IN THE GRAND COURT OF THE CAYMAN ISLANDS

FINANCIAL SERVICES DIVISION

Cause No FSD 76 of 2017 (RPJ)

IN THE MATTER OF THE COMPANIES LAW (2016 REVISION)

AND IN THE MATTER OF QUNAR CAYMAN ISLANDS LIMITED

QUNAR CAYMAN ISLANDS LIMITED

Petitioner

-and-

1. **MASO CAPITAL INVESTMENTS LIMITED**
2. **BLACKWELL PARTNERS LLC – SERIES A**
3. **ATHOS ASIA EVENT DRIVEN MASTER FUND**
4. **FMAP ACL LIMITED**
5. **SENRIGAN MASTER FUND**
6. **PAG ASIA ALPHA LP**
7. **PAG QUANTITATIVE STRATEGIES TRADING LIMITED**
8. **PAG-P ASIA FUND L.P.**

Respondents

IN OPEN COURT

Appearances: Mr Tom Lowe QC, Jessica Williams and Paul Madden of Harney Westwood & Riegels on behalf of Qunar Cayman Islands Limited.

Mr Nigel Meeson QC and Mr Erik Bodden of Conyers Dill and Pearman on behalf of PAG Asia Alpha LP, PAG Quantitative Strategies Trading Limited and PAG-P Asia Fund L.P.

Mr Jonathan Adkin QC and Mr Andrew Jackson of Appleby on behalf of Athos Asia Event Driven Master Fund, FMAP ACL Limited and Senrigan Master Fund.

	Mr Barry Isaacs QC and Mr Jonathan Moffatt of Mourant on behalf of Maso Capital Investments Limited and Blackwell Partners LLC – Series A.
Before:	The Hon Justice Raj Parker
Heard:	26, 27, 28 February, 1, 4, 5, 7, 8, 11, 12, 13, 14,and 15th March 2019
Draft Judgment: Circulated	2 May 2019
Judgment Delivered:	13 May 2019

HEADNOTE

Fair value – s 238 Companies Law (2016 revision) – Court's approach to fair value – what is being valued – valuation methods – market trading – discounted cash flow – hypothetical sale – information – approach to expert evidence – undervaluation of Chinese companies on US exchanges – management projections – discountrate – beta – cash adjustment – blume adjustment – size premium – equity risk premium – foreign exchange – tax rate – share based compensation – terminal growth rate – minority discount.

JUDGMENT

Introduction

1. Qunar Cayman Islands Limited (the **Company**) applies by Petition dated 24 April 2017 pursuant to section 238 of the Companies Law (2016 Revision) (the **Law**) by which the Court is asked to determine the fair value (together with interest) of certain shares in the Company as at 24 February 2017 (the **Valuation Date**). A separate Petition was also filed on the same day by a group of dissenting shareholders. Both sets of proceedings were consolidated. The proceedings arise out of a merger which took place on 24 February 2017.

2. The Company is a Cayman Islands exempted limited company. A shareholder in a Cayman registered company who dissents from a merger or consolidation of the company under Part XVI of the Law is entitled under section 238 of the Law to be paid "*the fair value of his shares*" as determined by the Court, together with a fair rate of interest.

3. The Company was founded in 2005. From 2006 to 2010 it was privately owned by its founders and a number of investors. It is headquartered in Beijing, China. It operates as one of the leading mobile and online platforms for the booking of flights, hotel rooms and other services in China, and is often described as an online travel agency (**OTA**).

4. It originally acted as a meta-search site by providing an advertising platform for users to search for flights and hotels and compare the available prices. Users were then directed to the website of the relevant service provider (such as a hotel or airline) to complete the booking. The Company would receive revenue based upon 'user clicks' on search results. It subsequently moved to a different business model involving the direct sales of flights and hotels between 2013 and 2015, where it earned revenue from commissions.

5. From November 2013 until completion of its merger pursuant to Part XVI of the Law, on 24 February 2017 (the **Merger**), the Company's American Depositary Shares (**ADSs**) were listed on the NASDAQ Global Market (**the NASDAQ**). Each ADS represented three ordinary shares in the Company.

6. On 23 June 2016 the Company's Board of Directors received a proposal from potential buyers (the **Buyer group**) who had already acquired a majority shareholding in the Company to acquire certain outstanding ordinary shares. The Buyer group comprised Ctrip.com International Limited (**Ctrip**) (and other private equity investors) which by the time of the Merger directly and indirectly held 94% of the shares in the Company. Its strategic partner was Ocean Management Limited (**Ocean Management**), a Hong Kong based private equity fund. Ctrip was at the time the Company's biggest competitor in the on-line travel agency business.

7. The transaction (the **Merger**) was the means by which the Company was to be 'taken private', that is to say, de-listed from the stock market on which its shares were traded, the NASDAQ, by the majority shareholders. The Company announced this proposal and established a Special Committee comprised of three independent directors to consider and negotiate the proposed transaction, consider the alternatives to the proposal, and report its recommendations and conclusions to the Board. The Special Committee retained Duff and Phelps (**D&P**) as its financial adviser in relation to the transaction and on 19 October 2016 D&P delivered an opinion that the Merger price was fair from a financial point of view to the Company's shareholders (the **fairness opinion**).

8. Following the Special Committee's recommendation the Board approved the transaction and it was submitted to a vote at an EGM on 24 February 2017 where it was unanimously approved. The price offered by the Buyer group and paid to shareholders who accepted the offer was **US$30.39** per ADS (the **Merger Consideration**).

9. Certain shareholders dissented from the Merger. Prior to the EGM they gave notices to the Company by which they did this and demanded payment of the fair value of their shares pursuant to section 238 of the Law.

10. The Buyer group effected the Merger by "cashing out" the dissenting shareholders of the publicly traded ADSs and delisting it from the NASDAQ. The dissenting shareholders (the **Dissenters**), who between them hold 6,029,502 shares, are grouped into three groups, each of which have separate representation:

    a. Athos Asia Event Driven Master Fund (1,286,133 ordinary shares) FMAP ACL Limited (619,935 ordinary shares) and Senrigan Master Fund (987,188 ordinary shares) are represented by Appleby and Jonathan Adkin QC.

    b. Blackwell Partners LLC – Series A (582,168 ordinary shares) and Maso Capital Investments Limited (405,000 ordinary shares) are represented by Mourant and Barry Isaacs QC.

    c. PAG Asia Alpha LP (376,125 ordinary shares) PAG Quantitative Strategies Trading Limited (1,396,917 ordinary shares) and PAG-P Asia Fund L.P. (376,056 ordinary shares) are represented by Conyers and Nigel Meeson QC.

11. The Company is represented by Harneys and Tom Lowe QC.

12. The Dissenters contend that the Merger Consideration and valuation which was subsequently arrived at by the Company and its Expert in these proceedings significantly undervalue the Company.

13. The parties' respective valuation Experts widely disagree in respect of both the fair value of the Dissenters' shares as at the Valuation Date and the appropriate methodology according to which the valuation should be carried out.

14. The Company's Expert, Susan Glass of KPMG, uses a combination of discounted cash flow (**DCF**) and market trading price analyses with equal weight being given to each. In her opinion the fair value of the Company's shares as at the valuation date is **US$28.09** per ADS (having applied a 4.7% minority discount). This is 3.0% lower than the price paid in the Merger and 11.6% higher than the ADS trading price immediately before the Merger announcement.

15. The Dissenters' expert, Chris Osborne formerly of FTI Consulting, uses only a DCF approach which results in a valuation of **US$125.96** per ADS (with no minority discount).

16. As can be seen from this the gap in valuation between the Experts is very considerable. The trial has been taken up with why and on what basis the gap in

valuation is so large. Mr Osborne's valuation represents 414.48% of the Merger price, or put another way, over 4x the Merger price. Ms. Glass' valuation is 92.43% of the Merger price.

Recent history of transactions of the Company prior to the Merger.

17. In July 2011 the Company entered into an agreement with Baidu Holdings Limited (**Baidu**), one of the largest Chinese Internet companies, whereby Baidu became its single largest shareholder with a shareholding of 62%.

18. In November 2013 the Company completed an initial public offering (**IPO**) on the NASDAQ with a follow-up public offering in June 2015.

19. In May 2015 Ctrip submitted a proposal to the Company to acquire all of its outstanding shares at a price of US**$50.90** per ADS to take it private as a wholly-owned subsidiary of Ctrip. The Company rejected that proposal.

20. In October 2015 Ctrip acquired Baidu's shareholding in the Company (the **Baidu share swap**) and thereby became the single largest shareholder. Following that deal Ctrip continued to acquire further shares in the Company indirectly through special-purpose vehicles. Under an employee share exchange programme in November 2015 (the **employee share swap**) employees of the Company swapped their shares in the Company for shares in Ctrip. By this means a further 11% stake in the Company was acquired by Ctrip and the buyer group by the time of the Merger owned approximately 94% of the Company's shares.

21. The Merger is described by the Dissenters as the final step of a gradual takeover of the Company by Ctrip. By means of the Merger, with the involvement of its strategic partner Ocean Management, Ctrip "cashed out" the remaining 6% of the shares of the Company which it by then had not already acquired.

The Court's approach to fair value

22. The provisions of Part XVI of the Law were introduced in Cayman in May 2009. Their effect is that a merger or consolidation ordinarily requires authorisation only by special resolution of the shareholders of each constituent company, that is by a two thirds majority, and no court approval: see *Shanda* [2018] 1 CILR 352 (CICA).

23. This can be contrasted with other regimes contained in the Law for corporate reorganisations which require majorities of 90% (squeeze out) or 75% (scheme of arrangement) and contemplate intervention by the court[1].

[1] See for example ss 86-88 of the Law relating to *"Arrangements and Reconstructions"*. These sections contain provisions to acquire the shares of dissentient shareholders and for the reconstruction and amalgamation of companies as well as compromising with creditors and members.

24. Section 238 provides a mechanism by which the entitlement to obtain the fair value for their shares of the dissenting minority shareholders is protected in this more simplified regime. This is by means of an appraisal by the court, after the transaction is completed. In fact the effect of having given notices of dissent is that the Dissenters cease to have any of the rights of shareholders, except the right to be paid the fair value of their shares and to bring an action to establish those rights – see *Integra* [2016] 1 CILR 192, paragraph 7.

25. The section provides in full as follows:

> "238.
>
> *(1) A member of a constituent company incorporated under this Law shall be* ***entitled to payment of the fair value of his shares*** *upon dissenting from a merger or consolidation.*
>
> *(2) A member who desires to exercise his entitlement under subsection (1)* shall give to the constituent company, before the vote on the merger or *consolidation, written objection to the action.*
>
> *(3) An objection under subsection (2) shall include a statement that the member proposes to demand payment for* ***his shares*** *if the merger or consolidation is authorised by the vote.*
>
> *(4) Within twenty days immediately following the date on which the vote of members giving authorisation for the merger or consolidation is made, the constituent company shall give written notice of the authorisation to each member who made a written objection.*
>
> *(5) A member who elects to dissent shall, within twenty days immediately following the date on which the notice referred to in subsection (4) is given, give to the constituent company a written notice of his decision to dissent, stating-*
>
> *(a) his name and address;*
>
> *(b) the number and classes of shares in respect of which he dissents;*
> *and*
> *(c) a demand for payment of the fair value of his shares.*
>
> *(6) A member who dissents shall do so in respect of all shares that he holds in the constituent company.*

(7) Upon the giving of a notice of dissent under subsection (5), the member to whom the notice relates shall cease to have any of the rights of a member except the right to be paid the fair value of his shares and the rights referred to in subsections (12) and (16).

(8) Within seven days immediately following the date of the expiration of the period specified in subsection (5), or within seven days immediately following the date on which the plan of merger or consolidation is filed, whichever is later, the constituent company, the surviving company or the consolidated company shall make a written offer to each dissenting member to purchase ***his shares*** *at a specified price that the company determines to be their* ***fair value****; and if, within thirty days immediately following the date on which the offer is made, the company making the offer and the dissenting member agree upon the price to be paid for his shares, the company shall pay to the member the amount in money forthwith.*

(9) If the company and a dissenting member fail, within the period specified in subsection (8), to agree on the price to be paid for ***the shares*** *owned by the member, within twenty days immediately following the date on which the period expires-*

> *(a) the company shall (and any dissenting member may) file a petition with the Court for a determination of the fair value of the shares of all dissenting members; and*
>
> *(b) the petition by the company shall be accompanied by a verified list containing the names and addresses of all members who have filed a notice under subsection (5) and with whom agreements as to the fair value of their shares have not been reached by the company.*

(10) A copy of any petition filed under subsection (9)(a) shall be served on the other party; and where a dissenting member has so filed, the company shall within ten days after such service file the verified list referred to in subsection (9)(b).

(11) At the hearing of a petition, the Court shall determine the fair value of the shares of such dissenting members as it finds are involved, together with a fair rate of interest, if any, to be paid by the company upon the amount determined to be the fair value.

(12) Any member whose name appears on the list filed by the company under subsection (9)(b) or (10) and who the Court finds

are involved may participate fully in all proceedings until the determination of fair value is reached.

(13) The order of the Court resulting from proceeding on the petition shall be enforceable in such manner as other orders of the Court are enforced, whether the company is incorporated under the laws of the Islands or not.

(14) The costs of the proceeding may be determined by the Court and taxed upon the parties as the Court deems equitable in the circumstances; and upon application of a member, the Court may order all or a portion of the expenses incurred by any member in connection with the proceeding, including reasonable attorney's fees and the fees and expenses of experts, to be charged pro rata against the value of all the shares which are the subject of the proceeding.

(15) Shares acquired by the company pursuant to this section shall be cancelled and, if they are shares of a surviving company, they shall be available for re-issue.

(16) The enforcement by a member of his entitlement under this section shall exclude the enforcement by the member of any right to which he might otherwise be entitled by virtue of his holding shares, except that this section shall not exclude the right of the member to institute proceedings to obtain relief on the ground that the merger or consolidation is void or unlawful. (my emphasis)."

26. This case involves the interpretation of the section in its context under Cayman law and gives rise to some aspects of its interpretation and application that have not previously been considered by this court. It also raises some legal issues which have not been argued before, at least in Cayman, and a large number of financial accounting and valuation issues.

27. A first step towards arriving at the fair value of the dissenter's shares is the making by the company of an offer for the dissenters' shares at a specified price that the company determines to be their fair value (subs. (8)); but that cannot occur before the dissenting shareholder has lost his rights as member by virtue of subs. (7). Such an offer was made in the present case by the Company to each of the Dissenters of US$**30.39** per ADS, but this was rejected by the dissenting shareholders.

28. Similar statutory merger regimes have long been part of the corporate law codes of certain US States and Canada. Delaware has had similar legislation for a very long time. In fact, Delaware legislation (section 262 of the Delaware General

Corporation Law) (as well as that of Bermuda, BVI and the UK) was apparently reviewed when the Bill was being considered by the Cayman Legislative Assembly.[2]

29. The Cayman Islands courts have been assisted in applying section 238 by considering the decisions and reasoning of courts from two jurisdictions in particular. They are not binding on this court.[3]

30. Although there have been numerous section 238 cases brought in the Grand Court under the statutory merger regime, there are only two previous judgments of the Grand Court in which fair value has been determined after a trial.[4]

31. Whilst certain procedural and case management issues have been appealed and considered by CICA, only *Shanda* has been considered at appellate level following a trial. An appeal against the Orders made by Segal J in *Shanda* was allowed on the issue of whether a minority discount should have been applied when determining the fair value of the dissenters' shares and in relation to interest. Segal J had decided that no discount should be applied following Jones J in *Integra* and Delaware authority.

32. An appeal against the CICA's decision is now awaiting a ruling from the Judicial Committee of the Privy Council (**JCPC**). Unless and until the JCPC overturns the CICA decision on minority discount, it is binding on this court and needs to be considered, at least as a matter of principle.

33. There has been no evidence led or submissions made in relation to interest and so I do not deal with it in this judgment.

Analogous jurisdictions US and Canada

34. The jurisprudence in Cayman is relatively young in comparison to Delaware[5] and Canada and guidance from those jurisdictions has been found to be helpful by the Cayman courts in terms of the approach to the similar issues the courts of those jurisdictions have adopted. However, the approach is not always to be followed in Cayman as there are differences in the language of the relevant legislation, the policy behind it, insofar as one can identify that, and procedure.

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[2] There is also similar legislation in Canada dating back to the mid-19th century, ultimately resulting in section 190 of the Canadian Business Corporations Act 1985.

[3] As the Cayman Islands Court of Appeal (CICA) said in *Shanda [2018] 1 CILR 352:*
"So long as that jurisprudence does not conflict with Caymanian law and practice, it is sensible to look to Delaware in solving problems that are novel to Cayman but not to Delaware. There is no point in trying to reinvent the wheel".

[4] *Re Integra* [2016] 1 CILR 192, Jones J (a Russia-based oilfield services company formerly listed on the London Stock Exchange); and *Re Shanda Games* (unreported 25 April 2017), Segal J (a Chinese online games company).

[5] The appraisal remedy was created in Delaware in 1899 – see *Dell, Del 177 A.3d 1 (2017),* p19.

35. I have considered in this case the principles from, in particular, the Delaware jurisprudence in the same way as Segal J and the Court of Appeal did in *Shanda,* but I have also had regard to, for example, English cases concerned with solving problems relating to the concept of fair value, albeit in different statutory contexts, as did the CICA in *Shanda*.

