sought, is due to the fact that the Claimants, while contesting certain elements of Dr. Deep's methodology, decided not to propose changes to that methodology but instead accepted it, while amending it to conform to their view of its proper application to their situations. They assert that their losses consist of five elements, the first three being the most significant: 1) losses incurred as a result of their payments to the multilateral financial institutions as guarantors of AASA's loan obligations; 2) their financial injury sustained as a result of the loss of their equity interests in AASA; and 3) in the case of Suez, the financial injury incurred due to lost management fees as the designated Concession operator under the Management Contract; 4) earned but unpaid management fees owing to Suez as of the beginning of 2002; and 5) unpaid past due dividends. The amounts claimed by each of the four Claimants for each type of injury, actualized to December 31, 2012, were as follows:

Suez: a) loss on guaranteed debt, USD 186 million; b) loss on equity, USD 132.6 million; c) loss on management fees, USD 243.7 million; d) loss on earned but unpaid management fees as of 2002, USD 9 million; and e) losses on unpaid dividends, USD 1.6 million.

Vivendi: a) loss on guaranteed debt, USD 35.2 million; b) loss on equity, USD 25.1 million; and c) loss on past due dividends, USD 0.3 million.

AGBAR: a) loss on guaranteed debt, USD 116.5; b) loss on equity USD 83.1 million; and loss on past due dividends, USD 1 million.

AWG: a) loss on guaranteed debts, USD 19.8 million; b) loss on equity, USD 14.1 million; and c) loss on past due dividends of USD 0.2 million.¹¹

In addition, the Claimants seek reimbursement of all costs they have incurred in this arbitration, an amount alleged to be USD 21,948,516.56. Argentina totally rejects all of the Claimants' demands and asks the Tribunal to direct the Claimants to reimburse it for all costs which it incurred in these proceedings, an amount claimed to be USD 2,651,444.90.

II. The Legal Standard of Compensation

22. In determining compensation for breach of a treaty obligation, it is first necessary for the Tribunal to decide on the correct legal standard to apply in calculating the resulting loss to the Claimants. None of the three BITs governing these cases specifies that standard or, indeed, mentions the consequences of a treaty breach, refers to the issues of compensation or damages, or even makes a specific grant of authority to tribunals to award damages in investor-state arbitrations. On the other hand, the ICSID Convention, which by virtue of the France-Argentina BIT, Article 8, and the Argentina-Spain BIT, Article X.4, applies to the proceedings of this Tribunal in ICSID Case No. ARB/03/19, provides in Article 48(3) that "...[t]he award shall deal with every question submitted to the Tribunal..." Furthermore, Article 54 of the ICSID Convention imposes on Contracting States the obligation "... to recognize and enforce an award rendered pursuant to this Convention as binding and to enforce the *pecuniary obligations* imposed by that award ..." (emphasis supplied), thus recognizing implicitly the power of an ICSID Tribunal to award compensation in appropriate cases. However, the 1976 Arbitration Rules of the United Nations Commission on International Trade Law (UNCITRAL), which, by virtue of Article 8 of the Argentina-U.K BIT, are applicable to the claims of AWG against Argentina, a case also within

¹¹ "Valuation of Losses to Shareholder Investors of Aguas Argentinas S.A.: Comments on Dr. Akash Deep's Final Report," by Manuel A. Abdala and Pablo T. Spiller, Compass Lexecon, August 28, 2013, Appendix B, p. 46.

the competence of this Tribunal, contains no similar specific reference to the award of damages or the imposition of pecuniary obligations on a respondent.

23. All three BITs, however, direct the Tribunal to decide disputes not only in accordance with the applicable treaty provisions but also in accordance with “...the relevant principles of international law...” (Article 8(4), France-Argentina BIT), “... the general principles of international law (Article X.5, Argentina-Spain BIT), or “...the applicable principles of international law...” (Article 8(4), Argentina-UK BIT). As both the Claimants and the Respondent in this case have agreed in their pleadings, the legal basis for awarding compensation in this case and the standard to be applied in determining the amount of that compensation is therefore to be found in international law; however, they do not agree on the specific content of the applicable international law principles and the way in which they should be applied to the precise facts of these cases. This Tribunal, like others,¹² must therefore look to customary international law for the legal principles that govern the determination of damages in these cases.

24. In its Decision on Liability, the Tribunal determined that the Respondent failed to comply with its treaty obligation to accord fair and equitable treatment to the investments of the Claimants. Pursuant to Article 26 (*Pacta Sunt Servanda*) of the Vienna Convention on the Law of Treaties, a provision that embodies a fundamental principle of customary international law, “[e]very treaty in force is binding upon the parties to it and must be performed by them in good faith.” The three BITs to which Argentina was and is a party create obligations under international law. Article 2 of the *Articles on Responsibility of States for Internationally Wrongful Acts*,¹³ which is generally considered as a statement of customary international law and on which both parties in this case have relied at various times, states:

“There is an international wrongful act of a State when conduct consisting of an act or omission:

(a) is attributable to the State under international law; and

¹² E.g., *National Grid plc v. Argentine Republic*, UNCITRAL, Award, November 3, 2008, ¶¶269; *LG&E Energy Corp., LG&E Capital Corp. and LG&E International Inc. v. Argentine Republic* (ICSID Case No. ARB/02/1), Award, July 25, 2008, ¶¶29-32; *SD Myers v. Government of Canada*, UNCITRAL, Partial Award, November 13, 2000, ¶¶ 310 and 315.

¹³ United Nations *Articles on Responsibility of States for Internationally Wrongful Acts, with commentaries*, 2001 (hereinafter *Articles*) (2001), adopted by the International Law Commission at its fifty-third session in 2001 and submitted to the General Assembly as part of the Commission’s Report covering that session. Available at http://legal.un.org/ilc/texts/instruments/english/commentaries/9_6_2001.pdf.

(b) constitutes a breach of an international obligation of the State.”

25. The acts and omissions of Argentina in denying the Claimants fair and equitable treatment as required by the three BITs were therefore international wrongful acts since the acts and omissions in question, as actions done by state organs, were clearly attributable to the Argentine State¹⁴ and since, as the Tribunal’s Decision on Liability found, they constituted a breach of Argentina’s international obligations. As Article 1 of the *Articles* provides: “Every wrongful act of a State entails the international responsibility of that state.” The comment to Article 1 makes clear that the term “international responsibility” “...covers the new legal relations which arise under international law by the internationally wrongful act of a State.” Argentina, by reason of its international wrong in not respecting its obligations under the three BITs, is therefore subject to a new relationship toward the Claimants. Inherent in that relationship is the obligation to compensate the parties injured as a result of its failure to fulfill its international obligations.

26. As the responsible State, Argentina is, according to the *Articles*, Art. 31(1), “...under an obligation to make full reparation for the injury caused by [its] internationally wrongful act.” “Injury,” in this sense, “...includes any damage, whether material or moral, caused by the internationally wrongful act of a State.”¹⁵ Thus, there must be a causal link between the internationally wrongful act and the injury for which reparation is claimed. If such a link exists, then Argentina is required to make “full reparation” for the injury it has caused.

27. As the *Articles* state, reparation for an injury caused by an internationally wrongful act “... shall take the form of restitution, compensation, and satisfaction, either singly or in combination...”¹⁶ In the cases before this Tribunal, the Claimants are seeking compensation for the injuries they claim to have sustained as a result of Argentina’s breach of the three applicable BITs. With respect to the meaning of “full reparation” required by Article 31 quoted above, Article 36 of the *Articles* makes clear that “...the State responsible for an internationally wrongful act is under an obligation to compensate for the damage caused thereby, in so far as such damage is not made good by restitution...” and that “...[t]he compensation shall cover any financially assessable

¹⁴ Article 4(1) of the *Articles* provides: “The conduct of any state organ shall be considered an act of that State under international law, whether the organ exercises legislative, executive, judicial, or any other functions, whatever position it holds in the organization of the state, and whatever its character as an organ of the central Government or of a territorial unit of the State.”

¹⁵ Article 31(2), *Articles*.

¹⁶ Article 34, *Articles*.

damage including lost profits insofar as it is established.” Thus the basic standard to be applied is that of full compensation (*restitutio in integrum*) for the loss incurred as a result of the internationally wrongful act. This statement represents the accepted standard in customary international law and is often supported by reference to the *Chorzów Factory Case* in which the Permanent Court of International Justice stated, “[I]t is a principle of international law, and even a general conception of law, that any breach of an engagement involves an obligation to make reparation.”¹⁷ And also: “[t]he 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, so 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.”¹⁸ Customary international law therefore requires this Tribunal to award “full compensation” to the Claimants for the injuries caused by Argentina’s treaty violations, to seek “to wipe out all the consequences” of Argentina’s illegal acts, and to place the Claimants “in the situation which would, in all probability, have existed” if Argentina had not committed its illegal acts. Moreover, it should be noted that in order to ensure full compensation to injured parties, customary international law authorizes the payment of interest on the principal sum due from the time the amount should have been paid until the date when the payment obligation is actually fulfilled.¹⁹

III. The Application of the Principle of Full Compensation to These Cases

A. In General

28. The application of the aforementioned customary international law principles on damages is in theory rather simple. It requires the Tribunal to engage in a three-step process. First, it must determine the value of the investment in the hypothetical situation where Argentina did not take measures that violated its treaty obligations, a situation referred to by Dr. Deep in his *Final Report* as “without measures.” Second, it must then determine the value of the investment as a result of

¹⁷ *The Factory at Chorzów* (Germany v. Poland), Judgment, 1928 P.C.I.J. (ser. A) No. 17, ¶ 29 (September 13).

¹⁸ *Ibid.*, ¶ 47.

¹⁹ Article 38, *Articles*, provides:

1. Interest on any principal sum due under this chapter shall be payable when necessary in order to ensure full reparation. The interest rate and mode of calculation shall be set so as to achieve that result.

2. Interest runs from the date when the principal sum should have been paid until the date the obligation to pay is fulfilled.

the offending measures that Argentina did take, a situation which Dr. Deep calls “with measures.” Third, the Tribunal must subtract the second value from the first and then actualize that amount by means of an appropriate interest rate to arrive at the damages owing to the Claimants so as to put them in the financial position they would have been had Argentina not breached the applicable BITs. Dr. Deep embodies this simple idea in the following equally simple formula, in which V is equal to the market value of the investment in the two situations:

$$\text{Damages} = [\text{V without measures}] - [\text{V with measures}].^{20}$$

The parties’ experts also used this general methodology but employed different terminology to identify the two situations in the formula.

29. In practice, however, the application of this approach and the customary international law that underlies it is far more complicated, particularly in the facts and circumstances of these cases. In particular, it is complicated by the nature of the investments that the Claimants lost as a result of Argentina’s actions. Their investments were not fixed, physical assets, such as a factory or a pipeline, whose valuation usually may be made relatively easily. Instead, what the Claimants lost in these cases at the time of the measures taken in violation of the applicable treaties was the stream of revenue, often referred to as a “cash flow,” expected to be received over the remaining term of the Concession Contract. That stream of revenue was intended by the parties to the Concession to compensate the Claimants for the substantial investments that they had made in the Buenos Aires’ water and sewage systems, particularly in the early years of the Concession, and to give them a reasonable profit for developing and operating those systems over a thirty-year period. Since the source of that revenue stream was the fees paid by consumers, its precise volume and value depended on many variables, both foreseen and unforeseen, over the next three decades, including population growth in the area, general economic conditions, technological changes, labor conditions, management efficiency, inflation, operating costs, and many others. In addition, in view of the fact that AASA was providing a public service and was therefore subject to governmental regulation, the actions and decisions of governmental regulators were further crucial factors influencing the value of the Claimants’ investments.

²⁰ *Final Report*, ¶ 62.

30. All of these variables certainly render difficult a precise answer to the question of what would the Claimants' investments be worth by the year 2023 if Argentina had not violated the BITs. It is however precisely that question that this Tribunal must answer if it is to correctly apply the international law on damages to these cases. In order to arrive at the values of the investments in the *with* and *without* measures scenarios, it would be necessary to calculate the cash flows for each and then discount those totals to present value using an appropriate discount rate which takes account of the weighted costs of capital and other factors applicable to the two situations. To assist the Tribunal in this process, Dr. Deep constructed an economic model of AASA's operations which sought to capture numerous relevant economic variables and to determine with a certain degree of mathematical precision their impact on each other and on the costs, revenues, and profitability of the Concession. The model not only required the input of numerous data sources but it also necessitated that Dr. Deep make certain macroeconomic assumptions about such matters as prevailing interest, exchange, and inflation rates, which he describes in the appendices to his *Final Report*, that would have an important impact on AASA's operations. Nonetheless, in this regard, it is worth remembering that international law does not demand absolute certainty in valuing the damages sustained by the Claimants but only, in the words of the Permanent Court of International Justice in the *Chorzów Factory Case*, to place the Claimants "in the situation which would, *in all probability*, have existed" if Argentina had not committed its illegal acts (emphasis supplied). In order to accomplish that, the Tribunal and its Independent Financial Expert had necessarily to engage in the hypothetical exercise of building a scenario to determine the financial fate of the Claimants in the situation where Argentina had accorded the Claimants' investments fair and equitable treatment.

