Kiri Industries Limited

Future Full of Colours.....

December 21, 2020

To, BSE Limited 1st Floor, Rotunda Building, B.S. Marg, Fort, Mumbai - 400 001 **Scrip Code: 532967**	To, National Stock Exchange of India Limited Exchange Plaza, Bandra Kurla Complex, Bandra (E), Mumbai - 400 051 **Scrip ID – KIRIINDUS**

Dear Sir/Madam,

Sub: Updates on Court case in Singapore in Compliance with Regulation 30 of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015.

We are pleased to inform you that Singapore International Commercial Court ("SICC") has announced its judgement on December 21, 2020.

The copy of SICC Judgement dated December 21, 2020 is enclosed herewith.

We shall provide analysis of judgement in due course after review of the judgement.

You are requested to kindly note the above.

Thanking You,

Yours faithfully,

For Kiri Industries Limited

Suresh Gondalia
Company Secretary

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CIN: L24231GJ1998PLC34094

IN THE SINGAPORE INTERNATIONAL COMMERCIAL COURT OF THE REPUBLIC OF SINGAPORE

[2020] SGHC(I) 27

Suit No 4 of 2017

Between

Kiri Industries Ltd

… *Plaintiff*

And

(1) Senda International Capital Ltd
(2) DyStar Global Holdings (Singapore) Pte Ltd

… *Defendants*

JUDGMENT

[Companies] — [Oppression] — [Minority shareholders] — [Buy-out order]
[Companies] — [Shares] — [Valuation of shares] — [Valuation date]
[Evidence] — [Admissibility of evidence] — [Hearsay] — [General and specific hearsay]
[Evidence] — [Weight of evidence]
[Damages] — [Measure of damages] — [*Wrotham Park* damages]
[Companies] — [Shares] — [Valuation of shares] — [Discount for lack of marketability]

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This judgment is subject to final editorial corrections approved by the court and/or redaction pursuant to the publisher's duty in compliance with the law, for publication in LawNet and/or the Singapore Law Reports.

Kiri Industries Ltd
v
Senda International Capital Ltd and another

[2020] SGHC(I) 27

Singapore International Commercial Court — Suit No 4 of 2017
Kannan Ramesh J, Roger Giles IJ and Anselmo Reyes IJ
26–28 February, 2, 31 March, 1–3, 6 April, 30 June, 1, 3 July 2020

21 December 2020 Judgment reserved.

Kannan Ramesh J (delivering the judgment of the court):

Introduction

1 The facts of the present dispute have been set out in *DyStar Global Holdings (Singapore) Pte Ltd v Kiri Industries and others and another suit* [2018] 5 SLR 1 (the "*Main Judgment*"), and we do not propose to repeat them here. Unless otherwise indicated, we adopt the abbreviations used in the *Main Judgment*. We briefly detail the procedural history of the present suit and the key findings in the various judgments that have been delivered.

2 In the *Main Judgment*, we held that Senda International Capital Ltd ("Senda") had engaged in instances of oppressive conduct against Kiri Industries Ltd ("Kiri"). For the purposes of this Judgment, the relevant oppressive conduct includes the following:

(a) the exploitation by Zhejiang Longsheng Group Co, Ltd ("Longsheng") of the Orange 288 patent (the "Patent"), which was owned by DyStar Global Holdings (Singapore) Pte Ltd ("DyStar");

(b) the fees paid to Longsheng by DyStar for Longsheng's provision of services to DyStar (the "Longsheng Fees");

(c) the payment of remuneration of US$2m to Ruan Weixiang ("Ruan") as a director of DyStar (the "special incentive payment"); and

(d) three financing transactions, which we refer to as the "Financing Transactions", namely:

(i) the granting of loans to Longsheng-related entities (the "Related Party Loans");

(ii) an arrangement made pursuant to an agreement we referred to in the *Main Judgment* as the "Cash-pooling Agreement"; and

(iii) an arrangement that we referred to in the *Main Judgment* as the "Longsheng Financing Concept".

For ease of reference, we refer to these items collectively as the "Oppressive Acts".

3 Senda was ordered to purchase Kiri's shares in DyStar, their joint venture vehicle. Kiri's shares were to be valued as at 3 July 2018 ("the valuation date") (see *Main Judgment* at [281(b)]). The findings in relation to oppression in the *Main Judgment* were upheld on appeal in *Senda International Capital Ltd v Kiri Industries Ltd and others and another appeal* [2019] 2 SLR 1 (the "*CA Main Judgment*"). Notably, our finding on the valuation date was not challenged

on appeal by either party – we elaborate on the significance of this below (see [26] onwards).

4 In *Kiri Industries Ltd v Senda International Capital Ltd and another* [2019] 4 SLR 1 (the "*12 March 2019 Judgment*"), this court held, *inter alia*, that no minority discount for lack of control ("DLOC") should be applied to the valuation of Kiri's shareholding in DyStar. In *Senda International Capital Ltd v Kiri Industries Ltd and others* [2020] 2 SLR 1 (the "*12 February 2020 CA Judgment*"), the Court of Appeal upheld our decision on this issue in the *12 March 2019 Judgment*.

5 The most recent tranche of proceedings ("the valuation proceedings"), which took place between 26 February and 1 July 2020, concerned the valuation issue. The focus of the valuation proceedings was on the valuation of DyStar as a whole and of Kiri's shares in DyStar in particular, in order to arrive at the price at which Senda was obliged to purchase Kiri's shares in DyStar pursuant to the order made in the *Main Judgment* ([1] *supra*). Having considered the evidence and the submissions by the parties, this is our Judgment on those issues.

The evidence in the valuation proceedings

6 Expert evidence formed a central part of the valuation proceedings. The key experts who gave evidence were Ms Roula Harfouche ("Ms Harfouche") for Kiri and Mr Lie Kok Keong ("Mr Lie") for Senda. They expressed opinions on the correct approach to valuing DyStar and Kiri's shares in DyStar as at the valuation date, and the value that ought to be arrived at based on the approaches they advanced. Their written evidence was in the form of several reports of significant length and complexity, which we list below:

(a) Ms Harfouche provided the following four reports:

(i) a report dated 22 August 2019 (“Ms Harfouche’s first report”);

(ii) a report dated 11 October 2019 (“Ms Harfouche’s second report”);

(iii) a report dated 24 March 2020 responding to document 23 of DyStar’s 20th Supplementary List of Documents (“Ms Harfouche’s comments on DyStar’s 20th SLOD”); and

(iv) written updates to her calculations dated 30 March 2020 (“Ms Harfouche’s updated calculations”).

(b) Mr Lie provided the following four reports:

(i) a report dated 23 August 2019 (“Mr Lie’s report”);

(ii) a report dated 15 October 2019 replying to Ms Harfouche’s first report (“Mr Lie’s reply report”);

(iii) a supplementary report dated 24 March 2020 (“Mr Lie’s supplementary report”); and

(iv) written updates to his reply report dated 31 March 2020 (“Mr Lie’s updated reply”).

Both experts also gave oral evidence during the valuation proceedings. Ms Harfouche’s and Mr Lie’s evidence will take centre-stage in this Judgment; their evidence addresses squarely the pivotal question in the valuation proceedings, and that is the valuation approach we should adopt in arriving at the value of Kiri’s shares in DyStar. This Judgment begins with that question.

7 On behalf of Senda, other experts gave evidence on the following issues:

(a) Mr Chan Kheng Tek ("Mr Chan") gave evidence on the impact of the Oppressive Acts. He provided the following reports:

(i) a report dated 23 August 2019 ("Mr Chan's report");

(ii) a report dated 15 October 2019 replying to Ms Harfouche's first report ("Mr Chan's reply report"); and

(iii) written updates to his reply report dated 31 March 2020 ("Mr Chan's updated reply").

(b) Mr Tang EnLiang ("Mr Tang") gave evidence on whether the intra-group charging mechanism between Longsheng and DyStar was reasonable. To this effect, he provided a report dated 19 August 2019 ("Mr Tang's report").

(c) Mr Shi Xianping ("Mr Shi") gave evidence on *inter alia* the state of the global dyestuff industry. He provided the following reports:

(i) a report dated 19 August 2019 ("Mr Shi's report"); and

(ii) a report replying to Ms Harfouche's first report dated 12 October 2019 ("Mr Shi's reply report").

8 Factual witnesses were also called to give evidence. They were mainly the key office holders in Kiri, Senda and DyStar. We will refer to these witnesses as we did in the *Main Judgment*.

Issues

9 Our analysis in this Judgment is divided into two main parts. The first part concerns the issue of which expert's (*ie*, Ms Harfouche's or Mr Lie's) valuation *approach* ought to be adopted (see [36]–[156] below). As noted earlier, this is the pivotal question and forms the starting point for the court's valuation of Kiri's shares in DyStar.

10 The second part concerns the discrete adjustments that have to be made to the preferred valuation approach (see [157] onwards). In their respective valuations, each of the experts, to varying degrees, took into account the impact (or lack thereof) of various risk events and other relevant factors affecting the value of Kiri's shares in DyStar. We have grouped these events and factors into three broad categories:

(a) The first category comprises what the parties have termed the "Five Risk Events". They are:

(i) the closure of DyStar's dye production plant in Nanjing, China (the "Nanjing plant");

(ii) the closure of DyStar's dye finishing plant in Wuxi, China (the "Wuxi plant");

(iii) the closure of DyStar's dye finishing plant in Ankleshwar, India (the "Ankleshwar plant");

(iv) the expiration of the Patent, in conjunction with which we will consider the adjustments which must be made to DyStar's valuation due to our finding in the *Main Judgment* ([1] *supra*) at [281(b)] that the loss from Longsheng's use of the Patent is to be incorporated into DyStar's valuation; and

(v) the expiration of DyStar's patent rights over the Indigo 40% solution in multiple jurisdictions (the "Indigo 40% patents").

(b) The second category comprises specific adjustments that have to be made to the discounted cash-flow ("DCF") approach. The DCF approach, as will be explained (see [37] below), is a method used to value companies, which was relied on by both Ms Harfouche and Mr Lie albeit to varying extents. The adjustments that will be considered in this respect are:

(i) the discount for lack of marketability ("DLOM"), and the extent to which this must be considered in the experts' DCF approaches;

(ii) two factors affecting DyStar's cost of equity, which is a component of DyStar's weighted average cost of capital ("WACC"). The WACC is a component of the DCF approach. These factors are the country risk premium and the size premium; and

(iii) the tax rate to be applied on DyStar's revenue.

(c) The third category comprises the remaining discrete adjustments that must be made to DyStar's valuation due to certain one-off events and transactions, and our finding in the *Main Judgment* that the value of the Oppressive Acts is to be incorporated into DyStar's valuation (at [281(b)]). These are:

(i) DyStar's payment of the Longsheng Fees to Longsheng;

(ii) the special incentive payment;

(iii) the Financing Transactions;

(iv) the US$4m insurance pay-out received by DyStar; and

(v) three post-valuation tax and legal events, which will be elaborated upon in due course.

We will address the parties' factual and legal arguments with respect to each of these events and factors where relevant in the course of our analysis.

11 For reasons that will be made clear in the course of this Judgment, we prefer, generally speaking, Ms Harfouche's approach to the valuation of DyStar and Kiri's shares in DyStar. Her approach is to be used as the *starting point* for the valuation exercise. We will then consider and explain the adjustments that need to be made to Ms Harfouche's approach.

The parties' cases

12 The parties structured their respective cases, by and large, according to the framework of issues set out at [9]–[10] above. They first made arguments on which expert's general valuation approach is to be adopted by the court. They then examined the specifics of each of the relevant events and transactions, and made arguments on whether these should be, and if so to what extent, taken into account in the court's valuation of DyStar and Kiri's shares in DyStar. We briefly set out the parties' general positions and conclusions on each of the issues, and will address the specifics of their arguments at the relevant junctures.

Kiri's case

13 Kiri's case is that Ms Harfouche's valuation approach and conclusions should be accepted.

14 Kiri argues that Ms Harfouche's general approach to valuation represents a correct application of the DCF method and the market approach. Ms Harfouche's reliance on independent market and broker reports in arriving at her valuation is unobjectionable; she had to take this approach because of the inadequacies in the evidence caused by Senda's breaches of its disclosure obligations. Also, Ms Harfouche did not rely on the set of financial forecasts prepared by the DyStar board allegedly in April 2019 ("the April 2019 Forecasts"), which she regards as unreliable and skewed. In addition, Ms Harfouche's amalgamation of both the DCF method and the market approach was principled, and the final figure she obtained reasonable.

15 In contrast, Mr Lie's valuation approach suffers from a dearth of evidential underpinning, principally due to Mr Lie's heavy reliance on the April 2019 Forecasts. The April 2019 Forecasts were prepared by DyStar's management. According to Kiri, they were unsubstantiated, overly pessimistic, and deliberately skewed in favour of Senda with the valuation proceedings in mind. Mr Lie's valuation approach hence ought to be rejected.

16 On the Five Risk Events:

(a) The closure of the Nanjing plant should not be taken into account. There were sufficient short-term and long-term contingency measures in place to ameliorate any potentially deleterious effects that the plant closure would have had on DyStar's revenue.

(b) The closure of the Wuxi plant should not be taken into account. The Wuxi plant was a finishing plant, not a synthesis plant. Its role in DyStar's production chain was therefore less significant. Further, there

were sufficient contingency measures in place to ameliorate any potentially negative effects arising from the plant closure.

(c) The closure of the Ankleshwar plant should not be taken into account as the event occurred after and was not foreseeable at the valuation date. In any event, the correspondence between DyStar and the authorities in Gujarat, India, revealed that DyStar could resume operations at the Ankleshwar plant. There is therefore no basis to regard the plant as closed.

(d) As regards the Patent:

(i) The benefit that Longsheng obtained *via* its exploitation of the Patent should be incorporated into DyStar's valuation. This is to be in the form of an account of the profits that Longsheng obtained from its exploitation of the Patent in manufacturing and selling related products.

(ii) The third-party licence fees obtained by Longsheng should also be incorporated into DyStar's valuation. Senda failed to make complete disclosure of the licence fees obtained by Longsheng. Ms Harfouche's valuation of the licence fees is based on what Longsheng did disclose, and is reasonable.

(iii) The expiration of the Patent would have been known for a while and its impact, if any, should have been included in DyStar board pack forecasts. But the disclosed DyStar board meeting minutes show no discussion of the expiration of the Patent. Eric's evidence on the projected impact of expiration is speculative. Further, given that DyStar does not itself produce Orange 288 products, and instead controls the market using the

Patent, any price decrease in Orange 288 related products will not affect DyStar.

(e) The expiration of the Indigo 40% patents would not affect DyStar's valuation. Eric's evidence on the projected impact of expiration is unsubstantiated. As DyStar has no current competitors in the Indigo 40% market, the expiry of the patents will not affect it. Further, there ought to have been in place contingency measures in light of the impending expiration of the patents. This issue was discussed in DyStar board meetings.

17 On the factors pertaining to the income (DCF) approach:

(a) Senda's oppressive conduct militates against an application of DLOM. Further, based on Ms Harfouche's evidence and valuation, DyStar's shares are unmarketable collectively. Hence, there is no basis to apply a DLOM to Kiri's shares in DyStar.

(b) On the factors affecting DyStar's cost of equity:

(i) A country risk premium is inappropriate. DyStar is globally diversified and operates in numerous jurisdictions. DyStar does not derive a significant part of its revenue from emerging markets. DyStar is also flexible and able to pivot to different jurisdictions quickly to reduce its exposure to any individual country risk.

(ii) A size premium is inappropriate. DyStar earns an annual revenue of over US$1bn. It also stands as a leader amongst its peers in the industry, according to Eric's evidence. Mr Lie has

not been able to identify the specific risks DyStar faces *vis-à-vis* its peers simply by virtue of its size.

(c) Ms Harfouche's proposed applicable tax rate of 23% on DyStar's revenue ought to be preferred over Mr Lie's. Ms Harfouche's tax rate is adjusted by normalising withholding taxes. Mr Lie's tax rate is higher than DyStar's historical effective tax rates.

18 As for the Oppressive Acts and other events and transactions:

(a) Both the Longsheng Fees for 2015/2016 *and* 2017/2018 should be incorporated into DyStar's valuation. The Longsheng Fees for 2017/2018 were procured under circumstances similar to that for the Longsheng Fees for 2015/2016. Ms Harfouche's proposed quantum for the relevant fees should be accepted, as her calculations were correct.

(b) Ms Harfouche correctly calculated the impact on DyStar's valuation caused by the special incentive payment. She took into account the time value of money, namely, the interest that DyStar would have saved had it not paid the special incentive payment to Ruan.

(c) On the Financing Transactions:

(i) Ms Harfouche correctly calculated the impact of the Related Party Loans and the Cash-pooling Agreement on DyStar's valuation. Ms Harfouche correctly offset the Related Party Loans and the value of the Cash-pooling Arrangement against DyStar's external loans with highest interest rates.

(ii) As for the Longsheng Financing Concept, Ms Harfouche selected a loan with a low interest rate to replace the said

transaction. This is correct given that DyStar would have obtained such loans with lower interest but for the Longsheng Financing Concept.

(d) As DyStar had in fact received an insurance pay-out in May and June 2019, this should be added back into DyStar's valuation.

(e) The three other tax and legal events raised by Senda were subsequent to the valuation date and should not be considered.

Senda's case

19 Senda's case is that Mr Lie's valuation approach and conclusions should be preferred over Mr Harfouche's.

20 Senda contends that Mr Lie was correct to rely on the April 2019 Forecasts in arriving at his valuation. These forecasts were accurate and buttressed by a financial report known as the "February 2020 Model". Mr Lie's valuation is accordingly more accurate than Ms Harfouche's, given that he relied on information prepared by DyStar's management instead of relying on selected comparable companies.

21 Ms Harfouche was incorrect not to rely on the April 2019 Forecasts. Her use of independent market and broker reports is objectionable for various reasons. The market and broker reports and forecasts relied on by Ms Harfouche constituted inadmissible hearsay evidence. Her selected comparable companies were inappropriate. Ms Harfouche also did not hold herself to proper valuation standards. Amongst other things, she ought not to have applied the market approach and DCF method in conjunction.

22 On the Five Risk Events:

(a) The closure of the Nanjing plant would negatively affect DyStar's valuation. The alternative toll manufacturing arrangements that were put in place were costly, and did not ameliorate the negative impact of the plant closure.

(b) The closure of the Wuxi plant would negatively affect DyStar's valuation. Despite being a finishing plant, the plant was an indispensable part of DyStar's production chain. Any planned contingency measures were insufficient to adequately replace the closure of the Wuxi plant.

(c) The closure of the Ankleshwar plant would negatively affect DyStar's valuation. It was a plant of strategic importance to DyStar, being the only one in the Indian subcontinent. The plant remains closed as it does not have the requisite authorisation to resume operations. Although the plant closure occurred after the valuation date, this does not mean that it should not be taken into account in DyStar's valuation.

(d) As regards the Patent:

(i) DyStar, at best, would be entitled to a notional licence fee for Longsheng's exploitation of the Patent. DyStar is not entitled to Longsheng's profits because it would not have itself been able to make Orange 288 products given that it lacked the infrastructural capabilities to engage in production using the Patent. In any case, DyStar would not have been in a position to charge Longsheng any licence fee; the Assignment Agreement between DyStar and Longsheng does not stipulate a fee.

(ii) Senda accepts that Longsheng must account to DyStar for the licence fees earned. Mr Chan's valuation should be preferred to Ms Harfouche's given that he correctly took into account refunds that had to be paid out to licensees by Longsheng.

(e) The expiration of the Indigo 40% patents would reduce DyStar's earnings, thereby affecting its valuation. The patents were an important revenue stream for DyStar. Upon expiration, DyStar's competitors will enter the market. This will cause the selling price of Indigo 40% products to fall, affecting DyStar's revenue.

23 On the factors pertaining to the income (DCF) approach:

(a) A DLOM should be applied. This is distinguishable from a DLOC – the considerations undergirding each are distinct. This distinction is borne out in case law. Further, a DLOM should also be applied as a matter of principle where DyStar's valuation is based primarily on information on publicly traded or listed companies.

(b) As for the factors affecting DyStar's cost of equity:

(i) A country risk premium should be applied. Mr Lie has correctly averaged out the risk present in each of the jurisdictions DyStar operates in. This represents the net country risk that DyStar faces. Operating in different jurisdictions averages out, but does not nullify, individual country risk.

(ii) A size premium should be applied. Based on Mr Lie's assessment of DyStar's equity value and independent market studies, a size premium of 2.68% ought to be applied.

Ms Harfouche was incorrect to consider DyStar's revenue instead of its equity value in the size premium inquiry, and her position should therefore be rejected.

(c) Mr Lie's proposed tax rate of 26.7% on DyStar's revenue should be accepted. Ms Harfouche's deductions for withholding tax are incorrect, and her tax rate is hence inaccurate.

24 On the Oppressive Acts and other events and transactions:

(a) The Longsheng Fees for 2015/2016 should be incorporated into DyStar's valuation, but Mr Chan's calculations are more accurate and to be preferred. On the other hand, the Longsheng Fees for 2017/2018 should not be incorporated into DyStar's valuation. The situation in 2017/2018 was different. Kiri's directors in DyStar were informed of the fees, and the fees were properly approved. The issue had been discussed in board meetings. The situation was therefore unlike what had happened in respect of the Longsheng Fees for 2015/2016. Kiri's representatives also could not prove that the pricing mechanism for the Longsheng Fees was unreasonable.

(b) Mr Chan's calculation on the special incentive payment should be preferred. Ms Harfouche's calculation of the interest savings is incorrect. She also applied the wrong tax rate.

(c) On the Financing Transactions:

(i) Mr Chan's calculations on the Related Party Loans and the Cash-pooling Agreement should be preferred. He selected appropriate existing loans taken by DyStar to substitute the value of the oppressive transactions.

(ii) Mr Chan selected an appropriate three-year amortising loan to replace the Longsheng Financing Concept. The offer for this loan was in fact received by DyStar, meaning it is a loan that DyStar in fact could have taken.

(d) The insurance pay-out DyStar received should not be incorporated into DyStar's valuation. DyStar's management should not be faulted for failing to include the value of an event that had yet to occur when the April 2019 Forecasts were prepared.

(e) On the other tax and legal events:

(i) The payment to the Italian tax authorities, while occurring only in 2019, was the product of a matter that had been ongoing since 2010. At the valuation date, there was a foreseeable risk that DyStar would have to make this payment.

(ii) The tax events occurring in Osaka, Japan, would have a long-term impact on DyStar Japan's tax exposure, which should be accounted for in the valuation of DyStar.

(iii) DyStar has been laden with numerous civil suits commenced by Kiri. While these lawsuits were launched only after the valuation date, the court should infer that Kiri had a "cynical objective" to sabotage the valuation of DyStar without affecting Kiri's buyout price. The court cannot allow Kiri to do so, and should deduct from DyStar's valuation any sums that DyStar has to pay pursuant to these civil suits.

25 Before turning to our substantive analysis, we address an important preliminary question on the significance of the valuation date.

The valuation date and its significance

26 The valuation date is crucial. In determining the valuation of DyStar, we accept Kiri's submission that the court must consider (a) pre-valuation date events, and (b) post-valuation date events that were *foreseeable* as at the valuation date. On the other hand, the court should not use the benefit of hindsight to adjust the valuation for post-valuation date events which were *not foreseeable* as at the valuation date.

27 Senda contends otherwise, arguing that (a) the valuation date, as decided in the *Main Judgment* ([1] *supra*), is not "immutable"; and (b) the court ought to consider post-valuation date events even if these events were not foreseeable as at the valuation date.

28 Senda's first contention can be dealt with summarily. As noted (see [3] above), our decision on the valuation date was untouched on appeal in the *CA Main Judgment* ([3] *supra*). Senda submits that the court in *Koh Keng Chew and others v Liew Kit Fah and others* [2018] 3 SLR 312 ("*Koh Keng Chew*") noted that "the court may opt for some other date" than the fixed valuation date if doing so would "achieve a fairer result", and that this suggests that a valuation date, once fixed, may be subsequently varied. Senda's submission mischaracterises what was said in *Koh Keng Chew* and is inaccurate. The court in *Koh Keng Chew* referred (at [10]) to a date other than the "Buyout Order Date", meaning the date the buyout order is made by the court, and its observation provides no support for opting for some other date than the valuation date *once ordered*.

> (a) First, the court referenced *alternatives* to the "Buyout Order Date", such as the date of filing of the claim (see *Koh Keng Chew* at [8]). These are alternatives the court may opt for in *fixing* a valuation date.

(b) Second, the court noted that "[i]f it can be shown that the Buyout Order Date would result in unfairness, the court may opt for some other date which would achieve a fairer result" (see *Koh Keng Chew* at [10]).

It thus becomes clear that Senda cites *Koh Keng Chew* out of context. The court in *Koh Keng Chew* made it clear that considerations of fairness should be taken into account when determining the appropriate valuation date, and the court might decide on a date other than the date of the judgment for the buyout. The court did *not* state that a valuation date, once fixed, may be varied.

29 Accordingly, if there were any issues concerning the fairness of the valuation date, these should have been raised to and ventilated before the Court of Appeal in the appeal against the *Main Judgment*. Senda did not do so, and is now precluded from re-litigating the issue by virtue of the principle of *res judicata*. Even if it could, Senda has not shown in these proceedings or in any of the proceedings prior why the valuation date, as determined in the *Main Judgment*, would lead to an unfair result.

30 It is significant that despite submitting, in reliance on *Koh Keng Chew*, that a new valuation date may be set, Senda offers no submission on *what that date ought to be*. This implicitly is a recognition of the challenge it faces from its failure to contest on appeal the valuation date decided in the *Main Judgment*. It also explains why it resorted to a second argument – that the court may take into account post-valuation date events that were not foreseeable as at the valuation date. We turn to consider Senda's second argument next.

