

Kiri Industries Ltd v Senda International Capital Ltd and another
[2021] SGHC(I) 2

Case Number : Suit No 4 of 2017
Decision Date : 03 June 2021
Tribunal/Court : Singapore International Commercial Court
Coram : Kannan Ramesh J; Roger Giles IJ; Anselmo Reyes IJ
Counsel Name(s) : Dinesh Dhillon, Lim Dao Kai, Margaret Joan Ling and Dhivya Naidu (Allen & Gledhill LLP) for the plaintiff; Toh Kian Sing SC, Cheng Wai Yuen, Mark, Soh Yu Xian, Priscilla and Lim Wee Teck, Darren (Rajah & Tann Singapore LLP) for the first defendant; Teng Po Yew (Drew & Napier LLC) for the second defendant.
Parties : Kiri Industries Ltd — Senda International Capital Ltd — DyStar Global Holdings (Singapore) Pte Ltd

Companies – Shares – Valuation of shares

Res Judicata – Issue estoppel

Patents and Inventions – Expiration – Impact of expiration

3 June 2021

Judgment reserved.

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

Introduction

1 On 21 December 2020, in *Kiri Industries Ltd v Senda International Capital Ltd and another* [2020] SGHC(I) 27 (the “*Valuation Judgment*”), we determined the interim valuation of DyStar Global Holdings (Singapore) Pte Ltd (“DyStar”). We indicated at [312] of the *Valuation Judgment* that nine adjustments needed to be made to the interim valuation of DyStar that we determined. In this Judgment, we address the nine adjustments. Where appropriate, we adopt the abbreviations and terms defined in the *Valuation Judgment*, as well as in our judgment in *DyStar Global Holdings (Singapore) Pte Ltd v Kiri Industries Ltd and others and another suit* [2018] 5 SLR 1 (the “*Main Judgment*”).

Background

2 The facts have been set out extensively in the *Main Judgment* delivered on 3 July 2018. We held that Senda International Capital Ltd (“Senda”) had engaged in instances of oppressive conduct against Kiri Industries Ltd (“Kiri”). Senda was ordered to purchase Kiri’s shares in DyStar. The valuation date was to be the date of judgment, *ie*, 3 July 2018. The valuation date was not challenged on appeal.

3 We provided an interim valuation of DyStar in the *Valuation Judgment*. We found DyStar’s equity value as at the valuation date to be US\$1,636m, subject to the nine adjustments (the *Valuation Judgment* at [312]). The parties’ experts were directed to submit (a) a joint revised valuation of DyStar based on their assessment of the impact of the nine adjustments on our interim valuation of DyStar, and (b) a joint report setting out their points of agreement and disagreement with reasons for any disagreement if they were unable to reach consensus.

4 The parties' experts were unable to agree on every point. On 25 January 2021, they submitted a joint expert report ("the Report") addressing the nine adjustments. This was accompanied by a letter from Kiri seeking clarification on (a) pre-judgment interest and (b) the relief to which it would be entitled if Senda failed to comply with the buy-out order in the *Main Judgment*. We addressed the latter two issues in an oral judgment on 17 March 2021.

5 This Judgment addresses the effect of the nine adjustments on our interim valuation of DyStar.

Outstanding adjustments to be made to DyStar's valuation

6 The *Valuation Judgment* identified the nine adjustments at [312]:

(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.

We will refer to the nine adjustments as Issues 1 to 9 respectively.

7 Issues 4 and 8 (on DLOM and the special incentive payment, respectively) are not in dispute. In the Report, the experts agreed on these issues and their joint position has been incorporated into our final valuation of DyStar.

The experts' positions on the contested Issues

8 The experts' positions on the adjustments that arose from the contested issues are set out in tables at pages 2 and 3 of the Report. Where there are discrepancies between the two experts' tables, we have indicated below more precise figures (based on decimal points) or the figures that the parties have more consistently adopted in the Report.

Item	Kiri (US\$ million)	Senda (US\$ million)
Issue 1: Notional licence fee	12.6 to DyStar's adjusted EV	12.4 and (0.7) (audit fees) to DyStar's adjusted EV
Issue 1: Third-party licence fees	1.3 to DyStar's adjusted EV	1.2 to DyStar's adjusted EV
Issues 2 and 3: Expiration of the Patent and the Indigo 40% patents	(72.5) to DyStar's EV	(228.8) to DyStar's EV
Issue 5: Country risk premium	-	(271.3) to DyStar's EV
Issue 6: Effective tax rate of 26.7%	-	(89.4) to DyStar's EV
Issue 7: Longsheng Fees for 2015 and 2016 (incorporated as part of DyStar's net financial debt post-adjustments for Oppressive Acts)	(68.5) to DyStar's adjusted EV	(72.7) to DyStar's adjusted EV
Issue 9: Insurance pay-out	4.6 to DyStar's adjusted EV	4.0 to DyStar's EV
Equity Value of DyStar following all adjustments	1,586	1,063
Kiri's shareholding pre-DLOM	596	399
Kiri's shareholding after applying the 19% DLOM	482.5	323

9 The foregoing table refers to "DyStar's EV" and "DyStar's adjusted EV". The experts explained the difference between the two expressions:

- (a) Adjustments to DyStar's EV are made *first*. These are the adjustments to the DCF method used in Ms Harfouche's valuation approach, and impact on matters such as DyStar's cost of capital and maintainable EBITDA. These matters pertain to Issues 2 and 3 (the expiration of the Patent (Issue 2) and the Indigo 40% patents (Issue 3) which affects DyStar's maintainable EBITDA), Issue 5 (the country risk premium which affects DyStar's cost of capital) and Issue 6

(the effective tax rate for DyStar).

(b) Making these adjustments results in DyStar's adjusted EV. The remaining adjustments, which relate to Issues 1, 7 and 9 and concern one-off events, are made to DyStar's adjusted EV.

