

ĐỀ CƯƠNG ÔN THI TỐT NGHIỆP
KHOÁ K17 (2011-2014)
NGÀNH CAO ĐẲNG KẾ TOÁN CHUẨN PSU
MÔN KIẾN THỨC CHUYÊN NGÀNH (2 TC)

Mô tả:

Môn thi kiến thức chuyên ngành được thiết kế dựa trên 02 học phần Nguyên lý kế toán 2 (3 tín chỉ), kế toán tài chính 2 (3 tín chỉ)

Tổng số tín chỉ được thiết kế cho môn kiến thức chuyên ngành là 2 tín chỉ.

Mục tiêu

- Mô tả được chu trình kế toán
- Mô tả được các báo cáo tài chính
- Mô tả và minh họa được việc ghi sổ nhật ký các nghiệp vụ kinh tế phát sinh
- Giải thích được kế toán đánh giá lại tài sản
- Xác định được giá trị hàng tồn kho theo phương pháp lãi gộp
- Định nghĩa được kiểm toán, dịch vụ xác nhận và bảo đảm
- Hiểu được việc quản lý cơ sở dẫn liệu, kỹ thuật kiểm toán, hồ sơ kiểm toán, bằng chứng kiểm toán và hệ thống kiểm soát nội bộ

Ngôn ngữ: Tiếng Anh

Thời gian: 120 phút

Hình thức: Nguyên lý kế toán và Kế toán tài chính 2: Bài tập ngắn

NỘI DUNG ÔN TẬP

PRINCIPLE OF ACCOUNTING 2 (PSU - ACC 202)

1. Accounting equation.

$$\text{ASSETS} = \text{LIABILITIES} + \text{OWNERS EQUITY}$$

Assets: What is owned (or have rights to) = Resources: Cash, Equipment, Buildings, Accounts Receivable (money that is owed to the company so the company has rights to this)

Liabilities: What is owed = debts: Accounts payable, loans, mortgages, notes etc.

Owner 's Equity: What the owners should get if the company closes today.

$$A = L + OE \quad ===== \quad A - L = OE$$

If the company were to close today, the owners would have to liquidate the assets and pay all the bills (A - L) Then, they should get what is left over = OE

Example: MMK corporation has the following:

\$10M Cash	\$10M Account payable to suppliers
\$125M Equipment	\$15M Wages owed to employees
\$200M Buildings	\$120M Long term loans

What is owner 's equity?

Assets	-	Liabilities	=	Owners Equity
\$10 M		\$10M		
+ \$125M		+ \$15M		
<u>+ \$200M</u>		<u>+ \$120M</u>		
\$335M	-	\$145M	=	\$190M

This represents the amount that the owners of the company have a right to receive if the company ended today.

Owners Equity: is classified as:

1. **Capital Account** = Initial Investment
2. **Retained Earnings** = profits that remain within the company
 - Prior profits accumulated since beginning of company (RE)
 - Current Profits
 - +Current Year Revenues
 - - Current Year Expenses
 - - Dividends to Owners

$$OE = \text{Capital} + RE$$

$$\text{Owners Equity} = \text{Capital} + RE + \text{Revenues} - \text{Expenses} - \text{Dividends}$$

$$\text{ACCOUNTING EQUATION : } A = L + \text{CAP} + \text{REV} - \text{EXP} + \text{RE} - \text{DIV}$$

2. Financial Statements (Income Statement, Retained earnings Statement, Balance Sheet)

After transactions have been recorded and summarized, reports are prepared for users. The accounting reports providing this information are called **financial statements**

♣ Income Statement

The income statement reports the revenues and expenses for a period of time, based on the **matching concept**. This concept is applied by *matching* the expenses with the revenue generated during a period by those expense

♣ **Retained Earnings Statement**

The statement of owner’s equity reports the changes in the owner’s equity for a period of time

♣ **Balance Sheet**

A list of the assets, liabilities, and stockholder ‘s equity as a specific date

3. Double – entry accounting system

Double- entry accounting system: This system is based on the accounting equation and requires that every business transaction be recorded in at least two accounts. In addition, it requires that the total debits recorded for each transaction equal the total credits recorded

TRANSACTION	AFFECTED ACCOUNTS			
	Cash		Capital Stock	
	Dr.	Cr.	Dr.	Cr.
Deposited cash in an account in the name of the business	Increase			Increase
	Cash		Fees Earned	
	Dr.	Cr.	Dr.	Cr.
Received cash for services rendered	Increase			Increase
	A/R		Fees Earned	
	Dr.	Cr.	Dr.	Cr.
Billed customers on account	Increase			Increase
	Cash		Expense Account	
	Dr.	Cr.	Dr.	Cr.
Paid for expenses		Decrease	Increase	

	Cash		A/R	
	Dr.	Cr.	Dr.	Cr.
Received cash on account	Increase		Decrease	

	Cash		Accounts Payable	
	Dr.	Cr.	Dr.	Cr.
Paid on account		Decrease	Decrease	

	Supplies		Accounts Payable	
	Dr.	Cr.	Dr.	Cr.
Purchased on account	Increase			Increase

	Cash		Dividends	
	Dr.	Cr.	Dr.	Cr.
Paid cash dividends to stockholders		Increase	Increase	

Journalizing

Journal: transactions are initially entered in a record.

This transaction is recorded in the journal using the following steps:

- Step 1. The date of the transaction is entered in the Date column.
- Step 2. The title of the account to be debited is recorded at the left-hand margin under the Description column, and the amount to be debited is entered in the Debit column.
- Step 3. The title of the account to be credited is listed below and to the right of the debited account title, and the amount to be credited is entered in the Credit column.
- Step 4. A brief description may be entered below the credited account.

- Step 5. The Post. Ref. (Posting Reference) column is left blank when the journal entry is initially recorded. We will use this column later in this chapter when we transfer the journal entry amounts to the accounts in the ledger.

Example: Nov 5, Netsolutions paid \$200,000 for the purchase of land as a future building site.

Nov 5,	DR Land	20,000	
	CR Cash		20,000
	Purchased land for building site.		

4. Accounting for merchandising companies

♣ THE PURCHASER:

JJ CORP Purchased \$1500 of stuff to sell on account from "Stuff 4 U"

Merchandise Inventory	\$1500	
AP- Stuff 4 U		\$1500

Terms of the purchase are indicated on the INVOICE or bill.

Credit-Terms

Cash or Net Cash : means the amount is due on delivery

n/30: means the net amount is due in 30 days

n/ eom: means the net amount is due at the End of Month

Discounts These are offered as an incentive to pay early

2/10, n/30 = 2% discount if paid within 10 days, otherwise the net amount is due in 30 days.

Example: JJ corp is billed \$1500 on December 10, 2003 with credit terms 2/10,n/30

- If JJ pays the bill by 12/20/03, there is a 2% discount ($1500 \times .02 = 30$) so JJ would only have to pay \$1470.
- If JJ does not pay, the entire amount is due in 30 days !!! MUST COUNT !!!

December 31 days

- 10

21 days used in December ∴ 9 days left in January. Bill due on January 9

2%????? Who cares????? Consider that you are borrowing money IF you do not pay in 10 days. The rate is 2% for 20 days. What is the APR???

In the banking world there are 360 days per year. Therefore at a rate of 2% for 20 days, the annual rate is 18×2 or 36% ($360\text{days} / 20 \text{ days} = 18 \text{ times}$) So, the prudent businessman will always use the discount EVEN if he had to borrow the money.

Example: \$1000 @ 2/10, n/30 Assume we have to borrow \$1000 to get the discount and the interest rate is 12%.

