



ICC (INTERNATIONAL CHAMBER OF COMMERCE)

ICC Case No. 18051/CYK

DEVAS MULTIMEDIA PRIVATE LIMITED V. ANTRIX CORPORATION LIMITED

FINAL AWARD

14 September 2015

Tribunal:

[V.V. Veeder](#) (Appointed by the claimant)

[Michael C. Pyles](#) (President)

[Adarsh Sein Anand](#) (Appointed by the Appointing Authority)

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Final Award

Introduction

1. The Claimant in this arbitration is Devas Multimedia Private Limited (**Devas**), a company incorporated under the laws of India with its principal place of business at Preema Gardenia, 357/6 1st Cross, 1 Block, Jayanagar, Bangalore 560 011, India. The majority of Devas' shares are owned by Deutsche Telekom Asia Pte Ltd (**DT Asia**), Telcom Devas Mauritius Ltd (**Telcom Devas**) and CC/Devas (Mauritius) Ltd (**CC/Devas**).¹
2. The Respondent is Antrix Corporation Limited (**Antrix**), a company incorporated in India with its principal place of business at Antariksh Bhavan, Near New BEL Road, Bangalore 560 231, India. Antrix is wholly owned by the Government of India (**GOI**).
3. Devas is represented in this arbitration by:
 - a. Skadden, Arps, Slate, Meagher & Flom (UK) LLP of 40 Bank Street, London E14 5DS, United Kingdom (**UK**);
 - b. Skadden, Arps, Slate, Meagher & Flom LLP of Four Times Square, New York, NY 10036, United States of America (**USA**);
 - c. Amarchand & Mangaldas & Suresh A. Shroff & Co of 216 Okhla Industrial Estate Phase III, New Delhi 110 020, India;² and
 - d. Senior Advocates in India Messrs Harish Salve and Ciccu Mukhopadhaya.
4. Antrix is represented by Curtis, Mallet-Prevost, Colt & Mosle LLP of 101 Park Avenue, New York, NY 10178, USA.
5. The tribunal is comprised of Mr V.V. Veeder QC (of Essex Court Chambers, 24 Lincoln's Inn Fields, London WC2A 3EG, UK), Dr Adarsh Sein Anand (of "Gurukripa" C-49, Sector 14, 201301 Noida (U.P.), India) and Dr Michael Pryles (of Level 26, 530 Collins Street, Melbourne, Victoria 3000, Australia).
6. This arbitration arises out of a written agreement between Antrix and Devas for the lease of space segment capacity on two satellites (**the Devas Agreement**). Relevant facts are set out below.³ In summary, Antrix agreed to build, launch and operate two satellites⁴ and lease spectrum capacity on those satellites to Devas,⁵ which Devas planned to use to provide digital multimedia broadcasting

¹ Defined terms are also set out Annexure A.

² The tribunal understands that this law firm may have recently split into two different law firms: Cyril Amarchand Mangaldas and Shardul Amarchand Mangaldas.

³ See [48] to [132] below.

⁴ Namely, a primary satellite system known variously as PS1, GSAT-6 and INSAT-4E, and at the option of Devas, a secondary satellite system known variously as PS2 or GSAT-6A: see Articles 2 and 12(a)(iii), and [66] below.

services across India.⁶ In return, Devas agreed to pay to Antrix Upfront Capacity Reservation Fees (*UCRF*) of USD 20 million per satellite, and lease fees of USD 9 million to USD 11.25 million per annum.⁷ The lease term was twelve years, with a right of renewal at reasonable lease fees for a further twelve years.⁸

7. The agreement was executed on 28 January 2005. From then until 2010 the parties' relationship progressed smoothly. Among other things, necessary licences and approvals were obtained,⁹ work on the satellites progressed,¹⁰ Devas obtained funding from investors¹¹ and trials relating to Devas' operating system were conducted successfully.¹²
8. In June 2010, however, Dr K. R. Radhakrishnan - the Chairman of Antrix as well as the Secretary of India's Department of Space (DOS) and Chairman of the Indian Space Research Organisation (*ISRO*) (an entity that sits under the DOS) and India's Space Commission¹³-sought and obtained legal advice about annulling the agreement.¹⁴ Devas says he did so in response to political pressure that had been created by media criticism of the Devas Agreement;¹⁵ Antrix says he did so because India's military needed to use the spectrum that had been leased to Devas.¹⁶ As will become apparent, Dr Radhakrishnan's motivation is not necessary to determine. The ultimate result of his conduct, however, was a decision by India's Cabinet Committee on Security (CCS) to annul the agreement.¹⁷ Devas was notified of the CCS' decision on 25 February 2011,¹⁸
9. Devas subsequently commenced this arbitration. Devas alleges that Antrix was not entitled to terminate the Devas Agreement and repudiated its obligations by purporting to do so. Devas says that it has accepted that repudiation and is entitled to damages equal to the value of its business (which it claims is USD 1.41 billion), plus interest and costs.¹⁹
10. Initially Antrix did not participate in this arbitration. It denied that the tribunal had jurisdiction, commenced a separate arbitration concerning the Devas Agreement under the UNCITRAL

⁵ Antrix was required to build, launch and operate a primary satellite system (known variously as PS1, GSAT-6 and INSAT-4E) and, at the option of Devas, a secondary satellite system (known as PS1 and GSAT-6.A): see Articles 2 and 12(a)(iii) and [66] below.

⁶ Witness statement of Ramachand Viswanathan dated 20 February 2012, [34] - [49].

⁷ See Article 4 and Exhibit B. USD 9 million per annum was payable initially; USD 11.25 million per annum was payable when Devas became cash flow positive.

⁸ See Article 3(l). That provision states that the fees for the second term of the lease were "to be mutually agreed upon", but on 27 July 2006 the parties agreed to an amendment that provided that the fees under any renewed lease were to be "reasonable": see Exhibit 38.

⁹ Among other things, the Union Cabinet approved the design, development and launch of PS1/GSAT-6 (see [72] below), a modified co-ordination request was filed with the International Telecommunications Union for use of the 83°E orbital slot (see [73] below) and Devas obtained internet service provider and internet protocol television licences (see [84] below)

¹⁰ Witness statement of Gary Parsons dated 20 February 2012, [25].

¹¹ The investors were DT Asia, Telcom Devas and CC/Devas: see [74] to [79] below.

¹² Witness statement of Ramachand Viswanathan dated 20 February 2012, [110] - [123]; witness statement of Gary Parsons dated 18 February 2012, [21]; witness statement of Dr Rajendra Singh dated 19 February 2012, [51] - [55]; see also [85] to [87] below.

¹³ ISRO, DOS and Space Commission, and Dr Radhakrishnan's position within each entity, are discussed below: see [49] and [50].

¹⁴ See CB159 and [102] and [103] below.

¹⁵ See, e.g., Devas' post-hearing memorial, [16].

¹⁶ See, e.g., Antrix's Statement of Defence (at [30], [36]), Rejoinder (at [26]) Skeleton Submission (at [34]) and post-hearing memorial (at [67]).

¹⁷ See CB228 and [125] below.

¹⁸ See [126] below.

¹⁹ Devas' post-hearing reply memorial, [93].

Arbitration Rules and applied to the Supreme Court of India for an order that an arbitrator be appointed on behalf of Devas for that arbitration. The Supreme Court rejected its application.²⁰

11. Since then Antrix has participated in this arbitration, although it maintains that the tribunal does not have jurisdiction. It also denies that it breached the Devas Agreement. It says that it was required and, under the agreement, permitted to terminate the agreement in light of the CCS' decision. It says further that even if it did breach its obligations, the agreement contains a limitation of liability clause that precludes Devas from receiving any award of damages.
12. Before considering the parties' claims, the tribunal will set out the relevant procedural background, relevant facts and the applicable law(s). It will then turn to the issues of jurisdiction, liability, damages and interest. Finally, it will address the matter of the costs of this arbitration.

Procedural Background

13. On 1 July 2011 Devas filed a Request for Arbitration dated 29 June 2011 in respect of this matter with the International Court of Arbitration of the International Chamber of Commerce (*ICC Court*), and nominated Mr Veeder QC as an arbitrator.
14. In its Request, Devas relied on Article 20 of the Devas Agreement. Article 20 states:
"Article 20. Arbitration
 - a. In the event of there being any dispute or difference between the Parties hereto as to any clause or provision of this Agreement or as to the interpretation thereof or as to any account or valuation or as to the rights, liabilities, acts, omissions of any Party hereto arising under or by virtue of these presents or otherwise in any way relating to this Agreement such dispute or difference shall be referred to the senior management of both Parties to resolve within three (3) weeks failing which it will be referred to an Arbitral [sic] Tribunal comprising of three arbitrators, one to be appointed by each party (i.e. DEVAS and ANTRIX) and the arbitrators so appointed will appoint the third arbitrator.
 - b. The seat of Arbitration shall be at NEW DELHI in India.
 - c. The Arbitration proceedings shall be held in accordance with the rules and procedures of the ICC (International Chamber of Commerce) or UNCITRAL.
 - d. The Arbitration Tribunal shall reach and render a decision or award in writing (concurrent in by a majority of the members of the Arbitral [sic] Tribunal with respect to the appropriate award to be rendered or remedy to be granted pursuant to the dispute, (including the amount that any indemnifying Party is required to pay to the indemnified Party in respect of a claim filed by the indemnified Party).
 - e. To the extent practicable all decisions of the board of Arbitration shall be rendered no more than 30 (thirty) days following commencement of proceedings with respect thereto. The Arbitral [sic] Tribunal shall realize its decision on award into writing and cause the same to be delivered to the

²⁰ See [16], [34], [35] below.

Parties.

f. Any decision or award made by the board of Arbitration shall be final, binding and conclusive on the Parties and entitled to be enforced to the fullest extent permitted by Laws and entered in any court of competent jurisdiction.

g. Each Party to any Arbitration shall bear its own costs or expenses in relation thereto, including but not limited to such Party's attorneys' fees, if any, and the expenses and fees of the member of the Arbitral [sic] Tribunal appointed by such party, provided, however, that the expenses and fees of the third member of the Arbitral [sic] Tribunal and any other expenses of the Arbitral [sic] Tribunal not capable of being attributed to any one member shall be borne in equal parts by the Parties."

15. Antrix did not file an Answer to Devas' Request for Arbitration or nominate an arbitrator for this arbitration, but the tribunal understands that it informed the Secretariat of the ICC Court (*Secretariat*), on numerous occasions, that it denied that any arbitral tribunal constituted under the 1998 ICC Rules of Arbitration (*ICC Rules*) would have jurisdiction to decide Devas' claims; and that the ICC Court should not proceed with this arbitration.
16. As noted above, Antrix also sought to commence a separate arbitration against Devas pursuant to the UNCITRAL Arbitration Rules, and applied to the Supreme Court of India for:
"a direction upon Devas to nominate its Arbitrator in accordance with the Agreement dated 28th January, 2005, and the UNCITRAL Rules, to adjudicate the disputes, which had arisen between the parties and to constitute the Arbitral Tribunal and to proceed with the Arbitration".²¹
17. On 19 August 2011 the Secretariat informed the parties that at its session of 18 August 2011 the ICC Court had decided that this arbitration shall proceed pursuant to [Article 6\(2\) of the ICC Rules](#).
18. On 14 September 2011 the Secretariat informed the parties that the ICC Court will appoint an arbitrator on Antrix's behalf pursuant to [Article 8\(4\) of the ICC Rules](#) and fix the time limit for the co-arbitrators to select the chairman of the arbitral tribunal. On 3 October 2011 the Secretariat sent a reminder to the parties and informed them that the ICC Court will proceed to appoint an arbitrator on Antrix's behalf, but that any nomination received from Antrix before the ICC Court makes the appointment will be communicated to the ICC Court. No nomination was received from Antrix.
19. On 13 October 2011 the Secretariat informed the parties that at its session of the same date the ICC Court had: confirmed Mr Veeder QC as co-arbitrator nominated by Devas pursuant to [Article 9\(1\) of the ICC Rules](#); appointed Dr Anand as co-arbitrator on Antrix's behalf pursuant to [Article 9\(6\) of the ICC Rules](#); and granted Mr Veeder QC and Dr Anand 20 days to jointly nominate a Chairman.
20. On 26 October 2011 the Secretariat informed the parties that Mr Veeder QC and Dr Anand had advised that they would be unable to jointly nominate a Chairman within those 20 days due to Antrix's pending application in the Supreme Court of India. The Secretariat asked the parties to indicate whether they agreed to the co-arbitrators being given until the conclusion of that

²¹ *Antrix Corp. Ltd. V Devas Multimedia P. Ltd*, Judgment on Arbitration Petition No. 20 of. 2011 (*Antrix v Devas, Supreme Court Judgment*), [10].

proceeding to nominate a Chairman, failing which the ICC Court would be invited to appoint the Chairman pursuant to [Article 8\(4\) of the ICC Rules](#). The next day, Devas requested that the ICC Court appoint the Chairman. Antrix raised objections to the arbitral tribunal moving forward and to the constitution of the tribunal.

21. On 10 November 2011 the ICC Court appointed Dr Pryles as the Chairman of the tribunal upon the Australian National Committee's proposal, pursuant to [Article 9\(3\) of the ICC Rules](#).
22. On 14 November 2011, Dr Pryles wrote to the parties and made the following disclosure:
"I note that counsel from three firms are representing the Claimant, including Ciccu Mukhopadhaya of Amarchand & Mangaldas & Suresh A. Shroff & Co. I wish to point out, although I believe it is unnecessary to do so under the IBA Guidelines on Conflict of Interest in International Arbitration nor the ICC Rules of Arbitration, that Mrs Pallavi S Shroff of that firm is a member of the Board of Directors of the Singapore International Arbitration Centre (SIAC) of which I Chair. Members of the Board of Directors are not remunerated and SIAC is a not-for-profit company limited by guarantee. Mrs Shroff does not appear to be involved in this arbitration."
23. On 24 November 2011 Antrix wrote to the Secretariat and stated (inter alia) that "there is definitely a conflict of interest involved" on the part of Dr Pryles. On 29 November 2011 the Secretariat informed Antrix that any challenge to an arbitrator must be made in accordance with [Article 11 of the ICC Rules](#), and invited Antrix to state whether it wished to make a challenge concerning Dr Pryles. No challenge was made.
24. Also on 29 November 2011, the tribunal sought submissions from the parties on what the language of this arbitration should be. Devas submitted that the language should be English. Antrix did not respond.
25. On 16 December 2011 the Secretariat informed the parties that it had not heard from Antrix regarding any challenge to Dr Pryles and that unless otherwise advised, it understood that Antrix did not challenge Dr Pryles.
26. On 30 December 2011 Antrix informed the Secretariat that it had filed an application before an Additional City Civil Judge in Bangalore for an "injunction restraining Devas from proceeding in any manner with the purported arbitration before the ICC". The tribunal understands that the application was made under section 9 of the Indian Arbitration and Conciliation Act 1996, seeking an order permanently restraining this arbitration from proceeding.
27. Also on 30 December 2011, the Secretariat informed the arbitral tribunal and the parties that at its session of 8 December 2011, the ICC Court extended the time limit for the terms of reference until 29 February 2012, pursuant to [Article 18\(2\) of the ICC Rules](#).
28. On 10 January 2012 a preliminary conference was held to discuss draft terms of reference, the language of the arbitration, the appointment of a tribunal secretary and the procedural timetable. The conference was held by telephone and was attended by each member of the tribunal and representatives of Devas. Antrix was invited to attend but declined to do so.

29. On 13 January 2012 the tribunal issued Procedural Order 1 (which specified that the language of the arbitration shall be English) and a provisional procedural timetable (which provided for an oral hearing on 12 and 13 April 2012). The tribunal had previously invited the parties to comment on both Procedural Order 1 and the procedural timetable. The tribunal also advised the parties that Devas had agreed, and Antrix had not objected, to the appointment of Mr Robert Kovacs as tribunal secretary.
30. On 19 January 2012 Mr Kovacs was appointed as the tribunal's secretary.
31. On 9 February 2012 the ICC Court extended the time limit for the terms of reference until 31 March 2012.
32. On 8 March 2012 the terms of reference were approved by the ICC Court pursuant to [Article 18\(3\) of the ICC Rules](#).²²
33. On 9 March 2012 the Secretariat sent the terms of reference (as approved by the ICC Court) to Antrix and invited Antrix to sign the terms of reference. Antrix did not respond.
34. On 9 April 2012 the Supreme Court of India ordered that:
"the arbitral proceedings before the learned Arbitrator, appointed under the ICC Rules, shall remain stayed".
35. In light of this order, the hearing scheduled for 12 and 13 April 2012 did not proceed and the conduct of this arbitration was suspended. The Supreme Court's order remained in place until 10 May 2013, when it dismissed Antrix's application. Antrix filed a Review Petition but, on 29 August 2013, that too was dismissed.
36. On 13 May 2013 Devas asked that the tribunal proceed with this arbitration, and on 24 June 2013 the tribunal directed that the arbitration would proceed.
37. On 8 August 2013 Antrix advised that it would be participating in this arbitration and represented by Curtis, Mallet-Provost, Colt & Mosle LLP (*Curtis*). Curtis then advised the tribunal that Antrix wished to file a statement of defence together with supporting factual and expert evidence, without prejudice to its jurisdictional objections.
38. On 9 August 2013 the tribunal proposed that Mr Andrew Barraclough replace Mr Robert Kovacs as the tribunal's secretary. Both parties consented to the appointment of Mr Barraclough and, on 15 August 2013, the tribunal confirmed his appointment.
39. On 3 September 2013 the tribunal held a case management conference. Matters that were addressed during the conference included the procedural timetable, preparation for the final hearing and potential dates and locations for that hearing.
40. On 11 September 2013 Antrix applied for certain legal issues to be resolved as preliminary questions

²² In light of the parties' agreement on the issues that are to be resolved by the tribunal (see [137] below) it has not been necessary for the tribunal to address all of Devas' claims in [20] of the terms of reference.

- namely, whether the tribunal has jurisdiction to decide Devas' claims and, if it does, whether the available remedies for any breach of the agreement are limited to a refund of the UCRF. After receiving further submissions from both parties in respect of the application, on 2 October 2013 the tribunal notified the parties that it did not consider that the issues raised by Antrix should be decided as preliminary questions.

41. On 11 October 2013, after consulting with the parties, the tribunal directed that the hearing would be held in the week beginning 15 December 2014 in New Delhi. It later transpired that, for serious medical reasons, one of the tribunal members, based in London, may have been unable to attend the hearing if it took place in New Delhi at that time. In light of this, and the long delay in the arbitration (as noted above the hearing was originally scheduled to take place in April 2012), the geographical venue of the hearing was moved to London (without howsoever affecting the place or seat of this arbitration).
42. On 8 November 2013 the tribunal issued Procedural Order 2 after consulting with the parties. Both parties agreed to the inclusion of the following provision in Procedural Order 2:
"[t]he [IBA Rules on the Taking of Evidence in International Arbitration \(2010\)](#) ("[IBA Rules](#)") shall serve as a guide in the determination of evidentiary issues."
43. The oral hearing of this arbitration was held in London from 15 to 20 December 2014.
44. By the time of the hearing, the parties had submitted the following materials to the tribunal:
 - a. Pleadings / submissions
 - i. Devas' Statement of Claim dated 20 February 2012 (*Statement of Claim*)
 - ii. Antrix's Statement of Defence dated 15 November 2013 (*Statement of Defence*)
 - iii. Devas' Reply dated 24 March 2014 (*Reply*)
 - iv. Antrix's Rejoinder dated 1 August 2014 (*Rejoinder*)
 - v. Devas' Skeleton Argument dated 1 December 2014 (*Devas' Skeleton*)
 - vi. Antrix's Skeleton Argument dated 1 December 2014 (*Antrix's Skeleton*)
 - b. Witness statements - Devas
 - i. Statement of Gary Parsons dated 18 February 2012 (*Parsons 1*)
 - ii. Statement of Arun Gupta dated 19 February 2012 (*Gupta 1*)
 - iii. Statement of Lawrence T. Babbio Jr dated 19 February 2012 (*Babbio 1*)
 - iv. Statement of Dr Rajendra Singh dated 19 February 2012 (*Singh 1*)
 - v. Statement of Ramachandran Viswanathan dated 20 February 2012 (*Viswanathan 1*)
 - vi. Reply Statement of D. Venugopal dated 15 March 2014 (*Venugopal*)

- vii. Reply statement of M. G. Chandrasekhar dated 15 March 2014 (*Chandrasekhar*)
- viii. Reply statement of Dr Kim Larsen dated 19 March 2014 (*Larsen*)
- ix. Reply statement of Gary Parsons dated 21 March 2014 (*Parsons 2*)
- x. Reply statement of Lawrence T. Babbio Jr dated 23 March 2014 (*Babbio 2*)
- xi. Reply statement of Ramachandran Viswanathan dated 24 March 2014 (*Viswanathan 2*)
- xii. Reply statement of Rajendra Singh dated 24 March 2014 (*Singh 2*)
- xiii. Reply statement of Arun Gupta dated 24 March 2014 (*Gupta 2*)
- c. Witness statements - Antrix
 - i. Statement of Vijay Anand dated 15 November 2013 (*Anand*)
 - ii. Statement of K. Sethuraman dated 15 November 2013 (*Sethuraman 1*)
 - iii. Statement of Dr V. S. Hegde dated 30 July 2014 (*Hegde*)
 - iv. Supplemental statement of K. Sethuraman dated 31 July 2014 (*Sethuraman 2*)
- d. Expert reports - Devas
 - i. Report of John Lewis dated 17 February 2012 (*Lewis 1*)
 - ii. Report of Brent Kaczmarek dated 20 February 2012 (*Kaczmarek 1*)
 - iii. Reply report of John Lewis dated 14 March 2014 (*Lewis 2*)
 - iv. Reply report of Brent Kaczmarek dated 24 March 2014 (*Kaczmarek 2*)
 - v. Report by Brent Kaczmarek on the areas of disagreement with Vladimir Brailovsky and Daniel Flores dated 30 September 2014 (*Kaczmarek3*)
 - vi. Supplemental report of Brent Kaczmarek dated 17 October 2014 (*Kaczmarek 4*)
- e. Expert reports - Antrix
 - i. Report of Vladimir Brailovsky & Daniel Flores dated 15 November 2013 (*Brailovsky/Flores 1*)
 - ii. Second report of Vladimir Brailovsky & Daniel Flores dated 1 August 2014 (*Brailovsky/Flores 2*)
 - iii. Report by Vladimir Brailovsky and Daniel Flores on the areas of disagreement with Mr Kaczmarek dated 30 September 2014 (*Brailovsky/Flores3*)
 - iv. Supplemental Report by Vladimir Brailovsky and Daniel Flores dated 11 December 2014 (*Brailovsky/Flores 4*)
- f. Other

- i. An agreed "dramatis personae"
 - ii. An agreed list of abbreviations
 - iii. Separate chronologies of relevant events
 - iv. A transcript of the hearing in another arbitration concerning the Devas Agreement, *CC/Devas (Mauritius) Ltd et al v Republic of India*, PCA No. 2013-09. The parties agreed that this transcript, which records testimony of a number of Devas' and Antrix's witnesses, would be admitted as evidence in this arbitration.
45. Following the hearing, the parties submitted the following materials to the tribunal:
- a. Devas' post-hearing memorial dated 17 February 2015 (*Devas' PHM*)
 - b. Antrix's post-hearing memorial dated 17 February 2015 (*Antrix's PHM*)
 - c. Devas' post-hearing reply memorial dated 23 March 2015 (*Devas' PHRM*)
 - d. Antrix's post-hearing reply memorial dated 23 March 2015 (*Antrix's PHRM*)
 - e. Devas' submission on costs dated 10 April 2015
 - f. Antrix's submission on costs dated 10 April 2015
46. On 14 August 2015 the tribunal declared this proceeding closed pursuant to [Article 27 of the ICC Rules](#).
47. The initial time limit for rendering the final award was 9 September 2012 pursuant to [Article 24\(1\) of the ICC Rules](#). Pursuant to Article 24(2) of the ICC Rules, the following extensions of time were granted by the ICC Court for the final award:
- a. on 9 August 2012, until 31 January 2013;
 - b. on 10 January 2013, until 30 April 2013;
 - c. on 11 April 2013, until 31 July 2013;
 - d. on 11 July 2013, until 31 October 2013;
 - e. on 10 October 2013, until 31 October 2014;
 - f. on 16 October 2014, until 31 March 2015;
 - g. on 12 June 2015, until 30 June 2015; and
 - h. on 11 June 2015, until 30 September 2015.

Relevant Facts

48. The following section contains facts that are either not disputed or agreed, as well as findings of fact by the tribunal.

Relevant GOI entities

49. As will become apparent, a number of GOI entities are relevant to this arbitration. They are:
- a. the Department of Telecommunications (*DOT*), which is responsible for the provision of telecommunication services;
 - b. the Wireless Planning and Coordination wing (*WPC*) of the DOT, which is responsible for (inter alia) issuing radio licenses and allocating and monitoring radio frequency spectrum;²³
 - c. the DOS, which is responsible for space policy development and implementation of the Indian space programme. The DOS sits directly under the Prime Minister's office and its Secretary reports directly to the Prime Minister. Antrix is described in the Devas Agreement as "a marketing arm" of the DOS;²⁴
 - d. ISRO, which is responsible for developing space technology and its applications. ISRO sits under the DOS. Its primary responsibility is to build, launch, operate and lease satellites for national uses, including telecommunications, for both the public and private sectors. Antrix is described in the Devas Agreement as the "entity through which ISRO engages in commercial activities";²⁵
 - e. the Space Commission, which includes the Minister of State, the National Security Advisor, the Cabinet Secretary, the Principal Secretary to the Prime Minister and the Secretary for GOI Economic Affairs in the Ministry of Finance, as well as senior directors of ISRO centres, with its secretary being the Additional Secretary DOS.²⁶ The scope of the Space Commission's responsibilities was not entirely clear from the evidence, but it appears to report directly to the Prime Minister²⁷ and, as discussed below, it was involved in key decisions in relation to this arbitration, including the decision to annul (terminate) the Devas Agreement; and
 - f. the CCS, which is the ultimate authority within India on matters of internal and external security and defence.²⁸ It is comprised of the Prime Minister, the Minister of Defence, the Minister of Home Affairs, the Minister of External Affairs and the Minister of Finance. The functions of the CCS include dealing with, inter alia, defence related issues, issues relating to law and order and internal security, policy matters concerning foreign affairs that have internal or external security implications (including cases relating to agreements with other countries on security related issues) and economic and political issues impinging on national security.²⁹

²³ See, e.g., Brailovsky/Flores 1, [31]; Kaczmarek 1, [101].

²⁴ Recitals, [2].

²⁵ Recitals, [2].

²⁶ Devas' PHM, [39.3]; Statement of Claim, [2(a)].

²⁷ CB295.

²⁸ Anand, [22].

50. At all relevant times, the Secretary of the DOS, the Chairman of ISRO, Chairman of the Space Commission and the Chairman of Antrix were the same person, namely:
- a. Dr Kasturirangan until August 2003;
 - b. Dr Nair from September 2003 to October 2009; and
 - c. Dr Radhakrishnan from November 2009.

International regulation of radio frequencies

51. It is also necessary to provide a brief overview of the international regulation of radio frequencies. There are a limited number of available radio frequencies in the world, which are known by names such as C, extended C band, Ku, and S-band.³⁰ As radio frequencies do not stop at national boundaries, governments have sought to regulate their allocation through the International Telecommunications Union (*ITU*), an agency of the United Nations.³¹
52. The ITU is responsible for allocating available spectrum amongst its member States.³² Once it has allocated spectrum to a State, that State is then free to distribute the spectrum in accordance with its national laws.³³
53. By the early 1970s, the ITU had allocated the use of the S-band radio frequency in India to the GOI, and the GOI had allocated the right to use S-band in India to the DOS.³⁴ The S-band frequency consists of several radio frequencies, including the 2.5 gigahertz (*Ghz*) band (i.e. frequencies from 2.5 Ghz to 2.69 Ghz).³⁵
54. Once an entity has been allocated a particular frequency, it typically seeks to launch a satellite into the earth's orbit (or an "orbital slot") so that it can use that frequency to provide radio communication services.³⁶
55. Orbital slots are also regulated by the ITU.³⁷ If a member State wishes to use a particular slot it must file a "co-ordination request" with the ITU.³⁸ Slots are then allocated on a "first come, first served" basis, although member States must co-ordinate with other countries whose satellite networks

²⁹ Anand, footnote 46.

³⁰ Statement of Claim, [3].

³¹ Lewis 1, [25].

³² Lewis 1, [26].

³³ Viswanathan 1; Lewis 1, [27].

³⁴ Viswanathan 1, [21], [22].

³⁵ Viswanathan 1, [21].

³⁶ Lewis 1, [28], Communications satellites are often launched into a "geostationary-satellite orbit" - that is, an orbit (or orbital slot) that appears to be in a fixed position to an earth based observer and allows ground antennas to point permanently at the point in the sky where the satellite is located. In other words, the satellite revolves around the earth at the same angular velocity of the earth itself, 360 degrees every 24 hours.

³⁷ Lewis 1, [30]. Satellites in a geostationary orbit must be placed sufficiently apart to avoid interference with their radio transmissions so there are a limited number of slots available: Lewis 1, [24]-[25].

