PART 1 of this article detailed the anatomy of a standard antidilution provision for a venture capital investment in a privately held company. Part 2 of this article considers a variety of antidilution provisions—including some unusual ones, used under a variety of other circumstances and conditions—and recommends some changes to current practices. These include provisions for convertible securities issued by large public companies with well-established markets, provisions for below-market issuances, provisions for instruments issued by small public companies, floating rate instruments, stock options issued to employees and others, warrants, and fixed percentage provisions.

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In large company offerings, investors often rely on the duty of the directors to protect them against below-market issuances.

LARGE PUBLIC COMPANIES • When very large public companies with well-established and highly liquid markets issue convertible instruments, the antidilution protections for investors are often limited to events which affect the underlying common stock. These events include stock splits, dividends, and other distributions to the holders of common stock. These instruments typically contain provisions covering mergers and similar transactions. They do not usually provide any protection in the event of an issuance of additional shares of common stock to new investors (as opposed to existing stockholders) at below the exercise price; nor in the event of an issuance of additional shares of common stock to new investors (as opposed to existing stockholders) below market price.

Why Are The Provisions Usually So Limited In This Context?

The theory behind these provisions is that there should be a unity of interest between the holder of the convertible security and the holders of common stock, and that the holder of the convertible security may rely on the fiduciary duty of the directors of the issuer for protection. Also, because these companies have very large very liquid markets for their equity that can absorb substantial activity, the holders of convertible securities can realize the in-the-money value of their securities fairly easily through conversions and sales or various hedging strategies. Furthermore, it is unlikely that these issuers would make significant issuances at substantial discounts to the market price of their shares. As a result, the risk of such an event is low. Finally, these are often very high-quality issuers with substantial bargaining power who do not have to make these kinds of concessions to sell their securities.

Adjustments For Below-Market Issuances

On occasion, convertible instruments issued by public companies provide antidilution adjustments for below-market issuances to new investors. This is not a common practice, and the provision is a bargained-for benefit that puts the holder of convertible stock in a somewhat better position than the holder of common stock. With respect to issuers of convertible instruments, there is a working assumption that the market price of their common stock reflects the fair value of the business (unlike the case of a privately held company in which the antidilution adjustment is used to ensure against improperly low valuations). Since investors tend to presume a reliable valuation for the issuer, the conversion rate can be assumed to have been set at a correct level reflecting the intent of the parties that the convertible instrument have a return relative to that of common stock, and the investor will accept the risk of movements in the stock price.

As noted above, in large company offerings, investors often rely on the duty of the directors to protect them against below-market issuances. However, while the directors do owe such duties to the holders of common stock, they do not owe a duty to protect the holders of convertible instruments. In the end, investors in these instruments must rely on their contractual rights.

Additional Issuances Of Common

If a public company makes additional issuances of common stock at the market price at
the time of issuance there will be no dilution, even if the prevailing market price is below the conversion price. For example, assume that Easy Company has one million shares of common stock that trade at two dollars per share and 500,000 shares of preferred stock, for which the investor paid $500,000, that convert on a one for one basis (at one dollar per share). The preferred stock is “in-the-money” to the extent of one dollar per share. If Easy Company then issues one million new shares of common stock for two dollars per share, the trading price should not be affected and the preferred stock will still be in-the-money to the extent of $500,000. This analysis, of course, does not take into consideration other factors. For example, the additional equity might be seen by the investing public as strengthening the issuer’s balance sheet and thereby improving the stock price, resulting in an accretive transaction, or it may be seen as an act of desperation leading to a decline in stock price.

What If The Issuance Is Below The Prevailing Market Price?

If, however, there are additional issuances of common stock at prices below the then-prevailing market price, even if above the conversion price, there will be dilution to the investor. One way to think of this is that whoever acquires common stock for less than the market price receives securities worth more than what he or she paid for them. This additional value is, in effect, a transfer from the existing stockholders to the new stockholder.

