经济管理学院
The college of Economics and Management

Lecture 3

Working With Financial Statements

Corporate Finance – Fall 2019

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Prelude

Following Chapter 2, Chapter 3 & 4 expand your understanding of the uses (and abuses) of financial statement information.

- Financial statements and numbers derived from these statement are primary means of communicating financial information both within the firm and outside the firm
- Financial statement information plays an important parts in decisions of many different types of users
- Accounting numbers are often just pale reflections of economic reality but they are frequently the best available information.
- Chapter 3 and 4 are first steps in transforming financial statement information to a form useful for decision making.

Learning objectives

LO1: How to standardize financial statements for comparison purposes

LO2: Know how to compute and, more importantly, interpret some common ratios

LO3: The determinants of a firm's profitability

LO4: Some of the problems and pitfalls in financial statement analysis

Chapter Outline

3.1 Cash Flow and Financial Statements: A Closer Look

3.2 Standardized Financial Statements

3.3 Ratio Analysis

3.4 The Du Pont Identity

3.5 Using Financial Statement Information

3.1.1 Sources and Uses of Cash

- Sources of cash
  - Cash inflow – activities that bring cash
  - Decrease in asset account (except cash because we finally check it)
    - None (Table 3.1, next slide)
  - Increase in liability or equity account
    - Accounts payable, common stock and paid-in surplus, retained earnings
- Uses of cash
  - Cash outflow – activities that involve spending cash
  - Increase in asset account
    - Accounts receivable, inventory, net plant and equipment
  - Decrease in liability or equity account
    - Notes payable, long-term debt

Table 3.1

Prufrock Corp.

Balance Sheet

	2014	2015	Change
Assets			
Current assets			
Cash	$ 84	$ 98	+$ 14
Accounts receivable	165	188	+ 23
Inventory	393	422	+ 29
Total	$ 642	$ 708	+$ 66
Fixed assets			
Net plant and equipment	$2,731	$2,880	+$149
Total assets	$3,373	$3,588	+$215
Liabilities and Owners' Equity			
Current liabilities			
Accounts payable	$ 312	$ 344	+$ 32
Notes payable	231	196	− 35
Total	$ 543	$ 540	−$ 3
Long-term debt	$ 531	$ 457	−$ 74
Owners' equity			
Common stock and paid-in surplus	$ 500	$ 550	+$ 50
Retained earnings	1,799	2,041	+ 242
Total	$2,299	$2,591	+$292
Total liabilities and owners' equity	$3,373	$3,588	+$215

- The simple statement tells us much of what happened during the year, but it doesn't tell the whole story -> more information needed
- For example, we observe that "increase in retained earnings" calculated from the balance sheet is the difference between net income and dividends (next slide)

Sources of cash:	
Increase in accounts payable	$ 32
Increase in common stock	50
Increase in retained earnings	242
Total sources	$324
Uses of cash:	
Increase in accounts receivable	$ 23
Increase in inventory	29
Decrease in notes payable	35
Decrease in long-term debt	74
Net fixed asset acquisitions	149
Total uses	$310
Net addition to cash	$ 14

Table 3.2

Prufrock Corp. Income Statement

PRUFROCK CORPORATION 2015 Income Statement ($ in millions)		
Sales		$2,311
Cost of goods sold		1,344
Depreciation		276
Earnings before interest and taxes		$ 691
Interest paid		141
Taxable income		$ 550
Taxes (34%)		187
Net income		$ 363
Dividends	$121	
Addition to retained earnings	242	

3.1.2 The Statement of Cash Flows

- Statement that summarizes the sources and uses of cash
  - The types of information will be similar, the exact order can differ
  - The key point is that we are trying to see what events led to the change of “cash” item (i.e., $14, from $84 to $98 in this example)
- Changes of cash are grouped into three categories:
  - Operating Activity – includes net income and changes in most current accounts
  - Investment Activity – includes changes in fixed assets
  - Financing Activity – includes changes in notes payable, long-term debt, and equity accounts, as well as dividends

