Chapter 9

Course outline Content #7

Liabilities

Learning Objectives

1. Understand what current liabilities are
2. Account for notes payable, interest payable and interest expense
3. Report liabilities on the Balance Sheet and/or in the notes to the financial statements
4. Analyze the current ratio
5. Account for bonds payable and interest expense
6. Analyze and differentiate financing with debt vs. equity
7. Understand out long-term liabilities
8. Report liabilities

The time value of money concept

- The time value of money concept states that cash received today is more valuable than cash received at some point in the future. The reason is that someone who agrees to receive payment at a later date foregoes the ability to invest that cash right now. The only way for someone to agree to a delayed payment is to pay them for the privilege, which is known as interest income.

The time value of money concept

- For example, if a person owns $10,000 now and invests it at an interest rate of 10%, then she will have earned $1,000 by having use of the money for one year.
- If she were instead to not have access to that cash for one year, then she would lose the $1,000 of interest income. The interest income in this example represents the time value of money.


LIABILITIES
EXPLAINED

Defining Liabilities

A liability is a probable future payment of assets or services that a company is presently obligated to make as a result of a past transaction or event.

Examples:

TRANSACTIONS:

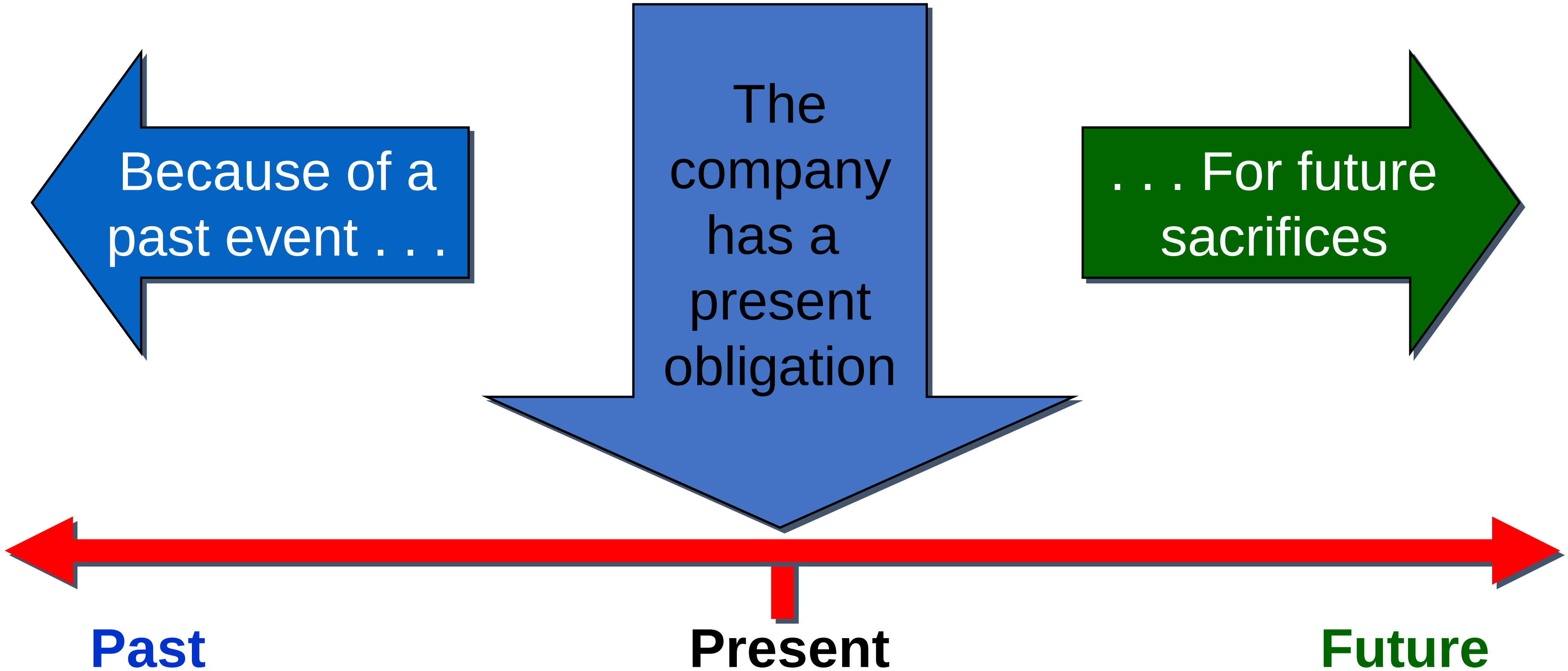
Accounts payable:	**Purchase of Inventory;**
Wages payable:	**Employee Services;**
Utilities payable:	**Utility consumption.**

