

Executive Share Option Adjustments

by Nick Stevens

Introduction & Summary

This paper compares UK practices with what should happen in order to maintain the option holder's incentive when either exceptional value has been taken out of the company or when there has been a change in the company's share base. Generally, a company's share scheme rules provide for the remuneration committee to make appropriate adjustments subject to the auditors confirming that these accord with the rules and are fair and reasonable. Companies are encouraged to consult the Association of British Investors [ABI] before seeking shareholder approval for new share schemes. The ABI offer no explicit guidance on adjustments but say they are content with the general procedure. This allows companies with the assent of their auditors, to consolidate their shares to compensate option holders when exceptional value is taken out of the company.

Adjustments to Inland Revenue (IR) approved schemes have to have IR approval for its status to be maintained. It is left to companies to decide whether adjustment is necessary, - it is not a requirement of the tax rules. In agreeing to adjustments the IR "will consider whether the value of the adjusted share option reflects what it should have been had the new share structure been in place when the options were first granted."

Exceptional value reduction occurs when a company returns capital to shareholders, pays a special dividend or buys its own shares for cancellation. By giving some of a company's assets to its shareholders the equity interest in the company is diminished. The share base is changed when there is a bonus or rights issue or when shares are cancelled. This may dilute the original equity interest, or concentrate such interest on the remaining shares. Such acts of charity, dilution or concentration alter the value of existing share options.

The paper argues that the correct adjustment would counter asset removal with a reduction in the option exercise price; share dilution with share option dilution and share concentration with share option concentration. In the case of a changing share base, whatever was due to be paid when exercising share options, the number of shares bought should be adjusted in the same proportion as the company share dilution or concentration.

The paper finds that correct adjustments are only being made in respect of share bonus issues and in some cases of capital return. In many cases of capital return and always when shares are bought in the market place for cancellation, share consolidation (concentration) becomes the form of adjustment. It gratuitously enhances the value of the share options. In the case of rights issues, practice rewards option holders as if they were rights subscribers. Arguably they only ought to get whatever compensation is given to the non subscribing shareholders for the share dilution that results from the rights issue.

Definitions

The option holder's incentive is defined as $(P_f - P)S$

where S = Number of Holder's options,

P = The option exercise price = The market share price at time of issue T_0

P_f = The market share price when the options can be exercised at time T_f .

Using the same notation,

T_1 = Time of announcement changing the share base/ removing exceptional value.

T_2 = Time when the change, removal occurs. Some changes, a market buyback of shares followed by their cancellation for example, are not announced as being definite and if they happen, the time T_2 is often not known or is indeterminate, being the result of transactions spread over weeks or months.

N = Number of company shares in issue at T_0 . For ease of analysis, N is assumed to be unchanged until T_2

B = Number of bonus shares issued at T_2

R = Number of rights shares issued at T_2 at a price discounted by $x\%$ to the cum rights market price of the N shares (P_2)

D = Price of the rights issue.

V = Market Value of Company just before the T_2 event, - equal to N times P_2 . P_2 can be defined as $V + N = N * P_2$ or NP_2

A = Value of assets removed from company at T_2

Notation assumes N times P is same as NP . or $N * P$, and $N + P$ is the same as N/P

Bonus Share Issue

The issue of bonus shares, raising the number of shares at time T_2 by some ratio, will diminish whatever would otherwise have been the share price by the same ratio.

Given N shares at T_0 , and the issue of B Bonus shares at T_2 , the ratio causing the change would be $(N+B)/N$.

Let this ratio be equal to r .

With the bonus issue, P_f now becomes P_f / r

To maintain the incentive $(P_f - P)S$ the number of shares being bought at the total option price SP must be increased by r . This is achieved by matching the dilution in the company share capital with a similar adjustment in share options, the number of options being increased by a factor of r with the option price reduced by the same factor

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$$rS(P_f/r - P/r) = (P_f - P)S \dots \dots \dots (1)$$

Practice follows the logic of (1).only in the case of share dilution. Perhaps because adjustments are not required by the ABI guidelines or the IR, they are not undertaken for a share concentration/negative bonus issues.