PRUFROCK CORPORATION 2015 Statement of Cash Flows ($ in millions)	
Cash, beginning of year	$ 84
Operating activity	
Net income	$363
Plus:	
Depreciation	276
Increase in accounts payable	32
Less:	
Increase in accounts receivable	– 23
Increase in inventory	– 29
Net cash from operating activity	$619
Investment activity	
Fixed asset acquisitions	–$425
Net cash from investment activity	–$425
Financing activity	
Decrease in notes payable	–$ 35
Decrease in long-term debt	– 74
Dividends paid	– 121
Increase in common stock	50
Net cash from financing activity	–$180
Net increase in cash	$ 14
Cash, end of year	$ 98

PRUFROCK CORPORATION 2015 Sources and Uses of Cash ($ in millions)	
Cash, beginning of year	$ 84
Sources of cash	
Operations:	
Net income	$363
Depreciation	276
	$639
Working capital:	
Increase in accounts payable	$ 32
Long-term financing:	
Increase in common stock	50
Total sources of cash	$721
Uses of cash	
Working capital:	
Increase in accounts receivable	$ 23
Increase in inventory	29
Decrease in notes payable	35
Long-term financing:	
Decrease in long-term debt	74
Fixed asset acquisitions	425
Dividends paid	121
Total uses of cash	$707
Net addition to cash	$ 14
Cash, end of year	$ 98

- It is sometimes useful to present statement of cash flows differently as “sources and uses of cash” statement.
  - We can get a good idea of what happened during the year
    - we can easily figure out the major cash outlays and primary cash sources

3.2 Standardized Financial Statements

- Purposes
  - For different points in time
    - Standardized statements make it easier to compare financial information, particularly as the company grows
  - For different firms
    - Standardized statements are useful for comparing companies of different sizes, particularly within the same industry
- Types
  - 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-Size Balance Sheet

	2014	2015	Change
Assets			
Current assets			
Cash	2.5%	2.7%	+ .2%
Accounts receivable	4.9	5.2	+ .3
Inventory	11.7	11.8	+ .1
Total	19.1	19.7	+ .7
Fixed assets			
Net plant and equipment	80.9	80.3	− .7
Total assets	100.0%	100.0%	.0
Liabilities and Owners' Equity			
Current liabilities			
Accounts payable	9.2%	9.6%	+ .3%
Notes payable	6.8	5.5	−1.4
Total	16.0	15.1	−1.0
Long-term debt	15.7	12.7	−3.0
Owners' equity			
Common stock and paid-in surplus	14.8	15.3	+ .5
Retained earnings	53.3	56.9	+3.6
Total	68.1	72.2	+4.1
Total liabilities and owners' equity	100.0%	100.0%	.0

Common-Size

Income Statement

PRUFROCK CORPORATION 2015 Common-Size Income Statement		
Sales		100.0%
Cost of goods sold		58.2
Depreciation		11.9
Earnings before interest and taxes		29.9
Interest paid		6.1
Taxable income		23.8
Taxes (34%)		8.1
Net income		15.7%
Dividends	5.2%	
Addition to retained earnings	10.5	

TABLE 3.7

PRUFROCK CORPORATION
Summary of Standardized Balance Sheets
(Asset Side Only)

	Assets ($ in millions)		Common-Size Assets		Common-Base Year Assets	Combined Common-Size and Base Year Assets
	2014	2015	2014	2015	2015	2015
Current assets						
Cash	$ 84	$ 98	2.5%	2.7%	1.17	1.08
Accounts receivable	165	188	4.9	5.2	1.14	1.06
Inventory	393	422	11.7	11.8	1.07	1.01
Total current assets	$ 642	$ 708	19.1	19.7	1.10	1.03
Fixed assets						
Net plant and equipment	$2,731	$2,880	80.9	80.3	1.05	.99
Total assets	$3,373	$3,588	100.0%	100.0%	1.06	1.00

NOTE: The common-size numbers are calculated by dividing each item by total assets for that year. For example, the 2014 common-size cash amount is $84/3,373 = 2.5%. The common-base year numbers are calculated by dividing each 2015 item by the base year (2014) dollar amount. The common-base cash is thus $98/84 = 1.17, representing a 17 percent increase. The combined common-size and base year figures are calculated by dividing each common-size amount by the base year (2014) common-size amount. The cash figure is therefore 2.7%/2.5% = 1.08, representing an 8 percent increase in cash holdings as a percentage of total assets. Columns may not total precisely due to rounding.

