

PCA Case No. 2014-10

27 May 2020

IN THE MATTER OF AN ARBITRATION UNDER THE RULES OF ARBITRATION OF
THE UNITED NATIONS COMMISSION ON INTERNATIONAL TRADE LAW
(UNCITRAL)

between

DEUTSCHE TELEKOM AG

Claimant

and

THE REPUBLIC OF INDIA

Respondent

Final Award

ARBITRAL TRIBUNAL

Prof. Gabrielle Kaufmann-Kohler, *Presiding Arbitrator*

Mr. Daniel M. Price, *Co-Arbitrator*

Prof. Brigitte Stern, *Co-Arbitrator*

Secretary of the Tribunal

Dr. Michele Potestà

Representing Deutsche Telekom AG in the quantum phase of the arbitration:

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Mr. William Thomas
Mr. Michael Kotrly
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Mr. Aman Ahluwalia
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ABBREVIATIONS AND DEFINITIONS

Agreement (or Devas Agreement)	Agreement between Devas and Antrix for the lease of S-band electromagnetic spectrum on two satellites, 28 January 2005
Antrix	Antrix Corporation Limited, an Indian state-owned company
BIT	1995 Agreement between Germany and India for the Promotion and Protection of Investments
BWA	Broadband Wireless Access
CCS	Indian Cabinet Committee on Security
CLA-[#]	Claimant's Legal Authority
Counter-Memorial	Respondent's Counter-Memorial on Quantum, dated 7 September 2018
C-CS1	Claimant's First Cost Submission, dated 8 July 2016
C-CS2	Claimant's Second Cost Submission, dated 30 August 2019
C-PHB1	Claimant's First Post Hearing Brief, dated 28 June 2019
C-PHB2	Claimant's Second Post Hearing Brief, dated 2 August 2019
DCF	Discounted Cash Flow
DEMPLE	Devas Employees Mauritius Private Limited
Devas	Devas Multimedia Private Limited
Devas System	Mobile multimedia and broadband data services offered to the Indian market via a hybrid satellite-terrestrial communications platform
DOT	Department of Telecommunications of India
DT or Claimant	Deutsche Telekom AG
DT Asia	Deutsche Telekom Asia Pte. Ltd.
ER	Expert Report
Exh. C-[#]	Claimant's Exhibit
Exh. EO-[#]	Econ One's Exhibit
Exh. GH-[#]	FTI's [Greg Harman] Exhibit
Exh. R-[#]	Respondent's Exhibit
FET	Fair and equitable treatment
FMV	Fair Market Value
FTI	FTI Consulting, Claimant's Expert
GHz	Gigahertz

Hearing	Hearing on quantum held from 29 April to 3 May 2019 at the ICC Hearing Centre in Paris
ICC Award	Final Award issued on 14 September 2015 in the ICC arbitration commenced on 19 June 2011 by Devas against Antrix
ILC Articles	The International Law Commission Articles on State Responsibility
India or Respondent	The Republic of India
INR	Indian Rupee
IPTV	Internet Protocol Television
IRR	Internal rate of return
ISP License	Internet Service Provider License
ISRO	Indian Space Research Organization
LLC	Limited liability company
LLP	Limited liability partnership
Mauritius BIT Arbitration (or Mauritius Shareholders Arbitration)	<i>CC/Devas (Mauritius) Ltd., Devas Employees Mauritius Private Limited., and Telcom Devas Mauritius Limited. v. Republic of India</i> , PCA Case No. 2013-09
Mauritius Merits Transcript	<i>CC/Devas (Mauritius) Ltd., Devas Employees Mauritius Private Ltd. and Telcom Devas Mauritius Ltd. v. The Republic of India</i> , PCA Case No. 2013-09, UNCITRAL, Jurisdiction and Liability Hearing Transcript, 1 September – 5 September 2014
Mauritius Quantum Transcript	<i>CC/Devas (Mauritius) Ltd., Devas Employees Mauritius Private Ltd. and Telcom Devas Mauritius Ltd. v. The Republic of India</i> , PCA Case No. 2013-09, UNCITRAL, Quantum Hearing Transcript, 16 July – 21 July 2018.
Memorial	Claimant’s Memorial on Quantum, dated 4 May 2018
MHz	Megahertz
NAFTA	The North American Free Trade Agreement
NFAPs	India’s National Frequency Allocation Plans
PCA	Permanent Court of Arbitration
PO	Procedural Order
PO8	Procedural Order No. 8, dated 7 May 2019
Rejoinder	The Respondent’s Rejoinder on Quantum, dated 11 March 2019

Reply	Claimant's Reply on Quantum, dated 7 December 2018
RLA-[#]	Respondent's Legal Authority
R-CS1	Respondent's First Cost Submission, dated 8 July 2016
R-CS2	Respondent's Second Cost Submission, dated 30 August 2019
R-PHB1	Respondent's First Post Hearing Brief, dated 28 June 2019
R-PHB2	Respondent's Second Post Hearing Brief, dated 2 August 2019
Transcript	Final transcript of the Hearing delivered by the court reporter on 10 June 2019
TRAI	Telecom Regulatory Authority of India
Valuation Date	17 February 2011
WPC	Wireless Planning and Coordination Wing of the DOT
WPC Experimental License	Short Term Experiment/Trial License
WPC License	License that is required from the WPC for the terrestrial re-use of the spectrum
WS	Witness Statement
2010 BWA Auction	BWA spectrum auctions in May 2010 that resulted in Infotel acquiring the right to use 20 MHz of spectrum to offer BWA services for 20 years

I. INTRODUCTION

1. This is an *ad hoc* arbitration brought under the Agreement between the Federal Republic of Germany and the Republic of India for the Promotion and Protection of Investments of 10 July 1995 (the “BIT” or “Treaty”),¹ pursuant to the 1976 United Nations Commission on International Trade Law (“UNCITRAL”) Arbitration Rules (the “UNCITRAL Rules”).

A. THE PARTIES

1. The Claimant

2. The Claimant is Deutsche Telekom AG (the “Claimant” or “DT”), a company incorporated under the laws of the Federal Republic of Germany.
3. The Claimant was represented in the quantum phase of this arbitration by Ms. Sylvia Noury, Mr. William Thomas, Mr. Michael Kotrly, Ms. Ella Davies, Ms. Annie Pan, and Ms. Leonie Beyrle of Freshfields Bruckhaus Deringer LLP, and Mr. Aman Ahluwalia.

2. The Respondent

4. The Respondent is the Republic of India (the “Respondent” or “India”).
5. The Respondent was represented in the quantum phase of this arbitration by Messrs. George Kahale III, Benard V. Preziosi, Simon Batifort, Fernando Tupa, and Fuad Zarbiyev of Curtis Mallet-Prevost Colt & Mosle LLP.

B. THE ARBITRAL TRIBUNAL

6. The Arbitral Tribunal is composed of Mr. Daniel M. Price, appointed by the Claimant; Prof. Brigitte Stern, appointed by the Respondent; and Prof. Gabrielle Kaufmann-Kohler, appointed by the Parties upon proposal of the ICSID Secretary General.²

¹ Agreement between Germany and India for the Promotion and Protection of Investments, 10 July 1995, **Exh. C-001**.

² See Interim Award, para. 11.

7. The Tribunal appointed Dr. Michele Potestà as Secretary of the Tribunal, with the consent of the Parties.³

C. OVERVIEW OF THE DISPUTE ON QUANTUM

8. This dispute arises out of India's annulment of the agreement for the lease of S-band electromagnetic spectrum on two satellites concluded on 28 January 2005 (the "Agreement" or "Devas Agreement")⁴ between DT's indirect subsidiary Devas Multimedia Private Limited ("Devas")⁵ and the Indian state-owned company Antrix Corporation Limited ("Antrix"). The Agreement *inter alia* contemplated offering mobile multimedia and broadband data services to the Indian market via a hybrid satellite-terrestrial communications platform (the "Devas System").⁶
9. On 13 December 2017, the Tribunal issued an Interim Award (the "Interim Award") in which it decided that:
 - a. The Tribunal has jurisdiction over this dispute involving the Claimant and the Respondent;
 - b. The Respondent has breached the fair and equitable treatment standard provided in Article 3(2) of the BIT;
 - c. The Tribunal will take the necessary steps for the continuation of the proceedings toward the quantum phase."⁷
10. The issue now before this Tribunal is what compensation, if any, should be awarded to DT for India's breach of the Treaty.
11. In sum, the Claimant submits that the annulment of the Devas Agreement by India "destroyed the entire value of Devas's business (which rested on the

³ See Interim Award, para. 12.

⁴ Agreement for the Lease of Space Segment Capacity on ISRO/Antrix SB and Spacecraft by Devas Multimedia Pvt Ltd, 28 January 2005, **Exh. C-006**.

⁵ DT's wholly-owned subsidiary, DT Asia (Singaporean company) owns 19.62% of Devas's paid up share capital. See Interim Award, paras. 66-70.

⁶ Interim Award, para. 5.

⁷ *Id.*, para. 424.

valuable spectrum rights it held under the Agreement) in a single stroke”, with the result that DT’s investment in Devas is now worthless.⁸

12. For the Claimant, damages should be quantified so as to put DT in the position in which it would be but for the annulment of the Devas Agreement. The quantification of damages should be based on the fair market value (the “FMV”) of DT’s investment in Devas.⁹ According to the Claimant, the most appropriate valuation method is the Discounted Cash Flow (the “DCF”) method as that is the approach a hypothetical willing buyer would have taken in valuing DT’s stake in Devas.¹⁰ On the basis of a DCF valuation, DT seeks damages in the sum of USD 270 million.¹¹ In the alternative, the Claimant seeks a valuation according to what it calls the “Investment Plus” method. On that basis, the Claimant contends that DT’s investment in Devas amounts to between USD 207 to USD 284 million.¹² The Claimant disputes the Respondent’s view that any damages should be limited to sunk costs contending that it represents an inappropriate valuation method in this case, among other reasons, because it is not a measure of the FMV of DT’s investment. In addition to the principal amount, DT seeks interest and costs.
13. The Respondent submits that DT should not be awarded any damages because it has failed to establish a causal link between the breach of the Treaty and its alleged loss, and it should not be entitled to compensation for rights it never had.¹³ More specifically, the Respondent alleges that, but for the annulment of the Agreement, (i) Devas would not have obtained the necessary licenses to enable it to roll out its proposed business, and (ii) reasonable spectrum charges would have been applied.¹⁴
14. For the Respondent, the DCF method is wholly inappropriate in this case as it erroneously assumes that Devas had an acquired right to engage in the Devas

⁸ Memorial, para. 142.

⁹ *Id.*, para. 14.

¹⁰ *Id.*, para. 16.

¹¹ *Id.*, para. 34.

¹² C-PHB1, para. 12.

¹³ Counter-Memorial, paras. 33-54.

¹⁴ R-PHB1, paras. 8-11. See also, Counter-Memorial, paras. 40-54.

project and had a track record of profitability.¹⁵ In any event, the application of the DCF method based on reasonable assumptions shows that Devas had no value.¹⁶ For the Respondent, the alternative “Investment Plus” method is equally unsuitable because it is speculative and based on inaccurate premises.¹⁷ While the Respondent’s primary position is that no damages should be awarded, if the Tribunal finds against it on that point, India argues that damages should be limited to sunk costs, which it claims are no more than USD 24.1 million.¹⁸ India opposes the interest and costs claims and requests that costs be assessed against the Claimant.¹⁹

D. THE PARTIES’ PRAYERS FOR RELIEF

15. In its Reply, the Claimant requested the following relief:

“On the basis of the foregoing, without limitation and expressly reserving its right to supplement this request for relief, DT respectfully requests that the Tribunal:

(a) ORDER India to pay DT compensation in an amount of US\$270 million for its breaches of the Treaty or such other sum as the Tribunal determines will ensure full reparation;

(b) ORDER India to pay pre-award interest on (a) above calculated at the rate of LIBOR plus 4% compounded annually from the Valuation Date until the date of the Tribunal’s award, or at such other rate and compounding period as the Tribunal determines will ensure full reparation;

(c) ORDER India to pay post-award interest on the same basis as pre-award interest accruing from the date of the award until payment is made in full;

(d) DECLARE that:

(i) the award of damages and interest in (a), (b) and (c) be made net of all Indian taxes; and

(ii) India may not deduct taxes in respect of the payment of the award of damages and interest in (a), (b) and (c);

(e) ORDER India to indemnify DT:

¹⁵ Counter-Memorial, paras. 55-86; Rejoinder, paras. 69-87; R-PHB1, pp. 54-59.

¹⁶ Counter-Memorial, pp. 80-114; Rejoinder, pp. 77-105; R-PHB1, pp. 59-63.

¹⁷ Rejoinder, pp. 105-123; R-PHB1, pp. 63-71.

¹⁸ Rejoinder, pp.123-127; R-PHB1, pp. 71-75.

¹⁹ Rejoinder, paras. 164-172.

(i) for any taxes India assesses on the award of damages and interest in (a), (b) and (c); and

(ii) in respect of any double taxation liability that would arise in Germany or elsewhere that would not have arisen but for India's adverse measures;

(f) AWARD such further or other relief as the Tribunal considers appropriate;

and

(g) ORDER India to pay all of the costs and expenses of this arbitration, including DT's legal (external and internal) and expert costs, fees, and expenses, the fees and expenses of the Tribunal, the fees and expenses of any appointing or administering authority, the fees and expenses of any experts appointed by the Tribunal and the costs and expenses of any hearings (including the costs of DT's witnesses in preparing for and/or attending such hearings), plus interest, pursuant to the discretion granted under Article 9(2)(b)(vii) of the Treaty and Article 40 of the UNCITRAL Rules.²⁰

16. In its C-PHB1, the Claimant requested the following relief:

"The Claimant relies on its Request for Relief as set out in its Reply on Quantum, subject to amending paragraph (b) such that interest is calculated at the rate of LIBOR (or any other comparable rate in case LIBOR should be discontinued in the future) plus 4% in line with the suggestion in paragraph 228 above."²¹

17. The Respondent has requested the following relief:

"For the reasons set forth above, the Tribunal should reject Claimant's damage claim in its entirety and assess the costs of this case against Claimant."²²

II. PROCEDURAL HISTORY

18. The procedural history leading up to the Interim Award has been summarized in that decision, to which the Tribunal refers.²³

19. On 10 January 2018, the Claimant asked to correct the list of counsel appearing in the Interim Award. The Respondent raised no objections. On 5 February 2018, the Tribunal adopted the Corrections to the Interim Award.

20. On 29 January 2018, the Respondent informed the Tribunal that it had filed a request before the Swiss Federal Tribunal to set aside the Interim Award and stay

²⁰ See Reply, para. 224. See also Memorial, para. 309.

²¹ C-PHB1, para. 229.

²² Rejoinder, para. 172; Counter-Memorial, para. 149.

²³ Interim Award, paras. 10-49.

the present proceedings. On 31 January 2018, the Claimant objected to the stay of this arbitration.

21. On 22 February 2018, after receiving the Parties' proposals, the Tribunal issued Procedural Order No. 6 setting out the procedural calendar for the quantum phase. On 16 March 2018, following the Parties' disagreement on the venue of the hearing on quantum, the Tribunal determined that the hearing would be held in Paris, as provided in the Terms of Appointment.²⁴
22. On 4 May 2018, the Claimant filed its Memorial on Quantum ("Memorial").
23. On 21 May 2018, the Respondent asked the Tribunal and the Claimant whether:
 - i. the so-called "DT quantum papers" (*i.e.* DT's Memorial on Quantum, supporting witness statements, expert report and documentary evidence) may be used in the Mauritius BIT Arbitration;
 - ii. the evidence presented in the Mauritius BIT Arbitration may be used in the present proceedings; and
 - iii. the Respondent may call as a witness in either case any witness who had submitted a witness statement on behalf of either the Mauritius claimants or DT in the quantum phase.
24. On 27 May 2018, the Respondent brought to the Tribunal's attention a procedural order issued by the Mauritius BIT Arbitration tribunal, whereby that tribunal invited Mr. Scheuermann, one of the Claimant's witnesses in this arbitration, to appear to testify at the hearing in that arbitration. Moreover, the Mauritius BIT Arbitration tribunal also allowed the Respondent to submit the DT quantum papers into evidence in the Mauritius BIT Arbitration and requested that such evidence be produced by 1 June 2018, calling the Respondent to use its best efforts to make the evidence available, including by applying to this Tribunal if necessary.
25. On 29 May 2018, the Claimant objected to the Respondent's requests.

²⁴ Article 6 of the Terms of Appointment.

26. Having reviewed the Parties' positions, on 30 May 2018, the Tribunal authorized the introduction of the DT quantum papers into the Mauritius BIT Arbitration, subject to confidentiality being preserved in relation to those documents.
27. On 7 September 2018, the Respondent filed its Counter-Memorial on Quantum (the "Counter-Memorial").
28. On 27 September 2018, the Claimant asked the Tribunal to order the Respondent not to submit the evidence obtained through the Mauritius BIT Arbitration in the present arbitration for reasons of confidentiality. On 23 October 2018, after having received the Respondent's comments, the Tribunal decided that the Respondent could rely on relevant information from the quantum record of the Mauritius BIT Arbitration, provided that the Claimant could address that information in its forthcoming written and oral submissions.
29. On 7 December 2018, the Claimant filed its Reply on Quantum ("Reply").
30. On 11 December 2018, the Tribunal was informed that the Swiss Federal Tribunal had denied the application to set aside the Interim Award.
31. On 11 March 2019, the Respondent filed its Rejoinder on Quantum ("Rejoinder").
32. On 1 April 2019, the Tribunal and the Parties held a telephone conference to discuss the outstanding issues pertaining to the organization of the hearing on quantum. On 8 April 2019, the Tribunal adopted Procedural Order No. 7 on the Organization of the Hearing on Quantum, incorporating the Parties' comments on the draft order which had been previously circulated by the Tribunal and having due regard to the discussions during the pre-hearing telephone conference.
33. The hearing on quantum took place from 29 April to 3 May 2019 ("Hearing") at the ICC Hearing Centre in Paris. The following people attended the Hearing.
 - a. For the Claimant:
 - Sylvia Noury, William Thomas, Michael Kotrly, Annie Pan, Leonie Beyrle, Stephanie Mbonu and Madeleine Wall, of Freshfields Bruckhaus Deringer LLP, and Aman Ahluwalia;
 - Claudia Bobermin and Ina Roth, Deutsche Telekom AG, Brian Thompson, Immersion Legal Graphics, Lau Nilausen and Mark Bosley, FTI Consulting ("FTI");

- Oliver Tim Axmann, Kim Kyllesbech Larsen, Gary Parsons and Axel Scheuermann, called as witnesses;
- Greg Harman, FTI Consulting, called as an expert.

b. For the Respondent:

- George Kahale III, Benard V. Preziosi Jr., Fernando Tupa, Simon Batifort, Fuad Zarbiyev, Gloria Diaz-Bujan and Abbey Li, Noémie Solle and Vincent Bouvard, of Curtis, Mallet-Prevost, Colt & Mosle LLP;
- Kalyani Sethurman, Misa, UR Rao Space Centre, Praveen Karanth and M S Krishnan, Department of Space, Prabeen Nair, Embassy of India, Paris, Krishna Mohan Arya, Ministry of Law and Justice, Raman Gupta, Enforcement Directorate, Ivan Vazquez, Quadrant Economics LLC;
- Bhagirath, Nitin Jain and Smt. M. Revathi, called as witnesses;
- Dr. Jacob Sharony, Mobius consulting, and Dr. Daniel Flores, Econ One Research Inc., called as experts;

34. On 7 May 2019, the Tribunal issued Procedural Order No. 8 on post-hearing matters ("PO8").
35. On 15 May 2019, following the Respondent's request and the Claimant having raised no objection, the Tribunal allowed the Respondent to produce the testimony of Mr. Harman in the Mauritius BIT Arbitration.
36. On 10 June 2019, the court reporter delivered the final transcript of the Hearing ("Transcript"), which included the revisions proposed by the Parties.
37. On 19 June 2019, the Respondent sent a letter addressing certain questions raised by Prof. Stern at the end of the Hearing. Shortly thereafter, the Claimant objected to the Respondent's letter on the basis that it was contrary to the procedure set out in PO8. The Claimant suggested that the Respondent incorporate the letter and evidence attached thereto in its first post-hearing brief on quantum and the Claimant provide its comments in its second post hearing brief. The Respondent agreed to the Claimant's proposal.
38. On 28 June 2019, the Parties filed their PHBs on Quantum (*i.e.* the Claimant's first post hearing brief ("C-PHB1") and the Respondent's first post hearing brief ("R-PHB1")).

39. On 2 August 2019, the Parties filed their second PHBs on Quantum (*i.e.* the Claimant's second post hearing brief ("C-PHB2") and Respondent's second post hearing brief ("R-PHB2")).
40. On 30 August 2019, the Parties filed their submissions on costs ("C-CS2" and "R-CS2").²⁵
41. On 5 November 2019, the Tribunal provided a progress report to the Parties.
42. On 9 March 2020, the Respondent provided "an update regarding the confirmation proceedings of the award rendered in the case *Devas Multimedia Private Limited v. Antrix Corporation Limited*, ICC Case No. 18051/CYK (the "ICC Award"), in France".
43. On 12 March 2020, the Tribunal invited the Claimant's comments, if any, on the Respondent's letter of 9 March 2020, by 19 March 2020. No comments were received by the time limit set by the Tribunal.
44. On 27 March 2020, the Tribunal provided another progress report to the Parties, indicating that it would issue the award in May.
45. On 18 May 2020, in response to a question from the Tribunal, both Parties requested a 3-day notice of the issuance of the award and confirmed the details of their counsel.

III. FACTUAL BACKGROUND RELEVANT TO QUANTUM

46. A detailed overview of the facts underlying the dispute was provided in Section III of the Interim Award, to which this Award refers. This section only sets out the main facts relevant to issues of quantum.²⁶

A. THE AGREEMENT AND THE RELEVANT TERMS GOVERNING REGULATORY APPROVALS

47. On 28 January 2005, Antrix and Devas entered into the Agreement. The Agreement provided for the lease of S-band capacity on two satellites, PS-1 (also

²⁵ The costs submissions of the Claimant and the Respondent following the jurisdiction and liability phase are referred to as C-CS1 and R-CS1, respectively.

²⁶ All terms not otherwise expressly defined in this Award have the meaning given to them in the Interim Award.

known as GSAT-6) and PS-2 (also known as GSAT-6A) to be manufactured and launched by the Indian Space Research Organization (“ISRO”). The total amount of S-band capacity leased to Devas was 70 MHz, out of which 60 MHz were of Broadcast Satellite Services spectrum and the remaining 10 MHz were of Mobile Satellite Services spectrum.²⁷

48. The Agreement included the following provisions allocating the burden of obtaining regulatory approvals:

- Pursuant to Article 3(c), Antrix was “responsible for obtaining all necessary Governmental and Regulatory Approvals relating to orbital slot and frequency clearances, and funding for the satellite to facilitate Devas services. Further, Antrix shall provide appropriate technical assistance to Devas on a best effort basis for obtaining required operating licenses and Regulatory Approvals from various ministries so as to deliver Devas services via satellite and terrestrial networks. However the cost of obtaining such approvals shall be borne by Devas”;
- Further, under Article 12(a)(ii), Antrix, through ISRO/the Department of Space (the “DOS”), was “responsible for obtaining clearances from National and International agencies (WPC, International Telecommunications Union, etc.) for use of the orbital slot and frequency resources so as to ensure that the spacecraft is operated meeting its technical characteristics and provide the Leased Capacity as specified”;
- Finally, according to Article 12(b)(vii), Devas was “solely responsible for securing and obtaining all licenses and approval[s] ([s]tatutory or otherwise) for the delivery of Devas Services via satellite and terrestrial network”.

²⁷ Interim Award, para. 59.

B. DT'S INVOLVEMENT IN DEVAS

49. In October 2007, Devas's representative, Dr. Rajendra Singh, first approached Mr. Hamid Akhavan, then CEO of T-Mobile International AG, a DT subsidiary, to discuss a possible partnership.²⁸ By that time, Devas had already secured equity investments from Columbia Capital LLC and Telecom Ventures LLC, who had both invested in Devas through their Mauritian subsidiaries.
50. The Claimant submits that the Devas project matched DT's strategy to invest in early-stage players in emerging markets to which it could add value through its expertise in planning and designing terrestrial networks.²⁹ DT thus undertook a review of Devas's business plan and financial model.³⁰ From late 2007 to early 2008, DT's representative, Dr. Kim Larsen (one of the Claimant's witnesses), worked with Devas to review Devas's business plan and financial model.³¹ Additionally, in December 2007, Devas organized several meetings between DT and the representatives of ISRO, the Department of Space and the Space Commission on ISRO's premises in Bangalore. At this time, Mr. Scheuermann (another one of the Claimant's witnesses) was preparing DT's internal enterprise valuation of Devas³² by reference to cash flows drawn from the business plan and financial model and incorporating DT's own valuation assumptions in view of the risks associated with investing in Devas.³³ The valuation at which Mr. Scheuermann arrived amounted to USD 1.78 billion.
51. On 19 February 2008, DT's Management Board discussed the prospects of investing in Devas and reviewed the related valuation. The Board considered such investment in line with DT's business strategy, but identified risks, such as the start-up nature of the business, the unclear status of the WPC License and the limited nature of DT's corporate governance rights.³⁴ To minimize the risks,

²⁸ Axmann WS1, para. 9; Viswanathan WS1, para. 49.

²⁹ Memorial on Jurisdiction and Liability, paras. 67-68; Axmann WS1, paras. 13-15.

³⁰ Axmann WS1, paras. 22-23.

³¹ *Id.*, para. 24.

³² Scheuermann WS1, para. 27.

³³ Memorial, para. 70; Scheuermann WS1, para. 36.

³⁴ Memorial on Jurisdiction and Liability, para. 90; DT briefing, "Meeting with Devas-Shareholders on 19 Feb. 2008" and "Board meeting on 19 Feb. 2008" (redacted), 15 February 2008, **Exh. C-076**.

the Management Board approved an initial equity investment of USD 75 million instead of USD 150 million as previously contemplated.³⁵

52. On 19 March 2008, DT's wholly-owned Singaporean subsidiary Deutsche Telekom Asia Pte Ltd ("DT Asia") signed a share subscription agreement with Devas.³⁶ The agreement contemplated that DT Asia would acquire class C shares in Devas in exchange of a USD 75 million equity contribution. On 18 August 2008, DT Asia closed the share purchase by paying the agreed USD 75 million and acquiring 28,349 class C shares in Devas, *i.e.* 17.2% of Devas's paid up share capital.³⁷
53. In the middle of 2009, Devas sought an additional capital contribution from DT. In assessing the proposed further investment, DT and Devas updated Devas's business plan and financial model.³⁸ Applying further assumptions to the cash flows of the updated model, Mr. Scheuermann calculated that Devas's enterprise value amounted to USD 1.15 billion.³⁹
54. On 10 August 2009, DT's Management Board approved a further capital contribution of USD 40 million based on an enterprise value of USD 375 million, as did DT's Supervisory Board on 28 August 2009.⁴⁰ Devas then reduced its capital call to USD 25 million.⁴¹
55. On 29 September 2009, DT Asia agreed to make a further equity contribution in Devas in the amount of USD 22.2 million.⁴² Consequently, DT Asia acquired 8,400 additional class C shares in Devas and increased its shareholding to

³⁵ Memorial on Jurisdiction and Liability, para. 92.

³⁶ Share Subscription Agreement between Devas and DT Asia, 19 March 2008, **Exh. C-078**.

³⁷ Devas Share Certificate for 28,349 Class C equity shares, 18 August 2008, **Exh. C-016**.

³⁸ Larsen WS1, para. 53; Larsen WS2, paras. 32-37.

³⁹ Scheuermann WS1, para. 55.

⁴⁰ Axmann WS3, para. 23; Extract from the minutes of the DT's Supervisory Board Meeting of 28 August 2009, **Exh. C-109**.

⁴¹ Memorial, para. 124.

⁴² Share Subscription Agreement between Devas, DT Asia, CC/Devas, Telecom Devas, 29 September 2009, **Exh. C-020**.

20.73% of Devas's paid up share capital.⁴³ Following subsequent minor changes in Devas's shareholding, DT Asia's shareholding decreased to 19.62%.⁴⁴

C. EVENTS PRIOR TO ANNULMENT

56. On 18 August 2008, Devas received its Internet Service Provider License ("ISP License") as well as approval from the Foreign Investment Promotion Board.⁴⁵
57. On 20 August 2008, Devas applied for a temporary experimental license from the Wireless Planning and Coordination Wing (the "WPC") of India's Department of Telecommunications (the "DOT") in order to test its system using the S-band spectrum terrestrially.⁴⁶ On 7 May 2009, the "Short Term Experiment/Trial" License was granted for a small fee ("WPC Experimental License").⁴⁷
58. On 31 March 2009, Devas was granted permission from the DOT to supply Internet Protocol Television ("IPTV") services through its ISP License which enabled Devas to deliver internet services as provided in the Devas Agreement.⁴⁸
59. In September 2009, Devas conducted experimental trials in Bangalore which were successful,⁴⁹ and in August 2010 it completed the second phase of trials.⁵⁰
60. After the completion of this phase, Devas and its advisors began preparing a draft application for a particular license which it required from the WPC to reuse Devas's spectrum terrestrially (the "WPC License").⁵¹
61. In May 2010, terrestrial Broadband Wireless Access ("BWA") spectrum auctions took place in India, which resulted in the company Infotel acquiring the right to

⁴³ Memorial on Jurisdiction and Liability, para. 119.

⁴⁴ *Ibid.*

⁴⁵ Memorial, para. 93; Axmann WS1, paras. 52-53.

⁴⁶ Memorial, para. 100.

⁴⁷ Memorial, para. 102; License from WPC to Devas, "Licence to Establish, Maintain and Work and Experimental Wireless Telegraph Station in India", 7 May 2009, **Exh. C-105**.

⁴⁸ Memorial, para. 106: Letter from Devas (Mr. Venugopal) to DOT (Mr. Saxena), 30 December 2008, **Exh. C-096**; Letter from DOT (Mr. Kumar) to Devas, 31 March 2009, **Exh. C-102**.

⁴⁹ Larsen WS1, para. 44; Devas presentation to the Technology Committee, "Devas Multimedia", 28 September 2009, **Exh. C-115**.

⁵⁰ Larsen WS1, paras. 62-63.

⁵¹ Memorial, para. 19.

use 20 MHz of spectrum to offer BWA services for 20 years (“2010 BWA Auction”).

62. The WPC License application was never filed due to the annulment of the Devas Agreement on 8 February 2011, when Secretary Radhakrishnan and Dr. Kasturirangan, a former ISRO Chairman and the DOS Secretary, announced at a press conference the decision to terminate the Devas Agreement. On this occasion, Devas learned for the first time about the purported termination of the Agreement. On 25 February 2011, Antrix notified Devas of the termination of the Agreement due to a *force majeure* event, by reference to the decision of the Indian Cabinet Committee on Security (“CCS”).⁵²

IV. PRELIMINARY MATTERS

63. Prior to considering the merits of the Parties’ positions on quantum, the Tribunal will address the applicable laws (*infra* at IV.A),⁵³ and the Claimant’s objection to the evidence of India’s damages expert (*infra* at IV.B).

A. APPLICABLE LAWS

1. Applicable procedural law

64. In the Terms of Appointment signed on 3 June 2014, the Parties agreed on the law governing the procedure of this arbitration as follows:

“40. In order of priority, the procedure in this arbitration shall be governed by the mandatory provisions of the law of the seat on international arbitration, these Terms of Appointment, the rules on procedure contained in Article 9 of the BIT and the 1976 UNCITRAL Arbitration Rules.

41. If the provisions therein do not address a specific procedural issue, the applicable procedural issue shall be determined by agreement between the Parties or, in the absence of such agreement, by the Arbitral Tribunal.”⁵⁴

65. Under Paragraph 37 of the Terms of Appointment, the Parties agreed to set the seat of this arbitration in Geneva, Switzerland, with the result that this arbitration is subject to Chapter 12 of the Swiss Private International Law Act.

⁵² Letter of 25 February 2011 from Antrix to Devas, **Exh. C-032**.

⁵³ See also Interim Award, paras.110-112.

⁵⁴ Article 8 of the Terms of Appointment.