36. US and Canadian literature has also been referred to by first instance judges in Cayman.[6]

37. However, I have noted that the CICA in *Shanda* warned against the 'read across' going too far in relation to legislative intent and said at paragraph 46:

> *"In paragraph 75 of his judgment in the present case, the judge recorded that when s.238 was introduced the Honourable G. Kenneth Jefferson noted, when moving the second reading of the Companies (Amendment) Bill 2009 in the Legislative Assembly, that "..this Bill responds to requests from the private sector in relation to merger and consolidation provisions and reflects extensive consultation with the private sector as well as the review of Bermuda, BVI, Delaware and U.K. Legislative precedents" (Official Hansard Report, 2008/2009 Session, at p.1050, March 20th, 2009). In paragraph 76 he said that it therefore appeared that Delaware was one of the jurisdictions whose statutory merger law was reviewed, although there was no indication that s.238 was intended to implement or closely follow the Delaware model in particular; and in paragraph 79 he said that "Delaware was perhaps particularly in mind since it was mentioned as being one of the jurisdictions whose laws had been reviewed and the jurisdiction with the most substantial and sophisticated jurisprudence in the area."* ***For my part, I do not think that the statement made in the Legislative Assembly provides any assistance in the interpretation of s.238. The jurisdictions said to have been reviewed do not necessarily provide consistent answers to the problems capable of arising from an appraisal regime, and in the case of minority discounts they provide different answers. Moreover, the appraisal regime to which s.238 bears most similarity is that of Canada, but its legislation is not said to have been reviewed****. That is not to say that the Delaware jurisprudence is incapable of being of help in the interpretation of s.238: it is, as the judge remarked, frequently used and has given rise to a large number of cases and a well-developed jurisprudence."(my emphasis).*

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[6] For example, Jones J in *Integra* found an article in the *Canadian Annual Review of Civil Litigation* by Clarke Hunter QC and Clarissa Pearce entitled *"Fair Value – A Common Issue With Surprisingly Sparse Canadian Authority"* to be helpful: 25 at 9-31 (2011) (the Canada Business Corporation Act 1985 s.190 being similar to section 238).

What does "fair value" include?

38. As applied in Delaware, 'fair value' is a legal rather than an economic construct. It has been in the language of section 262 of the Delaware statute since 1976. [7]

39. The valuation is to be performed immediately before the merger. Fair value does not take into account advantages which accrue to the Company post-merger including anticipated synergies.[8]

40. Jones J in *Integra (paragraph 62)* concluded that the cost saving of going private is an inherent result of the transaction from which the dissenters have dissented. They had in effect disqualified themselves from the benefit by dissenting from the merger. He says further at paragraph 70:

> *"For the reason which I have explained in paragraph 61 above, my view is that counsel's submission leads to a result which is wrong in principle and should be rejected. The Respondents have a statutory right to dissent from the merger transaction, as a result of which they cease to have the rights of shareholders and are instead entitled to receive the fair value... They should not be afforded the benefits of the transaction from which they have dissented. Nor should the burdens of the transaction be imposed upon them."*

41. I agree with Jones J's analysis.

42. The phrase 'fair value' does not appear in any other part of the Law in Cayman. It is to be construed like any other Cayman statute and I do so with a view to discerning the Cayman legislative intent behind the provision.

What is being valued?

43. Section 238 refers to *'the shares'* in numerous places in the subsections I have emphasised above.

44. *'The shares'* does not mean as a matter of law a share in the undertaking of the company: see *Short* [1948] 1KB 116 and [1948] AC 534.

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[7] see Supreme Court decisions in *Dell* del.177 A3d (2017) and *DFC* (Del Aug.1 2017 (Strine CJ) which both post dated *Shanda* at first instance.It has been described by those courts as a jurisprudential concept which a market participant or an economist would not usually consider when valuing a block of shares or a public company as a whole-see *DFC* at p.41 ,for example.

[8] Strine CJ said that the *Weinberger* case of 1983 (457 A.2d.201) ,which noted that the addition of the phrase 'fair value' and an amendment in 1981 which mandated the Court of Chancery to *"take into account all relevant factors",* demonstrated:
"a legislative intent to fully compensate shareholders for whatever their loss may be, subject only to the narrow limitation that one cannot take the speculative effects of the merger into account".

45. As Lord Evershed said in the Court of Appeal in that case [p22]:

> *"Shareholders are not in the eyes of the law part owners of the undertaking. The undertaking is something different from the totality of the shareholding".*

46. The shares in a company and the assets of the company are legally distinct-see *IRC v Laird* [2003] 1 WLR 2476 per Lord Millett at paragraph 35:

> *"The juridical nature of a share is not easy to describe. It is not a share in the company's undertaking, for the company owns its property beneficially and not in trust for its members: "shareholders are not, in the eye of the law, part owners of the undertaking": see Short v Treasury Comrs [1948] 1 KB 116, 122. It is classified as a chose in action, but this merely tells us that it is a species of intangible personal property. It is customary to describe it as a "bundle of rights and liabilities", and this is probably the nearest that one can get to its character, provided that it is appreciated that it is more than a bundle of contractual rights. The most widely quoted [sentence should continue without space] definition of a share is that of Farwell J in Borland's Trustee v Steel Bros & Co Ltd [1901] 1 Ch. 279, 288 which was approved by your Lordships' House in Inland Revenue Comrs v Crossman [1937] AC 26. It was usefully and in my respectful opinion accurately summarised by Lord Russell of Killowen in his speech (dissenting on the facts) in that case, at p 66: "It is the interest of a person in the company, that interest being composed of rights and obligations which are defined by the Companies Act and by the memorandum and articles of association of the company." These rights, however, are not purely personal rights. They confer proprietary rights in the company though not in its property. The company is at one and the same time a juridical person with rights and duties of its own, and a res owned by its shareholders: see Gower's Principles of Modern Company Law, 6th ed (1997), p 301."*

47. Indeed as the CICA in *Shanda* held[9] when dealing with the minority discount point:

> *"For these reasons, it appears to me that s.238 requires fair value to be attributed to what the dissentient shareholder possesses. If what he possesses is a minority shareholding, it is to be valued as such. If he holds shares to which particular rights or liabilities attach, the shares are to be valued as subject to those rights or liabilities. As a matter of mechanics, this can be done by adjusting the value that the shares would otherwise have as a proportion of*

[9] In paragraph 50.

the total value of the company; but failing to make such adjustments means that particular rights or liabilities will often be ignored, and the shares will be valued as something they are not. It follows that the judge (and Jones, J. in Integra (13) before him) was wrong to hold that a minority discount should not be applied in the assessment of the value of the dissenting shareholders' shares. I would allow Shanda's appeal on the minority discount point."

48. Calculating the value of a company as a whole is a way of assessing the value of a block of shares, but it is not correct in my view to regard the block of shares as pro rata shares in an enterprise's value. A valuation of the rights to the capital of a company may be affected by matters such as the profitability of the company, but it is essentially different from a valuation based upon a proportionate share in the assets of the company.

49. This is to be contrasted with the approach I have referred to in Delaware where the shares of dissenters *are* regarded as proportionate shares in the value of the business itself as a going concern. This approach sometimes can result in no or little consideration given to what the shares would be worth in the market. The Delaware position was accepted without argument at first instance in *Integra* and in *Shanda* as the starting point for the analysis.

50. The CICA in *Shanda* disagreed with this. Having reviewed the two circumstances (squeeze out and schemes of arrangement) prevailing in England and Wales where majority shareholders could acquire the shares of an unwilling minority, the CICA made it clear that they assumed that the English approach would be equally applied in the Cayman islands, especially where the Cayman legislation followed to a large extent the English legislation. Although there is no section 238 equivalent in England, the CICA did not think the simplified merger and consolidation regime introduced into Cayman in 2009 by Part XVI of the Law was intended to have a different approach.

51. There is nothing in the wording of section 238 which required the focus to be on the value of the company rather than the value of the shares[10]. In particular the CICA said that the court at first instance should have had regard to the English squeeze out and scheme of arrangement regimes because they were also concerned with notions of fair value.[11]

52. I therefore consider that the exercise is to value *the shares* as at the Valuation Date (before the Merger). This is what they possessed. The Dissenters have not been deprived of an interest in the assets or business undertaking of the Company, but of *their shares*. It follows that one should look at the position of the Dissenters with their minority shareholdings at the Valuation date.

[10] See paragraphs 45-50

[11] See [47]. Morever the CICA noted that the policy position in Delaware is different – see [48].

53. An indirect method of valuing the shares is to value the Company and assume the shares should be worth approximately a proportionate share of that overall value, but that is what the CICA referred to in *Shanda* as the 'mechanics' of what is being valued, not the value of the shares themselves.

Who decides fair value?

54. The court is directed to itself carry out the appraisal of the fair value of the Dissenters' shares: section 238 (11). This implies an independence of determination by the court, divorced from considerations of the reasonableness or otherwise of the Dissenters' rejection of the offer price. Ultimately the Cayman Legislative Assembly has decided to leave it to the judgment of the court, and has not provided a legislative formula for the exercise.

55. The court will use its usual methods of resolving disputed questions of fact and expert evidence. Neither party bears the burden of proving the fair value of the shares. The proper approach to the resolution of the various matters in dispute is that the onus is upon each party to adduce evidence establishing, on the balance of probabilities, the correctness of any contention relied upon. There is no burden generally on dissenters to show that the value offered by the company is unfair, or on the company to show that it was fair. In fact in this case the Company argues that the Merger Consideration offered was more than fair.

56. In *Shanda (supra)* the CICA said at [22]:

> *"In ordinary litigation, and in section 238 proceedings, the court will determine generally, or on an issue by issue basis, whether expert evidence is to be accepted in whole or in part and how conflicts are to be resolved. If necessary, the court is entitled to substitute its own view for that of the experts".*

57. Having conducted a trial it may be that the court determines matters in dispute on an issue by issue basis (including the correct methodologies and approach to apply) and then leaves the parties to revise their calculations on the basis of the court's decisions and findings. Judges are generally not experts in the specialist fields of business valuations, financial principles and corporate finance. I confess that I for one am not competent to perform any arithmetic recalculations or adjustments.

What does fair value mean?

58. As I have said the phrase 'fair value' is not used elsewhere in the Law and must be construed in its particular context, that is to say the simplified regime to give a mechanism for the majority to effect a merger. The Dissenters' entitlement is a *quid pro quo* to be paid the fair value of their shares, having had their shares cancelled as part of the transaction.

59. I accept the Dissenters' submission that it cannot only mean, or only be a proxy for, the market or traded price for the shares. The words used could have been *'market or open market value'* or *'traded value'* if that was what had been intended.

60. Indeed where the market is shown to be inefficient, illiquid or badly informed the true or 'fair value' may be something quite different to the traded price. Fair value means something other than market price. It may mean more, the same, or less.

61. However, it does not follow that the market price cannot be a good guide to fair value if there is efficiency, active trading and knowledge. Although as I have indicated the fair value of the shares is not necessarily the same as the merger price or the price at which the shares traded before the market was affected by knowledge of the merger, the value which the shares had just before the merger may be a good cross-check.

Does 'fair' add anything to 'value'?

62. In my view the word 'fair' adds the concepts of just and equitable treatment and flexibility to 'value'. That is reflected in what matters the court will take into account in its assessment of what is 'fair value' in all the circumstances. It enables the court to achieve a just and equitable result on the facts of the case.

63. For example, the character and motivations of the Dissenters are strictly irrelevant[12] as is the timing and amount of their investment. It does not matter that the Dissenters bought after the merger announcement with full knowledge of it and before the EGM, or whether they in fact voted for the Merger or not. That does not affect their entitlement to be paid the fair value of their shares. Even if they can be described as speculative investors engaged in arbitrage, rather than long term shareholders who are being 'taken out' by the majority against their will[13], that is not relevant to the determination of the fair value of their shares. There is a no more or less deserving dissenting shareholder in the assessment of 'fair value'. Fair value needs to be determined in one way for all dissenting shareholders.

64. Neither to my mind are the Company's motivation and conduct in effecting the Merger, absent oppression or unfair treatment of the minority, relevant.

The commercial context

65. The Cayman regime under section 238 creates an opportunity for investors to purchase shares following an announcement of a merger with a court protected compensation mechanism if the dissenters refuse the merger price offered and their shares are cancelled at the behest of the majority.

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[12] See *Integra* at [16(8)] and *Zhaopin* (unreported, 22 June 2018, McMillan J).

[13] With the implication that this type of investor is more deserving.

66. In this case the Dissenters all invested after the Merger was announced on 23 June 2016. There is no evidence before the court as to the price the Dissenters paid for their shares.

67. It can be seen that section 238 creates an opportunity for speculation. By allowing mergers to proceed in a straightforward way at the behest of a majority, it provides for a commercial arrangement with dissenters to be made (who may be, as in this case, sophisticated investors) who demand to be paid the fair value for their shares in exchange for giving up their rights as shareholders. If no commercial arrangement is agreed, there is a court determination in place to ensure their rights are protected.

68. Some of the Dissenters in this case are fairly regular users of the section 238 process, as can be seen by some of the reported and unreported cases in the Grand Court in Cayman. They are protected in every case because the statutory mechanism prevents the shares of minority shareholders from being expropriated at an undervalue by the majority at a time and in circumstances of the majority's choosing. They are entitled to have the fair value of their shares assessed by the court if they are not satisfied by the company's offer however many times they choose to appear as litigants. However, there is no premium to be awarded for dissent in and of itself which puts the Dissenters in a better position than other shareholders who accepted the merger offer price.

Fairness between whom?

69. The CICA in *Shanda* rejected the argument that 'fair value' was a one size fits all concept which was binding on the whole world.[14]The only persons affected by a fair value determination are the Dissenters (whether or not they participated in the litigation) and the Company. The question arises from a dispute between the Dissenters and the Company and it is between those two parties that the issue of fairness needs to be resolved.

By what method are the shares to be valued?

70. Section 238 provides no guidance on how the court should approach its task. Whilst the court is invariably going to be assisted by expert evidence,[15] it is not bound to follow any specific methodology or mathematical calculation,[16] It must use its own judgment to independently reach a conclusion on the right methodology in all the circumstances to produce the fair value outcome.[17] This has caused some commentators to call it '*more of an art than a science*'. It is more than simply the application of mathematical formulae[18] or economic principles.

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[14] See paragraph 21.
[15] See *Shanda* CICA, paragraph 22.
[16] *Integra* at [28].
[17] *Integra* at [28].
[18] *"Indeed, 'fair value' has become a jurisprudential, rather than purely economic, construct."* see *Dell*, p20.

71. Two different approaches are suggested in this case by the Experts: the income approach (discounted cash flow analysis) and the market approach. Ms Glass uses a blend of both affording equal weight to each. Mr Osborne uses the DCF approach only, because he is of the view that the market price for the Company's shares is or may be unreliable.

DCF

72. Fair value estimated using a DCF approach assesses the present value of the future cash flows a business is expected to generate over its remaining life. A discount rate is applied to those cash flows in order to turn them into a present capital value and identify how much it would have cost at the valuation date to buy an investment with a rate of return and risk profile equivalent to the business of the company.

73. The DCF methodology can be an accurate measure of fair value. However, it depends upon the reliability of the models/projections, the various assumptions, and the validity of the inputs. Even a slight difference in these inputs can produce large variances.[19] It also relies on subjective judgments to a large extent and can be easily manipulated by applying certain assumptions in the context of litigation.[20] As it is also something of an abstract concept, a cross-check may also be needed to bring a DCF valuation back to the 'real world' and prevailing commercial context.[21]

Market value

74. Market approaches measure the fair value of a business using data from public markets and from actual transactions. It may involve comparisons to the values of similar businesses or the market price of a company's shares, if listed. However, the market approach may give a market value which is equally not the fair value, depending on the circumstances, and particularly where the market is inconsistent or otherwise unreliable.

75. In this case a particular argument is made by Mr Osborne that companies listed in the US, but whose operations are in China, are consistently undervalued so that a market approach is inappropriate and impossible to apply.

76. In *Integra* Jones J referred to both as being acceptable methodologies to use in section 238 cases and adopted a blend,[22] but since the stock was illiquid, comparison companies were used rather than the company's stock itself. Referring

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[19] See *Dell* per Justice Valihura in the Supreme Court at p67.

[20] See *In re Iridium LLC* 373 B.R 283 (Bankr.SDNY 2007 at 351) for an example of the Bankruptcy Court in New York being wary of use of the DCF method alone (because a skilled practitioner can '*come up with just about any value he wants*', and the necessity for a cross-check using another method) and the approach to an expert discarding management projections (for litigation purposes).

[21] See *Chilukuri* [2013] EWCA Civ 1307.

[22] A 75/25 split of DCF and market based analyses [33,37].

to Delaware and Canada jurisprudence he concluded that fair value could be proven by acceptable techniques and methods in the financial community[23]and indicated that the case law and academic commentary to which he had been referred suggested that a market based approach is the preference where the shares are listed on a major stock exchange and there is a well-informed, liquid market with a large, widely held free float.[24]

77. In *Shanda* it was agreed that only a DCF model should be used.[25]

78. The difference in methodologies have yielded vastly different outcomes in the opinions of the experts in this case. Ms Glass' DCF valuation (which she averages with a trading price analysis) produced a value of **US$28.40** per ADS (before minority discount).

79. Mr Osborne's DCF value is **US$125.96** per ADS. These give equivalent valuations of the Company (prior to minority discount) of approximately **US$4.274 billion** for Ms Glass and **US$18.956 billion** for Mr Osborne.

80. I bear in mind, given this chasm in outcomes, the approach of Briggs J (as he then was) in *Chilukuri v RP* [2013] EWCA Civ 1307:

> *"It is axiomatic that in any complicated process of valuation, the valuer must take the relevant aspects of the world as he finds them (unless constrained by his instructions), and that he must, after looking at each element of the process, stand back and ask himself whether his provisional valuation makes commercial or business sense, viewed in the round."*

Hypothetical sale

81. The hypothetical sale concept was used in *Integra*[26] and has a long history in the English common law tradition. It has been applied in many different contexts when courts have attempted to assess the price of assets from what would be paid in the real world. It seeks to identify a price at which the assets could be sold in the market, assuming hypothetical willing buyers and sellers. In this case the hypothetical sellers are those in the shoes of the Dissenters. The Dissenters on a hypothetical sale basis would be trying to maximise the price they could obtain for their shares in the real world as it existed at the Valuation date. Applying that hypothesis, those in the shoes of the Company are the buyers.