10 A final inconsequential divergence between the experts is not fully captured in the table. The experts disagree over whether the 19% DLOM (see [246] of the *Valuation Judgment*) is to be applied to the value of the equity/shareholding in DyStar *before* or *after* deriving the value of Kiri's 37.57% shareholding. Senda favours the former and Kiri the latter. Despite the disagreement, both experts arrive at broadly the same outcome. Conceptually, we prefer Kiri's approach (as reflected in the table above) of applying the 19% DLOM to *Kiri's minority share* in DyStar. This is because, as held in the *Valuation Judgment*, the DLOM is a discount reflecting the lack of marketability of *Kiri's minority share*. Having said that, we note that the outcome is not any different mathematically, even if Senda's approach is adopted.

Issues

11 The following matters arise in relation to the seven issues on which there is no consensus between the experts:

(a) DyStar's applicable historical tax rates. This concerns Issue 1 – on the notional licence fee and third-party licence fees collected by Longsheng – and Issue 7 – on the Longsheng Fees for 2015 and 2016. We directed these adjustments to be made at [193], [205], [276], [312(a)] and [312(g)] of the *Valuation Judgment*.

(b) The impact, if any, of the expiration of DyStar's various patents. This concerns Issue 2 – on the Patent (*ie*, the Orange 288 patent) – and Issue 3 – on the Indigo 40% patents. We directed that the expiration of these patents be taken into account in DyStar's maintainable EBITDA, at [212], [223], [312(b)] and [312(c)] of the *Valuation Judgment*.

(c) The impact, if any, of certain variables on the DCF method used by Ms Harfouche in her valuation. This concerns Issue 5 – on the country risk premium – and Issue 6 – on the effective tax rate to be applied to DyStar. We directed that these factors be considered by the experts at [250], [268], [312(e)] and [312(f)] of the *Valuation Judgment*.

(d) The insurance pay-out DyStar received in May and June 2019. This concerns Issue 9. We directed that this adjustment be made at [305] and [312(i)] of the *Valuation Judgment*.

Preliminary observations

12 In general, Ms Harfouche's position in the Report on the seven disputed issues is well-reasoned and explained with reference to *her valuation model* and the relevant accounting principles. In assessing the views in the Report, it should be borne in mind that, in arriving at our interim valuation, we had accepted Ms Harfouche's valuation model and methodology (see the *Valuation Judgment* at [45]–[156]). Accordingly, any impact of the nine adjustments must be assessed in the context of that model and methodology. Not to do so would be to (a) re-open the debate on the appropriate valuation methodology and (b) ignore the basis upon which our interim valuation was reached. Mr Lie and Mr Chan adopted an approach that departed in several instances from Ms Harfouche's valuation model and methodology. We discuss this in detail at [61] and [62] below.

13 For this reason, it would be apt for us to recapitulate at this juncture Ms Harfouche's valuation

approach. In the valuation proceedings, Ms Harfouche adopted an approach synthesising the market and DCF approaches. Both methods were based on a cluster of companies with similar characteristics to DyStar (in terms of the industry in which they operated, EV, EBITDA, and the geographical reach of their businesses). We had accepted Ms Harfouche's selection of the comparable companies at [55]–[60] of the *Valuation Judgment*. As noted in the *Valuation Judgment* at [42]–[44], Ms Harfouche took this approach because of significant shortcomings in DyStar's disclosure of financial information. The experts were consequently unable to verify DyStar's actual financial performance and their ability to project its financial performance into the future using a pure DCF method was therefore constrained. Using a pure DCF method was not suitable for this reason. Ms Harfouche therefore devised a valuation model under which she charted a range of DyStar EV values derived from both the market approach and DCF method, employing a graphical representation which was referred to in the valuation proceedings as the "football field". Using the football field, she arrived at an estimated valuation. Ms Harfouche's updated football field (following the *Valuation Judgment*) is reflected at page 22 of the Report.

14 In addition, to support her positions in the Report, Ms Harfouche referred to underlying documents. In contrast, on several issues, Mr Lie and Mr Chan failed to refer to any underlying documents. As a result, it is difficult for us to accept a number of Mr Lie's and Mr Chan's views, which struck us as having been formulated on an incorrect basis or as not substantiated by the evidence.

Issues relating to DyStar's historical tax rates

15 Issues 1 and 7 required the experts' opinion on the *historical tax rates* that ought to be applied to various sums that were ordered to be written back into DyStar's valuation: see [313(b)] of the *Valuation Judgment*. The experts disagreed on the applicable tax rate, with the disagreement primarily focused on how DyStar's historical tax rates ought to be determined for certain years.

16 There is no dispute that the table below ("Table A"), as reproduced at page 5 of the Report, accurately tabulates DyStar's *historical effective group tax rates* ("DyStar's group rates") between 2010 and 2018:

USDm	2010	2011	2012	2013	2014	2015	2016	2017	2018
Tax expense/ (credit)	(2)	(1)	2	13	23	24	25	31	29
Profit/ (loss) before tax	104	(2)	(20)	63	126	121	102	115	64
Effective tax rate (%)	(2.3)	35.6	(8.8)	20.3	18.4	20	25.1	26.7	45.5

17 Three points need to be borne in mind when evaluating the applicable tax rates:

(a) **Historical tax rates to be applied:** Our directions at [193] and [205] of the *Valuation Judgment* were for DyStar's *historical tax rates* to be applied. This was because (a) amounts that were oppressively drained from DyStar should be treated as never having been paid out of the company's coffers and (b) amounts that ought to have been paid to DyStar should be regarded as having been paid timeously. On this basis, the tax rates in Table A ought to apply in principle. The exception is for 2019 on which there is insufficient information to derive a figure (see [26] below). Thus, in the absence of compelling reasons to the contrary, the rates in Table A ought to

apply to all tax issues. This is largely what Ms Harfouche did (see [22] below).