3.3 Ratio Analysis

- Ratios allow for better comparison through time or between companies
- Ratios are used both internally and externally
  - Different sources and different people seldom compute financial ratios in exactly the same way
    - Be sure you know how the ratios are computed when you compare them

- Because there are so many accounting items, we could have a huge number of possible ratios
- Here we introduce some commonly used financial ratios
- As we look at each ratio, ask yourself:
  - How is it computed and what is the unit of measurement?
  - What is it trying to measure?
  - Why is that information important?
  - What might a high or low value tell us?
  - How might such values be misleading and how to improve?

- Categories of Financial Ratios
  - Short-term solvency (or liquidity ratios)
  - Long-term solvency (or financial leverage ratios)
  - Asset management (or turnover ratios)
  - Profitability ratios
  - Market value ratios

3.3.1 Short-Term Solvency, or Liquidity, Measures

- The firm's ability to pay its bills over the short run without undue stress -> focus on current assets and current liabilities
- Particularly interesting to short-term creditors
  - e.g. banks and other short-term lenders
- Today's amounts may not be a reliable guide to the future
  - Current assets and current liabilities don't live long enough
    - the book values and market values are likely to be similar
  - These assets and liabilities can and do change fairly rapidly

3.3.1 Short-Term Solvency, or Liquidity, Measures

Current ratio = Current Assets / Current Liabilities

- 708 / 540 = 1.31 times
- To (particularly short-term) creditors, the higher, the better
- To the firm, a high current ratio indicates
  - high liquidity
  - insufficient use of cash and other short-term assets
- In normal cases, we would expect that this ratio is at least 1
  - less than 1 means current assets < current liabilities
  - not a bad sign for a company with a large reserve of untapped borrowing power
- See Example 3.1 on the textbook

Quick ratio = (Current Assets – Inventory) / Current Liabilities

- (708 – 422) / 540 = .53 times
  - Notice that inventory accounts for more than half of Prufrock's current assets
- Inventory is often the least liquid current asset
  - Inventory is also the one for which the book values are least reliable as measures of market value
- Relatively large inventories are often a sign of short-term trouble
  - The firm may have overestimated sales and overbought or over produced
  - As a result, the firm's liquidity is tied up in slow-moving inventory

Cash ratio = Cash / Current Liabilities

- 98 / 540 = .18 times
- A very short-term creditor might be interested in cash ratio

NWC to total assets = Net Working Capital / Total Assets

- (708 – 540) / 3,588 = .05
- We use NWC as the numerator because it is frequently viewed as short-term liquidity

Interval measure = Current Assets / average daily operating costs

- 708 / (1,344 / 365) = 219.8 days
- If cash inflows began to dry up, how long could the business keep running?
- Also useful for newly founded or start-up companies
  - How long it can operate until it needs another round of financing?

3.3.2 Long-Term Solvency Measures

- The firm's long-term ability to meet obligations
  - measures its financial leverage

Total debt ratio = (Total Assets – Total Equity) / Total Assets

- (3,588 – 2,591) / 3,588 = .28 times
  - whether this is good depends on the matter of capital structure

Debt-equity ratio = Total Debt / Total Equity

- .28 / .72 = .38 times

Equity multiplier = Total Assets/Total Equity= 1 + Total Debt/Total Equity

- 1 / .72 = 1.38 times

Given any one of the three ratios, you can calculate the other two

Long-term debt ratio = Long-term Debt/(Long-term Debt + Total Equity)

- 457 / (457 + 2,591) = .15 times
- Financial analyst are frequently more concerned with a firm's long-term debt than its short-term debt
- Short-term debt will constantly be changing
  - Items such as accounts payable may reflect trade practice more than debt management policy

Times interest earned ratio = EBIT / Interest

- 691 / 141 = 4.9 times
- Measures how well a company has its interest obligations covered

Cash coverage = (EBIT + Depreciation) / Interest

- (691 + 276) / 141 = 6.9 times
- A measure of cash flow available to meet financial obligations
- "EBIT + Depreciation" (EBITD) is a basic measure of the firm's ability to generate cash from operations

3.3.3 Asset Management, or Turnover, Measures

- Describe how efficiently or intensively does a firm use its assets to generate cash? -> Sometimes called asset utilization ratios.