82. Lord Justice Hoffmann (as he then was) observed in *IRC v Gray* [1994] STC 360 at 372:

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[23] See paragraph 28.
[24] See paragraph 38.
[25] See paragraph 83(b).
[26] See paragraph 17 where the experts were agreed in applying the 2013 *International Valuation Standards*.

"The valuation is thus a retrospective exercise in probabilities, wholly derived from the real world but rarely committed to the proposition that a sale to a purchaser would definitely have happened".

83. Another feature of the hypothetical sale concept is that the particular interests of the actual parties are not taken into account.[27] Accordingly it would be impermissible to say that the majority in this case would have been willing to 'take out' the Dissenters in order to effect the Merger by paying more than the market price as a premium.

84. The problem with applying the hypothetical sale analogy is that in this case one can see that the sellers (the Dissenters) might be fairly unwilling and the buyers (the majority) somewhat eager in the context of the Merger. Moreover there is no 'sale', simply an extinguishment of rights and the cancellation of shares in return for the entitlement to the fair value payment.

85. I have reached a decision on what is being valued (the shares themselves) and the information to be taken into account (all relevant information to fair value – see below) without recourse to applying a strict hypothetical sale concept to the transaction and its logical consequences.

86. I have also concluded that the evidence of a market trading analysis should be considered and given equal weight to a DCF analysis to arrive at the fair value in this case, in the way suggested by Ms Glass, for the reasons set out below.

Information and proof

87. In my view in the context of a fair value determination, restricting what information is relevant as a consequence of the hypothetical sale concept is not appropriate. In the real world the parties would not give the discovery that is given in section 238 cases, nor would the company have given the access to management (at the Management Meeting) and related information expected and interrogated by dissenters in these cases. That is because the court is engaged in determining the fair value of the dissenters' shares in a litigation context, with disclosure of relevant material on both sides. To do justice between the parties the court is assisted by experts who require access to all relevant information on which to base their opinions.

88. Whilst discovery is given on both sides, in practice it is the company that is asked to disclose a huge amount of information to the dissenters as there is an inherent informational imbalance in such transactions. The amount of material in this trial to which the experts have referred and the length of their reports themselves demonstrates just how broad and deep an enquiry there has been.

[27] *IRC v Crossman* [1937] AC at pp 43-4 and *ESO Capital v GSA per* Snowden J.

89. I have concluded that the court should look at all information relevant to fair value as at the Valuation Date. This is in order to give it a full picture of the commercial reality in which the Company was operating and would have continued to operate but for the Merger. It is not to be confined to the information available to market participants at the relevant time. The imbalance of control and information between the Company and the Dissenters is thereby corrected to a degree by a full enquiry into the relevant commercial reality from which to assess fair value. In this regard it seems to me that the approach of the Delaware courts is helpful.[28]

90. There are three principle areas of dispute in this case. First the proper methodology to be applied to the determination. Second the area of Management Projections, and third differences relating to the inputs and components of the Weighted Average Cost of Capital (discount rate) calculation. Before dealing with each I set out my views on the witnesses.

The evidence

91. The applicable duties of expert witnesses are set out in Part IV of Order 38 of the Grand Court Rules (**GCR**) and section B5 of the Financial Services Division Guide 2nd edition. In summary, expert witnesses are to assist the court on matters within their expertise. This duty overrides any obligation to the parties instructing them and by whom they are being paid.

92. As such their evidence and opinions are to be uninfluenced by the pressures of litigation or any party. They are to give independent assistance to the court by way of unbiased opinions in relation to matters within their expertise. That necessarily will involve considering all facts material to the questions on which their opinions are provided. They are to make clear those facts which are within their own knowledge and those which are not. They must confirm that those facts within their knowledge are true and that the opinions that they give represent their true and complete opinions on the matters to which they refer.

93. The reports of both experts confirm they have understood and complied with these duties and obligations.

The experts

94. Ms Glass, as the Company's expert and Mr Osborne as the Dissenters' expert, filed six reports and a Joint Memorandum.

95. By any measure the volume of material submitted by the experts in this trial has been enormous. I was informed by Mr Lowe QC that Mr Osborne appended almost 45,000 pages of exhibits to his first two reports and over 2,000 pages to his second

[28] see *Gearreald v Just Care (Del.Ch.April 20 2012)* per Parsons VC at p.8 and *MRI v Kessler (Del.Ch. 26 April 2006) at p 31 and Weinberger 457 A.2d 201(1983).*

supplemental report. There is also a huge amount of additional documentation in the trial materials.[29]

96. The experts met by telephone to discuss their reports and the Company responded to five information requests from Mr Osborne and two from Ms Glass. There was also a day long Management Meeting held in Beijing [30]. There has been a very wide ranging and comprehensive enquiry into financial and corporate information and data relating to the Company and the market. There has been a thorough interrogation of the relevant material before and at the trial.

Ms Glass

97. I was impressed by Ms Glass' breadth of experience and her willingness to assist the court. She is clearly well qualified to give relevant expert evidence on valuation in this case. She is the national leader of KPMG's valuation practice in Canada and the former chair of the board of KPMG. She has specialised in business valuations and financial modelling for 25 years (as can be seen from her extensive CV) and is a member of the global valuation community.

98. She is not an expert in the economics underpinning valuation principles and methods, but has practical experience of valuations of private businesses and public companies, including fairness opinions and valuations of venture capital, private equity, infrastructure and real estate investments. She is a member of the Canadian Institute of Chartered Business Valuators, a Chartered Accountant and has a Master's of Business Administration from McMaster University. She is in my view particularly well qualified to give evidence, especially from a practical point of view, as to the valuation of various aspects of businesses in different sectors.

99. She was subjected to prolonged cross-examination by the Dissenters' three leading counsel for six days. At times she came across to me as a little unwilling to engage in the in-depth probing on certain points, which she may have considered to be of lesser importance. She would often answer those questions with the phrase "*fair enough*" or "*fine*".

100. She was also, as she accepted, not a specialist in economics but did her best to answer questions in those areas from a pragmatic, rather than a theoretical or academic point of view.

101. I found her to be an open and plain speaking witness, who attempted to simplify complex concepts who generally coped well when answering some prolonged, detailed and technical questions. She used every day ordinary language and would fairly agree with appropriate corrections or commentary to her evidence and reports when required.

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[30] On 7 November 2017.

102. She was aware of the 'big picture' and she stood her ground when she was challenged on matters which were to her matters of importance, but also accepted points which were either critical of her approach, or which sometimes were made against her conclusions. Examples of this were lines of questioning suggesting that she had been too high-level, or could have taken more care in her approach at times and should have worded matters more precisely. She readily accepted that there were instances where this was a fair criticism. These matters did not adversely affect her overall credibility in my view. They added to it.

103. She was also in my view fair in the way she dealt with explanations of points on which she disagreed. Importantly she often presented both sides of an argument and gave her preferred view. She also wrote her reports personally, although of course assisted by a small team.

104. Overall I found her evidence to be helpful and her approach reasonable and evenly balanced. On finely balanced points or in areas which require experience and judgment from a valuation perspective, I have by and large accepted her views over those of Mr Osborne.

Mr Osborne

105. Mr Osborne's experience and background is broader than Ms Glass'. He has an MSc in the economics of regulation and competition and a BSC in civil engineering. Until recently he was the Global Head of the Economic and Financial consulting practice at FTI.

106. He is somewhat of a generalist. In contrast to Ms Glass he does not have any practical valuation experience or qualifications. Indeed he may be described, I think fairly, as a professional expert witness of some versatility.

107. This is an important distinction given the issues with which the court needs to deal. The Directions Order in this case made provision for experts in the field of valuations, not economics.[31] Mr Osborne candidly admitted that he did not own and rarely consulted key valuation textbooks and in fact purchased and read two important works[32] over the weekend following his first day of cross examination. Whilst this demonstrates a commendable commitment and the dexterity of his intellect and ability, it does not give me confidence to rely on his opinion and judgment in relation to everyday practical valuation issues in non-contentious situations. A lot of his evidence was based on theory and assumption rather than 'hands on' experience in the real world of valuations. As a result I found his evidence to be less useful and less reliable than Ms Glass'. Also my rejection of the more unconventional theories he espoused naturally affected my overall assessment of his credibility as an expert.

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[31] See paragraph 10.

[32] He purchased works by McKinsey and Damodaran online and accepted he did not have his own copies of 'Cost of Capital' by Pratt and Grabowski, and Duff & Phelps 'Valuation Handbook'.

108. One such theory has a huge impact on the outcome in this case. His theory relating to Chinese companies has been put forward by himself and his former partners at FTI in many section 238 cases in Cayman, whether in the expert evidence they have given in Court, or in reports they have prepared. They consistently argue that the fair value of the company in question is a high multiple of the merger price and typically more than double. Mr Osborne accepted that this was the case and that his valuation was always more than double the merger price in the three Cayman cases in which he had been involved that were put to him.[33] This he candidly put down to the FTI view of the implications of the evidence of companies relisting in China at huge multiples of previous US market prices, which he argued shows that all major US listed Chinese companies are undervalued. This accords with the view of the Dissenters and no doubt explains the amount of times FTI are retained in these cases.

109. Moreover, whilst of course experts rely on a team, but take personal responsibility for the contents of their reports and the evidence they give, it was apparent to me that Mr Osborne had utilised reports filed by former partners from FTI in similar matters before the Cayman courts. Whilst there is much to be said for saving unnecessary costs and not 'reinventing the wheel', it seemed to me that some work was submitted which was not personally carried out by Mr Osborne. He admitted that he had not read large portions of his own exhibits (which is perhaps not altogether surprising given their volume). This necessarily means I do not give his detailed evidence as much weight as if he had personally written reports and reviewed the submitted material from an independent viewpoint in order to assist the court.

110. I found his evidence to be not as balanced as Ms Glass' and he did not consistently put forward views or approaches which differed from his own. Although he was generally straightforward and helpful, he came across at times as partisan, perhaps as a result of an unconscious bias formed from his and his former Firm's involvement in section 238 cases.

111. The main difficulty I had with his evidence, especially when compared with Ms Glass, was that he was not an expert valuer with her depth and breadth of experience.

Mr Zhu

112. Mr Zhu, the Company's former CFO, was responsible for preparing the Management Projections. I found him to be an intelligent and straightforward witness. He had experience in accountancy and banking. I formed the view that he understood the Company's business in depth, from which he was able to prepare the projections and he defended them on a reasonable basis under cross examination.

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[33] *Homeinns, E Commerce and Bona Films.*

113. I have reviewed the transcript of the Management Meeting which took place on 7 November 2017 and I am satisfied that the evidence he gave in court is consistent with the answers he gave to questions[34] put to him at that meeting, as well as the responses to the various information and data requests from the experts. At trial he strongly and credibly refuted any suggestion that the Management Projections were prepared from the point of view of financial self-interest or a desire to assist the majority shareholder to keep the share price low to effect the merger.

Market Trading Approach

114. Ms Glass estimates the Company's value by giving equal weighting to a DCF approach and a market trading approach which was based on the Company's share price immediately prior to the announcement of the Merger on 23 June 2016. She performed a 'liquidity analysis' by comparing the behaviour of the Company's shares with certain metrics including the test set out in Canadian Securities Regulation to protect minority shareholders, as well as the approaches used in *Integra* and *Dell.* She performed a range of calculations concluding that the shares of the Company prior to the take private offer behaved like a liquid stock.

115. Mr Osborne took a different approach and expressed no view on the liquidity of the Company's stock until his first supplemental report of 13 August 2018 and does not say that the shares were illiquid on the NASDAQ, or that the public float was too small.

116. From the first IPO in November 2013 to the date when the Merger was announced the Company's share price fluctuated at around **US$30** (if one removes the period of the Baidu-Ctrip share swap).

117. Prior off market deals such as the Baidu-Ctrip share swap have no bearing on the fair value of the Company as at the valuation date in my view. Although Mr Osborne suggested they should provide a lower limit to the Company's fair value the suggestion was not supported. These transactions were not explored in any detail at trial.

118. By the day before the Merger was announced the price was US$26.42**.** Ms Glass says if you roll that forward by 247 days to the valuation date by reference to a cost of equity of 15.1% p.a the price would be increased by 10% to US$29.06**.** She added a roll forward adjustment of 10% to account for potential changes in the market price between the offer date and the valuation date (even though that did not reflect that the market price had been in some decline prior to the offer date).

119. In evidence she said that liquidity alone was not sufficient to establish the reliability of the Company's stock price. She therefore carried out an 'event study' which looked at trends and events which might have had an effect. She concluded that

[34] Hundreds of questions over a full day.

the Company's share price reacted rapidly to all major news events, for example the announcement by management of an increase in revenue forecast on 26 March 2015.

120. She also carried out a 'portfolio study' which she described as a 'trading multiple analysis' which looked at the trading multiples for a portfolio of comparable public companies as at the valuation date. She concluded that the comparable multiples which she analysed supported her valuation.

121. The Dissenters challenge that these studies were conducted properly or (surprisingly) at all. In any event they argue that the steps required for these studies bear no resemblance to the methodology used by Professor Damodaran, a notable academic in the field of valuations.[35]

122. They also make the point that the movements of the Company's share price do not show that the price reflected fair value in the first place. If the stock is undervalued generally the movements take place within an undervalued range.

123. The question of whether there was a habitual undervaluation of the Company on the NASDAQ is a different point and critical to the outcome in this case, and I will come on to deal with it in some detail.

124. I accept Ms Glass' evidence that she properly conducted a wider market trading analysis in the way she has described and did not rely on liquidity alone. The results can be found in her first report.

125. By contrast Mr Osborne did not carry out any kind of market efficiency test in relation to the Company.

Controlling shareholder

126. Ms Glass explained in evidence that where there is a dominant majority shareholder, that can be a factor in assessing whether the market price is an indicator of fair value. From the point of view of this valuation theory, the presence of a controlling shareholder, assuming a liquid and well informed market, does not in her view affect the view that the market trading price is a good indicator of fair value, *unless* there are serious concerns about the way in which the controlling shareholder conducts itself.

127. She said that it all depends on whether the market is of the view that the controlling shareholder is looking to control the Company in a way that benefits the Company, or if the controlling shareholder is looking to control the Company for its own purpose.

[35] Professor Damodaran is professor of Finance at the Stern School of Business at New York University.

128. Mr Osborne opines that the very fact that Ctrip owned 94% of the Company's shares at the valuation date *in and of itself* undermines the reliability of a market share price as an estimate of the fair market value.

129. There is no evidence before the court as to the motivation or conduct of the majority in this regard, nor evidence of the perception of the market and how it would react. It is not a factor that I consider has been shown to affect Ms Glass' analysis in this case, which I prefer.

130. I accept Ms Glass' evidence that absent unusual market events ,such as the global financial market crash in 2008, or the 'dot com bubble' in 2000–2002, it is generally thought by the valuation community that the share price of a well traded liquid security provides an approximation of the fair value of the security.

131. There is also judicial support for the view that where a security is liquid and well traded the market price provides strong evidence of value. Jones J in *Integra* accepted this proposition.[36]

132. This does not mean that the market price or merger price needs to be followed in every case or that it is a proxy for fair value. It depends on all the circumstances.[37]

EMH

133. The efficient market hypothesis (**EMH**) presumes that the collective judgment of buyers and sellers of a company's shares fairly take into account all favourable and unfavourable aspects of its future prospects and is therefore a good indicator of value.

134. The assumption that the market trading price is reasonably representative of fair value was challenged by the Dissenters in submission and in cross-examination of Ms Glass. Reliance was placed on academic debate between leading economists about the hypothesis and its validity.[38] The legitimacy or otherwise of these arguments and whether the balance of economic opinion has shifted away from the EMH hypothesis was examined in detail at trial. Ms Glass was taken to the various textbooks and academic articles concerning the EMH. She accepted that she had not referred to them nor assessed their validity. She readily accepted that she was not an expert in the EMH field or in behavioural finance. She re-emphasised that she was not an economist.

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[36] Other Judges have also done so – in Delaware, see *Dell, DFC, Verition CA VCL* (Del.Ch. Feb 15,2018) and in England, see *Lynall* [1972] AC 680 and *Short.*

[37] In *Shanda* it was agreed that the DCF method should be used. In *Integra* it is clear that Jones J would have used the market valuation had the share price not been illiquid.

[38] Shiller,Thaler and Shleifer.

135. Mr Osborne, who does have expertise in this area and who is a critic of EMH, accepted that it was Professor Damodaran's view that if markets are in fact efficient, the market price provides the best estimate of value.

136. It was also suggested by the Dissenters that the semi-strong market efficiency of the NASDAQ relates only to public information not private information. Ms Glass agreed that under-priced securities might arise if the market was unaware of private information and that the majority may have certain insights. She also accepted that the experts in this case had access to private information including the Management Projections (which were made public to a limited extent in the company's Proxy Statement), but that did not change her view.

137. Ms Glass tested for efficiency at the Company level by an event and portfolio study to supplement the validity of the liquidity analysis she had carried out. Professor Damodaran states that some of the most powerful tests of market efficiency are event studies.[39] Mr Osborne did not carry out any tests on the Company's market price in the US.

138. The various challenges made to the EMH do not lead me to conclude that the market trading approach is not an appropriate valuation method in this case. I of course take note of the arguments of the eminent economists I was referred to, but that does not lead me to conclude that the NASDAQ was inefficient at the relevant time and that the Company's share price cannot be relied on in any way, as was suggested.

139. All large well regulated markets such as the NASDAQ are necessarily imperfect, but they are, as Ms Glass pointed out, generally regarded as good indicators of share values. The question is whether or not the NASDAQ is an efficient market where the market price is an unbiased estimate of the true value of the investment.

140. I accept Ms Glass' evidence that where market participants respond quickly to news and events and analysts and equity and debt providers expertly digest and analyse information, they can be described as providing 'semi-efficient' markets. This has also been recognised in the Delaware cases.[40]

141. I have concluded that the share price of the Company in the particular circumstances of this case and the NASDAQ market at the time can reasonably be relied upon as good evidence of value. It therefore also provides a good cross check against the DCF outcome of fair value.

