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A comparative study of anti-
dilution protection in the US and
in Sweden

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Summary

Convertible preferred shares are, the most frequently used investment instrument in venture capital or private equity investment. The various rights associated with these shares make them more valuable than ordinary shares. A vital feature, at least for the US venture capitalist, is the conversion right that is the right to convert a preferred share into an ordinary share. For the right of conversion to be meaningful anti-dilution clauses are generally attached to convertible preferred shares to guarantee that adjustments of the conversion price will be made to protect the investment against dilution in the event of a subsequent investment round at a lower valuation.

Anti-dilution protection provisions, before considered as standard provisions not worthy any attention or negotiation, have today become highly controversial clauses. The primary purpose of anti-dilution protection is to protect against changes in the exchange ratio and in doing so insure that the percentage of the total number of underlying shares deliverable upon conversion will remain stable despite alteration in the company's share capital structure. The anti-dilution equation works like this: initially the new subscription/conversion price is equal to the original subscription price and the conversion ratio is therefore one to one; that is one common share for one preferred share. After a down round the conversion price drops down, yielding a higher conversion ratio than one to one. The outcome is that the investor obtains additional shares in the company without further costs.

There are principally two different anti-dilution formulas, "the weighted average" and "the full ratchet". "The weighted average formula" reduces the original subscription price to an amount between itself and the price per share in the later round of financing and is the more modest formula, as it takes into account the amount of shares sold in the down round. "The full ratchet", at the other hand, is much more powerful and provides a complete protection of the investment in the event of a dilutive issue. This is accomplished by dropping the original subscription price to the new subscription price in the subsequent investment round and issue enough additional shares for free to the venture capitalist to make his/her average cost per share equal to the price per share in the down round.

Anti-dilution protections facilitates further investment rounds in the relevant company which, is not only advantageous to the company in that it provides a mechanism within the original investment structure through which future funding can be accommodated, but also for the venture capitalist who may have overvalued the company and due to the anti-dilution protection can avoid or reduce the consequences of this miscalculation of the value of his investment. The implementation of especially a "full ratchet" clause may, however, wipe out the management's motivation to operate in the best

interest of the company, as it drastically reduces the founders' ownership. The investor-founder relationship may further be harmed by introducing elements of mistrust and diverging interests in the relationship which may diminish the future possibility of a successful exit.

The Swedish venture capital market is in many ways similar to the US market. The Swedish Companies Act does not, however, permit flexible conversion ratios to be included in the articles of association. Hence, the conversion ratio method cannot be used in Sweden. The logic behind anti-dilution protection in Sweden is instead of adjusting and protecting the conversion ratio, to protect the value of the investment by issuing additional "anti-dilution shares" to an amount equivalent to the nominal value of these shares to the investor. This protection is guaranteed by e.g. contractual undertakings by the existing shareholders in a shareholders' agreement. The cons with such a solution are the uncertainty concerning the enforceability of this agreement in different situations. It is therefore extremely important for the investor to grant full adherence to the shareholders' agreement. A more solid solution is to issue "anti-dilution warrants" to the investor, which entitle him/her to subscribe for new shares at the nominal value in connection with the relevant issue. Thus, the investor can exercise the warrants in the event of a down round and does not have to rely on the other shareholders.

Shares cannot be issued for free in Sweden; consideration amounting to at least the nominal value must be paid to the company. Customary, it is the investor who pays this amount, which has to be taken into account when designing the anti-dilution protection. The payment of the nominal value is not a big problem in practice, since most shares in venture capital sustained companies have a low nominal value and the company can reduce this value if necessary by a share split or similar actions. Except for the nominal value the parties must consider the provisions regarding the size of the company's share capital and the compulsory obligation to liquidate the company if its equity is less than half of the registered share capital and, the financial situation has not improved within the specified time in such a way that its equity amounts to the registered share capital.

The design of the anti-dilution protection is in the end a question of negotiations. A number of issues should be discussed in advanced. The first and most important issue is, of course, whether anti-dilution provisions should be included at all. The next step is to choose formula and, in the Swedish context, to decide how to design and guarantee this protection. Other important issues are the class of shares of "the anti-dilution shares", which events that should trigger these protective provisions, i.e. should certain issues be exempted, pay to play provisions and which price that should decide whether the subsequent round is a down round or not. These are merely some examples of specific problems that the parties should try to agree on in advance. Every investment is, however, unique and the parties have to consider the specific circumstances in each case when designing the anti-dilution protection. Careful drafting and an understanding for the

significance and the consequences of anti-dilution protection are vital ingredients in these negotiations and may pave the way for a successful co-operation between the investor and the entrepreneurs.

Abbreviations

ARDC	American Research and Development Corporation
Ch.	Chapter
IPO	Initial public offering
S.	Section
SCA	the Swedish Companies Act
Skr	Swedish kronor
SPA	the Swedish Partnership Act
TSP	Total subscription price

1 Introduction

1.1 Presentation of the subject

Individuals and groups of investors have financed entrepreneurial enterprises throughout our history. The modern concept of venture capital is, however, normally considered to have begun after the Second World War with the formation in 1946 of the American Research and Development Corporation. ARDC was the first investment organization open to public and the US has, since the formation of this enterprise, been the world's dominant venture investor.¹ Venture capital investments are today associated with high levels of technology dispersal and job creation. Hence, promotion of venture capital has become an important goal in most industrialized countries.²

Private equity and venture capital is best described as a form of private risk capital that is raised from public and private pension funds, endowments, foundations, banks, insurance companies, corporations as well as wealthy families and individuals. The venture capitalist finances, in general through the acquisition of convertible securities, new entrepreneurial initiatives and small non-quoted companies with a high growth potential. A typical investment structure will include rights and protections that are designed to allow the venture capitalist to gain liquidity and maximize the return of the investment. The valuation of the company, specific exit rights and provisions protecting the percentage ownership are some of the key issues in negotiations regarding the investment.³

Since the early days of venture capital, the industry has been growing and during the 1990s, there was almost a free flow of venture capital. Deals were competitive and investors chased after promising start-ups. Entrepreneurs often possessed more bargaining power than the investor regarding fundamental terms of an investment. Thousands more companies were funded than could possibly be sustained by venture money and most of these investments were made at highly exaggerated valuations. The venture capitalists were focused on maximizing their upside potential and normally less focused on negotiating the downside protection like anti-dilution protection and liquidation preferences.⁴

After the burst of this bubble in the second half of 2000 the rules of the venture capital market radically changed. The economic downturn coupled with the falling stock market led to hard times both for the venture

¹ Barlett, 1999, at 3.

² De la Dehesa, 2002, at 1-3.

³ <http://www.zeromillion.com/entrepreneurship/structuring-venture-capital-investments.html>.

⁴ Carter, Hoyt, 2001, at 1.

capitalists and the companies. The collapse of the market restricted the investors' exit opportunities and, thus, it has been extremely difficult to raise money in this climate. Investors are scrutinizing deals very carefully and the valuation of companies has drastically decreased. Essentially, subsequent money is becoming more expensive than the early money and companies have to give up more equity in order to raise the capital they need.⁵

In this business environment where down rounds has become a common occurrence and investors have more leverage than before regarding the terms of the investment, anti-dilution protection and liquidation preferences has, at least in the US context, become the most hotly negotiated provisions. Clauses usually seen only in very high-risk or last-ditch financing have emerged over the board as investors try to minimize their risks and get the best down side protection as possible. The consequences of the implementation of these provisions can be very onerous for the company and in particular for the entrepreneurs.⁶ Hence, it is important for the parties to fully understand the impact of anti-dilution protection and the alternatives available before accepting these provisions.

1.2 Purpose and delimitations

Anti-dilution provisions are today a common ingredient in a private equity or a venture capital investment. The objective of this thesis is to present and analyse the purpose and underlying theory of this protective mechanism and discuss when and why anti-dilution protection should be included in an investment deal. Different models of anti-dilution provisions will be dissected and the practical consequences of the implementation of each model for the parties involved will be examined and presented. Pros and cons with anti-dilution protection and vital issues for the parties to consider before accepting anti-dilution clauses will further be scrutinized.

The concept of anti-dilution protection derives from the US and, consequently, the models and methods employed to design and create these provisions are primarily adapted to the conditions of the US market and business environment. Hence, my ambition is to analyse how these "traditional US models" suits the Swedish market and jurisdiction. The necessity of modification, principally because of restrictions in the Swedish Companies Act, and other specific problems arising in the Swedish context will be presented and analysed.

This thesis will merely consider substantial anti-dilution protection, i.e. protection against dilution occurring after a subsequent investment round due to the lower valuation of the company in this round (down round). Issues and problems relating to formal anti-dilution protection, rights of first

⁵ Murphy, 2003, at 1-3.

⁶ http://telephonyonline.com/ar/telecom_vcs_back_control/ and Davis, Drake, 2003, at 119.

refusal and pre-emptive rights that basically aim to enable the investor to maintain his percentage ownership of the company in the event of a new issue of shares, fall outside the scope of this essay.

This essay will merely examine anti-dilution protection in the US and the Swedish market, while methods used to create anti-dilution protection and specific problems arising when implementing these provisions in other countries will fall outside the scope of this essay.

1.3 Method and material

This thesis is a traditional desk study where the descriptive and the analytical as well as the comparative method have been used. I have received a basic understanding for this subject by reading mostly American and English articles and shorter presentations about venture capital and private equity. I have further tried to analyse and scrutinize specific problems and evaluate the pros and cons with anti-dilution provisions. Finally, a comparative study has been made, where the conditions of the Swedish and the US market concerning this area has been compared.

Anti-dilution protection is, as the venture capital market as a whole, a relatively new phenomenon in Sweden and there is hardly any literature published concerning this subject. Hence, this thesis is principally based on material achieved after extensive research in various databases. This material primarily consists of articles and presentations written by US and UK authors and lawyers and, hence, the first part of the thesis is mainly based on custom and problems experienced in the US context. Since the authenticity of material like this may be questioned I have chosen articles supported by and corresponding with other articles.

The part about the Swedish market is primarily based on Swedish lawyers and companies' experiences regarding anti-dilution protection in Sweden. A questionnaire has been sent to a number of lawyers and companies. In my choice of recipients of the questionnaire I have tried to strike a reasonable balance between lawyers and companies operating in this branch to get a fair and true view of the significance and specific problems arising in relation to anti-dilution protection in Sweden. Except for the member details included in the directory of the Swedish private equity & venture capital association, Joakim Edoff at Setterwalls have helped me with most of the contact details. The responses of the questionnaire are supplemented by the ordinary legal sources of Swedish company law, i.e. the Swedish Companies Act, preparatory work and the doctrine.

1.4 Outline

This thesis is implicitly divided into three parts. The first part, chapter 2-4, is mainly descriptive and presents and scrutinizes the core concept of anti-

dilution protection. The first part is based on US material and, hence, the presentation and discussion in this part relates to the custom in the US market and is only implicitly relevant for the Swedish market. *Chapter 2 and 3* includes a brief presentation of convertible preferred shares and the significance of dilution in this context. *Chapter 4* is the central chapter in part I. Different types of anti-dilution provisions as well as the purpose of these provisions are presented. This presentation is followed by a description of different formulas and their impact on the parties. Finally, the pros and cons with anti-dilution protection are discussed.