Inventory turnover = Cost of goods sold / Inventory

- 1,344 / 422 = 3.2 times
  - Prufrock sold off (turned over) the entire inventory 3.2 times
- As long as we are not running out of stock, the higher the ratio is, the more efficiently we are managing inventory

Days' sales in inventory = 365 / Inventory turnover

- 365 / 3.2 = 115 days
  - inventory sits 115 days on average before it is sold
- Describes how long it took us to turn it over on average

Receivables turnover = Sales / Accounts receivable

- 2,311 / 188 = 12.3 times
  - Profrock collected its outstanding credit accounts and reloaned the money 12.3 times during the year
    - We assume all sales are credit sales. If not, use total credit sales instead
- Describes how fast we collect on sales
- Also see Example 3.2 to find a variation named **payables turnover**
  - It is a measure of interest to creditors or potential creditors

Days' sales in receivables = 365 / Receivables turnover

- 365 / 12.3 = 30 days
  - Prufrock collects on its credit sales in 30 days
- Describes how fast we collect on sales
  - Frequently called the average collection period (ACP)

- Now we consider three “big picture” rations

NWC Turnover = Sales / NWC

- 2,311 / (708 – 540) = 13.8 times
- Measures how much work we get out of our net working capital
- As long as we aren’t missing out on sales, a high value is preferred

Fixed asset turnover = Sales / Net fixed assets

- 2,311 / 2,880 = .80 times
- For every dollar in fixed assets, Prufrock generated $.80 in sales

Total asset turnover = Sales / Total assets

- 2,311 / 3,588 = .64 times
- For every dollar in assets, Prufrock generate $.64 in sales

3.3.4 Profitability Measures

- These three measures are most widely used of all financial ratios
- The focus in this group is on the bottom line, net income

Profit margin = Net income / Sales

- 363 / 2,311 = 15.71%
  - Prufrock generates $.1571 in profit for every dollar in sales
- All other things being equal (usually not), the higher, the better

Return on assets (ROA) = Net income / Total assets

- 363 / 3,588 = 10.12%
- Measures profit per dollar of assets

Return on Equity (ROE) = Net income / Total equity

- 363 / 2,591 = 14.01%
- Measures profit per dollar of equity
- Because benefiting shareholders is our goal, ROE is the true bottom-line measure of performance

- Discussion on ROA and ROE
  - They are accounting rates of return
    - return on *book* asset and return on *book* equity
  - It would be inappropriate to compare them to rates in the financial markets (e.g. interest rate)
  - ROE exceeds ROA reflects the use of financial leverage

3.3.5 Market Value Measures

- Market price = $88 per share, Shares outstanding = 33 million, Net income = $363 million
  - Earnings per share = $363 / 33 = $11

Price-Earnings (PE) Ratio = Price per share / Earnings per share

- 88 / 11 = 8 times
  - Prufrock shares sell for eight times earnings
- Care is needed in interpreting this ratio
  - Measures how much investors are willing to pay per dollar of current earnings
    - Higher PEs are often taken to mean the firm has significant prospects for future growth
    - However, the PE of a firm with almost no earnings would also be large

Figure: Historical PE ratio of CSI 300 index 2005/4/15-2019/9/6 (Data source: iFind)

Figure: Historical PE ratio of CSI 500 index 2007/1/15-2019/9/6 (Data source: iFind)

PEG ratio = PE ratio / (expected future earnings growth rates * 100)

- Suppose the expected growth rate of EPS was 6% -> 8/6 = 1.33
- The idea of PEG is, whether a PE ratio is high or low depends on expected future growth
- High PEG ratios suggest that the PE ratio is too high relative to growth, and vice versa

Price-sales (PS) ratio = Price per share / Sales per share

- 88 / (2,311/33) = 1.26
  - As with PE ratios, whether a particular price-sales ratio is high or low depends on the industry involved
- PS ratio is useful especially in the case of negative earnings

Market-to-book ratio = Market value per share / Book value per share

- 88 / (2,591/33) = 1.12 times
- A value less than 1 could mean that the firm has not been successful overall in creating value for its stockholders
- Tobin's Q (a relevant ratio) = Market value of firm's assets / Replacement cost of firm's assets = Market value of firm's debt and equity / Replacement cost of firm's assets
  - Conceptually, the Q ratio is superior to the market-to-book ratio
    - The Q ratio focuses on what the firm is worth today relative to what it would cost to replace it today
    - The market-to-book ratio focuses on historical costs
  - In practice, Q ratios are difficult to calculate with accuracy
    - Estimating the replacement cost of a firm's assets is not easy
    - Market values for a firm's debt are often unobservable