Consider the following example, in which Easy Company issues common stock at a price that is below the prevailing market price but above the conversion price. Assume Easy Company’s stock is trading at $20 per share, there are 10 million shares of common stock outstanding, and there are 200,000 shares of convertible preferred stock outstanding which were originally sold at five dollars per share and which are convertible on a one-for-one basis (at five dollars per share). In this example, the preferred stock is worth $4 million (because it converts into 200,000 shares each with a value of $20).

Now assume that Easy Company issues another one million shares of preferred stock for $10 per share ($10 million) and that these shares are convertible at $10 a share. Immediately prior to the offering, Easy Company has a market value of $204 million and has 10,200,000 common shares and common share equivalents outstanding. To this it adds one million shares of preferred stock (one million shares of common stock equivalents). Thus, Easy Company has 11,200,000 shares outstanding on a fully diluted basis. These shares have a value of 204 million plus $10 million acquired as offering proceeds or $214,000,000 which yields a per share value of $19.11 (214 million divided by 11,200,000). Assuming that the market price reflects this valuation and that there are no effects on the market attributable to the offering (such as a decrease in value due the perceived weakness of a below market financing or an increase in value due to a stronger balance sheet), the offering has diluted the existing preferred stockholders to the extent of 89 cents per share.

Formula For Issuances Below-Market Price

To adjust for this type of dilution investors provide for an adjustment to the conversion price based on the following formula:

$$\text{New C} = \text{Old C} \times \frac{O + P/M}{C SD O}$$

In this formula “New C” is the new conversion price; “Old C” is the old conversion price; “M” is the market price on the measurement date; “O” is the number of shares outstanding or
Owing to the way PIPE transactions work, antidilution protection makes a lot of sense.

If we apply this formula to Easy Company’s issuance of one million shares of new preferred stock at $10 per share, the conversion price of the old preferred stock would be reduced to $4.78 per share (from five dollars).

With a new conversion price of $4.78, 200,000 shares of old preferred stock convert into 209,346 shares of common stock worth approximately $4 million, assuming that after the financing the common stock trades at $19.11. As a result, the investor has retained the financial value of his investment, and all the dilution is experienced by the holders of common stock.

SMALL PUBLIC COMPANIES • The argument against antidilution protection for below-market issuances (other than to existing stockholders) for public companies, is that these situations are not likely to arise as a practical matter and may be left to the protection of basic corporate law and the law governing the duties of directors. Stanley A. Kaplan, *Piercing the Corporate Boilerplate: Anti-Dilution Clauses in Convertible Securities*, 33 U. Chi. L. Rev. 1, 21 (1965). But this was before the advent of private investment in public equity (“PIPE”) transactions. In recent years PIPEs have become very popular. According to one author, between 1995 and 2003, PIPEs accounted for more than $74 billion of investments. Leib M. Lerner, *Disclosing Toxic PIPEs: Why the SEC Can and Should Expand the Reporting Requirements Surrounding Private Investments in Public Equities*, 58 Bus. Law. 655 (2003).

How PIPEs Work

Owing to the way PIPE transactions work, antidilution protection makes a lot of sense. In these transactions, common stock or convertible securities are privately placed with investors and then a resale is registered with the Securities Exchange Commission so the shares may be publicly resold by the investor. In most of these transactions, the initial private placement is sold at a discount to the prevailing market price. Often the most heavily negotiated part of the transaction is the amount of the discount, and the result is often based on the level of risk associated with the issuer and the market for its securities. The stronger the issuer; the smaller the discount. Investors in PIPEs, particularly those that make investments in smaller less liquid issuers, expect to be able to capture the profit inherent in the discount at which the securities were sold to them as well as to benefit on the upside should the price of the issuer’s equity rise. As a result of the popularity of PIPEs, investors should anticipate that there is some probability that issuer will sell additional shares of common stock or securities convertible into common stock to third parties at below-market prices. This is especially true of smaller public companies with thin trading markets.