EVENTS:

Unearned revenue:	**Received up-front payments for goods and services to be provided in the near future.**

Liability --Three crucial factors:

1. Past transaction or event.
2. Present obligation.
3. Future payment of assets or services.



C 1

Classifying Liabilities

Current Liabilities

Expected to be paid within one year or the company's operating cycle, whichever is longer.

Long-Term Liabilities

Expected not to be paid within one year or the company's operating cycle, whichever is longer.

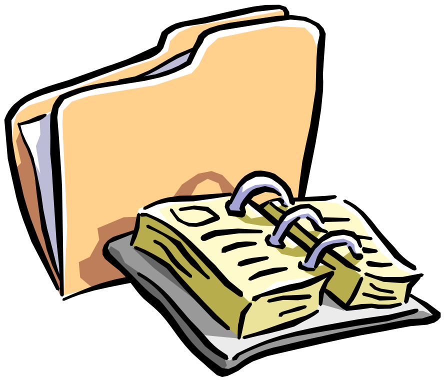
Liabilities

- Current liabilities —expected to be liquidated within a year, usually include payables such as wages, accounts, taxes, and accounts payable, unearned revenue when adjusting entries, portions of long-term bonds to be paid this year, short-term obligations (*e.g.* from purchase of equipment).
- Long-term liabilities —expected not to be liquidated within a year. They usually include issued long-term bonds, notes payables, long-term leases, pension obligations, and long-term product warranties.
- Contingent Liability - A contingent liability is a liability may only occur depending on the outcome of an uncertain future event. Example is a lawsuit.

Uncertainty in Liabilities

Answers to the following questions are often decided when a liability is incurred; however, one or more may be uncertain for some liabilities.

Uncertainty in Whom to Pay



Uncertainty in When to Pay OR to Provide services

Uncertainty in How Much to Pay

Types of Current liabilities

- **Current liabilities can be of**
  - \- Known amount or
  - \- Estimated amounts

Known Liabilities

Accounts Payable

Short-Term Notes Payable

Payroll Liabilities

Sales Taxes Payable

Unearned Revenues

The current portion of long-term debt

Accounts Payable

- Includes goods, services, or supplies that were purchased with credit and for use in the operation of the business and payable within a one year period.
- Typically due within 30 days

The journal entry to record payment of the note

On June 1, Whit Corporation purchased a truck for $30,000. To pay for the truck, Whit issued and recorded a six-month note payable for $31,500. No other entry was recorded for the note until payment on December would include:

The appropriate journal entry is:

June 1	Notes Payable	31,500	
	Interest Expense	1,500	
	Discount on Notes Payable		1,500
	Cash		31,500

Short – term notes payable

- Notes payable due within one year
- Ex. On Jan 1, 2019, purchase of inventory ($8,000) at a 10% short-term note payable due in one year.
- Year ended on September 30^{th} , 2019
- Analysis:

1) The maturity date of the note is ___________

And therefore the note payable and the interest payable will be paid in full on ___________

2) At year end (Sept 30, 2019) , not the maturity date, an adjusting entry should be made for the accounts_________________ and ____________

End-of-Period Adjustment to Notes

Note Date

01 Jan 2019

End of Period 30 sep 2019

Maturity Date

1 JAN 2020

An adjusting entry is required to record interest expense incurred to date.

Entries for the above events are as follows

purchase of inventory ($8,000) at a 10% short-term note payable due in one year.

Jan 1, 2019	Inventory	8,000	
	Note Payable , short-term		8,000
	Purchase of inventory by issuing a note payable		

Explanation on the journal entry at the end of the year:

- Because there is a time difference (the financial year of the company ends of Sep 30, 2019 but the maturity date of the notes payable falls on Jan 1, 2020), an adjusting entry is needed at year end to recognize the interest expense accrued for the year ended Sep 30, 2019.