31. This probable scenario is necessarily hypothetical in nature because it reflects events that did not occur, but that in all probability would have been the reasonable outcome of the fulfillment by Argentina of its international obligations under the three BITs protecting the Claimants' investments. In the circumstances of the case, the hypothetical situation developed by the Tribunal would imply progressive, coordinated action by Argentina, AASA, and the Claimants as they sought to cope with the effects of the financial crisis on the Concession. Fair and equitable treatment of the Claimants' investment by Argentina would have fostered, in a first stage, cooperation between the parties, in accordance with the Concession Contract and the general principle of good faith, thereby creating a new situation that would ensure the continuation of the

service, in line with the general spirit and intent of the Concession. Such cooperation would in turn have set in motion a dynamic that would have led to a set of agreements between the parties, the individual components and details of which they could have defined in various ways. However, what is essential is that, if Argentina had fulfilled its obligations and would have provided an immediate relief to AASA through instruments provided by the regulatory framework, in “*all probability*” the reasonable outcome of such cooperation between the parties, adapting the Concession to the new economic and legal situation of early 2002, would have been a set of agreements ensuring the viability of the Concession.

32. Such agreements between the parties could have embodied various individual formulations of the model for the continuation of the service. However, for the purpose of determining the *but-for* scenario required to calculate the compensation to which Claimants are entitled, it is not necessary to specify the details of various models or formulas or to speculate on which of them the parties would most likely have accepted. It is enough to determine a model that meets the following requirements: 1) it ensures the viability of the service and of the Concession; (2) it accords with the original equation of the Concession and with the agreements and practices of the parties until December 2001; (3) it embodies the concept of shared sacrifices to ensure the viability of the service and of the Concession; and (4) it is deemed reasonably acceptable to both parties in a scenario of cooperation and not of confrontation between them.

33. The Tribunal has concluded that if Argentina had fulfilled its obligations according to the standard of fair and equitable treatment of the Claimants’ investments, in all probability both parties would have succeeded in developing and agreeing to such model. Since this process of definition and development became impossible because of Argentina’s breach of its international obligations, this task falls on the Tribunal which, in the exercise of prudent judicial discretion, must carry it out by applying standards of reasonableness. In consequence thereof, the Tribunal, with the support of its Expert, decided that it was appropriate to adopt the previously described model of the *but-for* scenario.

34. The Claimants and Dr. Deep have given that scenario various labels, including “without measures,” “but-for,” and “counterfactual” scenario. Before undertaking the exercise of scenario building, the Tribunal must consider two preliminary issues raised by the Respondent during this

proceeding: 1) the valuation period to be applied in calculating the value of Claimants' investments in AASA; and 2) the issue of double recovery posed by AASA's litigation in Argentine courts for unjustified termination of the Concession Contract.

B. Preliminary Issues

1. The Valuation Period

35. An initial issue of contention raised by Argentina with respect to the application of the above-described methodology to these cases concerns the appropriate length of the period for measuring the projected cash flows to AASA during the Concession. Argentina argues that the period for measuring the cash flows should run from the date of actions violating the BITs in 2002 until the termination of the Concession in 2006, not until 2023, the date of the Concession's expiration according to the Concession Contract. While the Respondent used the former, shorter period in its damage calculations, both Dr. Deep and the Claimants used the longer, latter period. Such a reduction in the valuation period would of course substantially reduce the value of the Claimants' holdings in AASA. Relying on the Tribunal's Decision on Liability, which held that Argentina's action in terminating the Contract did not violate any of the applicable BITs, Argentina argues that any injury incurred by the Claimants after the termination in 2006 was a matter to be resolved in Argentine courts according to the dispute resolution provisions of the Concession Contract.

36. The Tribunal does not agree with Argentina on this point. Under international law, as noted above, the Claimants' are entitled to full compensation for what they have lost as a consequence of Argentina's treaty violations. Just as one would not value the loss of a house in a fire based on the market value of the burned structure after the fire, but rather would value the house just before the fire's occurrence, this Tribunal must begin its valuation of what the Claimants have lost as a result of Argentina's illegal actions at a point in time just before those actions took place. In its Decision on Liability, the Tribunal determined that the first breach of the treaties took place on January 6, 2002.²¹ Just before that point in time, AASA, and therefore the Claimants, had the right

²¹ Decision on Liability, ¶247: "For purposes of the forthcoming determination of the legal consequences of such breaches, the Tribunal further concludes that the first abovementioned breach took place on 6 January 2002, date of the enactment of the Emergency Law, which was the first of a series of measures frustrating the investors' legitimately protected expectations, whereas the second abovementioned breach took place on 10 April 2002, date of the adoption of MoE Resolution No. 38/02, which was the first of a series of measures making the renegotiation process an unfair and inequitable one."

to a revenue stream which would continue for another 21 years until the year 2023, not just for another five years until the year 2006 when, unknown to them in 2002, Argentina would terminate the Concession. To limit the valuation period to five instead of twenty-one years would, of course, seriously undervalue the investments lost as a consequence of Argentina's treaty violations. It is true that the risk of termination was always present in the Concession; however, that risk, along with other risks, would be accounted for in the rate applied to discount to present value the remaining twenty-one years of projected cash flows. The termination of the Concession Contract by Argentina, even if not illegal under the BITs, cannot exonerate it from its obligation to repair the consequences of its wrongful act in denying fair and equitable treatment to the Claimants' investments.

37. The starting point of the Valuation Period is connected with the date of first breach of fair and equitable treatment by Argentina, in January 2002, according to the Decision on Liability (¶247). Arbitrator Pedro Nikken disagreed on this point in his Separate Opinion (¶44); however, he accepts that such starting point is consistent with the Decision on Liability and, to such extent, he concurs to this Award.

2. The Problem of Double Recovery

38. While international law requires full compensation for injury, it does not allow for *more* than full compensation. In addition to the present cases, which were begun in 2003, the Claimants brought an action in 2006 in the Argentine courts against the Argentine State for breach of the Concession Contract by virtue of "termination through the fault of the Conceding Authority." Under Article 14.8.3 of the Concession Contract, in the event of termination of the Contract through the fault of the Conceding Authority, AASA was to receive its performance guarantee and the value of the unamortized assets acquired or constructed by AASA, as well as any damages caused by the termination. This judicial claim is apparently the only asset now owned by AASA, and it is reflected in its Financial Statement of December 31, 2011, as valued at ARS 2,487,600,000. Argentina argues that this claim in the Argentine courts presents the risk of double recovery should the Tribunal award compensation to the Claimants for treaty violations. However, neither Argentina nor the Claimants have offered any evidence that the Argentine courts have either awarded or are about to award compensation to AASA for the termination of the

Concession. Consequently, no actual double recovery has been established so far. In the present situation, if this Tribunal should award damages to the Claimant, that fact alone would not result in a double recovery for the Claimants.

39. The parties and the Tribunal also addressed the issue of the possibility of double recovery during both the merits and damages phases of these cases. During the merits phase, the Claimants in their Reply Memorial stated: “The Claimants agree to waive all rights over any receivables obtained in liquidation or local court proceedings should this Tribunal determine that full compensation is payable to the Claimants, such waiver to become effective upon receipt of such payment.”²² At that time, the Tribunal saw no reason to delay its Decision on Liability because of the possibility that the Argentine courts might award damages to AASA for the alleged unjustified termination of the Concession Contract. During the hearing on damages, the Claimants again affirmed that they did not intend to seek compensation in local court proceedings for any loss already awarded and paid to them in this arbitration.²³

40. The Tribunal is aware of no facts or circumstances that have transpired since that time that justify delaying an award of damages in these cases. The Tribunal believes that to award damages in the present circumstances of these cases presents no double recovery problem. The Argentine courts have not yet granted any recovery to AASA. If this Tribunal should award damages in these cases, it is certain that the Argentine government would make the relevant court aware of that fact. The problem of avoiding double recovery would then be a matter for the Argentine courts to consider under Argentine law if and when they are contemplating awarding damages to AASA in the cases currently subject to their jurisdiction.

C. Constructing the “But-for” (“Without Measures”) Scenario

41. In order to value the Claimants’ investments without Argentina’s offending measures, it is necessary to construct a hypothetical, counterfactual scenario as to the situation of the Claimants’ investments had Argentina not treated those investments unfairly and inequitably. At its heart, that scenario must answer the following question: what specific actions should the Argentine

²² Claimants’ Reply Memorial, ¶658.

²³ During the hearing on damages, counsel for the Claimants, in response to Argentina’s expressed concerns about the risk of double recovery, quoted the above-referenced statement in its Reply Memorial and then stated: “It’s a commitment. We reiterate that commitment.” Transcript of the Hearing on Damages, Saturday, September 21, 2013, p. 550, lines 2-14.

government and its regulators have taken in respect of tariff revisions in 2001-2002 for its conduct to have resulted in fair and equitable treatment of AASA and therefore of the Claimants' investments? To answer that question, the Tribunal first examines the nature of the Concession transactions and how a reasonable regulator would have conceived of and dealt with the Concession Company, the investors, and the thirty-year relationship among AASA, its investors, and the Argentine state.

42. The Tribunal believes that a reasonable regulator intent on according the investors fair and equitable treatment would be guided by three basic principles in its relations with a regulated entity like AASA. First, such a regulator would seek to assure the continued provision both short-term and long-term of the vital public service being provided by AASA. Second, it would seek to assure the continued existence, by all reasonable means, of the regulated entity that is providing that service. Third, even though circumstances may prevent the strict application for the time being of all the provisions of the Concession's regulatory framework, a fair and equitable regulator would seek to follow the basic spirit and intent of the agreements that existed between the government and the regulated entity. That basic spirit and intent were ones of cooperation between participants in a long-term joint venture. Indeed, AASA was an early example of a public-private partnership (PPP), a concept that has now gained much currency in international infrastructure development. One would expect that the partners would work together cooperatively to solve their problems when unexpected adverse circumstances strike. Thus for example, one partner would not take advantage of those circumstances to drive the other out of business. In its Decision on Liability, the Tribunal stressed the importance of the need for AASA and the Argentine government to work together:

“Beyond the specific words and commitments of the regulatory framework and the Concession Contract, the Claimants, having entered into a thirty-year relationship with Argentina, were entitled to expect that Argentina would manage that relationship in a cooperative manner, that is to say, that they would ‘work together’ so that the relationship was mutually advantageous. Indeed, Article 5.1 of the Concession Contract required the Concessionaire and ETOSS ‘...to use all means at their disposal to establish and maintain a fluid relationship that facilitates the performance of this Concession Contract.’ In effect, the legal framework seemed

to envision a relationship between the Concessionaire and the Argentine authorities that would be a concrete example of the economic cooperation that the BITs sought to promote. During the first eight years, such a cooperative relationship seemed to prevail.”²⁴

43. The Concession Contract does not define “fluid relationship.” The Tribunal considers that it means, at the very least, a relationship of give-and-take between AASA and the Argentine state, a relationship characterized by open communication and a spirit of collaboration in jointly solving problems that might beset the Concession over the years. The Tribunal does not consider the provisions of Article 5.1 of the Concession Contract requiring the Concessionaire and the regulator “...to establish and maintain a fluid relationship that facilitates the performance of this Concession Contract...” to be mere rhetoric. On the contrary, they express a fundamental recognition of the important principle that no thirty-year Concession Contract can survive on its specific legal provisions alone and that such survival is vitally dependent on a productive and cooperative working relationship between the parties.

44. In the opinion of the Tribunal, these three principles undergirded the work of Dr. Deep, its Independent Financial Expert, in constructing a “without measures” (“but-for”) scenario.

45. In his *Final Report*, Dr. Deep postulates that the “but-for” scenario would involve the following four steps : 1) tariffs would have been raised at the rate of inflation in 2002 and subsequent years; 2) *immediate liquidity relief* would be provided by the Argentine government in the form of an interest free loan or its equivalent, estimated at ARS 132.6 million, to AASA for a period of twelve months after the enactment of the Emergency Law to the extent that the additional revenue earned by AASA in 2002 from the increase in tariffs failed to cover the increase in Argentine peso payments on AASA’s dollar-denominated debt obligations; 3) AASA’s Capital Expenditure Plan would be adjusted for the remainder of the Concession period to the level actually implemented or proposed by AASA; and 4) a full review of the economics of the Concession Contract would be conducted in 2003 whereby the tariff would be adjusted to ensure that the Concession Contract was in financial equilibrium of revenues and expenditures.²⁵

²⁴ Decision on Liability, ¶233

²⁵ *Final Report*, ¶¶ 69 *et seq.*

46. The aim of such a review was to ensure that the Concession achieved financial equilibrium as prescribed by the Water Decree and would take account of the new market parameters that came into existence after the abandonment of the currency peg and after the attainment by Argentina of relatively stable macroeconomic and financial market parameters. On the basis of such a simulation, Dr. Deep determined that a nominal tariff adjustment of 18.2% (13.2% in real terms) would be applied as of January 1, 2004.²⁶

47. For its part, the Claimants, under the Deep scenario, would also have had to cover any resulting shortfall in cash flow with capital infusions and would have had to waive payment of management fees under the management contract until all debt had been paid. In developing this scenario, Dr. Deep relied upon the legal framework, the Decision on Liability, and Resolution 602/99²⁷ issued by the Argentine Secretary of Natural Resources and Sustainable Development and applied by the *Ente Tripartito de Obras y Servicios Sanitarios* (ETOSS), the relevant government regulatory agency. The purpose of Resolution 602/99 was to enunciate a set of principles that would strike a balance between the revenues that the Concession would be allowed to earn over its life and the costs of providing service, including a reasonable rate of return on the capital invested. Although Resolution 602/99 was submitted to the Argentine government for approval, such approval was never formally granted or specifically refused. Nonetheless, whatever the formal authority of Resolution 602/99, ETOSS did apply it in dealing with AASA. It is true that section 3.3 of the Addendum to Resolution 602/99 does not provide for liquidity relief as such; however, it does provide that Argentina has an obligation to increase tariffs in case of a change in currency parity at least to the level of the increase of debt service due to the parity change. Thus, its purpose was to enable AASA to have sufficient liquidity to meet its debt obligations. At the same time, Dr. Deep considered that increasing tariffs by more than the rate of inflation would not be realistic under the circumstances that Argentina faced at the time. Thus, his proposal of a one-year interest free loan appears to be a reasonable and constructive device within the spirit and intent to the Resolution 602/99 to enable AASA to avoid defaulting on its debt obligations at least cost to Argentina.

