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FINANCIAL ACCOUNTING
PRELIMINARY FINAL REVIEW

Summary of Key Accounting Topics

Before midterm

- Revenue Recognition
- Accounts Receivable
- Inventory (LIFO vs. FIFO)
- PP&E
- Statement of Cash Flows

After midterm

- Accounting for taxes
- Marketable securities
- Long-term bonds and leases
- Investments and consolidations

REVENUE RECOGNITION

Key Questions

- Has revenue been earned?
e.g. warranty, deferred revenue/income, discounts, price protection policies
- If sales are on credit, is the cash collectible?

Criteria for Revenue Recognition

- A significant portion of the production and sales effort has been completed
- The amount of revenue can be objectively measured
- The major portion of the costs has been incurred, and the remaining costs can be reasonably estimated
- The eventual collection of the cash is reasonably assured

ACCOUNTS RECEIVABLE

Allowance for Doubtful Accounts

Be sure to match bad debt expense against same period sales

- Percentage of credit sales – used to determine bad debt expense
- Aging – 1) sort receivables by days outstanding
2) assign each group a percentage of uncollectible
3) used to determine ending balance in the allowance account
- Specific Identification

Know how to reverse-engineer using relevant formulae

- $A/R_{EB} = A/R_{BB} + \text{Credit Sales} - \text{Cash Received} - \text{Write-off} + \text{Recovery}$
- $ADA_{EB} = ADA_{BB} + \text{Bad Debt Expense} - \text{Write-off} + \text{Recovery}$

COGS/INVENTORY

Key points

- Price changes require a cost flow assumption to value COGS and remaining inventory
- LIFO and FIFO give very different pictures of the same underlying activities

FIFO: First In First Out

- Current costs are on Balance Sheet (in inventory) while older costs are on Income Statement (in COGS)

LIFO: Last In First Out

- Old costs are on Balance Sheet (in inventory) while current costs are on Income Statement (in COGS)
- Tax implications: in an environment of rising costs, using LIFO will reduce Net Income, hence taxes (LIFO conformity rule)

Comparing the Financial Statements of a LIFO company to a FIFO company

- Use LIFO reserve disclosures to improve comparability
 - $LIFO\ Reserve = INV_{fifo} - INV_{lifo}$
 - $COGS_{fifo} = COGS_{lifo} - \Delta\ Reserve$
 - $Cumulative\ tax\ savings = Tax\ rate * LIFO\ reserve$

PP&E/DEPRECIATION

- Depreciation matches the cost of fixed assets to the time periods they generate revenue
- Disposal of fixed assets can result in accounting gains or losses

How to Depreciate

- Determine the capitalized cost of the item (different for purchases versus construction)
- Estimate the useful life
- Estimate residual (salvage) value
- Choose a depreciation pattern (e.g. straight-line, accelerated)
- Know how to treat maintenance (expense) versus improvement (capitalize) costs

Where Does Depreciation Go?

- Expensed immediately for non-production-related assets
- Capitalized as Inventory costs for production-related assets (i.e. Manufacturing Plant)

PP&E/Depreciation Reverse Engineering

- Know which numbers to pull from the SCF and B/S
- Know how to set-up the table or the equations

THE STATEMENT OF CASH FLOW (SCF)

Three sections to the Statement of Cash Flow

- Operating
- Investing
- Financing

Direct and Indirect Statement of Cash Flows only differ in the Operating Section

- Direct Statement tracks all the transactions affecting the cash account on the Balance Sheet.
- Indirect Statement begins with Net Income and then adjusts for all non-cash events.
 - Gains are subtracted from, and Losses are added back to NI in the Operating Section.
 - Add back Depreciation, Amortization and other non-cash expenses
 - Deduct increases in Current Assets (and vice-versa)
 - Add increases in Current Liabilities (and vice-versa)

ACCOUNTING FOR INCOME TAXES – TEMPORARY TIMING DIFFERENCES

Temporary Timing Differences – Differences between pretax GAAP income and taxable income that will be **recaptured/reversed** at some point in the future. Temporary differences create *Deferred Tax Liabilities* and *Deferred Tax Assets*

- **Deferred Tax Liabilities (DTL)**

- Taxable Income < Pretax GAAP Income
- Taxes Payable < GAAP Income Tax Expense
- Taxpayer pays lower taxes today. A liability must be recorded to account for the added taxes to be paid at some point in the future.

- **Deferred Tax Asset (DTA)**

- Taxable Income > Pretax GAAP Income
- Taxes Payable > GAAP Income Tax Expense
- Taxpayer pays higher taxes today. An asset must be recorded to account for the value of lower taxes to be paid at some point in the future.