$\$1000 \times 12\% = 120$ PER YEAR but we only need 20 days so....

$.120 / 360 = .333$ per day

$.333 \times 20$ days = \$6.67 interest due on the loan.

But... $\$1000 \times .02 = \20 which we saved by taking the discount so...

$\$20 - 6.67 = \13.33 savings by taking the discount even if we had to borrow the money

How to Record the discount????

12/10/03	Merchandise Inventory	\$1500
	AP Stuff 4 U	\$1500

12/20/03	AP- Stuff 4 U	\$1500
	Cash	\$1470
	Merchandise Inventory	30

Paid invoice # XXX, discount taken

Note that Merchandise Inventory is reduced BECAUSE THE COST IS REDUCED...

The Merchandise Inventory Account must always reflect how much the company has invested in the goods that it is going to sell.

Returns and Allowances:

Return occurs when items are returned to the company for refund

Allowance occurs when items do not meet specifications of the buyer BUT the buyer is willing to take a reduction in price and keep the item instead of returning it.

The Buyer sends a DEBIT MEMORANDUM to the seller notifying the seller that the invoiced amount will not be paid (the AP account is debited therefore reduced)

The Seller sends a CREDIT MEMORANDUM to the buyer indicating that the Account Receivable has been reduced (credited) by the agreed amount.

Journal Entry????

RETURN

12/10/03	Merchandise Inventory	\$1500
	AP Stuff 4 U	\$1500

12/15/03	AP Stuff 4 U	\$1500
	Merchandise Inventory	\$1500

To record the return of goods and Debit Memo

RETURN PART OF MERCHANDISE \$150

12/15/03	AP Stuff 4 U	\$150
	Merchandise Inventory	\$150
	To record return of defective goods	
12/20/03	AP Stuff 4 U	\$1350
	Cash	\$1323
	Merchandise Inventory	27
	To pay invoice # XXX 2% discount taken	

The purchaser has reduced inventory by the proper amount AND has reduced the amount that is payable to the vendor.

ALLOWANCE

JJ corp ordered Penn State Blue t-shirts and received Tarheel Blue t-shirts with PSU embroidered across the front. Because Stuff 4 U can not use PSU t-shirts, it makes a deal to cut the cost by 1/3rd if JJ agrees to keep the shirts.

12/15/03	AP Stuff 4 U	\$500
	Merchandise Inventory	\$500
	To record the allowance for incorrect order	
12/20/03	AP Stuff 4 U	1000
	Cash	980
	Merchandise Inventory	20
	To pay invoice # XXX, 2% discount taken	

Note that the merchandise inventory account was reduced by the allowance AND THEN the discount was applied to the remainder in the payable. Merchandise inventory was reduced by the discount amount.

♣ **THE SELLER:**

When a merchant makes a sale, there are TWO required journal entries that are made.

JJ Corp sells T-shirts to Penn State Book store. What happened???

1. JJ has Revenue in the amount of the sale

Account Receivable	\$\$\$
Sales Revenue	\$\$\$

To record the sale of merchandise

2. JJ has reduced its inventory by the cost of that inventory. This introduces a new account called Cost of Goods Sold (COGS). This account includes all the costs that are directly

What happened? JJ corp received $(2000 \times .99) = \$1980$ but it had a receivable of 2000???

Journal Entry:

03/28/ Cash	1980
Sales Discount	20
AR – Penn State	2000

To record rec't of payable, discounted 1%

SALES RETURNS & ALLOWANCES: What if Penn State ordered grey shirts and JJ delivered white ones? There is an account that must be used to account for any returns or allowances once a sale has been made *****THIS IS DIFFERENT FROM THE RECORDING OF THE PURCHASER*****

The Sales Account should never be changed once the sale is posted. WHY???

Management wants to know what sales occurred. If there is an allowance or return, the sales team needs to justify that. By reducing the sales account, management may not ever see that sales were adjusted due to problems in the shipping department or shoddy workmanship from vendors. ∴ The Sales Returns and Allowances account is a CONTRA ACCOUNT that will serve to “reduce” the Sales Revenue account. Because it is a contra account it acts opposite that of the account it countermands.

A Sales Return will affect 4 accounts!!!

Example: On March 20 Penn State notifies JJ corp that the t-shirts are white and will be returned. On March 22, JJ Corp receives the returned goods. NOW WHAT????

What happened? JJ Corp must eliminate the Receivable because Penn State does not owe any money. JJ corp must start a Returns account. JJ corp must restock the t-shirts in hopes of selling them elsewhere. JJ corp must change the cost of goods account because the goods were not really sold.

03/22 Sales Returns	2000
AR- Penn State	2000
Merchandise Inventory	1000
Cost of Goods Sold	1000

Note that you must know the cost of the goods that are returned so that you can properly return them to inventory at original cost AND you must reduce the cost of goods sold by that amount.

A Sales Allowance will affect only 2 accounts because no goods are returned.

If Penn State agreed to a reduction in price from \$2000 to \$1500, JJ corp must adjust the AR account and start an Allowances account.

03/20 Sales Allowance	500
AR- Penn State	500

To record a sales allowance and reduction of AR

TRANSPORTATION COSTS: The terms of the sale indicate when title passes from the seller to the purchaser. THIS IS VERY IMPORTANT ! Why?

- Who pays for transporting the goods?
- Who is liable for losses during transport?

These terms must be negotiated in the sales contract.

FOB Shipping Point : This means that once the goods are loaded at the shipping dock, the buyer is responsible for transportation and is liable for the goods. Title passes once the goods are no longer in the seller's warehouse. The shipping costs become part of the cost of the merchandise and are added to the Merchandise Inventory account. (transportation costs are almost always paid with cash because of the trucking industry standards) These are Transportation-in costs.

Example: JJ purchases T- shirts from Hanes. Terms FOB Shipping PT. T- shirts purchase price = \$1000, Shipping costs = \$100 What are the journal entries for JJ?

01/07/04 Merchandise Inventory	\$1000
AP- Hanes	\$1000

Purchase T- Shirts

Merchandise Inventory	\$100
Cash	\$100

Shipping costs of inventory

Note that Merchandise Inventory includes the cost of transportation-in.

FOB Destination: This means that the title passes when the goods are delivered to the buyer's location. The seller is responsible for the costs of transportation and liable for any damages during shipping. These are transportation-out costs. These costs are considered costs of operations NOT COST OF GOODS.

Example: Above situation except Terms are FOB Destination, The COGS = \$500. What are the Journal Entries for HANES??

01/07/04 AR-JJ Corp	\$1000
Sales	\$1000

COGS	\$500
Merch Inv	\$500
Transportation Exp	\$100
Cash	\$100

SALES TAX: Merchants are required to assess and collect appropriate sales taxes on behalf of the state and local laws. This money DOES NOT BELONG to the company. The Merchant is simply an agent of the state and is holding the sales tax until it is time to remit it to the state.

Example: Assume a 5% sales tax. Sales (on account) = \$1000. What is the journal entry for the sale??

*The merchant must collect his sales price + the taxes for the government. ∴ 1000 x .05 = 50.
The merchant must charge \$1050.*

AR	1050	
Sales Revenue		1000
Sales Tax Payable	50	

BUYER V SELLER : remember that a merchant is both purchaser and seller at various times. It is important to be able to identify which role correlates to each transaction.

5. Prepare Trial balance (Unadjusted trial balance, Adjusted trial balance, Post- closing trial balance)

At the end of a period (or when ever required) this report is created. It reports the current balance in every account as of that moment. Since all accounts are reported in their corresponding debit or credit column, the columns should balance.

IF IT BALANCES, IS IT CORRECT????

