



Financial statement and long-term financial planning

Financial statement

- When financial analysts need to value a business, they often starts by identifying a sample of similar firms.
- Balance sheet
- <https://www.youtube.com/watch?v=tcpW0mM4OD4>
- <https://www.youtube.com/watch?v=U5OLe5ZpqsU>

Financial statement

***Aggregate balance sheet for manufacturing corporations
in the United States, 2006 (figures in Billions).***

Current assets	\$ 2,002	Current liabilities	\$ 1,471
Fixed assets	2,547	Long term debt	1,069
Less	1,375	Other long term	926
depreciation		liabilities	
<i>Net fixed assets</i>	<i>1,172</i>	<i>Total long term liabilities</i>	<i>1,995</i>
Other long term	2,986	Stockholders' equity	2,695
<i>Total assets</i>	<i>6,161</i>	<i>Total liabilities and stockholders' equity</i>	<i>6,161</i>

Patterns of Corporate Financing

- A firm borrows money, it promises to make a series of interest rate payments and then repay the amount that it borrowed. If profits rise, the debtholders continue to receive only the fixed payment, so all gains go to the shareholders. Of course, the reverse happens if profit falls.

How do we define debt ?

$$\frac{\text{Debt}}{\text{Total assets}} = \frac{1,471 + 1,995}{6,161} = .56$$

$$\frac{\text{Long term liabilities}}{\text{Long term liabilities} + \text{equity}} = \frac{1,995}{1,995 + 2,695} = .43$$

Standardizing statements

- ❑ One obvious thing we might want to do with a company's financial statements is to compare them to those of other, similar companies.
- ❑ But.... it's almost impossible to directly compare the financial statements for two companies because of differences in size.
- ❑ For example, Ford and GM are obviously serious rivals in the auto market, but GM is much larger (in terms of assets), so it is difficult to compare them directly.
- ❑ It's difficult to even compare financial statements from different points in time for the same company if the company's size has changed.
- ❑ To start making comparisons, one obvious thing we might try to do is to somehow **standardize** the financial statements. One very common and useful way of doing this is to work with percentages instead of total dollars. The resulting financial statements are called **common-size statements**

Common-size balance sheets

Current Asset		2002	Current liabilities		1471
Fixed asset	2547		long term debt	1069	
Depreciation	1375		Other long term liabilities	926	
Net fixed assets		1172	Total long term liabilities		1995
other long term		2986	stockholder's equity		2695
Total assets		6161	Total liability		6161

Current Asset		32.5	Current liabilities		23.9
Fixed asset	41.3		long term debt	17.4	
Depreciation	22.3		Other long term liabilities	15.0	
Net fixed assets		19.0	Total long term liabilities		32.4
other long term		48.5	stockholder's equity		43.7
Total assets		100.0	Total liability		100.0

Ratio analysis

Another way of avoiding the problems involved in comparing companies of different sizes is to calculate and compare **financial ratios**. Such ratios are ways of comparing and investigating the relationships between different pieces of financial information.

Examples:

Current ratio = Current assets/Current liabilities

Cash ratio = Cash/Current liabilities

Current assets includes cash, marketable security, inventories, and account receivable. They are mostly liquid.

Price-Earning ratio

In March 2005, shares of stock in shipping company FedEx were trading for about \$95. At that price, FedEx had a price-earnings (PE) ratio of 20 meaning that investors were willing to pay \$20 for every dollar in income earned by FedEx.

At the same time, investors were willing to pay a whopping \$746 for each dollar earned by Computer Associates, but only \$11 and \$6 for each dollar earned by Allstate and United States Steel, respectively.

Meanwhile, the average stock in the Standard and Poor's (S&P) 500 Index, which contains 500 of the largest publicly traded companies in the United States, had a PE of about 20, so FedEx was about average in this regard.

