

# REVIEW FOR EXAM #1

## EXAM #1

Thursday, September 19<sup>th</sup>

**7:15** – 9:15 AM

- For Online Students: **Friday through Tuesday**  
**(deadline: Tuesday, 9/24)**
- Don't Forget:
  - Financial Calculator
  - A Black Pen (*preferably*)
  - *Reminder about the back side*

## THINGS TO DO...

- Study both the notes and the book.
- Do suggested problems.
- Do more problems!
- Be comfortable with calculator, but understand concepts (e.g., timeline).
- Get help if you are having problems.

## HELP!

- Wednesday Review
  - 9:30 – 10:45 AM in GBB 3018 (recording posted)
- Office Hours
  - Tuesdays and Thursdays
  - 11:00 AM – 12:00 Noon
  - *or by appointment*
- You can ask questions up to your exam time

## **THINGS NOT TO DO...**

- Study solutions and not do problems.
- Memorize all the formulas.
- Forget your calculator.
- Think bad thoughts about me between now and the exam.

## **EXAM CONTENT AND STRUCTURE**

## **FINANCIAL STATEMENTS AND TAXES**

- Chapter 2 (2.1 – 2.3 and 2.6) and Orientation
- Financial Statements
  - Balance Sheet, Income Statement, Statement of Cash Flows
  - How are they constructed? What do they tell us? Things to Keep in Mind
  - Sources and Uses of Cash
- Taxes
  - Calculation
  - Average and Marginal Tax Rates

## **FINANCIAL STATEMENT ANALYSIS**

- Chapter 3 (3.1 – 3.3) and Orientation
- Common-size Financial Statements
- Ratios
  - How to use them/interpret them/what they tell us
  - How they are related
- DuPont Identity
- Uses and Limitations of Ratio Analysis

## **OVERVIEW OF FINANCIAL MANAGEMENT**

- Chapter 1
- The Goal of the Firm
- The 3 Elements of Corporate Finance
- Sole Proprietorships, Partnerships, Corporations
  - Characteristics
  - Pros
  - Cons
- Agency Conflicts and How to Mitigate Them

## **FORECASTING**

- Chapter 3 (3.4 – 3.6)
- Using the EFN Formula
- Calculating the Internal Growth Rate and Sustainable Growth Rate
- Forecasting Financial Statements to Calculate EFN
- The Impact of Additional Interest on Estimated EFN

## **DISCOUNTED CASH FLOW VALUATION**

- Chapter 4
- Present and future values of single and multiple cash flows
- Present values of perpetuities and growing perpetuities
- Present and future values of annuities
- Ordinary annuities vs. annuities due
- APR vs. EAR
- Amortization
- Solving for any of the unknown variables
- Setup vs. Calculator

## **CASES**



# QUESTIONS AND PRACTICE PROBLEMS

## PRACTICE PROBLEM 1

- When you were born, your dear old Aunt Minnie promised to deposit \$500 into a savings account bearing a 5% compounded annual rate on each birthday, beginning with your first. You have just turned 21 and want the dough. However, it turns out that dear old (forgetful) Aunt Minnie made no deposits on your fifth and eleventh birthdays. How much is in the account right now?

## **PRACTICE PROBLEM 2**

- Yostex is forecasting a 12% increase in sales next year (2020). Assets, spontaneous liabilities, depreciation, and operating expenses are expected to increase in proportion, as the firm is operating at full capacity. However, Notes Payable, Long-term Debt, and Interest are expected to remain constant, and the firm is not expected to issue or buyback any shares. The tax rate and payout ratio are not expected to change.
- Using the information on the attached balance sheet and income statement, calculate external funding needed for Yostex Corporation in 2020 using pro forma financial statements.

<b>Yostex Corporation</b>					
<b>Balance Sheet</b>					
<b>October 31, 2019 and 2018</b>					
<b>(In \$ millions)</b>					
<b>Assets</b>	<b>2019</b>	<b>2018</b>	<b>Liabilities (Debt) and Stockholder's Equity</b>	<b>2019</b>	<b>2018</b>
Current Assets:			Current Liabilities:		
Cash	\$550	\$500	Accounts Payable	\$1,100	\$1,000
Marketable Securities	110	100	Notes Payable	384	200
Accounts Receivable	2,750	2,500	Accrued Expenses	550	500
Inventories	<u>1,650</u>	<u>1,500</u>	Total Current Liabilities	<u>\$2,034</u>	<u>\$1,700</u>
Total Current Assets	\$5,060	\$4,600	Long-Term Liabilities:		
Fixed assets:			Long-Term Debt	<u>1,100</u>	<u>1,000</u>
Property, Plant, Equipment	\$5,300	\$5,125	Long-Term Liabilities	\$1,100	\$1,000
Less Accumulated Depreciation	<u>(1,450)</u>	<u>(1,625)</u>	Stockholder's Equity:		
Net Property, Plant, Equipment	<u>3,850</u>	<u>3,500</u>	Common stock	4,312	4,400
Total Assets	<u>\$8,910</u>	<u>\$8,100</u>	Accumulated Retained Earnings	<u>1,464</u>	<u>1,000</u>
			Total Equity	<u>\$5,776</u>	<u>\$5,400</u>
			Total Liabilities and Stockholder's Equity	<u>\$8,910</u>	<u>\$8,100</u>

<b>Yostex Corporation</b>		
<b>Income Statement</b>		
<b>For Year Ended October 31, 2019 and 2018</b>		
<b>(In \$ millions)</b>		
	<b>2019</b>	<b>2018</b>
Total Operating Revenues	\$11,000	\$10,000
Cost of Goods Sold	(8,500)	(8,000)
Selling, General, and Administrative Expenses	(860)	(500)
Depreciation	<u>(380)</u>	<u>(360)</u>
Earnings Before Interest and Taxes	\$1,260	\$1,140
Interest Expense	<u>(120)</u>	<u>(100)</u>
Pretax Income	\$1,140	\$1,040
Taxes (40%)	<u>(456)</u>	<u>(416)</u>
Net Income	<u>\$684</u>	<u>\$624</u>
Dividends	\$220	\$200

### **PRACTICE PROBLEM 3**

- You are looking to buy a car. You will use \$4,200 in savings and finance the rest. You believe you can get a 36 month loan at 3% APR. If your desired car will cost \$36,500 out the door, how much will be your monthly payments?

## **PRACTICE PROBLEM 4**

- Continuing with the previous example, how much interest will you pay in the first six months?

## **PRACTICE PROBLEM 5**

- Continuing with the previous example, assume you can only budget \$600 per month for a car payment. If you instead take out a 5 year loan, what is the most your desired car can cost?

## **PRACTICE PROBLEM 6**

- The following information is for Lowe's Companies, Inc. for 2018:
  - Net profit margin = 3.2450%
  - Total Asset Turnover = 2.0664
  - Debt Ratio = 0.8944
  
- Calculate ROE, ROA, and the Debt-Equity Ratio.