31 Senda's second contention – that unforeseeable post-valuation date events may be taken into account – requires further discussion. Senda relies on observations in *Poh Fu Tek and others v Lee Shung Guan and others* [2018] 4

SLR 425 ("*Poh Fu Tek*"). It submits that the case stands for the proposition that the court can consider post-valuation date events which were not foreseeable as at the valuation date, if such events would allow for a fairer and more accurate estimate of the value of a plaintiff's shares. We reproduce below the relevant excerpt from *Poh Fu Tek*:

> 52 Accordingly, the court ought to take into account evidence of events occurring after the date of valuation if that evidence would help the court remedy oppression suffered by the plaintiffs or achieve a more accurate estimate of the value of the plaintiffs' shares. The basic rule in *In re Holt* does not apply where such purposes, especially that of reversing the effects of oppression, are in play. Where, however, shares are being valued to determine for example the estate duty payable (*In re Holt*) or the damages payable for breach of contract (*Joiner v George* [2002] EWCA Civ 160), the basic rule will apply. That is because in those situations, the market value of the shares is the sole concern of the valuation.
>
> 53 The above analysis explains why there is no immutable rule on the appropriate date of valuation for the purposes of a buy-out order. The latitude in choosing that date can be seen in the authorities. For a summary of examples see *Profinance* at [61] and also *Koh Keng Chew* at [7]–[8] …

32 With respect, the observations in *Poh Fu Tek* conflate two issues: first, ascertaining the proper valuation date; second, the factors/events that may be taken into account in the valuation as at the chosen valuation date. As discussed earlier, the authorities cited, such as *Koh Keng Chew* ([28] *supra*), stand for the proposition that the court can and ought to take into account considerations of fairness when *determining/selecting the appropriate valuation date*. This is the first issue. Where a different valuation date from the date of the judgment in which the court makes a finding of oppression (that is the date that is conventionally used as the valuation date in valuation exercises) is better suited for remedying an instance of oppression, the court has the latitude to select that date in order to serve the ends of justice. The *ratio decidendi* in *Koh Keng Chew* – and the other cases cited in *Poh Fu Tek* – goes no further than that. *Koh Keng*

Chew does *not* stand for the proposition that once a valuation date has been determined, the court may, as a matter of "fairness", have regard to events that were *unforeseeable* as at that valuation date when valuing a company.

33 Once a valuation date has been determined, the court may only take into account events that were foreseeable as at the chosen valuation date. There is no authority (apart from *Poh Fu Tek*) that suggests otherwise. We therefore respectfully depart from *Poh Fu Tek* on this point. The prevailing position is also sound in principle. To take into account events that were unforeseeable as at a given valuation date (but perhaps foreseeable as at a *later* date) would be artificially to shift the proverbial goalposts *despite* the valuation date having already been determined, and considerations of fairness having already been taken into account.

34 Senda has *not* argued that it is, in these proceedings, challenging the valuation date as determined in the *Main Judgment* ([1] *supra*) (and as upheld in the *CA Main Judgment* ([3] *supra*)). But that is exactly what Senda is seeking to do by submitting that unforeseeable events are relevant for the purpose of valuation. Constrained by its inability to re-open the issue of the chosen valuation date, Senda has run the alternative argument that unforeseeable events are relevant for valuation. This is nothing more than a backdoor attempt to move the goalposts in order to make otherwise irrelevant events relevant for the purpose of valuation. As noted earlier, Senda's opportunity to challenge the valuation date has come and gone (see [29] above).

35 With the aforementioned principles in mind, we turn to consider the experts' approaches to valuation.

The experts' approaches to the valuation of DyStar

Overview of the valuation approaches

36 Ms Harfouche and Mr Lie both relied on two main valuation approaches. These were the DCF method (which is a subset of the "income approach") and the market approach. It is agreed that both of these approaches are frequently used in company valuation exercises such as the present. However, despite relying on the same approaches, Ms Harfouche and Mr Lie differed in the manner in which they applied them.

37 The DCF method values a company based on the expected future cash flows of the company discounted to a present value as at the valuation date. The experts agree that a valuation under this method may be conducted using a company's actual historical revenue figures, where available, or the market performance of similar companies in the industry.

38 The market approach values a company with reference to the prices paid for shares in comparable listed companies or the value of transactions involving comparable companies around the valuation date. This valuation approach requires looking at *appropriate* comparable companies in order to discern the relevant company's market value.

39 Ms Harfouche adopted an amalgamation of the DCF method and the market approach. She first obtained separate valuations of DyStar using each approach, before computing a single final valuation by aggregating the results of the DCF method and market approach. Mr Lie instead primarily relied on the DCF method, and merely used the market approach as a cross-check. However, despite Ms Harfouche and Mr Lie embracing the DCF approach (albeit

differently), there was a significant difference between them. That difference lay in the data they used in applying the DCF method.

40 Mr Lie relied heavily, if not entirely, on the April 2019 Forecasts. We will refer to the contents of the April 2019 Forecasts in detail when analysing Mr Lie's approach below. Ms Harfouche disavows the April 2019 Forecasts and criticises these as unduly pessimistic. Indeed, a key facet of Kiri's case is that the April 2019 Forecasts are unreliable. Kiri consequently submits that Mr Lie's valuation approach ought to be rejected due to his reliance on the April 2019 Forecasts. For reasons that will be made clear, we agree with Kiri and Ms Harfouche on the (lack of) integrity of the April 2019 Forecasts. As a consequence, we have reservations about accepting Mr Lie's conclusion on the value to be attributed to Kiri's shares in DyStar.

41 We begin by addressing the merits of Ms Harfouche's approach, before explaining the issues with the April 2019 Forecasts, and why these have led to us rejecting Mr Lie's valuation of DyStar. Before that, however, we highlight the deficiencies in the evidence that arose as a result of Senda's failure to disclose important financial documents.

Senda's failure to disclose key financial documents

42 Kiri has, in various parts of its written closing submissions, highlighted Senda's breaches of its disclosure obligations. These include the following.

> (a) Although Senda disclosed DyStar board packs in April 2017, November 2017 and May 2018, which stated in broad terms DyStar's revenue forecasts, Senda and DyStar did not disclose the "underlying calculations to ascertain the drivers of the [board pack] forecasts". Nor did they disclose other relevant board packs or similar documents

containing DyStar's financial information. This resulted in Ms Harfouche finding these board packs rather unhelpful. Further, no forecasts for DyStar's costs (and therefore profitability) were provided. As will be noted, these shortcomings affected the experts' methodologies in valuing DyStar.

(b) Senda's belated disclosure of the February 2020 Model was also problematic in Kiri's view. As noted (see [20] above), this model is a financial report relied on by Mr Lie and Senda that purportedly improved on the accuracy of the April 2019 Forecasts. Senda only disclosed the February 2020 Model on the eve of trial in DyStar's 20th Supplementary List of Documents ("SLOD") dated 25 February 2020.

(c) Senda failed to disclose the underlying documents substantiating the April 2019 Forecasts and February 2020 Model.

(d) In relation to the alleged closure of the Ankleshwar plant, Senda did not disclose correspondence between the Gujarat Pollution Control Board ("GPCB") and DyStar India Pte Ltd. Such correspondence would have revealed the circumstances of the purported closure of the Ankleshwar plant (which we discuss subsequently; see [170] below onwards).

(e) Senda belatedly disclosed some of the materials supporting Mr Lie's various reports in DyStar's 18th SLOD dated 24 October 2019, when these documents were available to Mr Lie and Senda much earlier. These include DyStar's written answers to queries from PricewaterhouseCoopers Advisory Services Pte Ltd, some of which were dated even earlier than Mr Lie's first report.

(f) Senda under-disclosed and belatedly disclosed the quantities of related products produced and sold by Longsheng using the Patent, the prices of the related products and Longsheng's gross profit margins from the sale of these products.

43 Senda's breaches of its disclosure obligations – particularly as regards DyStar's financial information that undergirded the board packs, the April 2019 Forecasts and February 2020 Model – significantly influenced the approach that Ms Harfouche took. She felt compelled as a result to turn to *independent market research and broker forecasts*, as opposed to *DyStar's actual historical performance*. In fact, and as will be highlighted at the relevant junctures, other parts of our analysis (*eg*, on the Five Risk Events and other relevant factors affecting DyStar's valuation) were likewise impeded by the gaps in the evidence highlighted above.

44 Kiri submits that the court ought to draw adverse inferences against Senda for these non-disclosures. While we accept that there were shortcomings on Senda's and DyStar's part in meeting their discovery obligations, we are of the view that drawing adverse inferences is unnecessary. As will be made clear, the consequence of these shortcomings is that Senda's case on valuation is undermined. To the extent that Senda's conclusions and positions are not supported by primary evidence, they are of questionable evidential value. We will explain why later in this Judgment (see [139], [151] and [152] below).

The soundness of Ms Harfouche's approach

45 We begin by explaining how each of Ms Harfouche's two valuation approaches made sense *individually*, before addressing how her *amalgamation* of the two approaches was also reasonable.

Ms Harfouche's application of the DCF method and the market approach

46 We note at the outset that both of Ms Harfouche's approaches rely on market comparables and independent reports. Her approaches are comprehensive, and indeed warranted bearing in mind our observation above on the shortcomings in the information that Senda placed before the court.

47 We also observe that both the DCF method and the market approach involve multiple discrete and highly technical calculations. There are several individual aspects of each of these methods and the underlying basis of the experts' respective views where the parties disagree. In this Judgment, we focus on the *areas of contention* between the parties and will examine the technical aspects of the experts' calculations only when necessary.

(1) DCF method

48 As mentioned, the basis of the DCF method is the company's projected future earnings, discounted to present value by applying a relevant discount factor incorporating WACC. Ms Harfouche projected DyStar's revenue until 2027 by using average revenue growth forecasts of comparable companies and the compound annual growth rate ("CAGR") published by MarketsandMarkets in various reports ("the MMR reports"), before decreasing the growth rate in a linear fashion to reach a long-term growth rate of 2.1%. She also projected DyStar's earnings before interest, taxes, depreciation and amortisation ("EBITDA") using the performance of comparable companies and thereafter maintained a flat EBITDA margin of 14.8% from 2020 onwards. Using the projected revenue and EBITDA figures, Ms Harfouche arrived at a valuation of DyStar based on the DCF method. We address DyStar's future *revenue* (based on the CAGR in the MMR reports) first before turning to the issue of DyStar's EBITDA.

49 As a starting point, the CAGR in the MMR reports was a figure that Ms Harfouche adopted *after* taking into account Eric's and Yao's affidavits of evidence-in-chief ("AEICs") dated 9 October 2019 and 15 January 2020 respectively. In so proceeding, Ms Harfouche recognised that there were several issues with the initial projections in her first report. This suggests that she had taken a balanced approach.

50 Senda attempts to undermine the MMR reports and another set of reports – reports by Research Reports Insights ("the RRI reports") – that Ms Harfouche relied on in her valuation. Ms Harfouche relied on these reports for the CAGR mentioned above. In turn, the CAGR was used by her to draw up a pool of companies which she used to arrive at her projections for DyStar's cash flow (see [60] below), and the projected growth trends for the dyestuff industry. By challenging Ms Harfouche's use of these reports, Senda seeks to undermine her approach and conclusions.

51 We do not accept Senda's submission that Ms Harfouche was incorrect in referring to these reports. Senda principally takes objection to the reliability of the growth rate figures in these reports on the basis that they are inconsistent with the IHS Markit report relied on by Mr Shi. However, Kiri correctly points out that whereas the IHS Markit report considered *volume* growth rates in the textile/dyestuff industry, the MMR and RRI reports considered *revenue* growth rates. The basis of comparison is thus incorrect. It seems to us that revenue growth rates are more relevant given that the DCF approach is based on revenue projections. Volume projections, while still relevant, do not readily translate into usable data (*ie*, *revenue* figures) for the purpose of a DCF calculation.

52 In fact, the MMR and RRI reports are corroborated by *other* reports cited by Eric and Manish. Mr Lie and Mr Shi failed to recognise this when they

criticised Ms Harfouche's reliance on the MMR and RRI reports. These corroborative reports were comprehensively tabulated by Ms Harfouche in her second report, and include reports from reputable sources such as Reuters. Notably, Mr Lie did not consider these reports and has been unable to adequately explain his failure to do so.

53 Mr Shi's other criticisms of the MMR and other reports relied on by Ms Harfouche are equally wanting. Kiri has thoroughly canvassed these contentions, as well as their flaws, at paragraphs 357 to 360 of its written closing submissions, which we will reproduce briefly here.

(a) Mr Shi asserted that the authors of the MMR reports do not appear to be experts on dyestuff, whereas the authors of the IHS Markit report were. However, the online profiles of the authors of the IHS Markit report do not indicate that they are experienced in the dyestuff industry. When re-examined on this point, Mr Shi claimed that it is not easy to find an expert "in the world" for this industry, and insisted that the IHS Markit report authors were experts based on his earlier exchanges with them – Mr Shi, however, produced no concrete evidence to this effect.

(b) Mr Shi alleged that the MMR reports presented an inaccurate projection, specifically that the slope of the projections was steeper than the actuals. However, Kiri has explained that the graphs were accurate with reference to the variables tied to the X and Y axes of the relevant graphs.

(c) Mr Shi also took issue with certain sections of the 2019 MMR report, namely that there is an inconsistency in the figures provided for the projected global revenue of the dyestuff industry and the projected

CAGR. Kiri, however, explained that Ms Harfouche did not rely on the erroneous portions of the 2019 MMR report (which was a typographical error in the report), and that the other discrepancies pointed out by Mr Shi were explicable on the basis of the different variables used in the CAGR graphs.

(d) Mr Shi claimed that he was unable to verify some of the sources of data used in a report from Morgan Stanley, which Ms Harfouche relied on. He similarly criticised the MMR reports as being plagued by issues of "research thoroughness and methodology". However, Mr Shi never offered much elaboration on his criticism of the MMR reports. Nor did he substantiate his criticisms. Further, Kiri highlights that Mr Shi conceded, in cross-examination, that he also did not have knowledge of the underlying assumptions of the data used in certain aspects of the IHS Markit report. In this sense, Mr Shi's criticism of the Morgan Stanley report would equally apply to the IHS Markit report which he relied upon.

It suffices to note that each of Mr Shi's criticisms was either unsupported by evidence, shown to be factually incorrect during Kiri's cross-examination of Mr Shi, or otherwise unpersuasive.

54 We accordingly are of the view that Ms Harfouche's reliance on the relevant reports, and in particular the CAGR in the MMR reports, was well-placed.

55 Ms Harfouche undertook a rigorous selection process in determining the comparable companies which were used to arrive at her projected EBITDA for DyStar:

(a) She began with 811 companies, selected on the basis of their enterprise value ("EV") and their involvement in the specialty, diversified or commodity chemicals industries.

(b) This was refined down to 38 companies in the dye industry (i) with annual revenues that were comparable to DyStar (a minimum annual revenue of US$300m was used); and (ii) that had available EBITDA forecasts until financial year ("FY") 2020.

(c) This was further whittled down to 16 companies in light of the similarity between the specific dye-related services and dyes (based on the chemicals used in production) offered and produced by these companies and DyStar.

56 The 16 companies selected by Ms Harfouche were then divided into three buckets:

(a) Bucket 1 comprised companies with diverse product offerings, a global presence, and a segment that manufactured or sold textile dyes/pigments. Bucket 1 included: Clariant AG ("Clariant"), Huntsman Corp ("Huntsman") and LANXESS AG ("Lanxess").

(b) Bucket 2 comprised chemical companies that manufactured or sold textile dyes/pigments, but with a presence primarily in Asia. Bucket 2 included: Nippon Kayaku Co Ltd, Pidilite Industries Ltd, Longsheng and Zhejiang Runtu Co, Ltd ("Runtu").

(c) Bucket 3 comprised chemical companies that manufactured or sold non-textile dyes/pigments or colourants. Bucket 3 included: BASF SE (moved from Bucket 1 in Ms Harfouche's second report), DIC Corp,

D&L Industries, Elementis plc, Ferro Corp, ONMOVA Solutions Inc, PPG Industries, Inc, RPM International Inc and Solvay SA.

Depending on the bucket in which a particular company was placed, Ms Harfouche attributed the relevant weight to that company's revenue/EBITDA figures. It is not necessary to reproduce Ms Harfouche's detailed calculations in this regard – what is critical is that from the classification criteria among the three buckets, Ms Harfouche (a) scrutinised the similarities between the comparable companies and DyStar; and (b) took them into account in her final calculations.

57 From the three buckets, Ms Harfouche excluded three outlier companies with anomalous trading multiples, leaving 13 companies. These were the companies Ms Harfouche used in her valuation.

58 Based on the above, we are of the view that Ms Harfouche's selection criteria were sound. She identified and selected companies that were similar to DyStar not only in terms of the industry in which they operated, but also with reference to the relevant financial data such as revenue figures. This comports with the standards for a valuation exercise stipulated in the International Valuation Standards ("IVS"), a set of guidelines issued by the IVS Council. The IVS states at paragraph 50.3 that the test for comparability is whether the relevant companies are "in the same industry as the subject business or in an industry that responds to the same economic variables". The IVS elaborates at paragraph 30.13(b) that:

> … [evidence from comparables with] similar market segment, geographic area, size in revenue and/or assets, growth rates, profit margins, leverage, liquidity and diversification) provides a better indication of value than comparables that require significant adjustments. … [emphasis in original omitted]

It is apparent from the discussion in the preceding paragraphs that Ms Harfouche's selection criteria took into account these factors.

59 Senda's characterises Ms Harfouche's selection criteria as "arbitrary". It is not fair criticism. Ms Harfouche paid significant attention to detail. This is evident from her scrutiny of even the type of chemicals used by the relevant companies in their production of dyes, in order to identify the companies that were as similar to DyStar as possible. Ms Harfouche also ensured that the companies she selected had available EBITDA forecasts so that she had credible information for the purpose of the valuation exercise. Ms Harfouche's methodology was robust and transparent, and far from arbitrary as Senda suggests.

60 Senda's other objections are also incorrect. Senda asserts that several of the companies selected by Ms Harfouche – namely Clariant and Lanxess – were not in the business of textile dyes. However, the evidence suggests the contrary.

(a) The MMR reports for the textile and dyestuff industry, the RRI reports and the IHS Markit report (which Senda relies on) show that Lanxess was in the business of textile dyes.

(b) The UBS report on Huntsman and Mordor Intelligence Report show that Clariant has been regarded as on par with Huntsman in the textile dye industry, and as being in the business of textile dyes in the plastics and coatings sector in particular.

Ms Harfouche was accordingly correct to consider Clariant and Lanxess as appropriate comparable companies in Bucket 1.

61 Based on the foregoing, Ms Harfouche used the EBITDA and revenue forecasts of the 13 companies she selected to arrive at a projected future EBITDA for DyStar. Ms Harfouche used the average annual movement in EBITDA margin forecasts for these companies to project DyStar's performance until FY 2020. She obtained the projected revenue and EBITDA margins for the selected companies from broker forecasts collated by Capital IQ.

62 Ms. Harfouche then extrapolated her projections for DyStar's *revenue and EBITDA* between FY 2020 and FY 2027 to arrive at a "steady-state" of revenue growth and EBITDA. Ms Harfouche gradually decreased the annual revenue growth rate to a terminal revenue growth rate, which was the IMF's long-term US dollar inflation rate of 2.1%. This again was conservative on Ms Harfouche's part, as it implied no *real* revenue growth for DyStar. As mentioned (at [48] above), she also capped DyStar's EBITDA margin at 14.8% from FY 2020 onwards.

63 Senda has not raised any material objections to Ms Harfouche's methodology in this regard. Further, as will be explained (see [78] below), Ms Harfouche's figures were reasonable when considered alongside DyStar's actual revenue and EBITDA figures.

64 It also bears mention that Ms Harfouche used a longer period to determine DyStar's "stable" terminal growth rate (until 2027, in contrast to Mr Lie's end-point of 2023). She did so because she considered ten years (2018 to 2027) to be a "sufficient timeframe to arrive at a 'steady-state' or 'perpetual' level of financial performance". In our view, the longer period used by Ms Harfouche is a more robust and accurate approach that will be less affected by aberrations in the data, and will average out year-to-year fluctuations in the market. This is a matter of prudence as much as it is of common sense. In fact,

in setting her projected terminal growth rate, Ms Harfouche adopted conservative numbers (by maintaining a flat EBITDA margin from FY 2020 onwards) and projected no real revenue growth for DyStar.

65 The figures for DyStar's EBITDA and revenue growth rates that Ms Harfouche arrived at were used to compute DyStar's projected earnings. To this end, Ms Harfouche applied an appropriate discount rate. The issues relating to several discrete adjustments that are to be made to the DCF method are considered below in the section on "Adjustments to the income (DCF) approach" (see [224]–[268] below).

66 The rest of Ms Harfouche's calculations on DyStar's projected earnings have either not been raised as issues in the valuation proceedings or do not constitute pertinent areas of contention between the parties. We accordingly do not consider them. In totality, we consider that Ms Harfouche has (except where indicated below) correctly taken into account the relevant factors affecting DyStar's projected earnings and growth. This resulted in a reasonable application of the DCF method.

(2) Market approach

67 On the market approach, we accept that Ms Harfouche was correct to rely on her own projections, which were arrived at using *appropriate comparable companies*. Senda again criticises her methodology as arbitrary. However, the following points are relevant.

68 First and foremost, it was Senda's non-disclosure of financial documents underpinning its projections in the April 2019 Forecasts which necessitated Ms Harfouche adopting this approach. Ms Harfouche cannot thus be faulted for building her own model based on comparable companies.

69 More importantly, as explained at [55]–[60] above, Ms Harfouche's methodology in identifying the comparable companies was intelligible and comprehensive. These companies thus served as appropriate comparators in Ms Harfouche's application of the market approach. Specifically, the EVs of these companies were used by Ms Harfouche to establish EV ranges, from which she could determine sound trading multiples – these trading multiples then allowed her to arrive at a reasonable projected EV for DyStar.

70 As noted earlier, Mr Lie also relied on the market approach save that it was used only as a cross-check. However, Ms Harfouche and Mr Lie disagreed on whether capital expenditure ("CapEx") was a relevant factor in computing the trading multiples. Ms Harfouche used a formula of EV/(EBITDA - CapEx) in calculating her trading multiples. In contrast, Mr Lie disregarded CapEx and simply used the formula of EV/EBITDA in arriving at a trading multiple.

71 We agree with Ms Harfouche. The logic behind factoring in CapEx, as submitted by Kiri, is sound. Investors would sensibly take into account a company's earnings levels *with reference to its capital expenditure*. A company that is able to generate greater earnings with lower capital expenditure would be one that is more profitable *vis-à-vis* its peers which may be making similar earnings but require greater expenditure to do so. We thus consider it appropriate for Ms Harfouche to have taken into account the CapEx of the comparable companies in arriving at her trading multiples, and prefer her application of the market approach to Mr Lie's for this reason.

72 There is another reason why we prefer Ms Harfouche's approach. Ms Harfouche considered a group of 13 companies classified into different buckets. On the other hand, Mr Lie considered only the non-listed segment of *one* comparable company in arriving at his trading multiple. This in our view is

a less robust method. Restricting the data to only unlisted companies unnecessarily narrows the field of inquiry. It does not follow that just because DyStar is not listed, only non-listed companies are relevant comparables. It seems to us that the correct approach is to identify companies that are similar to DyStar based on the nature and characteristics of the business that are similar to DyStar's business (for example, operating in the same market/industry and selling similar goods to the same class of consumers), with adjustments, if necessary, being made to take into account the fact that the comparable companies are listed.

73 Ms Harfouche also used the transactions multiples method. This involved an analysis of several acquisitions of companies similar to DyStar. Key to this was the selection of the appropriate acquisitions. Ms Harfouche did this in the following manner.

(a) Ms Harfouche first reviewed reports by Capital IQ and Mergermarket, and reports on transactions produced by investment banks and brokers based on: (i) whether these transactions occurred in 2017 and 2018; and (ii) whether the target companies were in the specialty, commodity and diversified chemicals segment.

(b) Ms Harfouche then excluded transactions for which there was insufficient information on the various financial metrics, as well as transactions involving companies that did not appear to sell or manufacture dyes and pigments. This narrowed the inquiry down to 28 transactions.

(c) Of these 28 transactions, Ms Harfouche assessed those companies which were most similar to DyStar in terms of activities. This

resulted in a list of *four* comparable transactions, which are set out in a table at paragraph A7.7 of Ms Harfouche's first report.

74 Based on Ms Harfouche's description of the companies in the four transactions, it is clear that the relevant companies were all large players in various segments of the paint/pigment manufacturing industry. Senda has not meaningfully challenged this. These transactions were valid reference points for Ms Harfouche to form her opinion on the valuation of DyStar based on the market approach.

75 Mr Lie eschewed the comparable transactions approach. He chose not to rely on comparable transactions as he "f[ound] it difficult to find transactions for companies which are comparable to DyStar". We agree with Kiri that the approach of looking at comparable transactions is sensible as it lends to a more robust and reliable conclusion. The results of Ms Harfouche's analysis of the relevant transactions served as another source of corroboration for her calculations under the trading multiples method, as well as her overall valuation of DyStar. Seeing how Ms Harfouche was in fact able to identify comparable companies by way of her selection criteria (see [73] above), which we find comprehensive and sensible, we do not see merit in Mr Lie's position that it is "difficult" to find comparable companies for the purpose of this exercise.

76 Accordingly, it seems to us that Ms Harfouche has adopted a more robust and comprehensive methodology in her valuation of DyStar. She has considered the issue from the perspective of various different multiples, and taken into account a sizeable pool of comparable companies. On the other hand, Mr Lie was content at various junctures to settle on a limited sample size and fewer sources of corroborative valuations. The integrity of the approach that the experts adopted was critical in our view. This was because the projected

financial performance of DyStar could not be arrived at based on DyStar's financial documents alone given the shortcomings in the disclosure obligations highlighted earlier, and the difficulties with the integrity of the April 2019 Forecasts as later described (see [138]–[150] below). For these reasons, an alternative approach that was robust and comprehensive was key in arriving at the correct valuation of DyStar. We therefore prefer Ms Harfouche's approach.