- All entries may not have been posted
- Entries may have been posted to the wrong accounts
- Entries may have been posted backwards
- Entries may have been duplicated

The amount may have been posted incorrectly

6. Accounting for Adjusting entries

♣ **DEFERRALS (not yet)**

- Expenses: These are the prepaids. They are NOT YET expenses because we have not used them. They start out as ASSETS (BS account) and as we use them they become EXPENSES (IS account)

- Supplies
- Insurance
- Rent
- Advertising
- Revenues: these are Unearned revenues They are NOT YET revenues because we have not earned them. They start out as Liabilities (BS account) and as we earn them they become Revenues (IS account)
 - Retainers
 - Magazine subscriptions
 - Tuition Received by school
 - Insurance premiums received by Insurance Company

Example: On March 1st MMKTax had \$600 of paper. On March 17th MMKTax purchased \$1000 of paper. On March 31 MMKTax noted that there was \$400 of paper remaining on the shelves.

03/17/04	Supplies	1,000	
			Cash 1,000

AJE 1

03/31/04	Supplies Exp	1,200	
			Supplies 1.200

Note that we had to make an AJE in order to properly record that we have used \$1200 of paper during the month

The deferred revenue adjustment involves Unearned Revenues being transferred to the Earned Revenue (usually just written Revenue)

(See page 108)

- ♣ **ACCRUALS:** These are events that have **already** happened.
- Expenses: These are liabilities (BS account) that will become expenses (IS account) An event has **already** happened AND you are **already** obligated to pay but have not done so. You have **already** used this so you **already** have an expense.
 - WAGES: An employer uses the work of his employees every minute that they work BUT he does not pay them until payday. He has ALREADY used this and is obligated to pay for this. Therefore it is a payable that will become an expense.

This becomes important because most time periods (months, years) do not end on payday.

Example:

- Big Corp pays its employees \$10/hour 8 hours per day 6 days per week. (Mon- Sat) Payday is on Monday for the prior week's work. Big Corp has 5 employees. January 31st is on Wednesday. Journalize and prepare T- accounts to record the end of the month AND payday. $\$10 \times 8 = \80 per day $\times 5$ employees = \$400 per day used wages.

- On January 31 Big Corp owes its employees \$1200 for Mon, Tues and Wed but is not going to pay them until Payday. In order to show its stakeholders that it owes this money, BigCorp must do an AJE on January 31st indicating that it has a payable and the matching principle says that this expense must offset income produced during the same time period

AJE

01/01/04	January Wage Expense	1,200	
	Wages payable		1,200

To record wages used

- On Payday, Big Corp must pay its employees. This means that it must pay for the work done in January AND the work done in February. So...the wages payable gets paid first, then the February wages.

02/04/04	Wages Payable	1,200	
	February Wage Exp	1,600	
	Cash		2,800

To pay wages

Notice that we paid off the payable, and we started a new wage expense for the new time period. (in the real world there is only one wage expense for the entire year, but the sub account enables us to see that the wages are split per monthly period). The February Wage expense will continue to be used for all the work USED during the month.

- Revenues: These are **already** earned BUT have not yet been received or billed. This usually occurs when work is completed on the last day of the time period.

Example: MMKTax completed a \$100 tax return on March 31st but has not yet delivered it to the client or mailed the invoice. The Matching principle states that revenues must be attributed to the period during which it was EARNED regardless of when the \$\$\$ is received. SO....MMKTax must record this transaction in order to properly reflect the monthly transaction.

AJE 1

07/31/04	Dep Exp.	\$10	
	Acc Dep Desk		\$10

AJE 2

08/31/04	Dep Exp	\$10	
	Acc Dep Desk		\$10

Book Value = Asset Cost – Acc Dep

Book Value = 1200 – 20 = \$1,180

EVERY ASSET HAS ITS OWN Acc Dep Account. The contra account is shown on the balance sheet so that the stakeholders see both the cost AND the usage.

7. Accounting for Closing entries

We create an imaginary account called the INCOME SUMMARY (sort of an empty box) Into this account we transfer the balances of all the accounts that must be closed. Then we close this account into Retained Earnings because once we balance out this account, that amount is either Net Income or Net Loss.

♣ **The Closing Entries**

	<u>Revenue</u>	<u>Rent Exp</u>
1. Debit Revenue Accounts	1 2000 2000	500 500 2
Credit Income Summary		
<i>This will zero Revenue Accounts</i>		
2. Debit Income Summary	<u>INCOME SUMMARY</u>	
Credit Expense Accounts	2 500 2000 1	
<i>This will zero Expense Accounts</i>		3 1500 1500
3. Debit Income Summary (balance)	<u>Retained Earning</u>	
Credit Retained Earnings	4 300	7000 (prior year RE)
<i>This will zero the Income Summary</i>		1500 3

If there is a LOSS, this entry is reversed

	<u>Dividends</u>
4.** Debit Retained Earnings	4 300 300
Credit Dividend Account	
<i>This will zero the Dividend Account and</i>	** This entry is only needed if
<i>Reduce the Retained Earnings for amounts</i>	there are dividends !!
<i>Distributed to Owners.</i>	

8. Inventory costing methods (Perpetual Inventory System)

- First- In, First- Out Method

Date	Purchases			COGS			Inventory		
	Quantity	Unit cost	Total cost	Quantity	Unit cost	Total cost	Quantity	Unit cost	Total cost
Jan 1							100	20	2,000
4				70	20	1,400	30	20	600
10	80	21	1,680				30	20	600
							80	21	1,680
22				30	20	600			
				10	21	210	70	21	1,470
28				20	21	420	50	21	1,050
30	100	22	2,200				50	21	1,050
							100	22	2,200
31	Bal.					2,630			3,250

Jan 4, DR A/R 2,100

CR Sales 2,100

DR COGS 1,400

CR Merchandise Inventory 1,400

Jan 10, DR Merchandise Inventory 1,680

CR A/P 1,680

Jan 22, DR A/R 1,200

CR Sales 1,200

DR COGS 810

CR Merchandise Inventory 810

Jan 28, DR A/R 600

CR Sales 600

DR COGS 420

CR Merchandise Inventory 420

Jan 30, DR Merchandise Inventory 2,200

CR A/P 2,200

- Last- In, First- Out Method

Date	Purchases	COGS	Inventory
------	-----------	------	-----------

	Quantity	Unit cost	Total cost	Quantity	Unit cost	Total cost	Quantity	Unit cost	Total cost
Jan 1							100	20	2,000
4				70	20	1,400	30	20	600
10	80	21	1,680				30	20	600
							80	21	1,680
22				40	21	840	30	20	600
							40	21	840
28				20	21	420	30	20	600
							20	21	420
30	100	22	2,200				30	20	600
							20	21	420
							100	22	2,200
31	Bal.					2,660			3,220

Jan 4, DR A/R 2,100

CR Sales 2,100

DR COGS 1,400

CR Merchandise Inventory 1,400

Jan 10, DR Merchandise Inventory 1,680

CR A/P 1,680

Jan 22, DR A/R 1,200

CR Sales 1,200

DR COGS 840

CR Merchandise Inventory 840

Jan 28, DR A/R 600

CR Sales 600

DR COGS 420

CR Merchandise Inventory 420

Jan 30, DR Merchandise Inventory 2,200

CR A/P 2,200

- Average Cost Method

A computerized perpetual inventory system for a retail store could be used as follows:

a. Each inventory item, including description, quantity, and unit size, is stored electronically

in an inventory file. The total of the file equals the balance of Merchandise Inventory in the general ledger.

b. Each time an item is purchased or returned by a customer, the inventory file is updated by scanning the item's bar code.

c. Each time an item is sold, the item's bar code is scanned at the cash register and the inventory files are updated.

d. After a physical inventory is taken, the inventory count data are used to update the inventory file. A listing of inventory overages and shortages is printed, and any unusual amounts are investigated.