³⁸ Lewis 1, [28].

might be affected by the orbital slots that they use.³⁹

56. To ensure that member States do not file co-ordination requests in respect of slots that they have no present intention of using, there is also a "use it or lose it" policy.⁴⁰ Member States have seven years from the date of the initial coordination request to build and bring into operation the satellite in the designated orbital slot.⁴¹ Further, if a member State wishes to modify an existing coordination request, it has five years from the date of the modification filing to bring the modified or new satellite into use.⁴²
57. As discussed further below, the orbital slot that is relevant to this proceeding is the 83°E slot. The GOI submitted a coordination request in respect of that slot in 1994 (for a satellite named INSAT-2(83)), which it modified in December 2005⁴³

India's SATCOM policy

58. In early 2003, India's Satellite Communication (*SATCOM*) policy provided for satellite capacity "to be leased to non-government (Indian and foreign) parties".⁴⁴ It also stated that "[e]ncouraging the private sector investment in the space industry in India and attracting foreign investments in this area are other specific goals"⁴⁵
59. At the time, Dr Kasturirangan (the Secretary of DOS and the Chairman of ISRO, the Space Commission and Antrix) began speaking with Mr Viswanathan of Forge Advisors LLC (*Forge Advisors*), a consultancy firm with expertise in telecommunications.⁴⁶ Mr Viswanathan was informed that the GOI had previously re-allocated 40 MHz of S-band spectrum from the DOS to the DOT, because the DOS had not used the spectrum efficiently and did not have plans to do so.⁴⁷ Accordingly, the DOS needed to use its remaining satellite S-Band spectrum or face the possibility that the GOI would re-allocate it.⁴⁸
60. A briefing note from DOS to the Space Commission states that:
"ISRO initiated serious discussions in early 2003 for introduction of Satellite-based Digital Multimedia in the country, especially taking note of the fact that the allocation of the S-Band spectrum for ISRO/DOS... would expire by September 2010 unless [DOS/ISRO] place[d] S-Band Satellites in the orbit and demonstrate that necessary advance actions to build the Satellites have been taken".⁴⁹

³⁹ See generally, Lewis 1, [28] - [40].

⁴⁰ Lewis 1, [38].

⁴¹ Lewis 1, [35].

⁴² Lewis 1, [36].

⁴³ Lewis 1, [45], [46].

⁴⁴ Government of India's SATCOM Policy, 1999, CB006.

⁴⁵ Government of India's SATCOM Policy, 1999, CB006.

⁴⁶ Viswanathan 1, [31]-[33].

⁴⁷ Viswanathan 1, [22], [23].

⁴⁸ Viswanathan 1, [23], [31].

⁴⁹ CB 159, p. 4.

61. The discussions between Dr Kastuurirangan and Mr Viswanathan led to Forge Advisors and Antrix signing, on 28 July 2003, a Memorandum of Understanding (*MOU*) with:
- a. a "near-term objective" of Forge Advisors "supporting Antrix by undertaking a series of discrete tactical projects in the area of sales, marketing, business development, and other related arenas"; and
 - b. a "long-term objective" of building "a strategic partnership that leverages Antrix's satellite & space capabilities to enable new social & commercial applications".⁵⁰

Forge Advisors' proposal for a hybrid satellite-terrestrial communications system

62. In March 2004 Forge Advisors proposed a joint venture between Forge Advisors and ISRO/Antrix that involved the provision of satellite derived video, audio, information and telematics services.⁵¹ In a letter to representatives of Antrix and ISRO dated 15 April 2004, Mr Viswanathan described the proposed joint venture as a "partnership to launch DEVAS, a new service that delivers video, multimedia and information services via satellite to mobile receivers... across India."⁵²
63. The proposal was for a hybrid satellite-terrestrial communications system that combined a satellite and a series of ground-based towers.⁵³ Services would be provided to rural communities via the satellite signal alone and to consumers in urban areas by incorporating a network of towers. The towers would essentially re-use the frequencies used by the satellites. This would permit urban consumers whose line of sight to the satellite was blocked (e.g. by buildings) to still receive a signal.⁵⁴
64. Forge Advisors proposed that ISRO and Antrix would construct, launch and operate the required satellite network (as well as procure the required regulatory permits) and that Devas would develop services for the consumer and commercial market segments, operate the broadcast and ground network, market and sell to customers, and provide customer support.⁵⁵

The Devas Agreement

65. Ultimately, Forge Advisors was informed that ISRO and Antrix were not interested in a joint venture arrangement and preferred a straight lease agreement with a higher UCRF.⁵⁶ Forge Advisors

⁵⁰ Exhibit 12, p. 1

⁵¹ Viswanathan 1, [34]; CB13.

⁵² Exhibit 9. During May 2004 Mr Viswanathan also attended a series of meetings with representatives of DOS, ISRO and Antrix, including Dr Nair, who by this time had replaced Dr Kasturirangan as the Secretary of DOS and Chairman of ISRO, the Space Commission and Antrix: Viswanathan 1, [37], [38]. On 18 June 2004 Forge Advisors also wrote to Antrix proposing "revised set of financial structure and terms for the DEVAS project": Viswanathan 1, [40]; CB17.

⁵³ Viswanathan 1, [35], [39].

⁵⁴ Viswanathan 1, [25] - [28].

⁵⁵ CB15, p. 28.

ultimately agreed to this. Accordingly, on 28 January 2005 Devas and Antrix executed the Devas Agreement.⁵⁷

66. Antrix's obligations under the Devas Agreement included the following:

a. Antrix was required to build, launch and operate a primary satellite system (PS1)⁵⁸ and, at the option of Devas, a secondary satellite system (PS2),⁵⁹ and to lease transponder capacity in the S-band on those satellites to Devas;⁶⁰

b. the leased capacity was for 12 years.⁶¹ At the time the agreement was executed, it provided that it would be "put up for renewal... for another twelve (12) years... at Lease Fees to be mutually agreed upon".⁶² The parties later agreed to a variation which required the fees under any renewed lease to be "reasonable";⁶³

c. the leased capacity was "Non-Preemptible", meaning that it could not be utilised or repurposed for use by another party during the life of the satellite unless Devas was in default of its obligations or payments;⁶⁴

d. PS1 was to be fully operational and ready within 36 months⁶⁵ of the payment of the first instalment of the UCRF.⁶⁶ It was to be launched into the 83°E orbital slot,⁶⁷ and delivery was deemed to have taken place once in-orbit testing was completed by Antrix and accepted (in writing) by Devas;⁶⁸ and

e. 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".⁶⁹ Antrix was also required "through ISRO/DOS" to obtain "clearances from National and international agencies (WPC, ITU, etc.) for use of the orbital slot and frequency resources" necessary to provide the leased capacity.⁷⁰

67. In return, Devas was required to pay to Antrix:

a. UCRF of USD 20 million per satellite in three equal instalments;⁷¹ and

⁵⁶ Viswanathan 1, [41].

⁵⁷ Exhibit 19. The agreement bears the number ANTX/203/DEVAS/2005.

⁵⁸ PS1 is also known as GSAT-6 and INSAT-4E.

⁵⁹ PS1 is also known as GSAT-6A.

⁶⁰ Articles 2 and 12(a)(iii).

⁶¹ Article 3(a).

⁶² Article 3(l).

⁶³ This occurred by agreement on 27 July 2006: see Exhibit 38.

⁶⁴ See article 2 and Annexure I, [31].

⁶⁵ This included a "Grace Period" of six months. "Grace Period" is defined as a "period where penalties or breach is not applicable: Devas Agreement, Annexure I, [17].

⁶⁶ Article 3(b). As noted above and in Appendix A, "UCRF" means Upfront Capacity Reservation Fee.

⁶⁷ Exhibit A, [1.4].

⁶⁸ Article 3(b).

⁶⁹ Article 3(c). Article 3(c) also required Antrix to "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".

⁷⁰ Article 12(a)(ii).

b. a lease fee of USD 9 million (initially), and USD 11.25 million per annum when Devas became cash flow positive.⁷²

68. Accordingly, Antrix could expect to receive approximately USD 256 - 310 million in fees if both satellites were launched and the lease was renewed on similar terms. The GOI calculated that the "Internal Rate of Return (IRR) for the two satellites was 13.8%."⁷³
69. The parties agreed that they "intend to discharge their obligations in utmost good faith" and "will, at all times, act in good faith, and make all attempts to resolve all differences howsoever arising out of or in connection with this Agreement by discussion".⁷⁴
70. As discussed below, the agreement also specifies that its governing law is Indian law;⁷⁵ it provides that any disputes that arise between the parties are to be resolved by arbitration;⁷⁶ and it contains detailed provisions concerning "force majeure",⁷⁷ termination⁷⁸ and indemnities.⁷⁹
71. The agreement was to become "effective on the date that ANTRIX is in receipt of all required approvals and communicates to DEVAS in writing regarding the same".⁸⁰ As discussed below, that occurred on 2 February 2006.

Cabinet approval and further ITU filings

72. On 1 December 2005 the GOI's Press Information Bureau formally announced that the Union Cabinet had given its approval to undertake the design, development and launch of PS1. The press release described the benefits that the GOI anticipated receiving from the Devas Agreement as including "[a] state-of-the art National Satellite System with coverage exclusively devoted to entire population of India" and "[c]apacity to deliver over ten video channels and over ten audio channels in each beam (which will grow over time through better digital transmission, encoding and compression technologies)".⁸¹
73. Soon after Cabinet approval was obtained, the GOI submitted a modified filing at the ITU in respect of the 83°E slot.⁸² Although the GOI had previously made a coordination request in respect of the 83°E slot (for the INSAT-2(83) satellite),⁸³ the Devas Agreement specified that PS1 was to use five

⁷¹ Exhibit B, Article 2.1.1.

⁷² Exhibit B, Articles 2.1.2.B and 2.1.2.1

⁷³ CB-235 at [3.5.5]

⁷⁴ Article 21.

⁷⁵ Article 19.

⁷⁶ Article 20.

⁷⁷ Article 11.

⁷⁸ Article 7.

⁷⁹ Article 13.

⁸⁰ Article 27.

⁸¹ Exhibit 21. The press release also referred to the ability for "ISRO/DOS to become a leader in this growing worldwide satellite digital multimedia broadcasting (S-DMB) services to mobile vehicles and cellular phones and thus provide India access to these markets globally".

⁸² Lewis 1, [46].

"spot beams" in specific S-band frequencies⁸⁴ from that slot.⁸⁵ The GOI had not previously coordinated the use of a satellite using a five spot beam configuration. The modified filing sought to do so, and was capable of being used for PS1,⁸⁶

Commencement of the Devas Agreement and Devas' procurement of funding

74. As noted above, the Devas Agreement was to become "effective on the date that ANTRIX is in receipt of all required approvals and communicates to DEVAS in writing regarding the same".⁸⁷ That occurred on 2 February 2006, when Antrix notified Devas that it had obtained the "necessary approval for building, launching and leasing the capacity of S-band satellite," and was "in a position to go ahead with the building and launch" of PS1.⁸⁸
75. Soon after, a number of venture capital firms agreed to invest in Devas' business. On 16 March 2006 Telcom Devas and CC/Devas each agreed to invest USD 7.5 million in return for 15,730 Series A Preference Shares (which amounted to 19,001% of all Devas shares), as well as one equity share.⁸⁹ The GOI's Foreign Investment Promotion Board approved the investments and, in May 2006, Telcom Devas and CC/Devas each received 19% of the shares in Devas.
76. According to Devas' expert witness, Mr Brent Kazcmarek, the investment by Telcom Devas and CC/Devas gave Devas an implied value of about USD 40 million.⁹⁰ It also provided Devas with the capital necessary to make the first payment of the UCRF for PS1. On 21 June 2006 Devas made that payment, which totalled approximately USD 7 million.⁹¹ This meant that, under the Devas Agreement, Antrix was required to deliver leased capacity from a fully operational and ready PS1 within 36 months.⁹²
77. On 11 June 2007 CC/Devas and Telcom Devas agreed to make a further investment in Devas, and entered into a Series B Share Subscription Agreement.⁹³ Pursuant to that agreement they each invested a further USD 7,499,715.67 in exchange for 11,978 Series B Preference Shares.
78. This additional capital permitted Devas to pay to Antrix the UCRF for PS2. On 18 June 2007 Devas paid that fee (again for approximately USD 7 million), thus exercising its right to secure Leased Capacity on the second satellite, and requiring Antrix to have PS2 launched and fully operational within 30 months.⁹⁴

⁸³ Lewis 1, [45], [46]; see also [57] above.

⁸⁴ Devas Agreement, Exhibit A, [2.2.2], figure 2.2.2.

⁸⁵ Devas Agreement, Exhibit A, [1.4].

⁸⁶ Lewis 1, [45]; Lewis 2, [4(a)], [6].

⁸⁷ Article 27.

⁸⁸ Exhibit 26.

⁸⁹ Viswanathan 1, [77].

⁹⁰ Kazcmarek 1, [89].

⁹¹ Viswanathan 1, [81].

⁹² Article 3(b). "Delivery" meant Antrix completing in-orbit testing and Devas accepting that completion in writing.

⁹³ Viswanathan 1, [90]; Exhibit 43.

⁹⁴ See Exhibit B, [4.2] ("[i]f DEVAS places an order for PS2 at any time after the order for PS1, the schedule for PS2 will be 30 (thirty) months from the payment of the First Instalment for PS2. No grace period is applicable for PS2").

79. Devas next began to look for a strategic partner that could assist in the roll-out of Devas' services throughout India.⁹⁵ It approached a subsidiary of Deutsche Telekom (*DT*). After examining Devas' business plan (including its model of the cost of building, operating and maintaining an appropriate terrestrial network), travelling to India and meeting with representatives of Antrix and ISRO (including Dr Nair), DT decided to invest in Devas.⁹⁶ On 19 March 2008 Devas and an investment vehicle named DT Asia executed a Class C Share Subscription Agreement,⁹⁷ pursuant to which DT Asia received 28,349 Class C Shares in return for an investment of approximately USD 75 million.
80. The parties' expert witnesses agree that DT Asia's investment in Devas is indicative of the fair market value of the business as of this point in time. Mr Kaczmarek (Devas' expert witness) considers that it implies that the fair market value of Devas in March 2008 is at *least* USD 375 million on the basis that DT provided various "in kind" contributions to Devas.⁹⁸ Mr Brailovsky (one of Antrix's expert witnesses) considers that it implies that the fair market value of Devas in March 2008 is *no more* than US\$ 375 million,⁹⁹ because the Class C shares that DT acquired "included rights not held by other shareholders, such as a right of first refusal, the right to name more directors than in proportion to the subscription, and some veto rights".¹⁰⁰
81. The tribunal does not agree with Mr Brailovsky. The evidence of Mr Larsen demonstrates that DT made a considerable contribution to Devas in addition to the price it paid for Devas' shares. Among other things it provided 20 to 25 senior DT engineers and other technical specialists to plan Devas' terrestrial network,¹⁰¹ as well as purchasing power for network, transport infrastructure, IT systems and IP equipment.¹⁰² Mr Brailovsky's suggestion that DT Asia received "special rights" is an unsupported assertion, and is not borne out by the tribunal's examination of the shareholder agreement.¹⁰³ When cross-examined he admitted that DT "brought a lot into the project."¹⁰⁴
82. However, there is also no evidence that would permit the tribunal to place a value on the "in kind" contribution that DT provided. Accordingly, the tribunal is not in a position to find that DT Asia's investment in Devas valued the company at any more than USD 375 million. The tribunal therefore finds that the investment valued Devas at USD 375 million.

Delays in the launch of PS1

83. On 11 April 2009 members of the Devas team met with senior Antrix and ISRO officials and were informed that there would be a delay in the launch of PS1. They were told that, despite the June

⁹⁵ Viswanathan 1, [92].

⁹⁶ Viswanathan 1, [96] - [100].

⁹⁷ Larson, [33], [35]; Viswanathan 1, [102]; Exhibit 75.

⁹⁸ Report by Mr Kaczmarek on the areas of disagreement with Messrs Brailovsky and Flores dated 30 September 2014 at [5] and footnote 4.

⁹⁹ Transcript, p. 698, line 21.

¹⁰⁰ Brailovsky/Flores 1, [21].

¹⁰¹ Larsen, [36].

¹⁰² Larsen, [37].

¹⁰³ For example, DT was only entitled to appoint 2 of 13 directors, which is 15%, and therefore less than the percentage of Devas' shares that it acquired: see Exhibit C-75, [2.1(a)].

¹⁰⁴ Haig Transcript at 554:22-23.

2009 deadline for launching PS1,¹⁰⁵the satellite would not be launched until "early 2010".¹⁰⁶ According to Devas, this delay entitled it to damages under the Devas Agreement, but it elected not to seek damages because it expected (at that time) the delay to be for a relatively short period of time.¹⁰⁷

ISP licence

84. Devas was required to obtain a number of licences in order to provide the telecommunications services that it planned to provide. One of those licences was an internet service provider (*ISP*) licence, which it received on 2 May 2008.¹⁰⁸ It later received approval from the DOT to provide Internet Protocol Television (*IPTV*) services.¹⁰⁹ With the ISP and IPTV licences, Devas had permission to provide a portfolio of services that included digital television, video on demand and other types of entertainment to users in urban and rural areas.

Experimental trials

85. On 20 August 2008 Devas submitted an application to the WPC for an experimental licence to test the wireless apparatus that underscored the Devas system.¹¹⁰ On 7 May 2009 the WPC issued the experimental licence, which permitted Devas to conduct an "Experimental/Trial of wireless equipment at Bangalore". With the licence, Devas was able to use the frequencies in the 2.5-2.69 GHz band to test run the entire Devas system, including terrestrial reuse of spectrum.¹¹¹

86. The trials were performed in Bangalore between June and September 2009. They involved trials and demonstrations of the capabilities of the Devas system, including mobile multimedia and broadband wireless services.¹¹² As PS1 had not been launched, the satellite that was used for the trials was an "INSAT-3C" satellite that was owned (and operated during the trials) by the DOS/ISRO.¹¹³

87. Devas considered that the trials were "extremely successful".¹¹⁴ Towards the end of the trials, it had a ceremony at its new office in Bangalore that was attended by (inter alia) Dr Nair and Dr Radhakrishnan.¹¹⁵ During the ceremony, Dr Radhakrishnan said that the Devas-Antrix partnership was "great" and that he was looking forward to the launch of PS1.¹¹⁶

¹⁰⁵ This includes the six month "grace period".

¹⁰⁶ Viswanathan 1, [139].

¹⁰⁷ Viswanathan 1, [140].

¹⁰⁸ Exhibit 66.

¹⁰⁹ Exhibit 36.

¹¹⁰ Viswanathan 1, [111]. As noted above, the WPC was the Wireless Planning and Coordination Wing of the DOT.

¹¹¹ Viswanathan 1, [114]. On 15 July 2009 that licence was extended. This licence that allowed Devas to import certain equipment for the trials and obtain approval to use terrestrial mobile towers for mounting certain equipment for the trials: Viswanathan 1, [114], [115].

¹¹² Parsons 1, [21].

¹¹³ Parsons 1, [21].

¹¹⁴ Viswanathan 1, [120]. See also Singh 1 at [52] and Singh 2 at [11].

¹¹⁵ At the time Dr Nair was still the Secretary of the DOS and the Chairman of ISRO, the Space Commission and Devas. Dr Radhakrishnan took over those roles a few months later.

Further financing

88. After being notified that there would be delays in the launch of PS1, Devas elected to seek further capital from its investors. It asked investors for a "cash-cushion so that services could be ramped up quickly once the satellite was launched."¹¹⁷
89. Each of Telkom Devas, CC/Devas and DT Asia agreed to provide further funding. Accordingly, on 14 September 2009 Devas sought approval for a new round of investment from the Foreign Investment Promotion Board and, on 29 September 2009, it received that approval. On the same day, Devas entered into a Share Subscription Agreement with each of Telkom Devas, CC/Devas and DT Asia pursuant to which Telkom Devas and CC/Devas each invested an additional USD 1,388,951.24 (for a further 525 Class C shares) and DT Asia invested USD 22,223,219.76 (for a further 8,400 Class C shares).¹¹⁸

Dr Radhakrishnan becomes Chairman of Antrix

90. On 29 October 2009 Dr Radhakrishnan was appointed as the Chairman of Antrix, as well as the Secretary of the DOS and Chairman of ISRO and the Space Commission.¹¹⁹
91. Soon after, the DOS received a complaint about "irregularities in connection with the [Devas] Contract".¹²⁰ Dr Radhakrishnan commissioned Dr B. N. Suresh, Director of the Indian Institute of Space and Technology, to undertake "comprehensive review of all aspects" of the Devas Agreement.¹²¹
92. At around this time, Devas started being informed of further delays to the launch of the satellites. On 11 or 12 November 2009, during "joint status review" meetings with Antrix, Devas was informed that the launch of the satellites had been delayed, and was now planned for 19 June 2010.¹²² However, PS1 was nearing the final stages of its construction; there were only "a few defined areas that needed focused attention" in order to be prepared for that launch date.¹²³

Military needs for S-band

93. On 15 December 2009, during a meeting with members of (inter alia) the Ministry of Defence "to

¹¹⁶ Singh 1, [54].

¹¹⁷ Singh 1, [55].

¹¹⁸ Viswanathan 1, [126], [127].

¹¹⁹ Viswanathan 1, [13].

¹²⁰ Anand 1, [8].

¹²¹ CB210; CB145 (Enclosure 1); Anand 1, [12].

¹²² Viswanathan 1, [141]; CB124.

¹²³ Parsons 1, [25]. According to Parsons those areas included the propulsion integration system, testing related to the integrated power system, completion of the panel integration with the structure, integrating the unfurlable antenna into the structure, structural completion (including that of the battery deck, feed support structure, east west decks, propulsion brackets, AOCs brackets, and UFA brackets), the integrated spacecraft test, and minor thermal work along with testing the composites Yoke and SADA cone.

discuss the Bandwidth requirements of services for satellite communication", ¹²⁴ ISRO was informed that India's Armed Forces required the ability to use the S-band. The Armed Forces' requirements were stated to be as follows:

"[t]o cater for requirements up to 2012 - 120 Carriers, 17.5 MHz. Out of which 50 Carriers are being used by the Armed Forces, (ii) Additional in 12th Plan - 40 MHz. (iii) Additional in 13th Plan - 50 MHz". ¹²⁵

94. According to Antrix, this was the "crystallisation" of demands that the Armed Forces had been making on S-band since 2005. ¹²⁶
95. Soon after, Devas was informed of further delays to the launch of PS1. On 30 December 2009, Devas was told that "Antrix/ISRO is putting all efforts to meet the launch schedule of July 2010", ¹²⁷ and on about 4 February 2010, Dr Radhakrishnan informed Devas that there was now a new deadline for launching the satellites of 1 September 2010. ¹²⁸
96. Dr Suresh completed his review of the Devas Agreement in May 2010. ¹²⁹ His report did not find any wrongdoing in connection with the execution of the Devas Agreement. He found (inter alia) that:
 - a. the Devas Agreement was only executed after "technical feasibility, financial and market aspects, time schedule, risk mitigation" and "pricing" had been scrutinised by a "High Power Committee" comprised of specialist "ISRO Centres and also Additional Secretary and Joint Secretary of DOS";
 - b. Antrix entered into the agreement "in close coordination & participation of SCPO, ISRO HQ and other concerned agencies";
 - c. Antrix followed "guidelines for leasing the transponder services to private service providers as per the Satcom policy";
 - d. "[t]here is absolutely no doubt on the technical soundness of the digital multimedia services as proposed in this hybrid satellite and terrestrial system";
 - e. "[o]nly 10% of the capacity is available for use by ISRO" which would "bring in limitations on spectrum availability for essential strategic and social sectors applications in future"; and
 - f. "[t]he utilization of the S-band frequency spectrum allotted for satellite bases services to ISRO/DOS for satellite communications is extremely important. Therefore this aspect has to be critically examined considering all usages including GSAT-6 and GSAT-GA by a competent technical team on high priority. The strategic and other essential needs of the country should also be considered". ¹³⁰

¹²⁴ Anand, App. VA-10.

¹²⁵ Anand, App. VA-10.

¹²⁶ See, e.g., Devas' PHM, [67].

¹²⁷ Exhibit 115.

¹²⁸ Viswanathan 1, [145].

¹²⁹ CB145. The report was delivered to Dr Radhakrishnan on 7 June 2010: CB-144.

¹³⁰ CB145, p. 15.

Articles: The Hindu Business Line

97. On 30 May 2010 an article concerning the Devas Agreement was published in The Hindu Business Line.¹³¹ Among other things, the article states that "[a]t a time when telecom operators are aggressively bidding in crores of rupees for acquiring spectrum, a little-known company in Bangalore, Devas Multimedia Pvt Ltd, has got preferential allocation of air waves controlled by the Indian Space Research Organisation by virtue of an agreement the two signed five years ago". It states that neither the amount of S-band spectrum allocated to Devas nor the price that Devas paid for that spectrum had been disclosed, but S-band was "a golden band that broadband wireless access operators covet worldwide" and that "Telecom industry players, who are scrounging for bandwidth, are raising eyebrows over the contract between Antrix and Devas".
98. On 1 June 2010 a second article concerning the Devas Agreement was published in The Hindu Business Line. Its title was "[a]nother spectrum sold on the quiet".¹³² Among other things, it stated:
- "[i]t is time the Government realised that a transparent mechanism is needed to supervise the sale of scarce assets... There is a simple principle in economics: if it is scarce, charge for it. And if there is one thing that is scarce today in relation to the demand for it, it is spectrum. But the cruel will say that it is perhaps too much to expect space scientists at the Indian Space Research Organisation (ISRO) to be aware of this sine qua non of economics and commerce. That is probably why that organisation has, in a rather mysterious way, allocated spectrum for an undisclosed sum to Devas Multimedia Private Limited, a company formed by some ex-ISRO employees."
99. The article goes on to say that "[p]ast experience has shown that smart footwork by the sellers — who only have a fiduciary role — comes to public notice only after the deed is done. Then, as we have seen in the case of the 2G scandal, the Government is forced to hide behind technicalities and half-truths." This was a reference to an allegation (discussed below but not otherwise related to the parties' dispute in this arbitration) that the GOI had previously undervalued the 2G spectrum and sold it to favoured companies. The article also states: "there really isn't much to think about: the 2005 agreement should be annulled and the ISRO quota should be auctioned so that the Government can raise some more much-needed money".
100. On 4 June 2010 the DOT wrote to Mr G. Balachandhran of ISRO enclosing the two articles and asking for a comment "immediately".¹³³

Response from Dr Radhakrishnan to the articles in The Hindu Business Line

101. On 14 June 2010 the DOT wrote to Dr Radhakrishnan enclosing the two articles, noting that Mr G. Balachandhran had not responded to its 4 June 2010 letter and asking Dr Radhakrishnan to "look into the matter personally and expedite [his] comments."¹³⁴

¹³¹ CB140.

¹³² CB141.

¹³³ Letter dated 4 June 2010, CB-143.

102. On the same day the DOS sought¹³⁵ and received¹³⁶ six copies of the Devas Agreement, and two days later (on 16 June 2010), Dr Radhakrishnan sent a note to the Ministry of Law and Justice seeking advice concerning the annulment (termination) of the Devas Agreement.¹³⁷ The note stated:

"we seek your legal opinion on whether ANTRIX-Devas contract need be annulled invoking any of the provisions of the contract in order to (i) to preserve the precious S band spectrum for the strategic requirements of the nation and, (ii) to ensure a level playing field for the other service providers using terrestrial spectrum".¹³⁸

103. On the same day, Dr Radhakrishnan also met with Mr. T.K. Viswanathan of the Ministry of Law and Justice.¹³⁹ According to Devas, Dr Radhakrishnan explained that what he was seeking was advice about "how to annul the contract" (cf. "whether" it "need be annulled", as his note stated).¹⁴⁰ Devas also says that Dr Radhakrishnan "was simply looking for an excuse for Antrix to get out of the contract".¹⁴¹

104. The tribunal accepts that the reason why Dr Radhakrishnan sought advice from the Ministry of Law and Justice was that he wanted advice about how to annul the Devas Agreement (i.e: he wanted to identify a legally permissible basis for terminating the agreement), and that he made this desire clear when he met with Mr Viswanathan on 16 June 2010. This is because:

a. as Devas submits, a note that was later provided to the Space Commission (see [109] below) states that the DOS had, prior to seeking advice from the Ministry of Law and Justice, "decided to request Ministry of Law and justice to give its opinion as to *how* to annul the contract";¹⁴²

b. it is inherently implausible that Dr Radhakrishnan wanted advice about whether Antrix "needed" to annul the agreement. There is nothing in the agreement to suggest that its termination might ever be *required*; the Devas Agreement (like most, if not all agreements) provides only that it "may" be terminated in certain circumstances;

c. the advice that the Ministry of Law and Justice in fact gave was not whether Antrix "need annul" the agreement, but rather whether it was permitted to annul the agreement and how it could do so. The advice was provided to Dr Radhakrishnan on 18 June 2010. It stated:

"the Central Government (Department of Space) in exercise of its sovereign power and function, if so desire and feel appropriate, may take a policy decision to the effect that due to the needs of strategic requirements, the Central Govt/ISRO would not be able to provide orbit slot in S band for operating PS1 to the ANTRIX for commercial activities. In that event, ANTRIX in terms of Article 7(c) read with Article 11, of the agreement may terminate the agreement and inform M/s DEVAS

¹³⁴ CB149.

¹³⁵ CB-150.

¹³⁶ CB-151.

¹³⁷ CB159, Annexure XII.

¹³⁸ CB159, Annexure XII.

¹³⁹ CB159, Annexure XIII, [2]. Mr. T.K. Viswanathan was the Advisor to the Law Minister and is not related to Mr. Ramachandran Viswanathan of Devas.

¹⁴⁰ Devas' PHM, [84].

¹⁴¹ Statement of Claim, [233].