2. Applicable substantive law

a. Law governing the merits of the dispute

66. In respect of the law applicable to the merits, the BIT contains the following provision (Article 9(2)(b)(ii)):

“The arbitral award shall be made in accordance with the provisions of this Agreement, the relevant national laws including the rules on the conflict of laws of the Contracting Party where the investment dispute arises as well as the generally recognised principles of international law.”⁵⁵

67. Therefore, in addition to the BIT, the Tribunal will apply Indian national law and generally recognized principles of international law whenever appropriate. Where necessary, it will determine whether an issue is subject to national or international law depending on the nature of the issue.⁵⁶

b. Jura novit arbiter

68. When applying the governing law, be it international or national, the Tribunal is not bound by the arguments and sources invoked by the Parties. Under the maxim *jura novit curia* – or, better, *jura novit arbiter* – the Tribunal is required to apply the law of its own motion, provided it seeks the Parties’ views if it intends to base its decision on a legal theory that was not addressed and that the Parties could not reasonably anticipate.⁵⁷

B. THE CLAIMANT’S OBJECTION TO THE EVIDENCE OF INDIA’S DAMAGES EXPERT

69. It is the Claimant’s submission that the evidence of India’s damages expert, Dr. Flores, should be completely disregarded. According to DT, it became clear

⁵⁵ Agreement between Germany and India for the Promotion and Protection of Investments, 10 July 1995, **Exh. C-001**. Article 11 of the BIT further provides as follows: “All investments shall, subject to this Agreement, be governed by the laws in force in the territory of the Contracting Party in which such investments are made”. The Parties have not referred to this provision in the relevant section of the Terms of Appointment.

⁵⁶ See, e.g., *Burlington Resources Inc. v. Republic of Ecuador*, ICSID Case No. ARB/08/5, Decision on Liability, 14 December 2012, para. 179.

⁵⁷ Swiss Supreme Court decisions 4P.114/2001 of 19 December 2001, paras. 3a, 20 *ASA Bulletin* (2002), pp. 493, 511 and 4A_214/2013 of 5 August 2013, para. 4. See also, *inter alia*, *Vestey Group Ltd v. Bolivarian Republic of Venezuela*, ICSID Case No. ARB/06/4, Award, 15 April 2016 (“Vestey”), **Exh. CLA-148**, para. 118; *Daimler Financial Services A.G. v. Argentine Republic*, ICSID Case No. ARB/05/1, Decision on Annulment, 7 January 2015, para. 295.

at the Hearing that Dr. Flores' expert testimony was based on a counterfactual that incorrectly interpreted the Tribunal's liability findings, or on evidence that should, in DT's view, not be considered in the counterfactual.⁵⁸ Dr. Flores' conclusions were based, so says DT, on his "own economic interpretation of the Interim Award".⁵⁹ DT further contends that Dr. Flores did not perform the role of an independent expert in this arbitration, but rather acted as an advocate for India.⁶⁰

70. The Tribunal has taken note of the Claimant's criticisms of Dr. Flores. Having reviewed his evidence (both as contained in his two reports and as presented at the Hearing) against the Claimant's allegations, the Tribunal considers there is no ground to disregard Dr. Flores' evidence entirely, a conclusion that would be disproportionate having regard to the criticisms made. Rather, the Tribunal will deal with the adequacy of Dr. Flores' evidence as a matter of probative value as and when such evidence becomes relevant in the course of its analysis.

V. DISCUSSION

71. In this section, the Tribunal first discusses the standard of proof applicable to causation, loss and quantification of damages (*infra* at V.A). In that context, it also addresses the uncertainty surrounding the issuance of the requisite licenses, in particular the WPC License (*infra* at V.A.1.b). Thereafter, it examines the various valuation methods discussed by the Parties (*infra* at V.B). Finally, it addresses interest and tax (*infra* at V.C) and the effect of the ICC Award (*infra* at V.D).

A. CAUSATION, VALUATION, AND THE LICENSING ISSUES

1. The Claimant's position

a. *The standard of proof*

72. It is beyond doubt, so says the Claimant, that the annulment of the Agreement resulted in the destruction of the value of DT's investment in Devas. The only

⁵⁸ C-PHB1, paras. 65-66, 137 *et seq.*

⁵⁹ *Id.*, para. 138.

⁶⁰ *Id.*, paras. 141-145.

question that remains to be resolved is the precise amount of damages to be awarded.⁶¹

73. For the Claimant, the uncertainty which Devas faced around obtaining the necessary licenses is an issue relevant to the quantification of damages and not a matter relevant to the fact of loss “because what DT lost was the FMV of its investment in Devas as at the Valuation Date pre-licensing”.⁶² The licensing uncertainty must, therefore, be accounted for when assessing the FMV of DT’s investment in Devas by factoring into the value the risk of the license not being granted.⁶³
74. In this regard, it is the Claimant’s contention that the decision in *Bilcon v. Canada*⁶⁴ on which the Respondent relies does not support the latter’s argument that DT must prove “with virtual certainty” that it would have been granted the WPC License.⁶⁵ According to the Claimant, the finding in *Bilcon* hinged on “a pure lost profits valuation”.⁶⁶ It is for that reason that the *Bilcon* tribunal held that the claimant was required to prove “with a certain level of probability” that it would have obtained the necessary regulatory approvals in order to establish that “future profits were indeed lost”.⁶⁷ By contrast, in this case the loss sought is the FMV of the asset prior to the annulment of the Agreement. The licensing uncertainty in this situation goes to the amount of the loss, not to its existence. The Claimant finds support for this argument in the concurring opinion of Prof. Schwartz in *Bilcon*.⁶⁸
75. Thus a “proper reading” of *Bilcon*, so says DT, supports the Claimant’s primary argument that the licensing uncertainty is a risk to be factored into the FMV of

⁶¹ C-PHB1, para. 70.

⁶² *Id.*, para. 71.

⁶³ *Id.*, para. 77.

⁶⁴ *William Richard Clayton, Douglas Clayton, Daniel Clayton, and Bilcon of Delaware, Inc. v. The Government of Canada*, PCA Case No. 2009-04, Award on Damages, 10 January 2019 (“*Bilcon*”), **Exh. RLA-218**.

⁶⁵ C-PHB1, para. 77.

⁶⁶ *Id.*, para. 75.

⁶⁷ C-PHB2, para. 33(a).

⁶⁸ C-PHB1, para. 76, discussing *Bilcon*, Concurring Opinion of Prof. Bryan Schwartz, 10 January 2019, **Exh. RLA-218**, paras. 11, 14.

DT's investment in Devas.⁶⁹ The Claimant further contends that *Bilcon* is easily distinguishable on the facts.⁷⁰

76. In the alternative, if the Tribunal were to determine that a certain standard of proof must be applied in assessing the licensing risk, it is the Claimant's argument that the appropriate standard is whether "in all probability" the requisite licenses would have been granted, which must be read to mean "'probable', and not merely 'possible'".⁷¹ This follows from *Lemire v. Ukraine* where the tribunal held that:

"Given the characteristics of the Ukrainian process for the awarding of licences, it is impossible to establish, with total certainty, how specific tenders would have been awarded if the National Council had not violated the FET standard. The best that the Tribunal can expect Claimant to prove is that through a line of natural sequences it is probable – and not simply possible – that Gala would have been awarded the frequencies under tender."⁷²

77. The Claimant does not dispute that it bears the burden of establishing causation and the value of the loss allegedly suffered. In terms of standard of proof, it distinguishes, however, between the standard applied to the fact of the loss and the standard applied to the quantification.⁷³ As concerns the former, the Claimant argues that the relevant standard to be applied is one of "balance of probabilities", or, in other words, "such loss must be shown to be 'probable' and not merely 'possible'".⁷⁴ With regard to the latter, relying again on *Lemire*, the Claimant argues that it need only "provide a basis upon which the Tribunal can, with reasonable confidence, estimate the extent of the loss".⁷⁵ The lower standard for proving the amount of the loss, so says the Claimant, is all the more appropriate when the Claimant faces evidentiary challenges in proving the precise amount of

⁶⁹ *Id.*, para. 77.

⁷⁰ *Id.*, para. 80.

⁷¹ *Id.*, paras. 78-82.

⁷² *Joseph Charles Lemire v. Ukraine*, ICSID Case No. ARB/06/18, Award, 28 March 2011 ("*Lemire*"), **Exh. CLA-161**, para. 169. See further Transcript, Day 5, p. 13, line 1 - 11; Reply, paras. 50-53.

⁷³ C-PHB1, para. 68(a).

⁷⁴ C-PHB1, para. 68(b).

⁷⁵ *Id.*, para. 68(c); *Lemire*, **Exh. CLA-161**, para. 246.

loss as a consequence of the Respondent's wrongful conduct,⁷⁶ as is the case here.

b. The licensing issues and the counterfactual

(i) General remarks

78. The Claimant contends that, in order to ensure full reparation, compensation must be awarded so as to put DT in the position in which it would be if the Agreement had not been annulled.⁷⁷ The most appropriate way to achieve this, according to DT, is to take the FMV of DT's investment in Devas as the starting point for assessing damages. In this regard, FMV is defined as:

“the price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arm's length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts.”⁷⁸

79. In determining the FMV of DT's investment, the Tribunal should apply a counterfactual which assumes that Devas would have received all the necessary licenses. This, so says DT, is a well-settled principle of international law,⁷⁹ as set out by the tribunal in *Burlington v. Ecuador*:

“In the Tribunal's view, when quantifying the value of the expropriated assets, the Tribunal must proceed on the basis that Burlington is entitled to exercise all of the contractual rights it would have had but for the expropriation, and that Ecuador would have complied with its contractual obligations going forward. In other words, when building the counterfactual scenario in which the expropriation has not occurred, the Tribunal must assume that Burlington

⁷⁶ C-PHB1, para. 68(d), referring to *Gemplus S.A. and others v. The United Mexican States*, ICSID Case No. ARB(AF)/04/03, and *Talsud S.A. v. The United Mexican States*, ICSID Case No. ARB(AF)/04/4, Award, 16 June 2010, **Exh. CLA-33**, para. 13-92. See also *Crystallex International Corporation v. Bolivarian Republic of Venezuela*, ICSID Case No. ARB(AF)/11/2, Award, 4 April 2016 (“*Crystallex*”), **Exh. CLA-147**, para. 871.

⁷⁷ Memorial, para. 162.

⁷⁸ *Id.*, para. 232; Harman ER1, para. 3.5.

⁷⁹ Memorial, para. 202; *Azurix Corp. v. The Argentine Republic*, ICSID Case No. ARB/01/12, Award, 14 July 2006, **Exh. CLA-009**, para. 417; *Flemingo Duty Free Shop Private Limited v. The Republic of Poland*, UNCITRAL, Award, 12 August 2016, **Exh. CLA-157**, para. 874; *Occidental Petroleum Corporation and Occidental Exploration and Production Company v. The Republic of Ecuador*, ICSID Case No. ARB/06/11, Award, 5 October 2012 (“*Occidental*”), **Exh. CLA-051**, paras. 539, 541, 560, 564.

holds the rights that made up the expropriated assets and that those rights are respected.”⁸⁰

80. In this case, this means removing all consequences of the breaches found by the Tribunal⁸¹ and assuming a counterfactual scenario in which:
- a) the launch of the GSAT-6 satellite would have taken place in April 2011;
 - b) India would have acted “fairly and reasonably” in treating Devas’s application for the WPC License to permit terrestrial reuse of its spectrum; and
 - c) if needed, Devas would have acquired any service license in addition to the ISP and the IPTV licenses it already held.
81. In applying the correct counterfactual, the Tribunal should, so says DT, disregard “[all] documents produced in the course of the flawed process that culminated in the annulment of the Devas Agreement”.⁸²

(ii) The launch of the GSAT-6 satellite would have taken place in April 2011

82. DT recalls that the Devas Agreement required ISRO/Antrix to launch the GSAT-6 by the end of June 2009.⁸³ The launch of the GSAT-6 satellite was delayed a number of times for operational reasons, such as lack of a launch vehicle due to the explosion of a newly-designed ISRO vehicle for an unrelated satellite.⁸⁴ However, DT contends that all major operational issues had been resolved by December 2010 and that in April 2011, at the latest, the GSAT-6 satellite would have been launched.⁸⁵
83. For the Claimant, April 2011 is a conservative estimate for the launch date. As such, it is the appropriate counterfactual date because it removes most of the wrongful delay attributable to the Indian authorities’ “slow-rolling” of the GSAT-6

⁸⁰ *Burlington Resources Inc. v. Republic of Ecuador*, ICSID Case No. ARB/08/5, Decision on Reconsideration and Award, 7 February 2017 (“*Burlington*”) **Exh. CLA-151**, para. 358.

⁸¹ Reply, paras. 32-34.

⁸² C-PHB1, paras. 84-87, with particular emphasis on the DOT and the WPC letters to the DOS in July 2010 (the “DOT July 2010 Letters”); Memorial, paras. 194-202.

⁸³ Memorial, para. 204.

⁸⁴ *Id.*, paras. 107-109, 127.

⁸⁵ *Id.*, para. 206.

project as a consequence of the decision to annul the Agreement made by July 2010.⁸⁶

(iii) India would most probably have granted the WPC License for a reasonable fee

84. It is the Claimant's submission that, upon fixing a firm launch date for GSAT-6, Devas would have promptly finalized its application for the WPC License (which had been prepared prior to the annulment of the Agreement) and submitted it to the WPC.⁸⁷ Following the submission, had it not been for India's Treaty breaches, Devas would most probably have been granted the WPC License for a reasonable fee.⁸⁸
85. More specifically, in the Claimant's view, it must be assumed that the DOT or any other governmental authority would not have acted "arbitrarily, irrationally or capriciously" and that India would thus not have denied Devas the WPC License or levied "a prohibitive fee in exchange".⁸⁹ Such assumption, so says the Claimant, is consistent with the approach adopted by numerous investment tribunals that have awarded damages to an investor in a situation where a State sought a reduction in damages based on the investor's need to obtain a license, permit or other government approval.⁹⁰
86. DT admits that it had no contractual right or government assurance to be granted the WPC License. However, according to the Claimant, this is legally irrelevant because the Tribunal is simply being asked to consider the *likelihood* that the WPC License would have been granted. Furthermore, India's erroneous suggestion that Devas had no value without the WPC License contradicts the Tribunal's finding in the Interim Award that, regardless of the WPC License, Devas had "a binding agreement contemplating the lease of valuable satellite spectrum".⁹¹

⁸⁶ *Id.*, para. 207.

⁸⁷ *Id.*, paras. 137, 208.

⁸⁸ *Id.*, paras. 209-211.

⁸⁹ Memorial, para. 209.

⁹⁰ *Id.*, para. 210, referring to *Lemire*, **Exh. CLA-161**, para. 182.

⁹¹ C-PHB2, para. 12.

87. Against that background, DT argues that Devas would have been granted the WPC License for terrestrial use for a reasonable fee. Devas had acquired “non-preemptible” contractual rights in relation to the spectrum. Thus, Devas only required “procedural clearance” from the WPC to reuse terrestrially the frequencies already allocated to Devas by the DOS, as opposed to allocation of fresh spectrum from the DOT. As such, the role of the WPC would be “purely operational”.⁹² While the Claimant accepts that no WPC License had ever been granted before, “it was not without regulatory precedents”.⁹³ In particular, in 2009, the WPC had already issued Devas an experimental license for the conduct of trials of its hybrid satellite and terrestrial system “for a nominal fee”.⁹⁴ All that was needed for Devas’s terrestrial reuse permission was the application for the WPC License and authorization, in line with India’s 2008 National Frequency Allocation Plans (“NFAPs”), rather than a change in the band allocation policy.⁹⁵
88. If any substantive review had been required, such that the application for the WPC License was referred to the Telecom Regulatory Authority of India (the “TRAI”),⁹⁶ the latter would have taken into account relevant international precedent, which, according to the Claimant, overwhelmingly supported terrestrial reuse of spectrum by an incumbent satellite operator.⁹⁷ The most likely outcome of such review would have been the grant of the WPC License on reasonable terms.⁹⁸ This is so because the spectrum was already allocated to Devas; all other operators had been “boxed out”⁹⁹ of its spectrum; and Devas’s

⁹² Memorial, paras. 75, 213(a); Reply, para. 62(a); Annex to the Reply, para. 35. The Claimant also offers a brief statement of the legal and factual context surrounding the acquisition of “non-preemptible” rights leased by Antrix to Devas in Memorial, paras. 39-53.

⁹³ Memorial, para. 213(f).

⁹⁴ *Id.*, para. 213(f)(i); C-PHB1, para. 123.

⁹⁵ Reply, para. 61(a); C-PHB1, paras. 97-101.

⁹⁶ Reply, para. 62(b). See also Annex to the Reply, para. 35.

⁹⁷ Reply, para. 62(b); Annex to the Reply, paras. 50-52. See also, C-PHB1, para. 121 concerning international precedent established by other regulators globally.

⁹⁸ Annex to the Reply, paras. 45-52.

⁹⁹ This is because, among other reasons, if two players were to operate in the same frequencies spectrum in parallel, there would have to be coordination with “guard bands” and “spatial buffer zones”, which would have led to substantial pockets of the spectrum being left unused, as well as other practical and strategic considerations. Annex to the Reply, paras. 53-62.

services would actually implement India's public policy objectives.¹⁰⁰ Indeed, the services offered by Devas were in the public interest and would have provided "truly universal, nationwide AV coverage to all of India, including its vast rural areas".¹⁰¹ Moreover, Devas had the full support of the DOS.¹⁰²

89. In this regard, for the Claimant, the Respondent's "regulatory" witnesses, namely Mr. Nitin Jain, Mr. Bhagirath and Smt. M. Revathi, were not credible since they merely put forward their personal opinions about a regulatory licensing process that was unclear.¹⁰³ Moreover, says DT, they "sit several rungs below the levels of Secretary or Minister at which actual policy decisions would be taken",¹⁰⁴ they lacked contemporaneous involvement with and knowledge of the relevant facts, and they were "partial and lacking in objectivity".¹⁰⁵
90. As to the fee charged for the WPC License, contrary to the Respondent's allegation, such fee would not have been commensurate with the 2010 BWA Spectrum Auction price set in accordance with India's so-called "level playing field policy" (*i.e.* a policy said to be designed to ensure a level playing field for the other services providers using terrestrial spectrum). DT identifies several reasons for this.
91. First, India's ultimate decision to annul the Agreement in order to vacate the spectrum demonstrates that the spectrum was not capable of being auctioned while Devas's contractual rights were in force.¹⁰⁶
92. Second, Devas's position is different from the holders of rights in the 2010 BWA Spectrum Auction, because Devas had exclusive use of the spectrum, was primarily a satellite spectrum holder seeking to reuse its spectrum terrestrially, rather than primarily a terrestrial spectrum holder, and it intended to provide different services (including AV services).¹⁰⁷ Furthermore, there has never been

¹⁰⁰ Memorial, para. 213(b)-(d); Reply, para. 62(c); Annex to the Reply, para. 47(a).

¹⁰¹ Memorial, para. 213(d); Reply, para. 62(c)(iii), Annex to the Reply paras. 63-66.

¹⁰² Annex to the Reply, para. 64(c).

¹⁰³ Reply, paras. 58-60; Annex to the Reply, para. 49.

¹⁰⁴ C-PHB1, para. 89.

¹⁰⁵ C-PHB1, paras. 88-93.

¹⁰⁶ Memorial, para. 213(b).

¹⁰⁷ Annex to the Reply, paras. 67-74.

a terrestrial spectrum auction fee placed on a terrestrial reuse license, which is fundamentally different from a pure terrestrial use of the spectrum.¹⁰⁸ That fundamental difference is evident from the fact that Devas would have had to launch a satellite in order to be able to reuse the spectrum for terrestrial purposes.¹⁰⁹

93. Third, even if the regulators were required to consider India's level playing field policy, they nevertheless would have to balance that policy against other public policy objectives.¹¹⁰ As a result, they would have charged an affordable fee given the public benefits which Devas would have provided.¹¹¹
94. Finally, the Claimant submits that the ISP and IPTV Licenses that it already held were sufficiently flexible for the provision of Devas's services.¹¹² These licenses did cover the provision of BWA and AV services.¹¹³ In any case, India would be reasonably expected to put in place licenses for the operation of BWA and AV services and in the meantime permit the launch of such services by Devas, as it had done in similar circumstances.¹¹⁴ In other words, even if additional necessary licenses did not exist, they would have been created.¹¹⁵ Thus, any delay to the start of Devas's services would have been minimal.¹¹⁶

2. The Respondent's position

a. *The standard of proof*

95. According to India, the "threshold question" before the Tribunal is whether, but for the annulment of the Agreement, (i) Devas would have obtained the necessary

¹⁰⁸ C-PHB1, para. 104.

¹⁰⁹ *Id.*, para. 104(c).

¹¹⁰ *Id.*, paras. 107-108.

¹¹¹ Reply, para. 62(d)(iii); C-PHB1, paras. 109-110.

¹¹² Annex to the Reply, paras. 87-88.

¹¹³ Annex to the Reply, paras. 89-96, citing section 2.2 of the ISP License which defines internet access as "use of any device/technology/methodology to provide access to internet including IPTV"; C-PHB1, paras. 115-117.

¹¹⁴ Annex to the Reply, paras. 97-102.

¹¹⁵ C-PHB2, para. 18.

¹¹⁶ C-PHB1, para. 117.

licenses to enable it to roll out its proposed business, and (ii) reasonable spectrum charges would have been applied.¹¹⁷

96. Thus, for the Respondent, the core licensing issues in dispute are matters that need to be proven in order to establish a causal link between the breach of the Treaty and the loss.¹¹⁸ In assessing those core licensing issues, the applicable legal standard is one of “in all probability” or “with a sufficient degree of certainty”. In support of this contention, the Respondent relies on *Bilcon*, where the tribunal held:¹¹⁹

“Authorities in public international law require a high standard of factual certainty to prove a causal link between breach and injury: the alleged injury must “in all probability” have been caused by the breach [...] or a conclusion with a “sufficient degree of certainty” is required that, absent a breach, the injury would have been avoided.

[...]

In this regard, the test is whether the Tribunal is “able to conclude from the case as a whole and with a sufficient degree of certainty” that the damage or losses of the Investors “would in fact have been averted if the Respondent had acted in compliance with its legal obligations” under NAFTA.”

97. The Respondent stresses that *Bilcon* applies to “all aspects of the Tribunal’s finding of liability, including non-transparency in the decision-making process and the annulment itself”.¹²⁰ In this regard, India draws the Tribunal’s attention to the fact that in *Bilcon* the tribunal “went on to note that various outcomes of a ‘NAFTA-compliant process’ were ‘reasonably conceivable’, including a refusal to approve the project based on socio-economic considerations and an approval ‘with conditions that would render [the project] economically unviable’”.¹²¹ The *Bilcon* tribunal thus concluded that “[w]ithout a high degree of certainty as to regulatory approval, it goes without saying that no damages based on the profitable operation of the quarry can be awarded”.¹²² Contrary to the Claimant’s

¹¹⁷ R-PBH1, para. 8.

¹¹⁸ *Id.*, para. 11; Rejoinder, paras. 13-38.

¹¹⁹ R-PHB1, para. 16; *Bilcon*, **Exh. RLA-218**, paras. 110, 114. The Respondent also referred in its submissions to *Bear Creek Mining Corporation v. Republic of Perú*, ICSID Case No. ARB/14/21, Award, 30 November 2017 (“*Bear Creek*”), **Exh. RLA-203**, paras. 598-600.

¹²⁰ R-PHB2, para. 13.

¹²¹ R-PHB1, para. 17; *Bilcon*, **Exh. RLA-218**, paras. 169-172.

¹²² *Bilcon*, **Exh. RLA-218**, para. 276.

submission, according to the Respondent, there is “no meaningful distinction between *Bilcon* and this case”.¹²³

98. Finally, in support of its argument that this is the appropriate standard of proof to be applied to the licensing issues, the Respondent submits that, until the hearing, the Claimant accepted that the relevant standard was “in all probability”. It was only when the Claimant realized that this burden was insurmountable that it started arguing that the Tribunal should consider the core licensing issues as part of the FMV of its investment. In the alternative, it also submitted that “in all probability” should be interpreted as meaning “probable, not possible”.¹²⁴

b. The licensing issues and the counterfactual

99. For the Respondent, the Claimant’s counterfactual is entirely misplaced because it is based on the assumption that Devas had a right to be granted all of the “first-of-their-kind” licenses needed at a cost that guaranteed economic success. According to India:

- a) As DT was aware, India had no obligation to grant the WPC License and DT should not be able to claim for a right it never had (*infra* at V.A.2.b(i));
- b) DT fully understood that there was significant risk that the licenses would not be granted (*infra* at V.A.2.b(ii)-(iii)); and
- c) DT has failed to prove that the spectrum fees would have been set at a level that would have enabled Devas to be profitable (*infra* at V.A.2.b(iv)).

(i) India had no obligation to grant the WPC License and DT should not be able to claim for a right it never had

100. The Respondent submits that there was no obligation on India to grant the WPC License to Devas. As set out in the Agreement, both the responsibility and the risk associated with obtaining the WPC License fell exclusively on Devas.¹²⁵ In

¹²³ R-PHB1, para. 19.

¹²⁴ *Id.*, paras. 14-16, referring to Reply, paras. 7, 28, 56-57, 64, Annex to the Reply, para. 102; R-PHB2, para. 10.

¹²⁵ R-PHB1, para. 4.

fact, the Government retained the right “to declare that there would be no commercial use of S-band spectrum without auction”.¹²⁶ For the Respondent, the value of Devas is to be assessed on the basis of the rights that it had, as opposed to rights that it did not have.¹²⁷

101. Furthermore, the Respondent contends that any misunderstanding about the conditions for acquiring the WPC License on the part of DT can only be attributed to Devas. In this regard, the Respondent refers to the negotiating history of the share purchase agreement between DT Asia and Devas in 2008, where Devas did not make DT fully aware of all licenses required for the rolling out of the Devas business.¹²⁸

(ii) The requisite licenses would not have been issued

102. India argues that the documentary and testimonial evidence on record shows that the required licenses, and in particular the WPC License, would not have been issued.¹²⁹ There is an abundance of evidence, so says India, demonstrating that DT would not have received the relevant licenses.
103. First, the terrestrial reuse of Devas’s S-band spectrum, via either the terrestrial repeaters of AV content or the terrestrial network for BWA services, was not permitted absent a “change in policy”, as such spectrum had not been authorized for terrestrial use previously.¹³⁰ The licenses required by DT were “first-of-a-kind” licenses; they did not exist and the grant of such licenses necessitated a change in policy and in India’s band segmentation.¹³¹ The need for a change in policy and the novelty of terrestrial reuse would have required a reference to the TRAI. The consultative process before the TRAI would have involved considering the views

¹²⁶ *Id.*, para. 5, referring to the evidence of Mr. Viswanathan, Mauritius Merits Transcript, **Exh. R-002**, pp 288-291; Mauritius Quantum Transcript, **Exh. C-329**, pp. 202-203; Transcript, Day 1, p. 134, line 3 - 15; Transcript, Day 5, p. 86, line 24 - p. 87, line 17; Counter-Memorial, paras. 11-13.

¹²⁷ Counter-Memorial, paras. 33-39.

¹²⁸ *Id.*, para. 15, fn. 31, referring to allegedly false statements made in the Term Sheet of 10 December 2007 for the share purchase transaction between DT and Devas (Term Sheet Regarding the Investment of Deutsche Telekom AG in Devas Multimedia Pvt. Ltd., 10 December 2007, **Exh. C-074**, para. 2). See also Counter-Memorial, para. 30.

¹²⁹ Rejoinder, para. 19.

¹³⁰ Counter-Memorial, paras. 101-112; Rejoinder, paras. 3, 19; R-PHB2, paras. 26-27.

¹³¹ R-PHB1, para. 6.

of all of the stakeholders.¹³² It was “reasonably conceivable” that the outcome of the TRAI consultation would have been unfavorable to DT.

104. In response to DT’s contention that a policy change could have been made in accordance with international precedents, India argues that (i) DT has mischaracterized the international precedents on which it relies; and (ii) “while the TRAI may look to international precedents in regard to certain matters, it reaches conclusions that are in its judgment specific to the Indian situation”¹³³ and the Government is not required to follow TRAI’s conclusions.¹³⁴ In any event, to suggest that India could have changed its policy falls short of DT satisfying its burden of proof that India would have done so and that Devas would have been granted the licenses.¹³⁵
105. Second, at the 2 July 2010 meeting of the Space Commission – during which the Space Commission recommended the annulment of the Agreement – numerous concerns were aired about (i) the anticipated terrestrial use of the spectrum for the purposes of hybrid services, (ii) the fact that the DOT needed to be consulted, (iii) Devas’s foreign ownership, and (iv) awarding the use of the spectrum in a manner inconsistent with the level playing field policy. All of these factors would have weighed against the granting of the license.¹³⁶
106. Third, Mr. Jain, the DOT’s Deputy Director General for Data Services, Ms. Revathi and Mr. Bhagirath, both Senior Deputy Wireless Advisors, have testified that it was unlikely that the requisite change in policy would have been made.¹³⁷ The Respondent refutes DT’s arguments in relation to the weight that should be attached to the witness testimony of the regulators. It also points to the fact that DT has failed to call (and to provide any explanation for its failure) any Indian regulatory witness, any individual in charge of regulatory matters on DT’s due diligence team or its Indian lawyers or advisors consulted in relation to the

¹³² Rejoinder, para. 19.

¹³³ R-PHB1, para. 89.

¹³⁴ *Ibid.*

¹³⁵ R-PHB2, para. 28.

¹³⁶ Rejoinder, para. 19.

¹³⁷ *Ibid.*

licenses.¹³⁸ It presumably failed to do so, says India, because their testimony would have been detrimental to DT's case.

107. Furthermore, there is no merit in the Claimant's position that the failure to grant the WPC License would have been "arbitrary, irrational and capricious", as the possibility of denial of the requisite licenses was acknowledged even in DT's internal documents.¹³⁹ Moreover, according to India, it would have been perfectly valid for the Government to deny the licenses on the basis that terrestrial use of the spectrum could not be granted without an auction. It is untenable to argue that such conduct is "arbitrary, irrational or capricious" or otherwise contrary to the Treaty.¹⁴⁰

(iii) DT fully understood that there was significant risk that the licenses would not be granted

108. In India's submission, it is clear from the contemporaneous documents that DT was well aware of the risk that the requisite licenses would not be granted. India argues that, during its due diligence, DT identified the need to acquire the WPC License and recognized the risks associated with the issuance of that license.¹⁴¹ These facts are established, *inter alia*, by the following elements in the record:

- DT's internal documents record DT's reservations about the grant of the license, including after DT's officials met with India's Wireless Advisor to discuss this matter;¹⁴²
- The uncertainty surrounding the grant of the WPC License was factored in by DT itself when it invested in Devas, as is shown by (i) DT's decrease of the valuation of Devas and its proposal for a staged investment, and (ii) the fact that it obtained priority shares

¹³⁸ Rejoinder, paras. 21-23; R-PHB1, paras. 93-94; R-PHB2, para. 23.

¹³⁹ Rejoinder, paras. 29-38.

¹⁴⁰ *Id.*, para. 34.

¹⁴¹ R-PHB1, paras. 40-43, referring to the evidence of Mr. Axmann at the Hearing in support of this point Transcript, Day 1, p. 236, line 9 - p. 237, line 21.

¹⁴² Counter-Memorial, paras. 16-21, 31-32, referring, in particular, to Project "Sky" Briefing for Meeting with ISRO, Antrix, Satcom and Devas on 11 December 2007, dated 7 December 2007, **Exh. C-216**, p. 1.; DT Briefing, "Meeting with Devas-Shareholders on 19 Feb. 2008" and Board Meeting on 19 February 2008, **Exh. C-076**, p. 2 See also, Rejoinder, paras. 32-33; R-PHB1, para. 45.

ensuring that in the event of a liquidation or sale of the company, DT Asia would receive preferential treatment vis-à-vis holders of ordinary shares;¹⁴³

- In the lead up to its second investment in Devas, DT continued to take note of the licensing risks.¹⁴⁴

109. According to the Respondent, the Claimant admitted that it was fully cognizant of the licensing risk¹⁴⁵ and Mr. Harman of FTI testified at the Hearing that DT was well aware of the significant uncertainty surrounding the WPC License.¹⁴⁶ Such statements are irreconcilable with the Claimant's position that the requisite licenses would have been granted in all probability.

(iv) DT has failed to prove that the spectrum fees would have been set at a level that would have enabled Devas to be profitable

110. The Respondent argues that even if the licenses had been issued, the regulators would have charged fees for the use of the spectrum commensurate with auction values in accordance with India's level playing field policy,¹⁴⁷ which would have meant that the project would have been economically unviable. For India, the level playing field policy remains "the core of India regulatory policy to this day". It invokes a number of documents from its regulators as well as statements of its witnesses to this effect,¹⁴⁸ in particular:

- As confirmed by Ms. Revathi, the level playing field policy "means exactly what it says – that companies using the same (or similar) spectrum or desiring to provide the same types of services are required to endure the same fees and charges, and the Government is not

¹⁴³ Counter-Memorial, paras. 26-29; Rejoinder, para. 67; R-PHB1, para. 48.

