
CHAPTER 1

INTRODUCTION TO CORPORATE FINANCE

1. Finance relates to the decision-making and strategies of corporations. It is composed of three main elements.
 - a. The capital budgeting or investment decision.
 - b. The capital structure or financing decision.
 - c. Short-term capital management.

Each decision is framed within the general objective of maximizing firm value while ensuring that risk is appropriately managed.

Think a family, with one parent earning the monthly salary and the other looking after the children. Every month, money comes into the house and there will be times when the family needs to spend money on items like furniture. This will usually come from savings. However, sometimes, the family will want to buy a car or a house and will need to take out a loan for the investment. At all times, the family must have enough cash and this applies every single day. This example concerns a family, but if you change the object to a corporation, the same decisions need to be made. When we talk about financial decisions relating to families, this is known as personal finance, whereas when we talk about corporations, we call this corporate finance.

2. The investment decision refers to investments in projects that produce a higher rate of return than the firm's minimum hurdle rate. The financing decision refers to the optimal mix of debt and equity. Short-term capital management refers to activities related to working capital management that help ensure the liquidity and profitability of a company. The equity decision is explicitly a sub-component of the financing decision.
3. The statement assumes that the market is efficient and markets fully reflect the true value of the firm. In this context, the goal will be the same, but the best course of action toward that goal may be different because of differing social, political, and economic institutions.
4. Financial markets are market places where buyers and sellers trade assets, and they facilitate the raising of capital (e.g. IPOs, SEOs, bond issues), the transfer of risk (e.g. loans), the transfer of liquidity (e.g. the quick sale of assets such as stocks), and international trade (e.g. GDRs).
5. A depository receipt is a security carrying a legal claim on the cash flows from the deposited shares, and offers an indirect form of listing on a stock exchange. Companies often use depository receipts to circumvent listing problems in foreign markets. With a depository receipt, a firm deposits a number of its own shares with a bank, which in turn

issues a depository receipt. If the issuing firm pays dividends, the bank transfers the cash flows to holders of the depository receipts, after deducting a small fee. Global depository receipts refer to depository receipts issued outside U.S. markets.

6. This is quite a difficult task for students but it is useful in getting them to read through news stories and to familiarise them with financial websites. The expectations of the instructor should not be too great and the question is very useful for a first lecture in a Corporate Finance class. This answer to this question is very much up to the student. Give them websites that they can visit to collect data including Google, Yahoo! Finance, Reuters, and FT.Com. As an introductory question, it is an excellent way to get students to practically engage with the material and do their own research. You can even get them to prepare a presentation or do the question in groups.

7. $\text{Equity} = \text{Total Assets} - \text{Total Liabilities} = \text{€1,403} - \text{€1,253} = \text{€150 million}$
 $\text{Non-Current Assets} = \text{Total Assets} - \text{Current Assets} = \text{€1,403} - \text{€619} = \text{€784 million}$
 $\text{Non-Current Liabilities} = \text{Total Liabilities} - \text{Current Liabilities} = \text{€1,253} - \text{€338} = \text{€915 million}$

8. Step 1: Determine liability/equity ratio:

$$\frac{\text{liability}}{\text{equity}} = \frac{\text{€1,253}}{\text{€150}} = 8.353$$

Step 2: To find the current weightings of debt and equity in the new funding, you must actually calculate a new ratio, liability/assets.

$$\frac{\text{liability}}{\text{Assets}} = \frac{\text{€1,253}}{\text{€1,403}} = 0.8931$$

Step 3: The debt that is raised is thus €89.31 million and equity is €10.69 million.

Step 4: Check the new liability/equity ratio. The new level of liabilities is €1,342.31 million and the new level of equity is €160.69 million. The new ratio is:

$$\frac{\text{liability}}{\text{equity}} = \frac{\text{€1,342.31}}{\text{€160.69}} = 8.353$$

This is the same as the original liability/equity ratio.

9. There are three components to this transaction:
 - a. Cash outflow of £100 million will appear in cash flow statement. Current assets (cash) will fall by £100 million.
 - b. We now owe £3.4 billion. Given that it must be paid in 3 months, the amount will show up as an increase in current liabilities of £3.4 billion.
 - c. Non-current assets will increase by £3.5 billion.
10. The payment of £1,200,000 in twelve months is less because the cash flow is after the majority of £100,000 monthly payments. An example can show the intuition behind this. Assume the monthly interest rate is 1 per cent (it can be anything as long as it is above 0 per cent). The present value of cash flows is thus:

Annuity	PV(CF)	One	PV(CF)
---------	--------	-----	--------

y			Payment	
1	£100,000	£99,009.90		
2	£100,000	£98,029.60		
3	£100,000	£97,059.01		
4	£100,000	£96,098.03		
5	£100,000	£95,146.57		
6	£100,000	£94,204.52		
7	£100,000	£93,271.81		
8	£100,000	£92,348.32		
9	£100,000	£91,433.98		
10	£100,000	£90,528.70		
11	£100,000	£89,632.37		
12	£100,000	£88,744.92	£1,200,000	£1,064,939.07
PV		£1,125,508	PV	£1,064,939.07