Sep 30, 2019	Interest Expense (8000x0.1.x9/12)	600	
	Interest payable		600
	Accrual of interest expense at year-end		

Explanation – At Maturity – Jan 1,2020

- The debits 1)zero out the two payables to reflect that the payables are now paid in full, and 2)record the interest expense for October, November and December of 2019.
- Note that the interest expense for January to September of 2019 was already recorded on September 30 by an adjusting entry and therefore, for Jan 1, 2020, it is not necessary to record these 9 months of interest

Explanation –
At Maturity – Jan 1,2020

Jan 1, 2020	**Note Payable, short term**	**8,000**	
	Interest Payable	600	
	Interest expense (8,000 x0.10x3/12)	200	
	Cash 8,000+(8,000x0.10)		8,800
	Payment of a note payable and interest at maturity		

Quick Study 1

P1

Note Given to Extend Credit Period

On August 1, 2019, Matrix, Inc. asked Carter, Co. to accept a 90-day, 12% note to replace its existing $5,000 account payable to Carter. Matrix would make the following entry:

P1

Note Given to Extend Credit Period

On October 30, 2019, Matrix, Inc. pays the note plus interest to Carter.

P1

Note Given to Borrow from Bank

PROMISSORY NOTE

$20,000 — Face Value

Sept. 1, 2019 — Date

Ninety days after date I promise to pay to the order of

American Bank

Nashville, TN

Twenty thousand and no/100 - - - - - - - - - - - - - - - - - - Dollars

plus interest at the annual rate of 6%.

Jackson Smith

P1

Face Value Equals Amount Borrowed

On September 1, 2019, Jackson Smith borrows $20,000 from American Bank. The note bears interest at 6% per year. Principal and interest are due in 90 days (November 30, 2009).

P1

Face Value Equals Amount Borrowed

On November 30, 2019, Smith would make the following entry:

P1

End-of-Period Adjustment to Notes

Note Date

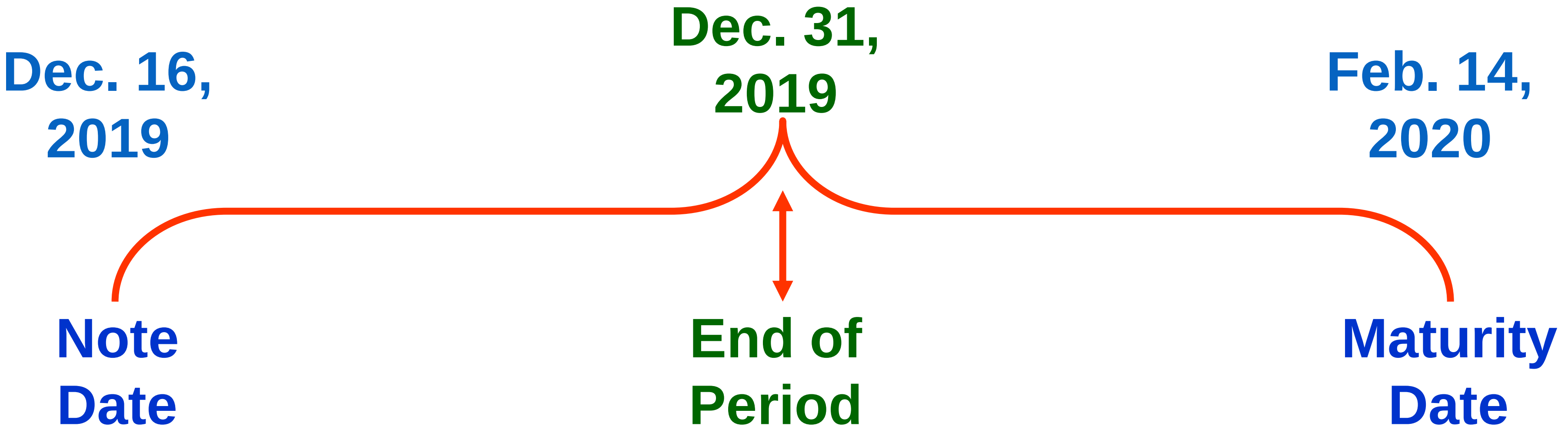
End of Period

Maturity Date

An adjusting entry is required to record interest expense incurred to date.