The second part, *chapter 5*, considers the Swedish venture capital market and the implementation of anti-dilution protection in Sweden. Initially, a general presentation of the Swedish investment documentation and the corporate documents is given. Hereafter, anti-dilution protection in Sweden is discussed. Different models used to create this protective mechanism are presented and specific problems occurring due to provisions and restrictions in the Swedish Companies Act are discussed. The proposal of the new Swedish Companies Act and the consequences of the proposed changes for the implementation of anti-dilution protection are further briefly examined.

The third part, *chapter 6-7*, tries to bring the first and second part together by a general discussion about vital matters for the parties to consider before accepting anti-dilution protection and finally, by a concluding analysis.

1.5 Definitions

The term venture capital is sometimes replaced by private equity. The significance and difference between these conceptions is, however, ambiguous and there is no internationally accepted definition. These conceptions are generally regarded as synonyms but are sometimes differentiated by letting venture capital relating to investments with an active ownership involvement while private equity investors merely support the company economically. Venture capital is generally, at least in Europe, considered to be a part of the private equity market as a whole in that earlier stage investments like seed capital and start-up investments are classified as venture capital investments.⁷ These terms will, however, in this essay be used as synonyms since the purpose is not to analyse the difference between these two conceptions.

⁷ Nyman, 2002, at, 16.

2 Convertible preferred shares

Investors have different requirements relating to the choice of investment instrument. In general every investor, however, attempts to get the maximum equity for the minimum amount of money. Common shares, preferred shares, warrants and debts are traditional instruments normally used in a venture capital investment. Furthermore, a number of hybrid instruments have been invented to satisfy each investor's specific requirements concerning risk and return.⁸

Despite the various instruments and combinations available, the convertible preferred shares are, at least in the US, the most common vehicle employed by venture capitalists. The use of preferred shares has advantages both for the company and the investor and comes into various shapes and sizes, depending on the wishes and requirements of the parties. For the company, preferred shares are advantageous in that they facilitate realigning the employees' interests with those of the company. Preferred shares are typically sold at a higher price than common shares since the rights and preferences make them more valuable, which makes it possible for the company to issue common shares to employees at fair market value for less than what the investors paid without corresponding tax disadvantages. For the venture capitalist, the additional value derives from the special rights and protection associated with these shares.⁹

Numerous special features are added to this type of shares, e.g. liquidation preferences, which give the investor priority in the event of a liquidation or sale. The venture capitalist may further have voting rights, generally combined with the right to elect a certain number of the directors of the company's board and to approve certain major decisions like the sale or merger of the company. Redemption rights, which require the company to buy back the shares after a specified time-period, and pre-emptive rights that give the investor a right to maintain his/her existing percentage of the company in the event of future financing rounds, are other rights regularly attached to this class of shares.¹⁰

A vital feature for a US venture capitalist is the conversion right. Conversion may be defined as giving up one security, the preferred, and receiving in return another, the conversion share. The conversion share is generally a common share but the conversion procedure may sometimes consist of intermediate steps, e.g. class C preferred convertible into class A preferred, which in turn is convertible into common shares.¹¹ Generally the shares are converted at the investor's option but they can also automatically convert to common shares at certain events, e.g. if the company goes public.

⁸ Barlett, 1999, at 80.

⁹ <http://www.nwen.org/venturer/0402/feature4.html>.

¹⁰ http://www.growco.com/gcg_entries/convertiblepreferred1.htm.

¹¹ Barlett, 1999, at 86.

A vote by the majority or a supermajority of preferred shares will usually force an automatic conversion. At the conversion the inherent rights associated with the preferred shares cease to exist. Some contractual rights may, however, survive. This may sometimes be the case with registration rights that force the company to register a shareholder's shares. Other rights like information rights and pre-emptive rights normally expire when the holder of the shares exercise his/her conversion right.¹²

¹² <http://www.jbv.com/lesson26.htm>.

3 Dilution and down rounds

The venture capitalist originally bargains for a certain percentage of the company. This percentage ownership may, however, be diluted in a number of ways before the investor exercise his conversion right or makes an exit. Basically, any equity issue to a third person involves a potential dilution for the current shareholders as it lowers their percentage ownership.¹³ Thus, if A and B own 50 percent of a company and C purchases newly issued securities corresponding 25 per cent of the company, A and B have been diluted in the sense that each necessarily owns a lesser percentage of the company. C may have contributed cash or property in an amount sufficient to enable the company to increase its earnings and it may then be argued that their shareholding has not been diluted because of the company's increased earning power. Nevertheless, their percentage interest is smaller and in that sense they have suffered a dilution. Hence, whether a dilution has occurred or not depends on which criteria are deemed to be the most significant in calculating the value of the shareholding.¹⁴

In the context of venture capital there are at least two different kinds of dilution: transaction-based and price-based dilution. Transaction-based dilution refers to the decrease in the equity stake of the company experienced by shareholders whenever a company issues additional shares, whether pursuant to the exercise of an option, the sale of shares to a vendor or the conversion of a debt instrument into equity. Convertible preferred shares usually have pre-emptive rights, which enable the investor to maintain his percentage ownership of the company in the event of a new issue of shares.¹⁵

Price-based dilution occurs when a company in a subsequent round issues shares to a lower price. In the beginning of the 1990s the companies were generally given a higher valuation in a subsequent financing round. The company could thereby raise more money by selling fewer and fewer shares in each round. The dilution of the founders' and earlier investors' investments were then minimized because of the higher valuation. Today the situation is the converse; down rounds are much more common than up-rounds.¹⁶

A down round occurs when an investor places a lower valuation on a company than in a previous round. The consequences of a down round may in some cases be devastating, especially for the founders, and leave permanent scars on the business that in the future are impossible to

¹³ Ratner, 1965/66, at 496.

¹⁴ Barlett, 1999, at 90.

¹⁵ http://cspa.com/events/20031020/5_glossary.doc.

¹⁶ <http://www.mtdc.com.my/news2/do.htm>.

recover.¹⁷ To illustrate the impact of a down round, it is helpful to look at an example. The company originally has the following share capital structure:

Class of shares	No. of shares	Equity %	Total subscription price, Skr
Founders, common shares of 1 Skr each	100 000	83.33	100 000
VC A, A preferred shares of 1 Skr each	20 000	16.67	7 000 000

The founders initially invested 100 000 Skr for 100 000 ordinary shares. The venture capitalist A then invests 7 000 000 Skr for 20 000 A preferred shares in the first investment round being 16.67 per cent (20 000/120 000) of the then fully diluted share capital, capitalising the company at 41 991 601 Skr (7 000 000/0.1667).¹⁸ After this first round the entrepreneurs owns 83.33 per cent (100 000/120 000) of the company. The company later on needs more money. If the valuation is constant, i.e. a pre-money valuation of approximately 42 million Skr, the investor would get 20 000 preferred B shares for 7 million Skr being 14.28 per cent of the company (20 000/140 000). Both the investor A's and the founders' stake in the company would be diluted. After the B round investor A's stake would diminish to 14.28 per cent and the founders' stake to 71.43 per cent of the company. This dilution is, however, transaction based and could have been reduced by the participation of the parites in round B. A total elimination of the dilution is, however, only possible if merely the existing shareholders participate in the subsequent round at their pro rata shareholding.

Given current market conditions, where emerging growth companies can expect to see valuations off 50 up to 75 per cent, the venture capitalist B may, however, give the company a lower valuation. If the venture capitalist B still subscribes 7 000 000 Skr but for 40 000 preferred B shares he will capitalise the company at approximately 28 000 000 Skr (7000 000/0.25). This lower valuation will result in a dilution for the founders and the venture capitalist A. Venture capitalist A's investment will after the B-round represent 12.5 per cent (20 000/160 000) of the company and the founders will own 62.5 per cent (100 000/160 000) of the company.¹⁹

¹⁷ http://www.gcwf.com/gcc/GrayCary-C/News--Arti/Articles/082002.1.doc_cvt.htm?COM=P

¹⁸ Fully diluted is an accounting term, generally referring to the manner in which the company is capitalized. In the context of venture capital it typically refers to all outstanding shares plus any option, warrant or other outstanding rights to purchase shares in the company.

¹⁹ http://www.gcwf.com/gcc/GrayCary-C/News--Arti/Articles/082002.1.doc_cvt.htm?COM=P

Consequently the company will have the following share capital structure after the B round (ignoring any anti-dilution provisions associated with the A preferred shares):

Class of shares	No. of shares	Equity %	Total subscription Price, Skr
Founders, ordinary shares of 1 Skr each	100 000	62.5	100 000
VC A, A preferred shares of 1 Skr each	20 000	12.5	7 000 000
VC B, B preferred shares of 1 Skr each	40 000	25.0	7 000 000

Due to the down round the stake owned by the founders has been diluted from 83.33 per cent to 62.5 per cent. The venture capitalist A initially bargained for 16.67 per cent of the company but after the B round this investment merely represents 12.5 per cent of the company. Anti-dilution provisions may, however, prevent the venture capitalist A's investment from being diluted by an adjustment of the conversion price or by allowing him to subscribe for additional shares. Anti-dilution clauses have been ignored in the example above, but as will be showed later, these provisions may make the dilution of the founders' stake even worse.²⁰

²⁰ http://www.gcwf.com/gcc/GrayCary-C/News--Arti/Articles/082002.1.doc_cvt.htm?COM=P

4 Anti-dilution protection

For the right of conversion to be meaningful anti-dilution clauses are generally attached to convertible preferred shares to guarantee, either that the amount and character of the shares received upon conversion are stable, or that adjustments will be made to protect the investment if the attributes of the investment or the value of the company changes. In absence of specific anti-dilution provisions, a narrow interpretation of the conversion right may result in a conversion without any consideration taken to subsequent substantial changes in the attributes of the security.²¹

Anti-dilution provisions may appear as provisions of a financing agreement, in terms describing the conversion rights of a convertible preferred share, in an option or a warrant, in an investor's rights agreement, in a shareholders' agreement, or, in the corporate documents of the company such as the articles of associations. The way these clauses are documented depends on what the local law permits and the custom in the relevant country.²²

4.1 Formal anti-dilution protection and pre-emptive rights

There are different categories of anti-dilution provisions. *Formal anti-dilution provisions* aim to protect the investor from transaction-based dilution. These provisions address the question to what extent an investor should be protected against dilution caused by e.g. bonus issuances of shares, reduction of the share capital, share repurchases and similar recapitalizations, which affect the capital structure of the company.²³

Pre-emptive rights and *rights of first refusal* that enables the investor to maintain his percentage ownership of the company, by giving him/her a right to buy shares in a subsequent round before other stakeholders, are other kinds of anti-dilution provisions regularly used in venture capital investments. In fact, any agreement that aims to protect the investor's price advantage or percentage ownership is an anti-dilution provision.²⁴

4.2 Substantive anti-dilution protection

Substantive anti-dilution protection aims to prevent the investor's shareholding from being reduced by a later financing round at a lower price, i.e. a down round. Substantive anti-dilution protection has during the last

²¹ Myhal, 1990, at 283.