¹⁴² CB159, [14.1] (emphasis added).

accordingly. However on such termination ANTRIX shall be required to reimburse DEVAS all the Upfront Capacity Reservation Fees and corresponding service taxes received by ANTRIX till that date."¹⁴³

105. The tribunal does not, however, make any finding about whether or not Dr Radhakrishnan "was simply looking for an excuse for Antrix to get out of the contract", acting in bad faith in seeking advice about how to annul the agreement (as Devas alleges¹⁴⁴) or responding to crystallised national security needs (as Antrix alleges¹⁴⁵). As will become apparent below, it is not necessary for the tribunal to make specific findings about these matters in order to resolve the parties' dispute.

106. The tribunal also declines to draw any adverse inference from Antrix's failure to call Dr Radhakrishnan.¹⁴⁶ While it is certainly surprising that he was not called to give evidence (given his central role in events that are relevant to this arbitration), the parties have agreed that IBA Rules shall serve as a guide in the determination of evidentiary issues, and those rules provide for adverse inferences to be drawn in very limited circumstances. In relation to a failure to call a witness they state:

"[i]f a Party fails without satisfactory explanation to make available any other relevant evidence, including testimony, sought by one Party to which the Party to whom the request was addressed has not objected in due time or fails to make available any evidence, including testimony, ordered by the Arbitral Tribunal to be produced, the Arbitral Tribunal may infer that such evidence would be adverse to the interests of that Party".¹⁴⁷

107. Since Devas has not suggested that these circumstances apply, the tribunal does not consider that any adverse inference should be drawn from Antrix's failure to call Dr Radhakrishnan (or any other witness). As noted above, however, the tribunal is certainly surprised that he was not called by Antrix as a factual witness to assist the tribunal. Dr Radhakrishnan was undoubtedly the central person in the events that gave rise to this arbitration. He was in an unparalleled position to give direct evidence concerning them.

Phase II Experimental trials

108. In mid 2010 Devas conducted "Phase II trials" in China (Chengdu and Beijing) and Germany (Stuttgart). The purpose of the trials included ensuring that the DVB-SH technology¹⁴⁸ and TD-LTE technology¹⁴⁹ could co-exist in the 2.6GHz band.¹⁵⁰ The trials were highly successful.¹⁵¹

¹⁴³ CB159, Annexure XIII. See also CB159 at [14.2] in which the DOS stated that the "Ministry of Law and Justice have given their opinion as to how to annul this contract and take further follow up action to face issues that will arise out of annulment of the contract" (emphasis added).

¹⁴⁴ See, eg., Reply, [96], [103]; Skeleton, [36]; Devas' PHM, [122].

¹⁴⁵ See, e.g., Statement of Defence, [30], [36]; Rejoinder, [26]; Antrix's Skeleton, [34]; Antrix's PHM, [67].

¹⁴⁶ Cf. Devas' submission that the failure to call Dr Radhakrishnan "must lead to adverse inferences being drawn against Antrix": Devas' PHM, [22].

¹⁴⁷ Article 9(6).

¹⁴⁸ The DVB-SH platform was to be used for the provision of Devas' audio-visual (AV) services.

Space Commission decides to annul the Devas Agreement

109. On 30 June 2010 the DOS provided a note to the Space Commission concerning the termination of the Devas Agreement.¹⁵² The note stated that its purpose was to "apprise Space Commission on certain concerns that have arisen" in relation to the Devas Agreement, to "apprise on the imperative demand for S-band transponders for strategic and societal applications that have emerged" since the agreement was signed, and to "seek guidance on the prudent utilization of the S-band spectrum of 150 MHz allocated to ISRO" and "further course of actions to be followed by DOS".¹⁵³

110. The note provided the background to the Devas Agreement, including: an overview of India's SATCOM policy; Forge Advisors' proposed joint venture with Antrix; the entry into the Devas Agreement; Antrix's approval of the Devas Agreement; the key terms of the agreement; India's competing "strategic" and "societal" needs for S-band; Dr Suresh's report on the agreement; and the DOS' decision to "request Ministry of Law and justice to give its opinion as to how to annul the contract".¹⁵⁴

111. It then states, under the heading "Further Courses of Action and Implications":

"15.1 **Annulling the Contract:** Considering the need (i) to preserve S-band spectrum for national requirements in strategic sector and for societal applications, (ii) certain concerns on technical, managerial, financial and contractual aspects of ANTRIX-DEVAS contract, and (iii) issues involved in DEVAS obtaining the Spectrum License for the proposed services... it would be inevitable to annul the ANTRIX-DEVAS contract.

The ANTRIX-DEVAS contract has specific clauses for termination of the contract. Ministry of Law and Justice have given their views on feasibility of terminating the contract. The Department, in consultation with Law Ministry, may invoke appropriate clause, and terminate the contract.

In the event of termination of the contract, M/s ANTRIX will have to refund the Capacity Reservation Fee received from M/s DEVAS.

The Department will evolve a revised utilization plan for GSAT-6 and GSAT-6A satellites."

112. The course of action proposed by the note (which was described as being the "inevitable" course) was therefore to annul the agreement. When the Space Commission met on 2 July 2010 it agreed to that course. It resolved that:

"[the] Department, in view of priority to be given to nation's strategic requirements including societal ones may take actions necessary and instruct Antrix to annul the Antrix-Devas contract".¹⁵⁵

¹⁴⁹ The TD-LTD platform was to be used for the provision of Devas' broadband wireless access (SUVA) services.

¹⁵⁰ Larsen, [48].

¹⁵¹ Larsen, [48], Mr Brailovsky, Antrix's expert, does not dispute this: Haig Transcript at 663:20-24.

¹⁵² CB159.

¹⁵³ CB159.

¹⁵⁴ CB159.

¹⁵⁵ CB160, p. 15

Advice from India's Additional Solicitor General (or "ASG")

113. The Space Commission also instructed the DOS to seek legal advice on the resolution that the Space Commission had passed at its meeting of 2 July 2010 concerning the annulment of the Devas Agreement, and the form of letters to be issued in order to give effect to that resolution.¹⁵⁶
114. Accordingly, on 8 July 2010, Dr Radhakrishnan wrote to the ASG enclosing (inter alia):
- a. the Space Commission's resolution (see [112] above);
 - b. a draft letter from the DOS to Antrix stating that Antrix may inform Devas that the Devas Agreement is terminated in accordance with "Article 7(c)(i) read with Article 11"; and
 - c. a draft letter from Antrix to Devas terminating the agreement in accordance with the "Article 7(c) read with Article 11".¹⁵⁷
115. The ASG issued his advice on 12 July 2010. He disagreed with the Ministry of Law and Justice's advice that the agreement may be terminated pursuant to Article 7(c) read with Article 11, and advised to instead rely solely on Article 11. He stated that:
- "[t]he modus of termination has been specified in the agreement in clause 7. But I am afraid that the conditions stipulated in this clause cannot be invoked at this stage for the purpose of terminating the contract. The only other relevant provision for seeking recourse to terminate the contract under the given factual scenario viz., national needs and change in governmental policies, would be Article 11 of the contract, relating to 'Force Majeure'".
- There can be no dispute whatsoever that the Government of India is the owner of satellite spectrum space and any policy taken by the Government of India with regard to allocation and use of S bandwidth, including those which are subject matter of contractual obligations, would fall within the doctrine of force majeure, as envisaged in the very agreement between Antrix and Devas."¹⁵⁸
116. He also disagreed with the Space Commission's resolution that the DOS be responsible for instructing Antrix to Annul the agreement. He stated:
- "[i]t is always advisable that in the present case, instead of the Department of Space taking a decision to terminate, it would be more prudent that a decision is taken by the Government of India, as a matter of policy, in exercise of its executive power or in other words, a policy decision having the seal and approval of the Cabinet and duly gazetted as per the Business Rules of the Government of India. That would give a greater legal sanctity to the decision to terminate the contract in as much as the contractual provisions expressly stipulate that for the force majeure event, to disable one of the parties to perform its obligations under the contract, the act must be an act by the governmental authority acting in its sovereign capacity."¹⁵⁹

¹⁵⁶ CB163.

¹⁵⁷ CB163.

¹⁵⁸ CB165.

¹⁵⁹ CB165.

Further delays to the launch of the satellites

117. Soon after the ASG issued his advice, Devas was informed of further delays to the launch of PS1 and PS2:
- a. during a "status review" on 5 August 2010 Devas was informed that "shipment and delivery date" for GSAT-6 was now 10 December 2010;¹⁶⁰
 - b. on 20 August 2010 Devas requested an urgent meeting with Dr Radhakrishnan, noting that Antrix had stopped even referring to the potential launch date (cf. the "shipment and delivery" date).¹⁶¹ Devas was told to seek a meeting with Mr Murthi (Executive Director of Antrix), rather than Dr Radhakrishnan.¹⁶² On 14 September 2010 Mr Murthi told Devas that PS1 would be finished in one to two months, but did not provide a launch date;¹⁶³ and
 - c. on 27 October 2010 Devas met with Antrix's new Executive Director, Mr Madhusudhan, who said that he would "apply his energies in getting ISRO to meet stated milestones and assist in exploring launch solutions".¹⁶⁴ On 10 January 2011 Mr Madhusadhan said that PS1 was still three to four months away from completion.
118. On 24 January 2011 Devas wrote to Dr Radhakrishnan and asked him to recommit to the launch of the PS1 satellite.¹⁶⁵ Dr Radhakrishnan did not reply.¹⁶⁶

Further media articles concerning the Devas Agreement

119. In early February 2011 a series of further press articles concerning the Devas Agreement were published, after the former Minister for Telecommunications and two of his officers were arrested in respect of the 2G scandal (referred to in [99] above). It was alleged that they undervalued the 2G spectrum and sold it to favoured companies.
120. One of the articles, published on 8 February 2011, states that "[a]nother spectrum scam has hit the UPA government which is already reeling from the fallout of allegations of corruption in the underpricing of 2G airwaves sold to telecom operators." It also states that: "[s]ources said ISRO chief K Radhakrishnan had written to the PMO demanding cancellation of the agreement on the ground that it favoured Devas Multimedia. No urgency was, however, shown to revoke the deal even after the law ministry raised serious concerns about the proposal, terming it "illegal".¹⁶⁷

¹⁶⁰ Viswanathan 1, [156].

¹⁶¹ Viswanathan 1, [157].

¹⁶² Viswanathan 1, [158].

¹⁶³ Viswanathan 1, [163], [164].

¹⁶⁴ Viswanathan 1, [167].

¹⁶⁵ Viswanathan 1, [173].

¹⁶⁶ Viswanathan 1, [174].

¹⁶⁷ Pradeep Thakur, Another spectrum scam hits govt, this time from ISRO, Times of India, 8 February 2011, CB-211. According to another article, published on 9 February 2011, "[t]errestrial mobile phone operators have been insisting that the "2.5 -2.69 GHz band (S-Band) be

121. On 8 February 2011 Dr Radhakrishnan gave a press conference in New Dehli in which he explained what action had been taken in respect of the Devas Agreement. He stated that:
"we took up the matter to the Space Commission, which in July 2010 made a few decisions. One of the decision was there is high priority for the country's strategic requirements and the societal applications which have be to met using the S-band spectrum that is in the possession of ISRO and we also decided to take actions to annul the contract..."

Subsequent to the decisions taken by the Space Commission, of which the Secretary Space is the Chairman and we have very senior members in the commission, we started necessary actions for terminating the contract which required extensive consultations with the concerned agencies in the government Department of Telecommunication, Department of Law and Justice, all included. The idea is to ensure that a ___ contract that has been entered into has to be now terminated without causing much of embarrassment and damage and financial loss to the government. We had to go through that process and we have been going through that process and soon we expect to complete that process."¹⁶⁸

Devas' response to Dr Radhakrishnan's announcement

122. Until this point, Devas appears to have been unaware of the proposed annulment (termination) of the Devas Agreement. It responded by sending a series of letters to Dr Radhakrishnan and Antrix:
- a. on 11 February 2011 it wrote to Dr Radhakrishnan and stated (inter alia) that any decision to review the Devas Agreement without informing Devas was contrary to the parties' obligation to act in "utmost good faith". Devas asked that any issues relating to the Devas Agreement that may further adversely impact the ability of Antrix to perform the Devas Agreement be disclosed.¹⁶⁹ Dr Radhakrishnan did not respond;
 - b. also on 11 February 2011 Devas wrote to Antrix in respect of (inter alia) its delay in delivering space segment capacity for the period from 22 June 2009 to 21 June 2010. Devas demanded that Antrix pay (the Indian Rupees equivalent to) USD 5 million as a Late Delivery Penalty.¹⁷⁰ Antrix did not respond; and
 - c. on 14 February 2011 Devas wrote to Antrix and asked Antrix to confirm that it intended to honour the terms of the agreement. It said that if it did not receive a response within one week it would assume that there were disputes or differences arising under the agreement and would be referring the matter to the senior management of Antrix and Devas for resolution in accordance with the agreement's dispute resolution provisions.¹⁷¹ Antrix did not respond.

fully preserved as an extension band for 3G services": T. A. Johnson, Why S-Band is so valuable, The Indian Express, 9 February 2011 (citation omitted)), CB-213.

¹⁶⁸ CB210. On 10 February 2011 ISRO also issued a "Background Note" concerning the annulment of the Devas Agreement which stated (inter alia) that the ASG had opined that the annulment should be done through a policy decision of the GOI and that the DOS had prepared a Draft Note for the CCS: CB216, pp. 5, 6.

¹⁶⁹ Exhibit 174.

¹⁷⁰ Exhibit 172.

¹⁷¹ Exhibit 175.

Involvement of the Prime Minister

123. On 16 February 2011, the Prime Minister of India spoke to reporters regarding the annulment of the Devas Agreement. He said that:

"[t]here have been no backroom talks. I think I have not met anybody myself and the decision of the Space Commission to annul the deal was taken on 2nd July, 2010. Space Commission took a number of decision [sic] of which annulment of the contract was one of them. The Dept of Space was asked to take action on all the five decision points that emerged from the Space Commission meeting. The issue of how to annul the contract required consideration by legal experts and the Law Ministry was consulted. A decision had to be taken on whether to annul the contract using article 7(c) or Article 11 or both read together. Eventually it has been decided that the Government should take a sovereign policy decision regarding the utilization of Space Band capacity which uses S Band spectrum having regard to the country's strategic requirements."¹⁷²

Note to the CCS

124. On the same day (16 February 2011) Dr Radhakrishnan submitted a note to the CCS. The note stated that its purpose was to seek the CCS' approval to annul the Devas Agreement "in view of priority to be given to nation's strategic requirements including societal ones".¹⁷³ It also referred to the need to "level the playing field" for other providers of telecommunications services.¹⁷⁴ It went on to request approval to annul the agreement, as follows:

"45.1) Taking note of the fact that government policies with regard to allocation of spectrum have undergone a change in the last few years and there has been a increased demand for allocation of spectrum for national needs, including for the needs of defence-, para-military forces, railways and other public utility services as well as for societal needs, and having regard to the needs of the country's strategic requirements, the Government will not be able to provide orbit slot in S band to Antrix for commercial activities, including for those which are the subject matter of existing contractual obligations for S Band.

¹⁷² CB-255.

¹⁷³ CB226. It explained those strategic and social requirements as follows:

"19) The GSAT-7 Satellite being built by ISRO for Indian Navy with launch targeted in mid-2011 has S-band transponders for MSS applications with 15 MHz band width each for up-linking and down-linking. Further, Armed Forces and ISRO are finalising configuration of a S-band multi-beam Satellite GSAT-7S, for national security related mobile communications.

20) The Integrated Space Cell of Integrated Defence Staff, Ministry of Defence have projected, in December 2009, need for a bandwidth of 17.5 MHz in S- band for meeting the immediate requirements of Armed Forces; another 40 MHz during the 12th plan period; and an additional 50 MHz during the 13th plan period.

21) There are further demands for S-band transponders from internal security agencies viz., Border Security Force, Central Industrial Security Force, Central Reserve Police Force, Coast Guard and Police for meeting their secured communication needs.

22) Indian Railways have also projected S band requirements for traintracking. In view of these emerging requirements, there is an imminent need to preserve the S band spectrum for vital strategic and societal applications."

¹⁷⁴ It stated (at [24]): "[f]urther, DEVAS multimedia services also call for terrestrial supplementation where there are high-rising buildings (that means all major urban areas). However, such a dispensation might not ensure a level-playing field for the other service providers using terrestrial spectrum, especially considering the significant demand for terrestrial S-band spectrum and the current trends on its price."

45.2) In the light of this policy of not providing orbit slot in S Band to Antrix for commercial activities, the "Agreement for the lease of space segment capacity on ISRO/Antrix S-Band spacecraft by Devas Multimedia Pvt. Ltd." entered into between Antrix Corporation and Devas Multimedia Pvt. Ltd. on 28th January, 2005 shall be annulled forthwith."

125. On 17 February 2011 the CCS met and approved the annulment of the Devas Agreement. The decision was announced later that day.¹⁷⁵

Notification of the annulment of the Devas Agreement

126. On 25 February 2011 Antrix wrote to Devas informing it that the agreement was terminated.¹⁷⁶ The letter stated:

"[t]he Central Government has communicated that it has taken a policy decision not to provide orbital slot in S-Band to our Company for commercial activities including those which are the subject matter of the existing agreements.

In accordance with Article 7(c) of the Agreement, it is declared that Antrix is unable to obtain the necessary frequency and orbital slot coordination as stipulated in the Agreement.

Without prejudice to the inability expressed under Article 7(c), notice of force majeure as defined in Article 11, is expressed. The policy decision of the Central Government acting in its sovereign capacity is the event of force majeure which has occurred on 23rd February 2011. The force majeure commenced on 23rd February 2011. The scope and duration of the said decision cannot be anticipated. It is likely to be indefinite. It is not possible for Antrix to take any effective step to resume the obligations under the Agreement. The event of force majeure is beyond the reasonable control of Antrix and is clearly covered by Article 11(b) of the Agreement and, in particular, 11 (b)(v) "... act of governmental authority in its sovereign capacity... ". Any possibility of resumption of obligations by Antrix under the Agreement stands excluded. The subject Agreement, No. ANTX/203/DEVAS/2005 dated 28th January 2005, therefore, is terminated with immediate effect."

127. It is not entirely clear from the evidence adduced before this tribunal when or why a decision was made to rely on Article 7(c) to terminate the Devas Agreement (given that this involved a departure from the ASG's advice, referred to in [115] above).
128. On 28 February 2011 Devas wrote to Antrix, denying that the Devas Agreement was terminated and stating that, pursuant to Article 20(a) of the Devas Agreement, it was "referring all disputes arising from or under the Agreement... to senior management of both parties."¹⁷⁷
129. On 15 April 2011 Antrix wrote to Devas that referred to its letter of 25 February 2011 and enclosed

¹⁷⁵ See CB228.

¹⁷⁶ CB231.

¹⁷⁷ Exhibit 179. Antrix did not respond to that letter within the time period specified in Article 20 for the negotiations between senior management to take place.

a cheque for the amount of INR 58,37,34,000 (approximately USD 13 million) as a "reimbursement" of the UCRF.¹⁷⁸

130. On 18 April 2011 Devas wrote to Antrix, returned Antrix's cheque and stated (inter alia) that Antrix had failed to state a proper basis for terminating the Devas Agreement pursuant to Article 7(c) of the agreement, and that it was not entitled to rely on the *force majeure* clause in the agreement because the events said to give rise to the *force majeure* were self-induced.¹⁷⁹

Devas' commencement of this arbitration and claim for damages

131. As noted above, Devas commenced this arbitration on 1 July 2011. Initially, Devas alleged that Antrix had repudiated its obligations under the agreement, but that it had not accepted the repudiation, and sought specific performance of the agreement. However, Devas later changed its position. On 13 June 2013 Devas wrote to Antrix and stated:
"[w]e refer to your letter of 25 February 2011 in which you purported to terminate the above-referenced Agreement.

There clearly was no basis for you to terminate the Agreement and, accordingly, the purported termination of the Agreement by your 25 February 2011 letter was wrongful and in repudiatory breach of the Agreement. Devas was entitled to accept Antrix's repudiatory breach of contract and to bring the Agreement to an end, whilst claiming damages.

Since then Antrix also has obstructed the expeditious determination of the arbitration proceedings commenced by Devas.

Antrix continues to be in repudiatory breach of the Agreement even today and has clearly evinced its intention not to perform the Agreement. Devas has elected to, and does hereby, accept Antrix's repudiatory breach of the Agreement, bringing the Agreement to an end as a result of Antrix's wrongful actions.

Devas will be amending its claim in the ICC arbitration to reflect the withdrawal of its claim for specific performance whilst maintaining its claim for damages as a result of Antrix's breaches of contract.

Devas reserves all of its rights including under Indian law and international law."

132. As noted above, Devas now claims damages equal to the value of its business (which it claims is USD 1.41 billion), plus interest and costs.

Applicable law

133. The Devas Agreement states that "[t]his Agreement and the rights and responsibilities of the Parties

¹⁷⁸ Exhibit 183.

¹⁷⁹ Exhibit 184.

hereunder, shall be subject to and construed in accordance with the Laws of India".¹⁸⁰ Both parties agree that, in light of this provision, the tribunal is required to apply the laws of India when determining the parties' rights and obligations under the agreement.¹⁸¹

134. Devas has also submitted that English and other common law decisions have important persuasive value which influence the courts in India.¹⁸² The tribunal agrees. In *Bhagwandas Goverdhandas Kedia v Girdharlal Parshottamadas*,¹⁸³ the Supreme Court of India stated:

"[i]n the administration of the law of contracts, the Courts in India have generally been guided by the rules of the English common law applicable to contracts where no statutory provision to the contrary is in force".¹⁸⁴

135. Similarly, in *Forasol v Oil And Natural Gas Commission*,¹⁸⁵ the Supreme Court stated that English authorities are "of high persuasive value to which [Indian courts] may legitimately turn for assistance".¹⁸⁶

136. The tribunal has therefore treated English and other common law authorities as persuasive, unless they are contrary to any Indian statutes. In addition, where there has been any conflict or inconsistency between Indian and other common law authorities, the tribunal has followed Indian authorities.

Principal Issues in Dispute

137. During the course of the hearing the parties agreed that the following principal issues are to be determined by the tribunal:
- Does the tribunal have jurisdiction to hear and determine this dispute?
 - Did Antrix have any right to terminate the Devas Agreement pursuant to Article 7(c) thereof?
 - Was there any "Force Majeure Event" as defined in Article 11 of the Devas Agreement? If so, to what consequence?
 - Is Antrix entitled to rely on Section 56 of the Indian Contract Act, 1872 and if so, can it claim impossibility of the Devas Agreement based-on the CCS decision?
 - Did Antrix's conduct amount to a repudiation/renunciation of the Devas Agreement or was the Devas Agreement validly terminated by Antrix's letter of 25 February 2011?

¹⁸⁰ Article 19.

¹⁸¹ Statement of Claim, [192]; Statement of Defence, [23].

¹⁸² Statement of Claim, [193].

¹⁸³ *AIR 1966 SC 543*.

¹⁸⁴ At [11].

¹⁸⁵ *(1984) Supp. SCC 263*.

¹⁸⁶ At [46].

f. If Antrix's conduct amounted to a repudiation/renunciation of the Devas Agreement, was that a material breach of the Devas Agreement within the meaning of Article 7(b), and did Devas terminate the agreement within the meaning of Article 7(b) when it accepted the repudiation?

g. In the event the tribunal finds jurisdiction and concludes that Antrix is liable, would it be appropriate to use a discounted cash flow (*DCF*) analysis to determine damages and, if so, what compensation/damages should be awarded?

h. What is the rate of pre-award and post-award interest that should be applied to an award of compensation/damages?

i. Which party should bear the legal and arbitration costs of this matter, and in what amount?

138. The approach that the tribunal has taken is to decide only those issues that are necessary to decide in order to resolve Devas' claims. In other words, if the tribunal decides that it does not have jurisdiction, it will not consider issues relating to liability and quantum, and if it decides that it has jurisdiction but that Antrix is not liable to pay any damages, it will not consider issues relating to the quantum of damages. To do otherwise would, in the tribunal's view, provide no practical benefit and would add unnecessarily to the already significant costs of this arbitration.

A. Does the tribunal have jurisdiction to hear and determine this dispute?

139. The first issue that is in dispute is whether the tribunal has jurisdiction to decide Devas' claims.

140. Antrix's basis for challenging the tribunal's jurisdiction is that the arbitration clause "does not provide for ICC arbitration, but rather specifies two possible sets of arbitration rules", being the ICC and UNCITRAL rules. According to Antrix the clause is therefore pathological and "cannot be enforced without agreement of the parties as to which of the two sets of rules applies".¹⁸⁷

141. In response, Devas says:

a. the Supreme Court of India has held that Devas was entitled to commence this arbitration, which "forecloses" Antrix from now challenging the tribunal's jurisdiction;

b. in any event, the arbitration agreement is not pathological; and

c. further, Antrix ought to be estopped from arguing that the clause is pathological, because when it purported to start an arbitration under the UNCITRAL Arbitration Rules it accepted that the arbitration clause in the Devas Agreement was "fully workable" and "not at all pathological".¹⁸⁸

¹⁸⁷ Antrix's Skeleton, [45], Before Antrix started participating in this arbitration it made other jurisdictional arguments, which are referred to in [22] of the terms of reference. None of those arguments have been made in this arbitration. As stated in Antrix's Skeleton (at [44]), "[t]he jurisdictional issue in this case turns upon whether the arbitration clause is an ICC arbitration clause". See also the Statement of Defence at [71] to [77], Rejoinder at [47] to [58], Antrix's PHM at [6] to [16] and Antrix's PHRM at [31] to [44]. Further, the tribunal notes that it is relevant that Antrix itself sought to institute arbitration proceedings in reliance on Article 20 of the Devas Agreement.

¹⁸⁸ Devas' PHM, [142].

142. The tribunal will consider each of these issues in turn.

Has the Supreme Court of India "foreclosed" Antrix from challenging the tribunal's jurisdiction?

143. As noted above, after Devas commenced this arbitration Antrix commenced an arbitration under the UNICTRAL Arbitration Rules. It then applied to the Supreme Court for an order under section 11 of the Indian Arbitration and Conciliation Act 1996 (*1996 Act*) that the Chief Justice direct Devas to nominate it", arbitrator in accordance with the UNCITRAL Rules.¹⁸⁹ It submitted that such an order should be made because (inter alia):

"the Arbitration Agreement contemplates the constitution of an Arbitral Tribunal without any reference to the ICC Rules or the ICC Court, [so] the recourse taken by Devas to approach the ICC Court was without any basis and was contrary to the express agreement between the parties".¹⁹⁰

144. The Supreme Court rejected Antrix's application. It held that:
"[t]he matter is not as complex as it seems and in our view, once the Arbitration Agreement had been invoked by Devas and a nominee Arbitrator had also been appointed by it, the Arbitration Agreement could not have been invoked for a second time by the Petitioner, which was fully aware of the appointment made by the Respondent".¹⁹¹

145. The Court also stated that:
"[i]n view of the language of Article 20 of the Arbitration Agreement which provided that the arbitration proceedings would be held in accordance with the rules and procedures of the International Chamber of Commerce or UNCITRAL, Devas was entitled to invoke the Rules of arbitration of the ICC for the conduct of the arbitration proceedings".¹⁹²

146. According to Devas, this is a clear finding that it was entitled to commence this ICC arbitration, and "conclusively adjudicates this issue of jurisdiction".¹⁹³

147. Antrix, on the other hand, notes that Supreme Court also stated that Devas invoked ICC arbitration "[r]ightly or wrongly",¹⁹⁴ and that:

¹⁸⁹ *Antrix v Devas, Supreme Court Judgment*, [10].

¹⁹⁰ *Antrix v Devas, Supreme Court Judgment*, [16]. Antrix's submission appears to have been based on the structure of Article 20. As noted above, Article 20 first provides that disputes that have not been resolved by the senior management of the parties may be referred to arbitration (see Article 20(a)), then it provides that "[t]he seat of Arbitration shall be at NEW DELHI in India", and only then it states that "[t]he Arbitration proceedings shall be held in accordance with the rules and procedures of the ICC... or UNCITRAL". It appears that, in light of this, Antrix submitted that the parties intended that the procedural rules that govern the arbitration would only be determined after the tribunal had been appointed.

¹⁹¹ At [31].

¹⁹² At [34].

¹⁹³ Devas' PHM, [134]. Devas notes that, in reaching this conclusion, the Supreme Court "proceeded on the basis that Article 20(c) gave the first mover the right to choose the institutional rules that would apply to the arbitration, and because Devas was the first mover and chose the ICC Rules, Antrix could not then invoke the UNCITRAL Rules": Devas' PHM, [133].

"[o]nce the provisions of the ICC Rules of Arbitration had been invoked by Devas, the proceedings initiated thereunder could not be interfered with in a proceeding under Section 11 of the 1296 Act. *The invocation of the ICC Rules would, of course, be subject to challenge in appropriate proceedings* but not by way of an application under Section 11(6) of the 1996 Act. Where the parties had agreed that the procedure for the arbitration would be governed by the ICC Rules, the same would necessarily include the appointment of an Arbitral Tribunal in terms of the Arbitration Agreement and the said Rules".¹⁹⁵

148. Antrix submits that the reference to the "invocation of the ICC Rules" being "subject to challenge in *appropriate proceedings*" means that it is entitled to challenge the tribunal's jurisdiction in this arbitration.¹⁹⁶
149. Devas, on the other hand, says that the Supreme Court's reference to Devas' invocation of the ICC Rules being open to challenge was not a reference to a jurisdictional challenge, but rather to a challenge under section 13 of the 1996 Act.¹⁹⁷ Section 13 concerns the procedure for challenges to arbitrators.
150. The tribunal has carefully considered the parties' submissions but has formed the view that it is not necessary to decide which of them is correct. This is because, for the reasons set out below, even if the Supreme Court intended that Antrix would be able to challenge the tribunal's jurisdiction in this arbitration on the basis that Article 20 is pathological, the tribunal considers that that challenge must fail.

