Tegel Group Holdings

INDEPENDENT EXPERT'S REPORT

Pursuant to Takeovers Code Rule 57(3)

Assessed Value of TGH Performance Rights

A report prepared for the Takeovers Panel

November 2018
tdb.co.nz

STATEMENT OF INDEPENDENCE

TDB Advisory Limited confirms that it:

- has no conflict of interest that could affect its ability to provide an unbiased report; and
- has no direct or indirect pecuniary or other interest in the proposed transaction considered in the report, including any success or contingency fee or remuneration, other than to receive the cash fee for providing this report.

TDB Advisory Limited has satisfied the Takeovers Panel, on the basis of the material provided to the Panel, that it is independent under the Takeovers Code for the purposes of preparing this report.

Table of contents

List of tables

List of figures

1. Introduction

TDB Advisory Ltd (TDB) has been appointed by the Takeovers Panel (the Panel) to act as an Independent Expert pursuant to Rules 57(3) and 58 of the Takeovers Code (Code) in respect of the compulsory acquisition of Performance Rights issued by Tegel Group Holdings (referred to as Tegel or TGH). TDB must determine the amount of the consideration to be provided for the securities that must be a cash sum equal to the fair and reasonable value of those securities.

1.1 Background

On 28 May 2018, Bounty Holdings New Zealand Limited (Bounty) made a full takeover offer for all of the fully paid ordinary shares that Bounty did not already hold, and all of the Performance Rights granted under the equity settled share based incentive plan for senior managers and eligible employees in May 2016 (the FY2017 Performance Rights) and in July 2017 (the FY2018 Performance Rights) (each a separate class of equity security and together, the Performance Rights), in Tegel (the Offer).

On 11 June 2018 Tegel released its Target Company Statement. This contained an independent adviser's report prepared by KordaMentha which opined on the merits of the Offer. In KordaMentha's view the positives of accepting the Offer outweighed the negatives. The Effective Offer Price for the ordinary shares was within KordaMentha's assessed valuation range for Tegel.

The Target Company Statement also contained a second independent adviser's report prepared by Northington Partners pursuant to Rule 22 of the Takeovers Code. The Northington report certified that the amount offered for each of the FY2017 and FY2018 Performance Rights was fair and reasonable in comparison to the amount offered for the Ordinary Shares, and in comparison, with each other.

On 24 September 2018, as a result of acceptances of the Offer and the Offer being declared unconditional in all respects, Bounty became the holder or controller of 90% or more of the voting rights of Tegel. Bounty gave notice on September 27, 2018 that it had become the dominant owner of Tegel shares for the purposes of the compulsory acquisition provisions of the Takeovers Code. Bounty then gave notice to the remaining shareholders that it was exercising its compulsory acquisition rights under Part 7 of the Takeovers Code to acquire the outstanding equity securities in Tegel on October 1, 2018. The specified acquisition prices were $1.23 per ordinary share, $0.043 per FY2017 Performance Right and $0.26 per FY2018 Performance Right.

By 11 October 2018 Bounty had received written objections to the acquisition price from holders of the Performance Rights, who together hold 60.76% of the FY2017 Performance Rights, and 62.41% of the FY2018 Performance Rights. Consequently, under rule 57 of the Code an expert determination of the consideration to be provided for the Performance Rights is required.

1.2 Important notes

Our report is subject to the qualifications noted in Section 5.

FY2017 Performance Rights refers to the rights granted under Tegel's equity settled share based incentive plan for senior mangers and employees in May 2016.

FY2018 Performance Rights refers to the rights granted under Tegel's equity settled share based incentive plan for senior managers and employees in July 2017.

Unless otherwise stated all currency amounts in this report are expressed in New Zealand Dollars.

2. Summary

2.1 Standard of value

In accordance with Rule 57(3) of the Code we are to determine the amount of consideration to be provided for the securities of the relevant class that must be a "cash sum equal to the fair and reasonable value of those securities".

The Effective Offer Price made by Bounty for Tegel ordinary shares was within the assessed valuation range of Tegel determined by KordaMentha. Bounty received acceptances from over 90% of the holders of the ordinary shares of Tegel. We therefore, like over 90% of holders, accept $1.23 as a fair and reasonable value for the ordinary shares and have not reviewed the valuation by KordaMentha.

In setting a framework to assess the fair and reasonable value of the Performance Rights we have taken note of Rule 8(4) of the Code which specifies that,

> *"If non-voting securities are included in a full offer, the consideration and terms offered for non-voting securities must be fair and reasonable in comparison with the consideration and terms offered for voting securities and as between classes of non-voting securities."*

The Performance Rights are exercisable in the circumstances detailed below in Section 3. If exercised they become ordinary shares. The only manner in which an expert can value the Performance Rights is in comparison to the ordinary shares. Because a price has been accepted by a willing buyer and willing sellers for the ordinary shares, we have therefore taken the approach that, in assessing a fair and reasonable value for the Performance Rights, we are undertaking a valuation in the form in which a Rule 22 report might proceed ie, we have assessed the fair and reasonable value of the FY2017 and FY 2018 Performance Rights in comparison to the amount offered for the ordinary shares, and in comparison to each other.

2.2 Our valuation approach

The Performance Rights will only vest if certain performance hurdles are met, including relative performance to other NZX50 constituent companies. Because of the complexity of these hurdles standard option pricing models do not apply. Hence, we have adopted a Monte Carlo simulation approach for this valuation. This involves many thousands of simulations of share price outcomes using an underlying statistical distribution to yield a probability and expected value of the Performance Rights.