Mixed Character of Small Public Companies

Small public companies with thin trading markets have some of the characteristics of private companies and some of the characteristics of large public companies. Because their trading markets are thin, investors cannot capture the “in-the-money” value of convertible securities by converting and selling the underlying shares because even moderate sales pressure is
likely to depress the share price of these stocks. However, at any given time, investors probably can sell some stock and over time they may be able to sell a lot of stock. Similarly, share prices for these types of stock usually exhibit high levels of volatility, and as a result, issuers and investors may feel that the public market is not providing a fair valuation for the issuer. Finally, these issuers tend to have less bargaining power than larger issuers. Experience indicates that most of the convertible securities issued by these companies have private company type antidilution provisions. However, to the extent that concerns about valuation and liquidity form the theoretical basis for antidilution provisions, the mixed character of small, thinly traded public companies calls into question whether antidilution protection against below exercise price issuances or below-market price issuances is most appropriate. This concern may be amplified by the possibility of a below-market issuance.

The Continuum

One way to analyze the problem is to think of small public companies as occupying a space on a continuum between private and truly public companies. Depending on how close to which end of the spectrum a particular company falls, one would choose one or another antidilution provision. This approach, however, begs the question of what to do with issuers that fall in the middle.

What Is The Nature Of The Risk?

Another way to analyze these risks is not to think of them as two ends of a single continuum, but as different risks requiring different adjustments. As noted above, in the private company case the risk being guarded against is the risk of an inaccurate valuation. While in the case of a private company, a below-market issuance is clearly possible, the mechanisms needed to identify such an issuance and quantify it so that an antidilution formula could be applied are too cumbersome and the judgments too subjective to make such adjustments practical for private companies. Also as noted above, in the case of a large, liquid public stock for which there is an efficient market, the risk of inaccurate valuation is low, as is the need to protect the investor from an issuer which sells its equity to third parties below its market value.

Adjustment On The Below-Market Basis

Both of these risks, valuation risk and the risk of lower-than-market issuances, are present in smaller, less-liquid public companies, and investors in these companies should want to protect themselves against both risks. Following this reasoning, in the case of an issuance that is below the market price but above the exercise price of a convertible but above the market price, the investor should bargain for an antidilution adjustment on the below-market basis. Without an appropriate adjustment, such an issuance would certainly run counter to the expectation of the investor who, presumably, bargained for the benefit of the discount at the time of the transaction. In the case of an issuance that is below the exercise price of a convertible but above the market price, the investor should bargain for an antidilution adjustment on the traditional weighted-average basis. Since such an issuance would tend to imply that the original valuation was too high and since it would increase the total float (the number of shares outstanding) and thereby tend to depress share price (particularly in thinly traded stocks), either because it actually puts shares into the market or because it creates overhang, without an adjustment such an issuance would also run counter to an investor’s expectations. In the case of an issuance that is below both the exercise price and the market price, the investor should bargain for the greater of the two traditional adjustments.
ADJUSTMENT FOR FLOATING RATE INSTRUMENTS • Over the past several years, public company issuers that are in financial difficulty or that have difficulty obtaining needed financing for other reasons have issued securities that convert into publicly traded common stock at a floating rate, that is at a percentage discount to the market price on the day of conversion. These securities are issued in PIPEs transactions and are sometimes referred to as “future priced,” “death spiral,” or “toxic” securities. This type of conversion feature ensures that the holder can convert at any time and realize a gain equal to the discount. For example, if the investor holds a note that converts at a 20 percent discount to the market price and the market price is one dollar the holder can acquire a share of common stock for 80 cents and simultaneously sell it for one dollar thus realizing a 20 cent gain or a 25 percent return on his 80 cent investment. Floating rate conversion features insulate the investor from much of the risk of movements in the price of the underlying common stock. The wisdom of such transactions is easy to question since they tend to have a dramatic and adverse effect on the issuer’s stock price. (The issuance of future-priced securities implicates various securities rules and regulations as well as various exchange and NASDAQ requirements.) Nevertheless, many transactions have been done using a floating rate conversion or other structures to achieve the same result. These types of financings are often the only ones available to small public companies that are in serious financial difficulty.