(b) **Effective , not simple, tax rates:** The **effective** tax rates, and not simple tax rates, are to be applied. This is a point that Ms Harfouche emphasised in the Report. Effective tax rates are derived after taking into account *inter alia* the profits and losses of the companies in the *DyStar group* and the corresponding tax deductions/savings that would be made as a result. In contrast, the simple tax rate is the rate stipulated in tax regulations, which does not take into account the tax savings or liabilities of individual companies in the DyStar group in a given year of assessment as a result of their financial performance. DyStar's group rates (*ie*, the historical *effective* group tax rates of the DyStar group) is the appropriate metric to apply, as it accounts for the savings (or increased tax) of the DyStar group by reason of the profit/loss of individual companies in the group in a given year. That DyStar's group rates are sensitive to this is seen from the fluctuation of the tax rates in Table A over the years.

(c) **Group , not individual entity, tax rates:** Third, the experts agree, for the most part, that the applicable tax rate ought to be DyStar's group rate and not the tax rate for individual companies in the group. The experts agree that this is the effect of our conclusion in the *Valuation Judgment* at [266]–[268].

For these reasons, the tax rates applicable to the tax issues are the *historical effective group tax rates (ie, DyStar's group rates as defined above)*, unless the experts have provided valid reasons for applying a different rate. These rates are set out in Table A.

18 In addition, it is common ground between the experts that notional and third-party licence fees (under Issue 1) are taxed over *several years*. One would thus expect *consistency* in the experts' approaches to taxation for *every year* in question. However, the experts applied the Table A values for certain years but not others. Given that Table A accurately tabulates DyStar's group rates over the years, the rates there should not be selectively applied, unless valid reasons are provided.

Issue 1: Notional and third-party licence fees that were collected by Longsheng

Notional licence fees

19 Ms Harfouche calculates the total notional licence fees, including saved interest and net of tax, to be US\$1.3m. On the other hand, Mr Chan arrives at US\$1.2m. The difference of US\$0.1m arises from the experts' disagreement on how DyStar's group rates ought to be determined. Specifically, the experts disagree on:

- (a) whether DyStar's group rates or *simple* tax rates should apply to the taxable years in question;
- (b) in the event DyStar's group rates are to apply, the specific rates to be applied for certain years between 2010 and 2018 (bearing in mind that the relevant rates for those years are set out in Table A); and
- (c) how DyStar's group rate for 2019 is to be derived in the absence of evidence on DyStar's financial performance for that year.

20 On the first point, as explained above at [17] generally and [17(b)] specifically, we agree with Ms Harfouche's use of DyStar's group rates as the applicable tax rate.

21 Mr Chan disavows the use of DyStar's group rate without explaining why, as *per* page 5, points 1.8 and 1.10, of the Report. His position is confusing. Specifically, Senda's portion of the Report states:

1.8 Ms Harfouche attempts to justify her position with lengthy explanations about what "effective" tax rate means and presents various tax theories and approaches. For the reasons below, Mr Chan disagrees with Ms Harfouche's explanations and interpretations of "effective".

...

1.10 Contrary to what Ms Harfouche suggests in B), *Mr Chan has consistently applied DyStar's historical tax rate as set out in paragraph 1.3 above*. In addition, Mr Chan took into account the net cashflow that DyStar would receive from China, after accounting for withholding tax.

[emphasis added]

On its face, the above appears to be a rejection of the application of DyStar's group rates (specifically, by rejecting the "effective" component of those rates). On closer examination, it becomes clear that Mr Chan has in fact applied DyStar's group rates as tabulated in Table A, save for 2010 and 2012 (see below at [23]). Senda's reference to the "historical tax rate as set out in paragraph 1.3 above" (italicised in the extract above) is a reference to a table in the Report that mirrors Table A save for 2010, 2012 and 2019. It is unclear, therefore, whether Mr Chan takes issue with an application of DyStar's group rates as opposed to the simple tax rate (the simple tax rate being the alternative to the *effective* tax rate that Mr Chan appears to reject). In any case, as explained at [17(b)] and [20] above, DyStar's group rates ought to apply.

22 On specific tax rates to be applied for certain years between 2010 and 2018, Ms Harfouche has, with the exception of 2010, 2012 and 2018, applied DyStar's group rates in Table A for every year. The application of Table A is correct for the reasons explained at [17] and [18] above. As for Ms Harfouche's approach to 2010, 2012 and 2018, we elaborate on this at [24] and [25] below.

23 Mr Chan disagrees with Ms Harfouche on the applicable tax rates for 2010, 2012 and 2018. He suggests (a) accepting DyStar's group rate in 2018 (which was a high rate of 45.5%) as reproduced in Table A and (b) departing from Table A as regards DyStar's group rates in 2010 and 2012, which were *negative* for those years (-2.3% and -8.8% respectively), and instead applying a 10% withholding tax rate. This appears to be selective application of Table A, which we do not accept for the reasons stated at [18] above. Mr Chan's choice of the high DyStar group rate for 2018 (45.5%) is also significant for another reason. He uses that rate as the applicable tax rate for 2019 without explaining why. He has not considered the reasons why the rate was high in 2018: see [26] and [27] below.

24 On the applicable tax rates for 2010 and 2012, we prefer Ms Harfouche's position.

(a) Ms Harfouche has proposed applying a 0% tax rate instead of the negative rates for 2010 and 2012 as captured in Table A. She uses 0% "as applying a negative effective tax rate would increase the notional licence fees after tax". Ms Harfouche's approach actually favours Senda as applying the negative rates for the relevant years would "increase" the notional licence fees and therefore increase the valuation of DyStar. Having said that, we question the validity of the reason articulated by Ms Harfouche in light of our observations at [16]–[18] above; specifically, the "increase" in notional licence fees would be savings in fact enjoyed by DyStar in 2010 and 2012 in light of DyStar's group rates for the relevant years. Any "increase" in the notional licence

fees that is incorporated into DyStar's value is a substantiated increase. Nevertheless, as noted above, Ms Harfouche's position is to Kiri's disadvantage and Kiri nonetheless accepts it. There may also be assumptions and concerns embedded in Ms Harfouche's position that have not been fully expressed in the Report. With these considerations, we accept her position on the 0% tax rate for 2010 and 2012.