Rights Share Issue

At T₂ the market value of a company £V will be raised by the funds raised by the rights issue. Ignoring the expenses of the rights issue, this will be the price (£D) of the rights share times the number (R) of rights issued and sold. Given that P₂ is the cum rights price at T₂ (equal to V/N) and there is no other change of circumstance, the immediate ex rights price, becomes (NP₂ + RD)/(N+R). Current practice uses the ratio of this 'theoretical ex rights price' to P₂ to measure the degree of share dilution caused by the rights issue. As in the case of bonus shares,. share options are then adjusted calculating r as equal to
$$\frac{P_2 + (NP_2 + RD)/(N+R)}{P_2 [N+R] + [RD + NP_2]}$$
 the assumption that P_f will have been reduced by this factor.
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Intuitively, if you cause the price to fall by some form of capital restructuring, then the adjustment needs to follow the same principles for a bonus share issue. Proof is provided by viewing the rights issue of R shares as the sale of some new shares sold at the market price P₂ and the rest as free bonus shares.

The rights issue is to raise £RD.

It would do this if R times D/P₂ shares were sold at P₂ price and R times (1-D/P₂) were free bonus shares.

Adjusting for an R(1-D/P₂) bonus issue, the calculation of r in (1) would be as follows:

Fully paid shares in issue plus bonus shares divided by fully paid shares in issue.

$$\begin{aligned} &= [N+R] + [RD/P_2 + N] \\ &= P_2 [N+R] + [RD + NP_2] \end{aligned} \quad (3)$$

This is the same ratio as (2).

Practice treats option holders as if they had subscribed to the rights issue in proportion to their option holding. They don't! The discounting of the rights price ought to be viewed as part of the cost of raising equity capital. There is after all a trade off between the size of the discount and whatever fees are charged for underwriting a rights issue. Non subscribing shareholders to the rights issue do not always get any compensation for the dilution taking place because of the rights issue. and if they do they get only the profits from the market sale of their rights. It is arguable that option holders should be treated in the same way.

Exceptional Value Reduction

Returning company assets to share holders between time T₀ and T_f reduces the value of the company in which option holders have an interest. P_f will be lower because of the asset removal. To maintain the incentive, the option exercise price P needs to be lowered by the same amount.(4)

Removing assets from a company has two effects. The company's break-up value falls by the value of the removed assets. The company's earnings ability changes depending on the assets being removed. If this is cash that was previously on deposit or had been borrowed, the proportionate fall in the earnings ability is normally less than the asset value change. Since P_f is influenced by current and expected earnings and not on the asset value change effected at time T₂, adjustments ought to be based on the likely earnings change. With the passage of time from T₁ to T_f there is no sure way of determining this.

The market will have a view on the quality of the changed earnings, which will now depend on an increased gearing ratio. Share price changes at time T₁ may provide the best indication of this. The share price change at T₂ will normally reflects the immediate asset value change.

Avoiding such uncertainties, a uniform mechanistic adjustment would reduce P by A/N where A is the value of the assets that have been removed. This probably overstates the actual adjustment needed at T_f.(5)

The practice by companies is to make adjustments at T₂ in one of two ways by either:

- (a) Reducing the option exercise price P by whatever special dividend/ asset return was given in respect of each share as suggested in (4);(6)
- (b) Or by reducing the total number of company shares N in the same proportion that company assets fall by value through the asset removal. This is achieved by a financial reconstruction/share consolidation. If the Company's market valuation at T₂ was £V before £A of assets is removed, N shares are consolidated so that after the asset removal there are only N(V-A)/V shares.(7)

(b) is likely to be an overgenerous adjustment. It assumes that the earnings capacity of the company at T_f falls by the same ratio as in (7) so justifying the bigger claim over the distributed earnings that holders will have upon exercising their options.

However companies normally return to shareholders the assets they can't make such good use of! Just how generous (b) can be, can be seen from the US evidence on the effects of market buybacks. (See below).

Market Buyback with Share Cancellation.

This is the relatively informal way of doing exactly what is described at (7). Company assets are used to buy shares in the market place and are then cancelled. This avoids a formal reconstruction of the company's capital and only those shareholders whose shares are bought can be said to get any return of capital.

The purpose of such market buybacks is to financially engineer a rise in the earnings per share which will lead to the share price rising. The best evidence for the effects market buybacks comes from the US. William McNally examined 702 repurchase announcements in the US [See Open Market Stock Repurchase Signaling published in Financial Management Summer 1999] and found that the proposed mean purchase of 6.93% of these Companies' equity raised the share price on average by about 2.5% immediately after the announcement. [UK repurchase announcements are almost routine without it being at all certain that a company intends to repurchase its shares. So comparable data is lacking in the UK.]

There are two stages to a fair adjustment reflecting the reduction in the company's assets and the change in the number of shares. This would involve reducing P following the principles in (5), then grossing up P and reducing S in accordance with the principles in (1) since a share cancellation is equivalent to a negative bonus issue.(8)

In practice no adjustment is now being made.

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