The reference point for our valuations is the acquisition price paid for Tegel's ordinary shares. We considered an alternative framework where the market price of the ordinary shares before the announcement of the takeover offer was the reference point and the same percentage premium was applied to the Performance Rights as was applied to the ordinary shares under the acquisition. We rejected this alternative as investors in derivatives such as call options are seeking the leverage to share price movements they provide. I.e. they expect to, and do, receive greater percentage change in their value than the ordinary share to market movements.

Similarly, some market investors use techniques known as delta hedges to lock-in value or protect against other derivative exposures. A delta hedge ensures the derivative and underlying share move by the same dollar amount, not the same percentage amount. This concept of delta hedging underlies option valuation because the value of the option can be hedged in lock-step with the ordinary share price. Hence, we consider the market expectation of fair and reasonable change in the value of a derivative such as the Performance Rights is the absolute change in value relating to the share price movement, not the percentage change.

The combination of leverage to share price movement and downside protection is why option structures such as the Performance Rights are commonly used for executive incentive compensation. We see no reason to treat the valuation framework differently for staff options than for other holders. However, employees usually cannot trade their options and their ability to create a delta hedge to lock-in value (which would likely involve short-selling ordinary shares) is severely constrained by limited windows in which company insiders can trade shares and disclosure requirements. Hence, because of this and other restrictions an "illiquidity discount" is often appropriate to employee options and has been applied here.

2.3 Our opinion of a fair and reasonable value

As explained more fully in our report, we assess the cash consideration to be paid for each FY2017 Performance Right as $0.166, and for the FY2018 Performance Right as $0.501. These sums are, respectively $0.123 and $0.241 higher than the current compulsory acquisition price.

In our opinion the revised prices are fair and reasonable in comparison with the consideration and terms offered for the voting securities (being the Ordinary Shares) and as between the classes of non-voting securities (being FY2017 and FY2018 Performance Rights issues).

3. The Performance Rights

Tegel issued management Performance Rights in two tranches. The FY2017 Performance Rights were issued the day after Tegel's initial public offering on 4 May 2016 and the FY2018 Performance Rights were issued on 1 July 2017. Each Performance Right gives the holder what is essentially an asset or nothing option. For each issue there is a predetermined assessment date at which time the performance of Tegel's total shareholder return (TSR, which is the performance of Tegel's share price, the dividends and the imputation credits paid to shareholders over the period) is assessed relative to a performance threshold. If Tegel's TSR meets that threshold then the Rights vest and each Right can be exercised, which converts the vested Right to an ordinary Tegel share for no consideration.

The first performance threshold is that the TSR for TGH must be positive. Secondly the performance threshold is relative to the respective TSRs for the firms included in the S&P NZX50 Gross Index (the NZX50) at the date of each respective Performance Rights issue. This makes up the assessment sample of firms. The Performance Rights are further complicated by how they vest. If TGH's TSR is greater than or equal to the 75th percentile of the assessment sample, then 100 percent of the Rights vest. If its TSR is between the 50th and 75th percentile then the number of Rights that vest is based on a straight-line progression between 50 and 100 percent. If TGH's TSR ranks exactly at or below the 50th percentile then the no Rights vest and the holders receive nothing.

The Right issues are summarised in more detail in Table 1 below.

Table 1: Summary of performance Right issues

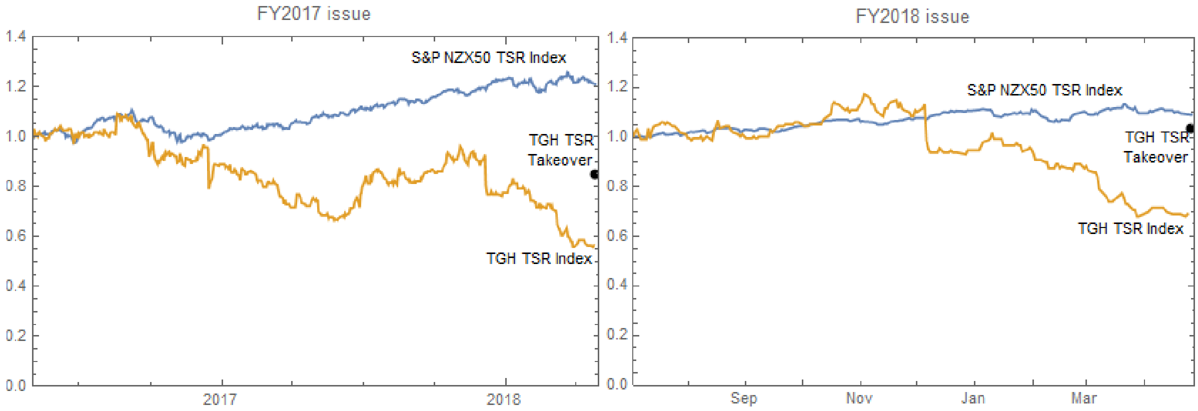
	2016 Performance Rights issue	2017 Performance Rights issue
Number on Issue	844,572	1,197,059
Issue Date	4 May 2016 (the day after the IPO)[1]	1 July 2017
Assessment date	The assessment date occurs 10 trading days following the announcement date for the financial year end of Tegel in 2019.	The assessment date occurs 10 trading days following the announcement date for the financial year end of Tegel in 2020.
Performance Threshold	Both tranches of Performance Rights will only vest (and therefore become exercisable) under the following conditions: 1. if the Total Shareholder Return ("TSR"), during their respective Vesting Periods is positive; 2. the TSR for Tegel ranks above the 50'th percentile of TSRs for companies in the S&P/NZX50; and 3. the participant remains employed by Tegel at the time of vesting. The TSR is calculated separately for both tranches, with the opening price being a VWAP over the 10 days before issue. If TGH's TSR is greater than or equal to the 75th percentile of the assessment sample, then 100 percent of the Rights vest. If its TSR is between the 50th and 75th percentile then the number of Rights that vest is based on a straight-line progressing between 50 and 100 percent. If TGH's TSR ranks exactly at or below the 50th percentile then the no Rights vest and the holders receive nothing.	