(b) On the other hand, Mr Chan applies a 10% tax rate for 2010 and 2012. This rate, according to Mr Chan, is the Chinese withholding tax rate in the People's Republic of China ("PRC") for those years. However, there is no evidence, apart from Mr Chan's bare assertion, that this rate was in fact the applicable Chinese withholding tax rate. There is also no evidence supporting Mr Chan's assertion in the Report that "the Chinese withholding tax would have been naturally accounted for through the avoidance of double taxation agreement mechanism as DyStar's historical rates ... were all higher than 10%". Also, it is unclear whether Mr Chan is qualified to express an opinion on tax laws in the PRC. In such circumstances, and as stated at [14] above, we are unable to accept Mr Chan's position. For the reasons stated above, we accept Ms Harfouche's position on the 0% tax rate for 2010 and 2012.

25 There is an aspect of Ms Harfouche's position that we do not accept. On the basis of Ms Harfouche's opinion, Kiri submits that the 45.5% tax rate in 2018 was an "anomaly" occasioned by *inter alia* the one-off Nanjing incident. For this reason, Kiri further submits that the average rate of 26.7% over the years should be applied. In the course of oral submissions, we highlighted to Kiri that the logic of "one-off events" could be applied to *all* the years in Table A leading to the use of the average rate for all years. Counsel for Kiri fairly accepted the point. The possibility of one-off events could in part explain the fluctuation in DyStar's group rates as reflected in Table A. Kiri cannot contend on the one hand that the high DyStar's group rate in 2018 ought not to be accepted and on the other argue for acceptance of the lower rates in the other years. Kiri cannot have it both ways. We therefore decline to accept Ms Harfouche's view on DyStar's group rate for 2018. *Per* Table A, DyStar's group rate for that year should be 45.5%.

26 The experts were not able to arrive at an *actual* figure for DyStar's group rate for 2019 due to a lack of evidence on DyStar's financial performance for that year. The available option is therefore to use a suitable proxy. Mr Chan proposes that DyStar's group rate for 2018 of 45.5% be used. We have questioned whether this is correct at [23] above. Ms Harfouche proposes instead that an average of DyStar's group rates of 26.7% (see [266]–[268] of the Valuation Judgment) be used as a proxy.

27 We agree with Ms Harfouche. Senda does not dispute that DyStar's group rate in 2018 (45.5%) is an anomaly when juxtaposed against DyStar's group rates for preceding years. The explanation offered by Kiri, which Senda does not challenge, is that it arose as a result of the financial impact of a one-off event, namely, the explosion at the Nanjing plant. The evidence on the Nanjing plant explosion was extensively canvassed during the valuation proceedings. On this basis, we find it arbitrary to apply DyStar's group rate for 2018 (*ie*, 45.5%) to 2019. Senda has not pointed to any one-off events that would have had a similar pronounced impact on DyStar's group rate for 2019. Accordingly, the fair and reasonable course would be to apply the average of DyStar's group rates, *ie*, 26.7%. We should add that the observations above at [25] with regard to the use of DyStar's group rate for 2018 do *not* apply as regards 2019. The 2018 rate is an *actual* rate and the issue was whether it ought to be discounted because of a one-off event. On the other hand, there is *no* actual rate for 2019. Using a rate that has its roots in a one-off event as a proxy for the rate in a subsequent year is therefore inappropriate.

28 In view of our conclusions above, the applicable tax rates are as set out in the table ("Table B") below:

Year	Effective tax rate
2010	0%
2011	35.6%
2012	0%
2013	20.3%
2014	18.4%
2015	20.0%
2016	25.1%
2017	26.7%
2018	45.5%
2019	26.7%

Third-party licence fees

29 Ms Harfouche's opinion is that the third-party licence fees ought to be US\$12.6m, while Mr Chan's is US\$12.4m. The US\$0.2m divergence is again a result of a dispute over the applicable tax rates from and including 2013, and principally over the tax rate to be used for 2018. We repeat our reasons and conclusion above at [17]–[28]. We prefer Ms Harfouche's position, save for DyStar's group rate for 2018. DyStar's group rate for 2018 ought to be 45.5% as set out in Table B.

Audit fees

30 A further issue was highlighted in the Report and arose in the course of oral submissions: whether the audit fees of US\$0.7m incurred by Longsheng ought to be taken into account in DyStar's final valuation.

31 In oral submissions, counsel for Senda pointed out that the audit fees were for services "to compute the number of products that are being produced and then you multiply that by applicable licence fee and then Longsheng charges that licence fee ... it has absolutely nothing to do with litigation or the defence of the patent proceedings". Senda's submission is that as the court has directed "the licence fees which Longsheng has received from third parties are to be repaid or incorporated into the value of DyStar", Senda ought to be given "credit for any expenses they have paid which are related to the collection of these licence fees". Such expenses would include the audit fees.

32 Senda's submission must be seen in the context of our finding in the *Valuation Judgment* that in quantifying the licence fees payable by Longsheng to DyStar, "DyStar should not have to bear the costs of defending the Patent" (at [195]–[197]). Senda's submission that the audit fees ought to be taken into account in the valuation is in effect an attempt to distinguish the fees from the costs of defending the Patent (which we have disallowed).

