Financials

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Agenda

- Concepts to be addressed
  - What is financial management and why is it important?
  - Basics of finance: financial statements, projections, cash flow
  - Key financial issues for entrepreneurs

- You can download a copy of this presentation as a pdf file at
  - http://www.chandb.com/resources.htm

What is financial management?

Definition: The management of the finances of a business or organisation in order to achieve financial objectives (London School of Business & Finance)

- Are there any differences between financial objectives and other business objectives?
- Taking a commercial business as the most common organisational structure, the key objectives of financial management would be to:
  - Create wealth for the business
  - Generate cash, and
  - Provide an adequate return on investment bearing in mind the risks that the business is taking and the resources invested

… but I'm a start-up entrepreneur, so surely all that is not relevant to me?

- Why is financial management important for ALL businesses?
- If you need external financing you will have to convince investors that they will get a return. If you cannot convince them that your financial management is sound they are unlikely to believe you
- If you don't need external finance then you are very lucky, but you will still need robust financial management to ensure you are on-track to achieve your business plans. This means sound:
  - Financial Planning
  - Financial Controls
  - Financial Decision-making
- You will need to learn about both Management Accounting and Statutory Accounting

Two types of accounts?

- Statutory Accounts definition
  - A Statutory Account is an “involuntary account”, which is created by law rather than by business need
- Management Accounts definition
  - Set of summarized accounting data (balance sheet, cash flow, and income statement) prepared and presented (usually every month, fortnight, or week) specifically for a firm's management. The objective of management accounts is to provide timely and key financial and statistical information required by managers to make day to day and short-term decisions

There are three key elements to the process of financial management:

- Financial Planning
  - Management need to ensure that enough funding is available at the right time to meet the needs of the business. In the short term, funding may be needed to invest in equipment and stocks, pay employees and fund sales made on credit.
  - In the medium and long term, funding may be required for significant additions to the productive capacity of the business or to make acquisitions.
- Financial Control
  - Financial control is a critically important activity to help the business ensure that the business is meeting its objectives. Financial control addresses questions such as:
    - Are assets being used efficiently?
    - Are the businesses assets secure?
    - Do management act in the best interest of shareholders and in accordance with business rules?
- Financial Decision-making
  - The key aspects of financial decision-making relate to investment, financing and dividends:
    - Investments must be financed in some way – however there are always financing alternatives that can be considered. For example it is possible to raise finance from selling new shares, borrowing from banks or taking credit from suppliers
    - A key financing decision is whether profits earned by the business should be retained rather than distributed to shareholders via dividends. If dividends are too high, the business may be starved of funding to reinvest in growing revenues and profits further.

source: London School of Business & Finance

Funding for the evolution of a new high-tech company (in theory)

Stage	*Funding*
Basic research in an academic institute	Research council grant (often), other third party funding (FF&F)
Research yields results with potential future commercial value – founding scientists set up company, first patents filed	University challenge fund, other seed fund, angel investor(s)
Company re-locates to own facilities (business incubator or science park), external CEO brought in	First serious VC funding (A round) organised by new CEO
Company research advances to proof-of-concept stage. Management team strengthened. Licensing or co-development agreements may be sought with major trade companies.	Second VC funding (B round, with existing and new VCs), Increasingly big pharma venture investors also taking "non-strategic" equity stakes Licensing partners provide cash or equity funding as part of project specific deals. Cash injections usually based on the achievement of milestones
Company may have to change research focus if initial results are not as encouraging as hoped	*Third VC funding is often necessary, but difficult (C round, if it then needs a D round, then D may mean "Dead")*
Company strategic review with investors "can we make it on our own?"	If yes, then IPO, if no (more likely) then investors look for trade buyer

Every funding step requires a fresh assessment of the VALUE of the company
The value is based on an estimation of the profit the company is likely to generate

So what's a company worth?