Source: Plan rules for the Tegel Long Term Incentive Plan and FY2016 and FY2017 plan letters of offer

[1] The effective issue date for the 2016 issue becomes 17 May 2016 because the base price for the TSR calculation is based on 10 days of trading data from its IPO to 17 May 2018. This is discussed below.

For context, Figure 1 below plots TGH's TSR vs. the NZX50's TSR both indexed to 1 when each Performance Rights tranche was issued.

Figure 1: TSR performance, TGH and NZX50



Source: Wolfram Mathematica Financial Data, NZX, TDB Advisory analysis

Figure 1 above shows that both of the Performance Right issues were largely out of the money on both criteria. However, including the return associated with the takeover offer, TGH's TSR (as represented by the black point on each plot in Figure 1 above) for the FY2017 Rights issue is less out of the money and its TSR for the FY2018 Rights issue is almost at the money. We discuss the the takeover offer price in the context of this valuation in more detail in Section 4.1 below.

We do note that the above plots are only indicative because we are using the complete NZX50 history and not only the firms that were included in the NZX50 at the time of each issue, that still remain in the index as at this valuation's assessed date.[2] We also note that we are plotting TGH's TSR vs. the total NZX50 TSR (which is a free-float adjusted, value weighted average) and not the 50th percentile of the constituent firms. Because the NZX50 is free-float adjusted value weighted, the comparison cannot be exactly consistent with the nature of the Performance Rights, but it still gives a good indication of TGH's TSR vs. the TSR for the 50th percentile of the constituent firms of the NZX50.

[2] The terms of the assessment samples are detailed more in the next section.

4. Valuation methodology employed

4.1 General framework and methodology for the valuation

4.1.1 Framework for the valuation

In accordance with Rule 57(3) of the Code TDB are to determine the amount of consideration to be provided for the securities of the relevant class that must be a "cash sum equal to the fair and reasonable value of those securities".

Rule 57(4) of the Code requires the independent expert to calculate the fair and reasonable value of the Tegel Performance Rights being compulsorily acquired by:

1. first assessing the value of all the equity securities in the class of equity securities of which the equity security forms part; and
2. then allocating that value pro rata among all the securities of that class.

A value for the ordinary shares was determined by Bounty for the purposes of its takeover offer for Tegel. The Effective Offer Price was within the assessed valuation range of Tegel determined by KordaMentha for Tegel. Bounty received acceptances from over 90% of the holders of the ordinary shares of Tegel. We therefore, like over 90% of holders, accept $1.23 as a fair and reasonable value for the ordinary shares and have not reviewed the valuation by KordaMentha.

In setting a framework to assess the fair and reasonable value of the Performance Rights we have taken note of Rule 8(4) of the Code which specifies that,

> *"If non-voting securities are included in a full offer, the consideration and terms offered for non-voting securities must be fair and reasonable in comparison with the consideration and terms offered for voting securities and as between classes of non-voting securities."*

When Rule 8(4) applies a Rule 22 report, as prepared by Northington in this case, must be obtained. With respect to Rule 22 reports, the Takeovers Panel Guidance Note for Independent advisors' states in paragraph 3.31,

> *"It is not a report on the merits of the offer, but only on the relativity between the offers being made for each relevant class of securities. It is likely to be quite technical in nature, starting with the consideration being offered for the target company's primary securities, and then assessing the relationship between that price and the value of the consideration being offered for other relevant classes of security."*

The Performance Rights are exercisable in the circumstances detailed above in Section 3. If exercised they become ordinary shares. The only manner in which an expert can value the Performance Rights is in comparison to the ordinary shares. Because a fair and reasonable price has been accepted by a willing buyer and willing sellers for the ordinary shares, we have therefore taken the approach that we are undertaking a valuation in the same form as a Rule 22 report, ie have valued the FY2017 and FY 2018 Performance Rights in comparison to the amount offered for the ordinary shares, and, in comparison to each other.

4.1.2 Reference ordinary share price for the valuation

The reference point for our valuations is the acquisition price paid for Tegel's ordinary shares. We considered an alternative framework where the market price of the ordinary shares before the announcement of the takeover offer was the reference price and the same percentage premium was applied to the Performance Rights as was applied to the ordinary shares under the acquisition. We rejected this alternative as investors in derivatives such as call options are seeking to leverage the share price movements they provide, ie, they expect to, and do, receive greater percentage change in their value than the ordinary share to market movements.

Similarly, some market investors use techniques known as delta hedges to lock-in value or protect against other derivative exposures. A delta hedge ensures the derivative and underlying share move by the same dollar amount, not the same percentage amount. This concept of delta hedging underlies option valuation because the value of the option can be hedged in lock-step with the ordinary share price. Hence, we consider the market expectation of fair and reasonable change in the value of a derivative such as the Performance Rights is the absolute change in value relating to the share price movement, not the percentage change.

The combination of leverage to share price movement and downside protection is why option structures such as the Performance Rights are commonly used for executive incentive compensation. We see no reason to treat the valuation framework differently for staff options than for other holders. However, employees usually cannot trade their options and their ability to create a delta hedge to lock-in value (which would likely involve short-selling ordinary shares) is severely constrained by limited windows in which company insiders can trade shares and disclosure requirements. Hence an "illiquidity discount" is often appropriate to employee options.

We found eleven Rule 22 reports (some opining on more than one type of security) on the Takeovers Panel website which covered:

- five employee option schemes;
- one employee convertible note;
- two employee partly paid shares;
- two options issued to other than employees;
- two deferred settlement shares issued for acquisitions; and
- one mandatory convertible note.