33 We do not accept Senda's submission that the audit fees ought to be taken into account. The

point is *res judicata*. In arriving at the quantum of licence fees payable by Longsheng to DyStar, we considered *but declined to include* any line items apart from those specified in the *Valuation Judgment* (see [190]–[205]). We considered the issue of audit costs, which were a line item in Senda’s closing submissions in the valuation proceedings, and declined to direct that it be taken into account in DyStar’s valuation. All sums relating to the licence fees earned by Longsheng that were to be incorporated into (or deducted from) DyStar’s final valuation were identified in the *Valuation Judgment*.

34 The findings on the licence fees in the *Valuation Judgment* were on two premises, that:

- (a) the licence fees were to be incorporated into DyStar’s valuation to remedy the effects of Longsheng’s oppressive conduct in *impermissibly and wrongfully* exploiting the Patent; and
- (b) the valuation that is arrived at ought to be *fair, just and equitable* and not constrained by adherence to accounting strictures that would lead to unfairness.

We therefore concluded that the licence fees, *as quantified in the Valuation Judgment*, had to be incorporated into DyStar’s final valuation. We highlighted this to Senda’s counsel in the course of oral submissions. Accordingly, there is little basis for the audit fees to be included in the computation of the licence fees.

35 Further, as a matter of fairness, Senda ought not to be allowed to claim, on Longsheng’s behalf, the reimbursement of expenses incurred in the course of Longsheng’s *wrongful exploitation of DyStar’s intellectual property*. DyStar was not privy to Longsheng’s sub-licensing of the Patent or to any of the costs and benefits associated with the same. Nor did DyStar have a say in those dealings. DyStar was effectively presented with a *fait accompli*. Consequently, the *res judicata* point apart, it is inappropriate to include further line items – either additions or subtractions – to the quantum of licence fees that is to be incorporated into DyStar’s final valuation.

Issue 7: Longsheng Fees for 2015 and 2016

36 Issue 7 likewise has to do with applicable tax rates. The difference between the experts arises from a disagreement over the rates that ought to be applied. Based on their respective calculations, the experts are apart by about US\$4.2m.

37 Mr Chan’s position is that DyStar’s group rates ought to apply. We prefer his position as a matter of *consistency*. We have made the relevant observations at [17(a)]–[17(c)] above. DyStar’s group rates ought to apply to *all* tax issues.

38 Ms Harfouche’s position is that DyStar’s tax rate (*ie*, the Singapore tax rate for the 2nd defendant in SIC/S 4/2017), and not DyStar’s *group* rates, ought to apply. She asserts that the Longsheng Fees were charged to and payable by DyStar. However, she concedes that the Longsheng Fees, when incorporated into DyStar’s valuation, would be charged to “the Profit & Loss Account of the DyStar Group” [emphasis added]. This suggests that DyStar’s group rates are germane. It is also significant that Ms Harfouche goes to some length to consider the alternative scenario where “the Court decides that the historical effective tax rates of the ... Group should apply”.

39 More importantly, Ms Harfouche’s position is inconsistent with our conclusion in the *Valuation Judgment* that the applicable tax rate ought to be that of the *group*, not the *individual entities*. This was accepted by the experts in the Report (see [17(c)] above). There is no reason to adopt another approach for the applicable tax rate on Issue 7 (*cf* Issue 1): see [17] and [18] above.

40 In short, DyStar's group rates ought to apply. On this basis, Ms Harfouche's view is that the value of Kiri's shares would "fall by at most US\$1.2m". In her final calculations, Ms Harfouche must clarify this point (the precise impact of the adjustment), since her position in the Report (*ie*, "at most US\$1.2m") seems to indicate a range rather than a figure. Ms Harfouche must thereafter incorporate the final figure into DyStar's final valuation.

Issues 2 and 3: Patent expiries

41 We note that Kiri disagrees with the finding in the *Valuation Judgment* that Eric did not forecast an "immediate drop" in revenue due to the expiry of the Indigo 40% patents.

42 This is a challenge that Kiri cannot make as the point is *res judicata*. We found in the *Valuation Judgment* that Eric's position on the impact of the expiry of the Indigo 40% patents was reasonable. The question that was left open was the impact of the expiry of the Indigo 40% patents (as well as the expiry of the Patent) on DyStar's final valuation. In this regard, two questions arise from the Report:

- (a) first, whether the expiry of the Patent and the Indigo 40% patents would have finite or perpetual impacts on DyStar; and
- (b) second, *how* such finite or perpetual impacts should be quantified and incorporated in DyStar's final valuation.

A finite or perpetual impact?

43 The bone of contention between the experts is on whether the expiry of the Patent and the Indigo 40% patents ought to be modelled into perpetuity (*per* Mr Lie's position) or only for a finite period (*per* Ms Harfouche's position). Based on their respective positions, Mr Lie is of the view that the impact is US\$228.8m, whereas Ms Harfouche's view is US\$72.5m. We prefer Ms Harfouche's position.

44 As a starting point, in the *Valuation Judgment*, we accepted Mr Lie's position that the expiration of the Patent would have a US\$6.5m impact on the maintainable EBITDA of DyStar: see [213] of the *Valuation Judgment*. For the Indigo 40% patents, we accepted Mr Lie's projection of a US\$17.2m drop: see [223] of the *Valuation Judgment*. However, we did *not* hold that the effects on DyStar's maintainable EBITDA should be *modelled into perpetuity*. We instead stated the following:

- (a) For the Patent, there would be "a US\$6.5m drop in DyStar's maintainable EBITDA" and this impact "must thus be factored into DyStar's maintainable EBITDA" (at [212] and [213] of the *Valuation Judgment*).
- (b) For the Indigo 40% patents, "[w]e 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" [emphasis added in bold italics] (at [223] of the *Valuation Judgment*).
- (c) The "downstream financial impact" due to the expiration of the Patent and the Indigo 40% patents must be taken into account, and we required the experts' input on the same: see [312(b)], [312(c)] and [313(d)] of the *Valuation Judgment*.