9. Accounting for receivable and uncollectible Accounts (Direct write – off and Allowance Method)

Direct write-off method for Uncollectible Receivables

When we find that an AR is uncollectible we are allowed to write it off. Authorization from management is obtained and the account is closed. BUT what do we close it to????

This is where the ADA is used.

Example: Jumbo Corp finds out in February of 2004 that one of its customers, LOZER CO.) has gone out of business. LOZER owes Jumbo \$800. The AR must be written off.

	AR- LOZER	ADA		
JE: ADA	800	800	800 ¹	1800 2000
AR-LOZER CO	800			

To write off AR as uncollectible

Notice that we do not use the expense account to record this. WHY????? Because we have already said that \$2000 will not be collected and this is part of that \$2000. We still assume that another \$1200 will not be collected from prior accounts. The ADA has \$1200 still in it.

Example: In July, Jumbo Corp discovers that BIMBO Corp will not pay its debts. BIMBO owes Jumbo Corp \$900. Jumbo writes off the account.

		AR-BIMBO	ADA	
JE: ADA	900	900	900 ²	1800 2000
AR-BIMBO	900			² 900

Notice that we continue to use the ADA account

To write off the uncollectibles.

This will continue throughout the year as the company determines which accounts will not be paid.

Allowance method for Uncollectible Receivables

The **Allowance for Doubtful Accounts (ADA)** is a **CONTRA** account that works against the AR account. This account informs the stakeholders that even though we have \$\$\$\$ is the AR account, there is a good chance we will not collect a certain amount.

EXAMPLE: Jumbo Corp has \$100,000 in it's AR account at the end of the year. Prior data indicates that 2% of the Accounts will not be collectible. $(100,000 \times .02 = \$2,000)$

Jumbo Corp sets up an ADA account to allow for a Bad Debt Expense to be taken .

12/31/03	Bad Debt Expense	2000		<u>AR</u>
	Allowance for Doubtful Accts	2000	100,000	

<u>Bad Debt Exp</u>		<u>ADA</u>
2000		2000

The Allowance for Doubtful Accounts provides a way to determine how much will be REALIZED from the AR account. NET REALIZABLE VALUE (NRV) is the value of the account that will be realized $NRV = AR - ADA$

∴ the NRV for Jumbo Corp is \$98,000 $(100,000 - 2,000)$

OK so we have established an account that says we will not collect \$2000. Now what???

HOW TO ESTIMATE?? There are two methods commonly used to calculate the amount that will not be collected.

- Sales: Since the bulk of sales are credit sales, it is common to assume that a % of sales will not be collected. This is based upon historical data.
- Aging Receivables: This process involves determining the % of receivables that will not be collected. In practice, the longer an account is unpaid, the greater the chance that it will never be paid. Aging means looking at all the AR's and determining the % of which accounts will not be paid.

A schedule that lists each account and its due date is created. These are then categorized into due dates (< 30 days, 31-60 days, 61-90 days, 91-180 days, > 180 days) Then the total from each category is multiplied by the historical %.

Example:

Aging	Balance	%	Est Bad Debt
< 30	35000	1%	350
31-60	12000	3%	360
61-90	5000	12%	600

enough bad debt expense for the prior year, then we need to take more this year to make up for the error.

Example: Assume that DUMDUM corp did not pay its debt of \$500 to Jumbo. Jumbo wrote off the AR.

	AR-DUMDUM	ADA	
	3 500	1 800	2000
ADA	500		2 900
AR-DUMDUM	500	3 500	
<i>To write off uncollectible AR</i>			200 7700 aje
			7500

Notice that at the end of the year the ADA account has overspent itself!!! Now What???

At the end of the year Jumbo had determined that it would have \$7500 of bad debt expense using its Sales method of estimation. Remember that this is what the BALANCE is supposed to be at the start of the New Year. So.....What is the AJE?

AJE:

12/31/04 Bad Debt Expense 7,700

ADA 7,700

To record estimated bad debt expense for year ending 2004

Note that after we make the AJE, the balance in the Allowance for Doubtful Accounts is \$7500 which is what we need it to be.

10. Accounting for Note receivable

Written Promise to pay. This has a stronger legal claim than an AR. Usually includes the requirement of interest due.

MAKER: The one who makes the promise to pay. (the borrower)

PAYEE: The one who receives the promise (the lender)

- Maturity Date: The date the note is due. Money is to be paid.
- Terms: the length of the note (60 days, 90 days, 5 years)
- Interest Rate: Usually given in Annual percentage rate (APR) which is the amount that would be due for AN ENTIRE YEAR.
- Face Value: The Amount that has been borrowed.
- Maturity Value: The Total that must be paid on the due date (Face Value + Interest due)

In the Banking world, the number of days in a year = 360. Is this good for the Maker?

Assume an APR of 10% on 180 day note of \$10,000.

Note that MMK must recognize Interest Revenue because MMK made money on the NR. In this journal entry MMK receives cash, closes the Note Receivable and records Revenue.

WHAT IF????? The note is not paid during the same year that it was made??

Then the lender will have accrued interest revenue and must report that in the year even though they did not receive it. MATCHING PRINCIPLE!!!

Example: On November 21, 2003 DeadBeat notifies MMK that it can not pay its account of \$10,000 and makes a 60 day note with 12% APR. Journalize the making of the note, the Year end adjustment and the payment of the note.

¹ 11/21/03	NR - Deadbeat	10,000	<u>AR- Dbeat</u>	<u>NR-Dbeat</u>
	AR - Deadbeat	10,000	10,000 10,000 ¹	¹ 10,000 10,000 ²

To write off AR and record NR

Calculations: \$10,000 x .12 = \$1200 Interest Per YEAR

1200 / 360 days = 3.33 Interest per DAY

3.33 x 60 = **\$200 Interest Due**

Due Date: November 30 - 21 = 9 days used

December 31 day 31 days used

40 days used ∴ 20 days left DD = **Jan 20, 2004**

Since this loan crosses the end of the year, we must accrue some interest that we have EARNED. Remember that even though we did not get the \$\$\$ we still must count it as revenue IF WE EARNED it. SO....How much did we earn??? At the end of December we had earned 40 days of interest (9 days in November and 31 days in December)

40 x \$3,33 = \$133.20

12/31/03	AJE		<u>Int Rec</u>	<u>Int Rev 2003</u>
Interest Receivable	133.20	aje 133.20	133.20 ²	133.20 aje
Interest Revenue	133.20			

To record the accrued interest on the NR

So now what happens when the Note is paid off? We write off the Note for the Face Value, and we record the receipt of the Maturity Value AND we have to record the receipt of the INTEREST!! So the Interest Receivable is received and closes AND we have interest income for the new year.

² 01/20/04	Cash	10,200	<u>Int Rev 2004</u>
	NR - Dbeat	\$10,000	66.80 ²

Int Rec 133.20

Int Rev 66.80

To record the payment of the NR and record interest revenue

11. Accounting for Depreciation (Straight – line method, Units of Production Method, and Double Declining Balance method)

Depreciation: The expiration of the useful life.

Need to know the following in order to determine the amount of usage per period.

COST

USEFUL LIFE (estimated based upon historical value OR using IRS charts)

RESIDUAL VALUE (the scrap value: the amount that the item could be sold for After it has been used)

This amount can not be depreciated because this will be recovered at sale.