¹⁴⁴ R-PHB1, para. 49, referring to Briefing for DT Management Board meeting on 10 August 2009, "Beteiligung an einer US\$45 Mio-Kapitalaufstockungen [*sic*] der Devas Multimedia; Aufsichtsratsvorlage", dated 6 August 2009, **Exh. C-224**, p. 3.

¹⁴⁵ R-PHB1, paras. 30-32, referring to Transcript, Day 1, p. 22, line 12 - p. 23, line 19; p. 62, line 14 - 24; p. 90, line 17 - p. 91, line 9; p. 95, line 1 - 8; R-PHB2, paras. 14-17.

¹⁴⁶ Transcript, Day 4, p. 11, line 20 - 24; p. 55, line 1 - 5. See also Harman ER1, para. 4.41 and Harman ER2, paras. 2.11, 4.33. Reference is also made to the evidence of Mr. Axmann, Transcript, Day 1, p. 180, line 2 - 5; p. 182, line 18 - 25.

¹⁴⁷ Rejoinder, paras. 39-68; R-PHB1, paras. 91-112.

¹⁴⁸ Rejoinder, paras. 44-52.

permitted to regulate in a manner that would give one an advantage over the others [...]”;¹⁴⁹

- Second, “no one in India provides BWA services, and no one has ever been authorised to provide BWA services, without paying auction prices”, even existing service providers would have been required to pay a fee to upgrade their services “commensurate with auction prices”.¹⁵⁰ The granting of such a license would have required a fundamental change in Indian regulatory policy and the evidence before the Tribunal is that such a change would not have taken place;¹⁵¹
- Third, the July 2010 DOT Letters made it clear that spectrum charges in line with auction values would be assessed for the proposed satellite-terrestrial business.¹⁵² There is no reason to disregard this letter, as there is nothing unlawful about the Secretary of the DOT reminding the DOS that, in accordance with the level playing field policy, the spectrum charges would have to equate auction fees.¹⁵³

111. According to India, any alleged “overriding public interest” that may have existed (such as providing telecom services to rural areas) could not have compelled the issuance of the WPC License contrary to India’s level playing field policy.¹⁵⁴ As

¹⁴⁹ R-PHB1, para. 92; Revathi WS1, Annex 2, para. 16.

¹⁵⁰ R-PHB1, paras. 96-97; Rejoinder, para. 3.

¹⁵¹ Rejoinder, paras. 13-38.

¹⁵² Counter-Memorial, paras. 10, 43, 97; Rejoinder, para. 40, discussing Anand WS1, Annex 1, App. VA-19, Memorandum from P. J. Thomas, Secretary, WPC Wing, to Secretary, Department of Space, 6 July 2010, para. 2.

¹⁵³ Rejoinder, para. 40; R-PHB1, paras. 98-99. India further relies on the letter of 28 July 2010 from the Wireless Advisor to the DOS, which reiterated the policy of charging spectrum fees commensurate with auction prices in the event the spectrum were to be utilised for terrestrial purposes: Counter-Memorial, paras. 10, 44, 97; Rejoinder, para. 43.

¹⁵⁴ Rejoinder, paras. 52-53, discussing Indian courts’ decisions in cases *Dual Technology* and *Bharti* cases (*Cellular Operator Association of India & Ors v. Union of India & Ors*, High Court of Delhi, Judgment, 22 August 2008 (“*Dual Technology*”), **Exh. C-300**, para. 184); *Bharti Airtel Ltd. and Others v. Union of India and Others*, Supreme Court of India, Judgment, 14 May 2015, (2015) 12 SCC 1, **Exh. RLA-178**, para. 44; *Centre for Public Interest Litigation and Ors. v. Union of India and Ors.*, Supreme Court of India, Judgment, 2 February 2012, (2012) 3 SCC 104, **Exh. RLA-127**, para. 69).

confirmed by Ms. Revathi and Mr. Bhagirath, public interest has never prevailed over public policy.¹⁵⁵

112. The Respondent further refutes the Claimant's position that Devas had a "box-out" position. It explains that Devas would not have such a position of 60 MHz all over India, in particular because any box-out "would have been limited to the two 10-MHz blocks directed at the specific footprints on the surface",¹⁵⁶ and it would have been a dereliction of duty if it operated (as the Claimant contends) to prevent the application of the level playing field policy.¹⁵⁷
113. For the Respondent, these arguments are bolstered by the fact that in its damage calculations the Claimant's quantum expert, FTI, assigns a one-third weight to the scenario with auction-level fees, which shows that such a hypothesis is "eminently plausible".¹⁵⁸
114. In sum, DT has not met its burden of proving that India would have departed from its level playing field policy when assessing fees for the use of the spectrum in the event that it had granted the requisite licenses. Because such fees would have been equivalent to auction fees, so says India, the proposed Devas business would not have been viable.
115. Finally, India submits that Devas only had an ISP/IPTV License that did not permit the provision of the purported AV or BWA services.¹⁵⁹ More specifically, the ISP/IPTV license that Devas had could not be used for wireless ISP services except in the 2.7-2.9 GHz and 3.3-3.4 GHz bands and in unlicensed spectrum, as opposed to the S-band spectrum at issue here; additionally, the ISP license only permitted transmission to fixed receivers and not to mobile devices.¹⁶⁰ In fact, India did not even have service licenses for AV satellite services to mobile devices or for BWA services in the portion of S-band in question.¹⁶¹

¹⁵⁵ R-PHB1, para. 104.

¹⁵⁶ Rejoinder, paras. 54-59, discussing, *inter alia*, Sharony ER1, paras. 26-40; Sharony ER2, paras. 18-25; Revathi WS1, Annex 1, para. 14 and Annex 2, para. 15.

¹⁵⁷ R-PHB1, para.103, referring to Revathi WS1, Annex 1, paras. 14-15.

¹⁵⁸ Rejoinder, paras. 62-64.

¹⁵⁹ Rejoinder, para. 17, citing, *inter alia*, Jain WS2, paras. 4, 6.

¹⁶⁰ Rejoinder, para. 17.

¹⁶¹ *Id.*, para. 11, fn. 5.

3. Analysis

116. The Tribunal discusses first the standard(s) of proof for issues of causation, loss, and quantification of damages (*infra* at V.A.3.a). Thereafter, in light of that discussion, it addresses the uncertainty regarding the licenses (*infra* at V.A.3.b).

a. Requirements for damage award and standard of proof

117. There is no serious disagreement between the Parties as to the applicability in the present case of the standard of full reparation set out by the PCIJ in its 1928 judgment in *Chorzów*.¹⁶² The same standard is found in Article 31 of the International Law Commission Articles on State Responsibility (the “ILC Articles”) and adopted by many investment treaty tribunals.¹⁶³

118. The Parties do, however, disagree on the standards for causation and loss. They equally diverge on whether the licensing uncertainties which DT faced (*i.e.* whether Devas would have obtained the WPC License needed to roll out its business at a reasonable fee) are matters that go to causation or valuation.

119. The Tribunal begins its analysis by recalling that, in accordance with Article 31 of the ILC Articles, the determination of damages under international law implies a three-step process:

- i. establishing a breach;
- ii. ascertaining that the injury was caused by that breach (causation); and
- iii. determining the amount of compensation due for the injury caused (valuation or quantification of damages).¹⁶⁴

¹⁶² *Case Concerning The Factory At Chorzów (Claim for Indemnity) (The Merits)*, Permanent Court of International Justice, Series A, No. 17, Decision, 13 September 1928, **Exh. CLA-153**, p. 47. See Memorial, paras. 153-160; Reply, paras. 28-29. The Respondent does not in principle disagree that this is the relevant standard.

¹⁶³ *British Caribbean Bank Ltd. v. Government of Belize*, PCA Case No. 2010-18/BCB-BZ, Award, 19 December 2014, **Exh. CLA-150**, para. 288; *Rumeli Telekom A.S. and Telsim Mobil Telekomikasyon Hizmetleri A.S. v. Republic of Kazakhstan*, ICSID Case No ARB/05/16. Award, 29 July 2008 (“*Rumeli*”), **Exh. CLA-056**, paras. 789-792; *Duke Energy Electroquil Partners and Electroquil S.A. v. Republic of Ecuador*, ICSID Case No. ARB/04/19, Award, 18 August 2008, **Exh CLA-024**, paras. 467-468.

¹⁶⁴ Patrick W. Pearsall and J. Benton Heath, *Causation and Injury in Investor-State Arbitration*, in *Contemporary and Emerging Issues on the Law of Damages and Valuation in International Investment Arbitration 83* (Christina L. Beharry ed., Brill/Nijhoff 2018), **Exh. RLA-210**, pp. 85, 92. See also *Victor Pey Casado and Foundation “Presidente Allende” v. The Republic of Chile*, ICSID Case No. ARB/98/2. Award, 13 September 2016, **Exh. RLA-182**, para. 217 (“[T]he assessment of reparation due under international law

120. The first step was taken in the Interim Award, in which the Tribunal held that India's conduct, ultimately culminating in the Devas Agreement being annulled, constituted a breach of the fair and equitable treatment ("FET") standard.¹⁶⁵ In particular, the Tribunal found that "the decision to annul the Agreement was arbitrary and unjustified inasmuch as it was manifestly not based on facts, but on conclusory allegations, and was the product of a flawed process".¹⁶⁶ The Tribunal concluded that "[a]s a consequence of the acts which the Tribunal deemed contrary to FET, the Devas Agreement was annulled".¹⁶⁷
121. The second step requires showing a causal link between the breach and the alleged injury. In this respect, the Tribunal agrees with the tribunal in *Bilcon* that "[a]uthorities in public international law require a high standard of factual certainty to prove a causal link between breach and injury: the alleged injury must 'in all probability' have been caused by the breach (as in *Chorzów*), or a conclusion with a 'sufficient degree of certainty' is required that, absent a breach, the injury would have been avoided (as in [the] *Genocide* [case decided by the ICJ])".¹⁶⁸
122. In this case, unlike what the Respondent appears to suggest, the causation issue is *not* whether, but for India's unlawful conduct, Devas would have obtained the requisite licenses; rather, the relevant question is whether there is a causal link between India's unlawful conduct resulting in the annulment of the Agreement and the loss in the value of DT's investment in Devas. The Tribunal is of the view that, in this case, there can be no doubt that the annulment of the Agreement caused the diminution in the value of DT's investment.
123. Indeed, on 17 February 2011, when the CCS made its final decision to annul the Devas Agreement, which the Parties agree to treat as the date of valuation (the

for the breach of an international obligation consists of three steps - [i] the establishment of the breach, followed by [ii] the ascertainment of the injury caused by the breach, followed by [iii] the determination of the appropriate compensation for that injury"); *Bilcon*, **Exh. RLA-218**, para. 112.

¹⁶⁵ Interim Award, para. 416.

¹⁶⁶ *Id.*, para. 363.

¹⁶⁷ *Id.*, para. 416. In the same paragraph, the Tribunal also concluded that, because of the nature of the conduct found to constitute a breach of the Treaty, "even if the same facts were found to also constitute an expropriation, the ensuing damages would not be greater".

¹⁶⁸ *Bilcon*, **Exh. RLA-218**, para. 110.

“Valuation Date”),¹⁶⁹ the value of Devas was derived from Devas’s proposed business. It should be recalled that Devas was incorporated for the very purpose of entering into the Devas Agreement.¹⁷⁰ Furthermore, the key asset held by Devas on the Valuation Date was the right to lease the spectrum. Under the circumstances, there can be no doubt that by annulling the Agreement, India’s conduct negatively impacted, if not entirely destroyed, the value of DT’s investment in Devas, by depriving Devas of the key asset required to roll out its proposed business.

124. Bearing in mind the *Chorzów* and *Genocide* standards of proof mentioned above,¹⁷¹ in the Tribunal’s view, the Claimant has thus established that the loss (*i.e.* the diminution of value of its investment in Devas) has “in all probability” (pursuant to the *Chorzów* standard) or to “a sufficient degree of certainty” (pursuant to the *Genocide* standard) been caused by India’s conduct.¹⁷² Hence, the Tribunal considers that causation between the breach and the (fact or existence of the) loss has been established.
125. The Tribunal turns now to the third step, *i.e.* the valuation or quantification of damages. As also recalled in *Bilcon*,¹⁷³ investment treaty case law draws a distinction between the causation aspect just examined and quantification of the amount of the loss, for which a lower standard of proof is required.
126. The tribunal in *Lemire*, for instance, noted that:

“[o]nce causation has been established, and it has been proven that the *in bonis* party has indeed suffered a loss, less certainty is required in proof of the actual amount of damages; for this latter determination Claimant only needs to provide a basis upon which the Tribunal can, with reasonable confidence, estimate the extent of the loss.”¹⁷⁴

¹⁶⁹ Memorial, paras. 189-193; R-PHB1, para. 160.

¹⁷⁰ Interim Award, para. 58.

¹⁷¹ See *supra* para. 121, discussing *Bilcon*, **Exh. RLA-218**, para. 110.

¹⁷² *Bilcon*, **Exh. RLA-218**, para. 110.

¹⁷³ *Id.*, paras. 112 et seq.

¹⁷⁴ *Lemire*, **Exh. CLA-161** para. 246 (emphasis added).

127. Other tribunals have come to the same conclusion. For instance, the tribunal in *Crystallex v. Venezuela*, referring to *Lemire*, held:

“the fact (i.e., the existence) of the damage needs to be proven with certainty. In that sense, there is no reason to apply any different standard of proof than that which is applied to any other issue of merits (e.g., liability).

Second, once the fact of damage has been established, a claimant should not be required to prove its exact quantification with the same degree of certainty. This is because any future damage is inherently difficult to prove.”¹⁷⁵

128. As the tribunal in *Vivendi II* further observed in respect of quantification, “approximations are inevitable; the settling of damages is not an exact science”.¹⁷⁶ Tribunals thus “retain a certain margin of appreciation” in the quantification of the damage, as noted by the tribunal in *Rusoro v. Venezuela*.¹⁷⁷

129. This point was clearly articulated in *Gold Reserve v. Venezuela*, in which the tribunal held:¹⁷⁸

“while a claimant must prove its damages to the required standard, the assessment of damages is often a difficult exercise and it is seldom that damages in an investment situation will be able to be established with scientific certainty. This is because such assessments will usually involve some degree of estimation and the weighing of competing (but equally legitimate) facts, valuation methods and opinions, which does not of itself mean that the burden of proof has not been satisfied. Because of this element of imprecision, it is accepted that tribunals retain a certain amount of discretion or a “margin of appreciation” when assessing damages, which will necessarily involve some approximation. The use of this discretion should not be confused with acting on an *ex aequo et bono* basis, even if equitable considerations are taken into account in the exercise of such discretion. Rather, in such circumstances, the tribunal exercises its judgment in a reasoned manner so as to discern an appropriate damages sum which results in compensation to Claimant in accordance with the principles of international law that have been discussed earlier.”

130. Hence, once it is proven that the Claimant did suffer a loss, and that loss was caused by the breach, the question is whether the Claimant has “provided the

¹⁷⁵ *Crystallex*, **Exh. CLA-147**, paras. 866-868.

¹⁷⁶ *Compañía de Aguas del Aconquija S.A. and Vivendi Universal S.A. v. The Argentine Republic*, ICSID Case No ARB/97/3, Award, 20 August 2007 (“*Vivendi II*”), **Exh. CLA-020**, para. 8.3.16.

¹⁷⁷ *Rusoro Mining Ltd. v. The Bolivarian Republic of Venezuela*, ICSID Case No. ARB(AF)/12/5, Award, 22 August 2016 (“*Rusoro*”), **Exh. CLA-170**, para. 642.

¹⁷⁸ *Gold Reserve Inc. v. Bolivarian Republic of Venezuela*, ICSID Case No. ARB(AF)/09/1, Award, 22 September 2014 (“*Gold Reserve*”), **Exh. CLA-107**, para. 686.

Tribunal with a reasonable basis to assess” that loss¹⁷⁹ or “a basis upon which the Tribunal can, with reasonable confidence, estimate the extent of the loss”.¹⁸⁰

131. This being so, the Tribunal can move to assessing the *extent* of the loss. It is at this step of the valuation exercise that it must factor in the probability (whatever that probability is) of the relevant licenses being received. Thus, far from being an element interrupting the causal chain, the risk concerning the licensing issues that existed at the Valuation Date is a factor that must be taken into account - among other elements - in the third step of the Tribunal's analysis, *i.e.* the quantification of the loss. This is consistent with the Tribunal's observation in the Interim Award whereby “[t]he absence of the WPC License may have made DT's investment less valuable and may thus have an impact on quantum”.¹⁸¹
132. Still in respect of risk, the Tribunal observes that it is correct that, as the Claimant submits, the applicable counterfactual must assume that India would have acted in accordance with its Treaty obligations.¹⁸² It also does not escape the Tribunal that India's breach deprived Devas of the *opportunity* to apply for the WPC License. However, this does not mean that the Tribunal should disregard the risks or uncertainties facing Devas irrespective of the Respondent's breach. Hence, for purposes of valuing the Claimant's loss, it is important to assess the risks, especially the regulatory risks on which the Parties have mainly focused, that Devas and its business would have faced even if the Agreement had not been annulled.
133. In the next section, the Tribunal addresses the uncertainty regarding the licensing issues. It discusses them at this juncture and in a certain detail given the emphasis that both Parties have placed on this question in both their written and oral submissions in this phase of the arbitration.

¹⁷⁹ *Crystallex*, **Exh. CLA-147**, para. 876.

¹⁸⁰ *Lemire*, **Exh. CLA-161**, para. 246.

¹⁸¹ Interim Award, para. 180.

¹⁸² *Burlington*, **Exh. CLA-151**, paras. 358, 366-367. See also *Azurix Corp. v. The Argentine Republic*, ICSID Case No ARB/01/12, Award, 14 July 2006, **Exh. CLA-009**, para. 417. *Flemingo Duty Free Shop Private Limited v. Republic of Poland*, UNCITRAL, Award, 12 August 2016, **Exh. CLA-157** para. 874; *Occidental*, **Exh. CLA-051**, paras. 539, 541, 560, 564.

b. The licensing uncertainties

(i) Introductory remarks

134. Before turning to the evidence on these risks, the Tribunal notes that the Claimant has called no regulatory witnesses or experts to testify on the relevant licensing issues. By contrast, the Respondent has adduced evidence from three witnesses: Mr. Nitin Jain, Deputy Director General in Data Services Wing of the DOT, Mr. Bhagirath, Senior Deputy Wireless Advisors to the Government of India in the WPC Wing of the DOT, and Smt. M. Revathi, Senior Deputy Wireless Advisors to the Government of India in the WPC Wing of the DOT.
135. While it is true that the Tribunal would have preferred to hear from witnesses closer to the facts and the decision-making power, the evidence of India's "regulatory witnesses" nevertheless proved somewhat helpful. The fact that they did not have firsthand experience with the licenses at issue here, and would not have decided over the WPC License, does not make their testimony wholly "unreliable and unavailing", to use the Claimant's words.
136. Against that background, the Tribunal turns to the two main issues in respect of the licensing risks, *i.e. whether* the WPC would likely have been granted (*infra* at V.A.3.b(ii)), and, if so, against *which fee* (*infra* at V.A.3.b(iii)).

(ii) Whether the WPC License would have been granted

137. It is common ground that Devas/DT did not have a contractual right to the issuance of the WPC license nor a concrete assurance from India that such license would be granted.¹⁸³ To the contrary, as explained below, whenever Devas/DT sought to obtain assurances, the Indian authorities' stance was non-committal.
138. It is further not seriously disputed that the type of license sought by Devas, which would have been required to roll out the services, had never been granted before

¹⁸³ See Memorial on Jurisdiction and Liability, dated 2 October 2014, para. 319(c) (where the Claimant explained that "DT does not assert that it had either a contractual right or a concrete assurance from India that the WPC license would be granted"; Reply on Jurisdiction and Liability, dated 26 June 2015, para. 186 ("DT has not claimed – and to succeed in this arbitration does not need to claim – that the Agreement gave it or Devas everything that Devas needed to implement fully the satellite and terrestrial Devas Services as described in the Agreement, including a contractual right to obtain the WPC License").

in India. It was thus a “novel” or “first-of-a kind” license. As the Claimant itself put it at the Hearing:

“In addition to various commercial risks, such as the greenfield nature of the project and the satellite aspect of the platform, the board [of DT] was fully advised of key legal and regulatory risks, including the need for a licence from the WPC authorising terrestrial reuse of the satellite spectrum, which had never before been issued or considered in India.”¹⁸⁴

139. Mr. Axmann, Vice President of DT’s Mergers & Acquisition team and project manager tasked with evaluating DT’s investment opportunity in Devas, also acknowledged that the envisaged services were “a very novel concept” in India:

“MR PREZIOSI: Now, you did understand [...] this was a novel set of services in India, right?

A. In India, yes. That was our understanding.

Q. It’s correct, isn’t it, that at that time nobody had been providing AV broadcasting services to mobile devices in India?

A. In India, I don’t believe so.

Q. And nobody, in fact, had been providing AV broadcasting to mobile devices terrestrially in India?

A. I would be able to confirm that. But it was a very novel concept, that was our understanding, yes.”¹⁸⁵

140. The situation in which Devas found itself as the first-of-its-kind applicant of a license for “novel services” was also clearly understood by DT at the time, as is shown by a multitude of documents in the record. It is useful to set out these documents in chronological order.

141. First, in the lead up to its first acquisition of Devas’s shares, which was effected in 2008, DT observed in an 11 December 2007 briefing that:

“[I]n a meeting with the head of WPC in Delhi, it became apparent that Devas’ assumption that it has secured a substantial spectrum via its contract with ISRO may not go unchallenged by authorities other than ISRO, with the WPC-Chairman indicating a need for further review.”¹⁸⁶

¹⁸⁴ Transcript, Day 1, p. 17, line 23 - p. 18, line 5 (emphasis added).

¹⁸⁵ Transcript, Day 1, p. 199, line 6 - 17. See also Transcript, Day 1, p. 233, line 18 - 20 (“Q. I think you told me earlier that it was very clear to you that these were novel services in India? A. Correct.”).

¹⁸⁶ Project ‘Sky’ Briefing for meeting with ISRO, Antrix, Satcom and Devas on 11 December 2007, dated 7 December 2007, **Exh. C-216**, p. 1.

142. Two months later, in a presentation dated 11 February 2008 prepared for the meeting of the Management Board to be held on 19 February 2008, DT listed three possible scenarios in respect of the project's "regulatory issues":

"License Requirements (cont'd):

Possible scenarios in the given context are:

A. WPC adopts the Devas position and takes the view that only procedural/technical clearances are required by Devas, possibly along with the payment of a fee for use of spectrum.

B. WPC concludes that the regulatory framework is unclear and that before it can come to a decision, relevant rules need to be framed in connection with the use by private operators of satellite spectrum in conjunction with a hybrid network.

C. WPC takes the view that Devas is required to obtain a substantive authorization from WPC in connection with the use of spectrum.

Scenario B. and C. would result in a substantial risk that the deployment of the Devas network would get delayed, and perhaps even refused in certain circumstances.

Other points of concern are that more generally, India has to be considered as a highly regulated market, and it is difficult to foresee how it will evolve over the near-to long-term."¹⁸⁷

143. At the Hearing, Mr. Axmann explained that, from DT's point of view, scenario B was in essence the most likely scenario:

"[MR AXMANN] Well, now that you mention it, scenario 1 and scenario 3 especially were given small probability. Indeed, our highest assumed probability was that it would have to run through a certain process, but it would be agreed then in the end.

Q. Okay. So just to be clear, A and C were given very small probability by DT, and scenario B was the one that you were giving higher probability to?

A. From my perspective and from the team's perspective, yes."¹⁸⁸

144. It is also important to note that the same presentation records "DT['s] position" on the fact that it understood that Devas needed a "separate specific authorization

¹⁸⁷ Briefing for DT Management Board meeting on 19 February 2008, "Investment in Devas Multimedia Pvt. Ltd. / India", dated 11 February 2008. **Exh. C-219**, p. 16 (emphasis added). In the same presentation, DT also noted the nature of India's "highly regulated market" and observed that "[p]otential consequences in this highly regulated market are a dispute between the authorities, possibly initiated by competitors, that could lead to a delay; worst case scenario would be a severe limitation in flexibility for terrestrial usage, or a total loss of spectrum". *Id.*, p. 4 (emphasis added).

¹⁸⁸ Transcript, Day 1, p. 236, line 18 - p. 237, line 2.

and license [...] from the WPC”¹⁸⁹ (which was, therefore, *in addition to* any ISP license that would have already been granted):

“**DT Position:** The fundamental concern to DT in the given context is that Indian regulations explicitly stipulate that any ISP-licensee is required to obtain ‘a separate specific authorization and license [...] from the WPC’, as the responsible agency for spectrum licensing and management. In addition, guidelines for Telecom Service Providers for Satellite Communications require the licensee to approach the WPC to obtain frequency authorization.”¹⁹⁰

145. In a different briefing note prepared around the same time for the same board meeting of 19 February 2008, DT also noted that it had obtained only “non-committal” feedback from the WPC regarding the license, and that Devas was “reluctant” to approach the authorities to obtain a confirmatory letter on that matter despite DT’s request that it do so:

“To get clarity on the matter, DT (Kevin Copp in person, Hamid Akhavan via telephone) did meet/talk with the Chairman of the WPC. However, the feedback was non-committal. Accordingly, DT requested to eliminate any uncertainties by way of confirmatory letter either from WPC directly or from ISRO/DoS, explicitly confirming either the approval from, or the non-responsibility of WPC. This has not been obtained so far and Devas has indicated that, at least at this stage, it is reluctant to approach the authorities with the request for a formal clarification.”¹⁹¹

146. Eventually, DT chose not to require a confirmation on the licensing issue as a condition to the 2008 transaction¹⁹² (a possibility previously identified in the

¹⁸⁹ The excerpt from DT’s presentation quoted in the text in fact are taken from paragraph 36.1 of the ISP license, which states: “A separate specific authorization and licence (hereinafter called WPC license) shall be required from the WPC wing of the Department of Telecommunications, Ministry of Communications permitting utilization of appropriate frequencies / band for establishment and possession and operation of Wireless element of the Telecom Service. [...]” See Licence Agreement for Provision of Internet Services Between Devas and DOT, dated 2 May 2008, **Exh. C-083**, para. 36.1. The Tribunal accepts the explanation from Mr. Jain, the Deputy Director General in Data Services Wing of the DOT, that paragraph 36.1 is generally applicable to all ISP services involving radio frequencies (except in the case of unlicensed spectrum), and that in addition to the requirements set forth therein, the special requirements in paragraph 36.6 applicable to ISP services using the satellite media would also be applicable. See Jain WS1, para. 6.

¹⁹⁰ Briefing for DT Management Board meeting on 19 February 2008, “Investment in Devas Multimedia Pvt. Ltd. / India”, dated 11 February 2008, **Exh. C-219**, p. 15 (emphasis added).

¹⁹¹ DT briefing, “Meeting with Devas-Shareholders on 19 Feb. 2008” and “Board meeting on 19 Feb. 2008”, dated 15 February 2008, **Exh. C-076**, p. 2.

¹⁹² Instead, it accounted for the licensing risks by significantly reducing the amount it was willing to pay for its investment in Devas. It further determined that its investment should be staged, with more substantial investments to be made by DT after satellite launch and following the commencement of the roll out, by which time it considered that the WPC

briefing note discussed above).¹⁹³ Hence, it decided to pursue the acquisition in full knowledge of the regulatory risks.

147. The uncertainty surrounding the WPC License resurfaced in 2009, when DT acquired the second tranche of the Devas shares. For instance, in a briefing note of 6 August 2009 to the Management Board, DT acknowledged that the acquisition “will be subject to the same risk elements stated in the Board Papers for the initial invest[ment] in 2008”, in particular “the pending confirmation or license of the telecoms regulator for terrestrial usage of the spectrum”.¹⁹⁴
148. Similarly, DT’s submission to its Supervisory Board of 28 August 2009 provides the following information under the heading “Risks”:

“Spectrum: A risk arises out of the questions surrounding the competencies of various Indian authorities in connection with the exceptionally valuable spectrum assigned to Devas. An exclusively satellite-based use of the spectrum is guaranteed by the competence of ISRO; at least in an exclusively terrestrial use of spectrum, on the other hand, a regulatory approval by the Department of Telecommunications (DoT) would be necessary. It cannot therefore be excluded that the DoT could infer a competence in case of a subsequent terrestrial expansion.

[...]

Explicit authorisations for the terrestrial use can however only be obtained once the expansion of the network renders this necessary. Up to this point it cannot be completely excluded that there will be complications. On the other hand this risk element causes a lower valuation (see also the section ‘DT investment activity’).¹⁹⁵

149. The risks of “delay” or even “refusal” of the WPC License identified by DT (see *supra* para. 142) were to a considerable extent linked to the multi-tier and multi-step process that would have been required for the grant of the WPC License in

License risk would have been resolved. See Transcript, Day 1, p. 261, line 19 - p. 262, line 14; Axmann WS1, para. 49; Axmann WS3, para. 8; Memorial, para. 89.

¹⁹³ DT briefing, “Meeting with Devas-Shareholders on 19 Feb. 2008” and “Board meeting on 19 Feb. 2008”, dated 15 February 2008, **Exh. C-076**, p. 2 (“Possible ways to address this key-risk factor are: revisit the valuation of US\$650m pre-money; and/or make explicit confirmation from ISRO/and-or WPC a condition to closing; and/or DT commits itself to the US\$150m-investment, but only in staged phases upon certain regulatory milestones having been met” (emphasis added)).

¹⁹⁴ Briefing for DT Management Board meeting on 10 August 2009, “Beteiligung an einer US\$45 Mio-Kapitalaufstockungen [sic] der Devas Multimedia; Aufsichtsratsvorlage”, dated 6 August 2009, **Exh. C-224**, p. 3.

¹⁹⁵ Submission to DT Supervisory Board, “Adoption of a resolution to participate in increases of capital of Devas Multimedia / India”, dated 6 August 2009, **Exh. C-225**, pp. 9-10 (emphasis added); Memorial, para. 122.

light of its novelty. In particular, the decision over the WPC would in all likelihood have entailed a governmental review in the form of the TRAI process.¹⁹⁶ This is a public process.¹⁹⁷ It involves the preparation of consultation papers describing the proposed service, which are subject to the input from stakeholders, including competitors.¹⁹⁸ It also envisages an “open house” meeting at which the proposed services are debated.¹⁹⁹ The recommendation of the TRAI as to the licenses (including about the conditions applicable to the licenses) is then submitted to either the DOT or the Ministry of Information and Broadcasting for approval.²⁰⁰

150. The need for a TRAI consultation process was confirmed by DT’s witnesses Messrs. Axmann and Parsons at the Hearing.²⁰¹ Mr. Axmann in particular confirmed that Scenario B discussed above, requiring the “framing” of “relevant rules”, would have entailed a TRAI consultation process with, in all likelihood, the involvement of all stakeholders.²⁰²
151. On this basis, the Tribunal considers that it has been sufficiently established that a TRAI process would have been required for the WPC License to be granted.

¹⁹⁶ See Revathi WS1, paras. 15-17, Annex 1, fn. 8, Annex 2, paras. 3, 19; Jain WS1, para. 8 and fn. 3, 4, Annex 2, para. 15.

¹⁹⁷ Bhagirath WS1, Annex 1, para. 2.

¹⁹⁸ *Ibid.*

¹⁹⁹ *Ibid.*

²⁰⁰ Transcript, Day 2, p. 146, line 1 - 16; p. 199, line 24 - p. 200, line 23.

²⁰¹ See Transcript, Day 1, p. 229, line 18 - 24 (Axmann: “Q. Did you understand that the central government was required to go to the TRAI for its recommendations regarding new services? A. I don’t recall whether I knew that was required, but that it was common practice, yes. Q. Well, can you go to page – A. Yes, I guess it is required, yes.”); Transcript, Day 2, p. 144, line 5 - 7, 10 - 15 (Parsons: “Q. Now, did you understand that new services required consideration by the Telecom Regulatory Authority of India? [...] A. My understanding was, at the various levels of authority, that were we to ask for the right to do anything terrestrially, any transmitter of any sort, it would at least go to the WPC. Since we were asking for something that was a novel combined usage, our assumption was that likely TRAI would get involved.”). The need for the TRAI process was also explained by India’s witnesses.

²⁰² Transcript, Day 1, p. 238, line 11 - p. 239, line 1 (“[MR AXMANN] So, yes, [Scenario] B was then the highest likelihood. Q. Okay. So the highest likelihood was that it was going to go to the TRAI, who would have to go through this process where all of the stakeholders in the entire industry would have a say? A. I don’t recall whether we had all the stakeholders in mind, but presumably, yes. I mean, in a nutshell, it was really new -- a certain set of rules has to be set up, and it may lead to delay. That was it in a nutshell, yes. Q. Okay. But whether you had it in mind or not, if the TRAI process involved a public consultative process where all stakeholders got a say, that was what you were thinking? The TRAI process. A. It was a possibility, yes.”)