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[39] Investment Valuation 2nd edition, Page 30, Chapter 6 Market Efficiency -Definition, Tests and Evidence

[40] See *Dell* and *DFC,* recognised in *Verition.* In *DFC* reliance was placed on market prices being superior to other valuation techniques, because unlike a single person's discounted cash flow model, the collective judgment of equity analysts, equity buyers, debt analysts and debt providers, based on the publicly available information concerning the value of a company's shares, are brought to bear.

Undervaluation of Chinese companies on US exchanges

142. The other significant challenge to a market price analysis came from Mr Osborne's suggestion that there was a systematic undervaluation in US markets of companies with Chinese operations. This was due, in his view, to publicity surrounding SEC investigations and accounting scandals of Chinese companies in 2010 and 2011 which led to an inability on the part of US investors to distinguish between good and bad companies. He accepted in cross-examination that if correct, this theory would have wide-ranging ramifications for the relative valuations of Chinese companies on US exchanges.

143. It was, he accepted, not possible to reach a valuation for the Company at the magnitude that he had put forward (almost US$19 billion) without establishing the view that the market prices of Chinese companies in the US markets were wholly unreliable and in fact way off their true value.

144. It is therefore a central point in this case which needs to be determined for this reason alone. It also needs to be determined because it leads Mr Osborne to his conclusion that the market price at which the Company's shares were traded on the NASDAQ is not a good guide to the fair value of the Company. It leads to his conclusion that a 100% DCF weighting is the *only* appropriate method of valuation.

145. If Mr Osborne is right, the total value of the Company is over *four* times the market cap of US$4.437 billion at the valuation date. The Dissenters argue that the conclusion reached by Mr Osborne is unsurprising if there is the systematic undervaluation he suggests.

146. There are wider ramifications if he is right. A valuation at that level would logically mean that the Company would have the same value as Expedia, a much more mature company that had ten times the revenue of the Company (well over US$8 billion as against US$774 million) and was profitable at the valuation date (not the case for the Company). Mr Osborne agreed with this proposition and accepted that Expedia was not in his view mispriced in the US.

147. As Ms Glass points out, the value of Ctrip as at the valuation date would also be significantly higher (approximately US$61 billion by her calculation) than its market cap and the same would necessarily apply to every other large US listed Chinese company, resulting in huge valuations in excess of US market assessments.

148. The Dissenters rely on research into the share price of US listed Chinese companies to suggest that Chinese companies were stigmatised by the scandals for being Chinese and that the US market for their shares was therefore not efficient. Some of these studies[41] were put to Ms Glass who generally did not dispute the *'spill over effect'* in relation to the fraud allegations against Chinese companies made in

[41]Darrough, Huang and Zhao (2013); Beatty,Lu and Luo (2013); Chen, Huang, Wang and Wu (2014); and Hansen and Oqvist (2015).

2010/11. This has been well documented by these commentators. Ms Glass also accepted that these studies showed that a stigma in US markets had grown up about Chinese companies. She accepted that the commentators had said that investors were unable to infer whether a firm was good or bad using traditional signals of quality and that the dishonesty of the bad firms may well have spread suspicions to all the other good Chinese firms listed in the US.

149. In one study,[42] the authors expressed the view, in 2015, that the decision to 'go private' may be driven by perceived undervaluation. Investors who perceive that the market is undervaluing a firm may take it private possibly with a view to relisting it at a 'fairer' price. Ms Glass accepted that was a reasonable view. However, as Mr Osborne accepted, importantly the data analysed was up to 2012 and not later in time.

150. A study with a similar view[43] suggesting that due to significant share under valuation the controlling insiders are motivated to delist the firm from the US and then relist in a different stock-market, was similarly not disputed by Ms Glass.

151. Ms Glass whilst accepting the phenomenon existed, did however point out that the authors in all of these studies make no claim that the events of 2010-2012 will prevent US investors from being able to reliably value Chinese companies listed on US exchanges *in future years*.

152. In my view she is right. There is no material or research (let alone evidence) with which to suggest that the effect continued into 2017 and more recently to make good the proposition the Dissenters contend for.

153. The Dissenters then point to the Company having made a public statement (with Ctrip) in relation to the market for their own shares in the June 2015 annual return. This was to the effect that the news and perceptions concerning Chinese companies may negatively affect the attitudes of investors towards Chinese companies in general, including themselves, regardless of whether they had conducted any inappropriate activity.

154. The prospectus, dated 12 January 2016 (after Ctrip had consolidated the company's results from 31 December 2015), talked about the issue having negatively affected the attitudes of investors including against themselves in general *in the past* (my emphasis).[44]

155. In my assessment, neither of these statements proves that the Company was undervalued, or Chinese companies were generally undervalued in the US on the valuation date in 2017.

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[42] By Hansen and Oqvist (2015).

[43] By Chen et al (2014): *Going private transactions by US listed Chinese companies :what drives premiums paid?*, 24 January 2014.

[44] This was repeated in the 15 March 2016 prospectus and in Ctrip's 2017 annual returns.

156. Indeed, all four of the papers cited by Mr Osborne consider the effect on US listed Chinese companies of allegations of fraud made in 2011 and consider the impact of the alleged fraud on the reputation of Chinese firms in general over a limited period: the period 2010 to 2012. They do not provide evidence for the proposition that the effects will continue after that period. They do not, in my view, provide any evidence to support the extension of the "*spill over effect*" to valuations of the Company, or to Chinese companies in general, as at the Valuation Date of the company in February 2017.

157. Moreover, the Company undertook its own IPO and listed its shares on the US market in November 2013. There were then two further transactions in 2015.[45] A reasonable inference from those transactions is that even in earlier years neither it nor its advisers considered that the US market would undervalue its securities.[46]

158. It may be that many overseas capital markets operate a registration system that is comparatively easy to navigate and that a more difficult authorisation process exists in China. This may in part explain why Chinese companies have chosen US markets. Be that as it may it does not seem to me to be likely that Chinese companies have been continually listing in the US over the last few years if there is a continuing stigma concerning the fair pricing of their shares.[47]

Chinese and Hong Kong markets

159. The Dissenters go on to argue that many Chinese companies have delisted from US stock markets and have relisted in China or Hong Kong, or been sold to trade buyers, at multiples which are compatible with and in several cases above the multiple implied by Mr Osborne in his calculations in this case. Mr Osborne relies on a sample of Chinese companies which have delisted from US exchanges and relisted on the Chinese A-share market[48] or in Hong Kong.

160. This in my view does not prove the systemic undervaluation contended for because there is very little information about what occurred between the delisting and the restructuring and relisting of these companies. This often took place sometime later, sometimes well over a year later. It is to be inferred from the available information that some went through large changes between delisting and relisting. There is no evidence as to what those changes are or what effect they may have on the theory.

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[45] A follow-on public offering and a share swap with Baidu.

[46] Indeed a paper by McKinsey comments on Qunar being a reputable Company in a well understood industry (discussing the new 2013 IPO listings), McKinsey on Finance, Winter 2014.

[47] See CKGSB Knowledge '*Why Chinese Companies list overseas*', 30 July 2018, Li Wei.

[48] Chinese domestic shares listed on the Shanghai and Shenzhen stock exchanges.

161. Mr Osborne accepted that he had conducted no analysis regarding the selected companies' businesses following the delistings, nor any event driven studies in relation to the circumstances relevant to each company.

162. The relatively small sample size, out of the hundreds of documented 'take private' transactions since 2010, also makes his universal conclusion unreliable in my view. Some of those companies *not* selected may not have been so successful in their relistings. I am not satisfied that the companies underlying the research are good comparators for the Company in any event.

163. It is also argued by the Dissenters that Chinese executives interviewed in a study by McKinsey in 2014 suggest that their companies were undervalued in the US.[49] Ms Glass did not dispute that view.

164. That again does not in my view lead to the conclusion that Chinese markets are efficient and properly value the stocks of Chinese companies. They may of course be so at a certain level of analysis, but that is not proven by the material relied upon.

165. The Company, to put the case against the efficiency of the Chinese markets, argued that they have certain features which would distort efficiency. They substantially reduce short selling which restricts arbitrage and convergence trading. They also have the prospect of intervention by the Chinese government when stocks fall. Investors have traditionally been individuals rather than institutional investors (although that may be changing) and this may also be a factor in relation to behaviour, knowledge and expertise. Shareholders cannot sell their shares for three years after an IPO and there are restrictions on foreign investment.[50]

166. In my assessment it is not proven upon the evidence in this case that the Chinese markets are efficient.[51] Articles can be useful background with which to establish matters through witnesses but they are not evidence themselves. Neither to my mind does the material relied on by Mr Osborne lead to the conclusion that the Chinese market valuations show that the US market is inefficient. There is no sound basis for stating that the US trading prices for the Company are inherently unreliable.

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[49] McKinsey on Finance, Cogman and Orr (2014). This is because Chinese stock markets are better able to understand Chinese companies than US stock markets and US investors were too distant to fully grasp China's risks and opportunities. Those in the US market who performed the analysis were too coloured by their familiarity with mature companies in the same sectors at home where the drivers of growth and profitability were often radically different to China.

[50] There is a premium (AH) where exactly the same stock in China is valued higher than the same stock in Hong Kong.

[51] '*The real value of China's Stock market*', Carpenter and ors. (2018), which states that stock prices are strongly linked to firm fundamentals; and NZ Herald April 2018, '*China's stock market shedding its casino reputation*'.

167. In my assessment the higher valuations on the Chinese stock markets may well be due to unique factors relevant to those markets, and do not lead to either the assumption that the US markets are inefficient, or that Chinese markets are efficient. If anything the material in the trial record points the other way.

168. Mr Osborne has not performed an analysis in relation to the efficiency of the Chinese markets and the theory is simply not proven.

Analysts

169. There was regular and in depth institutional coverage of the Company at the relevant time. It is telling in my view that the analysts[52] following the Company at the time who prepared numerous reports were all based in Asia, not the US, with the largest concentration being in Hong Kong and therefore, it is to be assumed, with the best local knowledge relevant to the Company and the OTA sector. No doubt these analysts were following the relevant markets in the US and China closely and would have been knowledgeable about peer companies and the competitive landscape. They had access to historical performance, and corporate information. They had access to the experience and resources contained within the global financial institutions in which they worked.

170. They participated in quarterly earnings calls with the Company's senior management and followed key events and market trends as they happened. Such financial institutions' access to information and resources is considerable. They also draw on the Company's public information in order to make forecasts and recommend target prices for the Company's stock, based on DCF valuations. Those were all in the region of the valuation assessment made by Ms Glass, not Mr Osborne.[53]

171. None of the valuations published in analysts' reports prior to the merger announcement are reflective of Mr Osborne's valuation of the Company. His valuation, at four times the merger price, assumes that they had all substantially miscalculated the Company's value by a huge margin over many years.

172. If Mr Osborne is right, the company issued its shares with its two IPO's at a huge undervalue and the Baidu-Ctrip share swap was conducted on a materially false basis as to price.

173. I do not accept that Mr Osborne's valuation is sustainable against the market price analysis of Ms Glass which I have accepted was reasonably conducted. Nor is it sustainable against the contemporaneous views of the analysts' community.

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[52] By 2014 , over thirteen from various well respected financial institutions. A good example of the depth of analysis conducted on the company is the Macquarie Research 21 June 2016 (2 days before the announcement date of the Merger): the stock is priced at US$27.37 –'*retain neutral*'.

[53] Mr Osborne accepted that he had read only about 20 of the (over 100) analysts' reports into the company from its 2013 IPO until its delisting.

174. The Dissenters have failed to prove the theory of the inefficiency of the NASDAQ or the efficiency of the Chinese markets on the evidence in this case.

175. Such a theory concerning the Company would, if proven, lead to highly exaggerated valuations of other Chinese companies (to suggest that they were greatly under-priced on US markets at the valuation date) and puts the Company on a par with a company like Expedia, a highly profitable and mature peer company on the NASDAQ, which is clearly not comparable.

176. The logic of this finding is that a 100% DCF valuation is not the *only* appropriate valuation method in this case. I accept the blended approach adopted by Ms Glass as the best way of arriving at the fair value of the Dissenters' shares. The DCF and market trading approach both have advantages and disadvantages. Giving equal weight to both is in my view the most appropriate way to determine fair value in this case.

Management Projections

177. As the basic premise underlying the DCF methodology is that the value of the company is equal to the value of the projected future cash flows (discounted to the present value at the opportunity cost of capital), the first part of the calculation involves estimating the values of future cash flows for a discrete period based on contemporaneous management projections. Both experts agree that the Management Projections are the most useful starting point when determining the value of the Company using the DCF method and so it is necessary to consider the important matters between them on this issue.

178. Since they were produced in August 2016 and the Valuation date is some six months later on 24 February 2017, the experts agree that the Management Projections should be updated to reflect the Company's actual performance. Actual results for 2016 and the 2017 budget had been produced by then and the results for Q1 2017 were beginning to be known. The experts worked from the updated projections.

Approach

179. I accept the Dissenters' argument that the court should not defer to projections of the future performance of the Company simply because they have been made by those within the business at the relevant time. Where there are legitimate concerns that projections are unreliable, the court with the assistance of expert evidence and all relevant information available to it, is able to determine whether those projections are reasonable.

180. However, an important part of the analysis is what view the senior management of the Company came to and on what basis. They will ordinarily be in the best position to make reliable projections because it is they who have experience of

running the actual business. In addition, country, sector and competitor knowledge will also be critical to the assumptions made in the forecasts. Ordinarily, absent a good reason to do so, one would not second guess the Management Projections. They are, after all, subjected to external scrutiny by market analysts on an ongoing basis and one might reasonably expect some contemporaneous challenge or public comment if that had come to light.

181. If nevertheless it can be shown that they are obviously wrong, careless, or tainted by an improper purpose (biased), that is a different matter and the court would revise them.

182. It is important to bear in mind that they are being challenged in litigation, *ex post facto*, through expert evidence. Neither expert is experienced in the OTA market in China, nor the Company's specific business or strategy at the relevant time. An expert coming to a different view in this context is not a sufficient reason to make adjustments to the projections. The Company was making projections from real time information and knowledge. Here the analysis is to a large extent second hand, made some time later and involves second guessing judgments that were made at the time. It seems to me that I would need persuasive evidence to find that the projections made were flawed and to substitute my own opinion (or that of the expert's) for that of the management at the Company and therefore adjust them in the ways Mr Osborne and the Dissenters require.

183. Both experts have referred to the extensive available and relevant corporate and third party information about these matters. As I have said I do not apply the consequences of the hypothetical sale analogy to restrict the information available to the Dissenters and the experts in this case. It is in my view not right to ask whether the Company would have had any reason to make its management available for questioning, or to provide materials backing up its projections in a strict real world situation. There has been, as I have said in this case, a large amount of information in response to requests and discovery given which has allowed the Dissenters to question the various assumptions made in forecasts prepared by management. This in my view is appropriate when the court is asked to assess the fair value of the Dissenters' shares because of the inherent informational and control imbalance between the parties. I therefore have no difficulty with the granularity of approach and critical forensic analysis that Mr Osborne has adopted, which I accept would not have happened in the 'real world'.

184. I also do not think it is appropriate to ask whether a challenge to the forecasts would or would not have had any traction at the Company up to the valuation date. The sale analogy is not on all fours with a section 238 case which has no real world 'sale dynamics'. The Dissenters could well be in the position of less than willing sellers seeking to maximise the value of their shares and so would be seeking to revise the calculation upwards. I therefore do not accept the Company's argument that as a matter of law this is an impermissibly extensive enquiry and that the court should limit itself to what information would be available to a willing buyer of the Company in a hypothetical sale.

Facts

185. The ten year Management Projections were prepared for the D&P 'fairness opinion' which was given on 19 October 2016. That opinion was to the effect that the Merger Consideration (which fell between the range of ADS values produced) was fair.

186. The DCF analysis which D&P carried out resulted in an enterprise value for the company of US$**3.7** billion to US$**4.9** billion and a range of implied values for the company's ADS' of US**$26.59** to US$**34.52**[54].

187. Mr Zhu prepared the projections with the help of his team and provided them to D&P on 24 August 2016.

188. Projections of this length were not prepared as a matter of course by the Company and it needs to be borne in mind that they were prepared in connection with approval sought for a statutory merger with Ctrip, its 94% majority shareholder at the time. D&P relied on Management Projections produced for the purpose and the Proxy Statement.

189. I accept that the reliability of such projections may be affected by the purpose for which they are prepared and are in theory are susceptible to optimistic or more conservative treatment. The question in this case is whether they have in fact been prepared on a basis which means they are not reasonable, because they were prepared in order to fulfil another purpose which sought to reduce the value of the Company (i.e. were biased), or because they have been carelessly prepared, or contain obvious errors and are therefore unreliable or wrong for that reason.

190. Mr Osborne considered that the risk of bias in the circumstances, the production of a more simplified form of projections than previously produced, and the Company's unwillingness to answer reasonable questions, caused him to question them and apply independent scrutiny to them. On the basis that he formed those views, I do not criticise his granular and critical approach.

Lack of assistance from the company

191. It became clear at trial that most of the requests which preceded the Management Meeting contained in FTI's letter of 16 October 2017[55] were covered at the meeting. Ms Glass did not identify any concern about the way in which the meeting was conducted or the assistance given by the Company. Mr Osborne thought that some issues were dealt with more openly and with more candour than others.

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[54] See page 38 of the Proxy Statement.

[55] Which comprised 93 requests for information with a 7 page appendix, with 54 further requests for information and documents.

192. The Company was criticised at trial for being unwilling to give helpful answers to reasonable questions. Mr Zhu was repeatedly asked about Q41 of FTI's second information request which did not receive a proper answer. He refused to accept that the response was unhelpful.[56] The point had been taken up in correspondence by way of letter from Conyers dated 15 February 2018[57] and the Dissenters invite a finding that the Company was unwilling to commit to writing the basis for the assumptions it was making.