If the item has 0 residual value, that means that when the item has been depreciated, it should be worth 0.

METHODS OF DEPRECIATION

- **Straight Line:** This takes the same amount of expense every period. =
Depreciable Amount / Useful life

Example:

Car cost \$25,000 with a 5 year useful life and Residual Value of \$5,000.

Depreciable amount = Cost – Residual Value (25,000 – 5,000) = \$20,000

Depreciation = Depreciable amount / Useful life (\$20,000 / 5) = \$4,000 / year

- **Units of Production:** This method is used when the useful life is dependent upon usage rather than time.

Airplanes life is based upon the number of hours flown

Machinery life is based upon number of hours used

Truck life is based upon number of miles driven

Depreciation = (Cost – Residual Value) / Estimated life

Example:

A Machine cost \$25,000, useful life = 10,000 hours. Residual value = \$5,000.

$\frac{\$25,000 - \$5,000}{10,000 \text{ hours}} = \frac{\$20,000}{10,000} = \$2.00 \text{ per hour used.}$

10,000 hours 10,000

During the year, the machine was run 500 hours.

$\therefore \text{depreciation expense} = 500 \text{ hours} \times \$2 = \$1,000$

Example:

An airplane cost \$250,000

Useful life = 1,000,000 miles

Scrap value = \$10,000

During 2004 the airplane was flown 70,000 miles

What is the depreciation expense?

$\$250,000 - 10,000 = \$240,000$ depreciable amount

$\$240,000 / 1,000,000 \text{ miles} = .24$ per mile.

$70,000 \text{ miles} \times .24 = \$16,800$ depreciation exp for the year.

- **Declining Balance Method.** (DDB) This is an accelerated method which allows the company to recover its investment more rapidly . The amount changes per period with the early years being higher.

DDB rate = double the straight line rate. WHAT???????

SL rate = $100\% / \text{useful life} \therefore 5 \text{ year useful life} = 100\% / 5 = 20\%$ rate per year.

$\therefore 10 \text{ year useful life} = 100\% / 10 = 10\%$ rate per year.

DDB formula = BOOK VALUE x DDB rate

We do not use the residual value to determine the depreciation BUT we can never reduce the BV below the residual value.

Example: equipment cost \$10,000 with a useful life of 5 years and a residual value = \$500. SL rate = 20% therefore DDB = $2 \times 20\% = 40\%$

Year	Book Value	Rate	Depreciation
1	10000	40%	4000
2	$(10000 - 4000) = 6000$	40%	2400
3	$(6000 - 2400) = 3600$	40%	1440
4	$(3600 - 1440) = 2160$	40%	864
5	$(2160 - 864) = 1296$	40%	518.4
6	$(1296 - 518.4) = 777.60$	40%	311.04****

We can not take the entire \$311.04 because that would reduce the BV below the RV.

We can only take \$277.60 of depreciation.

WE MUST PRO RATE the depreciation over the actual months usage.

If we purchase the asset during the first half of the month we can use the entire month but if we purchase the asset during the last half of the month we can not use that month....*unless you use a daily rate.*

MACRS: Modified Accelerated Cost Recover System : This is the IRS method for depreciation of assets. The IRS identifies assets and places them into categories that enable the company to get more depreciation during the early years and over a common useful life period. This system does not use a residual value.

WHAT IF????? The estimated life changes??? Then an adjustment can be made over the remaining lifetime using the current BV.

Example: On August 7, 2000 a Machine cost \$12,000 with useful life of 5 years and 0 RV using SL depreciation. On Dec 31, 2002 it is determine that the useful life is really only 4 years.

$$12,000 / 5 = \$2400 / \text{year} = \$200 / \text{month}$$

<u>MACHINE</u>	<u>Acc Dep Machine</u>
10,000	\$1000 ²⁰⁰⁰
	\$2400 ²⁰⁰¹
	\$2400 ²⁰⁰²

$$\text{BV on Dec 31, 2002} = 10,000 - (1000 + 2400 + 2400) = \$4,200$$

New Depreciation will be $\$4,200 / 2 \text{ years} = \$2,100$ per year.

Sample Test:

Exercise 1: On November 2, 2011, Nicole Oliver established an interior decorating business, Devon Designs. During the remainder of the month, Nicole completed the following transactions related to the business:

Nov. 2 Nicole transferred cash from a personal bank account to an account to be used for the business in exchange for capital stock, \$15,000.

5 Paid rent for the period of November 5 to end of month, \$1,750.

6 Purchased office equipment on account, \$8,500.

8 Purchased a used truck for \$18,000, paying \$10,000 cash and giving a note payable for the remainder.

10 Purchased supplies for cash, \$1,115.

12 Received cash for job completed, \$7,500.

15 Paid annual premiums on property and casualty insurance, \$2,400.

23 Recorded jobs completed on account and sent invoices to customers, \$3,950.

24 Received an invoice for truck expenses, to be paid in December, \$600.

29 Paid utilities expense, \$750.

29 Paid miscellaneous expenses, \$310.

30 Received cash from customers on account, \$2,200.

30 Paid wages of employees, \$2,700.

30 Paid creditor a portion of the amount owed for equipment purchased on November 6, \$2,125.

Instructions

Journalize each transaction .

Exercise 2: Based on the following accounts and balances, prepare a Balance Sheet, Income Statement and Statement of Retained Earnings for OLD Corporation as of 12/31/11. (14 points)

Notes Payable	5,000	Fees Earned	26,000
Dividends	4,000	Accounts Receivable	18,000
Supplies Expense	4,000	Miscellaneous Expense	1,000
Cash	20,000	Land	10,000
Capital Stock	25,000	Supplies	9,000
Retained Earnings, 1/1/11	4,000	Unearned revenue	6,000

INTERMEDIATE ACCOUNTING (PSU – ACC 304)

1. Statement of cash flow (Indirect method)

The statement focuses attention on three different activities related to cash flows.

- Operating activities** involve the cash effects of transactions that enter into determination of net income.
- Investing activities** include making and collecting loans and acquiring and disposing of debt and equity investments and property, plant, and equipment.
- Financing activities** involve liability and owners' equity items and include (1) obtaining resources from owners and providing them with return on their investment and (2) borrowing money from creditors and repaying the amounts borrowed.

The basic format of the statement of cash flows is shown below.

Statement of Cash Flows

Cash flows from operating activities.....	\$XXX
Cash flows from investing activities.....	XXX
Cash flows from financing activities.....	<u>XXX</u>

Net increase (decrease) in cash	XXX
Cash at beginning of year.....	<u>XXX</u>
Cash at end of year	<u><u>\$\$\$</u></u>

2. Income statement (Ignore Discontinued operation)

Elements of the Income Statement

Net income results from revenue, expense, gain, and loss transactions. These transactions are summarized in the income statement. This method of income measurement is called the transaction approach because it focuses on the income-related activities that have occurred during the period. Income can be further classified by customer, product line, or function or by operating and nonoperating, continuing and discontinued, and regular and irregular categories. More formal definitions of income-related items, referred to as the major elements of the income statement, are as follows:

ELEMENTS OF FINANCIAL STATEMENTS

REVENUES. Inflows or other enhancements of assets of an entity or settlements of its liabilities during a period from delivering or producing goods, rendering services, or other activities that constitute the entity’s ongoing major or central operations.

EXPENSES. Outflows or other using-up of assets or incurrences of liabilities during a period from delivering or producing goods, rendering services, or carrying out other activities that constitute the entity’s ongoing major or central operations.

GAINS. Increases in equity (net assets) from peripheral or incidental transactions of an entity except those that result from revenues or investments by owners.