In all but one case the Rule 22 report used the acquisition price as the reference point for the valuations. The exception was where no reference price was required as acquiror company shares and options were issued for ordinary shares and options respectively. In none of the above reports was the percentage premium used as the reference point. Hence our approach is consistent with the approach taken in analogous reports.

The main valuation model for straightforward share options, the Black-Scholes-Merton model is derived from a hedging strategy involving options and the ordinary share, which would lock in a certain return. This hedging assumption relative to the current price also underlies the Monte Carlo process we have utilised for valuing the more complex Performance Rights. This means that the appropriate initial price for the Monte Carlo estimation is the price on the valuation date (April 26, 2018, which was the offer price of $1.23 in the case of TGH).

The TSR achieved by Tegel and the individual stocks making up the NZX50 from the issue date of each tranche up to April 26, 2018, the valuation date, are known. Section 4.2 below sets out how the probabilistic outcomes are determined from that date until the tranches vest.

4.1.3 Illiquidity Discount

As discussed above, a discount is often applied to entitlements under employee share schemes. This reflects two constraints on the holders:

1. employee entitlements cannot be traded until the Vesting Date. Also, given the limited time periods during which officers of a company can trade equity interests and disclosure requirements, a hedging strategy around employee entitlements would be impractical; and
2. employee entitlements lapse in many circumstances where the employee leaves the firm. In the case of Tegel, entitlements lapse if the employee is terminated for cause or voluntarily leaves. If the employee is terminated other than for cause, or dies, or has total and permanent disablement or such other circumstances as the Board may determine, then the employee's Performance Rights will vest pro-rata (by reference to proportion of term of right accrued before the event) but will still be subject to the performance conditions.

Our approach to applying an illiquidity discount is outlined in Section 4.5.

4.2 Valuation process undertaken

Due to the complicated and uncertain nature of the future performance threshold of the Rights we adopt a Monte Carlo simulation approach for the valuation. This is needed because typical closed-form pricing formula, such as the Black-Scholes-Merton are unable to incorporate any dynamic structure to the option contracts (such as the variable outcome depending on percentile of NZX50 company TSR). There are other numerical methods to solving this problem, but Monte Carlo is a typical approach adopted in an applied setting to calculate the pricing of path-dependent and more complicated options.

As is typical in valuing options on stock prices we assume that stock prices follow a Geometric Brownian Motion process consistent with,

$$dS_t = \mu S_t dt + \sigma S_t d\xi_t \tag{1}$$

where S_t is the respective share price, dt is the time increment, μ is the drift in the respective share price, σ is the volatility of the stock and ξ_t is a Wiener process.

Also, as is often typical in these pricing problems we assume that there are no arbitrage opportunities and that all securities relevant to the Right are tradeable resulting in the use of risk-neutral pricing. Under risk-neutral pricing assumed process for stock prices becomes,

$$dS_t = r_f S_t dt + \sigma S_t d\xi_t \tag{2}$$

where r_f is the risk-free rate. The ability to adopt a risk-neutral approach, particularly in addressing this problem, allows a significant reduction in the number of assumptions required to estimate a value. An estimated risk-neutral price holds in a risk-adverse world because the movement from a risk-neutral world to a risk-adverse world involves an increase in the growth rate and the required discount rate resulting in offsetting any change in estimated overall value.

As is presented in more detail by the next subsection we estimate the parameters for each of the assessment firms. We then collect the price for each firm in the assessment sample as it closed on April 26, 2018. From each starting price we then simulate (assuming (2) above) an expected price-path for each of the firms in each assessment sample. To keep this internally consistent our estimated volatility measures are TSR volatility and not stock price volatility.

Given the generated price paths (which includes an allowance for dividends and imputation), for each of the firms in the assessment samples, we take the resultant TSR prices from the simulation.[3] To that price, for each assessment firm, as well as TGH, we add any dividends plus imputation credits that occurred before April 26, 2018 but after each Rights tranche was issued. Finally, we take the return of that value relative to the assumed base price for TGH and each of the assessment firms and assess whether the Right would have vested in that scenario. If so, we calculate the degree of vesting. The base price is the assumed price for the TSR calculation which is the 10-day average leading into each Right issue grant date.

Once it is calculated whether or not a Right vests in a given simulation, we take the present value of the TGH simulation outcome and adjust the resultant value down for the present value of TGH forecast dividends that are to occur after 26 April 2018 but before the assessment date for each respective Rights issue. This is because the dividends are nested in the TSR price path but would not be in the value received should the Rights vest.[4]

We conduct that process individually for each respective Rights issue and simulate each process and outcome 100,000 times to give an average expected outcome, consistent with a Monte Carlo approximate expected value approach.

4.3 Performance Right details and development of model parameters

We now detail the process and considerations for each of the individual assumed parameters and inputs to the model.

4.3.1 Vesting considerations of the Performance Rights

As noted above, the Performance Rights do not have standard vesting structures. Essentially the Rights themselves are asset or nothing options, where, if a Right vests then the holder of the Right receives an ordinary share in the firm for a zero exercise price. If it does not, then the holder receives nothing. The Rights vest if TGH's stock meets a certain threshold for performance. The threshold is defined by the TSR performance of a group of firms defined as the firms in the NZX50 that remain in the NZX50 when the Rights are assessed (which is defined and discussed below).

[3] The average of the 10 trading prices after the assumed annual financial announcement date for TGH but before the vesting assessment date.

[4] The dividends are discounted at the risk-free rate. This is appropriate because of the risk-natural pricing approach adopted for this valuation. To vary from this would introduce internal consistency concerns.

If TGH's TSR from the issue date to the assessment date is above the 75th percentile of the assessment sample at the assessment date, 100 percent of the Rights issued vest and the holders of the Rights are entitled to the same number of TGH ordinary shares. Between the 50th and the 75th percentile the level of vested Rights increases from 50 to 100 percent in a straight line.