P1

End-of-Period Adjustment to Notes



James Burrows borrowed $8,000 on Dec. 16, 2009, by signing a 12%, 60-day note payable.

P1

End-of-Period Adjustment to Notes

On December 16, 2019, James Burrows would make the following entry:

On December 31, 2019, the adjustment is:

P1

End-of-Period Adjustment to Notes

On February 14, 2020, James Burrows would make the following entry.

Current liabilities of Known Amounts

- **An Accrued expense create a liabilities.**
- An accrued expense (or accrued liability) includes salaries and wages payable, income taxes payable.
- Salary and Wages Payable is the liability for payroll expenses not yet paid at the end of the period.
- Income Taxes Payable is the amount of income tax the company still owes at year-end

Current liabilities of Known Amounts

- **Unearned Revenues** are deferral revenues
- The business has received **cash** from customers **before earning the revenue**.
- The company therefore has a liability- an obligation to provide goods or services to the customer later.

Quick Study 2

Sales Taxes Payable

On May 15, 2019, Max Hardware sold building materials for $7,500 that are subject to a 6% sales tax.

Quick Study 3

C 2

Unearned Revenues

On May 1, 2019, A-1 Catering received $3,000 in advance for catering a wedding party to take place on July 12, 2019.

Current liabilities of Known Amounts

- **Current portion of long-term debt**
- Some long-term debt must be paid in installments.
- The **current portion of long-term debt** is the amount of **the principal that is payable within one year.**
- At the end of each year, a company reclassifies (from long-term debt to a current liability) the amount of its long-term debt that must be paid next year.

Current liabilities of unknown Amounts

- Also refer to **Estimated liability**
- debt or obligation of an unknown amount that can be reasonably estimated.
- In other words, it's a known liability that management knows exists, but there is no way of knowing the exact amount of the liability.
- Management can however estimate with reasonably accuracy the total outstanding obligation.

Current liabilities of unknown Amounts – Cont'd

- Estimated warranty payable – a liability exists but the exact amount cannot be known.
  - Therefore, a company can only estimated the amount of warranty expense to match with revenue form a certain period, based on past experience.

- Estimated income tax payable-not known for certain until early the next year.

Re-visit on the current ratio

- As mentioned in an earlier chapter, one tool utilized by decision makers in judging the present level of risk posed by a company's liability requirements is the **current ratio**: current assets divided by current liabilities.
- This is a simple benchmark that can be computed using available balance sheet information.
- The current ratio is a liquidity ratio that measures a company's ability to pay short-term obligations or those due within one year.
- It tells investors and analysts how a company can maximize the current assets on its balance sheet to satisfy its current debt and other payables.

The current ratio

- The current ratio is called “current” because, unlike some other liquidity ratios, it incorporates *all current* assets and liabilities.

- The current ratio is also called the working capital ratio.
- EX: When a company’s current assets are
- $ 5,000 and current liabilities are $ 2,000? current ratio for this company is
- 5000/2000 = 2.5

Interpreting the Current Ratio

- A ratio under 1 indicates that the company's debts due in a year or less are greater than its assets (cash or other short-term assets expected to be converted to cash within a year or less.)
- On the other hand, in theory, the higher the current ratio, the more capable a company is of paying its obligations because it has a larger proportion of short-term asset value relative to the value of its short-term liabilities.

Interpreting the Current Ratio

- However, while a high ratio, say over 3, could indicate the company can cover its current liabilities three times, it may indicate that it's not using its current assets efficiently, is not securing financing very well, or is not managing its working capital.

End of Part one


LIABILITIES
EXPLAINED

Long-Term Liabilities

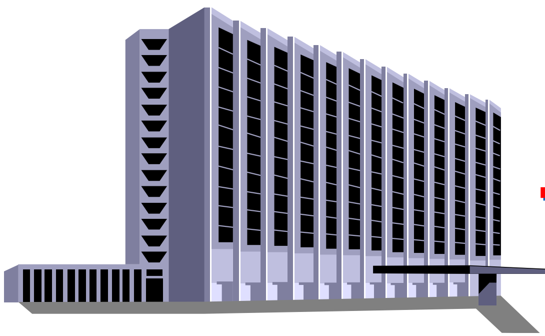
- Bonds Payable
- Notes Payable
- Leases
- Deferred Taxes
- Pensions
- Other Postretirement Benefits

What Is Leverage?