Is Article 20 pathological?

151. Antrix submits that the Article 20 of the Devas Agreement is pathological because it refers to both ICC and UNCITRAL arbitration, and therefore requires the parties to agree on which of those two sets of rules should apply.¹⁹⁸ Antrix also says that:

"the only precedents in the world on the question of the effectiveness of an arbitration clause naming two different institutions or sets of arbitration rules without agreement of the parties on which would apply have made clear that the clause would be inoperative to confer jurisdiction without such agreement."¹⁹⁹

152. The precedents that Antrix relies on are decisions of the Supreme Court of Lebanon²⁰⁰ and the courts of the People's Republic of China,²⁰¹ in which it was found that arbitration clauses that

¹⁹⁴ At [30].

¹⁹⁵ At [34] (emphasis added).

¹⁹⁶ Antrix's PHM, [7].

¹⁹⁷ Devas' PHM, [137].

¹⁹⁸ Antrix's PHM, [5(i)].

¹⁹⁹ Post-hearing memorial, [9].

²⁰⁰ *Not indicated v. Not indicated*, Lebanese Supreme Court (1st Civil Chamber), Judgment, 27 April 1987, 4 *Revue de L'Arbitrage* 723 (1988), Exhibit R-53.

referred to two sets of arbitral rules were ineffective or inoperative.

153. Contrary to Antrix's submission, however, these are not the only cases in which the effectiveness of an arbitration clause naming two sets of arbitral rules has been considered. First, as Devas notes, the arbitral tribunal in *Millicom International Operations B. V. and Sentel GSM SA v The Republic of Senegal*²⁰² did so when it considered an arbitration clause that stated:

"[i]f the dispute continues, the Parties can submit to binding arbitration before international bodies such as the arbitration court of OHADA, the Centre for the Settlement of International Disputes (ICSID) or the International Chamber of Commerce in Paris."²⁰³

154. The case involved claims against the Republic of Senegal pursuant to an investment treaty. The tribunal rejected a submission that the arbitration clause was not binding because it required a further agreement between it and the claimant concerning the choice of arbitration rules. The tribunal found that "[n]othing... prevents an arbitration clause from affording several options [of arbitration rules], from amongst which the party initiating the proceeding has the right to choose."²⁰⁴

155. Indeed, investment treaties commonly refer to more than one set of arbitration rules. Where they do so, it is well accepted that investors may commence arbitral proceedings against the relevant State pursuant to whichever of those rules it prefers.

156. Second, in *Panamanian Owner X v. Korean Charterer Y*,²⁰⁵ an ICC arbitral tribunal considered an arbitration clause that stated that:

"[a]ny dispute arising under this charter party to be referred to 'The Korean Commercial Arbitration Association, Seoul, Korea' and 'The Japan Shipping Exchange, Inc. Japan' and the award of which to be final and binding upon both parties."

157. The tribunal in that case found the clause to be effective. It said: "if arbitration procedure is initiated by either party in one of the places, then the other party must file its plea and/or counterclaim in that place."²⁰⁶

158. Further, according to Indian law, arbitration clauses must be construed in a pragmatic, common sense way by reference to the perspective of a reasonable business person. As the Supreme Court of India stated in *Enercon (India) Ltd v Enercon GmbH*:²⁰⁷

²⁰¹ *Rent Corp v Jianhua Machinery et al* (2008), summarised in Chinese Court Decision Summaries on Arbitration (Kluwer Law International), Exhibit R-127; *HK ACE v Weihong Plastic et al* (2007), summarised in Chinese Court Decision Summaries on Arbitration (Kluwer Law International), Exhibit R-128.

²⁰² ICSID Case ARB/08/20, CB 365.

²⁰³ At [97], The clause was drafted in French. The above translation was provided by Devas. The French version states: "[s]i le litige persiste, les parties pourront en definitive recourir à l'arbitrage d'organismes internationaux tels que la cour d'arbitrage de l'OHADA, le Centre international de règlement des différends sur les investissements (CIRDI) ou la Chambre de Commerce international de Paris (CCPI) etc". Antrix has not objected to Devas' translation.

²⁰⁴ At [97].

²⁰⁵ Interlocutory Award (ICC 1981), reprinted in XI Y.B. Comm. Arb. 193 (1986).

²⁰⁶ CB 404 at [5].

"[i]n our opinion, the Courts have to adopt a pragmatic approach and not a pedantic or technical approach while interpreting or construing an arbitration agreement or arbitration clause. Therefore, when faced with a seemingly unworkable arbitration clause, it would be the duty of the Court to make the same workable within the permissible limits of the law, without stretching it beyond the boundaries of recognition. In other words, a common sense approach has to be adopted to give effect to the intention of the parties to arbitrate. In such a case, the court ought to adopt the attitude of a reasonable business person, having business common sense as well as being equipped with the knowledge that may be peculiar to the business venture. The arbitration clause cannot be construed with a purely legalistic mindset, as if one is construing a provision in a statute."²⁰⁸

159. Adopting that common sense approach, the tribunal considers that Article 20 is not pathological. It clearly provides for the arbitration of disputes relating to the Devas Agreement, and for the arbitral proceedings to be held in accordance with the ICC or UNCITRAL Rules. The fact that it refers to two sets of arbitral rules does not necessarily mean that the parties had to agree on which set of rules would apply. It simply means that whichever party started the arbitration was entitled to choose between ICC or UNCITRAL arbitration.

160. Accordingly, the tribunal finds that it does have jurisdiction to decide Devas' claims.

Estoppel

161. In light of this conclusion, it is unnecessary to address Devas' claim that Antrix is estopped from denying that Article 20 is operative.

B. Was Antrix entitled to terminate the Devas Agreement pursuant to Article 7(c)?

162. Under the Devas Agreement, Antrix was responsible for obtaining "Governmental and Regulatory Approvals relating to orbital slot and frequency clearances"²⁰⁹ as well as "clearances from National and International agencies (WPU, ITU, etc) for use of the orbital slot and frequency resources".²¹⁰

163. If it failed to obtain "necessary frequency and orbital slot coordination" it was entitled to terminate the agreement pursuant to Article 7(c). Article 7(c) states:

²⁰⁷ (2014) 5 SCC 1.

²⁰⁸ At [83]. This is consistent with the approach taken by English courts to the interpretation of arbitration agreements. See, for example, *Premium Nafta Products Limited and others v. Fili Shipping Company Limited and others* [2007] UKHL 40, in which the House of Lords held that:

"the construction of an arbitration clause should start from the assumption that the parties, as rational businessmen, are likely to have intended any dispute arising out of the relationship into which they have entered or purported to enter to be decided by the same tribunal. The clause should be construed in accordance with this presumption unless the language makes it clear that certain questions were intended to be excluded from the arbitrator's jurisdiction."

²⁰⁹ See Article 3(c).

²¹⁰ See Article 12(a).

"Termination for convenience by ANTRIX

ANTRIX may terminate this Agreement in the event ANTRIX is unable to obtain the necessary frequency and orbital slot coordination required for operating PS1 on or before the completion of the Pre Shipment Review of the PS1. In the event of such termination, ANTRIX shall immediately reimburse DEVAS all the Upfront Capacity Reservation Fees and corresponding service taxes received by ANTRIX till that date. Upon such termination, neither Party shall have any further obligation to the other Party under this Agreement nor be liable to pay any sum as compensation or damages (by whatever name called)."

164. As noted above, on 25 February 2011 Antrix sent a letter to Devas purporting to terminate the Devas Agreement in accordance with Article 7(c). Its letter stated (in relevant part):
"[i]n accordance with Article 7(c) of the Agreement, it is declared that Antrix is unable to obtain the necessary frequency and orbital slot coordination as stipulated in the Agreement... The subject Agreement, No. ANTX/203/DEVAS/2005 dated 28th January 2005, therefore, is terminated with immediate effect."
165. Antrix then sent a cheque to Devas for INR 58,37,34,000 (approximately USD 13 million) as reimbursement of the UCRF.²¹¹
166. Devas says that Antrix was not entitled to terminate the agreement under Article 7(c). It says that Antrix was able to - and did - obtain the necessary frequency and orbital slot coordination required for operating PS1, so Article 7(c) cannot apply. It returned Antrix's cheque.²¹²
167. To determine whether Antrix was permitted to terminate the agreement pursuant to Article 7(c) the following issues need to be decided:
- a. What weight, if any, is to be placed on the ASG's opinion that Antrix was unable to terminate the Devas Agreement in accordance with Article 7?
 - b. Does Article 7(c) concern frequency and orbital slot clearance from both international and national agencies?
 - c. If yes:
 - i. Was Antrix unable to obtain the necessary clearance from international agencies?
 - ii. Was Antrix unable to obtain the necessary clearance from domestic agencies?
168. The tribunal will consider each of these issues in turn.

What weight, if any, is to be placed on the ASG's opinion that Antrix was unable to terminate the Devas Agreement in accordance with

²¹¹ See [129] above.

²¹² See [130] above.

Article 7?

169. The ASG's opinion of 12 July 2010 states (in relevant part):
"[t]he modus of termination has been specified in the agreement in clause 7. But I am afraid that the conditions stipulated in this clause cannot be invoked at this stage for the purpose of terminating the contract".
170. Devas has referred to this opinion numerous times in support of its submission that Antrix was not entitled to terminate the agreement pursuant to Article 7.²¹³ It says that this opinion is significant because the reason why the ASG was "afraid" that Antrix could not rely on Article 7 was that "the frequency and orbital slot coordination 'required for operating PST already had been obtained'.²¹⁴ It says that, in light of this opinion, the tribunal should also conclude the required frequency and orbital slot coordination had been obtained.
171. It is not entirely clear why the ASG thought that Antrix could not rely on Article 7 - he did not give a reason for his view. But even if he did consider that the orbital slot coordination required for operating PS1 had already been obtained, there has been no suggestion that he is an expert in respect of that factual issue, so his view would be an opinion of a lay witness. It therefore has no probative value (particularly since it does not set out the facts on which it is based).²¹⁵ Accordingly, in the tribunal's view, it is not appropriate to place any weight on his opinion.

Does Article 7(c) concern clearances from both international and national agencies?

172. Antrix says that it was entitled to terminate the Devas Agreement pursuant to Article 7(c) if it was unable to obtain frequency and orbital slot clearance from relevant international *or* national agencies.²¹⁶
173. Devas disagrees. It says that Article 7(c) is concerned with clearance from international agencies only. It says that if the parties intended Article 7(c) to embrace clearance from national agencies, Article 7(c) would have referred to "Regulatory Approval" (which incorporates GOI entities²¹⁷), like Article 7(a). Instead it refers to "frequency and orbital slot coordination",²¹⁸ which makes no (express) reference to GOI entities.

²¹³ See, e.g., Statement of Claim, [250]; Reply, [92]; Devas' Skeleton, [39(d)]; Devas' PHM, [19], [90], [169], [170] Devas' PHRM, [1.2], [3], [7], [11], [13].

²¹⁴ Devas' PHM, [7].

²¹⁵ Opinion evidence can, of course, be helpful and probative of issues in dispute, but it must (inter alia) be based on specialised knowledge that the tribunal does not possess - e.g., knowledge about economic, engineering or (in some cases) legal issues - and set out the facts on which it is based. That is not the case with the ASG's opinion.

²¹⁶ 216 Antrix's PHM, [49].

²¹⁷ Regulatory approval is defined as "any and all approvals, licenses, or permissions from Governmental or Regulatory Authority (Devas Agreement, Annexure I, [37]). Governmental or Regulatory Authority is defined as any Government state or Central municipality, local authority, town, village, court, tribunal, arbitrator, authority, agency, commission, official or other instrumentality of India (Devas Agreement, Annexure I, [16]).

²¹⁸ Devas' PHRM, [15].

174. The tribunal does not accept that submission. By the same logic, one could also say that if the parties intended Article 7(c) to apply to clearance from international agencies only, it would have expressly stated that it applies to international agencies only.²¹⁹
175. In the tribunal's view, the fact that Article 7(c) does not refer to either "Regulatory Approval", domestic agencies or international agencies suggests that the parties intended that it apply to all relevant agencies. In other words, since the parties did not introduce any words limiting the type of frequency and orbital slot clearance that was required, it is likely that they did not intend for there to be any such limit.²²⁰
176. The tribunal therefore accepts Antrix's submission that Article 7(c) applies if it was unable to obtain frequency and orbital slot clearance from relevant international or national agencies.

Was Antrix unable to obtain frequency or orbital clearance from any relevant international agency?

177. The international agency responsible for providing clearance for use of S-band and the 83° East orbital slot was the ITU. Antrix says that it was unable to obtain the required clearance from the ITU.²²¹ It says that "Devas' own 2010 presentations reflect the fact that the coordination on the international level had not yet been completed".²²²
178. Devas, on the other hand, says that Antrix was able to - and did - obtain the necessary clearance from the ITU.²²³ It says (inter alia) that the GOI co-ordinated the S-band frequencies at the ITU and allocated those frequencies to the DOS by the early 1970s, and that the GOI obtained clearance to use those frequencies at the 83° East orbital slot pursuant to a coordination request that was made in 1994 and modified in 2005.²²⁴
179. Devas also says that Antrix confirmed that it had obtained the necessary clearance from the ITU when it wrote to Devas on 2 February 2006 and stated:
"[a]s per the Agreement signed with Devas, Antrix is responsible for getting the national and international frequency coordination for the operation of INSAT-4E satellite at the designated orbital slot. In this connection it may please be noted that the S-band frequencies of the INSAT-4E satellite are within the spectrum in use for satellite applications in India by DOS/ISRO, for which we had

²¹⁹ Where the parties wanted to refer to international agencies they did so: see, e.g. Article 12(a).

²²⁰ The tribunal considered whether the reference in Article 7(c) to Antrix obtaining frequency and orbital slot "coordination" (c.f. "approval" or "clearance") is a reference to the ITU's "coordination" process (described in [55] to [57] above), and therefore evidence of an intention to limit Article 7(c) to clearance from the ITU only. However, there is no evidence that the term "coordination" was used only in respect of the ITU clearance process (cf. any domestic approval process). Accordingly, the tribunal has come to the view that the parties' most likely intention was that Article 7(c) was to apply to any type of (national or international) frequency and orbital slot clearance that Antrix was required to obtain.

²²¹ More specifically, it has stated that it was unable to obtain the required frequency "on the international level": see Antrix's PHM at [48], [49]. It has not, however, referred to any relevant clearance from any international agency other than the ITU.

²²² Antrix's PHM, [49].

²²³ See, e.g., Devas' PHM, [166].

²²⁴ Devas' PHM, [8].

completed the necessary ITU level co-ordination and registration. DOS/ISRO have taken necessary additional steps to enable registration of applicable parameters for INSAT-4E operation.

Antrix is now in a position to go ahead with the building and launch of the INSAT-4E spacecraft and lease the capacity on the same to Devas Multimedia Pvt. Ltd., as per Agreement No. Antrix/2003/DEVAS/2005 dated 28 January 2005".²²⁵

180. The tribunal accepts Devas' submissions, for the following reasons. First, the presentation that Antrix relies on refers to "[p]reserving ITU coordinated priority orbit/spectrum tied to satellite launch".²²⁶ This did not mean that Antrix had yet to obtain the necessary frequency and orbital slot clearance from the ITU. It meant that the ITU co-ordination (that had been obtained) had to be *preserved*. As Devas submits, the presentation was referring to the ITU's "use it or lose it" ? policy (described in [56] above).²²⁷
181. Second, as noted above, the GOI obtained clearance from the ITU to use S-band in India and to launch a satellite at the 83° East orbital, and that clearance was capable of being used for PS1.²²⁸ There does not appear to be any other clearance that Antrix was required to obtain from the ITU.
182. Third, Antrix's letter of 2 February 2006 clearly notified Devas that the necessary ITU clearance had been obtained. It was not, as Antrix submitted, concerned only with Cabinet's approval to build, launch and lease the satellite.²²⁹ It expressly stated that Antrix "had completed the necessary ITU level co-ordination and registration".

Was Antrix unable to obtain frequency or orbital clearance from any relevant national agency?

183. Antrix also submits that it was unable to obtain necessary clearances from relevant national agencies. It has not identified any specific clearance that it was unable to obtain, but in its post-hearing memorial it stated that:
"the Contract is clear that Antrix had to obtain the "necessary Governmental and Regulatory Approvals relating to orbital slot and frequency clearances," including from the WPC. There is no dispute that such Governmental and Regulatory Approvals were not obtained and, after the decision of the Cabinet Committee on Security, could never be obtained".²³⁰
184. Nor did Antrix refer to any specific clearance that it was unable to obtain in its post-hearing reply memorial. It stated only that "on the national level, the only document addressing the use of the orbital slot by Antrix for the Devas Services is the decision of the CCS, which in no uncertain terms denied such use".²³¹

²²⁵ Devas' PHM, [166].

²²⁶ Exhibit C-118 (emphasis added), cited in Antrix's PHM, [48].

²²⁷ Devas' RPHM, [12].

²²⁸ See [57] and [73] above.

²²⁹ Antrix's PHM, [49].

²³⁰ Antrix's PHM, [49].

185. The tribunal therefore understands that, in so far as frequency and orbital slot clearance from national agencies is concerned, Antrix is relying on the CCS' decision. In particular, the tribunal understands that Antrix is submitting that the CCS' decision to annul the Devas Agreement made it impossible for Antrix to provide services pursuant to the Devas Agreement from the 83° East orbital slot.
186. Devas, on the other hand, says that "any internal approvals [that were] needed... were satisfied", and that this happened "*before* filings were made at the ITU".²³² Devas says that "[t]he nodal agency for all submissions by the GOI to the ITU... was the WPC, which coordinated inputs from DOS, DOT, and all other relevant agencies",²³³ and that once the WPC had completed coordination of the five spot beams at the 83° East orbital slot at the ITU, no further approvals were required.²³⁴
187. Given that Antrix has not identified any specific clearances from national agencies that it was required and unable to obtain, it is necessary to determine whether Antrix is entitled to rely on the CCS' decision in order to terminate the agreement pursuant to Article 7(c).
188. In the tribunal's view, it is not. As noted above, Article 7(c) states that:
"ANTRIX may terminate this Agreement in the event ANTRIX is *unable to obtain* the necessary frequency and orbital slot coordination required for operating PS1 on or before the completion of the Pre Shipment Review of the PS1" (emphasis added).
189. The reference to Antrix being "unable to obtain" the "necessary" frequency and orbital slot coordination implies that there is a regulatory clearance that it was necessary for Antrix to obtain. In other words, it implies that for Article 7(c) to apply, there must be a national or international agency that was responsible for granting clearance or approval to use S-band at the 83° East orbital slot, and that Antrix was required to obtain that clearance or approval, and was unable to do so.
190. Since Antrix was not required to apply for frequency and orbital slot clearance from the CCS, it is therefore not permitted to rely on the CCS' decision alone in order to terminate the agreement pursuant to Article 7(c).
191. The tribunal also notes that, even if the CCS' decision had the effect of annulling any necessary clearance or approval that Antrix had obtained, that would not be sufficient to enliven Article 7(c). Article 7(c) refers to Antrix being unable to "*obtain* the necessary frequency and orbital slot coordination", unlike Article 7(a) which refers to Devas being unable to "*get and retain*" Regulatory Approvals. As Devas has submitted,²³⁵ this wording suggests that Article 7(c) was intended to apply only in the case of inability to *obtain* a relevant clearance, not inability to *retain* a clearance.
192. Accordingly, the tribunal considers that the pre-conditions for the application of Article 7(c) have not been satisfied, and that Article 7(c) did not permit Antrix to terminate the Devas Agreement.

²³¹ Antrix's PHRM, [47].

²³² Devas' PHRM, [16] (emphasis in original).

²³³ Devas' PHRM, [16]. Devas says further that "[i]t is absurd for Antrix to now suggest that the WPC (or any other entity) might need to give some further "approval" for coordination of the five spot beams at the 83° East orbital slot that the WPC completed on behalf of DOS/ISRO/Antrix at the ITU": Devas' PHRM, [16].

²³⁴ Devas' PHRM, [16].

²³⁵ Devas' PHM, [165].

C. Was there any "Force Majeure Event" as defined in Article 11 of the Devas Agreement? If so, to what consequence?

193. Antrix's letter of 25 February 2011 also purported to terminate the Devas Agreement on the basis that "Force Majeure Event" had occurred. It stated (in relevant part):

"[t]he policy decision of the Central Government acting in its sovereign capacity is the event of force majeure which has occurred on 23rd February 2011. The force majeure commenced on 23rd February 2011. The scope and duration of the said decision cannot be anticipated. It is likely to be indefinite. It is not possible for Antrix to take any effective step to resume the obligations under the Agreement. The event of force majeure is beyond the reasonable control of Antrix and is clearly covered by Article 11 (b) of the Agreement and, in particular, 11 (b)(v) '... act of governmental authority in its sovereign capacity...'".

194. Article 11 of the Devas Agreement states as follows.

"Article 11. Force Majeure

a. Neither of the Parties hereto shall be liable for any failure or delay in performance of its obligations hereunder if such failure or delay is due to Force Majeure as defined in this Article, provided that notice thereof is given to the other Party within seven (7) calendar days after such event has occurred.

b. For the purposes of this Agreement, "Force Majeure Event" shall include any event, condition or circumstance that is beyond the reasonable control of the party affected (the "Affected Party") and that, despite all efforts of the Affected Party to prevent it or mitigate its effects (including the implementation of a business continuation plan), such event, condition or circumstance prevents the performance by such Affected Party of its obligations hereunder. The following events may be considered Force Majeure Events under the Agreement: (i) explosion and fire; (ii) flood, earthquake, storm, or other natural calamity or act of God; (iii) strike or other labor dispute; (iv) war, insurrection, civil commotion or riot; (v) acts of or failure to act by any governmental authority acting in its sovereign capacity; (vi) changes in law and regulation, (vii) National emergencies, (ix) Launch Failure.

c. If an Affected Party is rendered unable, wholly or in part, by a Force Majeure Event, to carry out some or all of its obligations under the Agreement, then, during the continuance of such Inability, the obligation of such Affected Party to perform the obligations so affected shall be suspended.

d. The Affected Party shall give written notice of the Force Majeure Event to the other party (the "Unaffected Party") as soon as practicable after such event occurs, and not later than 7 days after such event, which notice shall include information with respect to the nature, cause and date of commencement of the occurrence(s), and the anticipated scope and duration of the delay. Upon the conclusion of a Force Majeure Event, the Affected Party shall, with all reasonable dispatch, take all necessary and effective steps to resume the obligation(s) previously suspended.

e. Notwithstanding the foregoing, an Affected Party shall not be excused under this Article for (1) any non-performance of its obligations under the Agreement having a greater scope or longer

period than is justified by the Force Majeure Event, or (2) the performance of obligations that arose prior to the Force Majeure Event. Nothing contained herein shall be construed as requiring an Affected Party to settle any strike, lockout or other labor dispute in which it may be involved.

f. Notwithstanding anything contained herein, in the event of Launch Failure of PS1 or PS2, the articles related to re-launch guarantee in Article 3 (d), and termination under special circumstances in Article 7 shall apply and take precedence over the terms contained herein.

g. In the event of failure or delay in the performance of this Agreement arising out of an event of Force Majeure which lasts longer than 90 (ninety) days, both parties shall discuss the further course of action on a mutually agreeable basis. However, such action could include termination at the option of Unaffected Party if total delays exceed 12 liability shall arise on termination under this clause as far as the affected party is concerned."

195. Devas says that Antrix was not entitled to rely on Article 11 for the following reasons:
- a. the decision of the CCS to annul the agreement was not an "act of or failure to act by any governmental authority acting in its sovereign capacity" within the meaning of Article 11(b);²³⁶
 - b. the CCS' decision was "brought about by, or is otherwise attributable to" Antrix's "own or its parent's actions" (and therefore cannot, in law, be a *force majeure* event);²³⁷ and
 - c. Antrix "instigated" the alleged "Force Majeure Event", so it was not "beyond the reasonable control" of Antrix within the meaning of Article 11(b);²³⁸
 - d. Antrix did not make "all efforts" to "prevent it or mitigate its effects" as required by Article 11(b);²³⁹
 - e. Article 11 permits the "Unaffected Party" (Devas) to terminate the agreement in light of "Force Majeure Events", not the "Affected Party" (Antrix).²⁴⁰

196. Before considering these submissions, it is necessary to return to the question of which party bears the burden of proof in respect of whether Antrix was entitled to terminate the agreement pursuant to Article 11. Each party says that the other bears the burden of proof.²⁴¹ As noted by the authors of *Redfern and Hunter on International Arbitration*, however:²⁴²

"[t]he practice of nearly all international arbitral tribunals is to require each party to prove the facts upon which it relies in support of its case... The only exceptions relate to propositions that are so obvious, or notorious, that proof is not required".

²³⁶ Devas' PHM, [195]; Statement of Claim, [203(a)].

²³⁷ Devas' PHM, [187].

²³⁸ Devas' PHM, [182]; Devas' PHRM, [20]; Statement of Claim, [203(b)].

²³⁹ Statement of Claim, [203(c)]; Devas' PHRM, [24].

²⁴⁰ Devas' PHM, [213].

²⁴¹ Devas' PHM, [156.1]; Hearing Tr, p. 182; Antrix's PHM, [26].

²⁴² See the 5th Edition, by Blackaby and Partasides with Redfern and Hunter, [6.92].

197. The tribunal has adopted this approach in respect of all issues that are in dispute in this arbitration. That is to say, it has required each party to prove the facts and establish the principles on which that party relies.

Was there an act of or failure to act by any governmental authority acting in its sovereign capacity?

198. As noted above, Article 11(b) of the Devas Agreement states (inter alia) that "[t]he following events may be considered Force Majeure Events under the Agreement:... (v) acts of or failure to act by any governmental authority acting in its sovereign capacity". Devas says that the decision of the CCS to annul the Devas Agreement does not fall within this definition, for the following reasons:

a. it was not "a final policy 'decision' by a sovereign regulator" to use S-band for military purposes, but rather left "open for the government itself (whether ISRO or another entity) to use the S-band for commercial activity".²⁴³ The tribunal does not accept this submission. There is nothing to suggest that Article 11(b) was intended to apply only to "final policy decisions". It refers to "acts of or failure to act by any governmental authority acting in its sovereign capacity". The CCS' decision was clearly an "act" of a "government authority" that was acting in its "sovereign capacity", so it falls within that definition. In any event, it was a final policy decision (being that the Devas Agreement should be annulled);

b. Article 11(b) "cannot be construed to allow a governmental entity to make unavailable the very thing that Antrix was unconditionally required under Article 3(c) to provide" (i.e. Governmental and Regulatory Approvals relating to orbital slot and frequency clearances).²⁴⁴ To the contrary, Devas contends that it is "well settled under Indian law that a contract should not be interpreted so as to render any term thereof redundant or futile".²⁴⁵ The tribunal does not accept this submission either. Construing Article 11(b) to permit Antrix to terminate the agreement based on its failure to provide orbital slots and frequency does not render Article 3(c) redundant or futile; it simply means that the obligation in Article 3(c) is subject to Article 11;

c. a "sovereign event must act upon the parties *ab extra*" (i.e. "from outside"), whereas "[h]ere, Antrix is leasing a property belonging to the Government acting not as an independent party but as the marketing arm".²⁴⁶ The tribunal also does not accept this submission. Devas has not referred to any provision of the Devas Agreement, or any authority, to suggest that the term "sovereign event" must operate *ab extra*. In any event, the CCS' decision was an *ab extra* event. As discussed below (see [205] - [206]), Antrix has a legal personality that is separate and distinct to the GOI, so the CCS' decision operated on it "from outside"; and

d. CCS' motivation for terminating the agreement was not military needs, but "political

²⁴³ Devas' PHM, [196]; see also [203] (the decision "left the future status of the S-band undecided, to be discussed among the concerned ministries, through the "INSAT Co-ordination Committee" ("ICC") process, as to how the S-band would be used").

²⁴⁴ Devas' PHM, [197].

²⁴⁵ Devas' PHM, [199]. In support of this proposition Devas cites the following statement of the Supreme Court of India in *In Life Insurance Corporation of India v. Dharam Vir Anand* (1998) 7 SCC 348:

"[i]n construing a particular clause of the contract, it is only reasonable to construe that the words and the terms used therein must be given effect to. In other words, one part of the contract cannot be made otiose by giving a meaning to the policy of the contract".

²⁴⁶ Devas' PHM, [198].

compulsions".²⁴⁷ Again, however, the relevant criteria are that there was an "act" of a "government authority" that was "acting in its sovereign capacity". CCS' motivation for deciding to annul the Devas Agreement is therefore not relevant.²⁴⁸ Accordingly, the tribunal does not accept this submission either.

199. The tribunal therefore finds that the CCS' decision to annul the agreement was an act of a governmental authority acting in its sovereign capacity for the purpose of Article 11 (b).

Can *force majeure* events be brought about by a company's own or its parent's actions?

200. Devas also submits that Antrix cannot rely on Article 11 because, at law, a *force majeure* event cannot be brought about by a company's own or its parent's actions.

201. The tribunal accepts that Antrix cannot rely on Article 11 if the CCS' decision was brought about by Antrix's actions. Article 11(b) clearly states that "Force Majeure Events" do not include events that were beyond the reasonable control of the party affected. Whether the CCS' decision was beyond Antrix's control is discussed below (see [215] to [235]).

202. In support of its submission that a party cannot rely upon a *force majeure* event that has been brought about by its parent's actions, Devas relies on the English Court of Appeal's decision in *Mamidoil-Jetoil Greek Petroleum Co. v. Okta Crude Oil Refinery AD No (2)*²⁴⁹ (*Okta*) and the Court of Appeal's²⁵⁰ and House of Lords'²⁵¹ dicta in *C. Czarnikow Ltd. v. C entrala Handlu Zagranicznego Rolimpex (Rolimpex)*.

