

Financial lease	-	-	86	155	236
Long term debt	140	280	420	420	420
Total liabilities	140	280	506	578	671

Equity

Issued & paid-in capital	220	220	1,220	1,220	1,220
Retained earnings	(107)	(275)	(754)	(45)	7,440
Total Equity	113	(55)	466	1,175	8,660

LIABILITIES & EQUITY	253	225	972	1,753	9,331
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PART 4

Valuing a start-up and raising equity

Dealing with venture capitalists
and private investors

Part 4

Eugene Kleiner
Venture Capitalist

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DIFFERING INTERESTS

When you have prepared a business plan for your enterprise, you will need to get an investor involved. You will need to identify suitable investors, arouse their interest, and negotiate with them. No one is going to make funds available for free. All that the management team has to offer in return for the investor's cash is promises - not normally an advantageous negotiating position. Nevertheless, you can generally expect to get a fair deal, because professional investors are interested in seeing that the team as a whole is successful.

The management team's interests

If you are happy with a small company, then you will probably be well advised to make use of family funds, loans from friends and personal bank loans. This way, you retain the majority holding in the company, but significantly restrict your ability to grow. You should check whether "cheap" money is available anywhere else, like, for example, from state development funds. Start-ups sometimes have recourse to what are known as "business angels" - private investors and retired entrepreneurs who usually invest smaller amounts compared to venture capitalists, but with less demanding information requirements. They can also use their experience to help with non-strictly financial questions.

If, however, you want to expand quickly, you will generally need the help of venture capitalists, or similar types of investor. First, stop and think whether you really need as much capital as you think you do. A venture capitalist will want a significant share of your company - you may not even be able to keep the majority holding. However, professional investors are not generally interested in running the company, as long as you meet your targets.

Bear in mind that the negotiations are not just about money. It is important for you that an investor is prepared to give your management team active support - and is in a position to do so geographically - and can also provide the necessary expertise (e.g., legal or marketing knowledge) and contacts. This element, known as "smart money", is particularly important at a time when the management team is forced to rely on outside experience and support. In retrospect, this, and good chemistry between management team and investor, will probably seem much more important to the success of the business than the size of the investment.

Consider these points:

- ◆ To what extent are you prepared to give up ownership of the company?
- ◆ What non-financial support are you also looking for from your investor?

The investor's interests

Investors require a return that matches the risk involved. However, there are significant differences between investors, generally over the following matters:

- ◆ Type and extent of acceptable risk
- ◆ Size of investment
- ◆ Extent and content of additionally agreed rights and requirements, particularly with regard to possibilities of exerting influence (see "Term Sheet" in "The Way to the Deal")
- ◆ Time horizon for the required return.

In addition to financial interests, many investors, such as industrial groups, have other reasons for their involvement - strategic ones for example. It may be a way, for instance, for an industrial group to keep a "window on technology" open - a window on new technologies and markets, but also on possible competitors.

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Valuing a start-up and raising equity

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Starting up

Provisions concerning patents and other projective agreements:	Concerning the patents and other inventions made in the course of work performed for the company or in the company's area of activity and the company's resulting protective agreements, agreement is reached on the following: <ul style="list-style-type: none"> ❖ Rights and duties concerning the provision of information ❖ Property rights in the patents and agreements
Confidentially declaration:	The founders, the investor, all members of the supervisory body, and ... shall maintain confidentially and shall sign an appropriate confidentially declaration in this regard.
Particular agreements:	Mutual agreements have been reached on the following points: <ul style="list-style-type: none"> ❖ Penalties for contravention of agreements reached ❖ Negotiations with third parties ❖ Exclusivity, where appropriate ❖ ...
Closing:	The closing of this transaction (hereinafter "closing"), on which both parties shall agree, shall be achieved by ... at the latest. <p>The following shall be regarded as preconditions for the closing:</p> <ul style="list-style-type: none"> ❖ Availability and accuracy of documentation and information ❖ Approval process before signature of contract ❖ Conclusion of part-agreements (e.g., patents) ❖ ...
Costs:	In the event of closing, ... shall bear all the legal costs and other expenses related to the conclusion of the contract.

VALUING THE BUSINESS

With their experience of company valuations, venture capitalists can quickly get a picture of what a company is worth, and what share in it they will be looking for. Venture capitalists thus go into negotiations with very clear ideas. Your management team is most unlikely to have access to such experience. So you will need to arrive at your own idea of what your business is worth, and consider how large the investors stake should be, and what form it should take. To do this, you will need to make your own estimates.