The amalgamation of the two approaches

77 We agree with Kiri that, in the absence of reliable multi-year forecasts from DyStar prepared before the valuation date, Ms Harfouche's approach of arriving at a final valuation between her market and DCF approaches is fair. Ms Harfouche did not adopt the higher of her two valuations (*ie*, the DCF approach, which resulted in a higher valuation range), but combined the results of her DCF valuation and other valuations and arrived at an aggregated figure. In our view, this was an appropriate course and resulted in a reasonable and balanced figure.

78 That Ms Harfouche's revenue and maintainable EBITDA projections broadly correspond with DyStar's *actual* revenue and maintainable EBITDA for FY 2018 and FY 2019 (as canvassed in the table below) speaks to the conclusion that her model is reasonable and reliable. We tabulate below the examples of these that Kiri has relied on in its written closing submissions.

	Ms Harfouche's Projections	**DyStar's Actual Figures**
FY 2018: Revenue	US$1,077m	US$1,108m

FY 2018: Maintainable EBITDA	US$155m	US$199m
FY 2019: Revenue	US$1,142m	US$1,057m

As seen, Ms Harfouche's projections not only broadly corresponded to DyStar's actual revenue/EBITDA figures, but in some years even fell below DyStar's actual performance. It thus cannot be said that Ms Harfouche's projections were exaggerated or inflated in any sense.

79 In response to Ms Harfouche's evidence as set out above, Senda raises several objections, which we address in turn.

Senda's objections to the admissibility of independent broker and market reports relied on by Ms Harfouche

80 Senda raises multiple objections to the use by Ms Harfouche of reports by various broker and market reports which we have referred to above.

> (a) The first contention is that the reports are hearsay and inadmissible as the makers of the reports were not called as witnesses to testify as to the truth of their contents.
>
> (b) The second contention is that, in the alternative, less weight ought to be placed on Ms Harfouche's evidence given her reliance on these reports.

We first examine the former contention. In this respect, we are of the unanimous view that the reports Ms Harfouche relied on are admissible, but diverge in terms of our reasoning. The reasons at [81]–[104] below represent the views of

Kannan Ramesh J and Anselmo Reyes IJ. The reasons at [105]–[124] below represent the views of Roger Giles IJ.

The reasons of Kannan Ramesh J and Anselmo Reyes IJ

81 Senda's objection to admissibility is untenable. At the outset, two points might be highlighted:

(a) First, Senda and Mr Lie *also* rely on such reports. These include, for example, the IHS Markit report (see [53(d)] above), the studies Mr Lie relies on for his analysis on size premium (see [252] and [253] below), and certain restricted stock studies that Mr Lie refers to in his analysis on DLOM (see [245] below). The makers of those reports were never called to give evidence in court, and Senda has not explained why they should be treated differently. Therefore, to the extent that Senda has raised such objections against Ms Harfouche, the same criticism may be made against Mr Lie.

(b) Second, Ms Harfouche had little option but to rely on independent market/broker reports, given Senda's non-disclosure of financial documents.

82 More importantly, Senda's argument fails to recognise the nature of the relevant reports, and the purpose for which Ms Harfouche has used them. Ms Harfouche has used these reports to substantiate, supplement and fortify her views. In such circumstances, it is incorrect to assert that Kiri's failure to call the makers of these reports to prove their contents, including the underlying data that they rely upon, means that these reports fall foul of the hearsay rule and are therefore inadmissible.

(1) Overview of market reports as evidence in valuation exercises

83 Experts who value companies frequently and often as a matter of necessity rely on market reports when forming their opinions on the value of a company. The reports may relate to comparable companies, the relevant industry or any other factor that is pertinent to understanding the valuation considerations that must be properly taken into account in arriving at an informed opinion. Such reports are commonly relied on as the source material upon which valuations are based.

84 Valuation experts, and indeed many experts, rely on the opinions of others in market reports and forecasts to support and explain their conclusions. To that extent, a valuation expert endorses the views and reasoning in the relevant report and presents those views as part of his or her expert opinion. Independent market reports, when relied upon *for this purpose and in this manner*, are in substance being used as source material to fortify, support and/or supplement the expert's opinion. It is the view that is expressed in these reports of comparable companies or the relevant market, *as incorporated into the testifying expert's opinion*, that is relevant. These reports are opinions of *market sentiment*, *ie*, what the market thinks, forecasts or is saying about a company, an industry or the economy at a given time. To use the MMR reports that Ms Harfouche relied on as illustration, these reports express a *forecast* of "the market size for textile dyes in terms of volume and value" based on existing market data, and thereafter *project* a CAGR for the industry from 2017 to 2022.

85 While it may be said that the hearsay rule if applied with full rigour will require the maker of these reports to be called and the underlying information to be proved by primary evidence, the rule is relaxed in such cases for two good reasons. First, requiring proof in this manner in each and every instance is

neither practical nor feasible. Second, relaxing the rule recognises the real purpose for which these reports are being used namely *for the opinions advanced therein*, and not the data upon which they are based. Such reports are *not* adduced for the purpose of proving the truth of the underlying data (albeit the existence and veracity of the underlying data will lend credence to the view advanced, but that is an issue of *weight*, not admissibility, as we explain at [92] below). The foregoing views are consistent with jurisprudence in Singapore and in other jurisdictions.

(2) The position in Singapore

86 The starting point is the basis rule, as stated in the recent decision of *Anita Damu v Public Prosecutor* [2020] 3 SLR 825 ("*Anita Damu*"). The basis rule stipulates that the factual basis for an expert's opinion must be established on admissible evidence and not on hearsay (*Anita Damu* at [30]). The court at [30] cited the observations of Heydon J in *Dasreef Pty Ltd v Hawchar* [2011] HCA 21 with approval:

> Opinion evidence is a bridge between data in the form of primary evidence and a conclusion which cannot be reached without the application of expertise. The bridge cannot stand if the primary evidence end of it does not exist. The expert opinion is then only a misleading jumble, uselessly cluttering up the evidentiary scene.

87 However, the court in *Anita Damu* recognised that the basis rule is not absolute. The court noted at [31]:

> It is true that the basis rule has often been relaxed in the interests of logistical practicality, ***such as to enable experts to rely on evidence from authoritative publications or other extrinsic material customarily employed in their line of work*** (Jeffrey Pinsler, *Evidence and the Litigation Process* (LexisNexis, 6th Ed, 2017) ('Pinsler') at para 8.044; Ian Freckelton & Hugh Selby, *Expert Evidence: Law, Practice, Procedure and Advocacy* (Thomson Reuters, 5th Ed, 2013) ('Freckelton & Selby' at para 2.20.80). However, ***the***

> ***relaxation of the basis rule most commonly occurs in cases where the expert's opinion is based on 'general hearsay', such as prior research***, as opposed to 'specific hearsay' pertaining to a particular inquiry, fact, examination or experiment (*Halsbury's Laws* ([26] *supra*) at para 120.225). This, to me, is a principled distinction. ***Where an expert gives evidence that relies in part on the work of other members of the profession which are generally accepted as authoritative and uncontroversial, it would be impractical to require in every instance that those other professionals also give evidence of their work, even though this might technically constitute general hearsay evidence***. The relaxation of the basis rule in such circumstances would simply be in the interests of practicality and would not cast any doubt on the soundness of the expert's evidence. On the other hand, ***where an expert puts forth an opinion that is founded on the specific hearsay evidence of another individual and the truthfulness of that other individual's assertion is not only hotly contested, but, as in this case, is the very issue in dispute, the basis rule ought to apply with full rigour***.
>
> …
>
> [emphasis in original in italics; emphasis added in bold italics]

88 Market reports relied on in the context of valuation proceedings would often fall under the category of *general* hearsay, which calls for a relaxation of the basis rule as *per Anita Damu*. These reports constitute "extrinsic material customarily employed in their line of work" and it may be said that they constitute "prior research". It is only where the expert relies on the *specific* hearsay evidence of another and the veracity of that evidence is challenged should the basis rule apply with full rigour.

89 Case law dealing with the admissibility of reports expressing market opinion supports this view. The High Court in *Saga Foodstuffs Manufacturing (Pte) Ltd v Best Food Pte Ltd* [1994] 3 SLR(R) 1013 ("*Saga Foodstuffs*") considered whether market survey reports constituted inadmissible hearsay. In *Saga Foodstuffs*, the court considered a claim for passing off. As part of the evidence, both parties sought to introduce market survey reports on the relevant market, specifically the market sentiment on the relevant products and

associated marks (at [7]–[9]). The hearsay objection raised in that case was that the makers of the reports were not called as witnesses (at [10]). The "makers" of the report were (a) the respondents in the market who provided answers to the survey; *and* (b) the interviewers who recorded the respondents' answers, and collated and processed these results. The High Court held that the reports were admissible, and opined as follows (at [11] and [16]):

> 11 … When evidence is sought to be given of what someone said to the testifying witness, whether such evidence offends the rule against hearsay depends on *the purpose for which the evidence is sought to be tendered.* If it is sought to be tendered for the purpose of establishing the truth of what was said to the testifying witness, its introduction will offend the rule. On the other hand, *if the purpose of tendering the evidence is merely to show that such a statement was made, and not that the statement is true, then the rule is not offended.* …
>
> …
>
> 16 … [E]vidence of the results of a market survey research … is evidence of the existence of the *belief or opinion held by the respondents to the survey. The purpose of tendering such evidence is to* ***show that such belief or opinion exists; there is no question of tendering it for the purpose of proving the truth or merits of the belief or opinion so held***. …
>
> [emphasis added in italics and bold italics]

90 The approach therefore has generally been to allow market reports to be admitted where they are being adduced as evidence of market opinion/sentiment to support the opinions of the expert witness. For example, the High Court in *Poh Fu Tek* ([31] *supra*), in considering a share valuation dispute, recognised that the experts in that case relied on financial research reports. These reports were namely, the Ibbotson statistics, which is a set of statistics published by a financial research and information firm used to estimate applicable size premiums based on empirical evidence from the market: see [114] of *Poh Fu Tek*. The makers of the Ibbotson statistics were not called as witnesses. The court in *Poh Fu Tek* did not find the reliance on such reports objectionable and

no issue of admissibility was raised. The court examined in depth the classification of companies under the size premium analysis in the Ibbotson statistics (*Poh Fu Tek* at [114]–[117]).

91 The reasoning in *Saga Foodstuffs* is consistent with [83]–[85] above. The inquiry very much hinges on the *purpose* for which the relevant reports are adduced and the nature of the reports.

92 There is a caveat. It is open to a party to challenge the expert's reliance on the relevant reports on the basis that these reports are not sound. If the opinions in these reports are based on questionable logic or inaccurate information or data, a party is free to show that to be the case. If shown, that will undermine the report and in turn the expert's opinion that is based on it. But that is not a question of admissibility. It is one of the *weight* to be placed on the expert's opinion. That the proper inquiry in such circumstances pertains to the question of weight is clear from case law on how expert opinion evidence has been dealt with by the court.

(a) In *Wellform Construction Pte Ltd v Lay Sing Construction Pte Ltd* [2001] SGHC 12 ("*Wellform Construction*"), the High Court considered a challenge to the admissibility of an auditor's report. The auditor in that case had prepared the report in reliance on work done by his staff and certain underlying documents of which he had no personal knowledge (at [19]). The makers of those underlying documents, and the auditor's staff, were not called as witnesses. The plaintiff challenged the admissibility of the report on that basis. The High Court rejected the challenge to admissibility, and noted that "[t]he weight to be given to the report was another matter" (at [20]).

(b) The Court of Appeal in *JSI Shipping (S) Pte Ltd v Teofoongwonglcloong (a firm)* [2007] 4 SLR(R) 460 at [138] cited *Wellform Construction* with approval. The Court of Appeal noted at [51] that the court's duty is to "ensure, at a minimum, that the expert opinion is defensible and grounded in logic and plain common sense". Where an expert's opinion is indefensible or illogical, this will affect the *weight* the court places on the said opinion.

(3) The position in other jurisdictions

93 The position on the basis rule in other jurisdictions is uncontroversial, and accords with what has been stated in *Anita Damu* ([87] *supra*). The *locus classicus* in the particular context of *valuation experts* is widely regarded as Megarry J's decision in *English Exporters Pty Ltd v Eldonwall* [1973] 1 Ch 415 ("*English Exporters*"). Therein, Megarry J made the following observations on the evidence of an expert valuer (at 420E–421A):

> … As an expert witness, the valuer is entitled to express his opinion about matters within his field of competence. In building up his opinions about values, he will no doubt have learned much from transactions in which he has himself been engaged, and of which he could give first-hand evidence. ***But he will also have learned much from many other sources, including much of which he could give no first-hand evidence***. Textbooks, ***journals, reports of auctions and other dealings, and information obtained from his professional brethren and others, some related to particular transactions and some general and indefinite***, will all have contributed their share … Nevertheless, ***the opinion … is none the worse because it is in part derived from the matters of which [the valuer] could give no direct evidence***. Even if some of the extraneous information which he acquires in this way is inaccurate or incomplete, the errors and omissions will often tend to cancel each other out; and the valuer, after all, is an expert in this field, so that the less reliable the knowledge that he has about the details of some reported transaction, the more his experience will tell him that he should be ready to make some discount from the weight that he gives it in contributing to his overall sense of values. Some aberrant

> transactions may stand so far out of line that he will give them little or no weight. No question of giving hearsay evidence arises in such cases; the witness states his opinion from his general experience.
>
> [emphasis added in bold italics]

94 This position has been accepted in Australia. *English Exporters* was cited with approval by the Supreme Court of Western Australia in *Clack v Murray* [2018] WASCA 120, and described therein (at [46]) as "a leading authority in this area". Similarly, *English Exporters* was endorsed in *Pownall & Ors v Conlan Management Pty Ltd as Trustee for the Kalbarri Trust* [1995] WASC 117 ("*Pownall*").

95 The Supreme Court of Western Australia in *Pownall* stressed another important aspect of Megarry J's decision in *English Exporters*. While valuation experts are permitted to form their *opinions* on facts that they may not have personal knowledge of, "a valuer may [not] give *factual* evidence of transactions of which he has no direct knowledge" [emphasis added]: see *English Exporters* at 421. It may be seen that the decision of the High Court in *Saga Foodstuffs* ([89] *supra*) is in line with this observation. Much depends on the purpose for which the expert's evidence is introduced, and what the expert seeks to prove.

96 Megarry J's views in *English Exporters* are based on considerations of *necessity* (see Rosemary Pattenden, "Expert Opinion Evidence Based on Hearsay" [1982] Crim LR 85 ("Pattenden") at p 93). The rationale is "the interests of logistical practicality" identified in *Anita Damu* at [31]. Megarry J's opinion in *English Exporters* is a concession to the reality that experts in particular lines of work rely customarily on a myriad of sources, and draw from different sources of information. To require a party to call, alongside the expert, all the makers of the various reports and publications relied on by the expert

would be an onerous burden. Indeed, the court in *Anita Damu* stated that "it would be impractical to require in every instance that those other professionals also give evidence of their work" (*Anita Damu* at [31]).

97 There is also authority supporting the view that where an expert relies on information that he or she does not have personal knowledge of, the key inquiry is one of *weight*, rather than admissibility. In the decision of the Supreme Court of Canada in *R v Lupien* [1970] SCR 263 ("*Lupien*"), the court considered the admissibility of an expert psychiatric opinion that was allegedly based on hearsay. Ritchie J (who dissented with the court's decision to set aside the conviction, but agreed with the majority on the admissibility of the expert evidence) opined that (at 273–275):

> … [T]he fact that the methods pursued by the psychiatrist in reaching his opinion necessitated dependence on information obtained from the respondent and others which was not before the jury, does not make his opinion inadmissible although it may well be a factor to be considered *in assessing the weight to be attached to that opinion.* …
>
> …
>
> [T]he admission of the psychiatric evidence sought to be adduced … as to the respondent's normal state of mind would not have offended the rule against the admissibility of hearsay …
>
> … [A]s I understand the record, the evidence was … tendered … for the *purpose of proving the doctor's opinion* …
>
> [emphasis added]

98 While the views in *Lupien* were expressed in the context of expert psychiatric evidence in a criminal case, the reasoning is applicable to expert evidence of any kind. It is also in keeping with the tenor of the local decisions discussed at [92] above. Discussing Ritchie J's views in *Lupien*, Pattenden noted at p 89 that:

> Underlying [Ritchie J's views] is the attitude that '[b]ecause the witness qualifies as an expert, his skill and training are to be relied upon to sort out those pieces of information which are reliable, rather than the sorting-out being done by strict proof of foundation facts.'

The court thus retains the discretion to accord appropriate weight to the expert's evidence in arriving at its eventual conclusion on the issues at hand.

(4) The admissibility of the market and broker reports relied on by Ms Harfouche

99 The key reports relied on by Ms Harfouche which Senda claims to be inadmissible hearsay include the following.

(a) The broker forecasts collated by Capital IQ. These were central to Ms Harfouche's evidence. They formed the basis of Ms Harfouche's projected growth forecasts and EBITDA margins for her selected companies (see [61] above) under the DCF method. Ms Harfouche also obtained, from these forecasts, Capital IQ's estimates of the EVs of the comparable companies, which Ms Harfouche used to determine her trading multiples. These trading multiples then allowed Ms Harfouche to arrive at a projected EV for DyStar (see [69] above).

(b) The MMR reports, which Ms Harfouche referred to in deriving the CAGR used to project DyStar's revenue (see [48] above).

100 These reports involved *forecasts and estimates* of the financial variables used by Ms Harfouche in her valuation. The reports relied on *published* information on the relevant companies in arriving at their forecasts. Ms Harfouche incorporated these forecasts and estimates into her opinion. These reports were therefore relied on by Ms Harfouche as evidence of market forecasts and opinions of companies believed by her to be comparable to

DyStar. They were not adduced for the purpose of proving the truth of the underlying data upon which the opinions in the reports were based. It is important to note that Senda has not raised any objections to the truthfulness of any specific fact(s) in the data/information upon which the reports are based. Senda's objection is a general hearsay objection. Thus, the issue of specific hearsay does not arise.

101 Ms Harfouche's reliance on the reports thus falls into the scenario calling for a relaxation of the basis rule (see *Anita Damu* ([86] *supra*) at [87] above). What is in issue in the valuation proceedings is the cogency and veracity of Ms Harfouche's opinion based on these reports, *not* the truth of any facts asserted in them (see *Anita Damu* at [31]). The market forecasts and reports Ms Harfouche relied on to derive the variables in her valuation constitute "extrinsic material customarily employed" in valuation exercises. That these reports constitute material customarily and widely utilised in valuation work is clear from the IVS, which both parties rely on.

102 On the market approach, the IVS states:

> **30. Market Approach Methods**
>
> ***Comparable Transactions Method***
>
> 30.1. The comparable transactions method … utilises <u>information on transactions involving *assets* that are the same or similar to the subject *asset* to arrive at an indication of value</u>.
>
> …
>
> 30.8. A *valuer should* analyse and make adjustments for any material differences between the comparable transactions and the subject *asset*. Examples of common differences that could warrant adjustments *may* include, but are not limited to:
>
> …
>
> (d) profitability or profit-making capability of the *assets*,

(e) historical and expected growth,

…

Guideline publicly-traded comparable method

30.9. The guideline publicly-traded method utilises information on publicly-traded comparables that are the same or similar to the subject *asset* to arrive at an indication of value.

…

30.12. The key steps in the guideline publicly-traded comparable method are to:

(a) identify the valuation metrics/comparable evidence that are used by *participants* in the relevant market,

(b) identify the relevant guideline publicly-traded comparables and calculate the key valuation metrics for those transactions,

…

…

30.14. … Examples of common differences that could warrant adjustments *may* include, but are not limited to:

…

(f) historical and expected growth,

…

[emphasis in original in italics and bold italics; emphasis added in underline]

103 On the income approach, specifically the DCF method, the IVS states:

50. Income Approach Methods

…

Discounted Cash Flow (DCF) Method

50.2. Under the DCF method the forecasted cash flow is discounted back to the valuation date, resulting in a present value of the *asset.*

…

Terminal Value

> 50.20. Where the *asset* is expected to continue beyond the explicit forecast period, *valuers must* estimate the value of the asset at the end of that period. …
>
> …
>
> 50.25. Common ways to calculate the terminal value … include application of a <u>market-evidence based capitalisation factor or a market multiple</u>.
>
> 50.26. When [an exit value] is used, *valuers should* comply with the requirements in the market approach … section of [the IVS]. …
>
> [emphasis in original in italics and bold italics; emphasis added in underline]

104 Consequently, Ms Harfouche's reliance on these reports and documents does not fall foul of the hearsay rule. Senda's objections to admissibility should be firmly rejected.

The reasons of Roger Giles IJ

105 I respectfully am unable to concur with my brethren in the view that Senda's hearsay objection should be rejected because the broker and market reports are opinions of market sentiment and the hearsay rule is not engaged. As will appear, however, I consider that so far as the reports are hearsay, they should nonetheless be admitted into evidence. Since I am in the minority, I will be brief in my explanation.

106 *English Exporters* ([93] *supra*) distinguishes between information from the valuer's general experience and the particular information on which the valuer relies in coming to his opinion. Megarry J's instances of the former, in the passage cited by the majority, are textbooks, journals, reports of auctions and other dealings and information obtained from others: the generality of "information obtained from others" must be confined by regard to the prior instances. As to the latter, his Lordship said (at 422B) that:

> … details of comparable transactions upon which a valuer intends to rely in his evidence must, if they are to be put before the court, be confined to those details which have been, or will be, proved by admissible evidence, given either by the valuer himself or in some other way. …

107 The distinction is expressed by Sundaresh Menon CJ in *Anita Damu* ([86] *supra*) in the terms "general hearsay" and "specific hearsay", and Pattenden uses the terms "non-specific hearsay " and "specific hearsay". Menon CJ instances as general hearsay authoritative publications or other extrinsic material customarily employed in the expert's line of work, also described as prior research and the work of other members of the profession which are generally accepted as authoritative and uncontroversial; Pattenden describes it (at p 93) as hearsay "of a sufficiently general nature to be regarded as part of the corpus of knowledge with which an expert in his field can expect to be acquainted".

108 It is a real distinction, as illustrated by *Pownall* ([94] *supra*) to which the majority refers. Expert evidence was given of the value of mining tenements, in order to arrive at the value of the shares in the company owning them. Ipp J, with whom Malcolm CJ and Anderson J agreed, took from *English Exporters* that non-specific hearsay could be used "to give a general exposition of the subject, to assess market trends, or to determine whether a particular transaction is aberrant or consistent with overall market conditions", to be contrasted with primary facts relied upon by the expert for his opinion (see *Pownall* at 7). His Honour held that the opinion of the principal expert was inadmissible because he relied on reports of others for the timing of the development of the mine, the estimated capital expenditure, the operating costs, the product price and the project cash flow.

109 The admission of general or non-specific hearsay is recognition of necessity: in the words of Menon CJ in *Anita Damu* at [31], "logistical practicality". Where it occurs, I respectfully do not regard it as admission because the information is the opinion of the author of the publication or other source of the general or non-specific hearsay, outside the hearsay rule. Nor is it because the information reveals "market sentiment", meaning what the market is saying about the real estate, company or other property being valued. Take a valuation of a property by regard to comparable sales. Unless, as commonly happens, strict proof is not required, the sales must be established by evidence. A report of the sales to the valuer by a third party is not admissible because it shows what the reporter or the market thinks is the value of the property in question. The general or non-specific hearsay is hearsay: its admissibility should be frankly recognised as an exception, on grounds of necessity, to the hearsay rule.

110 I do not think that *Saga Foodstuffs* ([89] *supra*) says otherwise. It was a passing off case, the issue being the perception of the respondents to the survey, and in that sense their opinions or the sentiment in the marketplace were relevant. That is not the issue in a valuation case.

111 It is therefore necessary to ask whether the information in the broker and market reports upon which Ms Harfouche relied should be regarded as general or non-specific hearsay, or as specific hearsay, at least to the extent of determining whether Senda's objection is well-founded.

112 The particular subjects of the objection, in Senda's closing submissions, were:

(a) the use of broker forecasts to determine projected revenue and EBITDA margins for the selected comparable companies, they then being used to arrive at DyStar's revenue and EBITDA margin for FY 2018 to FY 2020;

(b) the use of the 6% CAGR in the MMR reports for the textile dye industry for 2017 to 2022 to project DyStar's revenue growth for FY 2018 to FY 2020; and

(c) the use of broker forecasts to determine various other projections for the comparable companies, they being used in arriving at DyStar's EV on the market approach.

113 It is evident, from the parts of Ms Harfouche's reports in which these matters were addressed, that the information she took from the reports significantly included historical financial information for the comparable companies and the industry. While forecasts were drawn from the information, they rested on it. Undoubtedly it can be a question of degree, but I am unable to see this information as general or non-specific hearsay, part of the research of others informing Ms Harfouche's task or of the valuer's *corpus* of knowledge. If it were, little would be left of the authoritatively accepted distinction from specific hearsay: it is akin to the information in *Pownall* ([94] *supra*).