Do Other Events Matter?

Investors in the floating rate transactions should be completely indifferent to dividends, stock splits, and other events which cause adjustments of a purely algebraic nature. Similarly, they should be completely indifferent to other issuances whether or not the price is above or below the then-applicable conversion price or market price. However, to the extent that any of these events affects the liquidity and activity of the market for the underlying common stock, these investors care a great deal. This concern is typically addressed through covenants restricting the issuer’s activities.

Stock Splits

Take the example of a stock split. Easy Company has 10 million shares outstanding, the stock is trading at one dollar per share, and Easy Company has issued one million shares of a floating rate preferred stock that converts at 80 percent of the market price for the common stock. Assuming the market price of one dollar remains stable and all the preferred stock is converted and the underlying common sold at one dollar per share, the investor would realize $1,250,000 in revenue—or a $250,000 (25 percent) profit—as a $1 million investment.

Assume now that, after the floating rate preferred stock is sold, and before any shares are converted, Easy Company effects a 2-for-1 split. Easy Company now has 20 million shares outstanding with a per share price of 50 cents. The investor then converts the entire $1 million of preferred stock at 80 percent of the market price (40 cents) and receives 2,500,000 shares of common stock which she then sells at 50 cents per share. The investor receives proceeds of $1,250,000. The same logic applies to share dividends, consolidations, and issuances of additional shares of common stock. So long as the issuer’s activity does not have an adverse effect on the liquidity of the market for the issuer’s common stock, investors in these instruments are indifferent to the per-share price of stock.

The “Death Spiral” Problem

The primary objection to these instruments is that as shares are converted and the underlying common stock is sold into the market, volume
increases and this increase drives the per share price down with the effect that ever increasing amounts of common stock are being issued upon conversions and are being sold in the market. This activity inevitably produces a downward spiral in price—going to pennies—hence the term “death spiral” used to describe these securities. Issuers often attempt to control this effect by negotiating floors to the conversion price; that is, they try to fix a minimum rate for conversion. These features permit the conversion rate to float until it reaches some minimum number. Clearly, a minimum rate could be affected by a split or similar issuance. For example, if Easy Company negotiated a conversion floor of 50 cents and then effected the two-for-one split described above, the investor would not be able to convert at 40 cents and could not make his 25 percent no-risk return. For this reason, in transactions with floors and related mechanisms, adjustments for splits, dividends and other algebraic type adjustments should be made to the floor price.

Adjustment To The Floor

Similarly, below-market issuances of additional shares of common stock should produce downward pressure of the stock price. For this reason, adjustments for below-market issuances should be applied to such floors. Keep in mind that any issuance below the conversion price of such securities is, by definition, below market price, but the adjustment must be made for the below-market feature of the issuance because the floor needs to be adjusted for the effect on the market for the common stock rather than to be adjusted for an erroneous valuation (as in the case of a typical venture capital preferred stock). Finally, if the issuer is able to negotiate a floor, the investor is likely to ask for, and obtain, a ceiling on the conversion price. A ceiling, of course, provides the investor with greater upside if the stock price rises because the conversion rate stops rising with the stock. For example, if Easy Company negotiates a ceiling of $1.50 to go with a floor of 50 cents, and the common stock rises to three dollars per share, then the investor will be able to convert her one million shares of preferred stock into 666,667 shares of common stock. The investor can then sell the common stock for $2 million and realize a 100 percent return. To preserve these economics, the ceiling must be adjusted for the same events as the floor.

Structural Changes

Floating rate instruments also require the typical adjustments for structural changes such as mergers, sales of assets, reclassifications and the like, if the result of such a change is that the common stock of the issuer is transformed into something else—say the common stock of another issuer. For example, if Easy Company merges with Fox Company, and the common stock of Easy Company is exchanged for common stock of Fox Company, then the preferred stock of Easy Company must become exercisable for the common stock of Fox Company.