Price-Earning ratio

PE ratio = Price per share/Earnings per share
= \$88/\$11 = 8 times

- We would say that shares sell for eight times earnings, or we might say that shares have a value of PE multiple of 8.
- Since the PE ratio measures how much investors are willing to pay per dollar of current earnings, higher PEs are often taken to mean that the firm has significant prospects for future growth. Of course, if a firm had no or almost no earnings, its PE would probably be quite large; so, as always, care is needed in interpreting this ratio.

Patterns of corporate financing

- <https://www.youtube.com/watch?v=7U1Se2q7fyU>
- <https://www.youtube.com/watch?v=ZlwanaoEVYC>
- Internal funds = depreciation + retained earning. In the US companies it is more than 2/3.
 - Plowback ratio = the amount of earnings retained after dividends have been paid. The opposite is payout ratio.
 - Shareholders are happy if it goes to a positive NPV investment.
- Financial deficit = Cash needed - internal funds
- To obtain cash in the event of financial deficit, sell either new equity or borrow
- How much to plowback? What portion to borrow?

Do firms rely too much on internal funds?

- Yes.
- To avoid the cost issuing new securities.
- Issuing new securities is a bad news for investors

How much do firm borrow?

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How do we define debt ?

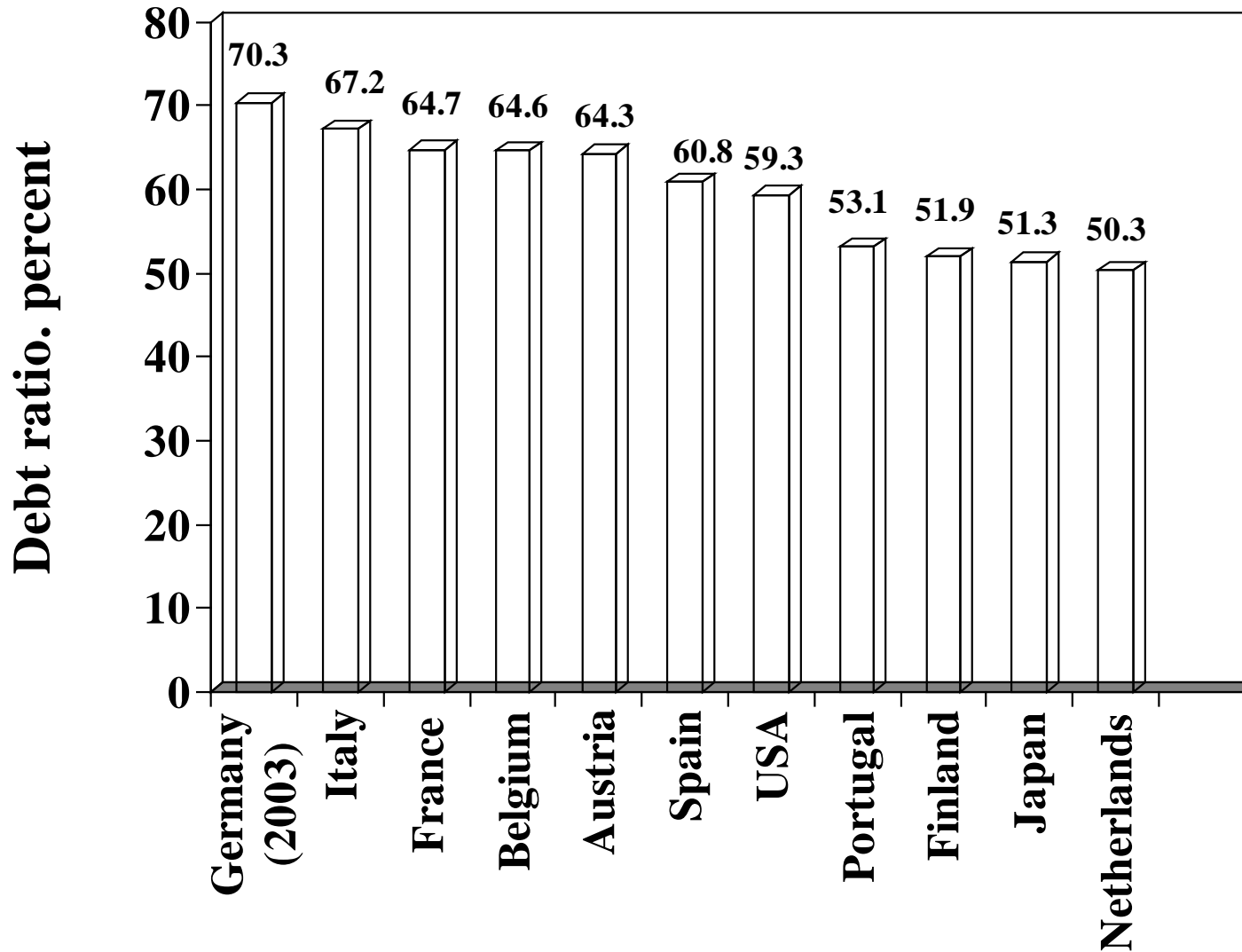
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□ If interested, read about financial distress tests