114 However, that is not the end of the inquiry. Kiri submits that, if the hearsay rule were found to apply to the reports, the statements therein come within the exceptions in ss 32(1)(*b*)(iii) and 32(1)(*b*)(iv) of the Evidence Act (Cap 97, 1997 Rev Ed) ("Evidence Act"). It is there provided that statements of relevant facts made by a person are themselves relevant facts:

> (*b*) when the statement was made by a person in the ordinary course of a trade, business, profession or other occupation and in particular when it consists of —
>
> …
>
> (iii) any information in market quotations, tabulations, lists, directories or other compilations generally used and relied upon by the public or by persons in particular occupations; or
>
> (iv) a document constituting, or forming part of, the records (whether past or present) of a trade, business, profession or other occupation that are recorded, owned or kept by any person, body or organisation carrying out the trade, business, profession or other occupation,
>
> and includes a statement made in a document that is, or forms part of, a record compiled by a person acting in the ordinary course of a trade, business, profession or other occupation based on information supplied by other persons;
>
> …

115 In my view, Kiri's submission should be accepted. I infer that the statements in the reports to which Senda objects were made by their authors in the ordinary course of their or their entity's business of generating such reports and publishing them to the corporate investment industry. The words "made … in the ordinary course of a trade, business, profession or other occupation" are wide; of the particular instances following, the reports could be seen as compilations generally used and relied on by persons in occupations involving corporate investment, but are documents within s 32(1)(*b*)(iv) (like the Sucofindo Report in *Gimpex Ltd v Unity Holdings Business Ltd and others and another appeal* [2015] 2 SLR 686 ("*Gimpex*")) and admissible even though their compilation includes information supplied by other persons.

116 That leads to the final stage in this divergence from the majority. There are two conditions to admissibility of such statements. By s 32(3) of the

Evidence Act, a statement relevant under s 32(1) "shall not be relevant if the court is of the view that it would not be in the interests of justice to treat it as relevant". By s 32(4)(*b*), the evidence may not be given under s 32(1) unless the tendering party complies with any notice requirements or other conditions prescribed under the Rules of Court (Cap 322, R 5, 2014 Rev Ed) ("the Rules"); it suffices for present purposes to note the prescription under O 38 r 4 requiring service of a notice of intention to introduce the hearsay evidence.

117 Kiri did not give the requisite notice. No explanation for the failure to do so was given; perhaps it was confident that the hearsay objection would fail, as it has by majority, although prudence would surely have dictated giving notice. Kiri submitted, however, that failure to comply with O 38 r 4 should be cured under O 2 of the Rules, as was done in *Gimpex*.

118 In *Gimpex*, the central issue was whether a shipment of coal met contractual specifications. Both parties relied on reports which were challenged as hearsay.

119 The court considered the application of s 32(3) of the Evidence Act to a report on which the defendant relied, the Sucofindo Report. This report was held to be hearsay but to be admissible under s 32(1). The court endorsed Prof Jeffrey Pinsler's view (Jeffrey Pinsler, "Admissibility and the Discretion to Exclude Evidence: In Search of a Systematic Approach" (2013) 25 SacLJ 215) that the issue was whether admissible evidence should be excluded because other countervailing factors outweighed the benefit of having the evidence admitted. It accepted as relevant factors some suggested by Prof Pinsler, essentially the probative value and importance of the evidence balanced against countervailing factors such as unreliability or tendency to confuse or mislead, unwarranted additional cost or time, and procedural prejudice. It was said that

evidence of limited probative value "should properly be excluded" (*Gimpex* ([115] *supra*) at [109]), but the court cautioned against overlooking the line between declining to admit hearsay evidence and admitting it but according it less weight: it was said that "the court should not normally exercise its discretion to exclude evidence that is declared to be admissible by the [Evidence Act]" (at [109]). In the result, the Sucofindo Report was found to have issues concerning its reliability, and was excluded.

120 The plaintiff in *Gimpex* relied on the Inspectorate Report. Contrary to its position, it was held that the report was hearsay. The plaintiff had not given notice of its intention to rely on the report. Although ultimately it was found that the report was inadmissible for want of evidence that it fell within s 32(1) of the Evidence Act, it was considered that it was an appropriate case to exercise the discretion under O 2 of the Rules to cure the non-compliance with O 38 r 4.

121 The court said that the exercise of discretion was "ultimately a question much dependent on the extent to which the non-compliance causes prejudice to the opposing party which would render it unfair for the hearsay evidence to be admitted", and that curing any irregularity must also be considered in the light of the discretion to exclude otherwise admissible evidence under s 32(3) of the Evidence Act: the considerations it had earlier set out had to be taken into account where appropriate and "the issue of prejudice to the opposing party will inevitably surface" (*Gimpex* at [138], [139]). As to the Inspectorate Report, it was said that it was difficult to see how the defendants were prejudiced by the lack of notice, having had the opportunity to seek to discredit the report's reliability and having taken full advantage of the opportunity.

122 In the present case, I do not think the hearsay statements in the broker and market reports should be excluded under s 32(3) of the Evidence Act, and I

am satisfied that the discretion to cure Kiri's failure to give the requisite notice should be exercised. The considerations leading to this view substantially overlap, and can be explained together.

123 The relevant hearsay information in the reports is an important part of Ms Harfouche arriving at her valuation. Notwithstanding the absence of notice of intention to introduce the reports as evidence, Senda could have been in no doubt that Kiri had that intention, through the provision of Ms Harfouche's reports; nor could it have been unaware of their significance in the valuation exercise. This is underlined by Mr Lie's use of similar reports in his valuation (see [81(a)] above). There is no reason to regard the reports as lacking reliability to the extent of exclusion or declining a favourable exercise of discretion, as is also underlined by Mr Lie's use of similar reports, and Senda had and exercised the opportunity to attempt to discredit the reports as providing a sound basis for Ms Harfouche's use of them.

124 As well, although I have not accepted that the information should be regarded as general or non-specific hearsay, the "logistical practicality" to which Menon CJ refers in *Anita Damu* ([86] *supra*) must be borne in mind. The valuation of Kiri's shares in DyStar is complex, and it would be a considerable exercise to bring primary proof of all its integers or even of those the subjects of Senda's objection. Considerations of cost and time favour admission and a cure. I do not think there is reason for exclusion in the interests of justice, or any real prejudice to Senda in curing the failure to give notice or other reason not to do so.

Senda's argument on the weight to be placed on Ms Harfouche's evidence

125 Senda argues, in the alternative, that if the market and broker reports are admissible, the court ought not to give full weight to the aspects of Ms Harfouche's evidence based on these reports.

126 Senda's challenges to the integrity of the conclusions in the various reports are largely unmeritorious. We have explained this in detail in the preceding section on Ms Harfouche's evidence (see [48]–[76] above). Senda has also not argued that the published material that underlies the market reports (most pertinently, in the Capital IQ forecasts as mentioned above) is unreliable or incorrect.

127 Senda then suggests that the reports relied on by Ms Harfouche are of questionable reliability, whereas the reports relied on by Senda, such as the IHS Markit report, are "selected and credible sources of information". This is a bald assertion. Senda has not explained how the reports Ms Harfouche relied on are unreliable in any sense. Neither has Senda explained how the IHS Markit report stands on any better footing than the reports relied on by Ms Harfouche. There is no evidential basis to question Ms Harfouche's opinion on grounds that the information she relied on was incorrect or unreliable.

128 Senda also argues that Ms Harfouche incorrectly regarded the disclaimers in the various market and broker reports as "perfectly standard", and therefore "meaningless". These disclaimers state that the makers of these reports "do not warrant [their] completeness or accuracy". Senda contends that these disclaimers are *not* meaningless, and suggests therefore that the reports are unreliable and inaccurate. We disagree for the reasons provided in the preceding

paragraph. Senda has not been able to explain in any detail why such disclaimers made the reports inaccurate.

129 Senda asserts that in regarding the disclaimers as "perfectly standard", Ms Harfouche had "little or no regard to the question of whether the information … [was] complete and accurate". This takes Ms Harfouche's answer out of context:

> Q: Ms Harfouche, thank you for reading the rest of the sentence to us, but I just want you to focus on those words, 'do not warrant its completeness or accuracy'. All right? The exceptions do not apply for present purposes.
>
> Now, do you accept that similar disclaimers are found in the other brokers' reports that you relied upon in your expert reports?
>
> A: (Unclear) an equity analyst, and we could not publish a piece of research without pasting automatically these disclaimers at the end of each of our reports. I think this is perfectly standard.
>
> Q: I take your answer to be 'yes', then
>
> A: Yes.

130 Clearly, Ms Harfouche was simply stating that in her experience as a valuation expert, it is industry practice for analysts to insert such disclaimers. Ms Harfouche's evidence does not reflect that she was haphazard in her methodology, or that she had failed to consider the reliability of the various reports.

Senda's other objections to Ms Harfouche's approach

131 An objection Senda raises is that Ms Harfouche did not uphold "proper standards" in the valuation proceedings. This is an allegation that Ms Harfouche fell short of the standards required under the IVS. It is not disputed that the IVS sets out widely recognised standards and guidance for valuation professionals.

Senda contends that Ms Harfouche did not adhere to the strict guidelines in the IVS by (a) adopting inappropriate methods of valuation; (b) changing her position between her various reports; and (c) selecting inappropriate comparable companies.

132 On the first contention, it appears that Senda insists on a strict application of the DCF method to the exclusion of the market approach. The IVS may state that certain valuation methods may be preferable to others depending on the circumstances; but the IVS does not say that different approaches cannot be used in conjunction, or that the market approach would be wholly inappropriate for a valuation of this nature. That Mr Lie used the market approach as well buttresses the conclusion that the market approach is in fact *appropriate* in the present context.

133 In any event, Ms Harfouche applied the market approach *to Kiri's detriment*, in the sense that her valuation based on this approach resulted in a lower valuation range than that under the DCF method (which depressed her overall aggregated valuation). If Ms Harfouche had applied only the DCF approach, her final valuation would have been even higher.

134 Senda's second contention also does not assist it. Ms Harfouche made various adjustments to her valuations only because she had to take into account information that was belatedly disclosed by Senda. On each occasion, she explained why and how the new information affected her previous calculations. This is clear from the prefaces Ms Harfouche included in her second report, her comments on DyStar's 20th SLOD, and her updated calculations. We accept her explanations for the adjustments she has made. If anything, that Ms Harfouche was constantly willing to update her calculations in light of new information demonstrates the reasonableness of her position.

135 Senda's third contention has been addressed earlier in our discussion on Ms Harfouche's selection of the relevant comparable companies (see [55]–[60] above). This argument accordingly does not assist Senda.

136 Consequently, we do not consider that Ms Harfouche has acted in an incorrect manner. To the contrary, we are of the view that Ms Harfouche has conducted her valuation of DyStar in a transparent and professional manner. We therefore see no reason to reject her valuation.

Problems with Mr Lie's approach

137 As noted, Mr Lie relied almost entirely on the April 2019 Forecasts in his valuation of DyStar. In our view, Mr Lie's valuation baseline was too low; his valuation was overly depressed because of his reliance on the April 2019 Forecasts. We have concerns on the accuracy of the figures in the April 2019 Forecasts. It is relevant to point out that Mr Lie's review of the April 2019 Forecasts was at best superficial; he was instructed to place reliance on the views of Eric (and Mr Shi) and disregard the board pack forecasts, and he assumed that the April 2019 Forecasts were "credibly" prepared.

Deficiencies with the April 2019 Forecasts

138 We consider there to be at least five problems with the April 2019 Forecasts: (a) the lack of underlying and supporting documents; (b) the overly pessimistic outlook of the forecasts; (c) the failure of the forecasts to consider reasonable/sensible upsides; (d) the circumstances of the preparation of the forecasts; and (e) the scenario in which Kiri and/or Lonsen-Kiri Chemical Industries Ltd ("LSK") would stop all supplies to DyStar (the "LSK disruption scenario") that the April 2019 Forecasts postulated. These collectively lead us to conclude that the April 2019 Forecasts are unreliable.

139 The first problem with the April 2019 Forecasts is that many, if not all, of the underlying documents and calculations were not disclosed by Senda. This was one of the key reasons why Ms Harfouche rejected the April 2019 Forecasts. We agree with Ms Harfouche; there is no evidence that supports the figures in the April 2019 Forecasts. It is unacceptable for financial forecasts, which are the bedrock of a party's case on valuation, to be unsubstantiated by supporting documents. In the absence of corroborative evidence, the April 2019 Forecasts constitute the unsupported views of DyStar's management. This is inadequate in the context of share valuation proceedings, which must, as a matter of common sense, hinge on actual or projected figures that are supported by data.

140 Second, the April 2019 Forecasts are also, in our view, unduly pessimistic. This is apparent when comparing these forecasts to (a) DyStar's board packs and actual performance; and (b) independent third-party reports on the projections for the dye industry and the global economy in general.

141 The April 2019 Forecasts projected a break from earlier sales forecasts in prior DyStar board packs, and predicted an overall fall in DyStar's revenue. Eric explained that this was because the board packs had been overly optimistic; the April 2019 Forecasts, according to him, reflected the more realistic "pessimistic outlook" of the DyStar board. In other words, Eric sought to discount the reliability of DyStar's board packs. However, DyStar's actual revenue in 2018 in fact *exceeded* the board pack forecasts for that year (thereby suggesting that the relevant board pack was in fact *conservative* in its projections). This casts doubts on the veracity of Eric's account, and has not been adequately explained by Senda. Further, while Eric has questioned the reliability of DyStar's board packs, we agree with Kiri's submission that viewed holistically, these board packs appear considered and thorough – for example,

the five-year forecast for the May 2018 board meeting took into account the effects of the explosion at the Nanjing plant, and corrected DyStar's target revenue accordingly. None of this indicates that DyStar's board had been operating with any undue optimism. Eric and Senda have only been able to assert that there was over-optimism without referring to concrete data supporting such a position. In any case, we are unable to understand why over-optimistic information would have been included in the board packs. To do so goes against the very reason for placing such information before the board – to allow the board to form an accurate view of the state of the business and make considered decisions on the way forward. To suggest therefore that the information was over-optimistic is to suggest that the board was not being presented with the correct facts by management. That is quite astounding. It is notable that none of the DyStar board members who testified backed Eric up on this issue.

142 The April 2019 Forecasts are also inconsistent with independent third-party reports on the prospects for (a) the dye industry specifically; and (b) the global economy in general.

> (a) We have explained earlier why we accept Ms Harfouche's reliance on the MMR reports. Ms Harfouche canvassed the discrepancies between the MMR reports and the April 2019 Forecasts; while the former forecast "positive growth in the textile dye industry", the latter "expect a decline in revenue for DyStar". Kiri highlighted this anomaly in table form at paragraph 132 of its written closing submissions, which we do not propose to reproduce. What is material is that this discrepancy has not been adequately explained by Senda or its witnesses.

(b) Similarly, while the broker forecasts collated by Capital IQ in or around April 2019 show (on average) positive growth for Ms Harfouche's Bucket 1 and Bucket 2 companies, the April 2019 Forecasts show a continuing decline in DyStar's revenue, a stark departure from the forecasted trend. This has been reflected in a line graph at Figure A9.3 of Ms Harfouche's first report. Senda has not given adequate reasons for why the April 2019 Forecasts deviate from the market trend.

(c) The April 2019 Forecasts are inconsistent with global *macro-economic* trends. Ms Harfouche relies on global real gross domestic product ("GDP") growth forecasts issued by the Organisation for Economic Co-operation and Development ("OECD"), the International Monetary Fund ("IMF") and World Bank. These forecasts projected stable GDP growth in 2020. While the projected GDP growth rates post-valuation date appear lower than those prior to the valuation date, the growth rates remained steady and positive. The April 2019 Forecasts, according to Eric, were based on a "gloomy global economic outlook". This flies in the face of the OECD, IMF and World Bank forecasts, and Senda has not produced any evidence to explain its pessimism.

143 Third, the April 2019 Forecasts also failed to consider sensible upsides (*eg*, the benefit accruing from research and development expenditure) and obvious events that would have added value to DyStar (*eg*, insurance pay-outs). Kiri has accurately enumerated several of these at paragraphs 212–215 of its written closing submissions. We will subsequently address Senda's omission of the insurance pay-outs which DyStar was due to receive or has received (see [162] and [304] below). At this juncture, it suffices to note that these omissions

contribute to the impression that the April 2019 Forecasts are overly and unrealistically pessimistic.

144 Fourth, we agree with Kiri's submissions on the circumstances surrounding the preparation of the April 2019 Forecasts, *ie*, they were financial forecasts prepared *specifically for the valuation proceedings* and not in the ordinary course of business. Kiri correctly points out that the April 2019 Forecasts were (a) only disclosed after the *Main Judgment* ([1] *supra*) was released; and (b) never presented to the DyStar board.

145 That the April 2019 Forecasts were prepared specifically for the valuation proceedings would not by itself be fatal to Senda's case. However, when viewed alongside the other discrepancies as set out at [138]–[143] above, the compelling inference is that the numbers in the April 2019 Forecasts were inaccurate and consciously skewed in Senda's favour.

146 Fifth, we reject the LSK disruption scenario proposed in the April 2019 Forecasts. The LSK disruption scenario was an alternative hypothetical worst-case scenario postulated in the April 2019 Forecasts. It predicted that Kiri, as a response to Senda's oppressive acts and the breakdown in the parties' relationship, would disrupt LSK's supplies to DyStar, which would in turn negatively affect DyStar's future earnings.

147 The allegations made by Senda in this respect are purely speculative and unsupported by any evidence.

(a) First, Senda has not shown that Kiri can unilaterally disrupt LSK's supplies to DyStar, bearing in mind that both Kiri *and* Senda directors are on LSK's board. Management of LSK is not solely in Kiri's

hands. The joint venture agreement between Well Prospering Ltd and Kiri shows that Kiri does not unilaterally control LSK.

> 11.1 Authority of the Board
>
> … the Board shall be responsible for and shall be the absolute authority for the management, supervision, direction and control of the Company. The daily management of the Company shall be conducted by the Management Committee, which is to be formed by the board of directors. … The Board, while deciding on any matter relating to the management, supervision, direction and control of the Company, shall give due consideration to the views of the Management Committee … Provided however that the Board shall be the final decision making body of the Company. …
>
> …
>
> 13.1.4. The Management Committee shall report to the Board … at least once every month. The Board shall, from time to time as it may deem fit, review the performance of the Management Committee.

Senda has not explained how Kiri is able to circumvent this. The LSK board, *not* Kiri's directors or Manish as managing director, makes decisions in LSK. This puts paid to Senda's contention that Manish can unilaterally, as managing director of LSK, engineer the outcome contemplated in the LSK disruption scenario.

(b) Second, it would make no commercial sense for Kiri to force LSK to cut its supplies to DyStar, as DyStar is a substantial customer of LSK and LSK remains DyStar's largest reactive dye supplier. This fact has not been seriously been disputed. This being the case, for Kiri to cut LSK's supply to DyStar would be for Kiri to act to its own commercial detriment. We do not see this as plausible behaviour on Kiri's part.

148 In addition, if the LSK disruption scenario was regarded as a real risk, there would have been evidence of this being raised by Senda's directors or

DyStar's management at least amongst themselves. There is no evidence of this nature.

149 Lastly, the absence of any evidence that the LSK disruption scenario was a real concern suggests that it was not foreseen as a risk as at the valuation date. Senda has not addressed this point. We therefore do not find it appropriate to consider the postulated scenario.

150 The shortcomings highlighted above have the consequence that the April 2019 Forecasts are unreliable and skewed. Kiri has made several other submissions with respect to these forecasts, such as an objection to the admissibility of the documents listed in DyStar's 18th SLOD which purported to show that the conclusions in the April 2019 Forecasts were robust and tested. In light of our conclusions on the five identified shortcomings of the April 2019 Forecasts, there is no need to address these contentions. Therefore, and unless otherwise specified below, we do not accept the April 2019 Forecasts as a sound basis for Mr Lie's valuation.

The February 2020 Model

151 We briefly consider the February 2020 Model (see [42(b)] above). The February 2020 Model should also be rejected for the same reasons as the April 2019 Forecasts. While purporting to build on the April 2019 Forecasts, financial documents supporting this model were also not provided. Ms Harfouche has pointed this out in her evidence, and Senda has *not* been able to point to any evidence in reply. We have explained at [138] above why, as a matter of the right approach and common sense, this is inadequate for a share valuation exercise.

152 The February 2020 Model made multiple assumptions, most of which have not been backed up with evidence, for example with respect to:

(a) its baseline forecasts and numbers; and

(b) the alleged foreseeability of various risk events (which we discuss below in the next part of this Judgment), including:

(i) mitigation of the closure of DyStar's various plants; and

(ii) a fall in Indigo 40% solution prices (albeit we will explain below why, the deficiency in the February 2020 Model notwithstanding, we accept Senda's position on the Indigo 40% patents for separate and independent reasons; see [215] onwards).

153 The evidential inadequacy of the February 2020 Model aside, there are other issues with the model.

(a) Ms Harfouche identified numerous mathematical calculation errors and inexplicable line item omissions in the February 2020 Model. These errors can be broadly grouped into two categories, as follows:

(i) errors in the calculations of the uplift in DyStar's cost of sales as a result of outsourcing; and

(ii) errors in the calculation of the gross profit margin impact that the expiry of the Patent and the Indigo 40% patents would have on DyStar.

These errors have been explained at paragraphs 3.10–3.14 of Ms Harfouche's comments on DyStar's 20th SLOD, which we do not

repeat here. What is important is that Senda and its witnesses have not addressed these shortcomings; nor was Ms Harfouche cross-examined on these aspects of her evidence.

(b) There are discrepancies between the February 2020 Model and the April 2019 Forecasts, which have not been explained. For example, the "other expenses" in the February 2020 Model differ from those in the April 2019 Forecasts.

(c) The February 2020 Model appears to rely on post-April 2019 information in specific line items. Three problems arise as a result.

(i) First, this raises issues as to the foreseeability of the respective line items (for example, "using Dec 19 NBV") as at the valuation date, which Senda has failed to address. As noted, events and transactions post-valuation date, which were unforeseeable, should not be taken into account (see [33] above).

(ii) Second, this is in and of itself another instance of late disclosure by Senda. Given that the April 2019 Forecasts formed the backbone of Senda's and Mr Lie's position on valuation, any departure by the February 2020 Model from the April 2019 Forecasts based on information disclosed late in the day raises questions as to the accuracy of the April 2019 Forecasts (in line with the point on discrepancies between the April 2019 Forecasts and the February 2020 Model, as highlighted at [153(b)] above).

(iii) Third, such late inclusions buttress the view that the February 2020 Model, like the April 2019 Forecasts (see [144] and [145] above), was *prepared specifically for the valuation proceedings* and was consciously skewed in Senda's favour.

154 We accordingly do not accept the February 2020 Model.

Conclusion on the experts' approaches

155 In light of the foregoing, Ms Harfouche was correct not to take into account the April 2019 Forecasts and the February 2020 Model. We do not accept Senda's criticism of her "failure" to cross-check her numbers against these forecasts.

156 Based on Ms Harfouche's final and most recent valuation, as *per* her updated calculations, DyStar's equity value was **US$1,636m** as at the valuation date, excluding the Longsheng Fees for 2017 and 2018, and the benefit/licence fees earned from the Patent. We turn to consider whether Ms Harfouche's valuation has been correctly adjusted for various risk events and other relevant factors.

Adjustments for the Five Risk Events

The closure of the Nanjing plant

157 The parties do not dispute the occurrence of the explosion at the Nanjing plant on 23 February 2018. This was a pre-valuation date event and therefore relevant. It is agreed that after the explosion, dye production at the Nanjing plant was not viable. The plant was shut down and "alternative sources for all products concerned" had to be identified. The nub of contention lies in the impact that the closure of the Nanjing plant had on DyStar's overall production capabilities (and consequently its value). In our view, the closure of the Nanjing plant would not significantly impact the valuation of DyStar.

158 Two of the three dyes produced at the Nanjing plant are not significant parts of DyStar's business. The three main categories of dyes produced at the

Nanjing plant were (a) Indigo solution dyes (about 50% of the Indigo solution production capacities of DyStar); (b) Vat dyes (about 70% of DyStar's total Vat dye production); and (c) cationic dyes (*ie*, Wo Pa Pan dyes). Ruan's evidence is that the latter two dyes are "small-volume business[es] of DyStar and had a lot of issues". Ruan consequently questioned whether DyStar should "rather spend the effort in other businesses". His evidence has not been contradicted – Senda has not disclosed any documents showing otherwise. We therefore do not consider that the cessation of Vat and Wo Pa Pan dye production at the Nanjing plant would have had a significant impact on DyStar's valuation. The question that remains is how DyStar would be affected by the disruption to its Indigo solution dye production.

159 DyStar had sufficient contingency plans in place to ameliorate the impact of the closure of the Nanjing plant. While there certainly would have been immediate negative financial repercussions due to the closure of the plant, a longer term approach needs to be taken. One would expect a large, well-resourced and diversified enterprise such as DyStar to have prepared for events such as these. Indeed, there is ample evidence bearing this out: numerous plans were made to outsource the production of Indigo dyes (and indeed Wo Pa Pan and Vat dyes as well) following the closure of the Nanjing plant. In the *short-term*, these included the following:

> (a) DyStar's May 2018 board pack indicates that part of the Indigo dye production was moved in 2018 to DyStar's Ludwigshafen facility. DyStar also entered into toll manufacturing arrangements with LSK and Bann Quimica. These toll manufacturing arrangements involved DyStar outsourcing production, *ie*, providing third parties such as LSK and Bann Quimica with the relevant raw materials or semi-finished products, and having the third-party contractors complete the production of the

relevant product. The existence of such arrangements is supported by Eric's evidence – in his AEIC, he stated that "[w]ith *the recovery steps* taken, [DyStar] expects to be able to retain a meaningful portion of the production and sales volume after the closure of the Nanjing plant (i.e. by *out-sourcing*)" [emphasis added]. In the 21 May 2018 DyStar board meeting minutes, it was stated that the "Longsheng technology team is meeting with DyStar team *every other day* to discuss how to set up alternate supply to DyStar" [emphasis added]. This shows that *extensive* efforts were in fact being channelled into the contingency measures.