Such multi-step public process involving consultations with key market players would undeniably have added to the license's uncertainty.

152. Notwithstanding the objective uncertainty emerging from the foregoing elements, the Claimant has advanced a number of arguments whereby Devas would in all likelihood have obtained the WPC License necessary to provide the Devas services. The Tribunal is not convinced that the grant would have materialized with the level of probability that the Claimant seeks to depict.
153. First, the Tribunal is unpersuaded that, lacking any precedent in India on these types of licenses, the Government would have necessarily followed what the Claimant refers to as "international precedents". In the Tribunal's view, such "precedents" would have been but one factor that the regulatory authority might have taken into consideration when assessing Devas's application. It is also reasonable to assume that the Indian governmental authorities would have reached their own conclusions with specific regard to the Indian situation, regardless of what other governmental authorities may have decided in respect of their country-specific circumstances.²⁰³ Hence, the Tribunal is not satisfied that the resort to the "international precedents" increases the certainty that the WPC License would have been granted to Devas.
154. Similarly, the Tribunal is not persuaded that the grant of the WPC License for reuse of the terrestrial spectrum can be inferred from the fact that Devas had received a WPC *Experimental* License. The WPC Experimental License was of a different magnitude. As such, it constitutes no precedent in favor of the granting of the (full) WPC License. Importantly, the text of the agreement in principle that was issued by the WPC and of the experimental license itself made clear that the

²⁰³ For instance, as was discussed at the Hearing, in connection with the 2013 TRAI recommendations on the auction of spectrum in, *inter alia*, the 3.4-3.6 GHz bands, the TRAI reviewed the policies of the U.K.'s Ofcom and Ireland's Comreg with regard to roll-out requirements and made recommendations that were consistent with one and inconsistent with the other in regard to roll-out requirements. It also added recommendations on a lock-in period that would prevent spectrum trading for five years, which was not part of the recommendations of either country. See Transcript, Day 3, p. 17, line 14 - p. 20, line 22, p. 59, line 14 - p. 60, line 24; TRAI Recommendations on Auction of Spectrum in 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300 MHz, 2500 MHz, 3300-3400 MHz, 3400-3600 MHz Bands, dated 1 August 2018, **Exh. C-336**, paras. 2.86-2.91.

license was “for experiments only”, that there could be “[n]o claim for regular use” and that the “assignment is purely temporary”.²⁰⁴

155. The foregoing facts show that there was a certain degree of uncertainty around the grant of the WPC License for terrestrial reuse of the satellite spectrum. That uncertainty stemmed in large part from the fact that no such license had ever been issued in India. The Tribunal thus cannot agree with the Claimant that Devas merely required “procedural clearance” from the WPC. At a minimum, the services Devas intended to offer would have necessitated the establishment of a new licensing regime (under scenario B that DT accepted as the most likely). At a maximum, they could also have required a change in the band segmentation and in policy.²⁰⁵ In this latter respect, the need for a change in policy is unclear from the record, precisely because of the lack of precedent. In any event, the Tribunal can dispense with establishing this fact because the weight of the evidence supports a conclusion that there was a certain degree of risk that the license would not be granted, irrespective of a change in policy.
156. In sum, the record shows that there was a certain degree of uncertainty surrounding the WPC License, an uncertainty of which DT was aware when it made its investment in Devas. But in any event, as discussed below, this is ultimately not determinative of the Tribunal’s decision on quantum.

(iii) The fee for the WPC License

157. In addition to the uncertainty regarding *whether* the WPC License would have been granted, the price which Devas would have paid for such license is also uncertain.
158. In essence, the Parties advance opposite views in this respect. For the Claimant, the License would have been granted at “nominal” or “reasonable” fee. By contrast, the Respondent assumes that India would have charged fees

²⁰⁴ See Letter from M.K. Rao, Deputy Wireless Advisor, Wireless Planning and Coordination Wing, Department of Telecommunications, to M/s Devas Multimedia Pvt. Ltd., dated 13 January 2009, **Exh. R-070**; Letter from Antrix (Mr Murthi) to ISRO (Mr Neelakantan) enclosing the draft application by Devas for WPC licence on 20 July 2010, dated 4 September 2010, **Ex. C-159**, p. 153.

²⁰⁵ Revathi WS1, paras. 8-9, Annex 1, para. 13; Bhagirath WS1, Annex 1, para. 13.

commensurate to the auction charges paid by the winners of the 2010 BWA Spectrum Auction.

159. The lack of a “regulatory framework in India for determining the potential fees for the use of satellite spectrum for terrestrial networks in period 2008 to 2011”²⁰⁶ necessarily implies uncertainty about the level of the fees, as the Claimant’s damages expert accepts.²⁰⁷ This being said, the Tribunal considers it reasonable to assume that, had the Government decided to grant the WPC License, it would have applied the “level playing field” policy, which appears well established in India. As stated by the Indian High Court in *Dual Technology*, a case to which both Parties refer, “[l]evel playing field[.] is a concept of fairness which ensures not that each player has the equal chance to succeed, but that they all play by the same set of rules”.²⁰⁸
160. The Tribunal, however, does not accept India’s position that the application of the level playing field policy would have required the automatic imposition of a fee in line with the 2010 BWA auction price. This is because, unlike the winning bidder in that auction, Devas was an incumbent spectrum-holder, seeking approval from the WPC for the *terrestrial reuse* of spectrum *already allocated* to it by the DOS, rather than an *allocation* of fresh spectrum. Applying similar fees to operators in such dissimilar situations would have negated rather than implemented the policy of the level playing field. That said, it is reasonable to assume that, taking into account these differences, the Indian authorities would have levied a fee to ensure that all economic actors “play by the same set of rules”, which would not have been the case with a “nominal” fee.

²⁰⁶ Harman ER1, para. 4.41.

²⁰⁷ See Harman ER1, para. 4.41 (“There was uncertainty around the applicability and potential level of further licence fees because there was no regulatory framework in India for determining the potential fees for the use of satellite spectrum for terrestrial networks in period 2008 to 2011”) and Harman ER2, paras 2.11 (“[T]here was uncertainty around the applicability and potential level of further terrestrial re-use licence fees because there was no regulatory framework in India for determining the applicable fees for the re-use of satellite spectrum for terrestrial networks in the period 2008 to 2011. Hence, I conclude that the level of a possible fee was still unknown at the Valuation Date”) and 4.33 (“Dr Flores considers that there is no uncertainty as to the level of the terrestrial re-use licence fee. I consider that the level of terrestrial re-use licence fee was highly uncertain, for the following reasons”).

²⁰⁸ *Dual Technology*, **Exh. C-300**, para. 184.

161. It is of course true that the Government may have viewed the proposed Devas services with a positive eye, for instance because it may have considered that they would benefit rural communities. However, it is unlikely that this factor alone would have led the Government to charge no meaningful fees for the terrestrial reuse of the spectrum. Indeed, it should not be overlooked that any public interest benefit that the Devas services may have brought would have been balanced against other public interest objectives, including the need to avoid distortion to competition and the Government's legitimate decision to subject the use of a scarce resource to the payment of consideration. And it barely needs mentioning that, in and of itself, a decision to condition the territorial reuse of the spectrum to a payment could not constitute a violation of the Treaty.
162. In light of the novelty of the licensing issues and the lack of a specific regulatory framework, the Tribunal cannot determine the precise level of the fee that the Government would have charged for the issuance of the WPC License. Yet, it need not do so for the purpose of this analysis. For the present valuation exercise, it is sufficient to conclude, based on the evidence, that "the level of the terrestrial re-use license fee was highly uncertain", to use the Claimant's expert's words,²⁰⁹ and that it was reasonably conceivable that the WPC License may have been granted on more onerous terms than those Devas/DT would have expected. As for the grant of the license, the uncertainty about the fee level is not decisive as will be further elaborated below.

(iv) Conclusion

163. In sum, on the Valuation Date there was an element of uncertainty as to (i) the principle of the WPC License being granted to Devas and (ii) the amount of the fee payable for such grant. This conclusion does not mean that Devas was worth zero on the Valuation Date, as the Respondent contends. Rather, the Tribunal must adopt a valuation methodology which takes account of the specific circumstances of this case and the evidence on valuation in the record, without disregarding the level of uncertainty on the licencing issues. In other words, such uncertainty is but one of the elements which the Tribunal may consider in

²⁰⁹ See Harman ER2, para. 4.33 ("Dr Flores considers that there is no uncertainty as to the level of the terrestrial re-use licence fee. I consider that the level of terrestrial re-use licence fee was highly uncertain, for the following reasons").

selecting the valuation methodology that, based on the evidence in the record, provides the most appropriate “basis upon which the Tribunal can, with reasonable confidence, estimate the extent of the loss”.²¹⁰

B. THE VALUATION METHODS PROPOSED BY THE PARTIES

164. With the foregoing considerations in mind, the Tribunal now turns to the valuation methodologies proposed by the Parties. The Claimant has proposed the DCF method (*infra* at V.B.1) and the so-called “Investment Plus” methodology (*infra* at V.B.2). The Respondent, while maintaining its position that no damages should be awarded, has alternatively suggested that the only approach that is conceivably appropriate for this case is the sunk costs method (*infra* at V.B.3).

1. The Discounted Cash Flow Method

a. The Claimant’s position

(i) The appropriateness of the DCF method

165. The Claimant submits that the most appropriate valuation method to determine the FMV of DT’s investment in Devas is DCF.²¹¹ It explains that DCF is the method “which ‘businessmen and financiers apply every day in deciding how much to invest in a business’”.²¹² It is thus the method that a willing buyer would use to determine the value of DT’s investment in Devas,²¹³ and the only method which will ensure that DT receives full reparation for the loss it has suffered as a consequence of India’s unlawful conduct.²¹⁴

166. The Claimant explains that the DCF method is the most appropriate in the present case for a number reasons:

²¹⁰ *Lemire*, **Exh. CLA-161**, quoted *supra* at para. 126.

²¹¹ C-PHB1, paras. 126-132.

²¹² Memorial, para. 170, referring to Sergey Ripinsky and Kevin Williams, *Damages in International Investment Law* (2008), **Exh. CLA-182**, p. 195.

²¹³ C-PHB1, para. 127.

²¹⁴ Reply, para. 100.

- It is a valid method for evaluating start-up businesses, particularly where it is necessary to adjust for certain risks such as the licensing risks present in this case;²¹⁵
- It is well-established for the valuation of businesses in the telecommunications sector generally and within DT more particularly;²¹⁶
- DT has applied the DCF method in 2008 and 2009 in the ordinary course of business, when it made its investment in Devas;²¹⁷
- In February 2011, it was a requirement of India’s currency laws that a foreign buyer purchasing shares in an unlisted company, such as Devas, value the company using the DCF method;²¹⁸
- Devas’s primary asset, *i.e.* its right to lease the spectrum under the Agreement, was an income-producing asset and DCF is the only reliable method of assessing such an asset, as any other method would dramatically undervalue the asset;
- Arbitral tribunals have endorsed the use of the DCF method for the purposes of valuing a telecommunications company, even when the company was not a going concern. DT points in particular to the decision in *Rumeli v Kazakhstan*;²¹⁹ and
- It is a well-established principle “that the FMV of an asset must be assessed by reference to its ‘highest and best use’”.²²⁰

167. DT concedes that “substantial investment arbitration jurisprudence exists, which suggests a general – but largely historical and increasingly debated - reservation

²¹⁵ Memorial, para. 170; Reply, para. 80(a); C-PHB1, para. 127.

²¹⁶ Memorial, para. 171; C-PHB1, para. 127.

²¹⁷ C-PHB1, para. 127.

²¹⁸ Memorial, para. 174.

²¹⁹ Memorial, paras. 175-176, referring to *Rumeli*, **Exh. CLA-056**, para. 811. The Claimant also refers to *Lemire*, **Exh. CLA-161**, para. 254; Reply, para. 80(b).

²²⁰ Reply, para. 80(b).

on the part of tribunals with respect to the use of income-based approaches such as DCF to value companies without an established history of profitability”.²²¹

168. In this regard, the Claimant contends that the absence of a track record of profitability does not automatically render the use of the DCF method overly speculative, if the investor can prove that the investment would have generated the profits claimed.²²² In this regard, the Claimant cites to *Vivendi II*, which held that:

“a claimant might be able to establish the likelihood of lost profits with sufficient certainty even in the absence of a genuine going concern” by “presenting sufficient evidence of its expertise and proven record of profitability of [businesses] it (or indeed others) had operated in similar circumstances.”²²³

169. In response to the authorities relied upon by India, DT submits that a “proper review” of those authorities confirms that the DCF was rejected on grounds specific to those cases.²²⁴ It is therefore not particularly instructive to look at the decisions of other tribunals as these necessarily involved different facts and evidence.²²⁵

170. While it is of course true, admits DT, that Devas had no operating history, such fact should not result in the conclusion that its business was too speculative or uncertain, because India’s “unlawful conduct prevented it from ever reaching the point of rolling out its network and services”.²²⁶

171. For the Claimant, the following additional evidence should lead the Tribunal to apply the DCF approach:²²⁷

- Devas was well-advanced in the preparations to launch its operations. It had prepared a network roll-out plan, identified and priced network components, coordinated discussions with third party buyers,

²²¹ *Id.*, para. 83.

²²² *Id.*, para. 84; C-PHB1, para. 130.

²²³ Memorial, para. 182, referring to *Vivendi II*, **Exh. CLA-20**, para. 8.3.4 (emphasis in original). Reply, para. 84. Reference was also made to Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation methods and Expert Evidence* (Kluwer Law International 2008), **Exh. EO-010**, pp. 75-76.

²²⁴ C-PHB1, para. 130; Reply, para. 87

²²⁵ Reply, para. 88.

²²⁶ *Id.*, para. 90.

²²⁷ Reply, paras. 90-97.

developed hand held terminals and devices, performed experimental trials, developed societal applications, and prepared the WPC License application;²²⁸

- Even though no other company had a track record of operating similar services in India, the BWA services that Devas was to offer were the “bread and butter” of DT, and for the AV services, Devas benefitted from some of the world’s foremost experts in hybrid satellite-terrestrial systems. Moreover, such services and businesses were “well known to Devas and DT” outside of India;²²⁹
- The “Darwin Model”, *i.e.* the most up to date version of DT’s business plan developed with Devas in September 2009, “which FTI has taken as the starting point for its valuation”, was developed in the ordinary course of business, not in the context of a dispute, and contained robust assumptions in relation to the Devas business;²³⁰
- DT rebuts India’s argument that its valuations played no role in the price it paid for its shares in Devas by stating that its contemporaneous valuations set a theoretical “ceiling” on the price DT would have paid for a business like Devas. The fact that DT was ultimately able to negotiate the price down does not affect its “real-time” view of the value of Devas;²³¹
- Contrary to India’s allegations, the fact that DT’s 2008 financial statements did not include the cash flow forecasts set out in the 2008 business plan, does not mean that DT considered those cash flows unreliable. Valuations performed for accounting purposes are not the same as valuations prepared for the purposes of corporate

²²⁸ *Id.*, para. 91.

²²⁹ *Id.*, para. 93.

²³⁰ *Id.*, para. 95.

²³¹ *Id.*, paras. 97-98.

transactions,²³² and “the accounting team would not have reviewed Devas’s cash flows”.²³³

172. Finally, while the Claimant acknowledges that the ICC tribunal declined to apply the DCF method because Devas had no track record of operations, the ICC tribunal held that DCF may be the appropriate method “if there is a reliable, alternative guide to what the future earnings of the business are likely to be”.²³⁴ DT submits that, in this arbitration, by contrast to the ICC Arbitration, “DT is uniquely placed to give this Tribunal, with the support of its fact and expert witnesses, precisely the requisite confidence that the ICC Tribunal considered that it lacked”.²³⁵

(ii) The 2010 BWA Spectrum Auction as a benchmark for Devas’s value

173. As an alternative market data point to its DCF analyses, FTI has compared the 2010 BWA Spectrum Auction against the Devas spectrum.²³⁶ The price paid for 20 MHz of spectrum in the context of the 2010 BWA Spectrum Auction was USD 2.75 billion (or USD 4.13 billion for 30 MHz), and FTI’s DCF value for Devas (with no license fee) amounts to USD 2.63 billion.²³⁷

174. This comparison, so says DT, demonstrates that FTI’s DCF analysis is conservative.²³⁸ According to DT, India accepts the relevance of this cross-check because it uses the 2010 BWA Spectrum Auction for the purposes of its arguments in relation to the WPC License fee.²³⁹ DT also considered the auction price an appropriate benchmark of value at the time, as it compared the value of

²³² Reply, para. 99.

²³³ C-PHB1, para. 129.

²³⁴ Memorial, para. 181; Reply, para. 81, ICC Award, 14 September 2015, **Exh. R-042**, para. 368.

²³⁵ Memorial, para. 181; Reply, para. 81.

²³⁶ Memorial, paras. 291-296; Reply, paras. 201-203

²³⁷ Memorial, paras. 293-295; Harman ER 1, para. 6.31.

²³⁸ Memorial, para. 33; Reply, para. 201.

²³⁹ Memorial, para. 33.

the Devas spectrum with the reserve price of the (then) upcoming auction, as USD 860 million, as was noted in its Management Board papers in 2009.²⁴⁰

(iii) Reasonableness of FTI's DCF Assumptions

175. Based on its DCF analysis, FTI has calculated that the FMV of Devas as of the Valuation Date was USD 1.618 billion. It then determined the value of DT's investment in light of its 19.62% shareholding in Devas, which comes to USD 270 million accounting for a minority discount.
176. According to DT, the assumptions which FTI adopted to arrive at its DCF analysis are entirely reasonable. FTI has taken the Darwin Model and has made appropriate adjustments both up and down. By contrast, so says DT, Dr. Flores has manipulated FTI's model with the sole aim of reducing the adjustments in order to achieve a value of zero.²⁴¹ In response to Dr. Flores' value-reducing adjustments, DT makes the following submissions.
177. First, FTI has priced the risk of the reuse licenses and associated fees into its DCF calculation by using three possible licensing outcomes, *i.e.* (i) no or nominal fees; (ii) medium level of fees; and (iii) fees based on the 2010 BWA Spectrum Auction, and then "assigned an equal one-third probability for the outcome of each of these scenarios".²⁴² Dr. Flores's assumption that the WPC Licensing fee would be so high that it would bankrupt Devas²⁴³ is untenable.²⁴⁴
178. Second, India's contention that FTI failed to incorporate a build-out requirement based on the BWA Spectrum Auction is deeply flawed because the BWA would not have been the reference point adopted by a willing buyer, and any such build-out requirement would in any event not have been applied,²⁴⁵ not least because

²⁴⁰ Memorial, para. 291, referring to Briefing for DT Management Board meeting on 10 August 2009, "Beteiligung an einer US\$45 Mio-Kapitalaufstockungen [*sic*] der Devas Multimedia; Aufsichtsratsvorlage", dated 6 August 2009, **Exh. C-224**, p. 4.

²⁴¹ Reply, para. 102.

²⁴² *Id.*, paras. 104-105.

²⁴³ *Id.*, para. 106.

²⁴⁴ *Id.*, paras. 108-109.

²⁴⁵ *Id.*, paras. 112-113. See also C-PHB1, paras.161-162; C-PHB2, para. 39.

“the cost of a terrestrial build-out requirement into non-urban areas would not have applied to Devas”.²⁴⁶

179. Third, India’s assertion that the assumptions concerning the bandwidth demand needed to be adjusted is further erroneous. India, according to DT, has also overstated the costs of doing so.²⁴⁷
180. Fourth, the Respondent’s argument that the FTI Model failed to account for the time when Devas could have launched its TD-LTE technology services is irrelevant, because “neither the Darwin Model nor the FTI Model envisaged rolling out BWA to paying customers as part of the May 2011 Bangalore launch”.²⁴⁸ Consequently, no adjustment ought to be made to the model in this respect.
181. Fifth, there is no need to take into account an increase in download speeds from January 2015 to meet the TRAI 2010 recommendations. In any event, the “negative impact on value of increasing bandwidth speeds in this way would be considerably less than the [USD 1.3 billion reduction] suggested by Dr. Flores”.²⁴⁹ Similarly, Dr. Sharony’s expert evidence that FTI “made incorrect bandwidth capacity assumptions in its modelling exercise” and criticisms in relation to spectral efficiency assumptions, were proved incorrect at the Hearing.²⁵⁰
182. Sixth, India has placed an unreasonable amount of emphasis on Devas not being able to provide mobile telephony.²⁵¹ There is no data to support Dr. Flores’ significant valuation decrease.
183. Seventh, Dr. Flores’s criticism of FTI for assuming an extension of the project beyond the duration of 12 years, renewable once, is misplaced. FTI correctly assumed that the Agreement would be extended beyond 24 years, but accounted for any uncertainty of an extension in the discount rate.²⁵²

²⁴⁶ C-PHB1, para. 160.

²⁴⁷ Reply, paras. 115-118.

²⁴⁸ C-PHB1, para. 165.

²⁴⁹ C-PHB1, paras. 167-168.

²⁵⁰ *Id.*, paras. 168-170, referring to Transcript, Day 3, p. 212, line 7 - p. 214, line 11.

²⁵¹ Reply, paras. 129-134; C-PHB1, paras. 171-175.

²⁵² C-PHB1, paras. 176-177.

184. Finally, Dr. Flores's calculation of the applicable discount rate as 31% is flawed as it double counts risk already included in the cash flows; reflects an internal rate of return ("IRR"), not a discount rate; and is unsuitable when compared to the discount rate applied in DT's own DCF valuation (*i.e.* 20%).²⁵³ The appropriate rate, according to DT, is Mr. Harman's rate of 19% which accounts for a "bottom-up and top-down approach, and factoring in the mitigation in risk between 2008 and the Valuation Date, as well as the fact that the global financial crisis had abated".²⁵⁴

b. *The Respondent's position*

(i) *The DCF method is inappropriate*

185. The Respondent submits that the use of a DCF valuation method is "wholly inappropriate" in this case.²⁵⁵ A DCF valuation demands a degree of certainty as to future cash flows and profits,²⁵⁶ which did not exist here. Devas was not a going concern with a proven record of profitability, but a highly "speculative start-up".²⁵⁷

186. For India, the authorities are "virtually unanimous" in their conclusion that DCF is inappropriate in circumstances such as the present ones.²⁵⁸ Notably, the World Bank Guidelines on the Treatment of Foreign Direct Investment, the ILC Articles Commentary, as well as a number of authorities and investment treaty awards, have rejected the use of the DCF method to value assets that lacked an established record of profits, on the ground that the contrary approach would

²⁵³ C-PHB1, paras. 178-179; see also, C-PHB2, para. 40.

²⁵⁴ C-PHB1, para. 179, Transcript, Day 4, p. 18, line 19-23; Harman ER1, Appendix 5.

²⁵⁵ Rejoinder, para. 87.

²⁵⁶ Rejoinder, para. 79.

²⁵⁷ *Id.*, para. 80.

²⁵⁸ Counter-Memorial, para. 56.

result in speculative valuations.²⁵⁹ India further underscores that the ICC tribunal also discarded the DCF method.²⁶⁰

187. It is the Respondent's submission that the decisions relied upon by DT in support of its argument that the DCF method was applied in other disputes involving the telecommunications industry, even when the company was not a going concern, are all inapposite based on the particular facts of those cases.²⁶¹ Those decisions reinforce the point that there is "no precedent of a tribunal using DCF under these circumstances, or anything remotely resembling them, absent agreement of the parties".²⁶²
188. In the present circumstances, using a DCF calculation would be inappropriate, so the Respondent asserts, because the (i) infrastructure needed for the proposed Devas business had not been built; (ii) Devas had no customers, and was yet to generate any revenue; (iii) the competitive, technological and commercial risks were high; (iv) the projected cash flows were "highly speculative and extremely sensitive to slight variations in assumptions"; (v) "the business would not turn cash positive until its eighth year" of operation; (vi) Devas was yet to obtain the most important licenses; and (vii) absent a change in India's regulatory policy, the license fees would have made Devas unviable.²⁶³
189. The Respondent further stresses that:
- In the absence of the critical WPC License, the Claimant is wrong to suggest that "Devas's primary asset, being its right to 'the lease of

²⁵⁹ Counter-Memorial, paras. 55-76. Rejoinder, paras. 73-75 referring to a number of decisions, including *Phelps Dodge Corp. and Overseas Private Investment Corp. v. The Islamic Republic of Iran*, Iran-U.S. Claims Tribunal, Case No. 99, Award, 19 March 1986 ("Phelps"), **Exh. RLA-197**; *Southern Pacific Properties (Middle East) Limited v. Arab Republic of Egypt*, ICSID Case No. ARB/84/3, Award on the Merits, 20 May 1992 ("Southern Pacific Properties"), **Exh. CLA-065**, paras. 42-53, among many others.

²⁶⁰ Counter-Memorial, para. 75, referring to ICC Award, 14 September 2015, **Exh. R-042**, paras. 369, 371, 374.

²⁶¹ Counter-Memorial, para. 78, distinguishing *ADC Affiliate Limited and ADC & ADMC Management Limited v. The Republic of Hungary*, ICSID Case No. ARB/03/16, Award, 2 October 2006 ("ADC"), **Exh. CLA-006**; *Lemire*, **Exh. CLA-161**; *Ioannis Kardassopoulos and Ron Fuchs v. The Republic of Georgia*, ICSID Case Nos. ARB/05/18 and ARB/07/15, Award, 3 March 2010 **Exh. CLA-038**; *Gold Reserve*, **Exh. CLA-107**.

²⁶² R-PHB1, paras. 119 and 122.

²⁶³ Counter-Memorial, para. 76; Rejoinder, para. 72; R-PHB1, para. 113; Transcript, Day 1, p. 151, line 16 - p. 152, line 6.

valuable satellite spectrum’ under the Agreement, was an income-producing asset”;²⁶⁴

- DT’s reliance on its DCF computations in 2008 and 2009 is misconceived, as those valuations played no apparent role in setting the price for the acquisition of the Devas shares,²⁶⁵ nor were they updated to reflect fundamental changes in the market by the time of the Valuation Date;²⁶⁶
- DT admitted in its own 2008 Annual Report that it “did not measure the investments by discounting the expected cash flows because the cash flows could not be reliably determined”.²⁶⁷ Even if, as the Claimant asserts, there is a difference between the valuation method used for corporate as opposed to accounting purposes, that does not explain why the cash flows could not be reliably determined, or how the language used “does not in fact reflect an opinion on the Devas cash flows”.²⁶⁸

(ii) 2010 BWA Spectrum Auction as a benchmark for Devas’s value

190. For the Respondent, the 2010 BWA Spectrum Auction is irrelevant to the FMV of Devas. The auction price merely indicates the fee to be paid to the Government for the use of India’s scarce spectrum resource. That fee would need to be paid on top of the purchase price for Devas.²⁶⁹
191. In any event, the fact that another company was prepared to pay USD 2.74 billion for 20 MHz of spectrum to operate a terrestrial BWA business does not show that a third party buyer, would be willing to purchase Devas for that same amount

²⁶⁴ Counter-Memorial, para. 79.

²⁶⁵ *Id.*, para. 81; R-PHB1, para. 120.

²⁶⁶ Rejoinder, para. 84.

²⁶⁷ Counter-Memorial, para. 8; Deutsche Telekom Group, “The 2008 Financial Year”, **Exh. EO-013**, p. 156.

²⁶⁸ Rejoinder, para. 86.

²⁶⁹ Rejoinder, fn. 403.

based on the assumption that Devas would be granted the use of 30 MHz of satellite spectrum for a terrestrial BWA business at no cost.²⁷⁰

(iii) Value-reducing adjustments

192. According to the Respondent, even assuming that Devas would have received all the necessary licenses at a reasonable cost and a DCF valuation would be suitable in the circumstances, the value of the Devas business would still be below zero based on reasonable assumptions.²⁷¹
193. First, the Respondent highlights the fact that the FTI valuation does not include roll-out obligation costs and refutes the Claimant's position that Devas would not be required to incur such costs when these applied to every operator providing BWA services.²⁷²
194. Second, the FTI valuation does not account for the increase of the download minimum broadband speeds recommended by the TRAI and therefore for the broadband speeds applicable after January 2015. This failure artificially augments Devas's value by USD 1.3 billion.²⁷³
195. Third, India submits that technological change in the telecommunications sector would require Devas to switch to LTE technology. This would entail further costs for which FTI did not account.²⁷⁴
196. Fourth, the Respondent asserts that the 19% discount rate used by the Claimant is speculative and does not accord with the discount rate applied to a start-up. According to the literature, the average discount rate for a start-up such as Devas is in the order of 30-70% and Dr. Flores has set the correct rate here at 31%.²⁷⁵

²⁷⁰ Counter-memorial, fn. 4.

²⁷¹ Rejoinder, paras. 88-90.

²⁷² *Id.*, paras. 96-97, discussing, *inter alia*, Ministry of Communications, Press Release, *DOT Announces Guidelines for BWA Services*, 12 November 2007, **Exh. R-075**.

²⁷³ Counter-Memorial, paras. 118-120; Rejoinder, paras. 102-104.

²⁷⁴ Counter-Memorial, paras. 121-125; Rejoinder, paras. 110-111, 115.

²⁷⁵ Counter-Memorial, paras. 126-132; Rejoinder, paras. 121-129, discussing, *inter alia*, Paul Gompers, Will Gornall, Steven Kaplan and Ilya Strebulaev, "How Do Venture Capitalists Make Decisions?," 2016 PERC Conference, 2016, **Exh. EO-027**, slide 13; Millennial Media, Inc., Prospectus Filed Pursuant to U.S. Securities and Exchange Commission Rule 424(b)(4), 28 March 2012, **Exh. QE-118**, pp. 2, 58; *Mobil Cerro Negro, Ltd. v Petróleos de Venezuela, S.A. and PDVSA Cerro Negro, S.A.*, ICC Case No.

India further contends that the discount rate of 20% which DT used in its internal DCF computations did not consider licensing risk, as was confirmed at the Hearing by Mr. Axmann, the Vice President of DT's Mergers & Acquisition team and then project manager in charge of evaluating the Devas investment opportunity.²⁷⁶

c. Analysis

197. The Tribunal first addresses whether the use of the DCF method is appropriate under the circumstances of this case (*infra* at V.B.1.c(i)). Only if it were to give an affirmative answer to this question would the Tribunal have to assess whether any adjustments are warranted in respect of the DCF valuation presented by the Claimant's expert (*infra* at V.B.1.c(ii)).

(i) Is the use of DCF appropriate in this case?

198. The DCF method is an accepted valuation method in both financial theory and in practice, including by arbitral tribunals. It typically involves a two-step process, as outlined by the tribunal in *Amoco International Finance v. Iran*:

“The first step in valuing an asset pursuant to the DCF method must be to project from the valuation date onward the most likely revenues and expenses of the ongoing concern, year by year. The revenues less the expenses will give the future cash flow. The second step will be to discount the projected net cash flow to its ‘present value’ as of the valuation date.”²⁷⁷

199. The Tribunal considers that a DCF valuation may be suited to assess the FMV of a going concern with a proven record of profitability, as confirmed by the World Bank Guidelines on the Treatment of Foreign Direct Investment.²⁷⁸ A “going concern” is defined by these Guidelines as “an enterprise consisting of income-producing assets which has been in operation for a sufficient period of time to generate the data required for the calculation of future income and which could

15416/JRF/CA, Final Award, 23 December 2011, **Exh. RLA-220**, para. 777; R-PHB1, paras.135-137.

²⁷⁶ R-PHB1, para. 135; Transcript, Day 1, p. 185, line 21 - p. 188, line 12.

²⁷⁷ *Amoco International Finance Corporation v. Islamic Republic of Iran et al.*, Iran – U.S. Claims Tribunal, Case No. 56, Partial Award No. 310-56-3, 14 July 1987, **Exh. RLA-121**, para. 213.

²⁷⁸ “Legal Framework for the Treatment of Foreign Investment: Volume II, Report to the Development Committee and Guidelines on the Treatment of Foreign Direct Investment, World Bank Group, 21 September 1992, **Exh. EO-011**, pp. 41-42.

have been expected with reasonable certainty, if the taking had not occurred, to continue producing legitimate income over the course of its economic life in the general circumstances following the taking by the State”.²⁷⁹

200. By contrast, as confirmed by a consistent line of cases, DCF is generally inappropriate if the company is not a going concern and lacks an established record of profitability. The tribunal in *Metalclad v. Mexico*, for instance, distinguished the two situations in the following way:

“Normally, the fair market value of a going concern which has a history of profitable operation may be based on an estimate of future profits subject to a discounted cash flow analysis.

However, where the enterprise has not operated for sufficiently long time to establish a performance record or where it has failed to make a profit, future profits cannot be used to determine going concern or fair market value. [...]