203. *Okta* concerned a contract between a Greek company (*Jetoil*) and the owner of an oil refinery in Macedonia (*Okta*) pursuant to which *Jetoil* had (a) an exclusive right to "manipulate" (i.e. handle) non-heated crude oil for *Okta* at a terminal in Thessaloniki, Greece, that *Okta* bought for its own account; and (b) a right of first refusal to supply crude oil to *Okta*. The contract contained a provision (clause 4) to the effect that:

"[n]either party shall be responsible for damage caused by delay or failure to perform in whole or in part the stipulations of the present Agreement, when such delay of (sic) failure is attributable to earthquakes, acts of God, strikes, riots, rebellion, hostilities, fire, flood, acts or compliance with requests of any governmental or EC authority war conditions or other causes beyond the control of the party affected, whether or not similar to those enumerated. The party invoking force majeure (sic), shall give prompt notice to the other party by fax, telex followed by registered letter stating the kind of Force Majeure. The certificate issued by the respective Chamber of Commerce and Industry

²⁴⁷ Devas' PHM, [201]-[212].

²⁴⁸ Antrix's obligation to act in "good faith" (see Article 21 of the Devas Agreement) did not apply to the CCS.

²⁴⁹ [2003] 2 All ER (Comm) 640.

²⁵⁰ [1978] 1 Q.B. 176.

²⁵¹ [1978] 2 All ER 1043.

shall be considered as sufficient proof of such circumstances and the duration".

204. The Government of the Former Yugoslav Republic of Macedonia issued letters to Okta containing requests that Okta cease honouring its contract with Jetoil. Okta claimed that those letters constituted a *force majeure* event within the meaning of clause 4 of the agreement.
205. The Court of Appeal rejected this claim on the basis that Okta had instigated or initiated the requests that it received, so they were not "beyond its control". The Court stated:
"[f]or Okta to be able to rely on the clause they have to show that the failure to perform is attributable to a request which was beyond Okta's control... The essential issue is whether, if it is the case that Okta instigated or initiated the requests contained in the November and May letters, they can rely on the letters as constituting 'requests... beyond their control'. Once the question is posed in that form, it is clear that they cannot, for the simple reason that they need not have set the process in motion at all. They could, instead, have decided to comply with their contractual obligations."²⁵²
206. This case is therefore not, as Devas submits, authority for the proposition that a company cannot rely upon a *force majeure* event that has been brought about by its parent's actions. Rather, it is authority for the proposition that a *force majeure* event is not beyond a party's reasonable control if it instigates or initiates that event. Whether Antrix instigated or initiated the CCS' decision is a separate issue, which is discussed below (see [215] to [226]).
207. *Rolimpex* concerned contracts between a Polish state-owned foreign trade organisation, Rolimpex (having its own legal personality), and an English company, Czarnikow, pursuant to which Rolimpex was to supply Czarnikow 17,000 metric tonnes of sugar. The contracts included a "force majeure" clause stating that if delivery was prevented "by Government intervention... or any [other] cause of force majeure... beyond the Seller's control", the contracts would become void. In 1974 there was a poor sugar harvest and the Polish Government, concerned about a potential lack of sugar for domestic consumption, placed a ban on the export of sugar. The ban (which Rolimpex opposed) applied to the contracts and, as a result, Rolimpex failed to deliver the quantity of sugar to Czarnikow that it had agreed to supply.
208. Czarnikow then commenced an arbitration seeking damages from Rolimpex for breach of contract. Rolimpex relied on the *force majeure* clause, stating that the government's ban on sugar exports was beyond its control. The tribunal agreed, but stated a case for the decision of the court. The trial judge, Court of Appeal and House of Lords upheld its decision, finding that Rolimpex was entitled to rely on the *force majeure* clause.
209. Devas relies on the judgment of by Lord Denning MR in the Court of Appeal - in particular, a statement by his Lordship that "when the government itself is a party... [i]t cannot rely on a self-induced 'intervention' any more than it could rely on a self-induced frustration." Devas says that Lord Denning thus accepted the view that "a government can bind itself to perform a contract with an implication that it will not do anything with or in connection with that particular contract so as to hinder or prevent the performance of its obligations thereunder". Devas notes that his Lordship also stated that "if Rolimpex [was] a department of the Government of Poland," it could not have

²⁵² At [12] (emphasis in original).

relied upon "the clause about 'government intervention.'" ²⁵³

210. These comments by Lord Denning do not, however, support the proposition that a company is unable to rely on a *force majeure* clause if the relevant *force majeure* event is created by its parent. Lord Denning was considering whether a party can rely on *force majeure* events created by *that same party*. He was accepting that *if* Rolimpex was a department of the Polish Government, *then* the government would be party to the agreement, and Rolimpex would be unable to rely on *force majeure* events created by the government.
211. Devas also relies on a passage of Lord Wilberforce's judgment in the House of Lords, in which his Lordship stated that there may be cases where the evidence shows that it was:
"so clear that a foreign government is taking action purely in order to extricate a state enterprise from contractual liability, that it may be possible to deny to such action the character of government intervention, within the meaning of a particular contract." ²⁵⁴
212. That passage must be read in context. Lord Wilberforce was not suggesting that a state-owned company is unable to rely on a *force majeure* clause simply because the government took steps to extricate the company from contractual liability. Nor was he suggesting more broadly that a company is unable to rely on a *force majeure* event created by its parent.
213. Rather, he was referring to Lord Denning MR's conclusion that "if Rolimpex was a department of the Government of Poland, it cannot rely on the clause about 'government intervention'". Lord Wilberforce expressed doubt about whether that doctrine, "which is very much one of English constitutional law, can viably be transplanted into the constitutional climate of foreign states, particularly such states as Poland", being a country which has "an entirely different constitutional structure" to the United Kingdom. ²⁵⁵ He then went on to say that despite that doubt, there may be certain cases in which it may nevertheless be appropriate to deny that a government act is a *force majeure* event. He was therefore saying that *even if* an organisation is to be treated as part of the government, it is only in certain circumstances that it "may be possible" to conclude that the organisation cannot rely on acts of the government as *force majeure* events.
214. Accordingly, neither *Okta* nor *Rolimpex* support Devas' submission that, at law, *force majeure* events cannot be brought about by the actions of a company's parent. The tribunal therefore does not accept that submission.

Was the CCS' decision beyond Antrix's reasonable control?

215. Devas also submits that Antrix is unable to rely on Article 11 of the Devas Agreement because the CCS' decision was not beyond Antrix's reasonable control. It says that the decision was not beyond Antrix's reasonable control because it was "instigated" by Antrix's Chairman, Dr Radhakrishnan. ²⁵⁶ Devas says that:

²⁵³ Devas' PHM, [191].

²⁵⁴ Devas' PHM, [193], citing [1978] 2 All ER 1043 at 1047-1048.

²⁵⁵ [1978] 2 All ER 1043 at 1047-1048.

²⁵⁶ Devas' PHM, [183]. See also Statement of Claim, [203(b)].

"[i]t was Dr. Radhakrishnan who in June 2010 obtained Law Ministry advice "as to how to annul the Contract"; it was he who proposed and secured the Space Commission's decision authorizing him to pursue this strategy; it was he who obtained confirmation from the Additional Solicitor-General as to the means of annulling the contract by contriving to deprive Antrix of the leased spectrum for commercial purposes; and it was he who, several months later, secured a CCS decision in precisely the form devised by the ASG - the supposed "Force Majeure Event".²⁵⁷

216. Antrix, on the other hand, submits that "every document in the record relating to this issue shows that Dr. Radhakrishnan took no action as Chairman of Antrix and always acted in his official governmental capacity"²⁵⁸ - that is, in his capacity as Secretary of the DOS and/or Chairman of ISRO or the Space Commission. It says further that Devas has not identified any proper legal basis for attributing Dr Radhakrishnan's conduct to Antrix.²⁵⁹

217. Underlying Antrix's submission is the long-standing principle that companies have legal personalities that are separate and distinct from their shareholders.²⁶⁰ This principle applies to government owned as well as private entities. As the Supreme Court -of India stated in *Electronics Corporation of India Ltd and Ors v Secretary, Revenue Department, Government of Andhra Pradesh and Ors*:²⁶¹

"[a] clear distinction must be drawn between a company and its shareholder, even though that shareholder may be only one and that the Central or a State Government. In the eye of the law, a company registered under the Companies Act is a distinct legal entity other than the legal entity or entities that hold its shares".²⁶²

218. In light of this principle, in order to prove that the conduct of Dr Radhakrishnan caused the alleged "Force Majeure Event", and that his conduct should be treated as conduct of Antrix, it is necessary to consider:

a. whether or not Dr Radhakrishnan was acting in his capacity as Chairman of Antrix when he engaged in the conduct that Devas relies on; or

b. if he was acting in his capacity as an officer of DOS, ISRO or the Space Commission, his conduct should be attributed to Antrix. For that to be the case, however, the tribunal must be satisfied that:

i. the DOS, ISRO and/or the Space Commission were acting as the agent of Antrix at relevant times; or

ii. there is some other legal basis for treating the conduct of DOS, ISRO and/or the Space Commission as the conduct of Antrix, such as "piercing the corporate veil".

²⁵⁷ Devas' PHM, [183] (references omitted); see also Devas' PHRM, [21].

²⁵⁸ Antrix's PHRM, [54]. See also Devas' PHM, footnote 118.

²⁵⁹ Devas' PHRM, [8].

²⁶⁰ See *Salomon v A Salomon & Co Ltd* [1897] AC 22.

²⁶¹ *Judgment*, 5 May 1999, AIR 1999 SC 1734.

²⁶² At [15].

219. Devas has not alleged that Dr Radhakrishnan was acting in his capacity as Chairman of Antrix at any relevant time.
220. Nor has Devas alleged that the GOI was acting as Devas' agent.²⁶³ Initially it alleged that Antrix was acting as the GOI's agent, but that allegation has been abandoned.²⁶⁴ Even if it had been pressed (and accepted), however, it would not have permitted the GOI's conduct to be attributed to Antrix: agency permits the agent's conduct to be attributed to the principal, not the other way around.
221. Devas has, however, submitted that Antrix and the GOI should be treated as one and the same entity. In its post-hearing memorial it stated that:
"[t]o the extent it seeks to claim Dr. Radhakrishnan's actions, in seeking to undermine the Devas Agreement and bring about the CCS decision, were done in a capacity other than as Antrix's Chairman (e.g., as Secretary of DOS or Chairman of ISRO), this notion should be rejected... The relationship between Antrix and GOI are dispositive of this issue. Antrix is the marketing arm of the Government (DOS)."²⁶⁵
222. Similarly, in its post-hearing memorial Devas stated that:
"Devas does not assert that Antrix signed the contract as a pass-through "booking" agent, as Antrix now seeks to characterize Devas's case. Rather, Devas has alleged, and Antrix has admitted, that in signing the contract, Antrix expressly did so as the "marketing arm of [DOS]" and "the entity through which ISRO engages in commercial activities."²⁶⁶
223. Devas does not put this submission on the basis that the tribunal should "pierce the corporate veil", and it has not relied on any authorities that concern piercing the corporate veil. Rather, its submission is that since the contract states that Antrix is the DOS' marketing arm and the entity through which ISRO engages in commercial activities, the tribunal is entitled to disregard Antrix's separate legal personality. As Devas explained to the tribunal during the hearing:
"[i]f you read the recitals [of the contract], sir... [t]he second recital then says: "Whereas Antrix is a marketing arm of the Department of Space and is the entity through which ISRO engages in commercial activities". As far as this contract is concerned - and you do not need extraneous evidence, much less judgments of the Supreme Court which state the obvious, ie that a corporate entity is distinct from its shareholders for certain purposes - this is what the contract says. "Antrix is". It is sufficient for me, and we don't need to go beyond this".²⁶⁷
224. The tribunal does not accept that submission. To find that a company's distinct legal personality may be disregarded simply because it is a government's "marketing arm" and/or performs commercial activities for a government's benefit (but is not the government's agent) would, in the tribunal's view, be a significant departure from the long-standing approach of courts of India and

²⁶³ In its Skeleton it stated (at [59]) that Devas was "acting for and on behalf of the Government of India". It made the same submission during the hearing: Hearing Tr., pp. 50-51.

²⁶⁴ In its post-hearing reply memorial it stated that it "does not assert that Antrix signed the contract as a pass-through "booking" agent": Devas' PHRM, [30].

²⁶⁵ Devas' PHM, [184], [185].

²⁶⁶ Devas' PHM, [30].

²⁶⁷ Hearing Tr, pp. 48 - 49.

England to a company's separate legal personality. It is telling that Devas has not referred the tribunal to any authority in support of this submission. The tribunal is not aware of any such authority.

225. On the contrary, the tribunal agrees with Antrix that:
"[w]hether dealing with state companies or private companies, including the myriad subsidiaries and special purpose companies organised by the world's major corporations, the formation of "marketing arms" does not abrogate or in any way compromise the separate legal personality of such entities."²⁶⁸
226. Accordingly, the tribunal does not accept that Antrix itself "instigated" the alleged "Force Majeure Event".
227. However, that is not determinative of whether the event was beyond Antrix's reasonable control. For an event to be beyond Antrix's reasonable control Antrix must, in addition to not instigating the event, have been unable to prevent the event from taking place. It is therefore also necessary to ask: was Antrix able to prevent the CCS from deciding to annul the Devas Agreement?
228. Antrix submits that it "had nothing to do, and could not legally have had anything to do, with the decision of the CCS, the highest body in India entrusted with national security matters".²⁶⁹ The tribunal accepts that submission. In addition to being the ultimate authority within India on matters of internal and external security and defence,²⁷⁰ none of the CCS' members were officers of Antrix²⁷¹ and Devas has not led evidence to the effect that Antrix was able to seek judicial review of, or otherwise able to challenge, the CCS' decisions.²⁷² Nor has Devas submitted that Antrix was permitted at law to refuse to comply with the CCS' direction to annul the agreement.
229. But that establishes only that the CCS' decision was beyond Antrix's reasonable control once it has been made. It does not answer the question of whether Antrix could have prevented the CCS from receiving a proposal to annul the Devas Agreement.
230. In the tribunal's view, it could have done so. This is because, if Dr Radhakrishnan had, from the time that he was appointed Chairman of Antrix, and acting in his capacity as Chairman of Antrix, done everything in his power to ensure that the agreement remained on foot, in the tribunal's view he would not have taken any of the steps that led to the CCS being asked to approve the annulment of the agreement. As a result, those steps would not have occurred.

²⁶⁸ Antrix's PHM, [39].

²⁶⁹ Antrix's PHRM, [54].

²⁷⁰ See paragraph [49(f)] above.

²⁷¹ Its members included the Prime Minister, the Minister of Defence, the Minister of Home Affairs, the Minister of External Affairs and the Minister of Finance.

²⁷² Devas does state, in footnote 235 of its Reply, that "[t]he allocation of spectrum is a statutory, governmental function under the Telegraphs Act 1885. The policy guiding the allocation of spectrum is decided by the executive government of India and is subject, inter alia, to judicial review, unlike truly sovereign functions". But it has not submitted that this applies to the CCS' decision. Devas also posits the question, in its PHRM (at [2]), "[w]hy did the supposedly independent Board of Antrix take absolutely no steps to protest the annulment decision, much less challenge it in court?" But it has not led any expert evidence to the effect that that there was any reasonable likelihood that any such challenge might be successful.

231. In particular, if Dr Radhakrishnan had been personally lobbying and making representations to the DOS, ISRO and the Space Commission to ensure that the Devas Agreement remained on foot, he would not, at the same time, have:
- a. obtained advice from the Ministry of Law and Justice about how to annul the agreement;²⁷³
 - b. permitted his department to inform the Space Commission that it was "inevitable" that the Devas Agreement be annulled;²⁷⁴
 - c. sat as Chair of the Space Commission when it resolved that the DOS may instruct Antrix to annul the agreement;²⁷⁵
 - d. sought advice from the ASG concerning the annulment of the Devas Agreement;²⁷⁶ and/or
 - e. sought approval from the CCS to annul the Devas Agreement.²⁷⁷
232. He would not have taken those steps because they would have required him to adopt diametrically opposed positions in respect of the Devas Agreement: on the one hand, that the agreement should remain on foot, and on the other, that it should be annulled. This would have created a clear and irreconcilable conflict of interest.
233. The difficulty that he would have faced becomes apparent when one considers the meeting of the Space Commission on 2 July 2010. Before that meeting Dr Radhakrishnan's department advised the Space Commission that it was "inevitable" that the agreement be annulled. If at the same time Dr Radhakrishnan was lobbying the Space Commission to ensure that the agreement remained on foot, the Space Commission would have been required to decide whether to annul the agreement in light of two diametrically opposed views, which would have both come (directly or indirectly) from the same person, who was also the Commission's Chairman. In the tribunal's view, Dr Radhakrishnan would not have allowed either himself or the Space Commission to be put in such a position.
234. Accordingly, the tribunal considers that, if Dr Radhakrishnan had done everything in his power (as Chairman of Antrix) to prevent the annulment of the Devas Agreement, he would not have taken the steps referred to in [231] above. They are the steps that led directly to the CCS' decision to annul the agreement. If they had not occurred, the CCS would not have been invited to annul the agreement. Nor would the CCS have acted on what was Dr Radhakrishnan's clear recommendation to annul the agreement. As a result, in all probability the agreement would not have been annulled.
235. Further, since Dr Rhadakrishnan (acting in his capacity as Chairman of Antrix) could have prevented the CCS from being asked to annul the agreement, *Antrix* could have effectively prevented the CCS from making that decision, which means that the CCS' decision was not beyond Antrix's reasonable control. Given that Article 11(b) limits "Force Majeure Events" to events that are beyond Antrix's reasonable control, the CCS' decision cannot be a "Force Majeure Event" for the purpose of Article 11 (b).

²⁷³ See [104] above.

²⁷⁴ See [111] above. As noted above, Dr Radhakrishnan did not author this note, but he was the Secretary of the DOS at the time.

²⁷⁵ See [50] and [112] above.

²⁷⁶ See [114] above.

²⁷⁷ See [124] above.

236. The tribunal therefore finds that Antrix was not permitted to terminate the Devas Agreement pursuant to Article 11.

Devas' other submission concerning Article 11

237. In light of this conclusion, it is not strictly necessary to consider Devas' other grounds for alleging that Article 11 does not apply. The tribunal notes, however, that if it had been necessary to consider Devas' other submissions, the tribunal would also have accepted the submission that Antrix did not make all efforts to prevent the effects of the alleged "Force Majeure Event", and therefore that Article 11(b) does not apply.²⁷⁸ This is because:

a. the definition of "Force Majeure Event" in Article 11(b) is limited to events that Antrix has made "all efforts... to prevent". Therefore, in order for Article 11 (b) to apply in respect of the CCS' decision to annul the Devas Agreement, Antrix must have made "all efforts" to prevent that decision from being made; and

b. Antrix made *no* efforts to prevent that decision from being made. There is no evidence of Dr Rhadakrishnan - or any other officer of Antrix - making any effort to prevent the CCS from annulling the Devas Agreement. Nor is there any evidence of Dr Rhadakrishnan -or any other officer of Antrix - making any effort to prevent the conduct that led to CCS making that decision (such as the Law of Ministry and Justice providing advice about how to annul the Devas Agreement, the Space Commission being advised that annulment of the agreement was "inevitable" and the ASG's advice being sought concerning the annulment of the agreement).

238. It is clear that in these circumstances Article 11 was not intended to apply.

D. Is Antrix entitled to rely on Section 56 of the Indian Contract Act, 1872 and if so, can it claim impossibility of the Devas Agreement based on the CCS decision?

239. Antrix submits that, even if it was not entitled to terminate the agreement pursuant to Articles 7(c) or 11 of the Devas Agreement, the decision of the CCS rendered the agreement impossible to perform and therefore void under section 56 of the Indian Contracts Act.²⁷⁹

240. Section 56 states:

"[a] contract to do an act which, after the contract is made, becomes impossible, or, by reason of some event which the Promisor could not prevent, unlawful, becomes void when the act becomes impossible or unlawful".

241. Devas does not deny that the CCS' decision made performance of the agreement impossible.

²⁷⁸ Statement of Claim, [203(c)]; Devas' PHRM, [24].

²⁷⁹ Statement of Defence, [81].

However, it denies that section 56 of the Indian Contracts Act applies. According to Devas, "once the parties have expressly addressed the possibility of a supervening event in their contract through a *force majeure* clause, then Section 56 cannot apply".²⁸⁰ In support of that proposition Devas relies on decision of the Supreme Court of India in *Mary v State of Kerala (State of Kerala)*²⁸¹ In that case, the Supreme Court stated that:

"in a case in which the consequences of non-performance of contract is provided in the statutory contract itself, the parties shall be bound by that and cannot take shelter behind Section 56 of the Contract Act".²⁸²

242. According to Antrix, however, *State of Kerala* is only authority for the proposition that "the parties to an agreement may allocate the risk of *force majeure* to one of the parties".²⁸³ Antrix says that the case therefore:

"has no applicability here, where the *force majeure* clause, far from purporting to allocate the risk of *force majeure* to Antrix, expressly acknowledges that governmental acts taken in a sovereign capacity do constitute *force majeure*".²⁸⁴

243. To consider which party's view of *State of Kerala* is correct it is necessary to consider the facts and the Court's findings in that case. The appellant (Mary) was a bidder in an auction for the right to sell Arak (an alcoholic drink) from a shop in Kalady (a town in the State of Kerala). The auction was conducted pursuant to the Kerala Abkari Shops (Disposal in Auction) Rules, 1974. Rule 5(15) stated:

"[o]n the failure of the auction purchaser to make such deposit referred to in sub-rule (10) or take out such licence or execute such agreement temporary or permanent or furnish such personal surety or additional cash security as aforesaid, the deposit already made by him towards earnest money and security shall be forfeited to Government".

244. Mary's bid was successful and she paid an amount equal to 30% of her bid as a deposit. Subsequently, residents of a nearby Christian pilgrim centre objected to her opening an "abkari shop" (i.e. a liquor shop) and the State's law agencies said that they were "unable to assure smooth conduct of the business". Mary believed that this made it impossible for her to operate the business, and..sought a refund of her deposit. The State refused. It said that the sale had already been confirmed, and asked her to enter into the "permanent agreement" referred to in Rule 5(15). Mary refused and court proceedings were commenced.

245. During those proceedings, Mary sought to rely on section 56 of the Indian Contract Act. The Supreme Court held that she was not entitled to do so. The relevant passage of the Court's judgment is as follows:

"[i]t is not the case of the State that appellant has purposely, or for any oblique motive, or as a

²⁸⁰ Devas' PHM, [216].

²⁸¹ 2013 (13) S.C.A.L.E. 151, C.A. No. 9466 of 2003.

²⁸² At [13].

²⁸³ Antrix's PHRM, [63].

²⁸⁴ Antrix's PHRM, [63].

device to avoid any loss, refused to execute the agreement. It appears to us that the State was helpless because of the public upsurge against the sale of arrack at Kaladi, the birth place of Adi Shankaracharya as, in their opinion, the same will render the soil unholy. Consequently, the State also found it impossible to re-sell or redispense of the arrack shops. In view of second paragraph of Section 56 of the Contract Act, a contract to do an act which after the contract is made, by reason of some event which the promissory could not prevent becomes impossible, is rendered void. Hence, the forfeiture of the security amount, may be illegal. But what would be the position in a case in which the consequence for non-performance of contract is provided in the statutory contract itself? The case in hand is one of such cases. The doctrine of frustration excludes ordinarily further performance where the contract is silent as to the position of the parties. In the event of performance becoming literally impossible. However, in our opinion, a statutory contract in which a party takes absolute responsibility cannot escape liability whatever may be the reason. In such a situation, events will not discharge the party from the consequence of non-performance of a contractual obligation. Further, in a case in which the consequences of non-performance of a contract is provided in the statutory contract itself, the parties shall be bound by that and cannot take shelter behind Section 56 of the Contract Act."²⁸⁵

246. In the tribunal's view, this passage makes clear that what the Supreme Court found was that Mary was not entitled to rely on section 56 because her agreement with the State specified the consequences of non-performance of her contractual obligations.
247. That is precisely what the parties have done in the Devas Agreement. The parties have set out the consequences of non-performance of their obligations. For example, Article 13 provides that if one party breaches its obligations the other is to indemnify it against any loss or damage it suffers, unless that other party terminates the agreement; Article 7 sets out the consequences where the agreement is terminated; and Article 11 sets out the parties' obligations in the case of "Force Majeure Events". Indeed, examination of the Devas Agreement reveals that the parties have set out the consequences of non-performance of their contractual obligations in considerable detail.
248. Accordingly, the tribunal accepts Devas' submission that section 56 of the Indian Contract Act does not apply, so it does not render the Devas Agreement void.
249. The tribunal notes that it has considered *Boothalinga Agencies v VTC Poriaswanmi Nadarm (Boothalinga)*, an earlier decision of the Supreme Court.²⁸⁶ As Antrix has noted,²⁸⁷ in *Boothalinga* the Court stated that section 56 "lays down a rule of positive law and does not leave the matter to be determined according to the intention of the parties".²⁸⁸ In the tribunal's view, however, this statement does not assist Antrix. When the Supreme Court made that statement, it was not considering whether section 56 applies in cases where parties specify the consequences of non-performance of their contractual obligations. Rather, it was explaining that the English doctrine of frustration is a contractual remedy, whereas section 56 is a statutory remedy.²⁸⁹ Accordingly, after making that statement, the Court went on to discuss relevant English authorities concerning the

²⁸⁵ At [13].

²⁸⁶ (1969) 1 SCR 65.

²⁸⁷ Antrix's PHRM, [64].

²⁸⁸ See [9]. See also *Continental Enterprises Ltd v State Trading Corporation of India Ltd* High Court of Delhi, Judgment, 16 December 2009, MANU/DE/3425/2009, [22].

²⁸⁹ See [10] and [11].

theoretical foundation of the doctrine of frustration, before concluding that:

"[i]n English law therefore the question of frustration of contract has been treated by courts as a question of construction depending upon the true intention of the parties. In contrast, the statutory provisions contained in Section 56 of the Indian Contract Act lay down a positive rule of law and English authorities cannot therefore be of direct assistance, though they have persuasive value in showing how English courts have approached and decided cases under similar circumstances."²⁹⁰

250. *Boothalinga* therefore does not address the question of whether section 56 applies in cases where parties specify the consequences of non-performance of their contractual obligations.

E. Did Antrix's conduct amount to a repudiation/renunciation of the Devas Agreement or was the Devas Agreement validly terminated by Antrix's letter of 25 February 2011?

251. As noted above on 25 February 2011 Antrix wrote to Devas purporting to terminate the agreement. The tribunal has found that it was not entitled to do so. Since it was not entitled to do so, its letter plainly amounted to a wrongful repudiation of the agreement.²⁹¹

F. Was Antrix's repudiation of the Devas Agreement a material breach of the Devas Agreement within the meaning of Article 7(b), and did Devas terminate the Agreement within the meaning of Article 7(b) when it accepted the repudiation?

252. Antrix submits that even if it did wrongfully repudiate the Devas Agreement, according to Article 7(b) Devas' only remedy is a refund of the UCRF.²⁹²

253. Article 7(b) states as follows:

"DEVAS may terminate this Agreement at any time if ANTRIX is in material breach of any provisions of this Agreement and ANTRIX has failed to cure the breach within three months after receiving notice from DEVAS setting out the nature of breach and reasons for considering the same as material breach. In such event, ANTRIX shall immediately reimburse DEVAS all the Upfront Capacity Reservation Fees and corresponding taxes if applicable, received by ANTRIX till that date. Upon such termination, neither Party shall have any further obligation to the other Party under this Agreement nor be liable to pay any sum as compensation or damages (by whatever name called)."

²⁹⁰ At [11].

²⁹¹ As Devas has noted in its post-hearing memorial (at [227]), it is settled Indian law that "[a] renunciation may occur when one party refuses to perform his obligations... either by expressly so declaring it, or by words or conduct demonstrating an intention not to perform": citing Frederick Pollock & Dinshaw Fardunji Mulla, Pollock & Mulla: The Indian Contract and Specific Relief Acts 779 (Nilima Bhadbhade ed., 14th ed. 2013).

²⁹² Antrix's PHM, [87].

254. Devas denies that its entitlement to damages is limited by Article 7(b). It says that Article 7(b) does not apply because:
- a. it only applies where Devas "terminates" the agreement, and Devas did not terminate the agreement but rather accepted Antrix's repudiation;
 - b. it does not apply to repudiatory breaches; and
 - c. it does not apply unless Devas (a) put Antrix on written notice that Devas believed Antrix was in material breach and (b) gave Antrix the opportunity to cure that breach within three months, and Devas did not take either of those steps.²⁹³

Did Devas terminate the Devas Agreement?

255. Antrix says that Devas terminated the agreement when it sent its letter of 13 June 2013.²⁹⁴ As noted above, that letter stated that Devas "accept[ed] Antrix's repudiatory breach of the Agreement, bringing the Agreement to an end".²⁹⁵
256. Devas says that "[a]ccepting a repudiation is *not* the same thing as terminating a contract pursuant to a contractual right"²⁹⁶ and that its 13 June 2013 letter therefore did not terminate the agreement.
257. Certainly, repudiation and termination are not the same thing. Repudiation involves refusing to perform, or disclosing an intention to not perform, contractual obligations. A contract is not automatically brought to an end when it is repudiated. It is only if the innocent party accepts the repudiation that the contract is brought to an end. By contrast, when a contract is terminated it is automatically brought to an end.
258. However, the tribunal does not agree that there is a relevant distinction between *accepting* repudiation and terminating an agreement. The effect of both is exactly the same: the parties' obligations under the agreement are brought to an end. Notably, Devas has not cited any authority that supports there being a relevant distinction between the two concepts. On the other hand, Antrix has identified numerous authorities that presume that none exists. For example, in *Newland Shipping and Forwarding Limited v Toba Trading Leggatt J* held that:
- "[u]nder the general law, a party has the right to terminate a contract if the other party commits a 'repudiatory breach'... When a repudiatory breach occurs, the other party has a choice whether to terminate the contract or to affirm it (and thereby lose the right to terminate the contract for the relevant breach)".²⁹⁷

259. Similarly, in *Ferrometal S.A.R.L. v. Mediterranean Shipping Co. S.A.* the House of Lords held that:

²⁹³ Devas' PHRM, [50].