- https://www.youtube.com/watch?v=dsSrLB_Vq9s
- <https://www.youtube.com/watch?v=KNy9DbHno9k>
- <https://www.youtube.com/watch?v=Nh8x6iB8YcQ>

Patterns of Corporate Financing



Shares

- ❑ Authorized shares: The maximum numbers of shares that can be issued
- ❑ Issued shares: Actually sold
- ❑ Outstanding shares: Not sold
- ❑ Treasury shares: Bought back. They can be cancelled or resold

Common stock

- ❑ **Common stock** is a form of corporate equity ownership, a type of security. It is called "common" to distinguish it from preferred stock. If both types of stock exist, common stock holders cannot be paid dividends until all preferred stock dividends (including payments in arrears) are paid in full.
- ❑ **Preferred stock** generally has a dividend that must be paid out before dividends to common stockholders and the shares usually do not have voting rights.

Common stock

- ❑ In the event of bankruptcy, common stock investors receive any remaining funds after bondholders, creditors (including employees), and preferred stock holders are paid. As such, such investors often receive nothing after a bankruptcy.
- ❑ Common stock usually carries with it the right to vote on certain matters, such as electing the board of directors. However, a company can have both a "voting" and "non-voting" class of common stock.

Corporate debt

- ❑ Debt has the unique feature of allowing the borrowers to walk away from their obligation to pay, in exchange for the assets of the company (if the value of the assets is less than the amount of the debt).
- ❑ “Default Risk” is the term used to describe the likelihood that a firm will walk away from its obligation, either voluntarily or involuntarily.
- ❑ “Bond Ratings” are issued on debt instruments to help investors assess the default risk of a firm.

Corporate Debt

Prime Rate - Benchmark interest rate charged by banks.

Funded Debt - Debt with more than 1 year remaining to maturity.

Callable Bond - Bond that may be repurchased by firm before maturity at specified call price.

Corporate Debt

Subordinate Debt - Debt that may be repaid in bankruptcy only after senior debt is repaid.

Secured Debt - Debt that has first claim on specified collateral in the event of default.

Investment Grade - Bonds rated Baa or above by Moody's or BBB or above by S&P.

Junk Bond - Bond with a rating below Baa or BBB.

Corporate Debt

Eurodollars - Dollars held on deposit in a bank outside the United States.

Eurobond - Bond that is marketed internationally.

Private Placement - Sale of securities to a limited number of investors without a public offering.

Lease - Long-term rental agreement.

Corporate Debt

Warrant - Right to buy shares from a company at a stipulated price before a set date.