²² Gent, Tarala of Brobeck, 2001, at 2.

²³ Andretzky, Ramsay, 2002, at 158.

²⁴ http://www.growco.com/gcg_entries/antidilution1.htm.

years become in sharp focus and is today a highly controversial issue. It is, however, not a new, modern phenomenon. These kinds of provisions have existed since the beginning of the 20th century but they have generally been considered as standard provisions, not worthy of attention or negotiation. Clauses used by other companies or clauses from former investment instruments have been copied and used in new investment rounds, without considering the possible consequences of the implementation of these provisions.²⁵

It is hard to reconcile all different anti-dilution clauses with one single theory. A usually accepted description of the purpose of anti-dilution clauses is, however, the following: *“The purpose of anti-dilution provisions is, of course, to provide for adjustment in the amount of securities to be issued upon conversion of a convertible security...in order to compensate the investor for certain changes affecting the security...into which it is convertible.”*²⁶ Such a definition does not, however, elucidate which changes should trigger an adjustment nor does it indicate the nature of the adjustment. An alternative theory is that these clauses aim to protect against changes in the exchange ratio and in doing so insure that the percentage of the total number of underlying shares deliverable upon conversion will remain stable despite alteration in the company’s share capital structure. A combination of these two theories will probably provide the most comprehensive explanatory theory of anti-dilution protection.²⁷ These definitions describe the purpose of anti-dilution clauses in the US and are based on how anti-dilution protection is designed in the US. As will be discussed in chapter 5, these models can not be fully implemented in Sweden. Hence, anti-dilution protection in the Swedish context does not aim to adjust the conversion ratio; the mandatory conversion ratio in Sweden is 1:1. Instead, the purpose of these provisions is to protect the value of the investment by allowing the investor to subscribe for additional shares. Hence, as will be showed in the examples, there are two alternative methods that can be used when designing anti-dilution protection. First there is the conversion ratio method, used e.g. in the US, that involves adjustments to the conversion ratio or there is the alternative method, used in Sweden but also to some extent in the US, that allows the investor to subscribe for additional “anti-dilution shares”.

The conversion ratio equation works like this: the conversion ratio is the fraction yielded by taking the original subscription price and dividing it by the new subscription price. In the beginning the new subscription price is equal to the original subscription price and the conversion ratio is therefore one to one. After a down round the new subscription price drops down, yielding a higher conversion ratio than one to one.²⁸ The alternative

²⁵ Kaplan, 1965/66, at 3 and Myhal, 1990, at 284.

²⁶ Kaplan, 1965/66, at 5.

²⁷ Kaplan, 1965/66, at 5-6.

²⁸ http://www.gcwf.com/gcc/GrayCary-C/News--Arti/Articles/082002.1.doc_cvt.htm?COM=P.

equation is also based on the difference between the original and the new subscription price and calculates the new subscription price in the same way as the conversion ratio equation. The difference appears in the second step of the equation. The total number of relevant preferred shares held by the investor is multiplied with the difference between the original and the new subscription price. This product is then divided by the new subscription price to determine the number of additional “anti-dilution shares” that the investor may subscribe for.²⁹ The outcome of these two equations is the same, i.e. both equations result in the same number of “anti-dilution shares”, it is merely the method used to determine this amount that differs.

Hence, anti-dilution protection protects the investor from an incorrect valuation of the company on the investor’s investment round and allocates the risk for a miscalculation of the company’s value at the founders. It does not protect the venture capitalist from dilution due to an issue of shares at a price equal to or greater than the price paid on his/her investment round. Venture capitalists usually have rights to participate in such a subsequent round to maintain his/her percentage of the company.³⁰

There are various anti-dilution formulas but the two most common formulas are “the weighted average” and “the full ratchet”. In addition, there is the substantially different formula, “the market price formula”. The amount of the adjustment or, in a Swedish context, the number of “anti-dilution shares” that the investor may subscribe for differs depending on which formula employed in the specific case. Each formula has its pros and cons from the company’s, the investor’s, and the founders’ perspective. The model used is an issue of negotiations and the parties’ bargaining power and will reflect the parties’ view of the current valuation of the company and potential proceeds and risks of the investment.³¹

4.2.1 “The Weighted average formula”

Historically, venture capitalists in the US have employed “the weighted average formula”, which calculates the true economic impact of the subsequent investment round on the protected investor.³² There are variations of this formula but the central idea is to adjust the subscription price based on the relative amount of the company being sold at the lower price. It takes into account the number of shares issued in the subsequent round but also the number of shares outstanding before the down round. Consequently, this formula applied to a company issuing a small number of shares in a down round compared to the amount of shares issued in prior investment rounds, will merely result in a minor reduction of the investor’s original subscription price.³³

²⁹ Se e.g. the supplement.

³⁰ Piggins, 2002, at 307.

³¹ Piggins, 2002, at 307.

³² Sokol, Small, 2002, at 2.

³³ Barlett, 1999, at 93.

The purpose of “the weighted average formula” is to diminish the original subscription price to an amount between itself and the price per share in the later round of financing. Thus, the starting point generally is the total number of shares outstanding prior to the down round, including the protected investor’s shares. This number is multiplied with the price per share paid by the protected venture capitalist. To that product the amount of the new investment is added (number of new shares times the new price per share) and the total number of shares outstanding after the down round then divides this amount. The result of this calculation gives a new subscription price that is used in one of the two equations described above.³⁴

To illustrate how the formula works, I will use the same example as in chapter 4. Each A preferred share is convertible into an ordinary share at a conversion ratio of 1:1 at any time at the option of the venture capitalist A. However, since the venture capitalist B in the B-round paid a lower price per share this ratio will be subject to an adjustment on the operation of the anti-dilution provisions associated with the A preferred shares. Each B preferred share is similar convertible into a common share and has anti-dilution protection that will be implemented in the event of a third down round.³⁵

The definitions used in the formulas below are:

NCR = new conversion ratio

SP1 = original subscription price per share for the A preferred shares before the B round;

SP2 = new subscription price per share for the A preferred shares after the B round;

SP3 = subscription price for each B preferred share in the B round;

Q1 = the number of issued and outstanding shares in issue before the B round;

Q2 = the number of B preferred shares in issue in the B round;

Q3 = the total number of relevant preferred shares held by the investor;

Q4 = the total number of “anti-dilution shares” that the relevant investor may subscribe for;

The “*weighted average formula*”, may be stated as follows:

$$SP2 = \frac{(SP1 * Q1) + (SP3 * Q2)}{Q1 + Q2}$$

The next step is to decide the number of additional shares (“anti-dilution shares”) that should be issued to the protected investor. As mentioned above, the methods employed vary but the result is the same regardless of the choice of method. “*The conversion ratio equation*”, involves the

³⁴ Barlett, 1999, at 93.

³⁵ Piggins, 2002, at 308.

calculation of a new conversion ratio by dividing the original subscription price by the new subscription price:

$$NCR = \frac{SP1}{SP2}$$

This new conversion ratio is then multiplied with the venture capitalist's total number of shares or, with the relevant number of a certain class of shares if each class should be calculated separately, to determine the total number of shares the investor will receive when exercising his conversion right.³⁶

Another way of determining the number of anti-dilution shares is "*the alternative equation*":³⁷

$$Q4 = \frac{Q3 * (SP1 - SP2)}{SP2}$$

This equation is the equation usually employed in Sweden and may be preferable in that no further steps are required as Q4 represents the final product, i.e. the number of shares that should be issued to the protected investor. A variation of this method is to consider *all* preference shares outstanding prior to the B round, i.e replacing Q3; Q4 would then represent the total number of anti-dilution shares to be subscribed for by *all* holders of preference shares instead of determine the number of anti-dilution shares for each investor separately.

There are a numerous variations of "the weighted average formula", based on different interpretations of Q1 in the first step of the formula. The two principal variations are "the broad-based weighted average formula" and "the narrow-based weighted average formula".³⁸

"*The broad-based formula*" has in the past, at least in the US, been the most frequently used formula. In this formula Q1 includes the following shares and securities outstanding before the B round:

the number of ordinary shares in issue,
the number of preferred shares in issue, and
the number of ordinary shares that will be issued on the conversion or exercise of outstanding convertible securities (e.g. convertible debt), options and warrants.³⁹

³⁶ Piggins, 2002, at 308.

³⁷ See e.g. the example in the supplement.

³⁸ http://www.gcwf.com/gcc/GrayCary-C/News--Arti/Articles/082002.1.doc_cvt.htm?COM=P

³⁹ Piggins, 2002, at 308.

If applying “*the broad-based formula*” to the example above, the result will be as follows:

$$SP2 = \frac{(SP1 * Q1) + (SP3 * Q2)}{Q1 + Q2}$$

$$SP2 = \frac{(350 * 120000) + (175 * 40000)}{120000 + 40000}$$

$$SP2 = 306,25$$

The new subscription price is 306 Skr, which is less than the initial subscription price of 350 Skr. The new conversion ratio is determined by dividing the original subscription price by the new subscription price:

$$NCR = \frac{SP1}{SP2} = \frac{350}{306} = 1:1.14379$$

The new conversion ratio is 1:1.14379 which means that after the B round the A preferred shares are convertible into 22 875 (20 000 x 1.14379) ordinary shares being 14.05 percent of the post-B round fully diluted share capital (22 875/162 875). Without the anti-dilution protection, the conversion ratio would have remained 1:1, which would have resulted in the venture capitalist A having 20 000 shares being 12.5 per cent of the post-B round fully diluted share capital. The effect of the implementation of the anti-dilution protection for venture capitalist B will for the moment be ignored, but in rough outlines, if no adjustment is made he will end up with a smaller percentage of the company than he initially bargained for. The size of this reduction depends on which formula used in the specific case.

The application of “*the alternative equation*” gives the same result:

$$Q4 = \frac{Q3 * (SP1 - SP2)}{SP2}$$

$$Q4 = \frac{20000 * (350 - 306)}{306}$$

$$Q4 = 2875$$

Venture capitalist A may according to this formula subscribe for 2 875 additional “anti-dilution shares”, which give the total number of shares of 22 875 (20 000 + 2 875). Henceforward, merely “*the conversion ratio equation*” will be illustrated in the examples below, as this is the method generally employed in the US.

“The narrow based formula” includes fewer shares in its definition of Q1. When using this formula it is merely the total number of preferred shares outstanding before the B round that is included in Q1.⁴⁰ The application of “the narrow based formula” to the example gives the following new subscription price:

$$SP2 = \frac{(SP1 * Q1) + (SP3 * Q2)}{Q1 + Q2}$$

$$SP2 = \frac{(350 * 20000) + (175 * 40000)}{20000 + 40000}$$

$$SP2 = 233.33$$

The new subscription price is only 233 Skr, which gives the new conversion ratio:

$$NCR = \frac{SP1}{SP2} = \frac{350}{233} = 1:1.50214$$

If applying “the narrow based formula” to our example the A preferred shares are convertible into 30 043 ordinary shares, being 17.67 percent of the post-B round fully diluted share capital (30 043/ 170 043), which is an increase of the investor’s percentage ownership of the company with one percent.