²⁹⁴ Statement of Defence, [55]; Antrix's PHM, [111]. According to Antrix, this is "playing word games", that "arguing that the notice it gave to Antrix terminating the Contract was actually not a termination at all, defies common sense": Antrix's PHM, [70].

²⁹⁵ See [131] above.

²⁹⁶ Devas' PHM, [229] (emphasis in original).

²⁹⁷ [2014] EWHC 661 (Comm) At [49], [50].

"[w]hen one party wrongly refuses to perform obligations, this will not automatically bring the contract to an end. The innocent party has an option. He may either accept the wrongful repudiation as determining the contract and sue for damages, or he may ignore or reject the attempt to determine the contract and affirm its continued existence".²⁹⁸

260. Chitty On Contracts also states:

"[a]n innocent party, faced by a repudiatory breach, is therefore given a choice: he can either treat the contract as continuing ("affirmation" of the contract) or he can bring it to an end ("acceptance of the repudiation"). He must "elect" or choose between these options... An act of acceptance of a repudiation requires no particular form. It is usually done by communicating the decision to terminate to the party in default... Unless and until the repudiation is accepted the contract continues in existence for "an unaccepted repudiation is a thing writ in water."²⁹⁹

261. For these reasons, the tribunal finds that when Devas sent its letter of 13 June 2013 it accepted Antrix's repudiatory breach of the Agreement, thereby terminating the agreement.

Does Article 7(b) apply to repudiatory breaches?

262. Devas' primary contention is that, as a matter of law, limitation of liability clauses do not apply to repudiatory breaches unless they refer to such breaches expressly.³⁰⁰ However, the way in which Devas developed that submission suggests that it also puts its case more broadly.³⁰¹ It appears to also submit that, even if limitation of liability clauses can (as a matter of law) apply to repudiatory breaches without referring to them expressly, Article 7(b) does not, when properly construed, apply to such breaches.

263. Antrix appears to have treated Devas as having made both of these (primary and alternative) submissions. Accordingly, the tribunal considers that it is appropriate that they are both addressed.

264. Both parties have referred the tribunal to numerous Indian and English authorities concerning the construction of limitation of liability clauses. Those authorities are relevant to the assessment of Devas' primary and alternative submissions. It is therefore convenient to consider those authorities before addressing its submissions.

Relevant authorities

265. The first Indian authority, which is relied on by Antrix,³⁰² is *Sir Chunilal V Mehta and Sons, Ltd v*

²⁹⁸ At 799. See also at 805: "[w]hen A wrongfully repudiates his contractual obligations in anticipation of the time for their performance, he presents the innocent party B with two choices. He may either affirm the contract by treating it as still in force or he may treat it as finally and conclusively discharged."

²⁹⁹ H. G. Beale (ed.), Chitty on Contracts, Vol. I: General Principles (31st ed., Sweet & Maxwell 2012), pp. 1694, 1706, 1707.

³⁰⁰ Devas' PHM, [248].

³⁰¹ See, e.g., Devas' PHM at [241] - [267].

*The Century Spinning and Manufacturing Co Ltd*³⁰³ (**Sir Chunilal**), a decision of the Supreme Court of India from 1962. This case concerns the wrongful termination of an agency contract that contained a limitation of liability clause. The Supreme Court was required to determine whether the clause limited the agent's entitlement to damages. In reaching its decision, the Court stated (inter alia):

a. "[w]here the parties have deliberately specified the amount of liquidated damages there can be no presumption that they, at the same time, intended to allow the party who has suffered by the breach to give a go-by to the sum specified and claim instead a sum of money which was not ascertained or ascertainable at the date of the breach";³⁰⁴ and

b. the liquidated damages clause "does not expressly or by necessary implication keep alive the right to claim damages under the general law. By providing for compensation in express terms the right to claim damages under the general law is necessarily excluded and, therefore, in the face of that clause it is not open to the appellant to contend that that right is left unaffected."³⁰⁵

266. The second authority, which is relied on by Devas, is the more recent decision of the Supreme Court of India in *Steel Authority of India Limited v Gupta (SAIL v Gupta)*³⁰⁶ The appellant in this case failed to deliver goods in accordance with the parties' contract, and sought damages for breach of the contract. The Court was required to determine whether its claim for damages was limited by a liquidated damages clause. The Court stated that:

"[t]he question that needs to be determined by us is whether the breaches alleged by the respondent are covered by the stipulations contained in Clause 7.2 [(the liquidated damages clause)]. If the answer is in the affirmative, obviously compensation cannot be awarded beyond what is provided therein. On the other hand, if breaches are not covered by Clause 7.2, cap provided therein with regard to liquidated damages will not be applicable at all".³⁰⁷

267. The Court answered that question by reference to the parties' intentions. It stated:

"[i]t is not a question of giving restrictive or wider meaning to Clause 7.2 but the question is what is intended by the parties by making a provision such as this and does such clause cover all situations of breaches by SAIL".³⁰⁸

268. In so far as identifying the parties' intentions was concerned, the Court stated:

"[i]t is well known that intention of the parties to an instrument has to be gathered from the terms thereof and that the contract must be construed having regard to the terms and conditions as well as nature thereof."³⁰⁹

³⁰² Statement of Defence, [142]; Rejoinder, [128], [129]; Antrix's PHM, [95], [96]; Antrix's PHRM, [69], [73].

³⁰³ AIR1962SC1314.

³⁰⁴ At [16].

³⁰⁵ At [19].

³⁰⁶ (2009) 10 SCC 63.

³⁰⁷ At [20].

³⁰⁸ At [25]. See also [22], where the Supreme Court asked, "[c]an it be said that SAIL intended to provide for liquidated damages in the contract even in a situation where they were unable to make supply of materials for the reasons beyond control or they declined to supply the materials on one ground or the other."

269. The Court then performed that examination, and concluded:
"[c]ause 7.2 cannot be said to extend to all situations and all types of breaches. In substance and in form, the claim of damages by the respondent for the breaches of contract by SAIL is essentially distinct from the breaches contemplated by Clause 7.2."³¹⁰
270. Significantly, the Supreme Court noted that the appellant (which sought to rely on the liquidated damages clause) "strongly relied on" *Sir Chunilal*.³¹¹ However, having formed the view that the liquidated damages clause did not apply, the Court went on to state that *Sir Chunilal* had "no application to the fact situation of the present case".³¹² It thus affirmed the lower court's finding that "[t]he authority of law in *Chunilal v. Mehta* would have been applicable only if it was held that Clause 7.2 of the contract was applicable".³¹³
271. Accordingly, the Court appears to have considered that *Sir Chunilal* is not relevant to *whether a limitation of liability or liquidated damages clause applies in any given case, but rather to the availability of general law damages if such a clause applies*.³¹⁴ This tribunal has therefore treated *Sir Chunilal* in the same way.
272. The third Indian authority, also relied on by Devas, is *Pawan Alloys & Casting Pvt. Ltd., Meerut v. U.P. State Electricity Board and others*³¹⁵ (*Pawan Alloys*). This case concerned (inter alia) standard agreements for the supply of electricity by the U.P. Electricity Board (*the Board*) to industrial customers. The Board notified the customers that they would receive a 10% rebate on their electricity bills for three years from the date of commencement of supply. However, clause 7 of the contracts, which the Board subsequently required the customers to execute, stated:
- "(a) The consumer shall pay for the supply of electric energy at the rates enforced by the supplier from time to time as may be applicable to the consumer.
- (b) The rate schedule applicable to the consumer at the time of execution of this agreement is annexed hereto as Annexure 2.
- (c) The rate schedule above mentioned, may, at the discretion of the supplier, be revised by the supplier from time to time."
273. After the contracts were executed, the Board refused to provide the 10% rebate on electricity bills. The Supreme Court was required to consider (inter alia) whether clause 7 permitted it to do so. The Court stated:
- "[i]t would be totally absurd and incongruous to suggest on behalf of the Board that on the one hand it guaranteed to the new industrial units for a period of three years from the date of commencement

³⁰⁹ At [23].

³¹⁰ At [26].

³¹¹ At [13].

³¹² At [30].

³¹³ At [14].

³¹⁴ At [30]. It thus affirmed the lower court's finding, referred to at [14], that "[t]he authority of law in *Chunilal v. Mehta* would have been applicable only if it was held that Clause 7.2 of the contract was applicable".

³¹⁵ (1997) 7 SCC 251.

of supply 10% development rebate on the total amount of the bill and on the other hand the moment such supply started pursuant to the written agreement the very incentive could be withdrawn by it from its inception as a new industrial unit had to sign a written agreement containing clause 7(a), (b) and (c). If that submission on behalf of the Board which appealed to the High Court is accepted a most incongruous, unreasonable and absurd result would follow."³¹⁶

274. The Court went on to state that:

"(i)t is also easy to visualize that a new industrial unit which spends large amounts for establishing its infrastructure and gets lured in the light of the representation held out by the Board and establishes its plant and machinery in the new unit, would not simultaneously and voluntarily agree by signing such an agreement with the Board to give up the very same benefit of incentive by permitting the latter to withdraw it at any time it likes. That would be doing violence to common sense and business approach of an ordinary prudent businessman. No businessman in his senses would ever agree voluntarily to such an absurd, incongruous and inconsistent predicament."³¹⁷

275. The first relevant English authority is *Stocznia Gdynia S.A. v. Gearbulk Holdings Ltd*³¹⁸ (**Gearbulk**), a decision of the English Court of Appeal from 2009 that is relied on by Devas. This case concerned contracts for the construction and delivery of six vessels. The respondent, a ship building yard, failed to deliver the vessels. The Court of Appeal considered whether it was entitled to rely on a limitation of liability provision. The Court held that it was not. In reaching that conclusion, Moore Bick LJ (with whom Ward and Smith LLJ agreed) made the following statement, on which Devas relies:

"[t]he court is unlikely to be satisfied that a party to a contract has abandoned valuable rights arising by operation of law unless the terms of the contract make it sufficiently clear that that was intended. The more valuable the right, the clearer the language will need to be".³¹⁹

276. The second English case is *Internet Broadcasting Corporation Ltd (trading as NETTV) and another v MAR LLC (trading as MARHedge) (Internet Broadcasting)*,³²⁰ a decision of the High Court (Gabriel Moss QC sitting as a Deputy High Court Judge) in which the defendant was found to have committed a "deliberate, repudiatory breach". The Court considered whether a limitation of liability clause applied in light of that breach, and set out a series of principles concerning whether limitation of liability clauses apply to repudiatory breaches. It stated:

"[t]he principles I deduce from the authorities which are relevant to the present type of case of deliberate, repudiatory breach involving personal wrongdoing are as follows. (1) There is no rule of law applicable and the question is one of construction. (2) There is a presumption, which appears to be a strong presumption, against the exemption clause being construed so as to cover deliberate, repudiatory breach. (3) The words needed to cover a deliberate, repudiatory breach need to be very 'clear' in the sense of using 'strong' language such as 'under no circumstances'. (4) There is

³¹⁶ At [54].

³¹⁷ At [54].

³¹⁸ [2009] EWCA (Civ) 75.

³¹⁹ At [23].

³²⁰ (2009) EWHC 844 (Ch).

a particular need to use 'clear', in the sense of 'strong', language where the exemption clause is intended to cover deliberate wrongdoing by a party in respect of a breach which cannot, or is unlikely to be, covered by insurance. Language such as 'including deliberate repudiatory acts by [the parties to the contract] themselves' would need to be used in such a case. (5) Words which, in a literal sense, cover a deliberate repudiatory breach will not be construed so as to do so if that would defeat the 'main object' of the contract. (6) The proper function between commercial parties at arm's length and with equal bargaining power of an exemption clause is to allocate insurable risk, so that an exemption clause should not normally be construed in such cases so as to cover an uninsurable risk or one very unlikely to be capable of being insured, in particular deliberate wrongdoing by a party to the contract itself (as opposed to vicarious liability for others). (7) Words which in a literal sense cover a deliberate repudiatory breach cannot be relied upon if they are 'repugnant' have not dealt with this in detail because it is not relevant to this case."³²¹

277. Devas places substantial weight on this decision.³²² Antrix, on the other hand, submits that it is not good law and effectively (and erroneously) seeks to revive the doctrine of fundamental breach (i.e. the now overruled doctrine that limitation of liability clauses cannot be relied on by parties that repudiate their contractual obligations).³²³

278. In support of this submission Antrix relies to two decisions of Flaux J in the High Court. The first is *Astrazeneca UK Ltd v Albemarle International Corp & Anor*³²⁴ In this case, Flaux J stated:

"[w]ith the greatest respect to the learned Deputy Judge [*in Internet Broadcasting*], in my judgment, this conclusion is wrong on the modern authorities and effectively seeks to revive the doctrine of fundamental breach (which the House of Lords in both *Suisse Atlantique Societe d'Armement Maritime v NV Rotterdamsche Kolen Centrale* [1967] 1 AC 361 and *Photo Production v Securicor* [1980] 1 AC 827 concluded was no longer good law), albeit under the guise of 'deliberate repudiatory breach"

...

"In my judgment, the judgment in *MARHedge* [(i.e. *Internet Broadcasting*)] is heterodox and regressive and does not properly represent the current state of English law. If necessary, I would decline to follow it. Even if the breach... had been a deliberate repudiatory breach... the question whether any liability... for that breach was limited by clause M would simply be one of construing the clause, albeit strictly, but without any presumption."³²⁵

279. The second is *Shared Network Services Limited v Nextira One UK Limited*³²⁶ (*Shared Network*). In this case, Flaux J rejected a submission that a limitation of liability clause did not apply to a repudiatory breach of the relevant contract.³²⁷ The decision does not add anything material to what

³²¹ At [33].

³²² See, e.g., Statement of Claim, [276]; Reply, [165]; Devas' Skeleton, [122]; Devas' PHM, [246]; Devas' PHRM, footnote 104.

³²³ See, e.g., Statement of Defence, [145] - [149]; Devas' Skeleton, [67]; Antrix's PHM, [89] - [91].

³²⁴ [2011] EWHC 1574 (Comm).

³²⁵ At [289] and [301].

³²⁶ [2011] EWHC 3845 (Comm).

³²⁷ At [11], [12].

Flaux J stated in *Shared Network*, save that leave to appeal was granted by Lord Justice Lewison who, in granting leave, stated that:

"I consider that Flaux J was right, and that the appeal does not have a real prospect of success, [but] the point is an important one and the conflict of authority should be resolved by the Court of Appeal."³²⁸

280. Ultimately, however, security for costs was ordered³²⁹ and not provided, so the appeal was dismissed.³³⁰

281. The final case, also relied on by Devas and a more recent decision of the Court of Appeal, is *Kudos Catering (UK) Limited v Manchester Central Convention Complex Limited* [2012] EWHC 1192 (QB) (*Kudos Catering*)³³¹ This case also concerns the question of whether damages were recoverable for a repudiatory breach in circumstances where there was a relevant limitation of liability clause. The clause stated:

"[t]he Contractor hereby acknowledges and agrees that the Company shall have no liability whatsoever in contract, tort (including negligence) or otherwise for any loss of goodwill, business, revenue or profits".

282. Tomlinson LJ (with whose judgment McCombe and Laws LLJ agreed) conducted a helpful survey of authorities concerning the principles that apply to the construction of exclusion clauses. The principles that his Lordship referred to include the following:

a. an exception clause must "reflect the contemplation of the parties that a breach of contract, or what apart from the clause would be a breach of contract, may be committed, otherwise the clause would not be there; but the question remains open in any case whether there is a limit to the type of breach which they have in mind";³³²

b. "[t]he exercise of construction is essentially one unitary exercise in which the court must consider the language used and ascertain what a reasonable person, that is a person who has all the background knowledge which would have reasonably been available to the parties in the situation in which they were at the time of the contract, would have understood the parties to have meant. In doing so, the court must have regard to all the relevant surrounding circumstances. If there are two possible constructions, the court is entitled to prefer the construction which is consistent with business common sense and to reject the other";³³³ and

c. "one can[not] rewrite the language which the parties have used in order to make the contract conform to business common sense. But language is a very flexible instrument and, if it is capable

³²⁸ This is noted in the decision on security for costs. See *Shared Network Services Limited v Nextira One UK Limited* [2012] EWCA Civ 1171 at [2].

³²⁹ *Shared Network Services Limited v Nextira One UK Limited* [2012] EWCA Civ 1171.

³³⁰ *Shared Network Services Limited v Nextira One UK Limited*, Court of Appeal, Order, 11 September 2012.

³³¹ See *Devas' PHM*, [233].

³³² At [19], citing *Suisse Atlantique Société d'Armement Maritime S.A. v. N.V. Rotterdamsche Koren Céntrale* [1967] 1 AC 361 per Lord Wilberforce.

³³³ At [21], citing *Rainy Sky SA v Kookmin Bank* that [2011] 1 WLR 2900 at [21] (per Lord Clarke of Stone cum Ebony).

of more than one construction, one chooses that which seems most likely to give effect to the commercial purpose of the agreement".³³⁴

283. Tomlinson LJ also stated that:

"[t]here also in my view comes into play the presumption that neither party to a contract intends to abandon any remedies for its breach arising by operation of law - see per Lord Diplock in *Modern Engineering v Gilbert-Ash* [1974] AC 689 at 717. Lord Diplock went on to say that clear words must be used to rebut this presumption and the judge plainly thought that the words here used were sufficiently clear for that purpose. The judge should not in my view have reached that conclusion without first examining the context."³³⁵

284. After examining the relevant context, Tomlinson LJ found that this clause did not prevent the "Contractor" from recovering damages for the "Company's" repudiatory breach. His Lordship stated that:

"if the judge's construction of Clause 18.6 is adopted, [it is] effectively devoid of contractual content since there is no sanction for non-performance by the Respondent. It is inherently unlikely that the parties intended the clause to have this effect."³³⁶

285. Importantly, Tomlinson LJ also stated that in his view, the trial judge "fell into error in thinking that the ascertainment of the meaning of apparently clear words is not itself a process of contractual construction."³³⁷ According to Tomlinson LJ, the trial judge:

"thought that the only words relevant to his task of construction were those words from Clause 18.6 of the Agreement... The judge did not, at any rate overtly, look at those words either in the context of the clause in which they appeared or in the context of the contract as a whole".³³⁸

Is it necessary for limitation of liability clauses to refer to repudiatory breaches expressly?

286. In light of these authorities, the tribunal does not accept Devas' submission that, as a matter of law, limitation of liability clauses do not apply to repudiatory breaches unless they refer to such breaches expressly. None of the cases referred to above support that proposition, including *Internet Broadcasting*. The Court in *Internet Broadcasting* went as far as saying that "[t]here is a particular need to use 'clear', in the sense of 'strong', language where the exemption clause is intended to cover deliberate wrongdoing", but it did not say that an express reference to repudiation was required.

³³⁴ At [21], citing *Antaios Compania Naviera SA v Salen Rederiema AB (The Antaios No 2)* [1985] AC 191 at 431 -432 (per Hoffman LJ).

³³⁵ At [21].

³³⁶ At [19].

³³⁷ At [22].

³³⁸ At [14].

287. In any event, *Internet Broadcasting* has been subject to considerable criticism in other decisions of the High Court and has not, to the tribunal's knowledge, been followed by any superior court. In light of Lord Justice Lewison's comments in *Shared Network* the tribunal has serious doubts about whether it will be followed. Further, it is not an Indian decision so can be no more than persuasive for the purpose of this arbitration. Given the criticism it has received, the tribunal does not find it persuasive.
288. Accordingly, the tribunal considers that limitation of liability clauses can, as a matter of law, apply to repudiatory breaches even if they do not refer to repudiation expressly.

Properly construed, does Article 7(b) apply to repudiatory breaches?

289. Of course whether a limitation of liability clause applies, to repudiatory breaches is a different question, which depends on the proper construction of the relevant clause. Before considering Devas' alternative submission it is therefore convenient to identify the key principles concerning the construction of limitation of liability clauses that emerge from the authorities referred to above. In the tribunal's view, they are as follows:
- a. whether a limitation of liability clause applies is to be determined by reference to the parties' intentions;³³⁹
 - b. those intentions are to be determined by reference to the terms and conditions of the contract as a whole, as well as the nature of the contract, and not just the words used in the clause itself.³⁴⁰ The parties' intentions may also be determined by reference to the perspective of "a businessman in his senses";³⁴¹
 - c. if there are two possible constructions, the court is entitled to prefer the construction which is consistent with business common sense or the commercial purpose of the agreement.³⁴² Constructions that would result in an absurd, incongruous and inconsistent predicament should be avoided;³⁴³ and
 - d. it may be presumed that neither party to a contract intends to abandon any remedies for its breach arising by operation of law. Clear words must be used to rebut this presumption.³⁴⁴
290. Applying those principles to the construction of Article 7(b), the starting point is a presumption that Devas did not intend to abandon its common law right to damages.
291. Next, it is necessary to examine relevant provisions of the Devas Agreement to determine whether the parties both intended for it to abandon that right. The first provision to examine is Article 7(b)

³³⁹ See *SAIL v Gupta*, referred to at [266] - [270] above.

³⁴⁰ See *SAIL v Gupta*, referred to at [266] - [270] above.

³⁴¹ See *Pawan Alloys*, referred to at [272] - [274] above.

³⁴² See *Kudos Catering*, referred to at [281] - [285] above.

³⁴³ See *Pawan Alloys*, referred to at [272] - [274] above.

³⁴⁴ See *Kudos Catering*, referred to at [281] - [285] above.

itself. As noted above, Article 7(b) states that:

"DEVAS may terminate this Agreement at any time if ANTRIX is in material breach of any provisions of this Agreement and ANTRIX has failed to cure the breach within three months after receiving notice from DEVAS setting out the nature of breach and reasons for considering the same as material breach. In such event, ANTRIX shall immediately reimburse DEVAS all the Upfront Capacity Reservation Fees and corresponding taxes if applicable, received by ANTRIX till that date. Upon such termination, neither Party shall have any further obligation to the other Party under this Agreement nor be liable to pay any sum as compensation or damages (by whatever name called)."

292. Notably, Article 7(b) states that it applies to "material breaches" of the agreement. In the tribunal's view, the plain meaning of the term "material breach" includes repudiatory breaches. This suggests that Article 7(b) was intended to apply to repudiatory breaches.

293. However, Article 7(b) also provides that, if Antrix does commit a material breach, Devas is not entitled to terminate the agreement unless or until it gives Antrix notice of and three months to cure the breach. This is significant because it presumes that the breach is capable of being cured. Accordingly, it suggests that the "material breaches" that the parties had in contemplation when they agreed to Article 7(b) were breaches that Antrix was capable of remedying. Antrix has (in substance) acknowledged that it was not capable of remedying its repudiation of the Devas Agreement.³⁴⁵

294. It is also relevant that repudiatory breaches are incapable of being "cured". That is to say, once a repudiatory breach has been committed, the party in breach is not able to cure that breach so as to deny the innocent party the right to either elect to terminate or affirm that agreement. The English Court of Appeal considered this issue in *Buckland v Bournemouth University Higher Education Corporation*.³⁴⁶ Sedley LJ (with whom Carnwath LJ agreed) stated that "no case holds that a repudiatory breach can be cured unilaterally by the party in default"³⁴⁷ and that "[i]t is common ground that no decided case holds in terms that a repudiatory breach, once complete (that is, not a merely anticipatory breach), is capable of being remedied so as to preclude acceptance."³⁴⁸ In the tribunal's view, this also suggests that Article 7(b) was not intended to apply to repudiatory breaches.

295. So too does Article 13 of the agreement - at least in so far as repudiatory breaches that render performance of the agreement impossible are concerned. Article 13 contains a series of broad indemnities. Article 13(a) states:

"[e]ither of the Parties (ANTRIX or DEVAS) shall indemnify, defend and hold harmless the other

³⁴⁵ Antrix says that performance of its obligations became impossible once the CCS had decided to annul the agreement: see, e.g., Antrix's PHM, [51].

³⁴⁶ [2010] 4 All ER 186.

³⁴⁷ At [38].

³⁴⁸ At [36]. His Lordship went on to state "the alternative courses which may be taken in response to a repudiatory breach leave no space for repentance by a party which has not simply threatened a fundamental breach or forewarned the other party of it but has crossed the Rubicon by committing it. From that point all the cards are in the hand of the wronged party: the defaulting party cannot choose to retreat. What it can do is invite affirmation by making amends": at [40]. Jacob LJ similarly held that "a repudiatory breach of contract, once it has happened, cannot be 'cured' by the contract breaker" (at [52]). He also said (at [53]) that "[t]hat has been the common law rule for all kinds of contract for centuries. It works. It spells out clearly to parties to contracts that if they actually commit a repudiatory breach, then whether the contract continues is completely out of their hands. The rule itself discourages repudiatory breach".

Party, its officers, directors, employees, agents, consultants from and against any loss, damages, liabilities, expenses, claims, actions, charges, costs, interests, and penalties suffered by the indemnified Party together with the attorney's fees, arising from the fault of the indemnifying Party."

296. There is, however, an important limitation on these indemnities. Article 13(e) states:
"[t]he right of either Party under this clause shall be in addition to the right to damages or any other rights available at common law or equity in respect of any breach of the warranties, representations and undertakings of the other Party. Provided however, that no right or claim of any nature whatsoever shall arise by virtue of or under this clause, for matters specifically provided for elsewhere in this agreement including matters relating to termination of this agreement".
297. Thus, the indemnities in Article 13(a) only apply in circumstances where Article 7 does not apply. Accordingly, if Antrix breaches the Devas Agreement, Devas is entitled to be indemnified against all loss and damage that it suffers due to that breach, but only so long as it does not terminate the agreement pursuant to Article 7. If it does terminate the agreement pursuant to Article 7, it is only entitled to refund of the UCRF (being moneys that it had previously paid to Antrix).
298. In other words, if Antrix commits a material breach of the agreement (that it fails to cure), Devas has two options:
- a. it can keep the agreement on foot and be completely compensated for any loss and damage that it suffers; or
 - b. it can terminate the agreement, and forfeit its entitlement to compensation for any loss and damage that it suffers.
299. In the tribunal's view, this is very important to the construction of Article 7(b). It suggests that the parties intended to create a clear and strong incentive for Devas to keep the agreement on foot rather than terminating it. There is obvious commercial logic to creating such an incentive: it means that both parties are more likely to enjoy the anticipated benefits of the contract for the full life of the contract, even if breaches occur from time to time.
300. However, it also suggests that the parties intended that Devas would only forfeit its entitlement to full compensation if, when faced with the option of either keeping the agreement on foot or terminating the agreement, it chose to terminate the agreement. This, in turn, suggests that Article 7(b) was only intended to apply if Devas genuinely had such an option - i.e. that it was not intended to apply if, as a result of Antrix's breach, the contract was incapable of being performed.
301. Indeed, as Devas has submitted, "[w]ere Article 7 a comprehensive code capping liability for any manner of deliberate breach rising to the level of repudiation, then Article 13 would not make sense".³⁴⁹ There would be no commercial logic in the parties agreeing that:
- a. on the one hand, Antrix must indemnify Devas for any and all loss or damage that Devas suffers

³⁴⁹ Devas' PHM, [252].

if it does not terminate the agreement; and

b. on the other, Antrix has *carte blanche* to cease performing its obligations under the agreement, thereby depriving Devas of any meaningful choice about whether the contract should be brought to an end, and avoiding any obligation to compensate Devas for losses that it causes Devas to incur.

302. In the words of the Supreme Court in *Pawan Alloys*, "[n]o businessman in his senses would ever agree voluntarily to such an absurd, incongruous and inconsistent predicament."
303. The following example also highlights the absurdity of construing Article 7(b) so that it limits Devas' entitlement to damages in circumstances where the contract is incapable of being performed. If Devas had not sent its letter of 13 June 2013, and had therefore not formally terminated the Devas Agreement, the agreement would remain on foot, and Article 7(b) could not apply. Devas would therefore have retained a right to be compensated for all of its loss or damage.
304. Such an outcome would, in the tribunal's view, be nonsensical. It would mean that Devas' right to damages would be extinguished simply because Devas formally brought to an end a commercial relationship that had, for all practical purposes, ended more than two years earlier.
305. Article 21 is also relevant. As noted above, Article 21 of the agreement sets out the parties' "good faith" obligations. It states not only that the parties "intend to discharge their obligations in utmost good faith" and "will, at all times, act in good faith", but also that they will "make all attempts to resolve all differences howsoever arising out of or in connection with this Agreement by discussion".³⁵⁰ It therefore obliges the parties to seek to resolve disputes and differences between them, in good faith, rather than terminating the-agreement.
306. This suggests that the parties' intention was to ensure that they did not terminate the agreement in the event of any breach of or disputes concerning the agreement. Rather, the parties were to "make all attempts" to resolve their differences and ensure that the agreement remained on foot. Construing Article 7(b) so that it permitted Antrix to refuse to perform the agreement at will, without discussion or negotiations with Devas, and without incurring any liability for Devas' loss or damage, would be entirely contrary to that intention.