LOSSES. Decreases in equity (net assets) from peripheral or incidental transactions of an entity except those that result from expenses or distributions to owners.⁷

Revenues take many forms, such as sales, fees, interest, dividends, and rents. Expenses also take many forms, such as cost of goods sold, depreciation, interest, rent, salaries and wages, and taxes. Gains and losses also are of many types, resulting from the sale of investments, sale of plant assets, settlement of liabilities, write-offs of assets due to obsolescence or casualty, and theft

Intermediate Components of the Income Statement

When a multiple-step income statement is used, some or all of the following sections or subsections may be prepared

INCOME STATEMENT SECTIONS

- 1 **Operating Section.** A report of the revenues and expenses of the company's principal operations.
 - (a) **Sales or Revenue Section.** A subsection presenting sales, discounts, allowances, returns, and other related information. Its purpose is to arrive at the net amount of sales revenue.
 - (b) **Cost of Goods Sold Section.** A subsection that shows the cost of goods that were sold to produce the sales.
 - (c) **Selling Expenses.** A subsection that lists expenses resulting from the company's efforts to make sales.
 - (d) **Administrative or General Expenses.** A subsection reporting expenses of general administration.
- 2 **Nonoperating Section.** A report of revenues and expenses resulting from secondary or auxiliary activities of the company. In addition, special gains and losses that are infrequent or unusual, but not both, are normally reported in this section. Generally these items break down into two main subsections:
 - (a) **Other Revenues and Gains.** A list of the revenues earned or gains incurred, generally net of related expenses, from nonoperating transactions.
 - (b) **Other Expenses and Losses.** A list of the expenses or losses incurred, generally net of any related incomes, from nonoperating transactions.
- 3 **Income Tax.** A short section reporting federal and state taxes levied on income from continuing operations.
- 4 **Discontinued Operations.** Material gains or losses resulting from the disposition of a segment of the business.
- 5 **Extraordinary Items.** Unusual and infrequent material gains and losses.
- 6 **Cumulative Effect of a Change in Accounting Principle.**
- 7 **Earnings Per Share.**

Although the content of the operating section is always the same, the organization of the material need not be as described above. The breakdown above uses a natural expense classification. It is commonly used for manufacturing concerns and for merchandising companies in the wholesale trade. Another classification of operating expenses, recommended for retail stores, uses a functional expense classification of administrative, occupancy, publicity, buying, and selling expenses

Condensed Income Statements

In some cases it is impossible to present in a single income statement of convenient size all the desired expense detail. This problem is solved by including only the totals of expense groups in the statement of income and preparing supplementary schedules to support the totals. With this format, the income statement itself may be reduced to a few lines on a single sheet. For this reason, readers who wish to study all the reported data on operations must give their attention to the supporting schedules

DAN DEINES COMPANY		
INCOME STATEMENT		
FOR THE YEAR ENDED DECEMBER 31, 2004		
Net sales		\$2,972,413
Cost of goods sold		<u>1,982,541</u>
Gross profit		989,872
Selling expenses (see Note D)	\$453,028	
Administrative expenses	<u>350,771</u>	<u>803,799</u>
Income from operations		186,073
Other revenues and gains		<u>171,410</u>
		357,483
Other expenses and losses		<u>126,060</u>
Income before income tax		231,423
Income tax		<u>66,934</u>
Net income for the year		<u>\$ 164,489</u>
Earnings per share		<u>\$1.74</u>

Condensed Income Statement

An example of a supporting schedule, cross-referenced as Note D and detailing the selling expenses, is shown in Illustration below:

Note D: Selling expenses	
Sales salaries and commissions	\$202,644
Sales office salaries	59,200
Travel and entertainment	48,940
Advertising expense	38,315
Freight and transportation-out	41,209
Shipping supplies and expense	24,712
Postage and stationery	16,788
Depreciation of sales equipment	9,005
Telephone and Internet expense	<u>12,215</u>
Total selling expenses	<u>\$453,028</u>

Sample supporting schedule

How much detail to include in the income statement is always a problem. On the one hand, we want to present a simple, summarized statement so that a reader can readily discover important factors. On the other hand, we want to disclose the results of all activities and to provide more than just a skeleton report. Certain basic elements are always included, but as we'll see, they can be presented in various formats

3. Statement of financial position (Unclassified statement of financial position and Classified statement of financial position)

In general, companies use either the account form or the report form to present the statement of financial position information. The account form lists assets, by sections, on the left side, and equity and liabilities, by sections, on the right side. The main disadvantage is the need for a sufficiently wide space in which to present the items side by side. Often, the account form requires two facing pages.

SCIENTIFIC PRODUCTS, INC.
STATEMENT OF FINANCIAL POSITION
DECEMBER 31, 2011

Assets		
Non-current assets		
<i>Long-term investments</i>		
Investments in held-for-collection securities	\$ 82,000	
Land held for future development	5,500	\$ 87,500
<i>Property, plant, and equipment</i>		
Land	125,000	
Buildings	\$975,800	
Less: Accumulated depreciation	341,200	634,600
Total property, plant, and equipment		759,600
<i>Intangible assets</i>		
Capitalized development costs	6,000	
Goodwill	66,000	
Other identifiable intangible assets	28,000	100,000
Total non-current assets		947,100
Current assets		
Inventories	489,713	
Prepaid expenses	16,252	
Accounts receivable	165,824	
Less: Allowance for doubtful accounts	1,850	163,974
Short-term investments	51,030	
Cash and cash equivalents	52,485	773,454
Total current assets		773,454
Total assets		\$1,720,554

Equity and Liabilities		
Equity		
Share capital—preference	\$300,000	
Share capital—ordinary	400,000	
Share premium—preference	10,000	
Share premium—ordinary	27,500	
Retained earnings	170,482	
Accumulated other comprehensive income	(8,650)	
Less: Treasury shares	<u>12,750</u>	
Equity attributable to owners		\$886,582
Minority interest		<u>13,500</u>
Total equity		\$ 900,082
Non-current liabilities		
Bond liabilities due January 31, 2020	425,000	
Provisions related to pensions	<u>75,000</u>	
Total non-current liabilities		500,000
Current liabilities		
Notes payable	80,000	
Accounts payable	197,532	
Interest payable	20,500	
Salary and wages payable	5,560	
Provisions related to warranties	12,500	
Deposits received from customers	<u>4,380</u>	
Total current liabilities		<u>320,472</u>
Total liabilities		820,472
Total equity and liabilities		<u><u>\$1,720,554</u></u>

4. Statement of changes in Equity

This statement reports the changes in each stockholder's equity account and in total stockholders' equity during the year. The statement of stockholders' equity is often prepared in columnar form with columns for each account and for total stockholders' equity.

To illustrate its presentation, assume the same information related to V. Gill Inc. and that the company had the following stockholder equity account balances at the beginning of 2004: Common Stock \$300,000; Retained Earnings \$50,000; and Accumulated Other Comprehensive Income \$60,000. No changes in the Common Stock account occurred during the year. A statement of stockholders' equity for V. Gill Inc. is shown in Illustration below:

V. GILL INC.					
STATEMENT OF STOCKHOLDERS' EQUITY					
FOR THE YEAR ENDED DECEMBER 31, 2004					
	<u>Total</u>	<u>Compre- hensive Income</u>	<u>Retained Earnings</u>	<u>Accumulated Other Compre- hensive Income</u>	<u>Common Stock</u>
Beginning balance	\$410,000		\$ 50,000	\$60,000	\$300,000
Comprehensive income					
Net income	110,000	\$110,000	110,000		
Other comprehensive income					
Unrealized holding gain, net of tax	30,000	<u>30,000</u>		30,000	
Comprehensive income		<u>\$140,000</u>			
Ending balance	<u>\$550,000</u>		<u>\$160,000</u>	<u>\$90,000</u>	<u>\$300,000</u>

Most companies use the statement of stockholders' equity approach to provide information related to the components of other comprehensive income. Because many companies already provide a statement of stockholders' equity, adding additional columns to display information related to comprehensive income is not costly

5. Comprehensive Income (Second Income Statement and Combined Statement of Comprehensive Income)

Comprehensive income includes all changes in equity during a period except those resulting from investments by owners and distributions to owners. Comprehensive income, therefore, includes all revenues and gains, expenses and losses reported in net income, and in addition it includes gains and losses that bypass net income but affect stockholders' equity. These items that bypass the income statement are referred to as **other comprehensive income**.