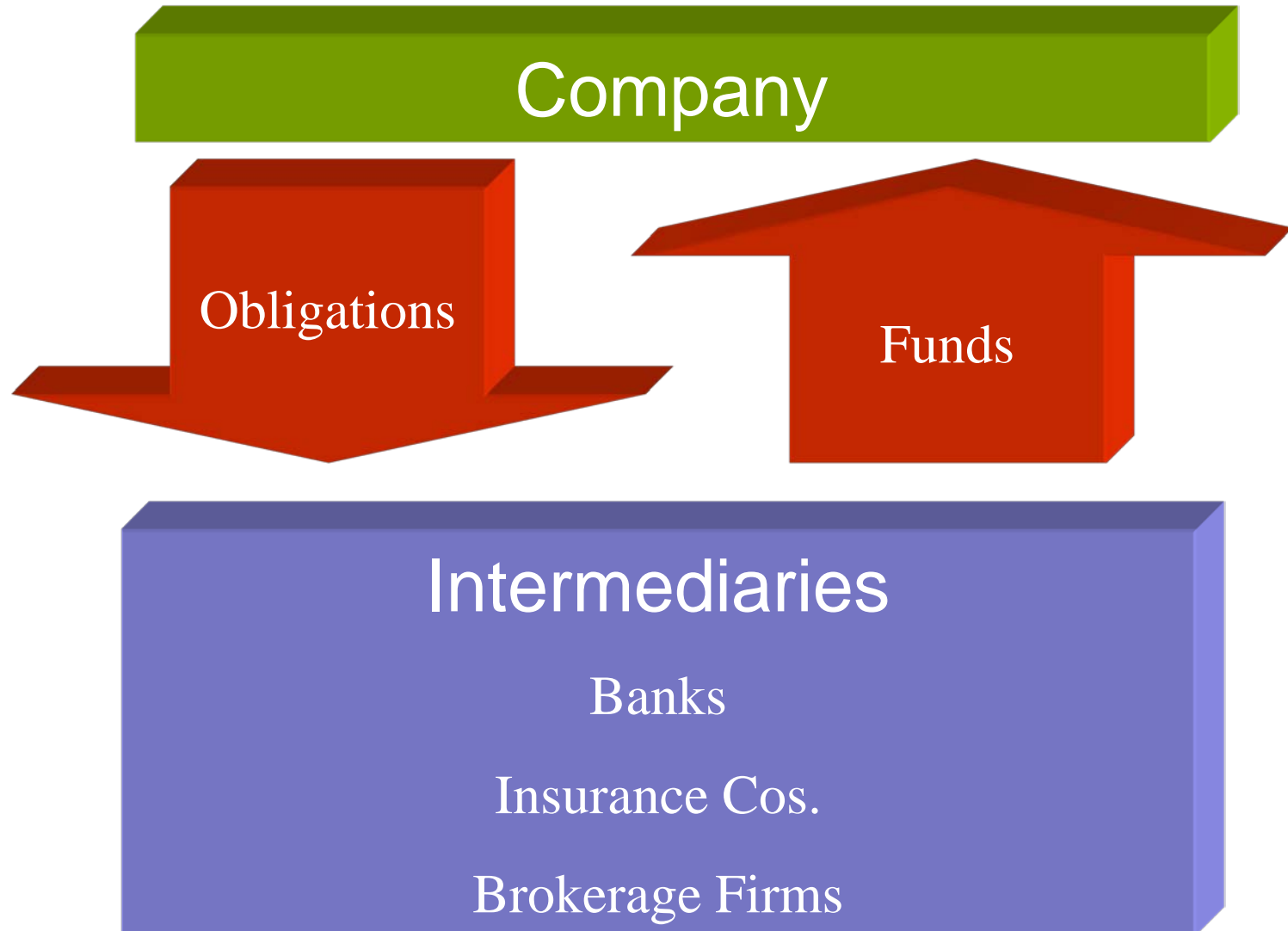
Convertible Bond - Bond that the holder may exchange for a specified amount of another security.

Convertibles are a combined security, consisting of both a bond and a call option.