With the addition to the requirement for TGH's TSR being overall positive the payoff function for the Performance Rights becomes,

$$V(TGH, T|Assessment\ Firms) = \begin{cases} S_{T,TGH}N, & if \quad p_{\ T,TGH} \geq 75^{th} \\ (0.5 + 0.5(p_{\ T,TGH} - 0.5)4)S_{T,TGH}N, & if \quad 50^{th} < p_{T,TGH} < 75^{th} \\ 0, & Otherwise \end{cases} \quad (3)$$

Where $V(TGH, T|Assessment\ Firms)$ is using notation loosely but representative of the value of the Right at date T (the assessment date) that is a function of TGH's TSR, share price and the respective TSRs for the relevant assessment firm sample. Also, $S_{T,TGH}$ is the share price of TGH at time T defined as the end of the assessment period, N is the number of rights held, and $p_{\ T,TGH}$ is loosely describing the percentile rank of TGH's TSR relative to the respective TSRs for the assessment sample firms.

4.3.2 Vesting assessment samples: NZX50 Constitutions

We source lists of the NZX50 constituent firms directly from the NZX for 17 May 2016, 3 July 2017[5] and 26 April 2018.

Any firm in the constituent list for 17 May 2016 or 3 July 2017 that does not appear in the list published for 26 April 2018 is dropped and not replaced, consistent with the terms of the Rights. We note that we also dropped CBL Corporation Ltd., in voluntary administration from 5 February 2018.[6] This results in two sample assessment firm lists for each of the respective Performance Right issues. The comparator sample for the FY2017 issue contains 40 firms (not including Tegel) and the FY2018 issue assessment sample list contains 46 firms in total (also not including Tegel). The detailed comparator firm lists are presented in Appendix A.

4.3.3 Assumed initial prices for TSR calculation

We get the average 10-day price for each of the assessment sample firms for the 10-trading days ending 17 May 2016 for the FY2017 issue and for the 10-trading days ending 1 July 2017 for the FY2018 issue. For TGH this gives starting TSR prices of $1.65 and $1.18 respectively. This is consistent with the terms of the Right issues.

4.3.4 Volatility

We estimate the volatility for each of the firms in each of the comparator samples by annualising the standard deviation of the daily natural log returns adjusted for dividends plus imputation credits on the dividend ex-dates.[7] We make the calculations for each relevant firm on daily price data between 3 May 2016 and 24 April 2018 (the trading day before the notice of intention to make an offer was received by Tegel). This is a slightly shorter time frame than what might be ideal, but it includes all possible

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[5] The issue was 1 July 2017 but that falls on a Saturday so we take the constituent firms from the Monday 3 July publication.
[6] See https://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=12004875 for more detail.
[7] All dividend and imputation data is sourced from NZX.com with the exception of Tegel which is sourced from its interim and annual reports.

trading data for TGH and keeps all other data consistent. Typically, we would attempt to match the timeframe of the price, return and volatility data to that of the vesting profile of the asset, which would be about three years in this case. If we had a different timeframe for estimating the volatility for the comparator firms then we would also need to develop some sort of proxy measured adjustment for the volatility estimate of TGH. This is rife with difficulties and in our opinion creates more uncertainty than it helps to address.

Importantly our approach estimates the volatility estimate for the TSR of each firm and not the respective stock prices.

Overall, the volatility is estimated using 496 trading day, closing price data points.[8] All estimated annual volatility estimates by comparator firm can be found in Appendix A with the comparator samples.

4.3.5 Assumed days until vesting assessment

The terms of the Performance Rights the calculation is made 10 business days following the announcement of Tegel's year-end financial results. We have been advised that the three previous announcements were made on 21 June 2016, 27 June 2017 and 11 June 2018. We have also been advised that the 2018 announcement was likely brought forward slightly in response or to coincide with the offer. The FY2016 and FY2017 results announcements occurred on Tuesdays late in June. Because of this, for simplicity we assume that the 2019 and 2020 announcements will be released on the last Tuesday of June each year. This gives June 25, 2019 and June 30, 2020 as the assumed announcement dates for the modelling. Adding 10 business days for the assessment period gives assumed vesting assessment dates of July 9, 2019 and July 14, 2020.

4.3.6 Risk-free rate

We use the 1-year and 2-year and 5-year Government Bond yield rates[9] for the April 26, 2018 for the two respective issues. For the FY2017 issue which has 292 business days remaining as at April 26, 2018 we interpolate between the 1-year yield and the 2-year yield, linearly weighted by days in each year and get an assumed risk-free rate of 1.83 percent, implying a continuously compounded rate of 1.81 percent. As at April 26, 2018 the FY2018 issue had approximately 547 business days remaining until its possible vesting. Interpolating between the 2 and 5-year Government Bond yields gives 1.96 percent implying a continuously compounded rate of 1.94 percent.

[8] The exception is that SPG only has 447 data points due to first listing later than TGH. 447 is still in our opinion enough to get a reasonable estimate of volatility therefore we have opted to keep it in the 2017 sample. It does not appear in the 2016 sample. See http://www.strideproperty.co.nz/2016/07/12/stride-stapled-group-commences-trading-on-the-nzx/ for details.