- *"A man will pay £2 for a £1 item if he wants it, whereas a woman will pay £1 for a £2 item she doesn't need"*
- The only right answer to the question "what's it worth", is
  - "*What someone is prepared to pay for it"*
- This also means that value, like beauty, is in the eye of the beholder. One company (or investor) may place a higher value on a company or project than another because they perceive a value in that investment that they, perhaps, can uniquely exploit.
- Financials need to be prepared and presented in a way that investors can see the value TO THEM

If you wanted me to invest in your business ...

1) what sort of things do you think I would attribute value to?

2) how would you convince me to invest?

Where does the value come from?

- Clever science has no value
- It is only the commercial exploitation of clever science that has value – the value is in the numbers, not the science
- However, this commercial exploitation will take place quite a way into the future, so there also needs to be an assessment of the risk that the project will fail before it reaches Nirvana
- If the financial management of the company is not seen to be solid, then an investor will assume the projected returns are high risk
- The assessment of risk and future financial returns are determined using a wide variety of different valuation methodologies (although in practice, only a few types are used)

Preparing the financials - Annual Reports

- Contents vary by country (ie, by which country's accounting principles the accounts are supposed to be following)
- UK accounts will have (at least)

1. Chairman's statement
2. Directors' report
3. Profit and Loss account
4. Balance Sheet
5. Cash Flow statement
6. Notes supporting (3) through (5)
7. Report of the auditors

That's the problem the bits with the numbers in

- *NB: Small companies do not have to prepare a cash flow statement by law, but it is a good idea to do so – especially for cash burn companies like biotechs*

Three types of chart, but they overlap

- **Profit & Loss, or Income Statement**
  - A monetary record of the activities of a business between 2 fixed dates – usually a year apart (called the accounting period). Usually the accounting period is a calendar year or the tax year depending on what suits you best
  - It contains information on sales made during the year, the cost of making those sales and any other expenses that the business has incurred. It also shows the amount of interest the company has paid or received, plus any tax it has paid and hence the amount of profit it has made
  - But to understand the "truth" behind the numbers you also have to understand the conventions that the company has followed in drawing up the chart (more on this later)
- **Cash Flow Statement**
  - A record of cash flows into and out of the company during the accounting period
  - NOT the same as the P&L Statement, but the "notes to the accounts" often helps reconcile between the two
- **Balance Sheet**
  - Unlike the P&L and Cash Flow Statements, the Balance Sheet is a snapshot of the assets and liabilities of the company at a fixed point in time – at the close of business on the last day of the accounting period

The Profit & Loss, or Income Statement

Assuming all figures in £m and this is the annual report for year end 31 Dec 2011

Top line: Revenues = what I sold, *say*	100
Cost Of Goods (COGs), manufacturing costs, *say*	15
gives Gross Profit (or gross margin)	85
Operating expenses (or OPEX), several categories like:	
R&D, *say*	15
Sales, General & Admin (all mktng and admin costs), *say*	30
other, *say*	5
gives operating profit, or Earnings Before Interest & Tax (**EBIT**)	**35**
Financial result (interest earned less interest paid), say	-5
gives Profit Before Tax (**PBT**)	30
Tax, say	10
gives Profit After Tax (**PAT**) or Net earnings	20

Assuming in this example there are 250 million shares in issue so the **Earnings Per Share (eps)** was £0.08.
Note, if the company raises cash by issuing more shares then the eps would go down.
Most companies try to make the eps go up each year.
One way to do this is if the company has surplus funds is to buy back its own shares

The numbers never lie, do they?