The consequence of including additional shares in the definition of Q1 is that the degree of the anti-dilution protection given to the venture capitalist is reduced. “The narrow-based formula” calculates a greater number of “anti-dilution shares” to be issued to the venture capitalist. The extent of this difference depends on the size and the relative pricing of the down round as well as the number of preferred and ordinary shares outstanding prior to this round.⁴¹

In the US there are a number of variations to both “the narrow-based” and “the broad-based” weighted average formula, e.g. “the middle formula”. Again, the differentiating factor is the definition of Q1. In “the “middle formula” ordinary shares plus preferred shares in issue are included in Q1. The number of ordinary shares issued upon the conversion of outstanding convertible options, such as employee options, is not included. “The middle formula” would give the same result as “the broad based formula” in our example, as there is no outstanding convertibles or employee options.⁴²

⁴⁰ Piggins, 2002, at 308.

⁴¹ Piggins, 2002, at 308.

⁴² Piggins, 2002, at 309.

“*The broad swing-based formula*” is another variation. It goes a step further than the ordinary “broad-based formula” in that it also takes into accounts the issue of shares at a price higher than the original subscription price. The subscription price will, however, never be higher than the initial subscription price for the preferred shares being adjusted. Hence, in the event of a subsequent up round, anti-dilution protection created in a previous down round can be eroded.⁴³

4.2.2 “The full ratchet formula”

“*The full ratchet*” has been rarely used in the US because it is widely viewed as unfair. During the last years this formula has, however, become more common. The formula is very powerful and provides total protection to a venture capitalist in the event of a down round. “The full ratchet” is much simpler mathematically than “the weighted average”. Under the full ratchet the protected investor has the original subscription price in his/her round adjusted to the new valuation of the company in a subsequent round. This is accomplished by dropping the original subscription to the subscription price in the down round and issue enough additional shares for free to the venture capitalist to make his/her average price per share equal to the price per share paid by investor B.⁴⁴ “The full ratchet” can be stated as follows:⁴⁵

$$SP2 = SP3$$

$$SP2 = 175$$

The next step is identical with the second step in the “weighted average formula” described above. Hence, if applying “*the conversion ratio equation*” to our example, the new conversion ratio will be:

$$NCR = \frac{SP1}{SP2} = \frac{350}{175} = 1:2$$

The preferred A shares will be convertible into 40 000 ordinary shares being 22.22 percent of the post-B fully diluted share capital (40 000/180 000). By using “the full ratchet formula” investor A maintains and even increase his/her percentage ownership of the company and is therefore completely protected from any subsequent price erosion.

“The full ratchet” is particular harsh on the management team and other shareholders in the company, since it does not take into account the amount of shares issued in the down round. The subscription price is adjusted, even if only one share is issued in the later down round. The founders’ percentage

⁴³ Kaplan, 1965/66, at 8.

⁴⁴ http://www.growco.com/gcg_entries/antidilution1.htm.

⁴⁵ Piggins, 2002 at 309.

ownership in our example will if using the “full ratchet formula”, drop from 83.33 per cent to 55.55 per cent (100 000/180 000). Even if the company only had issued one share to the venture capitalist B, the subscription price would nonetheless go down from 350 Skr to 175 Skr. In this situation the venture capitalist A would be able to increase his/her percentage ownership at the founders’ expense. The venture capitalist A would get 40 000 ordinary shares upon conversion of his/her 20 000 preferred A shares being 28.57 per cent (40 000/140 001) of the post-B round fully diluted share capital, which is a percentage increase with 11.9 per cent. The founders’ ownership would, at the other hand, be diluted from 83.33 per cent to 71.43 per cent

(100 000/140 000). If the price per share in the down round is really low, e.g. 35 Skr, the consequences for the founders will be even more severe. If the venture capitalist B still invests 7 000 000 Skr, he will get 200 000 shares and the conversion ratio for the venture capitalist A will be 1:10, which will cause the founders ownership to go down to around 20 per cent (100 000/500 000). This is a harsh result and the founders may never be able to recover this loss due to the lack of money. Hence, “full ratchet” protection is capable of changing the initial investment structure of a company and cause founders to be “burned out” of their own companies.⁴⁶

The table below illustrates the differences in result when either applying “*the broad-based weighted average formula*” or “*the full ratchet*” to our example.⁴⁷

Comparison of anti-dilution formulas

	Weighted Average, (broad based)	Full ratchet

⁴⁶ Barlett, 1999, at 92.

⁴⁷ http://www.growco.com/gcg_entries/antidilution1.htm.

Shares bought by VC A	20 000	20 000
Free shares to VC A after the B round	2 875	20 000
Total shares after the B round (VC A)	22 875	40 000
Average share price for VC A (Skr)	306	175
Per cent owned by VC A after the B round	14.05	22.22
Per cent owned by the founders after the B round	61.39	55.55
Percent owned by VC B	24.56	22.22

The venture capitalist B initially bargained for 25 per cent of the company (40 000/160 000) but as the implementation of the anti-dilution protection results in an increase of the total number of shares in the company this percentage will be reduced. The size of this reduction depends on which formula employed. It is, however, most unlikely that the venture capitalist B will accept this situation and, hence, negotiations will be necessary to decide how this problem should be solved.

4.2.3 The alternative model: “The market price formula”

“*The market price formula*” is a fundamentally different type of anti-dilution clause compared to “the traditional formulas” described above. Instead of looking at the original subscription price, the market price of the underlying securities is the decisive price in deciding whether an adjustment of the subscription price should be made or not. According to this formula the subscription price should only be adjusted when shares are issued in a subsequent round to a price lower than the market price of such shares, without regard to the initial subscription price. Hence, if the market price of the common shares in our example is 175 Skr or less, there will be no adjustment of the subscription price even if this price is only half of the initial subscription price. On the other hand, “the market price formula” may provide for an adjustment in cases where “the traditional formulas” do not. Suppose the price in the B round in our example being 400 Skr and the market price being 500 Skr. In this case “the traditional formulas” will not provide for an adjustment (the price paid in the B round is higher than the original subscription price); while “the market price formula” will provide an adjustment.⁴⁸

⁴⁸ Kaplan, 1965/66, 20-21.

4.3 Pros and cons with anti-dilution protection

Anti-dilution protection facilitates further investment rounds as they protect investors against dilution in the event of a subsequent down round. This is not only advantageous to the company, in that it provides an instrument within the original investment structure through which future funding can be accommodated; it is also beneficial to the venture capitalist who may have overvalued the company and due to the anti-dilution protection can allocate the risk for this miscalculation on the founders and other unprotected shareholders. Anti-dilution protection may, however, at the same time prevent further investment rounds, as a future investor may not accept that a great number of “anti-dilution shares” are issued in connection with the investment. Hence, anti-dilution protection will, if not prevent, at least make further negotiations between the investors necessary.

Another argument for anti-dilution protection is that the venture capitalist invested a certain amount in the company on the assumption that the investment represents a specific percentage of the company. This percentage should be constant and not be affected by actions taken by the company.⁴⁹ Furthermore, an investor who only invests money in the company without an active owner involvement does not have the same control and influence on the operation and success of the company as the founders and the management team and, thus, it is fair that the investor is protected in the event of a declining value of the company.

A counter-argument may, however, be that a down round is a business risk. There are no guarantees that the percentage ownership will stay constant and the investor should not be treated more favourable than the founders and other shareholders in the company. A down round may be an evidence of an overvaluation of the company by the relevant investor, but why should the company and especially the founders be punished for the investor’s miscalculation. A fairer and more logical solution must be to let the investor be the one responsible for his/her valuation of the company.⁵⁰

From the founders’ perspective “*the “broad-based weighted average formula”*” is the preferable anti-dilution formula. This formula less drastically reduces their percentage ownership, since it takes into account the amount of shares sold at the lower price. The preferable solution from the investor’s perspective is naturally the formula offering the best protection of the investment but as will be discussed below this is not always “the full ratchet”.

Despite the high level of protection, “*the full ratchet*” may, however, not be the best solution. The implementation of a “full ratchet” clause may wipe out the managers’ and the entrepreneurs’ motivation to operate in the best

⁴⁹ Piggins, 2002, at 312-313.

⁵⁰ Barlett, 2003, at 91.

interest of the company without at the same time giving the investor an actual and realizable profit. This demotivating effect generally derives from the drastic reduction of the founders' ownership in connection with the implementation of such a provision, which even a small decrease in the valuation may cause. Given current market conditions with declining valuations, the anti-dilution protection will most likely be implemented irrespective of the development and fortunes of the specific company.⁵¹

In addition, "the full ratchet formula" may harm the investor-founder relationship by introducing elements of mistrust. In a subsequent investment round the entrepreneurs may suspect that a lower valuation of the company is in the investor's interest since the investor has a complete down side protection, while a reduced subscription price may result in an increase of his/her percentage ownership. The valuation of the company is further a process generally to a high degree influenced by the existing and the future investors. Hence, the founders may allege that the investors have been acting in a partial way during the negotiations and that the valuation of the company in the down round is too low and does not give a true and fair view of the market value of the company. "Diverging-interests disputes" may harm the morale of the entrepreneurs to such an extent that it will adversely affect the operation of the business and, consequently future valuations and the likelihood of a successful exit and investment.⁵²

The investor-investor relationship may also be harmed as the investors may have different possibilities and bargain positions depending on when they make their investment. When requiring a "full ratchet" the investor should be aware of that future investors will probably require the same level of protection, which might be dangerous in a situation where the investor's protection is not triggered but other investors' are; the relevant investor will then be the one experiencing a drastic dilution.⁵³

The use of too harsh provisions may be a disadvantageous factor for the investor also after the recovery of the market. Historically, a significant element in any venture capital investment has been to align the managers' interests with those of the investors by providing managers and other key employees with a substantial equity upside in the event of an IPO or a successful exit by the company. If these provisions are triggered, employees will quickly realize that the likelihood they will receive any return of their equity is remote. In the present business environment, these employees and managers who have sacrificed higher compensation for equity may have no other alternative than to stay with the company but, as the economy improves they will certainly seek employment elsewhere, where they can obtain better returns from their equity investments.⁵⁴

⁵¹http://www.keystoneadvisers.com/files/keystone_Advisers_Anti_utspadningsmekanismer.pdf

⁵²http://www.keystoneadvisers.com/files/keystone_Advisers_Anti_utspadningsmekanismer.pdf

⁵³ Piggins, 2002, at 309.

⁵⁴ Davis, Drake, 2003, at 120.