²⁶ *Final Report*, ¶ 93.

²⁷ Claimants' Exhibit C-62.

48. In evaluating the scenario proposed by Dr. Deep, one may well ask: even if the parties had acted as suggested by Dr. Deep, was AASA going to fail anyway because of its high leverage or for other reasons not connected to the Argentine Government's actions during the crisis? The Tribunal specifically posed that very question to Dr. Deep during its deliberations, and he answered it in his memorandum of September 21, 2014 by stating that AASA would not have failed in that situation. Had Argentina fulfilled its treaty obligations by actually acting fairly and reasonably as a regulator by following a course of action similar to the one outlined in Dr. Deep's scenario, AASA, according to Dr. Deep, would have remained viable in the sense that its equity would have had a positive value. It is true that as a result of the steep devaluation of the Argentine peso, AASA's debt in Argentine pesos ballooned and its equity shrunk considerably to ARS 13.5 million in 2001.²⁸ The result was a highly leveraged firm in which its total debt amounted to almost 98.7 % of its total value,²⁹ but not a bankrupt one. It is also important to remember that the fact that the Claimants had guaranteed AASA's debt to the multilaterals would have given them a powerful incentive not to abandon the Concession, an action that would have cost the Claimants hundreds of millions of dollars, provided that they had some realistic hope of returning the Concession to a state of profitability. Such a hope depended crucially on the Claimants' evaluation of the Argentine regulator's future treatment of AASA. Appropriate actions by the Argentine government towards revising tariffs, as suggested by Dr. Deep, would not only have had the effect of improving AASA's cash flow situation and easing the burden of servicing its debt but it would also have been a powerful signal to the Claimants and to AASA of the Argentine government's cooperative attitude toward the Concession, encouraging the Claimants to take the necessary steps to support the Company in a time of great adversity. On the other hand, as Dr. Deep concluded, Argentina's persistent refusal to revise tariffs of the Concession, which after all was providing a vital public service to millions of its citizens, virtually assured its demise, a result that eventually took place. Thus, according to Dr. Deep, the failure of Argentina to revise tariffs caused the financial failure of AASA while his proposed or a similar program of adjustments that Argentina might have taken would have allowed it to survive as a financially viable operation.

49. The parties have raised various objections to the scenario advanced by Dr. Deep. On the one hand, the Claimants argue that the liquidity relief proposed should not be a one-year interest-

²⁸ *Final Report*, ¶252.

²⁹ *Final Report*, ¶389.

free loan repayable by AASA, but rather an outright subsidy or other type of permanent capital infusion by Argentina in order to compensate AASA for the loss sustained when Argentina abruptly devalued its currency and then refused to raise the tariff in accordance with the Concession's legal framework to take account of the devaluation. The Claimants also argue that Resolution 602/99 does not specifically mention a temporary payment or loan, that Dr. Deep's scenario requires capital infusions from the Claimants which are not required or authorized by the Concession's legal framework, that his scenario ignores the risk-allocation formula provided by the Concession's legal framework, and that Dr. Deep should have conducted an extraordinary tariff review as provided by that legal framework. In addition, they have challenged various elements of Dr. Deep's methodology, such as the uncollectibility rates he assumed in calculating tariff revenues.³⁰

50. On the other hand, Argentina strongly protests the notion of providing an interest-free loan, arguing first that such action is nowhere required or even suggested in the legal framework of the Concession and second that it is unreasonable and unrealistic to expect that a government, facing the worst crisis in the country's history, would make an interest-free loan of ARS 132.6 million to AASA, which after all is a private company. Furthermore, since Dr. Deep relied heavily on language in Resolution 602/99 to justify the governmental provision of temporary liquidity relief, Argentina questions strongly the validity of that approach since Resolution 602/99 was never formally approved by the Argentine Government. It also argues that the increases in tariffs required by the Deep scenario would have been unrealistic and infeasible in view of the high levels of poverty experienced by the Buenos Aires' population at the time of the crisis. Argentina also argues that Dr. Deep errs in relying on Resolution 602/99 as a manifestation of the "equilibrium principle" in view of the fact that the Tribunal's Decision on Liability found that the principle was absent from the regulatory framework. It further contends that Dr. Deep also errs by in effect performing an expropriation valuation when the Tribunal had determined in its Decision on Liability that no expropriation had taken place.

51. The parties are correct that neither the Concession's legal framework nor Resolution 602/99 imposes a specific obligation on Argentina to provide a one-year, interest-free loan to

³⁰ Claimants' Comments on the Final Report, ¶¶50-57 and 58-65.

AASA or an obligation on the investors to make an additional capital infusion into AASA. The sudden devaluation of the Argentine Peso in 2002 subjected AASA to a significant shock because the costs of servicing its foreign debt had suddenly ballooned while its tariffs could not be adjusted immediately and its capital expenditure plan remained unchanged. AASA therefore experienced a liquidity crisis. It is that crisis that the regulator and the concessionaire would have had to work together to resolve through negotiation in a “without measures” scenario. To suddenly raise tariffs 87%, as the Claimants suggested at one point in the proceedings, might have been justified by the legal framework but was unfeasible for both political and functional reasons. A massive increase in tariffs in the midst of one of the worst financial crisis in Argentina’s history would have generated enormous political and popular opposition. Moreover, a full tariff review necessary to any change in tariffs would require significant time and technical expertise to accomplish. Thus, in the circumstances of the crisis faced by Argentina a reasonable regulator would face a major problem in deciding how to provide AASA with relief of its liquidity problem that was both immediate and would not provoke insurmountable public and political opposition.

52. According to Dr. Deep, a regulator would have found a partial answer in Resolution 602/99, particularly section 3.3 of Appendix A on adjustment in tariffs caused by changes in the parity of the Peso. That provision stated: “Should the ARS/USD parity change, such change shall be transferred to the tariff. Any resulting income shall at least cover the difference between the flows of debt service (denominated in USD) arising from the variations in the exchange parity and the scenarios that would have taken place absent the exchange parity variation for the period pertaining to the immediate twelve following months.” The provision does not state *how* such change is to be transferred to the tariff. It thus grants the Regulator a certain degree of flexibility in arriving at a solution to the liquidity crisis faced by AASA. However, Resolution 602/99 does stipulate three reasonable principles that the regulator is to follow: 1) any tariff adjustment should at least provide sufficient revenue to cover increases in debt service caused by changes in the dollar-peso parity; 2) the provision applies only for the following twelve months; 3) the decision on tariff modification had to be made within 30 days. Thus, this provision provided liquidity relief that was both immediate and temporary. Its purpose was to grant relief until a full tariff review could be accomplished. At the same time in the event that the tariff adjustment was insufficient, the investors in AASA would make up the short fall by contributing additional capital. Thus, both Argentina and the AASA’s investors would share the burden of assisting AASA through its

liquidity crisis. Drawing on this provision, Dr. Deep developed the without measures scenarios whose fundamental elements were the four steps listed above.

53. An evaluation of any counterfactual scenario requires the Tribunal to enter the realm of the hypothetical. Based on his expertise, and in light of the legal framework, Dr. Deep has developed a scenario hypothesizing what a fair and equitable regulator would do in the situation that Argentina faced at the time of the crisis and afterwards. While the parties have objected to various aspects of Dr. Deep's scenario, neither of the parties has provided this Tribunal with another equally detailed and convincing scenario of how a reasonable regulator intent on according fair and equitable treatment to AASA would have behaved. More important, the Tribunal considers that both Argentina and the Claimants would have had strong reasons to take the measures suggested by Dr. Deep in his scenario or similar measures. Argentina would have extended the temporary relief in order to assure the continuation of a vital public service. The Claimants, encouraged by Argentina's concrete response to its liquidity crisis, would have contributed additional capital for sound financial reasons. First despite being highly leveraged, AASA would still have had positive equity, making it valuable for the Claimants to continue to operate with valid expectation of an eventual return on their investment. Second the Claimants were also guarantors of AASA's borrowings from the multilaterals. Thus, whether or not they stayed invested in the project, they would still be liable to the multilateral lenders. Third, the Claimants had good prospects of recovering their investments with a profit if they stayed invested in AASA. Although both parties have objected to certain elements of the Deep scenario in their pleadings in these cases, the parties' litigation positions are not reflective of what a reasonable regulator and a reasonable operator would have done in the circumstances. In the view of the Tribunal, a confrontational scenario in *all probability* would not have existed if Argentina had fulfilled its obligation of fair and equitable treatment. On the other hand, the fulfillment by Argentina of its obligation of fair and equitable treatment would in *all probability* have fostered cooperation between the parties to achieve a solution of the kind suggested by Dr. Deep's Model.

54. How then should the Tribunal evaluate the scenario developed by Dr. Deep? The Tribunal believes that in the absence of a competing, more plausible scenario, it need only find that Dr. Deep's scenarios is a reasonable hypothesis of what a regulator, intent on fair and equitable treatment of AASA, would do in a comparable situation. The Tribunal believes that the without

measures scenario satisfied the three principles that would guide a reasonable regulator intent on according fair and equitable treatment to AASA. The scenario assures the continuation of an important public service, preserves the entity providing that service, and is the product of shared sacrifice between the investors and the Argentine state.

55. The Tribunal believes that the scenario developed by Dr. Deep meets these criteria and that it is reasonable. The scenario assures the continued provision of vital water and sewage services to Argentina's largest urban area. To enable it to provide that service, it preserves the continued existence of AASA, which contrary to Argentina's characterization in its pleadings, is not just an ordinary private company but a heavily regulated entity providing a vital public service to millions of people. And finally, the Deep scenario, as pointed out in Dr. Deep's *Final Report*, reflects a partnership relationship between AASA and the Argentine government in that the ultimate solution requires mutual sacrifice by both sides. In view of the reasonableness of the Deep scenario, the Tribunal concludes that AASA would have *in all probability* survived if Argentina had accorded the Claimants' investment fair and equitable treatment and that Argentina's actions in failing to accord such treatment caused the financial losses sustained by the Claimants. Moreover, while Resolution 602/99 may or may not be legally binding, it was nonetheless, as the product of an agency of the Argentine Government, strong evidence of how a reasonable regulator would act in the situation that AASA and the regulators faced at the time of the Argentine crisis. Additionally, it is significant that ETOSS applied Resolution 602/99 in its dealings with AASA before 2002. The Tribunal therefore believes that Dr. Deep was justified in using Decision 602/99 to build his scenario to determine the losses sustained by the Claimants.

56. Finally, contrary to Argentina's objection, Dr. Deep was not engaged in making an expropriation valuation. The construction of a without measures scenario was only the first step in his proposed methodology. He then had to value the Claimants' investments in a "with measures" scenario and finally to subtract the value of the latter from the value of the former in order to arrive at a value of the loss sustained. Dr. Deep correctly determined that the "with measures" scenario resulted in a complete loss of the Claimants' investments. Their value was therefore zero. That amount would then be subtracted from the value to be attributed to the various elements of the Claimants' investment had Argentina accorded them fair and equitable treatment.

Thus the conceptual framework for the valuation process in a case of denial of equitable treatment is quite different from that of an expropriation case.

IV. Calculation of the Claimants' Losses

A. In General

57. Both parties have argued their positions thoroughly and professionally. The Tribunal has carefully reviewed all the submissions to reach the conclusions below. Considerations of judicial economy suggest, however, that the Tribunal can dispense with dealing with arguments raised by the parties which have no impact on the outcome. Accordingly, the parties' arguments in the award are summarily described and addressed only to the extent that they are relevant to the Tribunal's findings.

58. The Claimants assert five individual elements of loss as a result of Argentina's treaty violations: 1) loss on AASA's debts that the Claimants had guaranteed; 2) in the case of Suez, losses on future management fees (after 2002); 3) also in the case of Suez, losses on unpaid management fees earned before 2002; 4) losses on the Claimants' equity investments in AASA; and 5) losses on unpaid dividends due to the Claimants as shareholders of AASA. Each of these five elements of loss will be considered in turn.

B. Losses on Guaranteed ("Sponsored") Debt

59. In order to secure sufficient capital to undertake the extensive investments contemplated by the Concession Contract and related legal framework, AASA engaged in significant borrowing, both locally and internationally, in the early years of its existence. Multilateral financial institutions proved to be an important source of such loans because they were willing to lend to AASA for long periods of time, ranging from eight to twelve years, and because their prevailing rates of interest were advantageous. The Claimants asserted during the merits phase of the arbitration that loans of comparable duration were not available within Argentina, and the Respondent did not furnish any convincing evidence to the contrary. The loans, however, were with one exception denominated in US dollars³¹ and had floating rates of interest tied to LIBOR.

³¹ One loan from the European Investment Bank, contracted in July 1997, was denominated in ECUs, with the face amount of ECU 77 million, approximately USD 77 million at the time.