(b) With respect to Wo Pa Pan and Vat dyes, the May 2018 board pack similarly stated that production of these dyes had been relocated to Longsheng, Omuta and Gabus. Wo Pa Pan production had also been outsourced to manufacturers in India.

(c) We accept Ms Harfouche's view that the tolling fees associated with DyStar relocating its Indigo dye production (*eg*, to Ludwigshafen, LSK and Bann Quimica) would be insignificant, or at the very least offset by the revenue earned from the tolling arrangements. Ms Harfouche gave evidence of the *additional* revenues, amounting to approximately US$22m, earned from tolling arrangements. Her evidence shows that the tolling arrangements might not have been just substitutive stop-gap measures. They might have even been profitable. What is key is that Ms Harfouche has given unrefuted evidence that these arrangements generated *significant revenue*.

(d) Manish testified that the costs associated with tolling arrangements were low, and tended not to be significant financial burdens. His evidence in this regard has not been meaningfully

challenged by Senda. Eric disagreed, and asserted in his AEIC that the relevant tolling costs (associated with the relocation of DyStar's Indigo dye production) were high. Eric also asserted that despite the recovery steps taken, DyStar's overall "gross profit" would likely be "significantly lower" due to "increased competition in the market for textile dyes", and "increased cost of production arising from the out-sourcing". However, Senda has not disclosed documents relating to the costs of the toll arrangements, and has thereby been unable to substantiate Eric's assertion that such arrangements involved high costs. This is despite Kiri having sought discovery of the relevant documents in SIC/SUM 17/2019. Nor has Eric provided any details on the alleged increased "competition" and "cost of production". There is thus no sound evidential basis to support Eric's assertions.

(e) In short, there is no reason to believe that the tolling arrangements were not profitable. The revenue earned was substantial and Senda has failed to produce documents that show that the costs were significant. In any event, the tolling arrangements would have dealt with any potentially deleterious effects on DyStar's valuation or loss of profits occasioned by the closure of the Nanjing plant. After all, that is precisely why they were implemented.

160 It is relevant that there is also evidence that DyStar had concrete plans in place for the *long-term*:

(a) The DyStar November 2018 board pack (post the closure of the Nanjing plant) states that DyStar had the option of transferring Indigo dye production to its Gabus and Omuta plants. It specifically indicates a "$4.1m Debottlenecking project in Omuta for *Nanjing replacement*"

[emphasis added]. The board pack also mentions that the transfer of products to Gabus and Omuta had in fact "started".

(b) Senda's *own evidence* in the form of the April 2019 Forecasts states that DyStar intends to invest US$3.3m "on improving the production … capabilities of [the] plant in Omuta (Japan), to take over some of the production of selected chemistries previously produced in Nanjing".

(c) In the presentation to the DyStar board in May 2018 on the contingency plans available in light of the accident at the Nanjing plant, other alternative long-term solutions involving Longsheng were mentioned. These include, for example, DyStar setting up a dye production plant on Longsheng's premises – this alternative was in fact evaluated to be "[l]ess risk[y]" and potentially tenable.

(d) As with the short-term outsourcing to *inter alia* the Ludwigshafen facility, Senda alleged that transport costs for relocation/outsourcing were high. Again, however, Senda provided no evidence supporting such an allegation (see [159(d)] above). We therefore are unable to accept the assertion.

161 Relying primarily on Eric's evidence, Senda further argues that the aforementioned measures would not be sufficient to mitigate the effects of the closure of the Nanjing plant. Eric, however, has not provided an evidential basis for his view. The relevant portions of Eric's AEIC comprise bare assertions. Accordingly, in the face of the unequivocal evidence demonstrating that there were *multiple short-term and long-term* contingency plans put in place, we cannot accept Senda's argument.

162 As for other one-off costs incurred as a result of the fire at the Nanjing plant, which at the time of the valuation proceedings amounted to approximately US$7.1m in incurred costs and US$9.1m in provisioned (*ie*, anticipated) costs, we accept Ms Harfouche's view that these would have been, or will be, offset by DyStar's insurance coverage. Ms Harfouche points out that in Mr Lie's reply report, he accepted that DyStar had an insurance pay-out of at least US$12.2m for the explosion at the Nanjing plant. Notably, this information was not incorporated into the April 2019 Forecasts, and only came to light subsequently despite DyStar having made a claim on the relevant policy. In Ms Harfouche's updated calculations, she inferred based on the above (*ie*, that the *paid out* insurance exceeds the *incurred* costs) that "future one-off costs would all be covered by insurance". Senda has not challenged Ms Harfouche's view. We therefore do not consider that the one-off costs would affect DyStar's valuation.

163 Based on the foregoing, no amendment to Ms Harfouche's numbers is required in respect of this risk event.

The closure of the Wuxi plant

164 The circumstances leading to the closure of the Wuxi plant are not disputed. The Chinese authorities sought to acquire and redevelop the land on which the Wuxi plant was built. DyStar was notified of the authorities' intentions in 2014. The plan was put into motion three years later in 2017, and the Chinese authorities expected the site occupied by the Wuxi plant to be vacated by end-2019. Subsequently, on 22 July 2019, the Wuxi New District Land Reversion Centre issued a notice stating that reversion of the plot of land occupied by the Wuxi plant was to be completed by 31 December 2019. There is no dispute that as a result of the above, production at the Wuxi plant had to cease. Given that there was notification by the relevant authorities of their

intentions in 2014, the closure of the Wuxi plant was a foreseeable event as at the valuation date and therefore relevant.

165 We are of the view that the closure of the Wuxi plant would not significantly affect DyStar's valuation. We first address Kiri's argument that the Wuxi plant's status as a finishing plant and not a synthesis plant (*ie*, it merely further processed the dyes produced at other DyStar plants such as the Nanjing plant) meant that it had a less significant impact on DyStar's revenue. The argument is that the closure of a finishing plant would not affect DyStar's production capacity in the same way as closure of a key production plant might. Senda accepts that the Wuxi plant was a finishing plant. It, however, contends that finishing plants are as important as synthesis plants, given that finishing plants represent an indispensable step in the dye production process prior to the sale of the relevant dyes. As Eric testified, if DyStar "los[t] Wuxi, then… [DyStar] would lose the possibility to produce for the local market".

166 On balance, we accept Eric's evidence that a finishing plant is as important as a dye synthesis plant in the context of DyStar's dye production operations. The two types of plants work synergistically. As a matter of commercial sense, finishing plants such as the Wuxi plant would exist as a separate but indispensable part of DyStar's entire integrated operation. There would be no good reason, otherwise, for DyStar to invest in and pay to upkeep such plants if they served no purpose in the production chain. Nor has Kiri shown that the unfinished dyes produced at synthesis plants (such as the Nanjing plant) can be immediately offloaded in the dye market without first being processed at finishing plants. However, the key issue is not whether the plants were complementary. The real question is whether contingency plans were put in place given that DyStar was made aware of the relevant authority's intention in 2014 to close the plant.

167 The evidence suggests that, as with the Nanjing plant, contingency plans had been made in light of the impending closure of the Wuxi plant. As noted earlier, DyStar had notice of the impending closure since 2014, and closure only took place at the end of December 2019. There was plenty of time for plans to be made, and it is inconceivable that DyStar would not have prepared for a future without the said plant bearing in mind its importance in the production chain. The evidence demonstrates that numerous contingency plans were indeed made.

(a) Statements of intent to relocate DyStar's facilities were present in DyStar's Salient Features Memorandum 2018. The Memorandum was prepared by DyStar's auditors. It stated that "[f]ollowing the notice from [the] China government … the management had intention[s] to relocate manufacturing facilities from DyStar Wuxi to Cilegon during 2018-2019". It also stated that the land that the Wuxi plant's production would be relocated to was vacant; the relocation plan was not executed "following the negotiations with the [Chinese] government". In other words, the relocation to Cilegon did not eventually take place only because the Wuxi plant was allowed to continue its operations through 2018 and early-2019.

(b) In the November 2018 DyStar board pack, it was stated that "the plan is to close [the Wuxi plant] by mid of 2019 when alternative product supplies (Gabus, Omuta, LS) are well established". In other words, DyStar had been prepared to use three other plants to replace the role that the Wuxi plant played in its operations.

(c) Both the May and November 2019 DyStar board packs stated that DyStar was to transfer the processes for Vat and Wo Pa Pan dyes to

Omuta. The November 2019 board pack in fact indicated that this "mitigation plan" was "prepared and *activated*" [emphasis added]. The May 2019 board pack also stated that production of Disperse and Wo Pa Pan dyes for markets outside of China would be relocated to Gabus. In addition, the necessary infrastructure – wet milling machines – was to be relocated from the Wuxi plant to both Omuta and Gabus.

168 Therefore, regardless of whether the Wuxi plant was a *finishing* plant or a *production* plant, it remains the case that there were sufficient contingency plans in place to ameliorate any potential deleterious effects that the Wuxi plant closure might have had on DyStar's valuation. Eric could only offer unsubstantiated assertions that DyStar's production capacity would be affected in the long-term – this is insufficient in the face of the evidence to the contrary.

169 Accordingly, no amendment to Ms Harfouche's numbers is required in respect of this risk event.

The closure of the Ankleshwar plant

170 On 4 March 2019, DyStar received a closure notice from the GPCB with respect to the Ankleshwar plant. The closure notice was issued for alleged violations of the Indian Water (Prevention and Control of Pollution) Act 1974. In September 2019, the GPCB, in a letter to DyStar, revoked the closure notice, noting *inter alia* that several of the alleged non-compliances that led to the closure notice being issued had since been remedied. In the letter, the GPCB also directed the relevant authorities to reconnect the Ankleshwar plant's electricity and water supplies. Then, in February 2020, the GPCB issued a Consolidated Consent and Authorisation ("CC&A") pursuant to an application by DyStar on 18 October 2019. With the CC&A, the Ankleshwar would be

allowed to resume operations subject to continued adherence to the regulatory requirements stated therein.

171 As the closure of the Ankleshwar plant was a post-valuation date event, the question was whether it was foreseeable as at the valuation date. Kiri argues that it was not. Kiri also argues that there is no support for the view that the Ankleshwar plant will never reopen, in light of *inter alia* the revocation of the GPCB closure notice and the issuance of the CC&A. Senda takes the view, as evidenced in the April 2019 Forecasts, that the closure of the Ankleshwar plant will have long-term deleterious effects on DyStar's valuation. Senda also raises a number of objections against Kiri's case in this regard including *inter alia* objections to the authenticity of the CC&A and its admissibility on the grounds that it "contains hearsay evidence".

172 In our view, the closure of the Ankleshwar plant ought not to be taken into account in DyStar's valuation. As at the valuation date, closure of the Ankleshwar plant was not foreseeable. What at most was foreseeable was that DyStar might have had to take corrective measures to deal with the plant's effluent. Prior to the valuation date, in or around February 2017, DyStar's management took steps to comply with a newly-issued order by the Supreme Court of India – this order required factories/plants operating in certain industries, such as the dye industry, to have functional effluent treatment and sewage treatment plants. Pursuant to this, DyStar's management set up and maintained an effluent treatment facility at the Ankleshwar plant – this is Senda's own position. In other words, DyStar pre-empted the problems of effluent treatment, and took sufficient steps to this effect. Thus, at the relevant time, there would have been no reason to think that the Ankleshwar plant would be ordered to close on grounds of non-compliance with the order of the Supreme Court of India.

173 It was only *after* the valuation date, on 2 March 2019, that DyStar were informed of the need to *upgrade* the existing effluent treatment capabilities at the Ankleshwar plant. Senda has *not* shown how it was foreseeable, at the valuation date, that the Ankleshwar plant's effluent treatment capabilities would fall short of regulatory requirements. In fact, based on the steps that DyStar had proactively taken in the months and years preceding (specifically DyStar's installation of an effluent treatment plant in direct response to regulatory requirements), the inference is that DyStar expected the Ankleshwar plant to meet the relevant requirements. There is no evidence that any member of the DyStar management knew, at the valuation date, that the Ankleshwar plant was at risk of being shut down for such non-compliance. It also seems contrived to suggest that efforts would not have been made by DyStar to address any regulatory concerns that might result in the closure of the plant if indeed it was foreseeable on 3 July 2018, the valuation date, that the plant was at risk of being closed by the authorities. This is particularly so if the plant was strategic or at least of commercial importance.

174 In any event, there is also no basis for the view that the Ankleshwar plant will never reopen. Senda's arguments to this effect are speculative and bare assertions; Senda is incorrect to argue that "there is no evidence [the Ankleshwar plant] may be re-opened". As noted above, in September 2019, a mere six months after the Ankleshwar plant was ordered to be closed by the GPCB, the closure notice was revoked. This indicates that *effective* remedial steps had been taken, and suggests that the Ankleshwar plant, for all intents and purposes, was on track for reopening. The evidence thus suggests that contrary to Senda's assertions, the Ankleshwar plant will more likely than not be able to reopen in due course.

175 In this respect, the CC&A order issued in February 2020 is significant. We deal preliminarily with Senda's objections to the CC&A.

(a) Senda's objection to the CC&A on grounds of hearsay may be dealt with summarily. The CC&A is not hearsay as it is proof of the Indian Authorities having *issued* such a notice. The CC&A is being relied upon to establish the *fact of closure pursuant to a notice to this effect* from the Indian authorities. The CC&A is not being used to establish the reasons why the notice was issued. To put it another way, the CC&A is not being used to establish that the plant did not have sufficient effluent treatment capabilities. Only if it seeks to do that will hearsay issues arise.

(b) On the issue of authenticity, we note that Senda's objection in this respect is belated and inadequately elaborated upon. Having had sight of the CC&A, we do not see any reason to doubt its authenticity. Much like the other GPCB documents adduced (the authenticity of which Senda does not challenge), the CC&A bears GPCB's logo and standard form front-material and end-material. Each page has been stamped with the date of delivery. It also bears the signature of a GPCB representative. There is no indication that the document has been forged or doctored. Manish testified that he received the original CC&A in February 2020 from the relevant authorities; Senda did not challenge Manish on his evidence in this regard in cross-examination. Notably, Senda has also not adduced any forensic evidence to suggest that the CC&A is a forgery.

(c) Further, Senda asserts that the CC&A will *not* allow the Ankleshwar plant to fully resume operations, and that a separate

authorisation for flocculation systems must be obtained from the GPCB. This argument, however, is unsupported by evidence. On the contrary, Kiri has pointed out that the GPCB guidelines do not distinguish between different types of CC&As – the guidelines simply state that "[t]he [CC&A] is required to [be] obtain[ed] at the time of starting of the operation/production at the industrial plant". We therefore do not accept that a further *distinct* CC&A must be obtained from the GPCB before the Ankleshwar plant can resume operations.

176 Pursuant to the CC&A, the Ankleshwar plant could be reopened and would remain open if regulatory requirements were consistently followed. Senda has not persuaded us that such compliance was impossible, given that DyStar had in fact already taken effective remedial steps that led to the GPCB closure notice being revoked. Indeed, as noted earlier, if the Ankleshwar plant is commercially significant, there is no reason to assume that DyStar will fail to make every effort to ensure that it is re-opened. We accordingly accept that the Ankleshwar plant's reopening and continued operation in the future are viable and indeed likely.

177 Accordingly, no amendment to Ms Harfouche's numbers is required on account of this risk event.

The Patent

178 The facts pertaining to Longsheng's exploitation of the Patent may be found at [189]–[198] of the *Main Judgment* ([1] *supra*). The question that arises in the valuation proceedings is how such exploitation, which we found amounted to oppression, is to be factored into DyStar's valuation. There are three aspects to our discussion in this regard; it is convenient to deal with all

three at this point, although only the third is a risk event, the first and second being concerned with writing back the value of the Oppressive Acts into DyStar's valuation. They are as follows.

(a) First, the benefits obtained by Longsheng from the use of the Patent ought to be incorporated into the valuation of DyStar based on the value of the notional licence fee that Longsheng would have paid to DyStar.

(b) Second, the third-party licence fees collected by Longsheng under the Patent must be included in DyStar's valuation.

(c) Third, because of our conclusion that the Patent was of value to DyStar during its validity period, the expiration of the Patent must logically have a substantive impact on DyStar's future earnings. This should therefore be taken into account in DyStar's valuation.

Notional licence fee for Longsheng's use of the Patent

(1) The basis for a notional licence fee

179 As we stated in the *Main Judgment* at [191], the Patent was a DyStar asset and Longsheng as a separate entity would in the ordinary course of things have to pay for the use of the Patent. It did not, and wrongfully exploited the Patent; DyStar must be compensated accordingly. The question is how such compensation should be assessed. In our view, the appropriate basis for compensation is a notional licence fee.

180 The conceptual basis for assessing the quantum of the notional licence fee is rooted in the notion of hypothetical damages set out in *Wrotham Park Estate Co Ltd v Parkside Homes Ltd* [1974] 1 WLR 798 ("*Wrotham Park*").

The rule in *Wrotham Park* has been endorsed in Singapore by *Turf Club Auto Emporium Pte Ltd and others v Yeo Boong Hua and others and another appeal* [2018] 2 SLR 655 ("*Turf Club*") at [130] and [217], and more recently by *HT SRL v Wee Shuo Woon* [2019] 5 SLR 245 (at [119]–[120]). The Court of Appeal in *Turf Club* restated the "*Wrotham Park* doctrine" as follows (at [130]):

> 130 … In essence, *Wrotham Park* damages are an exceptional remedy awarded in situations involving a breach of contract where the award of orthodox compensatory damages either by way of expectation loss or reliance loss is not possible. The court, in applying the *Wrotham Park* doctrine, awards the plaintiff damages measured by such a sum of money as might reasonably have been demanded by him from the defendant as a *quid pro quo* for relaxing the covenant between them. This is the 'licence fee' which the plaintiff could reasonably have extracted in return for his consent to the defendant's actions that would otherwise constitute a breach of contract. This is an ***objective*** calculation by reference to a ***hypothetical bargain*** rather than the actual subjective conduct and position of the parties.
>
> [emphasis in original]

Put another way, the rationale behind the *Wrotham Park* rule is that an injured party must be *sufficiently* compensated for monies that it *would have demanded* in allowing the defaulting party to do what would otherwise have been prohibited under the contract between them.

181 Assistance may also be found in the recent UK Supreme Court's decision in *One-Step (Support) Ltd v Morris-Garner* [2018] 2 WLR 1353 ("*Morris-Garner*"), wherein the UK Supreme Court addressed the method of compensation for breach of a restrictive covenant that prohibited competition, solicitation and use of confidential information. The UK Supreme Court held that the compensation might be based on "user damages", or the appropriate fee to be paid for *release from* the covenant. This would be the fee that would have been paid for the right that had been *exploited or used* in breach of the restrictive

covenant. The rationale behind this is that in such cases, "[t]he defendant [would have] taken something for nothing, for which the claimant [would be] entitled to require payment" (*Morris-Garner* at [95]). The UK Supreme Court also expressed the view that compensation for *patent infringement* and breaches of other intellectual property rights may also be awarded on a similar basis (at [26]–[28], [95]).

182 While this case strictly speaking does not involve an award of damages, we are of the view that the *Wrotham Park* rationale may be applied *mutatis mutandis*. We must incorporate into DyStar's valuation the hypothetical loss suffered by DyStar, in recognition of the fact that DyStar would have demanded a licence fee from Longsheng (and thereby have grown in value) but for Longsheng's oppressive exploitation of the Patent.

183 In our view, DyStar's hypothetical loss should be construed based on a notional licence fee, *ie*, the royalties that DyStar would have charged Longsheng for exploitation of the Patent. In this regard, we agree with Senda's submission that the reasoning of the UK Supreme Court in *Morris-Garner* provides useful guidance: DyStar ought to be awarded the sum Longsheng would have paid to be released from the restrictive covenant that bound it. In the present case, this restrictive covenant is found in clause 8 of the Assignment Agreement, which stipulates that Longsheng can exploit the Patent "*only* with the *prior written agreement of DyStar*" [emphasis added]. Accordingly, in a hypothetical arm's-length negotiation between DyStar and Longsheng for use of the Patent, DyStar would have demanded a licence fee in exchange for its consent.

184 With this in mind, Senda's further argument that DyStar would not be able or entitled to charge a licence fee *at all* cannot be right. Clause 8 of the Assignment Agreement, which we have highlighted, is unequivocal; it is

unsurprising then that Senda has not been able to describe a single circumstance under which Longsheng would have been able to exploit the Patent *without* having to pay DyStar.

185 We disagree with Kiri's contention that, rather than a notional licence fee, DyStar should be entitled to an account of profits for the benefit obtained by Longsheng from exploiting the Patent to produce dyes. As mentioned, Longsheng would have been able to exploit the Patent *with DyStar's consent*. The failure to obtain DyStar's consent was the oppressive act; it must be asked what would have happened if Longsheng had sought and obtained DyStar's consent. In our view, DyStar would have charged Longsheng a licence fee. Our observations in the *Main Judgment* (([1] *supra*) at [191]) and the nature of the Assignment Agreement (as explained in the preceding paragraph) point to this conclusion.

186 More importantly, Senda correctly points out that DyStar was not in a position fully to exploit the Patent *itself*, and mainly sought to profit from the Patent by using it for strategic and competitive purposes. Kiri was unable to challenge Eric's testimony to this effect in the valuation proceedings. Kiri has not been able to adduce any evidence to demonstrate that DyStar was in a position to exploit the Patent in the manner that Longsheng did given DyStar's infrastructural and resource limitations.

187 Therefore, while Kiri makes sound arguments on Senda's under-disclosure of the quantity of related products produced by Longsheng (which had the effect of depressing Longsheng's profit margins), we do not believe it is appropriate to award Kiri an account of the profits made by Longsheng. Whilst we are sympathetic to Kiri's position as regards Senda's conduct, Kiri

cannot read back into DyStar's valuation earnings that it would never have been able to make.

188 In this regard, we note Kiri's contention that our order in the *Main Judgment* at [281(b)(iv)], that the valuation of Kiri's shareholding takes into account and incorporates "the benefit that Longsheng has obtained from its commercial use of the Patent for its own production", meant that it was entitled to the profits made by Longsheng from use of the Patent in its own manufacturing process. That is not correct. A proper reading of the *Main Judgment,* specifically [190] to [193], makes this clear. The starting point of our analysis was whether Longsheng's conduct was exploitation within the meaning of clause 8 of the Assignment Agreement which, as noted earlier, provided that "Longsheng will commercially exploit the [Patent] only with the prior written agreement of [DyStar]": at [190]. We found that it did (at [191]). The next question was whether Longsheng's failure to obtain DyStar's prior consent was an act of oppression. We concluded that it was (at [192]). The issue therefore was how would the oppression be appropriately addressed. This required us to consider what was the value that was lost to DyStar by Longsheng's failure to procure its consent. As analysed above, that would sound in *Wrotham Park damages,* not an account of profits. The relevant benefit obtained by Longsheng was its exploitation of the Patent without paying a licence fee.

189 The question that remains pertains to the quantum of the notional licence fee that is to be incorporated into DyStar's valuation.

(2) The quantum of the notional licence fee

190 As mentioned, the notional licence fee must cover what DyStar would have charged Longsheng for exploiting the Patent by using it in its own

manufacturing process. The only basis for determining this amount is proposed by Mr Chan using Longsheng's licensing agreement with Shaoxing Lidesi Material Co Ltd ("Lidesi") as a proxy. Kiri has not submitted an alternative case on this issue. The court thus only has Mr Chan's analysis as a point of reference. We accept Mr Chan's numbers subject to several adjustments.

191 First, Kiri submits (and we agree) that the long-stop date for the notional licence ought to be *the date of the Patent's expiration*. Based on Mr Chan's revised calculation for the period of 2013 to the date of the Patent's expiration, the licence fee would amount to US$473,744.

192 Second, Mr Chan's revised calculation of US$473,744 must be adjusted further to account for the appropriate starting point, *ie*, the date of the Assignment Agreement, 31 August 2010. The evidence suggests that Longsheng had been trading related products (which we accept fall within the scope of the Patent) since 2010. Accordingly, in the hypothetical bargain, DyStar would have begun charging Longsheng for use of the Patent from 2010, not 2013.

193 Third, Mr Chan has incorrectly applied DyStar Germany's effective tax rate on the licence fee. The appropriate tax rate must be DyStar's historical tax rate since in a hypothetical bargain, it would be DyStar that is being paid and therefore taxed.

194 We add that there is also good reason to believe, based on Kiri's submissions on Senda's incomplete disclosure of information on *inter alia* the related products, that the tonnage Mr Chan used for the Patented Products in computing the proposed licence fee is incorrect. However, because there is no

evidence on exactly how severe the under-disclosure on tonnage was, there is no evidential basis to make an adjustment in this respect.

(3) Whether the costs of defending the Patent should be deducted from the notional licence fee

195 DyStar should not have to bear the costs of defending the Patent. In principle, it must be asked what would have happened if, as the Assignment Agreement provides, Longsheng had asked for DyStar's consent to exploit the Patent. The Assignment Agreement sets out the terms for defending the Patent, but does not state that DyStar should bear the costs incurred. In fact, the Assignment Agreement specifically provides that DyStar is to bear the cost of maintaining the Patent and "will pay all necessary annuities and maintenance fees". It is, on the other hand, silent on litigation costs (clause 6 of the Assignment Agreement). This suggests that the latter were to be borne by Longsheng.

196 There is also no evidence that Longsheng attempted to invoice DyStar for such costs. One would imagine that if the arrangement between Longsheng and DyStar had been for the latter to bear the litigation costs incurred in defending the Patent, Longsheng would have demanded from DyStar payment for the costs incurred.

197 Lastly, while it is conceivable that, in the negotiations over the Assignment Agreement, Longsheng might have used the litigation costs as a bargaining chip, this is speculative. The terms of the Assignment Agreement are clear on their face, and the court will not rewrite the parties' bargain. The litigation costs should therefore not be deducted from the notional licence fee that is to be added back to DyStar's valuation.