11. You would choose the less risky project because both have the same expected value. In this case you would choose Project B, because the risk of losing and gaining money is less than in Project A.
12. Corporate social responsibility (CSR) is concerned with companies acting in a socially responsible manner with respect to the products they sell, the method of production, the firm's relationship with local communities, and the firm's relationship with its staff. Although some argue CSR is a waste of managerial time and investment in CSR should only occur if it generates a return greater than an alternative project, others believe CSR can become part of a company's overall competitive advantage since it can strengthen its relationships with important stakeholders.
13. There is no right or wrong answer to this question. However, the student is expected to discuss the pros & cons to a company of investing in CSR, and may back-up their answers with reference to empirical evidence. Pros could include a competitive edge gained by good PR, while cons could include the use of management time and company resources to non-core projects with very uncertain and subjective cash flow returns.

14. As the answer to question 6 suggests, the main reason firms choose different forms of financing relates to their cost. The financial manager should choose the funding flow that is cheapest and less risky. When firms are small, they are not able to list on stock exchanges and therefore they will only have access to private investment, be it a bank or a private investor. As they get bigger, stock exchanges become a viable option for funding and hence it can also be used.
15. Cash is a double-edged sword. Whereas a firm needs a minimum level cash to pay for bills, expenses, creditors, etc., having too much cash could tell investors that the firm is not investing in profitable new projects. Some questions will be asked to the management: a) Why are you not investing the money? B) Why are you not giving the cash back to shareholders? C) Are you wasting the cash in activities that are not value-maximizing?

Many companies that have lots of cash are targeted by other firms because there is a concern that the management of the cash-rich firm is not creating value. As a financial manager, you must have a very strong plan for why you are keeping cash and for what it is going to be used.

16. As a financial manager, the need to balance between the short and long term objectives of the firm is important. When the company is in trouble, the financial manager should manage financial planning to enhance short term liquidity to meet the firm's obligations. Therefore, in this case the objective of the firm will change from maximizing shareholders' wealth to firm survival and bankruptcy avoidance. However, other options such as asset sell-off can also be undertaken in order to pay creditors. This is consistent with maximizing firm value over the longer term if the manager can ensure that the firm survives.
17. Socially responsible investment (SRI) involves the consideration of ethical, social, and environmental factors in investment selection. While some believe that investments inspired by ethical or moral belief lack focus on profit maximizing, others argue that at the margin the addition of non-financial benefits may persuade an investor or fund manager to opt for the ethical fund. Empirically, ethical funds do not significantly outperform non-ethical funds. Nevertheless, the SRI market is continuing to grow at a rapid rate.
18. It is true. The benefit of this question is that the student learns an important empirical observation without having to delve too much into detail. Similarly, the more advanced student may be encouraged to do their own reading to find out more.
19. The main financial goal of any company must be to increase shareholder value, not profit. Profit is an accounting measure that reflects a notional level of business performance in the past. It includes non-cash allowances to account for depreciation in value of many large assets such as property, machinery, automobiles, etc. It also includes allowances for bills that have been received but not paid yet. Finally, it records sales as at the point of sale even though no cash has changed hands. Although

accounting data is exceptionally important, for making financial decisions it should be secondary to cash flow information.

20. The objective of the firm will remain the same, which is to maximize the market value of existing owners' equity. Principally, the goal does not change whether the company is private or public since good financial decisions increase the market value of the owners' equity and poor financial decisions decrease it.
21. The manager can argue on the basis of cost implications, since redundancy packages may be expensive. In addition, there could also be lawsuits, union activity all having a negative effect on firm image. Furthermore, redundancies may adversely affect the production process which will not only affect the firm's sales but also its loyal customers. Instead the new owners can identify other cost centres where cost savings can be made.
22.
 - a. Adding cost of living to retired employees will increase the cost to the company of the pension liability. This would reduce profitability and earnings per share. However, the cost of living adjustment may ensure that the workers value the company more and in turn become more productive.
 - b. As long as the return on the additional investment is greater than the return that the company currently makes on its operations, the decision is a good one.
 - c. Research and development investment is important in any new project. However, these expenditures tend to be high at the beginning and it is not certain whether the firm will reap any benefits from the investment. Research has shown that countries with high levels of technological innovation are likely to experience higher economic growth and so in general the benefits from R&D will be positive. The specificity of the R&D investment is also important.
 - d. Redundancies will reduce costs although their negative impact can be many-fold. For example, the company may have to deal with unions, strikes, and exceptionally poor publicity.
23. Dealers market are those markets where firms make continuous quotations of prices for which they stand ready to buy and sell money market instruments on their own inventory and at their own risk. Agency markets are those in which stockbrokers act as agents for customers in buying or selling shares on most stock exchanges; an agent does not actually acquire the securities. A well-functioning financial system will utilize both systems.
24. A cut in costs will increase profit in the statement of earnings/income. This is because expenses will decrease. The additional profit would appear in the statement of financial position or balance sheet as an increase in equity or retained earnings.
25. The founders assigned to themselves the shares that gave them more rights so that they effectively control the company. A drawback is that dual class shares create an inferior class of shareholders.
26. We go into Financial Statement Analysis in a lot more detail in Chapter 3. In this question, we will look at the statements of ABB Ltd in a very basic way. The main insight

is that the firm has accumulated a lot of assets in relation to its liabilities. There is also a significant increase in current liabilities in relation to long-term liabilities. However, the level of current assets has increased at the same level. Investigation would be required to determine what is actually driving the increase in current liabilities.