The Tribunal agrees with Mexico that a discounted cash flow analysis is inappropriate in the present case because the landfill was never operative and any award based on future profits would be wholly speculative.”²⁸⁰

201. Numerous arbitral tribunals, including those in *Phelps Dodge v. Iran*,²⁸¹ *Southern Pacific Properties v. Egypt*,²⁸² *Wena v. Egypt*,²⁸³ and *Tecmed v. Mexico*,²⁸⁴ among others,²⁸⁵ have adopted a similar reasoning. The arbitral tribunal in *Siag v. Egypt*, for example, referred to “the wisdom in the established reluctance of tribunals [...] to utilise DCF analyses for ‘young’ businesses lacking a long track record of established trading”, which reluctance, it said, “ought to be even more

²⁷⁹ *Id.*, p. 42.

²⁸⁰ *Metalclad Corporation v. The United Mexican States*, ICSID Case No. ARB(AF)/97/1, Award, August 30, 2000 (“*Metalclad*”), **Exh. CLA-041**, paras. 119-121.

²⁸¹ *Phelps*, **Exh. RLA-197**, paras. 29-30.

²⁸² *Southern Pacific Properties*, **Exh. CLA-065**, para. 188.

²⁸³ *Wena Hotels Limited v. Arab Republic of Egypt*, ICSID Case No. ARB/98/4, Award, 8 December 2000 (“*Wena*”), **Exh. CLA-078**, paras. 122-124.

²⁸⁴ *Técnicas Medioambientales Tecmed S.A. v. The United Mexican States*, ICSID Case No. ARB (AF)/00/2, Award, 29 May 2003, **Exh. CLA-070**, para. 186.

²⁸⁵ *Señor Tza Yap Shum v. The Republic of Peru*, ICSID Case No. ARB/07/6, Award, 7 July 2011 (“*Tza Yap Shum*”), **Exh. RLA-200**; *Achmea B.V. v. The Slovak Republic*, PCA Case No. 2008-13 (UNCITRAL), Final Award, 7 December 2012, **Exh. RLA-201**; *Hassan Awdi, Enterprise Business Consultants, Inc. and Alfa El Corporation v. Romania*, ICSID Case No. ARB/10/13, Award, 2 March 2015 (“*Awdi*”) **Exh. RLA-202**, *Mr. Frank Charles Arif v. Republic of Moldova*, ICSID Case No. ARB/11/23, Award, 8 April 2013, **Exh. CLA-045**; *Caratube International Oil Company LLP and Devincci Salah Hourani v. Republic of Kazakhstan*, ICSID Case No. ARB/13/13, Award, 27 September 2017 (“*Caratube*”), **Exh. CLA-152**.

pronounced in cases [...] where the business is still in its relatively early development phase and has no trading history at all”.²⁸⁶ In some of these cases, even where the production or business activity had already started, tribunals nonetheless declined to award damages based on forecasts of future cash flows on the ground that the track record was deemed insufficiently reliable.²⁸⁷ The Tribunal agrees with this well-established line of cases and considers that this jurisprudential trend is not, contrary to what the Claimant appears to suggest, outdated, but includes several recent examples, such as *Caratube v. Kazakhstan*²⁸⁸ or *South American Silver v. Bolivia*.²⁸⁹

202. In this Tribunal’s view, there are good reasons for not applying DCF to valuation of assets or companies that have no track record of profitability. The absence of such a record makes the estimates regarding future revenues more prone to speculations and dependent on uncertain assumptions.²⁹⁰ The caution that tribunals display towards DCF in those circumstances “reflects a justified

²⁸⁶ *Waguih Elie George Siag and Clorinda Vecchi v. The Arab Republic of Egypt*, ICSID Case No. ARB/05/15, Award, 1 June 2009, **Exh. CLA-076**, para. 570.

²⁸⁷ See, e.g., *Phelps*, **Exh. RLA-197**, paras. 1, 5, 19, 23, 29, 30, 31; *Southern Pacific Properties*, **Exh. CLA-065**, para. 188 (“the DCF method is not appropriate for determining the fair compensation in this case because the project was not in existence for a sufficient period of time to generate the data necessary for a meaningful DCF calculation. At the time the project was cancelled, only 386 lots—or about 6 percent of the total—had been sold”). The Tribunal is of the view that only as an exception could a tribunal apply a DCF method absent a history of demonstrated profitability.

²⁸⁸ *Caratube*, **Exh. CLA-152**.

²⁸⁹ *South American Silver Limited (Bermuda) v. Plurinational State of Bolivia*, PCA Case No. 2013-15, Award, 22 November 2018 (“*South American Silver*”), **Exh. RLA-217**.

²⁹⁰ See also International Law Commission, “Draft articles on Responsibility of states for internationally wrongful acts, with commentaries” [2001-II(2)], Yearbook of the International Law Commission 1, **Exh. CLA-126**, Art. 36, pp. 102-104 (“Tribunals have been reluctant to provide compensation for claims with inherently speculative elements. When compared with tangible assets, profits (and intangible assets which are income-based) are relatively vulnerable to commercial and political risks, and increasingly so the further into the future projections are made. In cases where lost future profits have been awarded, it has been where an anticipated income stream has attained sufficient attributes to be considered a legally protected interest of sufficient certainty to be compensable. This has normally been achieved by virtue of contractual arrangements or, in some cases, a well-established history of dealings”).

reluctance [...] to get involved in what are essentially competing prophecies of often equal plausibility”.²⁹¹

203. With those principles in mind, the Tribunal considers whether DCF would be appropriate in light of the reality of the Devas business. It is common ground that Devas was not a going concern. Its proposed business had not started, it lacked any customers, its cost levels were untested, and it had not yet generated any revenues. It thus had no track record of profitability whatsoever. In the Tribunal’s view, these facts would suffice in and of themselves to discard DCF as an appropriate valuation methodology. This conclusion is reinforced by the fact that Devas lacked the WPC License,²⁹² the issuance of which was uncertain on the Valuation Date (see *supra* section V.A.3.b), as was the level of the related fee.
204. The Tribunal considers that, given these facts, future expected profits could not be established with the required degree of certainty, as projections would be subject to many possibilities and hypotheses and, therefore, turn out to be speculative.
205. The Tribunal observes that the difficulty to determine Devas’s future cash flows was acknowledged in DT’s financial statements of 2008, with the following comment:

“At the balance sheet date, T-Mobile Venture Fund GmbH & Co. KG and Deutsche Telekom Asia Pte Ltd were recognized at cost. No market prices were available for the investments. Neither was it possible to derive the respective fair value in the period in question using comparable transactions.

²⁹¹ Thomas W. Wälde and Borzu Sabahi, Compensation, Damages, and Valuation, in *The Oxford Handbook of International Investment Law* 1049 (P. Muchlinski et al. eds., Oxford University Press 2008), **Exh. RLA-189**, p. 1076.

²⁹² The lack of the WPC License distinguishes this case from *Rumeli*, a case invoked by the Claimant. In *Rumeli*, the tribunal concluded that the DCF method should be applied because there was “no realistic alternative” in order to ascertain the FMV of the asset, Kazakhstan having proposed the liquidation value as an alternative approach. See *Rumeli*, **Exh. CLA-056**, para. 811. The company’s key asset in that case was a license to operate a mobile network, which had been awarded upon the company’s successful bid at an auction. Following the award of the license, the relevant investment contract was negotiated and entered into. See *Id.*, paras. 86-87. In the *ad hoc* committee’s decision, the tribunal held that DCF was applicable because the company “had at that stage a major asset of considerable value”, namely, the operating license. See *Rumeli Telekom A.S. and Telsim Mobil Telekomikasyon Hizmetleri A.S. v. Republic of Kazakhstan*, Decision of the ad hoc Committee, 25 March 2010, **Exh. CLA-189**, para. 179(2). In this case, while Devas did have rights to the spectrum, it had not yet obtained the WPC License which was, as this Tribunal previously found, critical to the roll out and ultimate profitability of the Devas system, and was uncertain.

The Company did not measure the investments by discounting the expected cash flows because the cash flows could not be reliably determined.²⁹³

206. For the Tribunal, it is difficult to understand how “cash flows could not be reliably determined” for accounting purposes but could instead be reliably determined for valuation purposes in this arbitration.

207. Finally, the Tribunal finds confirmation for its conclusion that a DCF valuation is inapposite in the decision of the ICC Tribunal in *Devas v. Antrix*, which viewed the DCF methodology presented by Devas as “an unrealistic and unreliable vehicle for determining its damages”:

“[T]he demand for Devas’ services is unclear; the prices that it would be able to profitably charge is unclear; market(s) for multimedia broadcasting services can be highly innovative and cause (even very profitable) products and services to quickly become obsolete; and there is persuasive evidence [...] that Devas faced significant competition for the services that it proposed to provide. In other words, there is nothing that can give the tribunal sufficient confidence about the cash flows that Devas would have [...]. Further, an aspect of the DCF methodology that the tribunal finds particularly troubling in this case is that small variations in the assumptions used in the DCF methodology can dramatically and unrealistically change Devas’ value [...]. The tribunal understands that the reason for the extreme sensitivity of the DCF methodology in this case is the length of the period that it would take for Devas to become cash flow positive (nine years). In this case, in the tribunal’s view, it makes Devas’ DCF methodology an unrealistic and unreliable vehicle for determining its damages.”²⁹⁴

208. In addition to the lack of “sufficient confidence about the cash flows that Devas would have”, the Tribunal is unconvinced by the other elements adduced by DT in support of its proposed DCF valuation. This is particularly the case for the so-called “real world” DCF valuations that DT carried out when it decided to invest in Devas. These valuations ultimately played no apparent role when DT finally acquired its indirect shareholding in Devas. For example, DT’s first valuation performed by Mr. Scheuermann, based on the cash flows in the Series-C Model (with DT’s adjustment to the terminal growth rate), yielded a value of USD 1.78 billion for 100% of Devas using a 20% discount rate.²⁹⁵ By contrast, the price DT Asia actually paid for the shares was based on a value of

²⁹³ Deutsche Telekom Group, “The 2008 Financial Year”, **Exh. EO-013**, p. 155 (emphasis added).

²⁹⁴ ICC Award, 14 September 2015, **Exh. R-042**, paras. 269, 371, 374.

²⁹⁵ Scheuermann WS 1, para. 36.

USD 375 million, *i.e.* approximately 80% lower than the alleged DCF value.²⁹⁶ In other words, DT did not base the purchase price of the Devas's shares on its DCF analysis. These "real world" DCF analyses are hence of limited value to the Tribunal when considering the appropriateness of the DCF method.

209. In conclusion, the lack of operating history, customers and profitability and the relatively early stage of the project lead the Tribunal to the conclusion that the DCF method cannot form the basis for the quantification of the Claimant's damages. This conclusion takes into account but does not view as determinative the uncertainty regarding the WPC license which would have been necessary to roll out the proposed services and, therefore, generate profits. Accordingly, the Tribunal discards the DCF valuation put forward by FTI which, in light of the objective factors just mentioned, would be subject to excessive uncertainties, contingencies and hypotheses, and would not provide "a basis upon which the Tribunal [could], with reasonable confidence, estimate the extent of the loss".²⁹⁷

(ii) The value-reducing adjustments

210. As the Tribunal will not resort to a DCF valuation, it can dispense with reviewing possible adjustments to such valuation.

2. The Investment Plus Method

a. *The Claimant's position*

211. As an alternative to the DCF method, the Claimant has put forward the so-called "Investment Plus" methodology, which is similar to the method that the ICC Tribunal has used to assess damages.²⁹⁸ In the Claimant's view, several other tribunals have adopted similar approaches where they were able to rely on past transactions in the same asset.²⁹⁹

²⁹⁶ See Briefing for DT Management Board meeting on 10 August 2009, "Beteiligung an einer US\$45 Mio-Kapitalaufstockungen [*sic*] der Devas Multimedia; Aufsichtsratsvorlage", **Exh. C-224**, p. 4.

²⁹⁷ *Lemire*, **Exh. CLA-161**, para. 246.

²⁹⁸ The ICC Tribunal took the implied value of Devas as USD 375 million and then added a 50% uplift to account for certain events that it considered increased Devas's value between March 2008 and the Valuation Date, arriving at a valuation of USD 562.5 million. See Memorial, para. 274; Harman ER 2, paras. 6.3-6.5.

²⁹⁹ Reply, para. 147; C-PHB1, para. 134; Claimant's Opening Presentation, slide 106.

212. DT's Investment Plus method is built on the following three steps:
- a. It takes as a starting point DT's March 2008 cash payment of USD 75 million for its investment in Devas, which is said to imply a valuation of USD 375 million for Devas at that time;
 - b. It adjusts that amount to reflect Devas's FMV by factoring in DT's in-kind contributions and bargaining power; and
 - c. It adds an uplift fee to reflect the progress made in developing the business between March 2008 and the Valuation Date.³⁰⁰

(i) The March 2008 value of Devas should be adjusted to account for DT's bargaining power and in-kind contributions

213. It is DT's contention that while it valued Devas in early 2008 at USD 1.78 billion, it was able to negotiate a substantially lower price of USD 75 million for a 20% interest, which implies a value for Devas of USD 375 million.
214. According to DT, in 2008, the price which DT eventually paid was reduced as compared to its DCF valuation due to the following four factors:³⁰¹
- a. The risks associated with investing in Devas, including the WPC Licensing uncertainty;³⁰²
 - b. DT's negotiating power and leverage due to (i) the significantly lower price paid by the two venture capital funds, which acquired shares in Devas in March 2006 and 2007; (ii) the fact that Devas had relatively limited funding needs prior to the satellite launch; (iii) DT's assumption that it was the only interested investor offering Devas strategic benefits; (iv) DT's knowledge that, should Devas be required to search for an alternative investor, it would have incurred substantial delays;³⁰³ and (v) the fact that Devas was under a compulsion to sell due to its need to secure a strategic investor by early 2008 in order to ensure the roll out of the business;³⁰⁴

³⁰⁰ Reply, para. 148.

³⁰¹ Memorial, para. 282.

³⁰² *Id.*, para. 282(a).

³⁰³ *Id.*, para. 275; Reply, para. 177; Axmann WS3, para. 13.

³⁰⁴ Reply, paras. 173, 179, referring to Axmann WS4, paras. 31-32; C-PHB2, para. 47.

- c. DT's in-kind contribution, including the fact that Devas was a strategic investor bringing "technical expertise and considerable procurement leverage".³⁰⁵ The Claimant contends that Devas would not have accepted an investment on the same monetary terms from another investor.³⁰⁶ This argument is supported by the fact that from March 2008 Devas did indeed benefit from DT's operational and technical expertise as well as "sourcing and procurement support [...] [of] network equipment at a considerably lower cost";³⁰⁷ and
- d. DT's concerns about its rights as a minority shareholder, particularly considering the potential for diverging interests between itself as a strategic investor and Columbia Capital and Telecom Ventures as financial investors. For that reason, DT's usual practice was to take a controlling stake in its subsidiaries.³⁰⁸

215. FTI has ascribed the following numerical weights to each of the four factors:³⁰⁹

Table 6-2: Components of the 2008 Adjustment

2008 Adjustment components	% share of 2008 Adjustment	Value (USD m)
Additional Devas-specific risk	50.0%	739.0
DT Negotiating power	25.0%	369.5
In-kind investments	15.0%	221.7
Minority discount	10.0%	147.8

216. To arrive at the FMV of Devas in 2008, FTI added the amounts ascribed to DT's negotiating power (*i.e.* USD 369.5 million) and in-kind contribution (*i.e.* USD 221.7 million) to the implied FMV of USD 375 million (*i.e.* the figure based on DT's USD 75 million investment for its 20% economic stake in Devas), arriving at a figure of USD 996 million.³¹⁰

³⁰⁵ Memorial, para. 277; C-PHB1, para. 194, referring to Term Sheet between Devas and DT regarding the investment of DT in Devas, dated 10 December 2007, **Exh. C-074**, p. 2.

³⁰⁶ Memorial, para. 277; referring to Parsons WS3, para. 7.

³⁰⁷ Reply, para. 183; C-PHB1, paras. 196-198, 204.

³⁰⁸ Memorial, para. 282.

³⁰⁹ *Id.*, paras. 284-286; Reply, para. 175; Harman ER 1, para. 6.17.

³¹⁰ *Ibid.*

217. In response to India's arguments that the USD 75 million paid by DT in 2008 did not imply a value of USD 375 million, DT makes the following submissions:
- a. The fact that DT held Class C priority shares does not mean that its investment in Devas in 2008 cannot be used as a starting point for Devas's value. While Devas had five classes of shares, DT assumed that there was no economic value in Class E shares and that Class D shares had the same economic value as Class A, B and C shares. On that basis, it considered its 17% of issued share capital was equivalent to a 20% economic stake in Devas;³¹¹
 - b. DT did not seek to protect itself from licensing risks by way of representations and warranties.³¹² India's arguments in this regard misunderstand and magnify certain comments found in documents. If DT sought such representation and warranties, they would appear in the 2008 and 2009 Share Subscription Agreements or in the papers presented to the DT's Management or Supervisory Boards in 2008 and 2009;³¹³
 - c. India's reliance on the fact that one of the claimants in the Mauritius Shareholders Arbitration paid only USD 146 per share to acquire its ordinary shares in September 2009 is similarly unfounded. That purchase was made through Devas Employees Mauritius Private Limited ("DEMPLE"), a "vehicle by which Devas management and other employees could acquire shares in Devas as part of their compensation and rewards package pursuant to an Equity Incentive Plan".³¹⁴ The share price for that transaction is not relevant to DT's investment in Devas.³¹⁵
218. DT further rebuts Dr. Flores' criticism that the weightings which FTI assigned to DT's negotiating power and in-kind contribution were arbitrary. The Claimant explains that the percentages used by FTI were taken from Mr. Axmann's evidence which provides the relative weight of these variables, as well as from

³¹¹ Reply, paras. 158-159; C-PHB1, para. 187.

³¹² Reply, paras. 163-167.

³¹³ *Ibid.*

³¹⁴ Reply, para. 169.

³¹⁵ *Id.*, paras. 168-171.

FTI's assessment on reasonable weighting.³¹⁶ The values adopted by FTI for the bargaining power and in-kind contribution are conservative and supported by the following facts:

- a. Devas's initial proposal for the sale of the shares implied a *pro rata* value of USD 800 million, whereas the price paid by DT implies a *pro rata* value of USD 375 million. This demonstrates that, using its "take-it-or-leave-it" approach (among other things), DT was able to achieve a reduction of USD 425 million, which is in fact more than the USD 370 million FTI has attributed to bargaining power;³¹⁷ and
- b. Based on the DCF model used by DT for the initial investment (*i.e.* the Series C 2008 Model) "DT's support and procurement power would only have needed to reduce Devas's expected operating and capital costs by *circa* 2.9% to increase Devas's value by USD 221 million",³¹⁸ a fact confirmed by Dr. Larsen.³¹⁹ In this regard, India's reliance on the evidence of Mr. Scheuermann and the allegation that the "in-kind" contribution was not recorded in any of the contemporaneous Board papers or documents is both incorrect and misplaced.³²⁰ This is because:
 - Mr. Scheuermann's role was to conduct DCF valuations, whereas Dr. Larsen was "responsible for the in-kind element of the investment" and Mr. Axmann "carried out that price negotiation".³²¹ Moreover, Mr. Scheuermann's evidence concerning DT's practice of accounting for in-kind contributions by a "synergy calculation spreadsheet", is confined to calculations "between two established telecom companies".³²²

³¹⁶ *Id.*, para. 187.

³¹⁷ Reply, para. 188(a).

³¹⁸ *Id.*, para. 188(b); Larsen WS3, para. 43.

³¹⁹ *Ibid.*

³²⁰ C-PHB1, para. 203; C-PHB2, para. 45.

³²¹ C-PHB1, para. 203(a).

³²² *Id.*, para. 203(d), referring to Transcript, Day 2, p. 24 line 16 - 20, p. 26, line 11 - 15, p. 38, line 2 - 5.

- The Board was informed that DT was to provide “dedicated resources in the area of Procurement, Terrestrial Network Design & Planning Deployment”,³²³ both in the form of “manpower”(which Dr. Larsen estimated at USD 6-7 million) and in terms of procurement power and CapEx cost savings.³²⁴
- Finally, “it would not have made sense to update the Devas business plan to provide for the full extent of the procurement benefits that had not yet been negotiated, much less obtained”.³²⁵

(ii) Adjusting the fair market value to the Valuation Date

219. According to DT, a number of developments increased the FMV of DT’s investment by the Valuation Date, including: (i) the successful completion of phases I and II of the experimental trials; (ii) progress regarding the satellite developments and the launch; (iii) “the further investment of DT, Columbia Capital and Telecom Ventures in September 2009”; (iv) “Devas’s procurement of ISP and IPTV licenses and securing of a network of supplier and vendors”.³²⁶
220. For those reasons, FTI has increased its calculation of FMV by 50% “to reflect developments and the lowering of risk up to the Valuation Date”.³²⁷ Because a 50% uplift on USD 966 million equals USD 483 million, FTI concludes that the FMV of Devas at the Valuation Date was of USD 1.449 billion.³²⁸
221. FTI has also proffered two alternatives:
- a. Increasing the value of Devas by 25%, rather than 50%, to account for the fact that the ICC Tribunal may have factored the “in-kind” contribution into its calculation when using 50%;³²⁹ or

³²³ *Id.*, para, 203(b), referring to Briefing for DT Management Board meeting on 19 February 2008, “Investment in Devas Multimedia Pvt. Ltd. / India” (redacted), dated 11 February 2008, **Exh. C-219**, p. 14.

³²⁴ C-PHB1, para, 203(b), referring to Larsen WS3, para. 44.

³²⁵ *Id.*, para, 203(c), referring to Larsen WS2, para. 55(c); WS3, para. 39.

³²⁶ Reply, para. 193.

³²⁷ Harman ER 1, para. 6.19.

³²⁸ *Ibid.*

³²⁹ Memorial, para. 288(a).

- b. Increasing the value of Devas by adding the uplift applied by the ICC Tribunal in absolute terms only (*i.e.* 50% of USD 375 million = USD 187.5million) to account for the fact that “it is impossible to determine whether the [ICC] Tribunal had a relative or absolute increase in mind when it effected a 50% uplift”.³³⁰
222. Applying these alternatives, FTI calculates the FMV accounting for the increase in value for these two alternative scenarios between USD 1.154 billion and USD 1.449 billion. These figures yield an FMV for DT’s stake in Devas between USD 207 million and USD 284 million.³³¹
223. In response to India’s allegation that the value of Devas decreased rather than increased by the Valuation Date, DT advances the following arguments:
- a. The fact that DT paid the same price for its shares in 2008 and 2009 is not indicative of a decrease in Devas’s value. The reason why the price was identical is “primarily as a result of the global financial crisis”.³³² In fact, contrary to India’s view, DT’s willingness to pay the same price despite the financial crisis demonstrates that Devas had increased in value;³³³
 - b. There is no evidence suggesting an increase in risk concerning the WPC License.³³⁴ This is buttressed by the fact that the ICC Tribunal concluded that the lack of WPC License had no adverse impact on the value of Devas;³³⁵

³³⁰ Memorial, para. 288(b). As noted by Mr. Harman, “[t]he ICC Tribunal found that the value of Devas had increased by 50% from USD 375m to USD 562.5m. This is equivalent to an absolute increase of USD 187.5m. Whereas the ICC Tribunal referred to its increase in percentage terms (*i.e.* a relative approach), it is not possible for me to determine whether in fact the ICC Tribunal had an absolute increase in mind when it uplifted the value. Consequently, in this alternative scenario, I only uplift my calculation of FMV by USD 187.5m to reflect developments and the lowering of risk up to the Valuation Date.” Harman ER1, para. 6.21.

³³¹ Reply, para. 200.

³³² *Id.*, para. 196(a).

³³³ *Ibid.*

³³⁴ C-PHB1, paras. 207-209.

³³⁵ Reply, para. 196(b).

- c. The reliance which India places on the 2010 BWA Spectrum Auction as evidence of increased WPC License risk is misplaced. The evidence demonstrates that “the high prices likely to be paid in the BWA auction were value-enhancing, since they were viewed as a proxy for the value of the spectrum rights owned by Devas, not the cost of the WPC License”;³³⁶
- d. Dr. Flores is wrong to suggest that satellite risks increased prior to the Valuation Date. Progress was made on constructing the satellites and Devas considered alternate launch vehicles. The slow roll-out of the first launch should be disregarded on the basis that by July 2010 India had decided to annul the Devas Agreement;³³⁷ and
- e. Prior to the Valuation Date, there were favorable technological and economic developments that reduced risks inherent in the project, such as development in TD-LTE for the roll out of Devas’s BWA business, and improvements in macroeconomic factors.³³⁸

b. The Respondent’s position

224. The Respondent submits that the Investment Plus method is not based on economics but is constructed by the Claimant in order to achieve a pre-determined result that is otherwise unachievable applying orthodox economic theory.³³⁹ India further asserts that such method is unsustainable as it is based on three manifestly incorrect premises. A correct assessment of the evidence leads to the conclusion that:
- a. DT invested USD 75 million in preferential shares and on the basis of representations and warranties of Devas. It is therefore wrong to conclude that Devas’s value was at least USD 375 million in 2008;
 - b. The USD 600 million uplift for in-kind contributions and bargaining power is unjustified;

³³⁶ C-PHB1, para. 208.

³³⁷ Reply, para. 196(c).

³³⁸ *Id.*, para. 196(d)-(e).

³³⁹ R-PHB2, para. 51.

- c. The further upward adjustment of USD 483 million on the ground that the value of the Devas business increased from 2008 to 2011 is also untenable.³⁴⁰

(i) DT acquired priority shares in Devas

225. It is the Respondent's contention that DT's starting point for the application of the Investment Plus method (*i.e.* the implied value of Devas is USD 375 million based on DT's 2008 acquisition of its 20% share in Devas for USD 75 million) is untenable. The reason is that it ignores that DT acquired preferential shares that entitled it to receive the purchase price plus dividends in case of Devas's liquidation or sale. These rights were reflected in the Term Sheet, which served as the basis for the 2008 acquisition, and the 2008 Subscription Agreement, and were confirmed by Mr. Parson at the hearing in the Mauritius Shareholders Arbitration.³⁴¹ As Dr. Flores explains by reference to academic writing,³⁴² it is inappropriate to value a business by reference to an ownership percentage if the company has different classes of shares some of which have preferential terms.³⁴³
226. Moreover, according to India, Devas gave express assurances to DT in the form of representations and warranties that the "use of spectrum, including its terrestrial use, is the sole responsibility of ISRO".³⁴⁴ This is expressly made clear in responses given by DT to questions from the German Government, as well as the Term Sheet.³⁴⁵

³⁴⁰ Rejoinder, paras. 130-131.

³⁴¹ Rejoinder, para. 132-136, 144, discussing, *inter alia*, Term Sheet between Devas and DT regarding the investment of DT in Devas, dated 10 December 2007, Exhibit B, **Exh. C-074**, p. 11; Share Subscription Agreement between Devas and DT Asia, dated 19 March 2008, Exhibit B, **Exh. R-061** Article 1(a); Response to the Office of the State, "Your Questions from 08/20/09 Agenda Item 5b – Devas", **Exh. C-290**, p. 7; Mauritius Quantum Transcript, **Exh. C-330**, pp. 465-466; Mauritius Quantum Transcript, **Exh. C-329**, pp. 234-235; Mauritius Quantum Transcript, **Exh. C-333**, pp.1143-1146. See also R-PHB1, paras. 139-142.

³⁴² Will Gornall and Ilya A. Strebulaev, "Squaring Venture Capital Valuations with Reality," dated May 2018, **Exh. EO-014**, p. 4.

³⁴³ Rejoinder, para. 138.

³⁴⁴ *Id.*, para. 139.

³⁴⁵ Rejoinder, paras. 139-140; Response to the Office of the State Secretary, "Your Questions from 8/20/09 to Agenda Item 5b – Devas," **Exh. C-290**, p. 7; Term Sheet

227. As a result, according to the Respondent, the value of Devas is overstated. A calculation on the basis of the value of ordinary shares would result in a value of USD 27 million, calculated by reference to the price of USD 146 per unit paid by one of the claimants in the Mauritius Shareholders Arbitration in September 2009.³⁴⁶

(ii) The uplift for DT's bargaining power and in-kind contributions is frivolous

228. It is India's submission that, contrary to DT's allegations, Devas was not under a "compulsion to sell" in 2008. As shown in Devas's and DT's internal documents, there were other potential strategic partners interested in Devas, in the event that DT had not invested in it. The deal offered by DT was the best deal available to Devas, not the only one.³⁴⁷

229. In relation to DT's in-kind contributions, India argues that there is no evidence to support the argument that the deal factored an in-kind contribution.³⁴⁸ The documents show that the share acquisition was a "100% cash deal".³⁴⁹ Mr. Scheuermann's testimony confirmed that in-kind contributions played no role in DT's acquisition of Devas shares.³⁵⁰ This point is further buttressed by the fact that, when Mr. Larsen worked over the DCF model with Mr. Scheuermann for internal purposes, costs were increased rather than decreased to account for DT's expertise.³⁵¹

between Devas and DT regarding the investment of DT in Devas, dated 10 December 2007, Term Sheet, **Exh. C-074**, p. 1.

³⁴⁶ Rejoinder, para. 141.

³⁴⁷ *Id.*, paras. 145-147.

³⁴⁸ *Id.*, para. 148.

³⁴⁹ *Ibid.*, referring to Briefing for DT Management Board meeting on 10 August 2009, dated 6 August 2009, **Exh. C-224**, p. 9.

³⁵⁰ R-PHB1, para. 144; R-PHB2, para. 49, referring to Transcript, Day 2, p. 24, line 16 - 20, p. 26, line 11 - 15, p. 33, line 17 - p. 34, line 10; Transcript, Day 4, p. 200, line 11 - 24.

³⁵¹ R-PHB1, para. 146.

230. According to the Respondent, as confirmed by the documents on record, the price that DT paid in 2008 and 2009 was attributable to the licensing risk inherent in the Devas project, which was at the forefront of DT's mind.³⁵²
231. For the Respondent, the weight of the 2008 adjustments is based solely on the instructions of counsel, rather than on any economic analysis. Neither are the relative weights of the adjustments derived from the witness statement of Mr. Axmann.³⁵³

(iii) The upward adjustment based on a supposed increase in Devas's value after 2008 is baseless

232. It is India's submission that there is no basis for the upward adjustment of USD 483 million, which assumes that the value of Devas increased by 50% between 2008 to 2011. To the contrary, a hypothetical buyer looking to purchase the investment on the Valuation Date would have considered that the value of the business had decreased given the events in that period:
- a. Following the BWA Auctions, as part of its due diligence, a hypothetical buyer would have sought clarification from the regulator and would have been informed that there was no existing licensing regime permitting Devas to provide the services envisaged. Similarly, the hypothetical buyer would have been advised that "even if the required licenses had been issued, Devas would have had to pay fees commensurate with the 2010 auction values, as reflected in the July 2010 letters written by the highest officers of the DOT and WPC";³⁵⁴
 - b. A hypothetical willing buyer would have been alerted by delays in launching the GSAT-6 satellite, which is supported by Devas's concern

³⁵² Rejoinder, para. 149, referring to Briefing for DT Management Board meeting on 11 March 2008, "Investment in Devas Multimedia Pvt. Ltd. / India", dated 5 March 2008, **Exh. C-220**, p. 2; Response to the Office of the State Secretary, "Your Questions from 08/20/09 to Agenda Item 5b – Devas," **Exh. C-290**, p. 8; DT Briefing, "Meeting with Devas Shareholders on 19 Feb. 2008" and "Board Meeting on 19 Feb. 2008" (redacted), dated 15 February 2008, **Exh. C-76**, p. 2.

³⁵³ Rejoinder, paras. 150-151; Axmann WS3, paras. 12, 16.

³⁵⁴ Rejoinder, paras. 153-154; R-PHB1, paras. 150-151.

about increasing delays.³⁵⁵ Contrary to the Claimant's arguments there is simply no evidence that the launch was deliberately "slow-rolled".³⁵⁶

c. Analysis

(i) Introductory remarks

233. In essence, FTI's Investment Plus method starts from the assumption that, when DT acquired the first tranche of its indirect shareholding in Devas in 2008, it applied a discount to its own DCF valuation. FTI explains that it needs to add back part of that discount in order to assess the FMV of the proposed Devas business.
234. More specifically, FTI starts from the 2008 implied valuation of Devas of USD 375 million, which is based on the *pro rata* price of USD 75 million paid by DT for the acquisition of its 20% indirect shareholding. As a second step, it makes a first upwards adjustment to account for DT's alleged in-kind contributions and bargaining power, which according to FTI lead to an increase of the Devas's value of USD 591 million. It thus reaches a value of Devas equal to USD 966 million (USD 375 + 591 million). As a third step, it adds to that value a 50% uplift to account for the alleged increase in value from 2008 to the Valuation Date, equal to USD 483 million, reaching a figure of USD 1.449 billion. Based on these figures, FTI concludes that DT's 19.62% stake³⁵⁷ in Devas at the Valuation Date was worth USD 284 million.
235. Before looking at the various components of the Investment Plus method, the Tribunal notes that, unlike the DCF or sunk cost methods (on which see *infra* section V.B.3.), the so-called Investment Plus approach does not appear to be clearly grounded in economic theory. The Claimant's quantum expert himself seemed ill-at-ease applying this valuation methodology because of its subjectivity:

³⁵⁵ Rejoinder, para. 156, referring to the ICC Hearing Tr. Day 3, pp. 39, line 41 evidence of Viswanathan as well as Mauritius Quantum Transcript, **Exh. C-330**, pp. 379-380.