In November 1994, AASA borrowed a total of USD 272.5 million in three tranches from the International Finance Corporation (IFC), an affiliate of the World Bank; in March 1996 it contracted a second loan from the IFC for USD 213 million, payable in two tranches; in July 1997 it secured a loan of ECU77 (approximately USD 77 million at the time) from the European Investment Bank (EIB); and in August 1999 it borrowed USD 215 million in two tranches from the InterAmerican Development Bank (IDB). AASA's total borrowings from the multilaterals amount to USD 777.5 million.

60. The fact that the loans were payable in dollars presented a financial risk to AASA since its income was entirely in Argentine currency, which at the time was pegged to the US dollar by law. If, for any reason, Argentina should decide to abolish the peg and devalue its currency, as it in fact did during the financial crisis, AASA would experience a serious inability to service its international debt. It was because of this risk caused by the fact that its debt obligations and its revenues were in different currencies that the multilaterals required certain shareholders of AASA to guarantee the loans that the multilaterals made to AASA. Each of the Claimants, along with *Banco de Galicia y Buenos Aires S.S.*, also an AASA shareholder, did in fact execute such loan guarantees (known as Sponsor Support Agreements) in favor the multilaterals. The share of each such AASA shareholder Sponsor in the debt guarantees as of December 31, 2001 was as follows: Suez 46.99%; AGBAR 29.41%; Vivendi 8.89%; AWG 5%; and Banco de Galicia y Buenos Aires 9.71%. Thus, the Claimants jointly guaranteed 90.29% of AASA's debts to the multilateral institutions.

61. When Argentina did in fact abolish the link of the dollar to the peso and thereby significantly devalue its currency and when the Argentine government refused to allow AASA to increase its tariffs, AASA was unable to service its international loan obligations. The multilaterals therefore activated the Sponsor Support Agreements, which required the guaranteeing AASA shareholders to inject additional funds (through subordinated loans) to AASA to meet its guaranteed debt obligations. In January 2003, in response to the IDB's deficiency notice, the AASA shareholders made an initial payment to AASA to enable it to meets its IDB obligations. On July 15, 2004, since AASA was still unable to service its guaranteed debt (sometimes referred to as its "Sponsored Debt"), AASA, its multilateral creditors, and the guaranteeing shareholders reached a broader agreement, as part of which the Sponsors made

another payment to allow AASA to buy back part of its secured debt. Finally, in 2005 and 2006, because AASA was unable to make any debt payments, the secured lenders triggered the rest of the debt guarantee. The multilateral lenders and the debt guarantors then negotiated an agreement of March 9, 2006 by which the latter purchased the remainder of AASA's secured debt at a discounted price.

62. The total amount paid to the multilaterals by all Sponsors to extinguish their debt guarantee obligations was USD 329,817,707. Of this amount, the Claimants in these cases made payments to the IDB in January 2003 of USD 5,556,622, to the IFC, IDB, and EIB of USD 58,549,281 in July 2004, and to the IFC, IDB, and EIB of USD 233,686,505 in March 2006, for a total debt guarantee payments to all multilaterals of USD 297,792,408. There appears to be no dispute among the Claimants, the Respondent, and Dr. Deep on these amounts, except for the fact that the Respondent did not include in its calculations the legal fees of approximately USD 557,000 incurred by the Claimants in making the March 2006 Purchase Agreement. Dr. Deep considered these legal fees as part of the losses sustained by the Claimants as a result of Argentina's actions and therefore included them in the amount of loss on debt sustained by the Claimants.³² The Tribunal agrees with Dr. Deep on this point.

63. Whereas the calculations of other elements of loss, such as the loss on equity, of necessity require the formulation of a hypothetical situation that posits what the Claimants' assets would have been worth if Argentina had accorded the Claimants fair and equitable treatment, such a hypothesis need not be deployed to determine the loss on sponsored debt since the amounts that the Claimants paid to the multilaterals are known exactly. The Claimants' losses on guaranteed debt are therefore actual, liquidated losses, not potential hypothetical losses. The Claimants, Dr. Deep, and the Tribunal accept the amount paid as the starting point in determining the amount of the Claimants' losses on guaranteed debt. However, in actualizing the values of those losses as of December 31, 2012, Dr. Deep and the Claimants have arrived at differing results. To actualize the losses, Dr. Deep assumes that each of the dollar denominated costs incurred by the Claimants in fulfillment of the debt guarantees accrues interest at the six-month Eurodollar deposit rate, as recorded by the Federal Reserve System of the United States, compounded semiannually from the

³² *Final Report*, ¶ 324, footnote 143.

end of the month in which each loss was incurred until the end of December 2012. Applying that methodology, Dr. Deep concluded that the value of the Claimants' losses on guaranteed debt, actualized to the end of December 2012, amount to USD 357.4 million.³³ The Claimants, however, assert their collective losses on guaranteed debt, actualized to the end of December 2012 amount to USD 390.4 million.

64. The difference in the two calculations appears to be due to the fact that the Claimants actualized the amount paid from the date of payment until the date of termination of the Concession at AASA's weighted average cost of capital, not the six-month Eurodollar rate compounded semiannually. The Claimants seem to have chosen this method of computation on the grounds that their payments on the debt guarantees were in effect contributions to AASA's equity capital. The Tribunal does not agree with this characterization. The payments made by the Claimants to the multinationals were in satisfaction of a debt obligation, originally of a contingent nature, that had come into being because of Argentina's actions. Had those actions never occurred, the Claimants would have had no current obligation to make payments to the multilaterals. When each Claimant made such payment, they sustained a loss. In compensating them for their losses, the Tribunal must seek to place them in the position they would have been if no such loss had occurred. In order to do that, the proper approach is to determine the total amount that each paid to the multilateral and then actualize those amounts from the time of payment to the present by use of the compounded six-month Eurodollar rate as Dr. Deep has done in his *Final Report*.

65. It is to be noted that Argentina did not specifically contest the use of compound interest in Dr. Deep's calculations. The Tribunal believes that strong reasons, both economic and legal, justify the application of compound interest. First the goal of international law on compensation for violations of international obligations is to place the injured party in the position that such party would *currently* have been if the injury had never taken place. Compound interest is more effective at achieving that result than is simple interest. Second, international tribunals manifest a growing tendency to apply compound rather than simple interest in damage calculations.³⁴ Third, it is standard practice in business and finance when calculating financial returns and losses to apply

³³ *Final Report*, ¶¶ 263 and 397-399.

³⁴ E.g. *Total S.A. v. Argentine Republic* (ICSID Case ARB/04/1), Award, November 27, 2013.

compound interest precisely because financial and economic experts believe it more accurately reflects economic reality than simple interest.

66. Although Argentina does not dispute the amount of payments made by the Claimants to the multilaterals to extinguish AASA's sponsored debt, it does reject the Claimants' assertion that Argentina is responsible to compensate the Claimants for the resulting losses they incurred on AASA's sponsored debt. Its principal argument in this respect is that financing AASA's development with US dollar-denominated loans that had to be serviced in US dollar payments was highly risky in view of the fact that AASA's revenues were entirely in Argentine Pesos, a phenomenon that the Respondent has characterized as a "currency mismatch." Had the Claimants chosen to finance AASA with the more prudent method of using Peso-denominated loans, the Respondent argues, AASA would have been able to weather the financial crisis and the Claimants would never have incurred the losses on debt that they allege. Accordingly, Argentina argues that having deliberately chosen to use the highly risky method of Dollar-denominated loans, the Claimants, not Argentina, should bear the negative results when that risk occurs.

67. Any investment has risks. Indeed, risks are inherent in the investment process. Thus, just because an investment presents a risk does not mean that such investment is not protected by the relevant bilateral investment treaty or the applicable customary international law. The Tribunal can find no basis either in the Concession regulatory framework or in international law for excluding sponsored debt from the protection provided by the BITs, on the ground of the risk it bears. On the other hand, taking account of risk in valuing the loss of an investment is of course totally appropriate and is standard practice in finance and in law. But with respect to the payments made on guaranteed debts, the Tribunal is not seeking to value an investment in AASA made by the Claimants in the past but rather it is seeking to actualize to the present time the amount of known, liquidated, actual losses sustained by each Claimant in the past. As a result of Argentina's actions in failing to accord the Claimants' investments fair and equitable treatment, AASA was unable to service its debt and the Claimants were therefore required to make debt guarantee payments. Had Argentina met its treaty obligations to the Claimants' investment by following a course of action similar to the one proposed by Dr. Deep, AASA would have been able to meet its obligations to creditors and the multilaterals would never have activated the debt guarantees. The Claimants' losses on debt were therefore a direct consequence of Argentina's treaty violations.

68. The Tribunal has determined that the total amount of such loss incurred by all debt sponsors, is USD 357.4 million, actualized to December 31, 2012.³⁵ The four Claimants in these cases together sustained 90.29% of that total, and the remaining 9.71% was paid by the *Banco de Galicia*, an AASA shareholder that is not a Claimant in these proceedings. The share of the individual Claimants in sponsored debt guarantees as of December 31, 2001 was as follows: Suez 46.99%; Vivendi, 8.89%; AGBAR, 29.41%; and AWG 5%. Applying these same percentages to allocate the total estimated loss on sponsored debt of USD 357.4 million, actualized to December 31, 2012, the Tribunal concludes that the amount of the loss on guaranteed debt sustained by each of the four Claimants is as follows: Suez 187,870,445; AGBAR, USD 117,583,905; Vivendi, USD 35,543,057; and AWG USD 19,990,471. Thus, the total amount of the losses on sponsored debt sustained by all four Claimants as of November 1, 2014 is USD 360, 987, 923.

69. Notwithstanding the amounts that this Tribunal may award the Claimants for these and other losses, Argentina argues that such awarded amounts should be reduced by the “benefits” granted to AASA throughout the renegotiation process following the outbreak of the financial crisis. Specifically, according to Argentina, these benefits fall into two categories. The first consists of payments made by Argentina on a loan the Inter-American Development Bank had made in 1989 to Argentina for the benefit of the then state-run Buenos Aires water and sewage systems and which AASA, as part of the privatization process, agreed to service by reimbursing Argentina for debt service payments that it made to the IDB. AASA did in fact make such payments from the time it agreed to this arrangement until January 2002, when its financial situation no longer permitted it to continue to make such payments. At that point, the Argentine State, which was liable on the loan obligation to the IDB made regular debt payments pursuant to the terms of the loan. By December 2012, it alleges that it made total payments to the IDB of USD 129.1 million, which when actualized to present value as of December 31, 2012 were equivalent to USD 147.2 million. The second category of claimed benefits granted to AASA includes the unpaid fines imposed by ETOSS, the regulator, on AASA for its breaches of various legal and regulatory obligations. The total amount of such fines as of December 31, 2001 was USD 10.4 million.

³⁵ For purposes of the pleadings in these cases, the parties were asked to actualize amounts claimed up to December 31, 2012. Dr. Deep’s calculations in his *Final Report* were also made as of that date.

70. In neither its written nor oral pleadings does Argentina advance a principle of international law that supports its contention that the above amounts should be deducted from any amounts that the Tribunal may decide to award the Claimants for injuries to their investments. At the hearing on damages, counsel for Argentina did assert that such deduction is justified for “basic equity reasons” but did not elaborate on the meaning and application of equity concepts in the context of these cases.³⁶ The Tribunal rejects Argentina’s claim that the amounts that it paid on a pre-existing IDB loan for which it was primarily liable should be deducted from any compensation that the Tribunal might award to the Claimants. The cause of AASA’s inability to reimburse Argentina for its payment on the IDB loan obligation, for which Argentina was the primary obligor, was the sudden decline in AASA’s financial situation. That decline was directly attributable to Argentina’s actions in denying the Claimants fair and equitable treatment as required by the relevant BITs. Had Argentina acted fairly and equitably toward those investments, as proposed earlier in this award, AASA would have had sufficient cash flow to meet its debt obligations, including the reimbursements for servicing the IDB loan repayments. Further, to reduce the amount of the compensation awarded to the Claimants for their losses on sponsored debt would amount to denying the Claimants full compensation, as required by international law, and amount to allowing Argentina to benefit from the violation of its treaty obligations.

C. Losses on Management Fees

71. The pre-qualification bidding rules governing the award of the Concession required bidding groups to include a Technical Operator who had experience in operating a water and waste water service in a city with a minimum of 500,000 inhabitants and to demonstrate that it had served at least two million persons. The Technical Operator was required to have a minimum equity stake of 25% of AASA’s voting shares throughout the period of the Concession. The role of the Technical Operator was to oversee the technical, financial, and economic management of the Concession and to provide AASA with know-how, experience and technology, elements that seemed to have been lacking in the management of the water and sewage systems of Buenos Aires while it was a state-run enterprise. The apparent purpose of the requirement stated above was to

³⁶ “What we say is that if we’re going to adopt a criterion where we recognize Claimants and what they paid with regard to loans made by multilateral organizations, because of basic equity reasons, we must also recognize what the Argentine State paid to those multilaterals and to deduct from whatever was paid by Claimants that which was paid by the Argentine Republic.” Transcript of the Hearing on Damages, Thursday, September 19, 2013, p. 112, lines 13-20.

give Argentina some assurance that any concessionaire would not only invest the necessary financial resources, but would also provide these essential, intangible assets.