One more example is a spin-off. If Easy Company has a subsidiary, Fox Company, and Easy Company distributes the shares of Fox Company to the shareholders of Easy Company and does nothing else, it might cause a decline in the shares and price of Easy Company common stock because some amount of value has been moved out of the company. When there is a floor or a ceiling, theory suggests that a before and after type adjustment should be made. However, this could become extremely complex in practice. For example, if Fox Company were to be privately held or if no market for its shares developed, the investor would not want part of his return to be locked up. Typically, the antidilution provisions of floating rate instruments do not address such an event. Investors’ counsel often argue that before and after adjust-
ment be made for any event which transforms the common stock such as mergers and reclassifications and that an algebraic adjustment be provided for when:

- There is a floor or a ceiling; and
- Assets are moved away from the issuer but the common stock is unchanged.

In this case the floor or the ceiling should be multiplied by a fraction the numerator of which is the share price immediately after the event and the denominator of which is the share price immediately before the public announcement of the event.

**STOCK OPTIONS**

Stock options are frequently granted to directors, officers, and employees as part of an overall compensation package. Options are, of course, rights to acquire common stock at a set price. The value of these rights, like those of warrant holders and preferred stockholders, can be affected, for better or worse, by changes in the capitalization of the issuer.

**Limited Antidilution Protection**

However, the antidilution protection offered to an option holder is typically limited to events such as dividends, splits, and other events for which algebraic adjustments can be made. The optionee specifically does not get adjustments in the option exercise price or number of options for future issuances of additional shares of common stock, whether or not the issuances are below the option exercise price or below the market price. The reason for this omission is that options are intended to align the motivations of the employee with the interests of the holders of common stock. Thus, the reasoning goes, if the holders of common stock suffer dilution, so should the holders of options.

**Similar Limits For Structural Changes**

A similar thought process underlies the treatment of structural changes such as mergers and sales of assets. In these cases, provision is often made so that outstanding options become exercisable for whatever stock or other assets the holder would have received had the holder exercised her options in time to participate in the transaction as a common stockholder. In addition to this protection, option plans often provide that the board of directors of the issuer may, in its discretion, cancel any unexercised options as of the effective date of a merger or similar transaction. This cancellation provision is generally included in option plans because issuers believe that a large overhang of options will be an impediment to a sale of the business, so the right to fix that problem unilaterally is put in place.

**WARRANTS**

Warrants need special mention because in the case of splits and other algebraic adjustments, warrants require two adjustments, one to the exercise price and another to the number of shares subject to the warrant. For example, assume Easy Company has one million shares of common stock outstanding and has issued warrants to purchase one million shares of common stock at one dollar per share. In this situation, the warrant holder can purchase 50 percent of Easy Company for $1 million by exercising his or her warrant. If Easy Company splits its stock two-for-one and no adjustment is made to the warrant, then the warrant holder will only be able to buy one-third of the company for $1 million. If only the exercise price of the Warrant is adjusted (by dividing it in half in accordance with the formula described above for convertible preferred stock), then the warrant holder will be able to buy one-third of the company for $500,000. While the price per share is correct, the value of the warrant has been eroded because the warrant holder cannot buy up to half of the compa-
ny. For this reason, the number of shares subject to the Warrant must be increased so that the warrant holder may spend as much money as she would have been able to prior to any adjustment. Thus, with an exercise price of 50 cents and a number of shares that can be acquired of two million, the warrant holder may acquire half of Easy Company for $1 million.