Enterprise value = Total market value of the stock + Book value of all liabilities - Cash

- 88*33 + (540 + 457) – 98 = $3,803
- Enterprise value is an estimate of the market value of a company's operating assets (i.e., all the assets of the firm except cash)
  - It is not practical to work with individual assets -> we use the right-hand side of the balance sheet to calculate
  - Book value of debt is usually a reasonable approximation for market value, particularly short-term debt

EBITDA ratio = Enterprise value / EBITDA

- EBITDA ratio is similar in spirit to the PE ratio
- The difference is that it relates the value of all the operating assets (the enterprise value) to a measure of the operating cash flow generated by those assets (EBITDA)

Table 3.8

I. Short-term solvency, or liquidity, ratios	II. Long-term solvency, or financial leverage, ratios
$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$	$\text{Total debt ratio} = \frac{\text{Total assets} - \text{Total equity}}{\text{Total assets}}$
$\text{Quick ratio} = \frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities}}$	$\text{Debt–equity ratio} = \text{Total debt/Total equity}$
$\text{Cash ratio} = \frac{\text{Cash}}{\text{Current liabilities}}$	$\text{Equity multiplier} = \text{Total assets/Total equity}$
$\text{Net working capital to total assets} = \frac{\text{Net working capital}}{\text{Total assets}}$	$\text{Long-term debt ratio} = \frac{\text{Long-term debt}}{\text{Long-term debt} + \text{Total equity}}$
$\text{Interval measure} = \frac{\text{Current assets}}{\text{Average daily operating costs}}$	$\text{Times interest earned ratio} = \frac{\text{EBIT}}{\text{Interest}}$
	$\text{Cash coverage ratio} = \frac{\text{EBIT} + \text{Depreciation}}{\text{Interest}}$
III. Asset management, or turnover, ratios	**IV. Profitability ratios**
$\text{Inventory turnover} = \frac{\text{Cost of goods sold}}{\text{Inventory}}$	$\text{Profit margin} = \frac{\text{Net income}}{\text{Sales}}$
$\text{Days' sales in inventory} = \frac{\text{365 days}}{\text{Inventory turnover}}$	$\text{Return on assets (ROA)} = \frac{\text{Net income}}{\text{Total assets}}$
$\text{Receivables turnover} = \frac{\text{Sales}}{\text{Accounts receivable}}$	$\text{Return on equity (ROE)} = \frac{\text{Net income}}{\text{Total equity}}$
$\text{Days' sales in receivables} = \frac{\text{365 days}}{\text{Receivables turnover}}$	$\text{ROE} = \frac{\text{Net income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Equity}}$
$\text{NWC turnover} = \frac{\text{Sales}}{\text{NWC}}$	**V. Market value ratios**
$\text{Fixed asset turnover} = \frac{\text{Sales}}{\text{Net fixed assets}}$	$\text{Price–earnings ratio} = \frac{\text{Price per share}}{\text{Earnings per share}}$
$\text{Total asset turnover} = \frac{\text{Sales}}{\text{Total assets}}$	$\text{PEG ratio} = \frac{\text{Price–earnings ratio}}{\text{Earnings growth rate (\%)}}$
	$\text{Price–sales ratio} = \frac{\text{Price per share}}{\text{Sales per share}}$
	$\text{Market-to-book-ratio} = \frac{\text{Market value per share}}{\text{Book value per share}}$
	$\text{Tobin's Q ratio} = \frac{\text{Market value of assets}}{\text{Replacement cost of assets}}$
	$\text{Enterprise value–EBITDA ratio} = \frac{\text{Enterprise value}}{\text{EBITDA}}$