Third-party licence fees

(1) Third-party licence fees collected by Longsheng

198 On top of the notional licence fee for Longsheng's use of the Patent in its manufacturing process, the third-party licence fees collected by Longsheng for the Patent must be incorporated into DyStar's valuation. We have directed this in the *Main Judgment* (([1] *supra*) at [198]) and made an order to this effect at [281(b)(iii)]; it must be emphasised that Longsheng was *not* entitled to collect such third-party licence fees for the Patent under the Assignment Agreement without DyStar's consent. Senda does not appear to dispute that these fees ought to be incorporated – indeed, it would not be able to given our holding in the *Main Judgment*. Senda's point of contention lies with quantum.

199 On this issue, Kiri relies on Ms Harfouche's valuation of US$13.5m, such sum representing the value of the third-party licence fees earned by Longsheng. Senda relies primarily on Mr Chan's evidence. Mr Chan valued the third-party licence fees at US$12.1m.

200 We agree with Ms Harfouche's US$13.5m valuation of the third-party license fees. Senda's discovery in this regard was wholly inadequate. Kiri has comprehensively canvassed this at paragraphs 647–663 of its written closing submissions, which we reproduce below in material part.

> (a) Kiri argues, and we agree, that following the *Main Judgment*, "all documents evidencing the licence fees that Longsheng has obtained from the Patent are clearly relevant and necessary for the fair disposal of [the valuation proceedings]". It follows from our observations/order at [198] and [281(b)(iii)] of the *Main Judgment*. There, we had stated that "Kiri's shareholding [is to] be valued… and ***shall*** *take into*

consideration and incorporate… *the licence fees that Longsheng has obtained* from the Patent" [emphasis added].

(b) Senda failed, in the first instance, to disclose all relevant documents. As a consequence, on 25 March 2019, Kiri filed SIC/SUM 16/2019 ("SUM 16"), which was a summons for discovery of the said documents. In SUM 16, Kiri requested Senda to produce *inter alia* the list of third party users of the Patent and documents evincing the "benefits" that Longsheng received from each user of the Patent.

(c) Senda, in response, filed Xu's 17th affidavit on 27 May 2019, stating that the relevant documents which are or have been in Senda's possession have been enumerated in Part 1 of Schedule 1 of Senda's 6th SLOD. In Xu's 17th affidavit, Senda confirmed that it did not have in its possession any other documents falling into the categories enumerated in the schedule to SUM 16, other than what had already been disclosed in Senda's 6th SLOD. These documents were relied on by Ms Harfouche in her valuation.

(d) The documents disclosed in Senda's 6th SLOD showed that Longsheng received licence fees from only *two* entities: Zhejiang Jihua Group Co Ltd ("Jihua") and Hangzhou Shenhang Chemical Co Ltd ("Shenhang"). Ms Harfouche was of the view, however, that at least four other companies appeared to have licence agreements with Longsheng for use of the Patent.

(e) Thus, on 7 June 2019, Kiri served interrogatories on Senda to address the issue. Consequently, in Senda's 7th SLOD filed on 18 July 2019, Senda disclosed the licence agreements for the four companies namely, Lidesi (see [190] above), Shaoxing Zhihua Dyestuff

Co Ltd ("Zhihua"), Shaoxing Chunchen Chemicals Co Ltd ("Chunchen") and Hangzhou Runwo Chemical Co Ltd ("Runwo"). Senda also disclosed a summary of license fees received from these companies, with supporting documentation. Ms Harfouche took this into account in her valuation.

(f) Based on the figures in the documents disclosed pertaining to the six licensee companies mentioned above, the total licence fees Longsheng earned amounted to about RMB78.3m. This corresponded with Yao's evidence in his AEIC. This, however, was not the end of the matter. Yao's evidence omitted an invoice issued to Shenhang for liquidated damages of about RMB349,000. Ms Harfouche noted that she only became aware of this invoice upon disclosure of the same in Mr Chan's report. This increased the total fees collected by Longsheng to about RMB78.6m.

(g) It was using this figure of RMB78.6m that Ms Harfouche proceeded with her final calculation of the third-party licence fees in her second report dated 11 October 2019.

(h) Subsequently, on 19 February 2020, which was one week before the hearings for the valuation proceedings, Senda belatedly disclosed in its 11th SLOD *two further licensing agreements*. Ms Harfouche did not, and indeed could not, factor the value of these agreements into her calculations, given the late juncture at which they were disclosed. We address these shortly at [202] and [203] below.

201 Based on the above, it is clear that Ms Harfouche arrived at her US$13.5m valuation based on what little Senda did disclose, specifically on the relevant licence fees *actually earned* by Longsheng during the period of its

exploitation of the Patent up until the expiration of the Patent. Ms Harfouche was not able to take into account the two further licensing agreements belatedly disclosed on 19 February 2020, which suggests that her valuation is conservative. In fact, Ms Harfouche's valuation may be understated for another reason. As pointed out by Kiri, the licence fees that are stated in Longsheng's financial statements from 2013 to 2015 amount to RMB105.3m or about US$15m. This amount *exceeds* Ms Harfouche's licence fees calculation of US$13.5m. Notably, Senda has not disclosed the underlying documents. This likewise suggests that Ms Harfouche's calculation is conservative.

202 We are unable to accept Mr Chan's valuation of the third-party licence fees, which is lower than Ms Harfouche's. Mr Chan claimed that Ms Harfouche's computation of the third-party licence fees (US$13.5m) has wrongly included a sum of RMB10m in her valuation. He proposed that that sum be deducted with the result that the valuation should be approximately US$12.1m (*ie*, US$13.5m – RMB10m = approximately US$12.1m). He asserted that Longsheng is supposed to refund this sum of RMB10m, which he labelled "entrance fees", to two of its licensees, Shaoxing Lianfa Chemical Co Ltd ("Lianfa") and Jiangsu Zhijiang Chemical Co Ltd ("Zhijiang"). The licensing agreements with Lianfa and Zhijiang were the two that were disclosed belatedly in Senda's 11th SLOD, as mentioned at [200(h)] above. We are of the view that there is no merit in Mr Chan's assertion.

(a) The entrance fee refund clause is found in supplemental agreements between Longsheng and the two licencees (the "Lianfa agreement" and the "Zhijiang agreement" respectively; collectively, the "supplemental agreements"). These agreements were also part of the belated disclosure by Senda in its 11th SLOD on 19 February 2020.

(b) The supplemental agreements both state that Longsheng agreed to refund in full the entrance fees paid by Lianfa and Zhijiang (amounting to RMB5m each) after two years have passed from the expiration of the Patent, *ie*, 22 March 2021. This is subject to certain conditions:

(i) First, Lianfa and Zhijiang must ensure that their related parties do not apply to the National Intellectual Property Administration to invalidate the Patent.

(ii) As regards the Lianfa agreement, it is a further condition that Lianfa cannot be involved in products related to the Patent from 1 March 2018 to 22 March 2019 before the entrance fee is refunded.

(c) As regards both supplemental agreements, Kiri submits, and we agree, that there is *no* evidence that the aforementioned pre-conditions for refund of the entrance fee have been satisfied. Senda has not discharged its burden of proving that Lianfa and Zhijiang satisfied these conditions. Accordingly, it cannot be said that Longsheng's obligation to refund the entrance fees to both licensees has arisen.

203 There is another point that is in and of itself a problem for Mr Chan's position on the entrance fees. The documents initially disclosed by Senda did *not* include the licence fees that were paid by Lianfa or Zhijiang, or the invoices that they issued to Longsheng for the entrance fees. In other words, in arriving at her valuation of US$13.5m, Ms Harfouche did not take into account the fees that were paid by Lianfa and Zhijiang. We alluded to this at [201] above. That being the case, it is obviously incorrect to take into account the entrance fee when in the first place, the licence fee that it related to was not factored into Ms

Harfouche's calculations. We accordingly see no need to make any deduction to Ms Harfouche's US$13.5m valuation, which is already lower than the actual sums received by Longsheng as gleaned from the documents disclosed by Senda (see [201] above).

204 However, Ms Harfouche's valuation has to be adjusted as far as interest is concerned. Senda rightly points out that this is not a case involving damages, but one of writing value back into DyStar's valuation. There is consequently no basis to apply a 5.33% judgment interest rate. The experts will have to determine what the appropriate interest rate should be. This should be the rate of interest that DyStar would have earned from the third-party licence fees if DyStar had been paid these fees by Longsheng at the relevant time. The experts' assistance will be required in this regard.

205 Further, the tax rate must be adjusted – Ms Harfouche should apply DyStar's historical tax rate, and not a contemporary rate. In writing back the value of the Oppressive Acts into DyStar's valuation, one should proceed on the basis that the relevant amounts never left DyStar's accounts. Accordingly, the assumption must be that the licence fees were *timeously* paid to DyStar. On that basis, historical tax rates would apply. We require the experts' assistance in this regard, *ie*, in establishing what the applicable historical tax rates were.

(2) Alleged compensatory sum paid to Longsheng by Runtu

206 There is one further sum that requires consideration: the purported compensation from Runtu. Kiri argues that Longsheng received a compensatory sum from Runtu to the value of RMB80m for Runtu's infringement of the Patent, and that this sum, much like the third-party licence fees, ought to be added back to DyStar's valuation. Kiri relies primarily on the evidence

suggesting that Longsheng's lawyers, Shanghai Jin Tian Cheng Law Firm ("Jin Tian Cheng"), received a sum of RMB6.4m from Longsheng. This sum, according to Kiri, was paid pursuant to an 8% contingency fee stated in the retainer between Longsheng and Jin Tian Cheng, which stipulated that Jin Tian Cheng would receive 8% of any settlement sum Longsheng received from Runtu. Kiri argues that the inference must be that Longsheng received at least RMB80m from Runtu of which RMB6.4m was paid to Jin Tian Cheng.

207 However, there is insufficient evidence of Longsheng receiving such a sum. We accept Kiri's argument that Longsheng's arrangement with Jin Tian Cheng raises questions over whether a contingency fee was in fact paid to Jin Tian Cheng pursuant to a settlement between Longsheng and Runtu. However, there is insufficient evidence that Longsheng received such a sum from Runtu. There is no evidence of Runtu transferring this amount to Longsheng's bank accounts.

208 Importantly, Yao has also offered an explanation that is credible. Yao explained that Longsheng settled (and discontinued) its claim against Runtu as it did not wish to take the risk of Runtu's invalidation application succeeding. Longsheng considered that there was a "high possibility" that the Patent might be invalidated. The consideration for Longsheng's settlement of its claim, therefore, was Runtu withdrawing its invalidation application. Yao claims that *this* was the commercial bargain, and no settlement sum was involved. The sum of RMB6.4m paid to Jin Tian Cheng was to cover lawyers' fees, and was *not* pursuant to the contingency fee in their retainer. While there is no documentary evidence of the nature of the bargain between Longsheng and Runtu, Yao has maintained a consistent story throughout his affidavit and oral evidence; Kiri has not been able to controvert Yao's version of events.

209 The sum of RMB80m should therefore not be added to DyStar's valuation. Ms Harfouche's valuation has not taken into account this sum.

Effect of expiration of the Patent

210 If Kiri is right (and this we have found) that the Patent had a significant commercial value as suggested by Longsheng's use of the same and the payment to Longsheng of licence fees by other players in the dye industry, it follows that the Patent's expiration would have a negative financial impact on DyStar. Kiri cannot have it both ways: it cannot claim compensation from Longsheng for the latter's exploitation of the commercially valuable Patent, yet simultaneously assert that the expiration of the Patent would have no negative impact on DyStar's future revenue.

211 Ms Harfouche discounted the impact of the Patent's expiry on DyStar's EBITDA. She did not accept Senda's claim that there were no contingency plans to make up for the lost revenue from the expiration. However, it is for Kiri to show that there were concrete contingency measures that could have ameliorated the expiration of the Patent. It has not done so. Unlike the case for the closure of DyStar's various synthesis/finishing plants (see [159], [160] and [167] above), Kiri has been unable to point to any evidence, such as DyStar board pack forecasts, showing that DyStar had plans to deal with the Patent's expiration.

212 Senda's consistent position has been that the expiration of the Patent would have a negative effect on DyStar's profit margins. This might be gleaned from *inter alia* Eric's testimony, wherein he stated that DyStar's acquisition of the Patent would allow it to control the price of related products. The expiry of the Patent would consequently and "inevitably" lead to a drop in price for

related products, and reduce profit margins of the DyStar Group. Kiri has not refuted Eric's evidence in this regard. Indeed, we consider the fact that Longsheng was able to earn at least US$13.5m of third-party licence fees through its exploitation of the Patent to be illustrative of the Patent's commercial value, and corroborative of Eric's testimony. The impact of the expiration must thus be factored into DyStar's maintainable EBITDA.

213 On the issue of quantum, the best evidence available is Mr Lie's projection of the impact of the Patent's expiration on DyStar's EBITDA. Ms Harfouche referred to Mr Lie's projection in her second report but did not offer a different projection. She instead suggested that DyStar's mitigating measures would have offset the impact of the Patent's expiration. Mr Lie's view was that the expiration would lead to a US$6.5m drop in DyStar's maintainable EBITDA. We recognise that this number is imperfect, as numerous factors have to be taken into account, and assumptions made, in determining the precise impact that the expiration of the Patent would have on DyStar's maintainable EBITDA. However, as noted, Ms Harfouche has not provided a separate set of calculations challenging those of Mr Lie. More importantly, the figure which Mr Lie has put forward is proportionate and not exorbitant, taking into account the notional licence fee and third-party licence fees being awarded to Kiri (see [190]–[193] and [198]–[205] above). One must also bear in mind that DyStar's revenue from the Patent would comprise more than just the notional licence fees that it would have collected from Longsheng. Mr Lie's numbers are thus the best evidence the court has on the issue.

Expiration of the Indigo 40% patents

214 DyStar held patent rights over the Indigo 40% solution, one of several solutions DyStar uses in its production of dyes, in 16 jurisdictions. The Indigo

40% patents in 14 of these jurisdictions expired on 2 July 2019; of the remaining, one patent expired on 13 July 2018 and another on 13 July 2019. Senda argues, primarily relying on Eric's evidence, that the expiration of the Indigo 40% patents would result in significant losses for DyStar, given that the Indigo 40% solution is "a key revenue generating product for the DyStar Group". We are of the view that the expiration of the Indigo 40% patents would affect the maintainable EBITDA of DyStar.

Whether the expiration of the Indigo 40% patents will affect DyStar's revenue

215 First, Eric gave evidence on the financial impact of the expiration of the Indigo 40% patents. Eric asserted that the average selling price ("ASP") of Indigo 40% products will decrease by about 15% over time as a result of the expiration of the Indigo 40% patents. Eric tabulated the estimated drop in the ASP of the related products in his AEIC at paragraph 137, which we reproduce in relevant part.

Total	**2019**	**2020**	**2021**	**2022**	**2023**
Sales value (US$ 'm)	138.8	122.7	118.0	117.0	116.0
ASP (US$ / kg)	8.4	7.5	7.2	7.1	7.0

In his AEIC, Eric also explained the methodology behind the ASP estimates. He stated that the calculations were performed by DyStar's management – this was done by referencing the historical average ASP and average quantities of the relevant products, and assuming a "reversal" of the increase in price and quantity when the Indigo 40% patents were first validated in 2013/2014. In other words, the benefits that accrued upon patent *validation* would be reversed with the result being a proportional drop in revenue upon *expiration* of the patents.

This, on its face, is a logical and sound position, subject to other matters having materially changed which was not suggested. Eric explained that the projected drop in ASP would affect DyStar's future revenue. Eric further justified this based on DyStar's management's "past experience as to how prices of textile dye products fluctuate after the expiry of a relevant patent".

216 Kiri points out that Eric conceded that prices of textile dye products such as the Indigo 40% solution are affected by a myriad of market factors, and not simply the expiry of patent rights. For example, Eric accepted that the Indigo 40% dye is a "**special** type of dye which forms a coloured *shell* around the fibre" [emphasis in original], which suggests that there would be barriers to entry for DyStar's competitors due to the "special" nature of the product. Kiri accordingly argues that given the difficulty that competitors will experience in attempting to begin production of the unique Indigo 40% dye, the expiry of the relevant patents will not have a deleterious impact on DyStar's revenue.

217 In this respect, Kiri also relies on Manish's evidence on the lack of direct competitors to DyStar in this particular market.

(a) Manish gave evidence that apart from DyStar, there were no Indigo 40% solution production plants in the market. Manish also stated that because the technology involved in the production of such dyes "is not easily available in the market", it was not possible for any current dye producer to produce Indigo 40% solution in its existing facilities.

(b) Eric's evidence appeared to corroborate Manish's. He stated that "for textile dye manufacturers who [do] not currently produce Indigo dyes, it is unlikely that they [would] be able to immediately adapt their

current production facilities to compete after the expiry of the Indigo Patent".

218 However, it stands to reason that any barriers to entry will simply *delay*, and not entirely *prevent*, competitors from entering the relevant market. This much was also stated by Eric, who testified that "we expect that it will take some time for competitors to build up production capabilities, acquire know-how and enter the market, before the full effect of the patent expiry is felt". Eric accordingly concludes that the decrease in the ASP of the Indigo 40% products will "take place *gradually* over the next few years" [emphasis added]. This gradual trend is reflected in the table at paragraph 137 of Eric's AEIC, as reproduced above. In our view, this shows realism in Eric's and DyStar's management's approach to their calculations in this regard. They did not predict an immediate pronounced drop of about 15% in the ASP or total sale value of the Indigo 40% products. Their estimations resulted in a 16.42% to 16.67% drop *across five years* (*ie*, (138.8 – 116.0) / 138.8 = 0.1642 for sale value; (8.4 – 7.0) / 8.4 = 0.1667 for ASP).

219 Based on the foregoing, in our view, Eric's projections were reasonable. The Indigo 40% patents, being valuable revenue-generating assets, will surely negatively impact DyStar's earnings upon their expiry. While Eric has offered what we have explained to be a reasonable projection on what this impact might be, Kiri has not offered an alternative set of projections or forecasts. It cannot be the case that the expiry of the patents will have *no* effect whatsoever on DyStar's revenue, and will draw no reaction from competitors in the market; this does not comport with the manner in which a competitive market behaves. Further, while barriers to entry exist in any industry, Kiri has adduced no evidence to show that it will not be possible for DyStar's competitors to, over time, acquire the requisite knowledge and infrastructure to enter the Indigo 40%

dye market, especially since the expiry of the relevant patents means that the relevant information/processes will be accessible to these competitors.

220 Second, and importantly, while DyStar had considered and anticipated the expiration of the Indigo 40% patents, there is no evidence of *concrete* contingency plans that were put in place.

> (a) As early as in 2010, the issue of patent expiry was raised in DyStar board meetings. The DyStar board meeting minutes dated 15 December 2010 state that "Steve and Bart are responsible for coming up with a strategy … [a]fter expiration of Indigo solution". On the same topic, the board also indicated that "[t]he possibility of building up a hydrogenation plant in Guangdong needs to be carefully planned and evaluated".
>
> (b) Then, in the November 2017 DyStar board meeting minutes, the issue of the expiry of the Indigo 40% patents was yet again raised. The minutes state that the "Indigo business" will "fac[e] more challenges as the patent is going to expire *soon*" [emphasis added].
>
> (c) However, these documents are devoid of detail and do not indicate the exact measures to be implemented. Indeed, apart from the two documents referenced above, there is no evidence of DyStar implementing or intending to implement (and if so what) actual measures to ameliorate the impact of the expiry of the Indigo 40% patents.

The scenario was thus unlike what had been done in respect of the closure of DyStar's various synthesis/finishing plants (see [159], [160] and [167] above). Whereas there is concrete evidence pertaining to the contingency measures

adopted for those Risk Events, there is no evidence reflecting actual measures implemented or to be implemented with respect to the expiry of the Indigo 40% patents.

The extent of the impact of the expiration of the Indigo 40% patents

221 The remaining issue pertains to quantum. Mr Lie's report projected that the expiration of the Indigo 40% patents would cause DyStar's maintainable EBITDA to drop by about US$17.2m. Mr Lie derived his calculation based on Eric's and DyStar's management's projections, as reproduced at [215] above. Mr Lie multiplied the projected ASP by the expected quantities of Indigo 40% products to be produced. These quantities were derived from historical sale quantities and DyStar's management's projections on how the said quantities would fall in light of the expiration of the Indigo 40% patents. Using the aforementioned calculation, Mr Lie arrived at a figure of US$17.3m, and stated that this would impact DyStar's EBITDA (conceivably, the "earnings" aspect of the EBITDA equation). Mr Lie's US$17.3m figure broadly corresponded with the management's estimate of US$17.2m; he thus accepted the latter to be correct.

222 As noted earlier, Kiri and Ms Harfouche have not offered an alternative calculation. Their position, as stated, is simply that the expiration of the Indigo 40% patents will not have any negative impact on DyStar's revenue or EBITDA. For reasons explained, we do not accept Kiri's position. Mr Lie's evidence is thus the best evidence available to the court. We accept that Mr Lie's numbers, as well as DyStar's management's projections, are imperfect and premised on several assumptions. Being an exercise in projection/forecasting, they also inevitably involve an element of guesswork. However, given the methodology as expounded by Eric (see [215] above), the gradual drop reflected

in the management's projections (see [218] above), and the fact that the numbers proposed are not exorbitant, we are of the view that Mr Lie's calculations should be accepted. They represent a reasonable projection of the impact that the expiration of the Indigo 40% patents will have on DyStar's future earnings. We add, in closing, that our analysis above is based on our acceptance of the relevant aspects of Eric's and Mr Lie's evidence. We note that a similar position is stated in the February 2020 Model (see [152(b)(ii)] above). Notwithstanding that, our criticism of the February 2020 Model remains (see [152]–[154] above).

223 Based on the foregoing, Ms Harfouche's numbers must be amended in respect of this matter. We require the experts' assistance in this regard, specifically on how Mr Lie's projected US$17.2m drop in DyStar's maintainable EBITDA will affect Ms Harfouche's final valuation figure.

Adjustments to the income (DCF) approach

DLOC and DLOM

Whether a DLOM should apply

224 For reasons canvassed in the *12 February 2020 CA Judgment*, the DLOC will not apply in this case (see [35]–[47] of the *12 February 2020 CA Judgment*). On the other hand, a DLOM should apply. This is a discount applied to Kiri's minority share in DyStar specifically.

225 The starting point, as noted in *Thio Syn Kym Wendy and others v Thio Syn Pyn and another* [2018] SGHC 54 at [32] ("*Thio Syn Kym")*, is that DLOM is applied save in exceptional circumstances (at [32]). Whether a situation constitutes exceptional circumstances is obviously a matter for the court to decide, assisted by expert evidence: the court in *Thio Syn Kym* at [32] stated that

"in an exceptional case, the circumstances may warrant *an order by the court* that no discount be applied" [emphasis added]. Expert evidence is also relevant for determining whether a discount associated with a lack of marketability would have been incurred in any given case, due to the illiquidity of the shares being transacted, thereby warranting the imposition of a DLOM. Where the evidence suggests that DLOM will not be incurred, due to, say, unique commercial considerations undergirding that particular case, that could arguably constitute exceptional circumstances warranting the inapplicability of DLOM. What is clear from *Thio Syn Kym* is that the default position is that DLOM will apply to illiquid, privately-held shares save in exceptional circumstances, which must be proven by the party alleging such circumstances. This in our view is the correct understanding of [32] of *Thio Syn Kym*. It is helpful to set out [32] *in extenso* as it explains clearly the rationale for the imposition of a DLOM:

> 32 Last, but not least, I must clarify that the above principles relate only to the question of whether the court should order a minority discount for lack of control, and not in respect of a discount for *non-marketability*. I acknowledge the point that the concern of preventing unfairness to a minority shareholder who otherwise would not have sold out applies with equal force even where the question of a discount for non-marketability is concerned, ***but the countervailing considerations are different. Such a discount, as the defendants point out, arises from the difficulty of selling shares due to share transfer restrictions and the narrowness of the market, regardless of whether the shares are majority or minority shares. The factors to be weighed are also distinct. For instance, the defendants contend here that MDI's shares are less marketable because MDI is not a listed company and there are share transfer restrictions which stipulate that the shares may only be sold to Singaporeans. It seems to me that these are considerations that would be more appropriately evaluated by the expert valuer when assessing the value of MDI and its shares as a whole, rather than by the court.*** This may perhaps be why it has been observed by counsel that the existing case law does not provide much guidance on when a discount for non-marketability should apply as a matter of

> law. In my judgment, the question of whether to apply a discount for non-marketability should ordinarily be left to be determined by the independent valuer in his expertise. *With that said, I do not foreclose the possibility that* ***in an exceptional case, the circumstances may warrant an order by the court that no discount be applied in order to remedy the unfairness to the minority that would otherwise result***.
>
> [emphasis in italics in original; emphasis added in bold italics]

226 On this basis, a DLOM ought to be imposed on Kiri's shares unless it can be demonstrated that the present case involves exceptional circumstances. Kiri's shares are in a privately held (as opposed to public) company. This fact makes the shares *not* readily marketable; this was noted in *Thio Syn Kym* at [32] and the Court of Appeal's decision in *Liew Kit Fah and others v Koh Keng Chew and others* [2020] 1 SLR 275 ("*Liew Kit Fah*") at [58]. A DLOM would accordingly apply. Indeed, a DLOM should generally be applied to both the income and market approaches: both approaches arrive at the price of the shares which an average market participant will be willing to pay, based on either the company's expected future earnings or the company's predicted market value based on comparable companies. Market participants will generally pay less for illiquid assets, compared to assets that they can easily sell to others. This necessitates a discount in the former case. Recognising this, the Court of Appeal in *Liew Kit Fah* observed at [58] that "[l]iquidity, after all, 'is a valuable attribute of an investment and the lack of it is a depreciatory factor … [that] has given rise to the practice of applying a [DLOM] in the valuation of unquoted shares'". In so stating, the Court of Appeal identified the commercial considerations supporting the imposition of a DLOM.