72. The investors that were ultimately awarded the concession to operate the water and sewage systems of Buenos Aires selected Lyonnaise des Eaux, later renamed Suez, as AASA's Technical Operator. In April 1993, Lyonnaise des Eaux and AASA entered an "Agreement for Management Control and Technology Transfer and Know-how," ("Management Contract") designating Lyonnaise des Eaux as the Concession's Technical Operator. This Agreement, which was embodied in the Concession Contract as Annex IX, required the Technical Operator, among other things, to "audit the technical, economic and financial aspects of the Company's management" and "make available to the Company all its know-how, including its experience, technology, and knowledge in the operating management of companies engaged in the provision of potable water and sewage public utilities, in every area within its scope of activities," including the corporate strategy, technical, commercial, financial, administrative, legal, work policy, and personnel organization, and public and international relations areas.³⁷ The Agreement also provides that "[t]he Company shall pay Operator in consideration for the obligations ... six percent (6%) of the Company's gross operating margin. For such purpose, the gross operating margin is defined as the difference between the operating income, excluding the value added tax, and operating expenses..."³⁸ It further stipulated that "[a]ll payments for the benefit of the Operator shall be made in US dollars..."³⁹ The Agreement also provided that any delay in the payment of earned management fees would entail a penalty interest rate of LIBOR plus 5%.⁴⁰ Pursuant to the Revised Bidding Rules all of the terms of the Concession Contract, including its Annexes, were subject to the approval of the appropriate Argentine government authorities. In fact, the Argentine government did approve the Concession Contract, along with the annexed Agreement for Management Control and Technology Transfer and Know-how and the amount of fees to be paid were considered a legitimate operating cost for purposes of calculating the Concession's tariffs.

73. Because of financial difficulties, AASA was unable to pay a portion of the management fee earned by Suez in 2001. As AASA encountered increasing financial difficulties as a result of

³⁷ Concession Contract, Annex IX, Part 1, Article I and Part 2, Article VI.

³⁸ Concession Contract, Annex IX, Part 4, Article VIII.

³⁹ *Ibid.*

⁴⁰ *Ibid.*

the Argentine crisis, it ceased to make such payments for lack of sufficient cash flow. In fact, AASA did not pay management fees to Suez from 2002 until Argentina terminated the Concession in 2006. As a result, Suez is claiming compensation for two aspects of its loss on management fees as a result of Argentina's treaty breach: (1) the amount of earned but unpaid management fees due as of the beginning of 2002, and (2) the amount of future management fees that Suez would have earned from 2002 until 2023 if Argentina had accorded AASA fair and equitable treatment as required by the applicable BIT.

74. Argentina opposes Suez's entire claim on management fees. It argues that the Management Contract was a mere commercial contract, not an "investment" covered by the relevant BIT, and that therefore claims relating to the contract are outside the jurisdiction of the Tribunal. Argentina also argued that the Decision on Liability does not specifically mention management fees and that therefore "this is not the appropriate procedural opportunity for the Claimants to reargue this issue." It also argues that Suez mismanaged AASA and that payment of management fees is therefore unjustified. Further, it protests that payment of management fees leads to double payments to Suez since management fee payments were included as projected costs and therefore were taken account of in calculating AASA's tariffs. Dr. Deep was unsure of the legal status of the claim for management fees and therefore computed them on a contingent basis in his *Final Report*.

75. The Tribunal has concluded that Suez's claim for unpaid management fee is justified by both a substantive economic analysis and on a formal legal basis. Economically, the management Contract was not a separate transaction, as the Respondent contends, but was an integral part of Suez's investment in AASA as covered by the BIT and the ICSID Convention. The Concession's legal framework required one of the significant investors to be designated the Concession's Operator. It was normal and necessary for that relationship to be embodied in a Management Contract such as the one Suez executed with AASA. Further, the legal framework prohibited such a contract from being held by a party that was not an investor in AASA and required that at least one substantial investor serve as the Concession's Operator. A management contract was therefore a *sine qua non* for any group seeking to invest in AASA. The Concession's legal framework clearly conceived of the Management Contract as an integral part of the Claimants' investment in

the Concession. A similar situation existed in *Total S.A. v. Argentina*.⁴¹ In that case, in response to Argentina' opposition to Total's claim for damages resulting from lost technical fees, the Tribunal stated:

“In any case the Tribunal does not consider that Total's claim for its fees as technical operator is a “separate” claim that may be termed ancillary, incidental or additional to the claim submitted for its losses in respect of its stake in TGN. Rather, it is an integral part of that principal claim. The right of Total to earn fees as a Technical Operator of TGN derives directly from Total's position as an investor which has made a direct investment in TGN...”⁴²

76. The Management Contract being an integral part of the Claimants' investment, there is no need to review whether the Management Contract in and of itself constitutes an investment for purposes of the ICSID Convention and the France-Argentina BIT. For the sake of completeness, the Tribunal nevertheless notes that the Management Contract falls within the definitions given to that word by the applicable BIT in this case and by tribunals interpreting the ICSID Convention, which does not itself define the word investment, in that it possesses the principal attributes of investments usually required by tribunals: 1) contribution of resources, 2) participation in the risks of the transaction, 3) duration of performance, and 4) contribution to the economic development of the country.⁴³

77. In defining the term “investment,” the France-Argentina BIT sets down an important condition: “it being understood that the said assets shall be or shall have been invested and, in accordance with the provisions of this Agreement, the related provisions laid down in conformity with the legislation of the Contracting Party in whose territory... the investment is made...”⁴⁴ The Management Contract conformed to this condition since it was required by regulation of the Argentine state and was annexed to the Concession Contract that had been negotiated, reviewed,

⁴¹ *Supra* note 34.

⁴² *Ibid.*, ¶92.

⁴³ C. Schreuer, *The ICSID Convention, A Commentary*, 2nd Edition, pp. 128 ff.

⁴⁴ “[E]n el entendimiento que dichos activos deben ser o haber sido invertidos y, respetando las disposiciones del presente Acuerdo, los derechos relativos definidos de conformidad con la legislación de la Parte Contratante en cuyo territorio o zona marítima se efectúe la inversión...” “[É]tant entendu que lesdits avoirs doivent être ou avoir été investis et, dans le respect des dispositions du présent Accord, les droits y afférents définis conformément à la législation de la Partie contractante sur le territoire ou dans la zone maritime de laquelle l'investissement est effectué...”

and approved by Argentina's governmental authorities. Although Argentina acknowledges that the bidding rules did require the designation of a "Concession Operator" from among the investors contributing twenty-five percent or more of the capital in the Concession, it argues that the bidding rules did not provide for or require that the Operator be compensated for playing its assigned role and that therefore the Tribunal should not consider the contract as an item of loss in determining the compensation owing to Suez.

78. The Tribunal rejects Argentina's argument on this issue for three reasons. First, the Argentine regulatory authorities knew and approved of the Management Contract and its compensation provisions. The Argentine regulator included the Management Contract as an Annex to the Concession Contract, never contested the payment of compensation to Suez, and accepted that such compensation be included as a legitimate cost in the calculation of the Concession's tariffs. Second, the Management Contract was not an ordinary commercial agreement, made at the discretion of the AASA shareholders. On the contrary, AASA entered into it as a result of the legal mandate that a substantial shareholder in AASA be designated an Operator with important responsibility. It was therefore normal and indeed implicitly legally required that its responsibilities be defined in a lawful, enforceable contract. Third, given the nature of those responsibilities and the importance to the Concession and to the future of the water and sewage systems of Buenos Aires of the transfer of modern management and technology, things that the system had clearly lacked in the past, it was natural and appropriate that Suez be compensated for what it was to provide and that such compensation would be additional to the profits it would make as an AASA shareholder. The Tribunal therefore concludes that the loss on management fees is an appropriate item to be considered in awarding compensation to Suez on account of Argentina's failure to accord it the promised treatment under the France-Argentina BIT. The Tribunal must now calculate the amount of that loss.

79. At the outset of that exercise, it is important to recall that the France-Argentina BIT requires only that Argentina treat Suez's investments fair and equitably. It does not require that Argentina enforce the Contract or create conditions that would allow the Management Contract to be strictly enforced in accordance with its provisions. Nor does it remove ordinary commercial risk that such a contract would face during the thirty-year period of the Concession. In constructing a but-for scenario, an important initial question is to determine the priority that management fees would

have in AASA's income stream. Specifically, are management fees to be treated as Concession costs, as Suez asserts, so that Suez's claim to management fees would stand on equal basis with those of other AASA creditors? Or should they be considered as profits, as Argentina argues, so that Suez's claim for fees would be subordinated to those of other creditors and stand on equal footing with the income claims of other AASA shareholders? Dr. Deep finds a middle ground which assumes that the management fees would not be paid until there were sufficient cash flows to pay all the creditors but they would be paid to Suez ahead of the dividend claims of other investors. He also relies on the Management Fee Subordination Agreements that the guarantors of AASA's debt made with the multilaterals to support his view that the management fees should be placed above dividend payments but behind debt payments. This solution seems entirely proper to the Tribunal.

80. It will be recalled, however, that the Management Contract specifically provided that any delay in the payment of earned management fees would entail a penalty interest rate of LIBOR plus 5%.⁴⁵ In his *Final Report*, Dr. Deep chose not to include this interest rate in calculating the total accrued but unpaid management fees, although he had done so in his *Preliminary Report*. He argued that since the management fees were to be viewed as a return on Suez's investment and since interest is not ordinarily paid on dividends, accrued but unpaid management fees in this case should be treated like unpaid dividends. Suez strongly disagreed with Dr. Deep's decision on this question, arguing that in calculating the total amount of accrued management fees lost to Suez as a result of Argentina's treaty violations the specified interest rate in the Management Contract for delayed payment of management fees should be applied. It points to the fact that the interest provision had been approved by both Argentina and the other shareholders in AASA when they approved the Management Contract at the commencement of the Concession.

81. The Tribunal, however, considers that the approach recommended by Dr. Deep is what a reasonable regulator in the circumstances would have permitted. If Argentina's treatment of the investments in this case had replicated that scenario, such treatment, in the judgment of the Tribunal, would have complied with the treaty requirements of fair and equitable treatment. As indicated earlier, the scenario is based on a principle of shared sacrifice, which the Tribunal

⁴⁵ Concession Contract, Annex IX, Part 4, Article VIII.

believes is implicit in the relationship upon which the Concession was founded. In accordance with that scenario which sought at one and the same time to allow the survival of AASA and still provide the needed service at a reasonable cost to the people of Buenos Aires, AASA would not have sufficient cash flow to pay the management fees until the year 2018. In 2018, Dr. Deep estimates that the amount of management fees earned in that year would have been ARS 55,072,717 and the total amount of cumulative unpaid management fees was ARS 706,268,570. In that year, AASA would have had sufficient cash flow to pay the ARS 67,508,034 in management fees, enabling it to cover the current year's fee of ARS 55,072,717 and ARS 12,435,317 as payment toward the cumulative management fees owed. In the remaining years of the Concession, AASA would have been able to pay both the management fees due in each year as well as to pay completely the total amount of unpaid cumulative management fees. The total management fees paid under this scenario during the years 2018 to 2023 when discounted to 2001, the date of Argentina's measures that violated the treaty, would have been ARS 20,021,752. The much higher amount claimed by Suez results from a series of assumptions that it has made concerning the magnitude of the management fees during the Concession, the applicable discount rate for calculating the present value of management fees as of 2001, and the time when the management fees are converted into dollars. The Tribunal considers Dr. Deep's assumptions to be more reasonable in the circumstances that AASA would have faced in the later years of the Concession. While from a strictly contractual analysis, unpaid management fees were to accumulate interest at a rate of LIBOR + 5%, the source of those fees was closely tied to the equity that Suez had invested in AASA; therefore, a reasonable regulator, like Dr. Deep, could have reasonably likened the unpaid fees to unpaid dividends, which usually do not accumulated interest and thus obliged Suez to forego the payment of interest on unpaid management fees. Moreover, the obligation to pay such accumulated interest would have placed an untenable stress on AASA's already stressed liquidity situation. To relieve that stress, it was reasonable for a regulator, following the precedent of AASA's multilateral creditors, to require Suez to waive the interest on unpaid fees, particularly since AASA's precarious liquidity was to some degree accentuated by the highly leveraged method chosen by Suez and its partners to finance the Concession.