We did not state in the *Valuation Judgment* that the expiration of the relevant patents would have a

perpetual impact. The issue of *how* the impact on EBITDA was to be factored into Ms Harfouche's model was *specifically* left open.

45 We are of the view that the expiration of the relevant patents ought to have a finite impact for several reasons.

46 First, the evidence does not support a perpetual impact on DyStar's maintainable EBITDA. The evidence actually suggests the contrary. In fact, Eric's evidence was that the impact would be finite:

(a) The evidence on the Indigo 40% patents was discussed in [215] of the *Valuation Judgment*. Eric forecasted a 15% drop, spread across five years, as a result of the expiry of the Indigo 40% patents. He did not suggest that the effects would extend into perpetuity.

(b) As is clear from the *Valuation Judgment*, we accepted Eric's evidence, having assessed his forecast as reasonable. Indeed, Eric's forecast of a finite impact incorporated commercially sensible figures.

(c) Kiri pointed out in oral submissions that Eric made a similar five-year forecast as regards the expiry of the Patent. In his AEIC in the valuation proceedings, Eric provided the following table which essentially mirrored the table setting out his position on the impact of the expiry of the Indigo 40% patents. (The latter table was reproduced at [215] of the *Valuation Judgment*.) It shows the projected impact of the expiry of the Patent as follows:

Total	2019	2020	2021	2022	2023
Sales value (US\$ 'm)	16.9	13.6	13.0	11.6	9.9
ASP (US\$ / kg)	5.5	4.8	4.6	4.2	3.7

The points at [46(a)] and [46(b)] above apply *mutatis mutandis*. The evidence demonstrates a *reasonable five-year impact* on DyStar's finances caused by the Patent's expiry.

47 As a matter of commercial and common sense, if the expiration of relevant patents were commercially significant to DyStar, plans would surely have been formulated by the DyStar board to mitigate any losses that would arise from their expiration. Given the importance of the Indigo 40% patents and the Patent to the DyStar group, it stands to reason that solutions would have been worked out in due course. Indeed, Eric's evidence was that the DyStar group would continue to maintain research and development efforts to ensure that it retained a competitive edge despite the expiry of existing patents (which would obviously include the Indigo 40% patents and the Patent). Mr Lie suggests that any new products or intellectual property developed by DyStar pursuant to such solutions would be "distinct" and "already captured" in DyStar's revenue growth rates, and would not *replace* the expired patents. We do not find this persuasive. As there is no clear evidence either way, the conclusion to be preferred is the one that comports with common and commercial sense. Expiry of the various patents would surely have spurred DyStar in its research and development efforts *to ensure that it retained a competitive edge*. This would be done so that efforts in mitigation would be truly be a replacement for any loss suffered as a result of the expiry of the Patent and the Indigo 40% patents. It would not be logical to suggest that DyStar's research and development efforts would not be targeted at replacements.

48 We acknowledge Senda's point that there is no evidence, as the court found in the *Valuation*

Judgment, of the *contingency measures* that DyStar was prepared to take to ameliorate the impact of the expiration of the Patent and Indigo 40% patents. But Senda's argument takes the point too far. Our finding on the absence of evidence on contingency measures simply means that the expiration of the relevant patents *would have an impact on DyStar's maintainable EBITDA, which must be factored into DyStar's valuation*. That is precisely what the experts were tasked to evaluate. Our conclusion on the absence of contingency measures *does not mean* that the impact of the expiration of the Patent and the Indigo 40% patents *would extend into perpetuity*.

49 Accordingly, we are of the view that the expiry of the Patent and the Indigo 40% patents would have finite impacts on DyStar's final valuation.

How the finite impact is to be quantified and incorporated into DyStar's valuation

50 Having determined that the impact of the expiry of the patents ought to be finite, the question that arises is how that is to be incorporated into DyStar's valuation. In this respect, it is worth restating Ms Harfouche's and Mr Lie's respective methodologies:

(a) Ms Harfouche's position is that only the DCF method allows a finite impact of the expiry of the various patents to be modelled. Using the DCF method, she arrives at a US\$72.5m impact. Ms Harfouche arrives at this figure by reflecting the impact of the expiry of the patents in DyStar's maintainable EBITDA until 2023 (*ie*, a five-year impact from the date of expiry of the Patent and the Indigo 40% patents) before linearly increasing her adjusted EBITDA forecasts from 2024 onwards to return to a terminal EBITDA margin of 14.8%. Arriving at the figure of US\$72.5m as a result, she then *deducts* the US\$72.5m figure from her multiples valuation.

(b) Mr Lie is of the view that the impact ought to be perpetual. We disagree for reasons stated in the previous section. On this basis, he quantifies the impact of the expiries of the patents using Ms Harfouche's comparable companies approach, resulting in a US\$228.8m impact. He arrives at this number by making deductions to DyStar's revenue and EBITDA-CapEx margin, which are components of Ms Harfouche's calculations for DyStar's EV. As explained at [46]–[76] of the *Valuation Judgment*, Ms Harfouche derived DyStar's revenue and EBITDA-CapEx margin using the revenue and EBITDA figures of a cluster of comparable companies as points of reference, due to the inadequacy of DyStar's disclosure of documents that evidence its actual financial performance.

51 Senda and Mr Lie do not appear to dispute Ms Harfouche's view that the DCF method is the *only way* to model a finite impact. Apart from contending that the impact ought to be perpetual and not finite, they criticise Ms Harfouche's methodology as being "inherently incongruent", *ie*, that Ms Harfouche had allegedly force-fed the DCF method into her market approach valuation. We have addressed the point of finite and perpetual in the previous section. The second point warrants some elaboration.