Timing Differences – Balance Sheet Equation

If transaction creates a **Deferred Tax Liability**:

GAAP Income Tax Expense = Taxes Payable to Governmental Agency + Δ **Deferred Tax Liability**

(Current expense)

(Deferred tax expense)

Assets	=	Liabilities	+	Retained Earnings
0		Taxes Payable ↑ Deferred Tax Liability ↑		Income Tax Expense ↓ OE

If transaction creates a **Deferred Tax Asset**:

GAAP Income Tax Expense = Taxes Payable to Governmental Agency - Δ **Deferred Tax Asset**

(Current expense)

(Deferred tax expense)

Assets	=	Liabilities	+	Retained Earnings
Deferred Tax Asset ↑		Taxes Payable ↑		Income Tax Expense ↓ OE

ACCOUNTING FOR INCOME TAXES – PERMANENT TIMING DIFFERENCES

- Scope differences
- Differences between financial statement (“pretax”) GAAP income and taxable income that will **never** be recaptured/reversed, e.g. Government Fines, Tax-Exempt Revenue.

Another way to look at *permanent* and *temporary* differences (ignore if this is more confusing)

Financial Statement Income Before Taxes (from I/S)

+/- Permanent Differences

Adjusted Income with Perm Differences

+/- Temporary Differences

Taxable Income

Effective Tax Rate = Income Tax Expense / Pretax Income

Income Tax Expense Per Financial Statement = Adjusted Income with Perm Difference * Statutory Tax Rate

Taxable Income * Statutory Tax Rate = Income Taxes Payable (cash to government)

Income Tax Expense – Income Taxes Payable > 0 Deferred Liability
 < 0 Deferred Asset

OTHER IMPORTANT CONCEPTS

- **Net Operating losses**
Carryback 2 years
Carryforward 20 years
NOL carryforwards are recorded as deferred tax assets
- **Valuation Allowance** – If benefits of a deferred tax asset (*never* for a deferred tax liability) are not likely to be realized, the value of the deferred tax asset balance should be reduced by the “valuation amount”
- **Financial Statement Disclosure for Accounting for Taxes**
Income Statement => Income Tax Expense
Balance Sheet => Deferred Tax Assets and Liabilities
SCF => Note Changes in DTA/DTL in Operating Section and taxes paid
Notes => More Explanation

MARKETABLE SECURITIES

REVIEW OF BASIC CONCEPTS

What criteria must be met to record an investment in a security as a current asset?

- Investment must be readily marketable (security can be sold and converted into cash on demand)
- Management must intend to convert the investment within the time period of current assets (one year or the operating cycle, whichever is longer).

Explain the difference in determining the classification of securities between *trading securities* and *available-for-sale*.

- ***Trading securities*** are bought and held principally for the purpose of selling them in the near future with the objective of generating profit on short-term price changes and are listed in the current section of the balance sheet.
- ***Available-for-sale securities*** are investments not listed as trading and can be either classified as current or long-term depending on management's intentions.

Review of Basic Concepts (continued)

Explain how end-of-period unrealized gains and losses are recorded for *trading securities* and *available-for-sale securities*.

- *Trading securities* – unrealized gains and losses appear on the income statement and thus reflected in retained earnings.
- *Available-for-sale* – unrealized gains and losses are considered permanent accounts and are carried under other equity in the stockholders' equity section of the balance sheet.

Long-Term Liabilities – Long-Term Debt

Terminology

- Par Value: stated or face value of the bond; the amount due at maturity
- Coupon Rate: the rate used to determine the periodic cash payments, if any. (Also called the “Stated Rate” in the book.) This rate is stated as the *annual* amount.
- Market Rate of interest at issuance: the rate used to determine the proceeds received by the firm when the bond is issued. This rate is also used to determine interest expense. (Also called the “Effective Rate” in the book.)
- Coupon Payment: $\text{Cash Interest Payment} = \text{Par Value} \times \text{Coupon Rate}$
- Interest Expense: $\text{Interest Expense} = \text{Net bond payable} \times \text{Market Interest Rate at issuance}$
- Zero-Coupon Bond: Bond with Coupon Rate of 0%
- Current Market Interest Rate: the rate used to determine the current market value of the bond. It is based on market conditions and risk characteristics of the borrower.

Bonds - Par/Discount/Premium (*Be sure you understand bonds sold at Par, and Zero-Coupon Bonds.*)

Bond Sells	Market Rate at issuance	Market Value at issuance	Coupon Payment
At Par	= Coupon Rate	= Par Value	= Interest Expense
At a Discount	> Coupon Rate	< Par Value	< Interest Expense
At a Premium	< Coupon Rate	> Par Value	> Interest Expense

Long-Term Debt - Balance Sheet Equation

If bond is sold **At Par**

(Note: Market Value = Par Value, Coupon Payment = Interest Expense)

	Assets		=	Liabilities		+	S. E.
Date	Cash			Bond Payable	Premium (Discount)		Retained Earnings
Issue	Market Value			Par Value			
6 mo.	(Coupon Payment)						(Interest Expense)
1 yr.	(Coupon Payment)						(Interest Expense)
...							
Maturity	(Par Value)			(Par Value)			