³⁵⁶ Rejoinder, paras. 152-158.

³⁵⁷ This is DT's stake in Devas at the Valuation Date following certain changes to Devas's shareholding structure. See Memorial on Jurisdiction and Liability, para. 119; Memorial, para. 125.

“[T]here’s no economics behind the 50% [uplift applied by the ICC Tribunal]; it is a feel of the evidence. This is why I don’t like these approaches so much, because it’s much more difficult than the DCF to try to quantify them directly.”³⁵⁸

236. Second, the Tribunal observes that FTI’s upwards adjustments are made by reference to DT’s 2008 DCF valuation. In particular, FTI has sought to measure the impact of DT’s alleged negotiating power and in-kind investments on the difference between DT’s DCF valuation and the valuation implied in DT’s actual 2008 investment (which difference FTI has called the “2008 Adjustment”).³⁵⁹ Accordingly, the Investment Plus valuation is also based on a DCF-methodology, albeit indirectly. This will lead the Tribunal to view the Investment Plus method with caution, given the shortcomings linked to the use of a DCF methodology in this particular case, as explained in the preceding section (see especially *supra* section V.B.1.c).
237. Leaving aside these general reservations on the Investment Plus method, the Tribunal examines now the specific components on which FTI’s valuation is built. It starts with the two “upwards adjustments” that are factored into the valuation. Depending on the outcome of its review on these two factors, the Tribunal may either examine or dispense with analyzing the first element, *i.e.* whether it is possible to extrapolate an enterprise value of USD 375 million based on DT Asia’s 2008 acquisition of the Devas’s shares.

(ii) The upwards adjustment for DT’s alleged in-kind contributions and negotiating power

238. The Tribunal first considers step 2 of the Investment Plus method, *i.e.* FTI’s upwards adjustment linked to DT’s alleged in-kind contributions (assessed by FTI to be equal to approximately USD 222 million) and DT’s alleged bargaining power *vis-à-vis* Devas (evaluated in excess of USD 369 million), both of which justify in FTI’s view of an “uplift” of almost USD 600 million in Devas’s value.
239. Taking DT’s alleged in-kind contribution first, the Tribunal accepts the Claimant’s argument that in 2008 Devas was looking for a strategic investor. By then Devas

³⁵⁸ Transcript, Day 4, p. 27, line 10 - 14 (emphasis added).

³⁵⁹ See Harman ER1, paras. 6.7-6.8 (“DT’s DCF valuation [equal to USD 1,778 million] [of Devas] exceeded the valuation implied by DT’s investment [equal to USD 375 million] by USD 1,478m (the ‘2008 Adjustment’)”).

had already secured equity investments from Columbia Capital LLC and Telecom Ventures LLC and, with limited funding needs, it was looking for an industry player that could support Devas in building its business.³⁶⁰ It is also correct that DT, being one of the largest telecommunication companies in the world with corresponding experience and expertise, was a strategic investor, and was looking to invest in start-ups in emerging markets.³⁶¹ This being said, the Tribunal is unpersuaded that the reduction in the amount DT was able to pay for its investment in Devas was attributable to DT's alleged in-kind contributions.

240. In this regard, the Tribunal notes that no value supposedly attached to an in-kind contribution is reflected in the contemporaneous documents, nor is there evidence of what precisely that in-kind contribution would involve.

241. The Claimant has referred the Tribunal to the 10 December 2007 Term Sheet between DT and Devas, which states:

“The Company has expressed an interest in finding a strategic investor who would be prepared to provide funds by way of an equity contribution and know-how for the Business. DT has expressed an interest in making an initial investment of US\$ 150 million in the Company and supporting the Business subject to the terms and conditions set out in this Term Sheet and in the definitive agreements executed in connection with DT's investment.”³⁶²

242. Under the heading “Provision of Know-how”, the Term Sheet goes on to provide that:

“The Company shall form a board committee to advise the board on technical and network matters, containing at least one DT designee.

DT may provide technical and other consulting services to the Company pursuant to arm's length agreements.³⁶³

243. The Tribunal does not agree with the Claimant that the reference in this document to “an equity contribution and know-how for the Business” demonstrates that DT and Devas had agreed to an in-kind contribution as part of DT's equity input.³⁶⁴ In the Tribunal's view, the Term Sheet only demonstrates that Devas was looking for a strategic investor on which it could rely upon for experience, expertise and

³⁶⁰ Axmann WS3, para. 14; Larsen WS3, para. 7.

³⁶¹ Axmann WS1, paras. 13-15.

³⁶² Term Sheet Regarding the Investment of DT in Devas, 10 December 2007, Exhibit B, **Exh. C-74**, p. 2.

³⁶³ *Id.*, p. 6.

³⁶⁴ C-PHB1, para. 194.

support. By contrast, it provides no detail about any envisaged in-kind contribution, let alone ascribes any value attached to such contribution. To the contrary, rather than showing that the “provision of know-how” was an “equity contribution”, it shows that DT would provide services at arm’s length separate agreements. Consistent with this statement, the 31 March 2010 board minutes reflect that Devas was entering into two service agreements with DT, one for procurement and one for the provision of services.³⁶⁵ In the Tribunal’s view, providing services for compensation does not constitute in-kind equity contributions.

244. At the Hearing, DT’s witness Mr. Scheuermann also explained that the difference between his DCF valuation of Devas and the price DT ultimately resolved to pay for the Devas shares “ha[d] nothing to do with the in-kind contributions”. As stated by Mr. Scheuermann in response to a question of the Tribunal and with reference to paragraph 9 of his witness statement (which is quoted further below):

“THE PRESIDENT: Can you look at paragraph 9 of your second witness statement. We asked you before about the \$40 million cash and how this relates to the price actually paid and to in-kind contributions.

A. Yes.

THE PRESIDENT: Is this the answer, or is it not, to the questions we’ve asked you?

A. So I think this is in the direction of what is the difference between the DCF valuation and the price which has been paid, yes? So ... And as I said in the beginning, the DCF valuation was mandatory for the Deutsche Telekom management board for each and every M&A transaction, and that is a kind of a ceiling. So we set a ceiling for a valuation, and when the team then starts to negotiate the deal, of course it must arrive at a better purchase price, yes? So there needs to be a discrepancy in these two values, otherwise the deal would not be approved, yes? So therefore, the bigger the discrepancy is, the better it is at the end for Deutsche Telekom.

THE PRESIDENT: It is not only that it would not be approved; it is also that it would probably make losses?

A. Exactly, yes.

THE PRESIDENT: Yes. So that has nothing to do with the in-kind contributions?

A. No.³⁶⁶

³⁶⁵ Minutes of a meeting of the Devas Board of Directors, 31 March 2010, **Exh. C-129**, paras. 15-16.

³⁶⁶ Transcript, Day 2, p. 33 line 8 - p. 34, line 10 (emphasis added).

245. Paragraph 9 of Mr. Scheuermann's witness statement provides:

"India suggests that the disparity between my DCF valuation in 2008 and the price DT ultimately paid for its investment in Devas demonstrates that DT did not rely on my DCF valuation. I disagree. In my experience, where DT makes an acquisition, the disparity between DT's own internal valuation and the lower price DT ultimately pays for that acquisition can vary considerably, but that does not mean that our internal DCF valuations are not an important consideration in making an investment decision. On the contrary, the DCF valuation is the key valuation method and effectively determines a 'ceiling' price for the particular project: the project team negotiating the ultimate purchase price for the target entity has the goal of ensuring that purchase price is less than the DCF value."³⁶⁷

246. Mr. Scheuermann further clarified during the Hearing that when DT makes an acquisition involving some form of in-kind assistance, DT would value that contribution as a synergy. However, these synergy calculations were not done in this case:

"THE PRESIDENT: When you make an acquisition where you will provide some kind of assistance to the company in which you take shares, how would you account for these contributions? Is this something you would submit to the board to approve, or how does this work?

A. So this is something what we calculate sometimes in the synergy calculations, that we assume that as a kind of synergy and prepare this in a synergy calculation spreadsheet, yes. But we haven't done that here in this case."³⁶⁸

247. The Tribunal further observes that there was no reference to an in-kind contribution either in the contemporaneous documents leading to DT's second investment in Devas in 2009. To recall, in 2009, DT made a second acquisition of shares in Devas, which was based on the same share price as its 2008 transaction. Mr. Axmann gave evidence that DT was able to maintain a lower price, despite Devas's alleged increase in value, because of the licensing risk and because of the progress made which was "attributable to the in kind contribution made by DT".³⁶⁹ However, neither the decision paper for DT's Management Board,³⁷⁰ nor the submission to DT's Supervisory Board in 2009³⁷¹ record any in-kind contribution, which one would expect to find if the in-kind

³⁶⁷ Scheuermann WS2, para. 9 (emphasis added).

³⁶⁸ Transcript, Day 2, p. 24, line 11 - 20.

³⁶⁹ Axmann WS3, para. 23.

³⁷⁰ Decision paper for DT Management Board meeting on 10 August 2009, dated 6 August 2009, **Exh. C-224**, pp. 3-4.

³⁷¹ Submission to DT Supervisory Board, 6 August 2009, **Exh. C-225**.

contribution was as valuable as DT now alleges (over USD 221m according to FTI).³⁷² The submission to the Supervisory Board in particular emphasizes risks, a point on which the Tribunal reverts below, and is silent on in-kind contributions:

“the planned capital increase in the third quarter of 2009 happens at a time when various risks (eg satellite launch) have not yet been eliminated. On the other hand this allows for a significant reduction in the valuation.

Since the following capital increase, based on current plans, is scheduled only after the satellite launch and the start of the network expansion, the risk at that point will be lower, with connected increases in the valuation. This results in an appropriate risk allocation for DT between the first and second tranche.”³⁷³

248. What is more, when it set forth the basis for the 2009 acquisition, DT stated that this was a “100% cash deal”,³⁷⁴ which again contradicts the Claimant’s assumption regarding the importance of non-monetary in-kind contributions.
249. Turning to the question of bargaining power, which is the second element in step 2 of the Investment Plus method, the Claimant contends that “the only rational explanation for Devas accepting DT’s reduced offer ‘was that DT had a strong negotiating position because Devas needed a strategic partner at that time and, at least in the short run, it had no obvious alternatives to DT’”.³⁷⁵ It is DT’s further argument that because “Devas was under a compulsion to sell and DT exercised considerable bargaining power”, “DT could – and did – pay a price that was below FMV”.³⁷⁶
250. As already noted above (see *supra* para. 239), the Tribunal agrees with DT that in 2008 Devas was looking for a strategic investor. It also accepts that, since Devas was a start-up, DT may have had a notable bargaining power in the negotiations with Devas. The Tribunal is, however, not convinced by DT’s explanation that such bargaining power would have resulted in a discount of the magnitude claimed by DT (almost USD 370 million based on Devas’s alleged enterprise value).

³⁷² See Harman ER1, para. 6.13; Harman ER2, para. 8.25.

³⁷³ Submission to DT Supervisory Board, 6 August 2009, **Exh. C-225** p. 12 (emphasis added).

³⁷⁴ Decision paper for DT Management Board meeting on 10 August 2009, dated 6 August 2009, **Exh. C-224**, p. 4.

³⁷⁵ Reply, para. 181, quoting Harman ER2, para. 8.39.

³⁷⁶ *Id.*, para. 173.

251. First, unlike what the Claimant and its expert suggest, there is no evidence that Devas was under any “compulsion to sell”.³⁷⁷ The International Valuation Standards make clear that “without compulsion” means that “each party is motivated to undertake the transaction, but neither is forced or unduly coerced to complete it”.³⁷⁸ While Devas may have had a strong interest to attract investors in order to undertake its business plan, there is nothing in the record to suggest that it was “forced or unduly coerced” to complete the transaction with DT. Moreover, Devas’s internal documents show that at the time Devas was aware of other “potential strategic partners”, including France Telecom, Sprint, Verizon, and Vodafone.³⁷⁹
252. Hence, the existence of the main factors that allegedly served as “the only rational explanation for Devas accepting DT’s reduced offer” have not been sufficiently established, and neither has their impact on the discount to the extent DT claims.
253. In sum, apart from a few vague references in the contemporaneous documents, the Tribunal cannot see any clear, much less convincing, evidence that DT’s alleged in-kind contributions and its bargaining power resulted in the considerable discount it asserts. This lack of evidence significantly impairs the Tribunal’s ability to ascertain the value of DT’s investment on the methodologies advanced by the Claimant.
254. In addition, the Tribunal has strong reservations on the reasonableness of the “weightings” which FTI has applied to each of those factors. For instance, FTI has considered that DT’s alleged negotiating power would account for 25% and DT’s in-kind investment for 15% of the USD 1.478 billion “discount”, *i.e.* the difference between DT’s DCF valuation and the implied valuation of USD 375 million, as shown in the following table:

³⁷⁷ Harman ER2, para. 8.38.

³⁷⁸ International Valuation Standards (2020), para. 30.2(i) (emphasis added).

³⁷⁹ **Exh. GH1-9**, slide 24.

Table 6-2: Components of the 2008 Adjustment

2008 Adjustment components	% share of 2008 Adjustment	Value (USD m)
Additional Devas-specific risk	50.0%	739.0
DT Negotiating power	25.0%	369.5
In-kind investments	15.0%	221.7
Minority discount	10.0%	147.8

Source: Third witness statement of Oliver Tim Axmann, paragraph 16.

255. FTI has explained that these numerical weightings assigned to the various components were based “on instruction of counsel”.³⁸⁰ As a source for those numerical weightings, the table also indicates paragraph 16 of Mr. Axmann’s third witness statement. However, in that paragraph, Mr. Axmann merely states that:

“While it is difficult to assign a precise weight to each of these four categories of factors, particularly more than a decade after these events took place, I would estimate that the importance of each of these categories was roughly in the order set out above, i.e. (i) the specific risks associated with Devas’s business; (ii) the leverage that DT could apply; (iii) the value of DT’s in kind contributions; and (iv) the minority nature of the stake to be acquired.”³⁸¹

256. While in his expert reports Mr. Harman has sought to explain that these weightings were “commensurate with the evidence and appear reasonable”,³⁸² at the Hearing he acknowledged that “[t]here was no contemporaneous evidence at the time as to what weight should be applied to each of those”.³⁸³ In respect of DT’s bargaining power, he added that “it’s a difficult calculation”.³⁸⁴ In fact, these percentages do not appear in any of the models prepared by Devas or DT at the

³⁸⁰ Harman ER1, para. 6.16 (“I have been instructed to consider the weighting set out below for each factor”); Harman ER2, para. 2.28(2) (“I was instructed by Counsel on the numerical weighting I should assume for each of these factors”).

³⁸¹ Axmann WS3, para. 16 (emphasis added).

³⁸² Harman ER1, para. 6.16.

³⁸³ Transcript, Day 4, p. 23, line 3 - 16 (“There was no contemporaneous evidence at the time as to what weight should be applied to each of those. There’s no document setting out, ‘We have deducted these four issues’. It’s quite clear to me in the record that these are all considerations. Based on Mr Axmann’s view of the relative weights, I was instructed what those weights should be: 15% of the difference should be ascribed to non-cash contributions; 25% to negotiating power; 10% to minority discounts; and 50% to risks that were not captured in the cash flow. Again, different weights could have been assigned, I accept. I think it’s largely a qualitative assessment. I don’t think that we can accurately determine quantitatively what the weights should be”).

³⁸⁴ Transcript, Day 4, p. 26, line 13 - 20.

time. This being so, the Tribunal considers that the weightings assigned to the components in the upwards adjustments in FTI's Investment Plus valuation are highly subjective and that FTI has not sufficiently explained the reasons underlying the allocation of these percentages.

257. In conclusion, the Tribunal is unconvinced that the in-kind contributions and the negotiating power played the role which DT seeks now to ascribe to them. Rather, as already discussed in the context of its analysis on the licensing uncertainty (see *supra* at V.A.3.b(ii)), the Tribunal is of the view that the contemporaneous documents clarify that the "discount" effected by DT was mainly, if not entirely, due to the risks that the project was facing.
258. For instance, the Briefing Note (*Vorstandsvorlage*) dated 5 March 2008, prepared for the DT Management Board meeting of 11 March 2008, underscored that the reduction in value compared to the DCF valuation was to "better reflect the current risk price":

"In connection with DT's envisioned investment in Devas Multimedia Pvt. Ltd. ("Devas"), the management board requested that the original proposal be revisited to address the following points:

- Investment in instalments in order to gain additional comfort around the underlying risks in the interim:

DT's committed investment is decreased from US\$ 150m to US\$ 75m (resulting in a 20%-stake vs. 18.75% previously).

DT has the option to increase its stake to 30% by end-2009, allowing it to gain higher comfort regarding regulatory risks. [...]

- Decrease in valuation for initial investment to better reflect the current risk profile:

Renegotiations have lead [sic] to a decrease in (pre-money) valuation for the initial investment from originally US\$ 650m to US\$ 300m.

Devas accepted such decrease due to the potential delay and risks of having to re-start the process coupled with the irritation this might cause with its local partner ISRO ('Indian Space Research Organisation').³⁸⁵

³⁸⁵ Briefing Presentation for DT Management Board Meeting on 11 March 2008, dated 5 March 2008, **Exh. C-220**, p. 2 (emphasis added).

259. Similarly, in response to questions from the State Secretary of the German Ministry of Finance, the DT team responsible for the Devas deal also underlined the risk element:

[...] it should be pointed out once again that it is in particular this risk element which serves as a justification for a significant valuation discount.³⁸⁶

260. In his first witness statement, Mr. Axmann also made it clear that DT had proposed a reduction to the value due to the “overall assessment of the risk factors”:

“Naturally, we recognised that there were risks associated with the project, including the start-up nature of the company, the unclear regulatory regime regarding the terrestrial re-use licence and the somewhat limited nature of DT’s corporate governance rights. In the case of the terrestrial re-use licence, we noted that possible ways to address the lack of clarity were to: (a) revisit the valuation of Devas; (b) require written confirmation from the WPC as a condition to closing; or (c) commit to the investment in staged phases upon certain regulatory milestones being met [...] In order to mitigate the various risks we had identified, the Board directed that the amount of DT’s first-tranche investment in Devas should be substantially decreased[...] I understood from Kevin that the Management Board’s decision was based on its overall assessment of the risk factors (including the general risks associated with entering a new market such as India) rather than any particular risk [...] Following this meeting, we put forward to Devas our revised proposal for an initial US\$75 million investment in Devas for approximately 17% of the total paid-up share capital of the company with potential further investment to be made in staged phases. Devas’s management accepted DT’s proposal of a staged investment with a reduced initial amount.”³⁸⁷

261. In his third witness statement, Mr. Axmann further detailed the risks involved in the acquisition as comprising the entry into a new market without established record for the services planned; the start-up nature of the venture; and the technical and regulatory risks. In his words:

“The final pre-money valuation of US\$300 million implied by DT’s purchase price was substantially lower than the US\$1.8 billion enterprise value that DT calculated as its internal valuation of the company. A number of factors explain the difference between these two figures, which can be broadly allocated into the following categories.

The first and most significant of these factors was risk. As explained in my First Witness Statement, I understand that the Management Board’s direction that the initial investment amount be reduced was influenced by its overall

³⁸⁶ Response to the Office of the State Secretary, “Your Questions from 08/20/09 to Agenda Item 5b – Devas,” **Exh. C-290**, p. 8 (emphasis added). See also Submission (‘Aufsichtsratsvorlage’) to DT Supervisory Board, “Adoption of a resolution to participate in increases of capital of Devas Multimedia / India”, 6 August 2009, **Exh. C-225**, p. 12.

³⁸⁷ Axmann WS1, paras. 47-51.

assessment of various risk factors related to the Devas business. These risks included (as identified in the papers put before the Board):

(a) General risks associated with entering a new market such as India, given that there was 'no well-established "track-record" of BWA, AV and VoIP-services' in the country at the time;

(b) Risk associated with Devas's start-up nature, which meant that its business plan was 'subject to [a] high level of uncertainty';

(c) Technical risks relating to Devas's hybrid satellite and terrestrial system, which included risks relating to the satellites specifically (e.g. launch failure) as well as risks relating to the hybrid system (e.g. the need to develop solutions for the '[i]nter-working of the satellite and terrestrial end-devices'); and

(d) Regulatory risk, particularly relating to the authorisation required from the DOT for terrestrial reuse of the spectrum (which we understood would be issued by way of a WPC licence), given that Devas's spectrum rights derived from a contract with the Space Authorities."³⁸⁸

262. In conclusion, the Tribunal is unconvinced that the reduced price which DT paid was due to the factors on which the Claimant has put emphasis in this arbitration, namely the in-kind contributions and the negotiation power. Rather, the overall review of the evidence, both documentary and testimonial, shows that such reduction was linked to the risk profile of the investment. This being so, the almost USD 600 million uplift to Devas's enterprise value is unjustified.

(iii) The second uplift to account for Devas's alleged progress

263. The Tribunal now turns to the third step within the Investment Plus method, which assesses whether the value of Devas increased between 2008 and the Valuation Date.

264. First, with regard to the time between DT's first investment (2008) and second investment (2009), the Tribunal considers that no significant progress was made that would justify an upwards adjustment to Devas's enterprise value. The best evidence for this finding lies in the fact that DT paid the same price for the second tranche of Devas shares as it did for the first purchase. This is recorded in no uncertain terms in the Briefing Note of August 2009, in which, after evaluating all of the circumstances, DT concluded that any progress Devas may have made in the interim did no "justify a substantial increase in valuation" and that the same valuation was still valid:

³⁸⁸ Axmann WS3, paras. 11-12 (emphasis added).

“Current discussions with Devas focus on the \$45m-tranche. Preliminary negotiations have narrowed a possible pre-money valuation down to between \$375m (DT) and \$650m (Devas). In justification for the rise in valuation versus the initial tranche in 2008 (valuated at \$300m; Devas had originally insisted on \$650m), Devas advances the argument of progress-made in the meantime regarding regulatory, technical and operational matters. In DT’s assessment, while certain progress is not denied, such progress does not justify a substantial increase in valuation, i.e. it is appropriate to consider the post-money valuation of the initial round, i.e. \$375m, as the current pre-money valuation.”³⁸⁹

265. At that time in August 2009, DT’s assessment must have factored in the developments relating to the grant of the WPC Experimental License in May 2009 and of the IPTV/ISP License in March 2009. Interestingly, neither of these licenses was viewed as important enough to drive up the valuation of Devas.
266. It remains to be seen whether any upwards adjustment would be justified from 2009 until the Valuation Date in 2011. The Tribunal can see that some progress may have been made towards the eventual roll out of the Devas system, for instance in the performance of the trials in 2009 and 2010. At the same time, the record is reasonably clear that important risks continued to be present, if they had not increased. First, as discussed above in respect of the licensing risks, the risks related to the issuance and fee of the WPC License were high (see *supra* at 162). In this connection, an event which should not be overlooked is the BWA Auction in 2010, a fact which both Parties have emphasized to support their arguments. The Tribunal considers this event as neutral from a valuation point of view. On the one hand, the auction confirmed that spectrum was a highly valuable resource and Devas already had allocated spectrum. On the other hand, it showed the Government’s determination to charge a high fee for it, which can be regarded as a risk for DT/Devas (even though – as explained above – Devas was not in the same position as the BWA winning bidder). In light of this ambivalence, the BWA Auction is not a helpful indication for purposes of valuing Devas.
267. Furthermore, in the relevant time frame, a number of technological risks materialized which should not be ignored. In particular, ISRO experienced a

³⁸⁹ Decision paper for DT Management Board meeting on 10 August 2009, dated 6 August 2009, **Exh. C-224**, p. 4 (emphasis added).

series of satellite launch delays, which DT identified as a risk.³⁹⁰ It is also undisputed that there were two launch vehicle failures at ISRO in 2010.³⁹¹

268. Having pondered all these factors, the Tribunal is unable to see any significant progress made from 2008/2009 to the Valuation Date in 2011 that would yield an increase in the valuation of Devas. If any progress was made, its effect was neutralized by the risks that the Devas project incurred in relation to the satellite launch and the granting of WPC License. These risks had already driven the investment price down in 2008, kept it at the same level in 2009, and indeed remained identical, if not higher, on the Valuation Date.
269. In conclusion, the Tribunal considers that the “uplift” under the various scenarios proposed by FTI is unwarranted.

(iv) Conclusive remarks

270. Having found that two of the three steps or requirements constituting DT’s Investment Plus Method (*supra* para. 212) are not made out by the evidence, the Tribunal can dispense with reviewing the remaining step, actually the first one, *i.e.* whether the USD 375 million implied value can be extrapolated from DT’s 2008 cash contribution of USD 75 million. Indeed, whatever finding the Tribunal were to make on that point, it would have no impact on its conclusion that the Investment Plus valuation, does not — in light of the conclusions reached above — “provide a basis upon which the Tribunal can, with reasonable confidence, estimate the extent of the loss”³⁹² suffered by DT.

3. The Sunk Costs Approach

271. As an alternative to the DCF and Investment Plus methodologies, the Parties have also discussed a third approach, *i.e.* reparation based on the recovery of sunk costs. The Tribunal first summarizes the Parties’ positions on the sunk costs approach (*infra* at V.B.3.a-b), starting with the Respondent who proposed this methodology in the alternative to its primary submission that no damages are owed. The Tribunal then provides its analysis (*infra* at V.B.3.c).

³⁹⁰ Decision paper for DT Management Board meeting on 19 February 2008, dated 11 February 2008, **Exh. C-219**, p. 4

³⁹¹ Anand WS, Annex 1, fn. 7; Sethuraman WS2, para. 5.

³⁹² *Lemire*, **Exh. CLA-161**, para. 246. See *supra* para. 126.43

a. The Respondent's position

272. According to the Respondent, it is common place for investment tribunals to award sunk costs where the company has no track record of profitability. Several authorities support such an approach.³⁹³ Consistent with these and other authorities, there is no merit in the Claimant's contention that the sunk costs method is not representative of the FMV of an asset.³⁹⁴
273. For the Respondent, based on the evidence of Dr. Flores, and on the counterfactual assumption that DT and the other shareholders would wind up Devas as of the Valuation Date, DT's sunk costs would be no more than USD 24.1 million.³⁹⁵
274. Dr. Flores reaches this figure by calculating that Devas had net assets of USD 87.6 million on the Valuation Date. Assuming Devas had accepted from Antrix the restitution of the Upfront Capacity Reservation Fees (*i.e.* USD 13.7 million which Antrix offered to return upon termination of the Agreement),³⁹⁶ then the total amount distributable to the shareholders on the Valuation Date would have been USD 101.3 million. Due to DT's status as a preferred shareholder, the amount available for distribution to DT would have been USD 73.1 million.³⁹⁷ Deducting the amount of USD 73.1 million from the total amount invested by DT (*i.e.* USD 97.2 million) DT's sunk cost loss comes to USD 24.1 million.³⁹⁸

³⁹³ Rejoinder, paras. 161-162, referring to *Bear Creek*, **Exh. RLA-203**, para. 604; *Caratube*, **Exh. CLA-152**, paras. 1164, 1166; Irmgard Marboe, *Compensation and Damages in International Investment Law: The Limits of "Fair Market Value,"* 4(6) *The Journal of World Investment & Trade* 723 (2007), **Exh. RLA-221**, p. 745; *Metalclad*, **Exh. CLA-041**, paras.121-122; *Phelps*, **Exh. RLA-197**, para. 31; *Wena*, **Exh. CLA-078**, paras. 124-125; *Awdi*, **Exh. RLA-202**, para. 514. See also, Mark Kantor, "Valuation for Arbitration: Compensation Standards, Valuation Methods, and Expert Evidence" (Kluwer Law International 2008), **Exh. EO-010**, pp. 91-92; *South American Silver*, **Exh. RLA-217**, para. 859.

³⁹⁴ R-PHB1, para. 158, referring in particular to opinion by Haberman, Bezant and Rogers of FTI, **Exh. GH1-4**, pp. 167, 219, 225.

³⁹⁵ Rejoinder, para. 163.

³⁹⁶ Under Article 7(c) of the Agreement, upon termination of the Agreement, Antrix was to immediately reimburse to Devas all the Upfront Capacity Reservation Fees and corresponding service taxes received by Antrix until that date". The Upfront Capacity Reservation Fees were refused by Devas because they were considered manifestly inadequate. See Interim Award, para. 401.

³⁹⁷ Flores ER1, paras. 227-232.

³⁹⁸ Rejoinder, para. 163; Flores ER1, para. 232, Figure 10; Flores ER2, para. 307.

275. In addition, India submits that it is irrelevant that, as the Claimant argues, any funds Devas had on the Valuation Date were “practically exhausted by the end of 2017, and the very small amounts remaining on the books were frozen”.³⁹⁹ By way of example, so says India, “if Mr. Viswanathan [the President and CEO of Devas] wanted to throw a big party [...] for all the Devas people and spend USD 100 million”⁴⁰⁰ after the Valuation Date, that may mean that DT would not get its money back, but India would not be responsible for such loss.
276. Thus, according to India, “[w]hatever happened after the Valuation Date is not attributable to any treaty breach by the Respondent and cannot legally or logically be included in the sunk costs calculation”.⁴⁰¹ In this respect, it draws the Tribunal’s attention to the following facts:
- a. Devas spent USD 17 million litigating against Antrix, rather than amicably winding up the company;⁴⁰²
 - b. On 31 March 2010, Devas’s Board approved the transfer of USD 15 million to its subsidiary, Devas Multimedia America Inc. (“DMA”).⁴⁰³ The board minutes record that this amount was in addition to the “[USD] 15 million that had been approved right before the DT transaction”.⁴⁰⁴ The funds are said to be for “continued support of procurement and technology development programs”,⁴⁰⁵ despite the fact that this was apparently DT’s domain.⁴⁰⁶ India further relies on the fact that DT’s witnesses were unable to explain “what [these] funds were for, and none could explain what was done with that money”.⁴⁰⁷

³⁹⁹ R-PHB1, para. 159, referring to Transcript, Day 1, p. 110, line 21 - 23.

⁴⁰⁰ Transcript, Day 5, p. 123, line 20 - 25; R-PHB1, para. 161.

⁴⁰¹ R-PHB1, para. 160.

⁴⁰² Transcript, Day 5, p. 124, line 5 - 6.

⁴⁰³ Transcript, Day 5, p. 123, line 9 – p. 124, line 15; R-PHB1, para. 162.

⁴⁰⁴ R-PHB1, para. 162.

⁴⁰⁵ R-PHB1, para. 162; Minutes of a meeting of the Devas Board of Directors, 31 March 2010, **Exh. C-129**, para. 14.

⁴⁰⁶ R-PHB1, para. 162.

⁴⁰⁷ *Ibid.*

b. The Claimant's position

277. For the Claimant, a sunk costs valuation is inappropriate as a matter of principle, because it does not accord with the FMV standard and therefore falls short of the principle of full reparation.⁴⁰⁸ It contends that both experts accept that sunk costs does not reflect FMV.⁴⁰⁹ In addition, a sunk cost approach can only apply in the event of liquidation or “if you had a property portfolio or you had liquid assets, and you could benchmark them, mark to market”.⁴¹⁰ None of those circumstances exist here.
278. Furthermore, in terms of implementation of the method, the Claimant contends that Dr. Flores's counterfactual scenario is in any event deeply flawed for the following reasons.
279. First, the counterfactual scenario is inappropriate because it assumes the annulment of the Devas Agreement. In a counterfactual scenario where Devas was liquidated but the Devas Agreement was not annulled, there would be no return of the Upfront Capacity Reservation Fees (USD 13.7 million) because those fees were linked to the annulment. Rather, on the Valuation Date, assuming no termination, Devas would have been contractually committed to pay Antrix at least USD 216 million.⁴¹¹ This is because, pursuant to the Devas Agreement, Devas was obligated to pay (i) USD 20 million “for each satellite, to be paid in three equal installments” and (ii) “annual lease fees and critical component acquisition fees. The lease fees would start at USD 9 million per year and increase to USD 11.25 million per year once Devas became cash flow positive”.⁴¹² Mr Harman has calculated that this would amount to USD 216 million.⁴¹³

⁴⁰⁸ Reply, para. 205; C-PHB1, paras. 136, 220, referring to *Crystallex*, **Exh. CLA-147**, para. 882.