	2010 (SFr millions)	2009 (SFr millions)	2008 (SFr millions)	2007 (SFr millions)	2006 (SFr millions)
Current Assets	18,327	18,241	17,523	16,734	12,692
Non-Current Assets	7,915	6,868	6,344	5,680	5,485
Total Assets	26,242	25,109	23,867	22,414	18,177
Current Liabilities	12,102	10,541	11,499	10,468	9,027
Non-Current Liabilities	3,378	4,598	4,301	4,024	4,785
Total Liabilities	15,480	15,139	15,800	14,492	13,812
Total Equity	10,762	9,970	8,067	7,922	4,365
Total Liabilities plus Equity	26,242	25,109	23,867	22,414	18,177
Total Assets/Total Liabilities	1.695220	1.658564	1.51057	1.546646	1.31603
Total Current Assets/Total Non-Current Assets	2.315477	2.655941	2.762137	2.946127	2.313947
Total Current Liabilities/Total Non-Current Liabilities	3.582593	2.292518	2.673564	2.601392	1.886520
Total Current Assets/Total Current Liabilities	1.514378	1.730481	1.523872	1.598586	1.406004

27. The net investment is Sfr500 million and this could be funded by an issue of equity or debt.

28. Several things could happen to ABB's statement of financial position and is determined by how we treat the Sfr500 million payment. In the first instance (2011), total non-current assets and non-current liabilities will increase by Sfr500 million. In 2013, the Sfr500 million will be paid off meaning that non-current liabilities will decrease by Sfr500 million as will current assets. The statement of financial position looks like this for 2011 and 2013:

	2011 (SFr millions)	2013 (SFr millions)
Current Assets	18,327	17,827
Non-Current Assets	8,415	8,415
Total Assets	26,742	26,242
Current Liabilities	12,102	12,102
Non-Current Liabilities	3,878	3,378
Total Liabilities	15,980	15,480
Total Equity	10,762	10,762
Total Liabilities plus Equity	26,742	26,242

29. An analysis of ABB non-current liabilities/equity ratios show that they have been decreasing year on year from 1.10 (2006) to 0.31 in 2010. Assume that the desired non-current liabilities/equity ratio is 0.31. This would mean that 0.31 or Sfr157 million of the Sfr500 million investment would be funded by debt and Sfr343 million would be funded by equity. In this situation the statement of financial position would be:

	2011 (SFr millions)
Current Assets	18,327
Non-Current Assets	8,415
Total Assets	26,742
Current Liabilities	12,102
Non-Current Liabilities	3,535
Total Liabilities	15,637
Total Equity	11,105
Total Liabilities plus Equity	26,742

30. Yes. The main theme of UK and Germany regulation is similar which is on addressing investor protection and protection of quality of the information that market participants receive. The later will ensure that investors are informed before making decisions and enhance confidence which is crucial element for any well-functioning financial market.

31. The balance sheet model of Merck for 2010 and 2011 is given below:

2010

Assets	€ million	Liabilities	€ million
Current Assets	5,664.20	Current Liabilities	3,359.60
Non-Current Assets	16,723.80	Non-Current Liabilities	8,656.60
		Shareholder Equity	10,371.80
Total Assets	22,388.00	Total Liability & Shareholders' Equity	22,388.00
Net Working Capital	2,304.60		

2011

Assets	€million	Liabilities	€million
Current Assets	6,397.2	Current Liabilities	4,362.20
Non-Current Assets	15,722.90	Non-Current Liabilities	7,264.50
		Shareholder Equity	10,493.40
Total Assets	22,120.10	Total Liability & Shareholders' Equity	22,120.10
Net Working Capital	2,035.00		

The company has stayed rather stable between the two years. Total assets are similar. However, a closer look shows that there has been a shift from non-current assets and liabilities to shorter term current assets and liabilities. Current liabilities have increased by more than current assets and so net working capital has fallen.

32. Students should be encouraged to explore potential scenarios and solutions. There are, of course, many solutions to the YPF problem and no single solution dominates all others. The purpose of this question is to get students to put themselves in the shoes of a financial manager to understand that corporate finance is not mechanistic but inherently risky.
33. There is no one correct way to structure a stock exchange system and the exact structure is endogenously determined by the participants and liquidity of the exchange. The London Stock Exchange attempts to cover all bases by capturing the liquidity provided by dealers for small illiquid companies and the liquidity provided by public traders on the electronic order book for large high volume companies.
34. This is another question that gets students to undertake their own research. Instructors should give every encouragement to creative choices of companies.