82. On the basis of the foregoing, the Tribunal finds that the total management fees paid under the above-described scenario during the years 2018 to 2023, when discounted to 2001, the date of

Argentina's measures that violated the treaty, would have been ARS 20,021,752. This amount, if paid in 2001, would have compensated Suez, for the loss of management fees caused by Argentina's breach of the BIT with France. The Tribunal must next update or "actualize" this amount to an appropriate value as of December 31, 2012, as Dr. Deep and the parties were instructed to do for purposes of the pleadings in these cases. Dr. Deep chose to undertake such updating in a three step process: 1) Until March 2006 (when the Argentine government terminated the Concession), he assumed that the Argentine-peso denominated amounts corresponding to such losses would have remained in the same or a similar enterprise. During this period such investments would have earned a risk-adjusted rate of return equal to the estimated internal rate of return of the Flow to Sponsors, compounded annually; 2) In March 2006, the Argentine-peso denominated value of these investments would be converted into US dollars at the extant spot exchange rate; 3) From March 2006 to December 2012, the resultant US dollar-denominated amount would be updated using semi-annual compound interest at the six-month Eurodollar deposit rate. Applying this methodology, Dr. Deep determined the value of Claimant Suez's loss on management fees when actualized in US dollars as of 2012 would amount to USD 18,686,869. While the Tribunal understands and appreciates the logic underlying this methodology, the Tribunal does not agree with it. In particular, it does not accept Dr. Deep's assumption in step 1) that the Claimant Suez, having been compensated in pesos for the loss sustained in 2001, would have continued to hold assets in pesos until 2006. The Tribunal considers it far more likely that Claimant Suez would have converted those pesos into US dollars or other stable currency in 2001 at the then prevailing exchange rate. More generally, the amount of ARS 20,021,752 represents compensation for a loss. Accordingly, Claimant Suez should not be required to assume the currency risk in the same kind of assets that have been previously injured by governmental action. Rather, it should be free to use that compensation in any way it sees fit. At the same time, it should be noted that Claimant Suez, while arguing that the methodology of actualization should convert the loss into US dollars as of the end of 2001, also contends that the proper method of actualization would also apply a rate of interest equivalent to the weighted average cost of capital (WAAC) of assets similar to AASA, instead of the much lower Eurodollar rate. The Tribunal rejects this contention by Claimant Suez. First, it should be recalled that although the Claimants always maintained that AASA was an investment in US dollars with a regulated return that was guaranteed in US dollars, the Tribunal has consistently disagreed with this view. Second, to invest in

Argentina, one needs to hold funds in Argentine pesos, and in the process take on the currency risk of an Argentine investment. An investor could not convert funds out of pesos and still expect to earn a weighted average rate of return that is based upon an investment in Argentina and denominated in Argentine pesos. Third, the damage estimation seeks to compensate the Claimants for the loss of their future profits in Argentina in a lump sum in 2001 based on the assumption that they would wish to leave the water utility due to lack of fair and equitable treatment by the Argentine government. They therefore cannot justifiably claim a rate of return that is only possible if they had stayed invested in a water utility in Argentina. And finally, it will be recalled that to bolster its contention that a conversion into dollars should take place in 2001, not 2006, the Claimant Suez had argued that a reasonable investor who had been paid a large amount of funds in pesos would immediately convert those funds to US dollars, rather than hold them in pesos for another five years. While agreeing with that contention, the Tribunal also considers that no reasonable investor, having converted the funds to dollars, would then reinvest them in peso-denominated assets after the devaluation had taken place.

83. Accordingly, the Tribunal chooses to actualize Claimant Suez's loss of ARS 20,021,752 in 2001 by immediately converting them into US dollars in 2001 and then actualizing that value by applying the Eurodollar rate, compounded semi-annually until November 1, 2014. The Tribunal has thus determined Suez's loss on management fees on that date to be USD 26,084,421.

D. Losses on Earned but Unpaid Management Fees

84. The Claimants assert that Management Fee payments in the amount of USD 6,992,000 had been approved by the Management of AASA before December 2001, (i.e. before the enactment of the offending measures by Argentina) but had not been paid by the end of 2001. They also contend that these payments have been due since then. The Tribunal must therefore decide whether such amounts should be included in the damages to be awarded to Claimant Suez.

85. In confronting this question, it should be borne in mind that the Tribunal is not in the position of a court enforcing the terms of the Management Contract but rather of an international Arbitral Tribunal seeking to determine how a reasonable regulatory authority would treat the earned but unpaid management fees in order to accord the Claimants' investment fair and equitable treatment as required by treaty in the circumstances of this case. It should also be borne in mind

that the immediate cause of the non-payment of these management fees was not any measure taken by Argentina in violation of its treaty obligations, but rather the highly leveraged financial situation of AASA during the period *prior* to Argentina's illegal measures in 2001. That financial situation was created by the actions and decisions of AASA's shareholders, particularly its Operator, Suez. They therefore bear responsibility for AASA's inability to pay the management fees when they became due before 2001.

86. In building a but-for scenario, the Tribunal therefore must try to answer the difficult and somewhat speculative question of how a reasonable regulator seeking to accord fair and equitable treatment to the investments of the Claimants would treat the nearly USD 7 million debt that AASA owed to Suez for unpaid past management fees for the period before 2001. In the difficult circumstances faced by Argentina during its financial crisis, the Tribunal does not believe that a reasonable regulator would provide for the payment of such unpaid management fees for whose nonpayment the Argentine government was not responsible. Recalling the three fundamental principles that the Tribunal posited as guiding a reasonable regulator, payment of such fees would seem to fall outside that framework. Such payment would not be needed to assure the continuation of a needed public service, would not protect the continued existence of AASA, and was not essential to a continued working relationship with AASA. A reasonable regulator would with justification distinguish between the payment of future management fees after the crisis and the payment of unpaid past management fees. The provision of sufficient funds to pay the former was necessary to retain an Operator and assure the continued public service, while the payment of past due management fees was not. As a result of these considerations, the Tribunal does not believe that a reasonable regulator would provide for an accommodation of the tariff structure to pay the past due management fees and that its unwillingness to do so would not constitute a violation of Argentina's obligations to treat Suez fair and equitably. The Tribunal therefore dismisses the claim of Suez for unpaid management fees for the years before 2001.

E. Losses on Equity

87. The four Claimants in the present cases owned 76.74% of the equity in AASA as of December 31, 2001, with Suez owning 39.93%, AGBAR owning 25.01%, Vivendi owning 7.55%, and AWG owning 4.25%. Of the remaining equity, Banco de Galicia held 8.26%, the firm's Employee Stock Ownership Program held 10%, and the International Finance Corporation held

5%. As a result of the measures taken by Argentina, the Claimants' equity in AASA is now worthless. In order to determine an appropriate remedy under international law for the loss of the Claimants' equity, the Tribunal must determine the value of that equity had Argentina accorded it fair and equitable treatment as required by the applicable treaties.

88. The meaning of "value" in this context is "market value," that is, what a willing buyer would pay a willing seller. Arbitral tribunals have defined the term "value" by drawing on the notion of a market transaction between willing buyers and sellers. Thus, one useful definition of market value, elaborated by the Iran–US Claims Tribunal in *Starrett Housing Corp v Iran* is 'the price that a willing buyer would pay to a willing seller in circumstances in which each had good information, each desired to maximize his financial gain, and neither was under duress or threat, the willing buyer being a reasonable person'.⁴⁶ The problem in applying this standard to the present cases, as in many investor-state disputes, is that no market for the Claimants' equity exists to which one can readily refer. As a result, tribunals and others concerned with the valuation of injuries to investments must have recourse to a variety of techniques whose purpose is to arrive at an approximation of what that fair market value would be if such a fair market existed in fact.

89. Tribunals appear to use one of three general approaches to valuation: 1) the market or sales comparison approach, by which tribunals refer to a market price for an identical or similar asset; 2) the asset-based or cost approach, by which tribunals arrive at a valuation by looking at the cost elements, such as book value of an asset; and 3) income capitalization approaches, often referred to as "Discounted Cash Flow" (DCF) approaches, which hold that the value of an asset or business is best determined by calculating the stream of income or benefits that it will yield its owner and then discounting that stream of income to present value using an appropriate discount rate.⁴⁷ The first approach is inapplicable in the present cases because, as noted above, a market or other sales comparison for the Claimants' equity simply does not exist. The second, usually applied in valuing physical assets, is also inappropriate since the Claimants' equity did not give them a claim on the physical assets of the water and sewage system managed by AASA, all of which were owned by the Argentine state. Under the Concession Contract and the related legal framework, the

⁴⁶ *Starrett Housing Corp v. Iran*, 16 Iran–USCTR 112, 201 (Final Award).

⁴⁷ For a full discussion of each of these approaches and the ways in which tribunals have used them, see Irmgard Marboe, *Calculation of Compensation and Damages in International Investment Law*, pp. 185-315 (2009).

Claimants' equity in AASA entitled them only to a share in the cash flow over the thirty years that AASA would generate income from the operation of the water and sewage systems to which Argentina had entrusted it. It is for this reason that the Tribunal has concluded that some variation of an income capitalization approach is proper to value the Claimants' lost equity. The Tribunal is well aware that, although financial professionals generally favor the use of income capitalization methods over other techniques, many tribunals have been skeptical about their use in investor-state disputes.⁴⁸ One of the reasons for that skepticism is that claimants in some cases were seeking to apply income capitalization techniques to enterprises that did not have an established or firm record of earnings. That situation does not apply to AASA. Created in 1993, AASA had a solid record of earnings for some seven years before the financial crisis in 2001, a record of earnings that provided an ample basis of data for valuing AASA and the Claimants' equity through the use of income capitalization methods.

90. The income capitalization or Discounted Cash Flow approach to valuation has generated several distinct methodologies, each of which is capable of yielding different results in specific cases. One such methodology is the Free Cash Flow Method, which both parties' experts have employed but with markedly different results. The method first requires a determination of a firm's "Free Cash Flow," which consists of the firm's revenues, less its operating expenses, taxes paid, capital expenses and changes in working capital. Free Cash Flow represents the cash that is available for distribution to all the firm's investors, a group that consists essentially of its lenders and its equity shareholders. The two groups do not participate equally. Debt payments in the form of interest and principal payments are paid first. Payments to equity in the form of dividends or retained earnings are made only if any funds remain after the debt obligations for that period have been fulfilled. In order to arrive at the value of the firm, the Free Cash Flow must then be discounted to present value using a cost of capital that represents the blended cost of raising capital in the form of debt and equity, a cost known as the "Weighted Average Cost of Capital" (WACC). The cost of debt represents the interest cost at which lenders are willing to lend to the firm in the form of loans or bonds, while the cost of equity represents the expected rate of return that equity investors expect from their investment. One important factor that affects a firm's cost of debt

⁴⁸ See e.g. *CME Czech Republic BV v. Czech Republic*, Final Award on Damages, March 14, 2003 (2006), 9 ICSID Reports 246, ¶ 359. See also the concurring opinion in that case of the late Professor Ian Brownlie.

capital is the fact that corporate tax law usually allows a firm to deduct the payment of interest from its total tax obligations, known as the “debt tax shield,” which has the effect of lowering a firm’s cost of debt capital and of increasing potentially the amount of cash flow available for distribution to equity holders, thereby increasing their return on equity.

91. Drawing on scholarly authority, Dr. Deep has argued convincingly that the Free Cash Flow method is not appropriate for valuing a firm such as AASA and therefore for valuing the Claimants’ equity in that firm. In his *Final Report* to the Tribunal, he advances four arguments in support of that view. First, the application of the Free Cash Flow valuation method usually entails the use of a constant discount rate for cash flows in all periods when in fact the project’s debt-to-equity ratio is dynamic and constantly changing, which means that the respective cost of debt and equity is also changing. As Professor Benjamin C. Esty of the Harvard Business School has written:

Most project finance investments, however, are not simple valuation problems. One feature that makes them complex is the fact that project leverage changes over time. For the typical project, the ratio of debt to total capitalization starts at 0%, rises to somewhere in the neighborhood of 60%-85%, and then falls back down to 0% in later years. Because the cost of equity is a function of leverage, both it and the WACC will change as leverage changes. Thus the use of a single discount rate for all years is inappropriate... (emphasis supplied).⁴⁹

92. Professor Esty describes AASA’s situation precisely. Based on an initial capitalization of USD 120 million, it proceeded to borrow USD 777.5 million, thus raising its ratio of debt to total capitalization from 0% to over 85%. Had AASA survived, that ratio would have eventually dropped to 0% once again by 2018 when its debt to the multilaterals would have been paid off.

93. A second factor that makes the application of the Free Cash Flow method to AASA problematic is the nature of its debt structure, and particularly the fact that it issued two different kinds of debt, sponsored debt guaranteed by the AASA shareholders, and unsponsored debt which was not guaranteed. Debt and equity are not clearly delineated because the major shareholders in

⁴⁹ Benjamin C. Esty, “Improved Techniques for Valuing Large-Scale Projects,” *The Journal of Project Finance*, Spring 1999, p. 9, quoted in Dr. Deep’s *Final Report*, ¶135.

AASA also guarantee part of its debt. This factor creates overlap in the role of equity and sponsor-secured debt, which has significant implications for their riskiness and therefore their cost.

94. Third, the complexity of what should be counted as debt makes the definition of the leverage ratio complex and difficult to ascertain in advance, data that is important for the normal application of the Free Cash Flow method of valuation.

95. Finally, the benefits of the tax shield, which is also an inherent element of the Free Cash Flow method, cannot be realized by AASA for many years because its long-term debt obligations will prevent it from having taxable income for those years. Over the remaining life of the Concession, the tax shield will therefore have a differing and changing impact on AASA's cost of capital and therefore on the value of the firm and the equity owned by the Claimants. For the above mentioned reasons, Dr. Deep concluded that the application of the Free Cash Flow method is inappropriate to value AASA as a firm and the equity owned by the Claimants, a conclusion with which the Tribunal agrees. He therefore proposed the application of two other income capitalization methods: the Adjusted Present Value Method and the Flow to Equity Method. As will be seen, the separate application of these two methods independently would arrive at two valuations of AASA that were nearly identical.