For a leading investor in a syndicate investment, the use of “the full ratchet” can further create more problems than it attempts to solve. As each fund’s shares are fully protected from a price decrease, there is no incentive to participate in a down round. From the company’s perspective this is a serious problem at precisely the time when it needs money. Any potential new investor will be aware of the full ratchet, which means that the company will be a less attractive investment for new investors. The full ratchets will probably apply to all future financing rounds; once one round of investors have negotiated full ratchet protection, future investors will demand the same level of protection. In these circumstances, funds with a minor investment in the company may refuse to invest more money. The bankruptcy of the company will not result in a significant loss for them. The situation is, however, different for the leading investor who may be forced to participate in the down round to prevent the company from failing. If the other funds in the syndicate refuse to waive their anti-dilution protection they will get an increased percentage ownership for just doing nothing, while the main investor has to put more money into the company possibly in circumstances where there is no equity value in the company.⁵⁵

However, there are situations in which a “full ratchet” may be appropriate. This is, in particular, the case in start-up companies seeking first round financing at an aggressive valuation. Investors concerned with this valuation or market window closing might still invest in the company if they get a “full ratchet” protection or at least a time limited ratchet. Additionally, as insurance against some future event occurring or not, such as getting a patent, a “full ratchet” might protect the venture capitalist if more money needs to be raised.⁵⁶

“*The market price formula*” seems to be a more realistic approach as it recognizes the economic environment in which the company operates. It may be the preferable approach from the company’s point of view in that it, contrary to “the traditional formulas”, facilitates necessary financing rounds in hard times when the market price is lower than the original subscription price. “The market price approach” is, however, rarely used. An explanation may be the difficulties in agreeing upon an appropriate market price. The purpose of the market price formula is to provide a price that is unaffected by the coming rights offering. It is, however, difficult to get a truly unaffected market price since a right offering usually is preceded by speculation and leaks about such an action. Furthermore, management team and other stakeholders in the company may try to manipulate the market price by taking certain actions to further their own interests.⁵⁷ The main reason that this formula is rarely used is probably, however, that very few venture capital sustained companies’ shares are publicly traded and, thus, there is no market value available.

⁵⁵ http://www.ariadnecapital.com/press/press_ariadne_evcj_where_angels_gone.htm.

⁵⁶ <http://www.jbv.com/lesson26.htm>.

⁵⁷ Kaplan, 1965/66, at 21.

5 The Swedish market

The development of the Swedish venture capital market started during the second half of the 1970s. Venture capital funds were founded to support unlisted companies not only economically but also with an active owner involvement. One important event stimulating this expansion was the formation of the OTC-list in 1982.⁵⁸ The Swedish market is to a great extent influenced by the US and the UK and experienced in the end of the 1990s a boom. Despite the past years slow down in the market the venture capital industry has made a breakthrough in Sweden and is most likely here to stay.⁵⁹

The Swedish venture capital market is in many ways similar to the US market; international investors will recognize most of the attributes of a Swedish venture capital deal. One difference is, however, the required level of protection and special rights; international investors are usually more demanding than Swedish investors.⁶⁰ An inevitable consequence of the Swedish Companies Act's restrictive approach concerning the content of the articles of association is further that some fundamental matters, such as the implementation of preferential rights into the corporate documents has to be dealt with differently in Sweden. Hence, the traditional investment techniques used, in the US, has to be modified to comply with the requirements of the Swedish Companies Act.⁶¹

5.1 Investment documentation

A Swedish venture capital deal normally includes a shareholders' agreement and a subscription agreement as well as the articles of association of the company. The terms and conditions of a Swedish investment do not fundamentally differ from those imposed upon an US investment. The style of documentation, however, diverges in that the US documentation generally is more comprehensive. Furthermore, the Swedish documentation usually offers the venture capitalist a greater contractual control over the business and management of the investee company. These differences may be rooted in the local law, be a product of tradition and culture or, may simply be explained by investors' different attitude towards risk. These two styles of documentations will probably converge in the future, as it in recent years has been more common to use longer documentations also in Sweden.⁶²

⁵⁸ Berggren, 2003, at 44.

⁵⁹ Nyman, 2002, at 11.

⁶⁰ Nyman, 2002, at 98.

⁶¹ Andretzky, Ramsay, 2002, at 155

⁶² Von Baumgarten, Bohman, 2003, at 95.

5.1.1 The articles of association

The Swedish Companies Act distinguishes between provisions binding upon the company, included in the articles of associations (the articles), and provisions included in a shareholders' agreement.⁶³ Provisions included in the articles normally relate to the organization and the investment structure of the company as well as the relationship between the company and its shareholders, all of which are matters involving the company. Other provisions can, however, be included; in fact, all kinds of provisions may be included as long as they not contravene a compulsory provision of the SCA, some other Act, or the articles. The articles are binding upon the company and according to chapter 9 section 39 of the SCA; a decision inconsistent with the provisions in this document is or may be declared void after a protest from a shareholder or a member of the board. As these provisions aims to protect the shareholders, the main principle is, however, that a decision is valid, even though it contravenes a provision in the articles, as long as nobody protests within the time period appointed. Such a decision could anyhow have been taken with a unanimous approval of the shareholders.⁶⁴

The Swedish articles of association may come as a surprise for an international investor since it is a short-form document. The tradition in Sweden is to make this document as streamlined and neutral as possible. Hence, matters merely concerning the shareholders, like voting agreements and other provisions specially designed for the company are ordinarily included in a shareholders' agreement.⁶⁵

5.1.2 The shareholders' agreement

A shareholders' agreement is only binding upon the parties to the agreement, not for the company. It is best described as a supplement to the articles in which all or some of the shareholders agree upon certain issues, usually relating to participation in the management of the company, the right to be bought out, as well as economic rights. The essential part of the agreement is generally a voting agreement, i.e. an agreement in which the parties agree to vote in a special way regarding certain matters. Furthermore, provisions not allowed in the articles, are normally included in a shareholders' agreement. Thus, a shareholders' agreement facilitates to keep the company's articles as neutral as possible while giving the shareholders an opportunity to reach an agreement that range wider and cover a greater number of issues than the articles. A shareholders' agreement is further advantageous in a situation where the shareholders

⁶³ Von Baumgarten, 2003, at 96.

⁶⁴ Kristiansson, Skog, 2001, at 12.

⁶⁵ Kristiansson, Skog, 2001, at 13.

wish to keep their arrangement secret, since this agreement is not, as the articles, an official document.⁶⁶

The major cons with a shareholders' agreement are the uncertainty relating to its enforceability in different situations. The enforceability and the solidity of such an agreement is, in particular regarding provisions not allowed in the articles, a controversial question in Sweden. The prevalent view is, however, that a shareholders' agreement involving voting provisions is binding upon the parties to that agreement. Thus, if a shareholder does not vote in line with the agreement, this constitutes a breach of contract and the other parties may sue for damages.⁶⁷

The consequences of a shareholders' agreement for potential and future shareholders is another contentious issue. The former predominant opinion was that voting provisions in a shareholders' agreement were not binding for a person purchasing shares subject to such an agreement, irrespectively of the purchaser's knowledge of these provisions. The prevailing view is still the same in relation to a "new shareholder" unaware of the agreement. The voting provisions are not binding for the shareholder and the only provisions he/she has to consider when exercising the voting rights are those included in the articles and the SCA. The prevalent attitude towards a purchaser aware of the agreement has, however, been modified. Hence, if "the new shareholder" knew about the shareholders' agreement when purchasing the shares, these provisions should be binding also upon him/her. This is still, however, a contentious issue associated with a high level of uncertainty.⁶⁸

As mentioned above, a shareholders' agreement is not binding upon the company. Consequently, the agreement does not prevent the company from entering a new shareholder in the company's shareholder register even though the purchase of these shares is inconsistent with a provision in the shareholders' agreement. Neither may a decision taken at the shareholders' general meeting be rescinded by a protest in accordance with chapter 9 section 39 of the SCA, because this decision was inconsistent with a voting provision in the shareholders' agreement. Some authors, however, hold that this distinction between the effect of the agreement for the parties and the company is merely formalistic, particularly when all shareholders have signed the agreement. Whether a court in such a case would approve a complaint consistent with chapter 9 section 39 of the SCA or not, is, however, uncertain.⁶⁹

A collateral agreement between the company and all its members is perfectly legitimate but, since the company may not undertake obligations contradicting the principles concerning the division of power between the

⁶⁶ Kansmark, Roos, 1994, at 15, 28.

⁶⁷ Kansmark, Roos, 1994, at 15, 28.

⁶⁸ Kansmark, Roos, 1994, at 28-30.

⁶⁹ Kansmark, Roos, 1994, at 31

board and the general meeting in the Swedish Companies Act, the fact that the company itself has signed the agreement does not make it directly applicable in relation to the company. It may, however, be easier to argue that the agreement should have legal consequences also for the company if the company itself has accepted the agreement.⁷⁰

A shareholders' agreement is in Swedish company law considered as a simple partnership and, thus, the provisions of the Swedish Partnerships Act concerning the termination of the partnership apply to the agreement.⁷¹ If the parties have not agreed on a fixed period for the existence of the agreement, any shareholder has the right to give notice of termination whenever he wishes; the agreement will then expire six month later. Hence, a preferable solution is to agree on a fixed time. A shareholder may then only require the termination of the agreement when another party has essentially neglected his obligation under the shareholders' agreement or if there is any other important changes that affect the agreement.⁷²

In the event of a breach of contract the other parties may sue for damages even though the agreement does not include a provision concerning damages.⁷³ If the breach is material, cancellation of the contract is another possibility.⁷⁴ A third alternative is to bring an action for specific performance and, by doing so, try to force the breaching party to act or vote in accordance with the contract. To secure performance, a shareholders' agreement usually include a fine clause i.e. a provision that specify an amount (fine) that the breaching party has to pay.⁷⁵ The undertakings in the shareholders' agreement may further be secured by a pledge of the existing shareholders' shares.⁷⁶

5.2 Anti-dilution protection in Sweden

Anti-dilution protection is not as common and popular in Sweden as in the US. An increased demand for counselling concerning anti-dilution protection, however, indicates that these provisions are becoming more important and frequently used.⁷⁷

The essential statutory anti-dilution protection provided by the SCA is the preferential right for the existing shareholders to subscribe for additional

⁷⁰ Kansmark, Roos, 1994, at 31.

⁷¹ Kansmark, Roos, 1994, at 94.

⁷² The SPA ch. 2 s. 24, 25, ch. 4 s. 7.

⁷³ Kansmark, Roos, 1994, at 92.

⁷⁴ The SPA ch. 2 s. 25 and ch. 4 s. 7.

⁷⁵ Kansmark, Roos, 1994, at 93, 99-100.

⁷⁶ Andretzky, Ramsay, 2002, at 159.

⁷⁷ Nyman, 2002, at 118.

⁷⁷ Kansmark, Roos, 1994, at 92.

⁷⁷ The SPA ch. 2 s. 25 and ch. 4 s. 7.

⁷⁷ Kansmark, Roos, 1994, at 93, 99-100.