[9] Sourced from RBNZ B2 data series

4.3.7 TGH Dividends

We assume that TGH would maintain the same level of dividend payments as it has paid since its IPO. The assumed dividends are,

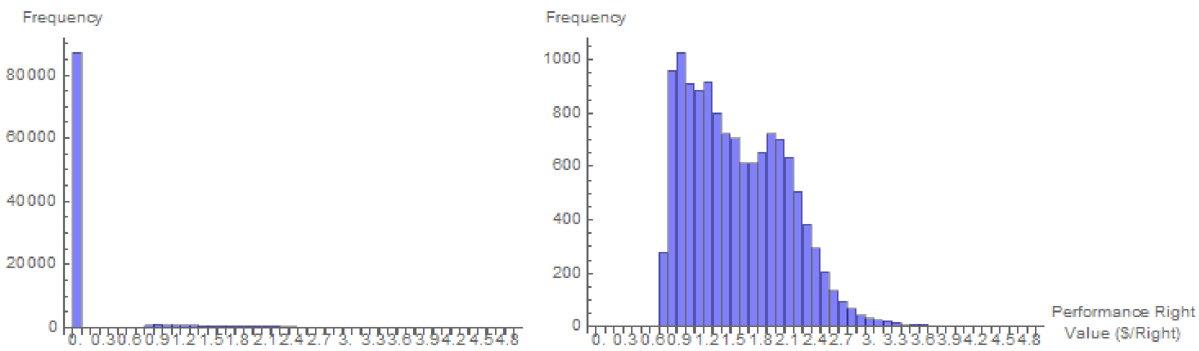
Date	Dividend per share
1-Jul-18	$0.041
1-Jan-19	$0.0345
1-Jul-19	$0.041
1-Jan-20	$0.0345

4.4 Valuation procedure

Carrying out the above algorithm with the defined and estimated parameters gives distributions of value outcomes for the two Right issues that are presented by Figures 2 and 3.

Figure 2 below depicts the distribution of the outcomes of the valuation assessment. The left frequency plot reports the outcome for each simulated outcome and the right plot removes the instances where the Rights did not vest at all, changing the scale of the vertical axis in order to make the vesting outcomes visible. The y-axis for each plot is the frequency of observations in each bin and the x-axis presents the present value outcomes.

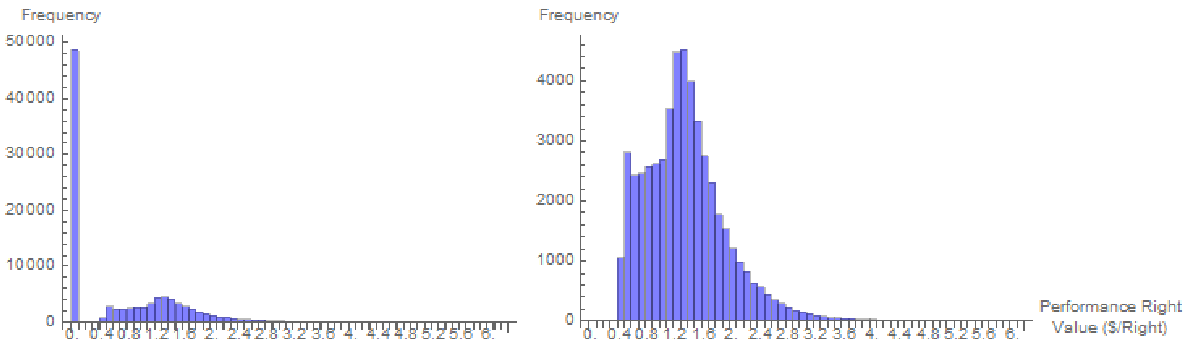
Figure 2: Distribution of value outcomes for FY2017Rights issue



As shown above there is an overwhelming high number of predicted occurrences of the FY2017 Rights not vesting. This is not overly surprising given the fact that the Right is largely out of the money and there is a relatively short window until the Rights reach assessment date.

Figure 3 below depicts the distribution of the value outcomes for the FY2018 Rights issue in the same way as above.

Figure 3: Distribution of value outcomes for FY2018 Rights issue



Again the most frequent outcome is that the Rights do not vest, however there is a greater occurrence of the simulation outcomes where the Rights do vest at the assessment date.

The probability of vesting is 13% for the FY2017 Rights and 51% for the FY2018 Rights. Taking the average of the simulated outcomes gives a value of 20.7cents for the FY2017 Rights tranche and 71.5cents for the FY2018 Rights tranche.

4.5 Discount

As noted in Section 4.1 there are often discounts applied to Employee Share Option Schemes (ESOPs) due to the restrictions on trading by the holder of the products. We have reviewed the Rule 22 independent reports available on the Takeovers Panel website and have found four reports involving ESOPs where the outcome under a takeover wasn't specifically set-out in the ESOP terms. All of the four reports included discounts for illiquidity that ranged from 10 to 40% based on "market rules of thumb". In general, a lower discount was applied to options with a shorter term until vesting and where there was some leniency in circumstances where the employee leaves the firm. It is our opinion that a discount for the restricted trading and therefore the illiquid nature of the Performance Rights relevant to this valuation is warranted. However, we believe that any such discount should be grounded in a more analytical framework.

In attempting to more formally develop a discount methodology we firstly note that Longstaff (1995) develops a model of marketable discounts for non-tradability over different periods of time where market trading of a wholly owned asset is restricted.[10] The framework developed by Longstaff gives a maximum discount for illiquidity by valuing a look-back option which can be exercised at the top price over that period. This is a maximum because perfect market timing is rare. These maximum discounts for an underlying asset with volatility of 30% (consistent with TGH) are 28% for a 1-year trading restriction and 38% for a 2-year trading restriction.

The FY2017 and FY 2018 rights have 14 and 26 months to run from the valuation date so the applicable maximum discounts would be slightly higher. This puts a framework around maximum market flexibility

[10] See Longstaff, Francis A. "*How much can marketability affect security values?*", The Journal of Finance 50, no. 5 (1995): 1767-1774

lost because of the trading restriction, but not a value on freedom to realise value before the Vesting Date for other reasons or risks of lapsing the Rights because of employment ending.