If bond is **Zero-Coupon** (special case of bonds sold At Discount)

	Assets		=	Liabilities		+	S. E.
Date	Cash			Bond Payable	Premium (Discount)		Retained Earnings
Issue	Market Value			Par Value	(Discount) ^a		
6 mo.					Discount Accrual ^c		(Interest Expense) ^b
1 yr.					Discount Accrual ^c		(Interest Expense) ^b
...							
Maturity	(Par Value)			(Par Value)			

^a Discount = Par Value - Market Value

^b Interest Expense = Net Bond Payable x Market Rate of interest at issuance
 = (Bond Payable + Premium (Discount) Balance) x Market Rate of interest at issuance

^c Discount Accrual = Interest Expense (only for Zero-coupon bonds)

LONG TERM DEBT – DISCLOSURES

Balance Sheet

Current portion of long-term debt in current liabilities Long-term debt
PV of Net Bond Payable = Present Value of Face Value + Present Value of
Coupon Payments

Income statement

Interest expense

Statement of Cash Flows

Operating – interest accrued but not yet paid, amortization of discount or premium

Investing – cash involved in purchase or sale of AFS debt

Financing – proceeds from issuance of debt, repayments of debt

Supplemental – disclosure of cash paid for interest at bottom of SCF

Notes to the Financial Statements

More detail, breakdowns of numbers that were lumped together in the F/S

Long-Term Liabilities – Leases

Terminology

- Operating Lease - lessee rents the property. Lessee charges rent expenses as they come due.
- Capital Lease - lessee essentially owns the property. Lessee records the leased asset in the balance sheet (i.e. capitalized) together with the corresponding lease obligation.

Criteria for lease capitalization

A lease is considered a capital lease if ANY of the following conditions apply:

- Essential transfer of ownership at the end of lease term - No payment for leased asset, or Bargain purchase option (BPT) (Payment below market value after the lease term)
- Minimum present value of lease payments (including BPO, if any) at least 90% of asset's market value
- Lease term is 75% of asset's remaining useful life - Bargain renewal option (BRO) - renewal of the lease for a rental below the expected fair market rental value, essentially extending the life of a lease

Leases - Balance Sheet Equation

If lease is an Operating Lease

At the inception of the lease, any payment in advance is recorded as prepaid rent. When the lease terminates, prepaid rent = 0.

	Assets		Liabilities	S. E.
<i>Type of transaction</i>	Cash	Prepaid Rent		R. E.
<i>Payment in advance (if any)</i>	(cash paid)	cash paid		
<i>During Lease</i>		(rent payment)		(rent payment)
<i>OR</i>				
<i>Pay when due</i>	(rent payment)			(rent payment)

If lease is a **Capital Lease**

- Accounting is similar to acquiring an asset with a 100% debt financing.
- Any payment in advance is recorded as an immediate reduction in the lease liability.
- During the lease, interest (based on the market rate at lease inception) and depreciation expense are recognized.
- When the lease terminates, the lease obligation is zero and Leased Property - Acc. Depr. = 0

	Assets			Liabilities	S. E.
Date	Cash	Leased Property	-Acc. Depr.	Lease Obligation	Retained Earnings
Lease inception		Lease liability ^a		Lease Liability	
Payment in advance (if any)	(amt paid)			(amt paid)	
Each lease period	(lease payment)			(reduction) ^c	(Interest Exp.) ^b
			Depr Exp		(Depr. Exp.)

- ^a Present Value of Lease Payments (PV of an ordinary annuity)
- ^b Interest Expense = Interest Rate x Beginning Balance of Lease Obligation
- ^c Reduction = Lease Payment - Interest Expense (*Plug value*)

ACCOUNTING FOR INVESTMENTS IN OTHER COMPANIES

Three methods – appropriate method depends on extent of influence of investor over investee

- Market Method – passive influence, less than 20% ownership, use trading/AFS accounting learned in marketable securities lectures
- Equity Method – significant influence, ownership between 20-50%, investor records its proportional share of investee's income and dividend activity
- Consolidation Method – controlling influence, ownership greater than 50%, consolidated financial statements that treat parent (investor) and subsidiary (investee) as single economic entity

Consolidation method – minority interest and goodwill

Minority Interest

- Represents other investors' share (interest) in subsidiary assets and earnings
- Classified as either a long-term liability (indeterminate life) or a separate component of shareholders' equity on the balance sheet

Goodwill

- Excess of purchase price over fair market value of net assets purchased
- In the past, goodwill was amortized over a period of up to 40 years for financial accounting purposes (U.S.)
- New accounting standards require (1) no amortization of goodwill and (2) review goodwill for impairment of value (i.e. is goodwill reasonably valued?)