- After all, an external firm of auditors, have approved the accounts haven't they?
- At the end of the accounts is the auditor's report. In this report, the auditor states whether the accounts have been prepared in accordance with Generally Accepted Accounting Principles (GAAP) and whether, in his **opinion**, the accountants give a **true and fair** picture of the company and their financial position
- The auditor is NOT stating that the accounts are accurate or absolute, just that they have been put together in a recognised and consistent way

Some points concerning the P&L statement

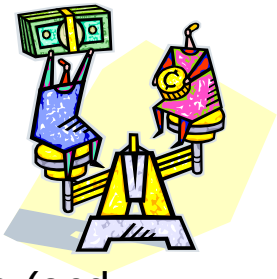
- Although the figures relate to the performance of the company between two exact dates (1 Jan to 31 Dec 2011 in this example), most of the numbers are not "exact", a certain amount of "fiddling" is allowed
- If the company processes an order in December then it would (usually) book that order as a sale (ie, include it in the revenue line) even if the company did not get paid until the following year.
- Companies have a degree of flexibility in deciding whether to process the order before or after the year end depending on what revenue number they want to show in their books (but they must apply a consistent revenue recognition policy). This can be particularly important for companies with seasonal sales:
  - Eg, antibiotics, where up to 80% of the sales of primary care antibiotics for chest infections can occur during the two worst winter months only – sometimes these months are before the end of the calendar year, sometimes they are after
- These adjustments can also occur in the expense lines as well.
  - Eg, if the company commits to incur a cost for the following year (eg, in December the company could commit to a major promotional event in January), it should accrue the expense in its figures for December
- Finally "hidden" in the expense lines are the notional amounts that the company writes-off for depreciation. Depreciation is usually spread around the various OPEX lines which means you can't find exactly how much the company really spent on (say) sales and marketing from looking at the P&L statement alone

The Cash Flow Statement

- … contains a statement of cash flows into and out of the company during the year
- Either within the cash flow statement, or in the notes accompanying the statement, there is a reconciliation between the Operating Profit (or EBIT) and Net Cash Flow
- One (or more) of these lines gives the figure for Depreciation and Amortisation
- …in our example we will assume the figure for depreciation and amortisation is 8 million
- Hence: EBIT = £35m
- EBITDA = £42m (Earnings Before Interest, Tax, Depreciation and Amortisation)
- A Finance Director's explanation of the Cash Flow Statement*
  - Starting point = pre-tax profit plus depreciation
  - Other money coming in = cash that may come in from time to time to swell the pot
  - "No choice" expenditure = interest on the company's borrowings plus taxes (though deferred tax, charged to the P&L but not paid will add to the pot)
  - "Virtually no choice" expenditure = dividends, though there is no legal obligation to declare a dividend no matter how much profit is generated
  - End point = what's left in the pot
- Cash Is King, especially for cash burn companies. A company that doesn't make a profit can continue for many years, but a company that runs out of cash may not get a second chance

* source: Interpreting Company Reports and Accounts, Holmes, Sugden & Gee

The Balance Sheet



- A snapshot of the company's assets and liabilities at a fixed point in time (end of trading on the last day of the accounting period)
- Assets are things the company owns and on which a value can be placed
  - Tangible assets = things that can be touched, like buildings, land, furniture, machinery, motor vehicles
  - Intangible assets = things like patents rights, trademarks and (sometimes) the value of accumulated R&D
- Liabilities are amounts owned by the company
- Net assets are all assets minus all liabilities
- Shareholders' funds = share capital (shares issued to / purchased by shareholders at their nominal value) plus all accumulated reserves (such as any profits retained in the company)
- The "balance" part of the Balance Sheet is that Total Shareholders' Funds always equals Total Net Assets

Linking the P&L to the share price: the Price Earning Ratio (PER)

- As at close of business yesterday (3 July 2012) the share price was £1.25
- There are 250 million shares in issue so the **Market Capitalisation** was £312.5 million
- And the **PER_{2011}** was 15.625X (the **Price Earnings Ratio**) *because the PAT was £20m – on earlier slide*
- …. that is the Market Cap. / PAT. Note, the Market Cap. is as 3 July 2012, but the PAT is for the year ending 31-Dec-11, hence the PER should have the "11" suffix after it
- Sometimes it is more appropriate to use a forecast for PAT, then the PER would have either "12" or "13" after it. Note, this is a ratio of a forecast of profit but with the share price at the current point in time
- Usually an "aggregate" of investment analyst forecasts are used for future projections of PAT

