

Start-Up Companies and Anti-Dilution Rights

An investor's preference shares

An angel investor or a venture capital investor will almost always seek preferential shares in a start-up company in which they invest.

Ordinary shares confer rights to a dividend, vote (one vote per share), and to a proportion of the assets of the start-up company in the event that it is liquidated. These rights are equal rights.

Preferential shares however confer preferential rights upon the angel investor or venture capital shareholder. These preferential rights or priority rights confer upon such an investor preferential rights in relation to such matters as the payment of dividends to the preferential shareholder before payment to the ordinary shareholders, voting (more than one vote for each preference share), and the preferential right to a proportion of the assets of the start-up company in the event that it is liquidated, before any distribution to ordinary shareholders.

Much can be said about each of these preferential or priority rights, and others. The particular right that is the focus of this edition of *IP Bits* is an investor's anti-dilution right.

What is an anti-dilution right?

An anti-dilution right is an investor's right to effectively have a "free top up" of the number of its shares if a later investor is issued shares at a lower price than the price paid by the earlier investor.

Normally, the issue of new shares to a later investor operates to dilute all the shareholders, in the same proportion as their respective shareholdings.

This proportional dilution may dilute each shareholder's proportionate ownership of the start-up company, but it does not necessarily dilute the value of each shareholder's shares, if the new shares to the new investor were issued for a price that is greater than the price for which previous shares were issued. In fact the opposite should occur, with the value of each existing share increasing as a result of the new investor buying shares at a higher price.

An investor is not concerned about this scenario. Rather, it is concerned about a scenario where the later investor is issued shares for a price that is less than the price that the first investor paid. In this case the first investor's shares have reduced in value, and the first investor seeks a "free top up" in its shares to compensate it for that reduction in value.

That top up to the earlier investor is achieved by an anti-dilution "ratchet provision."

The "full ratchet"

Consider this scenario:

1. a start-up company's pre-investment valuation is \$400,000, and its founder has 400,000 shares
2. an investor (A) invests \$100,000 for 100,000 Series A Preference Shares, at \$1 per share
3. there are now 500,000 issued shares of which the founder has 80%, and A has 20%
4. 6 months later, given prevailing conditions, a new investor (B), is unwilling to pay more than 25c per share, assessing the market value of the company to be unable to support a price per share higher than 25c, and pays \$25,000 for 100,000 shares, at 25c per share.

There are now 600,000 shares on issue (400,000 + 100,000 + 100,000).

If A was to convert A's 100,000 Series A Preference Shares into ordinary shares at \$1 per share, the price that it paid for the shares, it would on conversion have 100,000 ordinary shares, which is 16.7% of the start-up company (100,000 / 600,000).

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October 2017

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However, a full ratchet anti-dilution provision would allow A to convert A’s Series A Preference Shares to ordinary shares, not at the \$1 paid by A, but instead at the lowest price for which any shares have been issued by the start-up company after A’s investment, in this example 25c.

The full ratchet anti-dilution provision works as follows:

$$\frac{\text{NSA} \times \text{OPP}}{\text{LP}} = \text{NOS}$$

where:

- NSA is the number of Series A Preference Shares that the investor is converting to ordinary shares
- OPP is the original purchase price paid for those Series A Preference Shares by the investor
- LP is the lowest price paid for any share in the start-up company by any shareholder, after A’s investment, and
- NOS is the number of ordinary shares that the investor will receive upon conversion.

Applying this formula to our scenario,

$$\frac{100,000 \times \$1}{.25c} = 400,000$$

There are now 900,000 shares on issue (400,000 + 400,000 + 100,000).

By A converting its 100,000 Series A Preference Shares into 400,000 ordinary shares, instead of having 16.7% of the start-up company, A now has 44.4% of the company (400,000 / 900,000).

Rationale for the full ratchet

The rationale for an investor having these full ratchet anti-dilution rights is that it protects investor A from having over valued the start-up company at the time of A’s investment. In other words, if investor A had more accurately valued the company at the time of investing, the price per share that investor A would have paid (\$1) would have been the same or less than the price per share paid by the later investor, B (25c).