⁷⁷

shares in relation to the number of shares that they already have. This right can be set aside either because of a provision in the articles of association in companies with different classes of shares or, if this has been set forth in the resolution to increase the capital.⁷⁸ The preferential right is supplemented by the general principle on equal treatment and the general clause that prohibits corporate actions involving undue advantages to a certain shareholder. Even if these provisions offer protection of the relative shareholding of the company, the investor usually also demands a specific protection of the actual value of the investment, i.e. substantive anti-dilution protection.⁷⁹

5.2.1 Different methods used to create substantive anti-dilution protection

The question of substantive anti-dilution protection is probably best regarded as a matter concerning the relationship between the company and its shareholders and should, consequently, be included in the articles. Provisions about conversion rights may be regulated in the articles but the SCA only permits conversion from one class of shares to another class of shares at the fixed conversion ratio of one to one. This mandatory conversion ratio is a consequence of the nominal value system. The significance of this system is that in companies where the share capital is divided into several shares, all shares have to be of the same nominal value. This fixed amount must be stated in the articles and the amount paid for each share may not be less than the nominal value.⁸⁰ Given this compulsory conversion ratio, it is not feasible to fully employ the “traditional American technique” that creates anti-dilution protection by including a flexible conversion ratio in the company’s articles that takes a future dilutive issuance into account. Instead, the logic behind anti-dilution protection in the Swedish context is to maintain the value of the investment by issuing additional shares to the relevant investor. The formulas used are, however, the same as in the US, i.e. “the weighted average formula” or “the full ratchet”; it is merely the technique employed to construct and guarantee the protection that varies.

A common solution in practice is to create anti-dilution protection by contractual undertakings by the existing shareholders in a shareholders’ agreement or in some other transaction agreement. The existing shareholders may e.g. undertake to vote for an issue of new shares directed to the investor at a price equivalent to the nominal value in the event of a down round (“a compensation issue”), or, alternatively, agree to transfer shares for free to the investor. The latter solution is, however, rare. The number of shares issued to the venture capitalist depends on which formula used in the specific case, “the weighted average formula” or “the full

⁷⁸ The SCA ch. 4 s. 2.

⁷⁹ Andretzky, Ramsay, 2002, at 158.

⁸⁰ The SCA ch. 1 s. 3, ch. 2 s. 4 and ch. 2 s.2.

ratchet”.⁸¹ This technique, involving contractual undertakings by the existing shareholders, is most common in companies with a limited number of shareholders and in companies where the shareholders trust each other.⁸²

A vital matter for the venture capitalist is to secure that all current, potential and future shareholders, and perhaps also the company itself accept the anti-dilution provisions, as the enforceability of such an agreement otherwise is uncertain, in particular in relation to the company and the future shareholders.⁸³

A “compensation issue” may further be challenged by reference to the principle on equal treatment of shareholders. A directed issue only requires a two-thirds majority vote by the shareholders but shareholders not pleased with the situation may argue that the issue is inconsistent with the fundamental principle of Swedish company law on equal treatment of shareholders.⁸⁴ According to this principle there is a presumption of equality between shareholders, with all shareholders being deemed to be entitled to the same rights. This presumption may be rebutted by an issue of shares on terms, which gives special rights with respect to dividend, the return of capital, or voting at meeting to a class or classes of shareholders.⁸⁵ Even though unequal treatment of shareholders is permitted, corporate actions, which are likely to give undue advantage to a shareholder or third party to the detriment of the company or other shareholders, are prohibited.⁸⁶ An action or decision contravening this principle is, however, merely void if a protest is made in accordance with chapter 9 sections 39 - 40 of the SCA. Thus, a prior unanimous consent may reduce the risk of future equal treatment issues and claims.⁸⁷

Not even unanimous adherence can, however, guarantee the enforceability of the obligations in an action for specific performance, aiming at an issue of new shares. Unless joint and several liability has been agreed by the parties, the venture capitalist may have to rely on several independent claims for damages for breach of contract, each of which claim may be hard to quantify.⁸⁸

To avoid the necessity of resolutions by the shareholders, an alternative is to authorize the board of the company to issue new shares in connection with a future down round. A more self-executing and solid solution is, however, to issue so-called “anti-dilution warrants” to the investor, which entitle him/her to subscribe for new shares at the nominal value in the event of a down round. The attributes of “the anti-dilution warrants”, such as the

⁸¹ Andretzky, Ramsay, 2002, at 158.

⁸² Edoff, the questionnaire.

⁸³ Von Baumgarten, Bohman, 2003, at 96.

⁸⁴ The SCA ch. 4 s. 2 and ch. 3 s. 1.

⁸⁵ The SCA ch. 3 s. 1.

⁸⁶ The SCA ch. 8 s. 34 and ch. 9 s. 37.

⁸⁷ Von Baumgarten, Bohman, 2003 at 96.

⁸⁸ Andretzky, Ramsay, 2002, at 159.

exercise period and certain restrictions and obligations relating to the exercise of the warrants, may be regulated in a shareholders' agreement or, in a separate agreement. Hence, the investor does not have to rely on the other shareholders' benevolence but can instead exercise the warrants in the event of a down round.⁸⁹ Another variation is for the existing shareholder to issue options involving a right for the investor to buy their shares.⁹⁰

Finally, the entrepreneurs can put a certain amount of shares in escrow at an escrow agent, e.g. a bank, and then use the needed amount of these shares to protect the investor from dilution in a future down round. The remaining shares may be returned to the founders after a certain time period.⁹¹

5.2.2 The payment of the nominal value

The most common way of implementing the anti-dilution protection, at least in the US, is to issue additional shares for free to the venture capitalist. This is, however, not a workable solution in Sweden since shares may not be issued for free. Consideration amounting to at least the nominal value must be paid to the company and the parties must agree who of the parties should make this payment.⁹² It seems, however, to be the investor that in the vast majority of cases is the one responsible for the payment of the nominal value, which has to be taken into account when designing the anti-dilution protection.⁹³ The nominal value affects the second step in the formulas described in chapter 5.2.1 and 5.2.2 by reducing the new subscription price as follows, if N represents the nominal value of the shares:

“The alternative equation”:
$$Q4 = \frac{Q3 * (SP1 - SP2)}{(SP2 - N)}$$

The consequence of including the nominal value in the formula is that more shares have to be issued to prevent dilution of the venture capitalist's investment. In companies, where the nominal value is high, this may result in a payment of a significant amount for the venture capitalist. The answers of the questionnaire, however, indicates that this is not a big problem in practice, since these kinds of shares typically are sold at a significant premium and shares in most venture capital sustained companies have a low nominal value. If necessary the company may further take actions like a share split to reduce the nominal value.

One way to avoid payment of the nominal value is to classify the new issuance as a bonus issue. A bonus issue is implemented by transferring to the share capital, amounts which are free for distributions to the

⁸⁹ Andretzky, Ramsay, 2002, at 159.

⁹⁰ Hansen, Wiberg, the questionnaire.

⁹¹ Brännström, the questionnaire.

⁹² The SCA ch.2 § 2 and ch. 4 §§ 1, 5, 12.

⁹³ All responses of the questionnaire.

shareholders, i.e. net profit of the year, retained profits and non-restricted reserves, and amounts from a revaluation reserve and the statutory reserve or, by revaluing fixed assets. A bonus issue is in reality an accounting transaction, involving a transfer of an amount equivalent to the nominal value of “the bonus shares” to the share capital. To carry out this transaction the company has to have sufficient unrestricted capital and, if the articles do not include an exception concerning the shareholders’ preferential right to subscribe for shares in such an issue, a special resolution has to be adopted.⁹⁴

5.2.3 Restrictions relating to the size of the share capital

The parties must further consider provisions relating to the size of the share capital. According to the Swedish Companies Act, the articles should state the size of the share capital. The minimum share capital is 100 000 Skr for a private company and 500 000 Skr for a public company.⁹⁵ The articles may, instead of stating an exact amount, merely include a minimum and a maximum amount that gives the entrepreneurs and other shareholders a latitude within which they can decide whether or not approve subscription for shares. The minimum amount may not be less than a quarter of the maximum amount.⁹⁶ Hence, the number of new “anti-dilution shares” or “anti-dilution warrants” may be restricted due to the prescribed size of the share capital in the articles. This is not, however, an insurmountable obstacle for the parties as alteration of the articles is possible. An alteration is realized by a resolution at the shareholders’ general meeting, if both two thirds of those voting and those present at the meeting are in favour of the resolution.⁹⁷ In practice, the articles are usually altered in connection with every investment round, which is not a complicated process as a number of other resolutions anyhow have to be taken at the shareholder’s general meeting, e.g. the resolution to issue new shares.⁹⁸

Except for the provisions relating to the size of the share capital the company must further consider the compulsory obligation to liquidate the company if, its equity is less than half of the registered share capital and, the financial situation has not improved within the specified time in such a way that its equity amounts to the registered share capital. If the loss of the capital is not recovered within the specified time period the directors and, sometimes also the shareholders, is personal liable for the company’s future debts.⁹⁹ A great number of new “anti-dilution shares” result in a high share capital, which may cause problems for the company. To avoid liquidation the company may issue new shares at a higher price than the nominal value

⁹⁴ The SCA ch. 4 s. 2, 16.

⁹⁵ The SCA ch. 1 s. 3.

⁹⁶ The SCA ch. 2 s. 4.

⁹⁷ The SCA ch. 9 s. 30.

⁹⁸ Edoff, the questionnaire.

⁹⁹ The SCA ch. 13 s. 12-18.

(at a premium) and allocate the premium to the “statutory reserve”.¹⁰⁰ The shareholders may further make an unconditional contribution equivalent to the amount needed. A reduction of the share capital is another solution but the reduction has to be effected by consolidation of shares, withdrawal of shares without payment or, reduction in the nominal amount of the shares without payment, which not always is possible or appropriate.¹⁰¹

5.2.4 Minority protection

The implementation of anti-dilution protection may involve drastic changes in the investment structure of the company. The minority is in Sweden protected by the general principle on equal treatment in chapter 3 section 1 of the SCA and the general clause that state that neither the board of directors or, other representatives of the company nor the general meeting may enter into legal transactions, undertake other measures or, pass resolutions which are likely to unfairly enrich a certain shareholder or third party to the detriment of the company or other shareholders.¹⁰² In addition the minority has a number of special rights if their shareholding is of the required size e.g. ten per cent or more.¹⁰³ It falls, however, outside the scope of this essay to in detail examine and present these provisions but the parties should be aware of these rights and percentage limits since a decrease of their ownership may involve a loss of these rights.

5.2.5 The New Swedish Companies Act

The Company Law Committee has prepared a proposal for a new Swedish Companies Act, SOU 2001:1. This proposal includes a number of changes but the most radical and important modification, in this context, is the proposal to abolish the system of nominal value. This system will be replaced by a ratio system in which each share represent an equal percentage of the company’s share capital and thus of its assets. The transition to a ratio system is primarily motivated by the EU harmonization and future problems occurring for the companies if Sweden joins EMU.¹⁰⁴ The Committee further suggests abolishing the prohibition against subscription of shares on payment less than the nominal value. The deed of formation should state the number of shares issued, the price to be paid for each share and the amount of this payment considered restricted share capital. The remaining amount of the capital contribution should be classified as “free capital”. In relation to a new issue of shares, the shareholders at the general meeting or, in the case of an authorisation, the board should decide whether the whole payment or merely a part of the

¹⁰⁰ The SCA ch. 6, ch 2 s. 12a.

¹⁰¹ Rodhe, 2000, at 79.

¹⁰² The SCA ch. 8 s. 34, ch. 9 s. 37.