- Leverage results from using borrowed capital as a funding source when investing to expand the firm's asset base and generate returns on risk capital.
- Leverage is an investment strategy of using borrowed money—specifically, the use of various financial instruments or borrowed capital—to increase the potential return of an investment.
- Leverage can also refer to the amount of debt a firm uses to finance assets. When one refers to a company, property or investment as "highly leveraged," it means that item has more debt than equity.
- https://www.investopedia.com/terms/l/leverage.asp

Bond Financing

Transactions during the bond life

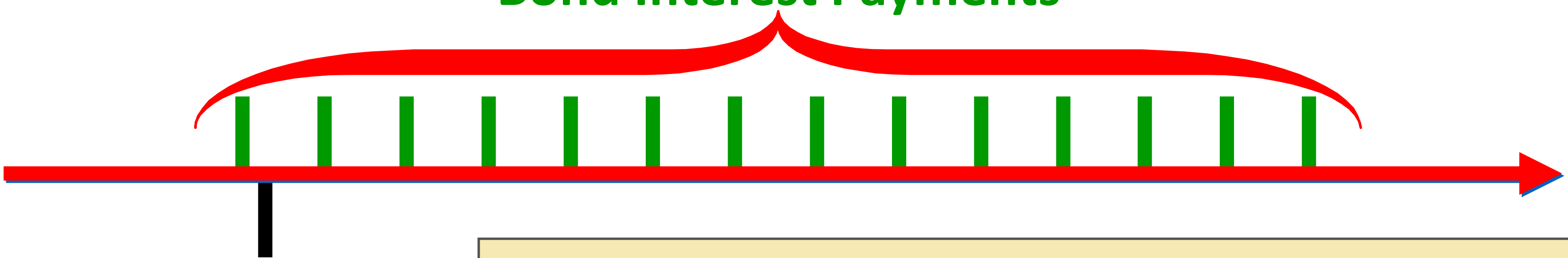


Corporation

Bond Interest Payments

Investors

Bond Interest Payments



Bond Issue Date

A1

Interest Payment = Bond Par Value × Stated Interest Rate x Time

Accounting for Bond Payable and Interest Expense

- Bonds payable are a form of long-term debt
- Bonds are issued by corporations, hospitals , and governments.
  - For example, public utilities will issue bonds to help finance a new electric power plant, hospitals issue bonds for new building, and governments issue bonds to finance projects, cover deficits, or to pay for older debt that is now maturing.
- Bonds payable are groups of debt securities issued to multiple lenders, called bondholders.

Accounting for Bond Payable and Interest Expense

- Bonds payable are debts of the issuing company.
- Purchasers receive a bond certificate with the issuing company's name.
- The issuer of bonds makes formal promises to pay interest usually every six months (semiannually) and to pay the principal or maturity amount at a specified date many years in the future.

Accounting for Bond Payable and Interest Expense

- The bond certificate states the principal. The principal is also called the bond’s face value, maturity value or par value.
- There is a maturity date – when issuing company must pay the debt.
- The interest rate is also on the certificate.
- Corporate bond: A corporate bond is issued by a corporation wanting to raise money in order to expand its business.


Ameritrade | Investing Basics: Bonds
BOND

Types of bonds

- Term bonds
  - all bonds in a particular issue all mature at the same time

Example of a Term Bond

- assume a company issues a million dollars worth of bonds in Jan. 2019, all of which are set to mature on the same date two years later.
- The investor can expect to receive repayment from these term bonds in Jan. 2020.

Types of bonds

- Serial bonds
- Bonds have different maturity dates and offer different interest rates.
- So, for instance,
  - a company may issue a $1 million bond issue and allocate its repayment of $250,000 over five years.
  - Corporations tend to issue term bonds in which all of these debts mature at the same time.
  - On the other hand, Corporations prefer to combine serial and term issuances so that some debts mature in one block, while the payment of others is paid off.

Types of bonds

- Secured, mortgage, bonds
  - Give the bondholder the right to take specified assets , typically real estate holdings and real property, such as equipment, of the issuer if the company defaults.
  - In the event of default, mortgage bondholders could sell off the underlying property to compensate for the default and secure payment of dividends.