52 Senda has not clearly explained the basis of its criticism that Ms Harfouche has, as part of her "compromise" solution, "force-[fed]" the DCF method figure into her market approach valuation. In our view, this may be understood as a criticism against Ms Harfouche for *not* applying the market approach in computing the impact of the expiry of the various patents. This may be inferred from Mr Lie's views at para 4.21 of the Report:

4.21 Mr Lie notes that Ms Harfouche's application of her proposed impact from the expiry of the Patents of US\$72.5 million calculated using the DCF method to her valuations derived using other valuation approaches is inherently incongruent. She can and should have carried out the Court

directed adjustments using a particular chosen method, instead of selectively deriving certain inputs using one approach, and force-feeding that input into her computation in another approach.

In computing the overall impact of the Court-directed adjustments, Ms Harfouche adopts the Market Approach. However, when computing the impact of the expiries of the Patent, she arbitrarily relies on and adopts the value of US\$72.5 m which she computed using the DCF approach. ...

The above must be understood in light of the fact that Ms Harfouche did apply her market approach (specifically, using comparable companies as explained at [13] above) in determining the impact of *inter alia* the country risk premium on DyStar's valuation: see [58] below onwards. The question that consequently arises is this: is it acceptable for Ms Harfouche to use the comparable companies approach in determining the impact of *inter alia* the country risk premium on DyStar's valuation, but to use a different approach – the DCF method – in computing the impact of the expiry of the various patents?

53 In our view, Ms Harfouche's methodology should be accepted. While we note her acknowledgement that her approach is a "compromise" solution", in this instance, it is explicable.

54 Ms Harfouche accepts that the expiry of the patents would have *an effect* on the market approach EVs derived using her valuation model. It is not her position that the expiry of the patents would have no impact. She simply disagrees that Mr Lie's method would achieve an accurate figure as it assumes that the expiry of the various patents has a perpetual impact. Thus, it was necessary to arrive at a figure that was based on a finite impact. This was only possible with the DCF method and not the market approach (this was common ground between the experts). Using the DCF method, the figure of US\$72.5m was arrived at which has to then be incorporated into the market approach. This was done by way of deduction. This overall approach was the "compromise" that Ms Harfouche has acknowledged. In short, given that only the DCF method is able to estimate the finite impact of the expiration of the patents, Ms Harfouche had to find an acceptable way – the "compromise" – of incorporating that assessment into her market approach valuation.

55 As noted earlier, Mr Lie's approach is inapplicable as it proceeds on the basis that the impact of the expiration of patents is perpetual. Mr Lie has not provided an alternative figure on the basis of a finite impact: see *inter alia* paras 5.28–5.38 of the Report.

56 We accept that Ms Harfouche did adopt a differing method when computing the impact of the country risk premium and the 26.7% tax rate (see [58] below onwards). But this can be explained. Aside from the point raised above that only the DCF method is able to estimate the finite impact of the expiration of the patents, there is a further difficulty with incorporating the impact by making deductions to DyStar's revenue and EBITDA-CapEx margin, as Mr Lie has done.

(a) It must be borne in mind that DyStar's revenue and EBITDA-CapEx margin were derived with reference to the cluster of comparable companies selected by Ms Harfouche. In other words, the revenue and EBITDA figures of the comparable companies were used as proxies.

(b) As noted by Ms Harfouche, it is not necessary to adjust DyStar's EVs for country risk premium (under Issue 5, which we elaborate on at [59] below) based on the market approach because it has *already been factored into the market approach*. Specifically, the comparable companies used by Ms Harfouche to derive the EVs "are subject to country risk to at least the same extent as DyStar, and so no further adjustment for country risk should be made to the

multiples derived from their share prices". In other words, the country risk premium is already factored in as the comparable companies that have been chosen have the same country risk factor as DyStar by reason of their similarities.

(c) The same cannot be said as regards expiration of the patents. The patents and their importance are factors that are unique to DyStar. Consequently, the impact of the expiration of the patents can only be assessed with reference to DyStar. Using a cluster of comparable companies is not a suitable proxy in this regard. It is therefore necessary to assess the impact (which can only be done using the DCF method) and thereafter work that into the market approach. It is for this reason that Ms Harfouche makes a *US\$72.5m deduction* to DyStar's EV, having arrived at the US\$72.5m figure with reference to DyStar's maintainable EBITDA figures. These figures in turn adjust DyStar's terminal EBITDA margin. As explained at [62]–[65] of the *Valuation Judgment*, DyStar's maintainable EBITDA figures and terminal EBITDA margin were derived *after* Ms Harfouche forecasted DyStar's revenue and EBITDA using the comparable companies. The maintainable EBITDA and terminal EBITDA margin were then used to compute a stable terminal growth rate unique to DyStar, extrapolated until 2027: the *Valuation Judgment* at [64].

57 In the circumstances, Ms Harfouche's US\$72.5m figure is the best available information upon which the court is able to act. It is the best available means of striking a fair figure that reflects our view that the expiry of the Patent and the Indigo 40% patents has a finite impact on DyStar's valuation. We therefore accept Ms Harfouche's position on Issues 2 and 3.

Issues 5 and 6: Country risk premium and effective tax rate of 26.7%

58 Ms Harfouche has put the question before the court succinctly: are the experts to (a) update Ms Harfouche's model in accordance with the *Valuation Judgment* or (b) prepare new DCF method calculations? The answer must be (a), for the reasons stated at [12] above. Mr Lie's calculations on Issues 5 and 6 in the Report involve fresh DCF calculations that do not accord with our acceptance of Ms Harfouche's valuation method (as recapitulated at [13] above).