193. I do not think it fair to make any such finding in circumstances where the Company has responded to hundreds of questions and requests for enormous amounts of backup material. I accept that Mr Zhu did provide in his answers in cross examination at trial, information underlying the headcount growth assumption concerning transaction volumes and overall margin, which had not been provided in the response to Q41. That explanation could and should have been given earlier, but I do not make any adverse finding against the Company which evidently has provided reasonable cooperation in all the circumstances.

194. Mr Osborne for his part also fairly accepted that some of FTI's request had been a little 'heavy-handed' and that he did not follow-up himself on the basis that he had not received proper answers or was missing critical information.

Mr Zhu

195. Mr Zhu who prepared the projections, gave evidence to the effect that he prepared them carefully and reasonably and not deliberately to lower the Merger price. He considered that nobody was in a better position to forecast the Company's performance than himself as CFO. The projections had been built on assumptions that he had used in previous forecasts. Although neither he nor the Company had prepared such long-term projections before, management had produced five year projections in May 2015 in connection with the follow on IPO (and bond issue) and a three-year projection was produced in December 2015 in connection with the Baidu-Ctrip share swap.

196. Budgets were also regularly produced. He accepted that, save in the early years when the Company was growing very fast, short term budgets were generally proven to be accurate. He also accepted that long term projections were more difficult and had limitations because the market was changing very fast.

197. Ms Glass agreed with that proposition and recognised that the Company's inexperience in producing long term projections was a negative factor which she took into account when determining that the projections should not be adjusted, because it was offset by a number of positive factors.

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[56] Five factors were given as assumptions underlying the headcount growth of 10%: market trends; competitive landscape; supply and demand; development stage of each business segment; and management's judgment.

[57] 18 pages long.

198. Mr Zhu maintained that the August 2016 projections used the same formula, assumptions and format as the previous projections which he had also been responsible for in conjunction with his team. He confirmed that extending a five year projection to a ten year projection was essentially an exercise in adding five years, using the same growth assumptions and then cross checking to make sure that at the end the output is still reasonable. That cross checking included looking at the market and the Company's expected share. He checked whether it was reasonable that a rapid growth rate, which tends to occur in tech companies in early years, would still be sustainable in year ten, or whether the Company may have reached a steady state level of perpetual growth by then. He also checked whether there was a risk that any medium term developments predicted by management to occur in the latter years should require adjustment, for example due to legal developments or the expiry of tax benefits. He concluded that no such adjustment was necessary. In my view these were reasonable cross-checks and I accept his evidence.

Ms Glass

199. Ms Glass also referred to the process and structural model used by the Company in the previous forecasts in May and December 2015 which she reviewed to assess the fact that they had been adopted in 2016. Although she used them as a benchmark, she accepted that she did not do the level of analysis which she performed on the Merger projections themselves. She made an assumption that the previous projections were reasonable. She did not test their validity but took it as a positive that longer term projections had been prepared using the same process and model. In my view that was a reasonable position to take although if the previous projections had been wrong (they were based on the actual figures for 2015) that would have changed her analysis that previous projections having been made were a positive. Although she was cross examined on her failure to test the earlier projections, no evidence has been put forward to show that the previous projections were in fact wrong or were based on different assumptions so that they should be disregarded as a positive.

200. She also found that the Merger projections separately considered each business line and all key revenue/cost drivers, such as volume, market share, market growth, average pricing and 'take rates'. Although she accepted in cross examination that the Proxy Statement had a disclaimer within it and was only a summary which did not set out the details of the forecasts contained in the Management Projections, the fact that the merger forecast was publicly disclosed in formal SEC filings in her view added to its credibility.

201. Ms Glass concluded, after having conducted her own detailed analysis, that the projections were by and large reasonable, save for one adjustment she made relating to income tax as a result of an exchange with Mr Zhu at the Management Meeting.

Mr Osborne

202. Mr Osborne increased forecast hotel revenue and reduced headcount costs. He relied on comparisons with peer companies and the theory of synergy with Ctrip to suggest that Mr Zhu's forecasts were wrong. Mr Osborne suggested that from the first phase of Ctrip's takeover of the Company in October 2015 synergistic benefits were accruing and will have been expected to continue to accrue from the majority shareholder ceasing to be its main competitor and by the creation of collaborative relationships.

203. However, the court cannot simply assume these matters. There needs to be an evidence based analysis. There is no evidence as to actual synergies accruing to the Company in the 2016 year. If one looks at the revenue projections, at the relevant time of the Company's development, it had not yet achieved profitability.

204. It is also to be noted that the analysts who were reviewing the Company's performance from 2013 to 2016 did not revise or challenge the management forecasts in the way suggested ought to have been done by the Dissenters through Mr Osborne's valuation. They would have been well aware of the relationship between Ctrip and the Company. They were seeing synergies with Ctrip on inventory consolidation, marketing efficiency and complementary user base.[58]

205. Ms Glass agrees that the combination of the two businesses (Ctrip and the Company) would have resulted in synergies which she says are reflected, insofar as they would have affected the Company, in her fair value conclusion.

Challenges

206. Ms Glass was cross examined on the basis that Mr Zhu had limited experience as CFO of the Company at the time of preparing the Management Projections as he had only held that position for about eight months and had only been in the OTA industry for just over a year prior to that appointment. She accepted this but thought the process of preparation was robust and supported by a detailed projection model.

207. The process had involved Mr Zhu consulting with the heads of each business line and members of the Company's senior management. She accepted that she had not interrogated which individuals had been consulted or what their relevant industry knowledge and experience was, but had assumed that they were senior personnel with relevant industry knowledge and experience. In my view this was a reasonable assumption to make, absent any indication to the contrary.

[58] See, e.g., Macquarie Research 16 March 2016.

208. Ms Glass identifies six situations in which it is appropriate to adjust management projections, in her experience. These appear to me to be sensible exceptions to the general common sense rule that projections made by management, embedded in the business with knowledge of all relevant circumstances, are in the best position to prepare reliable forecasts. As I have said an *ex post facto* analysis in a litigation context should not displace that rule unless there is a good reason.

209. She was criticised by the Dissenters for deferring too easily and without proper regard to alleged deficiencies in the preparation of the projections and the possibility of bias. She maintained, after extensive cross examination, that she had conducted a thorough analysis before coming to those conclusions.[59] I accept her evidence on this.

210. Her starting point was the management were probably right, but she did perform analyses to check that assumption by looking at the purpose of the projections to see if they might be affected by over optimism or conservatism.

211. She said that she was aware of the possibility of bias in this case and checked the assumptions made to see if too many were low or too many were high. She found no evidence that this was the case and I accept her view. I do not believe that it is reasonable in the light of her view, to go further (as was suggested in cross examination) and to conduct a forensic analysis of the underlying motivations of those preparing the projections.

212. She accepted that an indication of the possibility of 'bias' was one of the circumstances where a more careful review would be necessary. She gave evidence to the effect that she would assess the projections themselves to see whether there was evidence of bias. For example, if she saw matters being overstated relative to things that had occurred in the past, or relative to the market data, or if assumptions were made predominantly on the high or low side, then she would start to be concerned about bias. She had identified and dealt with biased projections in other valuations and where necessary had conducted a more thorough forensic examination.

213. In this case she stressed that she looked at a number of things collectively when considering the forecasts, including what the market and comparative data had shown, and what Mr Zhu had stated. She formed the view during the Management Meeting that Mr Zhu was not trying to develop low projections and that whenever she made comparisons to market data they were in line or higher.

214. She was challenged on the basis that there was an inconsistency between the 2016 projections and the May 2015 projections, where headcount growth was lower but salary was higher. Ms Glass refuted this on the basis that they had to be looked at together and overall headcount cost was consistent with the headcount cost in the May 2015 projections.

[59] See Appendices F and G of her first report.

215. When she made comparisons with prior projections, the Merger projections were at times lower, which made sense in the context of the challenges the business was facing at the relevant time. In cross-examination she maintained that she did not find the projections particularly conservative and gave reasons for this.[60]

Care

216. As to due care, Ms Glass confirmed that she was satisfied that Mr Zhu and his team were careful and competent even though she did not make detailed enquiries as to the specific competency of the individual members of his team or their identities or whether forecasting compared to budgets was accurate. Neither expert did this.

217. In my view there is no reason to doubt Mr Zhu's experience and seniority, having been in senior management at the company since November 2014. I accept his evidence that as CFO he was very familiar with the Company's business, its inner workings and the competencies of his staff, and its business environment and strategy. He was, as I have found, an intelligent person with high-level experience in investment banking with which to approach financial and corporate analysis.

218. Whilst the budget for 2017 did not accord in numerical terms with the projections, Ms Glass pointed out that the forecast had to be looked at in the round and that the bottom line was that there was not much difference between the Merger forecast and the budget. In addition the budget had included outsourcing in headcount whereas the Management Projections had not. According to Mr Zhu the budget was prepared six months after the Merger was announced and by that time some synergies might have been incorporated for the post-merger business and therefore changed the underlying assumptions. I find that the projections were prepared with care for the reasons given by Ms Glass and based on my assessment of Mr Zhu's evidence.

Bias

219. On the question of bias, it was suggested to Mr Zhu in cross examination by Mr Adkin QC that he had a financial interest in the Merger succeeding and in pleasing his bosses, and so in some way 'skewed' the projections. In my assessment he gave a credible response to this. He was already thinking of moving to another Company at the time the projections were prepared and he sold all his Ctrip shares when he left the Company.

220. He said that he (and others in the Company) were angry when the largest shareholder, Baidu, sold their holdings in the Company to Ctrip in October 2015. The Company had rejected an earlier proposal from Ctrip in May 2015 to acquire all of its outstanding shares to take it private as a wholly-owned subsidiary of Ctrip.

[60] Relating to 'take rates' for hotel, train tickets and income tax.

According to Mr Zhu that had been at a very good price. Mr Zhu's evidence was to the effect that he earned everything from being a member of the Company team, *not* from Ctrip.

221. I accept his evidence and do not see any basis for finding actual bias in the preparation of the updated August 2016 projections or in the projections themselves.

222. Mr Osborne criticised the shift away from earlier projections to a less granular headcount projection in 2016 as regards headcount costs. Mr Zhu explained that that had been a deliberate change based on the Company's experience of the 2015 projections.

223. Ms Glass said that Mr Osborne was wrong to focus only on growth in headcount costs rather than productivity and average salaries and that a difference in how the projections addressed the prediction of headcount costs did not discredit the outcomes.

224. Ms Glass was also cross-examined about the fact that the 2016 headcount growth and average cost growth projections were not produced with the same level of granularity or had not been verified with the same level of granularity, as had been used in the May 2015 projections. She accepted that, but from a practical perspective maintained that looking at the overall total operating expenses and the overall EBITDA, she remained satisfied that they had been prepared carefully. It was not something she referred to in any of her reports and if she had picked up the distinction being made she maintained that it would not have altered her view. She also thought that the level of detail in the projection model was sufficient for her to do the analysis which she performed. I accept her evidence on these matters.

225. The Dissenters have not shown that the management projections have contained material errors or were prepared without due care. Mr Osborne achieves different outcomes by demonstrating higher revenues and lower costs from a number of assumptions, which would all, on his analysis, be slanted in the Company's favour. This with respect to Mr Osborne as I have said, is an *ex post facto* analysis to which I give less weight than the evidence of Mr Zhu.

226. Neither Mr Osborne nor Ms Glass is expert in the Company's business, its customer base and operating environment or its competitive environment. I therefore do not give their evidence the same weight as the Company's forecasts from employees from the relevant divisions providing the data and information for Mr Zhu to consider.

227. The Company's forecast in the projections was that it would move from loss-making to break-even in 2017 and then with a margin up to 19% in 2019 and 23% in 2021. Thereafter it would stabilise. Mr Osborne forecast is 25% in 2019 rising to 31% in 2021 and his valuation is based on that assumption. It is achieved by

adjusting assumptions made in the projections including those relating to headcount costs. However, when the Company's EBITDA is compared to other companies in the market, the margin he forecasts for 2019 for the Company is much higher than the historical EBITDA margin of average comparable companies such as Ctrip.

Commercial context at the valuation date

228. This is a further important matter to bear in mind when looking at the Management Projections. The revenue growth projections should be seen against the background that the Company had not yet achieved profitability. Although it had achieved substantial growth between 2013 and 2016 it had continued to make losses. It is also the case that it had only recently changed its entire business model prior to which it had never earned positive EBITDA. The significant change in business model from metasearch (advertising model) where it earned pay per click revenue, to OTA (direct sales of flights and hotels) required the Company to have its own call centres to deal with customers directly at an increased cost. There had been a substantial marketing campaign that had come to an end by 2016. Whereas it had previously purchased airline and hotel vouchers to increase its inventory as a merchant, it had changed direction in 2015 and by 2017 most of its revenue came from direct sales.

229. In addition it was facing some external pressures in relation to important business lines. The business suffered as a result of a change in Chinese government policy and an airline boycott. Several Chinese state-owned airlines, including the four largest Chinese airlines, decided at the end of 2015 to remove their products from the Company's platform, citing customer complaints as the reason. The Company was of the view, according to Mr Zhu, that the real reason for the boycott was a national policy for the state-owned airlines to increase their direct sales and to reduce the proportion of sales which were made through OTAs. As a consequence the Company was effectively unable to directly sell flights for about six months, which was then followed by a state imposed market share 'cap' which limited the total domestic market share for *all* Chinese OTAs to 50%. This had a permanent effect on the Company's ambitions for future growth.

230. Both flight revenue growth and hotel revenue growth were significantly impeded by these events. In addition, a number of the Company's management resigned in early January 2016 and the share price dropped by 17% on one trading day alone when this, together with the airline boycott was announced. By the end of the week it had dropped a further 5%.

231. There was also a regulatory headwind in the sense that regulations (according to Ms Glass in her first report) [61] required it to offer its products on an 'opt-in' rather than 'opt out' basis. These were in force in 2016.

[61] Paragraphs 72-77

232. The analysts who reviewed the Company from 2013 to 2016 were giving their own estimates on revenue and cost based upon their knowledge of the market, interviews with management on earning calls, and reviewing the Company's forecasts. There is no evidence to suggest that the analyst community viewed the Company's projections as unreasonable or in need of revision.

Adjustments proposed by Mr Osborne

Room nights sold

233. Despite this challenging commercial environment, management assumed year-on-year growth in volume of 30%. The adjustment proposed by Mr Osborne is from 30% to 35%. This reflects Mr Osborne's view of the increasing demand for hotel room nights in third and fourth tier cities in China. Increases in revenue from third and fourth tier cities were reported in Ctrip's Q1 2017 earnings call on 11 May 2017 and would have been apparent, according to Mr Osborne, at the valuation date of 28 February 2017.

234. However, the Company had overestimated its growth in hotel revenue for 2016 in its previous forecasts.[62] Moreover the Company's actual hotel revenue for Q1 of 2017 was below the 30% revenue figure and the same is true of Ctrip's revenue.

235. I am not persuaded that I can place any weight on the Ctrip earnings call to change the Company's own projection. It post-dated the valuation date.

236. I accept that some information relating to Q1 2017 would have been available at the valuation date. However there is no analyst's material of a contemporaneous nature which supports the higher hotel revenue growth Mr Osborne applies. I therefore agree with Ms Glass that there is no basis to adjust the hotel growth rate in respect of room nights sold.

*Average daily rate (***ADR***)*

237. The ADR is the average price of a hotel room night sold on the company's platform. The projection over the ten year period to 2025 proceeded on the basis that there would be no net increase from 2017 onwards. Mr Zhu gave evidence that this meant that the management view was that room rates would be flat to declining when adjusted for inflation.

238. Mr Osborne has suggested an adjustment to ADR to allow for growth in line with inflation. Mr Zhu at the Management Meeting said that there was excess capacity in the hotel industry at the time. Mr Osborne is of the view that was temporary and driven by cyclical factors and that a recovery was apparent from early 2016.

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[62] see for example the May 2015 projection which assumed sales of 126m rooms whereas only 85.4m were sold

239. Mr Osborne refers to a company called *China Lodging* by way of comparison. However the material he submits comes from Q4 2017 for a two-year period and therefore is based on hindsight. I also doubt whether the company itself is a good comparator showing as it does RevPar (revenue per available room) numbers which Mr Osborne says are a proxy for ADR without further explanation. Mr Zhu said that he did not agree that the numbers showed an upward trend in ADR's at that end of the market. *China Lodging* is not representative in his view of the market. It is the most successful hotel chain. He preferred the Company's own data.

240. Mr Osborne also refers to a company called *Homeinns* to demonstrate a reversal in any downward trend in ADR. These two companies combined market share is less than 10% of the market, as Ms Glass pointed out in her evidence. She accepted that these two companies were investing in more hotels in the mid-range market and having some success, but that did not speak for the rest of the industry to show that the whole market was picking up. The Company's focus to expand was in third and fourth tier cities (not first tier) and in three star hotels (mid-range) or above. One would have to see the entire picture over a reasonable period of time, not just in relation to two individual companies, to conclude that the projection was wrong.

241. I accept her view and the evidence of Mr Zhu which is supported by some contemporaneous materials[63] and comes from the Company's industry knowledge at the time. Ms Glass accepted management's expectation that ADR would be flattish. Some years might see a small increase, others a small decrease, but over the period average growth would approximate nil. She asked Mr Zhu about this assumption in the Management Meeting where he referred to lots of empty hotel rooms in China resulting in low occupancy levels and noted that price competition amongst hotels was fierce.

242. Mr Osborne is not an expert in the Chinese hotel market and so his inflationary expectations of 2-2.5%, softening price competition and mid-range hotel expansion theories do not in my view carry weight against Mr Zhu's evidence and the limited contemporaneous materials.

243. The actual experience of the Company, according to Ms Glass, was that its ADRs did not exceed inflation in 2016 and there was a decline when compared month by month with ADRs for 2015. The contemporaneous materials from Savills China for what they are worth (and I appreciate they are not scientific), showed an overall decline in all segments in the market.

Merchant model sales

244. Mr Osborne concluded that an adjustment was required concerning the costs treatment of the revenue which was forecast to be earned through the flight and

[63] Savills briefings of November 2016 and February 2017 :these set out 2016 ADR's versus the previous three years average.

vacation package sales under the merchant model which had gross margins of 10%. The merchant model produces costs which are 90% of revenue.