227 The above, sensibly, is not an absolute rule – the court in *Thio Syn Kym* contemplated this and thereby qualified that under *exceptional* circumstances, it may be argued that a DLOM ought not to apply. This tempers the rule and allows considerations of fairness to be taken into consideration. But Ms

Harfouche has not persuaded us that a different treatment is called for here, or that the present case is an exceptional one.

228 Kiri puts two arguments against applying a DLOM. Neither is persuasive.

(1) The significance of oppression

229 Kiri's first argument is that "[w]here a buy-out order is made in a minority oppression suit, the shares should be valued on a 'fair value' standard without applying a DLOC… or a DLOM". With respect, this argument appears to conflate the two distinct issues of DLOC and DLOM.

230 The DLOM is unaffected by the considerations that made a DLOC inapplicable. The reasons for excluding a DLOC have been addressed in the *12 February 2020 CA Judgment* at [35]–[46]. We highlight that the non-application of DLOC is premised on the fact that Senda stood to *benefit* from acquiring Kiri's minority non-controlling share, because such acquisition served only to consolidate Senda's control over DyStar (from 62.43% shareholding to 100%). In other words, this was not a case of Kiri selling to a third party who would consider the acquisition of a minority position in a privately owned company as a significant factor in the price that it was prepared to pay: see *Thio Syn Pyn v Thio Syn Kym Wendy and others and another appeal* [2019] SGCA 19 at [38] and [39]. Here, the purchasing party is the sitting majority shareholder to whom that consideration does not apply. In fact, as the incumbent majority shareholder, in purchasing Kiri's shares, Senda would enjoy the "collateral benefit" of "consolidation of control, business synergy or in preventing a competitor from acquiring control": *Liew Kit Fah* at [50].

231 A further consideration relevant to the non-application of a DLOC is that this was a forced sale pursuant to a finding of oppression and not a freely negotiated transaction between a willing seller and buyer. The Court of Appeal in *Liew Kit Fah* expressly noted this to be a relevant consideration in the DLOC inquiry: see *Liew Kit Fah* at [49].

232 In contrast, a DLOM has nothing to do with whether the transacted shareholding is a controlling or non-controlling stake in the relevant company. It has to do with whether the shareholding is liquid or illiquid by virtue of the public or private nature of the company. The Court of Appeal in *Liew Kit Fah* at [58] in fact noted that "one would expect that the seller would have to factor in a discount for lack of marketability into the offer price so as to attract buyers, *whether they be existing shareholders or buyers on the open market*" [emphasis added].

233 In oral closings, Kiri was not able to explain how the existence of oppression alone constituted an "exceptional" circumstance that would warrant the non-application of a DLOM (within the meaning of [32] of *Thio Syn Kym*). While the Court of Appeal in *Liew Kit Fah* at [49] observed that the fact of oppression will result in the court "almost invariably order[ing] a buyout on terms that *do not* include a [DLOC]" [emphasis in original], a similar observation was not made with respect to DLOM. The court only observed that where there was oppression, the court "*may* choose not to apply any discount to the valuation of the minority's shares" [emphasis added]: at [57]. With respect to a DLOM, as *per Thio Syn Kym*, this hinges on whether "exceptional" circumstances are made out. The parties have also not made substantive submissions on what would constitute "exceptional" circumstances, and in the absence of any authorities indicating that oppression alone crosses the threshold, we do not further address this point. We simply note the following.

(a) The upshot of Kiri's argument is that in *all* cases of oppression where the court orders a share buyout, a DLOM cannot apply. This directly contradicts [32] of *Thio Syn Kym*, as reproduced earlier. Therein, the court clearly drew a distinction between the "countervailing considerations" undergirding DLOC and those undergirding DLOM. It must be borne in mind that *Thio Syn Kym* was also a case involving oppression (see [13] and [14] of *Thio Syn Kym*). Kiri's argument ignores these countervailing commercial considerations. To pronounce a blanket rule that DLOM will not apply in all cases involving oppression would directly contradict the decision in *Thio Syn Kym*. Kiri has not explained why *Thio Syn Kym* is incorrect on this issue.

(b) In most share buyout cases before the court, oppression in some form might exist. This alone ought not to suffice to warrant the non-application of a DLOM. After all, as suggested in *Thio Syn Kym*, *notwithstanding* the presence of oppression, a party ought to point to other "exceptional" circumstances warranting the non-application of the discount.

234 We note that the High Court in *Poh Fu Tek* ([31] *supra*) was of the view that in general, the court will not apply a DLOM when making a share purchase order following a finding of oppression (at [38]). Notably, this was not a live issue in *Poh Fu Tek* given that the parties agreed on the inapplicability of DLOM (at [38]). In light of the observations in *Thio Syn Kym*, we depart from *Poh Fu Tek* on this issue. The court in *Poh Fu Tek* issued its decision on 25 August 2017, and did not have the benefit of the decision and reasoning in *Thio Syn Kym*, which was delivered on 13 March 2018. More importantly, we agree with the observation in [32] of *Thio Syn Kym* that DLOC and DLOM are grounded in distinct "countervailing considerations". We have explained this above.

235 We therefore see no basis to regard the presence of oppression as constituting an "exceptional circumstance" in the present case.

(2) The marketability of the entirety of DyStar's shareholding

236 Kiri's second contention is more technical. In reliance on a graph produced in Ms Harfouche's second report at paragraph A10.2, Kiri argues that because the entirety of DyStar's shares are not marketable in the first place, a DLOM should not be imposed in arriving at the value of Kiri's *minority* interest in DyStar. In making this argument, Ms Harfouche characterises "Kiri's shareholding in DyStar as part of Senda's shareholding". There are several issues with this argument.

237 In our view, Kiri's framing of the inquiry from the perspective of Senda's controlling (100%) interest is questionable. Kiri argues that the sale of its shares should be construed "as part of Senda's controlling shareholding", because Senda is the party acquiring the shares. One implication of this argument is that it appears to echo the reason for why DLOC was not applied. As noted earlier, the considerations that relate to the applicability of the DLOC and the DLOM are different.

238 As noted, Kiri's substantive argument was that because DyStar's *entire* shareholding is not marketable in the first place, no DLOM ought to be applied when considering Kiri's *minority* share in the already unmarketable company. We do not accept this argument.

239 While Kiri characterises DyStar's entire shareholding as unmarketable, it has not pointed to evidence showing that a corresponding discount has already been applied to the valuation of DyStar's shares in their entirety. Hence, it cannot be said that the factor of lack of marketability has already been accounted

for in Ms Harfouche's valuation. If the argument is that the lack of marketability has already been contemplated in Ms Harfouche's valuation of DyStar as a whole (instead of applying the discount to Kiri's shares specifically), Kiri must be able to show that a DLOM (or a similar discount) has been factored into Ms Harfouche's valuation of DyStar. Kiri has not, and a specific discount to this effect is not reflected in Ms Harfouche's calculations. Instead, as made clear in the preceding paragraphs, Kiri stands by the position that a DLOM should not apply at all.

240 Another facet to Kiri's argument in this regard is specific to the DCF method. Kiri argues that "the use of firm-wide cash-flows [in the DCF method] means that what is valued is the entire shareholding in the company, which is not marketable". The suggestion appears to be that a DLOM would not apply at all where the DCF method is used in valuation, because such a discount is *in-built* into the DCF method. We do not accept this argument.

(a) For reasons provided earlier (see [226] above), we are of the view that a DLOM ought to apply to both the DCF method *and* the market approach. Both approaches arrive at the price of the shares which an average market participant will be willing to pay.

(b) Crucially, Mr Lie also elaborated upon the basis of applying a DLOM to a DCF valuation. He explains that the *discount rate* used in the DCF method is based on "inputs derived from figures for listed equities", and that this "accordingly mirrors the liquidity of listed companies". As DyStar is a "private company and thus less marketable than its listed peers", a DLOM should apply.

(c) We agree with Mr Lie's reasoning. Mr Lie's observations are supported by the manner in which Ms Harfouche has applied the DCF

method. It is evident that in deriving her EBITDA and revenue figures (see [48]–[66] above), Ms Harfouche references multiple *listed* companies as comparables. Clariant, Huntsman and Lanxess are all listed companies (see [56] above). Having used public companies as references, adjustments must be made to Ms Harfouche's starting point. We have in fact alluded to this at [72] above in endorsing Ms Harfouche's reference to listed companies in her application of the DCF method. DyStar's private nature *vis-à-vis* its peers, and the resultant relatively illiquidity of its shares, must be taken into account. However, Ms Harfouche has not done so, whether with respect to Kiri's shares alone, or DyStar's valuation as a whole.

241 Thus, we are of the view that a DLOM must be applied to Kiri's shares.

242 We add a final but important observation. One must not lose sight of the fact that it is *Kiri's minority shareholding*, not DyStar's entire shareholding, that is being transacted. It may well be true, as Kiri submits, that in some circumstances, "there is no difference in marketability between 100% of a listed company and 100% of an unlisted company". However, this line of argument misses the point. It is a comparison made based on the considerations involved in transacting an *entire* company. The present case is different; what has been ordered to be transacted is *not* the entire shareholding of DyStar. It is Kiri's *minority shareholding* in DyStar. This must be the focal point of the inquiry. As Kiri's minority shareholding is in a *private company*, for reasons explained earlier, this necessitates a discount for lack of marketability of such shares (see [226] above).

243 We therefore do not accept Kiri's various arguments and conclude that the present case does not involve exceptional circumstances warranting a non-application of a DLOM. A DLOM consequently ought to apply.

The quantum of the DLOM

244 On quantum, contrary to Kiri's contention, the DLOM should not only comprise the IPO costs of listing DyStar's shares. This would not accurately reflect the applicable discount if Kiri tried to sell its shares. IPO costs only address the transactional costs that would foreseeably be incurred if one were to attempt to list DyStar. It is the cost of cure – but there is no evidence that DyStar ever intended to list its shares in order to "cure" its non-public status. In any event, it is difficult to see why the IPO costs would be a good proxy for the DLOM for shares in an unlisted company. It seems a blunt approach that does not take into account the fact that the shares are unmarketable because they are held in a private company.

245 Mr Lie's proposed 19% discount based on market comparables is more appropriate. Notwithstanding our rejection of the April 2019 Forecasts, Mr Lie's evidence on the DLOM is tenable as a stand-alone analysis, as he uses restricted stock studies, namely the FMV Restricted Stock Study performed by FMV Opinion, which are independent of the April 2019 Forecasts. Kiri has not shown how the FMV Restricted Stock Study is inaccurate or unreliable in any sense.

246 Based on the foregoing, Ms Harfouche's valuation must be adjusted accordingly to incorporate a DLOM of 19%.

Factors affecting DyStar's cost of equity

Country risk premium

247 We accept Senda's submission that a country risk premium should be applied. There are, ostensibly, concerns over the doctrinal basis of the country risk premium. What is generally agreed between the experts, nonetheless, is that it is a premium placed on a company's cost of equity when the said company operates in jurisdictions prone to volatility. The volatility results in these jurisdictions being classified as riskier. This premium is applicable to DyStar as it has a widespread global presence. DyStar has not restricted its operations to countries that are insulated from risk. It has operations in several jurisdictions that have been recognised as less risky, such the US and North Asia, but also conducts business in relatively riskier regions such as Turkey, Africa and the Middle East (classified as such by market literature). Mr Lie's evidence on the country risk premiums associated with each individual jurisdiction that DyStar conducts business in has not been refuted by Ms Harfouche.

248 We do not accept Ms Harfouche's view that diversification insulates DyStar from country-specific risks (*ie*, a fall in DyStar sales in one region can quickly be remedied by increasing production and sales in another region). Such view ignores the precise risk – country-specific volatility – represented by a country risk premium. Notably, Ms Harfouche has not attempted to build a model using a weighted average of the risk based on DyStar's global business activity that demonstrates that the risk is negligible, if not absent.

249 As part of her arguments, Ms Harfouche raised the point that if the business is concentrated in a single risk-free jurisdiction, *ie*, in a "safe haven", this may erode or cancel out the risks present in the other jurisdictions in which the company operates. Mr Lie's model took into consideration this issue. In his

view, DyStar's wide geographical reach averages out, but does not nullify, the different country risk premiums involved. If DyStar has invested in a risky country, but its business there comprises only a small fraction of its overall business, only a fraction of that country's risk factor (corresponding to the proportion of DyStar's business located there, as measured by revenue) will be factored into DyStar's overall country risk premium. We accept Mr Lie's approach, which accords appropriate weight to the risks involved in each jurisdiction in which DyStar operates.

250 As to quantum, we accept Mr Lie's computation of 1.6%, which is arrived at by averaging out the different country risk premiums associated with the various jurisdictions in which DyStar operates. As alluded to in the preceding paragraph, Mr Lie calculated the country risk premium associated with each jurisdiction as a *fraction* of DyStar's overall country risk premium – each fraction is computed based on the proportion of DyStar's overall revenue earned from that particular jurisdiction. Mr Lie then added the various fractions together to obtain an averaged-out country risk premium. This premium applies to DyStar's cost of equity. Ms Harfouche's numbers must therefore be revised accordingly.

Size premium

251 In contrast, a size premium is inappropriate. In broad terms, a size premium may be applied to a company's cost of equity to reflect the fact that smaller companies are subject to greater risk than larger companies. However, the overarching inquiry, so framed, is unhelpful. The precise basis for awarding a size premium is obscure; more importantly, there are significant problems in determining the relative "size" of a company in this inquiry.

252 The experts' respective positions on the issue each come with their own nuances and difficulties. Also, there does not appear to be any easily discernible common ground in the literature. On the one hand, Mr Lie based his opinion on two research studies:

(a) the CRSP Deciles Size Premium Studies, which breaks down stock returns from the New York Stock Exchange, the American Stock Exchange, and NASDAQ into ten deciles based on market capitalisation (the "Morningstar Study"); and

(b) the Risk Premium Report Studies, which breaks down stock returns from the New York Stock Exchange, the American Stock Exchange, and NASDAQ into 25 deciles, based on eight different measures of size (the "Duff & Phelps Study").

The observations in these two studies were incorporated into the 2017 edition of an annual compilation on valuation studies known as the Duff & Phelps Handbook ("2017 Duff & Phelps Handbook"), which Mr Lie primarily referred to.

253 The 2017 Duff & Phelps Handbook primarily adopts the classification used in the Morningstar Study, *ie*, grouping companies into ten deciles based on market capitalisation. Mr Lie calculated DyStar's equity value, and determined that it fell within the 9th decile of the classification. Accordingly, a 2.68% size premium should be applied.

254 On top of Mr Lie's evidence as stated above, Senda also cites a paper authored by Professor Aswath Damodaran ("Professor Damodaran's paper"), defending the basis of the size premium. Senda highlights that despite Professor Damodaran's heavy criticisms of the size premium doctrine (which Ms

Harfouche relies on; see below at [256]), Professor Damodaran accepts that the application of a size premium is "established practice at many appraisal firms, investment banks, and companies". The size premium is in fact "perhaps the most widely used add-on to the costs of equity in practice". This premium is used to recognise the "size effect" when "valuing small closely held company[ies]". Senda also points out that the court has recently, in *Poh Fu Tek* ([31] *supra*), cited and affirmed the applicability of the size premium.

255 On the other hand, Ms Harfouche relied on the fact that DyStar enjoys a revenue of over US$1bn a year. This annual revenue figure is within the range of comparable companies that both Ms Harfouche and Mr Lie used to derive their *betas* (*ie*, the estimate of the relative risk of the asset being valued as compared to the risk of the equity market portfolio). Ms Harfouche set out a table listing these comparable companies at paragraph A9.21 of her second report. Ms Harfouche pointed out, based on her table, that DyStar's revenue is similar to that of its large international peers. She accordingly rejected Mr Lie's classification of DyStar into the 9th decile of the classification in the 2017 Duff & Phelps Handbook.

256 Ms Harfouche also cited Professor Damodaran's paper in an attempt to attack the basis of a size premium. Professor Damodaran notes that there are serious questions that can be raised about whether the size premium exists and if so, what exactly it measures. This is a point relating to the arbitrariness and problems with relativity (*ie*, the lack of a determinate objective reference point) involved in an exercise that scrutinises "size". Ms Harfouche also highlighted Professor Damodaran's conclusion that the basis for using the size premium is "as a premium for illiquidity", given that "the bulk or all of the small size effect can be attributed to a liquidity effect and that putting in a proxy for illiquidity makes the size effect disappear or diminishes it". On this basis, Ms Harfouche

argued that the DLOM, as discussed above, accounts for any effects of illiquidity. There would therefore be no further effects of illiquidity to be adjusted for *via* a size premium.

257 Both experts raise valid points. Having considered these, in our view, the size premium exists as a relevant doctrine today. It has been applied in other valuation proceedings, such as by the experts in *Poh Fu Tek*. Therein, the court accepted the rationale behind and basis of the size premium, as follows (at [113]):

> … the [size premium] reflects the excess return that investing in small companies provides over a risk-free rate. Excess return compensates investors for taking on a higher risk of equity investing. The more specific relevant risk which the [size premium] reflects is risk associated with smaller firm size. Accordingly, [size premium] values are derived from statistics on premiums which are ordered by firm size.

The court's observations are commercially sound. They are also consonant with the observations in literature, such as the concessions made in Professor Damodaran's report concerning the widespread application of the premium in present day (see [254] above).

258 However, and all things considered, we do not accept that DyStar, which enjoys a substantial annual revenue of *over US$1bn earned from a global spread of business*, should be characterised as a "risky small company" for which investors would demand a size premium. Such annual revenue is by *no* means insubstantial, as highlighted by Ms Harfouche with reference to other comparable companies (see [255] above).

259 While Mr Lie criticised Ms Harfouche's reliance on revenue instead of market capitalisation as a relevant parameter in the size effect inquiry, the literature does not entirely support his argument. Kiri highlights the views of Dr

Shannon Pratt, who was cited by Mr Lie as authority for the proposition that a size premium exists. Dr Pratt stated that market capitalisation is not the only measure of size that can be used, "nor is it necessarily the best measure of size to use". Pertinently, Dr Pratt cited an earlier edition of the Duff & Phelps Handbook that likewise indicates that "market capitalisation may be an imperfect measure of the risk of a company's operations". Dr Pratt elaborated, importantly, that:

> … using alternative measures of size may have the practical benefit of removing the need to first make a guesstimate of size in order to know which portfolio's premium to use… ***If you need to make a guesstimate of the subject company's market capitalization first in order to know which size premium to use, the circularity problem is introduced***. While market capitalisation, at least for a closely held firm, is not generally available, ***other size measures, such as assets or net income, are generally available***.
>
> Finally, when doing analysis of any kind it is generally ***prudent to approach things from multiple directions*** if at all possible. …
>
> [emphasis added in bold italics]

260 From the above excerpt, it is clear that Ms Harfouche's reference to DyStar's revenue is unobjectionable. It may even be *preferable*, given the element of uncertainty involved in introducing the variable of market capitalisation (which involves making a "guesstimate"), as suggested by the reproduced expert. DyStar's revenue, in our view, presents a reliable and concrete reference point from which the "size effect" analysis may be undertaken. The story told by the revenue figures is unequivocal: DyStar is a strong global company with consistently high annual revenue in excess of US$1bn.

261 Mr Lie has not offered any meaningful response to Ms Harfouche's comparison of DyStar with its peers based on annual revenue figures (see [255]

above). This raises serious questions over the soundness and accuracy of Mr Lie's classification of DyStar in the 9th decile of the 2017 Duff & Phelps Handbook.

262 There is also no evidence to determine which alternative decile of the 2017 Duff & Phelps Handbook classification, if any, DyStar should be parked under. The parties have not made submissions or adduced evidence on this issue and we therefore do not address it.

263 Crucially, Kiri also points out that Mr Lie has been unable to identify what specific risks DyStar might face by reason of its size in comparison to its peers. Absent such risks, or any evidence to this effect, it cannot be meaningfully said that investors would demand a premium when purchasing DyStar's shares *due to its size*.

264 We also consider Professor Damodaran's critique of the doctrine and the issues of the lack of a clear reference point in the "size effect" inquiry to be significant. As such, we are of the view that the court ought not to impose a size premium unless there is clear evidence demonstrating that the company in question presents clear and patent risks to its investors by virtue of its size *within the industry/market in which it operates*. No such evidence has been adduced; to the contrary, Senda's evidence, in the form of Eric's affidavit evidence, shows DyStar to be an industry leader within the market, eclipsing even the positions of other strong industry performers such as Huntsman, Runtu and Longsheng.

265 It may thus be seen that in all aspects of the evidence before the court – namely DyStar's revenue figures and relative position in the market – there is little indication if any that DyStar would be regarded as a risky investment by

virtue of its size. Accordingly, it is inappropriate to apply a size premium, and no amendment to Ms Harfouche's valuation is required with respect to this factor.

Applicable tax rate on DyStar's revenue

266 Mr Lie's proposed effective tax rate (26.7%) should be accepted over Ms Harfouche's rate (23%). The disparity in the experts' numbers arises due to the alleged impact of certain deductions for "normalised withholding tax". Ms Harfouche's initial starting point was a 26.7% tax rate – based on certain deductions that were made due to "normalised withholding tax", Ms Harfouche then arrived at 23%. However, Ms Harfouche has conceded that certain deductions she made to the tax rate are unsubstantiated.

267 Ms Harfouche accepted that she lacks expertise in tax. More pertinently, she also conceded that the basis for her proposed deductions for "withholding tax" was uncertain. Ms Harfouche offered no evidence supporting her conclusion that the applicable "normalised withholding tax" for DyStar was US$1m *per* year. Ms Harfouche claimed that the normalisation of withholding tax was necessary to exclude "non-recurring" or "one-off" events. These events and their precise impact on the tax rate, however, were never identified with specificity, nor was any supporting evidence adduced to this effect. Ms Harfouche accepted during cross examination that "[she] [did not] know precisely how that was calculated".

268 Finally, Ms Harfouche accepted that if she was wrong on her proposed deductions for normalised withholding tax, she would be happy to accept Mr Lie's proposed tax rate of 26.7%. Ms Harfouche's numbers must be revised accordingly to take into account Mr Lie's proposed tax rate.

Adjustments to DyStar's valuation for the Oppressive Acts and other one-off events

269 The adjustments for the Oppressive Acts are those ordered at [281(b)] of the *Main Judgment* ([1] *supra*). We have dealt above (at [179]–[209]) with the adjustments for the licence fees obtained from the Patent and the benefit Longsheng obtained from its commercial use of the Patent and do not repeat what has been said there.

Longsheng Fees for provision of services to DyStar

270 An important distinction must be made between the Longsheng Fees paid in 2015 and 2016, the payment of which was found to be oppressive in the *Main Judgment*, and the Longsheng Fees paid in 2017 and 2018, which were *not* considered in the *Main Judgment*. We elaborate below.

The 2015 and 2016 Longsheng Fees

271 The parties agree that, as directed in the *Main Judgment*, the Longsheng Fees for 2015 and 2016 have to be incorporated into DyStar's valuation. We first address a preliminary issue that has arisen as a result of certain observations in the *CA Main Judgment* ([3] *supra*).

272 In the *CA Main Judgment*, the Court of Appeal appeared to make a finding (at [119]) that the provision that was made for the 2016 Longsheng Fees was not an act of oppression. The Court of Appeal stated as follows:

> 119 As to the provision for payment of 2016 fees, the trial court held that it was made with a view to extracting value from DyStar and constituted oppressive conduct. The trial court held that the provision ought to have been discussed with the DyStar Board. There appeared to have been no commercial justification for the amount of the provision – Viktor's evidence being that it was made based on 'DyStar internal estimates' (Judgment at [224] and [225]). That said, the making of the provision

> demonstrated an intention to persist in a course of conduct oppressive to Kiri. That action did not of itself foreclose the question of fees payment or the quantum of the payment. It is, with respect to the trial court, difficult to see how the mere making of a provision could constitute an oppressive act.

273 These observations nonetheless do not preclude the inclusion of the Longsheng Fees for 2016 in DyStar's valuation. First, despite its observations at [119], the Court of Appeal dismissed the *entirety* of Senda's appeal (at [142]). Second, as evident from the extract reproduced above, the Court of Appeal's concerns were that a mere provision for fees, as opposed to actual payment, could not be oppressive. However, in the valuation proceedings, Senda (via Mr Chan's evidence) has accepted that at least US$10,155,730 of Longsheng Fees had *in fact been paid* in 2016. This would mean that there is no material difference in the nature of the conduct as between the 2015 and 2016 Longsheng Fees. We thus do not consider there to be any reason to deviate from our holding in the *Main Judgment* ([1] *supra*), *ie*, that *both* the 2015 *and* 2016 Longsheng Fees must be incorporated into DyStar's valuation. The question that remains pertains to quantum.

274 We accept Ms Harfouche's computation of the 2015 and 2016 Longsheng Fees, acknowledging that to do so would be against Kiri's interest, as Mr Chan's computation was higher. Ms Harfouche took into account the time value of money in assessing the financial impact of the Longsheng Fees: specifically, she considered that DyStar would have been able to repay interest-bearing loans using the Longsheng Fees had these not been paid out by DyStar. This would have led to a reduction of US$21.1m in DyStar's net debt. Senda argues that alternative investment options existed that might have yielded better returns. We do not accept this. It is fair and in line with commercial sense for Ms Harfouche to assume that the money that would have been saved (had DyStar not paid the 2015 and 2016 Longsheng Fees) would have been used by

DyStar to clear existing debts so as to minimise the accrual of further liabilities. There is scant evidence that there were alternative options which would have realised a rate of return that was significantly better than the interest obligations that DyStar was incurring.