Other considerations often referred to in these matters are based on the management's level of risk-aversion and lack of diversification. In this instance ESOP holders will alter their option exercise behaviour and exercise the vested options earlier than is optimal for a diversified investor which changes the expected cash-flow, and therefore market value, of the option systematically. These considerations are not relevant due to the nature of the Performance Rights and the lack of a strike price associated with them.[11]

Based on the maximum discount calculated by Longstaff, taking into consideration that perfect market timing is unlikely in practice, and considering the precedents in the New Zealand Rule 22 reports we have applied a discount of 20% to the FY2017 Performance Rights and 30% to the FY2018 Performance Rights.

4.6 Value outcome

Applying the discounts to each Rights issue gives 16.6cents and 50.1cents for the FY2017 and FY2018 respectively. This gives a total value of $140,199 for the FY2017 issue and $599,727 for the FY2018 issue giving a total value of $739,926 as presented in Table 1 below.

Table 2: Valuation outcome

	Number on issue	Estimated market value (per Right)	Estimated offer value (per Right)	Total value
FY2017 issue	844,572	20.7c	16.6c	$140,199
FY2018 issue	1,197,059	71.5c	50.1c	$599,727
			Total Rights value	$739,926

We assess the fair and reasonable cash consideration to be paid for each FY2017 Performance Right as $0.166 per right, and for the FY2018 Performance Right as $0.501. These sums are, respectively $0.123 and $0.241 higher than the current compulsory acquisition price.

4.7 Comparison with Northington Partners Independent Adviser's Report

In its independent report prepared pursuant to Rule 22 of the Takeovers Code, Northington Partners assessed valuation ranges of $0.041 to $0.056 for the FY 2017 Performance rights and $0.253 to $0.424 for the FY2018 Performance Rights.

Northington valued the Performance Rights as an Asset-or-Nothing binary option using a formula derived from the same assumptions as the Black-Scholes model for standard options. The Exercise Price range used by Northington reflected,

[11] For examples see J. Carpenter, *The exercise and valuation of executive stock options*, Journal of Financial Economics, 1998 and Boyle, Clyne & Roberts, *Valuing Employee Stock Options: Implications for the Implementation of NZ IFRS 2*, NZ Institute for the Study of Competition and Regulation working paper, 2006.

"The estimated Tegel share price at maturity required to meet the Performance Threshold. Based on expected TSR for Tegel (based on historical dividends) and companies included in the NZX50 between the issue date and maturity date for the Performance rights."

How the Exercise Price range was derived was not explained in detail. In our view this form of option pricing model cannot deal with the complexity of different proportions of the Performance Right vesting depending on where Tegel's TSR fits within the 50^{th} to 75^{th} percentile of NZX50 constituent company TSRs. Hence, TDB used a Monte Carlo simulation which yielded higher values than Northington's methodology.

We also note that we have been provided a report commissioned by TGH's Board dated 4 May 2018 by Deloitte Ltd. which undertook a valuation of the Performance Rights in a similar methodology as we have adopted. The results of the Deloitte valuation are largely consistent with our findings.

TDB also applied a discount to the value calculated using Monte Carlo analysis to reflect the illiquidity and constraints applying to the Performance Rights. A discount was not considered in the Northington or Deloitte valuations.

5. Qualifications and expertise

TDB Advisory Limited (TDB) is a boutique corporate finance and economics advisory company. We have been in operation since 2002 and are based in Wellington and Christchurch. Amongst other services, TDB has advised on mergers and acquisitions, company and asset valuations and independent expert reports.

The persons in the company responsible for issuing this report are

- David Smith (TDB Director), MBA (Finance), BSc, DipSci (Mathematics); and
- Tom Stannard (TDB Analyst), BCA Hons (Econ).

Geoff Taylor (TDB Director), BMS, FCTP has conducted a peer review of the analysis underpinning the findings presented by this report.

TDB, David Smith and Geoff Taylor have significant experience in business valuations, business appraisals and independent expert reports. Tom Stannard has significant experience in option valuation and Monte Carlo simulations

5.1 Independence

TDB confirms that it:

- has no conflict of interest that could affect its ability to provide an unbiased report; and
- has no direct or indirect pecuniary or other interest in the proposed transaction considered in the report, including any success or contingency fee or remuneration, other than to receive the cash fee for providing this report.

TDB has satisfied the Takeovers Panel, on the basis of the material provided to the Panel, that it is independent under the Takeovers Code for the purposes of preparing this report.

5.2 Declarations

An advance draft of this report was provided to Tegel and Bounty and their legal advisors for their comments as to the factual accuracy of the contents of this report. An advance copy of this report was also provided to the Takeovers Panel for their comments on completeness and meeting the requirements of the Code. Changes made to the report as a result of the circulation of the draft have not changed the methodology or our conclusions.

Our terms of reference for this engagement did not contain any term that materially restricted the scope of this report.

A family trust of which David Smith is a beneficiary and decision maker brought 40,000 Tegel shares in its IPO and accepted the Bounty takeover offer

5.3 Consents

We consent to the issuing of this report in the form and context in which it is sent to the Company's shareholders. We also consent to the public distribution of this report.

6. Sources and information

Other than the information sources referenced directly in the body of the report, this assessment is also reliant on

The following sources of information:

- Audited annual financial statements for Tegel for FY2016 and FY2017;
- The plan rules for the Tegel Long Term Incentive Plan, which govern the management of the Performance Rights;
- Example letters of offer for the FY2017 and FY2018 Performance Rights
- The Rule 42a Class Notice issued by Tegel on 9 May 2018;
- Deloitte 2016 Valuation of Performance Rights report for the Tegel Board;
- Deloitte 2018 Valuation of Performance Rights report for the Tegel Board; and
- Tegel Group Holdings Limited Target Company Statement, including the two Independent Advisor reports in the appendices.