**FIXED PERCENTAGE ANTIDILUTION PROTECTION** • Very rarely, but sometimes, investors and consultants ask for and obtain the right to convert into a fixed percentage of an issuer’s equity. For example, Easy Company might sell a preferred stock that converts into 20 percent of the equity of Easy Company on a fully diluted basis or issue a warrant to purchase one percent of its stock, without regard to what changes might take place in Easy Company’s capitalization. Sometimes these types of arrangements are just the result of a misunderstanding on the part of an unsophisticated issuer—sometimes not. This arrangement is obviously very favorable to the investor but has some draconian negative effects on the issuer. Perhaps the most difficult aspect of such an instrument is that 20 percent of all future activity accrues to the investor—without regard to valuation. For example, if Easy Company has one million shares of common stock outstanding and issues a preferred stock convertible into 20 percent of the equity of Easy Company, the company’s capitalization (on a fully diluted basis) would consist of 1,250,000 shares of common stock (250,000 of which represent the shares to be issued on conversion of the preferred stock). Assume that Easy Company then issues another 1,250,000 shares of common stock for one dollar per share. In that case, it appears that the new investor may want to buy one half of the equity of Easy Company.

However, after taking into account the fixed percentage conversion feature of the preferred stock, Easy Company’s capitalization would be as follows: 2,812,500 shares of common stock (on a fully diluted basis) of which one million would be held by the original common stock holders, 1,250,000 would be held by the new investors and 562,500 would be held by the preferred stock investor. In this example, the entire value of Easy Company is $2,500,000 (the valuation at which the new investor bought in). However, of this $2,500,000, $500,000 is allocable to the preferred stock and the rest is allocable to the common stock. Since the new investor paid $1,250,000, the new investor would own approximately 55 percent of the value allocable to the common stock i.e., $1 million—not $1,250,000. In effect it cost the investor an additional 20 percent to invest in Easy Company. This situation would, of course, never arise because no one would invest on these terms. Instead, the new investor would negotiate to have the entire burden fall on the holders of common stock.

**CONCLUSION** • One effect of the bursting of the investment bubble of the late 1990s and the advent of many so-called down round financings for privately held venture financed companies as well as the rapid decline of many publicly traded stocks and the dramatic emergence of the PIPEs market has been to cause lawyers and clients to take a careful look at the antidilution provisions of many different instruments and discover that in some instances they did not operate as expected. In some cases they provide huge benefits, in others just professional embarrassment. Even as valuations start to rise again in the public and private equity markets, these provisions should not be overlooked.
Simple formulas work for some antidilution provision, but not all. In most cases, the protection has to reflect both the nature of the underlying security, and the nature of the issuer itself.

- When the issuer is a large public company, and the security is convertible, the protection is usually limited to events that could affect the underlying common stock. (The theory is that holders of common and of convertible stock have the same interest, since the conversion yields common stock. There is also a very large market for large-company stock, so realizing full value is seldom difficult.) However, antidilution provisions for convertible securities issued by large companies do exist:
  - These provisions are unusual, and a bargained-for benefit. They can be hard to obtain, because they tend to put the holders of convertible instruments in a better position than holders of common stock;
  - These provisions do not cover the situation in which the company issues additional common stock at the market price, even if it is below the conversion price;
  - These provisions can be crafted to cover the situation in which an issuance of additional common stock is below both the conversion price and the market price. To adjust for this type of dilution, the provision can call for the following adjustment to the conversion price—

\[
\text{New C} = \text{Old C} \times \frac{O + P/M}{CSDO}
\]

In this formula “New C” is the new conversion price; “Old C” is the old conversion price; “M” is the market price on the measurement date; “O” is the number of shares outstanding or deemed outstanding before the issuance; “P” is the aggregate consideration received by the issuer in the issuance; and “CSDO” is the number of shares outstanding or deemed outstanding after the issuance.

- With respect to small public companies, the old idea that dilution was just unlikely to be a problem has been outmoded by the advent of private investment in public equity (“PIPE”) transactions. Since the point of a PIPE transaction is to make a profit from a resale of securities that have been discounted, it is very likely that the issuer will sell additional shares at below-market prices. When there is a likelihood that there could be an issuance at below both the conversion price and the market price, a formula as above for large public companies may be used.