A word about PERs

The bits on the top include the value of the company's cash and debt

$$\frac{\text{Market Capitalisation}}{\text{Profit After Tax}} \quad \textit{(same thing)} \quad \frac{\text{Share Price}}{\text{Earnings per share}}$$

The bits on the bottom include interest received or paid as a result of that cash or debt

- If two companies have more or less the same kind of business, but the PER of the first one is higher than the second then the market is assuming that the first one will grow its EPS faster than the second
- Sometimes it is more appropriate to look at the value of the company by its ability to generate cash. This means taking out anything to do with assets and debt and interest received or paid, as well as removing any allowances for depreciation or amortisation

The underlying value of the company without its cash or debt = Enterprise Value (sometimes called the Technology Value in biotech)

- If this company with a Market Cap of £312.5m issued a further 10 million shares at £1.25 per share it would have raised an additional £12.5m of cash
- The number of shares in issue would now be 260m and, if the share price stayed the same, the Market Cap would now be £325m
- The only change in the company's accounts is that it would have more cash. The "underlying value" of the business would be unchanged
- The name given to this underlying value is the Enterprise Value (EV). It is the Market Cap of the company less all its liquid assets and/or plus its debt
- The EV is usually less than the Market Cap (especially for biotech companies), but it can be more if the company has a lot of debt.
- In the late 1990s, after the bubble "burst" and share prices fell, several biotech companies had a negative EV (ie, their Market Cap was less than the cash they had in the bank). This situation has repeated itself several times since and is a major reason why IPOs are so unpopular
- Instead of PER ratios, it is often better to compare companies using the ratio EV/EBITDA
- **The theoretical Trading Value of a private company can be estimated by applying the same PER and/or EV/EBITDA ratios from comparable quoted companies.**

.. but when advisers get it wrong, they really get it wrong

Case Study: Sellside Process

A study on how not to use financial statements

The beautiful but unwanted child

- During the early part of 1999, and as part of a business rationalisation exercise, a European conglomerate decided to divest its pharmaceutical subsidiary
- Although not publicly announced, this fact became well known and much interest was generated in the marketplace which resulted in unsolicited approaches to the conglomerate from a number of potential trade buyers
- The conglomerate, acting on the advice of several investment banks, decided that it should ignore these approaches and conduct a formal auction. It invited a group of investment banks to take part in a "beauty parade" to decide which one should conduct the auction

The beauty parade

- Six banks were invited to pitch for the project based on their experience in the sector, although most of that experience was obtained through the management of M&A transactions involving blue-chip pharmaceutical companies.
- Each bank presented their valuation of the company. They knew that the winner of the bid process would be the one that could convince the parent that they could realise the highest value for the company (and as their fee would a percentage of the transaction value they had another incentive to "think big"). At no time was any doubt expressed that the sale may prove difficult.
- The following positive points were made:

The sale represents a rare opportunity for a bidder to acquire an attractive medium-sized pharmaceutical business with critical mass in the key market area of Western Europe. It also has critical mass in several less important market areas. As such it has infrastructure assets which could be of interest to many companies which are seeking to expand into these geographies.

Valuing the rare opportunity

Looking at the trading valuations of "comparable" companies we would anticipate a value of between 2.5 and 4.5 billion Euros for this rare opportunity