96. In order to apply these methods, it is first necessary to project the cash flows of the firm. Whereas the Claimants made cash flow projections in United States dollars, the Tribunal believes all cash flows, including revenues, capital and operating expenses, taxes, working capital, depreciation, and interest payments should be expressed in Argentine pesos. All of AASA's revenues – that is, its cash flows – were in pesos and, as the Tribunal noted in its Decision on Liability, its legal framework, unlike those of certain other foreign investors in Argentina at the time, did not provide for the payment, adjustment, or conversion of tariffs into US dollars or other foreign currencies. However, once the value of losses on equity have been determined as of 2001, the proper method of actualization is to convert that amount immediately into US Dollars and then to actualize them to present value by applying a risk free rate as was done in actualizing the losses on sponsored debt and management fees. The reason for this approach is that an investor is entitled to full compensation for its injury and ought not to be prejudiced by the effects of devaluation that takes place between the date of the wrongful act and the determination of the amount of

compensation. Several ICSID cases support this position.⁵⁰ However, Dr. Deep, once having determined the value of the Claimants' lost equity as of 2001, chose to maintain those values in pesos until 2006, when he converted them into US Dollars. On the other hand, at the hearing on damages, he agreed that an injured foreign investor who received compensation in Pesos for a loss in 2001 would in all probability have converted those Pesos to US Dollars immediately. As noted above, the Tribunal disagrees with Dr. Deep's approach because it improperly subjects the Claimants to currency risk for five years, thus reducing substantially the compensation to which they are entitled under international law.

97. In order to arrive at the value of the Claimants' equity in 2001, it is first necessary to make a complex series of projections of the revenues and expenditures of AASA from the time of the treaty violations until the contractual end of the Concession in 2023. Dr. Deep agrees with the Tribunal on this point and has made his calculations accordingly. Thus, in projecting the portion of capital and operating expenses incurred in pesos, these amounts were converted to their nominal value in constant pesos through four inflation factors – the consumer price index, an index of wholesale prices, an index of wage prices, and the sum of foreign exchange and US inflation rate variations -- in a manner similar to that used by the parties' experts. One important issue in this regard that was strongly contested by the Claimants was the appropriate index to apply in order to determine the impact of inflation on AASA's regulated rate of return between the period when the US dollar-Argentine peso parity collapsed (2001) and the subsequent quinquennial tariff review (2003) and therefore on the value of the asset base used in determining the tariff that would balance costs and revenues. Indeed, this issue and the method of actualization discussed above were the only ones that the Claimants objected to in Dr. Deep's methodology.

98. In order to update AASA's asset base value and cash flows, Dr. Deep employed the Consumer Price Index (CPI), which is based on a basket of items that are purchased by ordinary households in Argentina. Dr. Deep chose the CPI for two reasons. First, he argued that the Claimants' assets invested in AASA to be financial assets and asserted that the CPI was the appropriate index to be used in determining the nominal rate of return on financial assets. Second, he pointed out that water regulators in the United Kingdom employed the Retail Price Index (RPI),

⁵⁰ E.g. *Total* at *supra* note 34; *SAUR International S.A. v. Argentine Republic* (ICSID Case No. ARB/04/4), Award, May 22, 2014, ¶315.

an inflation measure similar to the CPI, to adjust the asset bases of regulated entities and that the Argentina's regulatory system was drawn from that of the United Kingdom. The Claimants strongly opposed the use of the CPI, arguing instead that a cost-based index, such as the Producer Price Index (PPI), was more appropriate for measuring the impact of inflation on the asset base of a public utility like AASA. They consider that a cost-based index is best able to evaluate the impact of inflation on AASA's operations and pointed to the fact that the Concession Contract provides that in extraordinary tariff revisions reference is to be made to official indices "...which should reflect as much as possible variations in wholesale prices...". Cost indices, like the PPI and not the CPI, are best able to reflect changes in wholesale prices. And finally, regardless of the standard practice in the United Kingdom, Claimant Suez argued that no evidence was offered that regulators in Argentina used the CPI to adjust the asset base of other public utilities. At the hearing, it was not challenged that no Argentine utility has ever had its asset base updated by inflation according to the Consumer Price Index used by Dr. Deep. Rather, utilities have always used either Producer Price Index or another cost-based index, which looks at how the actual costs of the utility have been affected by inflation. Moreover, Dr. Deep admitted that the Argentine regulator, UNIREN, applied a cost-based index while reviewing the asset base of a utility. He also admitted that the reason why UNIREN followed that approach was because it accurately reflected the true cost structure of a particular utility. Further, Dr. Deep acknowledged that in every five-year tariff review, the regulator would look at the actual cost structure of the company.

99. Despite these arguments, the Tribunal supports the indices used by Dr. Deep as indicative of what a reasonable regulator would do in a comparable situation. The purpose of applying the CPI in Dr. Deep's model is to adjust the value of the asset base to take account of inflation. It is more appropriate to use CPI to adjust asset value than a producer price index whose purpose is to adjust costs. More important, the periodic review of tariffs provided by the Water Decree would be adjusted to reflect changes in costs and thereby increase AASA's cash flow. Consequently, adjusting the asset base for cost inflation, when such inflation in costs will also be accounted for in the periodic tariff reviews, would amount to double compensation for the same inflated costs and would therefore be improper. The Tribunal therefore accepts this aspect of Dr. Deep's methodology and rejects the Claimants' arguments on this point.

100. In order to apply the above-mentioned valuation methods, it is also necessary to make a further preliminary determination on AASA's cost of capital in Argentine pesos. Such a determination is necessary to arrive at the appropriate discount rate to calculate the present value of the cash flows denominated in Argentine pesos. Such calculation must utilize the cost of debt and the cost of equity to what is applicable to raising these sources in capital in Argentina by a company operating in Argentina. With respect to the cost of debt, Dr. Deep advised the Tribunal that the cost of debt for a water utility such as AASA in 2004 was 16.42%, which represents a credit spread of 231 basis points (*i.e.* 2.31%) over sovereign bonds denominated in Argentine pesos. With respect to the cost of equity, Dr. Deep has concluded that the cost of equity for a firm similar to AASA but without debt (*i.e.* an "unlevered firm") would be 18.58%. The cost of equity is dependent on the degree to which a firm is levered since leverage affects the degree of risk. The degree of leverage in AASA – defined as the value of AASA's non-secured debt relative to the value of the aggregate firm - ranges from 35.72 % in 2002 to zero in 2018 when AASA is estimated to have paid off all of its debt. Accordingly, during that time period, AASA's cost of equity ranges from 19.78% to 18.58%. The Tribunal considers that Dr. Deep's estimated cost of capital for both debt and equity are reasonable. Having made these initial assumptions and determinations, Dr. Deep then proceeded to value the Claimants' equity by applying the two recommended methods – the Adjusted Present Value Method and the Flow to Equity Method.

101. In applying each of these methods, Dr. Deep determines that the value of AASA as a firm in 2001 was ARS 1296.3 million according to the Adjusted Present Value Method and ARS 1293.5 million according to the Flow to Equity method. He then averages the two values to arrive at a value for AASA of ARS 1294.9 million in 2001. Having arrived at a value for the firm as a whole, one must then determine the value of the equity portion of its capital structure. The total firm value in 2001 was comprised of three components: 1) the present value of the equity, that is the value of the dividends to be paid to the shareholders; 2) the present value of Sponsor-secured (*i.e.* guaranteed) debt, that is, the present value of the payments to be made to sponsor-secured debt holders; and 3) the present value of non-sponsor secured debt, that is, the present value of payments to non-sponsor secured debt holders. This relationship may be represented by the following formula:

$$V_{\text{firm}} = V_{\text{equity}} + V_{\text{ssdebt}} + V_{\text{nsdebt}}$$

102. Dr. Deep calculated that the present value of the stream of payments to non-sponsored debt holders in 2001 was ARS 547.7 million and that the present value in that same year to the sponsored debt holders was ARS 729.7 million. The total value of all debt, sponsored and non-sponsored was therefore ARS 1277.4 million, leaving a residual value for AASA's equity of only approximately ARS 17.5 million in 2001. While AASA thus would have had a positive value if Argentina had followed the "without measures" or "but-for" scenarios proposed by Dr. Deep, the Tribunal also concludes that the measures Argentina did take during the crisis would have resulted in a negative cash flow to AASA's equity holders in 2002 and it would have remained negative throughout the life of the Concession. In short, the Claimants' equity would have been worthless.

103. The total amount of the loss of all the equity holders in AASA as of 2001 was approximately ARS 17.5 million. As noted above, the four Claimants in this case held 76.74% of AASA's equity. Their total loss in 2001 was therefore ARS 17.5 million \times .7674 = ARS 13.4 million. In updating this amount to November 1, 2014, Dr. Deep used the same principles that he applied in calculating Suez's loss on management fees discussed earlier in this award, specifically, he assumed that the amount of such loss would be maintained in Argentine pesos until 2006. As noted above, the Tribunal disagrees with that approach. Specifically, it determined that the appropriate actualization methodology is to convert the amount of the loss on equity, *i.e.* ARS 13.4 million, into US dollars as of 2001 at the then prevailing exchange rate and thereafter carry it forward using the semi-annual Eurodollar rate, compounded. Applying this methodology, the value of the Claimants' loss on equity in US dollars as of November 1, 2014 totaled USD 17,466,706. On the basis of their individual equity holdings in AASA, their respective losses as of November 1, 2014 were USD 9,088,423 for Suez, USD 5,692,498 for AGBAR, USD 1,718,447 for Vivendi, and USD 967,338 for AWG.

F. Losses on Unpaid Dividends

104. The Claimants are also asking for compensation for declared but unpaid dividends, valued as of December 30, 2012, at USD 4.6 million. As retained earnings, they constituted part of the equity of AASA. The Tribunal considers that the value of unpaid dividends is included in the value of the shareholders' equity in AASA, which was determined above, and that to grant recovery of such separate amounts for unpaid dividends would be to allow the Claimants a double recovery. The Tribunal therefore rejects the claim for unpaid dividends.

G. Conclusions on Total Losses

105. Based on the foregoing, the Tribunal concludes that the total losses sustained by each of the four claimants in these cases as of November 1, 2014 is as follows:

SUEZ	
Loss on Guaranteed Debt	USD 187,870,445
Loss on Management Fees	USD 26,084,421
Loss on Equity	USD 9,088,423
TOTAL	USD 223,043,289

AGBAR	
Loss on Guaranteed Debt	USD 117,583,950
Loss on Equity	USD 5,692,498
TOTAL	USD 123,276,448

VIVENDI	
Loss on Guaranteed Debt	USD 35,543,057
Loss on Equity	USD 1,718,447
TOTAL	USD 37,261,504

AWG	
Loss on Guaranteed Debt	USD 19,990,471
Loss on Equity	USD 967,338
TOTAL	USD 20,957,809

TOTAL LOSS TO ALL CLAIMANTS: **USD 404,539,050** as of November 1, 2014.

V. Costs

106. As part of its award in these cases, the Tribunal is obligated under the applicable rules to allocate the costs of these proceedings among the parties. Because one case brought by Claimants Suez, AGBAR, and Vivendi is governed by the ICSID Convention and Rules and the other case brought by Claimant AWG is governed by the 1976 UNCITRAL Arbitration Rules, the Tribunal must apply two different rules of differing contents to each case. With respect to the ICSID case, Article 61(2) of the ICSID Convention is the relevant provision. It provides:

In the case of arbitration proceedings the Tribunal shall, except as the parties otherwise agree, assess the expenses incurred by the parties in connection with the proceedings, and shall decide how and by whom those expenses, the fees and expenses of the members of the Tribunal and the charges for the use of the facilities of the Centre shall be paid. Such decision shall form part of the award.

107. The Convention thus recognizes three types of costs: 1) expenses incurred in connection with the proceedings; 2) fees and expenses of the members of the Tribunal; and 3) the charges for use of the ICSID facilities. However, the Convention gives the Tribunal complete discretion with respect to allocation of these costs among the parties and provides no guidance on how that discretion is to be exercised. The only references to costs in the ICSID Rules are to be found in Arbitration Rules 28 and 47 and they give no precise guidance on how costs are to be apportioned. Arbitration Rule 28 empowers the Tribunal to decide at any stage of the proceeding what proportion of the fees and expenses of the Tribunal and for the use of the ICSID facilities shall be

paid by individual parties and further to decide how other related costs are to be borne by the parties. Arbitration Rule 47 on the content of awards, merely states that the award shall contain “... any decision of the Tribunal regarding the cost of the proceeding.” Moreover neither the ICSID Convention nor the Rules specify exactly what items the word “costs” and “expenses” includes.

108. The 1976 UNCITRAL Arbitration Rules⁵¹ are somewhat more specific on the standards for cost allocation. Article 40(1) states:

[...] the costs of the arbitration shall in principle be borne by the unsuccessful party. However, the arbitral tribunal may apportion each of such costs between the parties if it determines that apportionment is reasonable, taking into account the circumstances of the case.

In addition, Article 38 defines “costs” to include specified list of items as follows:

- (a) The fees of the arbitral tribunal to be stated separately as to each arbitrator and to be fixed by the tribunal itself in accordance with article 39;
- (b) The travel and other expenses incurred by the arbitrators;
- (c) The costs of expert advice and of other assistance required by the arbitral tribunal;
- (d) The travel and other expenses of witnesses to the extent such expenses are approved by the arbitral tribunal;
- (e) The costs for legal representation and assistance of the successful party if such costs were claimed during the arbitral proceedings, and only to the

⁵¹ By virtue of Article 8(3)(b) of the Argentina-UK BIT, the version of the UNCITRAL rules under which this case was brought is “...the Arbitration Rules of the United Nations Commission on International Trade *as then in force*...”, meaning in force at the time the case is commenced. The version of the UNCITRAL Rules in force at the time this case was commenced is that of 1976. The Tribunal notes that the Claimants’ Cost Submission of October 21, 2013, referred to the 2010 UNCITRAL Arbitration Rules. The Tribunal further notes that the principles embodied in the latter Rules do not materially differ from the principles that inform the applicable 1976 UNCITRAL Arbitration Rules.

extent that the arbitral tribunal determines that the amount of such costs is reasonable;

(f) ...