3.4 The DuPont Identity

3.4.1 A Closer Look at ROE

- The DuPont Identity is a famous way of decomposing ROE into its component parts
  - ROE = Net Income / Total Equity
    - Multiply by (Assets/Assets) and then rearrange
    - ROE = (Net Income / Total Equity) * (Assets / Assets)
    - ROE = (Net Income / Assets) * (Assets / Total Equity) = ROA * Equity Multiplier
      - The difference between ROA and ROE reflects financial leverage
  - Multiply by (Sales/Sales) again and then rearrange
    - ROE = (Net Income / Assets) * (Assets / Total Equity) * (Sales / Sales)
    - ROE = (Net Income / Sales) * (Sales / Assets) * (Assets / Total Equity)
    - ROE = Profit Margin * Total Asset Turnover * Equity Multiplier

- ROE = Profit Margin * Total Asset Turnover * Equity Multiplier
  - Profit margin is a measure of the firm's operating efficiency – how well it controls costs
  - Total asset turnover is a measure of the firm's asset use efficiency – how well does it manage its assets
  - Equity multiplier is a measure of the firm's financial leverage
- The DuPont identity tells you where to start looking for the reasons of a satisfactory / unsatisfactory ROE
  - Weakness in either operating or asset use efficiency will show up in a diminished ROA, which will translate into a lower ROE
  - Increasing debt will not necessarily increase ROE
    - It might be: greater debt -> higher interest expense -> lower profit margins

Examples of the DuPont identity

- GM's ROE had improved from 12.1 (1989) to 44.1 (1993)
- DuPont breakdowns for Yahoo! and Google

	ROE		Profit margin		Total asset turnover		Equity multiplier
Yahoo!							
2013	10.4%	=	29.2%	×	.279	×	1.29
2012	8.0	=	23.4	×	.292	×	1.17
2011	8.4	=	21.0	×	.368	×	1.18
Google							
2013	14.8%	=	21.6%	×	.539	×	1.27
2012	15.0	=	21.5	×	.535	×	1.31
2011	16.7	=	25.7	×	.522	×	1.25