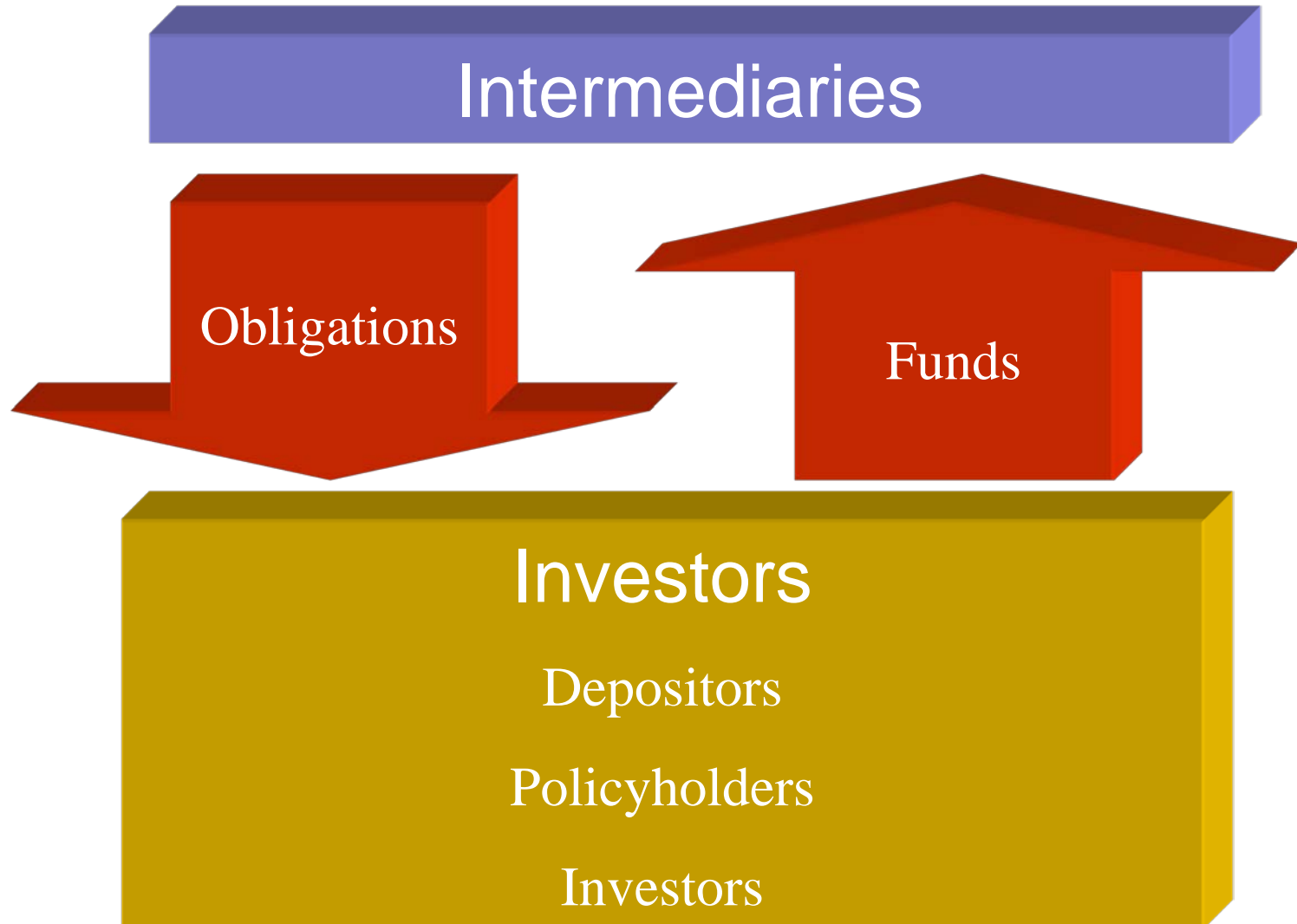
Financial Manager Questions

1. Should the company borrow short term or long term? e.g., to have more inventory for a season; to expand capacity
2. Should the debt be fixed or floating? e.g., short term; long term.
3. Should you borrow dollars or some other currency? In terms of currency you would spend.
4. What promises should you make to the lender? Pay as early as possible... senior debt; secured debt; collateral.
5. Should you issue straight or convertible bonds?

Financial Institutions



Financial Institutions



Financial markets

- Primary market: selling stock and bond to raise capital is called “primacy issue” and it is sold in primary market
- Secondary market: Trading stock and bonds among investors is called “secondary transaction” and it takes place in the secondary market.
- Risk pooling: diversifying risk