⁴⁰⁹ Transcript, Day 4, p. 158, line 12 - 17; Transcript, Day 4, p. 351, line 5 - 14 (Flores).

⁴¹⁰ C-PHB1, para. 136, referring to Transcript, Day 4, p. 168, line 12 - 20.

⁴¹¹ Harman ER2, paras. 9.9-9.10.

⁴¹² *Ibid.*

⁴¹³ *Ibid.*

280. Second, Dr. Flores' counterfactual assumptions are incorrect in several ways:
- a. It does not automatically follow that a "liquidation event" would trigger a liquidation. A liquidation could only be triggered by a majority of directors of Devas, requiring a vote from DT's Supervisory Board, or by way of voluntary liquidation which, under Indian law, requires a special resolution of Devas's shareholders.⁴¹⁴ Thus, DT had no contractual right to trigger a liquidation, as accepted by Dr. Flores.⁴¹⁵ Dr. Flores's assumption also ignores "the likelihood of a lack of alignment between DT and the other shareholders";⁴¹⁶
 - b. There is evidence which illustrates that a liquidation in India is a "very long, drawn out process".⁴¹⁷ If the liquidation had been challenged in the Indian courts, there is no certainty that liquidation payments would have been made in accordance with Exhibit B to the Share Subscription Agreement of 2008;⁴¹⁸
 - c. Dr. Flores's sunk cost calculations are incorrectly drawn from Devas's financial statements. The financial statements have been prepared on a "going concern" basis, which does not apply to a liquidation scenario, as it does not account for (i) the possibility of crystallisation of various liabilities (including liabilities from potential proceedings and regulatory investigations);⁴¹⁹ (ii) additional costs incurred in a liquidation scenario; and (iii) the lower value of assets in such a scenario.⁴²⁰
281. If, contrary to the Claimant's position, the Tribunal were to adopt the sunk cost method, then, so says the Claimant, it should award an amount of USD 198 million based on FTI's calculation. This figure is arrived at by taking the amount DT invested, *i.e.* USD 97.2 million, deducting any amounts available to DT today and then applying "a reasonable rate of return from the time DT invested its

⁴¹⁴ Reply, para. 207.

⁴¹⁵ C-PHB1, para. 223(a); Transcript, Day 4, p. 300, line 4 - 13.

⁴¹⁶ C-PHB1, para. 223(b).

⁴¹⁷ Reply, para. 208; C-PHB1, para. 223(c).

⁴¹⁸ Reply, para. 209.

⁴¹⁹ C-PHB1, para. 223(d).

⁴²⁰ Harman ER2, para. 9.13(4)(b).

funds”.⁴²¹ Such reasonable return for the Devas project should be 31%, *i.e.* the discount rate used by Dr. Flores in a DCF valuation method, which FTI considered was in fact Devas’s IRR.⁴²²

282. According to DT, it “has not received its investment back, and today there are negligible funds left in Devas to return to DT”.⁴²³ Moreover, the Tribunal should disregard as unsubstantiated Dr. Flores’s opinion and the Respondent’s arguments that the Tribunal should have regard to the fact that Devas chose to pursue a litigation strategy rather than winding down and distributing the money as of the Valuation Date, and that DT did recover some of its investment through transfers from DMA.⁴²⁴

c. **Analysis**

283. In the foregoing sections, the Tribunal has discarded the DCF valuation method, *inter alia*, because the Devas project was in its early stages and the future cash flows were, for multiple reasons, uncertain. It has also rejected the Investment Plus method as not clearly grounded in economic theory and, more importantly, unsubstantiated in its implementation. The third and last method discussed by the Parties is the sunk costs approach, which in essence values a claimant’s investment as the sum of all the monies invested up to a particular date.
284. Cost-based valuation methods have been adopted by a number of investment treaty tribunals in cases where the relevant investment enterprise was not a going concern, had no track record of profitability, or had no realistic prospect of ever being profitable, irrespective of the State measures.⁴²⁵ Tribunals typically resort

⁴²¹ C-PHB1, para. 226; Transcript, Day 4, p. 159, line 13 - p. 160, line 2. In relation to providing a rate of return, DT refers to Mark Kantor, “Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence” (Kluwer Law International 2008) **Exh. EO-010**, p. 50.

⁴²² Harman ER2, paras. 7.7-7.8; Flores ER2, para. 107; Transcript, Day 4 p. 19, line 19 – 25, p. 122, line 7 - 8.

⁴²³ C-PHB1, para. 225.

⁴²⁴ *Id.*, para. 224.

⁴²⁵ See generally Noah Rubins, Vasuda Sinha and Baxter Roberts, *Approaches to Valuation in Investment Arbitration*, in *Contemporary and Emerging Issues on the Law of Damages and Valuation in International Investment Arbitration* 83 (Christina L. Beharry ed., Brill/Nijhoff 2018), 195-200.

to sunk costs when liability is established but no other valuation method appears appropriate. In the words of the tribunal in *Caratube v. Kazakhstan*, for instance:

“A majority of the Tribunal thus finds that the valuation methods proposed by the Claimants do not provide a basis for damages that are sufficiently certain. In these circumstances, a majority finds that an award of sunk investment costs is appropriate and it will thus apply this method. As observed by Marboe, [...]:

‘[...]This seems to be a “solid” valuation approach that has been applied in numerous cases where other items of damages were considered to be too speculative or were not supported by sufficient evidence’.⁴²⁶

285. As explained by Ripinsky and Williams, tribunals “have turned to the historic costs of investment as the relevant approach to valuation when the evidence necessary to apply an income-based method has been considered insufficient”.⁴²⁷ These authors have also noted that “[t]hese cases generally involve investments that have not yet started to generate cash flows or where the history of such operations has been found too short to allow projection of future earnings”.⁴²⁸
286. The recent arbitral award in *South American Silver v. Bolivia* aptly summarized the authorities on this point:⁴²⁹

“Cost-based valuation is not foreign to international investment arbitration. In various circumstances, tribunals have discarded other methods in favor of the valuation by reference to actual investments or cost of investment¹⁵²⁸ for reasons such as that the project is not in the production stage,¹⁵²⁹ or that, given the stage of the project, the estimation of future cash flows would be wholly speculative,¹⁵³⁰ or that there is an insufficiently solid basis on which to calculate profits or growth,¹⁵³¹ or that it is not a going concern and there are uncertainties regarding future income and costs,¹⁵³² or that there is a particularly large difference between the investments made and the compensation claimed.¹⁵³³

¹⁵²⁸ RLA-103, S. Ripinsky y K. Williams, *Damages in International Investment Law*, British Institute of International and Comparative Law, 2008, p. 227.

⁴²⁶ *Caratube*, **Exh. CLA-152**, para. 1166.

⁴²⁷ Sergey Ripinsky and Kevin Williams, *Damages in International Investment Law* (BIICL 2008), p. 227.

⁴²⁸ Sergey Ripinsky and Kevin Williams, *Damages in International Investment Law* (BIICL, 2008), p. 227.

⁴²⁹ In addition to the cases reviewed in the following excerpt of the decision in *South American Silver*, **Exh. RLA-217**; see also *Phelps*, **Exh. RLA-197**, para. 31; *Bear Creek*, **Exh. RLA-203** (“the calculation of Claimant’s damages in the present case cannot be carried out by reference to the potential expected profitability of the Santa Ana Project and the DCF method. The Project remained too speculative and uncertain to allow such a method to be utilized. Instead, the Tribunal concludes that the measure of damages should be made by reference to the amounts actually invested by Claimant”, emphasis added).

¹⁵²⁹ CLA-51, *PSEG Global, Inc. v. Turkey*, ICSID Case No. ARB/02/5, Award, January 19, 2007, para. 321.

¹⁵³⁰ RLA-141, *Metalclad Corporation v. The United Mexican States*, ICSID Case No. ARB(AF)/97/1, Award, August 30, 2000, paras. 121-122.

¹⁵³¹ RLA-145, *Wena Hotels v. Arab Republic of Egypt*, ICSID Case No. ARB/98/4, Award, December 8, 2000, paras. 124-125.

¹⁵³² RLA-146, *Hasan Awdi and others v. Romania*, ICSID Case No. ARB/10/13, Award, March 2, 2015, para. 514.

¹⁵³³ RLA-96, *Técnicas Medioambientales Tecmed S.A. v. The United Mexican States*, ICSID Case No. ARB (AF)/00/2, Award, May 29, 2003, paras. 191 *et seq.*

287. Some of these tribunals have referred to the cost-based approach as representing the “fair market value” of the investments in those cases.⁴³⁰ In this Tribunal’s view, this would only be correct, if under the given circumstances it could be assumed that the amounts actually spent by the investor were equivalent to the price a hypothetical willing buyer would be ready to pay.⁴³¹ This question, however, is of secondary importance here, as the Tribunal is not limited to the FMV⁴³² but, in the absence of a different or more specific standard in the Treaty,⁴³³ must seek to implement the full reparation principle under customary

⁴³⁰ See, e.g., *Metalclad*, **Exh. CLA-41**, para. 122 (“the Tribunal agrees with the parties that fair market value is best arrived at in this case by reference to Metalclad’s actual investment in the project”, with further references to cases).

⁴³¹ As explained by Marboe, **Exh. RLA-221**, p. 745, equating sunk costs with FMV cannot generally be taken for granted and the FMV may be less or more, depending on the reasonableness of the invested amounts and the economic prospects of the investment project at the valuation date from the perspective of the market participants.

⁴³² The Tribunal finds confirmation for this approach in *Caratube*, where the tribunal noted that “when determining the amount of money that will provide full reparation to the injured party, this Tribunal does not consider itself limited to the FMV standard, but may apply other methods to determine the amount that, in the Tribunal’s opinion, best reflects the damages incurred by [the claimant]”. See *Caratube*, **Exh. CLA-152**, para. 1084.

⁴³³ Like many, international investment agreements, the BIT only provides for a standard of compensation for *lawful* expropriation. See Article 5(1) of the BIT (stating that compensation for lawful expropriation “shall be equivalent to the value of the expropriated or nationalised investment immediately before the date on which such expropriation or nationalisation became publicly known. Such compensation shall be effectively realisable without undue delay and shall be freely convertible and transferable. Interest shall be paid in a fair and equitable manner for the period between the date of expropriation or nationalisation and the date of actual payment of compensation”). It provides no guidance on the determination of damages for Treaty breaches, such as unlawful expropriation and violation of FET. In accordance with the majority of the case law on this point (on which see, amongst many, *British Caribbean Bank Ltd. v. Government of Belize*, PCA Case No. 2010-18/BCB-BZ, Award, 19 December 2014, **Exh. CLA-150**, para. 288) and as noted *infra* in the text, the Tribunal must apply the full reparation principle under customary international as it arises from *Chorzów* and as codified in Article 31 of the ILC Articles.

international law as set out in *Chorzów* and restated in the ILC Articles,⁴³⁴ a point which is undisputed.⁴³⁵ In doing so, the Tribunal may either award the FMV or, if there is insufficient evidence in the record to reach a reasonably reliable assessment of FMV, resort to different indicators of the damage caused.

288. In this respect, the Tribunal recalls its previous observations whereby the determination of damages is not an exact science, but an area in which it enjoys a certain margin of discretion, in light of the inherent uncertainties that are tied to the valuation exercise (see *supra* paras. 126 *et seq.*). This being so, where other valuation methods proposed by a claimant are not supported by sufficient evidence to establish the quantum to a reasonable degree of certainty and thus prove inadequate under the circumstances, sunk costs may represent the best (or the only) alternative approach to determine the amount of damages incurred by the investor. In other words, if because of lack of evidence the Tribunal is incapable of determining the loss by reference to methods that normally would yield more accurately the value of the investment but for the breach, it may resort to sunk costs which restores the situation before the investment was made. Adopting this approach entails that the investor is not necessarily restituted the value of its investment before the breach, but rather awarded what is sometimes referred to as “reliance interest”,⁴³⁶ *i.e.* it is compensated for funds it has put into the investment. In some instances, the market value and the sunk costs may end up being the same, although this may not always be the case. However, where the Tribunal is incapable of determining the value of the investment through other methods because the evidence is insufficient, the award of damages equal to the

⁴³⁴ See, e.g., *British Caribbean Bank Ltd. v. Government of Belize*, PCA Case No. 2010-18/BCB-BZ, Award, 19 December 2014, **Exh. CLA-150**, para. 288.

⁴³⁵ See Memorial paras. 153-160; Reply, paras. 28-29. The Respondent does not disagree that this is the relevant standard.

⁴³⁶ See Mark Kantor, *Valuation for Arbitration: Compensation Standards, Valuation methods and Expert Evidence* (Kluwer Law International 2008), **Exh EO-010**, pp. 40 (“awarding to an injured investor recovery of its wasted investment (‘sunk investment costs’) [...] protects the investor’s reliance interest – compensation is calculated to put the investor back in the position as if the investment had never been made”), 50 (“In the context of investment treaty disputes, however, fair market value measures have been rejected in a number of cases in favor of compensation based on sunk investment costs – recovery of the ‘reliance interest’ by seeking to put the investor back into a position as if he had never made the investment”).

funds actually expended may represent the best method to achieve full reparation.⁴³⁷

289. In this case, the Tribunal has concluded that the forward-looking valuation methods proposed by the Claimant, and in particular the DCF approach, provide no basis upon which the Tribunal can estimate the extent of the Claimant's loss with reasonable confidence.⁴³⁸ As explained in the previous sections, this is due principally to the lack of an evidentiary record of profitability owing to the development stage of the Devas project and to some extent the uncertainty regarding the licensing issues. The Tribunal has also noted the evidentiary deficiencies in determining FMV based on an assessment of enterprise value reflecting in-kind contributions and superior bargaining power. In these circumstances in which the Tribunal is not in a position to determine Devas's future cash flows with sufficient certainty, it reaches the conclusion that the sunk cost approach is the best available method to ensure full reparation by placing DT in the situation in which it would find itself had it never made its investment.
290. In light of this conclusion, the Tribunal now moves to determine the amount of damages in accordance with this methodology. Sunk costs are calculated as the capital invested in a project minus the capital already recovered from the project, plus interest in order to account for the time value of money.⁴³⁹
291. The Tribunal's starting point is thus the capital invested by DT. In this respect, the Tribunal disagrees with the Respondent and its expert that the Tribunal should have regard to the amount DT could have recovered under a hypothetical liquidation scenario. In this connection, it notes that Dr. Flores was instructed to

⁴³⁷ See also Irmguard Marboe, *Calculation of Compensation and Damages in International Investment Law*, (Oxford University Press 2017), para. 5.243, who notes that a tribunal may "well find that full reparation could best be achieved by a repayment of investment and expenses undertaken plus an appropriate rate of interest", adding that whether this corresponds "to the fair market value of the investment is only of secondary importance".

⁴³⁸ See *supra* sections V.B.1.c, V.B.2.c.

⁴³⁹ See Borzu Sabahi, *Compensation and Restitution in Investor-State Arbitration* (Oxford University Press 2011), p. 132 ("[a]warding sunk investment costs allows the claimant to recover its invested capital, minus what it already has recovered, plus a return on the capital invested from the date of the injury until the date of recovery, in the form of interest"); Irmguard Marboe, *Calculation of Compensation and Damages in International Investment Law* (Oxford University Press 2017), para. 5.243 ("tribunals might well find that full reparation could best be achieved by a repayment of investment and expenses undertaken plus an appropriate rate of interest").

consider “what would have been DT Asia’s ‘sunk costs’ in Devas if Devas had been liquidated as of the Valuation Date”.⁴⁴⁰ Under this scenario, Dr. Flores concludes that, in the event of a hypothetical liquidation on the Valuation Date, DT would have received a distribution of USD 73.1 million, implying “sunk” costs of USD 24.1 million.

292. The Tribunal considers Dr. Flores’s hypothetical liquidation scenario inapposite for the present sunk cost valuation. Unlike a forward-looking valuation method (e.g., DCF) which requires consideration of a counterfactual and inevitably involves some degree of speculation, a backward-looking approach such as sunk costs seeks to quantify a claimant’s loss on the basis of the amounts actually invested. One of the advantages of this approach is precisely that it requires no speculation or assumptions. Consistent with this logic, none of the cases cited by India perform a sunk costs calculation based on a hypothetical counterfactual (e.g., a liquidation of the company).⁴⁴¹ Sunk costs being a matter of fact, as opposed to hypothesis, the Tribunal observes that Devas was never liquidated (neither on the Valuation Date nor until today). Hence, a hypothetical situation in which DT *could have recovered* some of its costs in case of Devas’s liquidation is irrelevant to a sunk costs analysis.
293. Going back to the Claimant’s investment in Devas, the Tribunal recalls that the Claimant made its investment in two tranches: the first in 2008 in the sum of USD 75 million and the second in 2009 in the sum of USD 22.2 million,⁴⁴² totaling USD 97.2 million. The Claimant has not argued, let alone substantiated, that its sunk costs would exceed the amount of its investment, *i.e.* of the share price.⁴⁴³

⁴⁴⁰ See Flores ER1, para. 8 (“counsel for Respondent has instructed me to [...] calculate what would have been DT Asia’s ‘sunk costs’ in Devas if Devas had been liquidated as of the Valuation Date”); Flores ER2, para. 307 (“I was instructed to calculate DT Asia’s sunk costs to show how much DT would have lost on its investment if Devas had been dissolved at the Valuation Date”).

⁴⁴¹ See *Metalclad*, **Exh. CLA-041**, paras. 121-22; *Wena*, **Exh. CLA-078**, para. 125; *Bear Creek*, **Exh. RLA-203**, para. 604. See also *South American Silver*, **Exh. RLA-217**, para. 866; *Awdi*, **Exh. RLA-202**, paras. 262-273, 514; *Caratube*, **Exh. CLA-152**, paras. 1168-1170.

⁴⁴² See Share Subscription Agreement between Devas and DT Asia, 19 March 2008, **Exh. C-078**; Share Subscription Agreement between Devas, DT Asia, CC/Devas, Telecom Devas, 29 September 2009, **Exh. C-020**.

⁴⁴³ C-PHB1, paras. 221 (“Even if the Tribunal wished to have regard to sunk costs, India has not presented it with the relevant calculation, which would require consideration of the cash investment actually made by DT (US\$97.2 million) and the cash amount actually

Neither does India or its expert dispute that DT invested this amount.⁴⁴⁴ The Tribunal has seen no evidence that the price paid by DT did not reflect that of an arm's-length transaction. Accordingly, in this case, the amount of sunk costs corresponds to the value of the investment made by DT, *i.e.* the sum DT has expended in the purchase of the Devas shares.⁴⁴⁵

294. Moving now to the second step of the assessment of sunk costs, the Tribunal must verify if DT has already recovered part of the capital invested, which part would have to be deducted from the investment to reach the amount of sunk costs to be awarded. In this respect, India suggests that DT may have recovered some of its investment through funds transferred by Devas to its subsidiary DMA in 2010, as DT's witnesses were unable to explain the purpose of that transfer or the use of those funds following the transfer. The record contains no evidence to suggest that DT has received any funds from Devas through DMA or otherwise. The Tribunal therefore accepts DT's submission that it has not recovered part of its investment through these funds.
295. Still in the context of funds recovered, the Tribunal notes that DT still holds shares in Devas (through its subsidiary DT Asia). The question thus arises whether these shares represent a value that would need to be deducted from the invested funds. This is not a matter of a counterfactual or hypothetical liquidation, but merely a factual assessment. The Tribunal agrees with the Claimant that "the concept of

recovered by DT (nothing), in order to 'repay – or 'restitute' – all the amounts of investments undertaken and expenses incurred' by the investor"), 226 ("As Mr Harman explained at the Hearing, in the event the Tribunal were inclined to calculate DT's loss on the basis of the amounts it invested, one way to make the calculation might be: (i) to deduct from the amount of DT's investment (US\$97.2 million); (ii) any sums available to DT today; and then (iii) provide for a reasonable rate of return from the time DT invested its funds").

⁴⁴⁴ See, e.g., Flores ER2, paras. 307-308.

⁴⁴⁵ See also *Phelps*, **Exh. RLA-197**, paras. 1, 31, where the tribunal awarded sunk costs on the basis of the amount expended for the purchase of the relevant shares ("The stock of SICAB was divided into two classes, A and B. The class B shares were divided between Phelps Dodge and NKT and represented 35 percent of the total stock; 25 percent was issued to Phelps Dodge and 10 percent was issued to NKT. For its shares, Phelps Dodge contributed U.S. \$2,437,860. [...]" "Taking into account all relevant evidence, the Tribunal concludes that the value of Phelps Dodge's ownership interest in SICAB on 15 November 1980 was equal to its investment, that is, U.S. \$2,437,860. The Claimants are entitled to compensation in that amount", emphasis added).

sunk costs belongs” “in the real world”.⁴⁴⁶ This implies reviewing whether there are any net assets left in Devas as of today.⁴⁴⁷ DT’s position is that it is no longer able to recover any funds from Devas because “today there are negligible funds left in Devas to return to DT”.⁴⁴⁸ At the Hearing, the Claimant alleged that Devas’s net assets were worth USD 19.9 million, as shown in slide 138 of the Claimant’s Opening Presentation, which referred to audited financial statements of Devas.⁴⁴⁹ This figure has not been disputed by the Respondent and is in line with the testimony of the Respondent’s quantum expert, Dr. Flores, that “[t]oday, if you go by the financial statements of 2017, there is not many assets left”.⁴⁵⁰ DT has, however, emphasized that, next to the net assets, it is necessary to consider “the company’s contingent liabilities which need to be crystallised”.⁴⁵¹ It has referred, in particular, to a USD 109 million penalty imposed by the Indian Enforcement Directorate.⁴⁵² Separately, it has also alluded “to the cost of litigation that Devas has been forced to bear”.⁴⁵³

⁴⁴⁶ Transcript, Day 1, p. 110, lines 17 - 18 (“the bottom line is that in the real world, where the concept of sunk costs belongs, there are no funds left to return to DT”). See also Transcript, Day 4, p. 159, lines 11 - 18 (“So how would I think about my general approach to sunk costs in that type of scenario? How much did DT invest; and as of today, am I able to offset that lost investment by any sums that may be available in the company, to the extent there are any funds in the company? As an expert, if that was the valuation exercise that you said, then that’s the calculation that I would perform”).

⁴⁴⁷ See also *South American Silver*, **Exh. RLA-217**, a case relied on by the Respondent, in which the tribunal noted at para. 873 that “[c]onsidering the Tribunal’s decision regarding the valuation method, the Date of Valuation, which was an important difference in a valuation scenario based on the valuation method proposed by the Claimant and the alternative system proposed in the Respondent’s Rejoinder, is immaterial to a cost-based valuation since the market changes between the dates disputed by the Parties do not affect the determination of the Project’s costs”.

⁴⁴⁸ C-PHB1, para. 225.

⁴⁴⁹ See Claimant’s Opening Presentation, 29 April 2019, slide 138, referring to Audited Financial Statements for the year 2017, **Exh. C-346**, p. 10.

⁴⁵⁰ See Transcript, Day 4, p. 336, line 6 - 10, in response to the following question “does Devas have significant net assets to distribute today?”.

⁴⁵¹ See Transcript, Day 1 p. 110 lines 7 - 10 (“[t]he second flaw is that in his assessment of the available assets of Devas, [Dr. Flores] completely ignores the company’s contingent liabilities which need to be crystallised”). See also Transcript, Day 5, p. 72, lines 22 - 23 (“the key contingent liabilities of Devas”); C-PHB1, para. 223(d); C-PHB2, para. 51.

⁴⁵² Adjudication Order No. SDE/SRO/BGZO/01/2019 passed by Directorate of Enforcement, 30 January 2019, **Exh. R-103**, p. 69 et seq. The same document also mentions a USD 73 million equivalent penalty imposed on DT Asia as well as on DT Asia’s former directors on the Devas board.

⁴⁵³ C-PHB2, para. 51.

296. The Tribunal is not satisfied that DT has provided sufficient evidence to support the foregoing allegations that any funds left in Devas are indeed “negligible”, as it contends. First, the Tribunal notes that the allegations regarding litigation costs incurred by Devas have not been substantiated. In addition, the contingent liabilities referred to by DT are by their nature conditional. They are thus too uncertain to lead to an automatic assumption that they would wipe out all of Devas’s remaining net assets. Furthermore, while the Claimant’s expert has clearly stated that, for a sunk costs analysis, “any sums available to DT today” would need to be deducted from the amount of DT’s investment,⁴⁵⁴ it has provided no analysis of any such sums available. For the Tribunal, it was for DT to prove that its own evidence showing net assets of USD 19.9 million did not reflect the current status of Devas, which it has failed to do. As a consequence, the Tribunal considers that the USD 19.9 million in net assets must be accounted for in the valuation. Under the circumstances, and in the absence of any better indication in the record, the Tribunal deducts from the funds invested by DT an amount equal to 19.62% (which corresponds to the percentage of DT’s indirect shareholding in Devas)⁴⁵⁵ of USD 19.9 million, *i.e.* USD 3.9 million. The Tribunal accepts that such a deduction “involve[s] some approximation” (to use the words of the *Gold Reserve* tribunal quoted above at para. 129). However, it considers that it leads to a result that represents a reasonable assessment of the sunk costs on the basis of the available evidence.
297. Finally, the Tribunal has taken note of the Respondent’s point that, after the annulment of the Agreement, Devas may have spent its moneys in ways for which India bears no responsibility. The Tribunal has, however, identified no evidence in the record according to which after 2011 Devas would have spent funds in ways which would not be related to the project or otherwise dissipated assets.

⁴⁵⁴ See C-PHB1, para. 226 (“As Mr Harman explained at the Hearing, in the event the Tribunal were inclined to calculate DT’s loss on the basis of the amounts it invested, one way to make the calculation might be: (i) to deduct from the amount of DT’s investment (US\$97.2 million); (ii) any sums available to DT today; [...]”, referring to the hearing transcript). See also Transcript, Day 4, p. 159, lines 13 - 20 (Harman) (“how would I think about my general approach to sunk costs in that type of scenario? How much did DT invest; and as of today, am I able to offset that lost investment by any sums that may be available in the company, to the extent there are any funds in the company? As an expert, if that was the valuation exercise that you said, then that’s the calculation that I would perform”).

⁴⁵⁵ See *supra* para. 55.

298. In sum, the Tribunal concludes that DT is entitled to damages in the amount of USD 93.3 million (*i.e.* the difference between USD 97.2 and 3.9 million).
299. Finally, the Tribunal turns to the Claimant's contention that the Tribunal should apply a 31% IRR on DT's investment from the date of the investment. As the Claimant has noted, an IRR "is a measure of the investment's expected profitability".⁴⁵⁶ The Claimant has failed to demonstrate why the Tribunal should apply an IRR to a sunk costs calculation other than to contend that "it is the logical application of applying India's own calculation of Devas's IRR to DT's sunk investment"⁴⁵⁷ and to rely on a passage from Mark Kantor's book.⁴⁵⁸ Irrespective of the fact that an IRR of 31% appears very high, the Tribunal sees no basis to apply an IRR, which is a measure of profitability of an investment, to a sunk costs valuation. Such an approach would blend two conflicting logics. Indeed, it appears inapposite to apply a profit-based concept to historical costs, especially where the Tribunal has been unable to assess profits with any reasonable certainty.
300. This does not mean that the amounts invested cannot bear interest at a commercial rate to compensate for the non-availability of the funds over time, a matter discussed in the next section.

C. INTEREST AND TAX

1. The Claimant's position

301. The Claimant submits that the award of interest is an integral component of the principle of full reparation.⁴⁵⁹ Against that background, it requests that it be awarded interest on the principal sum at a rate of LIBOR, or any other comparable

⁴⁵⁶ Reply, para.137; Harman ER2, para. 2.21.

⁴⁵⁷ C-PHB2, para. 52.

⁴⁵⁸ Mark Kantor, "Valuation for Arbitration: Compensation Standards, Valuation Methods and Expert Evidence" (Kluwer Law International 2008), **Exh. EO-010**, p. 50, who refers to "a return on those sunk costs from the injury date until the recovery date at a rate the panel considers reasonable in the circumstances".

⁴⁵⁹ Memorial, paras. 298-299.

rate should LIBOR be discontinued, plus 4%, compounded annually, running from the Valuation Date to the date of payment.⁴⁶⁰

302. As to the date from which interest should be awarded, it is the Claimant's submission that tribunals have considered that "[a] state's duty to make reparation arises immediately after its unlawful act causes harm".⁴⁶¹
303. The Claimant further asserts that DT is entitled to interest at a risk-adjusted rate, rather than risk-free rate, as a risk-adjusted rate more appropriately reflects the opportunity cost DT suffered as a consequence of not having available to it the compensation that India should have paid to it on the Valuation Date.⁴⁶² It is also more consistent with the use which a multinational corporation such as DT would have made of those funds.⁴⁶³
304. According to DT, the appropriateness of awarding LIBOR plus 4% is supported by many recent investment treaty decisions, which have confirmed that it is "reasonable" and a "normal commercial rate that guarantees full compensation".⁴⁶⁴ This is particularly so given "the present market situation of ultra-low interest rates".⁴⁶⁵
305. Furthermore, the Claimant submits that interest should be awarded on a compound basis in accordance with "modern economic reality and considerations of equity",⁴⁶⁶ and because compound interest is now the norm in international

⁴⁶⁰ Memorial, para. 304; Reply, para. 213, C-PHB1, paras. 228-229.

⁴⁶¹ Memorial, para. 300, referring to *Vestey*, **Exh. CLA-148**, para. 448; *OI European Group B.V. v Venezuela*, ICSID Case No ARB/11/25, Award, 10 March 2015 ("*OI European Group*"), **Exh. CLA-166**, para. 932.

⁴⁶² Memorial, para. 301.

⁴⁶³ *Ibid.*

⁴⁶⁴ Memorial, para. 302, referring to *Flughafen Zürich A.G. v. The Bolivarian Republic of Venezuela*, ICSID Case No ARB/10/19, Award, 18 November 2014, **Exh. CLA-158**, para. 965; *OI European Group*, **Exh. CLA-166**, para. 944. See also *Murphy Exploration & Production Co. International v. Republic of Ecuador*, PCA No 2012-16, Partial Final Award, 6 May 2016, **Exh. CLA-164**, para. 517; *Mobil Investments Canada Inc. v. Canada*, ICSID Case No ARB(AF)/07/4, Award, 20 February 2015, **Exh. CLA-163**, para. 170.

⁴⁶⁵ *Ibid.*, referring to *Rusoro*, **Exh. CLA-170**, para. 838. See also *Tenaris SA & Talta – Trading e Marketing Sociedad Unipessoal LDA v. The Bolivarian Republic of Venezuela*, ICSID Case No ARB/12/23, 12 December 2016, Award, **Exh. CLA-175**, para. 772.

⁴⁶⁶ *Id.*, para. 303.

investment arbitration.⁴⁶⁷ In this respect, it disputes India's arguments on simple interest on the grounds that the cases on which India relies are outdated.⁴⁶⁸ An award of compound interest would also prevent India from receiving a windfall.⁴⁶⁹

306. Finally, as concerns tax, to ensure full reparation, DT requests that the Tribunal:
- a. declare that the award "is net of all applicable Indian taxes, charges or other set-offs and that India may not tax or attempt to tax the award",⁴⁷⁰ and
 - b. order that India is "to indemnify DT for any taxes India assesses on the award and for any double taxation liability resulting from the award arising in Germany or elsewhere that would not have arisen but for India's breach".⁴⁷¹

2. The Respondent's position

307. The Respondent submits that, if the Tribunal decides to award interest, interest should be simple and based on a short-term, risk-free rate, such as the six-month or one-year US Treasury rate.⁴⁷² This, so says India, is the generally accepted practice as is demonstrated by a number of authorities.⁴⁷³

⁴⁶⁷ *Ibid.*; Reply, para. 221, referring to ADC, **Exh. CLA-006**, para. 522; *Bernardus Henricus Funnekotter & Others v. Republic of Zimbabwe*, ICSID Case No ARB/05/6, Award, 22 April 2009, **Exh. CLA-012**, para. 146; *Gemplus SA v United Mexican States*, ICSID Case No ARB(AF)/04/3 and ARB(AF)/04/4, Award, 16 June 2010, **Exh. CLA-033**, para. 16-26; *El Paso Energy International Company v. The Argentine Republic*, ICSID Case No ARB/03/15, Award, 31 October 2011, **Exh. CLA-025**, para. 746; *Tenaris SA and Talta - Trading e Marketing Sociedade Unipessoal Lda v. The Bolivarian Republic of Venezuela*, ICSID Case No ARB/11/26, Award, 29 January 2016, **Exh. CLA-174**, paras. 588, 591; *Vestey*, **Exh. CLA-148**, para. 447.

⁴⁶⁸ Reply, paras. 221-222.