Conclusion

307. For the foregoing reasons, the tribunal considers that the parties cannot have intended Article 7(b) to apply to repudiatory breaches, at least in so far as they rendered future performance of the agreement impossible. Accordingly, Article 7(b) does not limit Devas' entitlement to damages that it suffered by reason of Antrix's repudiation of the Devas Agreement.

³⁵⁰ Article 21.

Evidence concerning the parties' pre-contractual negotiations

308. The tribunal notes that, in reaching this conclusion, it has not relied on any evidence of the parties' pre-contractual negotiations. This is because [Article 9.1 of the IBA Rules](#) states that

"[t]he Arbitral Tribunal shall determine the admissibility, relevance, materiality and weight of evidence", and in the tribunal's view, pre-contractual negotiations are generally an unreliable guide to the meaning of a contract and should not be given any weight. They tend to reflect parties' desires and negotiating positions, not their concluded agreement following necessary compromises. Where the meaning of the contract is sufficiently clear, evidence of pre-contractual negotiations should therefore be avoided. For the reasons set out above, the tribunal considers that the meaning of Article 7(b) is sufficiently clear.

309. The tribunal notes, however, that even if it had placed weight on evidence of pre-contractual negotiations, it would have reached the same conclusion. The evidence that Antrix relies on suggests that, during negotiations, Devas:

a. first proposed provisions to the effect that, if Devas terminated the agreement "for cause", it would receive substantial liquidated damages;³⁵¹ and

b. later proposed a provision to the effect that, if Devas terminated the agreement (for any reason) it would be entitled to all remedies that were available at common law.³⁵²

310. Evidently Antrix did not agree to either of these proposals. However, that is consistent with the tribunal's conclusion regarding the intended operation of Article 7(b). It suggests that Antrix persuaded Devas that, if Antrix committed a material breach, Devas should not be entitled to both an indemnity (if the agreement remained on foot) and substantial liquidated damages (if Devas chose to terminate rather than perform the agreement). It suggests that the compromise that was reached was that Devas would forfeit its right to compensation if, but only if, when faced with the option of either performing the agreement or terminating it, Devas elected to terminate it. It does not suggest that Devas agreed to forfeit its right to compensation in the event that Antrix's breach was such that future performance of the agreement would be impossible.

Was it necessary for Devas to give notice of Antrix's breach and give Antrix the opportunity to cure that breach?

311. In light of this conclusion, the tribunal does not consider that it is necessary or desirable to address Devas' submission that Article 7(b) does not apply unless Devas (a) put Antrix on written notice that Devas believed Antrix was in material breach and (b) give Antrix the opportunity to cure that breach within three months.

³⁵¹ Exhibit R-10; Exhibit R-9

³⁵² Exhibit R-14.

G. Damages

312. For the foregoing reasons the tribunal has concluded that Antrix wrongfully repudiated the Devas Agreement and that the limitation of liability provision in Article 7(b) of the Agreement does not apply. It is therefore necessary to consider what damages, if any, Devas is entitled to receive from Antrix as a result of Antrix's wrongful repudiation under Indian law as the applicable law.
313. According to Devas it suffered substantial loss or damage. Devas says that its entire business became unviable due to Antrix's repudiation³⁵³ and that its business was, at the time of the repudiation (25 February 2011), worth USD 1.41 billion.³⁵⁴ As a result, it says that it is entitled to that sum in damages, plus interest.
314. Antrix, on the other hand, says that Devas should not receive any damages. It does not dispute that Devas' business became unviable due to Devas' loss of the Devas Agreement, but (assuming Antrix's wrongful repudiation of the agreement) Antrix says that the quantum of Devas' loss or damage is wholly speculative and therefore not recoverable.³⁵⁵ It also says that the DCF methodology is an inappropriate vehicle for assessing Devas' loss or damage given (inter alia) Devas' lack of earnings history, and that even if the tribunal does rely on the DCF methodology, Mr Kaczmarek's application of that methodology is erroneous and should not be relied on. Antrix says that its experts, Mr Brailovsky and Dr Flores, have shown that when Mr Kaczmarek's errors are corrected the DCF methodology suggests that Devas had *negative* value.
315. Before considering the parties' submissions the tribunal will identify the principles that govern the assessment of damages in this case.

Relevant principles

316. Under Indian law, Devas is entitled to compensation for any losses that it suffered due to Antrix's wrongful repudiation of the Devas Agreement. Section 74 of the Indian Contract Act 1872, codifying the common law, states:
"[w]hen a contract has been broken, the party who suffers by such breach is entitled to receive, from the party who has broken the contract, compensation for any loss or damage caused to him thereby, which naturally arose in the usual course of things from such breach, or which the parties knew, when they made the contract, to be likely to result from the breach of it."
317. Devas accepts that it bears the legal burden of proving its loss or damage. However, it submits that the legal standard of proof required to discharge that burden is different for determining the *cause* of any loss or damage (on the one hand) and the *quantum* of any loss or damage (on the other). It relies on the following passage from *Lemire v Ukraine*:³⁵⁶

³⁵³ Devas' PHM, [274].

³⁵⁴ Devas' PHRM, [93].

³⁵⁵ Defence, [161].

³⁵⁶ *Lemire v. Ukraine*, ARB/06/18 (ICSID 2011).

"it is a commonly accepted standard for awarding forward looking compensation that damages must not be speculative or uncertain, but proved with reasonable certainty; the level of certainty is unlikely, however, to be the same with respect to the conclusion that damages have been caused, and the precise quantification of such damages. Once 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."³⁵⁷

318. The tribunal does not accept that a different legal standard of proof can apply to the assessment of causation of damage (on the one hand) and the quantum of damage (on the other). For a civil claim under Indian law, as also at common law generally, whether loss or damage is caused by a particular breach of contract is always determined on the balance of probabilities. So too, in the tribunal's view, is the amount of quantum in this case.

319. As was decided in regard to fraud, Lord Hoffmann stated in *Home Secretary v Rehman* [2003] 1 AC 153:

"[b]y way of preliminary I feel bound to say that I think that a 'high civil balance of probabilities' is an unfortunate mixed metaphor. The civil standard of proof always means more likely than not. The only higher degree of probability required by the law is the criminal standard. But, as Lord Nicholls of Birkenhead explained in *In Re H* [1996] AC 563, 586, some things are inherently more likely than others. It would need more cogent evidence to satisfy one that the creature seen walking in Regent's Park was more likely than not to have been a lioness than to be satisfied to the same standard of probability that it was an Alsatian. On this basis, cogent evidence is generally required to satisfy a civil tribunal that a person has been fraudulent or behaved in some other reprehensible manner. But the question is always whether the tribunal thinks it more probable than not."³⁵⁸

320. Applied to the present case, the point is self-evident: the legal test for quantum, as for liability (including causation) is the balance of probabilities, tempered by common sense in regard to the relative cogency of the evidence.

321. There are certain other related factors raised by the parties' respective cases which merit deciding here at the outset. First, the quantum of a party's loss or damage often depends on what would have happened in a hypothetical counterfactual world where the relevant breach did not take place. The nature of that hypothetical world is often uncertain, which can make determining the quantum of damage on the balance of probabilities extremely difficult. This will be so when much of the hypothesis depends upon unknown or future events. Where that is the case, the court or tribunal is not relieved of its mandate to ensure that the wrongdoer compensates the innocent party for the wrongful conduct. As was long ago decided in *Chaplin v Hicks*, by the English Court of Appeal (under the common law and now forming part of Indian law): "[t]he fact that damages cannot be assessed with certainty does not relieve the wrongdoer of the necessity of paying damages".³⁵⁹ Rather, as was

³⁵⁷ At [246].

³⁵⁸ At, [55], pp. 193-194.

³⁵⁹ *Chaplin v Hicks* [1911] 2 KB 786 per Vaughan Williams L.J. See also Pollock & Mulla: *The Indian Contract and Specific Relief Acts* 779 (Nilima Bhadbhade ed., 14th ed. 2013) at p. 1169: "the mere fact that it is somewhat difficult to assess the damages, with certainty or

later confirmed in *Biggin v Permanite*, the court or tribunal must do the "best that it can" based on the available evidence.³⁶⁰ The Tribunal adopts this same approach in the present case. However difficult, the tribunal must do "the best it can" in deciding upon a specific figure for damages on the evidence adduced in this arbitration, bearing in mind the legal standard of proof (the balance of probabilities), the legal burden of proof (resting on Devas as the claimant) and common-sense. The tribunal is not entitled to engage in mere guesswork; and it is not authorised to act "ex aequo et bono" or as an "amiable compositeur" under the ICC Rules. Nor does it.

322. Second, as to common sense, the wrongdoer cannot take unfair advantage of the factual uncertainties for which its own wrong is responsible. For example, at common law, under the rule in *Armory v Delamirie* (1722) 93 ER 664, the evidential burden of proof (but not the legal burden) may shift from the plaintiff to the defendant where the defendant's wrongdoing has made it impossible for the plaintiff to prove its case on quantum. In that famous case, where the young chimney-sweep was claiming the value of his purloined jewel, it was decided that:

"[a]s to the value of the jewel several of the trade were examined to prove what a jewel of the finest water that would fit the socket would be worth; and the Chief Justice directed the jury, that unless the defendant did produce the jewel, and shew it not to be of the finest water, they should presume the strongest against him, and make the value of the best jewels the measure of their damages: which they accordingly did".

323. That was an extreme case; and the tribunal does not consider it necessary to go that far in the present case. However, as appears below, the tribunal does not hold against Devas the difficulties in proving the quantum of its claim with mathematical precision where those difficulties resulted directly from the wrongful repudiation committed by Antrix.

324. Third, quantum is here essentially a question of fact, dependent upon factual evidence. Whilst expert evidence is often very useful in a complicated or difficult case, expert witnesses are not the triers of fact. They bring an expertise in assessing the relevance and weight of factual evidence; but their expertise contributes nothing if their expert opinions depend upon facts or factual inferences unsupported by the evidence, as determined by the trier of fact. As will become apparent below, the tribunal is constrained in this case to apply that approach as regards the expert evidence of the parties' quantum experts, Mr Kaczmarek (called by Devas) and Mr Brailovsky and Dr Flores (called by Antrix).

325. Lastly, these expert witnesses on quantum based their opinions on the value of Devas at the relevant time calculated by reference to the price that would be paid by a hypothetical "prospective investor" purchasing Devas under an arm's length transaction, assuming a willing buyer and a willing seller. As explained below, the tribunal has in part followed their approach. It is often used for claims addressed by investment arbitration tribunals under international law, as to which the relevant legal materials are now very extensive (cited here by both parties). However, the tribunal

precision, does not disentitle the plaintiff to compensation for the loss suffered"; and *SPP v Arab Republic of Egypt* ICSID award of 20 May 1992, Yearbook XIX (.1994) at p. 84: "[i]t is well settled that the fact that damages cannot be settled with certainty is no reason not to award damages when a loss has been incurred", cited with approval in *Himpurna California Energy Ltd v PT (Persero) Perusahaan Listrik Negera* Final Award, 4 May 1999, XXV Yearbook Commercial Arbitration 11 (A. Jan van den Berg ed., Kluwer Law International 2000 (*Himpurna*), [237].

³⁶⁰ [1951] 2 KB 786 ("[w]here precise evidence is obtainable, the court naturally expects to have it, where it is not, the court must do the best that it can").

recognises that this is not a claim made by a foreign investor against a host state under international law; and that, accordingly, this approach, whilst useful, has certain limitations for the present case.

326. Accordingly, under Indian law, the first step is for the tribunal to determine whether Devas suffered any loss or damage due to Antrix's wrongful repudiation of the Devas Agreement. That determination is made on the balance of probabilities. If the tribunal is satisfied that Devas did suffer loss or damage, the next step is for the tribunal to quantify that loss or damage. If precise evidence of its loss or damage is obtainable, it is required; if not, the tribunal must do the best that it can on the evidence that has been led.

Did Devas suffer any loss or damage?

327. Devas submits that, as a result of Antrix's repudiation of the Devas Agreement, any value that it had was destroyed. Devas says that "without the promised Satellites and the associated satellite spectrum required to deliver the Devas Services to its customers in India, Devas had no business."³⁶¹ Antrix does not dispute this.³⁶²

328. Accordingly, whether or not Devas suffered any loss or damage can be determined by asking whether, as at 25 February 2011, its business had any value.

329. In order to determine whether Devas had any value as at 25 February 2011 the tribunal considers that an appropriate starting point is DT's acquisition of a 20% interest in Devas in March 2008. As noted above, this investment gave Devas an implied valuation of USD 375 million.³⁶³

330. Mr Kaczmarek testifies that, following this investment the value of Devas increased (about fourfold), whereas Mr Brailovsky and Dr Flores testify that it decreased (to the point of having *negative* value). If Mr Brailovsky and Dr Flores are correct, then Devas will not have discharged its burden of proof.

Mr Brailovsky's and Dr Flores' reasons why the value of Devas decreased after March 2008

331. Mr Brailovsky and Dr Flores testify that Devas' value decreased between March 2008 and 25 February 2011 for the following reasons:

a. PS1 and PS2 had not been launched as at 25 February 2011;

b. Devas had not received a Frequency Authorization and Operating Licence from the WPC;³⁶⁴

³⁶¹ Devas' PHM, [274].

³⁶² Further, as Devas notes, both parties' experts assessed approach the question of the quantum of Devas' loss or damage by reference to Devas' value as at 25 February 2011.

³⁶³ See [82] above.

³⁶⁴ Devas had a right under the Devas Agreement to use 70MHz of transponder capacity on PS1 and PS2, but not to re-use that capacity for the terrestrial component of its service, and needed a licence from the WPC to do so.

- c. the Ancillary Terrestrial Component (*ATC*) fee that the WPC would charge for that licence was unknown;
- d. there were technological changes in the telecommunications market which meant that Devas lost its "first mover" status; and
- e. there was increased competition in the telecommunications market that had eroded profits of telecommunications companies.³⁶⁵

332. The tribunal will consider each of these reasons in turn.

Delay in the launch of the satellites

333. Mr Brailovsky and Dr Flores testify that DT Asia expected PS1 and PS2 to be launched in March 2008 and December 2009 but that neither satellite was in orbit as at 25 February 2011. They testify that the entire Devas business depended on the satellites being launched, and the fact that they had not been launched "would have cast serious doubt in the mind of any prospective investor evaluating the feasibility of the project on 25 February 2011".³⁶⁶
334. The tribunal accepts that a "prospective investor" evaluating the feasibility of Devas' business on 25 February 2011 would have had some doubt about whether the satellites would have been launched. However, such doubt would also have existed in March 2008, when DT acquired its 20% interest in Devas. As Mr Brailovsky and Dr Flores acknowledge, "launching satellites is rocket science and liable to a host of uncertainties".³⁶⁷ Further, the uncertainty did not increase after March 2008; it decreased: by late 2009 there were only "a few defined areas that needed focused attention" in order to be prepared for the launch of PS1,³⁶⁸ and by June / July 2010 the satellites were substantially completed.³⁶⁹ Accordingly, the risk of the satellites not being launched was lower as at 25 February 2011 than in March 2008. This would have had a positive impact on a prospective investor's perception of Devas' value, not a negative impact.

Frequency Authorization and Operating Licence from the WPC

335. Mr Brailovsky and Dr Flores also testify that Devas needed (but had not obtained) a Frequency Authorization and Operating Licence from the WPC³⁷⁰ and that such a licence had not previously been granted for the terrestrial use of Devas' spectrum. Accordingly, it would have required a change in policy from the WPC. They testify further that such a change in policy would likely have been challenged by terrestrial service providers who would have been competing with Devas'

³⁶⁵ Brailovsky/Flores 1, [29] - [42]; Brailovsky/Flores 2, [38] - [61].

³⁶⁶ Brailovsky/Flores 1, [30].

³⁶⁷ Brailovsky/Flores 1, [30] (emphasis in original).

³⁶⁸ Parsons 1, [25].

³⁶⁹ UNCITRAL Transcript. At 726:19-23.

³⁷⁰ Brailovsky/Flores 1, [31].

services.³⁷¹ Accordingly, they say that the need to obtain a licence from the WPC would have heightened concerns about the feasibility of the entire project for a potential purchaser.

336. Whether granting such a licence would have in fact required the WPC to change its policy and given rise to challenges from terrestrial service providers is disputed by Devas,³⁷² but unnecessary to decide. This is because the risk of not receiving a WPC licence existed when DT made its investment in Devas in March 2008, and is likely to have been factored into DT's implied valuation of Devas. Accordingly, the fact that the licence had not yet been obtained does not increase the risk of obtaining the licence (causing Devas' value to decrease); it simply means that the risk of obtaining the licence had not diminished. Therefore, in the tribunal's view, the fact that the risk remained as at 25 February 2011 had no adverse effect on Devas' value.

ATC Fee

337. Mr Brailovsky and Dr Flores further testify that Devas would have been required to pay a fee to the WPC of up to USD 10 billion for the ATC licence, which would have rendered Devas' business unviable.³⁷³ This view is based on a recommendation issued by the Telecom Regulatory Authority of India (*TRAI*) in July 2008 that allocation of spectrum in the S-band should be allocated through an auction process.³⁷⁴ Mr Brailovsky and Dr Flores testify that, in light of this policy:

"one can look at India's BWA [Broadband Wireless Access] auctions to attain a proxy for the cost of Devas' 70MHz of nationwide spectrum. We can derive a cost per MHz from Infotel's US\$2,855 billion outlay for 20 MHz in all 22 circles in India's May 2010 BWA auction... Infotel's payment amount implies a cost of US\$142.8 million per MHz. Applying that ratio, Devas would have had to pay US \$10 billion for its 70 MH."³⁷⁵

338. Mr Brailovsky and Dr Flores testify that even if the amount that Devas had to pay was only USD 1.6 billion, Devas' business would have been unviable.³⁷⁶ Devas does not (expressly) dispute this.
339. The tribunal accepts that Devas was required to pay an ATC fee.³⁷⁷ However, the tribunal does not accept that the BWA auctions provide a reliable proxy for the amount of the fee that Devas would have been required to pay, for the following reasons:

a. the TRAI recommendations only apply to the S-band allocated to the DOT for terrestrial use. They do not apply to the *re-use* of existing satellite spectrum or the ATC component of the Devas system. Mr Brailovsky's and Dr Flores' calculations of the potential licence fees are therefore based on a false premise;³⁷⁸

³⁷¹ Brailovsky/Flores 1, [31].

³⁷² Devas' PHM, [326]. See also Kaczmarek 1, [20].

³⁷³ Brailovsky/Flores 1, [103] - [106].

³⁷⁴ Telecom Regulatory Authority of India, Recommendations on Allocation and Pricing for 1.3-2.4 GHz, 2.5-2.69 GHz & 3.3-3.6 GHz Bands, 11 July 2008, [2.16], [2.34].

³⁷⁵ Brailovsky/Flores 1, [105].

³⁷⁶ Brailovsky/Flores 1, [106].

³⁷⁷ Mr Kaczmarek does not dispute this: see Kaczmarek 1, [24].

b. satellite and terrestrial services cannot be provided by different entities in the same spectrum.³⁷⁹ Since Devas already had a right to use the relevant spectrum for satellite services³⁸⁰ it was the only entity capable of using that spectrum terrestrially. Accordingly, an auction process in which Devas bid against other telecommunications companies was not feasible;

c. the WPC had an interest in the spectrum being used to deliver services to Indian consumers at competitive prices.³⁸¹ Given that Devas was the only entity capable of using the 70MHz of spectrum it leased from Antrix, the WPC had an interest in setting the fee at a level that Devas could afford to pay. Devas would plainly have been unable to pay a fee in the amount suggested by Mr Brailovsky and Dr Flores; and

d. after the TRAI recommendations were issued, each of DT Asia, CC/Devas and Telecom Devas acquired further shares in Devas (totaling around USD 25 million). in response to a capital call.³⁸² The fact that sophisticated investors made a substantial further investment in the company after the TRAI recommendation was issued is entirely inconsistent with -and renders unpersuasive - Mr Brailovsky's and Dr Flores' view that the recommendation destroyed all of Devas' value.³⁸³

340. Mr Kaczmarek, on the other hand, estimates that the ATC fee would have been USD 31 million per annum. He acknowledges that "there is some uncertainty regarding the ultimate level of the ATC fee that would have been applied",³⁸⁴ but has estimated this figure on the basis that "most countries charge a nominal fee for the use of ATC spectrum".³⁸⁵ In the tribunal's view, this is a reasonable assessment based on a reasonable assumption. Given the lack of any cogent alternative estimate, the tribunal accepts Mr Kaczmarek's evidence on this issue.

³⁷⁸ Chandrasekhar, [35], This is effectively acknowledged by Mr Brailovsky and Dr Flores: see Brailovsky/Flores 1, footnote 43: "[t]his recommendation did not relate to spectrum in the frequency ranges at issue in this case, which had been allocated for satellite (not terrestrial) use".

³⁷⁹ See Antrix's PHM at [67]: "[i]n August 2007, the Chief of Staff committee directed the appointment of an expert committee by the IDS to review spectrum uses by the various military services... The next month, the expert committee reported on the heavy lobbying by commercial operators to obtain permission to use S-band in India. It stated that "[s]atellite services (MSS and BSS) in [S-band] cannot coexist with the terrestrial services and hence the spectrum cannot be shared". See also UNCITRAL Transcript at 422:14-18 (Parsons): "[e]very administration has... looked at it and said... you can't co-exist within this band". See also CB289: "India would apply the band segmentation approach for use of the band 2500 - 2900 MHz for terrestrial and space services considering that the co-frequency, co-coverage sharing between space services and terrestrial services is not feasible")."

³⁸⁰ Devas Agreement, Article 2.

³⁸¹ The *Telecom Regulatory Authority of India Act, 1997* states that the statutory goal of telecom regulation in India is "achieving the universal service, bringing the quality of telecom services to world standards, provisions of wide range of services to meet the customers demand at reasonable price, and participation of the companies registered in India in the area of basic as well as value added telecom services as also making arrangements for protection and promotion of consumer interest and ensuring fair competition": CB5.

³⁸² See [89] above.

³⁸³ Antrix also relies on a note from the Secretary of the DOT dated 6 July 2010 that refers to Devas being charged a licence fee that was "commensurate" with auction prices: see Exhibit R-122. That reliance is misplaced for two reasons. First, the note was in response to Dr Radhakrishnan's note of 16 June 2010 seeking advice concerning the annulment the Devas Agreement: see [102] above. But for Antrix's breach of the Devas Agreement, Dr Radhakrishnan would not have sent that note. Second, in the tribunal's view, the WPC not have ultimately sought to charge a licence fee that was commensurate with the auction prices, because it would have rendered Devas' business unviable and therefore prevented any services being provided to Indian consumers by way of the 70mHz of S-band that had been allocated to Devas.

³⁸⁴ Kaczmarek 1, [169].

³⁸⁵ Kaczmarek 1, [166].

Technological changes

341. Mr Brailovsky and Dr Flores also testify that the delay in the start of Devas' operations had implications for the "first-mover" status Devas was hoping to achieve given the technological changes that occurred between March 2008 and February 2011. The example that they give is that Android technology allowed other providers to supply services and devices that Devas intended to offer on an exclusive basis.³⁸⁶
342. Mr Kaczmarek, on the other hand, testifies that Devas' systems were compatible with Android devices, and that the development of the Android platform opened up a new segment of mobile users who could use Devas' AV and BWA services. He testifies that, as a result, the development of Android technology was positive for Devas.³⁸⁷
343. In the tribunal's view, the delay in the launch of Devas' business would have been relevant to a potential investor's assessment of the prospects of Devas' business. Competition for 3G services increased significantly in the period from March 2008 to February 2011, as did competition for the provision of Devas' proposed 4G services. For example, Reliance Industries Limited (*RIL*), Devas' main competitor,³⁸⁸ was expecting to rollout 4G services nationwide by the middle of 2012.³⁸⁹ The tribunal accepts that a potential investor would have taken this into account when assessing Devas' value.
344. However, that does not necessarily mean that Devas' value decreased after March 2008 (let alone diminished entirely). First, as Devas submits,³⁹⁰ its services were compatible with Android technology, so the popularity of Android technology and iPhones may have given investors comfort about the level of demand for Devas' services. Second, potential investors, may have been confident in Devas' ability to compete with RIL, given that RIL was not only a newcomer to telecommunications but would have been required to build a ground network in urban *and* rural areas, and it would have been burdened with greater debt than Devas.³⁹¹ Further, as discussed below,³⁹² a number of other significant risks that Devas had faced in March 2008 had reduced by February 2011.

Low profitability of existing telecommunication service providers

345. Mr Brailovsky and Dr Flores also testify that the profitability of telecommunication service providers decreased in the period from March 2008 to February 2011.³⁹³ While they do not say so explicitly, their view appears to be that, since the profitability of Devas' competitors decreased in that period, Devas' value also decreased.

³⁸⁶ Brailovsky/Flores 1, [36].

³⁸⁷ Kaczarek 1, [29].

³⁸⁸ Kaczmarek 2, [130].

³⁸⁹ Brailovsky/Flores 2, [54].

³⁹⁰ See, e.g., Devas' PHM, [322].

³⁹¹ Kaczmarek 2, [135]; see also Devas' PHM, [412].

³⁹² See [348] - [360].

³⁹³ Brailovsky/Flores 1, [37].

346. Mr Kaczmarek does not dispute that competition eroded other providers' profitability between March 2008 and February 2011.³⁹⁴ However, he testifies (inter alia) that the increased competition was primarily for 2G and 3G services, not the 4G/BWA sector in which Devas would compete. He notes that, unlike 2G and 3G segments, there were only two 4G/BWA licenses auctioned for each of the 22 telecommunications "circles"³⁹⁵ in India, and RIL was the only company that had a nationwide 4G/BWA licence³⁹⁶

347. The tribunal accepts Mr Kaczmarek's evidence in relation to this issue. Potential investors' assessment of Devas' value is unlikely to have been affected by the profitability of companies that faced different competitive constraints to Devas. Accordingly, while potential investors are likely to have taken into account RIL's expecting rollout 4G/BWA services, the profitability of 2G and 3G providers is unlikely to have materially affected their assessment of Devas' value.

Mr Kaczmarek's reasons why the value of Devas increased after March 2008

348. In contrast to Mr Brailovsky and Dr Flores, Mr Kaczmarek testifies that the value of Devas increased between March 2008 and 25 February 2011. Among other things, Mr Kaczmarek testifies that, in this period:

- a. Devas obtained various important licences;
- b. Devas successfully conducted experimental trials;
- c. Devas established a network of suppliers and vendors;
- d. Devas procured further investment;
- e. work progressed successfully on the construction of PS1 and PS2.³⁹⁷

349. The tribunal will consider each of these reasons in turn.

Devas obtained various important licences

350. Mr Kaczmarek testifies that, between March 2008 and 25 February 2011, Devas obtained:

- a. ISP and IPTV licences, which permitted Devas to supply services that included digital television, video on demand and other types of entertainment to users in urban and rural areas;³⁹⁸ and

³⁹⁴ Kaczmarek 2, [134].

³⁹⁵ The Indian wireless telecom market is divided into 22 circles (roughly similar to the political demarcation of states). Licensing fees for various services and revenue sharing fees paid by providers to the government are based on this circle structure. See Kaczmarek 1, [65].

³⁹⁶ Kaczmarek 2, [130].

³⁹⁷ Kaczmarek Presentation, slide 31.

³⁹⁸ See [84] above.

b. a licence to conduct experimental trials, which permitted Devas to conduct experimental trials of the wireless apparatus that underscored the Devas system.³⁹⁹

351. Mr Brailovsky and Dr Flores, on the other hand, testify that these licences did not reduce the risks that Devas faced because they were not "the main sources of uncertainty" for Devas.⁴⁰⁰ According to Mr Brailovsky and Dr Flores, the main unknowns for Devas:

"relate to economic and policy issues: consumer receptiveness to Devas' services, the behaviour of competition, the degree to which costs could have been kept under control, the attitude and criteria of regulators, and the competing demands for S-band capacity for non-commercial, security purposes."⁴⁰¹

352. The tribunal accepts that obtaining these licences was not the "main" uncertainty that Devas faced. However, there is nothing to suggest that Devas had any legal right to the licences. It follows that there was at least some risk that they would not be issued and that, when they were issued, one of the risks that Devas faced diminished. That said, Devas has not led any evidence of what was involved in obtaining the licences or how difficult they were to obtain. Accordingly, while the tribunal accepts that obtaining the licences had a positive impact on Devas' value, the tribunal does not accept that the impact was substantial.

Experimental trials

353. Mr Kaczmarek also relies on the successful completion of the Phase I and Phase II experimental trials.⁴⁰² Mr Brailovsky and Dr Flores, on the other hand, say that the trials did not decrease Devas' risk because Devas' hybrid technology was "not experimental; it has been proven elsewhere over the last decade".⁴⁰³

354. However, Mr Brailovsky's and Dr Flores' evidence on this issue is contradictory. They also testify that:

"DVB-SH was not a mature technology, has never been successfully implemented for commercial use, and never attracted a market that would have led device makers to invest in the development of products to support the DVB-SH ecosystem"⁴⁰⁴

355. In any event, Mr Brailovsky's and Dr Flores' views are not persuasive. The underlying reason for performing such experimental trials is to ensure that the relevant system functions properly and to reduce the risk of operational failure. Put another way, if Devas' proposed system was risk free the trials would have been unnecessary.

³⁹⁹ See [85] above.

⁴⁰⁰ Brailovsky/Flores 1, [42].

⁴⁰¹ Brailovsky/Flores 1, [40].

⁴⁰² See [87] and [108] above.

⁴⁰³ Brailovsky/Flores 1, [39].

⁴⁰⁴ Brailovsky/Flores 2, [247].

356. Accordingly, the tribunal accepts that there were risks that the trials sought to reduce, and since the trials were performed successfully those risks did reduce, which in turn increased Devas' value.