59 As stated in the Report, Ms Harfouche has worked into *her valuation model* the country risk premium of 1.6% that was directed in the *Valuation Judgment*. However, this was done only to understand whether there was a meaningful shift in the DCF method line that she had previously drawn on the football field. A meaningful shift would warrant a revision to her previous valuation. Ms Harfouche found that there was no meaningful shift and so there was no need to adjust DyStar's estimated EV previously arrived at. As stated above at [56(b)], Ms Harfouche explains that "[a]s a consequence of selecting a group of companies with an overall global operating presence, the Comparable Listed Companies used by Ms Harfouche are subject to country risk to at least the same extent as DyStar, and so no further adjustment for country risk should be made to the multiples derived from their share prices". In other words, the country risk premium had already been embedded into her approach of using comparable companies to derive DyStar's estimated EV.

60 Ms Harfouche's position is similar for the 26.7% DyStar group rate. She states that the headline corporate tax rates for the comparable companies (which, as noted at [55]–[58] and [68]–[69] of the *Valuation Judgment*, had been factored into her valuation approach) ranged from 18% to 34% and so no further adjustment was required. In other words, the tax rate had already been taken into account in her model by the selection of comparable companies with similar characteristics.

61 On the other hand, Mr Lie prepares a fresh set of calculations using a pure DCF method. He first selects a company from the cluster of companies with a valuation that is closest to the interim

valuation of DyStar that was arrived at in the *Valuation Judgment*, ie, US\$1,636m. Using the financial data of that company, Mr Lie then suggest deductions for the country risk premium and 26.7% group rate and works out a fresh set of calculations using the DCF method. He ignores in the process Ms Harfouche's point that the country risk premium and 26.7% group rate are already embedded in the financials of the comparable companies.

62 Therefore, Mr Lie's approach does not assess the impact of the country risk premium and 26.7% tax rate *in the context of Ms Harfouche's valuation approach as reflected in the football field model*. Mr Lie has instead advanced a separate DCF calculation using a starting point of US\$1,636m. This is objectionable for three reasons:

(a) It ignores Ms Harfouche's point that the country risk premium and 26.7% group rate are already embedded in the financials of the comparable companies. By making these deductions again, he is in effect double counting.

(b) Mr Lie's position is at odds with our decision in the *Valuation Judgment*. We arrived at an interim valuation of US\$1,636m on the ground *that Ms Harfouche's valuation approach was appropriate*: see [12] above and *Valuation Judgment* at [45]–[156]. This being the case, the nine adjustments to DyStar's interim valuation must be made *in the context of her valuation model*. Senda cannot re-open the point by proposing a fresh set of calculations *based on the DCF method*. This would be relitigating the appropriate valuation approach.

(c) The new DCF method calculations introduced by Mr Lie are laden with multiple assumptions that (a) do not correspond with the assumptions made in Ms Harfouche's model and (b) have not been explained or tested at trial. Further, as stated at [14] above, there is insufficient reference to any underlying material supporting the calculations. It would accordingly be unsafe for the court to arrive at DyStar's final valuation on untested material.

63 For those reasons, we accept Ms Harfouche's position on the adjustments to be made under Issues 5 and 6.

Issue 9: Insurance pay-out

64 We resolve Issue 9 in Kiri's favour. We indicated at [305] of the *Valuation Judgment* that the dispute over the insurance pay-out should be resolved *per* pages 553–555 of Ms Harfouche's updated calculations in Kiri's Bundle of Affidavits of Evidence-in-Chief (Amendment No 2). Ms Harfouche has done precisely that and arrived at a net impact of US\$4.6m to be added to DyStar's final valuation.

65 Mr Lie's position does not conform with our direction at [305] of the *Valuation Judgment*. It ignores portions of Ms Harfouche's updated calculations as contained in Kiri's Bundle of Affidavits of Evidence-in-Chief (Amendment No 2). Mr Lie appears to have taken a flat US\$4m figure, which corresponds with (a) the position Senda expressed during oral closing submissions for the valuation proceedings on 1 July 2020; and (b) the figure indicated at [312(i)] of the *Valuation Judgment*. On the former, the position expressed by Senda does not correspond with Ms Harfouche's updated calculations. The line items specified therein add up to US\$4.6m. On the latter, the figure indicated at [312(i)] of the *Valuation Judgment* was a round figure used to *refer to the issue of the insurance pay-out, ie*, a term of reference that parties had adopted in the course of the valuation proceedings. Reading [312(i)] together with [305] of the *Valuation Judgment*, it is clear that our direction required the final figure to be that found in Ms Harfouche's updated calculations.

66 We therefore agree with Ms Harfouche that the net impact of the insurance pay-out is

US\$4.6m and this amount ought to be incorporated into DyStar's final valuation.

Outstanding issues and directions

67 The experts are now directed to arrive at DyStar's final valuation based on the conclusions above. Ms Harfouche has indicated that the updated value of Kiri's shares is **US\$482.5m**. But this figure will have to be revised in light of the findings in this Judgment, specifically on the issues which we have departed from Ms Harfouche. Those issues are as follows:

(a) We agree with Ms Harfouche's position on the applicable tax rates for all years *except* for 2018. The rate for 2018 ought to be as reflected in Table B above, *ie*, 45.5%.

(b) For Issue 7, Ms Harfouche ought to apply DyStar's group rates, and not the tax rates of the individual companies in the group. We have clarified this point at [36]–[40] above.

68 We emphasise that the experts are to arrive at a final value of Kiri's shares in DyStar based solely on our conclusions above. We have clarified that Ms Harfouche's *valuation approach and methodology* is to be adopted and all that is left is to undertake the *specific calculations* to arrive at a number for DyStar's final valuation.

69 The parties, through their experts, are therefore to tender an agreed calculation for DyStar's final valuation, limited to a single five-page document, with strict adherence to the court's templates for submissions in terms of font size and margins. The parties are to file this document within 14 days from the date of this Judgment.

Conclusion

70 As with the *Valuation Judgment*, all issues of costs are reserved pending the determination of DyStar's final valuation and the value of Kiri's shares in DyStar.