245. A 20% 'cost of goods sold' on the *whole* of the revenue earned through the sales was imposed by the Company rather than on the 10% (the net figure, after the 90% inventory cost had been stripped out). This had been done in the 2015 projections but not the later projections. Ms Glass thought this could have been corrected as an error in the later projections.

246. The consequence of not replicating the treatment in the 2015 projections, according to Mr Osborne, was that the 2016 projection forecast that the merchant model will be loss-making into perpetuity.

247. Ms Glass explained that not replicating it might be because it formed a 'loss leader' and had the benefit of providing customers with access to inventory which might help retention of the customer base. She also said that other charges, such as payment processing, were applied to the gross not the net figure. Mr Zhu was not asked about this issue and might have been able to provide an explanation.

248. Ms Glass accepted that Mr Zhu said at the Management Meeting that the merchant flights sales at least were intended to produce a profit (10%) and that after the merger with Ctrip the Company would have had access to Ctrip's inventory as well, but that did not change her view.

249. I accept that Ms Glass' view was reasonable and it has not been shown that there was a modelling error in the 2016 projections on the evidence available.

Headcount cost

250. This is the largest component of operational expenses and splits into headcount and average salaries. It is therefore an important element in the DCF calculation.

251. The Company projected that headcount costs were expected to increase year-on-year (2017-2025) at a rate of 10% for headcount and 10% for average salaries per annum resulting in an overall forecast growth of 21% per annum in headcount costs. Mr Zhu accepted that it would be very difficult to predict the actual growth rates year on year for each line of business and so they arrived at an average round number of 10%.

252. He gave evidence of the market in terms of attracting and retaining staff and the competitive pressures in the Technology sector, as well as the housing and other living costs in Beijing and other Tier 1 cities. He said that growth in headcount cost is more than matched by the forecast of growth in revenue and for the first six years until 2022 headcount cost does not increase as a percentage of revenue.

253. Mr Osborne proposes an adjustment to arrive at a figure where headcount costs represent 25% of revenue by 2025, against the Company's projection of 37% by

2025. He argues that applying 'economies of scale', automation and synergies mean that 10% growth rate per annum as predicted by the Company is an overstatement and should be adjusted to 8% per annum.

Economies of scale

254. Mr Osborne's analysis shows total costs increasing as a proportion of total revenue. However, service businesses rely primarily on workforce and so any economies of scale should lead to increased productivity (i.e. less cost as a proportion of revenue). Ms Glass' view was that productivity is best measured on a revenue per capita basis, by increasing revenue per employee. Ms Glass thought that Mr Osborne's total headcount costs increasing as a proportion of total revenue mixes economies of scale (i.e. productivity), with differences in pricing and cost bases. Both Mr Zhu and Ms Glass accepted that in the ordinary course headcount costs would not grow over time from when the Company achieves scale.

255. I prefer Ms Glass' view that on a revenue per capita basis the projections result in increases in productivity, i.e. increasing revenue per capita, and those increases in productivity exceed the assumed 10% wage growth until 2022. By her analysis for the first six years until 2022 the increase in headcount costs is in line with the projected growth for hotel revenue and so does not increase as a percentage of revenue and gives a clearer picture of productivity.

256. In none of the comparator companies used by Mr Osborne in his list has this been satisfactorily achieved. This is due, according to Ms Glass, to the scale of outsourcing in each of the companies to which he refers. I note Ms Glass' comparator of Ctrip (one of the four companies originally chosen by Mr Osborne for this purpose) which has a comparable mix of business shows that the Company's projection is reasonable. In 2016 Ctrip's revenue was four times higher than the Company. Yet its revenue per person was lower than that of the Company which was a much smaller enterprise than Ctrip. By 2022 when the Company is forecast to be at the same revenue as Ctrip, the projections assume that its revenue per person will be nearly three times as high as Ctrip. Ctrip's productivity per person is at about one third of that of the Company which shows that the Company's assumption is if anything optimistic compared with Ctrip.

257. Headcount growth was in fact 2.8% lower and salary growth 4.3% lower in the actual results in 2016 as against the projections. This was corrected in the updated projections used by both experts. The reason for the overestimation is difficult to identify. Ms Glass indicated that pure headcount numbers may well have been affected by business issues such as the impact of laying off temporary workers in the off-line marketing program in 2015 and other issues raised in the Management Meeting by Mr Zhu. She maintained that position even when Mr Zhu had accepted in cross examination that he had factored that into his projection when he made it.

Synergies

258. The alternative explanation was that there could have been synergies experienced in 2016 as a result of the combination between Ctrip and the Company. The Dissenters say that any synergies should have been recognised much earlier. However, it was Ctrip which paid a premium for these transactions (the Baidu transaction and the subsequent transactions) to obtain the synergies that could be derived and Ctrip which assumed the risk. The fair value assessment should not reflect post-Merger synergies beyond the actual results in the updated projections,[64] nor should it be assumed that the Company benefited equally with Ctrip pre-Merger from any synergies. There are no automatic synergies which can be said to accrue to the benefit of the Company simply because it was going to be merged into one legal entity. It has to be an evidence based analysis.

259. The Dissenters invite the conclusion that the underestimated decline in both headcount and average salary in 2016 (even though the forecast was made halfway through that year), means that later years may also have suffered from a similar failing. They argue that this is supported by the 2017 budget produced in January 2017, which is more likely to be accurate and that the headcount costs growth should be modified for 2017 at the very least. Mr Zhu accepted that the Company had overestimated headcount growth and average salary growth in the 2016 projections, which could be seen by the Q1 2017 actuals. Ms Glass does not accept that the tendency to overestimate would have continued into later years.

260. In not making the adjustment contended for by the Dissenters, Ms Glass took a more holistic view and pointed to the fact that by January 2017 everybody knew that the Merger was going to go ahead and so the budget would have been prepared on that basis. She also took the view that any errors in the headcount cost growth forecasts would be balanced by countervailing errors in other parts of the operating costs. The Dissenters took issue with that because other costs may have markedly different effects and increase in different ways. They further argued that if there is an error nearer the start of the forecast period in relation to overestimated short-term growth in costs that will have a disproportionately greater effect on the outcome. Ms Glass was unmoved by these arguments and I accept her judgment on this issue.

261. On automation, it may well be the case that the company intended, as it described in earnings calls, to automate its call centre functions. However, as Mr Zhu said at the Management Meeting that would require an increase to call centre staff.

Salary growth

262. Mr Osborne suggested that there would be salary growth also at 8%, not 10% per annum. That was in part due to the forecast GDP growth for China. He again does not look at productivity figures.

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[64] See *Integra*.

263. According to Mr Zhu, Mr Osborne's analysis fails to take into account that it is hard to find young skilled employees in China in an ageing population. Then there is the 'Tech industry effect'. The Technology industry is fiercely competitive for talent in Beijing and Tier 1 cities according to Mr Zhu and he had seen salaries increasing in Beijing over time. He accepted that this was not a scientific assessment, but based on his experience of having lived and worked in Beijing for many years, and in speaking to senior management teams at other internet companies.

264. He was in my view in a good position to make this assessment and there is no reason to believe it was wrong overall, even if some of the Company's workforce worked in different offices across China. The judgments made were not made on hard empirical data but represent subjective estimates based on knowledge, trends and experience. The fact that the salary growth estimate made is ahead of the GDP forecasts for China do not in my view mean that it is to be adjusted for that reason.

265. When the specific discrepancies between the 2016 projections and the 2017 figures, in both the budget and actuals, were put to Mr Zhu he maintained that his forecast was based on his estimate of growth in the transaction volumes of the Company, even though the headcount costs increases were linear at 10% per annum and the transaction volumes increased at different rates every year. He said one had to make a working assumption and look at the overall picture. He added that he was trying to be reasonable and conservative. He also said that in the end what he looked at is whether the profit margin after five, then ten years makes sense, and whether it was in line with industry peers. I accept the evidence of Mr Zhu as to the headcount projections and salary being in line with the expected growth in the business.

266. Ms Glass' evidence was that EBITDA margins were critical to forecasting in the long term and that headcount had to be looked at as a whole and considered in conjunction with revenue.[65] The important questions were what the margin was and what the revenue per capita was. The bottom line revenue projections for 2017 and the 2017 budget was similar and actuals in Q1 of 2017 were lower than forecast in the projections. Adjusting individual items in the Company's profit and loss account in isolation in the way that Mr Osborne had done was not appropriate according to Ms Glass who preferred to look at matters in the round.

267. When it was suggested to her that approach was wrong because some costs grow faster than others she maintained that one should not adjust headcount costs without looking at other matters because headcount, wages and revenue all interrelate. Headcount costs growth was in fact more than matched by the forecast of growth in revenues.

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[65] Ms Glass opined that a valuation is not driven by any one specific cost category. Fair value is derived from free cash flow which encompasses all costs, not just headcount costs. The EBITDA margin captures these costs regardless of whether they are in-house or outsourced and whatever the labour intensity.

268. I accept Ms Glass' views and approach, supported by the factual evidence of Mr Zhu as CFO of the business, for the reasons I have given relating to her experience in valuations. I do not accept the downward adjustments to headcount cost contended for by the Dissenters and supported by Mr Osborne.

269. The second stage in relation to the DCF analysis is the approach to the applicable discount rate.

Issues relating to the components of the discount rate

270. The DCF valuation methodology discounts projected free cash flow over the relevant period by reference to the cost of capital (or equity), also known as the discount rate. The discount rate is the expected rate of return on equivalent investment opportunities in the capital markets.

271. Mr Osborne uses a Weighted Average Cost of Capital (WACC) or discount rate of 10% and Ms Glass uses 14% as a (US$ denominated) discount rate.[66]

272. WACC is the overall rate of return expected for a particular investment and is based on a weighted average of the (after-tax) cost of debt and the cost of equity (CoE). It is calculated by the capital asset pricing model (CAPM) which assumes that the return an investor requires for holding an investment instrument is a function of the risk concerning that instrument. This is calculated by a formula: CoE (cost of equity) =RFR + beta x ERP + CRP, where:

- RFR is the risk free rate;
- ERP is the equity risk premium;
- CRP is the country risk premium; and
- Beta (see below).

273. There is then sometimes added to the CRP a size premium if there is a small stock risk (see below). Foreign exchange can also make an impact.

274. As this is a specialist area, a number of valuation textbooks were referred to at trial.[67] I have already noted that Mr Osborne had apparently not consulted any of these works (except for Brealey and Myers) or referred to them in his reports and did not seem to recognise any of them, other than McKinsey. He acquired Damodaran and McKinsey during the course of his evidence (and reviewed them over the weekend).

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[66] Duff & Phelps used a WACC of 14.3% (15.25% Low and 13.25% High).

[67] Duff & Phelps, *Cost of Capital Handbook 2018* (Duff and Phelps); Pratt and Grabowski, *Cost of Capital*, 5th Edn 2014 (Pratt and Grabowski); McKinsey, *Valuation: Measuring and Managing the Value of Companies* 6th Edn 2015(McKinsey); Brealey and Myers, *Principles of Corporate Finance* (Brealey and Myers) and Professor Aswath Damodaran, *Investment Valuation* (Damodaran).

275. He did however rely on the views of Professor Damodaran (sometimes contained in his blog) on a number of issues relating to WACC. Mr Osborne chose in this area, where he was not a specialist valuer, to select Professor Damodaran's views ahead of the other authors. This I found to be unsatisfactory because it is clear in reading Professor Damodaran's analysis that he does not regard the discount rate as worthy of the attention and time it had received from the corporate and professional community. He suggests that there should be a greater focus on cash flows, not discount rates, when looking at the cost of capital.

Beta

276. This is a measure of the relative riskiness of a specific security which is assessed by considering the relationship between movements in the share price of the company being valued (or its peers), and movements in the price of an index of diversified stocks. A security will have a beta of more than one if it is riskier than a well-diversified portfolio and less than one if it is less risky. A beta of 1.0 indicates that the security has a similar risk to the market.

277. It is commonly estimated by correlating the historical rate of return of a listed share with the historical rate of return on a stock market index and by reference to the estimates of beta for comparable companies. It is a forward-looking concept. However, since one cannot accurately predict what the correlation between a share's future returns and the market's future returns is, it is measured by historical analysis as a guide to the future.

278. Its role in the WACC formula is to show what the investor requires to invest in the company. It is linked to the ERP because part of the calculation is the market return which is then multiplied by the beta risk to produce the investor's required return from a particular stock.

279. If a security has a beta of 1.0 the investor requires a return equal to the market return in order to invest. If the beta risk is 1.25 the investor requires a market return multiplied by 1.25 to compensate for the increased risk.

280. ERP and beta are included in the cost of equity calculation because investors require greater expected returns for taking on greater risk. The ERP can be viewed as the reward for accepting the systematic risk of the market. Beta represents the security's sensitivity to that systematic market risk.

281. As beta refers to the market risk of a security and expresses the correlation with the market, it will show how much a share is expected to rise or fall when the market changes. Ultimately this is an informed judgment based on historic information about the company and/or comparable peer companies. It does not measure company specific risks or diversifiable risks.

The relevant market index

282. Since beta measures the movement of specific securities relative to the overall market it is important to choose a 'yardstick' market which is broadly based across a wide range of industry sectors. The S&P 500 tracks the securities of 500 large US companies and Ms Glass chooses it as her yardstick for this reason. Mr Osborne had used it as a habit before and used it in *Homeinns,* but he chose the NASDAQ in this case.

283. The NASDAQ is a composite index. It only reflects the stocks listed on it which tend to be smaller, high-tech, and more volatile and does not reflect the market in a broad sense. As a consequence it may well consistently understate the risk of any stock. Ms Glass is of the view that since both experts both use the S&P 500 for the ERP calculation it is also inconsistent to use the NASDAQ for the beta calculation.

284. The NASDAQ itself had a beta of 1.16 relative to S&P 500 and so the ERP would also have to be adjusted upwards in her view. I prefer Ms Glass' opinion that the relevant yardstick is S&P 500.

285. Mr Osborne chooses a lower re-levered beta of 1.45 to Ms Glass of 1.69 which suggests that the investor does not require a higher reward for the risk of the investment. Ms Glass uses an 'unlevered' or 'asset beta' of 1.55 and Mr Osborne uses 1.25. There is an important difference underlying the analysis between the experts. Ms Glass concluded that Mr Osborne's beta was too low. It did not reflect the risk of the Company which in her view was higher than that of the industry participants given the Company's earlier stage of maturity, lack of profitability, growth profile, industry focus (airlines) and customer focus (consumer not business).

Peer group

286. Ms Glass was cross examined on the basis that she had made errors in calculation and peer selection which had the effect of increasing her estimates of beta. She accepted that the correct figure in one of her tables should have been 1.54 and not 1.58 (J41) and that in another it should have been 1.45 and not 1.49 (J28). However she said that she believed that the numbers in her report must have been tracked to a different spreadsheet, not the document put to her in cross examination. The errors she made are not in my view material to her overall assessment and calculation. They were corrected when she spotted them and they do not affect her credibility in my estimation.

287. As I have said, I find that Ms Glass was a witness seeking to assist me with a balanced opinion and this is shown by the fact that she accepted these errors.

288. Her straightforward approach can also be seen in the way that she candidly said that she did not 'look at an average to work out an average', but looked at the numbers and came up with a range.

289. She said that she put more weight on the Company's beta for the Company and less weight on the beta for peer companies including *Ctrip*. When asked by Mr Isaacs QC 'using what formula?' she pointed to her head. She did not think of it as a strict mathematical average. It was a question of judgment.

290. I do not find this answer surprising as it is consistent with the nature of her approach. She often proceeded from a pragmatic point of view based on experience and these answers, whilst criticised by the Dissenters, are in keeping with my view of her as open, pragmatic and straightforward.

Selection

291. Mr Osborne relies on only two peer group companies which he describes as broadly comparable: *Ctrip* with a beta of 1.19 and *Shenzhen Tempus* with a beta of 1.23. His own unlevered beta is higher than either of these at 1.25.

292. Ms Glass looked at a number of public companies involved in the OTA market worldwide, which included *Ctrip.* D&P had themselves considered nine of them in their calculations and they were also referred to Mr Zhu in the Management Meeting.

293. In fact Mr Zhu regarded *Ctrip*, *MakeMyTrip* and *Expedia* as the most comparable companies. This is not surprising in terms of their business models. In terms of peer group beta analysis for valuation purposes, I prefer to rely on the evidence of an expert valuer for peer group selection purposes.

294. The Dissenters challenged Ms Glass on her analysis in some detail and at length. I have considered the reasons why Ms Glass excluded some companies from the analysis. She provided reasons relating to: the beta itself being too high; geography; product lines; and poor liquidity. These seem entirely reasonable to me and I trust her judgment on these issues.

295. It was suggested to her that she should have excluded others and she gave reasons as to why they were kept in the analysis. For example, she had a high beta for *Travelzoo* which in her view would have been understated because of *Travelzoo's* illiquidity. In her view liquidity itself did not explain why the beta was high for that particular company. Although Mr Zhu did not describe it as comparable since it was still a meta-search company (whereas the Company had moved on to a different business model) Ms Glass maintained that its beta was still relevant. I accept her judgment on this.

296. It was suggested to her that the averages should have included *MakeMyTrip.* She gave reasons why she did not agree. She maintained that a two year weekly beta was not comparable with its three-year beta and could not be given the same value. The comparison was not meaningful. In her view the 0.67 two year weekly

beta for *MakeMyTrip* was an 'outlier' which is why she did not take it into account. It was the smallest of the 24 betas in the source table for the peer group.

297. Furthermore she did not consider that *Shenzhen Tempus* (which apart from Ctrip was the other company chosen by Mr Osborne) was an appropriate peer company to choose to ascertain the Company's beta because it was not part of the Chinese OTA market and focuses on business to business customers, not consumers. It also had illiquid shares and low betas which meant that its betas were already understated. In addition it had a significant financing business whereas the Company was a technology company which would in her view yield a different beta. *Shenzen Tempus* was also only listed on the Shenzhen Stock Exchange not a US exchange.