6.1.1 Reliance on information

In preparing this report we have relied upon and assumed, without independent verification, the accuracy and completeness of all information that was available from public sources and all information that was furnished to us by Tegel and its advisers.

We have evaluated that information through analysis, enquiry and examination for the purposes of preparing this report, but we have not verified the accuracy or completeness of any such information or conducted an appraisal of any assets. We have not carried out any form of due diligence or audit on the accounting or other records of Tegel. We do not warrant that our enquiries would reveal any matter which an audit, due diligence review or extensive examination might disclose.

6.1.2 Disclaimer

This report has been prepared by TDB with care and diligence. The statements and opinions given by TDB in this report are given in good faith and in the belief on reasonable grounds that such statements and opinions are correct and not misleading. However, no responsibility is accepted by TDB or any of its officers, employees, subcontractors or agents for errors or omissions arising out of the preparation of this report to the extent that such errors or omissions result from our reasonable reliance on information provided by others or assumptions disclosed in the report or assumptions reasonably taken as implicit, provided that this shall not absolve TDB Advisory from liability arising from an opinion expressed recklessly or in bad faith or which cannot be disclaimed by law.

Appendix A: Assessment samples

Table 3: 2016 assessment sample

Ticker	Company name	Estimated annualised volatility
AIA	Auckland International Airport Limited	21%
AIR	Air New Zealand Limited	26%
ANZ	Australia and New Zealand Banking Group Limited	20%
ARG	Argosy Property Limited	12%
ATM	A2 Corporation Limited	45%
CEN	Contact Energy Limited	17%
CNU	Chorus Limited	20%
CVT	Comvita Limited	36%
EBO	Ebos Group Limited	16%
FBU	Fletcher Building Limited	27%
FPH	Fisher & Paykel Healthcare Corporation Limited	22%
FRE	Freightways Limited	16%
FSF	Fonterra Shareholders' Fund	10%
GMT	Goodman Property Trust	13%
GNE	Genesis Energy Limited	19%
HBL	Heartland Bank Limited	20%
IFT	Infratil Limited	14%
KMD	Kathmandu Holdings Limited	26%
KPG	Kiwi Income Property Group Limited	13%
MEL	Meridian Energy Limited	20%
MET	Metlifecare Limited	19%
MFT	Mainfreight Limited	14%
MCY	Mighty River Power Limited	20%
NZR	The New Zealand Refining Company Limited	23%
NZX	NZX Limited	17%
PCT	Precinct Properties New Zealand Limited	12%
PFI	Property For Industry Limited	12%
POT	Port of Tauranga Limited	18%
RBD	Restaurant Brands New Zealand Limited	15%
RYM	Ryman Healthcare Limited	20%
SKC	SKYCITY Entertainment Group Limited	23%
SKT	Sky Network Television Limited	37%
SPK	Spark New Zealand Limited	22%
SUM	Summerset Group Holdings Limited	21%
TME	Trade Me Group Limited	21%
TPW	TrustPower Limited	31%
VCT	Vector Limited	15%
VHP	Vital Healthcare Property Trust	13%
WBC	Westpac Banking Corporation	20%
ZEL	Z Energy Limited	18%
TGH	Tegel	30%

Table 4: 2017 assessment sample

Ticker	Company name	Estimated annualised volatility
AIA	Auckland International Airport Ltd.	21%
AIR	Air New Zealand Ltd.	26%
ANZ	Australia and New Zealand Banking Group Ltd.	20%
ARG	Argosy Property Ltd	12%
ARV	Arvida Group Ltd.	17%
ATM	The a2 Milk Company Ltd.	45%
CEN	Contact Energy Ltd.	17%
CNU	Chorus Ltd.	20%
CVT	Comvita Ltd.	36%
EBO	Ebos Group Ltd.	16%
FBU	Fletcher Building Ltd.	27%
FPH	Fisher & Paykel Healthcare Corporation Ltd.	22%
FRE	Freightways Ltd.	16%
FSF	Fonterra Shareholders' Fund Units	10%
GMT	Goodman Property Trust	13%
GNE	Genesis Energy Ltd.	19%
HBL	Heartland Bank Ltd.	20%
IFT	Infratil Ltd	14%
IPL	Investore Property Ltd.	12%
KMD	Kathmandu Holdings Ltd	26%
KPG	Kiwi Property Group Ltd.	13%
MCY	Mercury NZ Ltd.	20%
MEL	Meridian Energy Ltd	20%
MET	Metlifecare Ltd	19%
MFT	Mainfreight Ltd.	14%
NZR	The New Zealand Refining Company Ltd.	23%
NZX	NZX Ltd.	17%
PCT	Precinct Properties New Zealand Ltd.	12%
PFI	Property for Industry Ltd.	12%
POT	Port Of Tauranga Ltd.	18%
RBD	Restaurant Brands NZ Ltd.	15%
RYM	Ryman Healthcare Ltd.	20%
SAN	Sanford Ltd.	15%
SCL	Scales Corporation Ltd.	22%
SKC	SKYCITY Entertainment Group Ltd.	23%
SKT	Sky Network Television Ltd.	37%
SPG	Stride Property Group	37%
SPK	Spark New Zealand Ltd.	22%
SUM	Summerset Group Holdings Ltd.	21%
THL	Tourism Holdings Ltd.	20%
TME	Trade Me Group Ltd.	21%
TPW	Trustpower Ltd.	31%
VCT	Vector Ltd.	15%
VHP	Vital Healthcare Property Trust	13%
WBC	Westpac Banking Corporation	20%
ZEL	Z Energy Ltd.	18%
TGH	Tegel	30%