Types of bonds

- Unsecured bonds
- Called debentures, are backed buy good faith of the borrower - riskier

Account for Bonds Payable and Interest Expense

- Bond Prices
  - Quoted at a percentage of their maturity/par value.
  - E.g. a $1,000 bond quoted at 100 is bought or sold at $1,000 and if quoted at 110, will be sold at $1,100.

Account for Bonds Payable and Interest Expense

- Bond premiums: a bond issued at a price above its face (par) value is said to be issued at a premium.
- Bond discounts: a bond issued at a price below face (Par) value has a discount.

Issuing Bonds at Par

On Jan. 1, 2015, a company issued the following bonds:
Par Value: $800,000
Stated Interest Rate: 9%
Interest Dates: 6/30 and 12/31
Maturity Date = Dec. 31, 2034 (20 years)

Jan. 1	Cash	800,000	
	Bonds Payable.		800,000
	Sold bonds at par.		

P1

Issuing Bonds at Par

On June 30, 2015, the issuer of the bond pays the first semiannual interest payment of $36,000.

June 30	Bond Interest Expense	36,000	
	Cash		36,000
	Paid semiannual interest (9% × $800,000 × ½ year).		

$800,000 × 9% × ½ year = $36,000

This entry is made every six months until the bonds mature.

P1

Issuing Bonds at Par

On December 31, 2034, the bonds mature and the issuer of the bond pays face value of $800,000 to the bondholders.

Dec. 31	Bonds Payable	800,000	
	Cash		800,000
	Paid bond principal at maturity.		

P1

Other Long-term Liabilities

- Leases
- A lease is a rental agreement in which the tenant (lessee) agrees to make rent payments to the property owner (lesser) in exchange for the use of the asset.
- Advantage of leases over purchases: No need to pay large amount of cash up front as in a purchase.

Other Long-term Liabilities

Pension

- A Pension is employee compensation that will be received during retirement.
- Companies also provide postretirement benefits.
- The obligation for future pension payments to employees accumulates.
- https://www.investopedia.com/terms/p/pensionplan.asp

Contingent Liabilities或有負債

Potential obligation that depends on a future event arising out of a past transaction or event.

1. **Potential legal claims (lawsuits)**

2. **Debt guarantees (of a debt owed by another company)**

3. **Other contingencies:**
   - **Warranty Liability;**
   - **Environmental damages (Oil Spill & BP);**
   - **Possible tax assessments (IRS Audits);**
   - **Insurance losses (Flood Damage);**
   - **Government investigations (BP & TOYOTA).**

Contingent Liability 或有負債

- A contingent liability is recorded if the contingency is likely (more than 50% likely to occur) and the amount of the liability can be reasonably estimated.
- The liability may be disclosed in a footnote on the financial statements unless both conditions are not met.

Contingent Liabilities

Potential obligation that depends on a future event arising out of a past transaction or event.

Probability of future sacrifice . . .

Amount . . .	Probable	Reasonably Possible	Remote
Can be Estimated	Record the contingent liability.	Disclose the liability in the notes to the financial stmts.	No action.
Cannot be Estimated	Disclose the liability in the notes to the financial stmts.	Disclose the liability in the notes to the financial stmts.	No action.

C3

Reasonably Possible Contingent Liabilities

Potential Legal Claims – A potential claim is recorded **if the amount can be reasonably estimated and payment for damages is probable.**

Debt Guarantees – The guarantor usually discloses the guarantee in its financial statement notes.

If it is probable that the debtor will default, the guarantor should record and report the guarantee as a liability.

Analyze and differentiate financing with Debt vs. Equity

- Managers must decide how to raise money for assets. There are 3 ways:
  1. by retained earnings
  2. by issuing equity (stock) – financing with equity
  3. by issuing bonds (or notes) payable – financing with debt.

Analyze and differentiate financing with Debt vs. Equity

- Advantages and disadvantages:
  - By retained earnings: the company has enough cash form profitable operations, this is a low-risk-strategy.
  - By issuing equity (stock): creates no liabilities or interest expense and is less risky, but issuing stock is more costly
  - By issuing bonds (or notes)payable: results in higher earning per share, but riskier for the company.