275 We also accept Ms Harfouche's method of calculating the *impact* of the Longsheng Fees – the effects are on DyStar's EBITDA (as opposed to equity value). This is because: EBITDA = NPAT + interest, tax, depreciation and amortisation, and NPAT = revenue – all expenses – tax. The Longsheng Fees fall properly into the "expenses" bucket in the NPAT computation (*ie*, Ms Harfouche opined that if the fees were not paid out, they would have led to a reduction in DyStar's total expenses). Senda has not materially challenged this point.

276 However, we reject Kiri's submission on the tax rate for the fees. Historical tax rates at the relevant time, and not Ms Harfouche's effective tax rate based on contemporary rates, should apply. The reasons for adopting such an approach have been explained earlier in the context of the third-party licence fees collected by Longsheng (see [205] above). Ms Harfouche's computation has to be adjusted accordingly. We require the experts' views on what the applicable historical tax rates were.

The 2017 and 2018 Longsheng Fees

277 The Longsheng Fees for 2017 and 2018 should not be incorporated into DyStar's valuation. These fees were approved by DyStar's board, albeit with Kiri's directors on DyStar's board voting against them. Kiri concedes that no finding of oppression has been made in relation to the Longsheng Fees for 2017 and 2018 , but nevertheless submits that these fees ought to be incorporated into

DyStar's valuation on the basis that to do so would be just. Several points, which differentiate these fees from the Longsheng Fees for 2015 and 2016, must be borne in mind.

278 First, there was no finding of oppression with regard to the Longsheng Fees for 2017 and 2018. It therefore seems that there is no justifiable basis to order that they be incorporated, as such incorporation is not necessary to cure the effects of any oppressive conduct.

279 Second, the Longsheng Fees for 2017 and 2018 were not retrospectively approved like the Longsheng Fees for 2015 and 2016. It is important to be precise on the meaning of "retrospective" in this context. To the extent that the fees for 2017 and 2018 were approved at the end of the respective years, it might be true that the approval was *ex post facto*. However, we have made it clear at [213] of the *Main Judgment* ([1] *supra*) that "[t]he mere fact that payments were made retrospectively for services does not necessarily mean that such payments were commercially unfair". What is pertinent is the *nature* of such retrospectivity, *ie*, the extent to which Kiri was consulted and made aware of such fees. In this regard, the finding of retrospectivity in relation to the Longsheng Fees for 2015 and 2016 made in the *Main Judgment* was quite different. The retrospectivity there was not with regard to the *ex post facto* approval of the fees *per se* but the fact that the *entire issue of levying a fee for the services rendered* was raised only after the fact. There was no intimation beforehand that a fee of this nature would be levied.

280 During the approval process for the Longsheng Fees for 2017 and 2018, Kiri was in fact consulted; this was unlike what occurred in respect of the Longsheng Fees for 2015 and 2016:

(a) Senda observes that, as *per* DyStar's November 2017 board meeting minutes, the issue of the Longsheng Fees for 2017 was raised with Kiri. While Kiri's directors disapproved of the Longsheng Fees for 2017 for "transparency" reasons and apparent lack of "commercial justification," neither Manish nor Mr Mukherjee challenged the correctness of the report prepared by KPMG (the "KPMG Report") on the reasonableness of the principles that Longsheng applied in arriving at its computation of the Longsheng Fees. The point is that the issue of the Longsheng Fees was clearly on the meeting agenda and Kiri is accordingly incorrect to submit that there was "no discussion" on the Longsheng Fees and the corresponding services in November 2017.

(b) The same may be said with respect to the Longsheng Fees for 2018 – this was an issue raised in the 21 May 2018 and 16 November 2018 DyStar board meetings, as captured in the respective meeting minutes. In fact, in the 21 May 2018 board meeting, Manish said that "he ha[d] no problem with the amount of Longsheng fees, but [DyStar] should follow a transparent process". We address the relevance of the *transparency* of the approval process below; what we emphasise here is that the Longsheng Fees for 2018 were clearly brought to Kiri's attention and addressed in the board meetings.

281 The situation with regard to the Longsheng Fees for 2017 and 2018 was therefore unlike the situation as regards the 2015 and 2016 Longsheng Fees where the DyStar board approved the fees without *any* consultation with Kiri. It bears mention that in 2017 and 2018, before the Longsheng Fees for those years were charged, Kiri would have already been aware of a standing arrangement of this nature being in place because of the charging of similar fees in 2015 and 2016. DyStar's 2017 board meeting minutes as discussed above

show that Kiri knew the existence of these fees *for a fact*. In this sense, it is incorrect for Kiri to characterise the Longsheng Fees for 2017 and 2018 as a mere "continuation" of the Longsheng Fees for 2015 and 2016. DyStar's Kiri directors were no longer suffering from ignorance as to the existence of fees of this nature. It thus cannot be assumed that our finding of oppression in relation to the Longsheng Fees for 2015 and 2016 would, as it were, be carried forward and "infect" the Longsheng Fees that were paid in 2017 and 2018.

282 Kiri's other substantive concerns are unfounded. Kiri's case in this regard was limited to challenging the need (*ie*, "commercial justification") for Longsheng's services and the "transparency" of the service procurement process. We address these in turn.

283 On commercial justification, services were actually provided which benefitted DyStar. On Manish's and Mr Mukherjee's evidence, DyStar in fact required such services. As mentioned (at [280(b)] above), Manish stated during the 21 May 2018 DyStar board meeting that he had no issue with paying Longsheng for services rendered that year, but simply questioned the transparency of the charging process. In other words, he accepted that fees would have to be paid for the type of services rendered. Similarly, during the valuation proceedings, Mr Mukherjee testified that he was not actually averse to paying the Longsheng Fees for 2017 and 2018. Mr Mukherjee had been aware of the type of services that would be provided by Longsheng, and, critically, testified that "[a] company like DyStar would *need* these services" [emphasis added]. What is apparent, therefore, is that Manish and Mr Mukherjee considered and accepted, on Kiri's behalf, that DyStar required at the very least the *type* of services rendered by Longsheng. This was why they were agreeable to DyStar paying for such services.

284 That brings us to the question of the *transparency* of the service procurement process. It became clear during the valuation proceedings that this was the pith of Kiri's discontent on this issue. In our view, two points are fatal to Kiri's position.

285 First, Kiri contends that the benchmark for transparency in this case is Mr Mukherjee's proposed rigid "four-step approval process"; this, however, does not address the real issue, which is whether the payment of the Longsheng Fees for 2017 and 2018 was *commercially unfair* to DyStar. We reproduce Mr Mukherjee's four-step process below:

> (1) First, DyStar management has to demonstrate a need for a specific service and justify this need.
>
> (2) Then, DyStar management has to float enquiries to third parties for the provision of the identified service. In this exercise, Longsheng is to be treated at arm's length on par with the third parties.
>
> (3) Thereafter, DyStar management is to put the various options before the DyStar Board. The evaluation process is to be scrutinised by the independent directors who are not in any position of conflict and a final decision is then taken on the service provider.
>
> (4) Based on such prior approval, the work is then awarded to the chosen service provider and completed thereby.

286 The first step relates to the necessity of the type of services procured, which we have addressed (see [283] above). The fourth step suggests that approval cannot be *ex post facto* – we likewise have addressed this (see [278] above). The second and third steps pertain to the issue of sourcing for independent third-party contractors as alternatives to Longsheng. While it might certainly have been preferable for DyStar to have called a tender for independent contractors, Kiri has not shown that the failure to do so was commercially unfair. Senda argues that Kiri has not adduced evidence to suggest that "the same range and quality of service could be provided by an

unrelated party at the same or equally competitive price". Kiri has thus not proven that a tender would have yielded DyStar any benefit, or that the failure to do so was to DyStar's detriment. It is incorrect for Kiri to suggest that the burden is on Senda to adduce evidence to show that third-party contractors would have been more expensive; the burden is on Kiri to show commercial unfairness, and not on Senda to prove commercial fairness.

287 Second, there is no evidence demonstrating that there was overcharging by Longsheng or that the amounts paid by DyStar to Longsheng were excessive in any sense. Kiri's inability to seriously challenge the contents, underlying basis and soundness of the KPMG Report is telling, and supports our conclusion. The following exchange between Mr Mukherjee and counsel for Senda during cross-examination is pertinent:

> Q: … Under that first bullet point, you will see two sub-bullet points, the second of which says:
>
> > 'Longsheng engaged KPMG to evaluate the reasonableness of the service charge mechanisms and assist in developing appropriate transfer pricing policies in accordance with the arm's length principle …'
>
> … By this time, the proposal was to get yet another accounting firm … to provide an opinion on the reasonableness of the service charge mechanisms in accordance with the arm's length principle. Do you see that?
>
> A: Yes.
>
> Q: So this was going to be another assurance that the charges imposed by Longsheng for the services that it was going to provide would be reasonable and at arm's length. Do you accept that?
>
> A: For transfer pricing, yes.
>
> Q: Further down that page, you will see a reference to KPMG having simulated the 2017 service fees based on the actual 2016 data from Longsheng and DyStar.

> …
>
> The result of that exercise carried out by KPMG:
>
> > '… Service fee for FY 2017 is approximately [US$8.7 million]. This is close to the proposed FY 2016 management fee of [8.6 million].'
>
> … What has happened is that KPMG has performed this exercise -- I accept your point that this may have been for the purposes of transfer pricing -- and arrived at the conclusion that the service fee for 2017 would be approximately US$8.7 million. Right?
>
> A: That's correct.
>
> Q: Do you have any reason to doubt the correctness of this exercise undertaken by KPMG?
>
> A: I do not have reasons to doubt, but the purpose of this study is very different. Incidentally, I may like to inform the court that both KPMG as well as E & Y, if asked, would have done the related-party transaction study -- if asked. And the management decided not to ask for this.

What is clear from the above exchange is that Mr Mukherjee had no reason to doubt the KPMG Report, which concluded that the *charging mechanism* for the Longsheng Fees was reasonable. None of Kiri's other witnesses offered evidence to the contrary.

288 Mr Mukherjee's reservation that the KPMG Report pertains only to *transfer pricing* does not assist Kiri. Kiri has not shown how transfer pricing is any less valid as a pricing mechanism if it is done *reasonably* (which the KPMG Report has concluded to be the case). In fact, transfer pricing is designed to be used in exactly these circumstances, *ie*, when affiliated companies transact with each other. We do not agree with Kiri's suggestion that, following the KPMG Report, DyStar ought to have called for a further report on "whether related party transactions with Longsheng were at arm's length". In so far as the *pricing* of the Longsheng Fees was concluded to be reasonable and commercially

justifiable, we do not see how obtaining a further opinion on the matter would have been necessary. Even if procuring further professional opinion would have been preferable, the failure to do so was certainly not commercially unfair.

289 In our view, it has not been shown that the Longsheng Fees for 2017 and 2018 were improperly paid out, or that their payment was an act of oppression. We understand that Ms Harfouche's valuation excluded the Longsheng Fees for 2017 and 2018. On this premise, no revision to Ms Harfouche's valuation is required.

The special incentive payment

290 The facts pertaining to the special incentive payment (worth US$2m) made to Ruan in 2014 have been set out in the *Main Judgment* ([1] *supra*) at [71]–[73] and [169]–[179]. We found the making of the special incentive payment to be an act of oppression, and directed the payment to be incorporated into DyStar's valuation (*Main Judgment* at [281(b)]). Senda does not dispute this in the valuation proceedings; its sole point of contention concerns quantum.

291 Ms Harfouche's calculation of the impact of the reversal of this oppressive act on DyStar's valuation is broadly correct. The experts' computations diverge by US$0.3m, due to differences in relation to (a) interest and (b) tax.

292 As regards the former, Ms Harfouche considered the time value of money, *ie*, the interest payments that DyStar would have saved. In Ms Harfouche's second report, she expressed the opinion that "[a]bsent the Special Inventive Payment, DyStar would have had USD 2.0m additional cash in FY 2014, which it could have used to reduce its borrowings". We agree with this commercially sound approach. The money DyStar would have saved (US$2m)

had it not made the special incentive payment would no doubt have been put to fruitful use. Further, Mr Chan has not offered any evidence to contradict Ms Harfouche's calculation of the interest savings DyStar would have achieved if the special incentive payment had not been made. We consequently accept Ms Harfouche's view on this issue.

293 The only adjustment that needs to be made to Ms Harfouche's numbers is to the tax rate. Senda submits that the historical tax rate in 2014 (when the special incentive payment was made) ought to apply. This must be the case given that Ms Harfouche accounted for the time value of money and therefore must consider the special incentive payment as being incorporated into DyStar's books in 2014 (see similarly our observations on this issue for the third-party licence fees (at [205] above) and the Longsheng Fees (at [276] above)).

The Financing Transactions

294 The facts pertaining to the Financing Transactions have been set out in the *Main Judgment* ([1] *supra*) at [35]–[64] and [142]–[162]. We found the three relevant transactions (*ie*, the Related Party Loans, the Cash-pooling Arrangement and the Longsheng Financing Concept) to be acts of oppression, and gave directions that the value of these transactions was to be incorporated into DyStar's valuation (*Main Judgment* at [281(b)]).

The Related Party Loans and the Cash-pooling Arrangement

295 As explained in the *Main Judgment*, both the Related Party Loans and the Cash-pooling Arrangement were transactions that involved DyStar making loans to Longsheng-related entities. The question that arose in the valuation proceedings was how the effects of these transactions were to be reversed.

296 Ms Harfouche's proposed computation in this regard is to be preferred. Both Ms Harfouche and Mr Chan offset the Related Party Loans and the value of the Cash-pooling Arrangement against DyStar's external borrowings in order to reverse the effects of these oppressive transactions. The discrepancy in their numbers lies in their *choice* of external borrowings. Ms Harfouche chose to offset the relevant oppressive transactions against DyStar's *highest interest rate* loans. In so doing, Ms Harfouche estimated higher savings for DyStar (*ie*, DyStar would not have had to pay the high interest on those loans). Kiri submits that in doing so, Ms Harfouche adopted a "commercially favourable approach" and thereby calculated a "reasonable estimate" of the interest that DyStar would have saved. Mr Chan did not do so, and chose to offset the Related Party Loans and the value of the Cash-pooling Arrangement against several of DyStar's lower interest rate loans. Mr Chan also excluded from his analysis DyStar's external borrowings that involved penalties for early repayment (thereby excluding several of DyStar's borrowings with higher interest rates).

297 We agree with Kiri. We accept that there is a measure of uncertainty over which precise loans DyStar would have been able to obtain, and would have in fact obtained, had it not lent money to Longsheng-related entities *via* the Related Party Loans and Cash-pooling Arrangement. However, it stands to reason that DyStar would have behaved in its own commercial interest. It would have steered clear of high-interest loans and sought loans with more favourable terms. Kiri's written closing submissions make a valid point in this regard: "[a]ll other things being equal, a company with more cash and flexibility would have been in a stronger negotiating position *vis-à-vis* its banks to obtain a lower interest rate as lending to the company would have been less risky for the banks". This seems to us a fair point and one that would have enabled DyStar to lower its borrowing costs.

298 As such, no adjustment of Ms Harfouche's numbers is required in this regard.

The Longsheng Financing Concept

299 As for the Longsheng Financing Concept, Ms Harfouche selected a loan (a US$40m loan from Standard Chartered Bank ("the SCB Loan")) to replace the said transaction. The rationale behind this is sound. As pointed out by Kiri and Ms Harfouche, the interest rates for DyStar's loans prior to the introduction of the Longsheng Financing Concept tended to be lower. Those lower rates ought to be preferred because DyStar would have been able to procure, and would in fact have procured, such loans *instead of* taking up loans under the Longsheng Financing Concept. It would have been in DyStar's commercial interest to do so.

300 The specific loan (*ie*, the SCB Loan) selected by Ms Harfouche to be the replacement for the Longsheng Financing Concept is appropriate. It had a lower interest rate; DyStar accordingly would have "saved more interest if it had not borrowed under the [Longsheng Financing Concept]", and taken up the SCB Loan instead. Senda has not refuted Ms Harfouche's evidence that the SCB Loan was available and could have been taken up by DyStar in the relevant period, *ie*, in 2014.

301 Accordingly, no amendment to Ms Harfouche's numbers is required.

Insurance pay-out

302 The insurance pay-out to DyStar in May and June 2019 ought to be incorporated into DyStar's valuation. Neither side disputes that the relevant sums were in fact paid out to DyStar.

303 Senda argues that DyStar's management should not be faulted for failing to account for the value of an event that had yet to occur at the time of the April 2019 Forecasts, even if DyStar eventually benefitted from the event. However, what is crucial is that the event was *foreseeable* at the valuation date. The evidence – presentation slides for an update to DyStar's board on 11 March 2018 – shows that DyStar's management made an insurance claim prior to the valuation date (or, at the very least, contemplated that such a claim was to be made). The insurance claim and the potential pay-out arising from it were thus clearly in DyStar's contemplation prior to the valuation date. It consequently cannot be said that the pay-out from the claim was not foreseeable.

304 We add that we agree with Kiri's submission that Senda's failure to incorporate the insurance pay-out into the April 2019 Forecasts *despite knowing of the insurance claim* is another instance of Senda's attempt to depress DyStar's valuation, which in turn reinforces our concerns about the integrity of the April 2019 Forecasts.

305 Ms Harfouche's numbers must be revised accordingly. The issue of quantum is to be resolved as *per* pages 553–555 of Ms Harfouche's updated calculations.

Other tax and legal events

306 We accept Kiri's submission that the three post-valuation date events raised by Eric should not be taken into account in DyStar's valuation. These events are: (a) the Osaka tax adjustments, (b) the additional Italian corporate tax liability and penalties, and (c) the two actions which Kiri commenced against DyStar in India ("the India litigation"). While Kiri does not dispute the *occurrence* of these events, they were not foreseeable as at the valuation date.

307 The Osaka tax adjustments were made known to DyStar in or around March 2019, and resulted in one of DyStar's subsidiaries, DyStar Japan Ltd ("DyStar Japan"), incurring increased tax exposure. As *per* Eric's AEIC, DyStar Japan received on 22 March 2019 an "initial position paper" from the Osaka Region Tax Bureau regarding an audit conducted on DyStar Japan. According to the Initial Position Paper, the Osaka Region Tax Bureau determined that sales from DyStar Japan to 13 "foreign related parties" between the fiscal years 2013 and 2017 must be subject to a further transfer pricing adjustment. This adjustment would result in approximately US$37.8m of increased tax exposure for DyStar Japan. DyStar Japan might consequently also face higher future tax rates.

308 The Italian corporate tax liability and penalties pertain to recent developments in relation to tax assessments served by Angenzia delle Entrate – Direzione Provincale II of Milan (the "Italian Tax Authorities") – on DyStar GmBH.

(a) The Italian Tax Authorities had previously assessed that DyStar GmBH had taxable income from 2006 to 2009 arising from its permanent establishment in Italy through its related entity, DyStar Italia. The corporate tax liabilities and administrative penalties for these years amounted to an aggregate liability of around €48m.

(b) DyStar GmBH succeeded in challenging the Italian Tax Authorities assessment before the Commissione Tributaria Provinciale in 2013, and prevailed on appeal before the Commissione Tribuataria Regionale of Milan in 2014. There remained a pending appeal by the Italian Tax Authorities that might be heard in the foreseeable future.

DyStar GmBH was advised that it had a reasonably good chance of succeeding on appeal.

(c) In or around end February 2019, DyStar GmBH was advised that a new law was enacted in Italy, which allows a taxpayer to settle pending tax disputes. In light of this, DyStar's board resolved to settle the aforementioned tax dispute for €1m.

309 The India litigation pertains to two actions commenced by Kiri against DyStar in India.

(a) On 20 March 2019, Kiri commenced a claim in the City Civil Court at Ahmedabad, India against various members of the DyStar Group's management, alleging defamation and claiming damages valued at approximately US$70m.

(b) On 9 May 2019, Kiri commenced a separate claim against DyStar for breach of the terms of the Share Subscription and Shareholders Agreement dated 31 January 2010. Kiri claimed damages of approximately US$6.7m.

310 All three aforementioned events took place *after* the valuation date. They were also events that were neither foreseeable nor foreseen by DyStar prior to their occurrence – Senda has not provided any convincing explanation in this regard.

(a) DyStar Japan received the initial position paper on 22 March 2019. Senda has not pointed to evidence showing that DyStar or DyStar Japan were expecting to receive this paper prior to the valuation date.

(b) The new tax law in Italy was brought to DyStar's attention in February 2019, and there is no evidence showing that DyStar was aware of its introduction prior to that. The €1m settlement payment made by DyStar was a decision premised on this new tax law. Prior to the settlement being made, DyStar had succeeded in its appeal before the Commissione Tribuataria Regionale of Milan in 2014, and hence owed no outstanding amounts to the tax authorities. On the basis of the advice DyStar had received, what was foreseeable was that any appeal by the Italian Tax Authorities would fail.

(c) Both suits DyStar faced in India were commenced after the valuation date – in March and May 2019 – and there is no evidence that DyStar knew that these suits were impending as at the valuation date. It would be incorrect to attribute the knowledge of Kiri's representatives on DyStar's board in this regard as they were in a position of conflict, and acted, in those proceedings, in their capacity as *Kiri's, not DyStar's*, officers.

311 As explained earlier (see [33] above), the court will not take into account events that were unforeseeable at the valuation date. No amendment to Ms Harfouche's numbers is therefore required in respect of these three post-valuation date events.

Summary: Impact of the Five Risk Events and other relevant factors

312 By reason of the foregoing, Ms Harfouche's US$1,636m valuation has to be adjusted as follows.

(a) The notional licence fees for Longsheng's use of the Patent and third-party licence fees collected by Longsheng ought to be incorporated into DyStar's valuation, subject to the following amendments.

(i) Mr Chan's proposed US$473,744 notional licence fee must be amended to reflect a starting point of 2010 instead of 2013. The applicable tax rate should not be DyStar Germany's, but that of DyStar's instead.

(ii) On the $13.5m of licence fees collected by Longsheng, the 5.33% interest added by Ms Harfouche must be revised. It should not be the interest rate prescribed for judgment sums, but ought instead to correspond to the interest that DyStar would have earned on the licence fees in the relevant years if it had duly received the same from Longsheng. The tax rate for the fees should be adjusted to correspond with DyStar's historical tax rates.

(b) The downstream financial impact on DyStar due to the Patent expiration must be deducted from Ms Harfouche's computation of DyStar's maintainable EBITDA. The Patent expiration would have an impact of US$6.5m as suggested by Mr Lie.

(c) The downstream financial impact on DyStar due to the expiration of the Indigo 40% patents must be deducted from DyStar's EBITDA. This Risk Event would have an impact of US$17.2m as suggested by Mr Lie.

(d) A DLOM of 19% is to be applied to Kiri's 37.57% share in DyStar.

(e) A country risk premium of 1.6% is to be accounted for in DyStar's cost of equity. That will increase DyStar's WACC and result in a larger discount rate in the DCF approach.

(f) The applicable tax rate for DyStar's revenue ought to be 26.7% instead of 23%.

(g) The tax rate for the 2015 and 2016 Longsheng Fees ought to be adjusted to match DyStar's historical tax rates. We note that the Longsheng Fees for 2017 and 2018 have not been (and should not be) accounted for in Ms Harfouche's valuation.

(h) While the special incentive payment has been accounted for in Ms Harfouche's valuation, adjustments to the applicable tax rate must be made. The applicable rate ought to be DyStar's historical tax rate in 2014 when the special incentive payment was made.

(i) The US$4m insurance pay-out must be incorporated into DyStar's valuation.

Conclusion

313 By reason of the foregoing, we direct the following:

(a) In light of [312(a)(i)] above, the parties' experts are to revise Mr Chan's US$473,744 notional licence fee to take into account a starting point of 2010, and not 2013.

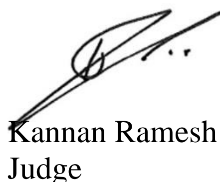
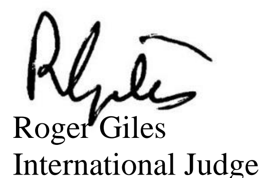
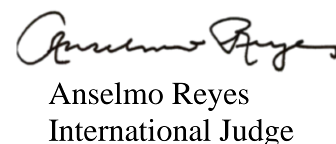
(b) In light of [312(a)(i)], [312(a)(ii)], [312(g)] and [312(h)] above, the parties' experts are to ascertain the relevant historical tax rates and applicable interest rates.

(c) After reaching a conclusion on [313(a)] and [313(b)] above, the parties' experts are to then ascertain how the notional licence fee and third-party licence fees collected by Longsheng are to be factored into DyStar's valuation.

(d) In light of [312], [313(a)], [313(b)] and [313(c)] above, the parties' experts are to revise Ms Harfouche's final valuation and submit the same within 28 days of this Judgment.

(e) If the parties' experts are unable to agree on the matters directed in [313(a)]–[313(d)] above, they are to submit within 28 days of this Judgment a joint statement identifying their points of agreement and disagreement with succinct explanations of their reasons for disagreeing. Any joint statement should be limited to 30 pages, inclusive of annexes.

314 All issues of costs are reserved, pending the determination of a final valuation. We will issue directions to the parties with regard to costs at the appropriate juncture.

Kannan Ramesh Judge	Roger Giles International Judge	Anselmo Reyes International Judge

Dinesh Dhillon, Lim Dao Kai, Margaret Joan Ling, Teh Shi Ying, Han Jiajun and Dhivya Naidu (Allen & Gledhill LLP) for the plaintiff;
Toh Kian Sing *SC*, Cheng Wai Yuen, Mark, Chew Xiang, Soh Yu Xian, Priscilla, Lim Wee Teck, Darren and Yu Qianqian (Rajah &

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Private Secretary to Judge
Supreme Court Singapore

Tann Singapore LLP) for the first defendant;
See Chern Yang, Teng Po Yew and Audie Wong Cheng Siew (Drew & Napier LLC) for the second defendant.