¹⁰³ See e.g. the SCA ch. 9 s. 31, ch. 10 s. 9, ch. 14 s. 3, ch. 9 s.30, ch. 4 s. 2.

¹⁰⁴ SOU 2001:1, at 205-208.

payment should be considered as free capital.¹⁰⁵ These amendments would facilitate the implementation of a flexible conversion ratio in the articles and, thus, the use of “the traditional American method”.

In the current proposal from the government, *lagrådsremissen*, the government, however, suggests keeping the prohibition against subscription of shares on payment less than the ratio value and explicitly states that the only conversion ratio permitted by the law should be 1:1.¹⁰⁶ Hence, if this latter proposal is enacted, it will not be possible to guarantee anti-dilution protection by including these protective provisions in the articles.

¹⁰⁵ SOU 2001:1, at 209-212.

¹⁰⁶ *Lagrådsremiss*, at 337-338.

6 Important issues for the parties to discuss

Regardless of the geographic environment in which the anti-dilution clauses will be implemented, the design of these provisions is in the end a matter of negotiations and bargaining power. Careful drafting and an understanding of the consequences of the implementation of these clauses may spare the parties the trouble of future disputes and negative surprises.

The responses of the questionnaire indicate that anti-dilution provisions are not as hotly negotiated in Sweden as in the US. A conceivable explanation may be the diverging frequency in including anti-dilution provisions in investment deals but also the fact that investors and companies in Sweden are less familiar with the significance and consequences of these provisions. Some of the answers indicate that negotiations concerning anti-dilution clauses are usually not the problematic stage; it is during the implementation of these provisions that most of the problems and disputes arise, which endorses the latter explanation. The preferential right to subscribe for shares in a new issue and the general clause offer a basic protection of the relative shareholding and against undue transactions. It is, however, uncertain whether an issue of new shares to an external investor at a low price will be considered as an undue transaction, especially in a case where the company needs money to survive. As the application of the provisions in the SCA in this context is uncertain, substantive anti-dilution provisions will probably in the future become more frequently used and important also in Swedish venture capital and private equity investments, in particular since the Swedish market lately has attracted more international investors. Some important issues for the parties to consider in connection with negotiations concerning anti-dilution protection are discussed below.

The first and most important issue is, of course, whether anti-dilution provisions should be included at all. If the parties decide to employ some kind of anti-dilutive protective mechanism the next step is to choose formula, i.e. “the full ratchet”, “the weighted average” or, the market price formula or some hybrid formula, e.g. a time-limited “full ratchet” and thereafter the “weighted average formula”. In the Swedish context the parties further have to decide how to design and guarantee this protection, e.g. by a shareholders’ agreement, by an issuance of “anti-dilution warrants” or, by some other technique. Except for these major issues there are a number of details that should be discussed in advance.

If the company have different classes of shares the parties must consider whether “the anti-dilution shares” should constitute a new class of shares or be of the same class as some of the existing shares in the company. Principally, there seem to be three different alternatives employed in practice. Regularly “the anti-dilution shares” seem to be of the same class of

shares as the investor already has, i.e. normally preferred shares but, they can also be of the same class as those shares issued in the down round, i.e. either a new class of preferred shares or, the same class of preferred shares as the protected investor has. Furthermore, ordinary shares may sometimes be issued as “anti-dilution shares”.

The parties should agree on a definition of a down round and, consequently, which issues should trigger the anti-dilution protection. Should all new issues of shares with a lower subscription price than the relevant investor’s original subscription price triggers the protection or should certain issues be exempted, e.g. issues of shares or any other security pursuant to a share option or a share purchase plan? Carve-outs for issues pursuant to employee option pools and other incentive programs seem to be the most common exemption in practice but not the only one. Other situations where a carve-out may be appropriate is when new shares are issued in connection with the acquisition of another company or a credit facility or, when the reason for the lower subscription price is a downward economic trend in the market and not the development and success of the company itself. In addition, the parties sometimes seem to differentiate between internal and external investment rounds, i.e. investment rounds in which only the parties participate and investment rounds in which a new external investor take part, in that an external but not an internal down round should initiate the anti-dilution protection.

The parties and especially the company should consider including a pay to play provision, which requires the investor to participate in the down round to activate the anti-dilution protection. For the avoidance of doubt, the required level of the participation should be specified, e.g. the venture capitalist must subscribe for a proportion of the down round that is equivalent to his/her percentage ownership of the total numbers of shares and securities outstanding to benefit by the anti-dilution protection. If the investor only subscribes for a part of his/her proportion the consequences may be that the protection is not triggered at all or, the right to subscribe for anti-dilution shares is reduced proportionally.

When options, warrants or convertibles are issued in the down round the parties must decide at which moment the anti-dilution protection should be triggered; at the issuance or the exercise of these securities.

Furthermore, the parties should discuss whether the anti-dilution protection should apply to all future down rounds or merely in connection with the next down round but not in connection with any dilutive issue to occur subsequently thereto. The anti-dilution protection may be time-limited or, merely apply to a certain number of future issues of shares and then expire regardless of the number of these issues that were down rounds.

Another important issue is which price should decide whether the new issue is a down round or not, i.e. should the new subscription price always be compared with the original subscription price paid by the investor or, should

in the event of a number of down rounds the subscription price paid by the investors in the previous issue, or the protected investor's adjusted subscription price in the previous issue be the decisive price. The adjusted subscription price is the new subscription price for the relevant investor, SP2, decided either by "the full ratchet" or "the weighted average formula". For instance, what happens in a situation where the new subscription price is lower than the original subscription price but higher than the investor's adjusted subscription price? The more issues of shares and diverging valuations involved, the more important it is for the parties to discuss these matters in advance.

If the company has issued preference shares of different classes or issued shares of the same class but at different prices the parties should further decide how to calculate the numbers of "anti-dilution shares". The former problem may be resolved by calculating the total number of "anti-dilution shares" for each class separately and the latter by dividing this class into different groups, all shares in each group having the same subscription price, and then calculate the number of "anti-dilution shares" for each group.

As has been mentioned above, the existence of anti-dilution protection may also create problems in relation to potential and future investors in the company. An investor planning to make an investment in a company is generally interested in getting a certain percentage of the shares, as this percentage will provide him with an acceptable return. A lower valuation of the company will trigger the anti-dilution protection, which will result in an issue of additional "anti-dilution shares" and, consequently, the new investor will get a smaller piece of the company as the total number of shares have increased. The value of the company has, however, not increased and it is most unlikely that the new investor will accept this situation. He will probably require either a reduction of his subscription price resulting in the same percentage of the company he initially bargained for or, that the anti-dilution protection should not apply to the current issue of shares. Hence, the existence of anti-dilution protection is always a starting point for negotiations in subsequent investment rounds.¹⁰⁷

¹⁰⁷ The discussion in this chapter is based on the responses of the questionnaire.

7 Conclusion

Anti-dilution protection is one of many rights specially designed for venture capital and private equity investments. Anti-dilution clauses has lately become a contentious issue and has attracted an amount of attention among venture capitalists and companies, which may seem disproportionate considering the significance of these provisions compared to e.g. exit provisions. The attention may, however, not be that surprising considering the devastating consequences, in particular for the entrepreneurs, of an implementation of these provisions. In times of prosperity, like the mid 1990s, these clauses were more or less considered as standard provisions and did not cause the parties any problems as they were rarely implemented. The price paid for ignoring these provisions, has in many cases been extremely high. A positive outcome, if any, may, however, be a greater awareness among founders and investors of the significance of these clauses.

The objective of anti-dilution protection is to protect the relevant investor's investment against dilution caused by a subsequent investment round at a lower price than the price paid on the investor's round. Anti-dilution protection is in the US generally implemented by an adjustment of the conversion ratio and in Sweden by a "compensation issue", i.e. the investor may subscribe for additional shares for consideration equivalent to the nominal value of the shares. The consequences for the other shareholders in the company of the implementation of the anti-dilution protection depend on which formula employed in the specific case.

A fundamental issue is whether mechanisms like anti-dilution protection is the best way of protecting the investment and reducing the risk exposure for the investor. The possibility of a future exit, generally a sale of the company or an IPO, is crucial for the investor and before an exit has been carried out the value of the company is more or less a theoretical problem, as it is first in connection with an exit that the profit of the investment is realized. The implementation of an anti-dilution clause, however, affects the investment structure of the company before an exit takes place, which may demotivate the founders and the management team but also harm the founder-investor relationship by introducing conflicts of interests and elements of mistrust. This may in the long term diminish the chances of a successful exit and consequently be a disadvantage also for the investor. Problems like these may, however be prevented by the use of other risk strategies or mechanisms where the parties work together towards the same goals and have joint liability for the risk of future decline in value. If an exit should be implemented by a future IPO, the investor may e.g. require a minimum price of the shares and, thus, a minimum amount of fresh capital to be put into the company before an IPO could take place. By these qualifications, the investor puts pressure on the founders and managers to work for a higher value of the company. To further realign the parties' interest of a successful

exit in the future, these requirements may be supplemented with various provisions, which will provide the managers and entrepreneurs with a substantial equity upside in the event of an exit. If an exit does not take place within a specified time period, and this is because of the founders, the investor may e.g. have a right to buy shares from the founders at a pre-determined price. The parties work towards the same goal, a future exit, and the entrepreneurs are not punished or demotivated in the event of a lower valuation of the company before the exit takes or was supposed to take place. Hence, a down round does not negatively affect the entrepreneurs' ownership as long as the exit takes place within the agreed time period and at the pre-determined price. To give the investor influence on and control of the development of the business during the time between the investment and the exit, additional milestones may be included in the investment contract. Reaching or failing to reach a milestone may have different consequences for the parties, rewarding or punishing.

The core concept of anti-dilution protection is further questionable at least theoretically, from a fairness and risk-allocation perspective. Financing, as well as running and managing a company, is a business associated with a certain level of risk-taking. The entrepreneurs and managers devote themselves to the company and invest both time and money in the business. The investor finances companies with a high growth potential in which the expected return is high. Hence, initially both parties have the same goal; to make a profit as big as possible. The investor can, however, reduce his/her risk by making investments in different companies at the same time while the entrepreneurs usually only have one way to get rich, the company in which he/she invested his/her time and money. Before the investor's investment, the investor valued the company. This valuation was made on a number of uncertain assumptions like the future development of the company and the market, the expected return and the risk involved. By employing anti-dilution protection, the investor protects himself from the consequences of a miscalculation of the value of the company and the entrepreneurs are instead penalized for a possible miscalculation. The logic and fairness of this is hard to understand especially since the investor, contrary to the entrepreneurs, has the possibility to reduce the risk exposure by making parallel investments in other companies. In the current economic environment the reason for the lower valuation may further not be the development and success of the company but a general decline of the valuations in the market as a whole. The down round itself involves a dilution, even of the entrepreneurs' ownership. The existence of anti-dilution makes this dilution even worse; the investor receives protection at the other unprotected shareholders' expense. Hence, the implementation of the anti-dilution protection, in my opinion, involves an unfair risk allocation; the entrepreneurs and other unprotected shareholders have to bear the risk of future decline in value and this even though the decline appears years before a future exit and a recovery of the value up to the exit moment is possible.