Venture capitalists' procedure

In assessing a start-up, venture capitalists usually apply the following criteria:

- ◆ Is the management team experienced, competent and ready to implement the planning and take personal risks?
- ◆ Is the market attractive and capable of expansion?
Does the product provide a platform for further development?
- ◆ Is there a sustained competitive advantage, capable of further development?
- ◆ Are the strategy and the operational planning convincing?
- ◆ How far has implementation already progressed, and what are the initial results (e.g., patents or customers)?
- ◆ Is the expected return realistic and a subsequent sale possible?

The venture capitalist will review these criteria in detail, and decide how far your business meets each one of them. How much the business is worth will generally be decided highly pragmatically, on the basis of empirical values and the investor's current competitive situation. These values may vary widely, depending on the sector and the phase of its existence in which the start-up finds itself. *Exhibits 2 and 3* below show some sample figures for start-ups in the areas of information technology and life sciences. Note that these are values for fast-growing, successful businesses, that are operating in dynamic sectors and will quickly be ripe for a stock market listing. The dynamics in these sectors also mean that these values can change quickly. The range of values quoted show

that there can be wide variations from business to business. Depending on how well it meets the given criteria, a venture capitalist will locate the start-up at either the upper or the lower end of the typical range for the sector concerned.

Possible development of the value of fast-growing IT start-ups in Germany

Exhibit 2

Development phases Financing rounds	Seed	Start-up First stage	Expansion 2nd stage	Later stage	IPO or sale	Total
Value of business (pre-investment)						
€ million	-	1-40	30-160	100-430	170-1,000	170-1,000
Investment						
€ million	0.5-1	1-10	10-20	20-30	20-40	50-100*
Value of business (post-investment)						
€ million	-	2-50	40-180	120-460	190-1,040	190-1,040
Investor's share of the business						
	-	20-50%	30-50%	35-70%	40-75%	40-75%
Management team's share of the business						
	100%	50-80%	50-70%	30-65%	25-60%	25-60%
Value of management team's share						
€ million	-	1-40	20-125	40-290	50-620	50-620
Duration of the phase						
Years	1-2	1-2	1-2	1-2	-	4-8*

* Cumulated over the whole period

Source: McKinsey New Venture, Spring 1999

Possible development of the value of fast-growing Life Science start-ups in Germany

Exhibit 3

Development phases Financing rounds	Seed	Start-up First stage	Expansion 2nd stage	Later stage	IPO or sale	Total
Value of business (pre-investment)						
€ million	-	10-70	70-260	150-620	250-1,400	250-1,400
Investment						
€ million	0.5-1	10-20	20-40	30-50	40-80	100-190*
Value of business (post-investment)						
€ million	-	20-90	90-300	180-670	290-1,500	290-1,500
Investor's share of the business						
	-	20-50%	35-50%	40-70%	50-80%	50-80%
Management team's share of the business						
	100%	50-80%	50-65%	30-60%	20-50%	20-50%
Value of management team's share						
€ million	-	10-70	45-200	50-400	50-750	50-750
Duration of the phase						
Years	1-3	1-2	2-3	2-3	-	6-11*

* Cumulated over the whole period

Source: McKinsey New Venture, Spring 1999

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In the subsequent growth phase, the DCF method described here will no longer suffice, as the capital structure (e.g., taking on debt), tax rate and growth rate of your business will increasingly change. You can find more information on a refined DCF methodology in, for instance, the standard reference work "Valuation: Measuring and Managing the Value of Companies" by Copeland, Koller, Murrin.

The Discounted Cash Flow method (DCF)

In the business plan, you have already calculated your cash flows. The DCF method uses these to determine the value of the business, using the total of the discounted cash flows minus the debt.

1. Determining the current value of future cash flows

- ◆ Decide the period for which you can make reasonably certain forecasts of your cash flow (forecast period). For start-ups this would typically be a period of 5 to at most 10 years.
- ◆ Determine the free cash flows for these years. These are the same as the operational cash flows indirectly derived for the business plan (see p. 148).
- ◆ Set a discount rate for each year that reflects the risk level. This rate should be reduced by 5-15% per year in subsequent years, as the initial risk level will fall continuously (e.g.: $r_1 = 65\%$, $r_2 = 55\%$, ...). At the end of the forecast period, the rate would typically not be more than 10-20%.
- ◆ To set the discount factor for each year, use the general formula:

Discount factor = $\frac{1}{(1 + r)^t}$ where r = discount rate in percent and t = the year in which e.g. the cash flow occurs.