Is the full ratchet fair?

This rationale is often criticised, as a valuation of a start-up company at the time of investment factors in many things, and one of those is risk.

Risk can be factored in by taking into account the probability of success or failure. This is easily done in some industry sectors, such as the pharmaceutical sector, by including recognised mathematical probabilities of success and failure into a risk adjusted discounted cash flow analysis. For industry sectors where it is too difficult or impossible to quantify risk mathematically in this way, risk is factored into the valuation by employing a high discount rate in the risk adjusted discounted cash flow analysis.

When risk is factored into a start-up company’s valuation in either way, the result is that the valuation undertaken by investor A has taken into account future events that have a devaluing effect, including those which may influence investor B to value the start-up company 6 months later at a lower price per share. On that basis, the original valuation was not an over-valuation when it was undertaken by investor A, and the price paid by investor A at that time already reflected the risk of there later being a lower valuation.

Secondly, there may be other explanations for the down round (that is, investor B paying 25c per share rather than \$1 per share), including:

1. the down round occurs not because investor A’s valuation was an over-valuation, but instead because investor B’s later valuation is an under-valuation
2. prevailing economic conditions may impact negatively on the investment climate, with the down round reflecting investor reticence, rather than the company’s value.

The “weighted average ratchet”

Let’s now continue our scenario. Suppose 12 months later there is an up-round, when another investor (C) invests \$150,000 for 100,000 shares, paying \$1.50 per share (called an up-round because \$1.50 is greater than the 25c share price in the previous investment round made by B).

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This may occur because the start-up company’s opportunity has been validated, technical obstacles may have been overcome, the investment climate has improved, or any other of a myriad of reasons.

Should in those circumstances investor A still have the benefit of the full ratchet provision, taking advantage of the significantly lower 25c share price when B invested?

B’s investment was a modest one of \$25,000, so doing so confers upon investor A something of a windfall, as it results in A converting its 100,000 Series A Preference Shares into 400,000 ordinary shares, and according to some, unfairly diluting the founders and any other shareholders holding shares at the time of B’s investment.

Sometimes it is argued that a later up round should result in the prior down round being disregarded when determining the rate at which A will convert A’s Series A Preference Shares.

An alternative is for investor A to have a weighted average ratchet, rather than a full ratchet. The weighted average ratchet may be:

$$\frac{\text{NSA} \times \text{OPP}}{\text{Conversion Price}} = \text{NOS}$$

where:

- NSA is the number of Series A Preference Shares that the investor is converting
- OPP is the original purchase price paid for the Series A Preference Shares being converted
- NOS is the number of ordinary shares that investor A will convert into, and
- Conversion Price is the lower of:
 - (a) OPP, and
 - (b) AI / SI where
 - AI is the total amount invested in the start-up company in later rounds by investors B and C
 - SI is the total number of shares issued in later investment rounds by investors B and C.

Applying this “weighted average” ratchet to our scenario:

$$= \frac{\frac{100,000 \times \$1}{\$175,000 / 200,000}}{0.875} = 114,286$$

The number of shares now is 714,286 (400,000 + 114,286 + 100,000 + 150,000).

Converting at B’s price (.25c) will convert A’s 100,000 Preference shares into 400,000 ordinary shares, giving A 40% of the company (400,000 / (400,000 + 400,000 + 100,000 + 100,000)).

But converting at the weighted average price, which takes into account both B’s and C’s prices, as well as the number of shares they bought, will convert A’s 100,000 Preference shares into 114,286 ordinary shares. This gives A 15% of the company (114,286 / 714,286).

The rationale for this approach is that whatever may have been the reason for the down round (B’s 25c round) is later either overcome or demonstrated not to have been justified, as is shown by the later up round (C’s \$1.50 round).

The impact of using the weighted average ratchet rather than the full ratchet, is that a down round (like B’s 25c round) will have a much less impact on arriving at the Conversion Price, as the weighted average ratchet also takes into account a later up round.

This is regarded as a more equitable result for the founders, and other shareholders.

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