298. I accept the reasonableness of Ms Glass' approach and her judgment and explanations as to the peer group she selected and the companies she did not take into account.

The company's historic beta

299. Ms Glass was of the view that the use of the Company's own historical information to make a forward-looking estimate about beta is preferable to the use of comparables, because the Company had an actively traded stock. It was less reliable to try to find an identical competitor or comparable company which was likely to react to the market in a similar way. According to Ms Glass the Company's actual price movement is good evidence of the beta.

300. However she uses both the Company's historic beta and comparables to estimate the beta, whereas Mr Osborne initially only used comparables. It seems to me sensible to adopt Ms Glass' approach which supports her calculation. The Company's beta does not, as he accepted, support Mr Osborne's beta estimate of 1.25.

301. A company which is unstable and leveraged should in theory have a higher beta. Conversely a company that is secure and stable will have a lower beta.

302. An issue raised by the Dissenters and Mr Osborne was that it was expected that the gradual takeover by *Ctrip* should make the Company more secure and its stock less volatile and so reduce the beta.

303. In fact the experience was that the Company lost its management and for a period became more volatile, which was reflected in the market price and analysts' reports. Ms Glass noted that there were pluses and minuses in the analysts' reports leading up to 2016 when they began to show more positives relating to its prospects: cessation of aggressive price competition; a shift from volume growth to long term growth and profitability; access to Ctrip relationships and sharing of inventories; headcount optimisation. The benefits and synergies were referenced in Ctrip's annual returns of 2016 and 2017. Ms Glass accepted that the Company

was also expected to benefit from these synergies with Ctrip. Ms Glass acknowledged that by June 2016 the Company's beta had stabilised.

304. Mr Osborne preferred to concentrate on *Ctrip* and not the Company because the day before the offer 22 June 2016 it held 56% and by the valuation date 94% of the Company. He concludes that the Company's historic betas are not reliable predictions of its future beta. However, the convergence he argued for is not satisfactorily demonstrated in my assessment of the evidence. Mr Osborne does not identify the Company's actual historical performance in his graph which he produced to prove his contention, only *Ctrip's* and that is a material deficiency in the analysis.

305. In addition as Ms Glass pointed out, *Ctrip* had owned a substantial stake in the Company since October 2015 and yet the Company's two weekly two-year beta was much higher than *Ctrip's* before June 2016. There is no reason to conclude that the Company's beta would not have remained higher than *Ctrip's* without the offer.

306. The Company's beta could be expected to react to the market only up to the offer date because once the merger was announced the prices trade on the merger price. In fact Ms Glass looked at the period between the offer date and the valuation date to consider whether there was any change in beta for comparable companies. She concluded that the only reason the Company's beta declined following the offer was because of the offer itself which the market recognised would be likely to be accepted.

307. Moreover *Ctrip* had a different business in a different market segment to the Company and in addition had secured agreements with Baidu and eLong which took it to a different level of operation. Ms Glass was of the view that until the merger had been fully effected the Company and *Ctrip* would not be expected to have the same beta. I accept her view on this.

308. The Dissenters argue that the analysts' reports for the company and *Ctrip* show lower betas, (save for Deutsche Bank).[68] However, the analysts' reports provided by Mr Osborne do not show the valuation exercise as a whole, just the beta calculation, which is only one element of the WACC calculation.

309. I accept Ms Glass' approach to and her calculation of beta.

[68] In fact the analysts reports show that although Ms Glass' discount rate is slightly higher than the average, because her suggested terminal value is higher, her valuation overall is within the average. Her risk free rate is lower than average and her equity risk premium is lower than average. Her WACC is almost the same as the average (less than 4% difference) whereas Mr Osborne is substantially different (more than 25%). This again shows that Mr Osborne's valuation is way beyond the analyst's predictions.

Cash adjustment

310. The unleveraging of beta requires adjustments for the effect of debt, cash and tax. This is because two risk factors that have an effect on systematic risk: business (or operating risk) and financial (or capital structure risk) are incorporated in levered betas. Removing the effect of financial leverage (unlevering the beta) leaves the effect on the business or operating risk only.

311. According to Ms Glass if a company holds cash of any consequence the company's reported beta will be a blend of its operating risk and its cash risk (which is nil). Therefore a cash adjustment is routinely made (to remove excess cash). It enables the betas of peer companies to be more easily compared and the company's own historical beta to be compared with anticipated future beta. Cash will have an effect on the analysis of the historical market movement of a security and is therefore liable to distort the beta by understating the volatility. Cash is theoretically risk-free in relation to the market and the cash flow is to be discounted by the WACC.

312. I accept Ms Glass' evidence that this adjustment is applied in practice in accordance with her experience as part of unleveraging, so that beta can be calculated by reference only to the operating assets of the business. It has practice and academic support.[69] It is also reflected in some (but not all) of the case law in Delaware.[70]

313. Mr Osborne was of the view that a cash adjustment is unlikely to result in a better estimate either on a forward-looking or historical basis and his view accords with the view of another Delaware court.[71]

314. To make a cash adjustment as a 'rule of thumb' as Ms Glass does is to assume that all cash is excess cash. The Dissenters argue that there is no basis for the assumption that all of the Company's cash was excess to its operating needs throughout the relevant period. However, Ms Glass pointed out that if she were to reclassify cash as not excess, it was her view that the value of the Company would go down and not up. Because she treated all cash as excess cash for the unlevering, she would have to add back the cash for the relevering.

315. Nevertheless the Dissenters also argue that the assumption is inconsistent with her own evidence that the Company could not operate with zero cash. Mr Osborne pointed out that the Company was loss making and that he did not agree with Professor Damodaran that cash was 'riskless' in that environment from the perspective of a shareholder. Mr Osborne said that cash in your pocket is riskless but cash in someone else's pocket is not.

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[69] Pratt and Grabowski and by Professor Damodaran.

[70] *Merion Capital CA VCP July 8 2013*.

[71] *Blueblade VCS Del. Ch. 27 July 2018.* (Mr Osborne himself however made a cash adjustment and used net debt in *Homeinns*).

316. I note in this regard that there is no reliable evidence as to whether or not the Company required working capital to be kept in the business in the form of cash. Whether the Company could or could not have obtained short-term debt or otherwise obtained cash from another source on reasonable terms is not clear.

317. Mr Zhu did say that it was difficult for the Company to obtain loans from Chinese banks which were state-owned as their preference would be to loan money to state-owned enterprises in priority. In addition the Company being loss making was unlikely to be able to provide collateral to support third-party debt.

318. In my view the facts of this case do not displace the industry practice assumption Ms Glass makes that the Company's cash is excess cash for the purposes of calculating beta.

319. I accept that public companies do not as a matter of practice calculate excess cash. In practice excess cash at a company is hard to identify and not reported for the intervals over which beta needs to be analysed. It can however be incorporated in the debt component of the adjustment as net debt.

320. The judge in the Delaware case of *Blueblade* refused to do so and used a 'gross debt' adjustment. A cash adjustment in his view would have introduced another imponderable, since excess cash is not reported. He also concluded that whilst net debt may eliminate some of the drawbacks of the unlevering and relevering formulas,[72] it complicated the analysis and added a significant risk of error to an already abstract process. Ms Glass disagreed with this approach and suggested that the facts of *Blueblade* might have revealed a relatively high debt which could justify a gross debt approach.

321. I accept Ms Glass' evidence that as a matter of practice the assumption is used and it is a fair assumption to make in the circumstances that the Company would operate with excess cash. I also accept that it was reasonable for her to look at cash ratios from Capital IQ which were based on a company's total cash during the period of the beta measurement.

322. Mr Osborne refers to analysts' reports of companies listed on the US exchanges none of which refers to an adjustment to beta to reflect cash holdings. Those analysts are performing functions in the market which are very different to a valuer approaching the valuation of a company as a whole and do not in my view assist on this point.

Blume adjustment[73]

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[72] Hamada

[73] From a paper by Marshall Blume entitled '*On the assessment of risk*' (March 1971) with a further paper '*Beta and their regressive tendencies*' (June 1975).

323. This adjustment works from the proposition that the stock will over time become entirely consistent with the market and so revert to a beta of 1.0. It requires a forward-looking beta to be estimated by reference to 2/3 of the historical data and 1/3 of the average beta for all companies, which equals 1.0.

324. Neither expert was a supporter of the adjustment. Mr Osborne did not suggest such an adjustment and indicated that he would only require one if a cash adjustment were made, because that would produce an upward bias in the Company's beta.

325. The *Blume* adjustment postulates that over time *all* companies will have converging beta and have equivalent risk whatever their relevant industry sectors.[74] However it is widely accepted by the major publishers of information[75] and beta smoothing was used by the Delaware court in *DFC* on the basis that betas tend to revert over time to the market mean. Ms Glass agreed that to do that was reasonable if you adjust *all* of the betas in a peer group along the lines suggested by Vasicek.[76] Mr Osborne accepted that Vasicek's technique was more sophisticated than Blume as it pushed betas towards an industry figure which looked more reliable than the individual figure.

326. Ms Glass accepts that a high beta for a risky stock should over time become less risky when compared with its peers and revert to its industry average. It is an assumption she made in her calculation.[77]

327. Unlike Mr Osborne, Ms Glass is of the view that if an adjustment were to be applied, it is inappropriate to apply it so that the Company's stock would revert to an average risk for S&P 500, rather than the Chinese OTA market. The Company was being valued when it had moved into a new business model in a rapidly evolving and competitive market. There were comparables for peer group companies available and there is no reason to equate the Company with an S&P 500 mean.

328. Whilst there is support for the use of a Blume adjustment to correct for historical regressive tendencies, I accept Ms Glass' view on this who maintained that it was not something she would do in practice. The fact that she had made a cash adjustment (the only reason Mr Osborne would apply a Blume adjustment) was not a good reason to do so and I accept her opinion on this issue.

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[74] An alternative theory was put forward by Oldrich Vasicek with the same objective of reducing historical beta on the basis that over time it will match the industry.

[75] Bloomberg, Merrill Lynch, Valueline and Thomson Reuters also provide blume adjusted betas as well as the raw data.

[76](1973) as used in the Ibbotson Beta Book.

[77] It was also an assumption made by the Delaware Court in *Global GT LP(Del. SC Dec.29 2010) "..it makes more sense that companies in emerging markets will become more like their industry peers in more mature markets"*. A Blume adjustment was also used by Duff & Phelps in relation to the Company in their calculations for the merger price.

Size premium

329. Large established firms have certain advantages over smaller firms. They can more easily acquire market share. They can more easily endure changes in business climate and economic downturns. They typically have greater access to capital and have reduced exposure to competition. They have more to spend on research and development, talent and advertising.

330. A size premium reflects the possibility that investors would require a higher expected return to compensate them for greater perceived risk associated with smaller companies. This issue attracted a good deal of attention at trial.

331. Size is viewed as a risk factor by others in the professional community, such as ratings agencies[78] and it is supported by the leading textbooks.[79] Ms Glass' approach was to use the D&P table based on market capitalisation. There is empirical evidence to show that the risk adjusted returns of relatively smaller companies are greater than that of larger companies.[80] I say relatively because the Company even on Ms Glass' valuation is valued at US$4.44 billion.[81]

332. Academic critics have argued that the precise risk associated with smaller companies is unclear[82] so it is not appropriate to apply a premium. Professor Damodaran says that even where he does not add a size premium, he adjusts the DCF estimate to account for additional risks by limiting growth or factoring in the probability of failure elsewhere.

333. It appears from the academic commentaries[83] that size premiums disappeared during the 1980s because returns on small cap companies were smaller than in prior years.

334. Mr Osborne relies on these academic commentaries and the views of Professor Damodaran to argue that it should not be used in this case. However, a number of these somewhat esoteric arguments have been answered subsequently[84] and more recently. It is not necessary to repeat the debate here. Suffice to say there seems to have been a continuing appetite for applying the size premium by at least two of the leading practitioners,[85] notwithstanding the academic commentators. I

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[78] E.g. Moody's.
[79] Pratt and Grabowski, *Cost of Capital*, Ch. 14, and Duff & Phelps, *Cost of Capital*.
[80] 1981 Study by Dr Rolf Banz.
[81] Ms Glass opines that a size premium(in different degrees) is applied to companies with market caps up to US$25 billion with highly liquid shares.
[82] *'The small cap premium: where is the beef'* (2015), *Damodaran.*
[83] Horowitz*: The Disappearing Size Effect* 1998; *The Triumph of the Optimists,* (2002) Dimson, Marsh and Staunton; *Musings on Markets*, Damodaran.
[84] For example: "*The size effect-is it still relevant?*", Grabowski, 2016; and in Duff & Phelps' *Cost of Capital Valuation 2018*.
[85] Duff & Phelps and Grabowski.

accept that the size effect has been questioned by practitioners and academics alike. The question is whether it is appropriate to apply it in this case.

335. There are a number of arguments the Dissenters advance to say it should not apply in this case. They say that the historical data which has been used as the basis of the size premium is yielding more ambiguous results.[86]

336. Professor Damodaran concluded that the premium had been volatile and seems to have dissipated since 1981 because the small cap premium studies drew attention and investor money to small cap stocks which led to a repricing. He also suggested it could be that the small cap premium is a side effect of larger macroeconomic variables such as inflation and real growth, the behaviour of which had changed since 1980. Ms Glass did not disagree with those views.

337. Professor Damodaran also questioned the size premium on the basis that forward-looking risk premiums which look at the market pricing of stocks to measure what investors demand as expected returns do not provide premiums for small cap stocks. His analysis showed that the market attached a smaller expected return for small cap stocks than large ones.

338. When asked about this Ms Glass pointed out (although admittedly speculation on her part), that Professor Damodaran's assumption that the terminal growth rate would equal the risk-free rate was not logical and that if this was changed the results would reverse.

339. The Horowitz study had found that if firms with a market value of less than US$5 million were removed from the sample there was no size effect between 1963 and 1997. Professor Damodaran referred to this as a 'micro cap premium isolated in the smallest of stocks'. The Dissenters argue that the Company is a mid-cap not a micro or low (small) cap company.

340. A further issue with the small cap premium is that it is earned in January and removing the month from the data makes it 'disappear'. A number of commentators argue that the small size effect can be attributed to liquidity and by neutralising that effect would also make it disappear or diminish.

341. Furthermore the Dissenters argue that Ms Glass had not prepared properly on this issue and was not on top of the theory or academic debate and that I should disregard her evidence. I disagree.

342. Notwithstanding these submissions and the debate back and forth on this issue, I have concluded that on balance it is appropriate to factor in a size premium of 1.0%

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[86] The Horowitz paper gave reasons for why the size effect had disappeared. The Dimson report gave an explanation of why the small cap premium became a small discount and how earlier periods of small cap outperformance in the UK and the US coincided with superior real dividend growth from small caps, where the subsequent underperformance coincided with inferior dividend growth.

as suggested by Ms Glass. I have done so primarily because I accept Ms Glass' opinion that it is widespread industry practice and that professional valuations routinely accept the use of size premiums. Her view, based on valuation principles, is that risk adjusted returns for the Company over time would be larger than the CAPM would predict without a size premium and that the size premium recommended by D&P for the Company is reasonable.

343. I also note that a size premium was applied in *Shanda,*[87] in principle, as common ground between the experts.

Weekly end of week or average approach

344. Ms Glass, in accordance with methodology used by Capital IQ, Bloomberg and Thompson Reuters, looked at the Company's beta over two years at weekly intervals, making the calculation on a Friday. Mr Osborne used a five day trailing average which calculates beta every day. Ms Glass has no difficulty with this approach and provided calculations using the trailing average. That resulted in a higher beta of 1.74 than the Friday calculation. She did not suggest that her beta conclusion should increase as a result. I accept Ms Glass' approach on this which accords with the data providers.

ERP

345. The ERP is the additional premium an investor would require over and above the risk-free rate to compensate for the overall market risk of an equity investment. Because we are considering the China equity market, both experts agree that it is best estimated by reference to the US equity market and then by adding a country risk premium, which should be 1.21%.

346. Ms Glass suggests 6% as the ERP for the US market which she said is at the lower end of industry practice. This was the number used in *Shanda*.[88] Mr Osborne suggests 5.3%.

347. Ms Glass relies again on industry practice and her own experience. She was asked to explain the source of the data she used, which apart from industry practice, were figures contained in the D&P Handbook 2017, and an internal memorandum.[89]

[87] Page 167.
[88] CICA decision, page 42.
[89] Which was provided to the Dissenters but which is not in evidence.

Challenges

348. She was challenged on the basis of Dutch and UK KPMG materials which she was taken to in cross examination. She stated that in her view they did not disturb her conclusions.[90]

349. Ms Glass was unaware that Damodaran updated his figures monthly. The Damodaran figure from the report was 5.59% whereas the figure in Ms Glass' table was 5.69% which in cross examination she accepted may be explicable if he changed his figures monthly. She had taken the number from the D&P Handbook which updated their ERP figures more than annually, which she was criticised for not doing.

350. The UK KPMG "house" view may have been 5%, but Ms Glass was clear that it did not apply to the US and as a UK ERP, it also required a normalised risk free rate. According to Ms Glass the UK has its own ERP and would not be calculated by using the US and adding country risk in any event.

351. As to a challenge concerning a lower ERP by reference to UK research for UK-based utility monopolies, Ms Glass made the obvious point that she did not consider the cost of capital for a UK regulator to be relevant to the cost of capital to a Chinese Internet company.

352. The Dissenters also challenge a number of adjustments to the third-party ERP calculations.

353. The first concerns removing a World War II interest rate bias which is discussed by various commentators[91].

354. The US government fixed interest rates at an artificially low level between 1942 and 1951 which meant that investors had to adjust their strategies. However, that did not mean that the equity markets did not also make adjustments. There is no evidence before the court as to whether they did or did not.

