

FIN2704/X

Week 2

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Financial statements

Balance Sheet:

- $\text{Assets} = \text{liabilities} + \text{equity}$

Gift cards (revenue recognition)

- When a gift card is purchased:
 - it is recorded as a liability, not record revenue
- When the gift card is redeemed by the customer:
 - Firm reduces your company's gift card liability and record revenue
- "Breakage": Unredeemed gift card amounts

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Financial statements (cont.)

Statement of Retained Earnings:

- $\Delta RE = \text{Net Income} - \text{Dividend}$
- Records changes in *contributed capital*

Standardized financial statements:

- Common-Size Balance Sheets
Compute all accounts as a percent of total assets
- Common-Size Income Statements
Compute all line items as a percent of sales
- Common-Base Year Statements
Compute all line items as a percent of base year

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Values

Book value (of shareholders' equity)

PDF page 11/slide 12 on Week 2 slides

- Shareholders' equity as reported in Balance Sheet
 - Common stocks (i.e., how much the firm has raised from selling stocks) + RE

Market value

- Both market and book values are used. For example, by taking the ratio of the two
- Market value of firm's assets
- Market value of shareholders' equity

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Values (cont.)

Enterprise value of a firm

- Total value of the firm's business assets
- Two sources of firm's financing: debt & equity
- Therefore, enterprise value includes both (market value of) equity and debt (excl. non-operating assets, e.g., excess cash).

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Cash flows

In **Finance**, we care about **cash generated from operations** over the life of the asset/investment.

(PDF page 24/slide 25)

- Sources of cash (activities that bring in cash)
 - Decreases in assets (other than cash)
 - For example, a decrease in account receivable associated with receiving payments
 - Increase in liability & equity
- Uses of cash (activities that involve cash outflows)
 - Increases in assets (other than cash)
 - For example, an increase in inventory that you pay for with cash
 - Decrease in liability & equity
 - For example, a decrease in account payable associated with making payments to suppliers

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Cash flows

Cash Flow From Assets (CFFA)

- Cash flow generated from a firm's operating assets after taking into account all present investment needed for its on-going operations (PDF page 37/slide 41)

Cash Flow From Assets (CFFA[^]) =

Operating Cash Flow (OCF)

- Net Capital Spending (NCS)
- Changes in NOWC (Net Operating Working Capital)

Cash flows

Operating Cash Flow (OCF)

$$\text{OCF} = \text{EBIT} * (1 - \text{Tax rate}) + \text{depreciation}$$

- Interest expense is non-operating
- Depreciation is not a cash flow

Income Statement
For Year Ending December 31, 2019

Revenues	\$4,335,491
Cost of Goods Sold	1,762,721
Operating Expenses	1,390,262
Depreciation	362,325
EBIT	\$820,183
Interest Expense	52,841
Taxable Income	\$767,342
Taxes	295,426
Net Income	\$471,916

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Cash flows (cont.)

Net Capital Spending (NCS)

$\text{NCS} = \text{Ending Net Fixed Assets} - \text{Beg. Net Fixed Assets} + \text{depreciation}$

- Example from textbook page 33:
 - 2017 net fixed assets = \$1644 → this is the net fixed assets at the beginning of 2018
 - Annual depreciation = \$65
 - Supposed the firm did not purchase any new fixed assets in 2018
 - 2018 net fixed assets = $\$1644 - 65 = \1579 (at year end)
 - NCS should be zero (i.e., the firm did not purchase any new fixed assets in 2018)
 - $\text{NCS} = 1579 - 1644 + 65 = 0$

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Cash flows (cont.)

Net **Operating** Working Capital (NOWC)

- We use “net” and “operating”
- **Operating** means we exclude non-operating working capital.
 - For example, excludes interest bearing liabilities because it is the result of financing activities (not operation)
- Refer to PDF pages 39 and 41/slides 44 and 46 for formula.

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Cash flows (cont.)

Interest Tax Shield (PDF page 38/slide 43)

- Interest payments function to reduce the amount of taxes paid. As such, although interest payments are paid out in cash, they reduce the firm's tax payment than it otherwise would
- This reduction in the amount of tax paid is Interest Tax Shield

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Cash flows (cont.)

Other notes:

- Capitalized expenses
 - Expenses that are not recognized when they are incurred, but over a period of time (e.g., depreciation)
- Negative CFFA
 - Net cash outflow from asset (i.e., your assets are generating negative cash flows)
- Rounding up/down
 - Depends on the questions
 - Preserve as many decimal points as you can

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Class management

- Do not forget to register for a tutorial section
 - Tutorial sessions will start in Week 3
- **Watch pre-recorded videos before the lecture**
- One (1) question limit per student per week to give chance for other students to post their questions. Also, to encourage independent studies and collegiality where you discuss the questions for other students in the module.
 - Consult your textbook
 - Ask your tutors during tutorials
 - Send me an email if you still left with questions

Submit your question(s) at pollev.com/sulaeman

Questions due before Monday 8 AM.



Ratio analyses

$$\text{ROE} = \text{NI}^* / \text{Total common equity}$$

- * if there is preferred dividend, it should be deducted from NI

Dupont Identity: $\text{ROE} = \text{PM} * \text{TA TO} * \text{EM}$

- Textbook pages 69-70
- ROE is affected by 3 things:
 - Operating efficiency: Profit margin (PM) = NI/sales
 - Asset use efficiency: Total asset turnover (TATO) = sales/total assets
 - Financial leverage: Equity multiplier (EM) = total assets/total equity
- Affect of debt: $\text{ROE} = \text{PM} * \text{TA TO} * \text{EM}$

ROA

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Ratio analyses (cont.)

Other notes:

- Use of ratios
 - The ratio analysis can be done quickly and can give an early indicator of how the company is doing. This is useful if you are considering many companies.
- Other than comparing to the industry
 - Similar size companies (within similar industries)
 - Companies operating in the same regions

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General notes

- Rounding up/down
 - Depends on the questions
 - Preserve as many decimal points as you can
- Follow the FIN2704 slides for this module

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Week 2

List of topics

Note:

You are responsible for all materials covered in the pre-recorded videos posted on LumiNUS, unless they are marked “not examinable”. This list only serves to help you in your revisions.

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Week 2 topics

- Annual report & financial statements
 - Balance Sheet
 - Income Statement
 - Statement of Retained Earnings
 - Statement of Cash Flows
- Standardized financial statements
- Market value
- Enterprise value

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Week 2 topics (Cont.)

- Cash Flow from Assets (CFFA)
 - Operating Cash Flow (OCF)
 - Net Capital Spending (NCS)
 - Net Operating Working Capital (NOWC)
- Interest Tax Shield
- Cash Flow to Creditors
- Cash Flow to Stockholders

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Week 2 topics (Cont.)

- Ratio analyses
 - Time-trend analyses
 - Peer group analyses
- Liquidity ratios (short-term solvency)
- Long-term solvency ratios (financial leverage)
- Asset management ratios (efficiency)
- Profitability ratios
- Market value ratios

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FIN2704/X

Week 1

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Auction market

After the bid and ask price has been matched, what would the corresponding stock price be?

- The actual trade price, which may be anywhere between the bid and matched ask price.
- The "market maker" or the "dealer" will decide, and likely take profit.

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