109. As can be seen, the content of the two sets of rules is different. As a result, the Tribunal will decide the allocation of costs in the UNCITRAL case and the ICSID case separately.

A. Allocation of Costs in the UNCITRAL Case of *AWG v. Argentina*

110. Claimant AWG alleges that it has incurred total expenses of USD 1,215,947.82 in connection with its case and requests that the Respondent reimburse it the entire amount. It bases its claim on its interpretation that Article 40(1) of the UNCITRAL Arbitration Rules⁵² “...establishes a clear principle that the unsuccessful party shall bear the costs of the arbitration, subject to a tribunal’s discretion to apportion costs only if the circumstances of the case so warrant (and which therefore should be carefully described in an eventual award).”⁵³

111. In order to ascertain the meaning of the text of Article 40(1), the Tribunal must interpret the words “in principle.” The Oxford English Dictionary (3rd edition 2007) defines “in principle” as “theoretically; in general but not necessarily in individual cases.” Thus, one may interpret article 40(1) of the UNCITRAL Arbitration Rules as providing that in general the unsuccessful party is to bear the reasonable costs of the arbitral proceeding but not necessarily in the individual case where a tribunal determines that “circumstances” exist to apportion them in some other way between the parties. The Rule does not specify what those “circumstances” may be. One may argue that the rationale for the rule is that customary international law requires that “full reparation” be paid to the party injured by a breach of an international obligation and that, as stated by the tribunal in the ICSID case of *Southern Pacific Properties (Middle East) Limited v. Arab Republic of Egypt*, “[t]here is little doubt that the legal costs incurred in obtaining the indemnification must be considered part and parcel of the compensation in order to make the whole party who suffered the loss and had to litigate to obtain compensation.”⁵⁴ To deny the successful

⁵² As explained *supra*, Claimants, in their Costs Submission, drew the Tribunal’s attention to Article 42(1) of the 2010 UNCITRAL Arbitration Rules, which corresponds, almost *verbatim*, to Article 40(1) of the 1976 UNCITRAL Arbitration Rules.

⁵³ Claimants’ Cost Submission, October 21, 2013, p. 3.

⁵⁴ *Southern Pacific Properties (Middle East) Limited v. Arab Republic of Egypt* (ICSID Case No. ARB/84/3), Award, May 20, 1992, ¶209.

party recovery of costs incurred pursuing its case would have the effect of denying that party's "full reparation" as required by international law. On the other hand, one may also argue that the meaning of "unsuccessful party" is not completely clear since it may refer to the party has been unsuccessful in the case or party that has been unsuccessful with respect to specific issues decided in that case.

112. Article 40(1) permits the Tribunal to depart from the application of the rule that the unsuccessful party must bear the costs of the arbitration if the circumstances of the case justify it. However, it does not specify what such circumstances may be. Caron and Caplan in their treatise on the UNCITRAL Rules offers one such justification for departing from the blanket application of Article 40(1) in investor-state cases:

One factor that may mitigate against apportionment of costs based on a party's success in arbitration is the novelty of the issues being decided. This factor may be particularly relevant in the context of investor-state arbitration which may present new and unsettled questions of international law. It may therefore not always be reasonable to require the losing party to pay costs when it was difficult, if not impossible, for the party to predict the potential success of a novel claim.⁵⁵

113. The Tribunal finds that the situation described by Caron and Caplan exists in the present case. This case has raised many novel and complex issues of fact and law, as evidenced by the fact that of the three basic treaty violations (expropriation, full protection and security, and fair and equitable treatment) alleged by the Claimants, they were able to prevail on only one, and that the Claimants will gain in an award an amount of compensation far less than they originally claimed—and then only after voluminous pleadings and a lengthy hearing on damages that raised many difficult questions of finance. The case also generated novel and complex procedural issues, such as the right of third parties to make *amicus curiae* submissions and the proper procedure of selecting and guiding a Tribunal-appointed independent financial expert. Moreover, while the pleadings on record in this case are vast, counsel for both parties conducted themselves according to the highest professional standards. Certainly it would have been difficult, if not impossible, for

⁵⁵ David Caron and Lee M. Caplan, *The UNCITRAL Arbitration Rules: A Commentary* (2d Ed. 2013), pp. 865–77, referring to Article 42(1) of the 2010 UNCITRAL Arbitration Rules.

a reasonable party to have predicted the potential success of claims arising out of the complex facts of the Argentine crisis in this case, let alone the precise amount of compensation that should be awarded. Consequently, the Tribunal concludes that there is reason to depart from the general principle advanced by Article 40(1). It therefore directs that AWG and Argentina each bear their own costs and share appropriately in the administrative expenses of the proceeding and of ICSID.

B. Allocation of Costs in the Case of *Suez et al v. the Argentine Republic* (ICSID No. ARB/03/19)

114. Claimants Suez, Vivendi and AGBAR allege that they have incurred expenses totaling USD 20,732,568.74 in this case and they request that the Tribunal allocate the entire amount to the Respondent for repayment to the Claimants. The specific amounts requested by each Claimant individually are as follows: Suez: USD 11,419,813.16; AGBAR: USD 7,153,021.55; and Vivendi: USD 2,159,734.03. They assert that Argentina should reimburse them for all their costs in these proceedings because 1) the Claimants have established their claim in this case that Argentina did violate the applicable BITs and therefore committed an international wrong; 2) there is a growing trend in investor-state arbitration for tribunals to require the losing party to pay the costs of the proceeding; and 3) during the course of these proceedings Argentina engaged in various unjustified actions which lengthened and complicated the arbitral process and therefore increased its costs.

115. At the outset, it is to be reiterated that Article 61(2) of the ICSID Convention gives the Tribunal greater discretion in the allocation of costs than does Article 4 (1) of the UNCITRAL Arbitration Rules. It is also to be noted that the practice of ICSID tribunals on this question is by no means settled and that historically the position taken by the majority of ICSID awards is that each side is to pay its own costs. As noted in the Tribunal's discussion above on the allocation of costs in *AWG v. Argentina*, this case raised both legal and factual issues of great complexity. The claims and arguments advanced by the Claimants were by no means frivolous but neither were the defenses and counterarguments of the Respondent. For these reasons and those set forth in the above discussion of cost allocation in *AWG v. Argentina*, and taking into account the novelty and complexity of the issues raised during this lengthy proceeding, as well as the great discrepancy between the substantial costs incurred by the Claimants and the relatively more modest costs of the Respondent, the Tribunal has determined that Claimants Suez, AGBAR and Vivendi, on the

one hand and the Respondent on the other, should share equally in the administrative expenses of this proceeding and of ICSID and that they should each bear the individual costs that they have each incurred.

VI. Award in the UNCITRAL Case of *AWG v. Argentina*

116. For the foregoing reasons, the Tribunal renders the following AWARD:

Argentina shall pay to the Claimant **AWG** the following amounts as compensation for the damages caused in respect of AWG's investments in Argentina, in breach of Article 2 of the Argentina-UK BIT, as decided in the Decision on Liability of this Arbitral Tribunal of July 30, 2010:

A. Losses on Guaranteed Debt (“Sponsored Debt”)

- **USD 19,990,471**, plus interest from and after November 1, 2014.

B. Losses on Equity

- **USD 967,338**, plus interest from and after November 1, 2014.

C. Costs

AWG on the one hand, and Argentina on the other, shall share equally in the costs of this arbitral proceeding⁵⁶ and each shall bear individually the other legal costs and expenses that they have incurred.

D. Total Amount of the Award in *AWG v. Argentina*

The total amount of the award is **USD 20,957,809, plus interest** from and after November 1, 2014. The Tribunal notes the commitment of the Claimant, as expressed in the pleadings of this case, not to seek compensation in other legal proceedings for any loss already awarded and paid to them in this arbitration.

⁵⁶ The Tribunal's fees and expenses, ICSID's administrative charges, and all other direct expenses in connection with the proceeding are paid out of the advances periodically made by the parties in accordance with ICSID Administrative and Financial Regulation 14(3)(d). The ICSID Secretariat will provide the parties with a Financial Statement of the cases' account. Any remaining balance in the account will be reimbursed by ICSID to the parties in proportion to the payments that they advanced to ICSID.

E. Interest

On all above amounts, compound interest shall accrue as of the date indicated for each amount, at a rate equal to the average rate of the six-month U.S. Treasury bills prevailing on such initial date, and thereafter at the subsequent six-month average interest rates of six-month U.S. Treasury bills prevailing in each following six-month periods, until payment by the Respondent. Such interest shall be compounded semi-annually.

VII. Award in the Case of *Suez et. al. v. the Argentine Republic* (ICSID Case No. ARB/03/19)

117. For the foregoing reasons, the Tribunal renders the following AWARD:

Argentina shall pay Claimants **Suez, AGBAR, and Vivendi**, individually, the following amounts as compensation for the damages caused in respect of their investments in Argentina in breach of, respectively Article 3 of the France-Argentina BIT, and Article IV of the Argentina-Spain BIT, as decided in the Decision on Liability of this Arbitral Tribunal of July 30, 2010:

A. With Respect to Claimant Suez

1. Losses on Guaranteed (“Sponsored Debt”)

- **USD 187,870,445**, plus interest from and after November 1, 2014

2. Losses on Equity

- **USD 9,088,423**, plus interest from and after November 1, 2014

3. Losses on Management Fees

- **USD 26,084,421**, plus interest from and after November 1, 2014

4. Costs

Suez and the other Claimants on the one hand, and Argentina on the other, shall share equally in the costs of this arbitral proceeding and each shall bear individually the other legal costs and expenses that they have incurred.

5. Total Amount of the Award

The total amount of the award is **USD 223,043,289, plus interest** from and after November 1, 2014. The Tribunal notes the commitment of the Claimant, as expressed in the pleadings of this case, not to seek compensation in other legal proceedings for any loss already awarded and paid to them in this arbitration.

6. Interest

On all above amounts, compound interest shall accrue as of the date indicated for each amount, at a rate equal to the average rate of the six-month U.S. Treasury bills prevailing on such initial date, and thereafter at the subsequent six-month average interest rates of six-month U.S. Treasury bills prevailing in each following six-month periods, until payment by the Respondent. Such interest shall be compounded semi-annually.

B. With Respect to Claimant AGBAR

1. Losses on Guaranteed (“Sponsored Debt”)

- **USD 117,583,950**, plus interest from and after November 1, 2014.

2. Losses on Equity

- **USD 5,692,498**, plus interest from and after November 1, 2014.

3. Costs

AGBAR and the other Claimants on the one hand, and Argentina on the other, shall share equally in the costs of this arbitral proceeding and each shall bear individually the other legal costs and expenses that they have incurred.

4. Total Amount of the Award

The total amount of the award is **USD 123,276,448, plus interest** from and after November 1, 2014. The Tribunal notes the commitment of the Claimant, as expressed in the pleadings of this

case, not to seek compensation in other legal proceedings for any loss already awarded and paid to them in this arbitration.

5. Interest

On all above amounts, compound interest shall accrue as of the date indicated for each amount, at a rate equal to the average rate of the six-month U.S. Treasury bills prevailing on such initial date, and thereafter at the subsequent six-month average interest rates of six-month U.S. Treasury bills prevailing in each following six-month periods, until payment by the Respondent. Such interest shall be compounded semi-annually.

C. With Respect to Claimant Vivendi

1. Losses on Guaranteed (“Sponsored Debt”)

- **USD 35,543,057**, plus interest from and after November 1, 2014.

2. Losses on Equity

- **USD 1,718,447**, plus interest from and after November 1, 2014.

3. Costs

Vivendi and the other Claimants on the one hand, and Argentina on the other, shall share equally in the costs of this arbitral proceeding and each shall bear individually the other legal costs and expenses that they have incurred.

4. Total Amount of the Award

The total amount of the award is **USD 37,261,504, plus interest** from and after November 1, 2014. The Tribunal notes the commitment of the Claimant, as expressed in the pleadings of this case, not to seek compensation in other legal proceedings for any loss already awarded and paid to them in this arbitration.

5. Interest

On all above amounts, compound interest shall accrue as of the date indicated for each amount, at a rate equal to the average rate of the six-month U.S. Treasury bills prevailing on such initial date, and thereafter at the subsequent six-month average interest rates of six-month U.S. Treasury bills prevailing in each following six-month period, until payment by Respondent. Such interest shall be compounded semi-annually.

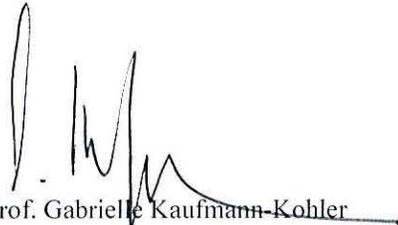
Made in Washington, D.C., in English and Spanish, both versions being equally authentic.



Prof. Jeswald W. Salacuse

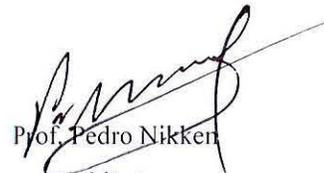
President

Date: April 1, 2015



Prof. Gabrielle Kaufmann-Kohler
Arbitrator

Date: MARCH 20, 2015



Prof. Pedro Nikken
Arbitrator

Date: MARCH 26, 2015