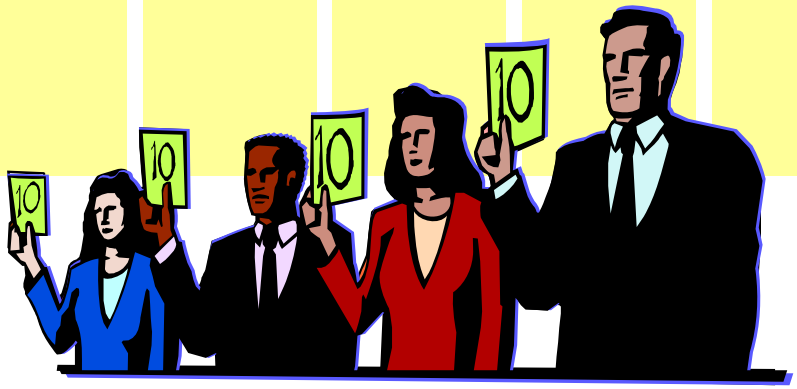
(plus a bid premium of course)

All figures in mil Euros	GW	Merck	Pfizer	SB	The opportunity
Sales	13,728	35,397	15,292	13,552	**750**
EBITDA	4,827	9,799	3,274	4,131	**120**
Market Capitalisation	75,650	160,630	190,553	75,498	
Enterprise Value	67,299	158,507	189,379	75,194	
					weighted average **value**
EV/EBITDA	13.9X	16.2X	57.8X	18.2X	22.3X **€ 2,671**
Multiple of sales	5.5X	4.5X	12.5X	5.6X	6.4X **€ 4,832**

And the winner was …

… but although Morgan Stanley has been involved in nearly all of the major M&A transactions at that time, it had little experience in selling medium to small companies

Lead advisers in recent M&A transactions	Pharmacia	Novartis	Nycomed / Amersham	Astra / Zeneca	Sanofi / Synthelabo	GW / SB	Aventis	Pfizer / Warner-Lambert
Bear Sterns	P&U							
JP Morgan	P&U	Ciba						
Morgan Stanley	Monsanto	Sandoz	Amersham	Astra	Sanofi	SB		
Goldman Sachs	Monsanto		Nycomed	Zeneca		GW	RPR	
UBS Warburg		Ciba						
Deutsche			Nycomed					
Lehmans					Synthelabo			
Lazards							HMR	Pfizer
Rothschilds							RPR	
Merrill Lynch								Pfizer



The rare opportunity

- The company's product portfolio covered a diverse range of therapy areas and was made up of a high number of small products. This factor would always limit the overall attractiveness of the company as a complete entity.
- The abundance of small products in its portfolio also limited its ability to improve operating margins towards industry standards.
- The company had set itself the goal of growing faster in its key therapy areas than the growth forecast for these markets as a whole, despite having a weak product portfolio
- As Morgan Stanley compiled the Information Memorandum (IM) it realised that the company's projections could only support a value of around 2 billion Euros (against the 2.5 to 4.8 billion it had probably estimated during its pitch)
- It was highly unlikely that any of the bidders would be as optimistic as the company when forecasting profit growth

These facts were well known at the start of the sale process

Attrition of the bidders

PROGRESS BY MONTH

month 1: **over 30 interested parties ask for the IM**

month 2: **10-15 indicative bids made**

month 3: **5 invited to conduct full Due Diligence**

month 4: **2 final bids**

month 5: **sale withdrawn**

Morgan Stanley's Dilemma

- Morgan Stanley were unprepared for the negative comments made by the bidders as they had only limited experience with non-blue-chip pharma companies
- Although they received offers for parts of the business, they believed that they could sell the whole
- Critically, they did not investigate these partial bids to see whether it would be possible to realise the desired sale price through selling the attractive assets and closing down the unattractive parts of the business
- *During the later stages of the sale process Morgan Stanley became heavily involved in the GlaxoWellcome / SmithKline Beecham merger. Hence it is possible that individuals within the Morgan Stanley healthcare team saw the large merger to be more career-enhancing than dealing with the awkward sale, and so the commitment to the project may have wavered*