In our example, the discount factors for the first years are:

$\frac{1}{(1+0.65)}$, $\frac{1}{(1+0.55)^2}$, $\frac{1}{(1+0.45)^3}$, ...

- ◆ The current value of the free cash flow for each year is given by multiplying the free cash flow by the discount factor for the year in question.

The Discounted Cash Flow method (DCF) (continued)

2. Calculating the continuing value

- ◆ To take account of the cash flows after the forecast period, what is known as a continuing value is used. This is approximated with the following formula:

$$FW_t = \frac{FCF_t (1 + g)}{r - g}$$

where FCF_t = free cash flow at the end of the last forecast year (in the example $t = 5$), r = discount rate, and g = annual rate of growth of the cash flow for the subsequent period (in the example 6%). As this continuing value applies for the end of year 5 or the beginning of year 6, it must be discounted with the appropriate discount rate (r) for year 5, so you should multiply the continuing value by

$$\frac{1}{(1.25)^5}$$

3. Determining the actual value of the business ("equity value")

- ◆ The value of the business is the total of all the discounted cash flows during the forecast period plus the continuing value minus the debt.

Estimating with multiples

The value of a business can also be estimated with the aid of comparable values from already established businesses, known as multiples. One possible such comparable value is the price/earnings ratio (PER), others are listed in the "multiples" box on page 203. Usually, when using this method, you multiply the appropriate value for your business (e.g., the net profit) with the corresponding multiple. This gives you the value of the business ("equity value") at the end of your investor's investment horizon known as the exit point (the investment horizon is typically between 5 and 10 years). This value is then discounted to give the current value of the business.



market, with PERs of 37 and 49. The average of these two values, 43, is used for the calculation (*Exhibit 6*). By way of comparison: the average value (median) of the PERs on the Neue Markt (Frankfurt) at the end of 1998 was about 40. Multiplication by the net profit in, for example, year 5 produces a future value for the business of about €39 million in year 5. As with this method only one value is discounted, the discount rate must reflect the total risk; in our example, the expected return is 65%. Discounted, the current value of the business is some €3.2 million.

Multiples

The value of the business is often also approximated on the basis of comparable values from established businesses, known as multiples. Frequently used multiples are the price/earnings ratio (PER) and the market value to sales ratio.

1. Determining the future value of the business using multiples

- ◆ Search the market for companies as like your business as possible, in terms of sector, product range, risk, growth rate, capital structure, and cash flow forecasts. Good sources are the annual reports of listed companies, or the analysts' reports of banks.
- ◆ For the comparable company, form the desired multiple for the year in which it was listed on the stock exchange: for example the PER. It is a necessary condition for using the PER that the company is profitable.

$$\text{PER} = \frac{P}{G}, \text{ where } G = \frac{\text{net profit}}{\text{no. of shares}} = \text{earnings per share, and } P = \text{current stock price}$$

If you have identified several companies, you can form an average. Consider for what reasons, if any, your multiple might be higher or lower in the year of stock exchange listing and if necessary, adjust the multiple.

- ◆ Multiply the net profit shown in your business plan for the time of the investor's exit by the comparable PER. The future value of the business (FV) is PER x net profit.
- ◆ Alternatively, use other multiples, e.g.

$$FV = \frac{\text{Market value of the equity}}{\text{sales}_i} \times \text{sales}_j,$$

where i = comparable business and j = your business or

$$FV = \frac{\text{Market value of the equity}}{\text{Average no. of i "clicks" }} \times \text{no. of j "clicks" per week}$$

on the homepage per week

Possible multiples result from the relationship between the market value of the equity and the number of customers or of staff, or the R&D costs.

Multiples (continued)

2. Discount the value of the business to current value

- ◆ The calculated figures represent the value of the business in the year of exit of your investor (e.g., year 5). Set a discount rate that reflects the risk involved (r), and calculate the appropriate discount factor, e.g.

$$\frac{1}{(1+0.65)^5}$$

- ◆ The current value of the business ("equity value") is reached by multiplying the calculated future value of the business by the discount factor.

Synthesis of the various values of the business

The calculations produce the following values for the business:

Calculated equity value

Discounted cash flow	c. € 2.5 million
Multiples with average values of comparable business	c. € 3.2 million
Average of both processes	c. € 2.9 million

The range of values (post-investment) for the business of € 2.5 - 3.2 million thus calculated provides a good basis for discussions with investors. Such a value is realistic to the extent that we assume that we are dealing here with a new company, with little experience, and that has so far gained few customers.