The FASB decided that the components of other comprehensive income must be displayed in one of three ways: **(1) a second income statement; (2) a combined income statement of comprehensive income; or (3) as a part of the statement of stockholders' equity**

V. GILL INC. INCOME STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2004	
Sales revenue	\$800,000
Cost of goods sold	<u>600,000</u>
Gross profit	200,000
Operating expenses	<u>90,000</u>
Net income	<u><u>\$110,000</u></u>

V. GILL INC. COMPREHENSIVE INCOME STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2004	
Net income	\$110,000
Other comprehensive income	
Unrealized holding gain, net of tax	<u>30,000</u>
Comprehensive income	<u><u>\$140,000</u></u>

6. Retained earnings statement

Net income increases retained earnings, and a net loss decreases retained earnings. Both cash and stock dividends decrease retained earnings. Prior period adjustments may either increase or decrease retained earnings. A prior period adjustment is a correction of an error in the financial statements of a prior period. Prior period adjustments (net of tax) are charged or credited to the opening balance of retained earnings, and thus excluded from the determination of net income for the current period

Information related to retained earnings may be shown in different ways. For example, some companies prepare a separate retained earnings statement, as shown in Illustration below:

TIGER WOODS INC. RETAINED EARNINGS STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2004		
Balance, January 1, as reported		\$1,050,000
Correction for understatement of net income in prior period (inventory error)		<u>50,000</u>
Balance, January 1, as adjusted		1,100,000
Add: Net income		<u>360,000</u>
		1,460,000
Less: Cash dividends	\$100,000	
Stock dividends	<u>200,000</u>	<u>300,000</u>
Balance, December 31		<u><u>\$1,160,000</u></u>

The reconciliation of the beginning to the ending balance in retained earnings provides information about why net assets increased or decreased during the year. The association of dividend distributions with net income for the period indicates what management is doing with earnings: It may be “plowing back” into the business part or all of the earnings, distributing all current income, or distributing current income plus the accumulated earnings of prior year

7. Recognition of Accounts Receivable (Gross method and Net Method)

<u>Gross Method</u>		<u>Net Method</u>	
Sales of \$10,000, terms 2/10, n/30			
Accounts Receivable	10,000	Accounts Receivable	9,800
Sales		Sales	9,800
	10,000		
Payment on \$4,000 of sales received within discount period			
Cash	3,920	Cash	3,920
Sales Discounts	80	Accounts Receivable	3,920
Accounts Receivable			
	4,000		
Payment on \$6,000 of sales received after discount period			
Cash	6,000	Accounts Receivable	120
Accounts Receivable		Sales Discounts	
	6,000	Forfeited	120
		Cash	6,000
		Accounts Receivable	6,000

If using the gross method, a company reports sales discounts as a deduction from sales in the income statement. Proper expense recognition dictates that the company also reasonably estimates the expected discounts to be taken and charges that amount against sales. If using the net method, a company considers Sales Discounts Forfeited as an “Other revenue” item

8. Reconciliation of bank balances

A **bank reconciliation** is a schedule explaining any differences between the bank's and the company's records of cash. If the difference results only from transactions not yet recorded by the bank, the company's record of cash is considered correct. But, if some part of the difference arises from other items, either the bank or the company must adjust its records.

This form of reconciliation consists of two sections: (1) "Balance per bank statement" and (2) "Balance per depositor's books." Both sections end with the same "Correct cash balance." The correct cash balance is the amount to which the books must be adjusted and is the amount reported on the balance sheet

9. The gross profit method of estimating inventory

Companies take a physical inventory to verify the accuracy of the perpetual inventory records or, if no records exist, to arrive at an inventory amount. Sometimes, however, taking a physical inventory is impractical. In such cases, companies use substitute measures to approximate inventory on hand.

One substitute method of verifying or determining the inventory amount is the **gross profit method** (also called the **gross margin method**). Auditors widely use this method in situations where they need only an estimate of the company's inventory (e.g., interim reports). Companies also use this method when fire or other catastrophe destroys either inventory or inventory records. The gross profit method relies on three assumptions:

$$\begin{aligned} 1. \text{ Gross profit on selling price} &= \frac{\text{Percentage markup on cost}}{100\% + \text{Percentage markup on cost}} \\ 2. \text{ Percentage markup on cost} &= \frac{\text{Gross profit on selling price}}{100\% - \text{Gross profit on selling price}} \end{aligned}$$

10. Valuation of Property, Plant and Equipment

- *Cash discount*

When a company purchases plant assets subject to cash discounts for prompt payment, how should it report the discount? If it takes the discount, the company should consider the discount as a reduction in the purchase price of the asset. But should the company reduce the asset cost even if it does not take the discount?

Two points of view exist on this question. One approach considers the discount—whether taken or not—as a reduction in the cost of the asset. The rationale for this approach is that the real cost of the asset is the cash or cash equivalent price of the asset.

In addition, some argue that the terms of cash discounts are so attractive that failure to take them indicates management error or inefficiency. Proponents of the other approach argue that failure to take the discount should not always be considered a loss. The terms may be unfavorable, or it

might not be prudent for the company to take the discount. At present, companies use both methods, though most prefer the former method.

- *Deferred payment contracts*

Deferred-Payment Contracts

Companies frequently purchase plant assets on long-term credit contracts, using notes, mortgages, bonds, or equipment obligations. **To properly reflect cost, companies account for assets purchased on long-term credit contracts at the present value of the consideration exchanged between the contracting parties at the date of the transaction.**

For example, Greathouse Company purchases an asset today in exchange for a \$10,000 zero-interest-bearing note payable four years from now. The company would not record the asset at \$10,000. Instead, the present value of the \$10,000 note establishes the exchange price of the transaction (the purchase price of the asset). Assuming an appropriate interest rate of 9 percent at which to discount this single payment of \$10,000 due four years from now, Greathouse records this asset at \$7,084.30 ($\$10,000 \times .70843$).

When no interest rate is stated, or if the specified rate is unreasonable, the company imputes an appropriate interest rate. The objective is to approximate the interest rate that the buyer and seller would negotiate at arm's length in a similar borrowing transaction. In imputing an interest rate, companies consider such factors as the borrower's credit rating, the amount and maturity date of the note, and prevailing interest rates.

The company uses the cash exchange price of the asset acquired (if determinable) as the basis for recording the asset and measuring the interest element.

To illustrate, Sutter Company purchases a specially built robot spray painter for its production line. The company issues a \$100,000, five-year, zero-interest-bearing note to Wrigley Robotics, Inc. for the new equipment. The prevailing market rate of interest for obligations of this nature is 10 percent. Sutter is to pay off the note in five \$20,000 installments, made at the end of each year. Sutter cannot readily determine the fair value of this specially built robot. Therefore Sutter approximates the robot's value by establishing the fair value (present value) of the note. Entries for the date of purchase and dates of payments, plus computation of the present value of the note, are as follows.