355. The position is similar to the recent global financial crash when from 2008 and subsequently there was a period of quantitative easing with zero real interest rates. Again this does not mean the equity markets did not make adjustments. If in fact they did then the ERPs should be taken for what they were at the time.

356. The second challenge concerns the fact that the ERP was expressed by reference to the most successful period of the US equity markets so that historical ERPs were

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[90] ERPs from countries other than the US do not assist. The material referred to in the UK KPMG valuation concerning data from McKinsey,Damodaran and others did not alter her opinion. The McKinsey range of 4.5 % to 5.5% was not clear as to the date (2010 or 2016). She also said that she would need to see the risk-free rate used which if, as she believed, was 4%, would result in a higher cost of equity.

[91] Including Duff & Phelps in their 2017 *Valuation Handbook*. The Duff & Phelps estimate of the realised risk premium for 1926-2016 excluding World War II bias is 5.85% (arithmetic average).

too high compared to actuals. Ms Glass accepted this was the case and that an unadjusted historical ERP would be closer to 7% and be too high, but defended her view that 6% was right in this instance.

357. The third challenge involves consideration of Professor Damodaran's table which was based on historic cash flows and estimates of future projected cash flows from the S&P 500. These forecasts do not provide source material for the future cash flows for each of the relevant companies and so cannot be interrogated or authenticated. There is also a difference between his method and that used by the experts in this case. Whereas he uses end of year discounting, the experts in this case use mid-year discounting, which would bring down the average of Damodaran's ERPs to 6.07%.

358. Ms Glass explained that when applying the Damodaran table Mr Osborne used a geometrical average of the values produced by the different formulae which understated the arithmetical average used by Ms Glass. She did not agree with using a geometrical average for forecasting cash flows. Ms Glass pointed out that the geometric average does not measure volatility, it only captures the beginning and end values which would always understate the arithmetic average. Although she accepted that an arithmetic average for a market or portfolio of companies may provide a result which was too high,[92] she believed that an arithmetic average for a single company produced the right outcome.[93] This is because if annual returns had a number of changes up and down over a particular period of time the compound annual rate of return could be calculated. This was better than simply looking at beginning and end values on a geometrical average basis.

359. Mr Osborne applied two of the ERP calculations used by Professor Damodaran which Miss Glass said were not normally used in practice. She only used the 'trailing 12 month' and 'smoothed values' methods. She asked Professor Damodaran about the other two in an email dated 6 March 2018 and he answered that he followed two key ERP calculations: the trailing 12 month and the smooth ones.[94]

360. From this Ms Glass, by confining the average to these two calculations, produces an average of 5.82%.[95]

361. I accept Ms Glass' evidence and reject the criticism made of her that she had little understanding of this area and that her evidence should be disregarded. Her assessment is based upon her own experience and in discussions with colleagues and the internal material she reviewed. She also stated[96] that to her knowledge

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[92] As stated by McKinsey in Valuation and supported by Damodaran.

[93] And was supported by Duff & Phelps' *Valuation Handbook*.

[94] The others were captured in response to those who had issues with the cash flow which he used.

[95] The two other methods referred to by Professor Damodaran (normalised and net cash yield) were in response to address critics of the cash flow.Ms Glass says that they are non-standard and has never seen them being used. Nor do they appear in the Duff & Phelps Valuation Handbook.

[96] There is no supporting material in evidence to corroborate or otherwise her view

the 'big four' accountancy firms, as well as BDO Dunwoody and Grant Thornton used an ERP of 6% at around the valuation date.

Risk free rate

362. I have accepted the ERP suggested by Ms Glass. The experts agree that the risk-free rate should be consistent with the ERP. The yield from a 20 year US government bond (US Treasury -2.76%) should be used. Mr Osborne had suggested 10 years (-2.31%) to be consistent with his DCF model so a consequential adjustment would have had to be made to the ERP with reference to a 20 year period. A 10 year period is inconsistent with the length of the forecast period, which is greater than 10 years. Ms Glass' ERP, used in her calculations, which I have accepted is consistent with a 20 year risk free rate, also should be used.

Cost of debt

363. The Company was not profitable at any material time. Ms Glass estimates 4.8% and Mr Osborne 4.0% to represent the cost of borrowing on largely unsecured debt.

364. The experts both agree that a reasonable estimate of the cost of debt in the future would be 3.91% based on a US "BBB" rated company which assumes the US risk-free rate and default spreads for US companies. I accept Ms Glass' evidence that since the Company was a Chinese company it would be expected to face higher borrowing costs and to apply a premium to this.

Foreign exchange

365. The experts agree that there must be a consistency between the currency of the discount rate and the currency of the cash flow projections to which the discount as applied. The Company's financial statements and the Management Projections are in Renminbi (RMB). Its financial results are stated both in RMB and US$ in public filings.

366. Since this exercise is to provide a US$ fair value, either: a) free cash flow is projected in RMB and discounted using a Chinese WACC in local rates producing a value in RMB which is then converted into US$ at the *spot rate* prevailing at the valuation date; or b) free cash flow is first converted into US$ using *forward rates* and is discounted using a US WACC resulting in a value stated in US$.

367. The D&P 'fairness opinion' used the latter method.

368. Forward rates are derived from purchasing power parity i.e. the respective purchasing power of the two currencies. Mr Osborne is of the view that forward rates should not be used when a currency is 'managed' like RMB because the expected exchange rates (or spot rates at the time the cash is expected to come in) cannot be estimated by using the relationship between interest rates, exchange

rates and inflation. The Chinese Government is in a position to substantially control the future exchange rate of the RMB.[97]

369. He remained of the view that the RMB cash flow should be projected and discounted. Based on his opinion[98] that RMB is expected to appreciate against the US$, he also concludes that the RMB discount rate should be the same as the US$ discount rate.

370. He was asked about the alternative of using the RMB discount rate which was not pegged to the US$. He agreed that this could be done but said that he would use the RMB risk-free rate and because the rate was already increased because of country risk, he would not have included a country risk premium in any RMB discount rate. The result would be that the RMB discount rate would be the same as the US$ discount rate. Ms Glass points out that this according to Professor Damodaran would be a recipe for overvaluation.[99]

371. Ms Glass used the average of the US$ and RMB positions and converted that value into US$ at the valuation date using spot rates. The Dissenters argue that this causes the valuation to be decreased because they imply a depreciation in RMB to the US$, not an appreciation. They argue that Ms Glass has used forward market rates based upon purchasing power parity, but in the case of a managed currency these are not a good proxy for expected future spot rates. Ms Glass took her forward rates from Bloomberg who state that their forward rates are simply mirrors of the currently prevailing spot rate, allowing for the interest rate differential between the two currencies and relevant time period.

372. In cross-examination Ms Glass maintained that the use of forward foreign currency rates was to remove excess inflation as between China and the US. She said that it made no difference to her calculation that RMB was a managed currency. She was not trying to forecast the future exchange rate but instead was trying to make sure that the inflation differential was accounted for and/or embedded in the risk-free rate and other cost of capital. The intention was that the discount rate and the cash flows are matched.

373. She maintained that Mr Osborne's approach was not followed in the industry or in academic literature and results in a currency mismatch. Mr Osborne has not suggested that his approach is followed by practitioners.

374. I am satisfied that the method used by Ms Glass is in accordance with valuation practice and produces a fair outcome in this case.

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[97] When an article by Professor Damodaran was put to him which seemed to contradict his view he accepted that a number of emerging markets were likely to have managed economies.

[98] Supported by IMF and US Treasury forecasts.

[99] *Volatility Rules - Valuing Emerging Market Companies*, Sept 2009, p 7.

Tax rate

375. The Management Projections use a tax rate of 15%. That was the rate for 'high and new technology enterprises' (HNTE) according to the Company's financial statements which was confirmed by Mr Zhu in evidence. An income tax rate of 25% is otherwise applied to all resident enterprises in the PRC.

376. Mr Meeson QC for the Dissenters argued that Mr Zhu's evidence concedes the point for the Company and that this is the tax rate which should be used. However Mr Zhu qualified his confirmation that the Company would have a forecasted tax rate of 15% on the basis that he could not be sure in a 10 year projection that it would be the same towards the end of the period.

377. The company qualified for HNTE for a period of only three years, at the end of which the Company would need to satisfy the relevant tax authorities in the PRC that it should continue to have that status for certain of its subsidiaries. For the initial years the Company maintains that it will be loss-making and so income taxes will not be relevant. It is not until it attains profitability and has fully utilised available tax losses that some of its entities will be taxed at 15%, while others will be taxed at a higher rate, most likely 25%.

378. In her analysis Ms Glass disagrees with the flat 15% income tax rate assumed in the Management Projections because in her view it understates the likely future tax in light of the fact that not all the Company's entities would qualify for the reduced 15% rate. Several of the Company's subsidiaries have been recognised as HNTE, although some entities have not.

379. In Ms Glass' opinion this issue and 'Share-Based Compensation' can be offset in relation to the income tax assumptions, because one would result in a higher fair value and the other would result in a lower fair value.

380. She estimates annual income taxes based on taxable income, less available tax losses, multiplied by an assumed income tax rate. Ms Glass bases her 17% rate on the answers given by Mr Zhu at the Management Meeting and the public filings of the Company.

381. At the Meeting Mr Zhu said that he was of the view that the Company's effective tax rate, when it is profitable, will be higher than 15% because of the different entities registered in different areas. For regulatory reasons those entities would have different tax rates, so although they could move the majority of the Company's revenue to the 15% entity, there would always be some that would be subject to higher income tax rates.

382. He did not give evidence about those other entities. He explained at the Management Meeting that the reason he used 15% was because he wanted to be conservative and was of the view that it would likely increase 16%, 17% or 18% depending on the years.

383. Ms Glass is of the view, based on her understanding of the Company's tax structure and which entity is taxed at what rate, that she believed the rate in the 2016 Management Projections regarding the future income tax payable should be 17% rather than 15%. Mr Osborne disagrees on the basis that the Company will be profitable and its effective tax rate is rarely higher than its statutory tax rate due to tax efficiencies.

384. I prefer Ms Glass' analysis based on the answers given by Mr Zhu at the Management Meeting relating to the different entities in the Company.

Share based compensation

385. This is a cost to the Company incurred in order to retain or attract staff. Post-merger a new compensation plan had to be devised as the Company no longer had publicly traded shares to offer as share based compensation. Ms Glass considers that the Company's approach to estimates in relation to this cost in the projections was reasonable. It is expected to decline gradually from 10% of revenue in 2017 to 8% in 2019 and 2020 and then be 6% in the following years.

386. In relation to the initial years Mr Osborne says there has been double counting of the dilutive effect of shares and options already granted, but which vest in the early years of the projection.[100]

387. Mr Osborne now argues for 6% for each year rather than the approach used by the Company in their estimates, which is the approach D&P used in the 'fairness opinion'.[101] I agree with this approach and will leave the experts to agree on the effect of this on their calculations.[102]

Terminal growth rate

388. This is the final stage of the DCF calculation, from 2025 onwards. It is most commonly derived using either a perpetuity growth model or a market approach based on peer companies. The theory underlying this is that once a company has reached a steady state it would grow in line with the economy over time into perpetuity. That value then has to be given a net present value.

389. Both experts use a perpetuity growth model which provides for growth in free cash flows at a constant rate into perpetuity. The growth of the Company into perpetuity should not exceed in theory the nominal growth rate of the economy

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[100] If there was such double counting Ms Glass would only reduce the assumption by US$ 200m, not by US$1.2 bn as Mr Osborne has done.

[101] A normalised stock based compensation expense of 6% of net revenue. Duff & Phelps reduced the amounts in the early years.

[102] Mr Osborne in his first report adjusted share based compensation to be fixed at 4% of revenue across the Management Projection period.Noting that this has the effect of reducing his initial valuation by US$10.65 per ADS,he now prefers to revert to 6% for the years 2021 onwards.

as a whole. The Company will have reached a steady state. The GDP of the economy based on the production of goods and services and inflation would be likely to be still be growing.

390. Ms Glass uses 3.4% and Mr Osborne 4.75%.

391. Mr Osborne relies on the analysis of Damodaran[103] for his conclusion that the riskless rate is the floor and the real growth rate of the economy is the ceiling.

392. Ms Glass says that the terminal growth rate typically ranges from inflation[104] (at the low end) to inflation plus a percentage of real growth (at the high end). Her calculation was based on a net present value of the various OECD forecasts for growth over time, whereas Mr Osborne took an average of nominal growth rates for 2025 to 2060. Ms Glass disagrees with this approach as in her view it does not compare like with like for the remainder of his valuation.

393. She was challenged that her estimate was much lower than the growth rate of the economy. Her answer was that she would expect the growth rate to be below the growth in the economy because the growth rate includes fast-growing companies and mature companies with slower growth. The Company itself would be in average of the lower growth rate companies in her view.

394. Ms Glass agreed that Professor Damodaran says that the terminal growth rate should not exceed the risk-free rate[105] and that if Mr Osborne relies on the ERP approach of Damodaran, he must also follow his approach to the terminal growth rate not exceeding the risk free rate.

395. However, in cross examination she accepted that the ERP is based on a future estimate of the growth of a US index, where one would expect the risk-free rate and the growth of the economy to have converged (in the way suggested by Damodaran). However here the terminal growth rate represents the future growth of a mature company operating in the PRC where the growth of the economy cannot be assumed to converge with the risk-free rate at a time in the future that is meaningful for the purposes of the valuation.

396. In my view it makes sense, as Mr Osborne suggests, to set the rate to the long-term growth rate of the PRC economy, albeit arriving at a figure below it. In a fast developing economy like China as opposed to a more mature economy such as the US, the growth rate is forecast by OECD to exceed the risk-free rate until 2060. D&P used a terminal growth rate of 6% from 2025.

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[103] *Investment Valuation*, 2nd Edition Chapter 12.

[104] The experts had different rates for inflation:Ms Glass 2 % and Mr Osborne 2.5%.

[105] Which according to Mr Osborne is 2.31%.

397. I prefer Mr Osborne's view that taking the risk free rate[106] as significantly below the long-term growth rate for the foreseeable period after 2025 is not a sensible assumption in this case.

398. The average Chinese nominal growth rate is approximately 5.2% over the relevant period and the better approach is to take this figure and then select a rate which is below it but within the range of likely evolution for the Company to 2040. Mr Osborne's figure of 4.75% for the terminal growth rate is reasonable, based upon long-term OECD forecasts of the China economy and is less than the D&P rate.

Minority discount

399. I am of course bound by CICA in *Shanda*[107] and so I have considered whether such a discount should apply in this case.

400. The fair value conclusions of both experts do not reflect a minority discount or any similar discount to account for lack of control, lack of marketability or lack of liquidity of the shares.

401. I have decided that the Company's shares were liquid and well traded and that their market trading price was reasonably representative of fair value. On this basis and as a result of the CICA decision in *Shanda,* Ms Glass says an appropriate minority discount would be in the range of 0% to 9.1% and so she takes 4.7% as a mid-point. She justifies this as the appropriate control premium, adjusted to reflect the relationship between a discount and a premium.

402. Mr Osborne places importance on the value of control *per se*, which in his view is the inverse of any discount that might be required to account for the reduced value of the minority shareholding. He accepts that the minority do have less control in some ways. For example, they are unable to set dividends or determine strategy. However in other ways they have more flexibility and control regarding the sale of their shares and reinvestment in other businesses.

403. Ms Glass accepted that assuming a publicly traded liquid security she would not normally apply a minority discount. In her view there is no real discount to be applied based on the fact that there were only a small number of shares under consideration. On the assumption that the Company was well run as at the valuation date there was no basis for applying any minority discount for an inability to change management. Nor is there any evidence to suppose that the majority would oppress the minority in terms of the distribution of dividends or reinvestment in the Company. Ms Glass accepted this.

[106] The interest rate plus inflation which he calculates at 3.8%.

[107] Although a decision is pending in the Judicial Committee of the Privy Council.

404. Yet she maintained her position that a discount should be applied on the basis that the majority retains control over the timing of dividends that are payable.[108]

405. I do not regard that as a meaningful loss of control which should be reflected in a minority discount.

406. I find that the value of any discount to be attributed to the Dissenters being minority shareholders in the present case is nil.

Conclusion

407. I accept the valuation methodology and conclusions adopted by Ms Glass save in respect of the approach to Share Based Compensation, Terminal Growth Rate and Minority Discount. I will be advised by the experts in relation to the fair value determination this produces, together with interest, in due course.

408. The huge difference to the financial outcome of fair value in this case as contended for by the parties, is attributable primarily to the reliance by the Dissenters and Mr Osborne solely on a DCF method of calculation. This method has given rise to a number of issues where, in addition to the arguments concerning the Management Projections, the reliability of models, comparators, assumptions and the validity inputs have been tested. It has also given rise to the consideration of much academic and practitioner literature and financial analysis.

409. It has produced, on the Dissenters' case, a valuation which is way off the market price. It is, as Mr Osborne accepted, not credible once the systemic undervaluation theory of shares in companies with their operations in the PRC, but which are listed on US exchanges, has been rejected. Such a result would mean that investors and others who work in the US markets had significantly underestimated the Company's value prior to the Merger and has wider implications for other businesses with similar operations. I have also rejected the Dissenters' contention that the Company's value on the Chinese exchanges would have been much higher.

410. This result cannot reasonably be said to be objectively unfair to the Dissenters who are entitled to be paid the fair value of their shares under section 238. They would have had no reasonable expectation of buying the shares at the price they did when the Company traded on the NASDAQ after the announcement and then being paid a price for those shares which is over four times the price at which they bought, having dissented from the Merger. Furthermore there is no evidence that the Company intended to relist in China or that such a transaction would be successful.

411. The consequence of a blended approach between a market trading valuation approach of the shares prior to the Merger and the DCF method leads in my view to a just and equitable outcome which will determine fair value for the Dissenters'

[108] If they are paid the minority are subject to withholding tax and the majority are not.

shares. I will determine that value when the experts have assisted me a little further as I have outlined above.

THE HON. Mr. JUSTICE RAJ PARKER
JUDGE OF THE GRAND COURT