How to get a better feeling for figures

- ◆ Calculate the value in several different ways to get a clearer idea of the range of values, and compare your results with experience from your sector
- ◆ Play through various scenarios, taking account of the optimum development track for the business ("best case"), and also the delays or other obstacles involved if everything possible goes wrong ("worst case")
- ◆ Where possible, check your results with experts
- ◆ Talk to other management teams in comparable situations who have already negotiated with investors
- ◆ If your value is at either the upper or the lower end of the spectrum, consider why this is so.

Bear in mind that the worth of such a valuation depends largely on the plausibility of your assumptions. What assumptions are implicit in your calculations? If your assumptions for the first round of financing are too optimistic, and you are later unable to meet the expectations you have raised, you will lose your credibility, which will be a major obstacle in subsequent financing rounds.

Calculating the investor's share

Mathematically speaking, the investor's share is calculated on the basis of the size of the investment (need for funds) and the current value of your business, using this formula:

$$\frac{\text{Investment}}{\text{Value of business}}$$

Let us assume that an investor is interested in providing the first tranche of capital required by our sample business, € 1 million. What share of the business might he expect in return?

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Martha Johnson

Owner, Suppers Restaurant

Part 4

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Starting up

Valuing a start-up and raising equity

1. How much "demand" is there for your business? This depends on how many investors you have been able to interest in your business, and how realistic your expectations of them are. A convincing business plan, presented by a committed and competent management team, is the most effective means of communication.

2. How far will you be able to convince investors of your intentions? When preparing and during the negotiations, put yourself in your discussion partner's position: the better you understand his interests, the more likely you are to be able to reach a solution acceptable to both sides. Be ready to compromise. A commitment by an investor will generally be for 5-8 years, so mutual confidence is essential. This is particularly the case inasmuch as your investor's advice and support (the "smart money") will ultimately be at least as important for your business as his financial contribution.

A deal can become very complicated; it is always a good idea to make contact with experienced entrepreneurs, and get expert advice from accountants, tax specialists and lawyers - particularly once the Term Sheet is signed. Do not be afraid of complex constructions: there is usually a legitimate reason for them - such as tax breaks, or control over the funds invested, but make sure that you are absolutely clear about all the details of the deal.

RAISING CAPITAL FROM ADDITIONAL INVESTORS

Your business will probably need to raise further capital in the years ahead, in order to finance its subsequent development. Raising capital is thus not a one-time exercise - there will be further negotiations and capital increases in the growth period.

For further capital increases, you will need to revalue your business, define the shares, and agree with the investor on a contract.

Procedure for further capital increases

The assumption is that, after eighteen months, our sample business will need to raise a further € 2 million from another investor.

- ◆ Redefine the relevant values - using the free cash flow for the coming years, the net profit and sales - and the discount rate for the intended investment horizon. This will take the development so far into consideration. Calculate the current value of the business as described.
Example: The recalculated values for the forecast period procedure a post-investment value for the business of about € 10 million.
- ◆ Determine the shares in the value according to the investment involved.
Example: The business is worth € 10 million, € 2 million of this belongs to Investor B. Of the remaining € 8 million, € 5,3 million belongs to your management team (previous share of 66% times 8 million) and € 2,7 million to Investor A.
- ◆ Determine the percentage shares.
Example: Investor A has 27 % (€ 2.7 million of € 10 million), Investor B 20 % (€ 2 million of € 10 million), and you have 53%.

Repeat this procedure for each subsequent increase of capital.

We know we will have to give up a significant stake in the company, but we're willing to do it on the theory that a small piece of a big pie is better than a big piece of a small pie.

Larry Leigon
President, Ariel Vineyards

Your share of the business decreases with each further increase of capital. After the second round, you only have 53% of the business, for example. Do not be alarmed by this: this smaller percentage has a greater absolute value - the investments are financing your growth

Checklist for valuing the business and raising equity

- ❑ Do your ideas and calculations answer the following questions?
- ❑ Who are the investors you want to deal with?
- ❑ Can the investor achieve his target return, and satisfy his other interests with your business?
- ❑ What is a realistic value for your business? What assumptions are the calculations based on?
- ❑ What investment will you get for what percentage of your equity?
- ❑ What additional contribution can the investor make, apart from his financial commitment ("smart money")?
- ❑ What are the contractual arrangements for the investor's exit, and for further increases of capital?

Appendix