Procuring suppliers and vendors

357. Mr Kaczmarek testifies that Devas' value also increased between March 2008 and 25 February 2011 because it established a network of suppliers and vendors for the ground component of its network.⁴⁰⁵ This included entering into contracts to purchase "chipsets", "AccessPorts" and other components for handsets, as well as encryption and other services.⁴⁰⁶ According to Mr Larsen:

"[b]y the end of 2009, with the assistance of the DT team that developed the network rollout plan, Devas was in a position to deploy its terrestrial network. That is, we had developed and tested the network technology, and had put into place the purchase and procurement agreements to acquire the necessary components."⁴⁰⁷

358. Devas' evidence of the network of suppliers and vendors that it had developed is not materially disputed. The tribunal accepts that developing the network involved considerable time and cost for Devas, and that with it, Devas was a step closer to being able to providing its proposed services. However, like with the licences that Devas obtained, there is no evidence to suggest that developing this network presented any significant difficulty or risk for Devas. The tribunal therefore accepts that it partially increased Devas' value, but not that its effect on Devas' value was substantial.

Further investment in Devas

359. The tribunal does, however, accept that the further investment that Devas procured on 29 September 2009 had a substantial positive impact on its value. Together, DT Asia, CC/Devas and Telkom Devas made a further investment of around USD 25 million, which demonstrated their continuing commitment to the business and confidence in its prospects of success. Mr Brailovsky rightly accepted during cross-examination that this was "value enhancing"⁴⁰⁸

Progress on satellites

360. Similarly, the tribunal accepts that progress on the satellites reduced the risks that Devas faced and positively affected its value. The satellites were substantially closer to being ready to launch in February 2011 than they were in March 2008: by late 2009 there were only "a few defined areas that needed focused attention" in order for PS1 to be completed;⁴⁰⁹ by 29 October 2009 the construction of PS2 had been approved; by June *I* July 2010 the satellites were substantially completed;⁴¹⁰ and by

⁴⁰⁵ Kaczmarek Presentation, slide 31.

⁴⁰⁶ See Viswanathan I, [130]

⁴⁰⁷ Larsen, [47].

⁴⁰⁸ UNCITRAL transcript, 669:23-24.

⁴⁰⁹ Parsons 1, [25].

February 2011 geosynchronous launch vehicles necessary to launch both satellites had been approved.⁴¹¹ The tribunal accepts that these matters decreased the risks that Devas faced, and positively affected its value.

Conclusion regarding whether Devas had value as at 25 February 2011

361. For these reasons, the tribunal does not accept that Devas had no value as at 25 February 2011. None of the factors relied on by Mr Brailovsky and Dr Flores suggest (either individually or cumulatively) that Devas' value had eroded between March 2008 and February 2011. The tribunal finds their suggestion that Devas had a value of *negative* USD 887 million as at 25 February 2011 plainly unfounded and unpersuasive. To the contrary, when the factors relied on by Mr Kaczmarek are taken into account, it is manifestly clear that Devas' value in fact increased.
362. Accordingly, the tribunal accepts that Antrix's wrongful repudiation of the Devas Agreement caused Devas to suffer substantial loss or damage.

Quantum of Devas' loss or damage

363. The next step is for the tribunal to determine the quantum of that loss or damage. As noted above, Mr Kaczmarek's valuation of Devas relies on methodologies based on DCF, comparable companies and comparable transactions. It is necessary to consider what weight, if any, the tribunal is able to place on these methodologies in the particular factual circumstances of this case.

DCF methodology

364. According to Mr Kaczmarek, the DCF methodology:
"requires the valuation practitioner to develop pro-forma financial statements for the subject business, compute the relevant cash flow measure using those statements, determine an appropriate discount rate, and discount the estimated cash flows to present value as of the relevant date."⁴¹²
365. Devas obviously did not have any cash flow. Antrix's wrongful repudiation of the Devas Agreement meant that it never generated any revenue. Mr Kaczmarek sought to address this difficulty by relying on a financial model containing revenue and cost projections for Devas that was jointly developed by Devas and DT (when DT acquired its 20% interest in Devas in March 2008, which was later developed into a model to assist with the rollout of Devas' services called the "Darwin Model").⁴¹³ Mr Kaczmarek (inter alia) adjusted the Darwin Model to reflect new information and

⁴¹⁰ UNCITRAL transcript, at 726:19-23.

⁴¹¹ CB-226, [15].

⁴¹² Kaczmarek 1, [36].

updated inputs as of 25 February 2011, which provided an estimate of future cash flows for Devas as at 25 February 2011. He then discounted those cash flows at a rate of 21.1%, to reflect the cost of an equity investment in Devas as at that date (without factoring in inflation)⁴¹⁴ This valued Devas at USD 1,482,432,000.00⁴¹⁵

366. Antrix says that it is not appropriate to rely on the DCF methodology at all in this case. It says that according to the guidelines issued by the World Bank⁴¹⁶ it is only reasonable to use the DCF methodology to determine the fair market value of a business if the business is "a going concern with a proven record of profitability".⁴¹⁷ Antrix says that Devas was not a going concern, and did not have a proven track record of profitability. It says that Devas had "no customers, no brand recognition, no revenue... [and] virtually no investments"⁴¹⁸ Antrix has referred the tribunal to many legal materials in which tribunals have declined to rely on the DCF methodology because the relevant business had earned little or no revenue as at the valuation date.⁴¹⁹
367. Devas, on the other hand, says that if a foreign buyer were purchasing Devas at the time, it would have been required by the Reserve Bank of India to price those shares by using the DCF methodology, which (so it says) is an "endorsement" of the use of the DCF methodology in these circumstances.⁴²⁰ It also says that even though some tribunals have expressed reluctance about using a DCF methodology to value businesses that do not have a trading history, there is no "per se rule" against doing so,⁴²¹ and tribunals have in fact done so in certain circumstances.⁴²² Devas has also referred the tribunal to economic texts which support use of the DCF methodology to value businesses with no earnings history in certain circumstances.⁴²³
368. The tribunal has carefully considered whether it is appropriate to use any DCF methodology in this

⁴¹³ Kaczmarek 1, [10].

⁴¹⁴ Kaczmarek 1, [10]-[12].

⁴¹⁵ Kaczmarek 2, [272]. Initially, Mr Kaczmarek said that it valued Devas at USD 1,641,679,000.00 (see Kaczmarek 1, [10]), but he later adjusted this figure to correct errors and reflect updated information.

⁴¹⁶ 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) (*World Bank Guidelines*).

⁴¹⁷ At p. 42.

⁴¹⁸ Antrix's PHM, [117].

⁴¹⁹ For example, *Metalclad Corporation v. The United Mexican States*, ICSID Case No. ARB(AF)/97/1, in which the tribunal stated "where the enterprise has not operated for a 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": at [120] - [121]; *Siemens A.G. v. The Argentine Republic*, ICSID Case No. ARB/02/8, in which the tribunal said, "the DCF method is applied to ongoing concerns based on the historical data of their revenues and profits; otherwise, it is considered that the data is too speculative to calculate future profits": at [355]; *National Grid p.l.c. v. Argentine Republic, Ad Hoc/UNCITRAL, Award, 3 November 2008*, in which the tribunal said "[i]n order to function properly, the DCF approach requires that the concern in question must have a history of profitable operation": at [276]. See also *Southern Pacific Properties (Middle East) Limited v. Arab Republic of Egypt*, ICSID Case No. ARB/84/3, [188]; *Waguih Elie George Siag and Clorinda Vecchi v. The Arab Republic of Egypt*, ICSID Case No. ARB/05/15, [570].

⁴²⁰ Devas' PHM, [331]. The term "going concern" is defined in the World Bank guidelines:

"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 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".

⁴²¹ Devas' PHM, [332].

⁴²² E.g., *Gul Bottlers (PVT) Limited v Nichols Plc* [2014] EWHC2173 (Comm), *Himpurna and ADC Affiliate Ltd. v. Hungary*, ARB/03/16 (ICSID 2006).

⁴²³ See Devas' PHM, [343] - [345].

case, and has come to the view that it is not appropriate. According to the World Bank Guidelines and the overwhelming majority of legal materials, it is not appropriate to rely on a DCF methodology to value companies that do not have any earnings history, such as Devas. The tribunal accepts that an exception can be made in some cases, but only if there is a reliable, alternative guide to what the future earnings of the business are likely to be. For example: the relevant contract may guarantee minimum payments; competitive constraints in the relevant market may be particularly low (e.g. due to regulations that apply to the industry or a market's natural monopoly characteristics); or there may be statutes or regulations that specify the prices that may be charged for the relevant goods or services.

369. This is not one of those exceptional cases. Among other things, the 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 the tribunal accepts, that Devas faced significant competition for the services that it proposed to provide.⁴²⁴ In other words, there is nothing that can give the tribunal sufficient confidence about the cash flows that Devas would have earned but for Antrix's wrongful repudiation of the Devas Agreement.
370. It is true that DT's valuation of Devas in March 2008 was partly based on a DCF methodology. But DT is in a different position to this tribunal. It is one of the world's major telecommunications service providers and its business includes investing in start-up telecommunications companies. The fact that it was comfortable speculating on Devas' future cash flows does not mean that this tribunal should be comfortable doing so.
371. 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. For example:
- a. delaying the launch date by a year decreases Devas' value by USD 352 million (or 22%);
 - b. having 10% higher costs decreases its value by USD 473 million (or 30%);
 - c. charging 10% lower prices decreases its value by USD 488 million (or 31%); and
 - d. increasing the discount rate from 26.3% to 21.1% decreases its value by about USD 1 billion (or 63%).⁴²⁵
372. That is significant because it means that, if the tribunal is to be satisfied that the valuation produced by Devas' DCF methodology is reasonable, it would need to be satisfied that all of the assumptions are accurate. For example, if the tribunal is not satisfied that the appropriate discount rate is accurate, Devas' value could be over or under stated by hundreds of millions of dollars.
373. Such precision is impossible in this case. Determination of an appropriate discount rate is not an

⁴²⁴ See [343] above.

⁴²⁵ Brailovsky/Flores 1, Table 3, p. 24. The tribunal notes that this table was based on the cash flows assumed by Mr Kaczmarek in his first report, as "corrected" by Mr Brailovsky and Dr Flores in their first report, and that Mr Kaczmarek later updated his calculation of damages. The tribunal also notes that it has used these figures for illustrative purposes only, and does not accept that the cash flow they assume is correct.

exact science. It involves taking into account a range of risks that the business would have faced and then making a value judgment about an appropriate discount rate based on the apparent severity of those risks. Similarly, assumptions concerning Devas' prices and costs are not based on clearly established facts, but on what Devas might have been able to charge, and what its costs might have been, in a hypothetical, counterfactual world where it had started providing services.

374. In other cases this difficulty may not arise. 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).⁴²⁶ In this case, in the tribunal's view, it makes Devas' DCF methodology an unrealistic and unreliable vehicle for determining its damages.

375. Accordingly, the tribunal considers that it is not appropriate to rely on the DCF methodology in this case.

Are the comparable companies and comparable transactions methodologies appropriate?

376. Nor does the tribunal consider that is appropriate to rely on Mr Kaczmarek's other methodologies, namely the comparable companies and comparable transactions methodologies.

377. The "comparable" companies that Mr Kazcmarek relies on are Bharti Airtel and Sirius XM. The tribunal does not consider either company to be comparable. Bharti Airtel is India's largest cellular phone company (in terms of subscribers and market share) and in 2011 it had annual revenue of USD 13.3 billion and a presence in 19 countries.⁴²⁷ By contrast, Devas was a start up company that had no subscribers and no revenue.

378. Sirius XM operates in North America, not India, and in circumstances that are materially different to those that Devas would face.⁴²⁸ It operates in the audio services industry only; and so it does not face some of the technological complexities that Devas would face in operating its broadband wireless services.⁴²⁹ Further, unlike Devas, it also has an established sales channel that guarantees a given level of subscribers through the sale of new cars, approximately 70% of which have Sirius XM installed.⁴³⁰

379. The "comparable" transactions that Mr Kazcmarek relies on are two acquisitions of 20 MHz of S-band spectrum by DISH Network in the United States of America in early 2011. The tribunal does not consider that it is appropriate to compare the value of bandwidth in the United States to the value of Devas' business. The value of bandwidth can differ across borders and industries as it depends on factors such as average revenue per user, subscriber base and income levels of the subscriber base.

⁴²⁶ See Bailovsky/Flores 1, [44].

⁴²⁷ Bailovsky/Flores 1, [181].

⁴²⁸ Bailovsky/Flores 1, [187].

⁴²⁹ Brailovsky/Flores 1, [185].

⁴³⁰ Brailovsky/Flores 1, [186].

380. The tribunal's view of the comparable companies and transactions methodologies has been fortified by the fact that Mr Kaczmarek himself has little confidence in them. He testifies that they were "non-traditional in this case"⁴³¹ and gave them each a 10% weighting (compared to the DCF methodology's 80% weighting). The fact that he considers them less reliable than the DCF methodology, and the tribunal has no confidence in the DCF methodology, is telling.

The tribunal's assessment of the quantum of Devas' loss or damage

381. That does not, however, mean that Devas is not entitled to an award of damages. As noted above, once the tribunal has accepted that Devas has suffered substantial loss or damage, the fact that the quantum of that loss or damage may be difficult to assess is not a valid reason for refusing to award any damages under Indian law (as the applicable law). Accordingly, as part of its arbitral mandate, the tribunal is required to do the best that it can to assess the quantum of Devas' loss or damage based on the available factual evidence adduced in this arbitration.

382. The tribunal has the great benefit of being able to use DT's valuation of Devas in March 2008 as a starting point. As noted above, this implied a value of USD 375 million as at March 2008. The tribunal is also satisfied that Devas' value increased between March 2008 and 25 February 2011. As set out above, there were a number of events that significantly increased Devas' value in that period, including: the successful completion of the Phase I and Phase II trials; substantial completion of the satellites; approval of the geosynchronous launch vehicles; and the additional USD 25 million investment by DT Asia, CC/Devas and Telcom Devas in September 2009. There were also a number of less tangible factors that decreased the risks that Devas faced (and therefore increased its value), including Devas' procurement of ISP and IPTV licences and securing of a network of suppliers and vendors.

383. The tribunal does not accept that Devas' value increased to the extent alleged by Devas, for two primary reasons. First, a number of the delays to the launch of the satellite would still have occurred but for Antrix's wrongful repudiation of the Devas Agreement - namely, the delays that were notified to Devas in April 2009,⁴³² November 2009,⁴³³ December 2009⁴³⁴ and February 2010.⁴³⁵ They all occurred before Dr Radhakrishnan took any of the key steps that would not have been taken but for the wrongful repudiation of the agreement. This suggests that PS1 would not have been launched until at least September 2010 (and potentially significantly later),⁴³⁶ which would in turn have delayed the commencement of Devas' services, and reduced the period of the lease in which Devas was able to generate revenue.

384. Second, competition for 4G services also increased between March 2008 and February 2011, with Devas' main competitor developing plans to rollout nationwide 4G services.⁴³⁷ As noted above, the tribunal considers that this would have negatively affected an investor's assessment of Devas'

⁴³¹ Kaczmarek 1, [20].

⁴³² See [83] above.

⁴³³ See [92] above.

⁴³⁴ See [95] above.

⁴³⁵ See [95] above.

⁴³⁶ September 2010 was the revised deadline that was specified for the launch of the satellites in February 2010: see [95] above.

⁴³⁷ See [343] above.

business prospects as at 25 February 2011.⁴³⁸

385. The tribunal is not in a position to calculate the amount by which Devas' business increased in value with exact precision. With no income stream, comparable companies or comparable transactions to use as a guide to Devas' value, there are very limited materials on which to form a view about its precise value. However, as noted above the tribunal is nevertheless required to decide upon a figure, without engaging in mere speculation.
386. In determining the value of Devas as at 25 February 2011, the tribunal has started from the basis that it was valued at USD 375 million in March 2008 when DT placed its investment in the company. The value is based on an arm's length transaction when a substantial international investor acquired equity in the company. That price is used to determine the value of the total equity of Devas. The tribunal then finds that Devas increased in value up to 25 February 2011, primarily on account of the following developments: the successful completion of the Phase I and Phase II trials; substantial completion of the satellites; approval of the geosynchronous launch vehicles; additional USD 25 million investment by DT Asia, CC/Devas and Telcom Devas in September 2009; and Devas' procurement ISP and IPTV licences and securing of a network of suppliers and vendors. Next, the tribunal takes into account certain risk factors which Devas faced at the time, such as possible delays in launching the satellites and increased competition. These positive and negative factors have been evaluated by the tribunal, as best it can, in the light of all the evidence and submissions of the parties. The tribunal is in no doubt that the net result is a substantial increase in the value of Devas between March 2008 and 25 February 2011. However the tribunal does not agree with Devas that the value was as great as USD 1.4 billion. In the tribunal's judgment, having considered all the factors in light of the parties' evidence and submissions, between March 2008 and 25 February 2011 Devas' value increased by 50%, to USD 562.5 million; and the tribunal finds, as a fact, that Antrix's wrongful repudiation entitles Devas to damages in that same amount.

H. What is the rate of pre-award and post-award interest that should be applied to an award of compensation/damages?

Pre-award interest

387. Section 31 (7)(a) of the 1996 Act states as follows:

"[u]nless otherwise agreed by the parties, where and in so far as an arbitral award is for the payment of money, the arbitral tribunal may include in the sum for which the award is made interest, at such rate as it deems reasonable, on the whole or any part of the money, for the whole or any part of the period between the date on which the cause of action arose and the date on which the award is made."

388. Devas submits that pre-award interest should be at the rate of US Prime + 2%, compounded, or LIBOR + 4%, compounded.⁴³⁹ It says that a surcharge is needed on top of the US Prime or LIBOR rate

⁴³⁸ See [343] above.

⁴³⁹ Devas' PHM, [441].

because "customers usually do not receive loans at the interbank interest rate without a surcharge" and "interest on investment based on the interbank rate... usually contains a deduction of the interest rate."⁴⁴⁰

389. Antrix submits that the tribunal should award simple interest calculated based on the yield of the three-month U.S. Treasury bill plus 1 percentage point (that is, 1.06% in total).⁴⁴¹ According to Mr Brailovsky and Dr Flores, this is "based on the cost of borrowing of a company like those with which Devas intended to compete", such as Bharti Airtel.⁴⁴²
390. The tribunal has considered the parties' submissions and formed the view that the appropriate rate of pre-award interest in this case is three month USD LIBOR + 4%, calculated on a simple basis. That rate of interest is to be paid on the amount of USD 562.5 million from the date of Antrix's repudiation of the Devas Agreement (25 February 2011) to the date of this award.

Post-award interest

391. Section 31 (7)(b) of the 1996 Act states that:
"[a] sum directed to be paid by an arbitral award shall, unless the award otherwise directs, carry interest at the rate of eighteen per centum per annum from the date of the award to the date of payment."⁴⁴³
392. Antrix has not (expressly) disputed that this provision ought to be applied. Accordingly, the tribunal will order that post-hearing simple interest at the rate of 18% per annum from the date of this award until the date of full payment.

I. Which party should bear the legal and arbitration costs of this matter, and in what amount?

393. Article 20(g) of the Devas Agreement states as follows:
"[e]ach Party to any Arbitration shall bear its own costs or expenses in relation thereto, including but not limited to such Party's attorneys' fees, if any, and the expenses and fees of the member of the Arbitral [sic] Tribunal appointed by such party, provided, however, that the expenses and fees of the third member of the Arbitral [sic] Tribunal and any other expenses of the Arbitral [sic] Tribunal not capable of being attributed to anyone member shall be borne in equal parts by the Parties."

⁴⁴⁰ Devas' PHM, [441], citing *Irmgard Marboe, Calculation of Compensation & Damages in International Investment Law*, Oxford University Press, 2009, [6,148].

⁴⁴¹ See Antrix's PHM, [250]; Antrix's PHRM, [92]; Brailovsky/Flores 2, [338].

⁴⁴² Brailovsky/Flores 2, [341] (see generally [334] - [341]).

⁴⁴³ The Indian Supreme Court has said that the purpose of this provision: "is clear, namely, viz. to encourage early payment of the awarded sum and to discourage the usual delay, which accompanies the execution of the Award in the same manner as if it were a decree of the court vide Section 36 of the Act": *Hyder Consulting (UK) Ltd. v. Governor, State of Orissa*, 2014 SCC Online SC 940, [2] and [9].

394. Both parties agree that the tribunal is not bound to award costs in accordance with this provision. They each say that costs are to be determined in accordance with the ICC Rules, which provides the tribunal with a discretion as to the award of costs, as regards both allocation and (in so far as the parties' legal costs are concerned) assessment.⁴⁴⁴ [Article 31\(3\) of the ICC Rules](#) states:

"[t]he final Award shall fix the costs of the arbitration and decide which of the parties shall bear them or in what proportion they shall be borne by the parties."

395. Each party also says that the legal and arbitration costs in this matter should be awarded in its favour.⁴⁴⁵

396. In light of the parties' positions, the tribunal considers that it does have a discretion to order costs in accordance with [Article 31\(3\) of the ICC Rules](#). However, the tribunal considers that the most appropriate manner in which to exercise that discretion should be guided by the manner specified by Article 20(g), which is what the parties originally intended when they negotiated and executed the Devas Agreement. In the tribunal's opinion, Article 20(g) reflects the parties' intention that the rule commonly applied in international arbitration that the winning party recovers its costs is not in general intended to apply in this arbitration.

397. There is one exception, however. Article 20(g) provides that the parties are each to bear the costs of the arbitrator that it appointed. Antrix did not nominate an arbitrator. Dr Anand was appointed on its behalf by the ICC Court.⁴⁴⁶ Construed literally, Article 20(g) suggests that the parties would therefore pay Dr Anand's fees in equal shares. In the tribunal's view, it was never the intention of the parties that Antrix would avoid paying the costs of an arbitrator appointed on its behalf in this way. If a party fails to appoint an arbitrator as it is required to do under the arbitration agreement it should not therefore escape an obligation to pay for an arbitrator appointed on its behalf.

398. Accordingly, the tribunal considers that each party should bear their own legal and other costs (including fees of their respective experts), and the parties should pay, in equal shares:

- a. the fees of the arbitral tribunal;
- b. the expenses of arbitral tribunal (including the fees and expenses of the tribunal secretary); and
- c. the ICC administrative expenses.

399. The fees and expenses of the arbitral tribunal and the ICC administrative expenses fixed by the ICC Court on 27 August 2015 are USD 1,564,000 in total, so each party is required to pay USD 782,000.

400. The parties have each paid an advance on costs of USD 795,000. Accordingly, USD 26,000 will be reimbursed to the parties in equal shares, i.e. USD 13,000 each.

⁴⁴⁴ Devas' PHM, [449]; Antrix's PHM, [251].

⁴⁴⁵ Devas' PHM, [450]; Antrix's PHM, [252].

⁴⁴⁶ See [19] above.

Operative Part

401. For the foregoing reasons the tribunal unanimously finds and awards as follows:
- a. the tribunal has jurisdiction to hear and decide the claims in this arbitration;
 - b. Antrix is to pay USD 562.5 million to Devas for damages caused by Antrix's wrongful repudiation of the Devas Agreement;
 - c. Antrix is to pay simple interest on USD 562.5 million from 25 February 2011 to the date of this award at the rate of three month USD LIBOR + 4%;
 - d. Antrix is to pay simple interest at the rate of 18% per annum of the amounts in paragraphs 401(b) and (c) from the date of this award to the date of full payment; and
 - e. each party is to bear its own legal costs of this arbitration, and the parties are to pay, in equal shares, the fees and expenses of the arbitrators and the ICC administrative expenses.
402. All other claims and requests made by the parties in this arbitration have been rejected.

Annexure A - Table of Abbreviations

1996 Act	Indian Arbitration and Conciliation Act 1996
ASG	Additional Solicitor General
Anand	Statement of Vijay Anand dated 15 November 2013
Antrix	Antrix Corporation Limited
Antrix's PHM	Antrix's post-hearing memorial dated 17 February 2015
Antrix's RPHM	Antrix's reply post-hearing memorial dated 23 March 2015
Antrix's Skeleton	Antrix's Skeleton Argument dated 1 December 2014
Antrix v Devas, Supreme Court Judgment	<i>Antrix Corp. Ltd. v Devas Multimedia P. Ltd, Judgment on Arbitration Petition No. 20 of 2011</i>
AV	Audio-visual
Babbio 1	Statement of Lawrence T. Babbio Jr dated 19 February 2012
Babbio 2	Reply statement of Lawrence T. Babbio Jr dated 23 March 2014
Boothalinga	<i>Boothalinga Agencies vVTC Priaswanmi Nadarm</i> (1969) 1 SCF 65

Brailovsky/Flores 1	Report of Vladimir Brailovsky & Daniel Flores dated 15 November 2013
Brailovsky/Flores 2	Second report of Vladimir Brailovsky & Daniel Flores dated 1 August 2014
Brailovsky/Flores 3	Report by Vladimir Brailovsky and Daniel Flores on the areas of disagreement with Mr

Kaczmarek dated 30 September 2014

Brailovsky/ Flores 4	Supplemental Report by Vladimir Brailovsky and Daniel Flores dated 11 December 2014
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BWA Broadband Wireless Access

CC/Devas CC/Devas (Mauritius) Ltd

CCS Cabinet Committee on Security

Devas Devas Multimedia Private Limited

Devas Agreement Agreement between Antrix and Devas for the lease of space segment capacity on two satellites, bearing the identification number ANTX/203/DEVAS/2005

Devas' PHM Devas' post-hearing memorial dated 17 February 2015

Devas' RPHM Devas' reply post-hearing memorial dated 23 March 2015

Devas' Skeleton Devas' Skeleton Argument dated 1 December 2014

DCF Discounted cash flow

DOS Department of Space

DOT Department of Telecommunications

DT Deutsche Telekom

DT Asia Deutsche Telekom Asia Pte Ltd

Forge Advisors Forge Advisors LLC

Gearbulk *Stocznia Gdynia S.A. v. Gearbulk Holdings Ltd* [2009] EWCA (Civ) 75

GOI Government of India

Gupta 1	Statement of Arun Gupta dated 19 February 2012
Gupta 2	Reply statement of Arun Gupta dated 24 March 2014
Hegde	Statement of Dr V. S. Hegde dated 30 July 2014
Himpurna	<i>Himpurna California Energy Ltd v PT (Persero) Perusahaan Listrik Negera</i> Final Award, 4 May 1999, XXV Yearbook Commercial Arbitration 11
ICC Court	International Court of Arbitration of the International Chamber of Commerce
ICC Rules	1998 ICC Rules of Arbitration
Internet Broadcasting	<i>Internet Broadcasting Corporation (trading as NETTV) and another v MAR LLC (trading as MARHedge)</i> (2009) EWHC 844 (Ch)
IPTV	Internet Protocol Television
ISRO	Indian Space Research Organisation
Kaczmarek 1	Report of Brent Kaczmarek dated 20 February 2012
Kaczmarek 2	Reply report of Brent Kaczmarek dated 24 March 2014
Kaczmarek 3	Report of Brent Kaczmarek on the areas of disagreement with Mr Brailovsky and Dr Flores dated 30 September 2014
Kaczmarek 4	Supplemental report of Brent Kaczmarek dated 17 October 2014
Kudos Catering	<i>Kudos Catering (UK) limited v Manchester Central Convention Complex Limited</i> [2012] EWHC 1192 (QB)
Lewis 1	Report of John Lewis dated 17 February 2012
Lewis 2	Reply report of John Lewis dated 14 March 2014
MOU	Memorandum of Understanding between Forge Advisors and Antrix dated 28 July 2003
Okta	<i>Mamidoil-Jetoil Greek Petroleum Co. v. Okta Crude Oil Refinery AD No (2)</i> [2003] 2 All ER (Comm) 640
Parsons 1	Statement of Gary Parsons dated 18 February 2012
Parsons 2	Reply statement of Gary Parsons dated 21 March 2014
Pawan Alloys	<i>Pawan Alloys & Casting Pvt. Ltd., Meerut v. U.P. State Electricity Board and others</i>

(1997) 7 SCC 251

PS1	Primary satellite system
PS2	Secondary satellite system
Rejoinder	Antrix's Rejoinder dated 1 August 2014
Reply	Devas' Reply dated 24 March 2014
Rolimpex	<i>C. Czarnikow Ltd. v. Centrala Handlu Zagranicczneo Rolimpex</i>
SATCOM	India's Satellite Communication policy
Sethuraman 1	Statement of K. Sethuraman dated 15 November 2013
Sethuraman 2	Statement of K. Sethuraman dated 31 July 2014
Shared Network	<i>Shared Network Services Limited v Nextira One Limited</i> [2011] EWHC 1574 (Comm)
Singh 1	Statement of Dr Rajendra Singh dated 19 February 2012
Singh 2	Reply statement of Rajendra Singh dated 24 March 2014
Sir Chunillal	<i>Steel Authority of India Limited v Gupta</i> (2009) 10 SCC 63
Statement of Claim	Devas' Statement of Claim dated 20 February 2012
Statement of Defence	Antrix's Statement of Defence dated 15 November 2013
Secretariat	Secretariat of the ICC Court
State of Kerala	<i>Mary v State of Kerala</i> 2013 (13) S.C.A.L.E. 151, C.A. No. 9466 of 2003
Telcom Devas	Telcom Devas Mauritius Ltd
TRAI	Telecom Regulatory Authority of India
UCRF	Upfront Capacity Reservation Fees
UK	United Kingdom
USA	United States of America
Viswanathan 1	Statement of Ramachandran Viswanathan dated 20 February 2012
Viswanathan 2	Statement of Ramachandran Viswanathan dated 20 February

WPC

Wireless Planning and Coordination wing of the DOT