Analyze and differentiate financing with Debt vs. Equity

- Issuing bonds is a type of financing by debt
- The most obvious risk of leverage is that it multiplies losses.
- A corporation that borrows too much money might face bankruptcy during a business downturn, while a less-levered corporation might survive.

Earning Per Share (EPS) and Leverage

- Earnings per Share
  - EPS is used in fundamental analysis to determine a company's profitability.
  - It is the amount of a company's net income for each share of its common stock.
  - EPS is a standard measure of operating performance that applies to companies of different sizes and industries.
  - Borrowing can often increase the EPS as investment can earn more than the interest to be paid on bonds, this is called leverage.

Earning Per Share (EPS) and Leverage

- Leverage Ratio
  - any one of several financial measurements that look at how much capital comes in the form of debt (loans) or assesses the ability of a company to meet its financial obligations.
  - The leverage ratio category is important because companies rely on a mixture of equity and debt to finance their operations, and knowing the amount of debt held by a company is useful in evaluating whether it can pay its debts off as they come due.
  - Several common leverage ratios will be discussed below.

Leverage Ratio

- Equity Multiplier = Total assets/Total net stockholder’ Equity
- This ratio shows a company’s total assets per dollar of stockholders’ equity.
- A leverage ratio looks at how much capital comes in the form of debt (loans), or assesses the ability of a company to meet its financial obligations.

Leverage Ratio

- The leverage ratio is important given that companies rely on a mixture of equity and debt to finance their operations, and knowing the amount of debt held by a company is useful in evaluating whether it can pay its debt off as they come due.

Reporting Financing Activities on the statement of cash flows

- For the Statement of Cash Flows:
  - **Payments of long-term debt** and lease obligation is reported as cash flow form **financing activities**.

Reporting Financing Activities on the Balance Sheet

- For the Balance Sheet
  - Long-term liabilities are listed in a separate section after current debt;
  - However, for all long-term liabilities, any amounts due in the current accounting year are reported under the current liability section.

Current Liabilities - Reporting

- Current liabilities are reported first in the liability section of the balance sheet because they have first claim on company assets.
- Long-term liabilities are listed in a separate section after current debt; however, for all long-term liabilities any amounts due in the current accounting year are reported under the current liability section.

Contingencies Liabilities- Reporting

- Contingencies are reported as liabilities if it is probable they will incur a loss, and their amounts can be reasonably estimated.
- Contingencies are reported as liabilities on the balance sheet **and/or** disclosed *in the notes* to the financial statements when it is probable they will incur a loss and when the loss can be reasonably estimated.
- The presentation of the balance sheet should support the accounting equation of
- **Assets = liabilities + owner's equity.**

Liabilities- Reporting

- Reporting in the notes to the financial statements:
- Current liability information found in the notes to the financial statements provide additional explanation on the liability balances and any circumstances affecting them.

Chapter Summary 1

- Current liabilities are obligations due within one year.
- Current liabilities can be of known amounts or estimated amounts.
- Shout-term note payable involves interest expense and is an example of current liability of known amounts.
- The current portion of long-term debt is considered to be current liability and is thus reported under the current liability section of the balance sheet.
- Warranty payable is an example of current liabilities of estimated revenue of an accounting period.
- The current ratio helps to assess a company's ability to pay current liabilities with current assets.

Chapter Summary

- Long-term debt: Bonds Payable are groups of debt securities issued to multiple lenders, called bondholders. There are different types of bonds.
- Financing with debt is different form financing with equity.
- A leverage ratio looks at how much capital comes in the form of debt (loans), or assesses the ability of a company to meet its financial obligations.
- https://www.youtube.com/watch?v=fKRwT10Sszc

Vocabulary Assistant

• Unearned revenues	未實現的收入
• Portion	一部分
• Maturity date	到期日
• Accrual	應付未付
• Accrued interest	應付未付利息
• Installments	分期付款
• Paid in full	全額付清
• Payroll expenses	人工支出
• Income tax	所得稅
• Contingency Liability	或有負債
• Probable	可能

Vocabulary Assistant

- Current liabilities 流動負債
- Notes payable 應付票據
- Known amounts 已知金額
- Estimated amounts 預估金額
- Accounts payable 應付賬款
- Notes to the financial statements 財務報表附註
- Operating cycle 營業週期
- Short-term 短期
- Long-term 長期
- Warranty liability 保修責任