The Outcome

- After the sale process was aborted, the company retained a consultancy to restructure the business into what is believed to be a more “sellable” combination of different business units
- The more attractive oncology business was sold to a major pharma company in 2001 for 525m Euros
- The rump of the business was re-named but continued to struggle for some time.
- Eventually the remaining business was sold (but not until 2005) to a small Scandinavian company for 750m Euros
- Hence the company was eventually sold for a total of 1.255 billion, but the costs of restructuring and continuing operations would have further significantly reduced this value

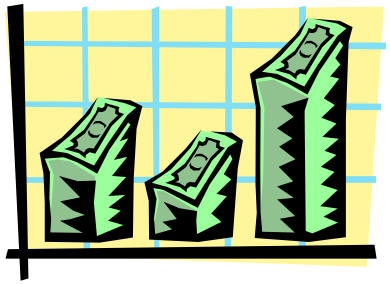
Key Lessons

- The value of a company is a function of its unique commercial and technical asset base - comparisons with other companies can be misleading, unless their unique commercial and technical assets are also considered
- The sales process must focus on what the bidder wants to buy – not on what is for sale
  - Flexibility in response is needed – even if bidders want what you have to sell, they may prefer a different packaging
  - Customising the offering for different bidders not only maximises the chances of success, but also enables the seller to obtain a higher share of the synergy benefits

Financial projections for cash burn companies

- Cash burn companies like (most) biotechs (usually) don't make a profit, so they don't have a PAT or an EBITDA, so investors will not be looking at financial ratios – they will have to use an Net Present Value (NPV) calculation when looking at your company
- However, projections for biotech companies are very risky so some sort of adjustment has to made for the risk – the "risk adjusted NPV"
- Many investment analysts value biotech companies by performing a separate NPV calculation for each development project then multiplying the result by a "probability of technical success" factor based on the stage of development of the project (eg, phase I projects 10%, phase II 25%, phase III 35%, etc)
- This is a very inaccurate way of calculating risk – much better is to use an analysis of exactly what has been achieved so far in development.
- Whichever tool is used, the sum of the NPVs for each project gives the Enterprise Value of the company. The amount of cash in the bank has to be added to get to the Trading Value
- The fact that share prices fluctuate so wildly for biotech stocks is a reflection of the fact that risk assessments are very subjective – and bad news is always punished more than good news is rewarded!

So what will your company be worth?



- Right answer: *What anyone is prepared to pay for it*
- Methods to estimate what that value could be include:
- Looking at similar quoted companies and apply multiples of the quoted companies to the target company (eg, PER, EV/EBITDA, Sales/Mkt.Cap, etc). Make sure you give a range based on max, min and median multiples. *This gives estimation of trading value*
- Conduct Discounted Cash Flow analysis to arrive at a Net Present Value. *This also gives estimation of trading value*
- Offers for a company need to include a *Bid Premium.* This is often determined by looking at precedent transactions (eg, when UniChem bid for Lloyds Chemists their offer was 30% above the then market capitalisation of Lloyds), but should be based on the *synergy benefits* that can be easily realised by the acquirer

Problems inherent in financial projections for high-tech / high-risk companies

- **You can't foresee all eventualities when assessing funds required to develop the product**
  - You cannot predict how long you will need to fund early stage research before you "get lucky"
  - Development timelines can be faster or slower than predicted
  - Changes in regulatory environment can mean more work will need to be done
  - The impact of inflation on costs cannot be predicted
  - Etc, etc, etc
- **Forecasting is always wrong**
  - Launch delays can have a big impact on the competitive environment at launch
  - Pricing is a black art and, especially in life sciences, the introduction of new forms of payer price control and market access mechanisms can have a big impact on future returns
  - The product profile only becomes accurately known during development and this has a massive impact on the commercial attractiveness of the product
  - Your largest market may not be the one you are looking at right now
  - A good forecast is one which is just as likely to be high as it is to be low
- **No-one can assess the risk inherent in a single development project**
  - It will either work (probability of success = 1) or it won't (probability of success = 0), but investors will consider the attrition rates of a portfolio of "similar" projects when risk-adjusting what they think your business is worth