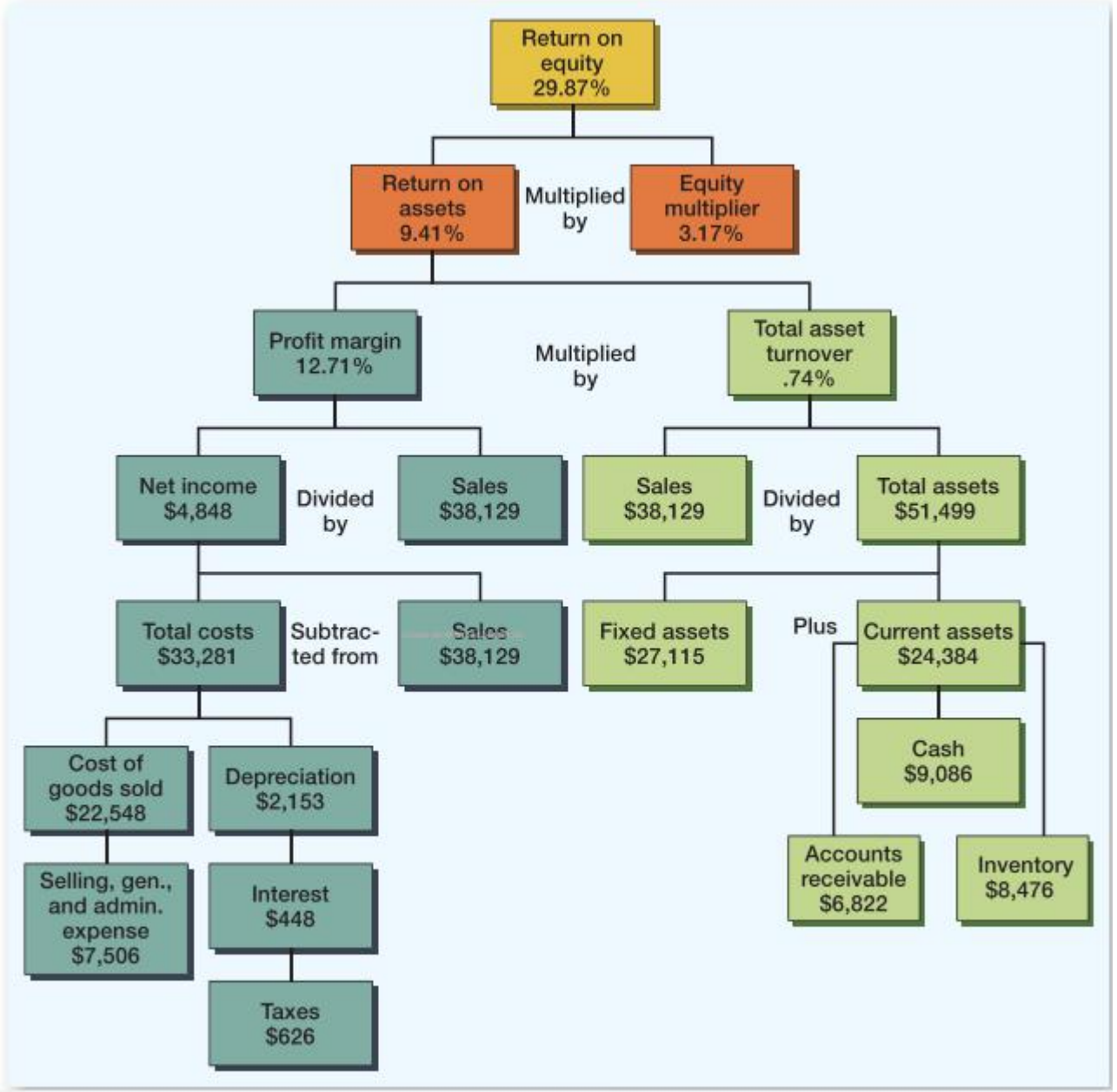
3.4.2 An Expanded DuPont Analysis

➢ Financial Statement for DuPont

FINANCIAL STATEMENTS FOR DUPONT
12 months ending December 31, 2013
(All numbers are in millions)

Income Statement		Balance Sheet			
Sales	$38,129	Current assets		Current liabilities	
CoGS	22,548	Cash	$ 9,086	Accounts payable	$11,646
Gross profit	$15,581	Accounts receivable	6,822	Notes payable	1,721
SG&A expense	7,506	Inventory	8,476		
Depreciation	2,153	Total	$24,384	Total	$13,367
EBIT	$ 5,922				
Interest	448	Fixed assets	$27,115	Total long-term debt	$21,903
EBT	$ 5,474				
Taxes	625			Total equity	$16,229
Net income	$ 4,848	Total assets	$51,499	Total liabilities and equity	$51,499

- Extended DuPont Chart
  - It examines several ratios at once to get a better overall picture of a company's performance
  - It allows us to determine possible items to improve



3.5 Using Financial Statement Information

3.5.1 Why Evaluate Financial Statements?

- The primary reason for looking at accounting information is we don't have (and can't reasonably expect to get) market value information
- Internal uses
  - Performance evaluation: compensation, comparison between divisions
  - Planning for the future: it is a guide in estimating future cash flows
- External uses
  - Parties that care about a firm's financial health
    - Creditors (both short-term and long-term), Suppliers, Customers, Stockholders and potential investors
  - Evaluating main competitors (discern their financial strength)
  - Acquire another firm (identify potential targets and decide what to offer)

3.5.2 Choosing a Benchmark

- Ratios are not very helpful by themselves; they need to be compared to something
- Time-Trend Analysis
  - Used to see how the firm's performance is changing through time
- Peer Group Analysis
  - Compare to similar companies or within industries
  - SIC and NAICS codes

3.5.3 Problems with Financial Statement Analysis

- There is no underlying theory, so there is no way to know which ratios are most relevant
- Benchmarking is difficult for diversified firms
- Globalization and international competition makes comparison more difficult because of differences in accounting regulations
- Different accounting procedures (e.g. FIFO vs. LIFO)
- Different fiscal years
- Unusual or transient events
- …

Epilogue

- This chapter has discussed aspects of financial statement analysis:
  - Sources and uses of cash
  - Standardized financial statements
  - Ratio analysis
    - Five categories of common financial ratios
    - DuPont identity
  - Using financial statements
- After this chapter, you have obtained some perspective on the uses and abuses of financial statements.
  - Your vocabulary of business and financial terms has grown substantially

CH3 Compulsory Assignments (Due at 11 a.m. 2019/9/18)

BASIC QUESTIONS 3, 6, 13, 14, and INTERMEDIATE QUESTION 18

- Hand in an excel file named “class-name-student number”
- Make sure that the answer of each question includes full intermediate process.