Despite these cons, the existence and design of anti-dilution protection is, in practice, a question of bargaining power and the supply and demand for venture capital. In companies where it is unlikely that further investments from external investors will be required, it might be possible to persuade the venture capitalist to abandon the traditional anti-dilution protection. In other situations, the venture capitalist will, most likely require and generally also receive some kind of protection against dilution of the investment, especially in the current business environment. Compared to a solution involving e.g. an absolute veto for the venture capitalist to future issues of shares, the anti-dilution mechanism may seem to be a sophisticated mechanism; it is specially designed to protect investors against substantive dilution and it facilitates further investment rounds in the company without requiring any significant additional payment from the investor. This may at least be true in relation to “the weighted average formula”, which calculates the true economic impact of the subsequent investment round on the protected investors.

When negotiating initial financing rounds, the parties and, in particular the founders, should be aware of the diverging types of anti-dilution formulas; the preferable “weighted average” and the more punitive “full ratchet” but also the variations of these formulas, “the market price formula” and the hybrid approaches. “The weighted average formula” normally provides a more reasonable approach since it considers the number of shares issued in the dilutive round in proportion to the outstanding capital of the company. This is normally the preferable formula also for the venture capitalist, since it does not to the same extent as “the full ratchet” demotivate the entrepreneurs and harm the investor-entrepreneurs relationship. The various variations of the weighted average formula facilitate to create a solution adapted to each specific situation. The ultimate formula from the company’s perspective is “the broad-based” formula, as it weights the dilutive shares to be issued against the fully diluted share capital of the company and, thus, calculates a lesser number of “anti-dilution shares” to be issued to the investor.

There are, however, situations in which a “full ratchet” may be an acceptable solution. This is, in particular, the case in start-up companies seeking first round financing at an aggressive valuation and other high-risk projects. The guarantee of a number of advantageous provisions like “the full ratchet” and “multiple participating liquidation preferences” might be the only way of realizing these projects. The company should, however, always try to negotiate a time-limited “full ratchet” or a right to require re-negotiations of the original investment documentation after a specified time period or when the company has reached certain milestones. The founders must further carefully evaluate the prospects of a successful development of the company and the probability of a future down round, as a down round may result in a radical decrease of the entrepreneurs’ ownership. If the company has any leverage the impact of a “full ratchet clause” may be reduced by negotiating a pay to play provision, carve outs for internal

investment rounds and a right for the entrepreneurs to recoup its loss of ownership from a down round as the company meets predetermined targets.

Regardless of the type of provisions the venture capitalist receives, the company should insist on certain carve-outs. The shareholders' lawyers should carefully analyze the capital structure of the company to determine carve-outs appropriate in each situation. Except for the common carve-outs for issues pursuant to various employee pools and other incentive programs, carve-outs for issuances in connection with a credit facility and in connection with the acquisition of another company may be appropriate. These transactions may be crucial for the survival or the development of the company and does not involve an additional venture capital funding similar to the investor's investment. The parties may further discuss if the anti-dilution protection should be triggered when the reason for the lower subscription price is a downward economic trend in the market and not the development of the company itself and if internal investment rounds should be exempted. The significance of carve-outs and other supplementary provisions like pay to play provisions, depends on which formula employed. Carve-outs are more important in connection with a "full ratchet formula"; in times of recession and falling valuations, carve-outs for down rounds caused by a downward economic trend may be particularly important to motivate the entrepreneurs to operate in the best interest of the company and prevent conflicts of interests to arise.

The preferable solution from the investor's perspective is naturally the formula offering the best protection of the investment. As has been mentioned before, this is, however, not always a "the full ratchet" with as few carve-outs as possible. The managers and founders' co-operation and motivation is crucial for a future exit and, hence, a formula that balances the protection of the venture capitalist's investment while still leaving enough money to the employees and managers to motivate them to operate in the best interest of the company is the best solution. It is important for the investor to have an understanding of the consequences of the implementation of anti-dilution protection and that these provisions sometimes create more problems than they attempt to solve. Since many issues have to be discussed in advance negotiations concerning these provisions may be a time-consuming and an expensive process. Even if the investor in the end receives a "full ratchet", the investor may in the event of a subsequent round have to give up this protection because the new investor does not accept the outcome of the implementation of the anti-dilution protection, a situation that also have to be settled by negotiations. Hence, the investor will have wasted a lot of time negotiating anti-dilution protection for no use, as he in the end has to abandon these provisions. If the investor as well as the founders is aware of these problems, the possibility of reaching an agreement involving a fairer risk-allocation and the encouragement of the parties to work towards the same goal in the future will increase.

Anti-dilution protection is in the end a question of bargaining power and careful draftsmanship. As many issues as possible of those discussed in chapter 6 should be settled in advance to avoid future disputes. Due to the number of problems arising in this context, anti-dilution clauses are generally very complex and sometimes also ambiguous. The parties should, however, use precise language and clarify the significance of these provisions in advance to avoid disputes of the interpretation of these clauses. The provisions have to be specially designed for each situation to meet the parties' specific requirements and not copied from some former investment instrument. Due to the various formulas and supplementary provisions available, the possible combinations in practice are more or less only restricted by the draftsmen's imagination. Anti-dilution provisions are not the most vital clauses of an investment deal but the parties must be aware of that the price paid for ignoring them, especially in the case with a "full ratchet", may be very high.

The Swedish venture capital market is mainly influenced by the US and the UK and, hence, the concept of anti-dilution protection has reached also the Swedish market. Because of the Swedish Companies Act's restrictions concerning the content of the articles of association, "the traditional US methods" to guarantee anti-dilution protection has to be modified to comply with the Swedish Companies Act. Flexible conversion ratios that take a dilutive issuance of shares into account are not permitted in a Swedish company's articles. Anti-dilution protection is instead created by contractual undertakings by the existing shareholders in a shareholder's agreement. The principal problem with this solution relates to the uncertainty of the enforceability, in particular in relation to the company and future shareholders. A decision taken at the shareholders' general meeting may e.g. not be rescinded by a protest in accordance with chapter 9 section 39 of the SCA because this decision was inconsistent with a voting provision in the shareholders' agreement. Hence, a provision in the articles had offered the investor a more solid solution. A vital aspect for the investor is to secure that all current, potential and future shareholders and, perhaps also the company itself, agree to the undertakings, which may be problematic in a company with a great number of shareholders. This solution is, however, most common in companies with a limited number of shareholders and in companies where the shareholders trust each other; in other companies the more solid solution with "anti-dilution warrants" are generally used.

Another complication in the Swedish context is the nominal value system that prohibits shares to be issued for free. This does not, however, seem to be a big problem in practice, since the Swedish company law does not provide any minimum amount for the shares' nominal value and the company can take actions to reduce the nominal value if necessary. A more acute problem may be the provisions in the articles regarding the size of the share capital. A consequence of a great number of "anti-dilution shares" may be that the maximum amount for the share capital is exceeded regardless of a maximal adjustment of this amount. This may be solved by an alteration of the articles. When increasing the size of the share capital

the parties, however, have to consider the provisions regarding the compulsory obligation to liquidate the company if its equity is less than half of the registered share capital. These provisions may, in a company that in the past has sustained heavy losses, cause problems and the shareholders may be forced to put more money into the company by either a new issue of shares at a premium or by unconditional contributions to prevent the company from failing.

From a harmonization perspective a modification of the Swedish company law would be advantageous, in that the international investors could use the same methods when designing anti-dilution protection in connection with Swedish venture capital investments as they usually do. In the last proposal from the government, the government suggests keeping the prohibition against subscription of shares on payment less than the nominal value and explicitly states that the only conversion ratio permitted by the law should be 1:1. If this proposal is enacted, the conception of justice will not be changed and flexible conversion ratios will also in the future be prohibited in the articles. It is, however, possible to create anti-dilution protection and reach the aims of these provisions within the methods described above as long as the investor are informed about the differences and problems with these solutions.

Hence, careful drafting and an understanding for the significance and purpose of anti-dilution protection are vital ingredients in negotiations concerning anti-dilution clauses also in the Swedish context and may pave the way for a future successful co-operation between the investor and the founders.

Supplement

Below follows an example of how anti-dilution provisions can be designed in practice. The examples are in no way standard or model provisions used in practice.

Weighted average provision

The holders of Preference Shares shall be protected from dilution in the event of a down round, i.e. in the event that the Company issues shares or options to purchase or rights to subscribe for or convert into shares or other equity securities (except for shares issued to employees, founders or board members in the form of or pursuant to stock options or stock purchase plans or other incentive programs) at a subscription price less than the original subscription price paid for such Preference Share or the adjusted subscription price for such Preference Shares (i.e. the subscription price adjusted in connection with previous down rounds), hereinafter referred to as a Dilutive Issue. Should the company issue shares or options to purchase or rights to subscribe for or convert into shares or other equity securities at a subscription price less than the original subscription price paid for the relevant Preference Share or the adjusted subscription price for the relevant Preference share (subject to the foregoing exceptions), the holders of the relevant Preference Shares shall be offered to subscribe for their pro rata entitlement (according to their then existing pro rata holding of the relevant Preference Shares) of a number of new ordinary shares (Q4) at a nominal value in accordance with the following formula. However, this subscription right is conditional upon the holder of the relevant Preference Shares subscribing for a proportion of the Dilutive Issue that is equivalent to its holdings of the relevant Preference shares. If the holder of the relevant Preference Shares subscribes only for a part of its said proportion, such holder's right to subscribe in accordance with the formula below shall then be reduced proportionally.

$$Q4 = \frac{Q3 * (SP1 - SP2)}{(SP2 - N)}$$

and

$$SP2 = \frac{(SP1 * Q1) + (SP3 * Q2)}{Q1 + Q2}$$

N= nominal value of each share;

SP1 = original subscription price per share for the A preferred shares before the B round;

SP2 = new subscription price per share for the A preferred shares after the B round;

SP3 = subscription price for each B preferred share in the B round;

- Q1 = the number of issued and outstanding shares in issue before the B round;
- Q2 = the number of B preferred shares in issue in the B round;
- Q3 = the total number of relevant preferred shares held by the investor;
- Q4 = the total number of “anti-dilution shares” that the relevant investor may subscribe for;

In the event the Company issued Preference Shares of different classes, Q4 shall for the avoidance of doubt be calculated in accordance with the above formula for each class separately.

Full ratchet provision

For new issues of shares of any kind, in respect of conversion into or subscription for new shares in the Company, excluding issues of such securities to employees of the Company, for which the subscription or conversion price is lower than the price paid by the parties for their preference shares, a preference share shall entitle the holder thereof to subscribe for new preference shares, the number of which shall be calculated according to the following formula:

$$Q4 = \frac{Q3 * (SP1 - SP2)}{(SP2 - N)}$$

- N= nominal value of each share;
- SP1 = original subscription price per share for the A preferred shares before the B round;
- SP2 = new subscription price per share for the A preferred shares after the B round;
- SP3 = subscription price for each B preferred share in the B round;
- Q3 = the total number of relevant preferred shares held by the investor;
- Q4 = the total number of “anti-dilution shares” that the relevant investor may subscribe for.

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