Forecasting: bottom up and top down examples

- **Bottom up approach example:**
  - *"We have investigated the epidemiology of [disease area] in the target markets (incidence and prevalence). We utilised data from a variety of market research reports (Visiongain, Datamonitor, Decision Resources, Kalorama, SMI and Business Insights) – all of whom have published material on the market in the last 24 months.*
  - *We investigated treatment trends in the target markets (diagnosis, percentage treated, classes of products used and trends in the use of products that could compete with ours*
  - *We supplemented this data by conducting a limited Key Opinion Leader interview programme in our target markets which generated additional market research on treatment trends and the positioning of this product with others of the same class"*
- **Top down approach example:**
  - *"We investigated the development of the markets that we will be selling into on both a unit and cash basis using data from IMS Health*
  - *We also correlated the responsiveness of competitor sales development to sales and marketing infrastructure employed (again using IMS data)"*

NB: you cannot use a top down approach in a new or undeveloped market

Financial projections - summary

- All forecasts are wrong
- If a forecast turns out to be accurate it is an accident
- Good forecasts are as likely to be high as they are likely to be low
- If you are looking at someone else's forecast you need to understand their incentives when making the forecast
- Your business plan forecast must make your assumptions crystal clear
  - Costs to develop your product (including capital expenditure needed)
  - Timelines to develop your product
  - Size of the market at launch
  - Pricing of your product versus competitors
  - Costs needed to support the sales of your product
  - Share you will capture over time
  - Alternative financial projections if your assumptions are wrong

Some VCs have had a rough time over the last decade

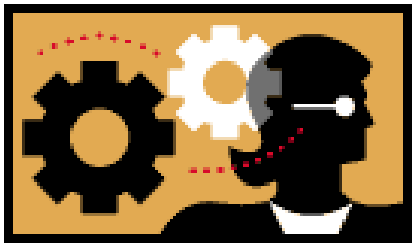
No matter how robust your financial projections, they may start from a position of cynicism

We should have exited this investment by now - we cannot justify further investment

This is no longer one of our attractive holdings

Our value development is taking longer than we had hoped, but we still believe we have potential, but we will need more funds to get there

We are sure that major trade partners will be interested in our IP



Problem child

Investor

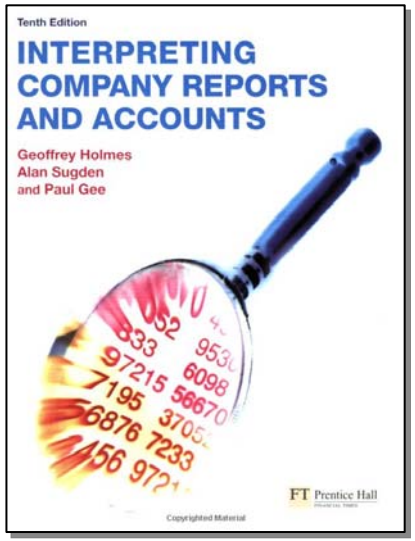
Financing licensing deals: As seen by the out-licenser

- This project is the “Crown Jewel” of our company
  - All parents believe theirs is the most beautiful child in the world
  - No matter what the competitive realities are, ours will obviously the best product for treating the disease
  - *This clouds our view of value*
- We will need to close the deal faster than you will want to move because:
  - We do not understand your internal approval process – how can you take so long
  - We might be running short of funds
  - The market is expecting us to close a deal on this product soon
  - *This clouds our view not only of value but also ideal deal structure*
- We agree that you can’t think of value without also thinking of risk
  - You think pushing value to the back-end is sensible risk management,
  - We just see it in terms of delayed cash flow

Conclusion

- Robust financial management is important for ALL companies, regardless of whether or not external investment will be needed
- The value of the company's technology depends on how it will be exploited
  - It is not an intrinsic figure
  - It will be viewed differently by different investors

Questions & discussion



Recommended further reading

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