Date of Purchase

Equipment 75,816*

Discount on Notes Payable 24,184

Notes Payable 100,000

*Present value of note = \$20,000 ($PVF-OA5, 10\%$)

= \$20,000 (3.79079)

= \$75,816

End of First Year

Interest Expense 7,582

Notes Payable 20,000

Cash 20,000

Discount on Notes Payable 7,582

Interest expense in the first year under the effective-interest approach is \$7,582 [(\$100,000 _ \$24,184) _ 10%]. The entry at the end of the second year to record interest and principal payment is as follows.

End of Second Year

Interest Expense 6,340

Notes Payable 20,000

Cash 20,000

Discount on Notes Payable 6,340

Interest expense in the second year under the effective-interest approach is \$6,340 [(\$100,000 _ \$24,184) _ (\$20,000 _ \$7,582)] _ 10%. If Sutter did not impute an interest rate for deferred-payment contracts, it would record the asset at an amount greater than its fair value. In addition, Sutter would understate interest expense in the income statement for all periods involved.

- Lump-sum purchases

A special problem of valuing fixed assets arises when a company purchases a group of plant assets at a single **lump-sum price**. When this common situation occurs, the company allocates the total cost among the various assets on the basis of their relative fair values. The assumption is that costs will vary in direct proportion to fair value.

This is the same principle that companies apply to allocate a lump-sum cost among different inventory items. To determine fair value, a company should use valuation techniques that are appropriate in the circumstances. In some cases, a single valuation technique will be appropriate. In other cases, multiple valuation approaches might have to be used.

- Issuance of shares

When companies acquire property by issuing securities, such as common stock, the par or stated value of such stock fails to properly measure the property cost. If trading of the stock is active, **the market value of the stock issued is a fair indication of the cost of the property acquired. The stock is a good measure of the current cash equivalent price.**

For example, Upgrade Living Co. decides to purchase some adjacent land for expansion of its carpeting and cabinet operation. In lieu of paying cash for the land, the company issues to Deedland Company 5,000 shares of common stock (par value \$10) that have a fair market value of \$12 per share. Upgrade Living Co. records the following entry.

Land (5,000 _ \$12)	60,000	
Common Stock		50,000
Paid-In Capital in Excess of Par		10,000

If the company cannot determine the market value of the common stock exchanged, it establishes the fair value of the property. It then uses the value of the property as the basis for recording the asset and issuance of the common stock.

- *Exchange of Non-monetary assets (commercial substance)*

The proper accounting for exchanges of nonmonetary assets, such as property, plant, and equipment, is controversial.⁵ Some argue that companies should account for these types of exchanges based on the fair value of the asset given up or the fair value of the asset received, with a gain or loss recognized. Others believe that they should account for exchanges based on the recorded amount (book value) of the asset given up, with no gain or loss recognized. Still others favor an approach that recognizes losses in all cases, but defers gains in special situations.

Ordinarily companies account for the exchange of **nonmonetary assets** on the basis of **the fair value of the asset given up or the fair value of the asset received, whichever is clearly more evident**. Thus, companies **should recognize immediately** any gains or losses on the exchange. The rationale for immediate recognition is that most transactions have **commercial substance**, and therefore gains and losses should be recognized.

Meaning of Commercial Substance

As indicated above, fair value is the basis for measuring an asset acquired in a nonmonetary exchange if the transaction has commercial substance. An exchange has **commercial substance** if the future cash flows change as a result of the transaction. That is, if the two parties' economic positions change, the transaction has commercial substance.

For example, Andrew Co. exchanges some of its equipment for land held by Roddick Inc. It is likely that the timing and amount of the cash flows arising for the land will differ significantly from the cash flows arising from the equipment.

As a result, both Andrew Co. and Roddick Inc. are in different economic positions. Therefore, the exchange has commercial substance, and the companies recognize a gain or loss on the exchange.

Exchanges—Loss Situation

When a company exchanges nonmonetary assets and a loss results, the company recognizes the loss immediately. The rationale: Companies should not value assets at more than their cash equivalent price; if the loss were deferred, assets would be overstated. Therefore, companies recognize a loss immediately whether the exchange has commercial substance or not.

For example, Information Processing, Inc. trades its used machine for a new model at Jerrod Business Solutions Inc. The exchange has commercial substance. The used machine has a book value of \$8,000 (original cost \$12,000 less \$4,000 accumulated depreciation) and a fair value of \$6,000. The new model lists for \$16,000. Jerrod gives Information Processing a trade-in allowance of \$9,000 for the used machine. Information Processing computes the cost of the new asset as follows.

List price of new machine \$16,000

Less: Trade-in allowance for used machine 9,000

Cash payment due 7,000

Fair value of used machine 6,000

Cost of new machine \$13,000

Information Processing records this transaction as follows:

Equipment 13,000

Accumulated Depreciation—Equipment 4,000

Loss on Disposal of Equipment 2,000

Equipment 12,000

Cash 7,000

Exchanges—Gain Situation

Has Commercial Substance. Now let's consider the situation in which a nonmonetary exchange has commercial substance and a gain is realized. In such a case, a company usually records the cost of a nonmonetary asset acquired in exchange for another nonmonetary asset at the **fair value of the asset given up**, and immediately recognizes a gain. The company should use the **fair value of the asset received** only if it is more clearly evident than the fair value of the asset given up.

To illustrate, Interstate Transportation Company exchanged a number of used trucks plus cash for a semi-truck. The used trucks have a combined book value of \$42,000 (cost \$64,000 less \$22,000 accumulated depreciation). Interstate's purchasing agent, experienced in the second-hand market, indicates that the used trucks have a fair market value of \$49,000. In addition to the trucks, Interstate must pay \$11,000 cash for the semi-truck. Interstate computes the cost of the semi-truck as follows.

Interstate records the exchange transaction as follows:

Semi-truck 60,000

Accumulated Depreciation—Trucks 22,000

Trucks 64,000

Gain on Disposal of Used Trucks 7,000

Cash 11,000

Transportation Company exchange lacks commercial substance. That is, the economic position of Interstate did not change significantly as a result of this exchange. In this case, Interstate defers the gain of \$7,000 and reduces the basis of the semi-truck.

Interstate records this transaction as follows:

Semi-truck 53,000

Accumulated Depreciation—Trucks 22,000

Trucks 64,000

Cash 11,000

Sample Test:

Exercise 1: Astaire Company uses the gross profit method to estimate inventory for monthly reporting purposes. Presentes below is information for the month of May

Inventory, May 1	\$160,000
Purchases (gross)	640,000
Freight-in	30,000
Sales	1,000,000
Sales returned	70,000
Purchased discounts	12,000

Instructions

- Compute the estimate inventory at May 31, assuming that the gross profit is 25% of sales
- Compute the estimate inventory at May 31, , assuming that the gross profit is 25% of cost

Exercise 2: Agazzi Co. purchased equipment for \$304,000 on Oct 1, 2010. It is estimated that the equipment will have useful life of 8 years and a residual value of \$16,000. Estimated production is 40,000 units. During 2010, the equipment produces 1,000 units.

Instructions:

Compute depreciation expense under each of the following methods. Agzzi is on a calendar year basis Dec 31

- Straight-line method for 2010**

- b. Units of output for 2010**
- c. Sum – of – the- years'- digit for 2012**
- d. Double- decling- balance method for 2011**

TÀI LIỆU THAM KHẢO

Đà Nẵng, ngày 23 tháng 01 năm 2014

Ban giám hiệu

Phòng Đào tạo

Khoa ĐTQT

Tổ PSU-KKT