⁴⁶⁹ Memorial, para. 303; Reply, para. 221.

⁴⁷⁰ Memorial, para. 307; Reply, para. 223.

⁴⁷¹ Memorial, para. 308; Reply, para. 223.

⁴⁷² Rejoinder, para. 164; R-PHB1, para. 166.

⁴⁷³ Counter-memorial, para. 138, referring to *Vestey*, **Exh. CLA-148**, para. 446; *Gold Reserve*, **Exh. CLA-107**, para. 853; *Yukos Universal Limited (Isle of Man) v. The Russian Federation*, PCA Case No. AA 227, Final Award, 18 July 2014 ("Yukos"), **Exh. RLA-188**, paras. 1683-1687; *Occidental*, **Exh. CLA-051**, para. 842; *Marion Unglaube and Reinhard Unglaube v. Republic of Costa Rica*, ICSID Case Nos. ARB/08/1 and ARB/09/20, Award, 16 May 2012, **Exh. RLA-213**, paras. 323-324; *BG Group Plc. v. The Republic of Argentina*, UNCITRAL, Final Award, 24 December 2007, **Exh. CLA-013**, para. 455; *Archer Daniels Midland Company and Tate & Lyle Ingredients Americas, Inc. v. United*

308. The Respondent therefore rejects the Claimant's argument that interest should be awarded based on the Claimant's opportunity cost, since "it cannot be known what [the] Claimant would have chosen to do with the compensation it would have received in a 'but for' world", and such an award would compensate DT for risks it never bore.⁴⁷⁴ Moreover, several authorities have found it inappropriate to apply the "opportunity cost" approach to the awarding of interest⁴⁷⁵ and the decisions relied upon by the Claimant do not award an interest rate based on opportunity cost, but apply a short-term, risk-free interest rate.⁴⁷⁶
309. For the Respondent, in finding that India breached the Treaty, "the Tribunal effectively relieved [the] Claimant of any 'risks' associated with the proposed Devas business".⁴⁷⁷
310. According to the Respondent, there is similarly no reason to award compound interest which, contrary to the Claimant's allegations, is not the norm in international arbitration.⁴⁷⁸

Mexican States, ICSID Case No. ARB(AF)/04/5, Award, 21 November 2007, **Exh. RLA-183**, para. 300; *LG&E Energy Corp. et al. v. Argentine Republic*, ICSID Case No. ARB/02/1, Award, 25 July 2007, **Exh. RLA-185**, paras. 102, 105; *Siemens A.G. v. The Argentine Republic*, ICSID Case No. ARB/02/8, Award, 6 February 2007, **Exh. CLA-064**, para. 396; *CMS Gas Transmission Company v. The Argentine Republic*, ICSID Case No. ARB/01/8, Award, 12 May 2005, **Exh. CLA-098**, para. 471; *Bilcon*, **Exh. RLA-218**, para. 321.

⁴⁷⁴ Counter-Memorial, para. 137; Rejoinder, para. 168, referring, in particular, to *Vestey*, **Exh. CLA-148**, paras. 439-441, 446.

⁴⁷⁵ Counter-Memorial, paras. 139-143; Rejoinder, para. 167, referring to Franklin M. Fisher and R. Craig Romaine, *Janis Joplin's Yearbook and the Theory of Damages*, Journal of Accounting Auditing & Finance, vol. 5, no. 1 (Winter 1990), **Exh. EO-075**, p. 146; Aaron Xavier Fellmeth, *Below-Market Interest in International Claims against States*, 13(2) Journal of International Economic Law 423 (June 2010), **Exh. RLA-214**, p. 436; *PSEG Global Inc. and Konya Ilgin Elektrik Üretim ve Ticaret Limited Şirketi v. Republic of Turkey*, ICSID Case No. ARB/02/5, Award, 19 January 2007, **Exh. RLA-150**, para. 345; *Guaracachi America, Inc. and Rurelec Plc v. The Plurinational State of Bolivia*, PCA Case No. 2011-17, Award, 31 January 2014, **Exh. CLA-108**, paras. 614, 287(g), 615; *Tza Yap Shum*, **Exh. RLA-200**, paras. 288, 290.

⁴⁷⁶ Rejoinder, para. 166.

⁴⁷⁷ Counter-Memorial, para. 137; Rejoinder, para. 169.

⁴⁷⁸ Counter-Memorial, para. 147, referring to *Yukos*, **Exh. RLA-188**, paras. 1689-1691; *Desert Line Projects LLC v. The Republic of Yemen*, ICSID Case No. RB/05/17, Award, 6 February 2008, **Exh. RLA-215**, para. 295; *CME Czech Republic B.V. v. Czech Republic*, UNCITRAL, Final Award, 14 March 2003, IIC 62 (2003), **Exh. CLA-018**, para. 647; *Marvin Feldman v. Mexico*, ICSID Case No. ARB(AF)/99/1, Award, 16 December 2002, **Exh. RLA-100**, para. 211; *Southern Pacific Properties*, **Exh. CLA-065**, para. 236; International Law Commission, "Draft articles on Responsibility of states for

311. Finally, the Respondent has made no submissions in relation to the Claimant's request for declarations concerning taxes.

3. Analysis

312. While they diverge on the applicable rate of interest, the Parties are in agreement on the principle that interest is payable. It is indeed hardly debatable that the failure to pay a sum when due requires an award of interest for the creditor to be made whole. As stated in Article 38 of the ILC Articles:

“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.”

313. Tribunals have noted that the purpose of an award of interest is an integral aspect of making the claimant whole for the losses suffered.⁴⁷⁹ This is an approach also supported by commentators.⁴⁸⁰ For instance, as noted by the tribunal in *Vivendi v. Argentina*:

“The object of an award of interest is to compensate the damage resulting from the fact that, during the period of non-payment by the debtor, the creditor is deprived of the use and disposition of that sum he was supposed to receive.”⁴⁸¹

internationally wrongful acts, with commentaries” [2001-II(2)], Yearbook of the International Law Commission 1, **Exh. CLA-126**, Art. 38, p. 108. See also Rejoinder, para. 170.

⁴⁷⁹ See, e.g., *Vivendi II*, **Exh. CLA-020**, para. 8.3.20, where the Tribunal concluded that “[i]n these circumstances, we calculate CAA’s investment damages to be US\$105 million (US\$51 million plus US\$54 million). As its 94.4% *de facto* shareholder, Vivendi is entitled to a 94.4% share of CAA’s damages. However, in order ‘to wipe-out all the consequences of the illegal act and re-establish the situation which would, in all probability, have existed if the act had not been committed’ (the *Chorzów* principle), it is necessary for any award of damages in this case to bear interest”.

⁴⁸⁰ See Borzu Sabahi, *Compensation and Restitution in Investor-State Arbitration* (Oxford University Press 2011), p. 132 (“[a]warding sunk investment costs allows the claimant to recover its invested capital, minus what it already has recovered, plus a return on the capital invested from the date of the injury until the date of recovery, in the form of interest”); Irmgard Marboe, *Calculation of Compensation and Damages in International Investment Law* (Oxford University Press 2017), para. 5.243 (“tribunals might well find that full reparation could best be achieved by a repayment of investment and expenses undertaken plus an appropriate rate of interest”).

⁴⁸¹ *Vivendi II*, **Exh. CLA-020**, para.9.2.3.

314. This being so, as noted, the Parties do not agree on the appropriate interest rate to be applied and on whether interest should be simple or compound.
315. Starting with the applicable interest rate, the Tribunal notes that it enjoys broad discretion in determining the appropriate interest rate depending on the specific circumstances of the case. As noted by the tribunal in *Santa Elena*:
- “[T]he determination of interest is a product of the exercise of judgment taking into account all of the circumstances of the case at hand and especially considerations of fairness which must form part of the law to be applied by this Tribunal.”⁴⁸²
316. While the practice of investment tribunals is not entirely uniform with regard to the rate of interest awarded,⁴⁸³ one widely accepted approach is to award interest at a commercial rate, such as LIBOR (for loans of a given period) plus some percentage points, frequently 2%.⁴⁸⁴ Such a rate would adequately compensate DT for the loss of the use of the principal in the relevant time period. Investment treaty tribunals often use floating interbank offered rates augmented with a premium as an accurate indication of the market value of money in a specific currency.⁴⁸⁵ In case LIBOR were to be discontinued in the future, interest shall accrue at a comparable rate, for instance, 6-month EURIBOR plus 2% p.a.⁴⁸⁶
317. Furthermore, in the Tribunal’s view, interest should be compounded in line with generally accepted financial practice. If the Claimant had not been deprived of the funds to which it was entitled, it could have invested them and would have earned compound interest. Similarly, if as a result of the deprivation, it had to borrow money, it would also have paid compound interest. Case law confirms this choice.⁴⁸⁷

⁴⁸² *Compañía del Desarrollo de Santa Elena, S.A. v. The Republic of Costa Rica*, ICSID Case No. ARB/96/1, Final Award, 17 February 2000, **Exh. CLA-154**, para. 103.

⁴⁸³ Mark Beeley, *Approaches to the Award of Interest*, in *Contemporary and Emerging Issues on the Law of Damages and Valuation in International Investment Arbitration* 83 (Christina L. Beharry ed., Brill/Nijhoff 2018), pp. 379-380.

⁴⁸⁴ *Ibid.*

⁴⁸⁵ See, e.g. *Magyar Farming Company Ltd, Kintyre Kft and Inicia Zrt v. Hungary*, ICSID Case No. ARB/17/27, Award, 13 November 2019, para. 321, with further references.

⁴⁸⁶ See *ConocoPhillips Petrozuata B.V., ConocoPhillips Hamaca B.V. and ConocoPhillips Gulf of Paria B.V. v. Venezuela*, ICSID Case No. ARB/07/30, Award, 8 March 2019, **Exh. CLA-188**, paras 829, 1010(3).

⁴⁸⁷ *Ioan Micula, Viorel Micula and others v. The Republic of Romania*, ICSID Case No. ARB/05/20, Award, 11 December 2013, **Exh. CLA-036**, paras. 1266-1267; *Compañía del*

318. In respect of the *dies a quo*, the Tribunal considers that interest shall run from the date of the breach, *i.e.* 17 February 2011, to the date of payment.
319. In conclusion, interest on the principal sum awarded shall accrue at a rate of LIBOR (or any other comparable rate in case LIBOR should be discontinued in the future), plus 2% p.a., compounded semi-annually, from 17 February 2011 until payment in full.
320. The Tribunal finally turns to the Claimant's requests for a declaration and orders in respect of taxes. It is unpersuaded that the Claimant has made out a sufficient case for this type of requests. In line with other arbitral tribunals which have dismissed similar claims, the Tribunal is of the view that such request would be speculative and uncertain, as it is unclear, and has not been substantiated, what type of taxes India or any other country may levy on the award.⁴⁸⁸ With particular regard to any tax liability arising in countries other than India, the Tribunal is unconvinced that a tax gross-up would meet the requirement of causation of the

Desarrollo de Santa Elena v. Costa Rica, ICSID Case No. ARB/96/1, Final Award, 17 February 2000, **Exh. CLA-154**, paras. 105-106; *Renta 4 S.V.S.A., Ahorro Corporacion emergentes F.I., Quasar de Valores SICAV S.A., Orgor de Valores SICAV S.A., GBI 9000 SICAV S.A., ALOS 34 S.L. v. The Russian Federation*, SCC No. 24/2007, Award, 20 July 2012, para. 226; *Emilio Agustín Maffezini v. The Kingdom of Spain*, ICSID Case No. ARB/97/7, Award, 13 November 2000, **Exh. CLA-026**, para. 96; *Wena*, **Exh. CLA-078**, paras. 128-129; *El Paso International Company v. The Argentine Republic*, ICSID Case No. ARB/03/15, Award, 31 October 2011, **Exh. CLA-025**, para. 746; *Lemire*, **Exh. CLA-161**, paras. 359-361.

⁴⁸⁸ See, e.g., *Venezuela Holdings et al. v. Venezuela*, ICSID Case No. ARB/07/27, Award, 9 October 2014, **Exh. C-177**, paras. 386-388 ("this claim is speculative, contingent and uncertain"); *Saint-Gobain Performance Plastics Europe v. Venezuela*, Decision on Liability and the Principles of Quantum, ICSID Case No. ARB/12/13, 30 December 2016, paras. 904-905 ("such request is speculative and unfounded; the Tribunal therefore sees no basis for ordering an indemnification against foreign taxation liabilities as requested by Claimant. Consequently, Claimant's claim that Respondent be ordered to indemnify Claimant in respect of any double taxation liabilities that would arise in France or elsewhere that would not have arisen but for Venezuela's adverse measures is denied"); see also *Les Laboratoires Servier, S.A.S., Biofarma, S.A.S. and Arts et Techniques du Progres S.A.S. v. Republic of Poland*, PCA Case No. 2010-12, Award (Redacted), 14 February 2012, para. 666 ("Although the Tribunal has considered the possible tax ramifications of this Award, it can find no reason to speculate on the appropriateness, one way or another, of any proposed 'gross-up' to take into account potential tax liability, whether in Poland or in France. The ultimate tax treatment of an award representing the 'real value' of an investment must be addressed by the fiscal authorities in the investor's home jurisdiction as well as the host state"); *Eiser Infrastructure Limited and Energía Solar Luxembourg S.à r.l. v. Kingdom of Spain*, ICSID Case No. ARB/13/36, Final Award, 4 May 2017, para. 456; *Masdar Solar & Wind Cooperatief U.A. v. Kingdom of Spain*, ICSID Case No. ARB/14/1, Award, 16 May 2018, para. 660; *Antin Infrastructure Services Luxembourg S.à r.l. and Antin Energía Termosolar B.V. v. Kingdom of Spain*, ICSID Case No. ARB/13/31, Award, 15 June 2018, para. 673.

loss. As held by the tribunal in *Rusoro v. Venezuela*, “[a]ny tax liability arising under [the home State’s] tax laws (or from any other fiscal regime, other than the [respondent State]), does not qualify as consequential loss arising from [the respondent’s] breach of the Treaty and does not engage [the respondent’s] liability”.⁴⁸⁹

321. For these reasons, the Tribunal denies the Claimant’s request for a declaration and order in relation to taxes.

D. THE EFFECT OF THE ICC AWARD

322. As already recalled in the Interim Award,⁴⁹⁰ on 19 June 2011, Devas commenced an ICC arbitration against Antrix pursuant to Article 20 of the Agreement, requesting specific performance or, in the alternative, damages of approximately USD 1.6 billion. The seat of the arbitration was Delhi. The ICC tribunal issued a final award on 14 September 2015 (referred to in this award as the “ICC Award”), whereby it awarded USD 562.5 million plus interest to Devas “for damages caused by Antrix’s wrongful repudiation of the Devas Agreement”. Antrix filed an action for annulment of the ICC Award before the Indian courts,⁴⁹¹ which set aside proceedings the Tribunal understands are currently pending.

323. In its Memorial, the Claimant made the following statement:

“DT does not seek double recovery in relation to its investment, and would take appropriate steps to ensure it is not compensated twice in the event that any damages were ever to be paid by Antrix to Devas pursuant to the ICC Award.”⁴⁹²

324. At the Hearing, the Tribunal asked the Parties for their positions on “the effects of the fact that Devas was awarded compensation in the ICC arbitration on the request for relief in this arbitration”.⁴⁹³ The Tribunal also sought clarification as to “what measures, including possibly what undertaking the Claimant would be

⁴⁸⁹ *Rusoro*, **Exh. CLA-170**, para. 854.

⁴⁹⁰ See Interim Award, paras. 101-103.

⁴⁹¹ See Respondent’s Submission on the ICC Award in *Devas Multimedia Private Limited v. Antrix Corporation Limited*, ICC Case No. 18051/Cyk, 7 December 2015, para. 8.

⁴⁹² Memorial, fn. 10.

⁴⁹³ Transcript, Day 4, p. 354, line 24 - p. 355, line 2.

prepared to give in this respect”.⁴⁹⁴ The Tribunal invited the Parties to address these questions in their closing statements at the end of the Hearing and/or post-hearing submissions.⁴⁹⁵

325. In response to the Tribunal’s questions, in its closing statement, the Claimant gave the following answer:

“[O]ur position remains the same today [as stated in DT’s written submissions]: DT formally undertakes to ensure that no double recovery will ensue. I’m sure the Tribunal are familiar with how this has just been dealt with in the *ConocoPhillips v Venezuela* case. We would be very happy to have that formally included in the award, so that at a later stage, before an enforcing court, that is a formalised undertaking that can be dealt with at that stage, in terms of figuring out how enforcement would happen. What I would just add on enforcement is that we really don’t think this is much of an issue because the ICC award is being very much contested. Antrix has limited assets. And in fact we have recently learnt that the government has incorporated a new space company in India called NewSpace, which has been incorporated with the same directors as Antrix, and the press is speculating about the fact that this has been done to evade the enforcement of the ICC award. So we are not seeing any kind of enforcement coming out of the ICC award very quickly.”⁴⁹⁶

326. The Claimant re-stated its position in similar terms in its first PHB.⁴⁹⁷

327. India, for its part, gave the following answer to the Tribunal’s question in its closing statement at the Hearing:

“[W]ith respect to the ICC award, I do not see the answer right now, to be honest. I firmly believe that the ICC award is untenable and will eventually be set aside, for many reasons that we don’t need to litigate here. But I frankly have no idea at this time how to deal with the double recovery issue in the meantime. Maybe I’ll think of something for the post-hearing brief, but right now I’m at a loss.”⁴⁹⁸

328. The Respondent did not address the matter further in its post-hearing submissions. It did, however, write to the Tribunal on 9 March 2020 to “provide an update regarding the confirmation proceedings of the award rendered in the

⁴⁹⁴ Transcript, Day 4, p. 355, line 3 - 10.

⁴⁹⁵ Transcript, Day 4, p. 354, line 17 - 21.

⁴⁹⁶ Transcript, Day 5, p. 74, line 10 - p. 75, line 5.

⁴⁹⁷ See C-PHB1, para. 230 (“as regards the Tribunal’s question with respect to double recovery, as indicated at the Hearing, DT’s position remains that it does not seek double recovery in relation to its investment, and undertakes to take appropriate steps to ensure it is not compensated twice in the unlikely event that any damages are ever paid by Antrix to Devas pursuant to the ICC Award. Such an undertaking may be included in the Tribunal’s Final Award so that, if necessary, it may be dealt with by an enforcement court in due course”).

⁴⁹⁸ Transcript, Day 5, p. 128, line 21 - p. 129, line 3.

case *Devas Multimedia Private Limited v. Antrix Corporation Limited*, ICC Case No. 18051/CYK (the ‘ICC Award’), in France”. The Respondent’s update concerned certain developments in enforcement proceedings relating to the ICC Award in France, but did not address the Tribunal’s question on the possible risks of double recovery.

329. The Tribunal had requested the clarifications regarding double recovery mentioned above as it understood that such risk could materialize, because both the ICC arbitration and the present arbitration deal with the same underlying facts and the same economic harm, even though the parties and the legal bases are distinct. Having reviewed the Parties’ positions, the Tribunal takes due notice of DT’s undertaking that it does not seek double recovery in relation to its investment, and that it will take appropriate steps to ensure that it is not compensated twice in the event that any damages were to be paid by Antrix to Devas pursuant to the ICC Award. The Tribunal will reflect such undertaking in the operative part of this Award (see *infra* para. 357.e)).

VI. COSTS

1. The Claimant’s position

330. The Claimant argues that, consistent with a long line of authorities,⁴⁹⁹ costs should follow the event. This is the default rule under Article 40 of the UNCITRAL Rules and is in conformity with Article 9(2)(b)(vii) of the Treaty.
331. DT seeks the recovery of the following costs incurred in the jurisdiction and liability phases of these proceedings:

“(i) its share of the fees of the Tribunal and the PCA, in the sum of €300,000.00;

(ii) its reasonable witness costs in the sums of £19,791.29 and €5,082.00;

(iii) its reasonable costs for fees, disbursements and photocopying charges of its international counsel, Freshfields Bruckhaus Deringer LLP, in the sum of £4,972,260.40;

(iv) its reasonable costs for the fees and disbursements of Mr Samuel Wordsworth QC, in the sum of £180,775.01;

⁴⁹⁹ C-CS1, paras. 3-8; C-CS2, para. 4.

(v) its reasonable costs for the fees and disbursements of its Indian counsel in the sums of €28,895.00 and £77,185.00; and

(vi) the costs of the appointing authority in the sum of \$10,000.00.”⁵⁰⁰

332. For the quantum phase of this arbitration, DT seeks the recovery of the following costs:

“(i) its share of the fees of the Tribunal and the PCA, presently set at €125,000.00 and £177,858.41, to be finally determined by the Tribunal;

(ii) its reasonable witness costs in the sums of £14,792.91 and €3,276.36;

(iii) its reasonable costs for fees, disbursements and photocopying charges of its international counsel, Freshfields Bruckhaus Deringer LLP, in the sum of £4,598,424.17;

(iv) its reasonable costs for the fees and disbursements of its quantum expert, FTI Consulting, in the sum of £1,438,401.07;

(v) its reasonable costs for the fees and disbursements of its Indian counsel, advisor and regulatory consultant, in the total sum of £382,225.26;

(vi) its reasonable costs for the fees and disbursements of its graphics consultant, Immersion Legal, in the sum of £28,294.22; and

(vii) its reasonable costs for the fees and disbursements of Mr Samuel Wordsworth QC, in the sum of £5,375.00.”⁵⁰¹

333. Accordingly, in addition to the Tribunal and administrative costs, the Claimant claims a total of GBP 11,717,524.30, EUR 433,358.36, and USD 10,000 in respect of its legal fees and other expenses.

334. In addition, DT seeks interest on the costs recovered, from the date when those costs were incurred, at LIBOR plus 4%.⁵⁰²

335. In support of its position, DT notes that it fully prevailed on the jurisdiction and liability phase of this arbitration, which it contends in and of itself justifies awarding the Claimant its costs.⁵⁰³ DT further invites the Tribunal to have regard to:

a. “India’s obdurate evasion of its responsibilities towards Devas and its shareholders following the annulment of the Devas Agreement nearly a

⁵⁰⁰ C-CS2, para. 20. See also C-CS1, para. 21.

⁵⁰¹ C-CS2, para. 19.

⁵⁰² *Id.*, paras. 19-20.

⁵⁰³ C-CS2, para. 6.

decade ago, including by means of its continuing failure to comply with the ICC Award”;⁵⁰⁴

- b. The several baseless domestic investigations and legal proceedings initiated by India against Devas and DT Asia;⁵⁰⁵
- c. “India’s use of documents produced in such local proceedings as diversionary tactics in [this arbitration]”;⁵⁰⁶
- d. India’s reliance on “cherry-picked evidence from the ICC and [Mauritius BIT] Arbitrations”, despite the Tribunal’s order that the Parties were only allowed to use evidence from the Mauritius BIT Arbitration “for the impeachment of witnesses appearing in both proceedings”.⁵⁰⁷
- e. The inappropriate attempts by India to combine the Mauritius BIT Arbitration and this arbitration, including by means of improper communication to this Tribunal and the Mauritius BIT Arbitration tribunal;⁵⁰⁸ and
- f. India’s “insistence on the bifurcation of the arbitration between the jurisdiction and liability phase and the quantum phase, which ultimately caused DT to incur substantially higher total costs, in view of the extensive overlap in factual and regulatory issues in both phases”.⁵⁰⁹

⁵⁰⁴ *Id.*, para. 7(a).

⁵⁰⁵ *Id.*, para. 7(b).

⁵⁰⁶ *Id.*, para. 7(c).

⁵⁰⁷ *Id.*, para. 7(d).

⁵⁰⁸ *Id.*, para. 7(e).

⁵⁰⁹ *Id.*, para. 7(f).

2. The Respondent's position

336. The Respondent requests recovery of the following costs incurred in this arbitration:⁵¹⁰

CATEGORY	BILLED AMOUNT (US\$)
CMP Attorneys	5,429,720
CMP Paralegals	594,680
Economic Expert	1,169,008
Technical Expert	341,275
Total Time Charged	7,534,683
Arbitrators' fees and expenses and PCA administrative costs	624,800
Travel and Other Charges	456,520
Total Costs Claimed	8,616,003

337. The Respondent has made no further submissions in relation to costs.

3. Analysis

a. *The costs of the arbitration pursuant to Article 38 of the UNCITRAL Rules*

338. Article 38 of the UNCITRAL Rules provides as follows:

"The arbitral tribunal shall fix the costs of arbitration in its award. The term 'costs' includes only:

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

⁵¹⁰ Letter from the Respondent to the Tribunal, dated 30 August 2019.

(f) Any fees and expenses of the appointing authority as well as the expenses of the Secretary-General of the Permanent Court of Arbitration at The Hague.”

339. Thus, Article 38 recognizes broadly three categories of costs and expenses: (i) “Tribunal Costs” comprising the fees and expenses of the Tribunal and Secretary; (ii) “Party Costs” comprising the legal and witness related costs incurred by the Parties; and (iii) “Administrative Costs” comprising here the fees and expenses of the PCA, including with regard to hearing and other expenses.

b. Cost advances

340. In the course of the arbitration, each Party made cost advances to the PCA in an amount of EUR 805,000.00.

c. Tribunal and administrative costs

341. In the Interim Award, the Tribunal deferred its decision on fixing and apportioning costs to its final award (see Interim Award, para. 423). Therefore, the present decision concerns the costs incurred in connection with this arbitration for both the jurisdiction/liability and quantum phases.

342. In the arbitration proceeding, the members of the Tribunal spent a total of 1,702.50 hours as follows: Mr. Daniel M. Price, 365.50 hours; Prof. Brigitte Stern, 469 hours; and Prof. Kaufmann-Kohler, 868 hours. In the Terms of Appointment, the Parties agreed that the Tribunal’s time would be compensated at an hourly rate of EUR 600 exclusive of VAT, where applicable.⁵¹¹

343. The Secretary of the Tribunal has spent a total of 702.50 hours. In the Terms of Appointment, it was agreed that the Secretary would be compensated at an hourly rate of EUR 300 exclusive of VAT, where applicable.

344. Therefore, the total fees of the Tribunal and the Secretary (excluding VAT) amount to EUR 1,232,250.00.

345. The Tribunal and the Secretary have incurred expenses in the amount of EUR 55,325.46.

⁵¹¹ It is noted that the Parties agreed to derogate from part of Article 9(2)(b)(vii) of the BIT, which reads as follows: “Each party concerned shall bear the cost of its own arbitrator and its representation in the arbitral proceedings. The cost of the Chairman in discharging his arbitral function and the remaining costs of the tribunal shall be borne equally by the parties concerned”.

346. The PCA fees for the administration of the case and its registry services amount to EUR 29,740.00.
347. Other costs, relating in particular to the hearings expenses, catering, court reporting services, amount to EUR 143,229.18.
348. Thus, the total costs of the proceedings amount to EUR 1,460,544.64.
349. Considering that the Parties advanced a total of EUR 1,610,000.00 towards the advances on costs, the balance to be returned to the Parties in accordance with Art. 41(5) UNCITRAL Rules amounts to EUR 149,455.36. The PCA will provide the Parties with the case statement of account in due course.

d. Allocation of the costs of the arbitration

350. Article 40 of the UNCITRAL Rules sets out the standard on the basis of which the Tribunal must determine the allocation of the above categories of costs:

“1. Except as provided in paragraph 2, the costs of 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.

2. With respect to the costs of legal representation and assistance referred to in article 38, paragraph (e), the arbitral tribunal, taking into account the circumstances of the case, shall be free to determine which party shall bear such costs or may apportion such costs between the parties if it determines that apportionment is reasonable. [...]”

351. Thus, the first sentence of Article 40(1) of the UNCITRAL Rules provides that the unsuccessful party shall in principle bear all of the costs of the arbitration. The second sentence of Article 40(1) grants the Tribunal the authority to apportion costs among the Parties if, in light of the “circumstances of the case”, it decides that such apportionment is “reasonable”.
352. The Tribunal starts with the outcome of the arbitration. The Claimant has prevailed on jurisdiction and liability. On quantum, it has partially prevailed as the damages awarded were less than what it claimed, and the two primary valuation methodologies which it had proposed were dismissed by the Tribunal. In assessing the outcome, however, it bears noting that the Claimant would not be made whole had it not resorted to arbitration, which could not be done without incurring costs whatever the amounts claimed and awarded.

353. Thus, considering the outcome of the claims and “the circumstances of the case” (Article 40 UNCITRAL Rules), the Tribunal determines that the cost allocation that most appropriately reflects the outcome of the proceedings is the following:
- a. The Respondent shall bear the entirety of the costs of the proceedings (Tribunal and PCA fees and expenses);
 - b. The Respondent shall bear the Claimant’s legal fees and other expenses incurred for the jurisdiction and liability phase;
 - c. Each Party shall bear the legal fees and other expenses which it incurred in the quantum phase.
354. In line with the second sentence of Article 40(1), the Tribunal has further reviewed whether there were other circumstances, including those enumerated by the Claimant in its cost submissions, which would warrant any different apportionment of costs and has come to the conclusion that there were none. In particular, the Tribunal notes that, while tribunals often take into account a party’s procedural conduct in their decision on the allocation of costs, in this case, both Parties have conducted these proceedings in a professional and cost-effective manner.
355. In accordance with Article 38(1)(e) UNCITRAL Rules, the Tribunal has reviewed the amounts of the costs claimed by each Party. Both sides have incurred costs which are certainly considerable. However, these proceedings were highly complex and involved a multitude of difficult legal, regulatory, and quantum issues, with the result that the costs incurred appear commensurate with the complexity of the dispute and the high stakes involved.
356. The Claimant has further sought interest on the costs awarded at a rate of LIBOR plus 4% from the date those costs were incurred. As noted by the tribunal in *Canfor v. United States*, “interest over costs of arbitration is rarely claimed in international arbitration, although the rationale for that practice is not entirely clear”.⁵¹² Nevertheless, the Tribunal considers that, consistent with the principle of full reparation, India should pay interest on the costs awarded. Such interest should be computed at the same rate as the interest payable on the damages

⁵¹² *Canfor Corp., Tembec Inc. et al. and Terminal Forest Products Ltd. v. United States of America*, UNCITRAL Arbitration Proceeding, Joint Order on the Costs of Arbitration and for the Termination of Certain Arbitral Proceedings, 19 July 2007, para. 189.

awarded, should be compounded in the same manner, and should start to run 30 days after the date of this award.

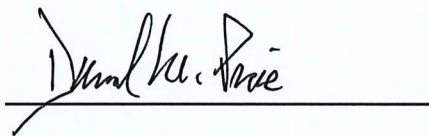
VII. OPERATIVE PART

357. For the reasons set forth above, the Tribunal decides as follows:

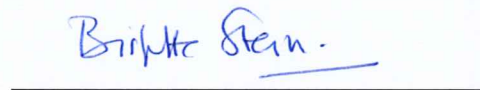
- a. The Republic of India shall pay to Deutsche Telekom AG the amount of USD 93.3 million, together with interest on such amount at a rate of 6-month USD LIBOR (or any other comparable rate in case LIBOR were to be discontinued in the future) plus 2% p.a., compounded semi-annually, from 17 February 2011 until payment in full;
- b. The costs of this arbitration are fixed at EUR 1,460,544.64;
- c. The Republic of India shall pay to Deutsche Telekom AG the amounts of EUR 730,272.32 as reimbursement of the costs of the arbitration, as well as GBP 5,250,011.70 and EUR 33,977.00 and USD 10,000.00 as reimbursement of part of Deutsche Telekom AG's legal fees and other expenses, together with interest on such amounts at a rate of 6-month USD LIBOR (or any other comparable rate in case LIBOR were to be discontinued in the future) plus 2% p.a., compounded semi-annually, starting to run 30 days after the date of this award until payment in full;
- d. Except as stated in subparagraph (c) above, each Party shall bear the legal fees and other expenses which it incurred in connection with this arbitration;
- e. The Tribunal takes note of Deutsche Telekom AG's undertaking that it does not seek double recovery in relation to its investment, and will take appropriate steps to ensure that it is not compensated twice in the event that any damages were to be paid by Antrix Corporation Limited to Devas Multimedia Private Limited pursuant to the ICC Award;
- f. All other claims and requests are dismissed.

Seat of arbitration: Geneva, Switzerland

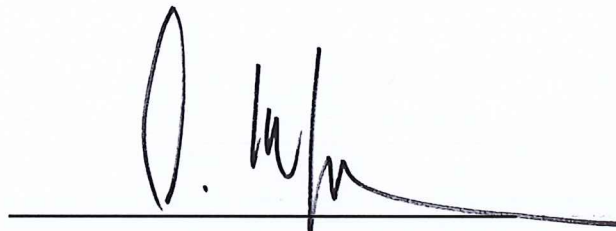
Date: 27 May 2020



Mr. Daniel M. Price



Prof. Brigitte Stern



Prof. Gabrielle Kaufmann-Kohler